

NW-1

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10 NOV 16 to 05 JAN 17



Federal Aviation  
Administration

TM

# U.S. Terminal Procedures Publication

Northwest (NW) Vol 1 of 1

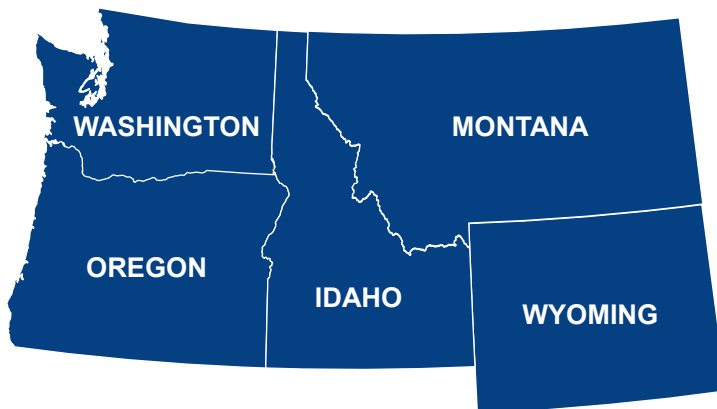
Effective: 0901Z

**10 NOV 2016**

to: 0901Z

**05 JAN 2017**

Consult the Change Notice  
(CN) effective 08 DEC 2016 for  
revised Instrument Procedure  
Charts for this volume



Consult NOTAMs for latest information

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### CORRECTIONS, COMMENTS AND/OR PROCUREMENT

**FOR CHARTING ERRORS,  
OR FOR CHANGES, ADDITIONS,  
RECOMMENDATIONS ON  
PROCEDURAL ASPECTS CONTACT:**

FAA, Aeronautical Information Services  
Customer Operations Team  
1305 East-West Highway  
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Silver Spring, MD 20910-3281  
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Email [9-AMC-Aerochart@faa.gov](mailto:9-AMC-Aerochart@faa.gov)

**FOR PROCUREMENT:**

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Frequently asked questions (FAQ) are answered on our website at <http://www.faa.gov/go/ais>.  
See the FAQs prior to contact via toll free number or email.

Request for the creation or revisions to Airport Diagrams should be in accordance with FAA Order 7910.4.

## INOP COMPONENTS

## INOPERATIVE COMPONENTS OR VISUAL AIDS TABLE

Landing minimums published on instrument approach procedure charts are based upon full operation of all components and visual aids associated with the particular instrument approach chart being used. Higher minimums are required with inoperative components or visual aids as indicated below. If more than one component is inoperative, each minimum is raised to the highest minimum required by any single component that is inoperative. ILS glide slope inoperative minimums are published on the instrument approach charts as localizer minimums. This table may be amended by notes on the approach chart. Such notes apply only to the particular approach category(ies) as stated. See legend page for description of components indicated below.

## (1) ILS, PAR, RNAV (LPV line of minima) and GLS

Inoperative Component or Aid	Approach Category	Increase Visibility
ALSF 1 & 2, MALSR, & SSALR	ABCD	¼ mile

## (2) ILS with visibility minimum of 1,800 RVR

ALSF 1 & 2, MALSR, & SSALR	ABCD	To 4000 RVR
TDZL RCLS	ABCD	To 2400 RVR*
RVR	ABCD	To ½ mile

\*1800 RVR authorized with the use of FD or AP or HUD to DA.

## (3) VOR, VOR/DME, TACAN, LOC, LOC/DME, LDA, LDA/DME, SDF, SDF/DME, GPS, ASR, RNAV (LNAV/VNAV, LP, LNAV lines of minima) and RNP

Inoperative Visual Aid	Approach Category	Increase Visibility
ALSF 1 & 2, MALSR, & SSALR	ABCD	½ mile
SSALS, MALS, & ODALS	ABC	¼ mile

## (4) NDB

ALSF 1 & 2, MALSR, & SSALR	C	½ mile
MALS, SSALS, ODALS	ABD	¼ mile
	ABC	¼ mile

# TERMS/LANDING MINIMA DATA

## IFR LANDING MINIMA

The United States Standard for Terminal Instrument Procedures (TERPS) is the approved criteria for formulating instrument approach procedures. Landing minima are established for six aircraft approach categories (ABCDE and COPTER). In the absence of COPTER MINIMA, helicopters may use the CAT A minimums of other procedures.

### LANDING MINIMA FORMAT

In this example airport elevation is 1179, and runway touchdown zone elevation is 1152.

CATEGORY	A		B	C	D
	S-ILS 27	1352/24			200
S-LOC 27	1440/24		288	(300-½)	1440/50 288 (300-1)
CIRCLING	1540-1 361 (400-1)	1640-1 461 (500-1)	1640-1½ 461 (500-1½)	1740-2 561 (600-2)	

Labels: DA (DA), Visibility (RVR 100's of feet), Aircraft Approach Category (HAT/HATH), D, MDA, HAA, Visibility in Statute Miles.

All weather minimums in parentheses not applicable to Civil Pilots. Military Pilots refer to appropriate regulations.

### COPTER MINIMA ONLY

CATEGORY	COPTER	
H-176°	680-½	363 (400-½)

Copter Approach Direction, Height of MDA/DA Above Landing Area (HAL), No circling minimums are provided

NOTE: The **W** symbol indicates outages of the WAAS vertical guidance may occur daily at this location due to initial system limitations. WAAS NOTAMS for vertical outages are not provided for this approach. Use LNAV minima for flight planning at these locations, whether as a destination or alternate. For flight operations at these locations, when the WAAS avionics indicate that LNAV/VNAV or LPV service is available, then vertical guidance may be used to complete the approach using the displayed level of service. Should an outage occur during the procedure, reversion to LNAV minima may be required. As the WAAS coverage is expanded, the **W** will be removed.

RNAV minimums are dependent on navigation equipment capability, as stated in the applicable AFM, AFMS, or other FAA approved document. See AIM paragraph 5-4-5, AC 90-105 and AC 90-107 for detailed requirements for each line of minima.

### COLD TEMPERATURE RESTRICTED AIRPORTS

NOTE: A **⊗** -12°C/10°F symbol and associated temperature indicates a cold temperature altitude correction is required at this airport when reported temperature is at or below the published restricted temperature. Advise ATC when altitude correction is made in the intermediate and/or missed approach segment. Reporting correction to ATC in final segment is not required. See following Cold Temperature Error Table to make manual corrections. See Notices to Airman Publication (NTAP) Graphic Notices General for complete list of published airports, temperature/s, segments and procedure information. [www.faa.gov/air\\_traffic/publications/notices](http://www.faa.gov/air_traffic/publications/notices)

### COLD TEMPERATURE ERROR TABLE

HEIGHT ABOVE AIRPORT IN FEET

REPORTED TEMP °C	200	300	400	500	600	700	800	900	1000	1500	2000	3000	4000	5000
+10	10	10	10	10	20	20	20	20	20	30	40	60	80	90
0	20	20	30	30	40	40	50	50	60	90	120	170	230	280
-10	20	30	40	50	60	70	80	90	100	150	200	290	390	490
-20	30	50	60	70	90	100	120	130	140	210	280	420	570	710
-30	40	60	80	100	120	140	150	170	190	280	380	570	760	950
-40	50	80	100	120	150	170	190	220	240	360	480	720	970	1210
-50	60	90	120	150	180	210	240	270	300	450	590	890	1190	1500

### AIRCRAFT APPROACH CATEGORIES

Aircraft approach category indicates a grouping of aircraft based on a speed of VREF, if specified, or if VREF not specified, 1.3 VSO at the maximum certificated landing weight. VREF, VSO, and the maximum certificated landing weight are those values as established for the aircraft by the certification authority of the country of registry. Helicopters are Category A aircraft. An aircraft shall fit in only one category. However, if it is necessary to operate at a speed in excess of the upper limit of the speed range for an aircraft's category, the minimums for the category for that speed shall be used. For example, an airplane which fits into Category B, but is circling to land at a speed of 145 knots, shall use the approach Category D minimums. As an additional example, a Category A airplane (or helicopter) which is operating at 130 knots on a straight-in approach shall use the approach Category C minimums. See following category limits:

### MANEUVERING TABLE

Approach Category	A	B	C	D	E
Speed (Knots)	0-90	91-120	121-140	141-165	Abv 165

# TERMS/LANDING MINIMA DATA

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## CIRCLING APPROACH OBSTACLE PROTECTED AIRSPACE

The circling MDA provides vertical obstacle clearance during a circle-to-land maneuver. The circling MDA protected area extends from the threshold of each runway authorized for landing following a circle-to-land maneuver for a distance as shown in the tables below. The resultant arcs are then connected tangentially to define the protected area.

### STANDARD CIRCLING APPROACH MANEUVERING RADIUS

Circling approach protected areas developed prior to late 2012 used the radius distances shown in the following table, expressed in nautical miles (NM), dependent on aircraft approach category. The approaches using standard circling approach areas can be identified by the absence of the **C** symbol on the circling line of minima.

Circling MDA in feet MSL	Approach Category and Circling Radius (NM)				
	CAT A	CAT B	CAT C	CAT D	CAT E
All Altitudes	1.3	1.5	1.7	2.3	4.5

### **C** EXPANDED CIRCLING APPROACH MANEUVERING AIRSPACE RADIUS

Circling approach protected areas developed after late 2012 use the radius distance shown in the following table, expressed in nautical miles (NM), dependent on aircraft approach category, and the altitude of the circling MDA, which accounts for true airspeed increase with altitude. The approaches using expanded circling approach areas can be identified by the presence of the **C** symbol on the circling line of minima.

Circling MDA in feet MSL	Approach Category and Circling Radius (NM)				
	CAT A	CAT B	CAT C	CAT D	CAT E
1000 or less	1.3	1.7	2.7	3.6	4.5
1001-3000	1.3	1.8	2.8	3.7	4.6
3001-5000	1.3	1.8	2.9	3.8	4.8
5001-7000	1.3	1.9	3.0	4.0	5.0
7001-9000	1.4	2.0	3.2	4.2	5.3
9001 and above	1.4	2.1	3.3	4.4	5.5

### Comparable Values of RVR and Visibility

The following table shall be used for converting RVR to ground or flight visibility. For converting RVR values that fall between listed values, use the next higher RVR value; do not interpolate. For example, when converting 1800 RVR, use 2400 RVR with the resultant visibility of 1/2 mile.

RVR (feet)	Visibility (statute miles)	RVR (feet)	Visibility (statute miles)
1600	1/4	4500	3/8
2400	1/2	5000	1
3200	5/8	6000	1 1/4
4000	3/4		

## RADAR MINIMA

	RWY	GP/TCH/RPI	CAT	DA/ MDA-VIS	HAT/ HATH/ HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HATH/ HAA	CEIL-VIS
PAR	10	2.5°/42/1000	ABCDE	195/16	100	(100-1/4)				
	28	2.5°/48/1068	ABCDE	187/16	100	(100-1/4)				
ASR	10		ABC	560/40	463	(500-3/4)	DE	560/50	463	(500-1)
	28		AB	600/50	513	(600-1)	CDE	600/60	513	(600-1 1/4)
CIR	10		AB	560-1/4	463	(500-1 1/4)	CDE	560-1 1/2	463	(500-1 1/2)
	28		AB	600-1 1/4	503	(600-1 1/4)	CDE	600-1 1/2	503	(600-1 1/2)

Visibility in Statute Miles ↙

↘ All minima in parentheses not applicable to Civil Pilots. Military Pilots refer to appropriate regulations.

Radar Minima:

1. Minima shown are the lowest permitted by established criteria. Pilots should consult applicable directives for their category of aircraft.
2. The circling MDA and weather minima to be used are those for the runway to which the final approach is flown- not the landing runway. In the above RADAR MINIMA example, a category C aircraft flying a radar approach to runway 10, circling to land on runway 28, must use an MDA of 560 feet with weather minima of 500-1 1/2.

NOTE: Military RADAR MINIMA may be shown with communications symbology that indicates emergency frequency monitoring capability by the radar facility as follows:

(E) VHF and UHF emergency frequencies monitored

(V) VHF emergency frequency (121.5) monitored

(U) UHF emergency frequency (243.0) monitored

Additionally, unmonitored frequencies which are available on request from the controlling agency may be annotated with an "x".

⚠ Alternate Minima not standard. Civil users refer to tabulation. USA/USN/USAF pilots refer to appropriate regulations.

⚠ NA Alternate minima are Not Authorized due to unmonitored facility or absence of weather reporting service.

⚠ Takeoff Minima not standard and/or Departure Procedures are published. Refer to tabulation.

# TERMS/LANDING MINIMA DATA

## GENERAL INFO

## GENERAL INFORMATION

This publication is issued every 56 days and includes Standard Instrument Approach Procedures (SIAPs), Standard Instrument Departures (SIDs), Standard Terminal Arrivals (STARs), IFR Takeoff Minimums and (Obstacle) Departure Procedures (ODPs), IFR Alternate Minimums, and Radar Instrument Approach Minimums for use by civil and military aviation. The organization responsible for SIAPs, Radar Minimums, SIDs, STARs and graphic ODPs is identified in parentheses in the top margin of the procedure; e.g., (FAA), (FAA-O), (USA), (USAF), (USN). SIAPs with the (FAA) and (FAA-O) designation are regulated under 14 CFR, Part 97. SIAPs with the (FAA-O) designation have been developed under Other Transaction Agreement (OTA) by private providers and have been certified by the FAA. See 14 CFR, Part 91.175 (a) and the AIM for further details. 14 CFR, Part 91.175 (g) and the Special Notices section of the Chart Supplement contains information on civil operations at military airports.

STANDARD TERMINAL ARRIVALS AND DEPARTURE PROCEDURES

The use of the associated codified STAR/DP and transition identifiers are requested of users when filing flight plans via teletype and are required for users filing flight plans via computer interface. It must be noted that when filing a STAR/DP with a transition, the first three coded characters of the STAR and the last three coded characters of the DP are replaced by the transition code. Examples: ACTON SIX ARRIVAL, file (AQN.AQN6); ACTON SIX ARRIVAL, EDNAS TRANSITION, file (EDNAS.AQN6). FREEHOLD THREE DEPARTURE, file (FREH3.RBV), FREEHOLD THREE DEPARTURE, ELWOOD CITY TRANSITION, file (FREH3.EWC).

**RNAV DP and STAR.** Effective March 15, 2007, these procedures, formerly identified as Type-A and Type-B, will be designated as RNAV 1 in accordance with amended Advisory Circular (AC) and ICAO terminology.

Refer to AC 90-100A U.S. TERMINAL AND EN ROUTE AREA NAVIGATION (RNAV) OPERATIONS and the Aeronautical Information Manual for additional guidance regarding these procedures.

**Standard RNAV 1 Procedure Chart Notes**

NOTE: RNAV 1

NOTE: DME/DME/IRU or GPS required

Some procedures may require use of GPS and will be identified by a "GPS required" note.

**RNAV 1 Procedure Characteristics and Operations**

1. Require use of an RNAV system with DME/DME/IRU, and/or GPS inputs.
2. Require use of a CDI, flight director, and/or autopilot, in lateral navigation mode, for flight guidance while operating on RNAV paths (track, course, or direct leg). Other methods providing an equivalent level of performance may be acceptable.
3. RNAV paths may start as low as 500 feet above airport elevation.

## GENERAL INFO

## GENERAL INFO

PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

Available pilot controlled lighting (PCL) systems are indicated as follows:

1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g.,  $\ominus$ ,  $\ominus$ ,  $\ominus$ .
2. Approach lighting systems that do not bear a system identification are indicated with a negative "L" beside the name. A star (\*) indicates non-standard PCL, consult Chart Supplement, e.g.,  $\ominus^*$ .

To activate lights, use frequency indicated in the communication section of the chart with a  $\ominus$  or the appropriate lighting system identification e.g., UNICOM 122.8  $\ominus$ ,  $\ominus$ ,  $\ominus$ .

KEY MIKE	FUNCTION
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-off)

CHART CURRENCY INFORMATION

Date of Latest Revision                      09365

The Date of Latest Revision identifies the Julian date the chart was added or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest revision of any kind has been made to the chart.



The FAA Procedure Amendment Number represents the most current amendment of a given procedure. The Procedure Amendment Effective Date represents the AIRAC cycle date on which the procedure amendment was incorporated into the chart. Updates to the amendment number & effective date represent procedural/criteria revisions to the charted procedure, e.g., course, fix, altitude, minima, etc.

NOTE: Inclusion of the "Procedure Amendment Effective Date" will be phased in as procedures are amended. As this occurs, the Julian date will be relocated to the upper right corner of the chart.

MISCELLANEOUS

- ★ Indicates a non-continuously operating facility, see Chart Supplement.
- For Civil (FAA) instrument procedures, "RADAR REQUIRED" in the planview of the chart indicates that ATC radar must be available to assist the pilot when transitioning from the en route environment. "Radar required" in the pilot briefing portion of the chart indicates that ATC radar is required on portions of the procedure outside the final approach segment, including the missed approach. Some military procedures also have equipment requirements such as "Radar Required", but do not conform to the same charting application standards used by the FAA. Distances in nautical miles (except visibility in statute miles and Runway Visual Range in hundreds of feet). Runway Dimensions in feet. Elevations in feet. Mean Sea Level (MSL). Ceilings in feet above airport elevation. Radials/bearings/headings/courses are magnetic. Horizontal Datum: Unless otherwise noted on the chart, all coordinates are referenced to North American Datum 1983 (NAD 83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).

Terrain is scaled within the neat lines (planview boundaries) and does not accurately underlie not-to-scale distance depictions or symbols.

## GENERAL INFO

GENERAL INFO

ABBREVIATIONS

AAUP.....	Attention All Users Page	HAA.....	Height above Airport
ADF.....	Automatic Direction Finder	HAL.....	Height above Landing
ADIZ.....	Air Defense Identification Zone	HAT.....	Height above Touchdown
AFIS.....	Automatic Flight Information Service	HATH.....	Height Above Threshold
ALS.....	Approach Light System	HGS.....	Head-up Guidance System
ALSF.....	Approach Light System with Sequenced Flashing Lights	HIRL.....	High Intensity Runway Lights
AP.....	Autopilot System	HUD.....	Head-up Display
APCH.....	Approach	IAF.....	Initial Approach Fix
APP CON.....	Approach Control	ICAO.....	International Civil Aviation Organization
ARR.....	Arrival	IF.....	Intermediate Fix
ASOS.....	Automated Surface Observing System	IM.....	Inner Marker
ASR/PAR.....	Published Radar Minimums at this Airport	INOP.....	Inoperative
ASSC.....	Airport Surface Surveillance Systems	INT.....	Intersection
ATIS.....	Automatic Terminal Information Service	K.....	Knots
AUNICOM.....	Automated UNICOM	KLAS.....	Knots Indicated Airspeed
AWOS.....	Automated Weather Observing System	LAAS.....	Local Area Augmentation System
AZ.....	Azimuth	LDA.....	Localizer Type Directional Aid
BC.....	Back Course	Ldg.....	Landing
BND.....	Bound	LRL.....	Low Intensity Runway Lights
C.....	Circling	LNAV.....	Lateral Navigation
CAT.....	Category	LOC.....	Localizer
CCW.....	Counter Clockwise	LP.....	Localizer Performance
CDI.....	Course Deviation Indicator	LPV.....	Localizer Performance with Vertical Guidance
Chan.....	Channel	LR.....	Lead Radial. Provides at least 2 NM (Copter 1 NM) of lead to assist in turning onto the intermediate/final course.
CIFP.....	Coded Instrument Flight Procedures	MAA.....	Maximum Authorized Altitude
CIR.....	Circling	MALS.....	Medium Intensity Approach Light System
CLNC DEL.....	Clearance Delivery	MALSR.....	Medium Intensity Approach Light System with RAIL
CNF.....	Computer Navigation Fix	MAP.....	Missed Approach Point
CTAF.....	Common Traffic Advisory Frequency	MDA.....	Minimum Descent Altitude
CW.....	Clockwise	MIRL.....	Medium Intensity Runway Lights
DA.....	Decision Altitude	MM.....	Middle Marker
DER.....	Departure End of Runway	MRA.....	Minimum Reception Altitude
DH.....	Decision Height	N/A.....	Not Applicable
DME.....	Distance Measuring Equipment	NA.....	Not Authorized
DTHR.....	Displaced Threshold	NDB.....	Non-directional Radio Beacon
DVA.....	Diverse Vector Area	NFD.....	National Flight Database
ELEV.....	Elevation	NM.....	Nautical Mile
EMAS.....	Engineered Material Arresting System	NoPT.....	No Procedure Turn Required (Procedure Turn shall not be executed without ATC clearance)
FAF.....	Final Approach Fix	ODALS.....	Omnidirectional Approach Light System
FD.....	Flight Director System	ODP.....	Obstacle Departure Procedure
FM.....	Fan Marker	OM.....	Outer Marker
FMS.....	Flight Management System	PRM.....	Precision Runway Monitor
GBAS.....	Ground Based Augmentation System		
GCO.....	Ground Communications Outlet		
GLS.....	Ground Based Augmentation System Landing System		
GP.....	Glidepath		
GPI.....	Ground Point of Interception		
GPS.....	Global Positioning System		
GS.....	Glide Slope		

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GENERAL INFO



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## ABBREVIATIONS

R.....	Radial
RA.....	Radio Altimeter setting height
RAIL.....	Runway Alignment Indicator Lights
RCLS.....	Runway Centerline Light System
REIL.....	Runway End Identifier Lights
RF.....	Radius-to-Fix
RLLS.....	Runway Lead-in Light System
RNAV.....	Area Navigation
RNP.....	Required Navigation Performance
RPI.....	Runway Point of Intercept(ion)
RRL.....	Runway Remaining Lights
Rwy.....	Runway
RVR.....	Runway Visual Range
S.....	Straight-in
SALS.....	Short Approach Light System
SSALR.....	Simplified Short Approach Light System with RAIL
SDF.....	Simplified Directional Facility
SM.....	Statute Mile
SOIA.....	Simultaneous Offset Instrument Approach
TAA.....	Terminal Arrival Area
TAC.....	TACAN
TCH.....	Threshold Crossing Height (height in feet Above Ground level)
TDZ.....	Touchdown Zone
TDZE.....	Touchdown Zone Elevation
TDZ/CL.....	Touchdown Zone and Runway Centerline Lighting
TDZL.....	Touchdown Zone Lights
THR.....	Threshold
THRE.....	Threshold Elevation
TODA.....	Takeoff Distance Available
TORA.....	Takeoff Run Available
TR.....	Track
VASI.....	Visual Approach Slope Indicator
VCOA.....	Visual Climb Over Airport
VDP.....	Visual Descent Point
VGSI.....	Visual Glide Slope Indicator
VNAV.....	Vertical Navigation
WAAS.....	Wide Area Augmentation System
WP/WPT.....	Waypoint (RNAV)

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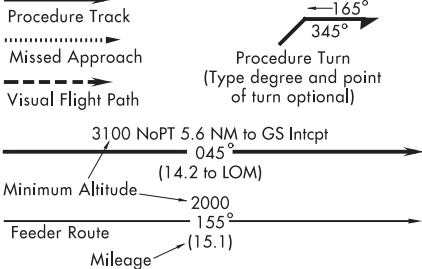
## GENERAL INFO

# LEGEND

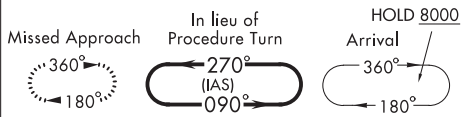
## INSTRUMENT APPROACH PROCEDURES (CHARTS)

### PLANVIEW SYMBOLS

#### TERMINAL ROUTES

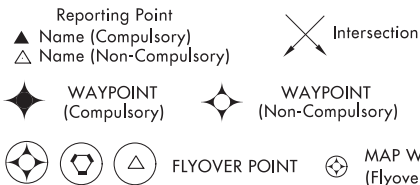


#### HOLDING PATTERNS

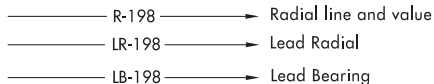
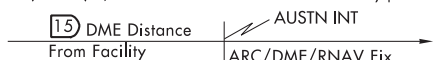


Holding pattern with max. restricted airspeed: (175K) applies to all altitudes. (210K) applies to altitudes above 6000' and including 14000'. Arrival Holding Pattern altitude restrictions will be indicated when they deviate from the adjacent leg. Limits will only be specified when they deviate from the standard. DME fixes may be shown.

#### FIXES/ATC REPORTING REQUIREMENTS



Computer Navigation Fix (CNF)  
x (NAME) ("x" omitted when it conflicts with runway pattern)



#### ALTITUDES

<u>5500</u> Mandatory Altitude	3000 Recommended Altitude
<u>2500</u> Minimum Altitude	<u>5000</u> Mandatory Block Altitude
<u>4300</u> Maximum Altitude	<u>3000</u> Altitude

#### INDICATED AIRSPEED

<u>175K</u>	120K	250K	180K
Mandatory Airspeed	Minimum Airspeed	Maximum Airspeed	Recommended Airspeed

#### RADIO AIDS TO NAVIGATION

110.1 Underline indicates No Voice transmitted on this frequency

Compulsory:



Non-Compulsory:



LOM/LMM (Compass locator at Outer Marker/Middle Marker)

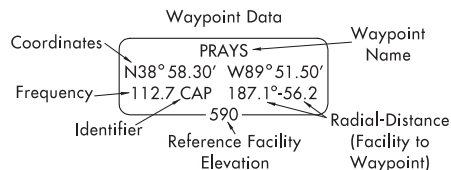
Marker Beacon

Marker beacons that are not specifically part of the procedure but underlie the final approach course are shown in screened color.

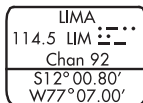


LOC/DME

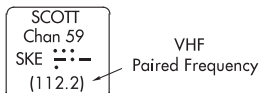
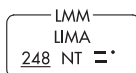
LOC/LDA/SDF Transmitter  
(shown when installation is offset from its normal position off the end of the runway.)



Primary Navaid with Coordinate Values



Secondary Navaid



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# LEGEND

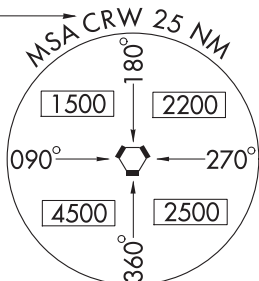
LEGEND

INSTRUMENT APPROACH PROCEDURES (CHARTS)

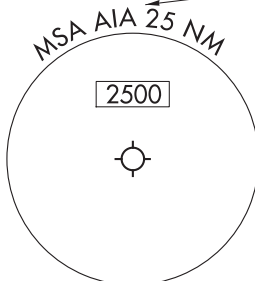
PLANVIEW SYMBOLS

MINIMUM SAFE ALTITUDE (MSA)

Facility Identifier

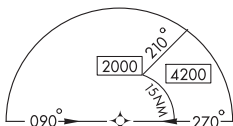


Airport Identifier

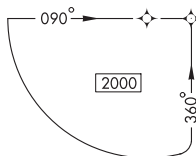


(arrows on distance circle identify sectors)

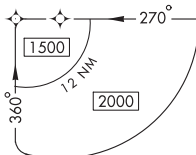
TERMINAL ARRIVAL AREA (TAA)



Straight-in Area

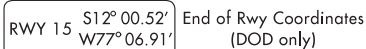


Right Base Area



Left Base Area

MISCELLANEOUS



AIRPORTS



SPECIAL USE AIRSPACE



R-Restricted

P-Prohibited

W-Warning

A-Alert

OBSTACLES



LEGEND

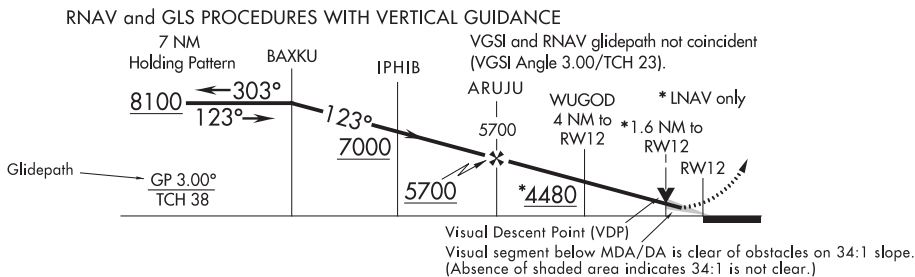
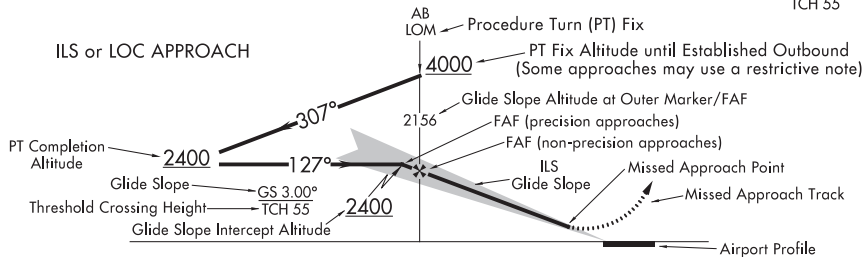
**PROFILE VIEW**

Three different methods are used to depict either electronic or vertical guidance: "GS", "GP", or "VDA".

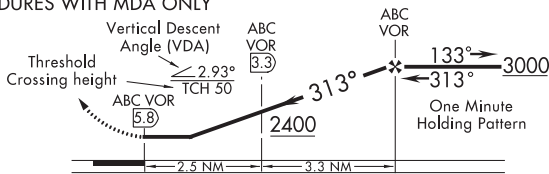
1. "GS" indicates that an Instrument Landing System (ILS) electronic glide slope (a ground antenna) provides vertical guidance. The profile section of ILS procedures depict a GS angle and TCH in the following format:  $GS\ 3.00^\circ$ .  
TCH 55

2. "GP" on GLS and RNAV procedures indicates that either electronic vertical guidance (via Wide Area Augmentation System - WAAS or Ground Based Augmentation System - GBAS) or barometric vertical guidance is provided. GLS and RNAV procedures with a published decision altitude (DA/H) depict a GP angle and TCH in the following format:  $GP\ 3.00^\circ$ .  
TCH 50

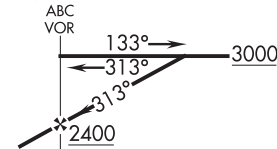
3. An advisory vertical descent angle (VDA) is provided on non-vertically guided conventional procedures and RNAV procedures with only a minimum descent altitude (MDA) to assist in preventing controlled flight into terrain. On Civil (FAA) procedures, this information is placed above or below the procedure track following the fix it is based on. Absence of a VDA or a note that the VDA is not authorized indicates that the prescribed obstacle clearance surface is not clear and the VDA must not be used below MDA. VDA is depicted in the following format:  $\leq 3.00^\circ$ .  
TCH 55



**NON-VERTICALLY GUIDED CONVENTIONAL PROCEDURES AND RNAV PROCEDURES WITH MDA ONLY**



**DESCENT FROM HOLDING PATTERN**



ALTITUDES	
<u>5500</u> Mandatory Altitude	<u>3000</u> Recommended Altitude
<u>2500</u> Minimum Altitude	<u>5000</u> Mandatory Block Altitude
<u>4300</u> Maximum Altitude	<u>3000</u> Altitude

PROFILE SYMBOLS	
	Glide Slope/Glidepath Intercept Altitude and final approach fix for vertically guided approach procedures.
	Visual Descent Point (VDP)
	Visual Flight Path
	Note: Facilities and waypoints are depicted as a solid vertical line while fixes and intersections are depicted as a dashed vertical line.

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# LEGEND

## LEGEND STANDARD TERMINAL ARRIVAL (STAR) CHARTS DEPARTURE PROCEDURE (DP) CHARTS

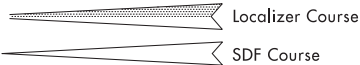
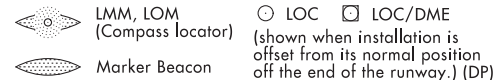
Applies to both STAR and DP Charts unless otherwise noted.

### RADIO AIDS TO NAVIGATION

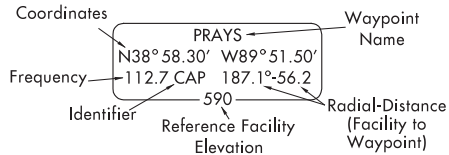
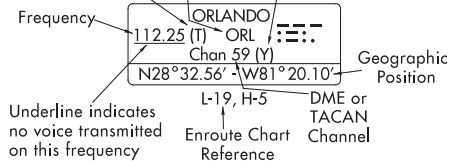
Compulsory:



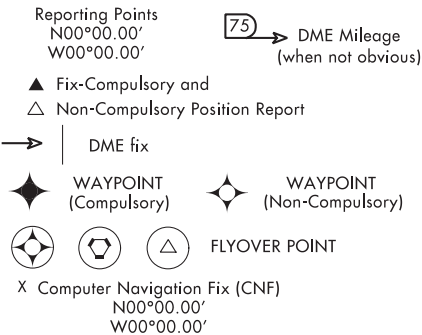
Non-Compulsory:



(T) indicates frequency protection range (STAR)  
 Identifier  
 Frequency  
 (Y) TACAN must be placed in "Y" mode to receive distance information  
 Geographic Position  
 L-19, H-5 DME or TACAN Channel Reference

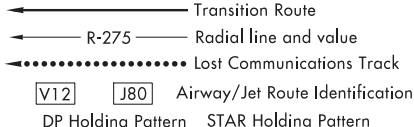


### FIXES/ATC REPORTING REQUIREMENTS



### ROUTES

4500 MEA-Minimum Enroute Altitude  
 \*3500 MOCA-Minimum Obstruction Clearance Altitude  
 270° Departure Route - Arrival Route  
 (65) Mileage between Radio Aids, Reporting Points, and Route Breaks

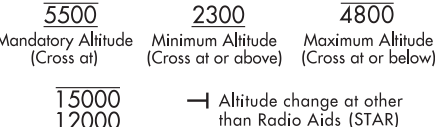


Holding pattern with max. restricted airspeed (175K) applies to all altitudes  
 (210K) applies to altitudes above 6000' to and including 14000'

### SPECIAL USE AIRSPACE



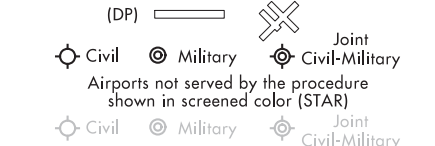
### ALTITUDES



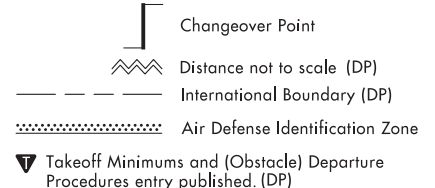
### INDICATED AIRSPEED



### AIRPORTS



### MISCELLANEOUS



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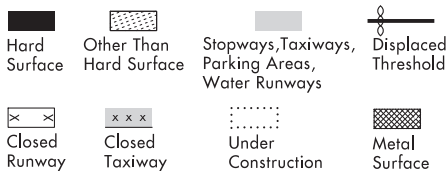
# LEGEND

# LEGEND

## INSTRUMENT APPROACH PROCEDURES (CHARTS)

### AIRPORT DIAGRAM/AIRPORT SKETCH

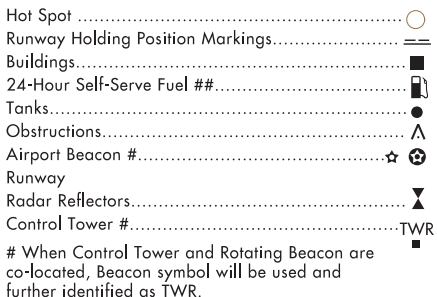
#### Runways



ARRESTING GEAR: Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.



#### REFERENCE FEATURES



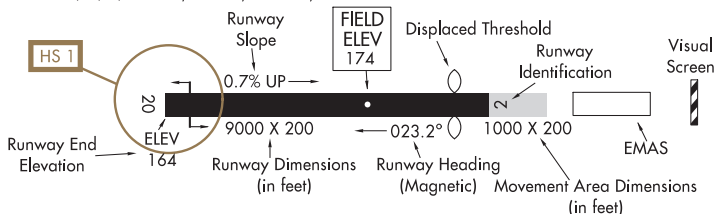
## A fuel symbol is shown to indicate 24-hour self-serve fuel available, see appropriate Chart Supplement for information.

Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.

A **D** symbol is shown to indicate runway declared distance information available, see appropriate Chart Supplement for distance information.

Runway Weight Bearing Capacity/ or PCN Pavement Classification Number is shown as a codified expression.

Refer to the appropriate Supplement/Directory for applicable codes e.g., RWY 14-32 PCN 80 F/D/X/U S-75, D-185, 2S-175, 2D-325



#### SCOPE

Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

Helicopter Alighting Areas (H) (+) (H) (A) (+)  
 Negative Symbols used to identify Copter Procedures landing point..... (H) (+) (H) (A) (+)

Runway Threshold elevation.....THRE 123  
 Runway TDZ elevation.....TDZE 123  
 Runway Slope.....0.8% UP →  
 ← 0.3% DOWN

NOTE:  
 Runway Slope measured to midpoint on runways 8000 feet or longer.

U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Approach light symbols are shown in the Flight Information Handbook.

Airport diagram scales are variable.

True/magnetic North orientation may vary from diagram to diagram

Coordinate values are shown in 1 or 1/2 minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.

Positional accuracy within ±600 feet unless otherwise noted on the chart.

NOTE:  
 All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in FLIP. (Foreign Only)

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# LEGEND

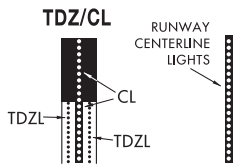
# LEGEND

## INSTRUMENT APPROACH PROCEDURES (CHARTS) APPROACH LIGHTING SYSTEM - UNITED STATES

Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, e.g., (A2), (V), etc.

A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., (A1). Negative symbology, e.g., (A3), (V) indicates Pilot Controlled Lighting (PCL).

### RUNWAY TOUCHDOWN ZONE AND CENTERLINE LIGHTING SYSTEMS



AVAILABILITY of TDZ/CL will be shown by NOTE in SKETCH e.g. "TDZ/CL Rwy 15"

### SHORT APPROACH LIGHTING SYSTEM



#### SALS/SALSF

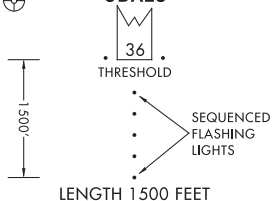
(High Intensity)

SAME AS INNER 1500' OF ALSF-1

### OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM



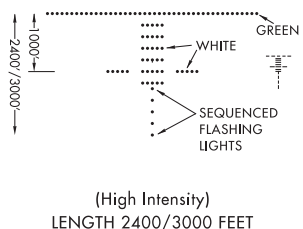
#### ODALS



### SIMPLIFIED SHORT APPROACH LIGHTING SYSTEM with Runway Alignment Indicator Lights



#### SSALR



(High Intensity)

LENGTH 2400/3000 FEET

### VISUAL APPROACH SLOPE INDICATOR

#### VASI

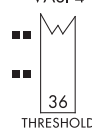
VISUAL APPROACH SLOPE INDICATOR WITH STANDARD THRESHOLD CLEARANCE PROVIDED.

- ALL LIGHTS WHITE — TOO HIGH
- FAR LIGHTS RED — ON GLIDE SLOPE
- NEAR LIGHTS WHITE — TOO LOW
- ALL LIGHTS RED — TOO LOW

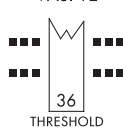
#### VASI 2



#### VASI 4



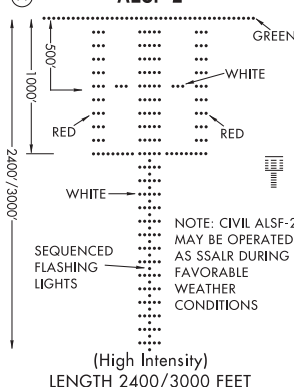
#### VASI 12



### APPROACH LIGHTING SYSTEM



#### ALSF-2

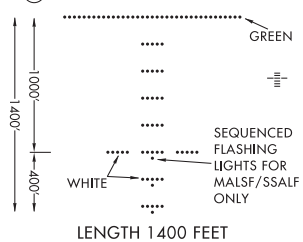


(High Intensity)

LENGTH 2400/3000 FEET

NOTE: CIVIL ALSF-2 MAY BE OPERATED AS SSALR DURING FAVORABLE WEATHER CONDITIONS

### MEDIUM INTENSITY (MALS and MALSF) OR SIMPLIFIED SHORT (SSALS and SSALF) APPROACH LIGHTING SYSTEMS



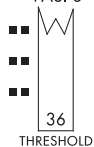
LENGTH 1400 FEET

### VISUAL APPROACH SLOPE INDICATOR

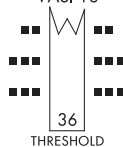
#### VASI

3-BAR, 6 OR 16 BOX, VISUAL APPROACH SLOPE INDICATOR THAT PROVIDES 2 GLIDE ANGLES AND 2 THRESHOLD CROSSING HEIGHTS.

#### VASI 6



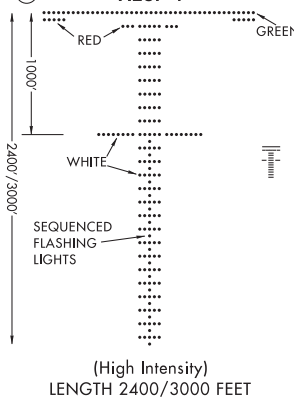
#### VASI 16



### APPROACH LIGHTING SYSTEM



#### ALSF-1



(High Intensity)

LENGTH 2400/3000 FEET

### MEDIUM INTENSITY APPROACH LIGHTING SYSTEM with Runway Alignment Indicator Lights



#### MALSR

SAME LIGHT CONFIGURATION AS SSALR.

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# LEGEND

04330  
**LEGEND**

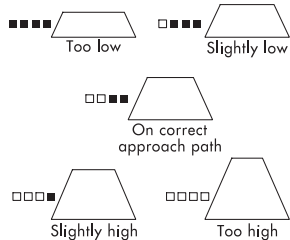
INSTRUMENT APPROACH PROCEDURES (CHARTS)  
APPROACH LIGHTING SYSTEM - UNITED STATES

Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, (A<sub>2</sub>), (V) etc.

A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., (A<sub>1</sub>). Negative symbology, e.g., (A<sub>1</sub>), (V) indicates Pilot Controlled Lighting (PCL).

(P) **PRECISION APPROACH PATH INDICATOR**

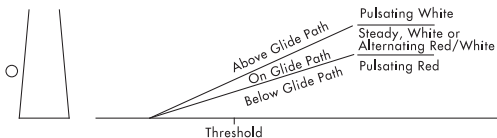
**PAPI**



Legend: □ White ■ Red

(V<sub>2</sub>) **PULSATING VISUAL APPROACH SLOPE INDICATOR**

**PVASI**



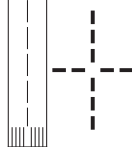
CAUTION: When viewing the pulsating visual approach slope indicators in the pulsating white or pulsating red sectors, it is possible to mistake this lighting aid for another aircraft or a ground vehicle. Pilots should exercise caution when using this type of system.

(V<sub>1</sub>) **"T"-VISUAL APPROACH SLOPE INDICATOR**

**"T"-VASI**

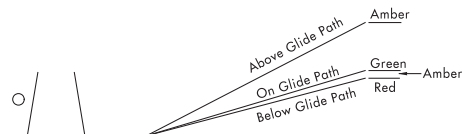


"T" ON BOTH SIDES OF RWY  
ALL LIGHTS VARIABLE WHITE.  
CORRECT APPROACH SLOPE-  
ONLY CROSS BAR VISIBLE.  
UPRIGHT "T"- FLY UP.  
INVERTED "T"- FLY DOWN.  
RED "T"- GROSS  
UNDERSHOOT.



(V<sub>4</sub>) **TRI-COLOR VISUAL APPROACH SLOPE INDICATOR**

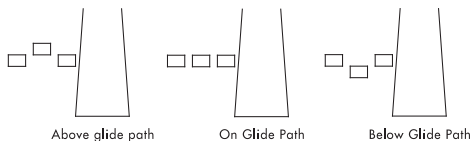
**TRCV**



CAUTION: When the aircraft descends from green to red, the pilot may see a dark amber color during the transition from green to red.

(V<sub>5</sub>) **ALIGNMENT OF ELEMENTS SYSTEMS**

**APAP**



Painted panels which may be lighted at night.  
To use the system the pilot positions the aircraft  
so the elements are in alignment.

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**LEGEND**



## FREQ PAIRING

## FREQUENCY PAIRING TABLE

TACAN CHANNEL	VHF FREQUENCY	TACAN CHANNEL	VHF FREQUENCY	TACAN CHANNEL	VHF FREQUENCY
17Y	108.05	40X	110.30	88Y	114.15
18X	108.10	40Y	110.35	89Y	114.25
18Y	108.15	41Y	110.45	90Y	114.35
19Y	108.25	42X	110.50	91Y	114.45
20X	108.30	42Y	110.55	92Y	114.55
20Y	108.35	43Y	110.65	93Y	114.65
21Y	108.45	44X	110.70	94Y	114.75
22X	108.50	44Y	110.75	95Y	114.85
22Y	108.55	45Y	110.85	96Y	114.95
23Y	108.65	46X	110.90	97Y	115.05
24X	108.70	46Y	110.95	98Y	115.15
24Y	108.75	47Y	111.05	99Y	115.25
25Y	108.85	48X	111.10	100Y	115.35
26X	108.90	48Y	111.15	101Y	115.45
26Y	108.95	49Y	111.25	102Y	115.55
27Y	109.05	50X	111.30	103Y	115.65
28X	109.10	50Y	111.35	104Y	115.75
28Y	109.15	51Y	111.45	105Y	115.85
29Y	109.25	52X	111.50	106Y	115.95
30X	109.30	52Y	111.55	107Y	116.05
30Y	109.35	53Y	111.65	108Y	116.15
31Y	109.45	54X	111.70	109Y	116.25
32X	109.50	54Y	111.75	110Y	116.35
32Y	109.55	55Y	111.85	111Y	116.45
33Y	109.65	56X	111.90	112Y	116.55
34X	109.70	56Y	111.95	113Y	116.65
34Y	109.75	80Y	113.35	114Y	116.75
35Y	109.85	81Y	113.45	115Y	116.85
36X	109.90	82Y	113.55	116Y	116.95
36Y	109.95	83Y	113.65	117Y	117.05
37Y	110.05	84Y	113.75	118Y	117.15
38X	110.10	85Y	113.85	119Y	117.25
38Y	110.15	86Y	113.95		
39Y	110.25	87Y	114.05		

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## FREQ PAIRING

INDEX

16315

INDEX OF TERMINAL CHARTS AND MINIMUMS

NAME PROC SECT PG NAME PROC SECT PG

ABBOTSFORD, BC

ABBOTSFORD(CYXX)
STARS .... MADEE THREE (RNAV) ..... Z25

AFTON, WY

AFTON MUNI(AFO)
TAKEOFF MINIMUMS .....L
IAPS ..... RNAV (GPS) RWY 16 .....1
RNAV (GPS) RWY 34 .....2
DPS ..... AFTON THREE (OBSTACLE) (RNAV) .....3
LUNDI TWO (OBSTACLE) (RNAV) .....4

AJ EISENBERG

---SEE OAK HARBOR, WA

ALBANY, OR

ALBANY MUNI(S12)
TAKEOFF MINIMUMS .....L
ALTERNATE MINIMUMS .....M
IAPS ..... VOR/DME OR GPS-A .....5

ANACONDA, MT

BOWMAN FIELD(3U3)
TAKEOFF MINIMUMS .....L
IAPS ..... VOR/DME OR GPS-A .....6

ARCO, ID

ARCO-BUTTE COUNTY(AOC)
TAKEOFF MINIMUMS .....L
IAPS ..... RNAV (GPS)-A .....7
DPS ..... JATTS ONE (OBSTACLE) (RNAV) .....8

ARLINGTON, WA

ARLINGTON MUNI(AWO)
TAKEOFF MINIMUMS .....L
DIVERSE VECTOR AREA .....L
ALTERNATE MINIMUMS .....M
IAPS ..... RNAV (GPS) RWY 34 .....9
LOC RWY 34 .....10
NDB RWY 34 .....11
DPS ..... ARLINGTON TWO .....12

ASTORIA, OR

ASTORIA RGNL(AST)
TAKEOFF MINIMUMS .....L
ALTERNATE MINIMUMS .....M
IAPS ..... ILS RWY 26 .....13
RNAV (GPS) RWY 08 .....14
RNAV (GPS) RWY 26 .....15
VOR RWY 08 .....16
COPTER LOC/DME 257 .....17
COPTER VOR/DME OR GPS 066 .....18
DPS ..... ASTORIA TWO (OBSTACLE) .....19

AUBURN, WA

AUBURN MUNI(S50)
TAKEOFF MINIMUMS .....L
DIVERSE VECTOR AREA .....L
IAPS ..... RNAV (GPS)-A .....21
DPS ..... BLAKO ONE (OBSTACLE) (RNAV) .....22

AURORA, OR

AURORA STATE(UAO)
TAKEOFF MINIMUMS .....L
DIVERSE VECTOR AREA .....L
ALTERNATE MINIMUMS .....M
STARS ..... HELNS FIVE .....Z15
IAPS ..... RNAV (GPS) RWY 17 .....23
RNAV (GPS) RWY 35 .....24
RNAV (GPS)-B .....25
LOC RWY 17 .....26
VOR/DME-A .....27
AIRPORT DIAGRAM .....28
DPS ..... GLARA ONE (RNAV) .....29
GNNET ONE (RNAV) .....30
NEWBERG ONE (RNAV) .....31

BAKER, MT

BAKER MUNI(BHK)
TAKEOFF MINIMUMS .....L
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IAPS	RNAV (GPS) RWY 14	541	IAPS	RNAV (GPS) RWY 11	565
	RNAV (GPS) RWY 32	542		RNAV (GPS) RWY 29	566
	NDB RWY 32	543		NDB-A	567
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				RNAV (GPS) RWY 30	569
<b>PASCO, WA</b>			<b>POCATELLO, ID</b>		
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TAKEOFF MINIMUMS		L	TAKEOFF MINIMUMS		L
DIVERSE VECTOR AREA		L	ALTERNATE MINIMUMS		M
ALTERNATE MINIMUMS		M	IAPS	ILS OR LOC RWY 21	570
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ALTERNATE MINIMUMS		M	ALTERNATE MINIMUMS		M
HOT SPOT		P	IAPS	COPTER RNAV (GPS) RWY 26	581
IAPS	ILS OR LOC/DME RWY 25	558		COPTER NDB 242	582
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ALTERNATE MINIMUMS		M	ALTERNATE MINIMUMS		M
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	TMBRS TWO (RNAV)	Z35	<b>POWELL, WY</b>		
IAPS	ILS OR LOC RWY 10L	588	<b>POWELL MUNI(POY)</b>		
	ILS OR LOC RWY 10R	589	TAKEOFF MINIMUMS		L
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	RNAV (RNP) Y RWY 28R	595	TAKEOFF MINIMUMS		L
	RNAV (RNP) Z RWY 10L	596	IAPS	RNAV (GPS) RWY 10	642
	RNAV (RNP) Z RWY 10R	597		RNAV (GPS) RWY 28	643
	RNAV (RNP) Z RWY 28L	598	DPS	DESCHUTES TWO (RNAV)	644
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	RNAV (GPS) X RWY 28L	600	<b>PULLMAN-MOSCOW RGNL(PUW)</b>		
	RNAV (GPS) X RWY 28R	601	TAKEOFF MINIMUMS		L
	RNAV (GPS) Y RWY 10L	602	ALTERNATE MINIMUMS		M
	RNAV (GPS) Y RWY 10R	603	IAPS	RNAV (RNP) Z RWY 06	645
	LOC/DME RWY 21	604		RNAV (GPS) RWY 24	646
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DIVERSE VECTOR AREA		L	TAKEOFF MINIMUMS		L
ALTERNATE MINIMUMS		M	ALTERNATE MINIMUMS		M
LAHSO		O	IAPS	RNAV (GPS) RWY 22	650
HOT SPOT		P			
STARS	HELNS FIVE	Z15			
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IAPS	ILS OR LOC RWY 23	651	IAPS	ILS OR LOC/DME RWY 27	684
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	VOR-A	660	TAKEOFF MINIMUMS		L
	JUNIPER VISUAL RWY 23	661	IAPS	RNAV (GPS) RWY 16	689
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	EPHRATA EIGHT	Z10		VOR-A	694
	GLASR ONE	Z11	<b>ROUNDUP, MT</b>		
	OLYMPIA TWO	Z29	<b>ROUNDUP(RPX)</b>		
IAPS	RNAV (GPS) Y RWY 16	665	TAKEOFF MINIMUMS		L
	RNAV (GPS) Z RWY 16	666	IAPS	RNAV (GPS) RWY 07	695
	NDB RWY 16	667		RNAV (GPS) RWY 25	696
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DPS	BELLEVUE THREE	669	<b>MCNARY FIELD(SLE)</b>		
	RENTN THREE	670	TAKEOFF MINIMUMS		L
<b>REXBURG, ID</b>			ALTERNATE MINIMUMS		M
<b>REXBURG-MADISON COUNTY(RXE)</b>			LAHSO		O
TAKEOFF MINIMUMS		L	IAPS	ILS OR LOC Z RWY 31	697
ALTERNATE MINIMUMS		M		RNAV (GPS) RWY 31	698
IAPS	RNAV (GPS) RWY 35	671		LOC Y RWY 31	699
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IAPS	RNAV (GPS) RWY 26	673	TAKEOFF MINIMUMS		L
	RNAV (GPS) Y RWY 19	674	IAPS	RNAV (GPS) RWY 17	703
	RNAV (GPS) Z RWY 19	675		RNAV (GPS)-D	704
	LOC RWY 19	676		VOR/DME-B	705
	VOR/DME-A	677	DPS	AHEHU THREE (RNAV)	706
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<b>RIVERTON RGNL(RIW)</b>			---SEE SHELTON, WA		
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TAKEOFF MINIMUMS		L	TAKEOFF MINIMUMS		L
ALTERNATE MINIMUMS		M	ALTERNATE MINIMUMS		M
IAPS	RNAV (GPS)-B	707	HOT SPOT		P
	LOC-A	708	STARS	CHINS TWO	Z6
<b>SARATOGA, WY</b>				EPHRATA EIGHT	Z10
<b>SHIVELY FIELD(SAA)</b>				GLASR ONE	Z11
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IAPS	RNAV (GPS) RWY 05	709		OLYMPIA TWO	Z29
	RNAV (GPS)-B	710	IAPS	ILS OR LOC RWY 31L	716
	NDB-A	711		ILS RWY 13R	717
<b>SCAPPOOSE, OR</b>				RNAV (RNP) Z RWY 13R	718
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DIVERSE VECTOR AREA		L		HARBOR VISUAL RWY 13R	721
ALTERNATE MINIMUMS		M	AIRPORT DIAGRAM		722
IAPS	RNAV (GPS) RWY 15	712	DPS	KENT SEVEN	723
	LOC/DME RWY 15	713		NEEDLE NINE	725
	VOR/DME-A	714	<b>SCOBEY, MT</b>		
<b>SCOBEY, MT</b>			<b>SCOBEY(9S2)</b>		
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IAPS	RNAV (GPS) RWY 12	715	IAPS	RNAV (GPS) RWY 12	715

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HOT SPOT		P	ALTERNATE MINIMUMS		M
STARS	CHINS TWO	Z6	IAPS	RNAV (GPS) RWY 05	777
	EPHRATA EIGHT	Z10		RNAV (GPS) RWY 23	778
	GLASR ONE	Z11		NDB-A	779
	HAWKZ FIVE (RNAV)	Z13	<b>SHERIDAN, WY</b>		
	JAWBN FIVE	Z19	<b>SHERIDAN COUNTY(SHR)</b>		
	MARNR SIX (RNAV)	Z26	TAKEOFF MINIMUMS		L
	OLYMPIA TWO	Z29	ALTERNATE MINIMUMS		M
IAPS	ILS OR LOC RWY 16C	727	IAPS	ILS OR LOC/DME RWY 33	780
	ILS OR LOC RWY 16L	729		RNAV (GPS) RWY 15	781
	ILS OR LOC RWY 16R	730		RNAV (GPS) RWY 33	782
	ILS OR LOC RWY 34C	731		VOR RWY 15	783
	ILS OR LOC RWY 34L	732	AIRPORT DIAGRAM		784
	ILS OR LOC RWY 34R	733	<b>SHER-WOOD</b>		
	ILS RWY 16C (SA CAT I)	734	<b>---SEE PLENTYWOOD, MT</b>		
	ILS RWY 16L (SA CAT I)	735	<b>SHIVELY FIELD</b>		
	ILS RWY 16R (SA CAT I)	736	<b>---SEE SARATOGA, WY</b>		
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	ILS RWY 34L (SA CAT I - II)	738	<b>SIDNEY-RICHLAND MUNI(SDY)</b>		
	ILS RWY 34R (SA CAT I - II)	739	TAKEOFF MINIMUMS		L
	ILS RWY 16C (CAT II - III)	740	ALTERNATE MINIMUMS		M
	ILS RWY 16L (CAT II - III)	741	IAPS	RNAV (GPS) RWY 01	785
	ILS RWY 16R (CAT II - III)	742		RNAV (GPS) RWY 19	786
	RNAV (RNP) Z RWY 16C	743		NDB RWY 19	787
	RNAV (RNP) Z RWY 16L	745	AIRPORT DIAGRAM		788
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	RNAV (RNP) Z RWY 34C	747	<b>---SEE BURLINGTON/MOUNT VERNON, WA</b>		
	RNAV (RNP) Z RWY 34L	748	<b>SNOHOMISH, WA</b>		
	RNAV (RNP) Z RWY 34R	749	<b>HARVEY FIELD(S43)</b>		
	RNAV (GPS) Y RWY 16C	750	TAKEOFF MINIMUMS		L
	RNAV (GPS) Y RWY 16L	752	IAPS	RNAV (GPS)-A	789
	RNAV (GPS) Y RWY 16R	753	<b>SNOHOMISH COUNTY (PAINE FIELD)</b>		
	RNAV (GPS) Y RWY 34C	754	<b>---SEE EVERETT, WA</b>		
	RNAV (GPS) Y RWY 34L	755	<b>SOUTH BIG HORN COUNTY</b>		
	RNAV (GPS) Y RWY 34R	756	<b>---SEE GREYBULL, WY</b>		
	BAY VISUAL RWY 16 R/C/L	757	<b>SOUTHWEST OREGON RGNL</b>		
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TAKEOFF MINIMUMS		L	TAKEOFF MINIMUMS		L
ALTERNATE MINIMUMS		M	IAPS	ILS OR LOC RWY 01	870
LAHSO		O		RNAV (GPS) RWY 01	871
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IAPS	ILS OR LOC RWY 26	840		NDB RWY 01	873
	RNAV (GPS) RWY 08	841	DPS	TARGY ONE (OBSTACLE)	874
	RNAV (GPS) RWY 26	842			
	VOR/DME RWY 08	843	<b>WHEATLAND, WY</b>		
	VOR RWY 08	844	<b>PHIFER AIRFIELD(EAN)</b>		
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DPS	SNAKO THREE	847	<b>WHIDBEY ISLAND NAS (AULT FIELD)(NUW)</b>		
<b>VANCOUVER, WA</b>			<b>OAK HARBOR, WA</b>		
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			RNAV (GPS) RWY 14		
			RNAV (GPS) RWY 25		
			TACAN RWY 07		
			TACAN RWY 14		
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			PENN COVE THREE		
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			<b>L. M. CLAYTON(OLF)</b>		
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			IAPS		
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			RNAV (GPS) RWY 29		
			NDB RWY 29		
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	OFARO TWO (RNAV)	867	<b>WORLAND, WY</b>		
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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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INSTRUMENT APPROACH PROCEDURE CHARTS

## IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

### Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR takeoff minimums other than standard, are listed below. Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are textually described below, or published separately as a graphic procedure. If the ODP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned an ODP, SID, or radar vector as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the airport, a fix, or a NAVAID in a specified direction, at or above a specified altitude. These procedures are called VCOA Over Airport (VCOA). To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when requesting their IFR clearance.

At some locations where an ODP has been established, a diverse vector area (DVA) may be created to allow radar vectors to be used in lieu of an ODP. DVA information will state that headings will be as assigned by ATC and climb gradients, when applicable, will be published immediately following the specified departure procedure.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: (1) For aircraft, other than helicopters, having two engines or less – one statute mile visibility. (2) For aircraft having more than two engines – one-half statute mile visibility. (3) For helicopters – one-half statute mile visibility. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) takeoff minima are published below. For military takeoff minima, refer to appropriate service directives.

NAME	TAKEOFF MINIMUMS	NAME	TAKEOFF MINIMUMS
<b>AFTON, WY</b>		<b>ANACONDA, MT</b>	
AFTON MUNI (AFO)		BOWMAN FIELD (3U3)	
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES		TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES	
AMDT 1 06271 (FAA)		AMDT 1 07186 (FAA)	
DEPARTURE PROCEDURE: <b>Rwy 16</b> , Use LUNDI		TAKEOFF MINIMUMS: <b>Rwy 4</b> , std. w/ min. climb of 417' per NM to 9000, or 2800-3 for climb in visual conditions. <b>Rwy 17</b> , std. w/ min. climb of 321' per NM to 10200, or 2800-3 for climb in visual conditions. <b>Rwy 22</b> , NA-obstacles. <b>Rwy 35</b> , std. w/ min. climb of 369' per NM to 9100, or 2800-3 for climb in visual conditions.	
DEPARTURE. <b>Rwy 34</b> , use AFTON DEPARTURE.		DEPARTURE PROCEDURE: <b>Rwys 4, 35</b> , climbing right turn to 10200 via heading 130° and CPN VOR/DME R-340 to CPN VOR/DME, continue climb-in-hold to 10200 (north, left turn, 166° inbound), or for climb in visual conditions, cross Bowman Field Airport at or above 7700 then proceed via CPN R-309 to CPN VOR/DME, continue climb-in-hold to 10200 (north, left turn, 166° inbound). <b>Rwy 17</b> , climbing left turn to 10200 via heading 100° and CPN VOR/DME R-335 to CPN VOR/DME, continue climb-in-hold to 10200 (north, left turn, 166° inbound), or for climb in visual conditions, cross Bowman Field Airport at or above 7700 then proceed via CPN R-309 to CPN VOR/DME, continue climb-in-hold to 10200 (north, left turn, 166° inbound).	
<b>ALBANY, OR</b>		NOTE: <b>Rwy 17</b> , multiple trees beginning 865' from DER, 243' left of centerline, up to 70' AGL/5097' MSL. Rod on hangar 570' from DER, 278' left of centerline, 54' AGL/5054' MSL. Multiple trees beginning 787' from DER, 165' right of centerline, up to 70' AGL/5098' MSL. Multiple transmission lines beginning 4602' from DER, 1664' right of centerline, 80' AGL/5159' MSL. <b>Rwy 35</b> , multiple transmission lines beginning 2242' from DER, 964' left of centerline, up to 80' AGL/5159' MSL.	
ALBANY MUNI (S12)			
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES			
AMDT 2B 15344 (FAA)			
DEPARTURE PROCEDURE: <b>Rwy 16</b> , turn right.			
<b>Rwy 34</b> , turn left.			
All aircraft climb direct CVO VOR/DME and continue climb in CVO VOR/DME holding pattern, (East, right turns, 261° inbound) to cross CVO VOR/DME at or above 3400.			
NOTE: <b>Rwy 16</b> , pole 1391' from DER, 277' right of centerline, 30' AGL/265' MSL. <b>Rwy 34</b> , light poles 860' from DER, 69' right of centerline, 40' AGL/262' MSL. Light poles 906' from DER, 15' left of centerline, 41' AGL/262' MSL.			

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

66315



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



16315

## ARCO, ID

ARCO-BUTTE COUNTY (AOC)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 08157 (FAA)  
TAKEOFF MINIMUMS: **Rwy 6**, NA - Obstacles.  
DEPARTURE PROCEDURE: Use JATTS  
DEPARTURE.

## ARLINGTON, WA

ARLINGTON MUNI (AWO)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 11237 (FAA)  
TAKEOFF MINIMUMS: **Rwy 11**, std. w/min. climb of  
400' per NM to 1000, or 1200-2½ for climb in visual  
conditions. **Rwy 16**, std. w/min. climb of 300' per NM to  
1500, or 1200-2½ for climb in visual conditions. **Rwy 29**,  
std. w/min. climb of 245' per NM to 1400, or 1200-  
2½ for climb in visual conditions. **Rwy 34**, std. w/min.  
climb of 260' per NM to 800, or 1200-2½ for climb in  
visual conditions.

DEPARTURE PROCEDURE: **Rwy 11**, climbing right  
turn direct WATON LOM, or for climb in visual  
conditions, cross Arlington Muni at or above 1200 then  
proceed on 161° course to WATON LOM, thence...  
**Rwy 16**, climb direct WATON LOM, or for climb in  
visual conditions, cross Arlington Muni at or above  
1200 then proceed on 161° course to WATON LOM,  
thence ... **Rwy 29**, climbing left turn on 113° course to  
WATON LOM, or for climb in visual conditions, cross  
Arlington Muni at or above 1200 then proceed on 161°  
course to WATON LOM, thence ... **Rwy 34**, climbing  
left turn on 134° course to WATON LOM, or for climb  
in visual conditions, cross Arlington Muni at or above  
1200 then proceed on 161° course to WATON LOM,  
thence ...

... Aircraft departing WATON LOM on bearings 150°  
CW 340° from WATON LOM climb on course. Aircraft  
departing WATON LOM on bearings 340° CW 150°  
from WATON LOM, climb in holding pattern (South, left  
turns, 342° inbound) to cross WATON LOM at or  
above 4500 before proceeding on course.

NOTE: **Rwy 11**, airport beacon 1116' from DER, 699'  
left of centerline, 58' AGL/186' MSL. Tree 1443' from  
DER, 803' left of centerline, 108' AGL/236' MSL. Tree  
1819' from DER, 688' right of centerline, 46' AGL/174'  
MSL. Trees beginning 1.2 NM from DER, left and right  
of centerline, up to 127' AGL/486' MSL. **Rwy 16**, tree  
1240' from DER, 723' left of centerline, 47' AGL/174'  
MSL. Trees beginning 1289' from DER, 713' right of  
centerline, up to 87' AGL/214' MSL. **Rwy 29**, trees  
beginning 897' from DER, 548' right of centerline, up to  
97' AGL/229' MSL. **Rwy 34**, trees beginning 1557' from  
DER, left and right of centerline, up to 96' AGL/236'  
MSL. Trees beginning 2379' from DER, 196' right of  
centerline, up to 84' AGL/224' MSL.

## DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 16259 (FAA)

**Rwy 16**, heading as assigned by ATC. **Rwy 34**,  
heading as assigned by ATC; requires minimum climb  
of 260' per NM to 1400.

## ASTORIA, OR

ASTORIA RGNL (AST)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 6 16315 (FAA)  
DEPARTURE PROCEDURE: Use ASTORIA  
DEPARTURE.

## AUBURN, WA

AUBURN MUNI (S50)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 16091 (FAA)  
TAKEOFF MINIMUMS: Use BLAKO (RNAV)  
DEPARTURE.

## DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 16315 (FAA)

**Rwy 16**, heading as assigned by ATC; requires minimum  
climb of 270' per NM to 1000. **Rwy 34**, heading as  
assigned by ATC; requires minimum climb of 390' per  
NM to 800.

## AURORA, OR

AURORA STATE (UAO)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, std. w/min. climb of  
292' per NM to 2100 or 1500-2½ for climb in visual  
conditions. **Rwy 35**, std. w/min. climb of 312' per NM to  
2100 or 1500-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 17**, climbing right turn,  
thence ... Or for climb in visual conditions cross Aurora  
State airport at or above 1500 thence... **Rwy 35**,  
climbing left turn, thence ... Or for climb in visual  
conditions cross Aurora State airport at or above 1500  
thence ...

... Aircraft departing on V23 intercept BTG R-175 and  
climb on course. All others proceed direct UBG VOR/  
DME and Hold (hold South, left turns, 003° inbound)  
continue climb in hold to cross UBG VOR/DME at or  
above MEA for direction of flight before proceeding on  
course.

NOTE: **Rwy 17**, trees beginning 31' from DER, 246' right  
of centerline, up to 87' AGL/316' MSL. Tree 2270' from  
DER, 836' left of centerline, 87' AGL/303' MSL. Vehicle  
on road 254' from DER, 349' left of centerline, 16'  
AGL/209' MSL. **Rwy 35**, trees beginning 30' from DER,  
163' left of centerline, up to 65' AGL/329' MSL. Vehicle  
on road 212' from DER, 390' left of centerline, 16'  
AGL/212' MSL. Trees 973' from DER, 281' right of  
centerline, up to 65' AGL/253' MSL.

## DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 15064 (FAA)

**Rwy 17**, heading as assigned by ATC; requires minimum  
climb of 375' per NM to 2000. **Rwy 35**, heading as  
assigned by ATC; requires minimum climb of 350' per  
NM to 2000.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



## BAKER, MT

### BAKER MUNI (BHK)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1 14317 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, NA-Environmental.  
DEPARTURE PROCEDURE: **Rwy 31**, climbing right  
turn heading 010° to 9000 on 343° bearing from BKU  
NDB to UMWEL INT and hold, continue climb in hold  
(hold north, right turns, 163° inbound) to 9000. Expect  
further instructions from ATC.

NOTE: **Rwy 31**, fence 168' from DER, 498' left of  
centerline, 6' AGL/2967' MSL. Structure 173' from  
DER, 499' left of centerline, 10' AGL/2974' MSL.  
Windssock on building 1015' from DER, 727' left of  
centerline, 37' AGL/2998' MSL. Rod on antenna 3832'  
from DER, 136' left of centerline, 112' AGL/3073' MSL.

## BAKER CITY, OR

### BAKER CITY MUNI (BKE)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2 10322 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, std. w/ min climb of 460'  
per NM to 6900, or 3700-3 for climb in visual  
conditions. **Rwy 13**, std. w/ min climb of 470' per NM to  
6900, or 3700-3 for climb in visual conditions. **Rwy  
17**, NA-Environmental. **Rwy 26**, std. w/ min climb of  
400' per NM to 7200, or 3700-3 for climb in visual  
conditions.

**Rwys 31,35**, std. w/ min climb of 400' per NM to  
6900, or 3700-3 for climb in visual conditions.  
DEPARTURE PROCEDURE: **Rwy 8**, climb heading  
081° to 6900, then climbing left turn to BKE VOR/DME  
R-066 to BKE VOR/DME and hold, continue climb in  
BKE VOR/DME holding pattern (Hold S, right turns,  
338° inbound) to cross BKE VOR/DME at or above  
MEA/MCA for route of flight, or for climb in visual  
conditions, cross BKE VOR/DME at or above 6900,  
then climb-in-hold to at or above MEA/MCA for route of  
flight. **Rwy 13**, climb heading 126° to 6900, then  
climbing left turn to BKE VOR/DME R-095 to BKE  
VOR/DME and hold, continue climb in BKE VOR/DME  
holding pattern (Hold S, right turns, 338° inbound)  
to cross BKE VOR/DME at or above MEA/MCA for route  
of flight, or for climb in visual conditions, cross BKE  
VOR/DME at or above 6900, then climb-in-hold to at or  
above MEA/MCA for route of flight. **Rwy 26**, climbing  
right turn on heading 330° and BKE VOR/DME R-297  
to 7200, then right turn to intercept BKE VOR/DME R-  
297 to BKE VOR/DME and hold, continue climb in BKE  
VOR/DME holding pattern (Hold S, right turns, 338°  
inbound) to cross BKE VOR/DME at or above MEA/  
MCA for route of flight, or for climb in visual conditions,  
cross BKE VOR/DME at or above 6900, then climb-in-  
hold to at or above MEA/MCA for route of flight. **Rwy  
31**, climb heading 306° to 6900, then climbing right  
turn to BKE VOR/DME R-322 to BKE VOR/DME and  
hold, continue climb in BKE VOR/DME holding pattern  
(Hold S, right turns, 338° inbound) to cross BKE VOR/  
DME at or above MEA/MCA for route of flight, or for  
climb in visual conditions, cross BKE VOR/DME at or  
above 6900, then climb-in-hold to at or above MEA/  
MCA for route of flight.

## BAKER CITY, OR (CON'T)

### BAKER CITY MUNI (BKE) (CON'T)

NOTE: **Rwy 35**, climb heading 345° to 6900, then climbing  
right turn to BKE VOR/DME R-351 to BKE VOR/DME  
and hold, continue climb in BKE VOR/DME holding  
pattern (Hold S, right turns, 338° inbound) to cross BKE  
VOR/DME at or above MEA/MCA for route of flight, or for  
climb in visual conditions, cross BKE VOR/DME at or  
above 6900, then climb-in-hold to at or above MEA/MCA  
for route of flight.

NOTE: **Rwy 8**, vehicles on roadway 321' from DER, on  
centerline, 11' AGL/3380' MSL. Trees beginning 2.5 NM  
from DER, 200' left of centerline, up to 100' AGL/3812'  
MSL. Trees beginning 2.9 NM from DER, 2464' left of  
centerline. Up to 100' AGL/4270' MSL. **Rwy 13**, trees  
beginning 2019' from DER, 969' right of centerline, up to  
100' AGL/3469' MSL. Bushes beginning 2.2 NM from  
DER, 4092' left of centerline, up to 3' AGL/3837' MSL.  
Trees beginning 2.2 NM from DER, 4027' left of  
centerline, up to 100' AGL/3919' MSL. **Rwy 26**, bushes  
231' from DER, 55' left of centerline, up to 12' AGL/3381'  
MSL. Bushes 241' from DER, 147' right of centerline, up  
to 15' AGL/3384' MSL. Vehicles on roadway 393' from  
DER, on centerline, up to 18' AGL/3384' MSL. Pole 1276'  
from DER, 530' left of centerline, 35' AGL/3404' MSL.  
Trees beginning 2547' from DER, 742' left of centerline,  
up to 100' AGL/3469' MSL. Trees beginning 2617' from  
DER, 1008' right of centerline, up to 100' AGL/3441' MSL.  
**Rwy 31**, trees beginning 74' from DER, 49' left of  
centerline, up to 100' AGL/3424' MSL. Sign 489' from  
DER, 389' left of centerline, 25' AGL/3391' MSL. Vehicles  
on roadway 499' from DER, 302' left of centerline, up to  
21' AGL/3387' MSL. Trees beginning 1107' from DER,  
757' left of centerline, up to 100' AGL/3469' MSL. **Rwy  
35**, trees beginning 5.9 NM from DER, 724' right of  
centerline, up to 100' AGL/4779' MSL.

## BELLINGHAM, WA

### BELLINGHAM INTL (BLI)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 6 16035 (FAA)

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 164°  
to 600, then climbing right turn direct HUH VORTAC. Do  
not exceed 210 KIAS until established northbound.  
**Rwy 34**, climb heading 344° to 600, then climbing left  
turn to intercept HUH R-145 to HUH VORTAC, continue  
climb in holding HUH holding pattern (northwest, right  
turn, 149° inbound) to MEA as appropriate for direction of  
flight.

NOTE: **Rwy 16**, tree and windssock beginning abeam  
DER, 258' right of centerline, up to 15' AGL/187' MSL.  
Trees beginning 180' from DER, 534' right of centerline,  
up to 30' AGL/199' MSL. Trees beginning 747' from  
DER, 404' right of centerline, up to 40' AGL/213' MSL.  
Trees beginning 1128' from DER, 56' left of centerline,  
up to 75' AGL/249' MSL. **Rwy 34**, windssock 92' from  
DER, 516' right of centerline, 19' AGL/169' MSL. Trees  
beginning 1372' from DER, 698' right of centerline, up to  
60' AGL/208' MSL. Trees beginning 2682' from DER,  
966' right of centerline, up to 100' AGL/246' MSL. Trees  
beginning 3079' from DER, 619' right of centerline, up to  
85' AGL/246' MSL.

#### DIVERSE VECTOR AREA (RADAR VECTORS) ORIG 16063 (FAA)

**Rwy 16**, heading as assigned by ATC; requires minimum  
climb of 360' per NM to 2700. **Rwy 34**, heading as  
assigned by ATC.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## BEND, OR

### BEND MUNI (BDN)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 09183 (FAA)

DEPARTURE PROCEDURE: Use BEND DEPARTURE.

## BIG PINEY, WY

### MILEY MEMORIAL FIELD (BPI)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 16203 (FAA)

TAKEOFF MINIMUMS: **Rwy 8, 26**, NA-Environmental.DEPARTURE PROCEDURE: **Rwy 13**, climb to 8400 on BPI R-124 before proceeding on course. **Rwy 31**, climb to 10800 on BPI R-320 before proceeding on course.NOTE: **Rwy 13**, bldg 2' from DER, 475' left of centerline, 17' AGL/6963' MSL. Tower 135' from DER, 518' left of centerline, 38' AGL/6983' MSL. Bldg 138' from DER, 503' left of centerline, 12' AGL/6957' MSL. **Rwy 31**, fence 94' from DER, 450' right of centerline, 10' AGL/7003' MSL.

## BILLINGS, MT

### BILLINGS LOGAN INTL (BIL)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 7 13346 (FAA)

DEPARTURE PROCEDURE: **Rwy 10L**, climb heading 098° to 4600 before turning right.NOTE: **Rwy 7**, ground beginning 6' from DER, 55' right of centerline, up to 3542' MSL. Sign 43' from DER, 470' right of centerline, 10' AGL/3544' MSL. **Rwy 10L**, ground beginning 20' from DER, 443' right of centerline, up to 3505' MSL. Vehicles on road beginning 622' from DER, 426' right of centerline, 15' AGL/3524' MSL. Fence 464' from DER, 534' right of centerline, 11' AGL/3511' MSL. **Rwy 10R**, numerous vertical structures beginning 164' from DER, 363' right of centerline, up to 14' AGL/3620' MSL. Antenna beginning 170' from DER, 429' right of centerline, 39' AGL/3646' MSL. Ground 18' from DER, 15' right of centerline, 3608' MSL. Buildings beginning 183' from DER, 492' right of centerline, up to 37' AGL/3644' MSL. Antenna 1339' from DER, 266' right of centerline, 34' AGL/3641' MSL. Antenna 2397' from DER, 332' left of centerline, 132' AGL/3707' MSL. Building 2399' from DER, 325' left of centerline, 88' AGL/3695' MSL. **Rwy 25**, numerous poles, vertical structures, and fence beginning 187' from centerline, 184' left of centerline, up to 37' AGL/3673' MSL. Ground beginning 13' from DER, 339' left of centerline, up to 3664' MSL. Ground beginning 50' from DER, 363' right of centerline, up to 3642' MSL. **Rwy 28L**, ground beginning 22' from DER, 367' left of centerline, up to 3660' MSL. Building 3519' from DER, 715' left of centerline, 91' AGL/3743' MSL.

## BLACKFOOT, ID

### MCCARLEY FIELD (U02)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 11069 (FAA)

DEPARTURE PROCEDURE: **Rwy 1**, climb to 7000 direct IDA VOR/DME, before proceeding on course. **Rwy 19**, climb to 7000 direct PIH VORTAC, before proceeding on course.NOTE: **Rwy 1**, vehicles on road beginning at DER 190' right of centerline, 17' AGL/4517' MSL. **Rwy 19**, vehicles on road beginning at DER 250' left of centerline, 17' AGL/4507' MSL.

## BOISE, ID

### BOISE AIR TERMINAL /GOWEN FIELD

(BOI)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 6 10042 (FAA)

DEPARTURE PROCEDURE: Use GOWEN DEPARTURE.

## DIVERSE VECTOR AREA (AREA VECTORS)

AMDT 1 15204 (FAA)

**Rwy 10L**, heading as assigned by ATC; requires minimum climb of 400' per NM to 5600. **Rwy 10R**, heading as assigned by ATC; requires minimum climb of 330' per NM to 5200. **Rwy 28L**, heading as assigned by ATC; requires minimum climb of 240' per NM to 6400. **Rwy 28R**, heading as assigned by ATC; requires minimum climb of 270' per NM to 6100.

## BONNERS FERRY, ID

### BOUNDARY COUNTY (65S)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 10210 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, NA-Terrain.DEPARTURE PROCEDURE: **Rwy 20**, use KARPS (RNAV) DEPARTURE.

## BOZEMAN, MT

### BOZEMAN YELLOWSTONE INTL (BZN)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4A 12320 (FAA)

TAKEOFF MINIMUMS: **Rwys 3, 21**, NA-ATC.DEPARTURE PROCEDURE: **Rwys 12, 30**, use BOZEMAN DEPARTURE.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## BREMERTON, WA

### BREMERTON NATIONAL (PWT) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5A 15316 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, 300-1 or std. w/min. climb of 402' per NM to 700. **Rwy 20**, 300-1¼ or std. w/min. climb of 495' per NM to 700.

DEPARTURE PROCEDURE: **Rwy 2**, climbing right turn to 4000 on heading 220° and OLM VORTAC R-346 to CARRO INT/OLM 19.43 DME thence... **Rwy 20**, climb heading 197° to 4000 and OLM VORTAC R-346 to CARRO INT/OLM 19.43 DME thence...

... Continue climb in hold (hold N, right turns, 166° inbound) to 4000 before proceeding on course.  
NOTE: **Rwy 2**, bushes beginning 380' from DER, 521' left of centerline, up to 16' AGL/456' MSL.

Trees beginning 1011' from DER, 709' right of centerline, up to 75' AGL/495' MSL. Trees beginning 1209' from DER, 621' left of centerline, up to 53' AGL/473' MSL. Trees beginning 1674' from DER, 889' left of centerline, up to 141' AGL/541' MSL. Trees beginning 2625' from DER, 878' left of centerline, up to 141' AGL/561' MSL. **Rwy 20**, bushes beginning 1' from DER, 488' left of centerline, up to 22' AGL/462' MSL. Trees beginning 177' from DER, 379' left of centerline up to 74' AGL/514' MSL. Trees beginning 372' from DER, 554' right of centerline, up to 69' AGL/489' MSL. Trees beginning 2217' from DER, 402' left of centerline, up to 97' AGL/517' MSL. Trees beginning 3022' from DER, 158' right of centerline, up to 135' AGL/555' MSL. Trees beginning 3315' from DER, 107' left of centerline, up to 127' AGL/547' MSL.

### DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 16259 (FAA)

**Rwy 2**, heading as assigned by ATC; requires minimum climb of 410' per NM to 1500. **Rwy 20**, heading as assigned by ATC.

## BUFFALO, WY

### JOHNSON COUNTY (BYG) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 15176 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, Climbing left turn heading 290° to intercept SHR VOR/DME R-142 to SHR VOR/DME. **Rwy 31**, Climb heading 306° to intercept SHR VOR/DME R-142 to SHR VOR/DME.

NOTE: **Rwy 13**, fence 3' from DER, 349' left of centerline, 9' AGL/4907' MSL. Bush 7' from DER, 42' right of centerline, 2' AGL/4906' MSL. **Rwy 31**, fence beginning 63' from DER, 464' left of centerline, up to 10' AGL/5021' MSL. Rising terrain starting 87' from DER, left and right of centerline, up to 5011' MSL. Fence beginning 744' from DER, 87' right of centerline, up to 9' AGL/5010' MSL.

## BURLEY, ID

### BURLEY MUNI (BYI) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5A 13150 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, 200-1½ or std. w/min. climb of 210' per NM to 4400. Alternatively with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1300' prior to DER. **Rwy 24**, 300-1½ or std. w/min. climb of 438' per NM to 4500.

DEPARTURE PROCEDURE: **Rwys 2, 6**, climbing left turn direct BYI VOR/DME, continue climb in BYI VOR/DME holding pattern (hold NW, right turns, 125° inbound) to cross BYI VOR/DME at or above MEA for route of flight. **Rwys 20, 24**, climbing right turn direct BYI VOR/DME, continue climb in BYI VOR/DME holding pattern (hold NW, right turns, 125° inbound) to cross BYI VOR/DME at or above MEA for route of flight.

NOTE: **Rwy 2**, tower 1.02 NM from DER, 862' right of centerline, 155' AGL/4304' MSL. Obstruction light on bridge 252' from DER, 513' left of centerline, 57' AGL/4195' MSL. Trees beginning 686' from DER, 201' right of centerline, up to 35' AGL/4184' MSL. Tree 694' from DER, 375' left of centerline, 29' AGL/4178' MSL. Obstruction light on building 736' from DER, 188' left of centerline, 11' AGL/4161' MSL. Tower 803' from DER, 590' left of centerline, 55' AGL/4204' MSL. Vehicles on road beginning 857' from DER, 1' right of centerline, up to 17' AGL/4168' MSL. Poles beginning 1226' from DER, 549' left of centerline up to 72' AGL/4222' MSL. Building vent 1240' from DER, 164' left of centerline, 27' AGL/4177' MSL. Stack 2206' from DER, 856' right of centerline, 86' AGL/4236' MSL. Stack 2573' from DER, 614' left of centerline, 86' AGL/4236' MSL. Elevators beginning 3980' from DER, 131' right of centerline, up to 133' AGL/4283' MSL. **Rwy 6**, trees beginning 46' from DER, 172' right of centerline, up to 14' AGL/4163' MSL. Rising terrain beginning 49' from DER, 326' right of centerline, up to 4149' MSL. Bush 150' from DER, 103' right of centerline, 5' AGL/4147' MSL. Antenna 586' from DER, 398' left of centerline, 15' AGL/4165' MSL. Obstruction light on bridge 1061' from DER, 80' right of centerline, 39' AGL/4179' MSL. **Rwy 20**, obstruction light pole 42' from DER, 124' left of centerline, 16' AGL/4170' MSL. Railroad beginning 65' from DER, 4' left of centerline up to 23' AGL/4177' MSL. Sign 181' from DER, 121' right of centerline, 18' AGL/4172' MSL. Vehicles on road 162' from DER, 2' left of centerline, 17' AGL/4169' MSL. Vehicles on road beginning 335' from DER, 348' right of centerline, up to 17' AGL/4171' MSL. Pole 446' from DER, 210' right of centerline, 26' AGL/4180' MSL. Antenna 523' from DER, 337' right of centerline, 63' AGL/4217' MSL. Tree 586' from DER, 213' right of centerline, 28' AGL/4182' MSL. Trees beginning 2014' from DER, 339' left of centerline, up to 96' AGL/4251' MSL. **Rwy 24**, vehicles on road beginning 25' from DER, 9' left of centerline, up to 15' AGL/4169' MSL. Fence 58' from DER, 8' left of centerline, 4' AGL/4154' MSL. Rising terrain beginning 69' from DER, 201' right of centerline, up to 4154' MSL. Railroad 152' from DER, 6' left of centerline, 23' AGL/4176' MSL. Trees beginning 427' from DER, 101' right of centerline, up to 69' AGL/4223' MSL. Vehicles on road beginning 509' from DER, 586' right of centerline, up to 15' AGL/4169' MSL. Railroad beginning 568' from DER, 288' right of centerline, up to 23' AGL/4177' MSL. Pole 735' from DER, 185' left of centerline, 18' AGL/4172' MSL. Light standard 824' from DER, 58' right of centerline, 23' AGL/4177' MSL. Antenna 1630' from DER, 112' left of centerline, 58' AGL/4212' MSL. Tower 2766' from DER, 175' left of centerline, 123' AGL/4282' MSL. Tower 3570' from DER, 158' right of centerline, 157' AGL/4312' MSL. Obstruction light on elevators beginning 3115' from DER, 164' left of centerline, up to 184' AGL/4344' MSL. Building 5.12 NM from DER, 149' left of centerline, 158' AGL/4323' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

16315

**BURLINGTON/MOUNT VERNON, WA**

SKAGIT RGNL (BVS)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2A 16035 (FAA)

TAKEOFF MINIMUMS: **Rwy 4**, NA-Environmental.  
DEPARTURE PROCEDURE: **Rwy 11**, climbing right  
turn heading 245° to intercept CVV VOR/DME R-022  
thence ... **Rwy 22**, climb heading 220° to 1500, then  
intercept CVV R-014, thence ...

**Rwy 29**, climb heading 290° to 1000, then climbing left  
turn on heading 165° to intercept CVV R-015, thence  
... to CVV VOR/DME, climb in holding pattern  
(hold south, left turns, 346° inbound) to cross CVV  
VOR/DME at or above MEA for route of flight.

NOTE: **Rwy 11**, fence 20' from DER, 390' left of  
centerline, 4' AGL/105' MSL. Trees beginning 1418'  
from DER, 832' right of centerline, up to 140' AGL/196'  
MSL. **Rwy 22**, ground beginning 13' from DER, 362'  
right of centerline, up to 97' MSL. Bush 169' from DER,  
287' right of centerline, 30' AGL/120' MSL. Tree 509'  
from DER, 525' right of centerline, 30' AGL/133' MSL.  
Tree 774' from DER, 507' left of centerline, 70'  
AGL/141' MSL. Tanks beginning 913' from DER, 578'  
left of centerline, 55' AGL/130' MSL. Trees beginning  
1096' from DER, 543' right of centerline, up to 120'  
AGL/211' AGL. Trees beginning 1388' from DER, 563'  
left of centerline, up to 120' AGL/188' MSL. Trees  
beginning 1743' from DER, 791' right of centerline, up  
to 130' AGL/222' MSL. Trees beginning 1800' from  
DER, 587' left of centerline, up to 110' AGL/177' MSL.  
Tree 1887' from DER, 807' right of centerline, 150'  
AGL/230' MSL. **Rwy 29**, ground 25' from DER, 431'  
right of centerline, 146' MSL. Tree 40' from DER, 485'  
right of centerline, 40' AGL/182' MSL. Trees 64' from  
DER, 470' left of centerline, 50' AGL/189' MSL. Trees  
485' from DER, 575' right of centerline, up to 100'  
AGL/240' MSL. Trees 1732' from DER, 952' left of  
centerline, up to 130' AGL/247' MSL. Trees 4325' from  
DER, 68' right of centerline, 140' AGL/272' MSL.

**BURNS, OR**

BURNS MUNI (BNO)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 04218 (FAA)

DEPARTURE PROCEDURE: **Rwy 3**, climbing right turn,  
thence...

**Rwy 12**, climb to 4600 via heading 117°, thence...

**Rwys 21, 30**, climbing left turn, thence...

...All aircraft departing on ILR R-072 CW R-209, climb  
on course. All others climb on ILR R-123 within 10 NM  
to cross ILR VOR/DME at or above 5000.

NOTE: **Rwy 21**, pole 820' from DER, 357' left of  
centerline, 20' AGL/4169' MSL.

**BUTTE, MT**

BERT MOONEY (BTM)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5 07074 (FAA)

TAKEOFF MINIMUMS: **Rwy 11**, NA-obstacles. **Rwy 15**,  
std. w/ min. climb of 601' per NM to 7300, or 3300-3 for  
climb in visual conditions. **Rwy 29**, std. w/ min. climb of  
832' per NM to 6700, or 3300-3 for climb in visual  
conditions. **Rwy 33**, std. w/ min. climb of 355' per NM to  
6800, or 3300-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 15**, climbing right turn  
direct CPN VOR/DME, or for climb in visual conditions:  
Cross Bert Mooney Airport westbound at or above 8800  
then proceed direct CPN VOR/DME, thence. . . **Rwy 29**,  
climb heading 293° to intercept CPN VOR/DME R-082 to  
CPN VOR/DME, or for climb in visual conditions: Cross  
Bert Mooney Airport westbound at or above 8800 then  
proceed direct CPN VOR/DME, thence. . . **Rwy 33**, climb  
direct CPN VOR/DME, or for climb in visual conditions:  
Cross Bert Mooney Airport westbound at or above 8800  
then proceed direct CPN VOR/DME, thence. . .  
... climb in CPN VOR/DME holding pattern (hold north,  
left turn, 166° inbound) to cross CPN VOR/DME at or  
above MEA before proceeding enroute.

NOTE: **Rwy 15**, multiple trees beginning 2 NM from DER,  
1779' right of centerline, up to 100' AGL/6659' MSL.  
Tree 2.1 NM from DER, 66' left of centerline, 100'  
AGL/5934' MSL. **Rwy 29**, multiple trees and poles  
beginning 364' from DER, 7' right of centerline, up to 100'  
AGL/5621' MSL. Multiple trees and lights beginning 322'  
left of centerline, up to 100' AGL/5582' MSL. Terrain and  
numerous trees beginning 1.2 NM from DER, 1022' left  
of centerline, up to 100' AGL/6379' MSL. **Rwy 33**, flag  
pole 1095' from DER, 730' left of centerline, 64'  
AGL/5583' MSL.

**CALDWELL, ID**

CALDWELL INDUSTRIAL (EUL)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5 05244 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, std. with a min. climb of  
300' per NM to 5600, or 2400-3 for climb in visual  
conditions.

DEPARTURE PROCEDURE: **Rwy 12**, climb via heading  
119° to 5600 before proceeding on course. For climb in  
visual conditions: Cross Caldwell Industrial Airport at or  
above 4800 before proceeding on course. **Rwy 30**, climb  
via heading 299° to 4400 before proceeding on course.

NOTE: **Rwy 12**, levee 198' from DER, 281' left of  
centerline, 0' AGL/2451' MSL. Multiple trees 1462' from  
DER, 877' right of centerline, up to 100' AGL/2505' MSL.  
**Rwy 30**, multiple poles 206' from DER, 389' right of  
centerline, up to 39' AGL/2457' MSL. Rod 353' from  
DER, 246' right of centerline, 21' AGL/2439' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## CASPER, WY

### CASPER/NATRONA COUNTY INTL (CPR)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 12264 (FAA)

DEPARTURE PROCEDURE: **Rwy 3**, climbing left turn on DDY R-202, to DDY VOR/DME before proceeding on course. **Rwy 8**, climbing left turn on DDY R-190, to DDY VOR/DME before proceeding on course. **Rwy 21**, climbing right turn on DDY R-215, to DDY VOR/DME before proceeding on course. **Rwy 26**, climbing right turn on DDY R-223, to DDY VOR/DME before proceeding on course.

## CHEHALIS, WA

### CHEHALIS-CENTRALIA (CLS)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 12208 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, 400-2% or std. w/min. climb of 240' per NM to 700. **Rwy 34**, std. w/min. climb of 210' per NM to 500.

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 162° to 1000, then climbing left turn to 4000 heading 001° and OLM R-151 to OLM VORTAC then proceed on course. **Rwy 34**, climb to 4000 on OLM R-176 to OLM VORTAC then proceed on course.

NOTE: **Rwy 16**, multiple buildings beginning 1560' from DER, left and right of centerline, up to 40' AGL/220' MSL. Pole 136' from DER, 435' left of centerline, 30' AGL/233' MSL. Trees beginning 523' from DER, left and right of centerline, up to 100' AGL/518' MSL. **Rwy 34**, trees beginning 1679' from DER, left and right of centerline, up to 100' AGL/317' MSL. Building 7169' from DER, 1968' left of centerline, 30' AGL/357' MSL.

## CHEYENNE, WY

### CHEYENNE RGNL/JERRY OLSON FIELD

(CYS)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 12264 (FAA)

DEPARTURE PROCEDURE: **Rwy 31**, climb heading 306° to 6700 before turning left.

NOTE: **Rwy 13**, fence beginning 30' from DER, 246' right of centerline, up to 9' AGL/6126' MSL. Trees beginning 48' from DER, left and right of centerline, up to 68' AGL/6177' MSL. Multiple poles beginning 165' from DER, left and right of centerline, up to 27' AGL/6136' MSL. **Rwy 27**, localizer antenna 404' from DER, on centerline, 10' AGL/6156' MSL. Light on localizer antenna, 408' from DER, 49' left of centerline, 10' AGL/6156' MSL. Vehicles on road beginning 422' from DER, 247' left of centerline, up to 15' AGL/6162' MSL. Trees beginning 514' from DER, left and right of centerline, up to 65' AGL/6224' MSL. Multiple poles beginning 741' from DER, left and right of centerline, up to 60' AGL/6203' MSL. **Rwy 31**, trees beginning 140' from DER, left and right of centerline, up to 57' AGL/6226' MSL. Vehicles on road beginning 193' from DER, 248' left of centerline, up to 15' AGL/6179' MSL. Fence beginning 196' from DER, 1' left of centerline, 9' AGL/6175' MSL. Sign 370' from DER, 59' left of centerline, 9' AGL/6171' MSL. Multiple poles beginning 383' from DER, left and right of centerline, up to 35' AGL/6229' MSL. Sign 3248' from DER, 600' left of centerline, 56' AGL/6244' MSL.

## CHOTEAU, MT

### CHOTEAU (CII)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 10322 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, std. w/ min. climb of 280' per NM to 11600 or 2900-3 for climb in visual conditions. **Rwy 14**, std. w/ min. climb of 280' per NM to 11500 or 2900-3 for climb in visual conditions. **Rwys 23, 32**, std. w/ min. climb of 310' per NM to 11800 or 2900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 5, 14, 23, 32**, for climb in visual conditions cross Choteau Airport at or above 6700 before proceeding on course.

NOTE: **Rwy 5**, vehicle on road 86' from DER, 154' left of centerline, 15' AGL/3954' MSL. **Rwy 14**, aircraft on twy 10' from DER, 436' right of centerline, 10' AGL/3951' MSL. Tree 1959' from DER, 624' left of centerline, 100' AGL/4059' MSL. **Rwy 23**, vehicle on road, 8' from DER, 179' right of centerline, 15' AGL/3954' MSL. Vehicle on road, 11' from DER, 236' left of centerline, 15' AGL/3954' MSL.

## CIRCLE, MT

### CIRCLE TOWN COUNTY (4U6)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 12320 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, std. w/min. climb of 221' per NM to 2900, or 1000-3 for climb in visual conditions. DEPARTURE PROCEDURE: **Rwy 12**, For climb in visual conditions cross Circle Town County airport at or above 3400 MSL before proceeding on course. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 12**, fence 8332' from DER, 1042' left of centerline, 3' AGL/2672' MSL. Fence 122' from DER, 210' right of centerline, 3' AGL/2445' MSL. Ground 1797' from DER, 235' left of centerline 2669' MSL. Vehicle on road 231' from DER, 464' left of centerline, 15' AGL/2485' MSL. Vehicle on road 76' from DER, 343' right of centerline, 15' AGL/2463' MSL. **Rwy 30**, tree 656' from DER, 569' right of centerline, 37' AGL/2459' MSL. Vehicle on road 13' from DER, 202' left of centerline, 15' AGL/2441' MSL. Railroad 403' from DER, 121' right of centerline, 23' AGL/2446' MSL. Pole 851' from DER, 455' right of centerline, 24' AGL/2450' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



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## CODY, WY

YELLOWSTONE RGNL (COD)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4 10042 (FAA)

TAKEOFF MINIMUMS: **Rwy 4**, std. with a min. climb of 400' per NM to 8000' or 4200-3 for climb in visual conditions. **Rwy 22**, std. with a min. climb of 385' per NM to 7400' or 4200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 4**, climb heading 038° to 5900, then climbing left turn via COD R-171 to COD VOR/DME or for climb in visual conditions to cross Yellowstone Rgnl at or above 9400, then via COD R-189 to COD VOR/DME to cross COD VOR/DME at or above MEA for route of flight. **Rwy 22**, climb heading 218° to 6600, then climbing left turn via COD R-180 to COD VOR/DME or for climb in visual conditions to cross Yellowstone Rgnl at or above 9400, then via COD R-189 to COD VOR/DME to cross COD VOR/DME at or above MEA for route of flight.

NOTE: **Rwy 4**, trees beginning 100' from DER, 262' right of centerline, up to 79' AGL/5199' MSL. Rising terrain beginning 1723' from DER, 304' right of centerline, up to 5146' MSL. **Rwy 22**, poles beginning 1 NM from DER, 406' right of centerline, up to 60' AGL/5332' MSL. Rising terrain beginning 1 NM from DER, 109' right of centerline, up to 6235' MSL. Rising terrain beginning 5074' from DER, 131' left of centerline, up to 5428' MSL.

## COEUR D'ALENE, ID

COEUR D'ALENE-PAPPY BOYINGTON  
FIELD (COE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 9 10042 (FAA)

DEPARTURE PROCEDURE: use COEUR D'ALENE  
DEPARTURE.

## COLSTRIP, MT

COLSTRIP (M46)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 08157 (FAA)

TAKEOFF MINIMUMS: **Rwy 6** use CISPU (RNAV)  
DEPARTURE. **Rwy 24**, use CONUK (RNAV)  
DEPARTURE.

## CONRAD, MT

CONRAD (S01)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG-A 12292 (FAA)

DEPARTURE PROCEDURE: **Rwy 24**, climb runway  
heading to 4300, then continue climb on course.

NOTE: **Rwy 6**, antenna tower 307' from DER, 511' left  
of centerline, 40' AGL/3565' MSL.

## CORVALLIS, OR

CORVALLIS MUNI (CVO)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 6A 16315 (FAA)

TAKEOFF MINIMUMS: **Rwy 9**, std. w/min. climb gradient of 270' per NM to 2900 or 3300-3 for VCOA. **Rwy 17**, std. w/min. climb gradient of 271' per NM to 2900 or 3300-3 for VCOA. **Rwy 27**, std. w/min. climb gradient of 337' per NM to 3100 or 3300-3 for VCOA. **Rwy 35**, std. w/min. climb gradient of 350' per NM to 3100 or 3300-3 for VCOA.

DEPARTURE PROCEDURE: **Rwy 09**, climb heading 097° to 1200, then climbing left turn direct CVO VOR/DME, thence . . . **Rwy 17**, climb heading 172° to 1300, then climbing left turn direct CVO VOR/DME, thence . . . **Rwy 27**, climb heading 277° to 1600, then climbing right turn direct CVO VOR/DME, thence . . . **Rwy 35**, climb heading 352° to 1600, then climbing right turn direct CVO VOR/DME, thence . . . . . Climb in CVO VOR/DME holding pattern (east, right turn, 261° inbound) to depart CVO VOR/DME at or above 3400.

VCOA: All runways: Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross CVO VOR/DME at or above 3400.

NOTE: **Rwy 9**, trees, trains on railroad, beginning 322' from DER, 5' left of centerline, up to 286' MSL. Tree 608' from DER, 525' left of centerline, 292' MSL. Tree 667' from DER, 309' left of centerline, 299' MSL. Tree 3216' from DER, 946' left of centerline, 383' MSL. Bush 586' from DER, 380' right of centerline, 275' MSL. Tree 4404' from DER, 1133' right of centerline, 380' MSL. **Rwy 27**, tree 39' from DER, 467' right of centerline, 6' AGL/246' MSL. Oil on gs, 433' from DER, 325' left of centerline, 32' AGL/275' MSL. **Rwy 35**, trees, beginning 3' from DER, 272' left of centerline, up to 247' MSL. Trees, beginning 474' from DER, 549' left of centerline, up to 278' MSL. Tree 507' from DER, 558' right of centerline, 261' MSL. Tree 1507' from DER, 660' left of centerline, 283' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)  
AMDT 2 16315 (FAA)

**Rwy 17**, heading as assigned by ATC. **Rwy 35**, heading as assigned by ATC; requires minimum climb of 210' per NM to 800.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## COWLEY/LOVELL/BYRON, WY

NORTH BIG HORN COUNTY (U68)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 13346 (FAA)

DEPARTURE PROCEDURE: **Rwy 9, all aircraft** - aircraft departing on HCY NDB bearings 130° CW 225°, climb heading 095° to 4800 then climb on course. All others, climb to 4800 then climbing right turn direct HCY NDB. Climb in HCY NDB holding pattern (hold W, right turns, 078° inbound) to cross HCY NDB at or above 9500 before proceeding on course. **Rwy 27, all aircraft** - aircraft departing on HCY NDB bearings 130° CW 225°, climb heading 275° to 4800 then climb on course. All others, climb to 4800 then climbing left turn direct HCY NDB, climb in HCY NDB holding pattern (hold W, right turns, 078° inbound) to cross HCY NDB at or above 9500 before proceeding on course.

NOTE: **Rwy 9**, vehicles on road beginning 18' from DER, 451' left of centerline, up to 15' AGL/4114' MSL. Vertical structure 13' from DER, 420' right of centerline, up to 4' AGL/4096' MSL. Light support structure 8' from DER, 17' right of centerline, up to 2' AGL/4095' MSL. **Rwy 27**, NAVAIDs beginning 40' from DER, left and right of centerline, up to 6' AGL/4085' MSL. Ground beginning 137' from DER, 512' left of centerline, up to 4087' MSL. Vertical structure beginning 181' from DER, 466' left of centerline, up to 11' AGL/4090' MSL. Vertical structure beginning 298' from DER, 323' left of centerline, up to 9' AGL/3091' MSL. Vertical structure beginning 300' from centerline, 311' left of centerline, up to 11' AGL/4092' MSL. Vehicles on road beginning 551' from DER, left and right of centerline, up to 15' AGL/4108' MSL. Pole beginning 1558' from DER, 793' right of centerline, up to 29' AGL/4128' MSL.

## CUT BANK, MT

CUT BANK INTL (CTB)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 14317 (FAA)

NOTE: **Rwy 5**, runway light 11' from DER, 17' left of centerline, 1' AGL/3842' MSL. **Rwy 14**, runway light 9' from DER, 48' left of centerline, 2' AGL/3843' MSL. REIL 12' from DER, 114' right of centerline, 3' AGL/3844' MSL. **Rwy 23**, fence 4' from DER, 239' right of centerline, 6' AGL/3857' MSL, runway lights beginning 8' from DER, left and right of centerline, up to 1' AGL/3855' MSL. Fence 122' from DER, 240' right of centerline, 5' AGL/3857' MSL. **Rwy 32**, runway lights beginning 9' from DER, left and right of centerline, up to 2' AGL/3859' MSL.

## DEER LODGE, MT

DEER LODGE-CITY-COUNTY (38S)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 13010 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, std. w/min. climb of 275' per NM to 5700 or 2300-3 for climb in visual conditions. **Rwy 31**, std. w/min. climb of 370' per NM to 7000 or 2300-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 13, 31**, climbing right turn heading 218° to 9700 to intercept CPN VOR/DME R-339 to CPN VOR/DME and hold, continue climb-in-hold (hold north, left turn, 166° inbound) to cross CPN VOR/DME at or above MEA of intended route before proceeding on course, or for climb in visual conditions cross Deer Lodge-City-County airport at or above 6800 then proceed on CPN R-339 to CPN VOR/DME, continue climb-in-hold (hold north, left turn, 166° inbound) to cross CPN VOR/DME at or above MEA of intended route before proceeding on course. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 13**, road beginning 3' from DER, 321' right of centerline, 4658' MSL, light support structure 9' from DER, 28' left of centerline, 3' AGL/4630' MSL, terrain 27' from DER, 160' right of centerline, 4631' MSL. Fence 128' from DER, 498' right of centerline, 10' AGL/4650' MSL. **Rwy 31**, road beginning at DER, 270' left of centerline, 4757' MSL. Light support structure 10' from DER, 27' left of centerline, 3' AGL/4695' MSL. Terrain beginning 155' from DER, 93' left of centerline, 4743' MSL. Terrain beginning 536' from DER, 438' right of centerline, 4715' MSL. Terrain beginning 1832' from DER, 678' left of centerline, 4758' MSL. Road beginning 1429' from DER, extending 869' left of centerline to 278' right of centerline, 4769' MSL. Vertical structures 1577' from DER, 497' left of centerline, 5' AGL/4754' MSL. Tree 2269' from DER, 412' left of centerline, 25' AGL/4785' MSL. Poles beginning 4292' from DER, 1225' right of centerline, 50' AGL/4891' MSL. Road beginning 4577' from DER, 1627' left of centerline, 4898' MSL. Terrain beginning 4824' from DER, 30' left of centerline, 4932' MSL. Agriculture equipment beginning 5237' DER, extending 71' left of centerline to 1202' right of centerline, 15' AGL/4845' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## DEER PARK, WA

### DEER PARK (DEW)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 10098 (FAA)

TAKEOFF MINIMUMS: **Rwy 34**, 300-1½ or std. with a min. climb of 455' per NM to 2500.

DEPARTURE PROCEDURE: **Rwy 5**, climbing right turn heading 165° and GEG VORTAC R-006 to GEG VORTAC. **Rwy 16**, climb heading 164° and GEG VORTAC R-006 to GEG VORTAC. **Rwy 23**, climbing left turn heading 155° and GEG VORTAC R-006 to GEG VORTAC. **Rwy 34**, climbing right turn heading 165° and GEG VORTAC R-006 to GEG VORTAC.

NOTE: **Rwy 5**, aircraft 261' from DER, 511' left of centerline, up to 21' AGL/2210' MSL. Trees beginning 1809' from DER, 413' left of centerline, up to 109' AGL/2299' MSL. Aircraft 104' from DER, 186' right of centerline, up to 21' AGL/2200' MSL. Trees beginning 1667' from DER, 373' right of centerline, up to 116' AGL/2319' MSL. **Rwy 16**, trees beginning 31' from DER, 455' left of centerline, up to 109' AGL/2279' MSL. Trees beginning 2587' from DER, 621' right of centerline, up to 104' AGL/2264' MSL. **Rwy 23**, trees beginning 1461' from DER, 211' right of centerline, up to 90' AGL/2270' MSL. **Rwy 34**, aircraft 23' from DER, 218' left of centerline, up to 21' AGL/2230' MSL. Trees beginning 2678' from DER, 18' left of centerline, up to 165' AGL/2375' MSL. Vehicles beginning 74' from DER, 339' right of centerline, up to 15' AGL/2234' MSL. Trees beginning 2219' from DER, 260' right of centerline, up to 100' AGL/2382' MSL.

## DOUGLAS, WY

### CONVERSE COUNTY (DGW)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1A 13150 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, 300-2 or std. w/min. climb of 271' per NM to 5200. **Rwy 23**, 1700-3 or std. with a min. climb of 260' per NM to 7200.

DEPARTURE PROCEDURE: **Rwy 5**, climbing right turn via IIP VOR/DME R-342 to IIP VOR/DME. **Rwy 11**, climbing right turn via IIP VOR/DME R-312 to IIP VOR/DME. **Rwy 23**, climbing left turn via IIP VOR/DME R-264 to IIP VOR/DME. **Rwy 29**, climbing right turn via IIP VOR/DME R-325 to IIP VOR/DME. **All aircraft** departing IIP R-253 CW R-180 climb on course. All others continue climb in IIP VOR/DME holding pattern (NW, left turns, 125° inbound) to cross IIP VOR/DME at or above: R-181 CW R-199 9600; R-200 CW R-252 8000.

NOTE: **Rwy 5**, trees 1883' from DER, 549' right of centerline, 35' AGL/5014' MSL. Trees 3407' from DER, 209' right of centerline, 35' AGL/5074' MSL. Trees 5458' from DER, 1954' right of centerline, 35' AGL/5132' MSL. Terrain 5020' from DER, 1805' right of centerline, 5089' MSL. **Rwy 23**, trees 2068' from DER, 1008' left of centerline, 35' AGL/4994' MSL. Trees 3130' from DER, 1215' left of centerline, 35' AGL/5014' MSL.

## DRIGGS, ID

### DRIGGS-REED MEMORIAL (DIJ)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 11349 (FAA)

DEPARTURE PROCEDURE: **Rwys 3, 21**, use LAMON DEPARTURE.

## DILLON, MT

### DILLON (DLN)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3A 15288 (FAA)

TAKEOFF MINIMUMS: **Rwy 35**, DME required. **Rwy 17**, std. w/min. climb of 219' per NM to 6400 or 3700-3 for climb in visual conditions. **Rwy 22**, 3700-3 for climb in visual conditions

DEPARTURE PROCEDURE: **Rwy 17**, climbing right turn heading 042° thence ...  
or for climb in visual conditions cross Dillon airport at or above 9000 before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 22**, for climb in visual conditions cross Dillon airport at or above 9000 before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 35**, climbing right turn thence ...

.... climb to 8900 on DLN R-005 to YARUP/DLN 19 DME fix. Aircraft departing north on V21 continue climb to MEA and proceed on course. Aircraft departing south on V121 and V21-257, climbing left turn heading 140° to intercept DLN R-005 southbound, cross DLN VOR/DME at or above 10000 before proceeding on course.

NOTE: **Rwy 17**, light 7' from DER, 27' left of centerline, 3' AGL/5247' MSL. Vehicles on roadway beginning 13' from DER, left and right of centerline, up to 15' AGL/5262' MSL. Pole 850' from DER, 507' left of centerline, 33' AGL/5274' MSL. **Rwy 22**, light 10' from DER, 20' right of centerline, 2' AGL/5223' MSL. Vehicles on roadway beginning 13' from DER, left and right of centerline, up to 15' AGL/5236' MSL. **Rwy 35**, vehicles on roadway beginning 6' from DER, left and right of centerline, up to 15' AGL/5170' MSL. Light 9' from DER, 27' left of centerline, 2' AGL/5158' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## EASTSOUND, WA

### ORCAS ISLAND (ORS)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 16035 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, 3200-3 for climb in visual conditions. **Rwy 34**, 500-3 or std. w/min. climb of 224' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 34**, climbing right turn to intercept HUH VORTAC R-210 to HUH VORTAC, thence... ..Climb in HUH holding pattern, hold south, left turns, 352° inbound, to cross HUH VORTAC at or above 3800 before proceeding on course.

VCOA: **Rwy 16**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Orcas Island airport at or above 3200 before proceeding on course.

NOTE: **Rwy 16**, terrain beginning 9' from DER, 125' right of centerline, 37' MSL. Vehicles on road and tree beginning 15' from DER, 362' right of centerline, up to 15' AGL/66' MSL. Vehicles on road beginning 61' from DER, 301' left of centerline, 15' AGL/51' MSL. Building and rising terrain beginning 102' from DER, 259' right of centerline, up to 35' AGL/71' MSL. Tree 182' from DER, 393' right of centerline, up to 35' AGL/89' MSL. Trees beginning 194' from DER, 466' right of centerline, up to 95' AGL/151' MSL. Windsock, fence, and trees beginning 196' from DER, left and right of centerline, up to 65' AGL/106' MSL. Trees on rising terrain beginning 591' from DER, left and right of centerline, up to 80' AGL/120' MSL. Building and trees on rising terrain beginning 939' from DER, left and right of centerline, up to 100' AGL/177' MSL. Buildings and trees beginning 1096' from DER, left and right of centerline, up to 100' AGL/182' MSL. Pole, building, and trees beginning 1751' from DER, left and right of centerline, up to 100' AGL/199' MSL. Trees beginning 2059' from DER, left and right of centerline, up to 100' AGL/208' MSL. Trees beginning 2104' from DER, left and right of centerline, up to 100' AGL/224' MSL. Trees beginning 2104' from DER, left and right of centerline, up to 100' AGL/224' MSL. Building and trees on rising terrain beginning 2519' from DER, left and right of centerline, up to 100' AGL/245' MSL. Trees beginning 2883' from DER, 884' right of centerline, up to 100' AGL/258' MSL. Trees beginning 2909' from DER, 243' left of centerline to 1169' right of centerline, up to 100' AGL/327' MSL. Tree 2972' from DER, 1074' right of centerline, 100' AGL/344' MSL. Trees beginning 2986' from DER, 14' right of centerline, up to 100' AGL/366' MSL. Building and trees beginning 3092' from DER, from 397' left of centerline to 1133' right of centerline, up to 100' AGL/381' MSL. Trees beginning 3133' from DER, 191' left of centerline to 1336' right of centerline, up to 100' AGL/400' MSL. Building and trees on rising terrain beginning 3280' from DER, 90' right of centerline, up to 100' AGL/410' MSL. **Rwy 34**, tree and vehicles on road beginning 3' from DER, 106' right of centerline, up to 15' AGL/29' MSL. Tree, fence, and vehicles on road beginning 18' from DER, 155' left of centerline, up to 15' AGL/22' MSL. Tree 192' from DER, 427' left of centerline, 35' AGL/50' MSL. Trees beginning 201' from DER, 266' left of centerline, up to 40' AGL/68' MSL. Building and trees beginning 275' from DER, 366' left of centerline, up to 45' AGL/71' MSL. Vehicles on road beginning 321' from DER, from 109' left to 611' right of centerline, up to 15' AGL/30' MSL. Trees beginning 2.5 NM from DER, 82' right of centerline up to 100' AGL/339' MSL.

## ELLENSBURG, WA

### BOWERS FIELD (ELN)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2B 16315 (FAA)

TAKEOFF MINIMUMS: **Rwys 7,11**, 4600-3 or std. with a min. climb of 290' per NM to 7800. **Rwy 25**, 4700-3 or std. with a min. climb of 340' per NM to 7800. **Rwy 29**, 4600-3 or std. with a min. climb of 320' per NM to 7800. DEPARTURE PROCEDURE: **Rwys 7, 29**, climbing right turn direct ELN VOR/DME. **Rwys 11, 25**, climbing left turn direct ELN VOR/DME. **All aircraft**, continue climbing in the ELN VOR/DME holding pattern (W, right turns, 087° inbound) to MEA/MOCA for route of flight. NOTE: **Rwy 7**, fence 1' from DER, 438' left of centerline, 17' AGL/1772' MSL. Fence and trees 138' from DER, 207' left of centerline, up to 24' AGL/1779' MSL. Fence 532' from DER, 41' left of centerline, 14' AGL/1769' MSL. Trees 1149' from DER, 270' left of centerline, up to 40' AGL/1795' MSL. Poles 1853' from DER, 140' left of centerline, up to 50' AGL/1805' MSL. **Rwy 11**, tree 1794' from DER, 676' left of centerline, 75' AGL/1822' MSL. **Rwy 25**, fence 151' from DER, 293' right of centerline, 5' AGL/1714' MSL. Tree 2060' from DER, 465' left of centerline, 61' AGL/1770' MSL. **Rwy 29**, fence and tree 152' from DER, 283' left of centerline, up to 11' AGL/1774' MSL. Trees 144' from DER, 263' right of centerline, up to 19' AGL/1782' MSL. Tree 1974' from DER, 463' right of centerline, 61' AGL/1824' MSL.

## ENNIS, MT

### ENNIS-BIG SKY (EKS)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 14037 (FAA)

DEPARTURE PROCEDURE: **Rwys 16, 34**, Use ENNIS (RNAV) DEPARTURE.

## EPHRATA, WA

### EPHRATA MUNI (EPH)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 3 09127 (FAA)

TAKEOFF MINIMUMS: **Rwy 29**, NA-Obstacles.

DEPARTURE PROCEDURE: **Rwy 3**, climb heading 027° to 2300 before proceeding on course. **Rwy 11**, climb heading 112° to 2200 before proceeding on course. **Rwy 21**, climb heading 207° to 2800 before proceeding on course.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## EUGENE, OR

### MAHLON SWEET FIELD (EUG) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7A 13122 (FAA)

DEPARTURE PROCEDURE: **Rwys 16L, 16R**, climb heading 163° to 1200 then climbing right turn...**Rwys 34L, 34R**, climb heading 343° to 1200 then climbing left turn...

...all aircraft climb direct EUG VORTAC, then climb in hold in EUG VORTAC holding pattern (hold north, right turns, 175° inbound) to cross EUG VORTAC at or above MEA before proceeding on course.

NOTE: **Rwy 16L**, multiple power poles beginning 1036' from DER, 74' right of centerline, up to 35' AGL/408' MSL. Multiple power poles beginning 1017' from DER, 211' left of centerline, up to 31' AGL/404' MSL. **Rwy 16R**, tree 1991' from DER, 83' left of centerline, 54' AGL/419' MSL. Numerous trees beginning 1504' from DER, 489' right of centerline, up to 43' AGL/408' MSL. **Rwy 34L**, tree 1597' from DER, 842' left of centerline, 50' AGL/404' MSL. **Rwy 34R**, tree 2897' from DER, 606' right of centerline, 77' AGL/440' MSL. Tree 2535' from DER, 643' left of centerline, 65' AGL/428' MSL.

## EVANSTON, WY

### EVANSTON-UINTA COUNTY BURNS FIELD (EVW)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 06243 (FAA)

DEPARTURE PROCEDURE: **Rwy 5**, climb via heading 050° and FBR VOR/DME R-243 to FBR VOR/DME. **Rwy 23**, climbing left turn via heading 030° and FBR VOR/DME R-243 to FBR VOR/DME.

**All aircraft:** cross FBR VOR/DME at or above MEA for direction of flight.

## EVERETT, WA

### SNOHOMISH COUNTY (PAINE FIELD) (PAE)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 15344 (FAA)

DEPARTURE PROCEDURE: **Rwy 16L/R**, climbing right turn, thence...**Rwy 34L/R**, climbing left turn, thence...  
...for aircraft departing on V287 westbound, climb on PAE VOR/DME R-236 to 3000. All others, climb direct PAE VOR/DME, climb in PAE VOR/DME holding pattern (NW, RT, 149° inbound) to MEA for route of flight before proceeding on course.

NOTE: **Rwy 16R**, Rwy light 9' from DER, 15' right of centerline, 1' AGL/579' MSL. Trees beginning 707' from DER, left and right of centerline, up to 116' AGL/625' MSL. Tree 2130' from DER, 866' left of centerline, 151' AGL/660' MSL. Trees beginning 2789' from DER, left and right of centerline, up to 163' AGL/698' MSL. Trees beginning 3078' from DER, 238' left of centerline, up to 156' AGL/704' MSL. **Rwy 16L**, poles, tower and tree beginning 107' from DER, left and right of centerline, up to 42' AGL/639' MSL. Trees beginning 900' from DER, 477' left of centerline, up to 137' AGL/699' MSL. Trees beginning 1412' from DER, left and right of centerline, up to 123' AGL/668' MSL. Trees beginning 1785' from DER, 535' left of centerline, up to 155' AGL/700' MSL. Tree 4646' from DER, 912' right of centerline, 178' AGL/717' MSL. **Rwy 34R**, trees beginning 154' from DER, left and right of centerline, up to 86' AGL/648' MSL. Tree 1324' from DER, 229' left of centerline, 97' AGL/655' MSL. Trees beginning 2084' from DER, 548' right of centerline, up to 131' AGL/699' MSL. Trees beginning 2720' from DER, 114' left of centerline, up to 135' AGL/690' MSL.

#### DIVERSE VECTOR AREA (RADAR VECTORS) AMDT 1, 16203

**Rwy 16L/R, Rwy 34L/R**, heading as assigned by ATC.

## FAIRCHILD AFB (KSKA)

### SPOKANE, WA

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1, 12124

DEPARTURE PROCEDURE: **Rwy 5**, Climb on track 051° to intercept SKA R-048 to 5300, then on course. **Rwy 23**, climb on track 244° to 3400, then on course.

TAKEOFF OBSTACLES: **Rwy 23**, Potential Aircraft 65' AGL/2518' MSL, 98' from DER, 437' right of centerline. Terrain 2477' MSL, 493' to 511' from DER, 751' to 761' right of centerline. Terrain 2472' MSL, 1018' from DER, 621' right of centerline. Terrain 2467' MSL, 208' from DER, 405' right of centerline.

#### DIVERSE VECTOR AREA (AREA VECTORS) AMDT 1 15204 (FAA)

**Rwy 5**, heading as assigned by ATC. **Rwy 23**, heading as assigned by ATC; requires minimum climb of 270' per NM to 3100.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## FORSYTH, MT

### TILLITT FIELD (1S3)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 16147 (FAA)

NOTE: **Rwy 9**, light support structure 10' from DER, 27' right of centerline, 2729' MSL. Terrain 64' from DER, 214' left of centerline, 2730' MSL. Road beginning 196' from DER, 535' right of centerline, up to 2743' MSL. Road 529' from DER, 608' left of centerline, 2747' MSL. Road beginning 540' from DER, 19' left of centerline, up to 2748' MSL. **Rwy 27**, fence and light support structure abeam DER, 28' right of centerline, up to 2731' MSL. Terrain 26' from DER, 220' right of centerline, 2737' MSL. Road and terrain beginning 141' from DER, 196' right of centerline, up to 2742' MSL. Terrain, road, building, and trees beginning 270' from DER, 445' right of centerline, up to 2760' MSL. Terrain 479' from DER, 474' right of centerline, 2763' MSL. Trees, road, and terrain beginning 500' from DER, 19' left of centerline, up to 2771' MSL.

## FORT BENTON, MT

### FORT BENTON (79S)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 07074 (FAA)

TAKEOFF MINIMUMS: **Rwys 5, 23**, std. w/ min. climb of 274' per NM to 8900 or 5100-3 for climb in visual conditions.  
DEPARTURE PROCEDURE: **Rwys 5, 23**, for climb in visual conditions: Cross Fort Benton Airport at or above 8900 MSL before proceeding on course.

## FORT BRIDGER, WY

### FORT BRIDGER (FBR)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 89040 (FAA)

DEPARTURE PROCEDURE: **All aircraft** climb direct FBR VOR/DME. Aircraft departing: FBR R-210 CW R-135 climb on course; FBR R-136 CW R-209 cross FBR VOR/DME at or above 9000. (Hold NE, right turns, 215° inbound).

## FRIDAY HARBOR, WA

### FRIDAY HARBOR (FHR)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3A 16119

TAKEOFF MINIMUMS: **Rwy 34**, 400-2.  
DEPARTURE PROCEDURE: **Rwy 16**, climb to 1000 on heading 161° then climbing left turn direct FHR NDB, thence ... **Rwy 34** climb to 1000 on heading 341° then climbing left turn direct FHR NDB, thence... ..continue climb-in-hold in FHR NDB holding pattern (Hold S, right turns, 339° inbound) to cross FHR NDB at or above 2300 before proceeding on course.

NOTE: **Rwy 16**, trees beginning 556' from DER, 20' left of centerline, up to 85' AGL/212' MSL. Trees, fence, and road beginning 27' from DER, 67' right of centerline, up to 85' AGL/220' MSL. **Rwy 34**, trees, beacon and pole beginning 385' from DER, 92' left of centerline, up to 85' AGL/348' MSL. Trees, building and antenna beginning 808' from DER, 16' right of centerline, up to 85' AGL/504' MSL.

## GILLETTE, WY

### GILLETTE-CAMPBELL COUNTY (GCC)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE  
PROCEDURES  
AMDT 5 16315 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, std. w/ min. climb of 265' per NM to 5200 or 1200-3 for VCOA. **Rwy 21**, std. w/ min. climb of 373' per NM to 5400 or 1200-3 for VCOA.

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 161° to 5200 before proceeding on course. **Rwy 21**, climb heading 209° to 5400 before proceeding on course.

VCOA: **Rwys 16, 21**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Gillette-Campbell county airport at or above 5400 before proceeding on course.

NOTE: **Rwy 3**, vehicle on road 414' from DER, 589' right of centerline, 4328' MSL. Vehicle on road 3' from DER, 433' left of centerline, 4317' MSL. Wsk 1415' from DER, 100' left of centerline, 4366' MSL. **Rwy 16**, post, tree beginning 1.7 NM from DER, 300' right of centerline, up to 4643' MSL. Transmission tower 1.6 NM from DER, 1354' left of centerline, 4677' MSL. T-1 tower 1.6 NM from DER, 1354' left of centerline, 56' AGL/4677' MSL. Pole, T-1 tower beginning 1.7 NM from DER, 1264' left of centerline, up to 4685' MSL. Pole 1.9 NM from DER, 3336' left of centerline, 4696' MSL. T-1 tower 1.9 NM from DER, 3336' left of centerline, 13' AGL/4696' MSL. Tower 2.91 NM from DER, 2229' left of centerline, 172' AGL/4828' MSL. Tower 2.96 NM from DER, 1863' left of centerline, 180' AGL/4902' MSL. **Rwy 21**, terrain 1241' from DER, 594' right of centerline, 4379' MSL. Ant, building beginning 1266' from DER, 494' right of centerline, up to 4394' MSL. Terrain 1959' from DER, 855' right of centerline, 4399' MSL. Pole, T-1 tower beginning 3274' from DER, 1308' right of centerline, up to 4428' MSL. T-1 tower, pole beginning 3324' from DER, 960' right of centerline, up to 42' AGL/4429' MSL. T-1 tower, pole beginning 3477' from DER, 1110' right of centerline, up to 46' AGL/4436' MSL. Terrain 1 NM from DER, 2002' right of centerline, 4513' MSL. Terrain beginning 1 NM from DER, 1778' right of centerline, up to 4535' MSL. Terrain 1.1 NM from DER, 1760' right of centerline, 4541' MSL. Terrain beginning 1.2 NM from DER, 1353' right of centerline, up to 4576' MSL. Terrain 1.2 NM from DER, 1534' right of centerline, 4583' MSL. Terrain beginning 1.2 NM from DER, 1992' right of centerline, up to 4694' MSL. Pole, ant, terrain beginning 1.2 NM from DER, 1983' right of centerline, up to 4' AGL/4699' MSL. Transmission tower, T-1 tower, fence, vertical structure, terrain, pole, ant, tree beginning 1.3 NM from DER, 316' right of centerline, up to 4739' MSL. Pole, T-1 tower beginning 1.7 NM from DER, 1923' right of centerline, up to 4743' MSL. T-1 tower, pole beginning 1.8 NM from DER, 1371' right of centerline, up to 38' AGL/4751' MSL. T-1 tower, Transmission tower beginning 1.8 NM from DER, 272' right of centerline, up to 57' AGL/4788' MSL. Lt 10' from DER, 47' left of centerline, 4344' MSL. Fence beginning 328' from DER, 267' left of centerline, up to 4352' MSL. T-1 tower, pole beginning 4850' from DER, 31' left of centerline, up to 37' AGL/4476' MSL. Terrain 1.6 NM from DER, 4' left of centerline, 4693' MSL. Terrain beginning 1.6 NM from DER, 371' left of centerline, up to 4696' MSL. Terrain beginning 1.8 NM from DER, 372' left of centerline, up to 4755' MSL. T-1 tower, Transmission tower, terrain, ant, pole, vehicle on road beginning 1.8 NM from DER, 124' right of centerline, up to 50' AGL/4791' MSL. Terrain, T-1 tower, Transmission tower beginning 1.8 NM from DER, 93' left of centerline, up to 4848' MSL. T-1 tower, Transmission tower beginning 2.1 NM from DER, 3501' left of centerline, up to 70' AGL/4879' MSL. Transmission tower, terrain, T-1 tower, tower, ant, pole beginning 2.1 NM from DER, 430' left of centerline, up to 4929' MSL. T-1 tower 2.1 NM from DER, 3019' left of centerline, 74' AGL/4929' MSL. T-1 tower, pole beginning 2.5 NM from DER, 1176' left of centerline, up to 34' AGL/4745' MSL. **Rwy 34**, fence beginning 1236' from DER, 723' left of centerline, up to 2' AGL/4380' MSL. Vehicle on road beginning 1609' from DER, 419' left of centerline, up to 4393' MSL. Vehicle on road 1610' from DER, 716' left of centerline, 4394' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## GLASGOW, MT

WOKAL FIELD/GLASGOW INTL (GGW)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 11349 (FAA)

NOTE: **Rwy 30**, terrain 6' from DER, 500' right of centerline 2291' MSL.

## GLENDEIVE, MT

DAWSON COMMUNITY (GDV)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 11237 (FAA)

NOTE: **Rwy 12**, light support structure beginning 8' from DER, left and right of centerline, up to 15' AGL/2456' MSL. Vehicle on road 514' from DER, 555' left of centerline, 56' AGL/2468' MSL. Windsock 6' from DER, 301' left of centerline, 29' AGL/2464' MSL.

**Rwy 20**, vehicle on road beginning 367' from DER, left and right of centerline, up to 36' AGL/2471' MSL.

**Rwy 30**, trees beginning 311' from DER, 511' left of centerline, up to 10' AGL/2487' MSL. Light support structures beginning 8' from DER, left and right of centerline, up to 9' AGL/2460' MSL. Fence beginning 193' from DER, left and right of centerline, up to 34' AGL/2468' MSL. Sign 27' from DER, 200' left of centerline, 9' AGL/2460' MSL. Vehicle on road beginning 298' from DER, left and right of centerline, up to 26' AGL/2477' MSL. Vehicle on road beginning 427' from DER, 145' left of centerline, up to 26' AGL/2477' MSL. Post 428' from DER, 241' left of centerline, 23' AGL/2474' MSL.

## GOODING, ID

GOODING MUNI (GNG)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 08269 (FAA)

DEPARTURE PROCEDURE: **Rwy 7**, climb heading 068° to 5000 before turning left. **Rwy 25**, climb heading 233° to 5600 before turning right.

NOTE: **Rwy 7**, rising terrain 59' from DER, 479' right of centerline, up to 3754' MSL. Fence line 653' from DER, 332' right of centerline, 12' AGL up to 3751' MSL. Bushes starting 877' from DER, 420' right of centerline, 20' AGL up to 3795' MSL. **Rwy 25**, vehicle on road, 91' from DER, 257' left of centerline, up to 10' AGL/3678' MSL.

## GRANGEVILLE, ID

IDAHO COUNTY (GIC)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 16315 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, NA - Obstacles.  
DEPARTURE PROCEDURE: **Rwy 26**, Use MELLR DEPARTURE.

## GRANTS PASS, OR

GRANTS PASS (358)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 12208 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, NA - terrain. **Rwy 31**, std. w/min. climb of 466' per NM to 4400.

DEPARTURE PROCEDURE: **Rwy 31**, climb heading 320° and RBG R-169 to RBG VOR/DME before proceeding on course.

NOTE: **Rwy 31**, trees beginning 188' from DER, 281' left of centerline, up to 100' AGL/1194' MSL. Trees beginning 93' from DER, 283' right of centerline, up to 100' AGL/1194' MSL.

## GRAY AAF (KGRF),

JOINT BASE

LEWIS MCCORD, WA

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3, 14009

**Rwy 15**, Standard

**Rwy 33**, 3000-1\*

\* Or standard with a minimum climb of 469/NM to 600.

(Not for Civil Use).

DEPARTURE PROCEDURE: **Rwy 15**, Climbing left turn direct GRF NDB, thence.... **Rwy 33**, Climb direct GRF NDB, thence....

.... Aircraft departing 330° CW 065° and 134° CW 265° bearing from GRF NDB climb on course. All others continue climb in GRF NDB holding pattern (Hold NW, RT, 151° inbound) to cross GRF NDB at or above: 065° CW 134° bearing from GRF NDB, 8700; 265° CW 330° bearing from GRF NDB, 1500(ADF REQUIRED).

TAKE-OFF OBSTACLES: **Rwy 15**, Trees 100' AGL/439' MSL, 1823' from DER, 750' right of centerline. **Rwy 33**, Trees 100' AGL/479' MSL, 2482' from DER, 1163' left of centerline.

## GREAT FALLS, MT

GREAT FALLS INTL (GTF)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 07018 (FAA)

NOTE: **Rwy 7**, obstruction light on lighted wind sock 237' from DER, 519' left of centerline, 34' AGL/3694' MSL. Obstruction light on building 2226' from DER, 614' left of centerline, 78' AGL/3738' MSL. Building on 681' from DER, 583' right of centerline, 48' AGL/3688' MSL.

Multiple light poles beginning 1359' from DER, 440' right of centerline, up to 90' AGL/3746' MSL. **Rwy 21**, pole 1544' from DER, 791' left of centerline, 45' AGL/3725' MSL. **Rwy 25**, windmill 2.3 NM from DER, 4197' right of centerline, 338' AGL/4003' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## GREYBULL, WY

SOUTH BIG HORN COUNTY (GEY)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 13066 (FAA)

TAKEOFF MINIMUMS: **Rwys 7, 16, 25**, std. w/min.  
climb of 310' per NM to 5700 or 4600-3 for climb in  
visual conditions. **Rwy 34**, std. w/min. climb of 465'  
per NM to 5700 or 4600-3 for climb in visual  
conditions.

DEPARTURE PROCEDURE: **Rwys 7, 16, 25**, climb to  
4800 then climbing right turn thence ...

**Rwy 34**, climbing left turn thence ...

... Proceed direct Gey NDB. Climb in Gey holding  
pattern (hold SE, left turns, 318° inbound) cross Gey  
NDB at or above 8000 before proceeding on course.  
For climb in visual conditions: cross South Big Horn  
County airport at or above 8400' MSL before  
proceeding on course. When executing VCOA, notify  
ATC prior to departure.

NOTE: **Rwy 7**, trees at DER, 313' left of centerline, 21'  
AGL/3921' MSL. Road beginning 8' from DER, 473' left  
of centerline, up to 15' AGL/3932' MSL. Pole, buildings  
and fences beginning 74' from DER, 408' right of  
centerline, up to 50' AGL/3950' MSL. Aircraft 337' from  
DER, 540' left of centerline, 40' AGL/3940' MSL. **Rwy 16**,  
light support structures beginning 9' from DER, 55'  
left and right of centerline, up to 2' AGL/3917' MSL.

**Rwy 25**, terrain, bushes and trees beginning 172' from  
DER, 225' right of centerline up to 55' AGL/4102' MSL.  
Road beginning 6937' from DER, 1749' right of  
centerline, up to 14' AGL/4138' MSL. Fence beginning  
4' from DER, 435' left of centerline up to 5' AGL/3954'  
MSL. Windsock 595' from DER, 301' right of  
centerline, 9' AGL/3959' MSL. Telephone line 523'  
from DER, 622' left of centerline, 19' AGL/3969' MSL.  
**Rwy 34**, light support structures beginning 9' from  
DER, 54' right and left of centerline, up to 2' AGL/  
3906' MSL.

## GUERNSEY, WY

CAMP GUERNSEY (GUR)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 11097 (FAA)

TAKEOFF MINIMUMS: **Rwy 14**, 300-2½ or std. w/min.  
climb of 363' per NM to 4800. **Rwy 32**, std. w/min.  
climb of 360' per NM to 6500 or 2400-3 for climb in  
visual conditions.

DEPARTURE PROCEDURE: **Rwy 14**, climb heading  
141° to 5800 before proceeding on course. **Rwy 32**,  
climbing right turn heading 070° to 6500 before  
proceeding on course or for climb in visual conditions  
cross Camp Guernsey Airport at or above 6700 before  
proceeding on course.

NOTE: **Rwy 14**, vehicles on road 42' from DER, 209'  
right of centerline, up to 15' AGL/4334' MSL. Trees  
beginning 731' from DER, 336' right of centerline, up to  
45' AGL/4564' MSL. **Rwy 32**, trees beginning 181'  
from DER, 155' left of centerline, up to 45' AGL/4424'  
MSL. Trees beginning 999' from DER, 192' right of  
centerline, up to 45' AGL/4504' MSL.

## HAILEY, ID

FRIEDMAN MEMORIAL (SUN)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 16203 (FAA)

TAKEOFF MINIMUMS: **Rwy 31**, NA - obstacles. **Rwy 13**,  
900-2½ w/min. climb of 390' per NM to 7000, or std. w/  
min. climb of 605' per NM to 7000, or 3600-3 for climb in  
visual conditions.

DEPARTURE PROCEDURE: **Rwy 13**, climb heading 147°  
and on 162° course to HLE NDB.

VCOA: Obtain ATC approval for climb in visual conditions  
when requesting IFR clearance. Climb in visual conditions  
to cross Friedman Memorial airport at or above 8800 on  
155° course to HLE NDB.

NOTE: **Rwy 13**, fence abeam DER, 398' right of centerline,  
6' AGL/5262' MSL. Bushes beginning 24' from DER, 447'  
left of centerline, up to 4' AGL/5275' MSL. Vehicle on road  
200' from DER, 373' left of centerline, up to 17' AGL/5279'  
MSL. Vehicle on road, multiple poles and trees beginning  
234' from DER, 373' left of centerline, up to 5309' MSL.  
Tree 765' from DER, 698' right of centerline, 87'  
AGL/5341' MSL. Trees beginning 1006' from DER, 595'  
right of centerline, up to 100' AGL/5349' MSL. Trees  
beginning 1233' from DER, 459' right of centerline, up to  
93' AGL/5344' MSL. Trees beginning 1408' from DER,  
424' right of centerline, up to 5325' MSL. Trees beginning  
1656' from DER, 116' right of centerline, up to 88'  
AGL/5339' MSL. Transmission tower 2079' from DER,  
509' left of centerline, 66' AGL/5317' MSL. Trees 2104'  
from DER, 77' left of centerline, up to 75' AGL/5318' MSL.  
Trees 2351' from DER, 2' right of centerline, up to 91'  
AGL/5334' MSL.

## HAMILTON, MT

RAVALLI COUNTY (6S5)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 04162 (FAA)  
DEPARTURE PROCEDURE: Use HAMEY RNAV  
DEPARTURE.

## HAVRE, MT

HAVRE CITY-COUNTY (HVR)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 09351 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, 300-1¼ or std. w/min.  
climb of 217' per NM to 3300.

DEPARTURE PROCEDURE: **Rwy 3**, climb heading 032°  
to 3300 then climbing left turn to 8000 direct HVR VOR/  
DME thence...**Rwy 8**, climb heading 077° to 3300 then  
climbing left turn to 8000 via HVR R-025 to HVR VOR/  
DME thence...**Rwy 21**, climb heading 212° to 3300 then  
climbing right turn to 8000 direct HVR VOR/DME  
thence...**Rwy 26**, climb heading 257° to 3300 then  
climbing right turn to 8000 direct HVR VOR/DME thence...  
...continue climb in hold in HVR VOR/DME holding  
pattern (hold west, right turns, 094° inbound) to cross HVR  
VOR/DME at or above 8000 before proceeding on course.

NOTE: **Rwy 3**, pole 2682' from DER, 1044' left of  
centerline, 21' AGL/2680' MSL. **Rwy 8**, obstruction light  
on windsock 59' from DER, 224' left of centerline, 9'  
AGL/2588' MSL. Tree 1192' from DER, 752' left of  
centerline, 25' AGL/2610' MSL. Tank 1.3 NM from DER,  
2287' left of centerline, 57' AGL/2797' MSL. **Rwy 26**, light  
on windsock, 50' from DER, 225' right of centerline, 9'  
AGL/2589' MSL. Trees beginning 1617' from DER, 650'  
right of centerline, 25' AGL/2659' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## HELENA, MT

HELENA RGNL (HLN)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 10 11181 (FAA)

DEPARTURE PROCEDURE: use DIVIDE

DEPARTURE.

## HERMISTON, OR

HERMISTON MUNI (HRI)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 16315 (FAA)

NOTE: **Rwy 5**, tower 379' left of DER, 50' AGL/698'MSL. **Rwy 23**, light pole 456' left of DER, 44' AGL/684'

MSL.

## HOQUIAM, WA

BOWERMAN (HQM)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 93091 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, 600-2 or std. with a min. climb of 260' per NM to 600.DEPARTURE PROCEDURE: **Rwy 6**, climbing right turn heading 110°; **Rwy 24**, climb runway heading. **All aircraft** climb to 600 continue climb on course.

## HULETT, WY

HULETT MUNI (W43)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 07354 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, std. w/ min. climb of 450' per NM to 6300, or 500-2½ w/ min. climb of 295' per NM to 7700, or 2200-3 for climb in visual conditions.DEPARTURE PROCEDURE: **Rwy 13**, climb to 7700 via heading 132° before proceeding on course, or climb in visual conditions: cross Hulett Muni Airport at or above 6300 before proceeding on course. **Rwy 31**, climbing right turn on a heading between 090° clockwise to 115° from DER to 7700 before proceeding on course.NOTE: **Rwy 13**, road 398' from DER, 37' left of centerline, 15' AGL/4296' MSL, truck on road 1126' from DER, 346' right of centerline, 15' AGL/4334' MSL, trees beginning 4945' from DER, across centerline, up to 100' AGL/4657' MSL. **Rwy 31**, terrain 104' from DER, 420' left of centerline, 4200' MSL, terrain 344' from DER, 233' left of centerline, 4207' MSL.

## IDAHO FALLS, ID

IDAHO FALLS RGNL (IDA)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 09351 (FAA)

DEPARTURE PROCEDURE: **All aircraft** departing IDA R -160 CW R-040 climb on course. **All others** climb direct IDA VOR/DME. Continue climb in IDA holding pattern (South, left turns, 019° inbound) to cross IDA VOR/DME at or above 7500 before proceeding on course.NOTE: **Rwy 2**, pole 1039' from DER, 758' left of centerline, 42' AGL/4762' MSL. **Rwy 17**, trees, flagpole, building, light and vent on buildings, and vehicle on road beginning 29' from DER, 10' right of centerline, up to 84' AGL/4820' MSL. Trees and vent on building beginning 569' from DER, 22' left of centerline, up to 35' AGL/4760' MSL. Trees, antenna, and light poles beginning 1853' from DER, 26' right of centerline, up to 121' AGL/4851' MSL. **Rwy 35**, trees and railroad beginning 410' from DER, 503' right of centerline, up to 49' AGL/4769' MSL. Tree 1034' from DER, 715' left of centerline, 42' AGL/4762' MSL.

## JACKSON, WY

JACKSON HOLE (JAC)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 6 04162 (FAA)

DEPARTURE PROCEDURE: **Rwy 1**, use GEYSER DEPARTURE. **Rwy 19**, use TETON DEPARTURE.

## JEROME, ID

JEROME COUNTY (JER)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 09295 (FAA)

TAKEOFF MINIMUMS: **Rwy 9**, 500-1½ or std. w/ min. climb of 435' per NM to 4700.DEPARTURE PROCEDURE: **Rwy 9**, climb heading 086° to 5300 before proceeding on course. **Rwy 27**, climb heading 266° to 4800 before proceeding on course.NOTE: **Rwy 9**, bush 140' from DER, 500' left of centerline, 16' AGL/4076' MSL. Poles starting 1432' from DER, 32' left of centerline, up to 47' AGL/4169' MSL. Sign 1473' from DER, 547' left of centerline, 49' AGL/4119' MSL. Obstruction light on building 1510' from DER, 6' left of centerline, 43' AGL/4103' MSL. Trees starting 1651' from DER, 100' left of centerline, up to 53' AGL/4137' MSL. Building 2186' from DER, 173' left of centerline, 29' AGL/4119' MSL. Rising terrain starting 2549' from DER, 560' left of centerline, up to 4219' MSL. AG equip 4752' from DER, 517' left of centerline, 26' AGL/4175' MSL. Poles starting 600' from DER, 254' right of centerline, up to 48' AGL/4173' MSL. **Rwy 27**, fence starting 18' from DER, 440' left of centerline, up to 9' AGL/3969' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## JOHN DAY, OR

GRANT COUNTY RGNL/OGILVIE FIELD  
(GCD)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 16259 (FAA)

TAKEOFF MINIMUMS: **Rwys 9, 17, 35**, NA, Terrain.  
DEPARTURE PROCEDURE: **Rwy 27**, climbing left turn to  
12000 heading 270° and IMB R-100 to IMB VOR/DME,  
climb in IMB VOR/DME holding pattern (E, right turns,  
280° inbound) to cross IMB VOR/DME at or above MEA  
for route of flight.

NOTE: **Rwy 27**, fence beginning 195' from DER, 50' right  
of centerline, up to 16' AGL/3665' MSL. Trees beginning  
229' from DER, 261' right of centerline, up to 26'  
AGL/3662' MSL. Bush 389' from DER, 438' right of  
centerline, 20' AGL/3659' MSL.

## KALISPELL, MT

GLACIER PARK INTL (GPI)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 06215 (FAA)

DEPARTURE PROCEDURE: Use SKOTT DEPARTURE.

## KELSO, WA

SOUTHWEST WASHINGTON RGNL (KLS)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 10098 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, NA, terrain. **Rwy 30**, std.  
with a min. climb of 370' per NM to 1900 or 1900-2½ for  
climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 30**, climb heading  
303° to 1900 then climbing right turn to 3900 direct LSO  
NDB. Continue climb in LSO NDB holding pattern (North,  
right turns, 175° inbound) to cross LSO NDB at or above  
3900, then via BTG R-310 to BTG VORTAC. For climb in  
visual conditions: cross Southwest Washington Rgnl at  
or above 1800, then via BTG R-309 to BTG VORTAC.

NOTE: **Rwy 30**, light pole 22' from DER, 301' right of  
centerline, 30' AGL/49' MSL. Windsock 235' from DER,  
348' left of centerline, 30' AGL/49' MSL. Rotating beacon  
502' from DER, 425' left of centerline, 50' AGL/70' MSL.  
Multiple trees beginning 213' from DER, 530' right to 747'  
left of centerline, up to 136' AGL/155' MSL. Pole 964'  
from DER, 44' right of centerline, 30' AGL/50' MSL.

## KEMMERER, WY

KEMMERER MUNI (EMM)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 15008 (FAA)

TAKEOFF MINIMUMS: **Rwys 4, 10, 22, 28**, NA - Rwy  
surfaces.

DEPARTURE PROCEDURE: **Rwy 16**, climb heading  
163° to 9100 then climbing left turn to intercept FBR  
VOR/DME R-330 to FBR VOR/DME before proceeding  
on course. **Rwy 34**, climb heading 343° to 8200 then  
climbing right turn on heading 135° and FBR VOR/DME  
R-345 to FBR VOR/DME before proceeding on course.

NOTE: **Rwy 16**, fence 17' from DER, 320' left of  
centerline, 8' AGL/7279' MSL. Fence 150' from DER,  
250' right of centerline, 9' AGL/7286' MSL. **Rwy 34**,  
fence 73' from DER, 253' left of centerline, 7' AGL/7295'  
MSL.

## KLAMATH FALLS, OR

CRATER LAKE-KLAMATH RGNL (LMT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5A 16147 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, NA-Terrain. **Rwy 14**, std.  
w/ min. climb of 300' per NM to 7100, or 3100-3 for climb  
in visual conditions. **Rwy 25**, std. w/ min. climb of 400'  
per NM to 7100, or 3100-3 for climb in visual conditions.

**Rwy 32**, std. w/ min. climb of 350' per NM to 7100, or  
3100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 14**, climb on heading  
141° to 6500 then climbing right turn to intercept LMT R-  
181 to LMT VORTAC, thence... **Rwy 25**, climb on  
heading 253° to 6000 then climbing right turn to intercept  
LMT R-306 to LMT VORTAC, thence... **Rwy 32**, climb  
on heading 321° to 6700 then climbing left turn to  
intercept LMT R-277 to LMT VORTAC, thence...

... continue climb in LMT VORTAC holding pattern (hold  
W, RT, 070° inbound) to cross LMT VORTAC at or above  
MEA for route of flight before proceeding on course.

VCOA: **Rwy 14, 25, 32**, obtain ATC approval for climb in  
visual conditions when requesting IFR clearance. Climb  
in visual conditions to cross Crater Lake-Klamath  
regional airport at or above 7000 then climb direct LMT  
VORTAC, continue climb in LMT VORTAC holding  
pattern (hold W, right turns, 070° inbound) to cross LMT  
VORTAC at or above MEA for route of flight before  
proceeding on course.

NOTE: **Rwy 14**, tree 3108' from DER, 1240' left of  
centerline, 88' AGL/4183' MSL. **Rwy 25**, vehicle on road  
and railroad beginning 254' from DER, 127' left of  
centerline, up to 23' AGL/4113' MSL. Tree 597' from  
DER, 419' left of centerline, 18' AGL/4122' MSL. Tree  
and terrain beginning 8254' from DER, 2238' left of  
centerline, up to 100' AGL/4499' MSL. **Rwy 32**, trees  
beginning 2625' from DER, 742' left of centerline, up to  
100' AGL/4191' MSL.

## LA GRANDE, OR

LA GRANDE/UNION COUNTY (LGD)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 00195 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, Cat A/B 2900-3 or std.

with a min. climb of 350' per NM to 6100. Cat C/D  
4500-3 or std. with a min. climb of 500' per NM to 7800.

**Rwy 30**, Cat A/B 2900-3 or std. with a min. climb of 350'  
per NM to 6100. Cat C/D 3600-3 or std. with a min. climb  
of 450' per NM to 6800. **Rwy 34**, 2900-3 or std. with a  
min. climb of 350' per NM to 6100. **Rwy 16**, 2000-3 or  
std. with a min. climb of 500' per NM to 5000.

DEPARTURE PROCEDURE: **Rwys 12,16**, climbing left  
turn direct LGD NDB, thence; **Rwys 30,34**, climbing right  
turn heading 010°, thence; **all aircraft** climb to 7000 via  
the 339° bearing from LGD NDB, then climbing right turn  
direct LGD NDB.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## LAKEVIEW, OR

### LAKE COUNTY (LKV)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 13234 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, std. w/min. climb of 210' per NM to 6900, or 2600-3 for climb in visual conditions. **Rwy 35**, std. w/min. climb of 270' per NM to 7600, or 2600-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 17**, climbing right turn heading 310° to intercept LKV VORTAC R-158 to LKV VORTAC. Do not exceed 240 KIAS until established on the LKV VORTAC R-158, or for climb in visual conditions, cross Lake County airport at or above 7200, then proceed on LKV VORTAC R-147 to LKV VORTAC. When executing VCOA, notify ATC prior to departure, thence.... **Rwy 35**, climb heading 351° to intercept LKV VORTAC R-130 to LKV VORTAC, or for climb in visual conditions, cross Lake County airport at or above 7200, then proceed on LKV VORTAC R-147 to LKV VORTAC. When executing VCOA, notify ATC prior to departure, thence....  
... Continue climb in holding pattern (hold NW, right turns, 148° inbound) to cross LKV VORTAC at or above 9700.

NOTE: **Rwy 17**, runway end identifier lights beginning 35' from DER, left and right of centerline, up to 2' AGL/4726' MSL.

## LARAMIE, WY

### LARAMIE RGNL (LAR)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 12096 (FAA)

DEPARTURE PROCEDURE: **Rwys 3, 12, 21, 30**, use LARAMIE DEPARTURE.

## LAUREL, MT

### LAUREL MUNI (6S8)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 13346 (FAA)

TAKEOFF MINIMUMS: **Rwys 9, 14, 27, 32**, NA.  
DEPARTURE PROCEDURE: **Rwy 4**, climbing left turn direct BIL VORTAC, thence... **Rwy 22**, climbing left turn direct BIL VORTAC, thence...

...if required, continue climb in BIL VORTAC holding pattern (hold W, right turns, 072° inbound) to cross BIL VORTAC at or above MEA/MCA for route of flight.

NOTE: **Rwy 4**, ground beginning 47' from DER, 397' left of centerline, up to 3480' MSL. Multiple trees beginning 309' from DER, 260' right of centerline, up to 68' AGL/3522' MSL. Fence beginning 64' from DER, 281' left of centerline, up to 15' AGL/3469' MSL. **Rwy 22**, ground beginning 34' from DER, 264' right of centerline, up to 3498' MSL.

## LEWISTON, ID

### LEWISTON-NEZ PERCE COUNTY (LWS)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT. 3A 10182 (FAA)

DEPARTURE PROCEDURE: **Rwys 8, 12, 26, 30**, turn left direct MQG VOR/DME. Continue climb in holding pattern (W, left turns, 066° inbound) to cross MQG VOR/DME at or above 3600.

## LEWISTOWN, MT

### LEWISTOWN MUNI (LWT)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3B 16091 (FAA)

TAKEOFF MINIMUMS: **Rwy 3**, 1800-2 or std. with a min. climb of 280' per NM to 6900. **Rwys 8, 13, 900-2** or std. with a min. climb of 220' per NM to 6200.

DEPARTURE PROCEDURE: **Rwys 3, 31** turn left. **Rwys 8, 13, 21**, turn right. **Rwy 26**, climb runway heading. **All aircraft** climb direct LWT VORTAC. Continue climb in holding pattern (W, right turns, 094° inbound) to MEA for route of flight.

NOTE: **Rwy 21**, grain bin 1530' from DER, 294' left of centerline, 22' AGL/4210' MSL. Elevator 1664' from DER, 330' left of centerline, 26' AGL/4214' MSL. **Rwy 26**, terrain beginning 105' from DER, 404' left of centerline, 4133' MSL. **Rwy 31**, tree 457' from DER, 381' left of centerline, 35' AGL/4156' MSL. Tree 467' from DER, 340' left of centerline, 29' AGL/4150' MSL. Movie screen ltd 1114' from DER, 593' right of centerline, 48' AGL/4161' MSL.

## LEXINGTON, OR

### LEXINGTON (9S9)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 05020 (FAA)

TAKEOFF MINIMUMS: **Rwy 26**, std. with min. climb of 280' per NM to 7600, or 1600-2 ½ for climb in visual conditions. **Rwy 8**, std. with min. climb of 490' per NM to 4200, or 1600 -2 ½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 8, 26**, for climb in visual conditions: cross Lexington Airport at or above 3600.

NOTES: **Rwy 8**, trees 1.42 NM from DER, 2386' left of centerline, 100' AGL/2159' MSL. Trees 1.48 NM from DER, 2755' left of centerline, 100' AGL/2179' MSL.

## LIBBY, MT

### LIBBY (S59)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 00223 (FAA)

TAKEOFF MINIMUMS: **Rwy 33**, not authorized. **Rwy 15**, use EYESE RNAV DEPARTURE.

## LIVINGSTON, MT

### MISSION FIELD (LVM)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 09071 (FAA)

TAKEOFF MINIMUMS: **Rwys 8, 13, 26, 31**, NA-Environmental.

DEPARTURE PROCEDURE: **Rwys 4, 22**, Use LIVINGSTON DEPARTURE.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## MADRAS, OR

### MADRAS MUNI (S33)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 10154 (FAA)

TAKEOFF MINIMUMS: **Rwys 16, 22**, std. with a min. climb of 298' per NM to 3900 or 1300-3 for climb in visual conditions

DEPARTURE PROCEDURE: **Rwys 4, 34**, climbing left turn heading 210° to intercept DSD R-348 to DSD VORTAC, thence... **Rwy 16**, climbing right turn heading 210° to intercept DSD R-348 to DSD VORTAC, thence... , or for climb in visual conditions: cross Madras Muni airport at or above 3600 MSL, then proceed on DSD R-356 to DSD VORTAC, thence... **Rwy 22**, climb heading 216° to intercept DSD R-348 to DSD VORTAC, thence... , or for climb in visual conditions: cross Madras Muni airport at or above 3600 MSL, then proceed on DSD R-356 to DSD VORTAC, thence...

...continue climb-in-hold (hold North, right turns, 168° inbound) to MEA/MCA for route of flight.

NOTES: **Rwy 4**, vehicle on road beginning 7' from DER, 268' left of centerline, up to 15' AGL/2444' MSL. Airplane on tarmac 60' from DER, 252' right of centerline, 40' AGL/2469' MSL. Bush 383' from DER, 483' right of centerline, 19' AGL/2439' MSL. Vehicle on road 742' from DER, 112' right of centerline, up to 15' AGL/2447' MSL. **Rwy 16**, bushes beginning 196' from DER, 151' left of centerline, up to 14' AGL/2444' MSL. Airplane on tarmac 1357' from DER, 280' right of centerline 40' AGL/2479' MSL. **Rwy 34**, bushes beginning 92' from DER, 116' right of centerline, up to 17' AGL/2437' MSL. Airplane on tarmac 1396' from DER, 375' left of centerline, 40' AGL/2469' MSL.

## MALTA, MT

### MALTA (M75)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 11349 (FAA)

DEPARTURE PROCEDURE: **Rwy 26**, climb heading 257° to 3000 before turning right.

NOTE: **Rwy 8**, wind sock 37' from DER, 433' left of centerline, 12' AGL/2273' MSL. **Rwy 26**, vehicle on roadway 348' from DER, 507' left of centerline, 15' AGL/2265' MSL.

## MC CALL, ID

### MC CALL MUNI (MYL)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 11293 (FAA)

TAKEOFF MINIMUMS: **Rwy 34**, NA-Obstacles. DEPARTURE PROCEDURE: **Rwy 16**, use PEPUC (RNAV) DEPARTURE.

## MC CHORD FIELD (KTCM)

### TACOMA, WA

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

10154

DEPARTURE PROCEDURE: **Rwy 16**, Track heading 160°, turn left to intercept SEA VORTAC R-168 (V495) to SEA 168/37.1 DME (ALDER). Cross ALDER at or above 4000. After ALDER, maintain MEA/MOCA for route of flight. **Rwy 34**, Track heading 340°, then turn right to intercept SEA VORTAC R-168 (V495) to SEA R-168/37.1 DME (ALDER). Cross ALDER at or above 4000. Maintain MEA/MOCA for route of flight.

TAKEOFF OBSTACLES: **Rwy 16**, Grove of trees 143' AGL/454' MSL, 4892' from DER, 1353' left of centerline. Grove of trees 102' AGL/419' MSL, 2395' from DER, 1028' right of centerline. Trees 136' AGL/447' MSL, 2867' from DER, 1261' left of centerline. Trees 120' AGL/430' MSL, 2594' from DER, 1113' left of centerline. Trees 85' AGL/394' MSL, 2310' from DER, 957' left of centerline. Trees 83' AGL/392' MSL, 2006' from DER, 959' left of centerline. Trees 87' AGL/389' MSL, 1758' from DER, 971' left of centerline. **Rwy 34**, Tree 106' AGL/348' MSL, 2307' from DER, 1038' left of centerline. Tree 121' AGL/370' MSL, 3190' from DER, 526' right of centerline. Aircraft 65' AGL/317' MSL, 186' from DER, 407' left of centerline. Tree 64' AGL/343' MSL, 2260' from DER, 1036' left of centerline. Building 40' AGL/321' MSL, 1668' from DER, 810' left of centerline.

## MC MINNVILLE, OR

### MC MINNVILLE MUNI (MMV)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 08325 (FAA)

TAKEOFF MINIMUMS: **Rwy 4**, 400-1½ or std. w/ min. climb of 238' per NM to 400, or alternatively, with standard TAKEOFF minimums and normal 200'/NM climb gradient, TAKEOFF must occur no later than 2000' prior to DER. **Rwy 17**, std. w/ min. climb of 300' per NM to 1200 or 1800-2½ for climb in visual conditions. **Rwy 22**, std. w/ min. climb of 303' per NM to 1400 or 1800-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 4**, climb heading 038° to intercept UBG R-170 to UBG VOR/DME, thence...

**Rwy 17,22**, climbing left turn to intercept UBG R-183 to UBG VOR/DME, thence... or for climb in visual conditions: cross Mc Minnville Muni at or above 1800 before proceeding on course. **Rwy 35**, climb heading 347° to intercept UBG R-221 to UBG VOR/DME, thence...

... continue climb in UBG VOR/DME holding pattern (S, left turns, 003° inbound) until reaching MEA for route of flight.

NOTE: **Rwy 4**, multiple trees beginning 2040' from DER, 353' left and 209' right of centerline, up to 100' AGL/339 feet MSL. **Rwy 17**, tree 1719' from DER, 456' right of centerline, 100' AGL/231' MSL. Tree 1760' from DER, 627' left of centerline, 100' AGL/257' MSL. **Rwy 22**, multiple trees beginning 282' from DER, 120' left and 144' right of centerline, up to 100' AGL/246' MSL. Tree 4047' from DER, 1319' left of centerline, 100' AGL/284' MSL. **Rwy 35**, multiple trees beginning 1551' from DER, 229' right of centerline, up to 100' AGL/277' MSL.

#### DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 15064 (FAA)

**Rwys 4,17,22,35**, heading as assigned by ATC; requires minimum climb of 350' per NM to 4300.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## MEDFORD, OR

ROGUE VALLEY INTL-MEDFORD (MFR)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 10A 16119 (FAA)

TAKEOFF MINIMUMS: **Rwy 14**, std. w/ min. climb of 435' per NM to 4500, or 2900-3 for climb in visual conditions. **Rwy 32**, std. w/ min. climb of 260' per NM to 6800, or 2900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 14**, climbing right turn direct OED VORTAC, or for climb in visual conditions, cross Rogue Valley Intl-Medford airport at or above 4100 before proceeding direct OED VORTAC. When executing VCOA, notify ATC prior to departure. Thence ...

**Rwy 32**, climbing right turn direct OED VORTAC, or for climb in visual conditions, cross Rogue Valley Intl-Medford airport at or above 4100 before proceeding direct OED VORTAC. When executing VCOA, notify ATC prior to departure. Thence ...

...all aircraft climb in OED VORTAC holding pattern (hold NW, right turns, 153° inbound) to cross OED VORTAC at or above MEA or MCA for direction of flight.

NOTE: **Rwy 14**, building 1585' from DER, 846' left of centerline, 40' AGL/1385' MSL.

## MOSES LAKE, WA

GRANT COUNTY INTL (MWH)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG-A 12264 (FAA)

NOTE: **Rwy 14R**, antenna 3902' from DER, 828' right of centerline, 98' AGL/1268' MSL. **Rwy 18**, pole 405' from DER, 334' right of centerline, 30' AGL/1209' MSL. Windsock 496' from DER, 371' left of centerline, 16' AGL/1195' MSL. **Rwy 32L**, antenna 660' from DER, 401' left of centerline, 11' AGL/1191' MSL. Pole 1317' from DER, 369' left of centerline, 22' AGL/1202' MSL.

## MOUNTAIN HOME AFB (KMUO)

MOUNTAIN HOME, ID  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 12096

**Rwy 12, 30, 6700-3\***

\* Or standard with minimum climb of 270/NM to 9100.

TAKEOFF OBSTACLES: **Rwy 12**, Terrain 0' AGL/3035' MSL, 824' from DER, 721' right of centerline. Terrain 0' AGL/3035' MSL, 848' from DER, 686' right of centerline. Terrain 0' AGL/3032' MSL, 378' from DER, 600' right of centerline. Road/Vehicle 15' AGL/3024' MSL, 1144' from DER, 793' right of centerline. Power pole 35' AGL/3049' MSL, 2911' from DER, 939' right of centerline. Tower 30' AGL/3030' MSL, 1064' from DER, 901' right of centerline. Tower 28' AGL/3037' MSL, 1168' from DER, 795' right of centerline. Tower 45' AGL/3049' MSL, 2148' from DER, 1479' left of centerline. **Rwy 30**, Terrain 0' AGL/2995' MSL, 16' from DER, 500' left of centerline. Terrain 0' AGL/2995' MSL, 81' from DER, 500' left of centerline. Terrain 0' AGL/2995' MSL, 296' from DER, 579' left of centerline. Terrain 0' AGL/2995' MSL, 427' from DER, 614' left of centerline. Terrain 0' AGL/2995' MSL, 448' from DER, 619' left of centerline. Terrain 0' AGL/2998' MSL, 253' from DER, 588' right of centerline. Terrain 0' AGL/3000' MSL, 378' from DER, 500' right of centerline. Terrain 0' AGL/3007' MSL, 570' from DER, 653' right of centerline. Terrain 0' AGL/3002' MSL, 737' from DER, 525' right of centerline. Road/Vehicle 35' AGL/3018' MSL, 949' from DER, 772' left of centerline.

## MOUNTAIN HOME, ID

MOUNTAIN HOME MUNI (U76)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4A 14093 (FAA)

TAKEOFF MINIMUMS: **Rwy 10**, 3500-2 or std. with a min. climb of 305' per NM to 7300. **Rwy 28**, 3500-2 or std. with a min. climb of 290' per NM to 7300.

DEPARTURE PROCEDURE: **Rwy 10**, climbing left turn direct STI NDB. **Rwy 28**, climbing right turn direct STI NDB. All aircraft departing STI NDB 084° CW 344° climb on course. All others climb in hold (hold E, left turns, 275° inbound) to cross STI NDB at or above 7300.

NOTE: **Rwy 10**, transmission line towers beginning 1307' from DER, 125' left of centerline, up to 52' AGL/3198' MSL. Vegetation 24' from DER, 282' left of centerline, 4' AGL/3160' MSL. Tower 3249' from DER, 890' right of centerline, 126' AGL/3273' MSL. Building 575' from DER, 602' right of centerline, 41' AGL/3197' MSL. **Rwy 28**, railroad 1038' from DER, 322' right of centerline, 23' AGL/3193' MSL.

## MILES CITY, MT

FRANK WILEY FIELD (MLS)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 16147 (FAA)

NOTE: **Rwy 4**, NAVAID 40' from DER, 115' right of centerline, 2628' MSL. NAVAID 40' from DER, 112' left of centerline, 2627' MSL. Fence 130' from DER, 400' left of centerline, 2629' MSL. **Rwy 22**, vehicle on road, beginning 0' from DER, 333' left of centerline, up to 2636' MSL. REIL 40' from DER, 90' right of centerline, 4' AGL/2627' MSL. REIL 40' from DER, 115' right of centerline, 3' AGL/2627' MSL. **Rwy 13**, vehicle on road, beginning 0' from DER, 322' left of centerline, up to 2636' MSL. REIL, 40' from DER, 90 and 115' right of centerline, up to 4' AGL/2627' MSL. REIL 40' from DER, 89' left of centerline, 2627' MSL. **Rwy 31**, vehicle on road, tree, post, beginning 4' from DER, 398' right of centerline, up to 2640' MSL. Vehicle on road, REIL, tree, beginning 15' from DER, 89' left of centerline, up to 2638' MSL. Tree, vehicle on road, beginning 71' from DER, 395' right of centerline, up to 2647' MSL.

## MISSOULA, MT

MISSOULA INTL (MSO)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 8 08213 (FAA)

TAKEOFF MINIMUMS: **Rwys 7,25**, NA-Obstacles.  
DEPARTURE PROCEDURE: **Rwys 11, 29**, use GRZLY DEPARTURE.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## NAMPA, ID

### NAMPA MUNI (MAN)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 97170 (FAA)

DEPARTURE PROCEDURE: **Rwy 11**, climbing right turn direct MPA NDB, continue climb in MPA holding pattern (NW, right turns, 145° inbound). Depart MPA NDB at or above 5500 before proceeding on course.  
**Rwy 29**, climb runway heading to 3700 then climbing right turn direct MPA NDB, continue climb in MPA holding pattern (NW, right turns, 145° inbound). Depart MPA NDB at or above 5500 before proceeding on course.

NOTE: **Rwy 11**, 70' AGL tree, 1225' from DER, 90' right of centerline.

## NEWCASTLE, WY

### MONDELL FIELD (ECS)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 4 14233 (FAA)

TAKEOFF MINIMUMS: **Rwy 32**, 200-1½ or std. w/min. climb of 265' per NM to 4500.

DEPARTURE PROCEDURE: **Rwy 14**, climb heading 136° and ECS VOR R-143, until reaching 5500, thence...

**Rwy 32**, climbing left turn direct ECS VOR, then on ECS VOR R-143 to 5500, thence...

...Climbing right turn to 7500 direct ECS VOR, continue climb-in-holding to 7500 (hold SE, left turns, 323° inbound) before proceeding on course.

NOTE: **Rwy 14**, obstruction light on antenna 1442' from DER, 880' left of centerline, 93' AGL/4244' MSL. Terrain 2826' from DER, 1242' right of centerline 4292' MSL. **Rwy 32**, ground beginning 59' from DER, 393' right of centerline up to 4182' MSL. Railroad 212' from DER, 284' right of centerline up to 23' AGL/4205' MSL. Fence 247' from DER, 314' right of centerline 12' AGL/4175' MSL. Multiple poles beginning 294' from DER 236' right of centerline up to 26' AGL/4203' MSL. Transmission line tower 294' from DER, 436' right of centerline 26' AGL/4203' MSL. Road beginning 426' from DER, 238' right of course up to 15' AGL/4194' MSL. Ground beginning 5148' from DER, 1085' right of centerline 4366' MSL. Bush 6286' from DER, 1440' right of centerline 11' AGL/4363' MSL. Road beginning 426' from DER, 238' right of centerline, up to 15' AGL/4195' MSL.

## NEWPORT, OR

### NEWPORT MUNI (ONP)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 16203 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, NA-Obstacles.

DEPARTURE PROCEDURE: **Rwy 16, 20,34**, use NEWPORT DEPARTURE.

## NORTH BEND, OR

### SOUTHWEST OREGON RGNL (OTH)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 6 15176 (FAA)

TAKEOFF MINIMUMS: **Rwy 4**, 900-3 w/min. climb of 300' per NM to 1500 or std. w/min. climb of 475' per NM to 1200 or 1600-2½ for climb in visual conditions. **Rwy 13**, 400 -2½ w/min. climb of 250' per NM to 2500 or 1600-2½ for climb in visual conditions. **Rwy 31**, 300-1¼ or std. w/min. climb of 280' per NM to 300.

DEPARTURE PROCEDURE: **Rwy 4**, Climb heading 046° to intercept OTH VOR/DME R-340 northwest bound to 1800 before proceeding on course. **Rwy 13**, climb heading 135° to 1300 before proceeding on course. **Rwy 22**, Climb heading 226° to 700 before proceeding on course. **Rwy 31**, Climb heading 315° to 800 before proceeding on course.

VCOA: **Rwy 4, 13**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Southwest Oregon Rgnl airport at or above 1500 before proceeding on course.

NOTE: **Rwy 4**, ol on ant 383' from DER, 207' right of centerline, 22' AGL/35' MSL. Ship 1000' from DER, on centerline, up to 140' MSL. Ol on bridge 1886' from DER, 629' left of centerline, 89' AGL/93' MSL. transmission towers beginning 4259' from DER, 677' right of centerline, up to 215' AGL/228' MSL. Bridge beginning 4741' from DER, 580' right of centerline, up to 265' AGL/268' MSL. Trees beginning 1.2 NM from DER, 34' left of centerline, up to 150' AGL/660' MSL. Trees beginning 1.6 NM from DER, 897' right of centerline, up to 147' AGL/767' MSL. Buildings beginning 1.6 NM from DER, 776' left of centerline, up to 73' AGL/393' MSL. **Rwy 13**, bushes beginning 38' from DER, 175' left of centerline, up to 18' AGL/33' MSL. Vehicle on road, 193' from DER, 237' left of centerline, up to 15' AGL/30' MSL. Bush 193' from DER, 145' right of centerline, up to 20' AGL/37' MSL. Trees beginning 346' from DER, 49' right of centerline, up to 62' AGL/76' MSL. Buildings beginning 504' from DER, 211' right of centerline, up to 65' AGL/106' MSL. Tree 628' from DER, 52' left of centerline, 24' AGL/38' MSL. Poles beginning 880' from DER, 14' right of centerline, up to 77' AGL/114' MSL. Trees beginning 2537' from DER, left and right of centerline, up to 150' AGL/349' MSL. Spire 3467' from DER, 1122' left of centerline, 55' AGL/243' MSL. Poles beginning 1 NM from DER, left and right of centerline, up to 140' AGL/247' MSL. **Rwy 22**, ship 4050' from DER, on centerline, up to 140' MSL. **Rwy 31**, ship 1000' from DER, on centerline, up to 140' MSL. Trees beginning 5037' from DER, 15' left of centerline, up to 82' AGL/232' MSL. Trees beginning 5985' from DER, 1419' right of centerline, up to 108' AGL/188' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## OAK HARBOR, WA

A J EISENBERG (OKH)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG-A 09071 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, 300-1. **Rwy 25**, 300-1  
DEPARTURE PROCEDURE: **Rwy 7**, climb via heading  
071° to 2000, then climbing right turn direct CVV  
VOR/DME. Continue climb on course. **Rwy 25**, climb  
via heading 251° to 2100, then climbing left turn direct  
CVV VOR/DME. Continue climb on course.

NOTE: **Rwy 7**, multiple trees beginning 1167' from  
DER, 212' left of centerline, up to 80' AGL/319' MSL.  
Multiple trees beginning 664' from DER, 208' right of  
centerline, up to 80' AGL/299' MSL. Fence 612' from  
DER, right and left of centerline, 10' AGL/229' MSL.  
Multiple bushes beginning 240' from DER, 64' left of  
centerline, up to 8' AGL/227' MSL. **Rwy 25**, cars on  
road 87' from DER, left and right of centerline, up to 15'  
AGL/174' MSL. Multiple trees beginning 2271' from  
DER, right and left of centerline, up to 80' AGL/279'  
MSL.

## OLYMPIA, WA

OLYMPIA RGNL (OLM)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5A 09127 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, 300-2 or std. with a  
min. climb of 706' per NM to 600, or 2200-3 for climb in  
visual conditions.

DEPARTURE PROCEDURE: **Rwy 8**, climb heading  
085° to 1000 then climbing left turn direct OLM  
VORTAC, thence. . . **Rwy 17**, climb heading 172° to  
1200 then climbing right turn direct OLM VORTAC,  
thence. . . or climb in visual conditions to cross OLM  
VORTAC at or above 2300, thence. . . **Rwy s 26,35**,  
climbing right turn direct OLM VORTAC, thence. . .  
. . . continue climb in OLM VORTAC holding pattern  
(south, right turn, 356° inbound) to cross OLM  
VORTAC at or above MEA/MCA for route of flight.

NOTE: **Rwy 8**, multiple trees beginning 880' from DER,  
214' left of centerline, up to 100' AGL/343' MSL.  
Multiple trees beginning 1636' from DER, 131' right of  
centerline, up to 100' AGL/320' MSL. **Rwy 17**, multiple  
trees beginning 1008' from DER, 24' left of centerline,  
up to 100' AGL/490' MSL. Multiple trees beginning  
752' from DER, 3' right of centerline, up to 100'  
AGL/370' MSL. **Rwy 26**, multiple trees and WSK on  
building beginning 475' from DER, 595' left of  
centerline, up to 100' AGL/330' MSL. Multiple trees  
beginning 338' from DER, 339' right of centerline, up to  
100' AGL/309' MSL. **Rwy 35**, multiple trees beginning  
2176' from DER, 198' left of centerline, up to 100'  
AGL/313' MSL. Multiple trees and field light on hangar  
beginning 657' from DER, 621' right of centerline, up to  
100' AGL/315' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 16259 (FAA)

**Rwy 8**, heading as assigned by ATC; requires minimum  
climb of 220' per NM to 1500. **Rwy 26**, heading as  
assigned by ATC. **Rwy 35**, heading as assigned by  
ATC; requires minimum climb of 230' per NM to 1100.

## OMAK, WA

OMAK (OMK)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 14037 (FAA)

TAKEOFF MINIMUMS: **Rwy 35**, NA - obstacles.  
DEPARTURE PROCEDURE: **Rwy 17**, use GETNG  
DEPARTURE.

## ONTARIO, OR

ONTARIO MUNI (ONO)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 4 11041 (FAA)

TAKEOFF MINIMUMS: **Rwy 32**, 300-2 or std. w/ min.  
climb of 235' per NM to 2600, or alternatively, with std.  
takeoff minimums and a normal 200' per NM climb  
gradient, takeoff must occur no later than 2200' prior to  
DER, or 1400-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 32**, climb on a heading  
between 014° CW to 141° from DER, or minimum climb  
of 285' per NM to 9800 for all other courses, for climb in  
visual conditions cross Ontario Muni Airport at or above  
3400 before proceeding on course.

NOTE: **Rwy 14**, multiple trees, poles, terrain, and  
buildings beginning 32' from DER, 40' right of centerline,  
up to 120' AGL/2216' MSL. Multiple trees, poles, fence,  
and buildings beginning 19' from DER, 30' left of  
centerline, up to 120' AGL/2263' MSL.

**Rwy 32**, multiple trees, poles, and buildings beginning  
340' from DER, 309' left of centerline, up to 100'  
AGL/2458' MSL. Multiple trees, poles, and buildings 2'  
from DER, 190' right of centerline, up to 100' AGL/2431'  
MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## PASCO, WA

### TRI-CITIES (PSC)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 8 14317 (FAA)

DEPARTURE PROCEDURE: **Rwy 30**, climb heading 301° to 1400, thence ... **Rwy 12**, climb heading 121° to 1500, thence ... **Rwys 3L, 3R**, climb heading 031° to 1500, thence ... **Rwys 21L, 21R**, climb heading 211° to 1700, thence ...  
... **Rwy 12** turn left, all others turn right. Then climb direct PSC VOR/DME, climb in PSC VOR/DME holding pattern (hold East, right turns, 272° inbound) to MEA/MCA for route of flight before proceeding on course.

NOTE: **Rwy 3L**, bush 94' from DER, 479' left of centerline, up to 5' AGL/405' MSL. Trains beginning 1680' from DER, crossing centerline, up to 23' AGL/447' MSL. Tower 2447' from DER, 910' right of centerline, up to 56' AGL/479' MSL. Electrical system 2466' from DER, 94' right of centerline, up to 45' AGL/464' MSL. Tower 2501' from DER, 1076' right of centerline, up to 64' AGL/480' MSL. **Rwy 3R**, terrain 172' from DER, 229' right of centerline, up to 408' MSL. Bushes beginning 255' from DER, 204' right of centerline, up to 5' AGL/413' MSL. Fence beginning 851' from DER, crossing centerline, up to 8' AGL/427' MSL. Bushes 970' from DER, 48' right of centerline, 5' AGL/430' MSL. Towers 1431' from DER, 603' right of centerline, up to 50' AGL/473' MSL. Rod on tower 1512' from DER, 883' right of centerline, up to 109' AGL/528' MSL. Rod on tower 2271' from DER, 845' right of centerline, up to 107' AGL/526' MSL. Tower 2460' from DER, 111' right of centerline, up to 56' AGL/479' MSL. Tower 2514' from DER, 277' right of centerline, up to 64' AGL/480' MSL. Trees 2580' from DER, 871' right of centerline, up to 75' AGL/504' MSL. **Rwy 12**, vehicles on road beginning 407' from DER, crossing centerline, up to 15' AGL/424' MSL. Trees 657' from DER, 618' right of centerline, up to 75' AGL/454' MSL. Pole 947' from DER, 635' left of centerline, 25' AGL/434' MSL. Pole 1092' from DER, 588' left of centerline, 25' AGL/442' MSL. Trees beginning 1195' from DER, 602' right of centerline, up to 61' AGL/461' MSL. Trees beginning 2989' from DER, 620' left of centerline, up to 75' AGL/484' MSL. **Rwy 30**, terrain 3750' from DER, 887' left of centerline, up to 496' MSL. **Rwy 21R**, trees beginning 918' from DER, 468' right of centerline, up to 75' AGL/484' MSL. **Rwy 21L**, aircraft 15' from DER, 458' left of centerline to 689' right of centerline, up to 45' AGL/454' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)  
AMDT 2 16147 (FAA)

**Rwy 3L**, heading as assigned by ATC; requires minimum climb of 240' per NM to 3100. **Rwy 3R**, heading as assigned by ATC; requires minimum climb of 230' per NM to 3100. **Rwy 12**, heading as assigned by ATC; requires minimum climb of 290' per NM to 3200. **Rwy 21L/R**, heading as assigned by ATC; requires minimum climb of 290' per NM to 3200. **Rwy 30**, heading as assigned by ATC; requires minimum climb of 230' per NM to 3300.

## PENDLETON, OR

EASTERN OREGON RGNL AT

PENDLETON (PDT)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 14317 (FAA)

DEPARTURE PROCEDURE: **Rwys 7, 29**, climbing left turn direct PDT VORTAC, thence...  
**Rwy 11**, climbing right turn direct PDT VORTAC, thence...  
**Rwy 25**, climb direct PDT VORTAC, thence...  
...continue climb in PDT VORTAC holding pattern (hold West, left turns, 073° inbound) to cross PDT VORTAC at or above MEA before proceeding on course.  
NOTE: **Rwy 25**, antenna on building 858' from DER, 259' left of centerline, 13' AGL/1509' MSL. Terrain beginning 203' from DER, 451' left of centerline, up to 1505' MSL. **Rwy 29**, terrain beginning 189' from DER, 247' left of centerline, 1493' MSL.

## PINEDALE, WY

PINEDALE/RALPH WENZ FIELD (PNA)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 09295 (FAA)

TAKEOFF MINIMUMS: **Rwy 29**, std. with a min. climb of 310' per NM to 8300, or 4900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 11**, climbing right turn to 10000 via heading 190° and BPI R-040 to BPI VOR/DME before proceeding on course. **Rwy 29**, climbing left turn to 10000 via heading 230° and BPI R-020 to BPI VOR/DME before proceeding on course or for climb in visual conditions: cross Pinedale/Ralph Wenz Field at or above 11800 before proceeding on course.

## PLENTYWOOD, MT

SHER-WOOD (PWD)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 07074 (FAA)

NOTE: **Rwy 12**, multiple bushes beginning 47' from DER, 71' left of centerline, up to 12' AGL/2251' MSL. Multiple bushes beginning 362' from DER, 514' right of centerline, up to 12' AGL/2251' MSL. **Rwy 29**, multiple bushes and road beginning 68' from DER, 75' right of centerline, up to 12' AGL/2303' MSL. Multiple bushes beginning 217' from DER, 60' left of centerline, up to 12' AGL/2296' MSL.

## POCATELLO, ID

POCATELLO RGNL (PIH)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 7 09351 (FAA)

DEPARTURE PROCEDURE: use KNURL ONE DEPARTURE.

## POLSON, MT

POLSON (8S1)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 14065 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, NA - Obstacles.  
DEPARTURE PROCEDURE: **Rwy 36**, use ANGLI DEPARTURE.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

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**POPLAR, MT****POPLAR MUNI (PO1)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG-A 13010 (FAA)

TAKEOFF MINIMUMS: **Rwy 2,20** NA - ATC.

NOTE: **Rwy 9**, light support structure 10' from DER, 18' right of centerline, 2' AGL/2038' MSL. Fence 24' from DER, 344' left of centerline, 10' AGL/2046' MSL.

Terrain 26' from DER, 492' left of centerline, 2037' MSL. Tree 504' from DER, 483' left of centerline, 40' AGL/2080' MSL. Pole 1175' from DER, 756' right of centerline, 31' AGL/2067' MSL. Pole 1233' from DER, 619' left of centerline, 32' AGL/2068' MSL. Pole 1423' from DER, 618' right of centerline, 38' AGL/2074' MSL. Pole 1742' from DER, 593' right of centerline, 45' AGL/2081' MSL. **Rwy 27**, light support structure 10' from DER, 17' left of centerline, 2' AGL/2027' MSL. Fence 65' from DER, 341' right of centerline, 4' AGL/2029' MSL. Tree 248' from DER, 497' right of centerline, 21' AGL/2047' MSL.

**PORT ANGELES, WA****PORT ANGELES CGAS (NOW)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4A 15008 (FAA)

DEPARTURE PROCEDURE: **Rwy 8**, climbing left turn heading 010° to intercept CVV VOR/DME R-247 to 5400 ... **Rwy 26**, climbing right turn heading 010° to intercept CVV VOR/DME R-247 to 5400 ...

... All aircraft proceed on CVV R-247 to JIGEB INT/ CVV 12.1 DME; cross JIGEB at or above MEA/MCA for route of flight.

NOTE: **Rwy 8**, ships on waterway 1792' from DER, across centerline, up to 80' MSL. **Rwy 26**, vehicles on roadway beginning 309' from DER, across centerline, up to 15' AGL/24' MSL. Ships on waterway 590' from DER, 316' left of centerline, 80' MSL. Ships on waterway 632' from DER, 350' right of centerline, 80' MSL.

**WILLIAM R FAIRCHILD INTL (CLM)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 16035 (FAA)

DEPARTURE PROCEDURE: Use WATTR  
DEPARTURE.

**PORTLAND, OR****PORTLAND INTL (PDX)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 8 12264 (FAA)

TAKEOFF MINIMUMS: **Rwy 3**, 500-3 or std. w/ min. climb of 355' per NM to 700. **Rwy 10L**, std. w/ min. climb of 280' per NM to 2900. **Rwy 10R**, std. w/ min. climb of 265' per NM to 2900. **Rwy 21**, std. w/ min. climb of 290' per NM to 1800.

DEPARTURE PROCEDURE: **Rwy 3**, climb heading 029° to 700, then climbing left turn direct BTG VORTAC, thence ...

**Rwys 10L,10R**, climb heading 103° to 500, then climbing left turn direct BTG VORTAC, thence ...

**Rwy 21**, climb heading 209° to 500, then climbing right turn direct BTG VORTAC, thence ...

**Rwys 28L, 28R**, climb heading 283° to 500, then climbing right turn direct BTG VORTAC, thence ...  
... continue climb in BTG VORTAC holding pattern (hold NW, right turns, 149° inbound) to cross BTG VORTAC at or above MCA/MEA before proceeding on course.

NOTE: **Rwy 3**, sign 1' from DER, 133' left of centerline, 5' AGL/28' MSL. Vehicle on road 1363' from DER, 795' left of centerline, 15' AGL/76' MSL. Vehicle on road 1675' from DER, 5' right of centerline, 15' AGL/76' MSL. Multiple trees, towers beginning 1.2 NM from DER, 278' left of centerline, up to 85' AGL/463' MSL. Multiple trees, building, electrical system and pole beginning 1.3 NM from DER, 63' right of centerline, up to 85' AGL/430' MSL. Tree 1.7 NM from DER, 8' right of centerline, 85' AGL/413' MSL. **Rwy 10L**, vehicles on road beginning abeam DER, 376' left of centerline, up to 15' AGL/78' MSL. Trees beginning 1201' from DER, 753' right of centerline, up to 75' AGL/95' MSL. **Rwy 10R**, pole 1996' from DER, 759' right of centerline, 54' AGL/74' MSL. **Rwy 21**, light on DME 354' from DER, 255' left of centerline, 23' AGL/37' MSL. Multiple trees, poles, tower beginning 1327' from DER, 23' left of centerline, up to 93' AGL/328 MSL. Multiple trees, poles beginning 1098' from DER, 42' right of centerline up to 75' AGL/329' MSL. Trees beginning 2229' from DER, on centerline, up to 75' AGL/190' MSL. **Rwy 28L**, trees 1873' from DER, 837' left of centerline, up to 75' AGL/95' MSL. **Rwy 28R**, building, antennas, vehicles on road beginning 130' from DER, 257' right of centerline, up to 27' AGL/58' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)  
ORIG 15092 (FAA)

**Rwy 3**, heading as assigned by ATC; requires minimum climb of 360' per NM to 4500. **Rwy 10L**, heading as assigned by ATC; requires minimum climb of 350' per NM to 4700. **Rwy 10R**, heading as assigned by ATC; requires minimum climb of 400' per NM to 3600. **Rwy 21**, heading as assigned by ATC; requires minimum climb of 430' per NM to 3000. **Rwy 28L**, heading as assigned by ATC; requires minimum climb of 370' per NM to 3800. **Rwy 28R**, heading as assigned by ATC; requires minimum climb of 340' per NM to 4500.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## PORTLAND, OR (CON'T)

### PORTLAND-HILLSBORO (HIO)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7 15120 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, std. w/min. climb of 215' per NM to 1900 or 600-2½ for climb in visual conditions. **Rwy 13R**, 200-1¼ or std. w/min. climb of 233' per NM to 400 or alternatively, with standard takeoff Minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1800' prior to DER. **Rwy 31L**, std. w/min. climb of 240' per NM to 2700 or 600-2½ for climb in visual conditions. **Rwy 31R**, std. w/min. climb of 230' per NM to 2700 or 600-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 13L, 13R**, Climbing right turn direct UBG VOR/DME thence... **Rwys 2, 20, 31L, 31R**, Climbing left turn direct UBG VOR/DME thence... continue climb in UBG VOR/DME holding pattern (hold west, right turns, 108° inbound) to cross UBG VOR/DME at or above MEA for direction of flight before proceeding on course.

VCOA: **Rwys 2, 31L, 31R**: obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Portland-Hillsboro airport at or above 700 then proceed direct UBG VOR/DME... continue climb in UBG VOR/DME holding pattern (hold west, right turns, 108° inbound) to cross UBG VOR/DME at or above MEA for direction of flight before proceeding on course.

NOTE: **Rwy 2**, fence 34' from DER, 498' left of centerline, 4' AGL/212' MSL. Fence 70' from DER, 378' right of centerline, 8' AGL/214' MSL. Fence 163' from DER, 332' left of centerline, 11' AGL/219' MSL. Vehicles on road beginning 246' from DER, 253' right of centerline, up to 15' AGL/220' MSL. Tree 1793' from DER, 609' right of centerline, 70' AGL/270' MSL. Tank and buildings beginning 2423' from DER, 797' left of centerline, up to 67' AGL/279' MSL. **Rwy 13L**, sign 60' from DER, 202' left of centerline, 2' AGL/208' MSL. Trees beginning 2518' from DER, 295' left of centerline, up to 30' AGL/302' MSL. Trees beginning 2718' from DER, 270' left of centerline, up to 40' AGL/329' MSL. Trees beginning 3034' from DER, 259' left of centerline, up to 70' AGL/342' MSL. Tower 4794' from DER, 780' left of centerline, 160' AGL/350' MSL. **Rwy 13R**, pole 38' from DER, 149' left of centerline, 4' AGL/200' MSL. Sign 72' from DER, 299' right of centerline, 5' AGL/201' MSL. Tree 1030' from DER, 754' right of centerline, 60' AGL/260' MSL. Tree 1103' from DER, 613' left of centerline, 60' AGL/234' MSL. Trees beginning 1835' from DER, 609' right of centerline, up to 60' AGL/307' MSL. Trees beginning 3101' from DER, 9' right of centerline, up to 150' AGL/344' MSL. Trees beginning 5097' from DER, 582' right of centerline, up to 160' AGL/357' MSL. **Rwy 20**, poles, lights, fence beginning 14' from DER, 455' right of centerline, up to 29' AGL/232' MSL. Pole, tree, hangars beginning 215' from DER, 497' left of centerline, up to 34' AGL/236' MSL. Trees beginning 767' from DER, 625' left of centerline, up to 90' AGL/290' MSL. Trees and poles beginning 1140' from DER, 454' left of centerline, up to 90' AGL/294' MSL. Trees beginning 2232' from DER, 31' left of centerline, up to 100' AGL/311' MSL. Tree 4822' from DER, 337' left of centerline, 130' AGL/327' MSL. **Rwy 31L**, trees beginning 1664' from DER, 795' right of centerline, up to 80' AGL/271' MSL. Trees beginning 5874' from DER, 583' right of centerline, up to 200' AGL/380' MSL. **Rwy 31R**, sign 19' from DER, 162' right of centerline, 5' AGL/202' MSL. Bush 116' from DER, 193' left of centerline, 5' AGL/205' MSL. Trees, pole, tower beginning 1258' from DER, 138' right of centerline, up to 75' AGL/272' MSL. Trees beginning 1 NM from DER, 433' right of centerline, up to 200' AGL/380' MSL.

## PORTLAND, OR (CON'T)

### PORTLAND-HILLSBORO (HIO)

#### DIVERSE VECTOR AREA (RADAR VECTORS) ORIG 15120 (FAA)

**Rwy 2**, heading as assigned by ATC; requires minimum climb of 290' per NM to 2700. **Rwy 13L**, heading as assigned by ATC; requires minimum climb of 290' per NM to 2800. **Rwy 13R**, heading as assigned by ATC; requires minimum climb of 300' per NM to 2800. **Rwy 20**, heading as assigned by ATC; requires minimum climb of 260' per NM to 4900. **Rwy 31L**, heading as assigned by ATC; requires minimum climb of 270' per NM to 4900. **Rwy 31R**, heading as assigned by ATC; requires minimum climb of 260' per NM to 4900.

## PORTLAND-TROUTDALE (TTD)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 88350 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, 3600-2 or std. with a min. climb of 380' per NM to 4100. **Rwy 25**, 900-2 or std. with a min. climb of 360' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 7**, turn left.

**Rwy 25**, turn right. All aircraft climb via BTG R-125 direct BTG VORTAC. Continue climb on BTG R-329 within 10 NM to cross BTG VORTAC at or above: BTG R-355 CW R-055 or R-085 CW R-115 5000; all others 2500.

#### DIVERSE VECTOR AREA (RADAR VECTORS) ORIG 15092 (FAA)

**Rwy 7**, heading as assigned by ATC; requires minimum climb of 330' per NM to 2900. **Rwy 25**, heading as assigned by ATC; requires minimum climb of 360' per NM to 4300.

## PORT TOWNSEND, WA

### JEFFERSON COUNTY INTL (0S9)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 13234 (FAA)

TAKEOFF MINIMUMS: **Rwy 9**, 300-1 **Rwy 27**, 300-1 with a min. climb of 445' per NM to 900, or 1000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 9**, climb on heading 088° to intercept CVV VOR/DME R-166 to CVV VOR/DME, thence ...

**Rwy 27**, climbing right turn heading 090° to intercept CVV VOR/DME R-166 to CVV VOR/DME, or for climb in visual conditions cross Jefferson County Intl airport at or above 1000 then climb on CVV R-178 to CVV VOR/DME. When executing VCOA, notify ATC prior to departure. Thence...

... Climb in holding pattern (hold South, left turns, 346° inbound) to cross CVV VOR/DME at or above MEA for route of flight.

NOTE: **Rwy 9**, bushes beginning 21' from DER, left and right of centerline, up to 5' AGL/123' MSL. Terrain beginning 148' from DER, 313' right of centerline, up to 126' MSL. Trees beginning 661' from DER, left and right of centerline, up to 90' AGL/284' MSL. **Rwy 27**, trees beginning 105' from DER, left and right of centerline, up to 90' AGL/260' MSL. Poles beginning 105' from DER, 298' left of centerline, up to 53' AGL/159' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## POWELL, WY

### POWELL MUNI (POY)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 13262 (FAA)

TAKEOFF MINIMUMS: **Rwys 3,17,21,35**, NA-  
Environmental.

DEPARTURE PROCEDURE: **Rwy 13**, turn right, thence...

**Rwy 31**, turn left, thence...

... All aircraft climb direct COD VOR/DME. Continue climb in COD VOR/DME holding pattern (hold North, left turns, 189° inbound) to cross COD VOR/DME at or above 9400 before proceeding on course.

NOTE: **Rwy 13**, pole 13' from DER, 288' right of centerline, 8' AGL/5107' MSL. Windsock 13' from DER, 287' right of centerline, 5' AGL/5104' MSL. Pole 110' from DER, 407' right of centerline, 4' AGL/5104' MSL. Terrain 148' from DER, 526' left of centerline; 0' AGL/5100' MSL. Vehicles on road beginning 414' from DER, beginning 53' right of centerline, up to 15' AGL/5115' MSL. Terrain 674' from DER, 429' right of centerline, 0' AGL/5119' MSL. **Rwy 31**, windsock 9' from DER, 297' right of centerline, 3' AGL/5002' MSL. Pole 10' from DER, 296' right of centerline, 6' AGL/5005' MSL.

## PRINEVILLE, OR

### PRINEVILLE (S39)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2A 16175 (FAA)

TAKEOFF MINIMUMS: **Rwy 10**, std. with a min. climb of 290' per NM to 5500, or 2600-3 for climb in visual conditions. **Rwy 15**, std. with a min. climb of 320' per NM to 6000, or 2600-3 for climb in visual conditions. **Rwy 28**, std. with a min. climb of 415' per NM to 6600, or 2600-3 for climb in visual conditions. **Rwy 33**, std. with a min. climb of 380' per NM to 6700, or 2600-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 10**, climb heading 104° to 5500 before proceeding on course or for climb in visual conditions cross Prineville airport at or above 5700 before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 15**, climb heading 156° to 6000 before proceeding on course or for climb in visual conditions cross Prineville airport at or above 5700 before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 28**, climb heading 284° to 6600 before proceeding on course or for climb in visual conditions cross Prineville airport at or above 5700 before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 33**, climb heading 336° to 6700 before proceeding on course or for climb in visual conditions cross Prineville airport at or above 5700 before proceeding on course. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 10**, flag pole 69' from DER, 248' left of centerline, 22' AGL/3258' MSL. Tree, vehicle on road, and pole beginning 542' from DER, 277' right of centerline, up to 47' AGL/3307' MSL. **Rwy 15**, building 36' from DER, 368' left of centerline, 27' AGL/3277' MSL. Trees beginning 106' from DER, 151' right of centerline, up to 20' AGL/3266' MSL. Trees beginning 192' from DER, 25' left of centerline, up to 27' AGL/3277' MSL. **Rwy 28**, trees beginning 51' from DER, 33' left of centerline, up to 28' AGL/3283' MSL. Trees beginning 161' from DER, 183' right of centerline, up to 30' AGL/3589' MSL. **Rwy 33**, terrain and trees beginning 100' from DER, 72' right of centerline, up to 43' AGL/3287' MSL. Terrain 129' from DER, 81' left of centerline, 3243' MSL.

## PULLMAN-MOSCOW, ID, WA

### PULLMAN-MOSCOW RGNL (PUW)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4 12264 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, 300-1¼ w/ min. climb of 295' per NM to 4500 or standard w/ min. climb of 547' per NM to 3100 or 4600-3 for climb in visual conditions. When executing VCOA, notify ATC prior to departure.

**Rwy 24**, 300-1¼ or standard w/ min. climb of 377' per NM to 2900.

DEPARTURE PROCEDURE: **Rwy 6**, climb heading 055° to 3100 then climbing left turn direct PUW VOR/DME, continue climb in PUW VOR/DME holding pattern (SW, left turns, 032° inbound) to cross PUW VOR/DME at or above MEA for direction of flight, or for climb in visual conditions: cross Pullman/Moscow RGNL at or above 4500. **Rwy 24**, climbing left turn to intercept PUW VOR/DME R-021 to PUW VOR/DME, continue climb in PUW VOR/DME holding pattern (SW, left turns, 032° inbound) to cross PUW VOR/DME at or above MEA for direction of flight.

NOTE: **Rwy 6**, ground beginning at 1331' left of centerline to 1244' right of centerline, up to 2733' MSL. Hazard light 675' from DER, 122' right of centerline, 10' AGL/2589' MSL. Tree 1514' from DER, 856' right of centerline, 30' AGL/2669' MSL. Hazard light 1522' from DER, 14' right of centerline, 10' AGL/2634' MSL. Hazard light 2691' from DER, 115' right of centerline, 10' AGL/2700' MSL. Tree 2795' from DER, 1080' right of centerline, 30' AGL/2750' MSL. Tree 3494' from DER, 770' left of centerline, 30' AGL/2674' MSL. Fence 6031' from DER, 324' left of centerline, 8' AGL/2717' MSL. **Rwy 24**, sign 24' from DER, 154' right of centerline, 8' AGL/2544' MSL. Ground beginning 667' from DER, beginning 867' right of centerline to 216' right of centerline up to 2696' MSL. Fence 2582' from DER, 497' right of centerline 8' AGL/2611' MSL. Fence 3214' from DER, 854' right of centerline, 8' AGL/2667' MSL. Trees beginning 4635' from DER, 531' left of centerline to 1567' right of centerline, up to 30' AGL/2769' MSL. Vent on tank 5822' from DER, 1916' right of centerline, 20' AGL/2717' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

NW-1

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

16315

**PUYALLUP, WA**

PIERCE COUNTY-THUN FIELD (PLU)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 15288 (FAA)

TAKEOFF MINIMUMS: **Rwy 35**, 300-1 with min. climb of 270' per NM to 1000 or std. w/min. climb of 470' per NM to 800.

DEPARTURE PROCEDURE: **Rwy 17**, climbing right turn heading 023° to intercept SEA R-158 to COTNY INT/SEA 18.00 DME and hold. Continue climb in holding pattern (hold South, left turns, 338° inbound) to cross COTNY at or above the MEA for direction of flight. Do not exceed 175 KIAS until established at MEA for route of flight. **Rwy 35**, climb on heading 346° and SEA R-158 to COTNY INT/SEA 18.00 DME and hold. Continue climb in holding pattern (hold South, left turns, 338° inbound) to cross COTNY at or above the MEA for direction of flight. Do not exceed 175 KIAS until established at MEA for route of flight.

NOTE: **Rwy 17**, building and trees beginning 187' from DER, 416' left of centerline, up to 40' AGL/575' MSL. Pole 510' from DER, 566' right of centerline, 40' AGL/552' MSL. Vehicles on road beginning 1149' from DER, 511' right of centerline, up to 15' AGL/582' MSL. Utilities 1519' from DER, 302' left of centerline, 6' AGL/574' MSL. Trees beginning 3360' from DER, left and right of centerline, up to 100' AGL/662' MSL. **Rwy 35**, trees beginning 58' from DER, 291' right of centerline, up to 70' AGL/609' MSL. Trees beginning 350' from DER, 380' left of centerline, 60' AGL/581' MSL. Tree 778' from DER, 590' left of centerline, 100' AGL/636' MSL. Trees beginning 1036' from DER, 365' right of centerline, up to 100' AGL/631' MSL. Tree 2651' from DER, 1029' right of centerline, 100' AGL/694' MSL. Tree 2798' from DER, 22' left of centerline, 100' AGL/654' MSL.

**DIVERSE VECTOR AREA (RADAR VECTORS)**

AMDT 1 15288 (FAA)

**Rwy 17**, heading as assigned by ATC; requires minimum climb of 230' per NM to 2100. **Rwy 35**, heading as assigned by ATC; requires minimum climb of 470' per NM to 800.

**RAWLINS, WY**

RAWLINS MUNI/HARVEY FIELD (RWL)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5 16259 (FAA)

TAKEOFF MINIMUMS: **Rwy 4**, 500-2¼ or std. w/min. climb of 250' per NM to 7400. **Rwy 22**, std. w/min. climb of 335' per NM to 7600, or 1400-3 for climb in visual conditions. **Rwy 10, 28**, NA – Environmental.

DEPARTURE PROCEDURE: **Rwy 4**, climbing right turn to 10000 on heading 170° to intercept CKW VOR/DME R-080 to CKW VOR/DME, then proceed on course. **Rwy 22**, Climb to 10000 on heading 224° to intercept CKW VOR/DME R-085 to CKW VOR/DME, then proceed on course.

VCOA: **Rwy 22**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Rawlings Muni/Harvey field at or above 8100 before proceeding on course.

NOTE: **Rwy 04**, NAV/AIDs 13' from DER, 123' left and right of centerline up to 6820' MSL. Rising terrain beginning 13' from DER, 360' left and right of centerline, up to 6836' MSL. Tree 151' from DER, 149' right of centerline, 6823' MSL. Utility pole 204' from DER, 425' left of centerline, 204' AGL/6842' MSL. Vehicles on road 194' from DER, left and right of centerline, up to 15' AGL/6877' MSL. Fence beginning 837' from DER, left and right of centerline, 15' AGL/6886' MSL. Vehicles on road beginning 194' from DER, left and right of centerline, 15' AGL/6886' MSL. Fence and rising terrain beginning 1303' from DER, 651' left of centerline, up to 6885' MSL. Vehicles on road beginning 1581' from DER, left and right of centerline, up to 6879' MSL. Fence 1941' from DER, 799' left of centerline, 6890' MSL. Rising terrain beginning 2049' from DER, 797' left of centerline, up to 6875' MSL. Vehicles on road beginning 3761' from DER, 357' left of centerline, up to 6929' MSL. Rising terrain beginning 1.8 NM from DER, 739' right of centerline, 7126' MSL. Rising terrain and vehicles on road beginning 1.9 NM from DER, left and right of centerline, up to 15' AGL/7163' MSL. Rising terrain beginning 2 NM from DER, 242' left of centerline, 7169' MSL. Rising terrain beginning 2.2 NM from DER, 2329' left of centerline, 7236' MSL. **Rwy 22**, vehicles on road 1' from DER, left and right of centerline, 15' AGL/6760' MSL. Buildings beginning 182' from DER, 378' right of centerline, up to 12'/6757' MSL. Poles beginning 207' from DER, 489' right of centerline, up to 24' AGL/6769' MSL. T-I tower 340' from DER, 324' right of centerline, 32' AGL/6774' MSL. Tanks beginning 616' from DER, 429' right of centerline, up to 42' AGL/6769' MSL. Vehicles on road and rising Terrain beginning 1.9 NM from DER, 3028' left of centerline, up to 15' AGL/7118' MSL. Rising terrain and T-I towers beginning 2.1 NM from DER, 3675' left of centerline, up to 32' AGL/7242' MSL. Rising terrain and towers beginning 2.2 NM from DER, 3315' left of centerline, up to 110' AGL/7322' MSL. Vehicles on road beginning 2.4 NM from DER, 2685' left of centerline, up to 15' AGL/7233' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

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NW-1

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## REDMOND, OR

ROBERTS FIELD (RDM)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 6 15232 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, std. w/min. climb of 260' per NM to 5000. **Rwy 23**, std. w/min. climb of 235' per NM to 4500. **Rwy 29**, std. w/min. climb of 240' per NM to 4500.

DEPARTURE PROCEDURE: **Rwy 5**, Climbing left turn on heading 269° and DSD R-047 to DSD VORTAC, thence... **Rwy 11**, Climbing right turn on heading 244° and DSD R-090 to DSD VORTAC, thence... **Rwy 23**, Climb heading 226° and DSD R-090 to DSD VORTAC, thence... **Rwy 29**, Climbing left turn on heading 279° and DSD R-045 to DSD VORTAC, thence... ..climb in DSD VORTAC holding pattern (hold North, right turn, 168° inbound) to cross DSD VORTAC at or above MEAMCA for route of flight before proceeding on course.

NOTE: **Rwy 29**, trees beginning 12' from DER, 421' right of centerline, up to 12' AGL/3079' MSL. Tree 364' from DER, 449' left of centerline, 15' AGL/3054' MSL.

## RENTON, WA

RENTON MUNI (RNT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 8 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, std. w/min. climb of 405' per NM to 2000. **Rwy 34**, std. w/min. climb of 315' per NM to 2700.

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 157° to 3000, then climbing right turn to intercept SEA R-180 to SEA VORTAC, thence...

**Rwy 34**, climb heading 337° to 3000, then climbing left turn to intercept SEA R-340 to SEA VORTAC, thence...

...Climb in holding pattern (East, left turns, 290° inbound) to cross SEA VORTAC at or above MEA/MCA for route of flight.

NOTE: **Rwy 16**, sign 40' from DER, 391' right of centerline, 17' AGL/49' MSL. Blast shield 185' from DER, 4' left of centerline, 17' AGL/49' MSL. Light poles left and right of centerline, beginning 267' from DER, up to 39' AGL/71' MSL. Trees beginning 947' from DER, 407' right of centerline, up to 82' AGL/114' MSL. Tree 1.2 NM from DER, 486' right of centerline, 90' AGL/232' MSL. Transmission towers beginning 1.4 NM from DER, 2119' left of centerline, up to 118' AGL/453' MSL. Trees left and right of centerline beginning 1.5 NM from DER, up to 108' AGL/334' MSL. Trees beginning 1.7 NM from DER, 3021' left of centerline, up to 100' AGL/574' MSL. **Rwy 34**, wood piling 75' from DER, 176' right of centerline, 2' AGL/26' MSL. Tree 1.6 NM from DER, 1437' left of centerline, 130' AGL/327' MSL. Trees beginning 1.8 NM from DER, 155' left of centerline, up to 128' AGL/485' MSL. Trees beginning 2 NM from DER, 768' right of centerline, up to 195' AGL/459' MSL.

## REXBURG, ID

REXBURG-MADISON COUNTY (RXE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4 02220 (FAA)

DEPARTURE PROCEDURE: **Rwy 17**, climbing right turn. **Rwy 35**, climbing left turn. **All aircraft** climb via IDA VOR/DME R-015 to RIGBY INT to MEA for route of flight before proceeding on course.

NOTE: **Rwy 17**, 100' AGL trees 125' from DER, 350' left of centerline. **Rwy 35**, 100' AGL trees 350' from DER, 450' right of centerline. 100' AGL trees 750' from DER, 500' left of centerline.

## RICHLAND, WA

RICHLAND (RLD)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 9 14317 (FAA)

TAKEOFF MINIMUMS: **Rwys 1, 8**, std. w/ min. climb of 310' per NM to 5000, or 4600-3 for climb in visual conditions. **Rwy 19**, std. w/ min. climb of 480' per NM to 5000, or 4600-3 for climb in visual conditions. **Rwy 26**, std. w/ min. climb of 355' per NM to 5000, or 4600-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 1, 8**, climbing left turn heading 220° to intercept PSC VOR/DME R-273 to 6000 to PAPPS INT /PSC 32.51 DME before proceeding on course. **Rwy 19**, climbing right turn heading 310° to intercept PSC VOR/DME R-273 to 6000 to PAPPS INT/ PSC 32.51 DME before proceeding on course. **Rwy 26**, climbing right turn heading 290° to intercept PSC VOR/ DME R-273 to 6000 to PAPPS INT/PSC 32.51 DME before proceeding on course.

VCOA: **All runways**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Richland Airport at or above 4800 then on PSC VOR/DME R-273 to PAPPS INT/PSC 32.51 DME before proceeding on course.

NOTE: **Rwy 1**, tree and terrain beginning 34' from DER, 35' left of centerline, up to 27' AGL/407' MSL. Terrain 125' from DER, 154' right of centerline, 394' MSL. Pole and transmission pole beginning 752' from DER, 446' right of centerline, up to 41' AGL/416' MSL. **Rwy 8**, sign 22' from DER, 122' right of centerline, 3' AGL/391' MSL. Terrain beginning 91' from DER, left and right of centerline, 394' MSL. Railroad cars beginning 204' from DER, left and right of centerline, up to 27' AGL/410' MSL. Multiple trees beginning 1510' from DER, 12' right of centerline, up to 25' AGL/438' MSL. Multiple trees beginning 2240' from DER, 94' left of centerline, up to 25' AGL/456' MSL. **Rwy 19**, bush 22' from DER, 493' left of centerline, 11' AGL/401' MSL. Terrain 64' from DER, 169' right of centerline, 394' MSL. Bush 204' from DER, 297' left of centerline, 4' AGL/399' MSL. Multiple trees beginning 323' from DER, 478' right of centerline, up to 25' AGL/424' MSL. Multiple trees beginning 665' from DER, 399' left of centerline, up to 25' AGL/472' MSL. **Rwy 26**, terrain and multiple trees beginning 72' from DER, left and right of centerline, up to 17' AGL/407' MSL. Antenna 304' from DER, 445' right of centerline, 5' AGL/408' MSL. Pole 392' from DER, 255' right of centerline, 1' AGL/409' MSL. Fence 450' from DER, left and right of centerline, up to 5' AGL/425' MSL. Bush, terrain and multiple trees beginning 729' from DER, 231' right of centerline, up to 17' AGL/427' MSL. Multiple trees beginning 1742' from DER, 869' left of centerline, up to 25' AGL/457' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## RIVERTON, WY

RIVERTON RGNL (RIW)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 15344 (FAA)

TAKEOFF MINIMUMS: **Rwy 28**, 200-1¼ or std. w/min. climb of 235' per NM to 5800, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1800' prior to DER.

DEPARTURE PROCEDURE: **Rwy 1, 10, 19, 28**,

Climbing right turn direct RIW VOR/DME, continue climb in RIW VOR/DME holding pattern (hold se, rt, 293° inbound) to cross RIW VOR/DME at or above MEA for route of flight.

NOTES: **Rwy 1**, It support structure 10' from DER, 17' left of centerline, 3' AGL/5481' MSL. Vehicles on road, terrain, and fence beginning 17' from DER, 335' left of centerline, up to 15' AGL/5497' MSL. **Rwy 10**, vehicles on road beginning 1' from DER, 92' right of centerline, up to 15' AGL/5456' MSL. Airfield lt 11' from DER, 4' right of centerline, 2' AGL/5444' MSL. Airfield lt 11' from DER, 6' left of centerline, 2' AGL/5444' MSL. Vehicles on road beginning 90' from DER, 21' right of centerline, up to 15' AGL/5455' MSL. **Rwy 19**, It support structure 10' from DER, 17' right of centerline, 2' AGL/5465' MSL. Vehicles on road and fence beginning 13' from DER, 255' right of centerline, up to 15' AGL/5473' MSL. T-I tower 936' from DER, 682' right of centerline, 31' AGL/5490' MSL. **Rwy 28**, vehicles on road and terrain beginning 18' from DER, 305' left of centerline, up to 15' AGL/5552' MSL. Vehicles on road beginning 32' from DER, 281' right of centerline, up to 15' AGL/5538' MSL. Building 956' from DER, 287' right of centerline, 4' AGL/5545' MSL. NAVIAID 1002' from DER, 2' left of centerline, 7' AGL/5546' MSL. Vehicle on road 1074' from DER, 5' right of centerline, up to 15' AGL/5555' MSL. Vehicles on road and terrain beginning 1300' from DER, 111' right of centerline, up to 15' AGL/5580' MSL. Terrain beginning 1796' from DER, crossing centerline, up to 5571' MSL. Vehicles on road and fence beginning 2497' from DER, crossing centerline, up to 15' AGL/5594' MSL. Vehicles on road beginning 2067' from DER, 754' left of centerline, up to 15' AGL/5597' MSL. Poles beginning 1987' from DER, 365' left of centerline, up to 28' AGL/5611' MSL. T-I towers and catenaries beginning 3401' from DER, crossing centerline, up to 72' AGL/5656' MSL. Antenna and pole beginning 5656' from DER, 1594' right of centerline, up to 50' AGL/5682' MSL. Tower 5972' from DER, 1848' left of centerline, 64' AGL/5679' MSL.

## ROCK SPRINGS, WY

ROCK SPRINGS-SWEETWATER COUNTY  
(RKS)TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 6 10098 (FAA)

DEPARTURE PROCEDURE: **Rwy 3**, climb heading 032° to 8000 then climbing left turn direct OCS VOR/DME, continue climb in OCS VOR/DME holding pattern (hold East, right turns, 260° inbound) to cross OCS VOR/DME at or above MEA for route of flight. **Rwy 9**, climb heading 090° to 8200 then climbing left turn direct OCS VOR/DME, continue climb in OCS VOR/DME holding pattern (hold East, right turns, 260° inbound) to cross OCS VOR/DME at or above MEA for route of flight. **Rwy 21**, climb heading 212° to 8400, then climbing right turn direct OCS VOR/DME, continue climb in OCS VOR/DME holding pattern (hold East, right turns, 260° inbound) to cross OCS VOR/DME at or above MEA for route of flight. **Rwy 27**, climb heading 270° to 7900, then climbing right turn via OCS R-291 to OCS VOR/DME, continue climb in OCS VOR/DME holding pattern (hold East, right turns, 260° inbound) to cross OCS VOR/DME at or above MEA for route of flight.

NOTE: **Rwy 3**, vehicle on road beginning 22' from DER, 120' left of centerline, up to 20' AGL/6760' MSL, bushes beginning 178' from DER, 517' right of centerline, up to 15' AGL/6755' MSL. **Rwy 21**, bush 53' from DER, 221' left of centerline, 15' AGL/6737' MSL.

## RONAN, MT

RONAN (7S0)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 09295 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, std. w/ min. climb of 260' per NM to 9900 or 6100-3 for climb in visual conditions. **Rwy 34**, std. w/ min. climb of 250' per NM to 9900 or 6100-3 in visual conditions.

DEPARTURE PROCEDURE: **Rwy 16**, climb to 8800 on a heading between 177° CW to 336° from DER or for climb in visual conditions, cross Ronan airport at or above 9000 before proceeding on course. **Rwy 34**, climb to 8800 on a heading between 336° CCW to 177° from DER or for climb in visual conditions, cross Ronan airport at or above 9000 before proceeding on course.

NOTE: **Rwy 16**, tree 485' from DER, 386' left of centerline 50' AGL/3149' MSL. **Rwy 34**, building 158' from DER, 370' left of centerline 40' AGL/3130' MSL. Tree 1358' from DER, 556' left of centerline 50' AGL/3149' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

16315

## ROSEBURG, OR

### ROSEBURG RGNL (RBG)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 7 12264 (FAA)

TAKEOFF MINIMUMS: **Rwy 16, 34**, NA at night-Unlit obstacles. **Rwy 16**, 800-2 w/ min. climb of 500' per NM to 4500, or 2700-3 for climb in visual conditions. **Rwy 34**, 900-2½ w/ min. climb of 500' per NM to 4500, or 2700-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 16**, climb direct RBG VOR/DME, continue climb in RBG VOR/DME holding pattern (Hold N, right turns, 163° inbound) to cross RBG VOR/DME at or above MEA/MCA for route of flight, thence ...

**Rwy 34**, climb heading 342° to 2900 before proceeding on course, thence ...

...or for climb in visual conditions cross Roseburg RGNL Airport southbound at or above 3100 then direct RBG VOR/DME, continue climb in RBG VOR/DME holding pattern (Hold N, right turns, 163° inbound) to cross RBG VOR/DME at or above MEA/MCA for route of flight. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 16**, pole, 54' from DER, 290' left of centerline, 13' AGL/525' MSL. Vehicle on road, 269' from DER, 259' right of centerline, 15' AGL/528' MSL. Trees, beginning 296' from DER, 437' left of centerline, up to 100' AGL/611' MSL. Area of trees and towers, 1.27 NM from DER beginning 466' right of centerline, up to 123' AGL/1268' MSL. **Rwy 34**, pole, 238' from DER, 361' left of centerline, 28' AGL/557' MSL. Trees, beginning 245' from DER, left and right of centerline, up to 100' AGL/1339' MSL. Sign, 390' from DER, 557' left of centerline, 60' AGL/565' MSL. Sign, 620' from DER, 557' left of centerline, 60' AGL/565' MSL. Terrain, 663' from DER, 290' right of centerline, 608' MSL.

## ROUNDUP, MT

### ROUNDUP (RPX)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 12264 (FAA)

DEPARTURE PROCEDURE: **Rwy 25**, climb heading 247° to 4500 before turning right.

NOTE: **Rwy 7**, trees and terrain beginning 13' from DER, 360' right of centerline, up to 45' AGL/3445' MSL. Trees beginning 502' from DER, 590' right of centerline, up to 45' AGL/3446' MSL. Poles 85' from DER, 458' right of centerline, up to 16' AGL/3439' MSL. **Rwy 25**, trees and terrain beginning 12' from DER, 8' left of centerline, up to 45' AGL/3523' MSL. Poles 313' from DER, 192' right of centerline, up to 16' AGL/3500' MSL. Trees beginning 343' from DER, 204' right of centerline, up to 45' AGL/3502' MSL. Vehicles on roadway 535' from DER, across centerline, up to 15' AGL/3519' MSL. Trees and terrain beginning 676' from DER, 2' left of centerline, up to 45' AGL/3528' MSL. Trees and terrain beginning 729' from DER, 1' right of centerline, up to 45' AGL/3519' MSL.

## SALEM, OR

### M McNARY FIELD (SLE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 8A 12264 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, std. w/min. climb of 260' per NM to 1100 or 1400-2½ for climb in visual conditions.

**Rwy 16**, std. w/min. climb of 570' per NM to 1100 or 400-2½ w/ min. climb of 260' per NM to 1100 or 1400-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 13**, climb direct TURNO LOM (ADF required). Westbound aircraft, proceed on course. Eastbound aircraft continue climb in holding (hold SE, left turns, 313° inbound) to cross TURNO LOM/INT at or above 2500' before proceeding on course, or for climb in visual conditions cross McNary Field Airport at or above 1500 before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 16**, climbing left turn direct TURNO LOM (ADF required). Westbound aircraft, proceed on course. Eastbound aircraft continue climb in holding (hold SE, left turns, 313° inbound) to cross TURNO LOM INT at or above 2500 before proceeding on course, or for climb in visual conditions cross McNary Field Airport at or above 1500 before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwys 31,34**, climbing right turn direct TURNO LOM (ADF required). Westbound aircraft proceed on course. Eastbound aircraft continue climb in holding (hold SE, left turns, 313° inbound) to cross TURNO LOM/INT at or above 2500 before proceeding on course.

NOTE: **Rwy 13**, vehicles on road beginning 381' from DER, 153' right of centerline, up to 15' AGL/ 225' MSL. Trees beginning 1515' from DER, 590' left of centerline, up to 100' AGL/ 320' MSL. Trees beginning 3712' from DER, 952' right of centerline, up to 80' AGL/ 372' MSL. **Rwy 16**, trees beginning 554' from DER, 66' right of centerline, up to 75' AGL/ 569' MSL. Trees beginning 1202' from DER, 302' left of centerline, up to 95' AGL/ 534' MSL. Pole 750' from DER, 226' right of centerline, 21' AGL/ 231' MSL. Monopole 862' from DER, 150' right of centerline, 40' AGL/254' MSL. Building 1202' from DER, 66' left of centerline, 39' AGL/ 255' MSL. **Rwy 31**, trees beginning 1220' from DER, 480' left of centerline, up to 88' AGL/ 268' MSL. Tree beginning 2988' from DER, 277' right of centerline, 90' AGL/ 270' MSL. **Rwy 34**, vehicle on road beginning 469' from DER, 252' right of centerline, 15' AGL/ 208' MSL. Trees beginning 1691' from DER, 229' right of centerline, up to 98' AGL/ 282' MSL. Tree 3238' from DER, 330' left of centerline, 98' AGL/ 288' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## SALMON, ID

LEMHI COUNTY (SMN)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 16091 (FAA)

TAKEOFF MINIMUMS: **Rwy 17, NA - Obstacles. Rwy 35**, std. w/min. climb of 500' per NM to 10700, or 5900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 35**, climb on heading 355° to 9000, then climbing left turn to 12000 direct LKT VOR/DME before proceeding on course.

VCOA: **Rwy 35**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Lemhi County airport southwest bound at or above 9800, then continue climb on LKT R-042 to cross LKT VOR/DME at or above MEA for route of flight.

NOTE: **Rwy 35**, tree 104' from DER, 222' left of centerline, 13' AGL/4046' MSL. Power line 230' from DER, 498' left of centerline, 30' AGL/4060' MSL. Power line, fence, buildings, vehicles beginning 466' from DER, 394' right of centerline, up to 30' AGL/4104' MSL. Power line 814' from DER, 562' right of centerline, 30' AGL/4107' MSL. Rising terrain beginning 4198' from DER, 1373' right of centerline, up to 4187' MSL. Rising terrain beginning 4859' from DER, 1717' right of centerline, up to 4220' MSL. Rising terrain beginning 5189' from DER, 1889' right of centerline, up to 4262' MSL.

## SANDPOINT, ID

SANDPOINT (SZT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 16203 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, std. w/min. climb of 520' per NM to 5800, or 3000-3 for climb in visual conditions. **Rwy 20**, std. w/min. climb of 480' per NM to 4800, or 3000-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 2**, climbing right turn heading 204° and on COE R-360 to cross COE VOR/DME at or above 9000. **Rwy 20**, climbing left turn heading 184° and on COE R-360 to cross COE VOR/DME at or above 9000.

VCOA: **Rwy 2, 20**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Sandpoint airport at or above 5000, then on heading 184° and COE R-360 to cross COE VOR/DME at or above 9000.

NOTE: **Rwy 2**, building 11' from DER, 448' right of centerline, 37' AGL/2166' MSL. Vehicles on road beginning 35' from DER, 328' right of centerline, up to 15' AGL/2135' MSL. Trees beginning 59' from DER, 241' right of centerline, up to 82' AGL/2206' MSL. Tree beginning 150' from DER, 235' right of centerline, up to 108' AGL/2223' MSL. Trees beginning 540' from DER, left and right of centerline, up to 114' AGL/2243' MSL. Trees beginning 3334' from DER, left and right of centerline, up to 142' AGL/2270' MSL. Building 3655' from DER, 686' left of centerline, 36' AGL/2159' MSL. **Rwy 20**, trees beginning 621' from DER, 174' left of centerline, up to 100' AGL/2259' MSL. Trees beginning 5971' from DER, 2047' right of centerline, up to 100' AGL/2319' MSL.

## SARATOGA, WY

SHIVELY FIELD (SAA)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 95089 (FAA)

TAKEOFF MINIMUMS: **Rwy 23**, 400-1 or std. w/min. climb of 220' per NM to 7400.

DEPARTURE PROCEDURE: **Rwy 5**, turn left heading 280°. **Rwy 23**, turn right heading 340°. All aircraft climb to 9000 via 310° bearing from SAA NDB then continue climb on course.

NOTE: **Rwy 23**, 7174' MSL tree 1700' from DER left of centerline.

## SCAPPOOSE, OR

SCAPPOOSE INDUSTRIAL AIRPARK (SPB)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1A 16315 (FAA)

DEPARTURE PROCEDURE: **Rwy 15**, climbing left turn direct BTG VORTAC. **Rwy 33**, climbing right turn direct BTG VORTAC. Aircraft departing BTG R-160 CW R-329 climbing left turn on course. All others climb in BTG VORTAC holding pattern (NW, right turns, 149° inbound) to cross BTG VORTAC at or above MEA/MCA for direction of flight.

NOTE: **Rwy 15**, tree 469' from DER, 499' right of centerline, 131' MSL. Tree 619' from DER, 441' right of centerline, 94' MSL. **Rwy 33**, tree 55' from DER, 428' left of centerline 171' MSL. Trees beginning 210' from DER, 404' left of centerline, up to 100' MSL. Vehicle on road 346' from DER, 291' left of centerline, 75' MSL. Tree 480' from DER, 285' left of centerline, 97' MSL. Tree 559' from DER, 579' right of centerline, 133' MSL. Tree 1021' from DER, 663' left of centerline, 124' MSL. Trees beginning 1662' from DER, 335' right of centerline, up to 175' MSL.

## DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 15148 (FAA)

**Rwys 15, 33**, heading as assigned by ATC; requires minimum climb of 280' per NM to 4200.

## SCOBEY, MT

SCOBEY (9S2)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 14065 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, 300-1½ or std. w/min. climb of 253' per NM to 2700, or alternatively, with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 2100' prior to DER.

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 122° to 3200 before turning left.

NOTE: **Rwy 12**, pole 11' from DER, 338' left of centerline, 14' AGL/2448' MSL. Light 12' from DER, 26' right of centerline, 2' AGL/2436' MSL. Tree 79' from DER, 444' left of centerline, 23' AGL/2453' MSL. Terrain beginning 81' from DER, 338' right of centerline, 2438' MSL. Vehicles on road beginning 178' from DER, 116' left of centerline, up to 15' AGL/2452' MSL. Vehicles on road beginning 318' from DER, 15' right of centerline, up to 15' AGL/2452' MSL. Building, grain silo and water tower beginning 4734' from DER, 135' right of centerline, up to 127' AGL/2626' MSL. **Rwy 30**, light 9' from DER, 27' left of centerline, 2' AGL/2392' MSL. Light 9' from DER, 27' right of centerline, 2' AGL/2392' MSL. Multiple trees beginning 219' from DER, 166' left of centerline, up to 16' AGL/2406' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## SEATTLE, WA

### BOEING FIELD/KING COUNTY INTL (BFI)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7 12152 (FAA)

TAKEOFF MINIMUMS: **Rwy 13L**, std. w/min. climb of 663' per NM to 500 or 500-2 ¾ with minimum climb of 250' per NM to 800, or 1100-3 for climb in visual conditions. **Rwy 13R**, std. w/min. climb of 504' per NM to 900 or 500-1 ¾ with minimum climb of 386' per NM to 900, or 1100-3 for climb in visual conditions. **Rwy 31L**, std. w/min. climb of 480' per NM to 500 or 300-1 ¼ with minimum climb of 265' per NM to 900, or 1100-3 for climb in visual conditions. **Rwy 31R**, std. w/min. climb of 371' per NM to 500 or 400-2 with minimum climb of 240' per NM to 800, or 1100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 13L**, climbing right turn thence... **Rwy 13R**, climbing right turn thence... **Rwy 31L**, climbing left turn thence... **Rwy 31R**, climbing left turn thence...  
... All aircraft climb direct to SEA VORTAC, continue climb in SEA VORTAC holding pattern (hold East, left turns, 290° inbound) to cross SEA VORTAC at or above 3000. For climb in visual conditions cross Boeing Field/King County Intl Airport at or above 1000, then climb to 3000 via SEA R-344 to SEA VORTAC, continue climb in SEA VORTAC holding pattern (hold East, left turns, 290° inbound) to cross SEA VORTAC at or above 3000. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 13L**, hangar 402' from DER, 411' left of centerline 16' AGL/ 32' MSL. Building 621' from DER, 526' left of centerline 16' AGL/ 51' MSL. Trees beginning 2475' from DER, 353' left of centerline, up to 100' AGL/ 362' MSL. **Rwy 13R**, train on tracks 197' from DER, 379' left of centerline, 23' AGL/ 48' MSL. Obstruction light on DME 552' from DER, 304' right of centerline, 16' AGL/ 38' MSL. Aircraft 521' from DER, 576' right of centerline, up to 64' AGL/ 96' MSL. Trees beginning 602' from DER, left and right of centerline, up to 100' AGL/ 411' MSL. Vehicles on road, 621' from DER, 657' left of centerline, up to 15' AGL/ 64' MSL. Obstruction light on floodlight 837' from DER, 607' right of centerline, 16' AGL/ 61' MSL. Obstruction light on poles, 1277' from DER, left and right of centerline, up to 16' AGL/ 55' MSL. Poles 1333' from DER, 251' left of centerline, up to 16' AGL/ 64' MSL. Power line, 1338' from DER, 294' left of centerline, 16' AGL/ 82' MSL. Power pole, 4014' from DER, 910' right of centerline, up to 82' AGL/ 134' MSL. **Rwy 31L**, airplane on taxiway 28' from DER, 327' left of centerline, up to 64' AGL/ 96' MSL. Obstruction light on blast fence, 249' from DER, 452' left of centerline, 16' AGL/ 26' MSL. Obstruction light on building 1217' from DER, 626' left of centerline, up to 16' AGL/ 101' MSL. Vent on building 1244' from DER, 446' right of centerline, 16' AGL/ 59' MSL. Trees beginning 1456' from DER, left and right of centerline, up to 100' AGL/ 313' MSL. Power line 2507' from DER, 439' right of centerline, 100' AGL/ 132' MSL. Light standard 2980' from DER, 876' right of centerline, 16' AGL/ 99' MSL. Floodlights, 3499' from DER, 1023' right of centerline, up to 164' AGL/ 199' MSL. Flagpole 3763' from DER, 1278' right of centerline, up to 131' AGL/ 196' MSL. Stack, 3792' from DER, 543' right of centerline, up to 16' AGL/ 120' MSL. **Rwy 31R**, airplane on taxiway 5' from DER, left and right of centerline, up to 64' AGL/ 96' MSL. Weather rod on obstruction lights, 214' from DER, 99' left of centerline, up to 16' AGL/ 51' MSL. Obstruction light on glideslope, 527' from DER, 101' left of centerline, up to 16' AGL/ 44' MSL. Hangars 854' from DER, 405' right of centerline, up to 16' AGL/ 57' MSL. Antenna on building 1425' from DER, 516' right of centerline, 32' AGL/ 81' MSL. Obstruction light on building, 2495' from DER, 1002' left of centerline, up to 16' AGL/ 101' MSL. Trees beginning 2734' from DER, left and right of centerline, up to 100' AGL/ 362' MSL. Vehicles on road beginning 469' from DER, 252' right of centerline, 15' AGL/ 208' MSL. Trees beginning 1691' from DER, 229' right of centerline, up to 98' AGL/ 282' MSL. Tree 3238' from DER, 330' left of centerline, 98' AGL/ 288' MSL. Flagpole 5040' from DER, 902' right of centerline, 131' AGL/ 196' MSL. Transmission tower 1.5 NM from DER, 2390' right of centerline, 229' AGL/ 350' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## SEATTLE, WA (CON'T)

### SEATTLE-TACOMA INTL (SEA)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 08325 (FAA)

DEPARTURE PROCEDURE: **Rwys 16L, 16C, 16R**, climb to 1000 via heading 163°, then climbing right turn direct SEA VORTAC, thence...

**Rwys 34L, 34C, 34R**, climb to 1000 via heading 343°, then climbing left turn direct SEA VORTAC, thence...  
...climb in SEA VORTAC holding pattern (hold SE, left turns, 310° inbound) to MEA/MCA for route of flight.

NOTE: **Rwy 16L**, trees beginning 2908' from DER, 1064' right of centerline, up to 100' AGL/476' MSL. **Rwy 16C**, trees beginning 4477' from DER, 484' right of centerline, up to 100' AGL/507' MSL. **Rwy 16R**, trees, antenna on building and light pole beginning 488' from DER, 436' left of centerline, up to 100' AGL/507' MSL. Trees beginning 1137' from DER, 587' right of centerline, up to 100' AGL/468' MSL. **Rwy 34L**, fence 189' from DER, 401' right of centerline, up to 12' AGL/420' MSL. Trees beginning 4010' from DER, 857' left of centerline, up to 100' AGL/522' MSL.

## SHELBY, MT

### SHELBY (SBX)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 07074 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, 200-1¼ or std. w/ min. climb of 212' per NM to 3700, or alternatively, w/ std. takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1300' prior to DER.

NOTE: **Rwy 5**, fence post 320' from DER, 162' right of centerline, 12' AGL/3455' MSL, truck on road beginning 515' from DER, 632' right of centerline, 17' AGL/3498' MSL, tree 1 NM from DER, 1242' left of centerline, 75' AGL/3604' MSL. **Rwy 11**, truck on road 906' from DER, 691' left of centerline, 17' AGL/3456' MSL, tree 1697' from DER, 26' right of centerline, 75' AGL/3495' MSL, tree 1561' from DER, 322' left of centerline, 75' AGL/3514' MSL, light standard 852' from DER, 174' left of centerline, 22' AGL/3451' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## SHELTON, WA

### SANDERSON FIELD (SHN)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 06271 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, std. w/ a min. climb of 312' per NM to 4000, or 1500-2½ for a climb in visual conditions. **Rwy 23**, std. w/ a min. climb of 414' per NM to 4000, or 1500-2½ for a climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 5**, climbing right turn to intercept SEA R-230 to CARRO intersection. Or for climb in visual conditions: Cross Sanderson Field northeast bound at or above 1600, thence via SEA R-230 to cross CARRO intersection at or above 4000. **Rwy 23**, climbing left turn to intercept SEA R-230 to CARRO intersection. Or for climb in visual conditions: Cross Sanderson Field northeast bound at or above 1600, thence via SEA R-230 to cross CARRO intersection at or above 4000.

NOTE: **Rwy 5**, multiple trees beginning 550' from DER, 107' left of centerline, up to 94' AGL/366' MSL. Multiple trees beginning 130' from DER, 70' right of centerline, up to 80' AGL/352' MSL. **Rwy 23**, multiple trees beginning 52' from DER, 149' left of centerline, up to 72' AGL/330' MSL. Multiple trees beginning 886' from DER, 153' right of centerline, up to 155' AGL/486' MSL.

## SHERIDAN, WY

### SHERIDAN COUNTY (SHR)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 15176 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, standard with minimum climb of 267' per NM to 5000 or 1400-3 for climb in visual conditions. **Rwy 15**, standard with minimum climb of 265' per NM to 5100 or 1400-3 for climb in visual conditions. **Rwy 24**, standard with minimum climb of 360' per NM to 5200 or 1400-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 6**, Climbing left turn to intercept SHR R-109 to SHR VOR/DME, thence... **Rwy 15**, Climbing left turn heading 330 to intercept SHR R-109 to SHR VOR/DME, thence... **Rwy 24**, Climbing right turn to intercept SHR R-156 to SHR VOR/DME, thence... **Rwy 33**, Climb heading 326° to intercept SHR R-109 to SHR VOR/DME, thence... continue climb in SHR VOR/DME holding pattern (hold northwest, left turns, 136° inbound) to cross SHR VOR/DME at or above MEA for direction of flight before proceeding on course.

VCOA: **Rwy 6, 15, 24**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Sheridan county airport at or above 5300, then proceed on SHR R-132 to SHR VOR/DME. Continue climb in SHR VOR/DME holding pattern (hold northwest, left turns, 136° inbound) to cross SHR VOR/DME at or above MEA for direction of flight before proceeding on course.

NOTE: **Rwy 6**, elec sys 10' from DER, 17' left of centerline, 6' AGL/3941 MSL. Signs beginning 37' from DER, 350' right of centerline, up to 7' AGL/3943' MSL. Multiple trees and buildings beginning 92' from DER, 213' left of centerline, up to 80' AGL/3990' MSL. **Rwy 24**, rising terrain beginning 18' from DER up to 4441' MSL. Trees, towers, road, poles, NAVAID and bushes beginning 41' from DER up to 65' AGL/4284' MSL. Fence beginning 73' from DER, 500' left and 654' right of centerline, up to 10' AGL/4060' MSL. Power lines beginning 4393' from DER, 1531' left of centerline, up to 67' AGL/4286' MSL. **Rwy 33**, electrical equipment 53' from DER, 398' right of centerline, 14' AGL/4020' MSL.

## SIDNEY, MT

### SIDNEY-RICHLAND MUNI (SDY)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 13010 (FAA)

TAKEOFF MINIMUMS: **Rwy 29**, 400-2½ or std. w/min. climb of 315' per NM to 2500.

DEPARTURE PROCEDURE: **Rwy 11**, climb heading 108° to 2700 before turning right. **Rwy 29**, climb heading 288° to 2800 before proceeding on course.

NOTE: **Rwy 1**, trees beginning 86' from DER, left and right of centerline, up to 30' AGL/2072' MSL. **Rwy 19**, trees beginning 245' from DER, 302' right of centerline, up to 30' AGL/2029' MSL. Vehicle on road beginning 5' from DER, 308' right of centerline, up to 17' AGL/2003' MSL. Pole, 21' from DER, 298' right of centerline, up to 10' AGL/1992' MSL. **Rwy 29**, terrain left and right of centerline beginning 962' from DER, up to 2126' MSL. Poles beginning 1196' from DER, left and right of centerline, up to 39' AGL/2181' MSL. Trees beginning 596' from DER, 165' right of centerline, up to 30' AGL/2026' MSL. Derrick 1452' from DER, 207' left of centerline, up to 47' AGL/2028' MSL. Vehicle on road 504' from DER, 15' right of centerline, up to 17' AGL/1998' MSL.

## SNOHOMISH, WA

### HARVEY FIELD (S43)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1A 13122 (FAA)

TAKEOFF MINIMUMS: **Rwys 15R, 33L**, NA-obstacles.

**Rwy 15L**, std. w/ min. climb of 355' per NM to 1100, or 1200-2½ for climb in visual conditions. **Rwy 33R**, std. w/ min. climb of 480' per NM to 800, or 1200-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 15L**, climbing right turn on 344° course to WATON LOM, or for climb in visual conditions, cross Harvey Field at or above 1100 then proceed on 332° course to WATON LOM, thence... **Rwy 33R**, climb on 332° course to WATON LOM, or for climb in visual conditions, cross Harvey Field at or above 1100 then proceed on 332° course to WATON LOM, thence...

... aircraft departing WATON LOM on bearings 150° CW 340° from WATON LOM climb on course. Aircraft departing WATON LOM on bearings 340° CW 150° from WATON LOM, climb in holding pattern (South, left turns, 342° inbound) to cross WATON LOM at or above 4500 before proceeding on course.

NOTE: **Rwy 15L**, fence 37' from DER, left and right of centerline, 10' AGL/32' MSL. Vehicles on roadway 44' from DER, left and right of centerline, 15' AGL/37' MSL. Tree 81' from DER, 177' right of centerline, 83' AGL/106' MSL. Trees 685' from DER, left and right of centerline, up to 48' AGL/70' MSL. **Rwy 33R**, Power line beginning 32' from DER, left and right of centerline, 22' AGL/38' MSL. Power line 131' from DER, left and right of centerline, 47' AGL/63' MSL. Tower 5708' from DER, 1956' right of centerline, 207' AGL/301' MSL. Tower 1 NM from DER, 2033' right of centerline, 212' AGL/264' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## SPOKANE, WA

### FELTS FIELD (SFF)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 6 13234 (FAA)

TAKEOFF MINIMUMS: **Rwy 4L/R**, std. w/min. climb of 400' per NM to 3700, or 2300-3 for climb in visual conditions. **Rwy 22L/R**, std. w/min. climb of 370' per NM to 3200, or 2300-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 4L/R**, climb heading 038° to 3600, then climbing right turn on heading 210° and GEG R-050 to GEG VORTAC or for climb in visual conditions: cross Felts Field airport at or above 4100, then on heading 165° and GEG R-050 to GEG VORTAC. Cross GEG VORTAC at or above MCA/MEA for route of flight. **Rwy 22L/R**, climb heading 218° to 3200, then climbing left turn on heading 190° and GEG R-050 to GEG VORTAC or for climb in visual conditions: cross Felts Field airport at or above 4100, then on heading 165° and GEG R-050 to GEG VORTAC. Cross GEG VORTAC at or above MCA/MEA for route of flight.

NOTE: **Rwy 4L**, trees and buildings beginning 1151' from DER, 757' right of centerline, up to 25' AGL/2037' MSL. Trees beginning 4873' from DER, 348' left of centerline, up to 25' AGL/2099' MSL. Trees and buildings beginning 1.1 NM from DER, 67' left of centerline, up to 25' AGL/2274' MSL. Trees 1.2 NM from DER, 970' left of centerline, up to 25' AGL/2304' MSL. Buildings beginning 1.5 NM from DER, 1151' left of centerline, up to 2350' MSL. Trees 1.6 NM from DER, 517' left of centerline, up to 25' AGL/2385' MSL. Trees 2 NM from DER 590' left of centerline, up to 25' AGL/2513' MSL. Trees 2.4 NM from DER, 13' right of centerline, up to 25' AGL/2480' MSL. Transmission pole, trees and building beginning 2.5 NM from DER, 13' left of centerline, up to 25' AGL/2534' MSL. Vertical structures beginning 2.7 NM from DER, 2839' left of centerline, 2449' MSL. High terrain beginning 2.7 NM from DER, 42' left of centerline, 2439' MSL. High terrain beginning 2.8 NM from DER, 48' right of centerline, 3375' MSL. Vertical structure, trees and poles beginning 2.9 NM from DER, 605' right of centerline, up to 25' AGL/3442' MSL. Trees, poles and antenna beginning 3 NM from DER, 1899' left of centerline, up to 25' AGL/2578' MSL. Transmission tower 3.9 NM from DER, 995' right of centerline, 2570' MSL. **Rwy 4R**, buildings, hanger and NDB 86' from DER, 257' right of centerline, up to 1987' MSL. Trees beginning 930' from DER, 272' right of centerline, up to 25' AGL/2029' MSL. Trees beginning 4884' from DER, 884' left of centerline, up to 25' AGL/2092' MSL. Trees beginning 1.1 NM from DER, 29' left of centerline, up to 25' AGL/2295' MSL. Trees and buildings beginning 2.4 NM from DER, 11' right of centerline, up to 25' AGL/2494' MSL. Poles/Transmission poles beginning 2.5 NM from DER, 93' left of centerline, up to 2534' MSL. Poles/Transmission poles beginning 2.6 NM from DER, 516' right of centerline, up to 2424' MSL. High terrain beginning 2.5 NM from DER, 67' left of centerline, 2439' MSL. High terrain beginning 2.6 NM from DER, 33' right of centerline, 3375' MSL. Trees, poles and antenna beginning 3.1 NM from DER, 3238' left of centerline, 25' AGL/3442' MSL. Transmission tower 3.9 NM from DER, 496' right of centerline, 2570' MSL.

## SPOKANE, WA (CON'T)

### FELTS FIELD (SFF) (CON'T)

**Rwy 22L**, buildings and signs beginning 55' from DER, 74' left of centerline, up to 1998' MSL. Sign 95' from DER, 74' right of centerline, 1953' MSL. Obstruction light pole on building 728' from DER, 301' left of centerline, 1992' MSL. Vehicle on roadway 739' from DER, 481' left of centerline, up to 15' AGL/1971' MSL. Trees and poles beginning 1294' from DER, 183' left of centerline, up to 25' AGL/2045' MSL. Buildings and elevators 4492' from DER, 573' left of centerline, up to 2082' MSL. **Rwy 22R**, nav aids 38' from DER, left and right of centerline, 1953' MSL. Vehicles on roadway 187' from DER, 446' right of centerline, up to 15' AGL/1954' MSL. Trees beginning 187' from DER, 511' right of centerline, up to 25' AGL/1979' MSL. Light on hanger 202' from DER, 496' left of centerline, 1969' MSL. Buildings, obstruction light on buildings beginning 210' from DER, 230' left of centerline, up to 1979' MSL. Poles beginning 1271' from DER, 63' right of centerline, up to 1987' MSL. Transmission line towers beginning 1396' from DER, 2' left of centerline, up to 41' AGL/1986' MSL. Elevator and building beginning 2653' from DER, 1073' left of centerline, up to 2082' MSL. Tower 4066' from DER, 1554' left of centerline, 120' AGL/2072' MSL. Rising terrain beginning 3.1 NM from DER, 5087' left of centerline, up to 2339' MSL.

## DIVERSE VECTOR AREA (AREA VECTORS)

### AMDT 1 15204 (FAA)

**Rwy 22L**, heading as assigned by ATC; requires minimum climb of 360' per NM to 3700. **Rwy 22R**, heading as assigned by ATC; requires minimum climb of 370' per NM to 3600.

## SPOKANE INTL (GEG)

### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

##### AMDT 6 10266 (FAA)

DEPARTURE PROCEDURE: **Rwy 3**, climbing left turn heading 190° and GEG R-010 to GEG VORTAC. Thence...**Rwy 7**, climbing right turn heading 255° and GEG R-075 to GEG VORTAC, thence...**Rwy 21**, climbing right turn heading 208° and GEG R-028 to GEG VORTAC. Thence...**Rwy 25**, climbing left turn heading 176° and GEG R-356 to GEG VORTAC. Thence... climb in GEG VORTAC holding pattern (hold Southwest, right turns, 028° inbound) to cross GEG VORTAC at or above MEA for route of flight.

NOTE: **Rwy 3**, multiple trees beginning 1089' from DER, 666' left of centerline, up to 100' AGL/2370' MSL. Tree 1524' from DER, 851' right of centerline, 100' AGL/2374' MSL.

## STEVENSVILLE, MT

### STEVENSVILLE (32S)

#### TAKEOFF MINIMUMS AND (OBSTACLE)

#### DEPARTURE PROCEDURES

##### AMDT 2 05076 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, do not exceed 210 knots until established on MSO R-163. **Rwy 30**, do not exceed 210 knots until established on MSO R-160.

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn via heading 335 and MSO R-163 to MSO VOR/DME climb in MSO VOR/DME holding pattern (southeast, right turn, 340° inbound) to 13000' before proceeding on course. **Rwy 30**, climbing right turn via heading 025° and MSO R-160 to MSO VOR/DME Climb in MSO VOR/DME holding pattern (southeast, right turn, 340° inbound) to 13000' before proceeding on course.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## SUNRIVER, OR

SUNRIVER (S21)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 91206 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, 300-1 or std. with a min. climb of 360' per NM to 4400. **Rwy 36**, 600-2 or std. with a min. climb of 240' per NM to 4900.

DEPARTURE PROCEDURE: **Rwy 18**, climb runway heading to 7000 then climbing left turn direct DSD VORTAC. **Rwy 36**, climb direct to DSD VORTAC. Then all aircraft climb on course.

## TACOMA, WA

TACOMA NARROWS (TIW)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 01249 (FAA)

TAKEOFF MINIMUMS: **Rwy 35**, 400-1 or std. with a min. climb of 210' per NM to 400'.

DEPARTURE PROCEDURE: **Rwy 17**, turn right, climb via heading 230° to intercept OLM R-009 then direct OLM VORTAC. **Rwy 35**, turn left, climb via heading 270° to intercept SEA R-230 then direct CARRO INT. Continue climb in holding (SW, right turns, 047° inbound) to MEA or assigned altitude for route of flight.

## THE DALLES, OR

COLUMBIA GORGE RGNL/THE DALLES  
MUNI (DLS)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 13346 (FAA)

DEPARTURE PROCEDURE: Use DALLES  
DEPARTURE.

## TILLAMOOK, OR

TILLAMOOK (TMK)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 11181 (FAA)

TAKEOFF MINIMUMS: **Rwys 1, 13, 19**, NA-ATC.  
DEPARTURE PROCEDURE: **Rwy 31**, use FETUJ  
RNAV DEPARTURE.

## TOLEDO, WA

ED CARLSON MEMORIAL FIELD (TDO)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 10322 (FAA)

DEPARTURE PROCEDURE: Use ATASY  
DEPARTURE.

## TORRINGTON, WY

TORRINGTON MUNI (TOR)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 10042 (FAA)

NOTE: **Rwy 2**, terrain 30' from DER, 277' left of centerline, 4197' MSL. **Rwy 10**, multiple trees and fence beginning 71' from DER, 143' right of centerline, up to 14' AGL/4214' MSL. Terrain 14' from DER, 502' left of centerline, 4199' MSL. **Rwy 28**, terrain 133' from DER, 386' right of centerline, 4213' MSL.

## TWIN FALLS, ID

JOSLIN FIELD-MAGIC VALLEY RGNL  
(TWF)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 13290 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, NA-Obstacles.

DEPARTURE PROCEDURE: **Rwy 26**, aircraft departing on TWF VORTAC R-240 CW 080° climb on course. All others climb heading 258° to 6000 then climbing right turn direct TWF VORTAC. Climb in holding pattern (hold NW, right turns, 113° inbound) to MCA or MEA for direction of flight. **Rwy 8**, aircraft departing on TWF VORTAC R-260 CW 080° climb on course. All others climb heading 078° to 6000 then climbing right turn direct TWF VORTAC. Climb in holding pattern (hold NW, right turns, 113° inbound) to MCA or MEA for direction of flight. **Rwy 30**, aircraft departing on TWF VORTAC R-240 CW 080° climb on course. All others climb heading 303° to 6000 then climbing right turn direct TWF VORTAC. Climb in holding pattern (hold NW, right turns, 113° inbound) to MCA or MEA for direction of flight.

NOTE: **Rwy 30**, tree 1184' from DER, 751' right of centerline, 71' AGL/4149' MSL.

## VANCOUVER, WA

PEARSON FIELD (VUO)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 12264 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, std. w/ min. climb of 358' per NM to 600, or 500-3 w/ min. climb of 201' per NM to 600, or 900-2½ for climb in visual conditions. **Rwy 26**, 600-3 or 900-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 8**, climb heading 082° to 500 then climbing left turn direct BTG VORTAC, thence. . .

or for climb in visual conditions: cross Pearson Field at or above 800 MSL then proceed on BTG VORTAC R-179 to BTG VORTAC, thence. . .

**Rwy 26**, climb heading 262° to 700 then climbing right turn direct BTG VORTAC, thence. . .

or for climb in visual conditions: cross Pearson Field at or above 800 MSL then proceed on BTG VORTAC R-179 to BTG VORTAC, thence. . .

. . .continue climb in BTG VORTAC holding pattern (hold northwest, right turns, 149° inbound) to cross BTG VORTAC at or above MEA/MCA for route of flight.

NOTE: **Rwy 8**, tree 1.4 NM from DER, 1283' left of centerline, 100' AGL/395' MSL. Tree 1.7 NM from DER, 701' left of centerline, 100' AGL/401' MSL. Tree 2 NM from DER, 849' left of centerline, 100' AGL/406' MSL. Tree 2.4 NM from DER, 648' left of centerline, 100' AGL/399' MSL. **Rwy 26**, bridge 2704' from DER, 587' left of centerline, 243' AGL/245' MSL. Crane 1.5 NM from DER, 2563' right of centerline, 237' AGL/267' MSL. Transmission line tower 2.5 NM from DER, 2036' right of centerline, 516' AGL/534' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## WALLA WALLA, WA

WALLA WALLA RGNL (ALW)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4A 15120 (FAA)  
DEPARTURE PROCEDURE: **All aircraft** climbing left turn to 2500 on ALW VOR/DME R-195, then climbing right turn direct ALW VOR/DME to cross ALW VOR/DME at or above MEA or MCA for route of flight.

## WEISER, ID

WEISER MUNI (S87)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 08269 (FAA)  
TAKEOFF MINIMUMS: **Rwy 12**, std. w/ min. climb of 310' per NM to 3900 or 2400-3 for climb in visual conditions. **Rwy 30**, std. w/ min. climb of 360' per NM to 4000 or 2400-3 for climb in visual conditions.  
DEPARTURE PROCEDURE: **Rwy 12**, climb heading 121° to 3900 before proceeding on course. **Rwy 30**, climb heading 301° to 4000 before proceeding on course  
...for climb in visual conditions: cross Weiser Muni airport at or above 4400 before proceeding on course.  
NOTE: **Rwy 12**, tree 248' from DER, 443' right of centerline, 100' AGL/2184' MSL. **Rwy 30**, tree 1907' from DER, 769' right of centerline, 100' AGL/2174' MSL.

## WENATCHEE, WA

PANGBORN MEMORIAL (EAT)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 5 16315 (FAA)  
DEPARTURE PROCEDURE: Use WENATCHEE DEPARTURE.

## WEST YELLOWSTONE, MT

YELLOWSTONE (WYS)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 12040 (FAA)  
DEPARTURE PROCEDURE: use TARGY DEPARTURE.

## WHEATLAND, WY

PHIFER AIRFIELD (EAN)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 07298 (FAA)  
DEPARTURE PROCEDURE: **Rwy 8**, climbing left turn to 9000 via heading 030° to intercept IIP VOR/DME R-140 to JEZZY INT, thence. . .  
**Rwy 26**, climbing right turn to 9000 via heading 360° and GYZ NDB course 051° to JEZZY INT, thence. . .  
...continue climb-in-hold (hold northwest, right turn, 140° inbound) to 9000 before proceeding on course.  
NOTE: **Rwy 8**, multiple trees 512' from DER, 584' left of centerline, 100' AGL/4859' MSL. **Rwy 26**, multiple trees, buildings, poles/lights, siren, roads w/ vehicles beginning 2' from DER, on centerline, to 488' left of centerline, 100' AGL/4899' MSL. Multiple trees, buildings, poles/lights, roads w/ vehicles beginning 2' from DER, on centerline to 499' right of centerline, 100' AGL/4859' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## WHIDBEY ISLAND NAS (AULT FIELD) (KNUW)

OAK HARBOR, WA  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
14289  
Diverse departures not authorized.  
MILITARY DEPARTURE PROCEDURE: **Rwy 7**: Minimum climb of 420'/NM until 800. Climbing left turn to 2000, intercept NUW TACAN R-067, expect radar vectors to join assigned route. **Rwy 14**: Cross DER at or above 11' AGL/58' MSL. Climbing left turn to 2000, intercept NUW TACAN R-128, expect radar vectors to join assigned route. **Rwy 25**: Climb to 2000 via heading 249° expect radar vectors to join assigned route. **Rwy 32**: Climb to 2000 via heading 317° expect radar vectors. **All Rwys**: If vectors are not received by 10 DME of NUW TACAN, climb to 3000, intercept the NUW 11 DME ARC to join assigned route.

CIVIL DEPARTURE PROCEDURE: **Rwy 7**: Minimum climb of 410'/NM until 800. Climb to 2000 via heading 067° expect radar vectors to join assigned route. **Rwy 14**: Cross DER at or above 11' AGL/58' MSL for Take-Off minima of 400-2%. Climbing left turn to 2000 via heading 128° expect radar vectors to join assigned route. **Rwy 25**: Use published DP or climb to 2000 via heading 249°, expect radar vectors to join assigned route. **Rwy 32**: Climb to 2000 via heading 317°, expect radar vectors to join assigned route. **All Rwys**: If vectors are not received by 10 DME of NUW TACAN, climb to 3000, proceed direct CVV VOR/DME to join assigned route.  
TAKE-OFF OBSTACLES: **Rwy 7**, terrain, 75' MSL, 1902' from DER, 1009' right of centerline. Terrain, 75' MSL, 1983' from DER, 1005' right of centerline. Terrain, 75' MSL, 1912' from DER, 1000' right of centerline. Terrain, 89' MSL, 2518' from DER, 1175' left of centerline. **Rwy 14**, trees, 123' MSL, 2624' from DER, 849' right of centerline. Trees, 274' MSL, 1.47 NM from DER, 2467' right of centerline. Trees, 375' MSL, 2.10 NM from DER, 1844' left of centerline. **Rwy 25**, terrain, 57' MSL, 1504' from DER, 903' left of centerline.

## WILBUR, WA

WILBUR (2S8)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 13066 (FAA)  
DEPARTURE PROCEDURE: **Rwys 2,20**, Use WIPES (RNAV) DEPARTURE.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

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**WORLAND, WY**

**WORLAND MUNI (WRL)**

**TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

AMDT 2 12264 (FAA)

TAKEOFF MINIMUMS: **Rwys 4, 10, 22, 28**, NA-  
Environmental. **Rwy 16**, 300-1½ or std. with a min.  
climb of 212' per NM to 4500.

DEPARTURE PROCEDURE: **Rwy 16**, climb heading  
156° to 5000, then climbing right turn direct RLY VOR/  
DME. Thence ... **Rwy 34**, climb heading 336° to 5000,  
then climbing left turn direct RLY VOR/DME. Thence

....

... Continue climb in RLY VOR/DME holding pattern,  
(hold N, right turns, 159° inbound) to cross RLY VOR/  
DME at or above the MEA For route of flight.

NOTE: **Rwy 16**, road beginning 267' from DER, 17' right  
and 51' left of centerline, up to 4348' MSL. Pole 661'  
from DER, 397' right of centerline, 15' AGL/4287' MSL.  
Pole 183' from DER, 197' right of centerline, 5'  
AGL/4273' MSL. Poles beginning 6344' from DER, left  
and right of centerline, 48' AGL/4421' MSL. Light 10'  
from DER, 30' left of centerline, 2' AGL/4253' MSL.  
REIL 40' from DER, 90' right of centerline, 2'  
AGL/4253' MSL. **Rwy 34**, sign 16' from DER, 200' right  
of centerline, 1' AGL/4175' MSL. Road 63' from DER,  
486' left of centerline, 4182' MSL. Road 86' from DER,  
509' left of centerline, 4183' MSL. Tower 288' from  
DER, 540' right of centerline, 37' AGL/4211' MSL.  
Antenna on RTR tower 318' from DER, 550' right of  
centerline, 52' AGL/4226' MSL. rod on DF antenna  
327' from DER, 505' left of centerline, 15' AGL/4189'  
MSL. Pole 483' from DER, 535' right of centerline, 44'  
AGL/4218' MSL. Trees beginning 700' from DER, 648'  
right of centerline, up to 64' AGL/4238' MSL.

**YAKIMA, WA**

**YAKIMA AIR TERMINAL/MCALLISTER  
FIELD (YKM)**

**TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

AMDT 5 11013 (FAA)

DEPARTURE PROCEDURE: Use ZILLA  
DEPARTURE.

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INSTRUMENT APPROACH PROCEDURE CHARTS

**A** IFR ALTERNATE AIRPORT MINIMUMS

Standard alternate minimums for non-precision approaches and approaches with vertical guidance [NDB, VOR, LOC, TACAN, LDA, SDF, VOR/DME, ASR, RNAV (GPS) or RNAV (RNP)] are 800-2. Standard alternate minimums for precision approaches (ILS, PAR, or GLS) are 600-2. Airports within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA - means alternate minimums are not authorized due to unmonitored facility, absence of weather reporting service, or lack of adequate navigation coverage. Civil pilots see FAR 91. IFR Alternate Minimums: Ceiling and Visibility Minimums not applicable to USA/USN/USAF. Pilots must review the IFR Alternate Minimums Notes for alternate airfield suitability.

**NAME**                      **ALTERNATE MINIMUMS**  
**ALBANY, OR**  
ALBANY MUNI (S12) ..... **VOR/DME or GPS-A**  
NA except for operators with approved weather reporting service.

**ARLINGTON, WA**  
ARLINGTON MUNI (AWO) ..... **RNAV (GPS) Rwy 34**  
NA when local weather not available.  
Category D, 800-2½.

**ASTORIA, OR**  
ASTORIA RGNL (AST) ..... **RNAV (GPS) Rwy 8<sup>13</sup>**  
**RNAV (GPS) Rwy 26<sup>12</sup>**  
**VOR Rwy 8<sup>3</sup>**  
<sup>1</sup>NA when local weather not available.  
<sup>2</sup>Categories A, B, 900-2; Category C, 900-2¼; Category D, 900-3.  
<sup>3</sup>Category C, 800-2¼; Category D, 900-3.

**AURORA, OR**  
AURORA STATE (UAO) ..... **LOC Rwy 17<sup>1</sup>**  
**RNAV (GPS) Rwy 17<sup>23</sup>**  
**RNAV (GPS) Rwy 35<sup>2</sup>**  
<sup>1</sup>Category D, 800-2¼.  
<sup>2</sup>NA when local weather not available.  
<sup>3</sup>Categories A, B, 900-2; Category C, 900-2¼; Category D, 900-2¼.

**BAKER, MT**  
BAKER MUNI (BHK) ..... **NDB Rwy 13<sup>1</sup>**  
**NDB Rwy 31<sup>2</sup>**  
**RNAV (GPS) Rwy 13<sup>3</sup>**  
**RNAV (GPS) Rwy 31<sup>3</sup>**  
<sup>1</sup>Categories A, B, 1000-2; Categories C, D, 1000-3.  
<sup>2</sup>Categories A, B, 900-2; Category C, 900-2¼; Category D, 900-3.  
<sup>3</sup>Category D, 900-2¼.

**NAME**                      **ALTERNATE MINIMUMS**  
**BAKER CITY, OR**  
BAKER CITY MUNI (BKE) ..... **RNAV (GPS) Rwy 13<sup>2</sup>**  
**VOR-A<sup>13</sup>**  
**VOR/DME Rwy 13<sup>24</sup>**  
<sup>1</sup>NA when local weather not available.  
<sup>2</sup>Category D, 900-2¼.  
<sup>3</sup>Categories A, B, 1900-2; Categories C, D, 1900-3.  
<sup>4</sup>NA when control zone not in effect.

**BELLINGHAM, WA**  
BELLINGHAM INTL (BLI) ..... **ILS or LOC Rwy 16<sup>1</sup>**  
**RNAV (GPS) Y Rwy 16<sup>2</sup>**  
**RNAV (GPS) Y Rwy 34<sup>2</sup>**  
NA when local weather not available.  
<sup>1</sup>ILS, Category C, 800-2; Category D, 1000-3; LOC, Category D, 1000-3.  
<sup>2</sup>Category D, 1000-3.

**BEND, OR**  
BEND MUNI (BDN) ..... **RNAV (GPS) Y Rwy 16**  
**VOR/DME Rwy 16**  
Category D, 1200-3.  
NA when local weather not available.

**BIG PINEY, WY**  
MILEY MEMORIAL FIELD (BPI) ..... **VOR Rwy 31**  
Category D, 800-2¼.

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**BILLINGS, MT**

BILLINGS LOGAN

INTL (BIL)..... ILS or LOC Rwy 10L<sup>2</sup>  
ILS or LOC/DME Rwy 28R<sup>3</sup>  
NDB Rwy 10L<sup>1</sup>  
RNAV (GPS) Y Rwy 10L<sup>4</sup>  
RNAV (GPS) Y Rwy 28R<sup>4</sup>

<sup>1</sup>Category D, 800-2½.

<sup>2</sup>ILS, Categories A, B, 800-2, Categories C, D, 800-2½. LOC, Categories C, D, 800-2½.

<sup>3</sup>ILS, LOC, Category D, 1000-3.

<sup>4</sup>Category D, 1000-3.

**BOISE, ID**

BOISE AIR TERMINAL/GOWEN

FIELD (BOI)..... ILS or LOC Rwy 10R<sup>3</sup>  
ILS or LOC/DME Rwy 28R<sup>2</sup>  
RNAV (GPS) Y Rwy 10L<sup>34</sup>  
RNAV (GPS) Y Rwy 10R<sup>45</sup>  
RNAV (GPS) Y Rwy 28L<sup>5</sup>  
RNAV (GPS) Y Rwy 28R<sup>3</sup>  
VOR/DME or TACAN Rwy 10L<sup>1</sup>  
VOR/DME or TACAN Rwy 28L<sup>1</sup>

<sup>1</sup>Category E, 1000-3.

<sup>2</sup>Categories A, B 900-2, Category C 900-2½, Category D 900-2¾.

<sup>3</sup>Category C, 900-2½; Category D, 1000-3.

<sup>4</sup>NA when local weather not available.

<sup>5</sup>Category C, 900-2½; Category D, 1000-3; Category E, 1100-3.

**BOZEMAN, MT**

BOZEMAN YELLOWSTONE

INTL (BZN)..... RNAV (GPS)-A<sup>1</sup>  
VOR Rwy 12<sup>2</sup>

<sup>1</sup>Categories A, B, 1600-2; Category C, 1600-3; Category D, 1900-3.

<sup>2</sup>Categories A, B, 1000-2; Categories C, D, 1000-3.

**BREMERTON, WA**

BREMERTON

NATIONAL (PWT)..... ILS or LOC Rwy 20<sup>2</sup>  
RNAV (GPS) Rwy 2<sup>3</sup>  
RNAV (GPS) Rwy 20<sup>1</sup>

NA when local weather not available.

<sup>1</sup>Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.

<sup>2</sup>ILS, Categories A, B, 800-2; Category C, 800-2½; Category D, 800-2½; LOC, Category C, 800-2½; Category D, 800-2½.

<sup>3</sup>Category D, 800-2½.

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**BUFFALO, WY**

JOHNSON

COUNTY (BYG)..... RNAV (GPS) Rwy 31  
VOR/DME Rwy 31<sup>1</sup>

NA when local weather not available.

<sup>1</sup>Category C, 800-2½; Category D, 800-2½.

**BURLEY, ID**

BURLEY MUNI (BYI) ..... RNAV (GPS) Rwy 20  
VOR-A

NA when local weather not available.

**BURLINGTON/MOUNT VERNON, WA**

SKAGIT RGNL (BVS) ..... NDB Rwy 11<sup>1</sup>  
RNAV (GPS) Rwy 11<sup>2</sup>  
RNAV (GPS) Rwy 29<sup>2</sup>

NA when local weather not available.

<sup>1</sup>Categories A, B, 1300-2; Categories C, D, 1300-3.

<sup>2</sup>Category D, 900-2¾.

**BURNS, OR**

BURNS MUNI (BNO) ..... VOR Rwy 30  
Categories A, B, 1400-2; Categories C, D, 1400-3.

**BUTTE, MT**

BERT MOONEY (BTM)..... ILS Y Rwy 15<sup>1</sup>  
LOC/DME Rwy 15<sup>2</sup>  
RNAV (GPS) Y Rwy 15<sup>3</sup>  
VOR or GPS-B, 1400-3

<sup>1</sup>Categories A, B, C, 1200-4.

<sup>2</sup>Categories A, B, 1300-2; Categories C, D, 1300-3.

<sup>3</sup>Categories A, B, 1500-2; Categories C, D, 1500-3.

**CALDWELL, ID**

CALDWELL

INDUSTRIAL (EUL) ..... RNAV (GPS) Rwy 12  
RNAV (GPS) Rwy 30

NA when local weather not available.

**CASPER, WY**

CASPER/NATRONA

COUNTY INTL (CPR) ..... ILS or LOC Rwy 3<sup>1</sup>  
VOR/DME Rwy 21

NA when control tower closed.

<sup>1</sup>ILS, LOC, Categories A, B, 900-2; Category C 900-2½; Category D, 900-2¾.

**CHEHALIS, WA**

CHEHALIS-

CENTRALIA (CLS)..... RNAV (GPS) Rwy 16  
NA when local weather not available.  
Category B, 1000-2; Category C 1100-3;  
Category D 1200-3.

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**CHEYENNE, WY**  
CHEYENNE RGNL/JERRY OLSON  
FIELD (CYS) ..... ILS or LOC Rwy 27<sup>2</sup>  
RNAV (GPS) Rwy 9<sup>1</sup>  
RNAV (GPS) Rwy 13<sup>1</sup>  
RNAV (GPS) Rwy 31<sup>1</sup>

- <sup>1</sup>NA when local weather not available.
- <sup>2</sup>ILS, Category C, 800-2; Category D, 800-2½;  
ILS, Category D, 800-2½.

**CODY, WY**  
YELLOWSTONE  
RGNL (COD) ..... RNAV (GPS) Rwy 22<sup>1</sup>  
RNAV (GPS)-B<sup>2</sup>  
VOR-A<sup>3</sup>

- <sup>1</sup>Category C, 800-2¼; Category D, 200-2¼.
- <sup>2</sup>Categories A, B, 1100-2; Categories C, D, 1100-3.
- <sup>3</sup>Category D, 900-2¼.

**COEUR D'ALENE, ID**  
COEUR D'ALENE-PAPPY BOYINGTON  
FIELD (COE) ..... ILS or LOC/DME Rwy 6  
RNAV (GPS) Rwy 6  
VOR/DME Rwy 2

NA when local weather not available.

**CORVALLIS, OR**  
CORVALLIS  
MUNI (CVO) ..... VOR-A  
Categories A, B, 1200-2; Categories C, D,  
1200-3.

**CUT BANK, MT**  
CUT BANK  
INTL (CTB) ..... RNAV (GPS) Rwy 5  
RNAV (GPS) Rwy 14  
RNAV (GPS) Rwy 23  
RNAV (GPS) Rwy 32  
VOR Rwy 32

NA when local weather not available.  
Category D, 800-2½.

**DEER PARK, WA**  
DEER PARK (DEW) ..... RNAV (GPS) Rwy 34

NA when local weather not available.

**DILLON, MT**  
DILLON (DLN) ..... RNAV (GPS) Rwy 17<sup>2</sup>  
RNAV (GPS) Rwy 35<sup>2</sup>  
VOR-A<sup>1</sup>  
VOR/DME-B<sup>2</sup>

- <sup>1</sup>Categories A, B, 2900-2; Categories C, D,  
2900-3.
- <sup>2</sup>Category D, 1100-3.

**NAME** **ALTERNATE MINIMUMS**

**DOUGLAS, WY**  
CONVERSE COUNTY (DGW) ..... VOR Rwy 29  
Categories A, B, 1100-2; Categories C, D,  
1100-3. DME standard.

**DRIGGS, ID**  
DRIGGS-REED  
MEMORIAL (DIJ) ..... RNAV (GPS) Rwy 4  
RNAV (GPS)-A<sup>1</sup>

NA when local weather not available.  
<sup>1</sup>Category D, 1200-3.

**EASTSOUND, WA**  
ORCAS ISLAND (ORS) ..... RNAV (GPS)-A  
RNAV (GPS) Rwy 16  
RNAV (GPS) Rwy 34

NA when local weather not available.  
Category A, 1100-2; Category B, 1800-2.

**ELLENSBURG, WA**  
BOWERS FIELD (ELN) ..... RNAV (GPS) Rwy 25<sup>1</sup>  
RNAV (GPS) Rwy 29  
RNAV (GPS)-C<sup>3</sup>  
VOR-B<sup>2</sup>

NA when local weather not available.

- <sup>1</sup>Category D, 800-2¼.
- <sup>2</sup>Category A, 1500-2.
- <sup>3</sup>Categories A, B, 900-2; Category C, 900-2¼;  
Category D, 900-3.

**ENNIS, MT**  
ENNIS-BIG SKY (EKS) ..... RNAV (GPS) Rwy 16<sup>1</sup>  
RNAV (GPS) Rwy 34<sup>23</sup>

- <sup>1</sup>Category D, 800-2¼.
- <sup>2</sup>NA when local weather not available.
- <sup>3</sup>Categories A, B, 900-2; Category C, 900-2½;  
Category D, 900-2¼.

**EPHRATA, WA**  
EPHRATA MUNI (EPH) ..... RNAV (GPS) Rwy 3<sup>1</sup>  
RNAV (GPS) Rwy 21<sup>2</sup>  
VOR/DME Rwy 3<sup>1</sup>  
VOR Rwy 21<sup>1</sup>

NA when local weather not available.

- <sup>1</sup>Category D, 1300-3.
- <sup>2</sup>Category C, 800-2¼; Category D, 1300-3.

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**EUGENE, OR**  
 MAHLON SWEET  
 FIELD (EUG) ..... **ILS or LOC Rwy 16L<sup>1</sup>**  
   **ILS or LOC Rwy 16R<sup>1</sup>**  
   **RNAV (GPS) Y Rwy 34L<sup>2</sup>**  
   **VOR-A<sup>3</sup>**  
   **VOR or TACAN Rwy 16R<sup>4</sup>**  
   **VOR or TACAN Rwy 34L<sup>4</sup>**

<sup>1</sup>ILS, LOC Category D, 800-2¼  
<sup>2</sup>Categories C, D, 800-2.  
<sup>3</sup>Categories A, B, 900-2; Category C, 900-2½;  
 Category D, 900-2¼.  
<sup>4</sup>Category D, 800-2¼.

**EVANSTON, WY**  
 EVANSTON-UINTA COUNTY BURNS  
 FIELD (EVW) ..... **ILS or LOC/DME Rwy 23**  
 Categories C, D, 700-2.

**EVERETT, WA**  
 SNOHOMISH COUNTY (PAINE  
 FIELD) (PAE) ..... **ILS or LOC/DME Y Rwy 16R<sup>1</sup>**  
   **ILS Z or LOC/DME Z Rwy 16R<sup>1</sup>**  
   **RNAV (GPS) Rwy 34L**  
   **RNAV (GPS) Y Rwy 16R**  
   **RNAV (GPS) Z Rwy 16R**

NA when local weather not available.  
<sup>1</sup>NA when control tower closed.

**FORT BENTON, MT**  
 FORT BENTON (79S) ..... **RNAV (GPS) Rwy 23**  
 NA when local weather not available.

**FRIDAY HARBOR, WA**  
 FRIDAY HARBOR (FHR) ... **RNAV (GPS) Rwy 34**  
 NA when local weather not available.

**GILLETTE, WY**  
 GILLETTE-CAMPBELL  
 COUNTY (GCC) ..... **ILS or LOC Rwy 34<sup>12</sup>**  
   **RNAV (GPS) Rwy 16<sup>3</sup>**  
   **RNAV (GPS) Rwy 34<sup>4</sup>**  
   **VOR Rwy 16<sup>4</sup>**

<sup>1</sup>NA when control tower closed.  
<sup>2</sup>ILS Categories A, B, 900-2; Categories C, D,  
 1100-3; LOC Categories A, B, 900-2;  
 Categories C, D, 1100-3.  
<sup>3</sup>Category A, 800-2½; Category B, 900-2½;  
 Categories C, D, 1100-3.  
<sup>4</sup>Category B, 900-2; Categories C, D, 1100-3.

**NAME** ALTERNATE MINIMUMS

**GLASGOW, MT**  
 WOKAL FIELD/GLASGOW  
 INTL (GGW) ..... **RNAV (GPS) Rwy 12<sup>1</sup>**  
   **RNAV (GPS) Rwy 30<sup>1</sup>**  
   **VOR Rwy 12<sup>2</sup>**  
   **VOR Rwy 30<sup>1</sup>**

<sup>1</sup>NA when local weather not available.  
<sup>2</sup>Categories A, B, 900-2; Categories C, D, 900-3.  
 VOR/DME standard.

**GLENDEVE, MT**  
 DAWSON  
 COMMUNITY (GDV) ..... **NDB Rwy 12**  
 Categories A, B, 900-2; Category C, 900-2½;  
 Category D, 900-2¼.

**GOODING, ID**  
 GOODING MUNI (GNG) ..... **RNAV (GPS) Rwy 7**  
   **RNAV (GPS) Rwy 25**  
 NA when local weather not available.

**GRANGEVILLE, ID**  
 IDAHO COUNTY (GIC) ..... **RNAV (GPS) Rwy 8<sup>1</sup>**  
   **RNAV (GPS) Rwy 26<sup>2</sup>**

<sup>1</sup>NA when local weather not available.  
<sup>2</sup>Category C, 800-2¼; Category D, 800-2¼.

**GRAY AAF (KGRF)**  
 JOINT BASE  
 LEWIS MCCORD, WA ..... **NDB Rwy 15<sup>1</sup>**  
   **NDB Rwy 33<sup>1</sup>**  
   **ILS or LOC Rwy 15<sup>1</sup>**  
   **RNAV (GPS) Rwy 15**  
   **RNAV (GPS) Rwy 33**  
   **COPTER NDB Rwy 15<sup>1</sup>**

NA when local weather not available.  
<sup>1</sup>NA when control tower closed.

**GREAT FALLS, MT**  
 GREAT FALLS INTL (GTF) ..... **NDB Rwy 34**  
 Category D, 800-2¼.

**GREYBULL, WY**  
 SOUTH BIG HORN  
 COUNTY (GEY) ..... **RNAV (GPS) Rwy 7<sup>1</sup>**  
   **RNAV (GPS) Rwy 34<sup>2</sup>**

NA when local weather not available.  
<sup>1</sup>Category D, 1300-3.  
<sup>2</sup>Categories A, B, 900-2; Category C, 900-2½;  
 Category D, 1300-3.

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## NAME ALTERNATE MINIMUMS

### HAILEY, ID

FRIEDMAN

MEMORIAL (SUN) ..... **RNAV (GPS) X Rwy 31<sup>1</sup>**  
**RNAV (GPS) Y Rwy 31<sup>2</sup>**

<sup>1</sup>Categories A, B, 1700-2; Categories C, D, 1700-3.

<sup>2</sup>Categories A, B, 2100-2; Category C, 2300-3; Category D, 2700-3.

### HAVRE, MT

HAVRE CITY-COUNTY (HVR) ..... **VOR Rwy 26**  
Categories A, B, 900-2; Category C, 900-2½;  
Category D, 900-3.

### HELENA, MT

HELENA

RGNL (HLN) ..... **ILS or LOC Y Rwy 27<sup>12</sup>**  
**ILS or LOC Z Rwy 27<sup>10</sup>**

**LOC/DME BC-C<sup>13</sup>**

**RNAV (GPS) Y Rwy 9<sup>4</sup>**

**RNAV (GPS) X Rwy 27<sup>4</sup>**

**RNAV (RNP) Z Rwy 9<sup>6</sup>**

**RNAV (RNP) Y Rwy 27<sup>6</sup>**

**RNAV (RNP) Z Rwy 27<sup>6B</sup>**

**VOR-A<sup>7</sup>**

**VOR/DME-B<sup>5</sup>**

<sup>1</sup>NA when control tower closed.

<sup>2</sup>Categories A, B, 1800-2; Categories C, D, E, 1800-3.

<sup>3</sup>Categories A, B, 1300-2; Categories C, 1300-3.

<sup>4</sup>Categories A, B, 1600-2; Categories C, D, 1600-3.

<sup>5</sup>Categories A, B, 900-2; Category C, 900-2½; Category D, 900-3.

<sup>6</sup>NA when local weather not available.

<sup>7</sup>Categories A, B, 2900-2; Categories C, D, 2900-3.

<sup>8</sup>1000-4.

<sup>9</sup>Categories A, B, 1800-2; Categories C, D, E, 2100-3.

### HOQUIAM, WA

BOWERMAN (HQM) ..... **RNAV (GPS) Rwy 24<sup>2</sup>**  
**VOR Rwy 6<sup>1</sup>**

<sup>1</sup>Category D, 800-2½.

<sup>2</sup>Category C, 800-2½.

### HULETT, WY

HULETT

MUNI (W43) ..... **RNAV (GPS) Rwy 13**

NA when local weather not available.

Categories A, B, 900-2; Category C, 900-2½;

Category D, 1200-3.

## NAME ALTERNATE MINIMUMS

### IDAHO FALLS, ID

IDAHO FALLS

RGNL (IDA) ..... **ILS or LOC Rwy 20<sup>1</sup>**  
**LOC BC Rwy 2<sup>2</sup>**  
**RNAV (GPS) Y Rwy 2<sup>3</sup>**  
**RNAV (GPS) Y Rwy 20<sup>3</sup>**  
**VOR Rwy 20<sup>3</sup>**

<sup>1</sup>ILS, Category E, 700-2½. LOC, Category E, 800-2½.

<sup>2</sup>Category E, 800-2½.

<sup>3</sup>NA when local weather not available.

### JACKSON, WY

JACKSON

HOLE (JAC) ..... **RNAV (GPS) X Rwy 1<sup>1</sup>**  
**RNAV (GPS) Z Rwy 19<sup>4</sup>**

**RNAV (RNP) Y Rwy 1, 1000-4**

**VOR/DME Rwy 1<sup>2</sup>**

**VOR/DME Rwy 19<sup>3</sup>**

<sup>1</sup>Categories A, B, 1200-2; Categories C, D, 1200-3.

<sup>2</sup>Categories A, B, 1000-2; Categories C, D, 1000-3.

<sup>3</sup>Categories A, B, 1400-2; Categories C, D, 1400-3.

<sup>4</sup>Categories A, B, 1000-2; Category C, 1000-2½; Category D, 1000-3.

### JEROME, ID

JEROME

COUNTY (JER) ..... **RNAV (GPS) Rwy 9**

**RNAV (GPS) Rwy 27<sup>1</sup>**

**VOR/DME-A**

NA when local weather not available.

<sup>1</sup>Categories A, B, 1300-2; Categories C, D, 1300-3.

### JOHN DAY, OR

GRANT COUNTY RGNL/

OGILVIE FIELD (GCD) ..... **RNAV (GPS) Y Rwy 9**

Category B, 900-2; Category C, 900-2½.

### KALISPELL, MT

GLACIER PARK

INTL (GPI) ..... **ILS or LOC Rwy 2<sup>1</sup>**

**RNAV (RNP) Y Rwy 2<sup>2</sup>**

**RNAV (RNP) Rwy 20<sup>23</sup>**

<sup>1</sup>ILS, Categories A, B, C, 700-2; Category D, 800-2½; LOC, Category D, 800-2½.

<sup>2</sup>NA when local weather not available.

<sup>3</sup>800-2½.

### KELSO, WA

SOUTHWEST WASHINGTON

RGNL (KLS) ..... **RNAV (GPS) Rwy 12**

Categories A, B, 900-2.

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**NAME** ALTERNATE MINIMUMS  
**KEMMERER, WY**  
 KEMMERER  
 MUNI (EMM) ..... **RNAV (GPS) Rwy 16**  
**RNAV (GPS) Rwy 34**  
 NA when local weather not available.  
 Category B, 1000-2.

**KLAMATH FALLS, OR**  
 KLAMATH  
 FALLS (LMT)..... **ILS or LOC/DME Rwy 32<sup>12</sup>**  
**RNAV (GPS) Rwy 14<sup>3</sup>**  
**RNAV (GPS) Rwy 32<sup>4</sup>**  
**VOR/DME or TACAN Rwy 14<sup>5</sup>**  
**VOR/DME or TACAN Rwy 32<sup>5</sup>**

- <sup>1</sup>ILS, Category A, 800-2; Category B, 900-2; Category C, 1400-3; Category D, 1600-3. LOC, Category B, 900-2; Category C, 1400-3; Category D, 1600-3.
- <sup>2</sup>NA when control tower closed.
- <sup>3</sup>Category A, B, 900-2. Category C, 1400-3; Category D, 1600-3.
- <sup>4</sup>Category B, 900-2; Category C, 1400-3; Category D, 1600-3.
- <sup>5</sup>Category B, 900-2; Category C, 1400-3; Category D, 1600-3; Category E, 1700-3.

**LAKEVIEW, OR**  
 LAKE COUNTY (LKV) ..... **VOR/DME-A**  
 Categories A, B, 900-2; Category C, 900-2½;  
 Category D, 900-2¼.

**LARAMIE, WY**  
 LARAMIE RGNL (LAR) ..... **RNAV (GPS) Rwy 3**  
**RNAV (GPS) Rwy 21**  
 NA when local weather not available.

**LEWISTON, ID**  
 LEWISTON-NEZ PERCE  
 COUNTY (LWS) ..... **ILS Rwy 26<sup>12</sup>**  
**RNAV (GPS) Y Rwy 8<sup>24</sup>**  
**RNAV (GPS) Y Rwy 26<sup>4</sup>**  
**RNAV (RNP) Z Rwy 8<sup>2</sup>**  
**RNAV (RNP) Z Rwy 12<sup>2</sup>**  
**RNAV (RNP) Z Rwy 26<sup>2</sup>**  
**VOR Rwy 8<sup>3</sup>**

- <sup>1</sup>NA when control tower closed.
- <sup>2</sup>NA when local weather not available.
- <sup>3</sup>Categories A, B, 1100-2; Categories C, D, 1100-3.
- <sup>4</sup>Category D, 800-2¼.

**LEWISTOWN, MT**  
 LEWISTOWN  
 MUNI (LWT) ..... **RNAV (GPS) Rwy 8**  
**VOR Rwy 8**  
 Category D, 800-2¼.

**NAME** ALTERNATE MINIMUMS  
**LIVINGSTON, MT**  
 MISSION FIELD (LVM) ..... **RNAV (GPS) Rwy 22<sup>1</sup>**  
**VOR/DME-B<sup>2</sup>**  
<sup>1</sup>Category D, 1000-3  
<sup>2</sup>Categories A, B, 900-2; Category C, 900-2½;  
 Category D, 1000-3.

**MC CALL, ID**  
 MC CALL MUNI (MYL)..... **RNAV (GPS) Rwy 16<sup>1</sup>**  
**RNAV (GPS) Y Rwy 34<sup>2</sup>**  
<sup>1</sup>Category C, 900-2½.  
<sup>2</sup>Categories A, B, 1600-2; Categories C, D, 1600-3.

**MC MINNVILLE, OR**  
 MC MINNVILLE  
 MUNI (MMV) ..... **ILS or LOC Rwy 22**  
**RNAV (GPS) Rwy 4**  
**RNAV (GPS) Rwy 22**  
**VOR/DME-B**  
 NA when local weather not available.  
 Category D 800-2¼.

**MEDFORD, OR**  
 ROGUE VALLEY INTL-  
 MEDFORD (MFR)..... **ILS or LOC/DME Rwy 14<sup>12</sup>**  
**LOC/DME BC-B<sup>23</sup>**  
**RNAV (GPS)-D<sup>3</sup>**  
**RNAV (GPS) Y Rwy 14<sup>4</sup>**  
**VOR-A<sup>5</sup>**  
**VOR/DME-C<sup>3</sup>**  
**VOR/DME Rwy 14<sup>5</sup>**

- <sup>1</sup>ILS, Categories A, B, 800-2; Category C, 800-2¼; Category D, 1000-3.
- <sup>2</sup>NA when control tower closed.
- <sup>3</sup>Categories A, B, 2300-2; Categories C, D, 2300-3.
- <sup>4</sup>Categories A, B, 1800-2; Categories C, D, 1800-3.
- <sup>5</sup>Categories A, B, 1400-2; Category C, D, 1400-3.

**MILES CITY, MT**  
 FRANK WILEY  
 FIELD (MLS) ..... **RNAV (GPS) Rwy 4<sup>1</sup>**  
**RNAV (GPS) Rwy 13<sup>1</sup>**  
**RNAV (GPS) Rwy 22<sup>1</sup>**  
**RNAV (GPS) Rwy 31<sup>1</sup>**  
**VOR Rwy 4**  
**VOR/DME Rwy 22<sup>1</sup>**  
 NA when local weather not available.  
<sup>1</sup>Category D 800-2¼.

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## MISSOULA, MT

MISSOULA INTL (MSO)..... ILS Z Rwy 11<sup>1</sup>  
 RNAV (GPS)-D<sup>2</sup>  
 RNAV (GPS) Y Rwy 11<sup>3,4</sup>  
 RNAV (RNP) Z Rwy 11<sup>3</sup>  
 VOR/DME-A<sup>5</sup>  
 VOR/DME-B<sup>6</sup>

- <sup>1</sup>NA when control tower closed.
- <sup>2</sup>Categories A, B, 1400-2; Category C, 1400-3; Category D, 1500-3.
- <sup>3</sup>NA when local weather not available.
- <sup>4</sup>Categories A, B, 1900-2; Categories C, D, 1900-3.
- <sup>5</sup>Categories A, B, 2000-2; Categories C, D, 2000-3.
- <sup>6</sup>Categories A, B, 1800-2; Categories C, D, 1800-3.

## MOSES LAKE, WA

GRANT COUNTY  
 INTL (MWH) ..... ILS or LOC Rwy 32R<sup>1</sup>  
 NDB Rwy 32R<sup>2</sup>  
 RNAV (GPS) Y Rwy 4<sup>1</sup>  
 RNAV (GPS) Y Rwy 14L<sup>1</sup>  
 RNAV (GPS) Y Rwy 22<sup>1</sup>  
 RNAV (GPS) Y Rwy 32R<sup>1</sup>  
 VOR Rwy 4<sup>2</sup>  
 VOR -1 Rwy 14L<sup>2,3</sup>  
 VOR -3 Rwy 14L<sup>2</sup>  
 VOR Rwy 22<sup>2</sup>  
 VOR Rwy 32R<sup>2</sup>

- <sup>1</sup>NA when local weather not available.
- <sup>2</sup>NA when control tower closed.
- <sup>3</sup>Category D 800-2½.

## NAMPA, ID

NAMPA MUNI (MAN) ..... NDB-A  
 RNAV (GPS) Rwy 11  
 RNAV (GPS)-B<sup>1</sup>

- NA when local weather not available.
- <sup>1</sup>Categories D, 800-2½.

## NEWCASTLE, WY

MONDELL FIELD (ECS) ... RNAV (GPS) Rwy 14<sup>2</sup>  
 RNAV (GPS) Rwy 32<sup>3</sup>  
 VOR Rwy 32<sup>1</sup>

- <sup>1</sup>Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.
- <sup>2</sup>Category C, 800-2½; Category D, 900-2¾.
- <sup>3</sup>Category D, 900-2¾.

NAME ALTERNATE MINIMUMS

## NEWPORT, OR

NEWPORT MUNI (ONP)... RNAV (GPS) Rwy 16<sup>2</sup>  
 RNAV (GPS) Rwy 34<sup>1,2</sup>  
 VOR Rwy 16<sup>1,2</sup>  
 VOR Rwy 34<sup>1,4</sup>  
 VOR-A<sup>1,3</sup>

- <sup>1</sup>NA when local weather not available.
- <sup>2</sup>Category C, 800-2¾; Category D, 1100-3.
- <sup>3</sup>Categories A, B, 900-2; Category C, 900-2¾; Category D, 1100-3.
- <sup>4</sup>Category B, 900-2; Category C, 1300-3; Category D, 1500-3.

## NORTH BEND, OR

SOUTHWEST OREGON  
 RGNL (OTH) ..... ILS or LOC Rwy 4<sup>1</sup>  
 RNAV (GPS) Y Rwy 4<sup>2</sup>  
 VOR-A<sup>3</sup>  
 VOR/DME-B<sup>2</sup>  
 VOR/DME Rwy 4<sup>2</sup>

- <sup>1</sup>ILS, Category A, 700-2; Category B, 900-2; Category C, 1100-3; Category D, 1200-3; LOC, Category B, 900-2; Category C, 1100-3; Category D, 1200-3.
- <sup>2</sup>Category B, 900-2; Category C, 1100-3; Category D, 1200-3.
- <sup>3</sup>Categories A, B, 1300-2; Categories C, D, 1300-3.

## OAK HARBOR, WA

AJ EISENBERG (OKH) ..... RNAV (GPS) Rwy 7  
 NA when local weather not available.

## OLYMPIA, WA

OLYMPIA  
 RGNL (OLM) ..... ILS or LOC Rwy 17<sup>1,2</sup>  
 RNAV (GPS) Rwy 17  
 RNAV (GPS) Rwy 35  
 VOR-A<sup>3</sup>  
 VOR/DME Rwy 35

- NA when local weather not available.
- <sup>1</sup>NA when control tower closed.
- <sup>2</sup>ILS, Category B, 700-2; Category C, 900-2½; Category D, 900-2¾; LOC, Category C, 900-2½; Category D, 900-2¾.
- <sup>3</sup>Category D, 800-2¾.

## ONTARIO, OR

ONTARIO MUNI (ONO) ..... RNAV (GPS) Rwy 14  
 RNAV (GPS) Rwy 32  
 NA when local weather not available.

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### PASCO, WA

TRI-CITIES  
(PSC) ..... **ILS or LOC/DME Rwy 21R<sup>12</sup>**  
**RNAV (GPS) Y Rwy 3L<sup>3</sup>**  
**RNAV (GPS) Y Rwy 12<sup>3</sup>**  
**RNAV (GPS) Y Rwy 21R<sup>3</sup>**  
**RNAV (GPS) Y Rwy 30<sup>3</sup>**  
**VOR/DME Rwy 21R<sup>3</sup>**  
**VOR/DME Rwy 30<sup>3</sup>**

NA when local weather not available.  
<sup>1</sup>NA when control tower closed.  
<sup>2</sup>ILS, Category C, 700-2; Category D, 700-2½;  
<sup>3</sup>LOC Category D, 800-2¼.  
<sup>3</sup>Category D, 800-2¼.

### PENDLETON, OR

EASTERN OREGON RGNL AT  
PENDLETON (PDT) ... **ILS or LOC/DME Rwy 25<sup>1</sup>**  
**RNAV (GPS) Rwy 7**  
**RNAV (GPS) Rwy 11**  
**RNAV (GPS) Rwy 25**  
**RNAV (GPS) Rwy 29**  
**VOR Rwy 7**

NA when local weather not available.  
<sup>1</sup>ILS, LOC, Category D, 800-2¼.

### PINEDALE, WY

PINEDALE/RALPH WENZ  
FIELD (PNA) ..... **NDB-A<sup>1</sup>**  
**RNAV (GPS) Rwy 11**  
**RNAV (GPS) Rwy 29**

NA when local weather not available.  
<sup>1</sup>Categories A, B, 900-2; Category C, 900-2½;  
Category D, 900-2¼.

### POCATELLO, ID

POCATELLO  
RGNL (PIH) ..... **ILS or LOC Rwy 21<sup>1</sup>**  
**RNAV (GPS) Rwy 3<sup>2</sup>**  
**RNAV (GPS) Rwy 21<sup>2</sup>**  
**VOR Rwy 3<sup>2</sup>**

<sup>1</sup>NA when control tower closed.  
<sup>2</sup>NA when local weather not available.

### PORT ANGELES, WA

PORT ANGELES  
CGAS (NOW) ..... **COPTER RNAV (GPS) Rwy 26**  
NA when local weather not available.

## NAME ALTERNATE MINIMUMS

### PORTLAND, OR

PORTLAND  
INTL (PDX) ..... **ILS or LOC Rwy 10L<sup>1</sup>**  
**ILS or LOC Rwy 10R<sup>2</sup>**  
**ILS or LOC Rwy 28L<sup>3</sup>**  
**ILS or LOC Rwy 28R<sup>4</sup>**  
**LOC/DME Rwy 21<sup>5</sup>**  
**RNAV (GPS) Y Rwy 10L<sup>5</sup>**  
**RNAV (GPS) Y Rwy 10R<sup>5</sup>**  
**RNAV (GPS) X Rwy 28L<sup>7</sup>**  
**RNAV (GPS) X Rwy 28R<sup>7</sup>**  
**VOR-A<sup>6</sup>**

<sup>1</sup>ILS, Category A, 700-2; Categories B, C, 800-2;  
Category D, 1000-3; Category E, 1200-3. LOC,  
Category D, 1000-3; Category E, 1200-3.  
<sup>2</sup>Categories A, B, 900-2; Category C, 900-2½;  
Category D, 1000-3; Category E, 1200-3.  
<sup>3</sup>ILS, Category A, 700-2; Categories B, 800-2;  
Categories C, D, 1100-3; Category E, 1200-3.  
LOC, Categories C, D, 1100-3; Category E,  
1200-3.  
<sup>4</sup>ILS, Category A, 700-2; Category B, 800-2;  
Categories C, D, 1100-3; LOC, Categories C, D,  
1100-3.  
<sup>5</sup>Category D, 1000-3.  
<sup>6</sup>Categories A, B, 1000-2; Category C, 1000-2¾;  
Category D, 1000-3.  
<sup>7</sup>Categories C, D, 1100-3.

PORTLAND-  
HILLSBORO (HIO) ..... **ILS or LOC Rwy 13<sup>1</sup>**  
**ILS or LOC Rwy 13R<sup>1</sup>**  
**RNAV (GPS) Rwy 13R<sup>2</sup>**  
**RNAV (GPS) Rwy 31L<sup>2</sup>**  
**VOR/DME-C<sup>2</sup>**

NA when local weather not available.  
<sup>1</sup>Categories A, B, 1500-2; Categories C, D,  
1500-3.  
<sup>2</sup>Category D, 800-2½.

PORTLAND-  
TROUTDALE (TTD) ..... **RNAV (GPS)-A**

Category A, 1000-2; Category B, 1100-2;  
Categories C, D, 1300-3.  
NA when local weather not available.

### PULLMAN/MOSCOW, WA

PULLMAN/MOSCOW  
MUNI (PUW) ..... **RNAV (GPS) Y Rwy 6**  
**RNAV (GPS) Rwy 24**  
**VOR Rwy 6**

NA when local weather not available.

### RAWLINS, WY

RAWLINS MUNI/HARVEY  
FIELD (RWL) ..... **RNAV (GPS) Rwy 22**  
Category C, 900-2½; Category D, 1100-3.  
NA when local weather not available.

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## REDMOND, OR

ROBERTS  
 FIELD (RDM)..... **RNAV (GPS) Rwy 11<sup>2</sup>**  
   **RNAV (GPS) Y Rwy 5<sup>23</sup>**  
   **RNAV (GPS) Y Rwy 23<sup>23</sup>**  
   **VOR-A<sup>23</sup>**  
   **VOR/DME Rwy 23<sup>12</sup>**

<sup>1</sup>Categories A, B, 1000-2; Category C, 1000-2½; Category D, E, 1000-3.

<sup>2</sup>NA when local weather not available.

<sup>3</sup>Category D, 800-2½.

## RENTON, WA

RENTON MUNI (RNT) ..... **NDB Rwy 16<sup>1</sup>**  
   **RNAV (GPS) Y Rwy 16<sup>2</sup>**

NA when local weather not available.

<sup>1</sup>Categories A, B, 1000-2; Category C, 1000-3; Category D, 1600-3.

<sup>2</sup>Categories A, B, 900-2; Category C, 900-2½; Category D, 900-3.

## REXBURG, ID

REXBURG-MADISON  
 COUNTY (RXE) ..... **RNAV (GPS) Rwy 35**

NA when local weather not available.

Category D, 800-2½.

## RIVERTON, WY

RIVERTON  
 RGNL (RIW) ..... **RNAV (GPS) Rwy 10**  
   **RNAV (GPS) Rwy 28**  
   **VOR Rwy 10**  
   **VOR Rwy 28**

NA when local weather not available.

## ROSEBURG, OR

ROSEBURG  
 RGNL (RBG) ..... **RNAV (GPS)-B**

NA when local weather not available.

Categories A, B, 1200-2; Category C, 1200-3; Category D, 1400-3.

## SALEM, OR

MCNARY  
 FIELD (SLE) ..... **ILS or LOC Z Rwy 31<sup>1</sup>**  
   **LOC/DME BC Rwy 13<sup>2</sup>**  
   **LOC Y Rwy 31<sup>2</sup>**  
   **RNAV (GPS) Rwy 31<sup>2</sup>**

NA when local weather not available.

<sup>1</sup>Categories A, B, 800-2; Category C, 800-2½; Category D, 1100-3; LOC, Category C, 800-2½; Category D, 1100-3.

<sup>2</sup>Category C, 800-2½; Category D, 1100-3.

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## SANDPOINT, ID

SANDPOINT (SZT) ..... **RNAV (GPS)-B**  
 Categories A, B, 1500-2; Category C, 1500-3;  
 Category D, 2100-3.

## SCAPPOOSE, OR

SCAPPOOSE INDUSTRIAL  
 AIRPARK (SPB) ..... **LOC/DME Rwy 15<sup>1</sup>**  
   **RNAV (GPS) Rwy 15**  
   **VOR/DME -A**

NA when local weather not available.

<sup>1</sup>Category D, 900-2½.

## SEATTLE, WA

BOEING FIELD-KING COUNTY  
 INTL (BFI) ..... **ILS or LOC Rwy 31L<sup>1</sup>**  
   **LOC/DME Rwy 13R<sup>2</sup>**  
   **RNAV (GPS) Y Rwy 13R<sup>3</sup>**  
   **RNAV (RNP) Z Rwy 13R<sup>4</sup>**

<sup>1</sup>Category A, 800-2; Category B, 900-2;

Category C, 900-2½; Category D, 1000-3.

<sup>2</sup>Category B, 900-2; Category C, 900-2½;

Category D, 1000-3.

<sup>3</sup>Category B, 900-2; Category C, 900-2½;

Category D, 1000-3.

<sup>4</sup>Categories A, B, C, D, 800-2½.

## SHELTON, WA

SANDERSON  
 FIELD (SHN) ..... **RNAV (GPS) Rwy 5**  
   **RNAV (GPS) Rwy 23**

NA when local weather not available.

Category D, 1000-3.

## SHERIDAN, WY

SHERIDAN  
 COUNTY (SHR) ..... **ILS or LOC/DME Rwy 33<sup>1</sup>**  
   **RNAV (GPS) Rwy 15<sup>2</sup>**  
   **RNAV (GPS) Rwy 33<sup>2</sup>**  
   **VOR Rwy 15<sup>2</sup>**

<sup>1</sup>ILS, Category B, 700-2; Category C, 900-2½;

Category D, 1200-3; LOC, Category C,

900-2 ½; Category D, 1200-2.

<sup>2</sup>Category C, 900-2 ½; Category D, 1200-3.

## SIDNEY, MT

SIDNEY-RICHLAND  
 MUNI (SDY) ..... **NDB Rwy 19<sup>1</sup>**  
   **RNAV (GPS) Rwy 1<sup>2</sup>**  
   **RNAV (GPS) Rwy 19<sup>2</sup>**

NA when local weather not available.

<sup>1</sup>Categories A, B, 1000-2; Category C, 1000-2½; Category D, 1000-3.

<sup>2</sup>Category D, 800-2½.

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## SPOKANE, WA

FELTS

FIELD (SFF)..... **ILS or LOC Rwy 22R<sup>1</sup>**  
**RNAV (GPS)-A<sup>2</sup>**  
**RNAV (GPS) Rwy 4L<sup>3</sup>**  
**VOR Rwy 4L<sup>4</sup>**

NA when local weather not available.

<sup>1</sup>ILS, LOC, Categories A, B, 900-2; Category C, 1100-3.

<sup>2</sup>Categories A, B, 1000-2; Category C, 1000-2¾; Category D, 1000-3.

<sup>3</sup>Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.

<sup>4</sup>Categories A, B, 1100-2; Categories C, 1100-3; Category D, 1500-3.

SPOKANE INTL (GEG)..... **ILS or LOC Rwy 3<sup>1</sup>**  
**RNAV (GPS) Y Rwy 25<sup>3</sup>**  
**VOR Rwy 3<sup>2</sup>**

<sup>1</sup>ILS, LOC, Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.

<sup>2</sup>Category E, 900-3.

<sup>3</sup>Category C, 800-2¾; Category D, 1100-3.

## TACOMA, WA

TACOMA

NARROWS (TIW)..... **ILS or LOC Rwy 17<sup>1</sup>**  
**NDB Rwy 35<sup>23</sup>**  
**RNAV (GPS) Rwy 17<sup>12</sup>**  
**RNAV (GPS) Rwy 35<sup>23</sup>**

<sup>1</sup>NA when control tower closed.

<sup>2</sup>Category D, 800-2¾.

<sup>3</sup>NA when local weather not available.

## THE DALLES, OR

COLUMBIA GEORGE RGNL/

THE DALLES MUNI (DLS)..... **RNAV (GPS)-A**  
Categories A, B, 1100-2; Category C, 1100-3;  
Category D, 1200-3.

## TWIN FALLS, ID

JOSLIN FIELD-MAGIC VALLEY

RGNL (TWF)..... **ILS or LOC Rwy 26<sup>1</sup>**  
**RNAV (GPS) Rwy 8<sup>3</sup>**  
**RNAV (GPS) Rwy 26<sup>3</sup>**  
**VOR Rwy 8<sup>2</sup>**  
**VOR Rwy 26**  
**VOR/DME Rwy 8<sup>3</sup>**

NA when local weather not available.

<sup>1</sup>ILS, Category B, 700-2; Category C, 1000-2¾; Categories D, E, 1000-3. LOC, Category C, 1000-2¾; Categories D, E, 1000-3.

<sup>2</sup>Categories A, B, 1000-2; Category C, 1000-2¾; Categories D, 1000-3.

<sup>3</sup>Category C, 1000-2¾; Categories D, 1000-3.

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## VANCOUVER, WA

PEARSON FIELD (VUO)..... **LDA-A**  
Categories A, B, 900-2

## WALLA WALLA, WA

WALLA WALLA

RGNL (ALW)..... **ILS Y or LOC Rwy 20<sup>13</sup>**  
**ILS Z or LOC/DME Rwy 20<sup>23</sup>**  
**RNAV (GPS) Rwy 2<sup>25</sup>**  
**RNAV (GPS) Rwy 20<sup>3</sup>**  
**VOR Rwy 20<sup>36</sup>**  
**VOR/DME Rwy 2<sup>4</sup>**

<sup>1</sup>ILS, LOC, Categories A, B, 1200-2; Categories C, D, 1200-3.

<sup>2</sup>ILS, Categories A, B, 800-2; Category C, 1000-2¾; Category D, 1200-3. LOC, Category C, 1000-2¾; Category D, 1200-3.

<sup>3</sup>NA when local weather not available.

<sup>4</sup>Category D, 800-2¾.

<sup>5</sup>Category C, 1000-2¾; Category D, 1200-3.

<sup>6</sup>Categories A, B, 1000-2; Category C, 1000-3; Category D, 1100-3.

## WENATCHEE, WA

PANGBORN

MEMORIAL (EAT)..... **ILS Y Rwy 12, 1300-4**  
**ILS Z Rwy 12<sup>1</sup>**  
**RNAV (RNP) Rwy 12, 1200-5**  
**VOR-A<sup>2</sup>**  
**VOR-B<sup>3</sup>**

<sup>1</sup>NA when local weather not available.

<sup>2</sup>Categories A, B, 2000-2; Category C, 2000-3; Category D, 2100-3.

<sup>3</sup>Categories A, B, 1500-2; Category C, 1500-3; Category D, 2100-3.

## WOLF POINT, MT

L.M. CLAYTON (OLF)..... **RNAV (GPS) Rwy 11**  
**RNAV (GPS) Rwy 29**

NA when local weather not available.

## WORLAND, WY

WORLAND

MUNI (WRL)..... **RNAV (GPS) Rwy 16**  
**RNAV (GPS) Rwy 34**  
**VOR Rwy 16<sup>1</sup>**

NA when local weather not available.

<sup>1</sup>Categories C, D, 800-2½.

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<b>YAKIMA, WA</b>			
YAKIMA AIR TERMINAL/MCALLISTER			
FIELD (YKM) .....	ILS Y Rwy 27 <sup>8</sup>		
	LOC/DME BC-B <sup>12</sup>		
	RNAV (GPS) W Rwy 27 <sup>3</sup>		
	RNAV (RNP) Rwy 9 <sup>4</sup>		
	RNAV (RNP) Y Rwy 27 <sup>5</sup>		
	VOR/DME or TACAN Rwy 27 <sup>6</sup>		
	VOR-A <sup>7</sup>		

<sup>1</sup>NA when control tower closed.  
<sup>2</sup>Category D, 800-2¼.  
<sup>3</sup>Categories A, B, 900-2; Category C, 900-2¼;  
Category D, 900-3.  
<sup>4</sup>Categories A, B, C, 900-2½.  
<sup>5</sup>Categories A, B, C, D, 800-2¼.  
<sup>6</sup>Categories A, B, 1100-2; Categories C, D,  
1100-3.  
<sup>7</sup>Category C, 800-2¼; Category D, 800-2½.  
<sup>8</sup>ILS, Categories A, B, C, D, 700-2.

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# RADAR MINS

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## RADAR INSTRUMENT APPROACH MINIMUMS

### CHEYENNE, WY

Amdt 1C, 03MAY12 (12124) (FAA)

ELEV 6159

### CHEYENNE RGNL/JERRY OLSON FIELD (CYS)

RADAR-1 124.55 263.075  $\nabla$   $\Delta$  NA

	<u>RWY</u>	<u>GP/TCH/RPI</u>	<u>CAT</u>	<u>DA/ MDA-VIS</u>	<u>HAT/ HATH/</u>	<u>CEIL-VIS</u>	<u>CAT</u>	<u>DA/ MDA-VIS</u>	<u>HAT/ HATH/</u>	<u>CEIL-VIS</u>
PAR	27	3.0°/55/918	ABCDE	6321/24	200	(200-½)				
ASR	27		ABC	6520/24	399	(400-½)	DE	6520/50	399	(400-1)
CIR	ALL RWY		AB	6660-1	501	(600-1)	C	6660-1½	501	(600-1½)
			D	6720-2	561	(600-2)	E	6960-2¾	801	(900-2¾)

For inoperative MALSR increase, PAR 27 Category E visibility to RVR 4000, ASR 27 Category D visibility to RVR 6000 and ASR 27 Category E visibility to 1½. PAR not available when ASR out of service.

### GRAY AAF (KGRF), (JOINT BASE LEWIS MCCHORD), WA (Amdt 2, 16091 USA) ELEV 300

RADAR - (E) 128.2 139.925 239.0 317.4  $\nabla$   $\Delta$  NA

	<u>RWY</u>	<u>GS/TCH/RPI</u>	<u>CAT</u>	<u>DH/ MDA-VIS</u>	<u>HAT/ HATH/</u>	<u>CEIL-VIS</u>
PAR <sup>1</sup>	15	3.0°/55/947	ABCD	489/24	200	(200-½)
	33	3.0°/39/730	ABCD	500-½	200	(200-½)

<sup>1</sup>Opr 2200-0800Z++ Mon-Thu. POC DSN 357-5525 or C253-967-5525. Svc incl PAR and apch mnt of ILS and NDB.

OPS 138.6

Contact Seattle approach for vectors to Final on 120.1 290.9

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## RADAR MINS

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## RADAR INSTRUMENT APPROACH MINIMUMS

WHIDBEY ISLAND NAS (KNUW), (AULT FLD) WA (14289 USN)

ELEV 47

RADAR - (E) 126.05 126.85 266.8 299.6 310.8 322.5 327.0 343.75



	<u>RWY</u>	<u>GS/TCH/RPI</u>	<u>CAT</u>	<u>DH/ MDA-VIS</u>	<u>HAT/ HAT#</u>	<u>CEIL-VIS</u>
PAR <sup>1</sup>	14 <sup>2</sup>	3.0°/48/947	ABCDE	147-¾	108	(100-¾)
	7	3.0°/49/961	ABCDE	125-½	107	(100-½)
	25 <sup>4</sup>	3.0°/40/718	ABCDE	224-½	200	(200-½)
	32 <sup>3</sup>	3.0°/33/772	ABCDE	297-½	250	(300-½)
PAR W/O GS <sup>1</sup>	14 <sup>5</sup>		ABCDE	340-¾	301	(300-¾)
	7		ABCDE	320-1¼	302	(300-1¼)
	25 <sup>6</sup>		AB	480-¾	456	(500-¾)
			CDE	480-¾	456	(500-¾)
32 <sup>5</sup>			ABCDE	460-¾	413	(500-¾)
ASR	7		ABCDE	400-1¼	382	(400-1¼)
	14 <sup>6</sup>		AB	520-¾	481	(500-¾)
			CDE	520-1	481	(500-1)
	25 <sup>7</sup>		AB	620-¾	596	(600-¾)
			CDE	620-1¼	596	(600-1¼)
	32 <sup>7</sup>		AB	680-¾	633	(700-¾)
			CDE	680-1¾	633	(700-1¾)
	CIRCLING			A	680-1¼	633
			B	740-1¼	693	(700-1¼)
			C	740-2	693	(700-2)
			D	860-2¾	813	(900-2¾)
			E	1000-3	953	(1000-3)

<sup>1</sup>No-NOTAM MP: PAR 1600-0800Z++ Mon.<sup>2</sup>When ALS inop, increase vis CAT ABCDE to ½ mile.<sup>3</sup>When ALS inop, increase vis CAT ABCDE to ¾ mile.<sup>4</sup>When ALS inop, increase vis CAT ABCDE to ¾ mile.<sup>5</sup>When ALS inop, increase vis CAT ABCDE to 1¼ miles.<sup>6</sup>When ALS inop, increase vis CAT AB to 1¼ miles, CAT CDE to 1¾ miles.<sup>7</sup>When ALS inop, increase vis CAT AB to 1¼ miles, CAT CDE to 1¾ miles.

NW-1, 10 NOV 2016 to 05 JAN 2017

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NW-1

## RADAR INSTRUMENT APPROACH MINIMUMS

## RADAR MINS

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## LAND AND HOLD-SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for "Land and Hold-Short Operations." These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold-short operations and markings.

CITY/AIRPORT	LDG RWY	HOLD-SHORT POINT	AVBL LDG DIST
BOZEMAN, MT			
GALLATIN FIELD (BZN)	12	03-21	6,841 feet
MOSES LAKE, WA			
GRANT COUNTY INTL (MWH)	04	14L-32R	4,700 feet
	14L	04-22	7,550 feet
	22	14L-32R	4,650 feet
	32R	04-22	5,050 feet
PORTLAND, OR			
PORTLAND-HILLSBORO (HIO)	13R	02-20	4,922 feet
SALEM, OR			
MCNARY FIELD (SLE)	31	16-34	3,150 feet
	34	13-31	3,050 feet
SPOKANE, WA			
SPOKANE INTL (GEG)	25	03-21	4,350 feet
TWIN FALLS, ID			
JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)	08	12-30	4,500 feet
	12	08-26	2,750 feet
	26	12-30	3,600 feet

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## HOT SPOTS

An "airport surface hot spot" is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

A "hot spot" is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as "HS 1", "HS 2", etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

CITY/AIRPORT	HOT SPOT	DESCRIPTION*
BELLINGHAM, WA		
BELLINGHAM INTL (BLI)	HS 1	Confusing twy int for pilots exiting/taxiing Rwy 16-34 via Twy D.
	HS 2	Congested int of Twy A and Twy F during Rwy 34 operations for acft taxiing to or exiting Rwy 34 via Twy F.
BILLINGS, MT		
BILLINGS LOGAN INTL (BIL)	HS 1	Twy H crosses Rwy 07 protected area.
	HS 2	Complex int of Twy A, Twy C, ramp, and Rwy 10L-28R.
BOISE, ID		
BOISE AIR TERMINAL/ GOWEN FLD (BOI)	HS 1	Multiple hold lines visible, left turn at Twy W for departure on Rwy 10L.
BOZEMAN, MT		
BOZEMAN YELLOWSTONE INTL (BZN)	HS 1	Hold position at Twy A and Rwy 03-21.
BUTTE, MT		
BERT MOONEY (BTM)	HS 1	Restricted visibility between Rwy 33 and Rwy 30.
CASPER, WY		
CASPER/NATRONA COUNTY INTL (CPR)	HS 1	Twy A5 has ramp to rwy access.
CHEYENNE, WY		
CHEYENNE RGNL/JERRY OLSON FIELD (CYS)	HS 1	Confusing twy configuration.
EUGENE, OR		
MAHLON SWEET FIELD (EUG)	HS 1	No access to Rwy 34L past Twy A9.
EVERETT, WA		
SNOHOMISH COUNTY (PAINE FIELD) (PAE)	HS 1	Twy A between Twy A9 and Twy A10 not visible from ATCT.
GREAT FALLS, MT		
GREAT FALLS INTL (GTF)	HS 1	No Rwy 21 access beyond A1.
	HS 2	A3 aligned with Rwy 25, wrong rwy departure risk.
HAILEY, ID		
FRIEDMAN MEMORIAL (SUN)	HS 1	Twy B on east edge of ramp.

(SEE CONTINUATION PAGE FOR MORE LISTINGS)

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## HOT SPOTS

(CONTINUED)

CITY/AIRPORT	HOT SPOT	DESCRIPTION*
IDAHO FALLS, ID IDAHO FALLS RGNL (IDA)	HS 1	Rwy 17-35 Twy C hold bars.
	HS 2	Twy A1 and Rwy 20 apch hold bar.
	HS 3	Rwy 17 and Twy A hold bar.
	HS 4	Pilots often line up for Rwy 17 instead of Rwy 20 on ldg. Rwy 20 and Rwy 17 thresholds in close proximity.
JACKSON, WY JACKSON HOLE (JAC)	HS 1	East side of Twy A between Twy A2 and Twy A4.
	HS 2	Pilots landing Rwy 19 sometimes fail to stop and taxi onto blast pad.
LEWISTON, ID LEWISTON-NEZ PERCE COUNTY (LWS)	HS 1	Twy C and Twy G int close proximity to Rwy 12-30.
	HS 2	Multiple hold lines in close proximity. First hold line is for rwy in front of you.
MOSES LAKE, WA GRANT COUNTY INTL (MWH)	HS 1	Twy C and the Rwy 18 THR.
	HS 2	Rwy 09-27 closed except for military operations.
NORTH BEND, OR SOUTHWEST OREGON RGNL (OTH)	HS 1	Twy C crosses the north end of Rwy 13-31.
OLYMPIA, WA OLYMPIA RGNL (OLM)	HS 1	Rwy 8-26 intersects Rwy 17-35.
	HS 1	Pilots sometimes exit Rwy 30 onto wrong rwy.
PASCO, WA TRI-CITIES (PSC)	HS 2	Short twy distance from ramp to Rwy 21L.
	HS 1	Hold line location across NE corner of the terminal apron and across Twy D.
PENDLETON, OR EASTERN OREGON RGNL AT PENDLETON (PDT)	HS 1	Hold line location across NE corner of the terminal apron and across Twy D.
	HS 1	Aircraft exiting Rwy 13R-31L at Twy A6 have only 90' of clearance between Twy A centerline and holding position markings.
PORTLAND, OR PORTLAND-HILLSBORO (HIO)	HS 2	Twy A8 and Rwy 31L.
	HS 1	Limited wing-tip clearance at twy convergence point.
PORTLAND, OR PORTLAND INTL (PDX)	HS 2	Rwy 03-21 hold line is on Twy K, hold short unless authorized to cross Rwy 03-21.
	HS 3	Int of Rwy 10L-28R and Twy A4.

(SEE CONTINUATION PAGE FOR MORE LISTINGS)

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## HOT SPOTS

(CONTINUED)

CITY/AIRPORT	HOT SPOT	DESCRIPTION*
REDMOND, OR ROBERTS FIELD (RDM)	HS 1	Twy G and Twy F int in close proximity of Rwy 05-23.
	HS 2	Twy C and Twy F int in close proximity of Rwy 05-23.
SEATTLE, WA BOEING FIELD/ KING COUNTY INTL (BFI)	HS 1	Twy Z restricted access area.
	HS 2	Rwy 13R-31L and Twy A9. Wrong rwy departure risk.
SEATTLE, WA SEATTLE-TACOMA INTL (SEA)	HS 1	Rwy 34R in close proximity to ramp, pilots sometimes cross Rwy 34R at Twy Q without authorization.
	HS 2	Closely spaced rws with short taxi distance from Rwy 34C to Rwy 34R hold position. Pilots sometimes enter Rwy 34R without authorization.
SPOKANE, WA FELTS FIELD (SFF)	HS 1	Int of Twy A, Twy B, Twy C and ramp, Rwy 04R apch hold line in close proximity to ramp.
TWIN FALLS JOSLIN FIELD - MAGIC VALLEY RGNL (TWF)	HS 1	Twy K in close proximity to ramp, rwy incursion risk.
WALLA WALLA, WA WALLA WALLA RGNL (ALW)	HS 1	Wrong rwy departure risks exist when departing Rwy 20 or Rwy 25.
YAKIMA, WA YAKIMA AIR TERMINAL/ MCALLISTER FLD (YKM)	HS 1	Hold lines unusual distance from rwy edge, rwy markings not easily visible from hold line.

\*See appropriate Chart Supplement HOT SPOT table for additional information.

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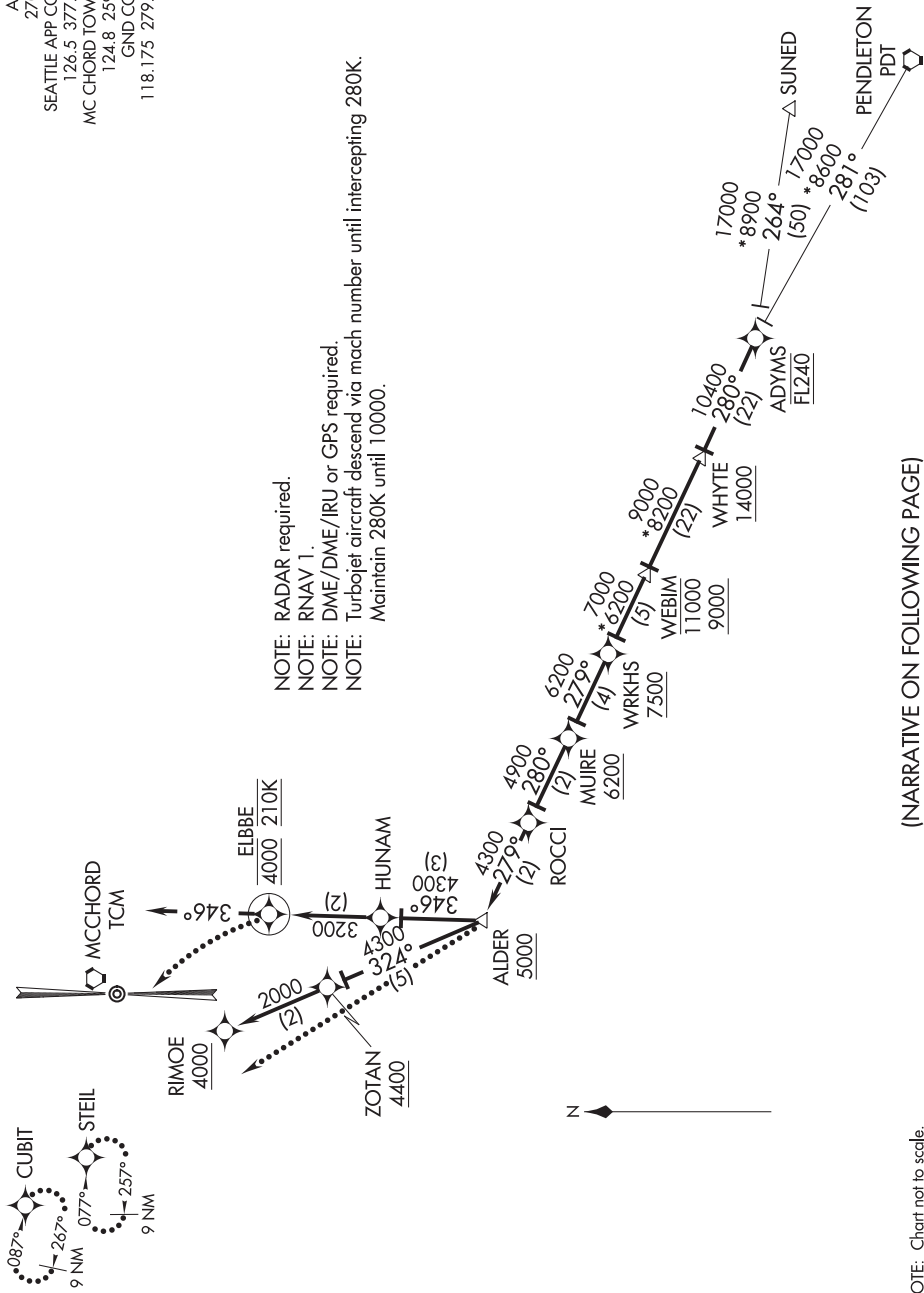
(ADYMS.ADYMS2) 16315

# ADYMS TWO ARRIVAL (RNAV)

MCCHORD FIELD (JOINT BASE LEWIS-MCCHORD) (KTCM)  
TACOMA, WASHINGTON  
ST-414 (FAA)

ATIS 270.1  
SEATTLE APP CON 126.5 377.15  
MC CHORD TOWER 124.8 259.3  
GND CON 118.175 279.65

NOTE: RADAR required.  
NOTE: RNAV 1.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Turbojet aircraft descend via mach number until intercepting 280K.  
NOTE: Maintain 280K until 10000.



(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

(ADYMS.ADYMS2) 15OCT15  
**ADYMS TWO ARRIVAL (RNAV)**

MCCHORD FIELD (JOINT BASE LEWIS-MCCHORD) (KTCM)  
TACOMA, WASHINGTON

ARRIVAL ROUTE DESCRIPTION

PENDLETON TRANSITION (PDT.ADYMS2)

SUNED TRANSITION (SUNED.ADYMS2)

From ADYMS on track 280° to cross WHYTE at/above 14000, then on track 280° to cross WEBIM between 9000 and 11000, then on track 280° to cross WRKHS at/above 7500.

LANDING RUNWAY 16: From WRKHS on track 279° to cross MUIRE at/above 6200, then on track 280° to ROCCI, then on track 279° to cross ALDER at/above 5000, then on track 346° to HUNAM, then on track 346° to cross ELBBE at 4000 and at 210K, then on track 346°. Expect RADAR vectors to final approach course or visual approach.

LANDING RUNWAY 34: From WRKHS on track 279° to cross MUIRE at/above 6200, then on track 280° to ROCCI, then on track 279° to cross ALDER at/above 5000, then on track 324° to cross ZOTAN at/above 4400, then on track 324° to cross RIMOE at/above 4000.

LOST COMMUNICATIONS

RUNWAY 34: At ALDER, execute approach, if unable, proceed direct CUBIT and hold as published, maintain 4000, squawk appropriate beacon code.

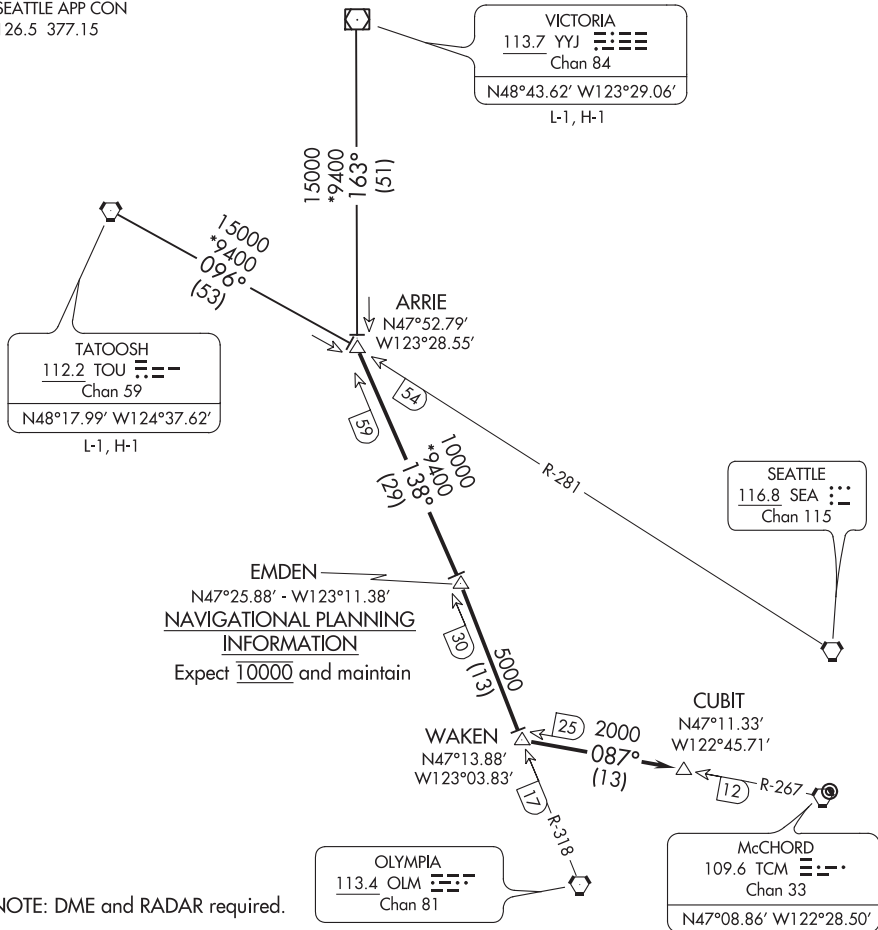
RUNWAY 16: At ELBEE, turn left direct STEIL and execute approach, if unable hold as published, maintain 4000, squawk appropriate beacon code.

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# ARRIE SEVEN ARRIVAL

ATIS 270.1  
SEATTLE APP CON  
126.5 377.15



**EMDEN**  
NAVIGATIONAL PLANNING INFORMATION  
Expect 10000 and maintain

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

## ARRIVAL ROUTE DESCRIPTION

TATOOSH TRANSITION (TOU.ARRIE7): From over TOU VORTAC on TOU R-096 to ARRIE. Thence. . .

VICTORIA TRANSITION (YYJ.ARRIE7): From over YYJ VOR/DME on YYJ R-163 to ARRIE. Thence. . .

. . . From over ARRIE on OLM R-318 and TCM R-267 to CUBIT, expect RADAR vectors to final approach course.

LOST COMMUNICATIONS: Proceed direct to TCM VORTAC.

# ARRIE SEVEN ARRIVAL

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(BEWTE.BEWTE2) 16147

# BEWTE TWO ARRIVAL (RNAV)

BOISE AIR TERMINAL/GOWEN FIELD (BOI)  
BOISE, IDAHO

ST-57 (FAA)

ATIS  
123.9 290.4  
BIG SKY APP CON  
119.6 269.4 (SOUTH)  
126.9 351.85 (NORTH)  
BOISE TOWER  
118.1 257.8  
GND CON  
121.7 348.6

SUMOQ  
FL240

CUDDY  
17000

COLLR  
15000

CHUKA  
11000

SKANA  
11000

BEWTE  
10500 250K

CHRIE  
8100 230K

LIBYY  
6700 210K

CAMML  
8000 210K

DYYLN

BOISE  
BOI

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: GPS required.

## ARRIVAL ROUTE DESCRIPTION

- COLLR TRANSITION (COLLR.BEWTE2)
- CUDDY TRANSITION (CUDDY.BEWTE2)
- SUMOQ TRANSITION (SUMOQ.BEWTE2)

From BEWTE on track 154° to cross CHRIE at or above 8100 and at 230K.

LANDING RUNWAYS 10L/R: From CHRIE on track 154° to cross LIBYY at 6700 and at 210K. Expect RNP approach or RADAR vectors to final approach course.

LANDING RUNWAYS 28L/R: From CHRIE on track 154° to cross CAMML at 8000 and at 210K, then on track 100° to DYYLN, then on track 101°. Expect RNP approach or RADAR vectors to final approach course.

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BEWTE TWO ARRIVAL (RNAV)  
(BEWTE.BEWTE2) 10DEC15

BOISE, IDAHO  
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

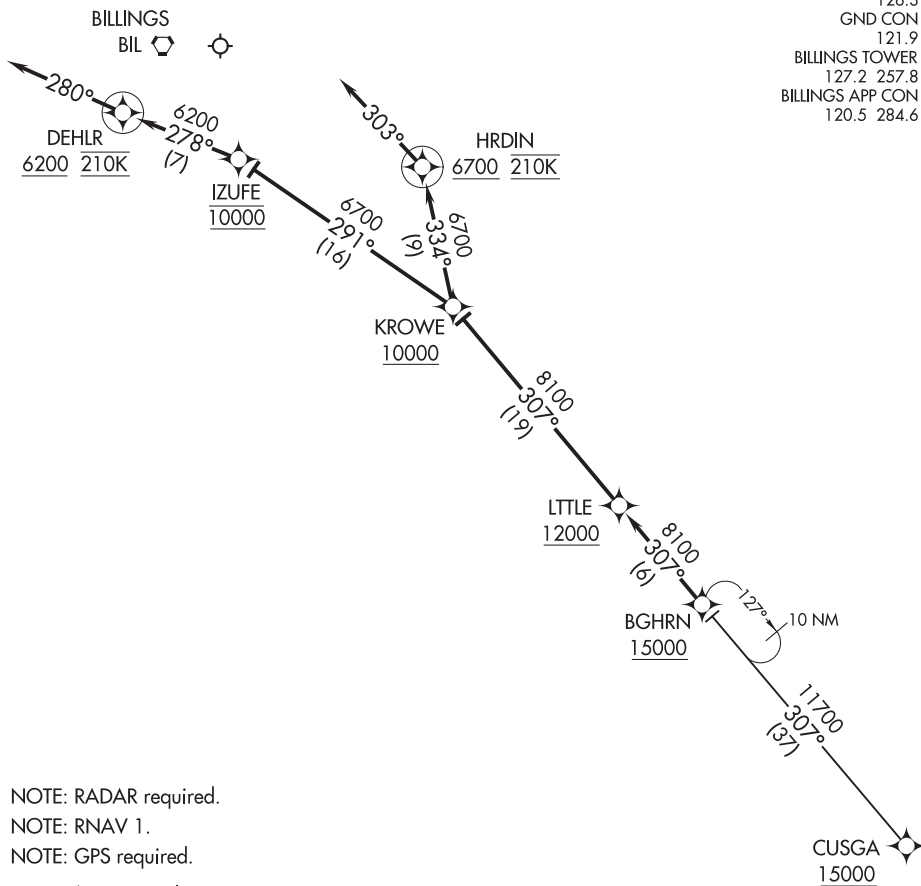
(BGHRN.BGHRN1) 16147

# BGHRN ONE ARRIVAL (RNAV)

ST-48 (FAA)

BILLINGS LOGAN INTL (BIL)  
BILLINGS, MONTANA

ATIS  
126.3  
GND CON  
121.9  
BILLINGS TOWER  
127.2 257.8  
BILLINGS APP CON  
120.5 284.6



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: GPS required.
- NOTE: Chart not to scale.

## ARRIVAL ROUTE DESCRIPTION

### CUSGA TRANSITION (CUSGA.BGHRN1)

From BGHRN on track 307° to cross LITTLE at or above 12000, then on track 307° to cross KROWE at or above 10000.

LANDING RUNWAY 10L: From KROWE on track 291° to cross IZUFE at 10000, then on track 278° to cross DEHLR at or above 6200 and at 210K, then on track 280°. Expect RADAR vectors to RNAV (RNP)/ILS/visual approach as assigned by ATC.

LANDING RUNWAY 28R: From KROWE on track 334° to cross HRDIN at or above 6700 and at 210K, then on heading 303°. Expect RADAR vectors to RNAV (RNP)/ILS/visual approach as assigned by ATC.

# BGHRN ONE ARRIVAL (RNAV)

(BGHRN.BGHRN1) 30APR15

BILLINGS, MONTANA  
BILLINGS LOGAN INTL (BIL)





## ARRIVAL ROUTE DESCRIPTION

KIMBERLY TRANSITION (IMB.CHINS2): From over IMB VOR/DME on IMB R-334 to SUNED, then on YKM R-108 to YKM VORTAC, then on YKM R-284 to CHINS, thence . . . .

PENDLETON TRANSITION (PDT.CHINS2): From over PDT VORTAC on PDT R-290 to SUNED, then on YKM R-108 to YKM VORTAC, then on YKM R-284 to CHINS, thence . . . .

SUNED TRANSITION (SUNED.CHINS2): From SUNED on YKM R-108 to YKM VORTAC, then on YKM R-284 to CHINS, thence . . . .

. . . . from CHINS on YKM R-284 and SEA R-104 to RADDY, then on SEA R-104 to HUMPP, then on SEA R-104 to AUBRN thence . . . .

LANDING NORTH: Heading 250° for vectors to final approach course.

LANDING SOUTH: Heading 343° for vectors to final approach course.

LANDING SNOHOMISH COUNTY (PAINE FIELD): Heading 343° for vectors to final approach course.

LANDING RENTON MUNI: Heading 343° for vectors to final approach course.

LOST COMMUNICATIONS: After AUBRN proceed direct SEA VORTAC.

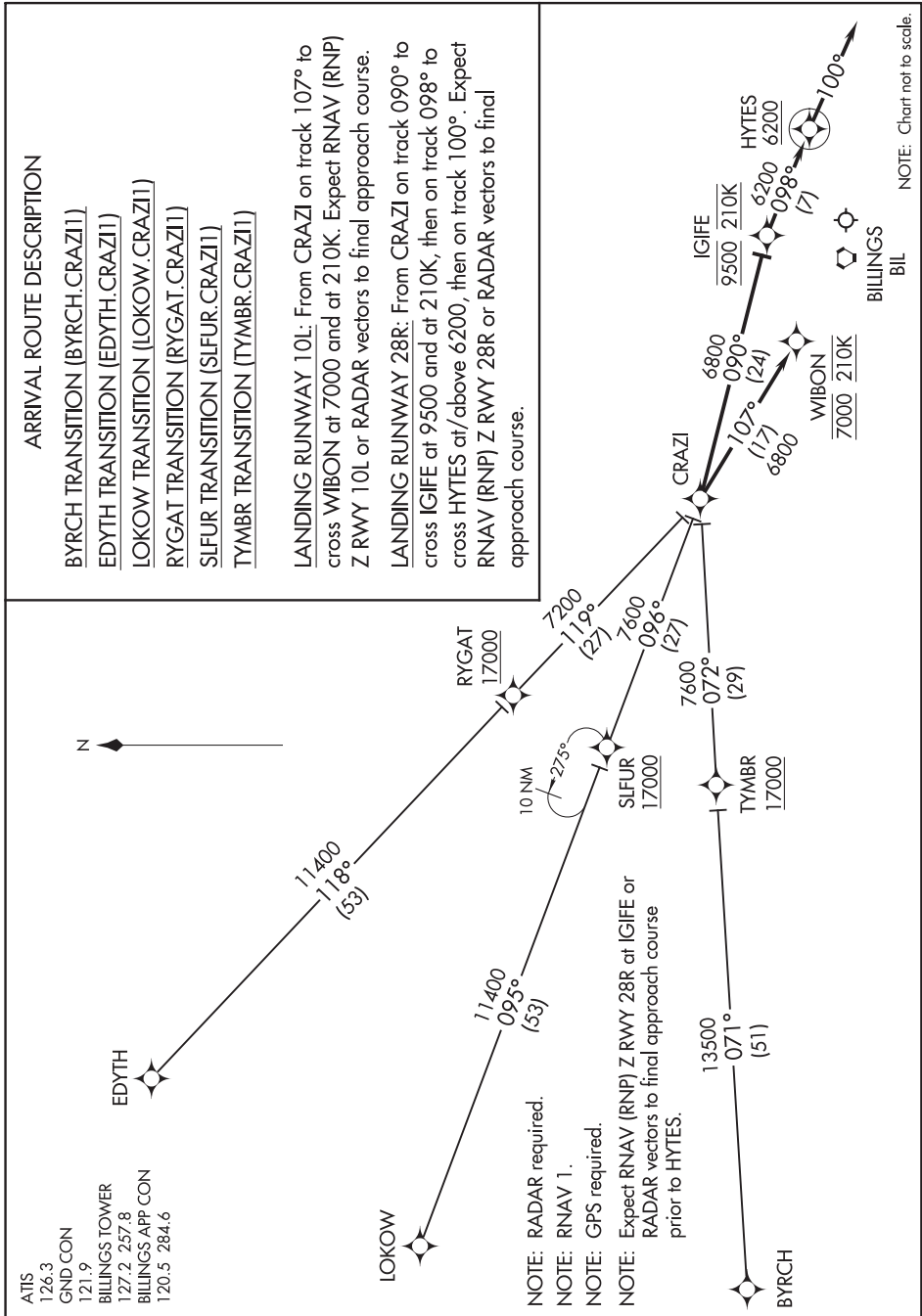
(CRAZI.CRAZII) 16147

# CRAZI ONE ARRIVAL (RNAV)

ST-48 (FAA)

BILLINGS LOGAN INTL (BIL)  
BILLINGS, MONTANA

NW-1, 10 NOV 2016 to 05 JAN 2017



NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

# CRAZI ONE ARRIVAL (RNAV)

(CRAZI.CRAZII) 30APR15

BILLINGS, MONTANA  
BILLINGS LOGAN INTL (BIL)

**ARRIVAL ROUTE DESCRIPTION**

**ELLENSBURG TRANSITION (ELN.ELN3)**

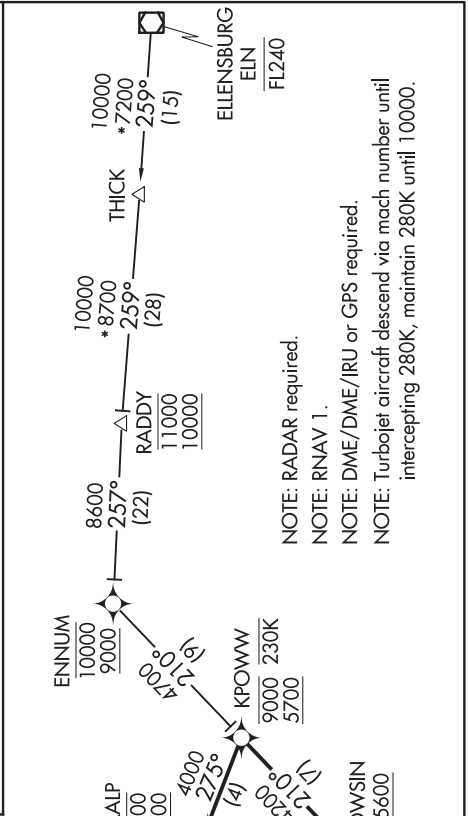
**LANDING RUNWAY 16:** From KPOWW on track 275° to cross WAALP between 4700 and 5700, then on heading 330° or as assigned by ATC. Expect RADAR vectors to final approach course.

**LANDING RUNWAY 34:** From KPOWW on track 210° to cross OWSIN at or above 5600, then on track 259° to TUNNR, then on track 316° to cross JETEM at/above 3200. Expect ILS or visual approach.

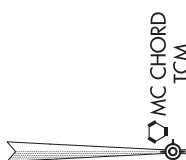
**LOST COMMUNICATIONS**

**RUNWAY 16:** At WAALP, proceed direct STEIL and execute approach, if unable hold as published, maintain 4000, squawk appropriate beacon code.

**RUNWAY 34:** At JETEM, execute approach, if unable, proceed direct CUBIT and hold as published, maintain 4000, squawk appropriate beacon code.



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- ATIS 270.1
- SEATTLE APP CON 126.5 377.15
- MC CHORD TOWER 124.8 259.3
- GND CON 118.175 279.65

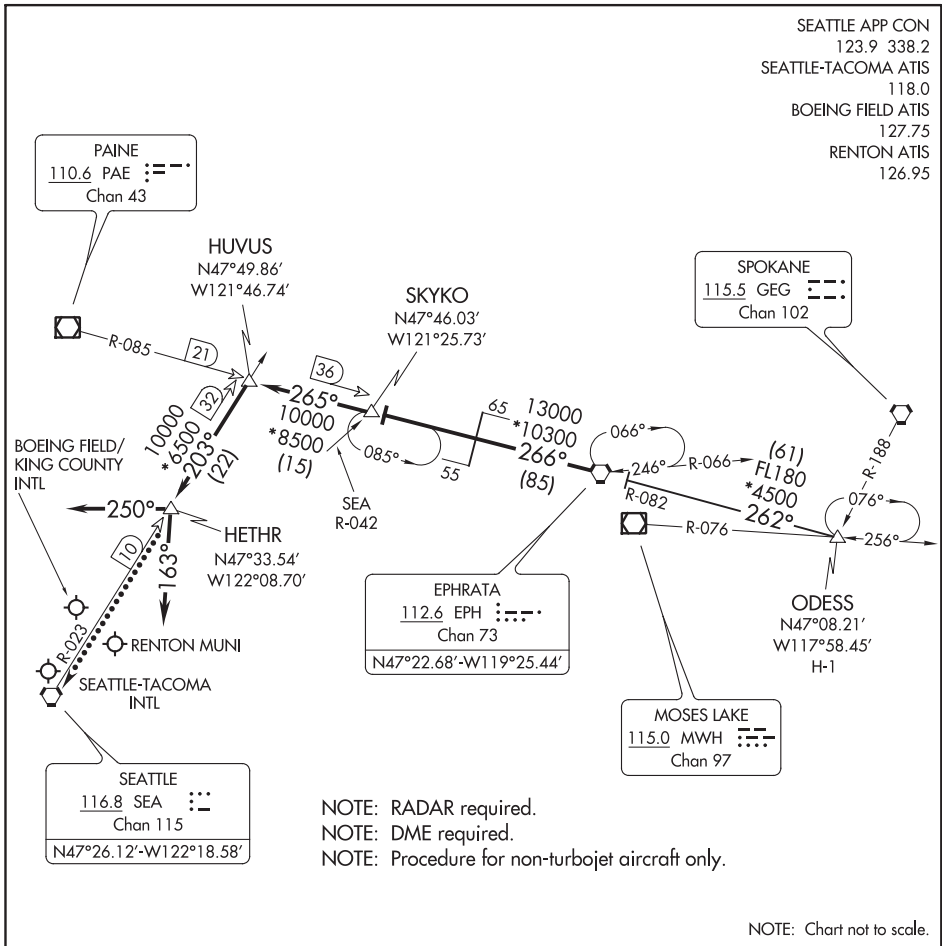
NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

# EPHRATA EIGHT ARRIVAL

SEATTLE, WASHINGTON

SEATTLE APP CON  
123.9 338.2  
SEATTLE-TACOMA ATIS  
118.0  
BOEING FIELD ATIS  
127.75  
RENTON ATIS  
126.95



NOTE: RADAR required.  
NOTE: DME required.  
NOTE: Procedure for non-turbojet aircraft only.

NOTE: Chart not to scale.

## ARRIVAL ROUTE DESCRIPTION

ODESS TRANSITION (ODESS.EPH8): From over ODESS INT on EPH R-082 to EPH VORTAC. Thence . . .

. . . from EPH VORTAC on EPH R-266 and PAE R-085 to SKYKO INT, then on PAE R-085 to HUVUS INT, then on SEA R-023 to HETHR INT, thence . . .

LANDING NORTH: Heading 163°. Expect RADAR vectors to final approach course.

LANDING SOUTH: Heading 250°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS: From over HETHR proceed direct SEA VORTAC.

# EPHRATA EIGHT ARRIVAL

SEATTLE, WASHINGTON

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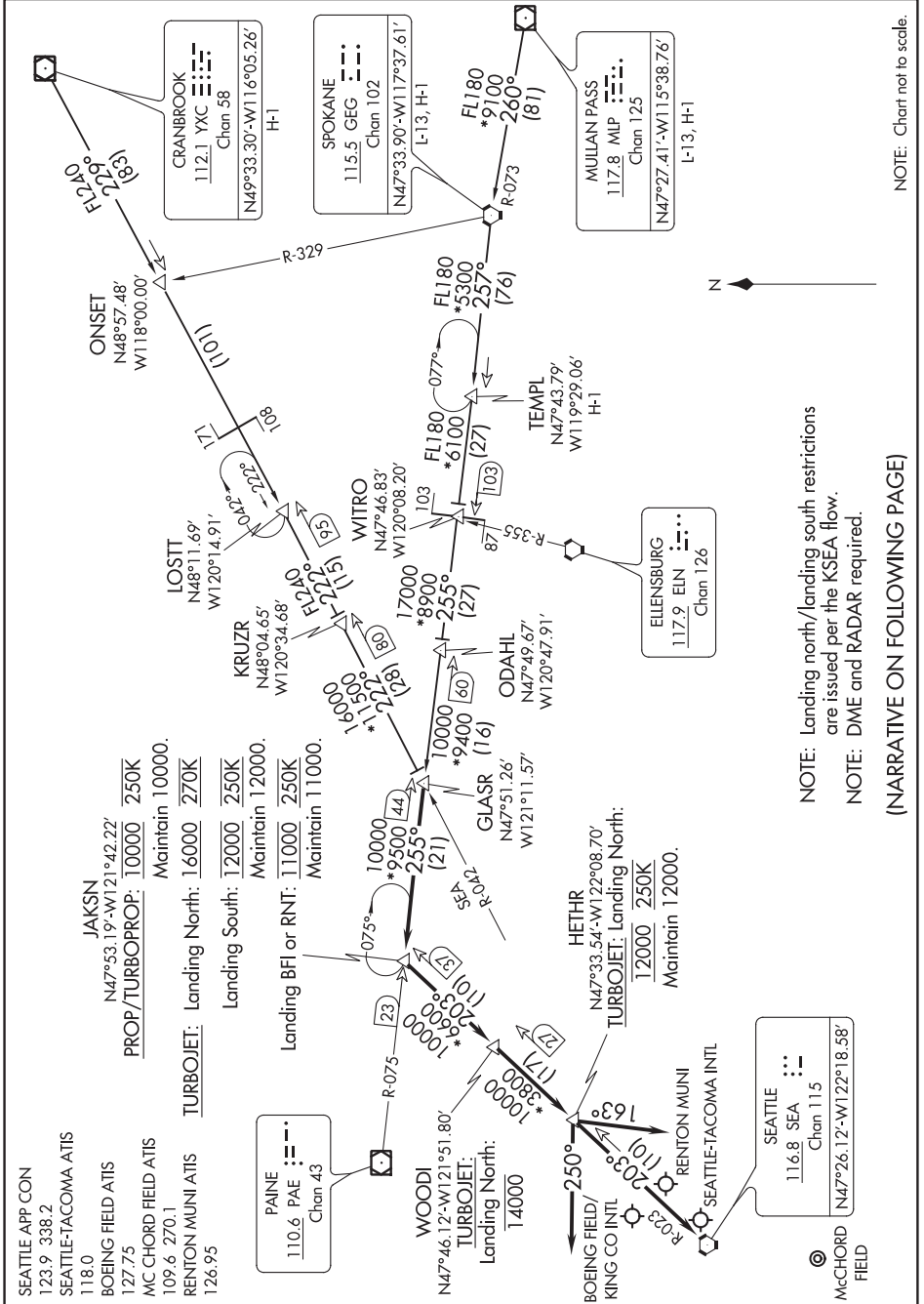
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# GLASR ONE ARRIVAL

ST-582 (FAA)

SEATTLE, WASHINGTON

NW-1, 10 NOV 2016 to 05 JAN 2017



NOTE: Chart not to scale.

NOTE: Landing north/landing south restrictions are issued per the KSEA flow.

NOTE: DME and RADAR required.

(NARRATIVE ON FOLLOWING PAGE)

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# GLASR ONE ARRIVAL

SEATTLE, WASHINGTON

SEATTLE APP CON  
123.9 338.2  
SEATTLE-TACOMA ATIS  
118.0  
BOEING FIELD ATIS  
127.75  
MC CHORD FIELD ATIS  
109.6 270.1  
RENTON MUNI ATIS  
126.95

JAKSN  
N47°53.19'-W121°42.22'  
PROP/TURBOPROP: 10000 250K  
Maintain 10000.

TURBOJET: Landing North: 16000 270K  
Landing South: 12000 250K  
Maintain 12000.  
Landing BFI or RNT: 11000 250K  
Maintain 11000.

PAINE  
110.6 PAE  
Chan 43

WOODI  
N47°46.12'-W121°51.80'  
TURBOJET:  
Landing North:  
14000

BOEING FIELD/  
KING CO INTL  
RENTON MUNI  
SEATTLE-TACOMA INTL

SEATTLE  
116.8 SEA  
Chan 115  
N47°26.12'-W122°18.58'

McCHORD  
FIELD

HETHR  
N47°33.54'-W122°08.70'  
TURBOJET: Landing North:  
12000 250K  
Maintain 12000.

GLASR  
N47°51.26'  
W121°11.57'

ODAHL  
N47°49.67'  
W120°47.91'

ELLENBURG  
117.9 EN  
Chan 126

TEMP  
N47°43.79'  
W119°29.06'  
H-1

MULLEN PASS  
117.8 MIP  
Chan 125  
N47°27.41'-W115°38.76'  
L-13, H-1

SPOKANE  
115.5 GEG  
Chan 102  
N47°33.90'-W117°37.61'  
L-13, H-1

CRANBROOK  
112.1 YXC  
Chan 58  
N49°33.30'-W116°05.26'  
H-1

ONSET  
N48°57.48'  
W118°00.00'

LOSST  
N48°11.69'  
W120°14.91'

KRUZR  
N48°04.65'  
W120°34.68'

WITRO  
N47°46.83'  
W120°08.20'

SEAS  
N47°51.26'  
W121°11.57'

HETHR  
N47°33.54'-W122°08.70'  
TURBOJET: Landing North:  
12000 250K  
Maintain 12000.

WOODI  
N47°46.12'-W121°51.80'  
TURBOJET:  
Landing North:  
14000

BOEING FIELD/  
KING CO INTL  
RENTON MUNI  
SEATTLE-TACOMA INTL

SEATTLE  
116.8 SEA  
Chan 115  
N47°26.12'-W122°18.58'

McCHORD  
FIELD

ARRIVAL ROUTE DESCRIPTION

CRANBROOK TRANSITION (YXC.GLASR1): From over YXC VOR/DME on YXC R-229 to ONSET, then on YXC R-229 and SEA R-042 to LOSTT, then on SEA R-042 to GLASR. Thence. . . .

LOSTT TRANSITION (LOSTT.GLASR1): From over LOSST on SEA R-042 to GLASR. Thence. . . .

MULLAN PASS TRANSITION (MLP.GLASR1): From over MLP VOR/DME on MLP R-260 and GEG R-073 to GEG VORTAC, then on GEG R-257 to WITRO, then on PAE R-075 to GLASR. Thence. . . .

SPOKANE TRANSITION (GEG.GLASR1): From over GEG VORTAC on GEG R-257 to WITRO, then on PAE R-075 to GLASR. Thence. . . .

TEMPL TRANSITION (TEMPL.GLASR1): From over TEMPL on GEG R-257 to WITRO, then on PAE R-075 to GLASR. Thence. . . .

. . . .from GLASR on PAE R-075 to JAKSN, then on SEA R-023 to WOODI, then on SEA R-023 to HETHR. Thence:

LANDING NORTH: Heading 163° for vectors to final approach course.

LANDING SOUTH: Heading 250° for vectors to final approach course.

LANDING McCHORD FIELD: From over HETHR, proceed direct SEA VORTAC.

LANDING RENTON MUNI: From over HETHR, proceed direct SEA VORTAC.

LOST COMMUNICATIONS: From HETHR, proceed direct SEA VORTAC.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

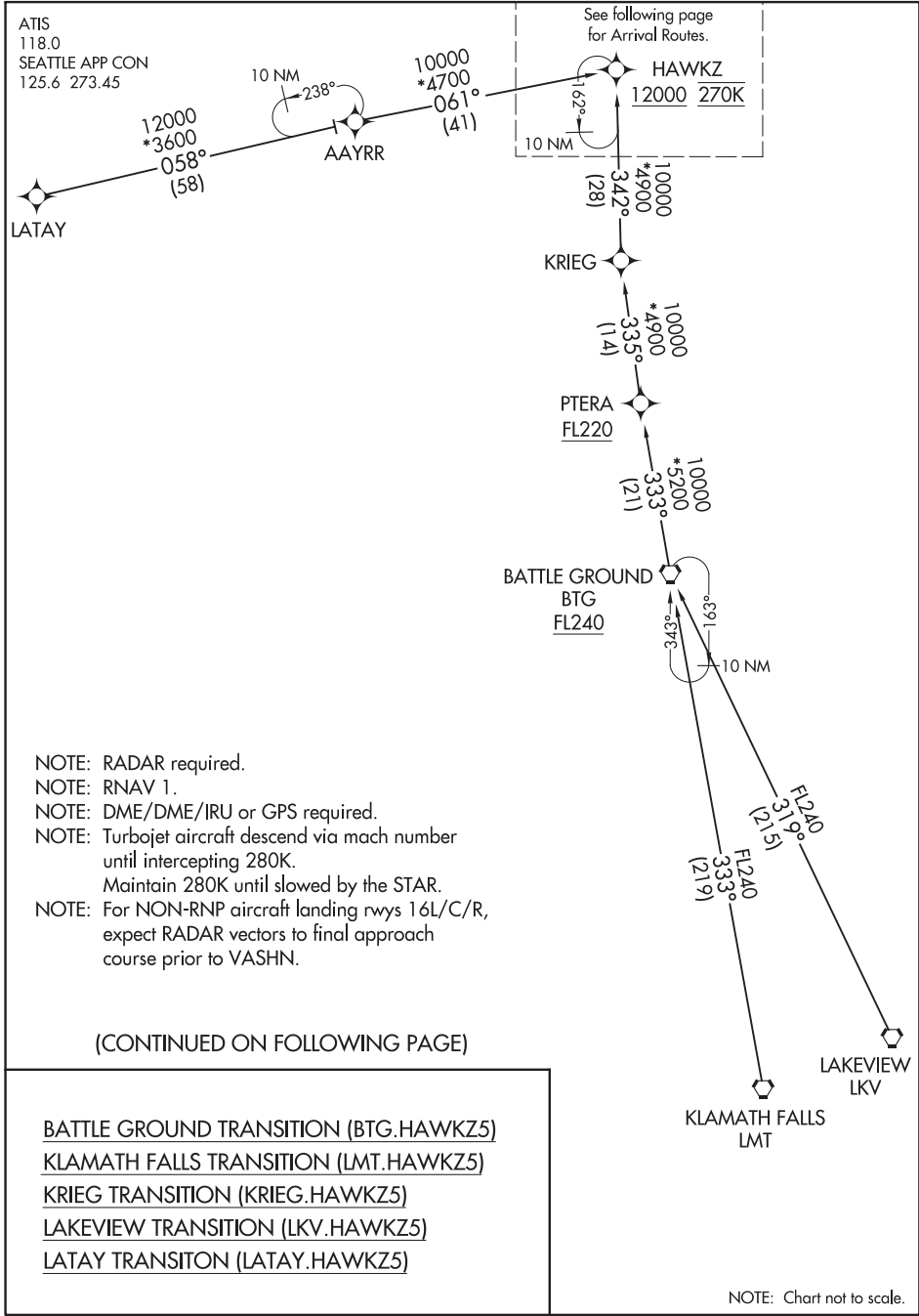
(HAWKZ.HAWKZ5) 16203

Z13  
ST-582 (FAA)

# HAWKZ FIVE ARRIVAL (RNAV)

## Transition Routes

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# HAWKZ FIVE ARRIVAL (RNAV)

## Transition Routes

SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)

(HAWKZ.HAWKZ5) 21JUL16

# HAWKZ FIVE ARRIVAL (RNAV)

## Arrival Routes

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON

### ARRIVAL ROUTE DESCRIPTION

From HAWKZ on track 022° to LIINE.

**LANDING RWYS 16L/C/R:** From LIINE on track 021° to cross PIKEZ between 12000 and 15000 and at 250K, then on track 360° to COFAY, then on track 350° to cross BREVE between 10000 and 11000 and at 250K, then on track 349° to cross NETTZ at or above 8000 and at 230K, then on track 343° to cross KWEST at or above 7000, then on track 343° to cross VASHN at 6000 and at 210K, then on track 343°. Expect RADAR vectors to RNAV (RNP)/ILS/VISUAL approach as assigned by ATC.

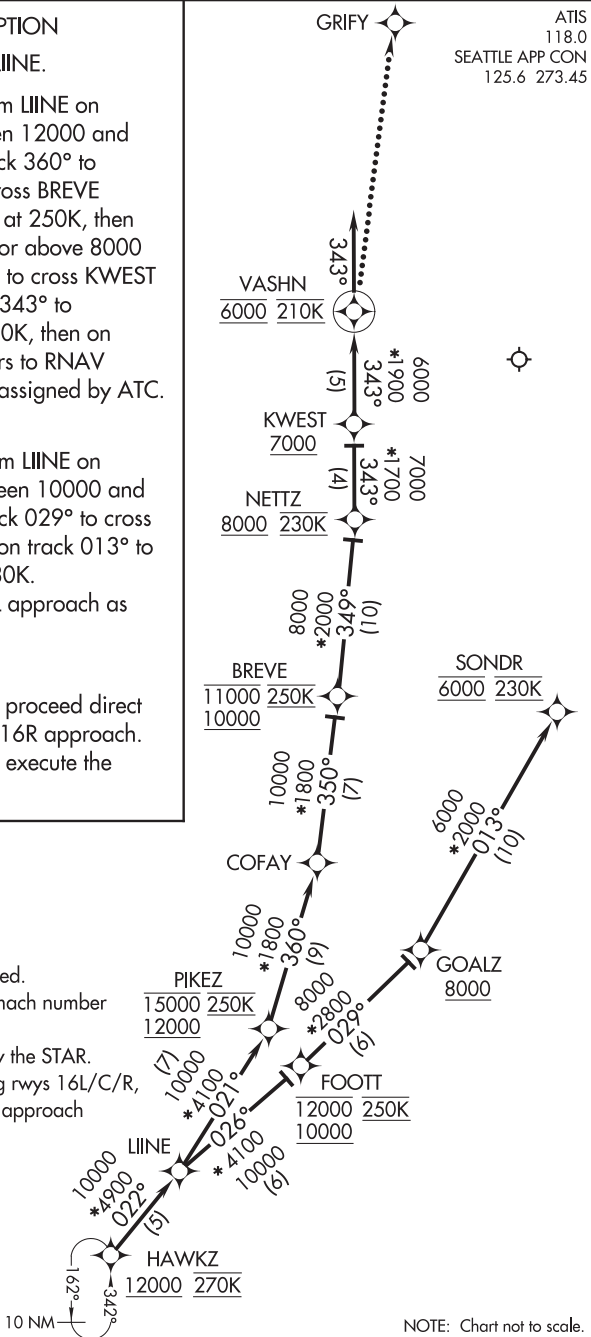
**LANDING RWYS 34L/C/R:** From LIINE on track 026° to cross FOOTT between 10000 and 12000 and at 250K, then on track 029° to cross GOALZ at or above 8000 and at 230K. Expect RNAV (RNP)/ILS/VISUAL approach as assigned by ATC.

### LOST COMMUNICATIONS

**LANDING RWY 16:** At VASHN, proceed direct GRIFY and execute the ILS RWY 16R approach.

**LANDING RWY 34:** At SONDR, execute the ILS RWY 34L approach.

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turbojet aircraft descend via mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
- NOTE: For NON-RNP aircraft landing rwys 16L/C/R, expect RADAR vectors to final approach course prior to VASHN.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# HAWKZ FIVE ARRIVAL (RNAV)

## Arrival Routes

SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)



# (HELNS.HELNS5) 16147 HELNS FIVE ARRIVAL

PORTLAND, OREGON

PORTLAND APP CON  
124.35 299.2  
PORTLAND INTL ATIS  
128.35 269.9  
PORTLAND-HILLSBORO ATIS  
127.65

ST-330 (FAA)

SEATTLE  
116.8 SEA  
Chan 115  
N47°26.12'-W122°18.58'

L-1, H-1

BUWZO  
N46°57.14'  
W122°18.58'

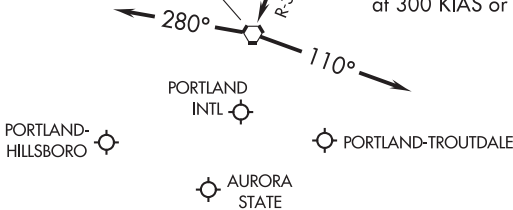
10000  
\*8000  
161°  
(42)

NOTE: DME and RADAR required.

HELNS  
N46°15.42'  
W122°18.58'

BATTLE GROUND  
116.6 BTG  
Chan 113  
N45°44.87'-W122°35.49'

KRATR  
N46°05.39'-W122°24.17'  
PROP/TURBOPROP:  
Cross at and maintain 10000.  
TURBOJET:  
Cross at and maintain 12000  
at 300 KIAS or less.



NOTE: Chart not to scale.

**SEATTLE TRANSITION (SEA.HELNS5):** From over SEA VORTAC via SEA R-161 and BTG R-360 to HELNS DME FIX. Thence. . . .  
 . . . from over HELNS on BTG VORTAC R-360 to KRATR, thence as depicted to BTG VORTAC. Thence. . . .  
 . . . **LANDING EAST:** Depart BTG VORTAC heading 280° for vectors to the final approach course.  
 . . . **LANDING WEST:** Depart BTG VORTAC heading 110° for vectors to the final approach course.

NW-1, 10 NOV 2016 to 05 JAN 2017

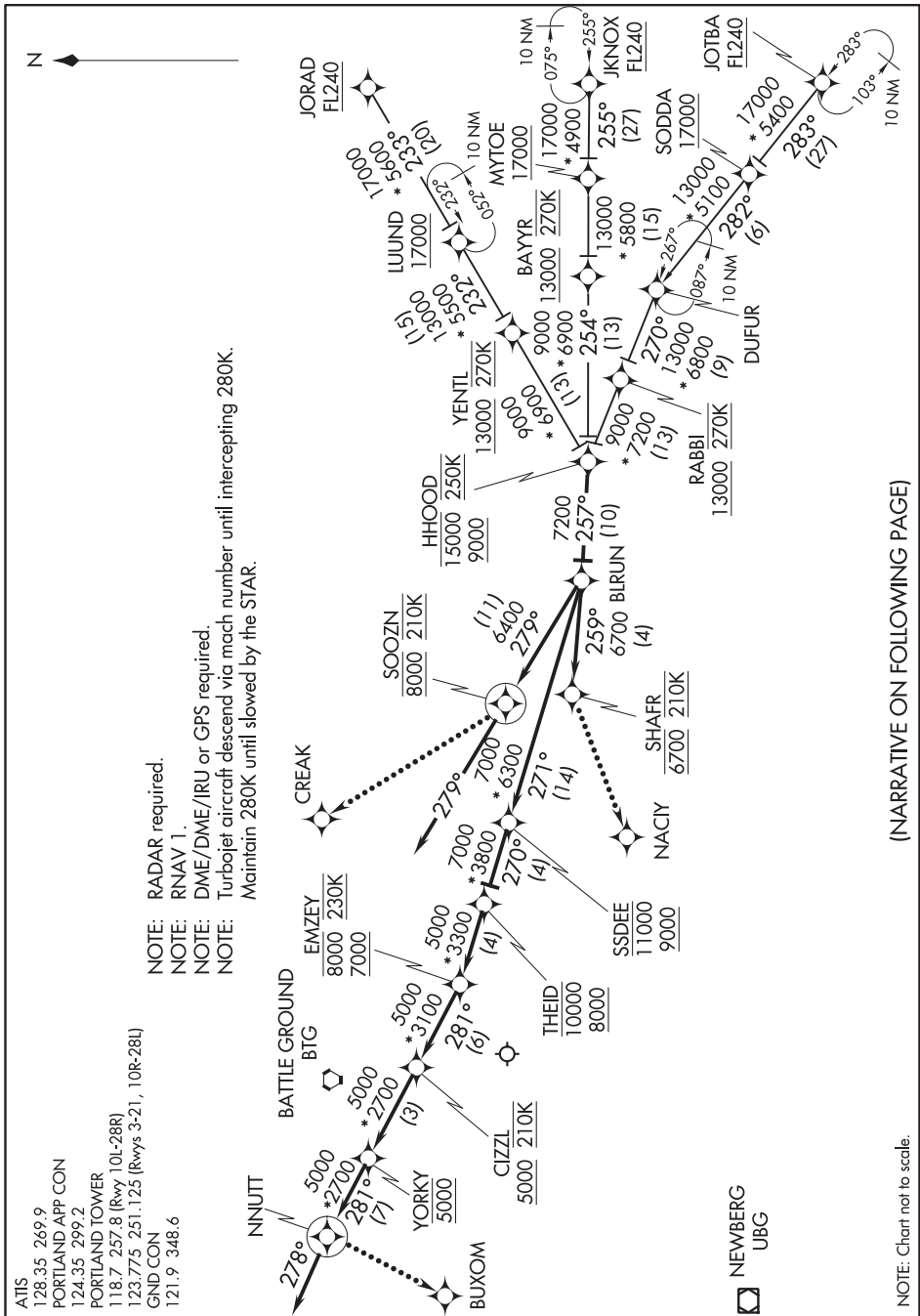
NW-1, 10 NOV 2016 to 05 JAN 2017

# HELNS FIVE ARRIVAL (HELNS.HELNS5) 20SEP12

PORTLAND, OREGON

# HHOOD THREE ARRIVAL (RNAV)

NW-1, 10 NOV 2016 to 05 JAN 2017



(NARRATIVE ON FOLLOWING PAGE)

NW-1, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

## HHOOD THREE ARRIVAL (RNAV)

## ARRIVAL ROUTE DESCRIPTION

BAYYR TRANSITION (BAYYR.HHOOD3)  
DUFUR TRANSITION (DUFUR.HHOOD3)  
JKNOX TRANSITION (JKNOX.HHOOD3)  
JORAD TRANSITION (JORAD.HHOOD3)  
JOTBA TRANSITION (JOTBA.HHOOD3)  
RABBI TRANSITION (RABBI.HHOOD3)  
YENTL TRANSITION (YENTL.HHOOD3)

From HHOOD on track 257° to BLRUN, thence . . .

LANDING RWYS 10L/R: From BLRUN on track 271° to cross SSDEE between 9000 and 11000, then on track 270° to cross THEID between 8000 and 10000, then on track 270° to cross EMZEY between 7000 and 8000 and at 230K, then on track 281° to cross CIZZL at or above 5000 and at 210K, then on track 281° to cross YORKY at 5000, then on track 281° to NNUTT, then on track 278°. Expect RADAR vectors to final approach course.

LANDING RWY 21: From BLRUN on track 279° to cross SOOZN at 8000 and at 210K, then on track 279°. Expect RADAR vectors to final approach course.

LANDING RWYS 28L/R: From BLRUN on track 259° to cross SHAFR at 6700 and at 210K. Expect RNAV (RNP)/ILS/VISUAL approach as assigned by ATC.

LOST COMMUNICATIONS:

LANDING RWY 10: At NNUTT, turn left direct to BUXOM and execute ILS Rwy 10L approach.

LANDING RWY 21: At SOOZN turn right direct to CREAK and execute LOC/DME Rwy 21 approach.

LANDING RWY 28: At SHAFR, turn left direct to NACIY and execute ILS Rwy 28R approach.

NW-1, 10 NOV 2016 to 05 JAN 2017

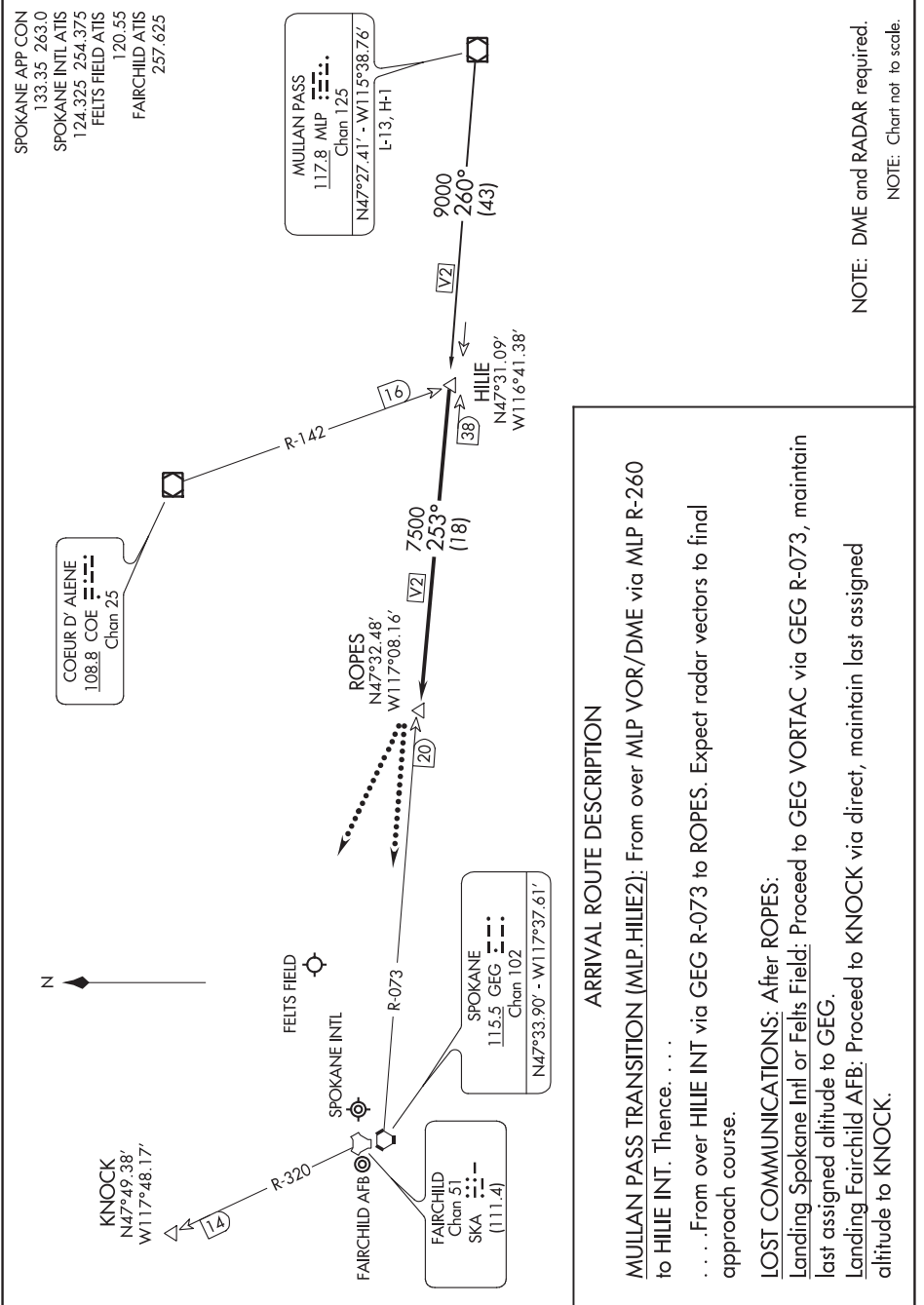
NW-1, 10 NOV 2016 to 05 JAN 2017

# HILIE TWO ARRIVAL (HILIE.HILIE2)

ST-403 (FAA)

SPOKANE, WASHINGTON

NW-1, 10 NOV 2016 to 05 JAN 2017



## ARRIVAL ROUTE DESCRIPTION

MULLAN PASS TRANSITION (MLP.HILIE2): From over MLP VOR/DME via MLP R-260 to HILIE INT. Thence...

...From over HILIE INT via GEG R-073 to ROPES. Expect radar vectors to final approach course.

LOST COMMUNICATIONS: After ROPES:

Landing Spokane Intl or Felts Field: Proceed to GEG VORTAC via GEG R-073, maintain last assigned altitude to GEG.

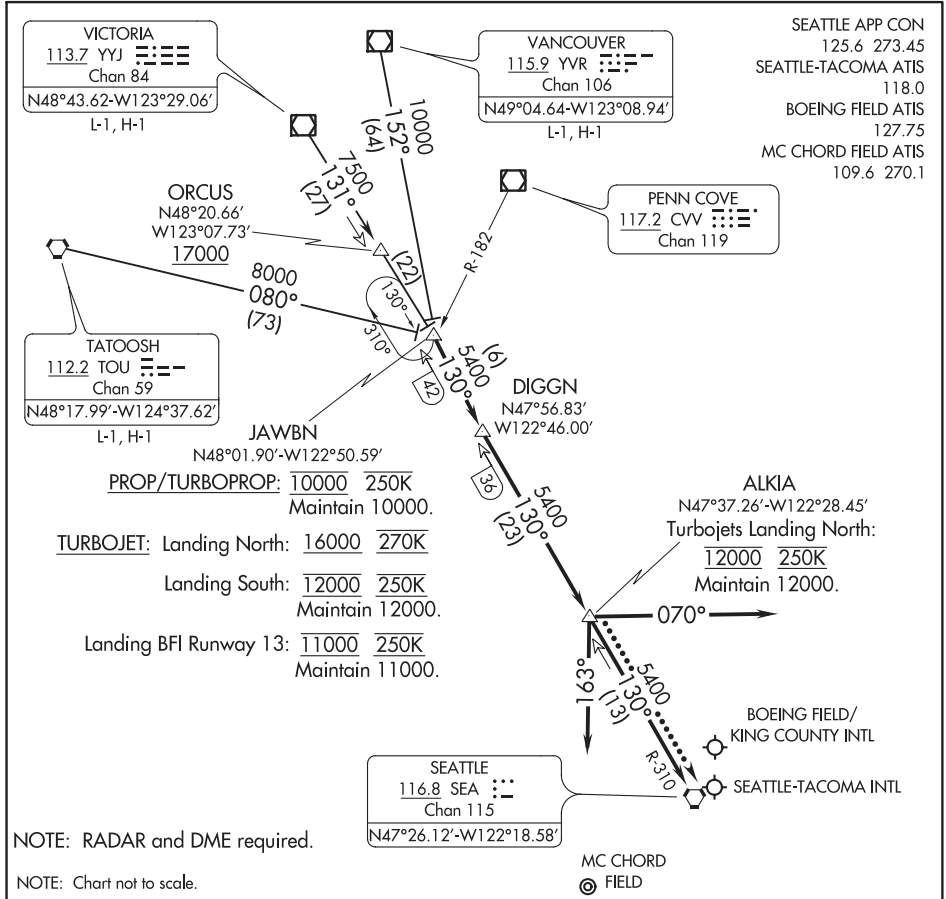
Landing Fairchild AFB: Proceed to KNOCK via direct, maintain last assigned altitude to KNOCK.

# HILIE TWO ARRIVAL (HILIE.HILIE2)

SPOKANE, WASHINGTON

13JAN11

NW-1, 10 NOV 2016 to 05 JAN 2017



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

TATOOSH TRANSITION (TOU.JAWBN5): From over TOU VORTAC on TOU R-080 to JAWBN. Thence . . .

VANCOUVER TRANSITION (YVR.JAWBN5): From over YVR VOR/DME on YVR R-152 to JAWBN. Thence . . .

VICTORIA TRANSITION (YYJ.JAWBN5): From over YYJ VOR/DME on YYJ R-131 to JAWBN. Thence . . .

. . . from over JAWBN on SEA R-310 to DIGGN then on SEA R-310 to ALKIA thence . . .

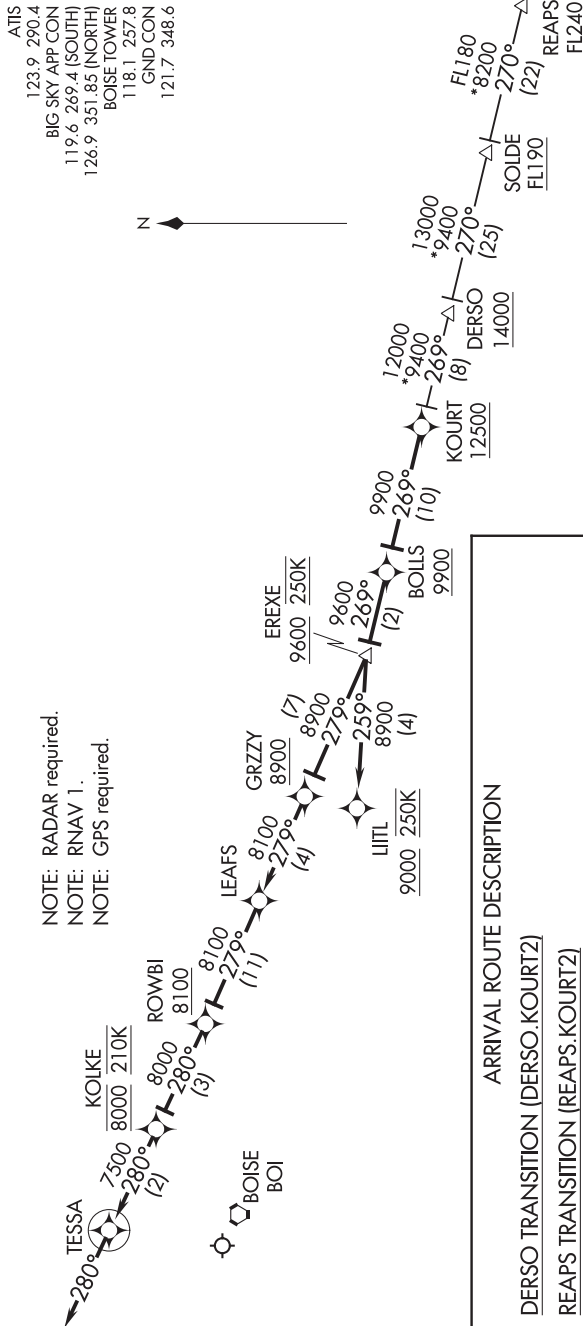
LANDING SOUTH: . . . depart ALKIA heading 070° for vectors to final approach course.

LANDING NORTH: . . . depart ALKIA heading 163° for vectors to final approach course.

LANDING McCHORD FIELD: . . . depart ALKIA proceed direct SEA VORTAC.

LOST COMMUNICATIONS: After ALKIA, proceed direct SEA VORTAC.

NW-1, 10 NOV 2016 to 05 JAN 2017



NOTE: RADAR required.  
 NOTE: RNAV 1.  
 NOTE: GPS required.

ARRIVAL ROUTE DESCRIPTION

DERSO TRANSITION (DERSO.KOURT2)

REAPS TRANSITION (REAPS.KOURT2)

From KOURT on track 269° to cross BOLLS at/above 9900, then on track 269° to cross EREXE at/above 9600 and at 250K.

LANDING RUNWAYS 10L/R: From EREXE on track 279° to cross GRZZY at/above 8900, then on track 279° to LEAFS, then on track 279° to cross ROWBI at/above 8100, then on track 280° to cross KOLKE at 8000 and at 210K, then on track 280° to TESSA, then on track 280°. Expect assigned approach or RADAR vectors to final approach course.

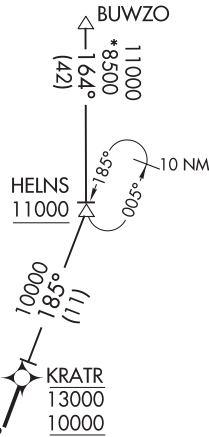
LANDING RUNWAYS 28L/R: From EREXE on track 259° to cross LITL at/above 9000 and at 250K. Expect assigned approach or RADAR vectors to final approach course.

NOTE: Chart not to scale.

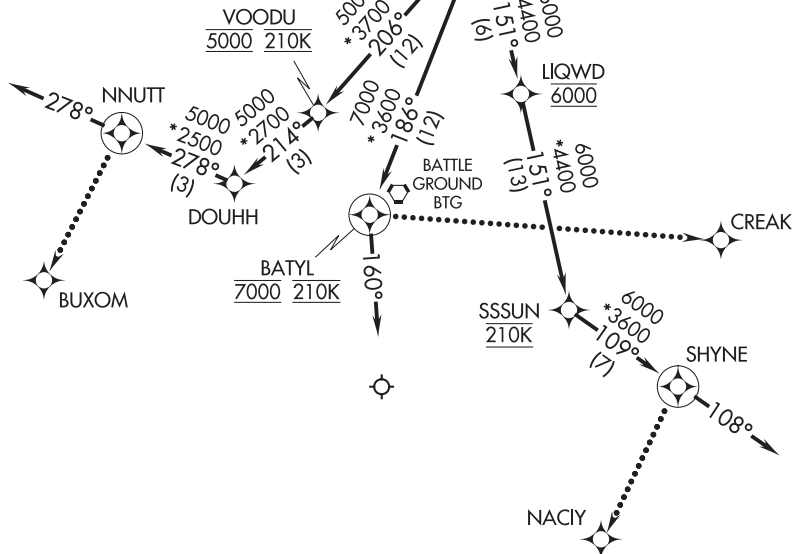
NW-1, 10 NOV 2016 to 05 JAN 2017

# KRATR TWO ARRIVAL (RNAV)

ATIS  
128.35 269.9  
PORTLAND APP CON  
124.35 299.2  
PORTLAND TOWER  
118.7 257.8 (Rwy 10L-28R)  
123.775 251.125 (Rwys 3-21, 10R-28L)  
GND CON  
121.9 348.6



- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turbojet aircraft descend via Mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
- NOTE: HELNS TRANSITION ATC assigned only.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# KRATR TWO ARRIVAL (RNAV)

## ARRIVAL ROUTE DESCRIPTION

BUWZO TRANSITION (BUWZO.KRATR2)

HELNS TRANSITION (HELNS.KRATR2):

From KRATR on track 185° to cross HYKER between 7000 and 9000. Thence. . . .

LANDING RUNWAYS 10L/R: From HYKER on track 206° to cross VOODOU at 5000 and at 210K, then on track 214° to DOUHH, then on track 278° to NNUTT, then on track 278°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 21: From HYKER on track 186° to cross BATYL at 7000 and at 210K, then on track 160°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 28L/R: From HYKER on track 151° to cross LIQWD at 6000, then on track 151° to cross SSSUN at 210K, then on track 109° to SHYNE, then on track 108°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS:

LANDING RUNWAYS 10L/R: At NNUTT, turn left direct to BUXOM and execute ILS RWY 10L approach.

LANDING RUNWAY 21: At BATYL turn left direct to CREAK and execute LOC/DME RWY 21 approach.

LANDING RUNWAYS 28L/R: At SHYNE, turn right direct to NACIY and execute ILS RWY 28R approach.

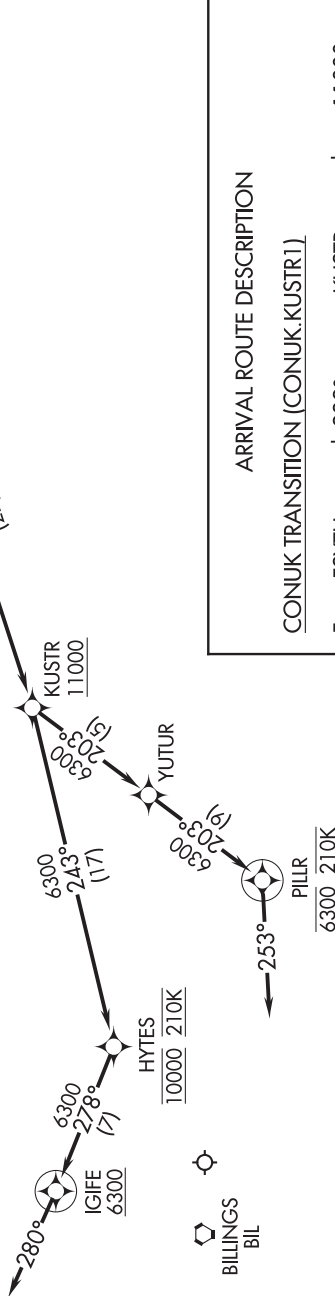
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



NW-1, 10 NOV 2016 to 05 JAN 2017

ATIS  
126.3  
GND.CON  
121.9  
BILLINGS TOWER  
127.2 257.8  
BILLINGS APP CON  
120.5 284.6



ARRIVAL ROUTE DESCRIPTION

CONUK TRANSITION (CONUK.KUSTR1)

From FSYTH on track 239° to cross KUSTR at or above 11000.

LANDING RUNWAY 10L: From KUSTR on track 243° to cross HYTES at 10000 and at 210K, then on track 278° to cross IGIFE at or above 6300, then on track 280°. Expect RNAV (RNP) Z RWY 10L or RADAR vectors to final approach course.

LANDING RUNWAY 28R: From KUSTR on track 203° to YUTUR, then on track 203° to cross PILLR at 6300 and at 210K, then on heading 253°. Expect RADAR vectors to final approach course.

NOTE: RADAR required.

NOTE: RNAV 1.

NOTE: GPS required.

NOTE: Expect RNAV (RNP) Z RWY 10L at HYTES or RADAR vectors to final approach course prior to IGIFE.

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

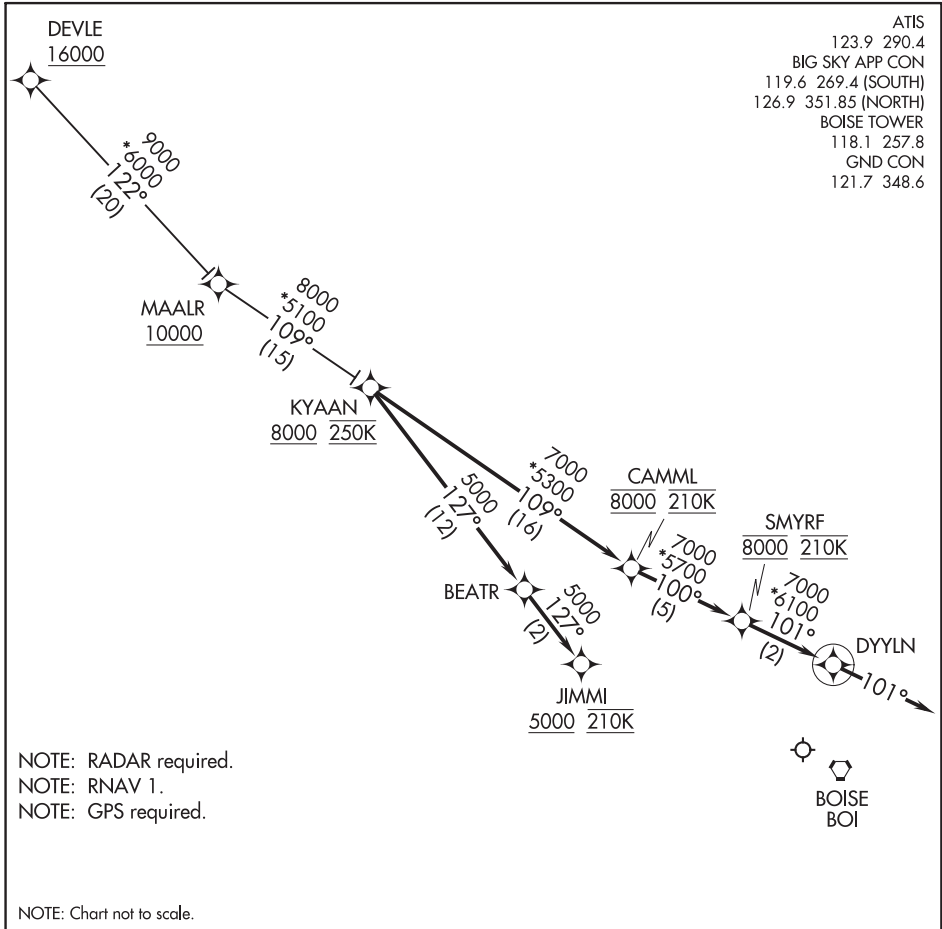
(KYAAN.KYAAN2) 16147

# KYAAN TWO ARRIVAL (RNAV)

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

ST-57 (FAA)

BOISE, IDAHO



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## ARRIVAL ROUTE DESCRIPTION

### DEVLE TRANSITION (DEVLE.KYAAN2)

LANDING RUNWAYS 10L/R: From KYAAN on track 127° to BEATR, then on track 127° to cross JIMMI at or above 5000 and at 210K. Expect assigned approach or RADAR vectors to final approach course.

LANDING RUNWAYS 28L/R: From KYAAN on track 109° to cross CAMML at 8000 and at 210K, then on track 100° to cross SMYRF at 8000 and at 210K, then on track 101° to DYYLN, then on track 101°. Expect assigned approach or RADAR vectors to final approach course.

KYAAN TWO ARRIVAL (RNAV)

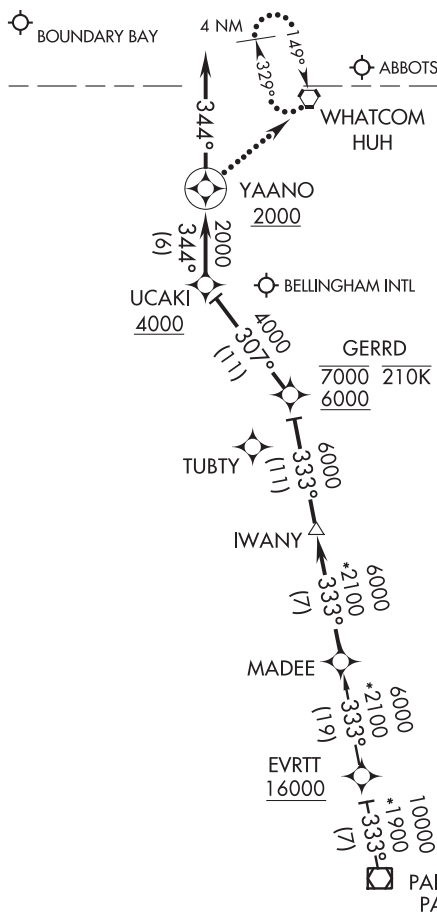
(KYAAN.KYAAN2) 10DEC15

BOISE, IDAHO  
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

(MADEE.MADEE3) 16035

# MADEE THREE ARRIVAL (RNAV) ST-45 (FAA)

BELLINGHAM, WASHINGTON



- ABBOTSFORD ATIS ★ 119.8
- BELLINGHAM ATIS 134.45
- BOUNDARY BAY ATIS ★ 125.5
- VICTORIA TERMINAL APP CON 132.7 290.8
- WHIDBEY APP CON 120.7 270.8 (EAST)
- 118.2 285.65 (WEST)
- ABBOTSFORD TOWER ★ 119.4 295.0 (INNER)
- 121.0 295.0 (OUTER)
- BELLINGHAM TOWER ★ 124.9 379.3
- BOUNDARY BAY TOWER ★ 118.1 (INNER)
- 127.6 (OUTER)
- CRANBROOK RADIO 119.4

NOTE: KBLI Landing North: Expect RADAR vectors to final approach course after IWANY.  
 NOTE: KBLI Landing South: Expect RADAR vectors to final approach course after YAANO.  
 NOTE: CYXX Landing: Expect RADAR vectors to final approach course after YAANO.  
 NOTE: CZBB Landing: Expect RADAR vectors to final approach course after UCAKI.

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: For non-GPS equipped aircraft, CVV DME must be operational.

NOTE: Chart not to scale.

## ARRIVAL ROUTE DESCRIPTION

### PAINÉ TRANSITION (PAE.MADEE3)

From MADEE on track 333° to IWANY, thence via ....

LANDING BLI RUNWAY 16: From IWANY on track 333° cross GERRD between 6000 and 7000 and at or below 210K, then on track 307° to cross UCAKI at or above 4000, then on track 344° to cross YAANO at or above 2000, then on heading 344. Expect RADAR vectors to final approach course after YAANO.

LANDING BLI RUNWAY 34: From IWANY on track 333° cross GERRD between 6000 and 7000 and at or below 210K, then on track 307° to cross UCAKI at or above 4000, then on track 344° to cross YAANO at or above 2000, then on heading 344. Expect RADAR vectors to final approach course after IWANY.

LOST COMMUNICATIONS: After YAANO proceed direct HUH VORTAC and hold.

# MADEE THREE ARRIVAL (RNAV)

BELLINGHAM, WASHINGTON

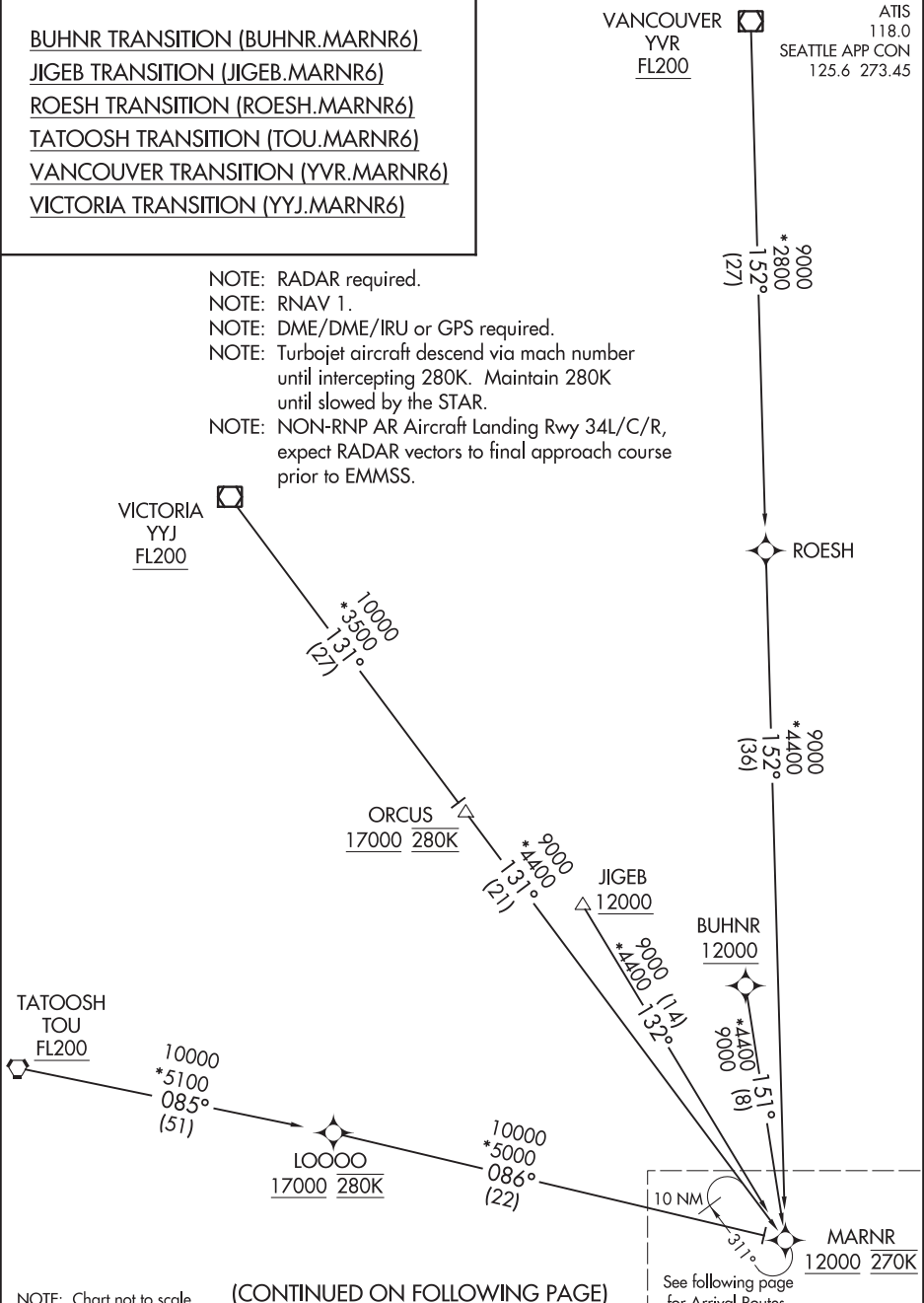
(MADEE.MADEE3) 04FEB16

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

- BUHNR TRANSITION (BUHNR.MARNR6)
- JIGEB TRANSITION (JIGEB.MARNR6)
- ROESH TRANSITION (ROESH.MARNR6)
- TATOOSH TRANSITION (TOU.MARNR6)
- VANCOUVER TRANSITION (YVR.MARNR6)
- VICTORIA TRANSITION (YYJ.MARNR6)

NOTE: RADAR required.  
 NOTE: RNAV 1.  
 NOTE: DME/DME/IRU or GPS required.  
 NOTE: Turbojet aircraft descend via mach number until intercepting 280K. Maintain 280K until slowed by the STAR.  
 NOTE: NON-RNP AR Aircraft Landing Rwy 34L/C/R, expect RADAR vectors to final approach course prior to EMMSS.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

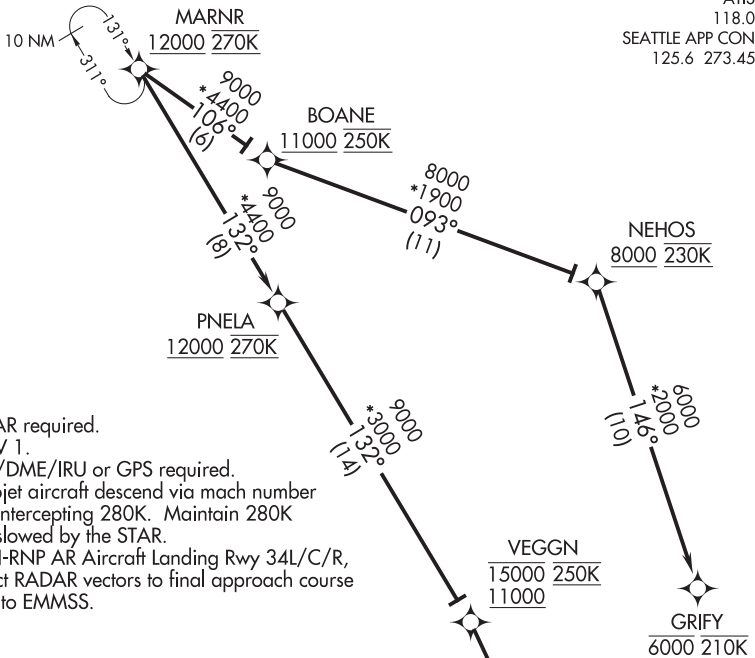
(CONTINUED ON FOLLOWING PAGE)

# MARNR SIX ARRIVAL (RNAV)

Arrival Routes

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON

ATIS  
118.0  
SEATTLE APP CON  
125.6 273.45



- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turbojet aircraft descend via mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
- NOTE: NON-RNP AR Aircraft Landing Rwy 34L/C/R, expect RADAR vectors to final approach course prior to EMMSS.

NOTE: Chart not to scale.

### ARRIVAL ROUTE DESCRIPTION

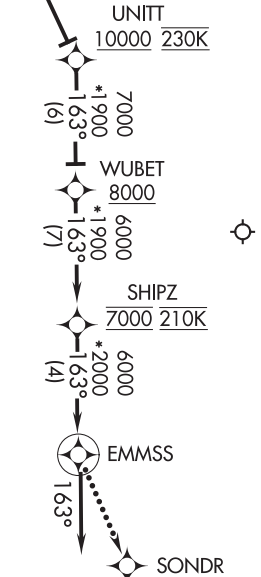
**LANDING RWYS 16L/C/R:** From MARNR on track 106° to cross BOANE at or above 11000 and at 250K, then on track 093° to cross NEHOS at or above 8000 and at 230K, then on track 146° to cross GRIFY at 6000 and at 210K. Expect assigned instrument approach prior to GRIFY.

**LANDING RWYS 34L/C/R:** From MARNR on track 132° to cross PNELA at or above 12000 and at 270K, then on track 132° to cross VEGGN between 11000 and 15000 and at 250K, then on track 138° to cross UNITT at or above 10000 and at 230K, then on track 163° to cross WUBET at or above 8000, then on track 163° to cross SHIPZ at 7000 and at 210K, then on track 163° to EMMSS, then on track 163°.

### LOST COMMUNICATIONS:

**LANDING RWY 16:** At GRIFY, execute the ILS RWY 16R approach.

**LANDING RWY 34:** At EMMSS, proceed direct to SONDR and execute the ILS RWY 34L approach.



# MARNR SIX ARRIVAL (RNAV)

Arrival Routes

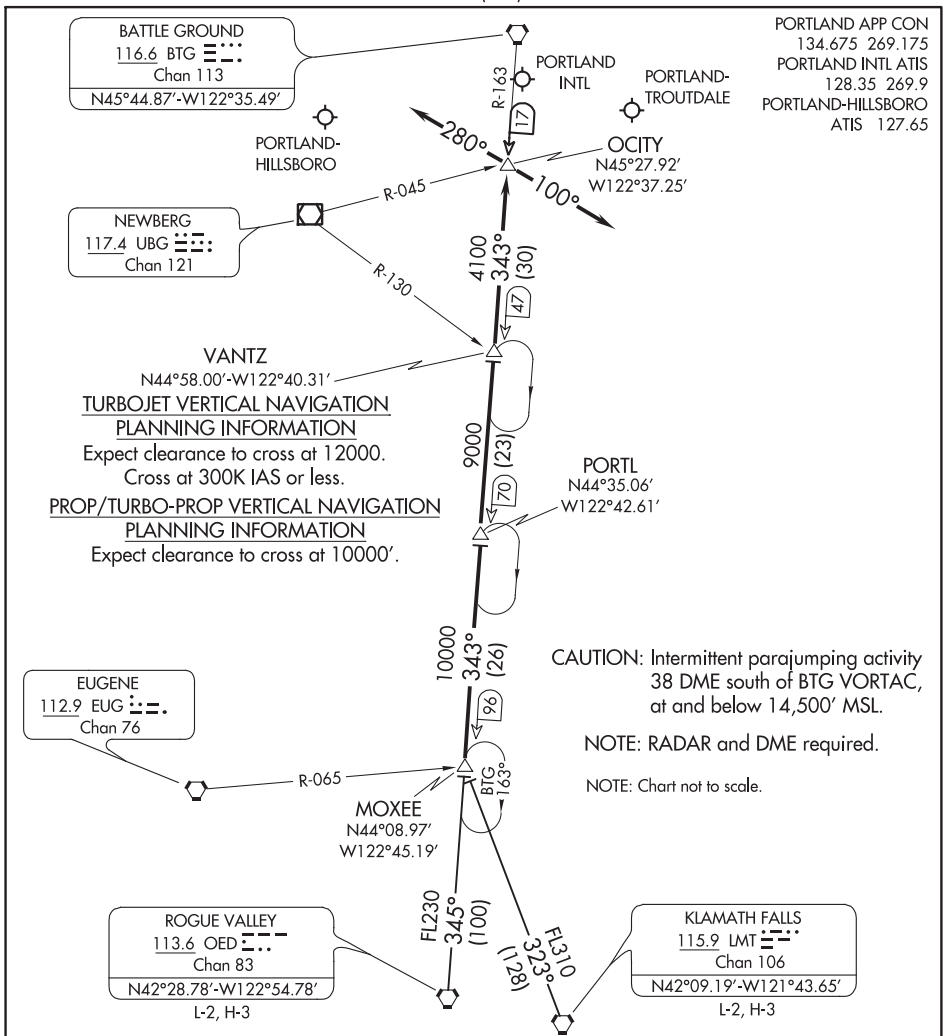
SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(MOXEE.MOXEE6) 16147  
**MOXEE SIX ARRIVAL**

PORTLAND, OREGON



**ARRIVAL ROUTE DESCRIPTION**

**KLAMATH FALLS TRANSITION (LMT.MOXEE6):** From over LMT VORTAC on LMT R-323 to MOXEE INT. Thence . . . .

**ROGUE VALLEY TRANSITION (OED.MOXEE6):** From over OED VORTAC on OED R-345 to MOXEE INT. Thence . . . .

. . . . From over MOXEE INT via BTG R-163 to OCITY INT. Thence via:

**Landing East** - Depart OCITY INT heading 280° for vectors to final approach course.

**Landing West** - Depart OCITY INT heading 100° for vectors to final approach course.

**LOST COMMUNICATIONS:** After OCITY INT, proceed direct BTG VORTAC.

**MOXEE SIX ARRIVAL**  
 (MOXEE.MOXEE6) 07JUL05

PORTLAND, OREGON

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# OLYMPIA TWO ARRIVAL

ST-582 (FAA)

SEATTLE, WASHINGTON

SEATTLE APP CON  
 125.6 273.45  
 SEATTLE-TACOMA INTL ATIS  
 118.0  
 BOEING FIELD ATIS  
 127.75  
 RENTON MUNI ATIS  
 126.95  
 SNOHOMISH COUNTY ATIS  
 128.65

SNOHOMISH COUNTY  
 (PAINE FIELD)

BOEING FIELD/  
 KING COUNTY INTL  
 RENTON MUNI  
 SEATTLE-TACOMA INTL

SEATTLE  
 116.8 SEA  
 Chan 115  
 N47°26.12'-W122°18.58'

ARVAD  
 N47°13.36'-W122°34.86'  
 TURBOJET Landing South:  
 13000 250K  
 Maintain 13000.

LACEE  
 N47°02.82'  
 W122°48.35'

OLYMPIA  
 113.4 OLM  
 Chan 81  
 N46°58.30'-W122°54.11'

PROP/TURBOPROP: 12000 250K  
 Maintain 12000.

TURBOJET: Landing North: 13000 250K  
 Maintain 13000.

Landing South: 17000 270K

COUGA  
 N46°05.52'  
 W122°40.64'

BATTLE GROUND  
 116.6 BTG  
 Chan 113  
 N45°44.87'-W122°35.49'  
 L-1, H-1

NOTE: Landing north/landing south restrictions are issued per KSEA flow.

NOTE: RADAR and DME required.

NEWBERG  
 117.4 UBG  
 Chan 121  
 N45°21.19'-W122°58.69'  
 L-1, H-1

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# OLYMPIA TWO ARRIVAL

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

BATTLE GROUND TRANSITION (BTG.OLM2): From over BTG VORTAC on BTG R-329 to COUGA, then on BTG R-329 and OLM R-151 to OLM VORTAC. Thence. . . .

NEWBERG TRANSITION (UBG.OLM2): From over UBG VOR/DME on UBG R-341 and OLM R-163 to OLM VORTAC. Thence. . . .

. . . . from over OLM VORTAC on OLM R-022 to LACEE, then on OLM R-022 to ARVAD, then on OLM R-022 to FOURT, thence. . . .

. . . . LANDING NORTH SEA/BFI: Depart FOURT heading 070° for vectors to final approach course.

. . . . LANDING SOUTH SEA/BFI: Depart FOURT heading 343° for vectors to final approach course.

. . . . LANDING SNOHOMISH COUNTY (PAINE FIELD): Depart FOURT heading 343° for vectors to final approach course.

. . . . LANDING RENTON MUNI: Depart FOURT heading 343° for vectors to final approach course.

LOST COMMUNICATIONS: From over FOURT, proceed direct SEA VORTAC.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



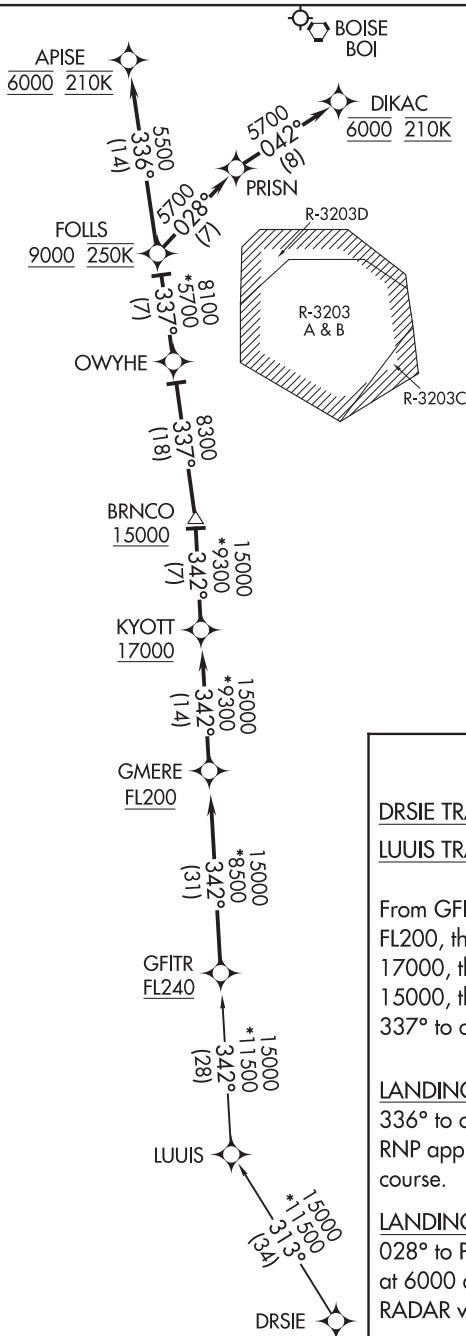
(GFITR.OWYHE2) 16147

# OWYHE TWO ARRIVAL (RNAV)

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

ST-57 (FAA)

BOISE, IDAHO



ATIS 123.9 290.4  
 BIG SKY APP CON 119.6 269.4 (SOUTH)  
 126.9 351.85 (NORTH)  
 MOUNTAIN HOME APP CON \* 124.8 259.1  
 BOISE TOWER 118.1 257.8  
 GND CON 121.7 348.6

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: GPS required.
- NOTE: ATC assigned only.

NOTE: Chart not to scale.

## ARRIVAL ROUTE DESCRIPTION

### DRSIE TRANSITION (DRSIE.OWYHE2)

### LUUIS TRANSITION (LUUIS.OWYHE2)

From GFITR on track 342° to cross GMERE at or above FL200, then on track 342° to cross KYOTT at or above 17000, then on track 342° to cross BRNCO at or above 15000, then on track 337° to Owyhe, then on track 337° to cross FOLLS at or above 9000 and at 250K.

LANDING RUNWAYS 10L/R: From FOLLS on track 336° to cross APISE at 6000 and at 210K. Expect RNP approach or RADAR vectors to final approach course.

LANDING RUNWAYS 28L/R: From FOLLS on track 028° to PRISN, then on track 042° to cross DIKAC at 6000 and at 210K. Expect RNP approach or RADAR vectors to final approach course.

# OWYHE TWO ARRIVAL (RNAV)

(GFITR.OWYHE2) 10DEC15

BOISE, IDAHO  
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(MYRUN.PARMO2) 16147

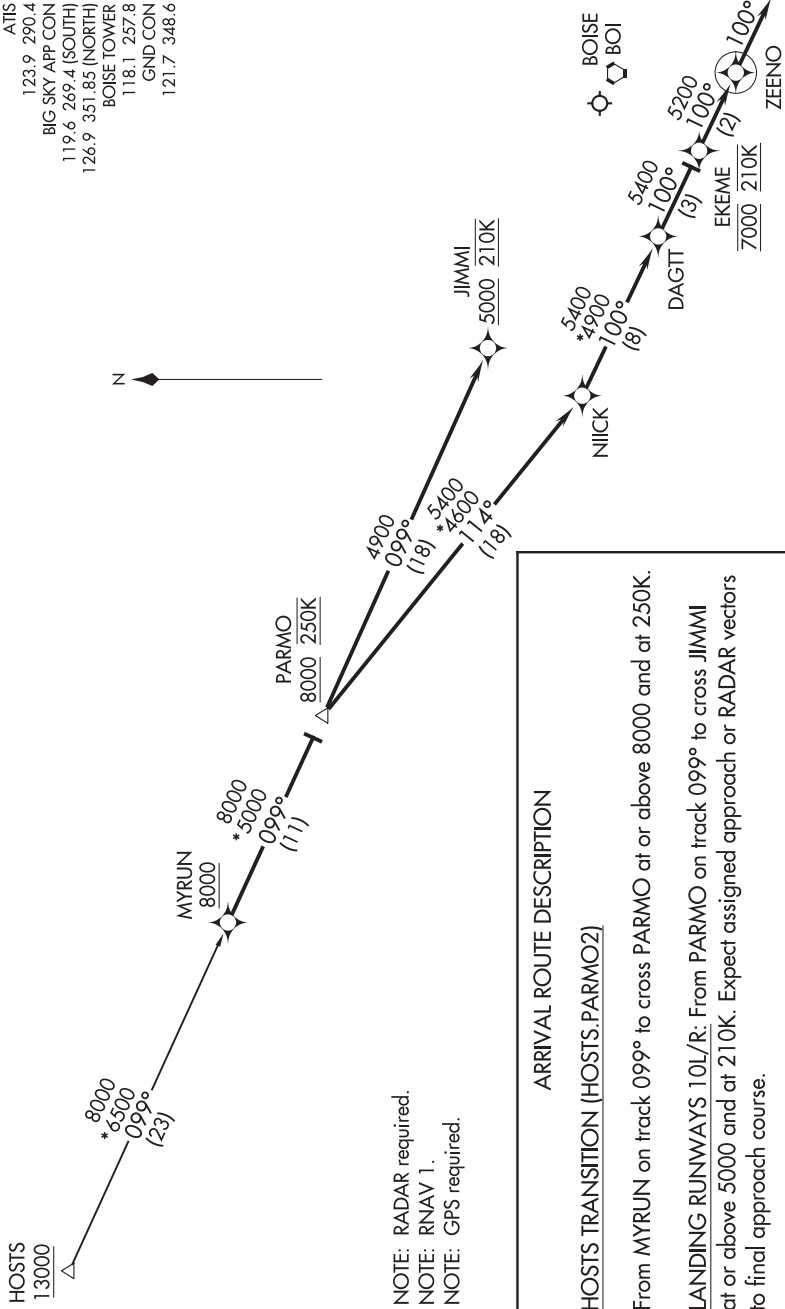
# PARMO TWO ARRIVAL(RNAV)

ST-57 (FAA)

BOISE AIR TERMINAL/GOWEN FIELD (BOI)  
BOISE, IDAHO

NW-1, 10 NOV 2016 to 05 JAN 2017

ATIS  
123.9 290.4  
BIG SKY APP CON  
119.6 269.4 (SOUTH)  
126.9 351.85 (NORTH)  
BOISE TOWER  
118.1 257.8  
GND CON  
121.7 348.6



NOTE: RADAR required.  
NOTE: RNAV 1.  
NOTE: GPS required.

**ARRIVAL ROUTE DESCRIPTION**

HOSTS TRANSITION (HOSTS.PARMO2)

From MYRUN on track 099° to cross PARMO at or above 8000 and at 250K.

LANDING RUNWAYS 10L/R: From PARMO on track 099° to cross JIMMI at or above 5000 and at 210K. Expect assigned approach or RADAR vectors to final approach course.

LANDING RUNWAYS 28L/R: From PARMO on track 114° to NIICK, then on track 100° to DAGTT, then on track 100° to cross EKEME at 7000 and at 210K, then on track 100° to ZEENO, then on track 100°. Expect assigned approach or RADAR vectors to final approach course.

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

PARMO TWO ARRIVAL(RNAV)  
(MYRUN.PARMO2) 10DEC15

BOISE, IDAHO  
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

(PELYT.SADYL2) 161.47

# SADYL TWO ARRIVAL (RNAV)

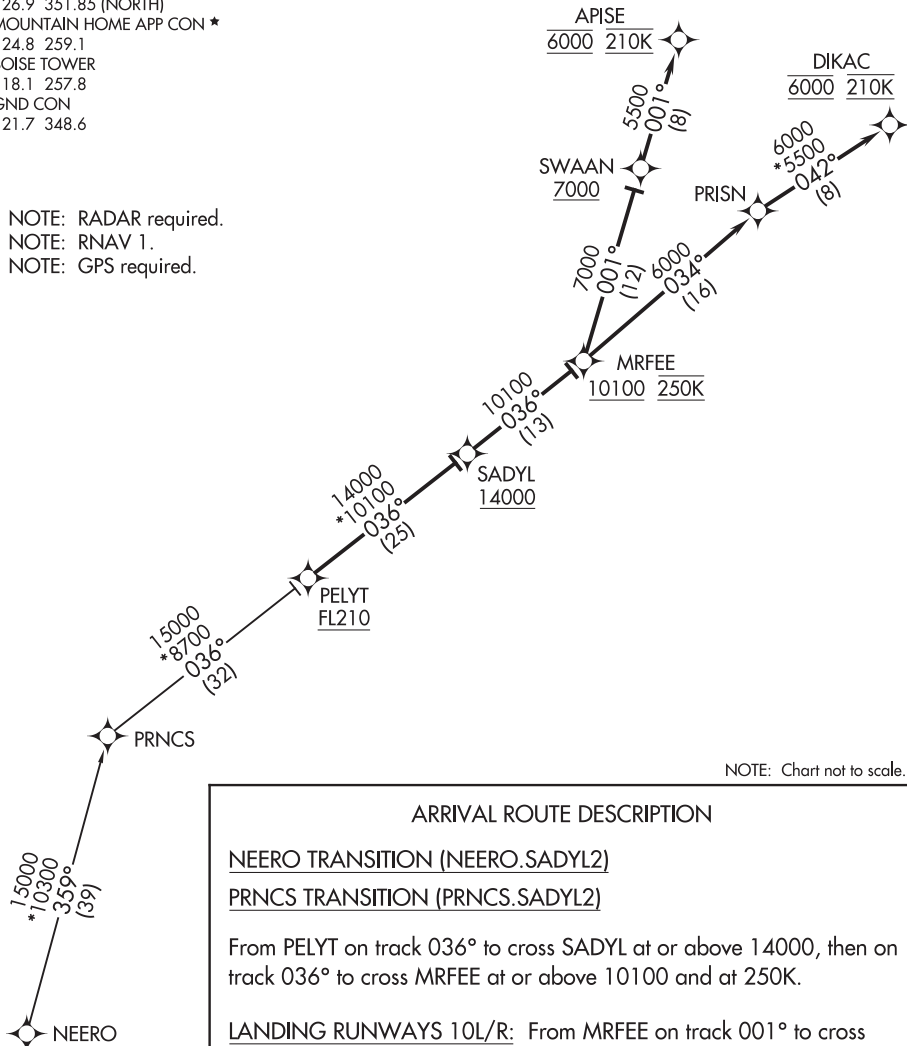
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

ST-57 (FAA)

BOISE, IDAHO

ATIS  
 123.9 290.4  
 BIG SKY APP CON  
 119.6 269.4 (SOUTH)  
 126.9 351.85 (NORTH)  
 MOUNTAIN HOME APP CON ★  
 124.8 259.1  
 BOISE TOWER  
 118.1 257.8  
 GND CON  
 121.7 348.6

NOTE: RADAR required.  
 NOTE: RNAV 1.  
 NOTE: GPS required.



NOTE: Chart not to scale.

## ARRIVAL ROUTE DESCRIPTION

NEERO TRANSITION (NEERO.SADYL2)

PRNCS TRANSITION (PRNCS.SADYL2)

From PELYT on track 036° to cross SADYL at or above 14000, then on track 036° to cross MRFEE at or above 10100 and at 250K.

LANDING RUNWAYS 10L/R: From MRFEE on track 001° to cross SWAAN at or above 7000, then on track 001° to cross APISE at 6000 and at 210K. Expect RNP approach or RADAR vectors to final approach course.

LANDING RUNWAYS 28L/R: From MRFEE on track 034° to PRISN, then on track 042° to cross DIKAC at 6000 and at 210K. Expect RNP approach or RADAR vectors to final approach course.

# SADYL TWO ARRIVAL (RNAV)

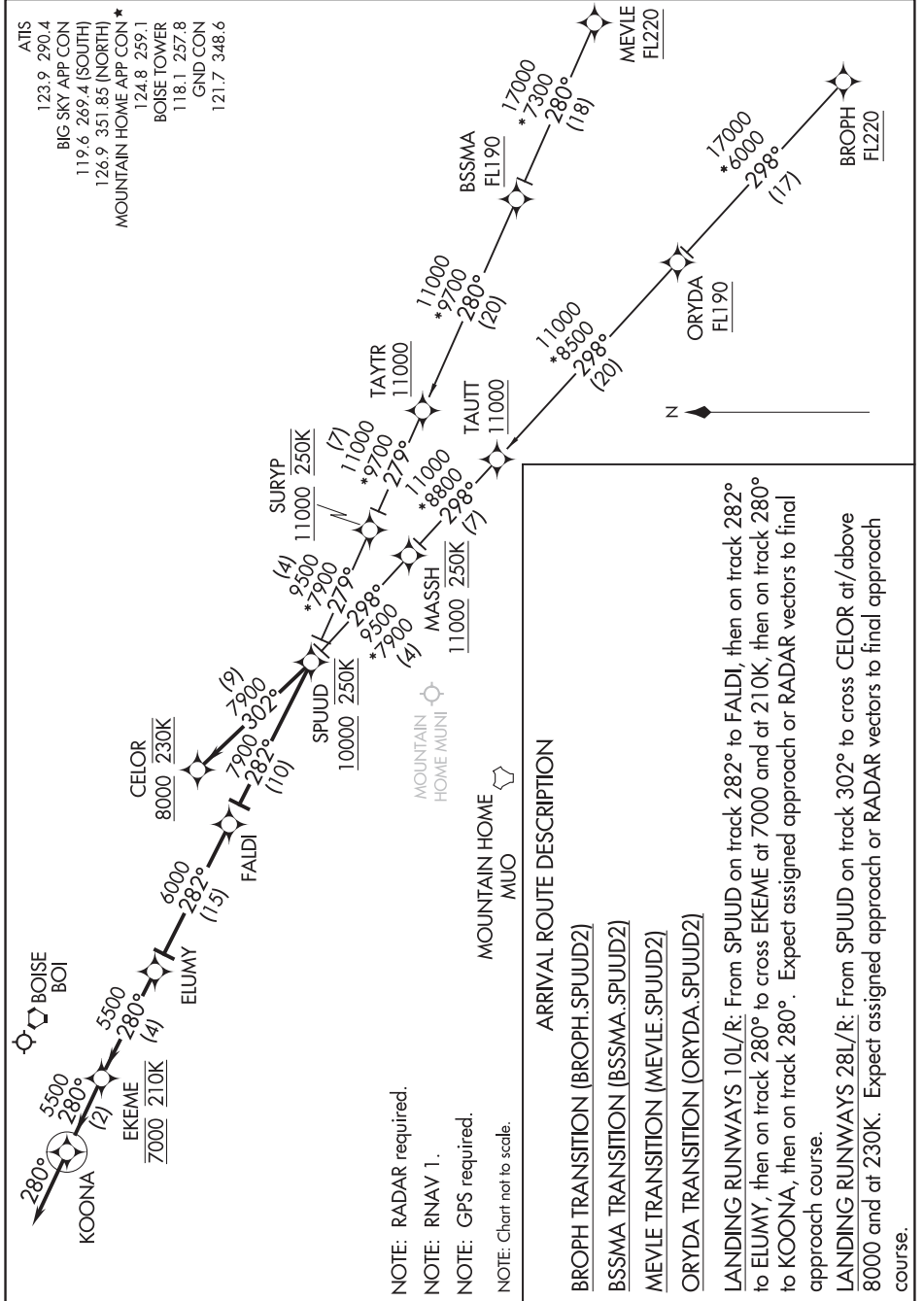
(PELYT.SADYL2) 10DEC15

BOISE, IDAHO  
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

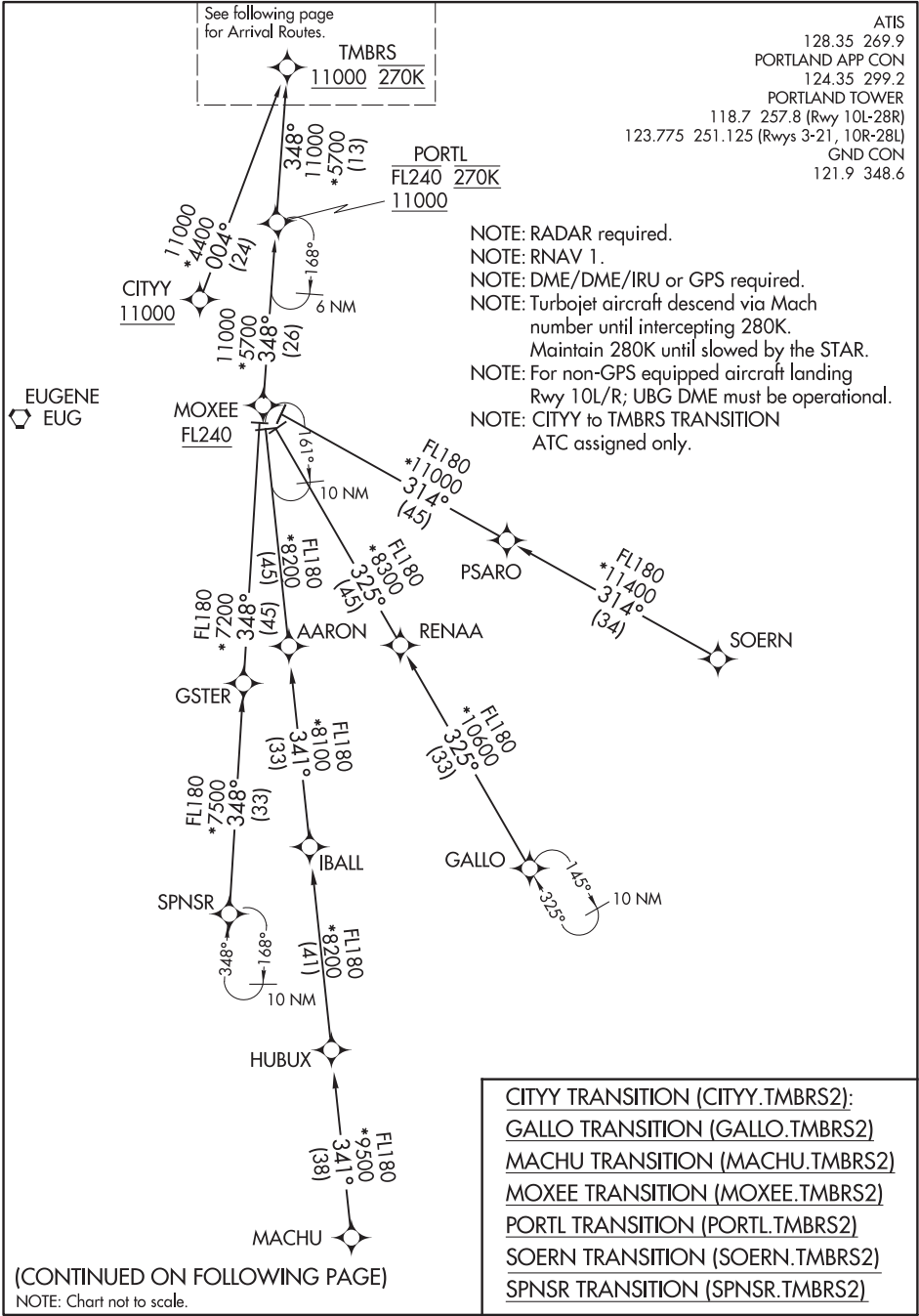


NW-1, 10 NOV 2016 to 05 JAN 2017

# TMBRS TWO ARRIVAL (RNAV) Transition Routes

See following page  
for Arrival Routes.

ATIS  
128.35 269.9  
PORTLAND APP CON  
124.35 299.2  
PORTLAND TOWER  
118.7 257.8 (Rwy 10L-28R)  
123.775 251.125 (Rwys 3-21, 10R-28L)  
GND CON  
121.9 348.6



NW-1, 10 NOV 2016 to 05 JAN 2017

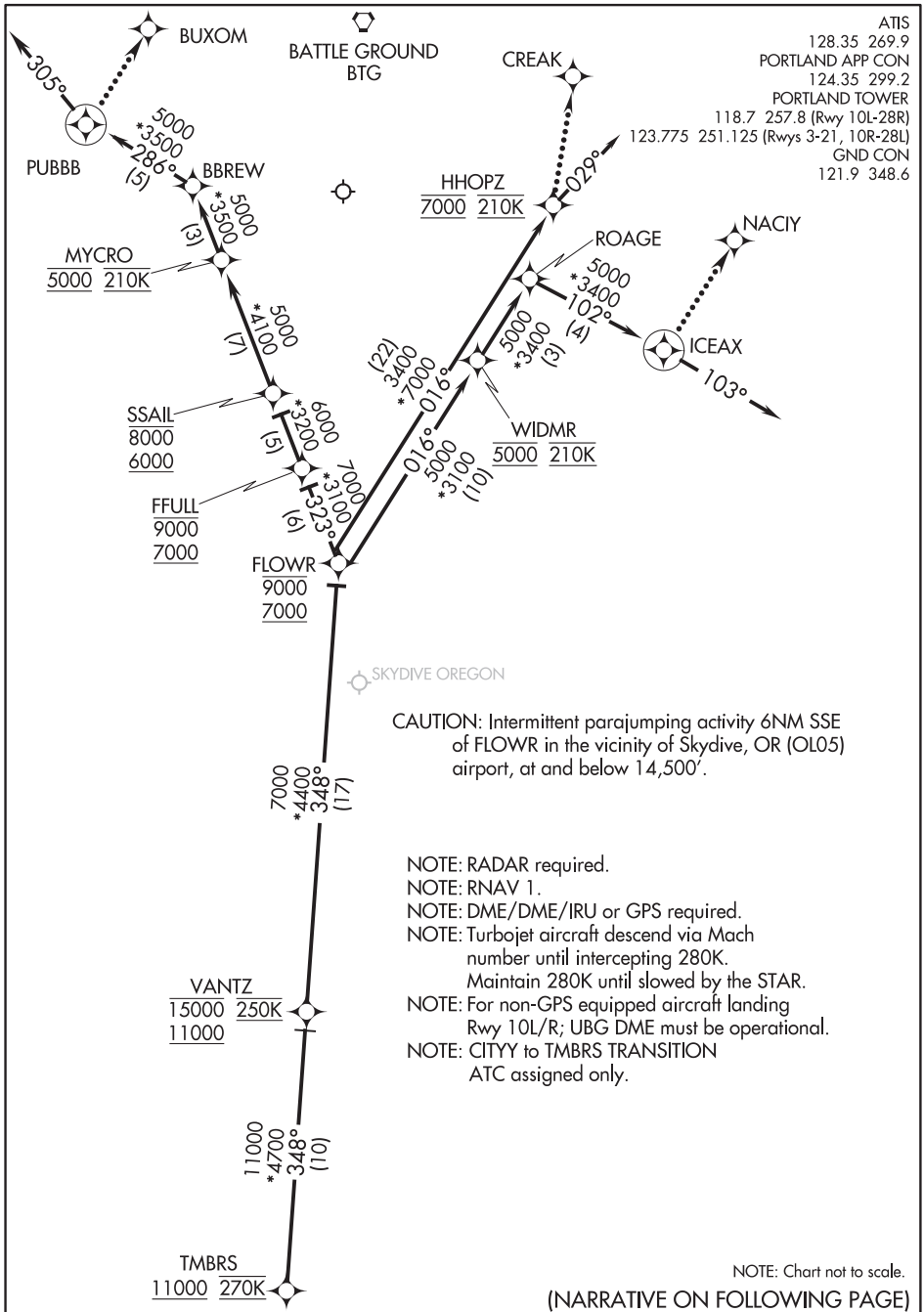
NW-1, 10 NOV 2016 to 05 JAN 2017

(CONTINUED ON FOLLOWING PAGE)  
NOTE: Chart not to scale.

CITYY TRANSITION (CITYY.TMBRS2):  
GALLO TRANSITION (GALLO.TMBRS2)  
MACHU TRANSITION (MACHU.TMBRS2)  
MOXEE TRANSITION (MOXEE.TMBRS2)  
PORTL TRANSITION (PORTL.TMBRS2)  
SOERN TRANSITION (SOERN.TMBRS2)  
SPNSR TRANSITION (SPNSR.TMBRS2)

# TMBRS TWO ARRIVAL (RNAV) Transition Routes

# TMBRS TWO ARRIVAL (RNAV) Arrival Routes



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# TMBRS TWO ARRIVAL (RNAV) Arrival Routes

# TMBRS TWO ARRIVAL (RNAV)

## ARRIVAL ROUTE DESCRIPTION

From TMBRS on track 348° to cross VANTZ between 11000 and 15000 and at 250K, then on track 348° to cross FLOWR between 7000 and 9000. Thence . . .

LANDING RUNWAYS 10L/R: From FLOWR on track 323° to cross FFULL between 7000 and 9000, then on track 323° to cross SSAIL between 6000 and 8000, then on track 323° to cross MYCRO at 5000 and at 210K, then on track 323° to BBREW, then on track 286° to PUBBB, then on track 305°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 21: From FLOWR on track 016° to cross HHOPZ at 7000 and at 210K, then on track 029°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 28L/R: From FLOWR on track 016° to cross WIDMR at 5000 and at 210K, then on track 016° to ROAGE, then on track 102° to cross ICEAX, then on track 103°. Expect RADAR vectors to final approach course.

### LOST COMMUNICATIONS:

LANDING RUNWAY 10: At PUBBB, turn right direct to BUXOM and execute ILS RWY 10L approach.

LANDING RUNWAY 21: At HHOPZ turn left direct to CREAK and execute LOC/DME RWY 21 approach.

LANDING RUNWAY 28: At ICEAX, turn left direct to NACIY and execute ILS RWY 28R approach.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# WHYTE FIVE ARRIVAL

NW-1, 10 NOV 2016 to 05 JAN 2017

## ARRIVAL ROUTE DESCRIPTION

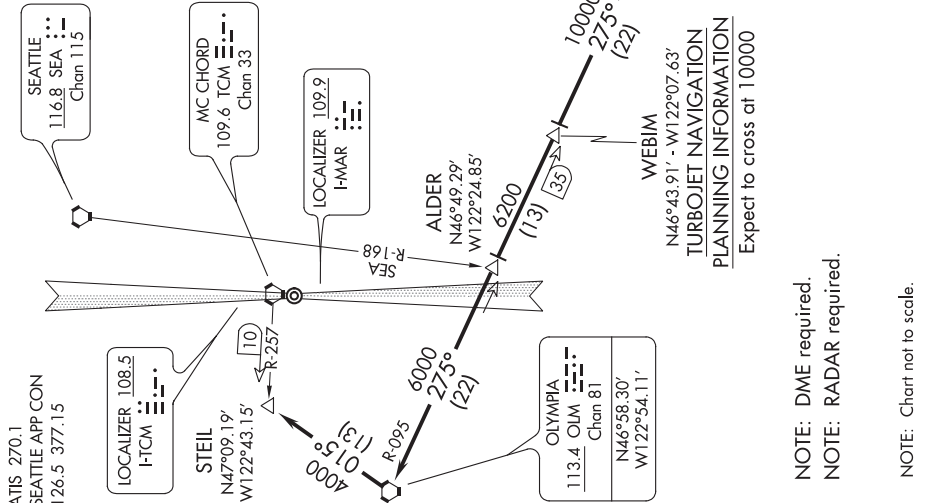
**PENDLETON TRANSITION (PDT.WHYTE5):** From over PDT VORTAC on PDT R-276 and OLM R-095 to **WHYTE**. Thence....

**YAKIMA TRANSITION (YKM.WHYTE5):** From over YKM VORTAC on YKM R-250 to **WHYTE**. Thence....

.... From over **WHYTE** on OLM R-095 to WEBIM, then on OLM R-095 to ALDER INT. Thence....

.... **RWY 16:** On OLM R-095 to OLM VORTAC, then on OLM R-015 to STEIL, expect ILS or LOC RWY 16 or TACAN RWY 16.

.... **RWY 34:** Expect ILS or LOC Y RWY 34, ILS or LOC Z RWY 34 or ILS Z RWY 34 (CAT III).



ATIS 270.1  
SEATTLE APP CON  
126.5 377.15

LOCALIZER 108.5  
I-TCM

STEIL  
N47°09.19'  
W122°43.15'

LOCALIZER 109.9  
I-MAR

ALDER  
N46°49.29'  
W122°24.85'

OLYMPIA  
113.4 OLM  
Ch 81  
N46°58.30'  
W122°54.11'

WEBIM  
N46°43.91' - W122°07.63'

TURBOJET NAVIGATION  
PLANNING INFORMATION  
Expect to cross at 10000

NOTE: DME required.  
NOTE: RADAR required.  
NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

# WHYTE FIVE ARRIVAL

(WHYTE.WHYTE5) 15OCT15



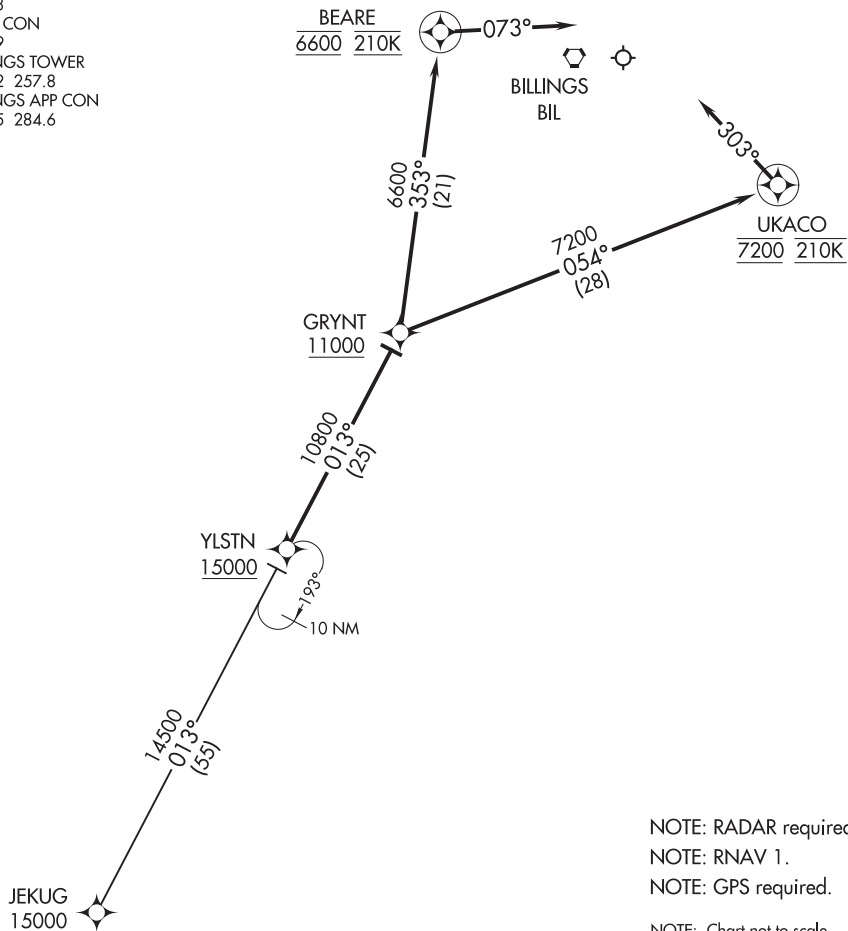
(YLSTN.YLSTN1) 16147

# YLSTN ONE ARRIVAL (RNAV)

ST-48 (FAA)

BILLINGS LOGAN INTL (BIL)  
BILLINGS, MONTANA

ATIS  
 126.3  
 GND CON  
 121.9  
 BILLINGS TOWER  
 127.2 257.8  
 BILLINGS APP CON  
 120.5 284.6



NOTE: RADAR required.  
 NOTE: RNAV 1.  
 NOTE: GPS required.  
 NOTE: Chart not to scale.

## ARRIVAL ROUTE DESCRIPTION

### JEKUG TRANSITION (JEKUG.YLSTN1)

From YLSTN on track 013° to cross GRYNT at or above 11000.

LANDING RUNWAY 10L: From GRYNT on track 353° to cross BEARE at 6600 and at 210K, then on heading 073°. Expect RADAR vectors to (RNP)/ILS/visual approach as assigned by ATC.

LANDING RUNWAY 28R: From GRYNT on track 054° to cross UKACO at 7200 and at 210K, then on heading 303°. Expect RADAR vectors to (RNP)/ILS/visual approach as assigned by ATC.

# YLSTN ONE ARRIVAL (RNAV)

(YLSTN.YLSTN1) 30APR15

BILLINGS, MONTANA  
BILLINGS LOGAN INTL (BIL)

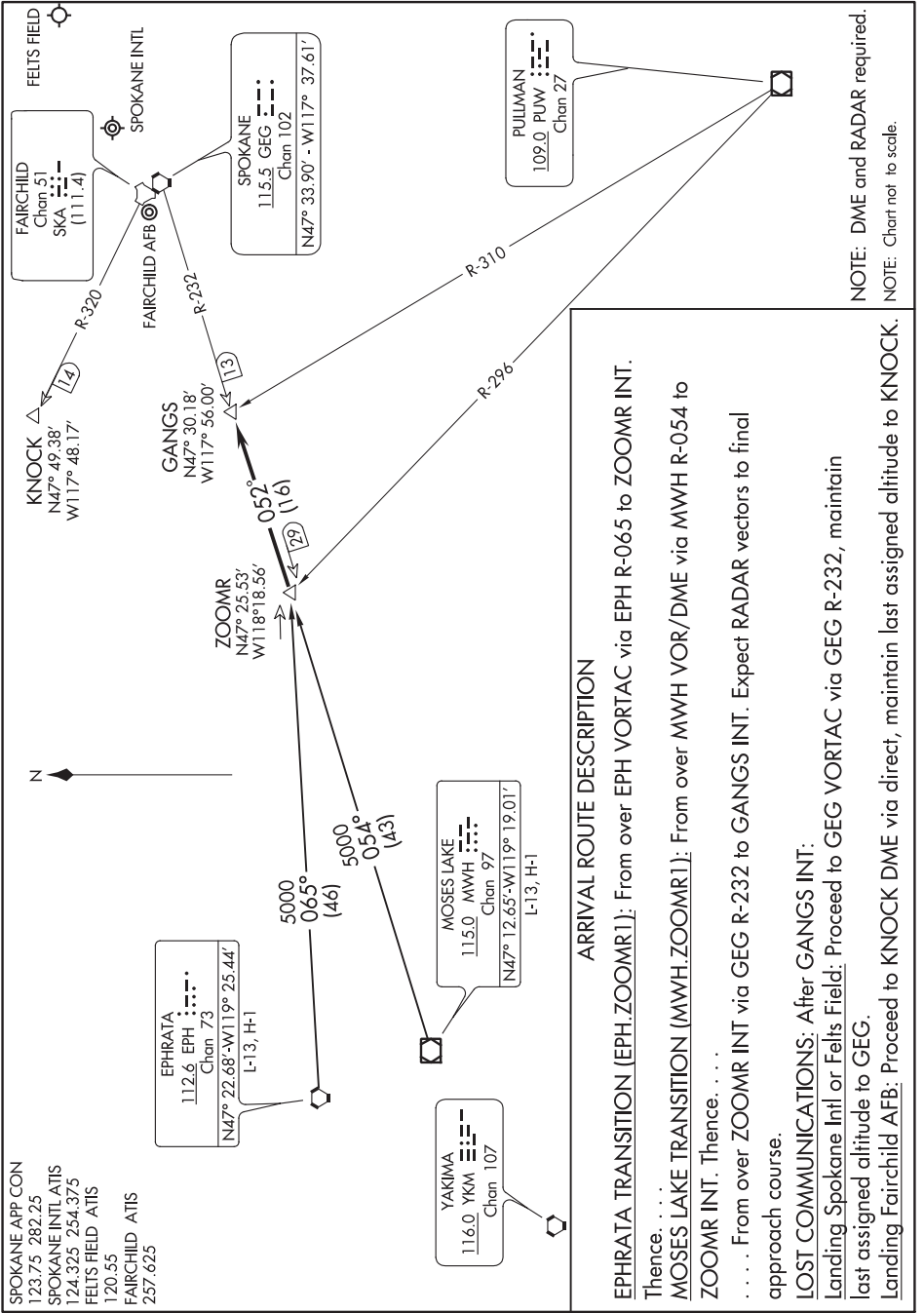
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# ZOOMR ONE ARRIVAL (ZOOMR.ZOOMR1)

SPOKANE, WASHINGTON

NW-1, 10 NOV 2016 to 05 JAN 2017



# ZOOMR ONE ARRIVAL (ZOOMR.ZOOMR1)

SPOKANE, WASHINGTON

NW-1, 10 NOV 2016 to 05 JAN 2017

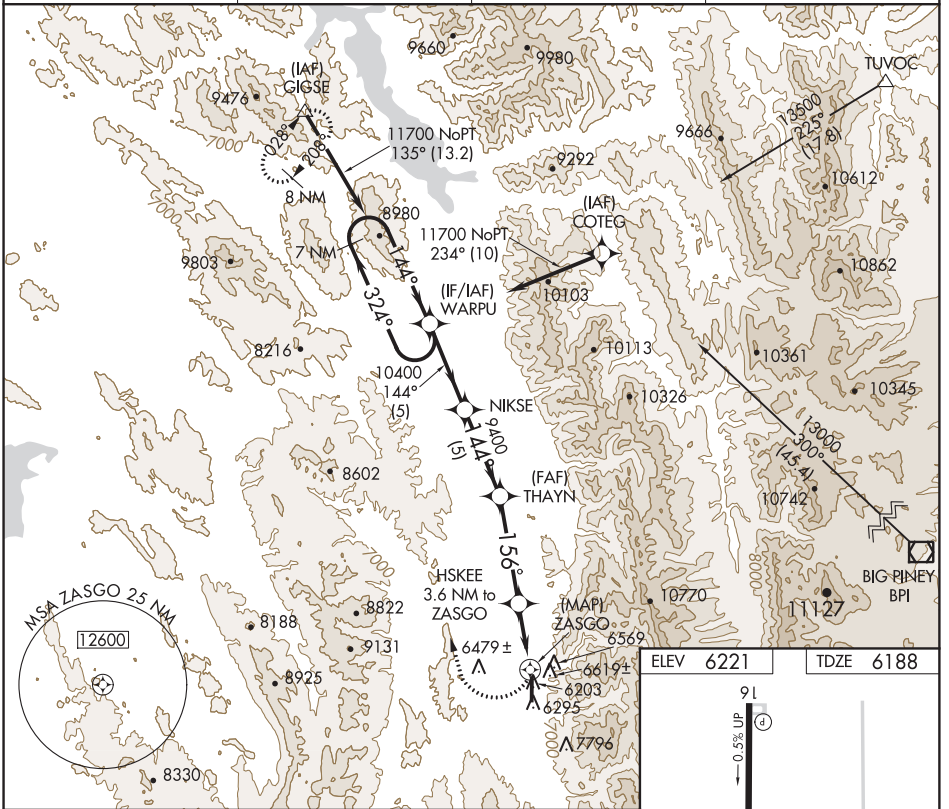
APP CRS <b>156°</b>	Rwy Idg <b>7025</b>
	TDZE <b>6188</b>
	Apt Elev <b>6221</b>

# RNAV (GPS) RWY 16

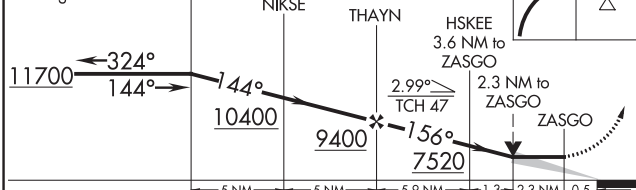
AFTON MUNI (AFO)

<p><b>▽</b> DME/DME RNP -0.3 NA.</p> <p><b>▲</b> NA If local altimeter setting not received, procedure NA.</p> <p><b>⊗</b> -22°C/-8°F Circling NA east of Rwy 16-34.</p>	<p>MISSED APPROACH: Climbing right turn to 11700 direct GIGSE and hold. When authorized by ATC, climb-in-hold to 15000.</p>
--	---

AWOS-3P <b>119.025</b>	SALT LAKE CENTER <b>128.35 381.6</b>	CASPER RADIO <b>122.3</b>	UNICOM <b>122.8 (CTAF)</b> <b>①</b>
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7 NM Holding Pattern WARPU VGSI and descent angles not coincident (VGSI Angle 2.50/TCH 40). 11700 GIGSE



CATEGORY	A	B	C	D
LNVA MDA	7140-1¼ 952 (1000-1¼)	7140-1½ 952 (1000-1½)	7140-3 952 (1000-3)	NA
CIRCLING	7140-1¼ 919 (1000-1¼)	7140-1½ 919 (1000-1½)	7140-3 919 (1000-3)	NA

ELEV 6221	TDZE 6188
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MIRL Rwy 16-34 **①**  
REIL Rws 16 and 34 **①**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

AFTON, WYOMING

AL-9116 (FAA)

16259

APP CRS <b>346°</b>	Rwy Idg TDZE Apt Elev	<b>7025</b> <b>6221</b> <b>6221</b>
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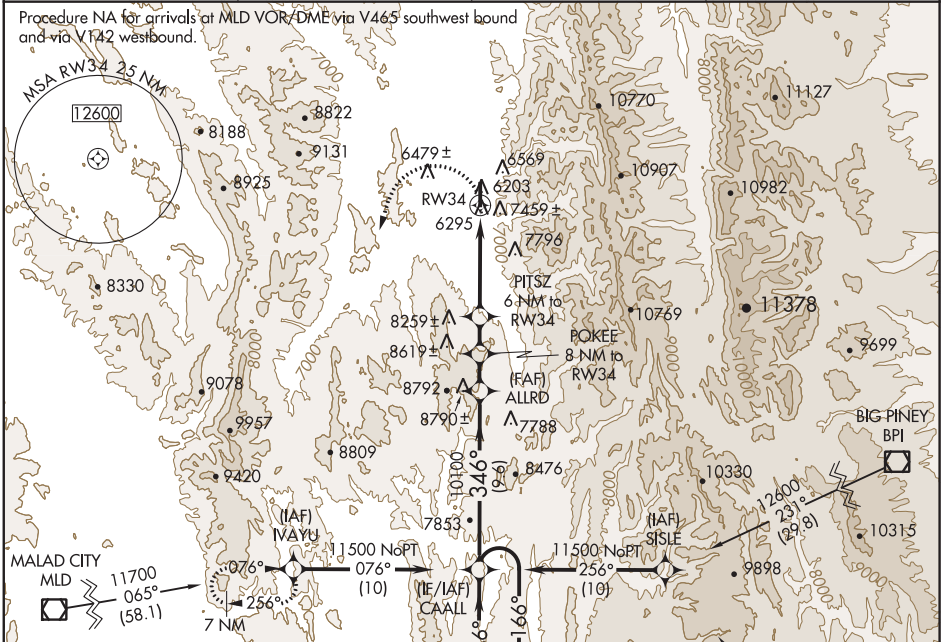
# RNAV (GPS) RWY 34

AFTON MUNI (AFO)

**NA** DME/DME RNP-0.3 NA. Circling NA east of Rwy 16-34. Helicopter visibility reduction below ¾ SM NA. If local altimeter setting not received, procedure NA.

**MISSED APPROACH:** Climbing left turn to 11500 direct IVAYU and hold.

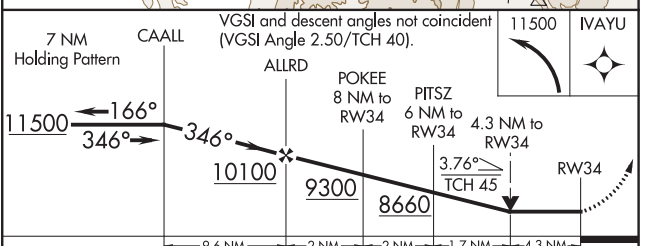
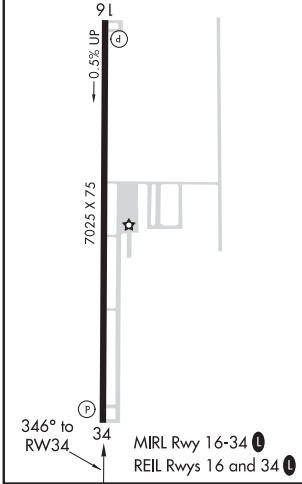
AWOS-3P <b>119.025</b>	SALT LAKE CENTER <b>128.35 381.6</b>	CASPER RADIO <b>122.3</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 6221	TDZE 6221
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CATEGORY	A	B	C	D
LNAV MDA	7620-1¼ 1399 (1400-1¼)	7620-1½ 1399 (1400-1½)	7620-3 1399 (1400-3)	NA
CIRCLING	7620-1¼ 1399 (1400-1¼)	7620-1½ 1399 (1400-1½)	7620-3 1399 (1400-3)	NA

AFTON, WYOMING  
Amdt 2A 31MAR16

42°43'N-110°57'W

# RNAV (GPS) RWY 34

AFTON MUNI (AFO)

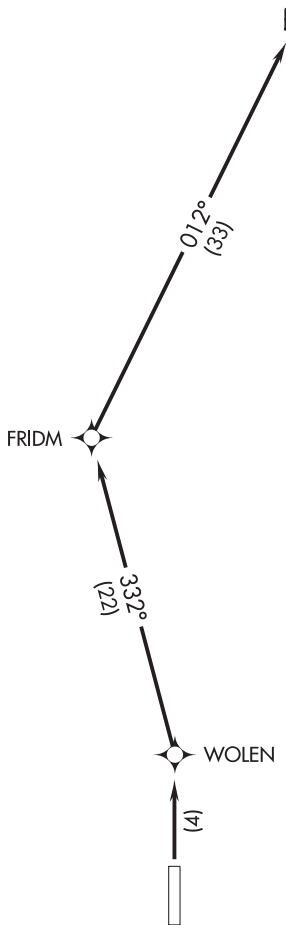
(AFTON3.JAC) 16259

# AFTON THREE DEPARTURE (OBSTACLE) (RNAV)

SL-9116 (FAA) AFTON MUNI (AFO)  
AFTON, WYOMING

SALT LAKE CENTER  
128.35 381.6  
CASPER RADIO  
122.3  
CTAF  
122.8

JACKSON  
JAC



NOTE: GPS required.  
NOTE: RNAV 1.

### TAKEOFF MINIMUMS

Rwy 34: Standard with minimum climb of 330' per NM to 10700.  
Rwy 16: NA- Obstacles.

### TAKEOFF OBSTACLE NOTES

Rwy 34: Tree 1054' from DER, 605' right of centerline, 40' AGL/6241' MSL.  
Tree 1703' from DER, 235' right of centerline, 40' AGL/6259' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 34: Climb to 13000 direct WOLEN, and via track 332° to FRIDM, then on 012° track to JAC VOR/DME.

# AFTON THREE DEPARTURE (OBSTACLE) (RNAV)

(AFTON3.JAC) 15SEP16

AFTON, WYOMING  
AFTON MUNI (AFO)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

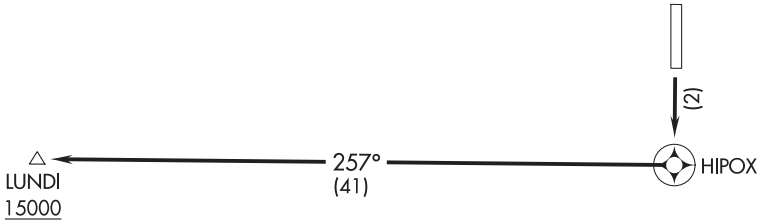
(LUNDI2.LUNDI) 16147

# LUNDI TWO DEPARTURE (OBSTACLE) (RNAV)

SL-9116 (FAA)

AFTON MUNI (AFO)  
AFTON, WYOMING

SALT LAKE CENTER  
128.35 381.6  
CASPER RADIO  
122.3  
CTAF  
122.8



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

### TAKEOFF MINIMUMS

Rwy 16: Standard with minimum climb of 515' per NM to 10400.  
Rwy 34: NA- obstacles.

### TAKEOFF OBSTACLE NOTES

Rwy 16: Tree 1807' from DER, 298' right of centerline, 40' AGL/6277' MSL.

NOTE: GPS required.  
NOTE: RNAV 1

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb to 15000 direct HIPOX and right turn via 257° track to LUNDI.

LUNDI TWO DEPARTURE (OBSTACLE) (RNAV)  
(LUNDI2.LUNDI) 28SEP06

AFTON, WYOMING  
AFTON MUNI (AFO)

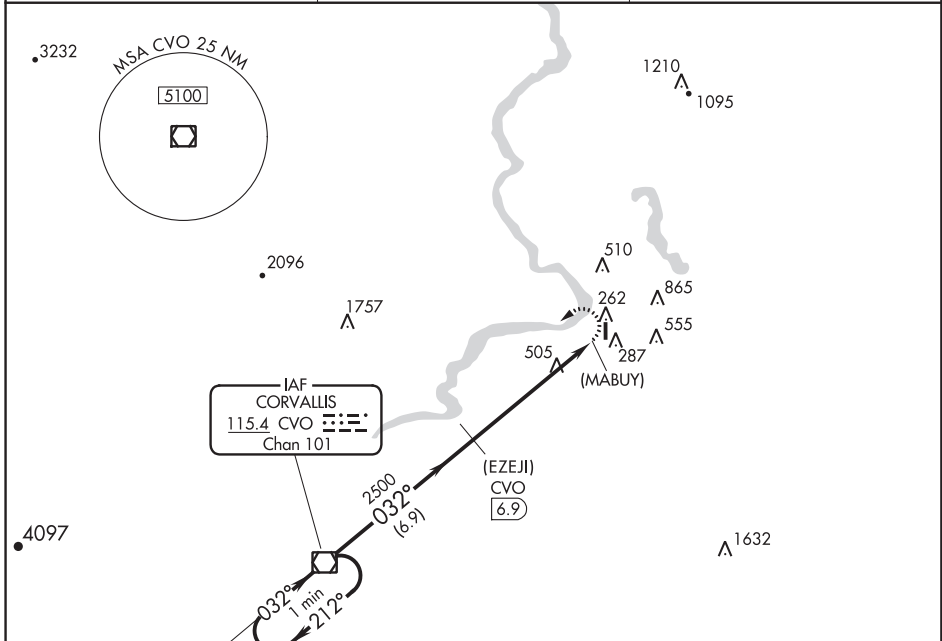
VOR/DME CVO <b>115.4</b> Chan <b>101</b>	APP CRS <b>032°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>223</b>
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# VOR/DME or GPS-A

ALBANY MUNI (S12)

	Use Corvallis altimeter setting.	MISSED APPROACH: Climbing left turn to 3500 via CVO R-032 to CVO VOR/DME and hold.
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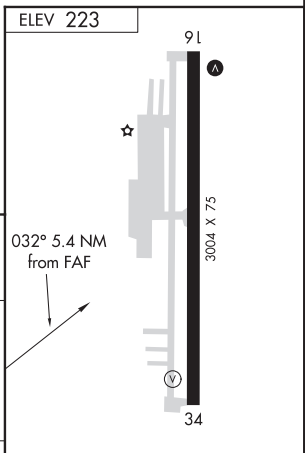
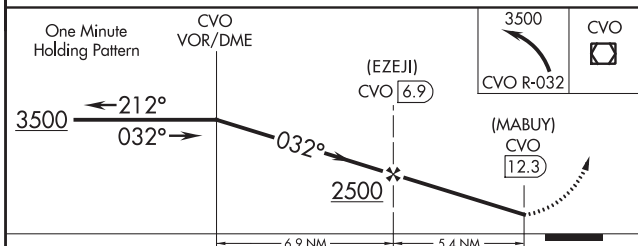
CORVALLIS AWOS-3 <b>135.775</b>	CASCADE APP CON * <b>127.5 348.7</b>	UNICOM <b>122.8</b> (CTAF)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NoPT for arrivals on CVO VOR/DME airways radials 154 clockwise to 177.



CATEGORY	A	B	C	D
CIRCLING	940-1	714 (800-1)		NA

MIRL Rwy 16-34   
REIL Rwys 16 and 34

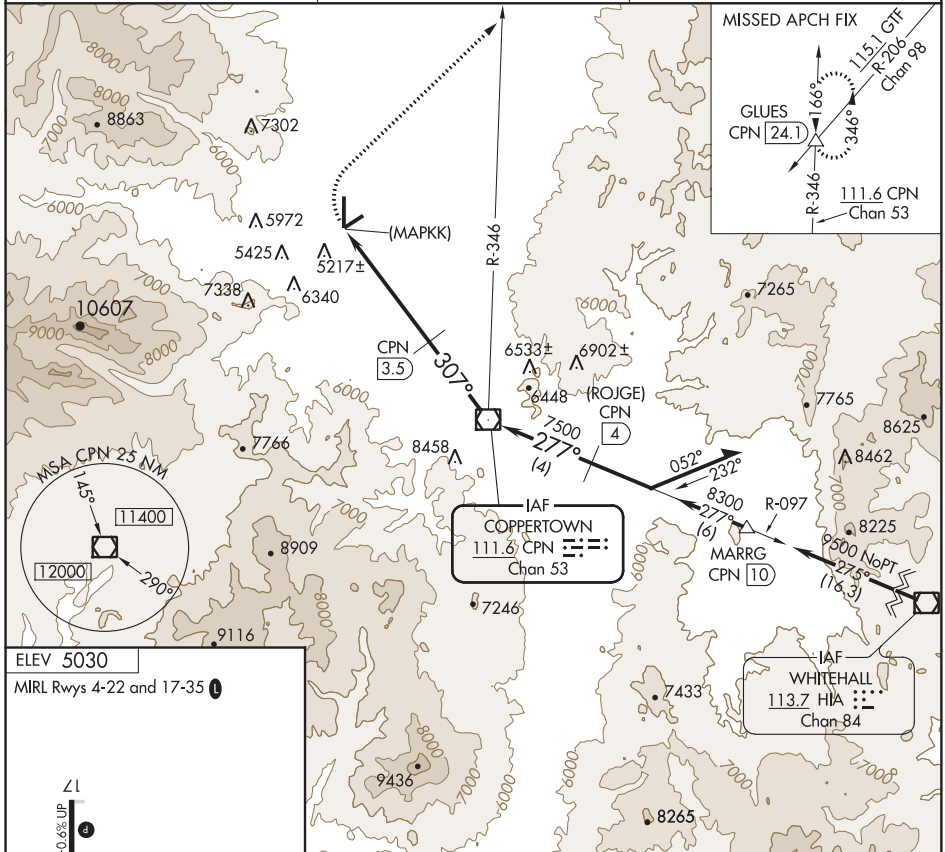
VOR/DME CPN <b>111.6</b> Chan <b>53</b>	APP CRS <b>307°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>5030</b>
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# VOR/DME or GPS-A

BOWMAN FIELD (3U3)

Use Butte (BTM) altimeter setting; MISSED APPROACH: Climbing right turn to 9200 via heading 030° to intercept CPN R-346 to GLUES and hold.

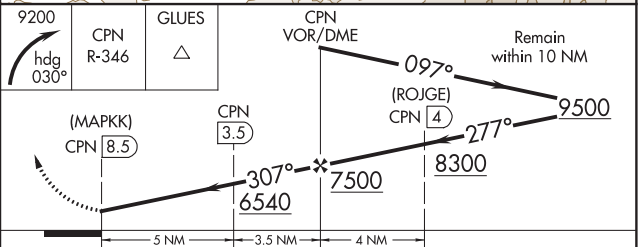
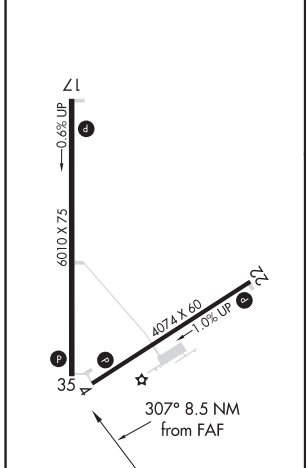
AWOS-AV <b>122.8</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 5030  
MIRL Rwy 4-22 and 17-35



CATEGORY	A	B	C	D
CIRCLING	6140-1¼ 1110 (1200-1¼)	6300-1½ 1270 (1300-1½)	6300-3 1270 (1300-3)	6540-3 1510 (1600-3)



APP CRS <b>323°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>5332</b>
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# RNAV (GPS)-A

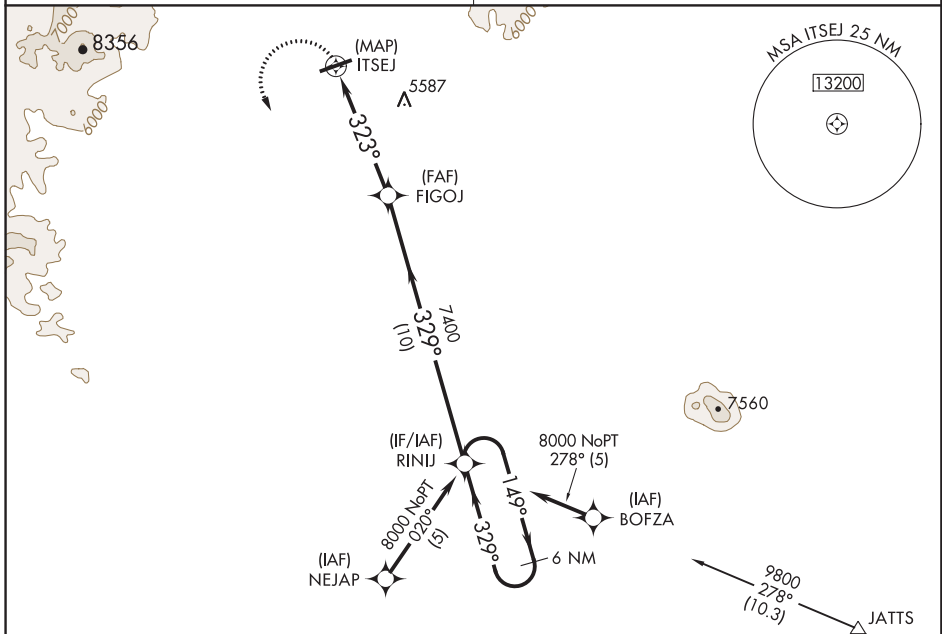
ARCO-BUTTE COUNTY (AOC)

**GPS or RNP-0.3 required.**  
**DME/DME RNP-0.3 NA.**  
 If local altimeter setting not received, use Pocatello Rgnl altimeter setting and increase all MDAs 600 feet.

**MISSED APPROACH:** Climbing left turn to 8000 direct RINIJ and hold.

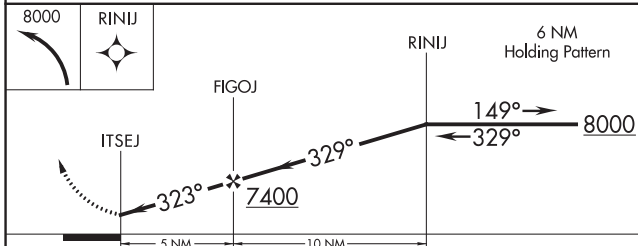
SALT LAKE CENTER  
**128.35 239.25**

UNICOM  
**122.8 (CTAF)**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



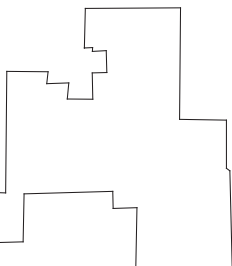
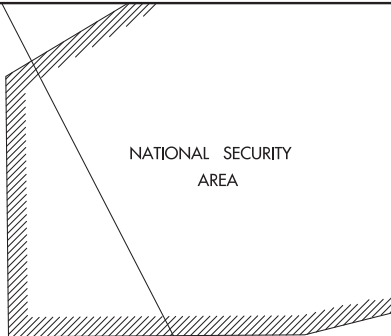
CATEGORY	A	B	C	D
CIRCLING	5920-1	588 (600-1)	5920-1½ 588 (600-1½)	5920-2 588 (600-2)

(JATTS1.JATTS) 16147

# JATTS ONE DEPARTURE (OBSTACLE) (RNAV)

ARCO-BUTTE COUNTY (AOC)  
SL-9198 (FAA) ARCO, IDAHO

BOISE RADIO  
122.6  
SALT LAKE CENTER  
128.35 239.25  
CTAF  
122.8



CRATERS OF THE MOON  
WILDERNESS AREA

JOBRO



JATTS  
10100

V269 Northwest bound

### TAKEOFF MINIMUMS

Rwy 6: NA- Obstacles.

Rwy 24: Standard.

### TAKEOFF OBSTACLE NOTE

Rwy 24: Numerous vehicles beginning 641' from DER, 629' right of centerline, 17' AGL/5355' MSL.

NOTE: GPS required.

NOTE: RNAV 1

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24: Climb heading 235° to 5900 then climbing left turn direct JOBRO, then via 089° track to JATTS before proceeding on course.

JATTS ONE DEPARTURE (OBSTACLE) (RNAV)

(JATTS1.JATTS) 05JUN08


ARCO, IDAHO  
ARCO-BUTTE COUNTY (AOC)


WAAS CH <b>90324</b> <b>W34A</b>	APP CRS <b>342°</b>	Rwy Idg <b>5332</b> TDZE <b>135</b> Apt Elev <b>137</b>
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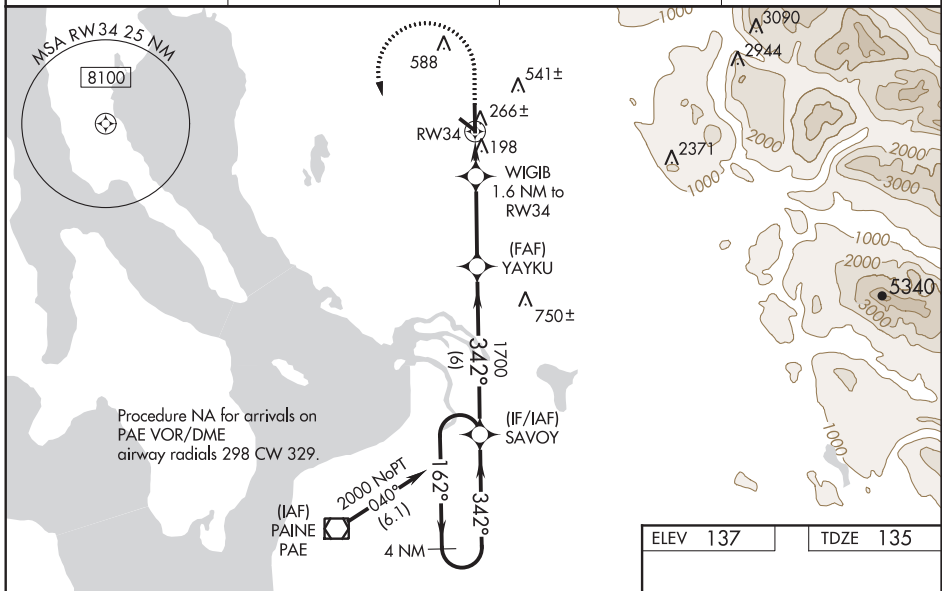
# RNAV (GPS) RWY 34

ARLINGTON MUNI (A WO)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 43°C (109°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Whidbey Island NAS (Ault Field) altimeter setting and increase all DA 66 feet and all MDA 80 feet and increase LNAV/VNAV all Cats, and LNAV and Circling Cats C and D visibility ¼ mile. For inoperative MALS, increase LNAV/VNAV Cat D visibility to 1/4 and increase LNAV Cat D visibility to 1/8. For inoperative MALS when using Whidbey Island NAS (Ault Field) altimeter setting, increase LPV all Cats visibility to 7/8, increase LNAV/VNAV Cat D visibility to 1 1/2, and increase LNAV Cat D visibility to 1 3/8. Baro-VNAV and VDP NA with Whidbey Island NAS (Ault Field) altimeter setting.

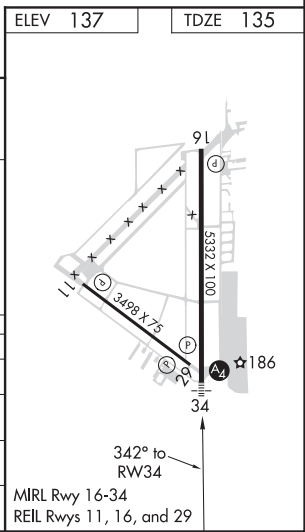
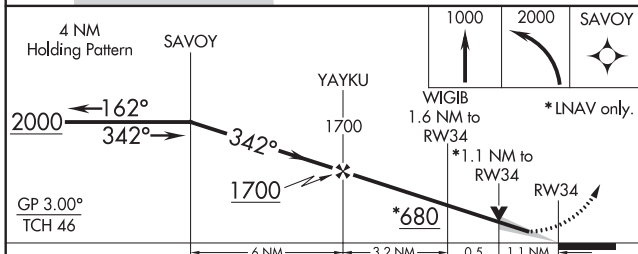
**MALS**  
  
**MISSED APPROACH:**  
 Climb to 1000 then climbing left turn to 2000 direct SAVOY and hold.

AWOS-3 <b>135.625</b>	SEATTLE APP CON <b>128.5 306.9</b>	CLNC DEL <b>121.725</b>	UNICOM <b>122.7 (CTAF)</b> 
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



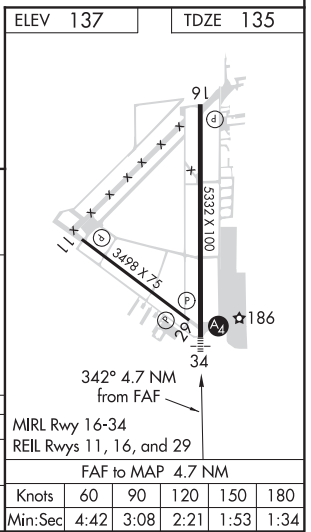
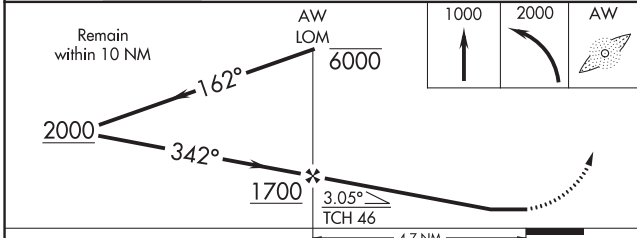
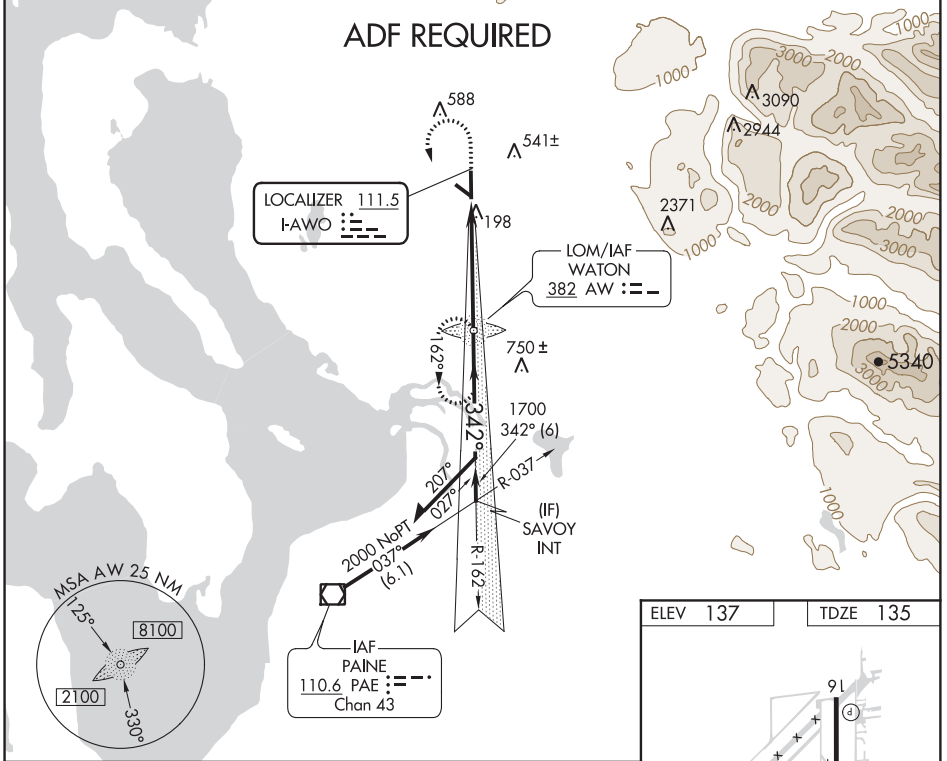
CATEGORY	A	B	C	D
LPV DA		335-3/4	200 (200-3/4)	
LNAV/VNAV DA		510-1	375 (400-1)	
LNAV MDA	520-3/4 385 (400-3/4)		520-7/8 385 (400-7/8)	
CIRCLING	800-1 663 (700-1)	860-1 723 (800-1)	860-2 723 (800-2)	920-2 1/2 783 (800-2 1/2)

LOC I-AWO <b>111.5</b>	APP CRS <b>342°</b>	Rwy Idg <b>5332</b>
		TDZE <b>135</b>
		Apt Elev <b>137</b>

**LOC RWY 34**  
ARLINGTON MUNI (AWO)

<p><b>ADF REQUIRED</b></p> <p>ADF required. When local altimeter setting not received use Whidbey Island NAS (Ault Field) altimeter setting and increase all MDA 80 feet and increase S-34 and Circling Cats C and D visibility ¼ mile. For inoperative MALS, increase S-34 Cats C and D visibility to 1¾. For inoperative MALS when using Whidbey Island NAS (Ault Field) altimeter setting, increase S-34 Cat D visibility to 1½.</p>	<p><b>MALS</b></p> <p><b>NA</b></p> <p>MISSED APPROACH: Climb to 1000 then climbing left turn to 2000 direct WATON LOM and hold.</p>
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AWOS-3 <b>135.625</b>	SEATTLE APP CON <b>128.5 306.9</b>	CLNC DEL <b>121.725</b>	UNICOM <b>122.7 (CTAF)</b>
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CATEGORY	A	B	C	D
S-34	580-¾ 445 (500-¾)		580-1 445 (500-1)	
CIRCLING	800-1 663 (700-1)	860-1 723 (800-1)	860-2 723 (800-2)	920-2½ 783 (800-2½)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOM AW <b>382</b>	APP CRS <b>342°</b>	Rwy Idg <b>5332</b>
		TDZE <b>135</b>
		Apt Elev <b>137</b>

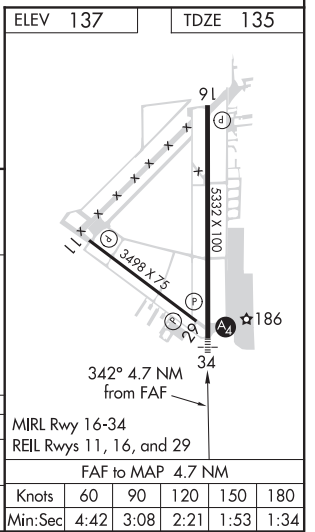
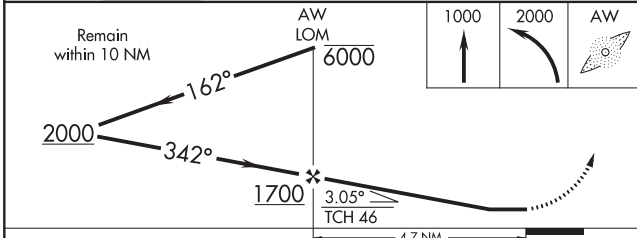
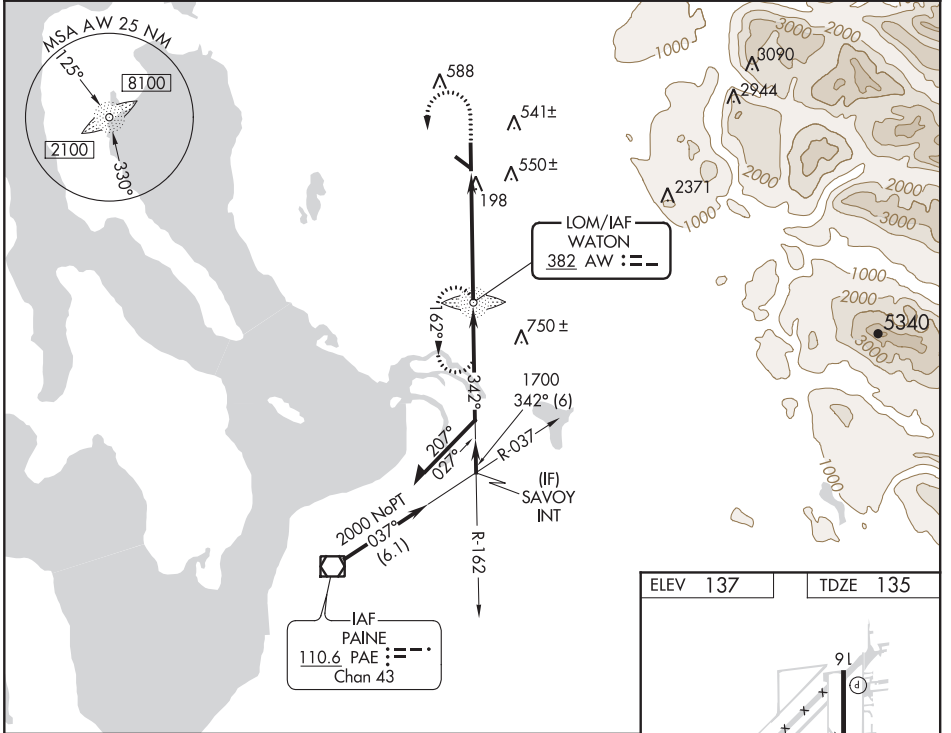
# NDB RWY 34

ARLINGTON MUNI (AWO)

**NA** When local altimeter setting not received, use Whidbey Island NAS (Ault Field) altimeter setting and increase all MDA 80 feet and increase S-34 Cats B, C, and D visibility ¼ mile and increase Circling Cat B and D visibility ¼ mile and Cat C visibility ½ mile. For inoperative MALS, increase S-34 Cat D visibility to 2. For inoperative MALS when using Whidbey Island NAS (Ault Field) altimeter setting, increase S-34 Cats C and D visibility to 2½.

**MALS**  
MISSED APPROACH: Climb to 1000 then climbing left turn to 2000 direct AW LOM and hold.

AWOS-3 <b>135.625</b>	SEATTLE APP CON <b>128.5 306.9</b>	CLNC DEL <b>121.725</b>	UNICOM <b>122.7 (CTAF) 0</b>
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CATEGORY	A	B	C	D
S-34	860-¾ 725 (800-¾)		860-1¾ 725 (800-1¾)	
CIRCLING	860-1 723 (800-1)		860-2 723 (800-2)	920-2½ 783 (800-2½)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

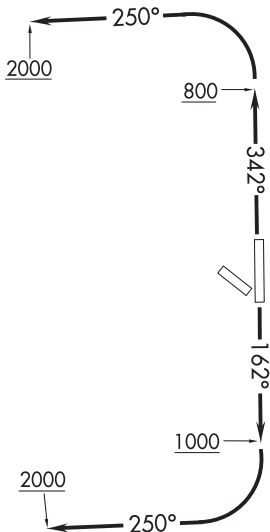
# ARLINGTON TWO DEPARTURE

SL-795 (FAA)

ARLINGTON MUNI (AWO)  
ARLINGTON, WASHINGTON

SEATTLE CLNC DEL  
121.725  
SEATTLE APP CON  
128.5 306.9

**TOP ALTITUDE:  
2000**



NOTE: RADAR required.

### TAKEOFF MINIMUMS

Rwys 11, 29: NA - ATC.  
Rwys 16, 34: Standard.

PAINE  
110.6 PAE : ---  
Chan 43  
N47°55.19'-W122°16.67'

### TAKEOFF OBSTACLES NOTES

- Rwy 16: Tree 1240' from DER, 723' left of centerline, 54' AGL/174' MSL.  
Trees beginning 1289' from DER, 713' right of centerline, up to 108' AGL/212' MSL.
- Rwy 34: Tree 561' from DER, 637' left of centerline, 40' AGL/179' MSL.  
Trees beginning 1557' from DER, 144' left of centerline, up to 92' AGL/202' MSL.  
Trees beginning 1749' from DER, 283' right of centerline, up to 126' AGL/236' MSL.  
Trees beginning 2379' from DER, 196' right of centerline, up to 122' AGL/224' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb heading 162° to 1000, then climbing right turn heading 250° to 2000, thence . . . .

TAKEOFF RUNWAY 34: Climb heading 342° to 800, then climbing left turn heading 250° to 2000, thence . . . .

. . . . expect RADAR vectors to assigned route, expect clearance to filed altitude 5 minutes after departure.

LOST COMMUNICATIONS: If no transmissions are received for 3 minutes after departure, climb to filed altitude direct PAE VOR/DME, thence via assigned route.

# ARLINGTON TWO DEPARTURE

26MAY16

ARLINGTON, WASHINGTON  
ARLINGTON MUNI (AWO)

NW-1, 10 NOV 2016 to 05 JAN 2017


NW-1, 10 NOV 2016 to 05 JAN 2017

LOC I-AST <b>109.5</b>	APP CRS <b>257°</b>	Rwy Idg <b>4780</b>
		TDZE <b>14</b>
		Apt Elev <b>14</b>

# ILS RWY 26

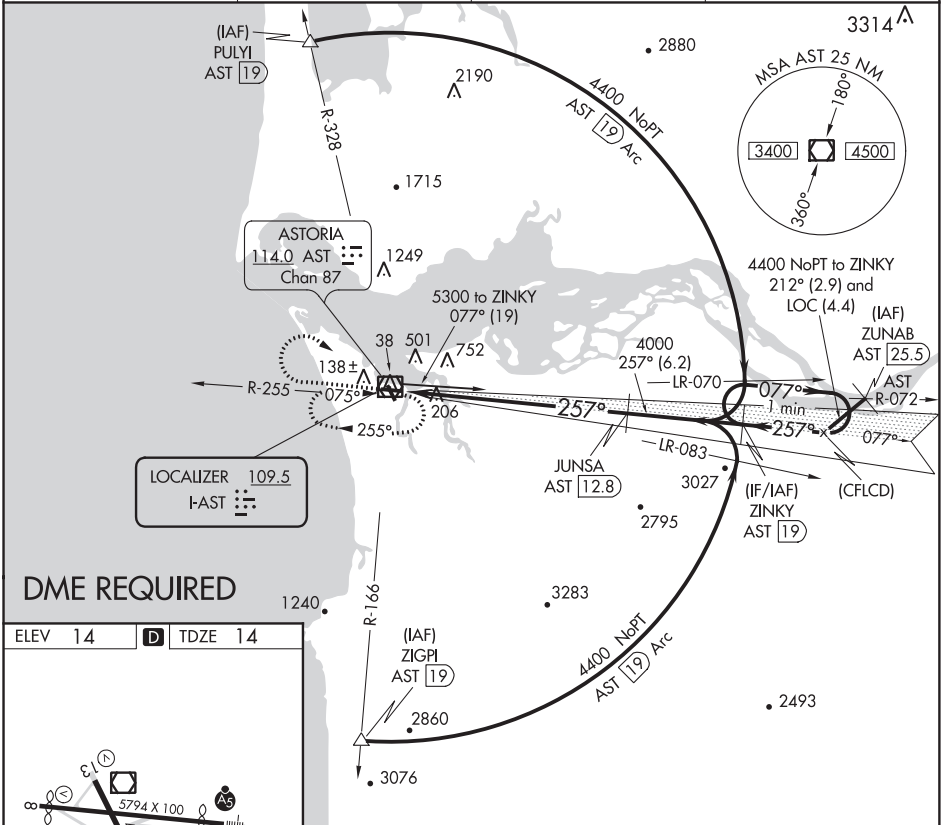
ASTORIA RGNL (AST)

**NA** When local altimeter setting not received, use Kelso altimeter setting and increase all DA 96 feet. Helicopter visibility reduction below 1 SM NA. Inoperative table does not apply. For inoperative MALSR when using Kelso altimeter setting increase S-ILS 26 visibility all Cats 1/8 mile.

**MALSR** 

**MISSED APPROACH:** Climb to 1500 then climbing right turn to 2900 direct AST VOR/DME and hold.

ASOS <b>135.375</b>	SEATTLE CENTER <b>124.2 317.6</b>	MC MINNVILLE RADIO <b>122.3</b>	UNICOM <b>122.8 (CTAF) 0</b>
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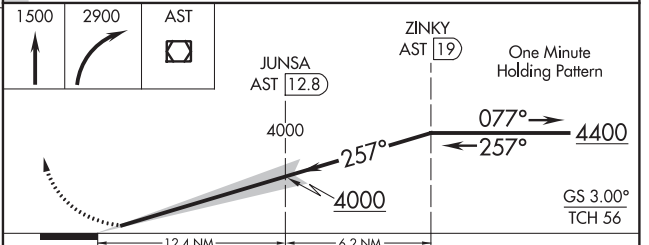
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

**DME REQUIRED**

ELEV 14	<b>D</b>	TDZE 14
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The inset chart shows the localizer (LOC) and marker beacons (OM, MM, IM) with their respective frequencies and altitudes. The localizer is 109.5 MHz and the marker beacons are 138±, 206, and 257°.



REIL Rwy 8 <b>0</b>	REIL Rwy 13	MIRL Rwy 8-26 and 13-31 <b>0</b>
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CATEGORY	A	B	C	D
S-ILS 26	264-1 250 (300-1)			

WAAS CH <b>40032</b> <b>W08A</b>	APP CRS <b>076°</b>	Rwy Idg TDZE Apt Elev	<b>4894</b> <b>14</b> <b>15</b>
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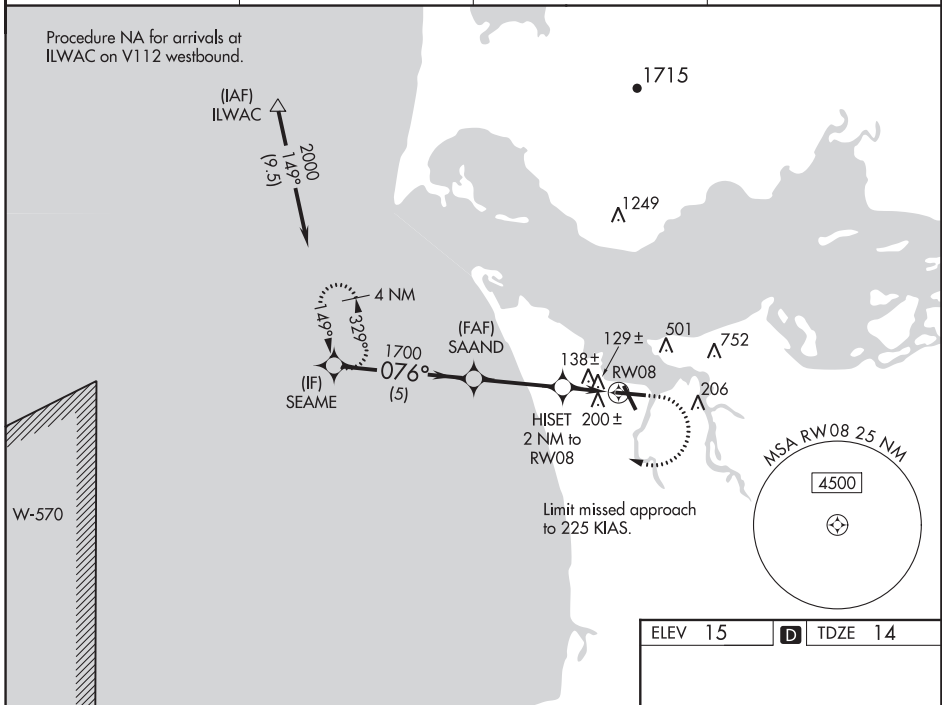
# RNAV (GPS) RWY 8

ASTORIA RGNL (AST)

**⚠** DME/DME RNP-0.3 NA. VDP NA with Kelso altimeter setting. When local altimeter setting not received, use Kelso altimeter setting and increase all MDA 100 feet, increase LNAV Cats C and D and Circling Cat B visibility ¼ mile, LP Cats C and D visibility ⅓ mile, and Circling Cat C visibility ½ mile. Helicopter visibility reduction below ¾ SM NA.

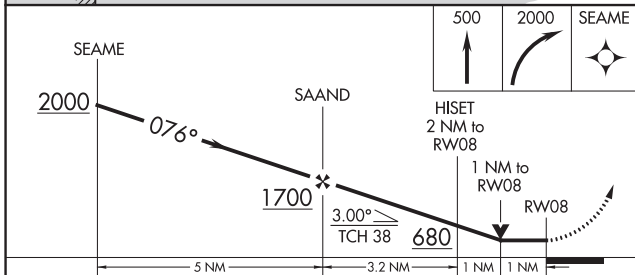
**⚠** MISSED APPROACH: Climb to 500 then climbing right turn to 2000 direct SEAME and hold.

ASOS <b>135.375</b>	SEATTLE CENTER <b>124.2 317.6</b>	MC MINNVILLE RADIO <b>122.3</b>	UNICOM <b>122.8 (CTAF) 0</b>
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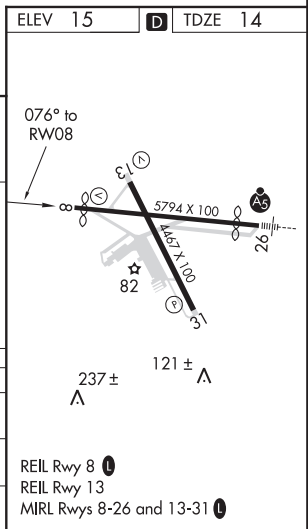


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LP MDA	380-1 366 (400-1)			
LNAV MDA	460-1	446 (500-1)	460-1 3/8	446 (500-1 3/8)
CIRCLING	700-1 685 (700-1)	760-1 745 (800-1)	800-2 1/4 785 (800-2 1/4)	900-3 885 (900-3)



REIL Rwy 8  
REIL Rwy 13  
MIRL Rwy 8-26 and 13-31



WAAS CH <b>97711</b> <b>W26A</b>	APP CRS <b>257°</b>	Rwy Idg TDZE <b>14</b> Apt Elev <b>15</b>	<b>4780</b>
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# RNAV (GPS) RWY 26

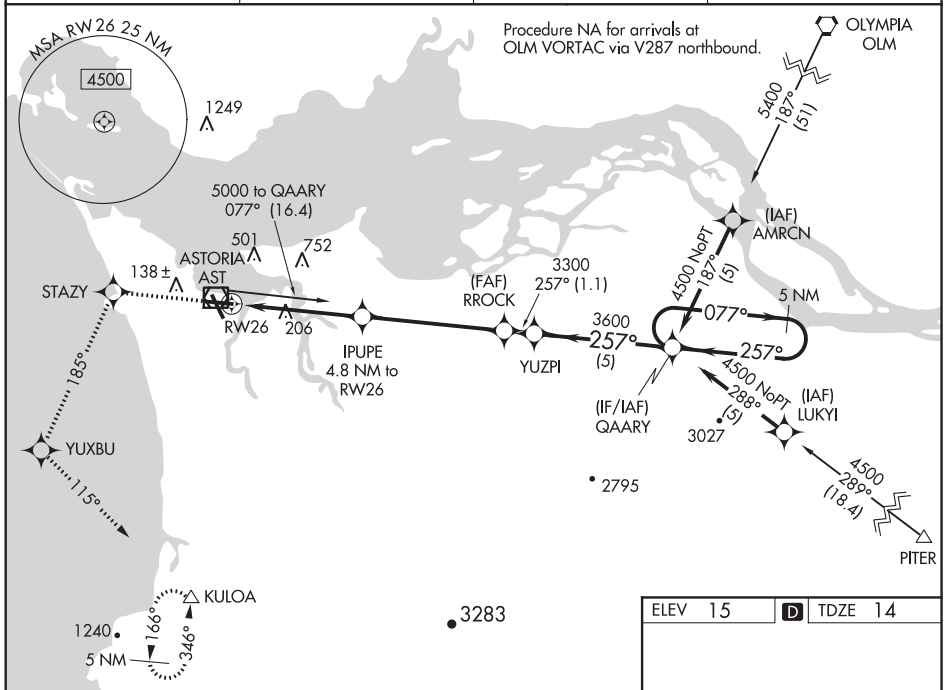
ASTORIA RGNL (AST)

**⚠** Inoperative table does not apply. DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Kelso altimeter setting and increase all DA 95 feet and all MDA 100 feet; increase LPV all Cats, LNAV Cats C and D and Circling Cats C and D visibility 1/4 mile.

**⚠** -11°C/12°F

**MALS** MISSED APPROACH: Climb to 5000 direct STAZY and via track 185° to YUXBU and via track 115° to KULOA and hold.

ASOS <b>135.375</b>	SEATTLE CENTER <b>124.2 317.6</b>	MC MINNVILLE RADIO <b>122.3</b>	UNICOM <b>122.8 (CTAF) 0</b>
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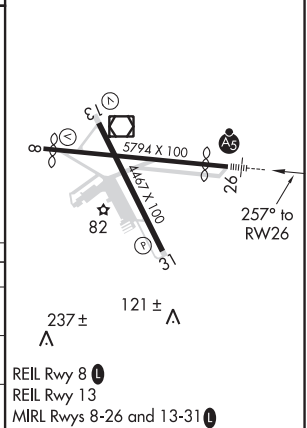


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 15	<b>D</b> TDZE 14
---------	------------------

5000	STAZY	185° tr	YUXBU	115° tr	KULOA	QAARY	5 NM Holding Pattern
*LNAV only							
IPUPE 4.8 NM to RW26		RROCK		YUZPI		QAARY	
RW26		1600*		3300		4500	
4.8 NM		5.1 NM		1.1		5 NM	
CATEGORY	A	B	C	D			
LPV DA	300-1 286 (300-1)						
LNAV MDA	900-1 1/4	886 (900-1 1/4)	900-2 3/4	886 (900-2 3/4)	900-3	886 (900-3)	
CIRCLING	900-1 1/4	885 (900-1 1/4)	900-2 3/4	885 (900-2 3/4)	900-3	885 (900-3)	



ASTORIA, OREGON

AL-24 (FAA)

16091

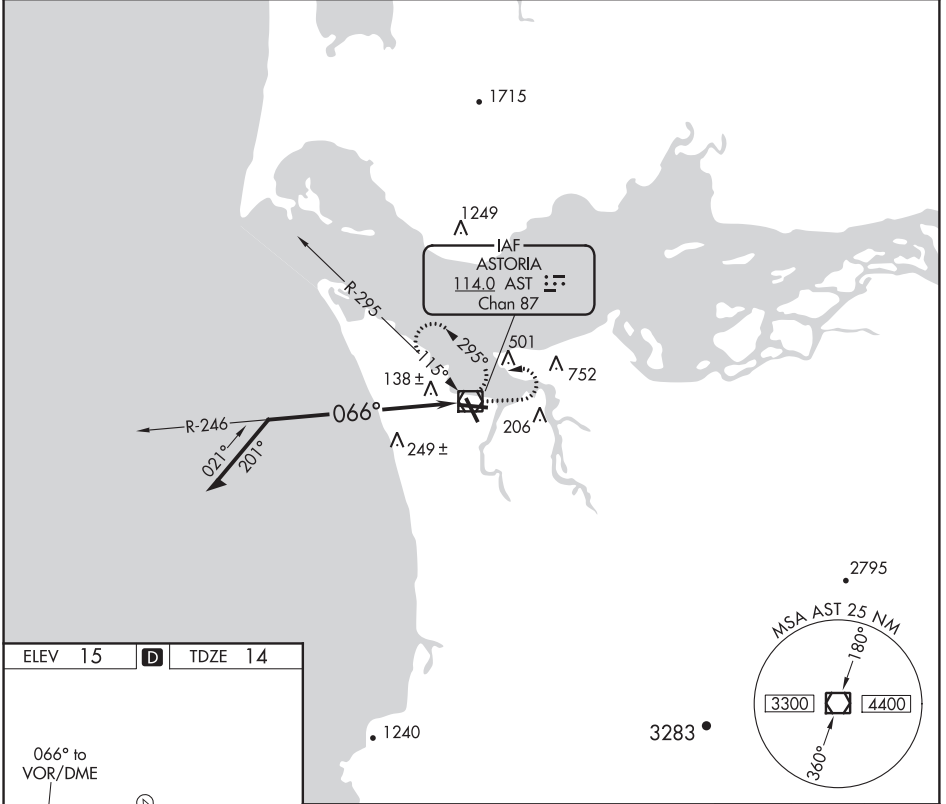
VOR/DME AST <b>114.0</b> Chan <b>87</b>	APP CRS <b>066°</b>	Rwy Idg TDZE Apt Elev	<b>4894</b> <b>14</b> <b>15</b>
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# VOR RWY 8

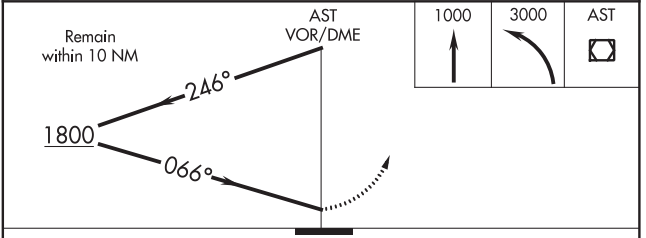
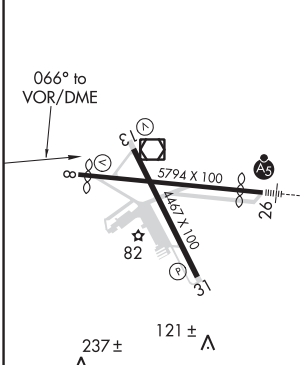
ASTORIA RGNL (AST)

-11°C/12°F		MISSED APPROACH: Climb to 1000 then climbing left turn to 3000 in AST VOR/DME holding pattern.	
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ASOS <b>135,375</b>	SEATTLE CENTER <b>124.2 317.6</b>	MC MINNVILLE RADIO <b>122.3</b>	UNICOM <b>122.8 (CTAF)</b>
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ELEV 15	<b>D</b>	TDZE 14
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REIL Rwy 8 <b>1</b>				
REIL Rwy 13				
MIRL Rwy 8-26 and 13-31 <b>1</b>				
CATEGORY	A	B	C	D
S-8	660-1	646 (700-1)	660-1¾ 646 (700-1¾)	660-2 646 (700-2)
CIRCLING	660-1 645 (700-1)	760-1¼ 745 (800-1¼)	800-2¼ 785 (800-2¼)	900-3 885 (900-3)

ASTORIA, OREGON  
Amdt 12 30DEC99

46°09'N-123°53'W

ASTORIA RGNL (AST)  
**VOR RWY 8**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# COPTER LOC/DME 257°

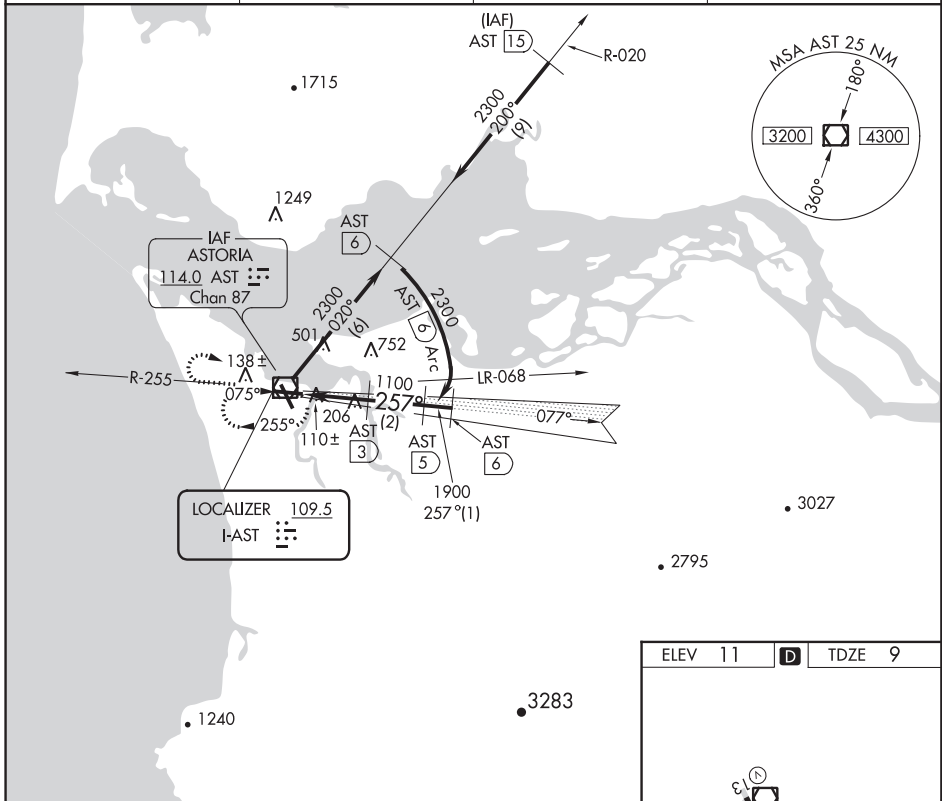
ASTORIA RGNL (AST)

LOC I-AST <b>109.5</b>	APP CRS <b>257°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>9</b> <b>11</b>
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**NA** DME from AST VOR/DME. Simultaneous reception of I-AST and AST VOR/DME required. Increase visibility to ½ mile for inoperative MALSRL.

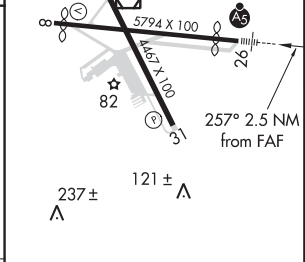
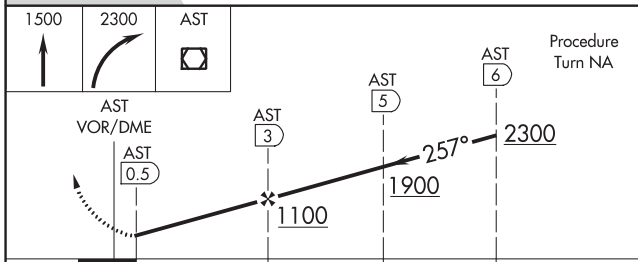
**MISSED APPROACH:** Climb to 1500 then climbing right turn to 2300 direct AST VOR/DME and hold.

ASOS <b>135,375</b>	SEATTLE CENTER <b>124.2 317.6</b>	MC MINNVILLE RADIO <b>122.3</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	COPTER
H-257°	380-¼ 371 (400-¼)
CIRCLING	NA

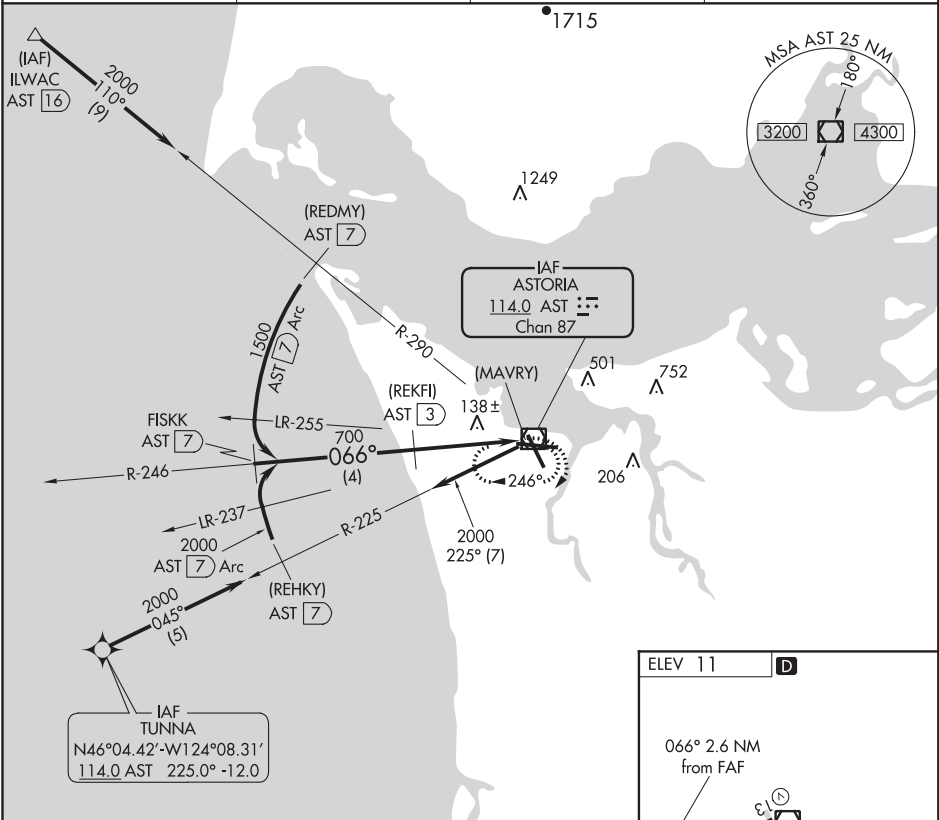
REIL Rwy 8  
REIL Rwy 13  
MIRL Rwy 8-26 and 13-31

VOR/DME AST <b>114.0</b> Chan <b>87</b>	APP CRS <b>066°</b>	Rwy Idg TDZE Apt Elev <b>11</b>	N/A N/A <b>11</b>
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# COPTER VOR/DME or GPS 066°

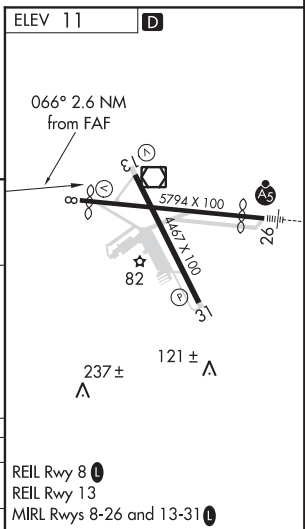
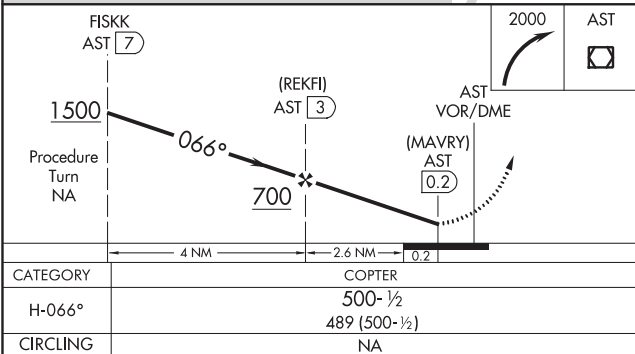
ASTORIA RGNL (AST)

MISSED APPROACH: Climbing right turn to 2000 in AST VOR/DME holding pattern.			
ASOS <b>135,375</b>	SEATTLE CENTER <b>124.2 317.6</b>	MC MINNVILLE RADIO <b>122.3</b>	UNICOM <b>122.8 (CTAF) 0</b>



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# ASTORIA TWO DEPARTURE (OBSTACLE)

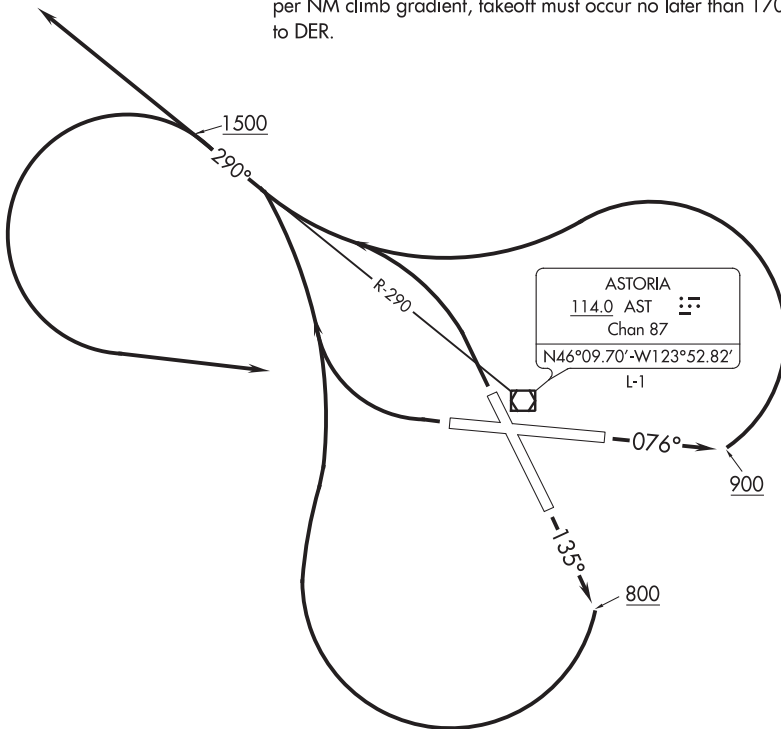
SEATTLE CENTER  
124.2 317.6  
McMINNVILLE RADIO  
122.3

### TAKEOFF MINIMUMS

Rwys 8, 31: Standard.

Rwy 13: 600-2¾ or standard with a minimum climb of 270' per NM to 800.

Rwy 26: 300-1¼ or standard with a minimum climb of 231' per NM to 300 or alternatively, with standard takeoff minimums and normal 200' per NM climb gradient, takeoff must occur no later than 1700' prior to DER.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb heading 076° to 900 then climbing left turn, thence. . . .

TAKEOFF RUNWAY 31: Climbing left turn, thence. . . .

TAKEOFF RUNWAY 13: Climb heading 135° to 800 then climbing right turn, thence. . . .

TAKEOFF RUNWAY 26: Climbing right turn, thence. . . .

. . . . Intercept the AST VOR/DME R-290 westbound, aircraft northwest bound continue climb on course. All other aircraft climb to 1500 or above then turn left direct AST VOR/DME and continue climbing on course.

# ASTORIA TWO DEPARTURE (OBSTACLE)

## TAKEOFF OBSTACLE NOTES

- Rwy 8: Bush 57' from DER, 120' left of centerline, 14' MSL.  
 Fence, bushes and trees, beginning 65' from DER, 79' left of centerline, up to 34' MSL.  
 Tree and bush beginning 70' from DER, 215' right of centerline, up to 22' MSL.  
 Trees and building beginning 151' from DER, 76' right of centerline, up to 36' MSL.  
 Trees beginning 335' from DER, 207' right of centerline, up to 41' MSL.  
 Trees beginning 668' from DER, 281' right of centerline, up to 43' MSL.  
 Trees beginning 814' from DER, 336' right of centerline, up to 58' MSL.  
 Trees beginning 3166' from DER, 1145' right of centerline, up to 119' AGL/124' MSL.
- Rwy 31: Trees and fence beginning 2' from DER, 231' left of centerline, up to 46' MSL.  
 Tree 872' from DER, 241' left of centerline, 48' MSL.
- Rwy 13: Pole 44' from DER, 223' left of centerline, 12' AGL/25' MSL.  
 Trees beginning 354' from DER, 256' left of centerline, up to 87' MSL.  
 Tree 524' from DER, 316' right of centerline, 33' MSL.  
 Tree 666' from DER, 544' right of centerline, 78' MSL.  
 Trees beginning 1255' from DER, 451' right of centerline, up to 121' MSL.  
 Tree 1792' from DER, 104' left of centerline, 89' MSL.  
 Tree 2493' from DER, 279' left of centerline, 121' MSL.  
 Tree 3291' from DER, 312' right of centerline, 154' MSL.  
 Tree 1.7 NM from DER, 1986' left of centerline, 349' MSL.  
 Tree 2.3 NM from DER, 2982' left of centerline, 499' MSL.
- Rwy 26: Terrain 26' from DER, 13' left of centerline, 13' MSL.  
 Bushes beginning 39' from DER, 240' left of centerline, up to 16' MSL.  
 Trees and bush beginning 43' from DER, 267' right of centerline, up to 18' AGL/27' MSL.  
 Vehicle on road 227' from DER, 439' left of centerline, 24' MSL.  
 Trees and bush beginning 247' from DER, 373' right of centerline, up to 30' MSL.  
 Trees, beginning 695' from DER, 625' left of centerline, up to 54' MSL.  
 Trees beginning 1381' from DER, 65' left of centerline, up to 107' MSL.  
 Sign 1982' from DER, 1010' right of centerline, 64' MSL.  
 Trees beginning 2995' from DER, 551' left of centerline, up to 139' MSL.  
 Trees beginning 3419' from DER, 248' left of centerline, up to 136' MSL.  
 Trees beginning 4022' from DER, 877' right of centerline, up to 130' MSL.  
 Trees beginning 4104' from DER, 150' right of centerline, up to 148' MSL.  
 Trees beginning 4251' from DER, 218' left of centerline, up to 159' MSL.  
 Trees beginning 5241' from DER, 1317' left of centerline, up to 165' MSL.  
 Trees beginning 5434' from DER, 1655' left of centerline, up to 171' MSL.  
 Trees beginning 5893' from DER, 1753' left of centerline, up to 182' MSL.  
 Antenna 1 NM from DER, 1558' right of centerline, 164' AGL/173' MSL.  
 Tree 1 NM from DER, 1804' left of centerline, 182' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>331°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>63</b>
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# RNAV (GPS)-A

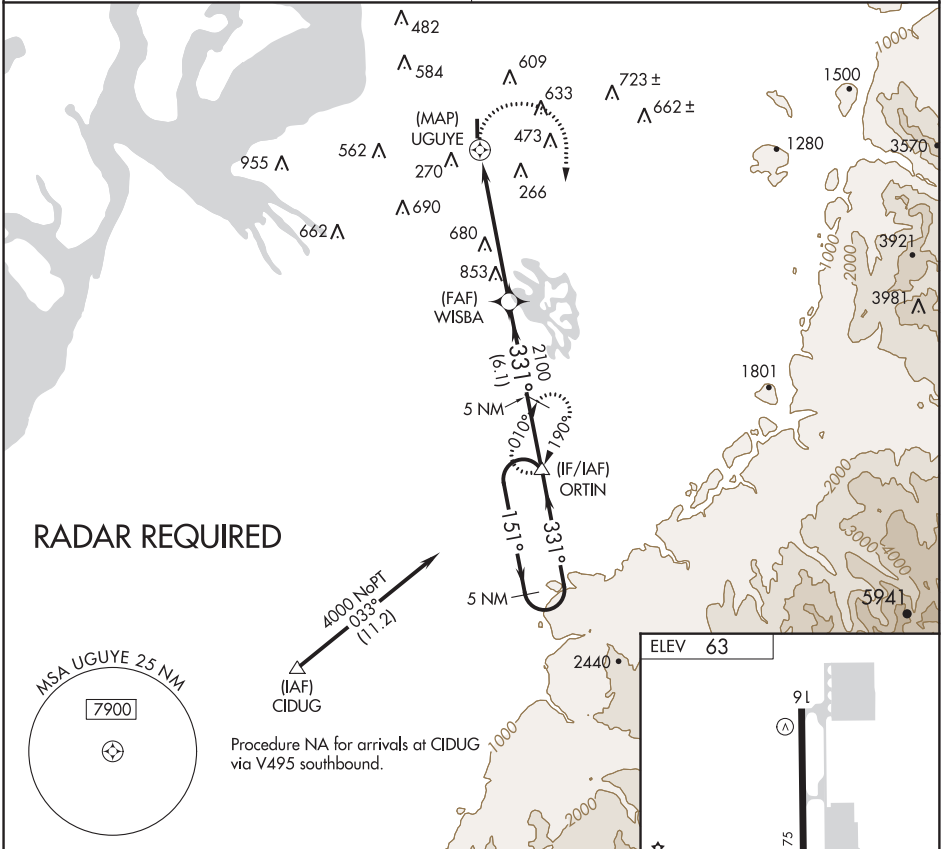
AUBURN MUNI (S50)

**NA** Circling NA west of Rwy 16-34.  
Procedure NA at night.  
DME/DME RNP- 0.3 NA.  
Use Seattle-Tacoma Intl altimeter setting.

MISSED APPROACH: Climbing right turn to 6000 direct ORTIN and hold, continue climb-in-hold to 6000.

SEATTLE APP CON **123.85**

AUNICOM **122.8 (CTAF)**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

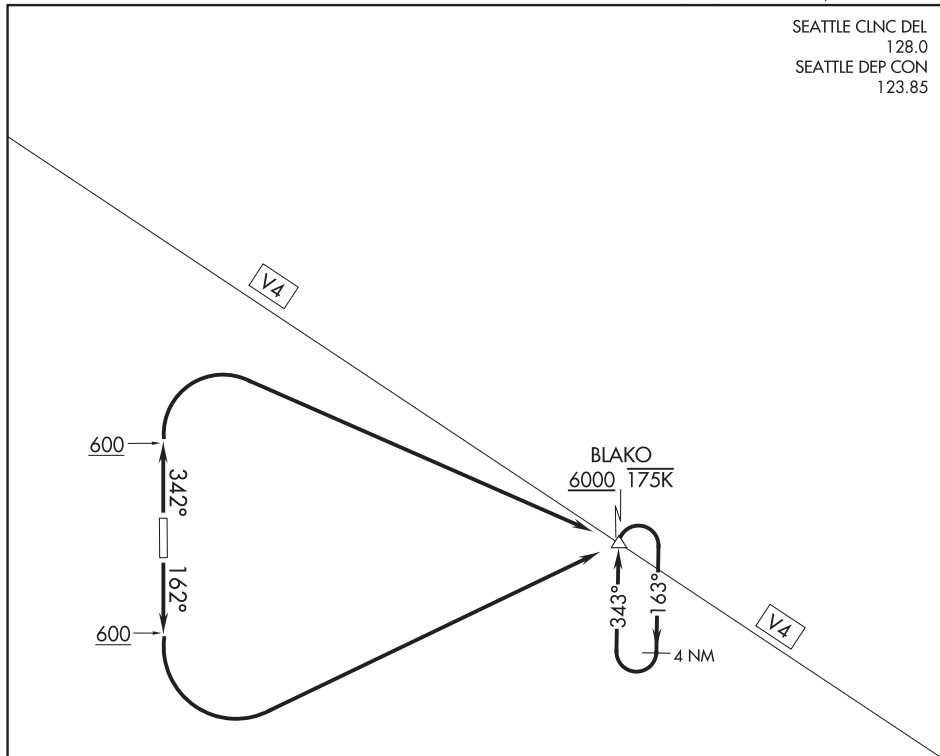
6000	ORTIN	VGSI and descent angle not coincident (VGSI 4.00/TCH 53).	5 NM Holding Pattern
CATEGORY	A	B	C
CIRCLING	1320-1¼ 1257 (1300-1¼)	1320-1½ 1257 (1300-1½)	NA
HIRL Rwy 16-34 REIL Rwy 16 and 34			

(BLAKO1.BLAKE) 16091

# BLAKO ONE DEPARTURE (OBSTACLE) (RNAV)

SL-10224 (FAA) AUBURN MUNI (S50)  
AUBURN, WASHINGTON

SEATTLE CLNC DEL  
128.0  
SEATTLE DEP CON  
123.85



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NOTE: GPS required.  
NOTE: RNAV 1.

### TAKEOFF MINIMUMS

Rwys 16, 34: Standard with minimum climb of 500' per NM to 600 then 360' per NM to 3200.

### TAKEOFF OBSTACLE NOTES

- Rwy 16: Building 355' from DER, 482' right of centerline 31' AGL/97' MSL.  
AAO 3.2 NM from DER, 3643' left of centerline 200' AGL/724' MSL.
- Rwy 34: AAO 3.2 NM from DER, 5520' right of centerline 200' AGL/639' MSL.  
Powerline 1804' from DER, on centerline, 80' AGL/122' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb heading 162° to 600 then climbing left turn to 6000 direct BLAKO, thence. . . .

TAKEOFF RUNWAY 34: Climb heading 342° to 600 then climbing right turn to 6000 direct BLAKO, thence. . . .

. . . .climb in BLAKO holding pattern to cross BLAKO at or above MEA for route of flight.

# BLAKO ONE DEPARTURE (OBSTACLE) (RNAV)

(BLAKO1.BLAKE) 31MARI16

AUBURN, WASHINGTON  
AUBURN MUNI (S50)



WAAS CH <b>70308</b> <b>W17A</b>	APP CRS <b>169°</b>	Rwy Idg <b>5004</b> TDZE <b>200</b> Apt Elev <b>200</b>
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# RNAV (GPS) RWY 17

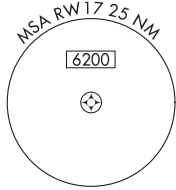
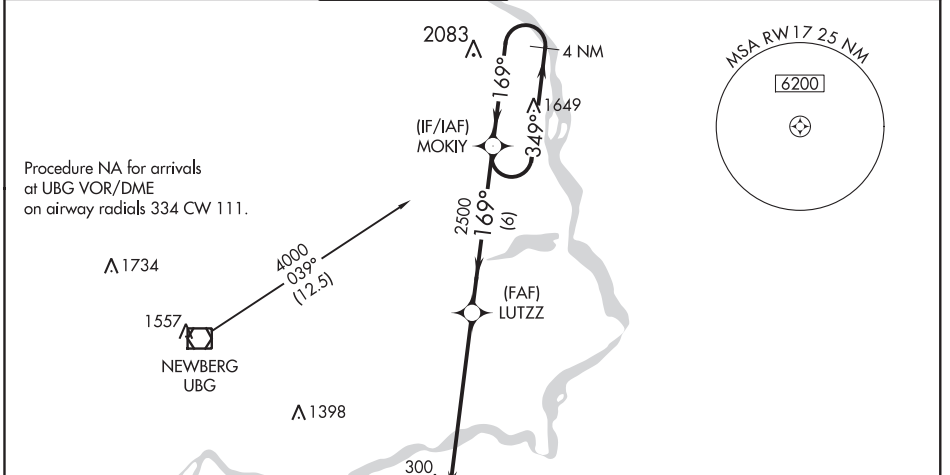
AURORA STATE (UAO)

**⚠** DME/DME RNP-0.3 NA. Inoperative table does not apply. When local altimeter setting not received, use Mc Minnville Muni altimeter setting and increase all DA 42 feet and all MDA 60 feet; increase LPV, LNAV/VNAV visibilities all Cats ¼ mile, increase LNAV visibility Cats A/C/D ¼ mile, increase Circling visibilities Cats A/C/D ¼ mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F).

**ODALS**

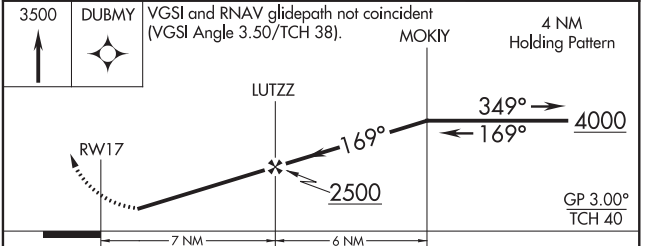
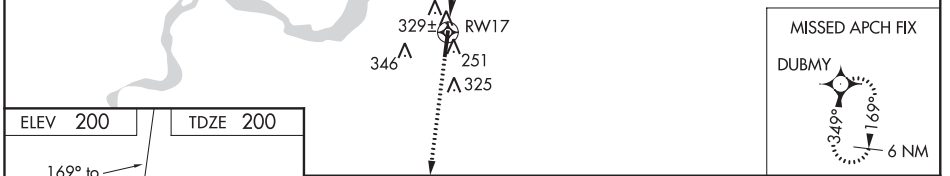
**MISSED APPROACH:** Climb to 3500 direct DUBMY and hold, continue climb-in-hold to 3500.

ASOS <b>118.525</b>	PORTLAND APP CON <b>126.0 269.175</b>	AURORA TOWER* <b>120.35 (CTAF) 0</b>	GND CON <b>119.15</b>	CLNC DEL <b>119.15</b>	PORTLAND CLNC DEL <b>119.95</b> (When tower closed)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA		550-1¼	350 (400-1¼)	
LNAV/VNAV DA		580-1¼	380 (400-1¼)	
LNAV MDA	1060-1 860 (900-1)	1060-1¼ 860 (900-1¼)	1060-2½ 860 (900-2½)	1060-2¾ 860 (900-2¾)
CIRCLING	1060-1 860 (900-1)	1060-1¼ 860 (900-1¼)	1060-2½ 860 (900-2½)	1060-2¾ 860 (900-2¾)

WAAS CH <b>77508</b> W35A	APP CRS <b>349°</b>	Rwy Idg <b>5004</b> TDZE <b>199</b> Apt Elev <b>200</b>
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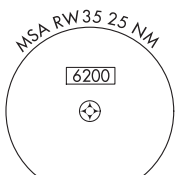
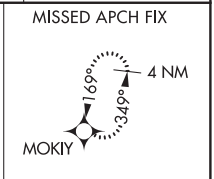
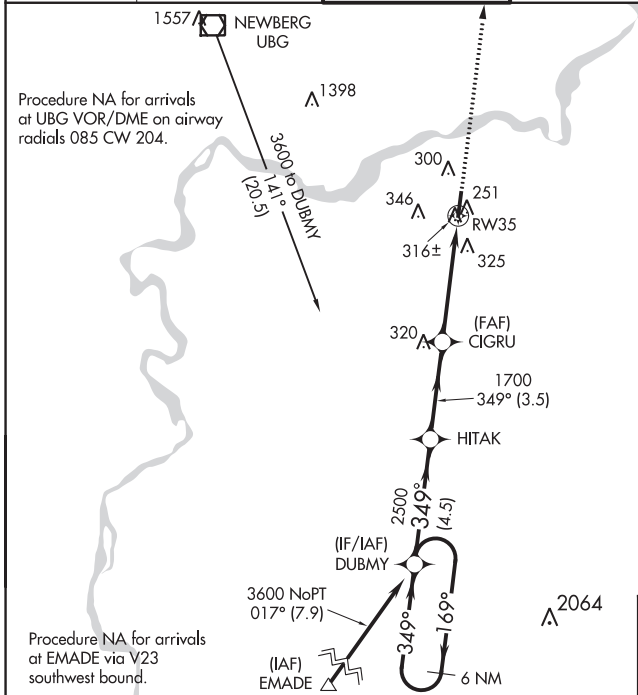
# RNAV (GPS) RWY 35

AURORA STATE (UAO)

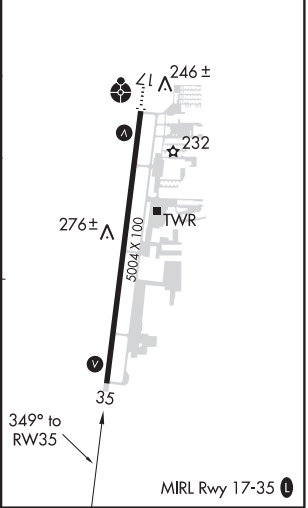
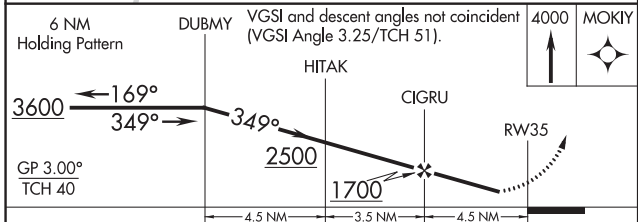
**⚠** DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). When local altimeter setting not received, use Mc Minnville Muni altimeter setting and increase all DA 42 feet and MDA 60 feet; increase LPV, LNAV/VNAV visibilities ½ mile all Cats, increase LNAV Cat D visibility to 1½. Baro-VNAV NA when using Mc Minnville Muni altimeter setting.

**MISSED APPROACH:** Climb to 4000 direct MOKIY and hold, continue climb-in-hold to 4000.

ASOS <b>118.525</b>	PORTLAND APP CON <b>126.0 269.175</b>	<b>AURORA TOWER*</b> <b>120.35 (CTAF) 0</b>	GND CON <b>119.15</b>	CLNC DEL <b>119.15</b>	PORTLAND CLNC DEL <b>119.95</b> (When tower closed)
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ELEV 200	THRE 199
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CATEGORY	A	B	C	D
LPV DA	500-1 301 (300-1)			
LNAV/VNAV DA	604-1½ 405 (500-1½)			
LNAV MDA	700-1 501 (500-1)	700-1½ 501 (500-1½)		
CIRCLING	700-1 500 (500-1)	700-1½ 500 (500-1½)		760-2 560 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

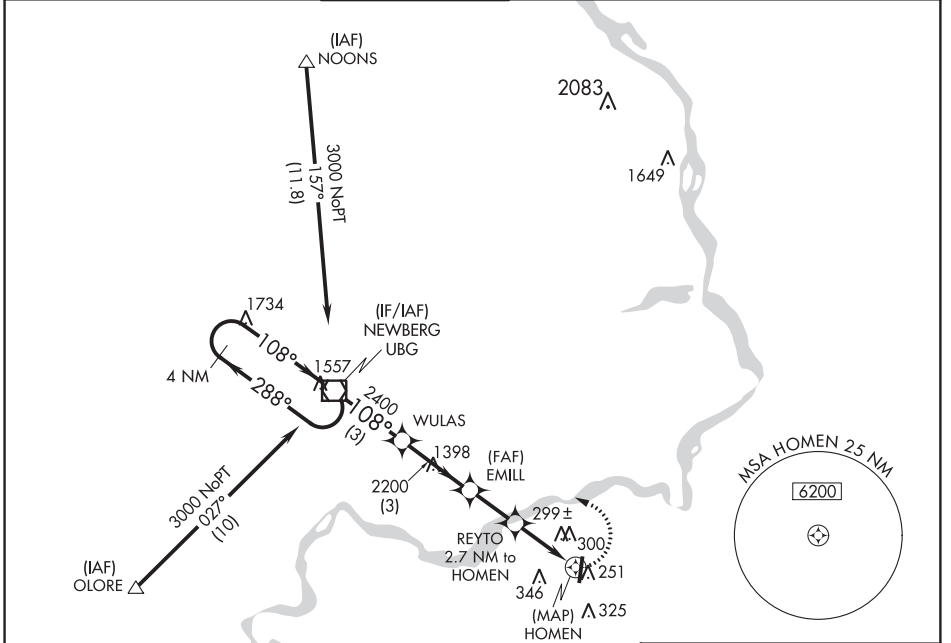
APP CRS <b>108°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>200</b>
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# RNAV (GPS)-B

AURORA STATE (UAO)

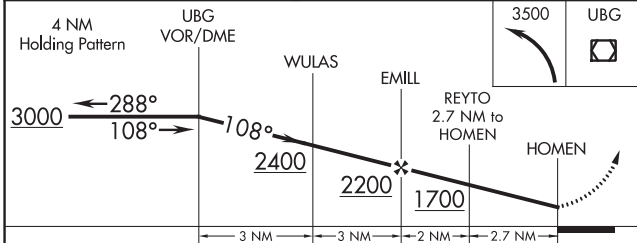
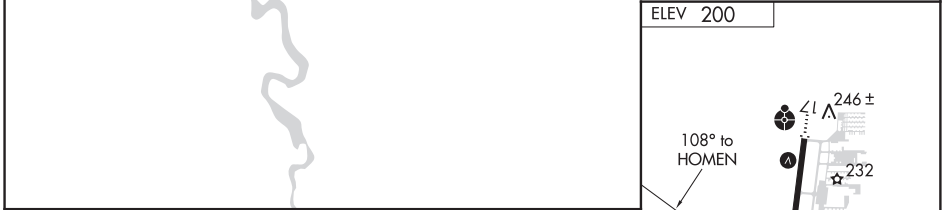
DME/DME RNP-0.3 NA.		MISSED APPROACH: Climbing left turn to 3500 direct UBG VOR/DME and hold.			
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ASOS <b>118.525</b>	PORTLAND APP CON <b>126.0 269.175</b>	AURORA TOWER* <b>120.35 (CTAF)</b>	GND CON <b>119.15</b>	CLNC DEL <b>119.15</b>	PORTLAND CLNC DEL <b>119.95</b> (When tower closed)
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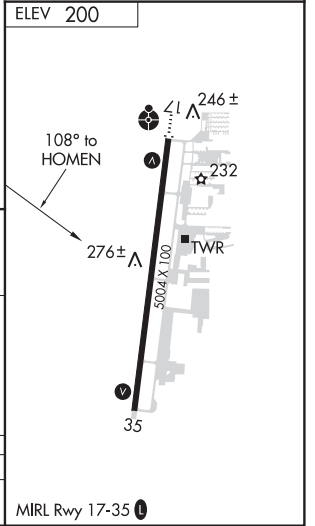


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	640-1 440 (500-1)	660-1 460 (500-1)	660-1½ 460 (500-1½)	760-2 560 (600-2)



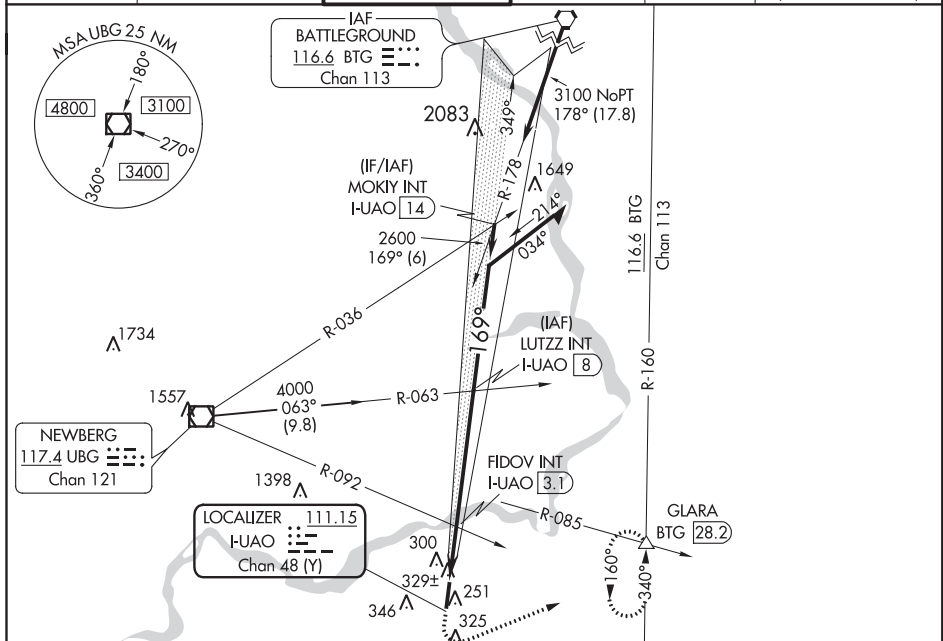
LOC/DME I-UAO <b>111.15</b> Chan <b>48</b> (Y)	APP CRS <b>169°</b>	Rwy Idg TDZE Apt Elev	<b>5004</b> <b>200</b> <b>200</b>
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# LOC RWY 17

AURORA STATE (UAO)

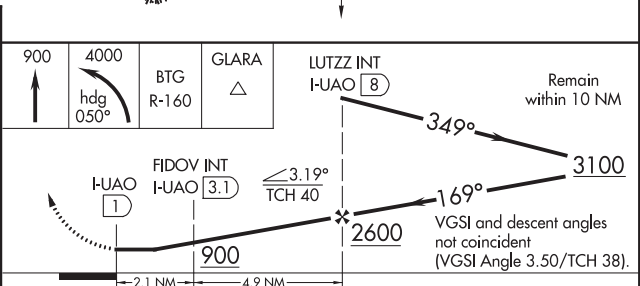
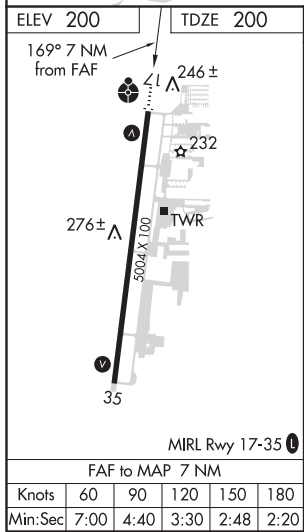
<p><b>▼</b> <b>▲</b></p> <p>Inoperative table does not apply.</p>	<p>ODALS</p> <p><b>MISSED APPROACH:</b> Climb to 900 then climbing left turn to 4000 via heading 050° and BTG R-160 to GLARA INT/BTG 28.2 DME and hold. Continue climb-in-hold to 4000.</p>
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ASOS <b>118.525</b>	PORTLAND APP CON <b>126.0 269.175</b>	AURORA TOWER* <b>120.35</b> (CTAF) <b>0</b>	GND CON <b>119.15</b>	CLNC DEL <b>119.15</b>	PORTLAND CLNC DEL <b>119.95</b> (When tower closed)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-17	900-1	700 (700-1)	900-2 700 (700-2)	900-2 1/4 700 (700-2 1/4)
CIRCLING	900-1	700 (700-1)	900-2 700 (700-2)	900-2 1/4 700 (700-2 1/4)
FIDOV FIX MINIMUMS				
S-17	580-1 380 (400-1)		580-1 1/4 380 (400-1 1/4)	
CIRCLING	640-1 440 (500-1)	660-1 460 (500-1)	660-1 1/2 460 (500-1 1/2)	760-2 560 (600-2)

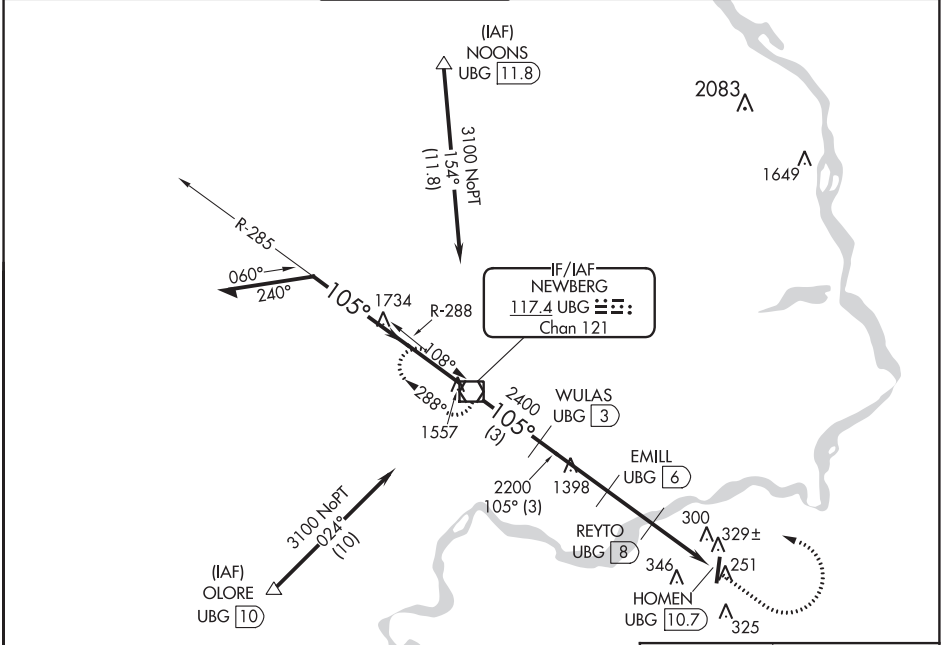
VOR/DME UBG <b>117.4</b> Chan <b>121</b>	APP CRS <b>105°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>200</b>
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# VOR/DME-A

AURORA STATE (UAO)

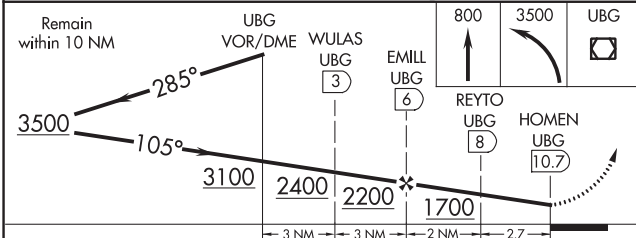
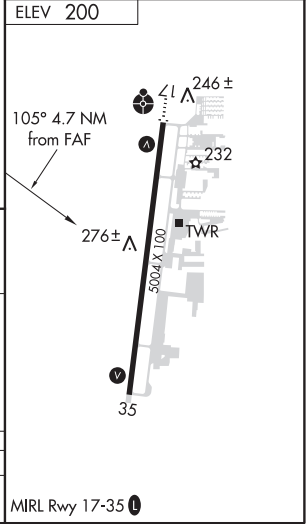
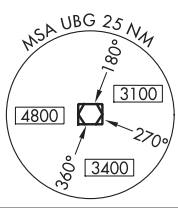
MISSED APPROACH: Climb to 800 then climbing left turn to 3500 direct UBG VOR/DME and hold.

ASOS <b>118.525</b>	PORTLAND APP CON <b>126.0 269.175</b>	<b>AURORA TOWER*</b> <b>120.35 (CTAF)</b>	GND CON <b>119.15</b>	CLNC DEL <b>119.15</b>	PORTLAND CLNC DEL <b>119.95</b> (When tower closed)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	640-1 440 (500-1)	660-1 460 (500-1)	660-1½ 460 (500-1½)	760-2 560 (600-2)

# AIRPORT DIAGRAM

AL-5722 (FAA)

AURORA STATE (UAO)  
AURORA, OREGON

ASOS  
118.525  
AURORA TOWER\*  
120.35  
GND CON  
119.15  
CLNC DEL  
119.95 (When Tower Closed)

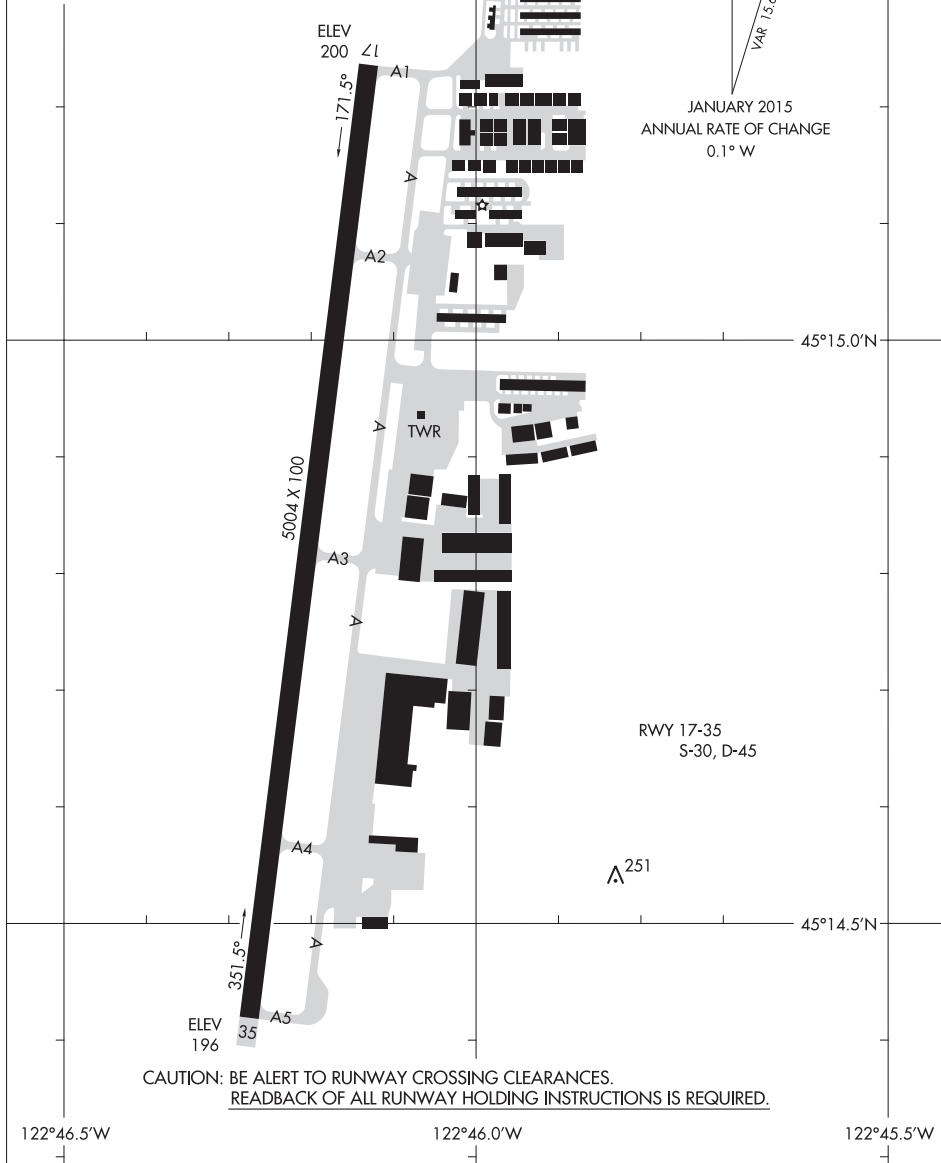
FIELD  
ELEV  
200



JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

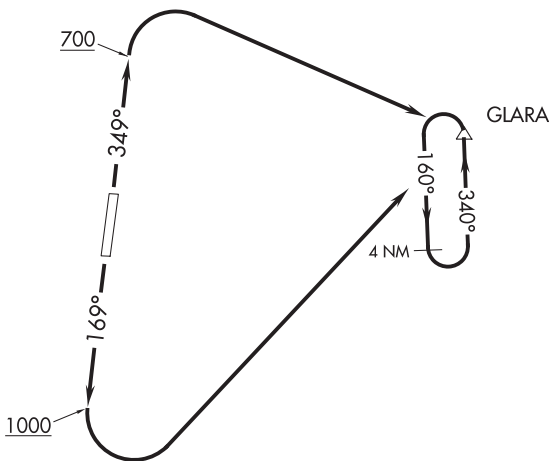
16315

AURORA, OREGON  
AURORA STATE (UAO)

# GLARA ONE DEPARTURE (RNAV)

ASOS  
118.525  
CLNC DEL  
119.15  
PORTLAND CLNC DEL  
119.95 (when tower closed)  
PORTLAND DEP CON  
126.0 284.6

NOTE: RNAV 1.  
NOTE: GPS required.



### TAKEOFF MINIMUMS

- Rwy 17: Standard with minimum climb of 375' per NM to 1000.
- Rwy 35: Standard with minimum climb of 350' per NM to 700.

### TAKEOFF OBSTACLES NOTES

- Rwy 17: Trees beginning 31' from DER, 246' right of centerline, up to 87' AGL/316' MSL.  
Tree 2270' from DER, 836' left of centerline, 87' AGL/303' MSL.  
Vehicle on road 254' from DER, 349' left of centerline, 16' AGL/209' MSL.
- Rwy 35: Trees beginning 30' from DER, 163' left of centerline, up to 65' AGL/329' MSL.  
Vehicle on road 212' from DER, 390' left of centerline, 16' AGL/212' MSL.  
Trees 973' from DER, 281' right of centerline, up to 65' AGL/253' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb heading 169° to 1000', then climbing left turn direct GLARA. Thence . . . .

TAKEOFF RUNWAY 35: Climb heading 349° to 700', then climbing right turn direct GLARA. Thence . . . .

. . . . continue climb in hold in GLARA holding pattern to MEA for direction of flight before proceeding on course.

# GLARA ONE DEPARTURE (RNAV)

(GLARA1.GLARA) 15DEC11

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

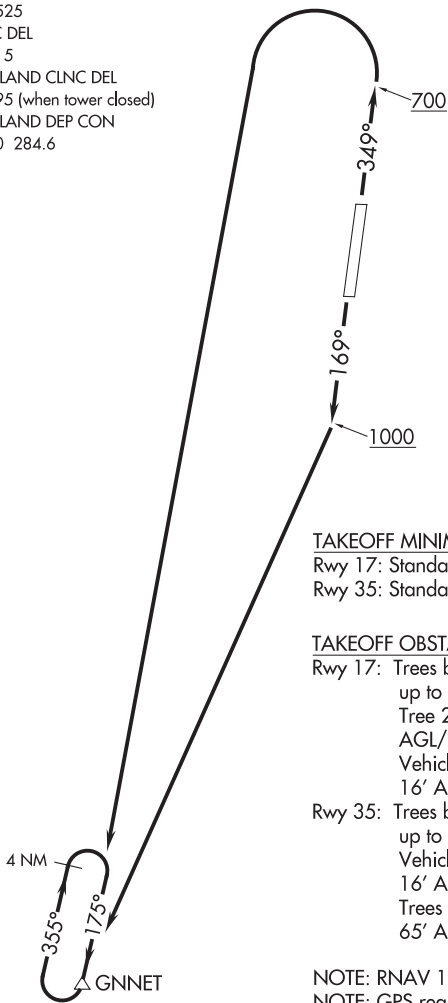
(GNNET1.GNNET) 16315

# GNNET ONE DEPARTURE (RNAV)

SL-5722 (FAA)

AURORA STATE (U.A.O)  
AURORA, OREGON

ASOS  
 118.525  
 CLNC DEL  
 119.15  
 PORTLAND CLNC DEL  
 119.95 (when tower closed)  
 PORTLAND DEP CON  
 126.0 284.6



### TAKEOFF MINIMUMS

Rwy 17: Standard with minimum climb of 375' per NM to 1000.  
 Rwy 35: Standard with minimum climb of 350' per NM to 2100.

### TAKEOFF OBSTACLE NOTES

Rwy 17: Trees beginning 31' from DER, 246' right of centerline, up to 87' AGL/316' MSL.  
 Tree 2270' from DER, 836' left of centerline, 87' AGL/303' MSL.  
 Vehicle on road 254' from DER, 349' left of centerline, 16' AGL/209' MSL.  
 Rwy 35: Trees beginning 30' from DER, 163' left of centerline, up to 65' AGL/329' MSL.  
 Vehicle on road 212' from DER, 390' left of centerline, 16' AGL/212' MSL.  
 Trees 973' from DER, 281' right of centerline, up to 65' AGL/253' MSL.

NOTE: RNAV 1  
 NOTE: GPS required.

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb heading 169° to 1000, then climbing right turn direct GNNET.

Thence . . . .

TAKEOFF RUNWAY 35: Climb heading 349° to 700, then climbing left turn direct GNNET.

Thence . . . .

. . . . continue climb in hold in GNNET holding pattern to MEA for direction of flight before proceeding on course.

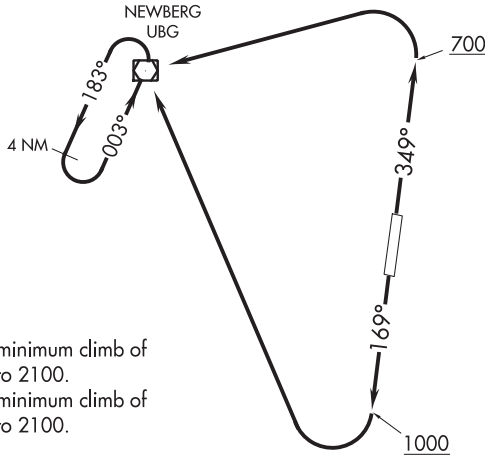
# GNNET ONE DEPARTURE (RNAV)

(GNNET1.GNNET) 15DEC11

AURORA, OREGON  
AURORA STATE (U.A.O)



ASOS  
118.525  
CLNC DEL  
119.15  
PORTLAND CLNC DEL  
119.95 (when tower closed)  
PORTLAND DEP CON  
126.0 284.6



TAKEOFF MINIMUMS

- Rwy 17: Standard with minimum climb of 375' per NM to 2100.
- Rwy 35: Standard with minimum climb of 350' per NM to 2100.

TAKEOFF OBSTACLES NOTES

- Rwy 17: Trees beginning 31' from DER, 246' right of centerline, up to 87' AGL/316' MSL. Tree 2270' from DER, 836' left of centerline, 87' AGL/303' MSL. Vehicle on road 254' from DER, 349' left of centerline, 16' AGL/209' MSL.
- Rwy 35: Trees beginning 30' from DER, 163' left of centerline, up to 65' AGL/329' MSL. Vehicle on road 212' from DER, 390' left of centerline, 16' AGL/212' MSL. Trees 973' from DER, 281' right of centerline, up to 65' AGL/253' MSL.

NOTE: RNAV 1.  
NOTE: GPS required.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb heading 169° to 1000', then climbing right turn direct UBG VOR/DME. Thence . . . .

TAKEOFF RUNWAY 35: Climb heading 349° to 700', then climbing left turn direct UBG VOR/DME. Thence . . . .

. . . . continue climb and hold to MEA for direction of flight before proceeding on course.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BAKER, MONTANA

AL-6943 (FAA)

16259

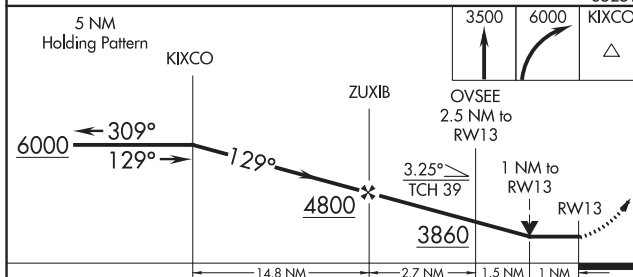
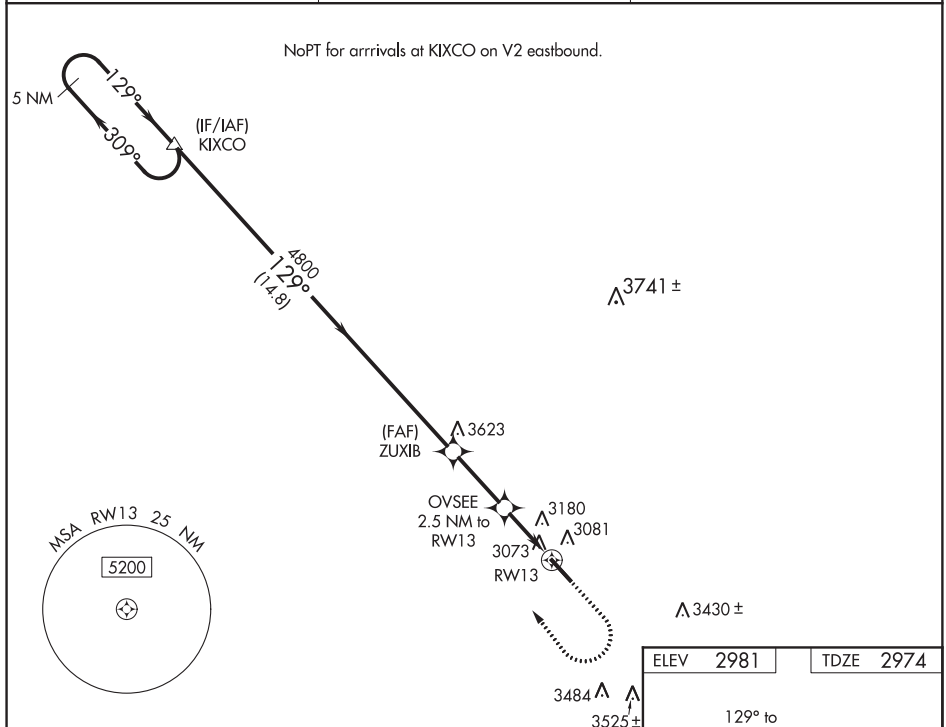
WAAS CH <b>86339</b> <b>W13A</b>	APP CRS <b>129°</b>	Rwy Idg TDZE Apt Elev	<b>5904</b> <b>2974</b> <b>2981</b>
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# RNAV (GPS) RWY 13

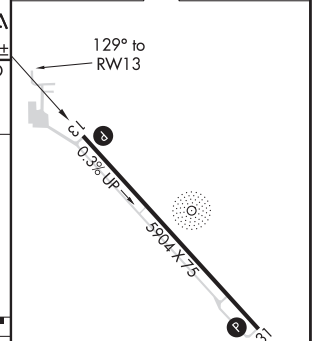
BAKER MUNI (BHK)

	DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA.	MISSED APPROACH: Climb to 3500 then climbing right turn to 6000 direct KIXCO and hold.
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ASOS <b>135.475</b>	SALT LAKE CENTER <b>126.85 305.2</b>	CTAF <b>122.9</b>
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ELEV	2981	TDZE	2974
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CATEGORY	A	B	C	D
LP MDA	3340-1		366 (400-1)	
LNAV MDA	3480-1	506 (500-1)	3480-1 3/8	506 (500-1 3/8)
CIRCLING	3540-1	559 (600-1)	3620-1 3/4 639 (700-1 3/4)	3820-2 3/4 839 (900-2 3/4)

MIRL Rwy 13-31

REIL Rws 13 and 31

BAKER, MONTANA  
Orig 15SEP16

46°21'N-104°15W

# BAKER MUNI (BHK) RNAV (GPS) RWY 13

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>50138</b> W31A	APP CRS <b>309°</b>	Rwy Idg TDZE Apt Elev	<b>5904</b> <b>2981</b> <b>2981</b>
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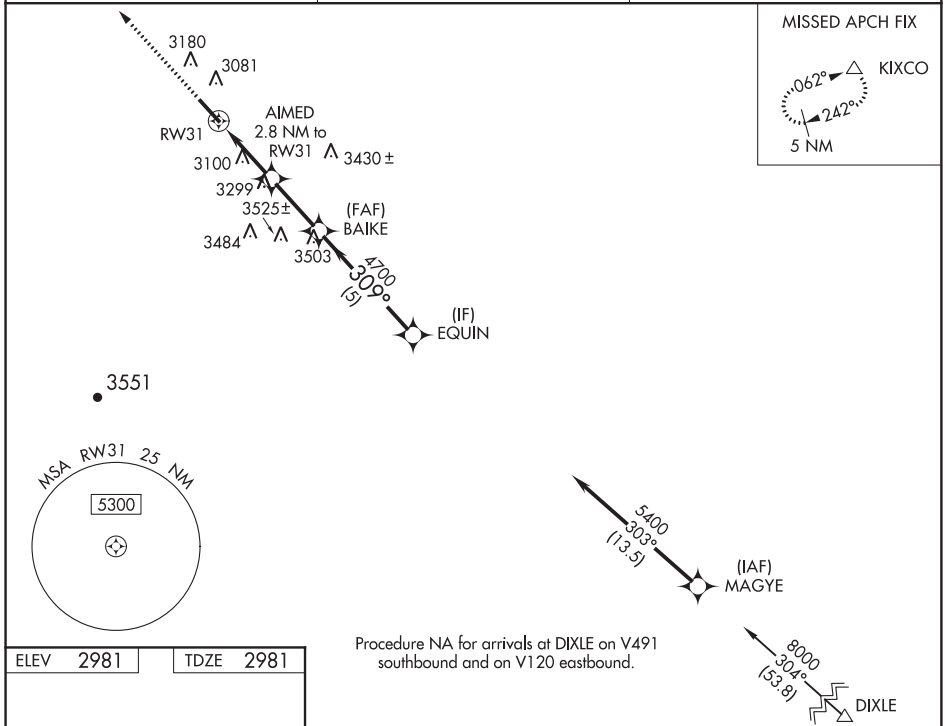
# RNAV (GPS) RWY 31

BAKER MUNI (BHK)

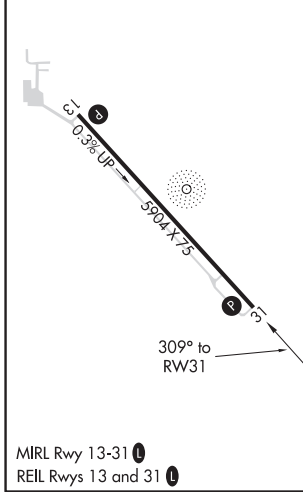
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 54°C (130°F) or above -27°C (-16°F). When local altimeter setting not received, procedure NA.  
**⚠** DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3500 then climbing right turn 6000 direct KIXCO and hold.

ASOS <b>135.475</b>	SALT LAKE CENTER <b>126.85 305.2</b>	CTAF <b>122.9</b>
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ELEV 2981	TDZE 2981
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	3500	6000	KIXCO	
	↑	↷	△	
*LNAV only.		AIMED 2.8 NM to RWY31		
		*1.1 NM to RWY31		
		*3900		
	1.1 NM	1.7 NM	2.5 NM	5 NM
CATEGORY	A	B	C	D
LPV DA		3231-7/8	250 (300-7/8)	
LNAV/VNAV DA		3267-1	286 (300-1)	
LNAV MDA		3360-1	379 (400-1)	
<b>C</b> CIRCLING	3540-1	559 (600-1)	3620-1 3/4 639 (700-1 3/4)	3820-2 3/4 839 (900-2 3/4)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BAKER, MONTANA

AL-6943 (FAA)

16091

NDB BKU <b>344</b>	APP CRS <b>122°</b>	Rwy ldg TDZE Apt Elev	<b>5904</b> <b>2974</b> <b>2981</b>
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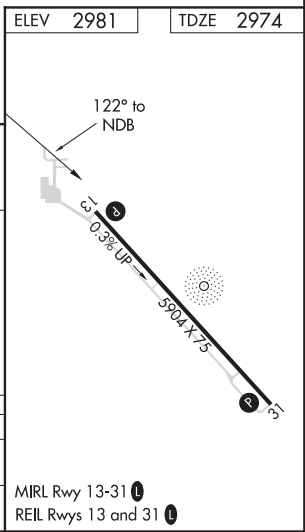
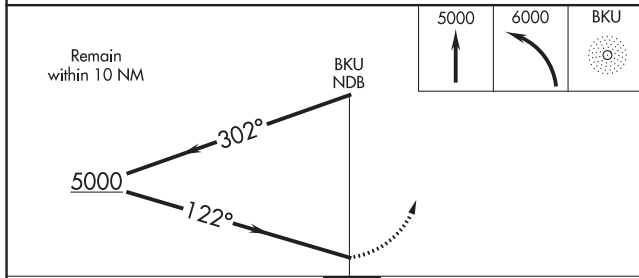
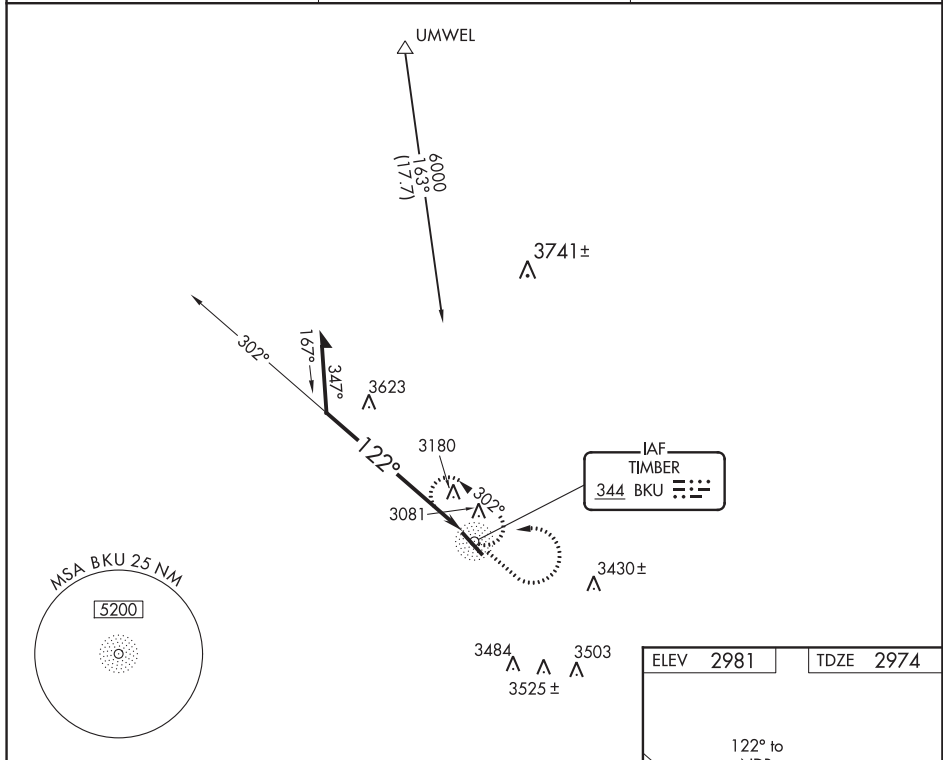
# NDB RWY 13

BAKER MUNI (BHK)

**⚠** When local altimeter setting not received, procedure NA.  
**⚠** Night Landing: Rwy 13 NA. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 5000 then climbing left turn to 6000 direct BKU NDB and hold.

ASOS <b>135.475</b>	SALT LAKE CENTER <b>126.85 305.2</b>	CTAF <b>122.9</b> <b>0</b>
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CATEGORY	A	B	C	D
S-13	3980-1¼ 1006 (1000-1¼)	3980-1½ 1006 (1000-1½)	3980-3	1006 (1000-3)
<b>C</b> CIRCLING	3980-1¼ 999 (1000-1¼)	3980-1½ 999 (1000-1½)	3980-3	999 (1000-3)

MIRL Rwy 13-31 **0**  
 REIL Rwy 13 and 31 **0**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BAKER, MONTANA  
 Orig-C 13NOV14

46°21'N-104°15'W

# BAKER MUNI (BHK)

## NDB RWY 13

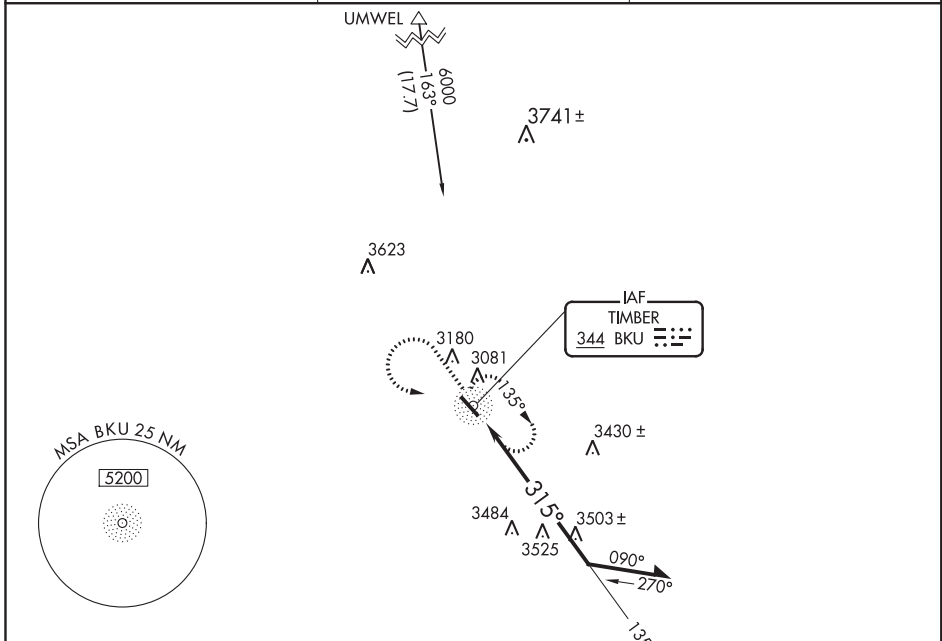
NDB BKU <b>344</b>	APP CRS <b>315°</b>	Rwy Idg TDZE Apt Elev	<b>5904</b> <b>2981</b> <b>2981</b>
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# NDB RWY 31

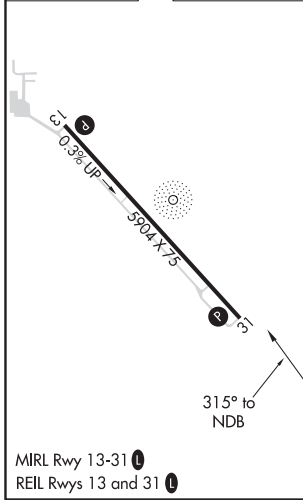
BAKER MUNI (BHK)

**⚠** When local altimeter setting not received, procedure NA. MISSED APPROACH: Climb to 5000 then climbing left turn to 6000 direct BKU NDB and hold.

ASOS <b>135.475</b>	SALT LAKE CENTER <b>126.85 305.2</b>	CTAF <b>122.9</b>
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ELEV 2981	TDZE 2981
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5000	6000	BKU	BKU NDB	Remain within 10 NM
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CATEGORY	A	B	C	D
S-31	3880-1¼ 899 (900-1¼)		3880-2½ 899 (900-2½)	
<b>C</b> CIRCLING	3880-1¼ 899 (900-1¼)		3880-2¾ 899 (900-2¾)	3880-3 899 (900-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BAKER CITY, OREGON

AL-35 (FAA)

16091

WAAS CH <b>90133</b> <b>W13A</b>	APP CRS <b>125°</b>	Rwy Idg TDZE Apt Elev	<b>5085</b> <b>3370</b> <b>3373</b>
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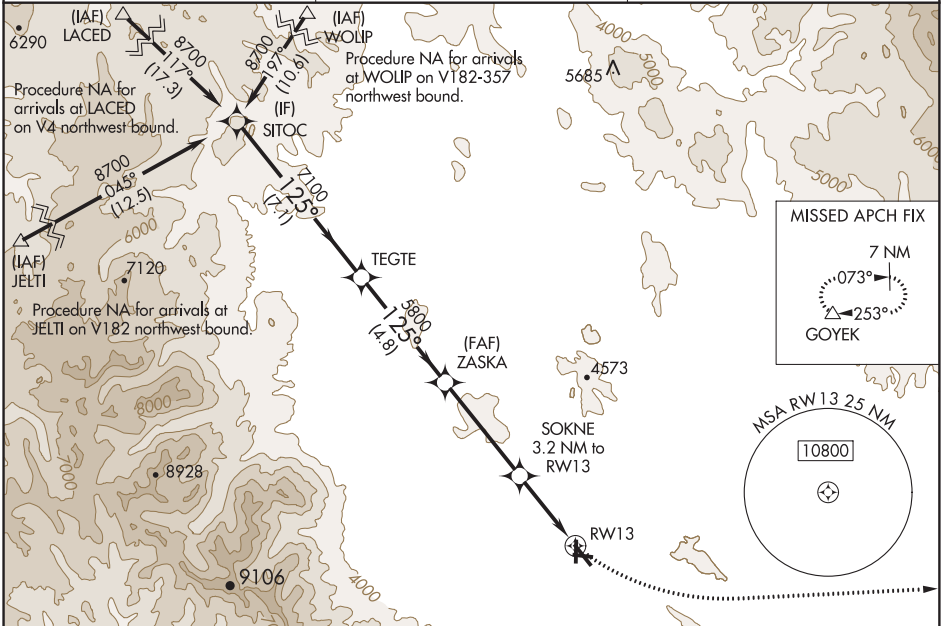
# RNAV (GPS) RWY 13

BAKER CITY MUNI (BKE)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -30° (-22°F) or above 51°C (124°F). DME/DME RNP-0.3 NA.  
**⚠** Helicopter visibility reduction below 1 SM NA.  
**⚠** Circling to Rwy 8/17/26/35 NA at night.

**MISSED APPROACH:** Climbing left turn to 11000 direct GOYEK and hold, continue climb-in-hold to 11000.

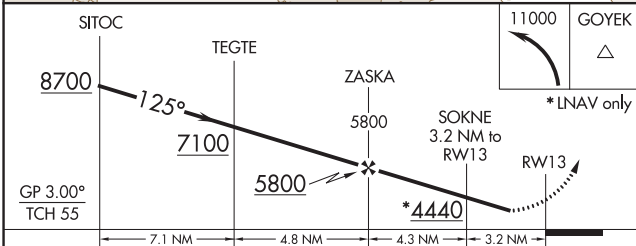
ASOS <b>134.275</b>	SALT LAKE CENTER <b>128.05 306.95</b>	UNICOM <b>123.0 (CTAF)</b>
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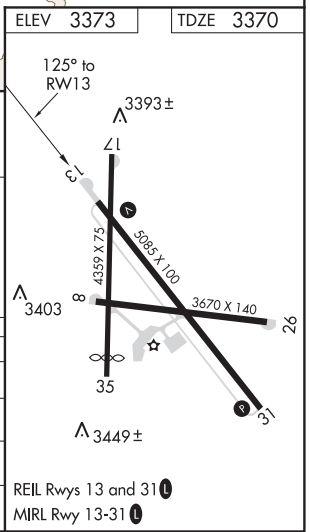
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV <b>3373</b>	TDZE <b>3370</b>
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CATEGORY	A	B	C	D
LPV DA	3804-1 <sup>3</sup> / <sub>8</sub>		434 (500-1 <sup>3</sup> / <sub>8</sub> )	
LNAV/VNAV DA	3904-1 <sup>3</sup> / <sub>4</sub>		534 (600-1 <sup>3</sup> / <sub>4</sub> )	
LNAV MDA	4080-1 710 (800-1)		4080-2 710 (800-2)	
CIRCLING	4080-1 707 (800-1)		4080-2 707 (800-2) 4220-2 <sup>3</sup> / <sub>4</sub> 847 (900-2 <sup>3</sup> / <sub>4</sub> )	



BAKER CITY, OREGON  
Amdt 1C 11DEC14

44°50'N-117°49'W

# BAKER CITY MUNI (BKE) RNAV (GPS) RWY 13

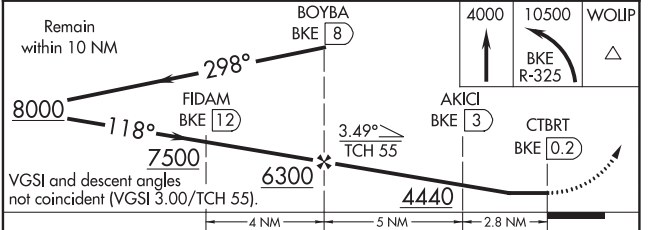
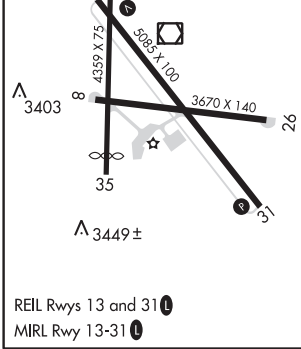
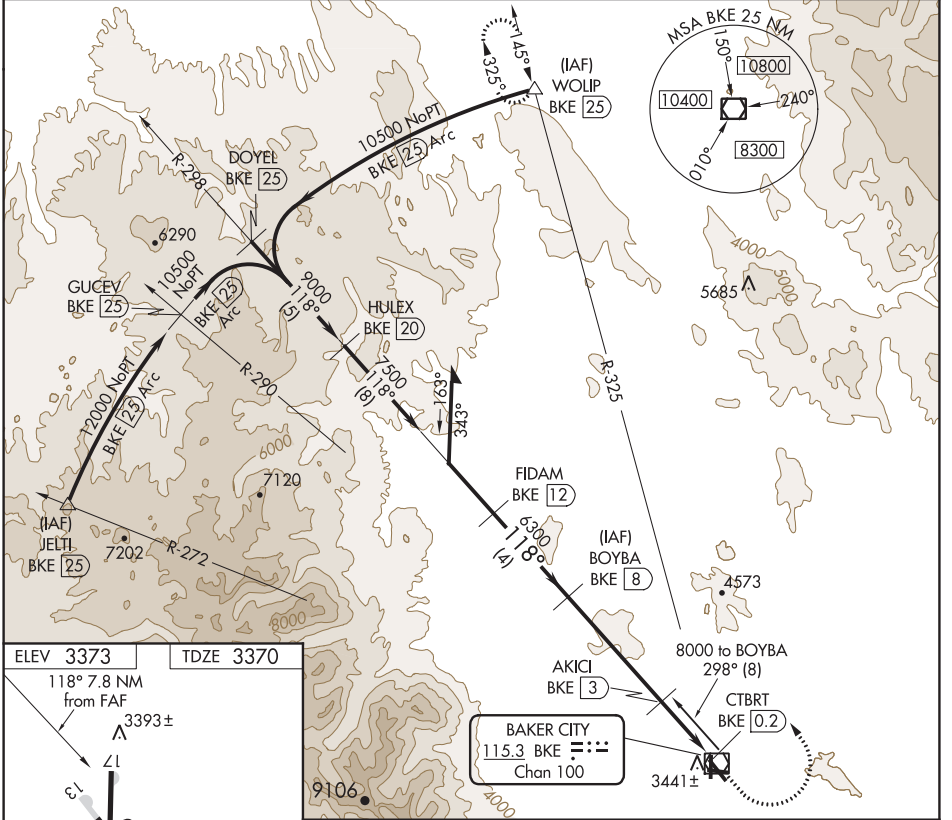
VOR/DME BKE <b>115.3</b> Chan <b>100</b>	APP CRS <b>118°</b>	Rwy Idg <b>5085</b> TDZE <b>3370</b> Apt Elev <b>3373</b>
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# VOR/DME RWY 13

BAKER CITY MUNI (BKE)

**⚠** Circling to Rwy 8/17/26/35 NA at night.  
**⚠** Helicopter visibility reduction below 1 SM NA.  
 MISSED APPROACH: Climb to 4000 then climbing left turn to 10500 via BKE R-325 to WOLUP and hold.

ASOS <b>134.275</b>	SALT LAKE CENTER <b>128.05 306.95</b>	UNICOM <b>123.0 (CTAF)</b>
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CATEGORY	A	B	C	D
S-13	4000-1	630 (700-1)	4000-1¾ 630 (700-1¾)	4000-2 630 (700-2)
CIRCLING	4000-1	627 (700-1)	4000-1¾ 627 (700-1¾)	4220-2¾ 847 (900-2¾)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BAKER CITY, OREGON

AL-35 (FAA)

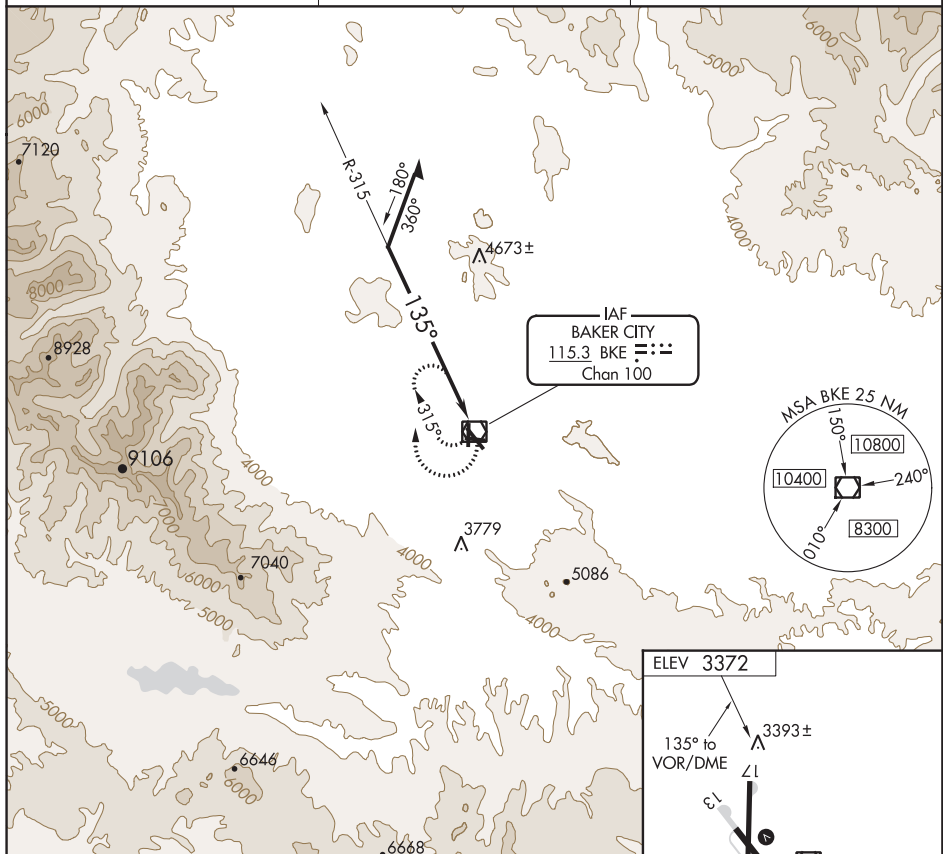
16091

VOR/DME BKE <b>115.3</b> Chan <b>100</b>	APP CRS <b>135°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>3372</b>
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**VOR-A**  
BAKER CITY MUNI (BKE)

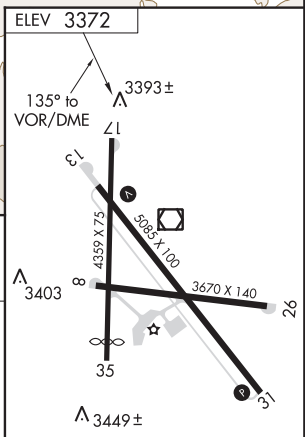
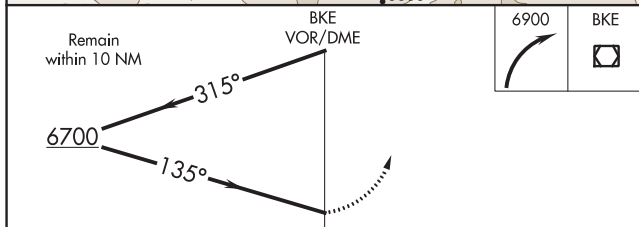
Circling to Rwy 8/17/26/35 NA at night. Helicopter visibility reduction below 1 SM NA. -25°C/-13°F	MISSED APPROACH: Climbing right turn to 6900 in BKE VOR/DME holding pattern.
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ASOS <b>134.275</b>	SALT LAKE CENTER <b>128.05 306.95</b>	UNICOM <b>123.0 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	5200-1¼ 1828 (1900-1¼)	5200-1½ 1828 (1900-1½)	5200-3	1828 (1900-3)

REIL Rwys 13 and 31  
MIRL Rwy 13-31

BAKER CITY, OREGON  
Amdt 1B 22AUG13

44°50'N-117°49'W

BAKER CITY MUNI (BKE)  
**VOR-A**




LOC/DME I-BLI <b>108.5</b> Chan 22	APP CRS <b>164°</b>	Rwy Idg TDZE Apt Elev	<b>6701</b> <b>163</b> <b>170</b>
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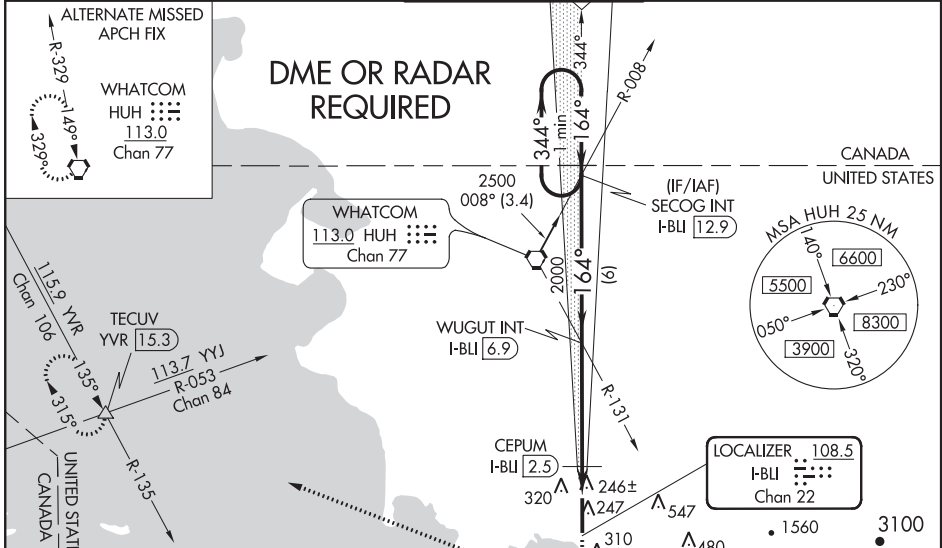
# ILS or LOC RWY 16

BELLINGHAM INTL (BLI)

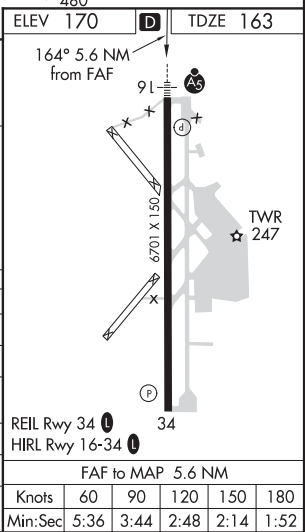
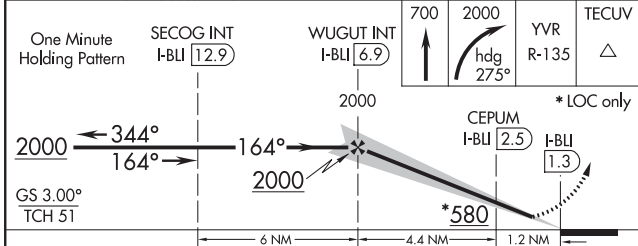
**⚠** When local altimeter setting not received, use Friday Harbor altimeter setting; increase DA to 430 feet; increase all MDA 80 feet and increase S-LOC 16 Cats C, D visibility to RVR 5000; increase CEPUM fix minimums S-LOC 16 Cats C, D visibility to RVR 4000; increase S-LOC Circling and CEPUM fix minimums Circling Cat C visibility ¼ mile. For inop MALSR, increase S-LOC 16 Cats C/D visibility to RVR 6000 and increase CEPUM fix minimums Cats C, D visibility to RVR 5000. For inop MALSR when using Friday Harbor altimeter setting increase S-LOC 16 all Cats visibility to RVR 4500, increase S-LOC 16 Cat C/D visibility to 1 1/8 mile, increase CEPUM fix minimums S-LOC 16 Cats C/D visibility to RVR 6000.  
#RVR 1800 authorized with use of FD or AP or HUD to DA.

**MALSRL**  
  
**MISSED APPROACH:**  
Climb to 700 then climbing right turn to 2000 on heading 275° and on YVR VOR/DME R-135 to TECUV INT/YVR 15.3 DME and hold.

ATIS <b>134.45</b>	VICTORIA TERMINAL APP CON <b>132.7 290.8</b>	BELLINGHAM TOWER ★ <b>124.9 (CTAF) 379.3</b>	GND CON <b>127.4 379.3</b>	UNICOM <b>122.95</b>
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ELEV 170	<b>D</b>	TDZE 163
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CATEGORY	A	B	C	D
S-ILS 16#	363/24 200 (200-½)			
S-LOC 16	580/24	417 (500-½)	580/40	417 (500-¾)
<b>C</b> CIRCLING	620-1	450 (500-1)	900-2 730 (800-2)	1160-3 990 (1000-3)
CEPUM FIX MINIMUMS (DME REQUIRED)				
S-LOC 16	500/24	337 (400-½)	500/26	337 (400-¾)
<b>C</b> CIRCLING	620-1	450 (500-1)	900-2 730 (800-2)	1160-3 990 (1000-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BELLINGHAM, WASHINGTON


AL-45 (FAA)

16315

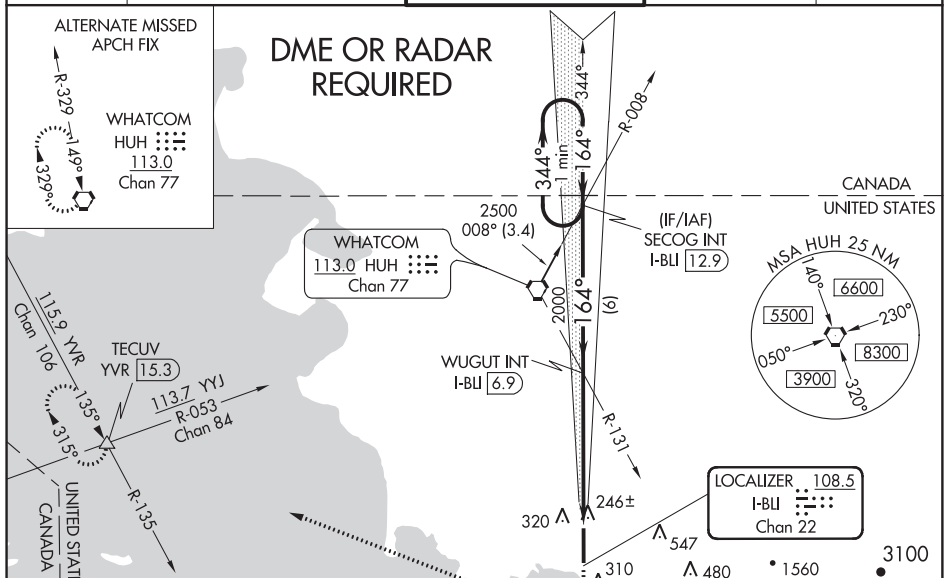
LOC/DME I-BLI <b>108.5</b> Chan 22	APP CRS <b>164°</b>	Rwy Idg TDZE Apt Elev	<b>6701</b> <b>163</b> <b>170</b>
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# ILS RWY 16 (SA CAT I)

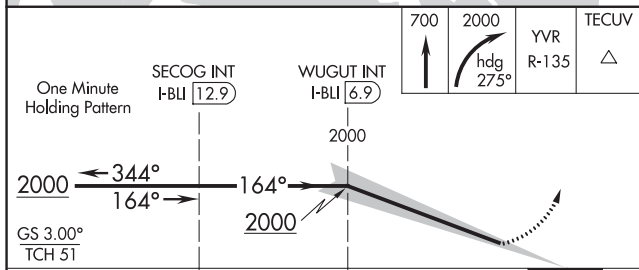
BELLINGHAM INTL (BLI)

<p><b>⚠</b> Requires specific OPSPEC, MSPEC or LOA approval and use of HUD to DH.</p> <p><b>⚠</b> MALSR</p> 	<p>MISSED APPROACH: Climb to 700 then climbing right turn to 2000 on heading 275° and on YVR VOR/DME R-135 to TECUV INT/YVR 15.3 DME and hold.</p>
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ATIS <b>134.45</b>	VICTORIA TERMINAL APP CON <b>132.7 290.8</b>	BELLINGHAM TOWER ★ <b>124.9 (CTAF) 0 379.3</b>	GND CON <b>127.4 379.3</b>	UNICOM <b>122.95</b>
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One Minute Holding Pattern	SECOCG INT I-BLI 12.9	WUGUT INT I-BLI 6.9	700	2000	YVR R-135	TECUV
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CATEGORY	A	B	C	D
S-ILS 16	RA 244/14		150 DA 313	

**SA CATEGORY I ILS-SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

ELEV 170 TDZE 163

TWR 247

REIL Rwy 34

HIRL Rwy 16-34


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

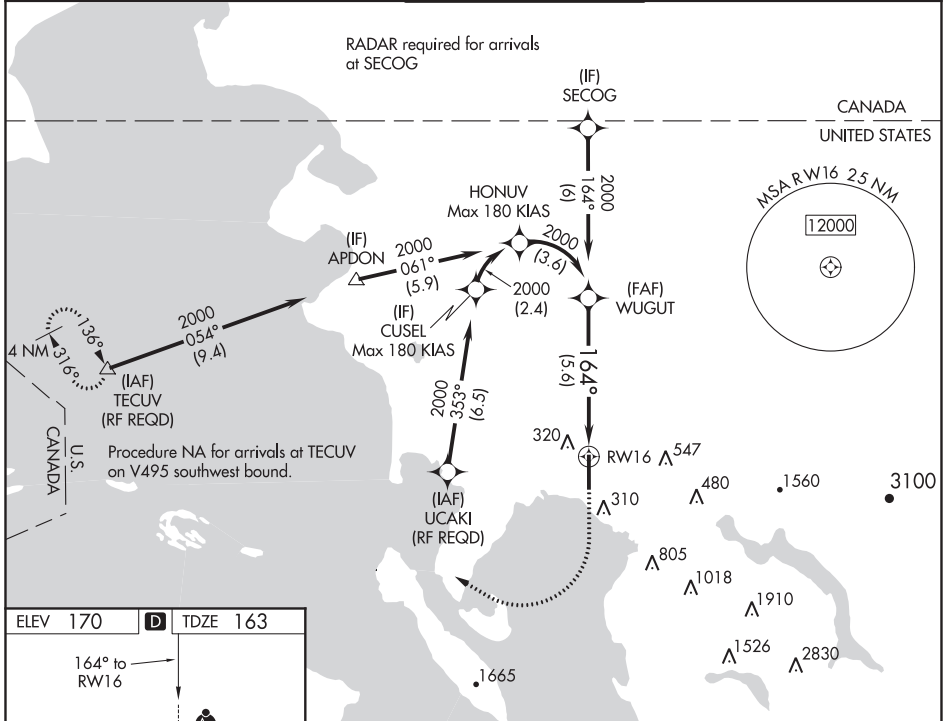
APP CRS	Rwy Idg	<b>6701</b>
<b>164°</b>	TDZE	<b>163</b>
	Apt Elev	<b>170</b>

# RNAV (RNP) Z RWY 16

BELLINGHAM INTL (BLI)

<p><b>▽</b> For uncompensated Baro-VNAV systems, procedure NA below -10°C (14°F) or above 54°C (130°F). GPS required. For inop MALSRS, increase RNP 0.27 all Cats visibility to RVR 4500.</p>	<p><b>MALSRS</b></p>  <p>MISSED APPROACH: Climb to 700 then climbing right turn to 2000 direct TECUV and hold.</p>
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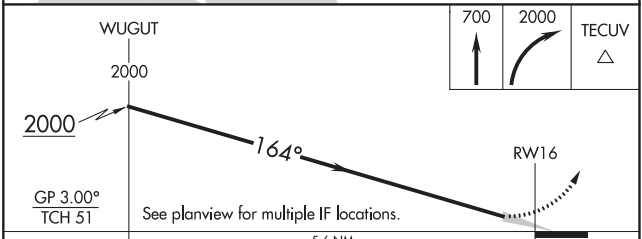
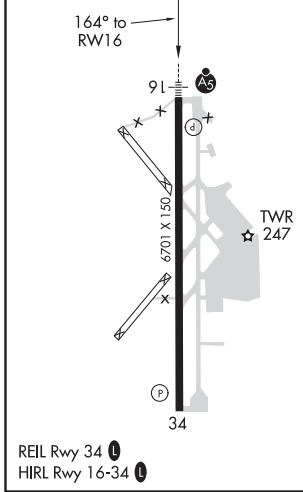
ATIS <b>134.45</b>	VICTORIA TERMINAL APP CON <b>132.7 290.8</b>	<b>BELLINGHAM TOWER*</b> <b>124.9 (CTAF) 0 379.3</b>	GND CON <b>127.4 379.3</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 170	<b>D</b>	TDZE 163
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CATEGORY	A	B	C	D
RNP 0.27 DA		448/24	285 (300-½)	
RNP 0.30 DA		580/45	417 (500-¾)	

## AUTHORIZATION REQUIRED

BELLINGHAM, WASHINGTON

AL-45 (FAA)

16315

APP CRS	Rwy Idg	<b>6701</b>
<b>344°</b>	TDZE	<b>170</b>
	Apt Elev	<b>170</b>

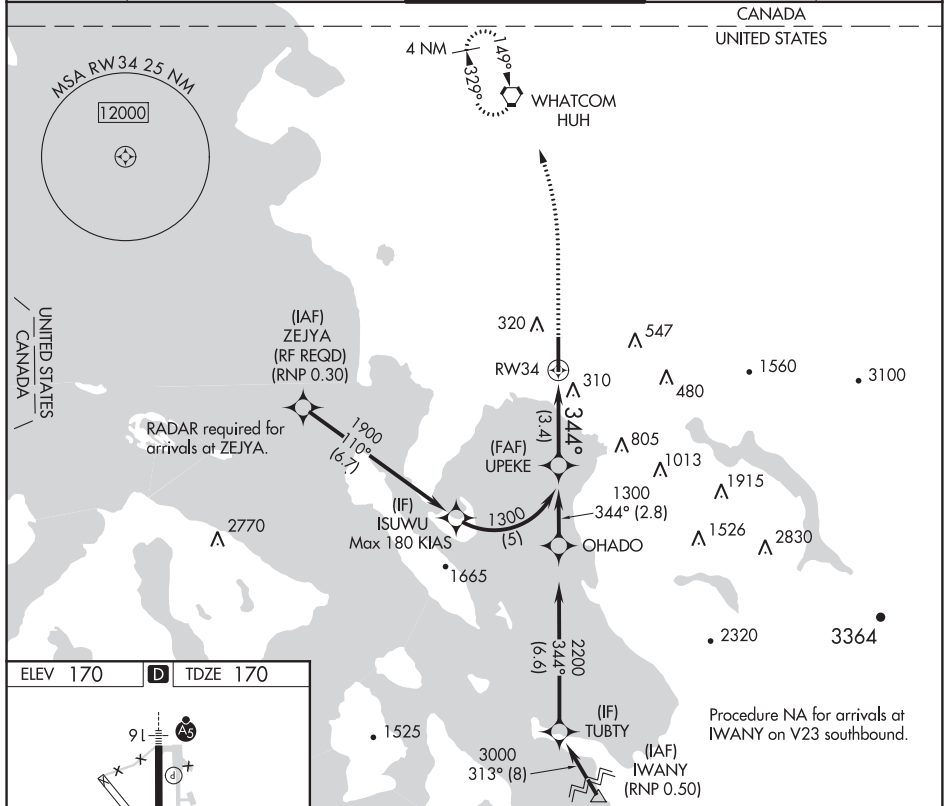
# RNAV (RNP) Z RWY 34

BELLINGHAM INTL (BLI)

**▽** For uncompensated Baro-VNAV systems, procedure NA below -10°C (14°F) or above 54°C (130°F). GPS required.

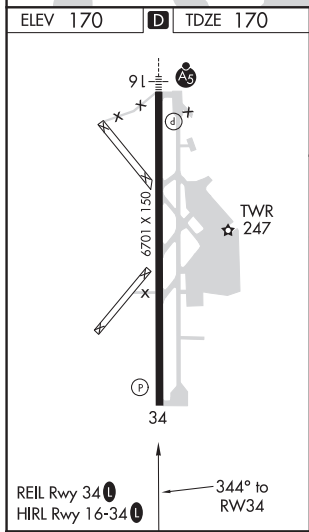
MISSED APPROACH: Climb to 700 then climbing left turn to 3000 direct HUH VORTAC and hold, continue climb-in-hold to 3000.

ATIS	VICTORIA TERMINAL APP CON	BELLINGHAM TOWER *	GND CON	UNICOM
<b>134.45</b>	<b>132.7 290.8</b>	<b>124.9 (CTAF) 0 379.3</b>	<b>127.4 379.3</b>	<b>122.95</b>



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



700	3000	HUH	UPEKE 1300	
↑	↶	⬡	↘	
RW34		See planview for multiple IF locations.		
		3.4 NM		
CATEGORY	A	B	C	D
RNP 0.11 DA		462-7/8	292 (300-7/8)	
RNP 0.30 DA		577-1 3/8	407 (500-1 3/8)	
<b>AUTHORIZATION REQUIRED</b>				

GP 3.00° TCH 50

BELLINGHAM, WASHINGTON  
Amdt 1 04FEB16

48°48'N-122°32'W

# BELLINGHAM INTL (BLI)

## RNAV (RNP) Z RWY 34


WAAS CH <b>45999</b> <b>W16A</b>	APP CRS <b>164°</b>	Rwy Idg TDZE Apt Elev	<b>6701</b> <b>163</b> <b>170</b>
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# RNAV (GPS) Y RWY 16

BELLINGHAM INTL (BLI)

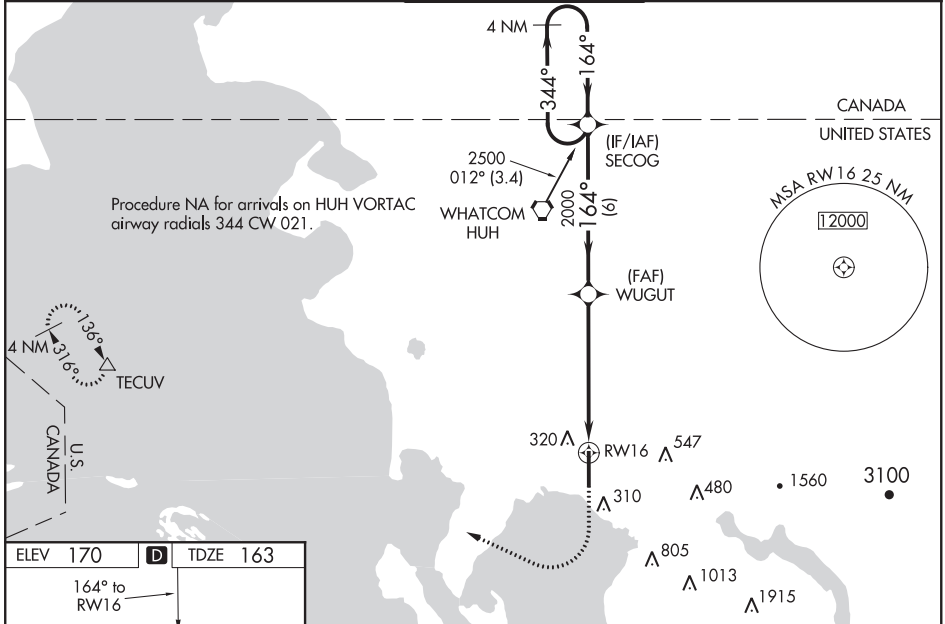
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -10°C (14°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Friday Harbor altimeter setting. When local altimeter setting not received, use Friday Harbor altimeter setting and increase all DA 67 feet and all MDA 80 feet; increase LNAV/VNAV all Cats visibility to RVR 4500, LNAV Cats C, D visibility to RVR 5000 and Circling Cat C visibility to 2¼ miles. For inop MALSR, when using Friday Harbor altimeter setting, increase LPV all Cats visibility to RVR 4500, LNAV/VNAV all Cats visibility to 1¼ mile and LNAV Cat C, D visibility to 1½ mile.

**MALSR**



**MISSED APPROACH:**  
Climb to 700 then climbing right turn to 2000 direct TECUV and hold.

ATIS <b>134.45</b>	VICTORIA TERMINAL APP CON <b>132.7 290.8</b>	<b>BELLINGHAM TOWER *</b> <b>124.9 (CTAF) 0 379.3</b>	GND CON <b>127.4 379.3</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 170	<b>D</b>	TDZE 163
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164° to RWY 16

REIL Rwy 34  
HIRL Rwy 16-34

4 NM Holding Pattern	SECOG	WUGUT	TECUV
2000	2000	2000	700
GP 3.00° TCH 51	6 NM	4.5 NM	1.1 NM
344°	164°	164°	*LNNAV only.
344°	164°	164°	*1.1 NM to RWY 16

CATEGORY	A	B	C	D
LPV DA		363/24	200 (200-½)	
LNAV/VNAV DA		491/30	328 (400-¾)	
LNAV MDA	560/24	397 (400-½)	560/35	397 (400-¾)
<b>C</b> CIRCLING	620-1	450 (500-1)	900-2 730 (800-2)	1160-3 990 (1000-3)

BELLINGHAM, WASHINGTON

AL-45 (FAA)

16315

WAAS CH <b>86223</b> <b>W34A</b>	APP CRS <b>344°</b>	Rwy Idg TDZE <b>170</b> Apt Elev <b>170</b>	<b>6701</b>
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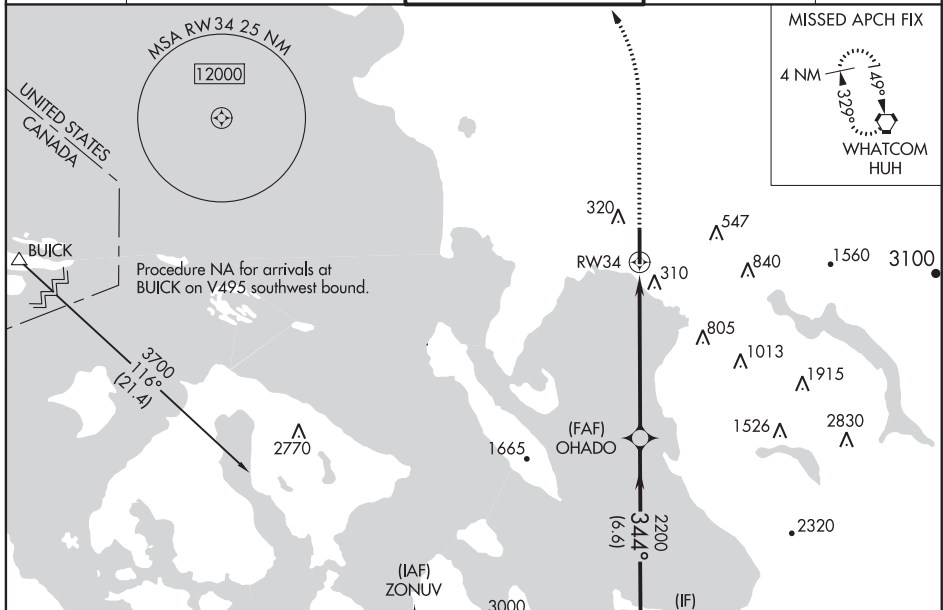
# RNAV (GPS) Y RWY 34

BELLINGHAM INTL (BLI)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -10°C (14°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Friday Harbor altimeter setting. When local altimeter setting not received, use Friday Harbor altimeter setting and increase all DAs 67 feet and all MDA 80 feet; increase LPV all Cats visibility, LNAV/VNAV all Cats visibility, LNAV Cats C/D and Circling Cat C ¼ mile. Helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:** Climb to 700 then climbing left turn to 3000 direct HUH VORTAC and hold, continue climb-in-hold to 3000.

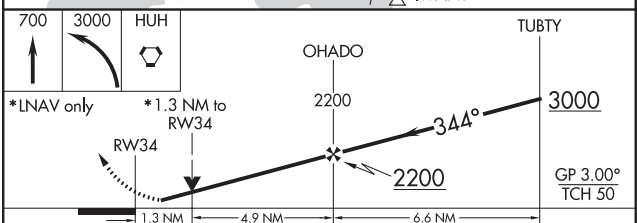
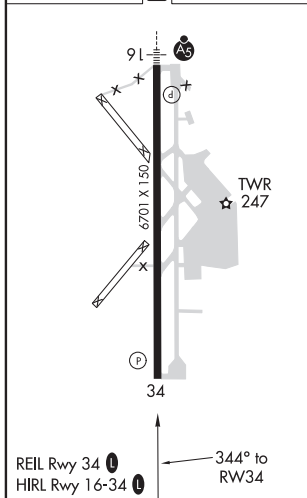
ATIS <b>134.45</b>	VICTORIA TERMINAL APP CON <b>132.7 290.8</b>	<b>BELLINGHAM TOWER ★</b> <b>124.9 (CTAF) 0 379.3</b>	GND CON <b>127.4 379.3</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 170	<b>D</b>	TDZE 170
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CATEGORY	A	B	C	D
LPV DA		420-¾	250 (300-¾)	
LNAV/VNAV DA		502-1½	332 (400-1½)	
LNAV MDA	640-1	470 (500-1)	640-1¾	470 (500-1¾)
<b>C</b> CIRCLING	640-1	470 (500-1)	900-2 730 (800-2)	1160-3 990 (1000-3)

BELLINGHAM, WASHINGTON  
Amdt 2 04FEB16

48°48'N-122°32'W

# BELLINGHAM INTL (BLI)

## RNAV (GPS) Y RWY 34

16315

# AIRPORT DIAGRAM

BELLINGHAM INTL (BLI)  
BELLINGHAM, WASHINGTON

AL-45 (FAA)

ATIS  
134.45  
BELLINGHAM TOWER ★  
124.9 379.3  
GND CON  
127.4 379.3

D

ELEV  
163

9L

B

163.3°

48°48.0'N

RWY 16-34  
PCN 57 F/A/W/T  
S-75, D-160, 2S-175, 2D-250



JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.2° W

HS 1

HS 2

6701 X 150

CARGO

COMMERCIAL  
AIRCRAFT  
PARKING

COMMERCIAL  
TERMINAL  
US  
CUSTOMS

TWR  
247

FBO/GENERAL AVIATION  
TERMINAL

TRANSIENT  
PARKING

GENERAL  
AVIATION  
HANGARS

FIRE  
STATION

HANGAR

FIELD  
ELEV  
170

343.3°

NOTE: THIS AREA NOT VISIBLE  
FROM TOWER

48°47.0'N

122°32.5'W

122°32.0'W

122°31.5'W

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

# AIRPORT DIAGRAM

BELLINGHAM, WASHINGTON  
BELLINGHAM INTL (BLI)

16315

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# KIENO FIVE DEPARTURE

SL-45 (FAA)

BELLINGHAM INTL (BLI)  
BELLINGHAM, WASHINGTON

**TOP ALTITUDE:  
ASSIGNED BY ATC**

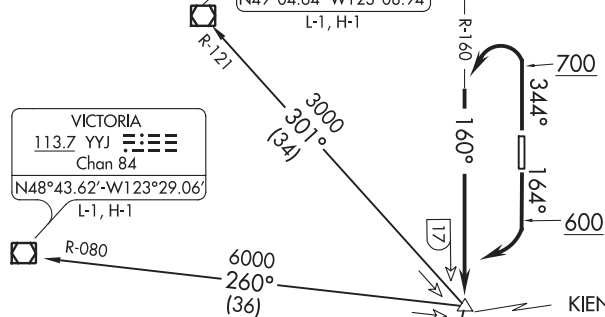
VANCOUVER  
115.9 YVR Chan 106  
N49°04.64'-W123°08.94'  
L-1, H-1

WHATCOM  
113.0 HUH Chan 77

VICTORIA  
113.7 YYJ Chan 84  
N48°43.62'-W123°29.06'  
L-1, H-1

PENN COVE  
117.2 CVV Chan 119  
N48°14.68'-W122°43.47'  
L-1

ATIS  
134.45  
GND CON  
127.4 379.3  
BELLINGHAM TOWER ★  
124.9 379.3  
VICTORIA DEP CON  
132.7 290.8



NOTE: Chart not usable for TACAN aircraft.

NOTE: DME or RADAR required for VICTORIA TRANSITION.

NOTE: Aircraft on the VICTORIA TRANSITION must climb-in-hold at KIENO to 6000 before continuing to VICTORIA VOR/DME, hold N, RT, 160° inbound.

KIENO  
N48°39.73'  
W122°34.75'  
6000  
(for Victoria Transition)

**TAKEOFF MINIMUMS**  
Rwy 16: Standard with minimum climb of 282' per NM to 2500.  
Rwy 34: Standard.

### TAKEOFF OBSTACLE NOTES

- Rwy 16: Tree and windsock beginning abeam DER, 258' right of centerline, up to 15' AGL/187' MSL.  
Trees beginning 180' from DER, 534' right of centerline, up to 30' AGL/199' MSL.  
Trees beginning 747' from DER, 404' right of centerline, up to 40' AGL/213' MSL.  
Trees beginning 1128' from DER, 56' left of centerline, up to 75' AGL/249' MSL.
- Rwy 34: Windsock 92' from DER, 516' right of centerline, 19' AGL/169' MSL.  
Trees beginning 1372' from DER, 698' right of centerline, up to 60' AGL/208' MSL.  
Trees beginning 2682' from DER, 966' right of centerline, up to 100' AGL/246' MSL.  
Trees beginning 3079' from DER, 619' right of centerline, up to 85' AGL/246' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 16:** Climb on heading 164° to 600, then climbing right turn to intercept HUH R-160 to KIENO, Thence. . . .

**TAKEOFF RUNWAY 34:** Climb on heading 344° to 700, then climbing left turn to intercept HUH R-160 to KIENO, Thence. . . .

. . . .Maintain assigned transition altitude, expect requested altitude within 10 minutes.

**PENN COVE TRANSITION (KIENO5.CVV):** From over KIENO on CVV R-354 to CVV VOR/DME.

**VANCOUVER TRANSITION (KIENO5.YVR):** From over KIENO on YVR R-121 to YVR VOR/DME

**VICTORIA TRANSITION (KIENO5.YYJ):** From over KIENO on YYJ R-080 to YYJ VOR/DME.

# KIENO FIVE DEPARTURE



APP CRS <b>326°</b>	Rwy Idg TDZE Apt Elev	<b>5200</b> <b>3460</b> <b>3460</b>
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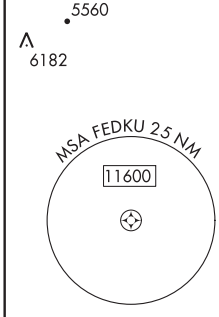
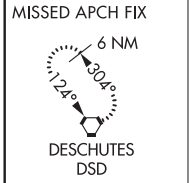
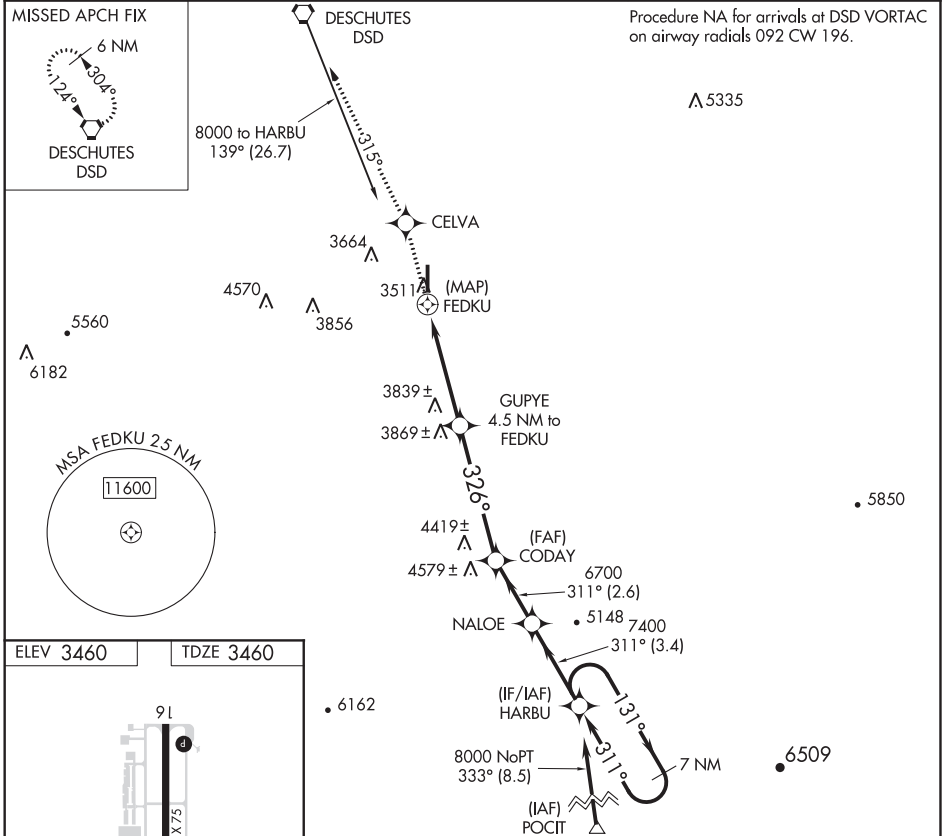
# RNAV (GPS) RWY 34

BEND MUNI (BDN)

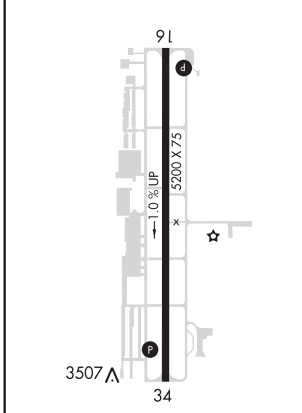
**▽** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.  
**▲** NA. When local altimeter setting not received, use Redmond altimeter setting and increase all MDAs 80 feet, LNAV Cats C/D visibility ¼ mile and Circling Cat C/D visibility ¼ mile.  
**❄** -22°C/-8°F

**MISSED APPROACH:** Climb to 6000 direct CELVA and via 315° track to DESCHUTES VORTAC and hold

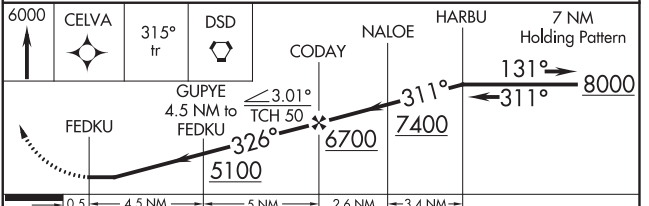
AWOS-3 <b>134.425</b>	SEATTLE CENTER <b>128.15 257.75</b>	UNICOM <b>123.0 (CTAF) 0</b>
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ELEV 3460	TDZE 3460
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REL Rwy 16 and 34  
MIRL Rwy 16-34



CATEGORY	A	B	C	D
LNAV MDA	4100-1 640 (700-1)	640 (700-1)	4100-1¾ 640 (700-1¾) 640 (700-2)	4100-2 640 (700-2)
CIRCLING	4100-1 640 (700-1)	640 (700-1)	4100-1¾ 640 (700-1¾)	4100-2 640 (700-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BEND, OREGON

AL-5579 (FAA)

16119

WAAS CH <b>90137</b> <b>W16B</b>	APP CRS <b>148°</b>	Rwy Idg TDZE Apt Elev	<b>5200</b> <b>3432</b> <b>3460</b>
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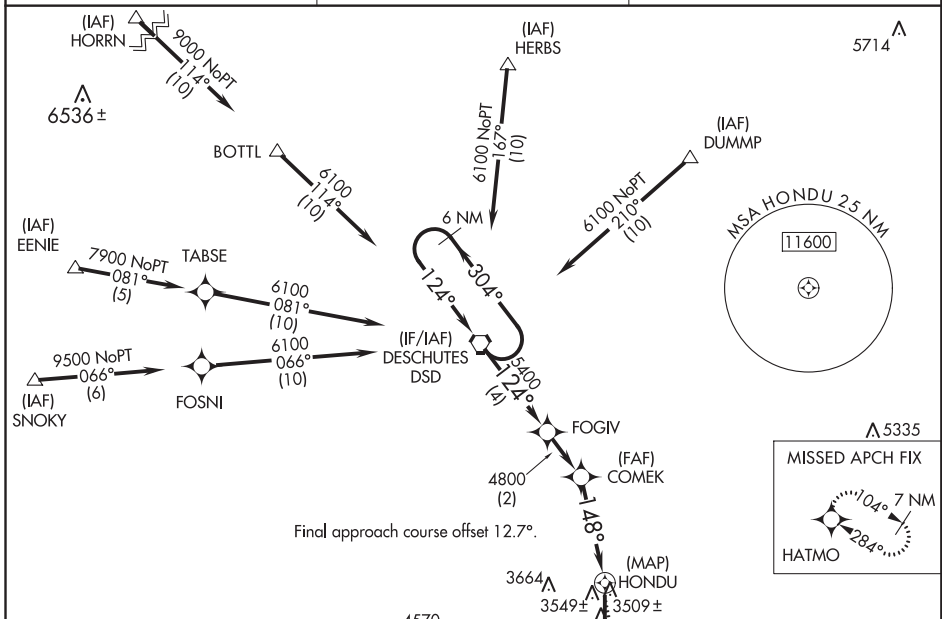
# RNAV (GPS) Y RWY 16

BEND MUNI (BDN)

**⚠** DME/DME RNP -0.3 NA. When local altimeter setting not received, use Redmond altimeter setting and increase all MDA 80 feet, and LP and RNAV Cats C/D visibility ¼ mile, and Circling Cat C visibility ½ mile. Helicopter visibility reduction below 1 SM not authorized.  
Night landing Rwy 16 NA.

**⚠** MISSED APPROACH: Climb to 7600 direct HITUP and on track 066° to WOTLO and on track 016° to HATMO and hold, continue climb-in-hold to 7600.

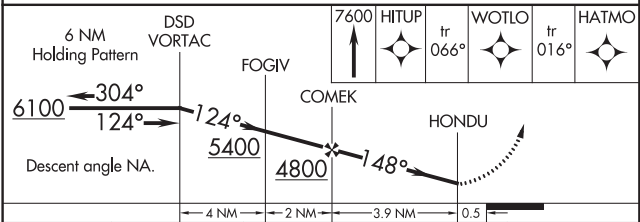
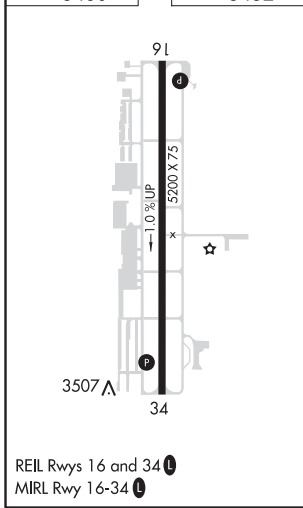
AWOS-3 <b>134.425</b>	SEATTLE CENTER <b>128.15 257.75</b>	UNICOM <b>123.0 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3460	TDZE 3432
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CATEGORY	A	B	C	D
LP MDA	3760-1 328 (300-1)			
LNAV MDA	3800-1 368 (400-1)	3800-1½ 368 (400-1½)		
<b>C</b> CIRCLING	3940-1 480 (500-1)	4000-1 540 (600-1)	4120-1¾ 660 (700-1¾)	4640-3 1180 (1200-3)

BEND, OREGON  
Amdt 2A 28APR16

44°06'N-121°12'W

# RNAV (GPS) Y RWY 16

BEND MUNI (BDN)

WAAS CH <b>81906</b> <b>W16A</b>	APP CRS <b>161°</b>	Rwy Idg <b>5200</b> TDZE <b>3432</b> Apt Elev <b>3460</b>
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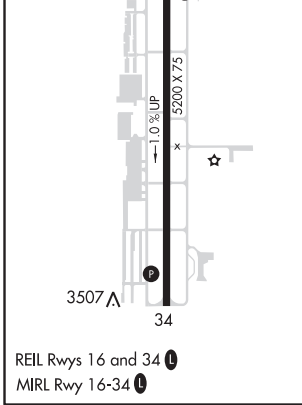
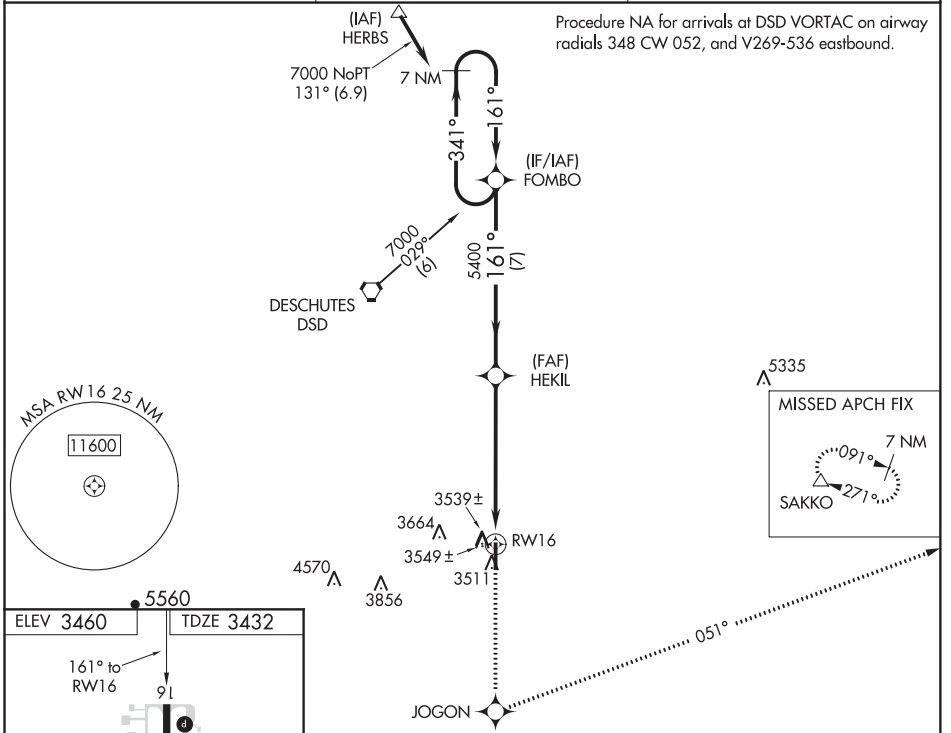
# RNAV (GPS) Z RWY 16

BEND MUNI (BDN)

**NA** When local altimeter setting not received, use Redmond altimeter setting and increase all DA/MDAs by 80 feet, LPV visibilities ¼ mile all Cats, LNAV/VNAV visibilities ¼ mile all Cats, LNAV Cat D visibility ¼ mile, and Circling Cat C visibility ¼ mile. For uncompensated Baro-VNAV systems, procedure NA below -21°C (-5°F) or above 42°C (107°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

**MISSED APPROACH:** Climb to 9500 direct JOGON and left turn via 051° track to SAKKO and hold, continue climb-in-hold to 9500.

AWOS-3 <b>134.425</b>	SEATTLE CENTER <b>128.15 257.75</b>	UNICOM <b>123.0 (CTAF) 0</b>
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7 NM Holding Pattern	FOMBO	9500	JOGON	SAKKO
7000 ← 341°	→ 161°	HEKIL	051° tr	△
GP 3.00° TCH 50	5400	*1.2 NM to RWY 16	RWY 16	
	7 NM	4.8 NM	1.2 NM	
CATEGORY	A	B	C	D
LPV DA	3682-1		250 (300-1)	
LNAV/VNAV DA	3809-1½		377 (400-1½)	
LNAV MDA	3840-1	408 (400-1)	3840-1¼	408 (400-1¼)
CIRCLING	3940-1 480 (500-1)	3980-1 520 (600-1)	4000-1½ 540 (600-1½)	4040-2 580 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BEND, OREGON

AL-5579 (FAA)

16119

VORTAC DSD <b>117.6</b> Chan <b>123</b>	APP CRS <b>136°</b>	Rwy Idg <b>5200</b> TDZE <b>3432</b> Apt Elev <b>3460</b>
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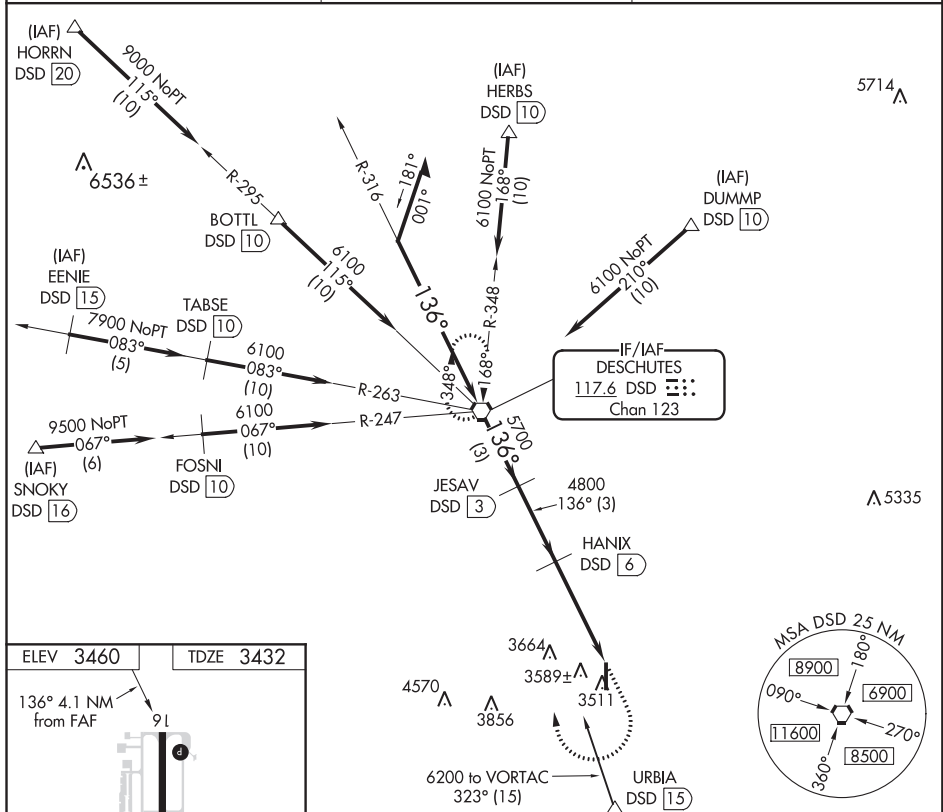
# VOR/DME RWY 16

BEND MUNI (BDN)

When local altimeter setting not received, use Redmond altimeter setting and increase all MDAs 80 feet, increase S-16 Cat C/D visibility 1/8 mile, and Circling Cat C visibility 1/4 mile. Helicopter visibility reduction below 1 SM not authorized. Night Landing: Rwy 16 NA.

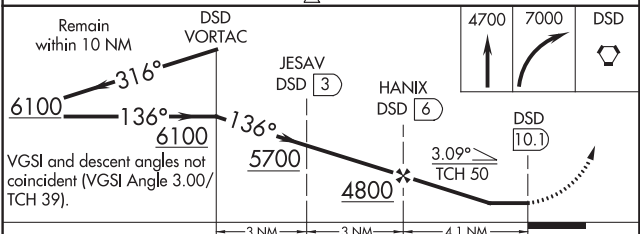
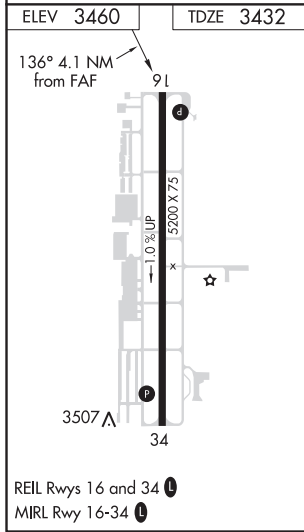
MISSED APPROACH: Climb to 4700 then climbing right turn to 7000 direct DSD VORTAC and hold.

AWOS-3 <b>134.425</b>	SEATTLE CENTER <b>128.15 257.75</b>	UNICOM <b>123.0 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



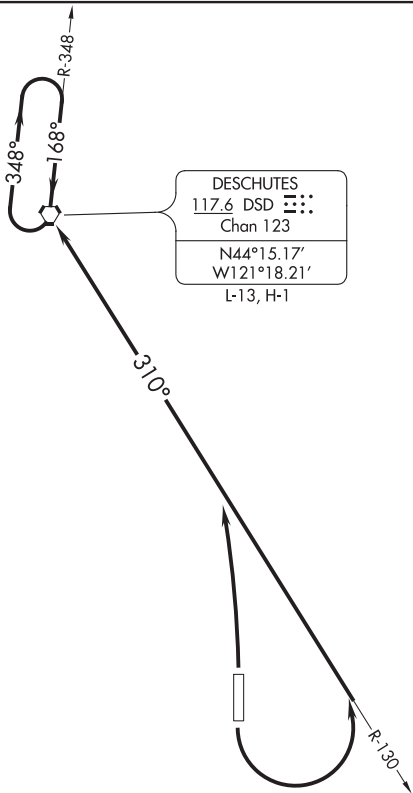
CATEGORY	A	B	C	D
S-16	3840-1	408 (400-1)	3840-1¼	408 (400-1¼)
<b>C</b> CIRCLING	3940-1 480 (500-1)	4000-1 540 (600-1)	4120-1¾ 660 (700-1¾)	4640-3 1180 (1200-3)

BEND, OREGON  
Amdt 10A 28APR16

44°06'N-121°12'W

# BEND MUNI (BDN) VOR/DME RWY 16

SEATTLE CENTER  
128.15 257.75  
CTAF  
123.0



TAKEOFF MINIMUMS

Rwys 16, 34: Standard.

TAKEOFF OBSTACLE NOTES

- Rwy 16: Trees beginning 75' from DER, 412' left of centerline, up to 43' AGL/3572' MSL.  
Trees beginning 432' from DER, 5' right of centerline, up to 37' AGL/3541' MSL.  
Terrain beginning 27' from DER, 197' right of centerline, up to 3469' MSL.  
Road 1' from DER, 414' left of centerline, 17' AGL/3466' MSL.
- Rwy 34: Trees beginning 306' from DER, 178' left of centerline, up to 25' AGL/3436' MSL.  
Road beginning 460' from DER, 414' left of centerline, up to 17' AGL/3425' MSL.  
Bush 94' from DER, 443' left of centerline, 4' AGL/3407' MSL.  
Terrain beginning 1' from DER, 147' left of centerline, up to 3408' MSL.  
Trees beginning 52' from DER, 252' right of centerline, up to 39' AGL/3429' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climbing left turn to intercept DSD R-130 to DSD VORTAC,  
Thence . . . .

TAKEOFF RUNWAY 34: Climbing left turn to intercept the DSD R-130 to DSD VORTAC,  
Thence . . . .

. . . . Climb in DSD VORTAC holding pattern to cross DSD VORTAC at or above the  
MEA/MCA for the route of flight.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BIG PINEY, WYOMING

AL-5790 (FAA)

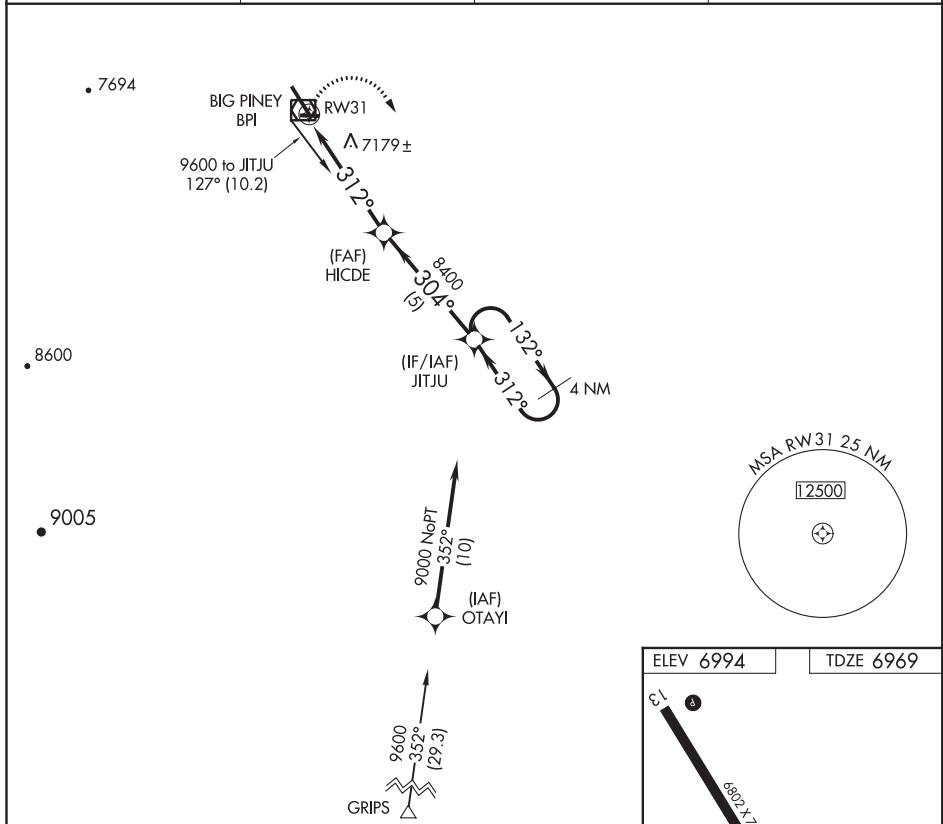
16315

APP CRS <b>312°</b>	Rwy Idg <b>6802</b>
	TDZE <b>6969</b>
	Apt Elev <b>6994</b>

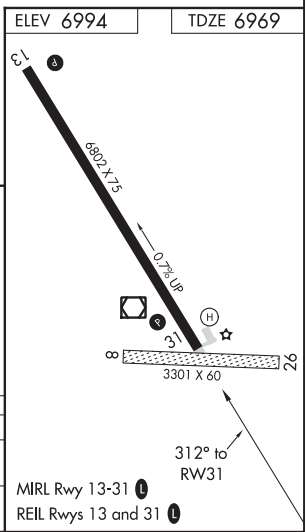
# RNAV (GPS) RWY 31

MILEY MEMORIAL FIELD (BPI)

<b>▽</b> <b>△</b> NA	DME/DME RNP -0.3 NA. Circling Rwy 8, 26 NA.	MISSED APPROACH: Climbing right turn to 9000 direct JITJU and hold.	
ASOS <b>135.225</b>	CASPER RADIO <b>122.3</b>	UNICOM <b>122.8</b> (CTAF)	<b>122.7</b> <b>0</b>



9000	JITJU	VGSI and descent angles not coincident. (VGSI Angle 3.00/TCH 33)		4 NM Holding Pattern
		HICDE	JITJU	9000
		8400	304°	132°
5 NM		5 NM	312°	
CATEGORY	A	B	C	D
RNAV MDA	7440-1	471 (500-1)	7440-1½ 471 (500-1½)	7440-1½ 471 (500-1½)
CIRCLING	7460-1 466 (500-1)	7560-1 566 (600-1)	7560-1½ 566 (600-1½)	7560-2 566 (600-2)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BIG PINEY, WYOMING  
Orig-C 10NOV16

42°35'N-110°07'W

# RNAV (GPS) RWY 31

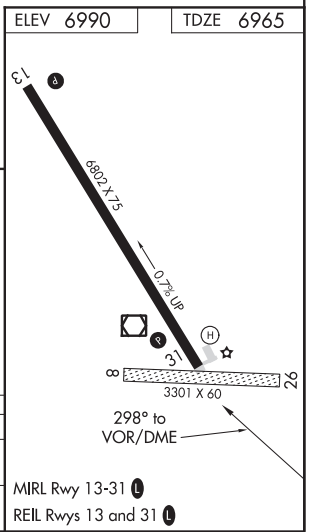
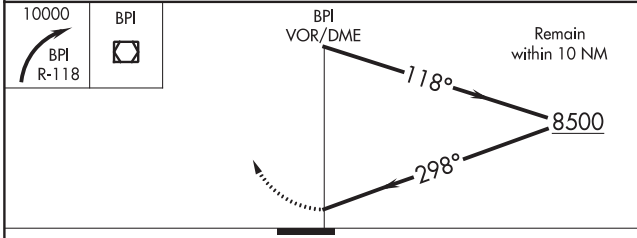
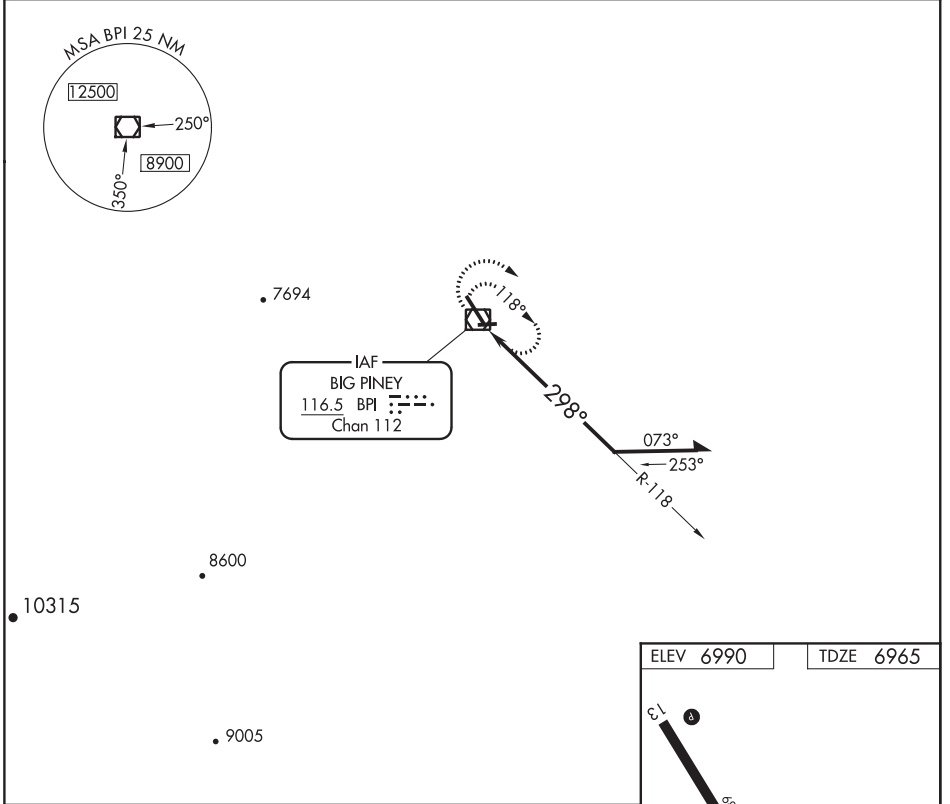
VOR/DME BPI <b>116.5</b> Chan <b>112</b>	APP CRS <b>298°</b>	Rwy Idg TDZE Apt Elev	<b>6802</b> <b>6965</b> <b>6990</b>
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# VOR RWY 31

MILEY MEMORIAL FIELD (BPI)

**⚠** MISSED APPROACH: Climbing right turn to 10000 on BPI R-118, then return to BPI VOR/DME and hold.

ASOS <b>135.225</b>	CASPER RADIO <b>122.3</b>	UNICOM <b>122.8 (CTAF)</b>	<b>122.7</b> <b>0</b>
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CATEGORY	A	B	C	D
S-31	7680-1	715 (700-1)	7680-2 715 (700-2)	7680-2¼ 715 (700-2¼)
CIRCLING	7680-1	690 (700-1)	7680-2 690 (700-2)	7680-2¼ 690 (700-2¼)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC I-BIL <b>110.3</b>	APP CRS <b>098°</b>	Rwy Idg <b>10518</b> TDZE <b>3585</b> Apt Elev <b>3652</b>
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# ILS or LOC RWY 10L

BILLINGS LOGAN INTL (BIL)

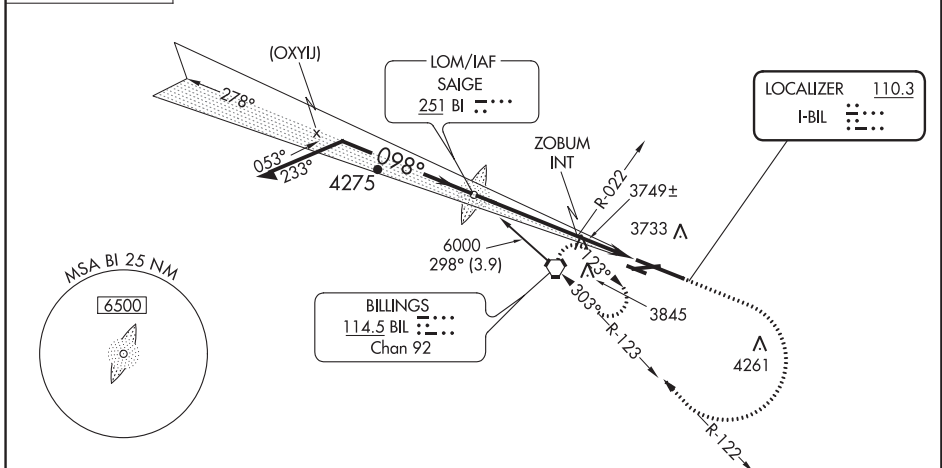
<b>⚠</b> For inoperative MALSR, increase S-LOC R10L Cat C/D visibility to 2½ mile. # RVR 1800 authorized with the use of FD or AP or HUD to DA.	MALSR 	MISSED APPROACH: Climb to 4500 then climbing right turn to 6000 on BIL VORTAC R-122 to BIL VORTAC and hold.
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ATIS <b>126.3</b>	BILLINGS APP CON <b>120.5 284.6</b>	BILLINGS TOWER <b>127.2 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>
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ALTERNATE MISSED APPROACH FIX

SAIGE  
251 BI

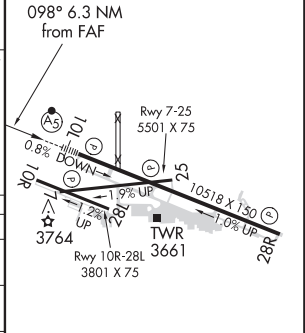
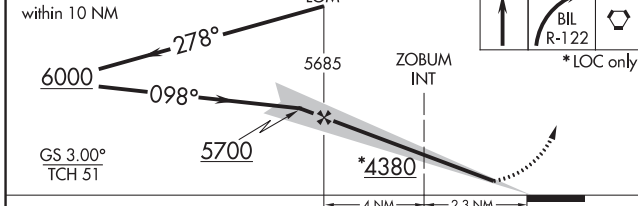
## RADAR or ADF REQUIRED



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

Remain within 10 NM	BI LOM	4500	6000	BIL	ELEV 3652	<b>D</b>	TDZE 3585
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CATEGORY	A	B	C	D
S-ILS 10L #		3785/24	200 (200-½)	
S-LOC 10L	4380/24 795 (800-½)	4380/40 795 (800-¾)	4380-1¾	795 (800-1¾)
CIRCLING	4380-1 728 (800-1)	4380-1¼ 728 (800-1¼)	4380-2½	728 (800-2½)
ZOBUM FIX MINIMUMS (DUAL VOR RECEIVERS REQUIRED)				
S-LOC 10L	4000/24	415 (400-½)	4000/40	415 (400-¾)
CIRCLING	4160-1 508 (600-1)	4180-1 528 (600-1)	4180-1½ 528 (600-½)	4220-2 568 (700-2)

REIL Rwsy 25 and 28R HIRL Rwy 10L-28R MIRL Rwsy 7-25 and 10R-28L					
FAF to MAP 6.3 NM					
Knots	60	90	120	150	180
Min:Sec	6:18	4:12	3:09	2:31	2:06



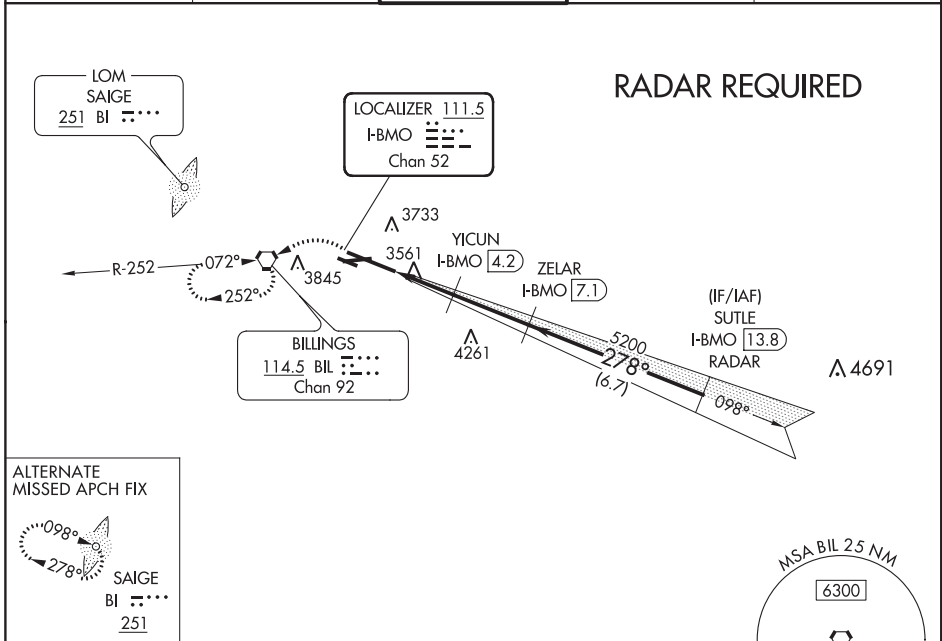
LOC/DME I-BMO <b>111.5</b> Chan <b>52</b>	APP CRS <b>278°</b>	Rwy Idg TDZE Apt Elev <b>10518</b> <b>3517</b> <b>3652</b>
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# ILS or LOC/DME RWY 28R

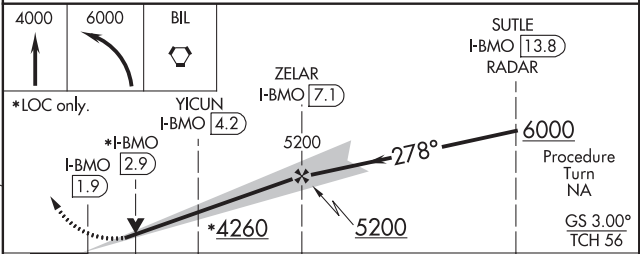
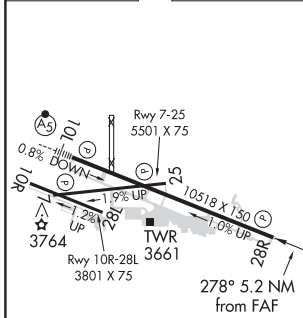
BILLINGS LOGAN INTL (BIL)

**▼** Helicopter visibility reduction below 3/4 SM NA.  
**▲** MISSED APPROACH: Climb to 4000 then climbing left turn to 6000 direct BIL VORTAC and hold, continue climb-in-hold to 6000.

ATIS <b>126.3</b>	BILLINGS APP CON <b>120.5 284.6</b>	BILLINGS TOWER <b>127.2 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>
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ELEV 3652	<b>D</b>	TDZE 3517
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	0.9 NM	1.4 NM	2.9 NM	6.7 NM	
CATEGORY	A	B	C	D	
S-ILS 28R	3767-3/4 250 (200-3/4)				
S-LOC 28R	3840-1 323 (200-1)				
<b>C</b> CIRCLING	4160-1 508 (600-1)	4180-1 528 (600-1)	4180-1 1/2 528 (600-1 1/2)	4580-3 928 (1000-3)	

HIRL Rwy 10L-28R  
 REIL Rwy 25 and 28R  
 MIRL Rwy 7-25 and 10R-28L

# ILS or LOC/DME RWY 28R

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BILLINGS, MONTANA

AL-48 (FAA)

15120

APP CRS <b>278°</b>	Rwy Idg <b>10518</b>
	TDZE <b>3517</b>
	Apt Elev <b>3652</b>

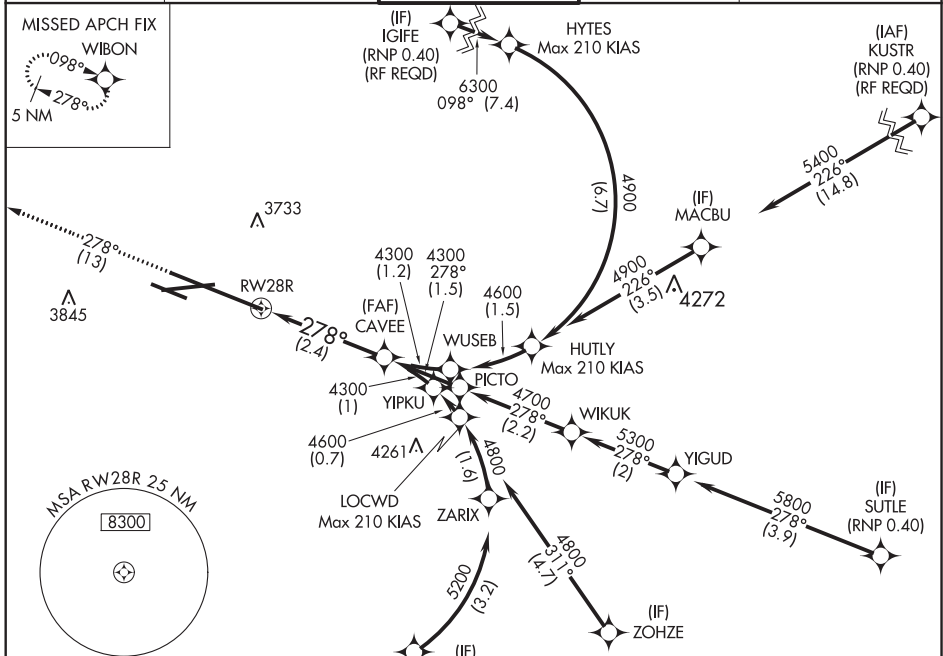
# RNAV (RNP) Z RWY 28R

BILLINGS LOGAN INTL (BIL)

**GPS required.** For uncompensated Baro-VNAV systems, procedure NA below -24°C (11°F) or above 49°C (121°F).

**MISSED APPROACH:** Climb to 5900 on track 278° to WIBON and hold.

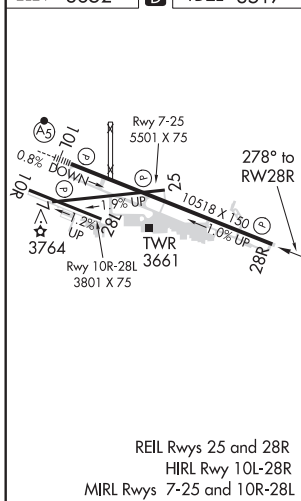
ATIS <b>126.3</b>	BILLINGS APP CON <b>120.5 284.6</b>	BILLINGS TOWER <b>127.2 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV <b>3652</b>	<b>D</b>	TDZE <b>3517</b>
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5900	tr 278°	WIBON	See planview for multiple IF locations.
RWY 28R		CAVEE	
		4300	GP 3.00° TCH 59

CATEGORY	A	B	C	D
RNP 0.11 DA		3789-7/8	272 (200-7/8)	
RNP 0.30 DA		3904-1/4	387 (300-1/4)	

**AUTHORIZATION REQUIRED**

BILLINGS, MONTANA  
Orig 30APR15

BILLINGS LOGAN INTL (BIL)  
45°48'N-108°33'W  
**RNAV (RNP) Z RWY 28R**

WAAS CH <b>87127</b> <b>W07A</b>	APP CRS <b>070°</b>	Rwy Idg TDZE Apt Elev	<b>5501</b> <b>3636</b> <b>3652</b>
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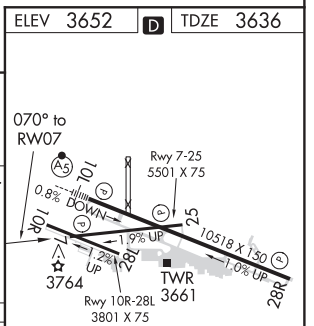
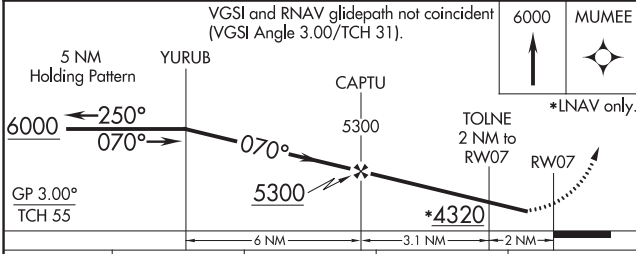
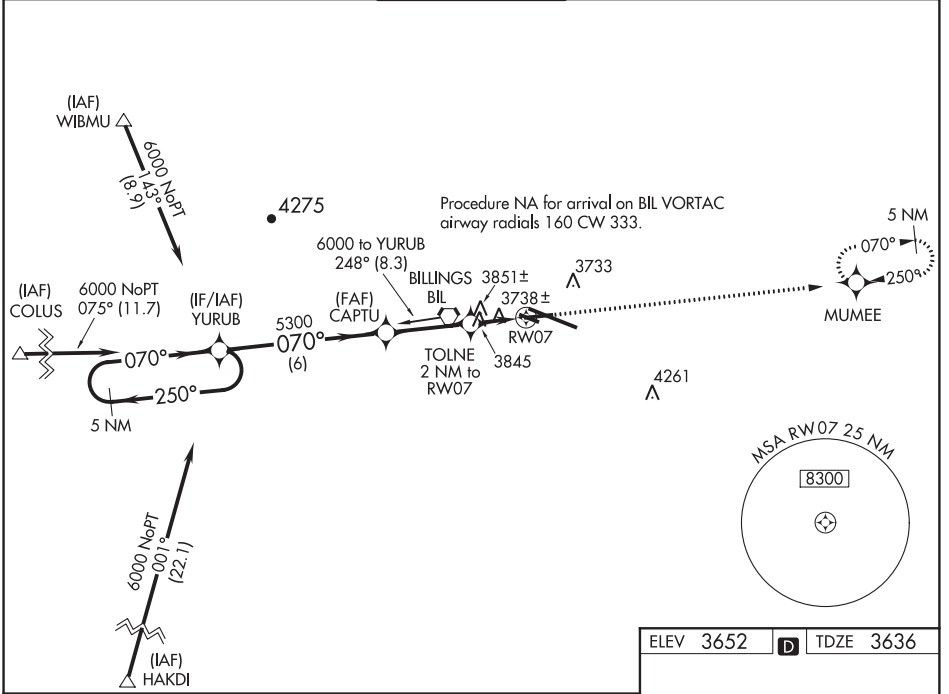
# RNAV (GPS) RWY 7

BILLINGS LOGAN INTL (BIL)

▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-16°F) or above 21°C (69°F). When VGSI inop, Straight-in/Circling Rwy 7 procedure NA at night. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 6000 direct MUMEE and hold.

ATIS <b>126.3</b>	BILLINGS APP CON <b>120.5 284.6</b>	<b>BILLINGS TOWER</b> <b>127.2 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>
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CATEGORY	A	B	C	D
LPV DA	3886-1		250 (300-1)	
LNAV/VNAV DA	4015-1¼		379 (400-1¼)	
LNAV MDA	4120-1 484 (500-1)		4120-1⅜ 484 (500-1⅜)	
CIRCLING	4160-1 508 (600-1)	4180-1 528 (600-1)	4180-1½ 528 (600-1½)	4220-2 568 (600-2)

ELEV 3652	TDZE 3636
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REIL Rws 25 and 28R  
HIRL Rwy 10L-28R  
MIRL Rws 7-25 and 10R-28L

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BILLINGS, MONTANA

AL-48 (FAA)

16119

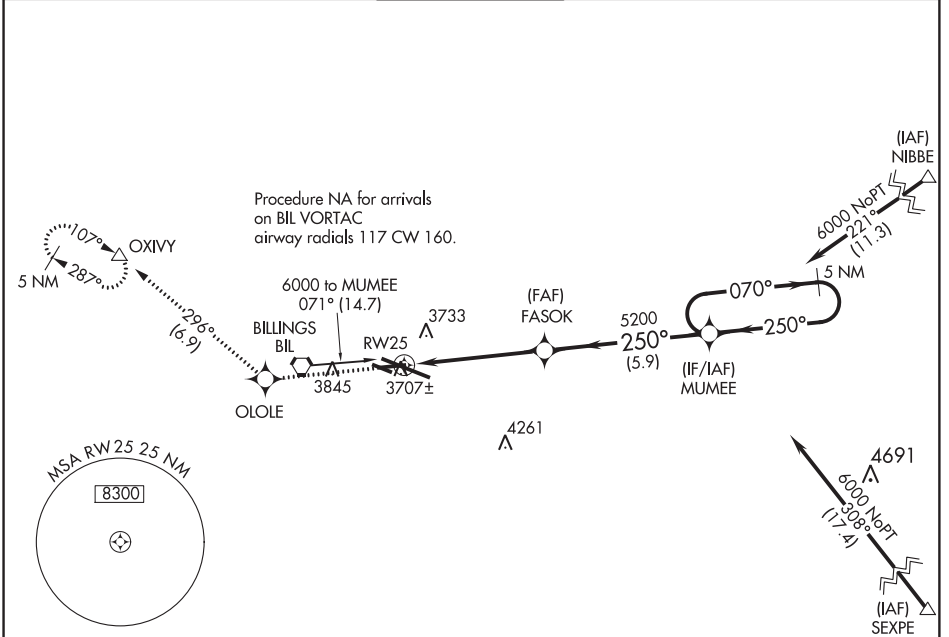
WAAS CH <b>78028</b> <b>W25A</b>	APP CRS <b>250°</b>	Rwy Idg TDZE Apt Elev	<b>5501</b> <b>3586</b> <b>3652</b>
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# RNAV (GPS) RWY 25

BILLINGS LOGAN INTL (BIL)

**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-16°F) or above 21°C (69°F). DME/DME RNP-0.3 NA. MISSED APPROACH: Climb to 6000 direct OLOLE and on track 296° to OXIVY and hold.

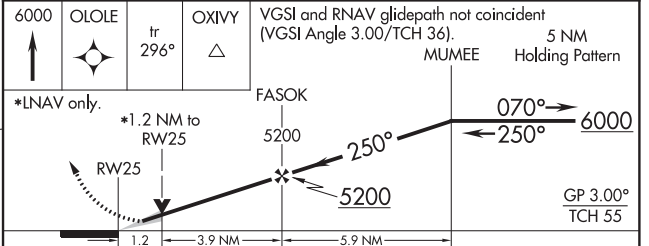
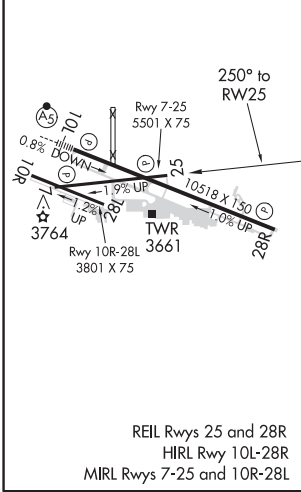
ATIS <b>126.3</b>	BILLINGS APP CON <b>120.5 284.6</b>	<b>BILLINGS TOWER</b> <b>127.2 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3652	<b>D</b>	TDZE 3586
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CATEGORY	A	B	C	D
LPV DA		3836- <sup>3</sup> / <sub>4</sub>	250 (200- <sup>3</sup> / <sub>4</sub> )	
LNAV/VNAV DA		3920-1 <sup>1</sup> / <sub>8</sub>	334 (300-1 <sup>1</sup> / <sub>8</sub> )	
LNAV MDA	3960-1	374 (400-1)	3960-1 <sup>1</sup> / <sub>4</sub>	374 (400-1 <sup>1</sup> / <sub>4</sub> )
CIRCLING	4160-1 508 (600-1)	4180-1 528 (600-1)	4180-1 <sup>1</sup> / <sub>2</sub> 528 (600-1 <sup>1</sup> / <sub>2</sub> )	4220-2 568 (600-2)

BILLINGS, MONTANA  
Amdt 1A 28APR16

45°48'N-108°33'W

# BILLINGS LOGAN INTL (BIL)


## RNAV (GPS) RWY 25

WAAS CH <b>50122</b> <b>W10A</b>	APP CRS <b>098°</b>	Rwy Idg TDZE <b>3585</b> Apt Elev <b>3652</b>	<b>10518</b>
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# RNAV (GPS) Y RWY 10L

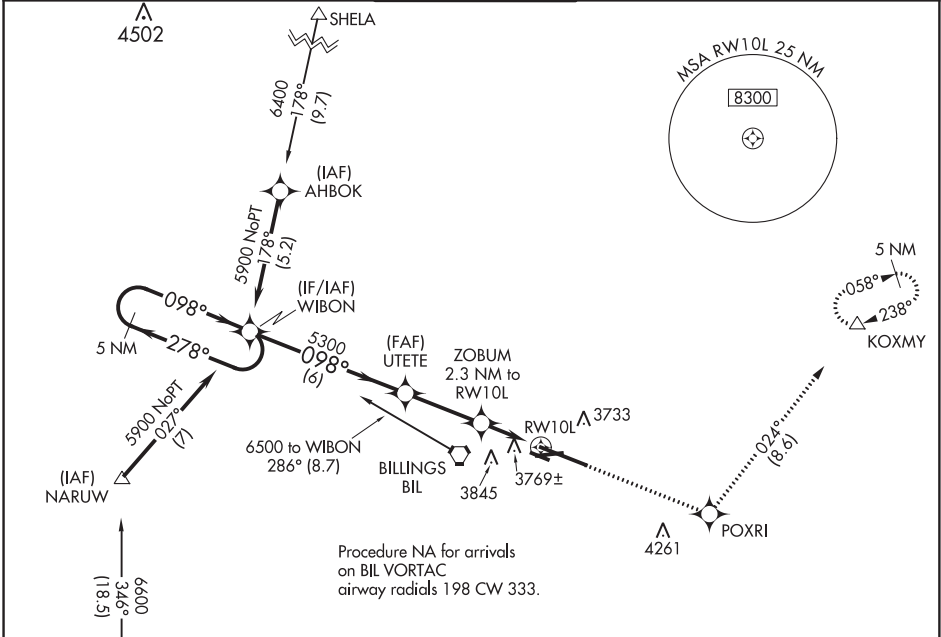
BILLINGS LOGAN INTL (BIL)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 51°C (125°F). DME/DME RNP-0.3 NA.

**MALSRL** 

**MISSED APPROACH:** Climb to 6000 direct POXRI and on track 024° to KOXMY and hold.

ATIS <b>126.3</b>	BILLINGS APP CON <b>120.5 284.6</b>	BILLINGS TOWER <b>127.2 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>
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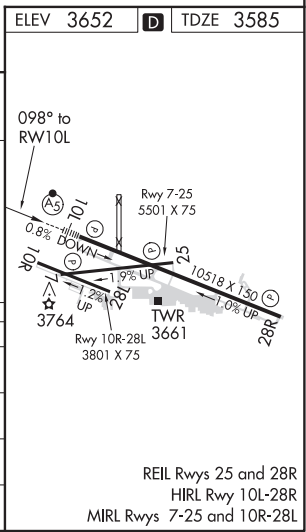


Procedure NA for arrivals on BIL VORTAC airway radials 198 CW 333.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

5 NM Holding Pattern		WIBON		6000		POXRI		tr 024°		KOXMY	
5900 ← 278°		→ 098°		5300		*4360		*1.3 NM to RWY 10L		*LNAV only.	
GP 3.00°		TCH 51		6 NM		2.9 NM		1.0 NM		1.3 NM	
CATEGORY	A	B	C	D							
LPV DA	3785/24		200 (200-½)								
LNAV/VNAV DA	4092-1¼		507 (500-1¼)								
LNAV MDA	4040/24		455 (400-½)		4040/45		455 (400-¾)				
CIRCLING	4160-1		4180-1		4180-1½		4580-3				
	508 (600-1)		528 (600-1)		528 (600-½)		928 (1000-3)				



REIL Rwy 25 and 28R  
HIRL Rwy 10L-28R  
MIRL Rwy 7-25 and 10R-28L

BILLINGS, MONTANA

AL-48 (FAA)

15120

WAAS CH <b>56222</b> W28A	APP CRS <b>278°</b>	Rwy Idg <b>10518</b> TDZE <b>3517</b> Apt Elev <b>3652</b>
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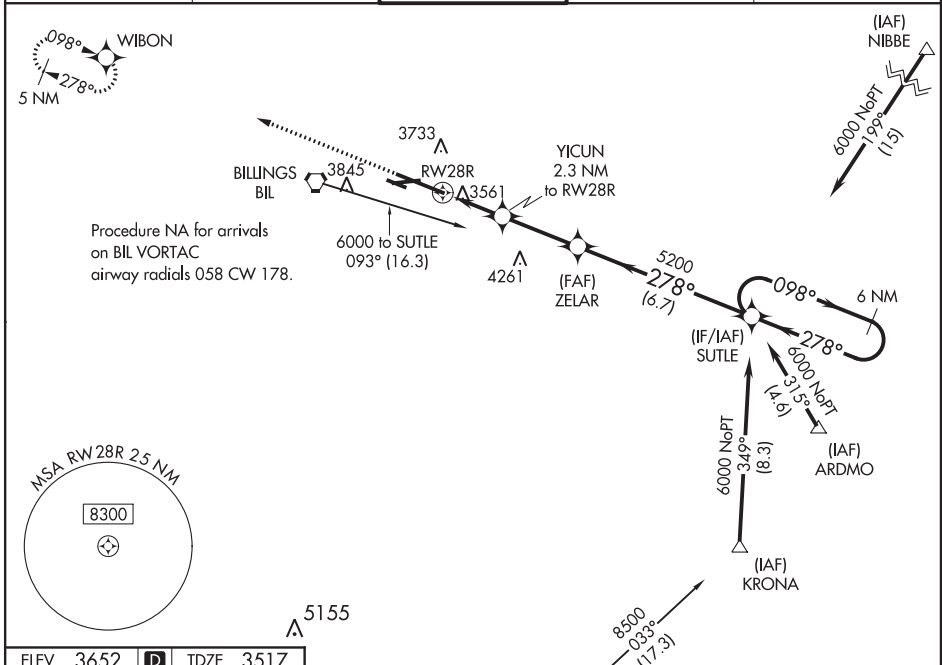
# RNAV (GPS) Y RWY 28R

BILLINGS LOGAN INTL (BIL)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -24°C (-11°F) or above 49°C (121°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climb to 5900 direct WIBON and hold.

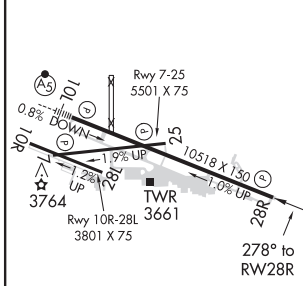
ATIS <b>126.3</b>	BILLINGS APP CON <b>120.5 284.6</b>	BILLINGS TOWER <b>127.2 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>
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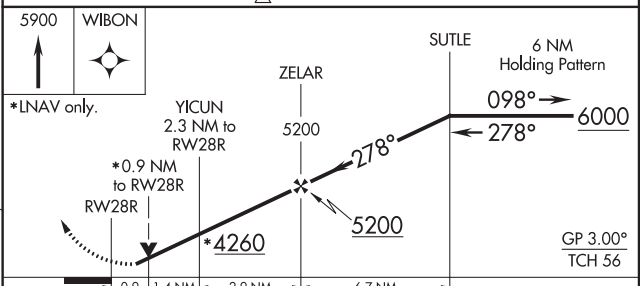
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV <b>3652</b>	<b>D</b>	TDZE <b>3517</b>
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HIRL Rwy 10L-28R	REIL Rwy 25 and 28R	MIRL Rwy 7-25 and 10R-28L
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CATEGORY	A	B	C	D
LPV DA		3767-3/4	250 (200-3/4)	
LNAV/VNAV DA		3786-7/8	269 (200-7/8)	
LNAV MDA		3820-1	303 (200-1)	
<b>C</b> CIRCLING	4160-1 508 (600-1)	4180-1 528 (600-1)	4180-1 1/2 528 (600-1 1/2)	4580-3 928 (1000-3)

BILLINGS, MONTANA  
Amdt 3 30APR15

45°48'N-108°33'W

BILLINGS LOGAN INTL (BIL)

# RNAV (GPS) Y RWY 28R

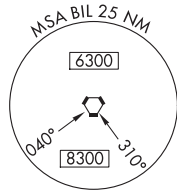
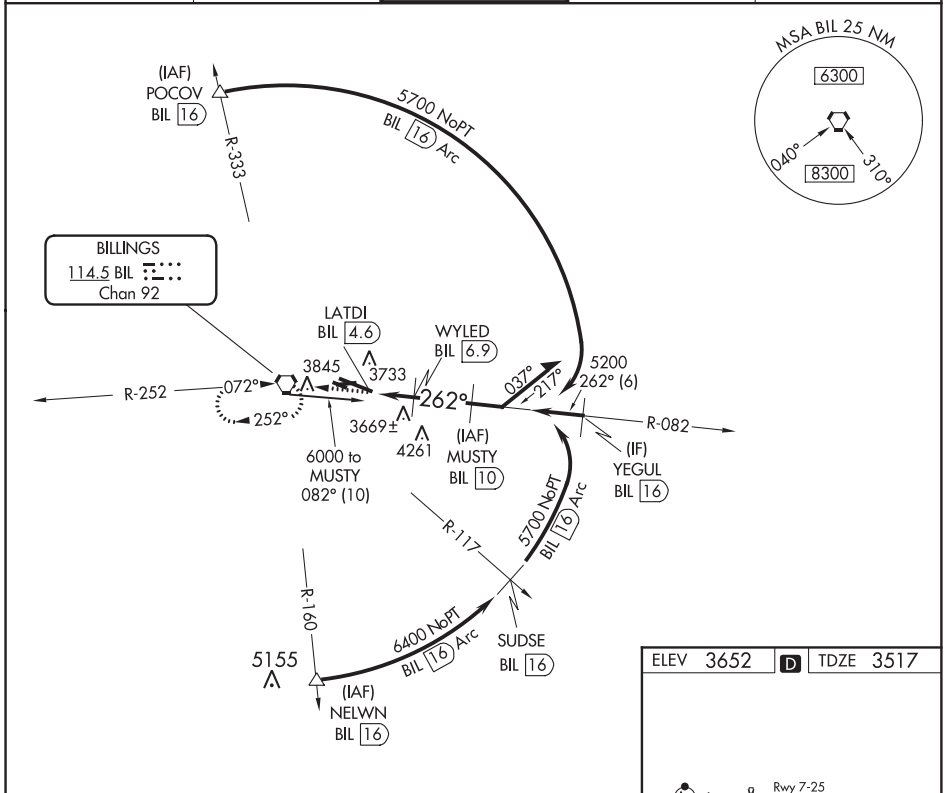
VORTAC BIL <b>114.5</b> Chan 92	APP CRS <b>262°</b>	Rwy Idg <b>10518</b> TDZE <b>3517</b> Apt Elev <b>3652</b>
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# VOR/DME RWY 28R

BILLINGS LOGAN INTL (BIL)

Helicopter visibility reduction below 3/4 SM NA. MISSED APPROACH: Climb to 6000 direct BIL VORTAC and hold, continue climb-in-hold to 6000.

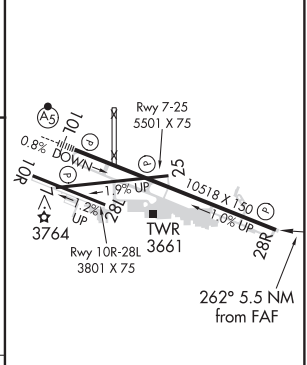
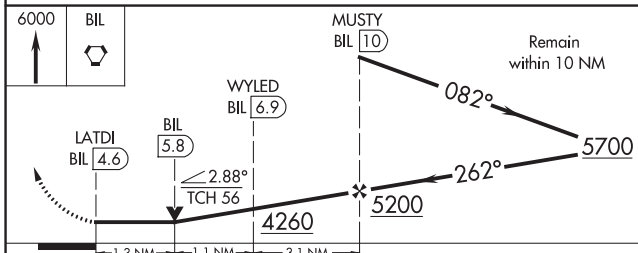
ATIS <b>126.3</b>	BILLINGS APP CON <b>120.5 284.6</b>	BILLINGS TOWER <b>127.2 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3652	D	TDZE 3517
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CATEGORY	A	B	C	D
S-28R	3940-1	423 (300-1)	3940-1 3/8	423 (300-1 3/8)
CIRCLING	4160-1 508 (600-1)	4180-1 528 (600-1)	4180-1 1/2 528 (600-1 1/2)	4220-2 568 (600-2)

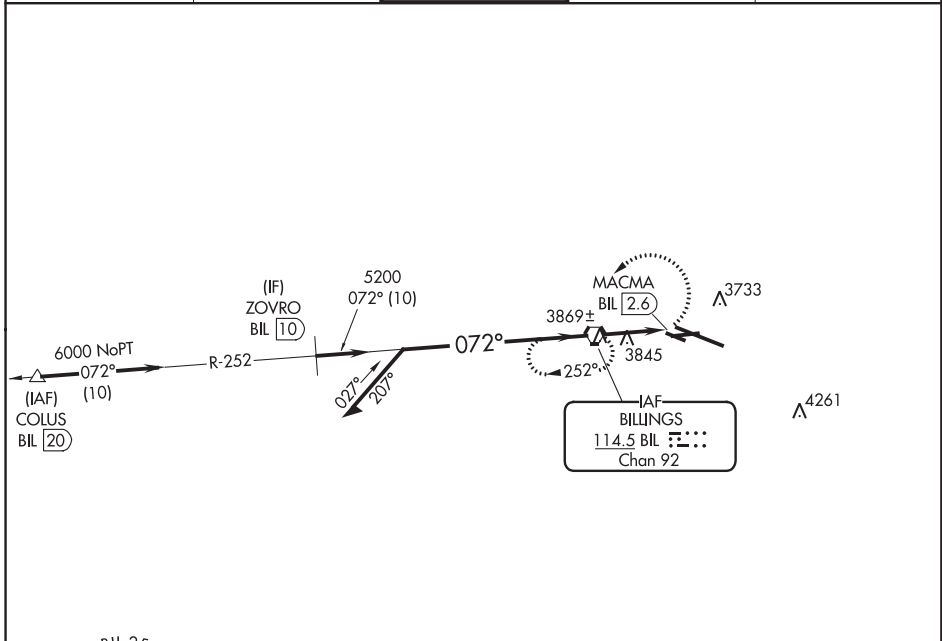
REIL Rwy 25 and 28R  
HIRL Rwy 10L-28R  
MIRL Rwy 7-25 and 10R-28L

VORTAC BIL <b>114.5</b> Chan <b>92</b>	APP CRS <b>072°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>3652</b>
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**VOR-A**  
BILLINGS LOGAN INTL (BIL)

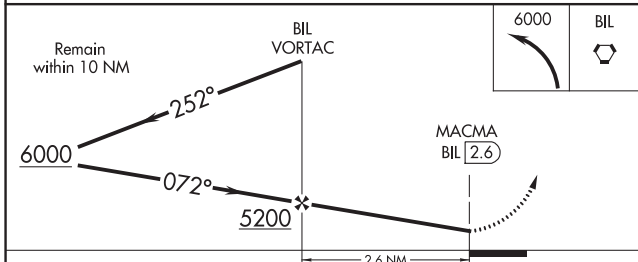
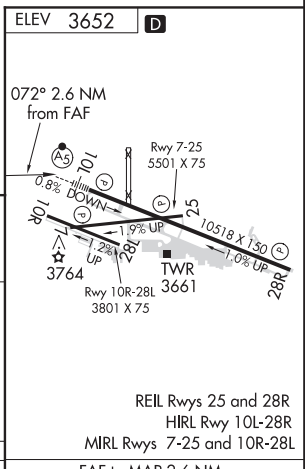
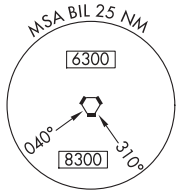
MISSED APPROACH: Climbing left turn to 6000 direct BIL VORTAC and hold, continue climb-in-hold to 6000.

ATIS <b>126.3</b>	BILLINGS APP CON <b>120.5 284.6</b>	BILLINGS TOWER <b>127.2 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D	FAF to MAP 2.6 NM					
CIRCLING	4180-1	528 (600-1)	4180-1½ 528 (600-1½)	4240-2 588 (600-2)	Knots	60	90	120	150	180
					Min:Sec	2:36	1:44	1:18	1:02	0:52

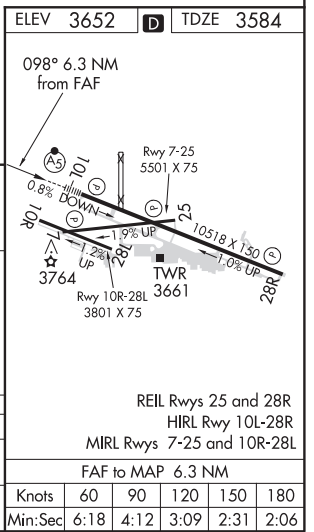
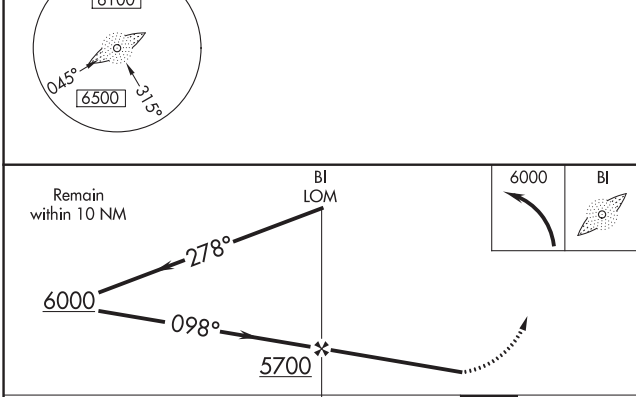
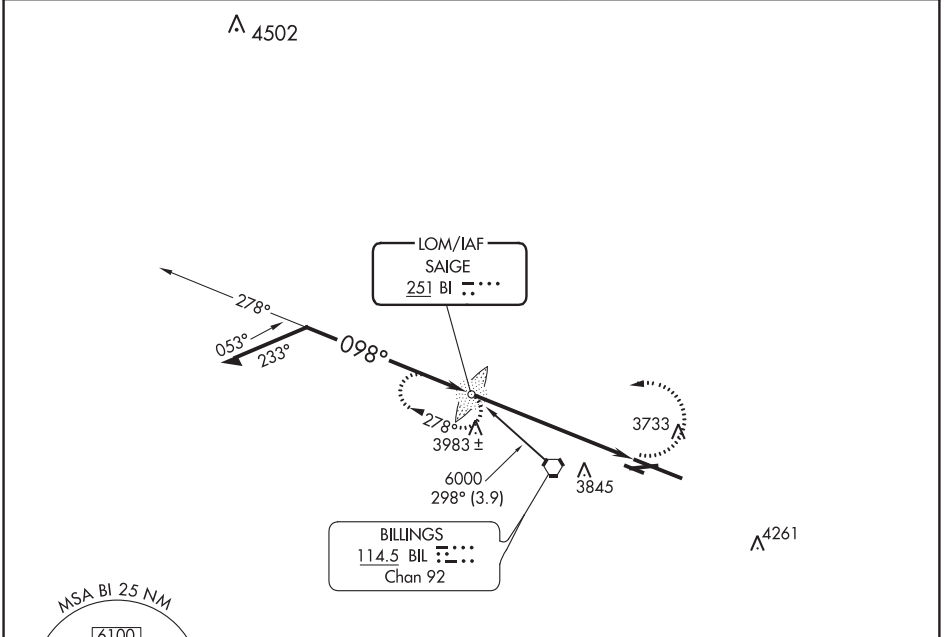


LOM BI <b>251</b>	APP CRS <b>098°</b>	Rwy Idg <b>10518</b> TDZE <b>3584</b> Apt Elev <b>3652</b>
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**NDB RWY 10L**  
BILLINGS LOGAN INTL (BIL)

	MALSR 	MISSED APPROACH: Climbing left turn to 6000 direct Saige LOM and hold.
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ATIS <b>126.3</b>	BILLINGS APP CON <b>120.5 284.6</b>	<b>BILLINGS TOWER</b> <b>127.2 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>
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CATEGORY	A	B	C	D
S-10L	4300/40 716 (700-¾)		4300-1½ 716 (700-1½)	4300-2 716 (700-2)
CIRCLING	4300-1 648 (700-1)		4300-2 648 (700-2)	4300-2¼ 648 (700-2¼)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

AL-48 (FAA) BILLINGS LOGAN INTL (BIL)  
BILLINGS, MONTANA

NW-1, 10 NOV 2016 to 05 JAN 2017

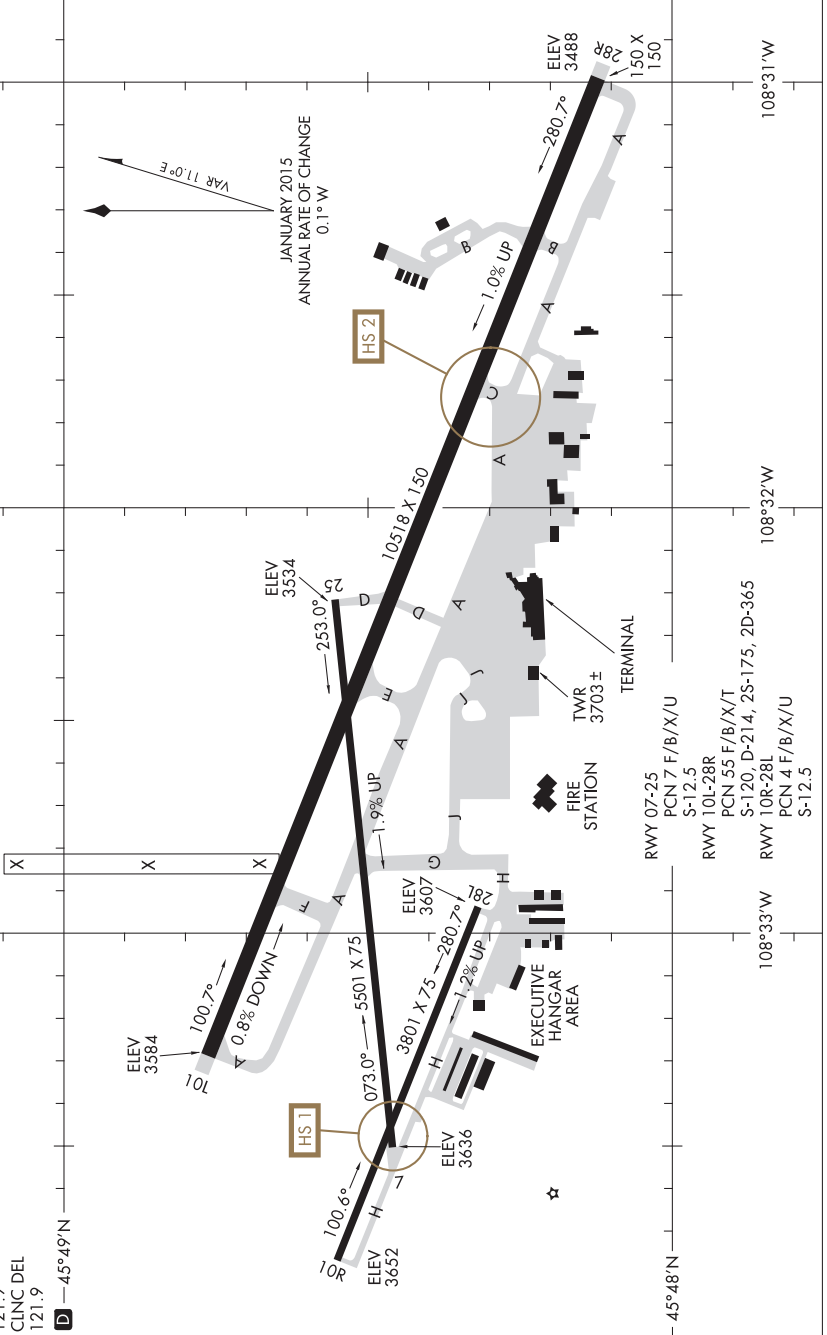
NW-1, 10 NOV 2016 to 05 JAN 2017

FIELD  
ELEV  
3652

ATIS 126.3  
 BILLINGS TOWER 127.2, 257.8  
 GND CON 121.9  
 CLNC DEL 121.9

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
 READBCK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

VAR 11.0° E  
 JANUARY 2015  
 ANNUAL RATE OF CHANGE  
 0.1° W



# AIRPORT DIAGRAM

16203

BILLINGS, MONTANA  
 BILLINGS LOGAN INTL (BIL)

RWY 07-25 PCN 7 F/B/X/U  
 S-12.5  
 RWY 10L-28R PCN 55 F/B/X/T  
 S-120, D-214, 2S-175, 2D-365  
 RWY 10R-28L PCN 4 F/B/X/U  
 S-12.5

D 45°49'N

45°48'N

108°33'W

108°32'W

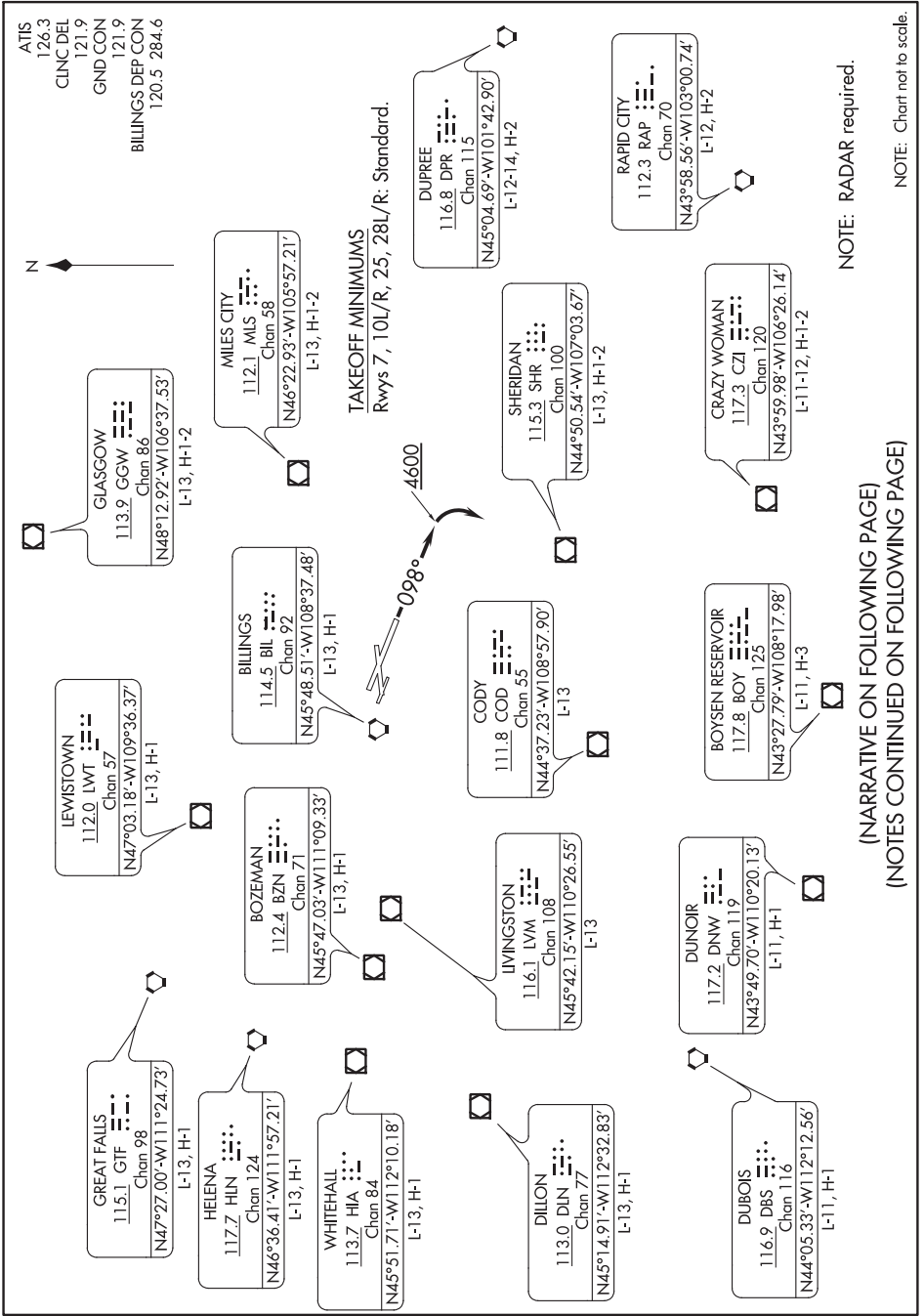
108°31'W

# BILLINGS FOUR DEPARTURE

SL-48 (FAA)

BILLINGS LOGAN INTL (BIL)  
BILLINGS, MONTANA

NW-1, 10 NOV 2016 to 05 JAN 2017



NOTE: RADAR required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

# BILLINGS FOUR DEPARTURE

BILLINGS, MONTANA  
BILLINGS LOGAN INTL (BIL)

NW-1, 10 NOV 2016 to 05 JAN 2017



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 7, 10R, 25, 28L/R: Climb on assigned heading for vectors to assigned fix/route, thence. . . .

TAKEOFF RUNWAY 10L: Climb heading 098° to 4600 before turning right, thence. . . .

. . . . maintain 15000 or assigned lower altitude. Expect clearance to filed altitude/ flight level five minutes after departure.

LOST COMMUNICATIONS: If no transmissions are received for 1 minute after departure, fly last assigned heading until reaching 7000. Proceed direct BIL VORTAC, then via last routing cleared and climb to filed altitude.

TAKEOFF OBSTACLE NOTES

Rwy 7: Ground beginning 6' from DER, 55' right of centerline, up to 3542' MSL. Sign 43' from DER, 470' right of centerline, 10' AGL/3544' MSL.

Rwy 10L: Ground beginning 20' from DER, 443' right of centerline, up to 3505' MSL. Vehicles on road beginning 622' from DER, 426' right of centerline, 15' AGL/3524' MSL. Fence 464' from DER, 534' right of centerline, 11' AGL/3511' MSL.

Rwy 10R: Numerous vertical structures beginning 164' from DER, 363' right of centerline, up to 14' AGL/3620' MSL. Antenna beginning 170' from DER, 429' right of centerline, 39' AGL/3646' MSL. Ground 18' from DER, 15' right of centerline, 3608' MSL. Buildings beginning 183' from DER, 492' right of centerline, up to 37' AGL/3644' MSL. Antenna 1339' from DER, 266' right of centerline, 34' AGL/3641' MSL. Antenna 2397' from DER, 332' left of centerline, 132' AGL/3707' MSL. Building 2399' from DER, 325' left of centerline, 88' AGL/3695' MSL.

Rwy 25: Numerous poles, vertical structures, and fence beginning 187' from centerline, 184' left of centerline, up to 37' AGL/3673' MSL. Ground beginning 13' from DER, 339' left of centerline, up to 3664' MSL. Ground beginning 50' from DER, 363' right of centerline, up to 3642' MSL.

Rwy 28L: Ground beginning 22' from DER, 367' left of centerline, up to 3660' MSL. Building 3519' from DER, 715' left of centerline, 91' AGL/3743' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy ldg	N/A
189°	TDZE	N/A
	Apt Elev	4488

# RNAV (GPS)-A

MCCARLEY FIELD (U02)

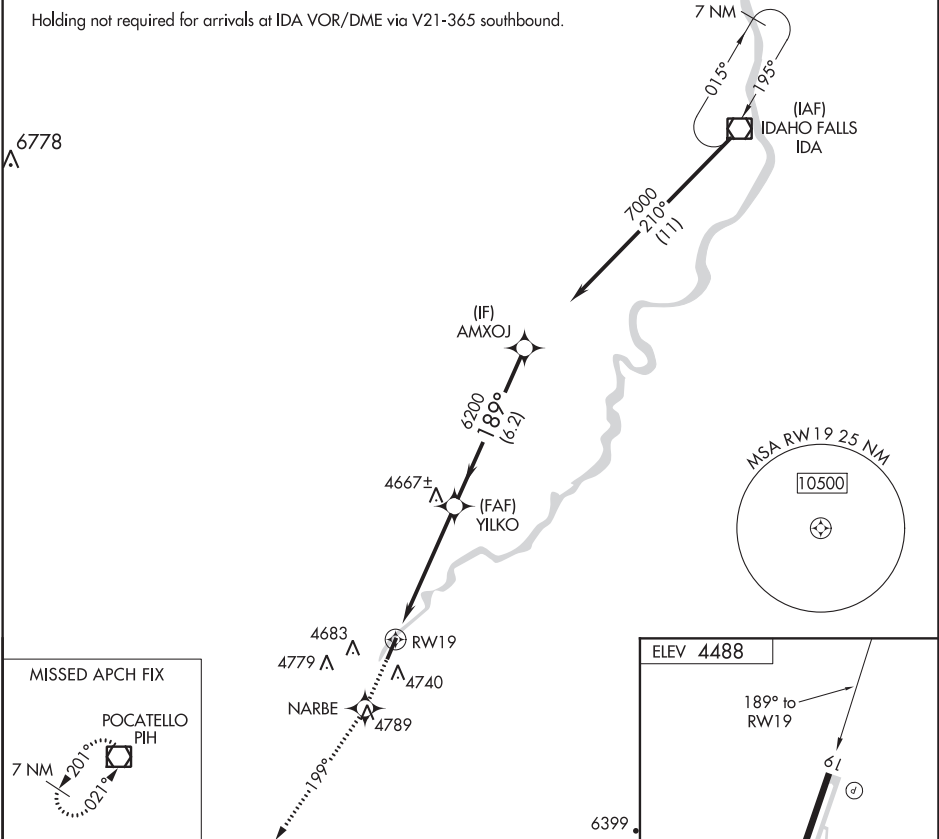
Use Pocatello Rgnl altimeter setting, when not received use Idaho Falls Rgnl altimeter setting. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 8500 direct NARBE and via 199° track to PIH VOR/DME and hold.

SALT LAKE CITY CENTER  
128.35 239.25

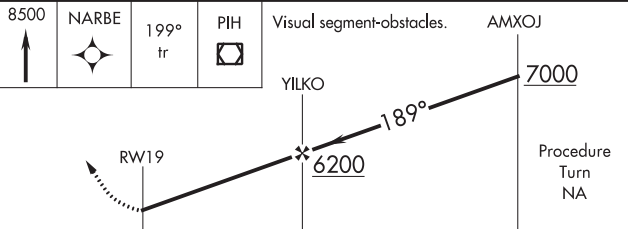
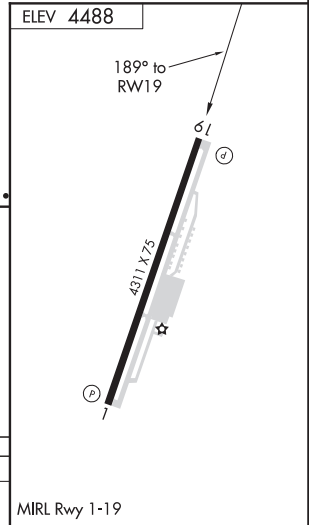
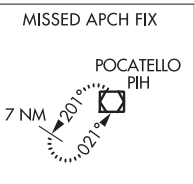
UNICOM  
122.8 (CTAF)

Holding not required for arrivals at IDA VOR/DME via V21-365 southbound.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	5340-1 852 (900-1)	5340-1¼ 852 (900-1¼)	5340-2½ 852 (900-2½)	5380-3 892 (900-3)

MIRL Rwy 1-19

BLACKFOOT, IDAHO

AL-9351 (FAA)

16035

APP CRS <b>009°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>4488</b>
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# RNAV (GPS)-B

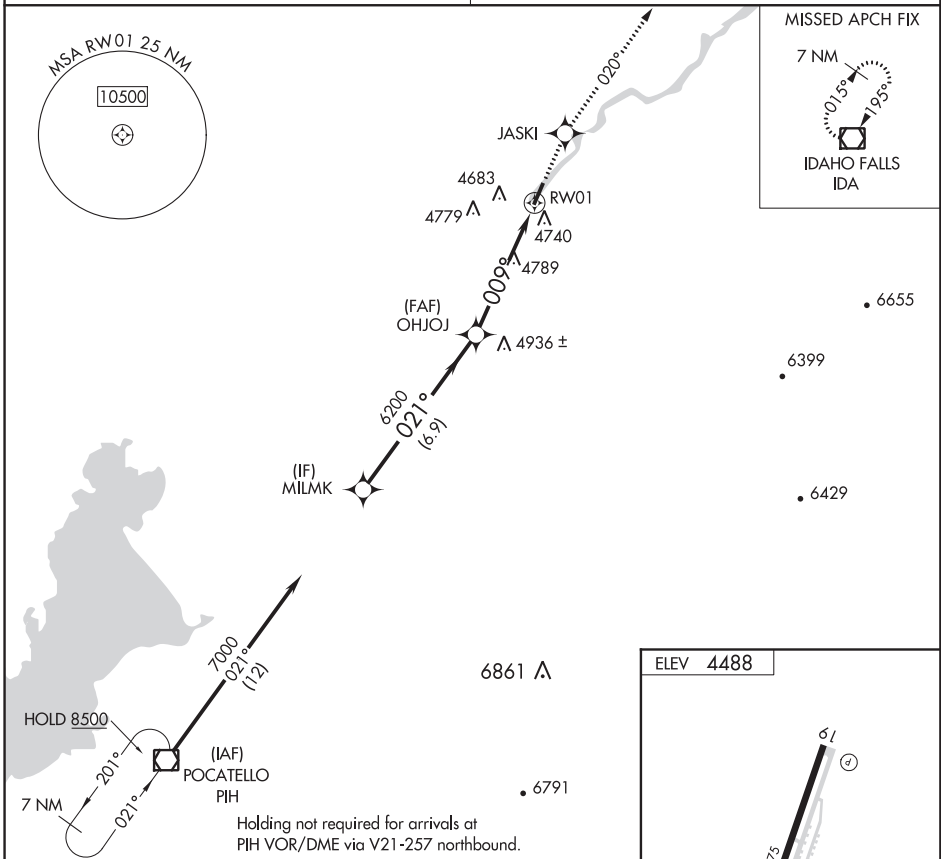
MCCARLEY FIELD (U02)

**▼** Use Pocatello Rgnl altimeter setting, when not received use Idaho Falls Rgnl altimeter setting. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

**MISSED APPROACH:** Climb to 7000 direct JASKI and via 020° track to IDA VOR/DME and hold.

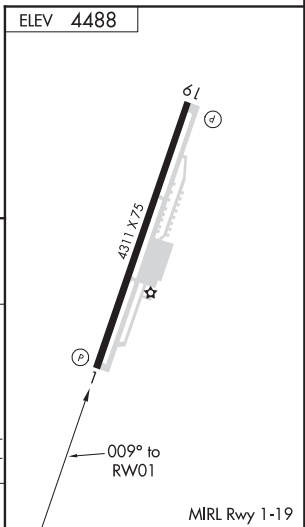
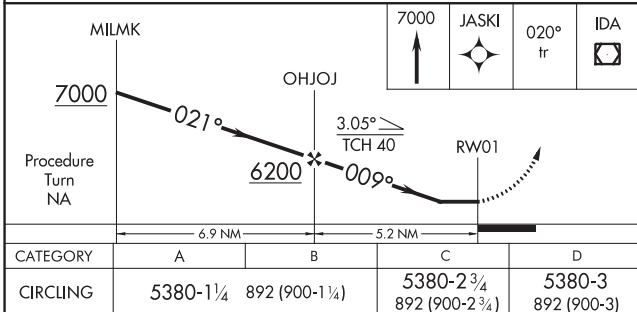
SALT LAKE CITY CENTER  
**128.35 239.25**

UNICOM  
**122.8 (CTAF)**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



BLACKFOOT, IDAHO  
Orig-A 04FEB16

43°13'N-112°21'W

MCCARLEY FIELD (U02)  
**RNAV (GPS)-B**

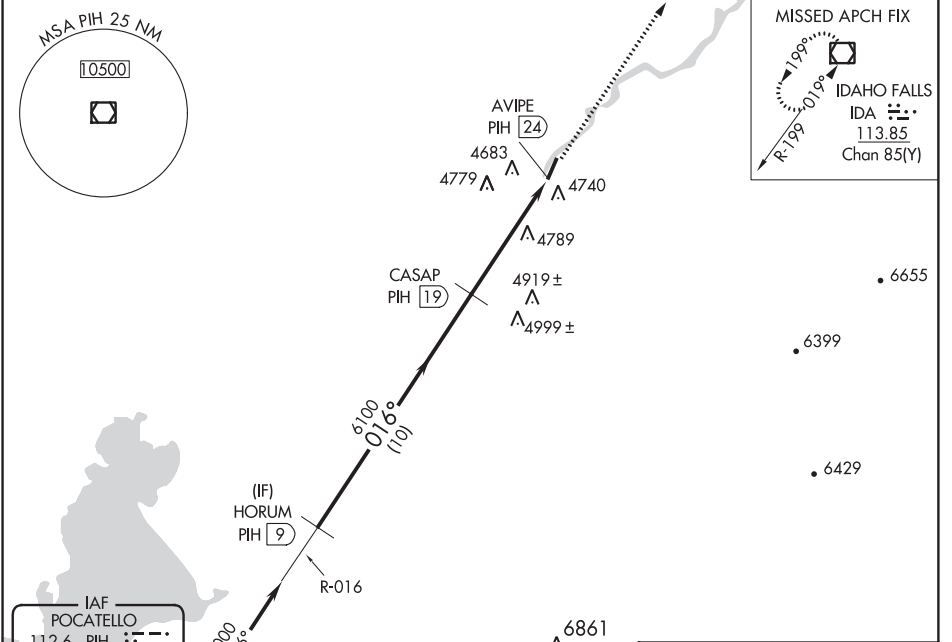
VOR/DME PIH <b>112.6</b> Chan <b>73</b>	APP CRS <b>016°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>4488</b>
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**VOR/DME-C**  
MCCARLEY FIELD (U02)

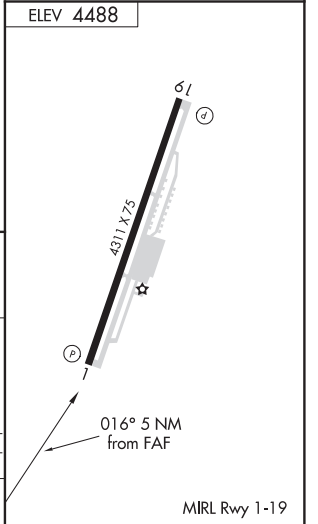
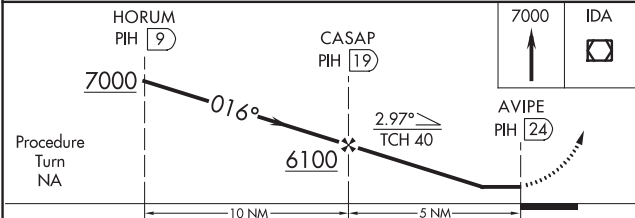
**▼** Use Pocatello Rgnl altimeter setting, when not received use Idaho Falls Rgnl altimeter setting.  
**▲ NA** Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 7000 direct IDA VOR/DME and hold.

SALT LAKE CITY CENTER <b>128.35 239.25</b>	UNICOM <b>122.8 (CTAF)</b>
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Holding not required for arrivals at PIH VOR/DME via V21-257 northbound.



CATEGORY	A	B	C	D
CIRCLING	5460-1¼ 972 (1000-1¼)	5460-1½ 972 (1000-1½)	5460-3	972 (1000-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# IDAHO FALLS THREE DEPARTURE (RNAV)

SALT LAKE CITY CENTER  
128.35 239.25  
CTAF 122.8

IDAHO FALLS  
IDA



TAKEOFF MINIMUMS

Rwy 1: Standard  
Rwy 19: NA- obstacles.

NOTE: GPS required.

NOTE: RNAV-1

TAKEOFF OBSTACLE NOTES

Rwy 1: Vehicles on road beginning at DER 190' right of centerline, 17' AGL/4517' MSL.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb heading 009° to 5000, continue climb to 7000 direct IDA VOR/DME.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



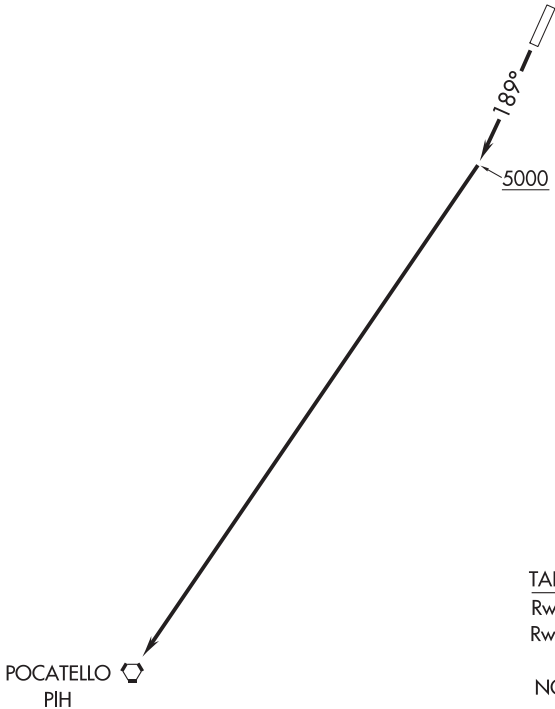
(PIH3.PIH) 16203

# POCATELLO THREE DEPARTURE (RNAV) SL-9351 (FAA)

MCCARLEY FIELD (U02)  
BLACKFOOT, IDAHO

SALT LAKE CITY CENTER  
128.35 239.25  
UNICOM 122.8 (CTAF)

**TOP ALTITUDE:  
7000**



TAKEOFF MINIMUMS  
Rwy 1: NA- obstacles.  
Rwy 19: Standard.

NOTE: GPS required.  
NOTE: RNAV-1

TAKEOFF OBSTACLE NOTES

Rwy 19: Vehicles on road beginning at DER 250' left of centerline, 17' AGL/4507' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 19: Climb heading 189° to 5000, continue climb to 7000 direct PIH VORTAC.

POCATELLO THREE DEPARTURE (RNAV)  
(PIH3.PIH) 21JUL16

BLACKFOOT, IDAHO  
MCCARLEY FIELD (U02)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BOISE, IDAHO

AL-57 (FAA)

16315

LOC/DME I-BOI <b>111.1</b> Chan 48	APP CRS <b>100°</b>	Rwy Idg TDZE Apt Elev	10R <b>9763</b> <b>2836</b> <b>2871</b>	10L <b>10000</b> <b>2844</b> <b>2871</b>
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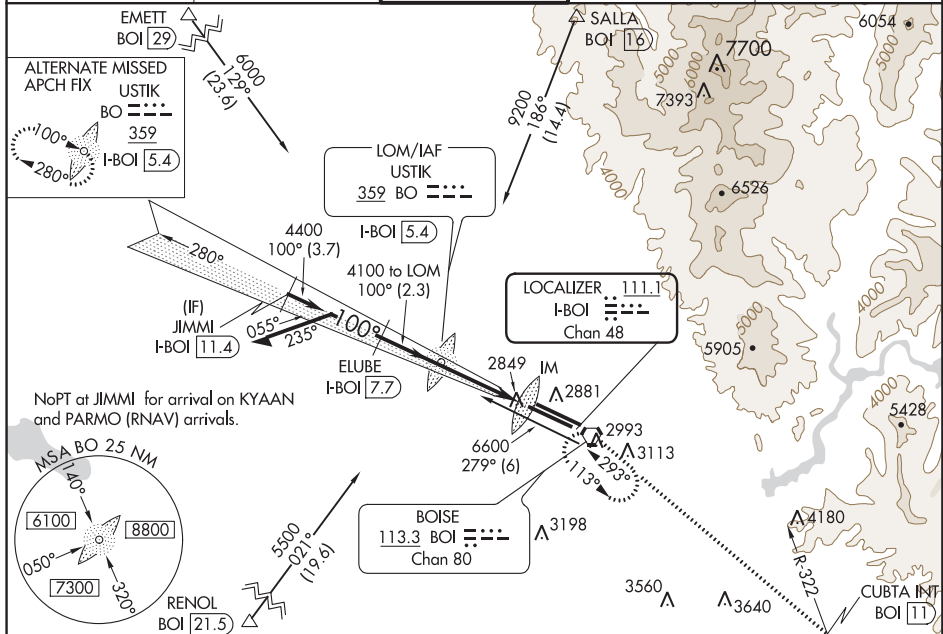
# ILS or LOC RWY 10R

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

**ALSF-2** Rwy 10R  
For inop ALSF-2, increase S-LOC Cat C and D visibilities to 5500.  
Circling NA north of Rwy 10L/28R.

**MISSED APPROACH:** Climb to 6000 on BOI VORTAC R-113 to CUBTA INT/BOI 11 DME, and right turn direct BOI VORTAC and hold.

ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	BOISE TOWER <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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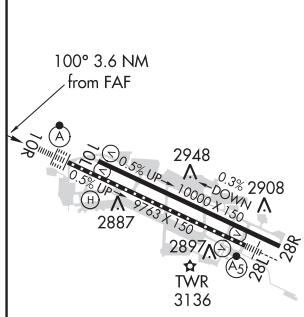


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2871	<b>D</b> TDZE 10R 2836
	TDZE 10L 2844

## ADF or DME REQUIRED



Use I-BOI DME when on the localizer course. Remain within 10 NM.

USTIK LOM I-BOI 5.4 4600

6000 BOI R-113 CUBTA INT BOI

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 64).

\*I-BOI 2.8 \*LOC only I-BOI 1.8

GS 3.00° TCH 58

	A	B	C	D
S-ILS 10R	3036/18 200 (200-½)			
S-LOC 10R	3200/24	364 (400-½)	3200/35	364 (400-¾)
SIDESTEP RWY 10L	3220-1	376 (400-1)	3220-1½ 376 (400-1½)	3220-2 376 (400-2)
<b>C</b> CIRCLING	3440-1	569 (600-1)	3740-2½ 869 (900-2½)	3820-3 949 (1000-3)

REIL Rwy 10L  
TDZ/CL Rwy 10R and 28L  
HIRL Rwy 10L-28R and 10R-28L

FAF to MAP 3.6 NM

Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

BOISE, IDAHO  
Amdt 12 10DEC15

43°34'N-116°13'W

BOISE AIR TERMINAL/GOWEN FIELD (BOI)  
**ILS or LOC RWY 10R**

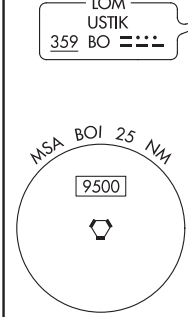
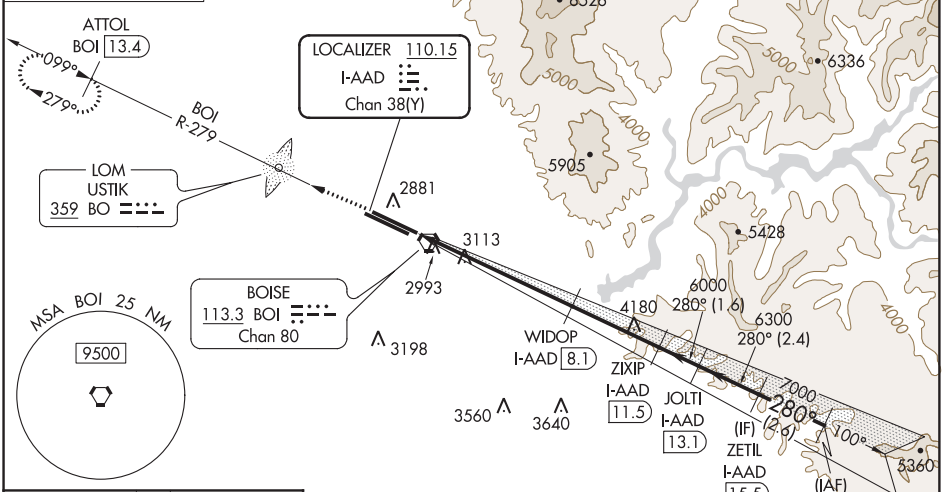
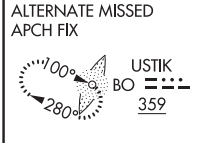
LOC/DME I-AAD <b>110.15</b> Chan 38 (Y)	APP CRS <b>280°</b>	Rwy Idg TDZE Apt Elev	<b>10000</b> <b>2871</b> <b>2871</b>
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# ILS or LOC/DME RWY 28R

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

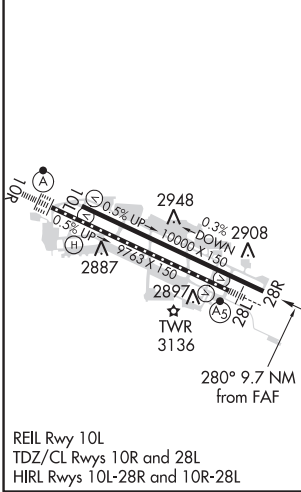
**▲** Circling NA north of Rwy 10L-28R.  
**⚠** -23°C/-9°F RADAR required.  
 MISSED APPROACH: Climb to 6000 on BOI VORTAC R-279 to ATTOL/BOI 13.4 DME and hold.

ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	BOISE TOWER <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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ELEV 2871	<b>D</b> TDZE 2871
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## RADAR REQUIRED



6000	ATTOL BOI 13.4	Procedure Turn NA	ZIXIP I-AAD 11.5	JOLTI I-AAD 13.1	ZETIL I-AAD 15.5	TOILS I-AAD 18
BOI R-279						RADAR
* LOC only.	* I-AAD 4.3	WIDOP I-AAD 8.1	6000	6300	7000	GS 3.00° TCH 55
I-AAD 1.9			4900*			
	2.4 NM	3.8 NM	3.5 NM	1.6 NM	2.4 NM	2.6 NM
CATEGORY	A	B	C	D		
S-ILS 28R	3121/40 250 (300-¾)					
S-LOC 28R	3700/55 829 (900-1¼)	3700/60 829 (900-1¼)	3700-2½	829 (900-2½)		
<b>C</b> CIRCLING	3700-1¼	829 (900-1¼)	3700-2½ 829 (900-2½)	3820-3 949 (1000-3)		

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BOISE, IDAHO

AL-57 (FAA)

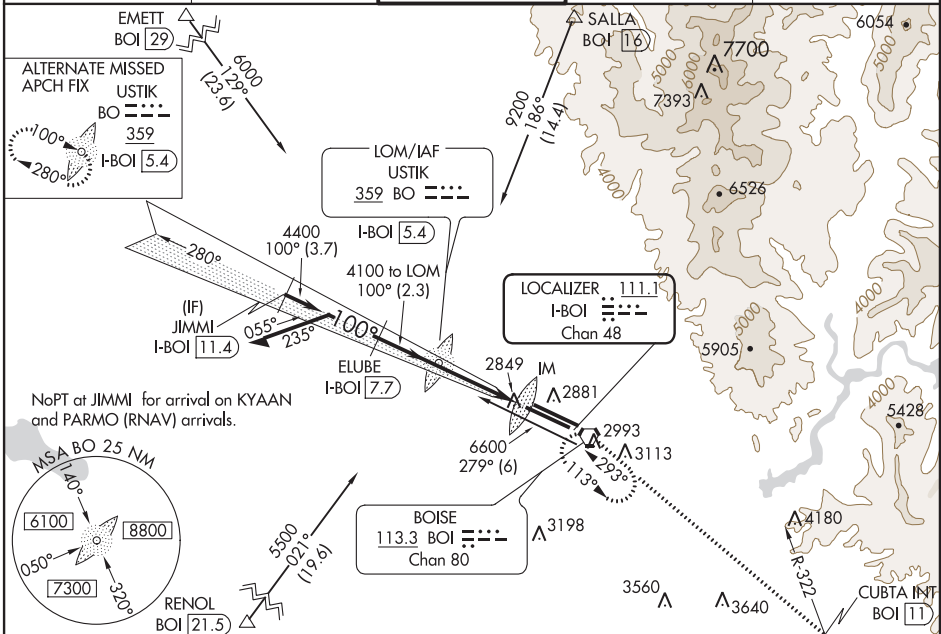
16315

LOC/DME I-BOI <b>111.1</b> Chan <b>48</b>	APP CRS <b>100°</b>	Rwy Idg TDZE Apt Elev <b>9763</b> <b>2836</b> <b>2871</b>
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**ILS RWY 10R (SA CAT I)**  
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

	Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.	ALSF-2	MISSED APPROACH: Climb to 6000 on BOI VORTAC R-113 to CUBTA INT/BOI 11 DME, and right turn direct BOI VORTAC and hold.

ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	<b>BOISE TOWER</b> <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2871	<b>D</b>	TDZE 2836
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**ADF or DME REQUIRED**

Use I-BOI DME when on the localizer course. Remain within 10 NM

USTIK LOM I-BOI **5.4** **4600**

6000 CUBTA INT BOI

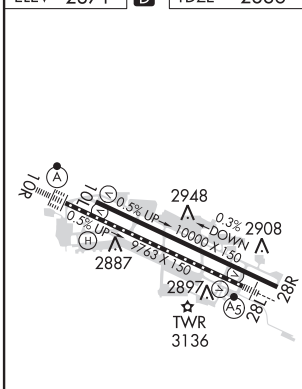
↑ BOI R-113 ↗

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 64).

4400 280° 4027 4100 100° IM

GS 3.00° TCH 58

3.6 NM 679'



CATEGORY	A	B	C	D
S-ILS 10R	RA 170/14 150 DA 2986			

**SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

REIL Rwy 10L  
TDZ/CL Rwy 10R and 28L  
HIRL Rwy 10L-28R and 10R-28L

BOISE, IDAHO  
Amdt 12 10DEC15

BOISE AIR TERMINAL/GOWEN FIELD (BOI)  
ILS RWY 10R (SA CAT I)  
43°34'N-116°13'W

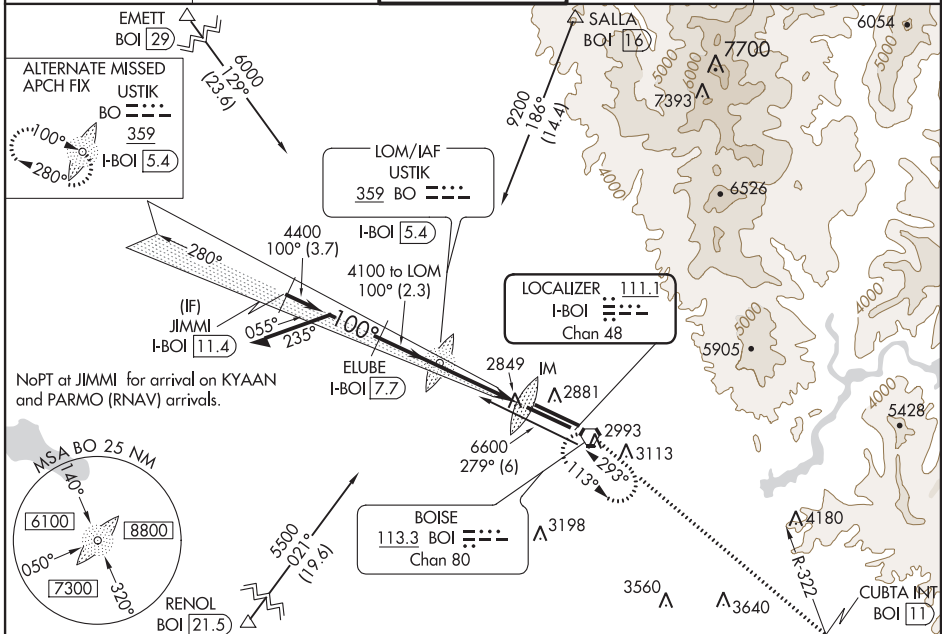
LOC/DME I-BOI <b>111.1</b> Chan <b>48</b>	APP CRS <b>100°</b>	Rwy Idg TDZE Apt Elev <b>9763</b> <b>2836</b> <b>2871</b>
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# ILS RWY 10R (CAT II & III)

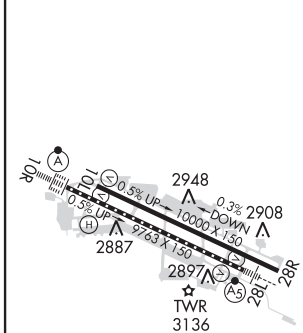
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

<p>CAT II: RVR 1000 authorized with specific OPSEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.</p>	<p>ALSF-2</p>	<p>MISSED APPROACH: Climb to 6000 on BOI VORTAC R-113 to CUBTA INT/BOI 11 DME, and right turn direct BOI VORTAC and hold.</p>
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ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	BOISE TOWER <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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ELEV 2871	D	TDZE 2836
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## ADF or DME REQUIRED

Use I-BOI DME when on the localizer course. Remain within 10 NM

USTIK LOM I-BOI [5.4] 4600	6000 BOI R-113	CUBTA INT	BOI
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VGSi and ILS glidepath not coincident (VGSi Angle 3.00/TCH 64).

CATEGORY	A	B	C	D
S-ILS 10R	CAT II RA 102/12 100 DA 2936			
S-ILS 10R	CAT III RVR 06			

## CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>9763</b>
<b>280°</b>	TDZE	<b>2858</b>
	Apt Elev	<b>2871</b>

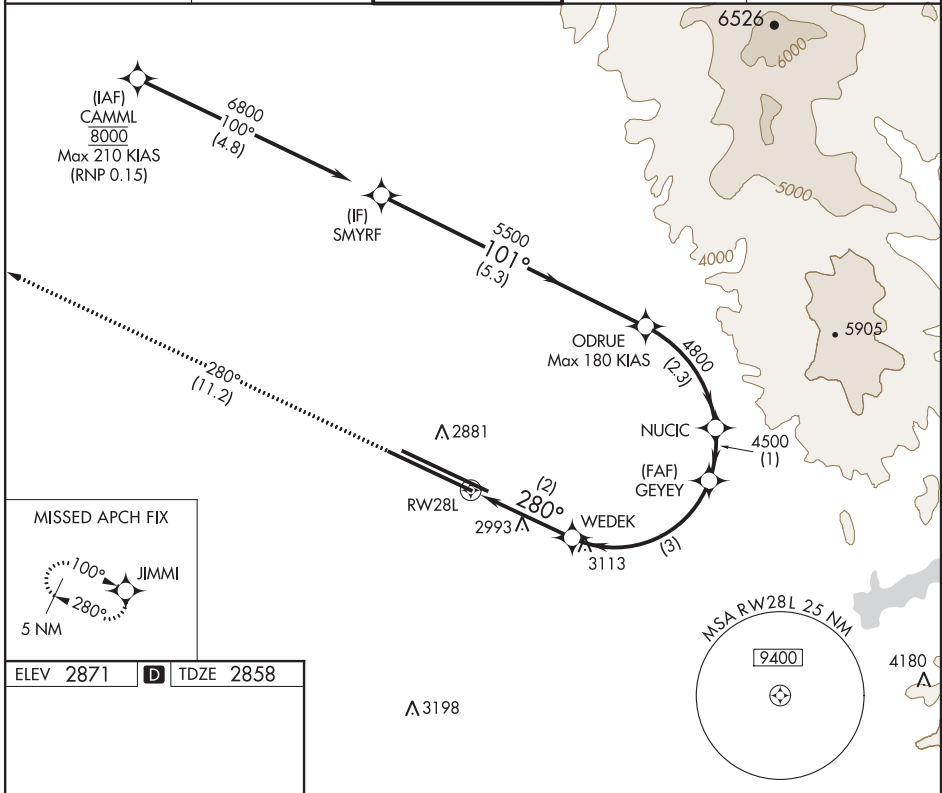
# RNAV (RNP) X RWY 28L

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

**V** For uncompensated Baro-VNAV systems, procedure NA below -14°C (7°F) or above 53°C (128°F).  
**88** -23°C/-9°F For inoperative MALSR, increase RNP 0.15 all Cats visibility to 1 $\frac{1}{2}$ . RF required. GPS required.

**MALSR** MISSED APPROACH: Climb to 6000 on track 280° to JIMMI and hold, continue climb-in-hold to 6000.

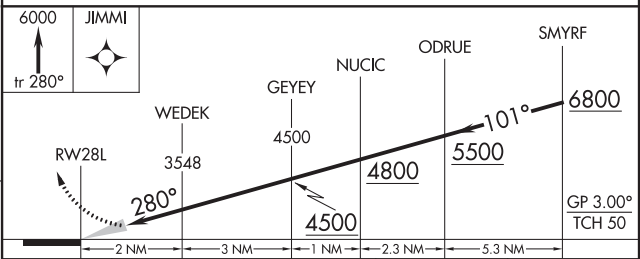
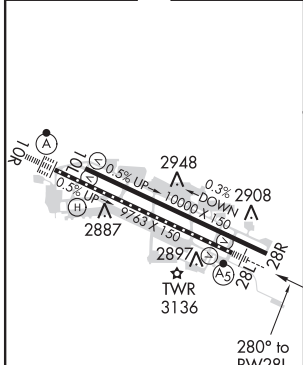
ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	BOISE TOWER <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2871	<b>D</b>	TDZE 2858
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CATEGORY	A	B	C	D
RNP 0.15 DA	3276/47 418 (500-1)			

**AUTHORIZATION REQUIRED**



BOISE, IDAHO

AL-57 (FAA)

16091

APP CRS	Rwy Idg	<b>10000</b>
<b>100°</b>	TDZE	<b>2844</b>
	Apt Elev	<b>2871</b>

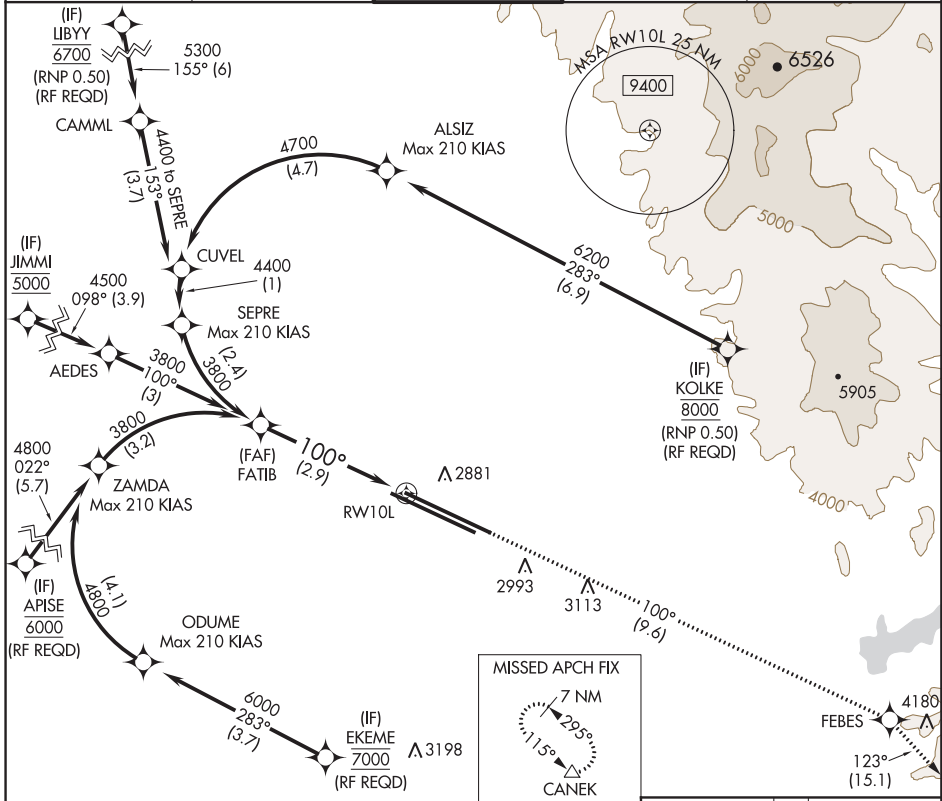
# RNAV (RNP) Z RWY 10L

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

For uncompensated Baro-VNAV systems, procedure NA below -14°C (7°F) or above 52°C (127°F).  
GPS required.

MISSED APPROACH: Climb to 7300 on track 100° to FEBES and on track 123° to CANEK and hold.

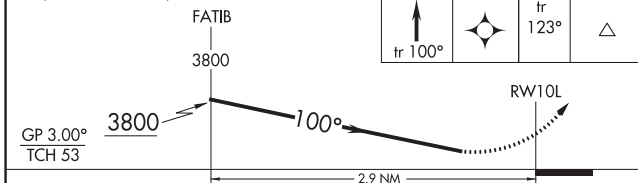
ATIS	BIG SKY APP CON	BOISE TOWER	GND CON	CLNC DEL
<b>123.9 290.4</b>	<b>119.6 269.4</b>	<b>118.1 257.8</b>	<b>121.7 348.6</b>	<b>125.9 323.2</b>



NW-1, 10 NOV 2016 to 05 JAN 2017

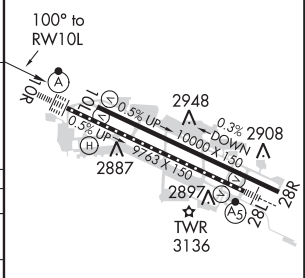
NW-1, 10 NOV 2016 to 05 JAN 2017

See planview for multiple IF locations.



ELEV 2871	TDZE 2844
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CATEGORY	A	B	C	D
RNP 0.15 DA	3164-1		320 (300-1)	
RNP 0.30 DA	3219-1¼		375 (400-1¼)	



## AUTHORIZATION REQUIRED

REIL Rwy 10L  
TDZ/CL Rwys 10R and 28L  
HIRL Rwys 10L-28R and 10R-28L

BOISE, IDAHO  
Amdt 1 18SEP14

43°34'N-116°13'W

# BOISE AIR TERMINAL/GOWEN FIELD (BOI) RNAV (RNP) Z RWY 10L



# RNAV (RNP) Z RWY 10R

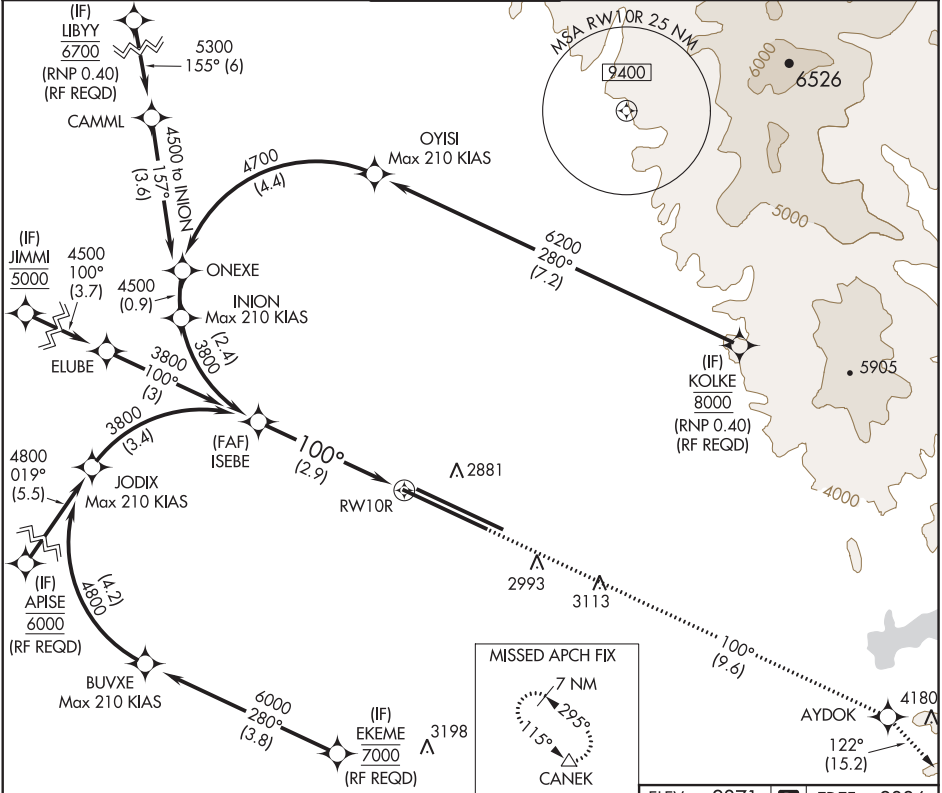
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

APP CRS	Rwy Idg	<b>9763</b>
<b>100°</b>	TDZE	<b>2836</b>
	Apt Elev	<b>2871</b>

**GPS required.** For uncompensated Baro-VNAV systems, procedure NA below -14°C (7°F) or above 51°C (124°F). For inoperative ALSF, increase RNP 0.15 all Cats visibility to RVR 5200 and RNP 0.30 all Cats visibility to RVR 5900.

**ALSF-2** **MISSED APPROACH:** Climb to 7300 on track 100° to AYDOK and on track 122° to CANEK and hold.

ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	BOISE TOWER <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 64).

ISEBE 3800

GP 3.00° TCH 58

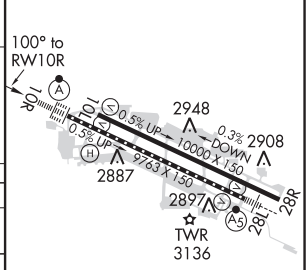
7300 AYDOK tr 100° CANEK tr 122°

See planview for multiple IF locations.

RWY 10R

ELEV	2871	TDZE	2836
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CATEGORY	A	B	C	D
RNP 0.15 DA		3163/28	327 (300-3%)	
RNP 0.30 DA		3199/35	363 (400-3%)	



REIL Rwy 10L  
TDZ/CL Rwy 10R and 28L  
HIRL Rwy 10L-28R and 10R-28L

## AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BOISE, IDAHO

AL-57 (FAA)

16091

APP CRS	Rwy Idg	<b>9763</b>
<b>280°</b>	TDZE	<b>2858</b>
	Apt Elev	<b>2871</b>

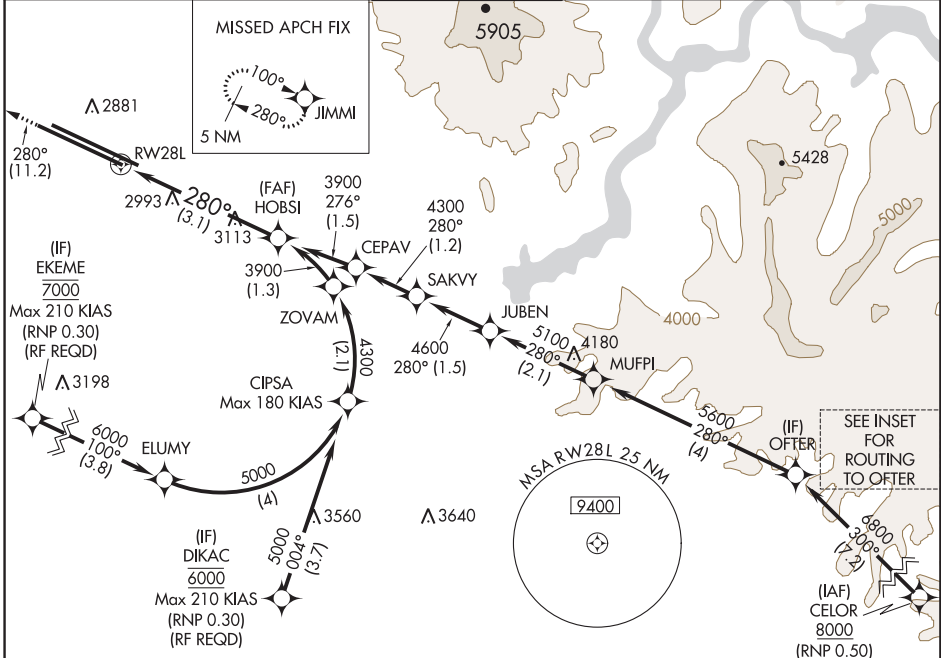
# RNAV (RNP) Z RWY 28L

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

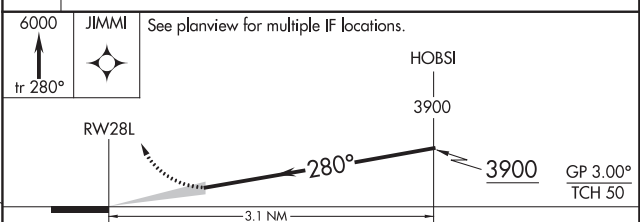
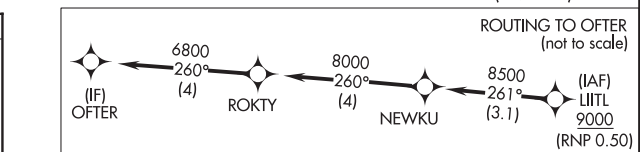
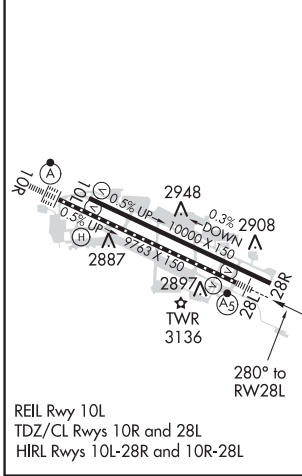
**⚠** For uncompensated Baro-VNAV systems, procedure NA below -14°C (7°F) or above 53°C (128°F). For inoperative MALSR, increase RNP 0.15 all Cats visibility to 1½, and RNP 0.30 all Cats visibility to 1%. GPS required.

**MALS** **MISSED APPROACH:** Climb to 6000 on track 280° to JIMMI and hold, continue climb-in-hold to 6000.

<b>ATIS</b> <b>123.9 290.4</b>	<b>BIG SKY APP CON</b> <b>119.6 269.4</b>	<b>BOISE TOWER</b> <b>118.1 257.8</b>	<b>GND CON</b> <b>121.7 348.6</b>	<b>CLNC DEL</b> <b>125.9 323.2</b>
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ELEV 2871	<b>D</b>	TDZE 2858
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CATEGORY	A	B	C	D
RNP 0.15 DA		3276/47	418 (500-1)	
RNP 0.30 DA		3346/60	488 (500-1½)	

## AUTHORIZATION REQUIRED

BOISE, IDAHO

Amdt 1 18SEP14

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

43°34'N-116°13'W

# RNAV (RNP) Z RWY 28L

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# RNAV (RNP) Z RWY 28R

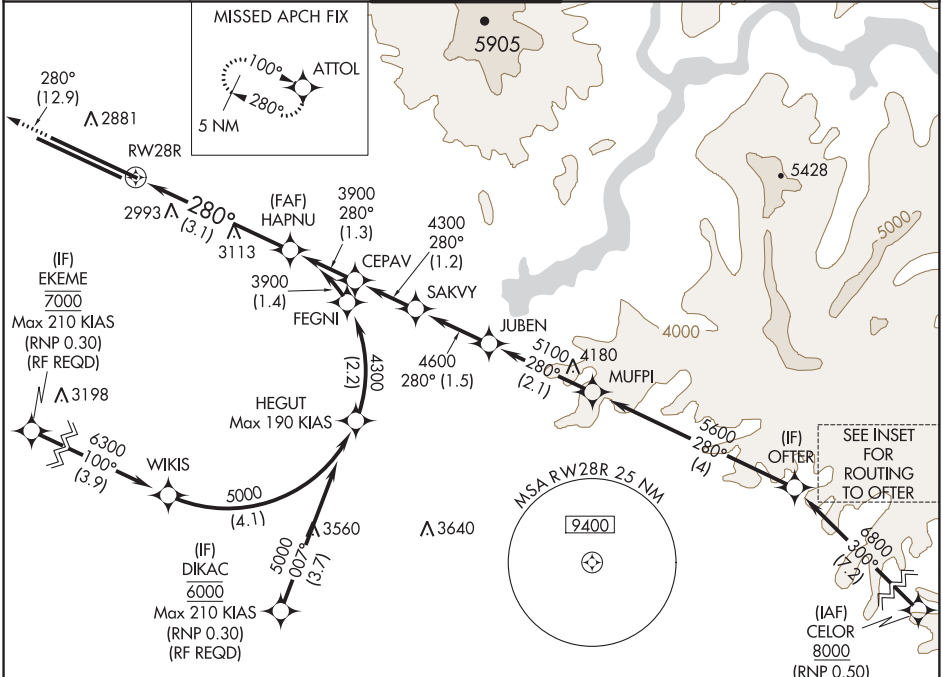
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

APP CRS	Rwy Idg	<b>10000</b>
<b>280°</b>	TDZE	<b>2871</b>
	Apt Elev	<b>2871</b>

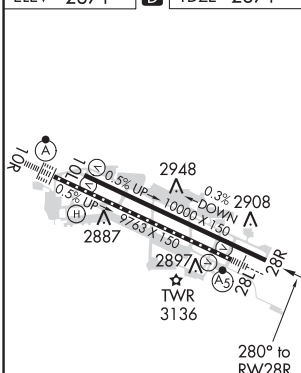
**⚠** For uncompensated Baro-VNAV systems, procedure NA below -14°C (7°F) or above 52°C (126°F). GPS required.

MISSED APPROACH: Climb to 6000 on track 280° to ATTOL and hold.

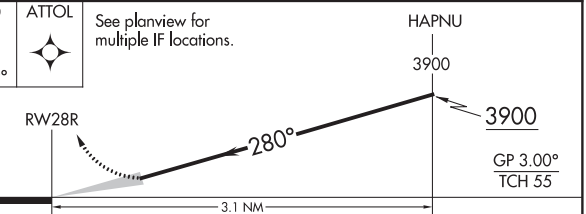
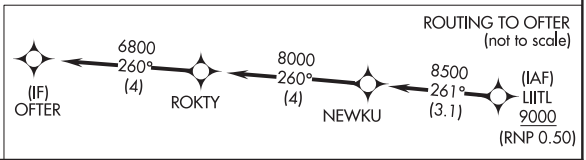
ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	BOISE TOWER <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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ELEV	<b>2871</b>	<b>D</b>	TDZE	<b>2871</b>
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REIL Rwy 10L  
TDZ/CL Rwys 10R and 28L  
HIRL Rwys 10L-28R and 10R-28L



CATEGORY	A	B	C	D
RNP 0.15 DA		3288-1 $\frac{3}{8}$	417 (500-1 $\frac{3}{8}$ )	
RNP 0.30 DA		3344-1 $\frac{3}{8}$	473 (500-1 $\frac{3}{8}$ )	

## AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BOISE, IDAHO

AL-57 (FAA)

16091

WAAS CH <b>78102</b> <b>W10A</b>	APP CRS <b>100°</b>	Rwy Idg <b>10000</b> TDZE <b>2844</b> Apt Elev <b>2871</b>
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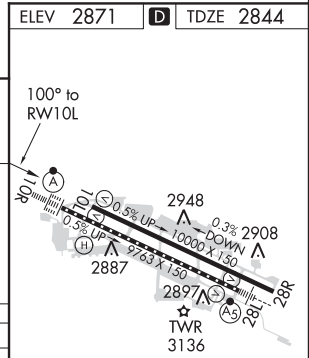
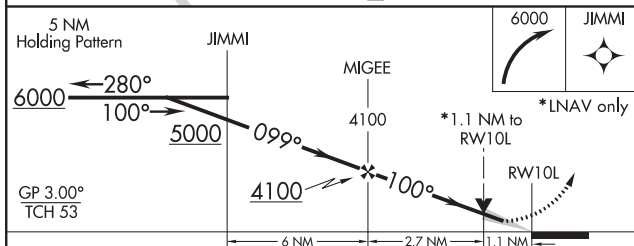
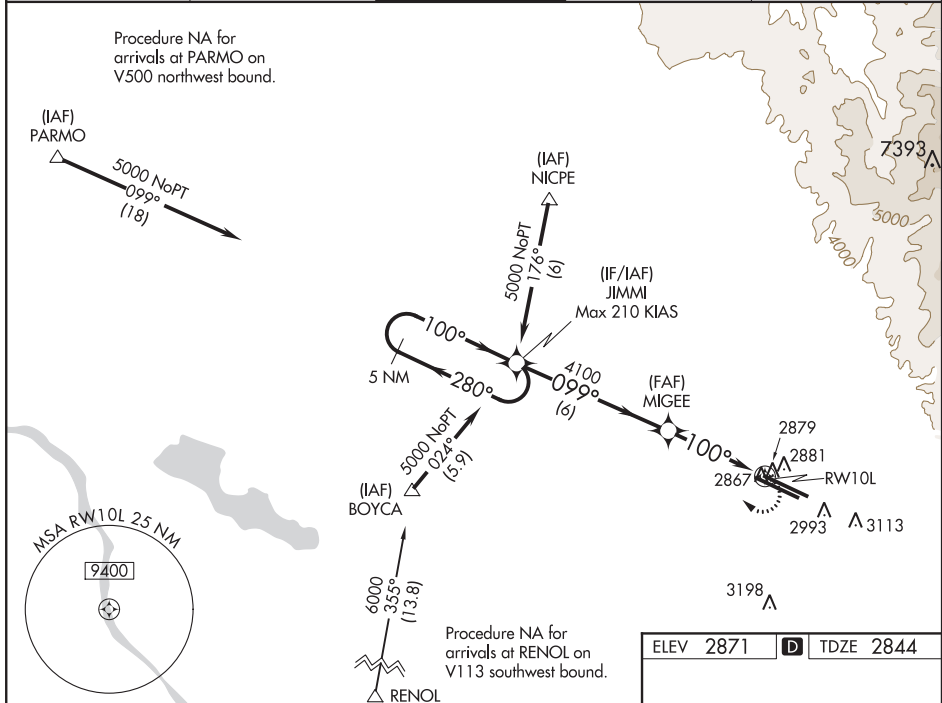
# RNAV (GPS) Y RWY 10L

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

**V** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -12°C (11°F) or above 54°C (130°F).  
**A** DME/DME RNP-0.3 NA. Circling NA north of Rwy 10L-28R.  
**W** -23°C/-9°F

**MISSED APPROACH:** Climbing right turn to 6000 direct JIMMI and hold, continue climb-in-hold to 6000.

ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	BOISE TOWER <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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CATEGORY	A	B	C	D
LPV DA	3094-7/8 250 (300-7/8)			
LNAV/VNAV DA	3135-1 291 (300-1)			
LNAV MDA	3240-1 396 (400-1)	3240-1 1/8 396 (400-1 1/8)		
<b>C</b> CIRCLING	3440-1 569 (600-1)	3740-2 1/2 869 (900-2 1/2)		3820-3 949 (1000-3)

REIL Rwy 10L  
 TDZ/CL Rwys 10R and 28L  
 HIRL Rwys 10L-28R and 10R-28L

BOISE, IDAHO  
 Amdt 3 10DEC15

43°34'N-116°13'W

# BOISE AIR TERMINAL/GOWEN FIELD (BOI)

## RNAV (GPS) Y RWY 10L

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>40203</b> <b>W10B</b>	APP CRS <b>100°</b>	Rwy Idg TDZE Apt Elev	<b>9763</b> <b>2836</b> <b>2871</b>
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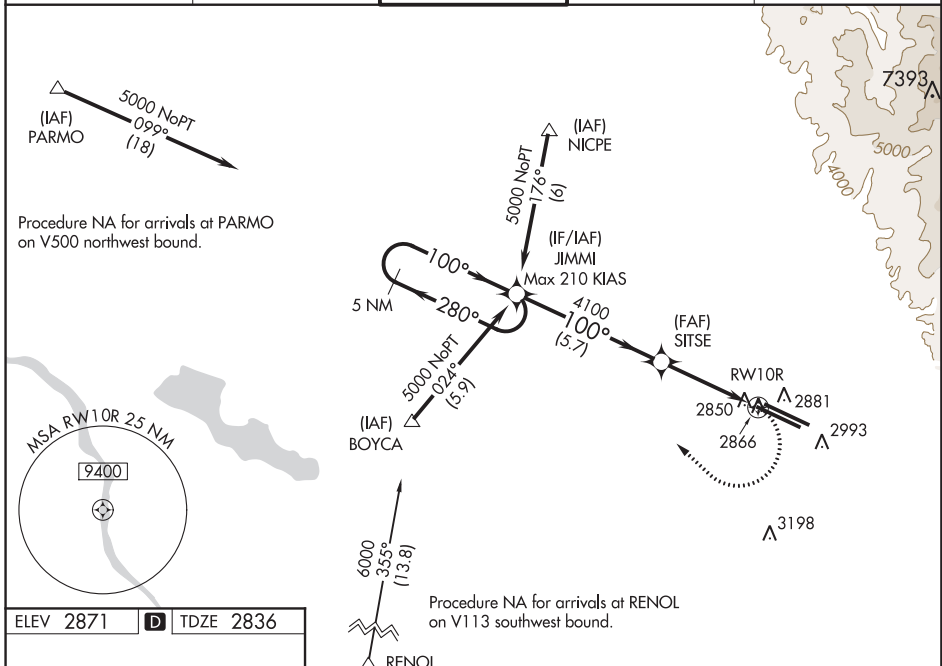
# RNAV (GPS) Y RWY 10R

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

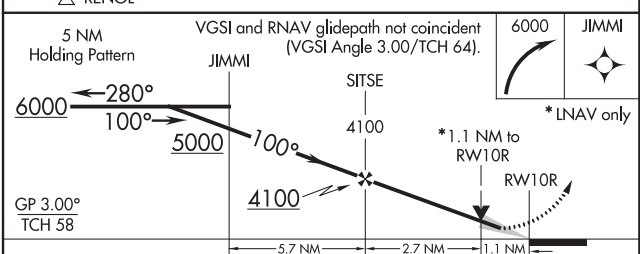
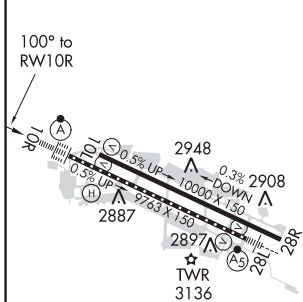
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -12°C (11°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.  
**⚠** Circling NA north of Rwy 10L-28R. For inop ALSF, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV all Cats and LNAV Cats C/D/E visibility to RVR 6000.  
**⚠** -23°C/-9°F

**ALSF-2**  
**MISSED APPROACH:** Climbing right turn to 6000 direct JIMMI and hold, continue climb-in-hold to 6000.

ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	<b>BOISE TOWER</b> <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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ELEV 2871	<b>D</b>	TDZE 2836
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CATEGORY	A	B	C	D	E
LPV DA		3036/24	200 (200-½)		
LNAV/VNAV DA		3182/40	346 (400-¾)		
LNAV MDA	3240/24	404 (400-½)	3240/40	404 (400-¾)	
<b>C</b> CIRCLING	3440-1	569 (600-1)	3740-2½ 869 (900-2½)	3820-3 949 (1000-3)	3880-3 1009 (1100-3)

REIL Rwy 10L  
 TDZ/CL Rws 10R and 28L  
 HIRL Rws 10L-28R and 10R-28L

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH 77702 W28A	APP CRS 280°	Rwy Idg TDZE Apt Elev	9763 2858 2871
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# RNAV (GPS) Y RWY 28L

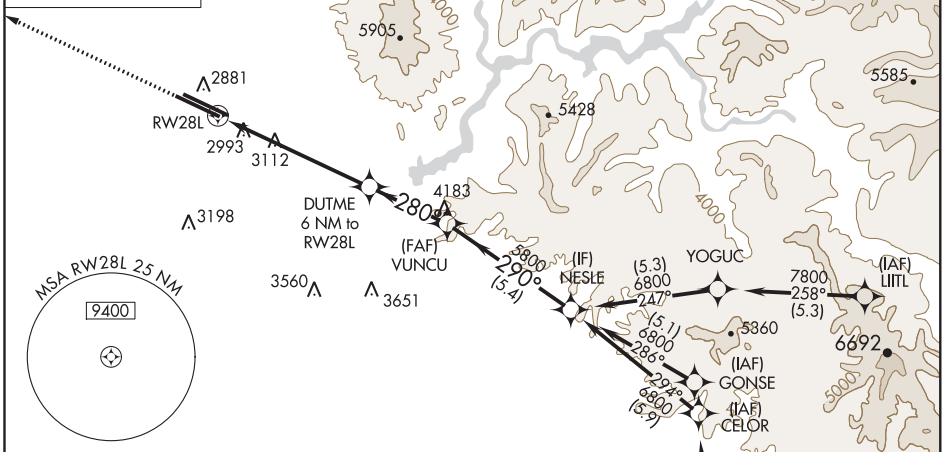
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -12°C (11°F) or above 52°C (126°F). Circling NA north of Rwy 10L-28R.  
**❄** -23°C/-9°F DME/DME RNP-0.3 NA. For inop MALSRS, increase LPV visibility to RVR 5000 all Cats, LNAV/VNAV Cat E to 1 3/8, and LNAV Cat C/D/E to 1 3/4.

**MALSRS**  
 MISSED APPROACH: Climb to 6000 direct JIMMI and hold, continue climb-in-hold to 6000.

ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	<b>BOISE TOWER</b> <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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**MISSED APCH FIX**  
 Maximum holding  
 airspeed 230 KIAS

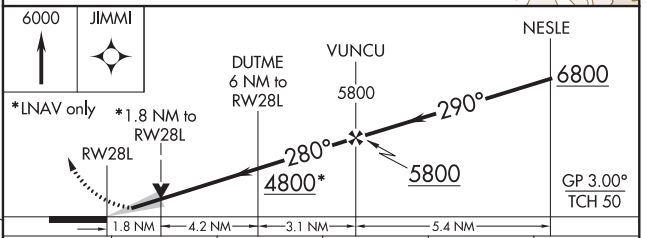
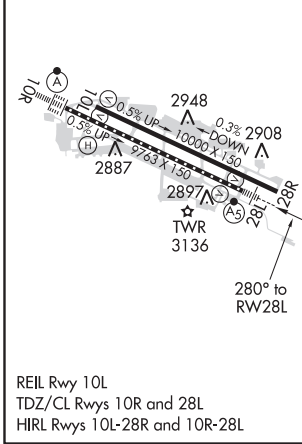


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2871	<b>D</b> TDZE 2858
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Procedure NA for arrivals at CANEK on V4-253-330 southeast bound.



CATEGORY	A	B	C	D	E
LPV DA		3183/30	325 (400-3/8)		
LNAV/VNAV DA		3274/45	416 (500-7/8)		
LNAV MDA	3480/24	622 (700-1/2)	3480-1 3/8	622 (700-1 3/8)	
<b>C</b> CIRCLING	3480-1	609 (700-1)	3740-2 1/2 869 (900-2 1/2)	3820-3 949 (1000-3)	3880-3 1009 (1100-3)

WAAS CH <b>65803</b> <b>W28B</b>	APP CRS <b>280°</b>	Rwy Idg <b>10000</b> TDZE <b>2871</b> Apt Elev <b>2871</b>
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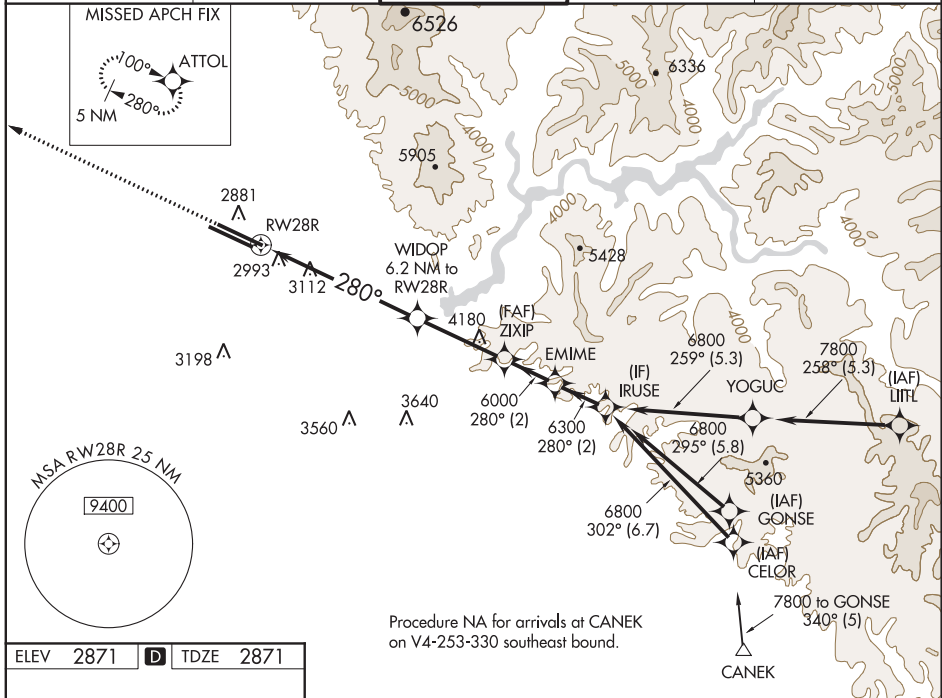
# RNAV (GPS) Y RWY 28R

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

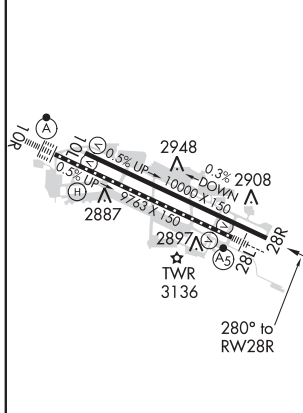
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -12°C (11°F) or above 52°C (126°F).  
**❄** -23°C/-9°F Circling NA north of Rwy 10L-28R. DME/DME RNP-0.3 NA.

**MISSED APPROACH:** Climb to 6000 direct ATTOL and hold, continue climb-in-hold to 6000.

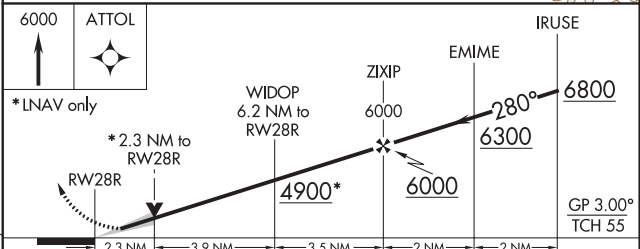
ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	<b>BOISE TOWER</b> <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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ELEV 2871	<b>D</b>	TDZE 2871
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REIL Rwy 10L  
TDZ/CL Rws 10R and 28L  
HIRL Rws 10L-28R and 10R-28L



CATEGORY	A	B	C	D
LPV DA		3121/40	250 (300-¾)	
LNAV/VNAV DA		3199/50	328 (400-1)	
LNAV MDA	3660/55 789 (800-1¼)	3660/60 789 (800-1¼)	3660-2½ 789 (800-2½)	789 (800-2½)
<b>C</b> CIRCLING	3660-1 789 (800-1)	3660-1¼ 789 (800-1¼)	3740-2½ 869 (900-2½)	3820-3 949 (1000-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BOISE, IDAHO

AL-57 (FAA)

16091

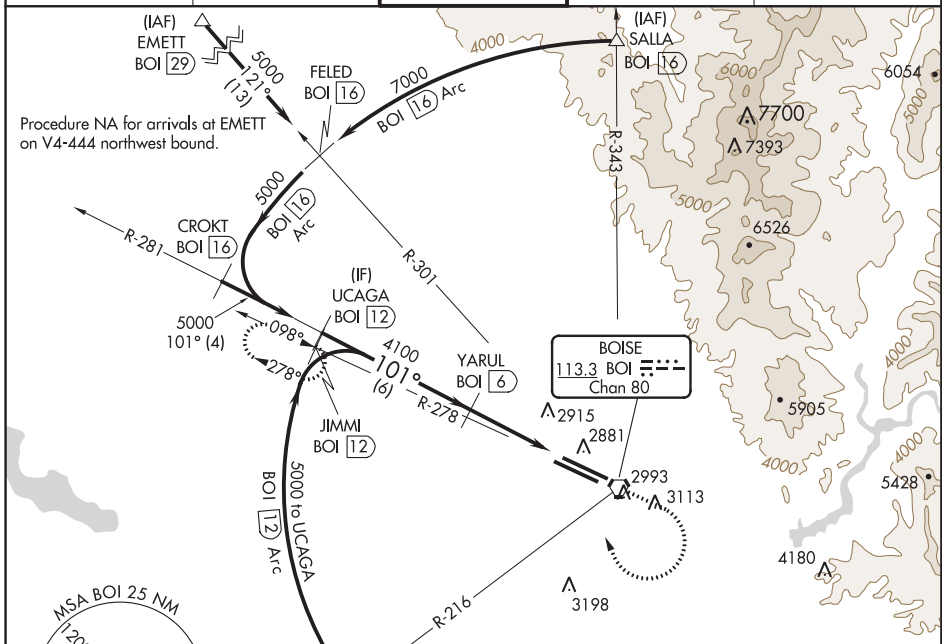
VORTAC BOI <b>113.3</b> Chan <b>80</b>	APP CRS <b>101°</b>	Rwy Idg <b>10000</b> TDZE <b>2844</b> Apt Elev <b>2871</b>
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# VOR/DME or TACAN RWY 10L

BOISE AIR TERMINAL/GOWEN FIELD (BOI)

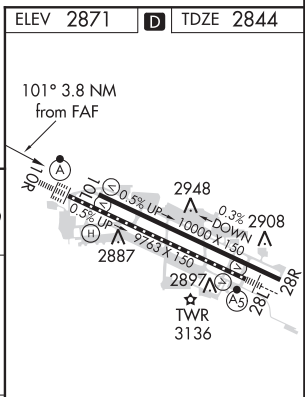
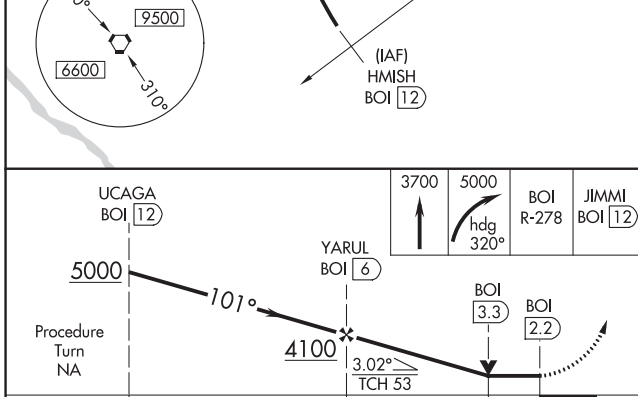
**⚠** Circling NA north of Rwy 10L-28R.  
**⚠** Helicopter visibility reduction below ¾ SM NA.  
 MISSED APPROACH: Climb to 3700 then climbing right turn to 5000 on heading 320° and BOI VORTAC R-278 to JIMMI/BOI 12 DME and hold.

ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	BOISE TOWER <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D	E
S-10L	3240-1	396 (400-1)	3240-1½ 396 (400-1½)		
CIRCLING	3440-1	569 (600-1)	3440-1½ 569 (600-1½)	3440-2 569 (600-2)	3860-3 989 (1000-3)

REIL Rwy 10L  
 TDZ/CL Rws 10R and 28L  
 HIRL Rws 10L-28R and 10R-28L

BOISE, IDAHO  
 Amtd 2A 24JUL14

43°34'N-116°13'W

# BOISE AIR TERMINAL/GOWEN FIELD (BOI) VOR/DME or TACAN RWY 10L



BOISE, IDAHO

AL-57 (FAA)

16091

VORTAC BOI <b>113.3</b> Chan 80	APP CRS <b>278°</b>	Rwy Idg	28L	28R
		TDZE	<b>9763</b>	<b>10000</b>
		Apt Elev	<b>2853</b>	<b>2871</b>
			<b>2871</b>	<b>2871</b>

# VOR/DME or TACAN RWY 28L

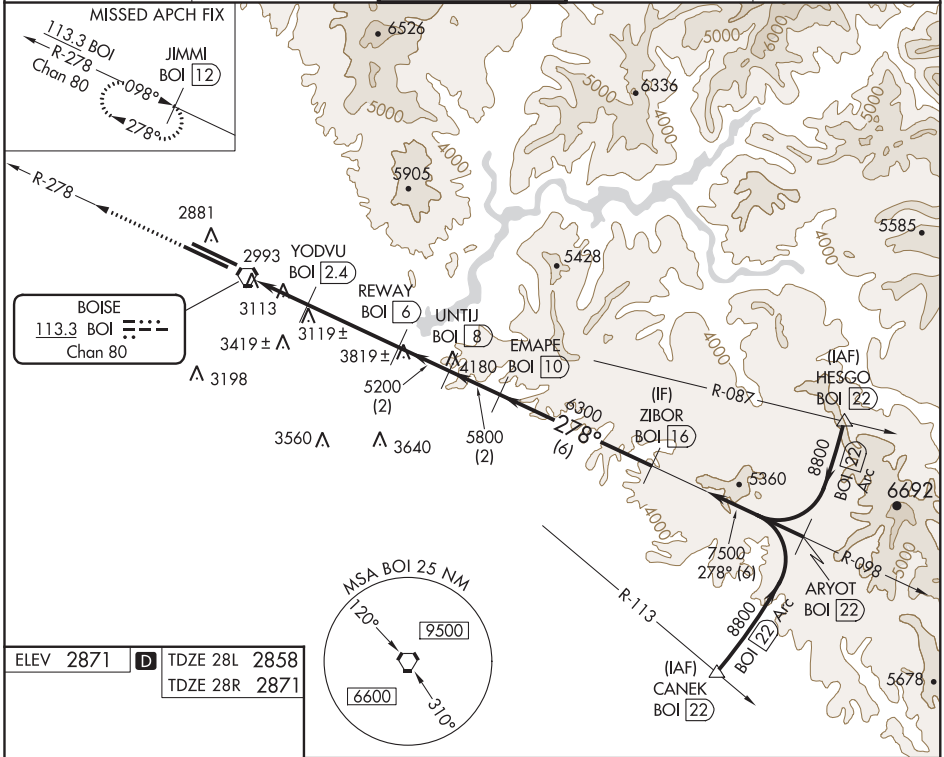
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

**▲** Circling NA north of Rwy 10L-28R.  
**▲** For inoperative MALS increase S-28L Cat E visibility ½ mile.

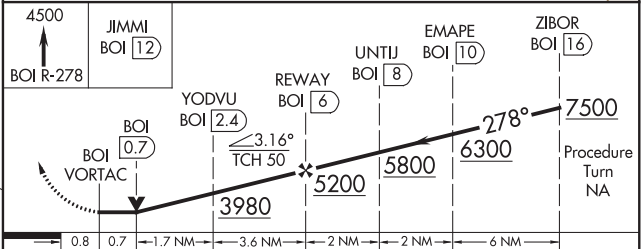
MALS Rwy 28L **AS**

MISSED APPROACH: Climb to 4500 via BOI VORTAC R-278 to JIMMI/12 DME and hold.

ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	<b>BOISE TOWER</b> <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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ELEV 2871 **D** TDZE 28L 2858  
 TDZE 28R 2871



	A	B	C	D	E
S-28L	3380/24	522 (600-½)	3380/50 522 (600-1)	3380/60	522 (600-1¼)
SIDESTEP RWY 28R	3380/60	509 (600-1¼)	3380-1¾ 509 (600-1¾)	3380-2¼	509 (600-2¼)
CIRCLING	3440-1	569 (600-1)	3440-1½ 569 (600-1½)	3440-2	3820-3 949 (1000-3)

REIL Rwy 10L  
 TDZ/CL Rwy 10R and 28L  
 HIRL Rwy 10L-28R and 10R-28L

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BOISE, IDAHO

AL-57 (FAA)

16091

BO LOM <b>359</b>	APP CRS <b>102°</b>	Rwy Idg TDZE Apt Elev	<b>9763</b> <b>2836</b> <b>2871</b>
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# NDB RWY 10R

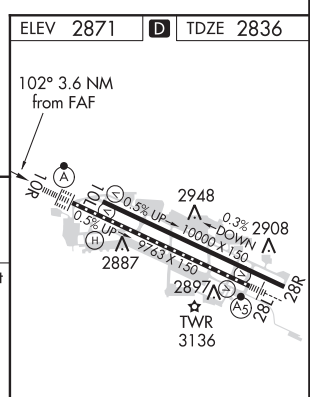
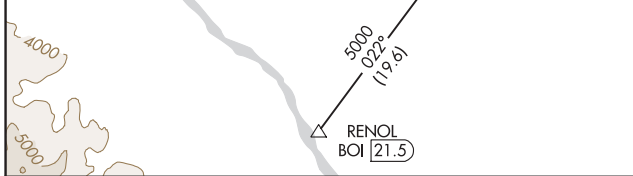
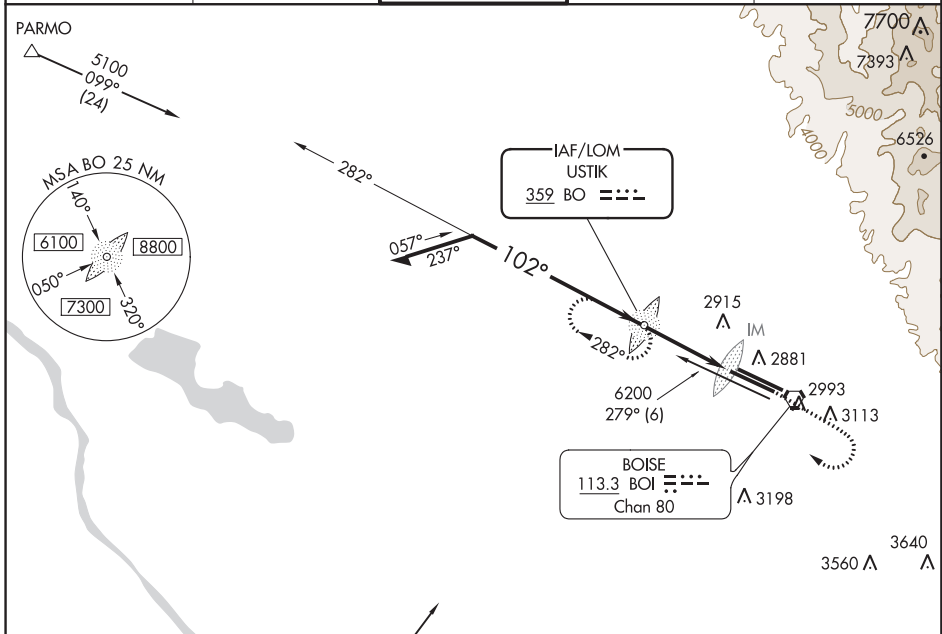
BOISE AIR TERMINAL/GOWEN FIELD (BOI)

**⚠** -23°C/-9°F Circling NA north of Rwy 10L-28R.

ALSIF-2

MISSED APPROACH: Climb to 3900 then climbing right turn to 4600 direct BO LOM and hold.

ATIS <b>123.9 290.4</b>	BIG SKY APP CON <b>119.6 269.4</b>	<b>BOISE TOWER</b> <b>118.1 257.8</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>125.9 323.2</b>
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BO LOM	4600	3900	4600	BO
4400	282°	4600	102°	4100
3.6 NM				

CATEGORY	A	B	C	D
S-10R	3240/40 404 (400-¾)		3240/50 404 (400-1)	
CIRCLING	3440-1 569 (600-1)		3440-2 569 (600-2)	

REIL Rwy 10L  
TDZ/CL Rwys 10R and 28L  
HIRL Rwys 10L-28R and 10R-28L

FAF to MAP 3.6 NM

Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

BOISE, IDAHO  
Amdt 28A 25AUG11

43°34'N-116°13'W

# NDB RWY 10R

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

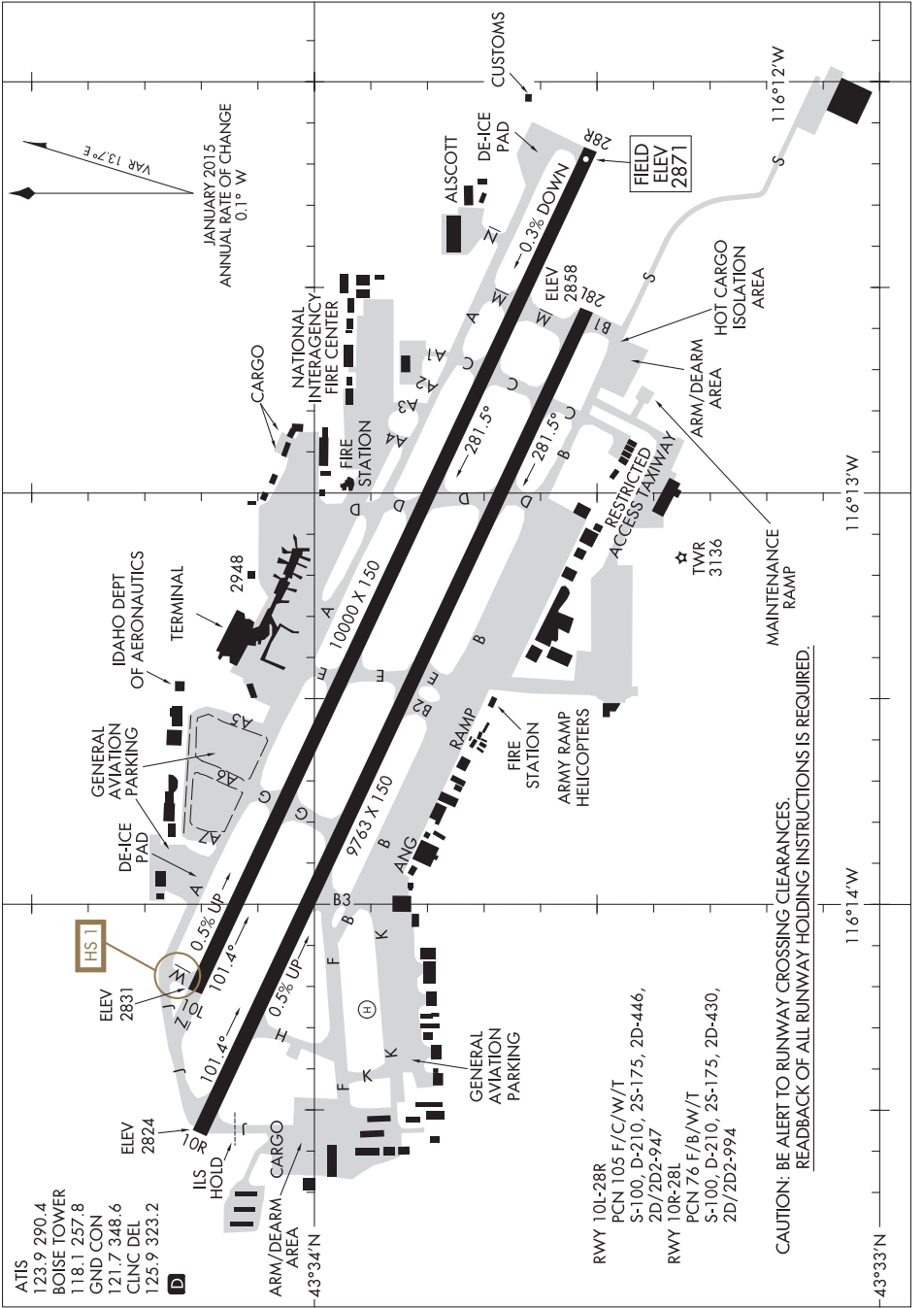
16147 **AIRPORT DIAGRAM** BOISE AIR TERMINAL/GOWEN FIELD (BOI) BOISE, IDAHO

AL-57 (FAA)

BOISE, IDAHO

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



- ATIS 123.9 290.4
- BOISE TOWER 118.1 257.8
- GND CON 121.7 348.6
- CLNC DEL 125.9 323.2
- ILS HOLD 10R
- ELEV 2824
- ELEV 2831
- HS 1

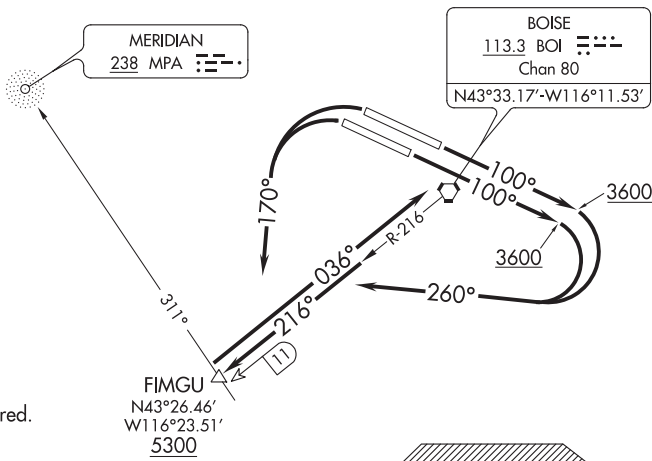
- RWY 10L-28R
- PCN 105 F/C/W/T
- S-100, D-210, 2S-175, 2D-446, 2D/2D2-947
- RWY 10R-28L
- PCN 76 F/B/W/T
- S-100, D-210, 2S-175, 2D-430, 2D/2D2-994

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

**AIRPORT DIAGRAM** BOISE, IDAHO BOISE AIR TERMINAL/GOWEN FIELD (BOI)

16147

ATIS  
 123.9 290.4  
 CLNC DEL  
 125.9 323.2  
 GND CON  
 121.7 348.6  
 BOISE TOWER  
 118.1 257.8  
 BIG SKY DEP CON  
 126.9 351.85 (279°-097°)  
 119.6 269.4 (098°-278°)



NOTE: ADF or DME required.

TAKEOFF MINIMUMS:

- Rwys 28L/R: Standard.
- Rwy 10L: Standard with a minimum climb of 208' per NM to 4300 or 5500-3 for climb in visual conditions.
- Rwy 10R: Standard with minimum climb of 205' per NM to 4300 or 5500-3 for climb in visual conditions.

TAKEOFF OBSTACLE NOTES:

- Rwy 10L: DME antenna 5' from DER, 415' right of centerline, 16' AGL/2880' MSL. Light on building 271' from DER, 567' left of centerline, 15' AGL/2888' MSL. Equipment on road 462' from DER, 444' left of centerline, 11' AGL/2886' MSL.
- Rwy 10R: Vehicles on taxiway beginning at DER, 455' right of centerline, 10' AGL/2864' MSL.
- Rwy 28L: Tree 2048' from DER, 510' left of centerline, 100' AGL/2909' MSL.
- Rwy 28R: Anemometer 452' from DER, 306' left of centerline, 11' AGL/2842' MSL.

NOTE: Chart not to scale.

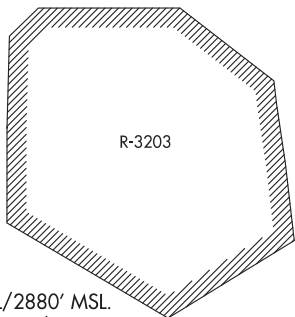
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/R: Climb heading 100° to 3600 then climbing right turn heading 260°, thence . . . .

TAKEOFF RUNWAYS 28L/R: Climbing left turn heading 170°, thence . . . .

. . . . intercept and climb on BOI R-216 outbound to cross FIMGU INT/BOI 11.00 DME fix at or above 5300 then on BOI R-216 to cross BOI VORTAC at or above MEA/MCA for assigned route of flight.

VCOA RWY 10L/R: Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Boise Air Terminal/Gowen Field Airport at or above BOI VORTAC MEA/MCA before proceeding on assigned route of flight.



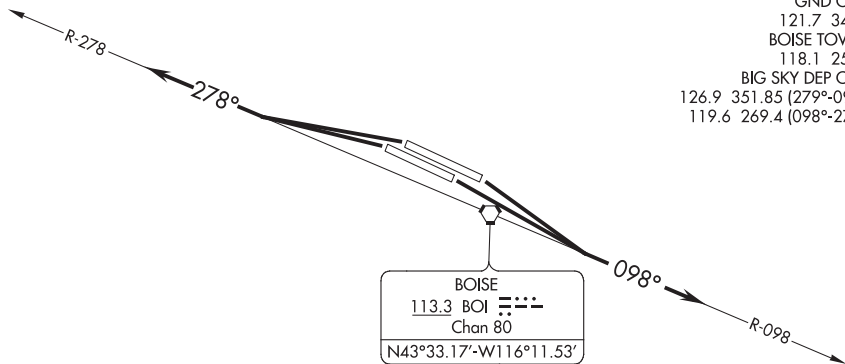
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# BOISE THREE DEPARTURE

**TOP ALTITUDE:  
16000**

ATIS
123.9 290.4
CLNC DEL
125.9 323.2
GND CON
121.7 348.6
BOISE TOWER
118.1 257.8
BIG SKY DEP CON
126.9 351.85 (279°-097°)
119.6 269.4 (098°-278°)



NOTE: RADAR Required

TAKEOFF MINIMUMS:

Rwy 28L/R: Standard.  
 Rwy 10L/R: Standard with minimum  
 climb of 240' per NM to 5700.

TAKEOFF OBSTACLE NOTES:

Rwy 10L: DME antenna 5' from DER, 415' right of centerline, 16' AGL/2880' MSL.  
 Light on building 271' from DER, 567' left of centerline, 15' AGL/2888' MSL.  
 Equipment on road 462' from DER, 444' left of centerline, 11' AGL/2886' MSL.  
 Rwy 10R: Vehicles on taxiway beginning at DER, 455' right of centerline, 10' AGL/2864' MSL.  
 Rwy 28L: Tree 2047' from DER, 509' left of centerline, 100' AGL/2909' MSL.  
 Rwy 28R: Anemometer 452' from DER, 306' left of centerline, 11' AGL/2842' MSL. NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

TAKEOFF RUNWAY 10L/R: Climb to 16000 or lower assigned altitude on BOI VORTAC R-098, Thence . . .

TAKEOFF RUNWAY 28L/R: Climb to 16000 or lower assigned altitude on BOI VORTAC R-278, Thence . . .

. . . Expect RADAR vectors to assigned route, expect filed altitude 10 minutes after departure.

LOST COMMUNICATIONS: If not in contact with Boise Departure Control at 10000 or assigned altitude if lower, continue climb to assigned altitude and thence on assigned route.

# BOISE THREE DEPARTURE

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>4002</b>
<b>008°</b>	TDZE	<b>2316</b>
	Apt Elev	<b>2337</b>

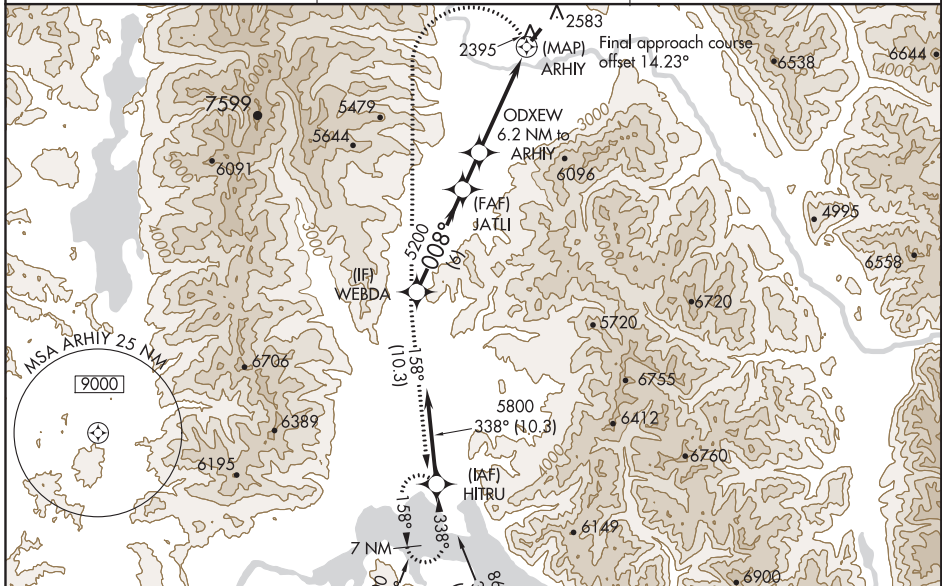
# RNAV (GPS) RWY 2

BOUNDARY COUNTY (65S)

▼ When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA.  
▲ NA \* Missed approach requires minimum climb of 400 feet per NM to 6600.  
✱ -8°C/18°F # Missed approach requires minimum climb of 300 feet per NM to 6400.

MISSED APPROACH: Climbing left turn to 8600 direct WEBDA and on track 158° to HITRU, continue climb-in-hold to 8600.

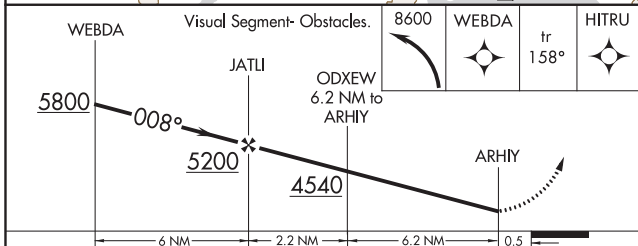
AWOS-3PT <b>132.575</b>	SEATTLE CENTER <b>123.95 290.55</b>	UNICOM <b>123.0 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2337	TDZE 2316
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Visual Segment- Obstacles.	8600	WEBDA	HITRU
		tr 158°	

MIRL Rwy 2-20

CATEGORY	A	B	C	D
LNAV MDA*	3260-1 1/4	944 (1000-1 1/4)	3260-2 3/4 944 (1000-2 3/4)	NA
LNAV MDA #	3880-1 1/4 1564 (1600-1 1/4)	3880-1 1/2 1564 (1600-1 1/2)	3880-3 1564 (1600-3)	NA
LNAV MDA	4480-1 1/4 2164 (2200-1 1/4)	4480-1 1/2 2164 (2200-1 1/2)	4480-3 2164 (2200-3)	NA
CIRCLING	4480-1 1/4 2143 (2200-1 1/4)	4480-1 1/2 2143 (2200-1 1/2)	4480-3 2143 (2200-3)	NA

(KARPS1.KARPS) 16147

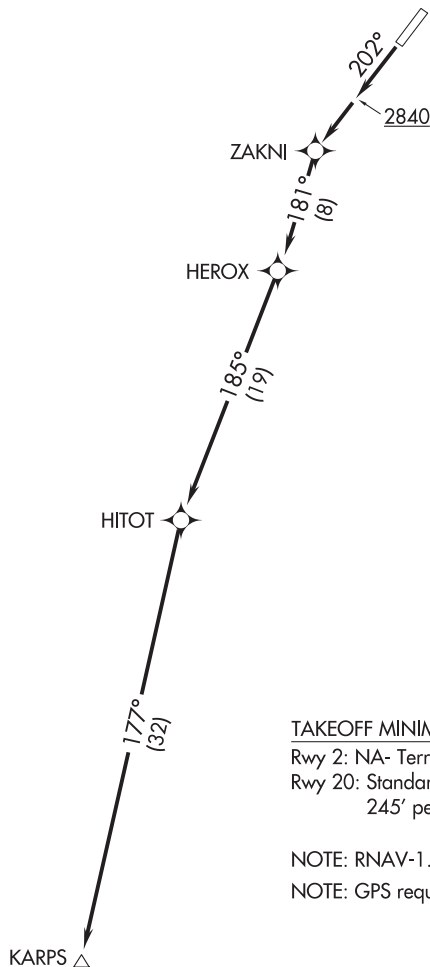
# KARPS ONE DEPARTURE (OBSTACLE) (RNAV)

BOUNDARY COUNTY (65S)

SL-9976 (FAA)

BONNERS FERRY, IDAHO

SEATTLE CENTER  
123.95 290.55  
CTAF  
123.0



### TAKEOFF MINIMUMS

Rwy 2: NA- Terrain.

Rwy 20: Standard with minimum climb of 245' per NM to 5500.

NOTE: RNAV-1.

NOTE: GPS required.

### TAKEOFF OBSTACLE NOTES

Rwy 20: Trees beginning 741' from DER, 129' left of centerline, up to 70' AGL/2417' MSL.  
Trees, cranes, building and terrain beginning 138' from DER, 1' right of centerline, up to 77' AGL/2418' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 20: Climb heading 202° to 2840' then direct ZAKNI, then on depicted route to KARPS, cross KARPS at or above MEA for assigned route of flight.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# KARPS ONE DEPARTURE (OBSTACLE) (RNAV)

(KARPS1.KARPS) 29JUL10

BONNERS FERRY, IDAHO  
BOUNDARY COUNTY (65S)

BOZEMAN, MONTANA

AL-59 (FAA)

16315

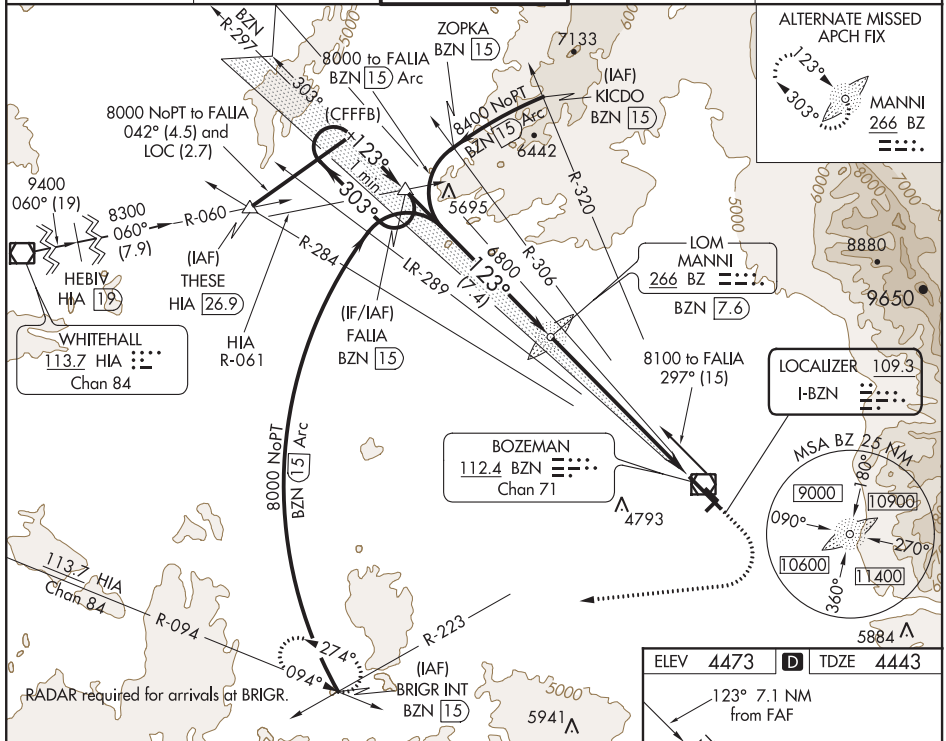
LOC I-BZN <b>109.3</b>	APP CRS <b>123°</b>	Rwy Idg <b>8994</b>
		TDZE <b>4443</b>
		Apt Elev <b>4473</b>

# ILS or LOC RWY 12

BOZEMAN YELLOWSTONE INTL (BZN)

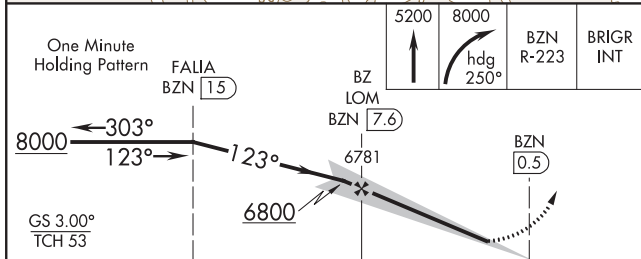
-33°C/-27°F	MALS R	MISSED APPROACH: Climb to 5200 then climbing right turn to 8000 on heading 250° and on BZN VOR/DME R-223 to BRIGR INT/BZN 15 DME and hold.

ATIS <b>135.425</b>	BIG SKY APP CON* <b>118.975 226.675</b>	BOZEMAN TOWER* <b>118.2 (CTAF) 0</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-ILS 12	4643-1/2		200 (200-1/2)	
S-LOC 12	4860-1/2	417 (400-1/2)	4860-3/4	417 (400-3/4)
CIRCLING	4940-1	467 (500-1)	4940-1 1/2	5040-2
			467 (500-1 1/2)	567 (600-2)

ELEV 4473	TDZE 4443
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FAF to MAP 7.1 NM					
Knots	60	90	120	150	180
Min:Sec	7:06	4:44	3:33	2:50	2:22

BOZEMAN, MONTANA  
Amdt 9A 26JUN14

45°47'N-111°09'W

# BOZEMAN YELLOWSTONE INTL (BZN) ILS or LOC RWY 12



APP CRS <b>303°</b>	Rwy Idg TDZE Apt Elev	<b>8994</b> <b>4462</b> <b>4473</b>
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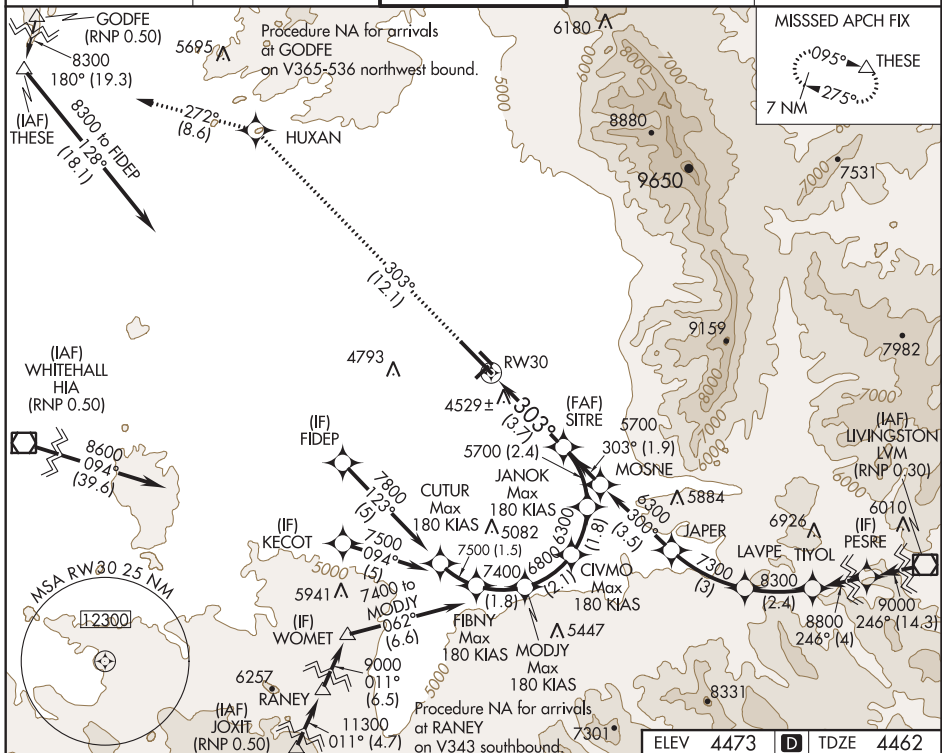
# RNAV (RNP) RWY 30

BOZEMAN YELLOWSTONE INTL (BZN)

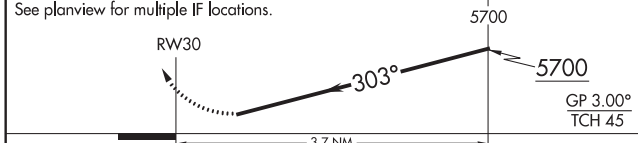
**⚠** For uncompensated Baro-VNAV systems, procedure NA below  
**⚠** -33°C/-27°F -24°C (-11°F) or above 51°C (124°F). When VGSI inoperative, procedure NA at night. RF Required. GPS required. \*Missed approach requires minimum climb of 350 feet per NM to 6000.

**MISSED APPROACH:** Climb to 8300 on track 303° to HUXAN and on track 272° to THESE and hold, continue climb-in-hold to 8300.

ATIS <b>135.425</b>	BIG SKY APP CON * <b>118.975 226.675</b>	BOZEMAN TOWER* <b>118.2 (CTAF) 0</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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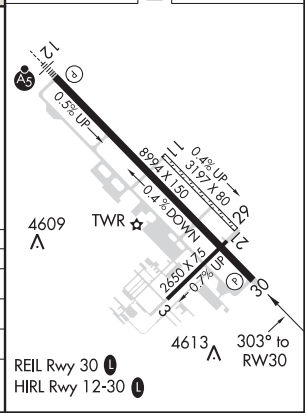


8300	HUXAN	tr	THESE
↑	✦	272°	△
tr 303°			



CATEGORY	A	B	C	D
RNP 0.11* DA		4742-1	280 (300-1)	
RNP 0.20 DA		4824-1 ¼	362 (400-1¼)	
RNP 0.30 DA		4881-1 ½	419 (500-1½)	

## AUTHORIZATION REQUIRED



NW-1, 10 NOV 2016 to 05 JAN 2017


NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>8994</b>
<b>123°</b>	TDZE	<b>4443</b>
	Apt Elev	<b>4473</b>

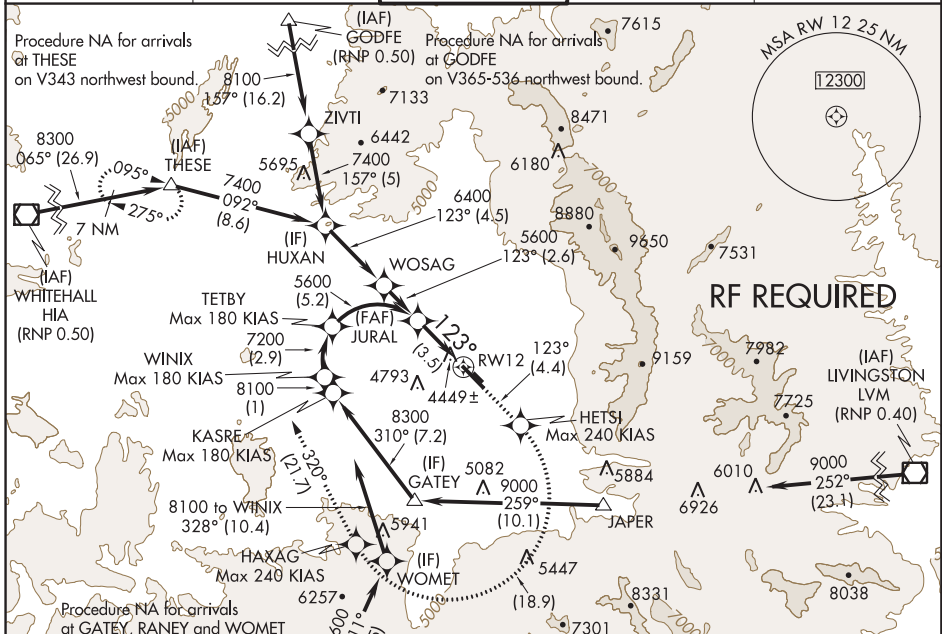
# RNAV (RNP) Z RWY 12

BOZEMAN YELLOWSTONE INTL (BZN)

**GPS required.** For uncompensated Baro-VNAV systems, procedure NA below -23°C (-11°F) or above 49°C (121°F). When VGSi inop, procedure NA at night. For inoperative MALSR increase RNP 0.30 visibility to 1¼ all Cats.

**MALSR**  MISSED APPROACH: Climb to 8300 on track 123° to HETSI, and right turn to HAXAG, and on track 320° to THESE and hold.

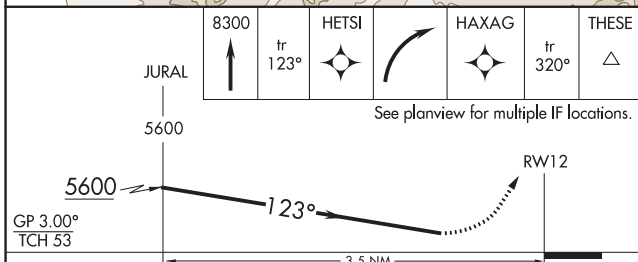
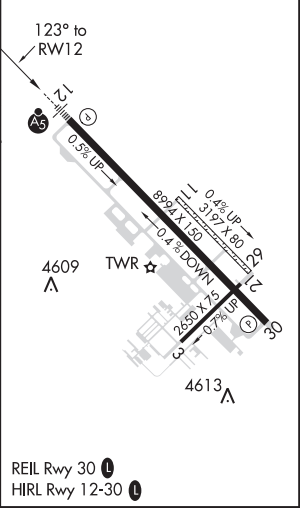
ATIS <b>135.425</b>	BIG SKY APP CON * <b>118.975 226.675</b>	BOZEMAN TOWER * <b>118.2 (CTAF) 0</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4473	<b>D</b>	TDZE 4443
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CATEGORY	A	B	C	D
RNP 0.30 DA		4791-1	348(400-1)	

**AUTHORIZATION REQUIRED**

REIL Rwy 30 **0**  
HIRL Rwy 12-30 **0**

WAAS CH <b>72816</b> <b>W12A</b>	APP CRS <b>123°</b>	Rwy Idg TDZE Apt Elev	<b>8994</b> <b>4443</b> <b>4473</b>
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# RNAV (GPS) Y RWY 12

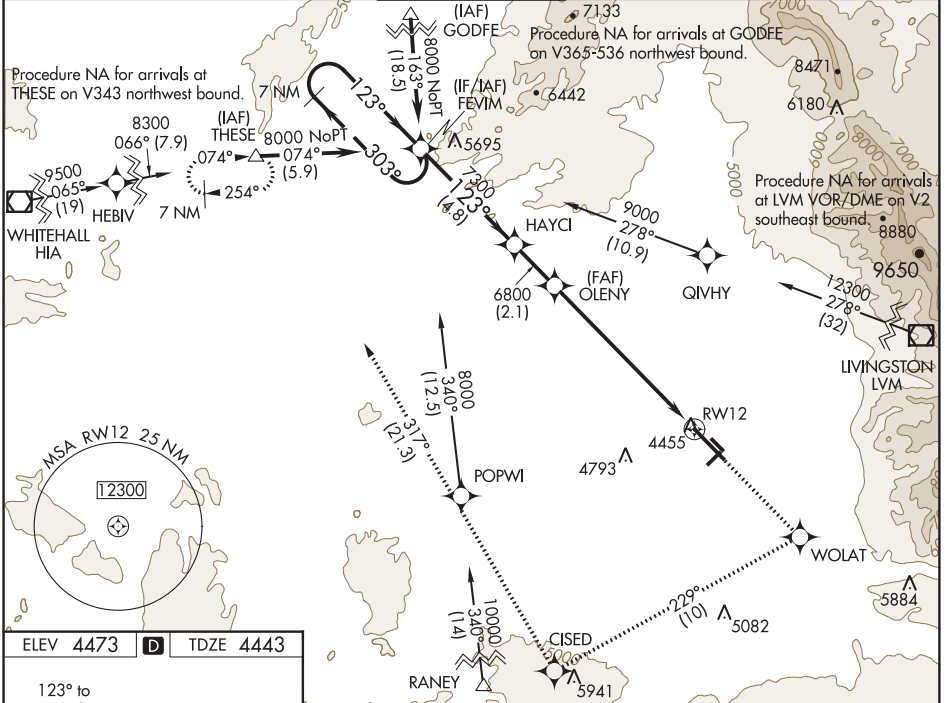
BOZEMAN YELLOWSTONE INTL (BZN)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 49°C (121°F). DME/DME RNP: 0.3 NA. For inoperative MALSR, increase LPV DA all Cats visibility to 1 mile.

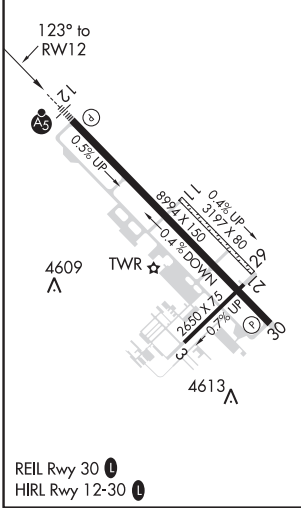
MALSR

MISSED APPROACH: Climb to 8300 direct WOLAT and right turn on track 229° to CISED and on track 317° to THESE and hold.

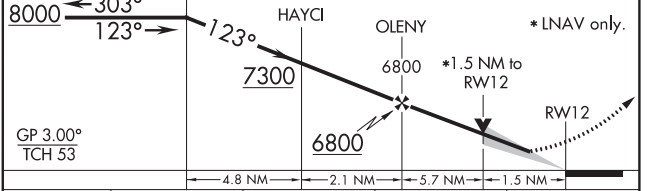
ATIS <b>135.425</b>	BIG SKY APP CON * <b>118.975 226.675</b>	BOZEMAN TOWER * <b>118.2 (CTAF)</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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ELEV 4473	<b>D</b>	TDZE 4443
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7 NM Holding Pattern	FEVIM	8300 WOLAT	CISED	THESE
		↑	tr 229°	tr 317°



CATEGORY	A	B	C	D
LPV DA		4693-1/2	250 (300-1/2)	
LNAV/VNAV DA		5094-1 3/4	651(700-1 3/4)	
LNAV MDA	4960-1/2	517 (500-1/2)	4960-1 517 (500-1)	4960-1 1/4 517 (500-1 1/4)
CIRCLING	4960-1	487 (500-1)	4960-1 1/2 487 (500-1 1/2)	5040-2 567 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

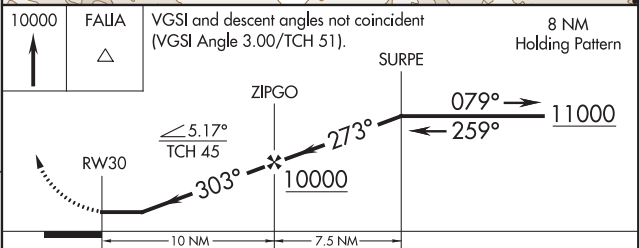
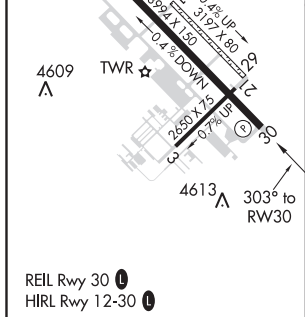
APP CRS <b>303°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>4473</b>
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# RNAV (GPS)-A

## BOZEMAN YELLOWSTONE INTL (BZN)

	DME/DME RNP-0.3 NA.	MISSED APPROACH: Climb to 10000 direct FALLA and hold, continue climb-in-hold to 10000.
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ATIS <b>135.425</b>	BIG SKY APP CON * <b>118.975 226.675</b>	BOZEMAN TOWER * <b>118.2 (CTAF)</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
CIRCLING	6020-1¼ 1547 (1600-1¼)	6020-1½ 1547 (1600-1½)	6020-3 1547 (1600-3)	6300-3 1827 (1900-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

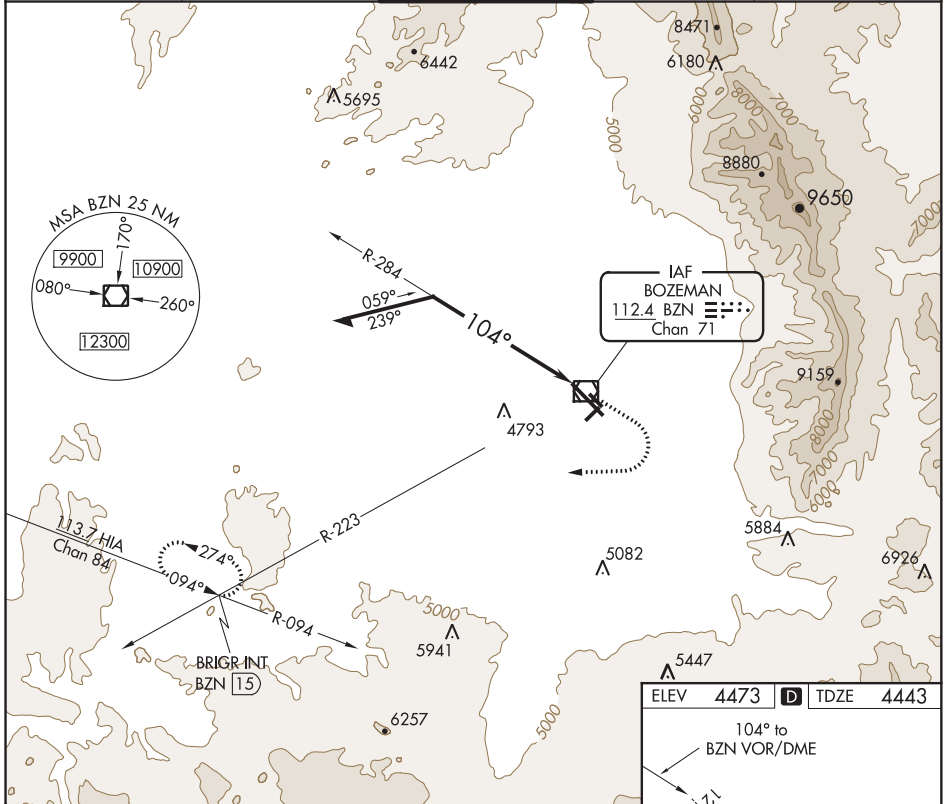
VOR/DME BZN <b>112.4</b> Chan 71	APP CRS <b>104°</b>	Rwy Idg TDZE Apt Elev <b>8994</b> <b>4443</b> <b>4473</b>
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# VOR RWY 12

BOZEMAN YELLOWSTONE INTL (BZN)

Inoperative table does not apply. -33°C/-27°F	MALSR	MISSED APPROACH: Climb to 5500 then climbing right turn to 8000 on heading 250° and BZN VOR/DME R-223 to BRIGR INT/15 DME and hold.
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ATIS <b>135.425</b>	BIG SKY APP CON* <b>118.975 226.675</b>	<b>BOZEMAN TOWER*</b> <b>118.2 (CTAF)</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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Remain within 10 NM	BZN VOR/DME	5500	8000	BZN R-223	BRIGR INT
6700	10000 8000				
	BZN (3.5)				

ELEV	4473	D	TDZE	4443
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104° to BZN VOR/DME

REIL Rwy 30   
HIRL Rwy 12-30

NW-1, 10 NOV 2016 to 05 JAN 2017

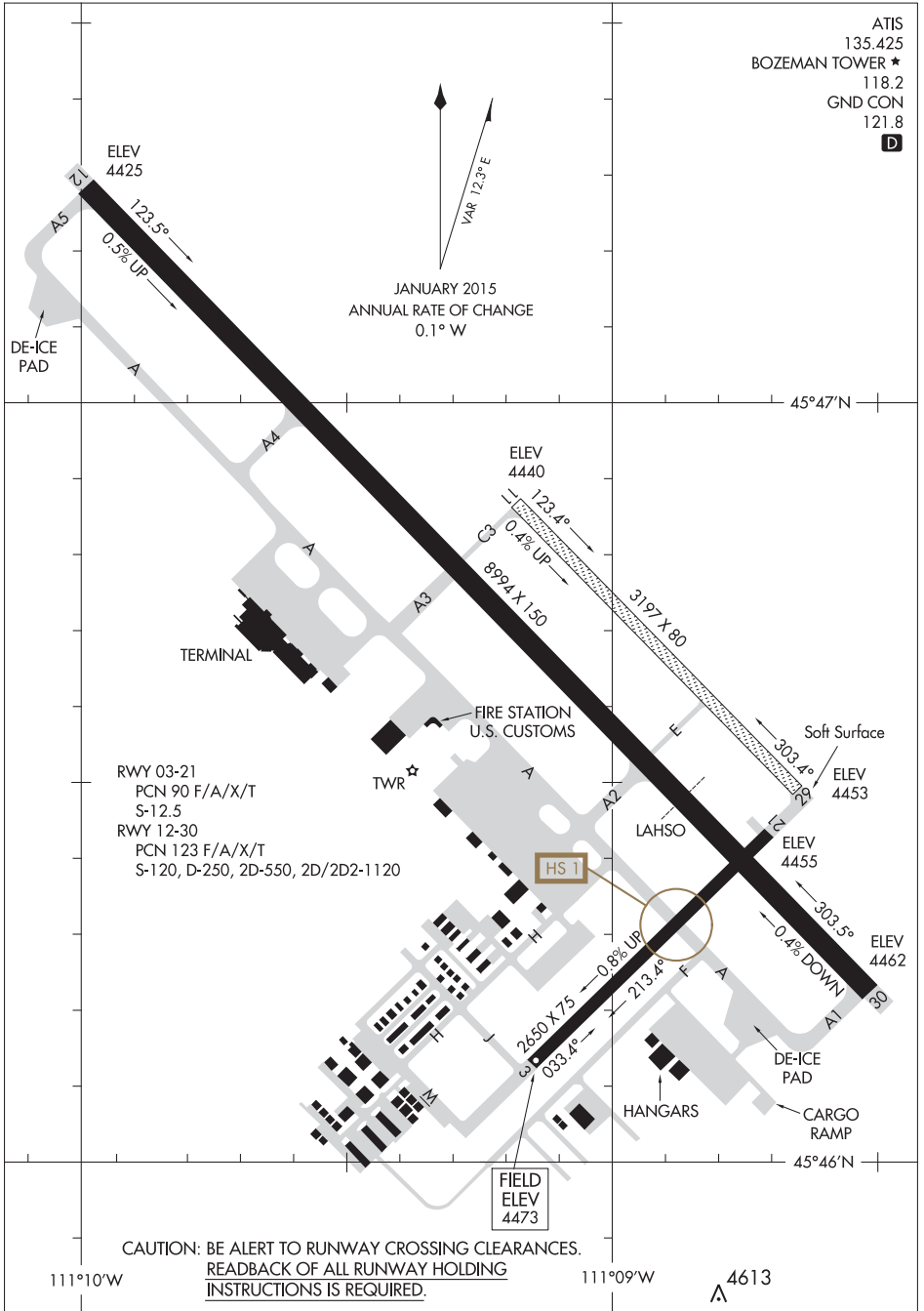
NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

BOZEMAN YELLOWSTONE INTL (BZN)  
BOZEMAN, MONTANA

AL-59 (FAA)

ATIS 135.425  
 BOZEMAN TOWER ★ 118.2  
 GND CON 121.8  
D



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

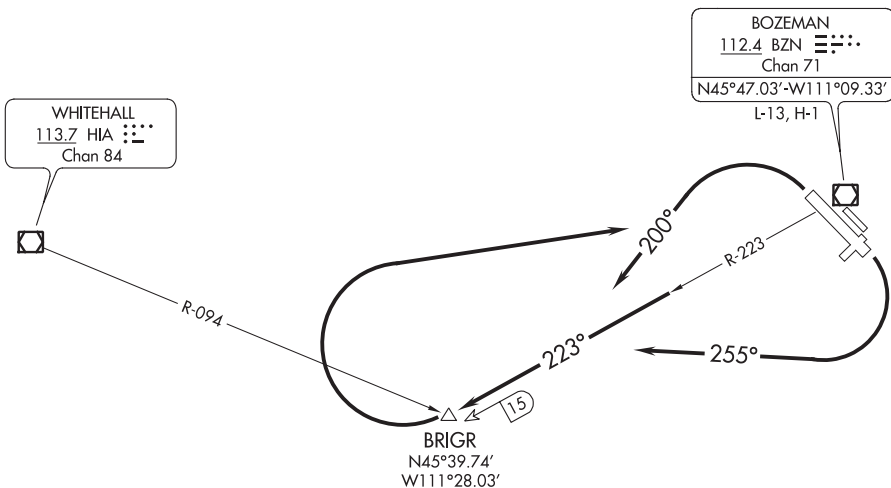
BOZEMAN, MONTANA  
BOZEMAN YELLOWSTONE INTL (BZN)

(BZN5.BZN) 16147

# BOZEMAN FIVE DEPARTURE (OBSTACLE)

BOZEMAN YELLOWSTONE INTL (BZN)  
SL-59 (FAA) BOZEMAN, MONTANA

ATIS  
135.425  
GND CON  
121.8  
BOZEMAN TOWER ★  
118.2 (CTAF)  
BIG SKY DEP CON ★  
118.975 226.675  
GREAT FALLS RADIO  
122.5



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

**TAKEOFF MINIMUMS**  
Rwys 3, 21: NA - ATC.  
Rwys 12, 30: Standard

**TAKEOFF OBSTACLE NOTES**  
Rwy 30: Pole 641' from DER, 622' left of centerline, 35' AGL/4452' MSL.

NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 12:** Climbing right turn heading 255° to intercept BZN R-223 to BRIGR, then continue climbing right turn direct BZN VOR/DME, cross BZN VOR/DME at or above MCA or MEA for route of flight.

**TAKEOFF RUNWAY 30:** Climbing left turn heading 200° to intercept BZN R-223 to BRIGR, then continue climbing right turn direct BZN VOR/DME, cross BZN VOR/DME at or above MCA or MEA for route of flight.

BOZEMAN FIVE DEPARTURE (OBSTACLE)  
(BZN5.BZN) 15NOV12

BOZEMAN, MONTANA  
BOZEMAN YELLOWSTONE INTL (BZN)

(BOBK3.BOBKT) 16147

# BOBK THREE DEPARTURE (RNAV)

BOZEMAN YELLOWSTONE INTL (BZN)

SL-59 (FAA)

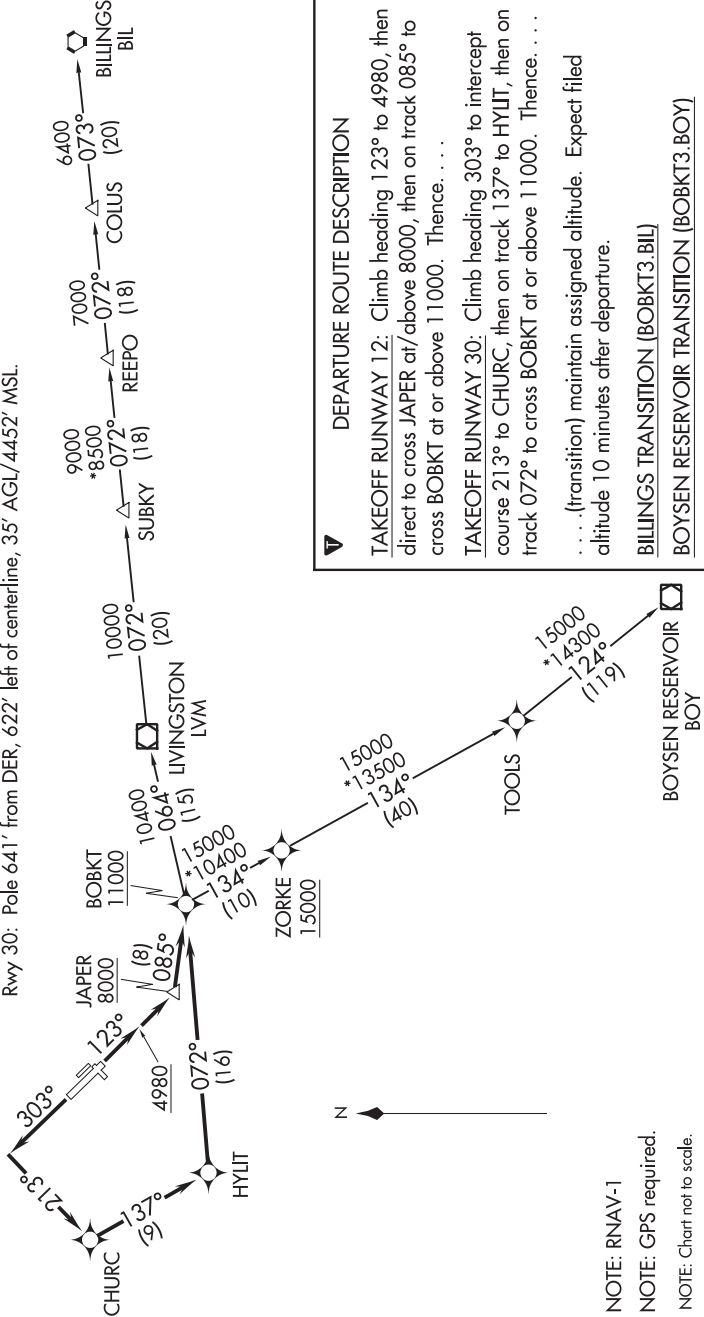
BOZEMAN, MONTANA

NW-1, 10 NOV 2016 to 05 JAN 2017

ATIS  
 135.425  
 GND CON  
 121.8  
 BOZEMAN TOWER\*  
 118.2 (CTAF)  
 BIG SKY DEP CON\*  
 118.975 226.675  
 GREAT FALLS RADIO  
 122.5

**TAKEOFF MINIMUMS**  
 Rwy 3, 21: NA - ATC.  
 Rwy 12: Standard with minimum climb of 395' per NM to 15000.  
 Rwy 30: Standard with minimum climb of 250' per NM to 15000.

**TAKEOFF OBSTACLE NOTES**  
 Rwy 30: Pole 641' from DER, 622' left of centerline, 35' AGL/4452' MSL.



### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 12:** Climb heading 123° to 4980, then direct to cross JAPER at/above 8000, then on track 085° to cross BOBK at or above 11000. Thence...

**TAKEOFF RUNWAY 30:** Climb heading 303° to intercept course 213° to CHURC, then on track 137° to HYLI, then on track 072° to cross BOBK at or above 11000. Thence...

... (transition) maintain assigned altitude. Expect filed altitude 10 minutes after departure.

**BILLINGS TRANSITION (BOBK3.BIL)**  
**BOYEN RESERVOIR TRANSITION (BOBK3.BOY)**

NOTE: RNAV-1  
 NOTE: GPS required.  
 NOTE: Chart not to scale.

# BOBK THREE DEPARTURE (RNAV)

(BOBK3.BOBKT) 10DEC15

BOZEMAN, MONTANA

BOZEMAN YELLOWSTONE INTL (BZN)

NW-1, 10 NOV 2016 to 05 JAN 2017



(TEERX3.TEERX) 16147

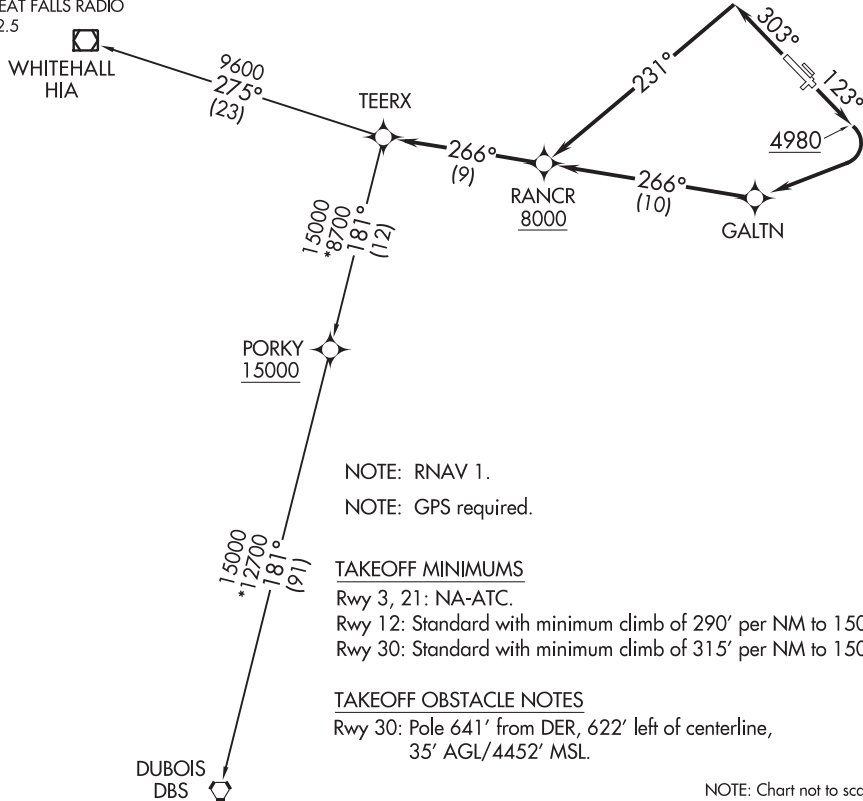
# TEERX THREE DEPARTURE (RNAV)

BOZEMAN YELLOWSTONE INTL (BZN)

SL-59 (FAA)

BOZEMAN, MONTANA

ATIS  
 135.425  
 GND CON  
 121.8  
 BOZEMAN TOWER\*  
 118.2 (CTAF)  
 BIG SKY DEP CON\*  
 118.975 226.675  
 GREAT FALLS RADIO  
 122.5



NOTE: RNAV 1.  
 NOTE: GPS required.

### TAKEOFF MINIMUMS

Rwy 3, 21: NA-ATC.  
 Rwy 12: Standard with minimum climb of 290' per NM to 15000.  
 Rwy 30: Standard with minimum climb of 315' per NM to 15000.

### TAKEOFF OBSTACLE NOTES

Rwy 30: Pole 641' from DER, 622' left of centerline,  
 35' AGL/4452' MSL.

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climb heading 123° to 4980, then climbing right turn direct GALTN, then on track 266° to cross RANCR at or above 8000, then on track 266° to TEERX, thence. . . .

TAKEOFF RUNWAY 30: Climb heading 303° to intercept course 231° to cross RANCR at or above 8000, then on track 266° to TEERX, thence. . . .

. . . (transition). Maintain assigned altitude, expect filed altitude 10 minutes after departure.

DUBOIS TRANSITION (TEERX3.DBS)

WHITEHALL TRANSITION (TEERX3.HIA)

# TEERX THREE DEPARTURE (RNAV)

(TEERX3.TEERX) 10DEC15

BOZEMAN, MONTANA

BOZEMAN YELLOWSTONE INTL (BZN)


(HIA4.HIA) 16147

# WHITEHALL FOUR DEPARTURE

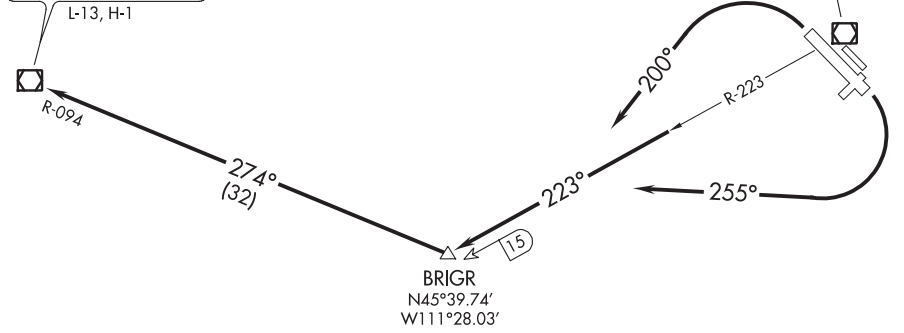
BOZEMAN YELLOWSTONE INTL (BZN)  
BOZEMAN, MONTANA

SL-59 (FAA)

ATIS  
 135.425  
 GND CON  
 121.8  
 BOZEMAN TOWER ★  
 118.2 (CTAF)  
 BIG SKY DEP CON ★  
 118.975 226.675  
 GREAT FALLS RADIO  
 122.5

WHITEHALL  
 113.7 HIA   
 Chan 84  
 N45°51.71'-W112°10.18'  
 L-13, H-1

BOZEMAN  
 112.4 BZN   
 Chan 71



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

### TAKEOFF MINIMUMS

Rwys 3, 21: NA- ATC.  
 Rwys 12, 30: Standard.

### TAKEOFF OBSTACLE NOTES

Rwy 30: Pole 641' from DER, 622' left of centerline, 35' AGL/4452' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 12:** Climbing right turn heading 255° to intercept BZN R-223 to BRIGR, then continue climbing on HIA R-094 to HIA VOR/DME, cross HIA VOR/DME at or above MCA or MEA for route of flight.

**TAKEOFF RUNWAY 30:** Climbing left turn heading 200° to intercept BZN R-223 to BRIGR, then continue climbing on HIA R-094 to HIA VOR/DME, cross HIA VOR/DME at or above MCA or MEA for route of flight.

# WHITEHALL FOUR DEPARTURE

(HIA4.HIA) 15NOV12

BOZEMAN, MONTANA  
BOZEMAN YELLOWSTONE INTL (BZN)

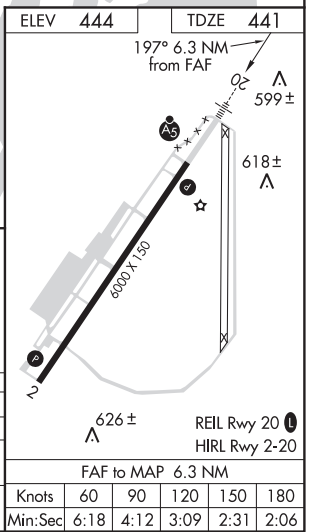
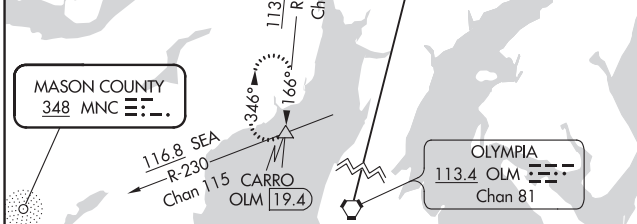
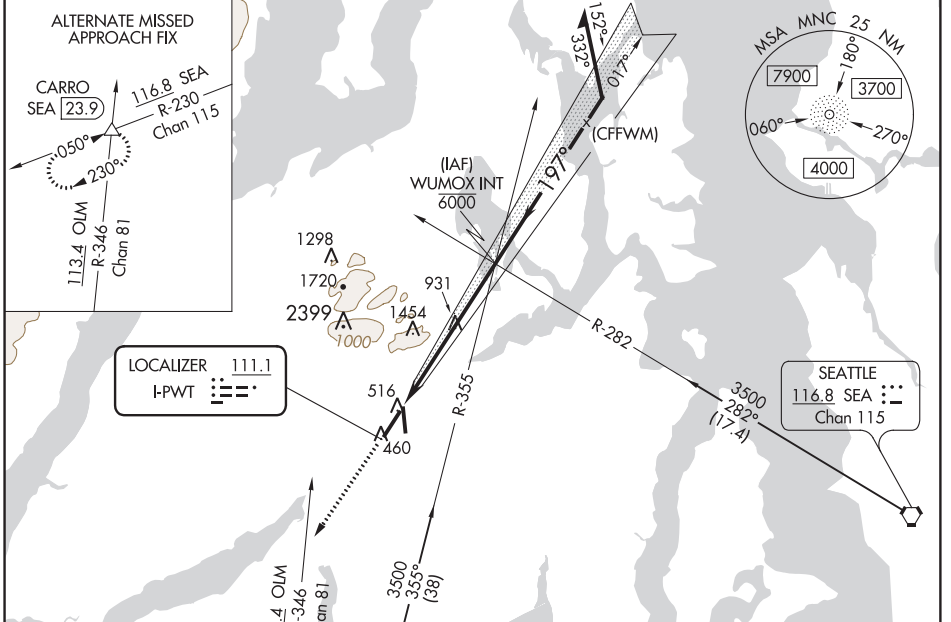
LOC I-PWTT <b>111.1</b>	APP CRS <b>197°</b>	Rwy Idg TDZE Apt Elev	<b>6000</b> <b>441</b> <b>444</b>
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**ILS or LOC RWY 20**  
BREMERTON NATIONAL (PWT)

⚠ Circling NA for Cats C and D west of Rwy 2-20. When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting and increase all DA 45 feet, all MDA 60 feet and increase S-LOC 20 Cat C and D visibility 1/8 mile. Circling Cat A, C and D visibility 1/4 mile.  
 ⚠ Night landing: Rwy 2 NA. For inoperative MALSRR, increase S-LOC 20 Cat C and D visibility to 2 miles. For inoperative MALSRR, when using Seattle-Tacoma Intl altimeter setting, increase S-LOC 20 Cat C and D visibility to 2 1/2 miles.

MALSRR  
 MISSED APPROACH:  
 Climb to 4000 on heading 197° and OLM VORTAC R-346 to CARRO INT/OLM 19.4 DME and hold, continue climb-in-hold to 4000.

AWOS-3 <b>121.2</b>	SEATTLE APP CON <b>127.1 254.4 269.125</b>	UNICOM <b>123.05 (CTAF)</b>
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ELEV 444	TDZE 441
hdg 197°	197° 6.3 NM from FAF
OLM R-346	△ 599±
CARRO △	618±
WUMOX INT	626±
3500	REIL Rwy 20
2500	HIRL Rwy 2-20
3000	6000 x 150
2500	FAF to MAP 6.3 NM
GS 3.00° TCH 49	

CATEGORY	A	B	C	D
S-ILS 20		641-1/2	200 (200-1/2)	
S-LOC 20	1200-1/2 759 (800-1/2)	1200-3/4 759 (800-3/4)	1200-1 3/4 756 (800-2 1/4)	759 (800-1 3/4)
CIRCLING	1200-1 756 (800-1)	1200-1 1/4 756 (800-1 1/4)	1200-2 1/4 756 (800-2 1/4)	1240-2 1/2 796 (800-2 1/2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BREMERTON, WASHINGTON

AL-5107 (FAA)

16203

WAAS CH <b>49232</b> <b>W02A</b>	APP CRS <b>017°</b>	Rwy Idg TDZE Apt Elev	<b>6000</b> <b>444</b> <b>444</b>
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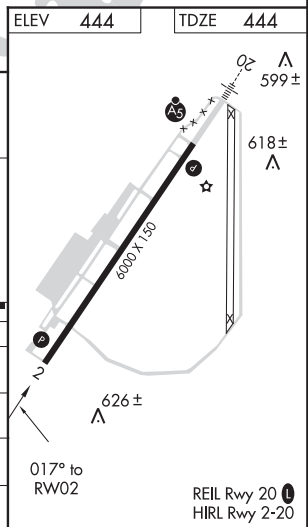
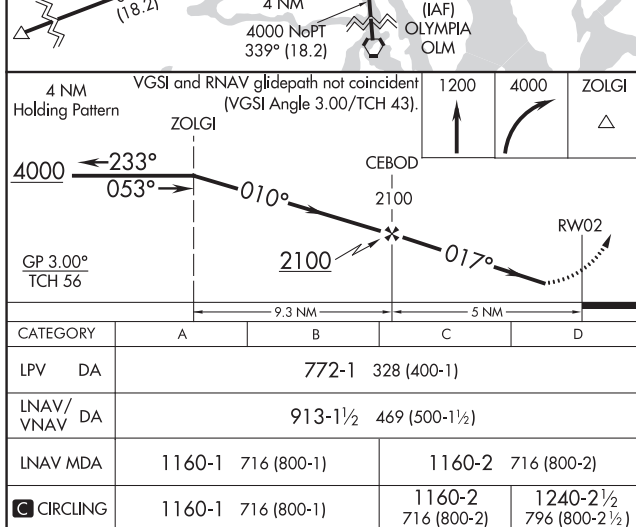
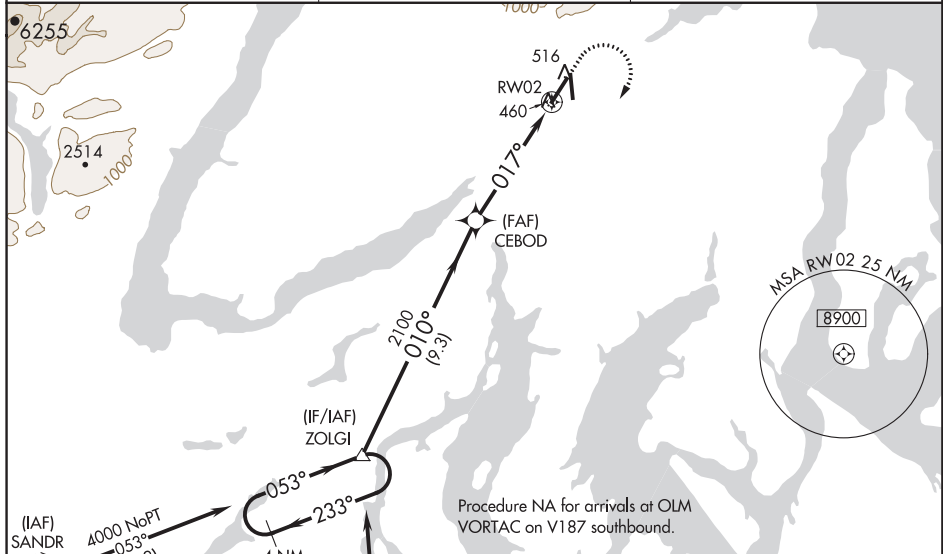
# RNAV (GPS) RWY 2

BREMERTON NATIONAL (PWT)

**▼** Circling NA for Cats C and D west of Rwy 2-20. DME/DME RNP-0.3 NA.  
**▲** Baro-VNAV NA when using Seattle-Tacoma Intl altimeter setting.  
 Night Landing: Rwy 2 NA. When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting and increase LPV DA to 817, LNAV/VNAV DA to 958, and all visibilities ¼ mile. Increase all MDA 60 feet and LNAV Cat B visibility ¼ mile and all Cat C and D visibilities ½ mile. Helicopter visibility reduction below 1 SM NA.

**MISSED APPROACH:** Climb to 1200 then climbing right turn to 4000 direct ZOLGI and hold, continue climb-in-hold to 4000.

AWOS-3 <b>121.2</b>	SEATTLE APP CON <b>127.1 254.4 269.125</b>	UNICOM <b>123.05 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BREMERTON, WASHINGTON  
Amdt 2 04FEB16

47°29'N-122°46'W

# BREMERTON NATIONAL (PWT)


## RNAV (GPS) RWY 2


WAAS CH <b>61106</b> <b>W20A</b>	APP CRS <b>197°</b>	Rwy ldg TDZE Apt Elev	<b>6000</b> <b>441</b> <b>444</b>
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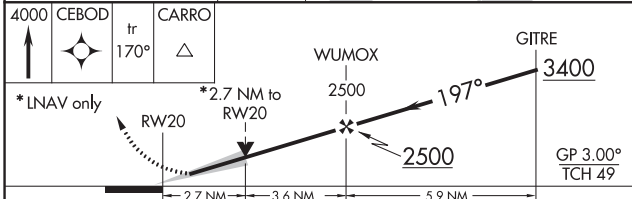
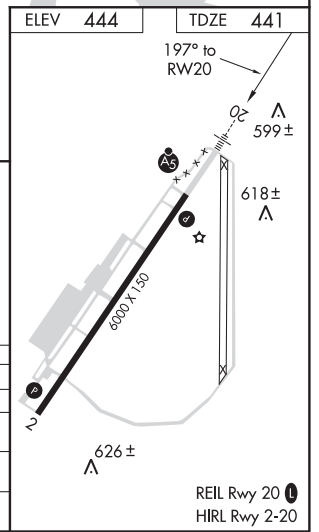
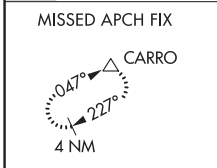
# RNAV (GPS) RWY 20

BREMERTON NATIONAL (PWT)

**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (4°F) or above 54°C (130°F). Circling NA for Cats C and D west of Rwy 2-20.  
**▲** DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Seattle-Tacoma Intl altimeter setting. When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting and increase all DA 45 feet and all MDA 60 feet; increase LNAV Cat A visibility ¼ mile; increase Circling Cats C/D visibility ¼ mile. Night landing: Rwy 2 NA.

**MALSR**  
 MISSED APPROACH: Climb to 4000 direct CEBOD and on track 170° to CARRO and hold, continue climb-in-hold to 4000.

AWOS-3 <b>121.2</b>	SEATTLE APP CON <b>127.1 254.4 269.125</b>	UNICOM <b>123.05 (CTAF)</b> 
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CATEGORY	A	B	C	D
LPV DA		641-½	200 (200-½)	
LNAV/VNAV DA		1395-3	954 (1000-3)	
LNAV MDA	1300-½ 859 (900-½)	1300-¾ 859 (900-¾)	1300-2	859 (900-2)
<b>C</b> CIRCLING	1300-1¼	856 (900-1¼)	1300-2½ 856 (900-2½)	1300-2¾ 856 (900-2¾)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BUFFALO, WYOMING

AL-5705 (FAA)

15288

WAAS CH <b>48835</b> <b>W31A</b>	APP CRS <b>306°</b>	Rwy Idg <b>6143</b> TDZE <b>4940</b> Apt Elev <b>4970</b>
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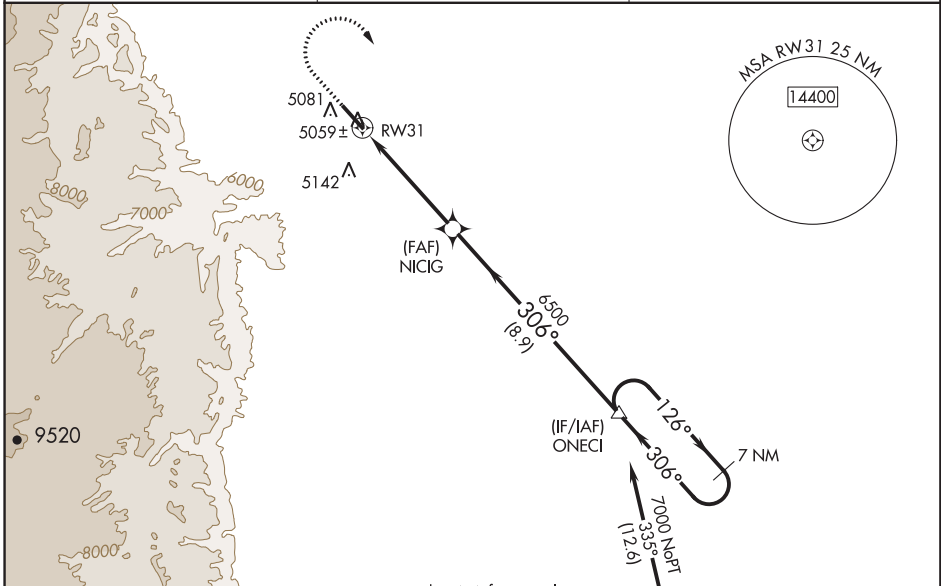
# RNAV (GPS) RWY 31

JOHNSON COUNTY (BYG)

**⚠** When Rwy 13 VGSI inop, Circling Rwy 13 NA at night. Baro-VNAV and VDP NA when using Sheridan altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-16°F) or above 48°C (120°F). Circling NA southwest of Rwy 13-31. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Sheridan altimeter setting and increase all DA/MDA 200 feet; increase all LPV, LNAV/VNAV, and all LNAV and Circling Cat C/D visibilities ¾ mile.

**MISSED APPROACH:** Climb to 6000, then climbing right turn to 7000 direct ONECI and hold.

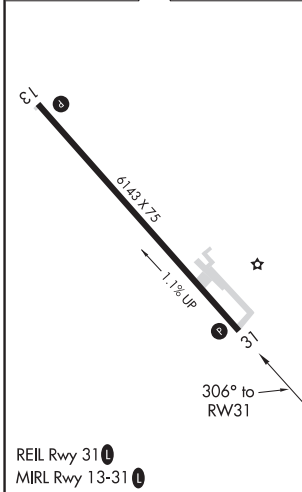
ASOS <b>135.425</b>	CASPER RADIO <b>122.025</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

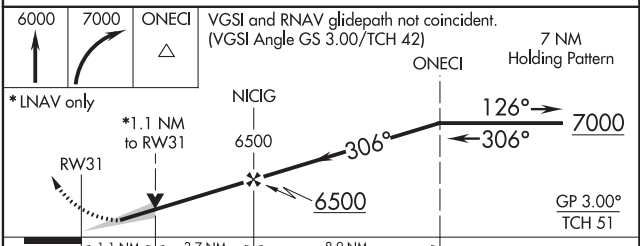
NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4970	TDZE 4940
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REIL Rwy 31 0  
MIRL Rwy 13-31 0

Procedure NA for arrivals at CZI VOR/DME on airway radials 256 CW 048.



CATEGORY	A	B	C	D
LPV DA		5190-¾	250 (300-¾)	
LNAV/VNAV DA		5275-1½	335 (400-1½)	
LNAV MDA	5320-1	380 (400-1)	5320-1½	380 (400-1½)
<b>C</b> CIRCLING	5440-1	470 (500-1)	5460-1½ 490 (500-1½)	5600-2 630 (700-2)

BUFFALO, WYOMING  
Amdt 1A 24JUL14

44°23'N-106°43'W

# JOHNSON COUNTY (BYG) RNAV (GPS) RWY 31

VOR/DME CZI <b>117.3</b> Chan <b>120</b>	APP CRS <b>319°</b>	Rwy Idg <b>6143</b> TDZE <b>4940</b> Apt Elev <b>4970</b>
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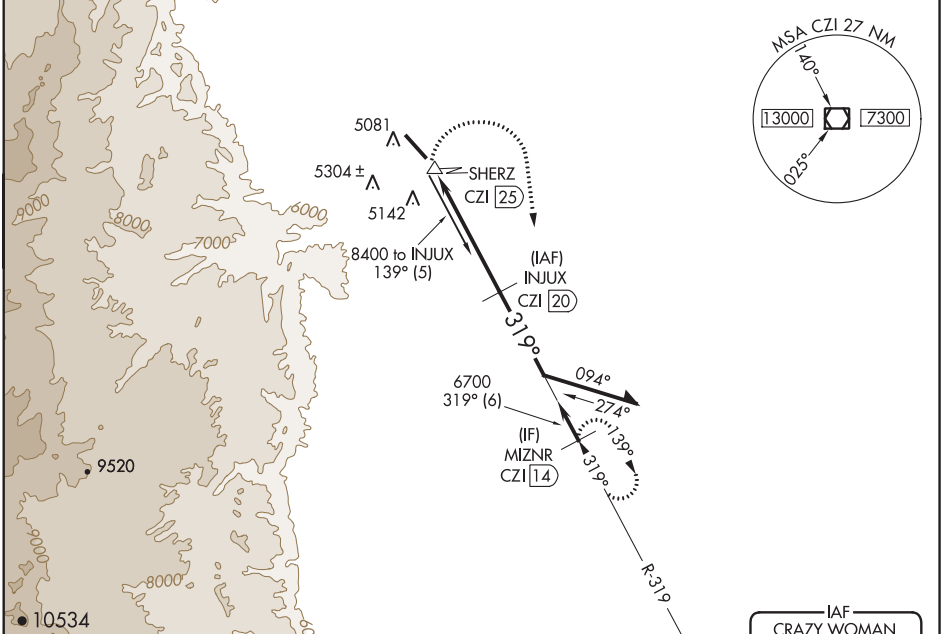
# VOR/DME RWY 31

JOHNSON COUNTY (BYG)

**▼** Visibility reduction by helicopters NA. If local altimeter setting not received, use Sheridan altimeter setting and increase all MDA's 600 feet. When VGSI inoperative, procedure NA at night.

**▲** MISSED APPROACH: Climbing right turn to 7600 via heading 160° and CZI VOR/DME R-319 to MIZNR/14 DME and hold.

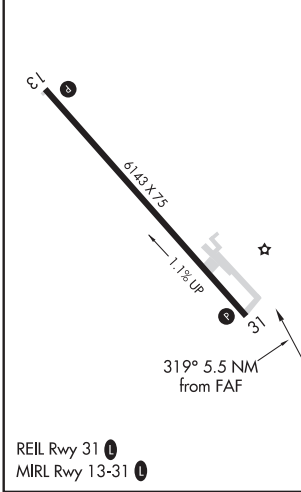
ASOS <b>135.425</b>	CASPER RADIO <b>122.025</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

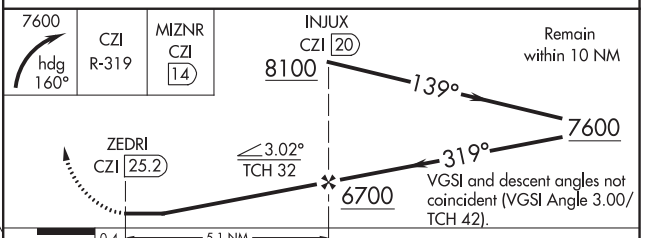
ELEV 4970	TDZE 4940
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REIL Rwy 31 **0**  
MIRL Rwy 13-31 **0**

Procedure NA for arrivals at CZI VOR/DME via V247 southbound.

IAF CRAZY WOMAN  
117.3 CZI **25.2**  
Chan 120



CATEGORY	A	B	C	D
S-31	5680-1 740 (800-1)	5680-1¼ 740 (800-1¼)	5680-2¼ 740 (800-2¼)	5680-2½ 740 (800-2½)
CIRCLING	5680-1 710 (800-1)	5680-1¼ 710 (800-1¼)	5680-2¼ 710 (800-2¼)	5680-2½ 710 (800-2½)

APP CRS	Rwy Idg	<b>3787</b>
<b>202°</b>	TDZE	<b>4152</b>
	Apt Elev	<b>4154</b>

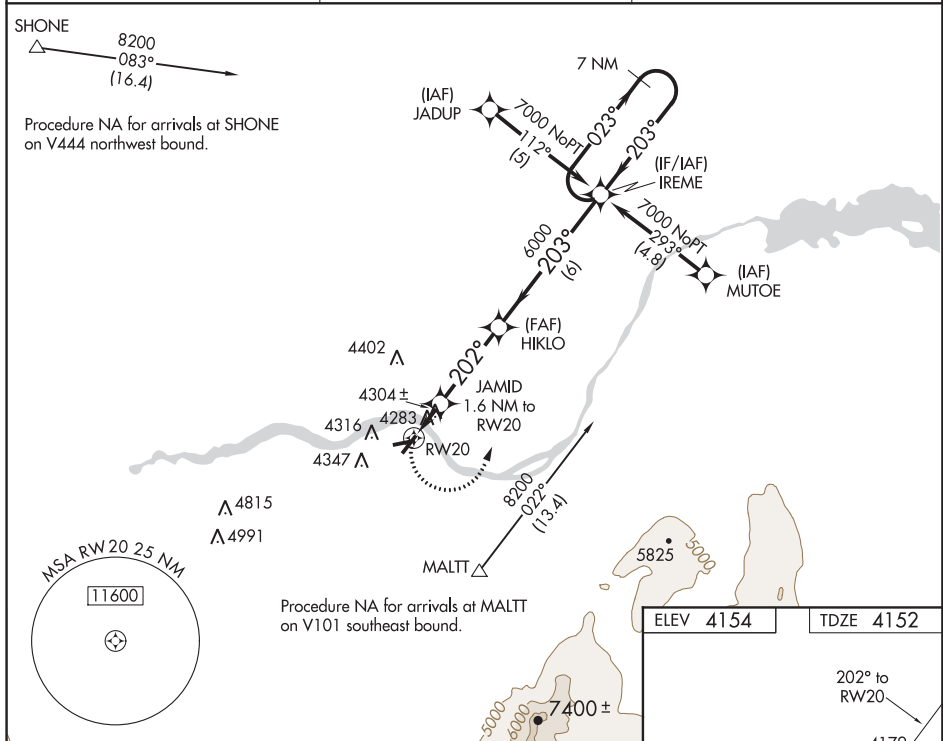
# RNAV (GPS) RWY 20

BURLEY MUNI (BYI)

**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Twin Falls altimeter setting and increase all MDA 80 feet. Procedure NA at night. Helicopter visibility reduction below 1 SM not authorized.

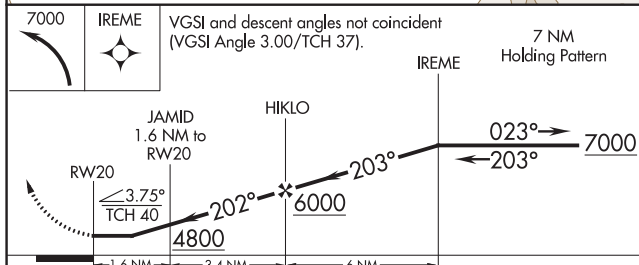
MISSED APPROACH: Climbing left turn to 7000 direct IREME and hold.

ASOS <b>135.575</b>	TWIN FALLS APP CON * <b>126.7 353.75</b>	CTAF <b>122.9 0</b>
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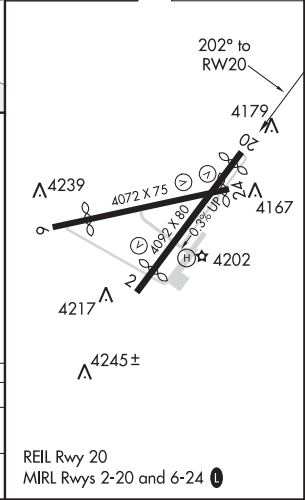


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 4154	TDZE 4152
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CATEGORY	A	B	C	D
RNAV MDA	4560-1	408 (500-1)	4560-1½ 408 (500-1½)	NA
CIRCLING	4660-1	506 (600-1)	4660-1½ 506 (600-1½)	NA



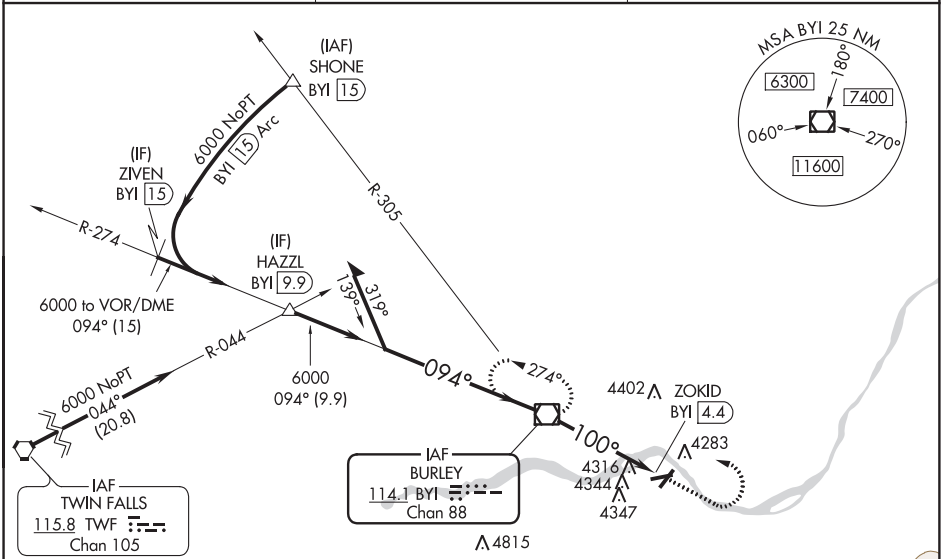
VOR/DME BYI <b>114.1</b> Chan <b>88</b>	APP CRS <b>100°</b>	Rwy Idg TDZE Apt Elev <b>4154</b>	N/A N/A N/A
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**VOR-A**  
BURLEY MUNI (BYI)

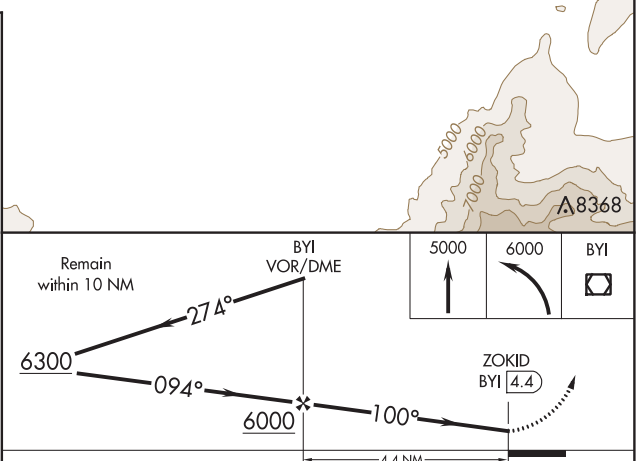
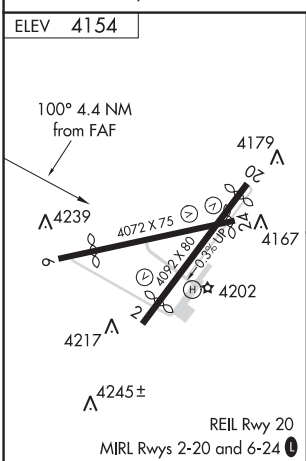
**⚠** When local altimeter setting not received, use Twin Falls altimeter setting and increase all MDA 80 feet. Night Landing Rwy 2 and 24 NA. Helicopter visibility reduction below 1 SM not authorized.

MISSED APPROACH: Climb to 5000 then climbing left turn to 6000 direct BYI VOR/DME and hold.

ASOS <b>135.575</b>	TWIN FALLS APP CON ★ <b>126.7 353.75</b>	CTAF <b>122.90</b>
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Procedure NA for arrivals on TWF VORTAC airway radials 349 CW 097.



FAF to MAP 4.4 NM								
Knots	60	90	120	150	180			
Min:Sec	4:24	2:56	2:12	1:46	1:28			
CATEGORY	A		B		C		D	
CIRCLING	4660-1		506 (600-1)		4660-1½ 506 (600-1½)		4720-2 566 (600-2)	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>53500</b> <b>W11A</b>	APP CRS <b>110°</b>	Rwy Idg <b>5478</b> TDZE <b>145</b> Apt Elev <b>145</b>
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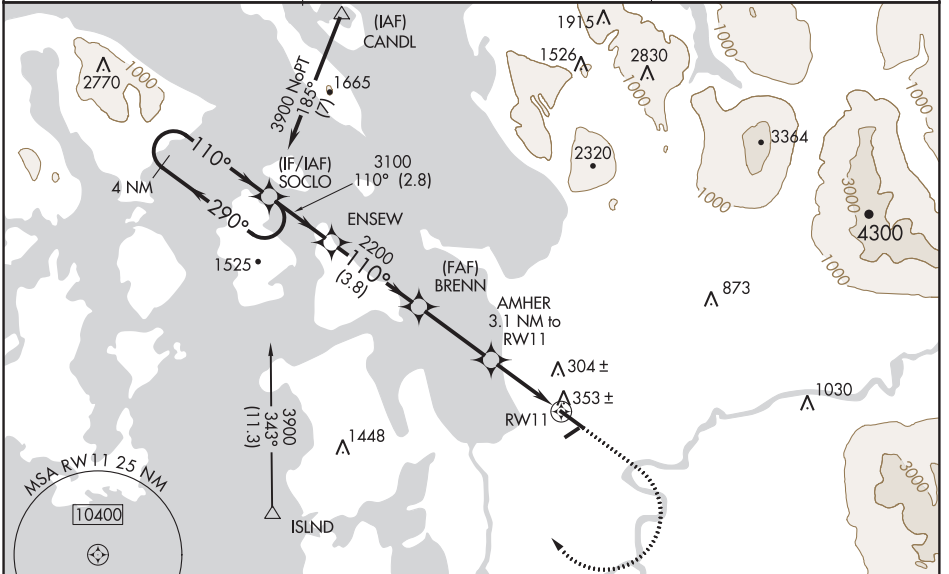
# RNAV (GPS) RWY 11

SKAGIT RGNL (BVS)

**⚠** Circling to Rwy 04 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). Baro-VNAV and VDP NA when using Friday Harbor altimeter setting. DME/DME RNP-0.3 NA. When local altimeter setting not received use Friday Harbor altimeter setting: increase LPV DA to 561 feet, LNAV/VNAV DA to 710 feet and all Cats visibilities ¼ SM; increase all MDA 60 feet and Cats C and D visibility ¼ SM. Helicopter visibility reduction below ¾ SM NA.

**⚠** MISSED APPROACH: Climb to 1000 then climbing right turn to 3900 direct SOCLO and hold, continue climb-in-hold to 3900.

AWOS-3 <b>121.125</b>	WHIDBEY APP CON <b>120.7 270.8</b>	UNICOM <b>123.075 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 145		TDZE 145	
4 NM Holding Pattern		SOCLO	
3900 ← 290°		110° →	
GP 3.00°		TCH 43	
2.8 NM		3.8 NM	
3100		110°	
ENSEW		BRENN	
2200		2200	
*1160		*1.4 NM to RW11	
1000		3900	
AMHER 3.1 NM to RW11		*LNAV only	
1.7 NM		1.4 NM	
RW11		RW11	
110° to RW11		5478 X 100	
193±		149	
126±		29	
3000 X 60		0.3% UP	
LIRL Rwy 4-22		REIL Rwy 11 and 29	
MIRL Rwy 11-29			

WAAS CH <b>70407</b> <b>W29A</b>	APP CRS <b>291°</b>	Rwy Idg TDZE <b>127</b> Apt Elev <b>145</b>	<b>5478</b>
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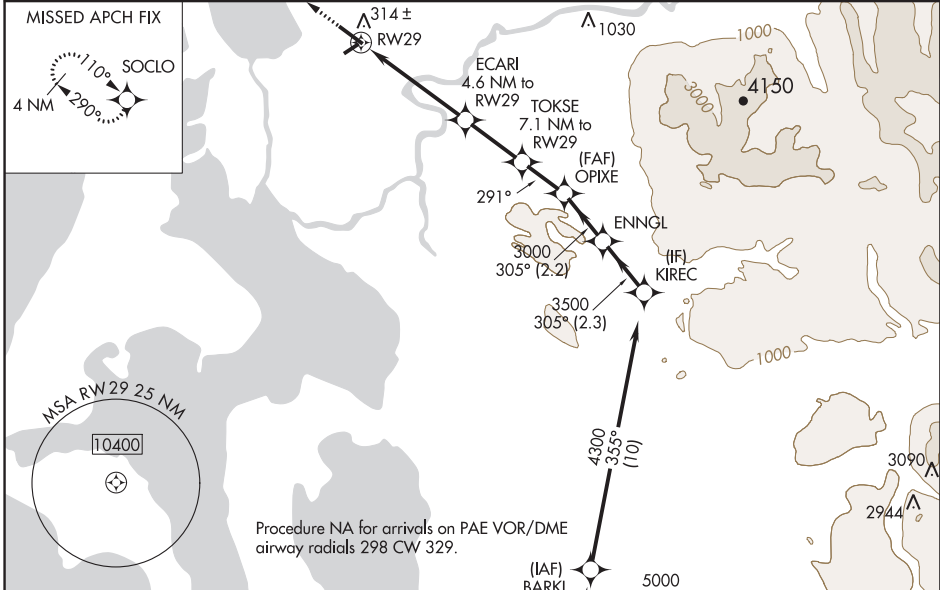
# RNAV (GPS) RWY 29

SKAGIT RGNL (BVS)

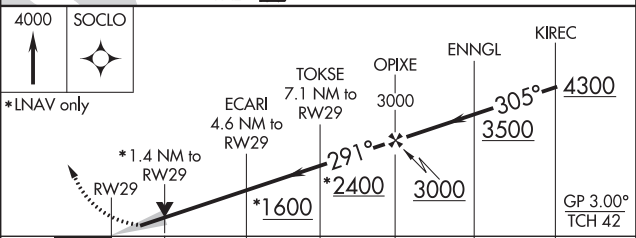
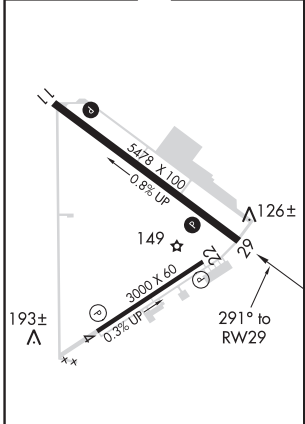
**⚠** Circling to Rwy 04 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). Baro-VNAV and VDP NA when using Friday Harbor altimeter setting. DME/DME RNP-0.3 NA. When local altimeter setting not received use Friday Harbor altimeter setting: increase LPV DA to 438 feet, LNAV/VNAV DA to 536 feet and all Cats visibilities ¼ SM; increase all MDA 60 feet and Circling Cats C and D visibility ¼ SM.

**MISSED APPROACH:** Climb to 4000 direct SOCL0 and hold, continue climb-in-hold to 4000.

AWOS-3 <b>121.125</b>	WHIDBEY APP CON <b>120.7 270.8</b>	UNICOM <b>123.075 (CTAF)</b>
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ELEV <b>145</b>	TDZE <b>127</b>
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CATEGORY	A	B	C	D
LPV DA		377-7/8	250 (300-7/8)	
LNAV/VNAV DA		475-1 1/4	348 (400-1 1/4)	
LNAV MDA	580-1	453 (500-1)	580-1 3/8	453 (500-1 3/8)
CIRCLING	680-1 535 (600-1)	700-1 555 (600-1)	700-1 1/2 555 (600-1 1/2)	1000-2 3/4 855 (900-2 3/4)

- LIRL Rwy 4-22
- REIL Rws 11 and 29
- MIRL Rwy 11-29

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NDB BVS <b>240</b>	APP CRS <b>117°</b>	Rwy ldg <b>5478</b> TDZE <b>145</b> Apt Elev <b>145</b>
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# NDB RWY 11

SKAGIT RGNL (BVS)

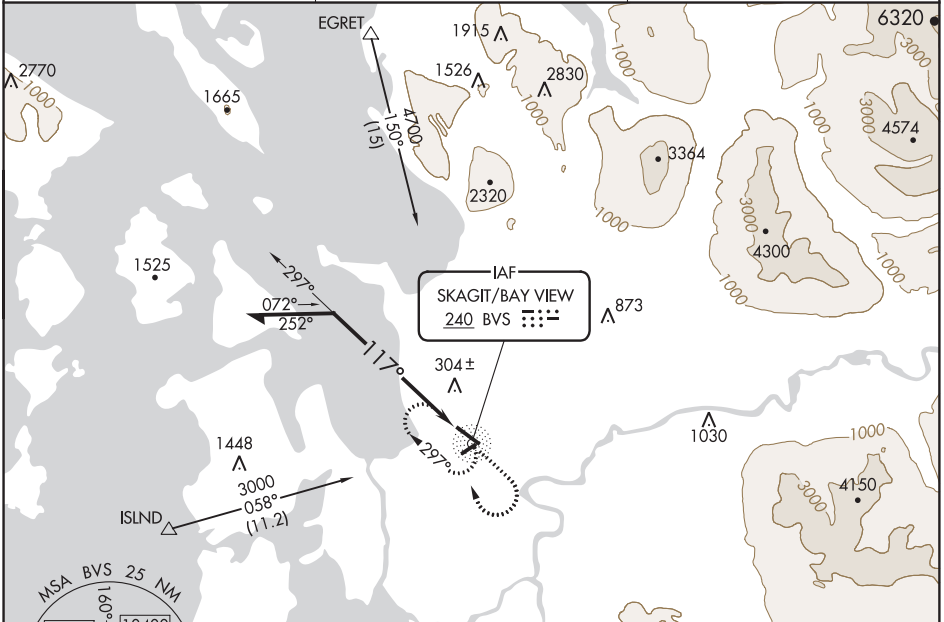
**▼** When local altimeter setting not received, use Friday Harbor altimeter setting.  
**▲** Circling to Rwy 4 NA at night.  
 Helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

**MISSED APPROACH:** Climb to 2100 then climbing right turn to 3000 direct BVS NDB and hold.

AWOS-3  
**121.125**

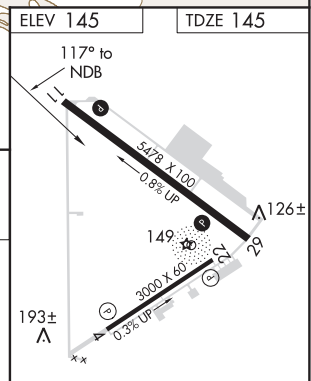
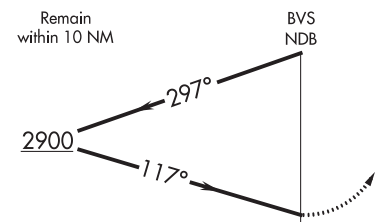
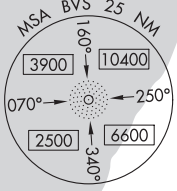
WHIDBEY APP CON  
**120.7 270.8**

UNICOM  
**123.075 (CTAF) ①**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-11	1400-1¼ 1255 (1300-1¼)	1400-1½ 1255 (1300-1½)	1400-3	1255 (1300-3)
<b>C</b> CIRCLING	1400-1¼ 1255 (1300-1¼)	1400-1½ 1255 (1300-1½)	1400-3	1255 (1300-3)

LIRL Rwy 4-22 ①  
 MIRL Rwy 11-29 ①  
 REIL Rwy 11 and 29 ①

APP CRS <b>297°</b>	Rwy Idg <b>5100</b>
	TDZE <b>4148</b>
	Apt Elev <b>4159</b>

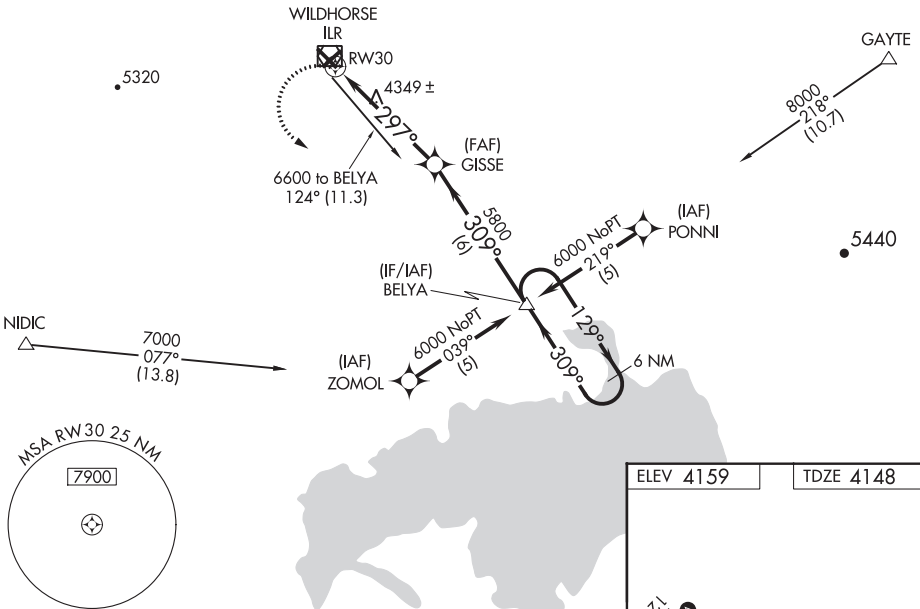
# RNAV (GPS) RWY 30

BURNS MUNI (BNO)

-27°C/17°F DME/DME RNP- 0.3 NA.	MISSED APPROACH: Climbing left turn to 6000 direct BELYA and hold.
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ASOS <b>135.575</b>	MC MINNVILLE RADIO <b>122.5</b>	UNICOM <b>122.8 (CTAF)</b>
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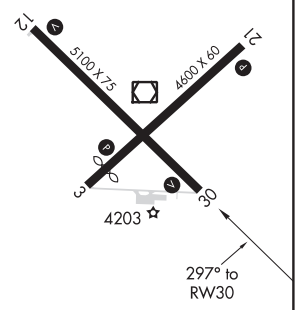
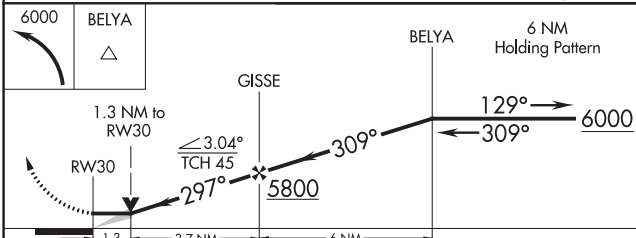
Procedure NA for arrivals on ILR VOR/DME airway radial 123.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4159	TDZE 4148
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CATEGORY	A	B	C	D
LNVA MDA	4600-1	452 (500-1)	4600-1½ 452 (500-1½)	4600-1½ 452 (500-1½)
CIRCLING	4600-1 441 (500-1)	4680-1 521 (600-1)	4680-1½ 521 (600-1½)	4720-2 561 (600-2)

REIL Rwy's 3, 12, 21 and 30  
MIRL Rwy's 3-21 and 12-30

BURNS, OREGON

AL-6331 (FAA)

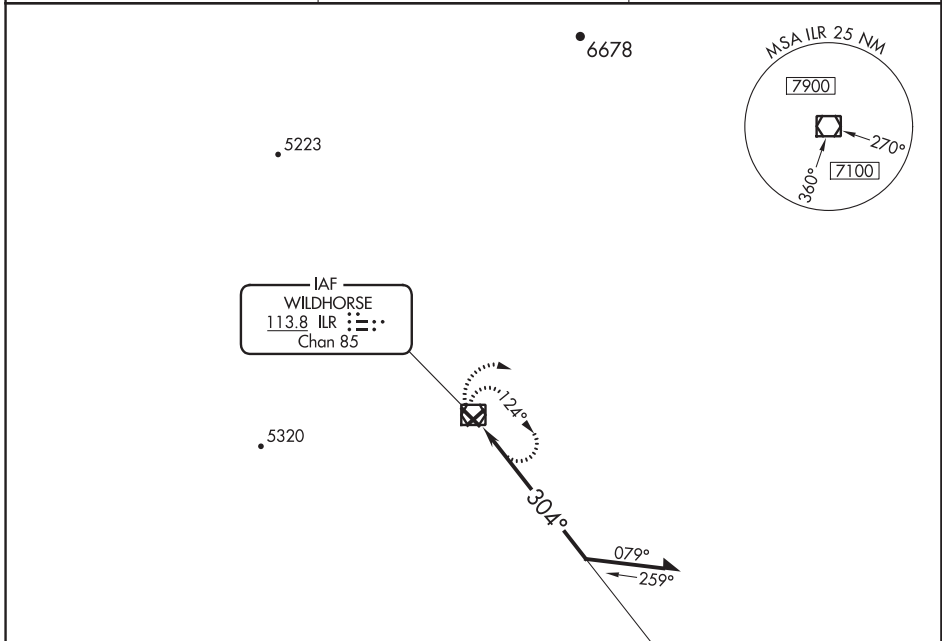
15232

VOR/DME ILR <b>113.8</b> Chan <b>85</b>	APP CRS <b>304°</b>	Rwy Idg TDZE Apt Elev <b>5100</b> <b>4148</b> <b>4159</b>
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**VOR RWY 30**  
BURNS MUNI (BNO)

<p>-27°C/-17°F</p>	<p>MISSED APPROACH: Climbing right turn to 8000 in ILR VOR/DME holding pattern.</p>
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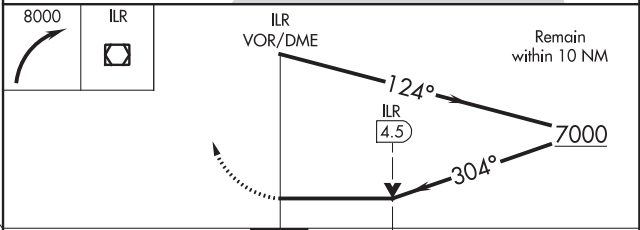
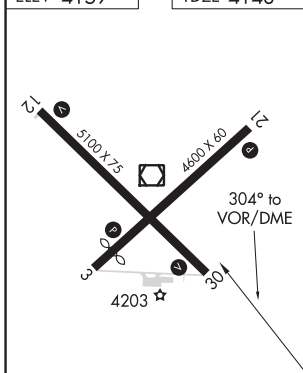
ASOS <b>135.575</b>	MC MINNVILLE RADIO <b>122.5</b>	UNICOM <b>122.8</b> (CTAF)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4159	TDZE 4148
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CATEGORY	A	B	C	D
S-30	5500-1¼ 1352 (1400-1¼)	5500-1½ 1352 (1400-1½)	5500-3	1352 (1400-3)
CIRCLING	5500-1¼ 1341 (1400-1¼)	5500-1½ 1341 (1400-1½)	5500-3	1341 (1400-3)

BURNS, OREGON  
Amdt 3B 10MAR11

43°36'N-118°57'W

BURNS MUNI (BNO)  
**VOR RWY 30**

LOC/DME I-BEY <b>110.9</b> Chan <b>46</b>	APP CRS <b>151°</b>	Rwy Idg TDZE Apt Elev	<b>9001</b> <b>5523</b> <b>5550</b>
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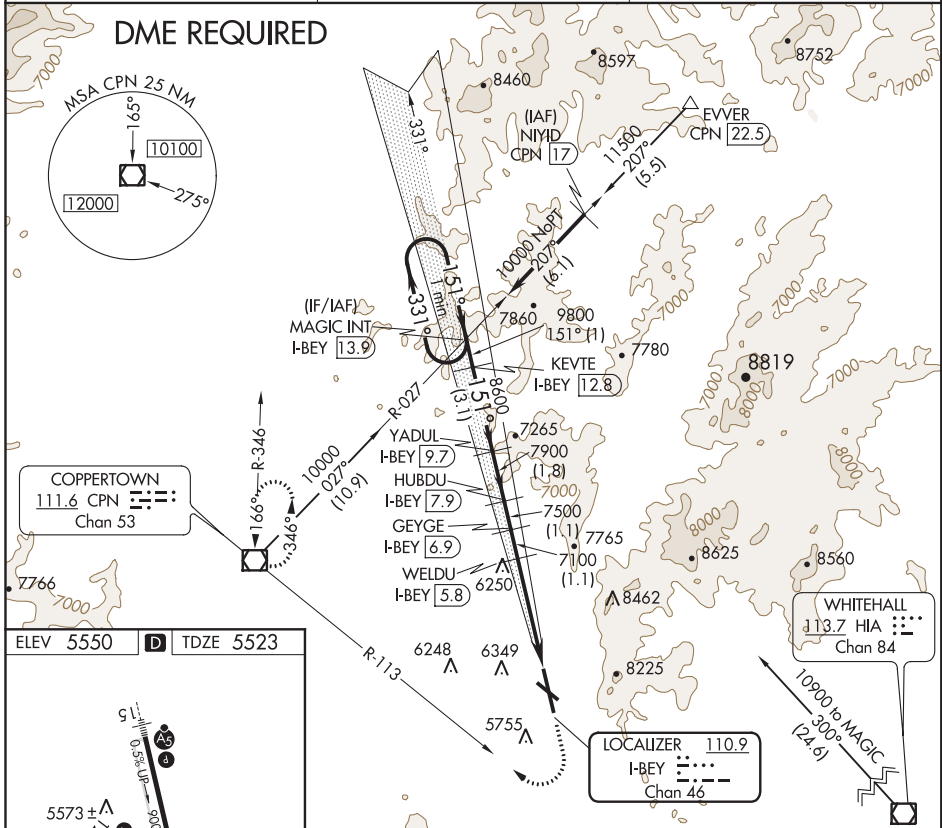
# ILS Y RWY 15

BERT MOONEY (BTM)

<p>When glideslope not used, use LOC/DME RWY 15 procedure. Autopilot coupled approach NA.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climb to 7300 then climbing right turn to 9100 via CPN VOR/DME R-113 to CPN VOR/DME and hold.</p>
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ASOS <b>135.175</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>123.0</b> (CTAF) <b>1</b>
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## DME REQUIRED



ELEV 5550	<b>D</b>	TDZE 5523
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REIL Rws 12 and 30 **1**  
MIRL Rws 12-30 and 15-33 **1**

One Minute Holding Pattern	MAGIC INT I-BEY [13.9]	KEVTE I-BEY [12.8]	YADUL I-BEY [9.7]	HUBDU I-BEY [7.9]	GEYGE I-BEY [6.9]	WELDU I-BEY [5.8]	7300	9100	CPN
							↑	↪	
									R-113
10000	← 331°	151° →	9800	151° →	8600	7900	7500	7100	
GS 3.50°									
TCH 55									
			← 1 NM	← 3.1 NM	← 1.8	← 1.1	← 1.1	← 4.1 NM	
CATEGORY	A	B	C	D					
S-ILS 15	6711-4		1188 (1200-4)						NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BUTTE, MONTANA

AL-588 (FAA)

15288

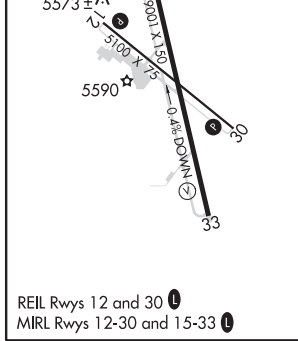
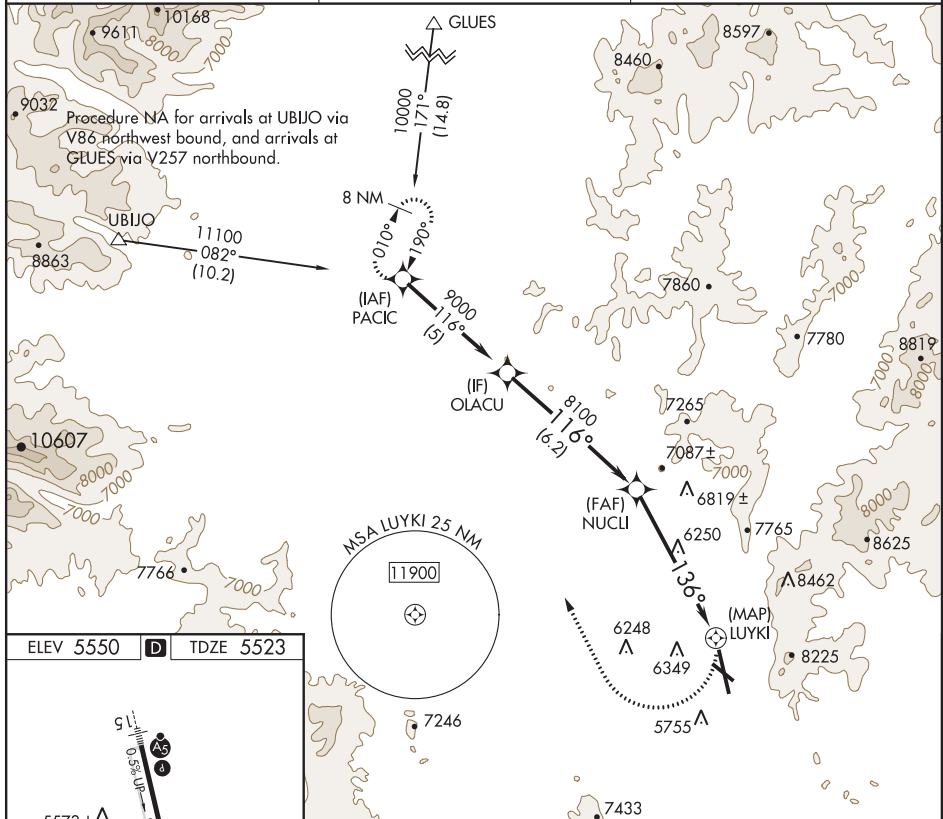
APP CRS	Rwy Idg	<b>9001</b>
<b>136°</b>	TDZE	<b>5523</b>
	Apt Elev	<b>5550</b>

# RNAV (GPS) Y RWY 15

BERT MOONEY (BTM)

<p><b>▽</b> DME/DME RNP-0.3 NA.                  Visibility reduction by helicopters NA.                  When local altimeter setting not received, procedure NA.  <b>⚠</b> -19°C/-2°F                  Circling NA northeast of Rwy 15-33.</p>	<p><b>MALSR</b></p>	<p><b>MISSED APPROACH:</b> Climbing right turn to 10000 direct PACIC and hold.</p>
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<p>ASOS <b>135.175</b></p>	<p>SALT LAKE CENTER <b>132.4 338.3</b></p>	<p>UNICOM <b>123.0(CTAF) 0</b></p>
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	OLACU	NUCLI	LUYKI	10000	PACIC
	9000	8100			
	Procedure Turn NA	3.69° TCH 55			
	6.2 NM	6 NM	0.5		
CATEGORY	A	B	C	D	
LNAV MDA	7040-1¼ 1517 (1500-1¼)	7040-1½ 1517 (1500-1½)	7040-3 1517 (1500-3)	NA	
CIRCLING	7040-1¼ 1490 (1500-1¼)	7040-1½ 1490 (1500-1½)	7040-3 1490 (1500-3)		

BUTTE, MONTANA  
 Orig-A 01JUL10

45°57'N-112°30'W

BERT MOONEY (BTM)  
**RNAV (GPS) Y RWY 15**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



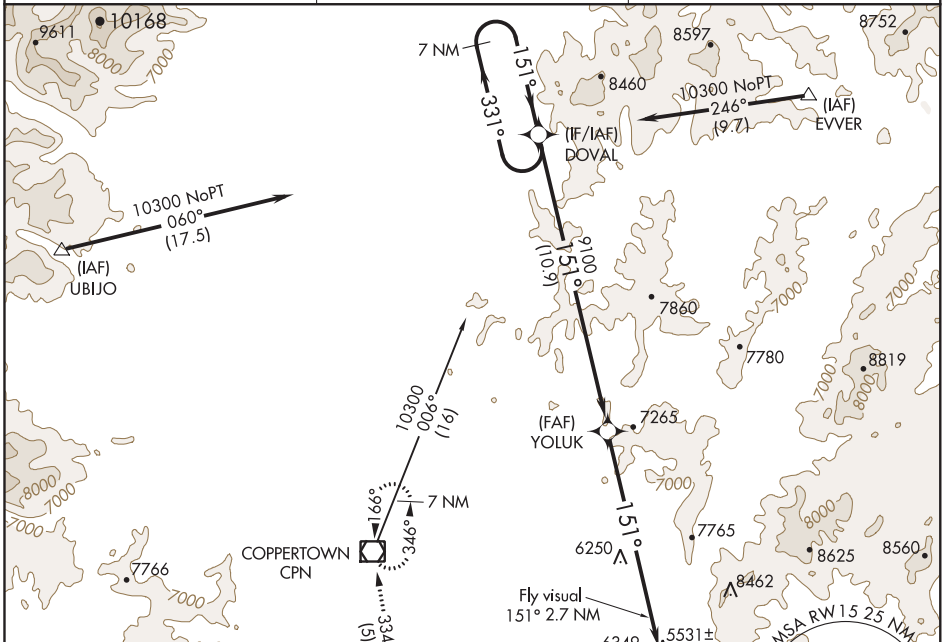
WAAS CH <b>50599</b> <b>W15A</b>	APP CRS <b>151°</b>	Rwy Idg TDZE <b>5523</b> Apt Elev <b>5550</b>
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# RNAV (GPS) Z RWY 15

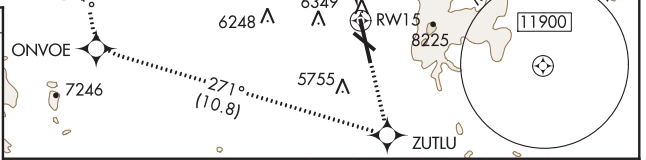
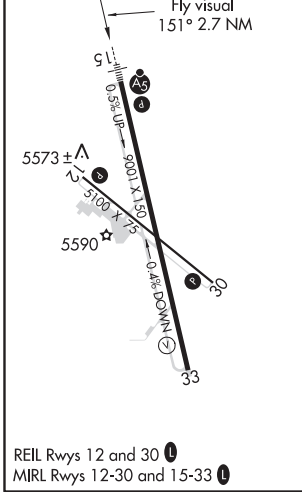
BERT MOONEY (BTM)

<p><b>V</b> NA -19°C/-2°F</p>	<p>DME/DME RNP- 0.3 NA. If local altimeter setting not received, procedure NA.</p>	<p>MALSR <b>A5</b></p>	<p>MISSED APPROACH: Climb to 10000 direct ZUTLU and right turn via 271° track to ONVOE and via 334° track to CPN VOR/DME and hold, continue climb-in-hold to 10000.</p>
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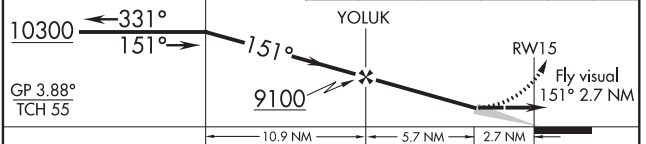
ASOS <b>135.175</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>123.0(CTAF)</b>
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ELEV 5550	<b>D</b> TDZE 5523
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VGSI and RNAV glidepath not coincident (VGSI Angle 3.50/TCH 55).	10000 ZUTLU	ONVOE 334° tr	CPN
7 NM Holding Pattern DOVAL			



CATEGORY	A	B	C	D
LPV DA	6660-2	1137 (1200-2)		NA
LNAV/VNAV DA			NA	
LNAV MDA			NA	
CIRCLING			NA	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-BEY <b>110.9</b> Chan 46	APP CRS <b>151°</b>	Rwy Idg TDZE Apt Elev	<b>9001</b> <b>5523</b> <b>5550</b>
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# LOC/DME RWY 15

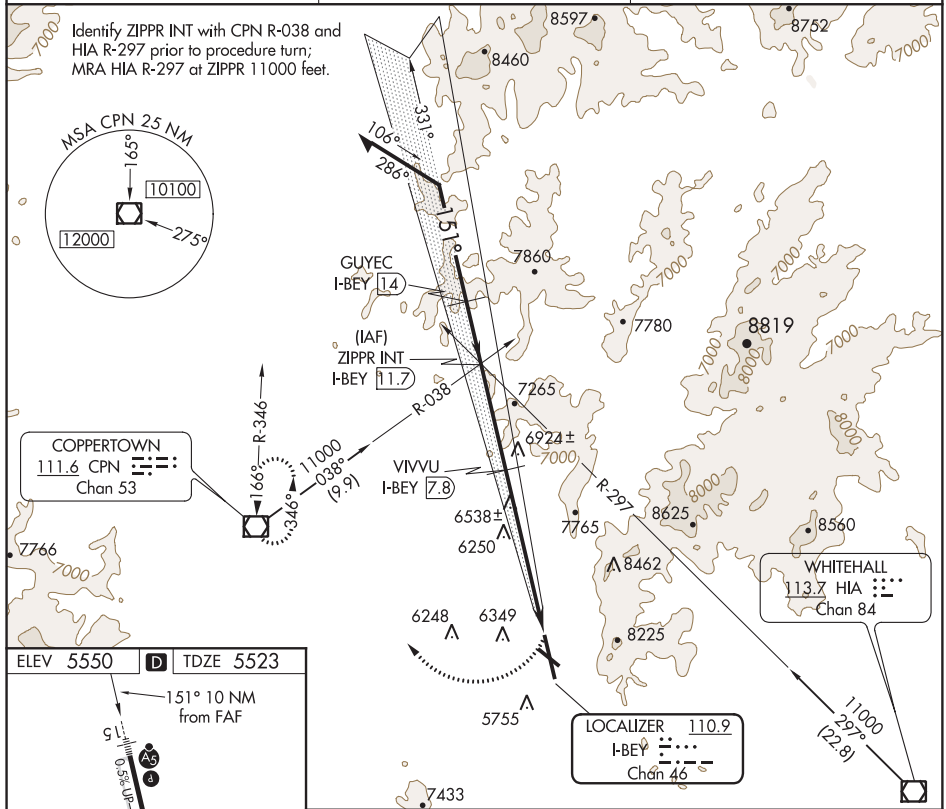
BERT MOONEY (BTM)

**⚠** Circling not authorized NE of Rwy 15-33.  
If local altimeter setting not received, procedure NA.

**MALSR**  
⚠

**MISSED APPROACH:** Climbing right turn to 9200 direct CPN VOR/DME and hold.

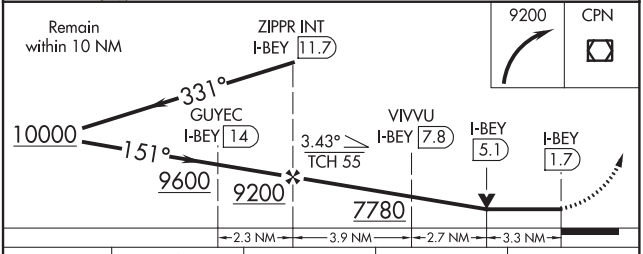
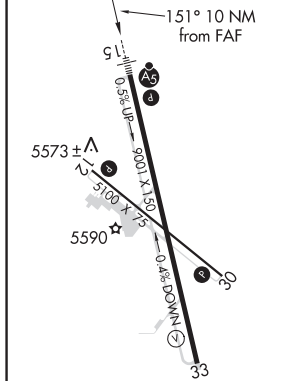
ASOS <b>135.175</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>123.0 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 5550	<b>D</b>	TDZE 5523
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CATEGORY	A	B	C	D
S-LOC 15	6800-1¼ 1277 (1300-1¼)	6800-1½ 1277 (1300-1½)	6800-3	1277 (1300-3)
CIRCLING	6800-1¼ 1250 (1300-1¼)	6800-1½ 1250 (1300-1½)	6800-3	1250 (1300-3)

BUTTE, MONTANA  
Amdt 7A 28APR16

45°57'N-112°30'W

# BERT MOONEY (BTM) LOC/DME RWY 15

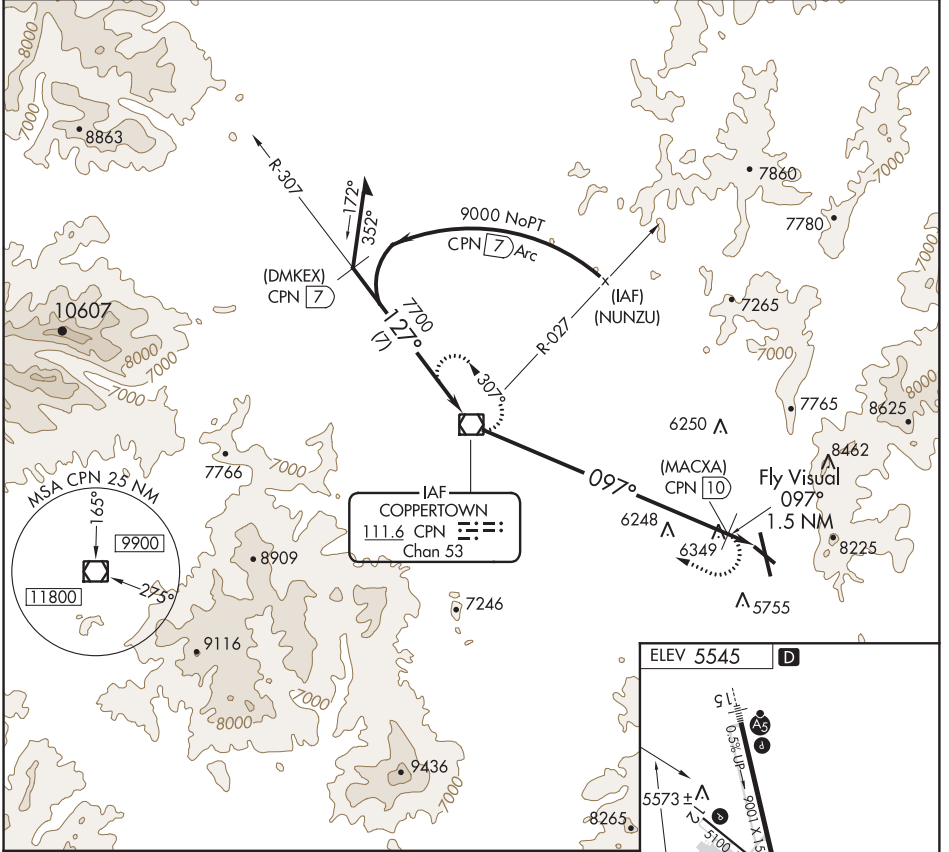
VOR/DME CPN <b>111.6</b> Chan <b>53</b>	APP CRS <b>097°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>5545</b>
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# VOR or GPS-B

BERT MOONEY (BTM)

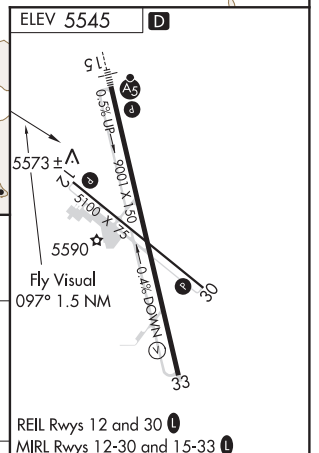
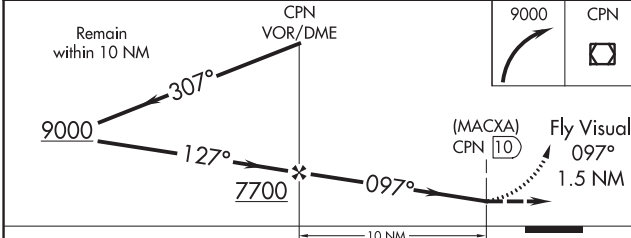
**⚠** Circling not authorized NE of Rwy 15-33.  
**⚠** MISSED APPROACH: Climbing right turn to 9000 direct CPN VOR/DME and hold.

ASOS <b>135.175</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>123.0(CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



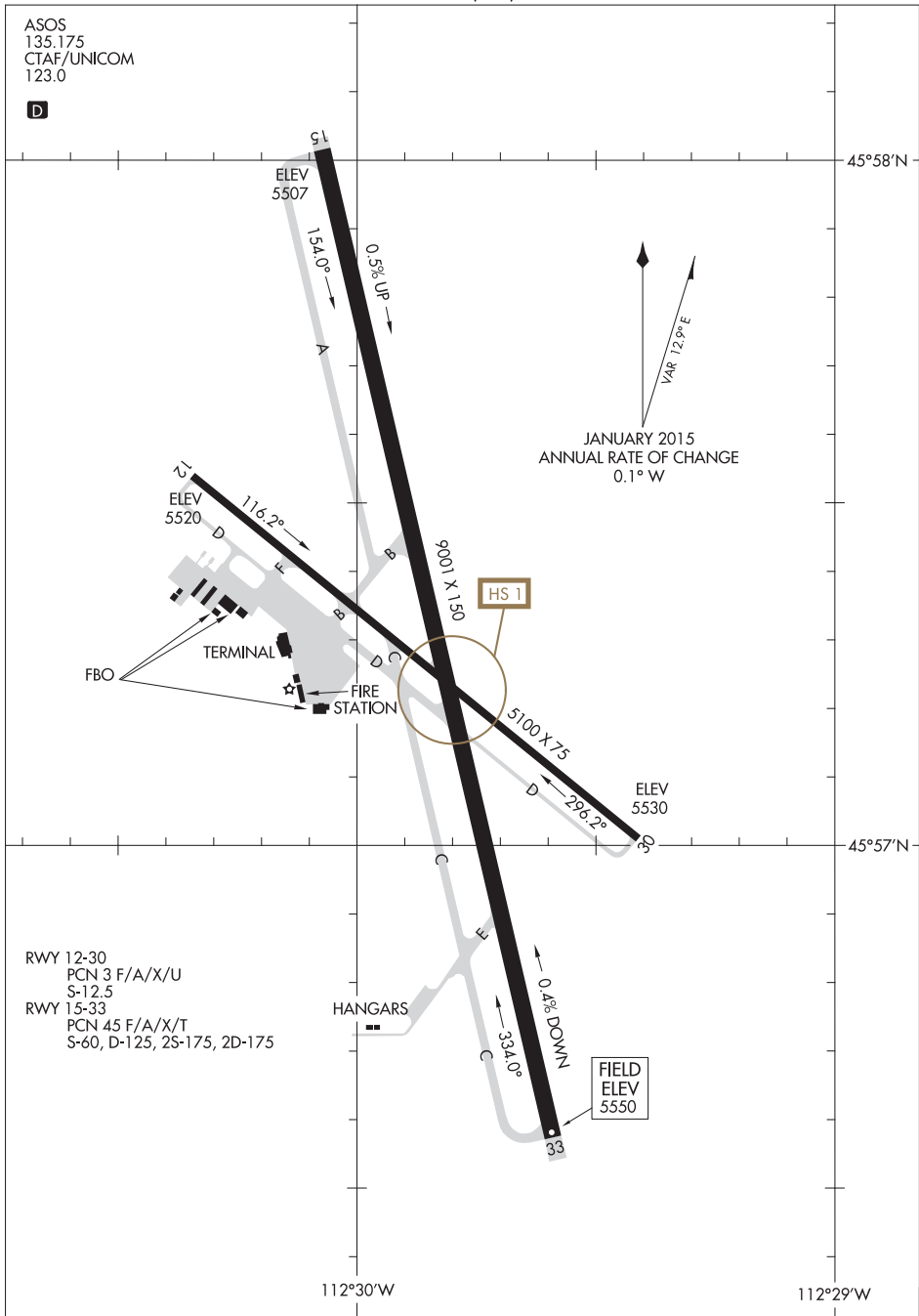
CATEGORY	A	B	C	D		
CIRCLING	6900-1½	1355 (1400-1½)	6900-3	1355 (1400-3)		
	FAF to MAP 10 NM					
	Knots	60	90	120	150	180
	Min:Sec	10:00	6:40	5:00	4:00	3:20

# AIRPORT DIAGRAM

AL-588 (FAA)

BERT MOONEY (BTM)  
BUTTE, MONTANA

ASOS  
135.175  
CTAF/UNICOM  
123.0



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

BUTTE, MONTANA  
BERT MOONEY (BTM)

WAAS CH <b>97707</b> <b>W12A</b>	APP CRS <b>119°</b>	Rwy Idg TDZE <b>2431</b> Apt Elev <b>2432</b>	<b>5500</b>
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# RNAV (GPS) RWY 12

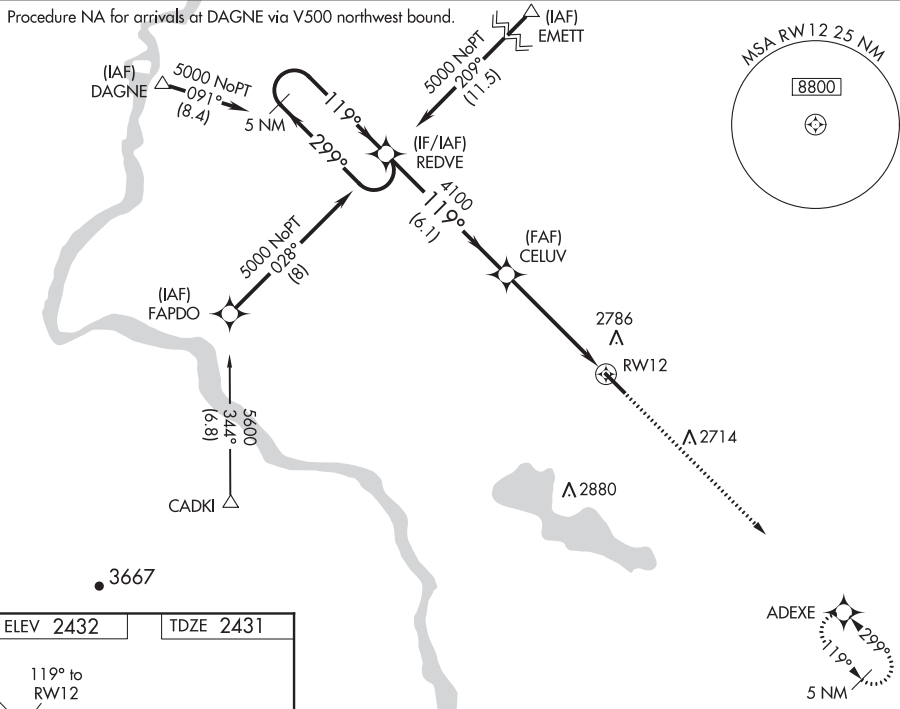
CALDWELL INDUSTRIAL (EUL)

**⚠** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.  
**⚠** Baro-VNAV NA when using Boise altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F).  
 When local altimeter setting not received, use Boise altimeter setting and increase all DA/MDA 120 feet and all visibilities ½ mile.

**MISSED APPROACH:** Climb to 5000 direct ADEXE and hold.

AWOS-3PT <b>135.075</b>	BIG SKY APP CON <b>119.6 269.4</b>	UNICOM <b>122.7 (CTAF)</b> <b>📻</b>
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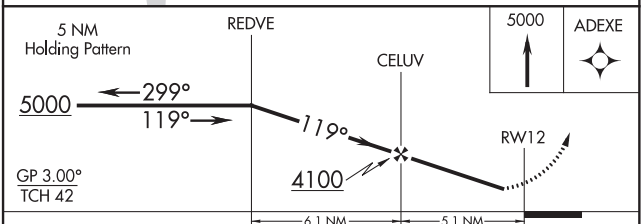
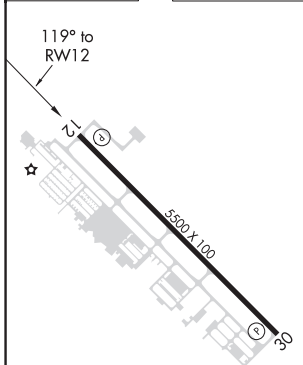
Procedure NA for arrivals at DAGNE via V500 northwest bound.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2432	TDZE 2431
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CATEGORY	A	B	C	D
LPV DA	2700-1 269 (300-1)			
LNAV/VNAV DA	2994-2 563 (600-2)			
LNAV MDA	2840-1	409 (500-1)	2840-1½	409 (500-1½)
CIRCLING	3100-1	668 (700-1)	3100-1¾	668 (700-2)

CALDWELL, IDAHO

AL-6806 (FAA)

15344

WAAS CH <b>73007</b> <b>W30A</b>	APP CRS <b>299°</b>	Rwy Idg <b>5500</b> TDZE <b>2432</b> Apt Elev <b>2432</b>
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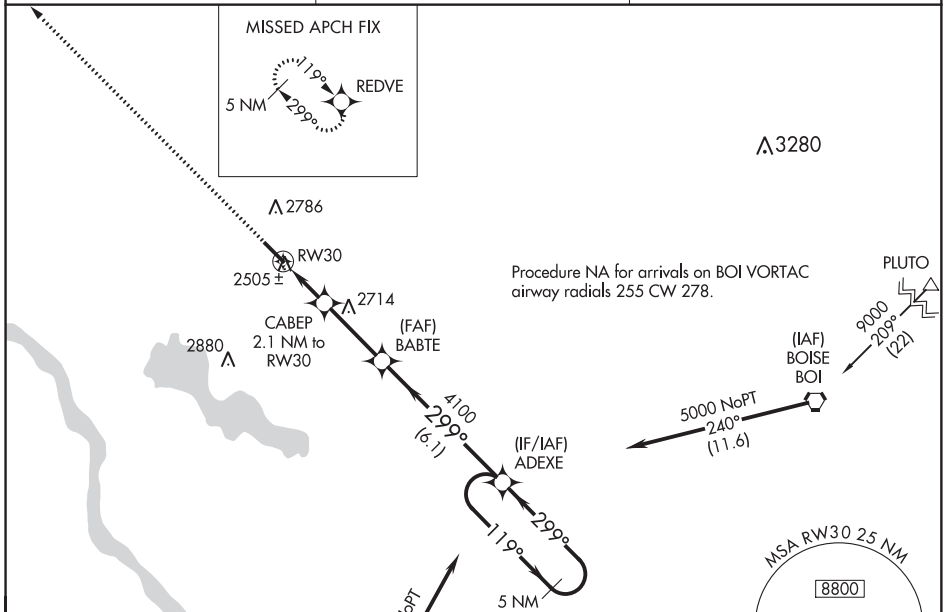
# RNAV (GPS) RWY 30

CALDWELL INDUSTRIAL (E.U.L.)

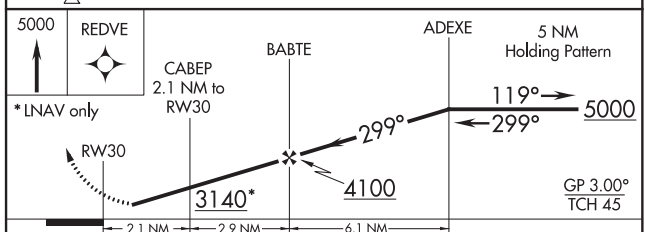
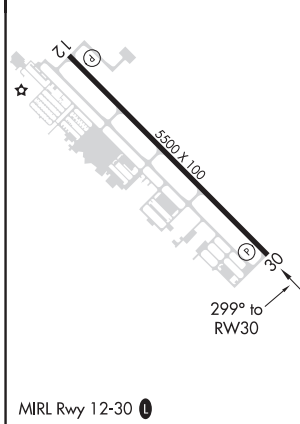
**⚠** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.  
**⚠** Baro-VNAV NA when using Boise altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F).  
 When local altimeter setting not received, use Boise altimeter setting and increase all DA/MDA 120 feet and all visibilities ½ mile.

MISSED APPROACH: Climb to 5000 direct REDVE and hold.

AWOS-3PT <b>135.075</b>	BIG SKY APP CON <b>119.6 269.4</b>	UNICOM <b>122.7 (CTAF) 0</b>
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ELEV 2432	TDZE 2432
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CATEGORY	A	B	C	D
LPV DA	2687-1 255 (300-1)			
LNAV/VNAV DA	2822-1½ 390 (400-1¼)			
LNAV MDA	2880-1	448 (500-1)	2880-1½ 448 (500-1¼)	2880-1½ 448 (500-1¼)
CIRCLING	3100-1	668 (700-1)	3100-1¾ 668 (700-1¾)	3100-2 668 (700-2)

CALDWELL, IDAHO  
Amdt 1A 07MAY09

43°39'N-116°38'W

# RNAV (GPS) RWY 30

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NDB MPA <b>238</b>	APP CRS <b>281°</b>	Rwy Idg TDZE Apt Elev	<b>5500</b> <b>2432</b> <b>2432</b>
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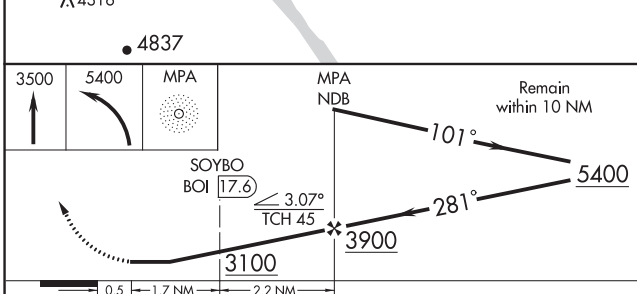
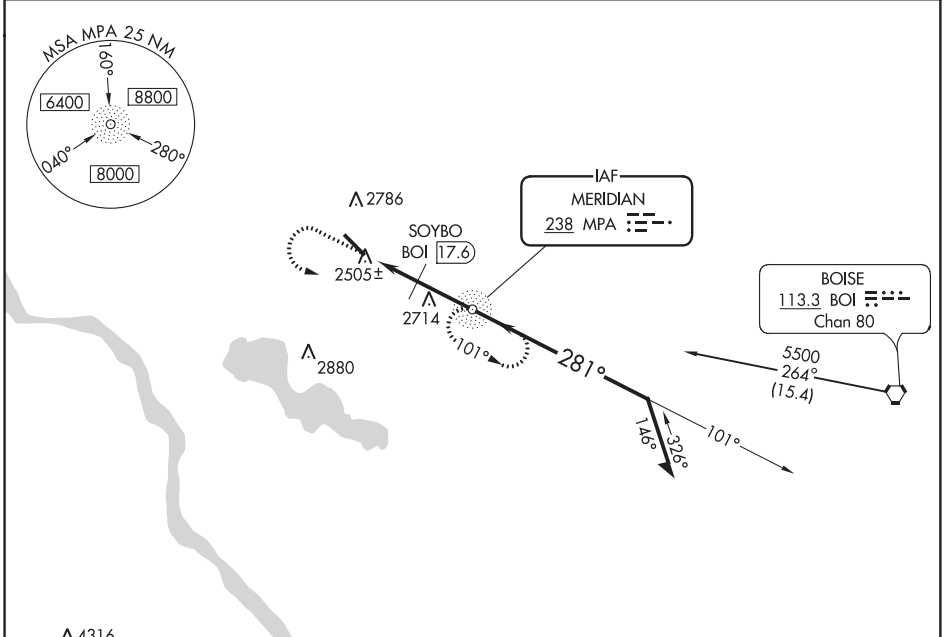
# NDB RWY 30

CALDWELL INDUSTRIAL (EUL)

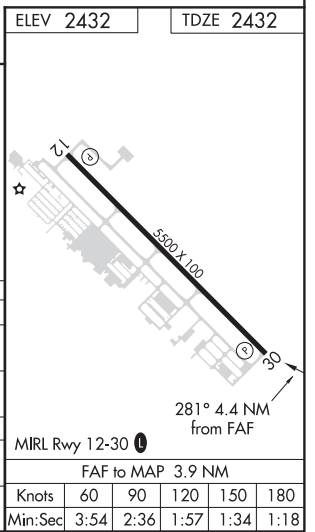
**▼** When local altimeter setting not received, use Boise altimeter setting and increase all MDA 120 feet and all visibilities ½ mile.

**MISSED APPROACH:** Climb to 3500 then climbing left turn to 5400 direct MPA NDB and hold, continue climb-in-hold to 5400.

AWOS-3PT <b>135.075</b>	BIG SKY APP CON <b>119.6 269.4</b>	UNICOM <b>122.7 (CTAF) ①</b>
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CATEGORY	A	B	C	D
S-30	3100-1	668 (700-1)	3100-1¾ 668 (700-1¾)	3100-2 668 (700-2)
CIRCLING	3100-1	668 (700-1)	3100-1¾ 668 (700-1¾)	3100-2 668 (700-2)
DME MINIMUMS				
S-30	2940-1	508 (600-1)	2940-1½	508 (600-1½)
CIRCLING	3100-1	668 (700-1)	3100-1¾ 668 (700-1¾)	3100-2 668 (700-2)



NW-1, 10 NOV 2016 to 05 JAN 2017


NW-1, 10 NOV 2016 to 05 JAN 2017

LOC I-SYD <b>111.3</b>	APP CRS <b>032°</b>	Rwy ldg <b>10165</b>
		TDZE <b>5328</b>
		Apt Elev <b>5344</b>

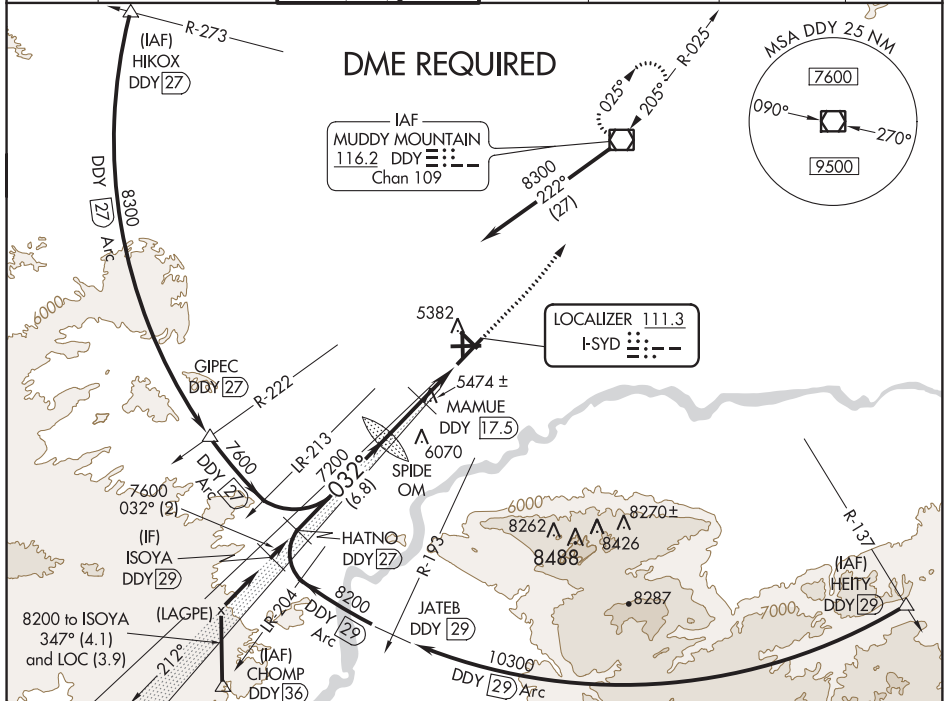
# ILS or LOC RWY 3

CASPER/NATRONA COUNTY INTL (CPR)

**⚠** DME from DDY VOR/DME. Simultaneous reception of I-SYD and DDY DME required. When local altimeter setting not received, use Douglas altimeter setting; increase DA to 5697 feet and all MDAs 180 feet, increase S-ILS visibility all Cats ¼ mile and S-LOC visibility Cats B, C, and D ½ mile, increase Circling visibility Cats B, C, and D ½ mile. For inoperative MALSRS when using Douglas altimeter setting increase S-ILS visibility all Cats to 1 ½ mile. **MAMUE FIX MINIMUMS:** For inoperative MALSRS, increase S-LOC visibility Cats C, and D to 1 ½ mile. #RVR 1800 authorized with use of FD or AP or HUD to DA.

**MALSRS**  
  
**MISSED APPROACH:**  
 Climb to 7500 then left turn direct DDY VOR/DME and hold.

ATIS <b>126.15</b>	CASPER APP CON * <b>120.65 354.1</b>	CASPER TOWER * <b>118.3 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9 257.8</b>	CASPER RADIO <b>122.4</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ISOYA DDY [29] *6400 when using Douglas altimeter setting.	HATNO DDY [27]	SPIDE OM 7183	MAMUE DDY [17.5]	DDY [14.7] *LOC only	ELEV 5344 [D] TDZE 5328
8200	7600	7200	*6220	7500	
GS 3.00° TCH 50	2 NM	6.8 NM	2.9 NM	2.7 NM	TWR 5400
CATEGORY	A	B	C	D	REIL Rwy 21 and 26 HIRL Rwy 3-21 and 8-26
S-ILS 3	# 5528/24 200 (200-½)				032° 5.6 NM from FAF
S-LOC 3	6220/40	892 (900-¾)	6220-2	892 (900-2)	FAF to MAP 5.6 NM
CIRCLING	6220-1¼	876 (900-1¼)	6220-2½ 876 (900-2½)	6220-2¾ 876 (900-2¾)	Knots 60 90 120 150 180 Min:Sec 5:36 3:44 2:48 2:14 1:52
MAMUE FIX MINIMUMS					
S-LOC 3	5740/24	412 (400-½)	5740/40	412 (400-¾)	
CIRCLING	5740-1 396 (400-1)	5800-1 456 (500-1)	5800-1½ 456 (500-½)	5900-2 556 (600-2)	

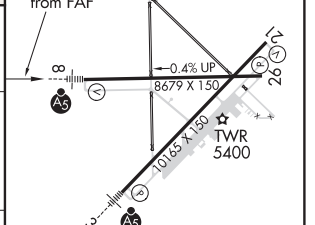
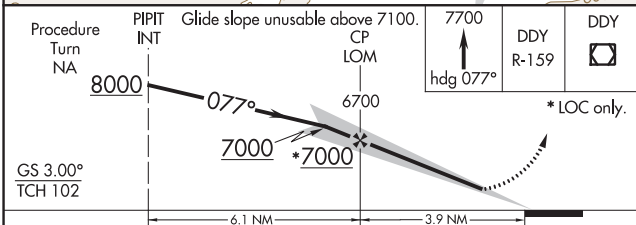
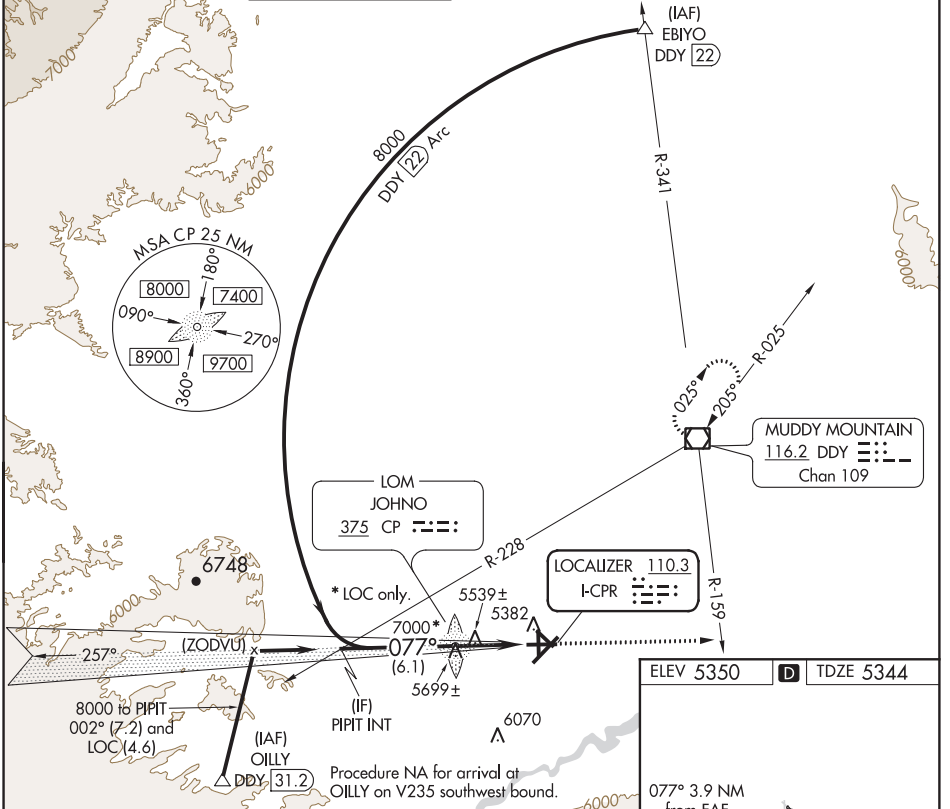


LOC I-CPR <b>110.3</b>	APP CRS <b>077°</b>	Rwy Idg TDZE Apt Elev <b>8679</b> <b>5344</b> <b>5350</b>
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# ILS or LOC RWY 8

CASPER/NATRONA COUNTY INTL (CPR)

			MISSED APPROACH: Climb to 7700 via heading 077° and DDY VOR/DME R-159 to DDY VOR/DME and hold.			
ATIS <b>126.15</b>	CASPER APP CON* <b>120.65 354.1</b>	CASPER TOWER* <b>118.3 (CTAF) 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9 257.8</b>	CASPER RADIO <b>122.4</b>	UNICOM <b>122.95</b>



CATEGORY	A	B	C	D
S-ILS 8	5644/40 300 (300-¾)			NA
S-LOC 8	5800/24	456 (500-½)	5800/40 456 (500-¾)	NA
CIRCLING	5800-1	450 (500-1)	5800-1½ 450 (500-1½)	NA

ELEV 5350	TDZE 5344
REIL Rwy 21 and 26 HIRL Rwy 3-21 and 8-26 FAF to MAP 3.9 NM	
Knots	60 90 120 150 180
Min:Sec	3:54 2:36 1:57 1:34 1:18

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>73006</b> W03A	APP CRS <b>032°</b>	Rwy Idg TDZE <b>5328</b> Apt Elev <b>5350</b>
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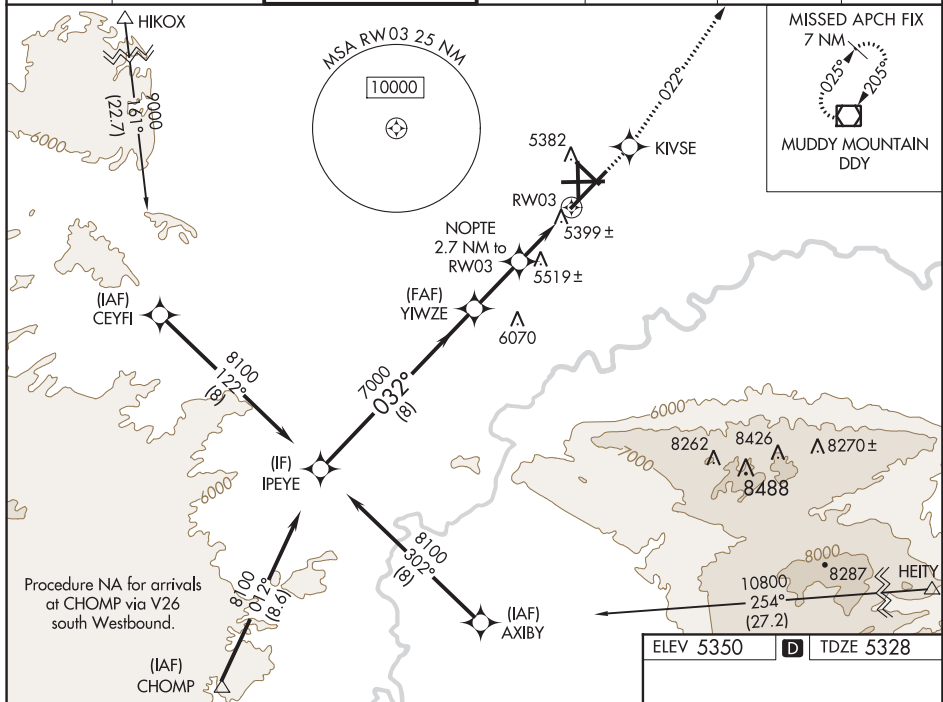
# RNAV (GPS) RWY 3

CASPER/NATRONA COUNTY INTL (CPR)

**▼** For inoperative MALSR, increase LPV all Cats visibility to 1 mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 38°C (100°F). DME/DME RNP-0.3 NA.

**MALSR** MISSED APPROACH: Climb to 7500 direct KIVSE and via track 022° to DDY VOR/DME and hold.

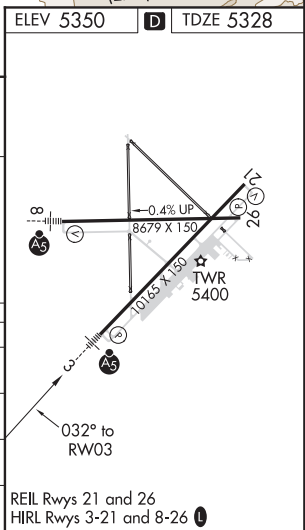
ATIS <b>126.15</b>	CASPER APP CON* <b>120.65 354.1</b>	CASPER TOWER* <b>118.3 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9 257.8</b>	CASPER RADIO <b>122.4</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

Procedure Turn NA	8100	032°	7000	*6240	*1.3 NM to RW03	RW03	*LNAV only	7500	KIVSE	tr 022°	DDY
CATEGORY	A	B	C	D							
LPV DA	5643/24		315 (300-½)								
LNAV/VNAV DA	5691/40		363 (400-¾)								
LNAV MDA	5780/24	452 (500-½)	5780/40	452 (500-¾)	5780/50	452 (500-1)					
CIRCLING	5780-1	5800-1	5800-1½	5900-2							
	430 (500-1)	450 (500-1)	450 (500-1½)	550 (600-2)							



WAAS CH <b>86306</b> <b>W08A</b>	APP CRS <b>077°</b>	Rwy Idg TDZE <b>5344</b> Apt Elev <b>5350</b>
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# RNAV (GPS) RWY 8

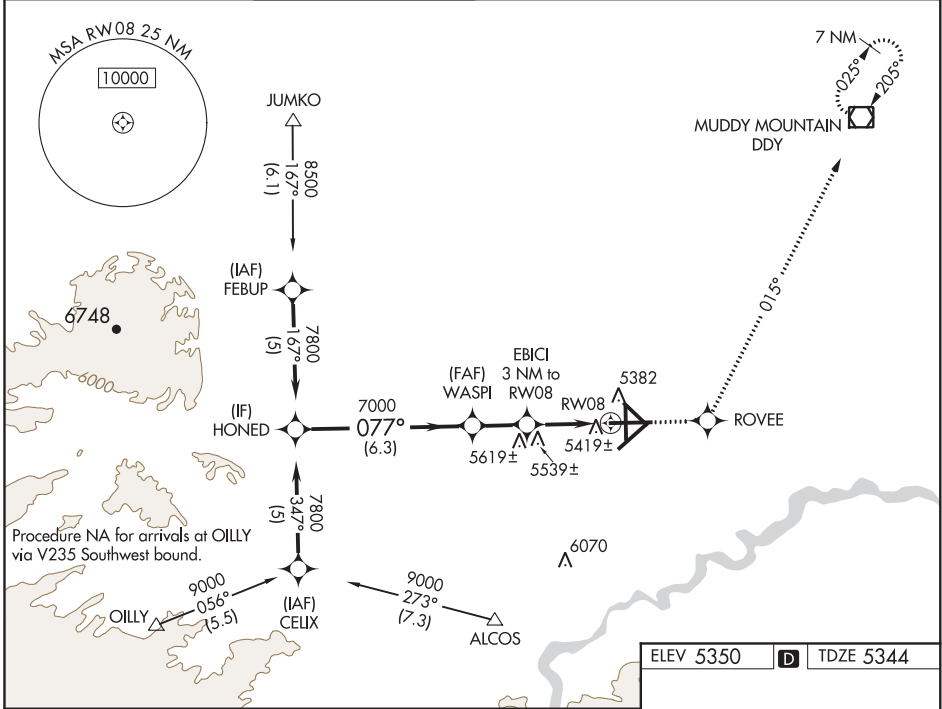
CASPER/NATRONA COUNTY INTL (CPR)

▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 38°C (100°F).  
DME/DME RNP-0.3 NA.



MISSED APPROACH: Climb to 7700 direct ROVEE and via track 015° to DDY VOR/DME and hold.

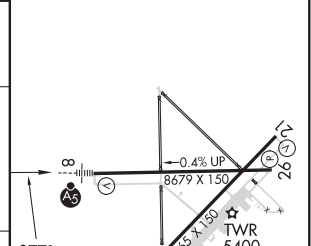
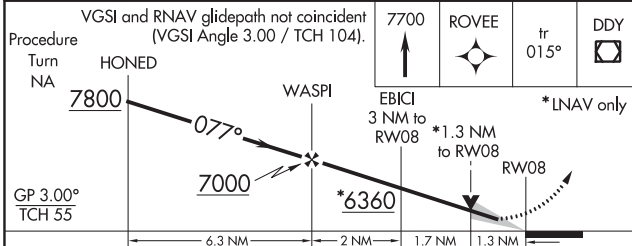
ATIS <b>126.15</b>	CASPER APP CON* <b>120.65 354.1</b>	CASPER TOWER* <b>118.3 (CTAF) 0257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9 257.8</b>	CASPER RADIO <b>122.4</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 5350	D	TDZE 5344
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CATEGORY	A	B	C	D
LPV DA		5594/24	250 (300-½)	
LNAV/VNAV DA		5689/40	345 (400-¾)	
LNAV MDA	5800/24	456 (500-½)	5800/40 456 (500-¾)	5800/50 456 (500-1)
CIRCLING	5800-1	450 (500-1)	5800-1½ 450 (500-1½)	5900-2 550 (600-2)

REIL Rwy 21 and 26  
HIRL Rwy 3-21 and 8-26

WAAS CH <b>63012</b> <b>W21A</b>	APP CRS <b>212°</b>	Rwy Idg TDZE Apt Elev	<b>10165</b> <b>5330</b> <b>5350</b>
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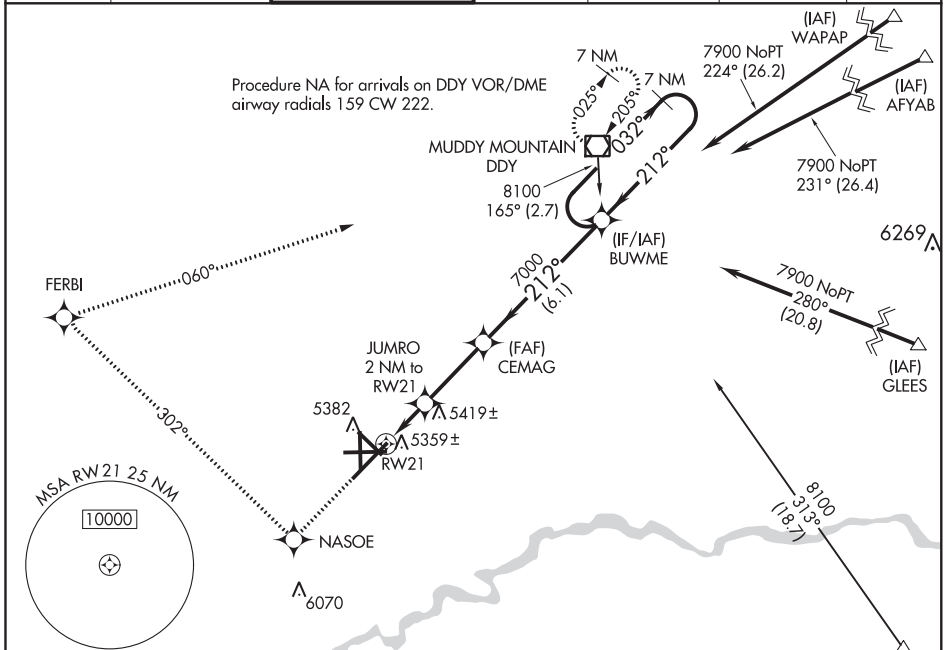
# RNAV (GPS) RWY 21

CASPER/NATRONA COUNTY INTL (CPR)

▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 38°C (100°F). DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 8100 direct NASOE and right turn via track 302° to FERBI and via track 060° to DDY VOR/DME and hold.

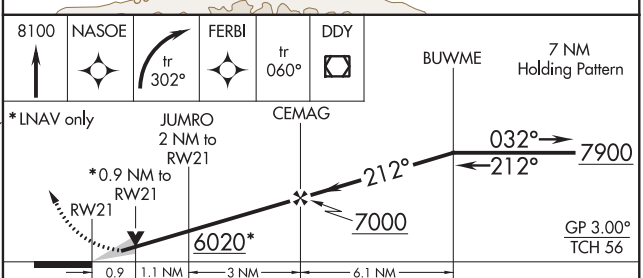
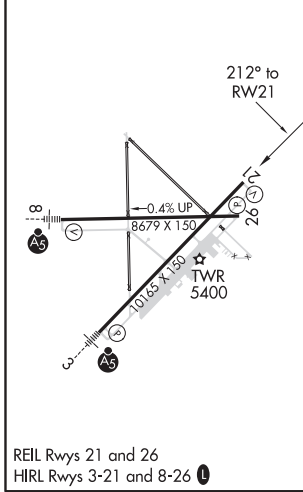
ATIS <b>126.15</b>	CASPER APP CON * <b>120.65 354.1</b>	CASPER TOWER * <b>118.3 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9 257.8</b>	CASPER RADIO <b>122.4</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 5350	<b>D</b>	TDZE 5330
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CATEGORY	A	B	C	D
LPV DA		5580-¾	250 (300-¾)	
LNAV/VNAV DA		5629-1	299 (300-1)	
LNAV MDA	5680-1	350 (400-1)		5680-1¼ 350 (400-1¼)
CIRCLING	5780-1 430 (500-1)	5800-1 450 (500-1)	5800-1½ 450 (500-1½)	5900-2 550 (600-2)

WAAS CH <b>78112</b> <b>W26A</b>	APP CRS <b>257°</b>	Rwy Idg TDZE Apt Elev	<b>8679</b> <b>5335</b> <b>5350</b>
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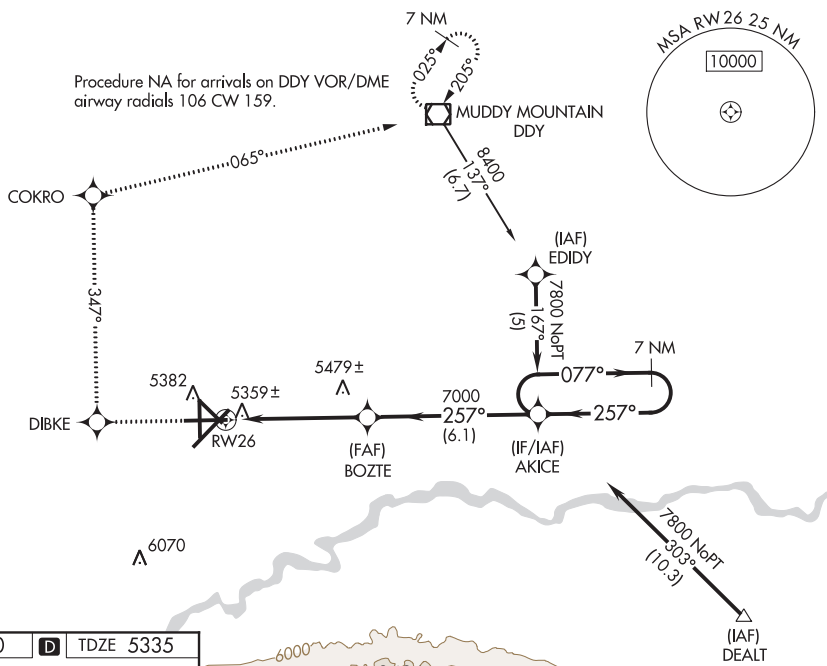
# RNAV (GPS) RWY 26

CASPER/NATRONA COUNTY INTL (C'PR)

**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 38°C (100°F). DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 8400 direct DIBKE and right turn via track 347° to COKRO and via track 065° to DDY VOR/DME and hold.

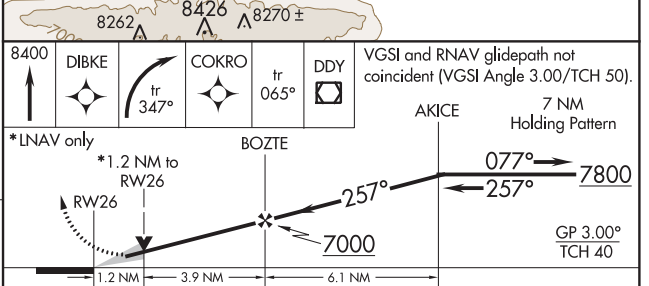
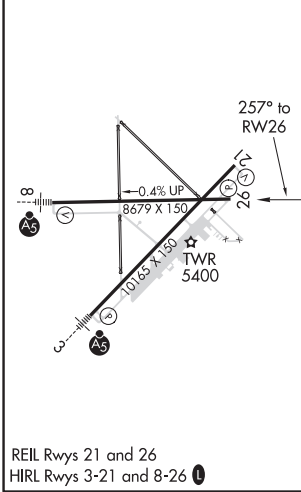
ATIS <b>126.15</b>	CASPER APP CON * <b>120.65 354.1</b>	CASPER TOWER * <b>118.3 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9 257.8</b>	CASPER RADIO <b>122.4</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 5350	<b>D</b>	TDZE 5335
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CATEGORY	A	B	C	D
LPV DA		5585-1	250 (300-1)	
LNAV/VNAV DA		5629-1	294 (300-1)	
LNAV MDA	5740-1	405 (400-1)	5740-1¼	405 (400-1¼)
CIRCLING	5780-1 430 (500-1)	5800-1 450 (500-1)	5800-1½ 450 (500-1½)	5900-2 550 (600-2)

CASPER, WYOMING

AL-72 (FAA)

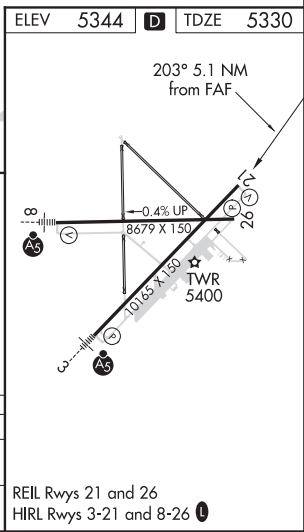
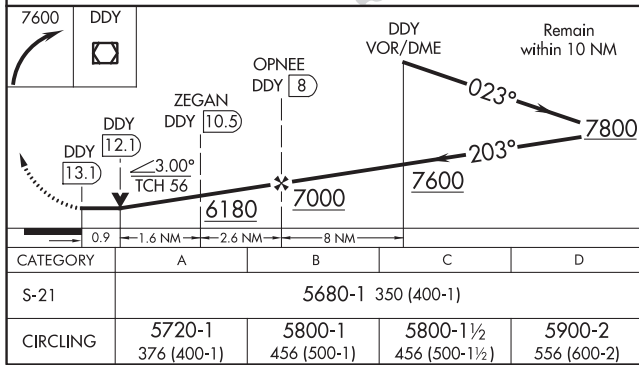
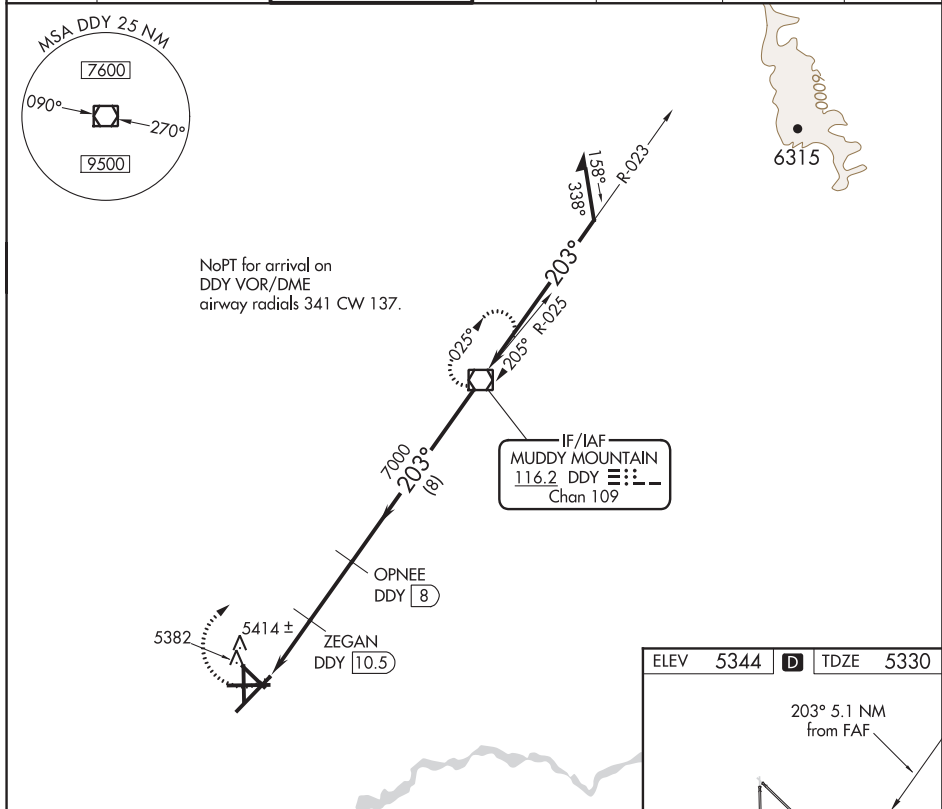
16091

VOR/DME DDY <b>116.2</b> Chan <b>109</b>	APP CRS <b>203°</b>	Rwy Idg <b>10165</b> TDZE <b>5330</b> Apt Elev <b>5344</b>
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# VOR/DME RWY 21

CASPER/NATRONA COUNTY INTL (CPR)

<p><b>V</b> VDP NA with Douglas altimeter setting. When local altimeter setting not received, use Douglas altimeter setting: Increase all MDAs 180 feet and S-21 visibility Cats C and D ½ mile, Circling visibility Cats C and D ½ mile.</p>			<p>MISSED APPROACH: Climbing right turn to 7600 direct DDY VOR/DME and hold.</p>			
ATIS <b>126.15</b>	CASPER APP CON * <b>120.65 354.1</b>	CASPER TOWER * <b>118.3 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9 257.8</b>	CASPER RADIO <b>122.4</b>	UNICOM <b>122.95</b>



CASPER, WYOMING  
Amdt 9A 31MAR16

42°54'N-106°28'W

# CASPER/NATRONA COUNTY INTL (CPR) VOR/DME RWY 21

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

15232 **AIRPORT DIAGRAM** CASPER/NATRONA COUNTY INTL (CPR) AL-72 (FAA) CASPER, WYOMING

ATIS  
126.15  
CASPER TOWER\*  
118.3 257.8  
GND CON  
121.9  
CLNC DEL  
121.9 257.8

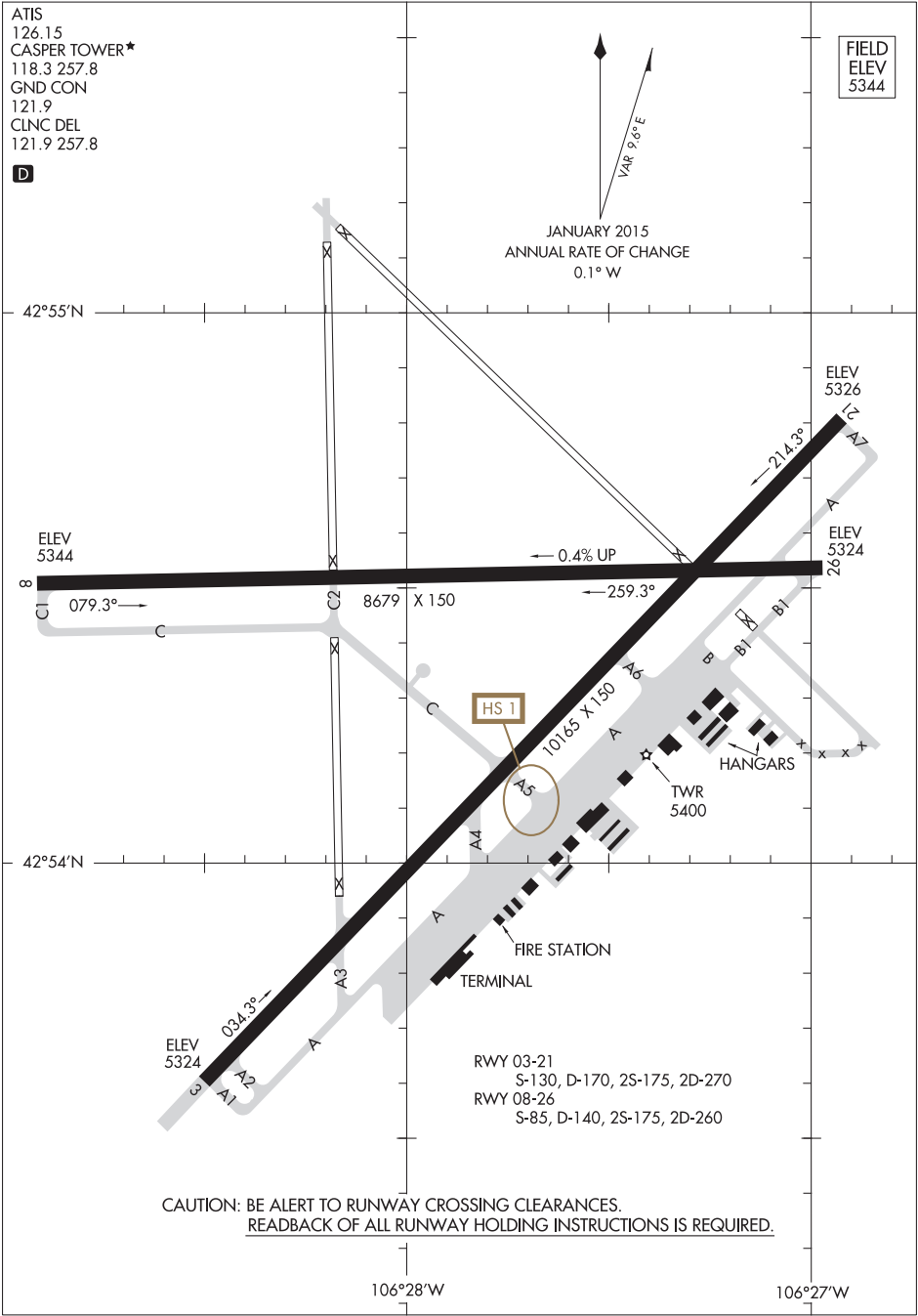
FIELD  
ELEV  
5344

**D**

VAR  $P_{86}^{\circ}E$   
JANUARY 2015  
ANNUAL RATE OF CHANGE  
 $0.1^{\circ}W$

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READEBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

RWY 03-21  
S-130, D-170, 2S-175, 2D-270  
RWY 08-26  
S-85, D-140, 2S-175, 2D-260

**AIRPORT DIAGRAM** CASPER, WYOMING CASPER/NATRONA COUNTY INTL (CPR) 15232


(ALCOS6.ALCOS) 16203  
**ALCOS SIX DEPARTURE**

CASPER/NATRONA COUNTY INTL (CPR)  
 CASPER, WYOMING

SL-72 (FAA)

ATIS  
 126.15  
 CLNC DEL  
 121.9 257.8  
 GND CON  
 121.9  
 CASPER TOWER ★  
 118.3 (CTAF) 257.8  
 CASPER DEP CON ★  
 120.65 354.1  
 DENVER CENTER  
 135.6 363.025

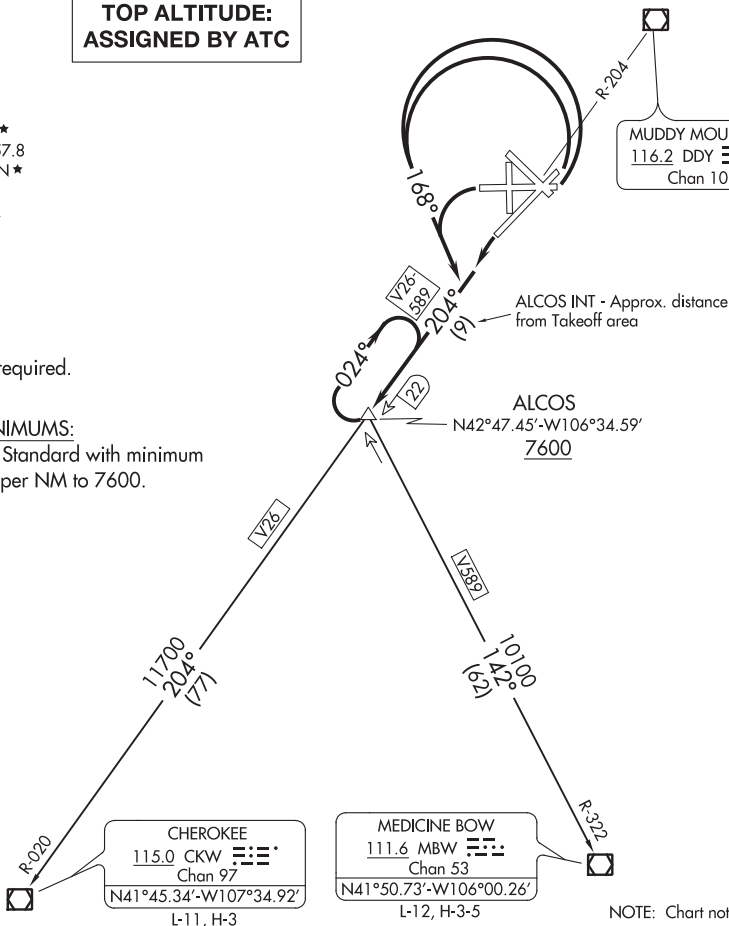
**TOP ALTITUDE:  
 ASSIGNED BY ATC**

MUDDY MOUNTAIN  
 116.2 DDY   
 Chan 109

NOTE: DME required.

**TAKEOFF MINIMUMS:**

All Runways: Standard with minimum  
 climb of 300' per NM to 7600.



NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

**DEPARTURE ROUTE DESCRIPTION**

TAKEOFF RUNWAYS 3, 8, 26: Turn left heading 168°, thence. . .

TAKEOFF RUNWAY 21: Turn left, thence. . .

. . . climb on DDY VOR/DME R-204 to cross ALCOS INT 22 DME at or above 7600,  
 climb-in-hold to MEA for direction of flight, then via (transition) or (assigned route).

CHEROKEE TRANSITION (ALCOS6.CKW): From over ALCOS on DDY R-204 and  
 CKW R-020 to CKW VOR/DME.

MEDICINE BOW TRANSITION (ALCOS6.MBW): From over ALCOS on MBW R-322 to  
 MBW VOR/DME.

**ALCOS SIX DEPARTURE**  
 (ALCOS6.ALCOS) 21JUL16

CASPER, WYOMING  
 CASPER/NATRONA COUNTY INTL (CPR)

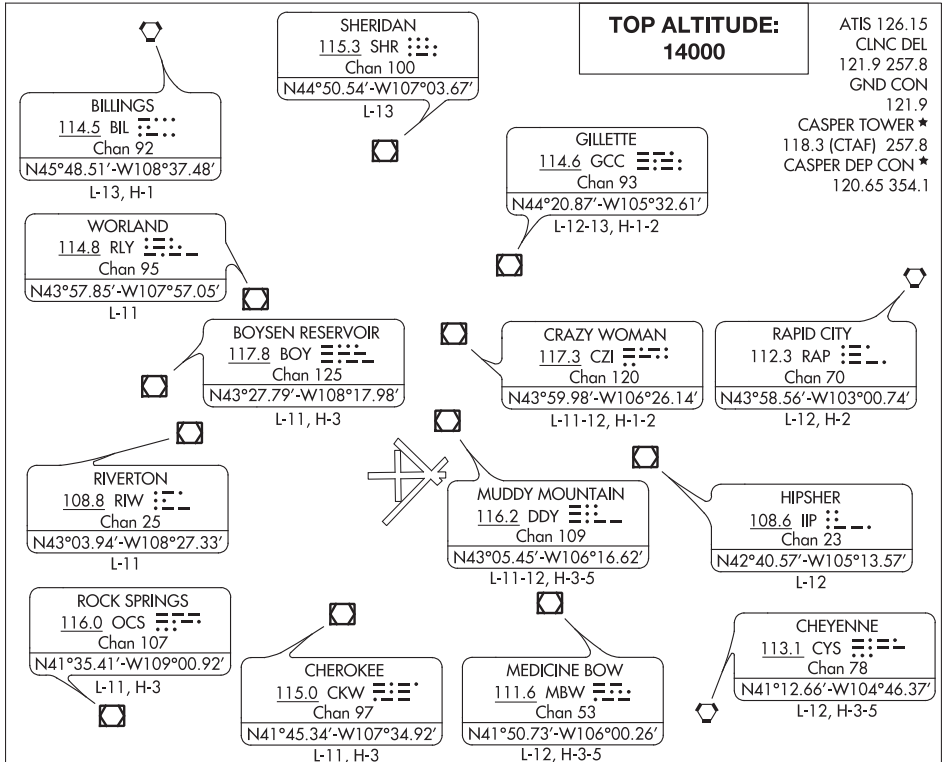


# CASPER THREE DEPARTURE

SL-72 (FAA)

CASPER/NATRONA COUNTY INTL (CPR)

CASPER, WYOMING



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

### TAKE-OFF MINIMUMS

Rwy 12, 17, 30, 35, NA- Environmental.  
Rwy 3, 8, 26, Standard.  
Rwy 21, Standard with a minimum climb of 235 feet per NM to 6700.

NOTE: RADAR required.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

- TAKE-OFF RUNWAY 3:** Climb on a heading between 212° CW 094° from DER as assigned by ATC thence . . .
- TAKE-OFF RUNWAY 8:** Climb on a heading between 257° CW 094° from DER as assigned by ATC thence . . .
- TAKE-OFF RUNWAY 21:** Climb on a heading between 195° CW 032° from DER as assigned by ATC thence . . .
- TAKE-OFF RUNWAY 26:** Climb on a heading between 190° CW 077° from DER as assigned by ATC thence . . .

. . . Maintain 14000' or assigned lower altitude. Expect RADAR vectors to filed/assigned fix/route. Expect further clearance to filed altitude ten minutes after departure.

### LOST COMMUNICATIONS

If no transmissions are received for one minute after departure, maintain assigned heading until 7,000 feet, then climb to filed altitude via direct DDD VOR/DME, then via assigned route. Runways 3 and 8 turn left to DDD VOR/DME, runways 21 and 26 turn right to DDD VOR/DME.

# CASPER THREE DEPARTURE

CASPER, WYOMING

CASPER/NATRONA COUNTY INTL (CPR)

WAAS CH <b>82129</b> <b>W16A</b>	APP CRS <b>162°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>176</b> <b>177</b>
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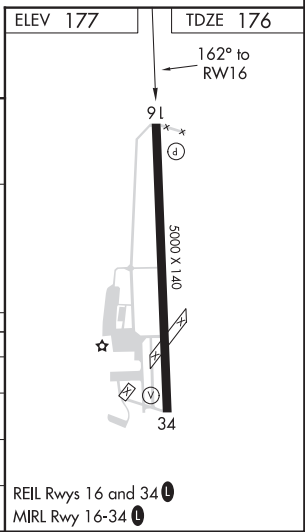
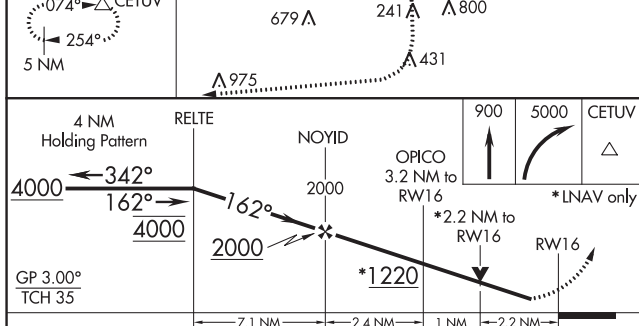
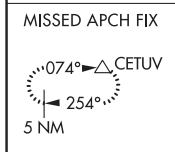
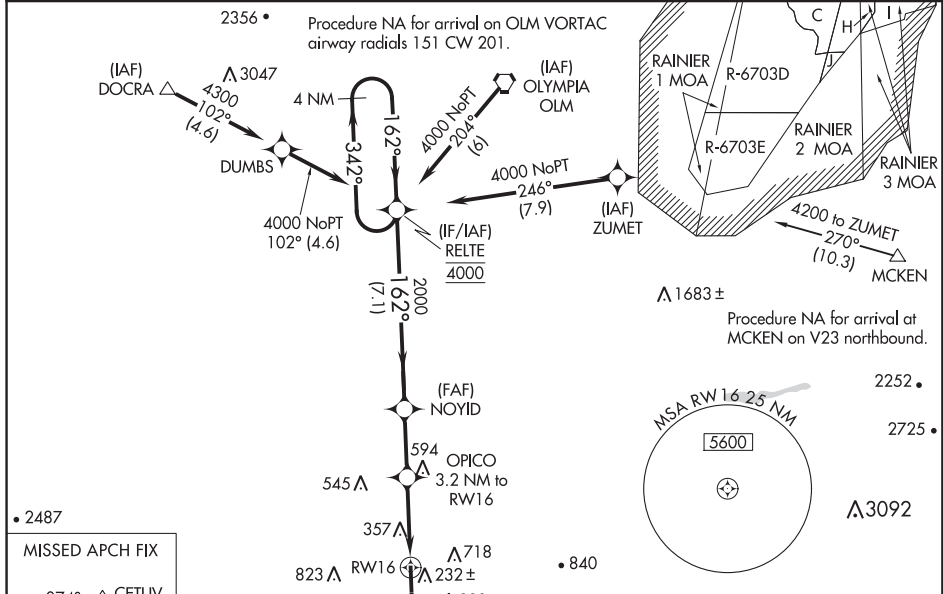
# RNAV (GPS) RWY 16

CHEHALIS-CENTRALIA (CLS)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). Circling NA northeast of Rwy 16-34. DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Olympia altimeter setting. When local altimeter setting not received, use Olympia altimeter setting: increase LPV DA to 522 feet, LNAV/VNAV DA to 878 feet and all MDA 60 feet; increase LPV all Cats visibility ¼ SM, LNAV Cat B ¼ SM, LNAV Cats C/D ½ SM and Circling Cat B ¼ SM. Rwy 16 helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:**  
Climb to 900 then climbing right turn to 5000 direct CETUV and hold, continue climb-in-hold to 5000.

AWOS-3 <b>118.025</b>	SEATTLE APP CON <b>121.1 377.15</b>	UNICOM <b>122.8 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LPV DA	476-1 300 (300-1)			
LNAV/VNAV DA	832-2½ 656 (700-2½)			
LNAV MDA	900-1 724 (800-1)	900-2 724 (800-2)		
<b>C</b> CIRCLING	900-1 723 (800-1)	1080-1¼ 903 (1000-1¼)	1200-3 1023 (1100-3)	1300-3 1123 (1200-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-CYS <b>110.1</b> Chan <b>38</b>	APP CRS <b>265°</b>	Rwy ldg TDZE Apt Rlev	<b>7985</b> <b>6121</b> <b>6160</b>
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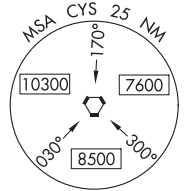
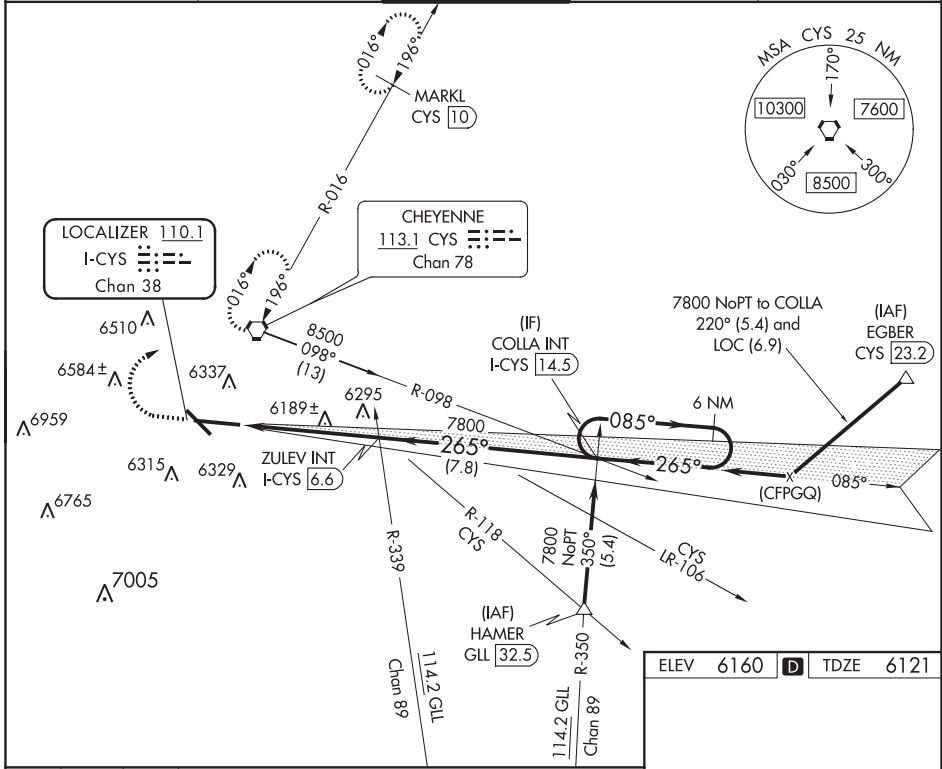
# ILS or LOC RWY 27

CHEYENNE RGNL/JERRY OLSON FIELD (CYS)

**# RVR 1800** authorized with the use of FD or AP or HUD to DA.

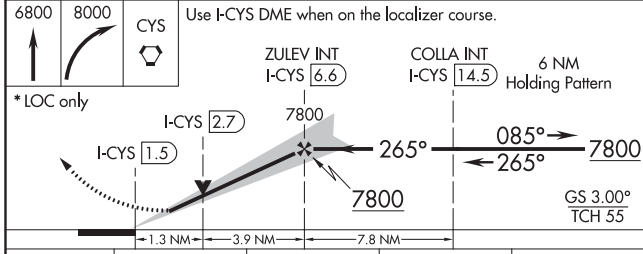
**MALSR**  MISSED APPROACH: Climb to 6800, then climbing right turn to 8000 direct CYS VORTAC and hold, continue climb-in-hold to 8000 (TACAN aircraft continue via CYS VORTAC R-016 to MARKL/CYS 10 DME and hold N, RT, 196° inbound).

ATIS <b>134.425 278.3</b>	CHEYENNE APP CON* <b>124.55 263.075</b>	CHEYENNE TOWER* <b>118.7 (CTAF) 0 257.8</b>	GND CON <b>121.9 254.275</b>	UNICOM <b>122.95</b>
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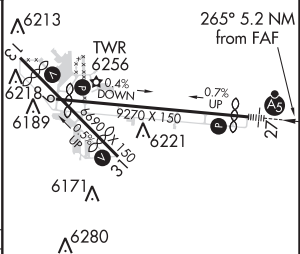


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV	6160	TDZE	6121
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CATEGORY	A	B	C	D
S-ILS 27	# 6321/24 200 (200-1/2)			
S-LOC 27	6560/24	439 (400-1/2)	6560/40	439 (400-3/4)
<b>C</b> CIRCLING	6640-1	480 (500-1)	6900-2 740 (800-2)	6940-2 1/2 780 (800-2 1/2)

REIL Rws 9, 13, and 31					
HIRL Rwy 9-27					
MIRL Rwy 13-31					
FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

CHEYENNE, WYOMING

AL-80 (FAA)

15288

WAAS CH <b>73009</b> <b>W09A</b>	APP CRS <b>085°</b>	Rwy Idg <b>7985</b> TDZE <b>6143</b> Apt Elev <b>6159</b>
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# RNAV (GPS) RWY 9

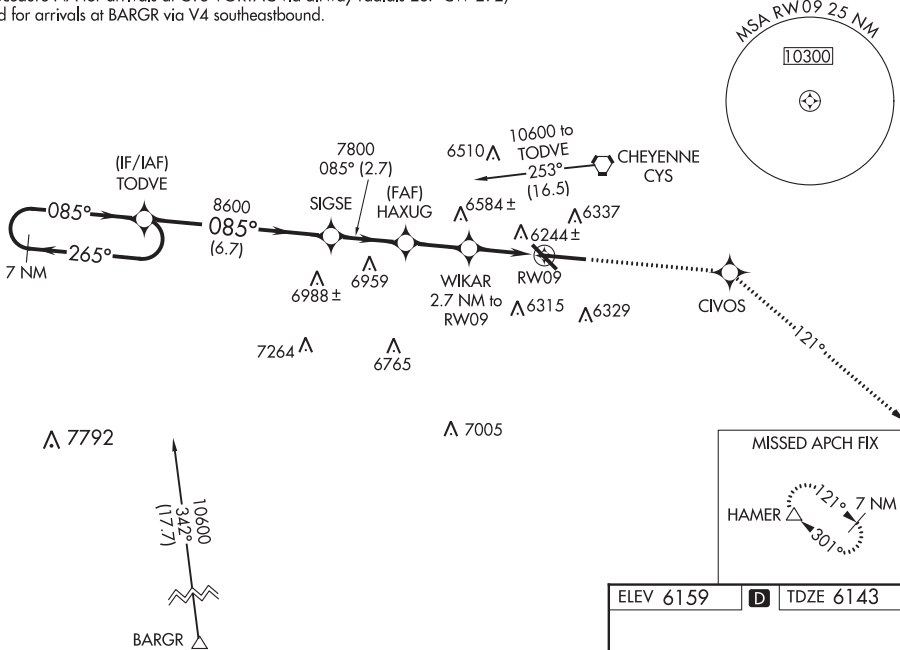
CHEYENNE RGNL/JERRY OLSON FIELD (CYS)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-16°F) or above 36°C (96°F). DME/DME RNP-0.3 NA.  
**⚠** Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Laramie altimeter setting and increase all DA 251 feet, all MDA 260 feet, and all visibilities 3/4 mile. VDP and Baro-VNAV NA when using Laramie altimeter setting.

MISSED APPROACH: Climb to 8500 direct CIVOS and via 121° track to HAMER and hold.

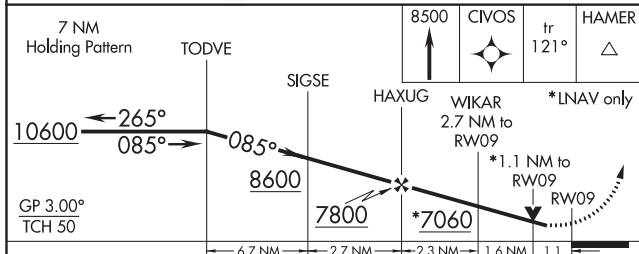
ATIS <b>134.425 278.3</b>	CHEYENNE APP CON <b>124.55 263.075</b>	CHEYENNE TOWER * <b>118.7(CTAF) 0 257.8</b>	GND CON <b>121.9 254.275</b>	UNICOM <b>122.95</b>
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Procedure NA for arrivals at CYS VORTAC via airway radials 267 CW 292, and for arrivals at BARGR via V4 southeastbound.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA		6473-1 1/4	330 (400-1 1/4)	
LNAV/VNAV DA		6542-1 1/2	399 (400-1 1/2)	
LNAV MDA		6540-1	397 (400-1)	6540-1 1/4 397 (400-1 1/4)
CIRCLING	6660-1	501 (600-1)	6660-1 1/2 501 (600-1 1/2)	6720-2 561 (600-2)

ELEV 6159 TDZE 6143

REIL Rwy 9, 13, and 31  
 HIRL Rwy 9-27  
 MIRL Rwy 13-31

CHEYENNE, WYOMING  
 Amdt 1A 13NOV14

41°09'N-104°49'W

# CHEYENNE RGNL/JERRY OLSON FIELD (CYS)

## RNAV (GPS) RWY 9

WAAS CH <b>56609</b> <b>W13A</b>	APP CRS <b>125°</b>	Rwy Idg TDZE Apt Elev	<b>4830</b> <b>6154</b> <b>6159</b>
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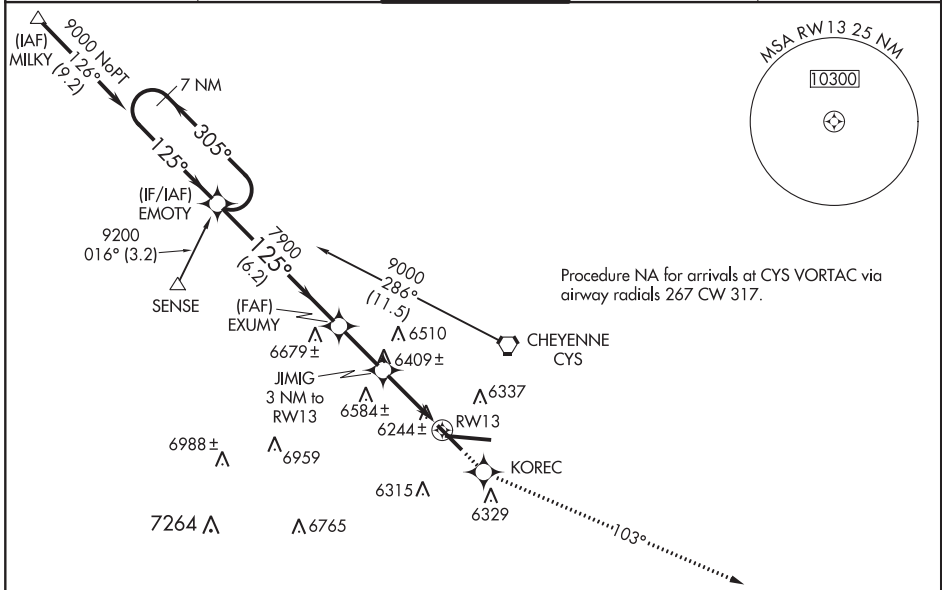
# RNAV (GPS) RWY 13

CHEYENNE RGNL/JERRY OLSON FIELD (CYS)

**⚠** Baro-VNAV NA when using Laramie altimeter setting.  
 For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-16°F) or above 36°C (96°F). Helicopter visibility reduction below ¾ SM NA. DME/DME RNP-0.3 NA.  
 When local altimeter setting not received, use Laramie altimeter setting and increase all DA/MDA 260 feet and all visibilities 1 mile.

**⚠** ASR/PAR MISSED APPROACH: Climb to 8500 direct KOREC and via 103° track to HAMER and hold.

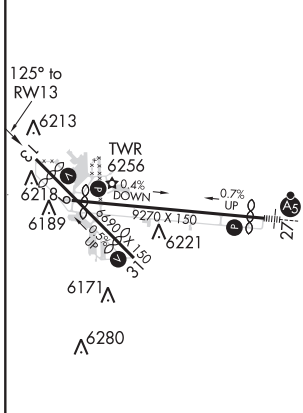
ATIS <b>134.425 278.3</b>	CHEYENNE APP CON <b>124.55 263.075</b>	CHEYENNE TOWER * <b>118.7 (CTAF) 257.8</b>	GND CON <b>121.9 254.275</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 6159	<b>D</b>	TDZE 6154
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REIL Rwy 9, 13 and 31  
 HIRL Rwy 9-27  
 MIRL Rwy 13-31



VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 30).			
7 NM Holding Pattern	EMOTY	8500	KOREC
		↑	✦
			103° tr
			HAMER
			△
* LNAV only			
9000 ← 305°	→ 125°	EXUMY	JIMIG 3 NM to RW13
GP 3.00°		7900	
TCH 55		*7160	
		6.2 NM	2.2 NM 3 NM

CATEGORY	A	B	C	D
LPV DA	6481-1 327 (400-1)			
LNAV/VNAV DA	6539-1¼ 385 (400-1¼)			
LNAV MDA	6660-1 506 (600-1)	6660-1½ 506 (600-1½)		
CIRCLING	6660-1 501 (600-1)	6660-1½ 501 (600-1½)	6720-2 561 (600-2)	

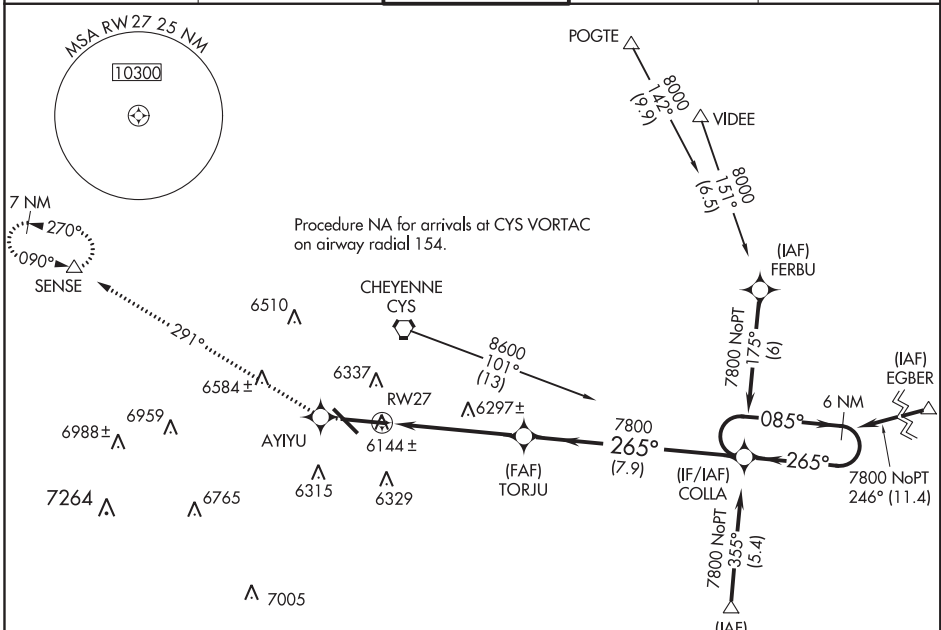
WAAS CH <b>70307</b> <b>W27A</b>	APP CRS <b>265°</b>	Rwy Idg TDZE Apt Elev	<b>7985</b> <b>6121</b> <b>6160</b>
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# RNAV (GPS) RWY 27

CHEYENNE RGNL/JERRY OLSON FIELD (CYS)

ASR/PAR	Baro-VNAV NA below -27°C (-16°F). DME/DME RNP-0.3 NA.	MALSR 	MISSED APPROACH: Climb to 10300 direct AYYU and via 291° track to SENSE and hold, continue climb-in-hold to 10300.
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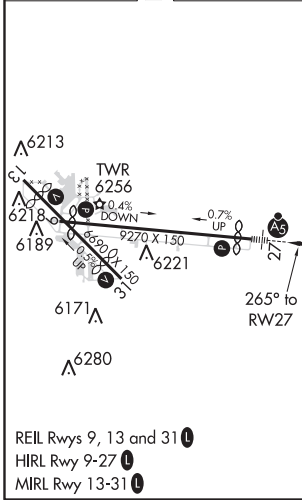
ATIS <b>134.425 278.3</b>	CHEYENNE APP CON <b>124.55 263.075</b>	CHEYENNE TOWER * <b>118.7</b> (CTAF) <b>125.7.8</b>	GND CON <b>121.9 254.275</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 6160	<b>D</b>	TDZE 6121
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10300	AYYU	291° tr	SENSE	6 NM Holding Pattern
*LNAV only		*1.3 NM to RWY27		
				GP 3.00° TCH 55
		1.3 NM	3.8 NM	7.9 NM
CATEGORY	A	B	C	D
LPV DA		6380/24	259 (300-½)	
LNAV/VNAV DA		6480/40	359 (400-¾)	
LNAV MDA	6560/24	439 (400-½)	6560/40 439 (400-¾)	6560/50 439 (400-1)
CIRCLING	6660-1	500 (500-1)	6660-1½ 500 (500-1½)	6720-2 560 (600-2)

CHEYENNE, WYOMING  
Orig-B 30AUG07

CHEYENNE RGNL/JERRY OLSON FIELD (CYS)  
41°09'N-104°49'W  
**RNAV (GPS) RWY 27**

WAAS CH <b>99609</b> <b>W31A</b>	APP CRS <b>305°</b>	Rwy Idg TDZE Apt Elev	<b>4880</b> <b>6147</b> <b>6159</b>
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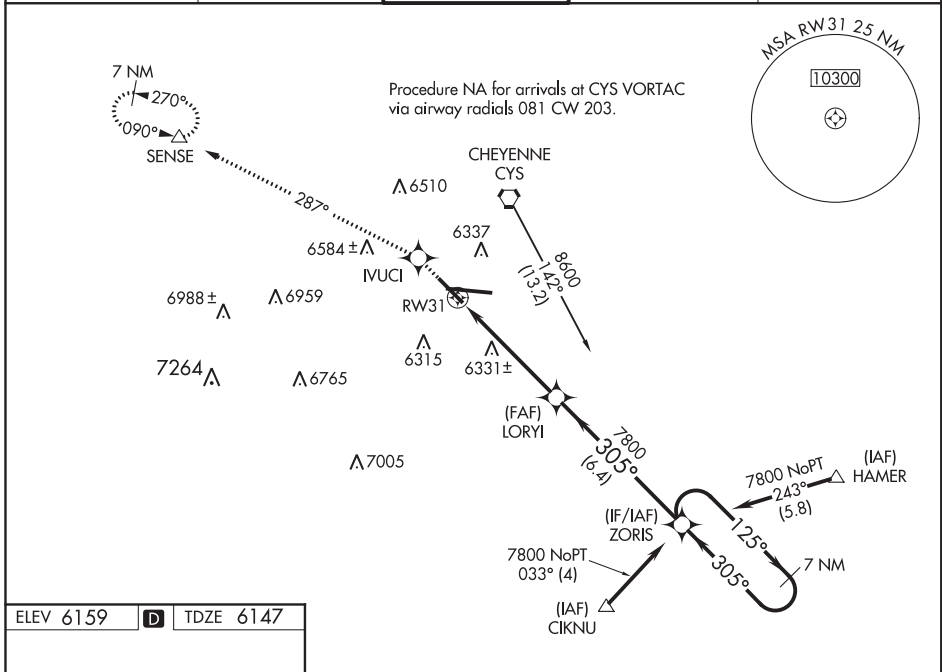
# RNAV (GPS) RWY 31

CHEYENNE RGNL/JERRY OLSON FIELD (CYS)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-16°F) or above 36°C (96°F). DME/DME RNP-0.3 NA.  
**⚠** Helicopter visibility reduction below ¾ SM NA.  
 ASR/PAR VDP and Baro-VNAV NA when using Laramie altimeter setting.  
 When local altimeter setting not received, use Laramie altimeter setting and increase all DA/MDA 260 feet and all visibilities ¾ mile.

MISSED APPROACH: Climb to 10300 direct IVUCI and via 287° track to SENSE and hold, continue climb-in-hold to 10300.

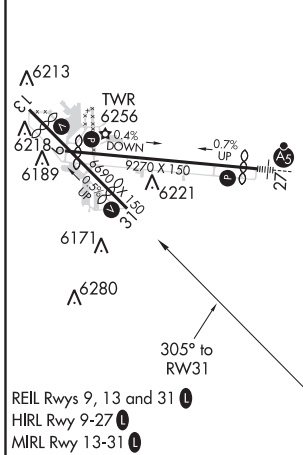
ATIS <b>134.425 278.3</b>	CHEYENNE APP CON <b>124.55 263.075</b>	CHEYENNE TOWER * <b>118.7 (CTAF) 257.8</b>	GND CON <b>121.9 254.275</b>	UNICOM <b>122.95</b>
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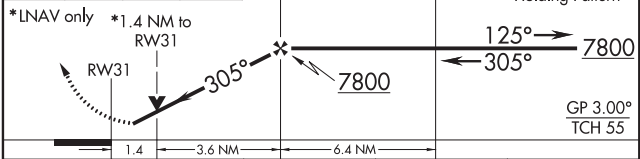
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 6159	<b>D</b>	TDZE 6147
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10300	IVUCI	tr 287°	SENSE	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 28).
			LORYI	ZORIS



CATEGORY	A	B	C	D
LPV DA	6397-1 250 (300-1)			
LNAV/VNAV DA	6545-1½ 398 (400-1½)			
LNAV MDA	6600-1	453 (500-1)	6600-1¼ 453 (500-1¼)	6600-1½ 453 (500-1½)
CIRCLING	6660-1	501 (600-1)	6660-1½ 501 (600-1½)	6720-2 561 (600-2)

VORTAC CYS <b>113.1</b> Chan <b>78</b>	APP CRS <b>196°</b>	Rwy Idg TDZE Apt Elev <b>6156</b>	N/A N/A
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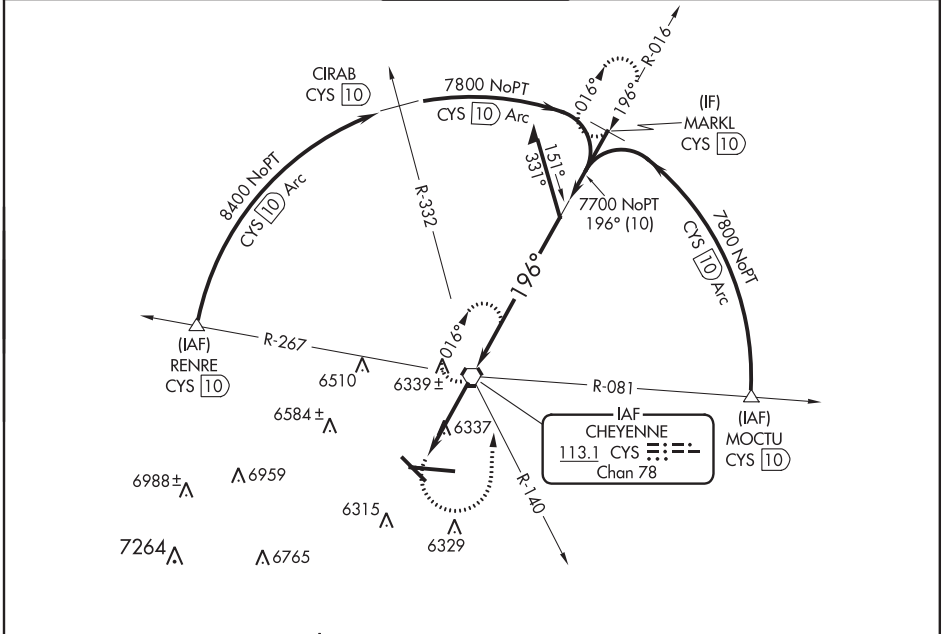
# VOR or TACAN-A

CHEYENNE RGNL/JERRY OLSON FIELD (CYS)

**ASR/PAR**

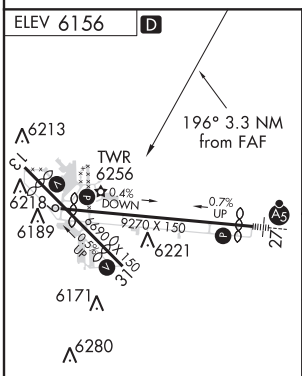
MISSED APPROACH: Climbing left turn to 8000 via heading 350° and CYS VORTAC R-140 to CYS VORTAC and hold, continue climb-in-hold to 8000 (TACAN aircraft continue via CYS R-016 to MARKL/10 DME and hold N, RT, 196° inbound.)

ATIS <b>134.425 278.3</b>	CHEYENNE APP CON <b>124.55 263.075</b>	CHEYENNE TOWER * <b>118.7</b> (CTAF) <b>0 257.8</b>	GND CON <b>121.9 254.275</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

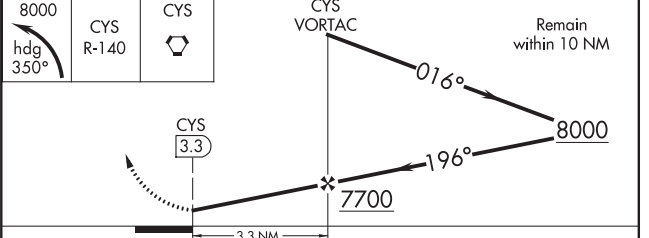
NW-1, 10 NOV 2016 to 05 JAN 2017



REIL Rwy 9, 13 and 31  
HIRL Rwy 9-27  
MIRL Rwy 13-31

FAF to MAP 3.3 NM

Knots	60	90	120	150	180
Min:Sec	3:18	2:12	1:39	1:19	1:06



CATEGORY	A	B	C	D
CIRCLING	6660-1	504 (600-1)	6660-1½ 504 (600-1½)	6720-2 564 (600-2)



# AIRPORT DIAGRAM

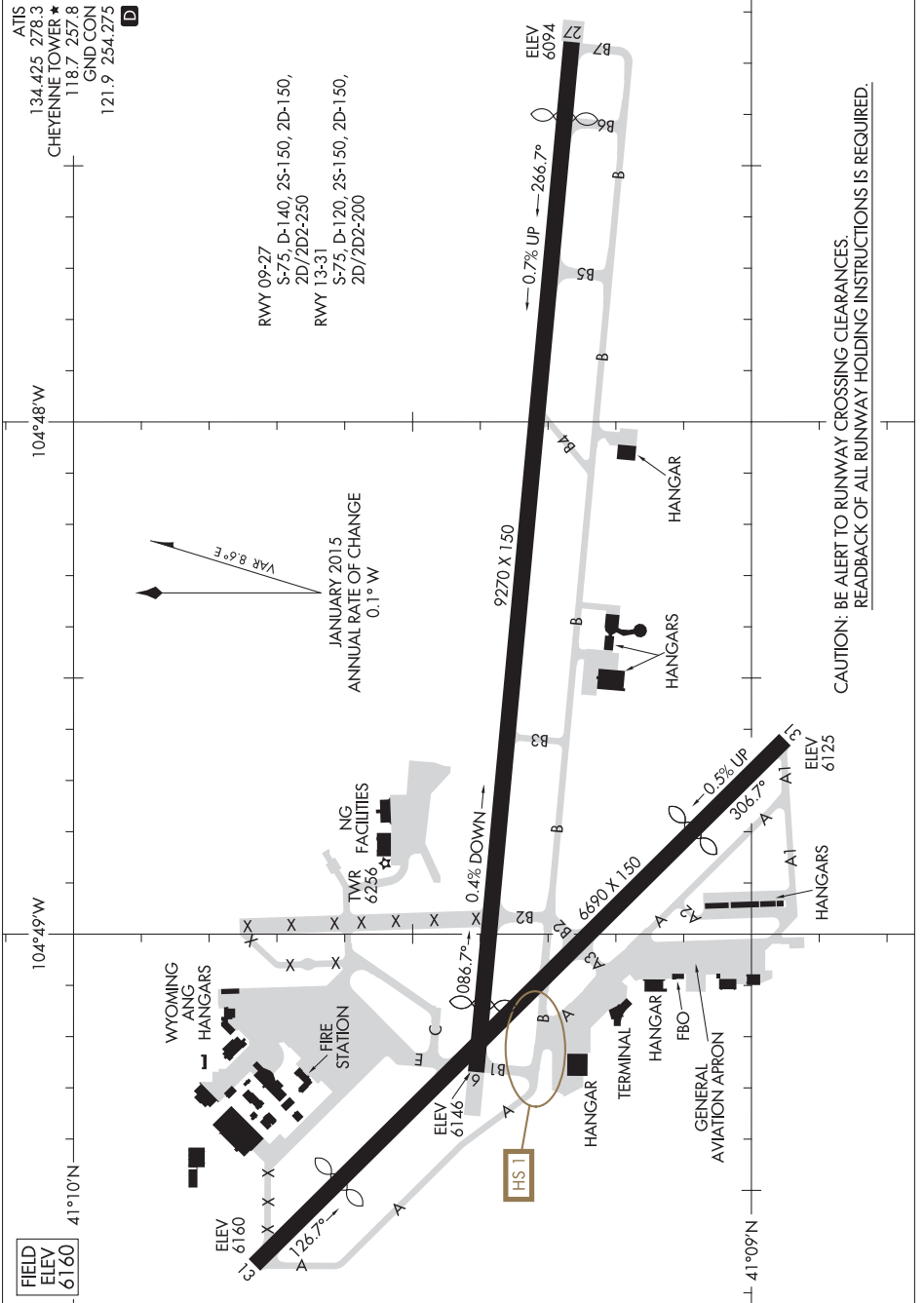
CHEYENNE RGNL/JERRY OLSON FIELD (CYS)

AL-80 (FAA)

CHEYENNE, WYOMING

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

CHEYENNE, WYOMING

CHEYENNE RGNL/JERRY OLSON FIELD (CYS)

CHOTEAU, MONTANA

AL-6814 (FAA)

15344

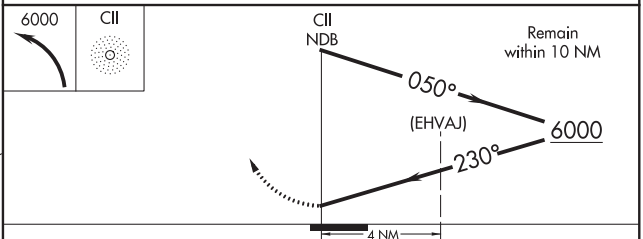
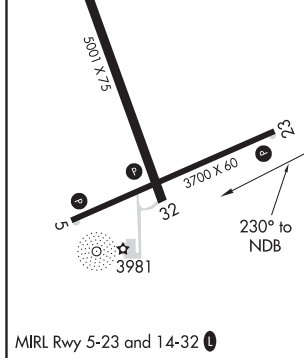
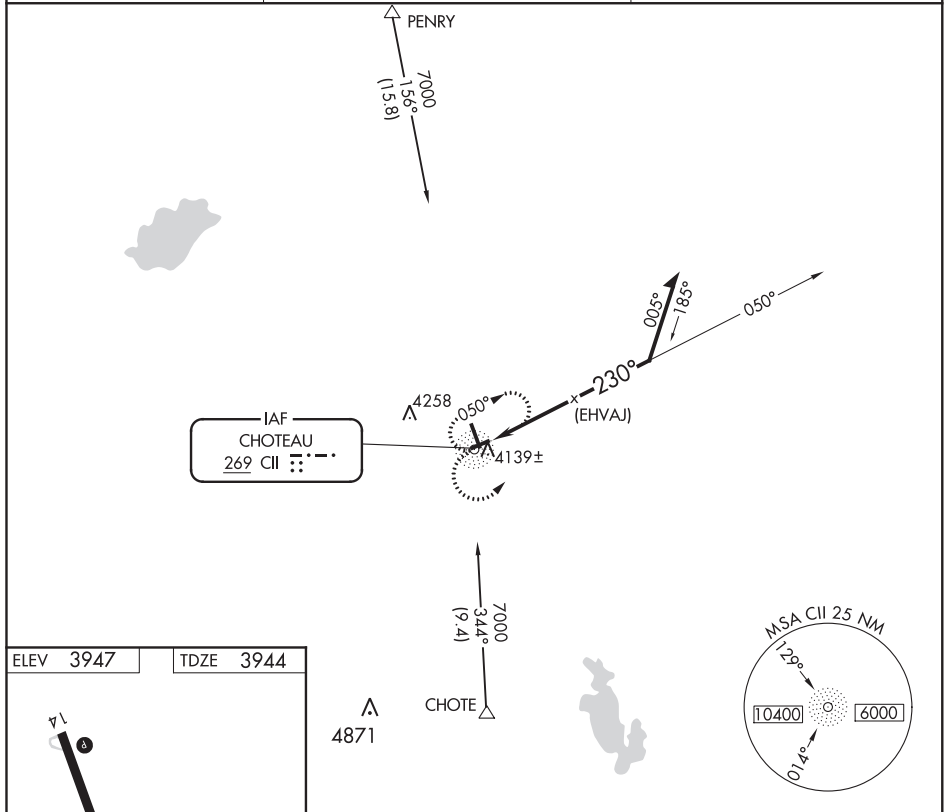
NDB CII <b>269</b>	APP CRS <b>230°</b>	Rwy Idg <b>3700</b>
		TDZE <b>3944</b>
		Apt Elev <b>3947</b>

# NDB or GPS RWY 23

CHOTEAU (CII)

**NA** Use Great Falls altimeter setting. MISSED APPROACH: Climbing left turn to 6000 direct CII NDB and hold.

AWOS-2 <b>130.050</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	UNICOM <b>122.8 (CTAF)</b>
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CATEGORY	A	B	C	D
S-23	4720-1 776 (800-1)	4720-1¼ 776 (800-1¼)	4720-2¼ 776 (800-2¼)	NA
CIRCLING	4720-1 773 (800-1)	4720-1¼ 773 (800-1¼)	4720-2¼ 773 (800-2¼)	NA

CHOTEAU, MONTANA  
Orig-C 15OCT15

47°50'N-112°10'W

# NDB or GPS RWY 23

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>86930</b> <b>W12A</b>	APP CRS <b>131°</b>	Rwy Idg <b>4100</b> TDZE <b>2429</b> Apt Elev <b>2441</b>
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# RNAV (GPS) RWY 12

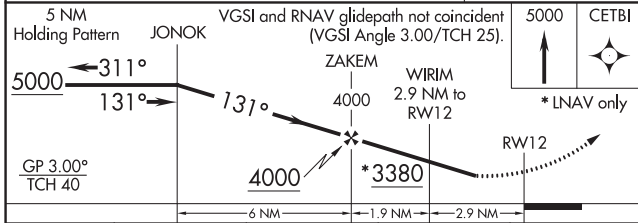
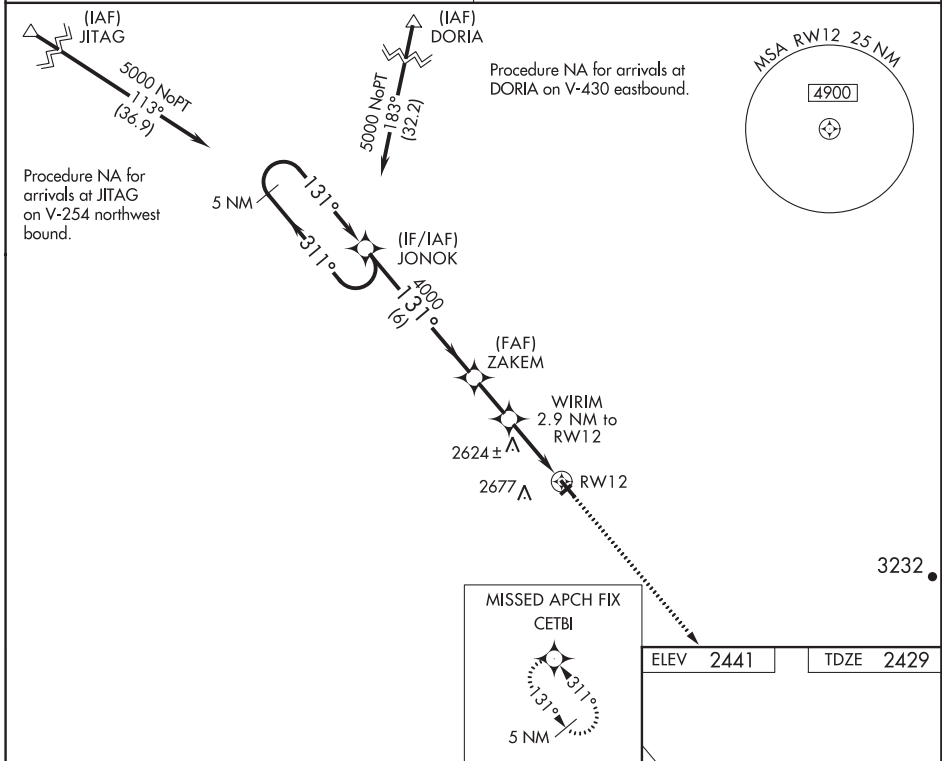
CIRCLE TOWN COUNTY (4U6)

**Baro-VNAV NA.** Use Glendive, MT altimeter setting. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Straight-in/Circling Rwy 12 procedure NA at night.

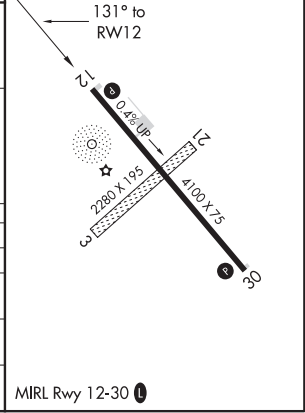
**MISSED APPROACH:** Climb to 5000 direct CETBI and hold.

SALT LAKE CENTER **126.85 305.2**

UNICOM **122.8 (CTAF)**



CATEGORY	A	B	C	D
LPV DA		2970-1 $\frac{7}{8}$	541 (600-1 $\frac{7}{8}$ )	
LNAV/VNAV DA		3164-2 $\frac{3}{4}$	735 (800-2 $\frac{3}{4}$ )	
LNAV MDA	3180-1 751 (800-1)	3180-1 $\frac{1}{4}$ 751 (800-1 $\frac{1}{4}$ )	3180-2	751 (800-2)
CIRCLING	3300-1 $\frac{1}{4}$ 859 (900-1 $\frac{1}{4}$ )	3320-1 $\frac{1}{4}$ 879 (900-1 $\frac{1}{4}$ )	3360-2 $\frac{3}{4}$ 919 (1000-2 $\frac{3}{4}$ )	3380-3 939 (1000-3)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

CIRCLE, MONTANA

AL-10493 (FAA)

15288

WAAS CH <b>49030</b> W30A	APP CRS <b>311°</b>	Rwy Idg <b>4100</b> TDZE <b>2441</b> Apt Elev <b>2441</b>
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# RNAV (GPS) RWY 30

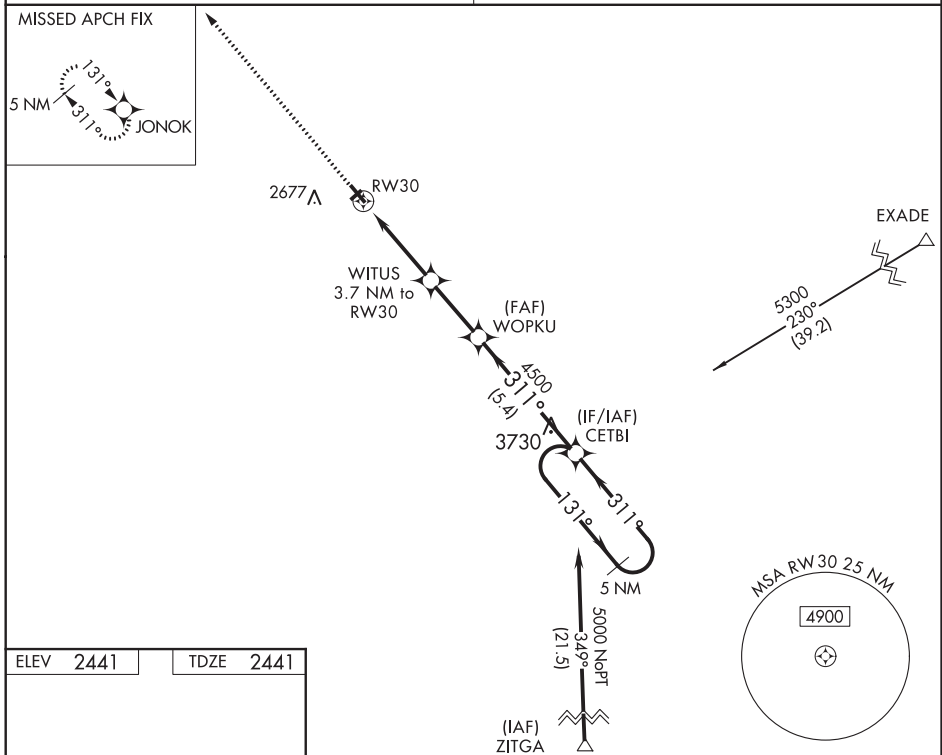
CIRCLE TOWN COUNTY (4U6)

**NA** Circling to Rwy 12 NA at night. Baro-VNAV NA. Use Glendive, MT altimeter setting.  
 When VGSI inop, Straight-in/Circling Rwy 30 procedure NA at night.  
 DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

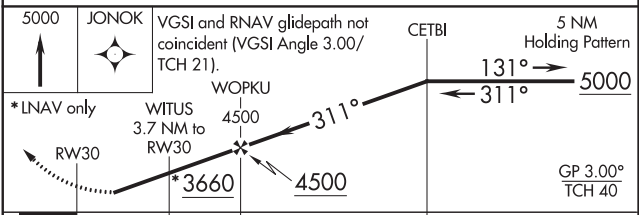
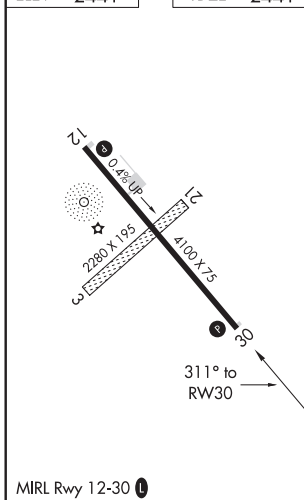
MISSED APPROACH: Climb to 5000 direct JONOK and hold.

SALT LAKE CENTER  
**126.85 305.2**

UNICOM  
**122.8 (CTAF)**



ELEV <b>2441</b>	TDZE <b>2441</b>
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CATEGORY	A	B	C	D
LPV DA	2982-1 $\frac{7}{8}$		541 (600-1 $\frac{7}{8}$ )	
LNNAV/VNAV DA	3335-4 894 (900-4)			
LNNAV MDA	3540-1 $\frac{1}{4}$ 1099 (1100-1 $\frac{1}{4}$ )	3540-1 $\frac{1}{2}$ 1099 (1100-1 $\frac{1}{2}$ )	3540-3	1099 (1100-3)
CIRCLING	3540-1 $\frac{1}{4}$ 1099 (1100-1 $\frac{1}{4}$ )	3540-1 $\frac{1}{2}$ 1099 (1100-1 $\frac{1}{2}$ )	3540-3	1099 (1100-3)

CIRCLE, MONTANA  
Orig-A 11DEC14

47°25'N-105°34'W

# RNAV (GPS) RWY 30

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

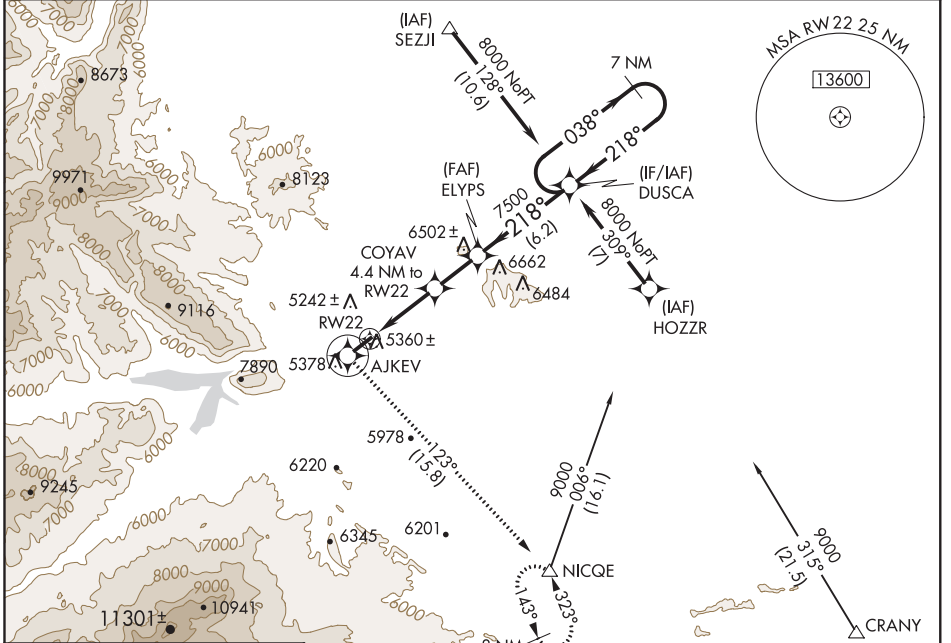
WAAS CH <b>93600</b> <b>W22A</b>	APP CRS <b>218°</b>	Rwy ldg TDZE Apt Elev <b>7178</b> <b>5076</b> <b>5102</b>
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# RNAV (GPS) RWY 22

YELLOWSTONE RGNL (COD)

-31°C/-24°F	DME/DME RNP- 0.3 NA.	MISSED APPROACH: Climb to 9600 direct AJKEV and left turn via 123° track to NICQE and hold.
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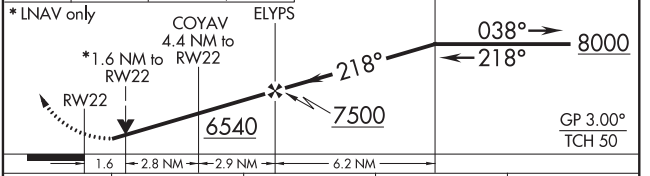
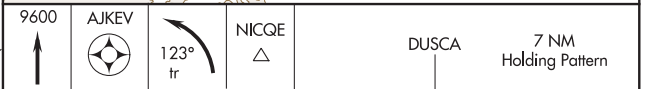
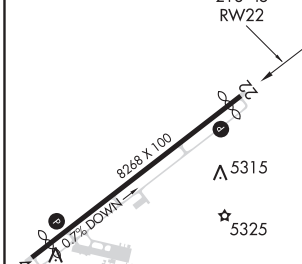
AWOS-3PT <b>135.075</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>122.8</b> (CTAF)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 5102	<b>D</b>	TDZE 5076
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CATEGORY	A	B	C	D
LPV DA	5457-1¼ 381 (400-1¼)			
RNAV/ VNAV DA	NA			
RNAV MDA	5620-1	544 (600-1)	5620-1½ 544 (600-1½)	5620-1¾ 544 (600-1¾)
CIRCLING	5840-1¼	738 (800-1¼)	5900-2¼ 798 (800-2¼)	5960-2¾ 858 (900-2¾)

REIL Rws 4 and 22   
HIRL Rwy 4-22

CODY, WYOMING

AL-5243 (FAA)

16315

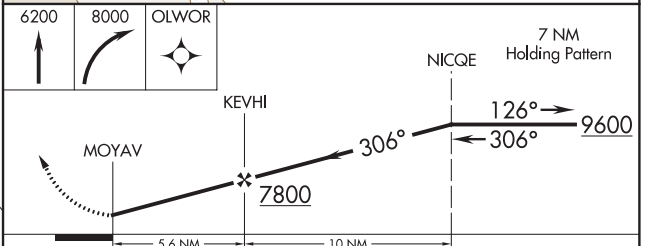
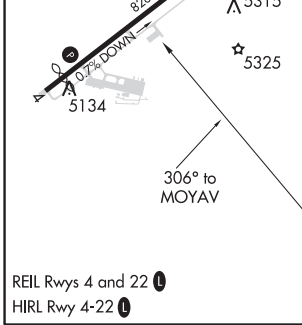
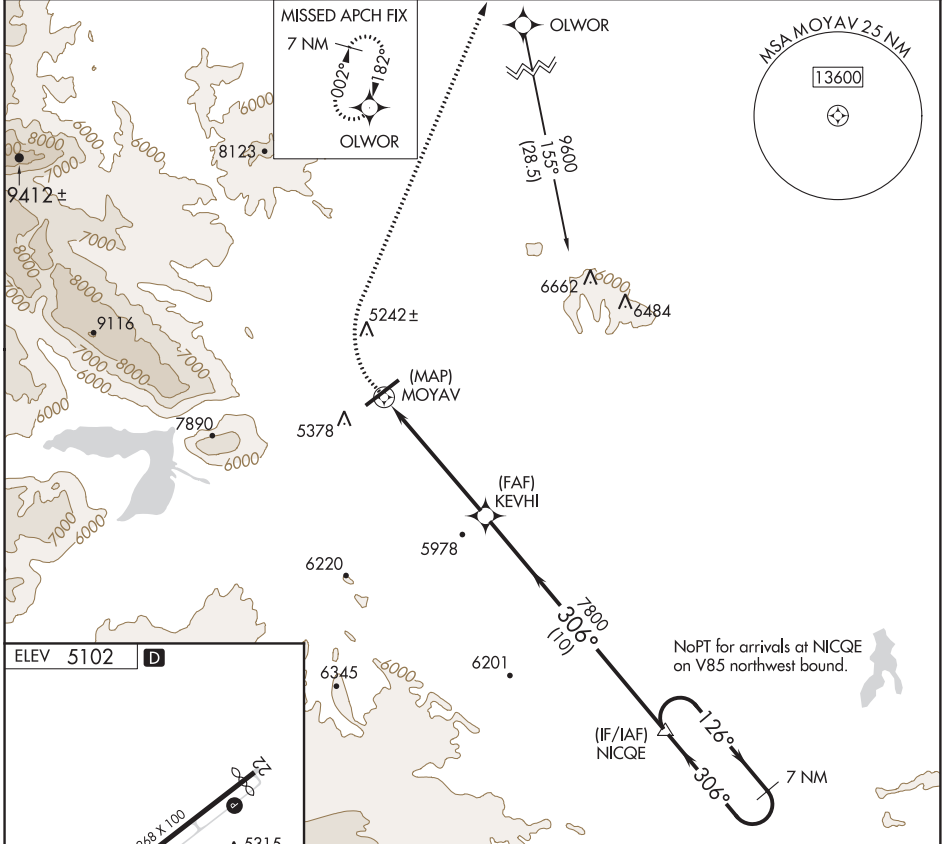
APP CRS <b>306°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>5102</b>
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# RNAV (GPS)-B

YELLOWSTONE RGNL (COD)

<p>-31°C/-24°F</p>	When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA.	MISSED APPROACH: Climb to 6200 then climbing right turn to 8000 direct OLVOR and hold.
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AWOS-3PT <b>135.075</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>122.8 (CTAF) 0</b>
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CATEGORY	A	B	C	D
CIRCLING	6180-1¼ 1078 (1100-1¼)	6180-1½ 1078 (1100-1½)	6180-3	1078 (1100-3)

CODY, WYOMING  
Orig 02MAY13

44°31'N-109°01'W

YELLOWSTONE RGNL (COD)  
**RNAV (GPS)-B**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

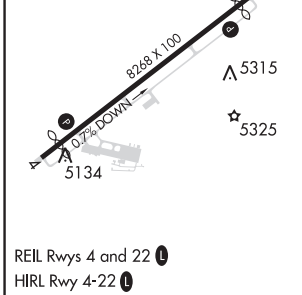
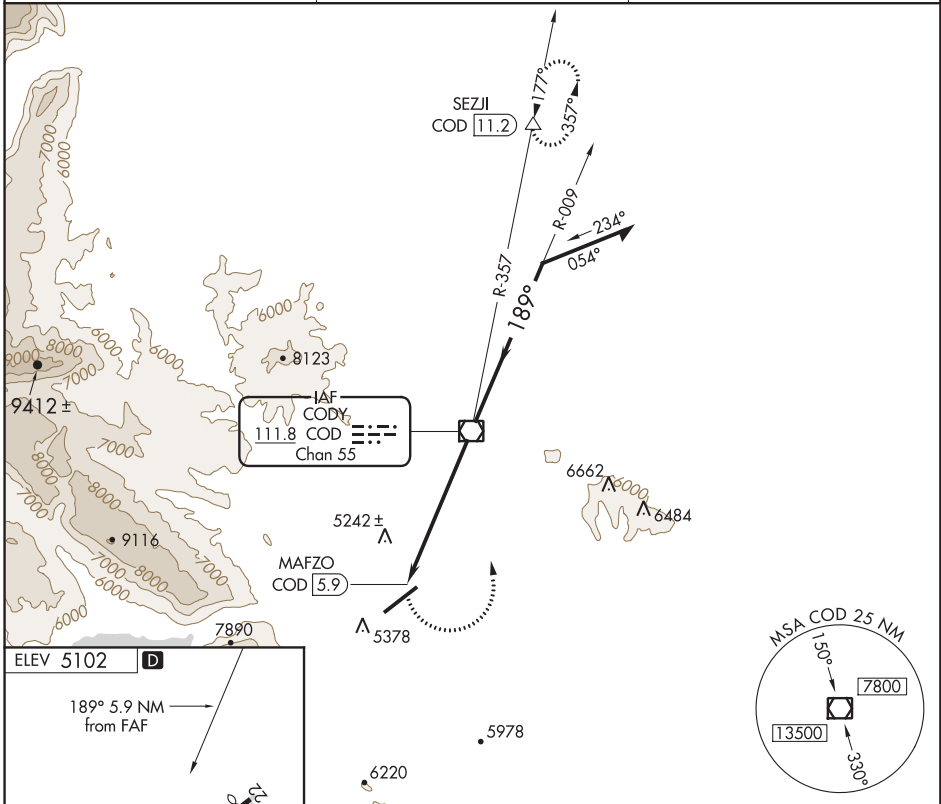
VOR/DME COD <b>111.8</b> Chan <b>55</b>	APP CRS <b>189°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>5102</b>
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**VOR-A**  
YELLOWSTONE RGNL (COD)

When local altimeter setting not received, procedure NA. DME required.

MISSED APPROACH: Climbing left turn to 8400 direct COD VOR/DME and on COD VOR/DME R-357 to SEZJI/COD 11.2 DME and hold.

AWOS-3PT <b>135.075</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>122.8 (CTAF)</b>
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8400	COD	COD	SEZJI	Remain within 10 NM
	R-357			
8600	COD VOR/DME	8100	009°	
6500	189°			
5.9 NM				

FAF to MAP 5.9 NM				
CATEGORY	A	B	C	D
CIRCLING	5800-1	698 (700-1)	5800-2 698 (700-2)	5920-2¾ 818 (900-2¾)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC I-COE <b>110.7</b>	APP CRS <b>051°</b>	Rwy Idg <b>7400</b>	TDZE <b>2290</b>
		Apt Elev <b>2320</b>	

# ILS or LOC/DME RWY 6

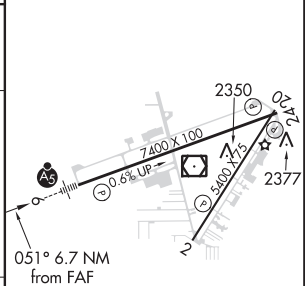
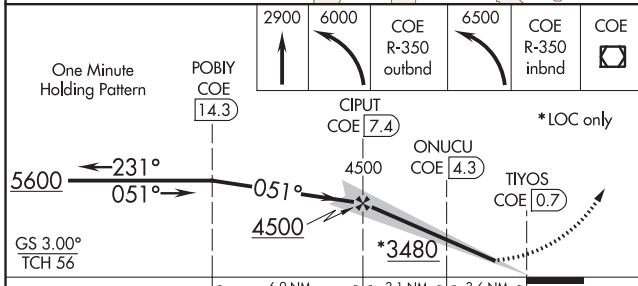
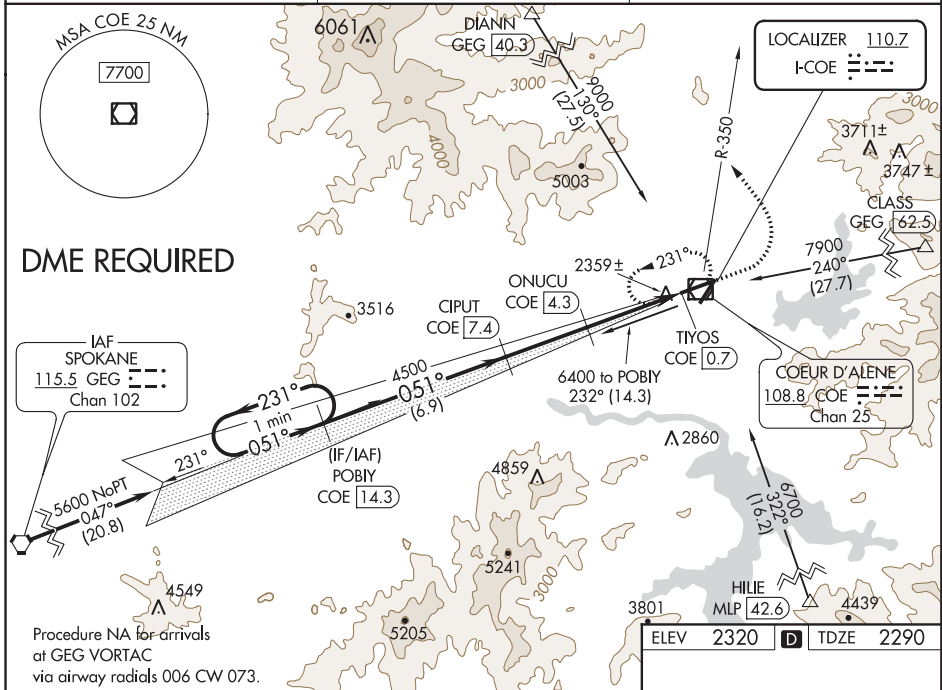
COEUR D'ALENE-PAPPY BOYINGTON FIELD (COE)

**⚠** DME from COE VOR/DME. Simultaneous reception of I-COE and COE DME required. Autopilot coupled approach NA below 2795. When local altimeter setting not received, use Spokane Intl altimeter setting and increase all DA/MDA 80 feet and all visibilities ¼ mile. Night landing: Rwy 2 NA.

**MALSR**

**MISSED APPROACH:** Climb to 2900 then climbing left turn to 6000 via COE R-350 outbound then climbing left turn to 6500 via COE R-350 inbound to COE VOR/DME and hold.

AWOS-3PT <b>135.075</b>	SPOKANE APP CON <b>132.1 263.0</b>	UNICOM <b>122.8 (CTAF)</b>
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CATEGORY	A	B	C	D
S-ILS 6	2490-½ 200 (200-½)			
S-LOC 6	2860-½	570 (600-½)	2860-1 570 (600-1)	2860-1½ 570 (600-1¼)
CIRCLING	2860-1	540 (600-1)	2880-1½ 560 (600-1½)	2880-2 560 (600-2)

**MIRL Rwy 2-20**

**HIRL Rwy 6-24**

**REIL Rws 2 and 24**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



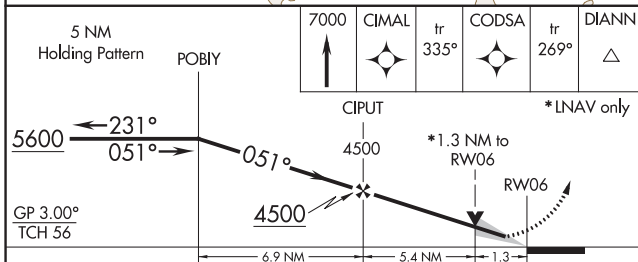
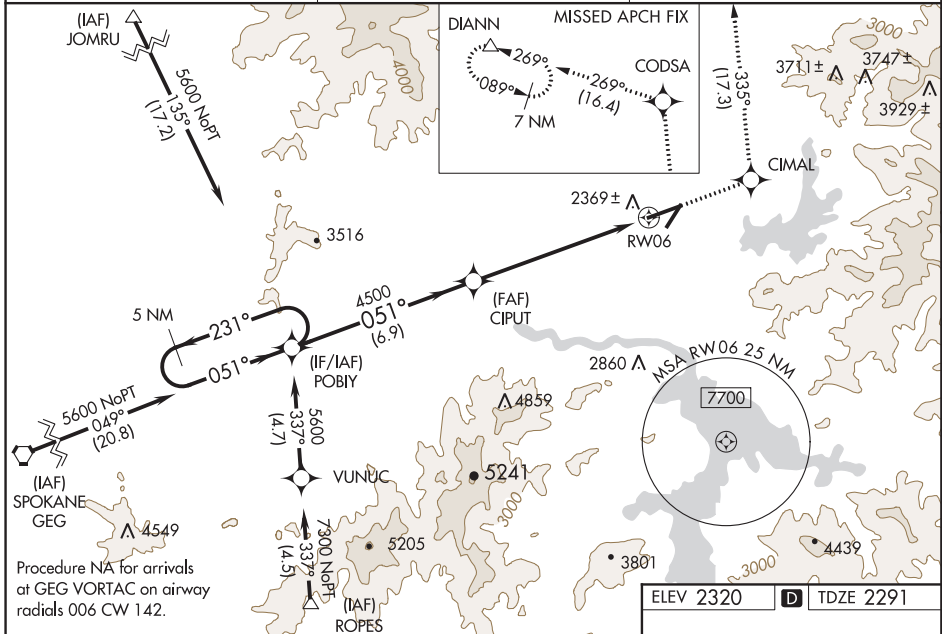
WAAS CH <b>70608</b> <b>W06A</b>	APP CRS <b>051°</b>	Rwy Idg <b>7400</b> TDZE <b>2291</b> Apt Elev <b>2320</b>
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# RNAV (GPS) RWY 6

COEUR D'ALENE-PAPPY BOYINGTON FIELD (COE)

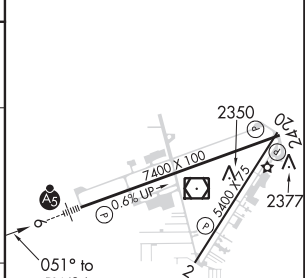
<p><b>⚠</b> For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -21°C (-5°F) or above 53°C (127°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Spokane Intl altimeter setting and increase all DA/MDA 80 feet. Increase LNAV/VNAV all Cats visibility ¼ mile, LNAV Cat C/D visibility ½ mile, and Circling Cat C visibility ¼ mile. Baro-VNAV and VDP NA when using Spokane Intl altimeter setting. Night landing: Rwy 2 NA.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climb to 7000 direct CIMAL and on track 335° to CODSA and on track 269° to DIANN and hold.</p>
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AWOS-3PT <b>135.075</b>	SPOKANE APP CON <b>132.1 263.0</b>	UNICOM <b>122.8 (CTAF)</b>
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ELEV 2320	TDZE 2291
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CATEGORY	A	B	C	D
LPV DA	2491-½ 200 (200-½)			
LNAV/VNAV DA	2654-¾ 363 (400-¾)			
LNAV MDA	2740-½	449 (500-½)	2740-1	449 (500-1)
CIRCLING	2740-1 420 (500-1)	2860-1 540 (600-1)	2880-1½ 560 (600-1½)	2880-2 560 (600-2)



MIRL Rwy 2-20	⚠
HIRL Rwy 6-24	⚠
REIL Rws 2 and 24	⚠

# RNAV (GPS) RWY 6

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VOR/DME COE	APP CRS	Rwy Idg	5400
108.8	344°	TDZE	2311
Chan 25		Apt Elev	2320

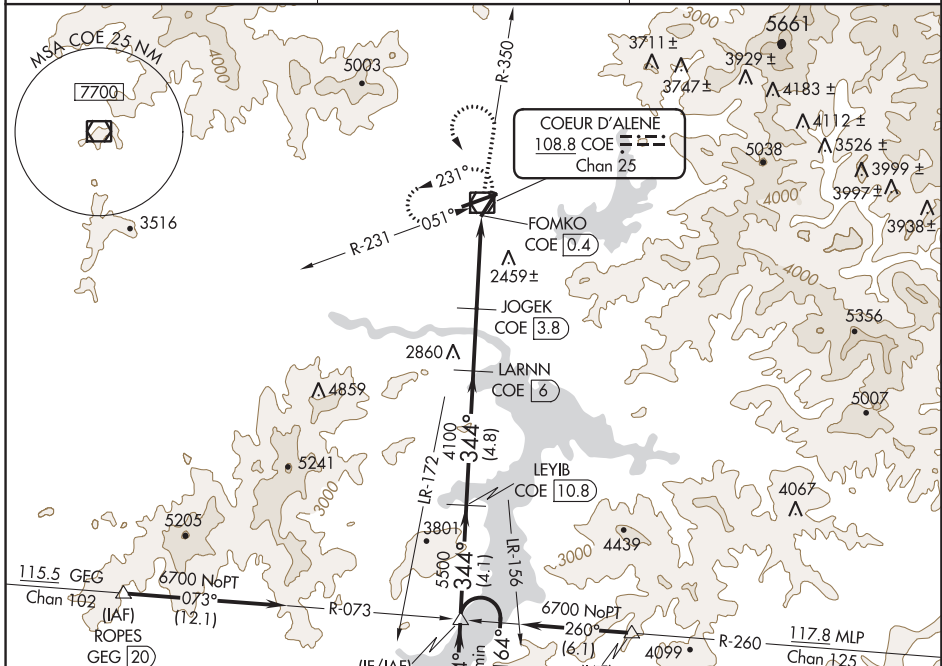
# VOR/DME RWY 2

COEUR D'ALENE-PAPPY BOYINGTON FIELD (COE)

**⚠** Helicopter visibility reduction below ¼ SM not authorized. When local altimeter setting not received, use Spokane Intl altimeter setting and increase all MDA 80 feet and S-2 and Circling Cat C visibility ¼ mile. VDP NA with Spokane Intl altimeter setting. Night landing: Rwy 2 NA.

**MISSED APPROACH:** Climb to 6000 on COE R-350 outbound then climbing left turn to 6500 on COE R-350 inbound to COE VOR/DME and hold.

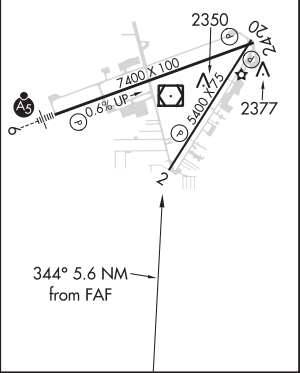
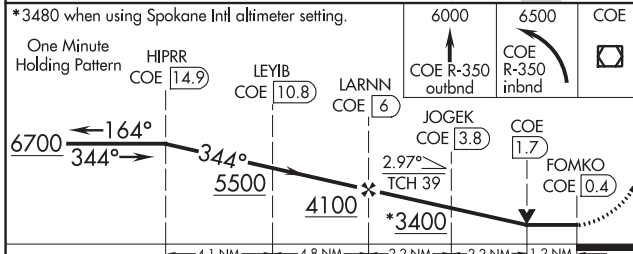
AWOS-3PT	SPOKANE APP CON	UNICOM
135.075	132.1 263.0	122.8 (CTAF) <b>1</b>



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2320	TDZE 2311
MIRL Rwy 2-20	HIRL Rwy 6-24
REIL Rwy 2 and 24	



CATEGORY	A	B	C	D
S-2	2740-1	429 (500-1)	2740-1½ 429 (500-1½)	NA
CIRCLING	2740-1 420 (500-1)	2860-1 540 (600-1)	2880-1½ 560 (600-1½)	NA

# VOR/DME RWY 2

16315 **AIRPORT DIAGRAM** COEUR D'ALENE-PAPPY BOYINGTON FIELD (COE)  
 AL-527 (FAA) COEUR D'ALENE, IDAHO

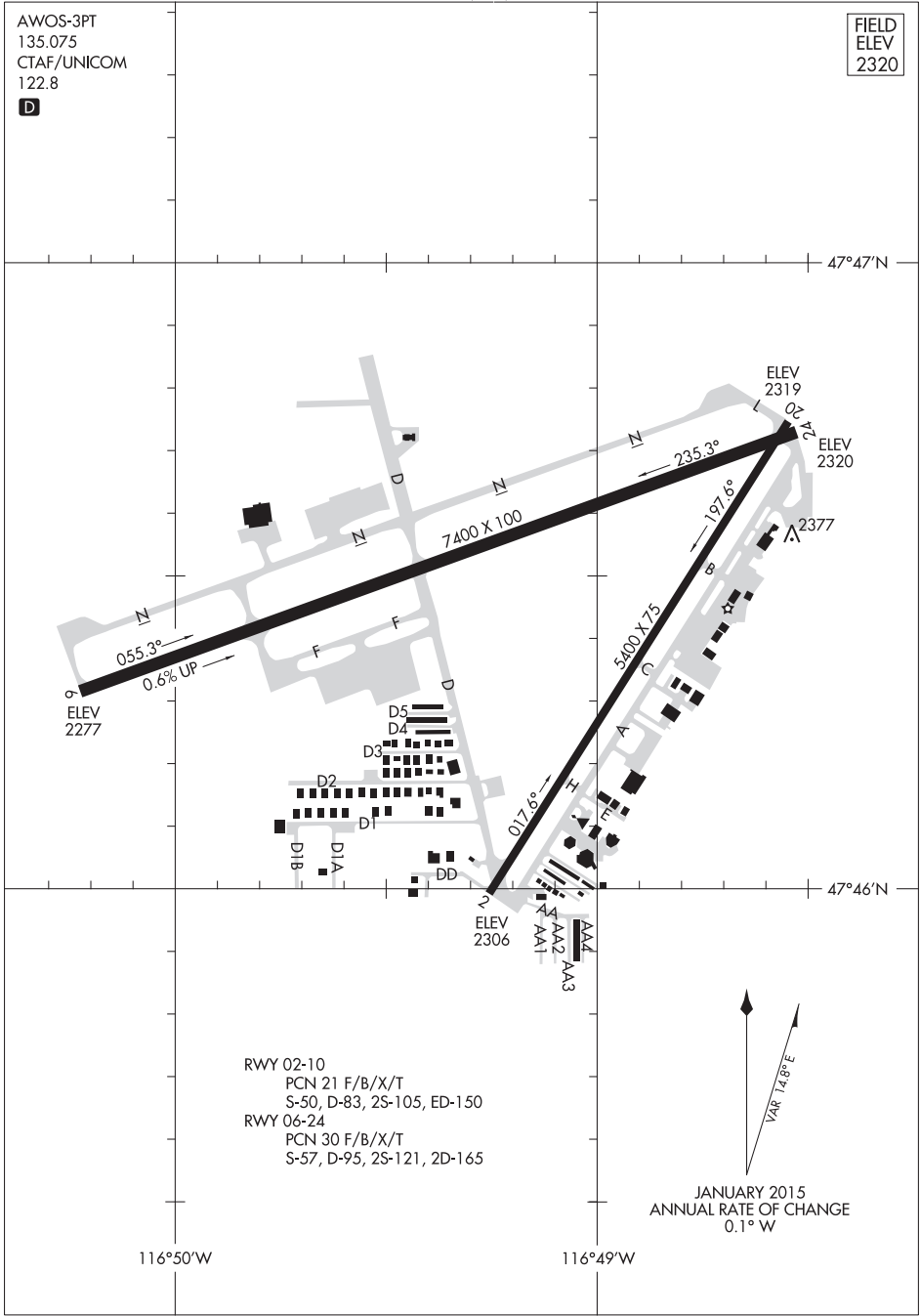
AWOS-3PT  
 135.075  
 CTAF/UNICOM  
 122.8



FIELD  
 ELEV  
 2320

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



RWY 02-10  
 PCN 21 F/B/X/T  
 S-50, D-83, 2S-105, ED-150  
 RWY 06-24  
 PCN 30 F/B/X/T  
 S-57, D-95, 2S-121, 2D-165

↑  
 VAR 14.88° E  
 JANUARY 2015  
 ANNUAL RATE OF CHANGE  
 0.1° W

116°50'W

116°49'W

**AIRPORT DIAGRAM** COEUR D'ALENE, IDAHO  
 16315 COEUR D'ALENE-PAPPY BOYINGTON FIELD (COE)

(COE2.COE) 16315

COEUR D'ALENE-PAPPY BOYINGTON FIELD (COE)

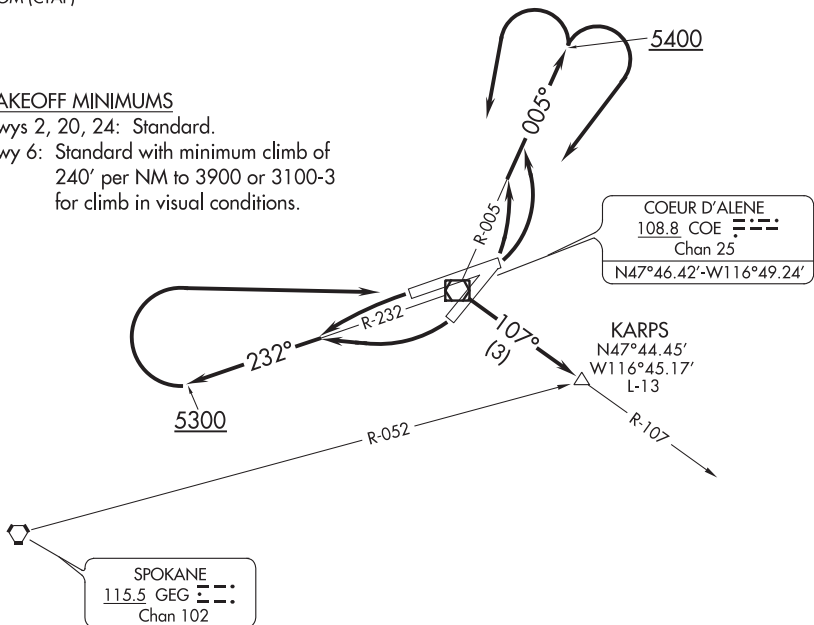
COEUR D'ALENE TWO DEPARTURE (OBSTACLE) SL-527 (FAA) COEUR D'ALENE, IDAHO

AWOS-3PT  
135.075  
SPOKANE DEP CON  
132.1 263.0  
UNICOM (CTAF)  
122.8

**TAKEOFF MINIMUMS**

Rwys 2, 20, 24: Standard.

Rwy 6: Standard with minimum climb of 240' per NM to 3900 or 3100-3 for climb in visual conditions.



**TAKEOFF OBSTACLE NOTES**

Rwy 20: Trees beginning 165' from DER, 276' right of centerline, up to 109' AGL/2399' MSL. Tree 2914' from DER, 425' left of centerline, 38' AGL/2383' MSL.

Rwy 6: Poles beginning 895' from DER, 690' right of centerline, up to 44' AGL/2354' MSL. Trees beginning 1149' from DER, 720' right of centerline, up to 103' AGL/2563' MSL.

NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 2:** Climbing left turn to 5400 on COE R-005, then left or right turn direct COE VOR/DME, then on COE R-107 to KARPS INT to MEA for route of flight.

**TAKEOFF RUNWAY 6:** Climbing left turn to 5400 on COE R-005, then left or right turn direct COE VOR/DME, then on COE R-107 to KARPS INT to MEA for route of flight or climb in visual conditions to cross Coeur d'Alene-Pappy Boyington Field Airport at or above 5300 before proceeding on course. When executing VCOA, notify ATC prior to departure.

**TAKEOFF RUNWAY 20:** Climbing right turn, thence . . . .

**TAKEOFF RUNWAY 24:** Climbing left turn, thence . . . .

. . . . climb on COE R-232 to 5300, then right direct COE VOR/DME, then on COE R-107 to KARPS INT to MEA for route of flight.

COEUR D'ALENE TWO DEPARTURE (OBSTACLE)

COEUR D'ALENE, IDAHO

(COE2.COE) 07MAR13

COEUR D'ALENE-PAPPY BOYINGTON FIELD (COE)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>061°</b>	Rwy Idg TDZE Apt Elev	<b>5100</b> <b>3426</b> <b>3426</b>
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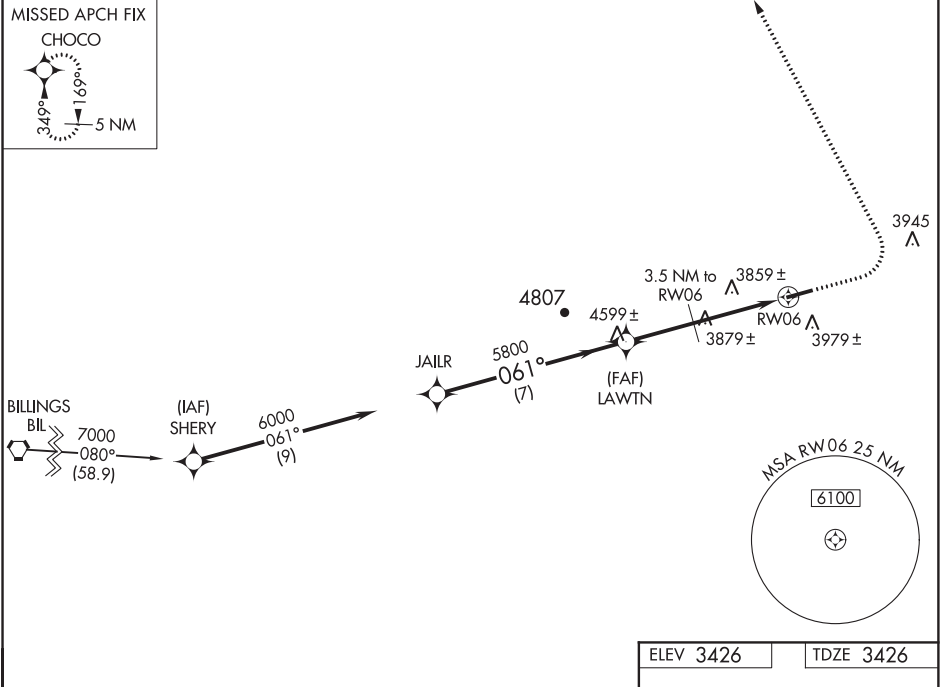
# GPS RWY 6

COLSTRIP (M46)

**NA** When local altimeter not received use Miles City altimeter setting. Helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:** Climb to 4500 then climbing left turn to 6000 direct CHOCO WP and hold.

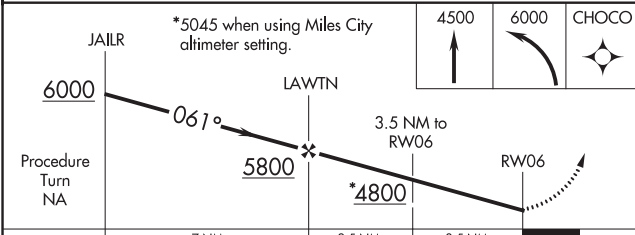
AWOS-AV <b>122.7</b>	SALT LAKE CENTER <b>127.75 351.9</b>	UNICOM <b>122.7 (CTAF)</b>
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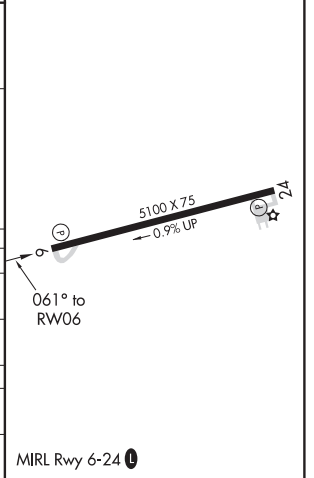
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3426	TDZE 3426
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CATEGORY	A	B	C	D
S-6	4220-1 794 (800-1)	4220-1¼ 794 (800-1¼)	4220-2¼ 794 (800-2¼)	NA
CIRCLING	4340-1¼ 914 (1000-1¼)	914 (1000-1¼)	4340-2¾ 914 (1000-2¾)	NA
MILES CITY ALTIMETER SETTING				
S-6	NA			
CIRCLING	4580-1¼ 1154 (1200-1¼)	4580-1½ 1154 (1200-1½)	4580-3 1154 (1200-3)	NA



COLSTRIP, MONTANA

AL-9401 (FAA)

16147

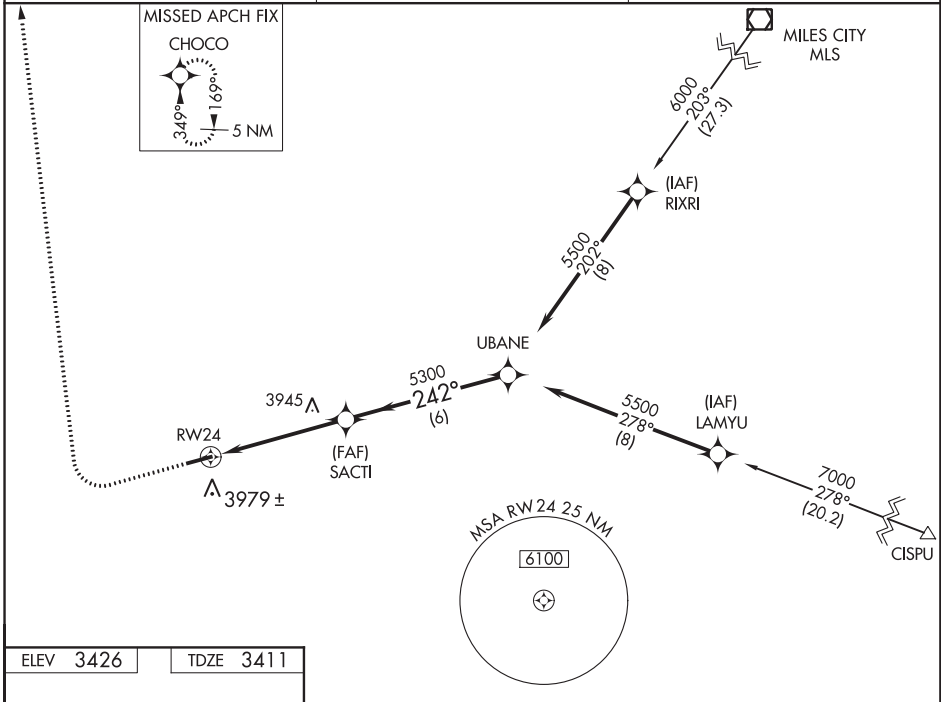
APP CRS	Rwy Idg	<b>5100</b>
<b>242°</b>	TDZE	<b>3411</b>
	Apt Elev	<b>3426</b>

# GPS RWY 24

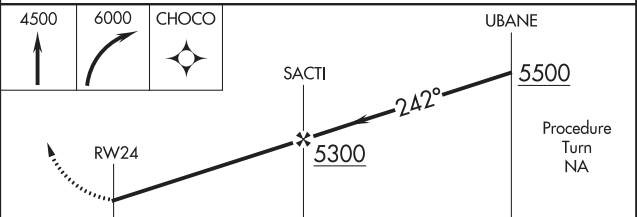
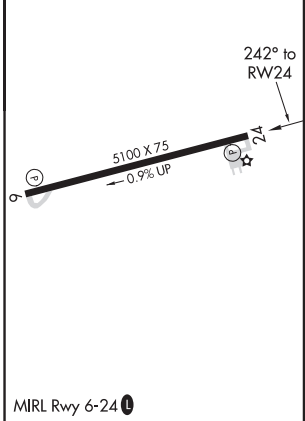
COLSTRIP (M46)

**NA** When local altimeter not received use Miles City altimeter setting. Helicopter visibility reduction below 3/4 SM NA. MISSED APPROACH: Climb to 4500 then climbing right turn to 6000 direct CHOCO WP and hold.

AWOS-AV <b>122.7</b>	SALT LAKE CENTER <b>127.75 351.9</b>	UNICOM <b>122.7 (CTAF)</b> <b>U</b>
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ELEV 3426	TDZE 3411
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CATEGORY	A	B	C	D
S-24	4200-1 789 (800-1)	4200-1¼ 789 (800-1¼)	4200-2¼ 789 (800-2¼)	NA
CIRCLING	4340-1¼	914 (1000-1¼)	4340-2¾ 914 (1000-2¾)	NA
MILES CITY ALTIMETER SETTING				
S-24	4440-1¼ 1029 (1100-1¼)	4440-1½ 1029 (1100-1½)	4440-2¾ 1029 (1100-2¾)	NA
CIRCLING	4580-1¼ 1154 (1200-1¼)	4580-1½ 1154 (1200-1½)	4580-3 1154 (1200-3)	NA

COLSTRIP, MONTANA  
Orig-C 02APR15

45°51'N-106°43'W

# COLSTRIP (M46)

## GPS RWY 24

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

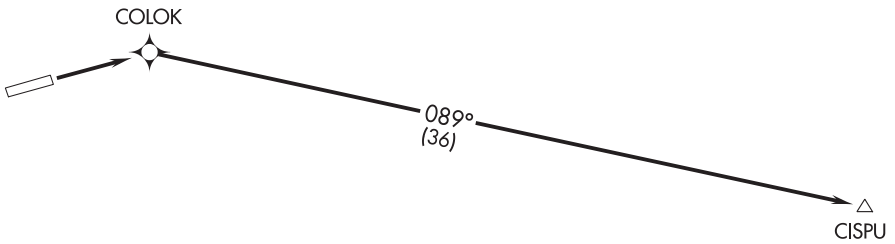
(CISPU1.CISPU) 16147

# CISPU ONE DEPARTURE (OBSTACLE) (RNAV)

SL-9401 (FAA)

COLSTRIP (M46)  
COLSTRIP, MONTANA

SALT LAKE CENTER  
127.75 351.9



### TAKEOFF MINIMUMS

Rwy 6: Standard.  
Rwy 24: NA - ATC.

### TAKEOFF OBSTACLE NOTES

Rwy 6: Tree 1492' from DER, 620' right of centerline, 20' AGL/3499' MSL.  
Tree 507' from DER, 598' left of centerline, 20' AGL/3419' MSL.

NOTE: GPS required.

NOTE: RNAV 1

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb direct COLOK then via 089° track to CISPU, thence. . . .

. . . .Maintain 9000, expect filed altitude 10 minutes after departure.

CISPU ONE DEPARTURE (OBSTACLE) (RNAV)  
(CISPU1.CISPU) 05JUN08

COLSTRIP, MONTANA  
COLSTRIP (M46)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(CONUK1.CONUK) 16147

# CONUK ONE DEPARTURE (OBSTACLE) (RNAV)

SL-9401 (FAA)

COLSTRIP (M46)  
COLSTRIP, MONTANA

SALT LAKE CENTER  
127.75 351.9

CONUK  $\triangle$

314°  
(22)

SITOU

### TAKEOFF MINIMUMS

Rwy 6: NA - ATC.

Rwy 24: 600-3 or standard with minimum climb of 365' per NM to 4200.

### TAKEOFF OBSTACLE NOTE

Rwy 24: Dragline 11510' from DER, 3559' right of centerline, 225' AGL/3964' MSL.

NOTE: GPS required.

NOTE: RNAV 1

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24: Climb direct SITOU then via 314° track to CONUK, thence. . . .

. . . .Maintain 6000, expect filed altitude 10 minutes after departure.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

CONUK ONE DEPARTURE (OBSTACLE) (RNAV)

(CONUK1.CONUK) 05JUN08

COLSTRIP, MONTANA  
COLSTRIP (M46)

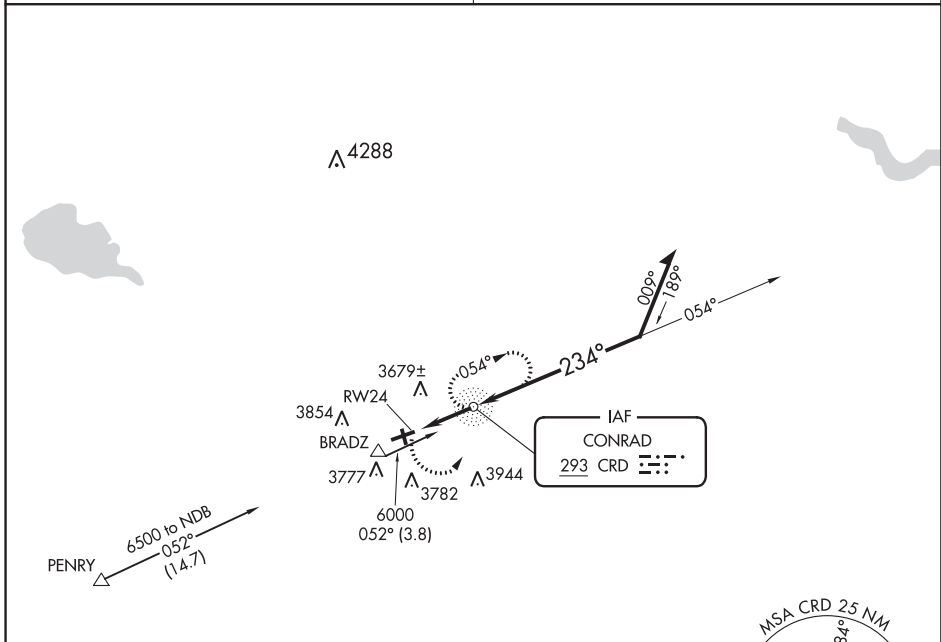


NDB CRD <b>293</b>	APP CRS <b>234°</b>	Rwy Idg TDZE Apt Elev	<b>4601</b> <b>3535</b> <b>3545</b>
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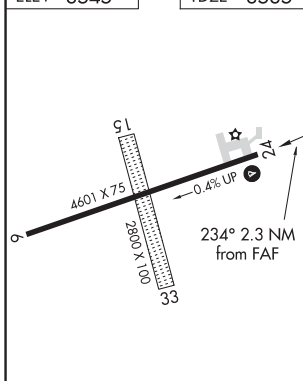
# NDB or GPS RWY 24

CONRAD (S01)

<p><b>▽</b> Use Cut Bank altimeter setting; if not received, procedure not authorized.</p> <p><b>▲ NA</b></p>	<p>MISSED APPROACH: Climbing left turn to 5200 direct CRD NDB and hold.</p>
<p>SALT LAKE CITY CENTER <b>133.4 285.4</b></p>	<p>AUNICOM <b>122.8</b> (CTAF) <b>Ⓛ</b></p>



ELEV 3545	TDZE 3535
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	5200	CRD	CRD NDB	
				Remain within 10 NM
	<p>VGSI and descent angles not coincident (VGSI Angle 3.00\TCH 27).</p> <p>≤ 3.38° TCH 35</p>			
	RWY 24			
	2.3 NM			

MIRL Rwy 6-24 **Ⓛ**  
REIL Rwy 24 **Ⓛ**

FAF to MAP 2.3 NM

Knots	60	90	120	150	180
Min:Sec	2:18	1:32	1:09	0:55	0:46

CATEGORY	A	B	C	D
S-24	4260-1	725 (800-1)	4260-2 725 (800-2)	4260-2½ 725 (800-2½)
CIRCLING	4260-1	715 (800-1)	4340-2½ 795 (800-2½)	NA

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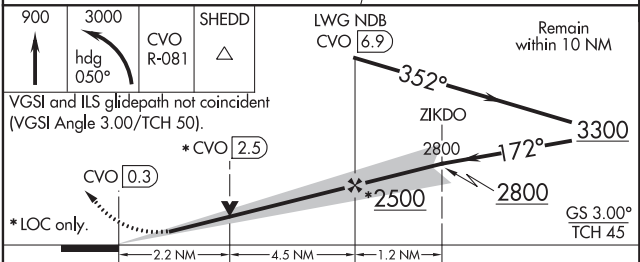
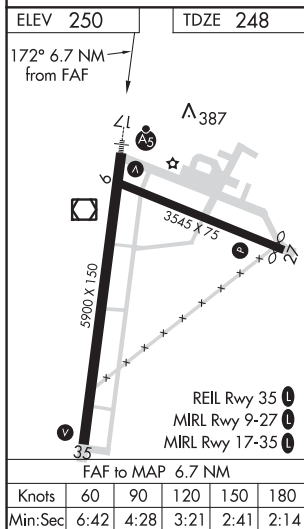
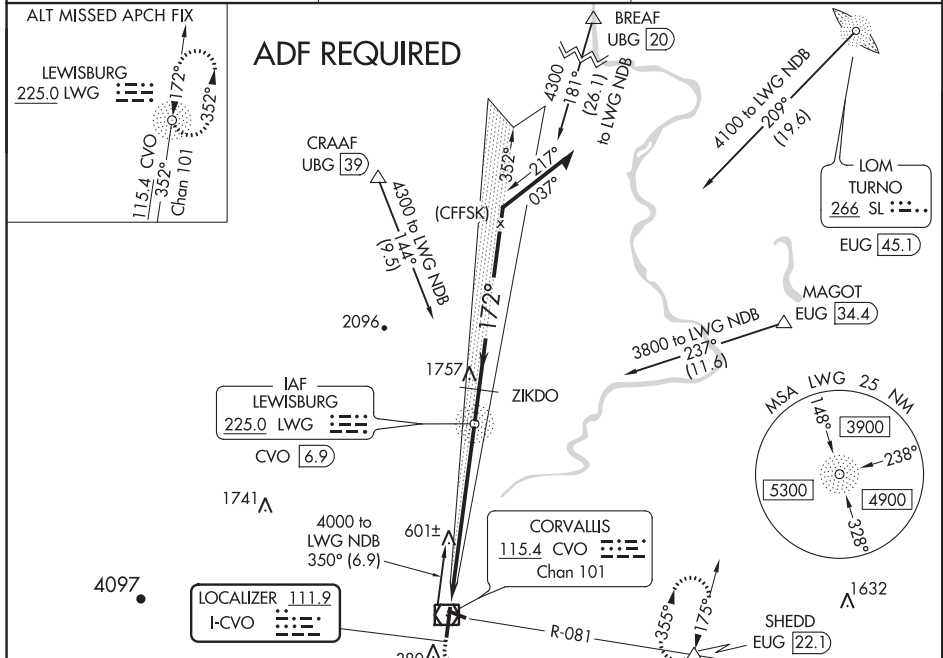
LOC I-CVO <b>111.9</b>	APP CRS <b>172°</b>	Rwy Idg <b>5900</b>
		TDZE <b>248</b>
		Apt Elev <b>250</b>

# ILS or LOC RWY 17

CORVALLIS MUNI (CVO)

ADF or DME required. For inop ALS, increase S-LOC 17 Cat C/D visibility to 2 SM. When local altimeter setting not received, procedure NA.	MALS R	MISSED APPROACH: Climb to 900 then climbing left turn to 3000 on heading 050° and on CVO VOR/DME R-081 to SHEDD INT/EUG 22.1 DME and hold.

AWOS-3 <b>135.775</b>	CASCADE APP CON* <b>127.5 348.7</b>	UNICOM <b>123.075 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

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WAAS CH <b>78311</b> W17A	APP CRS <b>172°</b>	Rwy Idg 5900 TDZE 248 Apt Elev 250
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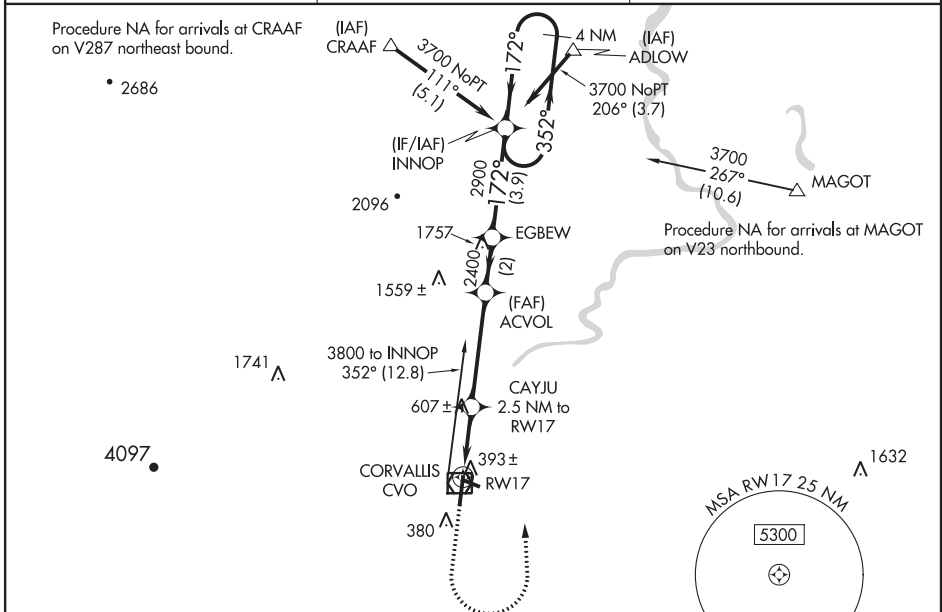
# RNAV (GPS) RWY 17

CORVALLIS MUNI (CVO)

**NA** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inop MALS, increase LNAV/VNAV all Cats visibility to 1 mile and increase LNAV Cat C/D visibility to 1¼ mile. When local altimeter setting not received, procedure NA.

**MALS** MISSED APPROACH: Climb to 1100 then climbing left turn to 3700 direct INNOP and hold, continue climb-in-hold to 3700.

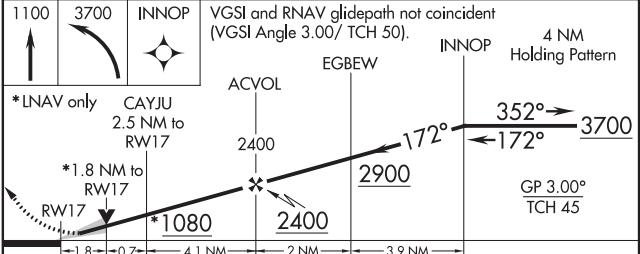
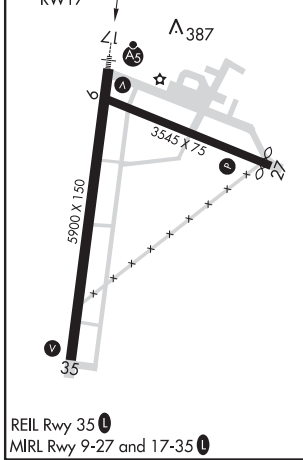
AWOS-3 <b>135.775</b>	CASCADE APP CON * <b>127.5 348.7</b>	UNICOM <b>123.0</b> (CTAF)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 250	TDZE 248
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CATEGORY	A	B	C	D
LPV DA		448-½	200 (200-½)	
LNAV/VNAV DA		571-⅝	323 (400-⅝)	
LNAV MDA	860-½	612 (700-½)	860-1⅓	612 (700-1⅓)
<b>C</b> CIRCLING	860-1	610 (700-1)	920-1¾ 670 (700-1¾)	1080-2¾ 830 (900-2¾)

WAAS CH <b>69517</b> <b>W35A</b>	APP CRS <b>352°</b>	Rwy Idg TDZE Apt Elev	<b>5900</b> <b>250</b> <b>250</b>
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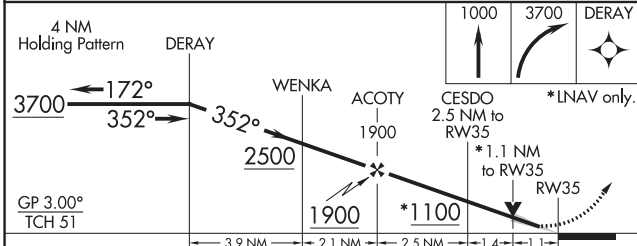
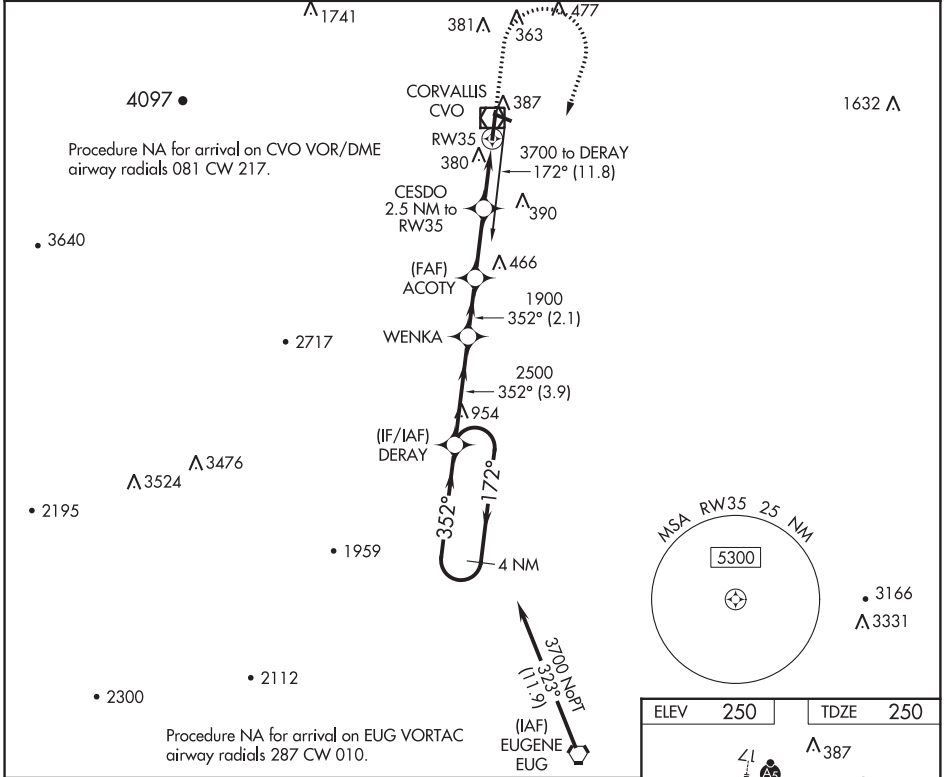
# RNAV (GPS) RWY 35

CORVALLIS MUNI (CVO)

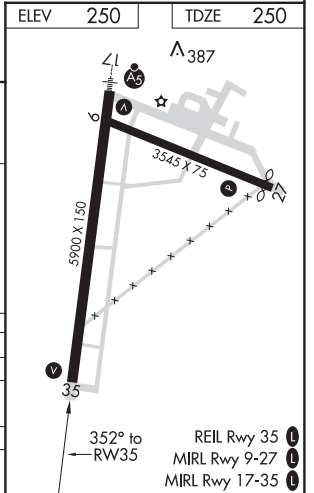
**NA** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.

**MISSED APPROACH:** Climb to 1000 then climbing right turn to 3700 direct DERAY and hold, continue climb-in-hold to 3700.

AWOS-3 <b>135.775</b>	CASCADE APP CON * <b>127.5 348.7</b>	UNICOM <b>122.8 (CTAF)</b>
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CATEGORY	A	B	C	D
LPV DA		500- <sup>3</sup> / <sub>4</sub>	250 (300- <sup>3</sup> / <sub>4</sub> )	
LNAV/VNAV DA		551-1	301 (400-1)	
LNAV MDA	640-1	390 (400-1)	640-1 <sup>1</sup> / <sub>8</sub>	390 (400-1 <sup>1</sup> / <sub>8</sub> )
<b>C</b> CIRCLING	720-1 470 (500-1)	740-1 490 (500-1)	920-1 <sup>3</sup> / <sub>4</sub> 670 (700-1 <sup>3</sup> / <sub>4</sub> )	1080-2 <sup>3</sup> / <sub>4</sub> 830 (900-2 <sup>3</sup> / <sub>4</sub> )



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

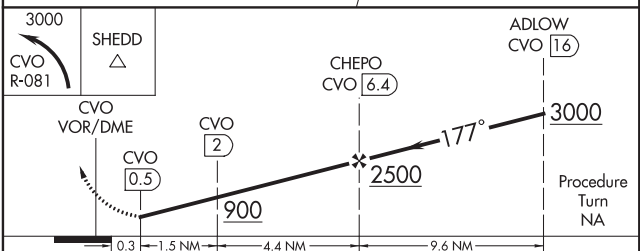
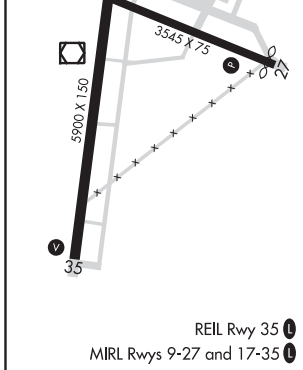
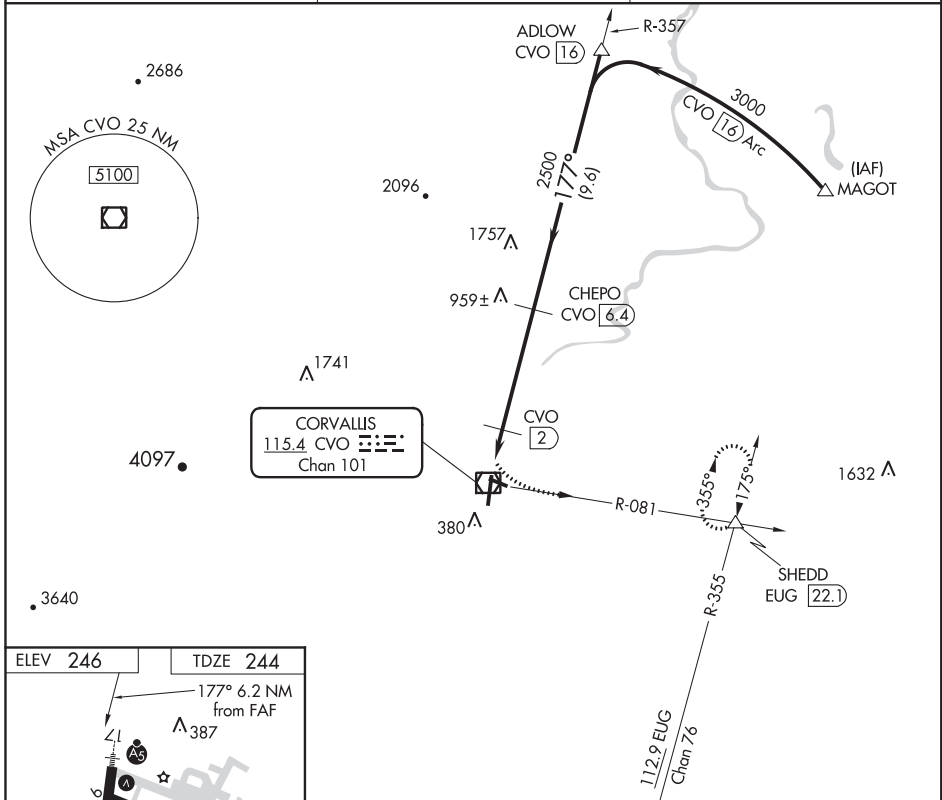
VOR/DME CVO <b>115.4</b> Chan <b>101</b>	APP CRS <b>177°</b>	Rwy Idg TDZE <b>244</b> Apt Elev <b>246</b>	<b>5900</b>
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# VOR/DME RWY 17

CORVALLIS MUNI (CVO)

MALSR	MISSED APPROACH: Climbing left turn to 3000 via CVO R-081 to SHEDD INT and hold.

AWOS-3 <b>135.775</b>	CASCADE APP CON * <b>127.5 348.7</b>	UNICOM <b>123.075</b> (CTAF)
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CATEGORY	A	B	C	D
S-17	660-1/2	416 (500-1/2)	660-3/4 416 (500-3/4)	660-1 416 (500-1)
CIRCLING	720-1	474 (500-1)	720-1 1/2 474 (500-1 1/2)	880-2 634 (700-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

CORVALLIS, OREGON

AL-782 (FAA)

16259

VOR/DME CVO <b>115.4</b> Chan 101	APP CRS <b>342°</b>	Rwy Idg TDZE Apt Elev	<b>5900</b> <b>246</b> <b>246</b>
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# VOR/DME RWY 35

CORVALLIS MUNI (CVO)

MISSED APPROACH: Climbing right turn to 3000 via CVO R-081 to SHEDD INT and hold.

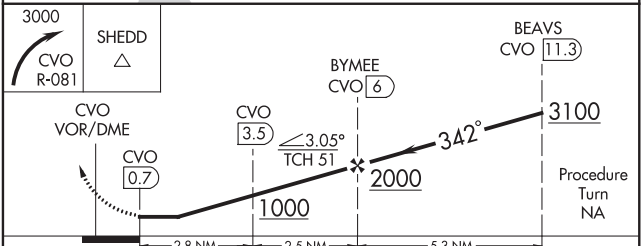
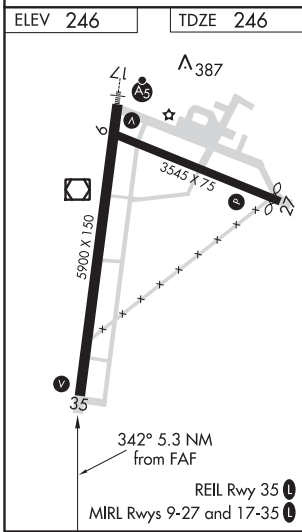
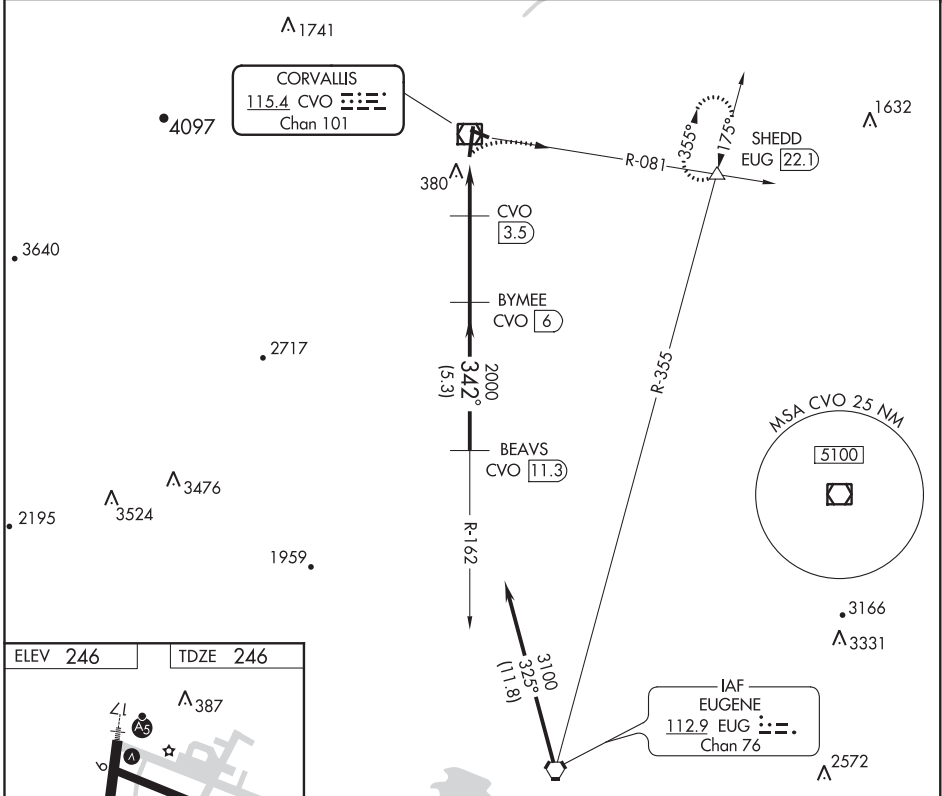
AWOS-3  
**135.775**

CASCADE APP CON \*  
**127.5 348.7**

UNICOM  
**123.075 (CTAF)**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-35	640-1 394 (400-1)			640-1¼ 394 (400-1¼)
CIRCLING	720-1	474 (500-1)	720-1½ 474 (500-1½)	880-2 634 (700-2)

CORVALLIS, OREGON  
Amdt 11A 15JUN00

44°30'N-123°17'W

# CORVALLIS MUNI (CVO) VOR/DME RWY 35

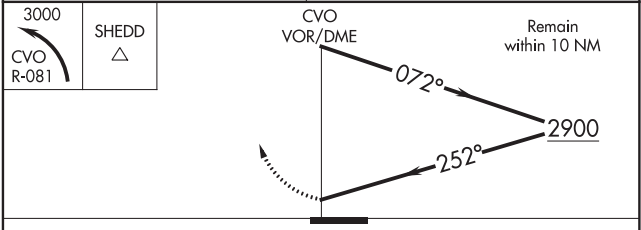
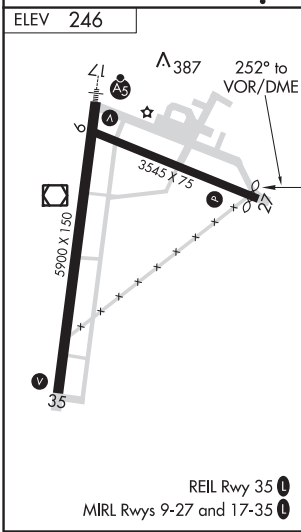
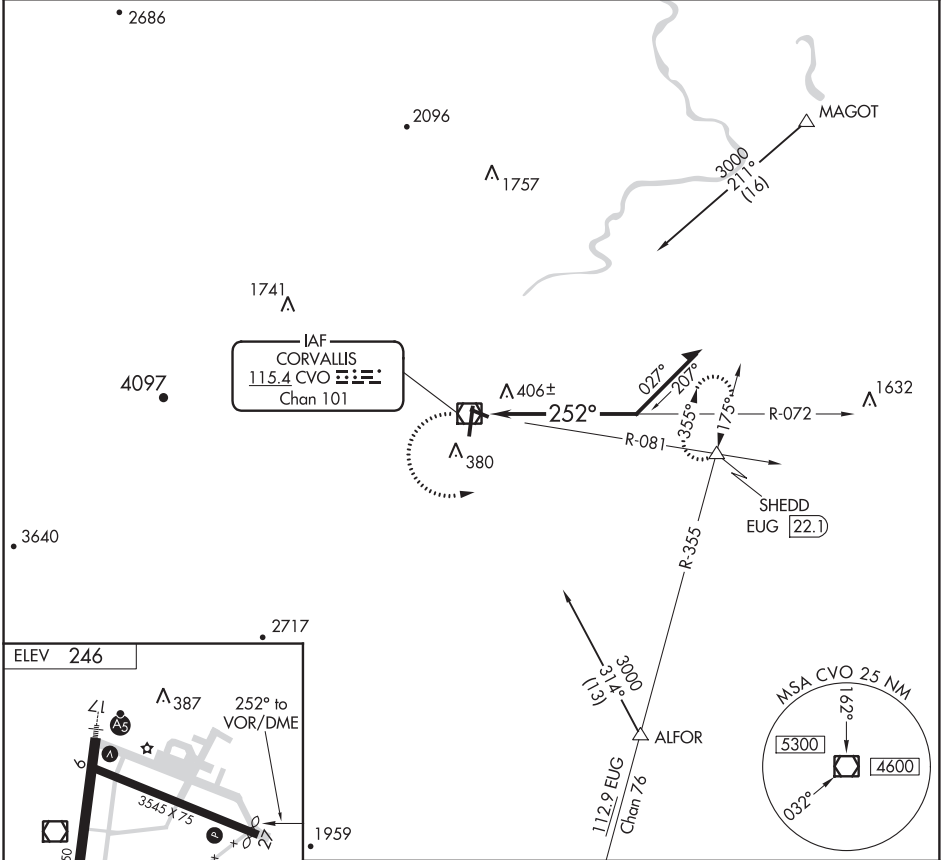
VOR/DME CVO <b>115.4</b> Chan <b>101</b>	APP CRS <b>252°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>246</b>
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# VOR-A

CORVALLIS MUNI (CVO)

MISSED APPROACH: Climbing left turn to 3000 via CVO VOR/DME R-081 to SHEDD INT/EUG 22.1 DME and hold.

AWOS-3 <b>135.775</b>	CASCADE APP CON * <b>127.5 348.7</b>	UNICOM <b>123.075 (CTAF)</b>
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CATEGORY	A	B	C	D
CIRCLING	1400-1¼ 1154 (1200-1¼)	1400-1½ 1154 (1200-1½)	1400-3	1154 (1200-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(CVO2.CVO) 16203


# CORVALLIS TWO DEPARTURE

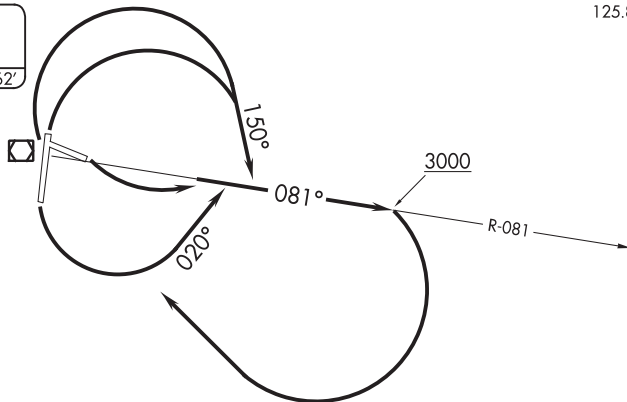
SL-782 (FAA)

CORVALLIS MUNI (CVO)  
CORVALLIS, OREGON

**TOP ALTITUDE:  
4000**

AWOS-3 135.775  
CASCADE DEP CON ★  
127.5 348.7  
CTAF 123.075  
SEATTLE CENTER  
125.8 291.7

CORVALLIS  
115.4 CVO   
Chan 101  
N44°29.97'-W123°17.62'



### TAKEOFF MINIMUMS

Rwys 9, 17: Standard.  
Rwy 27: Standard with minimum climb of 345' per NM to 3100.  
Rwy 35: 400-2¾ or standard with minimum climb of 205' per NM to 800.

### TAKEOFF OBSTACLE NOTES

Rwy 9: Multiple trees beginning 322' from DER, left and right of centerline, up to 163' AGL/383' MSL. Railroad beginning 301' from DER, left and right of centerline, up to 34' AGL/264' MSL.  
Rwy 27: OL on GS 433' from DER, 325' left of centerline, 35' AGL/275' MSL. Tree 39' from DER, 467' right of centerline, 6' AGL/246' MSL.  
Rwy 35: Multiple trees beginning 3' from DER, left and right of centerline, up to 43' AGL/283' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climbing left turn to 3000 on CVO R-081, thence. . . .

TAKEOFF RUNWAY 17: Climbing left turn to 3000 heading 020° and on CVO R-081, thence. . . .

TAKEOFF RUNWAYS 27 and 35: Climbing right turn to 3000 heading 150° and on CVO R-081, thence. . . .

. . . . climbing right turn to 4000 direct CVO VOR/DME. Continue climb on course to MEA for route of flight.

### LOST COMMUNICATIONS:

If not in contact with ATC upon reaching 3000', continue climb to assigned altitude direct CVO VOR/DME. Thence on assigned route of flight.

**CORVALLIS TWO DEPARTURE**  
(CVO2.CVO) 25JUN15

CORVALLIS, OREGON  
CORVALLIS MUNI (CVO)


NW-1, 10 NOV 2016 to 05 JAN 2017

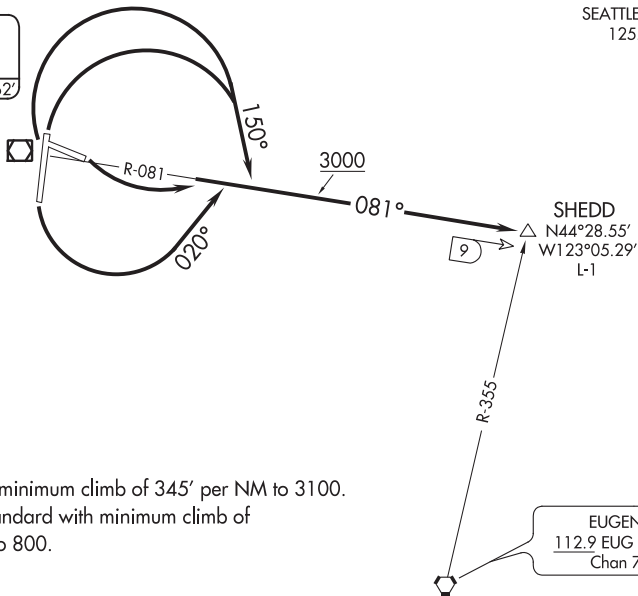
NW-1, 10 NOV 2016 to 05 JAN 2017



**TOP ALTITUDE:  
3000**

AWOS-3 135.775  
CASCADE DEP CON \*  
127.5 348.7  
CTAF 123.075  
SEATTLE CENTER  
125.8 291.7

CORVALLIS  
115.4 CVO   
Chan 101  
N44°29.97'-W123°17.62'



### TAKEOFF MINIMUMS

- Rwys 9, 17: Standard.
- Rwy 27: Standard with minimum climb of 345' per NM to 3100.
- Rwy 35: 400-2¾ or standard with minimum climb of 205' per NM to 800.

### TAKEOFF OBSTACLE NOTES

- Rwy 9: Multiple trees beginning 322' from DER, left and right of centerline, up to 163' AGL/ 383' MSL. Railroad beginning 301' from DER, left and right of centerline, up to 34' AGL/264' MSL.
- Rwy 27: OL on GS, 433' from DER, 325' left of centerline, 35' AGL/275' MSL. Tree 39' from DER, 467' right of centerline, 6' AGL/246' MSL.
- Rwy 35: Multiple trees beginning 3' from DER, left and right of centerline, up to 43' AGL/283' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 9:** Climbing left turn to 3000 on CVO R-081 to SHEDD INT, thence. . . .

**TAKEOFF RUNWAY 17:** Climbing left turn to 3000 heading 020° and on CVO R-081 to SHEDD INT, thence. . . .

**TAKEOFF RUNWAYS 27 and 35:** Climbing right turn to 3000 heading 150° and on CVO R-081 to SHEDD INT, thence. . . .

. . . .on assigned route/clearance.

### LOST COMMUNICATIONS:

If not in contact with ATC upon reaching 3000', continue climb to assigned altitude direct CVO VOR/DME. Thence on assigned route of flight.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

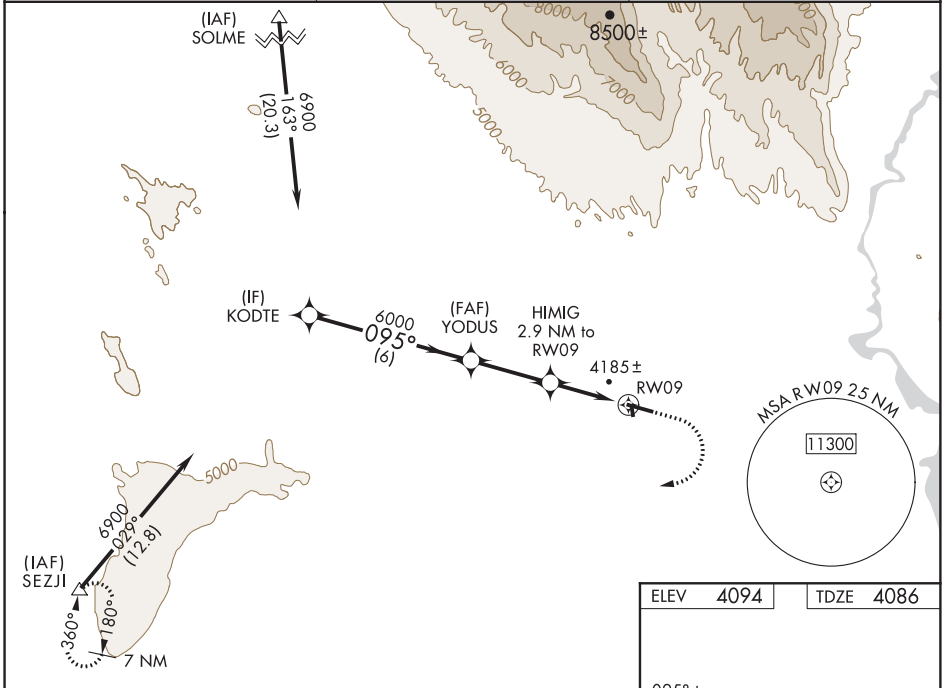
WAAS CH <b>86333</b> <b>W09A</b>	APP CRS <b>095°</b>	Rwy Idg TDZE Apt Elev	<b>5200</b> <b>4086</b> <b>4094</b>
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**RNAV (GPS) RWY 9**  
NORTH BIG HORN COUNTY (U68)

Baro-VNAV NA when using Greybull altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 49°C (121°F). DME/DME RNP-0.3 NA. When Rwy 9 VGSI inop, Straight-in and Circling minimums NA at night. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Greybull altimeter setting and increase all DA 87 feet and all LPV and LNAV/VNAV visibility 1/8 mile, increase all MDA 100 feet and LNAV Cats C/D visibility 3/8 mile and increase Circling Cat C visibility 1/4 mile.

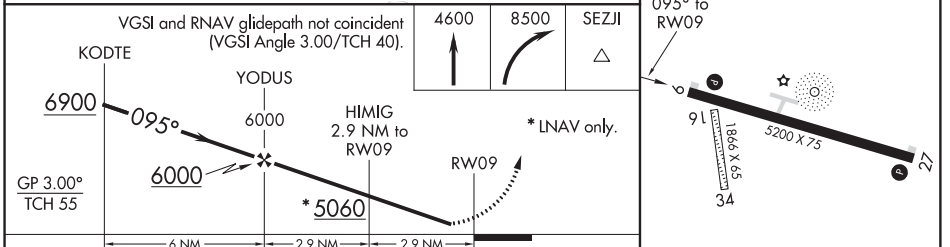
MISSED APPROACH: Climb to 4600 then climbing right turn to 8500 direct SEZJI and hold.

AWOS-3 <b>119.925</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA		4336-1	250 (300-1)	
LNAV/VNAV DA		4344-1	258 (300-1)	
LNAV MDA		4440-1	354 (400-1)	
CIRCLING	4520-1	4680-1	4940-2½	5260-3
	426 (500-1)	586 (600-1)	846 (900-2½)	1166 (1200-3)

ELEV 4094	TDZE 4086
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REIL Rws 9 and 27 0  
MRL Rwy 9-27 0

NDB HCY <b>257</b>	APP CRS <b>080°</b>	Rwy Idg <b>5200</b>
		TDZE <b>4086</b>
		Apt Elev <b>4094</b>

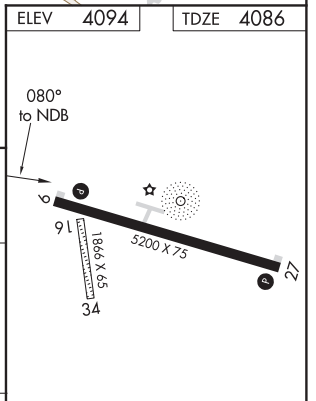
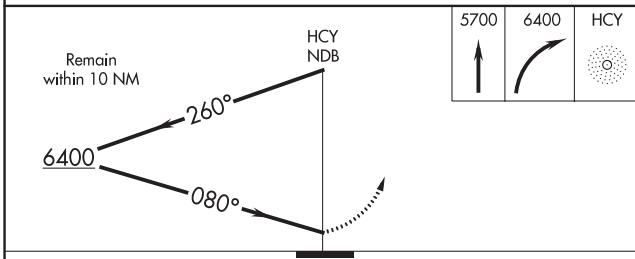
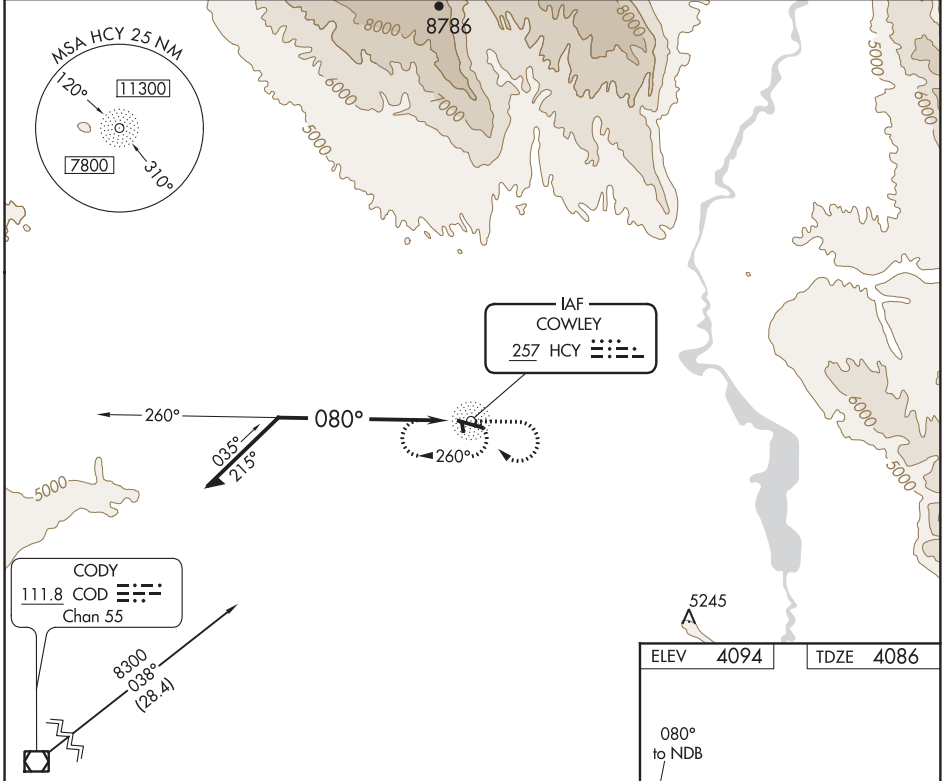
# NDB RWY 9

NORTH BIG HORN COUNTY (U68)

**⚠** When Rwy 9 VGSI inoperative, Straight-in and Circling Rwy 9 minimums NA at night.  
**⚠ NA** When local altimeter setting not received, use Greybull altimeter setting and increase Circling Cats A/B/C MDA 80 feet and Circling Cat D MDA 100 feet. Helicopter visibility reduction below 1 SM not authorized.

**MISSED APPROACH:** Climb to 5700 then climbing right turn to 6400 direct HCY NDB and hold.

AWOS-3 <b>119.925</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>122.8 (CTAF) 0</b>
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CATEGORY	A	B	C	D
S-9	5200-1¼ 1114 (1200-1¼)	5200-1½ 1114 (1200-1½)	5200-3	1114 (1200-3)
<b>C</b> CIRCLING	5200-1¼ 1106 (1200-1¼)	5200-1½ 1106 (1200-1½)	5200-3 1106 (1200-3)	5260-3 1166 (1200-3)

REIL Rwys 9 and 27 **0**  
 MRL Rwy 9-27 **0**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

CUT BANK, MONTANA

AL-484 (FAA)

16315

WAAS CH <b>86737</b> <b>W05A</b>	APP CRS <b>051°</b>	Rwy Idg TDZE Apt Elev	<b>5300</b> <b>3855</b> <b>3857</b>
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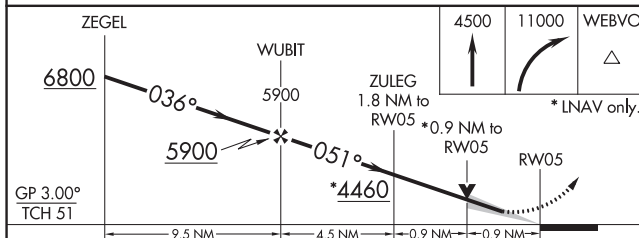
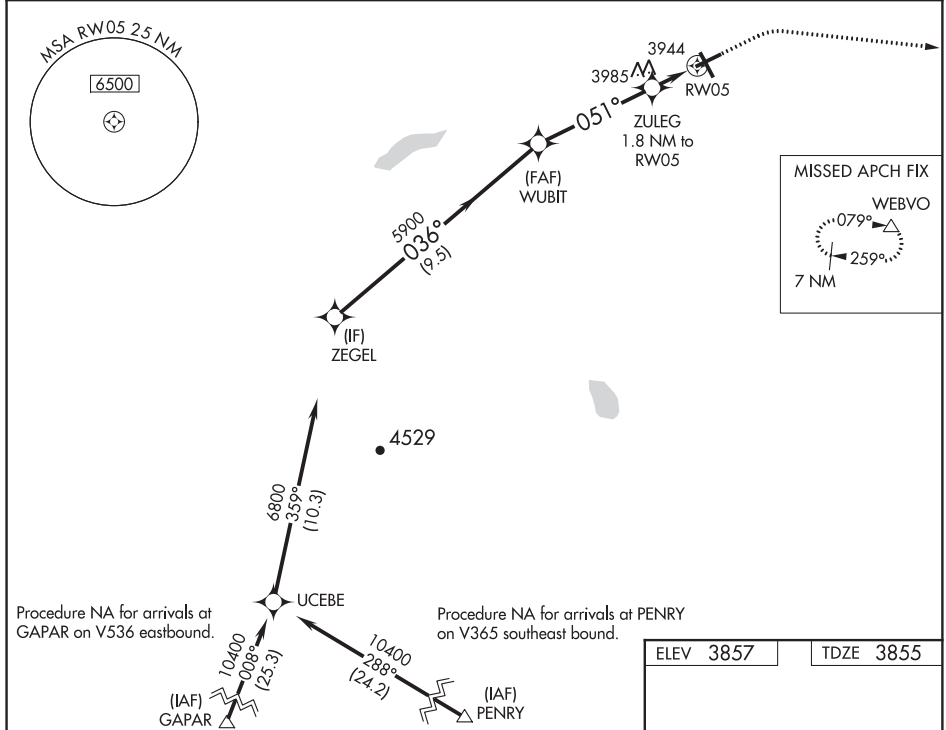
# RNAV (GPS) RWY 5

CUT BANK INTL (CTB)

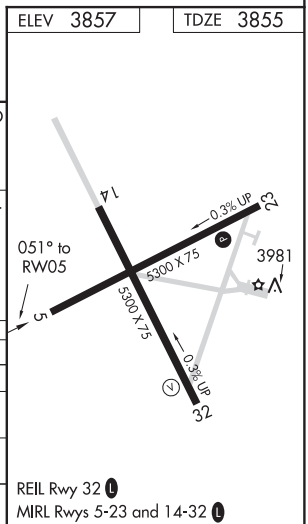
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 51°C (124°F).  
**❄** -34°C  
 DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 4500 then climbing right turn to 11000 direct WEBVO and hold.

ASOS <b>119.025</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	UNICOM <b>123.0 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LPV DA		4055-¾	200 (200-¾)	
LNAV/VNAV DA		4105-¾	250 (300-¾)	
LNAV MDA		4200-1	345 (400-1)	
<b>C</b> CIRCLING	4280-1 423 (500-1)	4320-1 463 (500-1)	4320-1½ 463 (500-1½)	4620-2½ 763 (800-2½)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

CUT BANK, MONTANA  
 Orig 13NOV14

48°37'N-112°23'W

# RNAV (GPS) RWY 5

CUT BANK INTL (CTB)

WAAS CH <b>93537</b> <b>W14A</b>	APP CRS <b>139°</b>	Rwy Idg TDZE Apt Elev	<b>5300</b> <b>3857</b> <b>3857</b>
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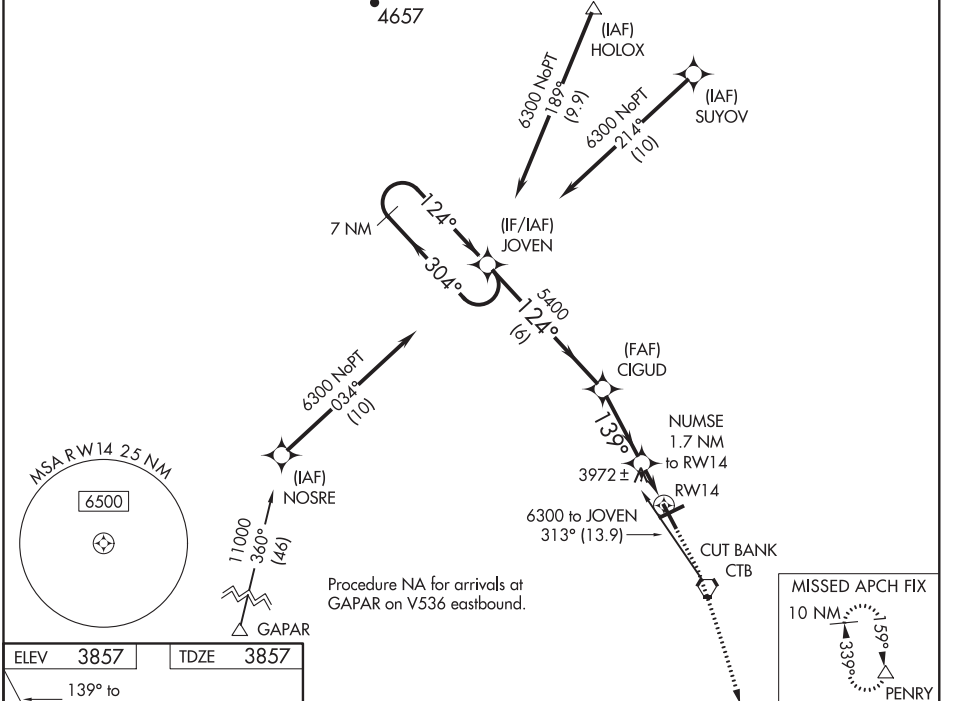
# RNAV (GPS) RWY 14

CUT BANK INTL (CTB)

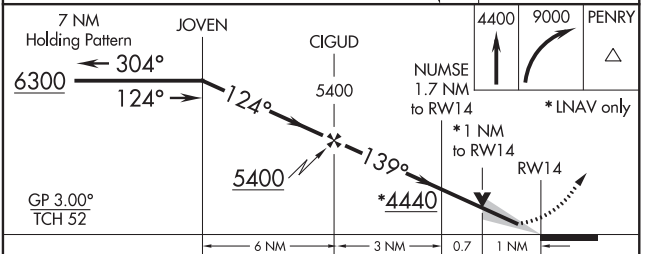
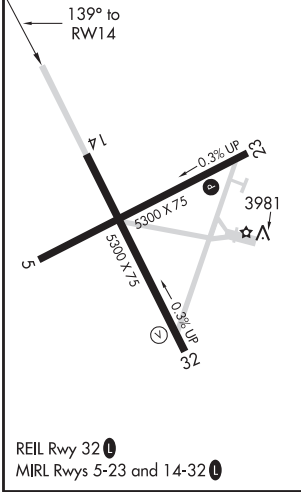
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 51°C (124°F).  
**❄** -34°C DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 4400 then climbing right turn to 9000 direct PENRY and hold.

ASOS <b>119.025</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	UNICOM <b>123.0 (CTAF) 0</b>
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ELEV	3857	TDZE	3857
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CATEGORY	A	B	C	D
LPV DA		4057- <sup>3</sup> / <sub>4</sub>	200 (200- <sup>3</sup> / <sub>4</sub> )	
LNAV/VNAV DA		4107- <sup>3</sup> / <sub>4</sub>	250 (300- <sup>3</sup> / <sub>4</sub> )	
LNAV MDA	4240-1	383 (400-1)	4240-1 <sup>1</sup> / <sub>8</sub>	383 (400-1 <sup>1</sup> / <sub>8</sub> )
<b>C</b> CIRCLING	4280-1 423 (500-1)	4320-1 463 (500-1)	4320-1 <sup>1</sup> / <sub>2</sub> 463 (500-1 <sup>1</sup> / <sub>2</sub> )	4620-2 <sup>1</sup> / <sub>2</sub> 763 (800-2 <sup>1</sup> / <sub>2</sub> )

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

CUT BANK, MONTANA

AL-484 (FAA)

16315

WAAS CH <b>53337</b> <b>W23A</b>	APP CRS <b>231°</b>	Rwy Idg TDZE Apt Elev	<b>5300</b> <b>3852</b> <b>3857</b>
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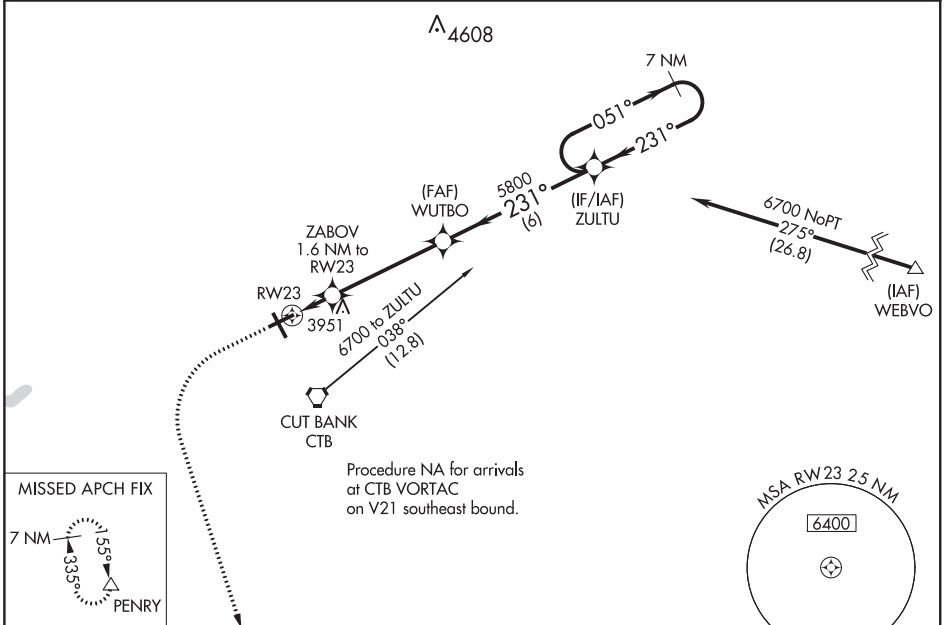
# RNAV (GPS) RWY 23

CUT BANK INTL (CTB)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 51°C (124°F).  
**⚠** DME/DME RNP-0.3 NA.  
**❄** -34°C

MISSED APPROACH: Climb to 4400 then climbing left turn to 9000 direct PENRY and hold.

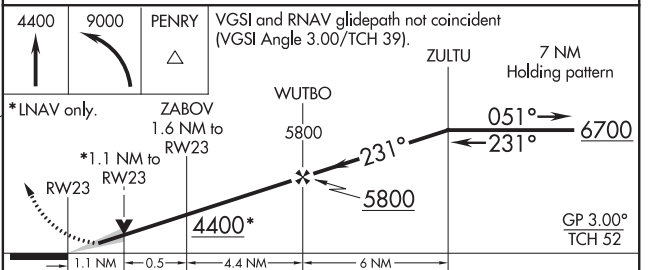
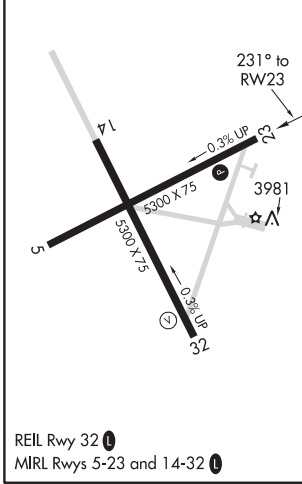
ASOS <b>119.025</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	UNICOM <b>123.0 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3857	TDZE 3852
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CATEGORY	A	B	C	D
LPV DA		4052-3/4	200 (200-3/4)	
LNAV/VNAV DA		4102-3/4	250 (300-3/4)	
LNAV MDA		4220-1	368 (400-1)	
<b>CIRCLING</b>	4280-1 423 (500-1)	4320-1 463 (500-1)	4320-1 1/2 463 (500-1 1/2)	4620-2 1/2 763 (800-2 1/2)

CUT BANK, MONTANA  
 Orig 13NOV14

48°37'N-112°23'W

# RNAV (GPS) RWY 23

CUT BANK INTL (CTB)

WAAS CH <b>99337</b> <b>W32A</b>	APP CRS <b>319°</b>	Rwy Idg TDZE Apt Elev	<b>5300</b> <b>3851</b> <b>3857</b>
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# RNAV (GPS) RWY 32

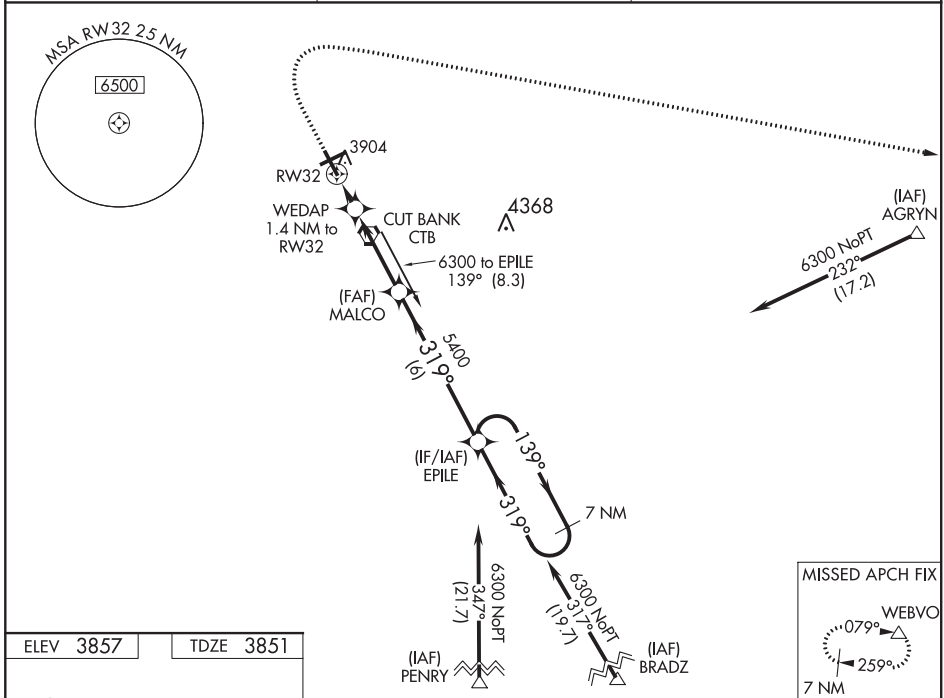
CUT BANK INTL (CTB)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 51°C (124°F).  
DME/DME RNP-0.3 NA.

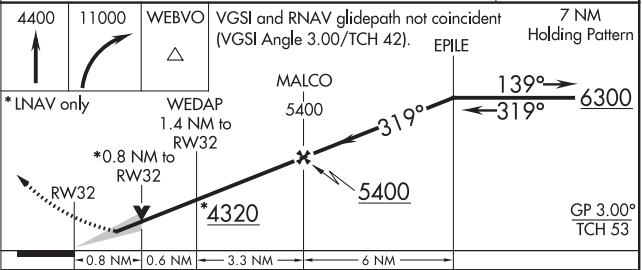
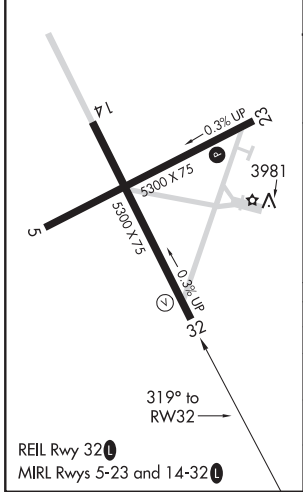
**⚠** MISSED APPROACH: Climb to 4400 then climbing right turn to 11000 direct WEBVO and hold.

**❄** -34°C

ASOS <b>119.025</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	UNICOM <b>123.0 (CTAF) ①</b>
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ELEV 3857	TDZE 3851
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CATEGORY	A	B	C	D
LPV DA		4051-3/4	200 (200-3/4)	
LNAV/VNAV DA		4101-3/4	250 (300-3/4)	
LNAV MDA	4160-1	309 (400-1)	4160-7/8	309 (400-7/8)
<b>C</b> CIRCLING	4280-1 423 (500-1)	4320-1 463 (500-1)	4320-1 1/2 463 (500-1 1/2)	4620-2 1/2 763 (800-2 1/2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

CUT BANK, MONTANA

AL-484 (FAA)

16315

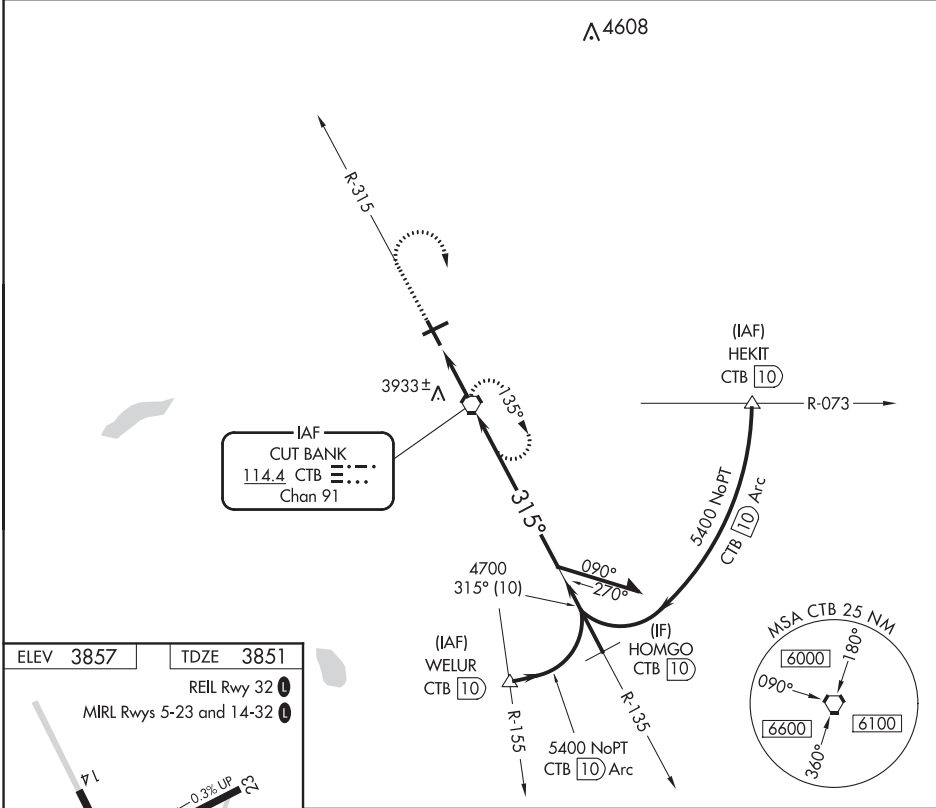
VORTAC CTB <b>114.4</b> Chan <b>91</b>	APP CRS <b>315°</b>	Rwy Idg TDZE Apt Elev	<b>5300</b> <b>3851</b> <b>3857</b>
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# VOR RWY 32

CUT BANK INTL (CTB)

<p>-34°C</p>	<p>MISSED APPROACH: Climb to 5400 then right turn direct CTB VORTAC and hold.</p>
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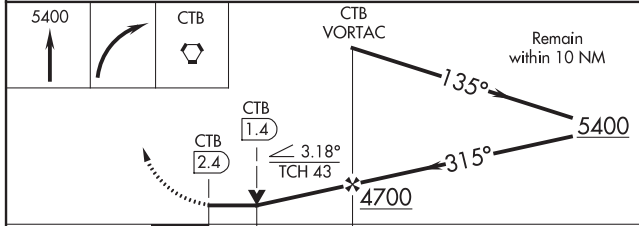
ASOS <b>119.025</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	UNICOM <b>123.0 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3857	TDZE 3851
REIL Rwy 32	
MIRL Rwy 5-23 and 14-32	
315° 2.4 NM from FAF	
FAF to MAP 2.4 NM	
Knots	60 90 120 150 180
Min:Sec	2:24 1:36 1:12 0:58 0:48



CATEGORY	A	B	C	D
S-32	4200-1 349 (400-1)			
CIRCLING	4280-1 423 (500-1)	4320-1 463 (500-1)	4320-1½ 463 (500-1½)	4620-2½ 763 (800-2½)

CUT BANK, MONTANA  
Amdt 16 13NOV14

48°37'N-112°23'W

# CUT BANK INTL (CTB)

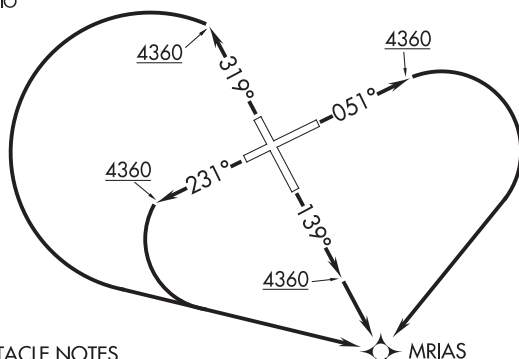
## VOR RWY 32



# MRIAS THREE DEPARTURE (RNAV)

SALT LAKE CITY CENTER  
133.4 285.4  
GREAT FALLS RADIO  
122.2  
CTAF  
123.0

**TOP ALTITUDE:  
ASSIGNED BY ATC**



### TAKEOFF OBSTACLE NOTES

- Rwy 5: Runway light 11' from DER, 17' left of centerline, 1' AGL/3842' MSL.
- Rwy 14: Runway light 9' from DER, 48' left of centerline, 2' AGL/3843' MSL. REIL 12' from DER, 114' right of centerline, 3' AGL/3844' MSL.
- Rwy 23: Fence 4' from DER, 239' right of centerline, 6' AGL/3857' MSL. Runway lights beginning 8' from DER, left and right of centerline, up to 1' AGL/3855' MSL. Fence 122' from DER, 240' right of centerline, 5' AGL/3857' MSL.
- Rwy 32: Runway lights beginning 9' from DER, left and right of centerline, up to 2' AGL/3859' MSL.

NOTE: GPS required.

NOTE: Climb to 10000 in holding at PENRY if unable to meet crossing restriction.

NOTE: RNAV 1

### TAKEOFF MINIMUMS

Rwy 5, 14, 23, 32: Standard with minimum climb of 500' per NM to 4360.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb heading 051° to 4360, then right turn direct MARIAS. Thence. . .

TAKEOFF RUNWAY 14: Climb heading 139° to 4360, then direct MARIAS. Thence. . .

TAKEOFF RUNWAY 23: Climb heading 231° to 4360, then left turn direct MARIAS. Thence. . .

TAKEOFF RUNWAY 32: Climb heading 319° to 4360, then left turn direct MARIAS. Thence. . .

. . . via transition.

BRADZ TRANSITION (MRIAS3.BRADZ)

PENRY TRANSITION (MRIAS3.PENRY)

# MRIAS THREE DEPARTURE (RNAV)

(MRIAS3.MRIAS) 21JUL16

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	N/A
347°	TDZE	N/A
	Apt Elev	4693

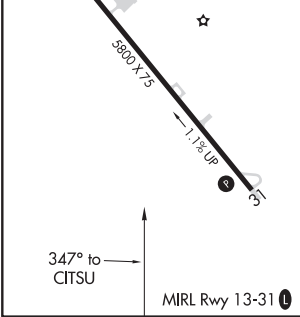
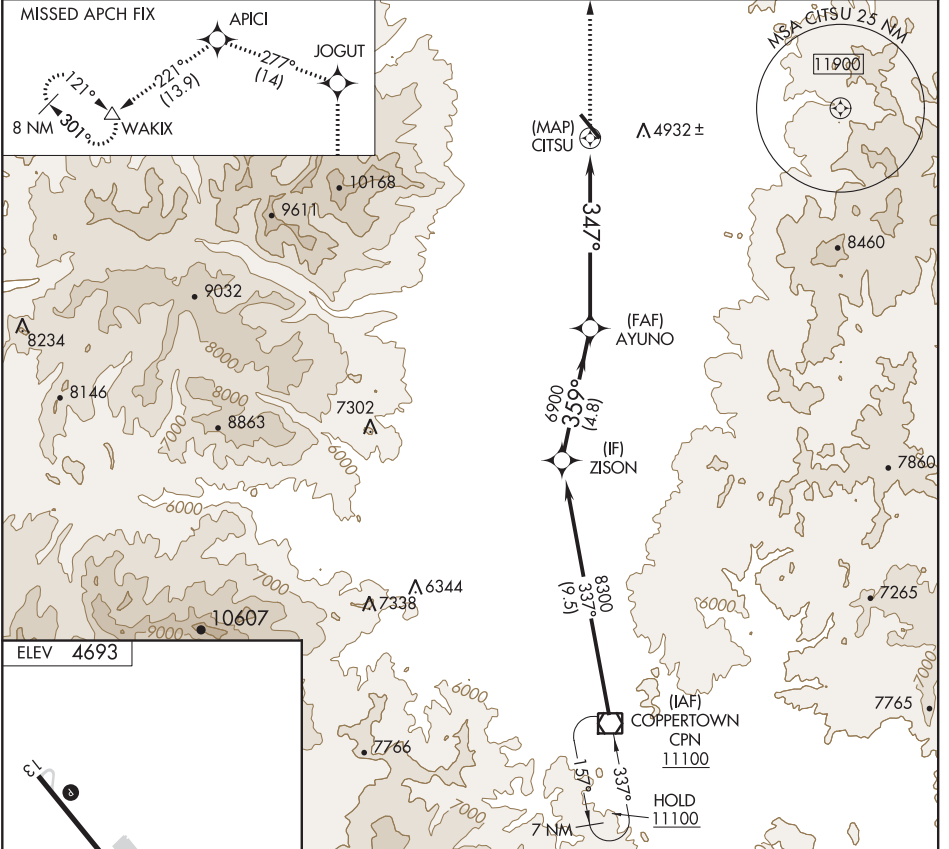
# RNAV (GPS)-A

DEER LODGE-CITY-COUNTY (38S)

**NA** Circling Rwy 13 NA at night. DME/DME RNP-0.3 NA. Rwy 13 helicopter visibility reduction below 1 SM NA. When local altimeter setting not received use Anaconda altimeter setting and increase all MDA 100 feet; increase Cat B visibility ¼ SM.

**MISSED APPROACH:** Climb to 13000 direct JOGUT and on track 277° to APICI and on track 221° to WAKIX and hold, continue climb-in-hold to 13000.

AWOS-AV	SALT LAKE CENTER	CTAF
<b>120.025</b>	<b>133.4 285.4</b>	<b>122.90</b>



13000	JOGUT	tr 277°	APICI	tr 221°	WAKIX	ZISON
	CITSU		AYUNO		8300	
	347°		359°			
	6900					
	6.8 NM		4.8 NM			

CATEGORY	A	B	C	D
<b>CIRCLING</b>	5440-1 747 (800-1)	5460-1 767 (800-1)	5720-3 1027 (1100-3)	6300-3 1607 (1700-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

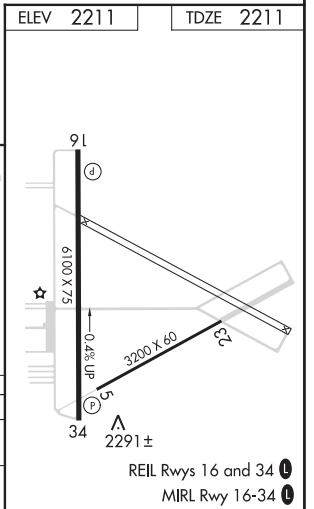
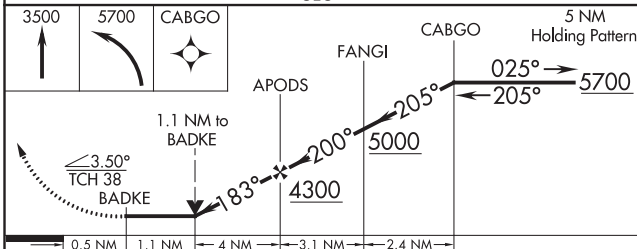
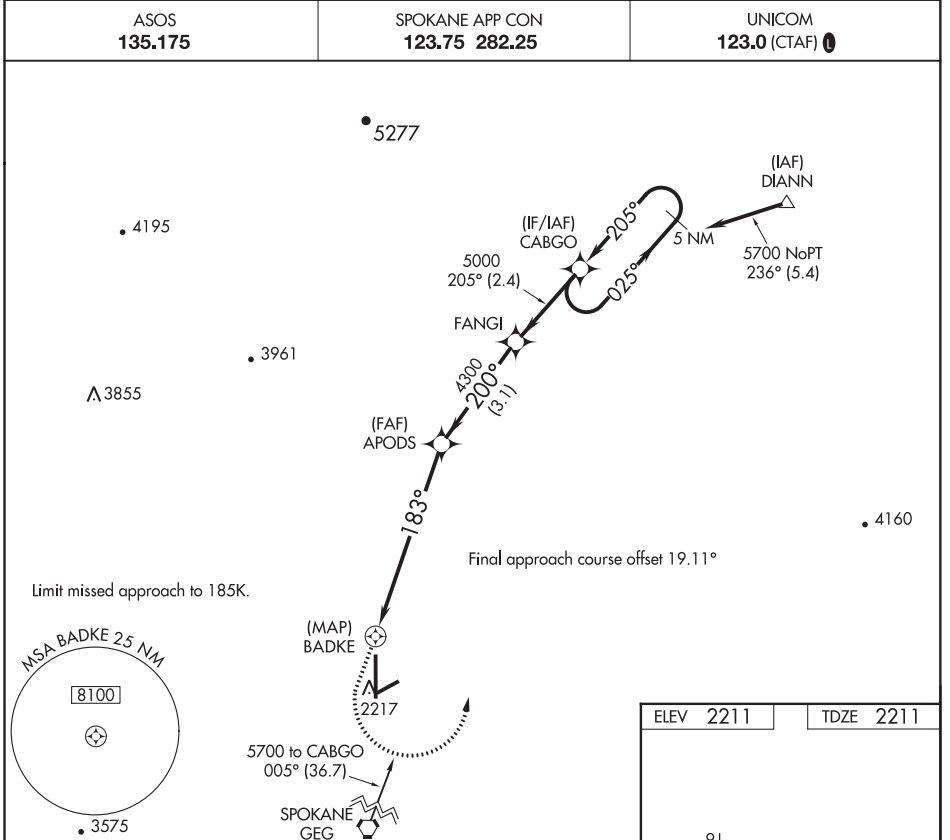
NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>6100</b>
<b>183°</b>	TDZE	<b>2211</b>
	Apt Elev	<b>2211</b>

# RNAV (GPS) RWY 16

DEER PARK (DEW)

-26°C/-15°F	When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. Circling NA west of Rwy 16-34.	MISSED APPROACH: Climb to 3500 then climbing left turn to 5700 direct CABGO and hold.
	ASOS <b>135.175</b>	SPOKANE APP CON <b>123.75 282.25</b>



CATEGORY	A	B	C	D
LNNAV MDA	2640-1	429 (500-1)	2640-1 1/4	429 (500-1 1/4)
CIRCLING	2700-1	489 (500-1)	2700-1 1/2	2860-2
			489 (500-1 1/2)	649 (700-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>61306</b> W34A	APP CRS <b>344°</b>	Rwy Idg TDZE Apt Elev	<b>6100</b> <b>2201</b> <b>2211</b>
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# RNAV (GPS) RWY 34

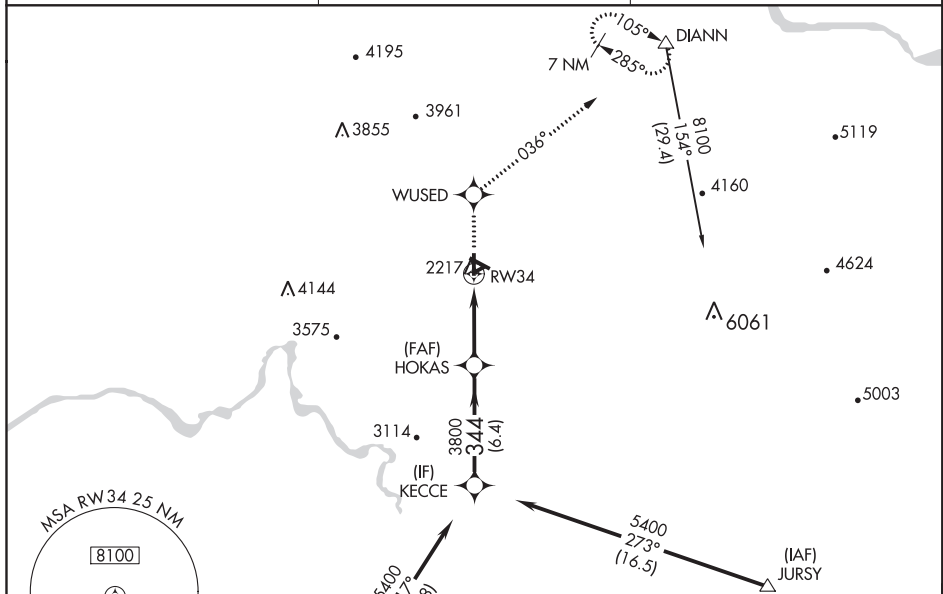
DEER PARK (DEW)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F). When local altimeter setting not received, use Spokane Intl altimeter setting and increase all DA/MDAs 80 feet and all visibilities ¼ mile. Circling NA west of Rwy 16-34. DME/DME RNP: 0.3 NA. VDP and Baro-VNAV NA when using Spokane Intl altimeter setting.

**⚠** -26°C/-15°F

MISSED APPROACH: Climb to 8100 direct WUSED and via 036° track to DIANN and hold, continue climb-in-hold to 8100.

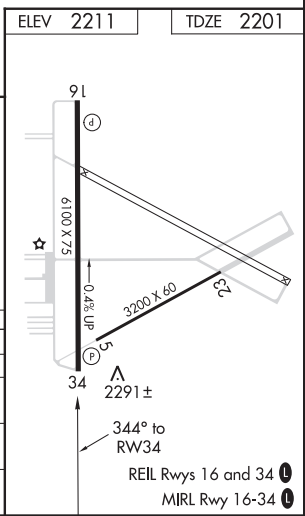
ASOS <b>135.175</b>	SPOKANE APP CON <b>123.75 282.25</b>	UNICOM <b>123.0 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

8100	WUSED	036° tr	DIANN	HOKAS	KECCE
↑	✦		△		
*LNAV only					
RW34		*1.2 NM to RW34		344°	
1.2		3.7 NM		6.4 NM	
3800		5400		5400	
Procedure Turn NA		GP 3.00°		TCH 40	
CATEGORY	A	B	C	D	
LPV DA	2466-1		265 (300-1)		
LNAV/VNAV DA	2551-1¼		350 (400-1¼)		
LNAV MDA	2600-1		399 (400-1)		2600-1¼ 399 (400-1¼)
CIRCLING	2700-1	489 (500-1)	2700-1½ 489 (500-1½)	2860-2 649 (700-2)	



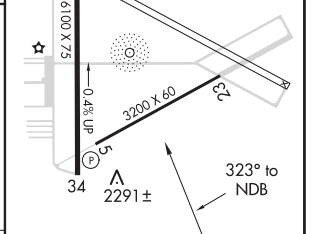
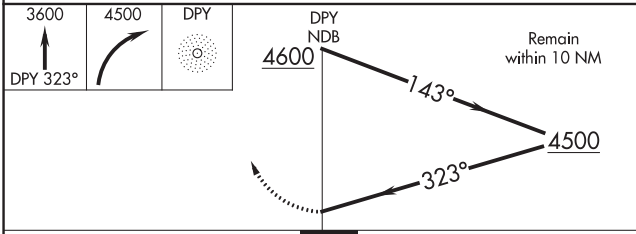
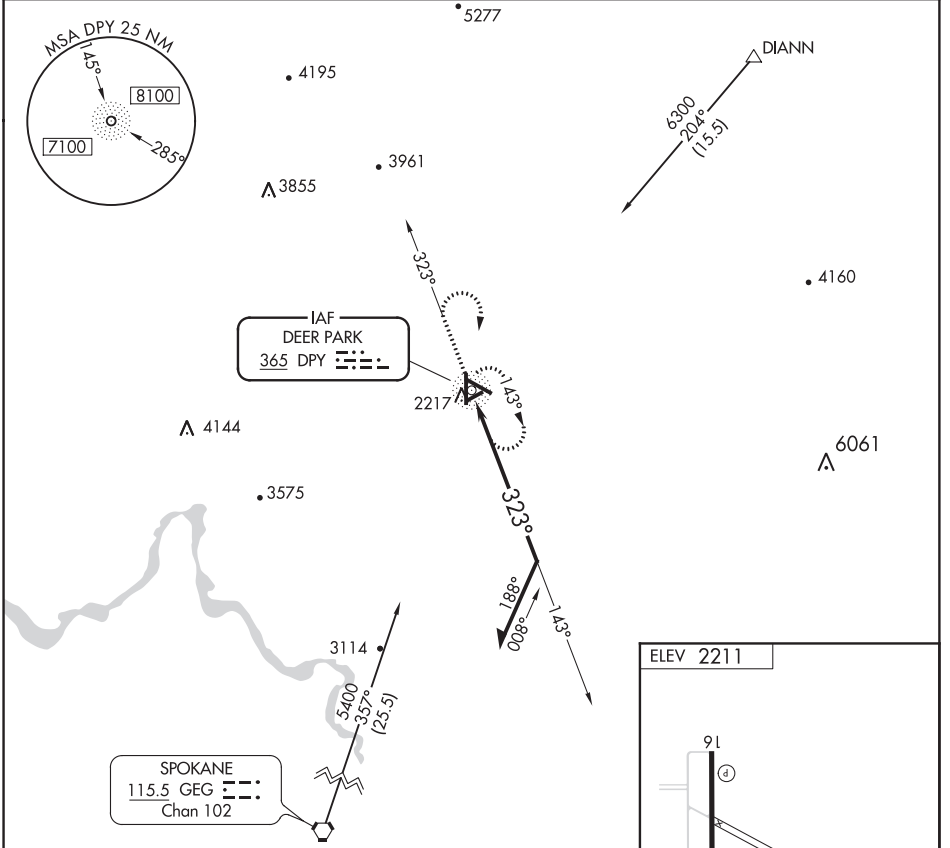
NDB DPY <b>365</b>	APP CRS <b>323°</b>	Rwy Idg TDZE Apt Elev	N/A N/A <b>2211</b>
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**NDB-A**  
DEER PARK (DEW)

**NA** Circling NA west of Rwy 16-34. When local altimeter setting not received, use Spokane Intl altimeter setting and increase all MDAs 80 feet and all visibilities ¼ mile.

**MISSED APPROACH:** Climb to 3600 via 323° bearing from DPY NDB then climbing right turn to 4500 direct DPY NDB and hold.

ASOS <b>135.175</b>	SPOKANE APP CON <b>123.75 282.25</b>	UNICOM <b>123.0 (CTAF)</b>
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CATEGORY	A	B	C	D
CIRCLING	3000-1 789 (800-1)	3000-1¼ 789 (800-1¼)	3000-2¼ 789 (800-2¼)	3000-2½ 789 (800-2½)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

DILLON, MONTANA

AL-121 (FAA)

16119

WAAS CH <b>93927</b> <b>W17A</b>	APP CRS <b>166°</b>	Rwy Idg TDZE Apt Elev	<b>6501</b> <b>5202</b> <b>5245</b>
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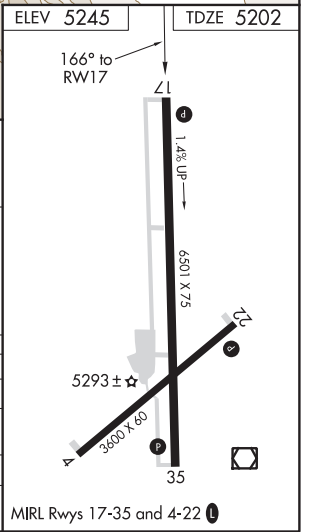
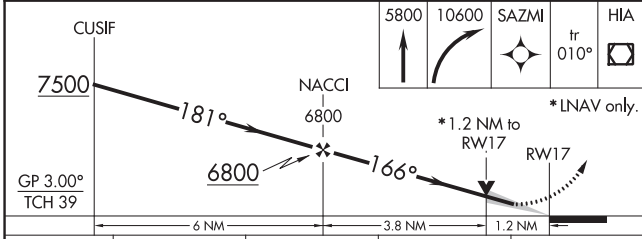
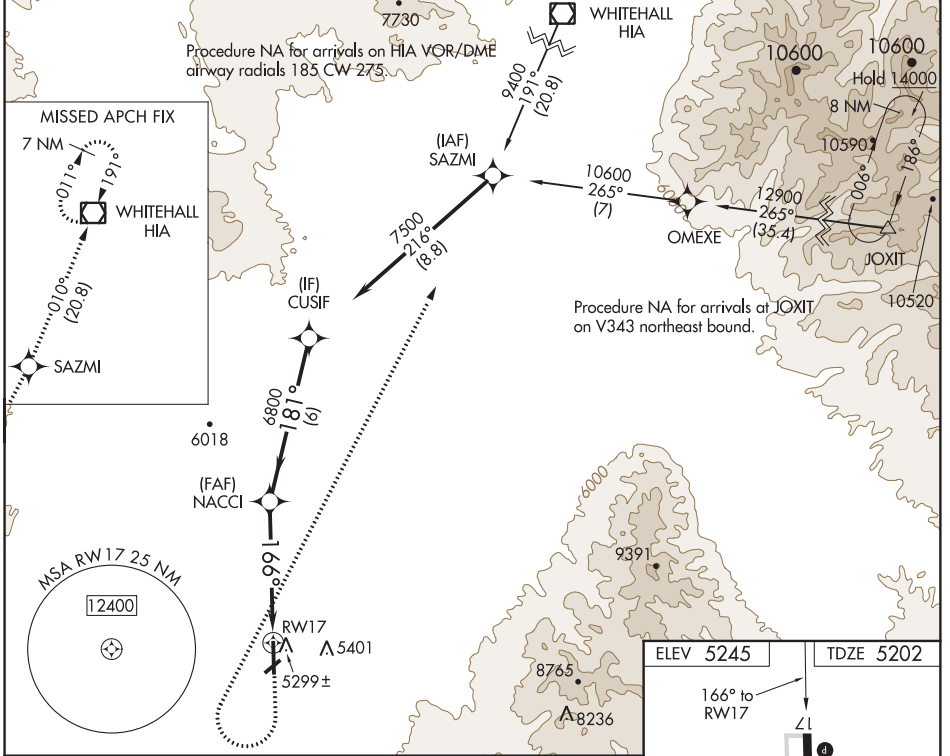
# RNAV (GPS) RWY 17

DILLON (DLN)

When local altimeter setting not received, procedure NA.  
DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems,  
LNAV/VNAV NA below -27°C (-16°F) or above 51°C (124°F).  
Night Landing: Rwy 4, 22, 35 NA.

MISSED APPROACH: Climb to 5800 then climbing right turn to 10600 direct SAZMI and on track 010° to HIA VOR/DME and hold.

ASOS <b>135.225</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>122.8 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LPV DA		5452-7/8	250 (200-7/8)	
LNAV/VNAV DA		5525-11/8	323 (300-11/8)	
LNAV MDA	5560-1	358 (400-1)	5560-11/8	358 (400-11/8)
CIRCLING	5760-1 515 (600-1)	5860-1 615 (700-1)	5980-2 735 (800-2)	6300-3 1055 (1100-3)

DILLON, MONTANA  
Amdt 1B 28APR16

45°15'N-112°33'W

# RNAV (GPS) RWY 17

DILLON (DLN)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>49227</b> <b>W35A</b>	APP CRS <b>006°</b>	Rwy Idg TDZE Apt Elev	<b>6501</b> <b>5245</b> <b>5245</b>
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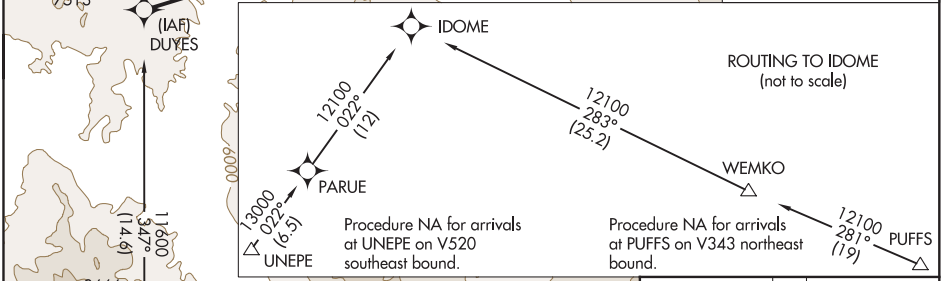
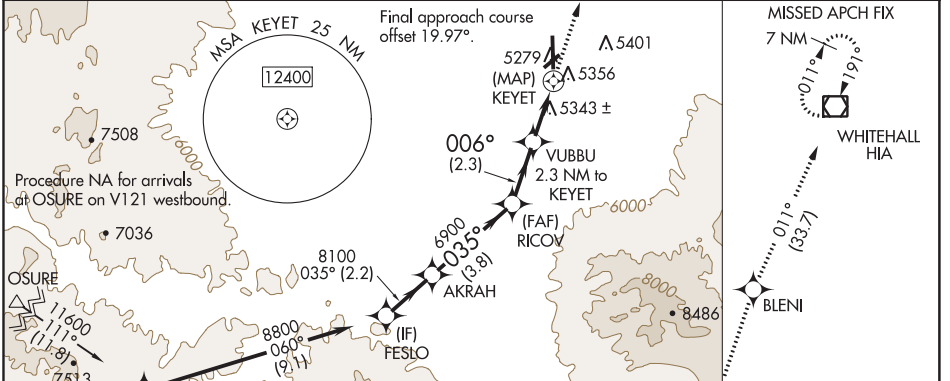
# RNAV (GPS) RWY 35

DILLON (DLN)

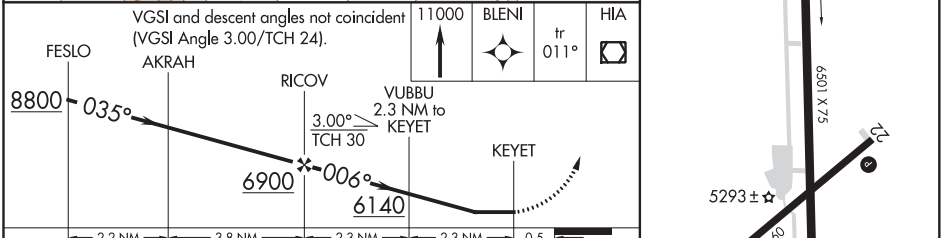
**⚠** When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA.  
**⚠** Helicopter visibility reduction below 1 SM NA. Night landing: Rwy 4, 22, 35 NA.

**MISSED APPROACH:** Climb to 11000 direct BLENI and on track 011° to HIA VOR/DME and hold.

ASOS <b>135.225</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV	5245	TDZE	5245
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CATEGORY	A	B	C	D
LP MDA		5600-1	355 (500-1)	
LNAV MDA		5620-1	375 (400-1)	
<b>C</b> CIRCLING	5760-1 515 (600-1)	5860-1 615 (700-1)	5980-2 735 (800-1)	6300-3 1055 (1100-3)

MIRL Rwy 17-35 and 4-22 0

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

DILLON, MONTANA

AL-121 (FAA)

16119

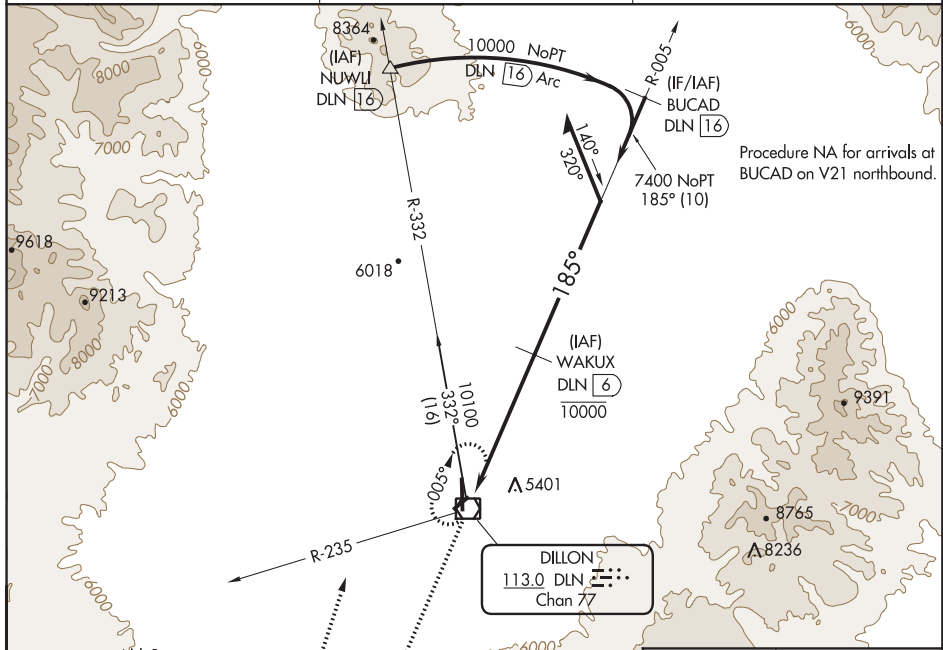
VOR/DME DLN <b>113.0</b> Chan <b>77</b>	APP CRS <b>185°</b>	Rwy Idg TDZE N/A N/A Apt Elev <b>5245</b>
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# VOR/DME-B DILLON (DLN)

When local altimeter setting not received, procedure NA. Night Landing: Rwy 4, 22, 35 NA. Helicopter visibility reduction below 1 SM not authorized.

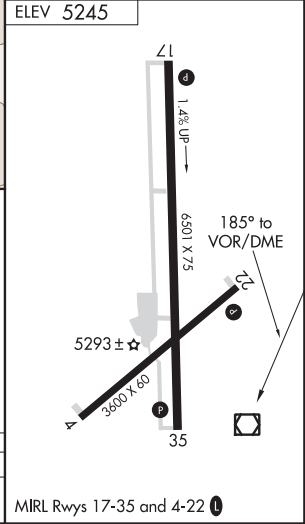
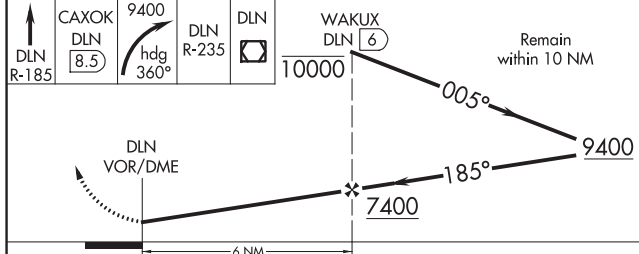
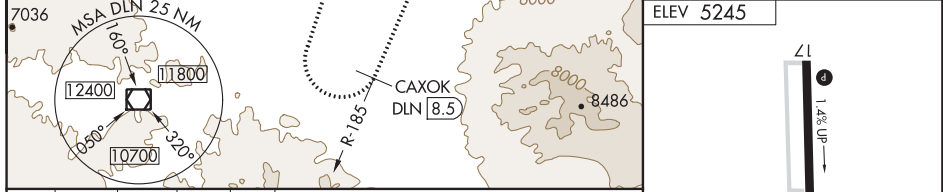
MISSED APPROACH: Climb on DLN VOR/DME R-185 to CAXOK/8.5 DME then climbing right turn to 9400 on heading 360° and on DLN VOR/DME R-235 to DLN VOR/DME and hold.

ASOS <b>135.225</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	5800-1 555 (600-1)	5860-1 615 (700-1)	5980-2 735 (800-2)	6300-3 1055 (1100-3)

MIRL Rwy 17-35 and 4-22

DILLON, MONTANA  
Amdt 2A 28APR16

45°15'N-112°33'W

# DILLON (DLN) VOR/DME-B



VOR/DME DLN <b>113.0</b> Chan 77	APP CRS <b>185°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>5245</b>
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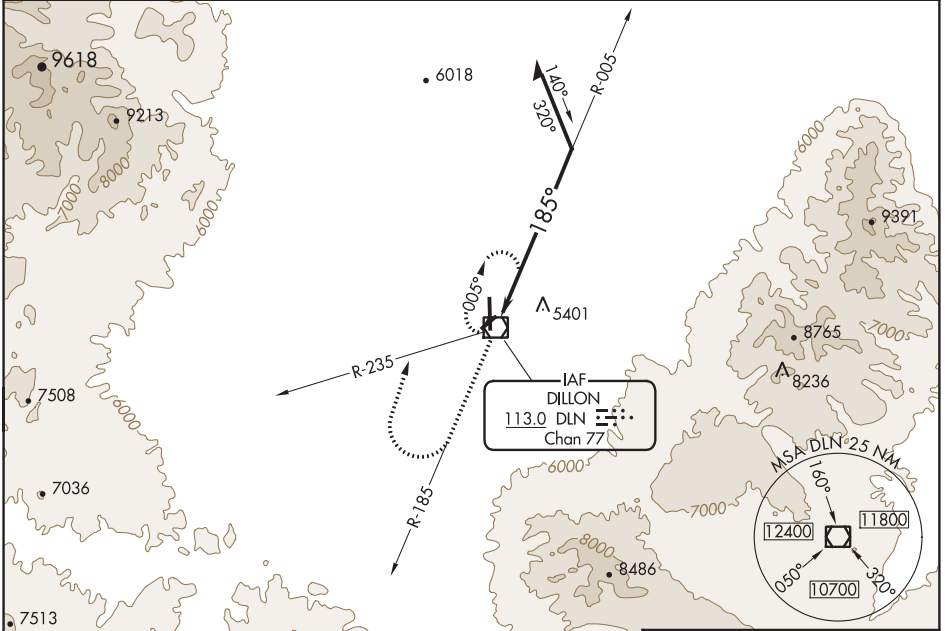
# VOR-A DILLON (DLN)

**⚠** When local altimeter setting not received, procedure NA. Night Landing: Rwy 4, 22, 35 NA. Helicopter visibility reduction below 1 SM not authorized.

**❄** -18°C/0°F

**MISSED APPROACH:** Climb to 9000 on DLN VOR/DME R-185 then climbing right turn to 9600 on heading 360° and DLN VOR/DME R-235 to DLN VOR/DME and hold.

ASOS <b>135.225</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>122.8 (CTAF) 0</b>
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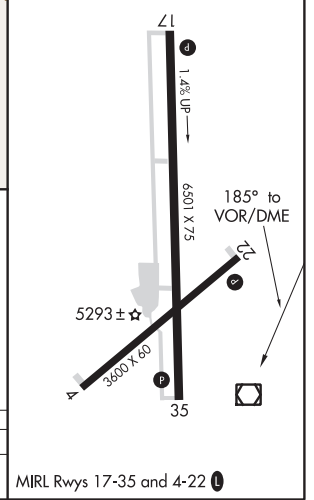
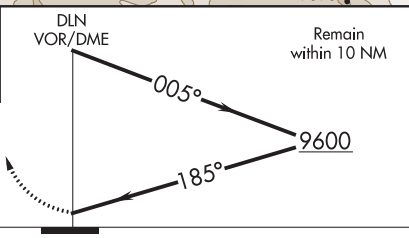


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 5245

9000 DLN R-185	9600 hdg 360°	DLN R-235	DLN □
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CATEGORY	A	B	C	D
<b>C</b> CIRCLING	8100-1¼ 2855 (2900-1¼)	8100-1½ 2855 (2900-1½)	8100-3	2855 (2900-3)

DOUGLAS, WYOMING

AL-6870 (FAA)

15176

WAAS CH <b>58018</b> W <b>11A</b>	APP CRS <b>107°</b>	Rwy Idg <b>6534</b> TDZE <b>4921</b> Apt Elev <b>4933</b>
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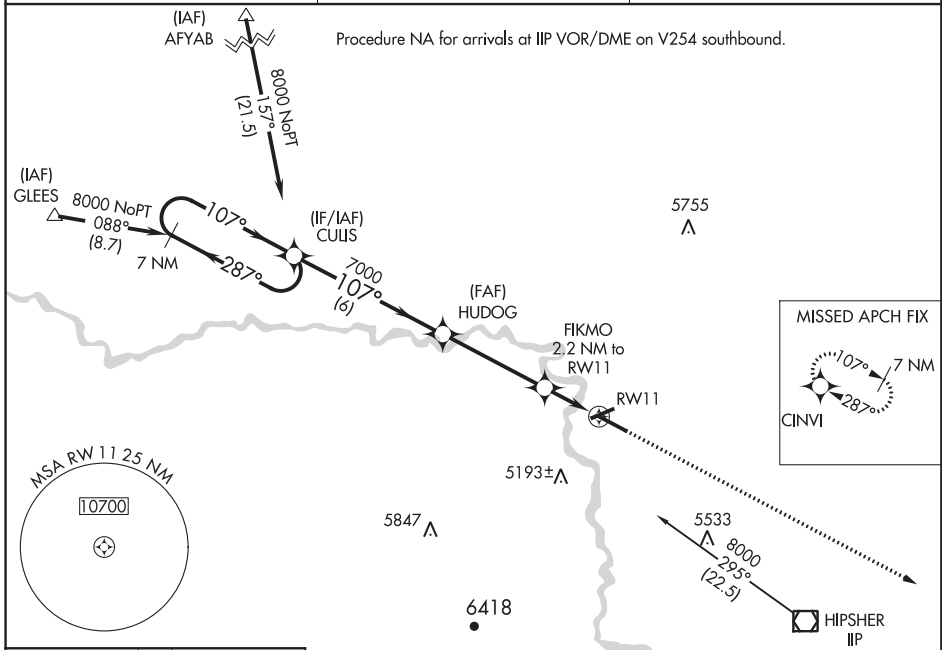
# RNAV (GPS) RWY 11

CONVERSE COUNTY (DGW)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -24°C (-11°F) or above 39°C (102°F).  
**⚠** -26°C/-15°F DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 8000 direct CINVI and hold.

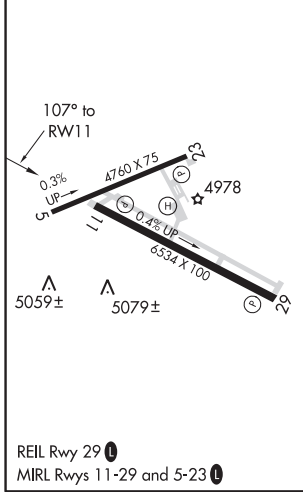
ASOS <b>135.225</b>	DENVER CENTER <b>135.6 363.025</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4933	TDZE 4921
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	VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 30).			8000	CINVI		
				↑	✦		
				*LNAV only			
	6 NM				4.1 NM	0.9 NM	1.3 NM
CATEGORY	A	B	C	D			
LPV DA	5121-3/4		200 (200-3/4)				
LNAV/VNAV DA	5329-1 1/2		408 (400-1 1/2)				
LNAV MDA	5340-1	419 (500-1)	5340-1 1/4	419 (500-1 1/4)			
CIRCLING	5520-1	587 (600-1)	5520-1 1/2	5560-2	627 (700-2)		

DOUGLAS, WYOMING  
Orig 29JUL10

42°48'N-105°23'W

# CONVERSE COUNTY (DGW) RNAV (GPS) RWY 11

WAAS CH <b>61018</b> <b>W29A</b>	APP CRS <b>287°</b>	Rwy Idg TDZE Apt Elev	<b>6534</b> <b>4933</b> <b>4933</b>
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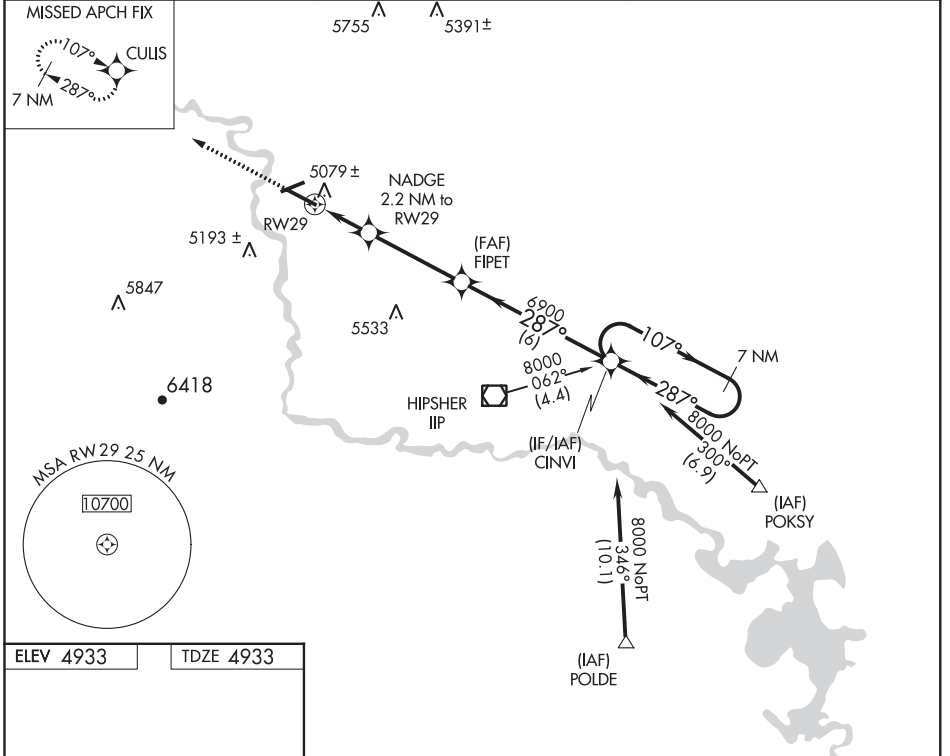
# RNAV (GPS) RWY 29

CONVERSE COUNTY (DGW)

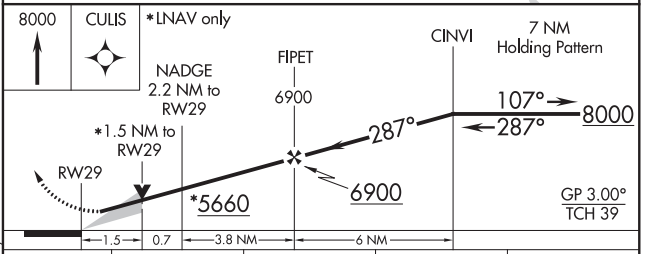
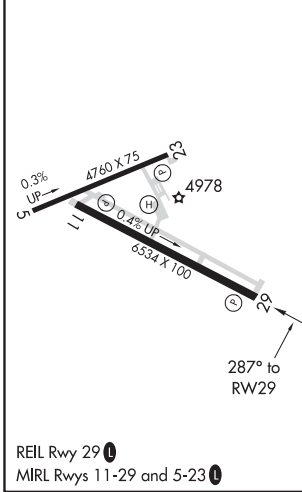
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -24°C (-11°F) or above 39°C (102°F).  
DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 8000 direct CULIS and hold.

ASOS <b>135,225</b>	DENVER CENTER <b>135.6 363,025</b>	UNICOM <b>122.8 (CTAF) ①</b>
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ELEV 4933	TDZE 4933
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CATEGORY	A	B	C	D
LPV DA		5133-3/4	200 (200-3/4)	
LNAV/VNAV DA		5369-1 1/2	436 (500-1 1/2)	
LNAV MDA	5440-1	507 (600-1)	5440-1 1/2	507 (600-1 1/2)
CIRCLING	5520-1	587 (600-1)	5520-1 1/2	5560-2 627 (700-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

DOUGLAS, WYOMING

AL-6870 (FAA)

15176

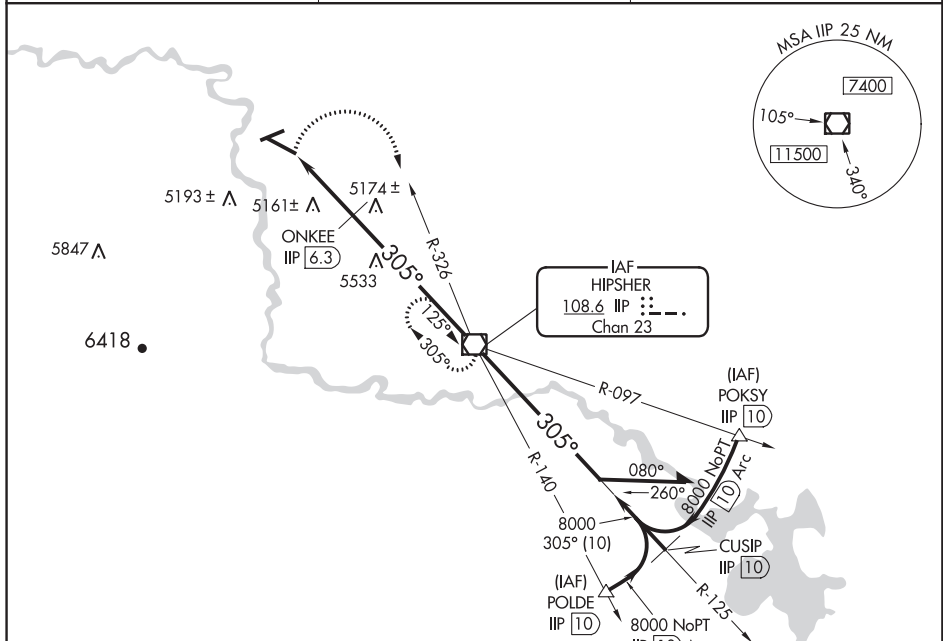
VOR/DME IIP <b>108.6</b> Chan <b>23</b>	APP CRS <b>305°</b>	Rwy Idg TDZE Apt Elev <b>6534</b> <b>4933</b> <b>4933</b>
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# VOR RWY 29

CONVERSE COUNTY (DGW)

**MISSED APPROACH:** Climbing right turn to 8000 via heading 160° and IIP VOR/DME R-326 to IIP VOR/DME and hold, continue climb-in-hold to 8000.

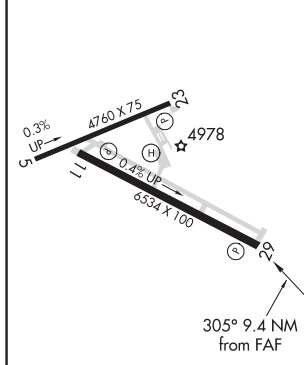
ASOS <b>135.225</b>	DENVER CENTER <b>135.6 363.025</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

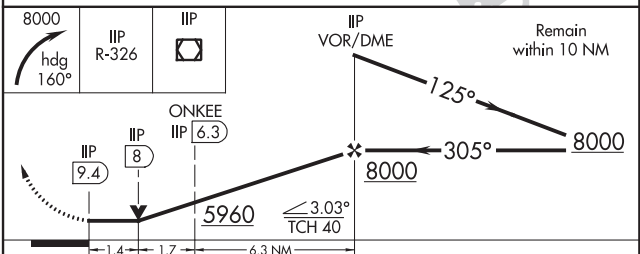
ELEV 4933	TDZE 4933
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REIL Rwy 29 **0**  
MIRL Rwys 11-29 and 5-23 **0**

FAF to MAP 9.4 NM

Knots	60	90	120	150	180
Min:Sec	9:24	6:16	4:42	3:46	3:08



CATEGORY	A	B	C	D
S-29	5960-1¼ 1027 (1100-1¼)	5960-1½ 1027 (1100-1½)	5960-3	1027 (1100-3)
CIRCLING	5960-1¼ 1027 (1100-1¼)	5960-1½ 1027 (1100-1½)	5960-3	1027 (1100-3)
ONKEE FIX MINIMUMS				
S-29	5420-1	487 (500-1)	5420-1¼ 487 (500-1¼)	5420-1½ 487 (500-1½)
CIRCLING	5520-1	587 (600-1)	5520-1½ 587 (600-1½)	5540-2 607 (700-2)

DOUGLAS, WYOMING  
Amdt 1A 24SEP09

42°48'N-105°23'W

# CONVERSE COUNTY (DGW)

## VOR RWY 29

WAAS CH <b>48827</b> W04A	APP CRS <b>016°</b>	Rwy Idg TDZE Apt Elev <b>7300</b> <b>6179</b> <b>6231</b>
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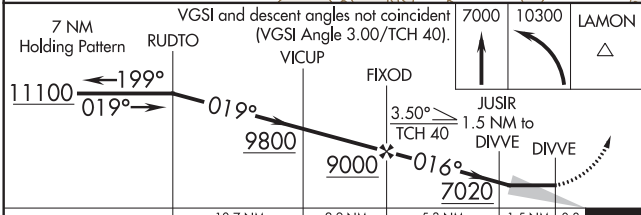
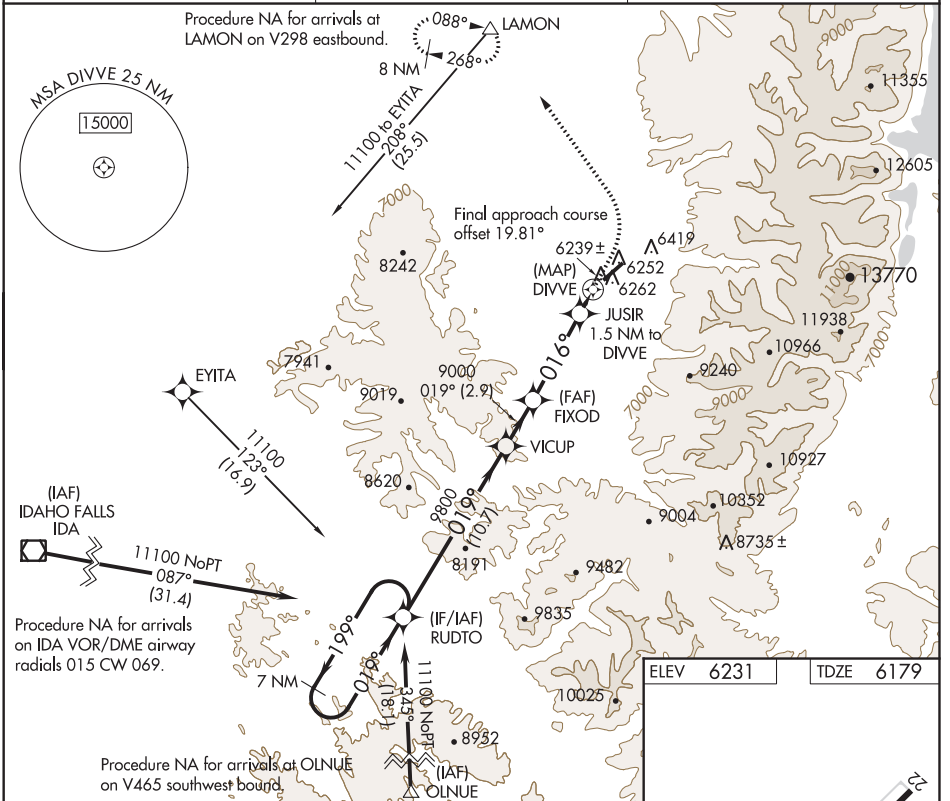
# RNAV (GPS) RWY 4

DRIGGS-REED MEMORIAL (DIJ)

**⚠** Circling NA for Cats C and D southeast of Rwy 4-22.  
**⚠** DME/DME RNP-0.3 NA.

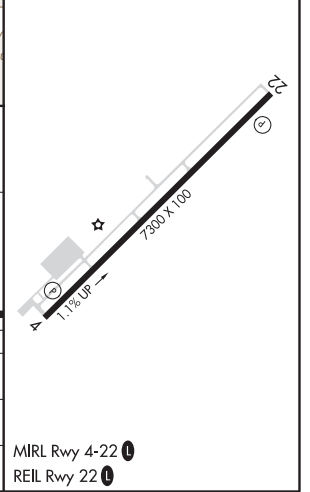
MISSED APPROACH: Climb to 7000 then climbing left turn to 10300 direct LAMON and hold, continue climb-in-hold to 10300.

AWOS-3PT <b>120.775</b>	SALT LAKE CENTER <b>128.35 239.25</b>	UNICOM <b>122.7 (CTAF) 0</b>
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ELEV 6231	TDZE 6179
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CATEGORY	A	B	C	D
LP MDA	6500-1 321 (300-1)			
LNAV MDA	6520-1 341 (300-1)			
<b>C</b> CIRCLING	6760-1 529 (600-1)	6820-1 589 (600-1)	6880-1¼ 649 (700-1¼)	7400-3 1169 (1200-3)



NW-1, 10 NOV 2016 to 05 JAN 2017

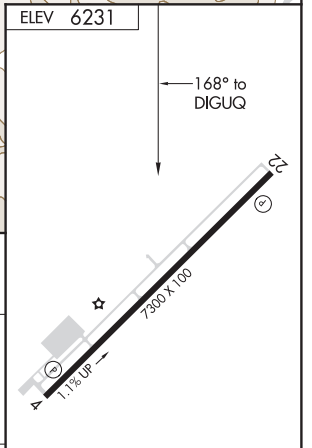
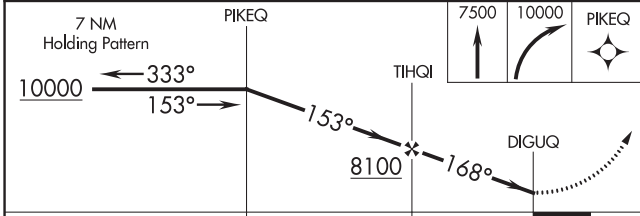
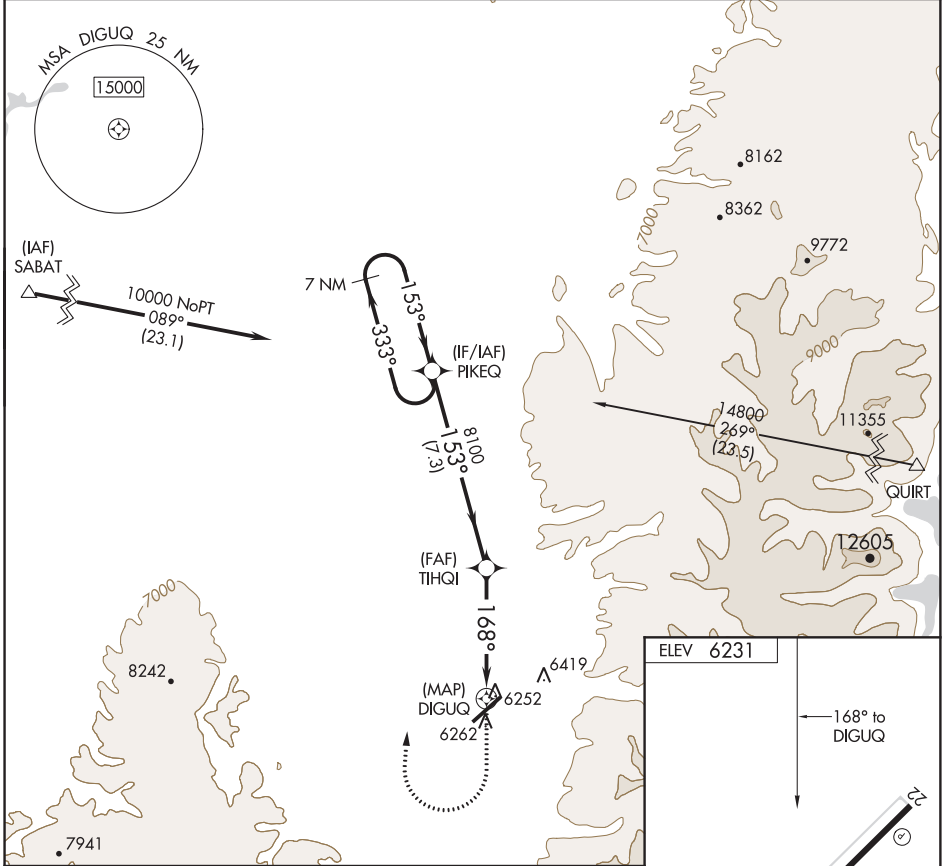
NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>168°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>6231</b>
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# RNAV (GPS)-A

DRIGGS-REED MEMORIAL (DIJ)

<p><b>▼</b> Circling NA for Cats C and D southeast of Rwy 4-22. <b>▲</b> DME/DME RNP-0.3 NA.</p>	<p><b>MISSED APPROACH:</b> (Do not exceed 185 KIAS until established direct PIKEQ) Climb to 7500 then climbing right turn to 10000 direct PIKEQ and hold.</p>	
<p>AWOS-3PT <b>120.775</b></p>	<p>SALT LAKE CENTER <b>128.35 239.25</b></p>	<p>UNICOM <b>122.7 (CTAF) 0</b></p>



CATEGORY	A	B	C	D
<b>C</b> CIRCLING	6900-1 669 (700-1)		6900-1¾ 669 (700-1¾)	7400-3 1169 (1200-3)

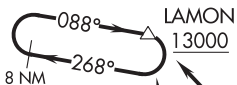
MIRL Rwy 4-22 **0**  
REIL Rwy 22 **0**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# LAMON TWO DEPARTURE (OBSTACLE) (RNAV)

SALT LAKE CENTER  
128.35 239.25  
UNICOM  
122.7 (CTAF)



NOTE: GPS required.  
NOTE: RNAV 1.

### TAKEOFF MINIMUMS

- Rwy 4: Standard with minimum climb of 236' per NM to 7700.
- Rwy 22: Standard with minimum climb of 253' per NM to 8800.

### TAKEOFF OBSTACLE NOTES

- Rwy 4: Fence 35' from DER, 288' right of centerline, 5' AGL/6238' MSL.  
Tree 498' from DER, 266' right of centerline, 6246' MSL.  
Tree 1029' from DER, 402' left of centerline, 6266' MSL.  
Vehicle on road 1320' from DER, 17' left of centerline, 15' AGL/6264' MSL.  
Vehicle on road 1355' from DER, 264' right of centerline, 15' AGL/6267' MSL.  
Tree 1908' from DER, 409' right of centerline, 6282' MSL.
- Rwy 22: Multiple buildings beginning 73' from DER, 463' right of centerline, up to 50' AGL/6167' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb heading 036° to 6731, then climbing left turn direct LAMON. Thence. . . .

TAKEOFF RUNWAY 22: Climb heading 216° to 6731, then climbing right turn direct LAMON. Thence. . . .

. . . .continue climb in LAMON holding pattern to cross LAMON at or above 13000 before proceeding on course.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>40038</b> <b>W16A</b>	APP CRS <b>193°</b>	Rwy Idg TDZE Apt Elev	<b>2901</b> <b>35</b> <b>35</b>
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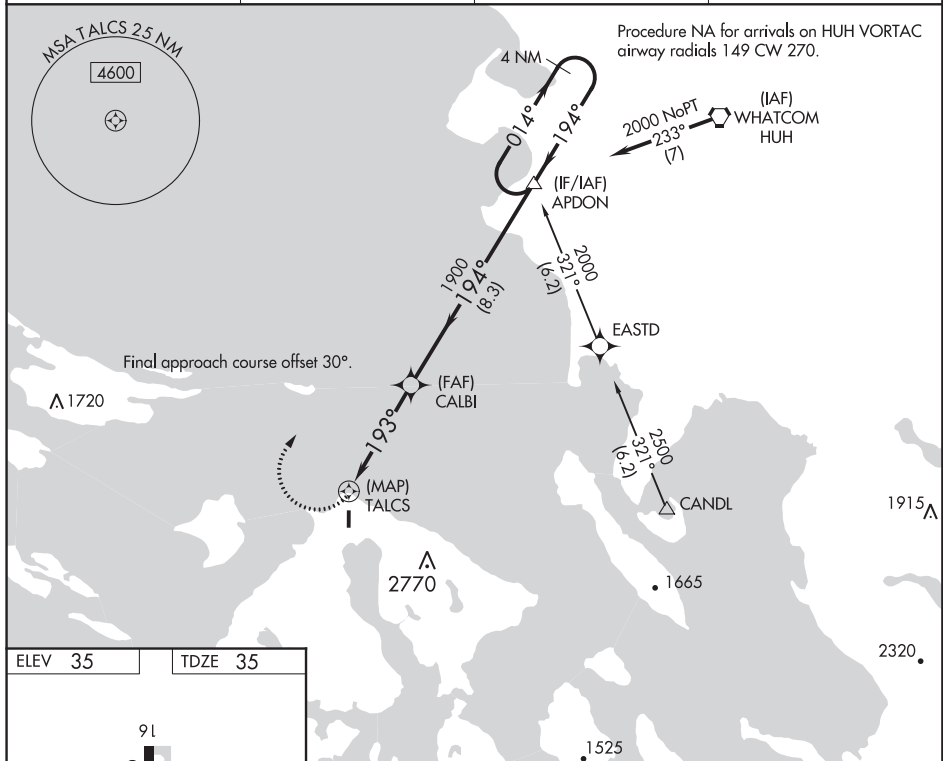
# RNAV (GPS) RWY 16

ORCAS ISLAND (ORS)

**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Friday Harbor altimeter setting and increase all MDA 40 feet.  
**⚠** Night landing: Rwy 34 NA. VDP NA when using Friday Harbor altimeter setting.

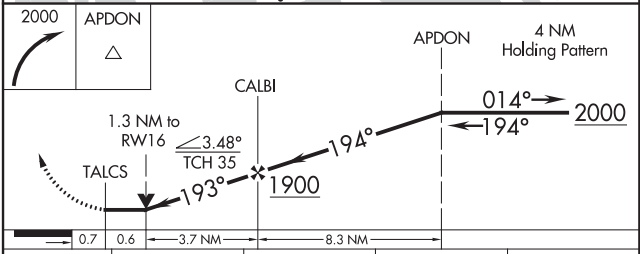
**MISSED APPROACH:**  
Climbing right turn to 2000 direct APDON and hold.

AWOS-3 <b>135.425</b>	WHIDBEY APP CON <b>118.2 285.65 (SOUTH)</b>	VICTORIA APP CON <b>132.7 290.8 (NORTH)</b>	CTAF <b>128.25 0</b>
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ELEV 35	TDZE 35
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MIRL Rwy 16-34 **0**  
 REIL Rwy 16 and 34 **0**



CATEGORY	A	B	C	D
LP MDA	560-1	525 (600-1)		NA
LNAV MDA	700-1	665 (700-1)		NA
<b>C</b> CIRCLING	1120-1¼ 1085 (1100-1¼)	1820-1½ 1785 (1800-1½)		NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>99538</b> <b>W34A</b>	APP CRS <b>327°</b>	Rwy Idg TDZE Apt Elev	<b>2901</b> <b>35</b> <b>35</b>
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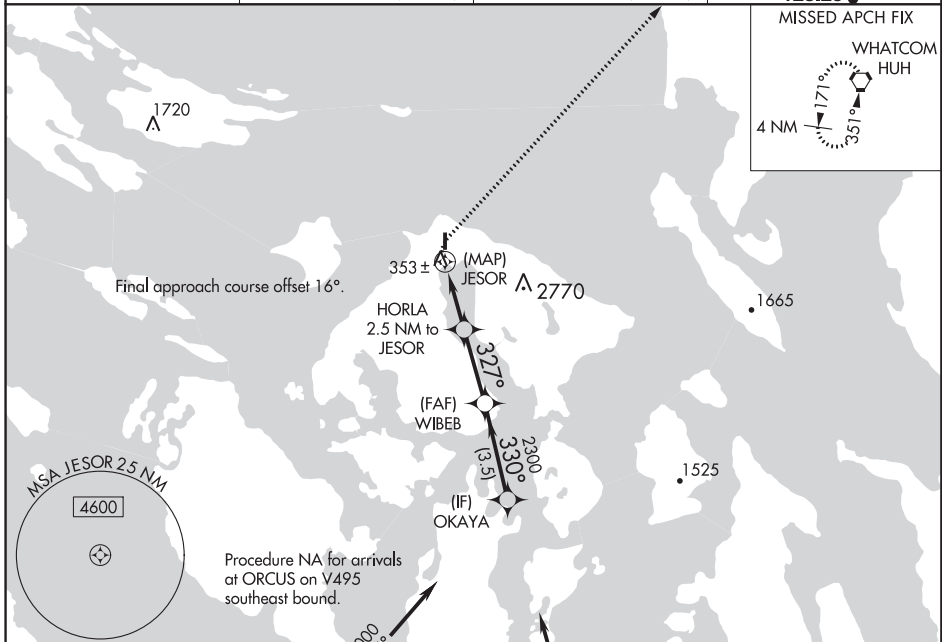
# RNAV (GPS) RWY 34

ORCAS ISLAND (ORS)

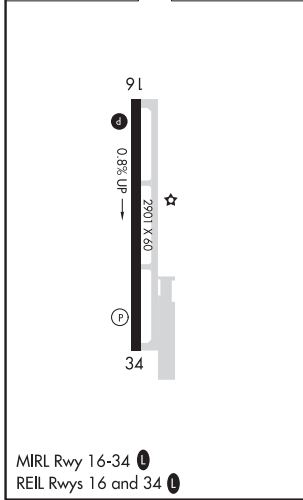
**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.  
**⚠** WAAS required, if unable see RNAV GPS-A. When local altimeter setting not received, use Friday Harbor altimeter setting and increase all MDA 40 feet and LP Cat B visibility ¼ mile. Night landing: Rwy 34 NA.

**MISSED APPROACH:** Climbing right turn to 2000 direct HUH VORTAC and hold.

AWOS-3 <b>135.425</b>	WHIDBEY APP CON <b>118.2 285.65</b> (SOUTH)	VICTORIA APP CON <b>132.7 290.8</b> (NORTH)	CTAF <b>128.25</b>
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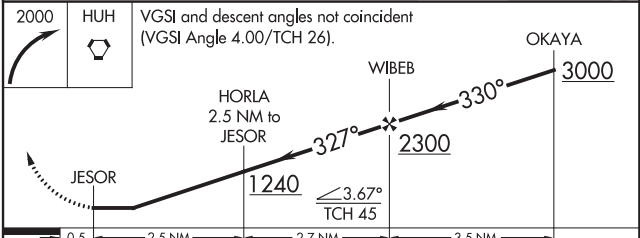


ELEV 35	TDZE 35
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Procedure NA for arrivals at ORCUS on V495 southeast bound.

Procedure NA for arrivals at CVV VOR/DME on V165 southbound.



CATEGORY	A	B	C	D
LP MDA	760-1	725 (800-1)	NA	
<b>C</b> CIRCLING	1120-1¼ 1085 (1100-1¼)	1820-1½ 1785 (1800-1½)	NA	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

EASTSOUND, WASHINGTON

AL-10384 (FAA)

16259

APP CRS <b>343°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>35</b>
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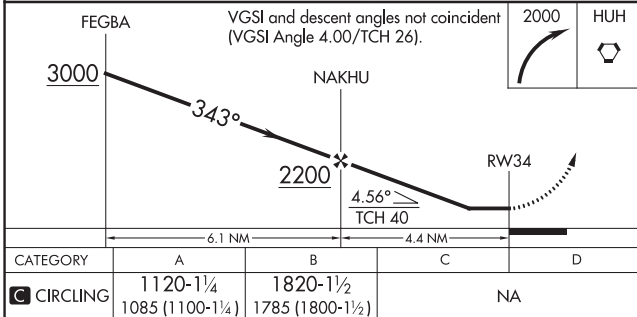
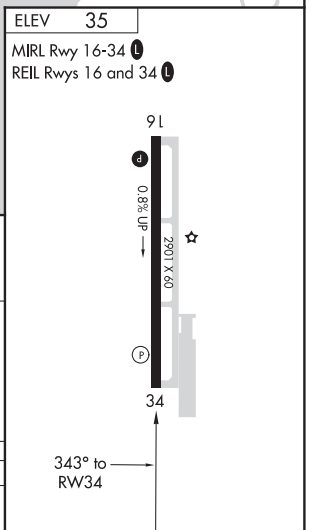
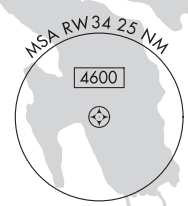
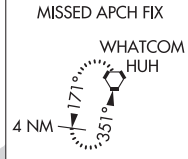
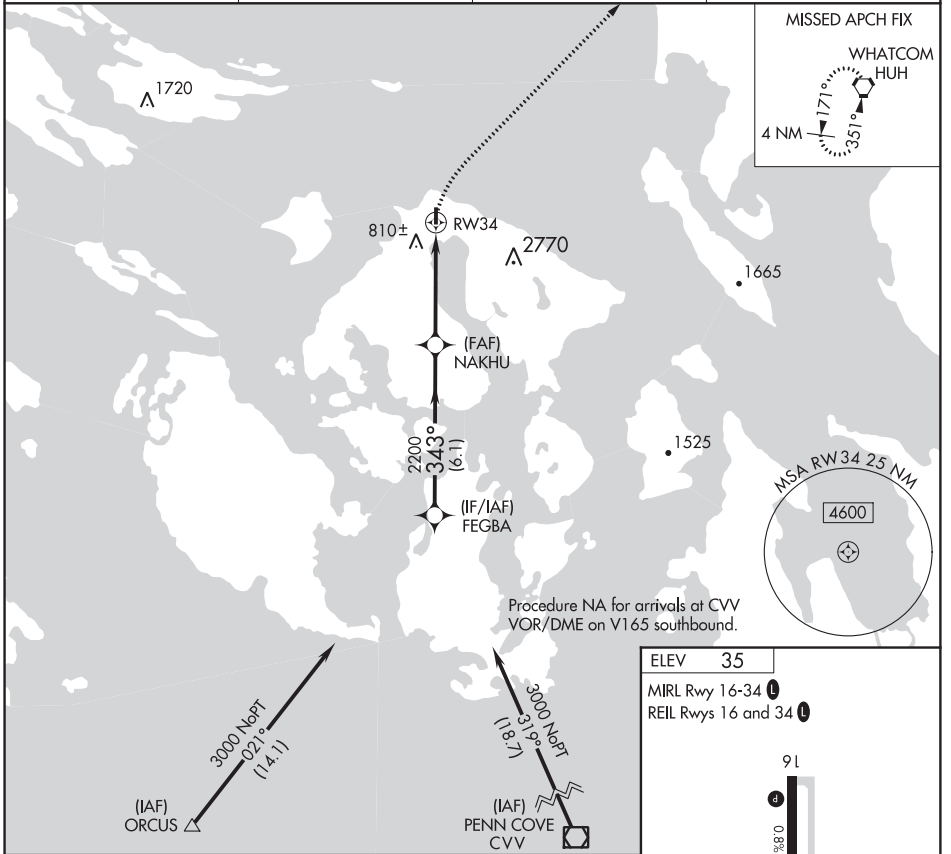
# RNAV (GPS)-A

ORCAS ISLAND (ORS)

**▼** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.  
**▲** When local altimeter setting not received, use Friday Harbor altimeter setting and increase MDA 40 feet. Night landing: Rwy 34 NA.

MISSED APPROACH: Climbing right turn to 2000 direct HUH VORTAC and hold.

AWOS-3 <b>135.425</b>	WHIDBEY APP CON <b>118.2 285.65 (SOUTH)</b>	VICTORIA APP CON <b>132.7 290.8 (NORTH)</b>	CTAF <b>128.25 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

EASTSOUND, WASHINGTON  
 Amdt 1 04FEB16

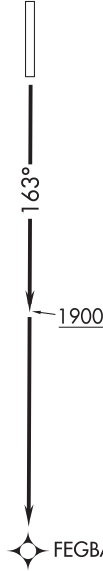
48°43'N-122°55'W

# ORCAS ISLAND (ORS)

## RNAV (GPS)-A

AWOS-3  
135.425  
WHIDBEY DEP CON  
118.2 285.65 (SOUTH)  
VICTORIA DEP CON  
132.7 290.8 (NORTH)  
CTAF  
128.25

**TOP ALTITUDE:  
3000**



NOTE: RNAV 1.  
NOTE: GPS required.  
NOTE: RADAR required.

**TAKEOFF MINIMUMS**

Rwy 16: 400-1 with minimum climb of  
500' per NM to 1900.

**TAKEOFF OBSTACLE NOTES**

- Rwy 16: Terrain beginning 9' from DER, 125' right of centerline, 37' MSL.
- Vehicles on road and tree beginning 15' from DER, 362' right of centerline, up to 15' AGL/66' MSL.
- Vehicles on road beginning 61' from DER, 301' left of centerline, 15' AGL/51' MSL.
- Building and rising terrain beginning 102' from DER, 259' right of centerline, up to 35' AGL/71' MSL.
- Tree 182' from DER, 393' right of centerline, up to 35' AGL/89' MSL.
- Trees beginning 194' from DER, 466' right of centerline, up to 95' AGL/151' MSL.
- Windsock, fence, and trees beginning 196' from DER, left and right of centerline, up to 65' AGL/106' MSL.
- Trees on rising terrain beginning 591' from DER, left and right of centerline, up to 80' AGL/120' MSL.
- Building and trees on rising terrain beginning 939' from DER, left and right of centerline, up to 100' AGL/177' MSL.
- Buildings and trees beginning 1096' from DER, left and right of centerline, up to 100' AGL/182' MSL.
- Pole, building, and trees beginning 1751' from DER, left and right of centerline, up to 100' AGL/199' MSL.
- Trees beginning 2059' from DER, left and right of centerline, up to 100' AGL/208' MSL.
- Trees beginning 2104' from DER, left and right of centerline, up to 100' AGL/224' MSL.
- Trees beginning 2244' from DER, left and right of centerline, up to 100' AGL/225' MSL.
- Trees beginning 2104' from DER, left and right of centerline, up to 100' AGL/224' MSL.
- Building and trees on rising terrain beginning 2519' from DER, left and right of centerline, up to 100' AGL/245' MSL.
- Trees beginning 2883' from DER, 884' right of centerline, up to 100' AGL/258' MSL.
- Trees beginning 2909' from DER, 243' left of centerline to 1169' right of centerline, up to 100' AGL/327' MSL.
- Tree 2972' from DER, 1074' right of centerline, 100' AGL/344' MSL.
- Trees beginning 2986' from DER, 14' right of centerline, up to 100' AGL/366' MSL.
- Building and trees beginning 3092' from DER, from 397' left of centerline to 1133' right of centerline, up to 100' AGL/381' MSL.
- Trees beginning 3133' from DER, 191' left of centerline to 1336' right of centerline, up to 100' AGL/400' MSL.
- Building and trees on rising terrain beginning 3280' from DER, 90' right of centerline, up to 100' AGL/410' MSL.

NOTE: Chart not to scale.



**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 16:** Climb heading 163° to 1900 then direct FEGBA. Expect RADAR vectors on assigned route.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELLENSBURG, WASHINGTON

AL-130 (FAA)

16315

APP CRS	Rwy Idg	<b>5590</b>
<b>267°</b>	TDZE	<b>1755</b>
	Apt Elev	<b>1764</b>

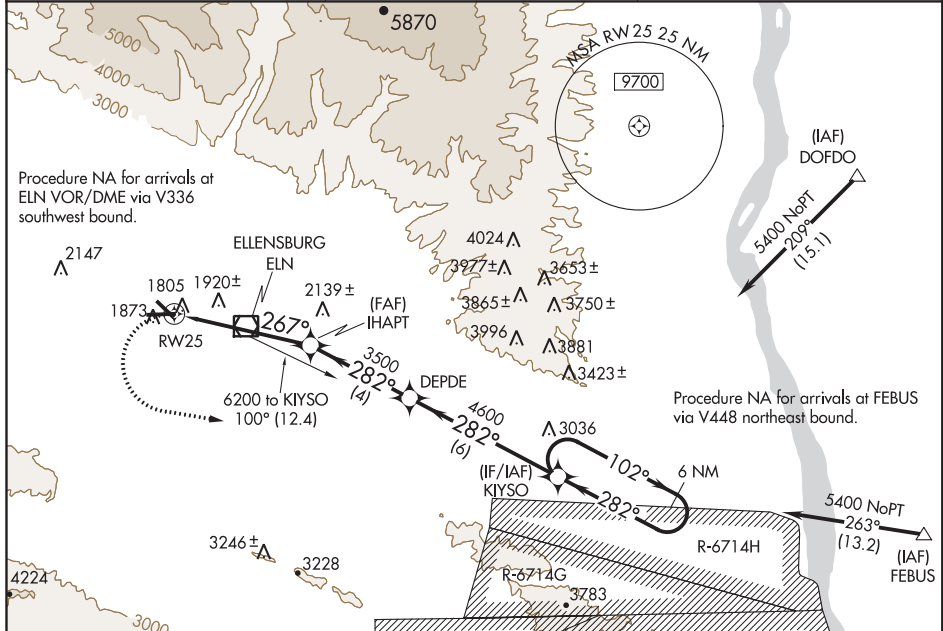
# RNAV (GPS) RWY 25

BOWERS FIELD (ELN)

**⚠** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Straight-in minimums NA at night. Procedure NA when R-6714A, F, G, H are in operation. When local altimeter setting not received, use Wenatchee altimeter setting and increase all MDA 140 feet and increase visibility LNAV Cat B ¼ mile, Cats C/D ½ mile, and increase Circling visibility Cat B ¼ mile, Cats C/D ½ mile.

**⚠** MISSED APPROACH: Climbing left turn to 5400 direct KIYSO and hold.

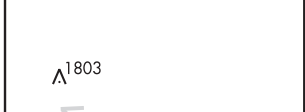
ASOS <b>118.375</b>	SEATTLE CENTER <b>132.6 269.35</b>	UNICOM <b>123.0 (CTAF)</b>
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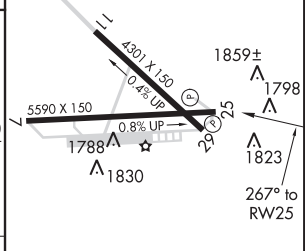
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1764	TDZE 1755
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CATEGORY	A	B	C	D
LNAV MDA	2360-1	605 (600-1)	2360-1¼ 605 (600-1¼)	2360-2 605 (600-2)
CIRCLING	2360-1	596 (600-1)	2360-1¼ 596 (600-1¼)	2500-2¼ 736 (800-2¼)



ELLENSBURG, WASHINGTON  
Amdt 1A 10NOV16

47°02'N-120°32'W

# RNAV (GPS) RWY 25

APP CRS	Rwy Idg	<b>4301</b>
<b>297°</b>	TDZE	<b>1759</b>
	Apt Elev	<b>1764</b>

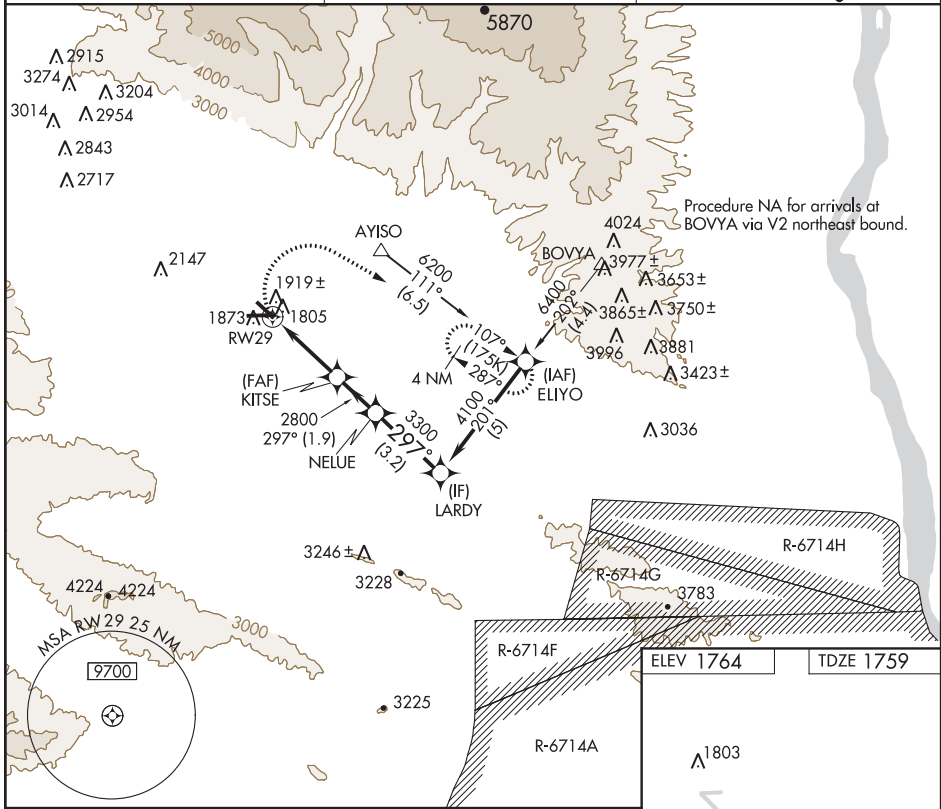
# RNAV (GPS) RWY 29

BOWERS FIELD (ELN)

**⚠** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Wenatchee altimeter setting and increase all MDA 140 feet and increase visibility LNAV Cat A and circling Cat A ¼ mile. VDP NA when using Wenatchee altimeter setting.

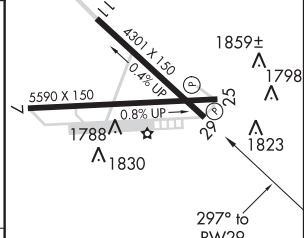
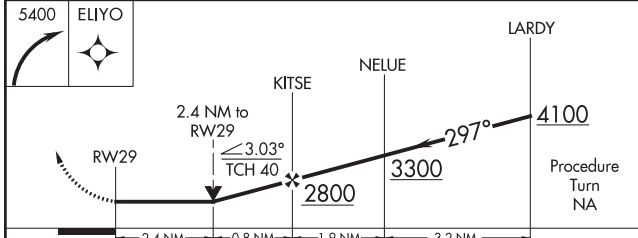
**⚠** MISSED APPROACH: Climbing right turn to 5400 direct ELIYO and hold, continue climb-in hold to 5400.

ASOS <b>118.375</b>	SEATTLE CENTER <b>132.6 269.35</b>	UNICOM <b>123.0 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LNAV MDA	2560-1 801 (800-1)	2560-1¼ 801 (800-1¼)	NA	
CIRCLING	2560-1 796 (800-1)	2560-1¼ 796 (800-1¼)	NA	

REIL Rwy 29  
MIRL Rwy 11-29 0

APP CRS	Rwy Idg	N/A
117°	TDZE	N/A
	Apt Elev	1764

# RNAV (GPS)-C

## BOWERS FIELD (ELN)

**DME/DME RNP-0.3 NA.** When local altimeter setting not received, use Pangborn Memorial altimeter setting: Increase all MDA 140 feet; increase Cats B/C visibility ¼ SM.

**MISSED APPROACH:** Climb to 2700 then climbing right turn to 5500 direct GEBTE and on track 175 to SELAH and hold.

ASOS <b>118.375</b>	SEATTLE CENTER <b>132.6 269.35</b>	UNICOM <b>123.0 (CTAF) ①</b>
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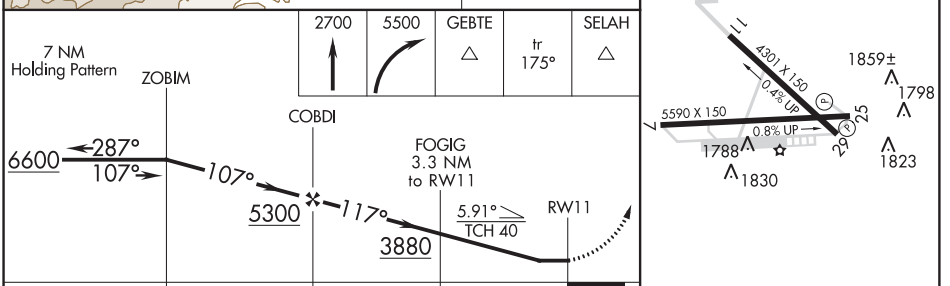


MISSED APCH FIX

5 NM

SELAH

ELEV 1764



CATEGORY	A	B	C	D	REIL Rwy 29 MIRL Rwy 11-29 ①
CIRCLING	2660-1¼	896 (900-1¼)	2660-2¾ 896 (900-2¾)	2660-3 896 (900-3)	

NW-1, 10 NOV 2016 to 05 JAN 2017

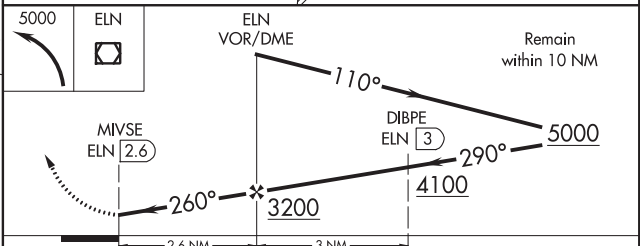
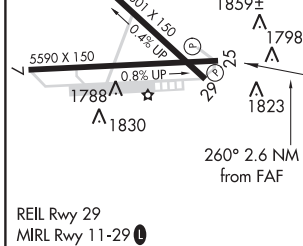
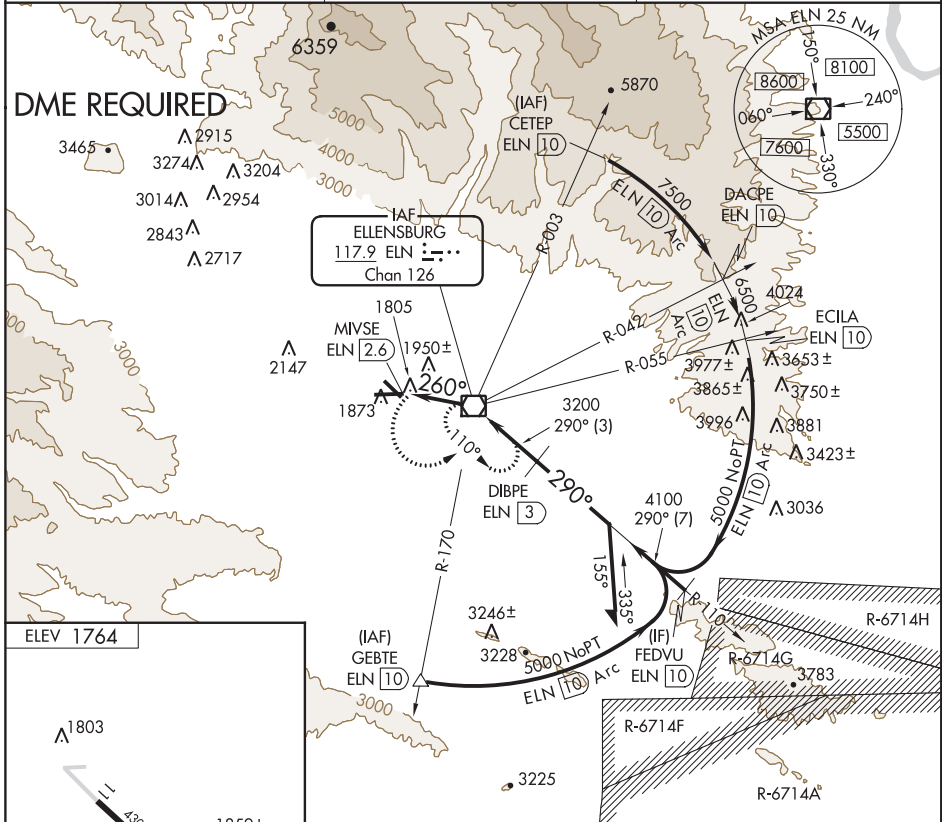
NW-1, 10 NOV 2016 to 05 JAN 2017

VOR/DME ELN <b>117.9</b> Chan <b>126</b>	APP CRS <b>260°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>1764</b>
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**VOR/DME-A**  
BOWERS FIELD (ELN)

<p><b>NA</b></p> <p>Procedure NA when R-6714A, F, G, H are in operation.</p>	<p>MISSED APPROACH: Climbing left turn to 5000 direct ELN VOR/DME and hold.</p>
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ASOS <b>118.375</b>	SEATTLE CENTER <b>132.6 269.35</b>	UNICOM <b>123.0 (CTAF) 0</b>
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FAF to MAP 2.6 NM					
Knots	60	90	120	150	180
Min:Sec	2:36	1:44	1:18	1:02	0:52
CATEGORY	A		B		C D
CIRCLING	2280-1 516 (600-1)		2340-1 576 (600-1)		NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELLENSBURG, WASHINGTON

AL-130 (FAA)

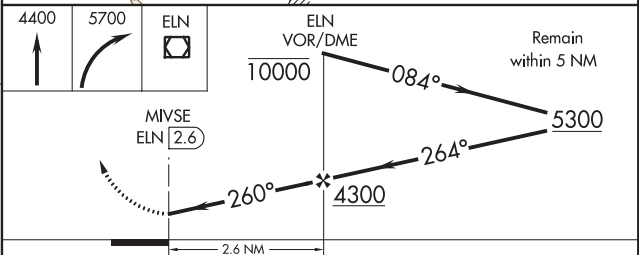
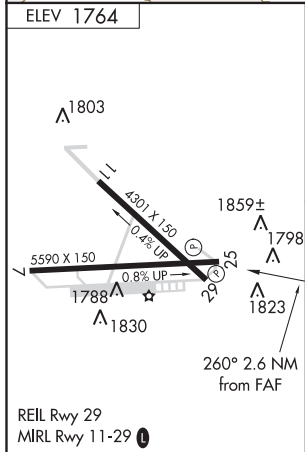
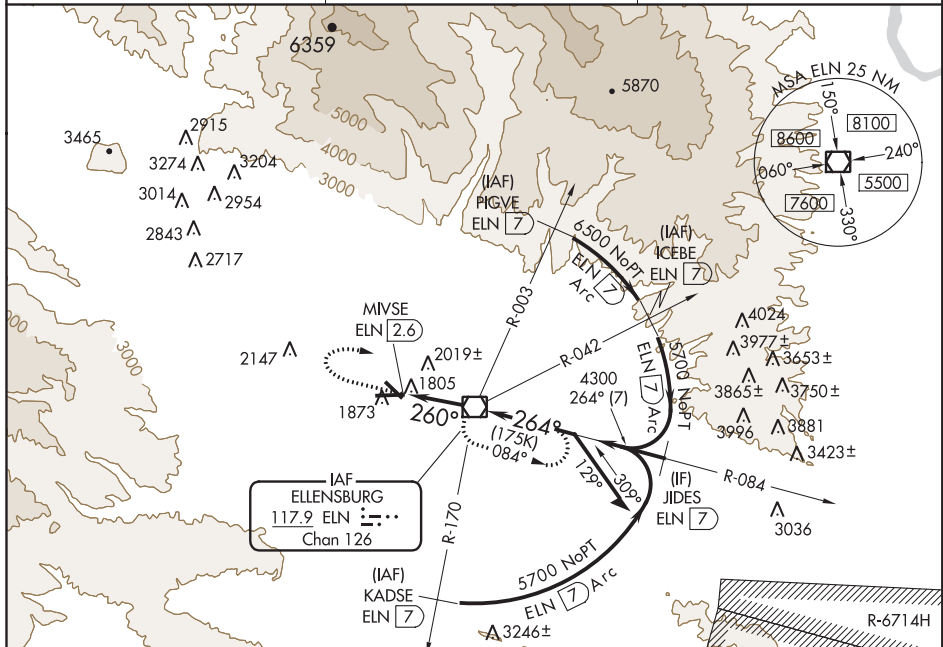
16315

VOR/DME ELN <b>117.9</b> Chan <b>126</b>	APP CRS <b>260°</b>	Rwy Idg TDZE Apt Elev <b>1764</b>	N/A N/A N/A
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**VOR-B**  
BOWERS FIELD (ELN)

**⚠** When local altimeter setting not received, use Wentachee altimeter setting. MISSED APPROACH: Climb to 4400 then climbing right turn to 5700 direct ELN VOR/DME and hold, continue climb-in-hold to 5700. When authorized by ATC, climb-in-hold to MEA for direction of flight.

ASOS <b>118,375</b>	SEATTLE CENTER <b>132.6 269,35</b>	UNICOM <b>123.0 (CTAF) ①</b>
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FAF to MAP 2.6 NM					CATEGORY	A	B	C	D
Knots	60	90	120	150	180	3260-1¼			
Min:Sec	2:36	1:44	1:18	1:02	0:52	1496 (1500-1¼)		NA	

ELLENSBURG, WASHINGTON

BOWERS FIELD (ELN)  
**VOR-B**

Amdt 3C 10NOV16

47°02'N-120°32'W

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>65735</b> <b>W16A</b>	APP CRS <b>165°</b>	Rwy Idg TDZE Apt Elev	<b>6601</b> <b>5423</b> <b>5423</b>
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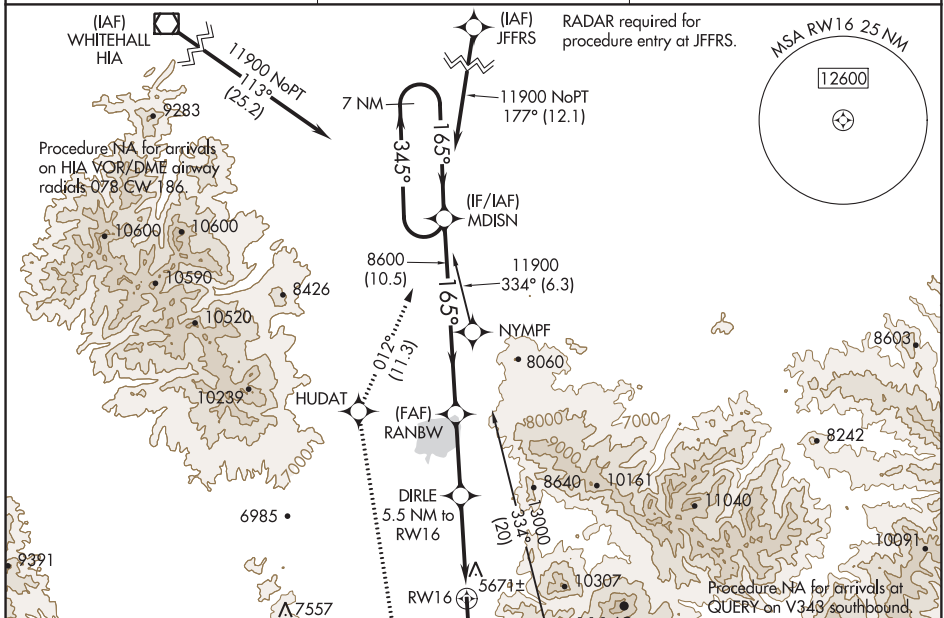
# RNAV (GPS) RWY 16

ENNIS-BIG SKY (EKS)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 53°C (127°F). Circling NA east of Rwy 16 and 34. DME/DME RNP-0.3 NA. Limit missed approach to 185 KIAS until MDISN.

**MISSED APPROACH:** Climb to 6400 then climbing right turn to 11900 direct HUDAT and on track 012° to MDISN and hold, continue climb-in-hold to 11900.

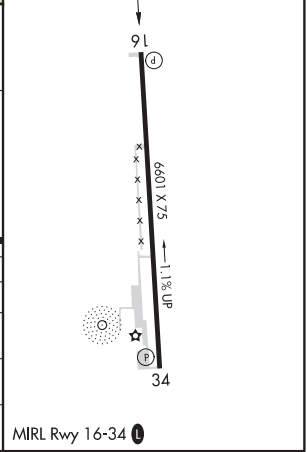
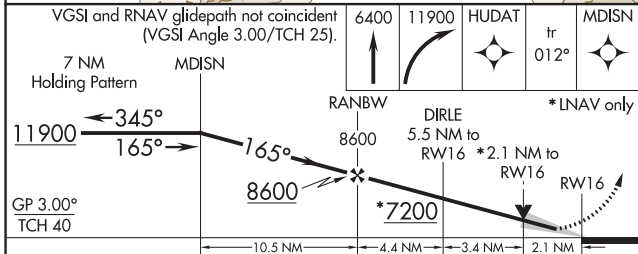
AWOS-3 <b>119.85</b>	BIG SKY APP CON ★ <b>118.975 226.675</b>	UNICOM <b>122.8 (CTAF) ①</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 5423	TDZE 5423
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CATEGORY	A	B	C	D
LPV DA	5698-1 275 (300-1)			
LNAV/VNAV DA	6183-3 760 (800-3)			
LNAV MDA	6100-1 677 (700-1)		6100-1 7/8 677 (700-1 7/8)	
<b>C</b> CIRCLING	6100-1 677 (700-1)		6100-2 677 (800-2) 6100-2 1/4 677 (800-2 1/4)	

ENNIS, MONTANA

AL-9491 (FAA)

16315

WAAS CH <b>45539</b> <b>W34A</b>	APP CRS <b>345°</b>	Rwy Idg TDZE Apt Elev	<b>6601</b> <b>5369</b> <b>5423</b>
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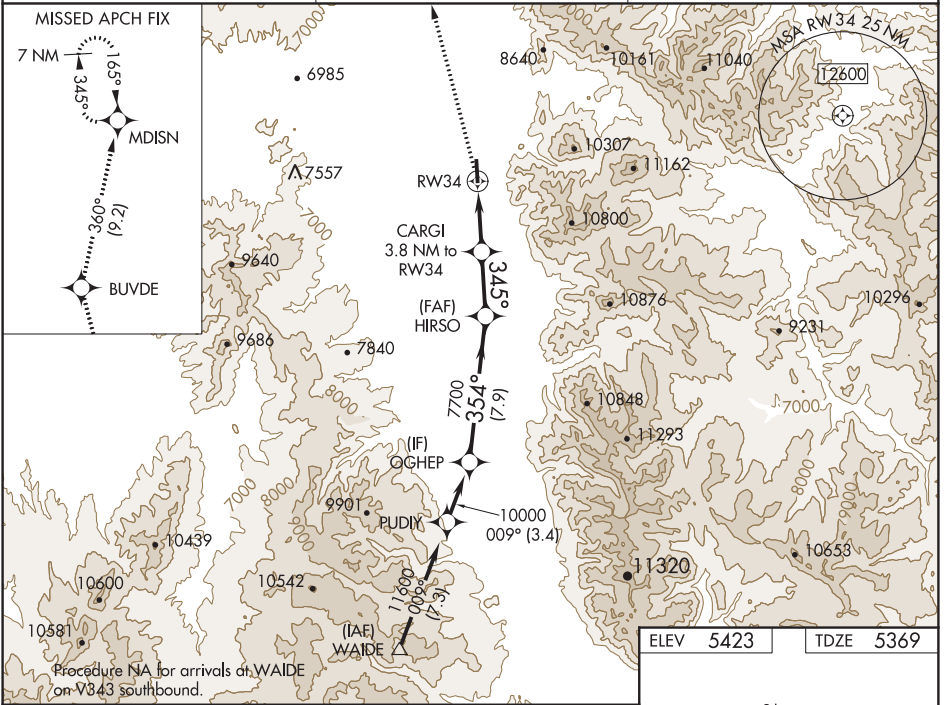
# RNAV (GPS) RWY 34

ENNIS-BIG SKY (EKS)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 54°C (130°F). Circling NA east of Rwy 16-34. DME/DME RNP-0.3 NA.

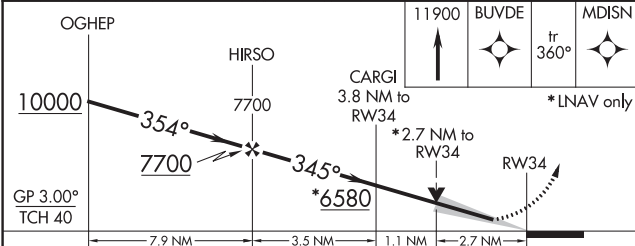
**⚠** MISSED APPROACH: Climb to 11900 direct BUYDE and on track 360° to MDISN and hold, continue climb-in-hold 11900.

AWOS-3 <b>119.85</b>	BIG SKY APP CON ★ <b>118.975 226.675</b>	UNICOM <b>122.8 (CTAF) 0</b>
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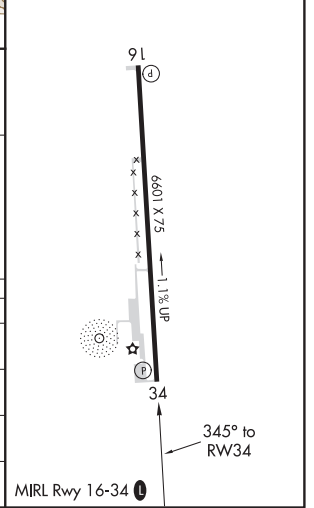
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV	5423	TDZE	5369
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CATEGORY	A	B	C	D
LPV DA	5644-1 275 (300-1)			
LNAV/VNAV DA	5950-2¼ 581 (600-2¼)			
LNAV MDA	6240-1 871 (900-1)	6240-1¼ 871 (900-1¼)	6240-2½ 871 (900-2½)	6240-2¾ 871 (900-2¾)
<b>C</b> CIRCLING	6240-1¼ 871 (900-1¼)	6240-2½ 871 (900-2½)	6240-2¾ 871 (900-2¾)	6240-3¼ 871 (900-3¼)



ENNIS, MONTANA  
Orig 15SEP16

45°16'N-111°39'W

# ENNIS-BIG SKY (EKS) RNAV (GPS) RWY 34

WHITEHALL   
HIA

293°  
(25)

NOTE: GPS required.  
NOTE: RNAV 1

TAKEOFF MINIMUMS

Rwy 16: Standard with a minimum climb of 500' per NM to 5930 then minimum climb of 323' per NM to 8600.  
Rwy 34: Standard with a minimum climb of 500' per NM to 5930, then minimum climb of 304' per NM to 8500.

TAKEOFF OBSTACLE NOTES

Rwy 16: Fence 105' from DER, 291' left of centerline, 5' AGL/5358' MSL. Multiple bushes beginning 113' from DER, 493' left of centerline, up to 8' AGL/5358' MSL. Building 731' from DER, 481' left of centerline, 18' AGL/5378' MSL. Pole 970' from DER, 671' left of centerline, 32' AGL/5395' MSL. Multiple vehicles on road beginning 1246' from DER, left and right of centerline, 18' AGL/5397' MSL.  
Rwy 34: Multiple fence poles beginning 137' from DER, 378' right of centerline, up to 5' AGL 5510' MSL. Multiple bushes beginning 175' from DER, 424' right of centerline, up to 8' AGL/5562' MSL. Multiple trees beginning 200' from DER, 1' right of centerline, up to 8' AGL/5634' MSL. Multiple vehicles on road beginning 5709' from DER, left and right of centerline, up to 18' AGL/5597' MSL.

MDISN

345°  
(17)

SPHNX

5930

345°

165°

5930

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb heading 165° to 5930, then climbing right turn direct SPHNX, then on track 345° to MDISN, then on track 293° to HIA VOR/DME. Thence . . . .

TAKEOFF RUNWAY 34: Climb heading 345° to 5930 then direct SPHNX, then on track 345° to MDISN, then on track 293° to HIA VOR/DME. Thence . . . .

. . . . on assigned route. Expect filed altitude 10 minutes after departure.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>50208</b> <b>W03A</b>	APP CRS <b>027°</b>	Rwy Idg <b>5500</b> TDZE <b>1269</b> Apt Elev <b>1276</b>
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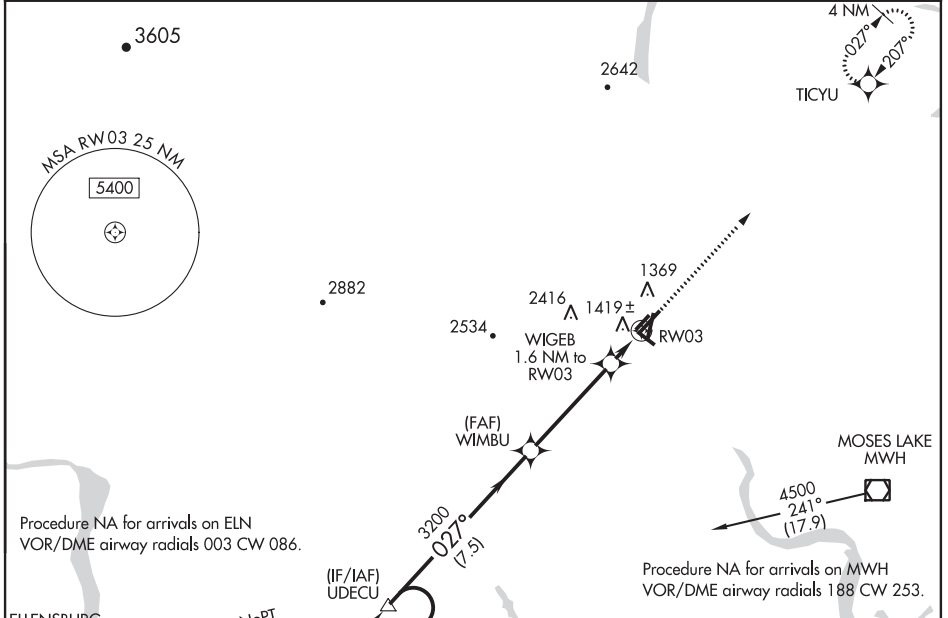
# RNAV (GPS) RWY 3

EPHRATA MUNI (EPH)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA when using Moses Lake/Grant County Intl altimeter setting. When local altimeter setting not received, use Moses Lake/Grant County Intl altimeter setting and increase all DA/MDA 40 feet and LNAV Cat D visibility ¼ mile.

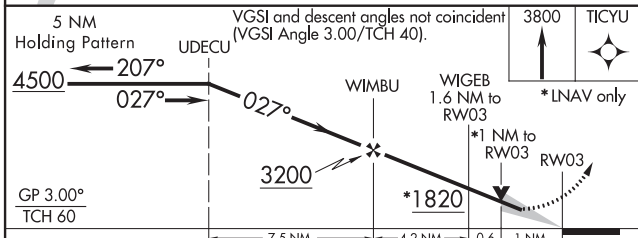
**MISSED APPROACH:** Climb to 3800 direct TICYU and hold.

ASOS <b>135.775</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	UNICOM <b>122.8 (CTAF)</b>
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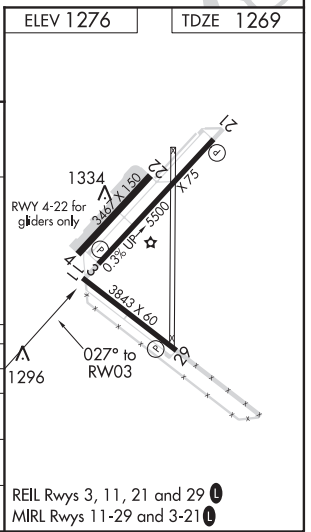


Procedure NA for arrivals on ELN  
VOR/DME airway radials 003 CW 086.

Procedure NA for arrivals on MWH  
VOR/DME airway radials 188 CW 253.



CATEGORY	A	B	C	D
LPV DA		1519-1	250 (300-1)	
LNAV/VNAV DA		1689-1½	420 (500-1½)	
LNAV MDA	1680-1	411 (500-1)	1680-1¼	411 (500-1¼)
CIRCLING	1720-1 444 (500-1)	1740-1 464 (500-1)	1780-1½ 504 (600-1½)	2500-3 1224 (1300-3)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# RNAV (GPS) RWY 21

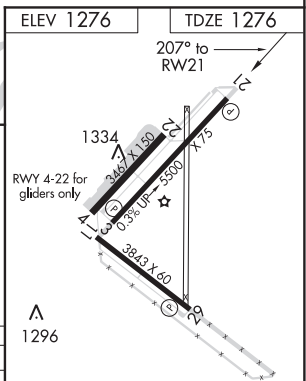
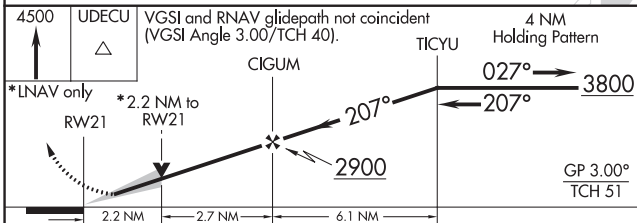
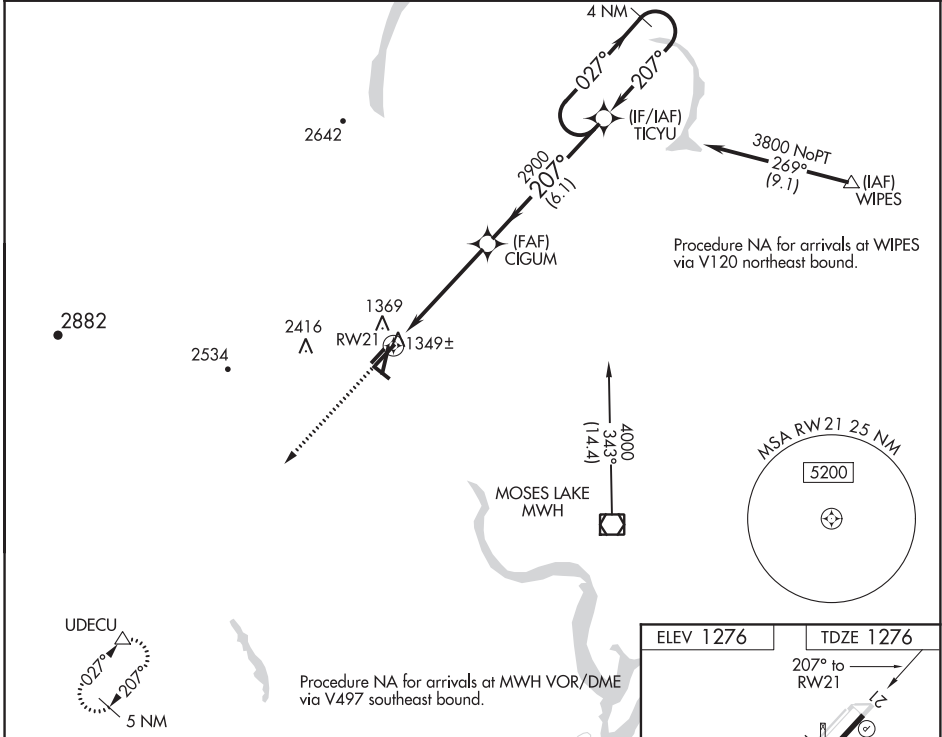
EPRATA MUNI (EPH)

WAAS CH <b>82308</b> <b>W21A</b>	APP CRS <b>207°</b>	Rwy Idg TDZE <b>1276</b> Apt Elev <b>1276</b>
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**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA when using Moses Lake/Grant County Intl altimeter setting. When local altimeter setting not received, use Moses Lake/Grant County Intl altimeter setting and increase all DA/MDA 40 feet; Increase visibility LPV all Cats., LNAV Cats. C and D and Circling Cat. C ¼ mile.

MISSED APPROACH: Climb to 4500 direct UDECU and hold.

ASOS <b>135.775</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	UNICOM <b>122.8 (CTAF)</b>
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CATEGORY	A	B	C	D
LPV DA		1526-¾	250 (300-¾)	
LNAV/VNAV DA		2171-4	895 (900-4)	
LNAV MDA	2020-1 744 (800-1)	2020-1¼ 744 (800-1¼)	2020-2¼ 744 (800-2¼)	2020-2½ 744 (800-2½)
CIRCLING	2020-1 744 (800-1)	2020-1¼ 744 (800-1¼)	2020-2¼ 744 (800-2¼)	2500-3 1224 (1300-3)

REIL Rwys 3, 11, 21 and 29 **Ⓛ**  
MRL Rwys 11-29 and 3-21 **Ⓛ**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

EPHRATA, WASHINGTON

AL-138 (FAA)

14317

VORTAC EPH <b>112.6</b> Chan 73	APP CRS <b>022°</b>	Rwy Idg TDZE Apt Elev	<b>5500</b> <b>1269</b> <b>1276</b>
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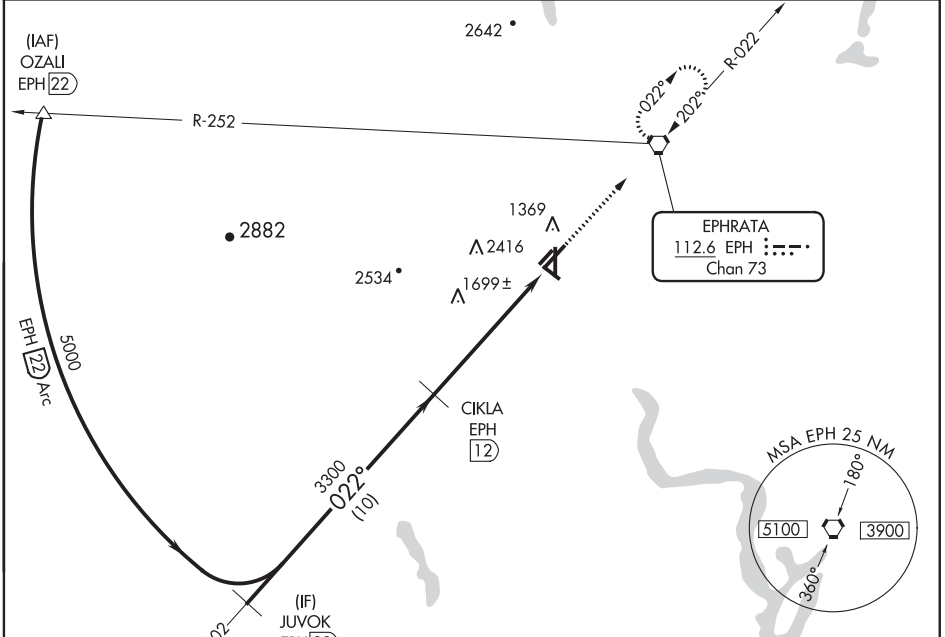
# VOR/DME RWY 3

EPHRATA MUNI (EPH)

▼ When local altimeter setting not received, use Moses Lake/Grant County  
 ▲ Intl altimeter setting and increase all MDA 40 feet.  
 VDP NA when using Moses Lake/Grant County Intl altimeter setting.

MISSED APPROACH: Climb to 4000 direct EPH VORTAC and hold, continue climb-in-hold to 4000.

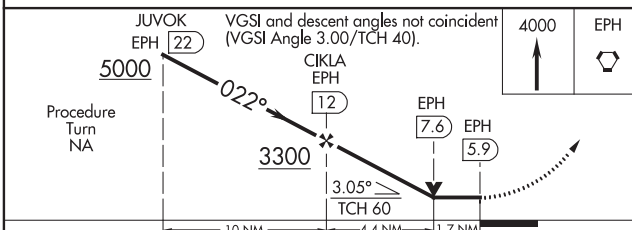
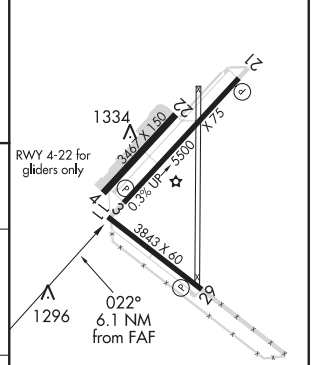
ASOS <b>135.775</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1276	TDZE 1269
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CATEGORY	A	B	C	D
S-3	1960-1 691 (700-1)		1960-2 691 (700-2)	1960-2 1/4 691 (700-2 1/4)
CIRCLING	1960-1 684 (700-1)		1960-2 684 (700-2)	2500-3 1224 (1300-3)

REIL Rwy 3, 11, 21 and 29  
 MIRL Rwy 11-29 and 3-21

EPHRATA, WASHINGTON  
 Amdt 4 07MAY09

47°18'N-119°31'W

# EPHRATA MUNI (EPH) VOR/DME RWY 3

VORTAC EPH <b>112.6</b> Chan 73	APP CRS <b>202°</b>	Rwy Idg TDZE <b>1276</b> Apt Elev <b>1276</b>
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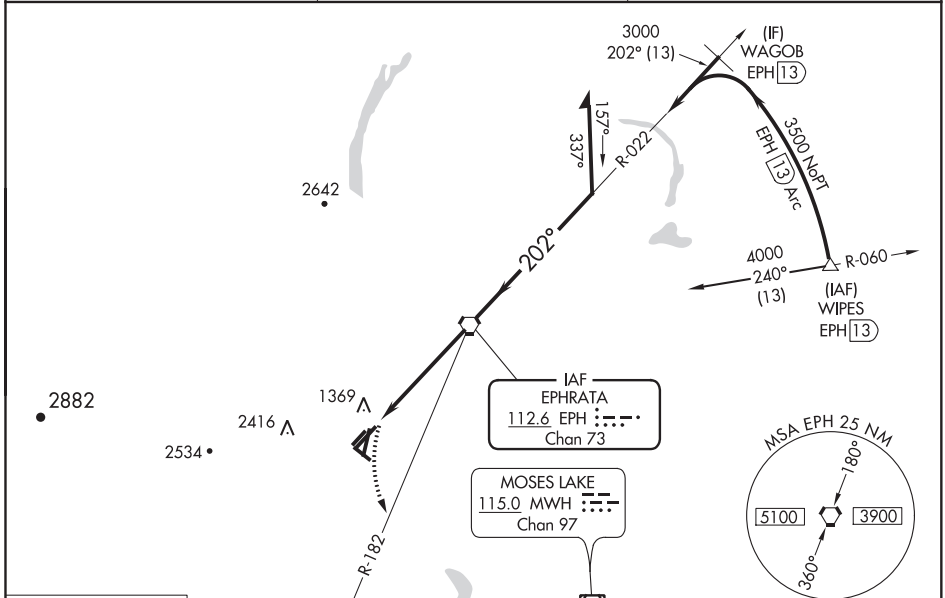
# VOR RWY 21

EPHRATA MUNI (EPH)

**⚠** When local altimeter setting not received, use Moses Lake/Grant County Intl altimeter setting and increase all MDA 40 feet, increase S-21 Cat D visibility  $\frac{1}{4}$  mile. VDP NA when using Moses Lake/Grant County Intl altimeter setting. Final approach from EPH VORTAC holding pattern not authorized. Procedure turn required.

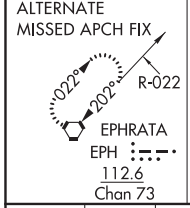
**MISSED APPROACH:** Climbing left turn to 4000 via EPH R-182 to PLUS INT/EPH 13.3 DME and hold. Continue climb-in-hold to 4000.

ASOS <b>135.775</b>	GRANT COUNTY APP CON* <b>126.4 379.95</b>	UNICOM <b>122.8 (CTAF)</b>
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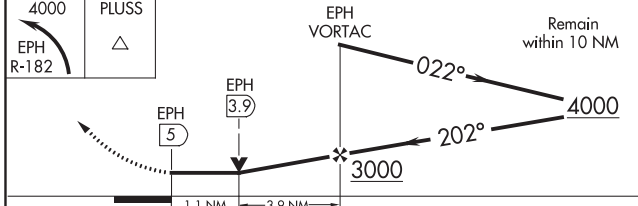
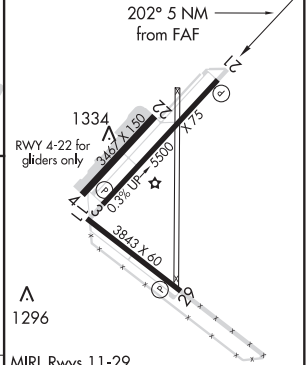


NW-1, 10 NOV 2016 to 05 JAN 2017

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ELEV 1276	TDZE 1276
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CATEGORY	A	B	C	D
S-21	1680-1	404 (500-1)	1680-1 $\frac{1}{4}$	404 (500-1 $\frac{1}{4}$ )
CIRCLING	1720-1 444 (500-1)	1740-1 464 (500-1)	1780-1 $\frac{1}{2}$ 504 (600-1 $\frac{1}{2}$ )	2500-3 1224 (1300-3)

MIRL Rwy 11-29 and 3-21					
REIL Rwy 3, 11, 21 and 29					
FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

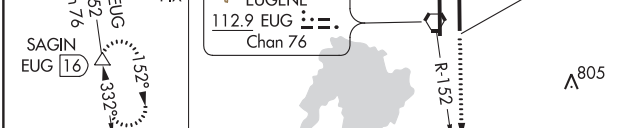
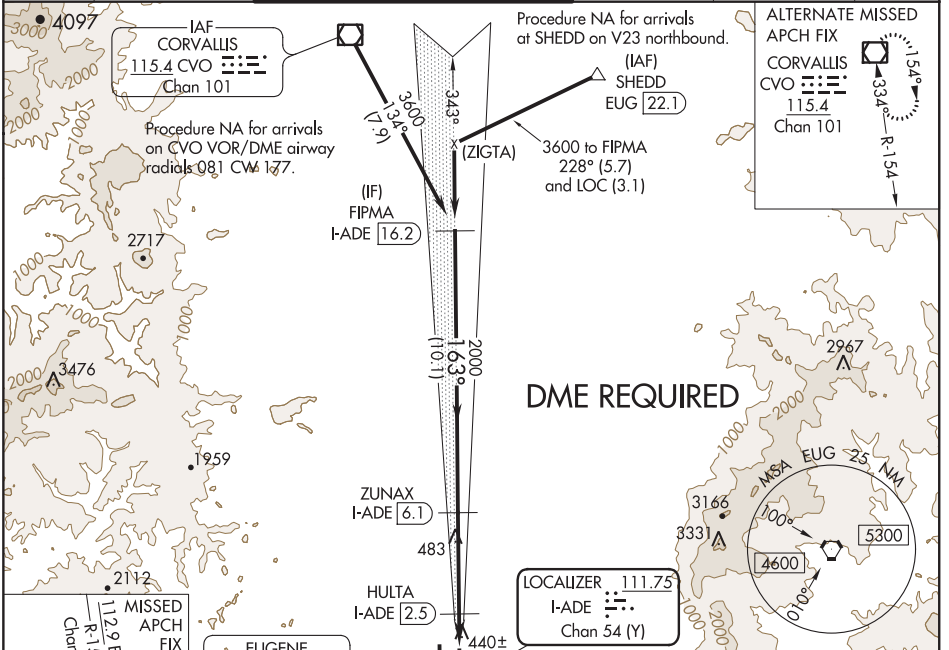
LOC/DME I-ADE <b>111.75</b> Chan 54 (Y)	APP CRS <b>163°</b>	Rwy Idg <b>6000</b>
		TDZE <b>369</b>
		Apt Elev <b>374</b>

# ILS or LOC RWY 16L

MAHLON SWEET FIELD (EUG)

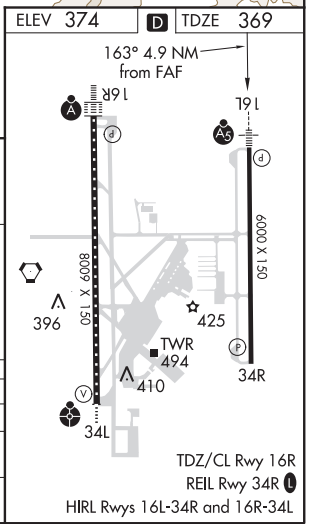
<b>V</b> DME required. <b>A</b> For inop ALS, increase S-LOC 16L Cat D visibility to 1 SM.	MALS R	MISSED APPROACH: Climb to 5200 on heading 163° and EUG VORTAC R-152 to SAGIN/EUG 16 DME and hold, continue climb-in-hold to 5200.
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ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER ★ <b>118.9</b> (CTAF) <b>0 371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
S-ILS 16L		569-1/2	200 (200-1/2)	
S-LOC 16L		700-1/2	331 (400-1/2)	700-3/4 331 (400-3/4)
CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1 1/2 466 (500-1 1/2)	1100-2 1/4 726 (800-2 1/4)

EUGENE, OREGON Amdt 1A 10NOV16	44°07'N-123°13'W
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# MAHLON SWEET FIELD (EUG)

## ILS or LOC RWY 16L

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



LOC/DME I-EUG <b>110.1</b> Chan 38	APP CRS <b>163°</b>	Rwy Idg TDZE Apt Elev	<b>8009</b> <b>363</b> <b>374</b>
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# ILS or LOC RWY 16R

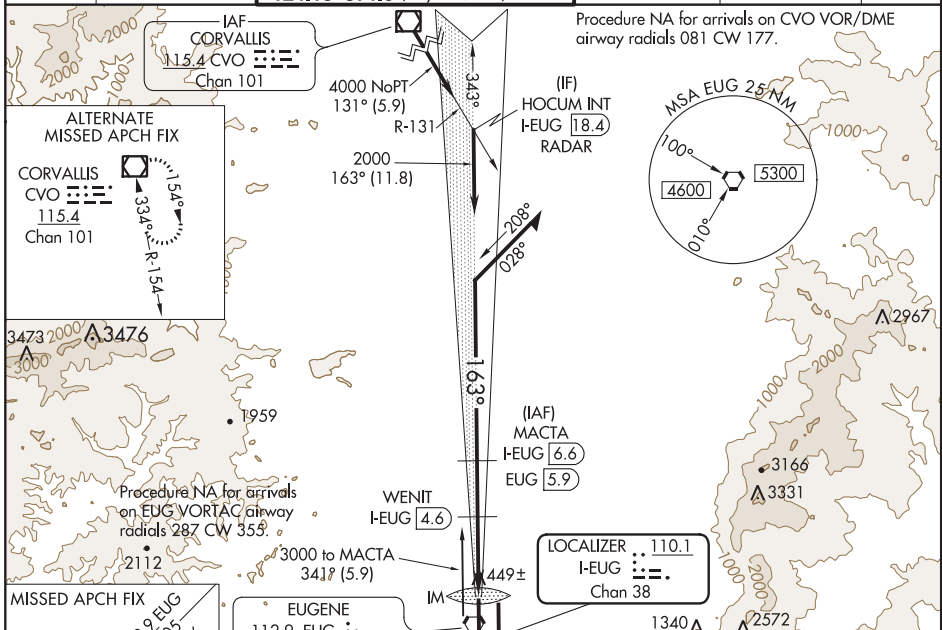
MAHLON SWEET FIELD (EUG)

**DME required.**



**MISSED APPROACH:** Climb to 1000 then climbing right turn to 5000 on heading 230° and on EUG VORTAC R-205 to VAUGN/EUG 14 DME and hold, continue climb-in-hold to 5000.

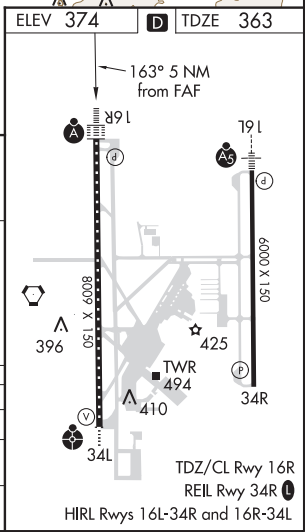
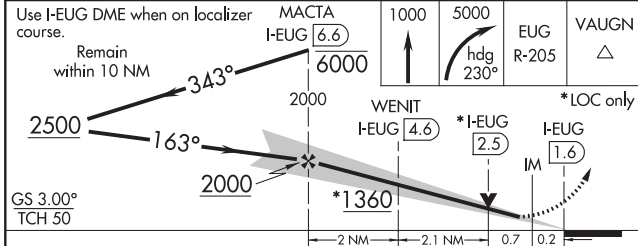
ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER ★ <b>118.9</b> (CTAF) <b>371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 374	TDZE 363
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CATEGORY	A	B	C	D
S-ILS 16R		563/18	200 (200-½)	
S-LOC 16R	700/24	337 (400-½)	700/26	337 (400-¾)
CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1½ 466 (500-1½)	1100-2¼ 726 (800-2¼)

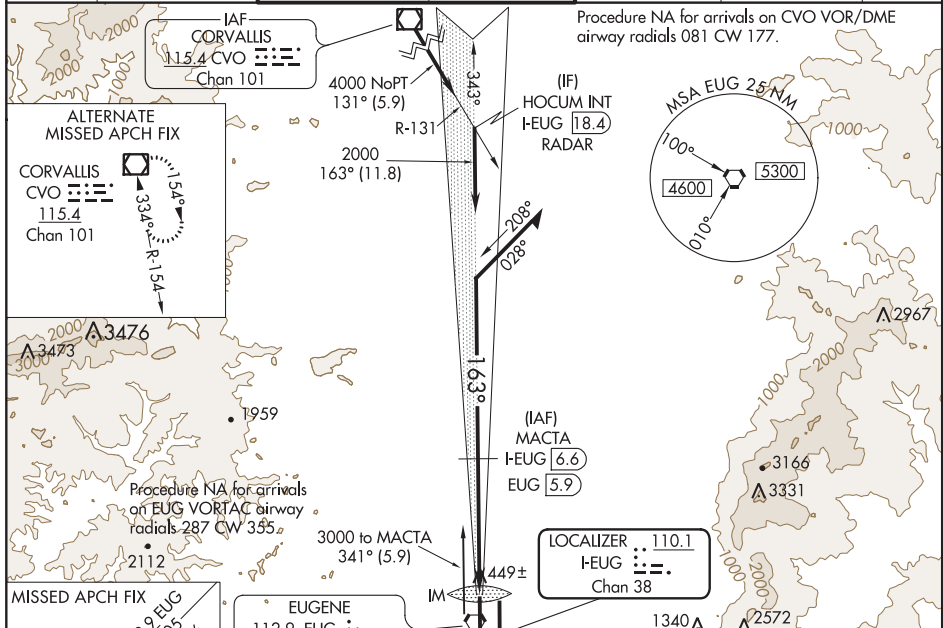
LOC/DME I-EUG <b>110.1</b> Chan 38	APP CRS <b>163°</b>	Rwy Idg <b>8009</b> TDZE <b>363</b> Apt Elev <b>374</b>
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# ILS RWY 16R (SA CAT I)

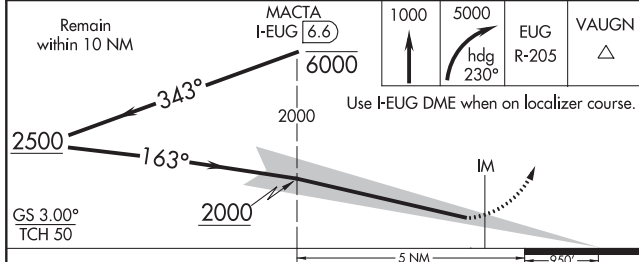
MAHLON SWEET FIELD (EUG)

<b>⚠</b> DME required. Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH. Minimms NA when control tower closed.	<b>ALS-F-2</b> 	<b>MISSED APPROACH:</b> Climb to 1000 then climbing right turn to 5000 on heading 230° and on EUG VORTAC R-205 to VAUGN/EUG 14 DME and hold, continue climb-in-hold to 5000.
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ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER ★ <b>118.9</b> (CTAF) <b>0 371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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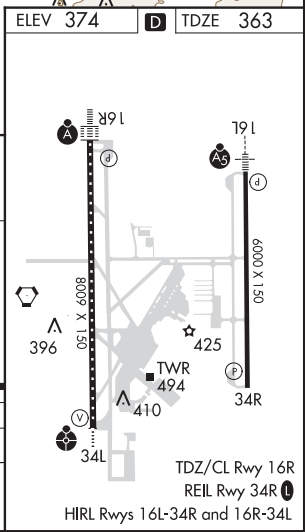


ELEV 374	<b>D</b> TDZE 363
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CATEGORY	A	B	C	D
S-ILS 16R	RA 164/14 150 DA 513			

**SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**



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NW-1, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-EUG <b>110.1</b> Chan 38	APP CRS <b>163°</b>	Rwy Idg <b>8009</b> TDZE <b>363</b> Apt Elev <b>374</b>
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# ILS RWY 16R (CAT II & III)

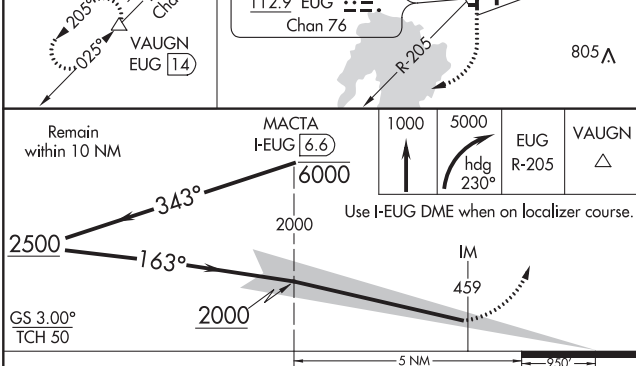
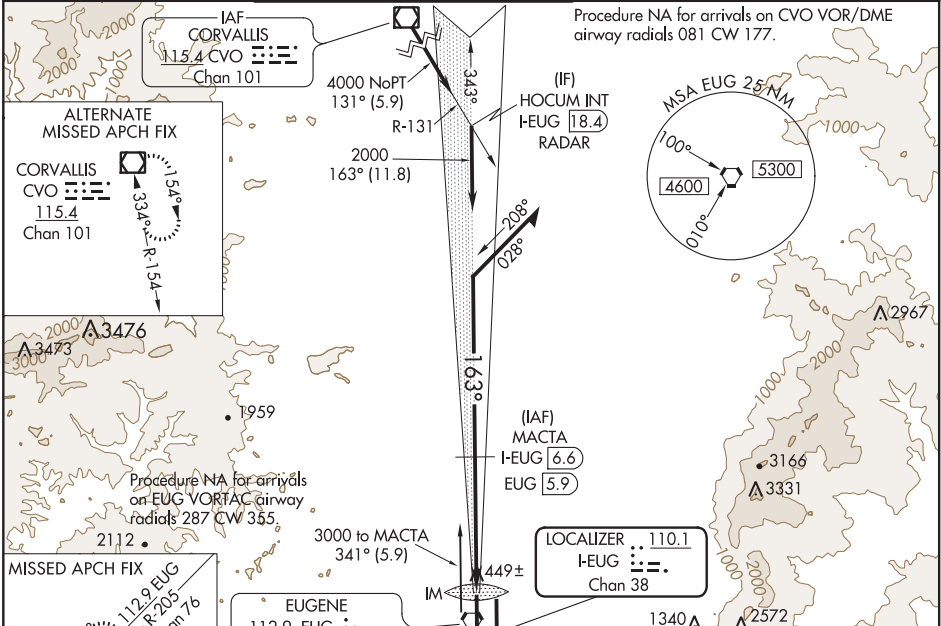
MAHLON SWEET FIELD (EUG)

**▼** DME required.  
**▲** Cat II and III minimums NA when control tower closed.

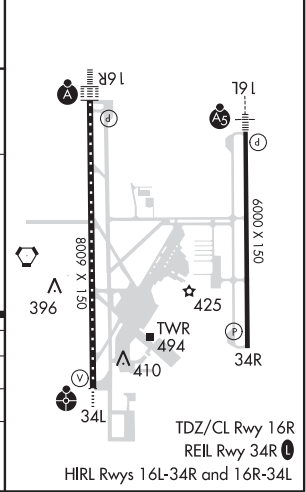


**MISSED APPROACH:** Climb to 1000 then climbing right turn to 5000 on heading 230° and on EUG VORTAC R-205 to VAUGN/EUG 14 DME and hold, continue climb-in-hold to 5000.

ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER ★ <b>118.9</b> (CTAF) <b>371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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ELEV 374	TDZE 363
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CATEGORY	A	B	C	D
S-ILS 16R	CAT II RA 108/12 100 DA 463			
S-ILS 16R	CAT III RVR 06			

**CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>163°</b>	Rwy Idg <b>6000</b>
	TDZE <b>369</b>
	Apt Elev <b>374</b>

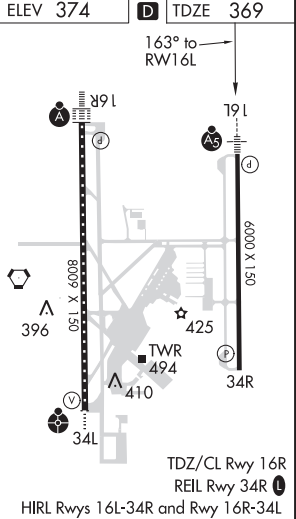
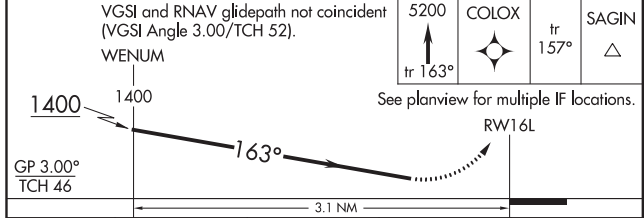
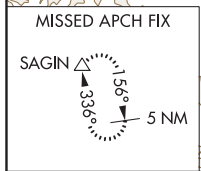
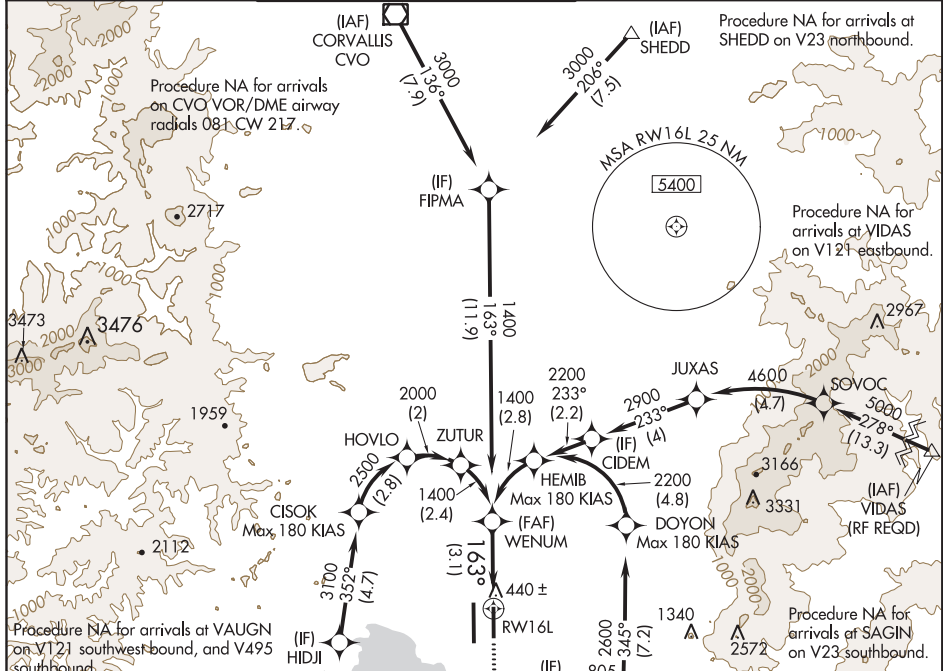
# RNAV (RNP) Z RWY 16L

MAHLON SWEET FIELD (EUG)

▼ For uncompensated Baro-VNAV systems, procedure NA below -9°C (15°F) or above 47°C (116°F). GPS required. For inoperative MALSR, increase RNP 0.10 visibility to 1 mile, all Cats; and increase RNP 0.30 visibility to 1 1/8 miles, all Cats.

MALSR MISSED APPROACH: Climb to 5200 on track 163° to COLOX, and on track 157° to SAGIN and hold, continue climb-in-hold to 5200.

ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER * <b>118.9</b> (CTAF) <b>371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
RNP 0.10 DA		675-3/4	306 (400-3/4)	
RNP 0.30 DA		725-3/4	356 (400-3/4)	

## AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

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TDZ/CL Rwy 16R  
REIL Rwy 34R  $\Delta$   
HIRL Rwy 16L-34R and Rwy 16R-34L

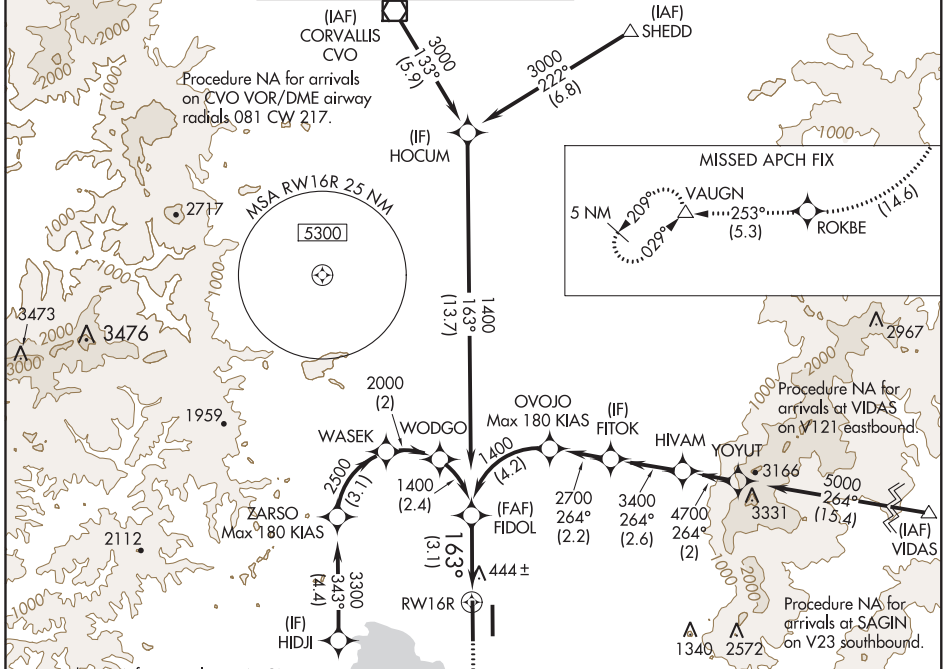
# RNAV (RNP) Z RWY 16R

MAHLON SWEET FIELD (EUG)

APP CRS <b>163°</b>	Rwy Idg <b>8009</b>
	TDZE <b>363</b>
	Apt Elev <b>374</b>

**ALSF-2** MISSED APPROACH: Climb to 5000 on track 163° to TIPIE, right turn to ROKBE, and on track 253° to VAUGHN and hold, continue climb-in-hold to 5000.

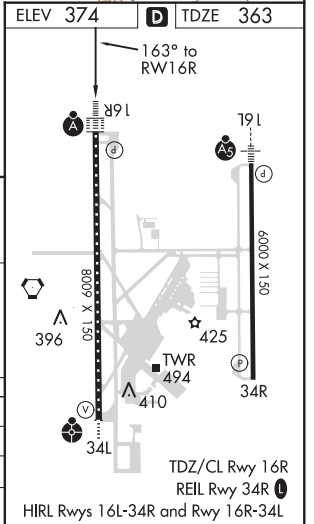
ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER * <b>118.9</b> (CTAF) <b>371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 374	TDZE 363
See planview for multiple IF locations.	
FIDOL	TIPIE
1400	5000
tr 163°	tr 163°
1400	3000
163°	163°
3.1 NM	3.1 NM
GP 3.00°	TCH 52



CATEGORY	A	B	C	D
RNP 0.17 DA		650/40	287 (300-¾)	
RNP 0.30 DA		771/45	408 (400-¾)	

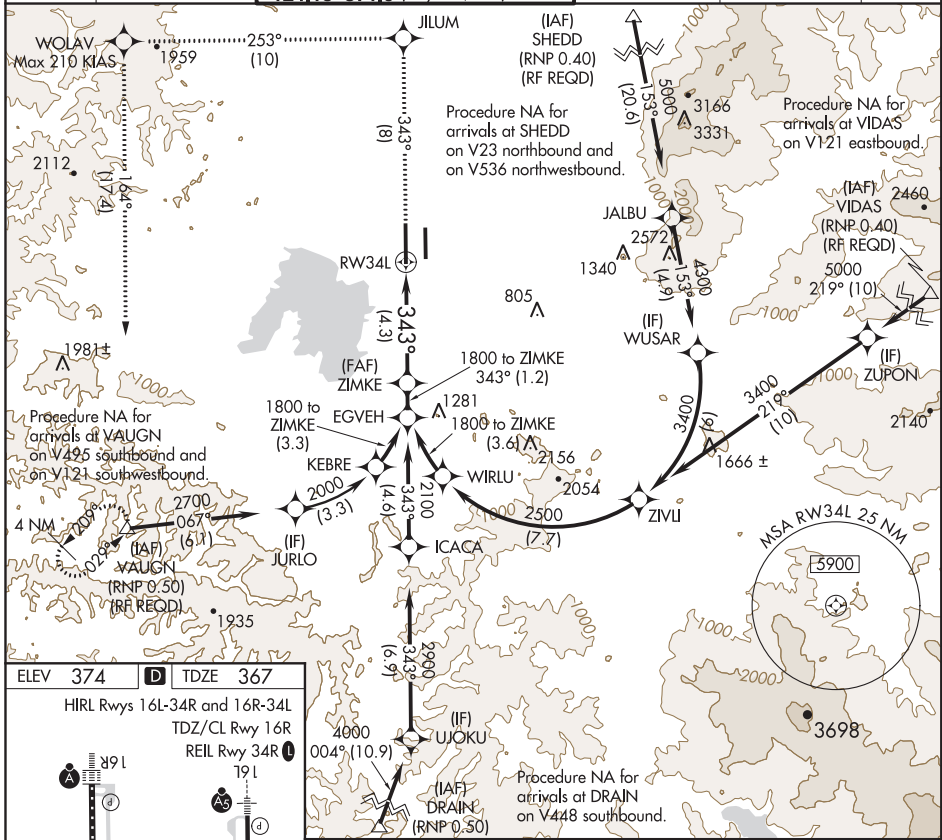
**AUTHORIZATION REQUIRED**

APP CRS	Rwy Idg	<b>8009</b>
<b>343°</b>	TDZE	<b>367</b>
	Apt Elev	<b>374</b>

# RNAV (RNP) Z RWY 34L

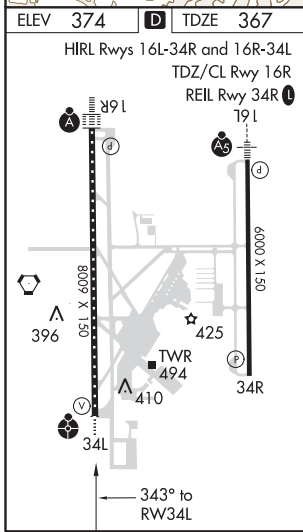
MAHLON SWEET FIELD (EUG)

<p>For uncompensated Baro-VNAV systems, procedure NA below -9°C (15°F) or above 41°C (106°F). For inoperative ODALS, increase RNP 0.30 DA visibility all Cats to 1½. GPS required.</p>		<p>ODALS</p>	<p>MISSED APPROACH: Climb to 4000 on track 343° to JILUM and on track 253° to WOLAV and on track 164° to VAUGN and hold.</p>		
<p>ATIS</p> <p><b>125.225</b></p>	<p>CASCADE APP CON</p> <p><b>119.6 348.7</b></p>	<p>EUGENE TOWER ★</p> <p><b>118.9 (CTAF) 371.9 (Rwy 16R/34L)</b></p> <p><b>124.15 371.9 (Rwy 16L/34R)</b></p>	<p>GND CON</p> <p><b>121.7 269.5</b></p>	<p>CLNC DEL</p> <p><b>121.7 269.5</b></p>	<p>UNICOM</p> <p><b>122.95</b></p>



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NW-1, 10 NOV 2016 to 05 JAN 2017



4000	JILUM	tr 253°	WOLAV	tr 164°	VAUGN	ZIMKE	1800
See Planview for multiple IF locations.							
RW34L		343°				1800	
		4.3 NM				GP 3.00° TCH 53	
CATEGORY	A	B	C	D			
RNP 0.30 DA	833-1½ 466 (500-1½)						
<b>AUTHORIZATION REQUIRED</b>							

# RNAV (RNP) Z RWY 34R

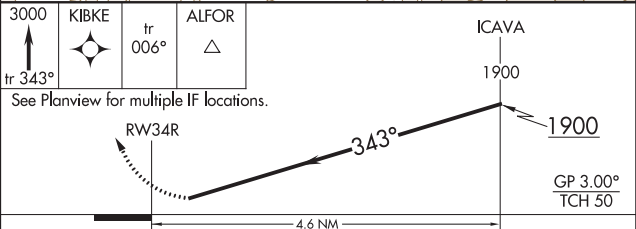
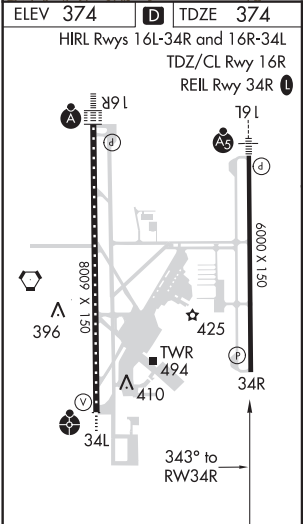
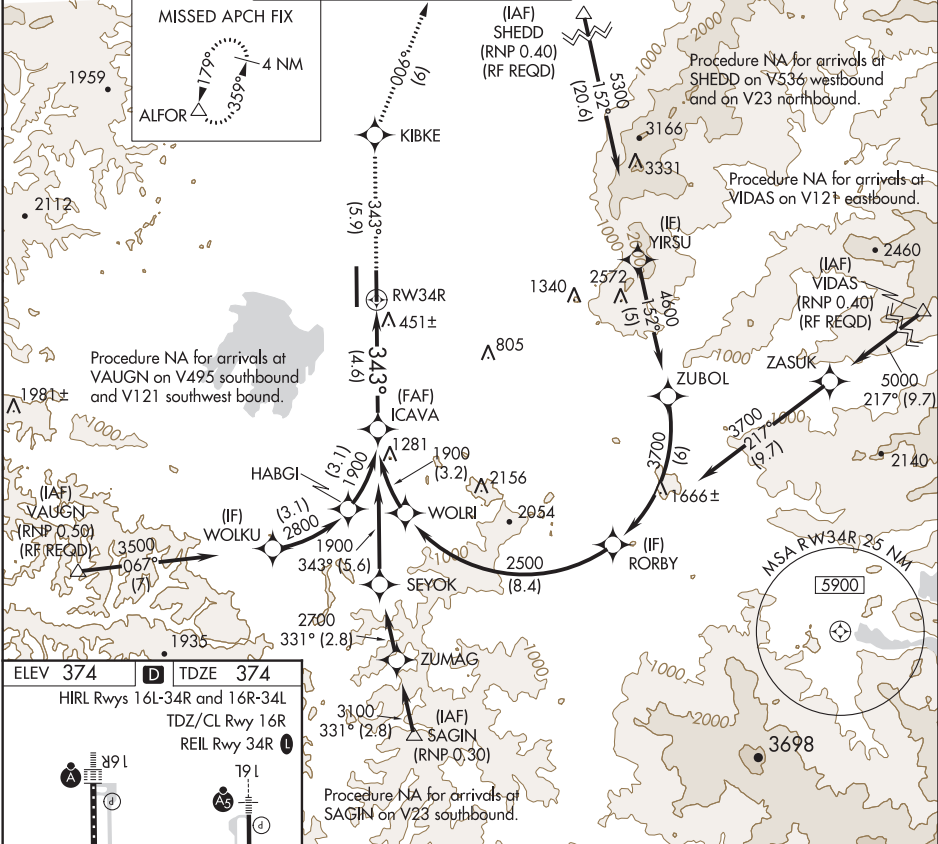
MAHLON SWEET FIELD (EUG)

APP CRS <b>343°</b>	Rwy Idg TDZE Apt Elev	<b>6000</b> <b>374</b> <b>374</b>
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**GPS required.** For uncompensated Baro-VNAV systems, procedure NA below -15°C (4°F) or above 41°C (106°F).

**MISSED APPROACH:** Climb to 3000 on track 343° to KIBKE and track 006° to ALFOR and hold.

ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER * <b>118.9 (CTAF) 0 371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
RNP 0.30 DA	766-1¼ 392 (400-1¼)			

## AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

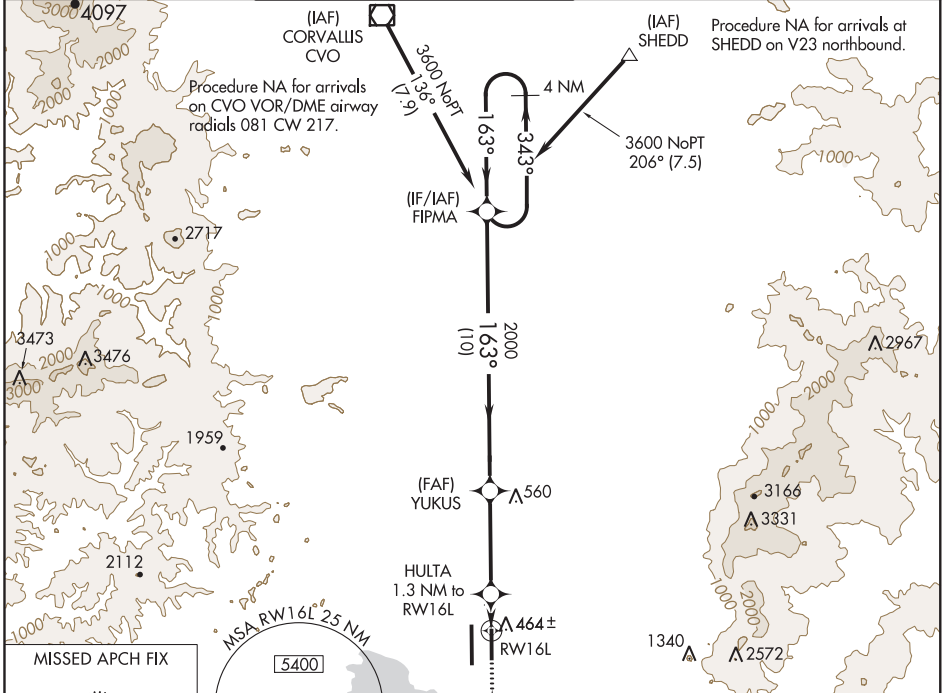
# RNAV (GPS) Y RWY 16L

MAHLON SWEET FIELD (EUG)

WAAS CH <b>81827</b> <b>W16A</b>	APP CRS <b>163°</b>	Rwy ldg TDZE Apt Elev	<b>6000</b> <b>369</b> <b>374</b>
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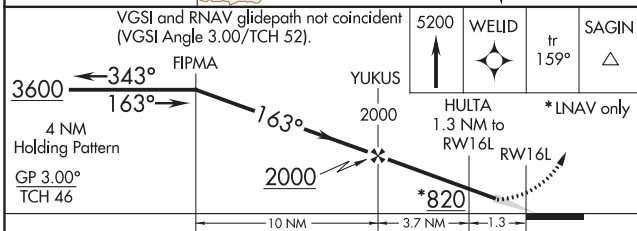
**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 41°C (105°F). DME/DME RNP-0.3 NA. For inoperative MALSR increase LNAV Cat C and D visibility to 1. **MALSR** MISSED APPROACH: Climb to 5200 direct WELID and on track 159° to SAGIN and hold, continue climb-in-hold to 5200.

ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER * <b>118.9</b> (CTAF) <b>371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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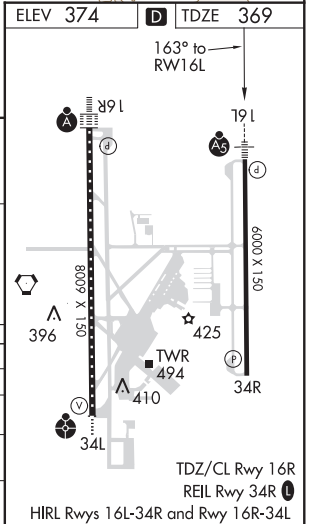


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A		B		C		D	
LPV DA	569-½		200 (200-½)					
LNAV/VNAV DA	768-¾		399 (400-¾)					
LNAV MDA	720-½ 351 (400-½)		720-⅝ 351 (400-⅝)					
CIRCLING	800-1 426 (500-1)		840-1 466 (500-1)		840-1½ 466 (500-1½)		940-2 566 (600-2)	





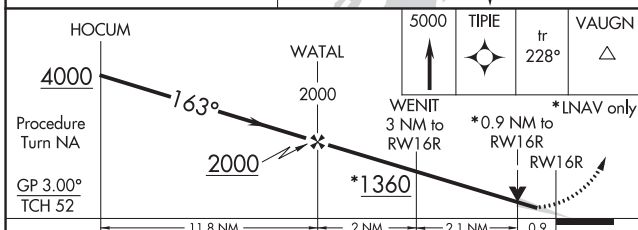
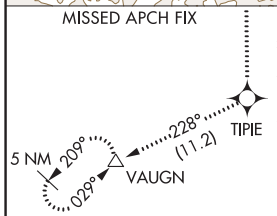
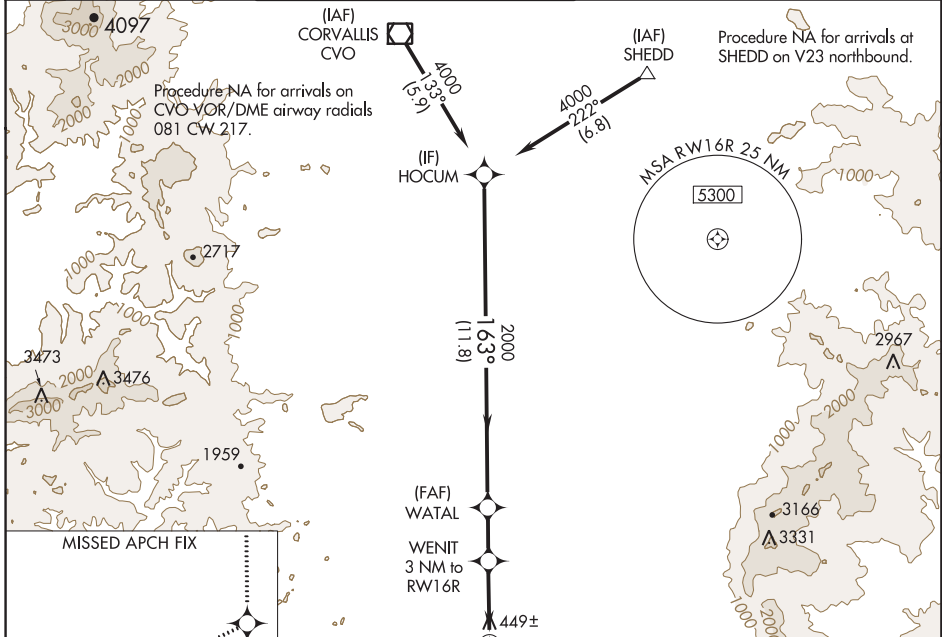
WAAS CH <b>86518</b> <b>W16B</b>	APP CRS <b>163°</b>	Rwy Idg TDZE Apt Elev	<b>8009</b> <b>363</b> <b>374</b>
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# RNAV (GPS) Y RWY 16R

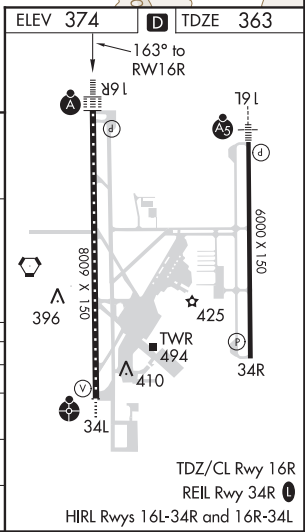
MAHLON SWEET FIELD (EUG)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°F (5°F) or above 41°C (105°F). DME/DME RNP-0.3 NA.	ALSF-2 	MISSED APPROACH: Climb to 5000 direct TIPE and on track 228° to VAUGN and hold, continue climb-in-hold to 5000.

ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER * <b>118.9</b> (CTAF) <b>371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA		563/24	200 (200-½)	
LNAV/VNAV DA		741/40	378 (400-¾)	
LNAV MDA	700/24	337 (400-½)	700/26	337 (400-¾)
CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1½ 466 (500-1½)	940-2 566 (600-2)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH 45600 W34A	APP CRS 343°	Rwy Idg TDZE Apt Elev	8009 367 374
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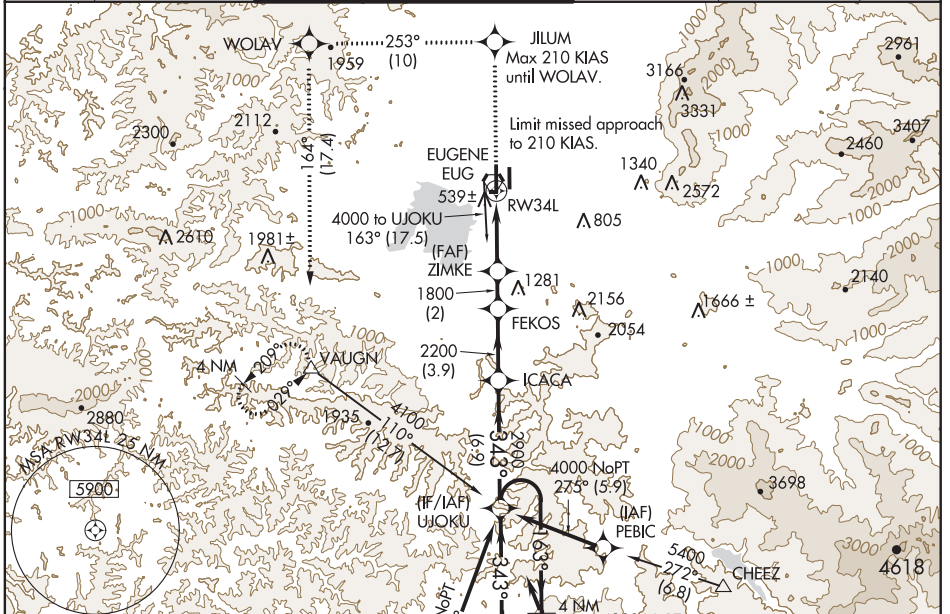
# RNAV (GPS) Y RWY 34L

MAHLON SWEET FIELD (EUG)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (4°F) or above 40°C (104°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. For inoperative ODALS increase LPV visibility to RVR 4000 all Cats, LNAV/VNAV visibility to 1 1/2 all Cats, LNAV Cat A and B to RVR 5000. Inoperative table does not apply to LNAV Cat C.

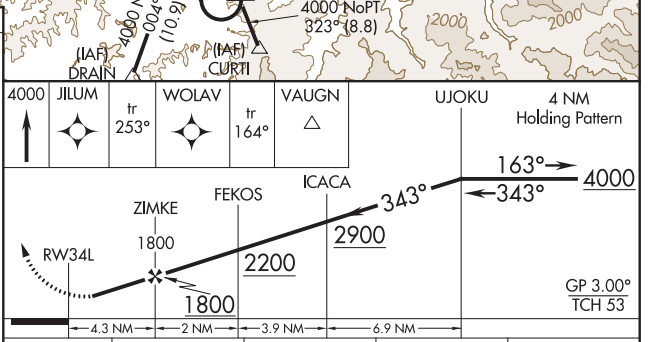
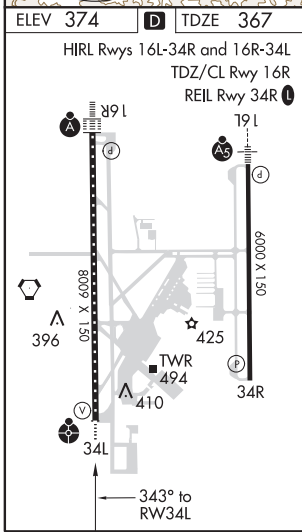
**ODALS** MISSED APPROACH: Climb to 4000 direct JILUM and on track 253° to WOLAV and on track 164° to VAUGN and hold.

ATIS 125.225	CASCADE APP CON 119.6 348.7	EUGENE TOWER ★ 118.9 (CTAF) 0 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	GND CON 121.7 269.5	CLNC DEL 121.7 269.5	UNICOM 122.95
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA		617/35	250 (300-3/4)	
LNAV/VNAV DA		828-1 3/8	461 (500-1 1/8)	
LNAV MDA	1100/40	733 (800-3/4)	1100-2	733 (800-2)
CIRCLING	1100-1	726 (800-1)	1100-2 726 (800-2)	1100-2 1/4 726 (800-2 1/4)

WAAS CH <b>81900</b> <b>W34B</b>	APP CRS <b>343°</b>	Rwy Idg TDZE Apt Elev	<b>6000</b> <b>374</b> <b>374</b>
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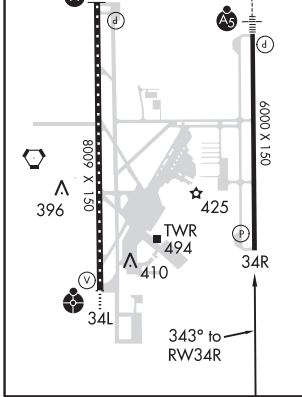
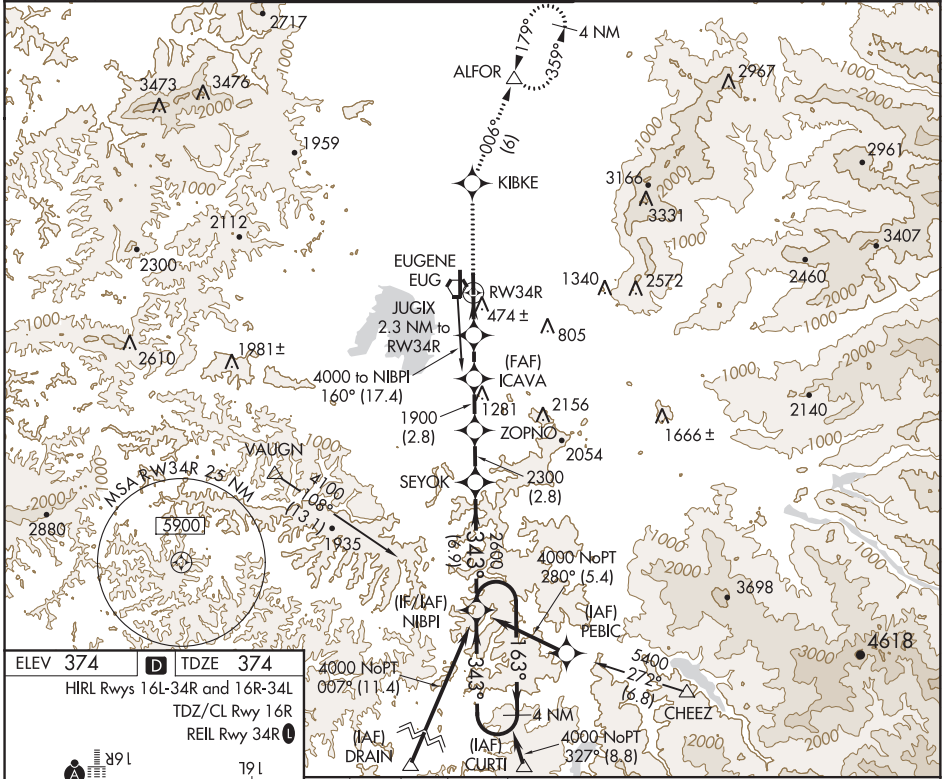
# RNAV (GPS) Y RWY 34R

MAHLON SWEET FIELD (EUG)

**▽** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (4°F) or above 41°C (106°F). DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3000 direct KIBKE and on track 006° to ALFOR and hold.

ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER ★ <b>118.9</b> (CTAF) <b>0 371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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ELEV 374	TDZE 374	HIRL Rws 16L-34R and 16R-34L		TDZ/CL Rwy 16R	REIL Rwy 34R
<p>3000 KIBKE tr 006°</p> <p>ALFOR</p> <p>NIBPI 4 NM Holding Pattern</p>		<p>*LNAV only</p> <p>JUGIX 2.3 NM to RW34R</p> <p>ICAVA 1900</p> <p>ZOPNO</p> <p>SEYOK</p> <p>NIBPI 4 NM Holding Pattern</p> <p>4000 NoPT 007° (11.4)</p> <p>4000 NoPT 280° (5.4)</p> <p>4000 NoPT 327° (8.8)</p> <p>1140*</p> <p>1900</p> <p>343°</p> <p>163°</p> <p>343°</p> <p>4000</p> <p>GP 3.00° TCH 50</p>			
<p>1 NM</p> <p>1.3 NM</p> <p>2.3 NM</p> <p>2.8 NM</p> <p>2.8 NM</p> <p>6.9 NM</p>					
CATEGORY	A	B	C	D	
LPV DA	658/45		284 (300-7%)		
LNAV/VNAV DA	796-1 <sup>3</sup> / <sub>8</sub>		422 (500-1 <sup>3</sup> / <sub>8</sub> )		
LNAV MDA	760/55		386 (400-1 <sup>1</sup> / <sub>4</sub> )		760/60 386 (400-1 <sup>1</sup> / <sub>4</sub> )
CIRCLING	840-1		466 (500-1)		840-2 940-2 <sup>1</sup> / <sub>4</sub> 466 (500-2) 566 (600-2 <sup>1</sup> / <sub>4</sub> )

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

EUGENE, OREGON

AL-140 (FAA)

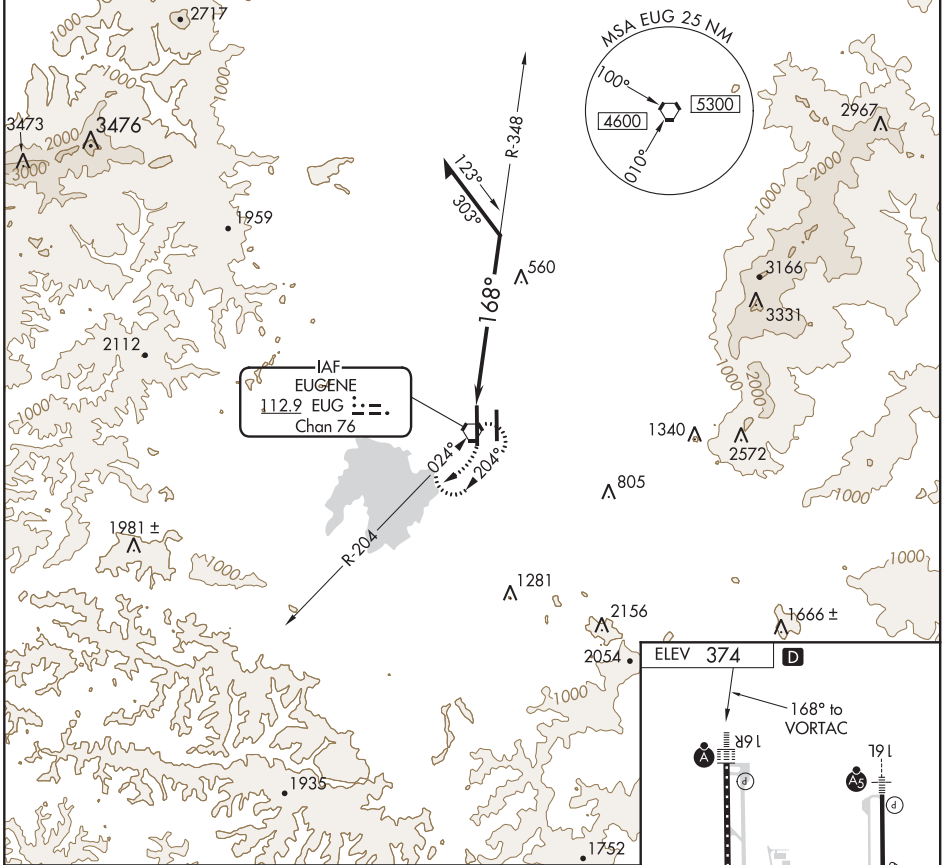
16315

VORTAC EUG <b>112.9</b> Chan <b>76</b>	APP CRS <b>168°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>374</b>
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**VOR-A**  
MAHLON SWEET FIELD (EUG)

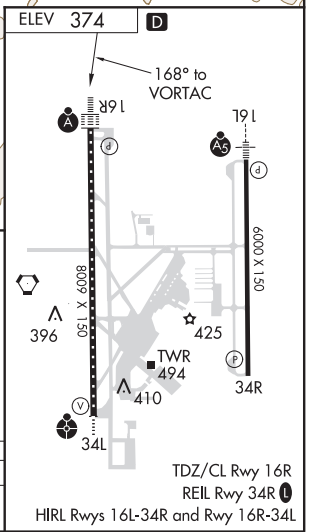
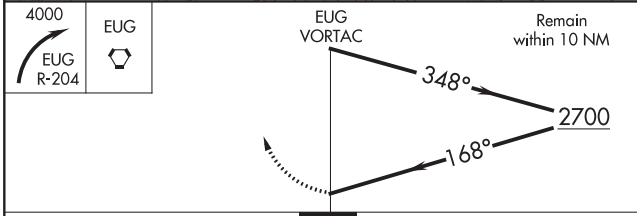
MISSED APPROACH: Climbing right turn to 4000 on EUG R-204, then direct EUG VORTAC and hold.	
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ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER ★ <b>118.9</b> (CTAF) <b>371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
<b>C</b> CIRCLING	1200-1¼	826 (900-1¼)	1200-2½ 826 (900-2½)	1200-2¾ 826 (900-2¾)

EUGENE, OREGON  
Amdt 7A 10NOV16

44°07'N-123°13'W

MAHLON SWEET FIELD (EUG)  
**VOR-A**

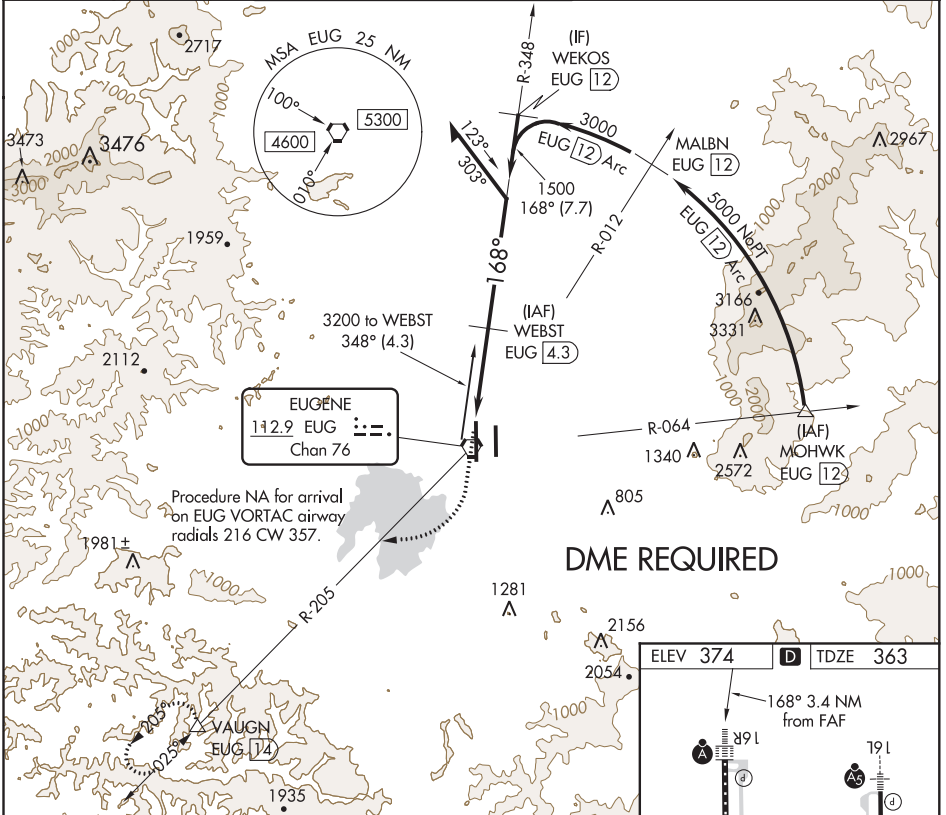
VORTAC EUG <b>112.9</b> Chan <b>76</b>	APP CRS <b>168°</b>	Rwy Idg <b>8009</b> TDZE <b>363</b> Apt Elev <b>374</b>
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# VOR or TACAN RWY 16R

MAHLON SWEET FIELD (EUG)

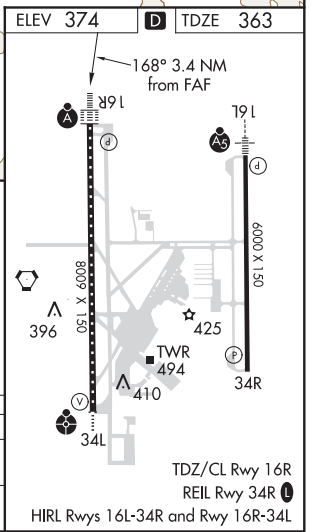
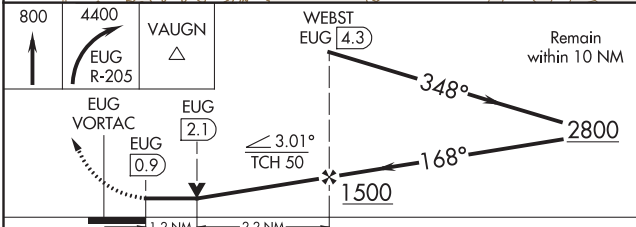
<b>⚠</b> DME required. For inop ALS, increase S-16R Cat C, D visibility to RVR 6000.	ALS-2 	MISSED APPROACH: Climb to 800 then climbing right turn to 4400 on EUG VORTAC R-205 to VAUGN/EUG 14 DME and hold. Continue climb in hold to 4400.
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ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER * <b>118.9</b> (CTAF) <b>371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-16R	780/24	417 (500-½)	780/40 417 (500-¾)	780/50 417 (500-1)
<b>C</b> CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1½ 466 (500-½)	1100-2¼ 726 (800-2¼)

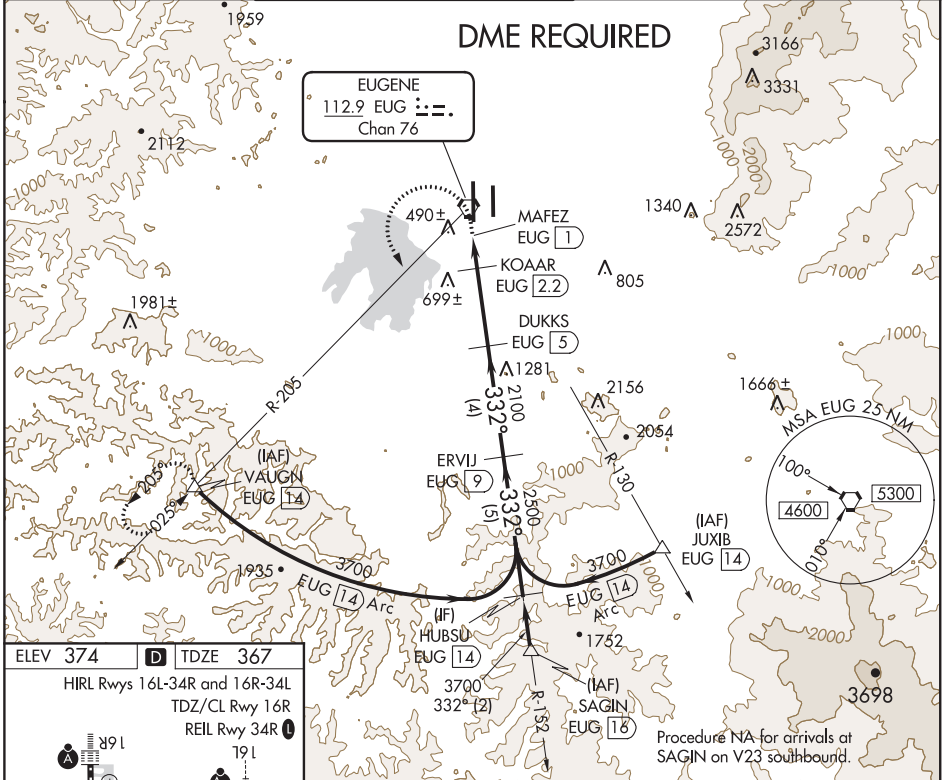
VORTAC EUG <b>112.9</b> Chan 76	APP CRS <b>332°</b>	Rwy Idg TDZE Apt Elev	<b>8009</b> <b>367</b> <b>374</b>
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# VOR or TACAN RWY 34L

MAHLON SWEET FIELD (EUG)

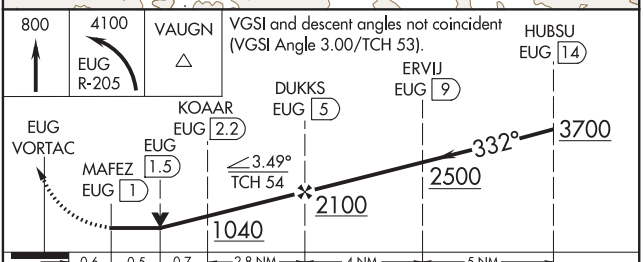
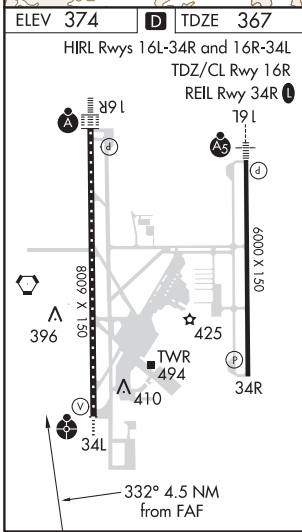
<b>▼</b> <b>▲</b>	Rwy 34L helicopter visibility reduction below RVR 4000 NA. DME required.	ODALS ⬆️ ⋮	MISSED APPROACH: Climb to 800 then climbing left turn to 4100 on EUG VORTAC R-205 to VAUGN/EUG 14 DME and hold, continue climb-in-hold to 4100.
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ATIS <b>125.225</b>	CASCADE APP CON <b>119.6 348.7</b>	EUGENE TOWER * <b>118.9</b> (CTAF) <b>371.9</b> (Rwy 16R/34L) <b>124.15 371.9</b> (Rwy 16L/34R)	GND CON <b>121.7 269.5</b>	CLNC DEL <b>121.7 269.5</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



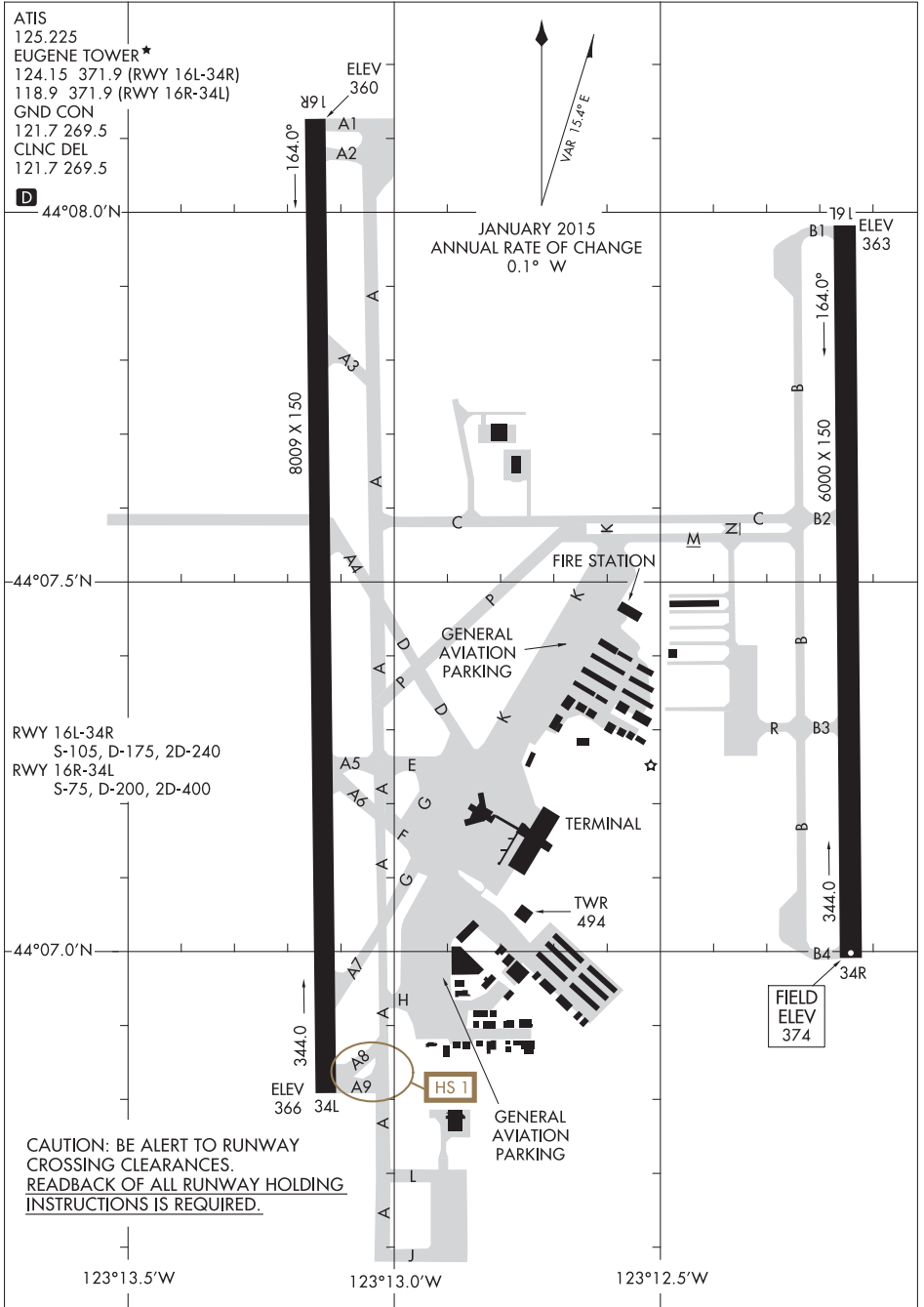
CATEGORY	A	B	C	D
S-34L	760/40	393 (400-¾)	760/45 393 (400-⅔)	760/60 393 (400-1½)
<b>C</b> CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1½ 466 (500-1½)	1100-2¼ 726 (800-2¼)

15232

# AIRPORT DIAGRAM

MAHLON SWEET FIELD (EUG)  
EUGENE, OREGON

AL-140 (FAA)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

EUGENE, OREGON  
MAHLON SWEET FIELD (EUG)

15232

# EUGENE NINE DEPARTURE

SL-140 (FAA)

MAHLON SWEET FIELD (EUG)  
EUGENE, OREGON

ATIS  
125.225  
GND CON  
121.7 269.5  
EUGENE TOWER \*  
118.9 (CTAF) 371.9 (Rwy 16R-34L)  
124.15 371.9 (Rwy 16L-34R)  
CASCADE DEP CON  
119.6 348.7

**NEWBERG**  
117.4 UBG  
Chan 121  
N45°21.19'-W122°58.69'  
L-1, H-1

**BATTLEGROUND**  
116.6 BTG  
Chan 113  
N45°44.87'-W122°35.49'  
L-1, H-1

**CORVALLIS**  
115.4 CVO  
Chan 101  
N44°29.97'  
W123°17.62'  
L-1

**NEWPORT**  
117.1 ONP  
Chan 118  
N44°34.52'-W124°03.64'  
L-1, H-1

NOTE: RADAR required.

NOTE: Aircraft taxiing beyond Rwy 16R departure end, 500' left of centerline.

### TAKEOFF MINIMUMS

Rwy 16L/16R: Standard with minimum climb of 335' per NM to 4200.

Rwy 34L/34R: Standard with minimum climb of 380' per NM to 4400.

**NORTH BEND**  
112.1 OTH  
Chan 58  
N43°24.93'-W124°10.11'  
L-1

**EUGENE**  
112.9 EUG  
Chan 76  
N44°07.25'-W123°13.37'  
L-1, H-1

**DESCHUTES**  
117.6 DSD  
Chan 123  
N44°15.17'-W121°18.21'  
L-13, H-1

**ROSEBURG**  
108.2 RBG  
Chan 19  
N43°10.95'-W123°21.13'  
L-1

### TAKEOFF OBSTACLE NOTES

- Rwy 16L: Multiple power poles beginning 1036' from DER, 74' right of centerline, up to 35' AGL/408' MSL. Multiple power poles beginning 1017' from DER, 211' left of centerline, up to 31' AGL/404' MSL.
- Rwy 16R: Tree 1991' from DER, 83' left of centerline, 54' AGL/419' MSL. Numerous trees beginning 1504' from DER, 489' right of centerline, up to 43' AGL/ 408' MSL.
- Rwy 34L: Tree 1597' from DER, 842' left of centerline, 50' AGL/404' MSL.
- Rwy 34R: Tree 2897' from DER, 606' right of centerline, 77' AGL/440' MSL. Tree 2535' from DER, 643' left of centerline, 65' AGL/428' MSL.

NOTE: Chart not to scale.

**ROGUE VALLEY**  
113.6 OED  
Chan 83  
N42°28.77'-W122°54.78'  
L-2, H-3

**KLAMATH FALLS**  
115.9 LMT  
Chan 106  
N42°09.19'  
W121°43.65'  
L-2, H-3

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAYS 16L/16R:** Climb heading 163° (or ATC assigned heading) for vectors to assigned route/fix. . . .

**TAKEOFF RUNWAYS 34L/34R:** Climb heading 343° (or ATC assigned heading) for vectors to assigned route/fix. . . .

. . . maintain 9000 or assigned altitude, expect filed altitude/flight level five minutes after departure.

**LOST COMMUNICATIONS:** If not in contact with ATC after reaching 3000', continue climb to assigned altitude direct EUG VORTAC, climb in EUG VORTAC holding pattern to cross EUG VORTAC at or above MEA before proceeding enroute.

# EUGENE NINE DEPARTURE

EUGENE, OREGON  
MAHLON SWEET FIELD (EUG)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



LOC/DME I-EVW <b>108.9</b> Chan 26	APP CRS <b>234°</b>	Rwy Idg <b>7300</b> TDZE <b>7143</b> Apt Elev <b>7143</b>
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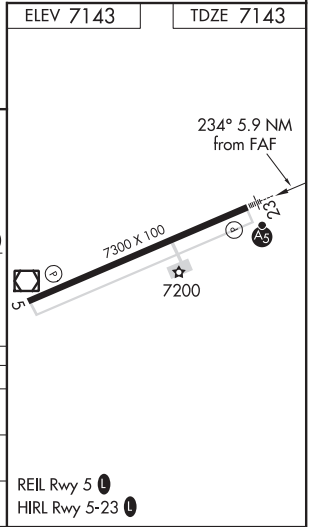
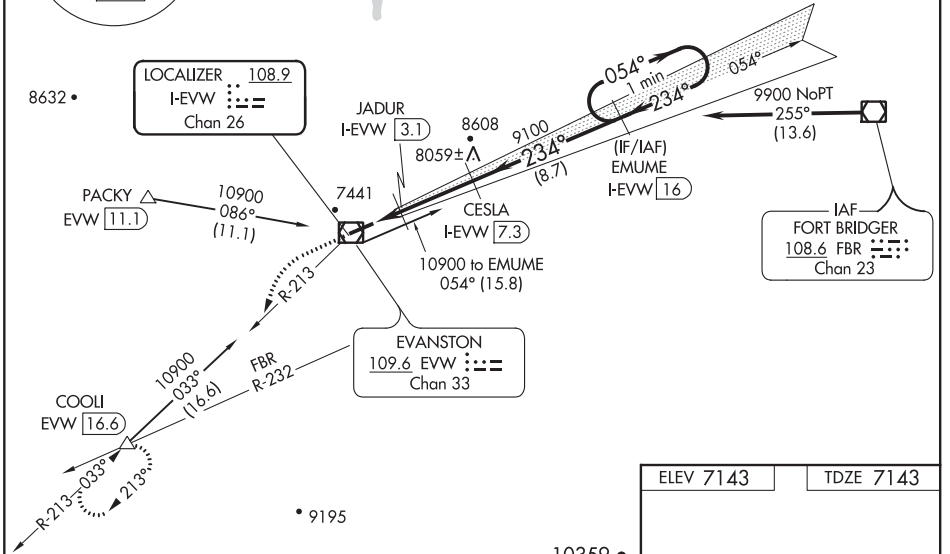
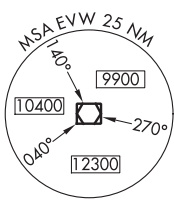
**ILS or LOC/DME RWY 23**  
EVANSTON-UINTA COUNTY BURNS FIELD (E V W)



**⚠** For inoperative MALSR, increase S-LOC 23 Cat D visibility to 1 mile. When local altimeter setting not received, procedure NA.

**MALSR**  MISSED APPROACH: Climb to 7600 then climbing left turn to 12000 via EVW VOR/DME R-213 to COOLI/EVW VOR/DME 16.6 DME and hold, continue climb-in-hold to 12000.

ASOS <b>120.0</b>	SALT LAKE CENTER <b>127.7 354.125</b>	GCO <b>121.72</b>	UNICOM <b>123.0 (CTAF)</b> 
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Procedure NA for arrivals at FBR VOR/DME via airway radials 213 CW 285.



7600	12000	COOLI 	Use I-EVW DME when on the localizer course. *LOC only			
↑	EVW R-213		CESLA I-EVW 7.3	EMUME I-EVW 16	One Minute Holding Pattern	
			JADUR I-EVW 3.1	9100	9100	9900
			I-EVW 1.4	I-EVW 2.2	I-EVW 3.1	I-EVW 7.3
			7700*	9100	9100	9900
			0.8	0.9 NM	4.2 NM	8.7 NM
CATEGORY	A	B	C	D		
S-ILS 23	7343-1/2			200 (200-1/2)		
S-LOC 23	7440-1/2			297 (300-1/2)		
CIRCLING	7580-1 437 (500-1)	7720-1 577 (600-1)	7760-1 3/4 617 (700-1 3/4)	7440-3/4 297 (300-3/4)		

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

EVANSTON, WYOMING

AL-6858 (FAA)

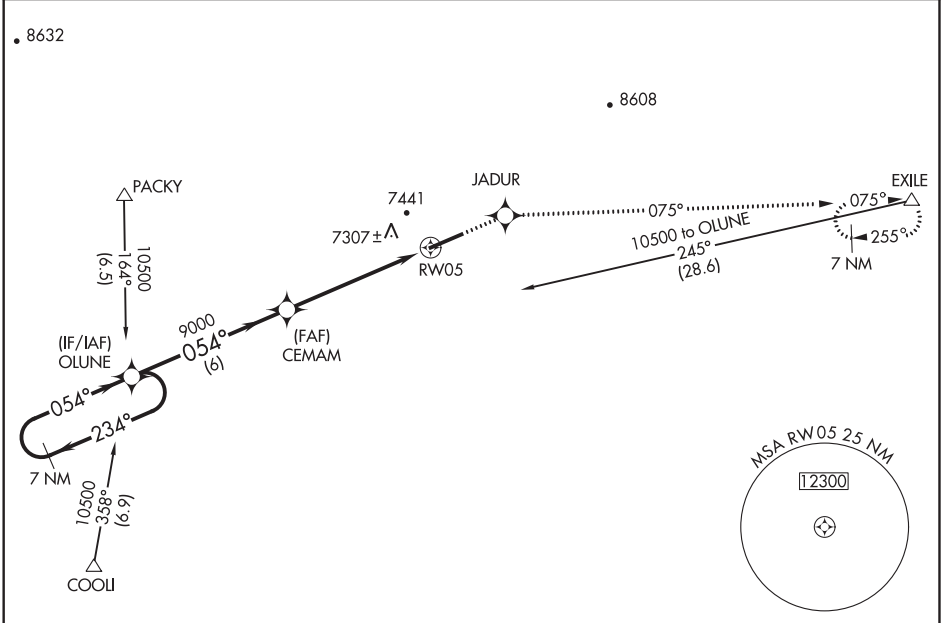
15288

WAAS CH <b>78302</b> W05A	APP CRS <b>054°</b>	Rwy Idg TDZE Apt Elev	<b>7300</b> <b>7141</b> <b>7143</b>
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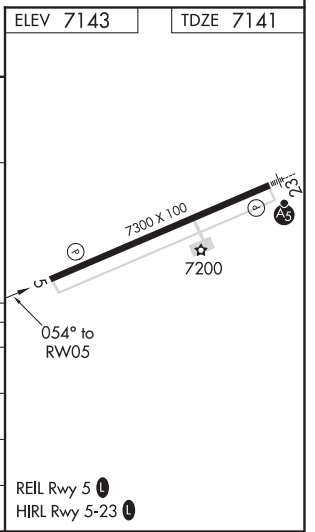
# RNAV (GPS) RWY 5

EVANSTON-UINTA COUNTY BURNS FIELD (E V W)

<p>▼ If local altimeter setting not received, procedure NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -29°C (-20°F) or above 34°C (94°F). DME/DME RNP: 0.3 NA.</p>		<p>MISSED APPROACH: Climb to 12000 direct JADUR and via 075° track to EXILE and hold, continue climb-in-hold to 12000.</p>	
ASOS <b>120.0</b>	SALT LAKE CENTER <b>127.7 354.125</b>	GCO <b>121.72</b>	UNICOM <b>123.0 (CTAF) 0</b>



7 NM Holding Pattern		OLUNE	CEMAM	JADUR	EXILE
10500 ← 234°		→ 054°	054°	12000	075° tr
GP 3.00° TCH 55		9000			△
		6 NM	4.8 NM	0.8 NM	
*LNAV only					
*0.8 NM to RW05					
CATEGORY	A	B	C	D	
LPV DA		7391-3/4	250 (300-3/4)		
LNAV/VNAV DA		7643-13/4	502 (500-13/4)		
LNAV MDA		7440-1	299 (300-1)		
CIRCLING	7580-13/4 437 (500-13/4)	7720-13/4 577 (600-13/4)	7760-13/4 617 (700-13/4)	7760-2 617 (700-2)	



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

EVANSTON, WYOMING  
Amdt 2 23NOV06

EVANSTON-UINTA COUNTY BURNS FIELD (E V W)  
41°16'N-111°02'W


# RNAV (GPS) RWY 5

WAAS CH <b>77905</b> <b>W23A</b>	APP CRS <b>234°</b>	Rwy Idg TDZE Apt Elev	<b>7300</b> <b>7143</b> <b>7143</b>
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# RNAV (GPS) RWY 23

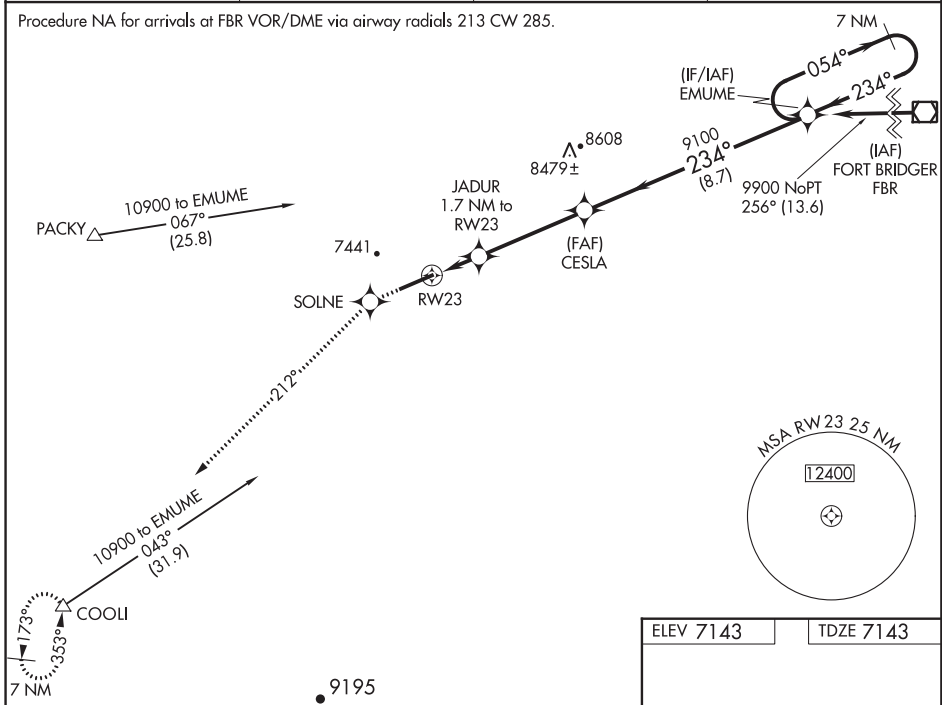
EVANSTON-UINTA COUNTY BURNS FIELD (E V W)

**▼** For inoperative MALSR, increase LPV all Cats visibility to 1, LNAV/VNAV Cat D to 1 and LNAV Cat D to 1 1/4. When local altimeter setting not received, procedure NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -29°C (-20°F) or above 34°C (93°F). DME/DME RNP-0.3 NA.

**MALSR**  
 MISSED APPROACH: Climb to 12000 direct SOLNE and via 212° track to COOLI and hold, continue climb-in-hold to 12000.

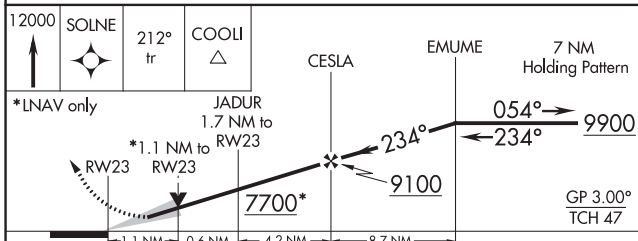
ASOS <b>120.0</b>	SALT LAKE CENTER <b>127.7 354.125</b>	GCO <b>121.72</b>	UNICOM <b>123.0</b> (CTAF) 
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Procedure NA for arrivals at FBR VOR/DME via airway radials 213 CW 285.

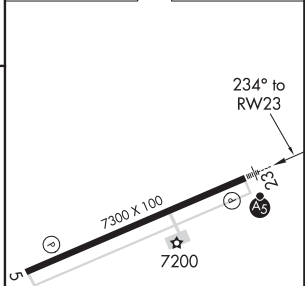


NW-1, 10 NOV 2016 to 05 JAN 2017



NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 7143	TDZE 7143
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CATEGORY	A	B	C	D
LPV DA	7393-1/2 250 (300-1/2)			
LNAV/VNAV DA	7443-1/2 300 (300-1/2)		7443-3/4 300 (300-3/4)	
LNAV MDA	7520-1/2 377 (400-1/2)		7520-1 377 (400-1)	
CIRCLING	7580-1 437 (500-1)	7720-1 577 (600-1)	7760-1 3/4 617 (700-1 3/4)	7760-2 617 (700-2)

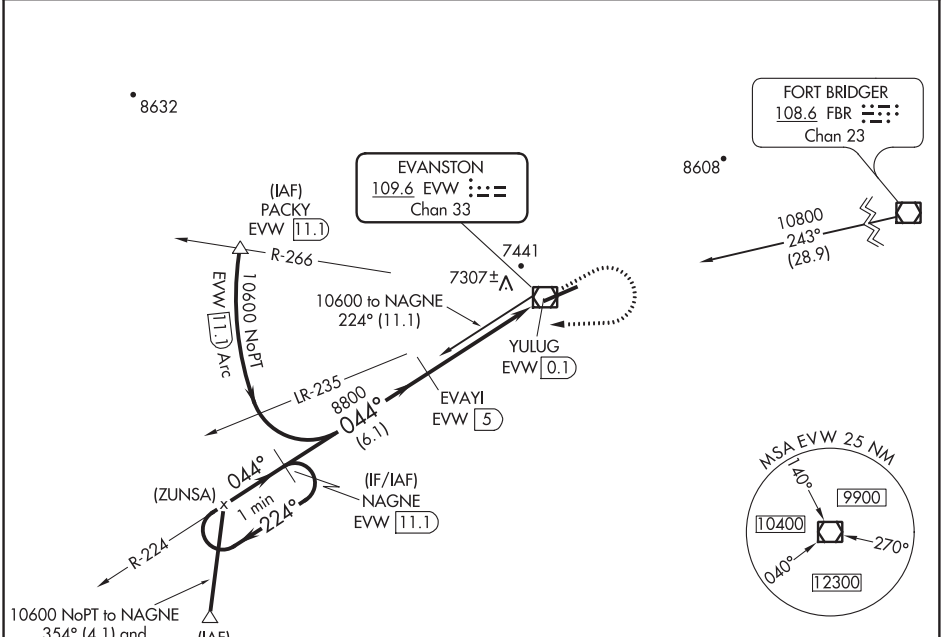
REIL Rwy 5   
 HIRL Rwy 5-23 

VOR/DME EVW <b>109.6</b> Chan <b>33</b>	APP CRS <b>044°</b>	Rwy Idg TDZE Apt Elev	<b>7300</b> <b>7141</b> <b>7143</b>
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**VOR/DME RWY 5**  
EVANSTON-UINTA COUNTY BURNS FIELD (E V W)

If local altimeter setting not received, procedure NA. MISSED APPROACH: Climb to 7600, then climbing right turn to 10600 via heading 255° and EVW VOR/DME R-224 to NAGNE/11.1 DME and hold, continue climb-in-hold to 10600.

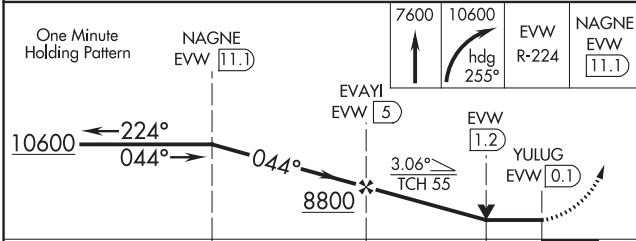
ASOS <b>120.0</b>	SALT LAKE CENTER <b>127.7 354.125</b>	GCO <b>121.72</b>	UNICOM <b>123.0</b> (CTAF) <b>0</b>
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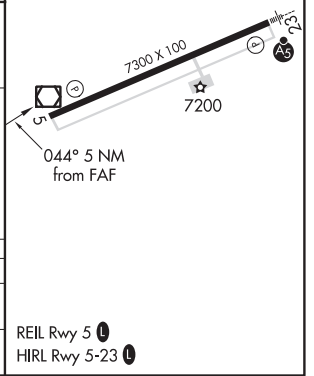
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 7143	TDZE 7141
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CATEGORY	A	B	C	D
S-5	7560-1	419 (500-1)	7560-1 ¼	419 (500-1 ¼)
CIRCLING	7580-1 437 (500-1)	7720-1 577 (600-1)	7760-1 ¾ 617 (700-1 ¾)	7760-2 617 (700-2)




REIL Rwy 5 **0**  
HIRL Rwy 5-23 **0**

LOC I-PAE <b>109.3</b>	APP CRS <b>162°</b>	Rwy Idg TDZE Apt Elev	<b>9010</b> <b>570</b> <b>606</b>
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# ILS or LOC/DME Y RWY 16R

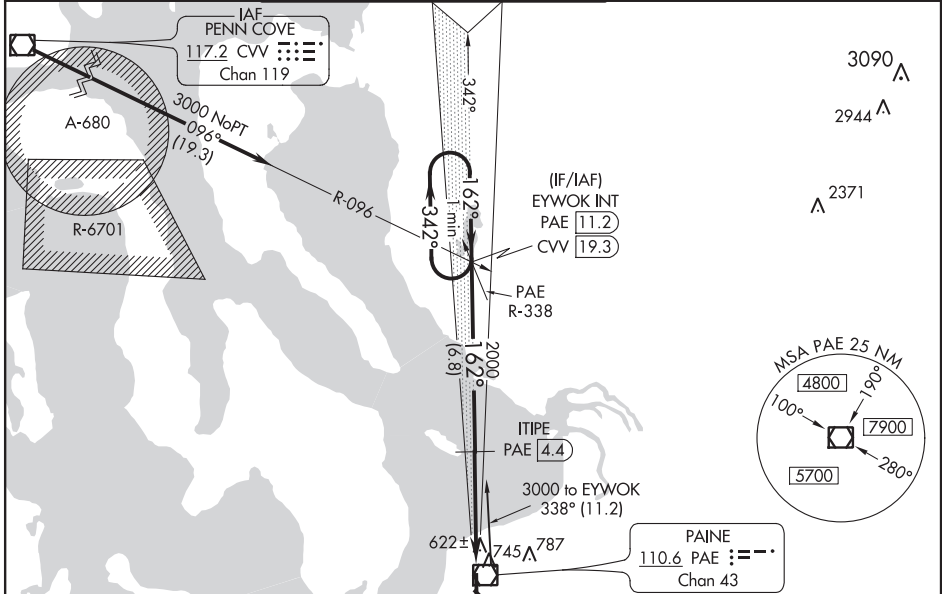
SNOHOMISH COUNTY (PAINE FIELD) (P.A.E.)

**⚠** When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting and increase all DA 88 feet and all MDA 100 feet. When using Seattle-Tacoma Intl altimeter setting; for inoperative MALSRS, increase S-ILS 16R all Cats visibility to RVR 4500. DME from PAE VOR/DME. Simultaneous reception of I-PAE and PAE DME required.

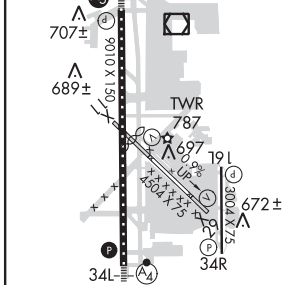
**MALSRS** 

**MISSED APPROACH:** Climb to 1300 then climbing right turn to 3000 on heading 014° and PAE VOR/DME R-338 to EYWOK INT/PAE VOR/DME 11.2 DME and hold.

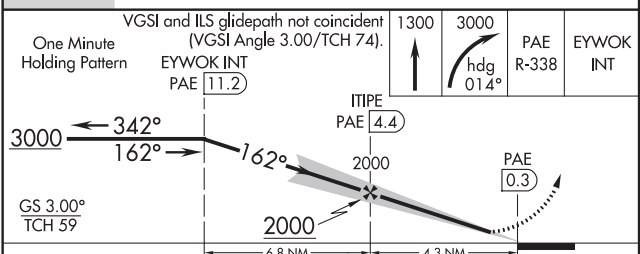
ATIS <b>128.65</b>	SEATTLE APP CON <b>128.5 306.9</b>	PAINE TOWER * (E of Rwy 16L-34R) (W of Rwy 16R-34L) <b>120.2 256.7 132.95 (CTAF) 0 256.7</b>	GND CON <b>121.8 339.8</b>	CLNC DEL <b>126.75</b>	UNICOM <b>122.95</b>
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ELEV 606	<b>D</b>	TDZE 570
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TDZ/CL Rwy 16R  
HIRL Rwy 16R-34L  
REIL Rws 16L and 34R  
MIRL Rws 11-29 and 16L-34R



CATEGORY	A	B	C	D
S-ILS 16R	770/24	200 (200-1/2)		NA
S-LOC 16R	940/24	370 (400-1/2)		NA
CIRCLING	1100-1	494 (500-1)		NA

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NW-1, 10 NOV 2016 to 05 JAN 2017

LOC I-PAE <b>109.3</b>	APP CRS <b>162°</b>	Rwy Idg <b>9010</b>
		TDZE <b>570</b>
		Apt Elev <b>606</b>

# ILS Z or LOC/DME Z RWY 16R

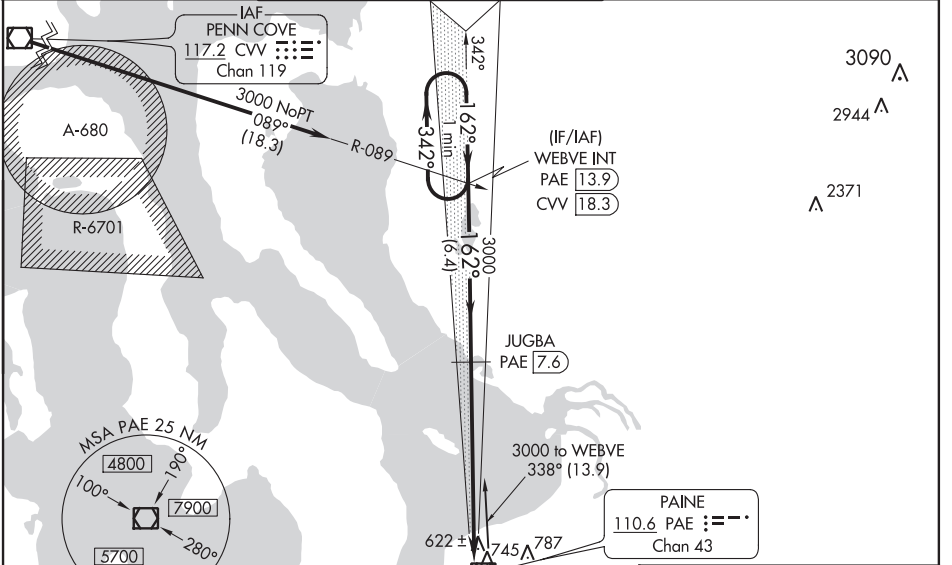
SNOHOMISH COUNTY (PAINE FIELD) (P.A.E.)

**⚠** When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting and increase all DA 88 feet and all MDA 100 feet; increase S-LOC 16R Cat C and D visibility to RVR 6000, increase Circling Cat C visibility to 1½ miles. When using Seattle-Tacoma Intl altimeter setting; for nonoperative MALSRS, increase S-ILS 16R all Cats visibility to RVR 4500. DME from PAE VOR/DME. Simultaneous reception of I-PAE and PAE DME required. # RVR 1800 authorized with use of FD or AP or HUD to DA.

**MALSRS** 

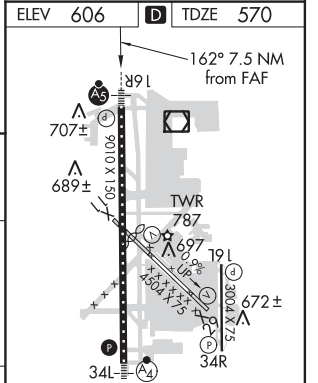
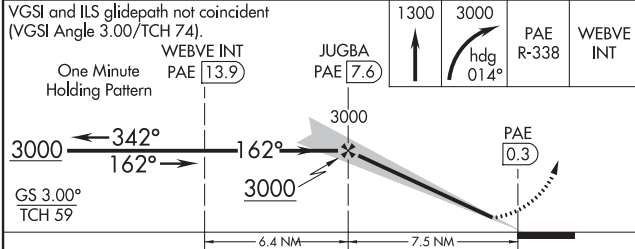
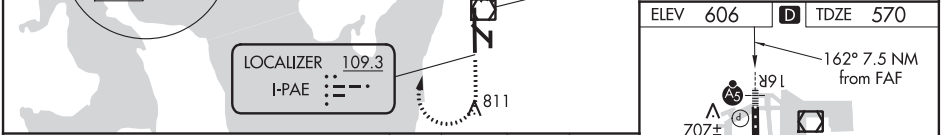
**MISSED APPROACH:** Climb to 1300 then climbing right turn to 3000 on heading 014° and PAE VOR/DME R-338 to WEBVE INT/PAE 13.9 DME and hold.

ATIS <b>128.65</b>	SEATTLE APP CON <b>128.5 306.9</b>	PAINE TOWER* (E of Rwy 16L-34R) <b>120.2 256.7</b> (W of Rwy 16R-34L) <b>132.95 (CTAF) 256.7</b>	GND CON <b>121.8 339.8</b>	CLNC DEL <b>126.75</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D	
S-ILS 16R	#770/24				200 (200-½)
S-LOC 16R	1020/24	450 (500-½)	1020/45	450 (500-¾)	TDZ/CL Rwy 16R HIRL Rwy 16R-34L REL Rwys 16L and 34R MIRL Rwys 11-29 and 16L-34R
CIRCLING	1100-1	494 (500-1)	1100-1½ 494 (500-1½)	1160-2 554 (600-2)	

LOC I-PAE <b>109.3</b>	APP CRS <b>162°</b>	Rwy Idg TDZE Apt Elev	<b>9010</b> <b>570</b> <b>606</b>
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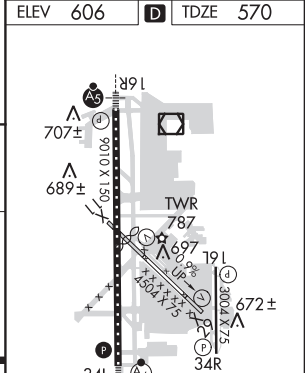
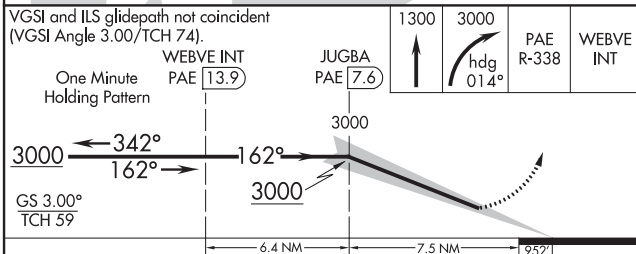
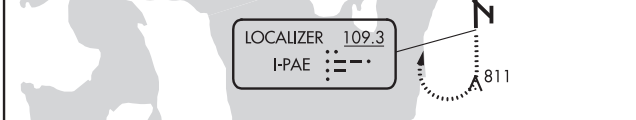
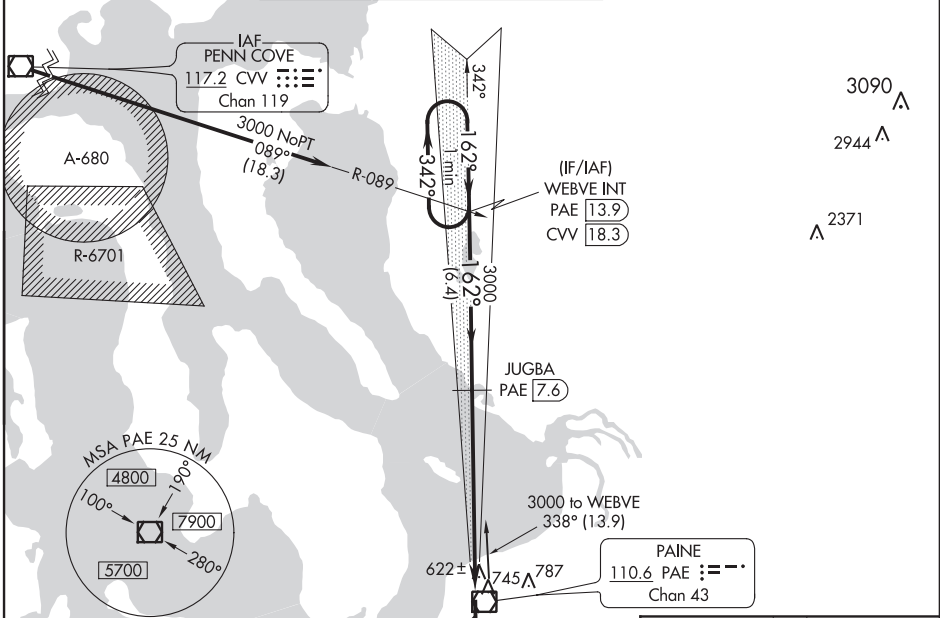
# ILS Z RWY 16R (SA CAT II)

SNOHOMISH COUNTY (PAINE FIELD) (P.A.E)

**⚠** DME from PAE VOR/DME. Simultaneous reception of I-PAE and PAE DME required. Reduced lighting requires specific OPSPEC, MSPEC or LOA approval and use of autoland or HUD to touchdown. NA when control tower is closed.

**MALSR**  
**AS** MISSED APPROACH: Climb to 3000 then climbing right turn to 3000 on heading 014° and PAE VOR/DME R-338 to WEBVE INT/PAE 13.9 DME and hold.

ATIS <b>128.65</b>	SEATTLE APP CON <b>128.5 306.9</b>	PAINE TOWER* (E of Rwy 16L-34R) (W of Rwy 16R-34L) <b>120.2 256.7 132.95 (CTAF) 256.7</b>	GND CON <b>121.8 339.8</b>	CLNC DEL <b>126.75</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
S-ILS 16R	RA 116/12 100 DA 670			

**SA CATEGORY II ILS-SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

TDZ/CL Rwy 16R  
HIRL Rwy 16R-34L  
REIL Rws 16L and 34R  
MIRL Rws 11-29 and 16L-34R

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>65611</b> <b>W34A</b>	APP CRS <b>342°</b>	Rwy Idg TDZE Apt Elev	<b>9010</b> <b>584</b> <b>606</b>
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# RNAV (GPS) RWY 34L

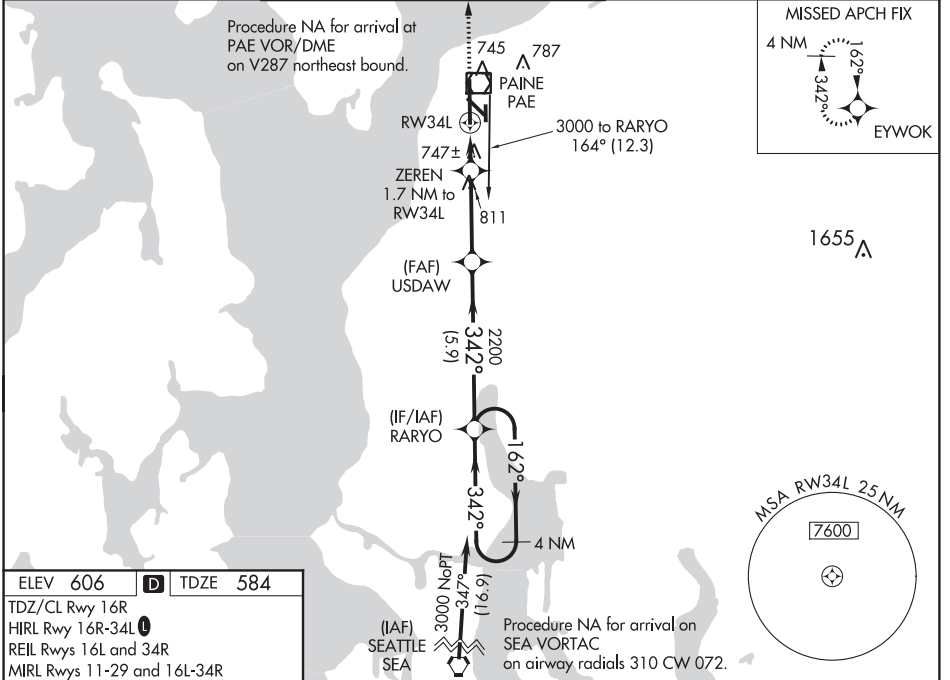
SNOHOMISH COUNTY (PAINE FIELD) (P.A.E.)

**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 40°C (104°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. VDP and Baro-VNAV NA with Seattle-Tacoma Intl altimeter setting. When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting and increase all DA 88 feet and all MDA 100 feet; increase LPV all Cats visibility 1/4 mile, LNAV/VNAV all Cats visibility 3/8 mile and LNAV Cat C and D visibility 1/4 mile. When using Seattle-Tacoma Intl altimeter setting, for inoperative MALSF, increase LPV all Cats visibility to 1 1/8 miles.

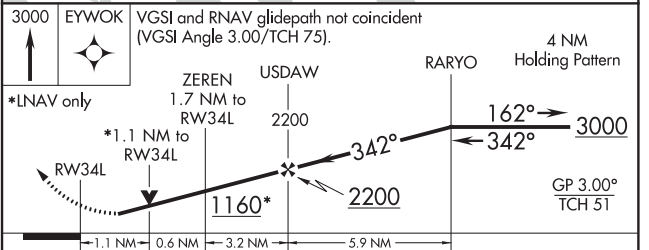
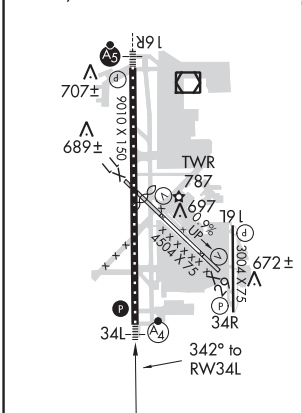


**MISSED APPROACH:**  
Climb to 3000 direct EYWOK and hold.

ATIS <b>128.65</b>	SEATTLE APP CON <b>128.5 306.9</b>	PAINE TOWER* (E of Rwy 16L-34R) <b>120.2 256.7</b> (W of Rwy 16R-34L) <b>132.95 (CTAF) 0 256.7</b>	GND CON <b>121.8 339.8</b>	CLNC DEL <b>126.75</b>	UNICOM <b>122.95</b>
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ELEV 606	<b>D</b>	TDZE 584
TDZ/CL Rwy 16R		
HIRL Rwy 16R-34L		
REIL Rws 16L and 34R		
MIRL Rws 11-29 and 16L-34R		



CATEGORY	A	B	C	D
LPV DA		895-3/4	311 (300-3/4)	
LNAV/ VNAV DA		1042-1 1/4	458 (500-1 1/4)	
LNAV MDA	1000-3/4	416 (400-3/4)	1000-1	416 (400-1)
CIRCLING	1100-1	494 (500-1)	1100-1 1/2 494 (500-1 1/2)	1160-2 554 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>60911</b> <b>W16B</b>	APP CRS <b>162°</b>	Rwy Idg TDZE Apt Elev	<b>9010</b> <b>570</b> <b>606</b>
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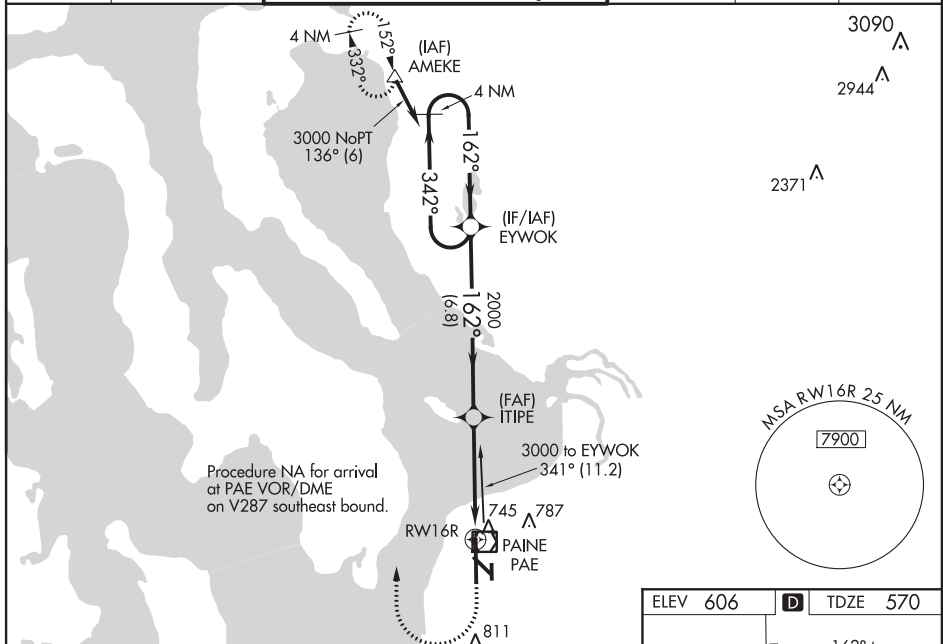
# RNAV (GPS) Y RWY 16R

SNOHOMISH COUNTY (PAINE FIELD) (P.A.E.)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When using Seattle-Tacoma Intl altimeter setting; for inoperative MALS, increase LPV Cats A and B visibility to RVR 4500. When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting and increase all DA 88 feet and all MDA 100 feet; increase LNAV/VNAV Cats A and B visibility to RVR 5000. Baro-VNAV and VDP NA when using Seattle-Tacoma Intl altimeter setting.

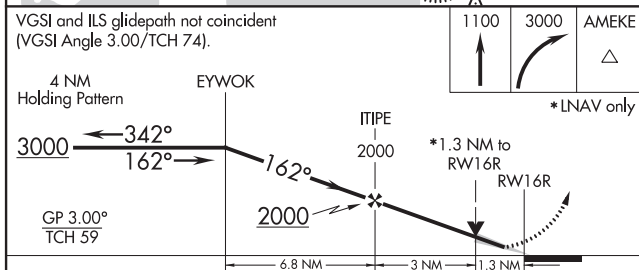
**MALS**  
MISSED APPROACH:  
Climb to 1100 then  
climbing right turn  
to 3000 direct AMEKE  
and hold.

ATIS	SEATTLE APP CON	PAINE TOWER* (E of Rwy 16L-34R) (W of Rwy 16R-34L)		GND CON	CLNC DEL	UNICOM
128.65	128.5 306.9	120.2 256.7	132.95 (CTAF) 256.7	121.8 339.8	126.75	122.95

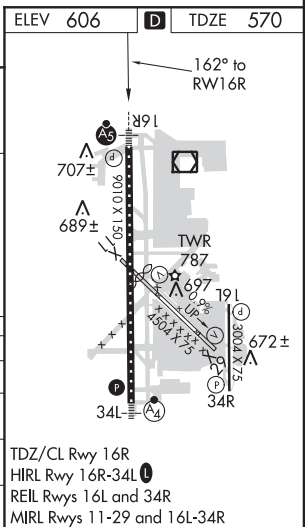


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA	770/24	200 (200-½)		NA
LNAV/VNAV DA	944/40	374 (400-¾)		NA
LNAV MDA	1060/24	490 (500-½)		NA
CIRCLING	1100-1	494 (500-1)		NA



# RNAV (GPS) Z RWY 16R

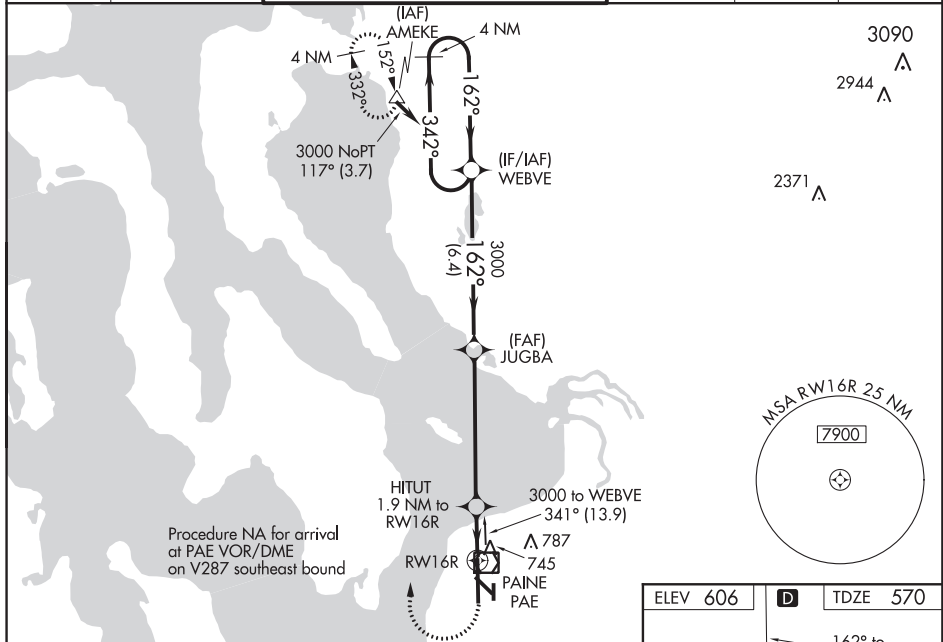
SNOHOMISH COUNTY (PAINE FIELD) (P.A.E.)

WAAS CH <b>61129</b> <b>W16A</b>	APP CRS <b>162°</b>	Rwy Idg TDZE Apt Elev	<b>9010</b> <b>570</b> <b>606</b>
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**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 40°C (104°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Seattle-Tacoma Intl altimeter setting. When using Seattle-Tacoma Intl altimeter setting; for inoperative MALS/R, increase LPV all Cats visibility to RVR 4500. When local altimeter setting not received use Seattle-Tacoma Intl altimeter setting and increase all DA 88 feet and all MDA 100 feet; increase LNAV/VNAV all Cats visibility to RVR 6000, LNAV Cat C and D visibility to RVR 6000 and Circling Cat C visibility to 1¾ miles.

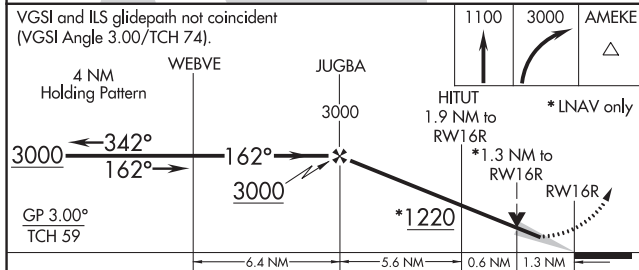
**MALS/R**  
**MISSED APPROACH:**  
Climb to 1100 then climbing right turn to 3000 direct AMEKE and hold.

ATIS <b>128.65</b>	SEATTLE APP CON <b>128.5 306.9</b>	PAINE TOWER * (E of Rwy 16L-34R) (W of Rwy 16R-34L) <b>120.2 256.7 132.95 (CTAF) 256.7</b>	GND CON <b>121.8 339.8</b>	CLNC DEL <b>126.75</b>	UNICOM <b>122.95</b>
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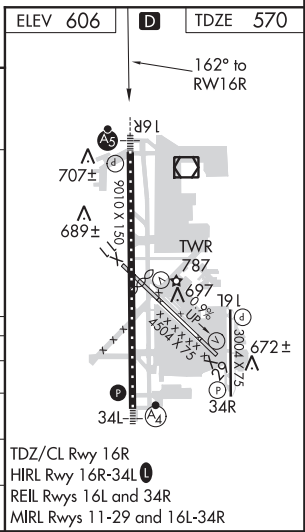


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA		770/24	200 (200-½)	
LNAV/VNAV DA		963/40	393 (400-¾)	
LNAV MDA	1060/24	490 (500-½)	1060/50	490 (500-1)
CIRCLING	1100-1	494 (500-1)	1100-1½ 494 (500-1½)	1160-2 554 (600-2)



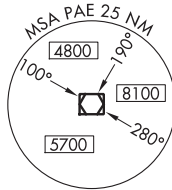
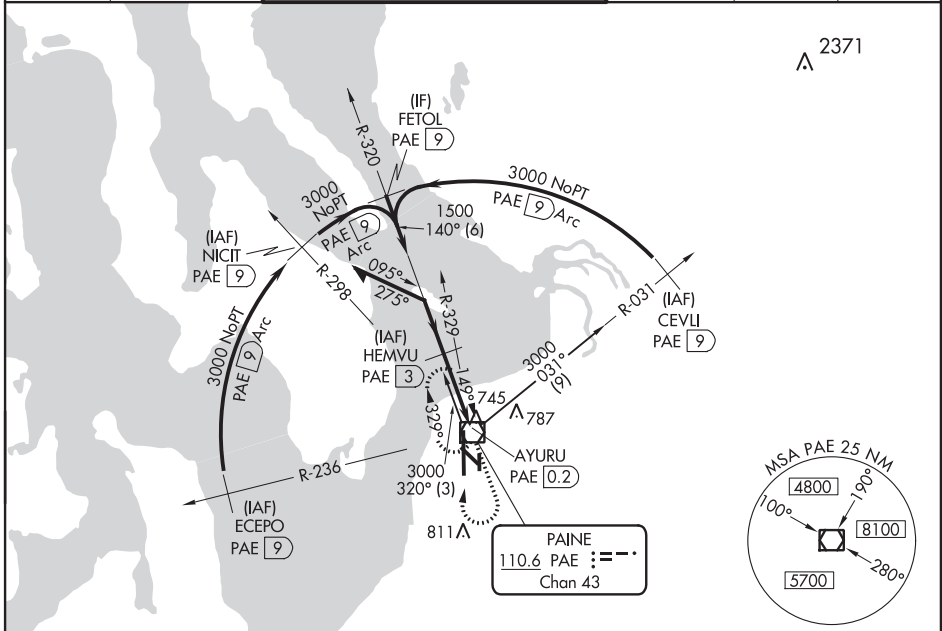
VOR/DME PAE <b>110.6</b> Chan <b>43</b>	APP CRS <b>140°</b>	Rwy Idg TDZE Apt Elev	<b>9010</b> <b>570</b> <b>606</b>
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# VOR/DME RWY 16R

SNOHOMISH COUNTY (PAINE FIELD) (P.A.E)

		MISSED APPROACH: Climb to 1700 then climbing right turn to 2000 direct PAE VOR/DME and hold.			
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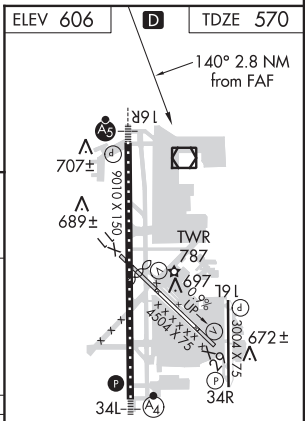
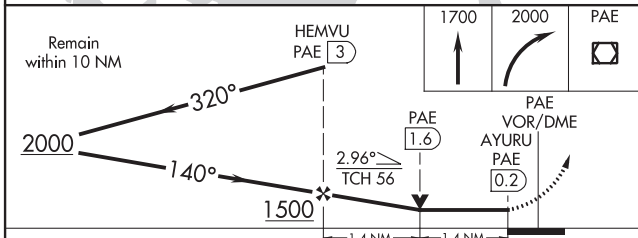
ATIS <b>128.65</b>	SEATTLE APP CON <b>128.5 306.9</b>	PAINE TOWER* (E of Rwy 16L-34R) (W of Rwy 16R-34L) <b>120.2 256.7 132.95 (CTAF) 256.7</b>	GND CON <b>121.8 339.8</b>	CLNC DEL <b>126.75</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 606	<b>D</b>	TDZE 570
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CATEGORY	A	B	C	D	
S-16R	1060/24 490 (500-1/2)		1060/40 490 (500-3/4)	1060/50 490 (500-1)	TDZ/CL Rwy 16R
CIRCLING	1100-1 494 (500-1)		1100-1 1/2 494 (500-1 1/2)	1180-2 574 (600-2)	HIRL Rwy 16R-34L REIL Rwys 16L and 34R MIRL Rwys 11-29 and 16L-34R

# AIRPORT DIAGRAM

SNOHOMISH COUNTY (PAINE FIELD) (P.A.E.)  
AL-142 (FAA)  
EVERETT, WASHINGTON

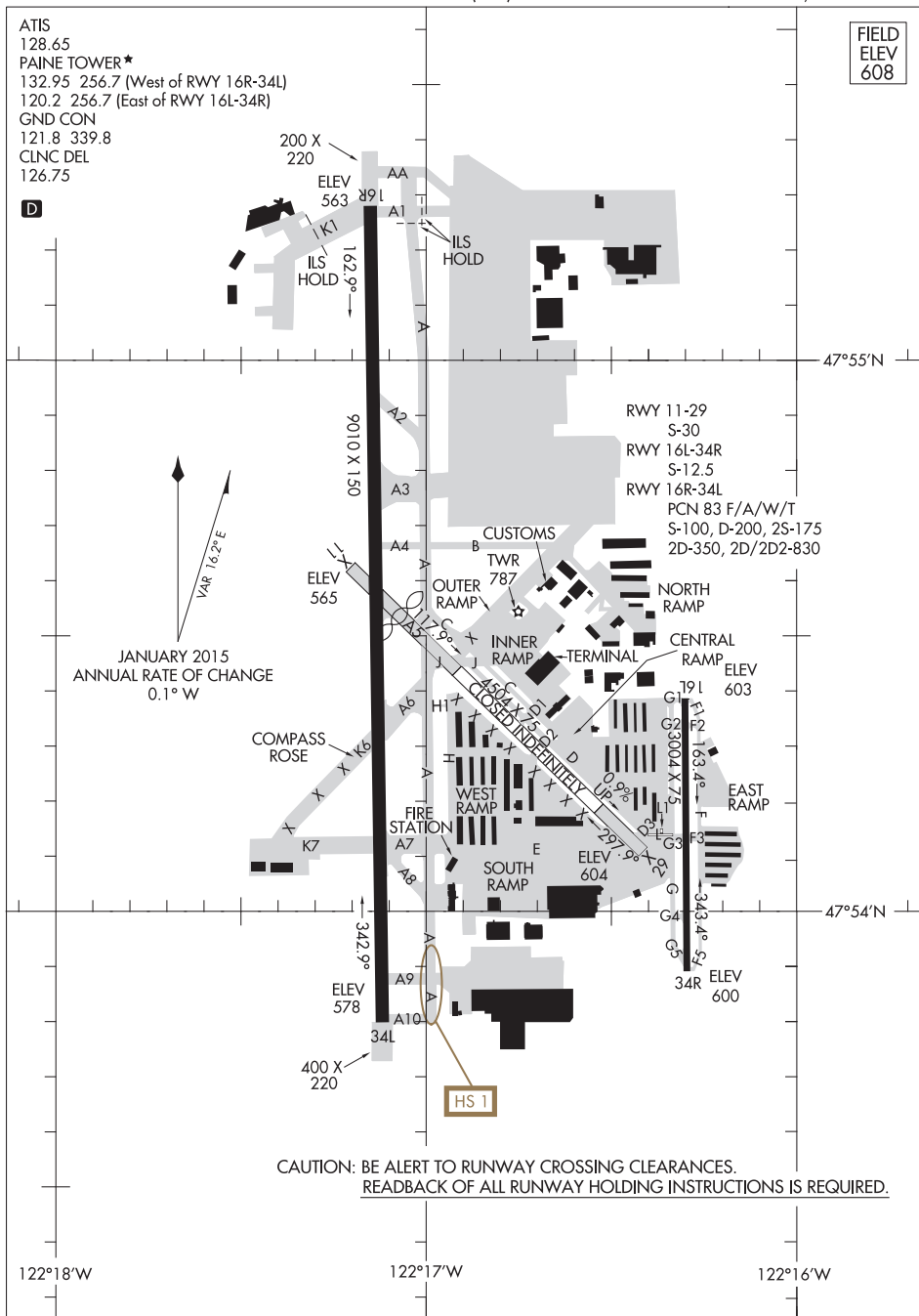
ATIS  
128.65  
PAINE TOWER ★  
132.95 256.7 (West of RWY 16R-34L)  
120.2 256.7 (East of RWY 16L-34R)  
GND CON  
121.8 339.8  
CLNC DEL  
126.75

FIELD  
ELEV  
608

D

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBCK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

# AIRPORT DIAGRAM

EVERETT, WASHINGTON  
SNOHOMISH COUNTY (PAINE FIELD) (P.A.E.)

(PAINE4.PAINE) 16315  
**PAINE FOUR DEPARTURE**

SL-142 (FAA)

SNOHOMISH COUNTY (PAINE FIELD) (P A E)  
 EVERETT, WASHINGTON

ATIS  
 128.65  
 CLNC DEL  
 126.75  
 GND CON  
 121.8 339.8  
 PAINE TOWER ★  
 120.2 256.7 (E of Rwy 16L-34R)  
 132.95 (CTAF) 256.7 (W of Rwy 16R-34L)  
 SEATTLE DEP CON  
 128.5 306.9

WHIDBEY ISLAND  
 113.8 NUW   
 Chan 85  
 N48°21.30'-W122°39.71'  
 L-1, H-1

PAINE  
 110.6 PAE   
 Chan 43  
 N47°55.19'-W122°16.67'  
 L-1, H-1

SEATTLE  
 116.8 SEA   
 Chan 115  
 N47°26.12'-W122°18.58'  
 L-1, H-1

WENATCHEE  
 111.0 EAT   
 Chan 47  
 N47°23.98'-W120°12.65'  
 L-13

McCHORD  
 109.6 TCM   
 Chan 33  
 N47°08.86'-W122°28.50'  
 L-1, H-1

ELLENSBURG  
 117.9 ELN   
 Chan 126  
 N47°01.46'-W120°27.50'  
 L-13, H-1

OLYMPIA  
 113.4 OLM   
 Chan 81  
 N46°58.30'-W122°54.11'  
 L-1, H-1

HOQUIAM  
 117.7 HQM   
 Chan 124  
 N46°56.82'-W124°08.96'  
 L-1, H-1

YAKIMA  
 116.0 YKM   
 Chan 107  
 N46°34.21'-W120°26.68'  
 L-13, H-1



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

**TAKEOFF MINIMUMS**

Rwys 16L/R, 34L/R: Standard.

NOTE: RADAR required.

NOTE: ATC may assign initial heading to be flown and vector departures in all quadrants within 10 miles of the Paine Airport provided no altitude restrictions imposed prior to reaching MVA.

(NARRATIVE ON FOLLOWING PAGE)  
 (NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

**PAINE FOUR DEPARTURE**  
 (PAINE4.PAINE) 21JUL16

EVERETT, WASHINGTON  
 SNOHOMISH COUNTY (PAINE FIELD) (P A E)

# PAINE FOUR DEPARTURE

SL-142 (FAA)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16L: Climb heading 163°. . . .

TAKEOFF RUNWAY 16R: Climb heading 162°. . . .

TAKEOFF RUNWAY 34L: Climb heading 342°. . . .

TAKEOFF RUNWAY 34R: Climb heading 343°. . . .

. . . .or as assigned for RADAR vectors to join assigned route. Maintain assigned altitude: expect filed altitude flight level five minutes after departure.

LOST COMMUNICATIONS: If not in contact with Seattle approach upon reaching 2000, continue climb to assigned altitude and proceed direct to PAE VOR/DME. Thence via assigned route.

### TAKEOFF OBSTACLE NOTES

Rwy 16R: Rwy light 9' from DER, 15' right of centerline, 1' AGL/579' MSL.  
Trees beginning 707' from DER, left and right of centerline, up to 116' AGL/  
625' MSL.

Tree 2130' from DER, 866' left of centerline, 151' AGL/660' MSL.

Trees beginning 2789' from DER, left and right of centerline, up to 163' AGL/  
698' MSL.

Trees beginning 3078' from DER, 238' left of centerline, up to 156' AGL/704' MSL.

Rwy 16L: Poles, tower, and tree beginning 107' from DER, left and right of centerline, up to  
42' AGL/639' MSL.

Trees beginning 900' from DER, 477' left of centerline, up to 137' AGL/699' MSL.

Trees beginning 1412' from DER, left and right of centerline, up to 123' AGL/  
668' MSL.

Trees beginning 1785' from DER, 535' left of centerline, up to 155' AGL/700' MSL.

Tree 4646' from DER, 912' right of centerline, 178' AGL/717' MSL.

Rwy 34R: Trees beginning 154' from DER, left and right of centerline, up to 86' AGL/648' MSL.

Tree 1324' from DER, 229' left of centerline, 97' AGL/655' MSL.

Trees beginning 2084' from DER, 548' right of centerline, up to 131' AGL/699' MSL.

Trees beginning 2720' from DER, 114' left of centerline, up to 135' AGL/690' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

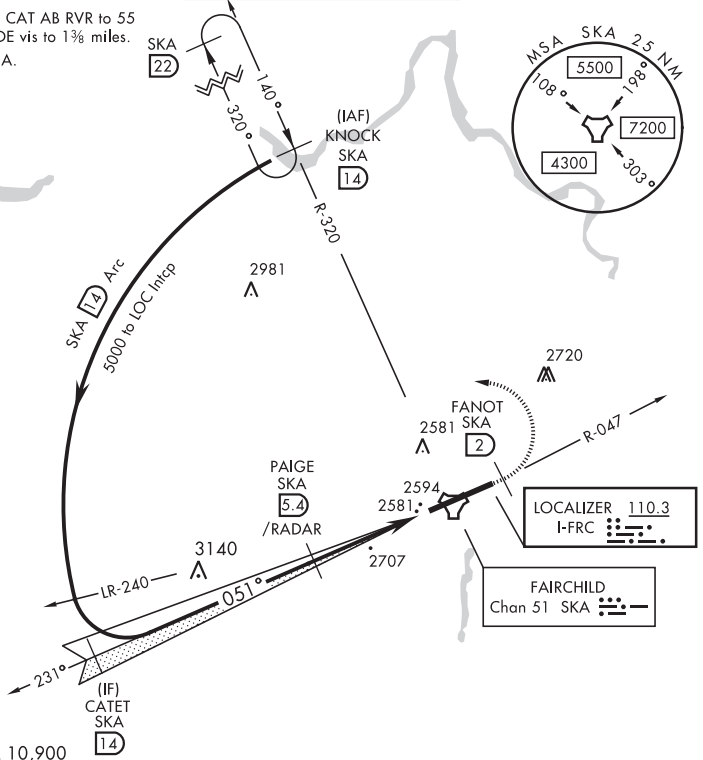
NW-1, 10 NOV 2016 to 05 JAN 2017

SPOKANE, WASHINGTON

# ILS or LOC RWY 5

LOC I-FRC <b>110.3</b>	APCH CRS <b>051°</b>	Rwy Idg <b>13,899</b> THRE <b>2462</b> Arpt Elev <b>2462</b>	AL-553 [USAF]	FAIRCHILD AFB (KSKA)
▼ * When ALS inop, increase RVR to 40, vis to ¾ mile. When TDZL/CL lights inop, increase CAT ABCDE RVR to 24 and vis to ½ mile.			ALS F-2	MISSED APPROACH: Climb to 6000 via SKA TACAN R-047. At SKA 2 DME turn left hdg 280° to intcp SKA R-320 to KNOCK and hold, continue climb in hold to 6000.
ATIS <b>257.625</b>	SPOKANE APP CON 029°- 207° <b>133.35 263.0</b> 208°- 028° <b>123.75 282.25</b>	FAIRCHILD TOWER <b>120.35 233.7</b>	GND CON <b>123.6 275.8</b>	

\*\* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1½ miles.  
 \*\*\* Circling S of Rwy 5-23 NA.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 10,900

KNOCK R-320 6000 14	CATET Intcp, Lczt 14	PAIGE /RADAR 5.4	6000 SKA R-047	FANOT SKA 2	hdg 280°	ELEV 2462	THRE 2462
CATEGORY	A	B	C	D	E	HRL Rwy 5-23 TDZL/CL Rwy 5	
S-ILS 5 *	2662/18			200	(200-¾)	FAF to MAP 4.1 NM	
S-LOC 5 **	2960/24	498 (500-½)	2960/50	498	(500-1)	Knots 60 90 120 150 180	
CIRCLING ***	2960-1	498 (500-1)	2960-1½	3020-2	3500-3	Min:Sec 4:06 2:44 2:03 1:38 1:22	

SPOKANE, WASHINGTON

47°37'N-117°39'W

FAIRCHILD AFB (KSKA)

Amtd 4 10JAN13

# ILS or LOC RWY 5

SPOKANE, WASHINGTON

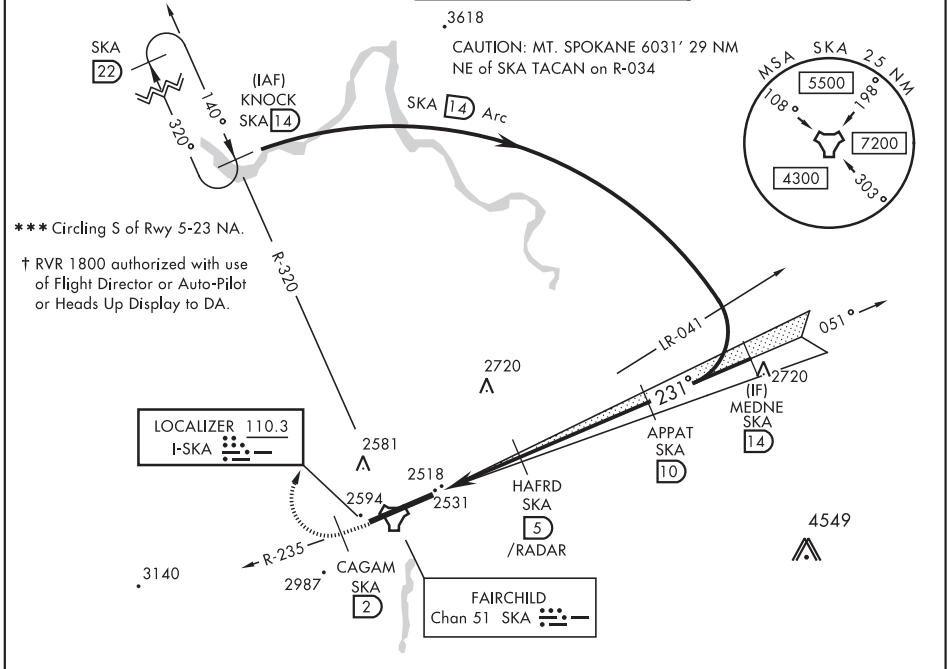
# ILS or LOC RWY 23

LOC I-SKA <b>110.3</b>	APCH CRS <b>231°</b>	Rwy Idg <b>13,899</b> THRE <b>2415</b> Arpt Elev <b>2462</b>	AL-553 [USAF]	FAIRCHILD AFB (KSKA)
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▼ \* When ALS inop, increase RVR to 40 and vis to 3/8 mile.  
 \*\* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE RVR to 60 and vis to 1 1/8 miles.

ALSF-1 (A1) MISSED APPROACH: Climb to 6500 via SKA R-235. At SKA 2 DME, turn right heading 340° to intcp SKA R-320 to KNOCK and hold, continue climb in hold to 6500.

ATIS <b>257.625</b>	SPOKANE APP CON 029°-207° <b>133.35 263.0</b> 208°-028° <b>123.75 282.25</b>	FAIRCHILD TOWER <b>120.35 233.7</b>	GND CON <b>123.6 275.8</b>
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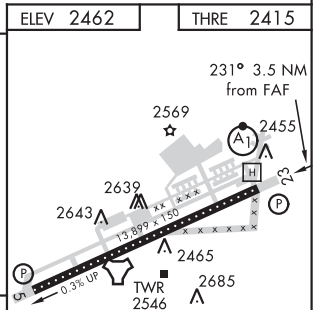
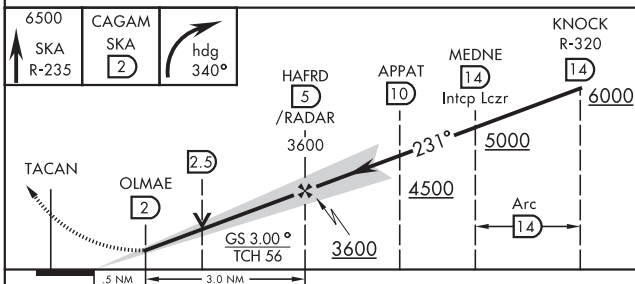


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## RADAR or DME REQUIRED

EMERG SAFE ALT 100 NM 10,900



	ELEV 2462	THRE 2415			
6500 SKA R-235	CAGAM SKA 2	hdg 340°			
TACAN	OLMAE SKA 2	GS 3.00° TCH 56			
3600	HAFRD SKA 5 /RADAR	APPAT SKA 10			
4500	MEDNE SKA 14 Intcp Lczz	KNOCK R-320			
6000					
CATEGORY	A	B	C	D	E
S-ILS 23 *†	2615/24		200	(200-1/2)	
S-LOC 23 **	2800/24	385 (400-1/2)	2800/35	385	(400-3/8)
CIRCLING ***	2900-1 438 (500-1)	2960-1 498 (500-1)	2960-1 1/2 498 (500-1 1/2)	3020-2 558 (600-2)	3500-3 1038(1100-3)
FAF to MAP 3.0 NM					
	Knots	60	90	120	150 180
	Min:Sec	3:00	2:00	1:30	1:12 1:00

SPOKANE, WASHINGTON 47°37'N-117°39'W FAIRCHILD AFB (KSKA)

Amdt 2 10JAN13

# ILS or LOC RWY 23



SPOKANE, WASHINGTON

# ILS RWY 5 (CAT II)

LOC I-FRC <b>110.3</b>	APCH CRS <b>051°</b>	Rwy Idg <b>13,899</b> THRE <b>2462</b> Arpt Elev <b>2462</b>
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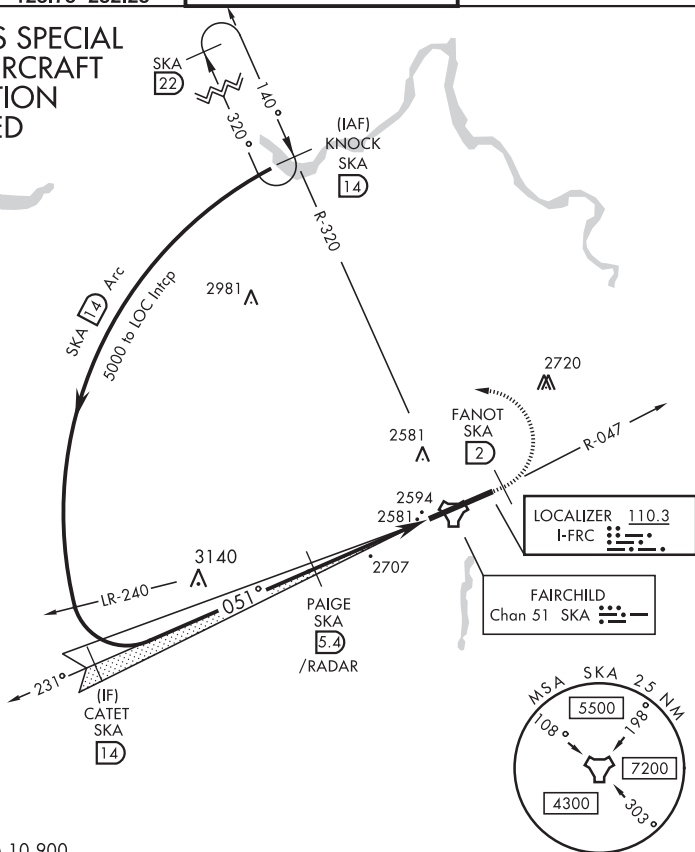
AL-553 [USAF]

FAIRCHILD AFB (KSKA)

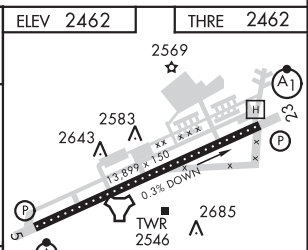
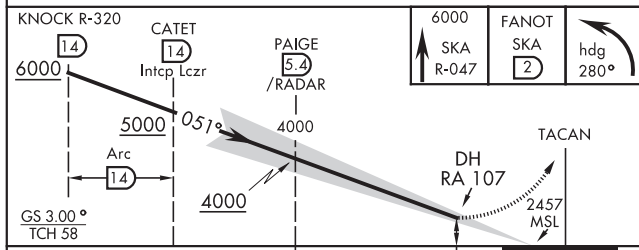
ALSF-2	MISSED APPROACH: Climb to 6000 via SKA TACAN R-047. At SKA 2 DME turn left hdg 280° to intcp SKA R-320 to KNOCK and hold, continue climb in hold to 6000.	

ATIS <b>257.625</b>	SPOKANE APP CON 029°-207° <b>133.35 263.0</b> 208°-028° <b>123.75 282.25</b>	FAIRCHILD TOWER <b>120.35 233.7</b>	GND CON <b>123.6 275.8</b>
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## CATEGORY II ILS SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



EMERG SAFE ALT 100 NM 10,900



CATEGORY	A	B	C	D	E
S-ILS 5		RA 107/12	108	DA 2570	

SPOKANE, WASHINGTON

47°37'N-117°39'W

FAIRCHILD AFB (KSKA)

Orig 10JAN13

# ILS RWY 5 (CAT II)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SPOKANE, WASHINGTON

# RNAV (GPS) RWY 5

APCH CRS <b>051°</b>	Rwy ldg <b>13,899</b> THRE <b>2462</b> Arpt Elev <b>2462</b>
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AL-553 [USAF]

FAIRCHILD AFB (KSKA)

▼ \* When ALS inop, increase CAT A RVR to 55, vis to 1 mile, CAT B RVR to 60, vis to 1½ miles, and CAT CDE vis to 2½ miles.  
\*\* Circling S of Rwy 5-23 NA.

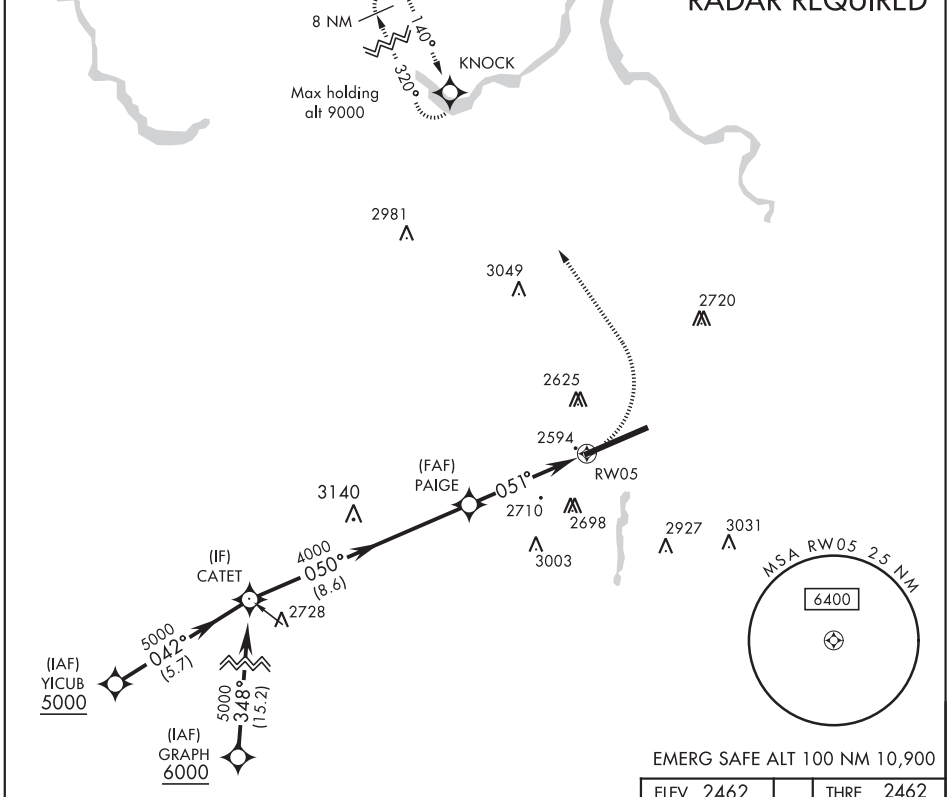
ALSF-2

MISSED APPROACH: Climb to 6000 via left turn direct KNOCK and hold, continue climb in hold to 6000.

ATIS <b>257.625</b>	SPOKANE APP CON 029°-207° <b>133.35 263.0</b> 208°-028° <b>123.75 282.25</b>	FAIRCHILD TOWER <b>120.35 233.7</b>	GND CON <b>123.6 275.8</b>
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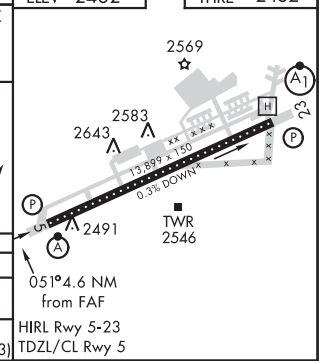
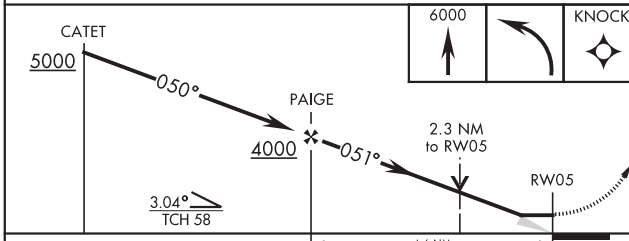
DME/DME RNP - 0.3 NA

**RADAR REQUIRED**



EMERG SAFE ALT 100 NM 10,900

ELEV 2462	THRE 2462
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CATEGORY	A	B	C	D	E
LNAV MDA *	3260/24 798 (800-½)	3260/40 798 (800-¾)	3260-1¼ 798 (800-1¼)		
CIRCLING **	3260-1 798 (800-1)	3260-1¼ 798 (800-1¼)	3260-2½ 798 (800-2½)		3500-3 1038 (1100-3)

SPOKANE, WASHINGTON

47°37'N-117°39'W

FAIRCHILD AFB (KSKA)

Orig 07FEB13

# RNAV (GPS) RWY 5

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SPOKANE, WASHINGTON

# RNAV (GPS) RWY 23

APCH CRS	Rwy Idg	<b>13,899</b>
<b>231°</b>	THRE	<b>2415</b>
	Arpt Elev	<b>2462</b>

AL-553 [USAF]

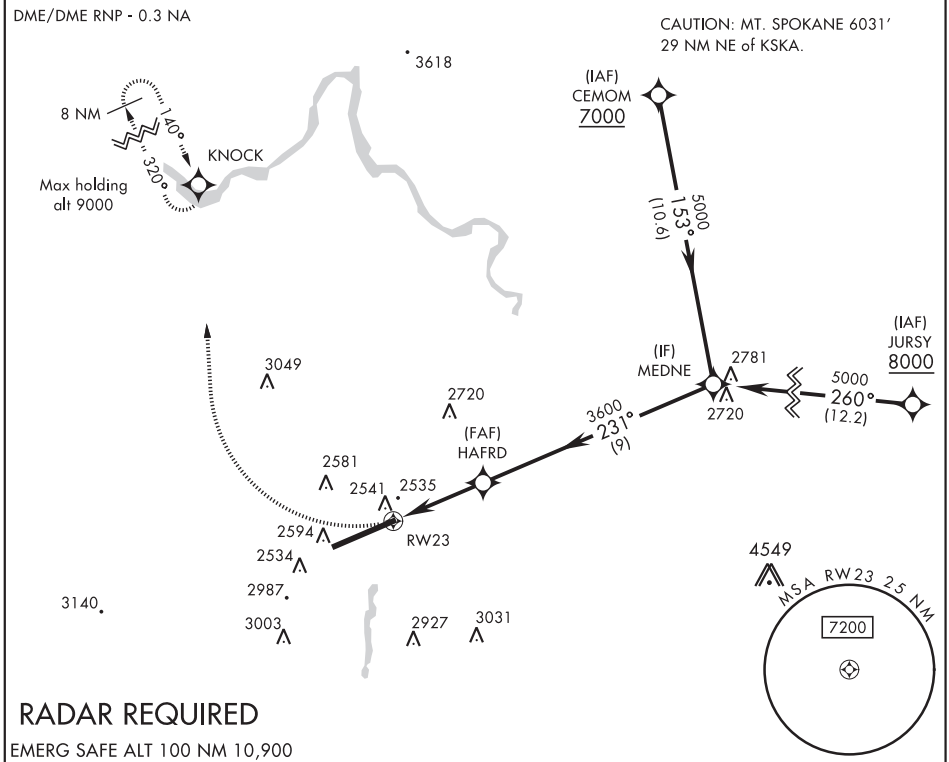
FAIRCHILD AFB (KSKA)

▼ \* When ALS inop, increase CAT AB RVR to 40 and vis to ¾ mile, CAT CDE vis to 1¼ miles.  
 \*\* Circling S of Rwy 5-23 NA.



MISSED APPROACH: Climb to 6000 via right turn direct to KNOCK and hold, continue climb in hold to 6000.

ATIS	SPOKANE APP CON	FAIRCHILD TOWER	GND CON
<b>257.625</b>	029°-207° <b>133.35 263.0</b> 208°-028° <b>123.75 282.25</b>	<b>120.35 233.7</b>	<b>123.6 275.8</b>

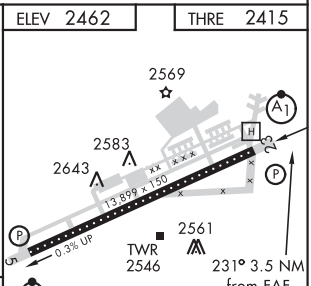
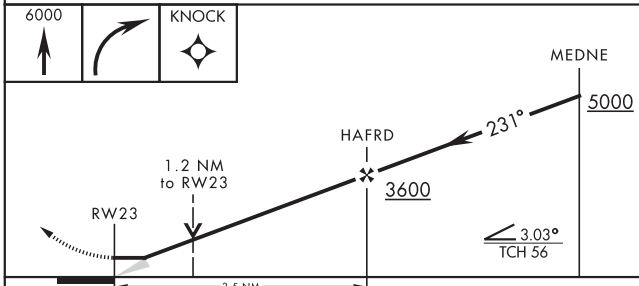


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## RADAR REQUIRED

EMERG SAFE ALT 100 NM 10,900



CATEGORY	A	B	C	D	E
LNAV MDA *	2840/24	425 (400-½)	2840/40	425	(400-¾)
CIRCLING **	2900-1 438 (500-1)	2960-1 498 (500-1)	2960-1½ 498 (500-1½)	3020-2 558 (600-2)	3500-3 1038(1100-3)

HIRL Rwy 5-23  
 TDZL/CL Rwy 5

SPOKANE, WASHINGTON

47°37'N-117°39'W

FAIRCHILD AFB (KSKA)

Orig 07FEB13

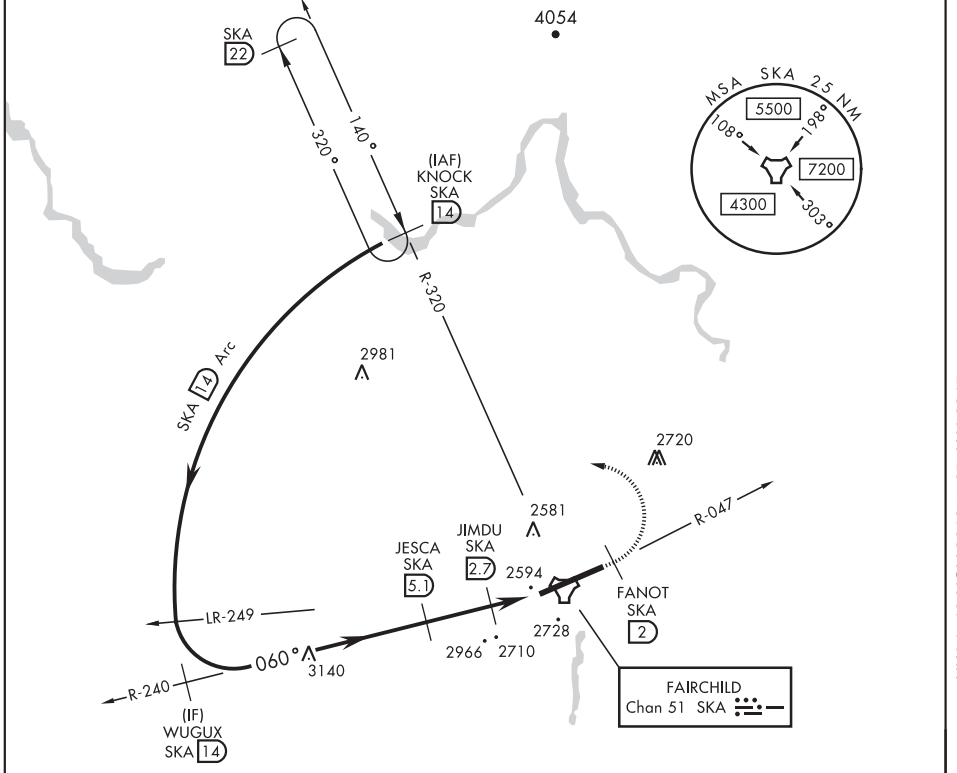
# RNAV (GPS) RWY 23

SPOKANE, WASHINGTON

# TACAN RWY 5

TACAN SKA Chan 51	APCH CRS 060°	Rwy Ldg 13,899 THRE 2462 Arpt Elev 2462	AL-553 [USAF]	FAIRCHILD AFB (KSKA)
* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CDE vis to 1½ miles. ** Circling S of Rwy 5-23 NA.			ALSF-2	MISSED APPROACH: Climb to 6000 via SKA TACAN R-047. At SKA 2 DME turn left hdg 280° to intcp SKA R-320 to KNOCK and hold, continue climb in hold to 6000.

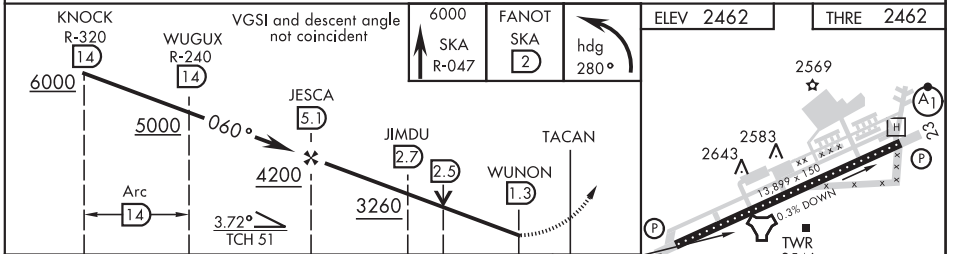
ATIS 257.625	SPOKANE APP CON 029°-207° 133.35 263.0 208°-028° 123.75 282.25	FAIRCHILD TOWER 120.35 233.7	GND CON 123.6 275.8
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 10,900



	KNOCK R-320 1.4		WUGUX R-240 1.4		JESCA 5.1		JIMDU 2.7		WUNON 1.3		TACAN	
	6000		5000		4200		3260		2583		2569	
	060°		060°		3.72° TCH 51		2.4 NM		1.4 NM		5 NM	
	ELEV 2462		THRE 2462		6000 SKA R-047		FANOT SKA 2		hdg 280°		060° to TACAN	
CATEGORY	A		B		C		D		E		HIRL Rwy 5-23 TDZL/CL Rwy 5	
S-5 *	3040/24		578 (600-½)		3040-1¼		578 (600-1¼)					
CIRCLING **	3040-1		578 (600-1)		3040-1⅝		3040-2		3500-3			
					578 (600-1⅝)		578 (600-2)		1038 (1100-3)			

SPOKANE, WASHINGTON 47°37'N-117°39'W FAIRCHILD AFB (KSKA)

Amdt 3 10JAN13

# TACAN RWY 5

SPOKANE, WASHINGTON

# TACAN RWY 23

TACAN SKA Chan 51	APCH CRS 228°	Rwy Idg 13,899 THRE 2415 Arpt Elev 2462
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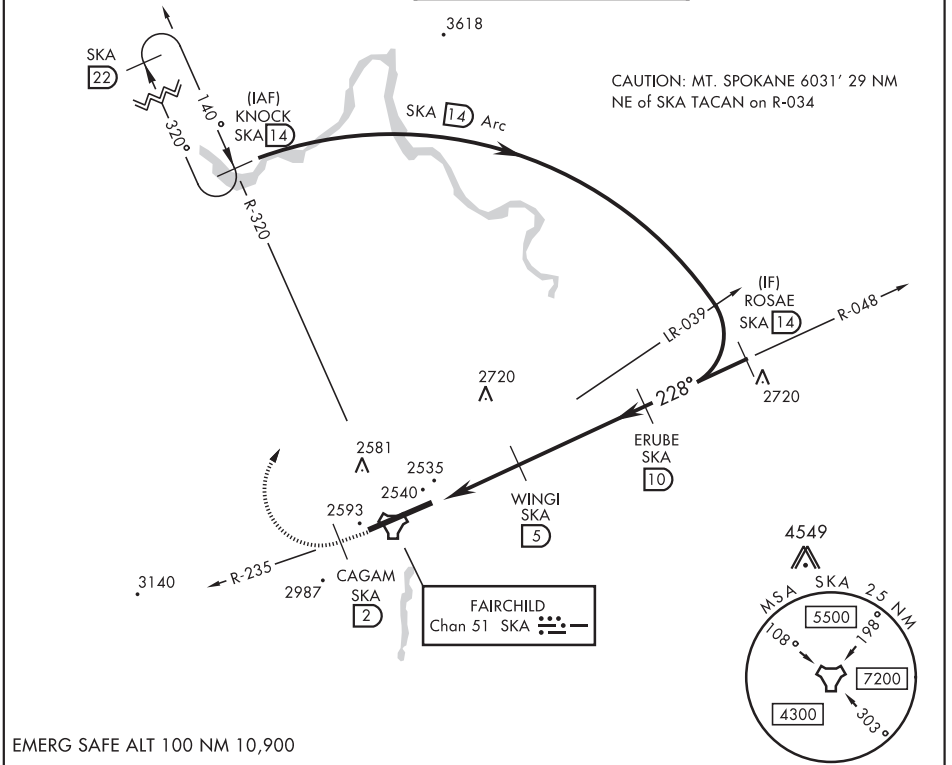
AL-553 [USAF]

FAIRCHILD AFB (KSKA)

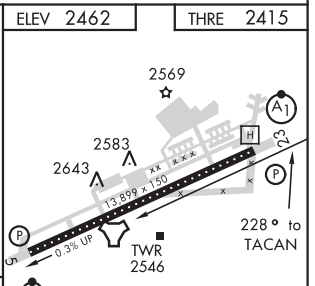
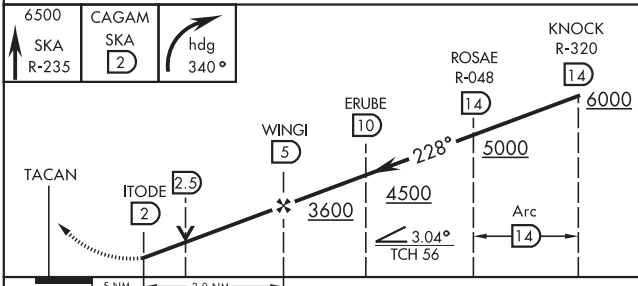
▼ \* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE RVR to 60, vis to 1½ miles.  
 \*\* Circling S of Rwy 5-23 NA.

ALSF-1 MISSED APPROACH: Climb to 6500 via SKA TACAN R-235. At SKA 2 DME, turn right heading 340° to intcp SKA R-320 to KNOCK and hold, continue climb in hold to 6500.

ATIS 257.625	SPOKANE APP CON 029°-207° 133.35 263.0 208°-028° 123.75 282.25	FAIRCHILD TOWER 120.35 233.7	GND CON 123.6 275.8
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EMERG SAFE ALT 100 NM 10,900



SPOKANE, WASHINGTON

47°37'N-117°39'W

FAIRCHILD AFB (KSKA)

Amr 2 10JAN13

# TACAN RWY 23

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

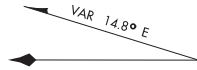
# AIRPORT DIAGRAM

AFD-553 [USAF]

FAIRCHILD AFB (KSKA)  
SPOKANE, WASHINGTON

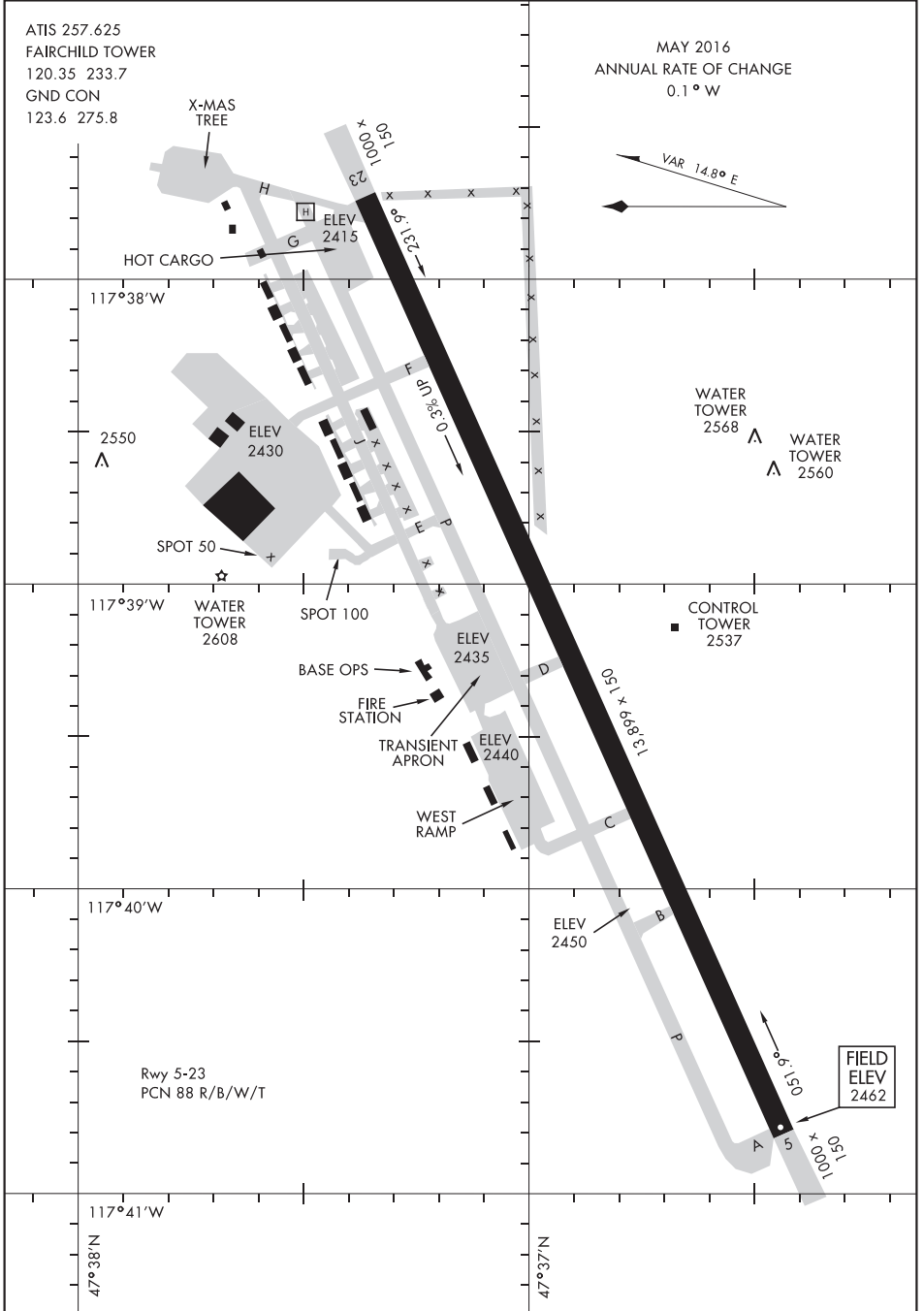
ATIS 257.625  
FAIRCHILD TOWER  
120.35 233.7  
GND CON  
123.6 275.8

MAY 2016  
ANNUAL RATE OF CHANGE  
0.1° W



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

SPOKANE, WASHINGTON  
FAIRCHILD AFB (KSKA)

WAAS CH <b>78125</b> <b>W27A</b>	APP CRS <b>268°</b>	Rwy Idg TDZE Apt Elev	<b>4799</b> <b>2728</b> <b>2729</b>
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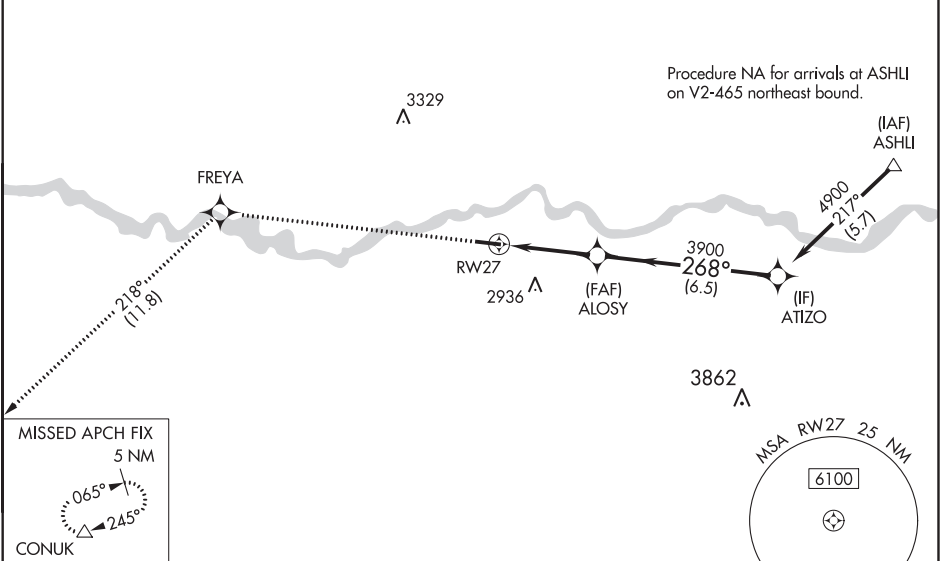
# RNAV (GPS) RWY 27

TILLITT FIELD (1S3)

**NA** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 53°C (128°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Miles City altimeter setting: increase LPV and LNAV/VNAV DA to 3066 and all visibilities 1/8 mile. Increase all MDA 100 feet and all Cat C and D visibilities 1/4 mile. VDP and Baro-VNAV NA when using Miles City altimeter setting.

MISSED APPROACH: Climb to 6000 direct FREYA and on track 218° to CONUK and hold.

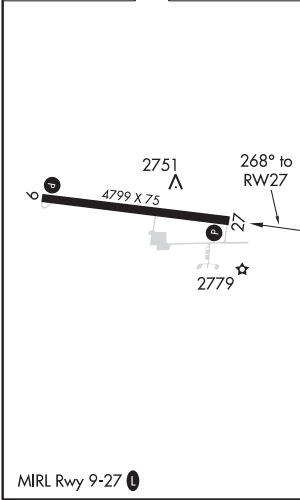
AWOS-AV <b>122.8</b>	GREAT FALLS RADIO <b>122.2 255.4</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2729	TDZE 2728
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6000	FREYA	tr 218°	CONUK	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 29).	ATIZO
				ALOSY	
				3900	4900
				RW27	3900
				0.9 NM	2.6 NM
					6.5 NM
					GP 3.00° TCH 51
CATEGORY	A		B		D
LPV DA			2978-1		250 (300-1)
LNAV/VNAV DA			2978-1		250 (300-1)
LNAV MDA			3040-1		312 (400-1)
CIRCLING	3160-1 431 (500-1)	3320-1 591 (600-1)	3340-1 3/4 611 (700-1 3/4)	3700-3 971 (1000-3)	

NDB FOR <b>236</b>	APP CRS <b>263°</b>	Rwy Idg TDZE Apt Elev	<b>4799</b> <b>2728</b> <b>2729</b>
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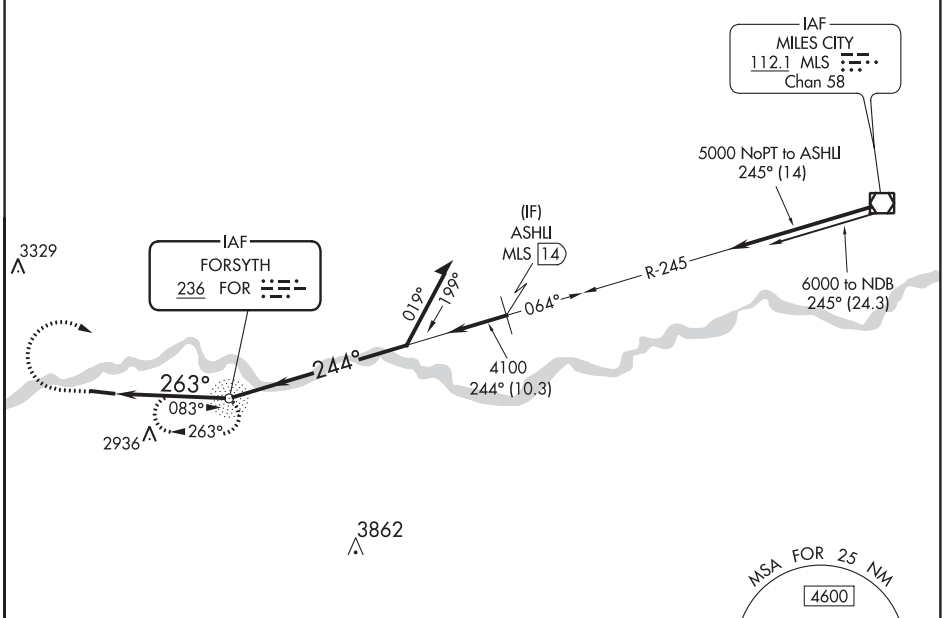
# NDB RWY 27

TILLITT FIELD (1S3)

**▼** Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Miles City altimeter setting: increase all MDA 100 feet; increase S-26 Cat C and D visibility 3/8 mile and increase Circling Cat C visibility 1/4 mile.

**▲ NA** MISSED APPROACH: Climb to 3500 then climbing right turn to 6000 direct FOR NDB and hold, continue climb-in-hold to 6000.

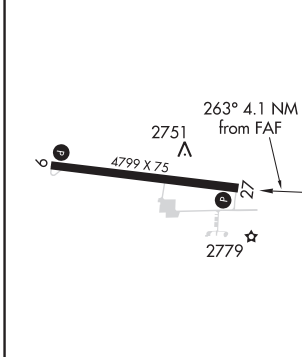
AWOS-AV <b>122.8</b>	GREAT FALLS RADIO <b>122.2 255.4</b>	UNICOM <b>122.8 (CTAF)</b> <b>📻</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2729	TDZE 2728
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3500 6000 FOR

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 29).

FOR NDB

Remain within 10 NM

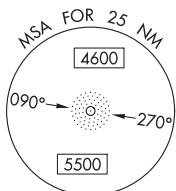
064° 4900

244° 4100

263°

3.03° TCH 40

4.1 NM



MIRL Rwy 9-27 <b>📻</b>					
FAF to MAP 4.1 NM					
Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22
<b>📻</b> CIRCLING	3240-1 511 (600-1)	3320-1 591 (600-1)	3340-1 3/4 611 (700-1 3/4)	3700-3 971 (1000-3)	



APP CRS <b>228°</b>	Rwy Idg <b>4300</b>
	TDZE <b>2864</b>
	Apt Elev <b>2869</b>

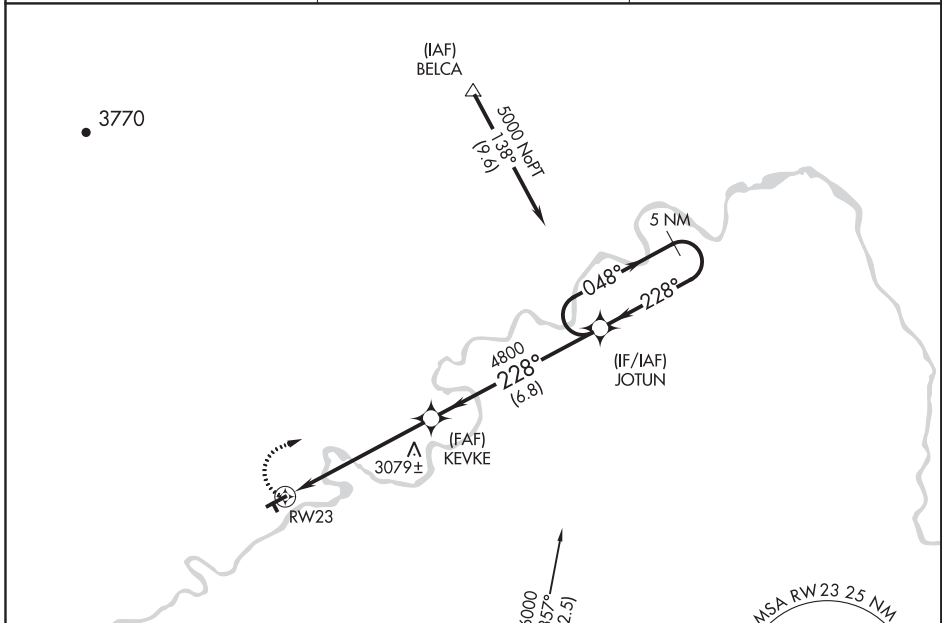
# RNAV (GPS) RWY 23

FORT BENTON (79S)

**⚠** DME/DME RNP-0.3 NA. Procedure NA at night.  
**⚠** When local altimeter setting not received, use Great Falls altimeter setting and increase all MDA 280 feet and all Cat B and C visibilities 1 mile.

MISSED APPROACH: Climbing right turn to 5000 direct JOTUN and hold.

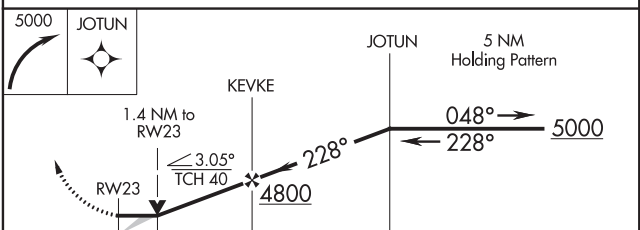
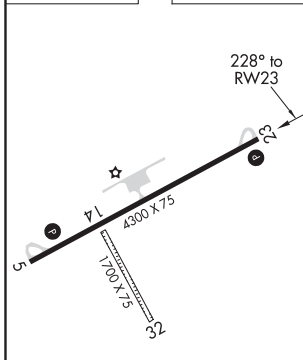
AWOS-A <b>122.8</b>	SALT LAKE CENTER <b>133.4 285.4</b>	UNICOM <b>122.8 (CTAF)</b> <b>📻</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2869	TDZE 2864
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CATEGORY	A	B	C	D
LNAV MDA	3340-1	476 (500-1)	3340-1¼ 476 (500-1¼)	NA
CIRCLING	3340-1	471 (500-1)	3340-1½ 471 (500-1½)	NA

WAAS CH <b>78234</b> <b>W22A</b>	APP CRS <b>224°</b>	Rwy Idg TDZE Apt Elev	<b>6402</b> <b>7023</b> <b>7038</b>
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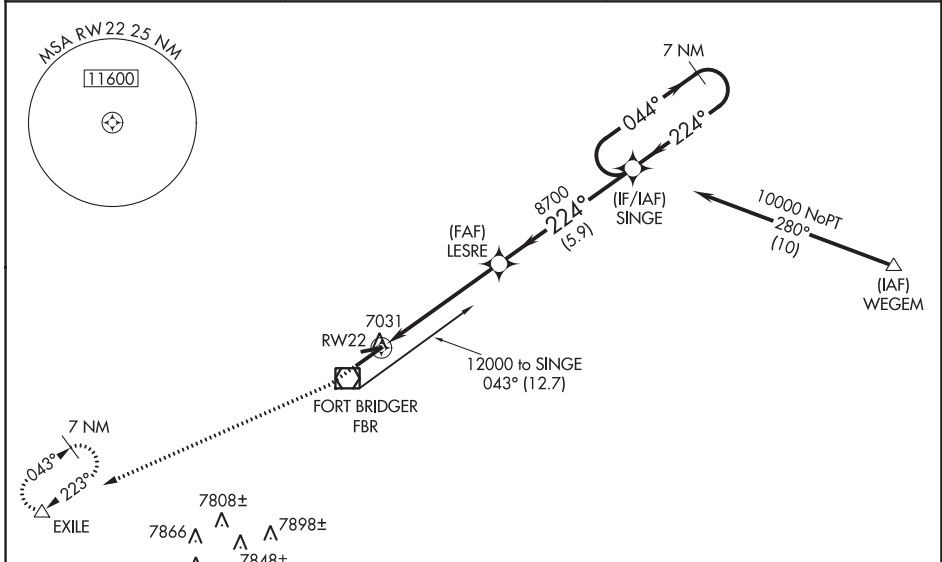
# RNAV (GPS) RWY 22

FORT BRIDGER (FBR)

**NA** DME/DME RNP -0.3 NA. When local altimeter setting not received, use Evanston altimeter setting and increase all MDA 100 feet and increase LP Cats C and D visibility 1/8 mile, LNAV Cats C and D, and Circling Cat C visibility 1/4 mile and Circling Cat D visibility 1/2 mile. Helicopter visibility reduction below 1 SM not authorized. When Rwy 4 VGSI inoperative, circling Rwy 4 NA at night. Circling to Rwy 7/25 NA at night. When Rwy 22 VGSI inoperative, Straight-in and Circling minimums NA at night.

MISSED APPROACH: Climbing to 7500 then climb to 12000 direct EXILE and hold, continue climb-in-hold to 12000.

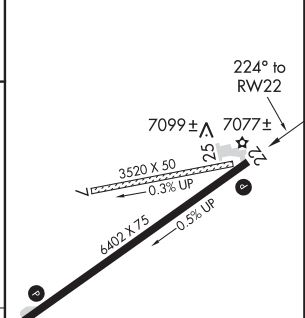
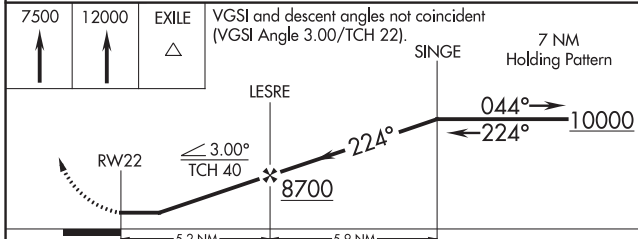
AWOS-3PT <b>118.8</b>	CASPER RADIO <b>122.3</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 7038	TDZE 7023
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CATEGORY	A	B	C	D
LP MDA		7300-1	277 (300-1)	
LNAV MDA		7340-1	317 (400-1)	
<b>C</b> CIRCLING	7400-1 362 (400-1)	7500-1 462 (500-1)	7660-1 3/4 662 (700-1 3/4)	7680-2 642 (700-2)

REIL Rws 4 and 22 **0**  
MIRL Rwy 4-22 **0**

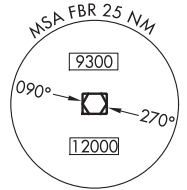
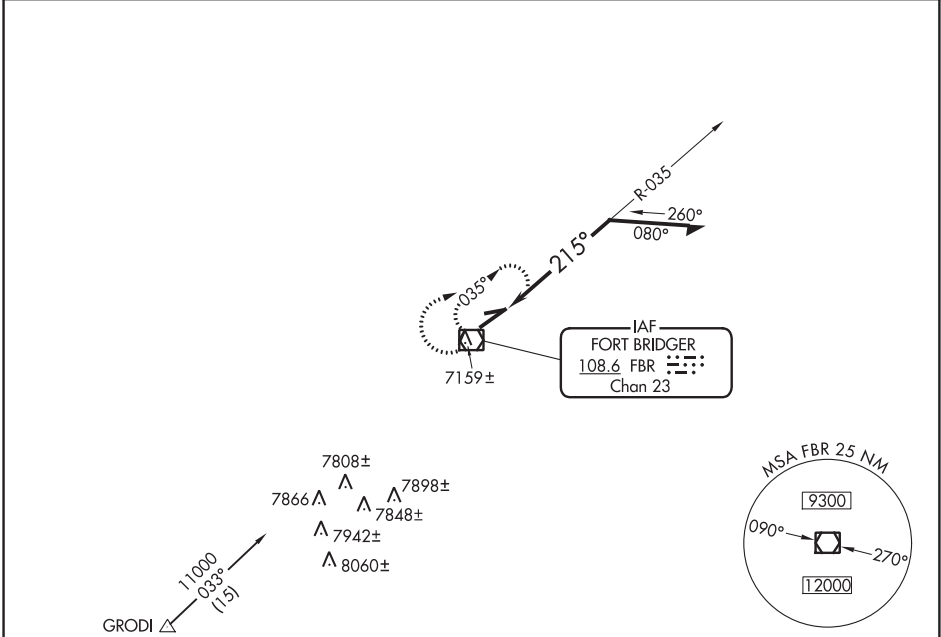
VOR/DME FBR <b>108.6</b> Chan <b>23</b>	APP CRS <b>215°</b>	Rwy Idg TDZE Apt Elev <b>6402</b> <b>7018</b> <b>7034</b>
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# VOR RWY 22

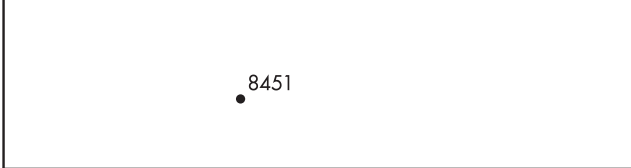
FORT BRIDGER (FBR)

<b>▽</b> <b>△</b> NA	If local altimeter setting not received, procedure NA.	MISSED APPROACH: Climbing right turn to 9000 in FBR VOR/DME holding pattern.
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AWOS-3PT <b>118.8</b>	CASPER RADIO <b>122.3</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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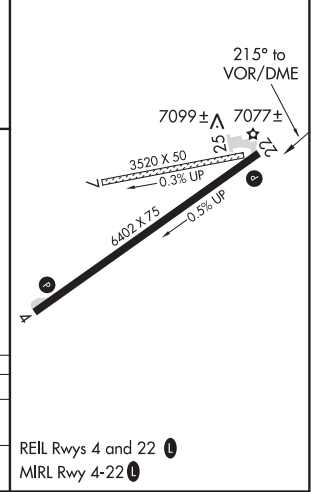


ELEV 7034	TDZE 7018
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9000	FBR
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\* Maintain 8700 or above until established outbound for procedure turn.



CATEGORY	A	B	C	D
S-22	7440-1	422 (500-1)	7440-1 ¼	422 (500-1 ¼)
CIRCLING	7480-1 446 (500-1)	7500-1 466 (500-1)	7500-1 ½ 466 (500-1 ½)	7600-2 566 (600-2)

REIL Rwy 4 and 22 **0**  
MIRL Rwy 4-22 **0**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>40024</b> <b>W34A</b>	APP CRS <b>341°</b>	Rwy Idg <b>3402</b> TDZE <b>108</b> Apt Elev <b>113</b>
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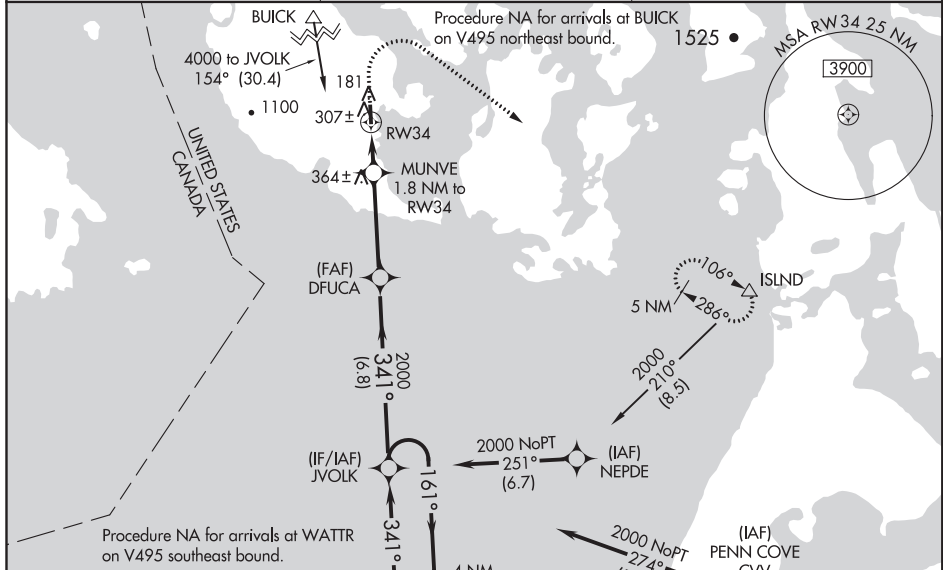
# RNAV (GPS) RWY 34

FRIDAY HARBOR (FHR)

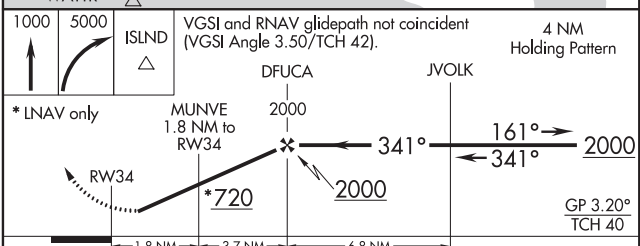
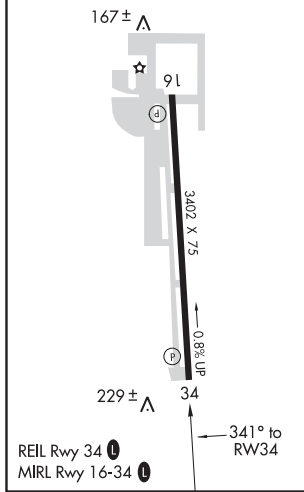
**▼** When VGSI inop, Circling Rwy 16 NA at night. Baro-VNAV NA when using Burlington/Mount Vernon altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 43°C (109°F). When VGSI inop, Straight-in/Circling Rwy 34 procedure NA at night. Circling NA west of Rwy 16-34. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Burlington/Mount Vernon altimeter setting; increase all DA 61 feet and all MDA 80 feet; increase LPV visibility all Cats ¼ mile, LNAV/VNAV visibility all Cats ¼ mile, LNAV visibility Cat C ¼ mile, and Circling visibility Cat C ¼ mile.

**MISSED APPROACH:** Climb to 1000, then climbing right turn to 5000 direct ISLND and hold, continue climb-in-hold to 5000.

ASOS <b>135.675</b>	WHIDBEY APP CON <b>118.2 285.65</b>	CTAF <b>128.25</b>
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ELEV <b>113</b>	TDZE <b>108</b>
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CATEGORY	A		B	C	D
	LPV DA	467-1 1/8		359 (400-1 1/8)	
LNAV/VNAV DA	513-1 1/4		405 (400-1 1/4)		NA
LNAV MDA	620-1	512 (600-1)	620-1 1/2	512 (600-1 1/2)	NA
CIRCLING	720-1	607 (700-1)	820-2	707 (800-2)	NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NDB FHR <b>284</b>	APP CRS <b>339°</b>	Rwy Idg TDZE Apt Elev	<b>3402</b> <b>108</b> <b>113</b>
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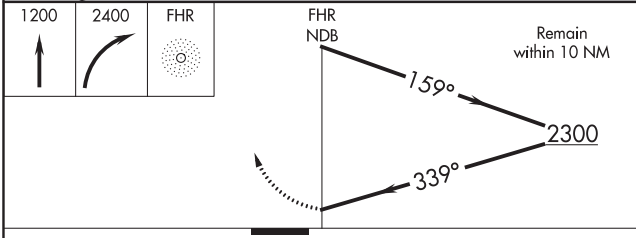
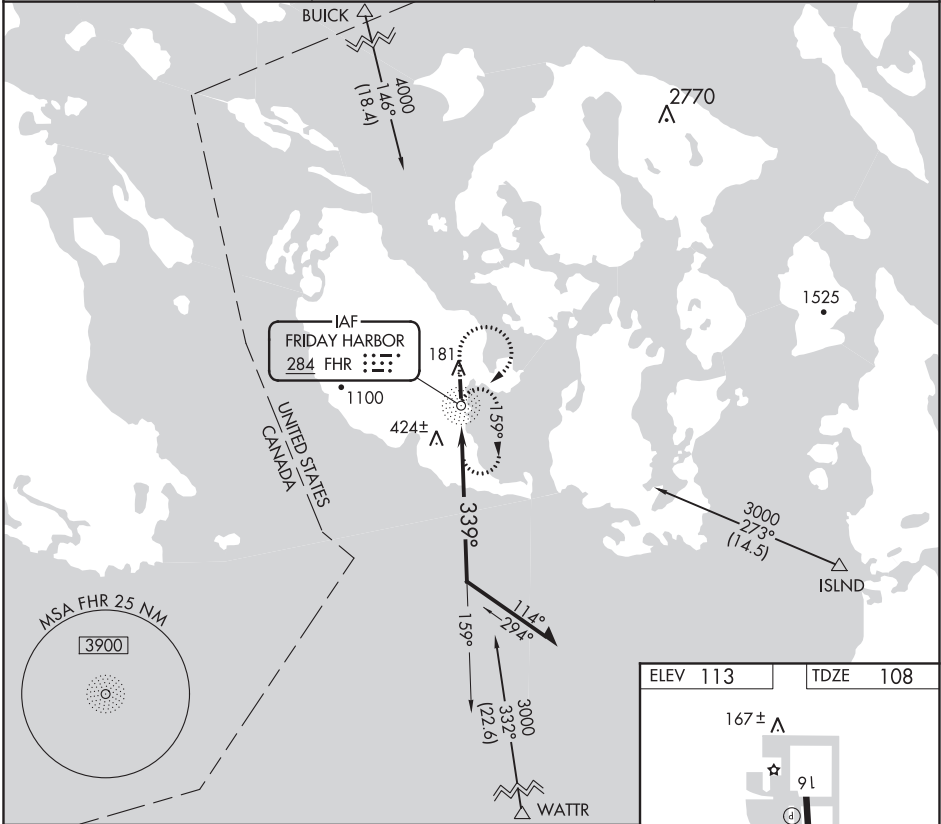
# NDB RWY 34

FRIDAY HARBOR (FHR)

**▼** Circling NA west of Rwy 16-34.  
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 1200 then climbing right turn to 2400 direct FHR NDB and hold, continue climb-in-hold to 2400.

ASOS <b>135.675</b>	WHIDBEY APP CON <b>118.2 285.65</b>	CTAF <b>128.25</b> <b>①</b>
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ELEV 113	TDZE 108
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REIL Rwy 34 **①**  
MIRL Rwy 16-34 **①**

CATEGORY	A	B	C	D
S-34	800-1	692 (700-1)	800-2 692 (700-2)	NA
CIRCLING	800-1	687 (700-1)	820-2 707 (800-2)	NA

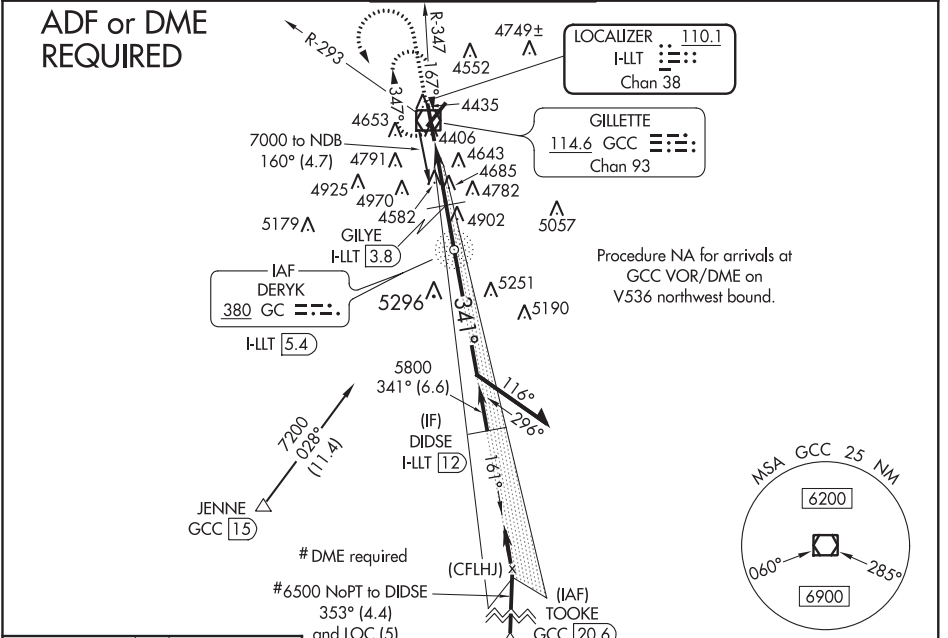
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-LLT <b>110.1</b> Chan 38	APP CRS <b>341°</b>	Rwy Idg TDZE Apt Elev	<b>7500</b> <b>4364</b> <b>4364</b>
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**ILS or LOC RWY 34**  
GILLETTE-CAMPBELL COUNTY (GCC)

ASOS <b>124.175</b>	DENVER CENTER <b>135.6 363.025</b>	GILLETTE TOWER* <b>118.5 (CTAF)</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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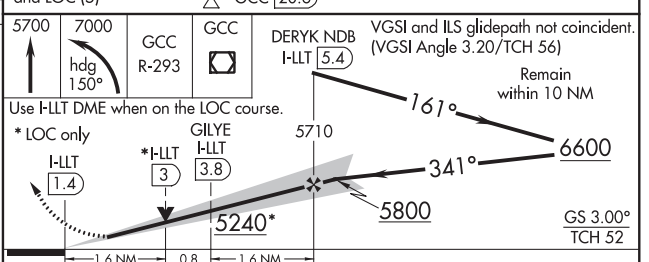
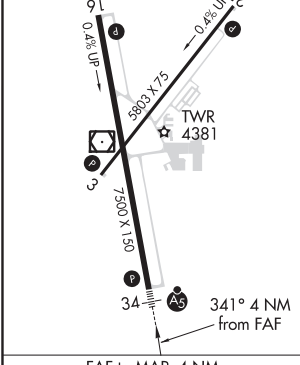


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4364	<b>D</b>	TDZE 4364
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HIRL Rwy 16-34  
REIL Rwy 3, 16, and 21  
MIRL Rwy 3-21



CATEGORY	A	B	C	D
S-ILS 34	4564-1/2 200 (200-1/2)			
S-LOC 34	5240-1/2 876 (900-1/2)	5240-3/4 876 (900-3/4)	5240-2 876 (900-2)	
<b>C</b> CIRCLING	5240-1/4	876 (900-1/4)	5400-3	1036 (1100-3)
GILYE FIX MINIMUMS				
S-LOC 34	4940-1/2	576 (600-1/2)	4940-1/4	576 (600-1/4)
<b>C</b> CIRCLING	5040-1 676 (700-1)	5240-1/4 876 (900-1/4)	5400-3	1036 (1100-3)

GILLETTE, WYOMING  
Amdt 4 10NOV16

44°21'N-105°32'W

GILLETTE-CAMPBELL COUNTY (GCC)  
**ILS or LOC RWY 34**

WAAS CH <b>86221</b> <b>W16A</b>	APP CRS <b>161°</b>	Rwy Idg TDZE Apt Elev	<b>7500</b> <b>4337</b> <b>4364</b>
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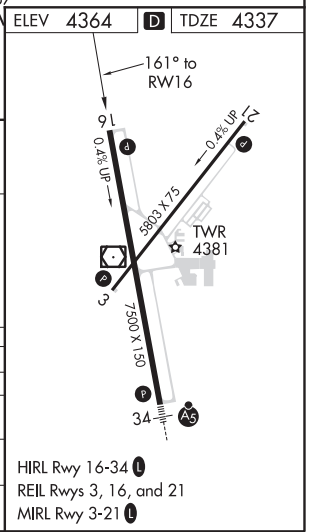
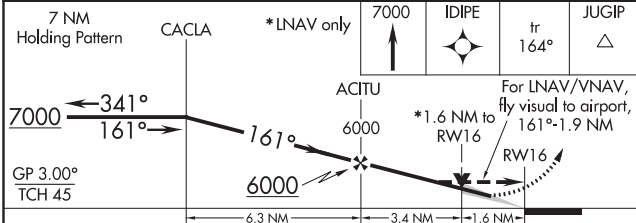
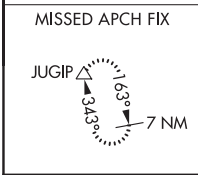
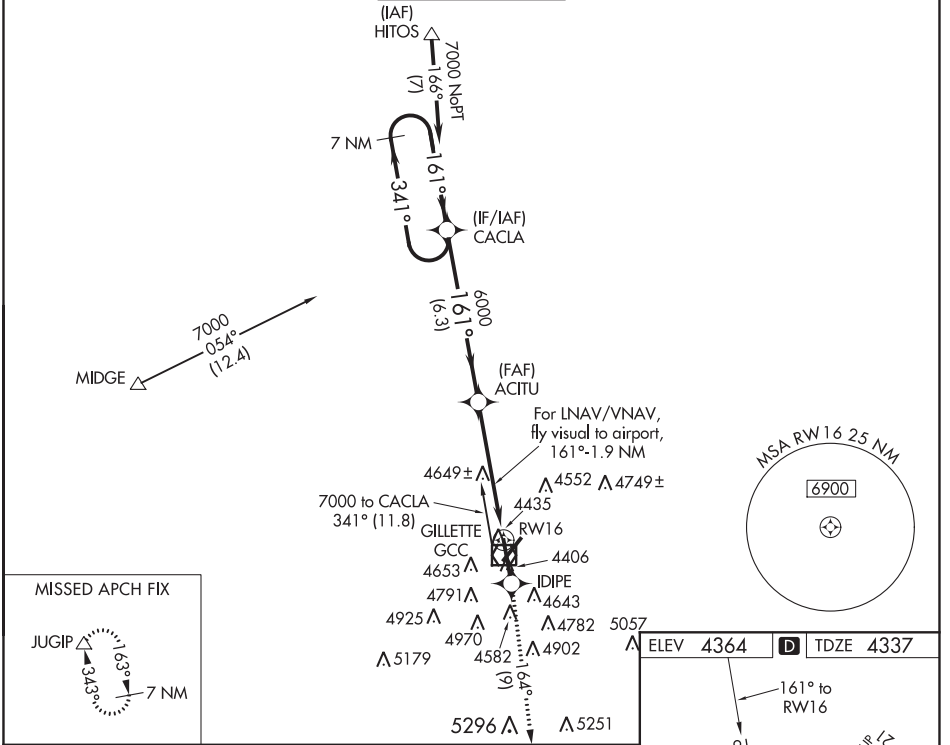
# RNAV (GPS) RWY 16

GILLETTE-CAMPBELL COUNTY (GCC)

**⚠** Circling to Rwy 3 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 54°C (130°F).  
**❄** -25°C/-13°F DME/DME RNP-0.3 NA.

**MISSED APPROACH:** Climb to 7000 direct IDIPE and on track 164° track to JUGIP and hold.

ASOS <b>124.175</b>	DENVER CENTER <b>135.6 363.025</b>	<b>GILLETTE TOWER *</b> <b>118.5 (CTAF) 0</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA		4660-1¼	323 (300-1¼)	
LNAV/VNAV DA		4980-2½	643 (700-2½)	
LNAV MDA	4900-1	563 (600-1)	4900-1½ 563 (600-1½)	4900-1¾ 563 (600-1¾)
<b>C</b> CIRCLING	5040-1 676 (700-1)	5240-1¼ 876 (900-1¼)	5400-3	1036 (1100-3)

HIRL Rwy 16-34 **1**  
 REIL Rwy 3, 16, and 21  
 MIRL Rwy 3-21 **1**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

GILLETTE, WYOMING

AL-5728 (FAA)

16315

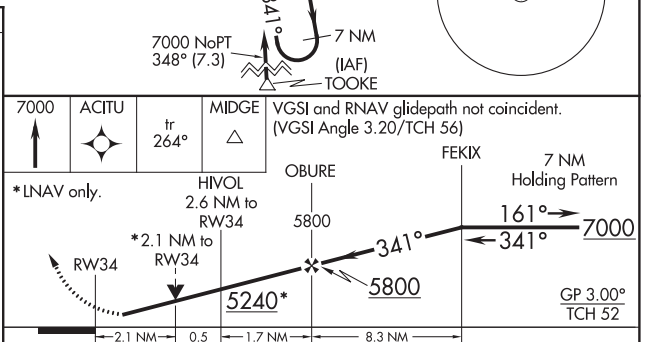
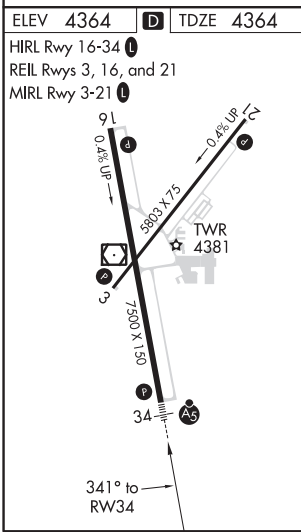
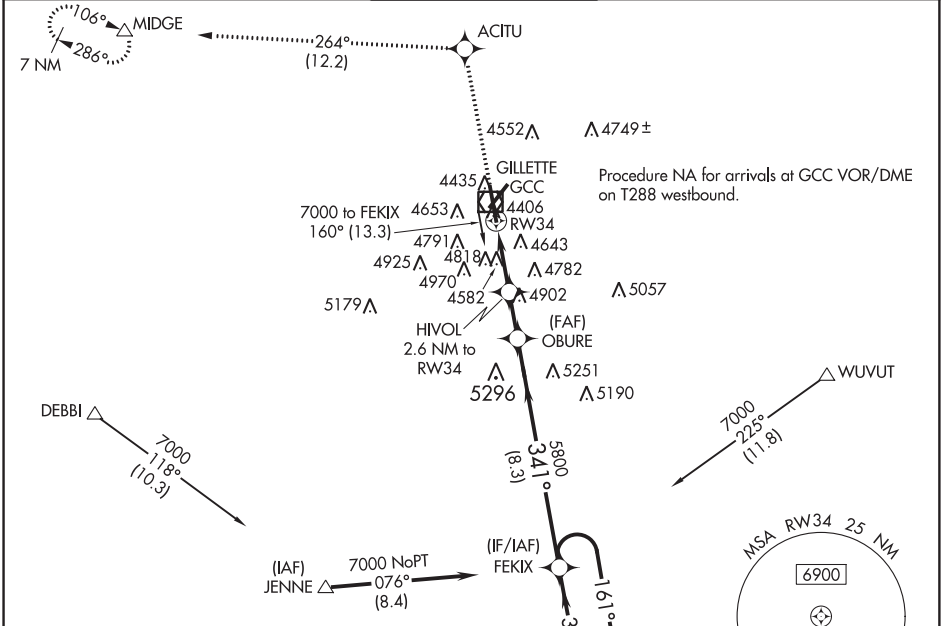
WAAS CH <b>86204</b> <b>W34A</b>	APP CRS <b>341°</b>	Rwy Idg TDZE Apt Elev	<b>7500</b> <b>4364</b> <b>4364</b>
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# RNAV (GPS) RWY 34

GILLETTE-CAMPBELL COUNTY (GCC)

<b>V</b> <b>A</b> <b>33</b> -25°C/-13°F	Circling to Rwy 3 NA at night. Inop table does not apply to LPV and LNAV/VNAV. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inop ALS, increase LNAV Cat A visibility to 1 SM, Cat C to 2 SM. Rwy 34 helicopter visibility reduction below 3/4 SM NA.	MALSR 	MISSED APPROACH: Climb to 7000 direct ACITU and on track 264° to MIDGE and hold.
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ASOS <b>124.175</b>	DENVER CENTER <b>135.6 363.025</b>	GILLETTE TOWER * <b>118.5 (CTAF)</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA		4619-3/4	255 (300-3/4)	
LNAV/VNAV DA		5479-4	1115 (1200-4)	
LNAV MDA	5120-3/4	756 (800-3/4)	5120-1 3/4 756 (800-1 3/4)	5120-2 756 (800-2)
<b>C</b> CIRCLING	5120-1 756 (800-1)	5240-1 1/4 876 (900-1 1/4)	5400-3	1036 (1100-3)

GILLETTE, WYOMING  
Orig-A 10NOV16

44°21'N-105°32'W

GILLETTE-CAMPBELL COUNTY (GCC)  
**RNAV (GPS) RWY 34**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



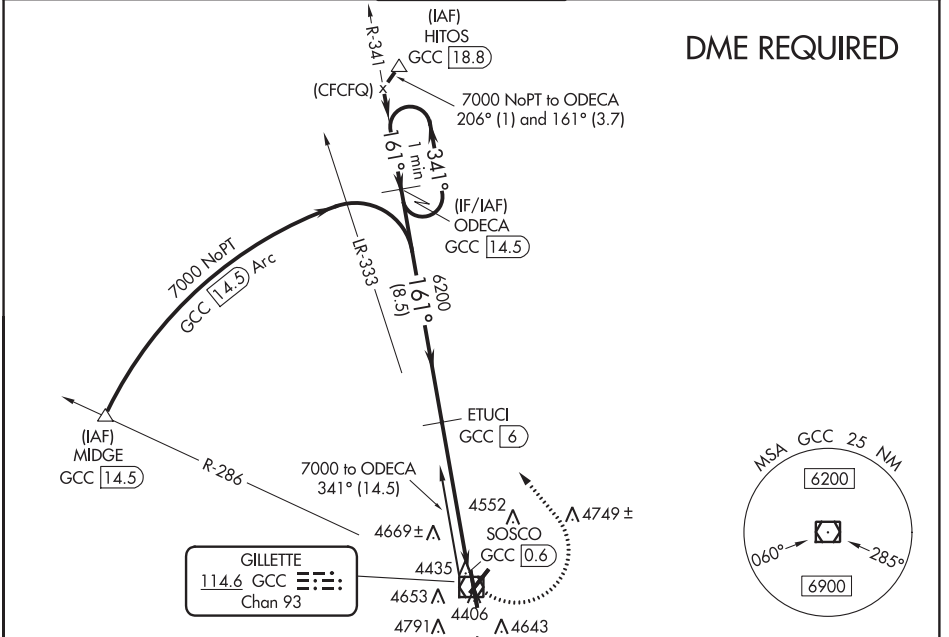
VOR/DME GCC <b>114.6</b> Chan <b>93</b>	APP CRS <b>161°</b>	Rwy Idg TDZE Apt Elev	<b>7500</b> <b>4337</b> <b>4364</b>
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**VOR RWY 16**  
GILLETTE-CAMPBELL COUNTY (GCC)

**⚠** Circling to Rwy 3 NA at night. DME required.  
Rwy 16 helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climbing left turn to 7000 on heading 311° and GCC R-341 to ODECA/14.5 DME and hold.

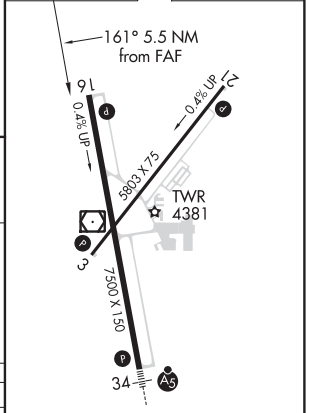
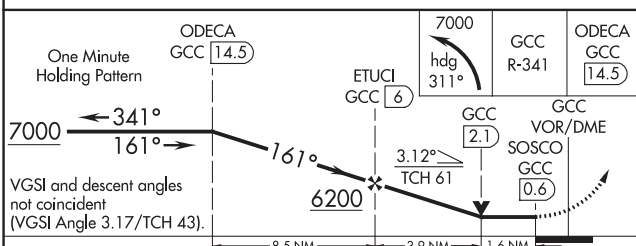
ASOS <b>124.175</b>	DENVER CENTER <b>135.6 363.025</b>	<b>GILLETTE TOWER *</b> <b>118.5 (CTAF) 0</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4364	<b>D</b> TDZE 4337
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CATEGORY	A	B	C	D
S-16	4920-1	583 (600-1)	4920-1 3/4	583 (600-1 3/4)
<b>C</b> CIRCLING	5040-1 676 (700-1)	5240-1 1/4 876 (900-1 1/4)	5400-3	1036 (1100-3)

HIRL Rwy 16-34 0

REIL Rws 3, 16, and 21

MIRL Rwy 3-21 0

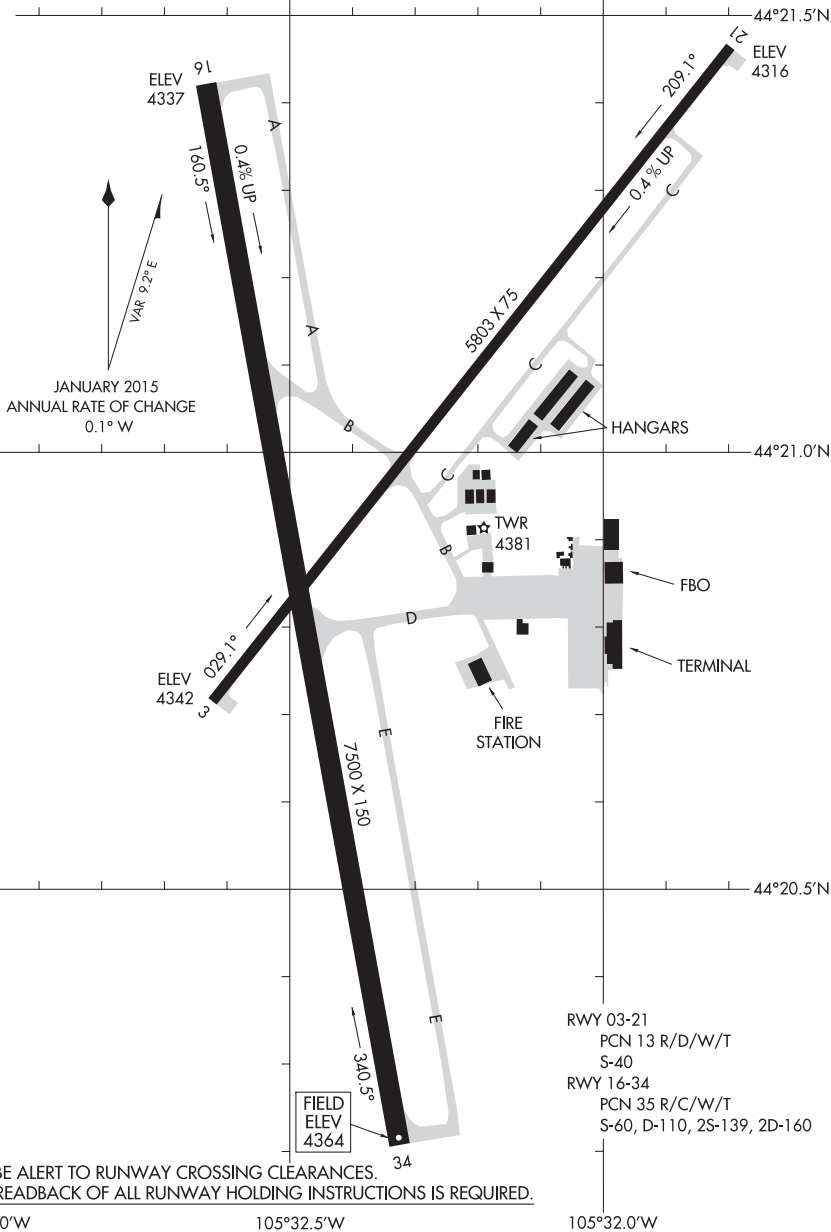
# AIRPORT DIAGRAM

GILLETTE-CAMPBELL COUNTY (GCC)  
GILLETTE, WYOMING

AL-5728 (FAA)

ASOS  
124.175  
GILLETTE TOWER ★  
118.5  
GND CON  
121.7

D



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

# AIRPORT DIAGRAM

16315

GILLETTE, WYOMING  
GILLETTE-CAMPBELL COUNTY (GCC)

WAAS CH <b>93620</b> W12A	APP CRS <b>123°</b>	Rwy Idg TDZE Apt Elev	<b>5002</b> <b>2294</b> <b>2296</b>
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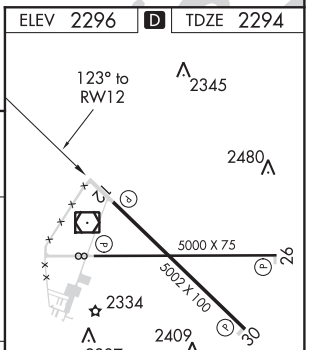
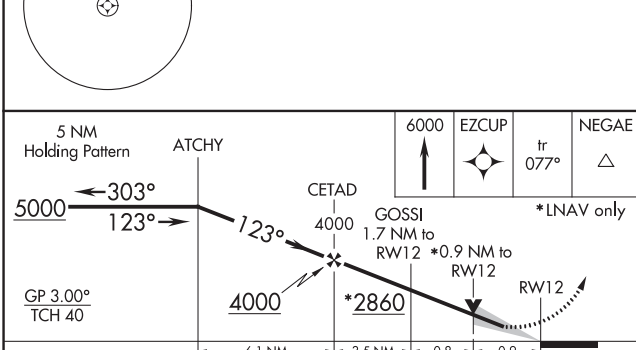
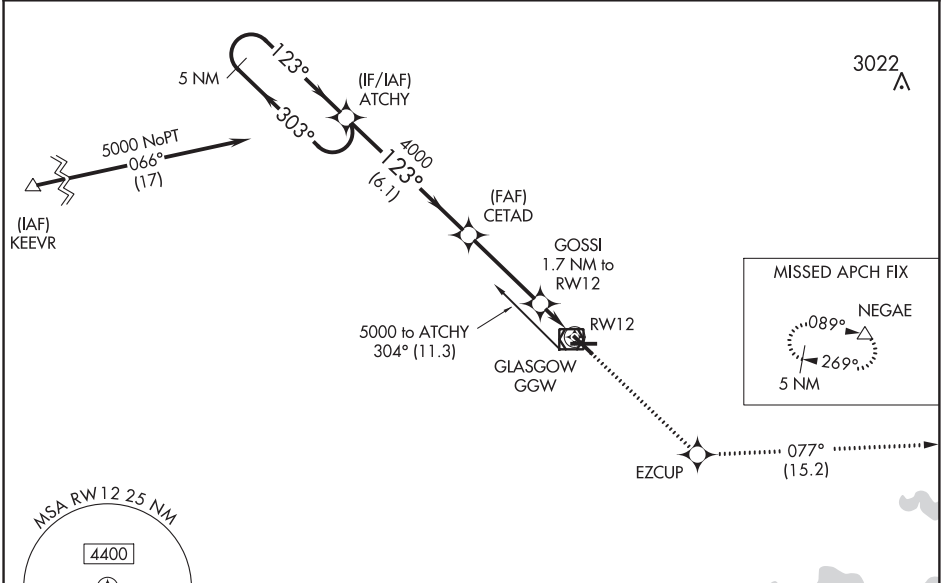
# RNAV (GPS) RWY 12

WOKAL FIELD/GLASGOW INTL (GGW)

**⚠** DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA when using Wolf Point altimeter setting. For uncompensated Baro-VNAV systems, LNAV-VNAV NA below -30°C (-22°F) or above 29°C (84°F). When local altimeter setting not received, use Wolf Point altimeter setting and increase all DA 141 feet and all MDA 160 feet and increase LPV visibility all Cats ½ mile, LNAV/VNAV visibility all Cats ½ mile, LNAV visibility Cats C and D ½ mile, and Circling visibility Cats C and D ¼ mile.

**⚠** MISSED APPROACH: Climb to 6000 direct EZCUP and on track 077° to NEGAE and hold.

ASOS <b>135.175</b>	SALT LAKE CENTER <b>126.85 305.2</b>	UNICOM <b>122.8 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LPV DA		2544-7/8	250 (300-7/8)	
LNAV/VNAV DA		2587-1	293 (300-1)	
LNAV MDA	2600-1	306 (400-1)	2600-7/8	306 (400-7/8)
CIRCLING	2780-1	484 (500-1)	2780-1 1/2	2860-2
			484 (500-1 1/2)	564 (600-2)

REIL Rwy 8, 12, 26 and 30 0  
MRL Rwy 8-26 and 12-30 0

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

GLASGOW, MONTANA

AL-5382 (FAA)

16147

WAAS CH <b>99620</b> <b>W30A</b>	APP CRS <b>303°</b>	Rwy Idg TDZE Apt Elev	<b>5002</b> <b>2294</b> <b>2296</b>
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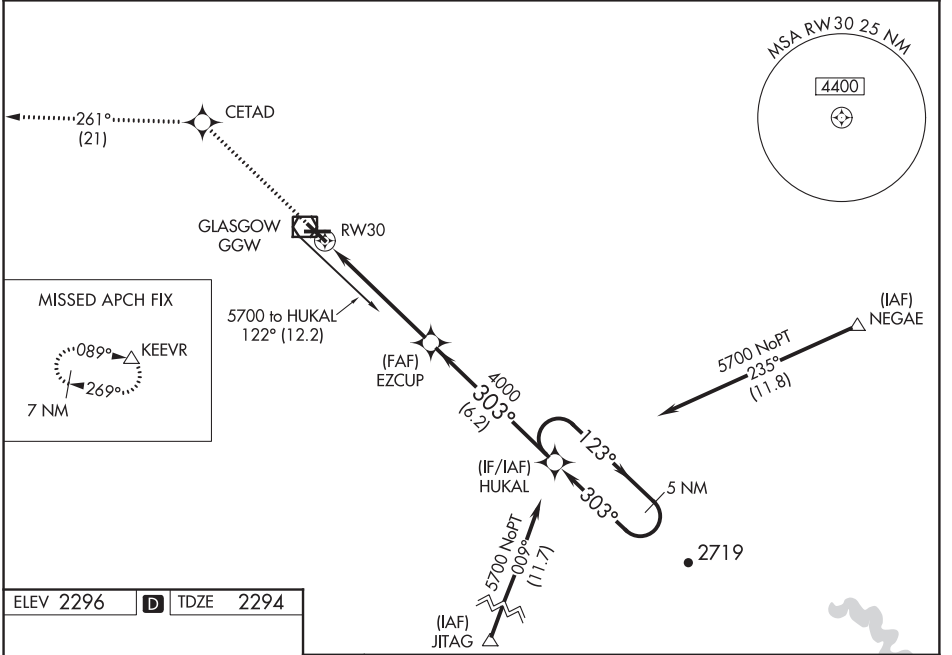
# RNAV (GPS) RWY 30

WOKAL FIELD/GLASGOW INTL (GGW)

**⚠** DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA when using Wolf Point altimeter setting. For uncompensated Baro-VNAV systems, LNAV-VNAV NA below -30°C (-22°F) or above 29°C (84°F). When local altimeter setting not received, use Wolf Point altimeter setting and increase all DA 141 feet and all MDA 160 feet and increase LPV visibility all Cats 3/8 mile, LNAV/VNAV visibility all Cats 1/2 mile, LNAV visibility Cats C and D 1/2 mile, and Circling visibility Cats C and D 1/2 mile.

**⚠** MISSED APPROACH: Climb to 6500 direct CETAD and on track 261° to KEEVR and hold.

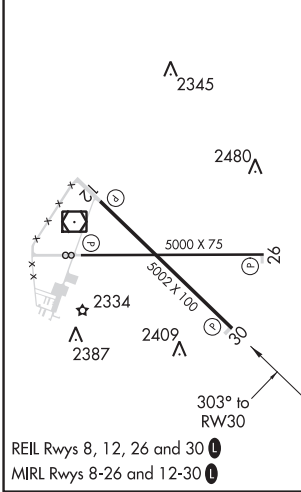
ASOS <b>135.175</b>	SALT LAKE CENTER <b>126.85 305.2</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2296	<b>D</b>	TDZE 2294
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CATEGORY	A	B	C	D
LPV DA		2494-3/8	200 (200-3/8)	
LNAV/VNAV DA		2587-1	293 (300-1)	
LNAV MDA	2700-1	406 (500-1)	2700-1 1/8	406 (500-1 1/8)
CIRCLING	2780-1	484 (500-1)	2780-1 1/2 484 (500-1 1/2)	2860-2 564 (600-2)

GLASGOW, MONTANA  
Orig-A 11DEC14

48°13'N-106°37'W

# WOKAL FIELD/GLASGOW INTL (GGW) RNAV (GPS) RWY 30

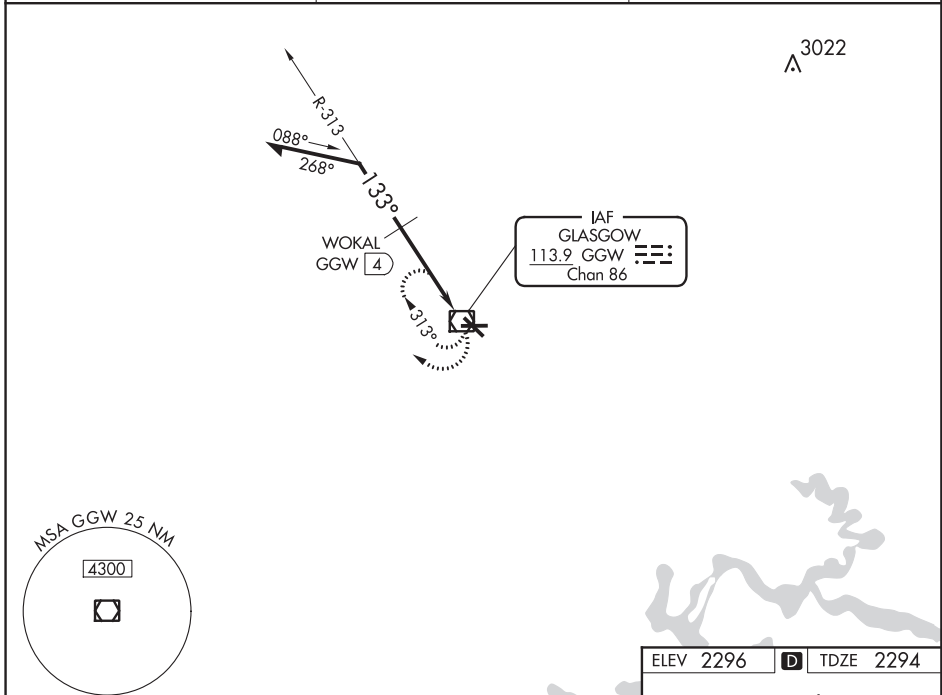
VOR/DME GGW <b>113.9</b> Chan <b>86</b>	APP CRS <b>133°</b>	Rwy Idg TDZE Apt Elev	<b>5002</b> <b>2294</b> <b>2296</b>
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# VOR RWY 12

WOKAL FIELD/GLASGOW INTL (GGW)

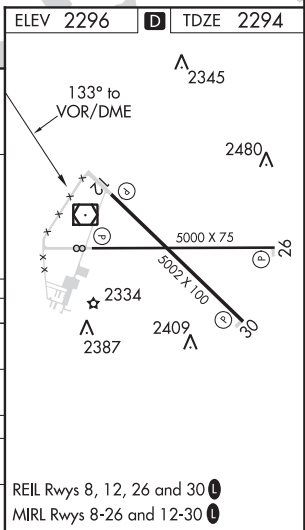
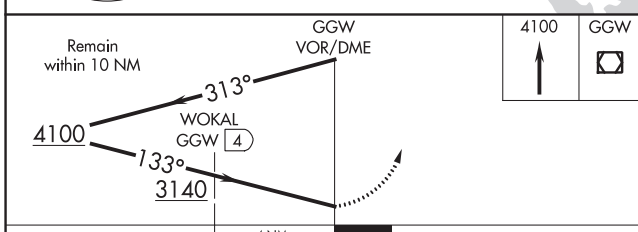
**▲** ACTIVATE MIRL Rwy's 8-26 and 12-30-CTAF. MISSED APPROACH: Climb to 4100 in GGW VOR/DME holding pattern.

ASOS <b>135,175</b>	SALT LAKE CENTER <b>126.85 305.2</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-12	3140-1 846 (900-1)	3140-1¼ 846 (900-1¼)	3140-2½ 846 (900-2½)	3140-2¾ 846 (900-2¾)
CIRCLING	3140-1 844 (900-1)	3140-1¼ 844 (900-1¼)	3140-2½ 844 (900-2½)	3140-2¾ 844 (900-2¾)
VOR/DME MINIMUMS				
S-12	2700-1	406 (500-1)	2700-1¼	406 (500-1¼)
CIRCLING	2780-1	484 (500-1)	2780-1½	2860-2 564 (600-2)

REIL Rwy's 8, 12, 26 and 30 **0**  
MIRL Rwy's 8-26 and 12-30 **0**

GLASGOW, MONTANA

AL-5382 (FAA)

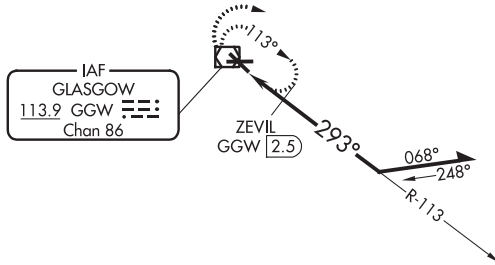
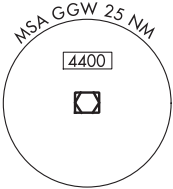
16147

VOR/DME GWW <b>113.9</b> Chan <b>86</b>	APP CRS <b>293°</b>	Rwy Idg TDZE Apt Elev	<b>5002</b> <b>2294</b> <b>2296</b>
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**VOR RWY 30**  
WOKAL FIELD/GLASGOW INTL (GGW)

<p><b>▽</b> ZEVIL fix Straight-in minimums NA when using Wolf Point altimeter setting. When local altimeter setting not received, use Wolf Point altimeter setting and increase all MDA 160 feet and increase visibility all Cats ½ mile.</p>	<p>MISSED APPROACH: Climb to 4000 in GGW VOR/DME holding pattern.</p>	
<p>ASOS <b>135.175</b></p>	<p>SALT LAKE CENTER <b>126,85 305,2</b></p>	<p>UNICOM <b>122.8 (CTAF)</b></p>

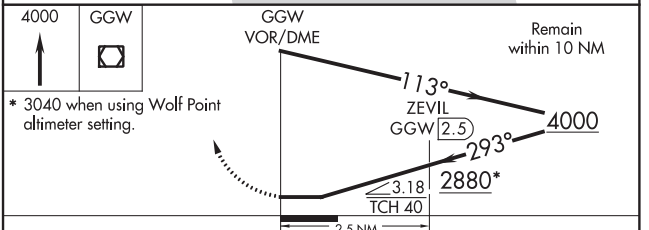
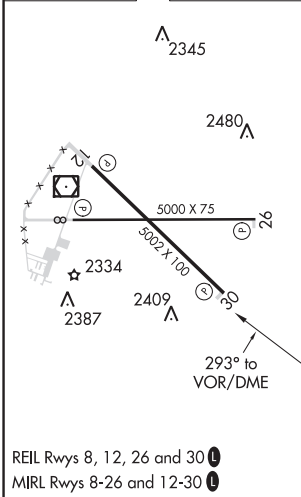
**△** 3022



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2296	<b>D</b>	TDZE 2294
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CATEGORY	A	B	C	D
S-30	2880-1	586 (600-1)	2880-1 <sup>3</sup> / <sub>4</sub>	586 (600-1 <sup>3</sup> / <sub>4</sub> )
CIRCLING	2880-1	584 (600-1)	2880-1 <sup>3</sup> / <sub>4</sub> 584 (600-1 <sup>3</sup> / <sub>4</sub> )	2880-2 584 (600-2)
ZEVIL FIX MINIMUMS (DME REQUIRED)				
S-30	2740-1	446 (500-1)	2740-1 <sup>3</sup> / <sub>8</sub>	446 (500-1 <sup>3</sup> / <sub>8</sub> )
CIRCLING	2780-1	484 (500-1)	2780-1 <sup>1</sup> / <sub>2</sub> 484 (500-1 <sup>1</sup> / <sub>2</sub> )	2860-2 564 (600-2)

GLASGOW, MONTANA  
Amdt 4A 11DEC14

48°13'N-106°37'W

WOKAL FIELD/GLASGOW INTL (GGW)  
**VOR RWY 30**

ASOS  
135.175  
CTAF/UNICOM  
122.8



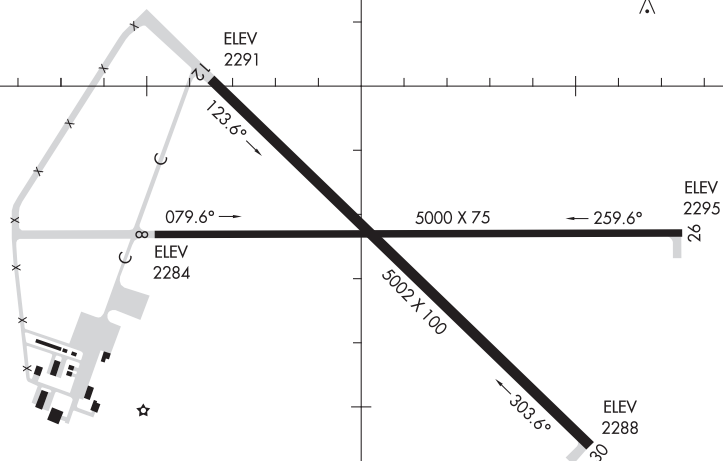
FIELD  
ELEV  
2296

VAR 10.3° E  
JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

2478

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



RWY 08-26  
S-25, D-45, 2D-75  
RWY 12-30  
S-75, D-90.9, 2S-89, 2D-99.9

106°37'W

106°36'W

GLENDIVE, MONTANA

AL-6078 (FAA)

16259

WAAS CH <b>40423</b> W12A	APP CRS <b>126°</b>	Rwy Idg TDZE Apt Elev	<b>5704</b> <b>2458</b> <b>2458</b>
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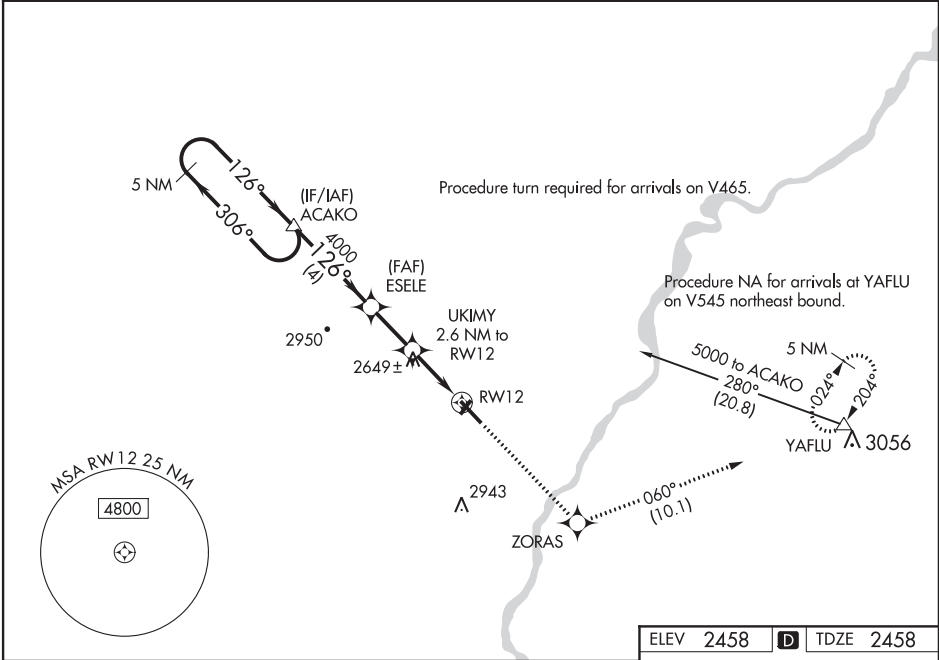
# RNAV (GPS) RWY 12

DAWSON COMMUNITY (G:DV)

▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 28°C (82°F). When local altimeter setting not received, procedure NA. When VGSi inop, procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 6000 direct ZORAS and on track 060° to YAFLU and hold, continue climb-in-hold to 6000.

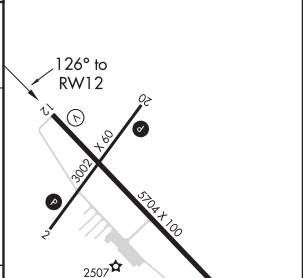
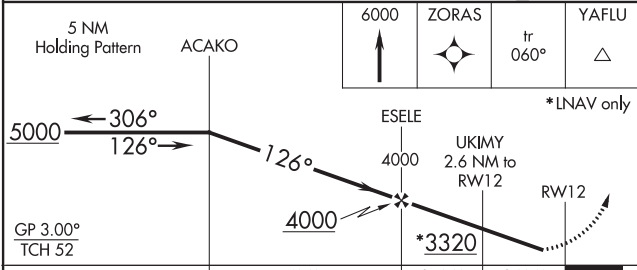
AWOS-3 <b>135.075</b>	GREAT FALLS RADIO <b>122.55</b>	UNICOM <b>122.8 (CTAF)</b> <b>1</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2458	<b>D</b>	TDZE 2458
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CATEGORY	A	B	C	D
LPV DA		2708-1	250 (300-1)	
LNAV/VNAV DA		2708-1	250 (300-1)	
LNAV MDA	2900-1	442 (500-1)	2900-1 <sup>3</sup> / <sub>8</sub>	442 (500-1 <sup>3</sup> / <sub>8</sub> )
CIRCLING	2900-1 442 (500-1)	2920-1 462 (500-1)	2920-1 <sup>1</sup> / <sub>2</sub> 462 (500-1 <sup>1</sup> / <sub>2</sub> )	3020-2 562 (600-2)

REIL Rwy 12 and 30  
MIRL Rwy 2-20 and 12-30 **1**

GLENDIVE, MONTANA  
Orig-A 11DEC14

47°08'N-104°48'W

# DAWSON COMMUNITY (G:DV) RNAV (GPS) RWY 12



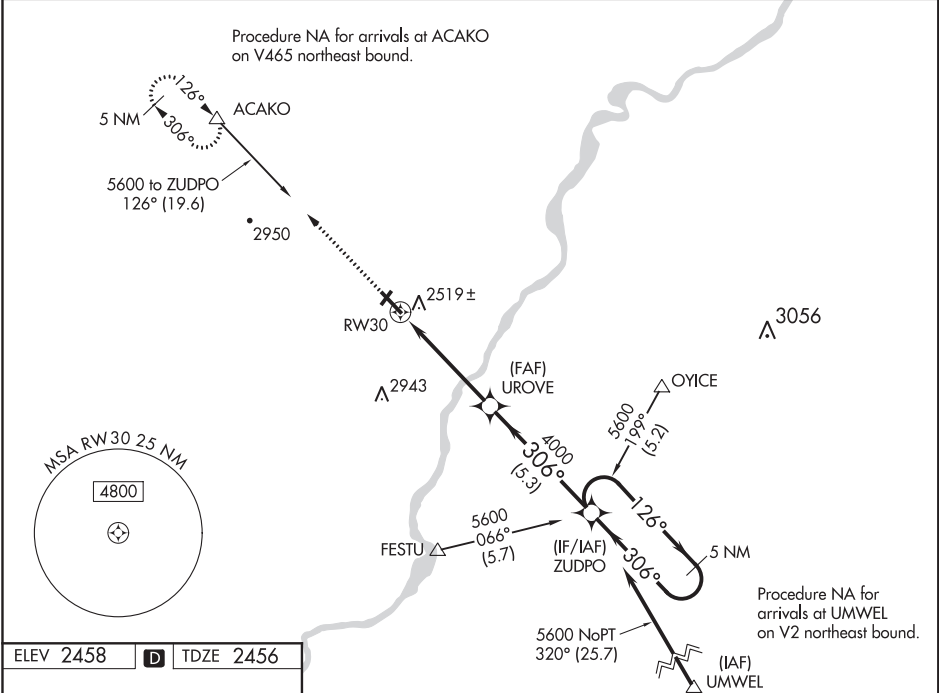
WAAS CH <b>86623</b> <b>W30A</b>	APP CRS <b>306°</b>	Rwy Idg TDZE Apt Elev	<b>5704</b> <b>2456</b> <b>2458</b>
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# RNAV (GPS) RWY 30

DAWSON COMMUNITY (G·D·V)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 28°C (82°F). When local altimeter setting not received, procedure NA. When VGSi inop, procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. MISSED APPROACH: Climb to 6000 direct ACAKO and hold, continue climb-in-hold to 6000.

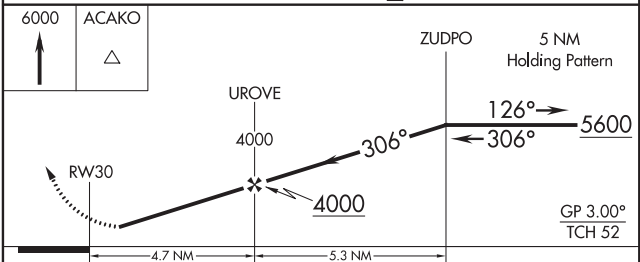
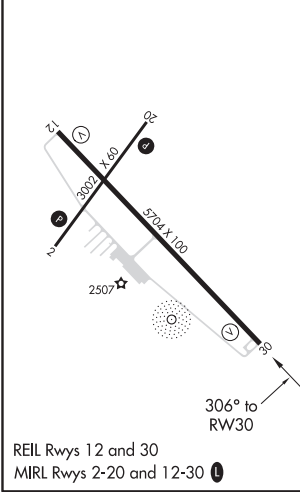
AWOS-3 <b>135.075</b>	GREAT FALLS RADIO <b>122.55</b>	UNICOM <b>122.8 (CTAF)</b> <b>Ⓛ</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2458	<b>D</b>	TDZE 2456
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CATEGORY	A	B	C	D
LPV DA		2706-1	250 (300-1)	
LNAV/VNAV DA		2706-1	250 (300-1)	
LNAV MDA		2780-1	324 (400-1)	
CIRCLING	2840-1 382 (400-1)	2920-1 462 (500-1)	2920-1½ 462 (500-1½)	3020-2 562 (600-2)

GLENDIVE, MONTANA

AL-6078 (FAA)

16259

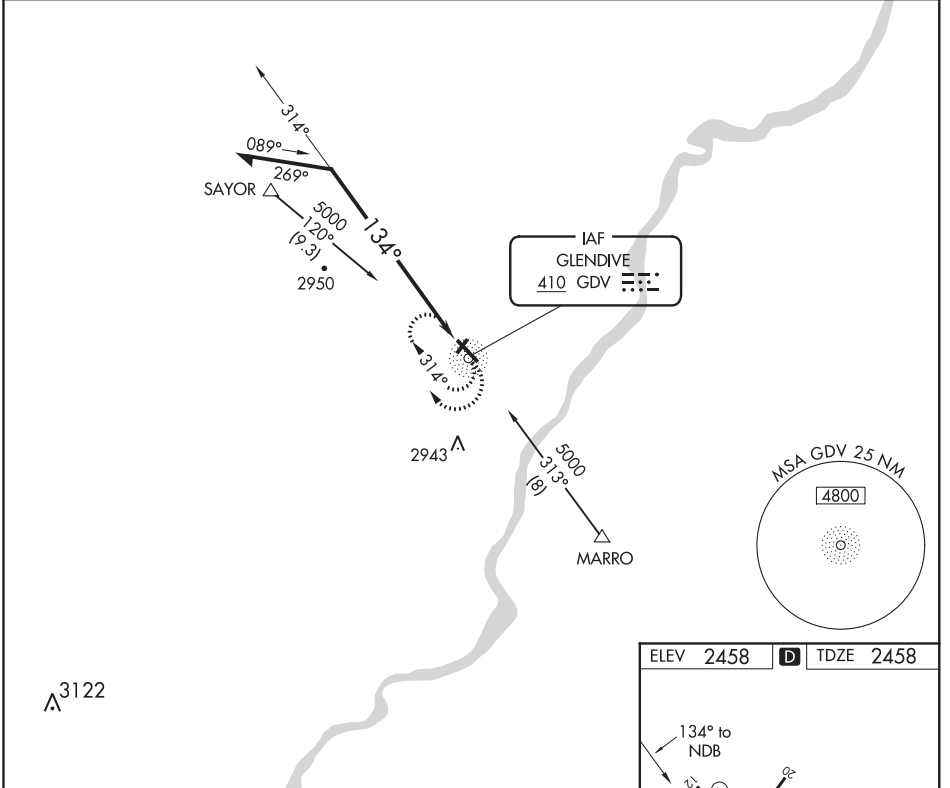
NDB GDV <b>410</b>	APP CRS <b>134°</b>	Rwy Idg TDZE Apt Elev	<b>5704</b> <b>2458</b> <b>2458</b>
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**NDB RWY 12**  
DAWSON COMMUNITY (GDV)

**⚠** When local altimeter setting not received, procedure NA.  
**⚠** Procedure NA at night.  
Helicopter visibility reduction below 1 SM NA.

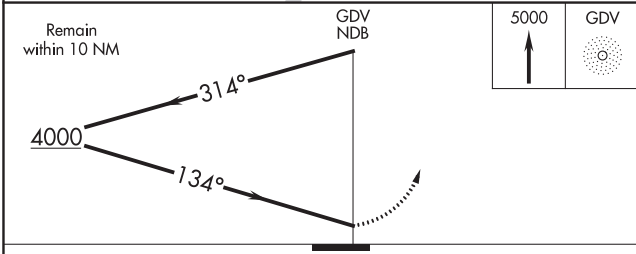
MISSED APPROACH: Climb to 5000 in GDV NDB holding pattern.

AWOS-3 <b>135.075</b>	GREAT FALLS RADIO <b>122.55</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 2458	<b>D</b> TDZE 2458
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Inset chart details:  
 - Runway 12 and 30.  
 - Approach angle: 134° to NDB.  
 - Altitudes: 2507, 5704 x 100.  
 - Labels: REIL Rwy 12 and 30, MIREL Rwy 2-20 and 12-30.

CATEGORY	A	B	C	D
S-12	3300-1 842 (900-1)	3300-1¼ 842 (900-1¼)	3300-2½ 842 (900-2½)	3300-2¾ 842 (900-2¾)
CIRCLING	3300-7/8 842 (900-7/8)	3300-1¼ 842 (900-1¼)	3300-2½ 842 (900-2½)	3300-2¾ 842 (900-2¾)

GLENDIVE, MONTANA  
Amdt 4C 11DEC14

47°08'N-104°48'W

DAWSON COMMUNITY (GDV)  
**NDB RWY 12**

15344

# AIRPORT DIAGRAM

AL-6078 (FAA)

DAWSON COMMUNITY (GDV)  
GLENDDIVE, MONTANA

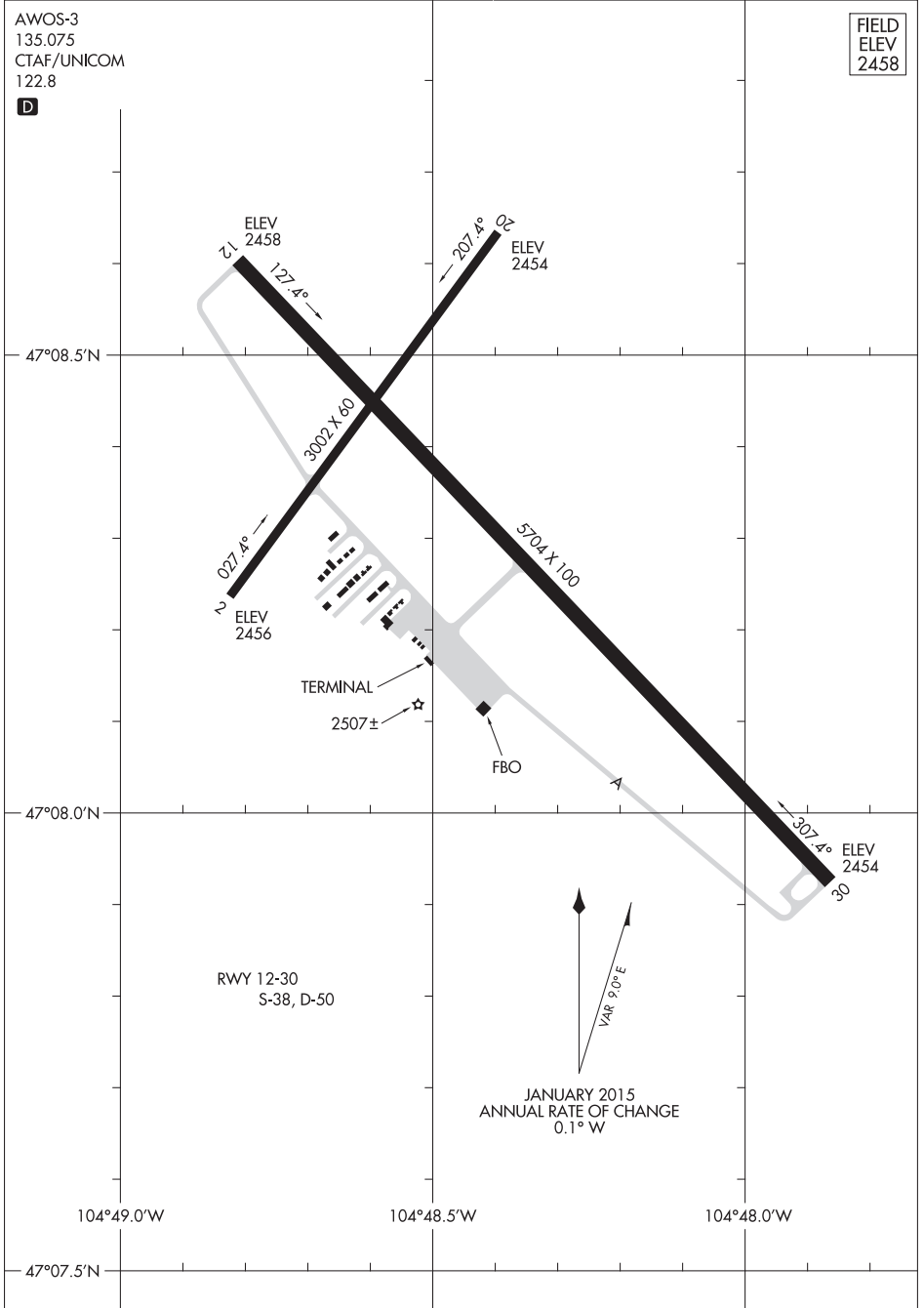
AWOS-3  
135.075  
CTAF/UNICOM  
122.8

FIELD  
ELEV  
2458

**D**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

15344

GLENDDIVE, MONTANA  
DAWSON COMMUNITY (GDV)

GOODING, IDAHO

AL-657 (FAA)

15120

WAAS CH <b>53709</b> <b>W07A</b>	APP CRS <b>068°</b>	Rwy Idg TDZE Apt Elev	<b>4745</b> <b>3710</b> <b>3732</b>
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# RNAV (GPS) RWY 7

GOODING MUNI (GNG)

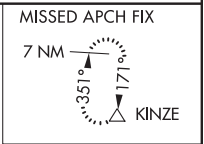
**▼** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.  
**▲** Baro-VNAV NA when using Jerome County altimeter setting.  
 For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -22°C (-7°F) or above 41°C (105°F).  
 Obtain local altimeter setting on CTAF; when not received, use Jerome County altimeter setting and increase all DA 86 feet and all MDA 100 feet. Increase LPV visibility ¼ mile all Cats, LNAV/VNAV visibility ½ mile all Cats, LNAV visibility Cat C and D ½ mile, and circling visibility Cat C ¼ mile.

MISSED APPROACH: Climb to 7200 direct MEVLE and left turn via 034° track to KINZE and hold.

SALT LAKE CENTER  
**118.05 363.0**

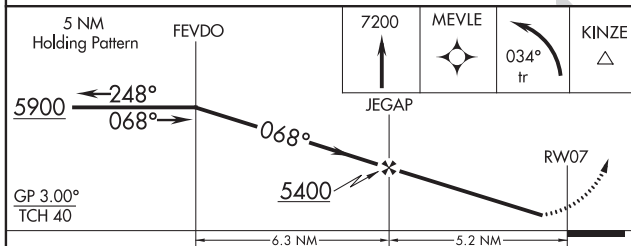
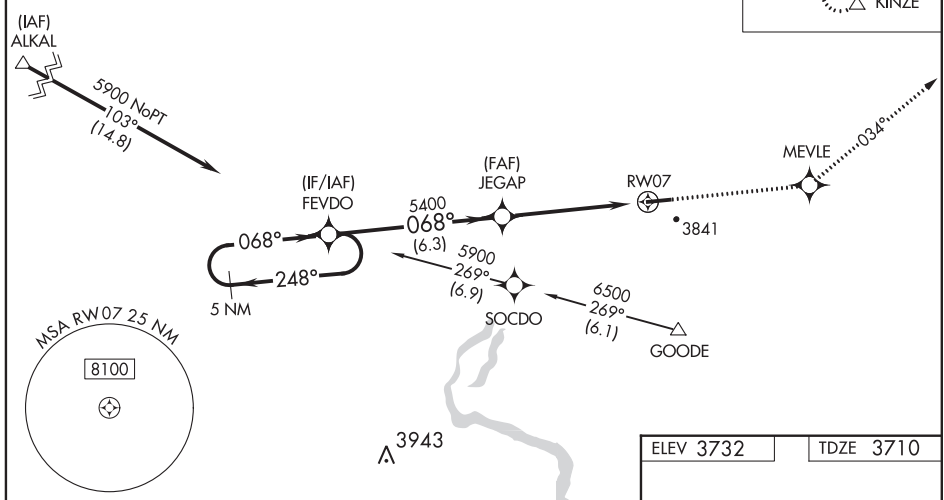
UNICOM  
**122.8 (CTAF) 0\***

Procedure NA for arrivals at GOODE via V4 eastbound and V293 southeast bound.  
 Procedure NA for arrivals at ALKAL via V253 northwest bound.  
 Procedure NA for arrivals at ALKAL via V330 southwest bound.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 3732	TDZE 3710
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MIRL Rwy 7-25 0\*

CATEGORY	A	B	C	D
LPV DA	3960-1 250 (300-1)			
LNAV/VNAV DA	4049-1¼ 339 (400-1¼)			
LNAV MDA	4120-1	410 (400-1)	4120-1¼	410 (400-1¼)
CIRCLING	4260-1	528 (600-1)	4260-1½	4300-2 528 (600-1½) 568 (600-2)

GOODING, IDAHO  
Orig 25SEP08

42°55'N-114°46'W

# GOODING MUNI (GNG) RNAV (GPS) RWY 7

WAAS CH <b>45909</b> <b>W25A</b>	APP CRS <b>248°</b>	Rwy Idg <b>4745</b> TDZE <b>3732</b> Apt Elev <b>3732</b>
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# RNAV (GPS) RWY 25

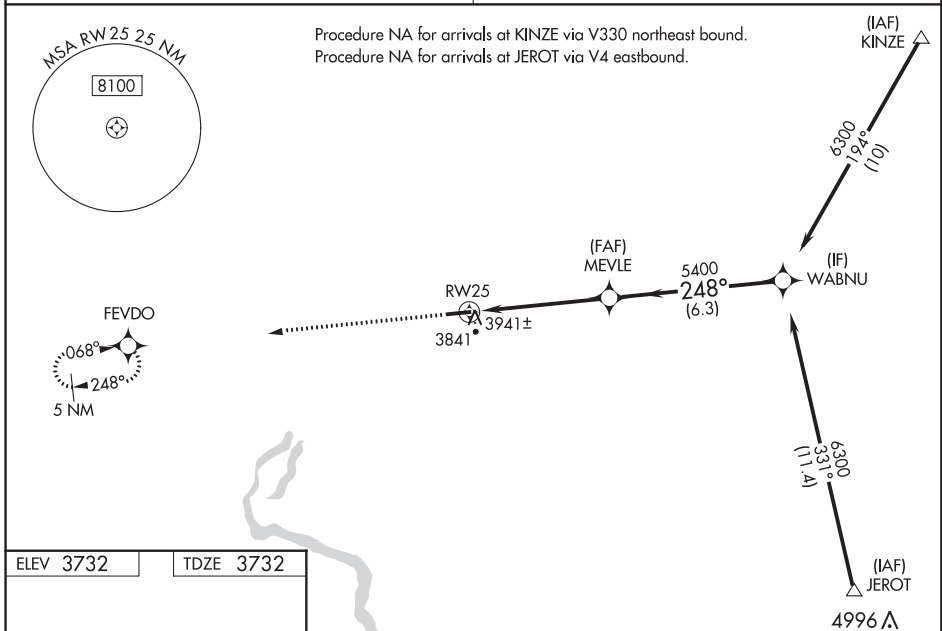
GOODING MUNI (GNG)

**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA.  
**⚠** Baro-VNAV NA when using Jerome County altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -22°C (-7°F) or above 41°C (105°F).  
 Obtain local altimeter setting on CTAF; when not received, use Jerome County altimeter setting and increase all DA 86 feet and all MDA 100 feet.  
 Increase LPV visibility ¼ mile all Cats, LNAV/VNAV visibility ¼ mile all Cats, LNAV visibility Cat C and D ¼ mile, and Circling visibility Cat C ¼ mile.  
 Night landing Rwy 25 NA for Cat C and D aircraft.

MISSED APPROACH: Climb to 5900  
 direct FEVDO and hold.

SALT LAKE CENTER  
**118.05 363.0**

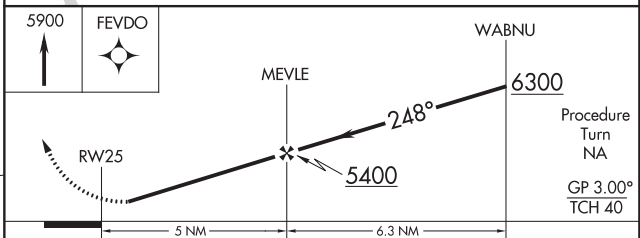
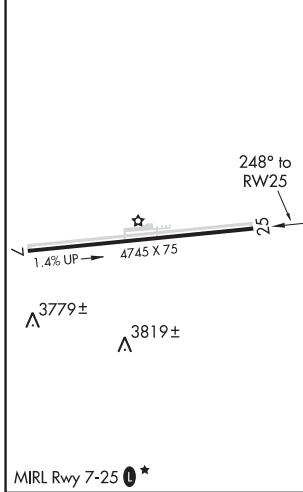
UNICOM  
**122.8 (CTAF) 0\***



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3732	TDZE 3732
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CATEGORY	A	B	C	D
LPV DA	4006-1 274 (300-1)			
LNAV/VNAV DA	4211-1¾ 479 (500-1¾)			
LNAV MDA	4200-1 468 (500-1)	4200-1¼ 468 (500-1¼)	4200-1½ 468 (500-1½)	4200-1½ 468 (500-1½)
CIRCLING	4260-1 528 (600-1)	4260-1½ 528 (600-1½)	4300-2 568 (600-2)	4300-2 568 (600-2)

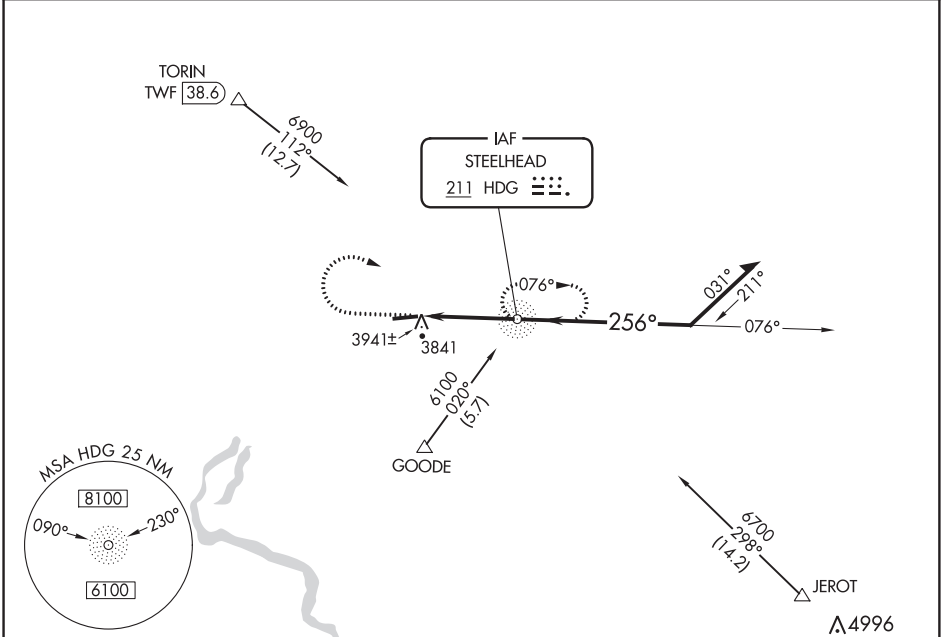
NDB HDG <b>211</b>	APP CRS <b>256°</b>	Rwy Idg <b>4745</b>
		TDZE <b>3732</b>
		Apt Elev <b>3732</b>

**NDB RWY 25**  
GOODING MUNI (GNG)

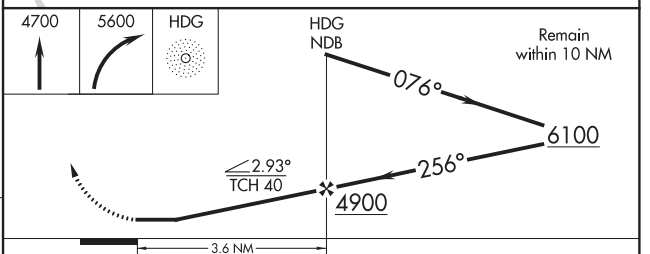
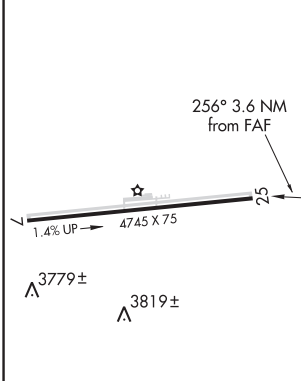
**NA** Helicopter visibility reduction below 3/4 SM NA. Obtain local altimeter setting on CTAF; when not received use Jerome County altimeter setting. Night landing Rwy 25 NA for Cat C and D aircraft.

MISSED APPROACH: Climb to 4700 then climbing right turn to 5600 direct HDG NDB and hold.

SALT LAKE CENTER <b>118.05 363.0</b>	UNICOM <b>122.8 (CTAF) 0*</b>
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ELEV 3732	TDZE 3732
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CATEGORY	A		B		C		D	
	S-25	4260-1	528 (600-1)	4260-1½	528 (600-1½)	4260-1¾	528 (600-1¾)	4260-2
CIRCLING	4260-1	528 (600-1)	4260-1½	528 (600-1½)	4260-1¾	528 (600-1¾)	4300-2	568 (600-2)
JEROME COUNTY ALTIMETER SETTING MINIMUMS								
S-25	4340-1	608 (700-1)	4340-1¾	608 (700-1¾)	4340-2	608 (700-2)	4340-2	608 (700-2)
CIRCLING	4340-1	608 (700-1)	4340-1¾	608 (700-1¾)	4340-2	608 (700-2)	4340-2	608 (700-2)

MIRL Rwy 7-25 0\*

FAF to MAP 3.6 NM

Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

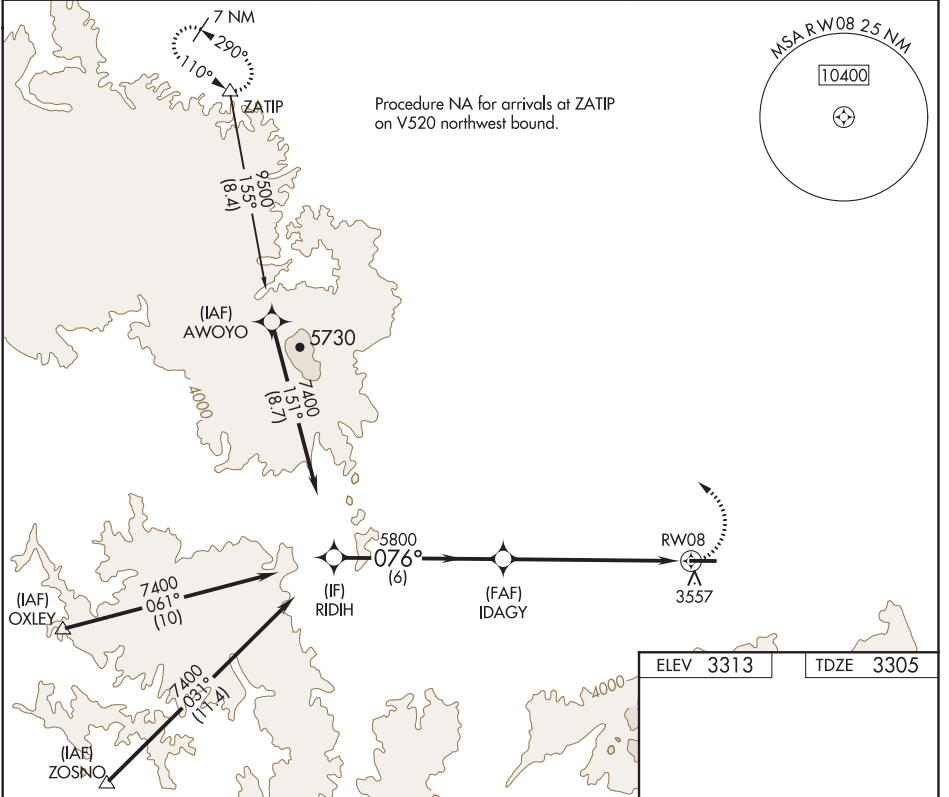
APP CRS	Rwy Idg	<b>5001</b>
<b>076°</b>	TDZE	<b>3305</b>
	Apt Elev	<b>3313</b>

# RNAV (GPS) RWY 8

IDAHO COUNTY (GIC)

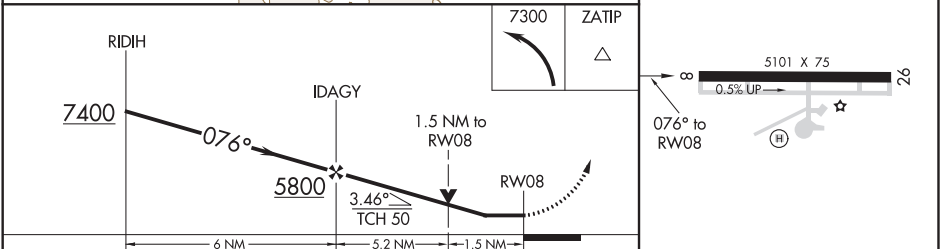
	Circling NA south of Rwy 8-26. Rwy 8 Helicopter visibility reduction below 3/4 SM NA. DME/DME RNP-0.3 NA.	MISSED APPROACH: Climbing left turn to 7300 direct ZATIP and hold.
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AWOS-3 <b>118.175</b>	SEATTLE CENTER <b>123.95 290.55</b>	CTAF <b>122.8</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



<table border="1"> <tr> <td>ELEV</td> <td>3313</td> <td>TDZE</td> <td>3305</td> </tr> </table>	ELEV	3313	TDZE	3305				
ELEV	3313	TDZE	3305					
CATEGORY	A	B	C	D				
LNVA MDA	3900-1	595 (600-1)	3900-1 3/4	595 (600-1 3/4)				
CIRCLING	3900-1	587 (600-1)	3900-1 3/4	3900-2	MIRL Rwy 8-26 REIL Rwy 8			

GRANGEVILLE, IDAHO

AL-9060 (FAA)

16315

APP CRS  
**241°**

Rwy Idg **5101**  
TDZE **3313**  
Apt Elev **3313**

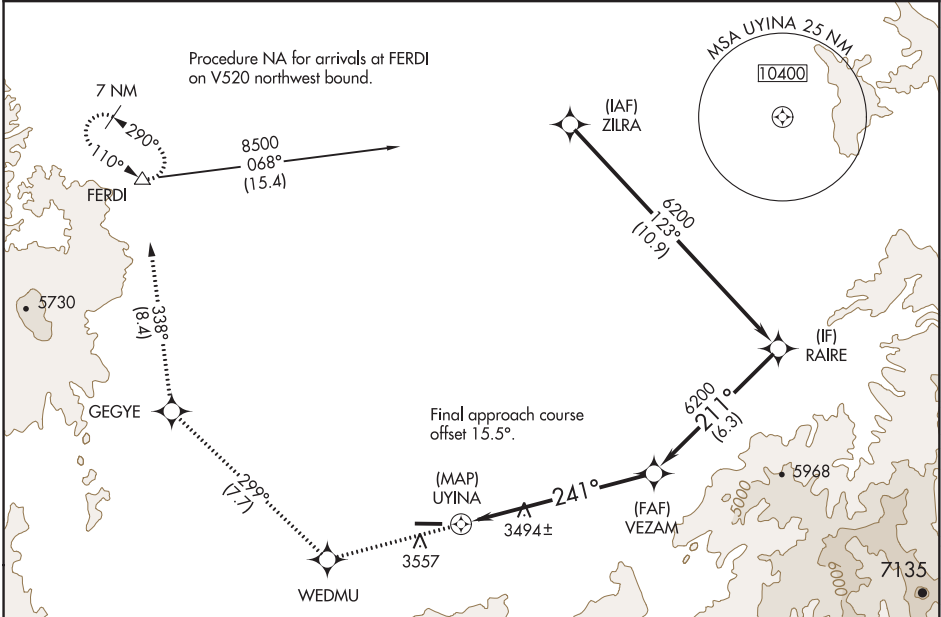
# RNAV (GPS) RWY 26

IDAHO COUNTY (GIC)

**⚠** Circling NA south of Rwy 8-26. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 7300 direct WEDMU and on track 299° to GEGYE and on track 338° to FERDI and hold, continue climb-in-hold to 7300.

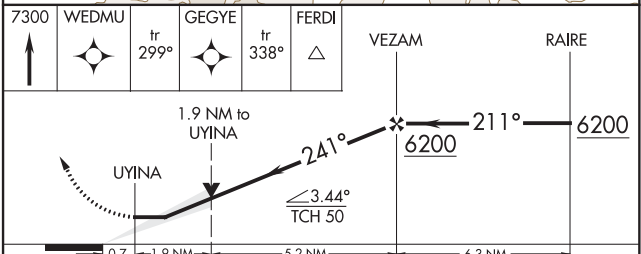
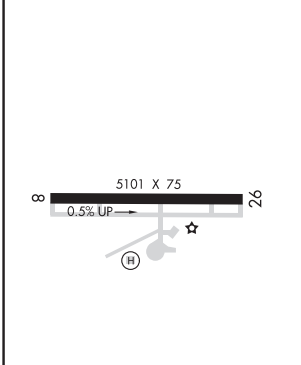
AWOS-3 **118.175**      SEATTLE CENTER **123.95 290.55**      CTAF **122.8**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV **3313**      TDZE **3313**



CATEGORY	A	B	C	D
LNAV MDA	4060-1 747 (800-1)	4060-1¼ 747 (800-1¼)	4060-2	747 (800-2)
<b>C</b> CIRCLING	4060-1 747 (800-1)	4060-1¼ 747 (800-1¼)	4060-2¼ 747 (800-2¼)	4060-2½ 747 (800-2½)

MRL Rwy 8-26  
REIL Rwy 8

GRANGEVILLE, IDAHO  
ORIG 10NOV16

45°57'N-116°07'W

# RNAV (GPS) RWY 26



# MELLR ONE DEPARTURE (RNAV) (OBSTACLE)

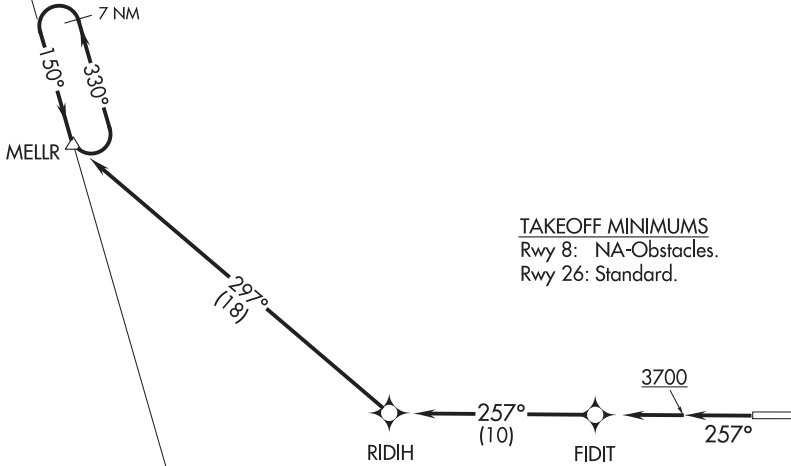
SEATTLE CENTER  
123.95 290.55

### TAKEOFF OBSTACLE NOTES

Rwy 26: Pole 330' from DER, 546' right of centerline, 27' AGL/3398' MSL.

### TAKEOFF MINIMUMS

Rwy 8: NA-Obstacles.  
Rwy 26: Standard.



NOTE: GPS Required.  
NOTE: RNAV-1

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 26: Climb on heading 257° to 3700 then direct FIDIT, then on depicted route to MELLR, maintain 7400 or assigned altitude, aircraft southeast bound on V253 continue climb in MELLR holding pattern to MEA before proceeding enroute.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	N/A
124°	TDZE	N/A
	Apt Elev	1126

# RNAV (GPS)-A

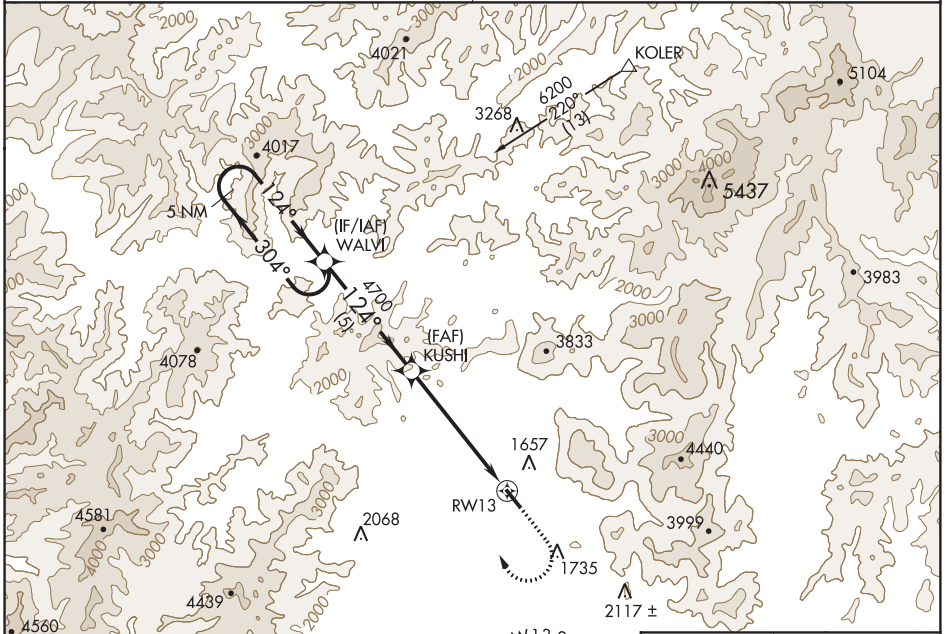
GRANTS PASS (3S8)

**NA**  
 Circling NA northeast of Rwy 13-31. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Medford altimeter setting and increase all MDA 580 feet.

**MISSED APPROACH:** Climb to 3200 then climbing right turn to 6600 direct WALVI and hold, continue climb-in-hold to 6600.

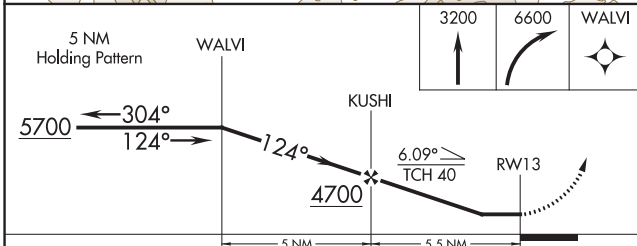
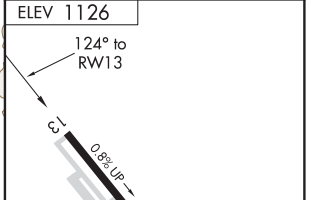
CASCADE APP CON \*  
**124.3 379.9**

UNICOM  
**122.8 (CTAF)**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	2920-1¼ 1794 (1800-1¼)	2920-1½ 1794 (1800-1½)		NA

ELEV 1126

124° to RW13

0.68% UP

4001 x 75

REIL Rwy 13 and 31

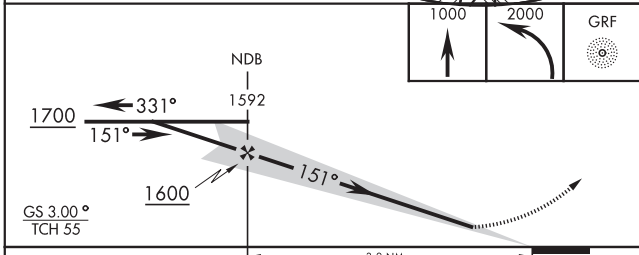
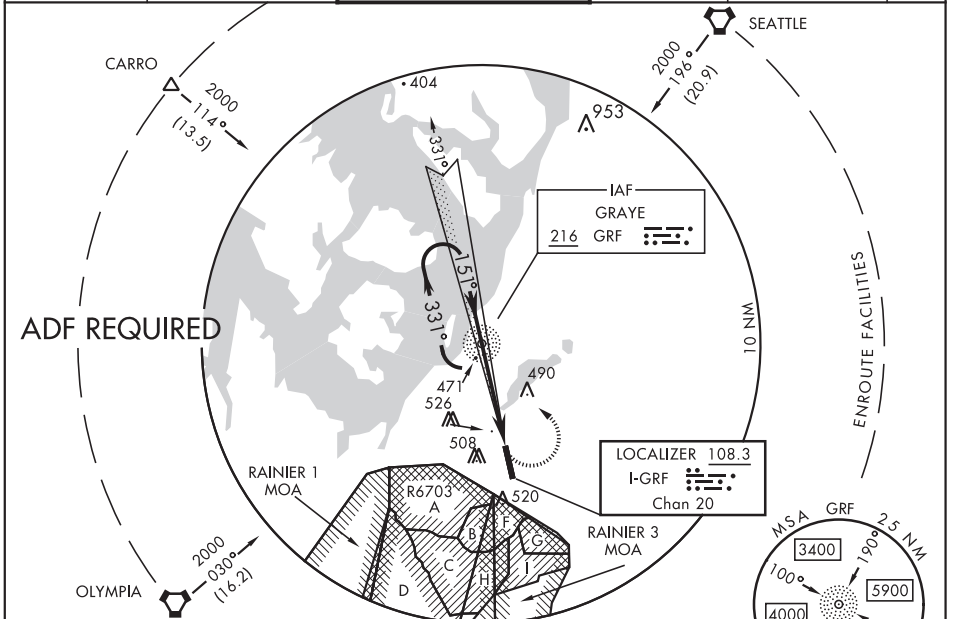
MIRL Rwy 13-31

# ILS or LOC RWY 15

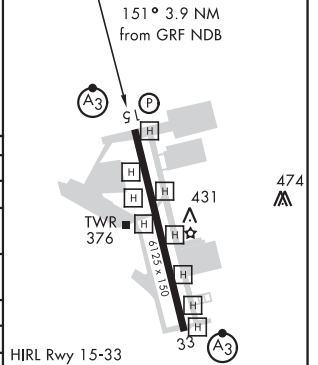
LOC I-GRF <b>108.3</b> Chan <b>20</b>	APCH CRS <b>151°</b>	Rwy ldg THRE <b>289</b> Arpt Elev <b>300</b>	AL-413 [USA]	GRAY AAF (KGRF)
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<p>⚠ * Circling not authorized W of Rwy 15-33.                  ⚠ When local altimeter setting not received, use McChord AFB altimeter setting.</p>	SSALR A3	MISSED APPROACH: Climb to 1000, then climbing left turn to 2000 direct GRF NDB and hold.
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ATIS <b>124.65 306.2</b>	SEATTLE APP CON <b>120.1 290.9</b>	GRAY TOWER ★ <b>119.325 (CTAF) 256.8</b>	GND CON <b>121.9 290.2</b>	CLNC DEL <b>121.9 290.2</b>	PAR
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ELEV	300	THRE	289
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CATEGORY	A	B	C	D
S-ILS 15	489/24		200	(200-½)
S-LOC 15	640/24	351 (400-½)	640/30	351 (400-¾)
CIRCLING *	840-1	540 (600-1)	840-1½	860-2
			540 (600-1½)	560 (600-2)
McCHORD FLD ALTIMETER SETTING MINIMUMS				
S-ILS 15	505/24		216	(300-½)
S-LOC 15	660/24	371 (400-½)	660/35	371 (400-¾)
CIRCLING *	860-1	560 (500-1)	860-1½	880-2
			560 (500-1½)	580 (600-2)

FAF to MAP 3.9 NM					
Knots	60	90	120	150	180
Min:Sec	3:54	2:36	1:57	1:34	1:18

# ILS or LOC RWY 15

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

JOINT BASE LEWIS MCCORD, WASHINGTON

# RNAV (GPS) RWY 15

GRAY AAF (KGRF)

APCH CRS <b>151°</b>	Rwy Idg <b>6125</b>	THRE <b>289</b>	Arpt Elev <b>300</b>
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AL-413 [USA]

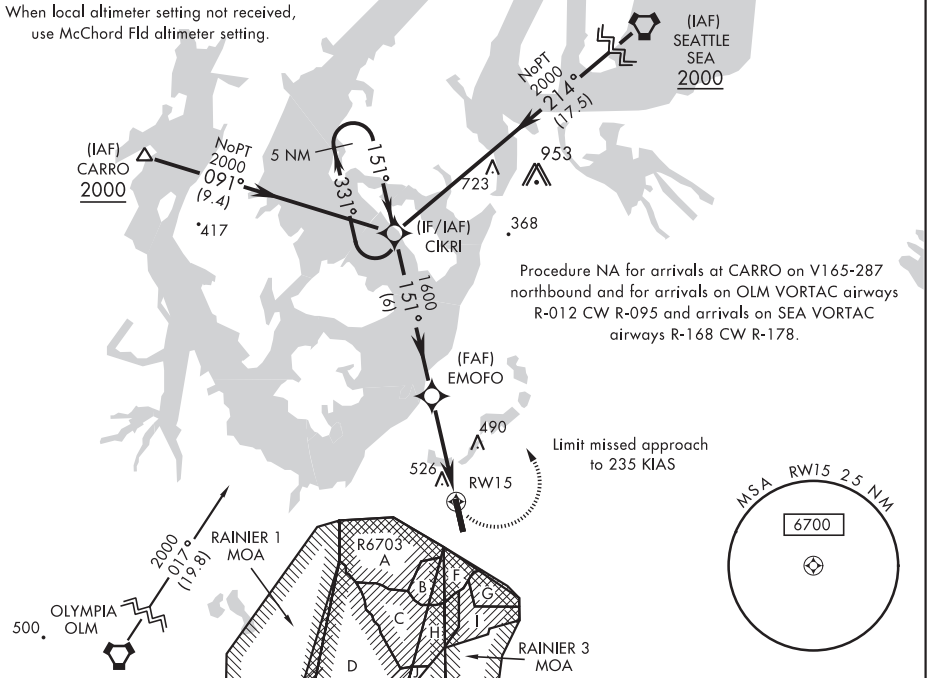
**▽** \* Circling not authorized W of Rwy 15-33.  
**▲** DME/DME RNP-0.3 NA



MISSED APPROACH: Climbing left  
turn to 2000 direct CIKRI and hold.

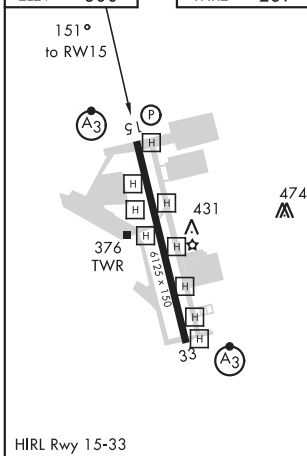
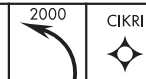
ATIS <b>124.65 306.2</b>	SEATTLE APP CON <b>120.1 290.9</b>	GRAY TOWER ★ <b>119.325 (CTAF) 256.8</b>	GND CON <b>121.9 290.2</b>	CLNC DEL <b>121.9 290.2</b>	PAR
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When local altimeter setting not received,  
use McChord Fld altimeter setting.



ELEV 300	THRE 289
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† VDP NA with McChord Fld altimeter setting.



	CIKRI		EMOFO		RW15	
	← 331°	← 151°	← 151°	← 151°	← 151°	← 151°
	2000	2000	1600	1600	1600	1600
			3.9 NM			
CATEGORY	A	B	C	D		
RNAV MDA	800/24	511 (500-½)	800/55	511 (500-1)		
CIRCLING *	840-1	540 (600-1)	840-1½	560 (600-2)	860-2	560 (600-2)
McCHORD FLD ALTIMETER SETTING MINIMUMS						
RNAV MDA	820/24	531 (600-½)	820/55	531 (600-1)		
CIRCLING *	860-1	560 (600-1)	860-1½	580 (600-2)	880-2	580 (600-2)

JOINT BASE LEWIS MCCORD, WASHINGTON  
Amdt 1 02MAY13

47°05'N-122°35'W

GRAY AAF (KGRF)

# RNAV (GPS) RWY 15

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

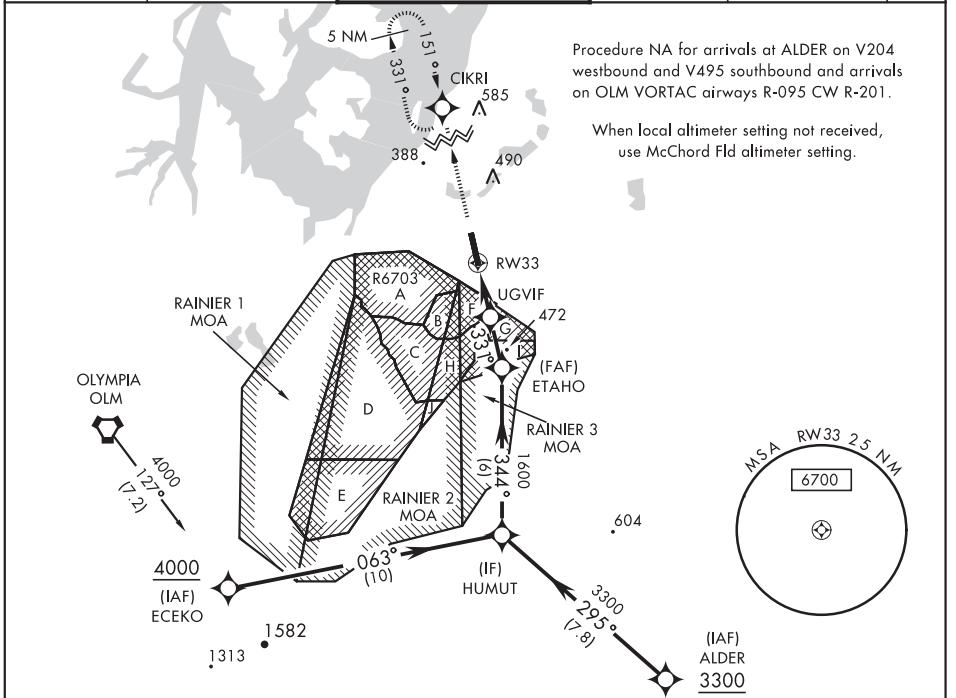
# RNAV (GPS) RWY 33

APCH CRS <b>331°</b>	Rwy Idg THRE <b>300</b>	<b>6125</b>
	Arpt Elev <b>300</b>	

AL-413 [USA]

GRAY AAF (KGRF)

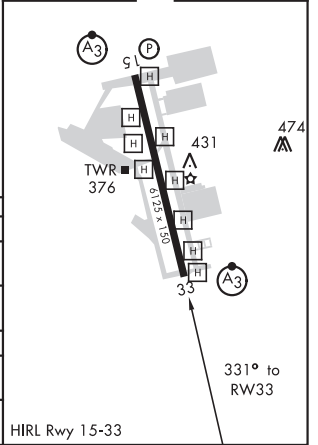
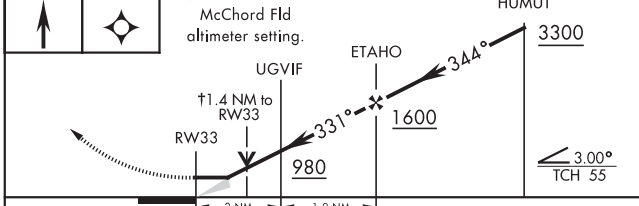
<p>▼ * Circling not authorized W of Rwy 15-33. DME/DME RNP-0.3 NA</p>		<p>SSALR <b>A3</b></p>	<p>MISSED APPROACH: Climb to 2000 direct CIKRI and hold.</p>		
<p>ATIS <b>124.65 306.2</b></p>	<p>SEATTLE APP CON <b>120.1 290.9</b></p>	<p>GRAY TOWER ★ <b>119.325 (CTAF) 256.8</b></p>	<p>GND CON <b>121.9 290.2</b></p>	<p>CLNC DEL <b>121.9 290.2</b></p>	<p>PAR</p>



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

2000	CIKRI	↑ VDP NA with McChord Fld altimeter setting.	HUMUT	ELEV 300	THRE 300
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CATEGORY	A	B	C	D
LNAV MDA	800-½	500 (500-½)	800-1	500 (500-1)
CIRCLING *	840-1	540 (600-1)	840-1½ 540 (600-1½)	860-2 560 (600-2)
MCCORD FLD ALTIMETER SETTING MINIMUMS				
LNAV MDA	820-½	520 (600-½)	820-1	520 (600-1)
CIRCLING *	860-1	560 (600-1)	860-1½ 560 (600-½)	880-2 580 (600-2)

JOINT BASE LEWIS MCCORD, WASHINGTON 47°05'N-122°35'W GRAY AAF (KGRF)

Amdt 1 02MAY13

# RNAV (GPS) RWY 33

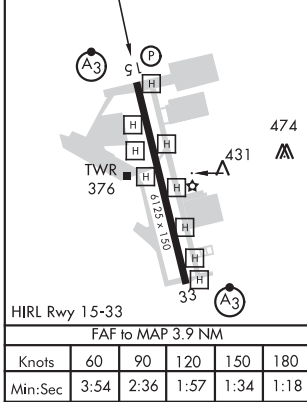
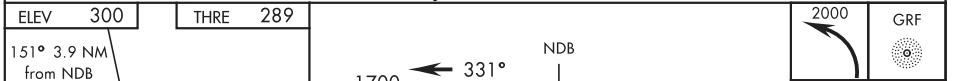
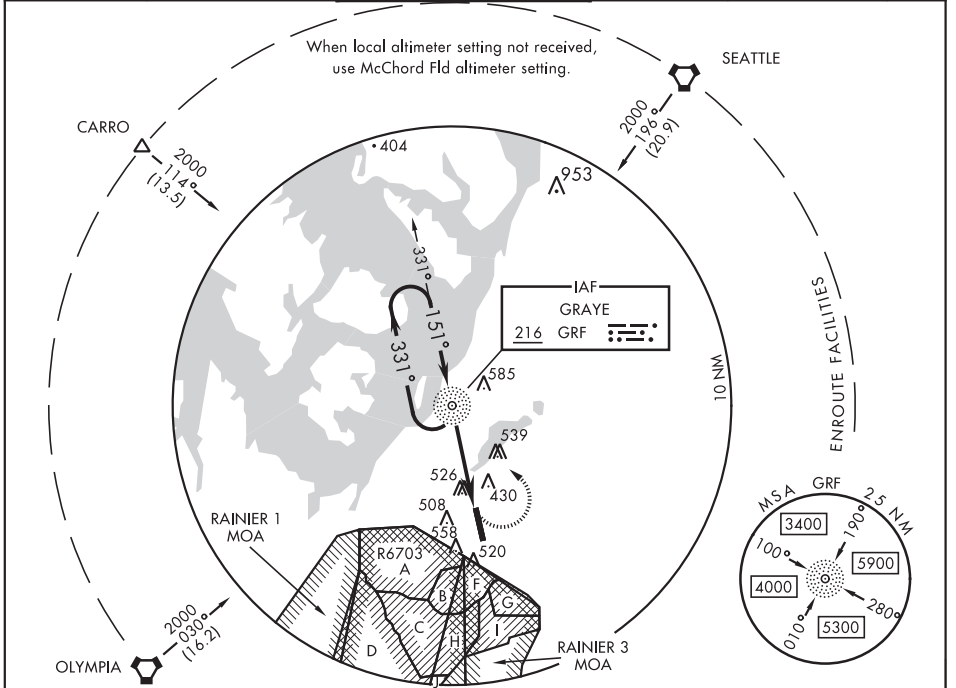
JOINT BASE LEWIS MCCORD, WASHINGTON

# NDB RWY 15

NDB GRF <b>216</b>	APCH CRS <b>151°</b>	Rwy ldg THRE <b>289</b> Arpt Elev <b>300</b>	AL-413 [USA]	GRAY AAF (KGRF)
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<p>▼ * Circling not authorized W of Rwy 15-33.</p> <p>▲</p>	<p>SSALR</p> <p>A3</p>	<p>MISSED APPROACH: Climbing left turn to 2000 direct GRF NDB and hold, continue climb in hold to 2000.</p>
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ATIS <b>124.65 306.2</b>	SEATTLE APP CON <b>120.1 290.9</b>	GRAY TOWER ★ <b>119.325 (CTAF) 256.8</b>	GND CON <b>121.9 290.2</b>	CLNC DEL <b>121.9 290.2</b>	PAR
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CATEGORY	A	B	C	D
S-15	840/40 551 (600-¾)		840/60 551 (600-1¼)	
CIRCLING *	840-1 540 (600-1)		840-1½ 540 (600-1½)	860-2 560 (600-2)
McCORD FLD ALTIMETER SETTING MINIMUMS				
S-15	860/40 571 (600-¾)		860/60 571 (600-1¼)	
CIRCLING *	860-1 560 (600-1)		860-1½ 560 (600-1½)	880-2 580 (600-2)

JOINT BASE LEWIS MCCORD, WASHINGTON 47°05'N-122°35'W GRAY AAF (KGRF)

Amdt 22 30APR15

# NDB RWY 15

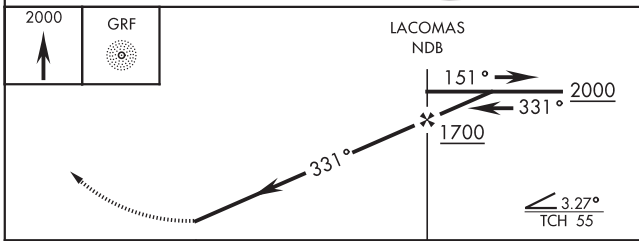
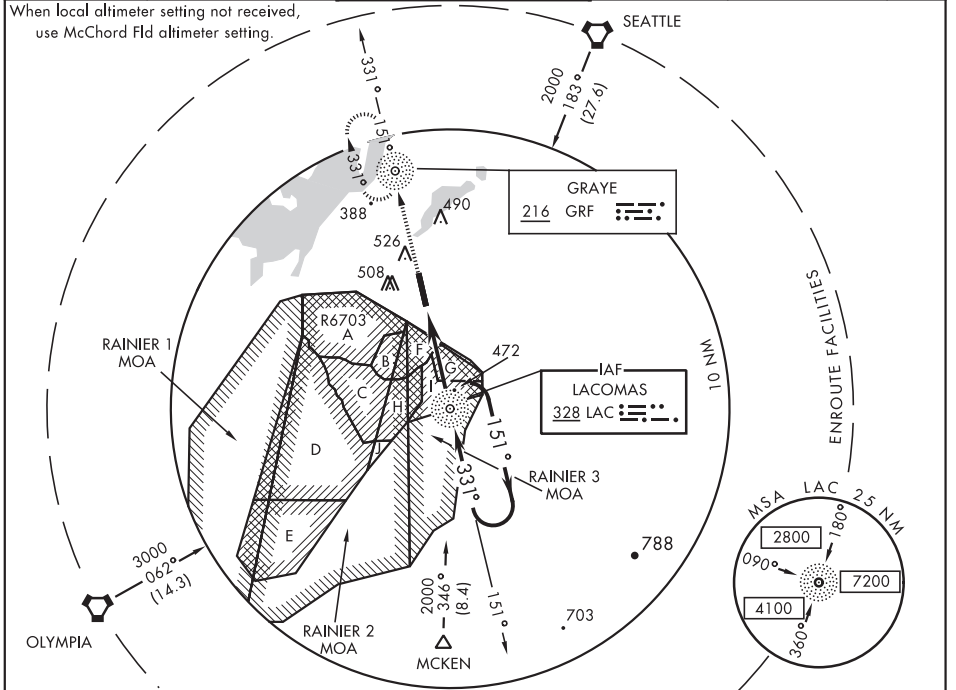
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

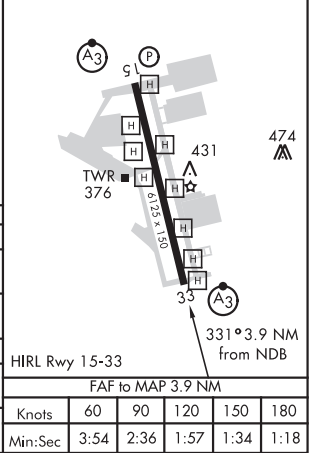
# NDB RWY 33

GRAY AAF (KGRF)

NDB LAC <b>328</b>	APCH CRS <b>331°</b>	Rwy ldg THRE Arpt Elev <b>6125</b> <b>300</b> <b>300</b>	AL-413 [USA]	SSALR 	MISSED APPROACH: Climb to 2000 direct to GRF NDB and hold.
* Circling not authorized W of Rwy 15-33.					
ATIS <b>124.65 306.2</b>	SEATTLE APP CON <b>120.1 290.9</b>	GRAY TOWER ★ <b>119.325</b> (CTAF) <b>256.8</b>	GND CON <b>121.9 290.2</b>	CLNC DEL <b>121.9 290.2</b>	PAR



ELEV	300	THRE	300
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CATEGORY	A	B	C	D
S-33	860- $\frac{3}{4}$ 560 (600- $\frac{3}{4}$ )		860-1 $\frac{1}{8}$ 560 (600-1 $\frac{1}{8}$ )	860-2
CIRCLING *	860-1 560 (600-1)		860-1 $\frac{5}{8}$ 560 (600-1 $\frac{5}{8}$ )	860-2
McCCORD FLD ALTIMETER SETTING MINIMUMS				
S-33	880- $\frac{3}{4}$ 580 (600- $\frac{3}{4}$ )		880-1 $\frac{1}{4}$ 580 (600-1 $\frac{1}{4}$ )	
CIRCLING *	880-1 580 (600-1)		880-1 $\frac{5}{8}$ 580 (600-1 $\frac{5}{8}$ )	880-2

JOINT BASE LEWIS MCCORD, WASHINGTON 47°05'N-122°35'W GRAY AAF (KGRF)

Amtd 7 02MAY13

# NDB RWY 33

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

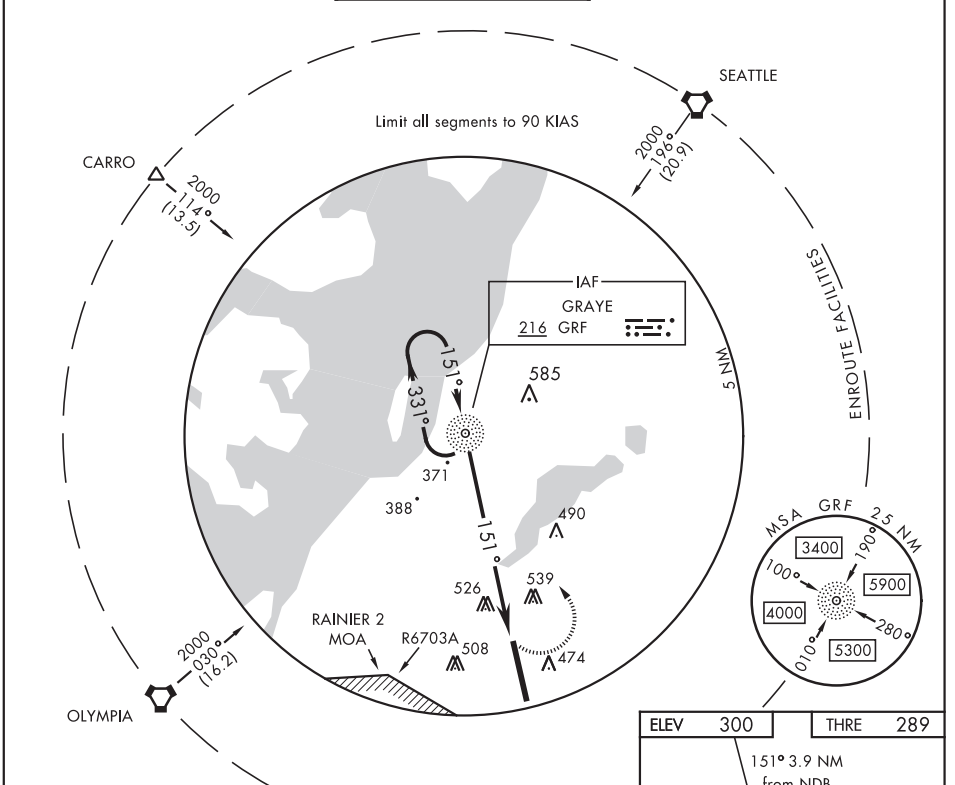
JOINT BASE LEWIS MCCORD, WASHINGTON

# COPTER NDB RWY 15

NDB GRF <b>216</b>	APCH CRS <b>151°</b>	Rwy ldg THRE Arpt Elev <b>6125</b> <b>289</b> <b>300</b>	AL-413 [USA]	GRAY AAF (KGRF)
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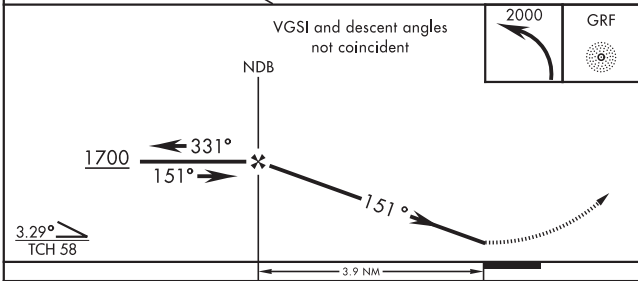
▼ When local altimeter setting not received, use McChord Field altimeter setting.
 SSALR 
MISSED APPROACH: Climbing left turn to 2000 direct GRF NDB and hold.

ATIS <b>124.65 306.2</b>	SEATTLE APP CON <b>120.1 290.9</b>	GRAY TOWER ★ <b>119.325 (CTAF) 256.8</b>	GND CON <b>121.9 290.2</b>	CLNC DEL <b>121.9 290.2</b>	PAR
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV	300	THRE	289
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151° 3.9 NM from NDB

FAF to MAP 3.9 NM					
Knots	45	60	75	90	105
Min:Sec	5:12	3:54	3:07	2:36	2:14

# COPTER NDB RWY 15



# AIRPORT DIAGRAM

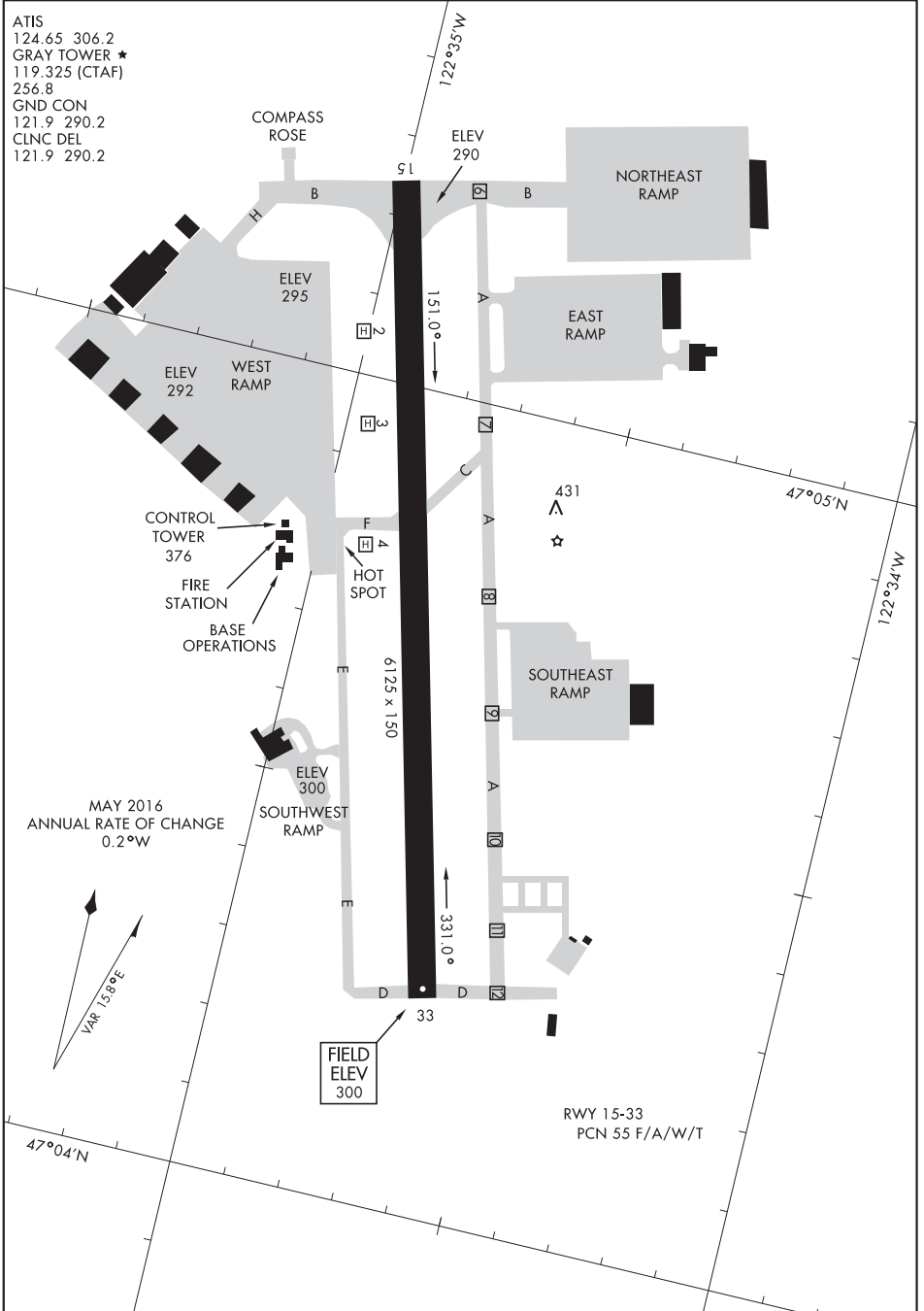
AFD-413 [USA]

GRAY AAF (KGRF)  
JOINT BASE LEWIS MCCORD, WASHINGTON

ATIS  
 124.65 306.2  
 GRAY TOWER ★  
 119.325 (CTAF)  
 256.8  
 GND CON  
 121.9 290.2  
 CLNC DEL  
 121.9 290.2

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

JOINT BASE LEWIS MCCORD, WASHINGTON  
GRAY AAF (KGRF)

16007

GRAY AAF (KGRF)

**LEWIS THREE DEPARTURE (GRAY3 • GRAY)**

JOINT BASE LEWIS MCCHORD, WASHINGTON

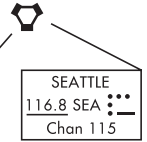
ATIS 124.65 306.2  
 CLNC DEL  
 121.9 290.2  
 GND CON  
 121.9 290.2  
 GRAY TOWER ★  
 119.325 (CTAF) 256.8  
 SEATTLE DEP CON  
 120.1 290.9

Rwy	Knots	60	120	180	240
† 15 (a)	V/V(fpm)	400	800	1200	1600
* 33 (b)	V/V(fpm)	469	938	1407	1876

SL-413 [USA]

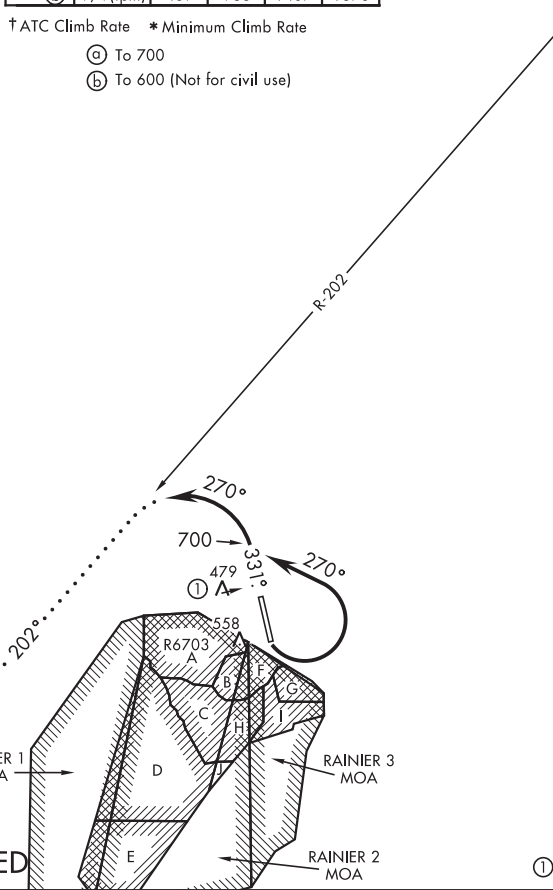
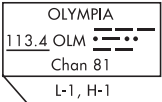
† ATC Climb Rate \* Minimum Climb Rate

- (a) To 700
- (b) To 600 (Not for civil use)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



**RADAR REQUIRED**

① 3003' from Rwy 33

**DEPARTURE ROUTE DESCRIPTION**

TAKE-OFF RWY 15: Turn left as soon as practical, thence . . .

TAKE-OFF RWY 33: Climb heading 331° to 700, thence . . .

Turn left (unless otherwise directed by ATC) heading 270° for RADAR Vectors to assigned route. Maintain altitude as assigned by ATC. Expect filed altitude within 5 min after departure.

LOST COMMUNICATIONS: If no transmissions are received within three minutes after departure, continue climb to assigned altitude, intercept and proceed via SEA VORTAC R-202 to the OLM VORTAC, then via assigned route.

**LEWIS THREE DEPARTURE (GRAY3 • GRAY)**

JOINT BASE LEWIS MCCHORD, WASHINGTON

GRAY AAF (KGRF)

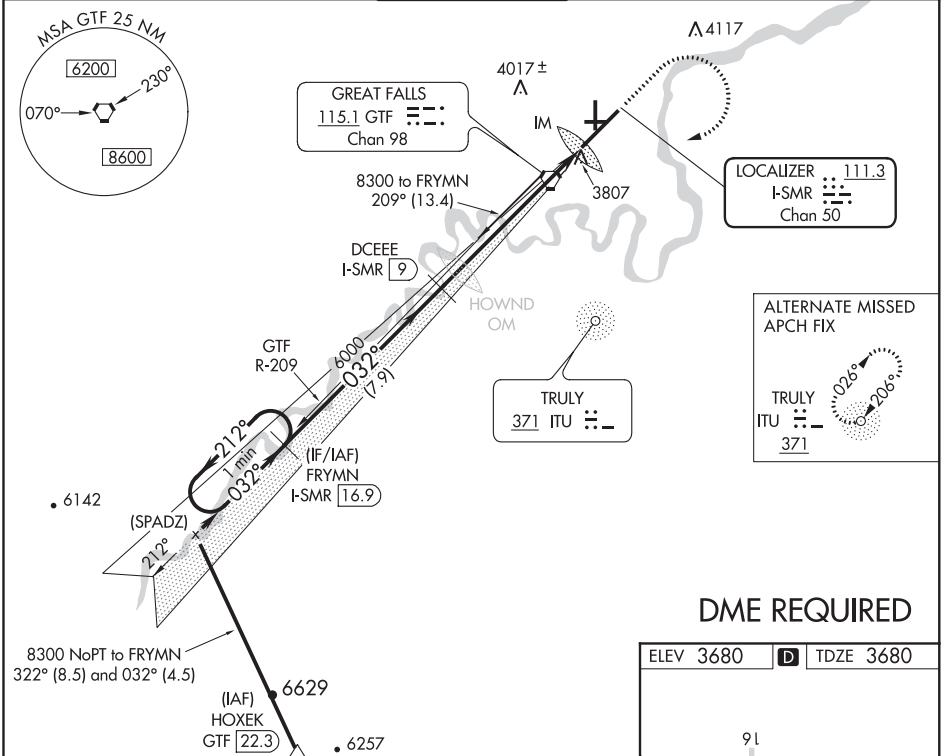
LOC/DME I-SMR <b>111.3</b> Chan 50	APP CRS <b>032°</b>	Rwy Idg <b>10502</b> TDZE <b>3680</b> Apt Elev <b>3680</b>
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# ILS or LOC/DME RWY 3

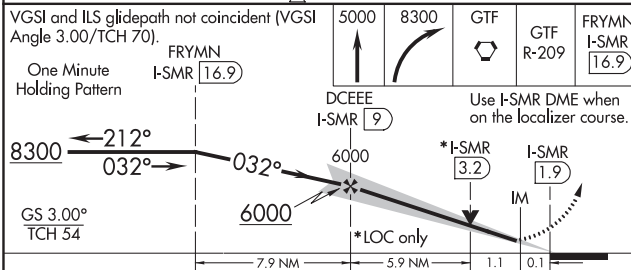
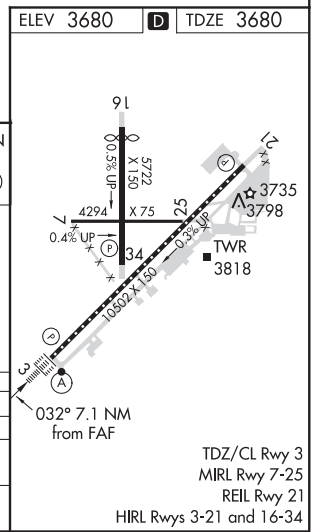
GREAT FALLS INTL (GTF)

-33°C/-27°F	ALSF-2 	MISSED APPROACH: Climb to 5000 then climbing right turn to 8300 direct GTF VORTAC then on GTF VORTAC R-209 to FRYMN/I-SMR 16.9 DME and hold.
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ATIS <b>126.6 269.0</b>	GREAT FALLS APP CON <b>128.6 379.17</b>	GREAT FALLS TOWER <b>118.7 282.2</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>121.7 348.6</b>
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## DME REQUIRED



CATEGORY	A	B	C	D
S-ILS 3	3880/18		200 (200-½)	
S-LOC 3	4140/24	460 (500-½)	4140/45	460 (500-¾)
CIRCLING	4140-1	460 (500-1)	4140-1½ 460 (500-1½)	4240-2 560 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

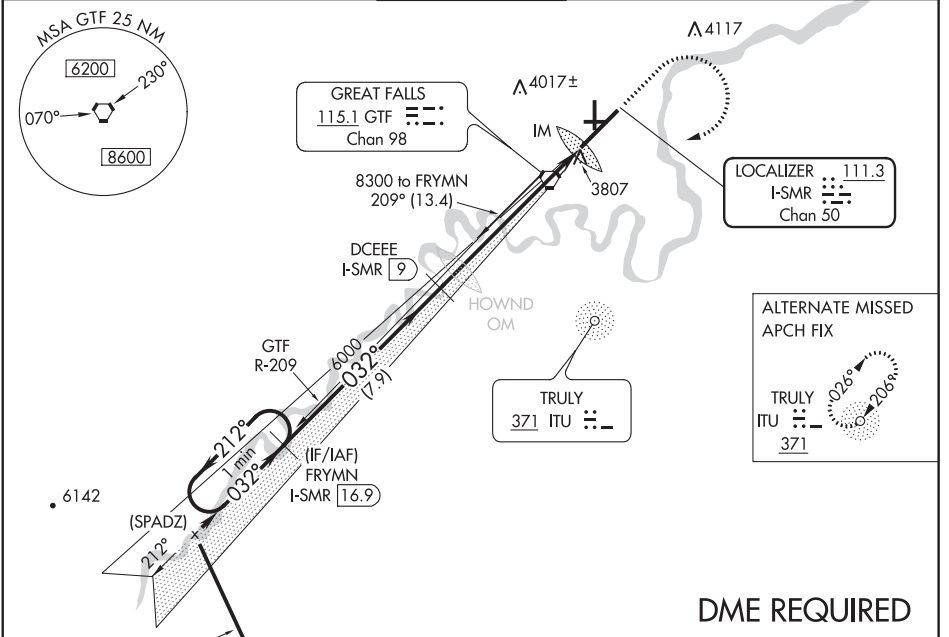
LOC/DME I-SMR <b>111.3</b> Chan 50	APP CRS <b>032°</b>	Rwy Idg <b>10502</b> TDZE <b>3680</b> Apt Elev <b>3680</b>
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# ILS RWY 3 (SA CAT I)

GREAT FALLS INTL (GTF)

<p>Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.</p> <p><b>-33°C/-27°F</b></p>	<p>ALSF-2</p>	<p>MISSED APPROACH: Climb to 5000 then climbing right turn to 8300 direct GTF VORTAC then on GTF VORTAC R-209 to FRYMN/I-SMR 16.9 DME and hold.</p>
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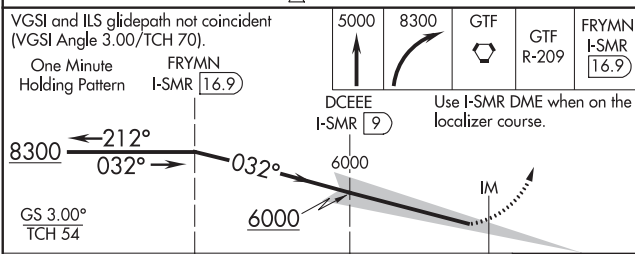
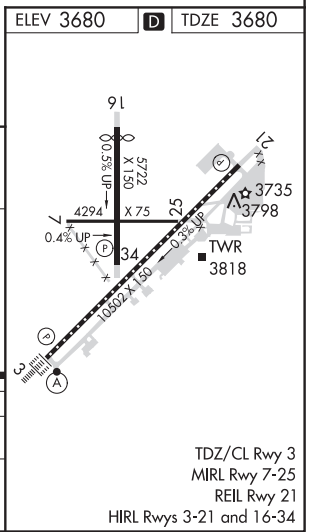
<p>ATIS <b>126.6 269.0</b></p>	<p>GREAT FALLS APP CON <b>128.6 379.17</b></p>	<p>GREAT FALLS TOWER <b>118.7 282.2</b></p>	<p>GND CON <b>121.7 348.6</b></p>	<p>CLNC DEL <b>121.7 348.6</b></p>
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**ALTERNATE MISSED APCH FIX**

TRULY  
ITU **371**

## DME REQUIRED



CATEGORY	A	B	C	D
S-ILS 3	RA 140/14 150 DA 3830			

**SA CATEGORY I ILS-SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

TDZ/CL Rwy 3  
MIRL Rwy 7-25  
REIL Rwy 21  
HIRL Rwy 3-21 and 16-34

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017





# RNAV (RNP) Z RWY 21

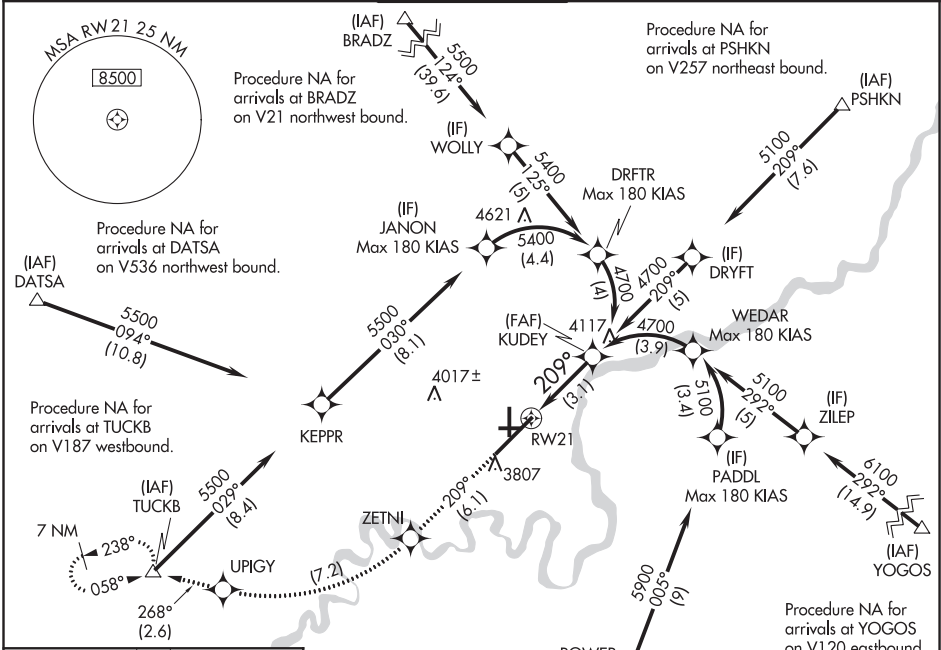
GREAT FALLS INTL (GTF)

APP CRS	Rwy Idg	<b>10502</b>
<b>209°</b>	TDZE	<b>3669</b>
	Apt Elev	<b>3680</b>

**RF** required. GPS required. For uncompensated Baro-VNAV systems, procedure NA below -24°C (-11°F) or above 49°C (121°F).

**MISSED APPROACH:** Climb to 8000 on track 209° to ZETNI, right turn to UPIGY and on track 268° to TUCKB and hold, continue climb-in-hold to 8000.

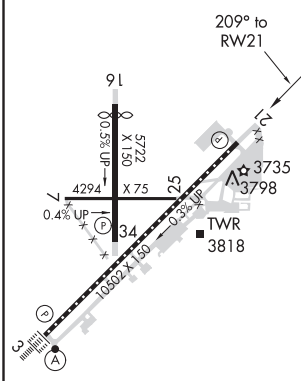
ATIS <b>126.6 269.0</b>	GREAT FALLS APP CON <b>128.6 379.17</b>	GREAT FALLS TOWER <b>118.7 282.2</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>121.7 348.6</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

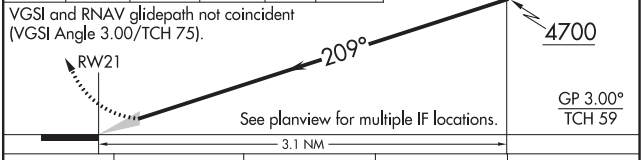
ELEV 3680	<b>D</b>	TDZE 3669
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TDZ/CL Rwy 3  
REIL Rwy 21  
MIRL Rwy 7-25  
HIRL Rwy 3-21 and 16-34

Procedure NA for arrivals at URELE on V536 southbound.

8000	ZETNI	UPIGY	TUCKB	KUDEY
tr 209°	◆	◆	△	4700



CATEGORY	A	B	C	D
RNP 0.10 DA		3942/45	273 (300-7%)	
RNP 0.30 DA		3992/50	323 (400-1)	

## AUTHORIZATION REQUIRED

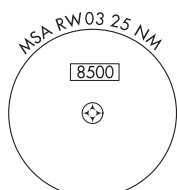
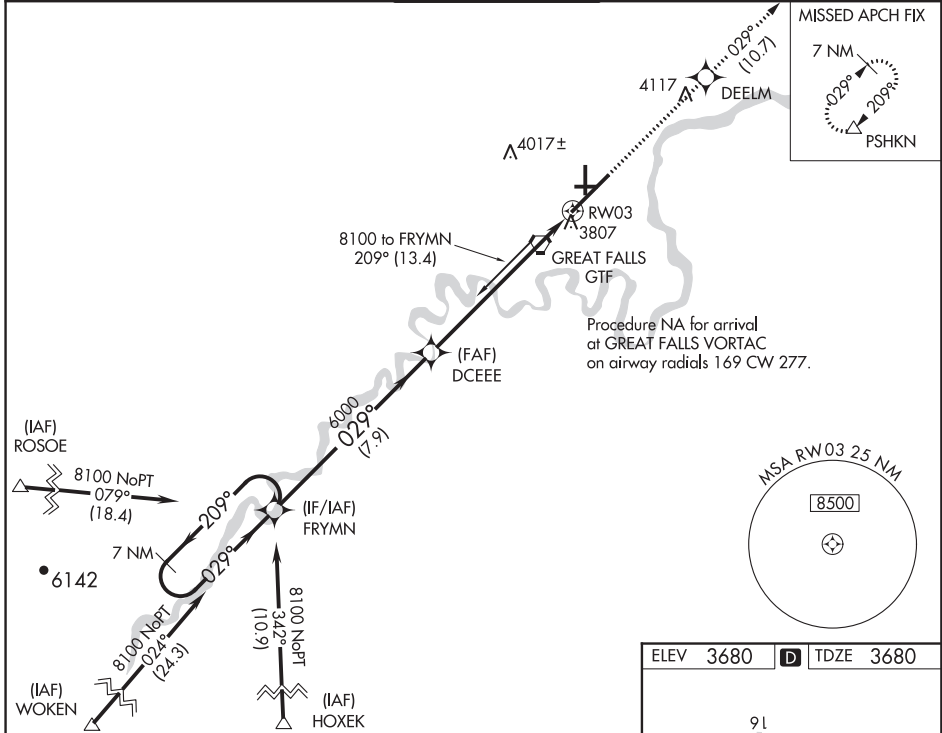
WAAS CH <b>70602</b> W03A	APP CRS <b>029°</b>	Rwy Idg <b>10502</b> TDZE <b>3680</b> Apt Elev <b>3680</b>
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# RNAV (GPS) Y RWY 3

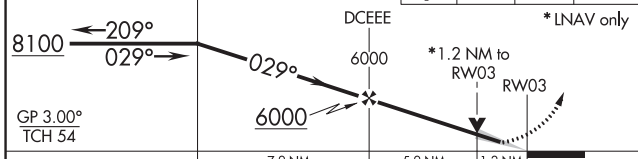
GREAT FALLS INTL (GTF)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -33°C/-27°F -22°C (-7°F) or above 21°C (69°F). DME/DME RNP-0.3 NA. For inoperative ALSF increase LNAV/VNAV visibility all Cats to RVR 4500.	ALSF-2 	MISSED APPROACH: Climb to 6200 direct DEELM and on track 029° to PSHKN and hold.
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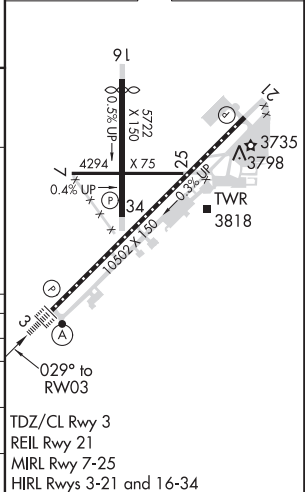
ATIS <b>126.6 269.0</b>	GREAT FALLS APP CON <b>128.6 379.17</b>	GREAT FALLS TOWER <b>118.7 282.2</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>121.7 348.6</b>
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VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 70).  
 7 NM Holding Pattern FRYMNM



ELEV 3680	<b>D</b> TDZE 3680
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CATEGORY	A	B	C	D
LPV DA	3880/24		200 (200-½)	
LNAV/VNAV DA	3952/24		272 (300-½)	
LNAV MDA	4140/24 460 (500-½)		4140/45 460 (500-¾)	
CIRCLING	4140-1 460 (500-1)		4140-1½ 460 (500-1½) 4240-2 560 (600-2)	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



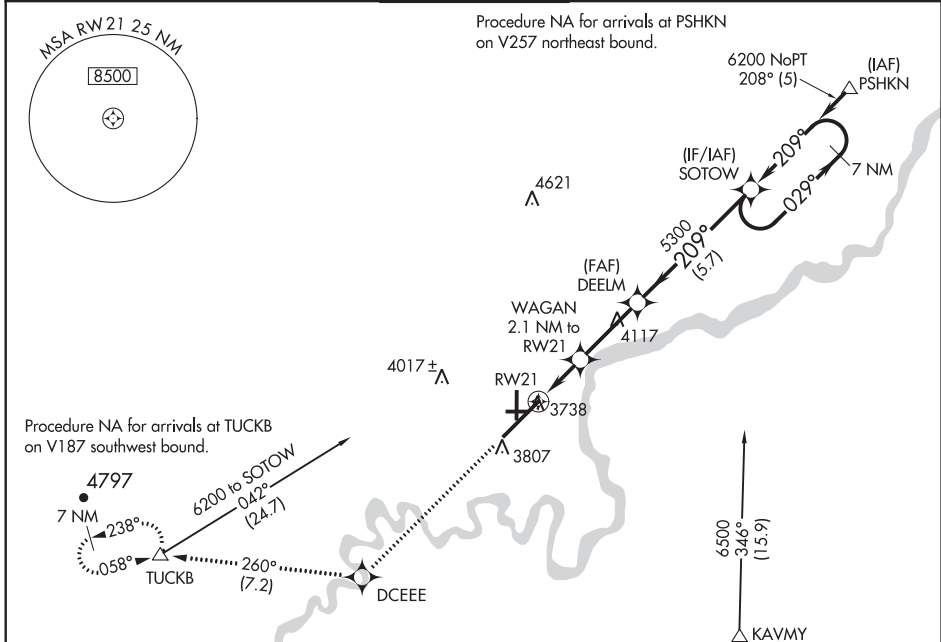
WAAS CH <b>90221</b> <b>W21A</b>	APP CRS <b>209°</b>	Rwy Idg <b>10502</b> TDZE <b>3669</b> Apt Elev <b>3680</b>
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# RNAV (GPS) Y RWY 21

GREAT FALLS INTL (GTF)

<b>T</b>	DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, -33°C/-27°F LNAV/VNAV NA below -24°C (-11°F) or above 49°C (121°F).	MISSED APPROACH: Climb to 8000 direct DCEEE and on track 260° to TUCKB and hold, continue climb-in-hold to 8000.
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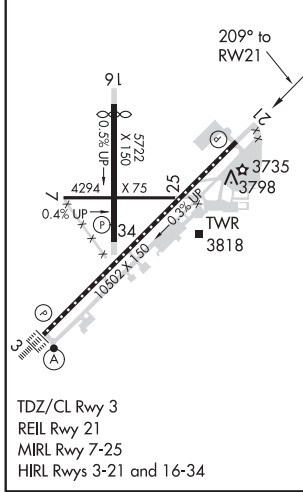
ATIS <b>126.6 269.0</b>	GREAT FALLS APP CON <b>128.6 379.17</b>	GREAT FALLS TOWER <b>118.7 282.2</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>121.7 348.6</b>
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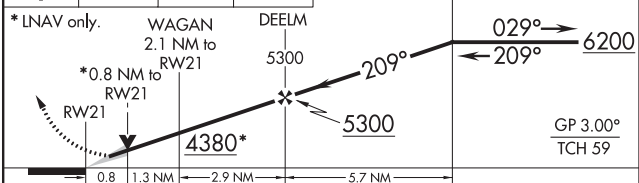
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3680	<b>D</b>	TDZE 3669
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8000	DCEEE	tr 260°	TUCKB	VGSI and RNAV glidepath not coincident. (VGSI Angle 3.00/TCH 75).
				SOTOW 7 NM Holding Pattern



CATEGORY	A	B	C	D
LPV DA		3869/40	200 (200-¾)	
LNAV/ VNAV DA		3927/45	258 (300-¾)	
LNAV MDA		4000/55	331 (400-1½)	
CIRCLING	4120-1 440 (500-1)	4140-1 460 (500-1)	4140-1½ 460 (500-1½)	4240-2 560 (600-2)

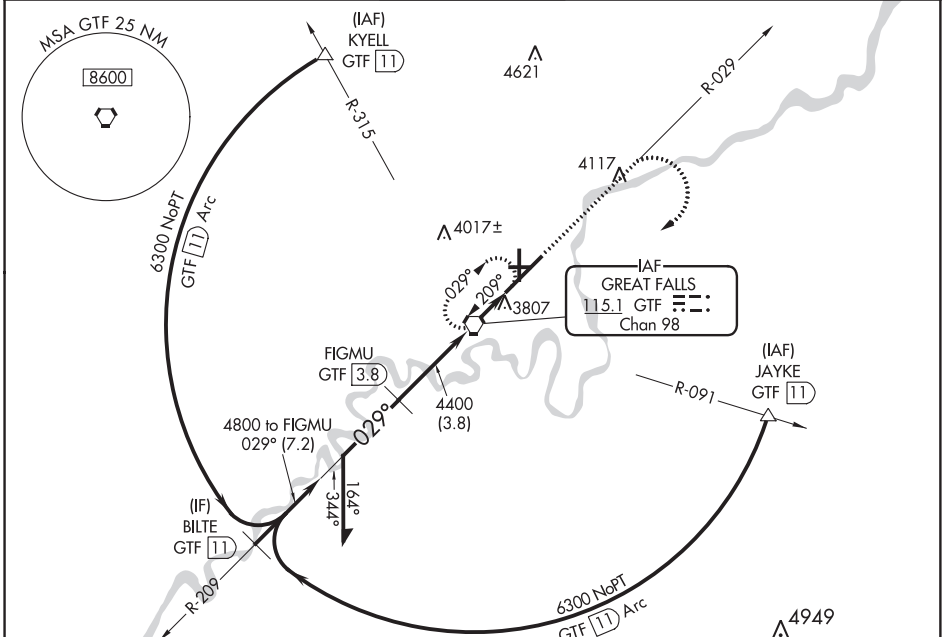
VORTAC GTF <b>115.1</b> Chan <b>98</b>	APP CRS <b>029°</b>	Rwy Idg <b>10502</b> TDZE <b>3680</b> Apt Elev <b>3680</b>
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# VOR/DME RWY 3

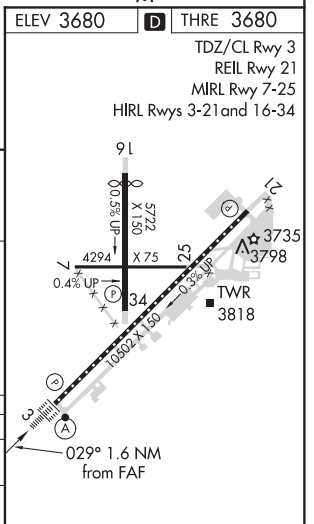
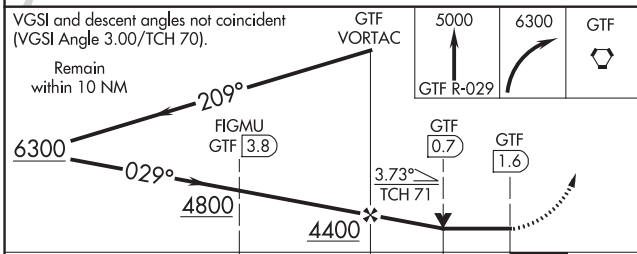
GREAT FALLS INTL (GTF)

	For inoperative ALSIF-2, increase S-3 Cat D visibility to RVR 6000.	ALSIF-2	MISSED APPROACH: Climb to 5000 via GTF VORTAC R-029 then climbing right turn to 6300 direct GTF VORTAC and hold, continue climb-in-hold to 6300.

ATIS <b>126.6 269.0</b>	GREAT FALLS APP CON <b>128.6 379.17</b>	GREAT FALLS TOWER <b>118.7 282.2</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>121.7 348.6</b>
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VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 70).  
Remain within 10 NM



CATEGORY	A	B	C	D
S-3	4060/24 380 (400-½)			NA
CIRCLING	4120-1 440 (500-1)	4140-1 460 (500-1)	4140-1½ 460 (500-1½)	4240-2 560 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

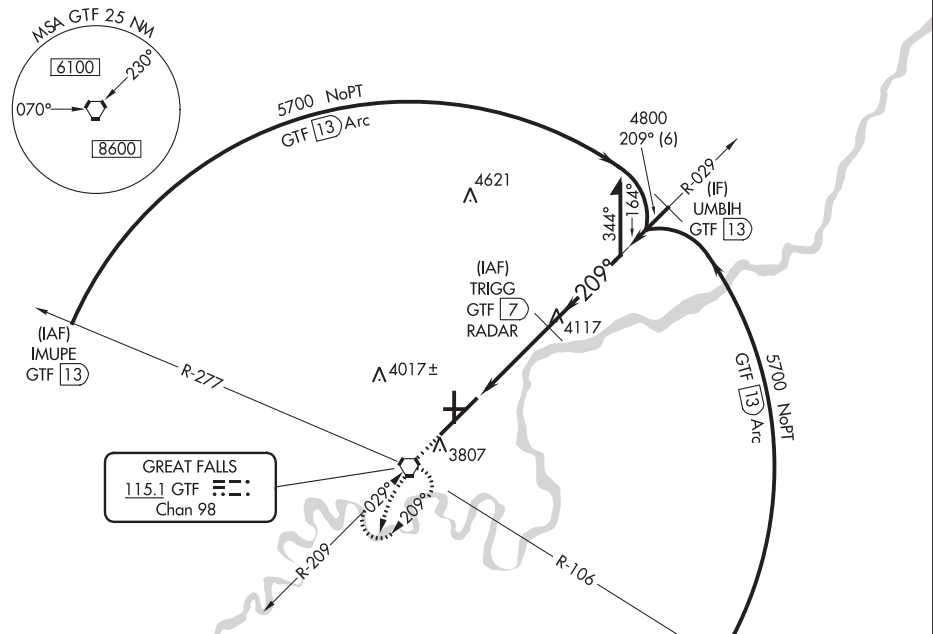
VORTAC GTF	APP CRS	Rwy Idg	10502
115.1	209°	TDZE	3669
Chan 98		Apt Elev	3680

**VOR RWY 21**  
GREAT FALLS INTL (GTF)

**⚠** -33°C/-27°F

MISSED APPROACH: Climb direct to GTF VORTAC continue climb to 5500 in GTF VORTAC holding pattern.

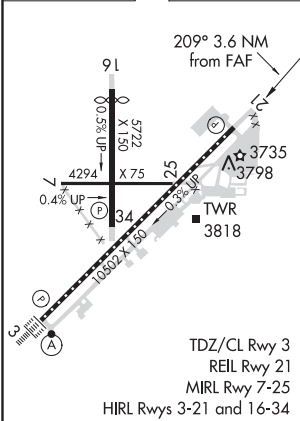
ATIS <b>126.6 269.0</b>	GREAT FALLS APP CON <b>128.6 379.17</b>	GREAT FALLS TOWER <b>118.7 282.2</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>121.7 348.6</b>
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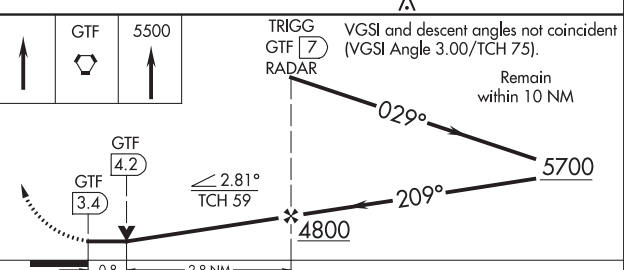
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3680 **D** TDZE 3669



**DME or RADAR REQUIRED**



FAF to MAP 3.6 NM

Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

CATEGORY	A	B	C	D
S-21	4000/55 331 (400-1)			
CIRCLING	4140-1	460 (500-1)	4140-1½ 460 (500-1½)	4240-2 560 (600-2)

NDB ITU <b>371</b>	APP CRS <b>347°</b>	Rwy Idg <b>5070</b>
		TDZE <b>3667</b>
		Apt Elev <b>3680</b>

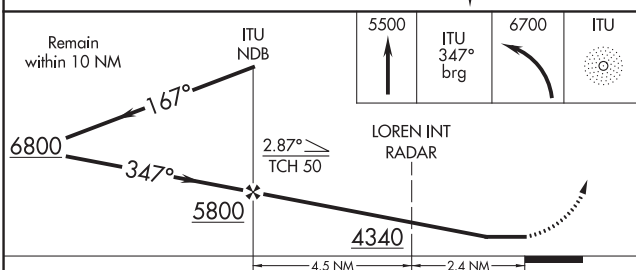
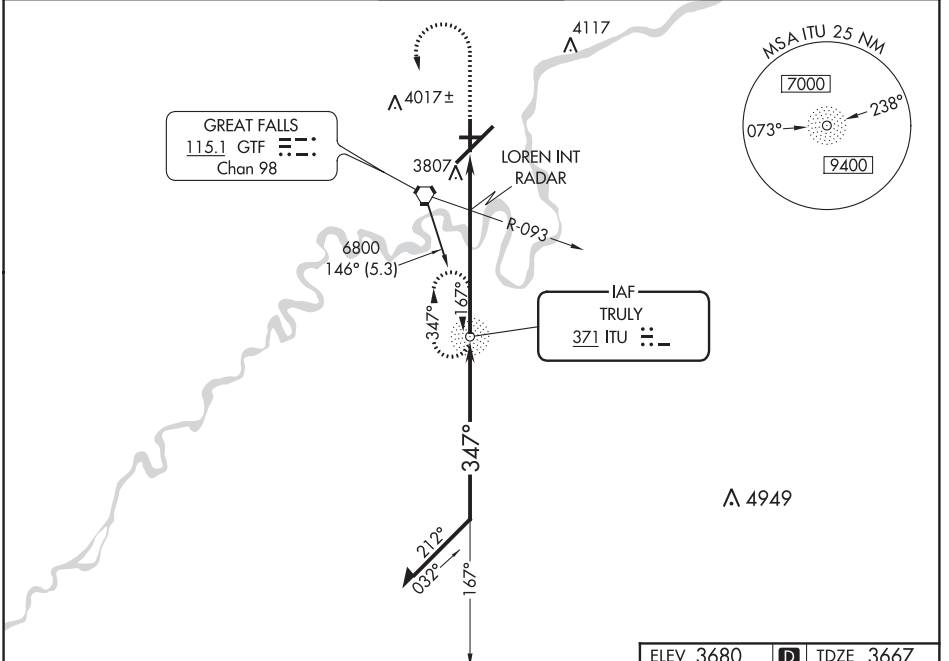
# NDB RWY 34

GREAT FALLS INTL (GTF)

**MISSED APPROACH:** Climb to 5500 via ITU NDB 347° bearing, then left turn to 6700 direct ITU NDB and hold.

⚠️ -33°C/-27°F

ATIS <b>126.6 269.0</b>	GREAT FALLS APP CON <b>128.6 379.17</b>	GREAT FALLS TOWER <b>118.7 282.2</b>	GND CON <b>121.7 348.6</b>	CLNC DEL <b>121.7 348.6</b>
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ELEV 3680	TDZE 3667
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TDZ/Cl Rwy 3  
REIL Rwy 21  
MIRL Rwy 7-25  
HIRL Rwys 3-21 and 16-34

FAF to MAP 6.8 NM					
Knots	60	90	120	150	180
Min:Sec	6:48	4:32	3:24	2:43	2:16

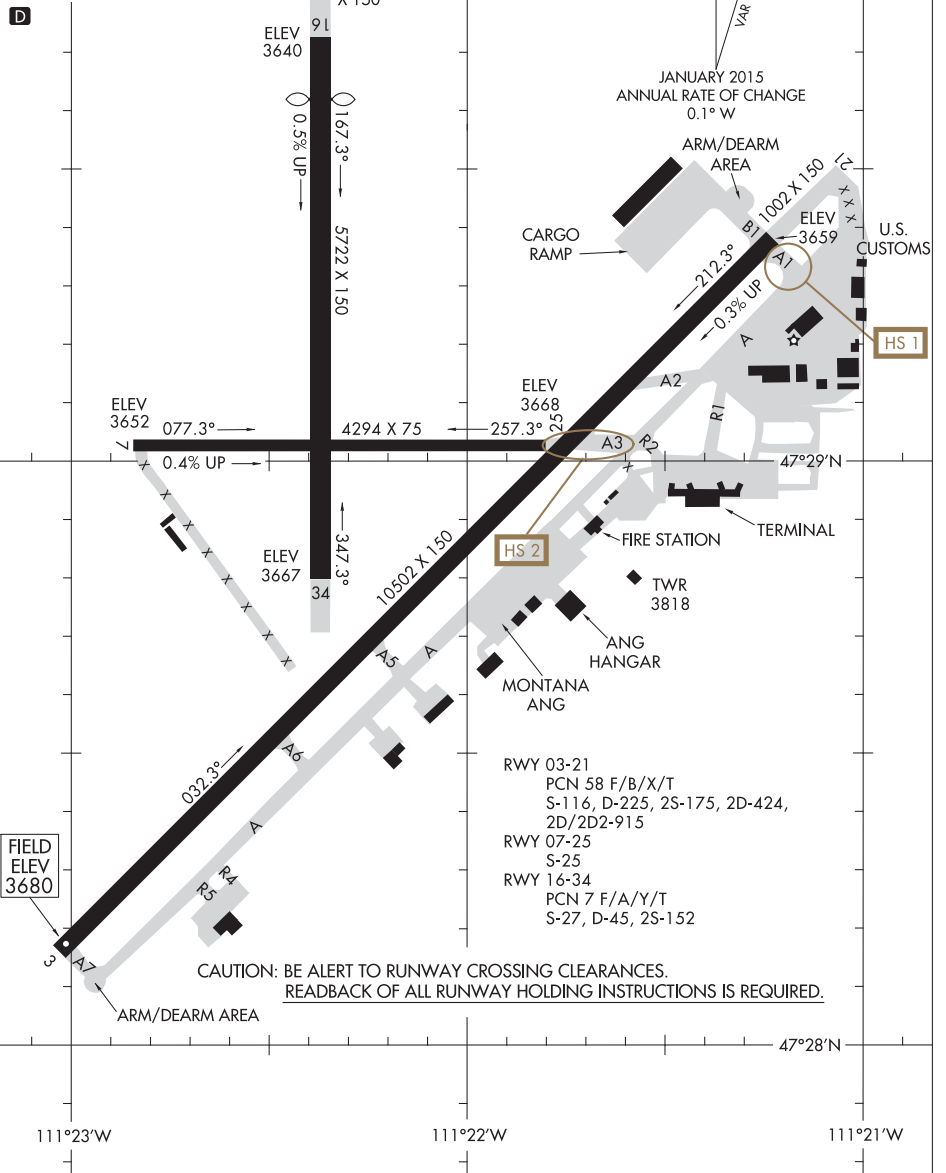
CATEGORY	A	B	C	D
S-34	4340-1	673 (700-1)	4340-2 673 (700-2)	4340-2 ¼ 673 (700-2 ¼)
CIRCLING	4340-1	660 (700-1)	4340-2 660 (700-2)	4340-2 ¼ 660 (700-2 ¼)
LOREN INT/RADAR MINIMUMS				
S-34	4120-1	453 (500-1)	4120-1 ¼ 453 (500-1 ¼)	4120-1 ½ 453 (500-1 ½)
CIRCLING	4120-1 440 (500-1)	4140-1 460 (500-1)	4140-1 ½ 460 (500-1 ½)	4240-2 560 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

16147 **AIRPORT DIAGRAM** AL-177 (FAA) **GREAT FALLS INTL (GTF)**  
 GREAT FALLS, MONTANA

ATIS  
 126.6 269.0  
 GREAT FALLS TOWER  
 118.7 282.2  
 GND CON  
 121.7 348.6  
 CLNC DEL  
 121.7 348.6



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

**AIRPORT DIAGRAM** GREAT FALLS, MONTANA  
 16147 **GREAT FALLS INTL (GTF)**

GREYBULL, WYOMING

AL-531 (FAA)

15288

WAAS CH <b>56530</b> <b>W07A</b>	APP CRS <b>073°</b>	Rwy Idg TDZE Apt Elev	<b>3953</b> <b>3942</b> <b>3942</b>
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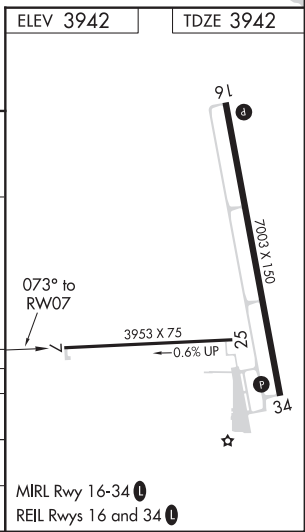
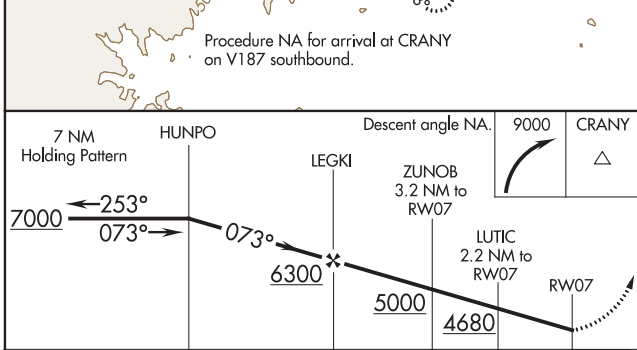
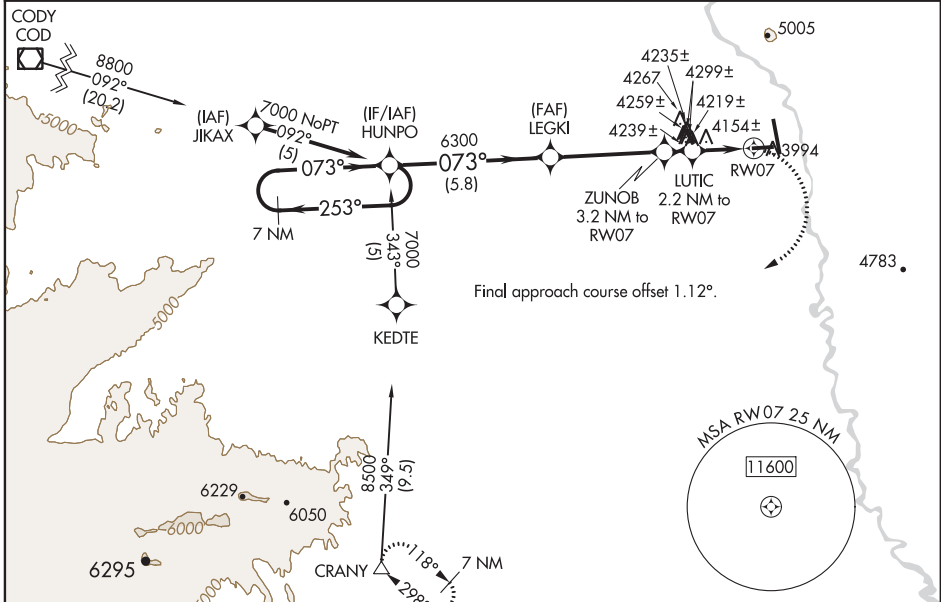
# RNAV (GPS) RWY 7

SOUTH BIG HORN COUNTY (GEY)

**⚠** DME/DME RNP-0.3 NA. Night Landing; Rwy 7.25 NA. When local altimeter setting not received, use World altimeter setting and increase all MDA 120 feet and increase LP Cat C/D and Circling Cat B visibility ¼ mile and LNAV Cat C/D ⅜ mile and Circling Cat C ½ mile. Helicopter visibility reduction below 1 SM NA.

**⚠** MISSED APPROACH: Climbing right turn to 9000 direct CRANY and hold, continue climb-in-hold to 9000.

ASOS <b>135.325</b>	SALT LAKE CENTER <b>133.25 285.6</b>	CTAF <b>122.9</b>
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CATEGORY	A	B	C	D
LP MDA	4400-1	458 (500-1)	4400-1⅓	458 (500-1⅓)
LNAV MDA	4480-1	538 (600-1)	4480-1½	538 (600-1½)
CIRCLING	4500-1 558 (600-1)	4660-1 718 (800-1)	4660-2 718 (800-2)	5220-3 1278 (1300-3)

GREYBULL, WYOMING  
Orig-C 15OCT15

44°31'N-108°05'W

# SOUTH BIG HORN COUNTY (GEY)

## RNAV (GPS) RWY 7

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>7003</b>
<b>336°</b>	TDZE	<b>3916</b>
	Apt Elev	<b>3942</b>

# RNAV (GPS) RWY 34

SOUTH BIG HORN COUNTY (GEY)

**▽** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Worland altimeter setting and increase all MDA 120 feet and increase LNAV Cat A/B and Circling Cat C visibility ¼ mile and LNAV Cat C/D ½ mile. Night Landing: Rwy 7, 25 NA.

**⚠** -32°C/-26°F

**MISSED APPROACH:** Climbing left turn to 9000 direct CRANY and hold, continue climb-in-hold 9000.

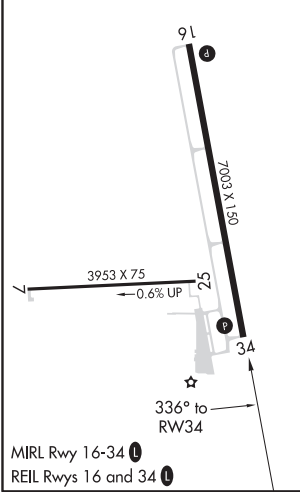
ASOS <b>135.325</b>	SALT LAKE CENTER <b>133.25 285.6</b>	CTAF <b>122.9</b>
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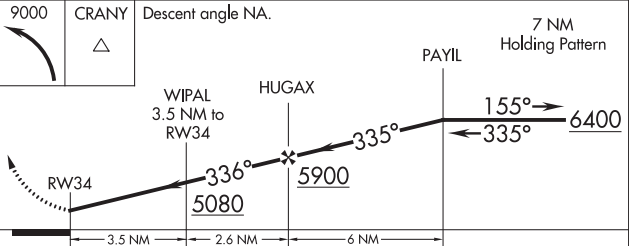
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3942	TDZE 3916
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Procedure NA for arrival at RLY VOR/DME on V319 southeast bound.



CATEGORY	A	B	C	D
LNAV MDA	4760-1 844 (900-1)	4760-1¼ 844 (900-1¼)	4760-2½	844 (900-2½)
CIRCLING	4760-1¼ 818 (900-1¼)		4760-2½ 818 (900-2½)	5220-3 1278 (1300-3)

GREYBULL, WYOMING

AL-531 (FAA)

15288

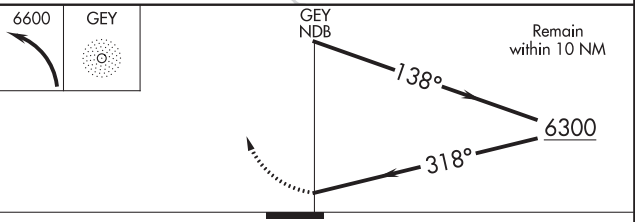
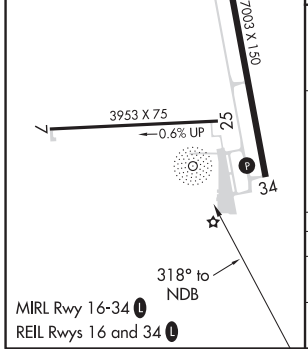
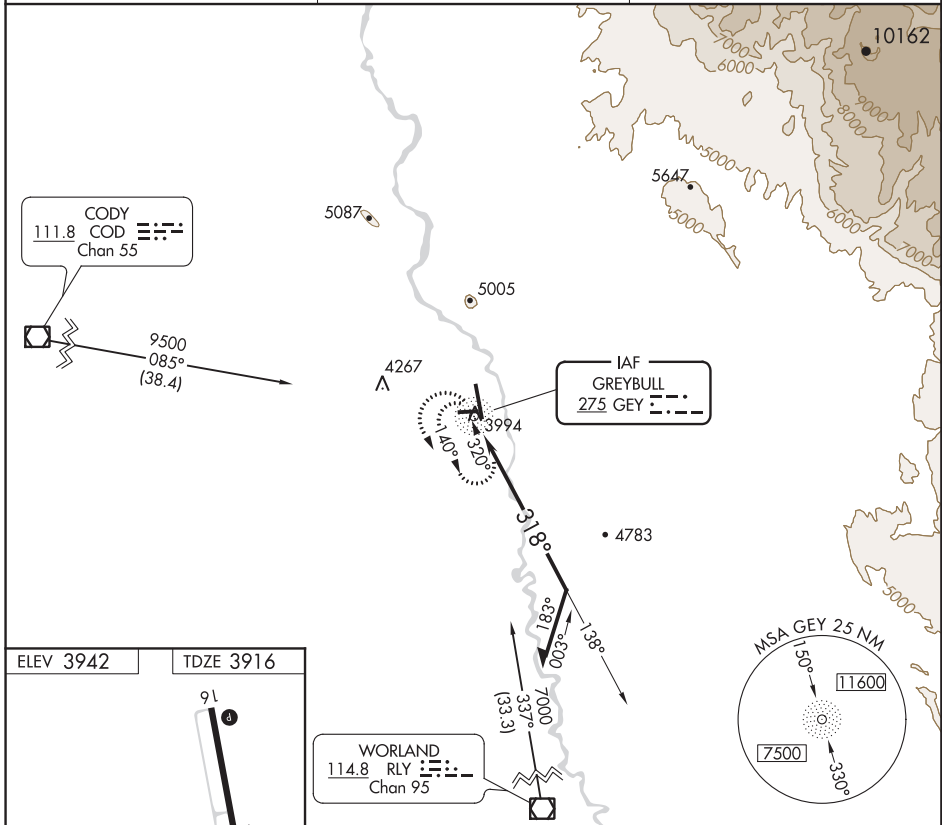
NDB GEY <b>275</b>	APP CRS <b>318°</b>	Rwy Idg <b>7003</b> TDZE <b>3916</b> Apt Elev <b>3942</b>
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# NDB RWY 34

SOUTH BIG HORN COUNTY (GEY)

<p><b>NA</b></p> <p>32°C/-26°F</p>	<p>When local altimeter setting not received, use Worland altimeter setting and increase all MDA 120 feet.</p> <p>Night Landing: Rwy 7, 25 NA.</p>	<p>MISSED APPROACH: Climbing left turn to 6600 in GEY NDB holding pattern.</p>
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ASOS <b>135.325</b>	SALT LAKE CENTER <b>133.25 285.6</b>	CTAF <b>122.9</b>
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CATEGORY	A	B	C	D
S-34	5340-1¼ 1424 (1400-1¼)	5340-1½ 1424 (1400-1½)	5340-3	1424 (1400-3)
CIRCLING	5340-1¼ 1398 (1400-1¼)	5340-1½ 1398 (1400-1½)	5340-3	1398 (1400-3)

GREYBULL, WYOMING  
Amdt 3B 15OCT15

44°31'N-108°05'W

SOUTH BIG HORN COUNTY (GEY)  
**NDB RWY 34**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

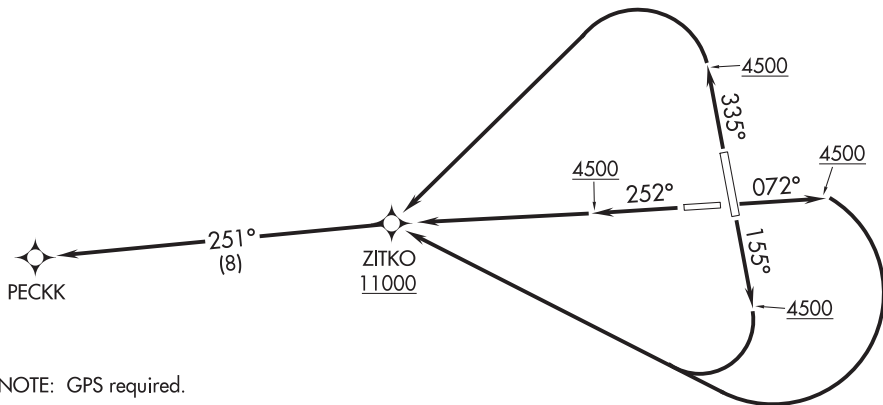


# PECKK ONE DEPARTURE (RNAV)

SALT LAKE CENTER  
133.25 285.6

### TAKEOFF MINIMUMS

- Rwy 7: Standard with minimum climb of 500' per NM to 4500, then minimum climb of 225' per NM to 7600.
- Rwy 16: Standard with minimum climb of 500' per NM to 4500.
- Rwy 25: Standard with minimum climb of 500' per NM to 4500, then minimum climb of 310' per NM to 7600.
- Rwy 34: Standard with minimum climb of 500' per NM to 4500, then minimum climb of 230' per NM to 7600.



NOTE: GPS required.  
NOTE: RNAV 1.

### TAKEOFF OBSTACLE NOTES

- Rwy 7: Trees at DER, 313' left of centerline, 21' AGL/3921' MSL.  
Road beginning 8' from DER, 473' left of centerline, up to 15' AGL/3932' MSL.  
Pole, buildings and fences beginning 74' from DER, 408' right of centerline, up to 50' AGL/3950' MSL.  
Aircraft 337' from DER, 540' left of centerline, 40' AGL/3940' MSL.
- Rwy 16: Light support structures beginning 9' from DER, 55' right and left of centerline, up to 2' AGL/3917' MSL.
- Rwy 25: Terrain, bushes and trees beginning 172' from DER, 225' right of centerline, up to 55' AGL/4102' MSL.  
Road beginning 6937' from DER, 1749' right of centerline, up to 14' AGL/4138' MSL.  
Fence beginning 4' from DER, 435' left of centerline, up to 5' AGL/3954' MSL.  
Windsock 595' from DER, 301' right of centerline, 9' AGL/3959' MSL.  
Telephone line 523' from DER, 622' left of centerline, 19' AGL/3969' MSL.
- Rwy 34: Light support structures beginning 9' from DER, 54' right and left of centerline, up to 2' AGL/3906' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 7: Climb heading 072° to 4500, then climbing right turn to 11000 direct ZITKO, thence. . . .

TAKEOFF RUNWAY 16: Climb heading 155° to 4500, then climbing right turn to 11000 direct ZITKO, thence. . . .

TAKEOFF RUNWAY 25: Climb heading 252° to 4500, then continue climb to 11000 direct ZITKO, thence. . . .

TAKEOFF RUNWAY 34: Climb heading 335° to 4500, then climbing left turn to 11000 direct ZITKO, thence. . . .

. . . .on track 251° to PECKK.

# PECKK ONE DEPARTURE (RNAV)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>69426</b> <b>W32A</b>	APP CRS <b>321°</b>	Rwy Idg TDZE Apt Elev	<b>5060</b> <b>4380</b> <b>4402</b>
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# RNAV (GPS) RWY 32

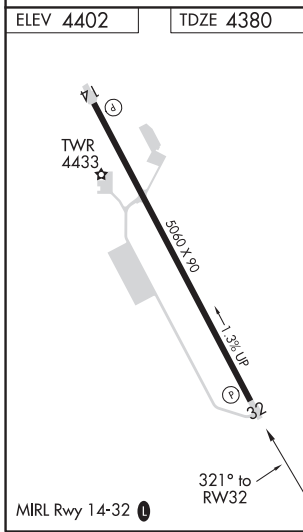
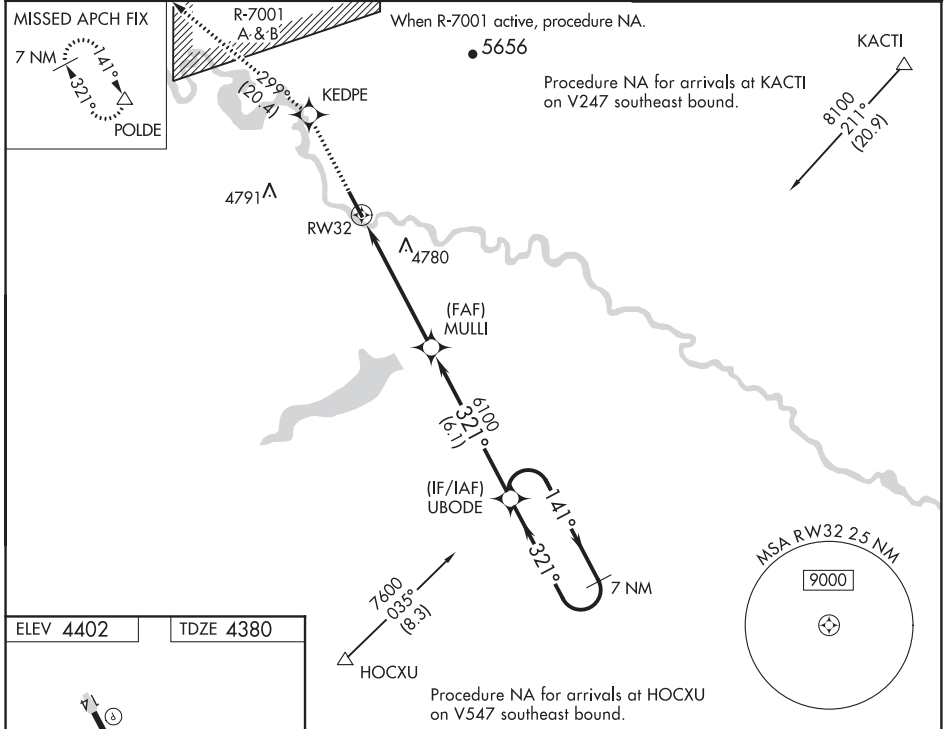
CAMP GUERNSEY (GUR)

**▽** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Torrington altimeter setting and increase all MDA 100 feet and increase LP Cat B and Circling Cat B visibility ¼ mile and all Cat C and D visibility ½ mile. Helicopter visibility reduction below ¾ SM NA. When Rwy 32 VGSi inop, Straight-In and Circling minimums NA at night. When Rwy 14 VGSi inop, Circling to Rwy 14 NA at night.

**△** NA

**MISSED APPROACH:** Climb to 9000 direct KEDPE and on track 299° to POLDE and hold.

AWOS-3 <b>119.825</b>	DENVER CENTER <b>135.6 363.025</b>	GUERNSEY TOWER★ <b>126.2 (CTAF) 0 233.3</b>
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9000	KEDPE	tr 299°	POLDE	7 NM Holding Pattern
Descent Angle NA.		MULLI		
RW32		UBODE		6900
5.4 NM		6.1 NM		
CATEGORY	A	B	C	D
LP MDA	5040-1	660 (700-1)	5040-2	660 (700-2)
RNAV MDA	5080-1 700 (700-1)	5080-1¼ 700 (700-1¼)	5080-2	700 (700-2)
CIRCLING	5200-1 798 (800-1)	5200-1¼ 798 (800-1¼)	5260-2½ 858 (900-2½)	5560-3 1158 (1200-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

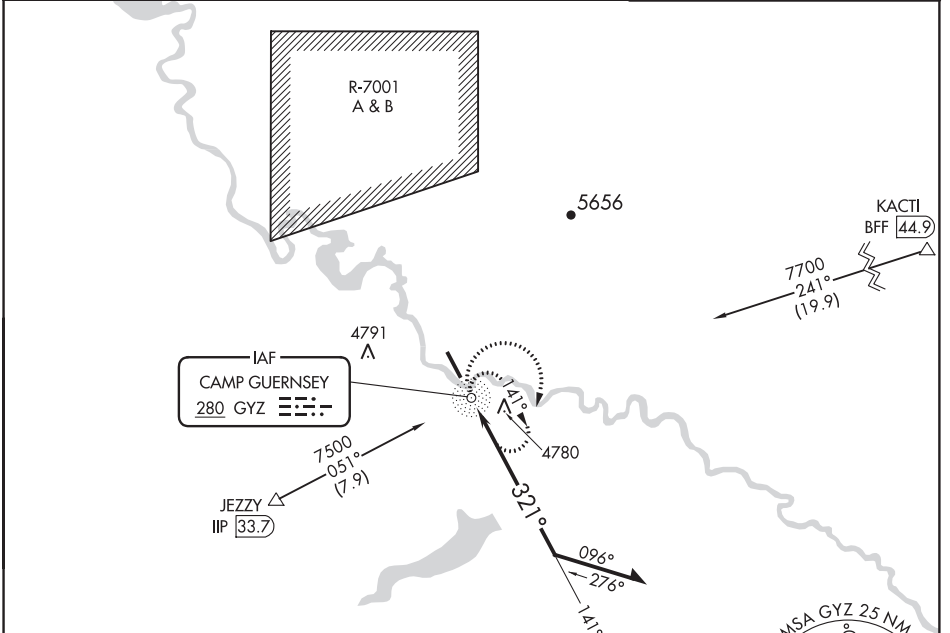
NDB GYZ <b>280</b>	APP CRS <b>321°</b>	Rwy Idg TDZE Apt Elev	<b>5060</b> <b>4380</b> <b>4402</b>
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**NDB RWY 32**  
CAMP GUERNSEY (GUR)

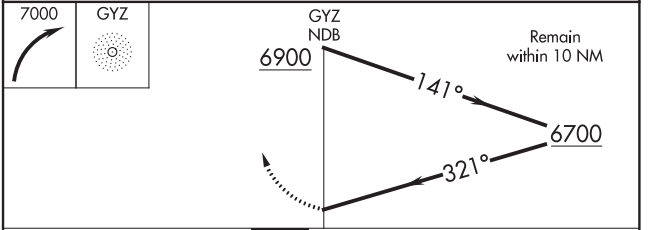
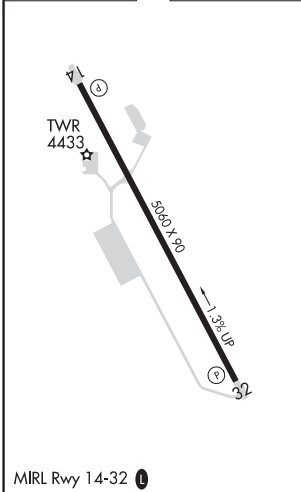
**▽** When local altimeter setting not received, use Torrington altimeter setting and increase all MDA 100 feet. Helicopter visibility reduction below 3/4 SM NA.  
**▲ NA** When Rwy 32 VGSI Inoperative, Straight-In and Circling Minimums NA at night.  
 When Rwy 14 VGSI Inoperative, Circling to Rwy 14 NA at night.

**MISSED APPROACH:** Climbing right turn to 7000 in GYZ NDB holding pattern.

AWOS-3 <b>119.825</b>	DENVER CENTER <b>135.6 363.025</b>	GUERNSEY TOWER* <b>126.2 (CTAF) 0 233.3</b>
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ELEV <b>4402</b>	TDZE <b>4380</b>
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CATEGORY	A	B	C	D
S-32	5660-1¼ 1280 (1300-1¼)	5660-1½ 1280 (1300-1½)	5660-3	1280 (1300-3)
CIRCLING	5660-1¼ 1258 (1300-1¼)	5660-1½ 1258 (1300-1½)	5660-3	1258 (1300-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

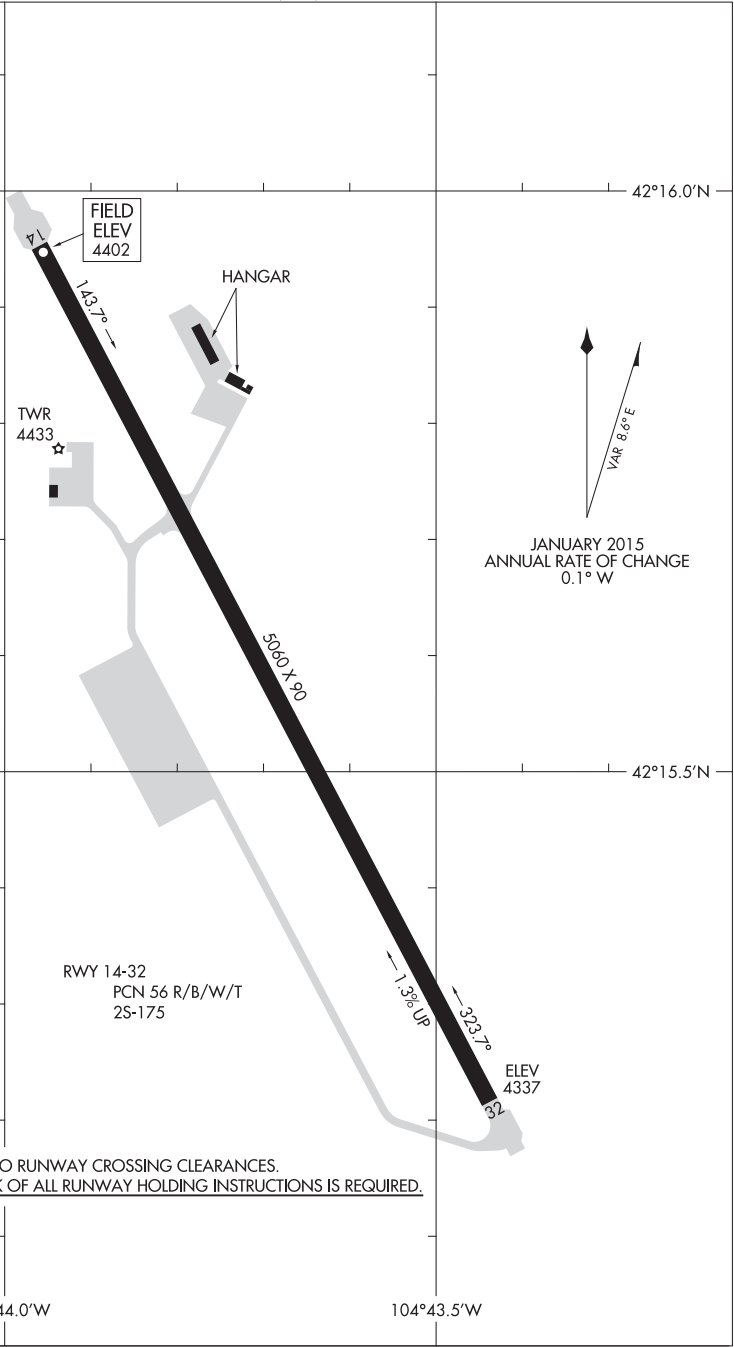
NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

AL-9220 (FAA)

CAMP GUERNSEY (GUR)  
GUERNSEY, WYOMING

AWOS-3  
119.825  
GUERNSEY TOWER ★  
126.2 233.3



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

GUERNSEY, WYOMING  
CAMP GUERNSEY (GUR)

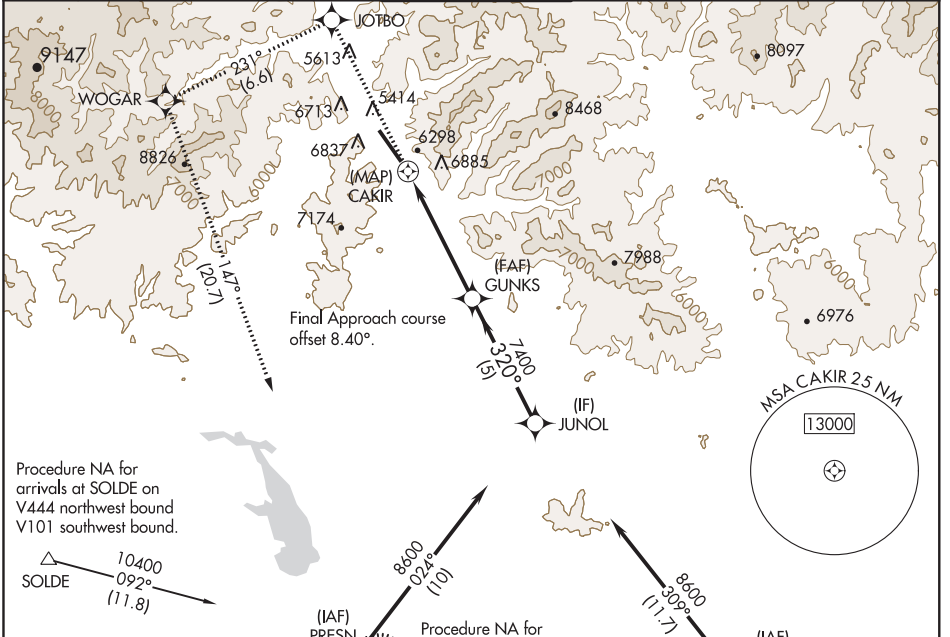
WAAS CH <b>77639</b> <b>W31A</b>	APP CRS <b>320°</b>	Rwy Idg TDZE <b>5289</b> Apt Elev <b>5320</b>	<b>6631</b>
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# RNAV (GPS) X RWY 31

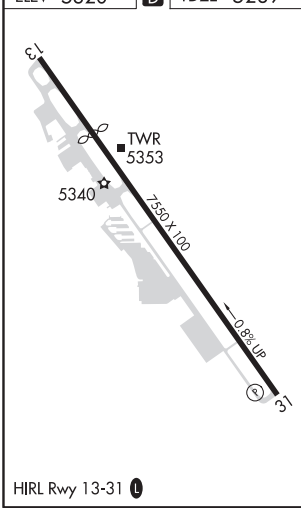
FRIEDMAN MEMORIAL (SUN)

**MISSED APPROACH:** (Do not exceed 185 KIAS until WOGAR) Climb to 10500 direct JOTBO and on track 231° to WOGAR and on track 147° to PRESN and hold. \*Missed approach requires minimum climb of 420 feet per NM to 9500; if unable to meet climb gradient, see RNAV (GPS) Y RWY 31.

ATIS <b>128.225</b>	SALT LAKE CENTER <b>118.05 363.0</b>	HAILEY TOWER * <b>125.6 (CTAF) 0</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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ELEV 5320	<b>D</b>	TDZE 5289
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10500	JOTBO	tr 231°	WOGAR	tr 147°	PRESN	GUNKS	JUNOL
						7400	8600
		CAKIR				7400	8600
						3.50° TCH 55	
						0.5 NM	5.1 NM
CATEGORY	A		B		C		D
LP MDA*	6180-1¼		891 (900-1¼)		6180-2½		891 (900-2½)
LNVA MDA*	6920-1¼ 1631 (1600-1¼)		6920-1½ 1631 (1600-1½)		6920-3		1631 (1600-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

HAILEY, IDAHO

AL-6239 (FAA)

16315

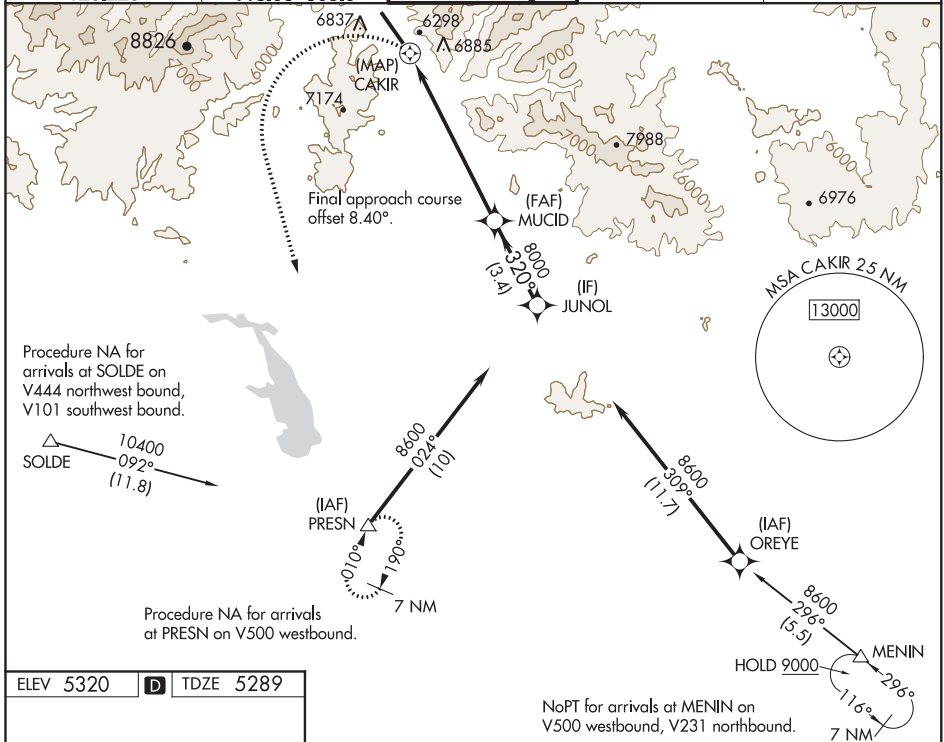
WAAS CH <b>62939</b> <b>W31B</b>	APP CRS <b>320°</b>	Rwy Idg TDZE <b>5289</b> Apt Elev <b>5320</b>
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# RNAV (GPS) Y RWY 31

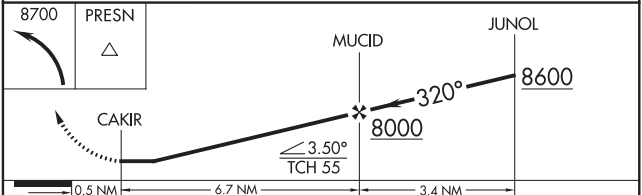
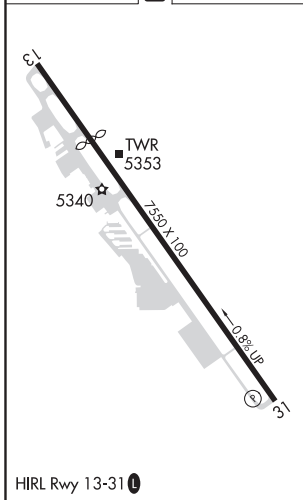
FRIEDMAN MEMORIAL (SUN)

**⚠** Circling NA northeast of Rwy 13-31.  
**⚠** DME/DME RNP-0.3 NA. Rwy 31 helicopter visibility reduction below 1 SM NA.  
**⚠** -16°C  
**⚠** MISSED APPROACH: (Do not exceed 185 KIAS until PRESN) Climbing left turn to 8700 direct PRESN and hold.\*Missed approach requires minimum climb of 410 feet per NM to 7600.

ATIS <b>128.225</b>	SALT LAKE CENTER <b>118.05 363.0</b>	HAILEY TOWER* <b>125.6 (CTAF)</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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ELEV 5320	<b>D</b>	TDZE 5289
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CATEGORY	A	B	C	D
LP MDA*	6900-1¼ 1611 (1600-1¼)	6900-1½ 1611 (1600-1½)	6900-3	1611 (1600-3)
LP MDA	7220-1¼ 1931 (1900-1¼)	7220-1½ 1931 (1900-1½)	7220-3	1931 (1900-3)
LNAV MDA*	7100-1¼ 1811 (1800-1¼)	7100-1½ 1811 (1800-1½)	7100-3	1811 (1800-3)
LNAV MDA	7340-1¼ 2051 (2100-1¼)	7340-1½ 2051 (2100-1½)	7340-3	2051 (2100-3)
<b>C</b> CIRCLING	7340-1¼ 2020 (2100-1¼)	7360-1½ 2040 (2100-1½)	7580-3 2260 (2300-3)	7940-3 2620 (2700-3)

HAILEY, IDAHO  
 Orig 21JUL16

43°30'N-114°18'W

# RNAV (GPS) Y RWY 31

FRIEDMAN MEMORIAL (SUN)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NDB/DME HLE <b>220</b> Chan <b>25 (108.8)</b>	APP CRS <b>335°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>5320</b>
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# NDB/DME-A

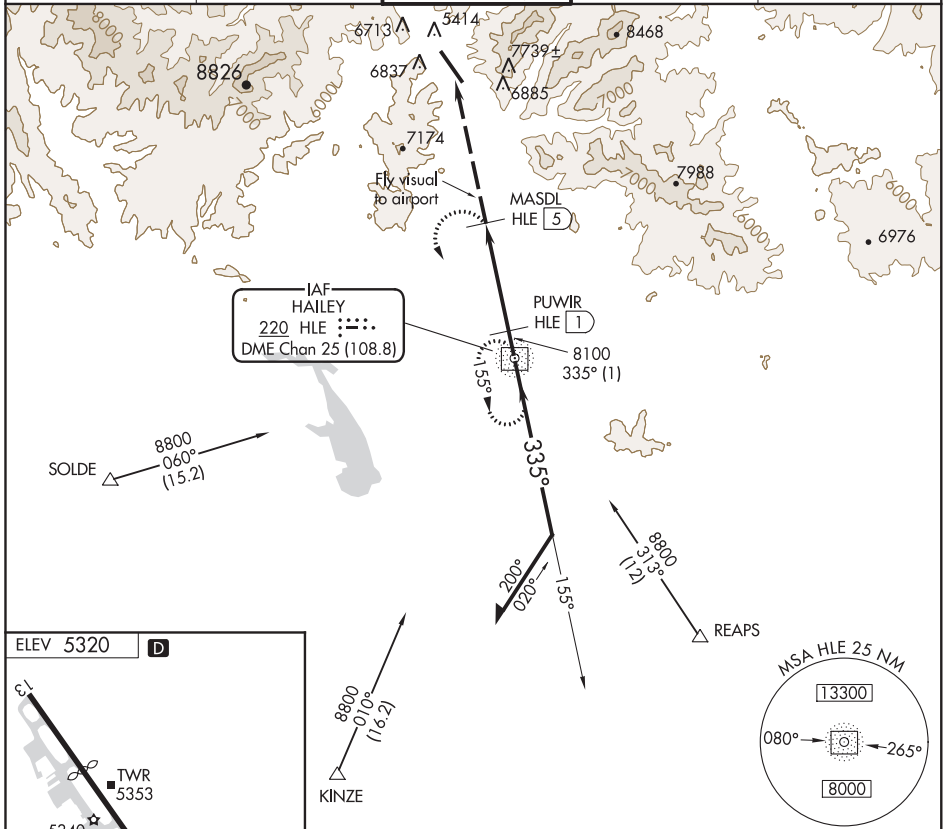
FRIEDMAN MEMORIAL (SUN)

**⚠** Circling NA NE of Rwy 13-31. Visibility reduction by helicopters NA. When control tower closed, procedure not authorized. Occasional ADF needle swings away from the final approach course are to be expected north of missed approach point. Procedure NA at night.

**⚠** NA  
**⚠** -1.6°C

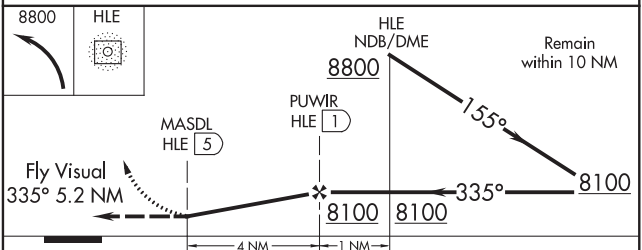
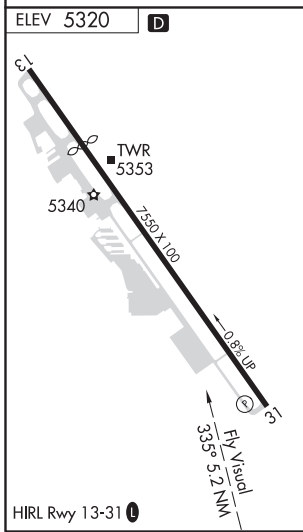
**MISSED APPROACH:** Climbing left turn to 8800 direct HLE NDB and hold.

ATIS <b>128.225</b>	SALT LAKE CENTER <b>118.05 353.0</b>	HAILEY TOWER* <b>125.6 (CTAF)</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



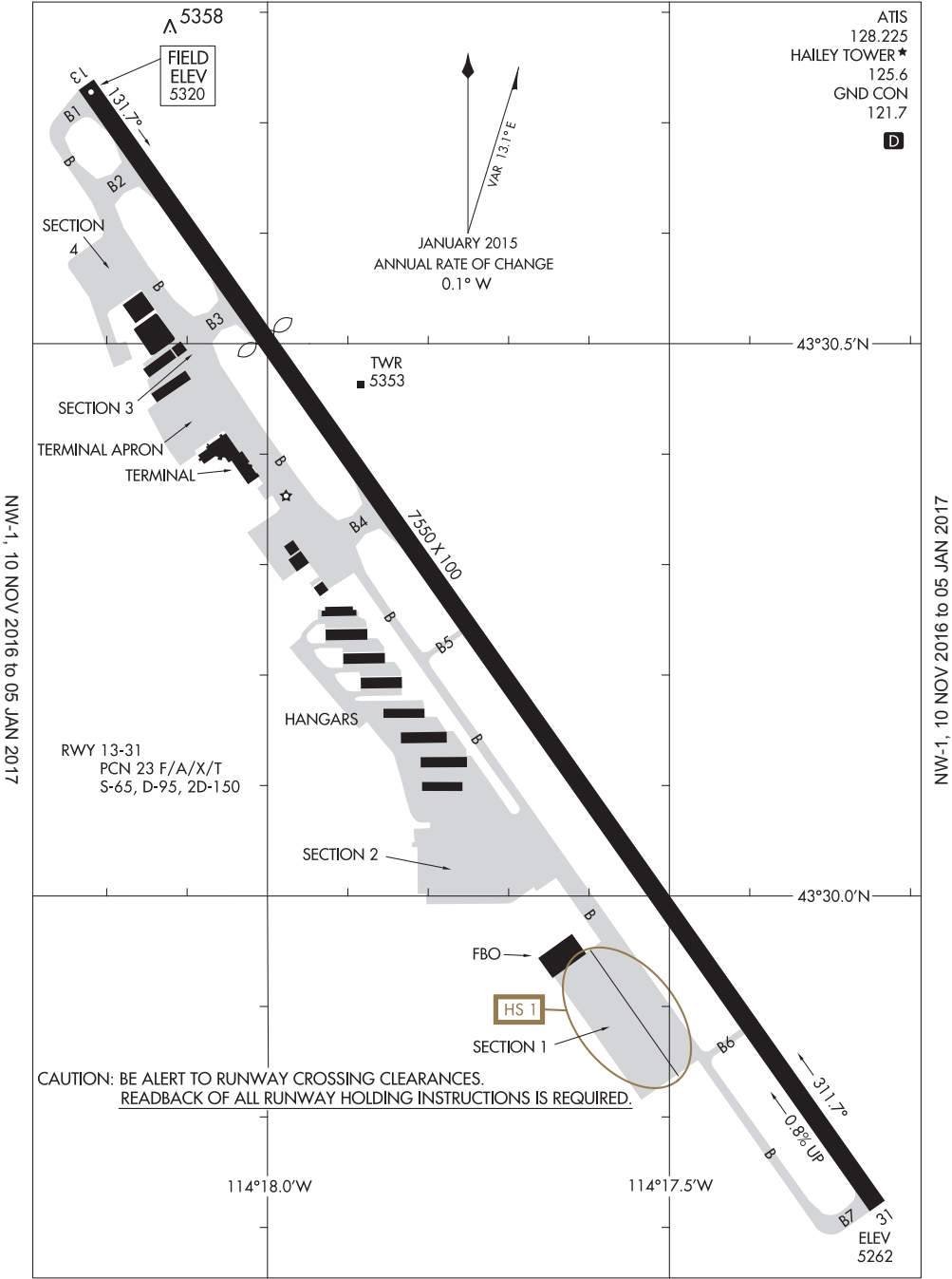
CATEGORY	A	B	C	D
<b>C</b> CIRCLING	8040-5	2720 (2800-5)		NA

# AIRPORT DIAGRAM

FRIEDMAN MEMORIAL (SUN)  
HAILEY, IDAHO

AL-6239 (FAA)

ATIS 128.225  
 HAILEY TOWER \* 125.6  
 GND CON 121.7  
D



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

HAILEY, IDAHO  
FRIEDMAN MEMORIAL (SUN)



**TOP ALTITUDE:**  
**PRESN AND REAPS TRANSITIONS: 10000;**  
**SOLDE TRANSITION: ASSIGNED BY ATC**

GND CON 121.7  
HAILEY TOWER \* 125.6  
SALT LAKE CENTER 118.05 363.0  
UNICOM 122.95

TAKEOFF OBSTACLE NOTES:

Rwy 13: Fence abeam DER, 398' right of centerline, 6' AGL/5262' MSL.  
Bushes beginning 24' from DER, 447' left of centerline, up to 4' AGL/5275' MSL.  
Vehicle on road 200' from DER, 373' left of centerline, up to 17' AGL/5279' MSL.  
Vehicle on road, multiple poles and trees beginning 234' from DER, 373' left of centerline, up to 5309' MSL.  
Tree 765' from DER, 698' right of centerline, 87' AGL/5341' MSL.  
Trees beginning 1006' from DER, 595' right of centerline, up to 100' AGL/5349' MSL.  
Trees beginning 1233' from DER, 459' right of centerline, up to 93' AGL/5344' MSL.  
Trees beginning 1408' from DER, 424' right of centerline, up to 5325' MSL.  
Trees beginning 1656' from DER, 116' right of centerline, up to 88' AGL/5339' MSL.  
Transmission tower 2079' from DER, 509' left of centerline, 66' AGL/5317' MSL.  
Trees 2104' from DER, 77' left of centerline, up to 75' AGL/5318' MSL.  
Trees 2351' from DER, 2' right of centerline, up to 91' AGL/5334' MSL.

TAKEOFF MINIMUMS:

Rwy 13: Standard with minimum climb of 420' per NM to 6200.  
Rwy 31: NA - Obstacles.

**▼ DEPARTURE ROUTE DESCRIPTION**

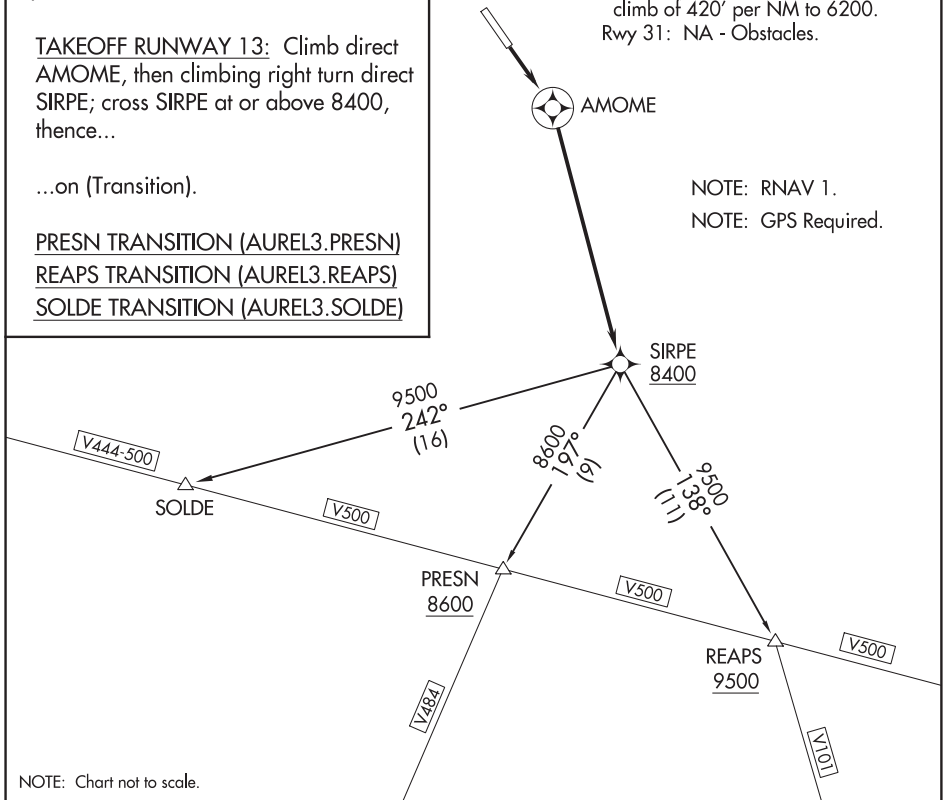
TAKEOFF RUNWAY 13: Climb direct AMOME, then climbing right turn direct SIRPE; cross SIRPE at or above 8400, thence...

...on (Transition).

PRESN TRANSITION (AUREL3.PRESN)  
REAPS TRANSITION (AUREL3.REAPS)  
SOLDE TRANSITION (AUREL3.SOLDE)

NOTE: RNAV 1.

NOTE: GPS Required.



NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

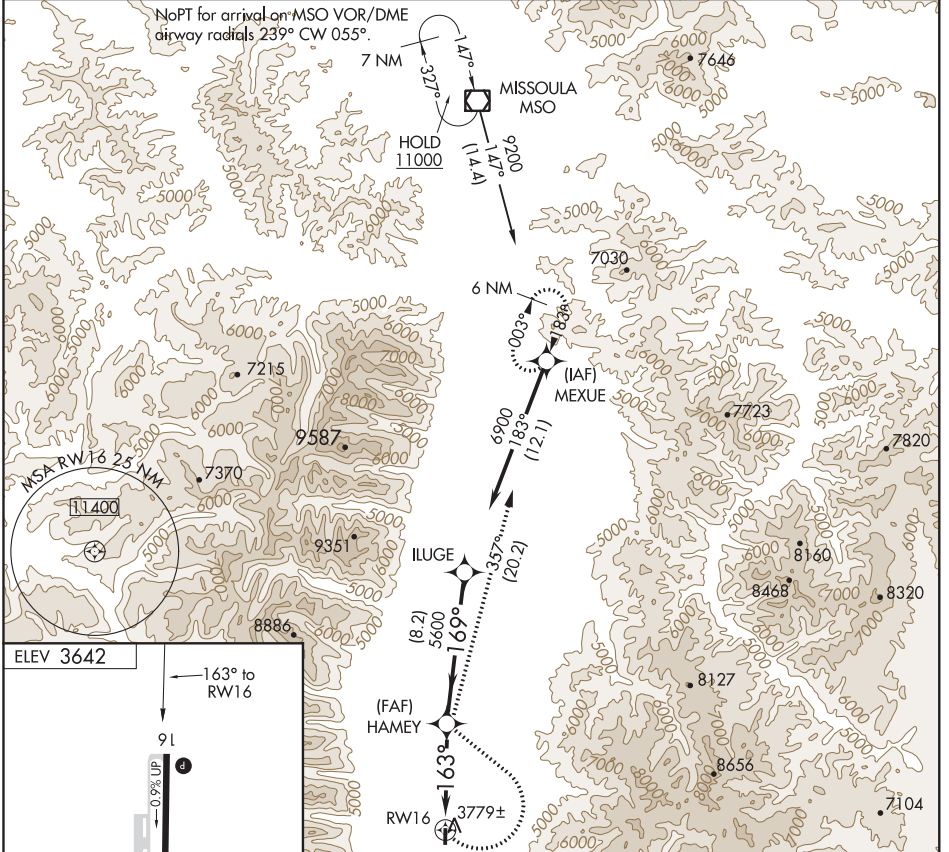
APP CRS <b>163°</b>	Rwy Idg TDZE Apt Elev	N/A N/A <b>3642</b>
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# RNAV (GPS)-A

RAVALLI COUNTY (6S5)

NA -23°C/-9°F	DME/DME RNP-0.3 NA. When local altimeter setting not received, procedure NA. Procedure NA at night.	MISSED APPROACH: Climbing left turn to 10000 direct HAMEY WP and right turn via 357° track to MEXUE WP and hold.
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AWOS-AV <b>119.825</b>	SPOKANE APP CON* <b>124.9 298.95</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

10000	HAMEY	MEXUE	VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 35).	ILUGE
		tr 357°	HAMEY	
	RW16	≤ 3.25° TCH 32	5600	6900
	163°	169°	5.7 NM	8.2 NM
				Procedure Turn NA
CATEGORY	A	B	C	D
CIRCLING	4660-1¼ 1018 (1100-1¼)	4660-1½ 1018 (1100-1½)		NA

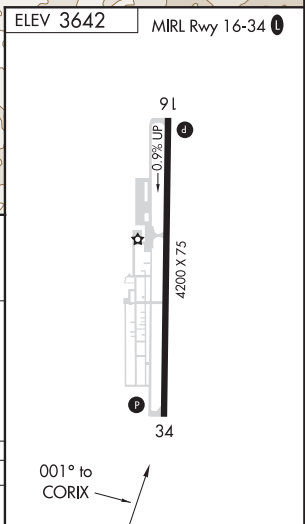
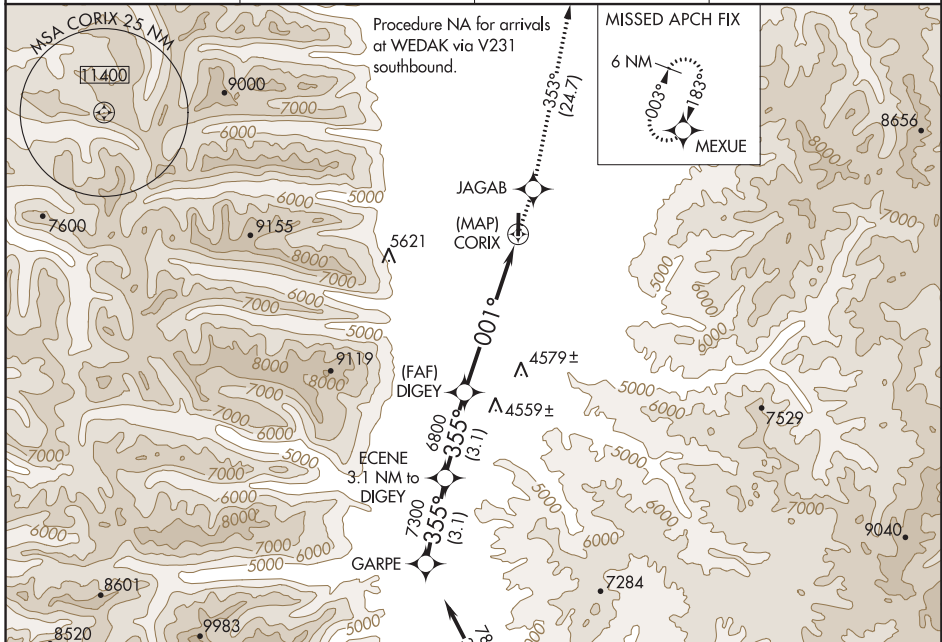
APP CRS <b>001°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>3642</b>
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# RNAV (GPS)-B

RAVALLI COUNTY (6S5)

<p><b>NA</b> When local altimeter setting not received, procedure NA.</p> <p><b>-23°C/-9°F</b> Procedure NA at night.</p>	<p>DME/DME RNP-0.3 NA.</p>	<p>MISSED APPROACH: Climb to 10000 direct JAGAB WP and via 353° track to MEXUE WP and hold.</p>
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AWOS-AV <b>119.825</b>	SPOKANE APP CON* <b>124.9 298.95</b>	SALT LAKE CITY CENTER <b>132.4 338.3</b>	UNICOM <b>122.8 (CTAF) 0</b>
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	GARPE	ECENE 3.1 NM to DIGEY	DIGEY	10000	JAGAB	353° tr	MEXUE
Procedure Turn NA	7800	7300	6800				
	3.1 NM		3.1 NM	6 NM			
CATEGORY	A	B	C	D			
CIRCLING	4740-1¼ 1098 (1100-1¼)	4740-1½ 1098 (1100-1½)	NA				

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NW-1, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>99316</b> <b>W08A</b>	APP CRS <b>077°</b>	Rwy Idg TDZE Apt Elev	<b>5205</b> <b>2585</b> <b>2591</b>
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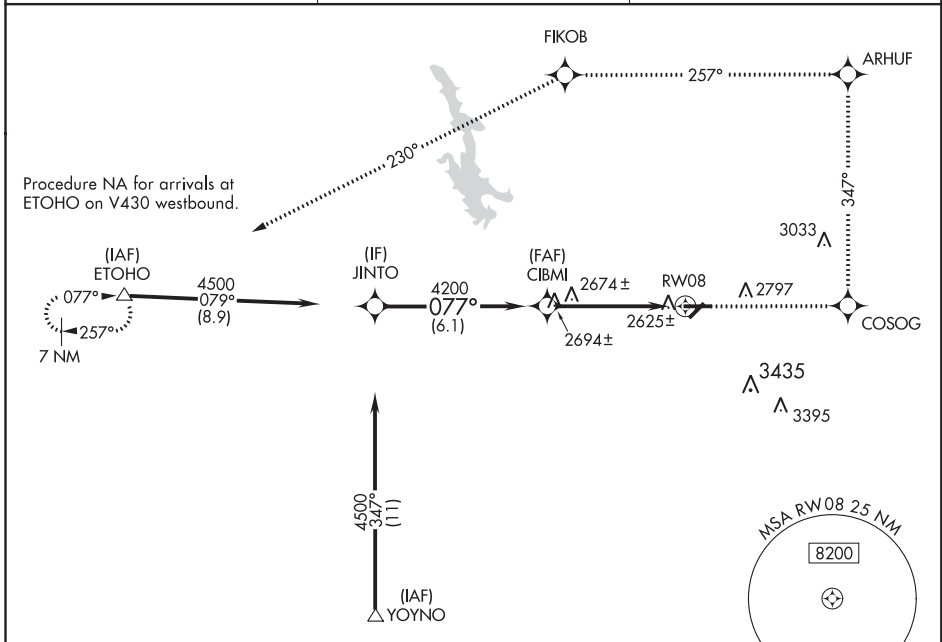
# RNAV (GPS) RWY 8

HAVRE CITY-COUNTY (HVR)

**⚠** -30°C/-22°F For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 8000 direct COSOG and left turn via track 347° to ARHUF and left turn via track 257° to FIKOB and via track 230° to ETOHO and hold.

ASOS <b>135.225</b>	GREAT FALLS RADIO <b>123.65</b>	UNICOM <b>122.8 (CTAF) 0</b>
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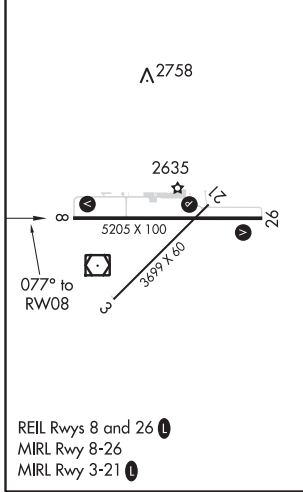


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2591	<b>D</b>	TDZE 2585
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Procedure NA for arrivals at YOYNO on V257-611 southwest bound.



Procedure Turn NA	8000	COSOG	ARHUF	FIKOB	ETOHO
JINTO	↑	⬤	tr 347°	⬤	tr 230°

GP 3.00°	TCH 40	6.1 NM	3.6 NM	1.3 NM	*1.3 NM to RW08
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CATEGORY	A	B	C	D
LPV DA	2835-1 250 (300-1)			
LNAV/VNAV DA	2906-1¼ 321 (400-1¼)			
LNAV MDA	3020-1	435 (500-1)	3020-1¼ 435 (500-1¼)	3020-1½ 435 (500-1½)
CIRCLING	3080-1 489 (500-1)	3100-1 509 (600-1)	3100-1½ 509 (600-1½)	3180-2 589 (600-2)

\*LNAV only.

HAVRE, MONTANA

AL-5575 (FAA)

15288

WAAS CH <b>48816</b> <b>W26A</b>	APP CRS <b>257°</b>	Rwy Idg TDZE Apt Elev	<b>5205</b> <b>2586</b> <b>2591</b>
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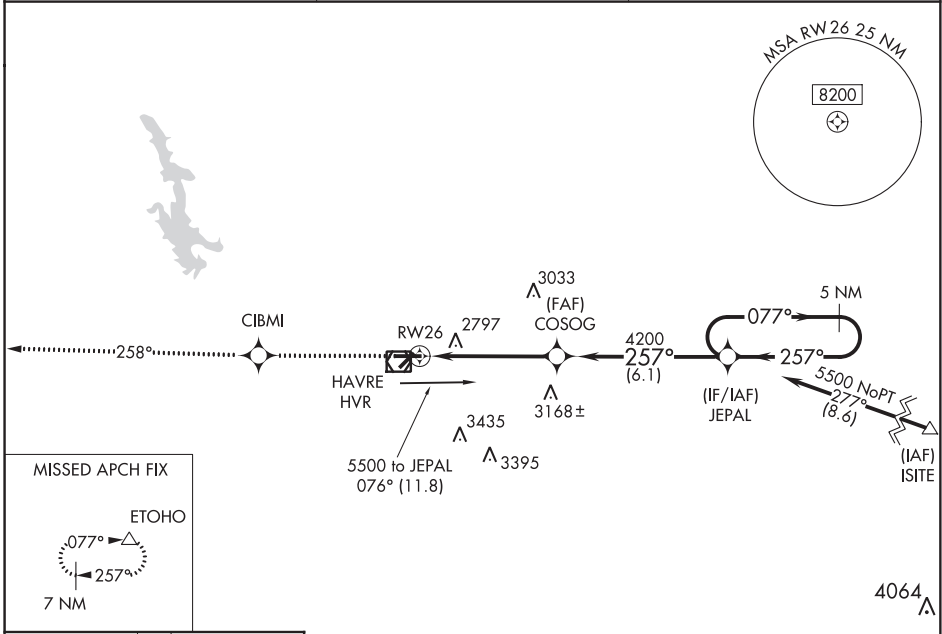
# RNAV (GPS) RWY 26

HAVRE CITY-COUNTY (HVR)

**▽** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.

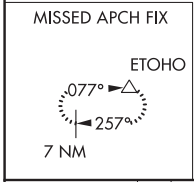
**MISSED APPROACH:** Climb to 8000 direct CIBMI and via track 258° to ETOHO and hold, continue climb-in-hold to 8000.

ASOS <b>135.225</b>	GREAT FALLS RADIO <b>123.65</b>	UNICOM <b>122.8</b> (CTAF) <b>📻</b>
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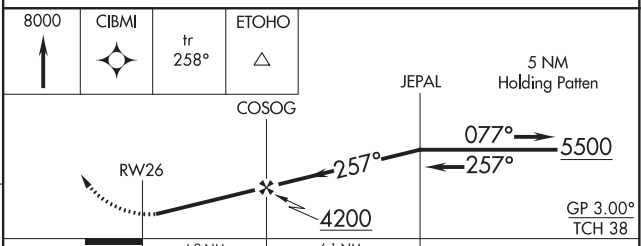
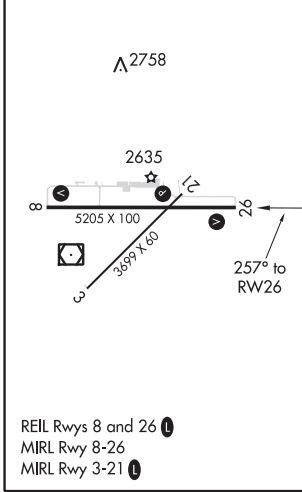


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 2591	<b>D</b>	TDZE 2586
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CATEGORY	A	B	C	D
LPV DA	2836- <sup>3</sup> / <sub>4</sub>		250 (300- <sup>3</sup> / <sub>4</sub> )	
LNAV/VNAV DA	3097-1 <sup>3</sup> / <sub>4</sub>		511 (600-1 <sup>3</sup> / <sub>4</sub> )	
LNAV MDA	3060-1	474 (500-1)	3060-1 <sup>1</sup> / <sub>4</sub> 474 (500-1 <sup>1</sup> / <sub>4</sub> )	3060-1 <sup>1</sup> / <sub>2</sub> 474 (500-1 <sup>1</sup> / <sub>2</sub> )
CIRCLING	3080-1 489 (500-1)	3100-1 509 (600-1)	3100-1 <sup>1</sup> / <sub>2</sub> 509 (600-1 <sup>1</sup> / <sub>2</sub> )	3180-2 589 (600-2)

HAVRE, MONTANA  
Orig-A 01MAY14

48°33'N-109°46'W

# RNAV (GPS) RWY 26

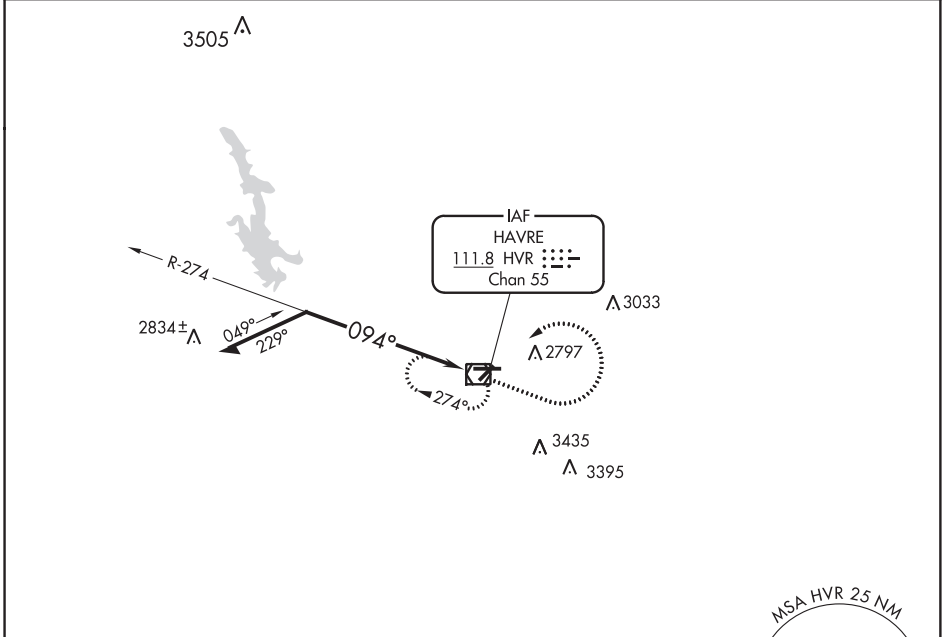
VOR/DME HVR <b>111.8</b> Chan 55	APP CRS <b>094°</b>	Rwy Idg TDZE Apt Elev	<b>5205</b> <b>2585</b> <b>2591</b>
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# VOR RWY 8

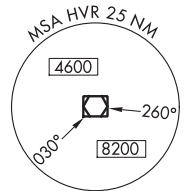
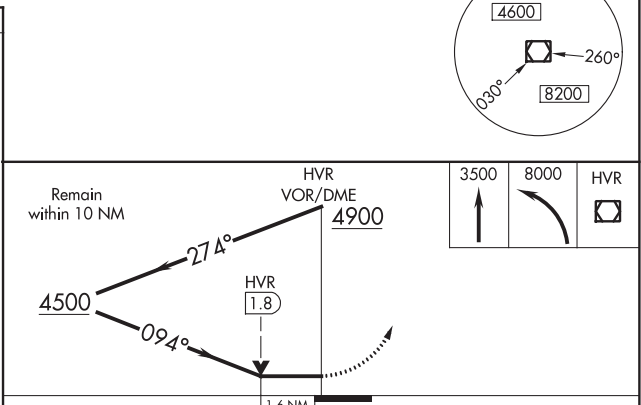
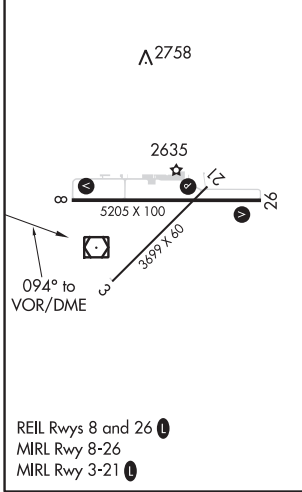
HAVRE CITY-COUNTY (HVR)

-30°C/-22°F	MISSED APPROACH: Climb to 3500 then climbing left turn to 8000 direct HVR VOR/DME and hold, continue climb-in-hold to 8000.
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ASOS <b>135.225</b>	GREAT FALLS RADIO <b>123.65</b>	UNICOM <b>122.8</b> (CTAF)
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ELEV 2591	<b>D</b>	TDZE 2585
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CATEGORY	A	B	C	D
S-8	3140-1	555 (600-1)	3140-1 <sup>5</sup> / <sub>8</sub>	555 (600-1 <sup>5</sup> / <sub>8</sub> )
CIRCLING	3140-1	549 (600-1)	3140-1 <sup>5</sup> / <sub>8</sub> 549 (600-1 <sup>5</sup> / <sub>8</sub> )	3180-2 589 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

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HAVRE, MONTANA

AL-5575 (FAA)

15232

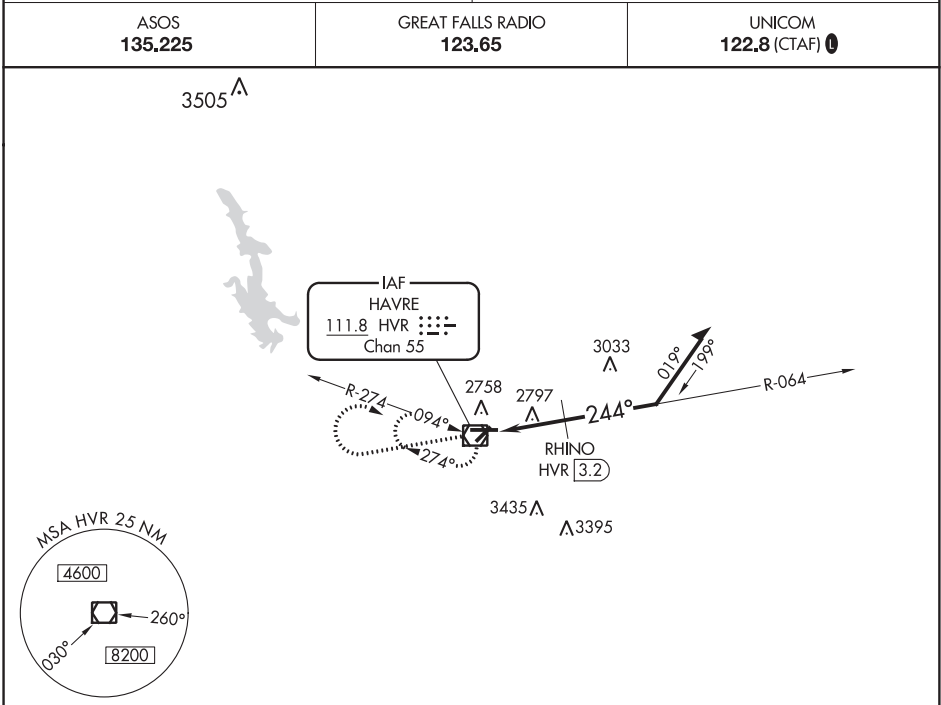
VOR/DME HVR <b>111.8</b> Chan 55	APP CRS <b>244°</b>	Rwy Idg TDZE Apt Elev	<b>5205</b> <b>2586</b> <b>2591</b>
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# VOR RWY 26

HAVRE CITY-COUNTY (HVR)

MISSED APPROACH: Climb to 4500 then climbing right turn to 8000 direct HVR VOR/DME and hold, continue climb-in-hold to 8000.

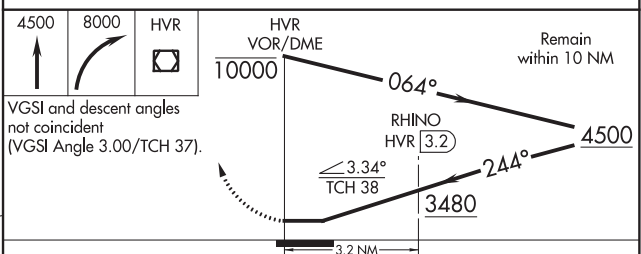
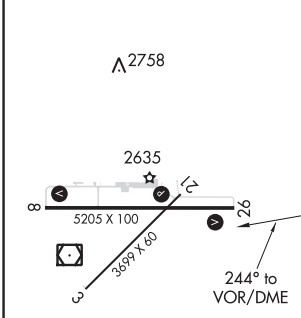
<p>▽ ⚠ ❄ -30°C/-22°F</p>	ASOS <b>135,225</b>	GREAT FALLS RADIO <b>123,65</b>	UNICOM <b>122.8 (CTAF)</b>
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ELEV 2591	<b>D</b>	TDZE 2586
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CATEGORY	A	B	C	D
S-26	3480-1¼	894 (900-1¼)	3480-2¾ 894 (900-2¾)	3480-3 894 (900-3)
CIRCLING	3480-1¼	889 (900-1¼)	3480-2¾ 889 (900-2¾)	3480-3 889 (900-3)
RHINO FIX MINIMUMS				
S-26	3060-1	474 (500-1)	3060-1¼ 474 (500-1¼)	3060-1½ 474 (500-1½)
CIRCLING	3080-1 489 (500-1)	3100-1 509 (600-1)	3100-1½ 509 (600-1½)	3180-2 589 (600-2)

REIL Rwy 8 and 26  
MIRL Rwy 8-26  
MIRL Rwy 3-21

HAVRE, MONTANA  
Amdt 9A 01MAY14

48°33'N-109°46'W

# HAVRE CITY-COUNTY (HVR) VOR RWY 26



# AIRPORT DIAGRAM

AL-5575 (FAA)

HAVRE CITY-COUNTY (HVR)  
HAVRE, MONTANA

ASOS  
135.225  
CTAF/UNICOM  
122.8



FIELD  
ELEV  
2592

▲ 2758

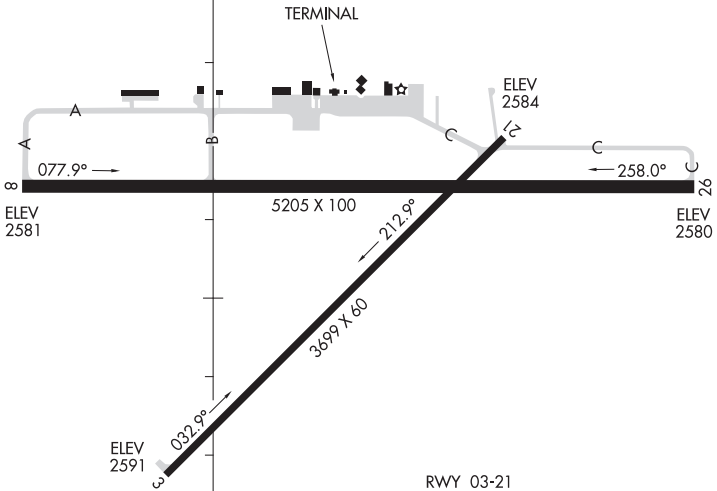
JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W



48°33'N

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



RWY 03-21  
S-12.5  
RWY 08-26  
S-30, D-40, 2D-50

48°32'N

109°46'W

109°45'W

# AIRPORT DIAGRAM

HAVRE, MONTANA  
HAVRE CITY-COUNTY (HVR)

LOC I-HLN	APP CRS	Rwy Idg	<b>9000</b>
<b>110.1</b>	<b>267°</b>	TDZE	<b>3852</b>
		Apt Elev	<b>3877</b>

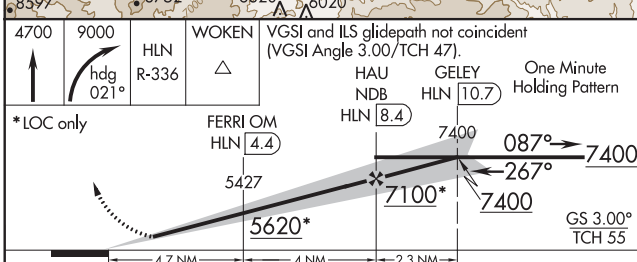
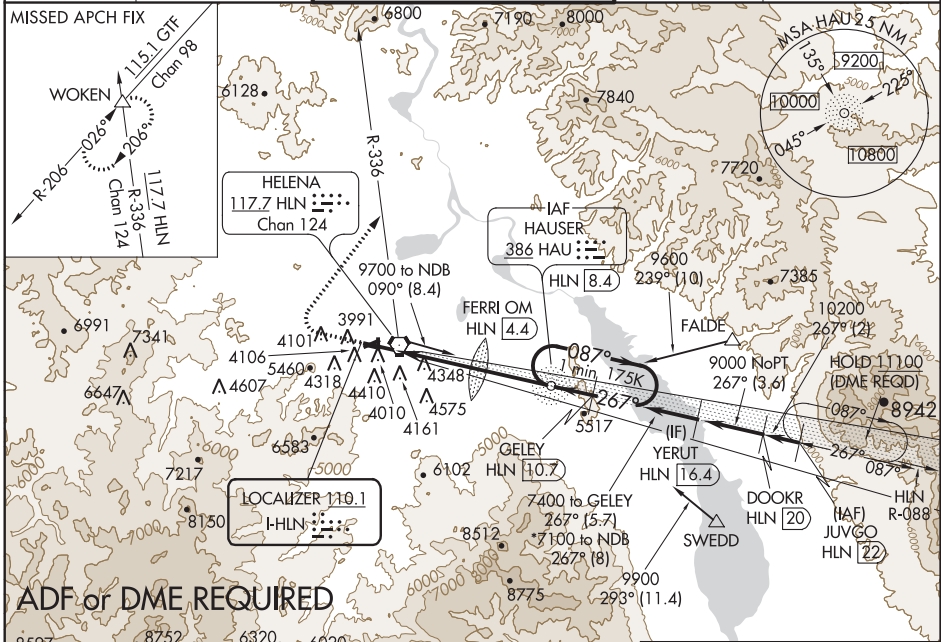
# ILS or LOC Y RWY 27

HELENA RGNL (HLN)

**⚠** Inoperative table does not apply to S-LOC 27 all Cats. For inoperative MALSRL, increase S-ILS 27 all Cats visibility to 1 1/8 miles, FERRI FIX minimums: S-LOC 27 Cat C, D and E visibility to 2 miles. Holding at HAU NDB authorized for Category A and B aircraft only. Circling NA south of Rwy 9-27 for Cats D and E. Circling to Rwy 5, 23, 35 NA at night. DME from HLN VORTAC, simultaneous reception of HLN and HLN DME required.

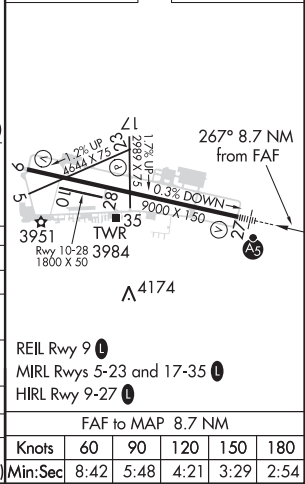
**MALSRL** MISSED APPROACH: Climb to 4700 then climbing right turn to 9000 via heading 021° and HLN VORTAC R-336 to WOKEN INT and hold, continue climb-in-hold to 9000.

ATIS	HELENA APP CON *	HELENA TOWER *	GND CON	UNICOM
<b>120.4</b>	<b>119.5 229.4</b>	<b>118.3 (CTAF) 257.8</b>	<b>121.9</b>	<b>122.95</b>



ELEV	3877	TDZE	3852
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CATEGORY	A	B	C	D	E
S-ILS 27	4409-1 3/8		557 (600-1 1/8)		
S-LOC 27	5620-1 1/4 1768 (1800-1 1/4)	5620-1 1/2 1768 (1800-1 1/2)	5620-3		1768 (1800-3)
CIRCLING	5620-1 1/4 1743 (1800-1 1/4)	5620-1 1/2 1743 (1800-1 1/2)	5620-3		1743 (1800-3)
FERRI FIX MINIMUMS*					
S-LOC 27	4580-1/2	728 (800-1/2)	4580-1 1/8		728 (800-1 1/8)
CIRCLING	4640-1	763 (800-1)	4740-2 1/2 863 (900-2 1/2)	4740-2 3/4 863 (900-2 3/4)	4940-3 1063 (1100-3)



REIL Rwy 9	MIRL Rwy 5-23 and 17-35	HIRL Rwy 9-27			
FAF to MAP 8.7 NM					
Knots	60	90	120	150	180
Min:Sec	8:42	5:48	4:21	3:29	2:54

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NW-1, 10 NOV 2016 to 05 JAN 2017

LOC I- <b>HLN</b>	APP CRS	Rwy Idg	<b>9000</b>
<b>110.1</b>	<b>267°</b>	TDZE	<b>3852</b>
		Apt Elev	<b>3877</b>

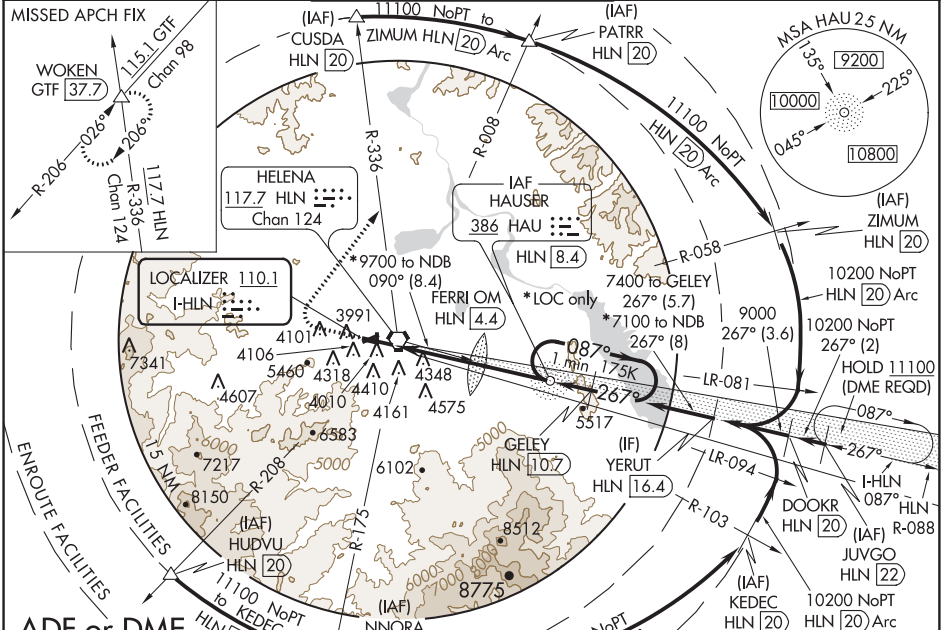
# ILS or LOC Z RWY 27

HELENA RGNL (HLN)

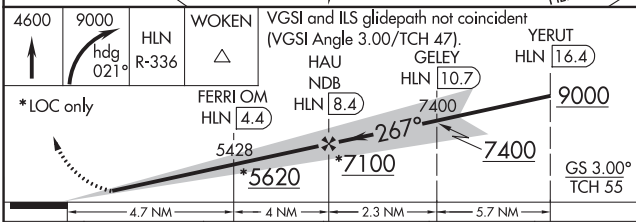
**⚠** Inoperative table does not apply to S-LOC 27 Cat C/D/E. For inoperative MALSR, increase S-ILS 27 Cat E visibility to 3/4 mile, increase FERRI fix minimums: S-LOC 27 Cat C/D/E visibility to 1 1/8 miles. Missed approach requires a minimum climb of 300 ft per NM to 6000, if unable to meet climb gradient, see ILS or LOC Y RWY 27. Circling NA south of Rwy 9-27 for Cats D and E. Night Landing: Rwy 5, 23, 35 NA. DME from HLN VORTAC, simultaneous reception of I-**HLN** and HLN DME required. Holding at HAU NDB authorized for Cat A and B aircraft only.

**MALSR** MISSED APPROACH: Climb to 4600 then climbing right turn to 9000 on heading 021° and HLN VORTAC R-336 to WOKEN/GTF 37.7 DME and hold.

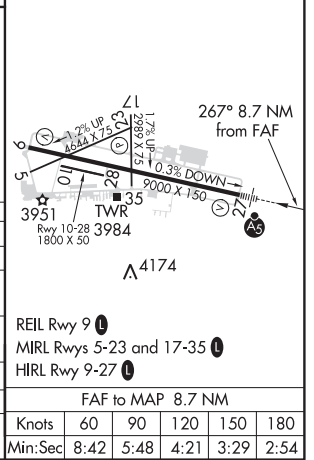
ATIS <b>120.4</b>	HELENA APP CON ★ <b>119.5 229.4</b>	HELENA TOWER ★ <b>118.3 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV	3877	TDZE	3852
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CATEGORY	A	B	C	D	E
S-ILS 27	4052-1/2		200 (200-1/2)		
S-LOC 27	5620-3/4 1768 (1800-3/4)	5620-1 1768 (1800-1)	5620-3	1768 (1800-3)	
CIRCLING <b>C</b>	5620-1 1/4	5620-1 1/2	5920-3	2043 (2100-3)	
	1743 (1800-1 1/4)	1743 (1800-1 1/2)			
FERRI FIX MINIMUMS*					
S-LOC 27	4520-1/2	668 (700-1/2)	4520-1 1/2	668 (700-1 1/2)	
CIRCLING <b>C</b>	4640-1	4800-1 1/4	5920-3	2043 (2100-3)	
	763 (800-1)	923 (1000-1 1/4)			



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# RNAV (RNP) Y RWY 27

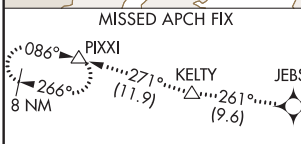
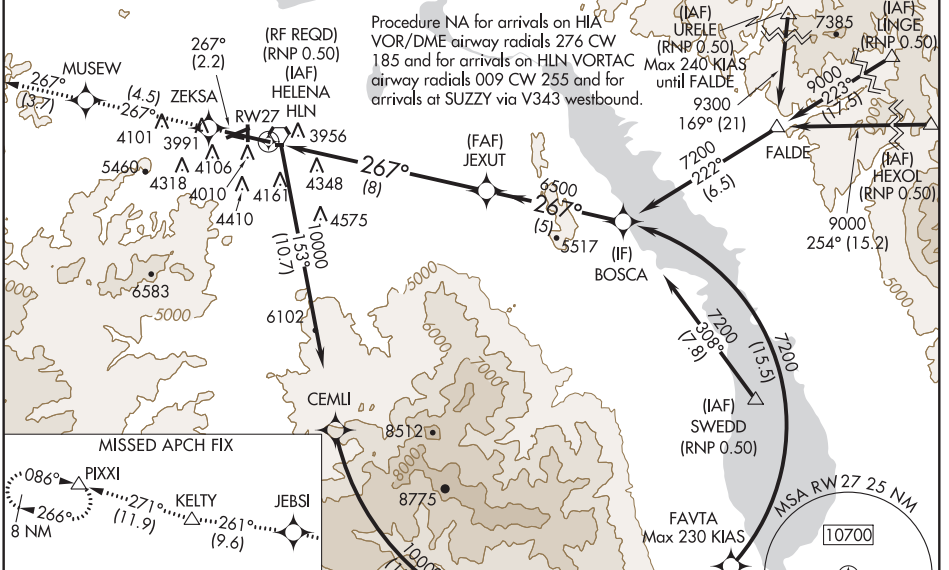
HELENA RGNL (HLN)

APP CRS <b>267°</b>	Rwy Idg <b>9000</b>
	TDZE <b>3852</b>
	Apt Elev <b>3877</b>

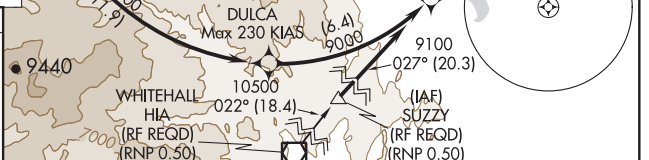
**⚠** GPS required. For uncompensated Baro-VNAV systems, procedure NA below -22°C (-7°F) or above 41°C (105°F). For inoperative MALSR, increase RNP 0.22\* visibility to 1, and RNP 0.30# visibility to 1½. Missed approach requires RNP less than 1.0. \*Missed approach requires minimum climb of 290 feet per NM to 7700; if unable, see RNAV (RNP) Z RWY 27. #Missed approach requires minimum climb of 270 feet per NM to 7600; if unable, see RNAV (RNP) Z RWY 27.

**MALSR** MISSED APPROACH: Climb to 13000 on track 267° to ZEKSA, then on track 267° to MUSEW, then on track 267° to JEBSI, then on track 261° to KELTY, then on track 271° to PIXXI and hold, continue climb-in-hold to 13000.

ATIS <b>120.4</b>	HELENA APP CON * <b>119.5 229.4</b>	HELENA TOWER * <b>118.3 (CTAF) 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 3877	TDZE 3852
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13000	ZEKSA	MUSEW	JEBSI	BOSCA
↑	⬠	tr 267°	⬠	⬠
tr 267°			6500	7200
VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 47).				
	RW27			
	8 NM		5 NM	
			6500	
				GP 3.00°
				TCH 55
CATEGORY	A	B	C	D
RNP 0.22 DA*		4140-½	288 (300-½)	
RNP 0.30 DA #		4294-1	442 (500-1)	

REIL Rwy 9  
MIRL Rws 5-23 and 17-35  
HIRL Rwy 9-27

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# RNAV (RNP) Z RWY 9

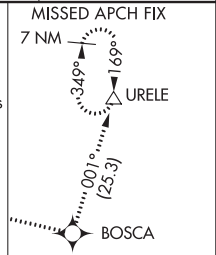
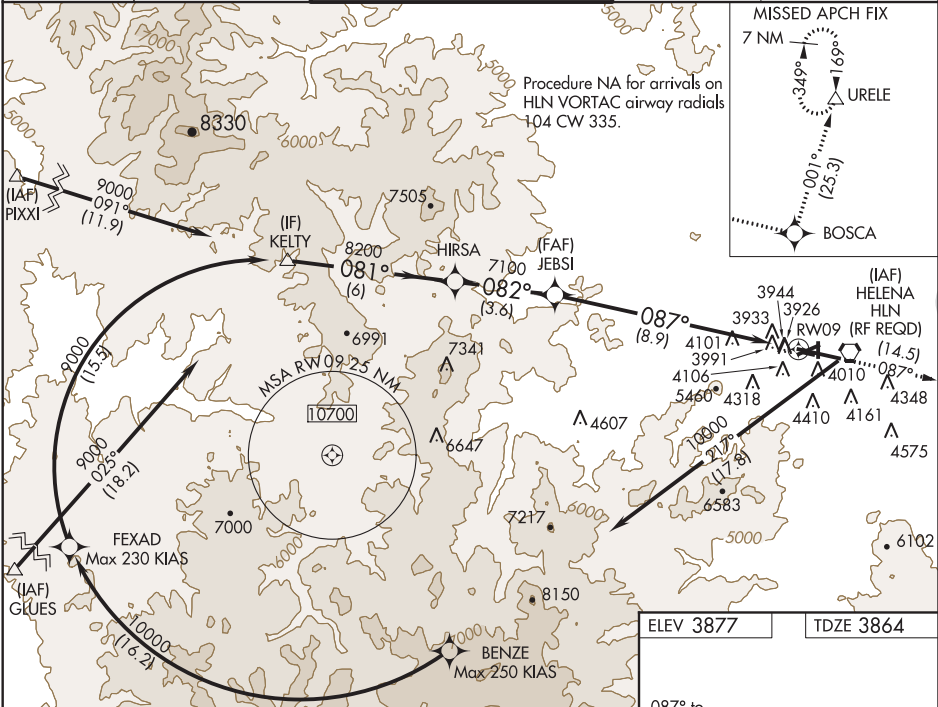
HELENA RGNL (HLN)

APP CRS <b>087°</b>	Rwy Idg <b>9000</b>
	TDZE <b>3864</b>
	Apt Elev <b>3877</b>

**GPS required.** For uncompensated Baro-VNAV systems, procedure NA below -22°C (-7°F) or above 54°C (130°F).  
 When VGSI inoperative, procedure NA at night. \*Missed approach requires minimum climb of 260' per NM to 4300.

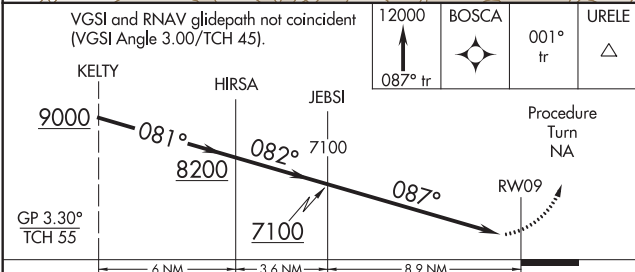
**MISSED APPROACH:** Climb to 12000 via 087° track to BOSCA and via 001° track to URELE and hold, continue climb-in-hold to 12000.

ATIS <b>120.4</b>	HELENA APP CON* <b>119.5 229.4</b>	HELENA TOWER* <b>118.3 (CTAF) 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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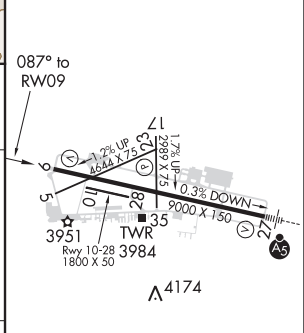


NW-1, 10 NOV 2016 to 05 JAN 2017

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ELEV 3877	TDZE 3864
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GP 3.30° TCH 55	KELTY	HIRSA	JEBSI	RW09
	9000	8200	7100	
	081°	082°	087°	
	6 NM	3.6 NM	8.9 NM	

CATEGORY	A	B	C	D
RNP 0.11 DA*	4220-1	356 (400-1)		NA
RNP 0.17 DA	4258-1¼	394 (400-1¼)		NA
RNP 0.30 DA	4353-1½	489 (500-1½)		NA

## AUTHORIZATION REQUIRED


REIL Rwy 9  
 MIRL Rws 5-23 and 17-35  
 HIRL Rwy 9-27

# RNAV (RNP) Z RWY 27

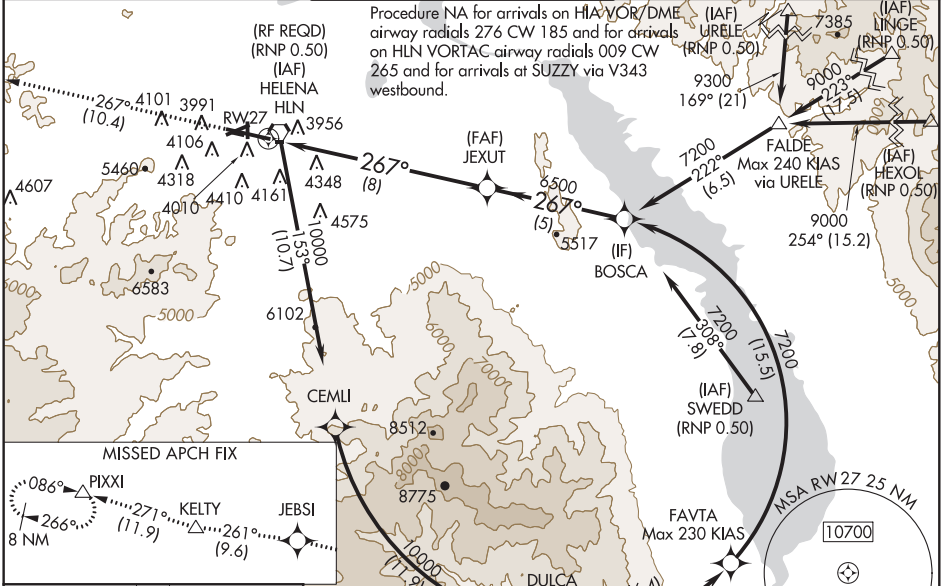
HELENA RGNL (HLN)

APP CRS <b>267°</b>	Rwy Idg <b>9000</b>
	TDZE <b>3852</b>
	Apt Elev <b>3877</b>

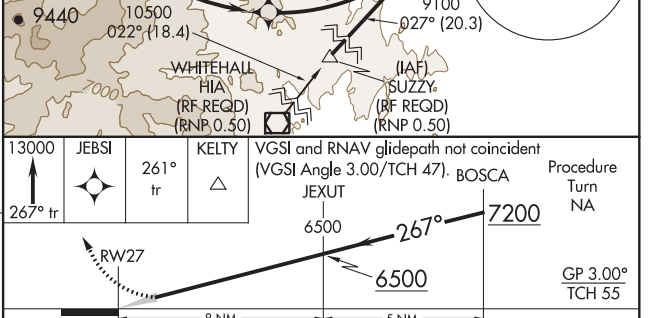
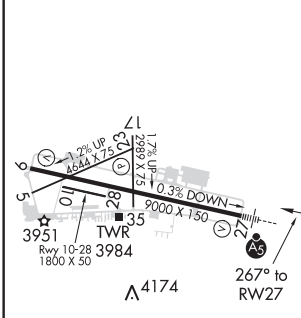
GPS required. For uncompensated Baro-VNAV systems, procedure NA below -22°C (-7°F) or above 41°C (105°F). \*Missed approach requires minimum climb of 295 feet per NM to 7900. #Missed approach requires minimum climb of 290 feet per NM to 7300. †Missed approach requires minimum climb of 405 feet per NM to 6300. For inoperative MALSR, increase RNP 0.18\* visibility to 1, RNP 0.22# visibility to 1¼, and RNP 0.30† visibility to 1½. Inoperative table does not apply to RNP 0.30.

MALSR  MISSED APPROACH: Climb to 13000 via 267° track to JEBSI, and via 261° track to KELTY, and via 271° track to PIXXI and hold, continue climb-in-hold to 13000.

ATIS <b>120.4</b>	HELENA APP CON * <b>119.5 229.4</b>	HELENA TOWER * <b>118.3 (CTAF) 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 3877	TDZE 3852
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CATEGORY	8 NM		5 NM	
	A	B	C	D
RNP 0.18 DA*		4119-½	267 (300-½)	
RNP 0.22 DA#		4212-¾	360 (400-¾)	
RNP 0.30 DA†		4287-1	435 (500-1)	
RNP 0.30 DA		4863-4	1011 (1000-4)	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>69405</b> <b>W27A</b>	APP CRS <b>267°</b>	Rwy Idg TDZE Apt Elev	<b>9000</b> <b>3852</b> <b>3877</b>
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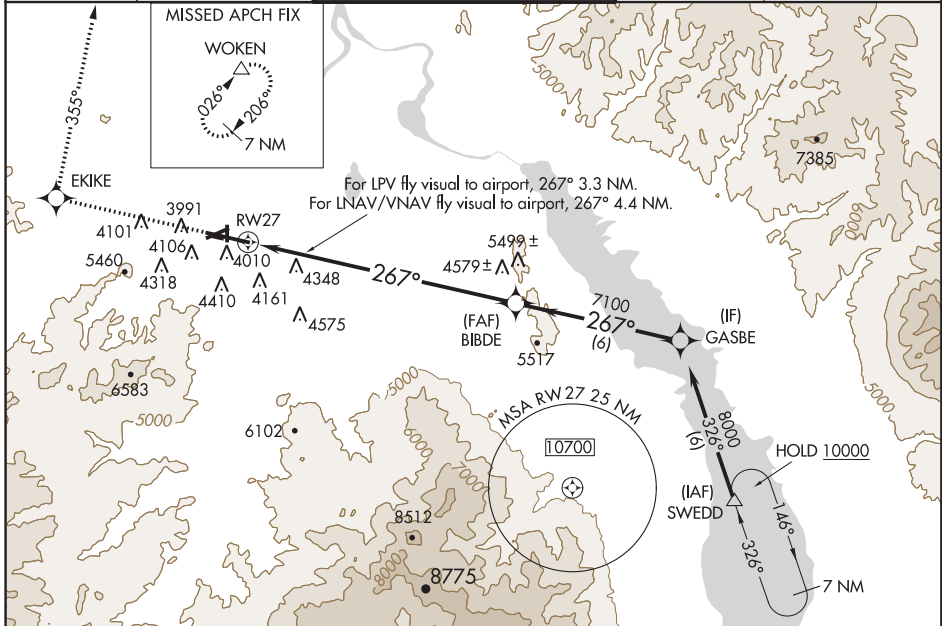
# RNAV (GPS) X RWY 27

HELENA RGNL (HLN)

**⚠** Circling NA for Cat D south of Rwy 9-27. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -22°C (-7°F) or above 42°C (107°F). DME/DME RNP-0.3 NA. Inoperative table does not apply to LNAV Cats A-B. Circling to Rwy 5, 23, 35 NA at night.

**MALSR**  
**⚠** MISSED APPROACH: Climb to 9000 direct EKIKE and via 355° track to WOKEN and hold.

ATIS <b>120.4</b>	HELENA APP CON * <b>119.5 229.4</b>	HELENA TOWER * <b>118.3 (CTAF) 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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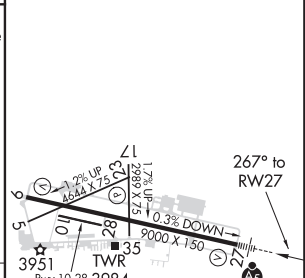
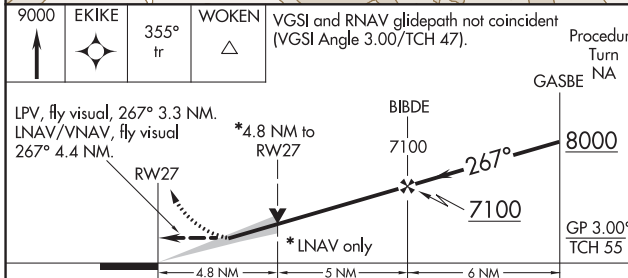


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 9000	EKIKE	WOKEN	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 47).
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ELEV 3877	TDZE 3852
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CATEGORY	A	B	C	D
LPV DA	4965-2 1113 (1100-2)		4965-3 1113 (1100-3)	
LNAV/VNAV DA	5289-2 1437 (1500-2)		5289-3 1437 (1500-3)	
LNAV MDA	5440-1¼ 1588 (1600-1¼)	5440-1½ 1588 (1600-1½)	5440-2½ 1588 (1600-2½)	
CIRCLING	5440-1¼ 1563 (1600-1¼)	5440-1½ 1563 (1600-1½)	5440-3 1563 (1600-3)	

REIL Rwy 9 **Ⓛ**  
MIRL Rws 5-23 and 17-35 **Ⓛ**  
HIRL Rwy 9-27 **Ⓛ**

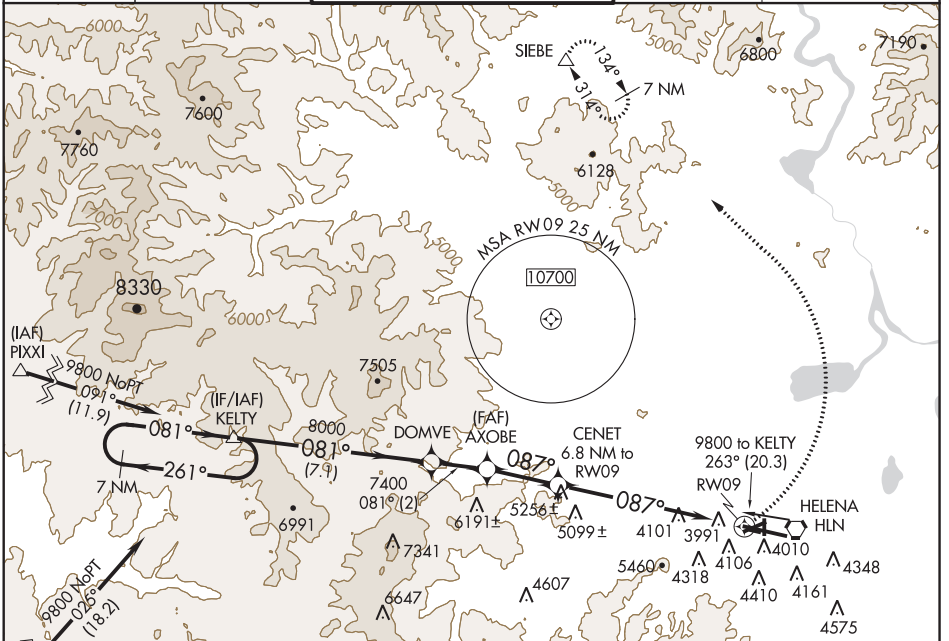
APP CRS <b>087°</b>	Rwy Idg TDZE Apt Elev	<b>9000</b> <b>3864</b> <b>3877</b>
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# RNAV (GPS) Y RWY 9

HELENA RGNL (HLN)

<p>-16°C/3°F</p>	<p>Circling NA for Cat D south of Rwy 9-27. DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.</p>	<p>MISSED APPROACH: Climbing left turn to 9000 direct SIEBE and hold.</p>
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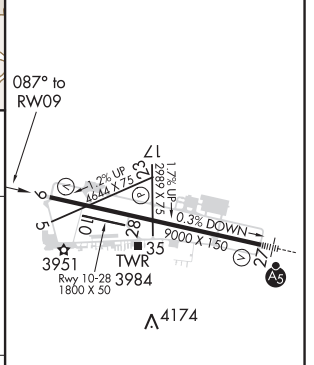
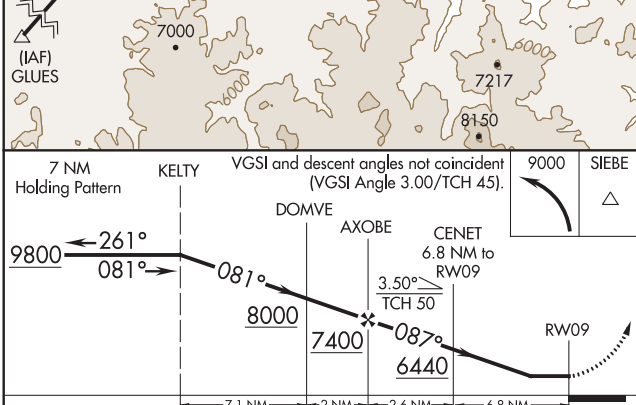
ATIS <b>120.4</b>	HELENA APP CON* <b>119.5 229.4</b>	HELENA TOWER* <b>118.3 (CTAF) 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3877	TDZE 3864
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CATEGORY	A	B	C	D
LNVA MDA	5440-1¼ 1576 (1600-1¼)	5440-1½ 1576 (1600-1½)	5440-3	1576 (1600-3)
CIRCLING	5440-1¼ 1563 (1600-1¼)	5440-1½ 1563 (1600-1½)	5440-3	1563 (1600-3)

REIL Rwy 9  
MIRL Rws 5-23 and 17-35  
HIRL Rwy 9-27



LOC I- <b>HLN</b>	APP CRS	Rwy Idg TDZE	N/A
<b>110.1</b>	<b>087°</b>	Apt Elev	<b>3877</b>

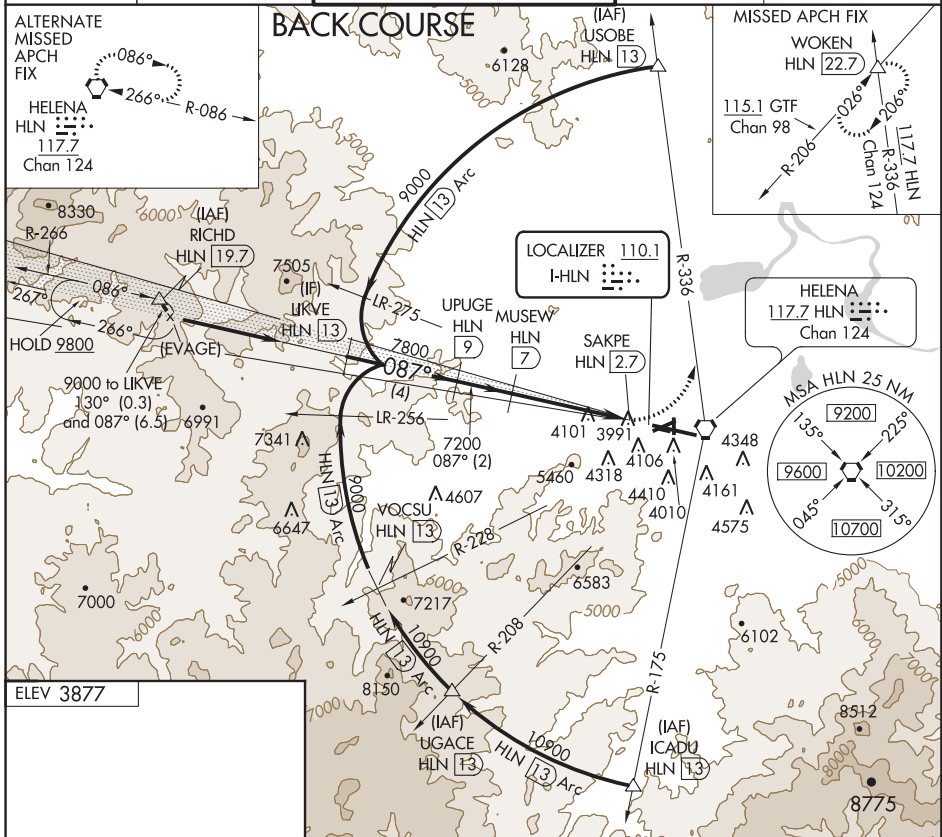
# LOC/DME BC-C

HELENA RGNL (HLN)

**⚠** Circling to Rwy 5, 35 NA at night. When local altimeter setting not received, procedure NA. Visibility reduction by helicopters NA. DME from HLN VORTAC simultaneous reception of I-**HLN** and HLN DME required. When VGSI inop, Circling to Rwy 9, 23 NA at night.

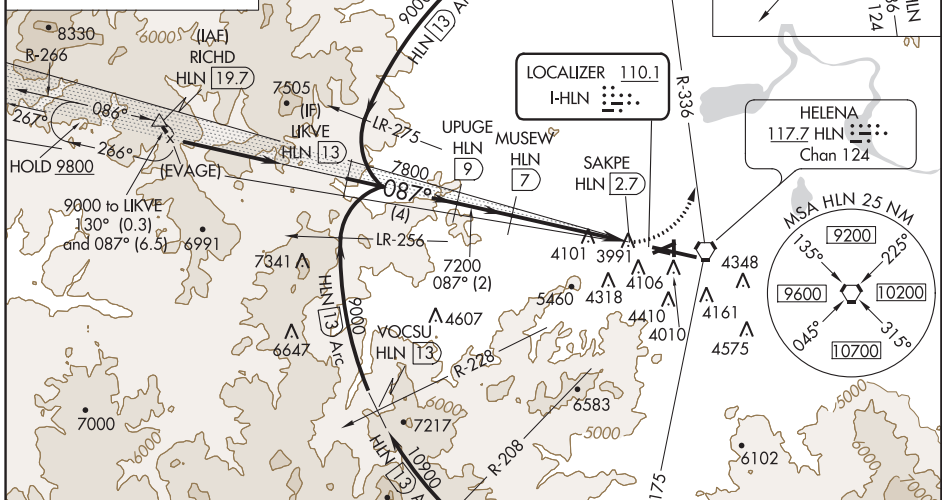
**⚠** MISSED APPROACH: Climbing left turn to 9300 on HLN VORTAC R-336 to WOKEN INT and hold.

ATIS <b>120.4</b>	HELENA APP CON * <b>119.5 229.4</b>	HELENA TOWER * <b>118.3 (CTAF) 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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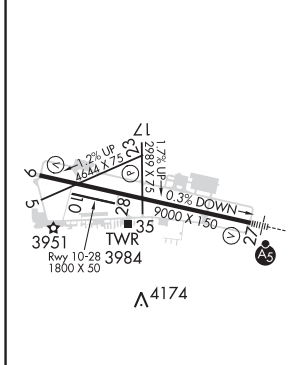


ALTERNATE MISSED APCH FIX  
HELENA HLN 117.7 Chan 124  
R-086  
086°  
266°

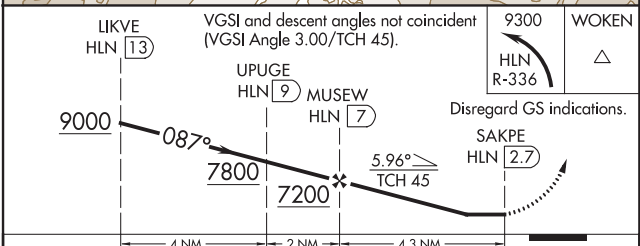
MISSED APCH FIX  
WOKEN HLN 22.7  
115.1 GTF Chan 98  
R-206  
R-336  
117.7 HLN Chan 124



ELEV 3877



REIL Rwy 9  
MIRL Rwys 5-23 and 17-35  
HIRL Rwy 9-27



CATEGORY	A	B	C	D
CIRCLING	5140-1¼ 1263 (1300-1¼)	5140-1½ 1263 (1300-1½)	5140-3 1263 (1300-3)	NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VORTAC HLN <b>117.7</b> Chan 124	APP CRS <b>266°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>3877</b>
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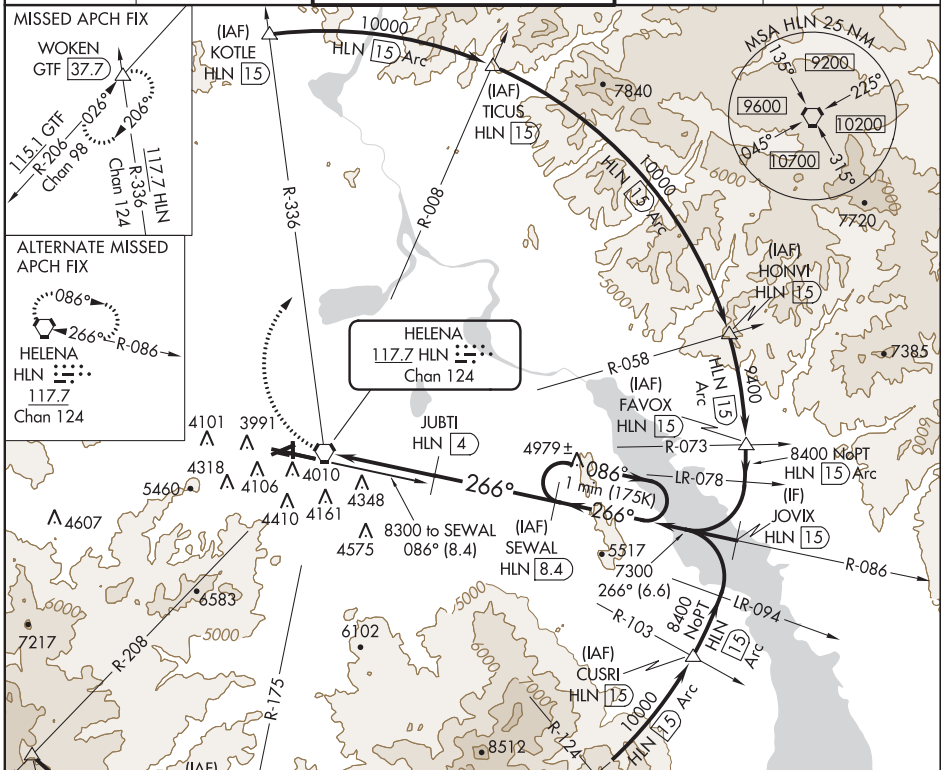
# VOR/DME-B

HELENA RGNL (HLN)

**⚠** Circling NA for Cat D south of Rwy 9-27.  
**⚠** DME Arc to final approach course required for turbojet aircraft.  
**⚠** -16°C/3°F Holding at SEWAL authorized for Cat A and B aircraft only.

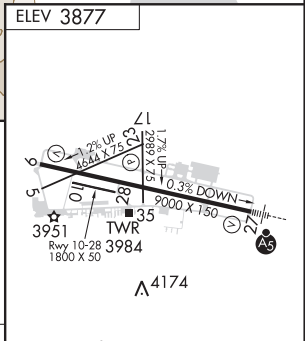
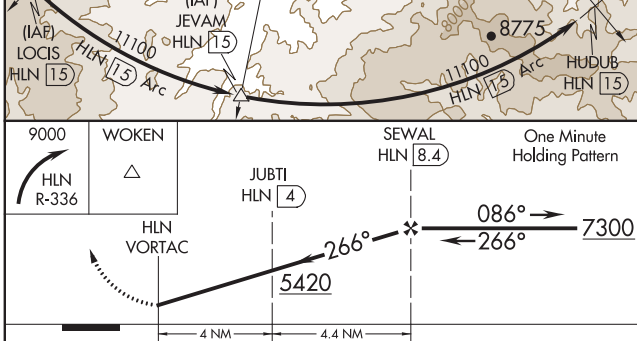
MISSED APPROACH: Climbing right turn to 9000 on HLN VORTAC R-336 to WOKEN INT/GTF 37.7 DME and hold.

ATIS <b>120.4</b>	HELENA APP CON * <b>119.5 229.4</b>	HELENA TOWER * <b>118.3 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	4760-1¼ 883 (900-1¼)		4760-2¾ 883 (900-2¾)	4760-3 883 (900-3)

REIL Rwy 9  
 MIRL Rws 5-23 and 17-35  
 HIRL Rwy 9-27



HELENA, MONTANA

# COPTER VOR 251°

VORTAC HLN <b>117.7</b> Chan <b>124</b>	APCH CRS <b>251°</b>	Rwy Idg TDZE Arpt Elev <b>N/A</b> <b>N/A</b> <b>3877</b>	AL-192 [USA]	HELENA RGNL (KHLN)
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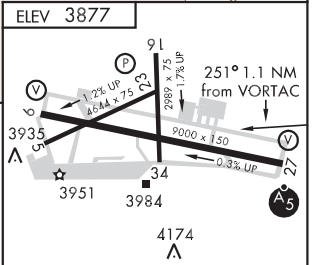
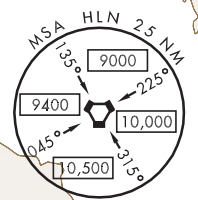
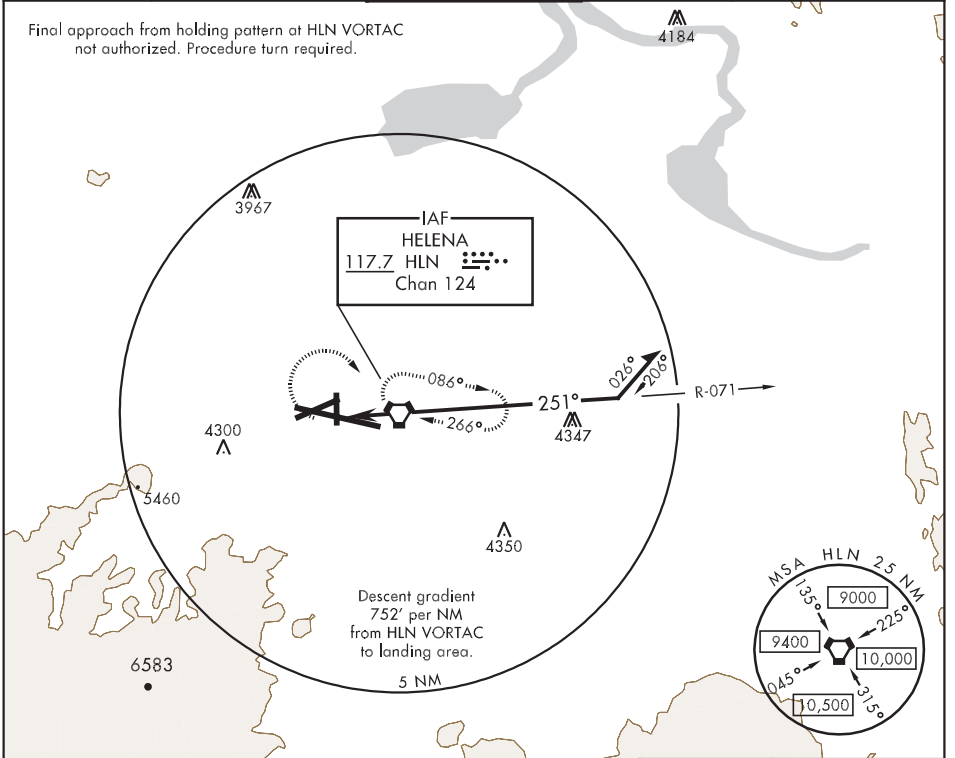
**▽** MISSED APPROACH: Climbing right turn to 8000 direct HLN VORTAC and hold.  
**▲** NA when tower clsd.

ATIS <b>120.4</b>	HELENA APP CON <b>119.5 229.4</b>	HELENA TOWER ★ <b>118.3 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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Final approach from holding pattern at HLN VORTAC not authorized. Procedure turn required.

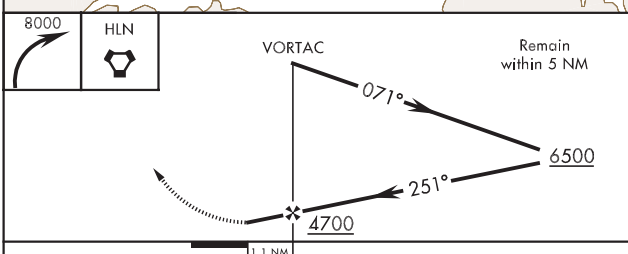
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



REIL Rwy 9  
 MIRL Rwys 5-23 and 16-34  
 HIRL Rwy 9-27

## COPTER ONLY



CATEGORY	COPTER				
H-251°	4260-½	412 (400-½)			
FAF to MAP 1.1 NM					
Knots	45	60	75	90	105
Min:Sec	1:28	1:06	0:53	0:44	0:37

HELENA, MONTANA  
 Amdt 1 08MAR12

46°36'N-111°59'W

HELENA RGNL (KHLN)

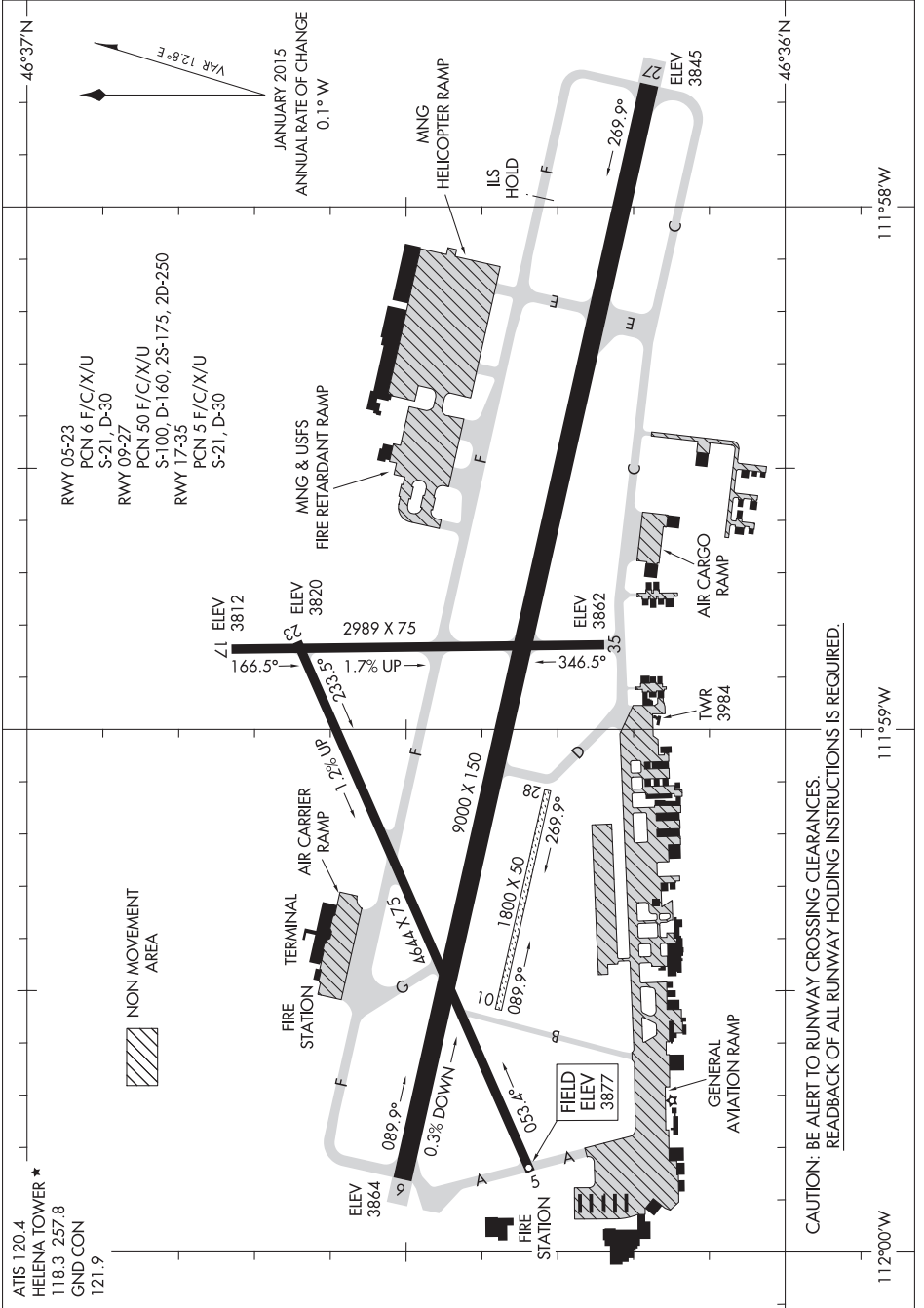
# COPTER VOR 251°

# AIRPORT DIAGRAM

AL-192 (FAA)

HELENA RGNL (HLN)  
HELENA, MONTANA

NW-1, 10 NOV 2016 to 05 JAN 2017



NW-1, 10 NOV 2016 to 05 JAN 2017

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
REARBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

# AIRPORT DIAGRAM

HELENA, MONTANA  
HELENA RGNL (HLN)



(HLN4.HLN) 16203

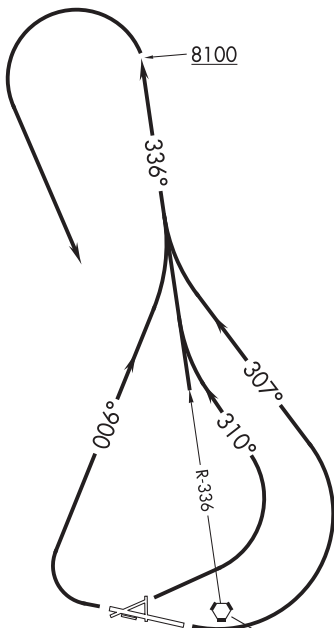
# HELENA FOUR DEPARTURE

SL-192 (FAA)

HELENA RGNL (HLN)  
HELENA, MONTANA

HELENA TOWER \*  
118.3 (CTAF) 257.8  
HELENA DEP CON \*  
119.5 229.4  
SALT LAKE CENTER  
133.4 285.4

**TOP ALTITUDE:  
9000**



HELENA
117.7 HLN
Chan 124
N46° 36.41' - W111° 57.21'
L-13, H-1

### TAKEOFF MINIMUMS

- Rwy 5: Standard with minimum climb of 250' per NM to 8100.
- Rwy 9: Standard with minimum climb of 240' per NM to 8100.
- Rwys 17, 23: NA- Obstacles.
- Rwy 27: Standard with minimum climb of 390' per NM to 8100.
- Rwy 35: NA- ATC.

(NOTES ON FOLLOWING PAGE)

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climbing left turn heading 310° to intercept HLN VORTAC R-336 to 8100', then climbing left turn to 9000' via HLN VORTAC R-336 to HLN VORTAC.

TAKEOFF RUNWAY 9: Climbing left turn heading 307° to intercept HLN VORTAC R-336 to 8100', then climbing left turn to 9000' via HLN VORTAC R-336 to HLN VORTAC.

TAKEOFF RUNWAY 27: Climbing right turn heading 006° to intercept HLN VORTAC R-336 to 8100', then climbing left turn to 9000' via HLN VORTAC R-336 to HLN VORTAC.

# HELENA FOUR DEPARTURE

(HLN4.HLN) 21JUL16

HELENA, MONTANA  
HELENA RGNL (HLN)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(HLN4.HLN) 16203

## HELENA FOUR DEPARTURE

SL-192 (FAA)

HELENA RGNL (HLN)  
HELENA, MONTANATAKEOFF OBSTACLE NOTES

- Rwy 5: Trees beginning 991' from DER, 630' right of centerline, up to 100'AGL/3939' MSL.  
Rising terrain beginning 5' from DER, 495' right of centerline, up to 3826' MSL.  
Fence beginning 423' from DER, 332' right of centerline, up to 12' AGL/3832' MSL.
- Rwy 9: Trees beginning 1391' from DER, 50' left of centerline, up to 100'AGL/3979' MSL.  
Trees beginning 2928' from DER, 878' right of centerline, up to 100'AGL/3979' MSL.
- Rwy 23: Tower 4448' from DER, 357' left of centerline, 131'AGL/4054' MSL.  
Poles beginning 1329' from DER, 3' left of centerline, up to 55'AGL/3996' MSL.  
Trees beginning 1011' from DER, 37' left of centerline, up to 100'AGL/4059' MSL.  
Rod on building 953' from DER, 321' left of centerline, 44'AGL/3943' MSL.  
Road (1) 2374' from DER, 771' left of centerline, up to 17'AGL/3972' MSL.  
Obstruction Light on hangar 457' from DER, 219' left of centerline, 43'AGL/3905' MSL.  
Trees beginning 1519' from DER, 142' right of centerline, up to 52'AGL/4011' MSL.  
Poles beginning 1379' from DER, 57' right of centerline, up to 46'AGL/3965' MSL.  
Antenna on building 316' from DER, 352' right of centerline, 34'AGL/3913' MSL.  
Building 584' from DER, 470' right of centerline, 49'AGL/3948' MSL.
- Rwy 27: Trees beginning 1079' from DER, 616' left of centerline, up to 100'AGL/3999' MSL.  
Building 1593' from DER, 731' left of centerline, 18'AGL/3917' MSL.  
Rising terrain beginning 101' from DER, 347' left of centerline, up to 3871' MSL.  
Trees beginning 333' from DER, 507' right of centerline, up to 100'AGL/3959' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

HELENA FOUR DEPARTURE  
(HLN4.HLN) 21JUL16HELENA, MONTANA  
HELENA RGNL (HLN)



(SIEB3.SIEB) 16147

# SIEB THREE DEPARTURE

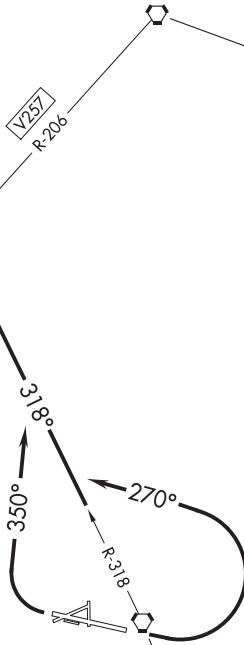
SL-192 (FAA)

HELENA RGNL (HLN)  
HELENA, MONTANA

ATIS 120.4  
GND CON  
121.9  
HELENA TOWER \*  
118.3 (CTAF) 257.8  
HELENA DEP CON \*  
119.5 229.4  
SALT LAKE CENTER  
133.4 285.4

SIEBE  
N46° 53.09'  
W112° 09.08'  
L-13

GREAT FALLS  
115.1 GTF  
Chan 98



### TAKEOFF MINIMUMS

Rwy 17, 35, 05, 23: NA-ATC  
Rwy 09: Standard with minimum climb  
of 270' per NM to 9000'.  
Rwy 27: Standard with minimum climb  
of 390' per NM to 7200'.

### TAKEOFF OBSTACLES NOTES

Rwy 9: Trees beginning 1391' from DER, 50' left of centerline, up to 100' AGL/3979' MSL. Trees beginning 2928' from DER, 878' right of centerline, up to 100' AGL/3979' MSL.  
Rwy 27: Trees beginning 1079' from DER, 616' left of centerline, up to 100' AGL/3999' MSL. BLDG 1593' from DER, 731' left of centerline, 18' AGL/3917' MSL. Rising terrain beginning 101' from DER, 347' left of centerline, up to 3871' MSL. Trees beginning 333' from DER, 507' right of centerline, up to 100' AGL/3959' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climbing left turn heading 270°, thence. . . .

TAKEOFF RUNWAY 27: Climbing right turn heading 350°, thence. . . .

. . . .intercept HLN R-318 to SIEBE INT.

# SIEB THREE DEPARTURE

(SIEB3.SIEB) 30JUN11

HELENA, MONTANA  
HELENA RGNL (HLN)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



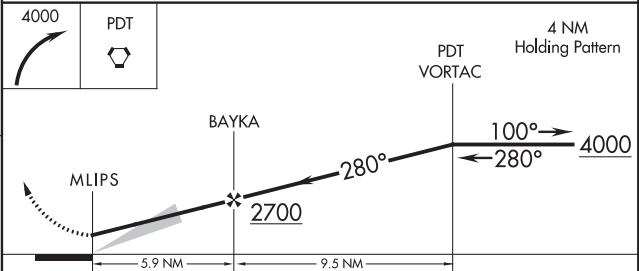
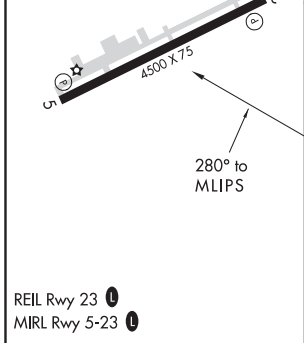
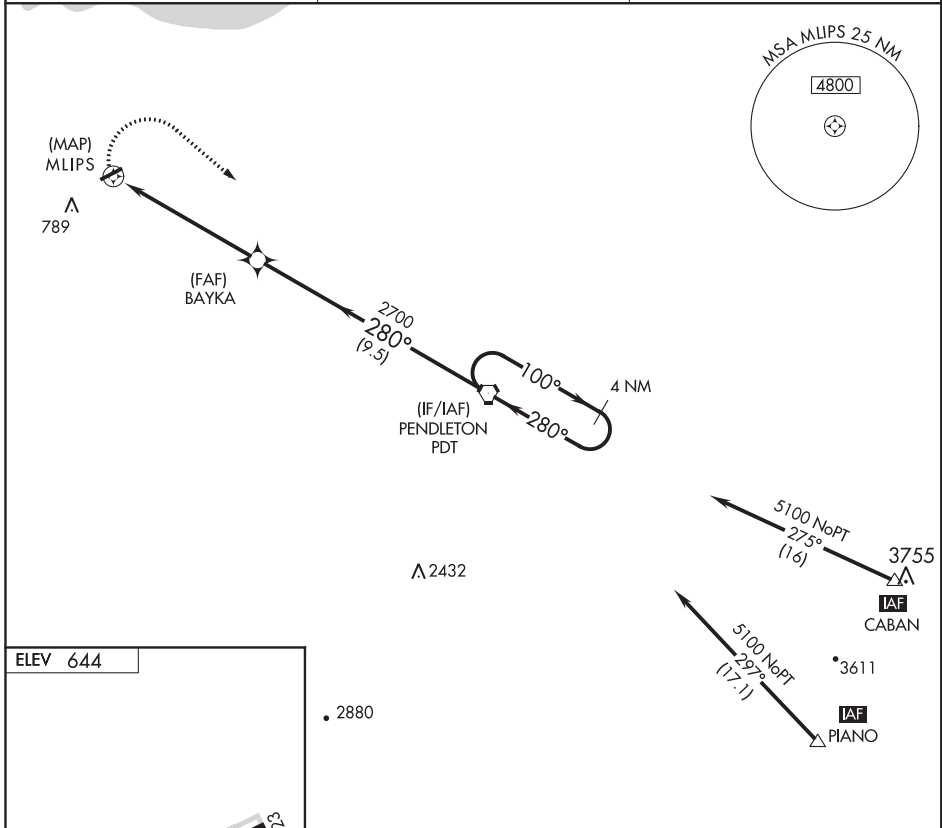
**RNAV(GPS)-B**  
HERMISTON MUNI (H.R.I)

APP CRS <b>280°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>644</b>
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**V** GPS or RNP-0.3 required. DME/DME RNP-0.3 NA. **NA** MISSED APPROACH: Climbing right turn to 4000 direct PDT VORTAC and hold.

**IAF** ARM APPROACH MODE PRIOR TO IAF.

ASOS <b>135,225</b>	CHINOOK APP CON * <b>133.15 379.15</b>	UNICOM <b>122.8 (CTAF)</b>
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CATEGORY	A	B	C	D
CIRCLING	1180-1	536 (600-1)	1180-1½ 536 (600-1½)	1200-2 556 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

HERMISTON, OREGON

AL-6475 (FAA)

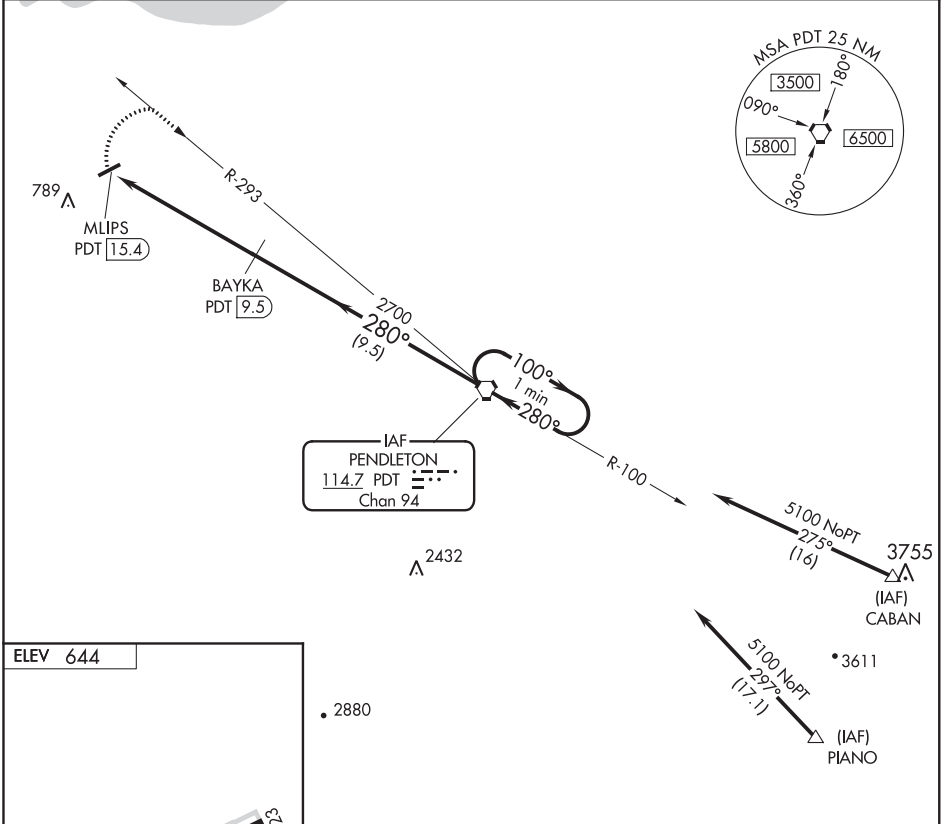
16315

VORTAC PDT <b>114.7</b> Chan <b>94</b>	APP CRS <b>280°</b>	Rwy Idg TDZE Apt Elev <b>644</b>	<b>N/A</b> <b>N/A</b> <b>644</b>
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**VOR/DME-A**  
HERMISTON MUNI (HRI)

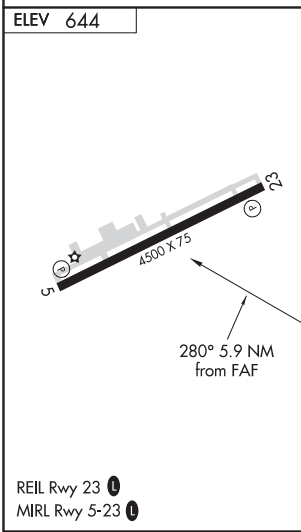
**MISSED APPROACH:** Climbing right turn to 4000 via PDT R-293 to PDT VORTAC and hold.

ASOS <b>135,225</b>	CHINOOK APP CON * <b>133.15 379.15</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



4000 PDT R-293	PDT VORTAC	One Minute Holding Pattern		
MLIPS PDT 15.4	BAYKA PDT 9.5	100° → ← 280° 4000		
5.9 NM	9.5 NM			
CATEGORY	A	B	C	D
CIRCLING	1180-1	536 (600-1)	1180-1½ 536 (600-1½)	1200-2 556 (600-2)

HERMISTON, OREGON  
Amdt 3 10JUL03

45°50'N-119°16'W

HERMISTON MUNI (HRI)  
**VOR/DME-A**



HOQUIAM, WASHINGTON

AL-889 (FAA)

15288

WAAS CH <b>82015</b> <b>W06A</b>	APP CRS <b>061°</b>	Rwy Idg TDZE <b>18</b> Apt Elev <b>18</b>	<b>5000</b>
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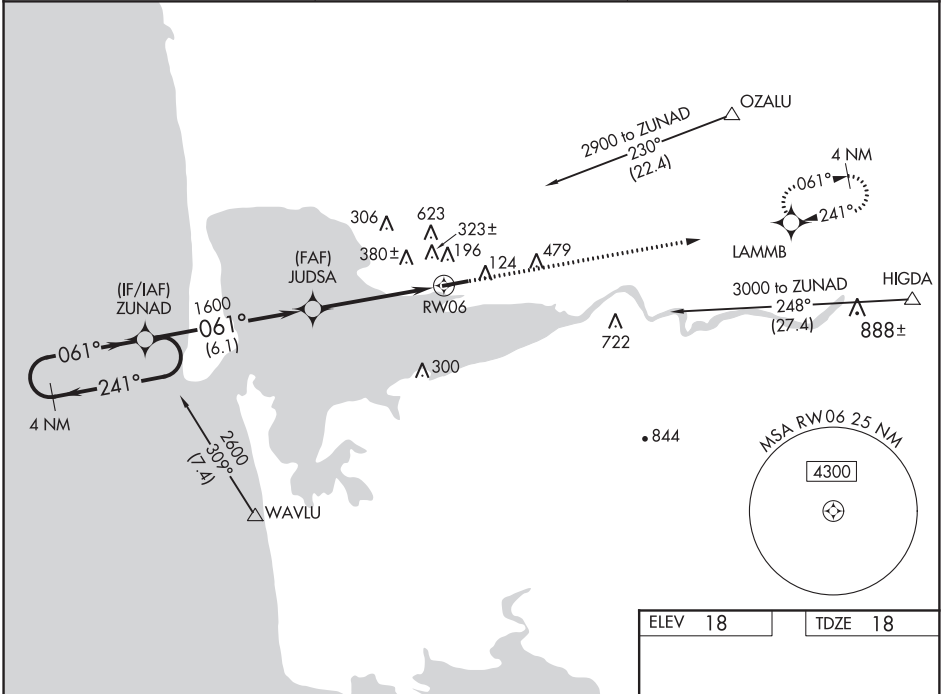
# RNAV (GPS) RWY 6

BOWERMAN (HQM)

**▽** Circling NA northwest of Rwy 6-24.  
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F).  
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.  
When local altimeter setting not received, procedure NA.

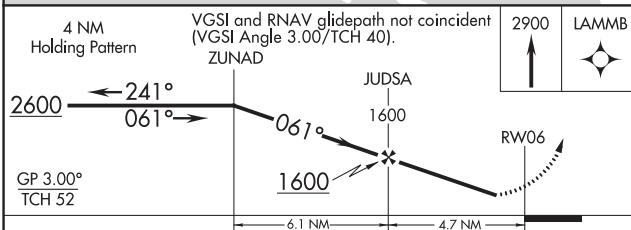
MISSED APPROACH: Climb to 2900 direct LAMMB and hold.

ASOS <b>135.775</b>	SEATTLE CENTER <b>128.3 269.0</b>	UNICOM <b>122.7 (CTAF) 0</b>
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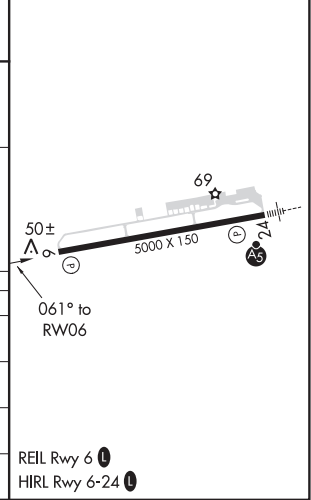
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 18	TDZE 18
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CATEGORY	A	B	C	D
LPV DA	308-1 290 (300-1)			
LNAV/VNAV DA	758-2½ 740 (800-2½)			
LNAV MDA	620-1 602 (700-1)	620-1¾ 602 (700-1¾)	620-2 602 (700-2)	620-2 602 (700-2)
CIRCLING	620-1 602 (700-1)	620-1¾ 602 (700-1¾)	620-2 602 (700-2)	620-2 602 (700-2)



HOQUIAM, WASHINGTON  
Amdt 1A 27JUN13

46°58'N-123°56'W

# RNAV (GPS) RWY 6

BOWERMAN (HQM)


WAAS CH <b>86902</b> <b>W24A</b>	APP CRS <b>241°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>16</b> <b>18</b>
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# RNAV (GPS) RWY 24

BOWERMAN (HQM)

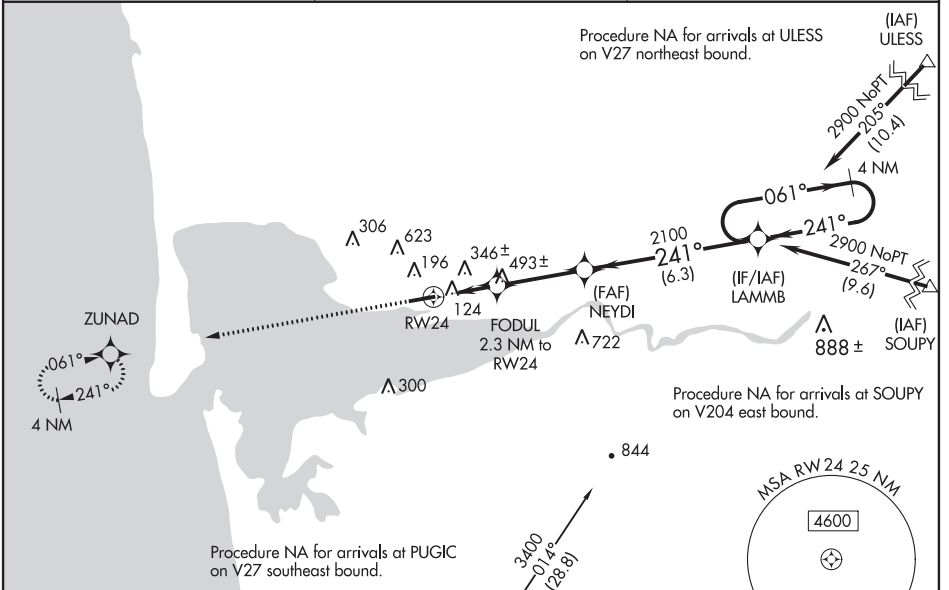
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -6°C (22°F) or above 43°C (109°F). When local altimeter setting not received, procedure NA. Circling NA northwest of Rwy 6-24. DME/DME RNP-0.3 NA. For inoperative MALSR, increase LPV Cat C visibility to 7/8 mile and LNAV Cat C visibility to 2 1/2 miles.

**MALSR**



**MISSED APPROACH:**  
Climb to 2600 direct ZUNAD and hold.

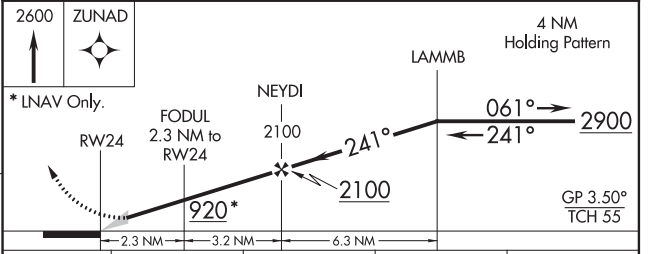
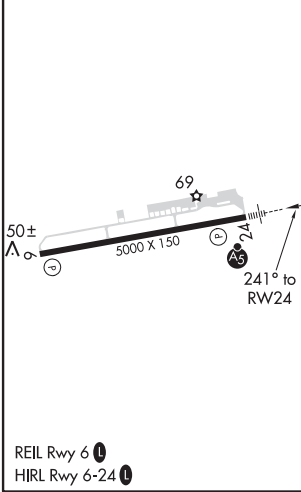
<b>ASOS</b> <b>135.775</b>	<b>SEATTLE CENTER</b> <b>128.3 269.0</b>	<b>UNICOM</b> <b>122.7 (CTAF)</b> <b>0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 18	TDZE 16
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CATEGORY	A	B	C	D
LPV DA	226-1/2	210 (300-1/2)	286-1/2 270 (300-1/2)	NA
LNAV/VNAV DA	676-1 1/2		660 (700-1 1/2)	NA
LNAV MDA	800-1/2 784 (800-1/2)	800-3/4 784 (800-3/4)	800-1 3/4 784 (800-1 3/4)	NA
CIRCLING	800-1 782 (800-1)	800-1 1/4 782 (800-1 1/4)	800-2 1/2 782 (800-2 1/2)	NA

HOQUIAM, WASHINGTON

AL-889 (FAA)

14317

VORTAC HQM <b>117.7</b> Chan <b>124</b>	APP CRS <b>062°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>18</b> <b>18</b>
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**VOR RWY 6**  
BOWERMAN (HQM)

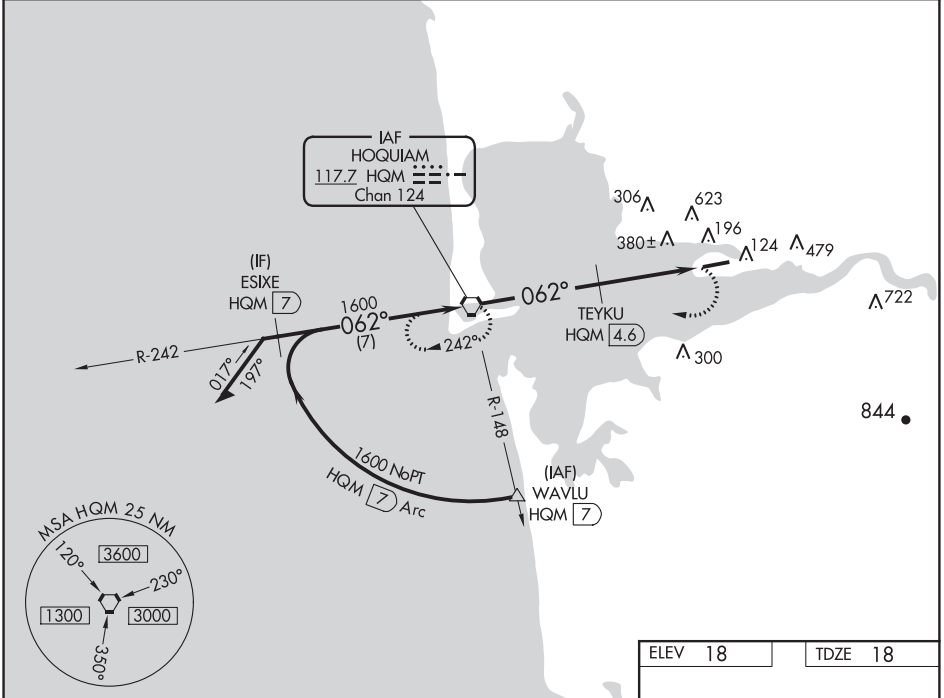
**▽** Visibility reduction by helicopters NA.  
**▲** Circling NA northwest of Rwy 6 and 24.

MISSED APPROACH: Climbing right turn to 2500 direct HQM VORTAC and hold.

ASOS  
**135.775**

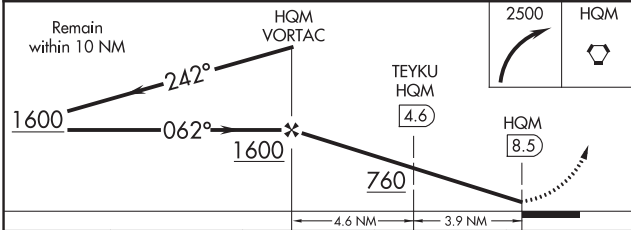
SEATTLE CENTER  
**128.3 269.0**

UNICOM  
**122.7 (CTAF)**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 18	TDZE 18
REIL Rwy 6 <b>Ⓛ</b>	
HIRL Rwy 6-24 <b>Ⓛ</b>	
FAF to MAP 8.5 NM	
Knots	60 90 120 150 180
Min:Sec	8:30 5:40 4:15 3:24 2:50

CATEGORY	A	B	C	D
S-6	760-1 742 (800-1)	760-1¼ 742 (800-1¼)	760-2¼ 742 (800-2¼)	760-2½ 742 (800-2½)
CIRCLING	760-1 742 (800-1)	760-1¼ 742 (800-1¼)	760-2¼ 742 (800-2¼)	760-2½ 742 (800-2½)
TEYKU FIX MINIMUMS				
S-6	640-1 622 (700-1)	640-1¾ 622 (700-1¾)	640-2 622 (700-2)	
CIRCLING	640-1 622 (700-1)	640-1¾ 622 (700-1¾)	640-2 622 (700-2)	

HOQUIAM, WASHINGTON  
Amdt 15 30AUG07

46°58'N-123°56'W

BOWERMAN (HQM)  
**VOR RWY 6**



WAAS CH <b>82039</b> <b>W13A</b>	APP CRS <b>132°</b>	Rwy Idg TDZE Apt Elev	<b>5500</b> <b>4227</b> <b>4264</b>
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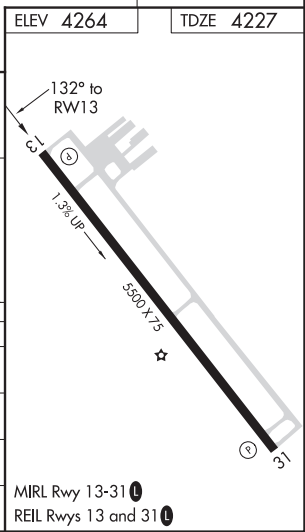
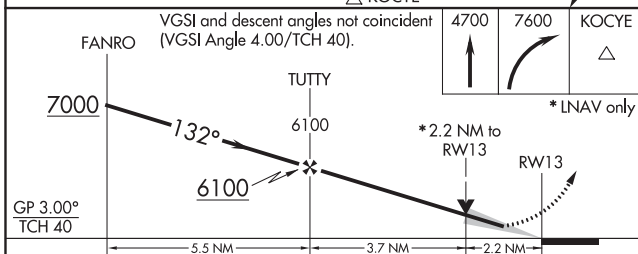
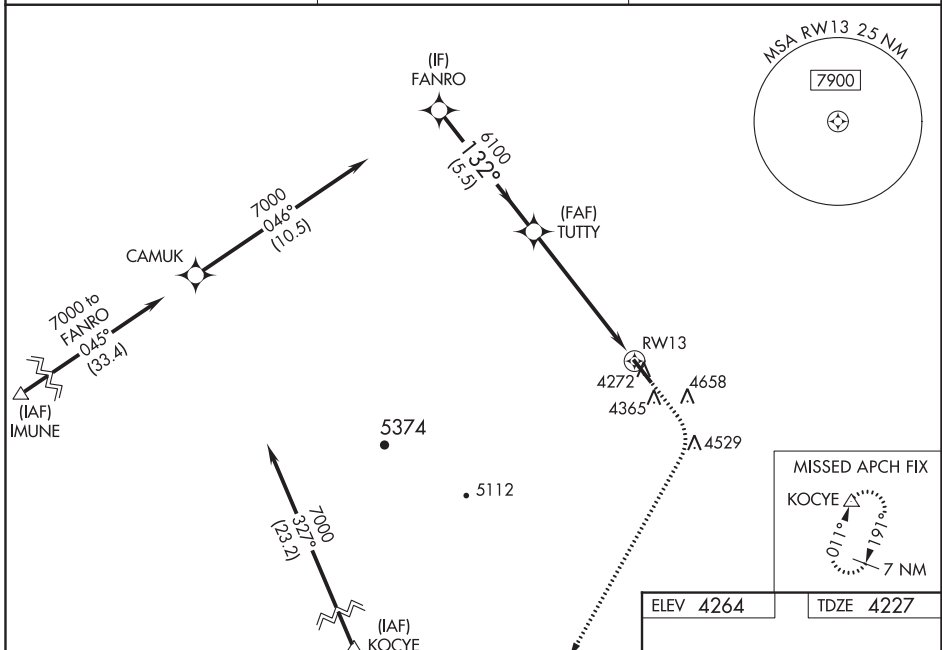
# RNAV (GPS) RWY 13

HULETT MUNI (W43)

**⚠** For uncompensated Baro-VNAV systems, procedure NA below -23°C (-9°F) or above 53°C (127°F). Baro-VNAV and VDP NA when using Gillette altimeter setting.  
**⚠** -34°C DME/DME RNP-0.3 NA. When local altimeter setting not received, use Gillette altimeter setting and increase LPV DA to 4662 feet; LNAV/VNAV DA to 4807 feet, and all visibilities ½ mile. Increase all MDA 120 feet and LNAV Cat C/D visibility ½ mile, Circling Cat A/B ¼ mile, and Cat C ½ mile.

**MISSED APPROACH:**  
 Climb to 4700 then climbing right turn to 7600 direct KOCYE and hold.

AWOS-3PT <b>128.775</b>	DENVER CENTER <b>127.95 338.2</b>	UNICOM <b>122.8 (CTAF)</b> <b>⓪</b>
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CATEGORY	A	B	C	D
LPV DA		4542-1½	315 (300-1½)	
LNAV/VNAV DA		4687-1¾	460 (500-1¾)	
LNAV MDA	5100-1 873 (900-1)	5100-1¼ 873 (900-1¼)	5100-2½	873 (900-2½)
<b>C</b> CIRCLING	5100-1 836 (900-1)	5100-1¼ 836 (900-1¼)	5100-2½ 836 (900-2½)	5400-3 1136 (1200-3)

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NW-1, 10 NOV 2016 to 05 JAN 2017

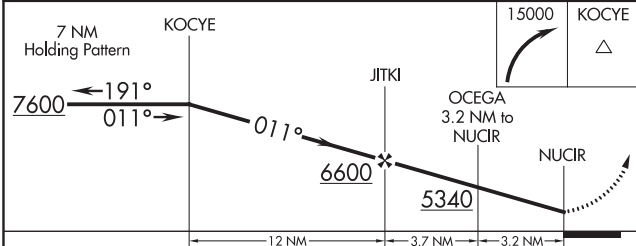
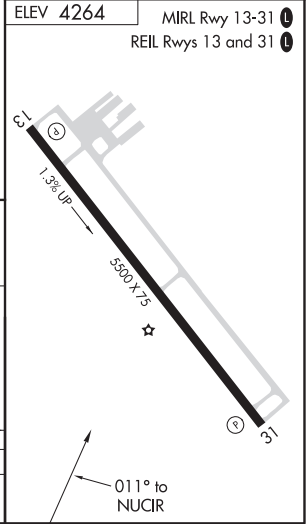
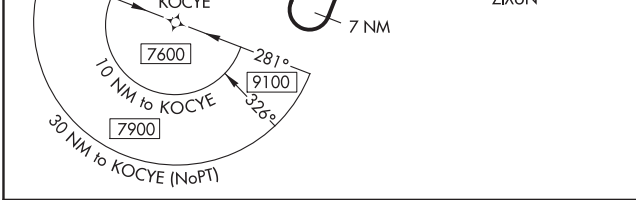
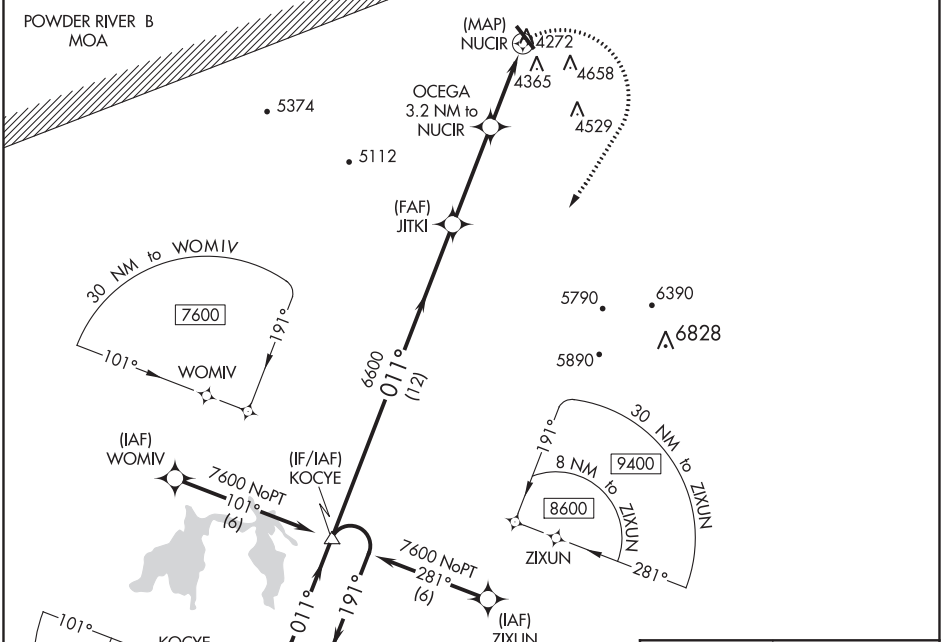
APP CRS <b>011°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>4264</b>
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# RNAV (GPS)-A

HULETT MUNI (W43)

<p><b>NA</b> -34°C</p>	<p>DME/DME RNP-0.3 NA. When local altimeter setting is not received use Gillette-Campbell County altimeter setting and increase all MDA 120 feet and visibility Cat B ¼ mile.</p>	<p>MISSED APPROACH: Climbing right turn to 15000 direct KOCYE and hold, continue climb-in-hold to 15000.</p>
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<p>AWOS-3PT <b>128.775</b></p>	<p>DENVER CENTER <b>127.95 338.2</b></p>	<p>UNICOM <b>122.8 (CTAF) 0</b></p>
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CATEGORY	A	B	C	D
CIRCLING	4900-1 636 (700-1)	5020-1 756 (800-1)	NA	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

11:02 NAV 05 00 01 91:02 AON 01 'L-WN

**TAKEOFF MINIMUMS**

Rwy 13: Standard with minimum climb of 322' per NM to 8100.  
Rwy 31: Standard with minimum climb of 230' per NM to 7600.

**TAKEOFF OBSTACLE NOTES**

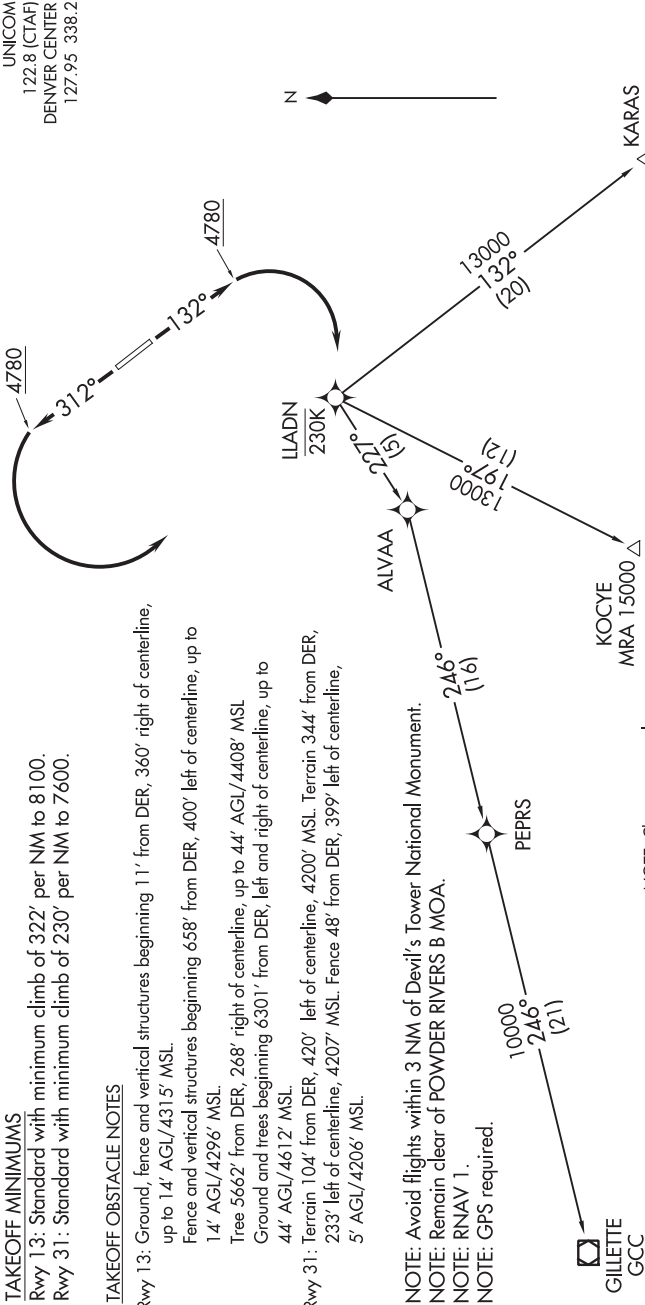
Rwy 13: Ground, fence and vertical structures beginning 11' from DER, 360' right of centerline, up to 14' AGL/4315' MSL.  
Fence and vertical structures beginning 658' from DER, 400' left of centerline, up to 14' AGL/4296' MSL.  
Tree 5662' from DER, 268' right of centerline, up to 44' AGL/4408' MSL  
Ground and trees beginning 6301' from DER, left and right of centerline, up to 44' AGL/4612' MSL.  
Rwy 31: Terrain 104' from DER, 420' left of centerline, 4200' MSL. Terrain 344' from DER, 233' left of centerline, 4207' MSL. Fence 48' from DER, 399' left of centerline, 5' AGL/4206' MSL.

NOTE: Avoid flights within 3 NM of Devil's Tower National Monument.

NOTE: Remain clear of POWDER RIVERS B MOA.

NOTE: RNAV 1.

NOTE: GPS required.



NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 13:** Climb heading 132° to 4780, then right turn direct LLADN, cross LLADN at/below 230K. Thence . . . .  
**TAKEOFF RUNWAY 31:** Climb heading 312° to 4780, then left turn direct LLADN, cross LLADN at/below 230K. Thence . . . .  
. . . . Expect further clearance to filed altitude 10 minutes after departure.

**LOST COMMUNICATIONS:** Alternate frequency 135.6 / 363.025.


- GILLETTE TRANSITION (LLADN1.GCC)
- KARAS TRANSITION (LLADN1.KARAS)
- KOCYE TRANSITION (LLADN1.KOCYE)

LOC/DME I-HDA <b>111.1</b> Chan <b>48</b>	APP CRS <b>203°</b>	Rwy Idg <b>9002</b> TDZE <b>4735</b> Apt Elev <b>4744</b>
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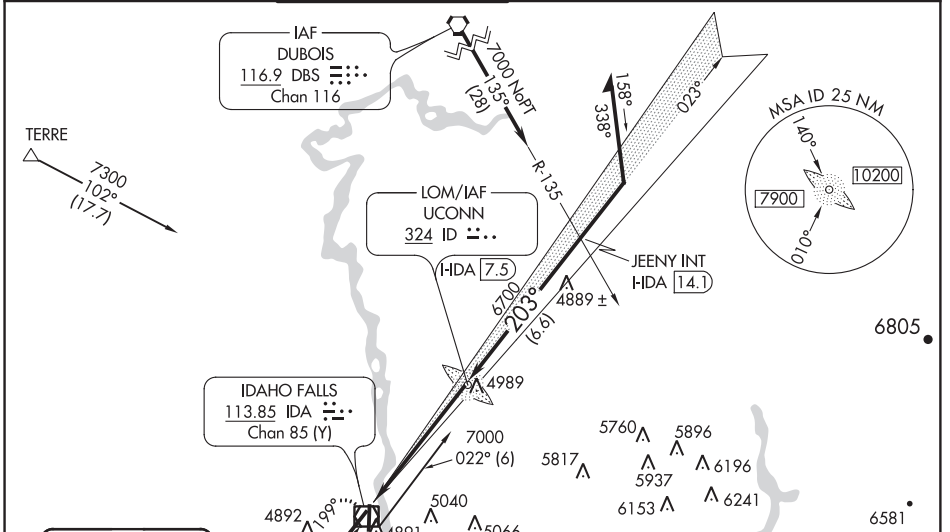
# ILS or LOC RWY 20

IDAHO FALLS RGNL (IDA)

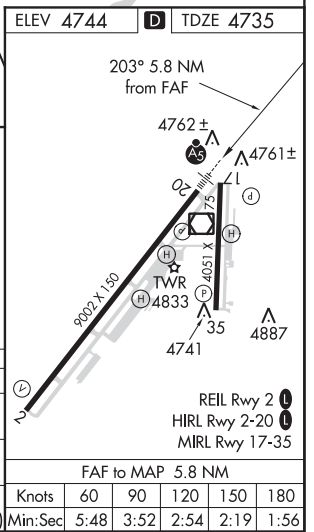
**⚠** When ALS inop, increase Cat E ILS RVR to 40, visibility to ¾ mile, LOC visibility to 1½ miles. When local altimeter setting not received, use Rexburg-Madison County altimeter setting and increase DA to 5004; increase all MDA 80 feet, and S-LOC 20 visibility Cat C/D/E to RVR 5000, and Circling Cat D visibility to 2¼. For inoperative MALSRL, increase S-ILS 20 Cat E visibility to RVR 4000, S-LOC 20 Cat E visibility to 1¼ mile. For inoperative MALSRL using Rexburg-Madison County altimeter setting, increase S-ILS 20 all Cats visibility to RVR 4500, increase S-LOC 20 Cat E visibility to 1½ mile.  
\*RVR 1800 authorized with the use of FD or AP or HUD to DA.

**MALSRL**  
  
**MISSED APPROACH:**  
 Climb to 7000, then right turn direct IDA VOR/DME and hold.

ATIS <b>135.325</b>	SALT LAKE CENTER <b>128.35 239.25</b>	IDAHO FALLS TOWER * <b>118.5 (CTAF) 0 257.8</b>	GND CON <b>121.7</b>	CLNC DEL <b>121.7</b>	GCO <b>121.725</b>	UNICOM <b>122.95</b>
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7000	IDA	ID LOM	Remain within 15 NM
		H-IDA 7.5	
H-IDA 1.7			
		6669	023°
			203°
			6700
			6700
			GS 3.00° TCH 49
			5.8 NM



CATEGORY	A	B	C	D	E
S-ILS 20	*4935/24 200 (200-½)				
S-LOC 20	5140/24	405 (400-½)	5140/40 405 (400-¾)		
CIRCLING	5200-1 456 (500-1)	5220-1 476 (500-1)	5260-1½ 516 (600-1½)	5400-2 656 (700-2)	5420-2½ 676 (700-2½)

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APP CRS <b>023°</b>	Rwy Idg <b>9002</b>
	TDZE <b>4744</b>
	Apt Elev <b>4744</b>

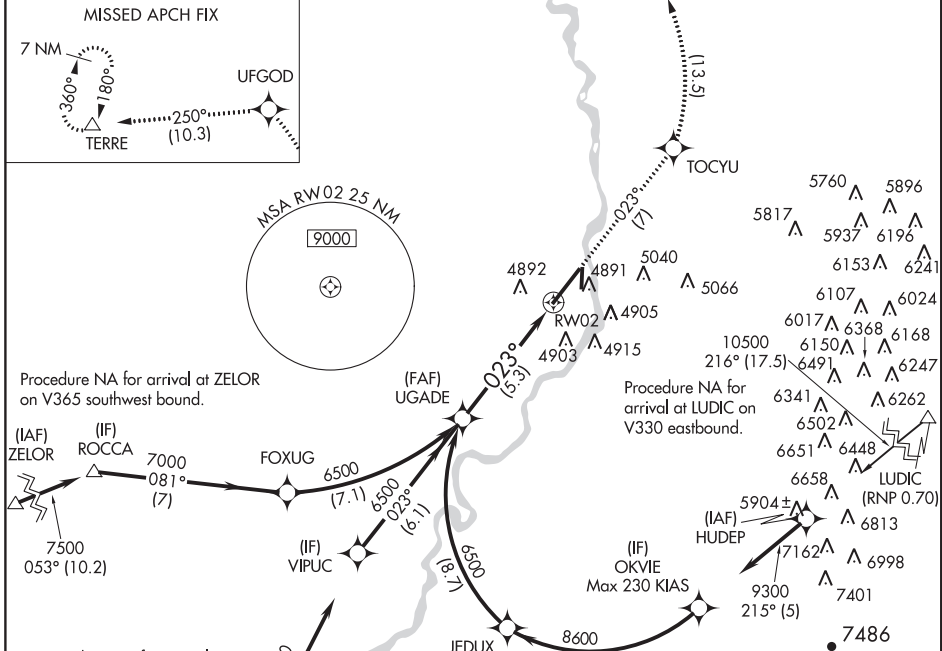
# RNAV (RNP) Z RWY 2

IDAHO FALLS RGNL (IDA)

**GPS and RF required.**  
For uncompensated Baro-VNAV systems, procedure NA below -24°C (-11°F) or above 49°C (121°F).

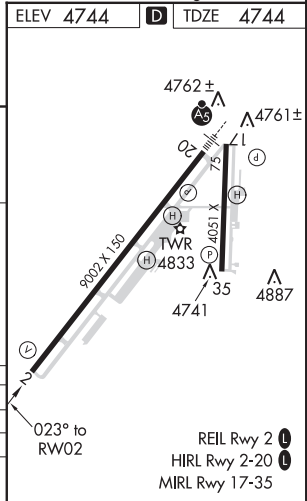
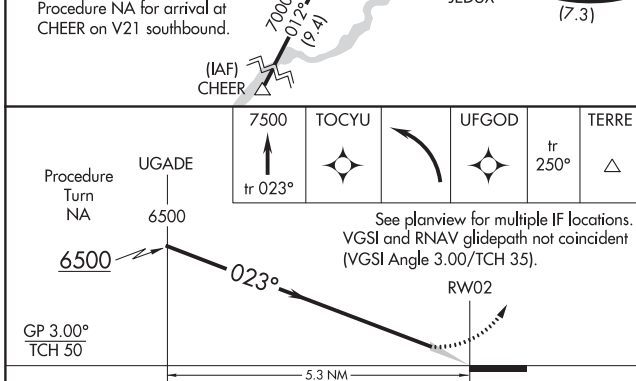
**MISSED APPROACH:** Climb to 7500 on track 023° to TOCYU, left turn to UFGOD, then track 250° to TERRE and hold.

ATIS <b>135.325</b>	SALT LAKE CENTER <b>128.35 239.25</b>	IDAHO FALLS TOWER * <b>118.5 (CTAF) 0 257.8</b>	GND CON <b>121.7</b>	CLNC DEL <b>121.7</b>	GCO <b>121.725</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
RNP 0.11 DA		5010-1	266 (300-1)	
RNP 0.30 DA		5066-1	322 (400-1)	

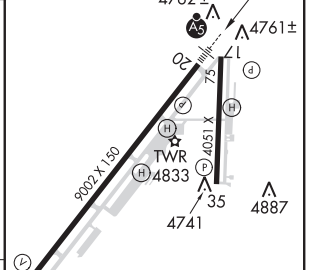
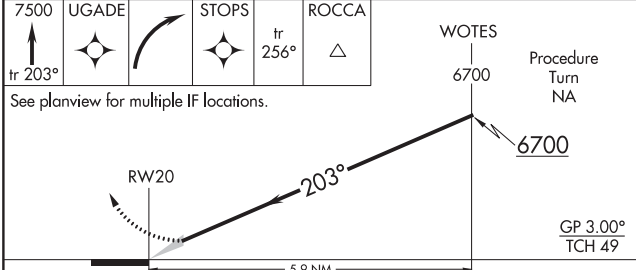
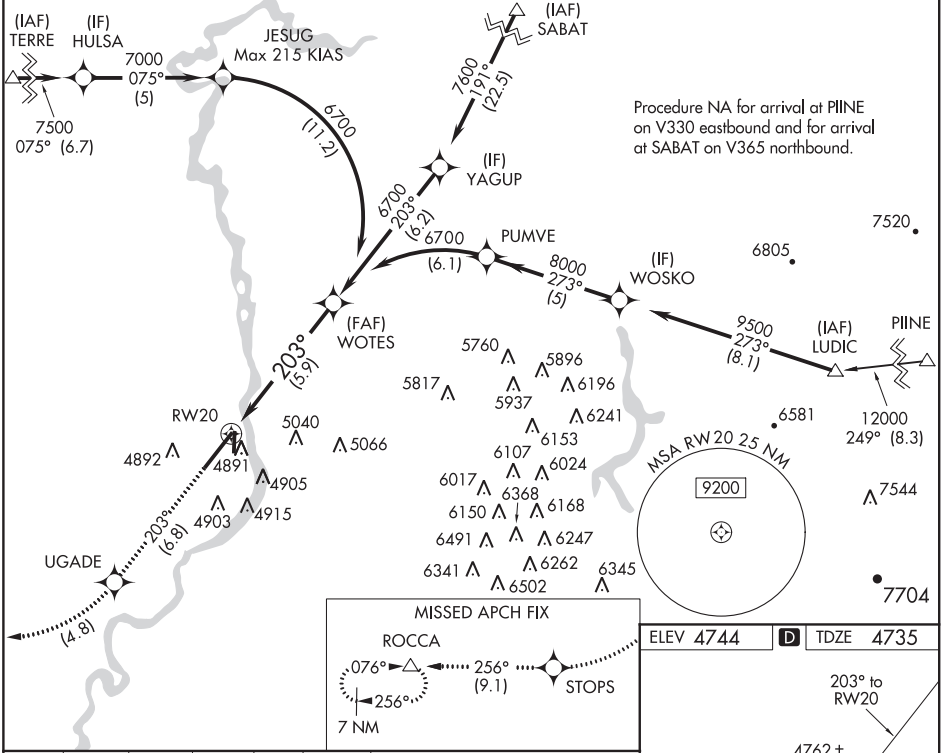
**AUTHORIZATION REQUIRED**

APP CRS	Rwy Idg	<b>9002</b>
<b>203°</b>	TDZE	<b>4735</b>
	Apt Elev	<b>4744</b>

# RNAV (RNP) Z RWY 20

IDAHO FALLS RGNL (IDA)

<p><b>GPS and RF required.</b> For uncompensated Baro-VNAV systems, procedure NA below -24°C (-11°F) or above 49°C (121°F). For inoperative MALSR increase RNP 0.11 visibility all Cats to RVR 5000, increase RNP 0.30 visibility all Cats to RVR 6000.</p>				<p><b>MALSR</b></p>		<p><b>MISSED APPROACH:</b> Climb to 7500 on track 203° to UGADE, right turn to STOPS, then track 256° to ROCCA and hold.</p>	
<b>ATIS</b>	<b>SALT LAKE CENTER</b>	<b>IDAHO FALLS TOWER *</b>	<b>GND CON</b>	<b>CLNC DEL</b>	<b>GCO</b>	<b>UNICOM</b>	
<b>135.325</b>	<b>128.35 239.25</b>	<b>118.5 (CTAF) 0 257.8</b>	<b>121.7</b>	<b>121.7</b>	<b>121.725</b>	<b>122.95</b>	



CATEGORY	A	B	C	D
RNP 0.11 DA		5011/24	276 (300-½)	
RNP 0.30 DA		5064/40	329 (400-¾)	

REIL Rwy 2 0
HIRL Rwy 2-20 0
MIRL Rwy 17-35

**AUTHORIZATION REQUIRED**

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WAAS CH <b>97501</b> <b>W02A</b>	APP CRS <b>023°</b>	Rwy Idg <b>9002</b> TDZE <b>4744</b> Apt Elev <b>4744</b>
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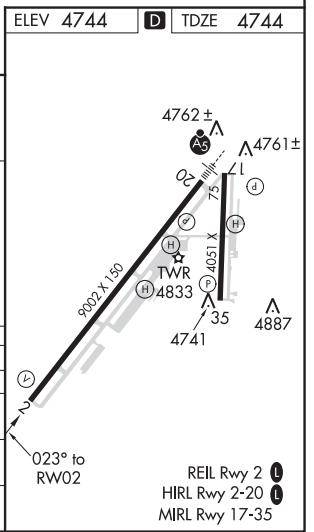
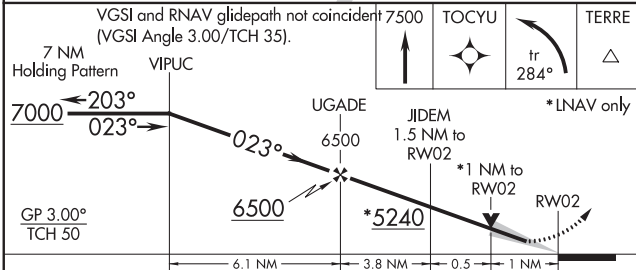
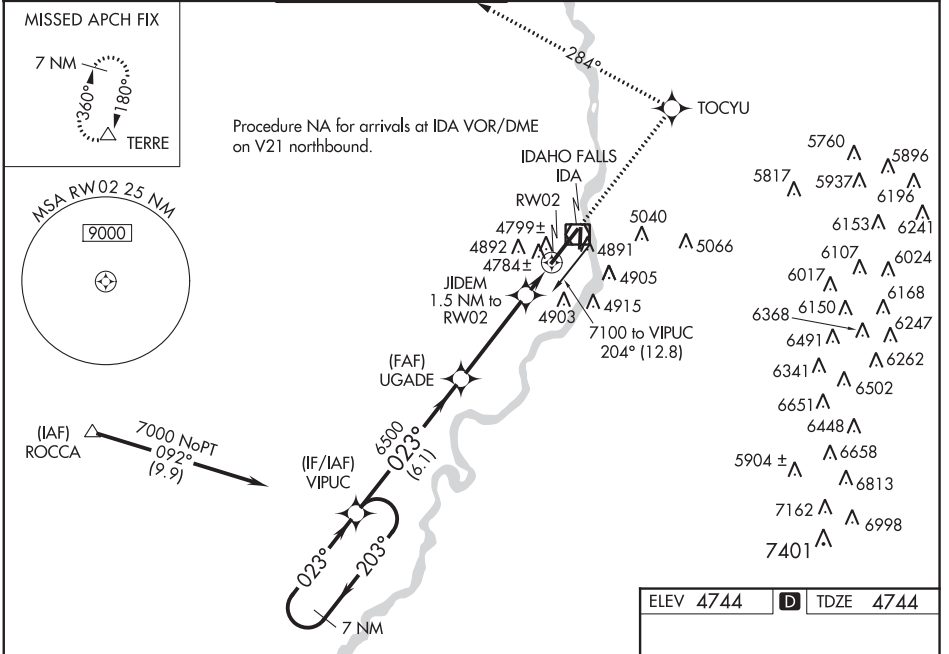
# RNAV (GPS) Y RWY 2

IDAHO FALLS RGNL (IDA)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -24°C (-11°F) or above 49°C (121°F). DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA when using Rexburg altimeter setting. When local altimeter setting not received, use Rexburg-Madison County altimeter setting and increase LPV DA to 501.3 and all Cats visibility 3/8 mile; increase LNAV/VNAV DA to 520.7 and all Cats visibility 1/4 mile; increase all MDA 80 feet and LNAV visibility Cat C-D and Circling Cat D visibility 1/4 mile.

**MISSED APPROACH:** Climb to 7500 direct TOCYU and left turn on track 284° to TERRE and hold.

ATIS <b>135.325</b>	SALT LAKE CENTER <b>128.35 239.25</b>	IDAHO FALLS TOWER * <b>118.5 (CTAF) 0 257.8</b>	GND CON <b>121.7</b>	CLNC DEL <b>121.7</b>	GCO <b>121.725</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA		4944-3/4	200 (200-3/4)	
LNAV/VNAV DA		5138-13/8	394 (400-13/8)	
LNAV MDA		5100-1	356 (400-1)	
CIRCLING	5200-1 456 (500-1)	5220-1 476 (500-1)	5260-1 1/2 516 (600-1 1/2)	5400-2 656 (700-2)

NW-1, 10 NOV 2016 to 05 JAN 2017


NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>40111</b> <b>W20A</b>	APP CRS <b>203°</b>	Rwy Idg TDZE <b>4735</b> Apt Elev <b>4744</b>	<b>9002</b>
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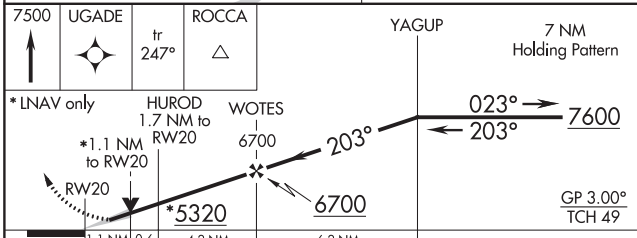
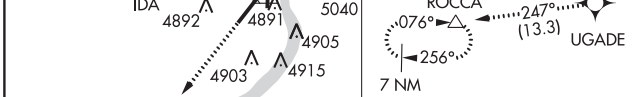
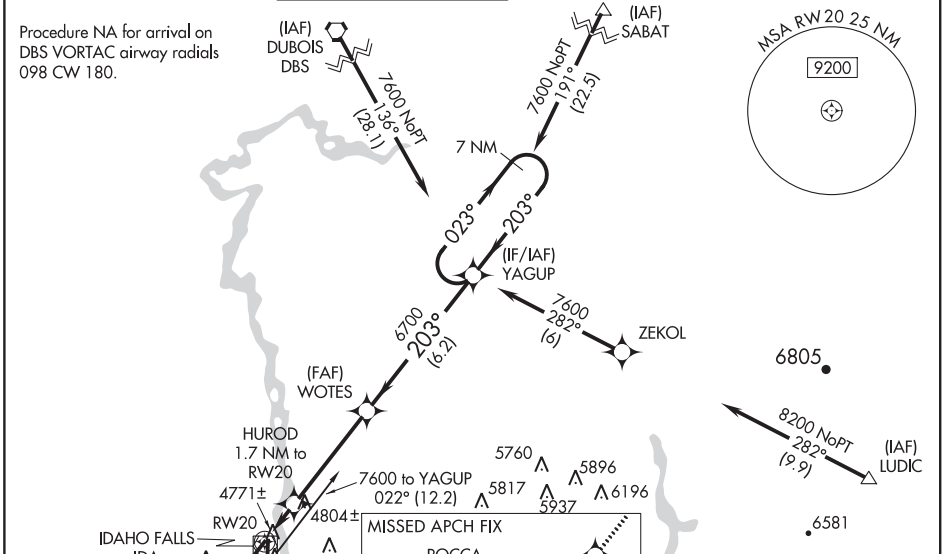
# RNAV (GPS) Y RWY 20

IDAHO FALLS RGNL (IDA)

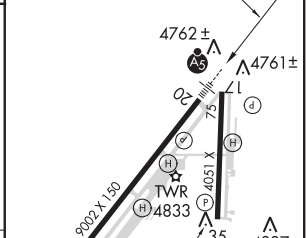
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -24°C (-11°F) or above 49°C (121°F). DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA when using Rexburg altimeter setting. When local altimeter setting not received, use Rexburg-Madison County altimeter setting and increase LPV DA to 5004; increase LNAV/VNAV DA to 5161 and all Cats visibility to RVR 5000; increase all MDA 80 feet and LNAV visibility Cat C/D to RVR 5000, and Circling Cat D visibility to 2¼. For inoperative MALSRS using Rexburg-Madison County altimeter setting, increase LPV all Cats visibility to RVR 4500.

**MALSRS**  
 MISSED APPROACH: Climb to 7500 direct UGADE and on track 247° to ROCCA and hold.

ATIS <b>135.325</b>	SALT LAKE CENTER <b>128.35 239.25</b>	IDAHO FALLS TOWER * <b>118.5 (CTAF) 0 257.8</b>	GND CON <b>121.7</b>	CLNC DEL <b>121.7</b>	GCO <b>121.725</b>	UNICOM <b>122.95</b>
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ELEV 4744	<b>D</b> TDZE 4735
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CATEGORY	A	B	C	D
LPV DA	4935/24		200 (200-½)	
LNAV/VNAV DA	5092/40		357 (400-¾)	
LNAV MDA	5140/24	405 (400-½)	5140/40 405 (400-¾)	5140/50 405 (400-1)
CIRCLING	5200-1 456 (500-1)	5220-1 476 (500-1)	5260-1½ 516 (600-1½)	5400-2 656 (700-2)

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NW-1, 10 NOV 2016 to 05 JAN 2017



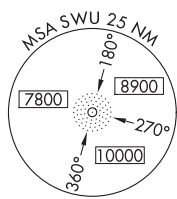
LOC/DME I-HDA <b>111.1</b> Chan 48	APP CRS <b>023°</b>	Rwy Idg TDZE Apt Elev	<b>9002</b> <b>4744</b> <b>4744</b>
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**LOC BC RWY 2**  
IDAHO FALLS RGNL (IDA)

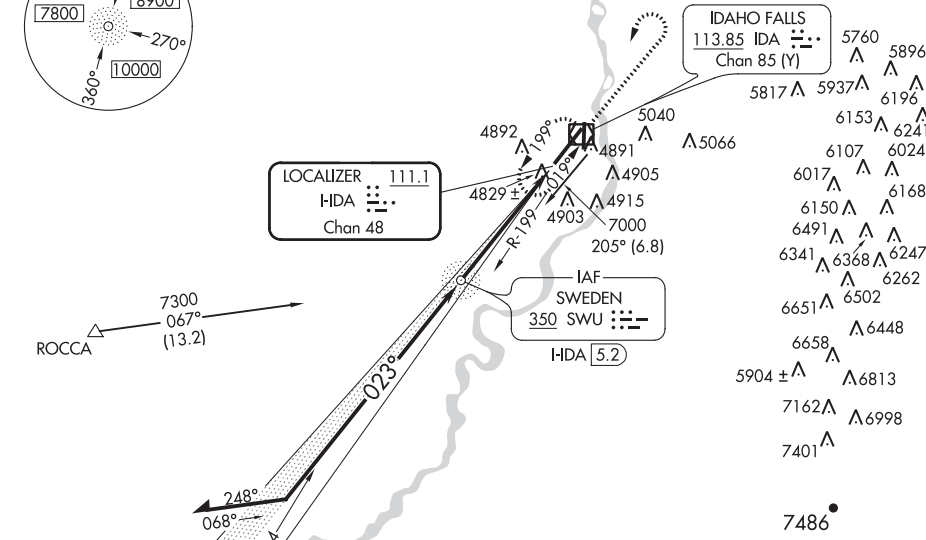
**⚠** When local altimeter setting not received, use Rexburg-Madison County altimeter setting and increase all MDA 80 feet; increase Cat C/D/E ½ mile, increase Circling Cat C/D/E visibility to 1 mile.

**MISSED APPROACH:** Climb to 6000 then climbing left turn to 7000 direct IDA VOR/DME and hold.

ATIS <b>135.325</b>	SALT LAKE CENTER <b>128.35 239.25</b>	IDAHO FALLS TOWER * <b>118.5 (CTAF) 0 257.8</b>	GND CON <b>121.7</b>	CLNC DEL <b>121.7</b>	GCO <b>121.725</b>	UNICOM <b>122.95</b>
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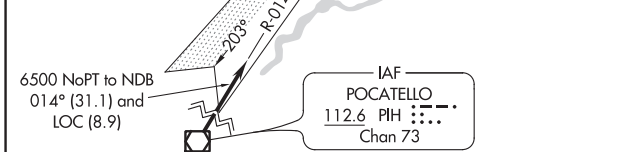


**ADF or DME REQUIRED  
BACK COURSE**

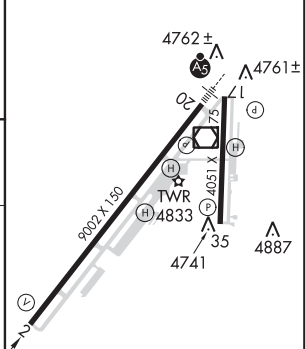


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 4744	D	TDZE 4744
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CATEGORY	A	B	C	D	E
S-LOC 2	5080-1 336 (400-1)				
CIRCLING	5200-1 456 (500-1)	5220-1 476 (500-1)	5260-1½ 516 (600-1½)	5400-2 656 (700-2)	5420-2½ 676 (700-2½)

FAF to MAP 4.7 NM					
Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34




VOR/DME IDA <b>113.85</b> Chan 85 (Y)	APP CRS <b>192°</b>	Rwy Idg TDZE Apt Elev <b>9002</b> <b>4735</b> <b>4744</b>
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# VOR RWY 20

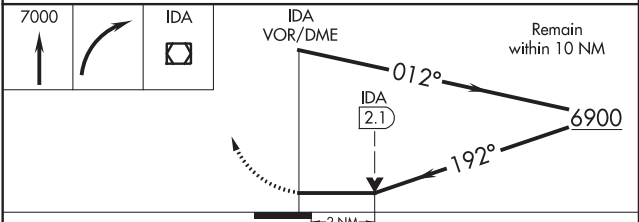
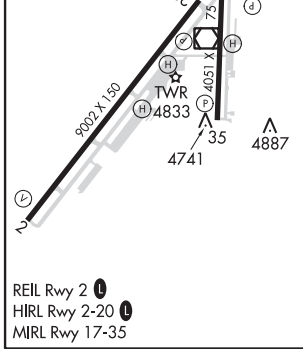
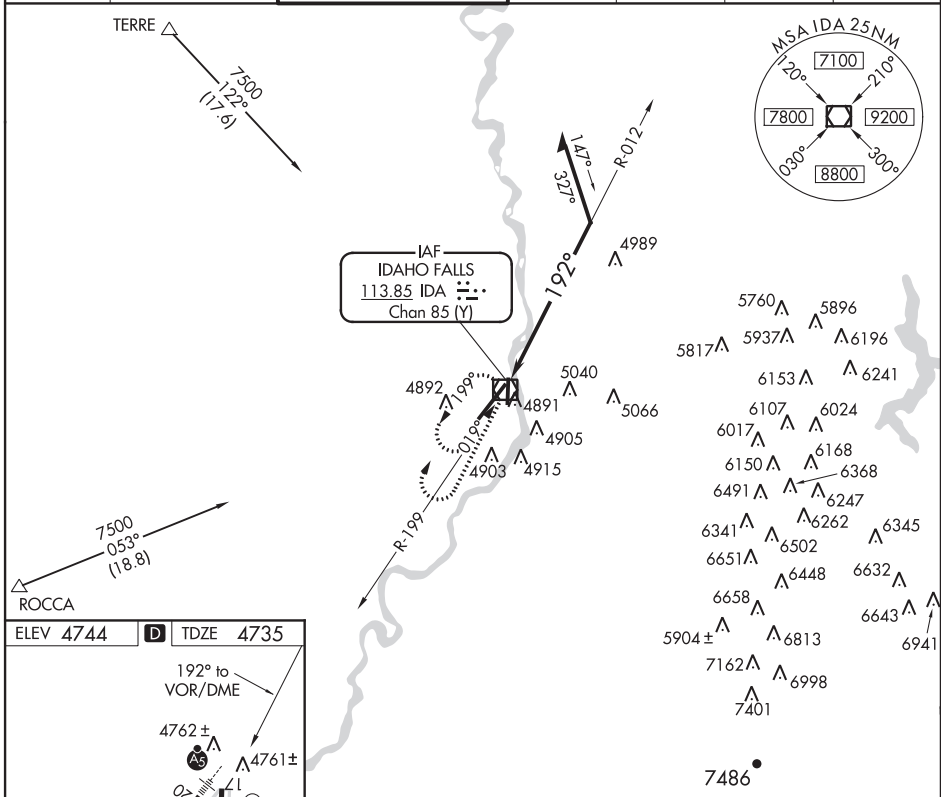
IDAHO FALLS RGNL (IDA)

**⚠** When local altimeter setting not received, use Rexburg-Madison County altimeter setting and increase all MDA 80 feet; increase S-20 Cat B/C/D and Circling Cat B/D visibility ¼ mile, increase Circling Cat C visibility ½ mile. VDP NA when using Rexburg-Madison County altimeter setting.

MALSR 

MISSED APPROACH: Climb to 7000 then right turn direct IDA VOR/DME and hold.

ATIS <b>135.325</b>	SALT LAKE CENTER <b>128.35 239.25</b>	IDAHO FALLS TOWER* <b>118.5 (CTAF) 0 257.8</b>	GND CON <b>121.7</b>	CLNC DEL <b>121.7</b>	GCO <b>121.725</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
S-20	5400/24	665 (700-½)	5400-1½	656 (700-1½)
CIRCLING	5400-1	656 (700-1)	5400-1⅞ 656 (700-1⅞)	5400-2 656 (700-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

IDAHO FALLS RGNL (IDA)  
IDAHO FALLS, IDAHO

AL-590 (FAA)

ATIS  
135.325  
IDAHO FALLS TOWER ★  
118.5 257.8  
GND CON  
121.7  
CLNC DEL  
121.7  
128.35 239.25 (When Tower Closed)

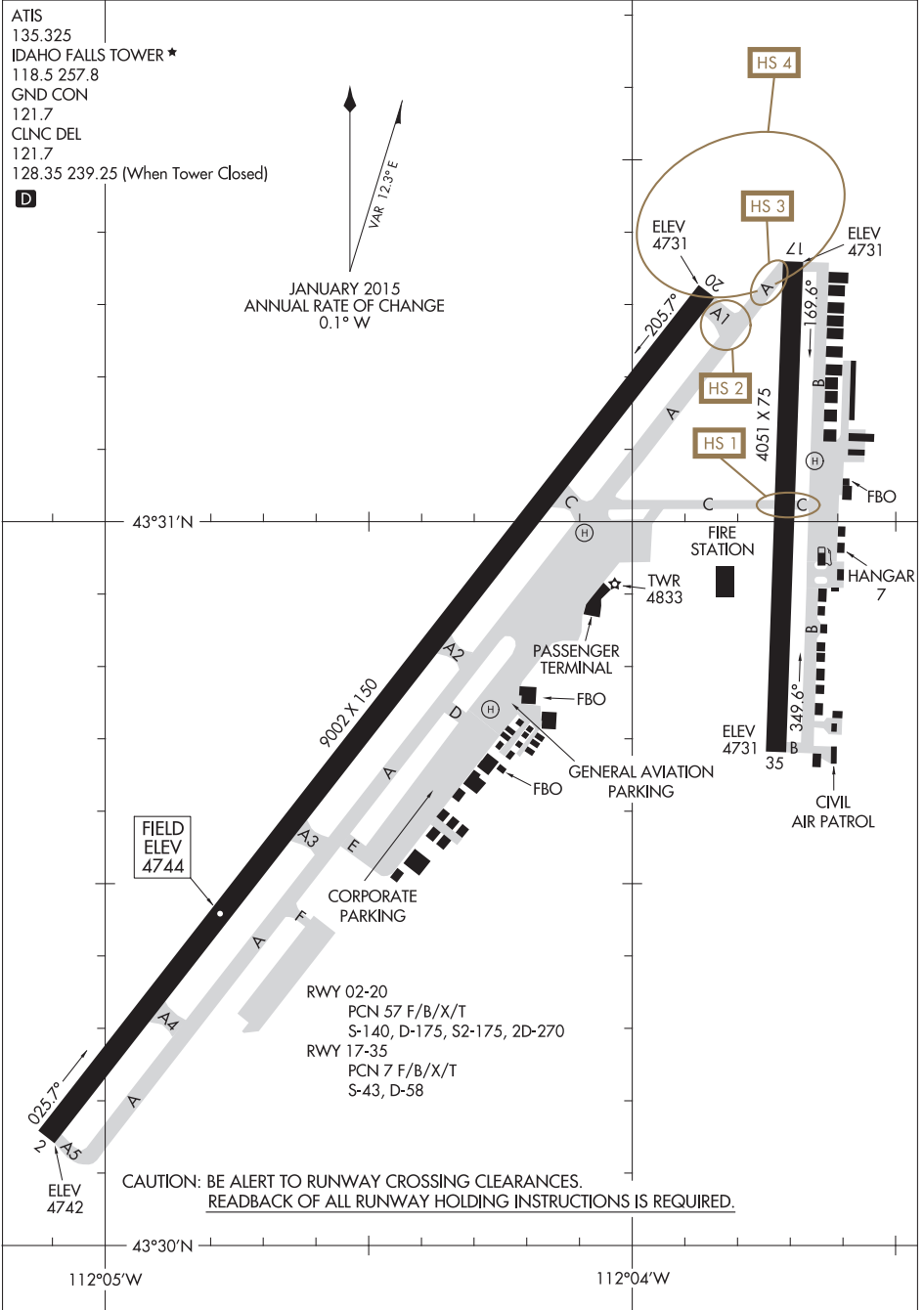
D



JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

# AIRPORT DIAGRAM

16203

IDAHO FALLS, IDAHO  
IDAHO FALLS RGNL (IDA)



JACKSON, WYOMING

AL-504 (FAA)

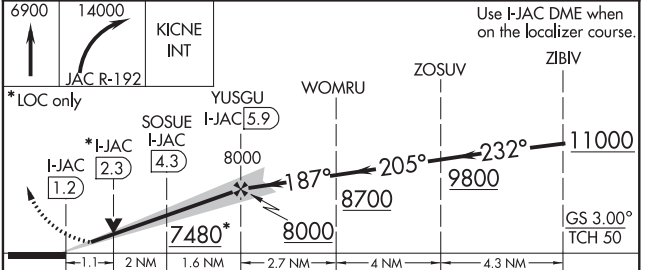
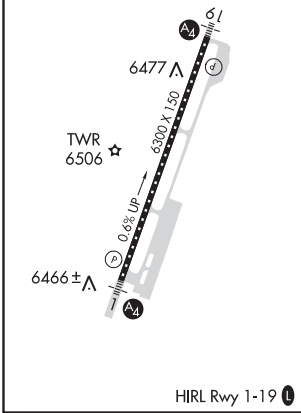
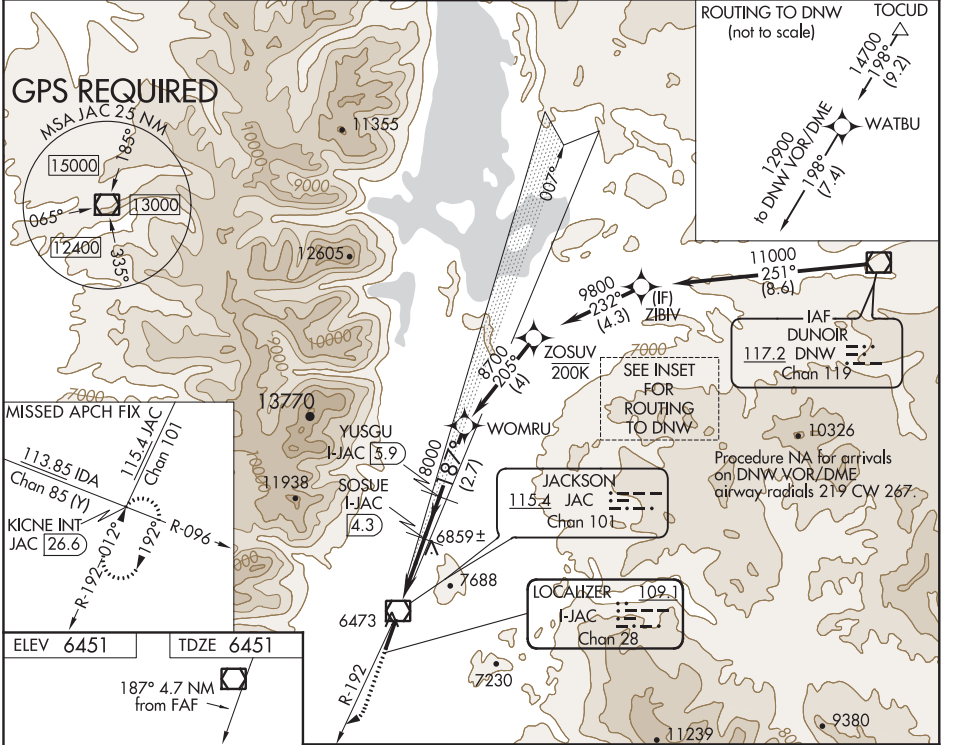
16147

LOC/DME I-JAC <b>109.1</b> Chan 28	APP CRS <b>187°</b>	Rwy Idg <b>6300</b>	TDZE <b>6451</b>	Apt Elev <b>6451</b>
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# ILS Z or LOC/DME RWY 19

JACKSON HOLE (JAC)

<p><b>NA</b> For inop MALS, increase S-LOC 19 Cat D visibility to 1½ mile. Circling NA east of Rwy 1-19.</p> <p><b>-26°C/-15°F</b> # Missed approach requires a minimum climb of 235 feet per NM to 10600. If unable to comply use ILS Y or LOC Rwy 19.</p>		<p><b>MALS</b></p> <p><b>AV</b></p>	<p><b>MISSED APPROACH:</b> Climb to 6900 then climbing right turn to 14000 on JAC VOR/DME R-192 to KICNE INT/JAC 26.6 DME and hold, continue climb-in-hold to 14000.</p>	
<p><b>ATIS*</b> <b>120.625</b></p>	<p><b>SALT LAKE CENTER</b> <b>133.25 285.6</b></p>	<p><b>JACKSON TOWER*</b> <b>118.075 (CTAF) 0</b></p>	<p><b>GND CON</b> <b>124.55</b></p>	<p><b>UNICOM</b> <b>122.95</b></p>



CATEGORY	A	B	C	D
#S-ILS 19	6651-¾ 200 (200-¾)			
#S-LOC 19	6840-¾ 389 (400-¾)	6840-7/8 389 (400-7/8)		
CIRCLING	6840-1 389 (400-1)	6920-1 469 (500-1)	6920-1½ 469 (500-1½)	7080-2 629 (700-2)

JACKSON, WYOMING  
Orig-A 31MAR16

43°36'N-110°44'W

JACKSON HOLE (JAC)

# ILS Z or LOC/DME RWY 19

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>6300</b>
<b>006°</b>	TDZE	<b>6431</b>
	Apt Elev	<b>6451</b>

# RNAV (RNP) Y RWY 1

## JACKSON HOLE (JAC)

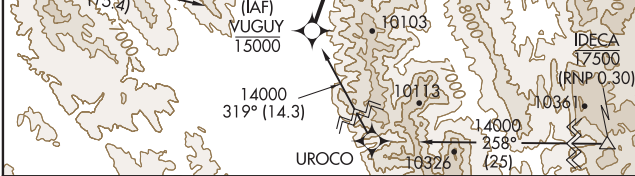
<p><b>T</b> GPS required. For uncompensated Baro-VNAV systems, procedure NA below -28°C (-18°F) or above 36°C (97°F).  <b>A</b> Inoperative table does not apply. Visibility reduction by helicopters NA. When VGSI inoperative, procedure NA at night.</p>	<p><b>MALS</b>  </p>	<p><b>MISSED APPROACH:</b> Climb to 14000 via track 007° to QUIRT and via track 088° to DNW VOR/DME and hold, continue climb-in-hold to 14000.</p>
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<p><b>ATIS*</b>  <b>120.625</b></p>	<p><b>SALT LAKE CENTER</b>  <b>133.25 285.6</b></p>	<p><b>JACKSON TOWER*</b>  <b>118.075 (CTAF)</b></p>	<p><b>GND CON</b>  <b>124.55</b></p>	<p><b>UNICOM</b>  <b>122.95</b></p>
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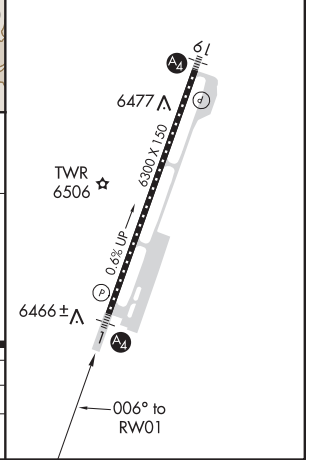


ELEV 6451	TDZE 6431
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HIRL Rwy 1-19 **T**



VUGUY	LIYET	NECPI	YONUL	JEVIM	WIDGA	RWY 1
14000	11600	11100	10500	9900	8600	
Procedure Turn NA						
GP 3.00°						
TCH 50						
CATEGORY	A	B	C	D		
RNP 0.30 DA	7364-4	933 (1000-4)				NA



### AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>6300</b>
<b>187°</b>	TDZE	<b>6451</b>
	Apt Elev	<b>6451</b>

# RNAV (RNP) Y RWY 19

JACKSON HOLE (JAC)

**⚠** For uncompensated Baro-VNAV systems, procedure NA below -27°C (-16°F) or above 54°C (130°F). GPS required. For inop MALS, increase \*RNP 0.3 visibility all Cats to 1¼.  
 \*Missed approach requires a minimum climb of 205 feet per NM to 11000.

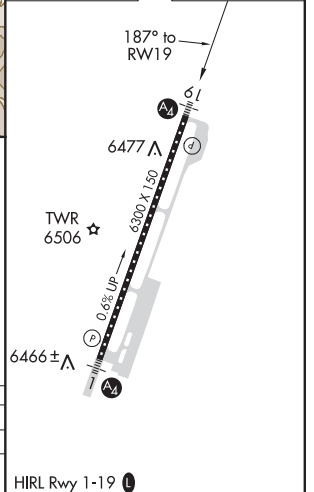
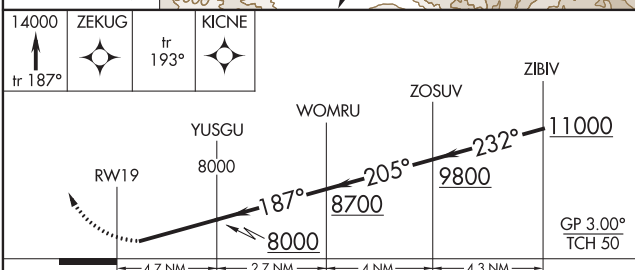
**MALS**  
**A<sub>2</sub>**

**MISSED APPROACH:** Climb to 14000 on track 187° to ZEKUG and on track 193° to KICNE and hold, continue climb-in-hold to 14000.

<b>ATIS*</b> <b>120.625</b>	<b>SALT LAKE CENTER</b> <b>133.25 285.6</b>	<b>JACKSON TOWER*</b> <b>118.075 (CTAF)</b>	<b>GND CON</b> <b>124.55</b>	<b>UNICOM</b> <b>122.95</b>
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<b>ELEV 6451</b>	<b>TDZE 6451</b>
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14000	ZEKUG	KICNE		
↑		tr 193°		
tr 187°				
	YUSGU	WOMRU	ZOSUV	ZIBIV
	8000	8700	9800	11000
	187°	205°	232°	
	8000			GP 3.00°
				TCH 50
	4.7 NM	2.7 NM	4 NM	4.3 NM
CATEGORY	A	B	C	D
*RNP 0.30 DA	6966-1½	515 (600-1½)		NA

**AUTHORIZATION REQUIRED**

HIRL Rwy 1-19

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017




APP CRS	Rwy Idg	<b>6300</b>
<b>006°</b>	TDZE	<b>6431</b>
	Apt Elev	<b>6451</b>

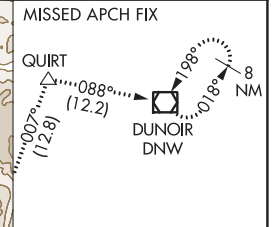
# RNAV (RNP) Z RWY 1

## JACKSON HOLE (JAC)

**GPS required.** For uncompensated Baro-VNAV systems, procedure NA below -28°C (-18°F) or above 36°C (97°F). For inoperative MALS, increase RNP 0.30 all Cats visibility to 1½. Visibility reduction by helicopters NA. When VGSI inoperative, procedure NA at night. Missed approach requires RNP less than 1.0 and minimum climb of 280 feet per NM to 8100; if unable, see RNAV (RNP) Y RWY 1.

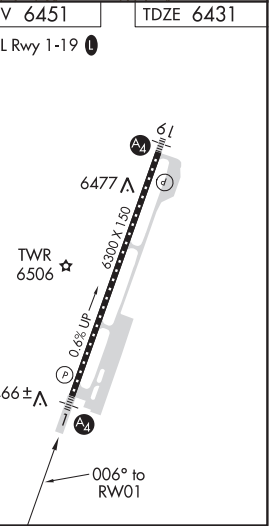
**MALS**  
  
**MISSED APPROACH:** Climb to 14000 via track 007° to UBEVE and via track 007° to QUIRT and via track 088° to DNW VOR/DME and hold, continue climb-in-hold to 14000.

ATIS* <b>120.625</b>	SALT LAKE CENTER <b>133.25 285.6</b>	JACKSON TOWER* <b>118.075 (CTAF) 0</b>	GND CON <b>124.55</b>	UNICOM <b>122.95</b>
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ELEV 6451	TDZE 6431
HIRL Rwy 1-19	

VUGUY	LYET	NECPI	YONUL	JEVIM	WIDGA	RW01
14000	11600	11100	10500	9900	8600	
GP 3.00° TCH 50	Procedure Turn NA					
12 NM		2 NM		2.4 NM		8 NM
CATEGORY A		CATEGORY B		CATEGORY C		CATEGORY D
RNP 0.30 DA		6811-1		380 (400-1)		NA




NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>58299</b> <b>W01A</b>	APP CRS <b>006°</b>	Rwy Idg <b>6300</b> TDZE <b>6431</b> Apt Elev <b>6451</b>
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# RNAV (GPS) X RWY 1

## JACKSON HOLE (JAC)

<p><b>⚠</b> Circling NA east of Rwy 1-19. Inoperative table does not apply. If local altimeter setting not received, procedure NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-16°F) or above 46°C (114°F). DME/DME RNP-0.3 NA.</p>	<p><b>MALS</b>  </p>	<p><b>MISSED APPROACH:</b> Climb to 14000 direct QURT and via 088° track to DNW VOR/DME and hold, continue climb-in-hold to 14000.</p>
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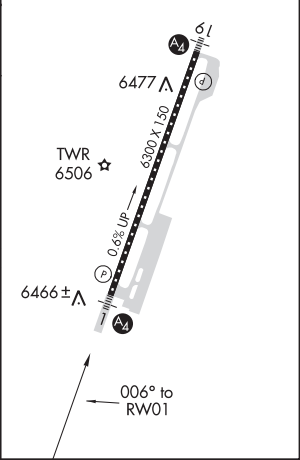
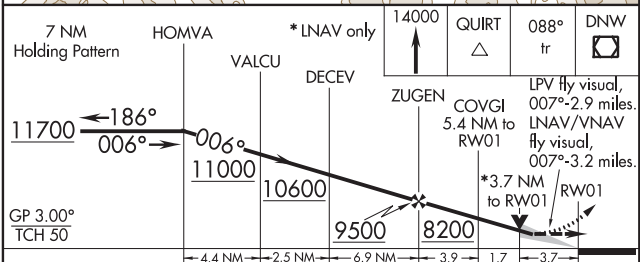
<p><b>ATIS*</b> <b>120.625</b></p>	<p><b>SALT LAKE CENTER</b> <b>133.25 285.6</b></p>	<p><b>JACKSON TOWER*</b> <b>118.075 (CTAF)</b> </p>	<p><b>GND CON</b> <b>124.55</b></p>	<p><b>UNICOM</b> <b>122.95</b></p>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 6451	TDZE 6431
HIRL Rwy 1-19 	



CATEGORY	A	B	C	D
LPV DA	7393-2 962 (1000-2)			
LNAV/VNAV DA	7470-2	1039 (1100-2)	7470-3	1039 (1100-3)
LNAV MDA	7640-1½ 1209 (1200-1½)	7640-1½ 1209 (1200-1½)	7640-3	1209 (1200-3)
CIRCLING	7640-1½ 1189 (1200-1½)	7640-1½ 1189 (1200-1½)	7640-3	1189 (1200-3)

WAAS CH <b>90232</b> <b>W19A</b>	APP CRS <b>187°</b>	Rwy Idg TDZE Apt Elev	<b>6300</b> <b>6451</b> <b>6451</b>
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# RNAV (GPS) Z RWY 19

JACKSON HOLE (JAC)

Inop table does not apply to LNAV Cats C and D. When local altimeter setting not received, procedure NA. For inop MALS, increase LPV all Cats visibility to 1½ mile. Circling NA east of Rwy 1-19. DME/DME RNP-0.3 NA.  
# Missed approach requires a minimum climb of 235 feet per NM to 9200.

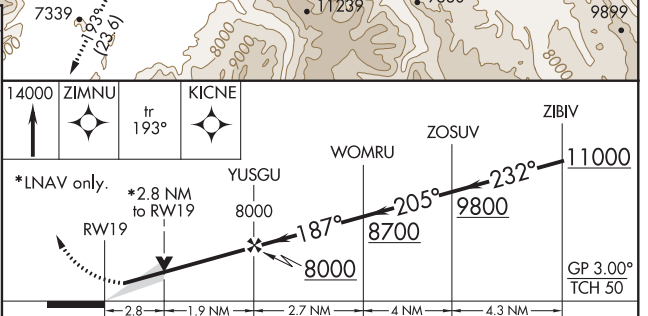
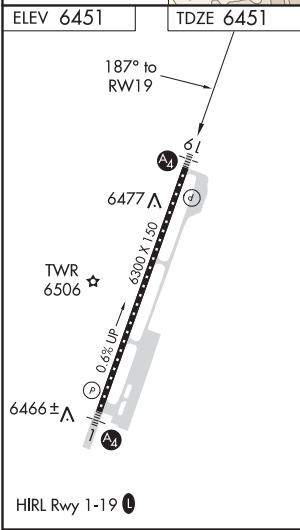
MALS  
14000 direct ZIMNU and on track 193° to KICNE and hold, continue climb-in-hold to 14000.

ATIS★ <b>120.625</b>	SALT LAKE CENTER <b>133.25 285.6</b>	JACKSON TOWER★ <b>118.075 (CTAF)</b>	GND CON <b>124.55</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
# LPV DA		6651-¾	200 (200-¾)	
LPV DA		6908-1¼	457 (500-1¼)	
LNAV MDA	7380-1	929 (1000-1)	7380-2½	929 (1000-2½)
CIRCLING	7380-1¼	929 (1000-1¼)	7380-2¾ 929 (1000-2¾)	7380-3 929 (1000-3)

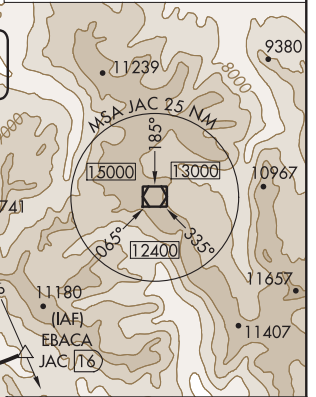
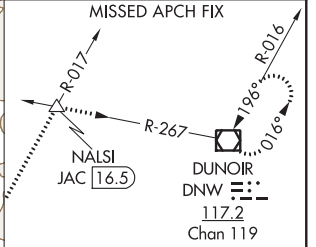
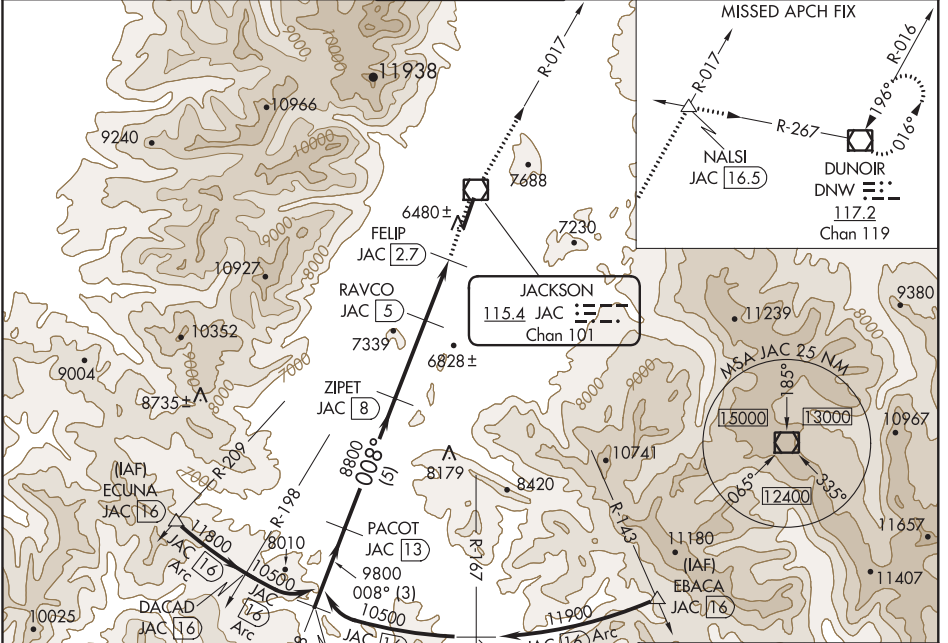
VOR/DME JAC <b>115.4</b> Chan <b>101</b>	APP CRS <b>008°</b>	Rwy Idg TDZE Apt Elev	<b>6300</b> <b>6431</b> <b>6451</b>
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# VOR/DME RWY 1

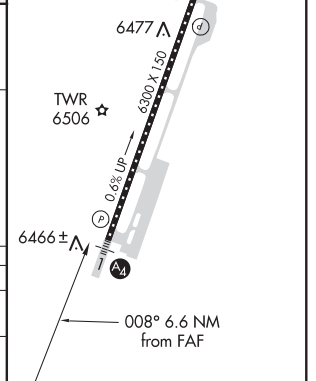
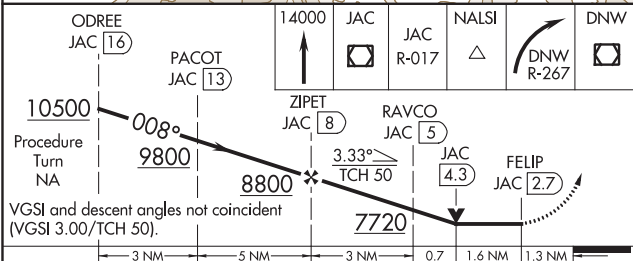
## JACKSON HOLE (JAC)

<b>⚠</b> Circling NA east of Rwy 1-19. Inoperative table does not apply. If local altimeter <b>⚠</b> -26°C/-15°F setting not received, procedure NA.	<b>MALS</b> <b>⚠</b>	<b>MISSED APPROACH:</b> Climb to 14000 direct JAC VOR/DME, and via JAC R-017 to NALSI Int/JAC 16.5 DME, and right turn via DNW R-267 to DNW VOR/DME and hold.
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ATIS* <b>120.625</b>	SALT LAKE CENTER <b>133.25 285.6</b>	JACKSON TOWER* <b>118.075 (CTAF)</b> <b>Ⓛ</b>	GND CON <b>124.55</b>	UNICOM <b>122.95</b>
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ELEV 6451	TDZE 6431
HIRL Rwy 1-19 <b>Ⓛ</b>	<b>Ⓛ</b>



CATEGORY	A	B	C	D
S-1	7380-1½ 949 (1000-1½)		7380-2¾ 949 (1000-2¾)	7380-3 949 (1000-3)
CIRCLING	7380-1½ 929 (1000-1½)		7380-2¾ 929 (1000-2¾)	7380-3 929 (1000-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

JACKSON HOLE (JAC)  
JACKSON, WYOMING

AL-504 (FAA)

ATIS ★  
120.625  
JACKSON TOWER ★  
118.075  
GND CON  
124.55



JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

43°37.0'N

FIELD  
ELEV  
6451

BLAST PAD  
300 X 150

HS 1

6473

RWY 01-19  
PCN 57 F/A/X/U  
S-75, D-200, 2S-175, 2D-380

DE-ICING PAD

43°36.5'N

TWR ★  
6506

6300 X 150

RUNWAY EXCURSION RISK DUE TO  
DENSITY ALTITUDE AND RUNWAY LENGTH.

TERMINAL

HANGARS

43°36.0'N

ELEV  
6413

BLAST PAD  
950 X 200

HS 2

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS  
IS REQUIRED.

110°44.5'W

110°44.0'W

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

JACKSON, WYOMING  
JACKSON HOLE (JAC)

(GEYSR5.NALSI) 16203

# GEYSER FIVE DEPARTURE (OBSTACLE)

SL-504 (FAA)

JACKSON HOLE (JAC)  
JACKSON, WYOMING

SALT LAKE CENTER  
133.25 285.6  
CASPER RADIO  
122.05  
CTAF  
118.075  
UNICOM  
122.95

NALSI  
N43°51.52'  
W110°32.56'

R-267

DUNOIR  
117.2 DNW  
Chan 119

017°  
(1)2

037°  
(2)

(CFCFD)  
N43°41.25'  
W110°40.74'

GIYER  
N43°40.23'  
W110°42.42'

R-017

007°  
(3)

JACKSON  
115.4 JAC  
Chan 101  
N43° 37.26'-W110° 43.90'

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

### TAKEOFF MINIMUMS

Rwy 1: Standard with minimum climb of 450' per NM to 14000, or 4500-3 for climb in visual conditions.

Rwy 19: NA - ATC.

NOTE: DME required

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 1:** Climb to 14000 on JAC R-007 to GIYER/JAC 3 DME, and right turn heading 037° to intercept JAC R-017 to NALSI INT/JAC 16 DME; or for climb in visual conditions obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross JAC VOR/DME northbound at or above 10800, then climb to 14000 on JAC R-017 to NALSI INT/JAC 16 DME.

# GEYSER FIVE DEPARTURE (OBSTACLE)

(GEYSR5.NALSI) 21JUL16

JACKSON, WYOMING  
JACKSON HOLE (JAC)

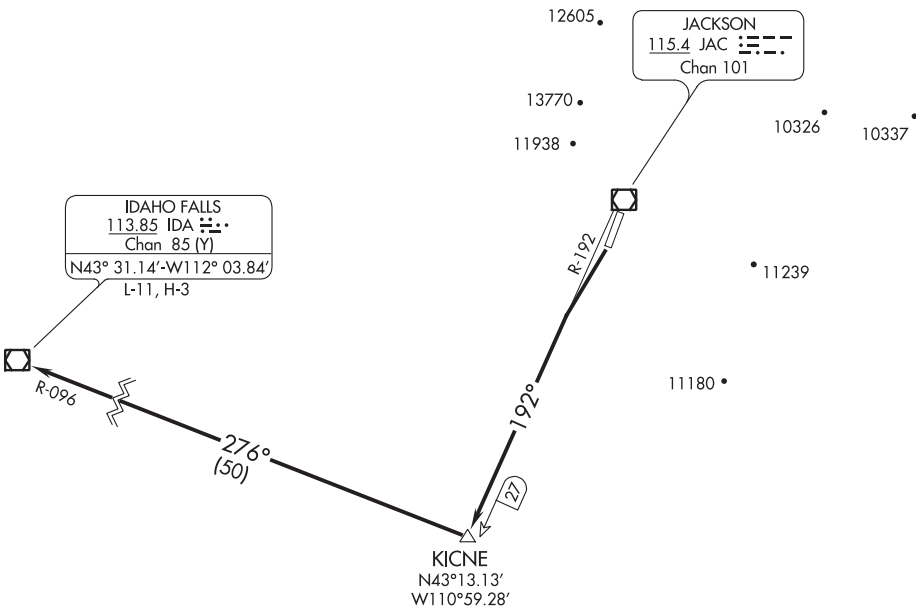
(TETON3.KICNE) 16147

TETON THREE DEPARTURE (OBSTACLE)

SL-504 (FAA)

JACKSON HOLE (JAC)  
JACKSON, WYOMING

SALT LAKE CENTER  
133.25 285.6  
CASPER RADIO  
122.05  
CTAF  
118.075  
UNICOM  
122.95



TAKEOFF MINIMUMS

Rwy 19: Standard with a minimum climb of 335' per NM to 14000 or 4400-3 for climb in visual conditions.

Rwy 1: Not authorized - ATC.

TAKEOFF OBSTACLE NOTES

Rwy 19: Bush 485' from DER, 513' right of centerline, 6428' MSL.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 19: Climb to 14000 via JAC R-192 to KICNE INT/JAC 27 DME, then right turn via IDA R-096 to IDA VOR/DME; or for climb in visual conditions: cross JAC VOR/DME southbound at or above 10800, then climb to 14000 via JAC R-192 to KICNE INT/JAC 27 DME, then right turn via IDA R-096 to IDA VOR/DME.

TETON THREE DEPARTURE (OBSTACLE)

(TETON3.KICNE) 05JUN08

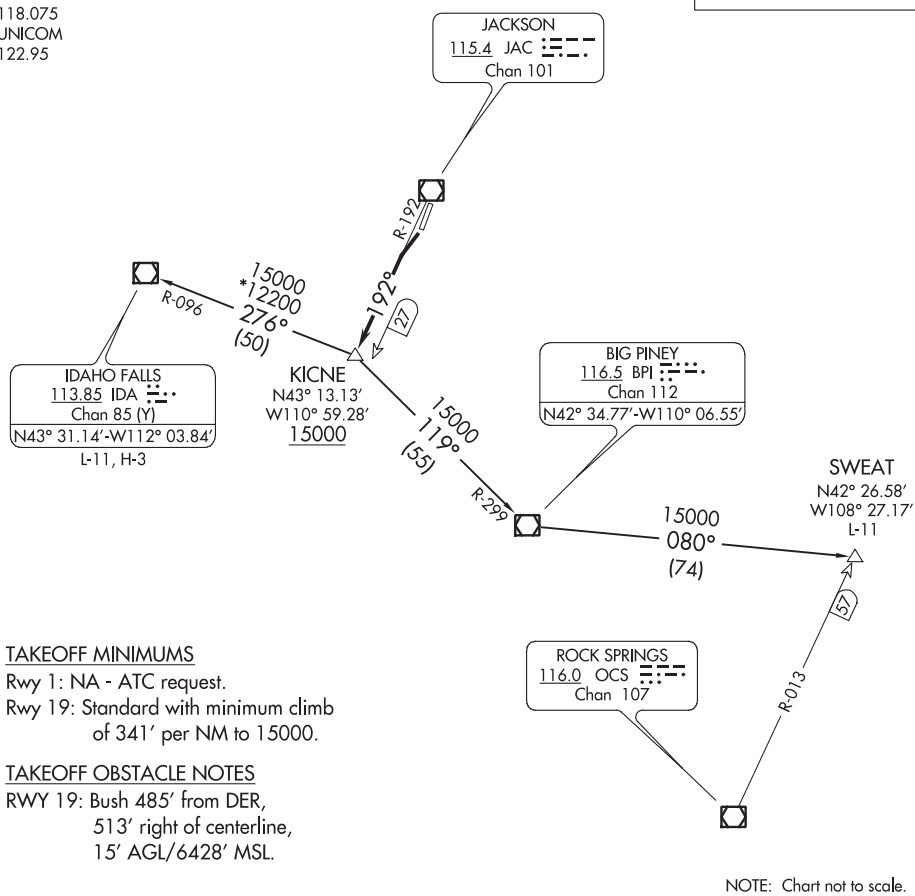
JACKSON, WYOMING  
JACKSON HOLE (JAC)



# ALPIN TWO DEPARTURE

SALT LAKE CENTER  
133.25 285.6  
CTAF  
118.075  
UNICOM  
122.95

**TOP ALTITUDE:  
ASSIGNED BY ATC**



### TAKEOFF MINIMUMS

Rwy 1: NA - ATC request.  
Rwy 19: Standard with minimum climb of 341' per NM to 15000.

### TAKEOFF OBSTACLE NOTES

RWY 19: Bush 485' from DER, 513' right of centerline, 15' AGL/6428' MSL.

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 19:** Climb via JAC R-192 to cross KICNE INT/JAC 27 DME at or above 15000. Thence . . . .

. . . . via (transition) or (assigned route). Expect further clearance to filed altitude 10 minutes after departure.

**IDAHO FALLS TRANSITION (ALPIN2.IDA):** From over KICNE INT via IDA R-096 to IDA VOR/DME.

**SWEAT TRANSITION (ALPIN2.SWEAT):** From over KICNE INT via BPI R-299 to BPI VOR/DME, then via BPI R-080 to SWEAT INT.

JEROME, IDAHO

AL-6812 (FAA)

15344

APP CRS <b>086°</b>	Rwy Idg TDZE Apt Elev	<b>5001</b> <b>4019</b> <b>4053</b>
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# RNAV (GPS) RWY 9

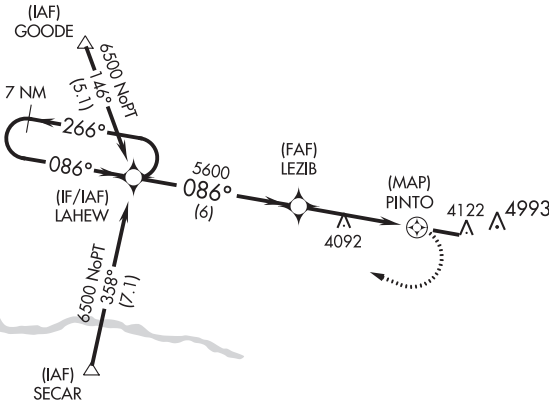
JEROME COUNTY (JER)

**⚠** Circling NA north of Rwy 9-27. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Twin Falls altimeter setting and increase all MDA 60 feet, and increase LNAV Cat D visibility 1/4 mile.

**⚠** MISSED APPROACH: Climbing right turn to 6500 direct LAHEW and hold.

ASOS <b>135.225</b>	TWIN FALLS APP CON * <b>126.7 353.75</b>	SALT LAKE CENTER <b>118.05 363.0</b>	UNICOM <b>122.8 (CTAF) 0</b>
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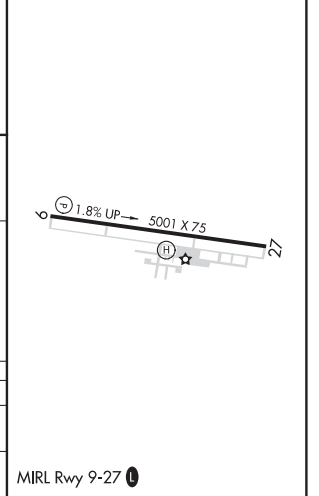
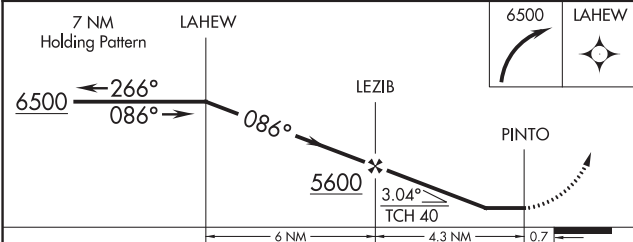
Procedure NA for arrivals at GOODE via V4 northwest bound and V293 northwest bound.



Procedure NA for arrivals at SECAR via V253 southeast bound.



ELEV 4053	TDZE 4019
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CATEGORY	A	B	C	D
LNAV MDA	4420-1	401 (400-1)	4420-1 1/4	401 (400-1 1/4)
CIRCLING	4480-1 427 (500-1)	4560-1 507 (600-1)	4560-1 1/2 507 (600-1 1/2)	4620-2 567 (600-2)

MIRL Rwy 9-27 0

JEROME, IDAHO  
Orig 22OCT09

42°44'N-114°27'W

# JEROME COUNTY (JER) RNAV (GPS) RWY 9

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>90514</b> <b>W27A</b>	APP CRS <b>266°</b>	Rwy Idg TDZE Apt Elev	<b>5001</b> <b>4053</b> <b>4053</b>
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# RNAV (GPS) RWY 27

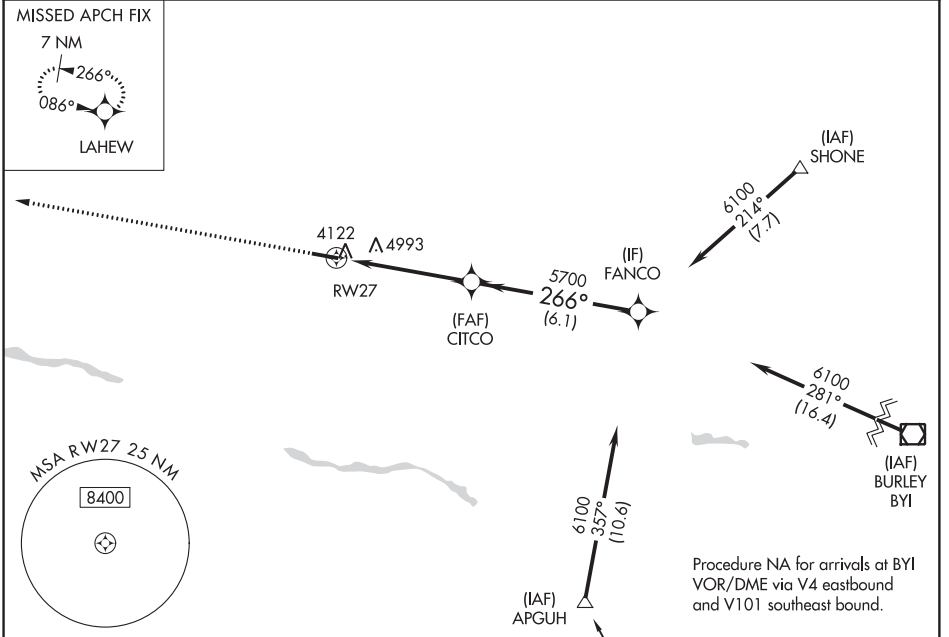
JEROME COUNTY (JER)

**⚠** Circling NA north of Rwy 9-27. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Twin Falls altimeter setting and increase all DA 49 feet, and all MDA 60 feet, and increase LPV all Cats visibility ¼ mile.

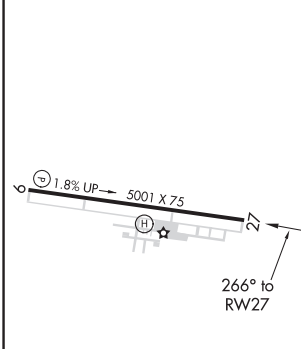
**⚠** -22°C/-8°F

**MISSED APPROACH:** Climb to 6500 direct LAHEW and hold.

ASOS <b>135.225</b>	TWIN FALLS APP CON * <b>126.7 353.75</b>	SALT LAKE CENTER <b>118.05 363.0</b>	UNICOM <b>122.8 (CTAF) 0</b>
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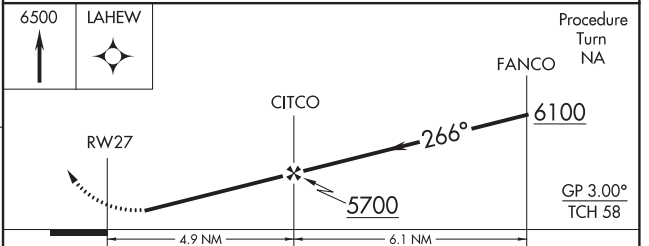


ELEV 4053	TDZE 4053
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Procedure NA for arrivals at DRYAD via V484 southeast bound.

5010 **▲**



CATEGORY	A	B	C	D
LPV DA	4434-1¼ 381 (400-1¼)			
LNAV MDA	5300-1¼ 1247 (1300-1¼)	5300-1½ 1247 (1300-1½)	5300-3	1247 (1300-3)
CIRCLING	5300-1¼ 1247 (1300-1¼)	5300-1½ 1247 (1300-1½)	5300-3	1247 (1300-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

JEROME, IDAHO

AL-6812 (FAA)

15344

VORTAC TWF <b>115.8</b> Chan <b>105</b>	APP CRS <b>346°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>4053</b>
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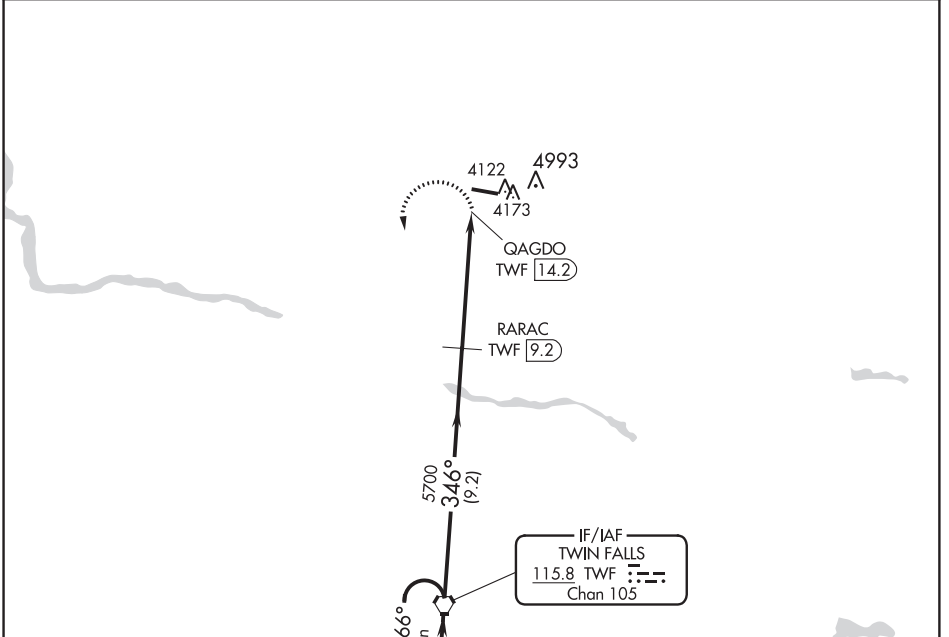
**VOR/DME-A**  
JEROME COUNTY (JER)

**⚠** Circling NA north of Rwy 9-27. When local altimeter setting not received, use Twin Falls altimeter setting and increase all MDA 60 feet.

**⚠** -22°C/-8°F

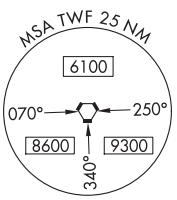
MISSED APPROACH: Climbing left turn to 8000 direct TWF VORTAC and hold, continue climb-in-hold to 8000.

ASOS <b>135.225</b>	TWIN FALLS APP CON * <b>126.7 353.75</b>	SALT LAKE CENTER <b>118.05 363.0</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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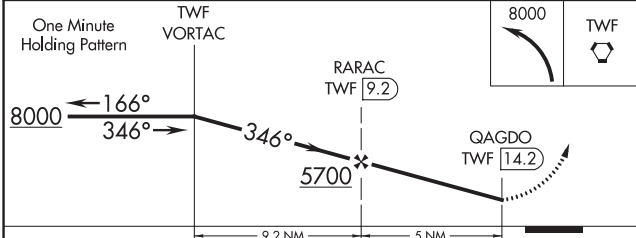
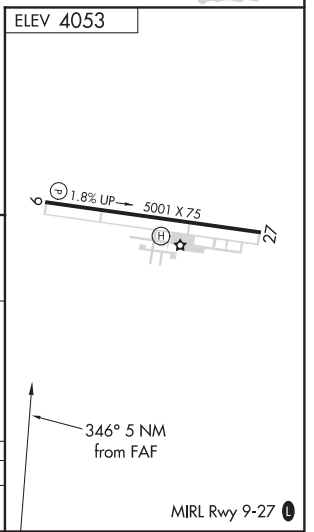


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



NoPT for arrival on TWF VORTAC via V142 westbound and V269 southwest bound and V293 northbound.



CATEGORY	A	B	C	D
CIRCLING	4580-1	527 (600-1)	4580-1½ 527 (600-1½)	4620-2 567 (600-2)

JEROME, IDAHO  
Amdt 2A 01MAY14

42°44'N-114°27'W

JEROME COUNTY (JER)  
**VOR/DME-A**

MIRL Rwy 9-27 0

# RNAV (GPS) Y RWY 9

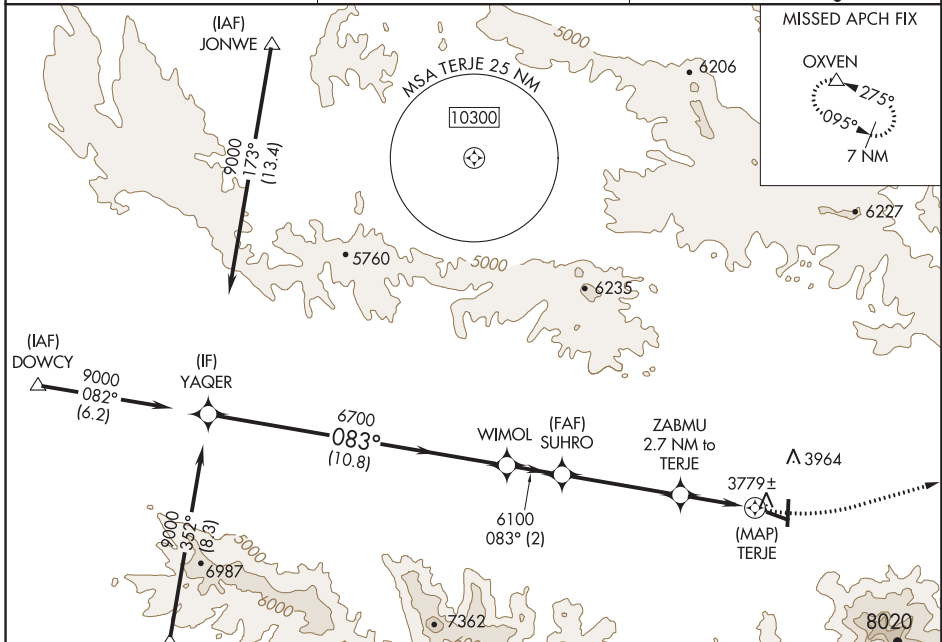
GRANT COUNTY RGNL/OGILVIE FIELD (GCD)

APP CRS <b>083°</b>	Rwy Idg <b>4471</b>
	TDZE <b>3669</b>
	Apt Elev <b>3703</b>

When local altimeter setting not received, procedure NA. Circling NA south of Rwy 9-27. DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM not authorized.

MISSED APPROACH: Climbing left turn to 12000 direct OXVEN and hold, continue climb-in-hold to 12000.

AWOS-3 <b>118.375</b>	SEATTLE CENTER <b>128.15 257.75</b>	UNICOM <b>122.8 (CTAF) 0</b>
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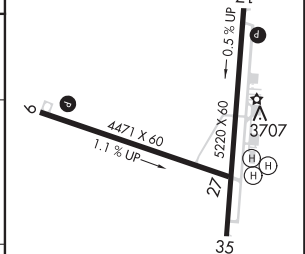
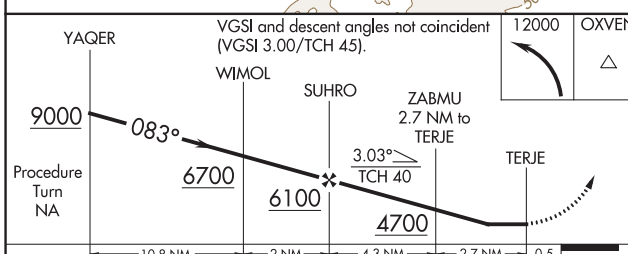
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3703	TDZE 3669
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ELEV 3703	TDZE 3669
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CATEGORY	A	B	C	D
LNAV MDA	4280-1 611 (600-1)	611 (600-1)	4280-1¾ 611 (600-1¾)	NA
CIRCLING	4280-1 577 (600-1)	4520-1¼ 817 (900-1¼)	4520-2½ 817 (900-2½)	NA

REIL Rwy 17 and 9  
MIRL Rwy 9-27 and 17-35

JOHN DAY, OREGON

AL-9264 (FAA)

16315

WAAS CH <b>73010</b> <b>W09A</b>	APP CRS <b>091°</b>	Rwy Idg TDZE Apt Elev	<b>4471</b> <b>3669</b> <b>3703</b>
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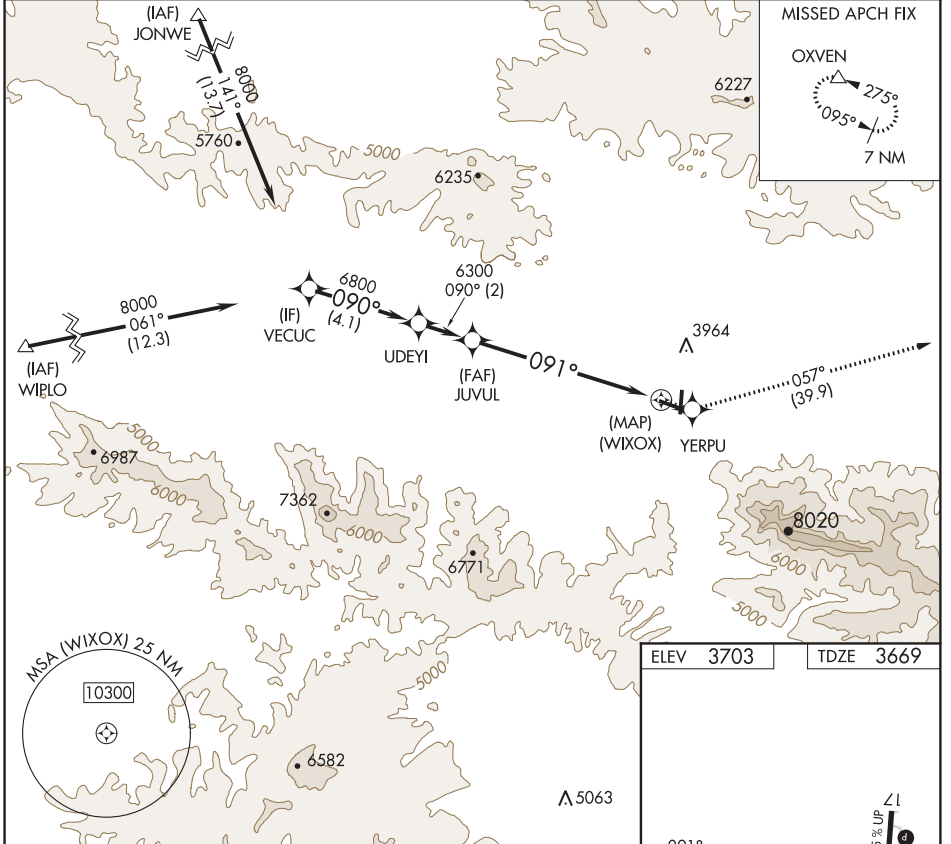
# RNAV (GPS) Z RWY 9

GRANT COUNTY RGNL/OGILVIE FIELD (GCD)

**▼** When local altimeter setting not received, procedure NA.  
DME/DME RNP-0.3 NA. Helicopter visibility reduction below  $\frac{3}{4}$   
**❄** -19°C SM not authorized.

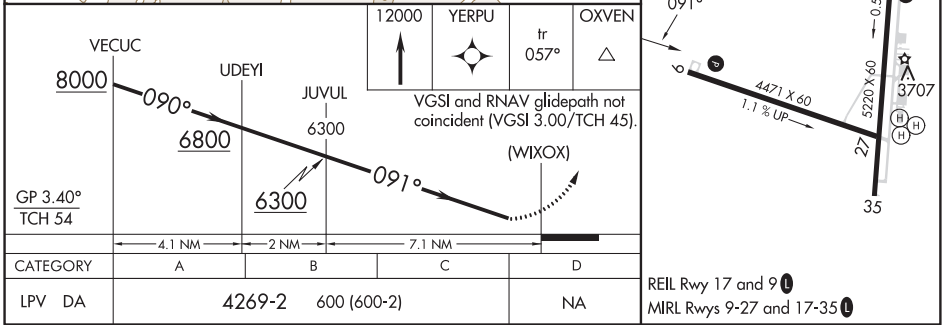
**MISSED APPROACH:** Climb to 12000 direct YERPU and on track 057° to OXVEN and hold, continue climb-in-hold to 12000.

AWOS-3 <b>118.375</b>	SEATTLE CENTER <b>128.15 257.75</b>	UNICOM <b>122.8 (CTAF) ①</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



JOHN DAY, OREGON  
Orig-D 01MAY14

44°24'N-118°58'W

# RNAV (GPS) Z RWY 9

GRANT COUNTY RGNL/OGILVIE FIELD (GCD)

LOC I-GPI <b>111.5</b>	APP CRS <b>020°</b>	Rwy Idg TDZE Apt Elev <b>9007</b> <b>2966</b> <b>2977</b>
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# ILS or LOC RWY 2

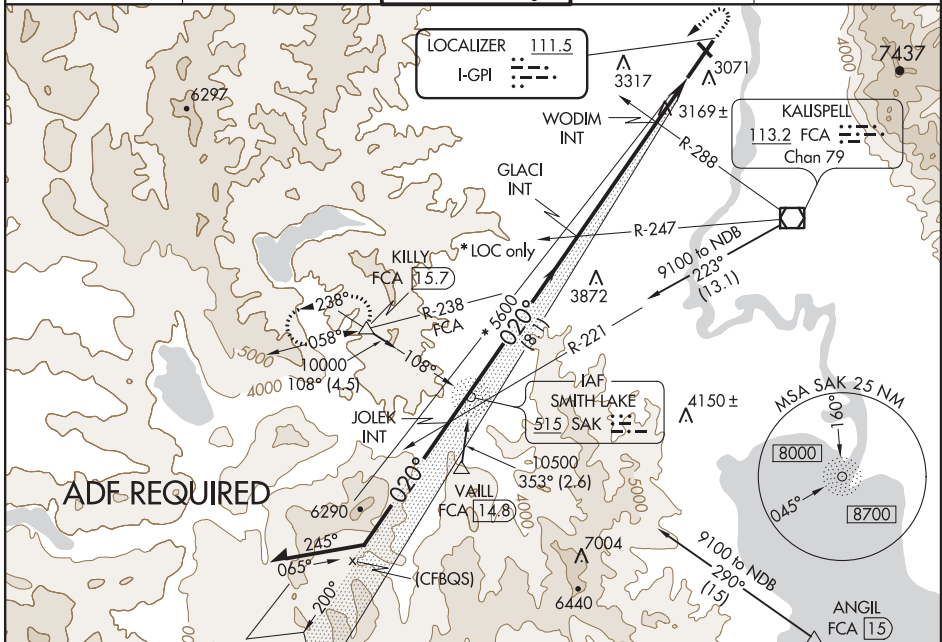
GLACIER PARK INTL (GPI)

**ADF required. Night Landing: Rwy 12, 30 NA.**  
 For inop MALSR, increase S-LOC 2 Cat C/D visibility to 1½ mile; increase WODIM fix minimums: S-LOC 2 Cat C and D visibility to 1½ mile.

**MALSR**

**MISSED APPROACH:** Climb to 4100 then climbing left turn to 2000 on heading 190° and FCA VOR/DME R-238 to KILLY INT/15.7 DME and hold, continue climb-in-hold to 2000.

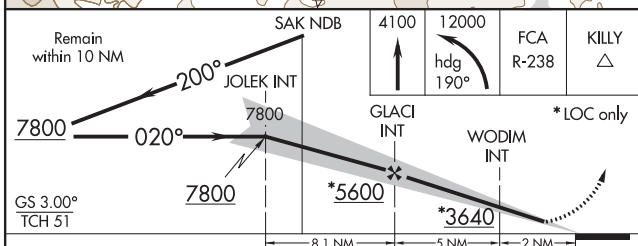
ATIS <b>132.625</b>	SALT LAKE CENTER <b>133.4 285.4</b>	GLACIER TOWER* <b>124.55 (CTAF) 0</b>	GND CON <b>121.6</b>	UNICOM <b>122.95</b>
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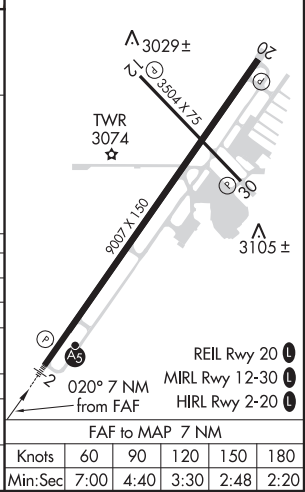
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2977	<b>D</b> TDZE 2966
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CATEGORY	A	B	C	D
S-ILS 2	3166-½ 200 (200-½)			
S-LOC 2	3640-½	674 (700-½)	3640-1½	674 (700-½)
<b>C</b> CIRCLING	3640-1	663 (700-1)	3640-1⅞ 663 (700-1⅞)	3760-2½ 783 (800-2½)
WODIM INT MINIMUMS (DUAL VOR RECEIVERS REQUIRED)				
S-LOC 2	3540-½	574 (600-½)	3540-1¼	574 (600-1¼)
<b>C</b> CIRCLING	3540-1 563 (600-1)	3580-1 603 (700-1)	3640-1¾ 663 (700-1¾)	3760-2½ 783 (800-2½)



Knots	60	90	120	150	180
Min:Sec	7:00	4:40	3:30	2:48	2:20

APP CRS	Rwy Idg	<b>9007</b>
<b>200°</b>	TDZE	<b>2977</b>
	Apt Elev	<b>2977</b>

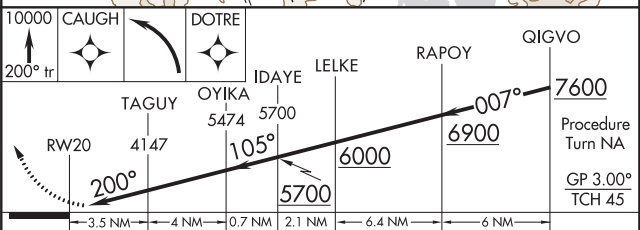
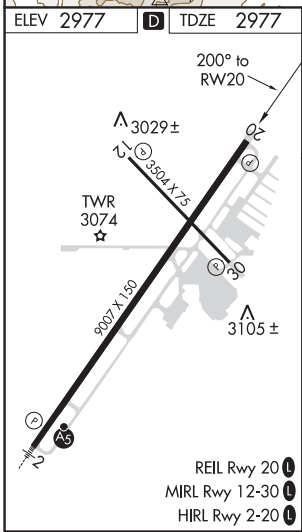
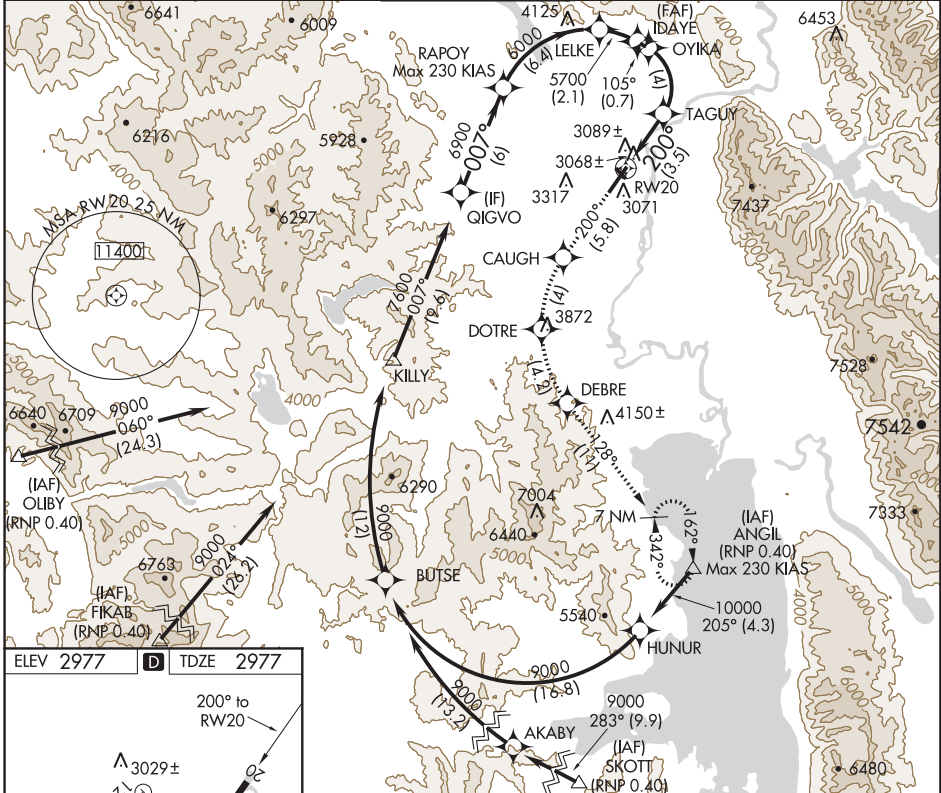
# RNAV (RNP) RWY 20

GLACIER PARK INTL (GPI)

**RF and GPS required.** For uncompensated Baro-VNAV systems, procedure NA below -21°C (-5°F) or above 43°C (109°F).  
**Visibility reduction by helicopters NA.** \*Missed approach requires minimum climb of 235 feet per NM to 6900.

**MISSED APPROACH:** Climb to 10000 via 200° track to CAUGH and via left turn to DOTRE, and via left turn to DEBRE, and via 128° track to ANGIL and hold, continue climb-in-hold to 10000.

ATIS <b>132.625</b>	SALT LAKE CENTER <b>133.4 285.4</b>	GLACIER TOWER* <b>124.55 (CTAF)</b>	GND CON <b>121.6</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
RNP 0.10 DA*		3344-1¼	367 (400-1¼)	
RNP 0.30 DA*		3446-1¾	469 (500-1¾)	
RNP 0.30 DA		3662-2½	685 (700-2½)	

## AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017





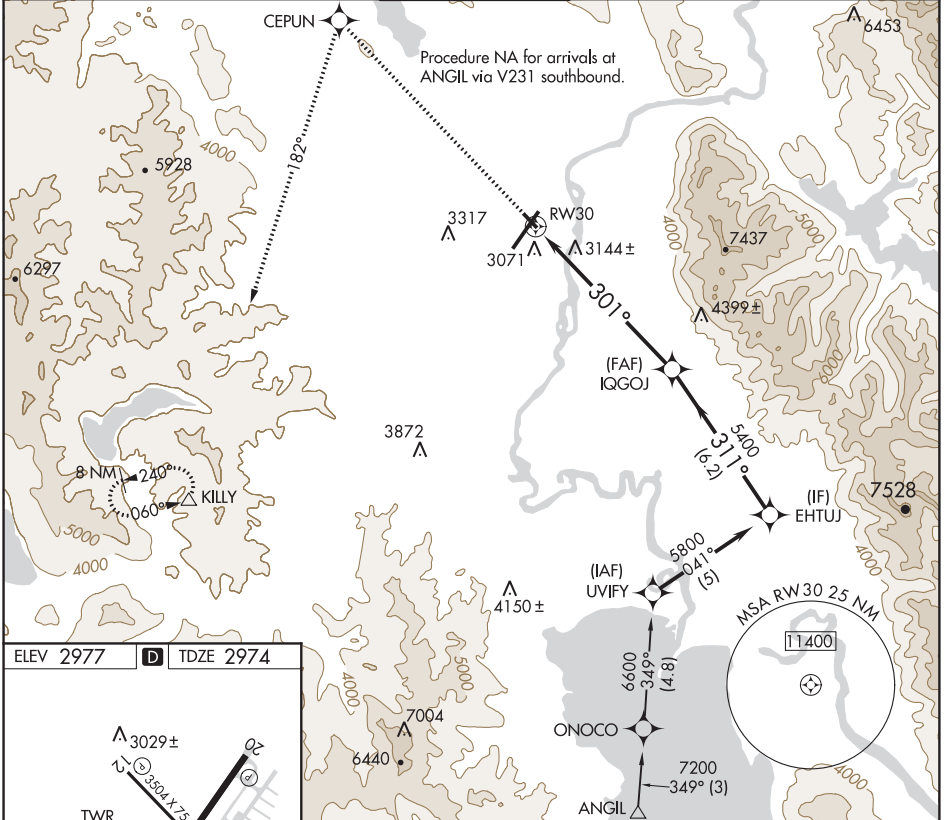
APP CRS <b>301°</b>	Rwy Idg TDZE Apt Elev	<b>3504</b> <b>2974</b> <b>2977</b>
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# RNAV (GPS) RWY 30

GLACIER PARK INTL (GPI)

-12°C/10°F	Straight-in minimums NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.	MISSED APPROACH: Climb to 12000 direct CEPUN and left turn via track 182° to KILLY and hold, continue climb-in-hold to 12000.
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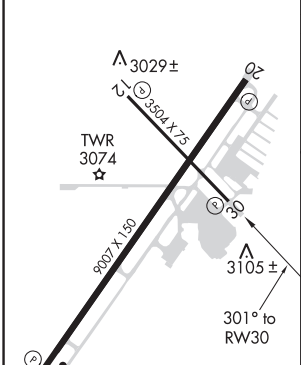
ATIS <b>132.625</b>	SALT LAKE CENTER <b>133.4 285.4</b>	GLACIER TOWER★ <b>124.55 (CTAF)</b>	GND CON <b>121.6</b>	UNICOM <b>122.95</b>
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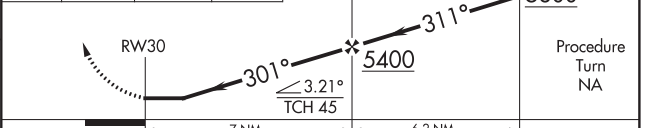
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2977		TDZE 2974
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12000	CEPUN	KILLY	VGSI and descent angles not coincident (VGSI Angle 3.50/TCH 26). EHTUJ
			IQGOJ



CATEGORY	A	B	C	D
LNNAV MDA	3460-1 486 (500-1)		3460-1¼ 486 (500-1¼)	3460-1½ 486 (500-1½)
CIRCLING	3520-1 543 (600-1)		3640-1¾ 663 (700-1¾)	3640-2 663 (700-2)

WAAS CH <b>70799</b> W02A	APP CRS <b>020°</b>	Rwy Idg TDZE Apr Elev	<b>9007</b> <b>2966</b> <b>2977</b>
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# RNAV (GPS) Z RWY 2

GLACIER PARK INTL (GPI)

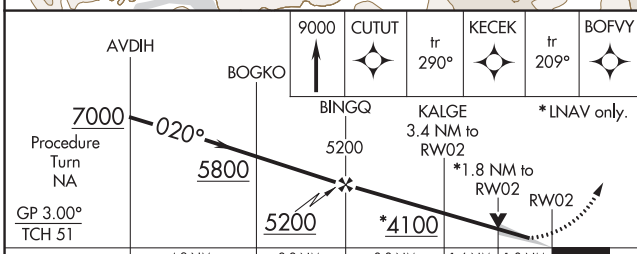
**⚠** For inoperative MALSR, increase LPV visibility to 1/4 mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 43°C (109°F). DME/DME RNP-0.3 NA.

**MALSR** MISSED APPROACH: Climb to 9000 direct CUTUT and via track 290° to KECEK and via track 209° to BOFVY and hold.

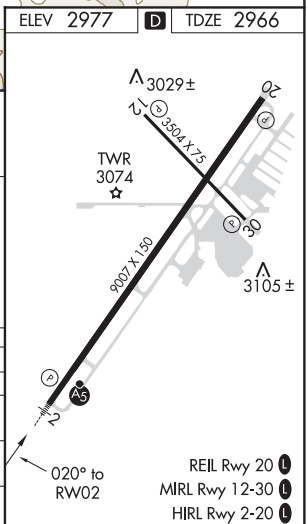
ATIS <b>132.625</b>	SALT LAKE CENTER <b>133.4 285.4</b>	GLACIER TOWER* <b>124.55 (CTAF) 0</b>	GND CON <b>121.6</b>	UNICOM <b>122.95</b>
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ELEV 2977	<b>D</b>	TDZE 2966
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CATEGORY	A	B	C	D
LPV DA		3297-3/4	331 (400-3/4)	
LNAV/VNAV DA		3502-1 1/2	536 (600-1 1/2)	
LNAV MDA	3600-1/2	634 (700-1/2)	3600-1 1/4 634 (700-1 1/4)	3600-1 1/2 634 (700-1 1/2)
CIRCLING	3600-1	623 (700-1)	3640-1 3/4 663 (700-1 3/4)	3640-2 663 (700-2)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VOR/DME FCA <b>113.2</b> Chan <b>79</b>	APP CRS <b>316°</b>	Rwy Idg TDZE Apt Elev	<b>3504</b> <b>2974</b> <b>2977</b>
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# VOR/DME RWY 30

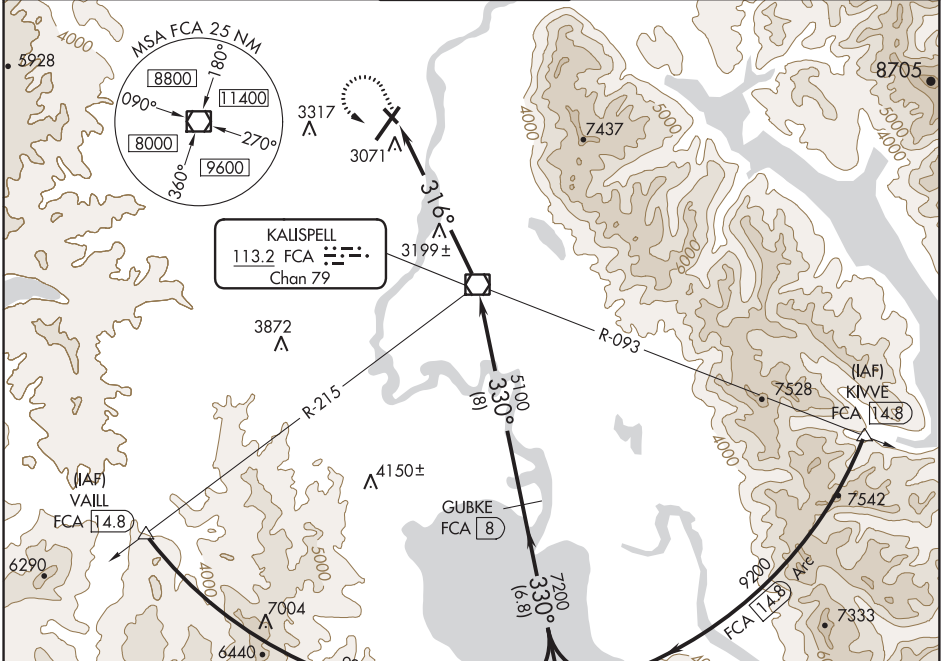
GLACIER PARK INTL (GPI)

**⚠** Helicopter visibility reduction below 1 SM not authorized. When VGSI inoperative, straight-in minimums not authorized at night.

**⚠** -12°C/10°F

MISSED APPROACH: Climb to 4000 then climbing left turn to 9300 via heading 130° and FCA VOR/DME R-150 to ITONE/14.8 DME and hold, continue climb-in-hold to 9300.

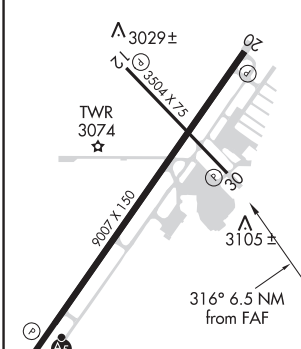
ATIS <b>132.625</b>	SALT LAKE CENTER <b>133.4 285.4</b>	GLACIER TOWER* <b>124.55 (CTAF) 0</b>	GND CON <b>121.6</b>	UNICOM <b>122.95</b>
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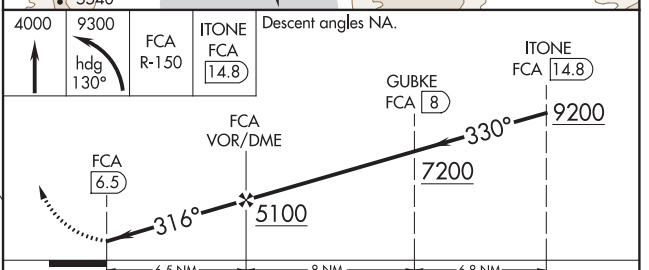
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2977	<b>D</b>	TDZE 2974
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REIL Rwy 20	MIRL Rwy 12-30	HIRL Rwy 2-20
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CATEGORY	A	B	C	D
S-30	3480-1	506 (600-1)	3480-1½	506 (600-1½)
CIRCLING	3520-1	543 (600-1)	3640-1¾ 663 (700-1¾)	3640-2 663 (700-2)

16315

# AIRPORT DIAGRAM

AL-887 (FAA)

GLACIER PARK INTL (GPI)  
KALISPELL, MONTANA

ATIS  
132.625  
GLACIER TOWER ★  
124.55  
GND CON  
121.6



RWY 02-20  
PCN 56 F/C/X/T  
S-115, D-198, 2S-175, 2D-321  
RWY 12-30  
PCN 9 F/C/X/T  
S-25, D-40

FIELD  
ELEV  
2977

ELEV  
2973  
122.2°

200  
X 200

48°19'N

3504 X 75

TWR  
3074

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

D

B1  
B2  
B2  
B  
B3  
G  
ELEV  
2970

U.S.  
CUSTOMS

FBO

FIRE  
STATION

TERMINAL

9007 X 150



JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

48°18'N

ELEV  
2962

200  
X 200

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

114°16'W

114°15'W

# AIRPORT DIAGRAM

16315

KALISPELL, MONTANA  
GLACIER PARK INTL (GPI)

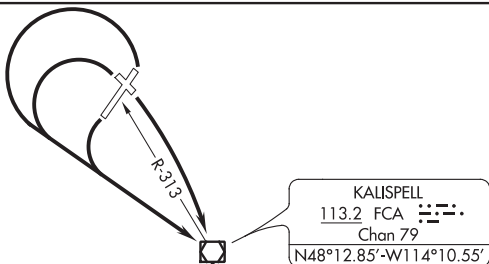
(SKOTT2.SKOTT) 16147

# SKOTT TWO DEPARTURE (OBSTACLE)

SL-887 (FAA)

GLACIER PARK INTL (GPI)  
KALISPELL, MONTANA

SALT LAKE CENTER  
133.4 285.4  
GREAT FALLS RADIO  
122.5  
GLACIER TOWER \*  
124.55



### TAKEOFF MINIMUMS

- Rwy 2: Standard with minimum climb of 290' per NM to 7800, or 2700-3 for climb in visual conditions.
- Rwy 12: Standard with minimum climb of 250' per NM to 12000, or 2700-3 for climb in visual conditions.
- Rwy 20: Standard with minimum climb of 250' per NM to 12000, or 2700-3 for climb in visual conditions.
- Rwy 30: Standard with minimum climb of 260' per NM to 8900, or 2700-3 for climb in visual conditions.

MULLAN PASS  
117.8 MLP  
Chan 125

SKOTT  
N47°42.90'  
W114°08.40'  
L-13

### TAKEOFF OBSTACLE NOTES

- Rwy 2: Trees 1469' from DER, 675' right of centerline, 100' AGL/3065' MSL.
- Rwy 12: Multiple vehicles on roadway, train on track, trees and a pole beginning 542' from DER, on centerline extending left and right of centerline, up to 129' AGL/3087' MSL.  
Trees 2325' from DER, 226' left of centerline, 94' AGL/3063' MSL.  
Trees 3114' from DER, 420' right of centerline, 117' AGL/3082' MSL.
- Rwy 20: Trees 2320' from DER, 1055' left of centerline, 107' AGL/3057' MSL.  
Trees 1.1 NM from DER, 1679' right of centerline, 107' AGL/3154' MSL.
- Rwy 30: Trees 721' from DER, 60' right of centerline, 104' AGL/3136' MSL.  
Trees 873' from DER, 86' left of centerline, 104' AGL/3149' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climbing left turn direct FCA VOR/DME, thence.... or, climb in visual conditions to cross Glacier Park Intl Airport southeast bound at or above 5600, then on FCA R-313 to FCA VOR/DME, thence. . . .

TAKEOFF RUNWAY 12: Climbing right turn direct FCA VOR/DME, thence.... or, climb in visual conditions to cross Glacier Park Intl Airport southeast bound at or above 5600, then on FCA R-313 to FCA VOR/DME, thence. . . .

TAKEOFF RUNWAY 20: Climbing left turn direct FCA VOR/DME, thence.... or, climb in visual conditions to cross Glacier Park Intl Airport southeast bound at or above 5600, then on FCA R-313 to FCA VOR/DME, thence. . . .

TAKEOFF RUNWAY 30: Climbing left turn direct FCA VOR/DME, thence.... or, climb in visual conditions to cross Glacier Park Intl Airport southeast bound at or above 5600, then on FCA R-313 to FCA VOR/DME, thence. . . .

. . . .continue climb to 12000 via FCA R-159 to SKOTT INT.

# SKOTT TWO DEPARTURE (OBSTACLE)

(SKOTT2.SKOTT) 13JAN11

KALISPELL, MONTANA  
GLACIER PARK INTL (GPI)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



KELSO, WASHINGTON

AL-5638 (FAA)

16035

**NDB-A**

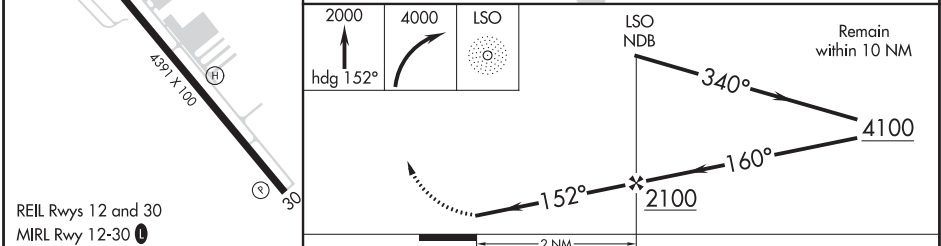
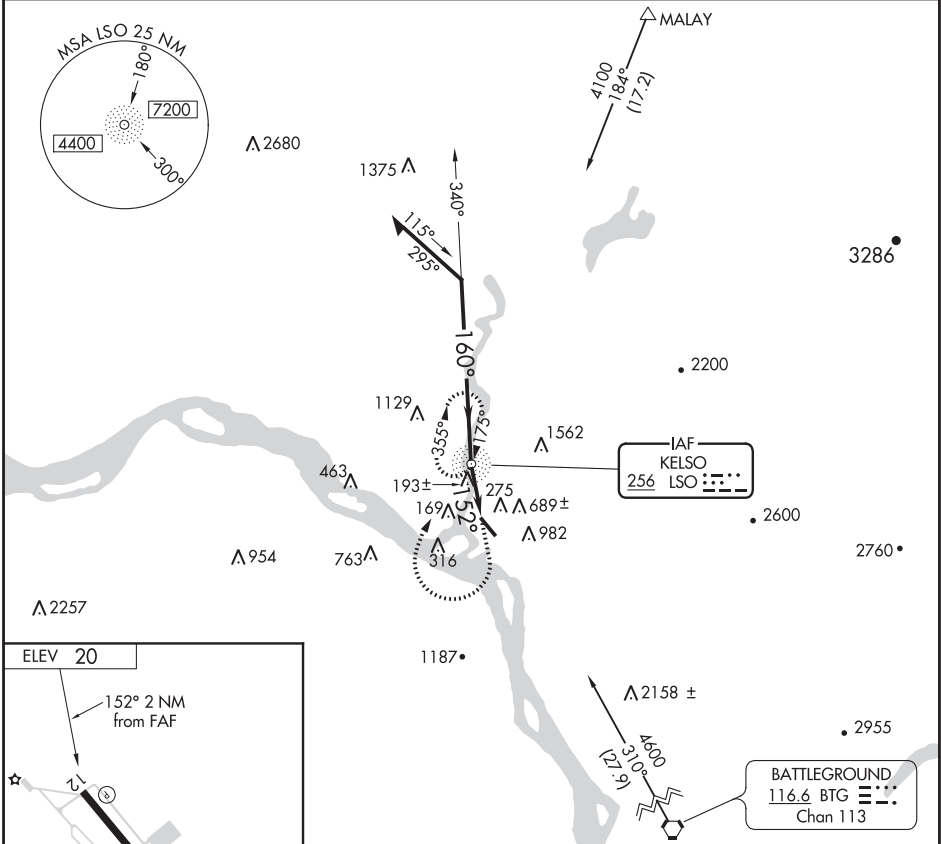
SOUTHWEST WASHINGTON RGNL (KLS)

NDB LSO <b>256</b>	APP CRS <b>152°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>20</b>
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**NA** Circling NA NE of Rwy 12-30.  
When local altimeter setting not received, use Scappoose altimeter setting and increase all MDA 60 feet.

MISSED APPROACH: Climb to 2000 via heading 152° then climbing right turn to 4000 direct LSO NDB and hold, continue climb-in-hold to 4000.

AWOS-3 <b>135.075</b>	SEATTLE CENTER <b>124.2 317.6</b>	UNICOM <b>122.8 (CTAF)</b>
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FAF to MAP 2 NM						
Knots	60	90	120	150	180	
Min:Sec	2:00	1:20	1:00	0:48	0:40	
CATEGORY	A		B		C	D
CIRCLING	1300-1¼ 1280 (1300-1¼)		1300-1½ 1280 (1300-1½)		NA	

KELSO, WASHINGTON  
Amdt 6 08APR10

SOUTHWEST WASHINGTON RGNL (KLS)  
46°07'N-122°54'W

**NDB-A**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>82437</b> <b>W16A</b>	APP CRS <b>163°</b>	Rwy Idg TDZE Apt Elev	<b>8203</b> <b>7289</b> <b>7289</b>
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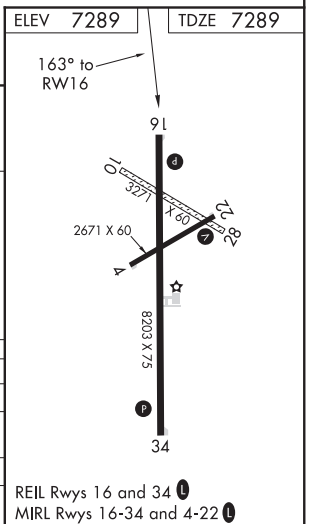
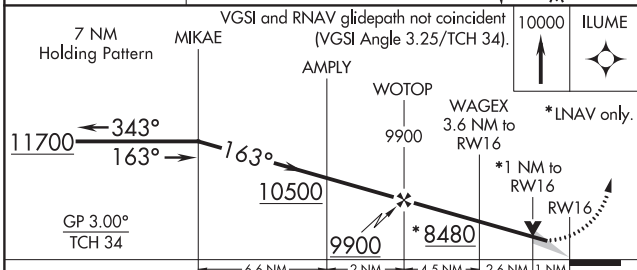
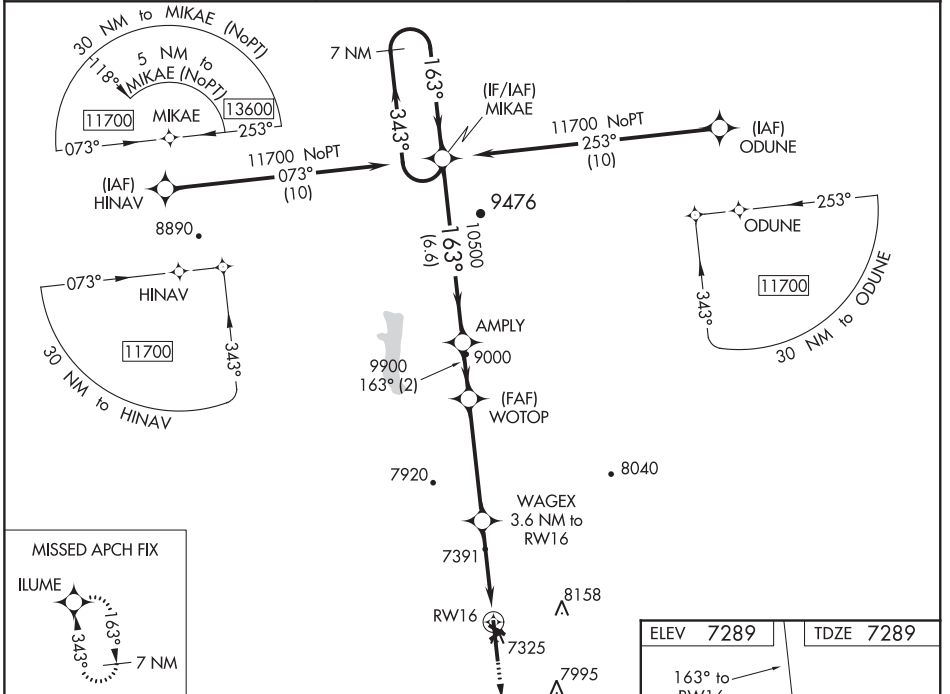
# RNAV (GPS) RWY 16

KEMMERER MUNI (EMM)

**Baro-VNAV NA** when using Evanston altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-16°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. VDP NA when using Evanston altimeter setting. Night landing: Rwy 04, 10, 22, 28 NA. When local altimeter setting not received, use Evanston altimeter setting: Increase all DA 111 feet and visibilities ¼ mile; increase all MDA 120 feet.

**MISSED APPROACH:** Climb to 10000 direct ILUME and hold.

AWOS-3PT <b>119.675</b>	SALT LAKE CITY CENTER <b>124.35 353.5</b>	UNICOM <b>122.8 (CTAF)</b>
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CATEGORY	A	B	C	D
LPV DA	7539-1	250 (300-1)		NA
LNAV/VNAV DA	7539-1	250 (300-1)		NA
LNAV MDA	7660-1	371 (400-1)		NA
<b>C</b> CIRCLING	7660-1 371 (400-1)	8240-1½ 951 (1000-1½)		NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>90337</b> <b>W34A</b>	APP CRS <b>343°</b>	Rwy Idg TDZE Apt Elev	<b>8203</b> <b>7280</b> <b>7289</b>
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# RNAV (GPS) RWY 34

KEMMERER MUNI (EMM)

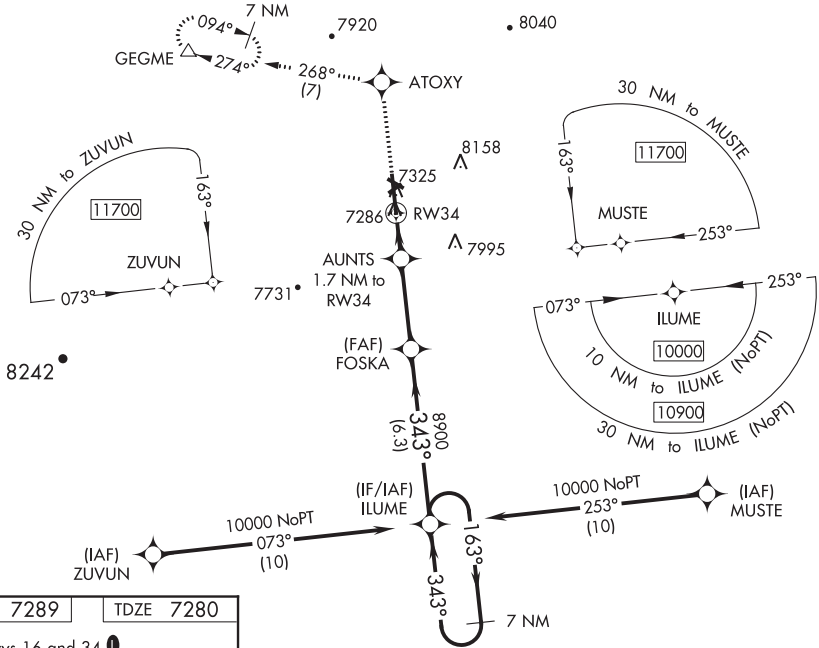
Baro-VNAV and VDP NA when using Evanston altimeter setting.  
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-16°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.  
Night landing: Rwy 04, 10, 22, 28 NA. When local altimeter setting not received, use Evanston altimeter setting; increase all DA 111 feet and visibilities 1/8 mile; increase all MDA 120 feet.

**MISSED APPROACH:** Climb to 12000 direct ATOXY and on track 268° direct GEGME and hold, continue climb-in-hold to 12000.

AWOS-3PT  
**119.675**

SALT LAKE CITY CENTER  
**124.35 353.5**

UNICOM  
**122.8 (CTAF) 0**

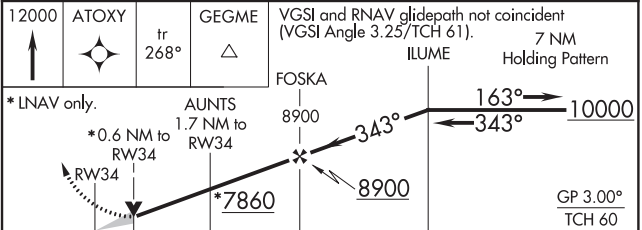
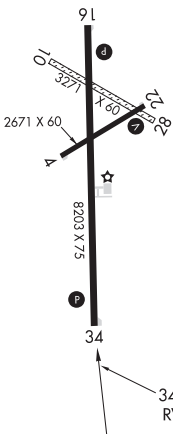


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV <b>7289</b>	TDZE <b>7280</b>
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REIL Rwy 16 and 34  
MIRL Rwy 16-34 and 4-22

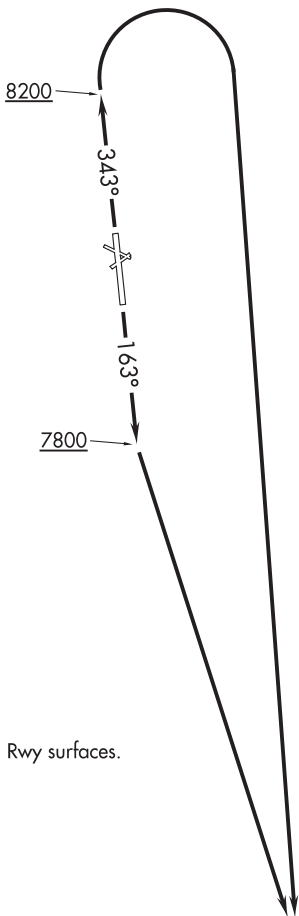


CATEGORY	A	B	C	D
LPV DA	7530-1	250 (300-1)		NA
LNAV/VNAV DA	7530-1	250 (300-1)		NA
LNAV MDA	7540-1	260 (300-1)		NA
<b>C</b> CIRCLING	7660-1 371 (400-1)	8240-1½ 951 (1000-1½)		NA

# KEMRR FIVE DEPARTURE (RNAV)

SALT LAKE CITY CENTER  
124.35 353.5

**TOP ALTITUDE:**  
**12000**



NOTE: RNAV-1  
NOTE: GPS required.

TAKEOFF MINIMUMS:  
Rwys 4, 10, 22, 28 NA - Rwy surfaces.  
Rwys 16, 34: Standard.

TAKEOFF OBSTACLE NOTES

Rwy 16: Fence 17' from DER, 320' left of centerline, 8' AGL/7279' MSL.  
Fence 150' from DER, 250' right of centerline, 9' AGL/7286' MSL.  
Rwy 34: Fence 73' from DER, 253' left of centerline, 7' AGL/7295' MSL.

NOTE: Chart not to scale.

**▼** DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb heading 163° to at/above 7800, then climb direct to FBR VOR/DME, thence . . . .

TAKEOFF RUNWAY 34: Climb heading 343° to at/above 8200, then climbing right turn direct to FBR VOR/DME, thence . . . .

. . . via assigned route/fix. Maintain 12000 or assigned altitude, expect filed altitude 10 minutes after departure.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>58001</b> <b>W14A</b>	APP CRS <b>141°</b>	Rwy Idg <b>10301</b> TDZE <b>4091</b> Apt Elev <b>4095</b>
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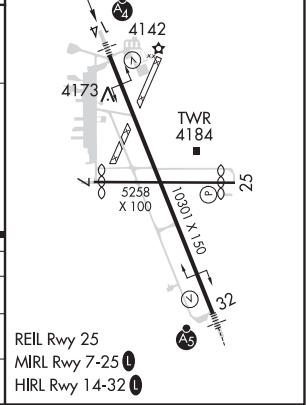
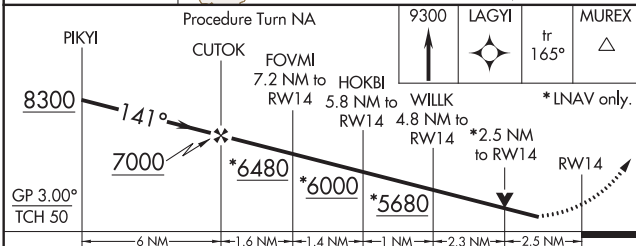
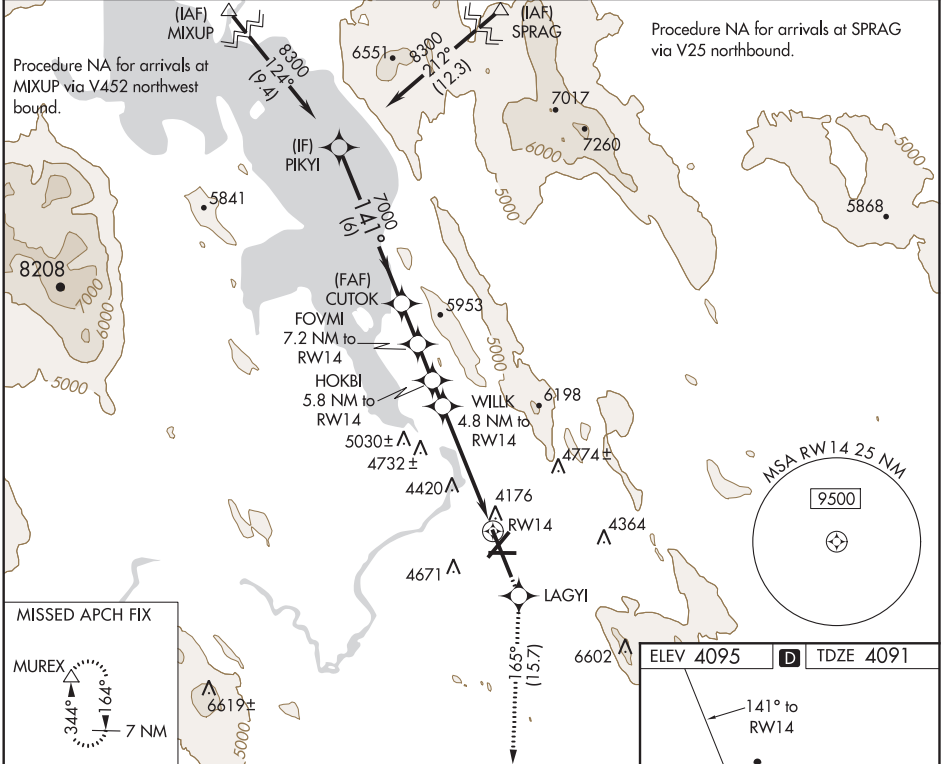
# RNAV (GPS) RWY 14

CRATER LAKE-KLAMATH RGNL (LMT)

**⚠** Inoperative table does not apply to LPV all Cats, and LNAV Cats B and C. DME/DME RNP-0.3 NA.  
**⚠** Helicopter visibility reduction below 3/4 SM NA.  
 Circling NA for Cat D east of Rwy 14-32.

**MALSF** MISSED APPROACH: Climb to 9300 direct LAGYI and via track 165° to MUREX and hold, continue climb-in-hold to 9300.

ATIS <b>126.5 263.0</b>	KINGSLEY APP CON <b>123.675 270.8</b>	KINGSLEY TOWER* <b>133.975 (CTAF) 0 257.8</b>	GND CON <b>121.9 348.6</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA	4635-2 544 (600-2)			
LNAV MDA	4920-3/4 829 (900-3/4)	4920-1 1/4 829 (900-1 1/4)	4920-2 1/2 829 (900-2 1/2)	4920-2 3/4 829 (900-2 3/4)
<b>C</b> CIRCLING	4920-1 825 (900-1)	4980-1 1/4 885 (900-1 1/4)	5420-3 1325 (1400-3)	5660-3 1565 (1600-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>70702</b> <b>W32A</b>	APP CRS <b>321°</b>	Rwy Idg <b>10301</b> TDZE <b>4095</b> Apt Elev <b>4095</b>
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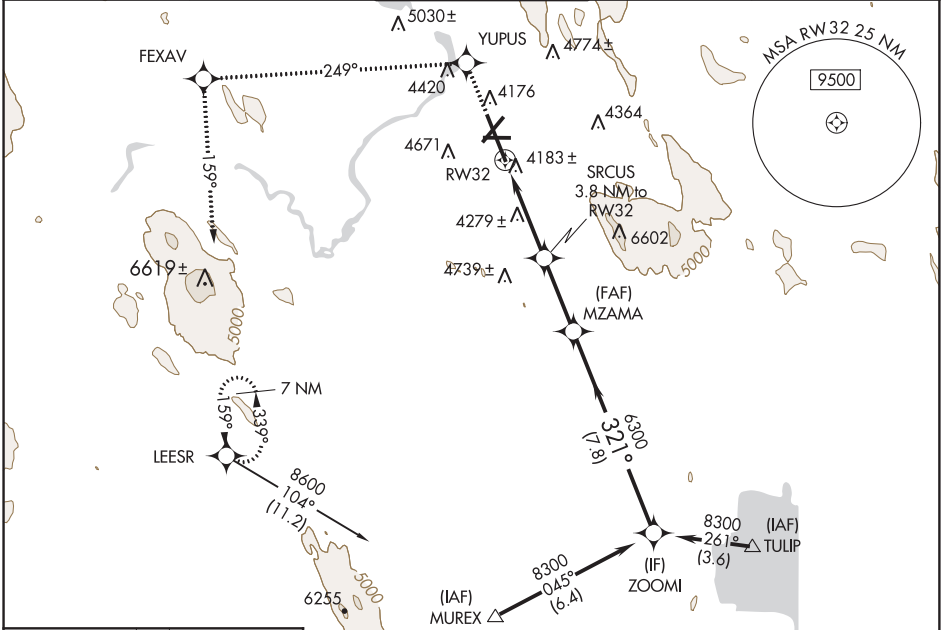
# RNAV (GPS) RWY 32

CRATER LAKE-KLAMATH RGNL (L.M.T)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 41°C (105°F). DME/DME RNP-0.3 NA. For inoperative MALS/R increase LPV visibility all Cats to RVR 5000. Circling NA for Cat D east of Rwy 14-32.

**MALS/R** MISSED APPROACH: Climb to 8600 direct YUPUS and via track 249° to FEXAV and via track 159° to LEESR and hold.

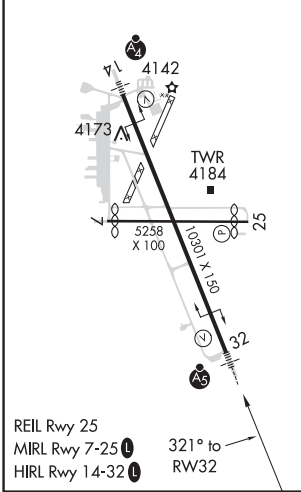
ATIS <b>126.5 263.0</b>	KINGSLEY APP CON <b>123.675 270.8</b>	KINGSLEY TOWER* <b>133.975 (CTAF) 0 257.8</b>	GND CON <b>121.9 348.6</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4095	<b>D</b>	TDZE 4095
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REIL Rwy 25  
MIRL Rwy 7-25   
HIRL Rwy 14-32

321° to RW32

Procedure NA for arrivals at MUREX via V25 Southbound, and at TULIP via V452 Southeast bound.

8600	YUPUS	tr 249°	FEXAV	tr 159°	LEESR	Procedure Turn NA
VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 50).						ZOOMI
*LNAV only.						8300
RW32						6300
*1.8 NM to RW32						5360*
SRCUS 3.8 NM to RW32						
MZAMA						
2.8 NM						
7.8 NM						
CATEGORY	A	B	C	D		
LPV DA	4387/24 292 (300-1/2)					
LNAV/VNAV DA	4674-1 1/2 579 (600-1/2)					
LNAV MDA	4720/24	625 (700-1/2)	4720/60 625 (700-1/4)	4720-1 1/2 625 (700-1/2)		
<b>C</b> CIRCLING	4840-1 745 (800-1)	4980-1 1/4 885 (900-1/4)	5420-3 1325 (1400-3)	5660-3 1565 (1600-3)		

VORTAC LMT <b>115.9</b> Chan <b>106</b>	APP CRS <b>134°</b>	Rwy Idg <b>10301</b> TDZE <b>4091</b> Apt Elev <b>4095</b>
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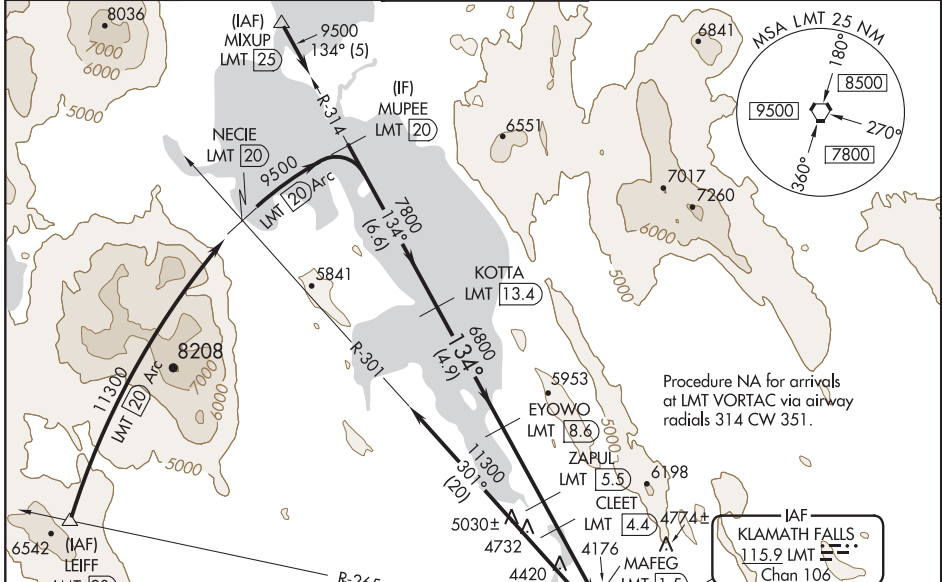
# VOR/DME or TACAN RWY 14

CRATER LAKE-KLAMATH RGNL (LMT)

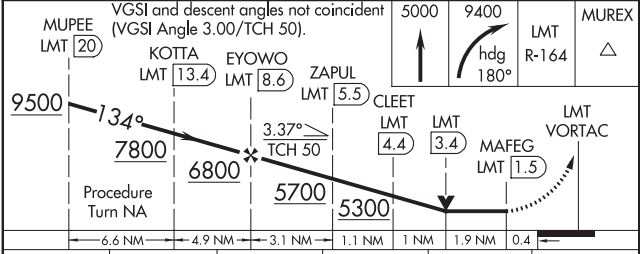
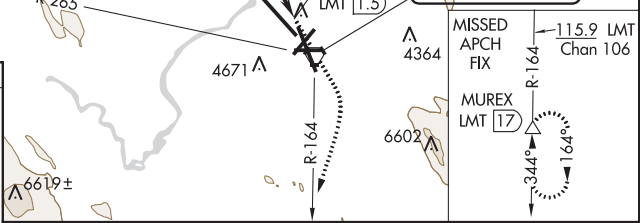
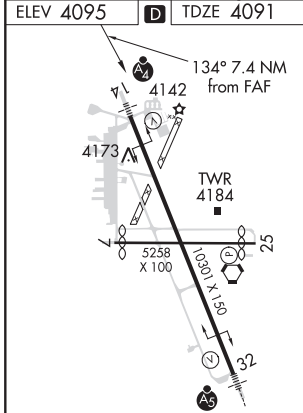
**⚠** Circling NA for Cat D and E east of Rwy 14-32.  
 Inoperative table does not apply to Cats B and C.  
 Helicopter visibility reduction below 3/4 SM NA.

**MALSF** MISSED APPROACH: Climb to 5000 then climbing right turn to 9400 via heading 180° and LMT VORTAC R-164 to MUREX/LMT 17 DME and hold, continue climb-in-hold to 9400.

ATIS <b>126.5 263.0</b>	KINGSLEY APP CON <b>123.675 270.8</b>	KINGSLEY TOWER* <b>133.975 (CTAF) 0 257.8</b>	GND CON <b>121.9 348.6</b>	UNICOM <b>122.95</b>
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ELEV 4095	<b>D</b> TDZE 4091
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CATEGORY	A	B	C	D	E
S-14	4860-3/4 769 (800-3/4)	4860-1 1/4 769 (800-2 1/4)	4860-2 1/4 769 (800-2 1/4)	4860-2 1/2 769 (800-2 1/2)	4860-2 3/4 769 (800-2 3/4)
<b>C</b> CIRCLING	4880-1 785 (800-1)	4980-1 1/4 885 (900-1 1/4)	5420-3 1325 (1400-3)	5660-3 1565 (1600-3)	5700-3 1605 (1700-3)

REIL Rwy 25  
 MIRL Rwy 7-25  
 HIRL Rwy 14-32

KLAMATH FALLS, OREGON  
 Amdt 5C 21JUL16

42°09'N-121°44'W CRATER LAKE-KLAMATH RGNL (LMT)

# VOR/DME or TACAN RWY 14

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VORTAC LMT <b>115.9</b> Chan <b>106</b>	APP CRS <b>328°</b>	Rwy Idg <b>10301</b> TDZE <b>4095</b> Apt Elev <b>4095</b>
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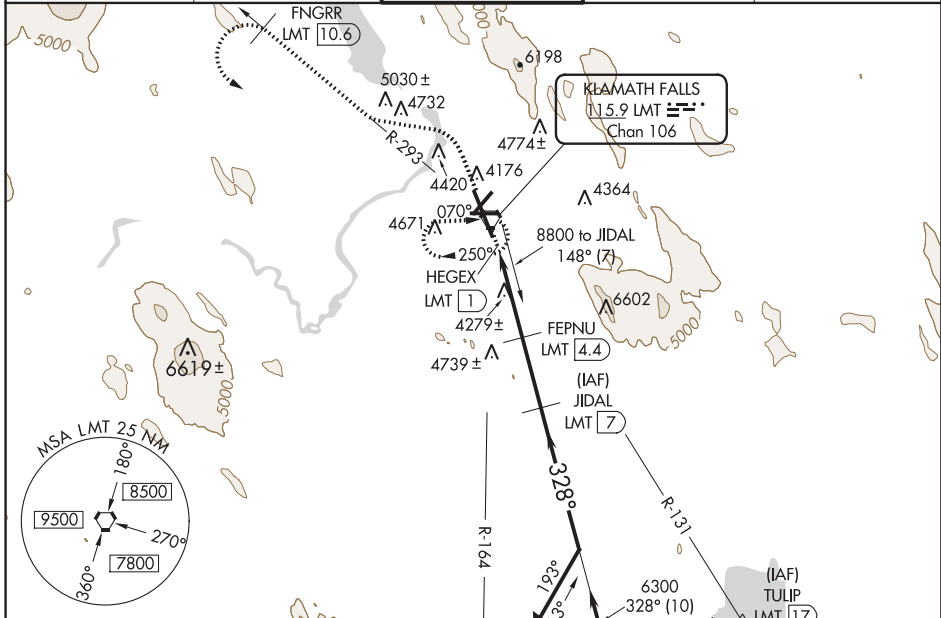
# VOR/DME or TACAN RWY 32

CRATER LAKE-KLAMATH RGNL (LMT)

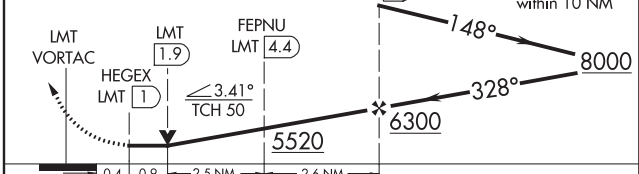
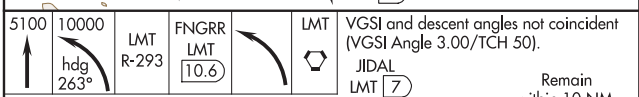
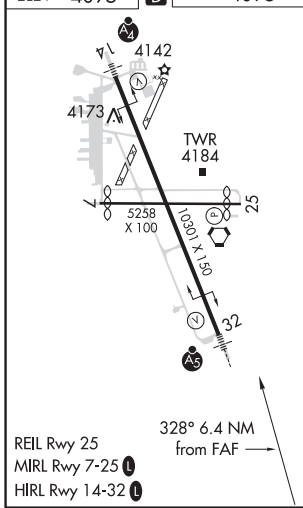
**⚠** For inoperative MALSR, increase S-32 Cat E visibility to 1 1/4 mile. Circling NA for Cat D and E east of Rwy 14-32. Procedure turn NA for Cat E aircraft.

**MALSR** MISSED APPROACH: Climb to 5100 then climbing left turn to 10000 via heading 263° and via LMT VORTAC R-293 to FNGRR/LMT 10.6 DME then left turn direct LMT VORTAC and hold. (TACAN aircraft climb to 5000 then climbing left turn to 9000 via heading 230° and LMT VORTAC R-265 to OLEBY/15 DME.)

ATIS <b>126.5 263.0</b>	KINGSLEY APP CON <b>123.675 270.8</b>	<b>KINGSLEY TOWER*</b> <b>133.975 (CTAF) 0 257.8</b>	GND CON <b>121.9 348.6</b>	UNICOM <b>122.95</b>
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ELEV <b>4095</b>	<b>D</b> TDZE <b>4095</b>
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CATEGORY	A	B	C	D	E
S-32	4560/24	465 (500-1/2)	4560/40 465 (500-3/4)	4560/50 465 (500-1)	4560/60 465 (500-1 1/4)
<b>C</b> CIRCLING	4840-1 745 (800-1)	4980-1 1/4 885 (900-1 1/4)	5420-3 1325 (1400-3)	5660-3 1565 (1600-3)	5700-3 1605 (1700-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017





# KINGSLEY SIX DEPARTURE

SL-473 (FAA)

CRATER LAKE-KLAMATH RGNL (LMT)  
KLAMATH FALLS, OREGON

ATIS  
126.5 263.0  
GND CON  
121.9 348.6  
KINGSLEY TOWER★  
133.975 257.8  
KINGSLEY DEP CON★  
123.675 270.8  
SEATTLE CENTER  
127.6 346.35

EUGENE  
112.9 EUG  
Chan 76  
N44°07.25'-W123°13.37'

DESCHUTES  
117.6 DSD  
Chan 123  
N44°15.17'-W121°18.21'

ROSEBURG  
108.2 RBG  
Chan 19  
N43°10.95'-W123°21.13'

KLAMATH FALLS  
115.9 LMT  
Chan 106  
N42°09.19'-W121°43.65'

ROGUE VALLEY  
113.6 OED  
Chan 83  
N42°28.77'-W122°54.78'

LAKEVIEW  
112.0 LKV  
Chan 57  
N42°29.57'-W120°30.43'

FORT JONES  
109.6 FJS  
Chan 33  
N41°26.98'-W122°48.39'

RED BLUFF  
115.7 RBL  
Chan 104  
N40°05.93'-W122°14.18'

MUSTANG  
117.9 FMG  
Chan 126  
N39°31.88'-W119°39.36'

NOTE: RADAR required.

### TAKEOFF MINIMUMS

- Rwy 14: Standard with minimum climb of 380' per NM to 8600.
- Rwy 25: Standard with minimum climb of 390' per NM to 8200.
- Rwy 32: Standard with minimum climb of 350' per NM to 9200.

### TAKEOFF OBSTACLE NOTES

- Rwy 14: Tree 3108' from DER, 1240' left of centerline, 88' AGL/4183' MSL.
- Rwy 25: Vehicle on road and railroad beginning 254' from DER, 127' left of centerline, up to 23' AGL/4113' MSL.  
Tree 597' from DER, 419' left of centerline, 18' AGL/4122' MSL.  
Tree and terrain beginning 8254' from DER, 2238' left of centerline, up to 100' AGL/4499' MSL.
- Rwy 32: Trees beginning 2625' from DER, 742' left of centerline, up to 100' AGL/4191' MSL.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# KINGSLEY SIX DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climb heading 141° (or ATC assigned heading 140° CW 320°). Thence . . . .

TAKEOFF RUNWAY 25: Climb heading 253°. Thence . . . .

TAKEOFF RUNWAY 32: Climb heading 321°. Thence . . . .

. . . . all aircraft expect vectors to assigned route/fix. Maintain 10000 or assigned altitude. Expect clearance to filed altitude five minutes after departure.

LOST COMMUNICATIONS

If not in contact with Seattle Center/Kingsley Approach Control after passing 10000 or assigned altitude:

TAKEOFF RUNWAY 14: Climbing right turn direct LMT VORTAC. Thence . . . .

TAKEOFF RUNWAY 25: Climbing right turn direct LMT VORTAC. Thence . . . .

TAKEOFF RUNWAY 32: Climbing left turn direct LMT VORTAC. Thence . . . .

. . . . via assigned route.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

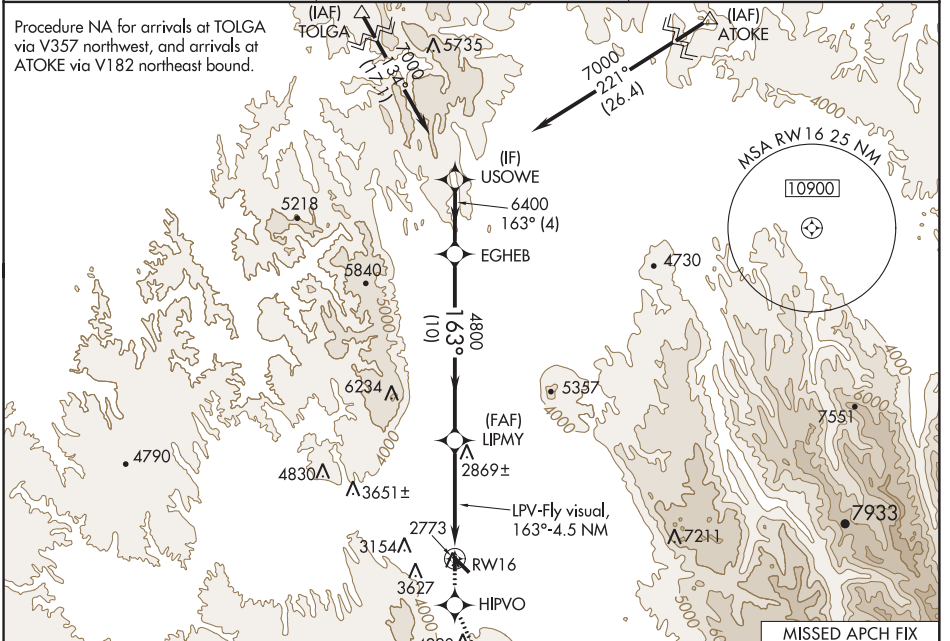
WAAS CH <b>66000</b> <b>W16A</b>	APP CRS <b>163°</b>	Rwy Idg TDZE <b>2717</b> Apt Elev <b>2717</b>
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# RNAV (GPS) RWY 16

LA GRANDE/UNION COUNTY (L.G.D)

NA -12°C/10°F	DME/DME RNP-0.3 NA. If local altimeter setting not received procedure NA.	MISSED APPROACH: Climb to 9000 direct HIPVO and via 139° track to NUDEQ and hold, continue climb-in-hold to 9000.
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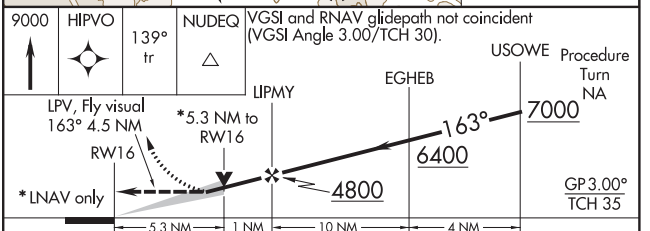
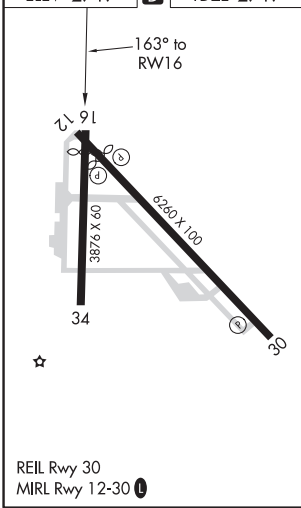
AWOS-3 <b>135.075</b>	SEATTLE CENTER <b>132.6 269.35</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2717	<b>D</b>	TDZE 2717
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CATEGORY	A	B	C	D
LPV DA	4176-2	1459 (1500-2)	4176-3	1459 (1500-3)
LNAV/VNAV DA	NA			
LNAV MDA	4440-1¼ 1723 (1800-1¼)	4440-1½ 1723 (1800-1½)	4440-3	1723 (1800-3)
CIRCLING	4440-1¼ 1723 (1800-1¼)	4440-1½ 1723 (1800-1½)	4440-3	1723 (1800-3)

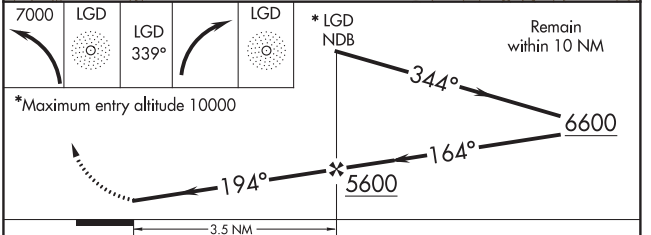
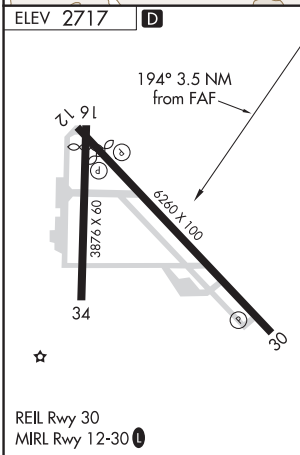
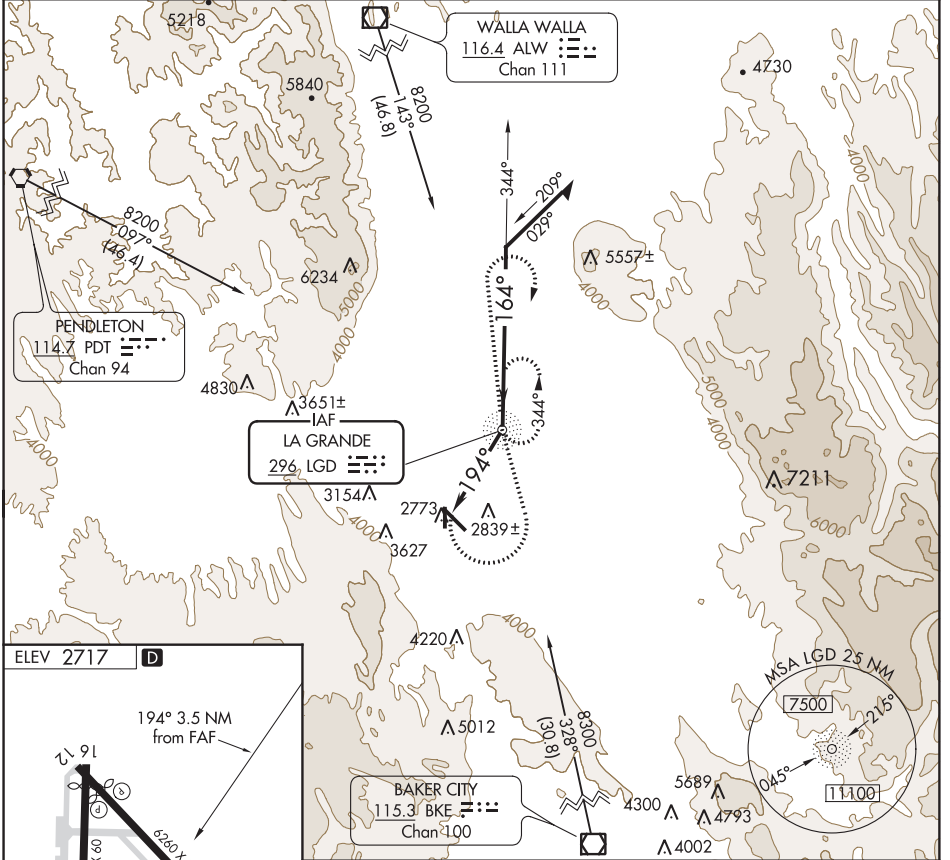
NDB LGD <b>296</b>	APP CRS <b>194°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>2717</b>
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# NDB-B

LA GRANDE/UNION COUNTY (LGD)

**MISSED APPROACH:** Climbing left turn to 7000 direct LGD NDB and 339° bearing from LGD NDB, then right turn direct LGD NDB and hold.

AWOS-3 <b>135.075</b>	SEATTLE CENTER <b>132.6 269.35</b>	UNICOM <b>122.8 (CTAF)</b>
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FAF to MAP 3.5 NM						
Knots	60	90	120	150	180	
Min:Sec	3:30	2:20	1:45	1:24	1:10	
CATEGORY	A		B		C	D
CIRCLING	4360-1¼ 1643 (1700-1¼)		4360-1½ 1643 (1700-1½)		4360-3 1643 (1700-3)	NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LAKEVIEW, OREGON

AL-5552 (FAA)

16035

WAAS CH <b>93532</b> <b>W17A</b>	APP CRS <b>166°</b>	Rwy Idg TDZE Apt Elev	<b>5318</b> <b>4733</b> <b>4733</b>
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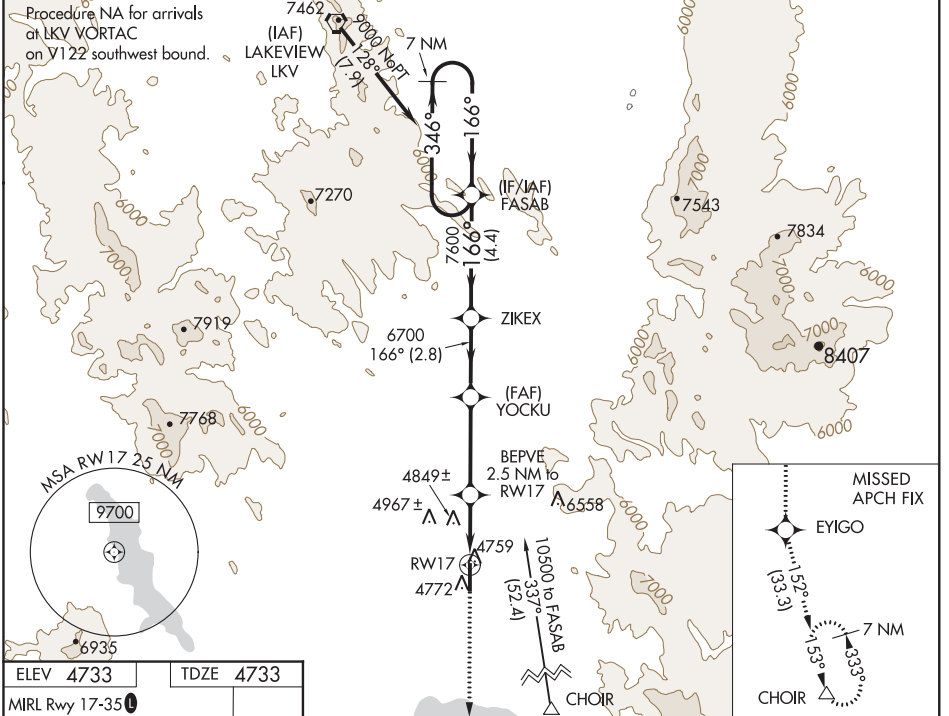
# RNAV (GPS) RWY 17

LAKE COUNTY (LKV)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -24°C (-11°F) or above 48°C (119°F). When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA.

**⚠** MISSED APPROACH: Climb to 11000 direct EYIGO and on track 152° to CHOIR and hold.

AWOS-3 <b>135.525</b>	SEATTLE CENTER <b>127.6 346.35</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

	↑	✦	ir 152°	△				
CATEGORY	A	B	C	D				
LPV DA		4983-¾	250 (300-¾)					
LNAV/VNAV DA		5138-1¾	405 (500-1¾)					
LNAV MDA		5100-1	367 (400-1)					
CIRCLING	5160-1 427 (500-1)	5200-1 467 (500-1)	5200-1½ 467 (500-1½)	5320-2 587 (600-2)				

LAKEVIEW, OREGON  
Orig-A 21AUG14

42°10'N-120°24'W

# RNAV (GPS) RWY 17

WAAS CH <b>99332</b> <b>W35A</b>	APP CRS <b>346°</b>	Rwy Idg TDZE Apt Elev	<b>5318</b> <b>4729</b> <b>4733</b>
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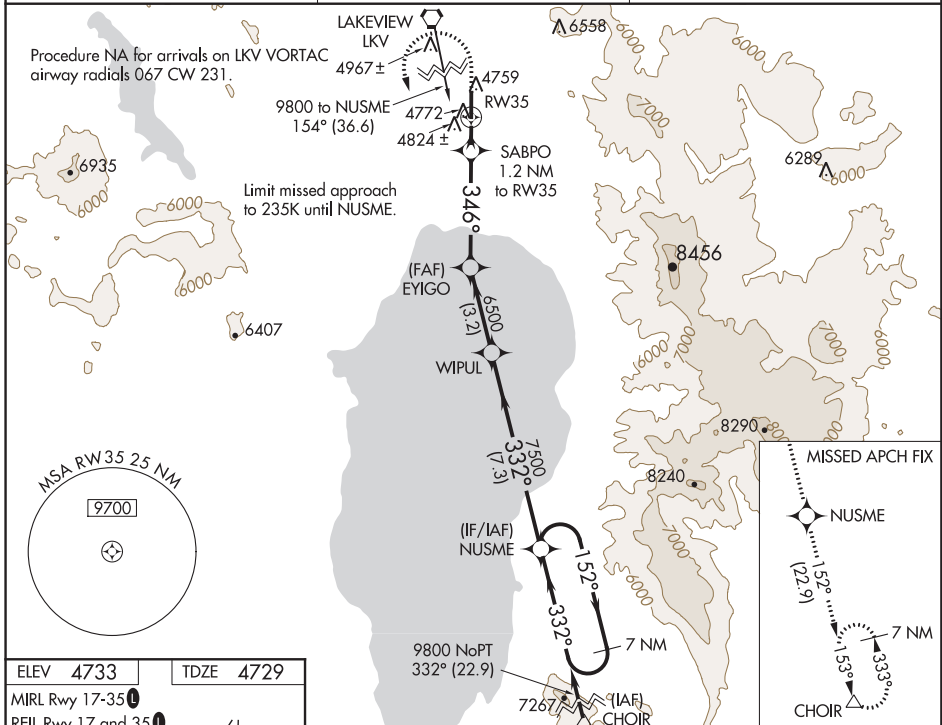
# RNAV (GPS) RWY 35

LAKE COUNTY (LKV)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-17°F) or above 54°C (130°F). When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA.

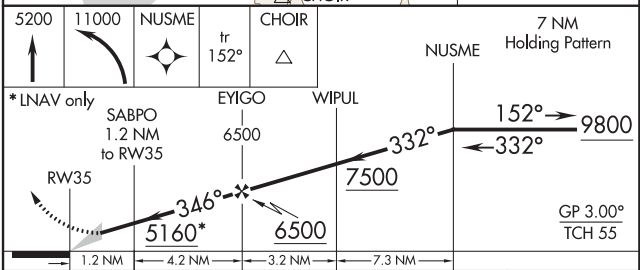
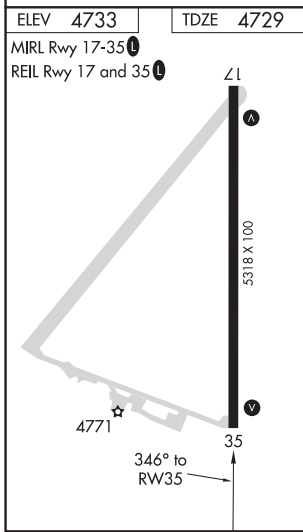
**MISSED APPROACH:** Climb to 5200 then climbing left turn to 11000 direct NUSME and on track 152° to CHOIR and hold.

AWOS-3 <b>135.525</b>	SEATTLE CENTER <b>127.6 346.35</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA	4979-3/4	250 (300-3/4)		NA
LNAV/VNAV DA	5121-1 1/4	392 (400-1 1/4)		NA
LNAV MDA	5080-1	351 (400-1)		NA
CIRCLING	5160-1 427 (500-1)	5200-1 467 (500-1)	5200-1 1/2 467 (500-1 1/2)	NA

LAKEVIEW, OREGON

AL-5552 (FAA)

16147

VORTAC LKV <b>112.0</b> Chan 57	APP CRS <b>147°</b>	Rwy Idg TDZE Apt Elev <b>4733</b>	N/A N/A N/A
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**VOR/DME-A**  
LAKE COUNTY (LKV)

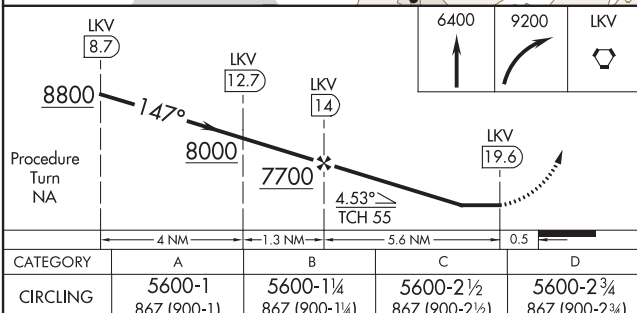
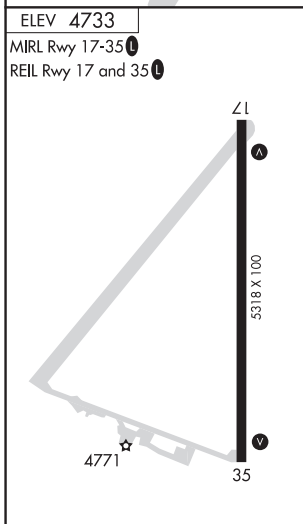
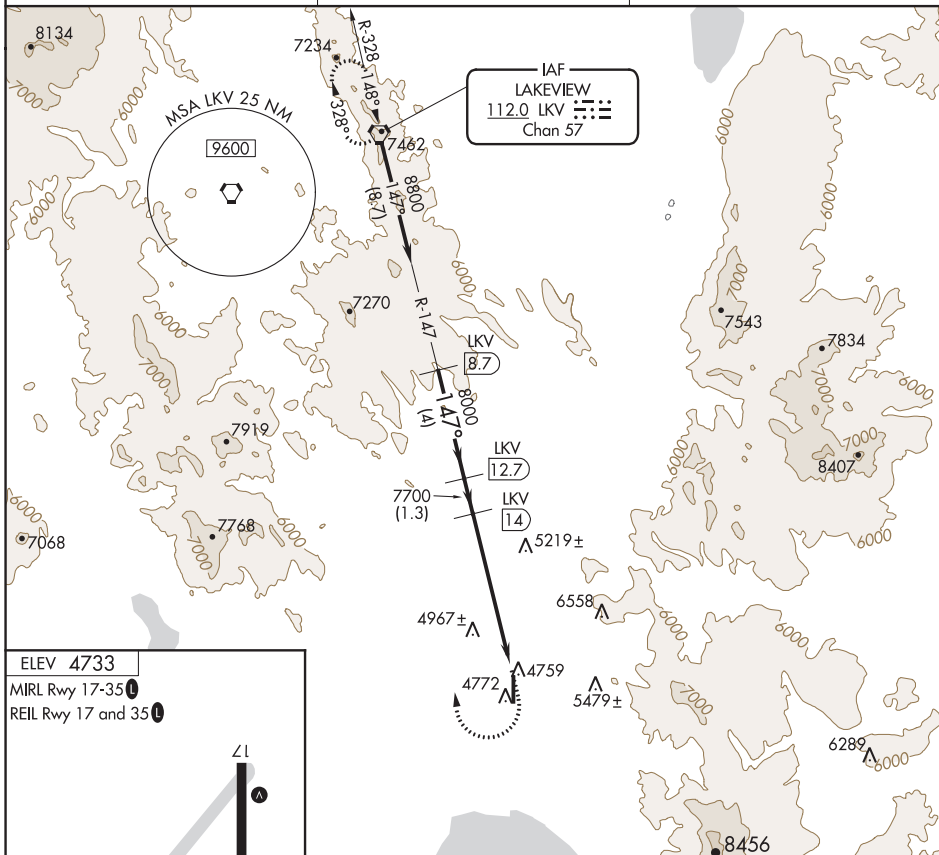
⚠  
-27°C/-17°F

MISSED APPROACH: Climb to 6400 then climbing right turn to 9200 direct LKV VORTAC and hold.

AWOS-3  
**135.525**

SEATTLE CENTER  
**127.6 346.35**

UNICOM  
**122.8 (CTAF)**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LAKEVIEW, OREGON  
Orig-A 26MAY16

42°10'N-120°24'W

LAKE COUNTY (LKV)  
**VOR/DME-A**



WAAS CH <b>86325</b> <b>W03A</b>	APP CRS <b>033°</b>	Rwy Idg TDZE Apt Elev	<b>8502</b> <b>7284</b> <b>7284</b>
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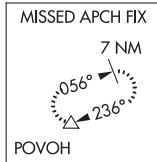
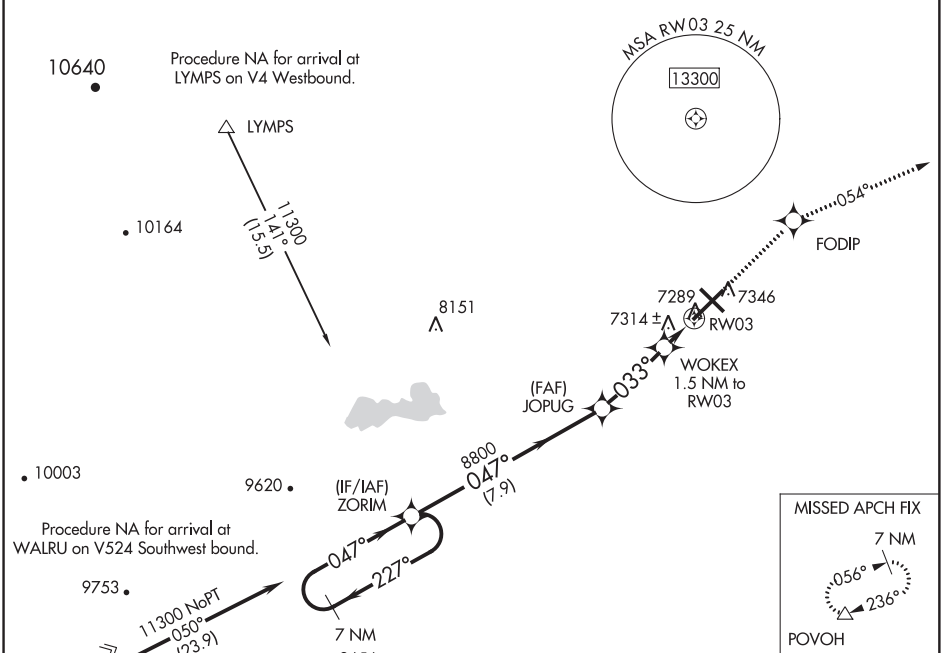
# RNAV (GPS) RWY 3

LARAMIE RGNL (L.A.R.)

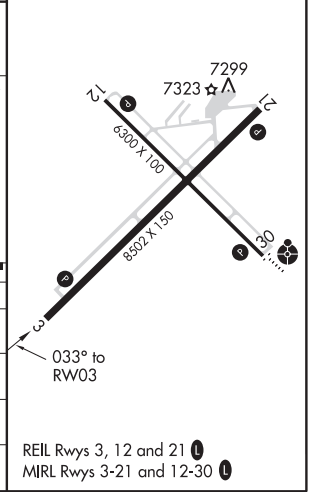
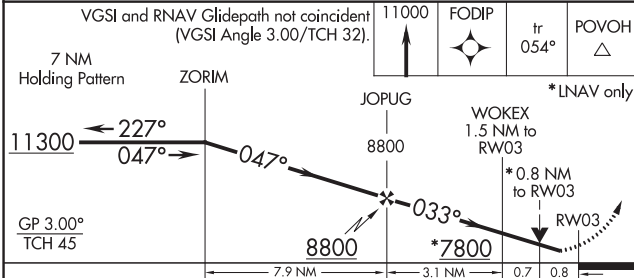
**⚠** DME/DME RNP-0.3 NA. Circling to Rwy 30 NA at night. Baro-VNAV NA. Helicopter visibility reduction below 3/4 SM NA.

**⚠** MISSED APPROACH: Climb to 11000 direct FODIP and on track 054° to POVOH and hold, continue climb-in-hold to 11000.

ASOS <b>135.475</b>	DENVER CENTER <b>125.9 284.7</b>	UNICOM <b>123.05 (CTAF) 0</b>
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ELEV 7284	<b>D</b> TDZE 7284
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CATEGORY	A	B	C	D
LPV DA		7534-3/4	250 (300-3/4)	
LNAV/VNAV DA		7534-3/4	250 (300-3/4)	
LNAV MDA	7580-1	296 (300-1)	7580-7/8	296 (300-7/8)
CIRCLING	7660-1 376 (400-1)	7740-1 456 (500-1)	7740-1 1/2 456 (500-1 1/2)	7840-2 556 (600-2)

REIL Rws 3, 12 and 21 **0**  
MIRL Rws 3-21 and 12-30 **0**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>70600</b> <b>W12A</b>	APP CRS <b>122°</b>	Rwy Idg TDZE Apt Elev	<b>6300</b> <b>7275</b> <b>7284</b>
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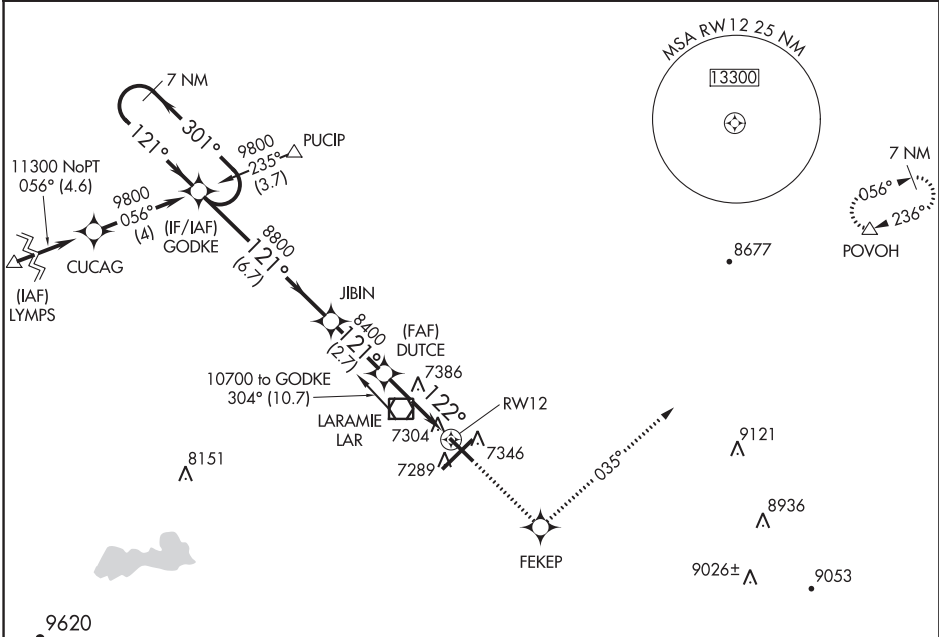
# RNAV (GPS) RWY 12

LARAMIE RGNL (L.A.R.)

**V** DME/DME RNP-0.3 NA.  
**88** -35°C/-31°F For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -29°C (-20°F) or above 34°C (93°F).

**MISSED APPROACH:** Climb to 10700 direct FEKEP and via 035° track to POVOH and hold.

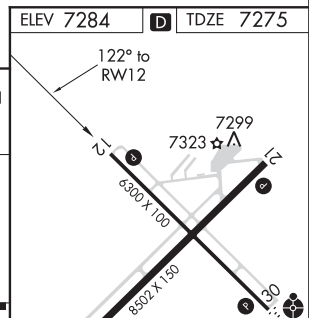
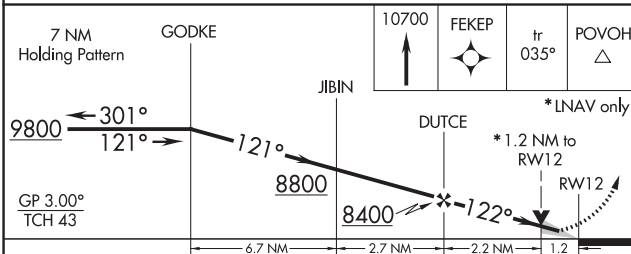
ASOS <b>135.475</b>	DENVER CENTER <b>125.9 284.7</b>	UNICOM <b>123.05</b> (CTAF) <b>L</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 7284	<b>D</b> TDZE 7275
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CATEGORY	A	B	C	D
LPV DA	7525-1		250 (300-1)	
LNAV/VNAV DA	7622-1¼		347 (400-1¼)	
LNAV MDA	7700-1	425 (500-1)	7700-1¼	425 (500-1¼)
CIRCLING	7700-1¼ 416 (500-1¼)	7740-1¼ 456 (500-1¼)	7740-1½ 456 (500-1½)	7840-2 556 (600-2)

REIL Rwy 3, 12 and 21 **L**  
 MIRL Rwy 3-21 and 12-30 **L**

# RNAV (GPS) RWY 21

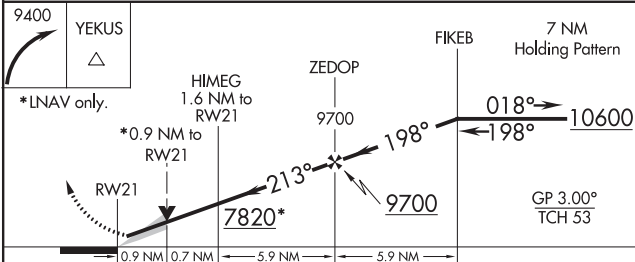
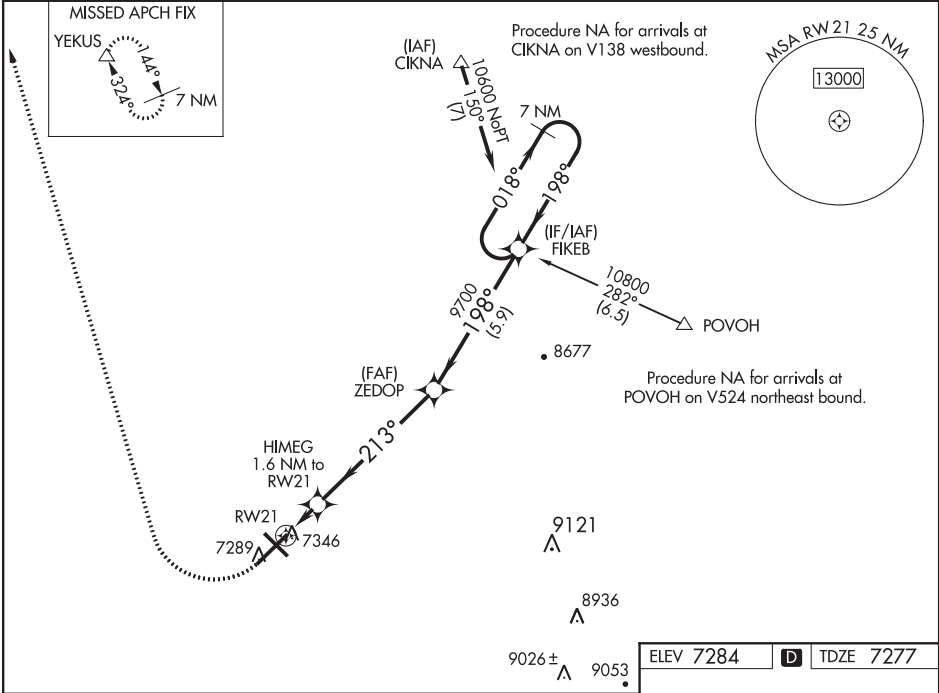
LARAMIE RGNL (L.A.R.)

WAAS CH <b>72825</b> <b>W21A</b>	APP CRS <b>213°</b>	Rwy Idg TDZE Apt Elev	<b>8502</b> <b>7277</b> <b>7284</b>
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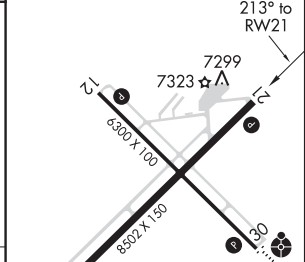
**⚠** Circling to Rwy 30 NA at night.  
Baro-VNAV NA.  
**❄** -35°C/-31°F DME/DME RNP-0.3 NA.

**MISSED APPROACH:** Climbing right turn to 9400 direct YEKUS and hold.

ASOS <b>135.475</b>	DENVER CENTER <b>125.9 284.7</b>	UNICOM <b>123.05</b> (CTAF) <b>📻</b>
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ELEV 7284	<b>D</b>	TDZE 7277
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CATEGORY	A	B	C	D
LPV DA		7527-3/4	250 (300-3/4)	
LNAV/VNAV DA		7527-3/4	250 (300-3/4)	
LNAV MDA		7600-1	323 (400-1)	
CIRCLING	7660-1 376 (400-1)	7740-1 456 (500-1)	7740-1 1/2 456 (500-1 1/2)	7840-2 556 (500-2)

REIL Rwy 3, 12 and 21 **📻**  
MIRL Rwy 3-21 and 12-30 **📻**

NW-1, 10 NOV 2016 to 05 JAN 2017

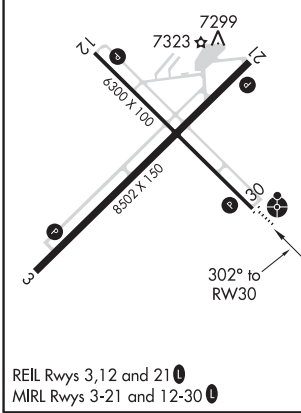
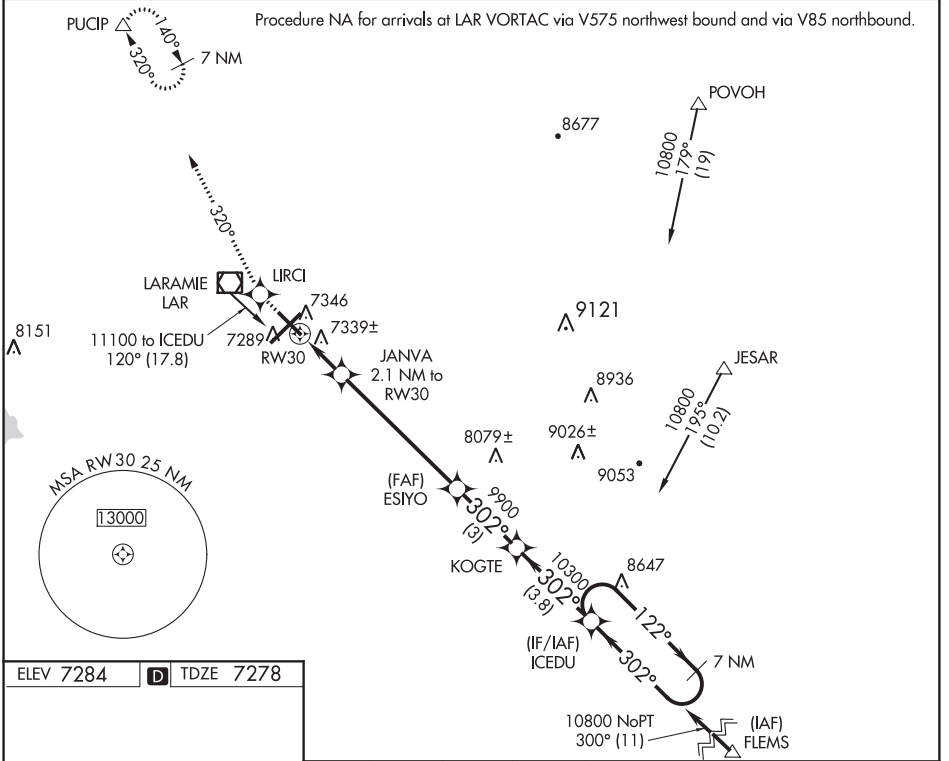
NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>53600</b> W30A	APP CRS <b>302°</b>	Rwy Idg TDZE Apt Elev	<b>6300</b> <b>7278</b> <b>7284</b>
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# RNAV (GPS) RWY 30

LARAMIE RGNL (L.A.R.)

-35°C/-31°F	Inoperative table does not apply. DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAVNA below -29°C (-20°F) or above 35°C (95°F).	ODALS 	MISSED APPROACH: Climb to 9400 direct LIRCI and via 320° track to PUCIP and hold.



9400	LIRCI	tr 320°	PUCIP	ICEDU	7 NM Holding Pattern
*LNAV only	JANVA 2.1 NM to RW30	ESIYO	KOGTE	ICEDU	7 NM Holding Pattern
	*0.9 NM to RW30				
	RW30	7980	9900	10300	10800
		302°	302°	122°	GP 3.00° TCH 41
	0.9	1.2 NM	5.8 NM	3 NM	3.8 NM
CATEGORY	A	B	C	D	
LPV DA		7528-1	250 (300-1)		
LNAV/VNAV DA		7629-1½	351 (400-1½)		
LNAV MDA		7600-1	322 (400-1)		
CIRCLING	7660-1½ 376 (400-1½)	7740-1½ 456 (500-1½)	7740-1½ 456 (500-1½)	7840-2 556 (600-2)	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

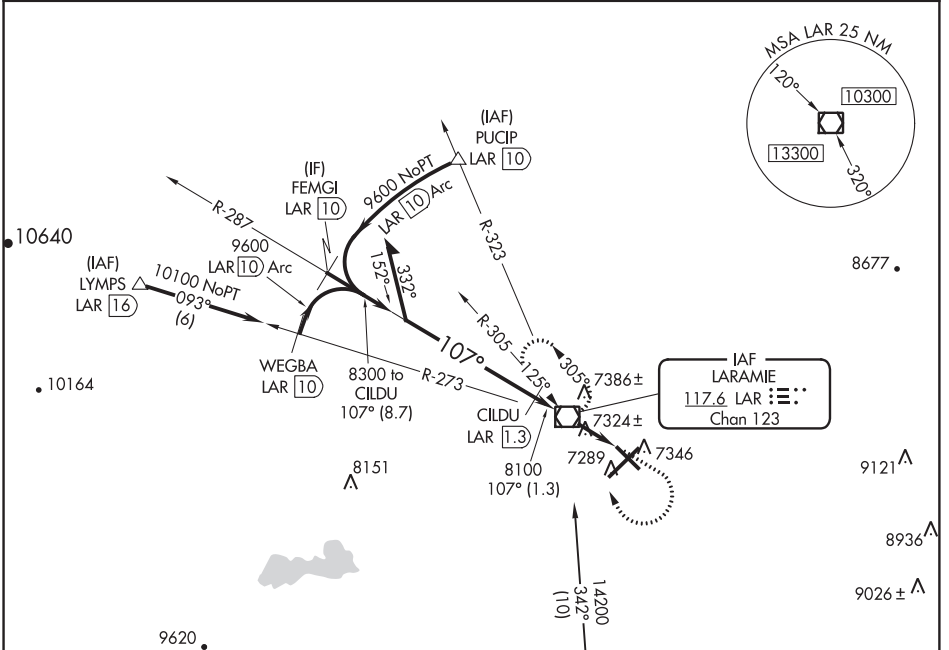
VOR/DME LAR <b>117.6</b> Chan 123	APP CRS <b>107°</b>	Rwy Idg TDZE Apt Elev	<b>6300</b> <b>7275</b> <b>7284</b>
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# VOR/DME RWY 12

LARAMIE RGNL (LAR)

-35°C/-31°F	MISSED APPROACH: Climb to 7700 then climbing right turn to 9600 direct LAR VOR/DME and hold, continue climb-in-hold to 9600.
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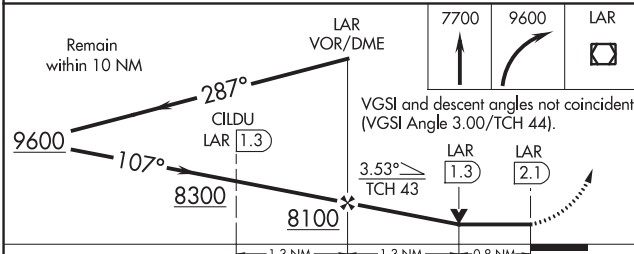
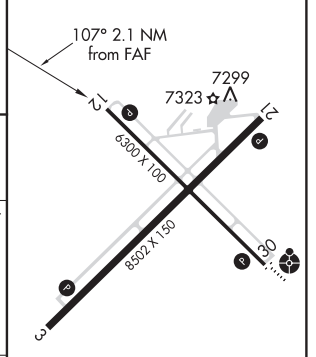
ASOS <b>135.475</b>	DENVER CENTER <b>125.9 284.7</b>	UNICOM <b>123.05 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 7284	<b>D</b>	TDZE 7275
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CATEGORY	A	B	C	D
S-12	7580-1 305 (300-1)			
CIRCLING	7660-1 376 (400-1)	7740-1 456 (500-1)	7740-1½ 456 (500-1½)	7840-2 556 (600-2)

REIL Rwy 3, 12 and 21 **0**  
MIRL Rwy 3-21 and 12-30 **0**

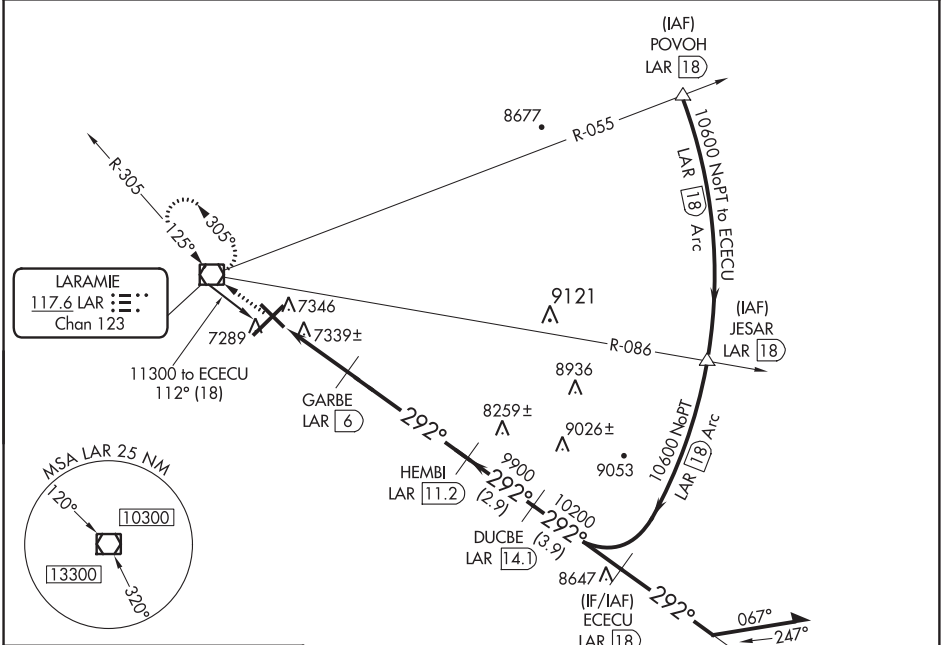
VOR/DME LAR <b>117.6</b> Chan 123	APP CRS <b>292°</b>	Rwy Idg TDZE Apt Elev <b>6300</b> <b>7278</b> <b>7284</b>
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# VOR/DME RWY 30

LARAMIE RGNL (LAR)

-35°C/-31°F	ODALS 	MISSED APPROACH: Climb to 9600 direct LAR VOR/DME and hold, continue climb-in-hold to 9600.
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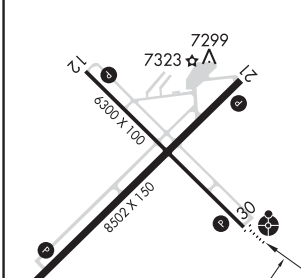
ASOS <b>135.475</b>	DENVER CENTER <b>125.9 284.7</b>	UNICOM <b>123.05 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 7284	<b>D</b>	TDZE 7278
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REIL Rws 3, 12 and 21  
MIRL Rws 3-21 and 12-30

9600	LAR	ECECU LAR 18	Remain within 10 NM
↑			
	GARBE LAR 6	HEMBI LAR 11.2	DUCBE LAR 14.1
	LAR 4	LAR 3.1	LAR 3.1
	8220	9900	10200
	0.9	2 NM	5.2 NM
		2.9 NM	3.9 NM
CATEGORY	A	B	C
S-30	7600-3/4	322 (400-3/4)	7600-1 322 (400-1)
CIRCLING	7660-1 376 (400-1)	7740-1 456 (500-1)	7740-1 1/2 456 (500-1 1/2) 7840-2 556 (600-2)

# AIRPORT DIAGRAM

AL-225 (FAA)

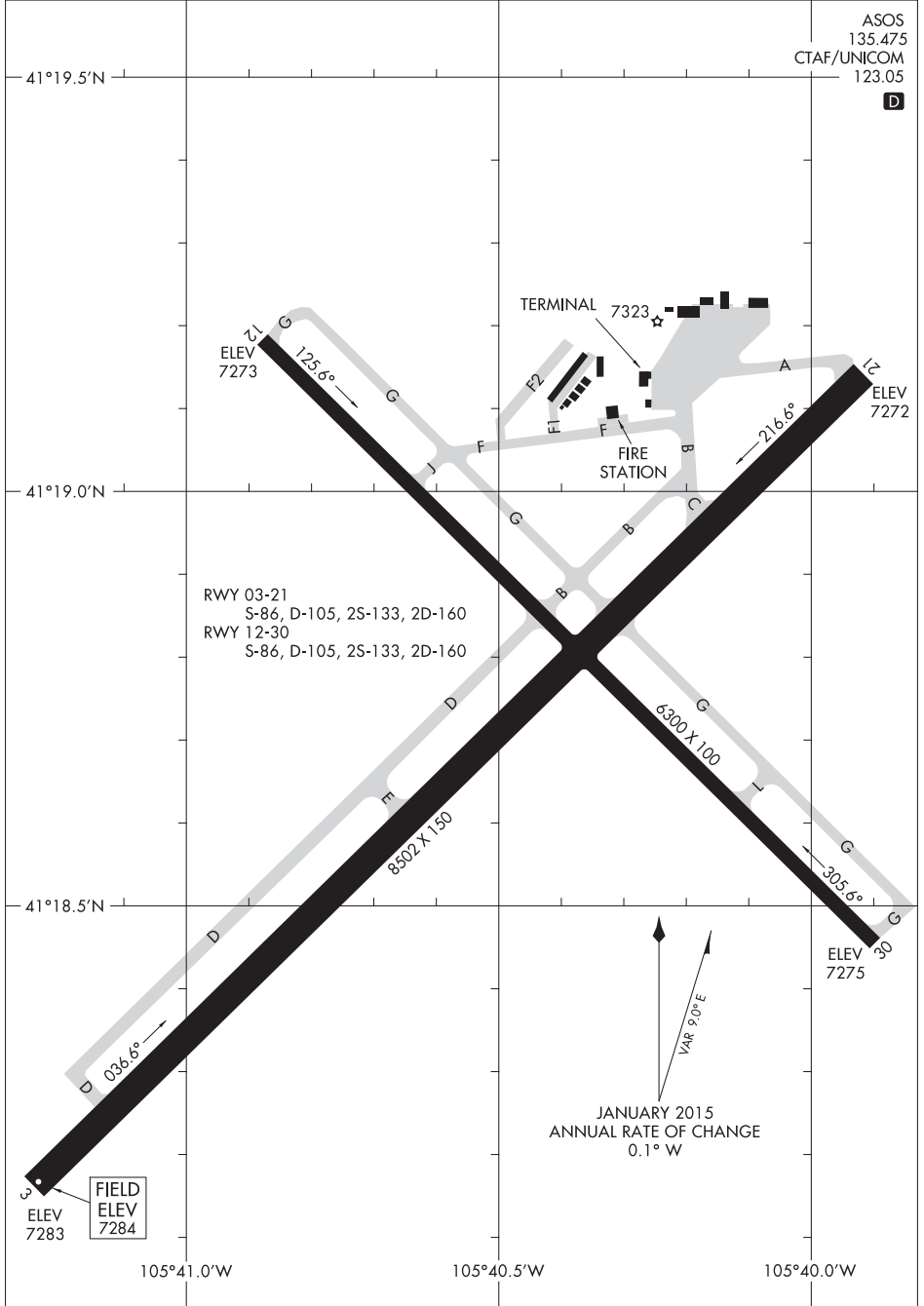
LARAMIE RGNL (LAR)  
LARAMIE, WYOMING

ASOS  
135.475  
CTAF/UNICOM  
123.05



NW-1, 10 NOV 2016 to 05 JAN 2017

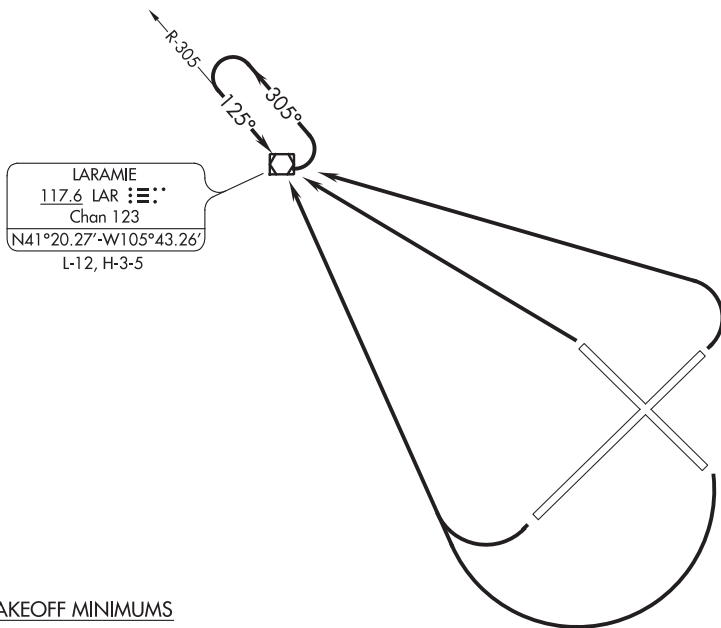
NW-1, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

LARAMIE, WYOMING  
LARAMIE RGNL (LAR)

DENVER DEP CON  
125.9 284.7  
CTAF  
123.05  
ASOS  
135.475



TAKEOFF MINIMUMS

Rwy 3, 12, 21, 30: Standard.

TAKEOFF OBSTACLE NOTES

- Rwy 3: REILS 23' from DER, 150' left of centerline, 7273' MSL.  
Vehicles on roadway beginning 882' from DER, across centerline, up to 15' AGL/7310' MSL.
- Rwy 12: Vehicles on roadway 1' from DER, across centerline, 7290' MSL.  
Vehicles on roadway beginning 844' from DER, across centerline, up to 15' AGL/7301' MSL.
- Rwy 21: Vehicles on roadway 142' from DER, across centerline, up to 15' AGL/7311' MSL.  
Vehicles on roadway beginning 443' from DER, across centerline, 7296' MSL.
- Rwy 30: Vehicles on roadway 63' from DER, across centerline, 7287' MSL.  
Vehicles on roadway beginning 464' from DER, across centerline, up to 15' AGL/7302' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climbing left turn direct LAR VOR/DME, thence. . . .

TAKEOFF RUNWAYS 12, 21: Climbing right turn direct LAR VOR/DME, thence. . . .

TAKEOFF RUNWAY 30: Climb direct LAR VOR/DME, thence. . . .

. . . .Climb in LAR VOR/DME holding pattern, hold NW, LT, 125° inbound, to cross LAR VOR/DME at or above MEA/MCA for route of flight.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



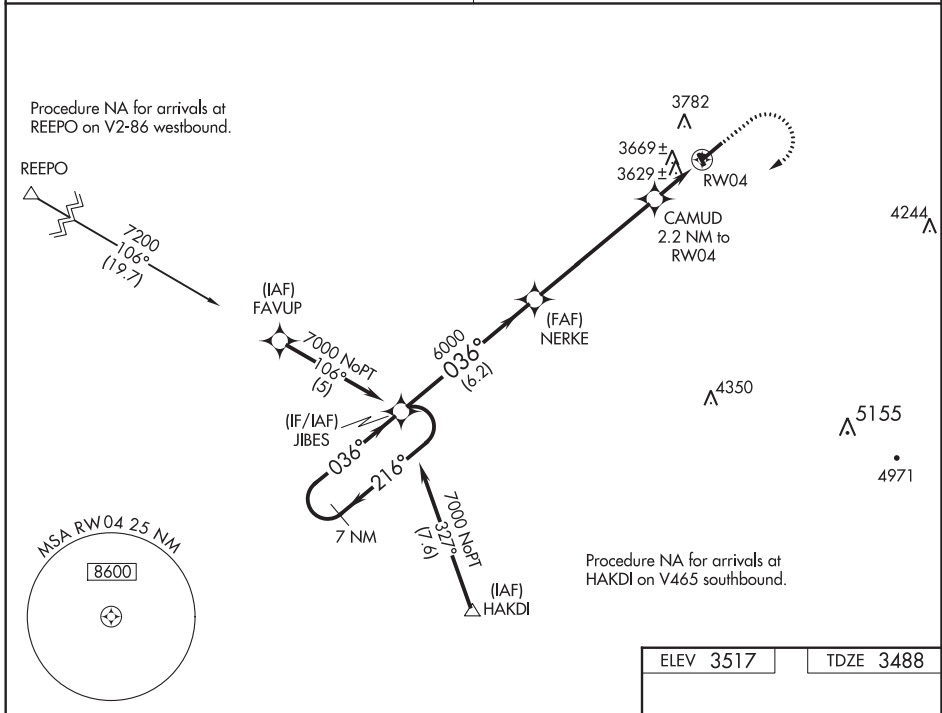
WAAS CH <b>70422</b> <b>W04A</b>	APP CRS <b>036°</b>	Rwy Idg <b>5200</b> TDZE <b>3488</b> Apt Elev <b>3517</b>
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# RNAV (GPS) RWY 4

LAUREL MUNI (6S8)

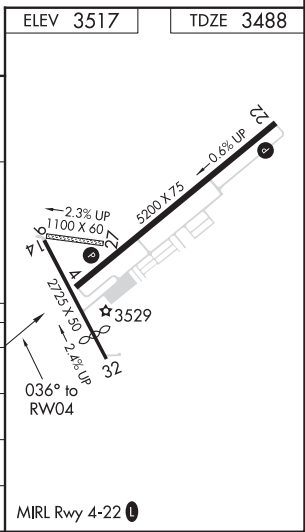
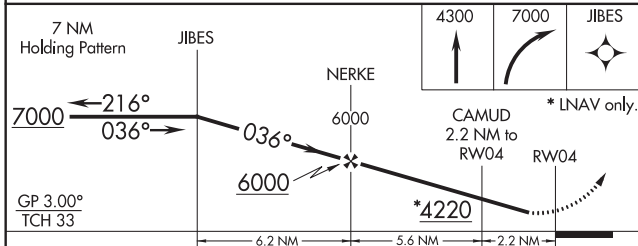
**Baro-VNAV NA.** Use Billings altimeter setting; when not received, procedure NA. When VGSI inoperative, procedure NA at night.  
**MISSED APPROACH:** Climb to 4300 then climbing right turn to 7000 direct JIBES and hold.

BILLINGS APP CON <b>119.2 120.5 284.6</b>	AUNICOM <b>123.05 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA	3783-1 295 (300-1)			
LNAV/VNAV DA	3981-1¾ 493 (500-1¾)			
LNAV MDA	3980-1 492 (500-1)	3980-1¾ 492 (500-1¾)		
CIRCLING	4200-1 683 (700-1)	4200-2 683 (700-2)	4220-2¼ 703 (800-2¼)	

WAAS CH <b>86822</b> <b>W22A</b>	APP CRS <b>216°</b>	Rwy Idg TDZE Apt Elev	<b>5200</b> <b>3472</b> <b>3517</b>
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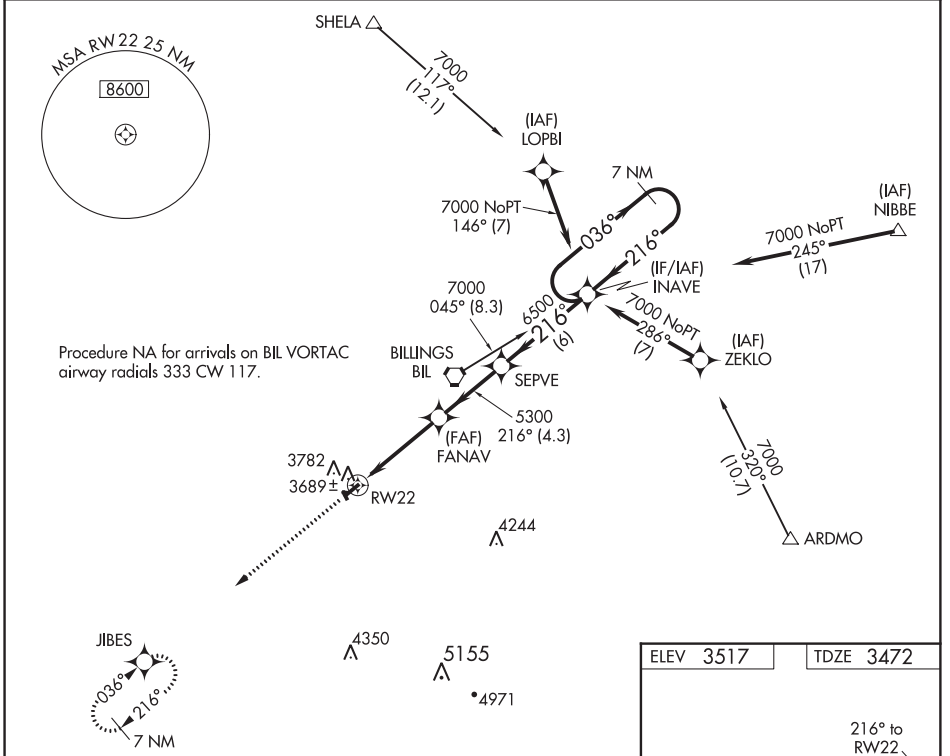
# RNAV (GPS) RWY 22

LAUREL MUNI (6S8)

**Baro-VNAV NA.** When VGSi inop, Straight-in/Circling Rwy 22 procedure NA at night. DME/DME RNP-0.3 NA. Use Billings altimeter setting; when not received, procedure NA. Helicopter visibility reduction below 1 SM NA.

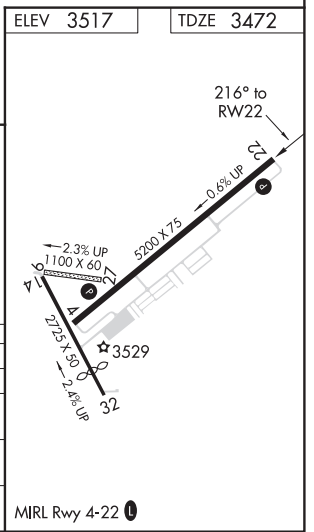
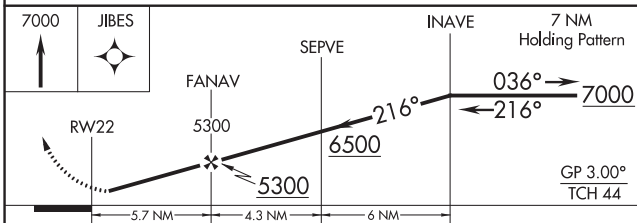
**MISSED APPROACH:** Climb to 7000 direct JIBES and hold, Continue climb-in-hold to 7000.

<b>BILLINGS APP CON</b> <b>119.2 120.5 284.6</b>	<b>AUNICOM</b> <b>123.05 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



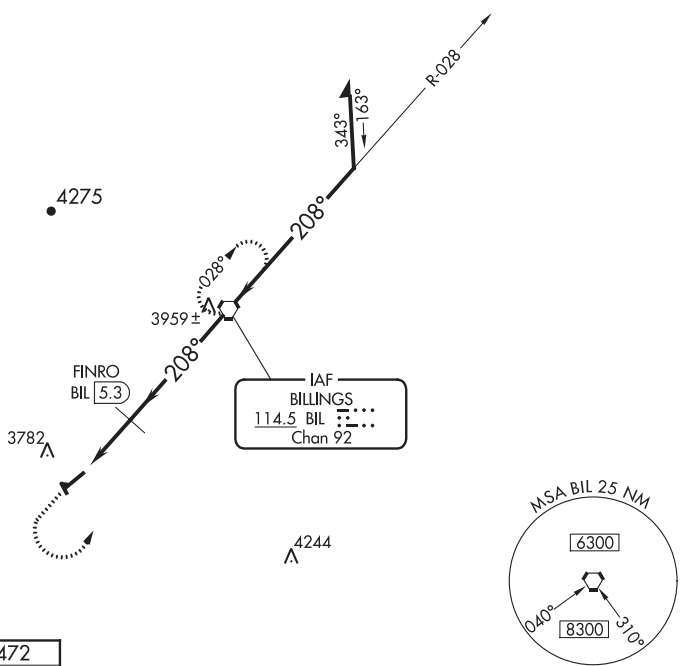
CATEGORY	A	B	C	D
LPV DA	3767-1		295 (300-1)	
LNAV/VNAV DA	3965-1 5/8		493 (500-1 5/8)	
LNAV MDA	4000-1	528 (500-1)	4000-1 5/8	528 (500-1 5/8)
CIRCLING	4200-1	683 (700-1)	4200-2	4220-2 1/4 703 (800-2 1/4)

VORTAC BIL <b>114.5</b> Chan <b>92</b>	APP CRS <b>208°</b>	Rwy Idg TDZE Apt Elev	<b>5200</b> <b>3472</b> <b>3517</b>
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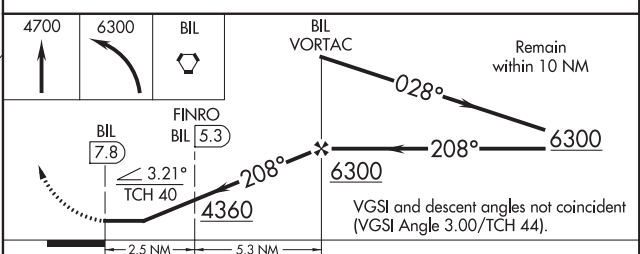
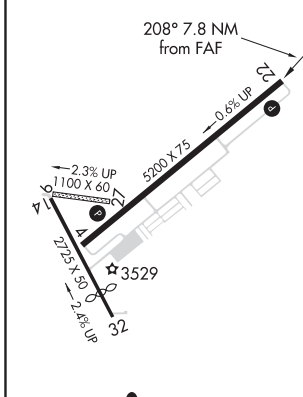
# VOR RWY 22

LAUREL MUNI (6S8)

<p><b>NA</b> Use Billings altimeter setting.</p> <p><b>-25°C/-13°F</b></p>	<p>MISSED APPROACH: Climb to 4700 then climbing left turn to 6300 direct BIL VORTAC and hold.</p>
<p>BILLINGS APP CON <b>119.2 120.5 284.6</b></p>	<p>AUNICOM <b>123.05 (CTAF) 0</b></p>



ELEV 3517	TDZE 3472
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CATEGORY	A	B	C	D
S-22	4360-1¼ 888 (900-1¼)		4360-2¾ 888 (900-2¾)	4360-3 888 (900-3)
CIRCLING	4360-1¼ 843 (900-1¼)		4360-2¾ 843 (900-2¾)	4360-3 843 (900-3)
FINRO FIX MINIMUMS				
S-22	4160-1 688 (700-1)		4160-2 688 (700-2)	4160-2½ 688 (700-2½)
CIRCLING	4220-1 703 (800-1)		4220-2 703 (800-2)	4340-2¾ 823 (900-2¾)

MIRL Rwy 4-22 0

FAF to MAP 7.8 NM

Knots	60	90	120	150	180
Min:Sec	7:48	5:12	3:54	3:07	2:36

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

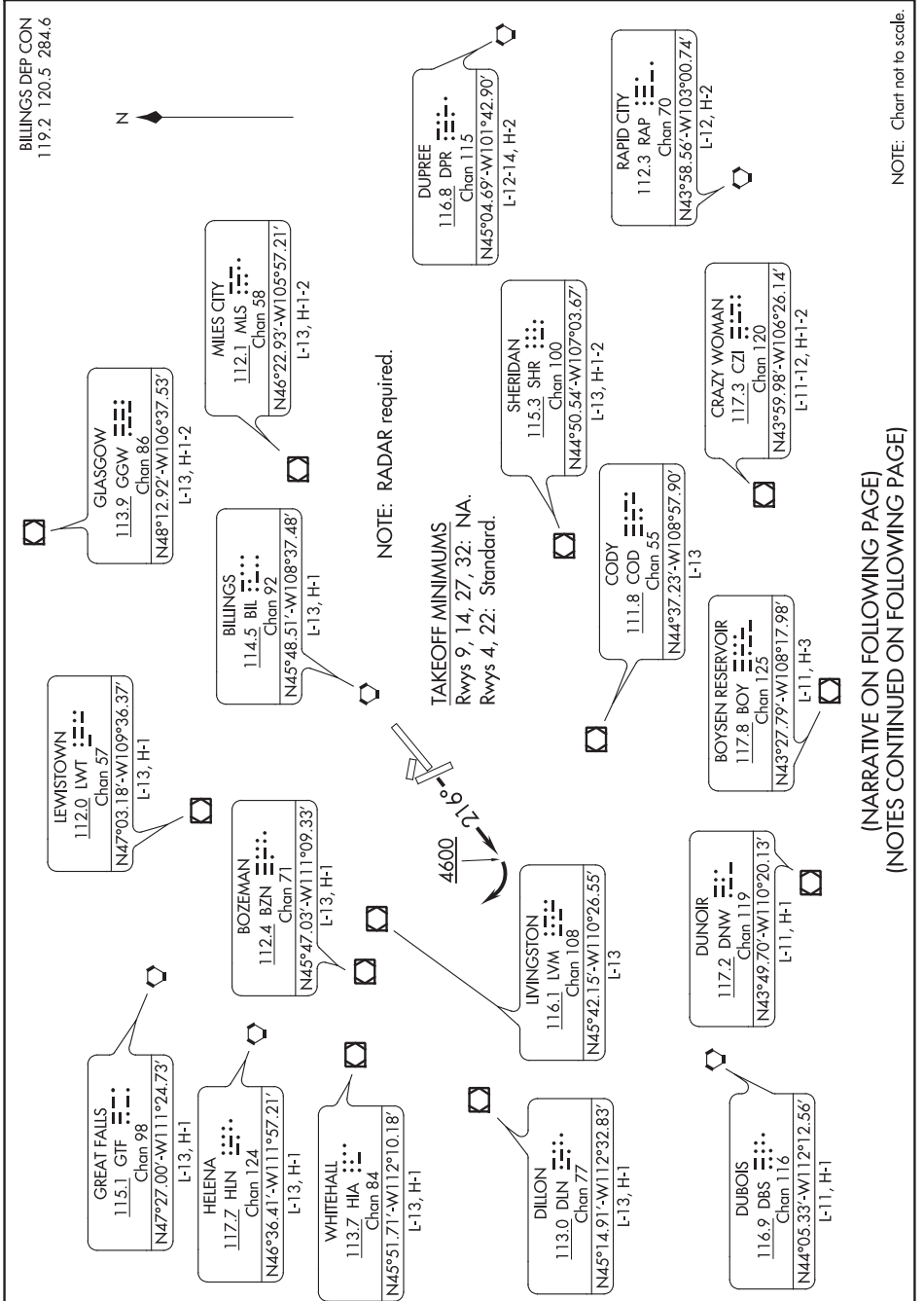
# BILLINGS FOUR DEPARTURE

SL-6781 (FAA)

LAUREL MUNI (6S8)

LAUREL, MONTANA

NW-1, 10 NOV 2016 TO 05 JAN 2017



# BILLINGS FOUR DEPARTURE

LAUREL, MONTANA

LAUREL MUNI (6S8)

(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NW-1, 10 NOV 2016 TO 05 JAN 2017



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on assigned heading for vectors to assigned fix/route, thence. . . .

TAKEOFF RUNWAY 22: Climb heading 216° to 4600 before turning right, thence. . . .

. . . . maintain 15000 or assigned lower altitude. Expect clearance to filed altitude/flight level five minutes after departure.

LOST COMMUNICATIONS: If no transmissions are received for 1 minute after departure, fly last assigned heading until reaching 7000. Proceed direct BIL VORTAC, then via last routing cleared and climb to filed altitude.

TAKEOFF OBSTACLE NOTES

Rwy 4: Ground beginning 47' from DER, 397' left of centerline, up to 3480' MSL. Multiple trees beginning 309' from DER, 260' right of centerline, up to 68' AGL/3522' MSL. Fence beginning 64' from DER, 281' left of centerline, up to 15' AGL/3469' MSL.

Rwy 22: Ground beginning 34' from DER, 264' right of centerline, up to 3498' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LEWISTON, IDAHO

AL-515 (FAA)

16259

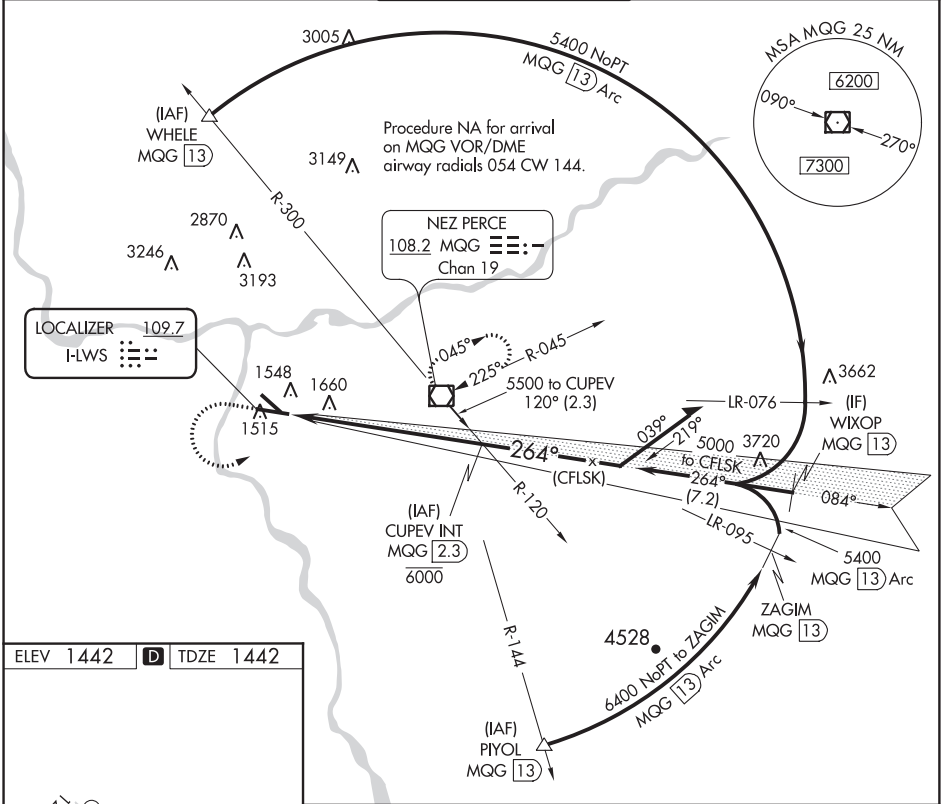
LOC I-LWS <b>109.7</b>	APP CRS <b>264°</b>	Rwy Idg <b>6512</b>
		TDZE <b>1442</b>
		Apt Elev <b>1442</b>

# ILS RWY 26

LEWISTON-NEZ PERCE COUNTY (LWS)

	When local altimeter setting not received, procedure NA. Autopilot coupled approach NA below 2500.		MISSED APPROACH: Climb to 3000 then climbing left turn to 5300 direct MQG VOR/DME and hold, continue climb-in-hold to 5300.
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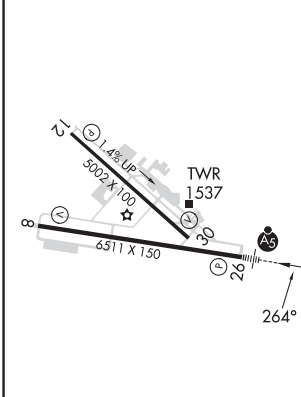
ASOS <b>135.575</b>	SEATTLE CENTER <b>123.95 290.55</b>	LEWISTON TOWER ★ <b>119.4 (CTAF) 318.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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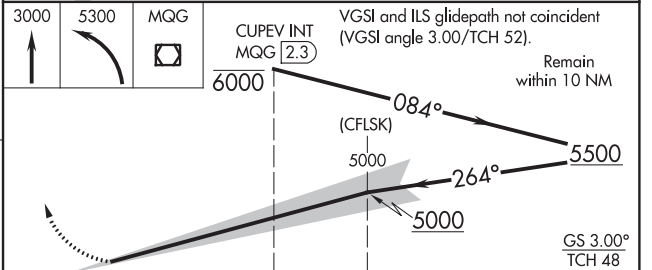
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1442	<b>D</b>	TDZE 1442
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- REIL Rwy 8
- REIL Rwy 12
- HIRL Rwy 8-26
- MIRL Rwy 12-30



CATEGORY	A	B	C	D
S-ILS 26		1642-½	200 (200-½)	

LEWISTON, IDAHO  
Amdt 13C 26JUN14

46°22'N-117°01'W

LEWISTON-NEZ PERCE COUNTY (LWS)

# ILS RWY 26

APP CRS	Rwy Idg	<b>5002</b>
<b>297°</b>	TDZE	<b>1442</b>
	Apt Elev	<b>1442</b>

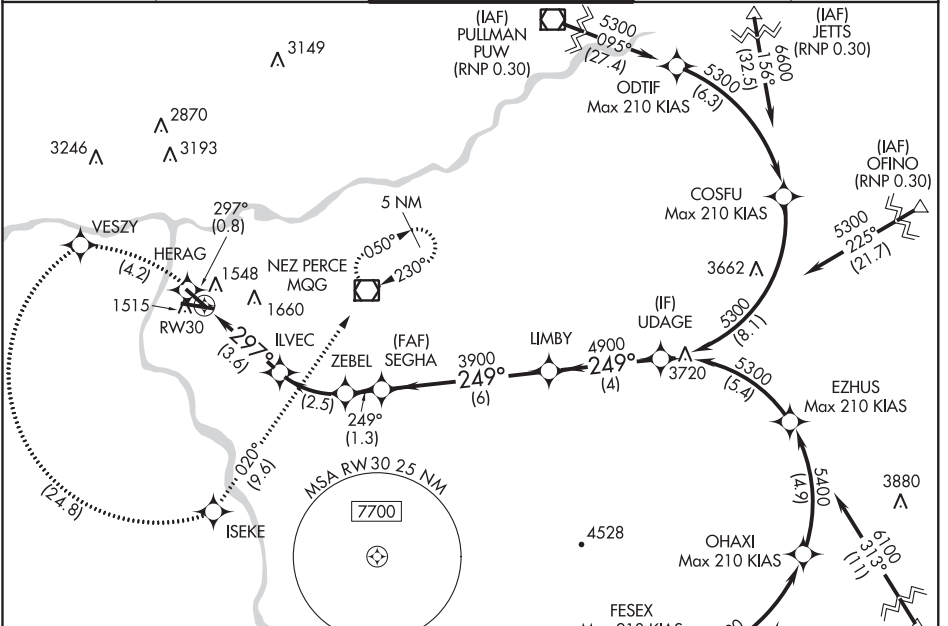
# RNAV (RNP) RWY 30

LEWISTON-NEZ PERCE COUNTY (LWS)

**GPS and RF Required.** For uncompensated Baro-VNAV systems, procedure NA below -16°C (4°F) or above 46°C (114°F). Missed approach requires RNP less than RNP 1.00.

**MISSED APPROACH:** Climb to 6000 on track 297° to HERAG, left turn to VESZY, left turn to ISEKE and on track 020° to MQG VOR/DME and hold.

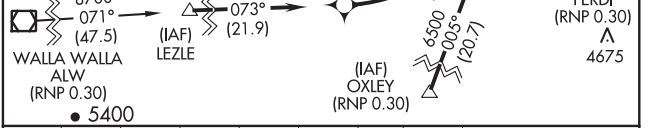
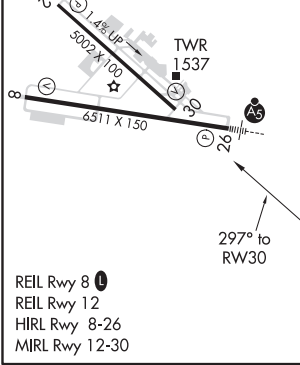
ASOS <b>135.575</b>	SEATTLE CENTER <b>123.95 290.55</b>	LEWISTON TOWER ★ <b>119.4 (CTAF) 318.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV <b>1442</b>	<b>D</b>	TDZE <b>1442</b>
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6000	HERAG	VESZY	ISEKE	MQG	UDAGE
tr 297°				tr 020°	Procedure Turn NA
	ILVEC	ZEBEL	SEGHA	UMBY	
	2646	3468	3900	4900	5300
			249°		
			3900		
					GP 3.00°
					TCH 47
	3.6 NM	2.5 NM	1.3 NM	6 NM	4 NM
CATEGORY	A		B	C	D
RNP 0.30 DA			1760-1	318 (400-1)	

**AUTHORIZATION REQUIRED**

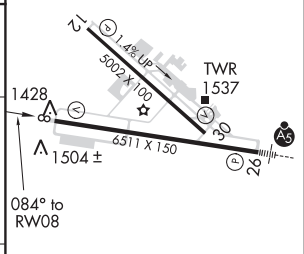
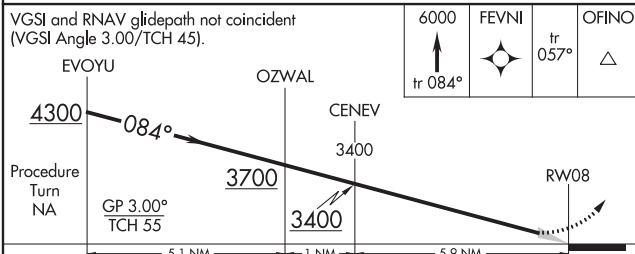
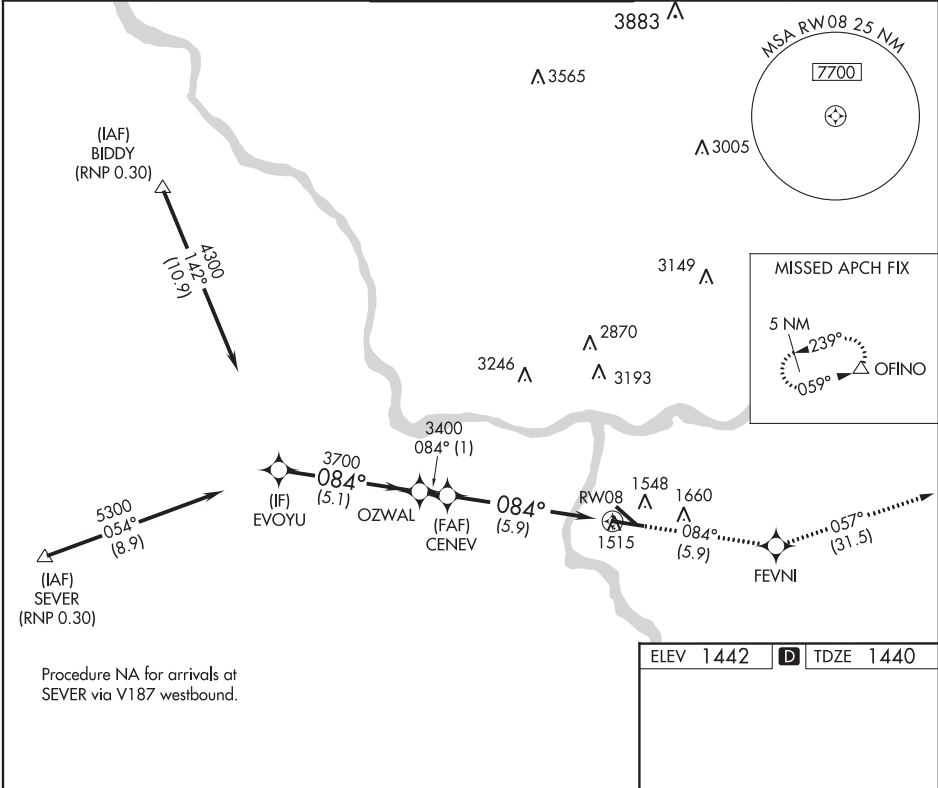
# RNAV (RNP) Z RWY 8

LEWISTON-NEZ PERCE COUNTY (LWS)

APP CRS	Rwy Idg	<b>6511</b>
<b>084°</b>	TDZE	<b>1440</b>
	Apt Elev	<b>1442</b>

  	GPS required. For uncompensated Baro-VNAV systems, procedure NA below -16°C (3°F) or above 46°C (115°F). When VGSI inop, procedure NA at night.	MISSED APPROACH: Climb to 6000 via track 084° to FEVNI and via track 057° to OFINO and hold.
	-16°C/3°F	

ASOS <b>135.575</b>	SEATTLE CENTER <b>123.95 290.55</b>	LEWISTON TOWER ★ <b>119.4 (CTAF) 0 318.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
RNP 0.30 DA	1752-1 312 (400-1)			

REIL Rwy 8

REIL Rwy 12

HIRL Rwy 8-26

MIRL Rwy 12-30

## AUTHORIZATION REQUIRED

# RNAV (RNP) Z RWY 8

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



APP CRS <b>117°</b>	Rwy Idg <b>5002</b>
	TDZE <b>1415</b>
	Apt Elev <b>1442</b>

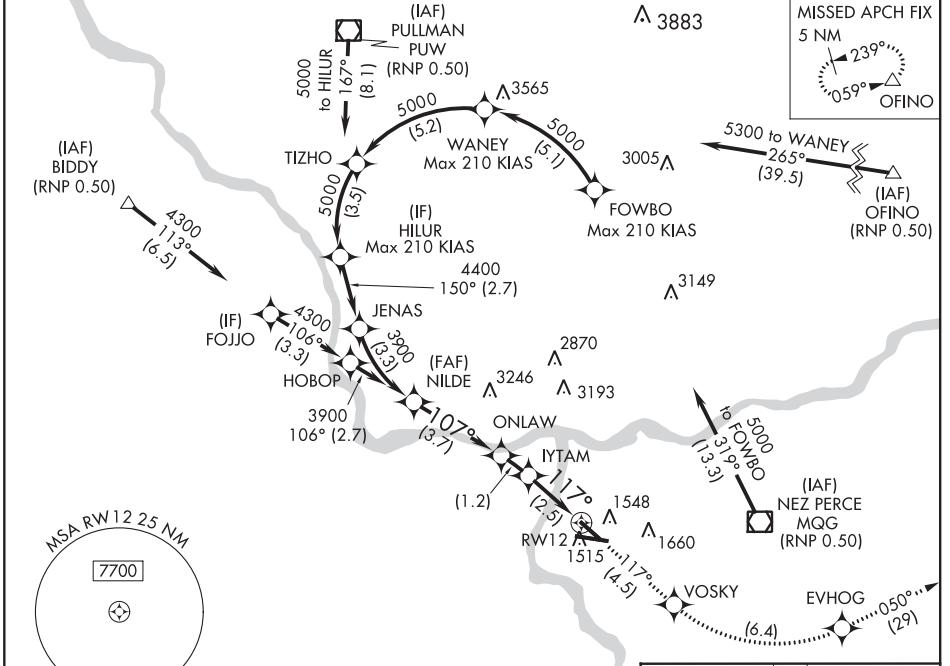
# RNAV (RNP) Z RWY 12

LEWISTON-NEZ PERCE COUNTY (LWS)

**GPS and RF Required.** For uncompensated Baro-VNAV systems, procedure NA below -16°C (3°F) or above 36°C (98°F). Procedure NA at night.  
 \* Missed approach requires minimum climb of 260 feet per NM to 3400.

**MISSED APPROACH:** Climb to 6000 via track 117° to VOSKY and via left turn to EVHOG and via track 050° to OFINO and hold.

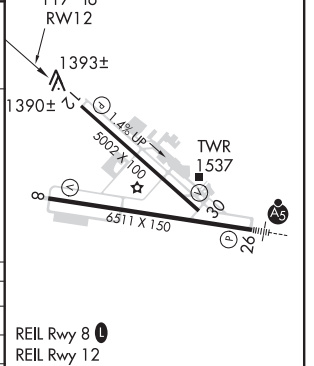
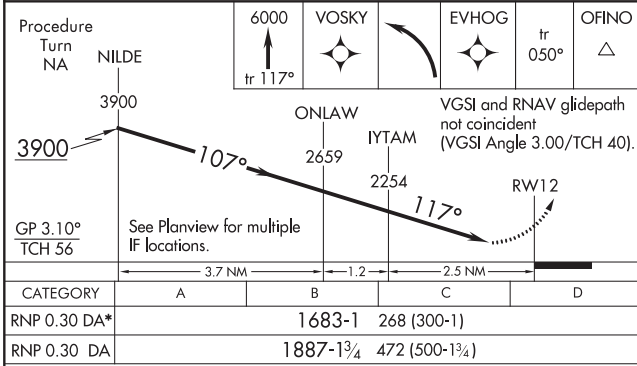
ASOS <b>135.575</b>	SEATTLE CENTER <b>123.95 290.55</b>	LEWISTON TOWER ★ <b>119.4 (CTAF) 318.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1442	TDZE 1415
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CATEGORY	A	B	C	D
RNP 0.30 DA*	1683-1		268 (300-1)	
RNP 0.30 DA	1887-1¼		472 (500-1¼)	

## AUTHORIZATION REQUIRED

- REIL Rwy 8
- REIL Rwy 12
- HIRL Rwy 8-26
- MIRL Rwy 12-30

LEWISTON, IDAHO

AL-515 (FAA)


16259

APP CRS	Rwy Idg	<b>6511</b>
<b>264°</b>	TDZE	<b>1442</b>
	Apt Elev	<b>1442</b>

# RNAV (RNP) Z RWY 26

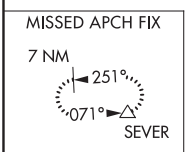
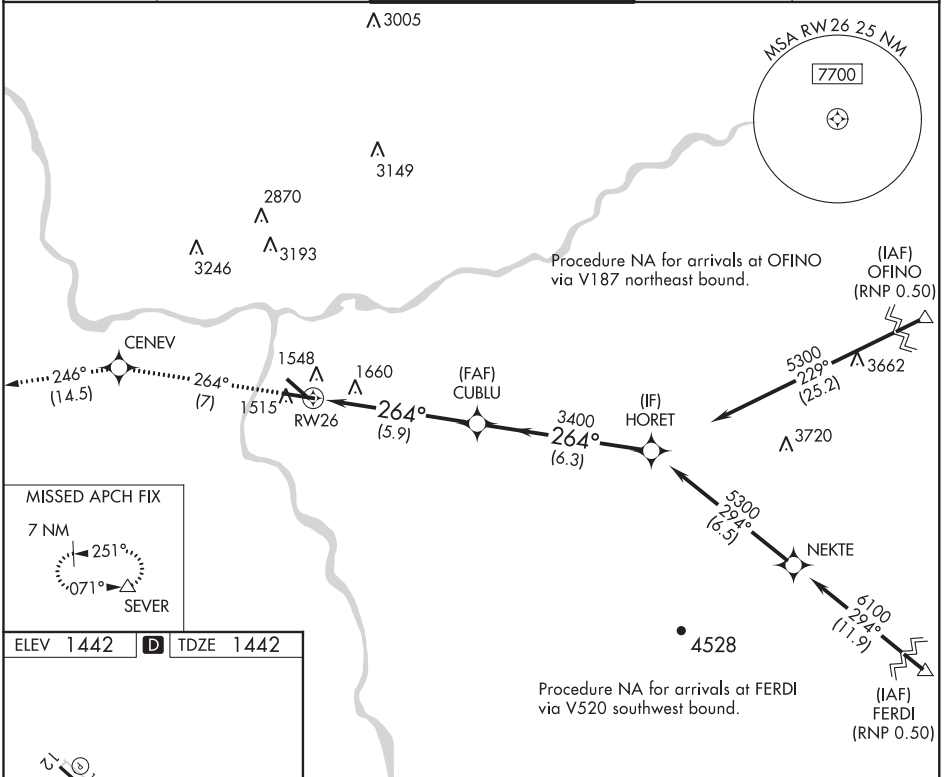
LEWISTON-NEZ PERCE COUNTY (LWS)

**GPS Required.** For uncompensated Baro-VNAV systems, procedure NA below -16°C (3°F) or above 46°C (115°F). For inoperative MALSR, increase RNP 0.20 visibility all Cats to 1 mile and RNP 0.30 visibility all Cats to 2 miles.

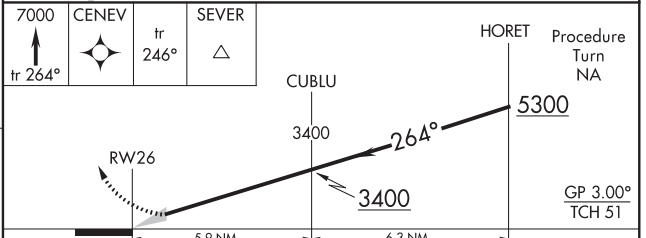
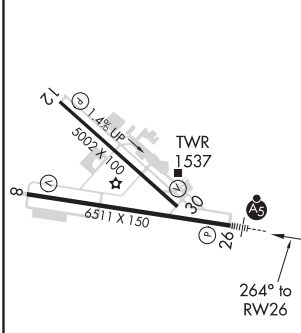
**MALSR** 

**MISSED APPROACH:** Climb to 7000 via track 264° to CENEV and via track 246° to SEVER and hold, continue climb-in-hold to 7000.

ASOS <b>135.575</b>	SEATTLE CENTER <b>123.95 290.55</b>	LEWISTON TOWER ★ <b>119.4 (CTAF) 318.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 1442	<b>D</b>	TDZE 1442
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CATEGORY	A	B	C	D
RNP 0.20 DA		1715-1/2	273 (300-1/2)	
RNP 0.30 DA		2003-1/2	561 (600-1/2)	

**AUTHORIZATION REQUIRED**

LEWISTON, IDAHO  
Orig-A 30JUN11

46°22'N-117°01'W

LEWISTON-NEZ PERCE COUNTY (LWS)  
**RNAV (RNP) Z RWY 26**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>97600</b> <b>W08A</b>	APP CRS <b>084°</b>	Rwy Ldg TDZE <b>1440</b> Apt Elev <b>1442</b>	<b>6511</b>
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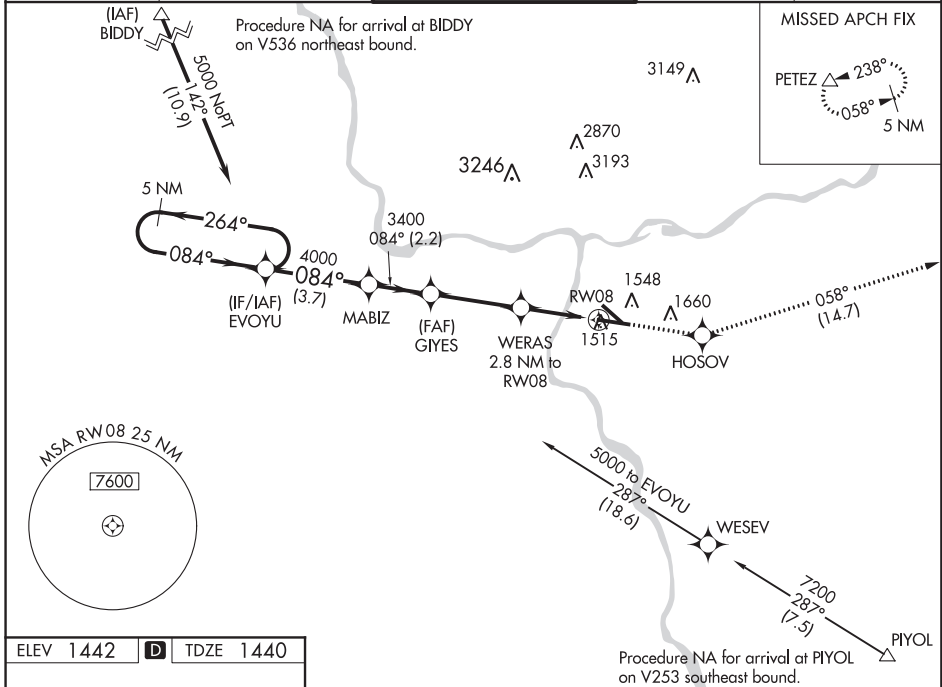
# RNAV (GPS) Y RWY 8

LEWISTON-NEZ PERCE COUNTY (LWS)

**⚠** When local altimeter setting not received, procedure NA.  
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -14°C (7°F) or above 34°C (93°F). DME/DME RNP-0.3 NA.  
**⚠** -16°C/3°F

**MISSED APPROACH:** Climb to 5700 direct HOSOVO and on track 058° to PETEZ and hold, continue climb-in-hold to 5700.

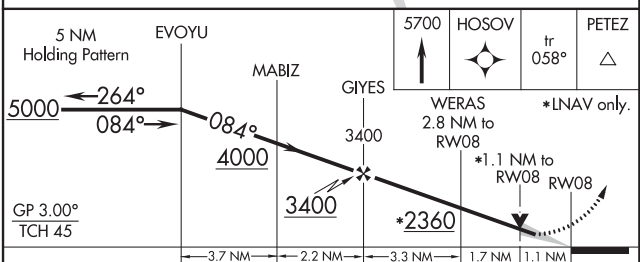
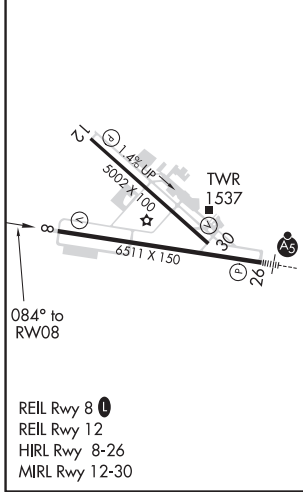
ASOS <b>135.575</b>	SEATTLE CENTER <b>123.95 290.55</b>	LEWISTON TOWER ★ <b>119.4 (CTAF) 0 318.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV <b>1442</b>	<b>D</b>	TDZE <b>1440</b>
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CATEGORY	A	B	C	D
LPV DA		1690- $\frac{3}{4}$	250 (300- $\frac{3}{4}$ )	
LNAV/VNAV DA		1736-1	296 (300-1)	
LNAV MDA	1820-1	380 (400-1)	1820-1 $\frac{1}{8}$	380 (400-1 $\frac{1}{8}$ )
CIRCLING	1900-1 458 (500-1)	1920-1 478 (500-1)	1960-1 $\frac{1}{2}$ 518 (600-1 $\frac{1}{2}$ )	2160-2 $\frac{1}{4}$ 718 (800-2 $\frac{1}{4}$ )

LEWISTON, IDAHO

AL-515 (FAA)

16259

WAAS CH <b>56500</b> <b>W12A</b>	APP CRS <b>117°</b>	Rwy Idg <b>5002</b> TDZE <b>1415</b> Apt Elev <b>1442</b>
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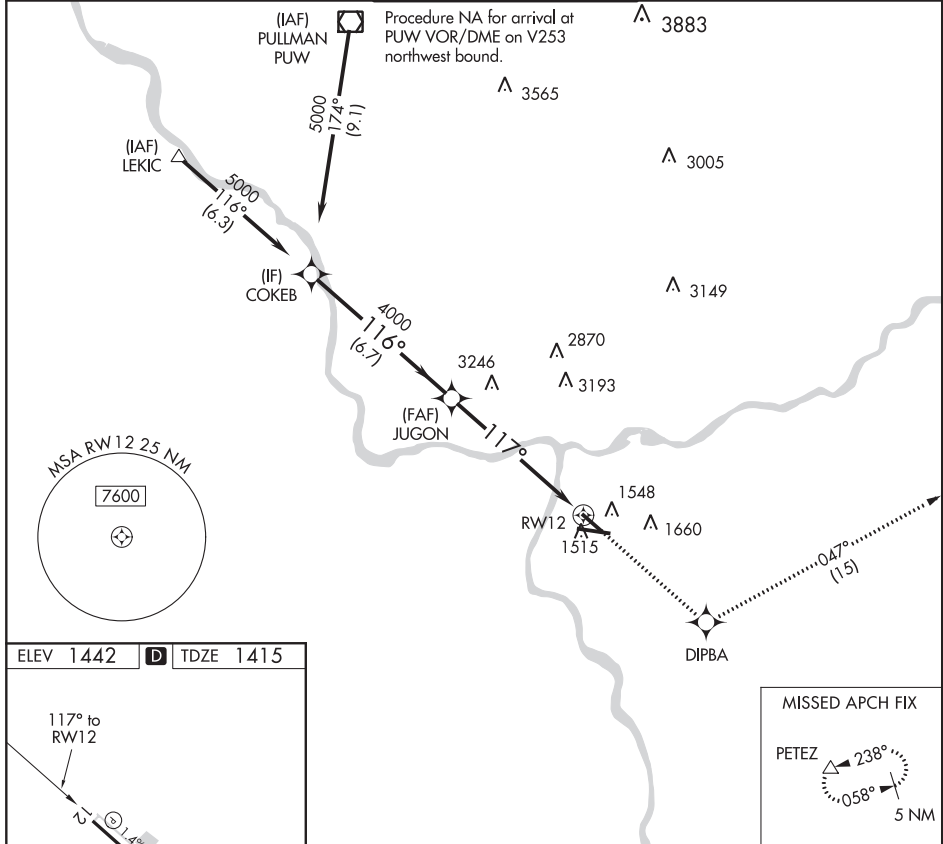
# RNAV (GPS) Y RWY 12

LEWISTON-NEZ PERCE COUNTY (LWS)

**⚠ NA** When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA.

**MISSED APPROACH:** Climb to 5700 direct DIPBA and on track 047° to PETEZ and hold, continue climb-in-hold to 5700.

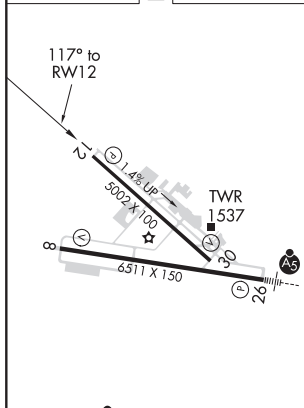
ASOS <b>135.575</b>	SEATTLE CENTER <b>123.95 290.55</b>	LEWISTON TOWER ★ <b>119.4 (CTAF) 0 318.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

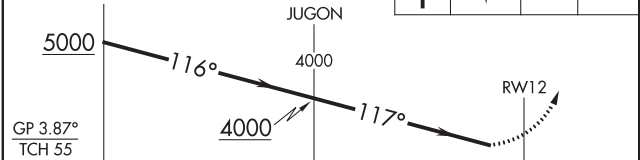
ELEV <b>1442</b>	<b>D</b>	TDZE <b>1415</b>
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REIL Rwy 8 **Ⓛ**  
REIL Rwy 12  
HIRL Rwy 8-26  
MIRL Rwy 12-30

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 40).

5700	DIPBA	tr 047°	PETEZ
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CATEGORY	A	B	C	D
LPV DA	1793-1	378 (400-1)		NA

LEWISTON, IDAHO  
Amdt 2B 26JUN14

46°22'N-117°01'W

# LEWISTON-NEZ PERCE COUNTY (LWS) RNAV (GPS) Y RWY 12



LEWISTON, IDAHO

AL-515 (FAA)

16259

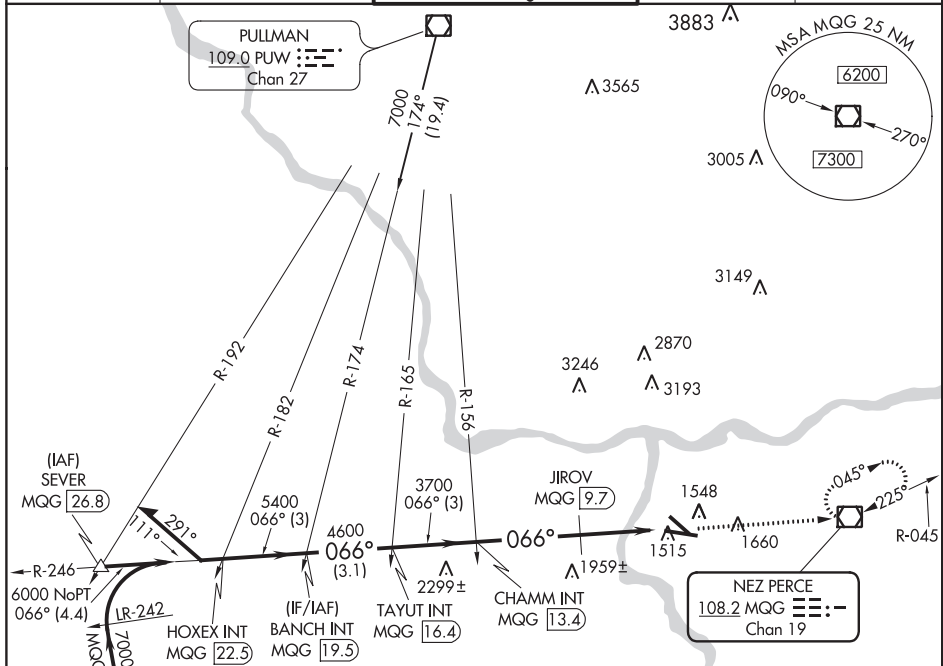
VOR/DME MQG <b>108.2</b> Chan 19	APP CRS <b>066°</b>	Rwy Idg <b>6511</b> TDZE <b>1440</b> Apt Elev <b>1442</b>
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# VOR RWY 8

LEWISTON-NEZ PERCE COUNTY (LWS)

-16°C/3°F		MISSED APPROACH: Climb to 5000 direct MQG VOR/DME and hold, continue climb-in-hold to 5000.		
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ASOS <b>135.575</b>	SEATTLE CENTER <b>123.95 290.55</b>	LEWISTON TOWER ★ <b>119.4</b> (CTAF) <b>318.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

	HOXEX INT MQG 22.5	BANCH INT MQG 19.5	TAYUT INT MQG 16.4	CHAMM INT MQG 13.4	JIROV MQG 9.7	5000 MQG
6800	246°					
6000	066°	5400	4600	3700	2480	
	3 NM	3.1 NM	3 NM	3.7 NM	0.7	2.4
CATEGORY	A	B	C	D		
S-8	2480-1¼ 1040 (1100-1¼)	2480-1½ 1040 (1100-1½)	2480-3	1040 (1100-3)		
CIRCLING	2480-1¼ 1038 (1100-1¼)	2480-1½ 1038 (1100-1½)	2480-3	1038 (1100-3)		
JIROV FIX MINIMUMS						
S-8	2220-1 780 (800-1)	2220-1¼ 780 (800-1¼)	2220-2¼ 780 (800-2¼)	2220-2½ 780 (800-2½)		
CIRCLING	2220-1 778 (800-1)	2220-1¼ 778 (800-1¼)	2220-2¼ 778 (800-2¼)	2220-2½ 778 (800-2½)		

ELEV 1442	TDZE 1440
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REIL Rwy 8  
REIL Rwy 12  
HIRL Rwy 8-26  
MIRL Rwy 12-30

FAF to MAP 6.8 NM

Knots	60	90	120	150	180
Min:Sec	6:48	4:32	3:24	2:43	2:16

LEWISTON, IDAHO

Amtd 6 28SEP06

LEWISTON-NEZ PERCE COUNTY (LWS)

46°22'N-117°01'W

# VOR RWY 8



# POTOR TWO DEPARTURE

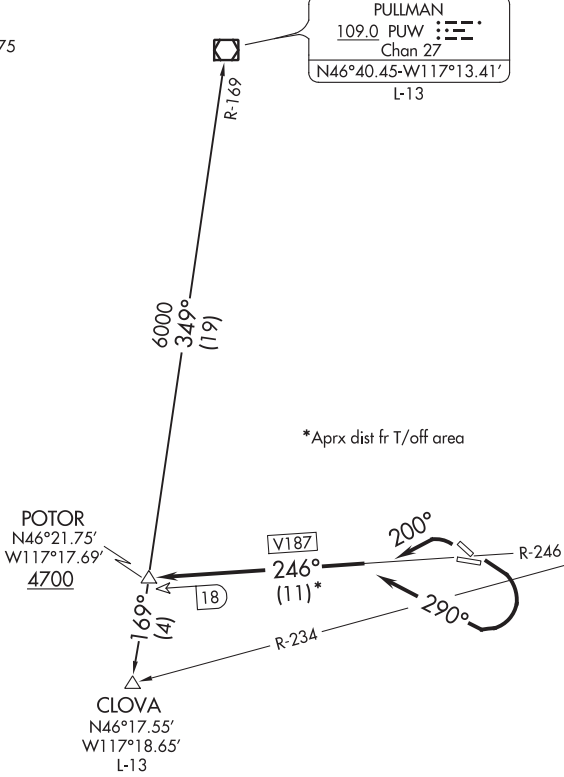
GND CON  
121.9  
CTAF 119.4  
ASOS 135.575

PULLMAN  
109.0 PUV   
Chan 27  
N46°40.45'-W117°13.41'  
L-13

NEZ PERCE  
108.2 MQG   
Chan 19

POTOR  
N46°21.75'  
W117°17.69'  
4700

CLOVA  
N46°17.55'  
W117°18.65'  
L-13



\*Aprx dist fr T/off area

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NOTE: Departures may be restricted to cross POTOR INT at 5000.

NOTE: Minimum climb required- Rws 26 and 30-300'/NM to 4700' (750 FPM/150K IAS, 1000 FPM/200K IAS).  
Rws 8 and 12-270'/NM to 4700' (675 FPM/150K IAS, 900 FPM/200K IAS) or 4600' ceiling and three miles visibility.

NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8, 12: Turn right heading 290°. Thence....

TAKEOFF RUNWAYS 26, 30: Turn left heading 200°. Thence....

....Intercept and proceed via MQG R-246 (V187) to POTOR INT. Thence via (assigned route) or (transition).

CLOVA TRANSITION (POTOR2.CLOVA): From over POTOR INT on PUV R-169 to CLOVA INT.

PULLMAN TRANSITION (POTOR2.PUW): From over POTOR INT on PUV R-169 to PUW VOR/DME.



WAAS CH <b>86700</b> <b>W08A</b>	APP CRS <b>075°</b>	Rwy Idg <b>6100</b> TDZE <b>4129</b> Apt Elev <b>4170</b>
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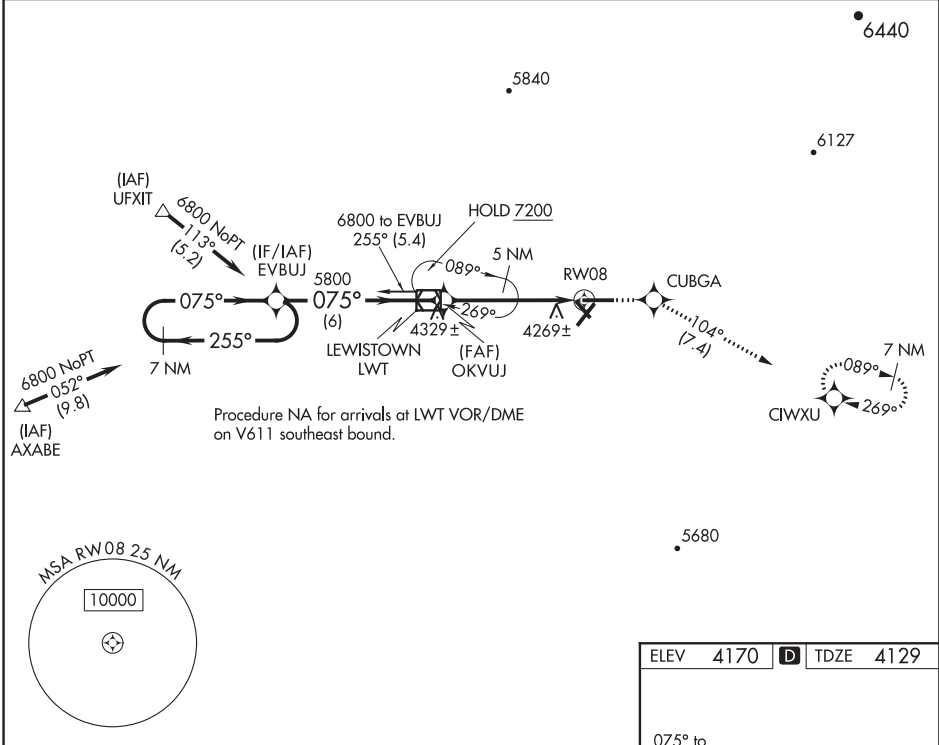
# RNAV (GPS) RWY 8

LEWISTOWN MUNI (LWT)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 18°C (64°F). When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA.

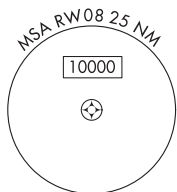
**MISSED APPROACH:** Climb to 7700 direct CUBGA and on track 104° to CIWXU, continue climb-in-hold to 7700.

ASOS <b>118.375</b>	GREAT FALLS RADIO <b>122.2</b>	UNICOM <b>123.0 (CTAF)</b>
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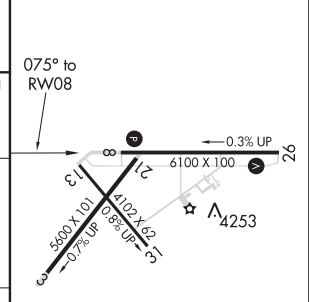
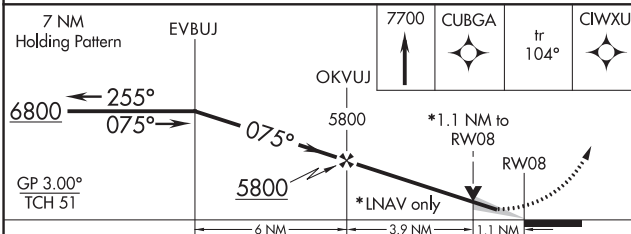


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 4170	<b>D</b> TDZE 4129
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CATEGORY	A	B	C	D
LPV DA		4379-3/4	250 (300-3/4)	
LNAV/VNAV DA		4636-13/4	507 (500-13/4)	
LNAV MDA	4520-1	391 (400-1)	4520-1 1/8	391 (400-1 1/8)
CIRCLING	4680-1	510 (600-1)	4780-1 3/4 610 (700-1 3/4)	4860-2 1/4 690 (700-2 1/4)

REIL Rwy 8 and 26 **D**  
MIRL Rwy 3-21, 8-26 and 13-31 **D**

WAAS CH <b>50230</b> <b>W26A</b>	APP CRS <b>255°</b>	Rwy Idg TDZE <b>4124</b> Apt Elev <b>4170</b>
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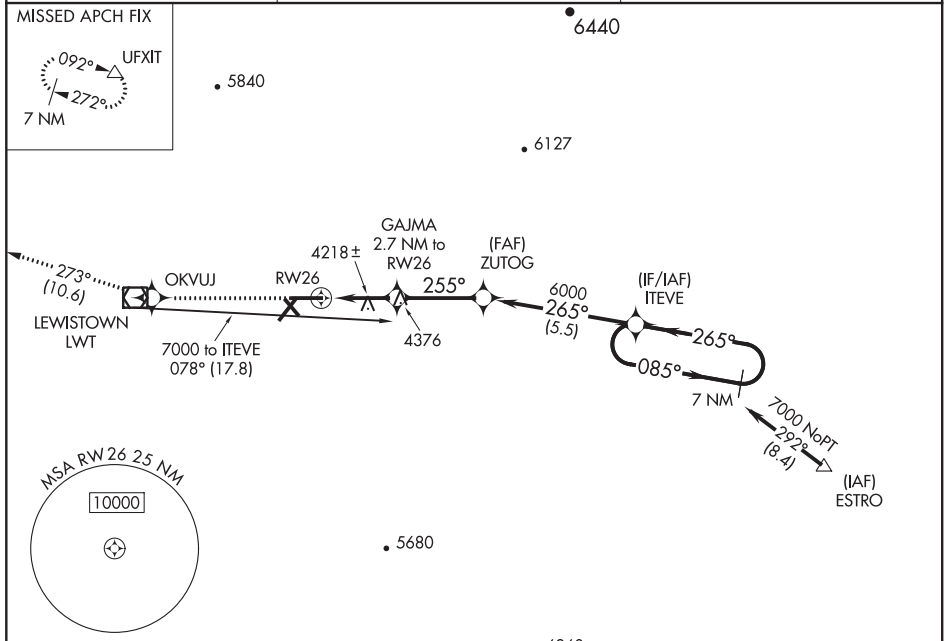
# RNAV (GPS) RWY 26

LEWISTOWN MUNI (LWT)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 18°C (64°F). When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 8400 direct OKVUJ and on track 273° to UFXIT and hold, continue climb-in-hold to 8400.

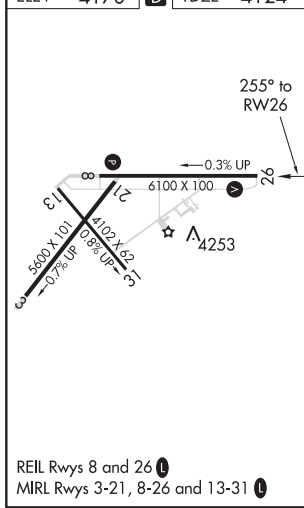
ASOS <b>118.375</b>	GREAT FALLS RADIO <b>122.2</b>	UNICOM <b>123.0 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4170	<b>D</b>	TDZE 4124
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8400	OKVUJ	UFXIT	7 NM	
↑	✧	tr 273°	△	
*LNAV only		GAJMA 2.7 NM to RW26		
	*1 NM to RW26			
1 NM	1.7 NM	3.1 NM	5.5 NM	
CATEGORY	A	B	C	D
LPV DA		4324-¾	200 (200-¾)	
LNAV/VNAV DA		4389-7/8	265 (300-7/8)	
LNAV MDA		4480-1	356 (400-1)	
CIRCLING	4620-1	450 (500-1)	4720-1½ 550 (600-1½)	4800-2 630 (700-2)

LEWISTOWN, MONTANA  
Orig-A 26JUN14

47°03'N-109°28'W

# LEWISTOWN MUNI (LWT)

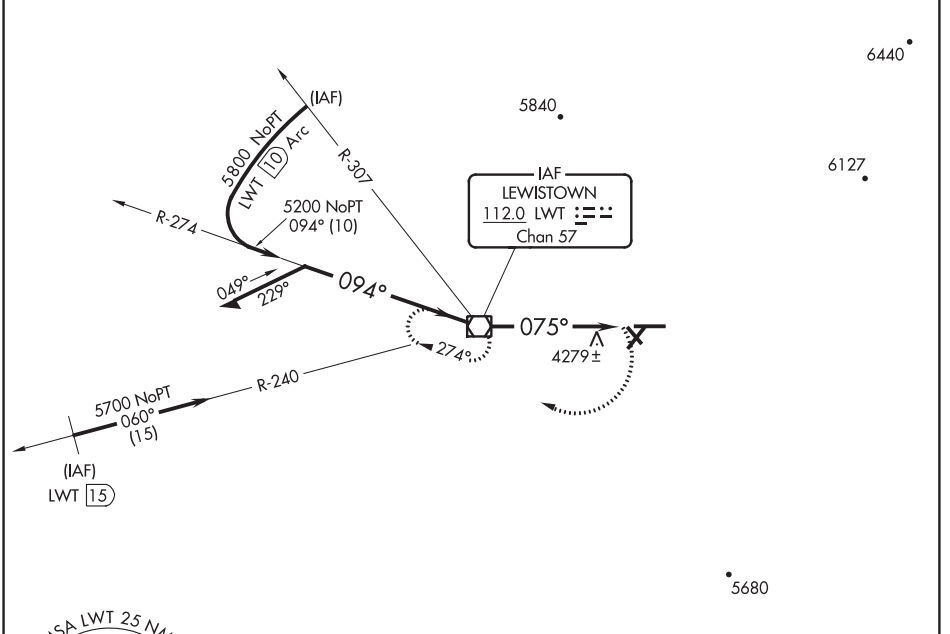
## RNAV (GPS) RWY 26

VOR/DME LWT <b>112.0</b> Chan <b>57</b>	APP CRS <b>075°</b>	Rwy Idg TDZE <b>4129</b> Apt Elev <b>4170</b>	<b>6100</b>
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**VOR RWY 8**  
LEWISTOWN MUNI (LWT)

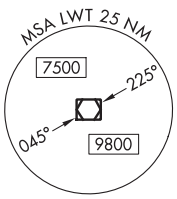
**⚠** If local climeter setting not received, procedure not authorized. **MISSED APPROACH:** Climbing right turn to 6000 direct LWT VOR/DME and hold.

ASOS <b>118.375</b>	GREAT FALLS RADIO <b>122.2</b>	UNICOM <b>123.0 (CTAF)</b>
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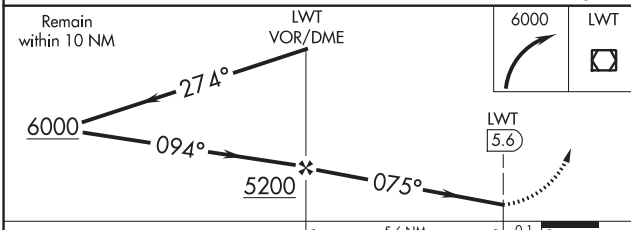
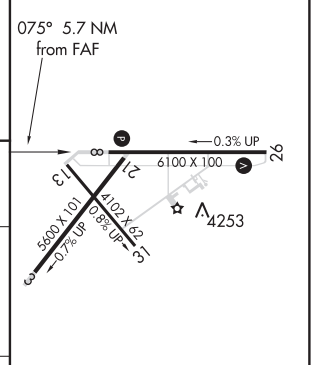


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 4170	<b>D</b>	TDZE 4129
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CATEGORY	A	B	C	D
S-8	4600-1	471 (500-1)	4600-1¼ 471 (500-1¼)	4600-1½ 471 (500-1½)
CIRCLING	4660-1	490 (500-1)	4660-1½ 490 (500-1½)	4880-2¼ 710 (800-2¼)

REIL Rwys 8 and 26 **Ⓛ**  
MIRL Rwys 3-21, 8-26 and 13-31 **Ⓛ**

FAF to MAP 5.6 NM

Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

LEXINGTON, OREGON

AL-9524 (FAA)

13150

APP CRS	Rwy Idg	<b>4156</b>
<b>082°</b>	TDZE	<b>1618</b>
	Apt Elev	<b>1634</b>

# RNAV (GPS) RWY 8

LEXINGTON (9S9)

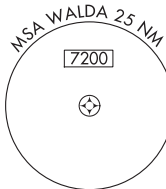
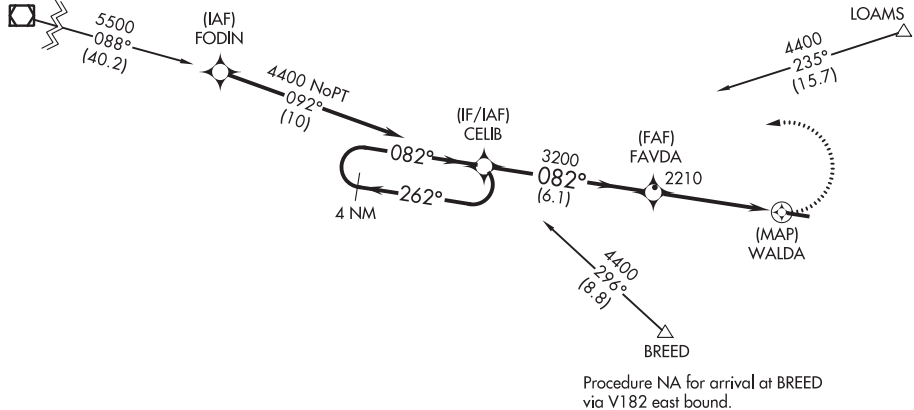
**NA** When local altimeter setting not received, use Hermiston altimeter setting and increase all MDA 220 feet, increase Circling Cats A/B ¼ mile, LNAV and Circling Cat C ½ mile, and Circling Cat D ¾ mile. Procedure NA at night. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climbing left turn to 4400 direct CELIB and hold.

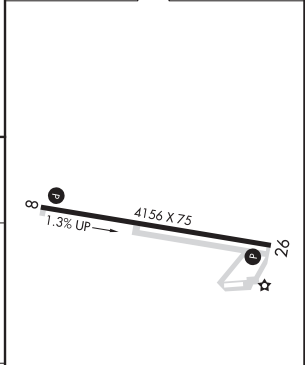
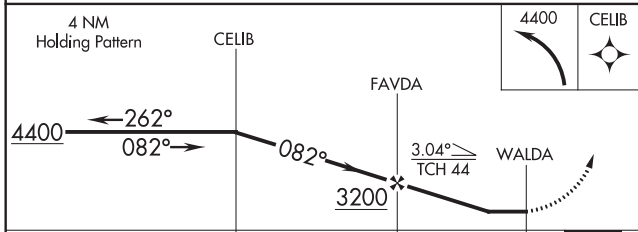
AWOS-3 <b>134.475</b>	SEATTLE CENTER <b>132.6 269.35</b>	CTAF <b>122.9</b>
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Procedure NA for arrival on LTJ VOR/DME airway radials 032 CW 116.

CLICKITAT  
LTJ



ELEV 1634	TDZE 1618
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CATEGORY	A	B	C	D
LNAV MDA	2120-1	502 (500-1)	2120-1½	502 (500-1½)
CIRCLING	2380-1 746 (800-1)	2460-1¼ 826 (900-1¼)	2480-2½ 846 (900-2½)	2520-3 886 (900-3)

MIRL Rwy 8-26

LEXINGTON, OREGON  
Orig-A 30MAY13

45°27'N-119°41'W

# RNAV (GPS) RWY 8

LEXINGTON (9S9)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	N/A
210°	TDZE	N/A
	Apt Elev	1634

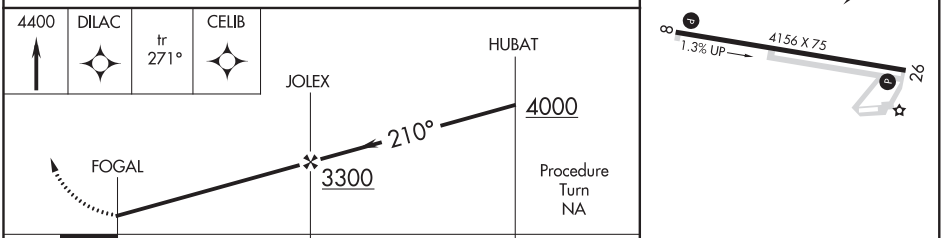
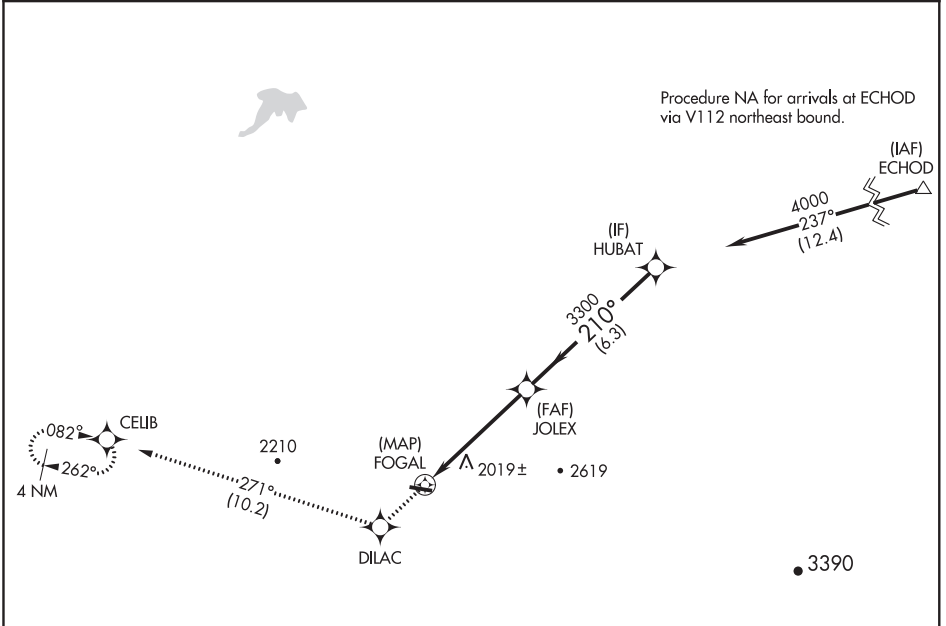
# RNAV (GPS)-A

LEXINGTON (9S9)

**NA** When local altimeter setting not received, use Hermiston altimeter setting and increase all MDA 220 feet, increase Cats A/B visibility ¼ mile, and Cat C visibility ½ mile. Procedure NA at night. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 4400 direct DILAC and via 271° track to CELIB and hold.

AWOS-3 <b>134.475</b>	SEATTLE CENTER <b>132.6 269.35</b>	CTAF <b>122.9</b>
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CATEGORY	A	B	C	D
CIRCLING	2380-1 746 (800-1)	2460-1¼ 826 (900-1¼)	2480-2½ 846 (900-2½)	2520-3 886 (900-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LIBBY, MONTANA

AL-6840 (FAA)

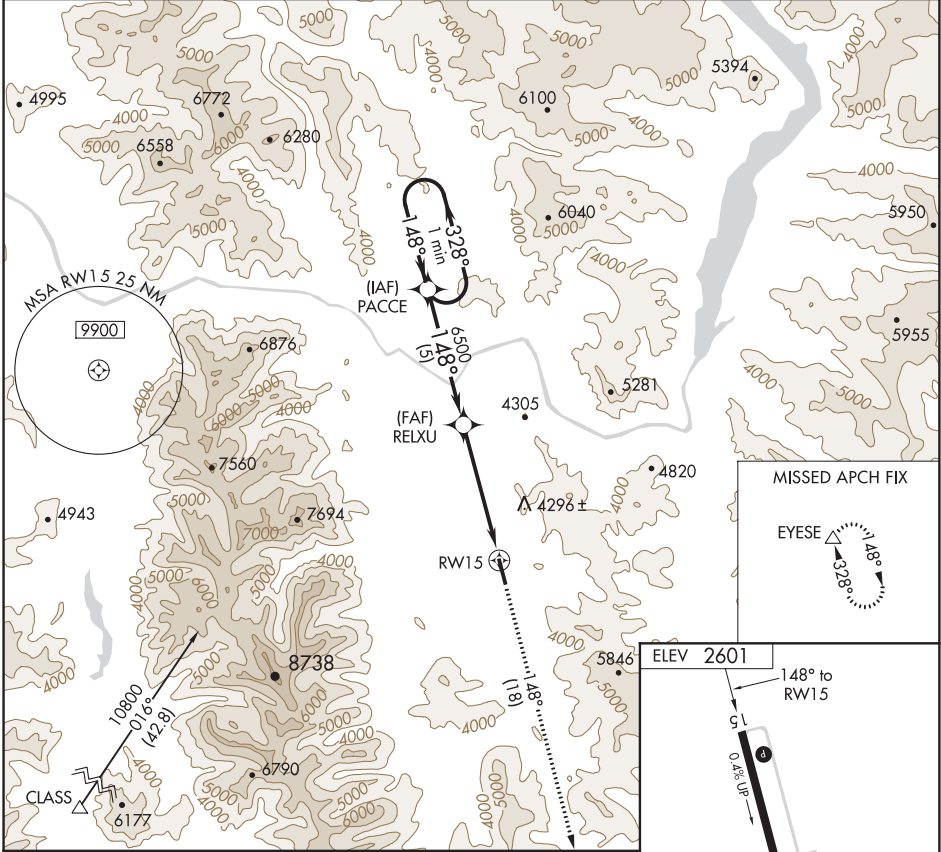
15232

APP CRS <b>148°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>2601</b>
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GPS-A  
LIBBY (S59)

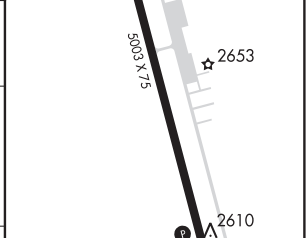
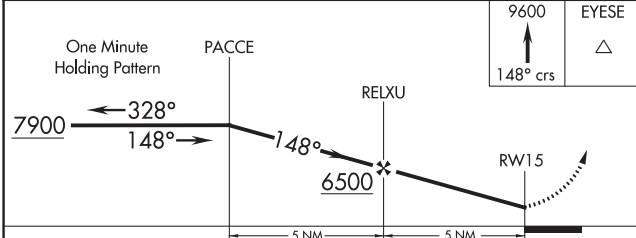
NA -15°C/5°F	Procedure NA at night. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, procedure NA.	MISSED APPROACH: Climb to 9600 via 148° course to EYESE and hold.
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AWOS-A <b>118.575</b>	SEATTLE CENTER <b>123.95 290.55</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	5100-1¼ 2499 (2500-1¼)	5100-1½ 2499 (2500-1½)	NA	

REIL Rwy 15 and 33

MIRL Rwy 15-33

LIBBY, MONTANA  
Orig-C 17OCT13

48°17'N-115°29'W

LIBBY (S59)  
GPS-A

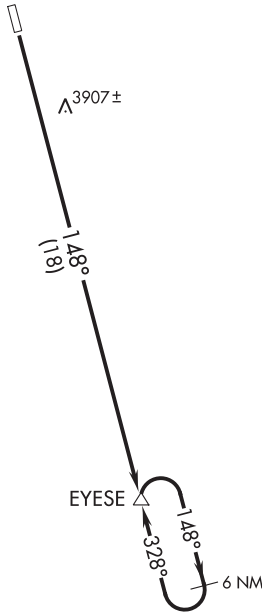
(EYSE1.EYSE) 16147

# EYSE ONE DEPARTURE (OBSTACLE) (RNAV)

SL-6840 (FAA)

LIBBY (S59)  
LIBBY, MONTANA

SEATTLE CENTER  
123.95 290.55  
AWOS-A  
118.575



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NOTE: GPS required.

NOTE: RNAV 1

### TAKEOFF MINIMUMS

Rwy 15: 1400-2 or standard with a minimum climb of 380' per NM to 9600'.

### TAKEOFF OBSTACLE NOTE

Rwy 15: 3907' terrain 23697' from runway threshold, 2491' left of centerline.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb via 148° course to 9600' to EYSE, then continue climb to 12000' within the EYSE holding pattern.

# EYSE ONE DEPARTURE (OBSTACLE) (RNAV)

(EYSE1.EYSE) 10AUG00

LIBBY, MONTANA  
LIBBY (S59)

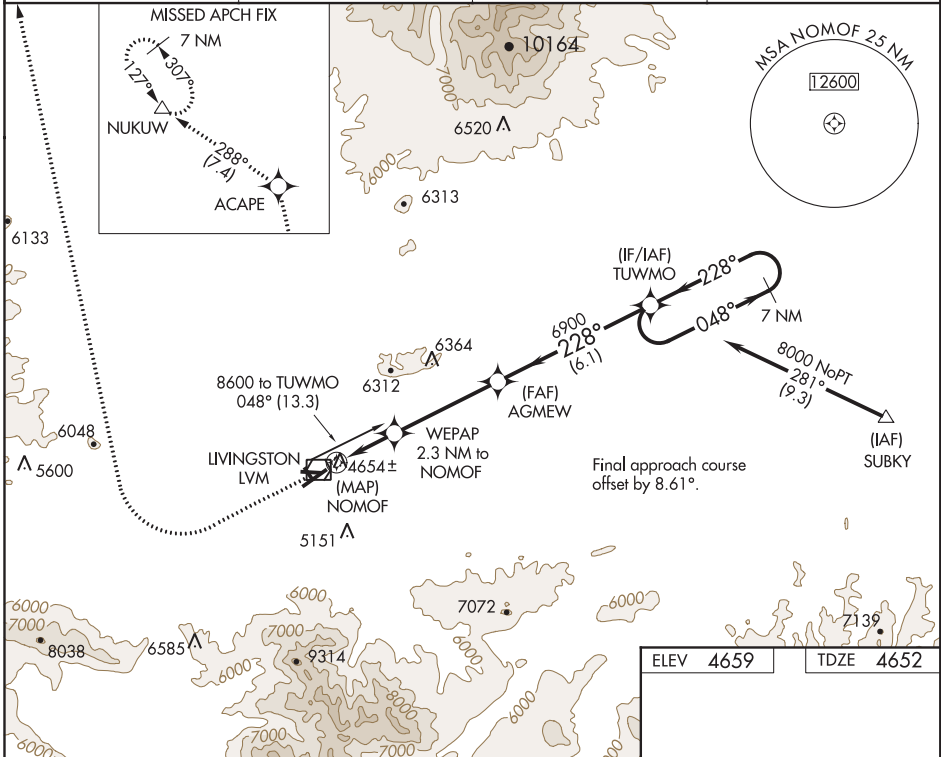
WAAS CH <b>48824</b> <b>W22A</b>	APP CRS <b>228°</b>	Rwy Idg TDZE <b>4652</b> Apt Elev <b>4659</b>	<b>5701</b> <b>4652</b> <b>4659</b>
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# RNAV (GPS) RWY 22

MISSION FIELD (LVM)

	DME/DME RNP-0.3 NA. Circling Rwy's 8-26 and 13-21 NA at night.	MISSED APPROACH: Climb to 5400 on 228° course then climbing right turn to 10000 direct ACAPE and on track 288° to NUKUW and hold.
	-21°C/-6°F	

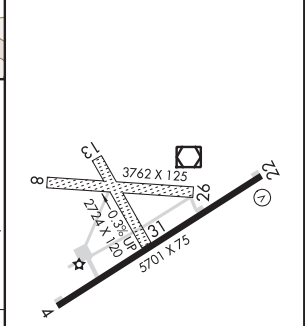
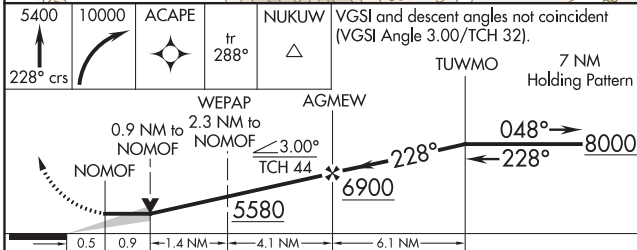
ASOS <b>135.275</b>	BIG SKY APP CON <b>119.55 235.775</b>	GREAT FALLS RADIO <b>122.2</b>	UNICOM <b>123.0</b> (CTAF)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV <b>4659</b>	TDZE <b>4652</b>
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CATEGORY	A	B	C	D
LP MDA	5260-1	608 (700-1)	5260-1 <sup>3</sup> / <sub>4</sub>	608 (700-1 <sup>3</sup> / <sub>4</sub> )
LNVA MDA	5360-1	708 (800-1)	5360-2	708 (800-2)
CIRCLING	5360-1 701 (800-1)	5380-1 721 (800-1)	5380-2 721 (800-2)	5600-3 941 (1000-3)

REIL Rwy 22	MIRL Rwy 4-22
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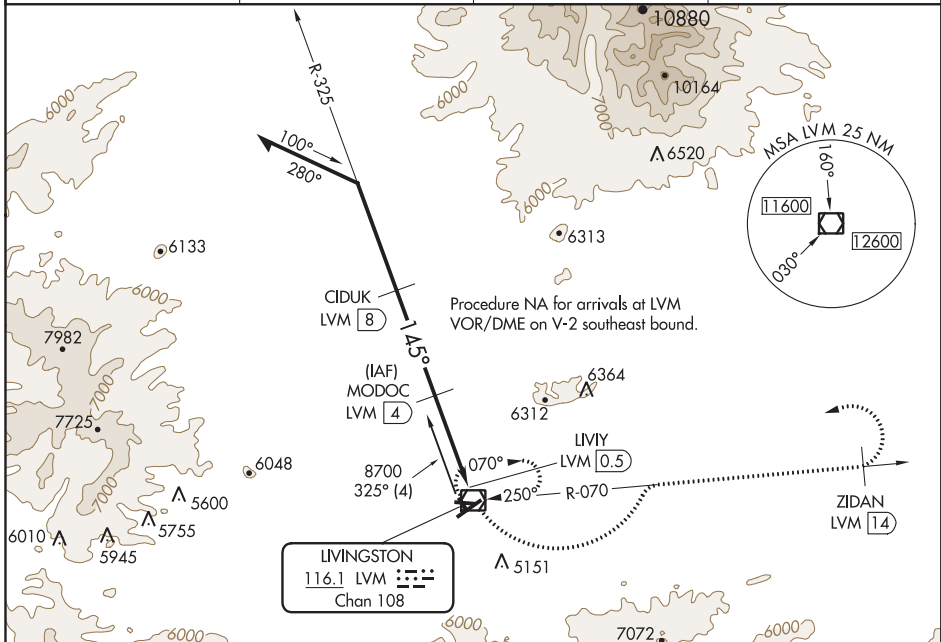


VOR/DME LVM <b>116.1</b> Chan <b>108</b>	APP CRS <b>145°</b>	Rwy Idg TDZE Apt Elev <b>4660</b>	<b>N/A</b> <b>N/A</b> <b>4660</b>
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**VOR/DME-B**  
MISSION FIELD (LVM)

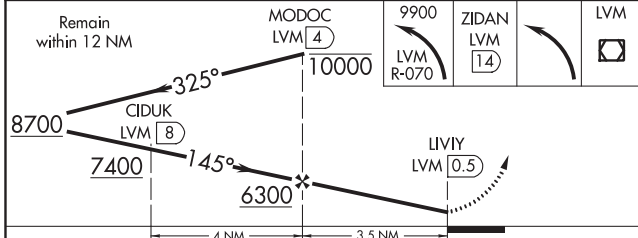
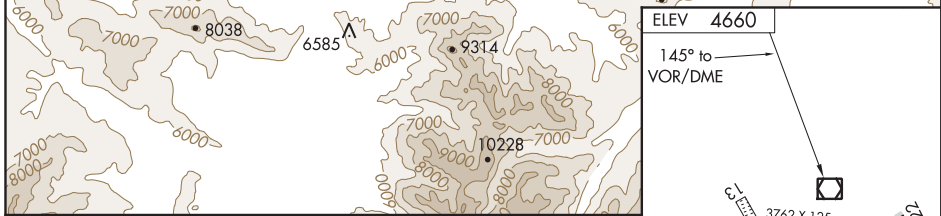
<p>-21°C/-6°F</p>	<p>MISSED APPROACH: Climbing left turn to 9900 via LVM VOR/DME R-070 to ZIDAN/14 DME and left turn direct LVM VOR/DME and hold.</p>		
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ASOS <b>135.275</b>	BIG SKY APP CON <b>119.55 235.775</b>	GREAT FALLS RADIO <b>122.2</b>	UNICOM <b>123.0</b> (CTAF)
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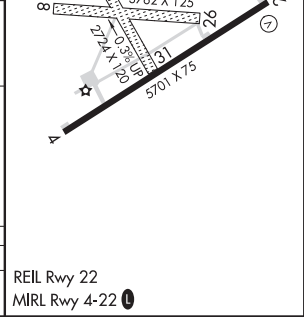


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	5540-1 880 (900-1)	5540-1¼ 880 (900-1¼)	5540-2½ 880 (900-2½)	5580-3 920 (1000-3)



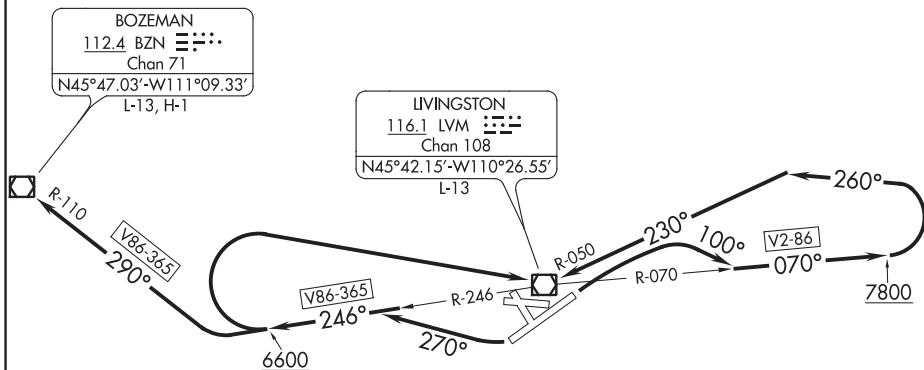
(LVM1.LVM) 16147

## LIVINGSTON ONE DEPARTURE (OBSTACLE)

SL-5348 (FAA)

MISSION FIELD (LVM)  
LIVINGSTON, MONTANA

ASOS  
135.275  
BIG SKY DEP CON  
119.55 235.775  
GREAT FALLS RADIO  
122.2

TAKEOFF MINIMUMS

Rwys 8, 13, 26, 31: NA-Environmental.

Rwy 4: Standard.

Rwy 22: Standard with minimum climb of 300' per NM to 6800 or 2700-3 for climb in visual conditions.

TAKEOFF OBSTACLE NOTES

Rwy 22: Multiple trees beginning 400' from DER, 256' right of centerline, up to 100' AGL/4719' MSL.

NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climbing right turn heading 100° and LVM VOR/DME R-070 outbound; aircraft departing eastbound, climb via LVM R-070/V2-86 enroute. All others continue climb on LVM R-070 to 7800, then climbing left turn via heading 260° and LVM R-050 to cross LVM VOR/DME at or above 9000, then climb enroute.

TAKEOFF RUNWAY 22: Climbing right turn heading 270° and LVM VOR/DME R-246 outbound; aircraft departing eastbound, continue climb via LVM R-246 outbound to 6600, then climbing right turn direct LVM VOR/DME, then climb on LVM R-070/V2-86 enroute. All other aircraft continue climb via LVM VOR/DME R-246 and BZN VOR/DME R-110 to BZN. For climb in visual conditions, cross LVM VOR/DME at or above 9000 before proceeding via filed airway route.

## LIVINGSTON ONE DEPARTURE (OBSTACLE)

(LVM1.LVM) 12MAR09

LIVINGSTON, MONTANA  
MISSION FIELD (LVM)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>93518</b> <b>W16A</b>	APP CRS <b>164°</b>	Rwy Idg TDZE Apt Elev	<b>5089</b> <b>2433</b> <b>2437</b>
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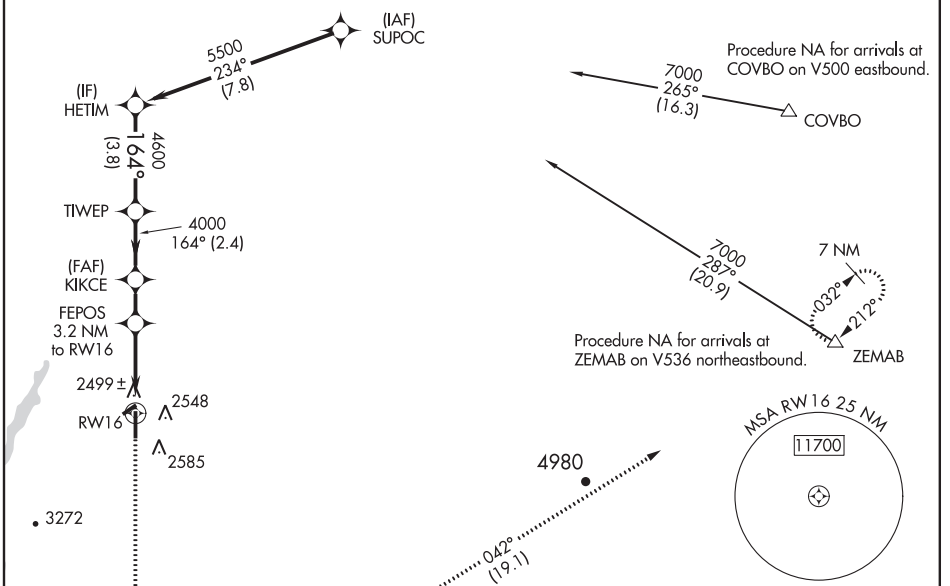
# RNAV (GPS) RWY 16

MADRAS MUNI (S33)

**Baro-VNAV NA** when using Redmond altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.  
**NA** Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Redmond altimeter setting and increase all DA and MDA 580 feet; increase LPV all Cats visibility 2 7/8 miles, LNAV/VNAV all Cats visibility 2 5/8 miles, LNAV and Circling Cat A visibility 1/2 mile, LNAV and Circling Cat B visibility 1/2 mile, and increase LNAV and Circling Cat C visibility 1 1/4 mile. Night landing Rwy 16 NA.

**MISSED APPROACH:** Climb to 7000 direct HUKRI and on track 074° to JOREM and on track 042° to ZEMAB and hold.

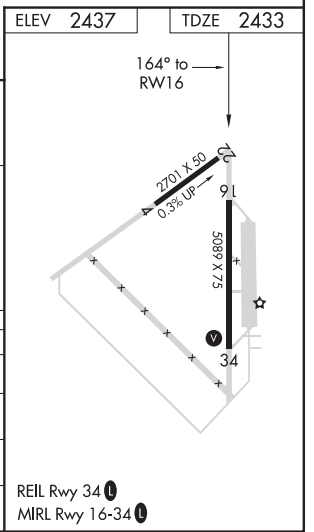
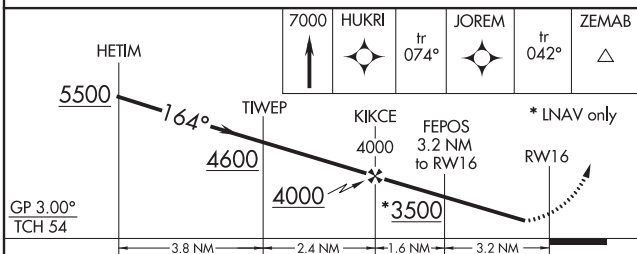
AWOS-3PT <b>132.425</b>	SEATTLE CENTER <b>128.15 257.75</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2437	TDZE 2433
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CATEGORY	A	B	C	D
LPV DA	2783-1 1/8	350 (400-1 1/8)		NA
LNAV/VNAV DA	2843-1 3/8	410 (500-1 3/8)		NA
LNAV MDA	3040-1	607 (700-1)	3040-1 3/4 607 (700-1 3/4)	NA
CIRCLING	3040-1	603 (700-1)	3040-1 3/4 603 (700-1 3/4)	NA

WAAS CH <b>60930</b> <b>W34A</b>	APP CRS <b>344°</b>	Rwy Idg TDZE <b>2437</b> Apt Elev <b>2437</b>	<b>5089</b>
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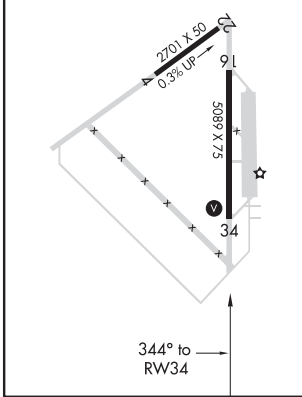
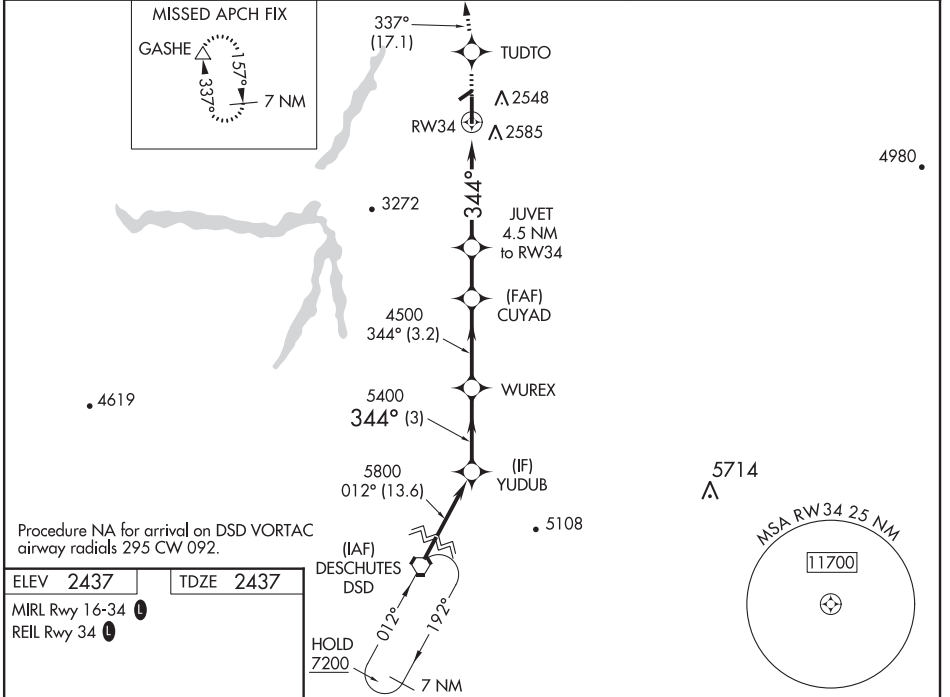
# RNAV (GPS) RWY 34

MADRAS MUNI (S33)

**⚠** Night landing Rwy 16 NA. Baro-VNAV NA when using Redmond altimeter setting.  
**⚠** NA For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). When VGSI inop, Straight-in/Circling Rwy 34 procedure NA at night. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Redmond altimeter setting and increase all DA and MDA 580 feet; increase LPV and LNAV/VNAV all Cats visibility 2 miles, increase LNAV and Circling Cat A visibility ¼ mile, Cat B visibility ½ mile, and Cat C visibility ¾ mile.

**MISSED APPROACH:** Climb to 7000 direct TUDTO and on track 337° to GASHE and hold, continue climb-in-hold to 7000.

AWOS-3PT <b>132.425</b>	SEATTLE CENTER <b>128.15 257.75</b>	UNICOM <b>122.8 (CTAF)</b>
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7000	TUDTO	GASHE	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 50).		YUDUB
↑	✦	△	tr 337°		
* LNAV only	RW34	JUVET 4.5 NM to RW34	CUYAD 4500	WUREX 5400	5800
		3920*	4500	344°	
		4.5 NM	1.8 NM	3.2 NM	3 NM
					GP 3.00° TCH 52

CATEGORY	A	B	C	D
LPV DA		2687-1	250 (300-1)	NA
LNAV/VNAV DA		2687-1	250 (300-1)	NA
LNAV MDA	3000-1	563 (600-1)	3000-1½ 563 (600-1½)	NA
CIRCLING	3000-1	563 (600-1)	3020-1½ 583 (600-1½)	NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

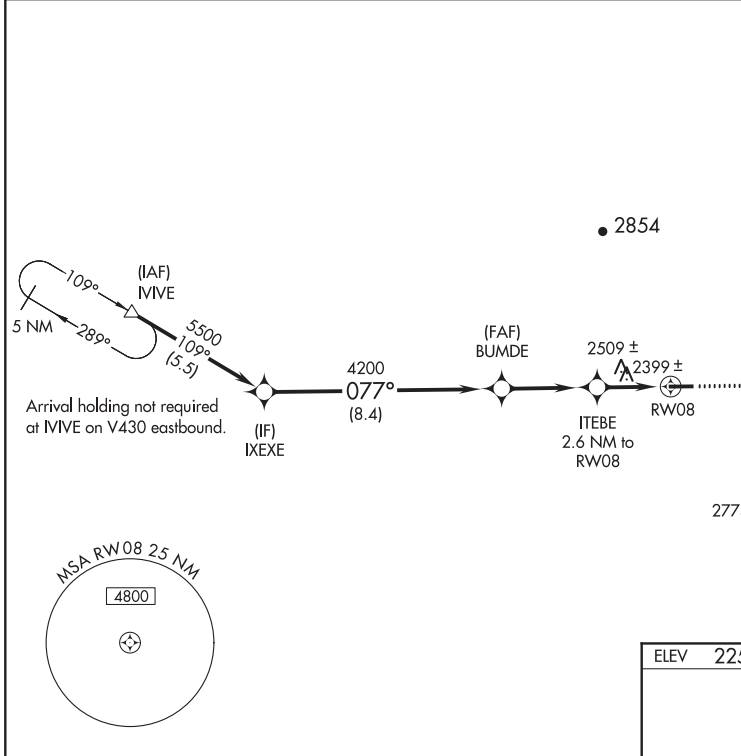
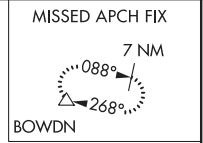
WAAS CH <b>86621</b> <b>W08A</b>	APP CRS <b>077°</b>	Rwy Idg <b>4500</b> TDZE <b>2254</b> Apt Elev <b>2254</b>
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# RNAV (GPS) RWY 8

MALTA (M75)

**NA** DME/DME RNP-0.3 NA. Use Glasgow altimeter setting, when not received, procedure NA.  
**MISSED APPROACH:** Climb to 6500 direct IZOMA and on track 091° to BOWDN and hold, continue climb-in-hold to 6500.

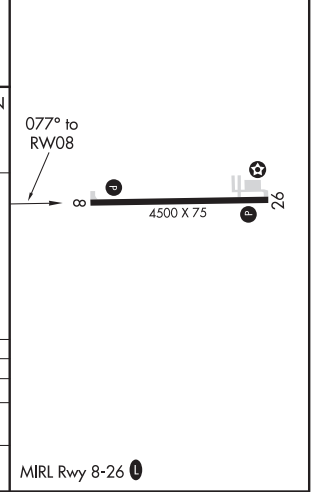
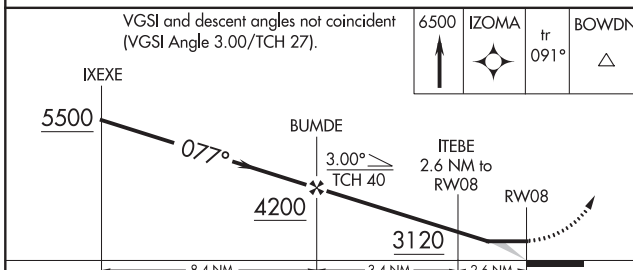
SALT LAKE CITY CENTER **126.85 305.2** AUNICOM **122.8**(CTAF) **0**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV	2254	TDZE	2254
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CATEGORY	A	B	C	D
LP MDA	2900-1	646 (700-1)		NA
LNAV MDA	3000-1 746 (800-1)	3000-1¼ 746 (800-1¼)		NA
CIRCLING	3080-1¼ 826 (900-1¼)	3120-1¼ 866 (900-1¼)		NA

MALTA, MONTANA

AL-9493 (FAA)

15232

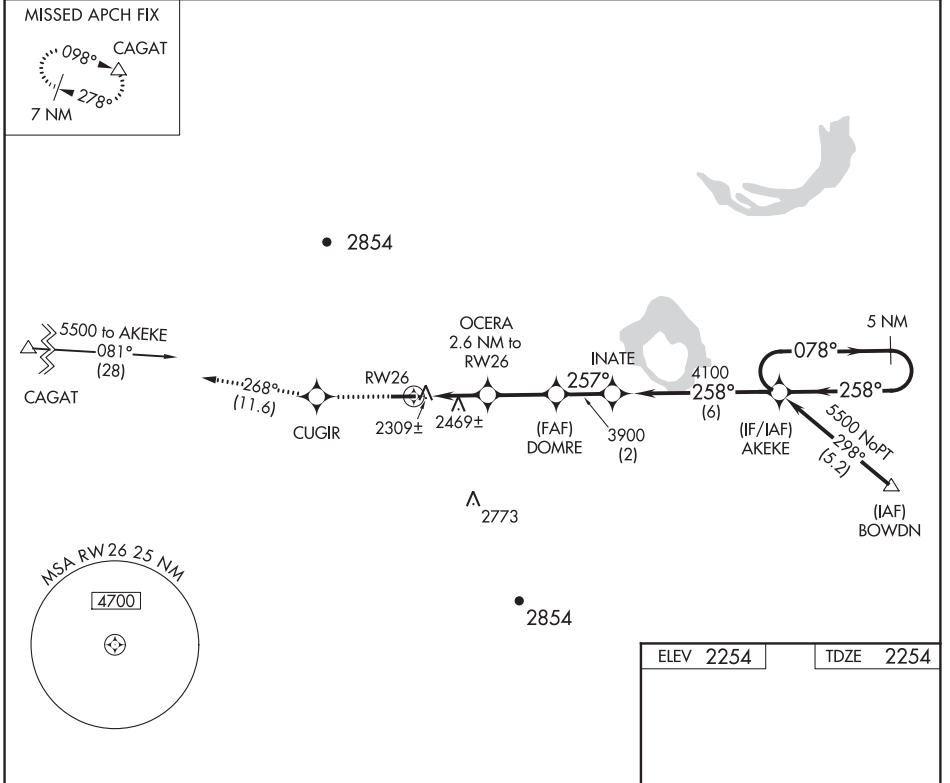
WAAS CH <b>97721</b> <b>W26A</b>	APP CRS <b>257°</b>	Rwy Idg TDZE Apt Elev	<b>4500</b> <b>2254</b> <b>2254</b>
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# RNAV (GPS) RWY 26

MALTA (M75)

<p><b>NA</b></p> <p>-37°C/-35°F</p>	<p>Use Glasgow altimeter setting; when not received procedure NA. DME/DME RNP- 0.3 NA.</p>	<p>MISSED APPROACH: Climb to 6500 direct CUGIR and on track 268° to CAGAT and hold.</p>
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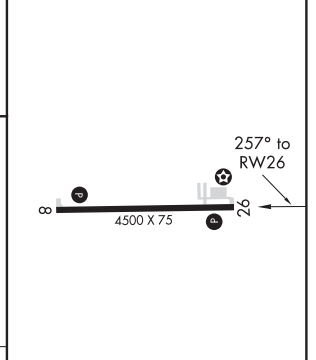
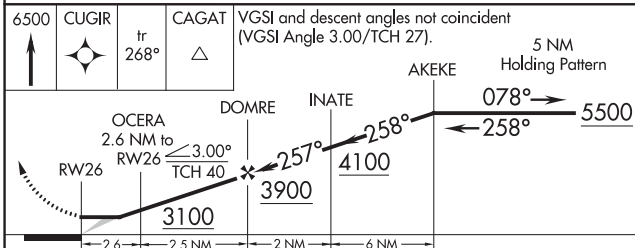
<p>SALT LAKE CITY CENTER</p> <p><b>126.85 305.2</b></p>	<p>AUNICOM</p> <p><b>122.8 (CTAF) 0</b></p>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2254	TDZE 2254
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CATEGORY	A	B	C	D
LP MDA	2800-1	546 (600-1)		NA
LNAV MDA	2960-1	706 (800-1)		NA
CIRCLING	3080-1¼ 826 (900-1¼)	3120-1¼ 866 (900-1¼)		NA

MIRL Rwy 8-26 0

MALTA, MONTANA  
Amdt 1A 11DEC14

48°22'N-107°55'W

# RNAV (GPS) RWY 26

MALTA (M75)

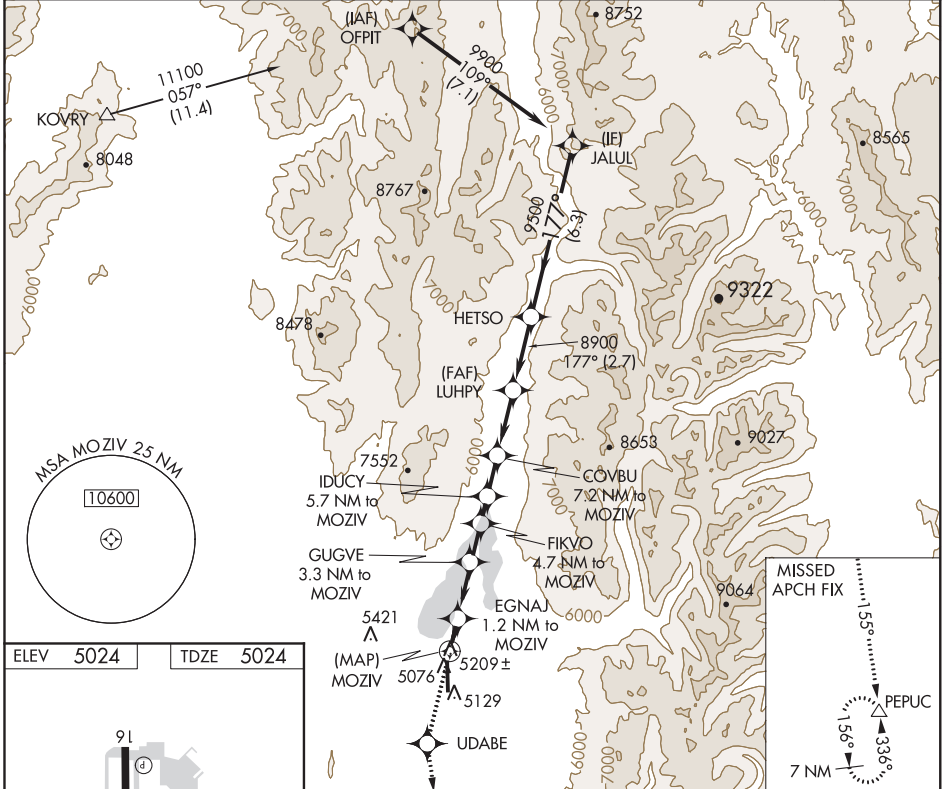
APP CRS <b>177°</b>	Rwy Idg TDZE Apt Elev	<b>6108</b> <b>5024</b> <b>5024</b>
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# RNAV (GPS) RWY 16

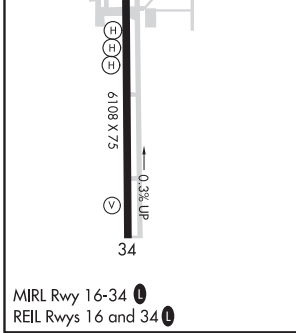
MC CALL MUNI (MYL)

 DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.	MISSED APPROACH: Climb to 11700 direct UDABE and via track 155° to PEPUC and hold, continue climb-in-hold to 11700.
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ASOS <b>119.925</b>	SALT LAKE CENTER <b>128.05 306.95</b>	UNICOM <b>122.8 (CTAF)</b>
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ELEV	5024	TDZE	5024
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11700	UDABE	↑	tr 155°	PEPUC	VGSIs and descent angles not coincident (VGSi Angle 3.00/TCH 40).		HETSO	JALUL						
					EGNAJ 1.2 NM to MOZIV	GUGVE 3.3 NM to MOZIV	FIKYO 4.7 NM to MOZIV	IDUCY 5.7 NM to MOZIV	COVBU 7.2 NM to MOZIV	LUHPY	7980	8900	9500	9900
					5660	6480	7020	7400	7980	8900	9500	9900	9900	9900
					0.4	1.2	2.1 NM	1.4 NM	1 NM	1.5 NM	2.4 NM	2.7 NM	6.3 NM	
					CATEGORY		A	B	C	D				
					LNAV MDA		5540-1	516 (600-1)	5540-1½	516 (600-1½)		NA		
					CIRCLING		5660-1	636 (700-1)	5840-2½	816 (900-2½)		NA		

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>342°</b>	Rwy Idg TDZE Apt Elev	<b>6108</b> <b>5012</b> <b>5024</b>
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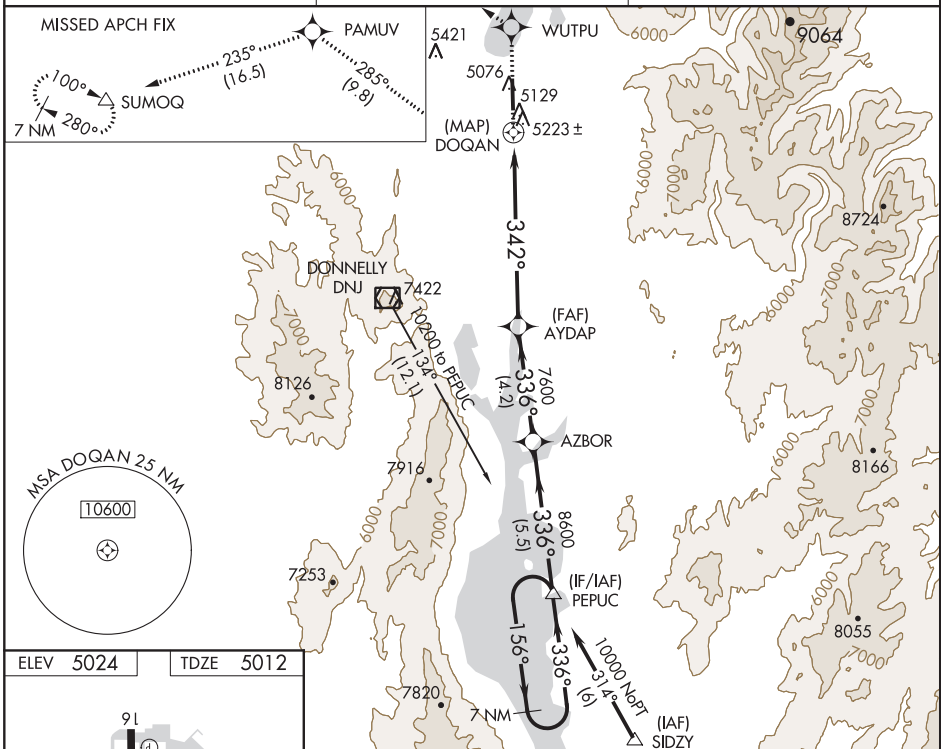
# RNAV (GPS) Y RWY 34

MC CALL MUNI (MYL)

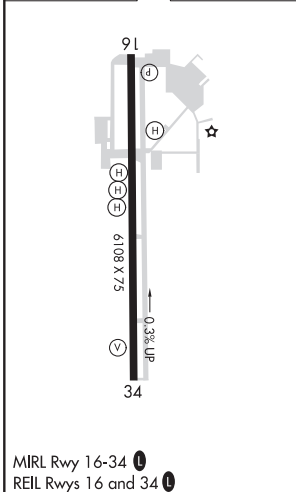
**⚠** DME/DME RNP-0.3 NA.  
**⚠** Visibility reduction by helicopters NA.  
**⚠** \* Missed approach requires minimum climb of 380' per NM to 8000.

MISSED APPROACH: Climb to 12000 direct WUTPU and via track 285° to PAMUV and via track 235° to SUMOQ and hold, continue climb-in-hold to 12000.

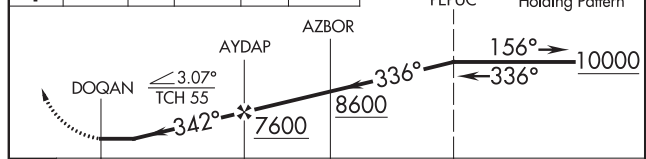
ASOS <b>119.925</b>	SALT LAKE CENTER <b>128.05 306.95</b>	UNICOM <b>122.8 (CTAF)</b> <b>0</b>
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ELEV 5024	TDZE 5012
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12000	WUTPU	tr 285°	PAMUV	tr 235°	SUMOQ	△	VGSI and descent angles not coincident (VGSI Angle 3.50/TCH 40).
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CATEGORY	A	B	C	D
LNAV MDA*	5580-1	568 (600-1)	5580-1½ 568 (600-1½)	5580-1¾ 568 (600-1¾)
LNAV MDA	6600-1¼ 1588 (1600-1¼)	6600-1½ 1588 (1600-1½)	6600-3	1588 (1600-3)
CIRCLING	6600-1¼ 1576 (1600-1¼)	6600-1½ 1576 (1600-1½)	6600-3	1576 (1600-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



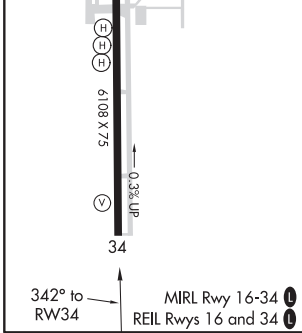
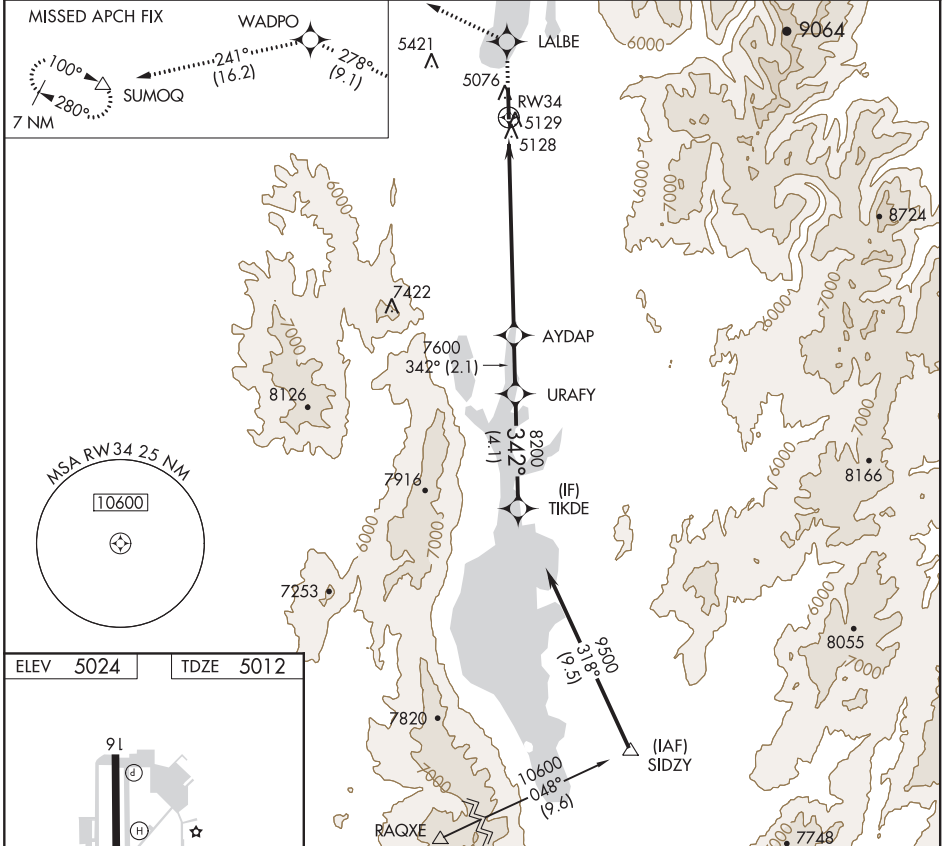
WAAS CH <b>49016</b> <b>W34A</b>	APP CRS <b>342°</b>	Rwy Idg <b>6108</b> TDZE <b>5012</b> Apt Elev <b>5024</b>
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# RNAV (GPS) Z RWY 34

MC CALL MUNI (MYL)

<p><b>NA</b> -20°C/-4°F</p>	<p>DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. Procedure NA at night.</p>	<p>MISSED APPROACH: Climb to 12000 direct LALBE and via track 278° to WADPO and via track 241° to SUMOQ and hold, continue climb-in-hold to 12000.</p>
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ASOS <b>119.925</b>	SALT LAKE CENTER <b>128.05 306.95</b>	UNICOM <b>122.8 (CTAF)</b>
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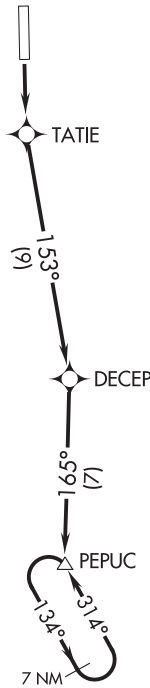


12000	LALBE	WADPO	SUMOQ	TIKDE	Procedure Turn NA
↑	tr 278°	tr 241°	△		
VGSi and RNAV glidepath not coincident (VGSi Angle 3.50/TCH 40).		URAFY	9500		
RW34	7600	8200	342°		
	7600		GP 3.00° TCH 56		
	7.8 NM	2.1 NM	4.1 NM		
CATEGORY	A	B	C	D	
LPV DA	5400-1¼		388 (400-1¼)		

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ASOS  
119.925  
BOISE RADIO  
122.35  
SALT LAKE CENTER  
128.05 306.95



TAKEOFF OBSTACLE NOTES

Rwy 16: Trees and shrub beginning 63' from DER, 289' left of centerline, up to 101' AGL/5180' MSL.  
Pole 3083' from DER, 1271' right of centerline, 36' AGL/5113' MSL.  
Pole 4218' from DER, 521' left of centerline, 43' AGL/5128' MSL.  
Building 1066' from DER, 524' right of centerline, 33' AGL/5035' MSL.  
Terrain beginning 1832' from DER, 445' left of centerline, up to 5079' MSL.  
Terrain beginning 1236' from DER, 159' right of centerline, up to 5097' MSL.

TAKEOFF MINIMUMS

Rwy 16: 300-1 or standard with minimum climb of 362' per NM to 5300.  
Rwy 34: NA - Obstacles.

NOTE: RNAV 1.  
NOTE: GPS required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb to 11700 direct TATIE and on depicted route to PEPUC, continue climb-in-hold to 11700 before proceeding on course.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



MC MINNVILLE, OREGON

AL-5626 (FAA)

14037

APP CRS	Rwy Idg	<b>5420</b>
<b>038°</b>	TDZE	<b>161</b>
	Apt Elev	<b>163</b>

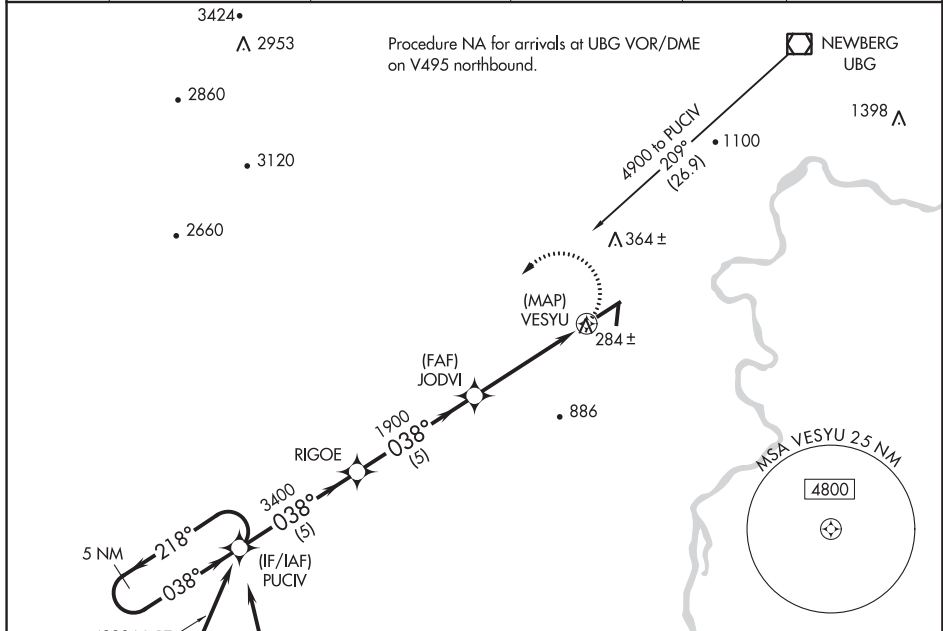
# RNAV (GPS) RWY 4

MC MINNVILLE MUNI (MMV)

**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Aurora State altimeter setting and increase all MDA 60 feet and all visibility ¼ mile. Helicopter visibility reduction below 1 SM NA. Rwy 4 Straight-in and Circling minimums NA at night.

**⚠** MISSED APPROACH: Climbing left turn to 4900 direct PUCIV and hold, continue climb-in-hold to 4900.

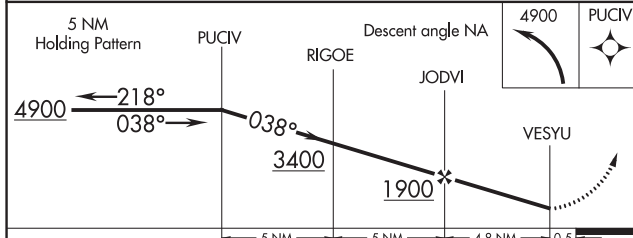
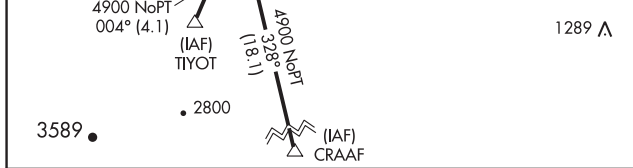
ASOS <b>135.675</b>	PORTLAND APP CON <b>126.0 284.6 (NORTH)</b>	SEATTLE CENTER <b>125.8 291.7 (SOUTH)</b>	McMINNVILLE RADIO <b>122.45</b>	CLNC DEL <b>118.35</b>	UNICOM <b>123.0 (CTAF) ①</b>
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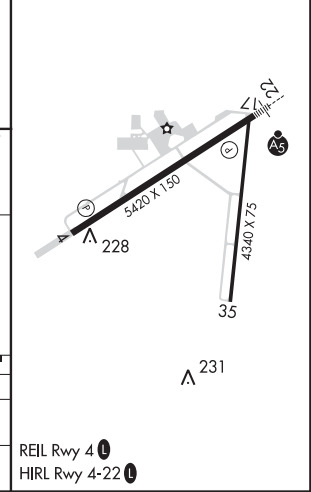
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 163	TDZE 161
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CATEGORY	A	B	C	D
LNAV MDA	580-1	419 (500-1)	580-1¼	419 (500-1¼)
CIRCLING	640-1	477 (500-1)	760-1½ 597 (600-1½)	880-2¼ 717 (800-2¼)



MC MINNVILLE, OREGON  
Orig-A 06FEB14

45°12'N-123°08'W

MC MINNVILLE MUNI (MMV)  
**RNAV (GPS) RWY 4**

REIL Rwy 4 ①  
HIRL Rwy 4-22 ①

WAAS CH <b>50309</b> <b>W22A</b>	APP CRS <b>218°</b>	Rwy Idg TDZE <b>161</b> Apt Elev <b>163</b>
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# RNAV (GPS) RWY 22

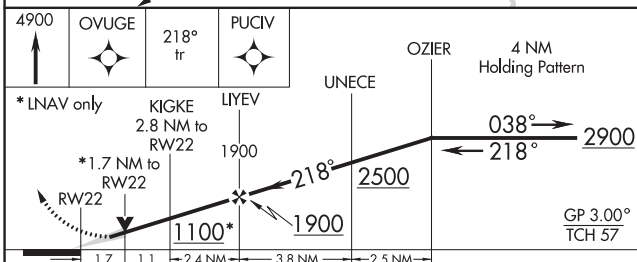
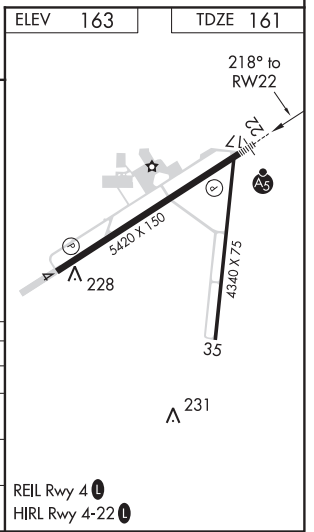
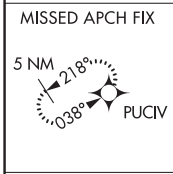
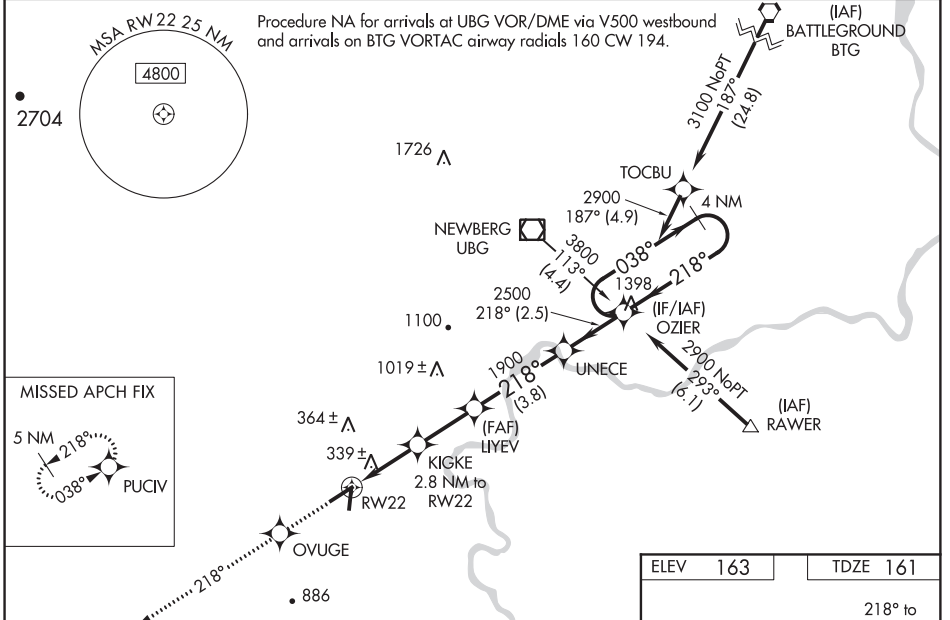
MC MINNVILLE MUNI (MMV)

**⚠** For inoperative MALSR, increase LPV all Cats. visibility to 1. Baro-VNAV NA when using Aurora State altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.

**MALSR** For inoperative MALSR when using Aurora State altimeter setting increase LPV visibility all Cats. to 1 1/4. VDP NA when using Aurora State altimeter setting. When local altimeter setting not received, use Aurora State altimeter setting and increase all DA and MDA 60 feet, increase all visibility 1/4 mile.

**MALSR** MISSED APPROACH: Climb to 4900 direct OVUGE then via 218° track to PUCIV and hold, continue climb-in-hold to 4900.

ASOS <b>135.675</b>	PORTLAND APP CON <b>126.0 284.6</b> (NORTH)	SEATTLE CENTER <b>125.8 291.7</b> (SOUTH)	McMINNVILLE RADIO <b>122.45</b>	CLNC DEL <b>118.35</b>	UNICOM <b>123.0</b> (CTAF) <b>0</b>
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CATEGORY	A	B	C	D
LPV DA		474-1/2	313 (400-1/2)	
LNAV/VNAV DA		633-1 1/4	472 (500-1 1/4)	
LNAV MDA	740-1/2 579 (600-1/2)		740-1 579 (600-1)	740-1 1/4 579 (600-1 1/4)
CIRCLING	740-1 577 (600-1)		760-1 1/2 597 (600-1 1/2)	880-2 1/4 717 (800-2 1/4)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

MC MINNVILLE, OREGON

AL-5626 (FAA)

14317

VOR/DME UBG <b>117.4</b> Chan <b>121</b>	APP CRS <b>014°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>163</b>
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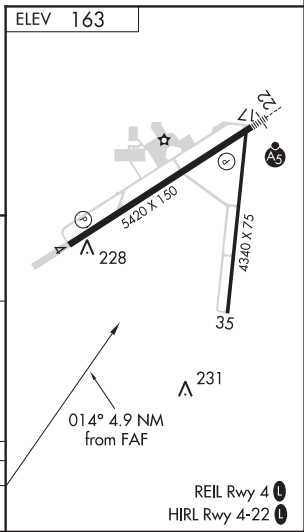
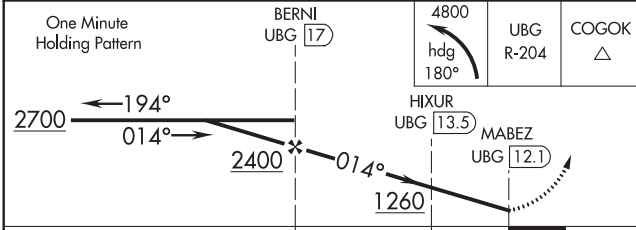
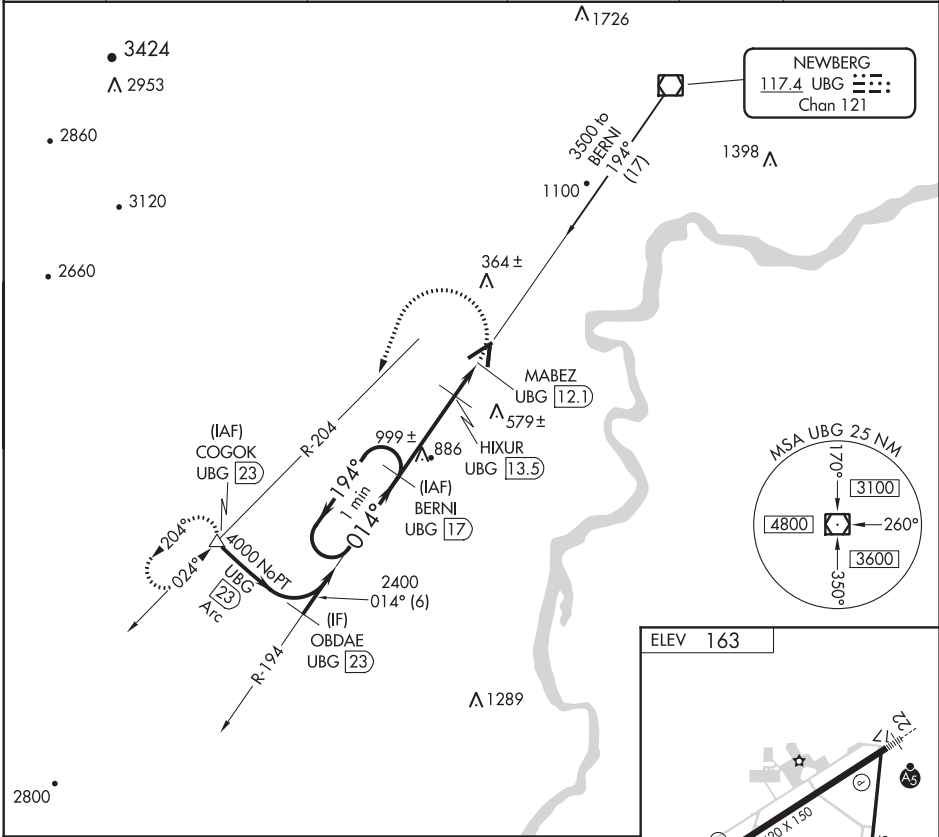
# VOR/DME-B

MC MINNVILLE MUNI (MMV)

**⚠** When local altimeter setting not received use Aurora State altimeter setting and increase all MDA 60 feet and all visibility 1/4 mile.

**⚠** MISSED APPROACH: Climbing left turn to 4800 via heading 180° and UBG VOR/DME R-204 to COGOK/UBG 23 DME and hold, continue climb-in-hold to 4800. When authorized by ATC, climb-in-hold to 6000.

ASOS <b>135.675</b>	PORTLAND APP CON <b>126.0 284.6</b> (NORTH)	SEATTLE CENTER <b>125.8 291.7</b> (SOUTH)	McMINNVILLE RADIO <b>122.45</b>	CLNC DEL <b>118.35</b>	UNICOM <b>123.0</b> (CTAF) <b>0</b>
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CATEGORY	A	B	C	D
CIRCLING	840-1	677 (700-1)	840-2 677 (700-2)	880-2 1/4 717 (800-2 1/4)

MC MINNVILLE, OREGON  
Amdt 6 20NOV08

45°12'N-123°08'W

MC MINNVILLE MUNI (MMV)  
**VOR/DME-B**

REIL Rwy 4 **0**  
HIRL Rwy 4-22 **0**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

TACOMA, WASHINGTON

# ILS or LOC RWY 16

LOC I-MAR <b>109.9</b>	APCH CRS <b>165°</b>	Rwy Idg <b>10,108</b> THRE <b>282</b> Arpt Elev <b>322</b>
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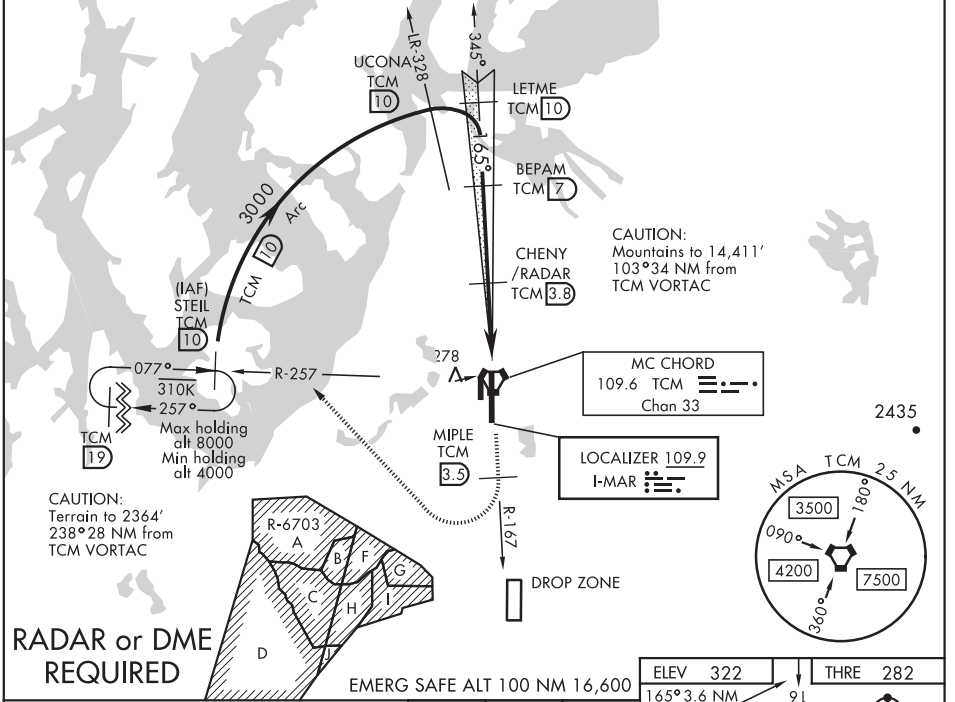
AL-414 [USAF]

MC CHORD FIELD (KTCM)

▼ \*\* When ALS inop, increase RVR to 40, vis to 3/4 mile.  
 \*\* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CDE vis to 1 1/2 miles.

ATIS <b>270.1</b>	SEATTLE APP CON <b>126.5 377.15</b>	MC CHORD TOWER <b>124.8 259.3</b>	GND CON <b>118.175 279.65</b>
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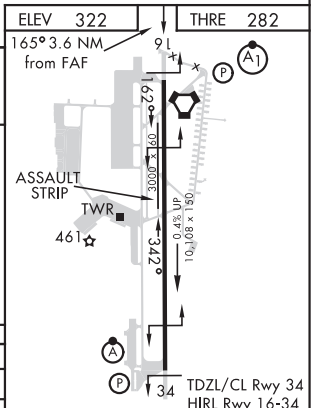
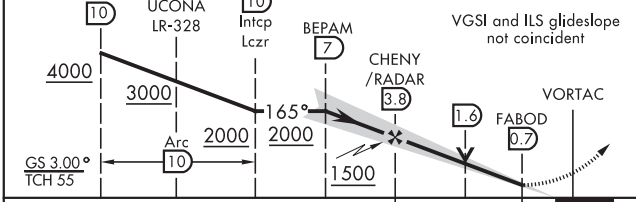
\*\*\* Circling not authorized E of Rwy 16-34.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 322	THRE 282
165° 3.6 NM from FAF	



CATEGORY	A	B	C	D	E
S-ILS 16*	482/24		200 (200-1/2)		
S-LOC 16**	800/24	518 (500-1/2)	800/55 518 (500-1)		
CIRCLING***	940-1	619 (700-1)	940-1 1/4 619 (700-1 1/4)	940-2 619 (700-2)	1020-2 1/2 699 (700-2 1/2)

FAF to MAP 3.1 NM				
Knots	60	90	120	150 180
Min:Sec	3:06	2:04	1:33	1:14 1:02

TACOMA, WASHINGTON  
 Amdt 1 15OCT15

47°08'N-122°29'W

MC CHORD FIELD (KTCM)

# ILS or LOC RWY 16

TACOMA, WASHINGTON

# ILS or LOC RWY 34

LOC I-TCM <b>108.5</b>	APCH CRS <b>345°</b>	Rwy Idg THRE <b>10,108</b> Arprt Elev <b>322</b>
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AL-414 [USAF]

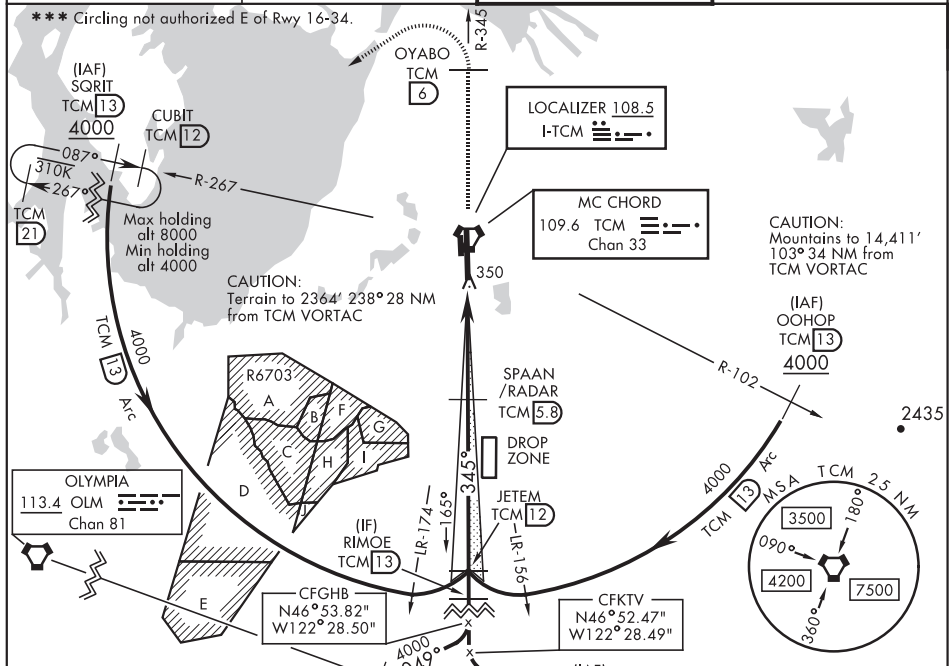
MC CHORD FIELD (KTCM)

**▽** \*When ALS inop, increase RVR to 40, vis to ¾ mile.  
 \*\* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CD vis to 1½ miles.

ALSF-2

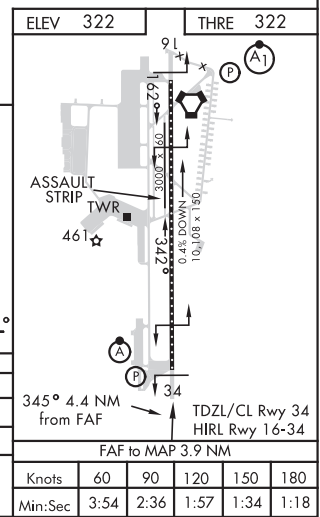
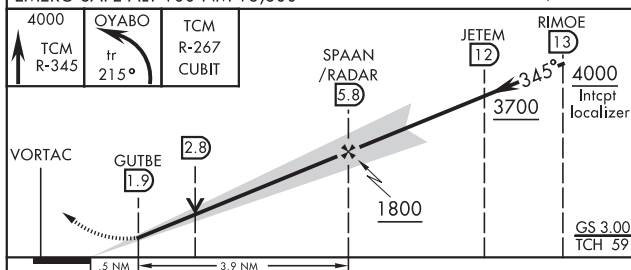
MISSED APPROACH: Climb to 4000 on TCM VORTAC R-345 to OYABO, then turn left via 215° course to intercept TCM R-267 to CUBIT and hold, continue climb in hold to 4000. Cross OYABO at or above 3000.

ATIS <b>270.1</b>	SEATTLE APP CON <b>126.5 377.15</b>	MC CHORD TOWER <b>124.8 259.3</b>	GND CON <b>118.175 279.65</b>
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**RADAR or DME REQUIRED**

EMERG SAFE ALT 100 NM 16,600



CATEGORY	A	B	C	D
S-ILS 34 *		521/18 200	(200-½)	
S-LOC 34 **	820/24	499 (500-½)	820/50	499 (500-1)
CIRCLING ***	940-1	619 (700-1)	940-1½ 619 (700-1½)	940-2 619 (700-2)

FAF to MAP 3.9 NM					
Knots	60	90	120	150	180
Min:Sec	3:54	2:36	1:57	1:34	1:18

TACOMA, WASHINGTON  
 Amdt 1 18AUG16

47°08'N-122°29'W

MC CHORD FIELD (KTCM)

# ILS or LOC RWY 34

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



TACOMA, WASHINGTON

# ILS RWY 34 (CAT II)

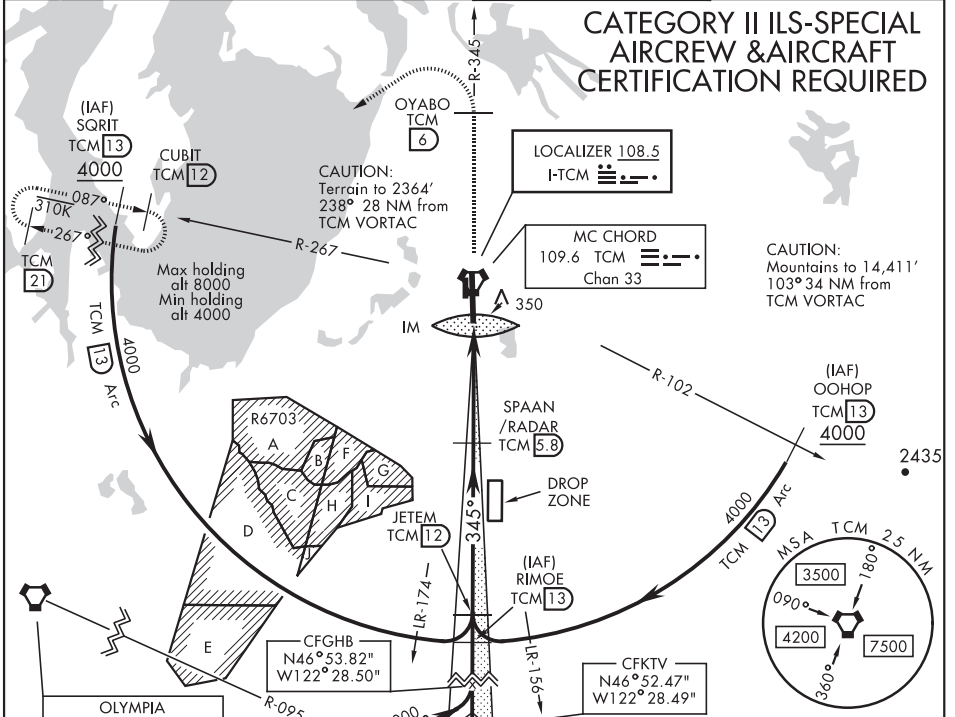
LOC I-TCM <b>108.5</b>	APCH CRS <b>345°</b>	Rwy Idg THRE Arpt Elev <b>10,108</b> <b>322</b>
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AL-414 [USAF]

MC CHORD FIELD (KTTCM)

		MISSED APPROACH: Climb to 4000 on TCM VORTAC R-345 to OYABO, then turn left via 215° course to intercept TCM R-267 to CUBIT and hold, continue climb in hold to 4000. Cross OYABO at or above 3000.

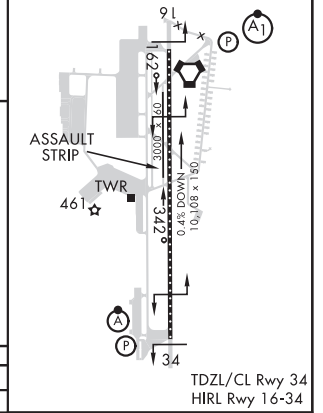
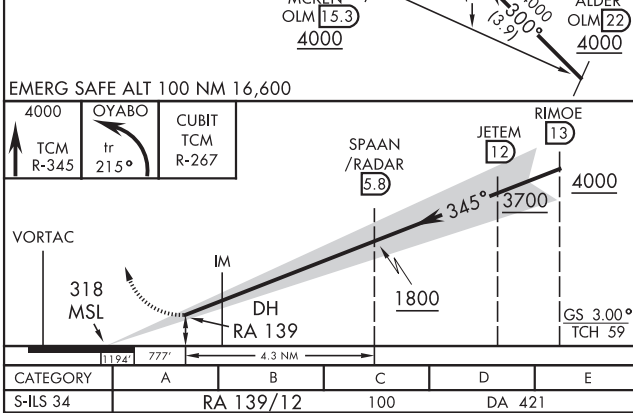
ATIS <b>270.1</b>	SEATTLE APP CON <b>126.5 377.15</b>	MC CHORD TOWER <b>124.8 259.3</b>	GND CON <b>118.175 279.65</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 322	THRE 322
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CATEGORY	A	B	C	D	E
S-ILS 34	RA 139/12		100	DA 421	

TACOMA, WASHINGTON 47°08'N-122°29'W MC CHORD FIELD (KTTCM)

# ILS RWY 34 (CAT II)

TACOMA, WASHINGTON

# RNAV (GPS) RWY 16

APCH CRS <b>165°</b>	Rwy ldg <b>10,108</b>
	THRE <b>282</b>
	Arprt Elev <b>322</b>

AL-414 [USAF]

MC CHORD FIELD (KTCM)

**▼** \* When ALS inop, increase CAT AB vis to 1 mile, CAT CDE vis to 1 3/8 miles.  
\*\* Circling not authorized E of rwy 16-34.

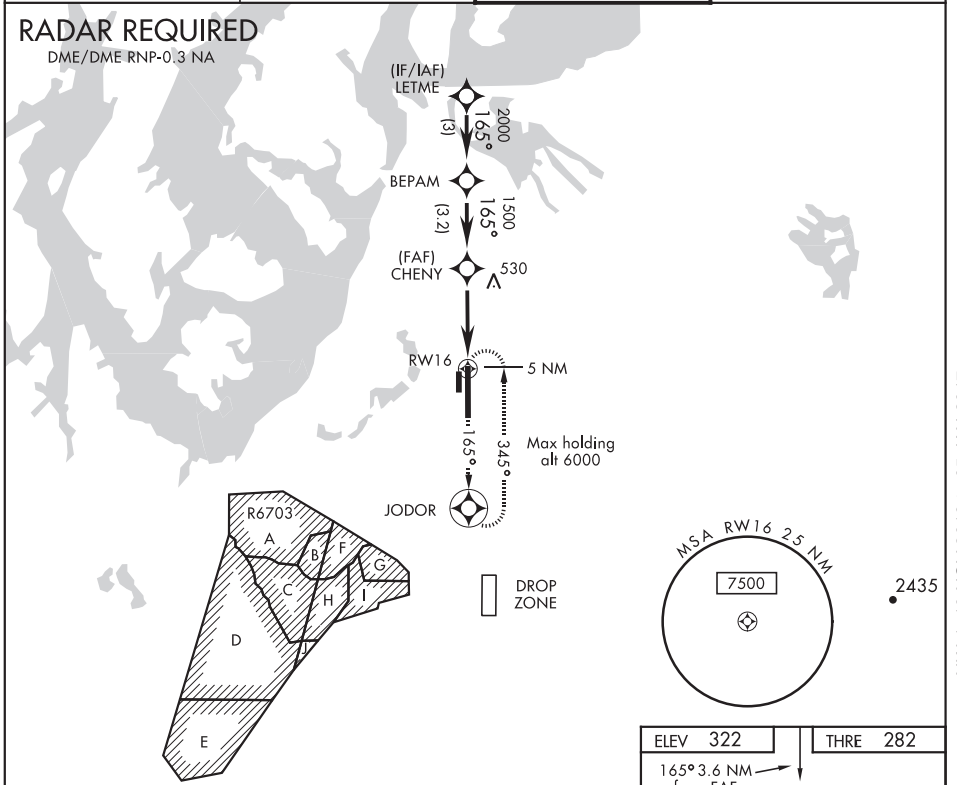


**MISSED APPROACH:** Climb to 4000 direct JODOR and hold. Continue climb in hold to 4000.

ATIS <b>270.1</b>	SEATTLE APP CON <b>126.5 377.15</b>	MC CHORD TOWER <b>124.8 259.3</b>	GND CON <b>118.175 279.65</b>
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## RADAR REQUIRED

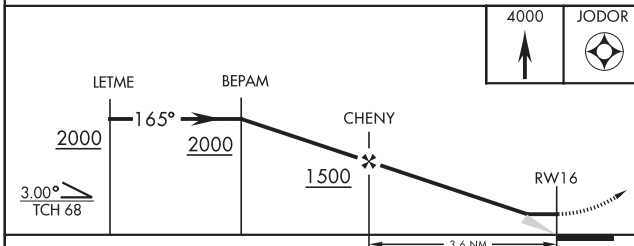
DME/DME RNP-0.3 NA



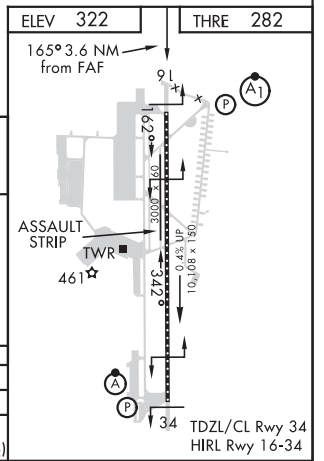
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 16,600



CATEGORY	A	B	C	D	E
LNAV MDA *	780/24	498 (500-1/2)	780/50	498 (500-1)	
CIRCLING **	940-1	619 (700-1)	940-1 3/4 619 (700-1 3/4)	940-2 619 (700-2)	1020-2 1/2 699 (700-2 1/2)



TACOMA, WASHINGTON

47°08'N-122°29'W

MC CHORD FIELD (KTCM)

Amdt 1 15SEP16

# RNAV (GPS) RWY 16

TACOMA, WASHINGTON

# RNAV (GPS) RWY 34

APCH CRS <b>345°</b>	Rwy ldg <b>10,108</b>
	THRE <b>322</b>
	Arpt Elev <b>322</b>

AL-414 [USAF]

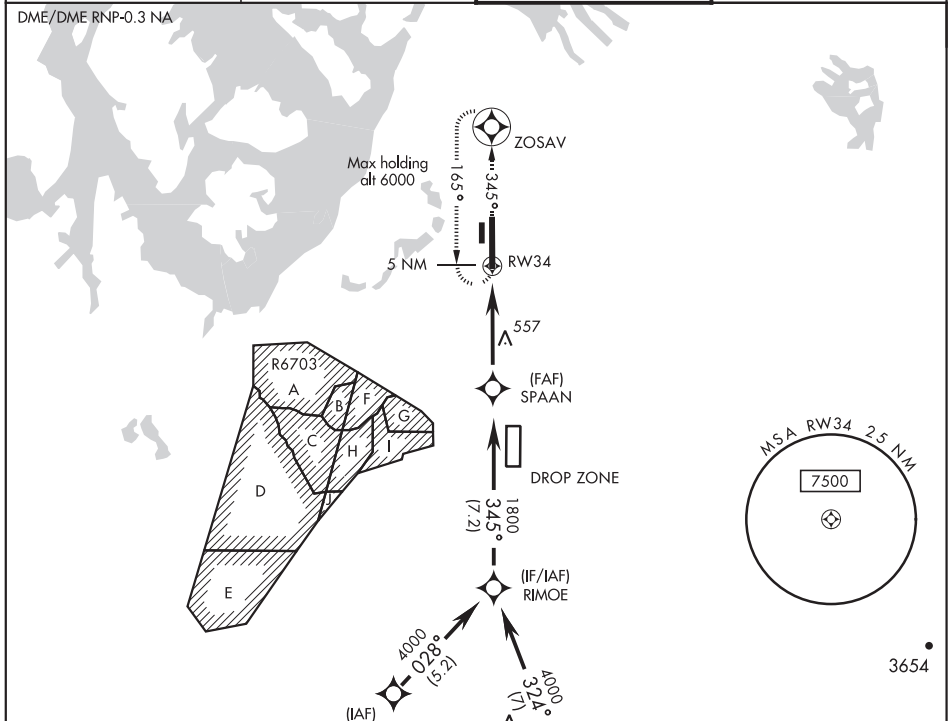
MC CHORD FIELD (KTCM)

▼ \* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile and CAT CDE vis to 1 3/8 miles.  
 \*\* Circling not authorized E of rwy 16-34.



MISSED APPROACH: Climb to 4000 direct ZOSAV and hold, Continue climb in hold to 4000.

ATIS <b>270.1</b>	SEATTLE APP CON <b>126.5 377.15</b>	MC CHORD TOWER <b>124.8 259.3</b>	GND CON <b>118.175 279.65</b>
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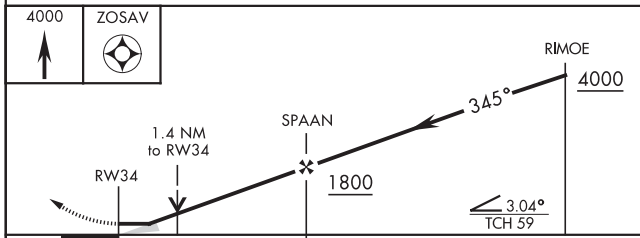


NW-1, 10 NOV 2016 to 05 JAN 2017

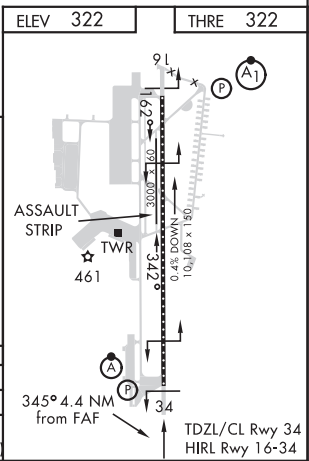
NW-1, 10 NOV 2016 to 05 JAN 2017

## RADAR REQUIRED

EMERG SAFE ALT 100 NM 16,600



CATEGORY	A	B	C	D	E
LNAV MDA *	820/24	499 (500-1/2)	820/50	499 (500-1)	
CIRCLING **	940-1	619 (700-1)	940-1 3/4 619 (700-1 3/4)	940-2 619 (700-2)	1020-2 1/2 699 (700-2 1/2)



TACOMA, WASHINGTON

47°08'N-122°29'W

MC CHORD FIELD (KTCM)

Amdt 1 15OCT15

# RNAV (GPS) RWY 34

TACOMA, WASHINGTON

# TACAN RWY 16

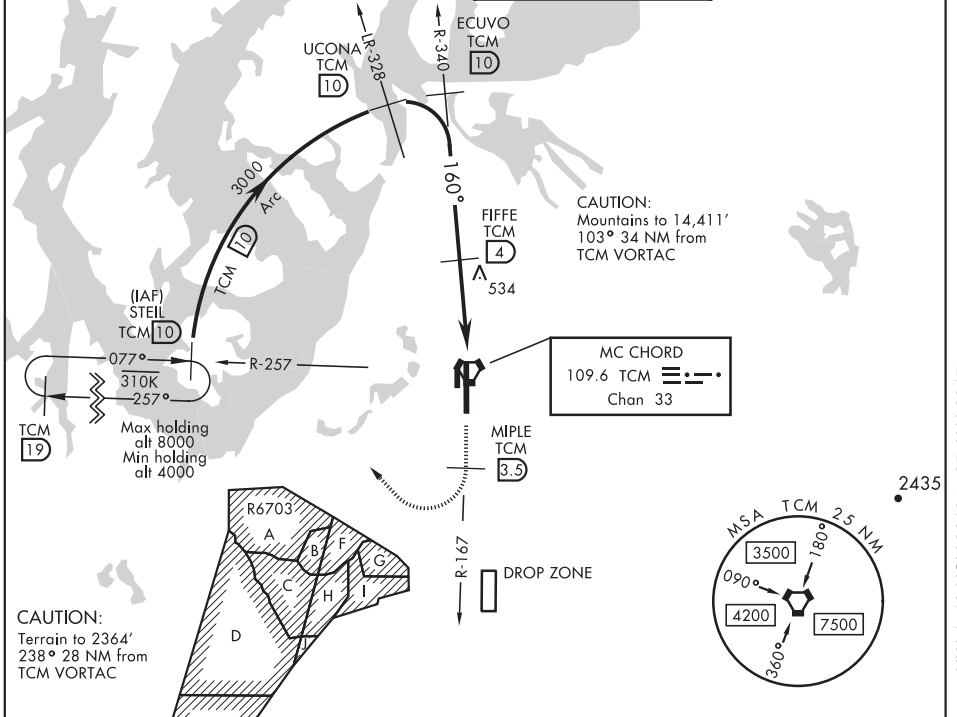
VORTAC TCM <b>109.6</b> Chan <b>33</b>	APCH CRS <b>160°</b>	Rwy Idg <b>10,108</b> THRE <b>282</b> Arpt Elev <b>322</b>
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AL-414 [USAF]

MC CHORD FIELD (KTCM)

A1
MISSED APPROACH: Climb to 4000 on TCM VORTAC R-167. At TCM 3.5 DME turn right via 295° course to intercept TCM R-257 to STEIL and hold, continue climb in hold to 4000.

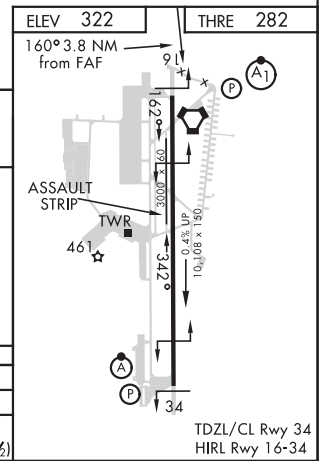
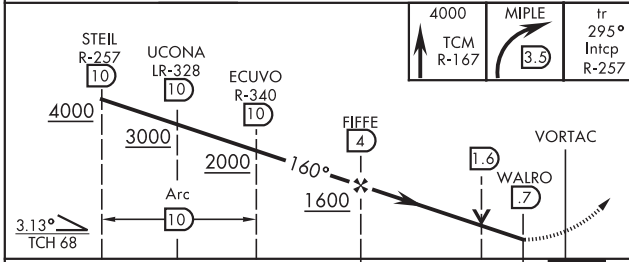
ATIS <b>270.1</b>	SEATTLE APP CON <b>126.5 377.15</b>	MC CHORD TOWER <b>124.8 259.3</b>	GND CON <b>118.175 279.65</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 322	THRE 282
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CATEGORY	A	B	C	D	E
S-16*	800/24	518 (500-½)	800/55	518	(500-1)
CIRCLING**	940-1 619 (700-1)	940-1¾ 619 (700-1¾)	940-2 619 (700-2)	1020-2½ 699 (700-2½)	

TACOMA, WASHINGTON      47°08'N-122°29'W      MC CHORD FIELD (KTCM)

Amdt 1 15OCT15

# TACAN RWY 16

TDZL/CL Rwy 34  
HIRL Rwy 16-34

TACOMA, WASHINGTON

# TACAN RWY 34

VORTAC TCM <b>109.6</b> Chan <b>33</b>	APCH CRS <b>347°</b>	Rwy Idg THRE <b>322</b> Arpt Elev <b>322</b>
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AL-414 [USAF]

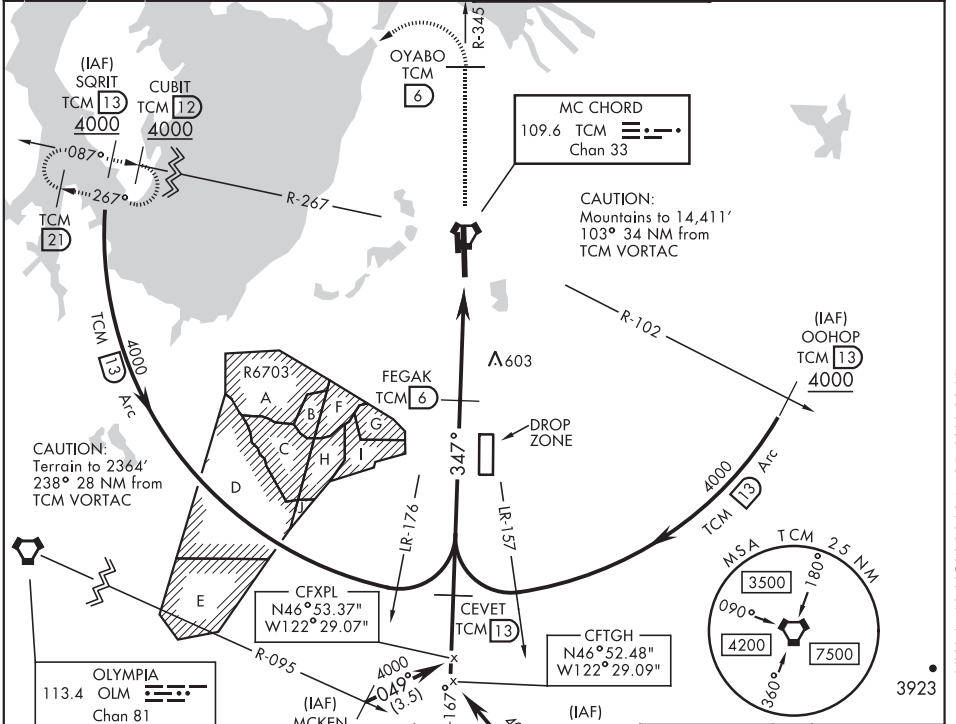
MC CHORD FIELD (KTCM)

▼ \* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CD vis to 1½ miles.  
 \*\* Circling not authorized E of rwy 16-34.

ALSF-2

MISSED APPROACH: Climb to 4000 on TCM VORTAC R-345 to OYABO, then turn left via 215° course to intercept TCM R-267 to CUBIT and hold. Cross OYABO at or above 3000. Continue climb in hold to 4000.

ATIS <b>270.1</b>	SEATTLE APP CON <b>126.5 377.15</b>	MC CHORD TOWER <b>124.8 259.3</b>	GND CON <b>118.175 279.65</b>
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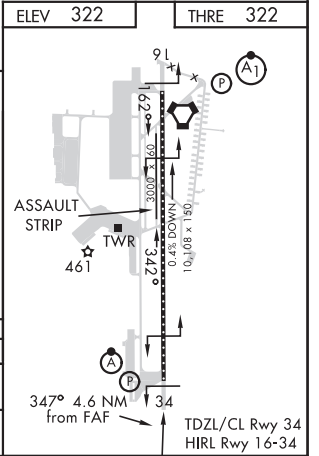
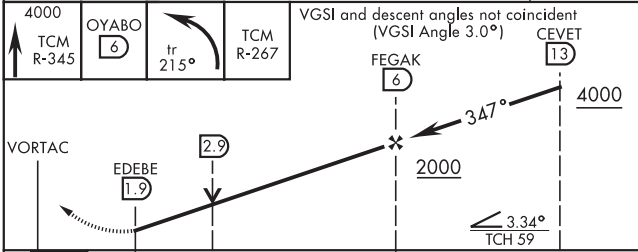


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 322	THRE 322
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EMERG SAFE ALT 100 NM 16,600



CATEGORY	A	B	C	D
S-34 *	860/24 539 (600-½)		860/55 539 (600-1)	
CIRCLING **	940-1 619 (700-1)		940-1 ¾ 619 (700-1 ¾)	940-2 619 (700-2)

TACOMA, WASHINGTON

47°08'N-122°29'W

MC CHORD FIELD (KTCM)

Amr 2 18AUG16

# TACAN RWY 34

# AIRPORT DIAGRAM

AFD-414 [USAF]

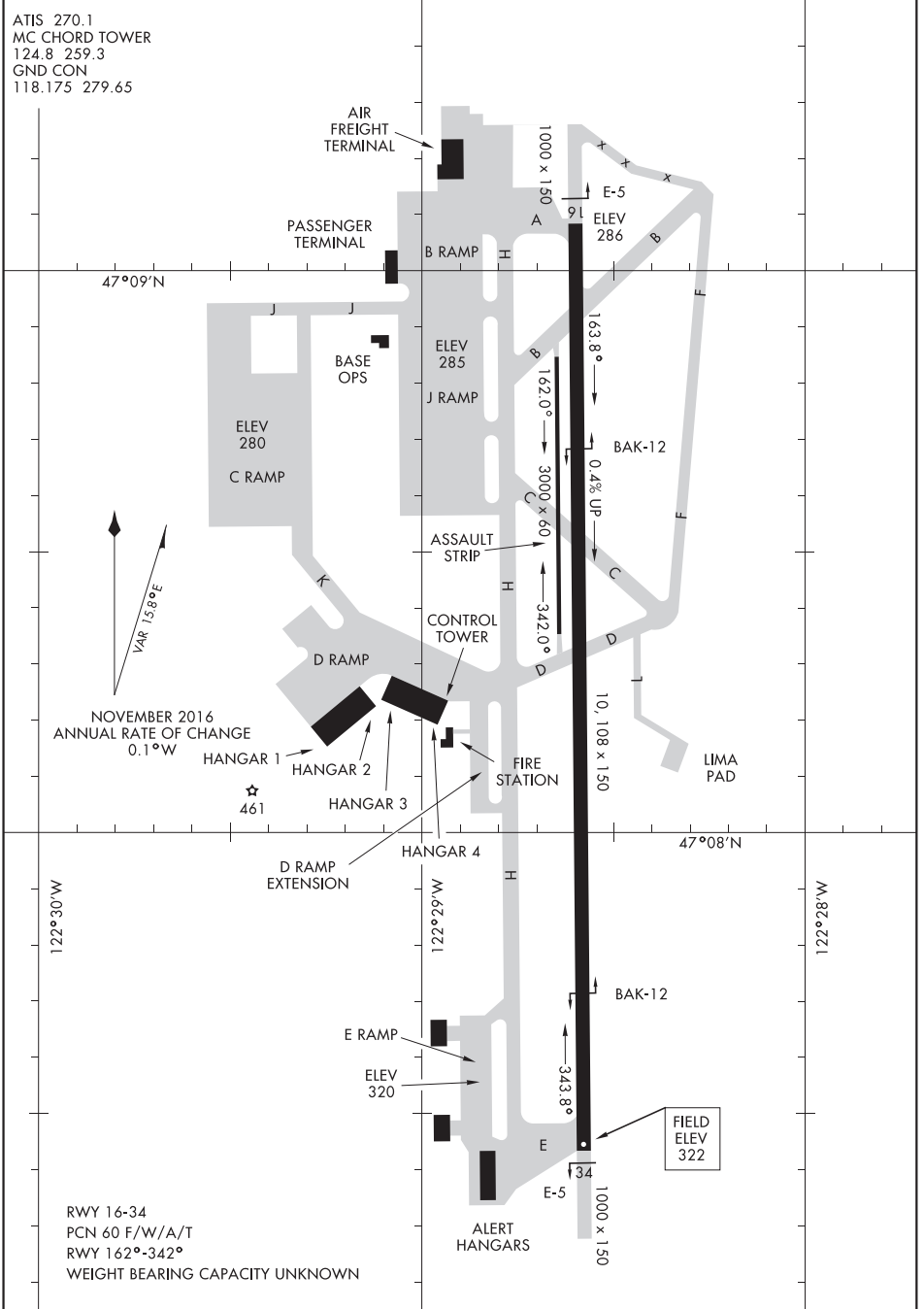
MC CHORD FIELD (KTCM)

TACOMA, WASHINGTON

ATIS 270.1  
MC CHORD TOWER  
124.8 259.3  
GND CON  
118.175 279.65

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

TACOMA, WASHINGTON  
MC CHORD FIELD (KTCM)

# ALDER-TWO DEPARTURE (ALDER2 • ALDER)

MC CHORD FIELD (KTCM)

TACOMA, WASHINGTON

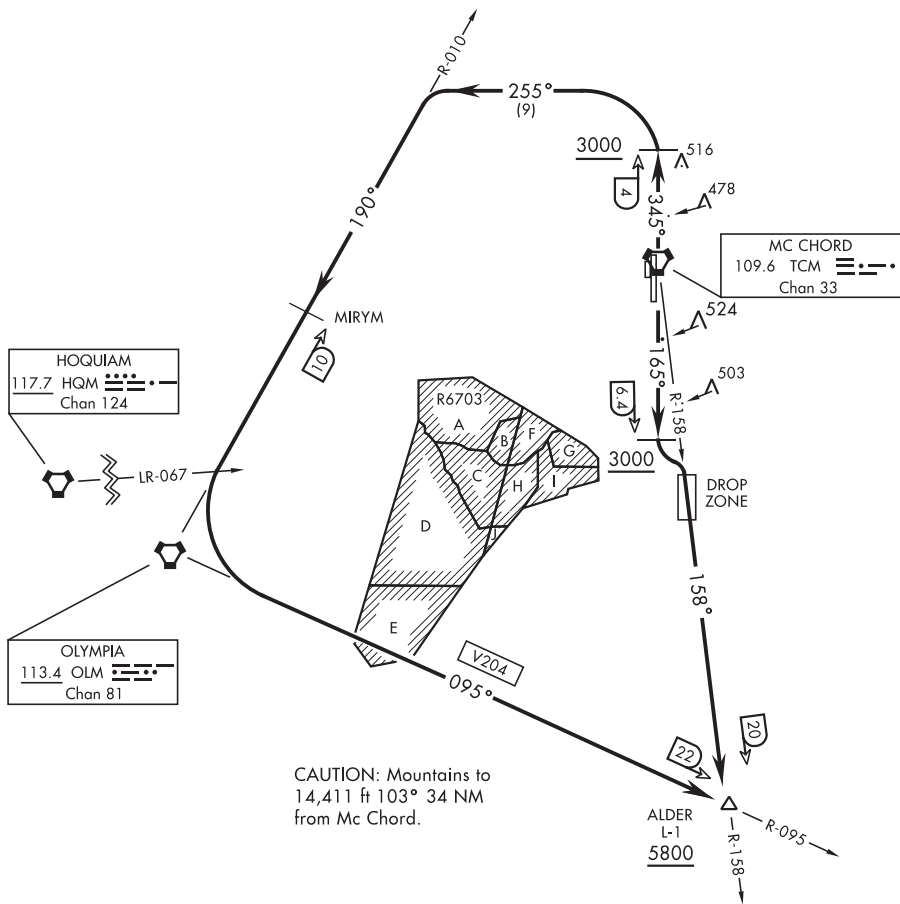
SL-414 [USAF]

ATIS  
270.1  
GND CON  
118.175 279.65  
MC CHORD TOWER  
124.8 259.3  
SEATTLE DEP CON  
126.5 377.15

If unable to make ATC charted crossing restrictions advise ATC prior to departure.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CAUTION: Mountains to 14,411 ft 103° 34 NM from Mc Chord.



## DEPARTURE ROUTE DESCRIPTION

**TAKE-OFF RWY 16:** Climb on track 165° to cross TCM VORTAC 6.4 DME, at or above 3000. Then turn left to intercept TCM R-158 to cross ALDER at or above 5800.

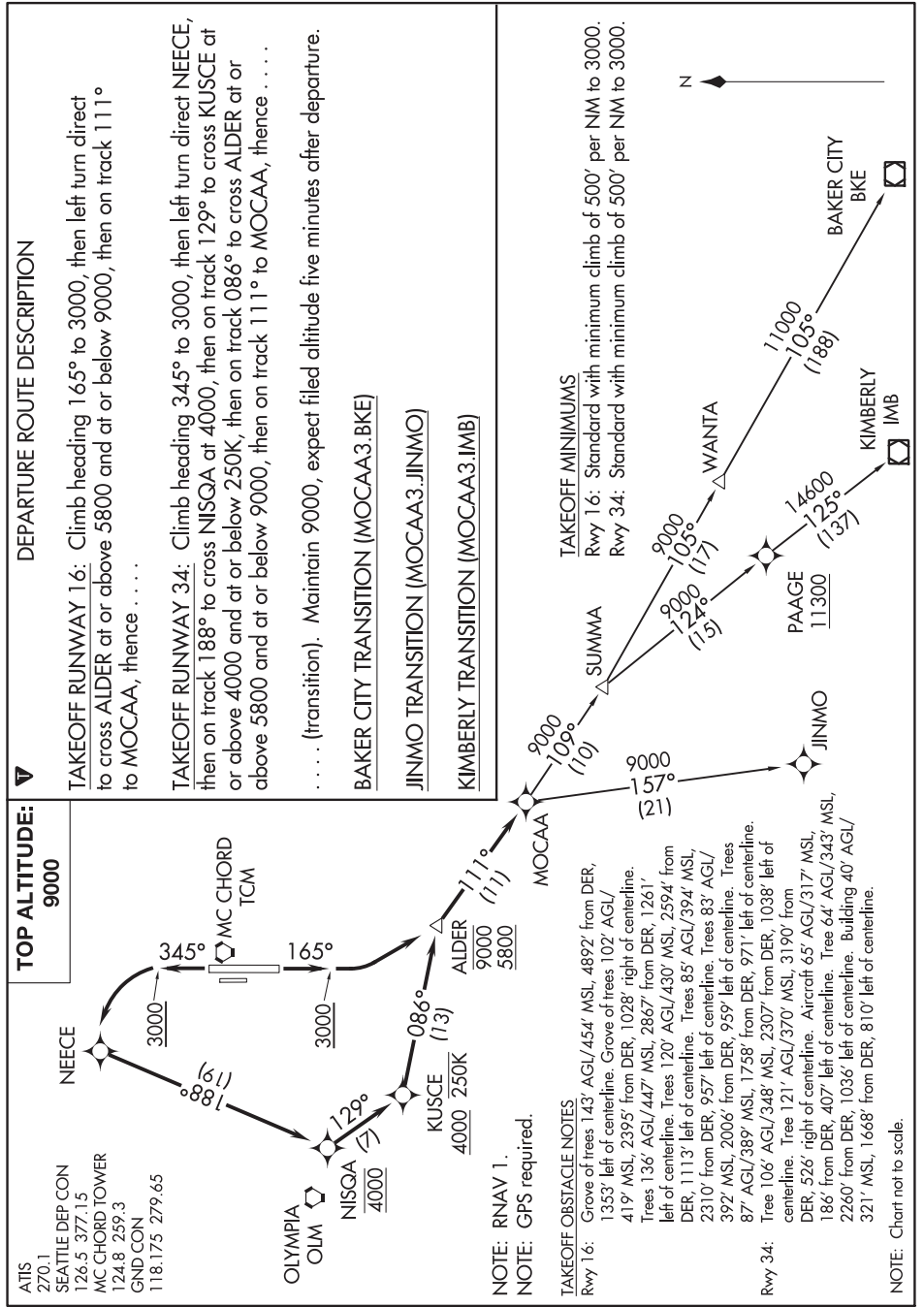
**TAKE-OFF RWY 34:** Climb on track 345° to cross TCM VORTAC 4 DME at or above 3000. Then turn left heading 255° to intercept OLM VORTAC R-010 MIRYM then OLM. Then via V204 to cross ALDER at or above 5800.

# ALDER-TWO DEPARTURE (ALDER2 • ALDER)

TACOMA, WASHINGTON  
MC CHORD FIELD (KTCM)

(MOCAA3.MOCAA) 16315

MOCAA THREE DEPARTURE (RNAV)



MOCAA THREE DEPARTURE (RNAV)

(MOCAA3.MOCAA) 15OCT15

MCCORD FIELD (JOINT BASE LEWIS-MCCORD) (KTCM)

TACOMA, WASHINGTON



ATIS  
 270.1  
 GND CON  
 118.175 279.65  
 MC CHORD TOWER  
 124.8 259.3  
 SEATTLE DEP CON  
 126.5 377.15

If unable to make ATC charted crossing restrictions advise ATC prior to departure.

Maximum 250 KIAS

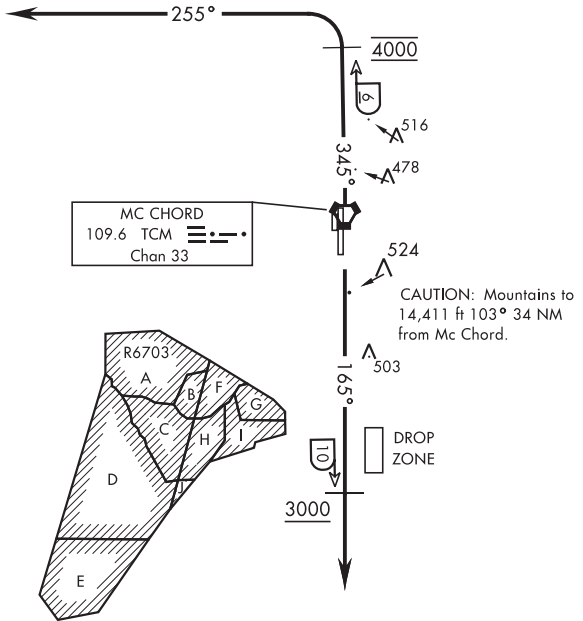
SEATTLE  
 116.8 SEA  
 Chan 115

L-1

OLYMPIA  
 113.4 OLM  
 Chan 81

L-1

MC CHORD  
 109.6 TCM  
 Chan 33



**RADAR REQUIRED**

① 2270' from Rwy 34

**DEPARTURE ROUTE DESCRIPTION**

**TAKE-OFF RWY 16:** Climb on track of 165° to cross TCM VORTAC 10 DME at or above 3000. Expect radar vectors within TCM 8 DME. Maintain ATC assigned altitude.

**TAKE-OFF RWY 34:** Climb on track 345° to cross TCM VORTAC 6 DME at 4000. Then turn left tracking 255° to expect radar vectors. Maintain ATC assigned altitude.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ATIS  
 270.1  
 GND CON  
 118.175 279.65  
 MC CHORD TOWER  
 124.8 259.3  
 SEATTLE DEP CON  
 126.5 377.15

If unable to make ATC charted crossing restriction advise ATC prior to departure.

### RADAR REQUIRED

Maximum 250 KIAS

Radar vectors required within 10 NM after departure

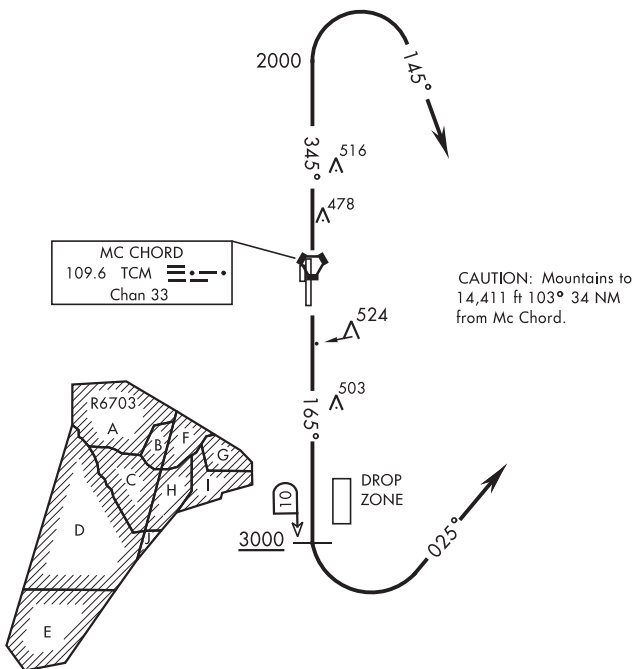


SEATTLE  
 116.8 SEA  
 Chan 115

L-1

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



#### DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 16: Climb on track 165° to cross TCM VORTAC 10 DME at or above 3000. Then turn left tracking 025° to expect radar vectors. Maintain ATC assigned altitude.

TAKE-OFF RWY 34: Climb on track 345° to 2000, then turn right tracking 145° to expect radar vectors. Maintain ATC assigned altitude.

LOC/DME I-MFR <b>110.3</b> Chan 40	APP CRS <b>143°</b>	Rwy Idg TDZE Apt Elev	<b>8800</b> <b>1303</b> <b>1335</b>
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# ILS or LOC/DME RWY 14

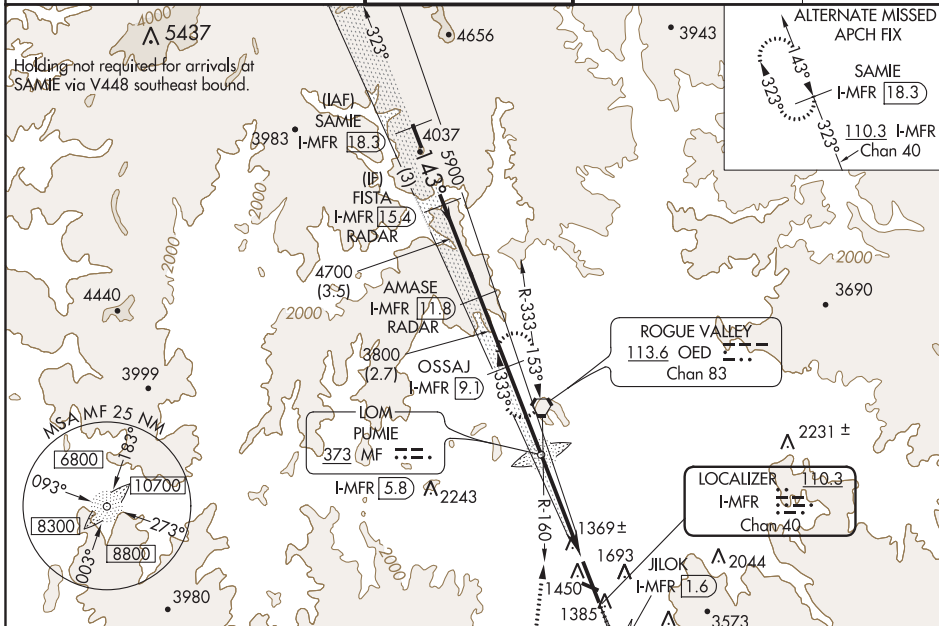
ROGUE VALLEY INTL-MEDFORD (MFR)

When Medford altimeter setting not received, procedure NA.  
 For inoperative MALS/R, increase S-ILS 14 all Cats visibility to 2¼. DME required. Circling NA at night to Rwy 10.  
 Missed approach requires minimum climb of 319 feet per NM to 4100.



MISSED APPROACH: Climb to 6400 via I-MFR SE course to JILOK/I-MFR 1.6 DME and climbing right turn on heading 350 and OED VORTAC R-160 to OED VORTAC and hold, continue climb-in-hold to 6400.

ATIS <b>127.25</b>	CASCADE APP CON* <b>124.3 379.9</b>	MEDFORD TOWER* <b>119.4 (CTAF) 0257.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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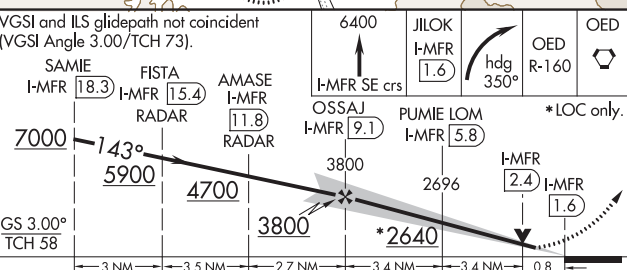
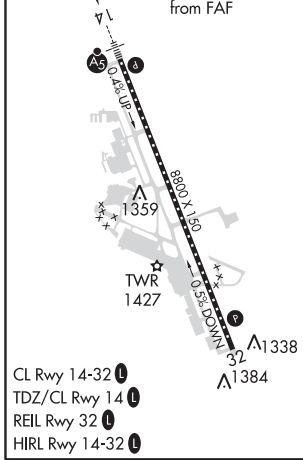


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1335	<b>D</b>	TDZE 1303
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## DME or RADAR REQUIRED



CATEGORY	A	B	C	D
S-ILS 14 %		1503/18	200 (200-½)	
S-ILS 14		1936-1¾	633 (700-1¾)	
S-LOC 14 %		1620/24	317 (300-½)	
S-LOC 14	2080/24 777 (800-½)	2080/40 777 (800-¾)	2080-1¾ 777 (800-1¾)	2080-2 777 (800-2)
CIRCLING	2080-1 745 (800-1)	2080-1¼ 745 (800-1¼)	2080-2¼ 745 (800-2¼)	2260-3 925 (1000-3)

APP CRS	Rwy Idg	<b>8800</b>
<b>323°</b>	TDZE	<b>1335</b>
	Apt Elev	<b>1335</b>

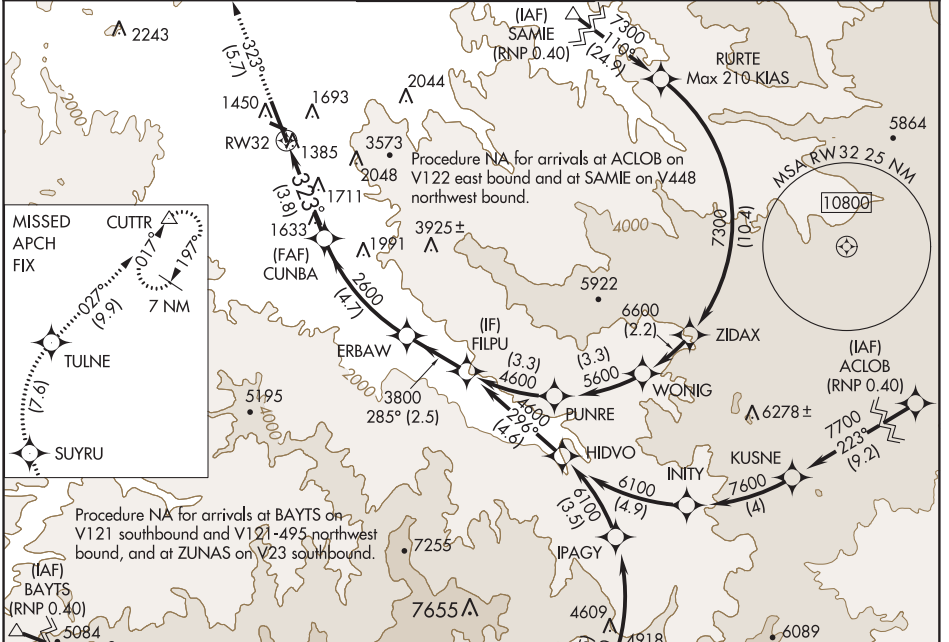
# RNAV (RNP) RWY 32

ROGUE VALLEY INTL-MEDFORD (MFR)

**GPS required. RF required.** For uncompensated Baro-VNAV systems, procedure NA below -8°C (17°F) or above 45°C (113°F).

**MISSED APPROACH:** Climb to 9000 on track 323° to SUYRU, right turn to TULNE, then on track 027° to CUTTR and hold, continue climb-in-hold to 9000.

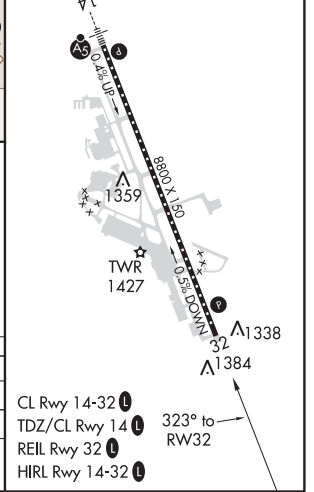
ATIS <b>127.25</b>	CASCADE APP CON * <b>124.3 379.9</b>	MEDFORD TOWER * <b>119.4 (CTAF) 257.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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ELEV 1335	TDZE 1335
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9000	SUYRU	TULNE	CUTTR	Procedure Turn NA
tr 323°				
ERBAW		FILPU		
285°		4600		
CUNBA		2600		
323°		2600		
3.8 NM		4.7 NM		
A		B		
2600		3800		
GP 3.00°		TCH 50		
2.5 NM		D		



CATEGORY	A	B	C	D
RNP 0.15 DA		1609-1	274 (300-1)	
RNP 0.30 DA		1661-1	326 (400-1)	

**AUTHORIZATION REQUIRED**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>143°</b>	Rwy Idg TDZE Apt Elev	<b>8800</b> <b>1303</b> <b>1335</b>
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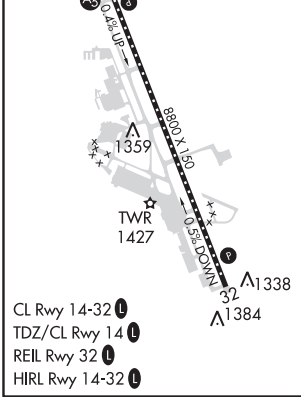
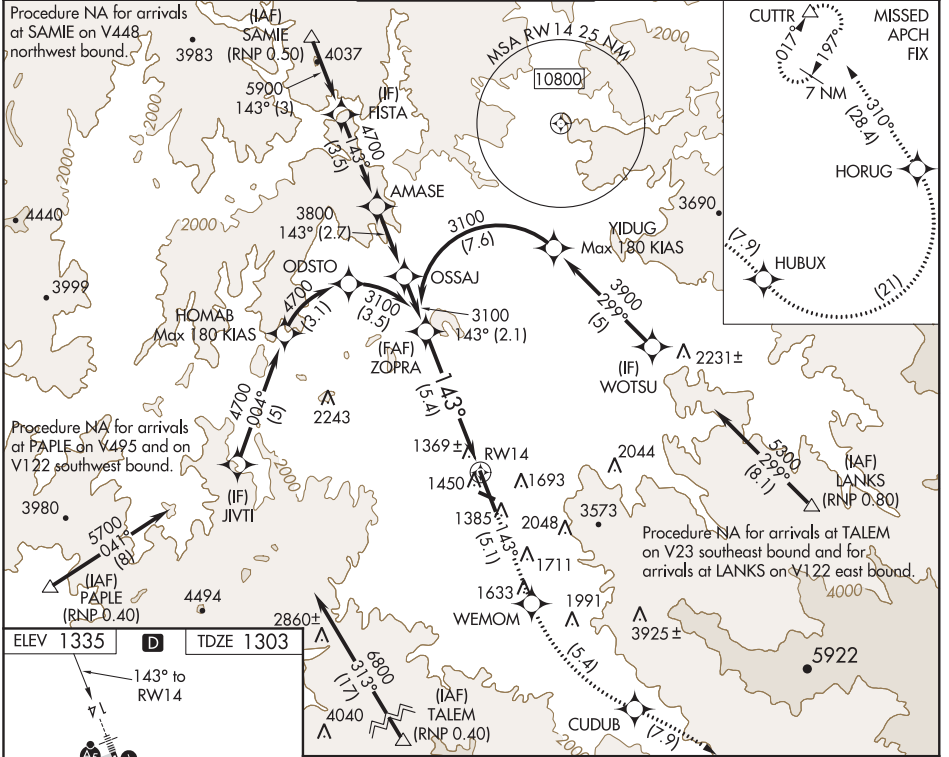
# RNAV (RNP) Z RWY 14

ROGUE VALLEY INTL-MEDFORD (MFR)

GPS required. RF required. For uncompensated Baro-VNAV systems, procedure NA below -8°C (17°F) or above 46°C (115°F). For inoperative MALS, increase RNP 0.30 DA\* all Cats visibility to RVR 6000, increase RNP 0.30 DA all Cats visibility to 3.  
\*Misser approach requires minimum climb of 259 feet per NM to 8300.

MALS R	MISSED APPROACH: Climb to 9000 on track 143° to WEMOM, left turn to CUDUB, right turn to HUBUX, left turn to HORUG, then on track 310° to CUTTR and hold.
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ATIS <b>127.25</b>	CASCADE APP CON* <b>124.3 379.9</b>	MEDFORD TOWER* <b>119.4 (CTAF) 0 257.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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Procedure	ZOPRA	9000	WEMOM	CUDUB
Turn	NA	↑	↶	↷
	3100	tr 143°		
GP 3.00°		VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 73).		
TCH 58		See planview for multiple IF locations.		
		5.4 NM		

CATEGORY	A	B	C	D
RNP 0.30 DA*	1665/40 362 (400-¾)			
RNP 0.30 DA	2131-2½ 828 (800-2½)			

**AUTHORIZATION REQUIRED**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

MEDFORD, OREGON

AL-251 (FAA)

16091

APP CRS <b>143°</b>	Rwy Idg TDZE Apt Elev	<b>8800</b> <b>1303</b> <b>1335</b>
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# RNAV (GPS) Y RWY 14

## ROGUE VALLEY INTL-MEDFORD (MFR)

**▽** DME/DME RNP-0.3 NA. Circling NA at night to Rwy 10. When Medford altimeter setting not received, procedure NA. Inoperative table does not apply to LNAV MDA\* Cat A, LNAV MDA Cat A and B.  
**▲** MISSED APPROACH: Climbing right turn to 7000 direct SAMIE and hold, continue climb-in-hold to 7000.  
**❄** -5°C/24°F \*Missed approach requires minimum climb of 297 feet per NM to 4000.



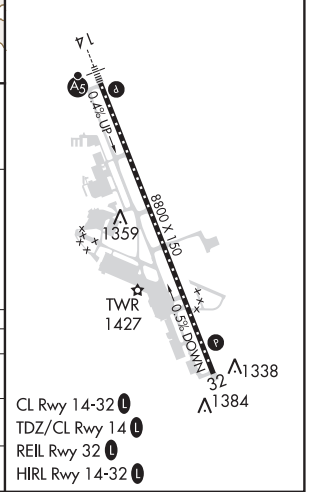
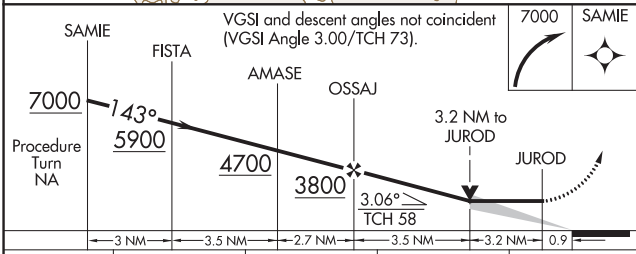
ATIS <b>127.25</b>	CASCADE APP CON * <b>124.3 379.9</b>	MEDFORD TOWER * <b>119.4 (CTAF) 257.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1335	<b>D</b>	TDZE 1303
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CATEGORY	A	B	C	D
LNAV MDA*	2640/60 1337 (1400-1½)	2640/50 1337 (1400-1)	2640-2½	1337 (1400-2½)
LNAV MDA	3060/60 1757 (1800-1¼)	3060-1½ 1757 (1800-1½)	3060-2½	1757 (1800-2½)
CIRCLING	3060-1¼ 1725 (1800-1¼)	3060-1½ 1725 (1800-1½)	3060-3	1725 (1800-3)

CL Rwy 14-32  
 TDZ/CL Rwy 14  
 REIL Rwy 32  
 HIRL Rwy 14-32

MEDFORD, OREGON  
 Amdt 1 18NOV10

42°22'N-122°52'W

ROGUE VALLEY INTL-MEDFORD (MFR)  
**RNAV (GPS) Y RWY 14**

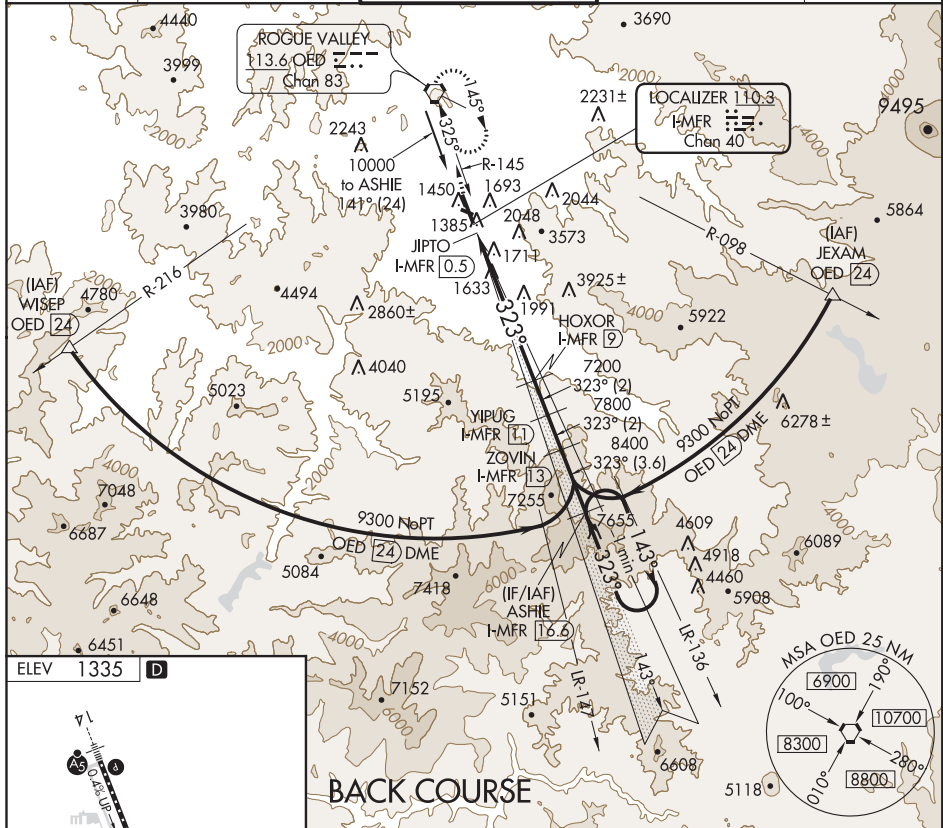


LOC/DME I-MFR <b>110.3</b> Chan 40	APP CRS <b>323°</b>	Rwy Idg TDZE Apt Elev <b>1335</b>	<b>N/A</b> <b>N/A</b>
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**LOC/DME BC-B**  
ROGUE VALLEY INTL-MEDFORD (MFR)

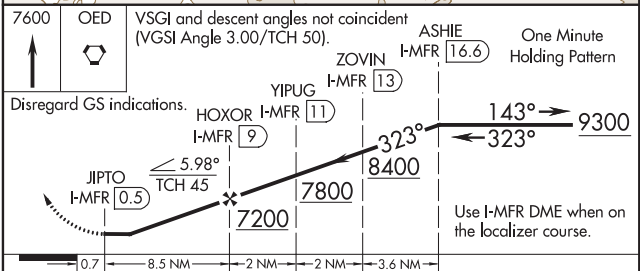
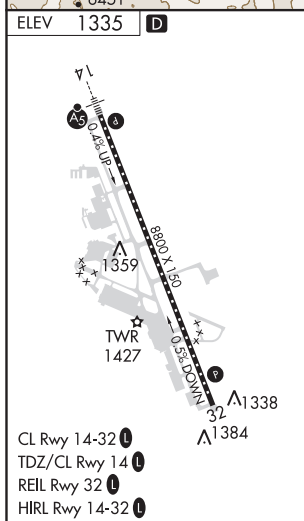
<p>Visibility reduction by helicopters NA. -5°C/24°F</p>	<p>MISSED APPROACH: Climb to 7600 direct OED VORTAC and hold, continue climb-in-hold to 7600.</p>
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ATIS <b>127.25</b>	CASCADE APP CON * <b>124.3 379.9</b>	MEDFORD TOWER * <b>119.4 (CTAF) 257.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	3540-1¼ 2205 (2300-1¼)	3540-1½ 2205 (2300-1½)	3540-3	2205 (2300-3)





VORTAC OED <b>113.6</b> Chan <b>83</b>	APP CRS <b>325°</b>	Rwy Idg TDZE Apt Elev <b>1335</b>	N/A N/A <b>1335</b>
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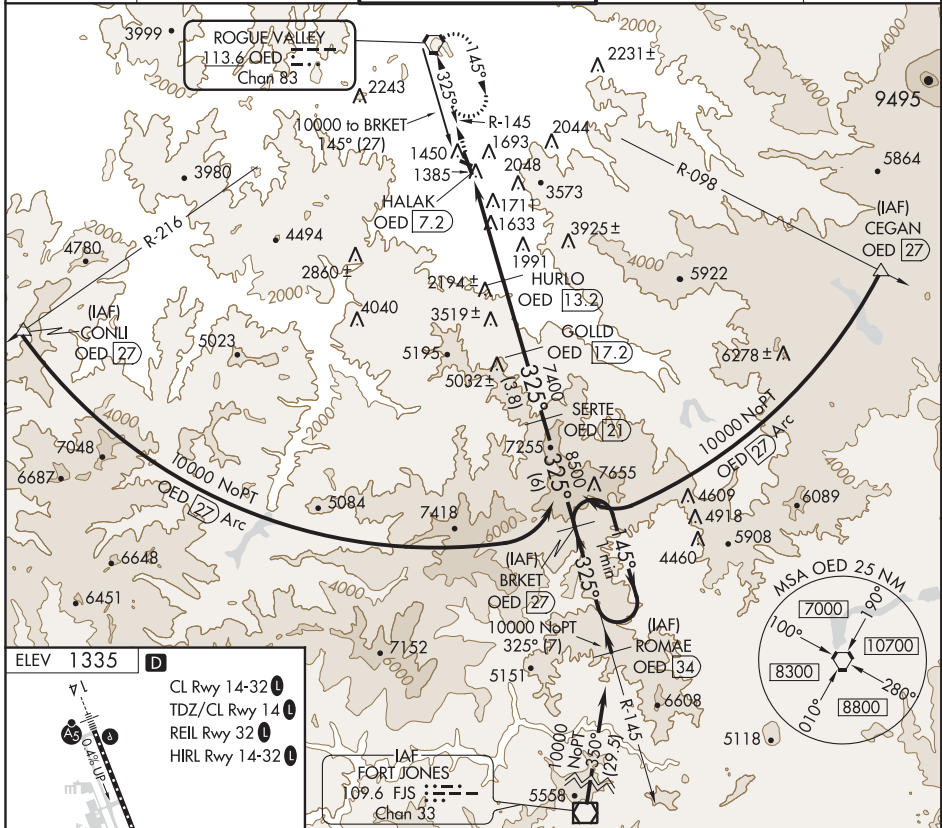
# VOR/DME-C

## ROGUE VALLEY INTL-MEDFORD (MFR)

**MISSED APPROACH:** Climb to 7600 direct OED VORTAC and hold, continue climb-in-hold to 7600.

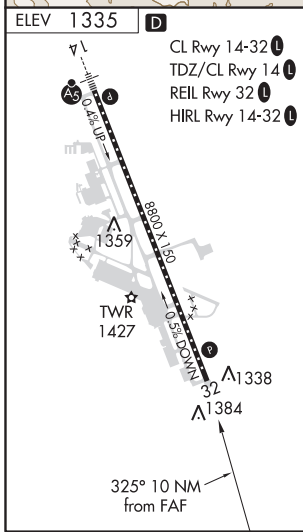
**Weather:** -5°C/24°F

ATIS <b>127.25</b>	CASCADE APP CON * <b>124.3 379.9</b>	MEDFORD TOWER * <b>119.4 (CTAF) 257.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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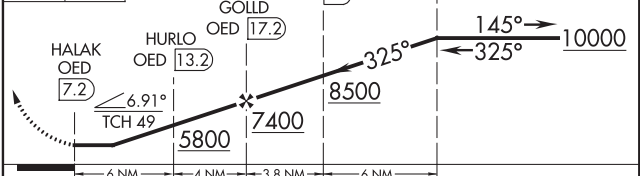
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



7600 OED VSGI and descent angles not coincident (VSGI Angle 3.00/TCH 50). One Minute Holding Pattern

↑



CATEGORY	A	B	C	D
CIRCLING	3600-1¼ 2265 (2300-1¼)	3600-1½ 2265 (2300-1½)	3600-3	2265 (2300-3)

VORTAC OED <b>113.6</b> Chan <b>83</b>	APP CRS <b>146°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>1335</b>
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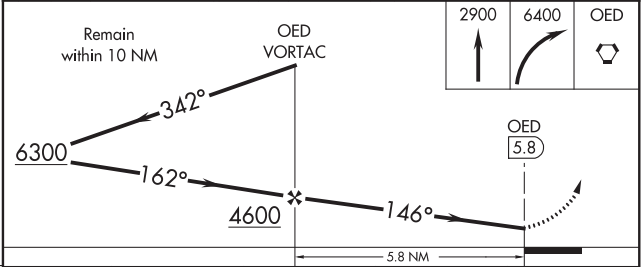
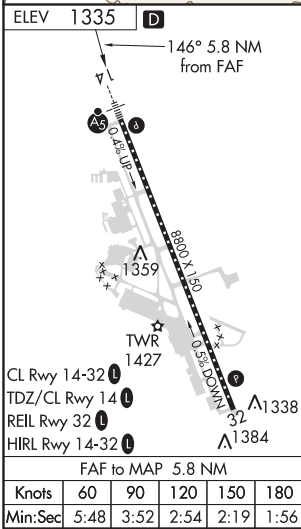
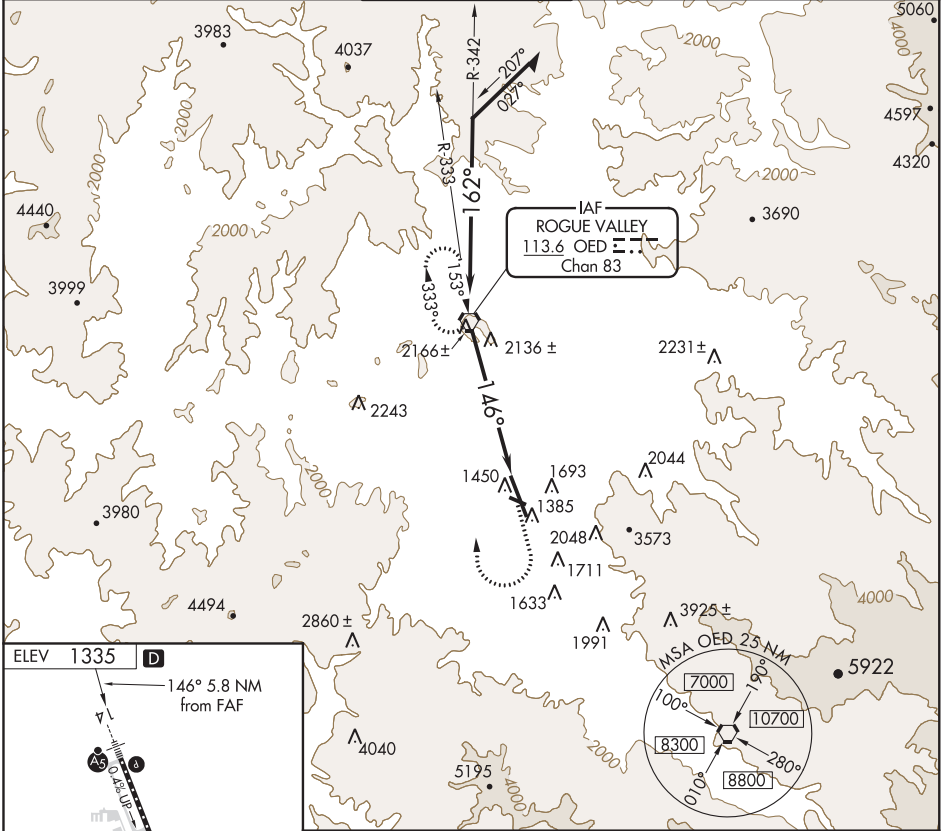
# VOR-A

ROGUE VALLEY INTL-MEDFORD (MFR)

**⚠** If local altimeter setting not received, procedure NA. **MISSED APPROACH:** Climb to 2900 then climbing right turn to 6400 direct OED VORTAC and hold, continue climb-in-hold to 6400.

**❄** -5°C/24°F

ATIS <b>127.25</b>	CASCADE APP CON * <b>124.3 379.9</b>	MEDFORD TOWER * <b>119.4 (CTAF) 257.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
CIRCLING	2680-1¼ 1345 (1400-1¼)	2680-1½ 1345 (1400-1½)	2680-3	1345 (1400-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

ROGUE VALLEY INTL - MEDFORD (MFR)  
MEDFORD, OREGON

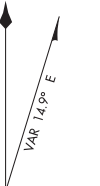
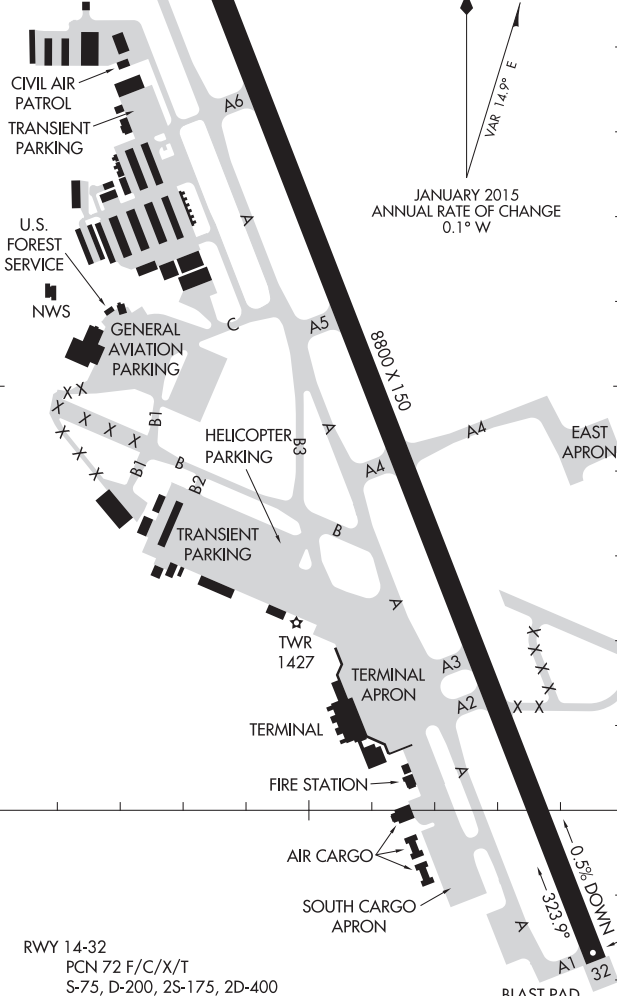
AL-251 (FAA)

ATIS  
127.25  
MEDFORD TOWER★  
119.4 257.8  
GND CON  
121.8  
**D**

ELEV 1294  
BLAST PAD  
200 X 200

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING  
INSTRUCTIONS IS REQUIRED.

42°23'N



JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

42°22'N

RWY 14-32  
PCN 72 F/C/X/T  
S-75, D-200, 2S-175, 2D-400

122°53'W

122°52'W

# AIRPORT DIAGRAM

ROGUE VALLEY INTL - MEDFORD(MFR)  
MEDFORD, OREGON

# BRUTE SEVEN DEPARTURE

SL-251 (FAA)

ROGUE VALLEY INTL-MEDFORD (MFR)  
MEDFORD, OREGON

**TOP ALTITUDE:  
11000**

ATIS 127.25  
GND CON 121.8  
MEDFORD TOWER \* 119.4 (CTAF) 257.8  
CASCADE DEP CON\* 124.3 379.9  
SEATTLE CENTER 124.85 306.3

ROSEBURG  
108.2 RBG  
Chan 19

MOURN  
N42°59.50'  
W123°00.47'  
L-1, L-2

DREWS  
N42°43.75'  
W122°53.38'  
H-3

CUTTR  
N42°41.36'  
W122°43.71'  
L-2

UZEHE  
N42°43.64'  
W122°57.52'  
L-2

NOTE: ADF and DME required.

### TAKEOFF MINIMUMS

Rwys 14, 32: Standard with a minimum climb of 460' per NM to 6000.

ROGUE VALLEY  
113.6 OED  
Chan 83

MEDFORD  
356 MEF  
N42° 23.50' - W122° 52.73'

BRUTE  
N42°24.45'  
W122°43.35'

CEROS  
N42°25.28'  
W122°35.07'

LANKS  
N42°21.94'  
W122°36.75  
L-2  
8000

COPPO  
N42°13.77'  
W122°54.61'

LIPWO  
N42°13.81'  
W122°53.21'

HANDY  
N42°14.11'  
W122°50.47  
H-3

JADUN  
N42°14.96'  
W122°46.89'

TALEM  
N42°08.83'  
W122°52.69'  
L-2

GRENA  
N41°43.52'  
W122°29.16'  
L-2

FORT JONES  
109.6 FJS  
Chan 33

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# BRUTE SEVEN DEPARTURE

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(BRUTE7.BRUTE) 16203

## BRUTE SEVEN DEPARTURE

SL-251 (FAA)

ROGUE VALLEY INTL-MEDFORD (MFR)  
MEDFORD, OREGON

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climbing right turn direct MEF NDB, depart MEF NDB bearing 066° to BRUTE INT. Thence. . . .

TAKEOFF RUNWAY 32: Climbing right turn heading 060° and OED VORTAC R-098 to BRUTE INT. Thence. . . .

. . . . via (transition) or (assigned route). Maintain 11000 or assigned altitude.

COPPO TRANSITION (BRUTE7.COPPO): From over BRUTE INT on OED VORTAC R-098 to LANKS DME, then on the OED VORTAC 15 DME Arc CW to COPPO DME.

CUTTR TRANSITION (BRUTE7.CUTTR): From over BRUTE INT on MEF NDB 063° to CEROS INT, then on the OED VORTAC 15 DME Arc CCW to CUTTR DME.

DREWS TRANSITION (BRUTE7.DREWS): From over BRUTE INT on MEF NDB 063° to CEROS INT, then on the OED VORTAC 15 DME Arc CCW to DREWS DME.

GRENA TRANSITION (BRUTE7.GRENA): From over BRUTE INT on OED VORTAC R-098 to LANKS DME, then on the OED VORTAC 15 DME Arc CW to JADUN DME, then on OED VORTAC R-138 to GRENA DME.

HANDY TRANSITION (BRUTE7.HANDY): From over BRUTE INT on OED VORTAC R-098 to LANKS DME, then on the OED VORTAC 15 DME Arc CW to HANDY DME.

LANKS TRANSITION (BRUTE7.LANKS): From over BRUTE INT on OED VORTAC R-098 to LANKS DME.

MOURN TRANSITION (BRUTE7.MOURN): From over BRUTE INT on MEF NDB 063° to CEROS INT, then on the OED VORTAC 15 DME Arc CCW to UZEHE DME, then on OED VORTAC R-333 to MOURN INT.

TALEM TRANSITION (BRUTE7.TALEM): From over BRUTE INT on OED VORTAC R-098 to LANKS DME, then on the OED VORTAC 15 DME Arc CW to LIPWO DME, then on OED VORTAC R-157 to TALEM DME.

UZEHE TRANSITION (BRUTE7.UZEHE): From over BRUTE INT on MEF NDB 063° to CEROS INT, then on the OED VORTAC 15 DME Arc CCW to UZEHE DME.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BRUTE SEVEN DEPARTURE

(BRUTE7.BRUTE) 21JUL16

MEDFORD, OREGON  
ROGUE VALLEY INTL-MEDFORD (MFR)

# EAGLE SIX DEPARTURE

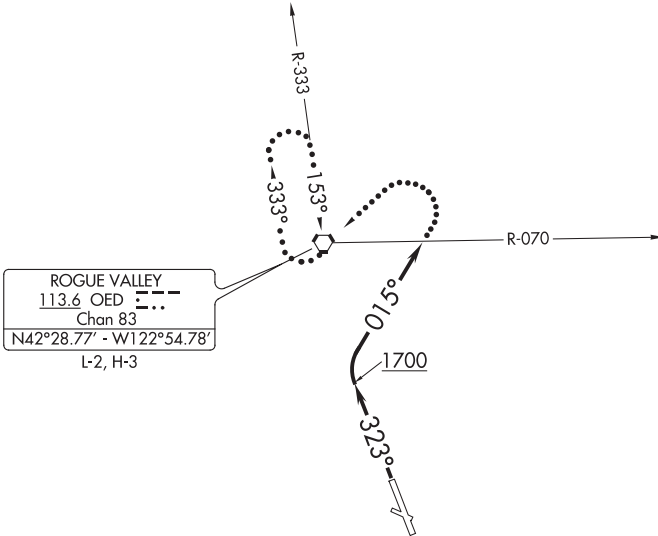
SL-251 (FAA)

ROGUE VALLEY INTL-MEDFORD (MFR)

MEDFORD, OREGON

ATIS 127.25  
 GND CON 121.8  
 MEDFORD TOWER ★ 119.4 (CTAF) 257.8  
 CASCADE DEP CON ★ 124.3 379.9  
 SEATTLE CENTER 124.85 306.3

**TOP ALTITUDE:  
11000**



### TAKE-OFF MINIMUMS

Rwys 14: NA - ATC.

Rwy 32: Standard with minimum climb of 410' per NM to 6300.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

**TAKE-OFF RUNWAY 32:** Climb to 1700 on heading 323° then climbing right turn heading 015°, maintain 11000 or assigned altitude, expect RADAR vectors to assigned route; expect filed altitude/flight level five minutes after departure.

**LOST COMMUNICATIONS:** If no contact with ATC crossing the OED R-070, turn left, proceed direct OED VORTAC, continue climb in holding pattern to minimum crossing altitude/minimum enroute altitude before proceeding on course.

# EAGLE SIX DEPARTURE

21JUL16

MEDFORD, OREGON  
 ROGUE VALLEY INTL-MEDFORD (MFR)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017







DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 14: Climbing right turn on heading 350° to intercept bearing 272° from MEF NDB to GNATS INT. Thence . . . .

TAKEOFF RUNWAY 32: Climb on heading 323° to 1800 then climbing left turn on heading 250° to intercept bearing 272° from MEF NDB to GNATS INT. Thence . . . .

. . . . via (transition) or (assigned route). Maintain 11000 or assigned lower altitude.

COPPO TRANSITION (GNATS7.COPPO): From over GNATS INT on OED VORTAC R-216 to OLECY DME, then on the OED VORTAC 15 DME Arc CCW to COPPO DME.

DREWS TRANSITION (GNATS7.DREWS): From over GNATS INT on MEF NDB 272° to MERLI INT, then on the OED VORTAC 15 DME Arc CW to DREWS DME.

HANDY TRANSITION (GNATS7.HANDY): From over GNATS INT on OED VORTAC R-216 to OLECY DME, then on the OED VORTAC 15 DME Arc CCW to HANDY DME.

KOLER TRANSITION (GNATS7.KOLER): From over GNATS INT on MEF NDB 272° to MERLI INT, then on RBG VOR/DME R-154 to KOLER INT.

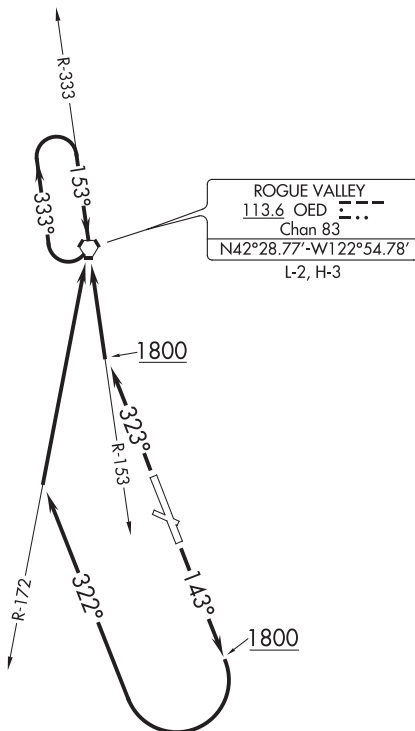
MOURN TRANSITION (GNATS7.MOURN): From over GNATS INT on MEF NDB 272° to MERLI INT, then on the OED VORTAC 15 DME Arc CW to UZEHE DME, then on OED VORTAC R-333 to MOURN INT.

TALEM TRANSITION (GNATS7.TALEM): From over GNATS INT on OED VORTAC R-216 to OLECY DME, then on the OED VORTAC 15 DME Arc CCW to LIPWO DME, then on OED VORTAC R-157 to TALEM DME.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ATIS 127.25  
 GND CON  
 121.8  
 MEDFORD TOWER ★  
 119.4 (CTAF) 257.8  
 CASCADE DEP CON ★  
 124.3 379.9  
 SEATTLE CENTER  
 124.85 306.3



### TAKE-OFF MINIMUMS

Rwy 14: Standard with minimum climb of 435' per NM to 4400.  
 Rwy 32: Standard with minimum climb of 300' per NM to 6800.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 14: Climb on heading 143° to 1800, then climbing right turn heading 322° and OED VORTAC R-172 to OED VORTAC, thence. . . .

TAKE-OFF RUNWAY 32: Climb heading 323° to 1800, then climbing right turn on OED VORTAC R-153 to OED VORTAC, thence. . . .

. . . . continue climb in OED VORTAC holding pattern to at or above MEA/MCA for direction of flight before proceeding on course.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>42600</b> <b>W04A</b>	APP CRS <b>043°</b>	Rwy Idg <b>5680</b> TDZE <b>2629</b> Apt Elev <b>2630</b>
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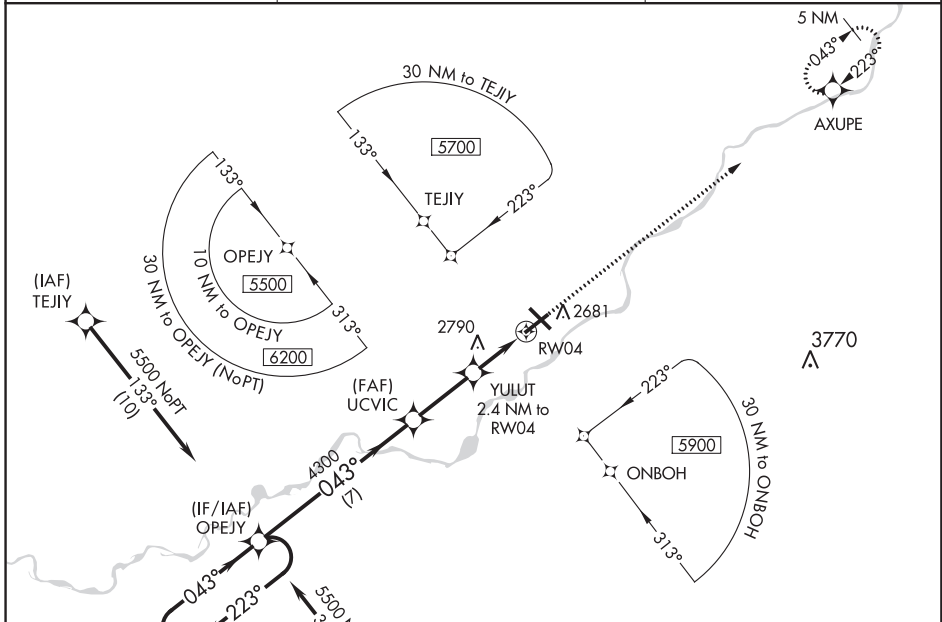
# RNAV (GPS) RWY 4

FRANK WILEY FIELD (MLS)

▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (+13°F) or above 54°C (130°F). Baro-VNAV and VDP NA when using Forsyth altimeter setting. DME/DME RNP -0.3 NA.  
 ▲ When local altimeter setting not received, use Forsyth altimeter setting: increase LPV and LNAV/VNAV DA to 2967 and all visibility 1/8 mile. Increase all MDA 100 feet and all Cat C and D visibility 1/4 mile.

**MISSED APPROACH:**  
 Climb to 6000 direct AXUPE and hold, continue climb-in-hold to 6000.

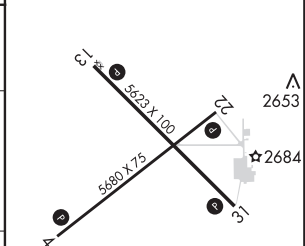
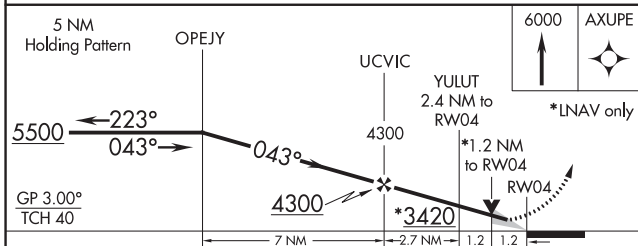
ASOS <b>135.575</b>	GREAT FALLS RADIO <b>122.2 255.4</b>	UNICOM <b>123.0 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2630	<b>D</b>	TDZE 2629
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CATEGORY	A	B	C	D
LPV DA		2879-1	250 (300-1)	
LNAV/VNAV DA		2879-1	250 (300-1)	
LNAV MDA	3040-1	411 (500-1)	3040-1 1/8	411 (500-1 1/8)
<b>C</b> CIRCLING	3060-1 430 (500-1)	3100-1 470 (500-1)	3120-1 1/2 490 (500-1 1/2)	3320-2 1/4 690 (700-2 1/4)

REIL Rws 4, 13, 22 and 31  
 MRL Rwy 4-22  
 MRL Rwy 13-31

MILES CITY, MONTANA

AL-259 (FAA)

16315

WAAS CH <b>97340</b> <b>W13A</b>	APP CRS <b>126°</b>	Rwy Idg <b>5623</b> TDZE <b>2630</b> Apt Elev <b>2630</b>
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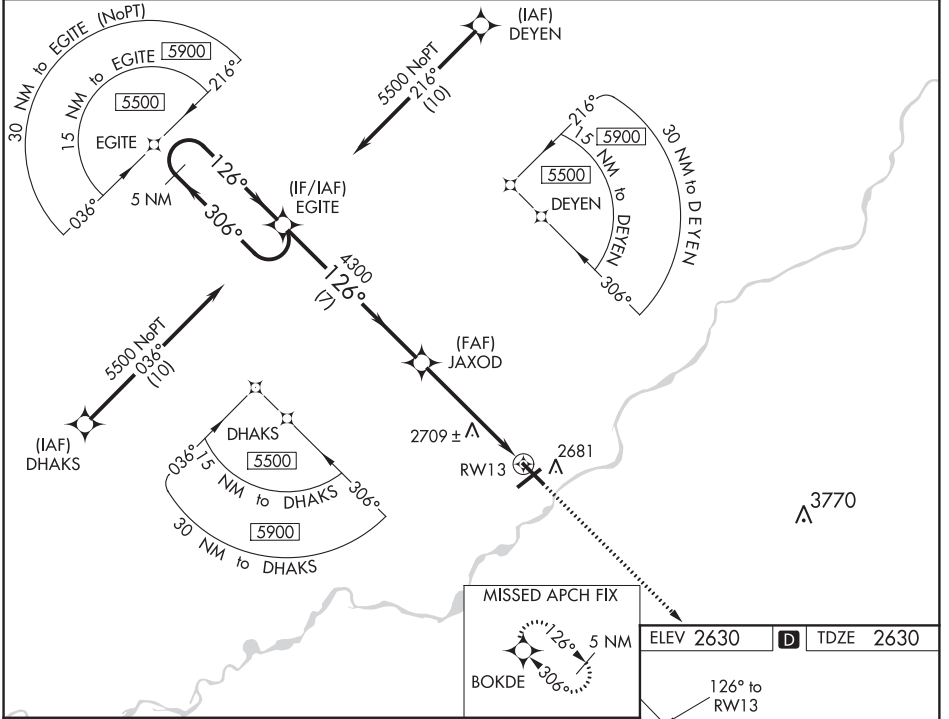
# RNAV (GPS) RWY 13

FRANK WILEY FIELD (MLS)

**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -24°C (-11°F) or above 54°C (130°F). Baro-VNAV and VDP NA when using Forsyth altimeter setting.  
**▲** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Forsyth altimeter setting; increase LPV and LNAV/VNAV DA to 2968, and all visibility 1/8 mile. Increase all MDA 100 feet and all Cat C and D visibility 1/4 mile.

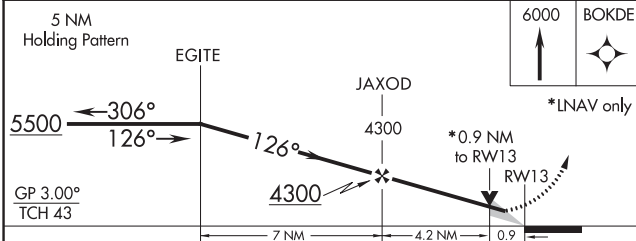
MISSED APPROACH: Climb to 6000 direct BOKDE and hold, continue climb-in-hold to 6000.

ASOS <b>135.575</b>	GREAT FALLS RADIO <b>122.2 255.4</b>	UNICOM <b>123.0</b> (CTAF) <b>📻</b>
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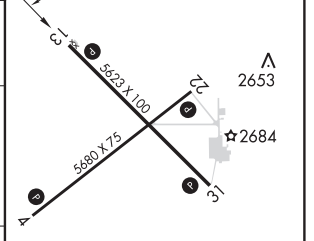
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 2630	<b>D</b>	TDZE 2630
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CATEGORY	A	B	C	D
LPV DA		2880-1	250 (300-1)	
LNAV/ VNAV DA		2880-1	250 (300-1)	
LNAV MDA		2960-1	330 (400-1)	
<b>C</b> CIRCLING	3060-1 430 (500-1)	3100-1 470 (500-1)	3120-1½ 490 (500-1½)	3320-2¼ 690 (700-2¼)



REIL Rwy 4, 13, 22 and 31 <b>📻</b>
MIRL Rwy 4-22 <b>📻</b>
MIRL Rwy 13-31

MILES CITY, MONTANA  
Orig 26MAY16

46°26'N-105°53'W

# FRANK WILEY FIELD (MLS)

## RNAV (GPS) RWY 13

WAAS CH <b>77924</b> <b>W22A</b>	APP CRS <b>223°</b>	Rwy Idg <b>5680</b> TDZE <b>2628</b> Apt Elev <b>2630</b>
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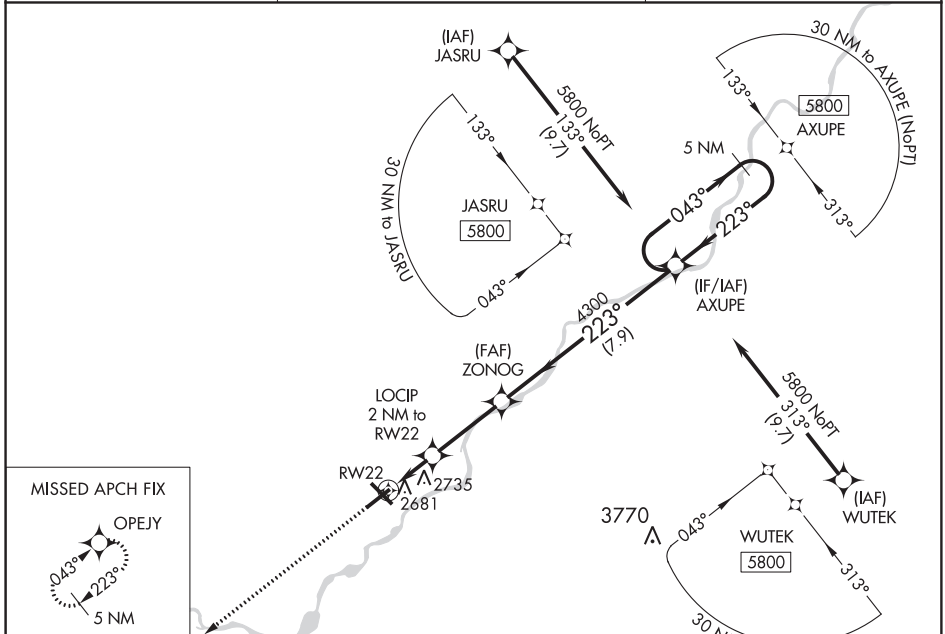
# RNAV (GPS) RWY 22

FRANK WILEY FIELD (MLS)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -24°C (-11°F) or above 54°C (130°F). Baro-VNAV and VDP NA when using Forsyth altimeter setting. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Forsyth altimeter setting: increase LPV DA to 2966 and LNAV/VNAV DA to 2980 and all visibilities ½ mile. Increase all MDA 100 feet and LNAV Cat C and D visibility ⅓ mile and Circling Cat D ¼ mile.

**MISSED APPROACH:**  
Climb to 6000 direct OPEJY and hold, continue climb-in-hold to 6000.

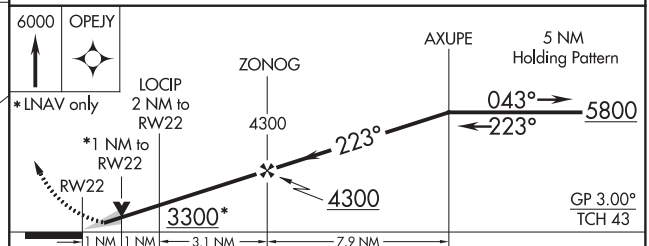
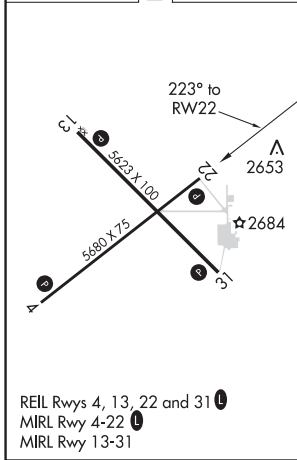
ASOS <b>135.575</b>	GREAT FALLS RADIO <b>122.2 255.4</b>	UNICOM <b>123.0</b> (CTAF) <b>📻</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2630	<b>D</b>	TDZE 2628
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CATEGORY	A	B	C	D
LPV DA		2878-1	250 (300-1)	
LNAV/VNAV DA		2892-1	264 (300-1)	
LNAV MDA		3000-1	372 (400-1)	
<b>C</b> CIRCLING	3060-1 430 (500-1)	3100-1 470 (500-1)	3120-1½ 490 (500-1½)	3320-2¼ 690 (700-2¼)

WAAS CH <b>56240</b> <b>W31A</b>	APP CRS <b>306°</b>	Rwy Idg TDZE Apt Elev	<b>5623</b> <b>2627</b> <b>2630</b>
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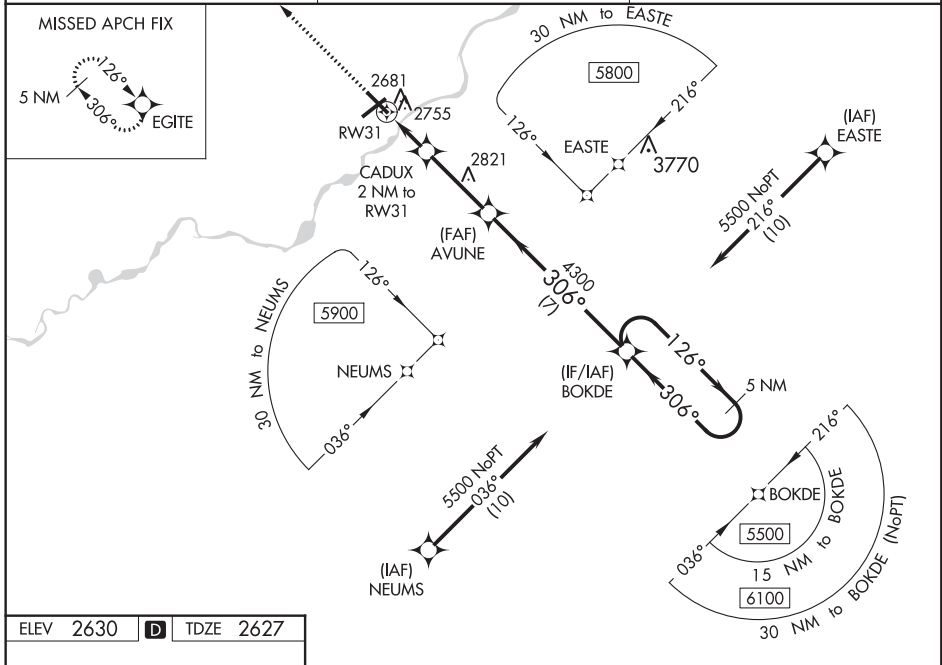
# RNAV (GPS) RWY 31

FRANK WILEY FIELD (MLS)

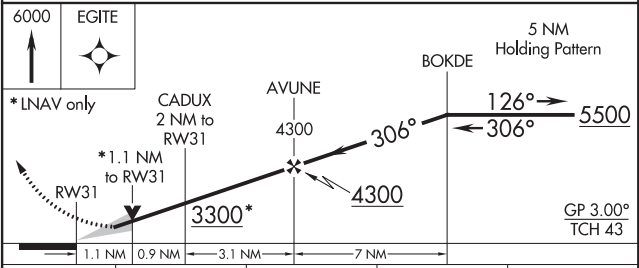
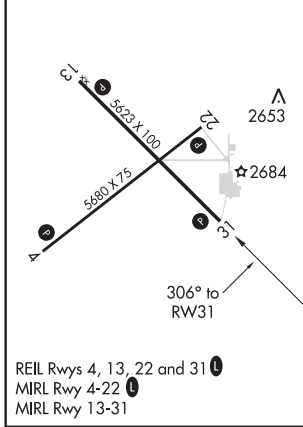
**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -24°C (-11°F) or above 54°C (130°F). Baro-VNAV and VDP NA when using Forsyth altimeter setting. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Forsyth altimeter setting; increase LPV DA to 2965 and all visibility ½ mile, and increase LNAV/VNAV DA to 3005 and all visibility ¼ mile. Increase all MDA 100 feet and all Cat C and D visibility ¼ mile.

**MISSED APPROACH:** Climb to 6000 direct EGITE and hold, continue climb-in-hold to 6000.

ASOS <b>135.575</b>	GREAT FALLS RADIO <b>122.2 255.4</b>	UNICOM <b>123.0 (CTAF) ①</b>
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ELEV 2630	<b>D</b>	TDZE 2627
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CATEGORY	A	B	C	D
LPV DA		2877-1	250 (300-1)	
LNAV/VNAV DA		2917-1	290 (300-1)	
LNAV MDA	3020-1	393 (400-1)	3020-1½	393 (400-1½)
<b>C</b> CIRCLING	3060-1 430 (500-1)	3100-1 470 (500-1)	3120-1½ 490 (500-1½)	3320-2¼ 690 (700-2¼)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VOR/DME MLS <b>112.1</b> Chan <b>58</b>	APP CRS <b>217°</b>	Rwy Idg TDZE Apt Elev	<b>5680</b> <b>2628</b> <b>2630</b>
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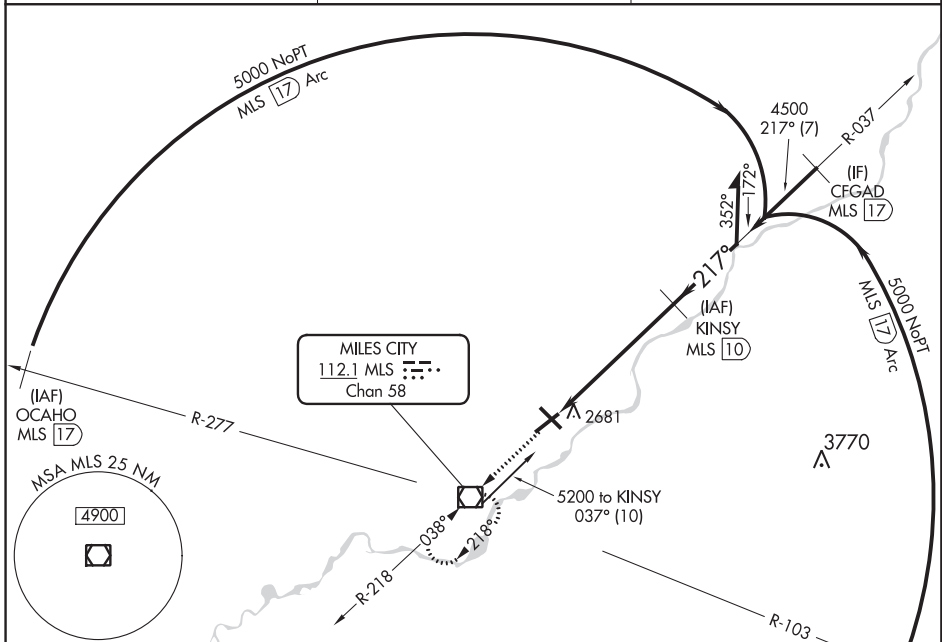
# VOR/DME RWY 22

FRANK WILEY FIELD (MLS)

**⚠** When local altimeter setting not received, use Forsyth altimeter setting and increase all MDA 100 feet, and increase S-22 Cat C/D visibility ¼ mile and Circling Cat D visibility ¼ mile.

**MISSSED APPROACH:** Climb to 6000 direct MLS VOR/DME and hold, continue climb-in-hold to 6000.

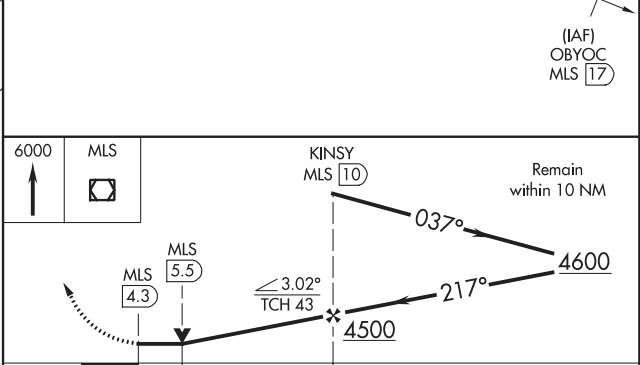
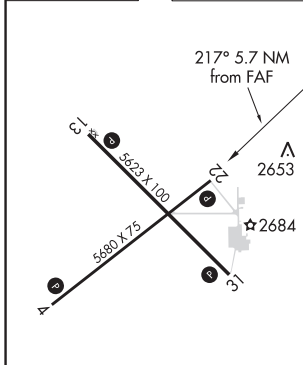
ASOS <b>135.575</b>	GREAT FALLS RADIO <b>122.2 255.4</b>	UNICOM <b>123.0 (CTAF)</b> <b>0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2630	<b>D</b>	TDZE 2628
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CATEGORY	A	B	C	D
S-22	3060-1	432 (500-1)	3060-1¼	432 (500-1¼)
<b>C</b> CIRCLING	3060-1 430 (500-1)	3100-1 470 (500-1)	3120-1½ 490 (500-1½)	3320-2¼ 690 (700-2¼)

REIL Rwy 4, 13, 22 and 31 **0**  
MIRL Rwy 4-22 **0**  
MIRL Rwy 13-31

MILES CITY, MONTANA

AL-259 (FAA)

16315

VOR/DME MLS <b>112.1</b> Chan <b>58</b>	APP CRS <b>036°</b>	Rwy Idg <b>5680</b> TDZE <b>2629</b> Apt Elev <b>2630</b>
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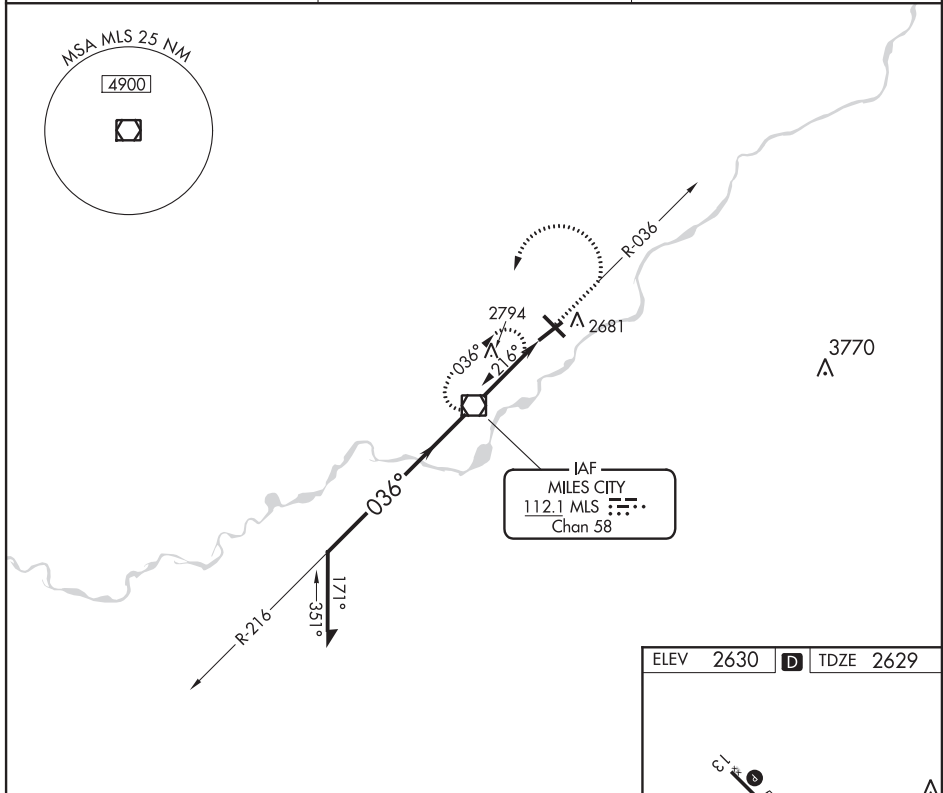
# VOR RWY 4

FRANK WILEY FIELD (MLS)

**⚠** When local altimeter setting not received, use Forsyth altimeter setting and increase all MDA 100 feet, and increase S-4 Cat C visibility ¼ mile.

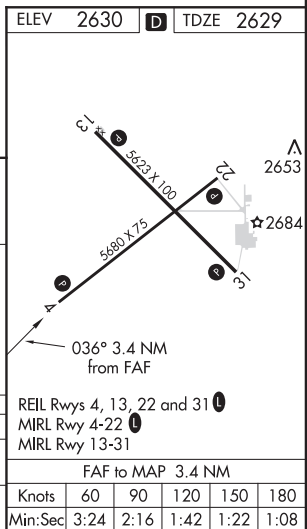
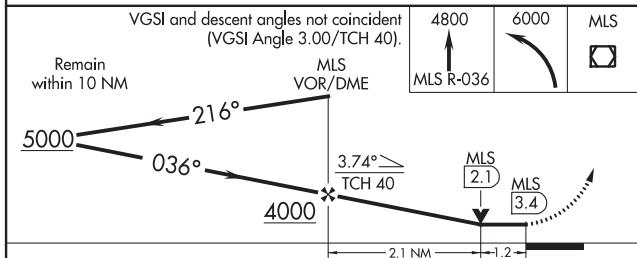
**⚠** MISSED APPROACH: Climb to 4800 on MLS VOR/DME R-036 then climbing left turn to 6000 direct MLS VOR/DME and hold.

ASOS <b>135.575</b>	GREAT FALLS RADIO <b>122.2 255.4</b>	UNICOM <b>123.0 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-4	3060-1	431 (500-1)	3060-1½ 431 (500-1½)	NA
<b>C</b> CIRCLING	3060-1 430 (500-1)	3100-1 470 (500-1)	3120-1½ 490 (500-1½)	NA

MILES CITY, MONTANA  
Amdt 13 26MAY16

46°26'N-105°53'W

# VOR RWY 4



16147

# AIRPORT DIAGRAM

AL-259 (FAA)

FRANK WILEY FIELD (MLS)  
MILES CITY, MONTANA

ASOS  
135.575  
CTAF/UNICOM  
123.0



FIELD  
ELEV  
2630



JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

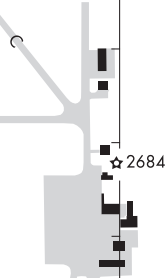
ELEV  
2630

13-1  
125.3°

5623 X 100

ELEV  
2626

22-2  
222.3°



ELEV  
2626

31-1  
305.3°

5680 X 75

042.3°

ELEV  
2629

RWY 04-22  
S-24, D-24  
RWY 13-31  
S-38, D-55, 2D-85

46°26.0'N

46°25.5'N

105°53.5'W

105°53.0'W

105°52.5'W

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

16147

MILES CITY, MONTANA  
FRANK WILEY FIELD (MLS)

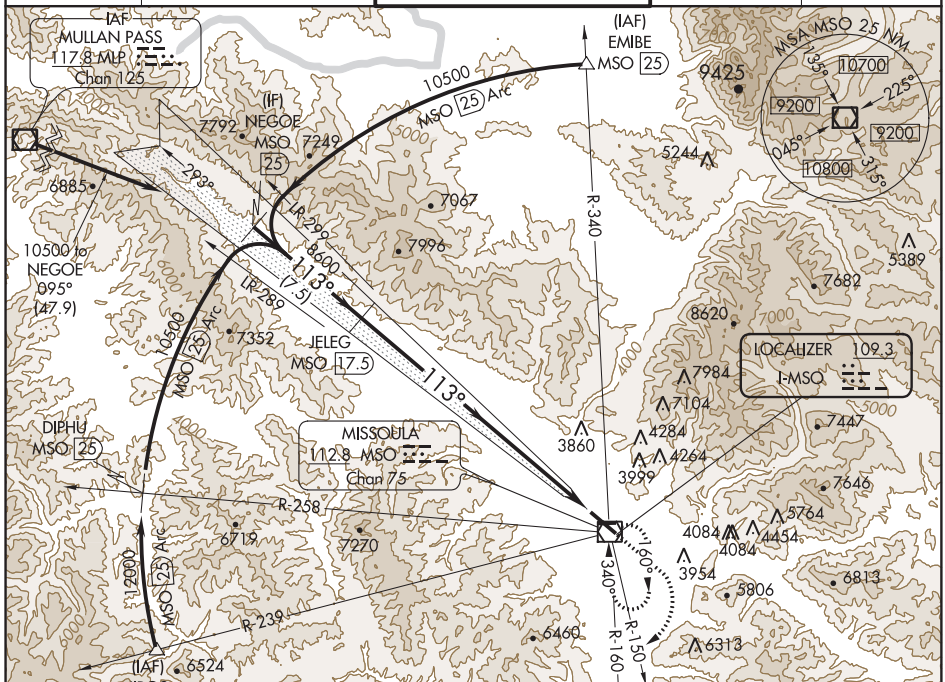
LOC I-MSO <b>109.3</b>	APP CRS <b>113°</b>	Rwy Idg TDZE Apt Elev <b>9501</b> <b>3200</b> <b>3206</b>
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# ILS Y RWY 11

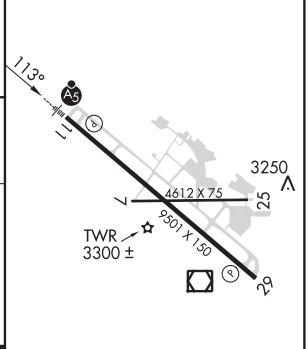
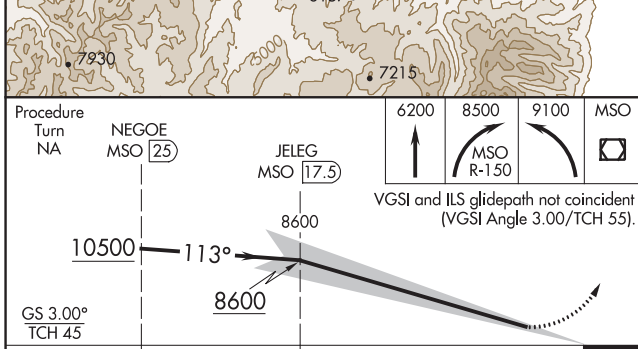
MISSOULA INTL (MSO)

<p>NA Inoperative table does not apply.</p> <p>-10°C/14°F</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climb to 6200 then climbing right turn to 8500 on MSO VOR/DME R-150 then climbing left turn to 9100 direct MSO VOR/DME and hold.</p>
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<p>ATIS <b>126.65</b></p>	<p>SPOKANE APP CON * <b>124.9 298.95</b></p>	<p>MISSOULA TOWER * <b>118.4 (CTAF) 377.175</b></p>	<p>GND CON <b>121.9</b></p>	<p>UNICOM <b>122.95</b></p>
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<b>DME REQUIRED</b>	ELEV 3206	TDZE 3200
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CATEGORY	A	B	C	D
S-ILS 11		5022-7	1822 (1900-7)	

REIL Rwy 29  
MRL Rwy 7-25  
HIRL Rwy 11-29

NW-1, 10 NOV 2016 to 05 JAN 2017

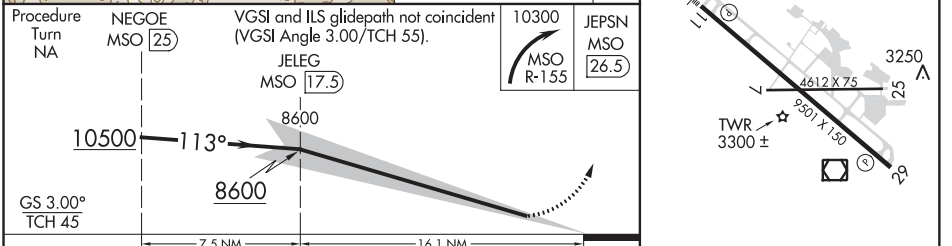
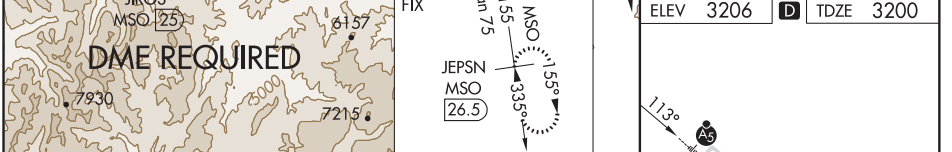
NW-1, 10 NOV 2016 to 05 JAN 2017

LOC I-MSO	APP CRS	Rwy Idg	9501
109.3	113°	TDZE	3200
		Apt Elev	3206

# ILS Z RWY 11

MISSOULA INTL (MSO)

<p>Missed approach requires minimum climb of 410 feet per NM to 9800, if unable to comply with climb gradient, use ILS Y Rwy 11.</p>	<p>MALS R</p>	<p>MISSED APPROACH: Climbing right turn to 10300 on MSO VOR/DME R-155 to JEPSN/MSO VOR/DME 26.5 DME and hold.</p>		
			<p>ATIS</p> <p>126.65</p>	<p>SPOKANE APP CON *</p> <p>124.9 298.95</p>



Procedure	NEGOE MSO 25	VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 55).		10300	JEPSN MSO 26.5
Turn NA		JELEG MSO 17.5		MSO R-155	
GS 3.00° TCH 45					
CATEGORY	A	B	C	D	
S-ILS 11		3411/24	211 (300-1/2)		



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>9501</b>
<b>294°</b>	TDZE	<b>3205</b>
	Apt Elev	<b>3205</b>

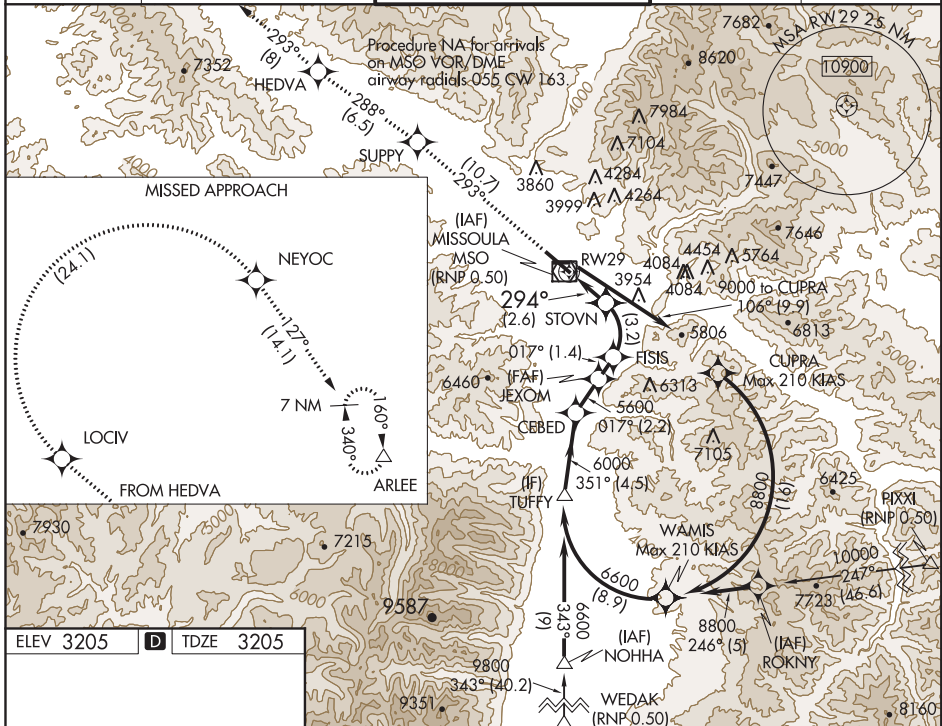
# RNAV (RNP) RWY 29

MISSOULA INTL (MISO)

**RF and GPS required.** When local altimeter setting not received, procedure NA. For uncompensated Baro-VNAV systems, procedure NA below -21°C (-5°F) or above 43°C (109°F).  
 \*Missed approach requires minimum climb of 215 feet per NM to 5000.

**MISSED APPROACH:** Climb to 11000 via track 293° to SUPPY, and via track 288° to HEDVA, and via track 293° to LOCIV, and via right turn to NEYOC, and via track 127° to ARLEE and hold.

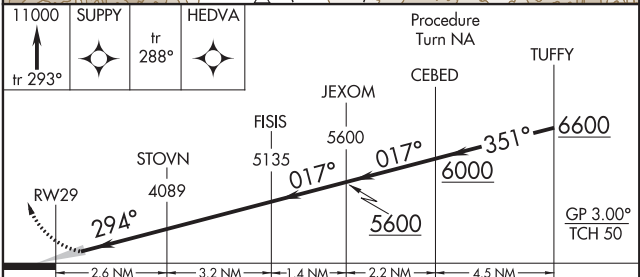
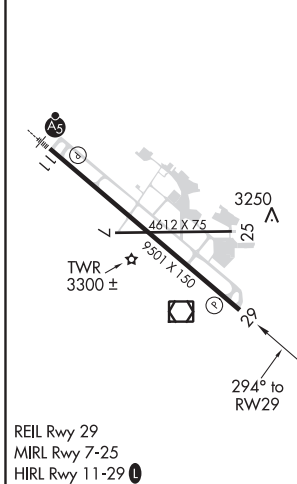
ATIS <b>126.65</b>	SPOKANE APP CON * <b>124.9 298.95</b>	MISSOULA TOWER * <b>118.4 (CTAF) 377.175</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3205	<b>D</b>	TDZE 3205
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CATEGORY	A	B	C	D
RNP 0.30 DA*	3523-1 318 (400-1)			
RNP 0.30 DA	3581-1 376 (400-1 1/4)			

**AUTHORIZATION REQUIRED**

APP CRS	Rwy Idg	<b>9501</b>
<b>113°</b>	TDZE	<b>3200</b>
	Apt Elev	<b>3206</b>

# RNAV (RNP) Z RWY 11

MISSOULA INTL (MSO)

**▽** For uncompensated Baro-VNAV systems, procedure NA below -21°C (-6°F) or above 43°C (109°F). For inoperative MALS/R, increase RNP 0.12 all Cats visibility to RVR 6000. For inoperative MALS/R, increase RNP 0.30 all Cats visibility to 2½ miles. GPS required.

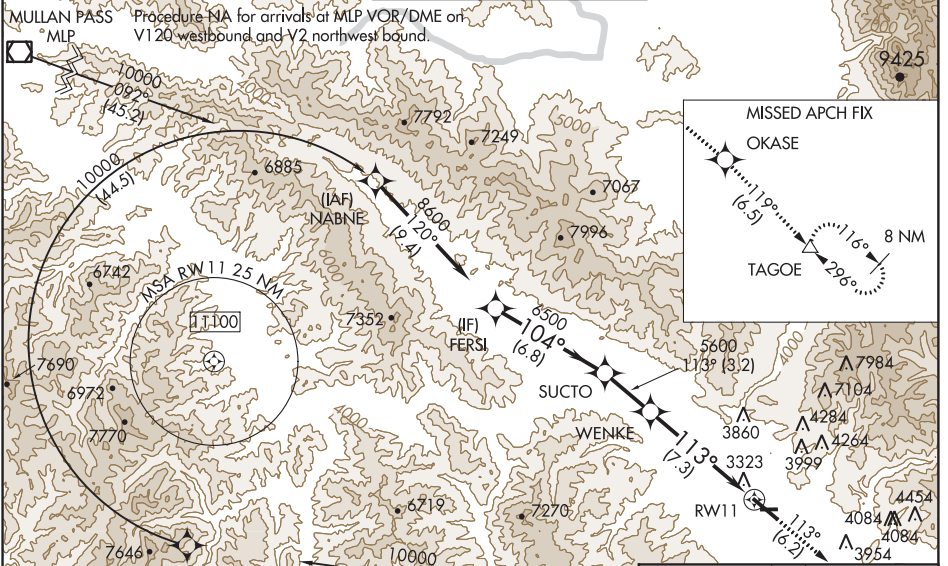
**⚠** \*Missed approach requires minimum climb of 425 feet per NM to 8300.

**❄** #Missed approach requires minimum climb of 350 feet per NM to 8300. If unable see RNAV (GPS) Y RWY 11.

**MALS/R**

**MISSED APPROACH:**  
Climb to 13000 on track 113° to OKASE, and on track 119° to TAGOE and hold, continue climb-in-hold to 13000.

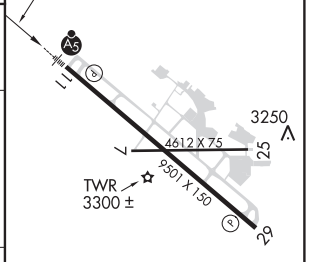
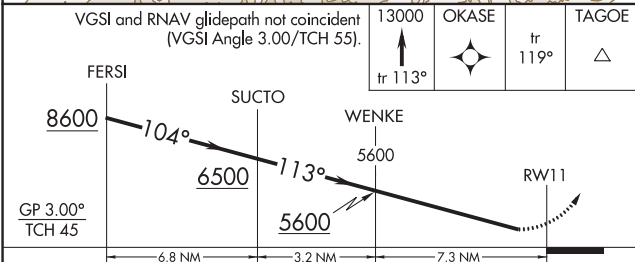
<b>ATIS</b> <b>126.65</b>	<b>SPOKANE APP CON *</b> <b>124.9 298.95</b>	<b>MISSOULA TOWER *</b> <b>118.4 (CTAF) 377.175</b>	<b>GND CON</b> <b>121.9</b>	<b>UNICOM</b> <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

<b>ELEV 3206</b>	<b>D</b>	<b>TDZE 3200</b>
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CATEGORY	A	B	C	D
* RNP 0.12 DA		3518/40	318 (400-¾)	
# RNP 0.30 DA		3880-2	680 (700-2)	

## AUTHORIZATION REQUIRED

REIL Rwy 29  
MIRL Rwy 7-25  
HIRL Rwy 11-29

WAAS CH <b>65715</b> <b>W11B</b>	APP CRS <b>113°</b>	Rwy Idg <b>9501</b> TDZE <b>3200</b> Apt Elev <b>3206</b>
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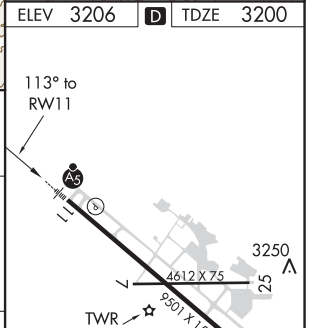
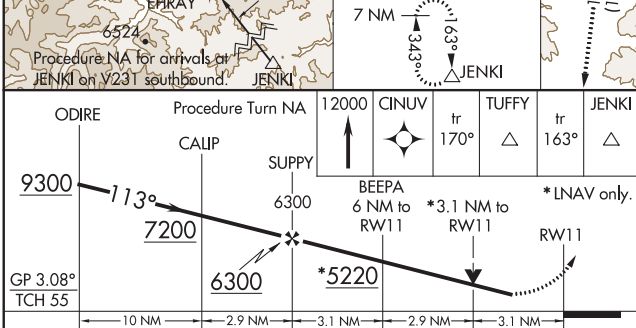
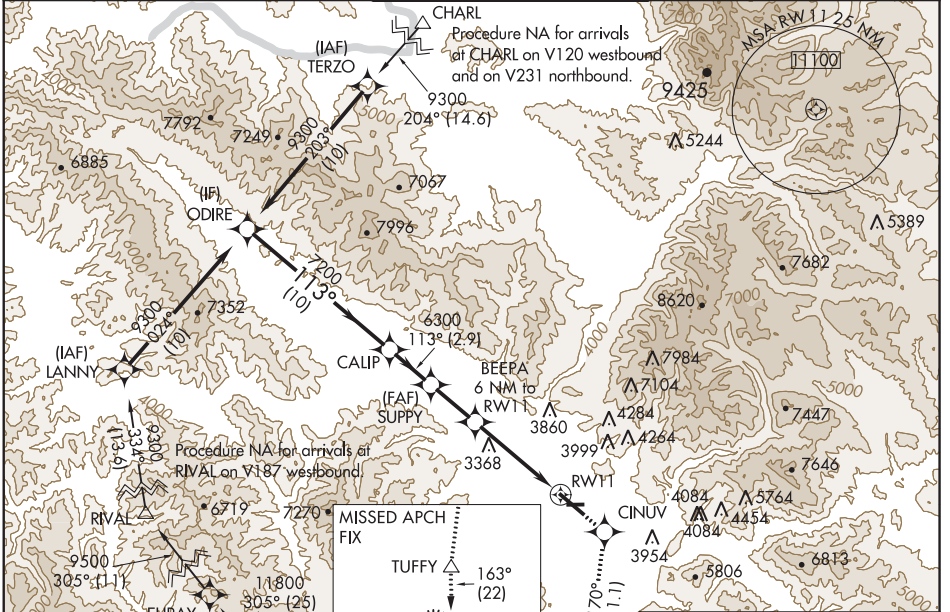
# RNAV (GPS) Y RWY 11

MISSOULA INTL (MISO)

**⚠** Inop table does not apply to LNAV % Cats A/B. For inop MALSR, increase LPV all Cats visibility to 2 1/2 miles. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. **⚠** -10°C/14°F # Missed approach requires minimum climb of 290 feet per NM to 8300.

**MALSR** MISSED APPROACH: Climb to 12000 direct CINUV and on track 170° to TUFFY and on track 163° to JENKI and hold, continue climb-in-hold to 12000.

ATIS <b>126.65</b>	SPOKANE APP CON * <b>124.9 298.95</b>	MISSOULA TOWER * <b>118.4 (CTAF) 377.175</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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GP 3.08° TCH 55	ODIRE	Procedure Turn NA	12000	CINUV	tr 170°	TUFFY	tr 163°	JENKI
	CALIP	SUPPLY	BEEPA	6 NM to RWY 11	*3.1 NM to RWY 11	*LNNAV only.		
CATEGORY	A	B	C	D				
LPV DA#	3896-2 696 (700-2)							
LNNAV MDA#	4220-3/4 1020 (1100-3/4)	4220-1 1020 (1100-1)	4220-2 1/2	1020 (1100-2 1/2)				
LNNAV MDA%	5100-1 1/4 1900 (1900-1 1/4)	5100-1 1/2 1900 (1900-1 1/2)	5100-2 1/2	1900 (1900-2 1/2)				
CIRCLING	5100-1 1/4 1894 (1900-1 1/4)	5100-1 1/2 1894 (1900-1 1/2)	5100-3	1894 (1900-3)				

ELEV 3206 **D** TDZE 3200

113° to RWY 11

TWR 3300 ±

REIL Rwy 29  
MIRL Rwy 7-25  
HIRL Rwy 11-29 **⓪**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

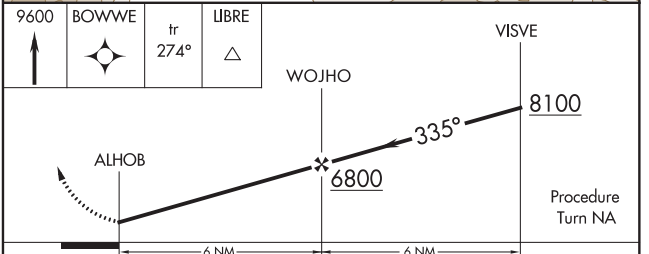
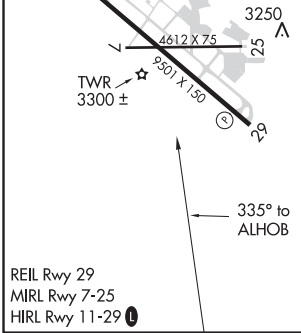
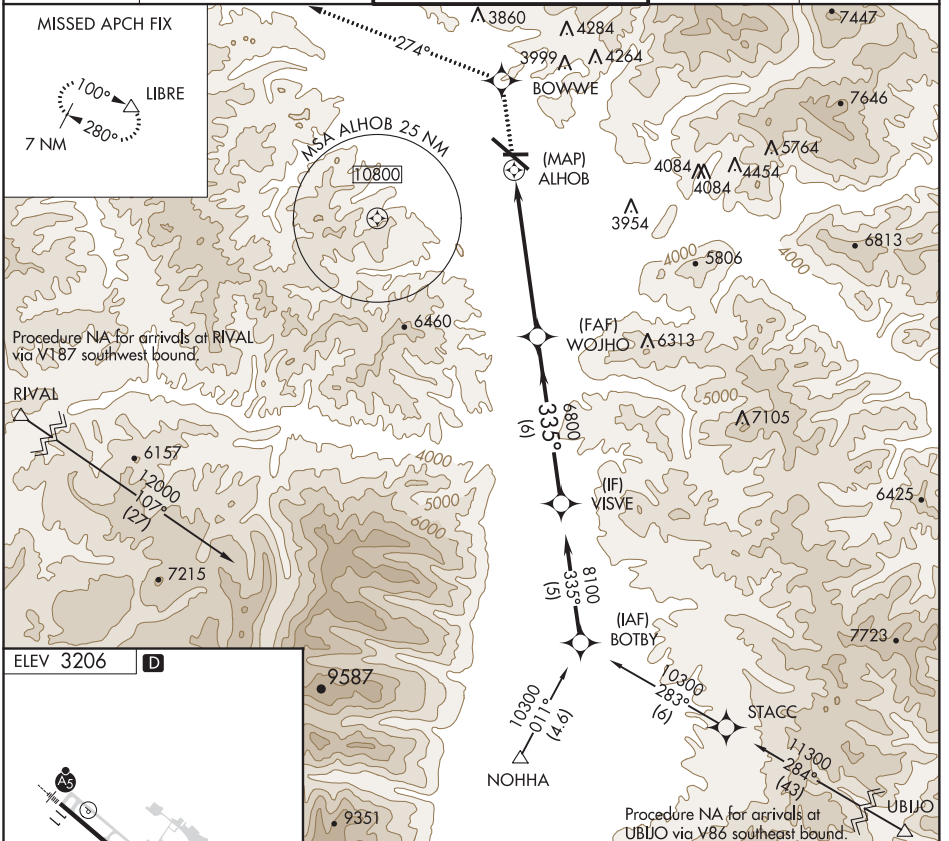
APP CRS <b>335°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>3206</b>
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# RNAV (GPS)-D

MISSOULA INTL (MISO)

-10°C/14°F	DME/DME RNP-0.3 NA.	MISSED APPROACH: Climb to 9600 direct BOWWE and on track 274° to LIBRE and hold, continue climb-in-hold to 9600.
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ATIS <b>126.65</b>	SPOKANE APP CON * <b>124.9 298.95</b>	MISSOULA TOWER * <b>118.4 (CTAF) 377.175</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
CIRCLING	4540-1¼ 1334 (1400-1¼)	4540-1½ 1334 (1400-1½)	4540-3 1334 (1400-3)	4700-3 1494 (1500-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

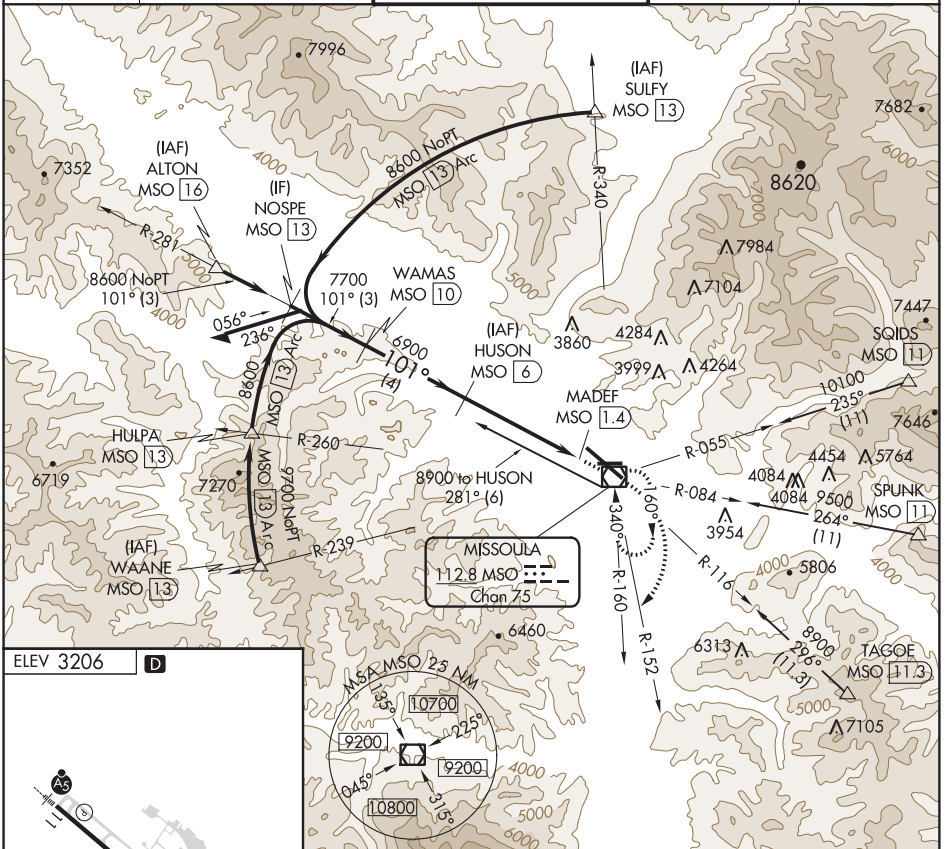
NW-1, 10 NOV 2016 to 05 JAN 2017

VOR/DME MSO <b>112.8</b> Chan <b>75</b>	APP CRS <b>101°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>3206</b>
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**VOR/DME-A**  
MISSOULA INTL (MSO)

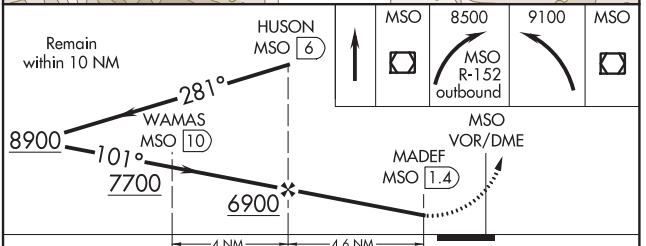
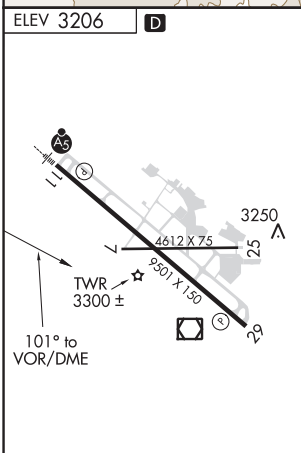
**MISSED APPROACH:** Climb direct MSO VOR/DME then climbing right turn to 8500 on MSO VOR/DME R-152 outbound then climbing left turn to 9100 direct to MSO VOR/DME and hold.

ATIS <b>126.65</b>	SPOKANE APP CON * <b>124.9 298.95</b>	MISSOULA TOWER * <b>118.4 (CTAF) 377.175</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



REIL Rwy 29 MIRL Rwy 7-25 HIRL Rwy 11-29	<table border="1"> <tr> <td>CATEGORY</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> </tr> <tr> <td>CIRCLING</td> <td>5120-1¼ 1914 (2000-1¼)</td> <td>5120-1½ 1914 (2000-1½)</td> <td>5120-3 1914 (2000-3)</td> <td>5160-3 1954 (2000-3)</td> </tr> </table>				CATEGORY	A	B	C	D	CIRCLING	5120-1¼ 1914 (2000-1¼)	5120-1½ 1914 (2000-1½)	5120-3 1914 (2000-3)	5160-3 1954 (2000-3)
CATEGORY	A	B	C	D										
CIRCLING	5120-1¼ 1914 (2000-1¼)	5120-1½ 1914 (2000-1½)	5120-3 1914 (2000-3)	5160-3 1954 (2000-3)										



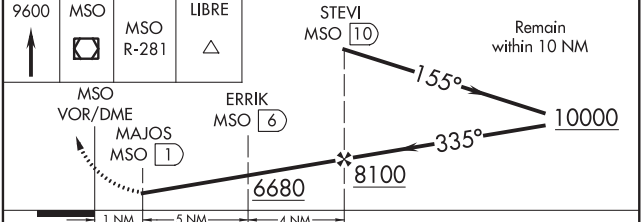
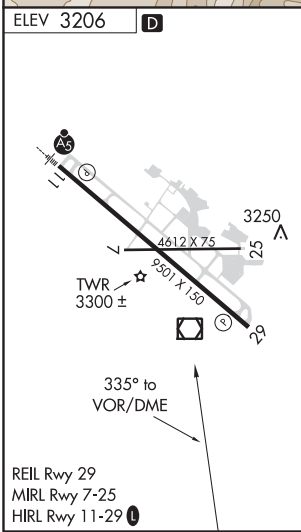
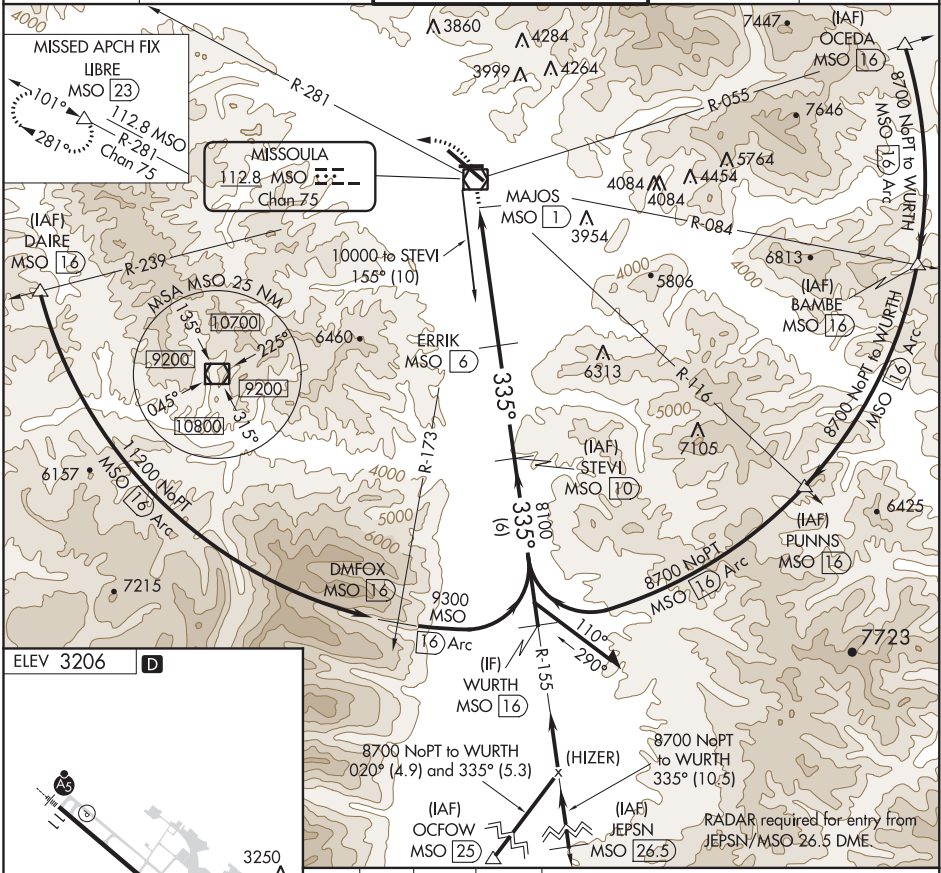
VOR/DME MSO <b>112.8</b> Chan 75	APP CRS <b>335°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>3206</b>
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# VOR/DME-B

## MISSOULA INTL (MSO)

MISSED APPROACH: Climb to 9600 direct MSO VOR/DME and on MSO VOR/DME R-281 to LIBRE/MSO 23 DME and hold, continue climb-in-hold to 9600.

-10°C/14°F	ATIS <b>126.65</b>	SPOKANE APP CON * <b>124.9 298.95</b>	MISSOULA TOWER * <b>118.4 (CTAF) 377.175</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
CIRCLING	4940-1¼ 1734 (1800-1¼)	4940-1½ 1734 (1800-1½)	4940-3	1734 (1800-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

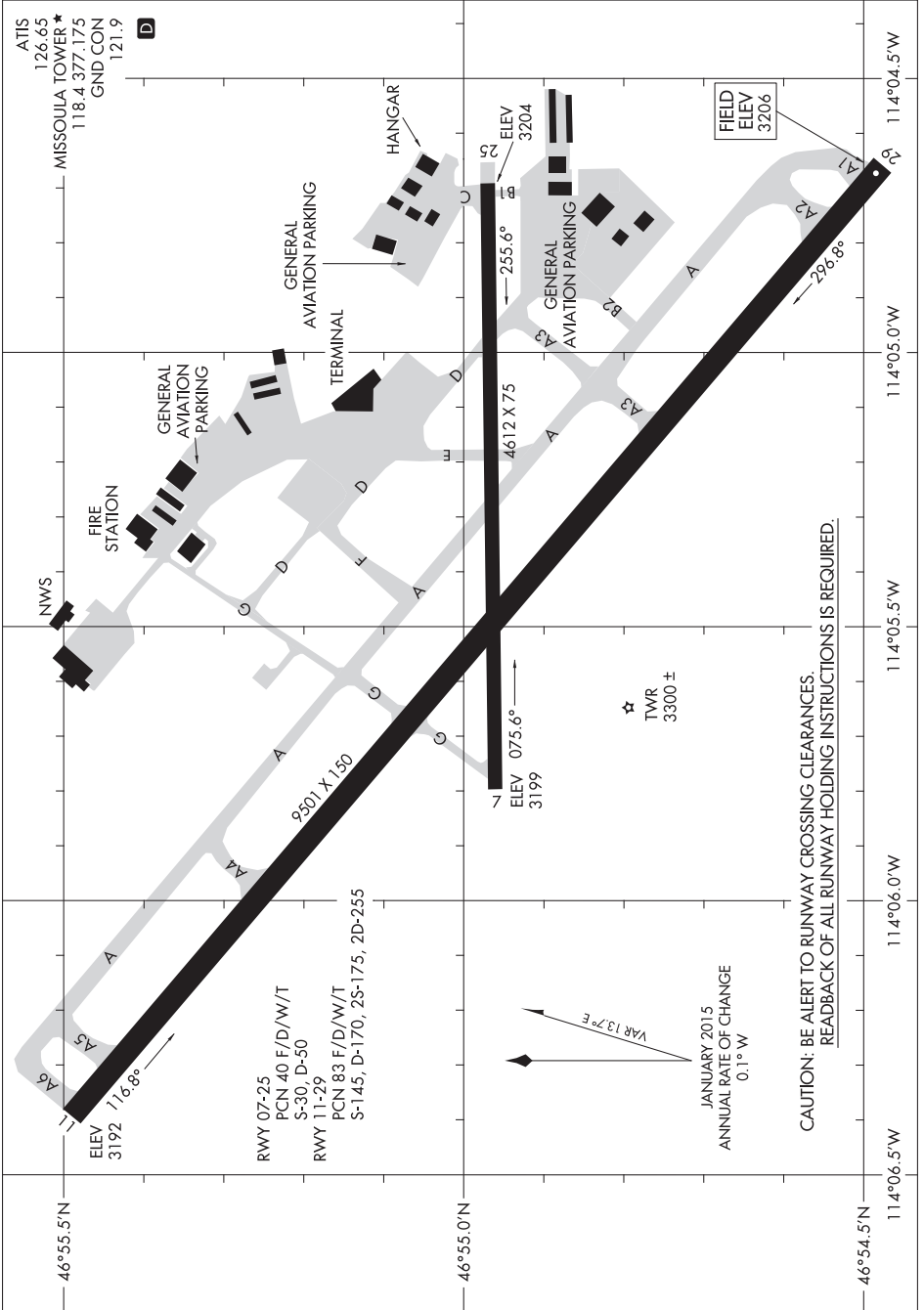
NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

AL-266 (FAA)

MISSOULA INTL (MSO)  
MISSOULA, MONTANA

NW-1, 10 NOV 2016 to 05 JAN 2017

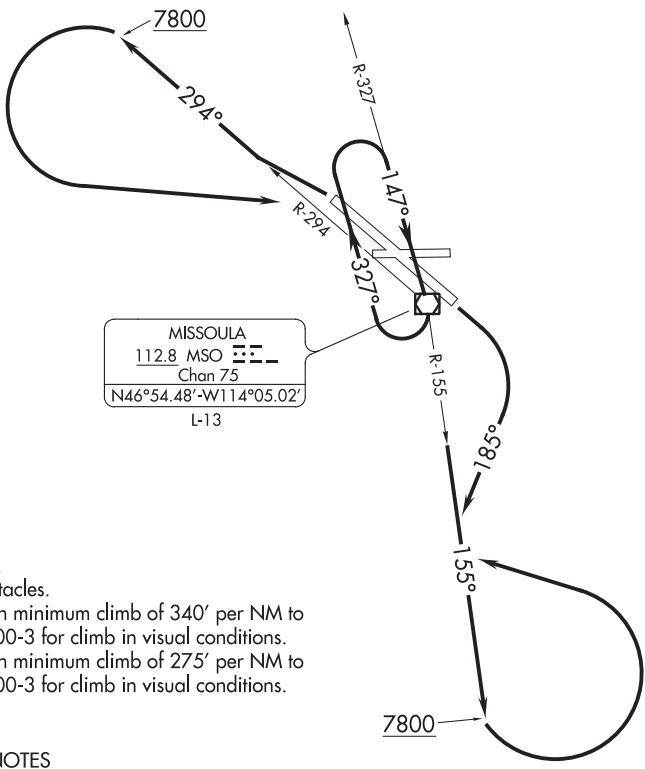


NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

MISSOULA, MONTANA  
MISSOULA INTL (MSO)

ATIS  
126.65  
GND CON  
121.9  
MISSOULA TOWER\*  
118.4 (CTAF) 377.175  
SPOKANE DEP CON  
124.9 298.95  
SALT LAKE CITY CENTER  
133.4 285.4



**TAKEOFF MINIMUMS**

- Rwys 7, 25: NA- Obstacles.
- Rwy 11: Standard with minimum climb of 340' per NM to 7800, or 2700-3 for climb in visual conditions.
- Rwy 29: Standard with minimum climb of 275' per NM to 7800, or 2700-3 for climb in visual conditions.

**TAKEOFF OBSTACLE NOTES**

Rwy 11: Fence beginning 22' from DER, 487' right of centerline, up to 15' AGL/3215' MSL.

NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 11:** Climbing right turn heading 185° to intercept MSO R-155, southeast bound to 7800, thence. . . .  
or, climb in visual conditions to cross MSO VOR/DME southeast bound at or above 5800, continue climb to 7800 via MSO VOR/DME R-155, thence. . . .

**TAKEOFF RUNWAY 29:** Climb via MSO R-294 to 7800, then climbing left turn via MSO R-294 to MSO VOR/DME, climb in MSO VOR/DME holding pattern to MEA/MCA for route of flight or, climb in visual conditions to cross MSO VOR/DME southeast bound at or above 5800, continue climb to 7800 via MSO VOR/DME R-155, thence. . . .

. . . climbing left turn via MSO VOR/DME R-155 to MSO VOR/DME, climb in MSO VOR/DME holding pattern to MEA/MCA for route of flight.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(DIDL4.DIDL4) 16091

# DIDL4 FOUR DEPARTURE

SL-266 (FAA)

MISSOULA INTL (MSO)  
MISSOULA, MONTANA

**TOP ALTITUDE:  
ASSIGNED BY ATC**

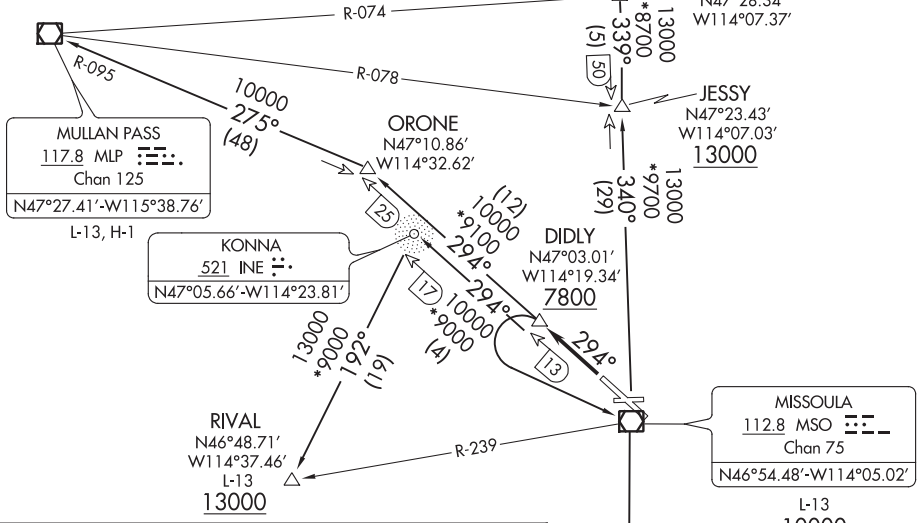
NOTE: Chart not to scale.

### TAKEOFF MINIMUMS

Rwy 29: Standard with minimum climb of 400' per NM to 7800.

**KALISPELL**  
113.2 FCA  
Chan 79  
N48°12.85'-W114°10.55'  
L-13, H-1

ATIS 126.65  
GND CON 121.9  
MISSOULA TOWER\* 118.4 377.175  
SPOKANE DEP CON 124.9 298.95  
SALT LAKE CITY CENTER 133.4 285.4



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 29:** Climb on MSO R-294 to cross DIDLY INT at or above 7800, thence on assigned transition or route.

**KALISPELL TRANSITION (DIDL4.FCA):** From over DIDLY INT on MSO R-294, left turn to MSO VOR/DME, then on MSO R-340 to JESSY, then on MSO R-340 and FCA R-159 to FCA VOR/DME.

**MISSOULA TRANSITION (DIDL4.MSO):** From over DIDLY INT on MSO R-294, left turn to MSO VOR/DME.

**MULLAN PASS TRANSITION (DIDL4.MLP):** From over DIDLY INT on MSO R-294 to ORONE, then on MLP R-095 to MLP VOR/DME.

**RIVAL TRANSITION (DIDL4.RIVAL):** From over DIDLY INT on MSO R-294 to INE NDB, then on INE 192° bearing to RIVAL INT.

**SALMON TRANSITION (DIDL4.LKT):** From over DIDLY INT on MSO R-294, left turn to MSO VOR/DME, then on MSO R-163 and LKT R-347 to LKT VOR/DME.

NOTE: DME required.  
NOTE: RIVAL TRANSITION:  
Requires a minimum climb of 435' per NM to 10000.

# DIDL4 FOUR DEPARTURE

(DIDL4.DIDL4) 31MAR16

MISSOULA, MONTANA  
MISSOULA INTL (MSO)

# MZULA FOUR DEPARTURE

SL-266 (FAA)

MISSOULA INTL (MSO)  
MISSOULA, MONTANA

**TOP ALTITUDE:  
ASSIGNED BY ATC**

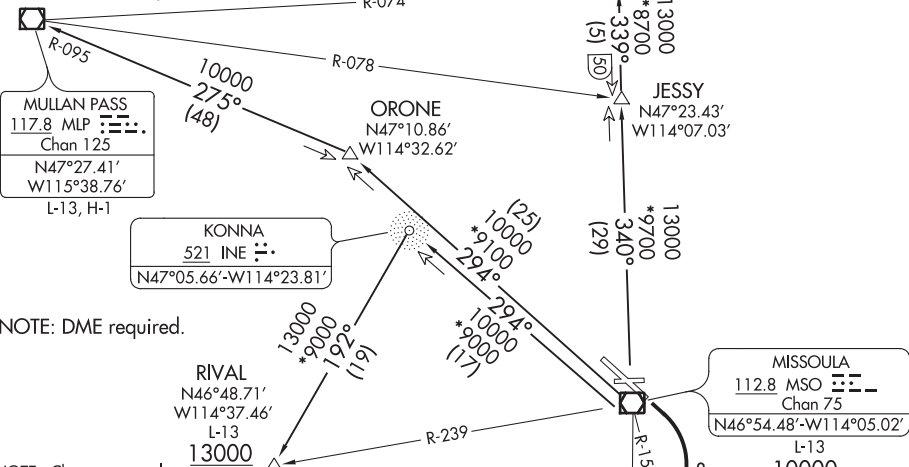
<b>KALISPELL</b>
113.2 FCA
Chan 79
N48°12.85'
W114°10.55'
L-13, H-1

### TAKEOFF OBSTACLE NOTES

Rwy 11: Fence beginning 22' from DER, 487' right of centerline, up to 15' AGL/3215' MSL.

### TAKEOFF MINIMUMS

Rwy 11: Standard with minimum climb of 400' per NM to 11000.



ATIS 126.65  
GND CON 121.9  
MISSOULA TOWER\* 118.4 377.175  
SPOKANE DEP CON 124.9 298.95  
SALT LAKE CITY CENTER 133.4 285.4

NOTE: DME required.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 11:** Climbing right turn heading 185° to intercept and proceed on MSO R-155 to cross IPPUG INT at/above 7800. Thence on transition or assigned route.

**KALISPELL TRANSITION (MZULA4.FCA):** From over IPPUG INT on MSO R-155, left turn to MSO VOR/DME, then on MSO R-340 to JESSY, then on MSO R-340 and FCA R-159 to FCA VOR/DME.

**MISSOULA TRANSITION (MZULA4.MSO):** From over IPPUG INT on MSO R-155, left turn to MSO VOR/DME.

**MULLAN PASS TRANSITION (MZULA4.MLP):** From over IPPUG INT on MSO R-155, left turn to MSO VOR/DME, then on MSO R-294 to ORONE, then on MLP R-095 to MLP VOR/DME.

**RIVAL TRANSITION (MZULA4.RIVAL):** From over IPPUG INT on MSO R-155, left turn to MSO VOR/DME, then on MSO R-294 to INE NDB, then on INE 192° bearing to RIVAL.

**SALMON TRANSITION (MZULA4.LKT):** From over IPPUG INT on MSO R-155 to VICTO, then on heading 191° to OCFOW, then on MSO R-163 and LKT R-347 to LKT VOR/DME.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# MZULA FOUR DEPARTURE

MOSES LAKE, WASHINGTON

AL-961 (FAA)

14037

LOC I-MWH <b>109.5</b>	APP CRS <b>324°</b>	Rwy Idg <b>13492</b>
		TDZE <b>1167</b>
		Apt Elev <b>1189</b>

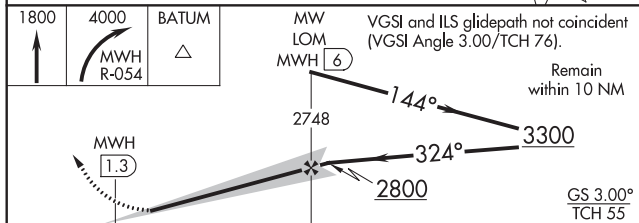
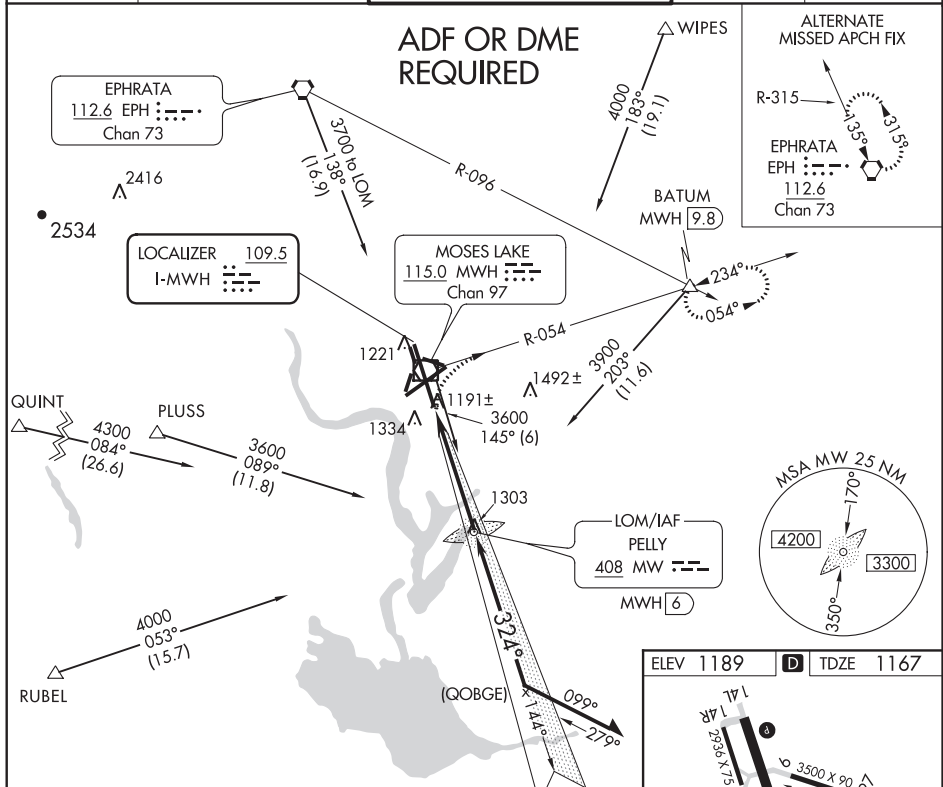
# ILS or LOC RWY 32R

## GRANT COUNTY INTL (MWH)

**⚠** When local altimeter setting not received, use Ephrata altimeter setting and increase all DA/MDA 40 feet. For inoperative MALSR, increase S-LOC 32R Cat D visibility to RVR 5000.

**MALSR** MISSED APPROACH: Climb to 1800, then climbing right turn to 4000 on MWH R-054 to BATUM INT/MWH 9.8 DME and hold, continue climb-in-hold to 4000.

ATIS <b>119.05</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	GRANT COUNTY TOWER * <b>118.25 (CTAF) 128.0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 1189	<b>D</b>	TDZE 1167
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HIRL Rwy 14L-32R  
REIL Rwys 4, 14L and 22  
MIRL Rwys 4-22 and 18-36  
FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

MOSES LAKE, WASHINGTON  
Amdt 20C 06FEB14

47°13'N-119°19'W

# GRANT COUNTY INTL (MWH)

## ILS or LOC RWY 32R

APP CRS	Rwy Idg	<b>10000</b>
<b>036°</b>	TDZE	<b>1189</b>
	Apt Elev	<b>1189</b>

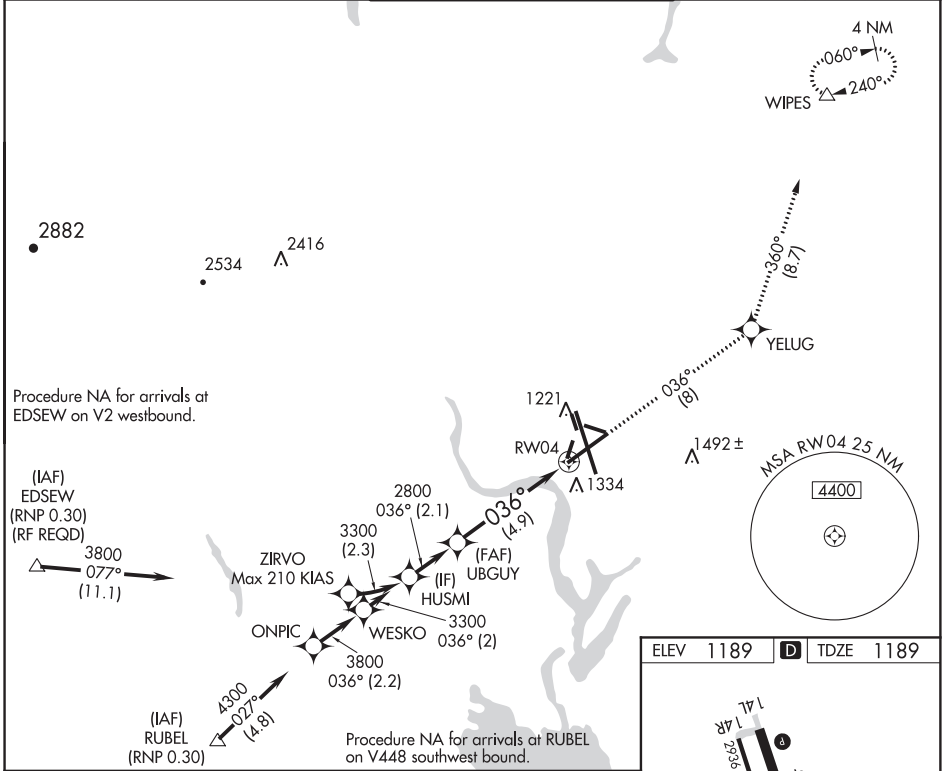
# RNAV (RNP) Z RWY 4

GRANT COUNTY INTL (MWH)

**▽** For uncompensated Baro-VNAV systems, procedure NA below -17°C (2°F) or above 46°C (114°F). GPS required.

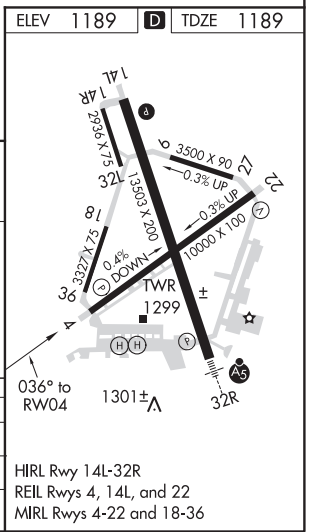
MISSED APPROACH: Climb to 4000 on track 036° to YELUG and on track 360° to WIPES and hold.

ATIS <b>119.05</b>	GRANT COUNTY APP CON ★ <b>126.4 379.95</b>	GRANT COUNTY TOWER ★ <b>118.25 (CTAF) 0 128.0</b>	<b>257.8 (EAST) 257.8 (WEST)</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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Procedure Turn NA	HUSMI	UBGUY	4000	YELUG	tr 036°	tr 360°	WIPES
GP 3.00°	3300	2800					
TCH 50							
CATEGORY	A	B	C	D			
RNP 0.10 DA		1439-3/4	250 (300-3/4)				
RNP 0.30 DA		1498-1	309 (400-1)				

**AUTHORIZATION REQUIRED**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>144°</b>	Rwy Idg <b>13503</b>
	TDZE <b>1169</b>
	Apr Elev <b>1189</b>

# RNAV (RNP) Z RWY 14L

GRANT COUNTY INTL (MWH)

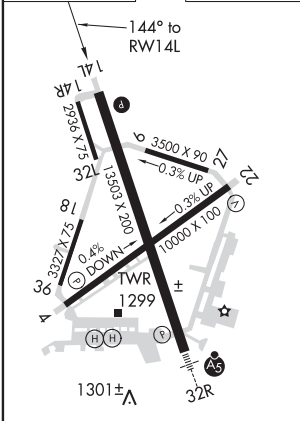
<p>For uncompensated Baro-VNAV systems, Procedure NA below -17°C (2°F) or above 47°C (116°F). RF required. GPS required.</p>		<p>MISSED APPROACH: Climb to 4000 on track 144° to JIDAG left turn to WOTKU and track 320° to BATUM and hold.</p>		
ATIS <b>119.05</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	GRANT COUNTY TOWER * <b>118.25</b> (CTAF) <b>0</b> <b>128.0</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1189	<b>D</b>	TDZE 1169
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HIRL Rwy 14L-32R  
REIL Rws 4, 14L, and 22  
MIRL Rws 4-22 and 18-36

	4000	JIDAG	WOTKU	BATUM
	tr 144°	tr 144°	tr 320°	△
<p>VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 75).</p>				
ZITNI	LACIP	JOMPU	HODPA	BATUM
3800	3600	2976	2022	
GP 3.00°	3600			
TCH 52				
	1.4 NM	2 NM	2.9 NM	2.5 NM
CATEGORY	A	B	C	D
RNP 0.10 DA		1419-¾	250 (300-¾)	
RNP 0.30 DA		1479-1	310 (300-1)	

## AUTHORIZATION REQUIRED



APP CRS	Rwy Idg	<b>10000</b>
<b>216°</b>	TDZE	<b>1166</b>
	Apt Elev	<b>1189</b>

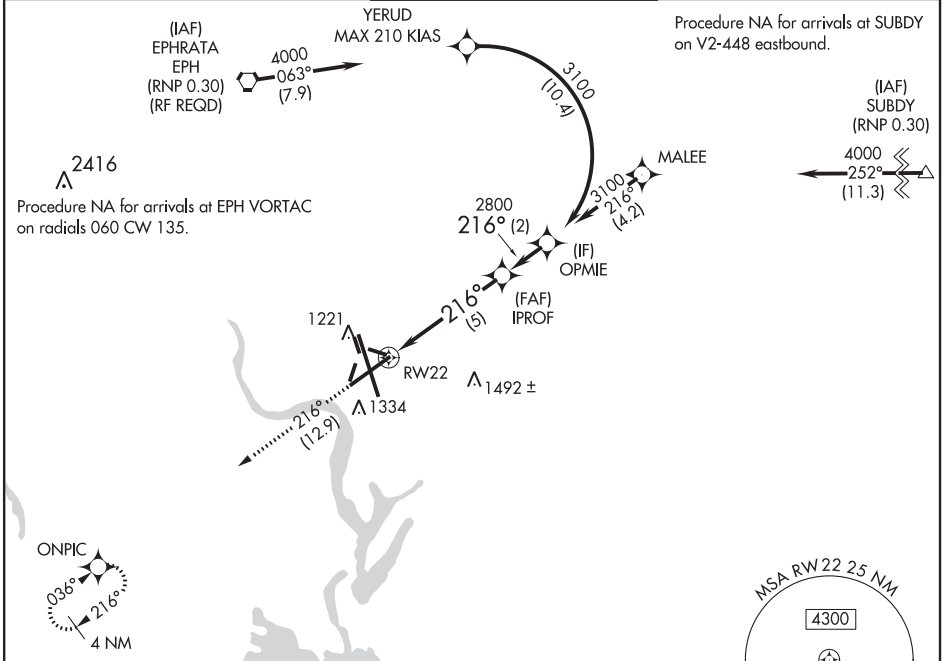
# RNAV (RNP) Z RWY 22

GRANT COUNTY INTL (MWH)

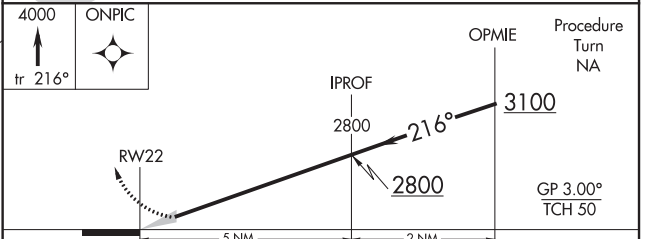
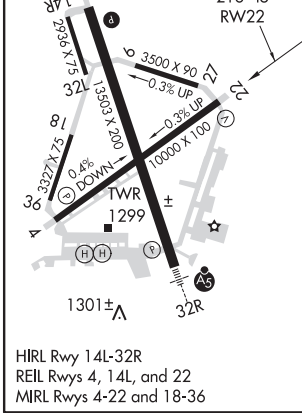
**▽** For uncompensated Baro-VNAV systems, procedure NA below -17°C (2°F) or above 46°C (114°F). GPS required.

**MISSED APPROACH:** Climb to 4000 on track 216° to ONPIC and hold.

ATIS <b>119.05</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	GRANT COUNTY TOWER * <b>118.25 (CTAF) 0 257.8 (EAST)</b> <b>128.0 257.8 (WEST)</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV	<b>1189</b>	<b>D</b>	TDZE	<b>1166</b>
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CATEGORY	A	B	C	D
RNP 0.10 DA		1416-¾	250 (300-¾)	
RNP 0.30 DA		1476-1	310 (300-1)	

## AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# RNAV (RNP) Z RWY 32R

GRANT COUNTY INTL (MWH)

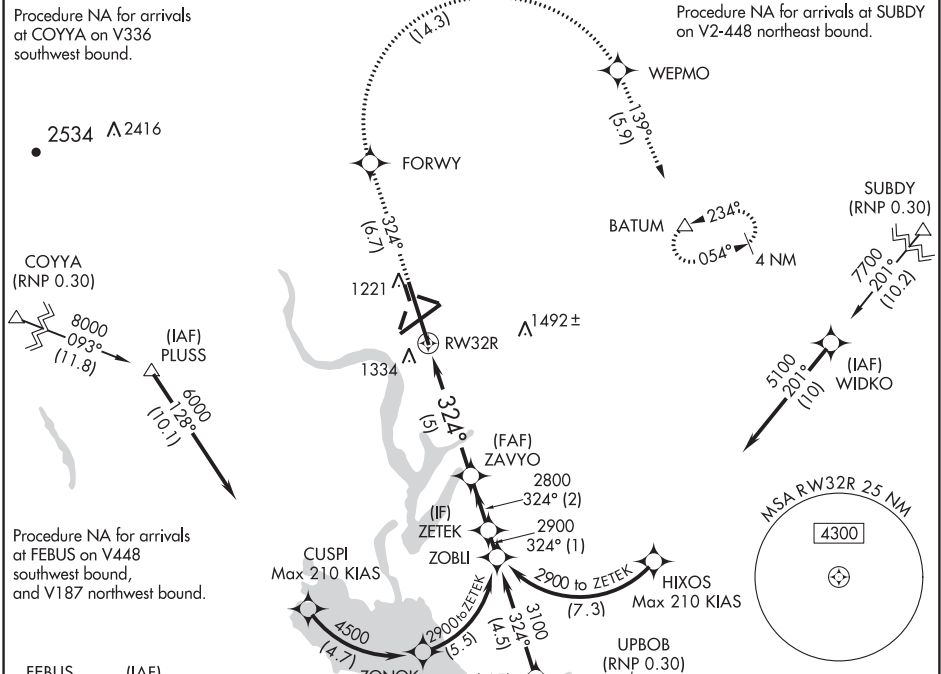
APP CRS	Rwy Idg	<b>13492</b>
<b>324°</b>	TDZE	<b>1167</b>
	Apt Elev	<b>1189</b>

**▽** For uncompensated Baro-VNAV systems, procedure NA below -17°C (2°F) or above 46°C (114°F). RF required. GPS required. For inoperative MALSR increase RNP 0.10 visibility all Cats to RVR 4000, increase RNP 0.30 visibility all Cats to RVR 6000.



**MISSED APPROACH:** Climb to 4000 on track 324° to FORWY right turn to WEPMO and track 139° to BATUM and hold.

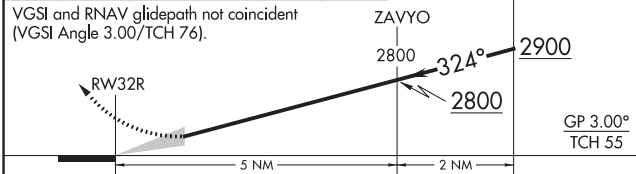
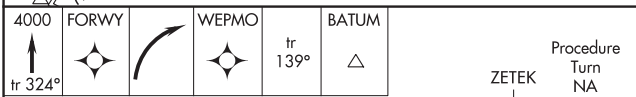
ATIS	GRANT COUNTY APP CON *	GRANT COUNTY TOWER *	GND CON	UNICOM
<b>119.05</b>	<b>126.4 379.95</b>	<b>118.25 (EAST)(CTAF) 0 257.8</b> <b>128.0 (WEST) 257.8</b>	<b>121.9</b>	<b>122.95</b>



NW-1, 10 NOV 2016 to 05 JAN 2017

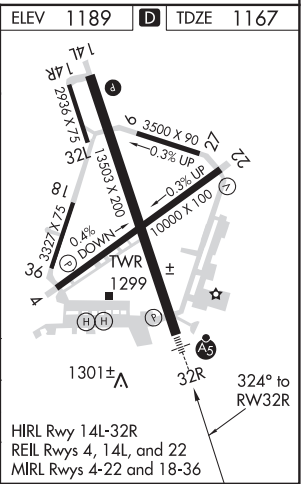
NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV	1189	TDZE	1167
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CATEGORY	A	B	C	D
RNP 0.10 DA		1417/24	250 (300-½)	
RNP 0.30 DA		1533/40	366 (400-¾)	

## AUTHORIZATION REQUIRED



WAAS CH <b>42809</b> <b>W04A</b>	APP CRS <b>036°</b>	Rwy Idg <b>10000</b> TDZE <b>1189</b> Apt Elev <b>1189</b>
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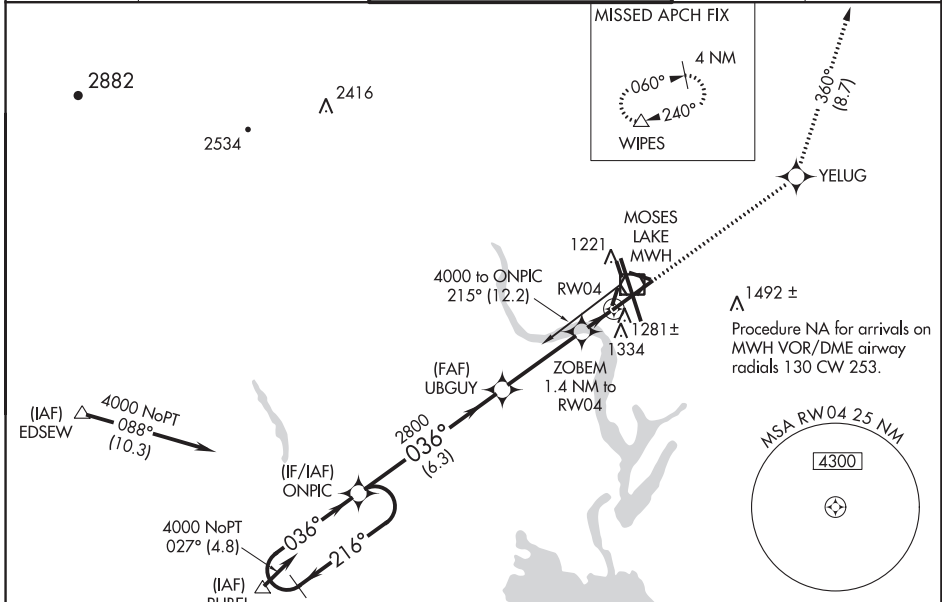
# RNAV (GPS) Y RWY 4

GRANT COUNTY INTL (MWH)

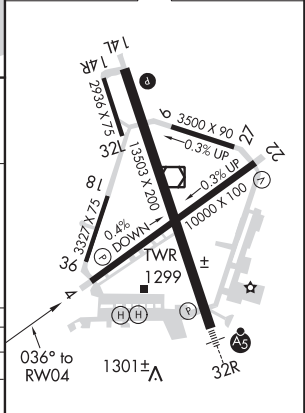
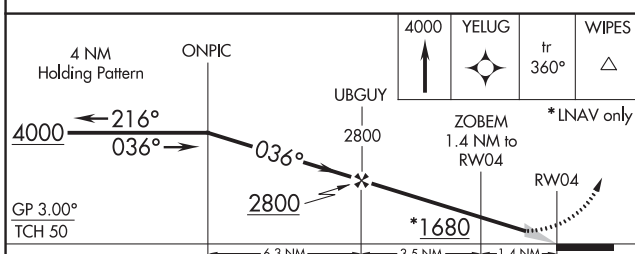
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 36°C (96°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Ephrata altimeter setting and increase all DA 36 feet and increase all MDA 40 feet, increase LNAV/VNAV all Cats visibility, and LNAV Cat C and D visibility 1/8 mile. Baro-VNAV NA when using Ephrata altimeter setting.

**MISSED APPROACH:** Climb to 4000 direct YELUG and on track 360° to WIPES and hold.

ATIS <b>119.05</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	GRANT COUNTY TOWER * <b>118.25 (CTAF) 0</b> <b>128.0</b>	<b>257.8 (EAST)</b> <b>257.8 (WEST)</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 1189	<b>D</b>	TDZE 1189
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CATEGORY	A	B	C	D
LPV DA		1389-3/4	200 (200-3/4)	
LNAV/VNAV DA		1442-3/4	253 (300-3/4)	
LNAV MDA		1540-1	351 (400-1)	
CIRCLING	1660-1	471 (500-1)	1660-1 1/2 471 (500-1 1/2)	1740-2 551 (600-2)

HIRL Rwy 14L-32R  
REIL Rws 4, 14L, and 22  
MRL Rws 4-22 and 18-36

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>90509</b> W14A	APP CRS <b>144°</b>	Rwy Idg <b>13503</b> TDZE <b>1169</b> Apt Elev <b>1189</b>
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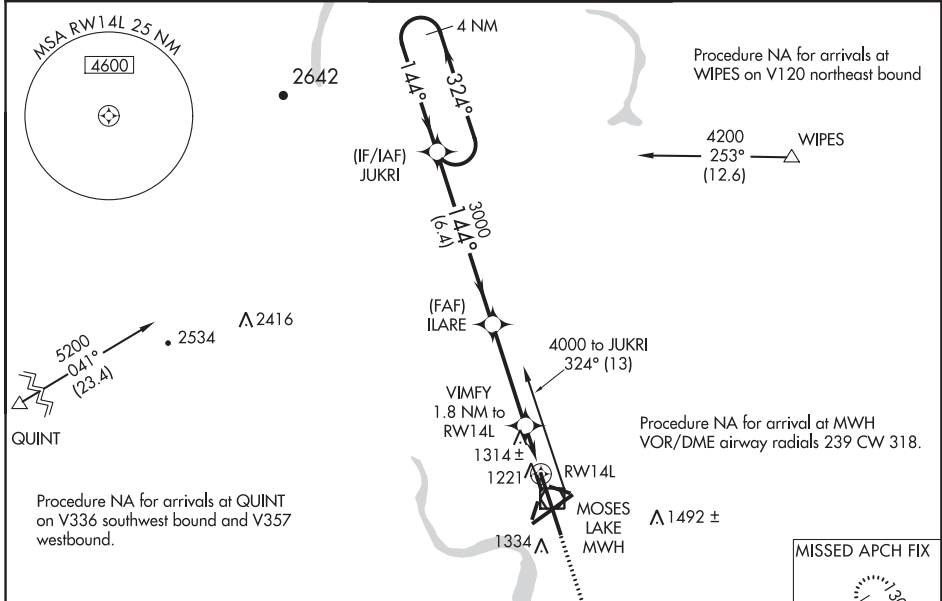
# RNAV (GPS) Y RWY 14L

GRANT COUNTY INTL (MWH)

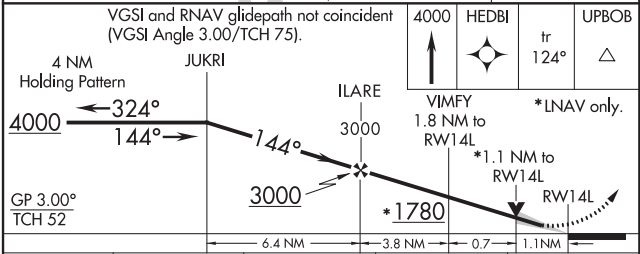
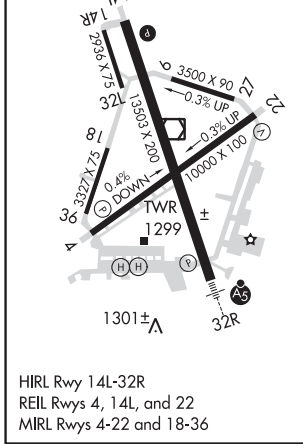
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 36°C (96°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Ephrata altimeter setting. When local altimeter setting not received, use Ephrata altimeter setting and increase all DA 36 feet and all MDA 40 feet, increase LNAV/VNAV visibility all Cats ½ mile and LNAV Cats C and D visibility ¼ mile.

**⚠** MISSED APPROACH: Climb to 4000 direct HEDBI and on track 124° to UPBOB and hold.

ATIS <b>119.05</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	GRANT COUNTY TOWER * <b>118.25 (CTAF) 0 257.8 (EAST) 128.0 257.8 (WEST)</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV <b>1189</b>	<b>D</b>	TDZE <b>1169</b>
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CATEGORY	A	B	C	D
LPV DA		1369-¾	200 (200-¾)	
LNAV/VNAV DA		1436-7/8	267 (300-7/8)	
LNAV MDA	1580-1	411 (400-1)	1580-1½	411 (400-1½)
CIRCLING	1660-1	471 (500-1)	1660-1½	1740-2 471 (500-1½) 551 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>70410</b> <b>W22A</b>	APP CRS <b>216°</b>	Rwy Idg TDZE <b>1166</b> Apt Elev <b>1189</b>	<b>10000</b>
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# RNAV (GPS) Y RWY 22

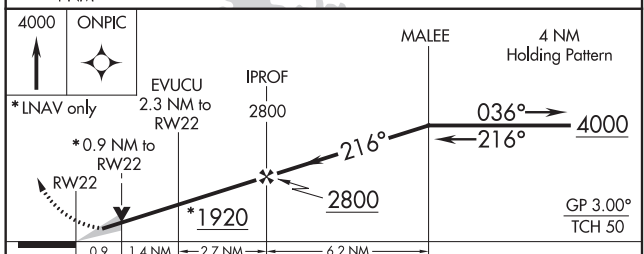
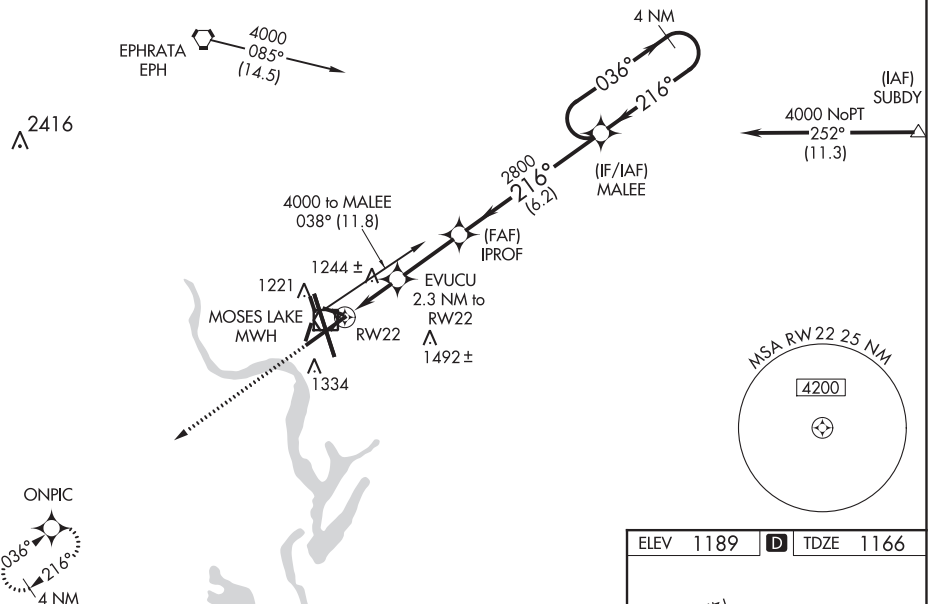
GRANT COUNTY INTL (MWH)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 36°C (96°F). DME/DME RNP- 0.3 NA. Baro-VNAV and VDP NA when using Ephrata altimeter setting. When local altimeter setting not received, use Ephrata altimeter setting and increase all DA 36 feet and all MDA 40 feet, increase LNAV/VNAV all Cats visibility and LNAV Cats C and D visibility 1/8 mile.

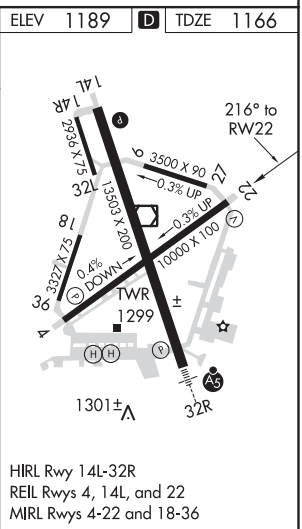
MISSED APPROACH: Climb to 4000 direct ONPIC and hold.

ATIS <b>119.05</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	GRANT COUNTY TOWER * <b>118.25</b> (CTAF) <b>0</b> <b>128.0</b>	<b>257.8</b> (EAST) <b>257.8</b> (WEST)	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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Procedure NA for arrivals at EPH VORTAC on airway radials 060 CW 135.



CATEGORY	A	B	C	D
LPV DA		1366-3/4	200 (200-3/4)	
LNAV/VNAV DA		1429-7/8	263 (300-7/8)	
LNAV MDA		1500-1	334 (400-1)	
CIRCLING	1660-1	471 (500-1)	1660-1 1/2 471 (500-1 1/2)	1740-2 551 (600-2)



HIRL Rwy 14L-32R  
REIL Rwy 4, 14L, and 22  
MRL Rwy 4-22 and 18-36

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>77799</b> <b>W32A</b>	APP CRS <b>324°</b>	Rwy Idg <b>13492</b> TDZE <b>1167</b> Apt Elev <b>1189</b>
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# RNAV (GPS) Y RWY 32R

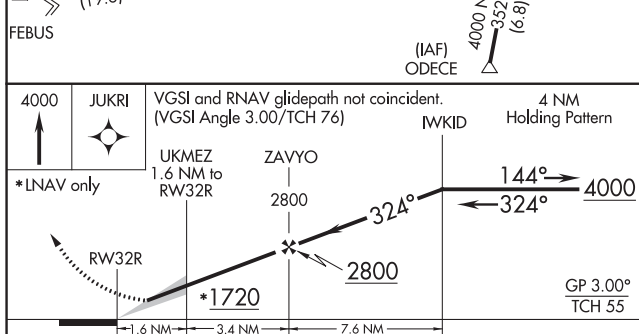
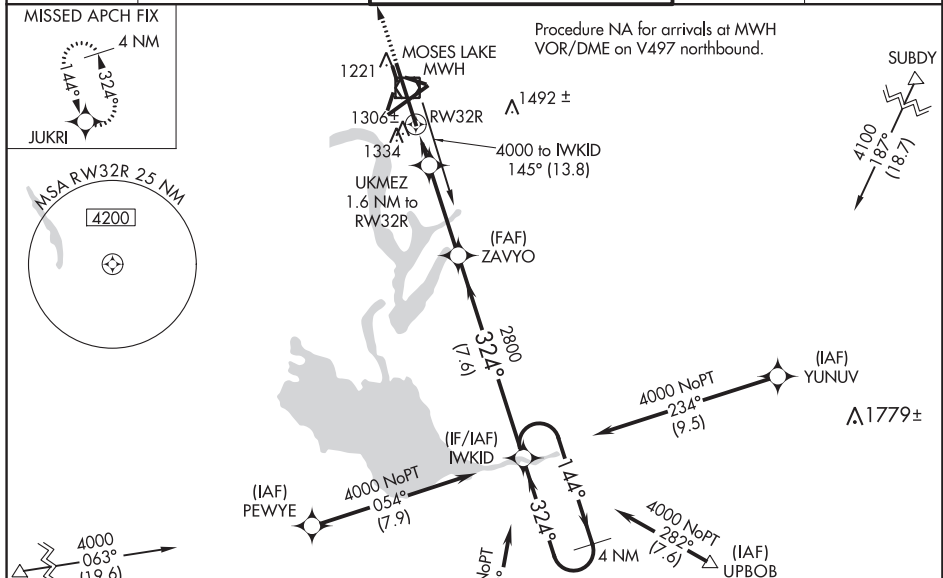
GRANT COUNTY INTL (MWH)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 36°C (96°F). DME/DME RNP-0.3 NA. Baro-VNAV NA when using Ephrata altimeter setting.  
**⚠** When local altimeter setting not received, use Ephrata altimeter setting and increase all DA 36 feet and all MDA 40 feet and increase LNAV/VNAV all Cats visibility to RVR 3500 and LNAV Cats C and D visibility to RVR 5000. For inoperative MALSR increase LNAV/VNAV all Cats visibility to RVR 5500 and LNAV Cats C and D visibility to 1½ miles. For inoperative MALSR, when using Ephrata altimeter setting, increase LNAV/VNAV all Cats visibility to 1½ miles.

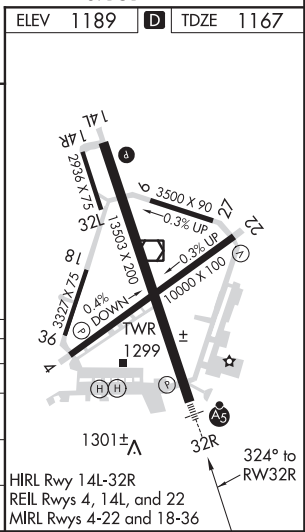


**MISSED APPROACH:**  
Climb to 4000 direct JUKRI and hold.

ATIS <b>119.05</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	GRANT COUNTY TOWER * <b>118.25 (CTAF) 128.0</b> <b>257.8 (EAST) 257.8 (WEST)</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA		1367/24	200 (200-½)	
LNNAV/VNAV DA		1517/30	350 (400-¾)	
LNNAV MDA	1620/24	453 (500-½)	1620/45	453 (500-¾)
CIRCLING	1660-1	471 (500-1)	1660-1½ 471 (500-1½)	1740-2 551 (600-2)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

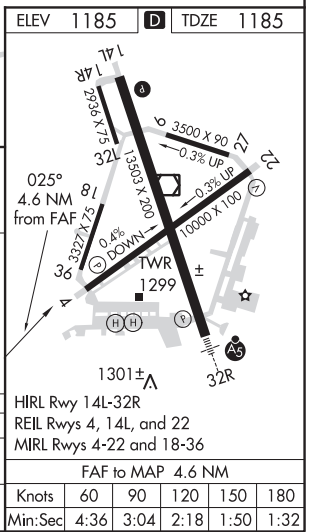
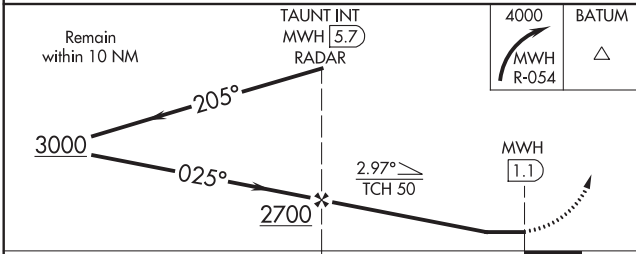
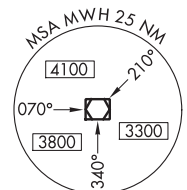
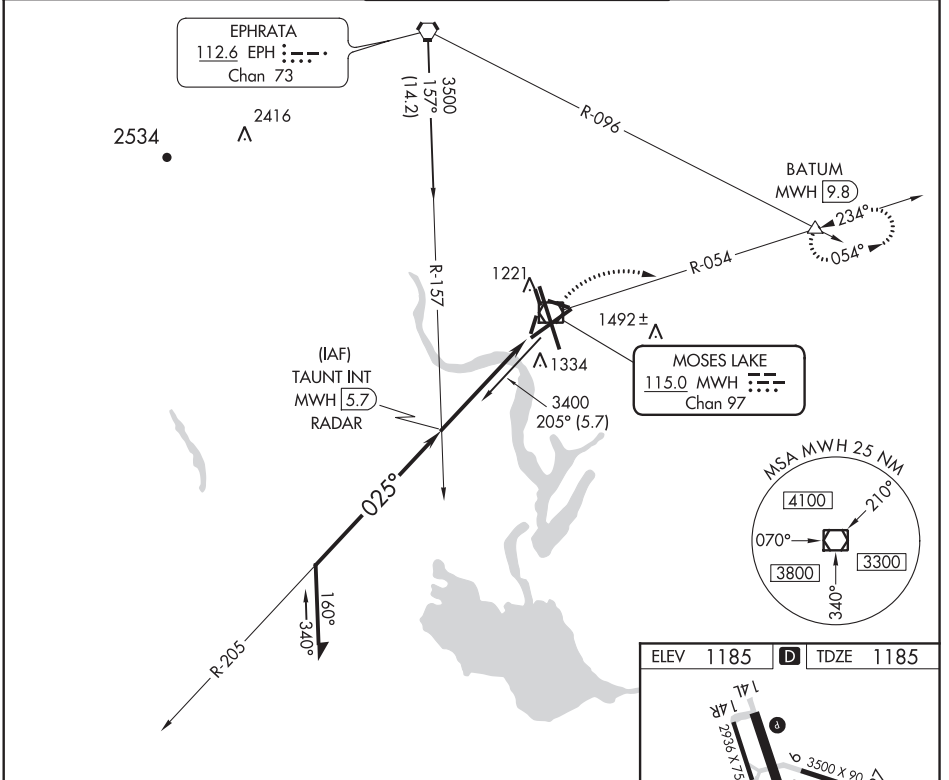
VOR/DME MWH <b>115.0</b> Chan <b>97</b>	APP CRS <b>025°</b>	Rwy Idg <b>10000</b> TDZE <b>1185</b> Apt Elev <b>1185</b>
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# VOR RWY 4

GRANT COUNTY INTL (MWH)

**MISSSED APPROACH:** Climbing right turn to 4000 via MWH R-054 to BATUM INT/MWH 9.8 DME and hold.

ATIS <b>119.05</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	GRANT COUNTY TOWER * <b>118.25 (CTAF) 128.0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

MOSES LAKE, WASHINGTON

AL-961 (FAA)

14289

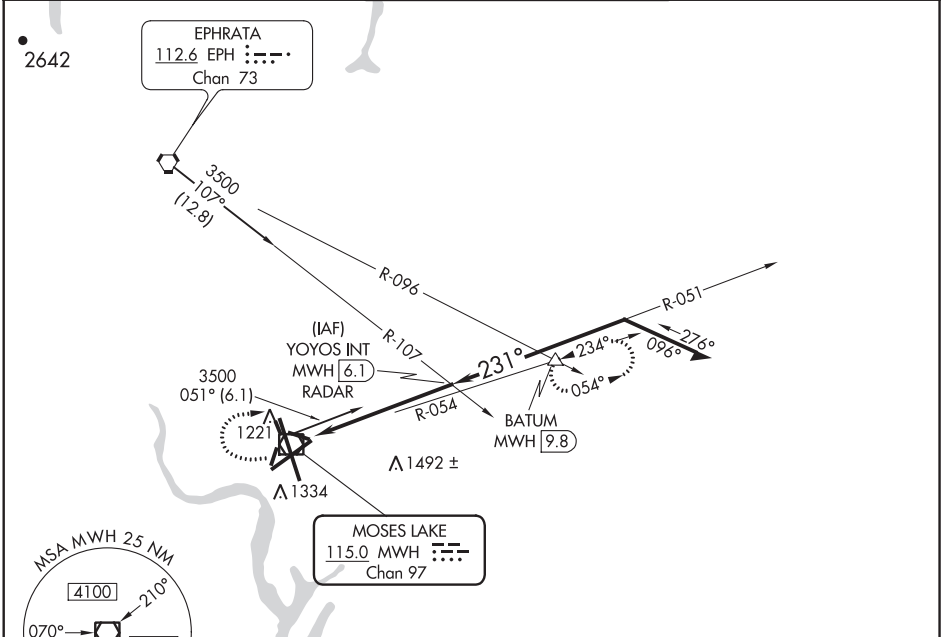
VOR/DME MWH <b>115.0</b> Chan <b>97</b>	APP CRS <b>231°</b>	Rwy Idg <b>10000</b> TDZE <b>1166</b> Apt Elev <b>1185</b>
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# VOR RWY 22

GRANT COUNTY INTL (MWH)

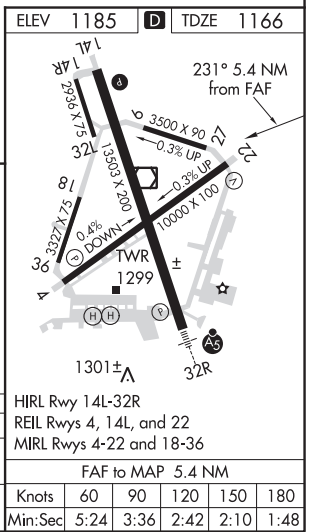
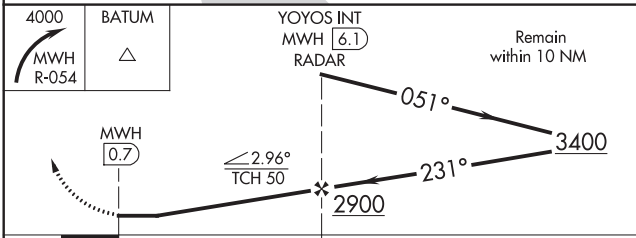
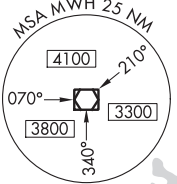
**MISSSED APPROACH:** Climbing right turn to 4000 via MWH R-054 to BATUM INT/MWH 9.8 DME and hold.

ATIS <b>119.05</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	GRANT COUNTY TOWER * <b>118.25 (CTAF) 128.0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-22	1760-1 594 (600-1)		1760-1½ 594 (600-1½)	1760-1¾ 594 (600-1¾)
CIRCLING	1760-1 575 (600-1)		1760-1½ 575 (600-1½)	1760-2 575 (600-2)

FAF to MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

MOSES LAKE, WASHINGTON  
Amdt 5C 16OCT14

47°13'N-119°19'W

# GRANT COUNTY INTL (MWH)

## VOR RWY 22

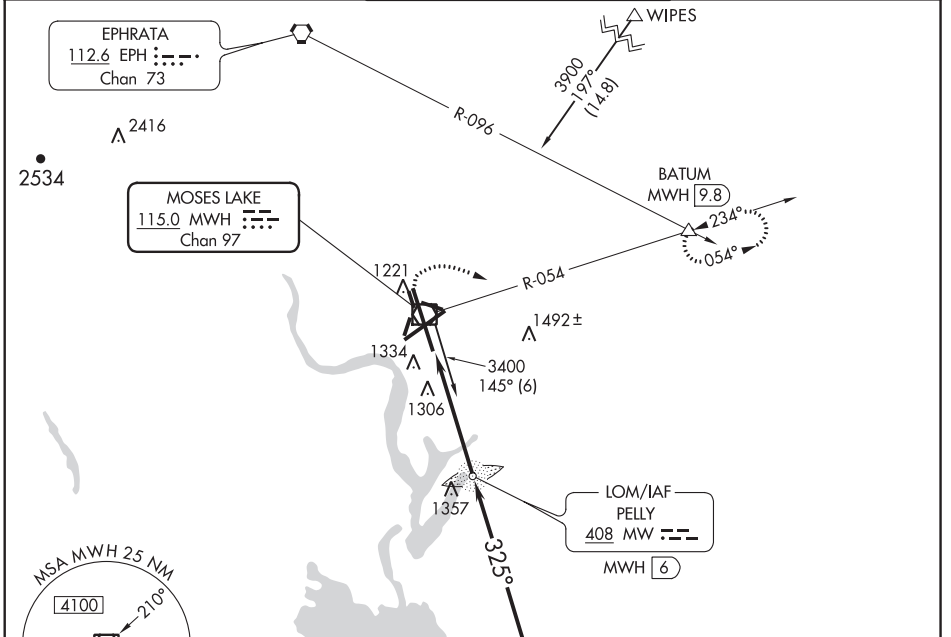


VOR/DME MWH <b>115.0</b> Chan <b>97</b>	APP CRS <b>325°</b>	Rwy Idg <b>13492</b> TDZE <b>1164</b> Apt Elev <b>1185</b>
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# VOR RWY 32R

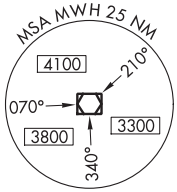
GRANT COUNTY INTL (MWH)

<b>ATIS</b> <b>119.05</b>	<b>GRANT COUNTY APP CON*</b> <b>126.4 379.95</b>	<b>GRANT COUNTY TOWER*</b> <b>118.25 (CTAF) 128.0 257.8</b>	<b>GND CON</b> <b>121.9</b>	<b>UNICOM</b> <b>122.95</b>
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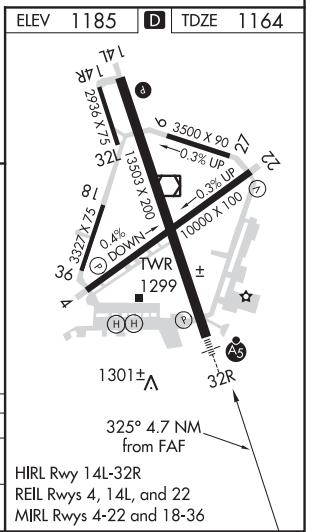
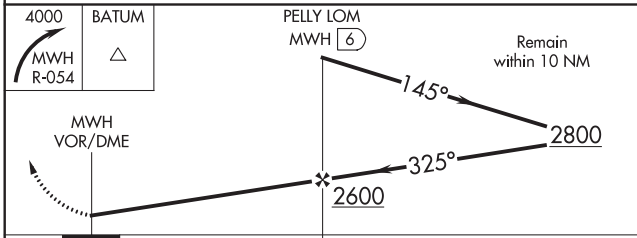


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



## ADF or DME REQUIRED



CATEGORY	A	B	C	D
S-32R	1620/24	456 (500-1/2)	1620/40 456 (500-3/4)	1620/50 456 (500-1)
CIRCLING	1680-1	495 (500-1)	1680-1 1/2 495 (500-1 1/2)	1740-2 555 (600-2)

HIRL Rwy 14L-32R  
REIL Rwy 4, 14L, and 22  
MIRL Rwy 4-22 and 18-36

MOSES LAKE, WASHINGTON

AL-961 (FAA)

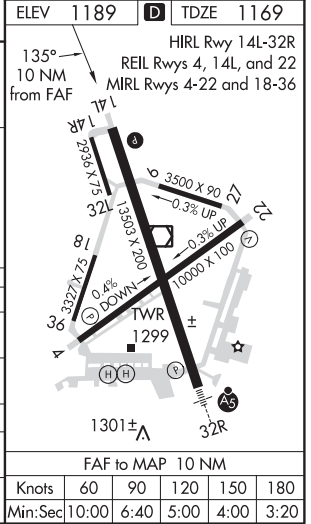
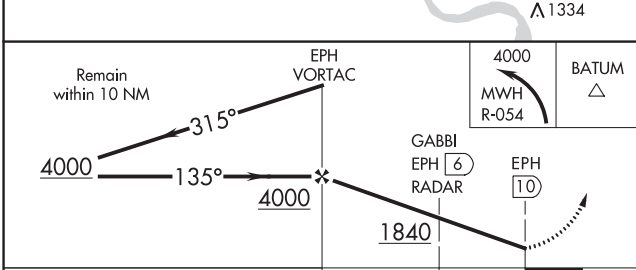
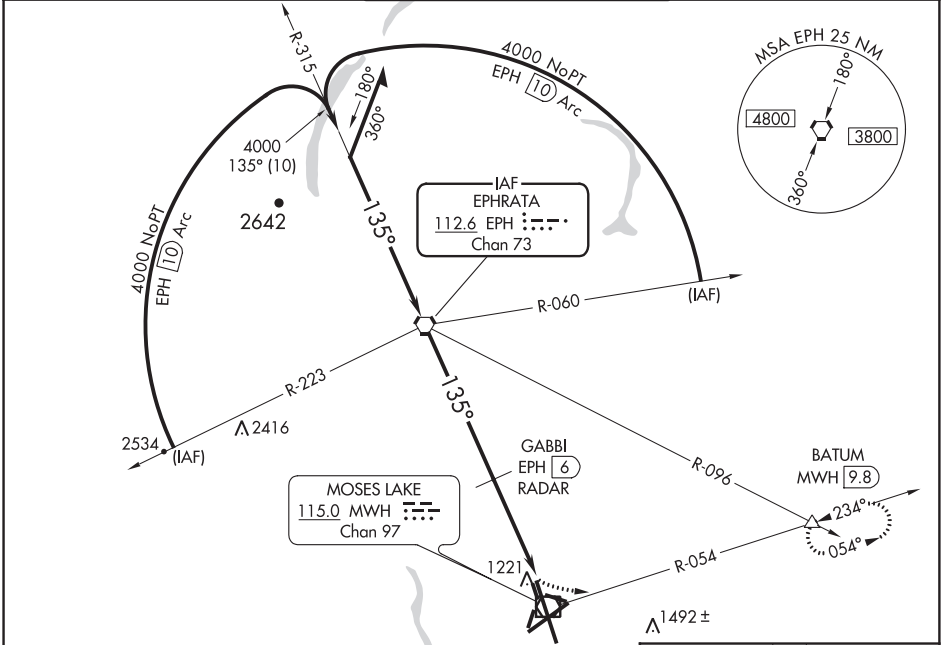
14037

VORTAC EPH <b>112.6</b> Chan <b>73</b>	APP CRS <b>135°</b>	Rwy Idg <b>13503</b> TDZE <b>1169</b> Apt Elev <b>1189</b>
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**VOR-1 RWY 14L**  
GRANT COUNTY INTL (MWH)

**MISSED APPROACH:** Climbing left turn to 4000 via MWH R-054 to BATUM INT/MWH 9.8 DME and hold.

ATIS <b>119.05</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	GRANT COUNTY TOWER * <b>118.25 (CTAF) 128.0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
S-14L	1840-1 671 (700-1)		1840-2 671 (700-2)	1840-2 1/4 671 (700-2 1/4)
CIRCLING	1840-1 651 (700-1)		1840-2 651 (700-2)	1840-2 1/4 651 (700-2 1/4)
GABBI DME or RADAR MINIMUMS				
S-14L	1640-1 471 (500-1)		1640-1 1/4 471 (500-1 1/4)	1640-1 1/2 471 (500-1 1/2)
CIRCLING	1680-1 491 (500-1)		1680-1 1/2 491 (500-1 1/2)	1740-2 551 (600-2)

MOSES LAKE, WASHINGTON  
Amdt 1B 16DEC10

47°13'N-119°19'W

GRANT COUNTY INTL (MWH)  
**VOR-1 RWY 14L**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

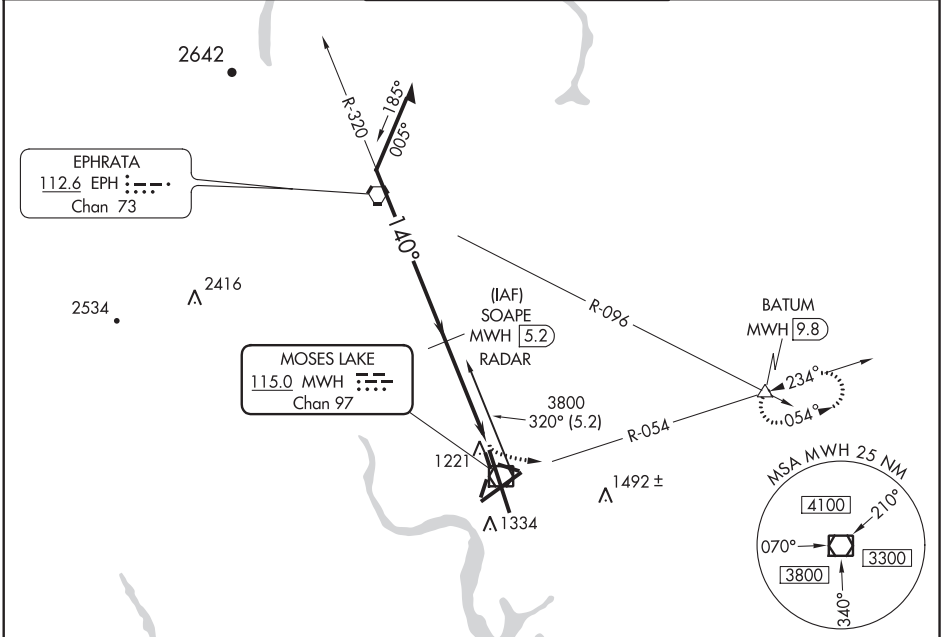
VOR/DME MWH <b>115.0</b> Chan <b>97</b>	APP CRS <b>140°</b>	Rwy Idg <b>13503</b> TDZE <b>1166</b> Apt Elev <b>1185</b>
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**VOR-3 RWY 14L**  
GRANT COUNTY INTL (MWH)

**▽**  
**▲**

MISSED APPROACH: Climbing left turn to 4000 via MWH R-054 to BATUM INT/MWH 9.8 DME and hold.

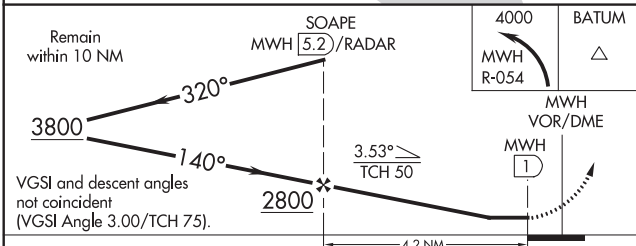
ATIS <b>119.05</b>	GRANT COUNTY APP CON* <b>126.4 379.95</b>	GRANT COUNTY TOWER* <b>118.25 (CTAF) 128.0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

**RADAR or DME REQUIRED**



ELEV 1185	<b>D</b> TDZE 1166
HIRL Rwy 14L-32R REIL Rws 4, 14L, and 22 MIRL Rws 4-22 and 18-36	
1301±A	
FAF to MAP 4.2 NM	
Knots	60 90 120 150 180
Min:Sec	4:12 2:48 2:06 1:41 1:24

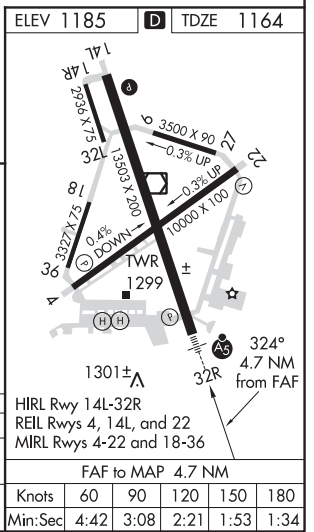
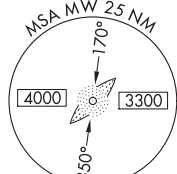
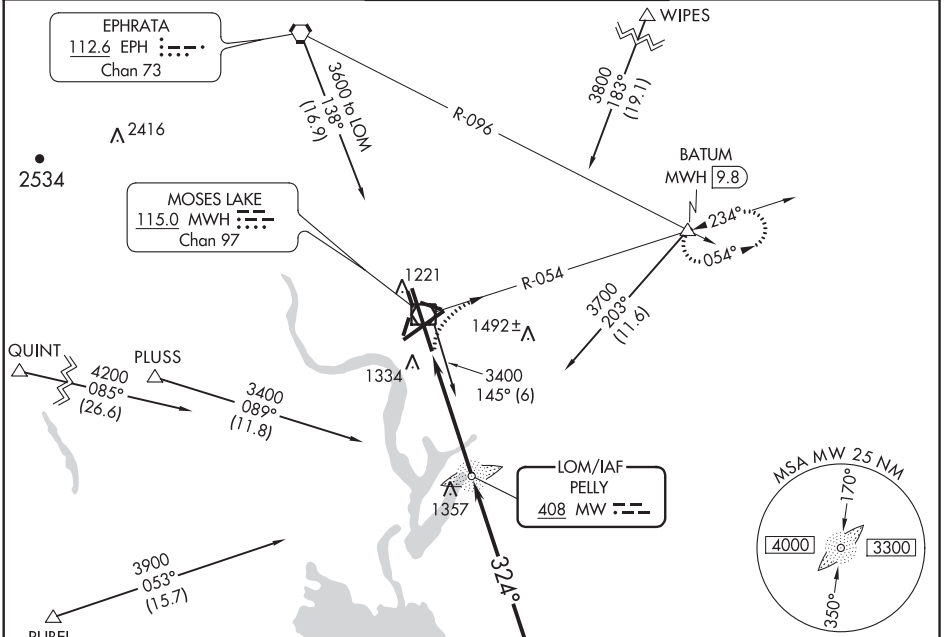
LOM MW <b>408</b>	APP CRS <b>324°</b>	Rwy Idg <b>13492</b> TDZE <b>1164</b> Apt Elev <b>1185</b>
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# NDB RWY 32R

GRANT COUNTY INTL (MWH)

	MALSR 	MISSED APPROACH: Climbing right turn to 4000 via MWH R-054 to BATUM INT/MWH 9.8 DME and hold.
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ATIS <b>119.05</b>	GRANT COUNTY APP CON * <b>126.4 379.95</b>	GRANT COUNTY TOWER * <b>118.25 (CTAF) 128.0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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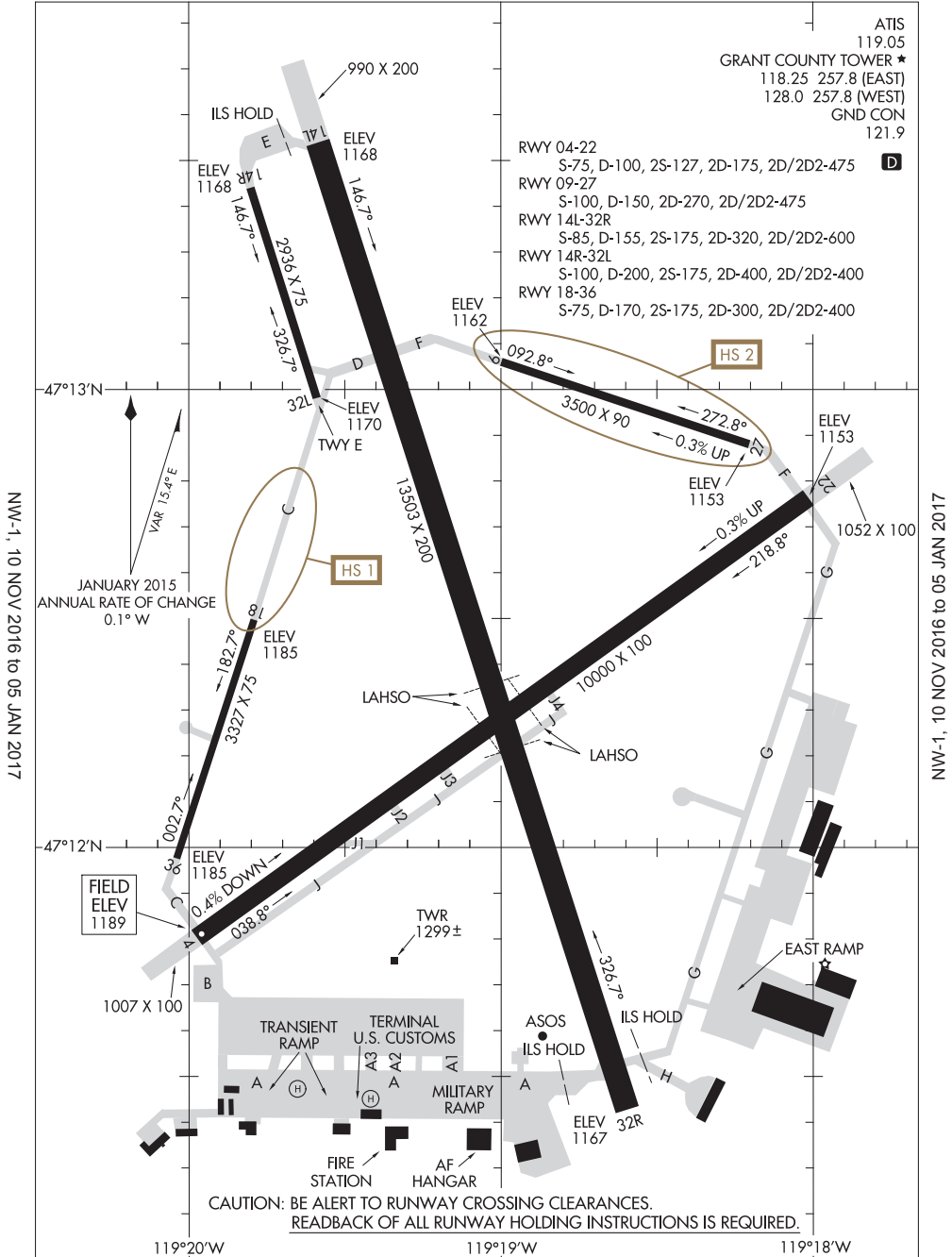
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

AL-961 (FAA)

GRANT COUNTY INTL (MWH)  
MOSES LAKE, WASHINGTON



NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

MOSES LAKE, WASHINGTON  
GRANT COUNTY INTL (MWH)

16315 **MOSES THREE DEPARTURE** SL-961 (FAA) **GRANT COUNTY INTL (MWH)**  
 MOSES LAKE, WASHINGTON

ATIS 119.05  
 GND CON 121.9  
 GRANT COUNTY TOWER \* 118.25 (CTAF) 128.0 257.8  
 GRANT COUNTY DEP CON \* 126.4 379.95

WENATCHEE  
 111.0 EAT   
 Chan 47  
 N47°23.98'-W120°12.65'  
 L-13

EPHRATA  
 112.6 EPH   
 Chan 73  
 N47°22.68'-W119°25.44'  
 L-13, H-1

SPOKANE  
 115.5 GEG   
 Chan 102  
 N47°33.90'-W117°37.61'  
 L-13, H-1

ELLENSBURG  
 117.9 ELN   
 Chan 126  
 N47°01.46'-W120°27.51'  
 L-13, H-1

MOSES LAKE  
 115.0 MWH   
 Chan 97  
 N47°12.65'-W119°19.01'  
 L-13, H-1

YAKIMA  
 116.0 YKM   
 Chan 107  
 N46°34.21'-W120°26.68'  
 L-13, H-1

PASCO  
 109.8 PSC   
 Chan 35  
 N46°16.22'-W119°07.04'  
 L-13

WALLA WALLA  
 116.4 ALW   
 Chan 111  
 N46°05.22'-W118°17.55'  
 L-13

NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**ALL RUNWAYS:** Fly runway heading, or ATC assigned heading, for vector to assigned route/fix. Maintain 5000 or ATC assigned altitude. Expect clearance to filed altitude 5 minutes after departure.

**LOST COMMUNICATIONS:** If no transmissions received for 1 minute after departure, maintain runway heading, or ATC assigned heading to 6000, then climbing right turn to filed altitude, direct MWH VOR/DME, then via assigned fix/route.

**MOSES THREE DEPARTURE**

08JUN98

MOSES LAKE, WASHINGTON  
 GRANT COUNTY INTL (MWH)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>42815</b> <b>W28A</b>	APP CRS <b>280°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>3165</b> <b>3167</b>
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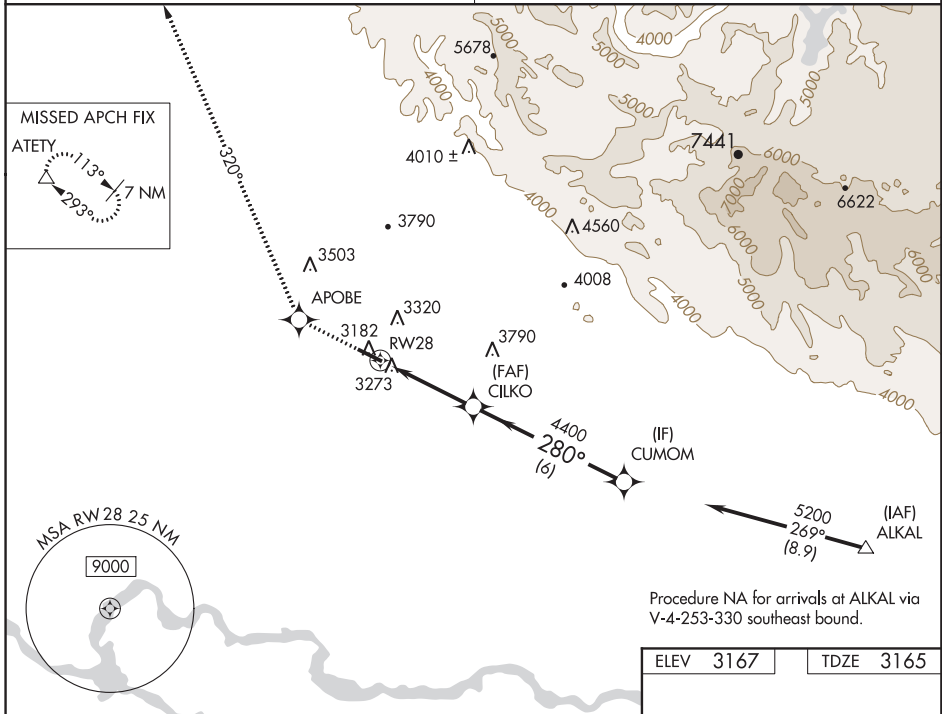
# RNAV (GPS) RWY 28

MOUNTAIN HOME MUNI (U76)

**⚠** Circling to Rwy 10 NA at night. Baro-VNAV NA. DME/DME RNP-0.3 NA.  
**⚠** NA Visibility reduction by helicopters NA. Use Mountain Home AFB altimeter setting, when not received procedure NA.

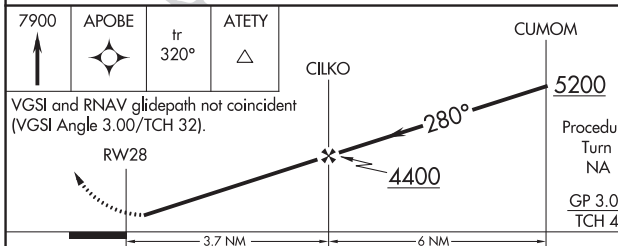
**MISSED APPROACH:** Climb to 7900 direct APOBE and via track 320° to ATETY and hold, continue climb-in-hold to 7900.

MOUNTAIN HOME APP CON * <b>124.8 259.1</b>	AUNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

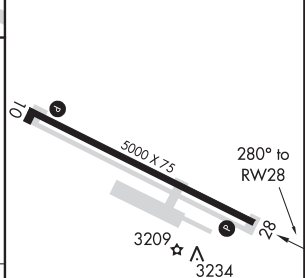
NW-1, 10 NOV 2016 to 05 JAN 2017



Procedure NA for arrivals at ALKAL via V-4-253-330 southeast bound.

ELEV 3167	TDZE 3165
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CATEGORY	A	B	C	D
LPV DA	3458-1 293 (300-1)			
LNAV/VNAV DA	3566-1½ 401 (400-1½)			
LNAV MDA	3580-1	415 (500-1)	3580-1¼	415 (500-1¼)
CIRCLING	3700-1 533 (600-1)	3720-1 553 (600-1)	3820-1¾ 653 (700-1¾)	3840-2¼ 673 (700-2¼)



REIL Rwy 10 and 28	MIRL Rwy 10-28
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NDB STI <b>333</b>	APP CRS <b>275°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>3165</b> <b>3167</b>
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# NDB RWY 28

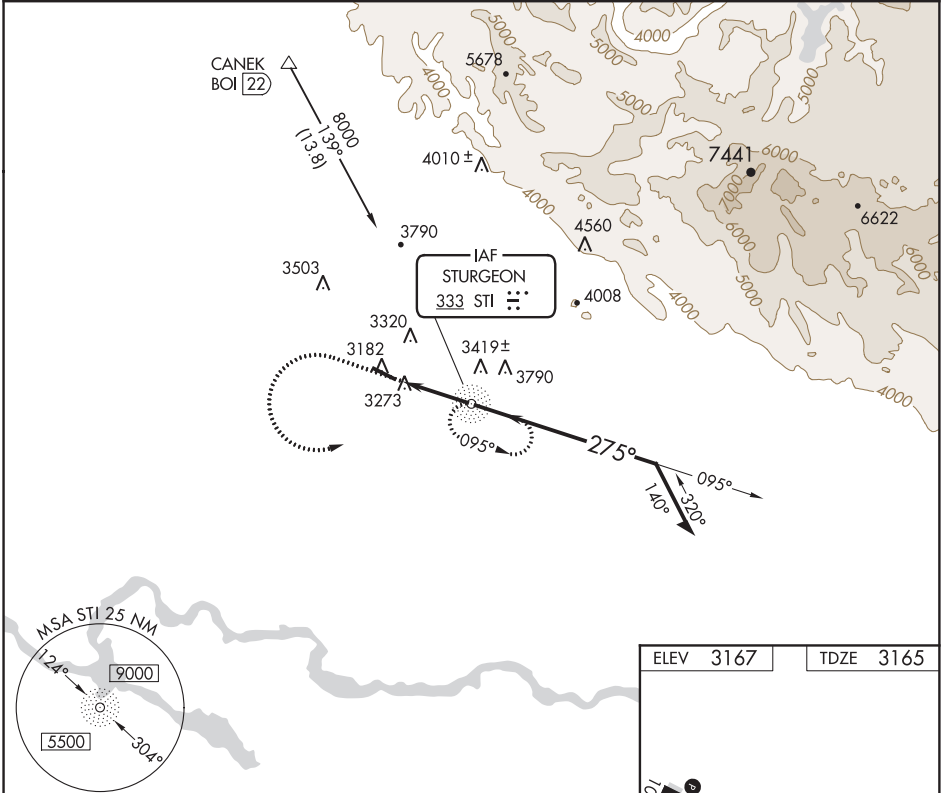
MOUNTAIN HOME MUNI (U76)

**NA** Circling to Rwy 10 NA at night. Visibility reduction by helicopters NA. Use Mountain Home AFB altimeter setting; when not received, procedure NA.

**MISSED APPROACH:** Climb to 5000 then climbing left turn to 6000 direct STI NDB and hold.

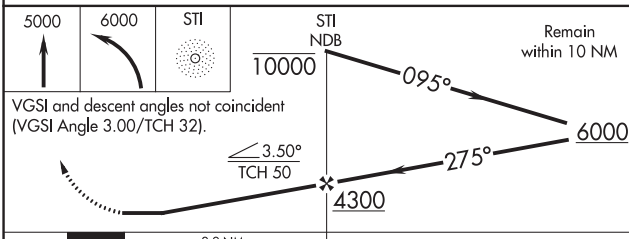
MOUNTAIN HOME APP CON \*  
**124.8 259.1**

AUNICOM  
**122.8 (CTAF)**



NW-1, 10 NOV 2016 to 05 JAN 2017

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ELEV 3167	TDZE 3165
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REIL Rwys 10 and 28  
MIRL Rwy 10-28

FAF to MAP 2.9 NM

Knots	60	90	120	150	180
Min:Sec	2:54	1:56	1:27	1:10	0:58



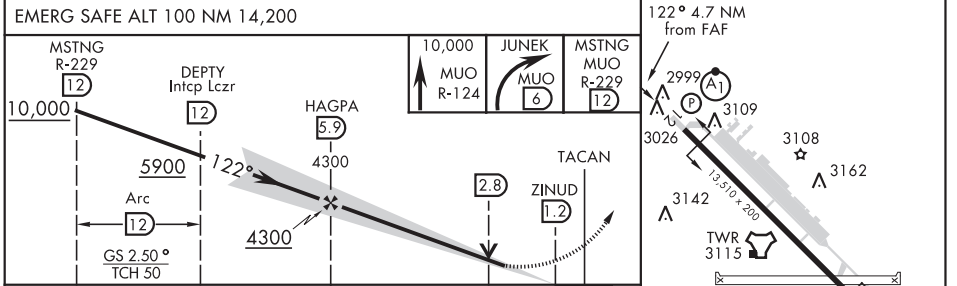
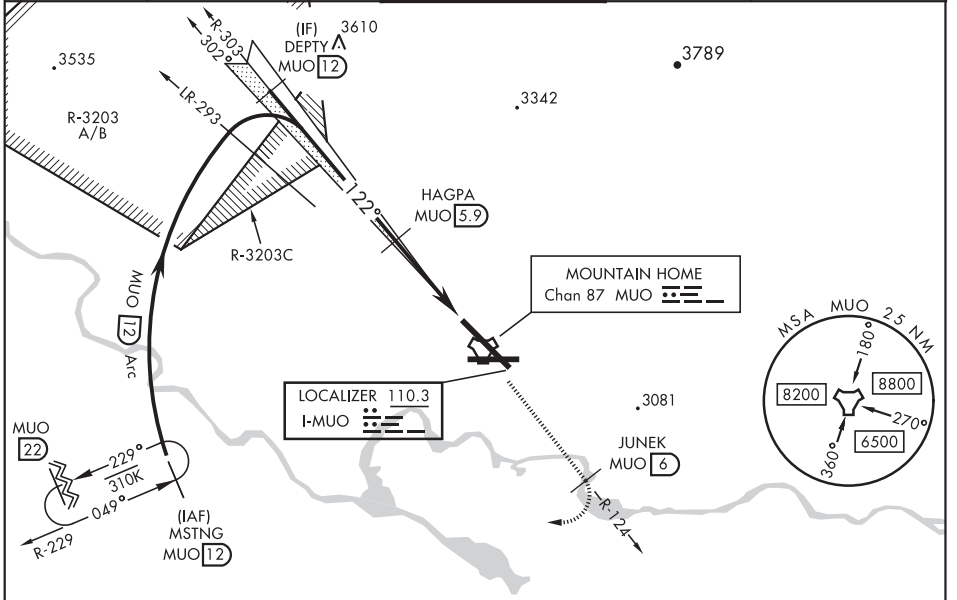
MOUNTAIN HOME, IDAHO

# ILS or LOC/DME Z RWY 12

LOC I-MUO <b>110.3</b>	APCH CRS <b>122°</b>	Rwy Idg <b>13,510</b> THRE <b>2983</b> Arpt Elev <b>2996</b>	AL-323 [USAF]	MOUNTAIN HOME AFB (KMUO)
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▼ \* When ALS inop, increase RVR to 40, vis to ¾ mile.  
 \*\* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1¾ miles.  
 \*\*\* Circling NE of Rwy 12-30 not authorized.

ATIS <b>273.5</b>	MOUNTAIN HOME APP CON <b>124.8 259.1</b>	MOUNTAIN HOME TOWER <b>133.85 253.5</b>	GND CON <b>120.5 275.8</b>	CLNC DEL <b>127.1 290.425</b>
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CATEGORY	A	B	C	D	E
S-ILS 12 *	3186/24 203 (200-½)				
S-LOC 12 **	3460/24	477 (500-½)	3460/50	477	(500-1)
*** CIRCLING	3520-1 524 (600-1)	3560-1 564 (600-1)	3560-1½ 564 (600-1½)	3560-2	564 (600-2)

MOUNTAIN HOME, IDAHO      43°03'N-115°52'W      MOUNTAIN HOME AFB (KMUO)

# ILS or LOC/DME Z RWY 12

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MOUNTAIN HOME, IDAHO

# TACAN Z RWY 12

TACAN Chan <b>87</b>	APCH CRS <b>129°</b>	Rwy Ldg THRE <b>2983</b> Arpt Elev <b>2996</b>
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AL-323 [USAF]

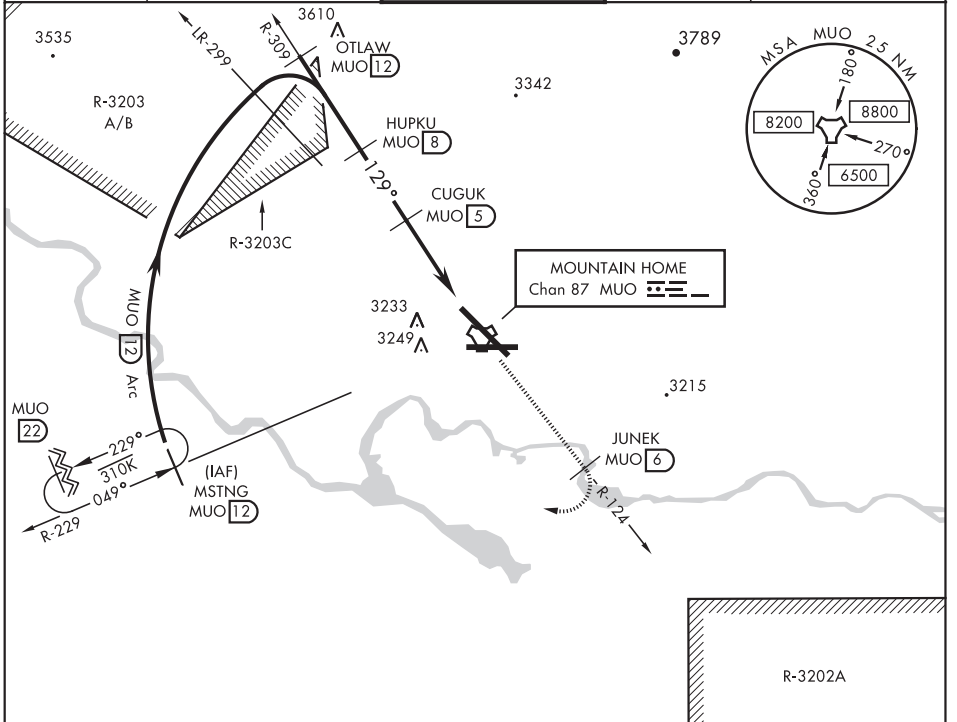
MOUNTAIN HOME AFB (KMUO)

▼ \* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1 1/2 miles.  
 \*\* Circling NE of Rwy 12-30 not authorized.
 

 ALSF-1  
A1

 MISSED APPROACH: Climb to 10,000 via MUO R-124 to JUNEK/6 DME, turn right and intercept MUO R-229 to MSTNG/12 DME and hold. Continue climb in hold to 10,000.

ATIS <b>273.5</b>	MOUNTAIN HOME APP CON <b>124.8 259.1</b>	MOUNTAIN HOME TOWER <b>133.85 253.5</b>	GND CON <b>120.5 275.8</b>	CLNC DEL <b>127.1 290.425</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

	ELEV 2996	THRE 2983			
EMERG SAFE ALT 100 NM 14,200					
VGSIs and descent angles not coincident					
MSTNG R-229 10,000	OTLAW R-309 12	HUPKU R-309 8	CUGUK 5	JUNEK MUO R-124 6	MSTNG MUO R-229 12
5900	129°		5100	4200	TACAN
Arc 12			2.91° TCH 41	ZIBTU 1.2	3.8 NM
CATEGORY	A	B	C	D	E
S-12 *	3480/40	497 (500-3/4)	3480/50 497 (500-1)		
CIRCLING **	3520-1 524 (600-1)	3560-1 564 (600-1)	3560-1 1/2 564 (600-1 1/2)	3560-2	564 (600-2)
HIRL Rwy 12-30					

MOUNTAIN HOME, IDAHO  
Amdt 2 12NOV15

43°03'N-115°52'W

MOUNTAIN HOME AFB (KMUO)

# TACAN Z RWY 12

MOUNTAIN HOME, IDAHO

# TACAN Z RWY 30

MOUNTAIN HOME AFB (KMUO)

TACAN MUO Chan <b>87</b>	APCH CRS <b>295°</b>	Rwy Idg <b>13,510</b> THRE <b>2996</b> Arpt Elev <b>2996</b>
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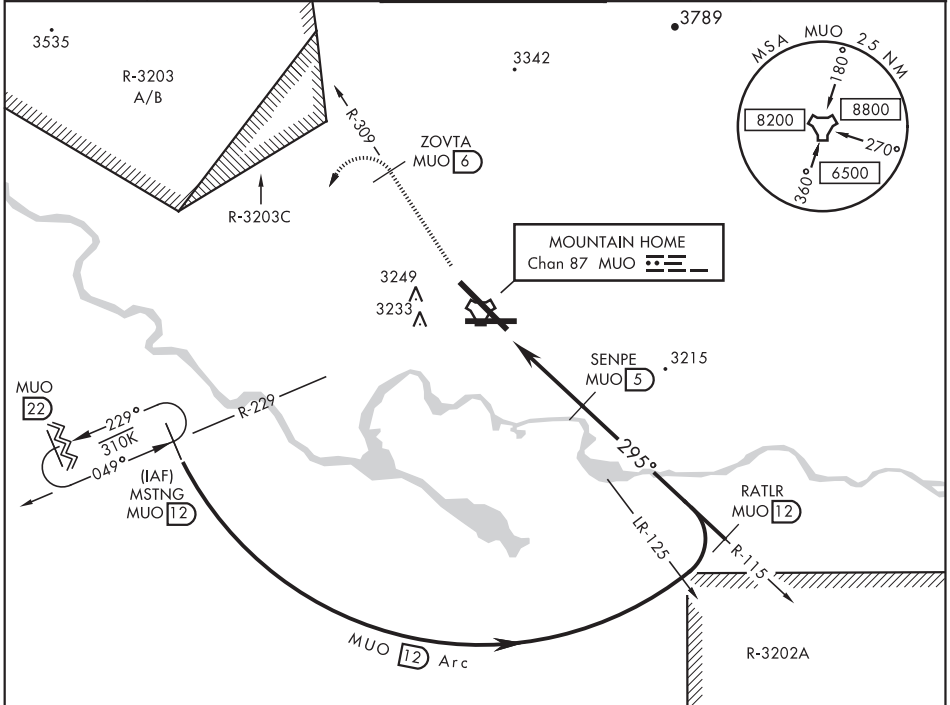
AL-323 [USAF]

▽ \* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1½ miles.  
 \*\* Circling NE of Rwy 12-30 not authorized.



**MISSED APPROACH:** Climb to 10,000 via MUO R-309 to ZOVTA/6 DME, turn left and intercept MUO R-229 to MSTNG/12 DME and hold. Continue climb in hold to 10,000.

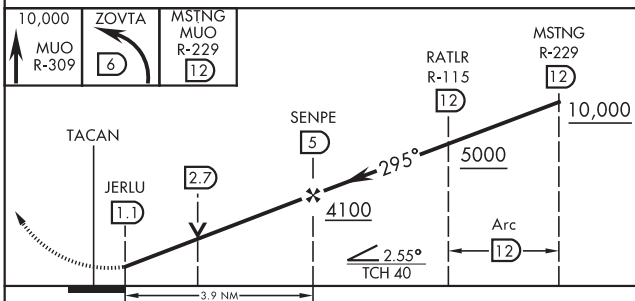
ATIS <b>273.5</b>	MOUNTAIN HOME APP CON <b>124.8 259.1</b>	MOUNTAIN HOME TOWER <b>133.85 253.5</b>	GND CON <b>120.5 275.8</b>	CLNC DEL <b>127.1 290.425</b>
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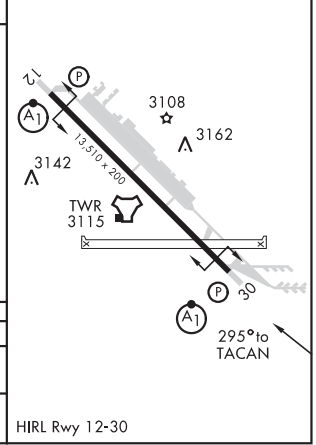
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 14,200



ELEV 2996	THRE 2996
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CATEGORY	A	B	C	D	E
S-30 *	3480/24 484 (500-½)		3480/50 484 (500-1)		
CIRCLING **	3520-1 524 (600-1)	3560-1 564 (600-1)	3560-1½ 564 (600-1½)	3560-2 564 (600-2)	

HIRL Rwy 12-30

MOUNTAIN HOME, IDAHO  
Amdt 2 12NOV15

43°03'N-115°52'W

MOUNTAIN HOME AFB (KMUO)

# TACAN Z RWY 30

# AIRPORT DIAGRAM

AFD-323 [USAF]

MOUNTAIN HOME AFB (KMUO)

MOUNTAIN HOME, IDAHO

ATIS 273.5  
 CLNC DEL  
 127.1 290.425  
 GND CON  
 120.5 275.8  
 MOUNTAIN HOME  
 TOWER  
 133.85 253.5

115°53'W

115°52'W

115°51'W



DECEMBER 2015  
 ANNUAL RATE OF CHANGE  
 0.1°W

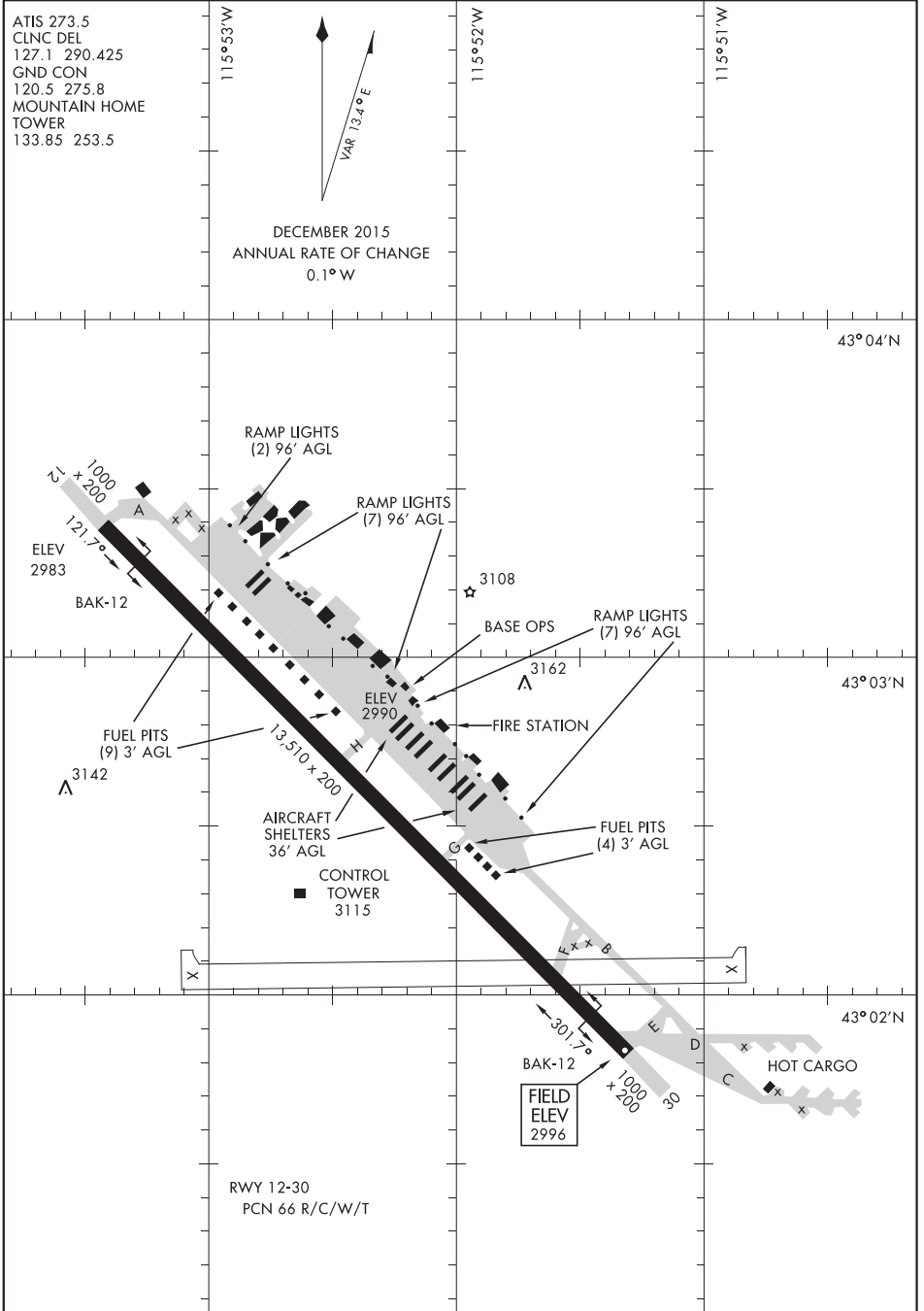
43°04'N

43°03'N

43°02'N

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

MOUNTAIN HOME, IDAHO  
MOUNTAIN HOME AFB (KMUO)

WAAS CH <b>78202</b> <b>W11A</b>	APP CRS <b>110°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>2537</b> <b>2537</b>
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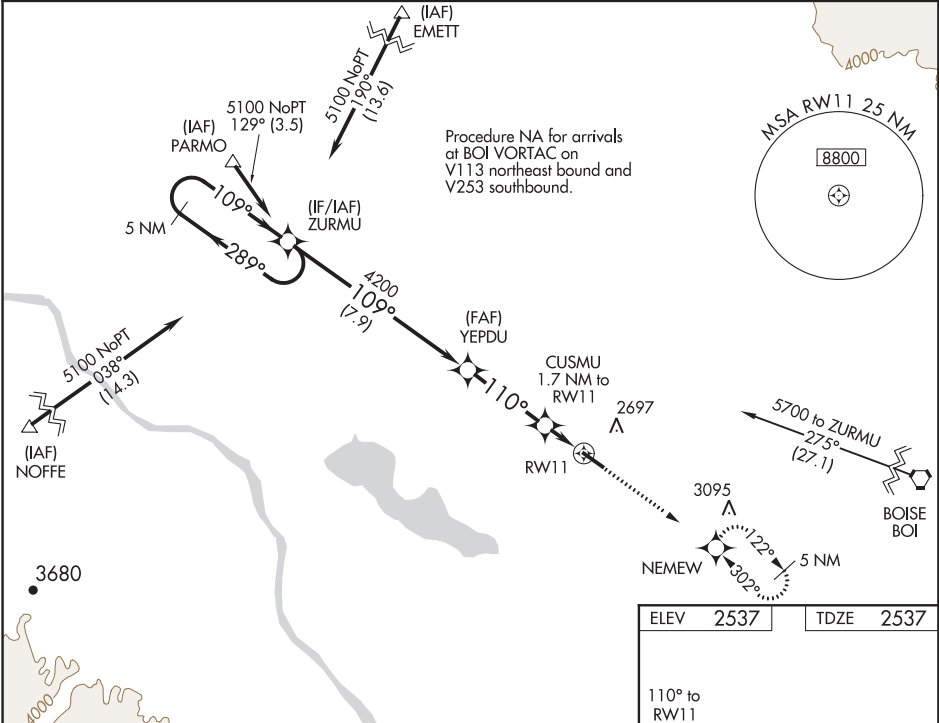
# RNAV (GPS) RWY 11

NAMPA MUNI (MAN)

**⚠** Night landing: Rwy 11, 29 operational VGSIs required, remain on or above VGSIs glidepath until threshold. Baro-VNAV NA when using Caldwell altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (4°F) or above 28°C (82°F).  
**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Caldwell altimeter setting and increase all DA 29 feet; increase all MDA 40 feet; and increase LNAV/VNAV all Cats visibility 1/8 mile. Helicopter visibility reduction below 1 SM not authorized.

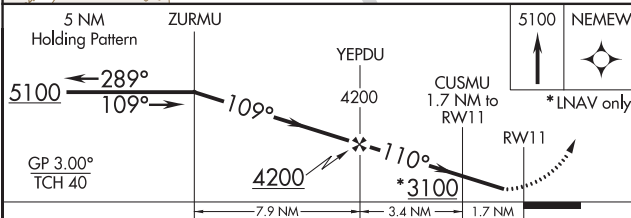
**MISSED APPROACH:** Climb to 5100 direct NEMEW and hold, continue climb-in-hold to 5100.

AWOS-3 <b>118.325</b>	BIG SKY APP CON <b>119.6 269.4</b>	UNICOM <b>122.7 (CTAF) 0</b>
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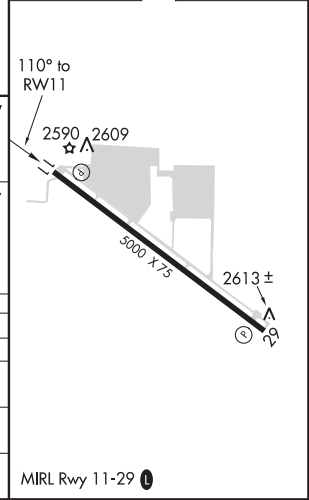


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV	2537	TDZE	2537
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CATEGORY	A	B	C	D
LPV DA		2787-1	250 (300-1)	
LNAV/VNAV DA		2840-1	303 (400-1)	
LNAV MDA		2860-1	323 (400-1)	
CIRCLING	3040-1	503 (600-1)	3040-1½ 503 (600-1½)	3100-2 563 (600-2)

MIRL Rwy 11-29 0

APP CRS <b>290°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>2537</b>
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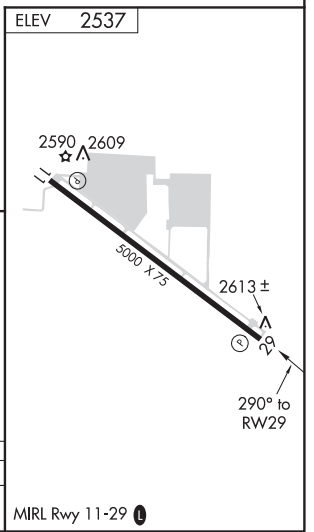
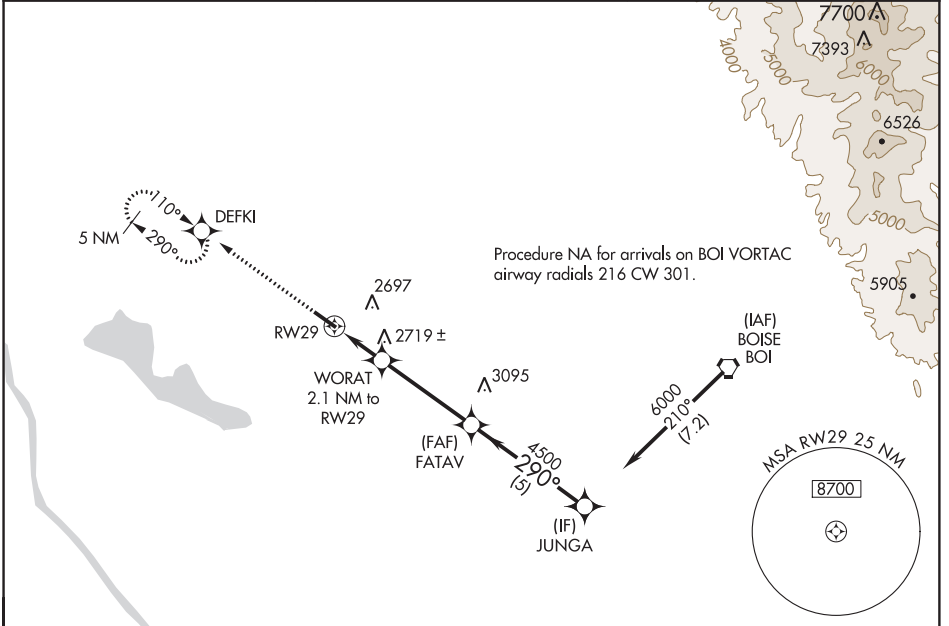
# RNAV (GPS)-B

NAMPA MUNI (MAN)

**⚠** Night landing: Rwy 29, operational VGSI required, remain on or above VGSI glidepath until threshold. DME/DME RNP -0.3 NA. When local altimeter setting not received, use Caldwell Industrial altimeter setting and increase all MDA 40 feet and visibility Cat C ¼ SM. Helicopter visibility reduction below 1 SM NA.

**⚠** MISSED APPROACH: Climb to 4200 direct DEFKI and hold.

AWOS-3 <b>118.325</b>	BIG SKY APP CON <b>119.6 269.4</b>	UNICOM <b>122.7 (CTAF) 0</b>
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CATEGORY	A		B		C		D	
	3060-1	523 (600-1)	3100-1½	563 (600-1½)	3220-2¼	683 (700-2¼)		

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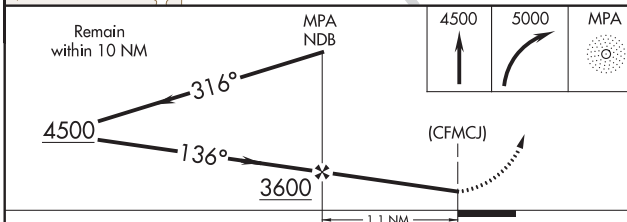
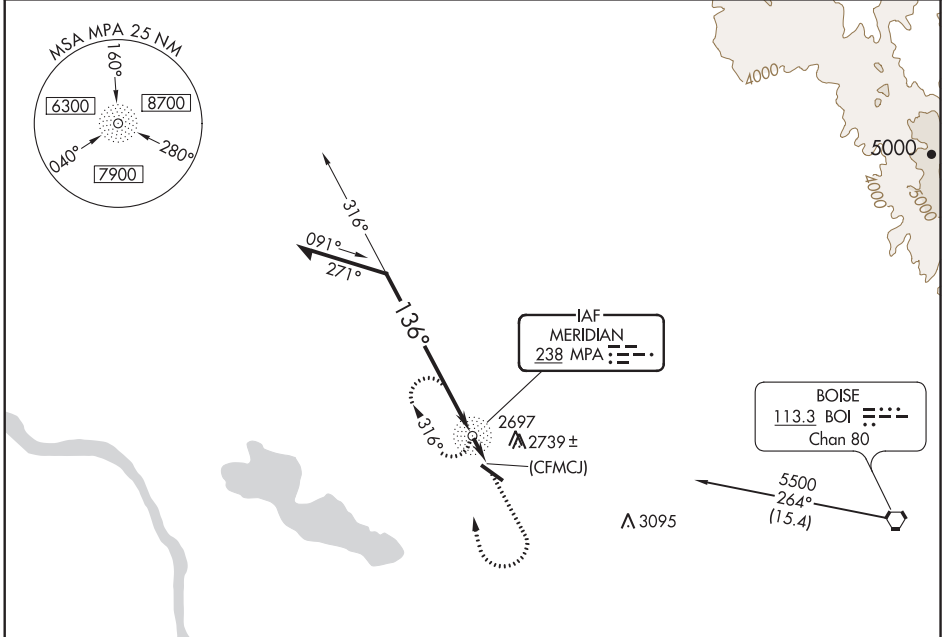
NDB MPA <b>238</b>	APP CRS <b>136°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>2537</b>
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**NDB-A**  
NAMPA MUNI (MAN)

**⚠** Night landing: Rwy 29, operational VGSI required, remain on or above VGSI glidepath until threshold. When local altimeter setting not received, use Caldwell Industrial altimeter setting and increase all MDA 40 feet. Helicopter visibility reduction below 1 SM NA.

**MISSED APPROACH:** Climb to 4500 then climbing right turn to 5000 direct MPA NDB and hold.

AWOS-3 <b>118.325</b>	BIG SKY APP CON <b>119.6 269.4</b>	UNICOM <b>122.7 (CTAF) 0</b>
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CATEGORY	FAF to MAP 1.1 NM			
	A	B	C	D
<b>C</b> CIRCLING	3160-1	623 (700-1)	3160-1¾ 623 (700-1¾)	3220-2¼ 683 (700-2¼)
	Knots 60	90	120	150 180
	Min:Sec 1:06	0:44	0:33	0:26 0:22

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WAAS CH <b>56525</b> <b>W14A</b>	APP CRS <b>136°</b>	Rwy Idg <b>5310</b> TDZE <b>4168</b> Apt Elev <b>4176</b>
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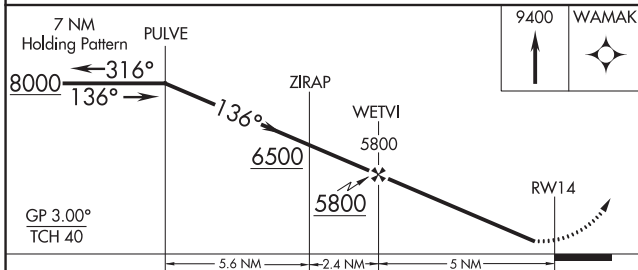
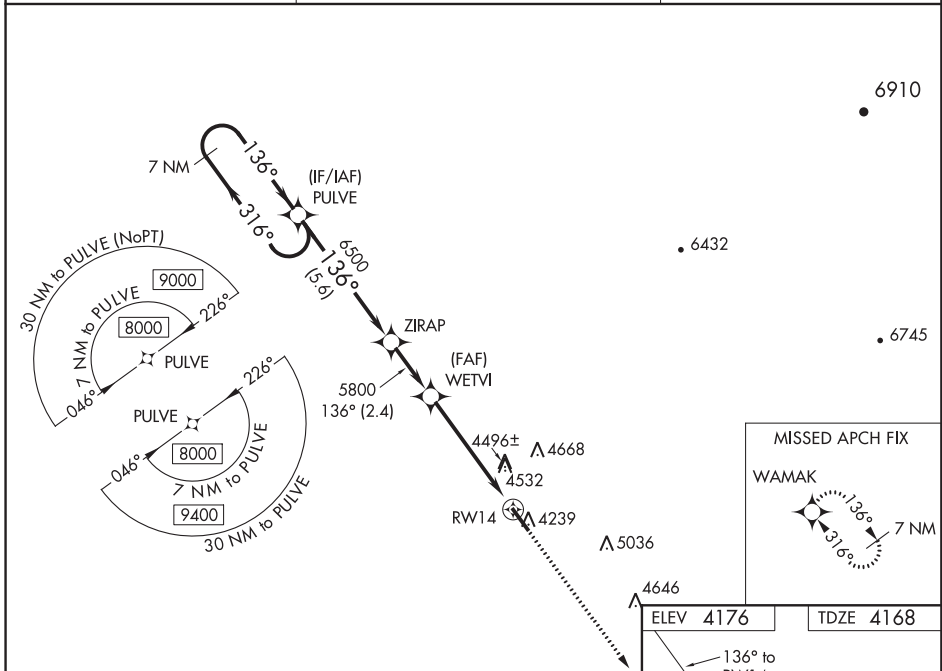
# RNAV (GPS) RWY 14

MONDELL FIELD (ECS)

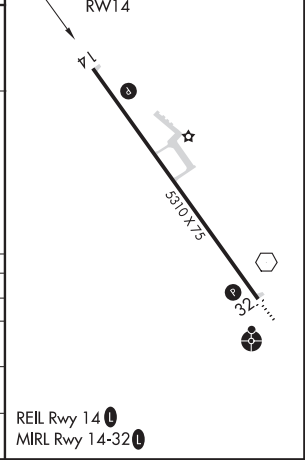
**▼** When Newcastle altimeter setting not received, procedure NA.  
**▲** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 53°C (128°F). Circling NA east of Rwy 14-32.  
 DME/DME RNP-0.3 NA. Procedure NA for Cat C and D aircraft at night.  
 Helicopter visibility reduction below 3/4 SM not authorized.

**MISSED APPROACH:** Climb to 9400 direct WAMAK and hold, continue climb-in-hold to 9400.

AWOS-3PT <b>118.0</b>	DENVER CENTER <b>127.95 338.2</b>	UNICOM <b>122.8 (CTAF) 1</b>
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CATEGORY	A	B	C	D
LPV DA		4418-1	250 (300-1)	
LNAV/VNAV DA		4846-2 1/2	678 (700-2 1/2)	
LNAV MDA	4920-1 752 (800-1)	4920-1 1/4 752 (800-1 1/4)	4920-2	752 (800-2)
<b>C</b> CIRCLING	4920-1 744 (800-1)	4920-1 1/4 744 (800-1 1/4)	4920-2 1/4 744 (800-2 1/4)	5000-2 3/4 824 (900-2 3/4)



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WAAS PA CH <b>61225</b> <b>W32A</b>	APP CRS <b>316°</b>	Rwy Idg TDZE Apt Elev	<b>5310</b> <b>4176</b> <b>4176</b>
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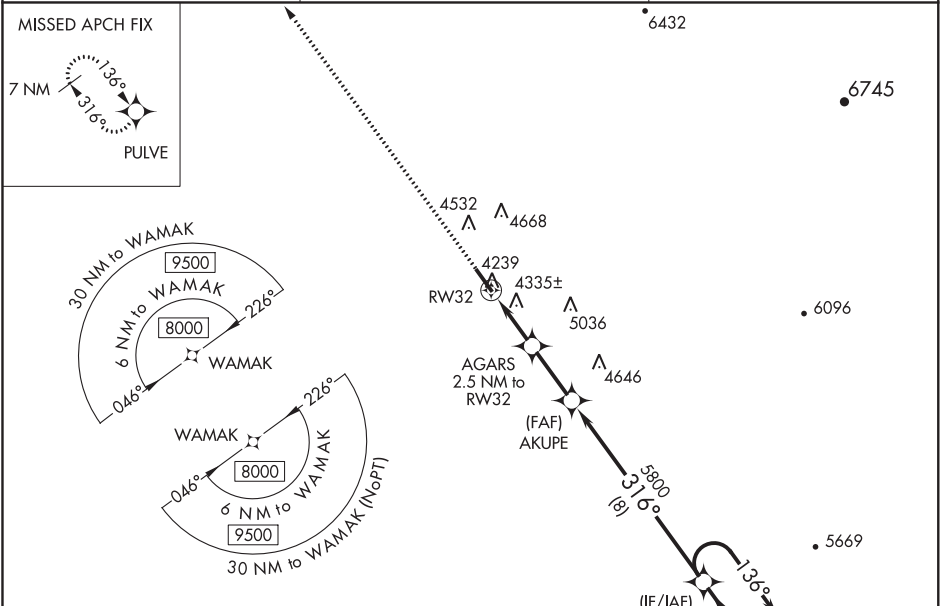
# RNAV (GPS) RWY 32

MONDELL FIELD (E/C/S)

**⚠** When Newcastle altimeter setting not received, procedure NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 53°C (128°F). DME/DME RNP-0.3 NA. Circling NA east of Rwy 14-32. For inoperative ODAL, increase LNAV/VNAV visibility all Cats and LNAV Cats C/D ½ mile. Inoperative table does not apply to LPV all Cats and LNAV Cats A/B.

**ODALS** MISSED APPROACH: Climb to 9500 direct PULVE and hold, continue climb-in-hold to 9500.

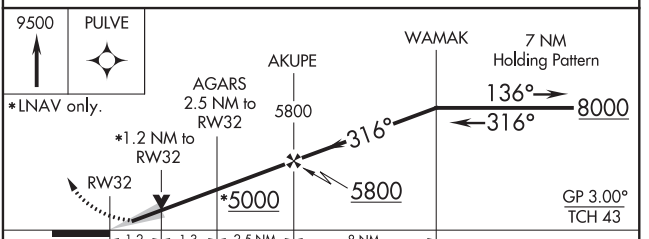
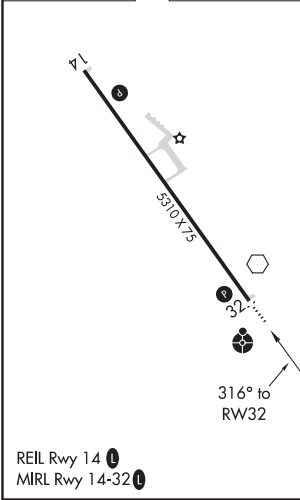
AWOS-3PT <b>118.0</b>	DENVER CENTER <b>127.95 338.2</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

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ELEV <b>4176</b>	TDZE <b>4176</b>
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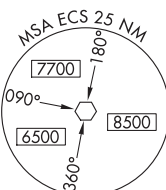
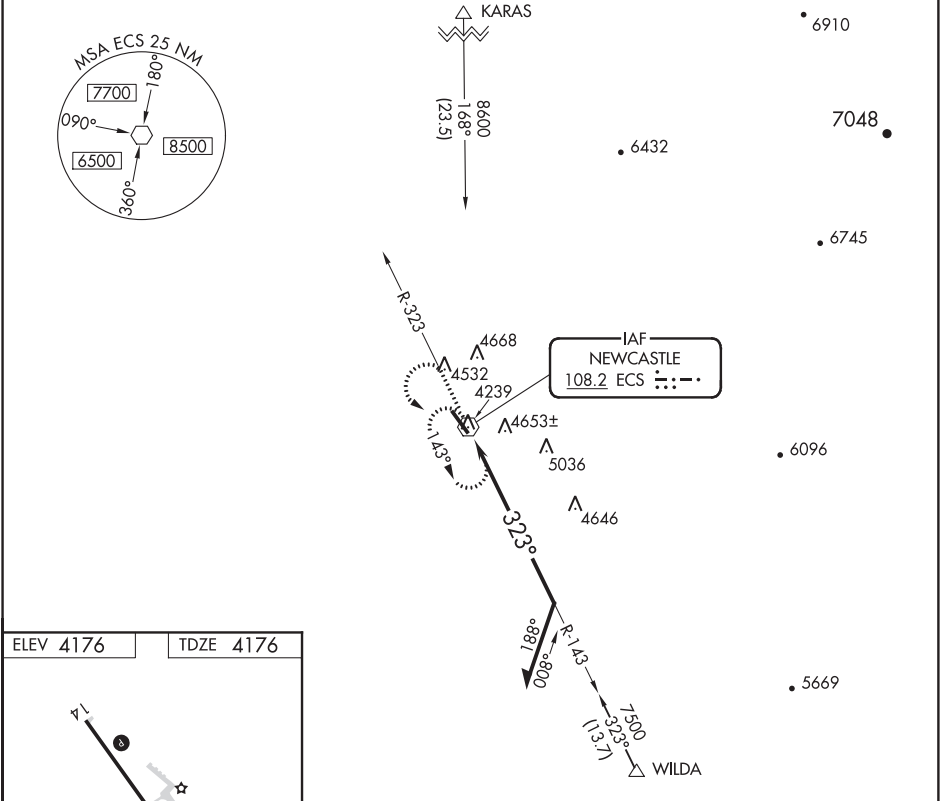
CATEGORY	A	B	C	D
LPV DA	4385-1 209 (300-1)			
LNAV/VNAV DA	4618-1 3/8 442 (500-1 3/8)			
LNAV MDA	4600-1	424 (500-1)	4600-1 1/8	424 (500-1 1/8)
<b>C</b> CIRCLING	4700-1	524 (600-1)	4720-1 1/2 544 (600-1 1/2)	5000-2 3/4 824 (900-2 3/4)

VOR ECS <b>108.2</b>	APP CRS <b>323°</b>	Rwy Idg TDZE Apt Elev	<b>5310</b> <b>4176</b> <b>4176</b>
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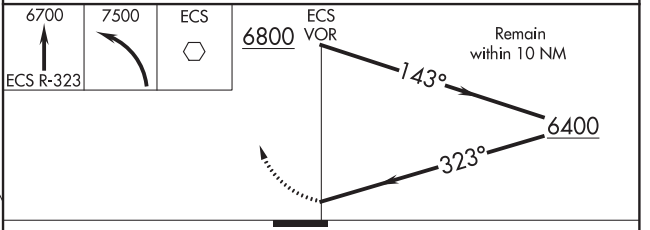
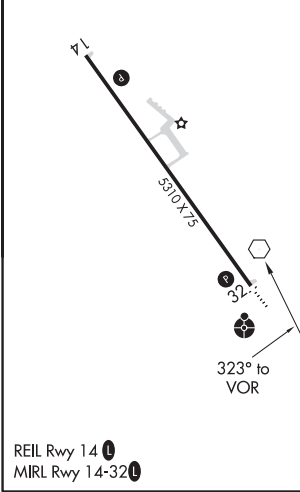
**VOR RWY 32**  
MONDELL FIELD (ECS)

	When Newcastle altimeter setting not received, procedure NA. Circling NA NE of Rwy 14-32.		MISSED APPROACH: Climb to 6700 on ECS VOR R-323 then climbing left turn to 7500 direct ECS VOR and hold, continue climb-in-hold to 7500.
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AWOS-3PT <b>118.0</b>	DENVER CENTER <b>127.95 338.2</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV 4176	TDZE 4176
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CATEGORY	A	B	C	D
S-32	4980-3/4 804 (900-3/4)	4980-1 804 (900-1)	4980-2 1/2 804 (900-2 1/2)	804 (900-2 1/2)
CIRCLING	4980-1 804 (900-1)	4980-1 1/4 804 (900-1 1/4)	4980-2 1/2 804 (900-2 1/2)	5000-2 3/4 824 (900-2 3/4)

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APP CRS	Rwy Idg	<b>5098</b>
<b>331°</b>	TDZE	<b>158</b>
	Apt Elev	<b>160</b>

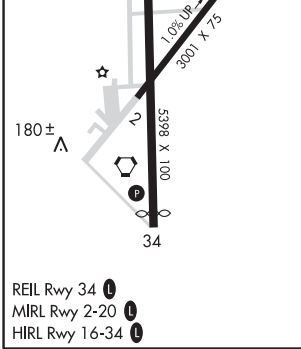
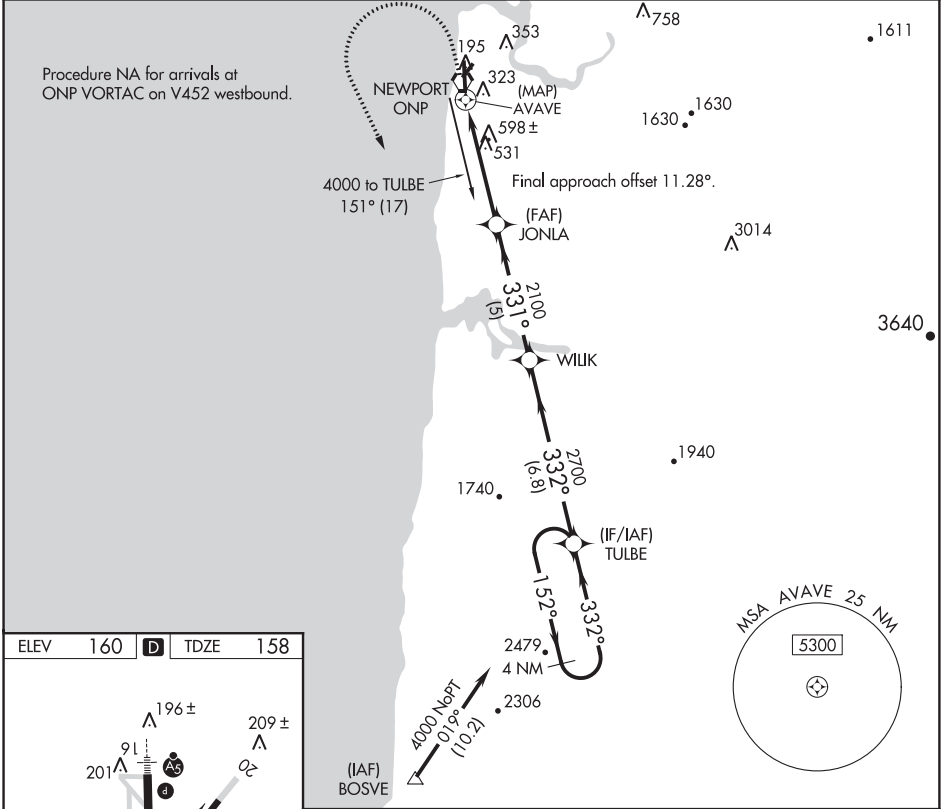
# RNAV (GPS) RWY 34

NEWPORT MUNI (ONP)

**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA. VDP NA when using Tillamook altimeter setting. When local altimeter setting not received, use Tillamook altimeter setting and increase all MDA 140 feet, and increase LNAV all Cats visibility and Circling Cat A/B/C visibility ½ mile.

**⚠** MISSED APPROACH: Climb to 2500 then climbing left turn to 4000 direct TULBE and hold.

AWOS-3 <b>133.9</b>	SEATTLE CENTER <b>125.8 291.7</b>	UNICOM <b>122.8 (CTAF) 0</b>
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2500	4000	TULBE	4 NM Holding Pattern	
1.2 NM to AVAVE		JONLA	WILIK	TULBE
AVAVE	3.50° TCH 58	2100	2700	4000
0.5	1.2 NM	3.4 NM	5 NM	6.8 NM
CATEGORY	A	B	C	D
LNAV MDA	860-1	702 (700-1)	860-2	702 (700-2)
<b>C</b> CIRCLING	880-1	720 (800-1)	940-2 ¼ 780 (800-2 ¼)	1220-3 1060 (1100-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



VORTAC ONP <b>117.1</b> Chan <b>118</b>	APP CRS <b>331°</b>	Rwy Idg TDZE <b>158</b> Apt Elev <b>160</b>	<b>5098</b>
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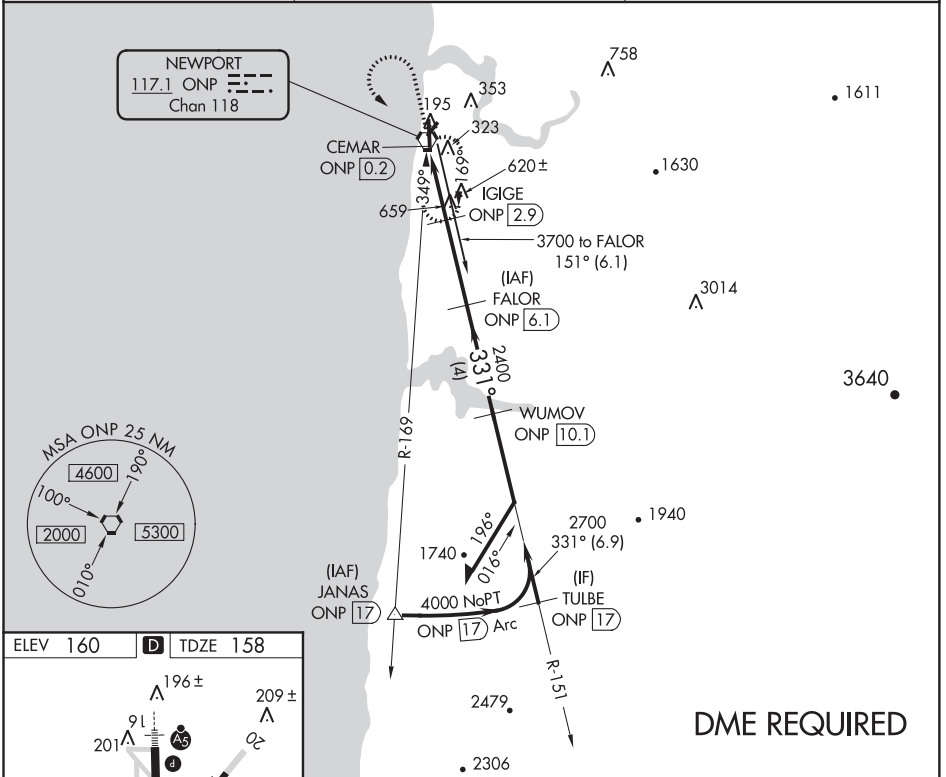
# VOR RWY 34

NEWPORT MUNI (ONP)

**⚠** DME required. Helicopter visibility reduction below ¾ SM NA. VDP NA when using Tillamook altimeter setting. When local altimeter setting not received, use Tillamook altimeter setting; increase all MDA 140 feet; increase S-34 Cat B/C/D visibility ½ mile and increase Circling Cat B visibility ¼ mile.

MISSED APPROACH: Climb to 2400 then climbing left turn to 4000 direct ONP VORTAC and hold, continue climb-in-hold to 4000.

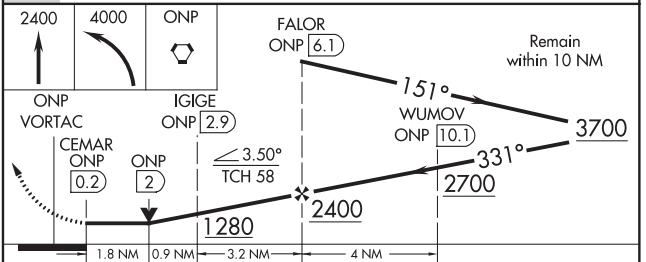
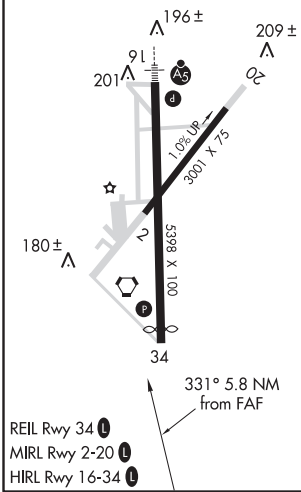
AWOS-3 <b>133.9</b>	SEATTLE CENTER <b>125.8 291.7</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 160	<b>D</b>	TDZE 158
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CATEGORY	A	B	C	D
S-34	880-1	722 (800-1)	880-2	722 (800-2)
<b>C</b> CIRCLING	880-1 720 (800-1)	1000-1¼ 840 (900-1¼)	1400-3 1240 (1300-3)	1600-3 1440 (1500-3)



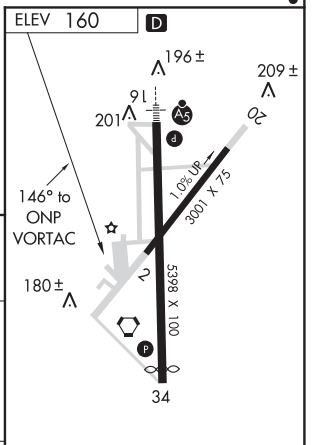
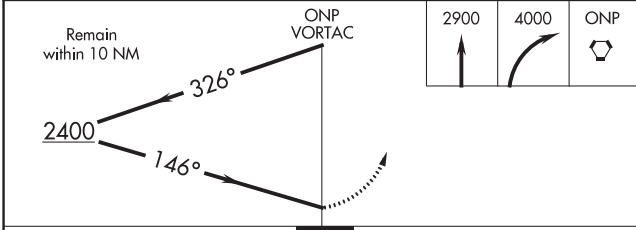
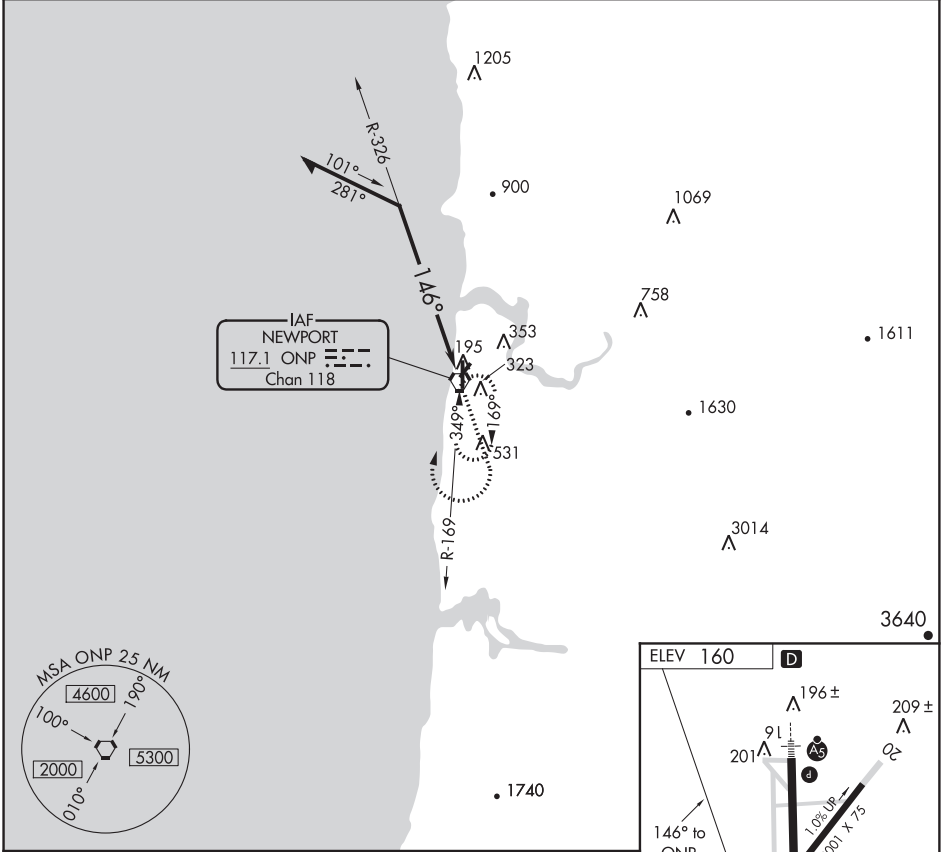
VORTAC ONP <b>117.1</b> Chan <b>118</b>	APP CRS <b>146°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>160</b>
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**VOR-A**  
NEWPORT MUNI (ONP)

**⚠** When local altimeter setting not received, use Tillamook altimeter setting:  
**⚠** increase all MDA 140 feet, increase Circling Cat B and C visibility ¼ mile.

**MISSED APPROACH:** Climb to 2900 then climbing right turn to 4000 direct ONP VORTAC and hold, continue climb-in-hold to 4000.

AWOS-3 <b>133.9</b>	SEATTLE CENTER <b>125.8 291.7</b>	UNICOM <b>122.8</b> (CTAF) <b>Ⓛ</b>
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CATEGORY	A	B	C	D
<b>Ⓢ</b> CIRCLING	1060-1¼	900 (900-1¼)	1060-2¾ 900 (900-2¾)	1220-3 1060 (1100-3)

REIL Rwy 34 **Ⓛ**  
 MRL Rwy 2-20 **Ⓛ**  
 HIRL Rwy 16-34 **Ⓛ**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# NEWPORT ONE DEPARTURE (OBSTACLE)

SL-735 (FAA)

NEWPORT MUNI (ONP)  
NEWPORT, OREGON


## DEPARTURE ROUTE DESCRIPTION

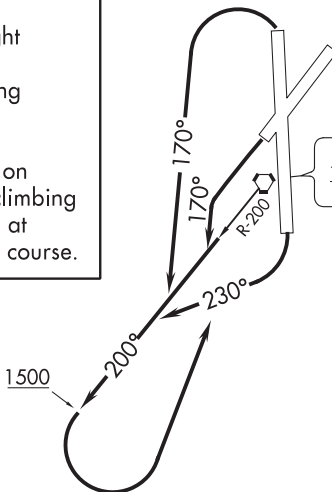
**TAKEOFF RUNWAY 16:** Climbing right turn heading 230°, thence. . . .

**TAKEOFF RUNWAYS 20, 34:** Climbing left turn heading 170°, thence. . . .

. . . . Intercept and proceed outbound on ONP VORTAC R-200 to 1500, then climbing left turn direct ONP VORTAC to cross at or above 2200 before proceeding on course.

SEATTLE CENTER  
125.8 291.7  
McMINNVILLE RADIO  
122.45

NEWPORT  
117.1 ONP   
Chan 118  
2200



NOTE: Chart not to scale.

### TAKEOFF MINIMUMS

Rwy 2: NA-Obstacles.

Rwy 16: 500-2¾ or standard with minimum climb of 265' per NM to 800.

Rwys 20, 34: Standard.

### TAKEOFF OBSTACLE NOTES

Rwy 16: Tree and terrain beginning 82' from DER, 87' left of centerline, up to 213' MSL. Tree and building beginning 137' from DER, 261' right of centerline, up to 171' MSL. Trees beginning 783' from DER, 370' right of centerline, up to 238' MSL. Trees beginning 1262' from DER, 66' right of centerline, up to 253' MSL. Tree and terrain beginning 1476' from DER, 786' left of centerline, up to 220' MSL. Trees beginning 1750' from DER, 931' left of centerline, up to 239' MSL. Trees beginning 1786' from DER, 247' right of centerline, up to 256' MSL. Trees beginning 2062' from DER, 41' left of centerline, up to 259' MSL. Trees beginning 2145' from DER, 109' right of centerline, up to 267' MSL. Trees beginning 2309' from DER, 172' right of centerline, up to 273' MSL. Trees beginning 2402' from DER, 717' right of centerline, up to 282' MSL. Trees beginning 3840' from DER, 434' left of centerline, up to 262' MSL. Trees beginning 1.2 NM from DER, 2098' left of centerline, up to 386' MSL. Tower and trees beginning 1.3 NM from DER, 1398' left of centerline, up to 152' AGL/422' MSL. Tree 1.5 NM from DER, 2974' left of centerline, 426' MSL. Trees beginning 1.7 NM from DER, 3260' left of centerline, up to 465' MSL. Trees beginning 2.1 NM from DER, 3602' left of centerline, up to 539' MSL. Trees, transmission line tower and pole beginning 2.2 NM from DER, 3464' left of centerline, up to 584' MSL.

Rwy 20: General utility 5' from DER, 80' left of centerline, 1' AGL/132' MSL. Building 312' from DER, 564' right of centerline, 39' AGL/159' MSL. Tree 449' from DER, 494' right of centerline, 163' MSL. Bush 700' from DER, 491' left of centerline, 153' MSL. Tree 2822' from DER, 1160' left of centerline, 220' MSL. Tree 3043' from DER, 1197' left of centerline, 223' MSL.

Rwy 34: Tree 212' from DER, 408' left of centerline, 167' MSL. Tree 319' from DER, 524' left of centerline, 175' MSL. Trees beginning 965' from DER, 356' left of centerline, up to 189' MSL. Trees beginning 1420' from DER, 571' left of centerline, up to 196' MSL. Trees beginning 1487' from DER, 186' right of centerline, up to 209' MSL. Tree 1564' from DER, 897' left of centerline, 202' MSL. Tree 2004' from DER, 1016' right of centerline, 219' MSL. Tree 2054' from DER, 874' right of centerline, 232' MSL. Tree 2201' from DER, 934' right of centerline, 234' MSL. Trees beginning 2419' from DER, 1120' right of centerline, up to 241' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# NEWPORT ONE DEPARTURE (OBSTACLE)

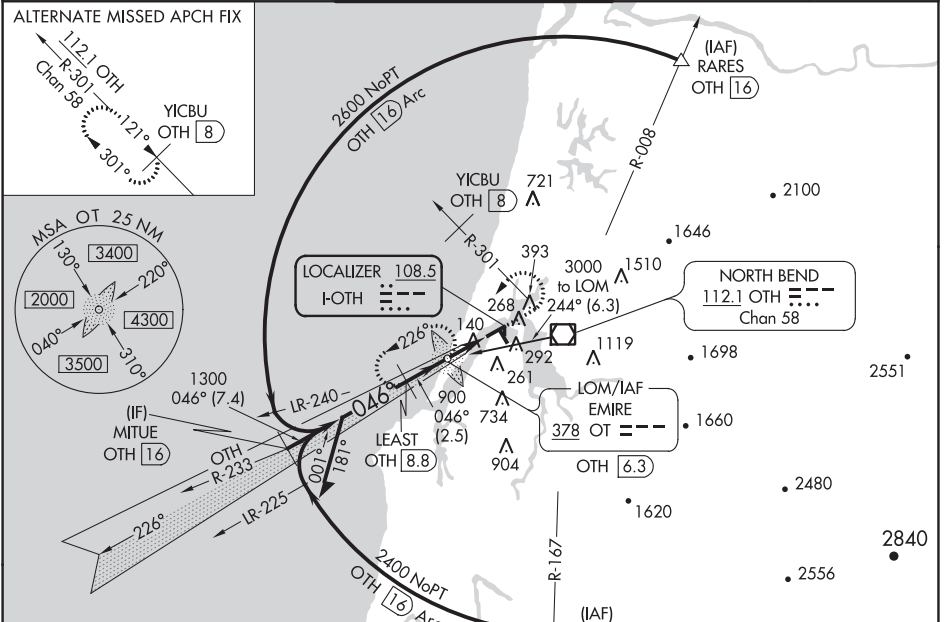
LOC I-OTH <b>108.5</b>	APP CRS <b>046°</b>	Rwy ldg TDZE Apt Elev	<b>5320</b> <b>16</b> <b>17</b>
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# ILS or LOC RWY 4

SOUTHWEST OREGON RGNL (OTH)

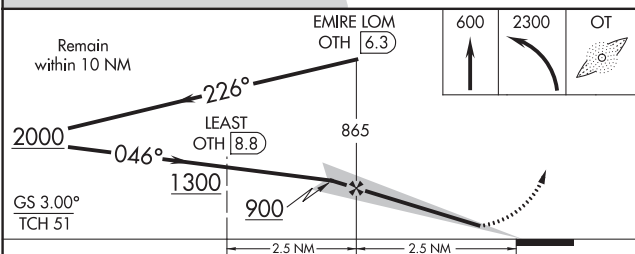
<p><b>▼</b> Night landing: Rwy 31 NA. For inop MALSR, increase S-ILS 4 all Cats visibility to ½ mile, S-LOC 4 Cat C/D visibility to 1½ mile. ADF and DME required.</p> <p><b>▲</b> *Missed approach requires minimum climb of 248 feet per NM to 800.</p>	<p><b>MALSR</b></p>	<p><b>MISSED APPROACH:</b> Climb to 600 then climbing left turn to 2300 direct EMIRE LOM and hold, continue climb-in-hold to 2300.</p>
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AWOS-3 <b>135.075</b>	SEATTLE CENTER <b>121.4 254.35</b>	<b>NORTH BEND TOWER *</b> <b>118.45 (CTAF) 0</b>	MC MINNVILLE RADIO <b>122.4 255.4</b>	GND CON <b>127.1</b>
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**ADF AND DME REQUIRED**

ELEV 17	<b>D</b>	TDZE 16
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CATEGORY	A	B	C	D
S-ILS 4*		216-½	200 (200-½)	
S-ILS 4		278-½	262 (300-½)	
S-LOC 4	400-½	384 (400-½)	400-¾	384 (400-¾)
<b>C</b> CIRCLING	680-1 663 (700-1)	820-1 803 (900-1)	1100-3 1083 (1100-3)	1180-3 1163 (1200-3)

F knots	60	90	120	150	180
Min:Sec	2:30	1:40	1:15	1:00	0:50

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NORTH BEND, OREGON

AL-929 (FAA)

15176

APP CRS	Rwy Idg	<b>5320</b>
<b>046°</b>	TDZE	<b>16</b>
	Apt Elev	<b>17</b>

# RNAV (RNP) Z RWY 4

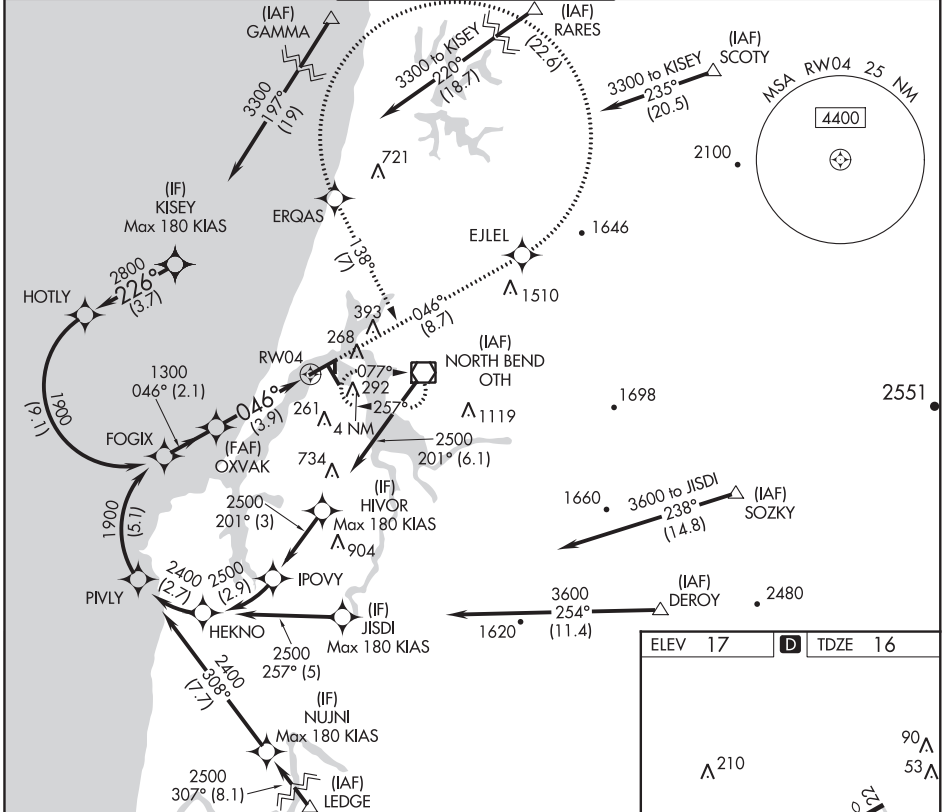
SOUTHWEST OREGON RGNL (OTH)

**V** RF required. GPS required. For inop MALS, increase RNP 0.30# all Cats visibility to 1½ mile. For uncompensated Baro-VNAV systems, procedure NA below -2°C (29°F) or above 54°C (130°F).  
 \* Missed approach requires a minimum climb of 400 feet per NM to 1200.  
 # Missed approach requires a minimum climb of 255 feet per NM to 2400.

**MALS**

**MISSED APPROACH:** Climb to 3300 on track 046° to EJLEL, left turn to ERQAS, and on track 138° to OTH VOR/DME and hold.

AWOS-3 <b>135.075</b>	SEATTLE CENTER <b>121.4 254.35</b>	NORTH BEND TOWER* <b>118.45 (CTAF)</b>	MC MINNVILLE RADIO <b>122.4 255.4</b>	GND CON <b>127.1</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

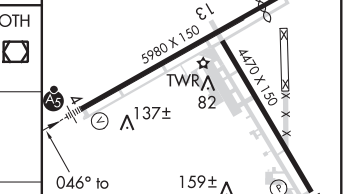
NW-1, 10 NOV 2016 to 05 JAN 2017

See planview for multiple IF locations.

FOGIX	OXVAK	EJLEL	ERQAS	OTH
1900	1300	fr 046°	fr 138°	

GP 3.00°  
TCH 51

2.1 NM      3.9 NM



CATEGORY	A	B	C	D
RNP 0.11 DA*		309-½	293 (300-½)	
RNP 0.30 DA #		477-1½	461 (500-1½)	
RNP 0.30 DA		569-1¾	553 (600-1¾)	

**AUTHORIZATION REQUIRED**

HIRL Rwy 4-22

MIRL Rwy 13-31

REIL Rwy 13, 22 and 31

NORTH BEND, OREGON

Amtd 1 25JUN15

43°25'N-124°15'W

SOUTHWEST OREGON RGNL (OTH)

# RNAV (RNP) Z RWY 4

WAAS CH <b>82416</b> <b>W04A</b>	APP CRS <b>046°</b>	Rwy Idg TDZE Apt Elev	<b>5320</b> <b>16</b> <b>17</b>
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# RNAV (GPS) Y RWY 4

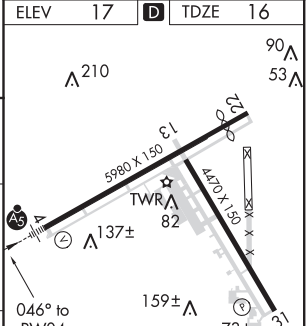
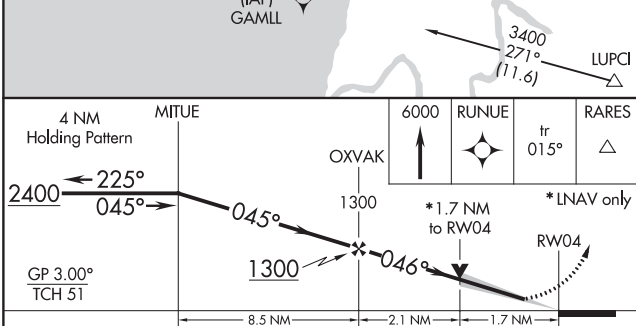
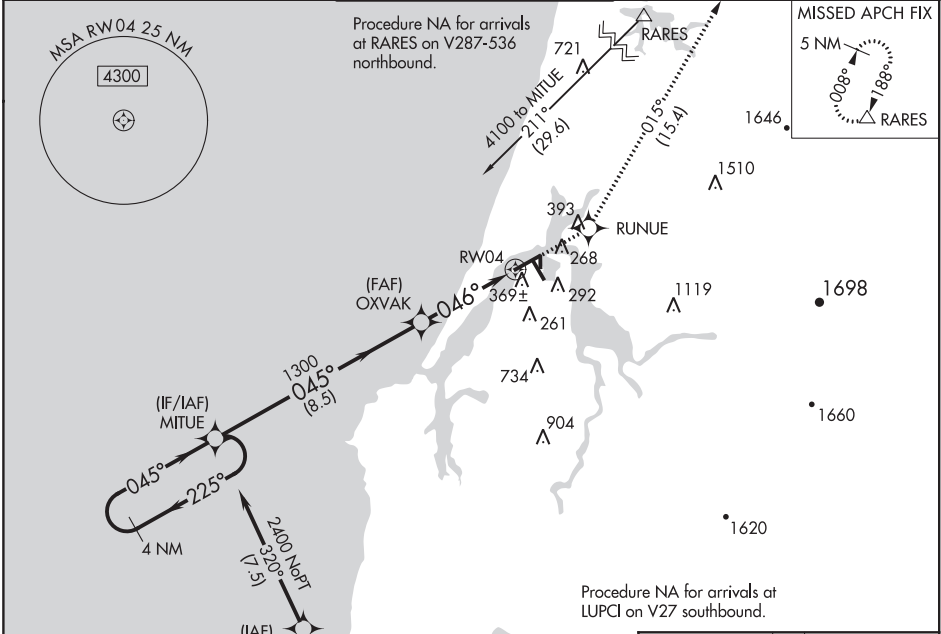
SOUTHWEST OREGON RGNL (OTH)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -2°C (29°F) or above 54°C (130°F). DME/DME RNP- 0.3 NA. For inop MALSR, increase LPV all Cats visibility to 1 mile, LNAV/VNAV all Cats visibility to 1¼ mile, and increase LNAV Cat C/D visibility to 1¾ mile. Night landing: Rwy 31 NA.

**MALSR**  
**AS**

**MISSED APPROACH:** Climb to 6000 direct RUNUE and on track 015° to RARES and hold, continue climb-in-hold to 6000.

AWOS-3 <b>135.075</b>	SEATTLE CENTER <b>121.4 254.35</b>	NORTH BEND TOWER * <b>118.45 (CTAF)</b>	MC MINNVILLE RADIO <b>122.4 255.4</b>	GND CON <b>127.1</b>
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CATEGORY	A	B	C	D
LPV DA		319-½	303 (400-½)	
LNAV/VNAV DA		550-1⅜	534 (600-1⅜)	
LNAV MDA	620-½	604 (700-½)	620-1⅜	604 (700-1⅜)
<b>C</b> CIRCLING	680-1 663 (700-1)	820-1 803 (900-1)	1100-3 1083 (1100-3)	1160-3 1143 (1200-3)

HIRL Rwy 4-22

MIRL Rwy 13-31

REIL Rws 13, 22 and 31

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NORTH BEND, OREGON

AL-929 (FAA)

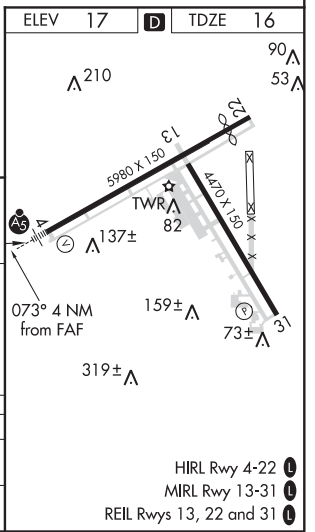
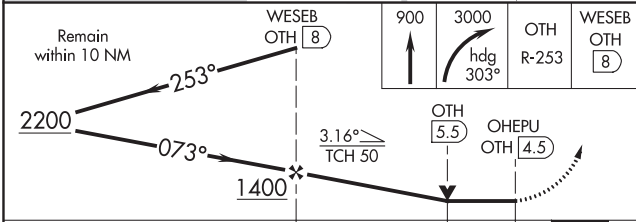
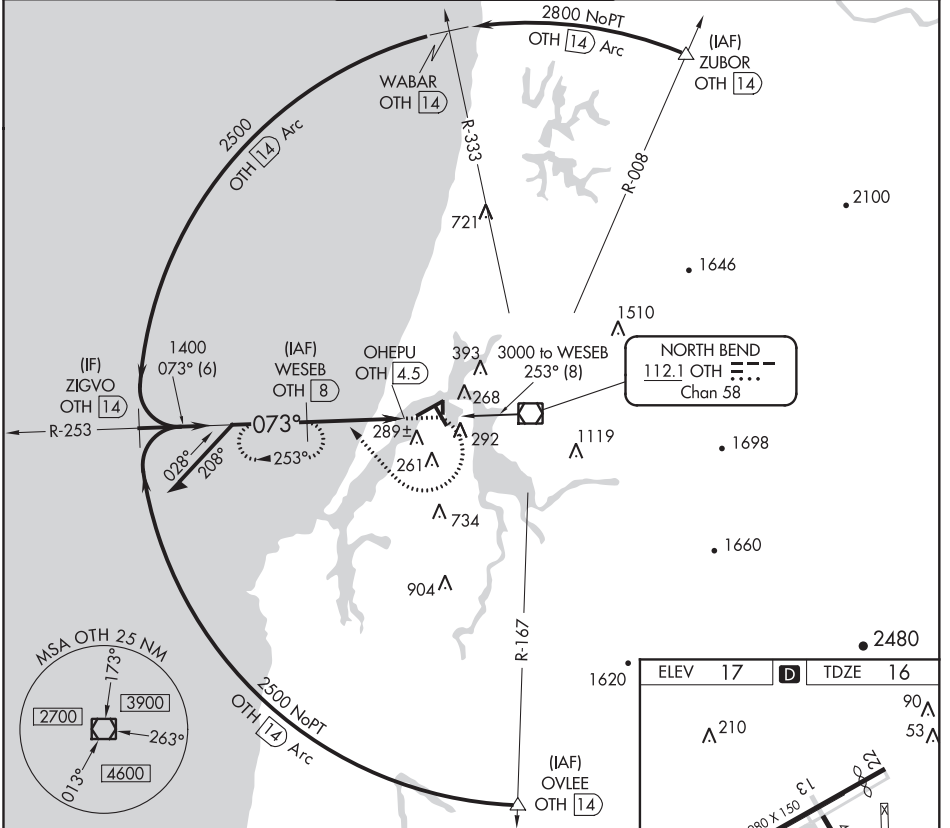
15176

VOR/DME OTH <b>112.1</b> Chan <b>58</b>	APP CRS <b>073°</b>	Rwy Idg TDZE Apt Elev	<b>5320</b> <b>16</b> <b>17</b>
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**VOR/DME RWY 4**  
SOUTHWEST OREGON RGNL (OTH)

<b>▼</b> <b>▲</b>	Night Landing: Rwy 31 NA. Inoperative table does not apply.	MALSR 	MISSED APPROACH: Climb to 900 then climbing right turn to 3000 on heading 303° and on OTH VOR/DME R-253 to WESEB/8 DME and hold, continue climb-in-hold to 3000.
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AWOS-3 <b>135.075</b>	SEATTLE CENTER <b>121.4 254.35</b>	NORTH BEND TOWER* <b>118.45</b> (CTAF)	MC MINNVILLE RADIO <b>122.4 255.4</b>	GND CON <b>127.1</b>
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CATEGORY	A	B	C	D
S-4	540-1	524 (600-1)	540-1½	524 (600-1½)
CIRCLING	680-1 663 (700-1)	820-1 803 (900-1)	1100-3 1083 (1100-3)	1160-3 1143 (1200-3)

NORTH BEND, OREGON  
Amdt 11 25JUN15

43°25'N-124°15'W

SOUTHWEST OREGON RGNL (OTH)  
**VOR/DME RWY 4**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



VOR/DME OTH <b>112.1</b> Chan <b>58</b>	APP CRS <b>257°</b>	Rwy Idg TDZE Apt Elev	N/A N/A <b>17</b>
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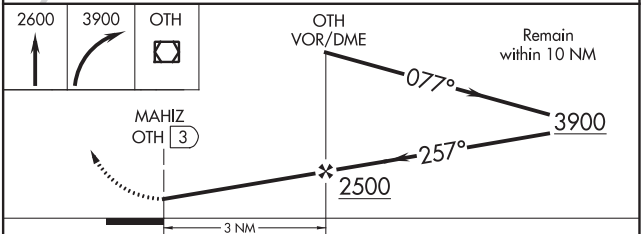
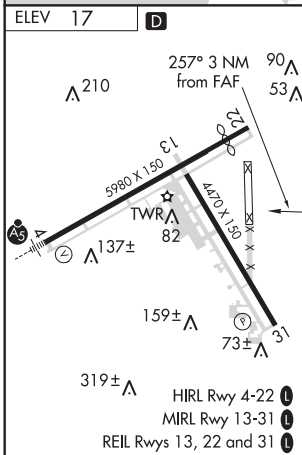
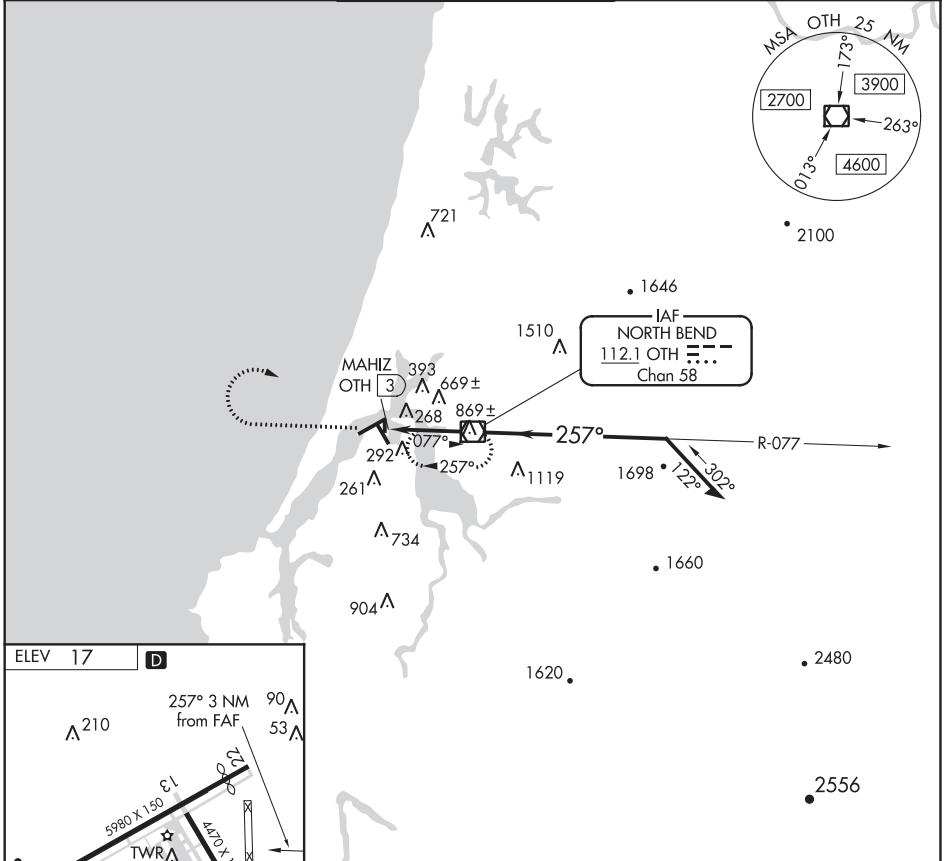
# VOR-A

SOUTHWEST OREGON RGNL (OTH)

**T** Night Landing: Rwy 31 NA.  
**A** Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 2600 then climbing right turn to 3900 direct OTH VOR/DME and hold.

AWOS-3 <b>135.075</b>	SEATTLE CENTER <b>121.4 254.35</b>	NORTH BEND TOWER * <b>118.45</b> (CTAF) <b>0</b>	MC MINNVILLE RADIO <b>122.4 255.4</b>	GND CON <b>127.1</b>
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FAF to MAP 3 NM					
Knots	60	90	120	150	180
Min:Sec	3:00	2:00	1:30	1:12	1:00
CIRCLING	A 1300-1¼ 1283 (1300-1¼)	B 1300-1½ 1283 (1300-1½)	C 1300-3	D 1283 (1300-3)	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



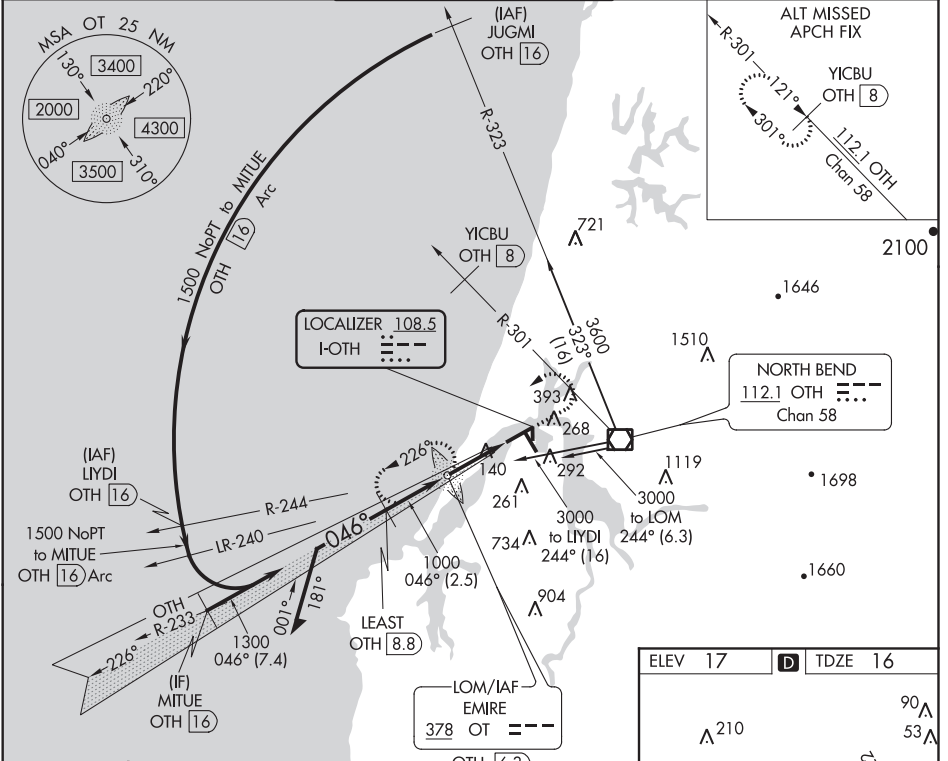
LOC I-OTH <b>108.5</b>	APP CRS <b>046°</b>	Rwy Idg <b>5320</b>
		TDZE <b>16</b>
		Apt Elev <b>17</b>

# COPTER ILS or LOC RWY 4

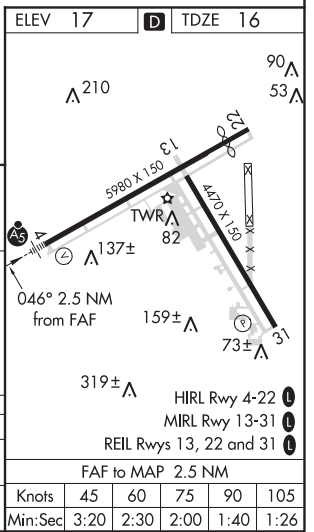
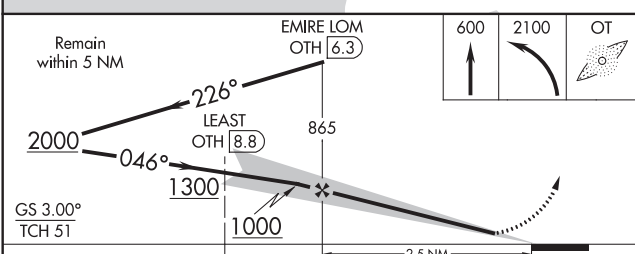
SOUTHWEST OREGON RGNL (OTH)

ADF and DME required. MISSED APPROACH: Climb to 600 then climbing left turn to 2100 direct EMIRE LOM and hold, continue climb-in-hold to 2100.

AWOS-3 <b>135.075</b>	SEATTLE CENTER <b>121.4 254.35</b>	NORTH BEND TOWER * <b>118.45 (CTAF)</b>	MC MINNVILLE RADIO <b>122.4 255.4</b>	GND CON <b>127.1</b>
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## ADF and DME REQUIRED



CATEGORY	COPTER	
H-ILS 4	216-½	200 (200-½)
H-LOC 4	400-½	384 (400-½)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

SOUTHWEST OREGON RGNL (OTH)  
NORTH BEND, OREGON

AL-929 (FAA)

AWOS-3  
135.075  
NORTH BEND TOWER ★  
118.45  
GND CON  
127.1

D

43°26'N

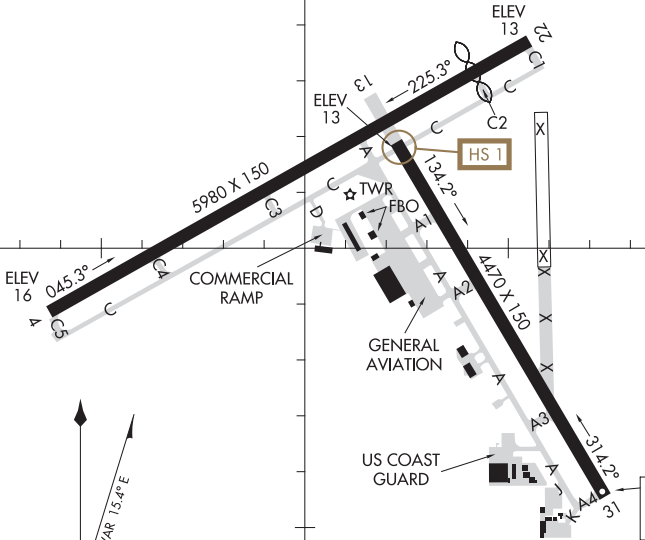
RWY 04-22  
S-106, D-113, 2S-143, 2D-190  
RWY 13-31  
S-90, D-100, 2S-127, 2D-100

△ 207

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

43°25'N



VAR 15.4°E  
 JANUARY 2015  
 ANNUAL RATE OF CHANGE  
 0.1° W

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

43°24'N

124°15'W

124°14'W

# AIRPORT DIAGRAM

NORTH BEND, OREGON  
SOUTHWEST OREGON RGNL (OTH)

(OTH6.OTH) 16147

# NORTH BEND SIX DEPARTURE

SL-929 (FAA)

SOUTHWEST OREGON RGNL(OTH)  
NORTH BEND, OREGON

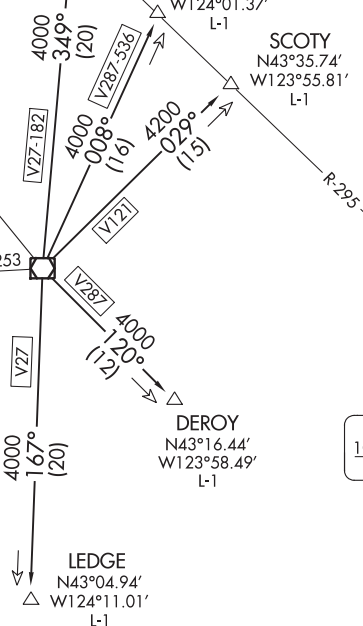
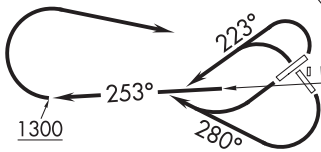
SEATTLE CENTER  
121.4 239.0

GAMMA  
N43°44.89'  
W124°08.28'  
L-1

RARES  
N43°39.62'  
W124°01.37'  
L-1

SCOTY  
N43°35.74'  
W123°55.81'  
L-1

NORTH BEND  
112.1 OTH  
Chan 58  
N43°24.93'-W124°10.11'



ROSEBURG  
108.2 RBG  
Chan 19

NOTE: DME required.

### TAKEOFF MINIMUMS

- Rwy 4: 900-3 with minimum climb of 300' per NM to 900 or Standard with minimum climb of 475' per NM to 1200.
- Rwy 13: 400-1 with minimum climb of 330' per NM to 1200.
- Rwy 22: Standard.
- Rwy 31: 300-1½ or Standard with minimum climb of 280' per NM to 300.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4, 31: Climbing left turn heading 223° and on OTH R-253 thence . . .

TAKEOFF RUNWAYS 13, 22: Climbing right turn heading 280° and on OTH R-253 thence . . .

. . . continue climb on OTH R-253 to 1300 then right turn direct OTH VOR/DME, then on assigned transition.

DEROY TRANSITION (OTH6.DEROY): From over OTH VOR/DME on OTH R-120 to DEROY INT.

GAMMA TRANSITION (OTH6.GAMMA): From over OTH VOR/DME on OTH R-349 to GAMMA INT.

LEDGE TRANSITION (OTH6.LEDGE): From over OTH VOR/DME on OTH R-167 to LEDGE INT.

RARES TRANSITION (OTH6.RARES): From over OTH VOR/DME on OTH R-008 to RARES INT.

SCOTY TRANSITION (OTH6.SCOTY): From over OTH VOR/DME on OTH R-029 to SCOTY INT.

NORTH BEND SIX DEPARTURE  
(OTH6.OTH) 25JUN15

NORTH BEND, OREGON  
SOUTHWEST OREGON RGNL(OTH)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

TAKEOFF OBSTACLE NOTES

- Rwy 4: Obstruction light on antenna 383' from DER, 207' right of centerline, 22' AGL/35' MSL.  
 Ship 1000' from DER, on centerline, up to 140' MSL.  
 Obstruction light on bridge 1886' from DER, 629' left of centerline, 89' AGL/93' MSL.  
 Transmission towers beginning 4259' from DER, 677' right of centerline, up to 215' AGL/228' MSL.  
 Bridge beginning 4741' from DER, 580' right of centerline, up to 265' AGL/268' MSL.  
 Trees beginning 1.2 NM from DER, 34' left of centerline, up to 150' AGL/660' MSL.  
 Buildings beginning 1.6 NM from DER, 897' right of centerline, up to 147' AGL/767' MSL.  
 Buildings beginning 1.6 NM from DER, 776' left of centerline, up to 73' AGL/393' MSL.
- Rwy 13: Bushes beginning 38' from DER, 175' left of centerline, up to 18' AGL/33' MSL.  
 Vehicle on road, 193' from DER, 237' left of centerline, up to 15' AGL/30' MSL.  
 Bush 193' from DER; 145' right of centerline, up to 20' AGL/ 37' MSL.  
 Trees beginning 346' from DER, 49' right of centerline, up to 62' AGL/76' MSL.  
 Buildings beginning 504' from DER, 211' right of centerline, up to 65' AGL/106' MSL.  
 Tree 628' from DER, 52' left of centerline, 24' AGL/38' MSL.  
 Poles beginning 880' from DER, 14' right of centerline, up to 77' AGL/114' MSL.  
 Trees beginning 2537' from DER, left and right of centerline, up to 150' AGL/349' MSL.  
 Spire 3467' from DER, 1122' left of centerline, 55' AGL/243' MSL.  
 Poles beginning 1 NM from DER, left and right of centerline, up to 140' AGL/247' MSL.
- Rwy 22: Ship 4050' from DER, on centerline, up to 140' MSL.
- Rwy 31: Ship 1000' from DER, on centerline, up to 140' MSL.  
 Trees beginning 5037' from DER, 15' left of centerline, up to 82' AGL/232' MSL.  
 Trees beginning 5985' from DER, 1419' right of centerline, up to 108' AGL/188' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>071°</b>	Rwy Idg <b>2758</b>
	TDZE <b>193</b>
	Apt Elev <b>193</b>

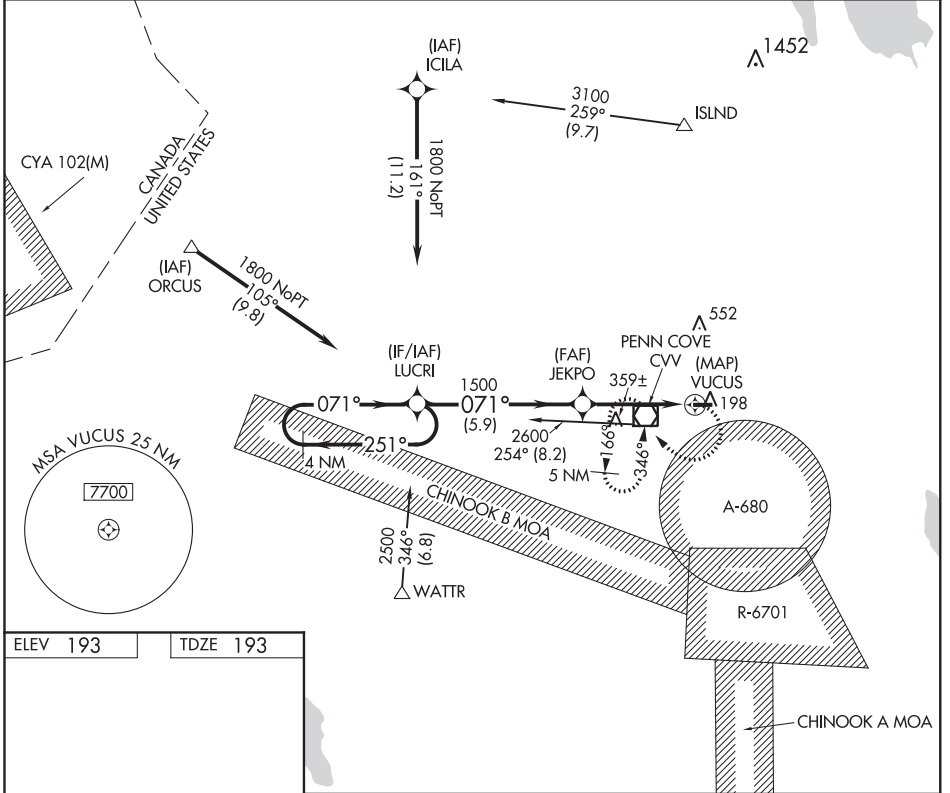
# RNAV (GPS) RWY 7

AJ EISENBERG (OKH)

**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. Circling north of Rwy 7-25 NA at night.  
**⚠** When local altimeter setting not received, use Whidbey Island NAS altimeter setting and increase all MDAs 40 feet.  
 Night landing: Rwy 25 NA.

**MISSED APPROACH:** Climbing right turn to 3400 direct CVV VOR/DME and hold, continue climb-in-hold to 3400.

AWOS-3 <b>132.775</b>	WHIDBEY ATIS <b>134.15 281.5</b>	WHIDBEY APP CON <b>118.2 285.65</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 193	TDZE 193
----------	----------

0 3265 X 25  
1.6% UP  
071° to VUCUS

LIRL Rwy 7-25


4 NM Holding Pattern	LUCRI	Descent Angle NA.	3400	CW
1800	← 251°	071° →	071°	VUCUS
		JEKPO	1500	
		5.9 NM	4 NM	0.1
CATEGORY	A	B	C	D
LNAV MDA	620-1	427 (500-1)		NA
CIRCLING	620-1	660-1	427 (500-1)	467 (500-1)
				NA

LOC I-OLM <b>111.9</b>	APP CRS <b>172°</b>	Rwy Idg <b>5500</b> TDZE <b>207</b> Apt Elev <b>209</b>
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# ILS or LOC RWY 17

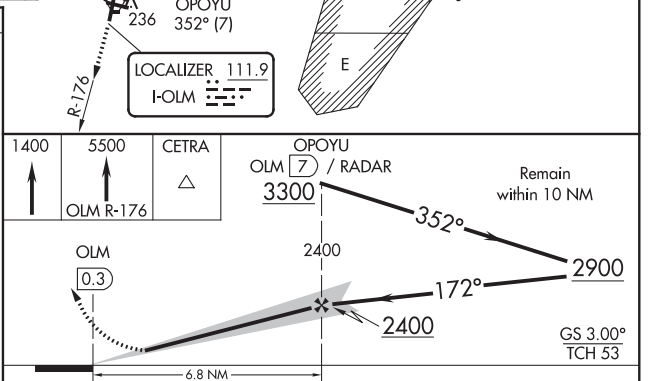
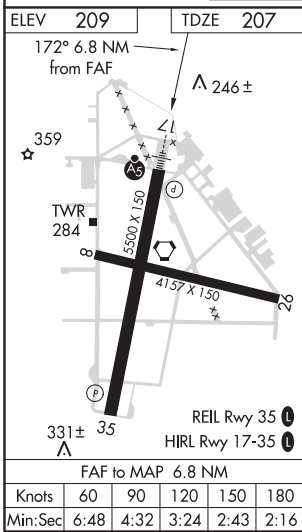
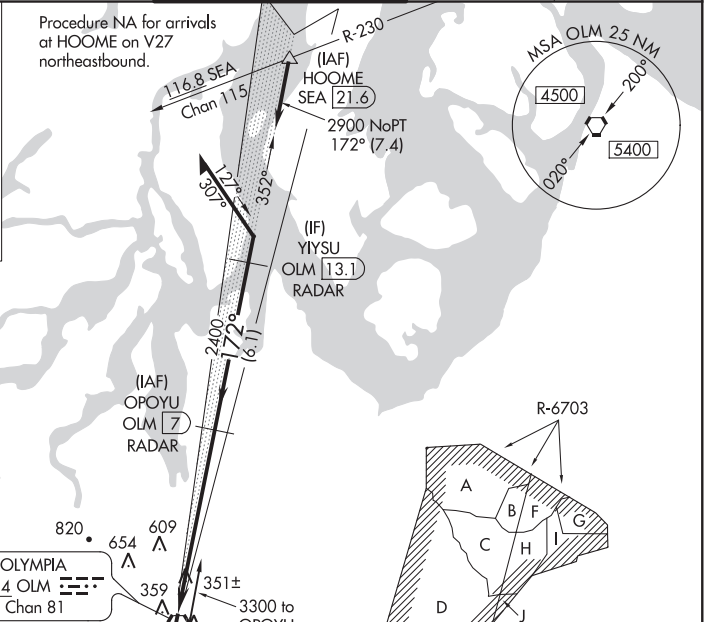
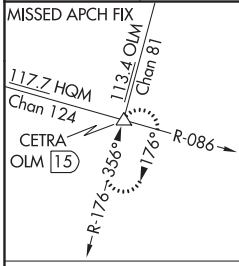
OLYMPIA RGNL (OLM)

**⚠** DME or RADAR required. When local altimeter setting not received, use Sanderson Field altimeter setting and increase all DA 53 feet and all MDA 60 feet, and increase S-LOC 17 Cats C and D visibility ¼ mile. For inoperative MALSR, when using Sanderson Field altimeter setting, increase S-ILS 17 all Cats visibility to ¾ mile.

**MALSR**  


**MISSED APPROACH:** Climb to 1400 then climb to 5500 on OLM VORTAC R-176 to CETRA INT/OLM 15 DME and hold, continue climb-in-hold to 5500.

ATIS <b>135.725</b>	SEATTLE APP CON <b>121.1 290.9</b>	OLYMPIA TOWER* <b>124.4 (CTAF) 254.25</b>	GND CON <b>121.6</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
S-ILS 17	425-½ 218 (300-½)			
S-LOC 17	640-½	433 (500-½)	640-¾	433 (500-¾)
<b>CIRCLING</b>	720-1 511 (600-1)	860-1 651 (700-1)	1020-2½ 811 (900-2½)	1020-2¾ 811 (900-2¾)

NW-1, 10 NOV 2016 to 05 JAN 2017


NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>45599</b> <b>W17A</b>	APP CRS <b>172°</b>	Rwy Idg <b>5500</b> TDZE <b>207</b> Apt Elev <b>209</b>
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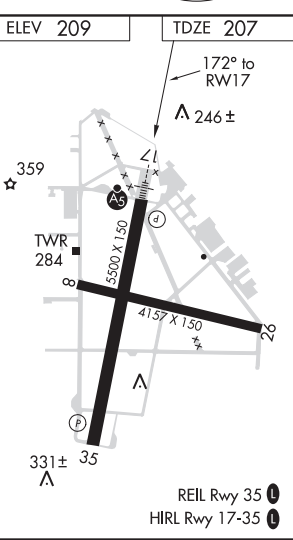
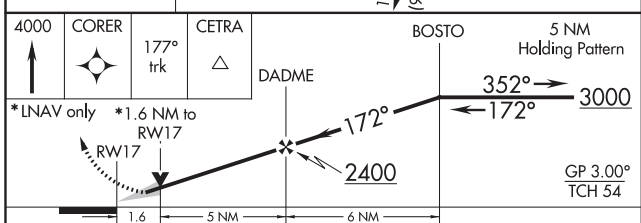
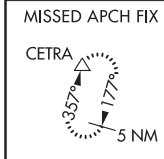
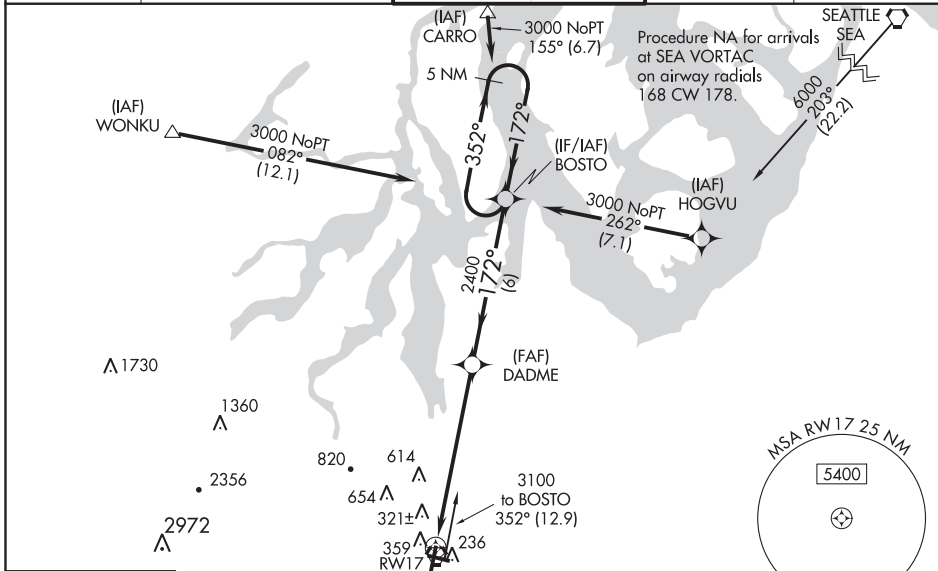
# RNAV (GPS) RWY 17

OLYMPIA RGNL (OLM)

**▽** DME/DME RNP-0.3 NA. For inoperative MALSR, increase LPV visibility all Cats to 1 1/4.  
**▲** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). When local altimeter setting not received, use Sanderson Field altimeter setting and increase all DA 53 feet and all MDA 60 feet; increase LPV and LNAV/VNAV visibility all Cats, LNAV Cats C/D and Circling visibility Cats C/D 1/2 mile. VDP and Baro-VNAV NA when using Sanderson Field altimeter setting.

**MALSR**  
 MISSED APPROACH: Climb to 4000 direct CORER and via 177° track to CETRA and hold, continue climb-in-hold to 4000.

ATIS <b>135.725</b>	SEATTLE APP CON <b>121.1 290.9</b>	OLYMPIA TOWER* <b>124.4</b> (CTAF) <b>0 254.25</b>	GND CON <b>121.6</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA	590-3/4 383 (400-3/4)			
LNAV/VNAV DA	636-1 429 (500-1)			
LNAV MDA	760-1/2 553 (600-1/2)	760-1 553 (600-1)	760-1 553 (600-1)	760-1 1/4 553 (600-1 1/4)
CIRCLING	760-1 551 (600-1)	820-1 3/4 611 (700-1 3/4)	860-2 651 (700-2)	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

OLYMPIA, WASHINGTON

AL-645 (FAA)

14317

APP CRS	Rwy Idg	<b>5500</b>
<b>352°</b>	TDZE	<b>208</b>
	Apt Elev	<b>209</b>

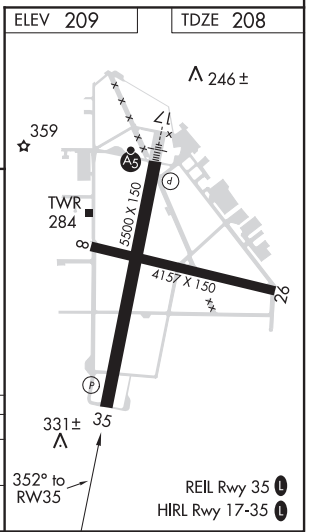
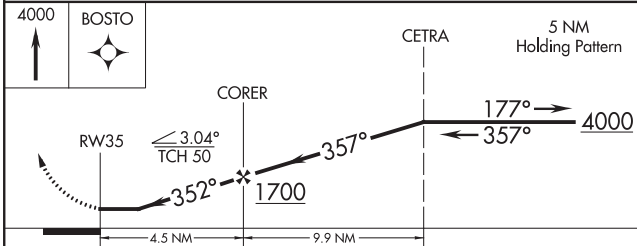
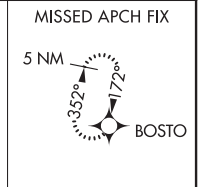
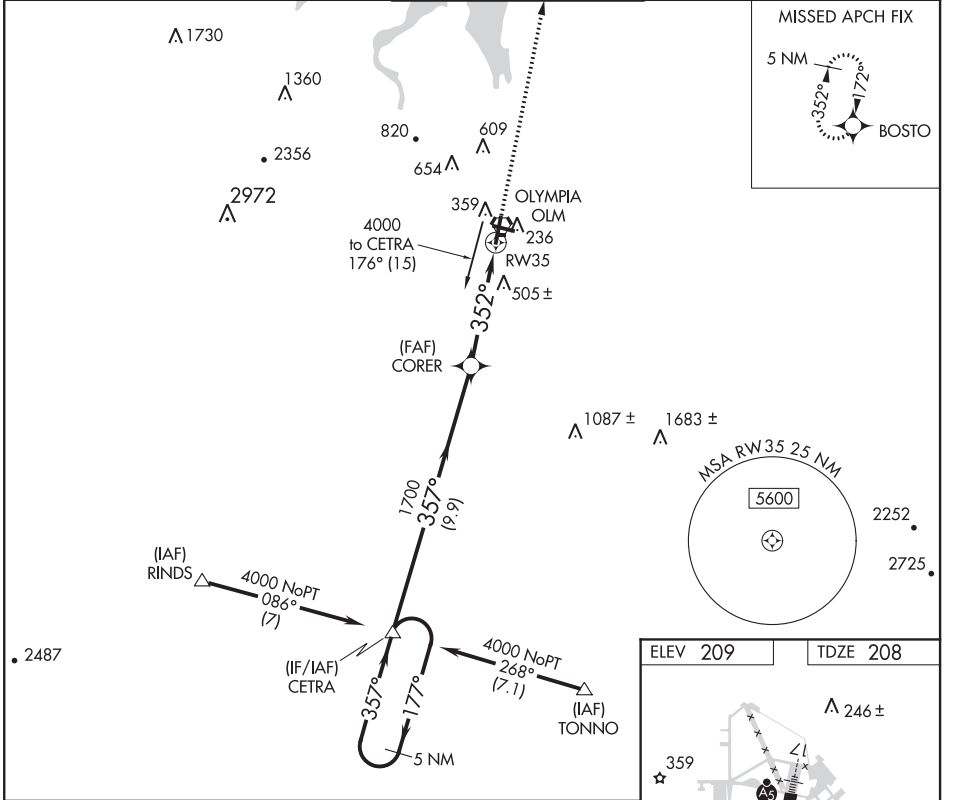
# RNAV (GPS) RWY 35

OLYMPIA RGNL (OLM)

**⚠** When local altimeter setting not received, use Sanderson Field altimeter setting and increase all MDAs 60 feet; increase visibility LNAV Cats C/D ¼ mile and circling Cat D ¼ mile.  
**⚠** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

**MISSED APPROACH:** Climb to 4000 direct BOSTO and hold, continue climb-in-hold to 4000.

ATIS <b>135.725</b>	SEATTLE APP CON <b>121.1 290.9</b>	OLYMPIA TOWER* <b>124.4 (CTAF) 254.25</b>	GND CON <b>121.6</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LNAV MDA	760-1	552 (600-1)	760-1½ 552 (600-1½)	760-1¾ 552 (600-1¾)
CIRCLING	760-1	551 (600-1)	820-1¾ 611 (700-1¾)	860-2 651 (700-2)

OLYMPIA, WASHINGTON  
 Orig-A 07MAY09

46°58'N-122°54'W

# OLYMPIA RGNL (OLM) RNAV (GPS) RWY 35

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



VORTAC OLM <b>113.4</b> Chan <b>81</b>	APP CRS <b>356°</b>	Rwy Idg <b>5500</b> TDZE <b>208</b> Apt Elev <b>209</b>
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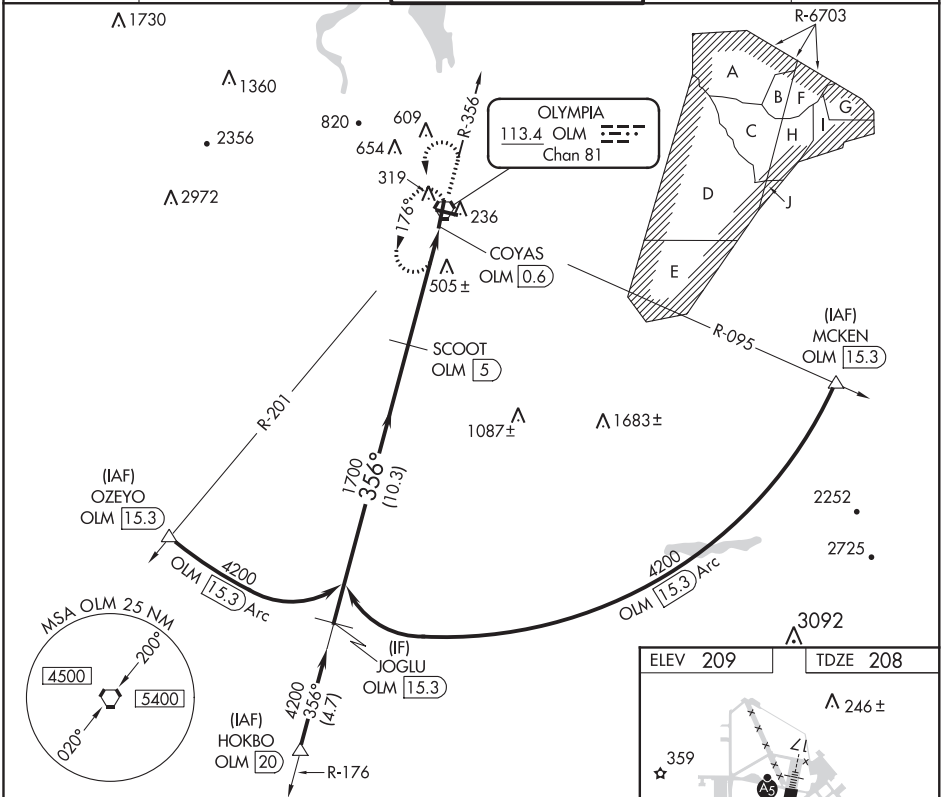
# VOR/DME RWY 35

OLYMPIA RGNL (OLM)

**▽** When local altimeter setting not received, use Sanderson Field altimeter setting and increase all MDAs 60 feet; increase visibility S-35 Cats C/D ¼ mile and circling Cat D ½ mile.

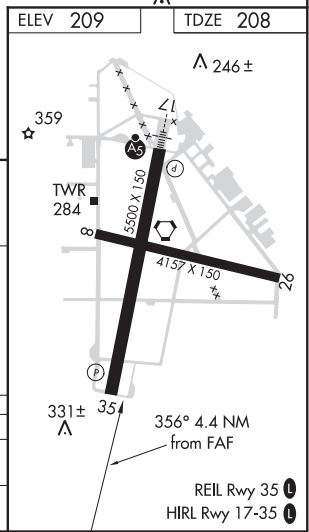
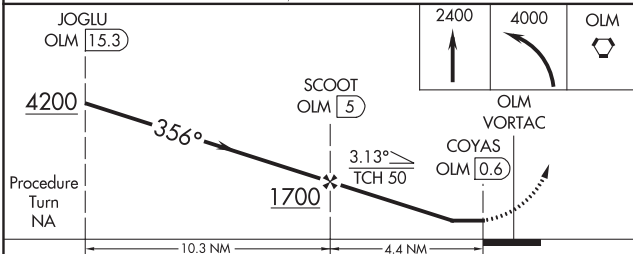
**MISSED APPROACH:** Climb to 2400, then climbing left turn to 4000 direct OLM VORTAC and hold, continue climb-in-hold to 4000.

ATIS <b>135.725</b>	SEATTLE APP CON <b>121.1 290.9</b>	OLYMPIA TOWER* <b>124.4 (CTAF) 0 254.25</b>	GND CON <b>121.6</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-35	760-1 552 (600-1)		760-1½ 552 (600-1½)	760-1¾ 552 (600-1¾)
CIRCLING	760-1 551 (600-1)		820-1¾ 611 (700-1¾)	860-2 651 (700-2)

OLYMPIA, WASHINGTON

AL-645 (FAA)

14261

VORTAC OLM <b>113.4</b> Chan <b>81</b>	APP CRS <b>171°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>209</b>
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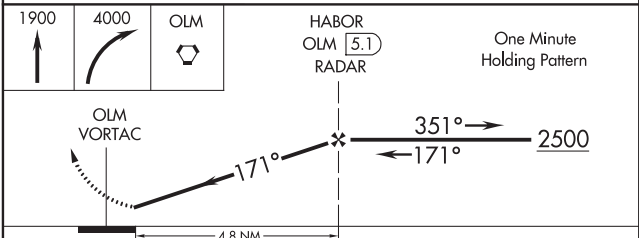
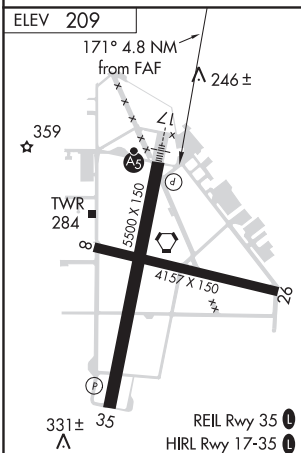
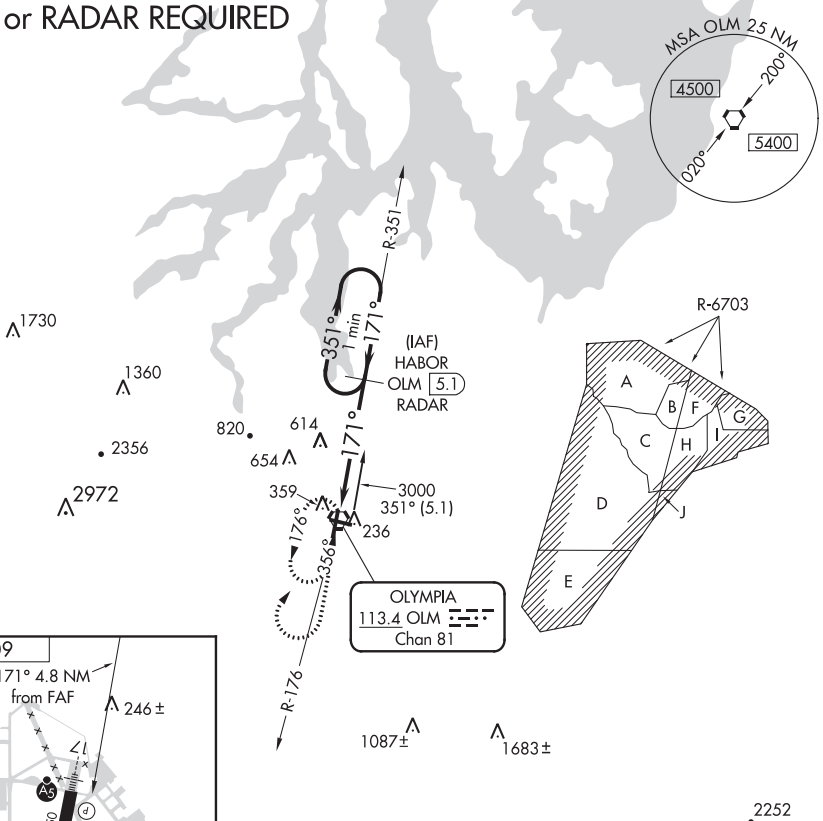
**VOR-A**  
OLYMPIA RGNL (OLM)

**⚠** When local altimeter setting not received, use Sanderson Field altimeter setting and increase all MDA 60 feet. DME or RADAR required.

**⚠** MISSED APPROACH: Climb to 1900 then climbing right turn to 4000 direct OLM VORTAC and hold, continue climb-in-hold to 4000.

ATIS <b>135.725</b>	SEATTLE APP CON <b>121.1 290.9</b>	OLYMPIA TOWER* <b>124.4</b> (CTAF) <b>254.25</b>	GND CON <b>121.6</b>	UNICOM <b>122.95</b>
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**DME or RADAR REQUIRED**



FAF to MAP 4.8 NM						
Knots	60	90	120	150	180	
Min:Sec	4:48	3:12	2:24	1:55	1:36	
CATEGORY	A		B		C	D
CIRCLING	880-1 671 (700-1)		880-2 671 (700-2)		880-2 1/4 671 (700-2 1/4)	

OLYMPIA, WASHINGTON  
Amdt 1B 18SEP14

46°58'N-122°54'W

OLYMPIA RGNL (OLM)  
**VOR-A**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

15232

# AIRPORT DIAGRAM

AL-645 (FAA)

OLYMPIA RGNL (OLM)  
OLYMPIA, WASHINGTON

ATIS  
135.725  
OLYMPIA TOWER\*  
124.4 254.25  
GND CON  
121.6

RWY 08-26  
S-30  
RWY 17-35  
S-75, D-94, 2S-87, 2D-142

AIR CARRIER  
TERMINAL

TWR

APPROACH  
HOLD LINE  
ILS  
HOLD LINE  
ELEV 197  
175.2°

HANGAR  
FBO  
TRANSIENT TIEDOWNS  
MUSEUM  
AIRPORT OFFICE  
FBO

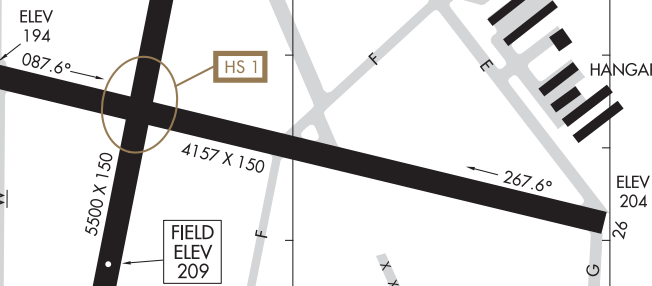
HANGARS

FBO

HANGARS

NW-1, 10 NOV 2016 to 05 JAN 2017

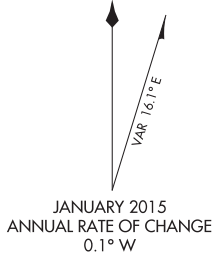
NW-1, 10 NOV 2016 to 05 JAN 2017



46°58.5'N

46°58.0'N

358 ±



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

122°54.5'W

122°54.0'W

122°53.5'W

# AIRPORT DIAGRAM

15232


OLYMPIA, WASHINGTON  
OLYMPIA RGNL (OLM)

(YELM3.YELM) 16203

# YELM THREE DEPARTURE


SL-645 (FAA)


OLYMPIA RGNL (OLM)  
OLYMPIA, WASHINGTON

**TATOOSH**  
112.2 TOU   
Chan 59  
N48°17.99'-W124°37.62'  
L-1, H-1

**TOP ALTITUDE:**  
**2000**


ATIS 135.725  
GND CON 121.6  
OLYMPIA TOWER \* 124.4 (CTAF) 254.25  
SEATTLE DEP CON 121.1 290.9


**PAINE**  
110.6 PAE   
Chan 43  
N47°55.19'-W122°16.67'  
L-1, H-1


**SEATTLE**  
116.8 SEA   
Chan 115  
N47°26.12'-W122°18.58'  
L-1, H-1

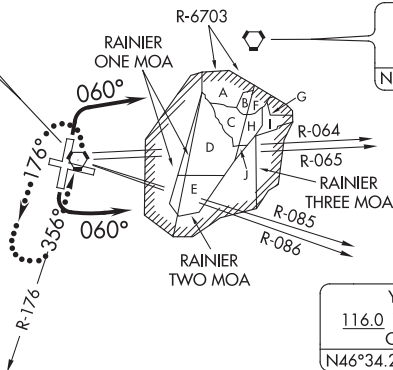
**TAKEOFF MINIMUMS**


Rwys 8, 26: NA- ATC.  
Rwy 17: 300-2 or standard with minimum climb of 706' per NM to 600.  
Rwy 35: Standard.


**OLYMPIA**  
113.4 OLM   
Chan 81  
N46°58.30'-W122°54.11'  
L-1, H-1


**McCHORD**  
109.6 TCM   
Chan 33  
N47°08.86'-W122°28.50'  
L-1

**HOOQUIAM**  
117.7 HQM   
Chan 124  
N46°56.82'-W124°08.96'  
L-1, H-1



**YAKIMA**  
116.0 YKM   
Chan 107  
N46°34.21'-W120°26.68'  
L-13, H-1

**NEWBERG**  
117.4 UBG   
Chan 121  
N45°21.19'-W122°58.69'  
L-1, H-1

**BATTLE GROUND**  
116.6 BTG   
Chan 113  
N45°44.87'-W122°35.49'  
L-1, H-1

**TAKEOFF OBSTACLE NOTES**

Rwy 17: Multiple trees beginning 1005' from DER, 24' left of centerline, up to 100' AGL/490' MSL.  
Multiple trees beginning 752' from DER, 3' right of centerline, up to 100' AGL/370' MSL.  
Rwy 35: Multiple trees beginning 2176' from DER, 198' left of centerline, up to 100' AGL/313' MSL.  
Multiple trees and flood light on hangar beginning 657' from DER, 621' right of centerline, up to 100' AGL/ 315' MSL.

NOTE: RADAR required.  
NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 17:** Turn left. Thence. . . .

**TAKEOFF RUNWAY 35:** Turn right. Thence. . . .

. . . .climb via heading 060°, maintain 2000. Expect RADAR vectors on course and filed altitude within five minutes after departure.

**LOST COMMUNICATIONS:** If no contact with ATC within 6 NM of OLM VORTAC, or 2 minutes after departure for non-DME aircraft, turn left direct OLM VORTAC, continue climb in OLM VORTAC holding pattern to cross OLM VORTAC at or above R-086 CW R-064 4000 feet; R-065 CW R-085 7300 feet, continue climb via assigned route.

# YELM THREE DEPARTURE

(YELM3.YELM) 21JUL16

OLYMPIA, WASHINGTON  
OLYMPIA RGNL (OLM)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>335°</b>	Rwy Idg TDZE Apt Elev	<b>4667</b> <b>1299</b> <b>1301</b>
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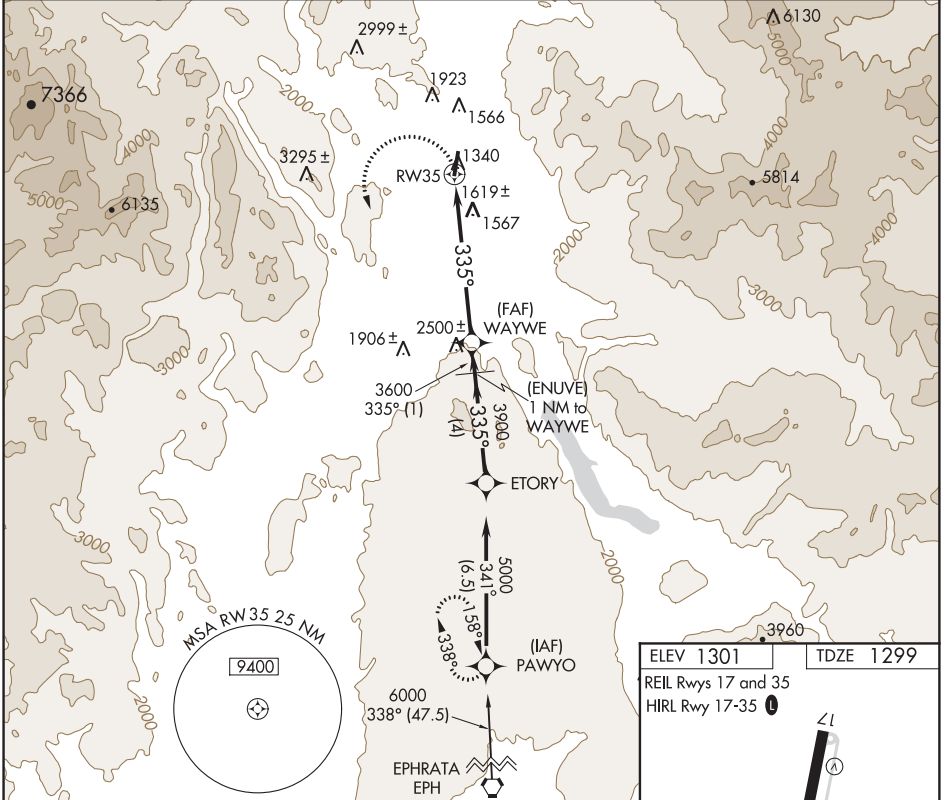
# GPS RWY 35

OMAK (OMK)

**NA**  
-13°C/9°F

MISSED APPROACH: Climbing left turn to 5000 direct PAWYO WP and hold.

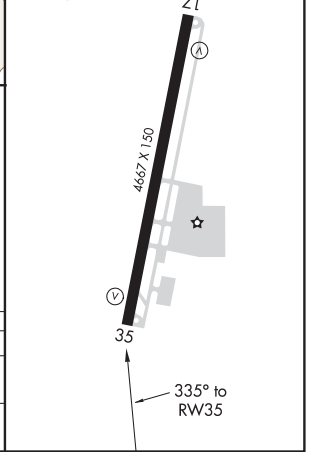
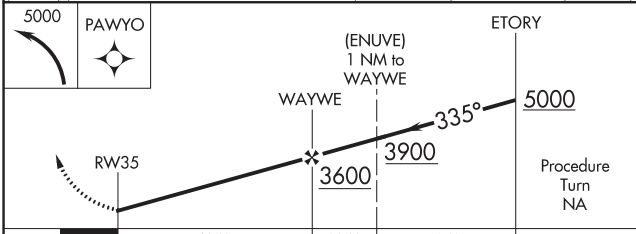
ASOS <b>118.325</b>	SEATTLE CENTER <b>126.1 291.6</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1301	TDZE 1299
REIL Rwys 17 and 35	
HIRL Rwy 17-35	



CATEGORY	A	B	C	D
S-35	2840-1¼ 1541 (1600-1¼)	2840-1½ 1541 (1600-1½)	2840-3	1541 (1600-3)
CIRCLING	2840-1¼ 1539 (1600-1¼)	2840-1½ 1539 (1600-1½)	2840-3 1539 (1600-3)	2880-3 1579 (1600-3)

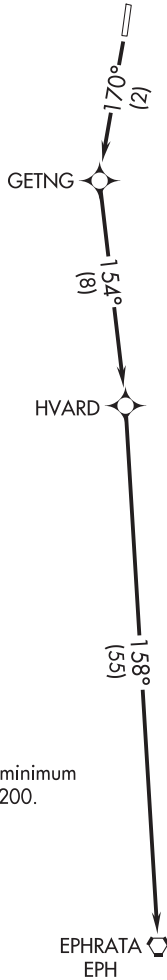
(GETNG1.GETNG) 16147

# GETNG ONE DEPARTURE (OBSTACLE) (RNAV)

SL-5453 (FAA)

OMAK (OMK)  
OMAK, WASHINGTON

SEATTLE CENTER  
126.1 291.6  
SEATTLE RADIO  
122.2



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

### TAKEOFF MINIMUMS

Rwy 17: 2200-2 or standard with a minimum climb of 300' per NM to 4200.

NOTE: GPS required.

NOTE: RNAV 1.

NOTE: Chart not to scale

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb to 4200 via 170° course to GETNG WP, 154° course to HVAR WP, and 158° course to EPH VORTAC. Thence proceed on course.

TAKEOFF RUNWAY 35: NA.

GETNG ONE DEPARTURE (OBSTACLE) (RNAV)

(GETNG1.GETNG) 04NOV99

OMAK, WASHINGTON  
OMAK (OMK)

WAAS CH <b>78207</b> <b>W14A</b>	APP CRS <b>142°</b>	Rwy Idg TDZE Apt Elev	<b>5011</b> <b>2193</b> <b>2193</b>
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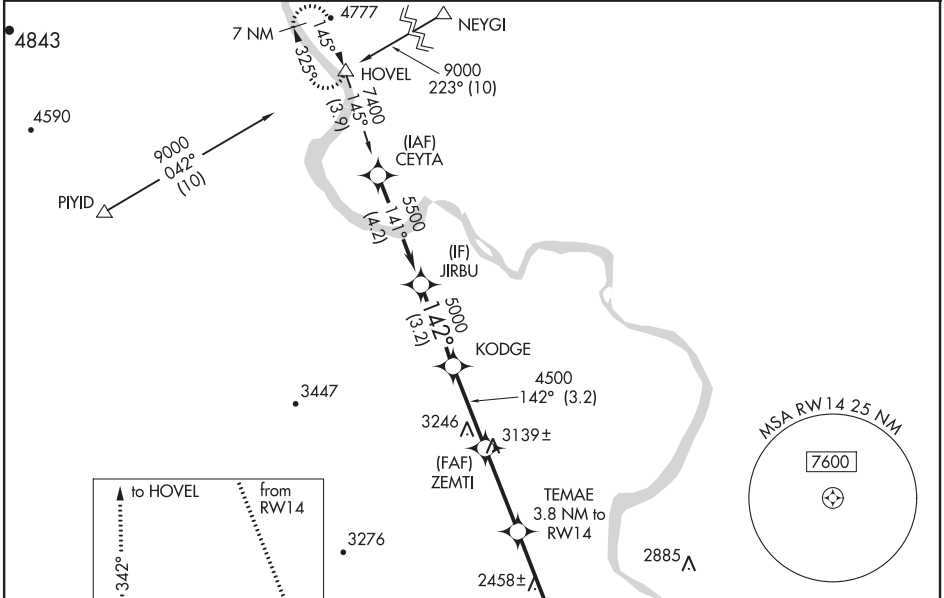
# RNAV (GPS) RWY 14

ONTARIO MUNI (ONO)

**⚠** Baro-VNAV NA when using Caldwell altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 45°C (113°F). DME/DME RNP-0.3 NA.  
Helicopter visibility reduction below 1 SM not authorized. When local altimeter setting not received, use Caldwell altimeter setting and increase DA/MDA 100 feet, and increase LPV visibility ¼ mile all Cats, LNAV/VNAV visibility ½ mile all Cats, LNAV Cat C and D ¼ mile, Circling Cat C ¼ mile. Rwy 14 Straight-in and Circling minimums NA at night.

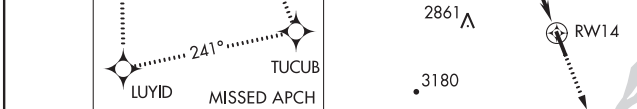
**MISSED APPROACH:** Climb to 9000 direct TUCUB and right turn via 241° track to LUYID and right turn via 342° track to HOVEL and hold.

ASOS <b>135.275</b>	SALT LAKE CENTER <b>128.05 306.95</b>	UNICOM <b>122.8 (CTAF) 0</b>
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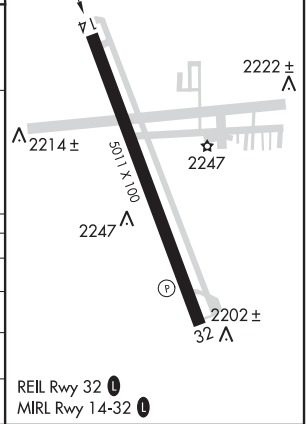
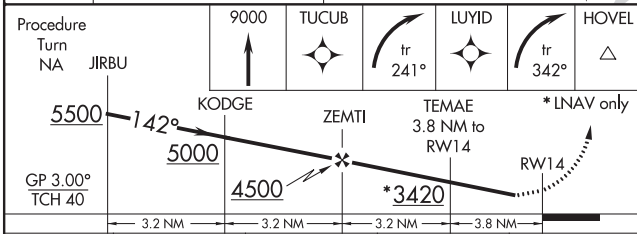


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 2193	TDZE 2193
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CATEGORY	A	B	C	D
LPV DA		2744-2	551 (600-2)	
LNAV/VNAV DA		2781-2	588 (600-2)	
LNAV MDA	2720-1	527 (600-1)	2720-1½ 527 (600-1½)	2720-1¾ 527 (600-1¾)
CIRCLING	2720-1 527 (600-1)	2760-1 567 (600-1)	2760-1½ 567 (600-1½)	2760-2 567 (600-2)

ONTARIO, OREGON

AL-802 (FAA)

15288

WAAS CH <b>87007</b> <b>W32A</b>	APP CRS <b>322°</b>	Rwy Idg TDZE Apt Elev	<b>5011</b> <b>2193</b> <b>2193</b>
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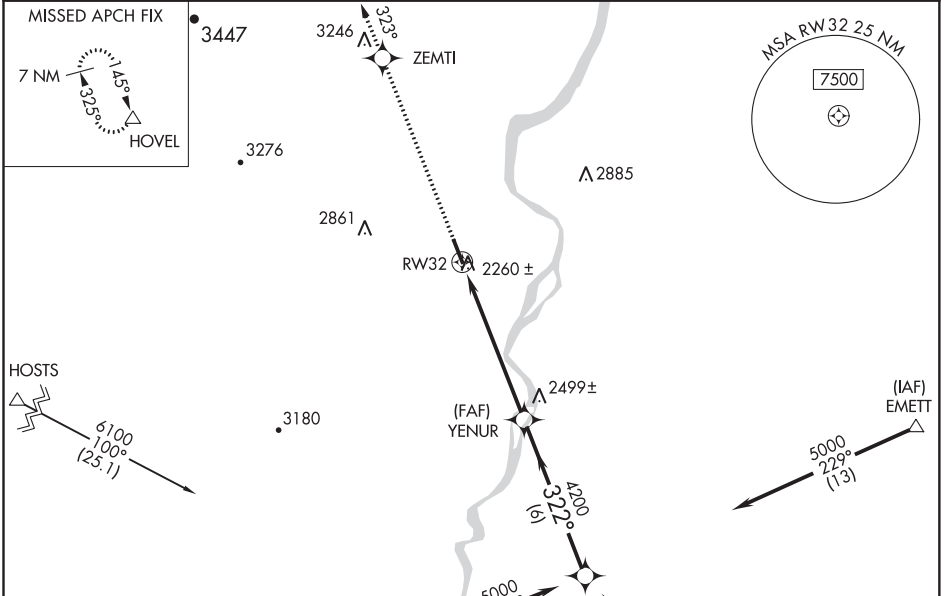
# RNAV (GPS) RWY 32

ONTARIO MUNI (ONO)

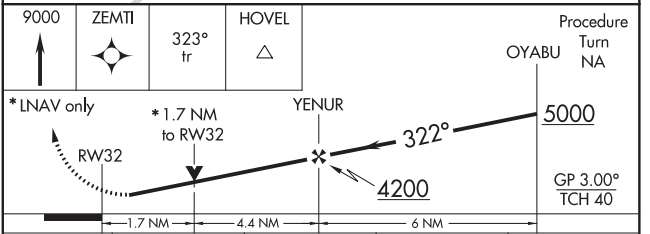
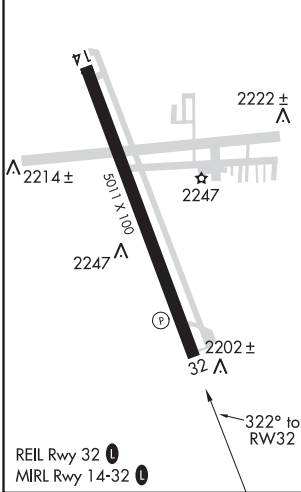
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F). Baro-VNAV and VDP NA when using Coldwell altimeter setting.  
**⚠** DME/DME RNP -0.3 NA. Helicopter visibility reduction below ¼ SM not authorized.  
 When local altimeter setting not received, use Coldwell altimeter setting and increase DA/MDA 100 feet, and increase LPV and LNAV/VNAV visibility ¼ mile all Cats, LNAV Cat C and D and Circling Cat C visibility ¼ mile. Circling to Rwy 14 NA at night.

**MISSED APPROACH:** Climb to 9000 direct ZEMTI and via 323° track to HOVEL and hold, continue climb-in-hold to 9000.

ASOS <b>135.275</b>	SALT LAKE CENTER <b>128.05 306.95</b>	UNICOM <b>122.8 (CTAF)</b>
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ELEV 2193	TDZE 2193
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CATEGORY	A	B	C	D
LPV DA	2443-1		250 (300-1)	
LNAV/ VNAV	2510-1¼		317 (400-1¼)	
LNAV MDA	2760-1	567 (600-1)	2760-1½ 567 (600-1½)	2760-1¾ 567 (600-1¾)
CIRCLING	2760-1	567 (600-1)	2760-1½ 567 (600-1½)	2760-2 567 (600-2)

ONTARIO, OREGON  
Orig-A 17OCT13

44°01'N-117°01'W

# ONTARIO MUNI (ONO) RNAV (GPS) RWY 32

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



NDB ONO <b>305</b>	APP CRS <b>335°</b>	Rwy Idg TDZE Apt Elev	<b>5011</b> <b>2193</b> <b>2193</b>
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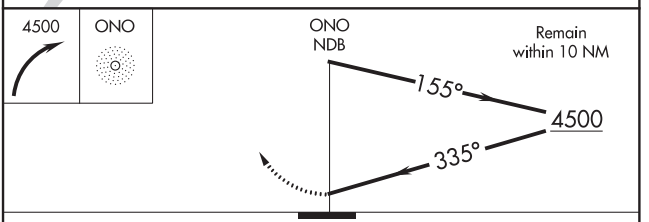
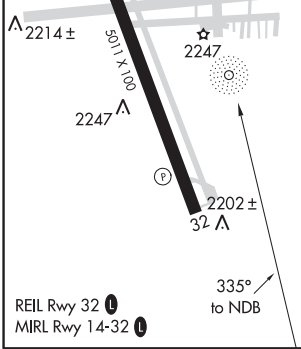
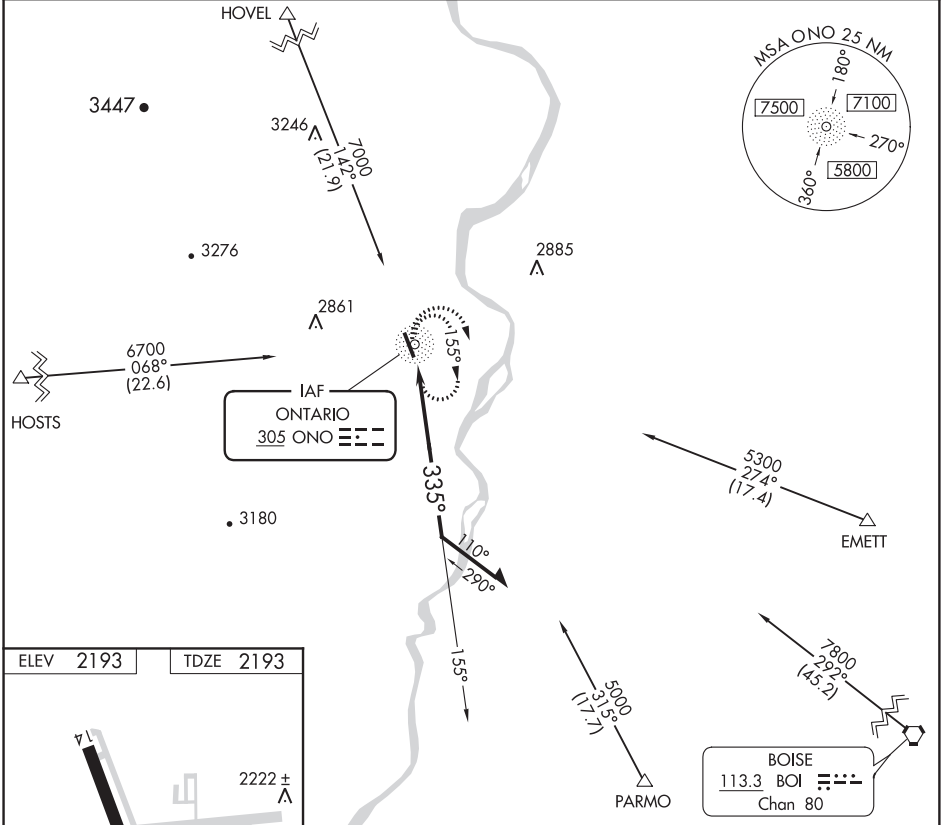
# NDB RWY 32

ONTARIO MUNI (ONO)

**▼** Helicopter visibility reduction below 1 SM not authorized. When local altimeter setting not received, use Caldwell altimeter setting and increase MDA 100 feet. Night Landing: Rwy 14 NA.

**▲ NA** MISSED APPROACH: Climbing right turn to 4500 in ONO NDB holding pattern.

ASOS <b>135.275</b>	SALT LAKE CENTER <b>128.05 306.95</b>	UNICOM <b>122.8</b> (CTAF) <b>📻</b>
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CATEGORY	A	B	C	D
S-32	3160-1¼ 967 (1000-1¼)	3160-1½ 967 (1000-1½)	3160-3	967 (1000-3)
CIRCLING	3160-1¼ 967 (1000-1¼)	3160-1½ 967 (1000-1½)	3160-3	967 (1000-3)

NW-1, 10 NOV 2016 to 05 JAN 2017


NW-1, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-PSC <b>108.7</b> Chan 24	APP CRS <b>211°</b>	Rwy Idg TDZE Apt Elev	<b>7111</b> <b>404</b> <b>410</b>
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# ILS or LOC/DME RWY 21R

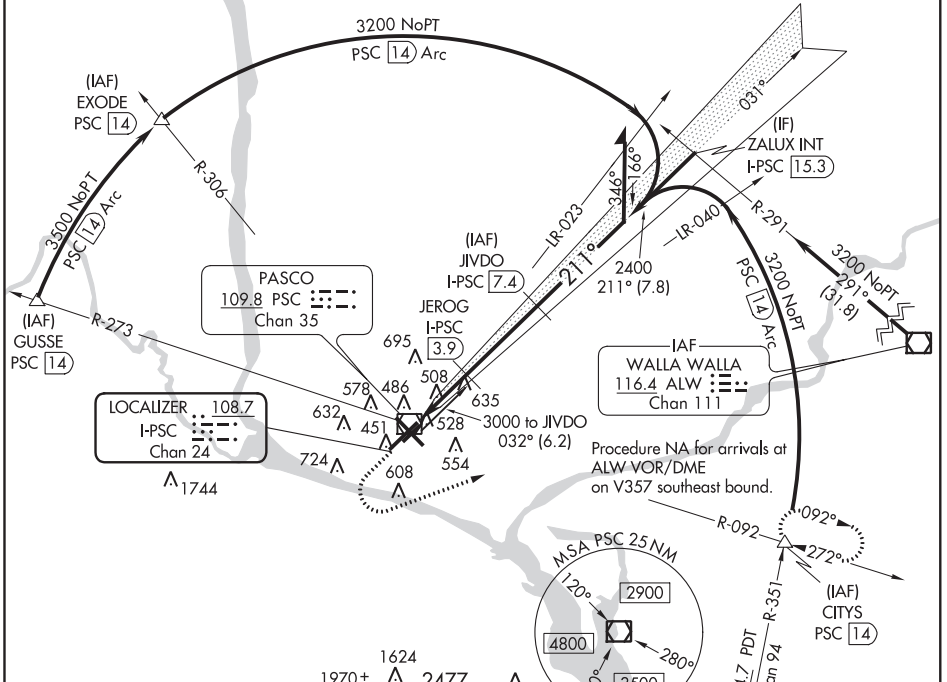
TRI-CITIES (PSC)

**⚠** VDP NA with Hermiston altimeter setting. When local altimeter setting not received, use Hermiston altimeter setting and increase all DA 95 feet and all MDA 100 feet; increase S-LOC 21R Cat C and D visibility 3/8 mile and Circling Cat C and D visibility 1/4 mile. Use I-PSC DME when on the localizer course.  
**\*\*RVR 1800 authorized with the use of FD or AP or HUD to DA.**

**MALSR**  


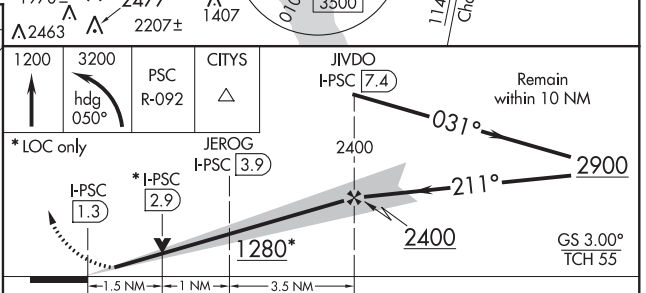
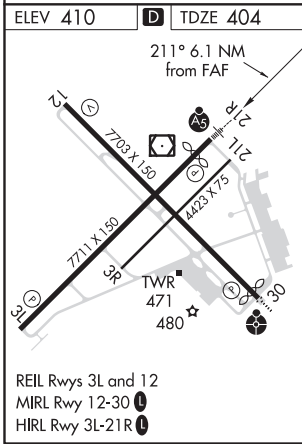
**MISSED APPROACH:** Climb to 1200 then climbing left turn to 3200 on heading 050° and PSC VOR/DME R-092 to CITIES INT/ PSC 14 DME and hold.

ATIS <b>125.65</b>	CHINOOK APP CON * <b>128.75 377.2</b>	TRI-CITIES TOWER * <b>135.3 (CTAF) 323.3</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.0</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-ILS 21R	<b>** 604/24</b> 200 (200-1/2)			
S-LOC 21R	940/24	536 (600-1/2)	940/55	536 (600-1/4)
<b>C</b> CIRCLING	940-1	530 (600-1)	1040-1 3/4 630 (700-1 3/4)	1100-2 1/4 690 (700-2 1/4)

APP CRS <b>031°</b>	Rwy Idg TDZE Apt Elev	<b>7711</b> <b>410</b> <b>410</b>
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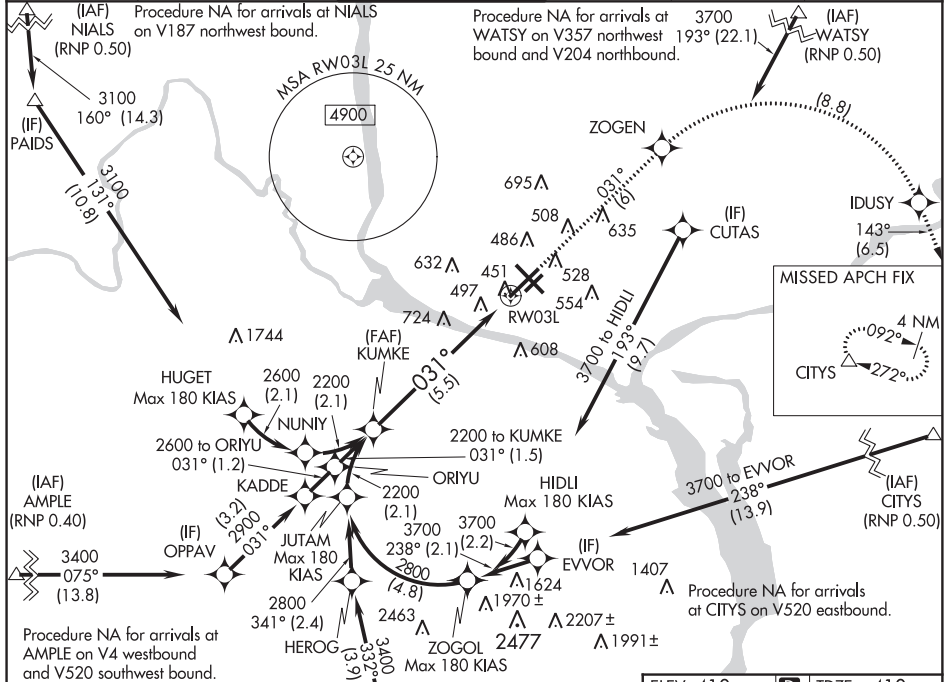
# RNAV (RNP) Z RWY 3L

TRI-CITIES (PSC)

For uncompensated Baro-VNAV systems, procedure NA below -14°C (7°F) or above 54°C (130°F). RF required. GPS required.

MISSED APPROACH: Climb to 3200 on track 031° to ZOGEN, right turn to IDUSY, and on track 143° to CITYS and hold.

ATIS <b>125.65</b>	CHINOOK APP CON* <b>128.75 377.2</b>	TRI-CITIES TOWER* <b>135.3 (CTAF) 0 323.3</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.0</b>	UNICOM <b>122.95</b>
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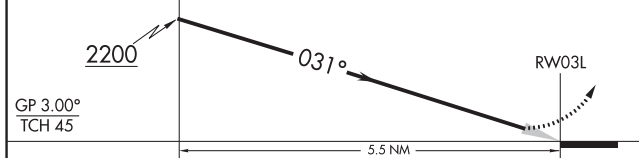


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 410	TDZE 410
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See planview for multiple IF locations.	KUMKE 2200	ZOGEN 3200	IDUSY tr 143°	CITYS tr 143°
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CATEGORY	A	B	C	D
RNP 0.11 DA		729-1	319 (400-1)	
RNP 0.30 DA		849-1½	439 (500-1½)	

## AUTHORIZATION REQUIRED

REIL Rwy 3L and 12  
MIRL Rwy 12-30  
HIRL Rwy 3L-21R

APP CRS	Rwy Idg	<b>7503</b>
<b>121°</b>	TDZE	<b>402</b>
	Apt Elev	<b>410</b>

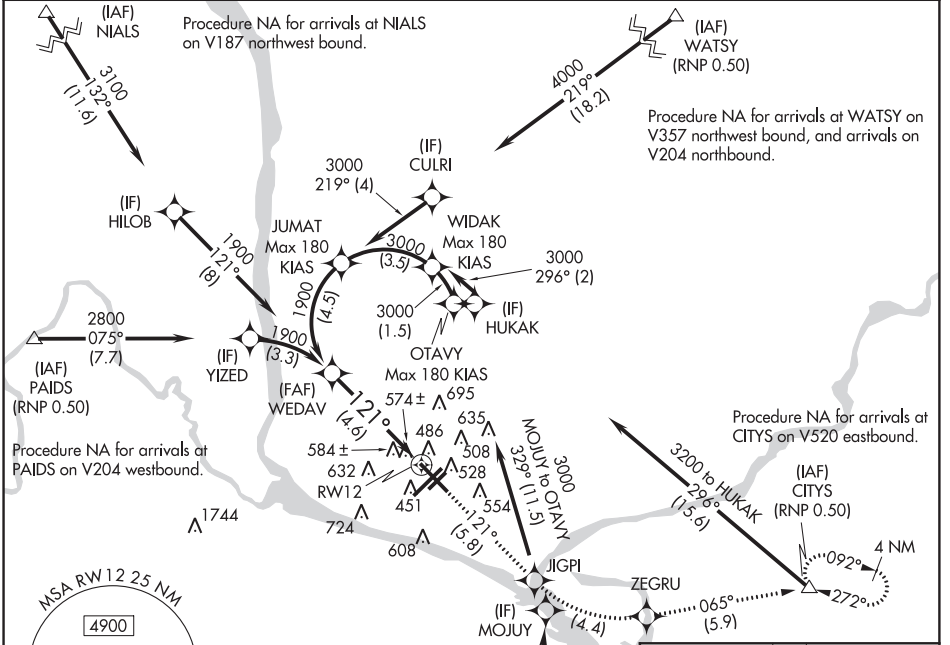
# RNAV (RNP) Z RWY 12

TRI-CITIES (PSC)

▼ For uncompensated Baro-VNAV systems, procedure NA below -14°C (7°F) or above 54°C (130°F). GPS required. RF required.

MISSED APPROACH: Climb to 3200 on track 121° to JIGPI, left turn to ZEGRU, and on track 065° to CITYS and hold.

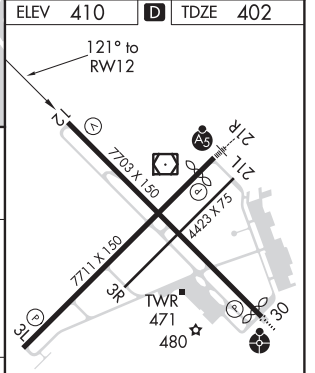
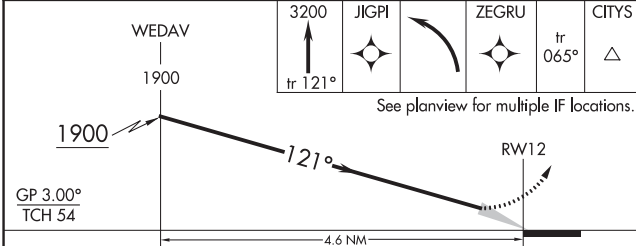
ATIS <b>125.65</b>	CHINOOK APP CON* <b>128.75 377.2</b>	TRI-CITIES TOWER* <b>135.3 (CTAF) 0 323.3</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.0</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 410	TDZE 402
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CATEGORY	A	B	C	D
RNP 0.11 DA		769-1¼	367 (400-1¼)	
RNP 0.30 DA		883-1⅝	481 (500-1⅝)	


**AUTHORIZATION REQUIRED**

REIL Rwy 3L and 12  
MIRL Rwy 12-30  
HIRL Rwy 3L-21R

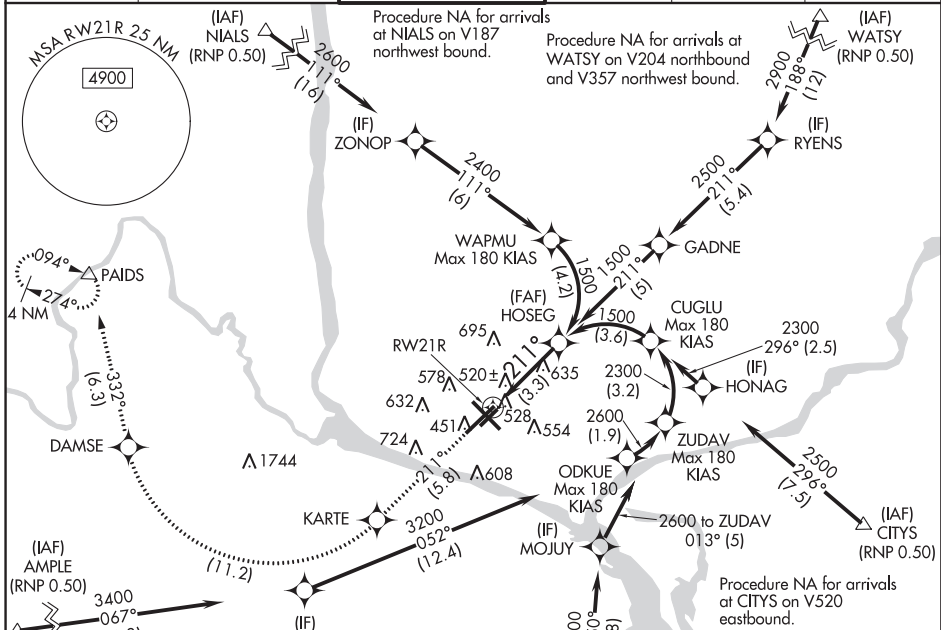
APP CRS	Rwy Idg	<b>7111</b>
<b>211°</b>	TDZE	<b>404</b>
	Apt Elev	<b>410</b>

# RNAV (RNP) Z RWY 21R

TRI-CITIES (PSC)

<p><b>⚠</b> For uncompensated Baro-VNAV systems, procedure NA below -14°C (7°F) or above 54°C (130°F). GPS required. RF required. For inoperative MALSR, increase RNP 0.11 all Cats visibility to RVR 5700 and RNP 0.30 all Cats visibility to 1 3/8 mile.</p>	<p>MALSR</p> 	<p>MISSED APPROACH: Climb to 5200 on track 211° to KARTE, right turn to DAMSE, and on track 332° to PAIDS and hold.</p>
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ATIS <b>125.65</b>	CHINOOK APP CON* <b>128.75 377.2</b>	TRI-CITIES TOWER* <b>135.3 (CTAF) 0 323.3</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.0</b>	UNICOM <b>122.95</b>
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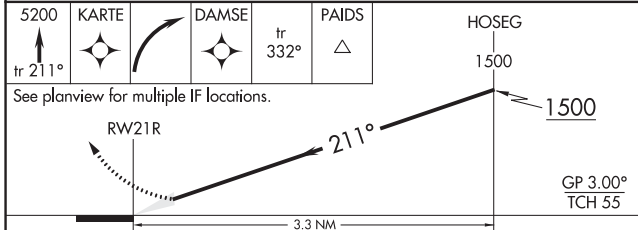
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 410	<b>D</b> TDZE 404
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5200	KARTE	DAMSE	tr 332°	PAIDS	HOSEG
tr 211°					1500

See planview for multiple IF locations.



REIL Rwy 3L and 12  
MIRL Rwy 12-30  
HIRL Rwy 3L-21R

CATEGORY	A	B	C	D
RNP 0.11 DA		754/33	350 (400-3/4)	
RNP 0.30 DA		832/48	428 (500-1)	

**AUTHORIZATION REQUIRED**

# RNAV (RNP) Z RWY 30

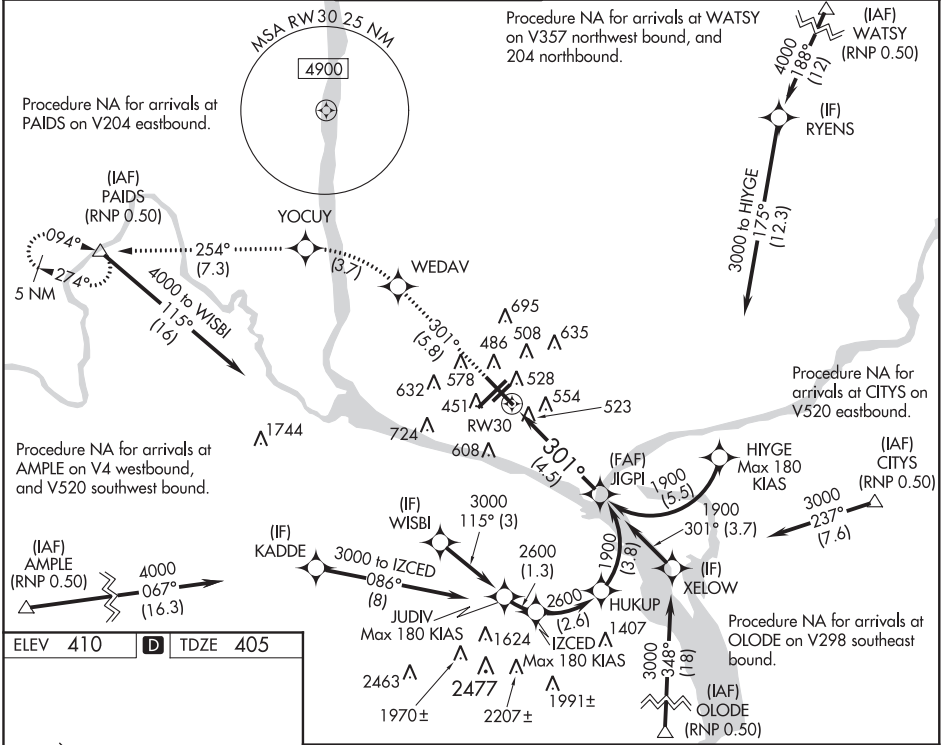
TRI-CITIES (PSC)

APP CRS <b>301°</b>	Rwy Idg <b>7503</b>
	TDZE <b>405</b>
	Apt Elev <b>410</b>

**▼** For uncompensated Baro-VNAV systems, procedure NA below -14°C (7°F) or above 54°C (130°F). RF required. GPS required. For inoperative ODALS, increase RNP 0.11 visibility all Cats to 1¼ mile, and increase RNP 0.30 visibility all Cats to 1½ mile.

**ODALS**  MISSED APPROACH: Climb to 5200 on track 301° to WEDAV, left turn to YOCUY, and on track 254° to PAIDS and hold.

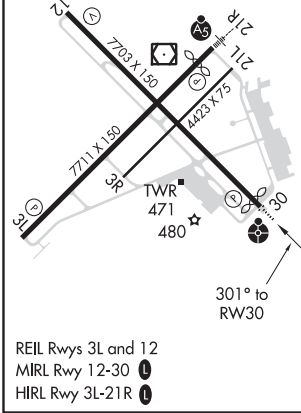
ATIS <b>125.65</b>	CHINOOK APP CON* <b>128.75 377.2</b>	TRI-CITIES TOWER* <b>135.3 (CTAF) 0 323.3</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.0</b>	UNICOM <b>122.95</b>
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



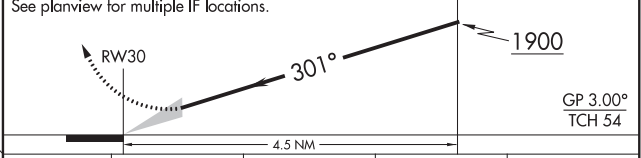
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 410	<b>D</b>	TDZE 405
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5200	WEDAV	YOCUY	tr 254°	PAIDS	JIGPI
tr 301°					



CATEGORY	A	B	C	D
RNP 0.11 DA		778-1½	373 (400-1½)	
RNP 0.30 DA		834-1¼	429 (500-1¼)	

## AUTHORIZATION REQUIRED

WAAS CH <b>40206</b> W03A	APP CRS <b>031°</b>	Rwy Idg <b>7711</b> TDZE <b>410</b> Apt Elev <b>410</b>
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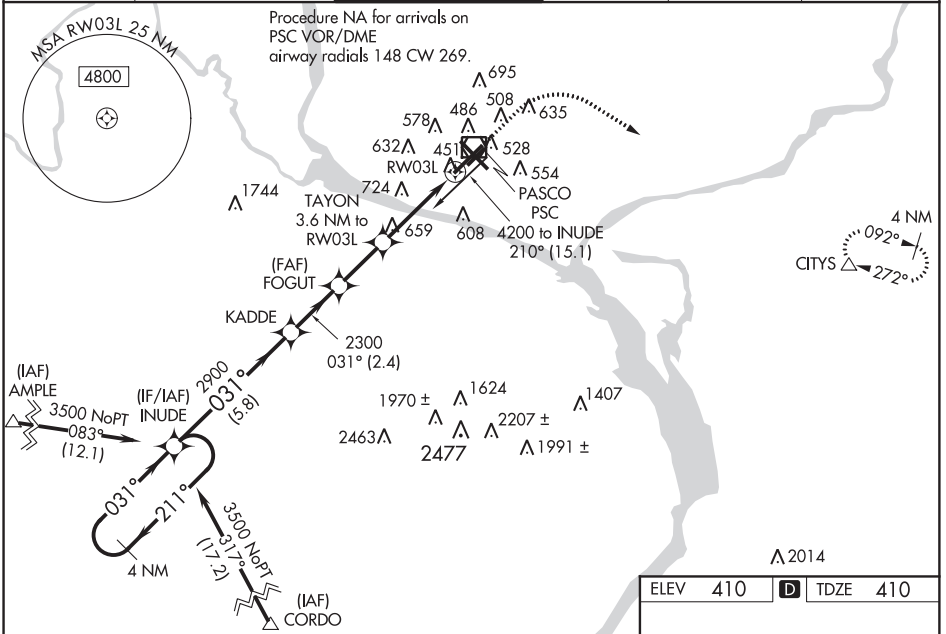
# RNAV (GPS) Y RWY 3L

TRI-CITIES (PSC)

**⚠** Baro-VNAV NA when using Hermiston altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.4°C (7°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. VDP NA with Hermiston altimeter setting. When local altimeter setting not received, use Hermiston altimeter setting; increase all DA 95 feet and all MDA 100 feet. Increase LPV all Cats visibility ¼ mile, LNAV/VNAV all Cats visibilities ⅓ mile; increase LNAV Cats C and D visibility ⅓ mile. Circling Cat C and D visibility ¼ mile.

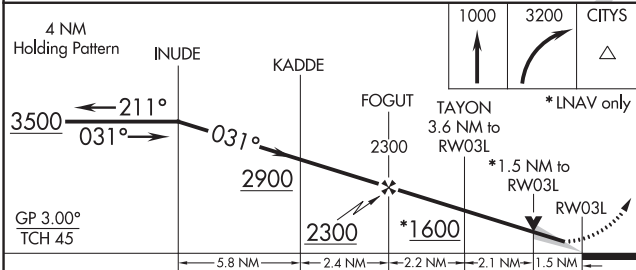
**MISSED APPROACH:**  
Climb to 1000 then climbing right turn to 3200 direct CITYS and hold.

ATIS <b>125.65</b>	CHINOOK APP CON* <b>128.75 377.2</b>	TRI-CITIES TOWER* <b>135.3 (CTAF) 0 323.3</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.0</b>	UNICOM <b>122.95</b>
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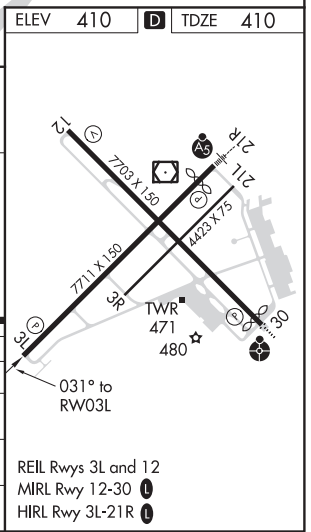


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA	610-¾	200 (200-¾)		
LNAV/VNAV DA	708-1	298 (300-1)		
LNAV MDA	920-1 510 (600-1)	920-1 ⅓ 510 (600-1 ⅓)		
CIRCLING	920-1 510 (600-1)	940-1 530 (600-1)	1040-1 ⅓ 630 (700-1 ⅓)	1100-2 ⅓ 690 (700-2 ⅓)



WAAS CH <b>58006</b> W12A	APP CRS <b>121°</b>	Rwy Idg <b>7503</b> TDZE <b>402</b> Apt Elev <b>410</b>
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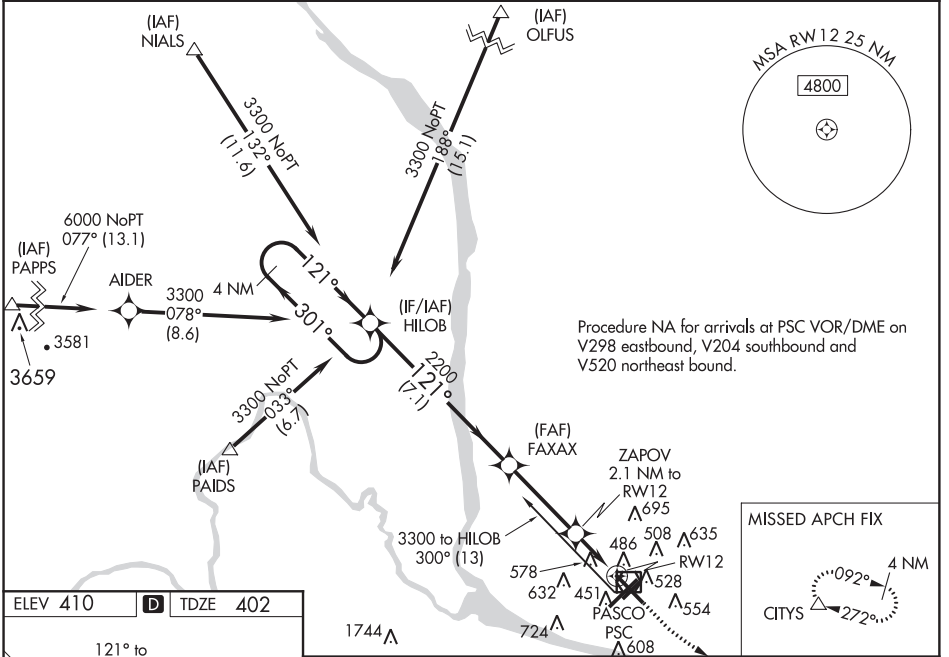
# RNAV (GPS) Y RWY 12

TRI-CITIES (PSC)

**⚠** Baro-VNAV NA when using Hermiston altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -14°C (7°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. VDP NA with Hermiston altimeter setting. When local altimeter setting not received, use Hermiston altimeter setting: increase all DA 95 feet and all MDA 100 feet. Increase LPV all Cats visibilities 1/8 mile; LNAV/VNAV all Cats visibilities 3/8 mile; increase LNAV and Circling Cats C and D visibility 1/4 mile.

**MISSED APPROACH:**  
Climb to 900 then climbing left turn to 3200 direct CITYS and hold.

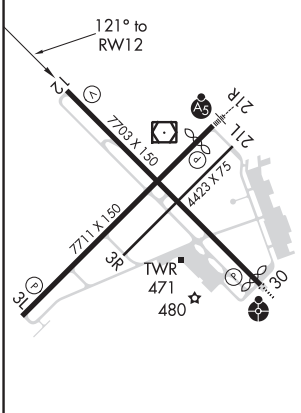
ATIS <b>125.65</b>	CHINOOK APP CON* <b>128.75 377.2</b>	TRI-CITIES TOWER* <b>135.3 (CTAF) 0 323.3</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.0</b>	UNICOM <b>122.95</b>
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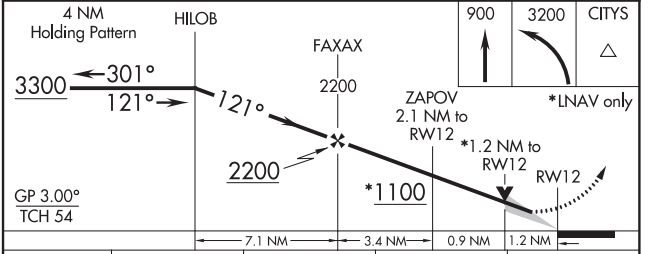
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 410	<b>D</b>	TDZE 402
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REIL Rwy 3L and 12  
MIRL Rwy 12-30  
HIRL Rwy 3L-21R



CATEGORY	A	B	C	D
LPV DA		602-3/4	200 (200-3/4)	
LNAV/VNAV DA		755-1 1/8	353 (400-1 1/8)	
LNAV MDA	840-1	438 (500-1)	840-1 3/8	438 (500-1 3/8)
<b>C</b> CIRCLING	880-1 470 (500-1)	940-1 530 (600-1)	1040-1 3/4 630 (700-1 3/4)	1100-2 1/4 690 (700-2 1/4)




WAAS CH <b>40303</b> W21A	APP CRS <b>211°</b>	Rwy Idg TDZE Apt Elev	<b>7111</b> <b>404</b> <b>410</b>
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# RNAV (GPS) Y RWY 21R

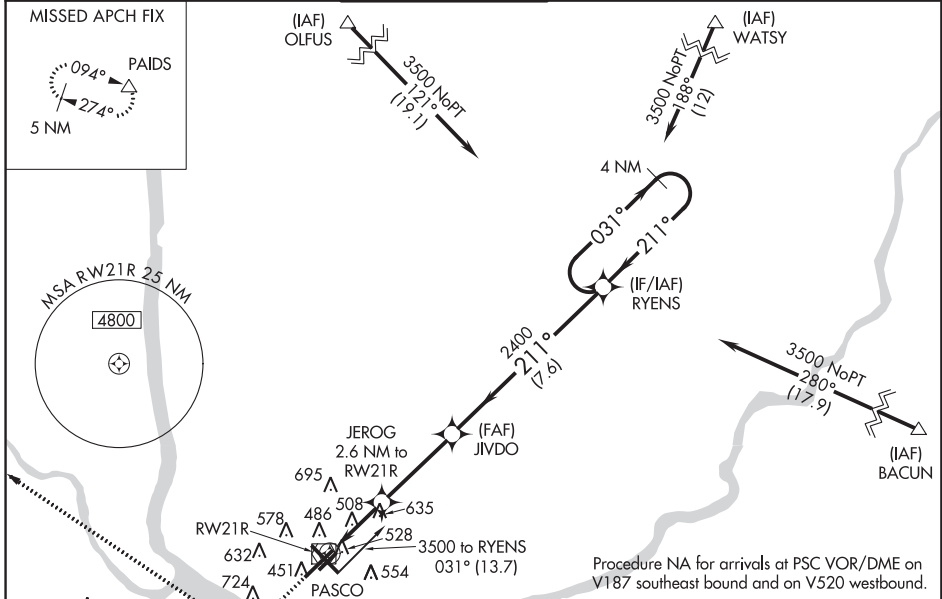
TRI-CITIES (PSC)

**⚠** Baro-VNAV NA when using Hermiston altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.4°C (7°F) or above 54°C (130°F).  
**⚠** DME/DME RNP-0.3 NA. VDP NA with Hermiston altimeter setting. When local altimeter setting not received, use Hermiston altimeter setting and increase all DA 95 feet and all MDA 100 feet; increase LNAV/VNAV all Cats visibility 3/8 mile; LNAV Cat C and D visibility 3/8 mile and Circling Cat C and D visibility 1/4 mile.

MALSR 

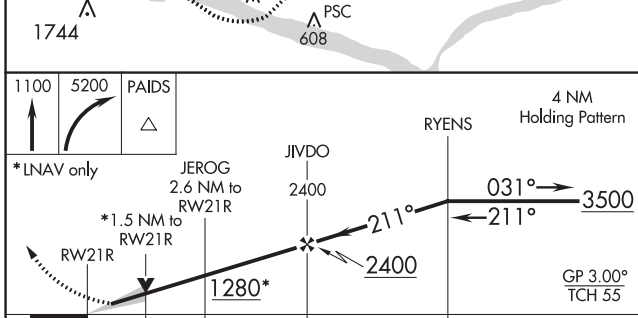
MISSED APPROACH: Climb to 1100 then climbing right turn to 5200 direct PAIDS and hold, continue climb-in-hold to 5200.

ATIS <b>125.65</b>	CHINOOK APP CON* <b>128.75 377.2</b>	TRI-CITIES TOWER* <b>135.3 (CTAF) 323.3</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.0</b>	UNICOM <b>122.95</b>
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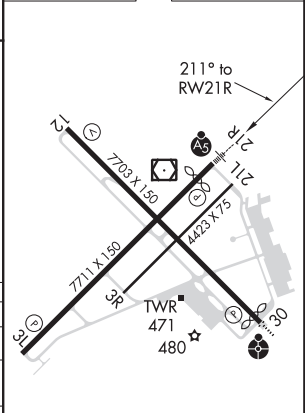
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 410	<b>D</b>	TDZE 404
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CATEGORY	A	B	C	D
LPV DA		604/24	200 (200-1/2)	
LNAV/VNAV DA		844/51	440 (500-1 1/4)	
LNAV MDA	940/24	536 (600-1/2)	940/55	536 (600-1 1/4)
<b>C</b> CIRCLING	940-1	530 (600-1)	1040-1 3/4 630 (700-1 3/4)	1100-2 1/4 690 (700-2 1/4)



WAAS CH <b>86605</b> <b>W30A</b>	APP CRS <b>301°</b>	Rwy Idg TDZE Apt Elev	<b>7503</b> <b>405</b> <b>410</b>
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# RNAV (GPS) Y RWY 30

TRI-CITIES (PSC)

**Baro-VNAV NA** when using Hermiston altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.4°C (7°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. VDP NA with Hermiston altimeter setting. When local altimeter setting not received, use Hermiston altimeter setting; increase all DA 95 feet and all MDA 100 feet. Increase LPV and LNAV/VNAV all Cats visibilities 1/4 mile; increase LNAV and Circling Cats C and D visibility 1/4 mile. Helicopter visibility reduction below 3/4 SM NA.

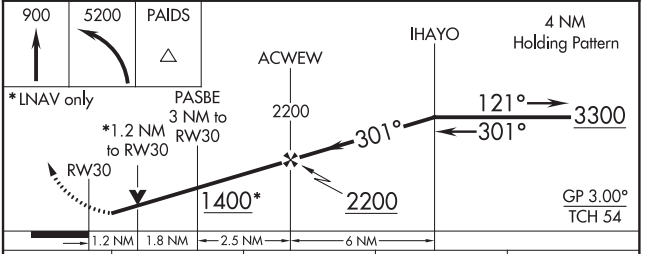
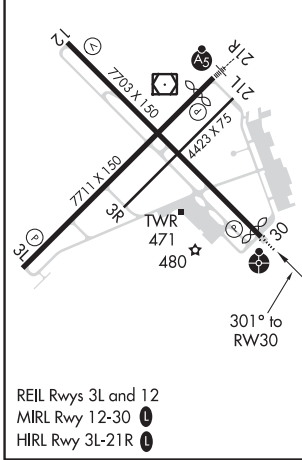
**ODALS**

**MISSED APPROACH:**  
Climb to 900 then climbing left turn to 5200 direct PAIDS and hold, continue climb-in-hold to 5200.

ATIS <b>125.65</b>	CHINOOK APP CON* <b>128.75 377.2</b>	TRI-CITIES TOWER* <b>135.3 (CTAF) 0 323.3</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.0</b>	UNICOM <b>122.95</b>
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ELEV 410	<b>D</b>	TDZE 405
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CATEGORY	A	B	C	D
LPV DA		655-3/4	250 (300-3/4)	
LNAV/VNAV DA		749-1	344 (400-1)	
LNAV MDA	840-3/4	435 (500-3/4)	840-1 1/8	435 (500-1 1/8)
<b>CIRCLING</b>	880-1 470 (500-1)	940-1 530 (600-1)	1040-1 3/4 630 (700-1 3/4)	1100-2 1/4 690 (700-2 1/4)

NW-1, 10 NOV 2016 to 05 JAN 2017


NW-1, 10 NOV 2016 to 05 JAN 2017

VOR/DME PSC <b>109.8</b> Chan <b>35</b>	APP CRS <b>217°</b>	Rwy Idg <b>7111</b> TDZE <b>404</b> Apt Elev <b>410</b>
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# VOR/DME RWY 21R

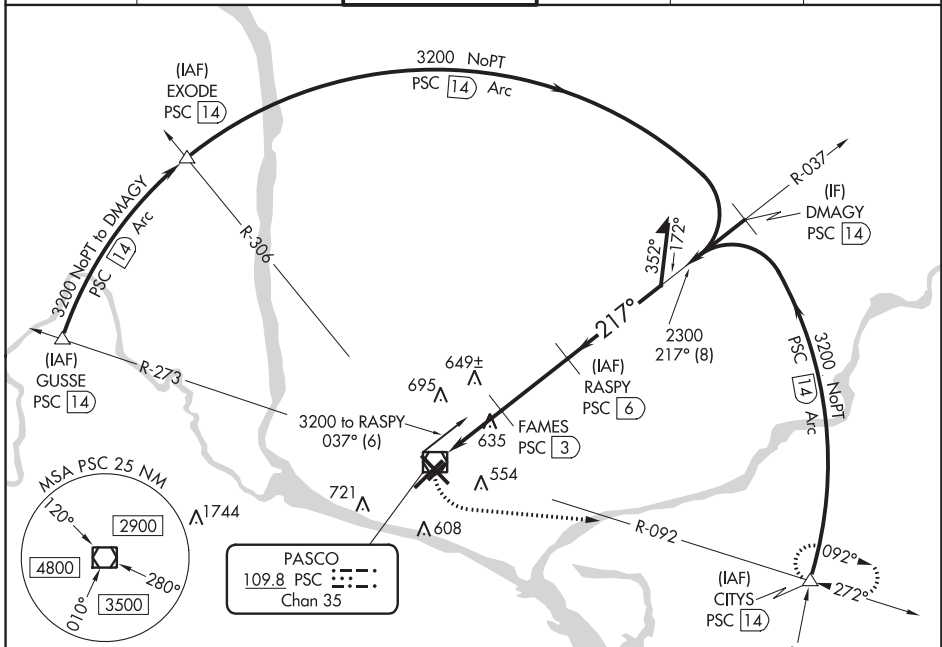
TRI-CITIES (PSC)

**⚠** VDP NA with Hermiston altimeter setting. When local altimeter setting not received, use Hermiston altimeter setting and increase all MDA 100 feet and increase S-21R Cat C and D and Circling Cat C/D visibility ¼ mile. For inoperative MALSR, increase S-21R Cat C/D visibility to 1 ½ mile

**MALSR** 

**MISSED APPROACH:** Climbing left turn to 3200 on heading 080° and on PSC VOR/DME R-092 to CITYS INT/PSC 14 DME and hold.

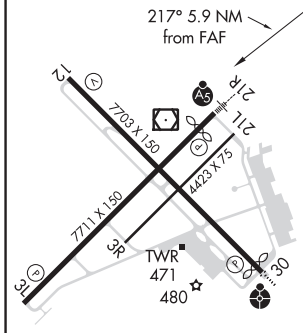
ATIS <b>125.65</b>	CHINOOK APP CON* <b>128.75 377.2</b>	TRI-CITIES TOWER* <b>135.3</b> (CTAF) <b>323.3</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.0</b>	UNICOM <b>122.95</b>
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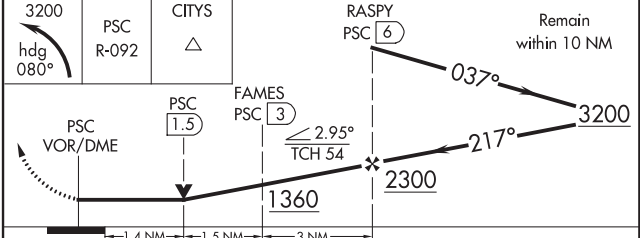
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 410	<b>D</b>	TDZE 404
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REIL Rwy 3L and 12  
MIRL Rwy 12-30 **(L)**  
HIRL Rwy 3L-21R **(L)**



CATEGORY	A	B	C	D
S-21R	900/24	496 (500-½)	900/50	496 (500-1)
<b>(C)</b> CIRCLING	900-1 490 (500-1)	940-1 530 (600-1)	1040-1¾ 630 (700-1¾)	1100-2¼ 690 (700-2¼)

VOR/DME PSC <b>109.8</b> Chan 35	APP CRS <b>307°</b>	Rwy Idg <b>7503</b> TDZE <b>405</b> Apt Elev <b>410</b>
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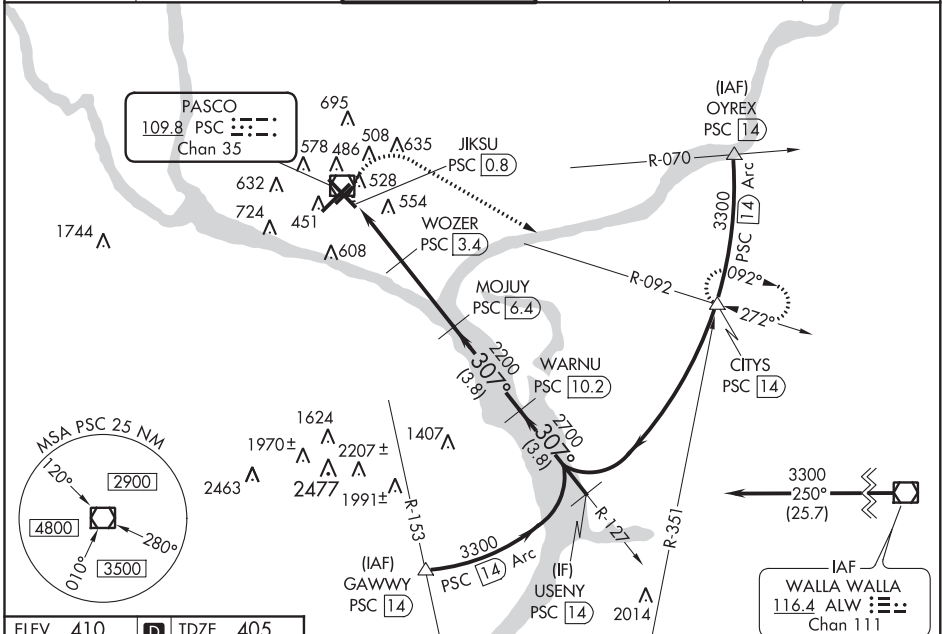
# VOR/DME RWY 30

TRI-CITIES (PSC)

**⚠** For inoperative ODALS, increase S-30 Cat C/D visibility to 1/8 mile. VDP NA with Hermiston altimeter setting. Helicopter visibility reduction below 3/4 SM not authorized. When local altimeter setting not received, use Hermiston altimeter setting and increase all MDA 100 feet, increase S-30 visibility Cat C/D 3/8 mile and Circling Cat C/D visibility 1/4 mile.

**ODALS**  
MISSED APPROACH: Climbing right turn to 3200 on heading 105° and PSC R-092 to CITY/PSC 14 DME and hold.

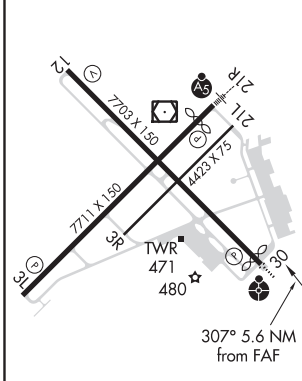
ATIS <b>125.65</b>	CHINOOK APP CON* <b>128.75 377.2</b>	TRI-CITIES TOWER* <b>135.3 (CTAF) 323.3</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.0</b>	UNICOM <b>122.95</b>
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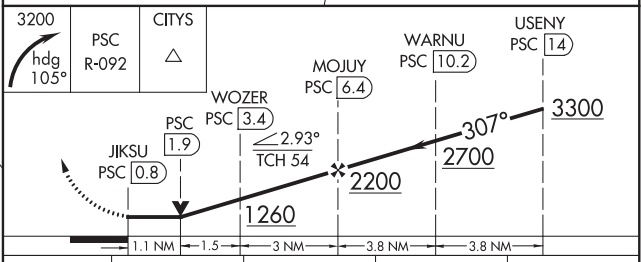
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 410	<b>D</b>	TDZE 405
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REIL Rwy 3L and 12  
MIRL Rwy 12-30  
HIRL Rwy 3L-21R



CATEGORY	A	B	C	D
S-30	820-3/4	415 (500-3/4)	820-1	415 (500-1)
<b>C</b> CIRCLING	880-1 470 (500-1)	940-1 530 (600-1)	1040-1 3/4 630 (700-1 3/4)	1100-2 1/4 690 (700-2 1/4)

# AIRPORT DIAGRAM

AL-474 (FAA)

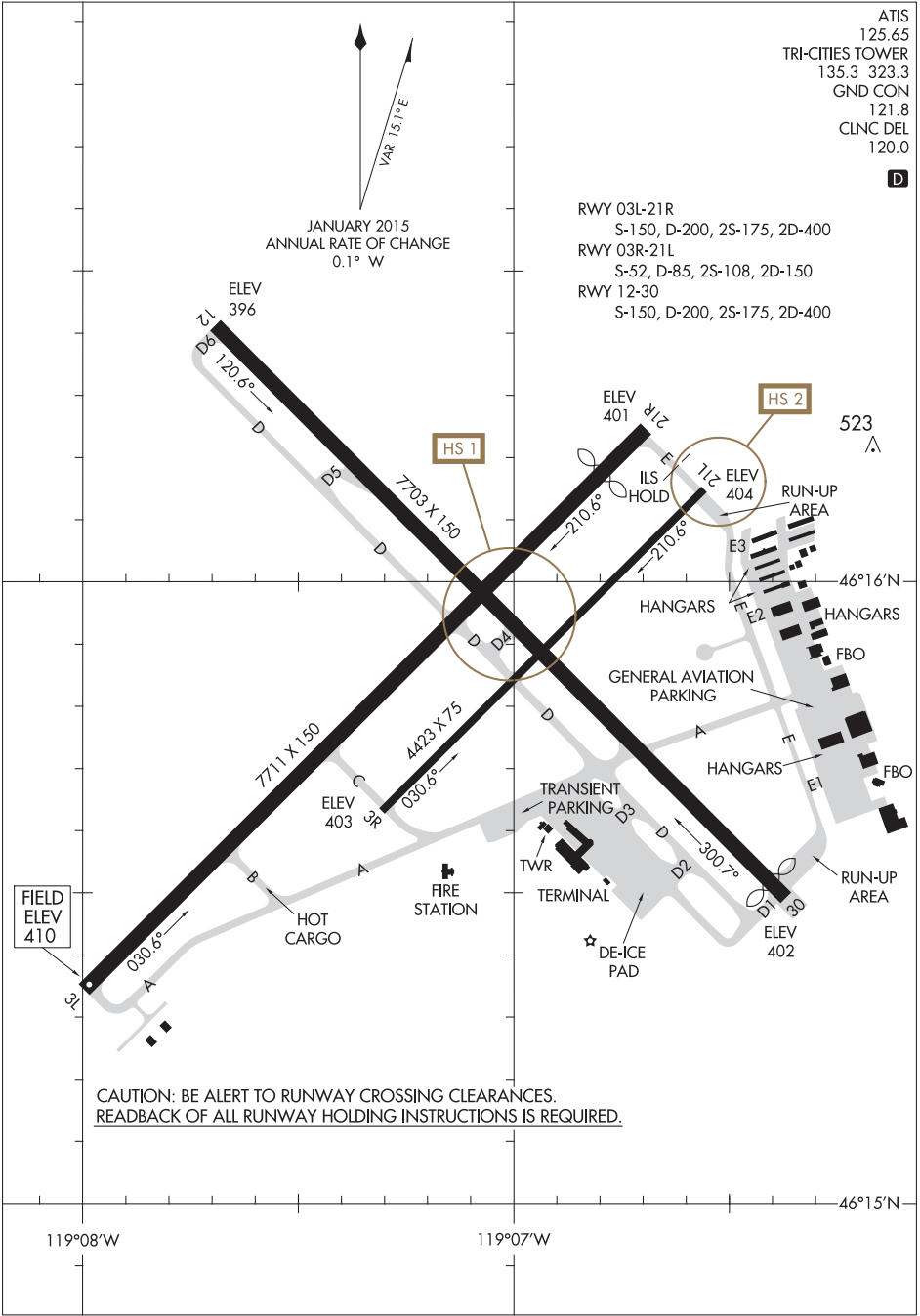
TRI-CITIES (PSC)  
PASCO, WASHINGTON

ATIS 125.65  
 TRI-CITIES TOWER 135.3 323.3  
 GND CON 121.8  
 DEL 120.0  
 CLNC DEL 120.0

**D**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



RWY 03L-21R  
 S-150, D-200, 2S-175, 2D-400  
 RWY 03R-21L  
 S-52, D-85, 2S-108, 2D-150  
 RWY 12-30  
 S-150, D-200, 2S-175, 2D-400

JANUARY 2015  
 ANNUAL RATE OF CHANGE  
 0.1° W

VAR 15.7° E

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

119°08'W

119°07'W

46°15'N

46°16'N

# AIRPORT DIAGRAM

PASCO, WASHINGTON  
TRI-CITIES (PSC)

# TRI-CITIES SEVEN DEPARTURE

SL-474 (FAA)

TRI-CITIES (PSC)  
PASCO, WASHINGTON

**TOP ALTITUDE:  
10000**

EPHRATA  
112.6 EPH :---:---:  
Chan 73  
N47°22.68'-W119°25.44'  
L-13, H-1

SPOKANE  
115.5 GEG :---:---:  
Chan 102  
N47°33.90'-W117°37.61'  
L-13, H-1

ATIS 125.65  
CLNC DEL 120.0  
GND CON 121.8  
TRI-CITIES TOWER\* 135.3 (CTAF) 323.3  
CHINOOK DEP CON\* 128.75 377.2

WENATCHEE  
111.0 EAT :---:---:  
Chan 47  
N47°23.98'-W120°12.65'  
L-13

MOSES LAKE  
115.0 MWH :---:---:  
Chan 97  
N47°12.65'-W119°19.01'  
L-13, H-1

PULLMAN  
109.0 PUW :---:---:  
Chan 27  
N46°40.45'-W117°13.41'  
L-13

ELLENSBURG  
117.9 ELN :---:---:  
Chan 126  
N47°01.46'-W120°27.50'  
L-13, H-1

PASCO  
109.8 PSC :---:---:  
Chan 35  
N46°16.22'-W119°07.04'  
L-13

NEZ PERCE  
108.2 MQG :---:---:  
Chan 19  
N46°22.89'-W116°52.17'  
L-13

YAKIMA  
116.0 YKM :---:---:  
Chan 107  
N46°34.21'-W120°26.68'  
L-13, H-1

WALLA WALLA  
116.4 ALW :---:---:  
Chan 111  
N46°05.22'-W118°17.55'  
L-13

### TAKEOFF MINIMUMS

Rwys 21L, 21R, 12, 30, 3L, 3R:  
Standard with minimum climb of  
310' per NM to 3500.

NOTE: RADAR required.

KLICKITAT  
112.3 LTJ :---:---:  
Chan 70  
N45°42.82'-W121°06.05'  
L-13, H-1

PENDLETON  
114.7 PDT :---:---:  
Chan 94  
N45°41.91'-W118°56.32'  
L-13, H-1

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 21R, 21L, 12, 30, 3L, 3R: Climb on assigned heading for vector to assigned route/fix. Maintain 10000 or assigned lower altitude. Expect clearance to filed altitude 5 minutes after departure.

### LOST COMMUNICATIONS

RUNWAYS 30, 12, 3L, 3R, 21R, 21L: Climb on last assigned heading to 3500', then proceed direct PSC VOR/DME to cross at or above MEA for route of flight.

# TRI-CITIES SEVEN DEPARTURE

PASCO, WASHINGTON  
TRI-CITIES (PSC)

TAKEOFF OBSTACLE NOTES

- Rwy 3L: Bush 94' from DER, 479' left of centerline, up to 5' AGL/405' MSL.
  - Trains beginning 1680' from DER, crossing centerline, up to 23' AGL/447' MSL.
  - Tower 2447' from DER, 910' right of centerline, up to 56' AGL/479' MSL.
  - Electrical system 2466' from DER, 94' right of centerline, up to 45' AGL/464' MSL.
  - Tower 2501' from DER, 1076' right of centerline, up to 64' AGL/480' MSL.
- Rwy 3R: Terrain 172' from DER, 229' right of centerline, up to 408' MSL.
  - Bushes beginning 255' from DER, 204' right of centerline, up to 5' AGL/413' MSL.
  - Fence beginning 851' from DER, crossing centerline, up to 8' AGL/427' MSL.
  - Bushes 970' from DER, 48' right of centerline, 5' AGL/430' MSL.
  - Towers 1431' from DER, 603' right of centerline, up to 50' AGL/473' MSL.
  - Rod on tower 1512' from DER, 883' right of centerline, up to 109' AGL/528' MSL.
  - Rod on tower 2271' from DER, 845' right of centerline, up to 107' AGL/526' MSL.
  - Tower 2460' from DER, 111' right of centerline, up to 56' AGL/479' MSL.
  - Tower 2514' from DER, 277' right of centerline, up to 64' AGL/480' MSL.
  - Trees 2580' from DER, 871' right of centerline, up to 75' AGL/504' MSL.
- Rwy 12: Vehicles on road beginning 407' from DER, crossing centerline, up to 15' AGL/424' MSL.
  - Trees 657' from DER, 618' right of centerline, up to 75' AGL/454' MSL.
  - Pole 947' from DER, 635' left of centerline, 25' AGL/434' MSL.
  - Pole 1092' from DER, 588' left of centerline, 25' AGL/442' MSL.
  - Trees beginning 1195' from DER, 602' right of centerline, up to 61' AGL/461' MSL.
  - Trees beginning 2989' from DER, 620' left of centerline, up to 75' AGL/484' MSL.
- Rwy 30: Terrain 3750' from DER, 887' left of centerline, up to 496' MSL.
- Rwy 21R: Trees beginning 918' from DER, 468' right of centerline, up to 75' AGL/484' MSL.
- Rwy 21L: Aircraft 15' from DER, 458' left of centerline to 689' right of centerline, up to 45' AGL/454' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

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LOC I-PDT <b>110.3</b>	APP CRS <b>254°</b>	Rwy Idg 6301	TDZE 1487
		Apt Elev 1497	

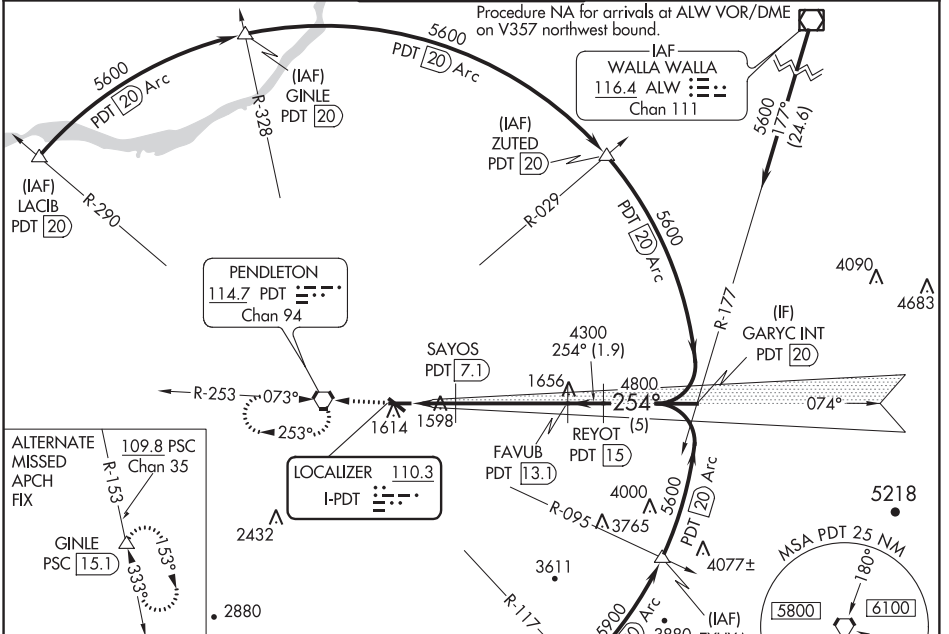
# ILS or LOC/DME RWY 25

EASTERN OREGON RGNL AT PENDLETON (PDT)

**⚠** DME from PDT VORTAC. Simultaneous reception of I-PDT and PDT DME required. When local altimeter setting not received, use Walla Walla altimeter setting and increase all DA/MDA 120 feet and S-LOC 25 Cat C/D visibility ¼ mile, Circling Cat C visibility ¼ mile and Circling Cat D visibility ½ mile. For inop MALSRR when using Walla Walla altimeter setting increase S-ILS 25 visibility all Cats to 1 mile. # RVR 1800 authorized with use of FD or AP or HUD to DA, NA when using Walla Walla altimeter setting.

**MALSRR** MISSED APPROACH: Climb to 4000 direct PDT VORTAC and hold, continue climb-in-hold to 4000.

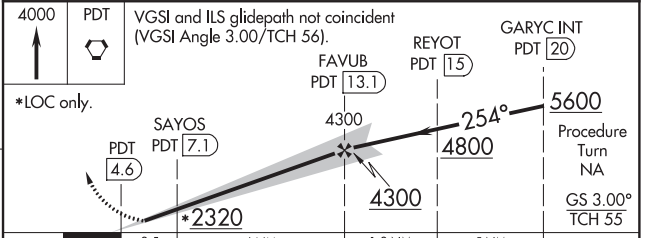
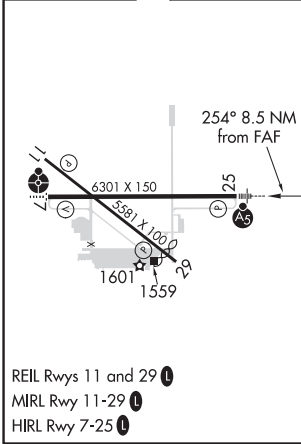
ASOS <b>118.325</b>	CHINOOK APP CON * <b>133.15 379.15</b>	PENDLETON TOWER * <b>119.7 (CTAF) 257.8</b>	GND CON <b>121.9 257.8</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1497	<b>D</b>	TDZE 1487
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CATEGORY	A	B	C	D
S-ILS 25	#1687/24 200 (200-½)			
S-LOC 25	1860/24	373 (400-½)	1860/35 373 (400-¾)	1860/40 373 (400-¾)
<b>C</b> CIRCLING	1920-1 423 (500-1)	1960-1 463 (500-1)	1980-1½ 483 (500-1½)	2200-2½ 703 (800-2½)




WAAS CH <b>73012</b> <b>W07A</b>	APP CRS <b>074°</b>	Rwy Idg TDZE Apt Elev	<b>6301</b> <b>1486</b> <b>1497</b>
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# RNAV (GPS) RWY 7

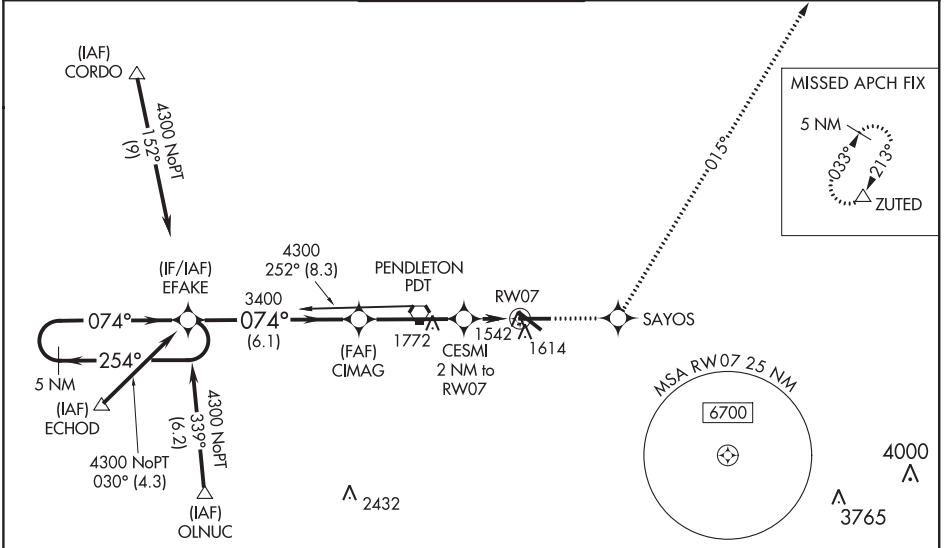
EASTERN OREGON RGNL AT PENDLETON (PDT)

**⚠** Inop table does not apply to LNAV/VNAV all Cats. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. VDP and Baro-VNAV NA when using Walla Walla altimeter setting. When local altimeter setting not received, use Walla Walla altimeter setting and increase all DA/MDA 120 feet, and all visibilities ¾ mile. Inop table does not apply.

**ODALS** 

**MISSED APPROACH:** Climb to 5000 direct SAYOS and via track 015° to ZUTED and hold.

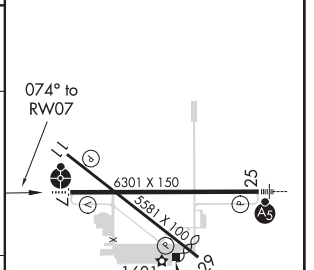
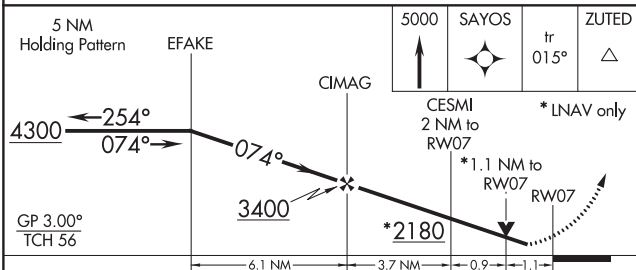
ASOS <b>118.325</b>	CHINOOK APP CON * <b>133.15 379.15</b>	PENDLETON TOWER * <b>119.7 (CTAF) 257.8</b>	GND CON <b>121.9 257.8</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1497	<b>D</b>	TDZE 1486
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CATEGORY	A	B	C	D
LPV DA		1736-¾	250 (300-¾)	
LNAV/VNAV DA		1834-1¼	348 (400-1¼)	
LNAV MDA		1880-¾	394 (400-¾)	1880-1¼ 394 (400-1¼)
CIRCLING	1920-1 423 (500-1)	1960-1 463 (500-1)	1960-1½ 463 (500-1½)	2060-2 563 (600-2)

REIL Rwy 11 and 29 **Ⓛ**

MIRL Rwy 11-29 **Ⓛ**

HIRL Rwy 7-25 **Ⓛ**

WAAS CH <b>82712</b> <b>W11A</b>	APP CRS <b>112°</b>	Rwy Idg TDZE <b>1487</b> Apt Elev <b>1497</b>
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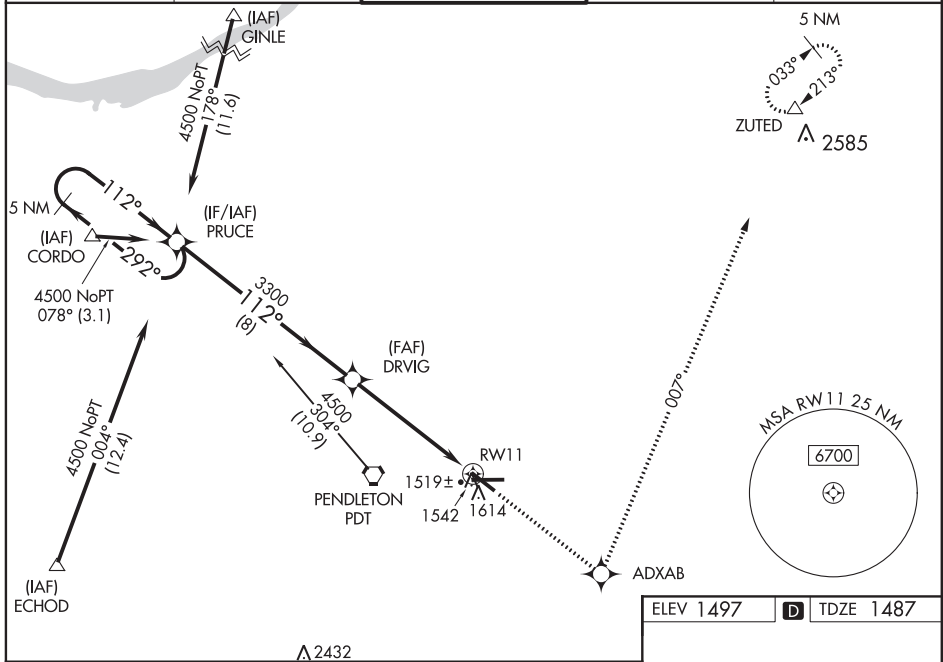
# RNAV (GPS) RWY 11

EASTERN OREGON RGNL AT PENDLETON (PDT)

▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Walla Walla altimeter setting: increase all DA/MDA 120 feet and visibility LPV all Cats ¼ mile, LNAV/VNAV all Cats ½ mile, LNAV Cats C and D ¼ mile and Circling Cat D ¼ mile. VDP and Baro-VNAV NA when using Walla Walla altimeter setting.

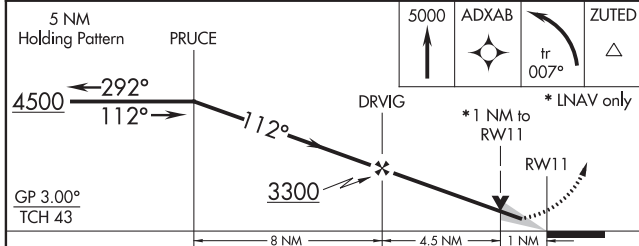
▲ MISSED APPROACH: Climb to 5000 direct ADXAB and left turn via track 007° to ZUTED and hold.

ASOS <b>118.325</b>	CHINOOK APP CON * <b>133.15 379.15</b>	PENDLETON TOWER * <b>119.7 (CTAF) 257.8</b>	GND CON <b>121.9 257.8</b>	UNICOM <b>122.95</b>
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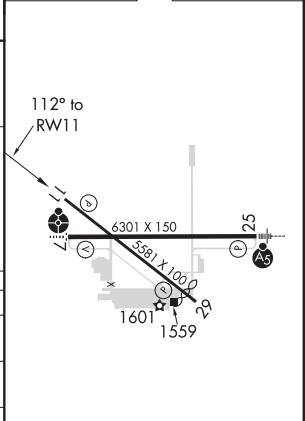
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 1497	D	TDZE 1487
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CATEGORY	A	B	C	D
LPV DA	1737-1 250 (300-1)			
LNAV/ VNAV DA	1850-1¼ 363 (400-1¼)			
LNAV MDA	1860-1 373 (400-1)		1860-1¼ 373 (400-1¼)	
CIRCLING	1920-1 423 (500-1)	1960-1 463 (500-1)	1960-1½ 463 (500-1½)	2060-2 563 (600-2)



REIL Rwy 11 and 29  
MIRL Rwy 11-29  
HIRL Rwy 7-25

WAAS CH <b>78412</b> <b>W25A</b>	APP CRS <b>254°</b>	Rwy Idg TDZE Apt Elev	<b>6301</b> <b>1487</b> <b>1497</b>
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# RNAV (GPS) RWY 25

EASTERN OREGON RGNL AT PENDLETON (PDT)

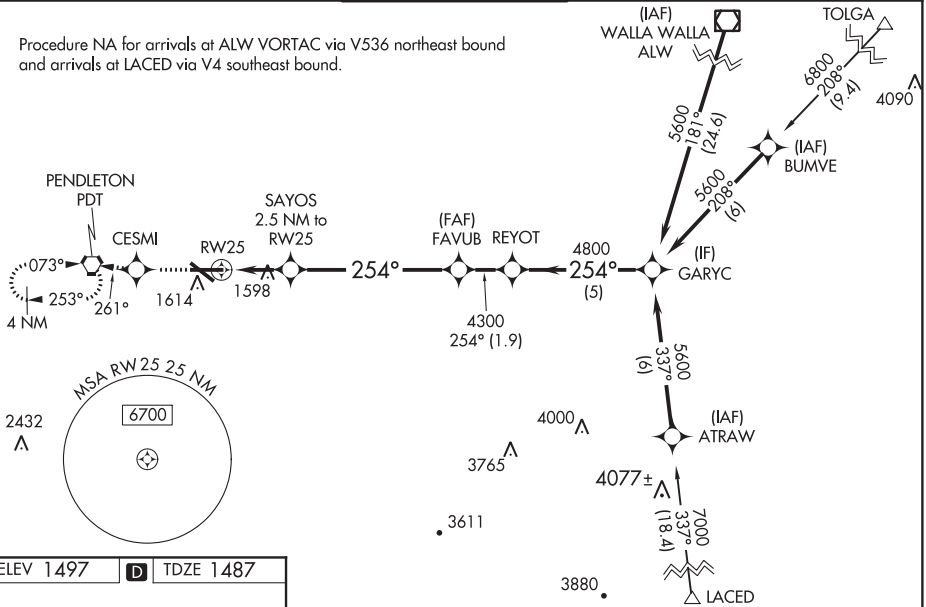
**⚠** For inop MALS/R, increase LNAV/VNAV Cat D visibility to RVR 5000, and LNAV Cat D to RVR 6000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Walla Walla altimeter setting and increase all DA/MDA 120 feet, and all visibilities 1 mile; inop table does not apply. VDP and Baro-VNAV NA when using Walla Walla altimeter setting.

**MALS/R**

MISSED APPROACH: Climb to 4000 direct CESMI and via track 261° to PDT VORTAC and hold, continue climb-in-hold to 4000.

ASOS <b>118.325</b>	CHINOOK APP CON* <b>133.15 379.15</b>	PENDLETON TOWER* <b>119.7 (CTAF) 0 257.8</b>	GND CON <b>121.9 257.8</b>	UNICOM <b>122.95</b>
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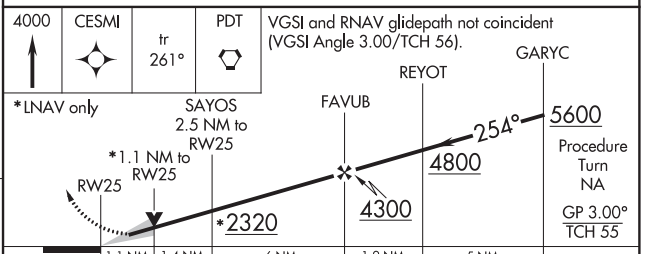
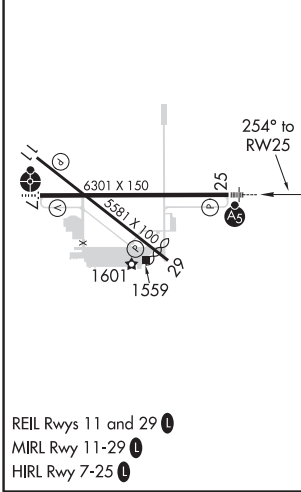
Procedure NA for arrivals at ALW VORTAC via V536 northeast bound and arrivals at LACED via V4 southeast bound.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1497	<b>D</b>	TDZE 1487
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CATEGORY	A	B	C	D
LPV DA	1687/24 200 (200-½)			
LNAV/VNAV DA	1800/24 313 (400-½)		1800/40 313 (400-¾)	
LNAV MDA	1860/24 373 (400-½)		1860/50 373 (400-1)	
CIRCLING	1920-1 423 (500-1)	1960-1 463 (500-1)	1960-1½ 463 (500-1½)	2060-2 563 (600-2)

WAAS CH <b>42513</b> <b>W29A</b>	APP CRS <b>292°</b>	Rwy Idg <b>5125</b> TDZE <b>1497</b> Apt Elev <b>1497</b>
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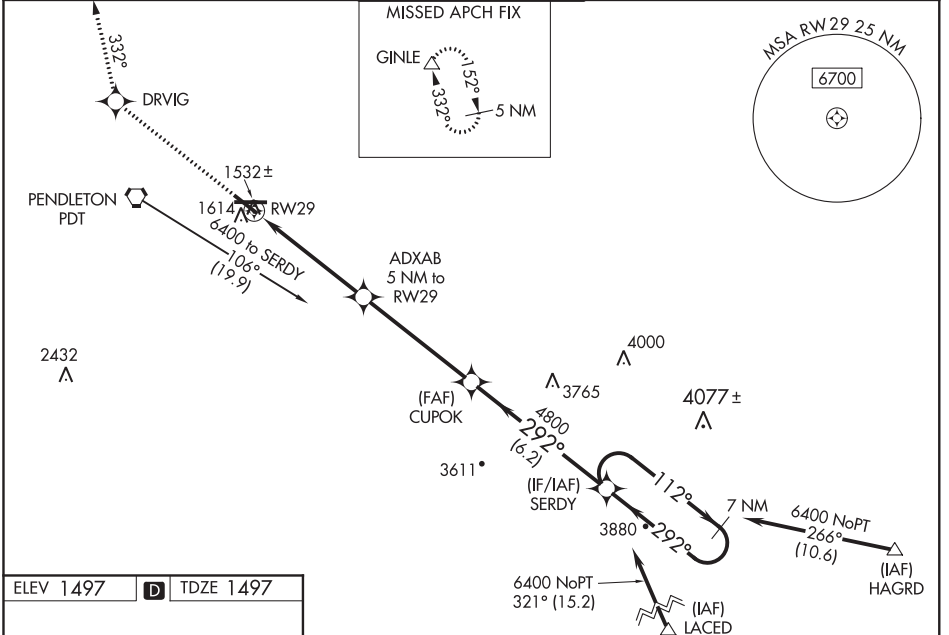
# RNAV (GPS) RWY 29

EASTERN OREGON RGNL AT PENDLETON (PDT)

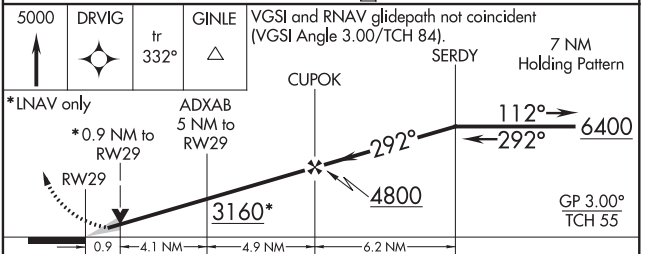
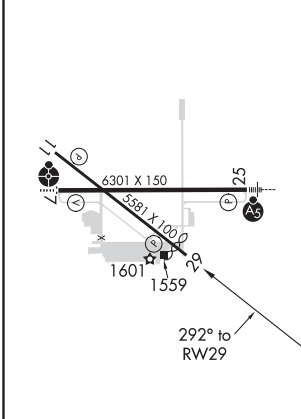
**⚠** Inop table does not apply. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F).  
**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Walla Walla altimeter setting: increase all DA/MDA 120 feet and visibility LPV all Cats ¼ mile, LNAV/VNAV all Cats ½ mile, LNAV Cats C and D ¼ mile and Circling Cat D ¼ mile. VDP and Baro-VNAV NA when using Walla Walla altimeter setting.  
**⚠** -18°C/0°F

MISSED APPROACH: Climb to 5000 direct DRVIG and via track 332° to GINLE and hold.

ASOS <b>118.325</b>	CHINOOK APP CON * <b>133.15 379.15</b>	PENDLETON TOWER * <b>119.7 (CTAF) 0 257.8</b>	GND CON <b>121.9 257.8</b>	UNICOM <b>122.95</b>
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ELEV 1497	<b>D</b>	TDZE 1497
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CATEGORY	A	B	C	D
LPV DA		1747-1	250 (300-1)	
LNAV/ VNAV DA		1801-1	304 (400-1)	
LNAV MDA		1860-1	363 (400-1)	1860-1½ 363 (400-1½)
CIRCLING	1920-1 423 (500-1)	1960-1 463 (500-1)	1960-1½ 463 (500-1½)	2060-2 563 (600-2)

REIL Rwy 11 and 29 **Ⓛ**  
 MIRL Rwy 11-29 **Ⓛ**  
 HIRL Rwy 7-25 **Ⓛ**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

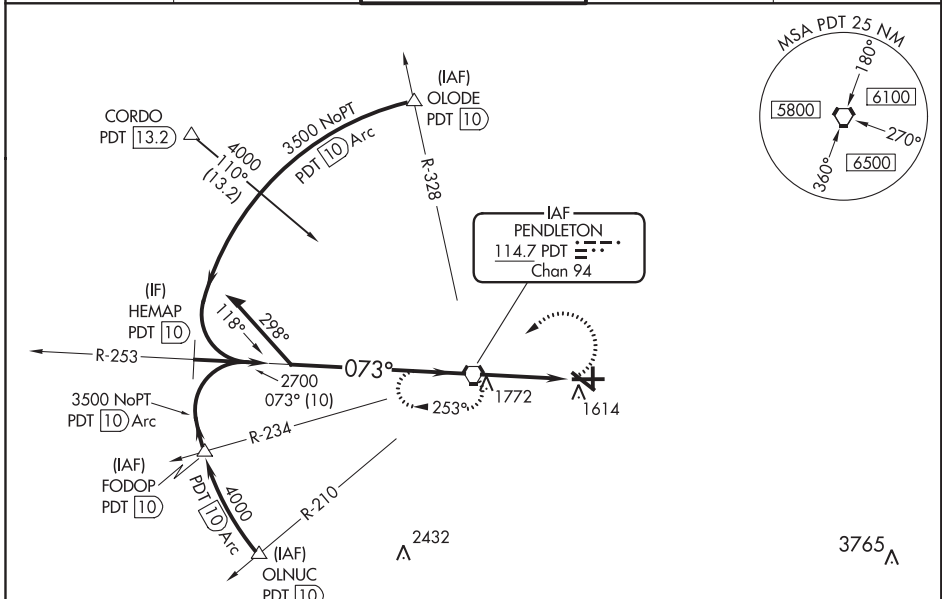
VORTAC PDT <b>114.7</b> Chan <b>94</b>	APP CRS <b>073°</b>	Rwy Idg TDZE <b>1486</b> Apt Elev <b>1497</b>
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# VOR RWY 7

EASTERN OREGON RGNL AT PENDLETON (PDT)

<p>Inop table does not apply to S-7 Cat C. Visibility reduction by helicopters NA. When local altimeter setting not received, use Walla Walla altimeter setting and increase all MDA 120 feet, and all visibilities 1/2 mile. Inop table does not apply when using Walla Walla altimeter setting. VDP NA when using Walla Walla altimeter setting.</p>	<p>ODALS</p>	<p>MISSED APPROACH: Climbing left turn to 4000 direct PDT VORTAC and hold, continue climb-in-hold to 4000.</p>
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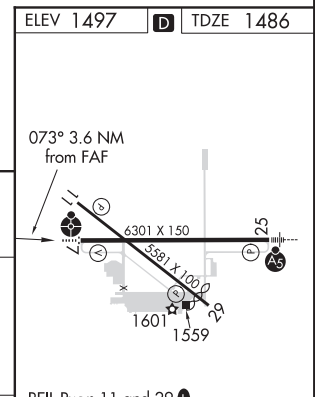
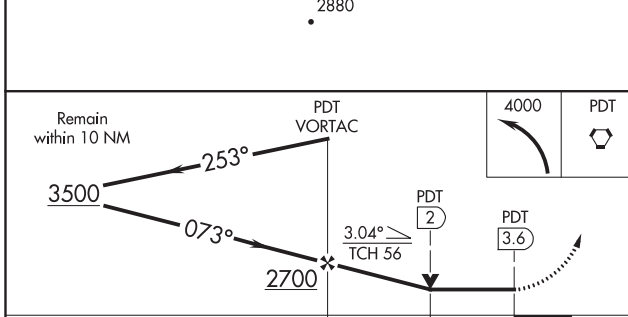
ASOS <b>118.325</b>	CHINOOK APP CON * <b>133.15 379.15</b>	PENDLETON TOWER * <b>119.7 (CTAF) 257.8</b>	GND CON <b>121.9 257.8</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1497	<b>D</b>	TDZE 1486
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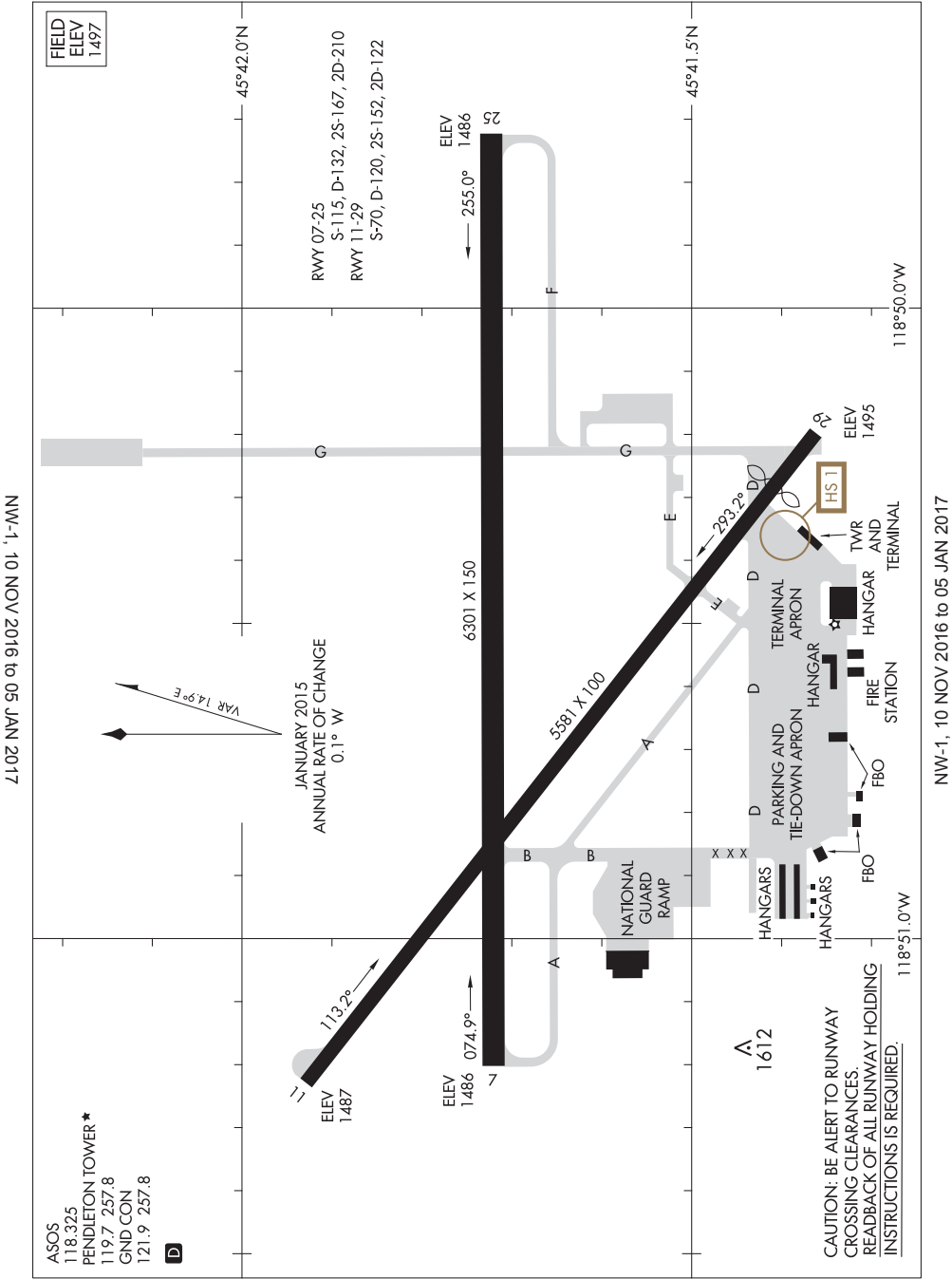
CATEGORY	A	B	C	D
S-7	2040-3/4	554 (600-3/4)	2040-1 1/2 554 (600-1 1/2)	2040-1 3/4 554 (600-1 3/4)
CIRCLING	2040-1	543 (600-1)	2040-1 1/2 543 (600-1 1/2)	2060-2 563 (600-2)

FAF to MAP 3.6 NM					
Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

# AIRPORT DIAGRAM

EASTERN OREGON RGNL AT PENDLETON (PDT)  
AL-316 (FAA)  
PENDLETON, OREGON



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ASOS  
118.325  
PENDLETON TOWER ★  
119.7 257.8  
GND CON  
121.9 257.8

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. REARBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

# AIRPORT DIAGRAM

PENDLETON, OREGON  
EASTERN OREGON RGNL AT PENDLETON (PDT)

WAAS CH <b>58326</b> <b>W11A</b>	APP CRS <b>110°</b>	Rwy ldg TDZE Apt Elev	<b>8900</b> <b>7096</b> <b>7096</b>
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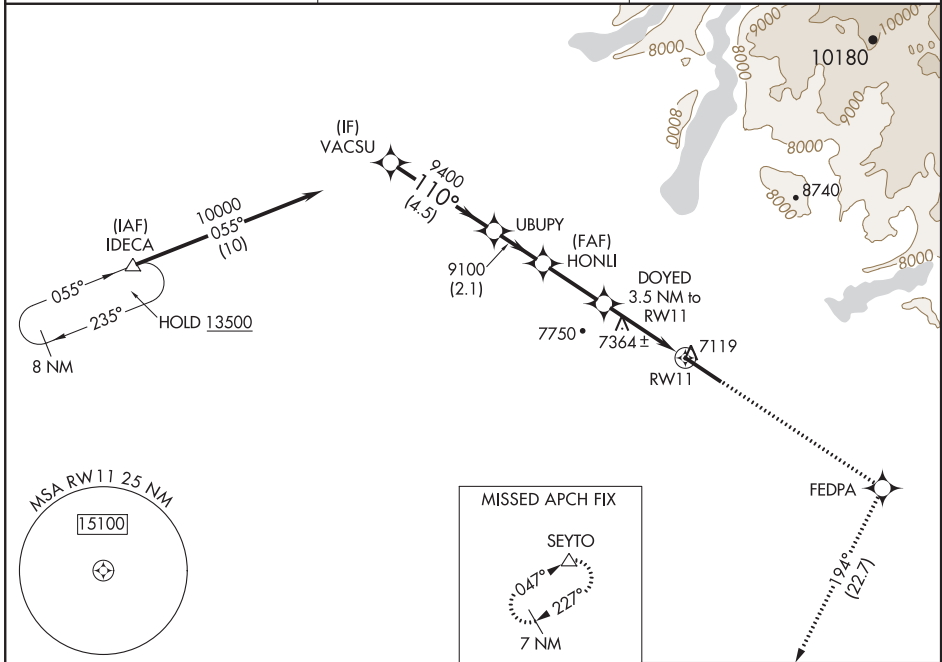
# RNAV (GPS) RWY 11

RALPH WENZ FIELD (PNA)

**⚠** Baro-VNAV NA. When local altimeter setting not received, use Big Piney altimeter setting and increase all DA 58 feet and all MDA 60 feet; increase LPV and LNAV/VNAV all Cats, LNAV and Circling Cat C/D visibility ¼ mile. Circling NA south of Rwy 11/29. DME/DME RNP-0.3 NA. VDP NA with Big Piney altimeter setting.

**MISSED APPROACH:** Climb to 10000 direct FEDPA and on track 194° to SEYTO and hold.

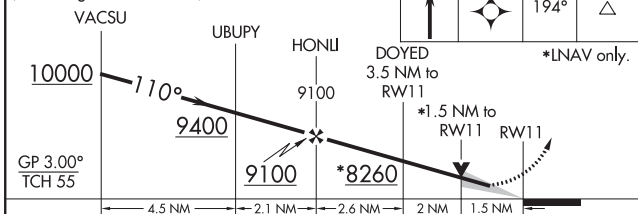
AWOS-3 <b>118.325</b>	SALT LAKE CENTER <b>128.35 239.25</b>	UNICOM <b>122.8 (CTAF)</b>
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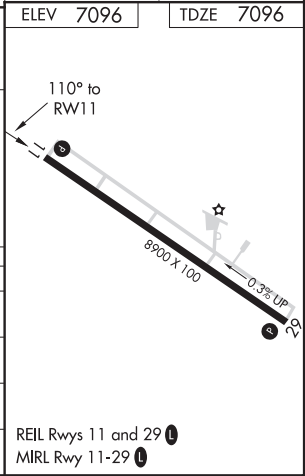
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VGSI and RNAV glidepath not coincident (VGSI Angle 2.83/TCH 40).



CATEGORY	A	B	C	D
LPV DA		7346-¾	250 (300-¾)	
LNAV/VNAV DA		7355-¾	259 (300-¾)	
LNAV MDA	7620-1	524 (600-1)	7620-1½	524 (600-1½)
CIRCLING	7620-1	524 (600-1)	7640-1½ 544 (600-1½)	7720-2 624 (700-2)



REIL Rwy 11 and 29  
MIRL Rwy 11-29

WAAS CH <b>40426</b> <b>W29A</b>	APP CRS <b>291°</b>	Rwy ldg TDZE Apt Elev	<b>8900</b> <b>7078</b> <b>7096</b>
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# RNAV (GPS) RWY 29

RALPH WENZ FIELD (PNA)

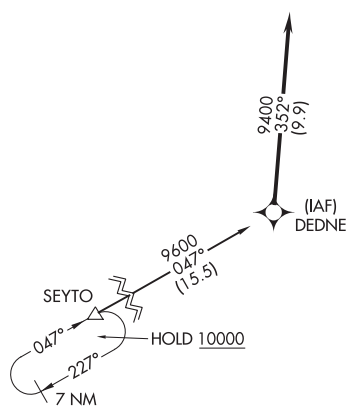
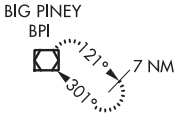
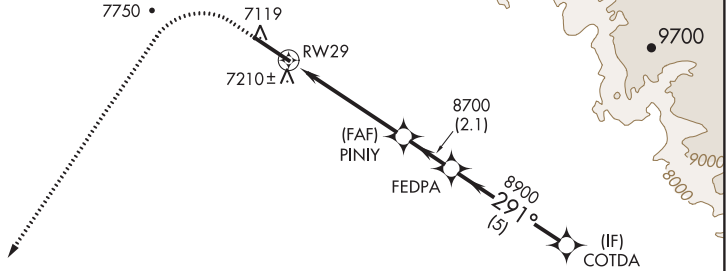
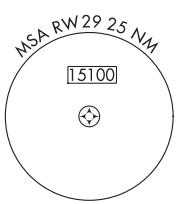
**⚠** Baro-VNAV NA. When local altimeter setting not received, use Big Piney altimeter setting and increase all DA 58 feet and all MDA 60 feet; increase LPV all Cats, LNAV and Circling Cat C/D visibility ¼ mile, and LNAV/VNAV all Cats visibility ⅓ mile. Circling NA south of Rwy 11/29. DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA. VDP NA with Big Piney altimeter setting.

**MISSED APPROACH:** Climb to 7600 then climbing left turn to 10000 direct BPI VOR/DME and hold.

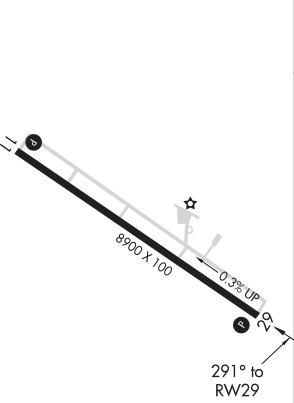
AWOS-3  
**118.325**

SALT LAKE CENTER  
**128.35 239.25**

UNICOM  
**122.8 (CTAF)**



ELEV 7096 TDZE 7078



7600	10000	BPI	VGSI and RNAV glidepath not coincident (VGSI Angle 2.83/TCH 40).	COTDA
↑	↶	⊠		
*LNAV only.		*1.5 NM to RW29	PINIY 8700	FEDPA 8900
RW29				9400
1.5 NM		3.5 NM	2.1 NM	5 NM
CATEGORY	A	B	C	D
LPV DA	7328-¾		250 (300-¾)	
LNAV/VNAV DA	7606-1¾		528 (600-1¾)	
LNAV MDA	7600-1	522 (600-1)	7600-1½	522 (600-1½)
CIRCLING	7600-1	504 (600-1)	7640-1½ 544 (600-1½)	7720-2 624 (700-2)

REIL Rws 11 and 29  
MIRL Rwy 11-29

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



NDB PNA <b>392</b>	APP CRS <b>309°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>7102</b>
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**NDB-A**  
RALPH WENZ FIELD (PNA)

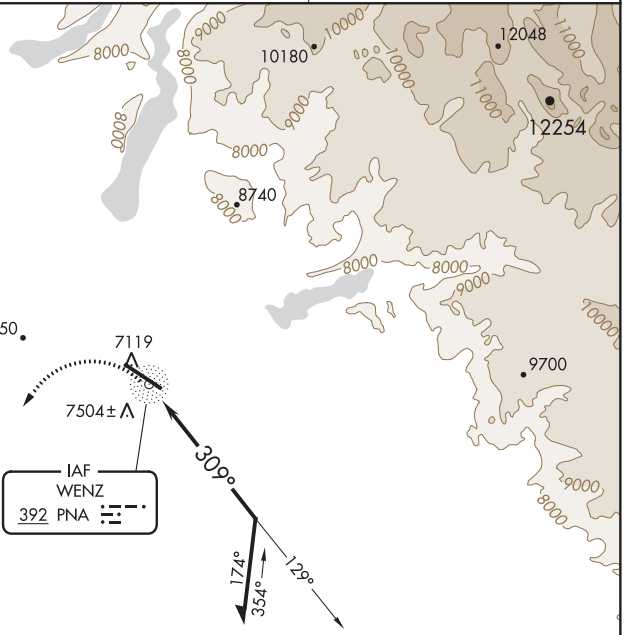
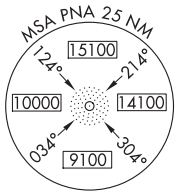
**⚠** When local altimeter setting not received, use Miley Memorial Field altimeter setting and increase all MDA 60 feet and visibility Cat C/D ¼ mile.

**MISSED APPROACH:** Climbing left turn to 10000 direct BPI VOR/DME and hold.

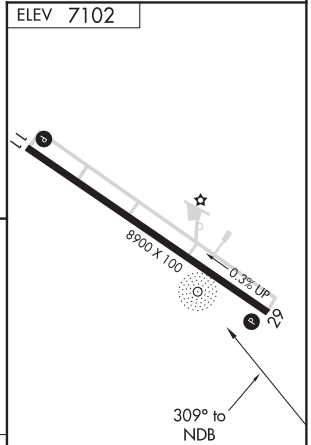
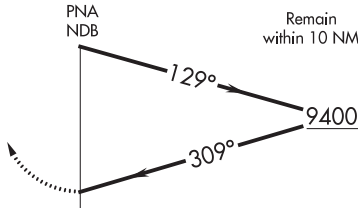
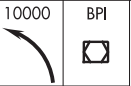
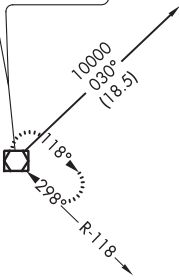
AWOS-3  
**118.325**

SALT LAKE CENTER  
**128.35 239.25**

UNICOM  
**122.8 (CTAF)**



**BIG PINEY**  
116.5 BPI  
Chan 112



CATEGORY	A	B	C	D
CIRCLING	7940-1¼	838 (900-1¼)	7940-2½ 838 (900-2½)	7940-2¾ 838 (900-2¾)

REIL Rwys 11 and 29  
MIRL Rwy 11-29

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>97729</b> <b>W12A</b>	APP CRS <b>122°</b>	Rwy Idg TDZE <b>3900</b> <b>2252</b> Apt Elev <b>2264</b>
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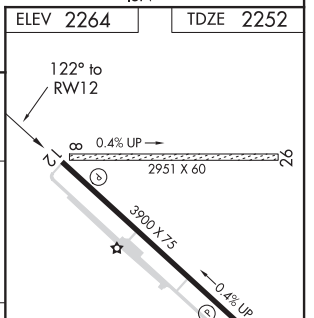
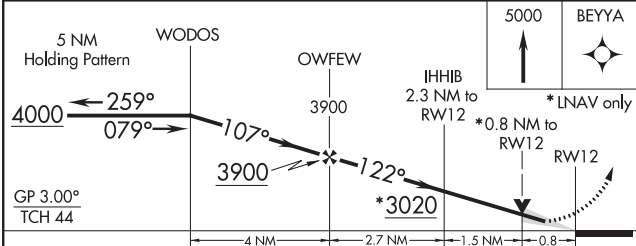
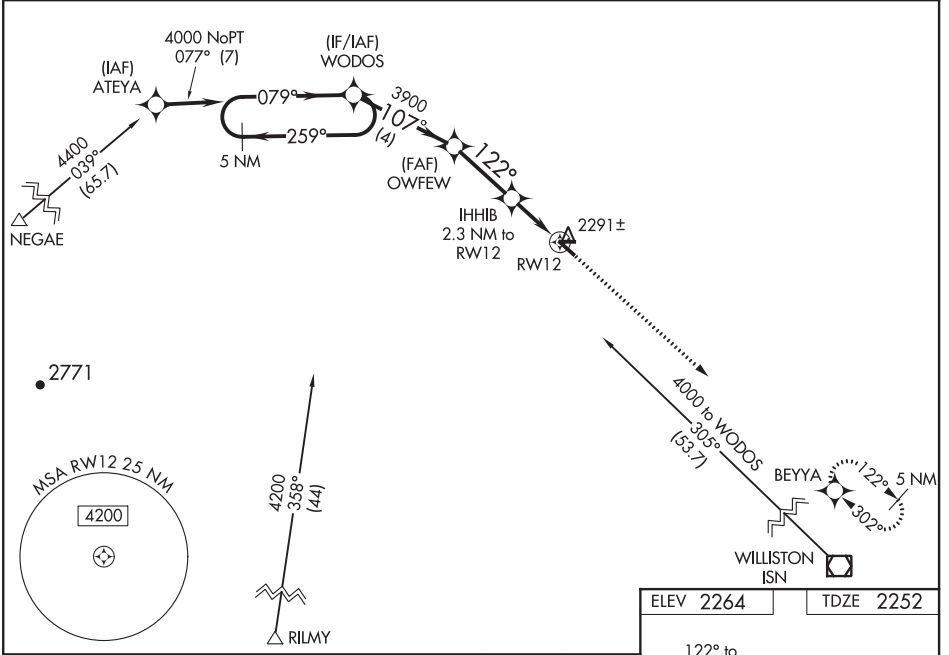
# RNAV (GPS) RWY 12

SHER-WOOD (PWD)

**⚠** Baro-VNAV NA when using Williston altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 29°C (84°F). DME/DME RNP-0.3 NA. VDP NA with Williston altimeter setting. When local altimeter setting is not received use Williston altimeter setting and increase all DA 157 feet and all MDA 160 feet. Increase LPV all Cats visibility ½ mile, LNAV/VNAV all Cats visibility ¾ mile, LNAV Cat C and D visibility ½ mile and Circling Cat C and D visibility ¼ mile. Circling to Rwy 8, 16, 26, 34 NA at night.

**⚠ NA** MISSED APPROACH: Climb to 5000 direct BEYYA and hold.

AWOS-AV <b>135.025</b>	SALT LAKE CENTER <b>126.85 305.2</b>	UNICOM <b>122.8 (CTAF) ①</b>
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CATEGORY	A	B	C	D
LPV DA		2452-¾	200 (200-¾)	
LNAV/VNAV DA		2502-¾	250 (300-¾)	
LNAV MDA	2560-1	308 (300-1)	2560-⅞	308 (300-⅞)
CIRCLING	2680-1 416 (500-1)	2720-1 456 (500-1)	2720-1½ 456 (500-1½)	2820-2 556 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>50529</b> <b>W30A</b>	APP CRS <b>302°</b>	Rwy Idg TDZE Apt Elev	<b>3900</b> <b>2247</b> <b>2264</b>
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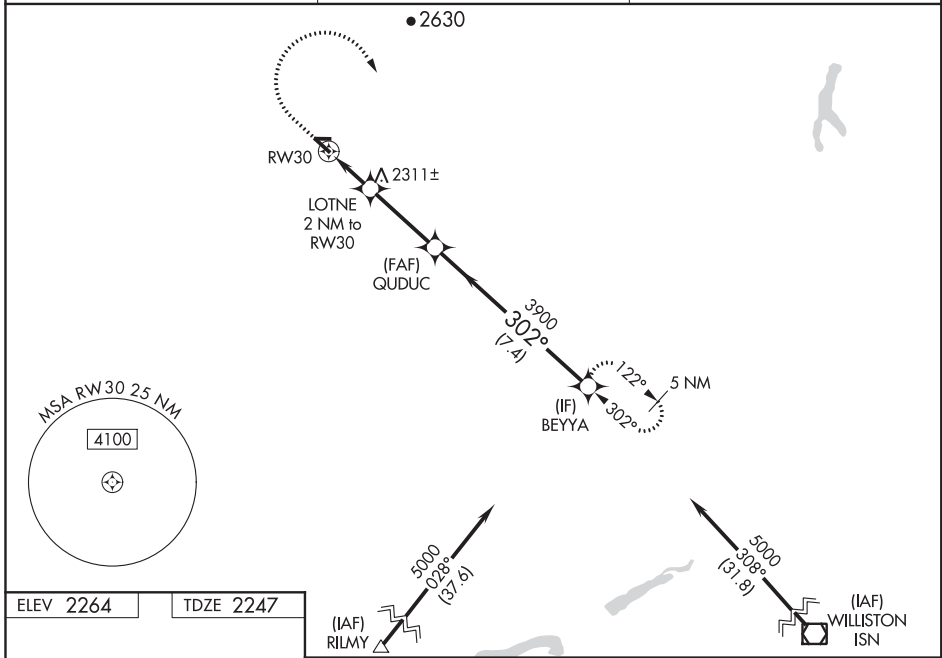
# RNAV (GPS) RWY 30

SHER-WOOD (PWD)

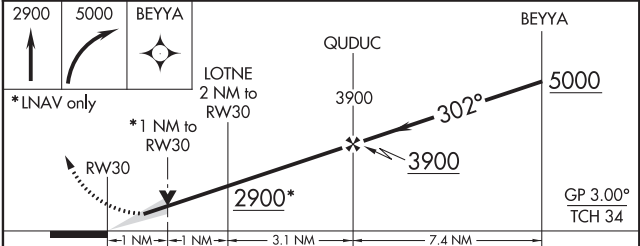
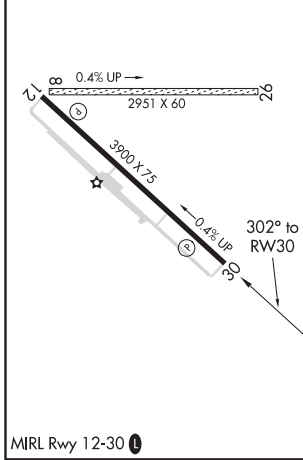
**⚠ NA** Circling to Rwy 8, 16, 26, 34 NA at night. Baro-VNAV NA when using Williston altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 29°C (84°F). DME/DME RNP-0.3 NA. VDP NA with Williston altimeter setting. When local altimeter setting not received, use Williston altimeter setting and increase all DA 1.57 feet and all MDA 160 feet. Increase LPV, LNAV/VNAV all Cats visibility ½ mile, LNAV Cat C and D visibility ⅓ mile, Circling Cat C and D visibility ¼ mile.

**MISSED APPROACH:** Climb to 2900 then climbing right turn to 5000 direct BEYYA and hold.

AWOS-AV <b>135.025</b>	SALT LAKE CENTER <b>126.85 305.2</b>	UNICOM <b>122.8 (CTAF) ①</b>
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ELEV 2264	TDZE 2247
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CATEGORY	A	B	C	D
LPV DA		2447-¾	200 (200-¾)	
LNAV/VNAV DA		2497-⅞	250 (300-⅞)	
LNAV MDA		2580-1	333 (400-1)	
CIRCLING	2680-1 416 (500-1)	2720-1 456 (500-1)	2720-1½ 456 (500-1½)	2820-2 556 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-PIH <b>110.3</b> Chan 40	APP CRS <b>211°</b>	Rwy Idg TDZE <b>9060</b> <b>4452</b> Apt Elev <b>4452</b>
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# ILS or LOC RWY 21

POCATELLO RGNL (PIH)

**⚠** Circling NA southeast of Rwy 3-21. For inoperative MALSR, increase S-ILS-21 Cat E visibility to RVR 4000, and S-LOC-21 Cat E visibility to RVR 5000.  
**\*\*** RVR 1800 authorized with the use of FD or AP or HUD to DA.

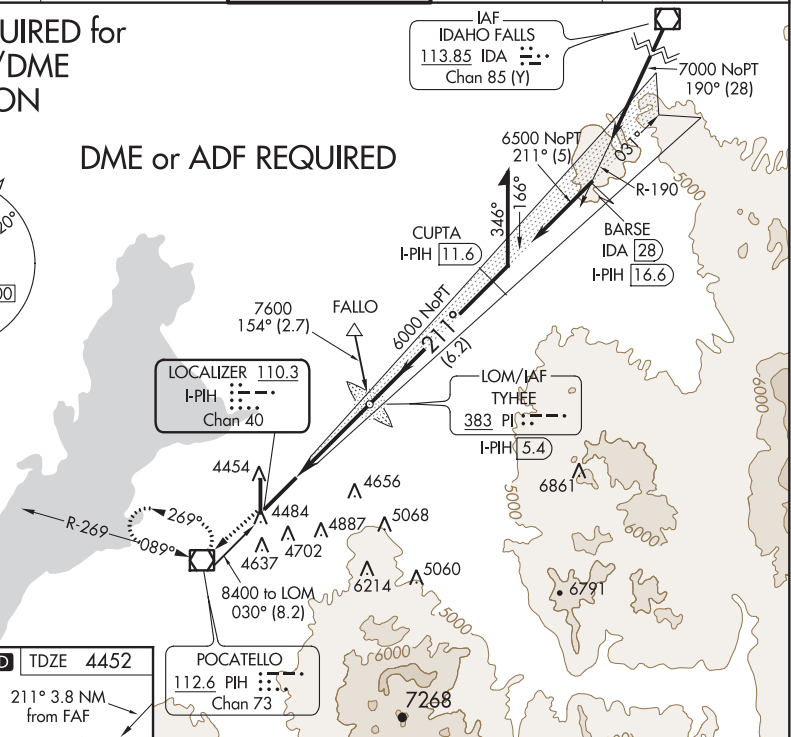
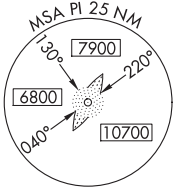


**MISSED APPROACH:** Climb to 7400 direct PIH VOR/DME, continue climb via PIH VOR/DME R-269, then right turn direct PIH VOR/DME and hold.

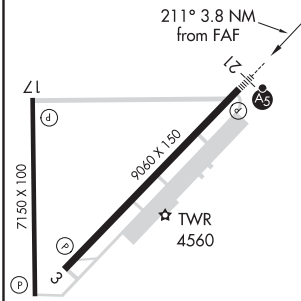
ATIS <b>135.625</b>	SALT LAKE CENTER <b>128.35 239.25</b>	<b>POCATELLO TOWER *</b> <b>119.1 (CTAF) 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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## DME REQUIRED for IDA VOR/DME TRANSITION

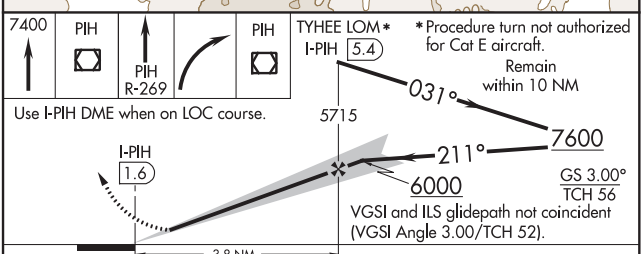
## DME or ADF REQUIRED



ELEV <b>4452</b>	<b>D</b>	TDZE <b>4452</b>
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<b>POCATELLO</b> 112.6 PIH Chan 73
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CATEGORY	A	B	C	D	E
S-ILS 21	<b>**4652/24</b> 200 (200-½)				
S-LOC 21	4740/24 288 (300-½)		4740/40 288 (300-¾)		
CIRCLING	4820-1 368 (400-1)	4920-1 468 (500-1)	4920-1½ 468 (500-1½)	5020-2	568 (600-2)

FAF to MAP 3.8 NM					
Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>97502</b> <b>W03A</b>	APP CRS <b>031°</b>	Rwy Idg <b>9060</b> TDZE <b>4444</b> Apt Elev <b>4452</b>
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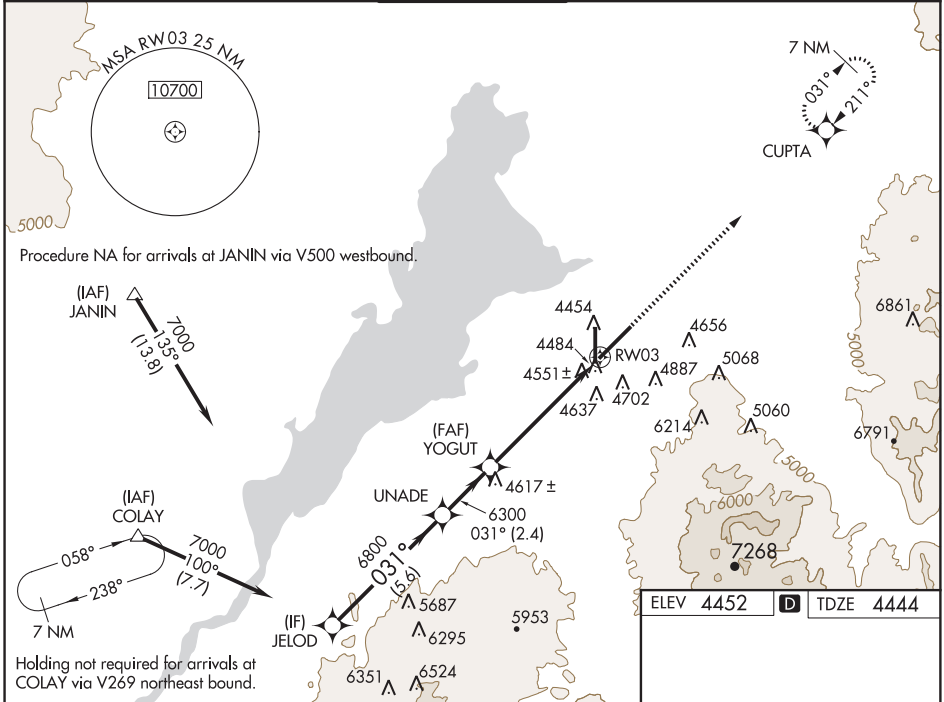
# RNAV (GPS) RWY 3

POCATELLO RGNL (PIH)

**⚠** Circling NA southeast of Rwy 3-21. DME/DME RNP-0.3 NA.  
**⚠** Visibility reduction by helicopters NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (9°F) or above 40°C (104°F). If local altimeter setting not received, use Idaho Falls Rgnl altimeter setting and increase all DAs/MDAs 140 feet. Baro-VNAV NA when using Idaho Falls Rgnl altimeter setting.

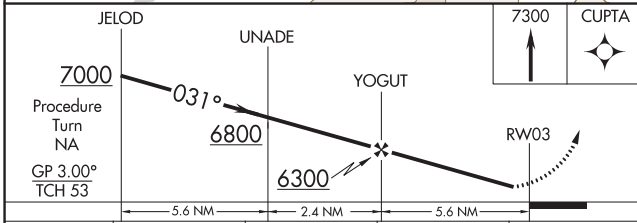
MISSED APPROACH: Climb to 7300 direct CUPTA and hold.

ATIS <b>135.625</b>	SALT LAKE CENTER <b>128.35 239.25</b>	<b>POCATELLO TOWER * 119.1 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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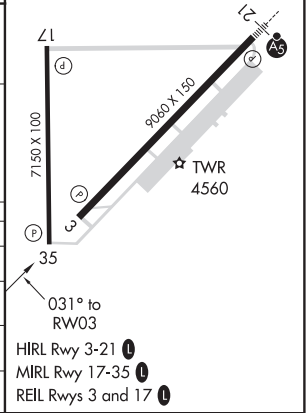
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 4452	<b>D</b>	TDZE 4444
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CATEGORY	A	B	C	D
LPV DA	4694-1		250 (300-1)	
LNAV/VNAV DA	4978-1¾		534 (600-1¾)	
LNAV MDA	4880-1	436 (500-1)	4880-1¼ 436 (500-1½)	4880-1½ 436 (500-1½)
CIRCLING	4980-1	528 (600-1)	4980-1½ 528 (600-1½)	5020-2 568 (600-2)



WAAS CH <b>78212</b> <b>W21A</b>	APP CRS <b>211°</b>	Rwy Idg TDZE <b>4452</b> Apt Elev <b>4452</b>	<b>9060</b> <b>4452</b> <b>4452</b>
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# RNAV (GPS) RWY 21

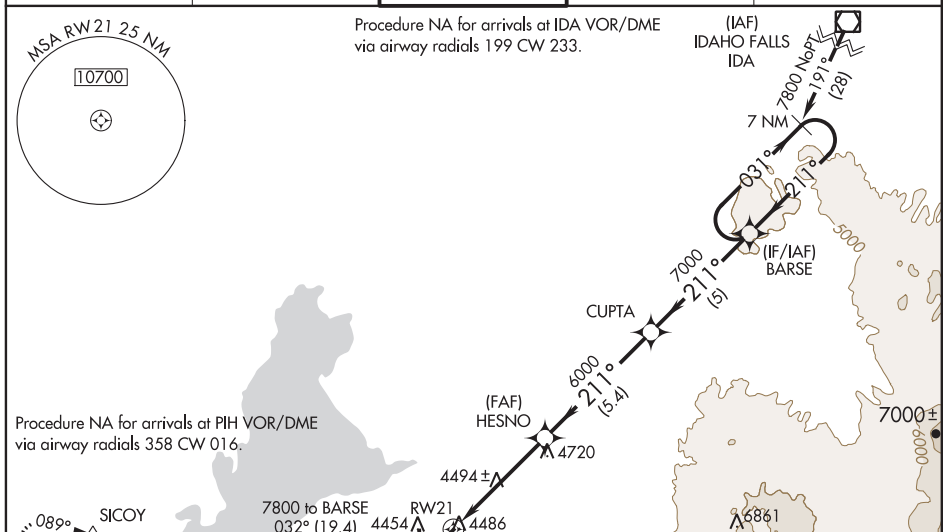
POCATELLO RGNL (PIH)

**⚠** Inoperative table does not apply to LNAV Cat D. For inoperative MALSR when using Idaho Falls altimeter setting, increase LPV all Cats visibility to 1 ¼ mile.  
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 39°C (102°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Idaho Falls altimeter setting and increase all DA and MDA 140 feet; increase LPV all Cats, LNAV Cat C, and Circling Cat C and D visibility ½ mile, increase LNAV/VNAV all Cats visibility ½ mile.  
 Baro-VNAV and VDP NA when using Idaho Falls altimeter setting.  
 Circling NA southeast of Rwy 3-21.

**MALSR**

**MISSED APPROACH:** Climb to 7000 direct HUMBA and via 273° track to SICOY and hold.

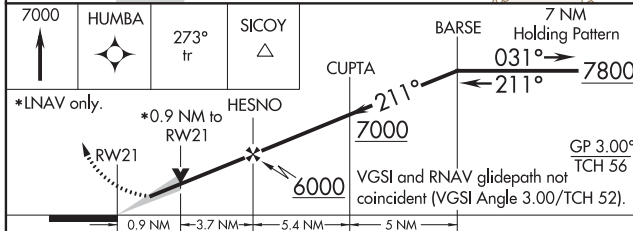
ATIS <b>135.625</b>	SALT LAKE CENTER <b>128.35 239.25</b>	<b>POCATELLO TOWER*</b> <b>119.1 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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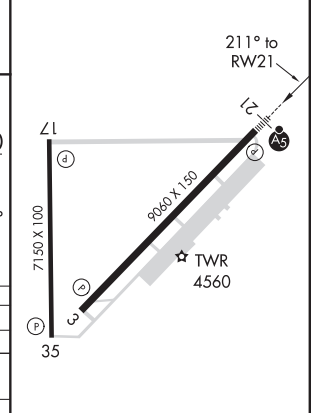
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

7000	HUMBA	273° tr	SICOY	BARSE	7000	7 NM Holding Pattern
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ELEV 4452	TDZE 4452
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CATEGORY	A	B	C	D
LPV DA	4652/24		200 (200-½)	
LNAV/VNAV DA	4797/40		345 (400-¾)	
LNAV MDA	4780/24		328 (400-½)	
CIRCLING	4820-1	4920-1	4920-1½	5020-2
	368 (400-1)	468 (500-1)	468 (500-1½)	568 (600-2)

HIRL Rwy 3-21  
 MIRL Rwy 17-35  
 REIL Rwy 3 and 17

VOR/DME PIH <b>112.6</b> Chan 73	APP CRS <b>033°</b>	Rwy Idg TDZE Apt Elev	<b>9060</b> <b>4444</b> <b>4452</b>
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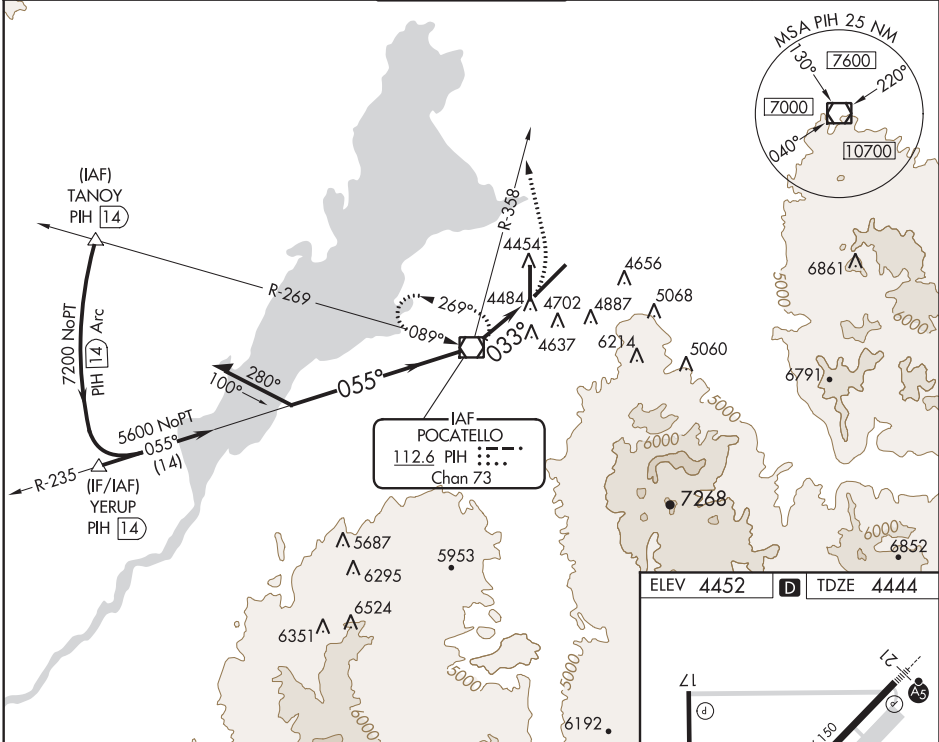
# VOR RWY 3

POCATELLO RGNL (PIH)

**⚠** Circling to Rwy 35 NA at night. When VGSI inop, Straight-In/Circling Rwy 3 procedure NA at night. Circling NA southeast of Rwy 3-21. Visibility reduction by helicopters NA. When local altimeter setting not received, use Idaho Falls altimeter setting and increase all MDA 140 feet, and increase visibility S-3 Cat C ½ mile and Circling Cat C ¼ mile.

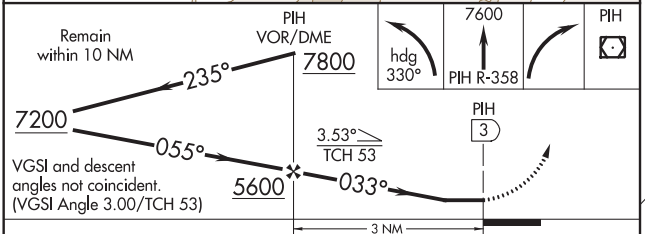
**MISSED APPROACH:** Climbing left turn on heading 330° and PIH VOR/DME R-358 to 7600 then right turn direct PIH VOR/DME and hold.

ATIS <b>135.625</b>	SALT LAKE CENTER <b>128.35 239.25</b>	<b>POCATELLO TOWER*</b> <b>119.1 (CTAF) 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 4452	TDZE 4444
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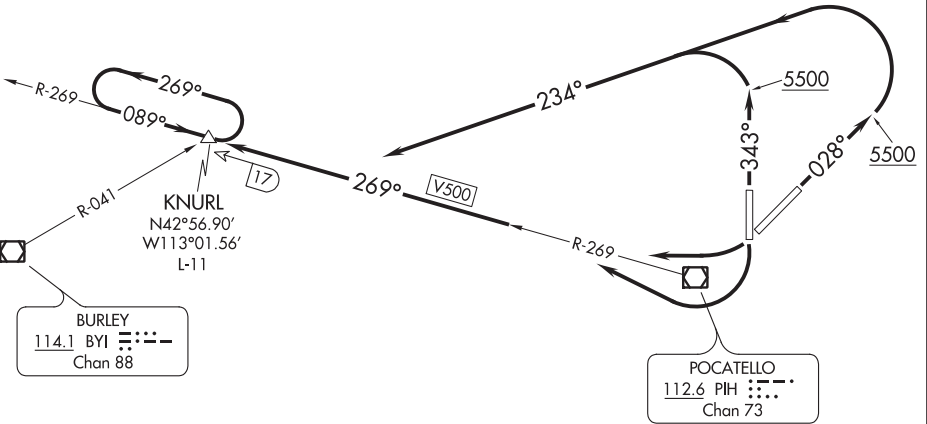
L1		21			
7150 X 100	9060 X 150	TWR	4560		
35	35	HIRL Rwy 3-21			
033° 3 NM from FAF		MIRL Rwy 17-35			
FAF to MAP 3 NM		REIL Rwys 3 and 17			
Knots	60	90	120	150	180
Min:Sec	3:00	2:00	1:30	1:12	1:00

CATEGORY	A	B	C	D
S-3	4940-1	496 (500-1)	4940-1 3/8 496 (500-1 3/8)	NA
CIRCLING	5000-1 548 (600-1)	5020-1 568 (600-1)	5060-1 3/4 608 (700-1 3/4)	NA





BOISE RADIO  
122.6  
POCATELLO TOWER ★  
119.1 (CTAF) 257.8  
SALT LAKE CENTER  
128.35 239.25



**TAKEOFF MINIMUMS**

Rwys 3, 21, 35: Standard.  
Rwy 17, 400-2 or standard with minimum climb of 270' per NM to 4900.

**TAKEOFF OBSTACLE NOTES**

- Rwy 3, Trees beginning 3353' from DER, 735' left of centerline, up to 100' AGL/4549' MSL.  
Rod on obstruction light 978' from DER, 759' right of centerline, 39' AGL/4486' MSL.
- Rwy 17, Transmission tower 1.1 NM from DER, 2395' left of centerline, 252' AGL/4693' MSL.  
Trees beginning 1.6 NM from DER, 2642' left of centerline, up to 100' AGL/4759' MSL.  
Fence 112' from DER, 416' right of centerline, 12' AGL/4453' MSL.  
Bush 30' from DER, 261' right of centerline, 3' AGL/4445' MSL.  
Fence 208' from DER, 421' right of centerline, 13' AGL/4449' MSL.
- Rwy 21, Antenna 453' from DER, 309' left of centerline, 20' AGL/4466' MSL.  
Light on localizer, 543' from DER, 286' left of centerline, 20' AGL/4462' MSL.
- Rwy 35, Electrical equipment 197' from DER, 248' left of centerline, 7' AGL/4454' MSL.

NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 3:** Climb heading 028° to 5500, then climbing left turn to 7500 via heading 234° and PIH R-269 to KNURL INT, thence . . . .

**TAKEOFF RUNWAY 35:** Climb heading 343° to 5500, then climbing left turn to 7500 via heading 234° and PIH R-269 to KNURL INT, thence . . . .

**TAKEOFF RUNWAY 17:** Climbing right turn to 7500 via PIH R-269 to KNURL INT, thence . . . .

**TAKEOFF RUNWAY 21:** Climbing right turn to 7500 via PIH R-269 to KNURL INT, thence . . . .

. . . . via assigned route expect filed altitude 10 minutes after departure.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>4195</b>
<b>182°</b>	TDZE	<b>2941</b>
	Apt Elev	<b>2941</b>

# RNAV (GPS) RWY 18

POLSON (8S1)

<p>Procedure NA at night. DME/DME RNP-0.3 NA. Use Glacier Park Intl altimeter setting. Helicopter visibility reduction below 1 SM NA.</p>	<p>MISSED APPROACH: Climb to 9200 direct POLAE and hold.</p>
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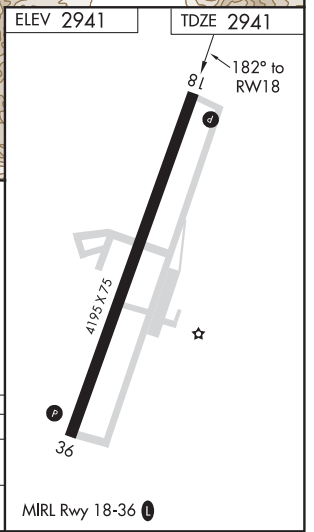
GLACIER PARK INTL ASOS <b>132.625</b>	SALT LAKE CENTER <b>133.4 285.4</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

9200	POLAE	HALSO 4.9 NM to RWY 18	KULTE	ITONE	JAGEL	FCA VOR/DME
		≤3.09° TCH 30		168°	143°	8000
		182°	5500	7000	8000	Procedure Turn NA
		4.9 NM	2.9 NM	9 NM	5 NM	10.1 NM
CATEGORY	A	B	C	D		
LNAV MDA	4480-1¼ 1539 (1600-1¼)	4480-1½ 1539 (1600-1½)	NA			
CIRCLING	4480-1¼ 1539 (1600-1¼)	4480-1½ 1539 (1600-1½)	NA			



APP CRS <b>013°</b>	Rwy Idg TDZE Apt Elev	<b>4195</b> <b>2941</b> <b>2941</b>
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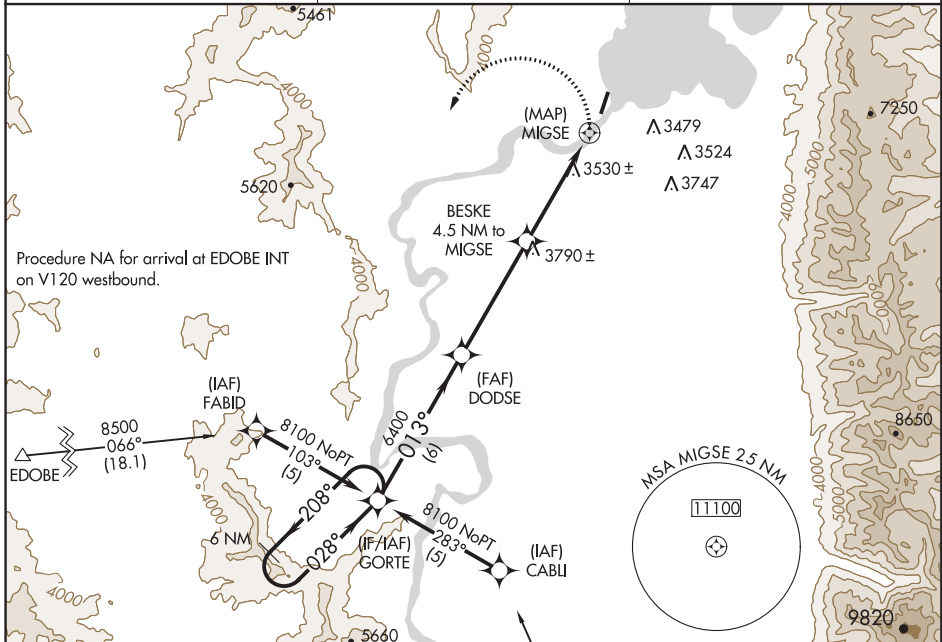
# RNAV (GPS) RWY 36

POLSON (8S1)

Procedure NA at night. DME/DME RNP-0.3 NA.  
 Use Glacier Park Intl altimeter setting.  
 Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climbing left turn to 9000 direct GORTE WP and hold.

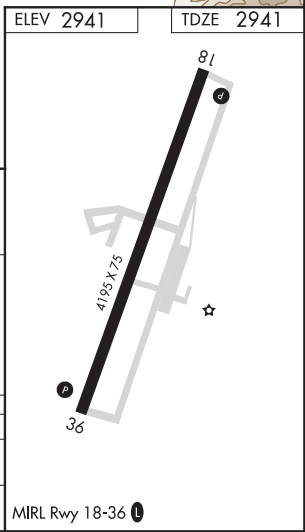
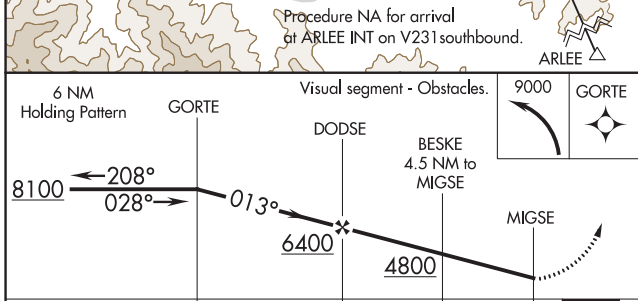
GLACIER PARK INTL ASOS <b>132.625</b>	SALT LAKE CENTER <b>133.4 285.4</b>	UNICOM <b>122.8 (CTAF)</b> <b>0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2941	TDZE 2941
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CATEGORY	A	B	C	D
LNAV	4340-1¼ 1399 (1400-1¼)	4340-1½ 1399 (1400-1½)		NA
CIRCLING	4340-1¼ 1399 (1400-1¼)	4340-1½ 1399 (1400-1½)		NA

(ANGIL1.ANGIL) 16147

# ANGIL ONE DEPARTURE (OBSTACLE) (RNAV)

SL-9529 (FAA)

POLSON (8S1)  
POLSON, MONTANA

SALT LAKE CITY CENTER  
133.4 285.4  
GREAT FALLS RADIO  
122.6  
CTAF  
122.8

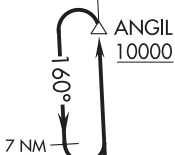
KALISPELL  
FCA

V448

V536

V536

V231



### TAKEOFF MINIMUMS

Rwy 36: Standard with minimum climb of 280' per NM to 6600.

Rwy 18: NA for this departure.

### TAKEOFF OBSTACLE NOTES

Rwy 36: Trees 2.38 NM from DER, 3383' left of centerline, 100' AGL/3179' MSL.  
Road 540' from DER, 2955' MSL.

NOTE: GPS required.

NOTE: RNAV 1.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 36: Climb direct to TEPSE WP, then via 340° track to ANGIL, Thence. . . .

. . . .Climb in the ANGIL holding pattern to cross ANGIL at or above 10000 prior to proceeding on course.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ANGIL ONE DEPARTURE (OBSTACLE) (RNAV)

(ANGIL1.ANGIL) 30SEP04

POLSON, MONTANA  
POLSON (8S1)

WAAS CH <b>66031</b> <b>W09A</b>	APP CRS <b>095°</b>	Rwy Idg TDZE Apt Elev	<b>4403</b> <b>2033</b> <b>2037</b>
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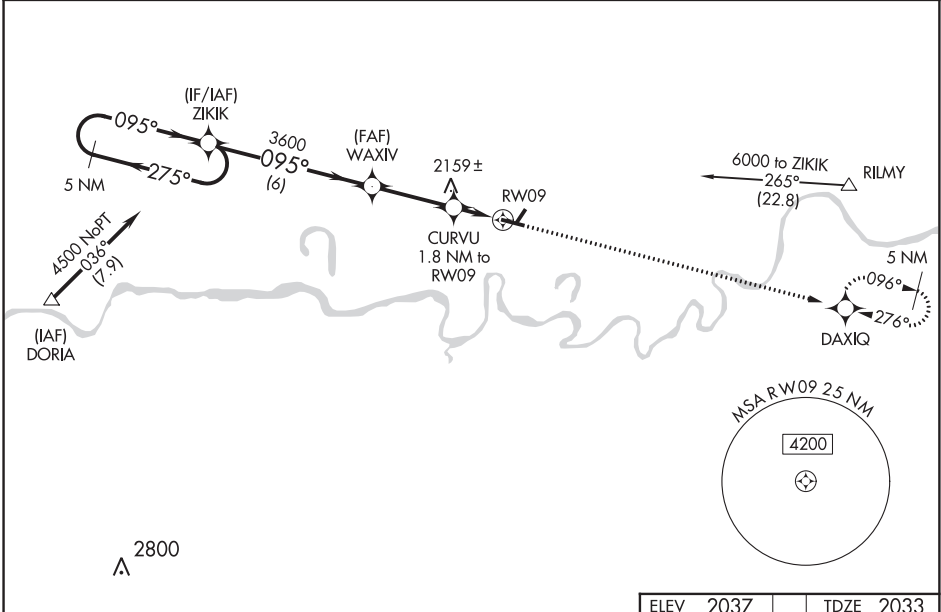
# RNAV (GPS) RWY 9

POPLAR MUNI (PO1)

**NA** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA with Wolf Point altimeter setting. When local altimeter not received, use Wolf Point altimeter setting and increase all DA 46 feet and all MDA 60 feet, and increase LNAV Cats C and D and Circling Cat C visibility ¼ mile. Helicopter visibility reduction below 1 SM not authorized. Circling NA to Rwy 2/20.

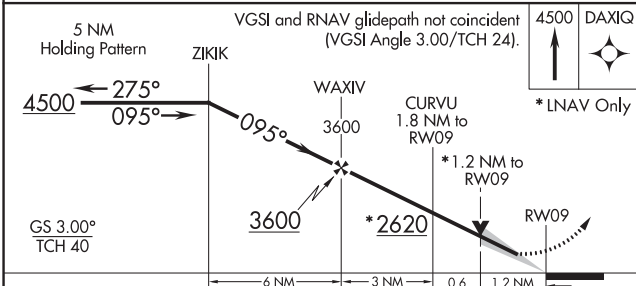
MISSED APPROACH: Climb to 4500 direct DAXIQ and hold.

AWOS-AV <b>135.325</b>	SALT LAKE CITY APP CON <b>126.85 305.2</b>	UNICOM <b>122.8 (CTAF)</b>
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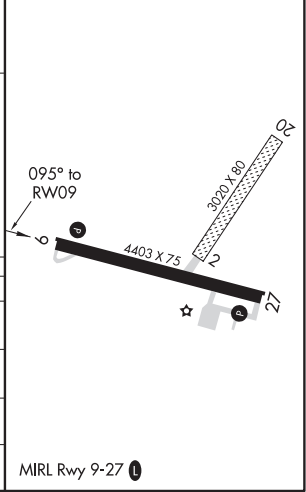
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 2037	TDZE 2033
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CATEGORY	A	B	C	D
LPV DA		2233-1	200 (200-1)	
LNAV/VNAV DA		2283-1	250 (300-1)	
LNAV MDA	2420-1	387 (400-1)	2420-1½	387 (400-1½)
CIRCLING	2560-1 523 (600-1)	2600-1 563 (600-1)	2600-1½ 563 (600-1½)	2600-2 563 (600-2)



POPLAR, MONTANA

AL-10424 (FAA)

14177

WAAS CH <b>69531</b> <b>W27A</b>	APP CRS <b>276°</b>	Rwy Idg TDZE Apt Elev	<b>4403</b> <b>2036</b> <b>2037</b>
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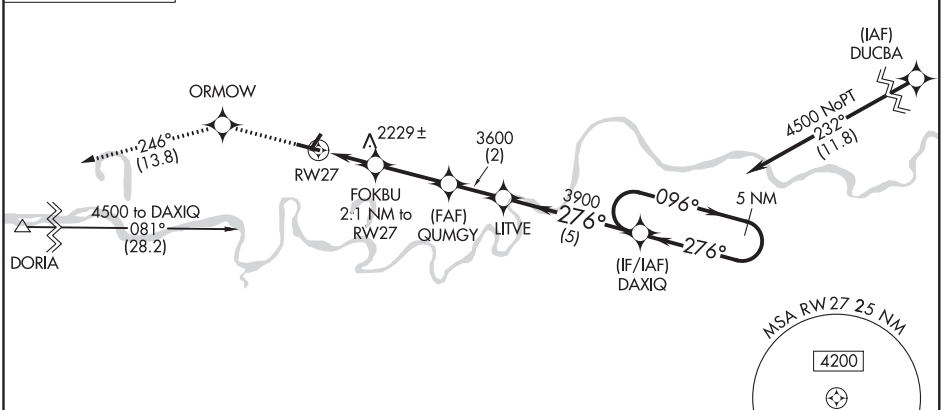
# RNAV (GPS) RWY 27

POPLAR MUNI (PO1)

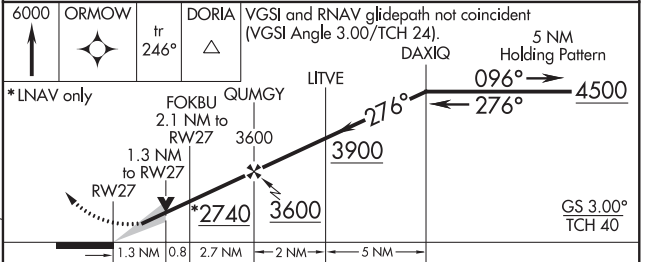
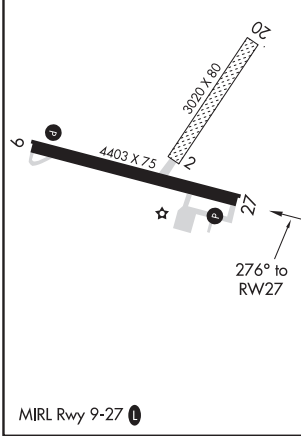
**NA** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). DME/DME RNP -0.3 NA. When local altimeter setting not received, use Wolf Point altimeter setting and increase all DA 46 feet and all MDA 60 feet and increase LNAV/VNAV all Cats visibility 1/8 mile and increase Circling Cat C visibility 1/4 mile. Baro-VNAV and VDP NA with Wolf Point altimeter setting. Helicopter visibility reduction below 1 SM not authorized. Circling NA to Rwy 2/20.

**MISSED APPROACH:** Climb to 6000 direct ORMOW and on track 246° to DORIA and hold, continue climb-in-hold to 6000.

AWOS-AV <b>135.325</b>	SALT LAKE CITY APP CON <b>126.85 305.2</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV 2037	TDZE 2036
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CATEGORY	A	B	C	D
LPV DA	2286-1 250 (300-1)			
LNAV/VNAV DA	2536-1 3/4 500 (500-1 3/4)			
LNAV MDA	2480-1	444 (500-1)	2480-1 3/8	444 (500-1 3/8)
CIRCLING	2560-1 523 (600-1)	2600-1 563 (600-1)	2600-1 1/2 563 (600-1 1/2)	2600-2 563 (600-2)

POPLAR, MONTANA  
Amdt 1A 26JUN14

48°08'N-105°10'W

# RNAV (GPS) RWY 27

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>257°</b>	Rwy Idg <b>4500</b>
	TDZE <b>9</b>
	Apt Elev <b>13</b>

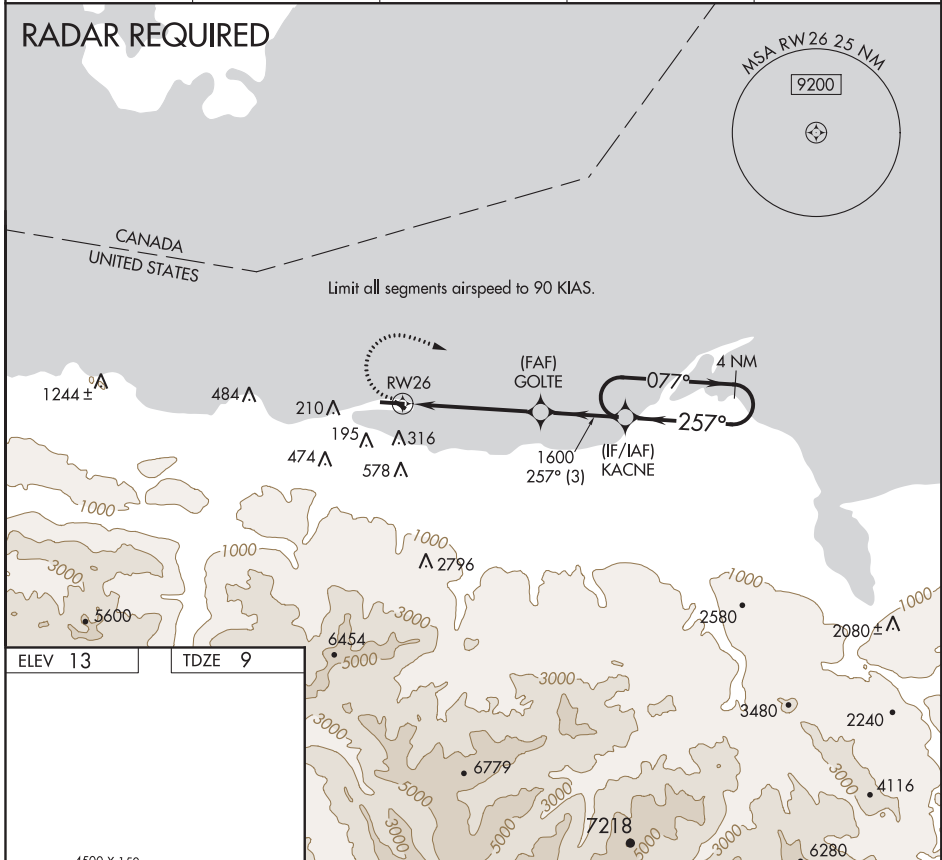
# COPTER RNAV (GPS) RWY 26

PORT ANGELES CGAS (NOW)

**⚠** Use William R Fairchild Intl altimeter setting; when not received, use Whidbey Island NAS/Ault Field altimeter setting and increase MDA 120 feet. DME/DME RNP-0.3 NA. Prior permission required.

**⚠** MISSED APPROACH: Climbing right turn to 1900 direct KACNE and hold.

AWOS-3P <b>118.325</b>	WHIDBEY APP CON <b>118.2 285.65</b>	PORT ANGELES AIR <b>127.7 345.0</b>	CLNC DEL <b>124.15</b>	UNICOM <b>122.975</b> (CTAF)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

MIRL Rwy 8-26		CATEGORY COPTER	
LNAV MDA 560-1 551 (600-1)			

NDB K <b>338</b>	APP CRS <b>242°</b>	Rwy Idg TDZE Apt Elev	N/A N/A <b>13</b>
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# COPTER NDB 242°

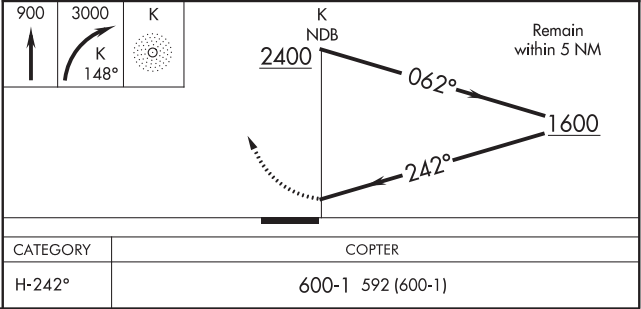
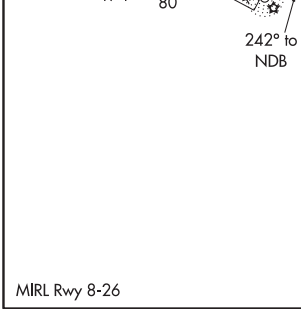
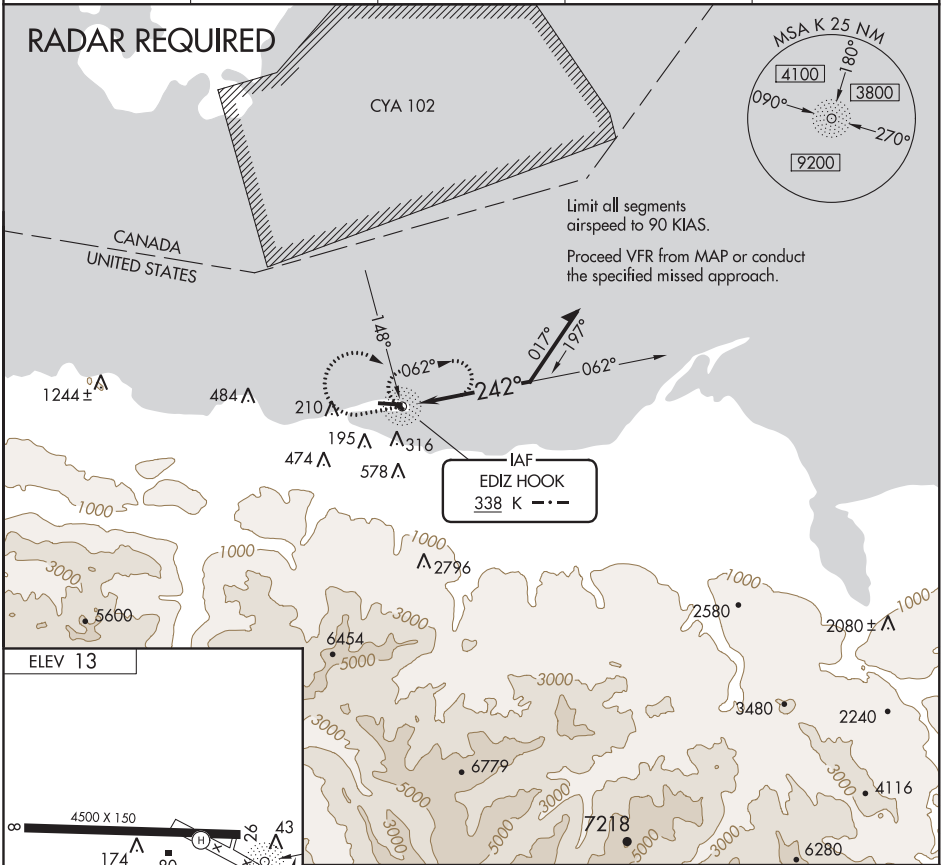
PORT ANGELES CGAS (NOW)

**▼** Prior permission required. Use William R Fairchild Intl altimeter setting; when not received, use Whidbey Island NAS/Ault Field altimeter setting and increase MDA 120 feet.

**▲ NA**

**MISSED APPROACH:** Climb to 900 then climbing right turn to 3000 on K NDB bearing 148° to K NDB and hold, continue climb-in-hold to 3000.

AWOS-3P <b>118.325</b>	WHIDBEY APP CON <b>118.2 285.65</b>	PORT ANGELES AIR <b>127.7 345.0</b>	CLNC DEL <b>124.15</b>	UNICOM <b>122.975</b> (CTAF)
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NW-1, 10 NOV 2016 to 05 JAN 2017


NW-1, 10 NOV 2016 to 05 JAN 2017



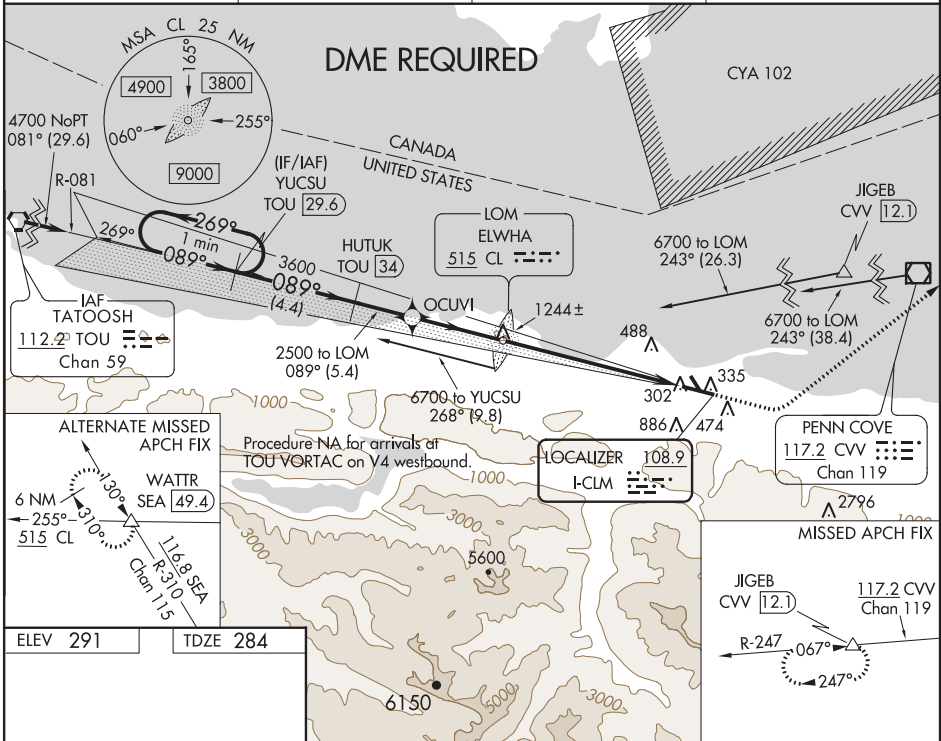
LOC I-CLM <b>108.9</b>	APP CRS <b>089°</b>	Rwy Idg TDZE Apt Elev	<b>6347</b> <b>284</b> <b>291</b>
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# ILS or LOC RWY 8

WILLIAM R FAIRCHILD INTL (CLM)

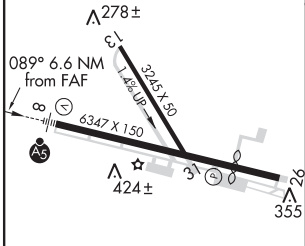
<p><b>▽</b> Night Landing: RWY 13, 31 NA. <b>▲</b> NA Circling NA south of Rwy 8-26. DME required. DME from TOU VORTAC. Simultaneous reception of I-CLM and TOU DME required. For inop MALSR, increase S-LOC 8 Cat C/D visibility to 1 1/4 mile.</p>	<p><b>MALSR</b></p> 	<p><b>MISSED APPROACH:</b> Climb to 1000 then climbing left turn to 5400 on heading 030° and on CVV R-247 to JIGEB/CVV 12.1 DME and hold, continue climb-in-hold to 5400.</p>
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ASOS <b>135.175</b>	WHIDBEY APP CON <b>118.2 285.65</b>	CLNC DEL <b>124.15</b>	UNICOM <b>122.975 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 291	TDZE 284
	
<p>MIRL Rwy 8-26 <b>0</b> REIL Rwy 26</p>	
FAF to MAP 6.6 NM	
Knots	60 90 120 150 180
Min:Sec	6:36 4:24 3:18 2:38 2:12


One Minute Holding Pattern	YUCSU TOU [29.6]	HUTUK TOU [34]	OCUVI TOU [36]	ELWHA CL LOM 2483	JIGEB CVV [12.1]
4700	269°	089°	3600	3500	3500
<p>GS 3.00° TCH 54</p> <p>VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 50).</p>					
<p>* 2500</p>					
<p>4.4 NM 2.1 3.3 NM 6.6 NM</p>					

CATEGORY	A	B	C	D
S-ILS 08	484-1/2 200 (200-1/2)			
S-LOC 08	900-1/2	616 (700-1/2)	900-1 3/8	616 (700-1 3/8)
<b>0</b> CIRCLING	900-1	609 (700-1)	900-1 3/4	609 (700-2)

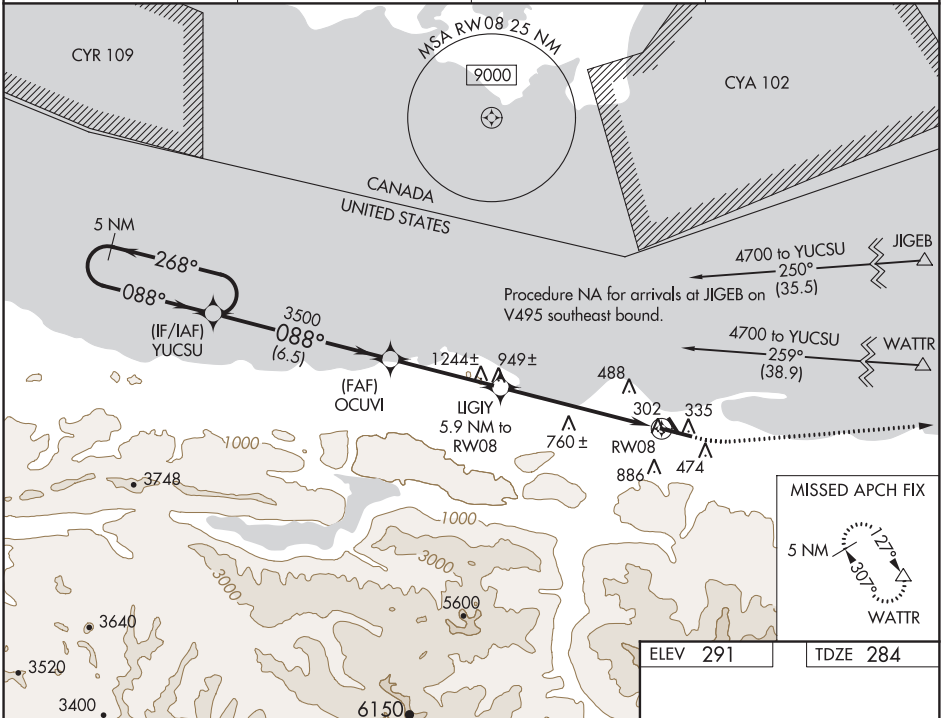
WAAS CH <b>77703</b> <b>W08A</b>	APP CRS <b>088°</b>	Rwy Idg <b>6347</b> TDZE <b>284</b> Apt Elev <b>291</b>
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# RNAV (GPS) RWY 8

WILLIAM R FAIRCHILD INTL (CLM)

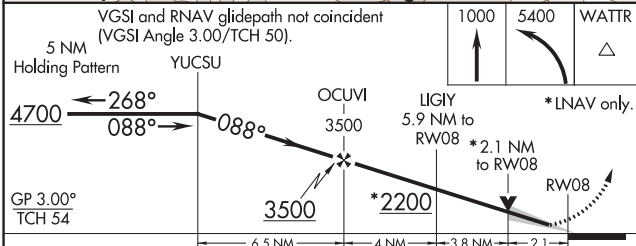
<p><b>⚠</b> Baro-VNAV NA. DME/DME RNP-0.3 NA. For inop MALSR, increase LNAV/VNAV all Cats visibility to 1½ mile, and increase LNAV Cat C/D visibility to 1⅞ mile. Night Landing: Rwy 13, 31 NA. Circling NA south of Rwy 8-26.</p>	<p>MALSR</p> 	<p>MISSED APPROACH: Climb to 1000 then climbing left turn to 5400 direct WATTR and hold, continue climb-in-hold to 5400.</p>
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ASOS <b>135.175</b>	WHIDBEY APP CON <b>118.2 285.65</b>	CLNC DEL <b>124.15</b>	UNICOM <b>122.975 (CTAF) ①</b>
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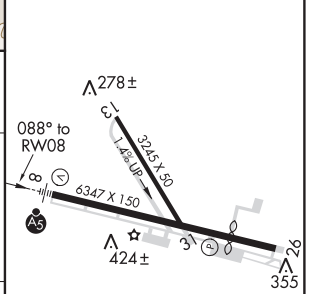


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 291	TDZE 284
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CATEGORY	A	B	C	D
LPV DA	504-½ 220 (300-½)			
LNAV/VNAV DA	750-1⅞ 466 (500-1⅞)			
LNAV MDA	960-½ 676 (700-½)		960-1½ 676 (700-1½)	
<b>C</b> CIRCLING	960-1 669 (700-1)		960-2 669 (700-2)	

MIRL Rwy 8-26 ①  
REIL Rwy 26

WAAS CH <b>90338</b> <b>W26A</b>	APP CRS <b>269°</b>	Rwy Idg TDZE Apt Elev	<b>4993</b> <b>282</b> <b>291</b>
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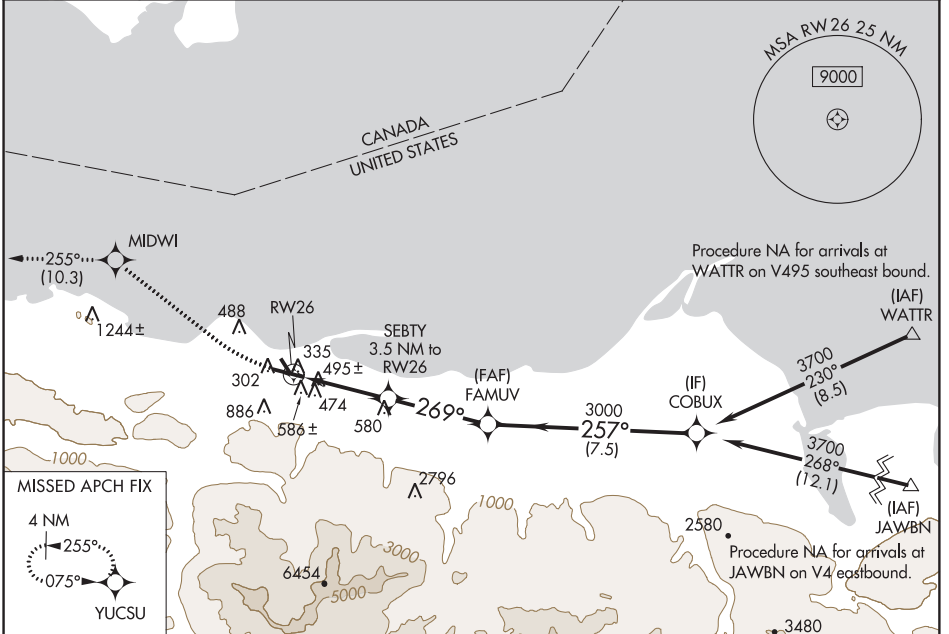
# RNAV (GPS) RWY 26

WILLIAM R FAIRCHILD INTL (CLM)

**▽** DME/DME RNP-0.3 NA. Circling NA south of Rwy 8-26.  
Night landing: Rwy 13, 31 NA. Helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climbing right turn to 4000 direct MIDWI and on track 255° to YUCSU and hold.

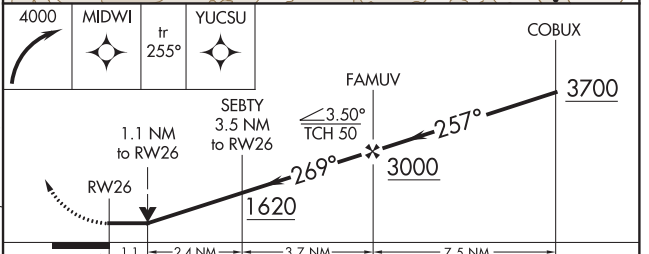
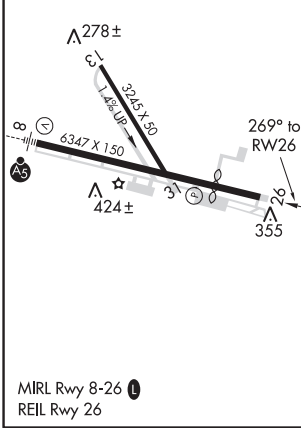
ASOS <b>135.175</b>	WHIDBEY APP CON <b>118.2 285.65</b>	CLNC DEL <b>124.15</b>	UNICOM <b>122.975 (CTAF)</b> <b>①</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 291	TDZE 282
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CATEGORY	A	B	C	D
LP MDA	760-1	478 (500-1)	760-1 <sup>3</sup> / <sub>8</sub>	478 (500-1 <sup>3</sup> / <sub>8</sub> )
LNAV MDA	920-1	638 (700-1)	920-1 <sup>3</sup> / <sub>4</sub>	638 (700-1 <sup>3</sup> / <sub>4</sub> )
<b>C</b> CIRCLING	920-1	629 (700-1)	920-1 <sup>3</sup> / <sub>4</sub> 629 (700-1 <sup>3</sup> / <sub>4</sub> )	920-2 629 (700-2)

(WATTR6.WATTR) 16147

WATTR SIX DEPARTURE (OBSTACLE)

SL-886 (FAA)

WILLIAM R FAIRCHILD INTL (CLM)  
PORT ANGELES, WASHINGTON

VICTORIA  
113.7 YYJ   
Chan 84  
N48°43.62' - W123°29.06'  
L-1, H-1

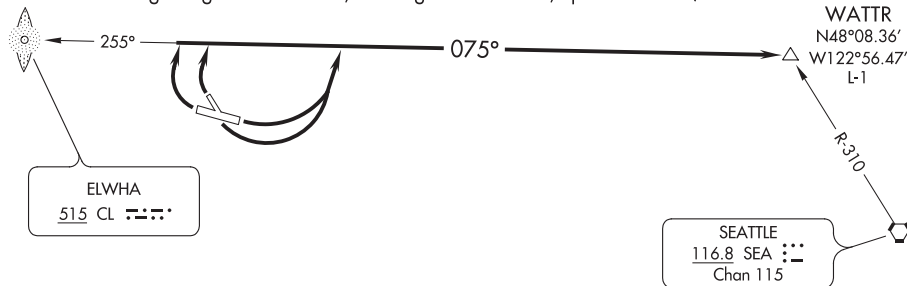
WHIDBEY DEP CON  
118.2 285.65  
SEATTLE RADIO  
122.6  
CTAF  
122.975

TAKEOFF OBSTACLE NOTES

- Rwy 8: Building and hangar beginning 100' from DER, 499' right of centerline, up to 15' AGL/314' MSL.  
Building and tree beginning 130' from DER, 258' left of centerline, up to 20' AGL/311' MSL.  
Navaid 303' from DER, on centerline, 8' AGL/300' MSL. Powerlines beginning 922' from DER, from 343' left of centerline to 650' right of centerline, up to 62' AGL/362' MSL.  
Trees beginning 1218' from DER, 305' left of centerline, up to 85' AGL/388' MSL.  
Trees beginning 1270' from DER, 146' right of centerline, up to 102' AGL/402' MSL.  
Trees beginning 1304' from DER, left and right of centerline, up to 156' AGL/456' MSL.  
Trees beginning 4375' from DER, left and right of centerline, up to 170' AGL/495' MSL.
- Rwy 13: Sign 77' from DER, 229' left of centerline, 7' AGL/276' MSL.  
Pole and trees beginning 614' from DER, 194' right of centerline, up to 42' AGL/318' MSL.  
Tree and airport beacon beginning 1722' from DER, 355' left of centerline, up to 49' AGL/345' MSL. Trees beginning 2219' from DER, left and right of centerline, up to 102' AGL/402' MSL.
- Rwy 26: Trees beginning 2940' from DER, 914' left of centerline, up to 128' AGL/378' MSL.  
Tree 3987' from DER, 519' right of centerline, 186' AGL/386' MSL.
- Rwy 31: Trees beginning 470' from DER, 39' left of centerline, up to 98' AGL/298' MSL.  
Trees beginning 640' from DER, 112' right of centerline, up to 127' AGL/290' MSL.

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NW-1, 10 NOV 2016 to 05 JAN 2017



TAKEOFF MINIMUMS

- Rwys 26, 31: Standard.
- Rwy 13: Standard with minimum climb of 460' per NM to 1100, or 3300-3 for VCOA.
- Rwy 8: 300-1.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8, 13: Climbing left turn, thence. . . .

TAKEOFF RUNWAYS 26, 31: Climbing right turn, thence. . . .

. . . .on 075° bearing from CL LOM to WATTR INT. Maintain 5400.

VCOA RUNWAY 13: Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross William R Fairchild Intl Airport on heading 045° at or above 3400, continue climb to 5400 on 075° bearing from CL LOM to WATTR INT. Maintain 5400.

WATTR SIX DEPARTURE (OBSTACLE)

(WATTR6.WATTR) 26MAY16

PORT ANGELES, WASHINGTON  
WILLIAM R FAIRCHILD INTL (CLM)

APP CRS	Rwy Idg	N/A
088°	TDZE	N/A
	Apt Elev	110

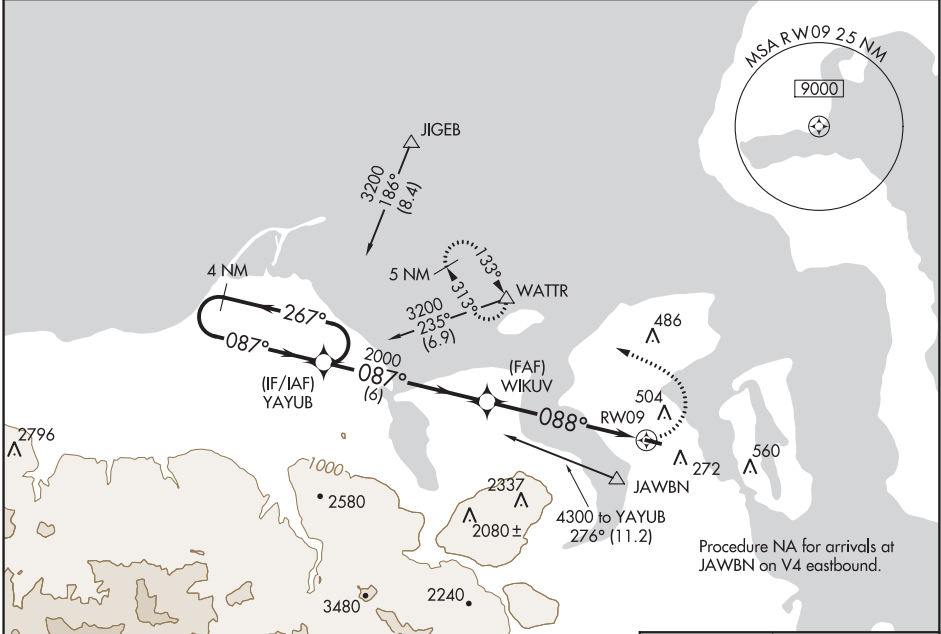
# RNAV (GPS)-A

JEFFERSON COUNTY INTL (ØS9)

**▽** Use AJ Eisenberg altimeter setting; when not received use Whidbey Island NAS/Auli Field altimeter setting and increase all MDA 20 feet.  
**△ NA** DME/DME RNP- 0.3 NA. Procedure NA at night. Helicopter visibility reduction below 1 SM not authorized.

**MISSED APPROACH:** Climbing left turn to 5400 direct WATTR and hold, continue climb-in-hold to 5400.

AJ EISENBERG AWOS-3 <b>132.775</b>	AWOS-3P <b>119.025</b>	WHIDBEY APP CON <b>118.2</b>	CTAF <b>123.0</b>
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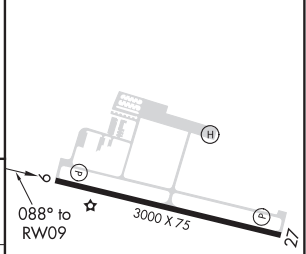
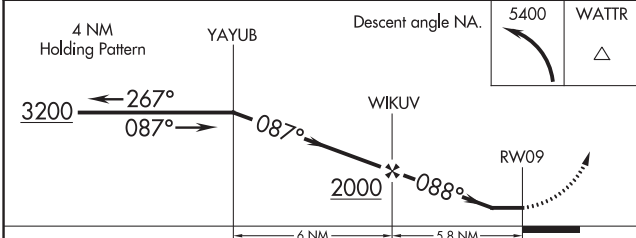


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 110
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CATEGORY	A	B	C	D
CIRCLING	1000-1¼	890 (900-1¼)		NA

REIL Rwy 9 and 27  
 MRL Rwy 9-27 **Ø**



LOC/DME I-PDX <b>110.5</b> Chan 42	APP CRS <b>103°</b>	Rwy Idg TDZE Apt Elev	10R <b>11000</b> <b>24</b> <b>31</b>	10L <b>8535</b> <b>30</b> <b>31</b>
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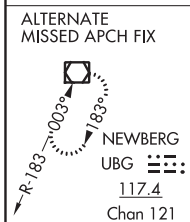
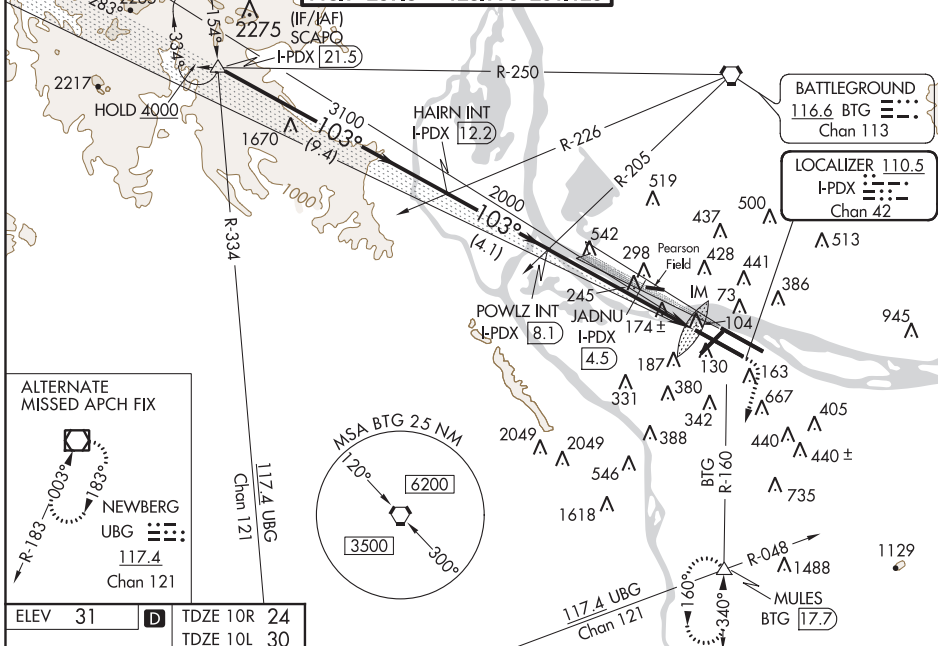
# ILS or LOC RWY 10R

PORTLAND INTL (PDX)

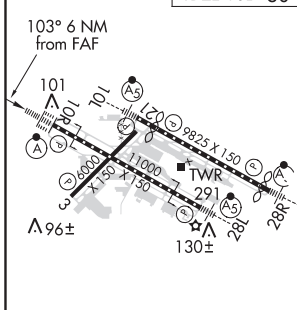
⚠ For inop ALSF-2 increase S-ILS 10R visibility all Cats to RVR 4000.  
 ⚠ For inop ALSF-2 increase S-LOC 10R Cats C-E visibility to 2 1/2.  
 For inop ALSF-2 increase JADNU fix minimums S-LOC 10R Cat C-E visibility to RVR 6000. Sidestep NA until passing JADNU.  
 Inop table does not apply to Sidestep LOC. Simultaneous approach authorized with Rwy 10L

ALSF-2 Rwy 10R 	MALSR Rwy 10L 	MISSED APPROACH: Climb to 1100 then climbing right turn to 5000 on BTG VORTAC R-160 to MULES INT/BTG 17.7 DME and hold, continue climb-in-hold to 5000.
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ATIS <b>128.35 269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b> Rws 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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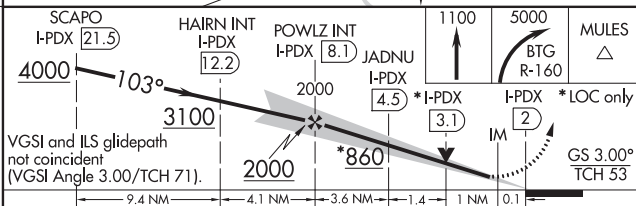


ELEV 31	<b>D</b>	TDZE 10R 24	TDZE 10L 30
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REIL Rws 3 and 21  
 TDZ/CL Rwy 10R  
 MIRL Rwy 3-21  
 HIRL Rws 10L-28R and 10R-28L

FAF to MAP 6 NM					
Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00



CATEGORY	A	B	C	D	E
S-ILS 10R	224/18 200 (200-1/2)				
S-LOC 10R	860/24 836 (900-1/2)	860/40 836 (900-3/4)	860-1 7/8 836 (900-1 7/8)		
CIRCLING	860-1 1/4	829 (900-1 1/4)	860-2 1/2 829 (900-2 1/2)	980-3 949 (1000-3)	1140-3 1109 (1200-3)
JADNU FIX MINIMUMS					
S-LOC 10R	440/24	416 (500-1/2)	440/40 416 (500-3/4)		
SIDESTEP 10L	800-1 770 (800-1)	800-1 1/4 770 (800-1 1/4)	800-2 1/2	770 (800-2 1/2)	800-3 770 (800-3)

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NW-1, 10 NOV 2016 to 05 JAN 2017





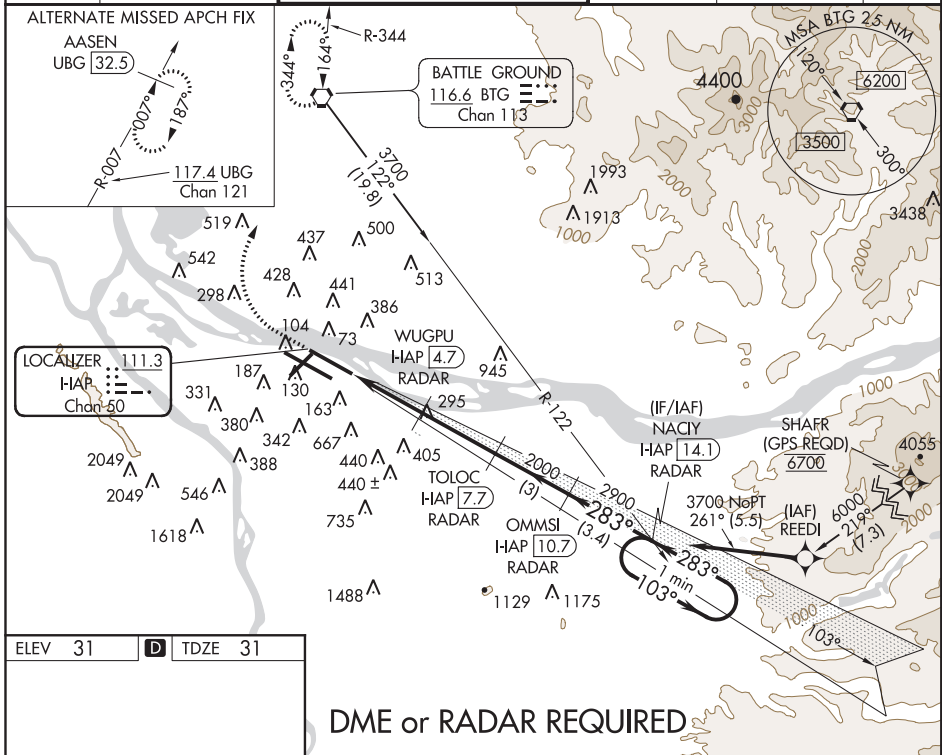
LOC/DME I-HAP <b>111.3</b> Chan 50	APP CRS <b>283°</b>	Rwy Idg TDZE Apt Elev	<b>9290</b> <b>31</b> <b>31</b>
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# ILS or LOC RWY 28R

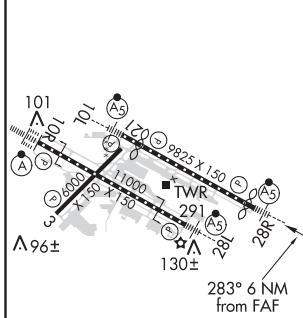
PORTLAND INTL (PDX)

		MISSED APPROACH: Climb to 600 then climbing right turn to 4200 direct BTG VORTAC and hold, continue climb-in-hold to 4200.

ATIS <b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b>	Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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ELEV 31	<b>D</b>	TDZE 31
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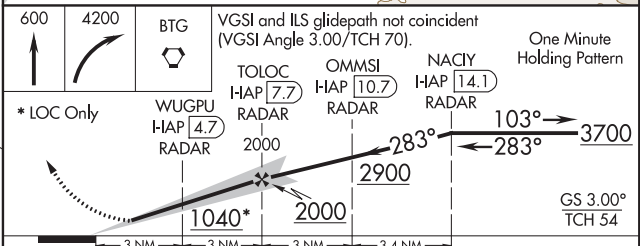


REIL Rwys 3 and 21  
TDZ/CL Rwy 10R  
MIRL Rwy 3-21  
HIRL Rwys 10L-28R and 10R-28L

FAF to MAP 6 NM

Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

## DME or RADAR REQUIRED



CATEGORY	A	B	C	D
S-ILS 28R	281/24 250 (300-1/2)			
S-LOC 28R	560/24	529 (600-1/2)	560/55	529 (600-1 1/4)
CIRCLING	720-1 689 (700-1)	760-1 729 (800-1)	1060-3	1029 (1100-3)

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PORTLAND, OREGON

AL-330 (FAA)

16315

LOC/DME I-PDX <b>110.5</b> Chan 42	APP CRS <b>103°</b>	Rwy Idg <b>11000</b> TDZE <b>24</b> Apt Elev <b>31</b>
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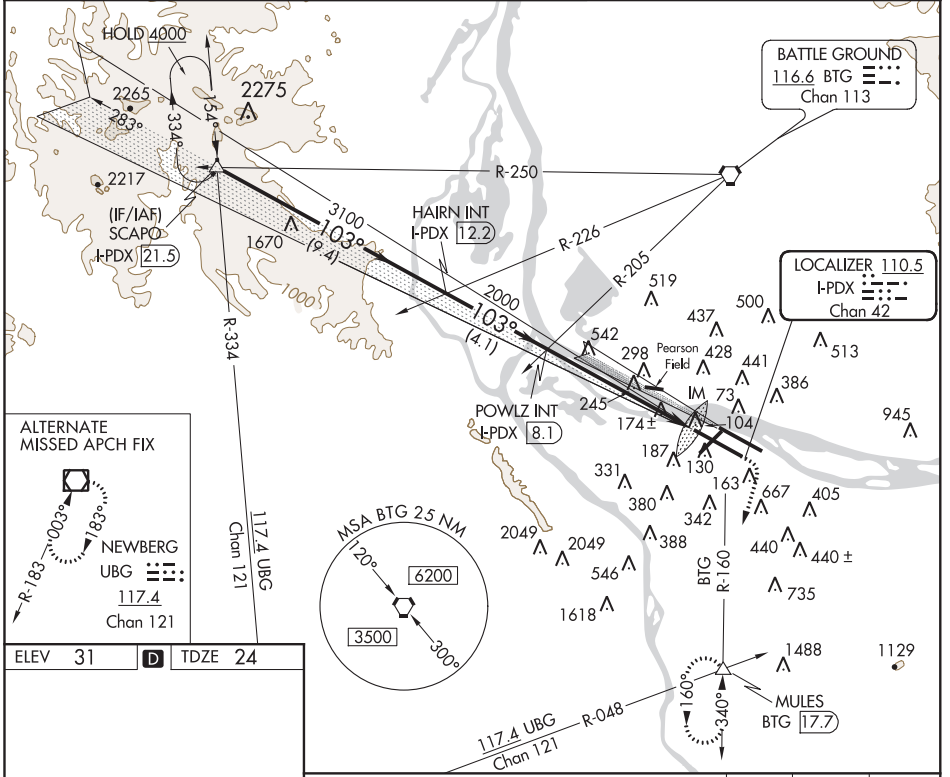
# ILS RWY 10R (SA CAT I)

PORTLAND INTL (PDX)

**⚠** Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH. Simultaneous approach authorized with Rwy 10L.

**ALS-F-2** **MISSED APPROACH:** Climb to 1100 then climbing right turn to 5000 on BTG VORTAC R-160 to MULES INT/BTG 17.7 DME and hold, continue climb-in-hold to 5000.

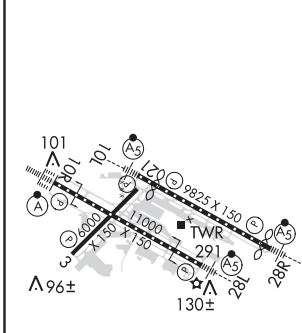
ATIS <b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b>	Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 31	<b>D</b>	TDZE 24
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SCAPO I-PDX 21.5	VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 71).	1100	5000	MULES
HAIN INT I-PDX 12.2		↑	BTG R-160	△
POWLZ INT I-PDX 8.1				
4000	103°	3100	2000	IM
GS 3.00° TCH 53		2000		24 MSL
9.4 NM	4.1 NM	6 NM	10.49'	

CATEGORY	A	B	C	D
S-ILS 10R	RA 157/14 150 DA 174			

## SA CATEGORY I ILS-SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

REIL Rwys 3 and 21  
TDZ/CL Rwy 10R  
MIRL Rwy 3-21  
HIRL Rwys 10L-28R and 10R-28L

PORTLAND, OREGON  
Amdt 34C 26JUN14

45°35'N-122°36'W

PORTLAND INTL (PDX)  
ILS RWY 10R (SA CAT I)

LOC/DME I-PDX <b>110.5</b> Chan 42	APP CRS <b>103°</b>	Rwy Idg <b>11000</b> TDZE <b>24</b> Apt Elev <b>31</b>
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# ILS RWY 10R (CAT II & III)

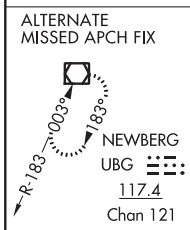
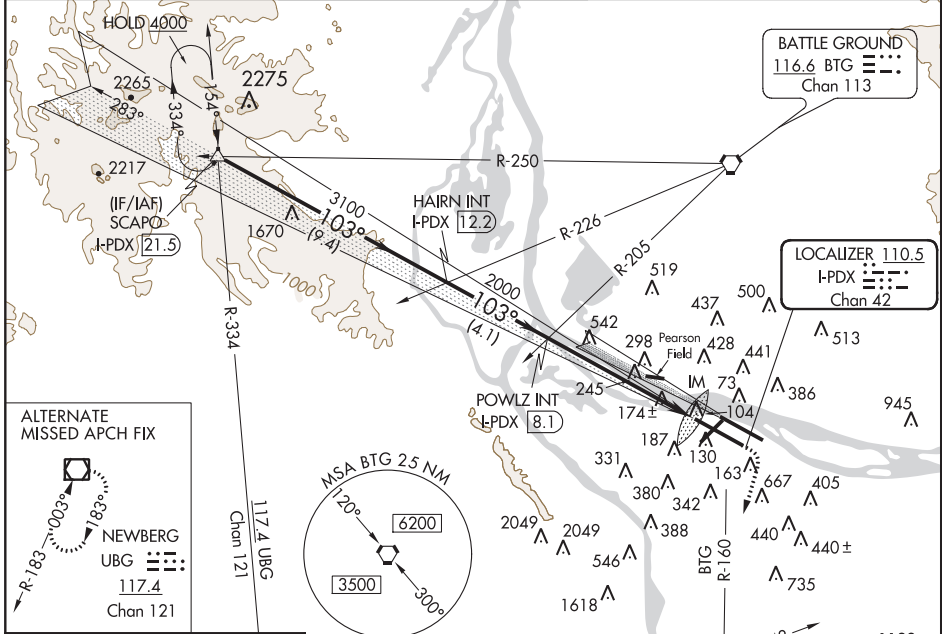
PORTLAND INTL (PDX)

**⚠** Simultaneous approach authorized with Rwy 10L.  
**⚠** CAT II: RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

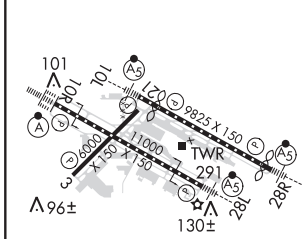


**MISSED APPROACH:** Climb to 1100 then climbing right turn to 5000 on BTG VORTAC R-160 to MULES INT/BTG 17.7 DME and hold, continue climb-in-hold to 5000.

ATIS <b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b> Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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ELEV 31	<b>D</b>	TDZE 24
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SCAPO I-PDX 21.5	VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 71).	1100	5000	MULES
HAIRN INT I-PDX 12.2	POWLZ INT I-PDX 8.1	↑	↷	△
4000	3100	2000	IM 121	24 MSL
GS 3.00° TCH 53	9.4 NM	4.1 NM	6 NM	1049'

CATEGORY	A	B	C	D
S-ILS 10R	CAT II RA 107/12 100 DA 124			
S-ILS 10R	CAT III a		RVR 07	
S-ILS 10R	CAT III b		RVR 06	
S-ILS 10R	CAT III c		NA	

**CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

REIL Rwys 3 and 21  
 TDZ/CL Rwy 10R  
 MIRL Rwy 3-21  
 HIRL Rwys 10L-28R and 10R-28L

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NW-1, 10 NOV 2016 to 05 JAN 2017

# RNAV (RNP) Y RWY 28L

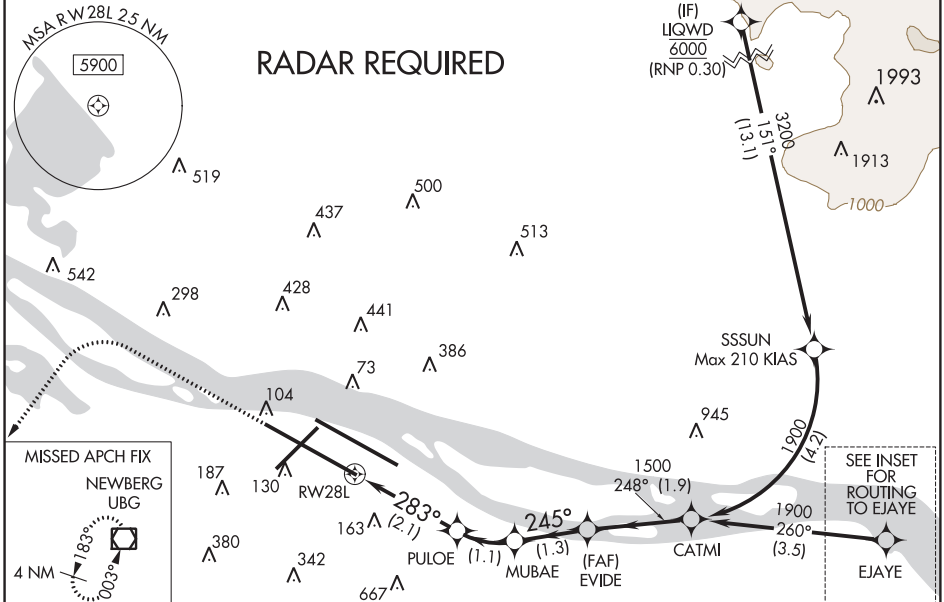
PORTLAND INTL (PDX)

APP CRS	Rwy Idg <b>11000</b>
<b>283°</b>	TDZE <b>23</b>
	Apt Elev <b>31</b>

▼ For uncompensated Baro-VNAV systems, procedure NA below -7°C (20°F) or above 54°C (130°F). For inop MALSR, increase RNP 0.23 all Cats visibility to RVR 5600 and increase RNP 0.30 all Cats visibility to 1½ mile. Simultaneous approach authorized with Rwy 28R. RF required. GPS required. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

**MALSR**  MISSED APPROACH: Climb to 2100 then climbing left turn to 4000 direct UBG VOR/DME and hold.

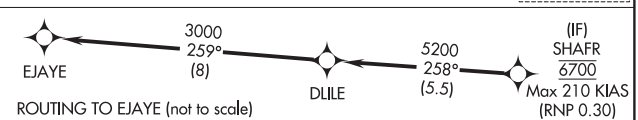
ATIS <b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b> Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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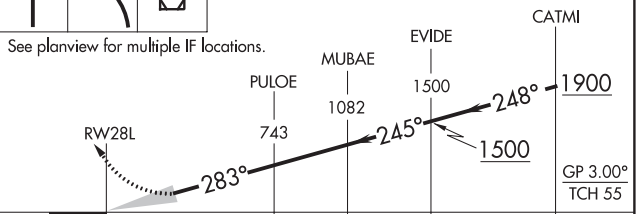
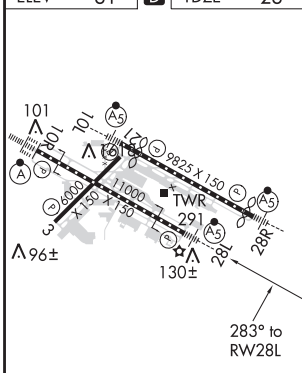
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV <b>31</b>	<b>D</b>	TDZE <b>23</b>
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2100 4000 UBG  VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 72).



CATEGORY	A	B	C	D
RNP 0.23 DA		370/33	347 (400-¾)	
RNP 0.30 DA		476/53	453 (500-1¼)	

MIRL Rwy 3-21  
TDZ/CL Rwy 10R  
REIL Rwys 3 and 21  
HIRL Rwys 10L-28R and 10R-28L


## AUTHORIZATION REQUIRED

APP CRS	Rwy Idg	<b>9290</b>
<b>283°</b>	TDZE	<b>31</b>
	Apt Elev	<b>31</b>

# RNAV (RNP) Y RWY 28R

PORTLAND INTL (PDX)

**V** For uncompensated Baro-VNAV systems, procedure NA below -7°C (20°F) or above 54°C (130°F). For inop MALS, increase RNP 0.20 all Cats visibility to 1 1/4 mile, and increase RNP 0.30 all Cats visibility to 1 3/8 mile. RF required. GPS required. Use of FD or AP providing RNAV track guidance required during simultaneous operations. Simultaneous approach authorized with Rwy 28L.

**MALS**  
 MISSED APPROACH:  
 Climb to 600 then climbing right turn to 4400 direct BATYL and hold, continue climb-in-hold to 4400.

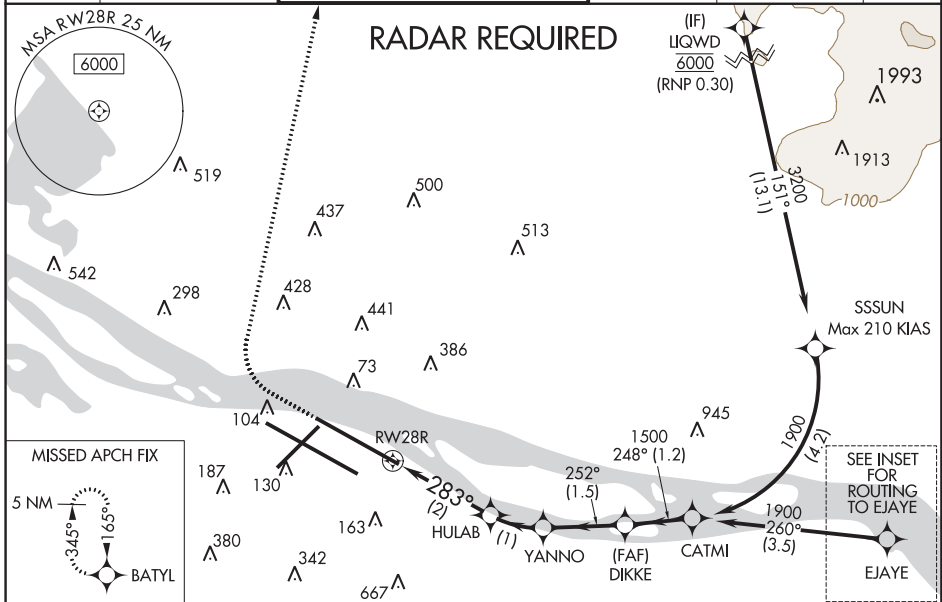
ATIS	PORTLAND APP CON
<b>128.35</b>	<b>124.35 299.2</b>
<b>269.9</b>	

PORTLAND TOWER	
Rwy 10L-28R	Rwys 3-21, 10R-28L
<b>118.7 257.8</b>	<b>123.775 251.125</b>

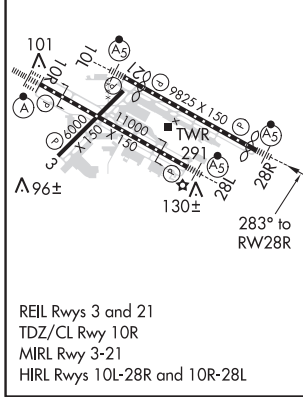
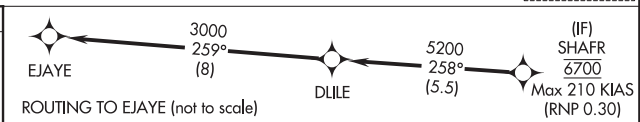
GND CON
<b>121.9 348.6</b>

CLNC DEL
<b>120.125 318.1</b>

CPDLC
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ELEV	<b>31</b>	<b>D</b>	TDZE	<b>31</b>
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See planview for multiple IF locations.

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00°/TCH 70).

GP 3.00° TCH 54

CATEGORY	A	B	C	D
RNP 0.20 DA		403/40	372 (400-3/4)	
RNP 0.30 DA		455/50	424 (500-1)	

## AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# RNAV (RNP) Z RWY 10R

PORTLAND INTL (PDX)

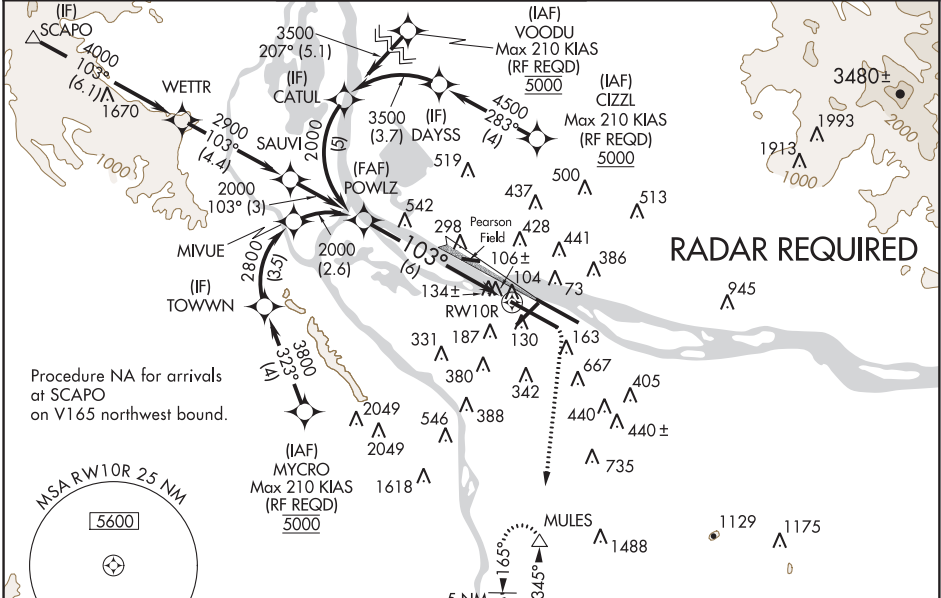
APP CRS	Rwy Idg	<b>11000</b>
<b>103°</b>	TDZE	<b>24</b>
	Apt Elev	<b>31</b>

GPS required. For inoperative ALSF, increase RNP 0.10 all Cats visibility to RVR 5000 and 0.30 all Cats visibility to 1 1/2 miles. For uncompensated Baro-VNAV systems, procedure NA below -15°C (5°F) or above 54°C (130°F). Simultaneous approach authorized with Rwy 10L. Use of FD or AP providing RNAV track guidance required during simultaneous operations.



MISSED APPROACH: Climb to 440 then climbing right turn to 5000 direct MULES and hold, continue climb-in-hold to 5000.

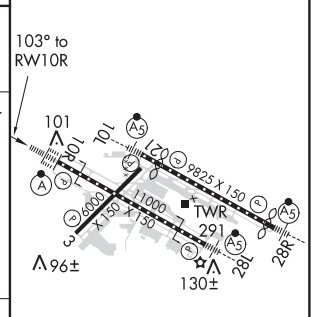
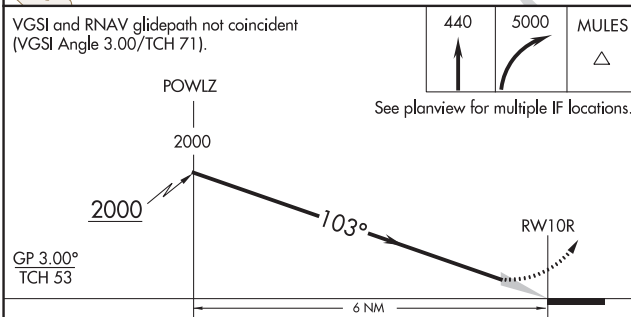
<b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b>	Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV	31	D	TDZE	24
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CATEGORY	A	B	C	D
RNP 0.10 DA		347/32	323 (400-3/4)	
RNP 0.30 DA		449/50	425 (500-1)	

## AUTHORIZATION REQUIRED

REIL Rwys 3 and 21  
TDZ/CL Rwy 10R  
MIRL Rwy 3-21  
HIRL Rwys 10L-28R and 10R-28L

PORTLAND, OREGON

AL-330 (FAA)


16315

APP CRS	Rwy Idg	<b>11000</b>
<b>283°</b>	TDZE	<b>23</b>
	Apt Elev	<b>31</b>

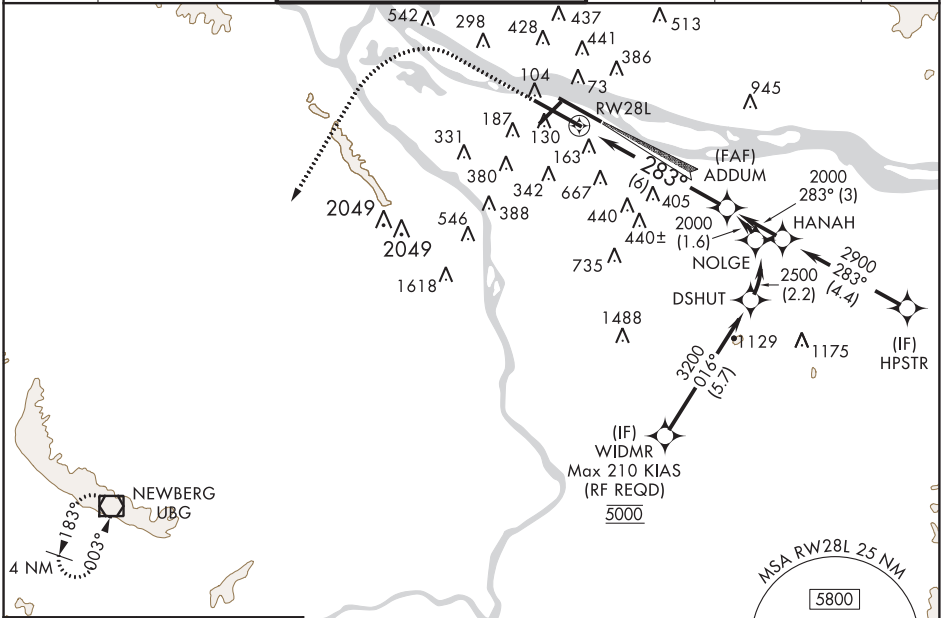
# RNAV (RNP) Z RWY 28L

PORTLAND INTL (PDX)

▼ For uncompensated Baro-VNAV systems, procedure NA below -15°C (5°F) or above 54°C (130°F). For inoperative MALS, increase RNP 0.27 all Cats visibility to RVR 6000 and increase RNP 0.30 all Cats visibility to 1½ mile. Simultaneous approach authorized with Rwy 28R. GPS Required. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

**MALS**  
  
**MISSED APPROACH:** Climb to 2100 then climbing left turn to 4000 direct UBG VOR/DME and hold.

<b>ATIS</b> <b>128.35</b> <b>269.9</b>	<b>PORTLAND APP CON</b> <b>124.35 299.2</b>	<b>PORTLAND TOWER</b> Rwy 10L-28R Rwy 3-21, 10R-28L <b>118.7 257.8 123.775 251.125</b>	<b>GND CON</b> <b>121.9 348.6</b>	<b>CLNC DEL</b> <b>120.125 318.1</b>	CPDLC
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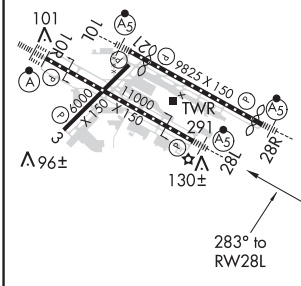
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

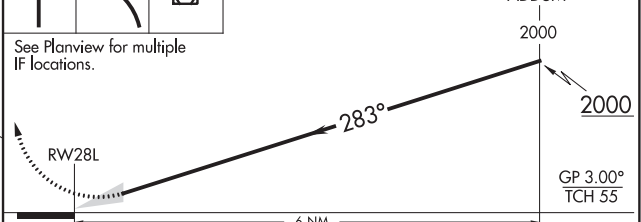
ELEV 31	<b>D</b>	TDZE 23
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## RADAR REQUIRED

2100 4000 UBG VGS1 and RNAV glidepath not coincident (VGS1 Angle 3.00/TCH 72).



See Planview for multiple IF locations.



REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

CATEGORY	A	B	C	D
RNP 0.27 DA		374/35	351 (400-¾)	
RNP 0.30 DA		494/60	471 (500-1¼)	

## AUTHORIZATION REQUIRED

PORTLAND, OREGON  
 Orig-A 26JUN14

45°35'N-122°36'W

PORTLAND INTL (PDX)  
**RNAV (RNP) Z RWY 28L**




# RNAV (RNP) Z RWY 28R

PORTLAND INTL (PDX)

APP CRS	Rwy Idg	<b>9290</b>
<b>283°</b>	TDZE	<b>31</b>
	Apt Elev	<b>31</b>

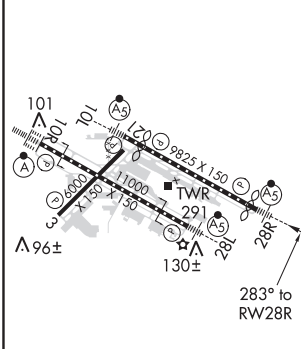
**▽** For uncompensated Baro-VNAV systems, procedure NA below -6°C (22°F) or above 54°C (130°F). Simultaneous approach authorized with Rwy 28L. RADAR required. GPS required. Use of FD or AP providing RNAV track guidance required during simultaneous operations. For inop MALSRS increase RNP 0.20 all Cats visibility to 1¼ mile, and increase RNP 0.30 all Cats visibility to 1½ mile.

**MALSRS**  
  
**MISSED APPROACH:**  
 Climb to 600 then climbing right turn to 4400 direct BATYL and hold, continue climb-in-hold to 4400.

ATIS <b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b>	Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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ELEV 31	<b>D</b>	TDZE 31
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REIL Rwys 3 and 21  
 TDZ/CL Rwy 10R  
 MIRL Rwy 3-21  
 HIRL Rwys 10L-28R and 10R-28L

600 4400 BATYL VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 70).  
 TOLOC 2000  
 RWY 28R 283°  
 See planview for multiple IF locations.  
 6 NM  
 2000 GP 3.00° TCH 54

CATEGORY	A	B	C	D
RNP 0.20 DA	417/40	386 (400-¾)	417/50	386 (400-1)
RNP 0.30 DA	471/50		440 (500-1)	

## AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017


WAAS CH <b>56205</b> <b>W28B</b>	APP CRS <b>283°</b>	Rwy Idg <b>11000</b> TDZE <b>23</b> Apt Elev <b>31</b>
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# RNAV (GPS) X RWY 28L

PORTLAND INTL (PDX)

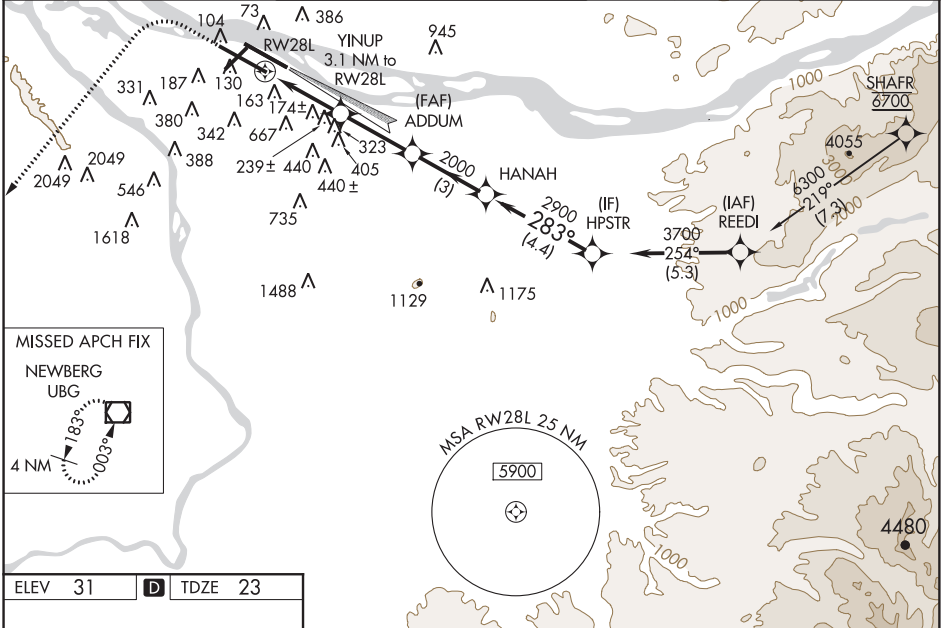
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -7°C (20°F) or above 54°C (130°F). For inop MALSR, increase LPV all Cats visibility to RVR 4500 and increase LNAV Cats C/D visibility to 1½ mile. DME/DME RNP-0.3 NA. Simultaneous approach authorized with Rwy 28R. Use of FD or AP providing RNAV track guidance required during simultaneous operations. LNAV procedure NA during simultaneous operations.

MALSR

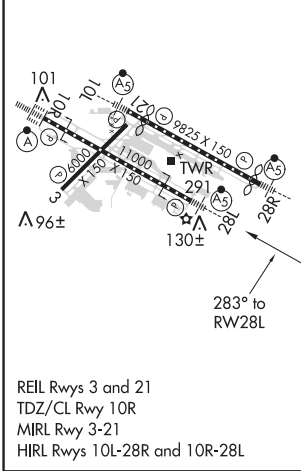


MISSED APPROACH: Climb to 2100, then climbing left turn to 4000 direct UBG VOR/DME and hold.

ATIS <b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b> Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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ELEV 31	<b>D</b>	TDZE 23
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2100 4000 UBG

VGSI and RNAV glidepath not coincident. (VGSI Angle 3.00/TCH 72).

HPSTR 3700

ADDUM 2000 HANAH 2900

YINUP 283° 1060\*

\*1.3 NM to RWY 28L

3.1 NM to RWY 28L

GP 3.00° TCH 55

CATEGORY	A	B	C	D
LPV DA		309/24	286 (300-½)	
LNAV/VNAV DA		507-60	484 (500-1¼)	
LNAV MDA	500/24	477 (500-½)	500/50	477 (500-1)
<b>C</b> CIRCLING	720-1 689 (700-1)	760-1 729 (800-1)	1060-3	1029 (1100-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>60905</b> <b>W28A</b>	APP CRS <b>283°</b>	Rwy Idg TDZE Apt Elev	<b>9290</b> <b>31</b> <b>31</b>
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# RNAV (GPS) X RWY 28R

PORTLAND INTL (PDX)

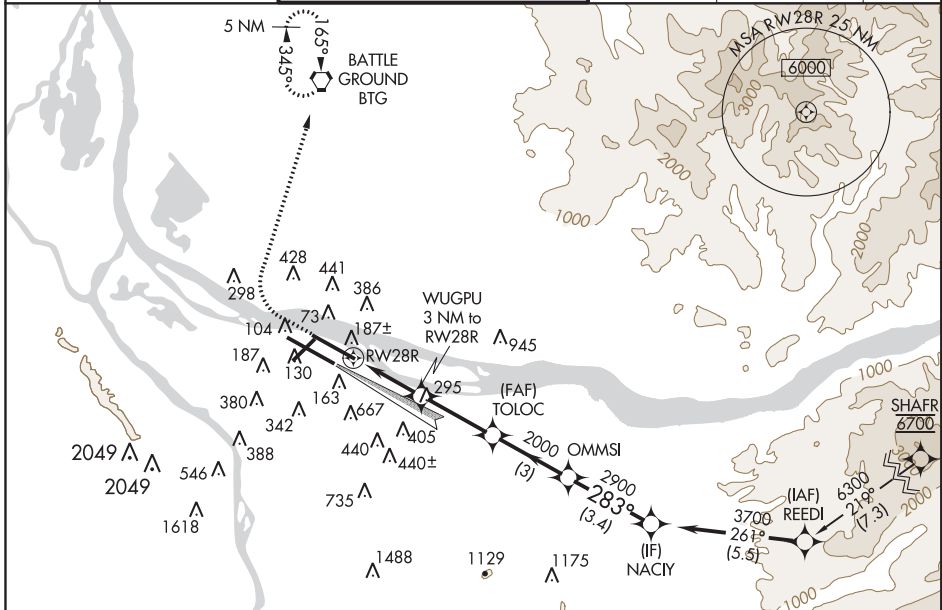
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -7°C (20°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Simultaneous approach authorized with Rwy 28L. Use of FD or AP providing RNAV track guidance required during simultaneous operations. LNAV procedure NA during simultaneous operations.

MALSR



**MISSED APPROACH:** Climb to 600 then climbing right turn to 4200 direct BTG VORTAC and hold, continue climb-in-hold to 4200.

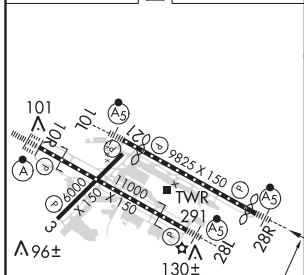
ATIS <b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b>	Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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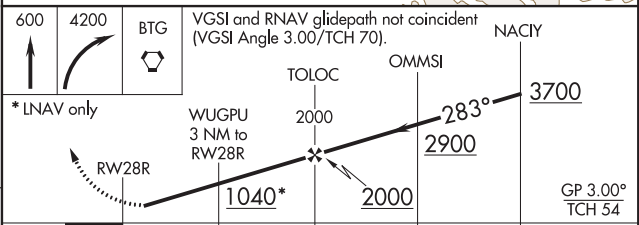
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 31	<b>D</b>	TDZE 31
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REIL Rwys 3 and 21 TDZ/CL Rwy 10R MIRL Rwy 3-21 HIRL Rwys 10L-28R and 10R-28L
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CATEGORY	A	B	C	D
LPV DA		281/24	250 (300-½)	
LNAV/VNAV DA		482/50	451 (500-1)	
LNAV MDA	560/24	529 (600-½)	560/55	529 (600-1¼)
<b>C</b> CIRCLING	720-1 689 (700-1)	760-1 729 (800-1)	1060-3	1029 (1100-3)

WAAS CH <b>81804</b> <b>W10B</b>	APP CRS <b>103°</b>	Rwy Idg <b>8535</b> TDZE <b>30</b> Apt Elev <b>31</b>
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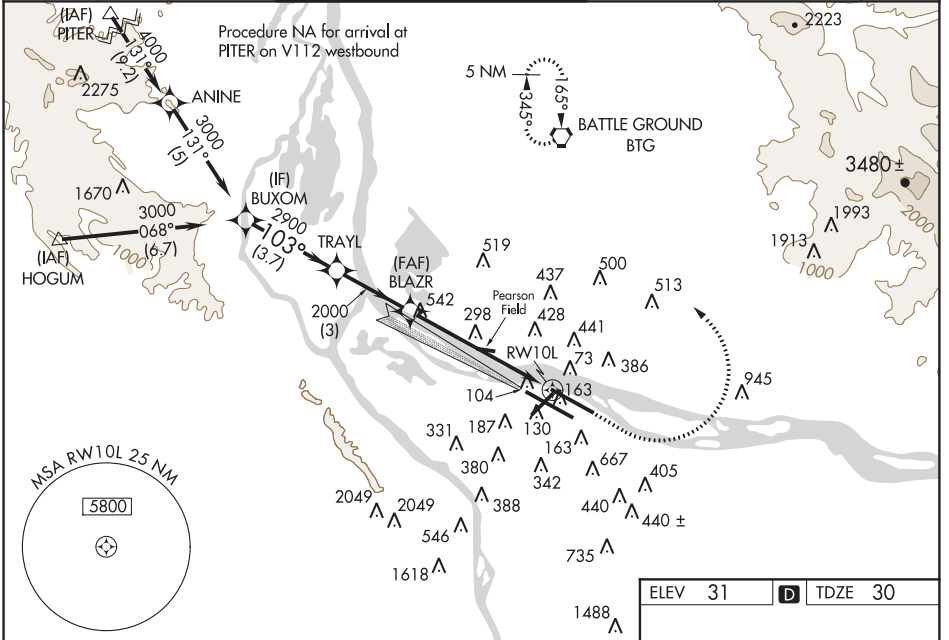
# RNAV (GPS) Y RWY 10L

PORTLAND INTL (PDX)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Simultaneous approach authorized with Rwy 10R. Use of FD or AP providing RNAV track guidance required during simultaneous operations. LNAV procedure NA during simultaneous operations. For inoperative MALSR, increase LPV visibility all Cats to RVR 4500. Increase LNAV/VNAV visibility all Cats to 1½ mile, and LNAV Cat C and D visibility to 1¾ mile.

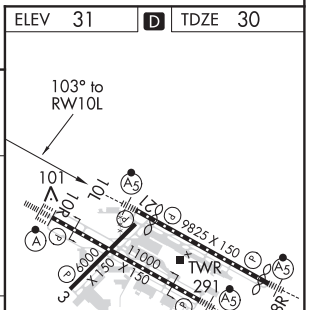
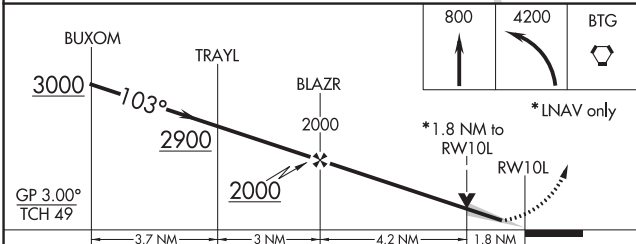
**MALSR**  
MISSED APPROACH: Climb to 800 then dimbing left turn to 4200 direct BTG VORTAC and hold, continue climb-in-hold to 4200.

ATIS <b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b> Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA		296/24	266 (300-½)	
LNAV/VNAV DA		413/45	383 (400-¾)	
LNAV MDA	640-1	610 (700-1)	640-1¾	610 (700-1¾)
CIRCLING	720-1 689 (700-1)	740-1 709 (800-1)	760-2 729 (800-2)	980-3 949 (1000-3)

ELEV 31 TDZE 30

REIL Rwys 3 and 21  
TDZ/CL Rwy 10R  
MIRL Rwy 3-21  
HIRL Rwys 10L-28R and 10R-28L

WAAS CH <b>40004</b> W10A	APP CRS <b>103°</b>	Rwy Idg TDZE Apt Elev	<b>11000</b> <b>24</b> <b>31</b>
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# RNAV (GPS) Y RWY 10R

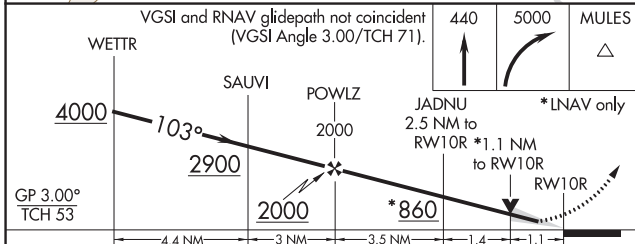
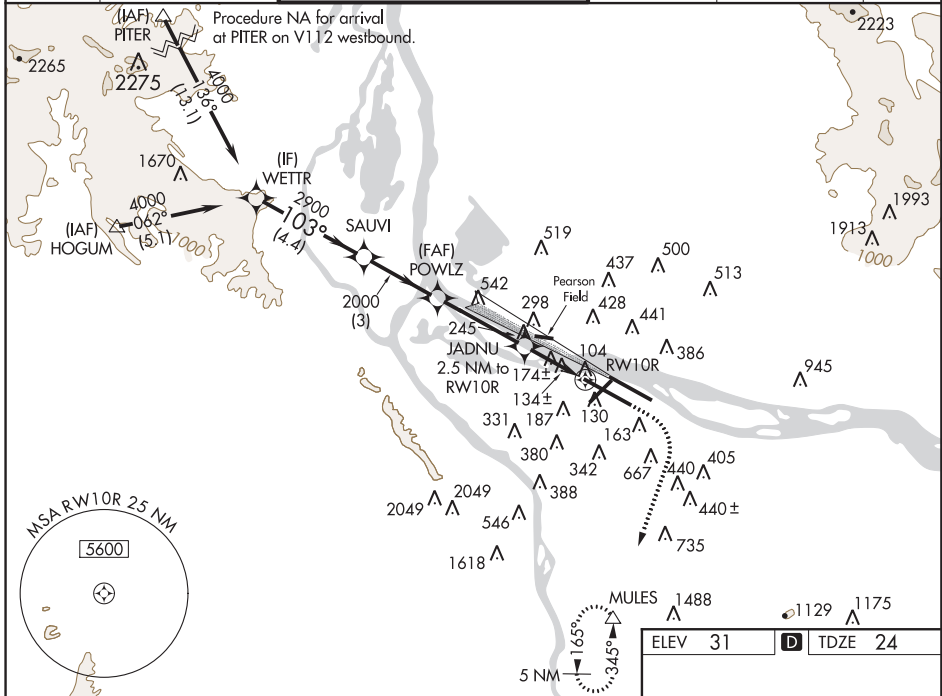
PORTLAND INTL (PDX)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Simultaneous approach authorized with Rwy 10L. Use of FD or AP providing RNAV track guidance required during simultaneous operations. LNAV procedure NA during simultaneous operations.

**ALSF-2**  
**(A)**

**MISSED APPROACH:** Climb to 440 then climbing right turn to 5000 direct MULES and hold.

ATIS <b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b>	Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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REIL Rwys 3 and 21  
TDZ/CL Rwy 10R  
MIRL Rwy 3-21  
HIRL Rwys 10L-28R and 10R-28L

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

PORTLAND, OREGON

AL-330 (FAA)

16315

LOC/DME I-GPO <b>108.9</b> Chan <b>26</b>	APP CRS <b>209°</b>	Rwy Idg TDZE Apt Elev <b>6000</b> <b>26</b> <b>31</b>
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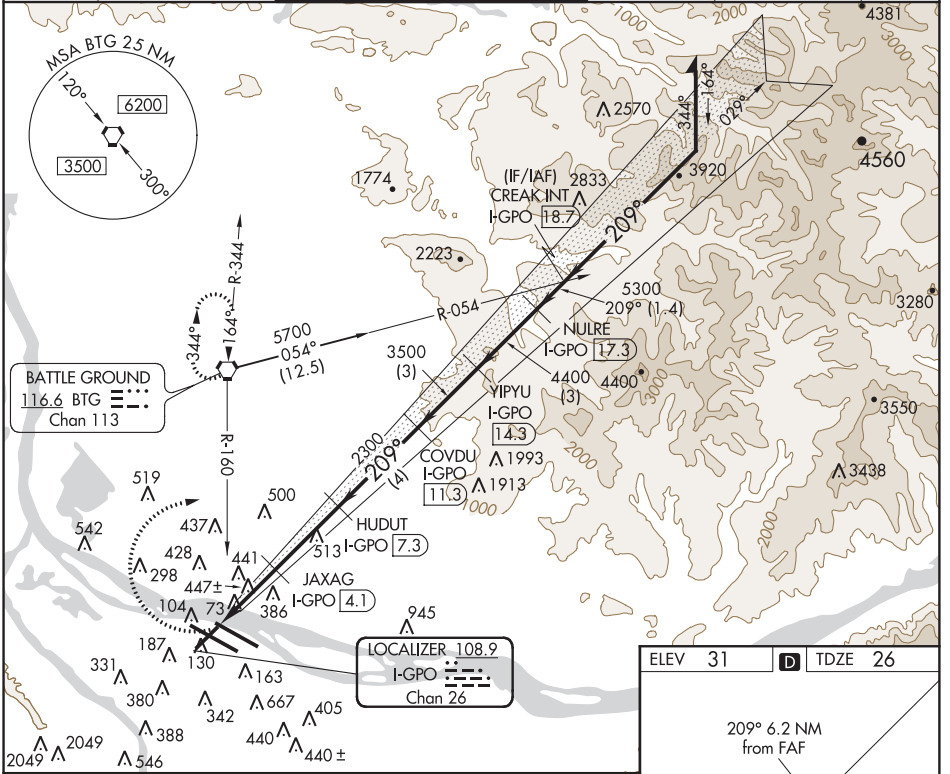
# LOC/DME RWY 21

PORTLAND INTL (PDX)

**▼** Helicopter visibility reduction below 3/4 SM NA.

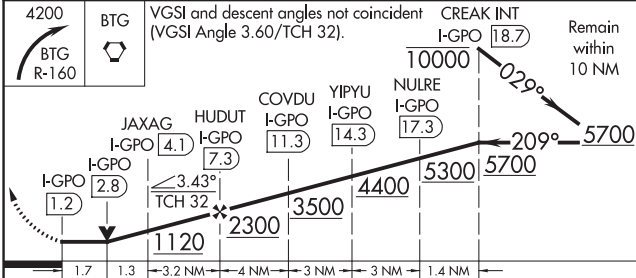
**▲** MISSED APPROACH: Climbing right turn to 4200 on BTG VORTAC R-160 to BTG VORTAC and hold, continue climb-in-hold to 4200.

ATIS <b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwy 10L-28R <b>118.7 257.8</b>	Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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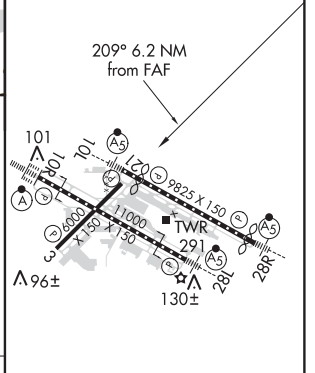


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 31	<b>D</b>	TDZE 26
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CATEGORY	A	B	C	D
S-21	700-1	674 (700-1)	700-1 7/8	674 (700-1 7/8)
CIRCLING	720-1 689 (700-1)	740-1 709 (800-1)	760-2 729 (800-2)	1000-3 969 (1000-3)

REIL Rwys 3 and 21  
TDZ/CL Rwy 10R  
MIRL Rwy 3-21  
HIRL Rwys 10L-28R and 10R-28L

PORTLAND, OREGON  
Amdt 8C 26JUN14

45°35'N-122°36'W

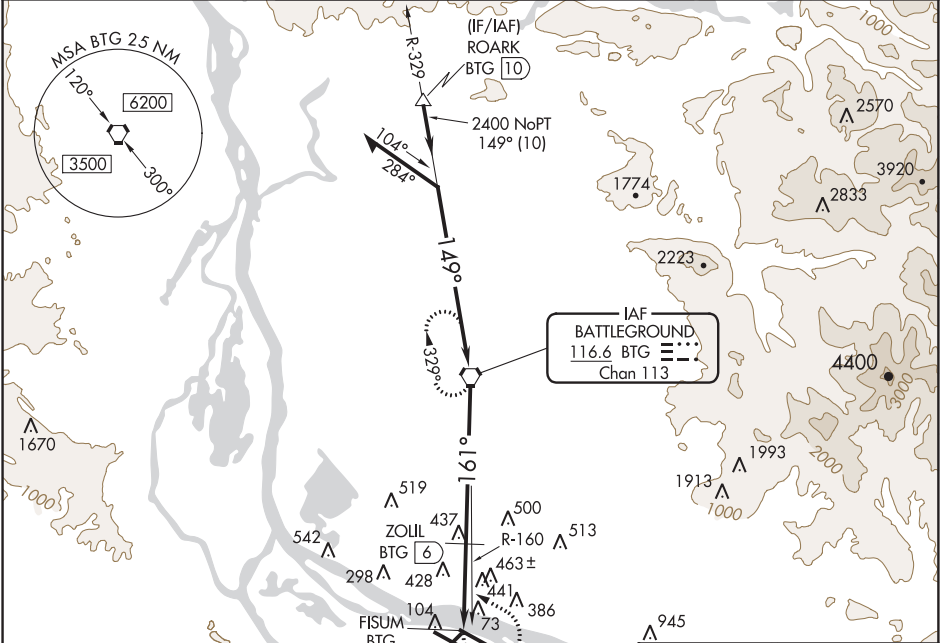
# PORTLAND INTL (PDX) LOC/DME RWY 21

VORTAC BTG <b>116.6</b> Chan <b>113</b>	APP CRS <b>161°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>31</b>
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**VOR-A**  
PORTLAND INTL (PDX)

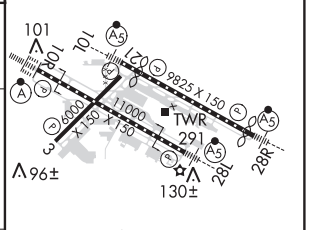
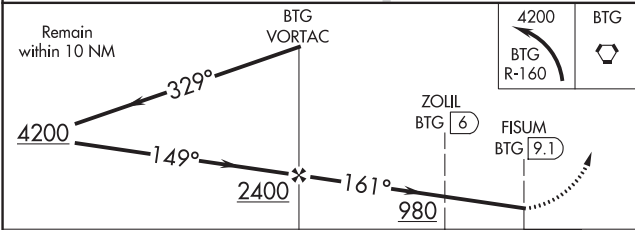
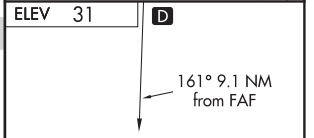
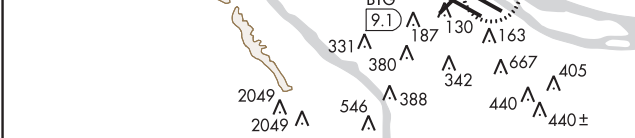
MISSED APPROACH: Climbing left turn to 4200 via BTG R-160 to BTG VORTAC and hold, continue climb-in-hold to 4200.

ATIS <b>128.35</b> <b>269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER Rwys 10L-28R <b>118.7 257.8</b>	Rwys 3-21, 10R-28L <b>123.775 251.125</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>	CPDLC
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	980-1¼ 689 (700-1)	949 (1000-1¼) 709 (800-1)	980-2¾ 949 (1000-2¾)	1000-3 969 (1000-3)
ZOLL FIX MINIMUMS				
CIRCLING	720-1 689 (700-1)	740-1 709 (800-1)	760-2 729 (800-2)	1000-3 969 (1000-3)
FAF to MAP 9.1 NM				
Knots	60	90	120	150 180
Min:Sec	9:06	6:04	4:33	3:38 3:02

PORTLAND, OREGON

# TACAN RWY 28L

TACAN CBU Chan <b>29</b>	APCH CRS <b>275°</b>	Rwy ldg <b>11,000</b> TDZE <b>23</b> Arpt Elev <b>31</b>
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AL-330 [USAF]

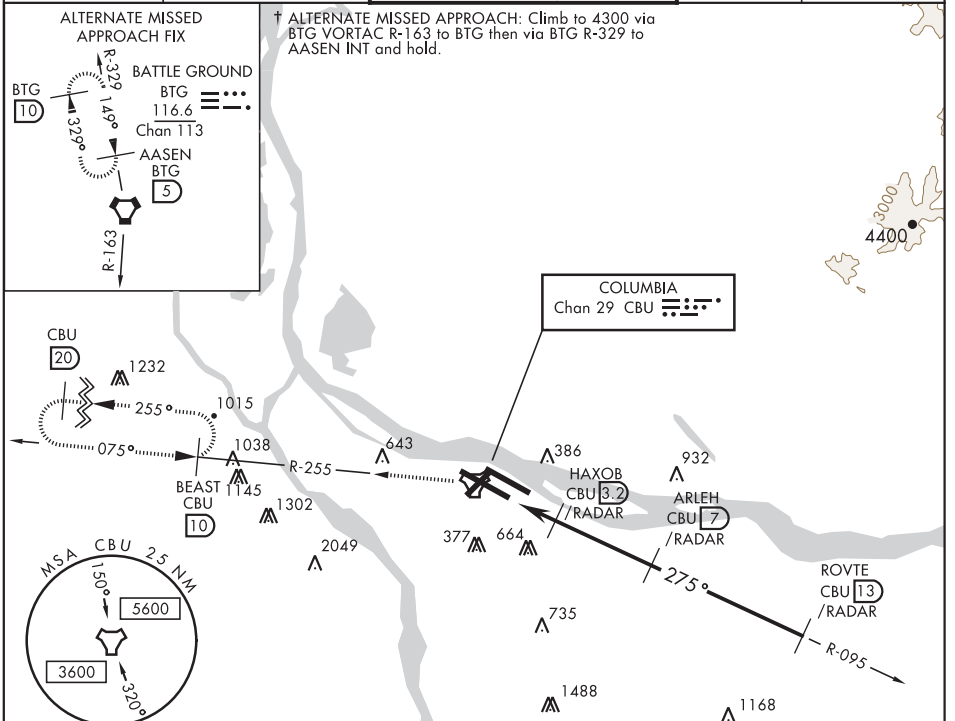
PORTLAND INTL (KPDX)

**⚠** \*When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT C vis to 1½ miles, CAT D vis to 1¾ miles, CAT E vis to 2 miles.  
**⚠** \*\*When VGSI rwy 28R inop, circling rwy 28R NA at night.

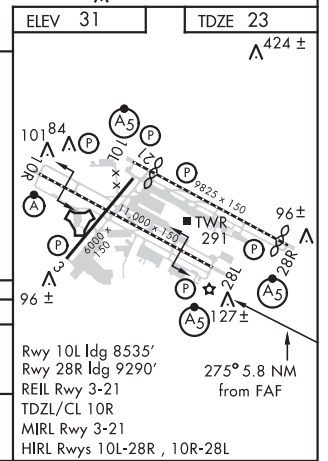
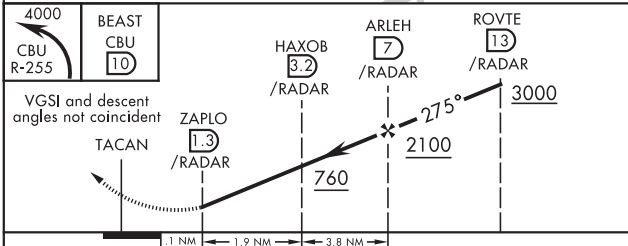


**†** MISSED APPROACH: Climbing left turn to 4000 via CBU TACAN R-255 to BEAST INT/ CBU 10 DME and hold or when directed by ATC.

ATIS <b>128.35 269.9</b>	PORTLAND APP CON <b>124.35 299.2</b>	PORTLAND TOWER <b>118.7 257.8</b> Rwy 10L-28R <b>123.775 251.125</b> Rwy 3-21, 10R-28L	GND CON <b>121.9 348.6</b>	CLNC DEL <b>120.125 318.1</b>
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## RADAR REQUIRED



CATEGORY	A	B	C	D	E
S-28L *	600/24 577 (600-½)		600/50 577 (600-1)	600/60 577 (600-1¼)	600-1½ 577 (600-1½)
CIRCLING **	720-1 689 (700-1)	740-1 709 (800-1)	760-2 729 (800-2)	1000-3 969 (1000-3)	1160-3 1129 (1200-3)

PORTLAND, OREGON  
Amdt 1 18OCT12

45°35'N-122°36'W

PORTLAND INTL (KPDX)

# TACAN RWY 28L

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# COLUMBIA VISUAL RWY 10L/R

AL-330 (FAA)

PORTLAND INTL (PDX)  
PORTLAND, OREGON

ATIS  
 128.35 269.9  
 PORTLAND APP CON  
 124.35 299.2  
 PORTLAND TOWER  
 118.7 257.8 (Rwy 10L-28R)  
 123.775 251.125 (Rwy 10R-28L)  
 GND CON  
 121.9 348.6  
 CLNC DEL  
 120.125 318.1  
 CPDLC

SCAPPOOSE INDUSTRIAL AIRPARK

SAUVIE ISLAND

VANCOUVER LAKE

CONFLUENCE OF RIVERS  
 CNFLU  
 2500  
 RECOMMENDED

COLUMBIA RIVER

WILLAMETTE RIVER

PEARSON FIELD

RWY 10L ONLY:  
 FRWY I-5 BRIDGE  
 1400  
 RECOMMENDED

Vertical Guidance Navaid and Angle:  
 Runway 10R: I-PDX LOC 110.5 GS (3.00°)  
 Runway 10L: I-VDG LOC 111.3 GS (3.00°)

PORTLAND-HILLSBORO

ANTENNA FARM  
 2049  
 2049

## RADAR REQUIRED

Weather Minimums: 3500' ceiling with 5 miles visibility

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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COLUMBIA VISUAL RWY 10L/R  
PROCEDURE NOT AUTHORIZED AT NIGHT

# COLUMBIA VISUAL RWY 10L/R

Amdt 3 02MAY13

45°35'N-122°36'W

PORTLAND, OREGON  
PORTLAND INTL (PDX)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

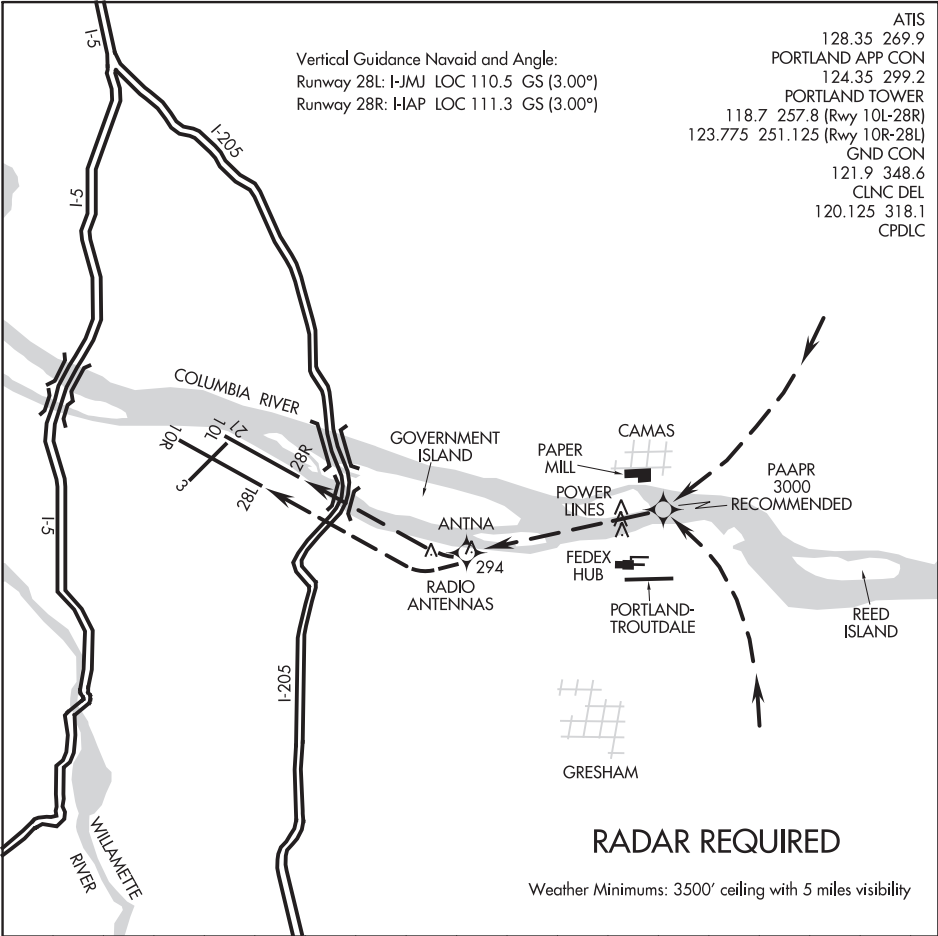
# MILL VISUAL RWY 28L/R

AL-330 (FAA)

PORTLAND INTL (PDX)  
PORTLAND, OREGON

Vertical Guidance Navaid and Angle:  
Runway 28L: I-JMJ LOC 110.5 GS (3.00°)  
Runway 28R: I-IAP LOC 111.3 GS (3.00°)

ATIS  
128.35 269.9  
PORTLAND APP CON  
124.35 299.2  
PORTLAND TOWER  
118.7 257.8 (Rwy 10L-28R)  
123.775 251.125 (Rwy 10R-28L)  
GND CON  
121.9 348.6  
CLNC DEL  
120.125 318.1  
CPDLC



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## RADAR REQUIRED

Weather Minimums: 3500' ceiling with 5 miles visibility

### MILL VISUAL RWY 28L/R PROCEDURE NOT AUTHORIZED AT NIGHT

Aircraft cleared for the Mill Visual Approach should proceed over the Columbia River between the Paper Mill and the Fedex Hub, then via the depicted route to intercept the Final Approach Course for the assigned runway.

# MILL VISUAL RWY 28L/R

Amdt 2 02MAY13

45°35'N-122°36'W

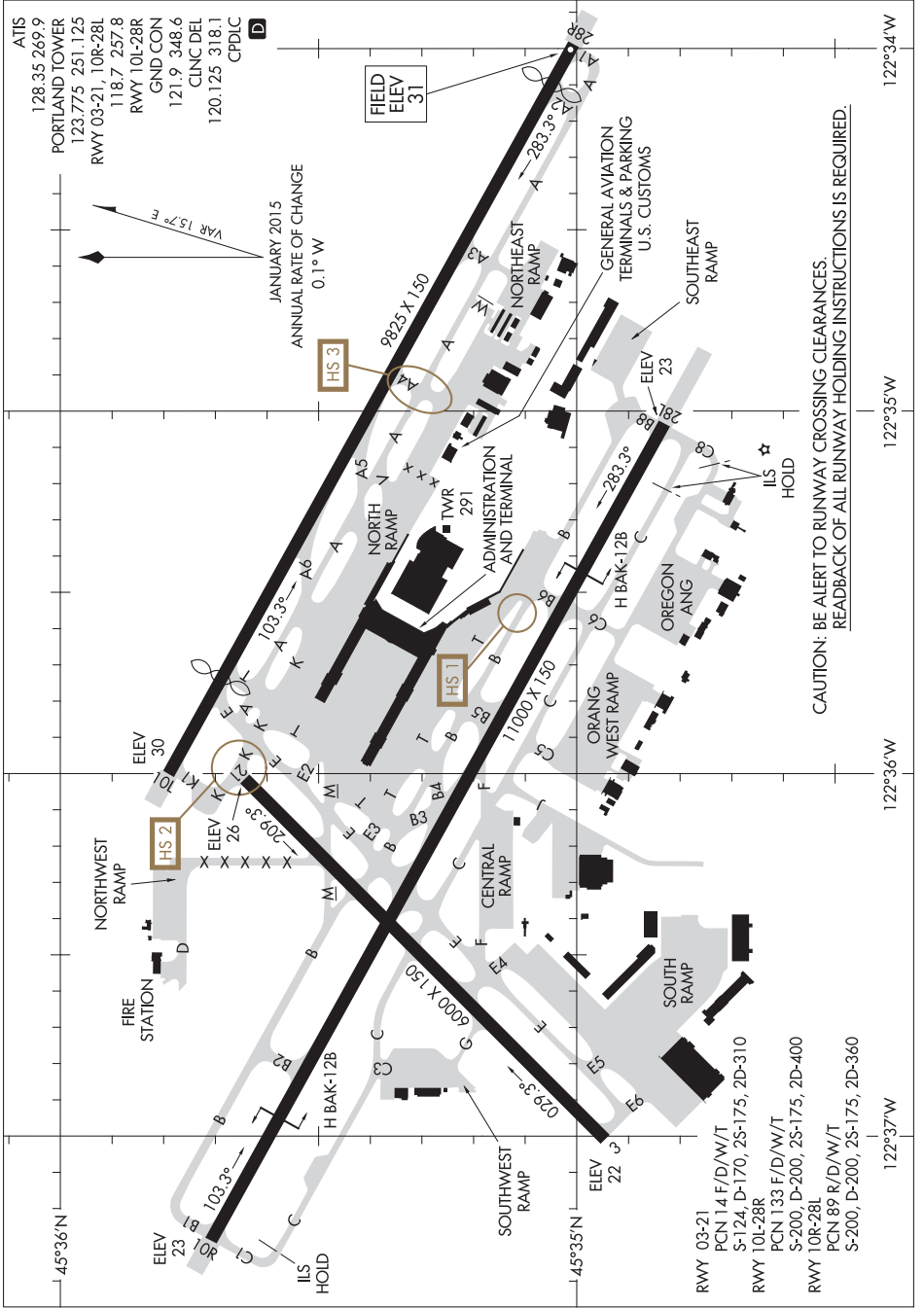
PORTLAND, OREGON  
PORTLAND INTL (PDX)

# AIRPORT DIAGRAM

AL-330 (FAA)

PORTLAND INTL (PDX)  
PORTLAND, OREGON

NW-1, 10 NOV 2016 to 05 JAN 2017



122°34'W  
122°35'W  
122°36'W  
122°37'W

NW-1, 10 NOV 2016 to 05 JAN 2017

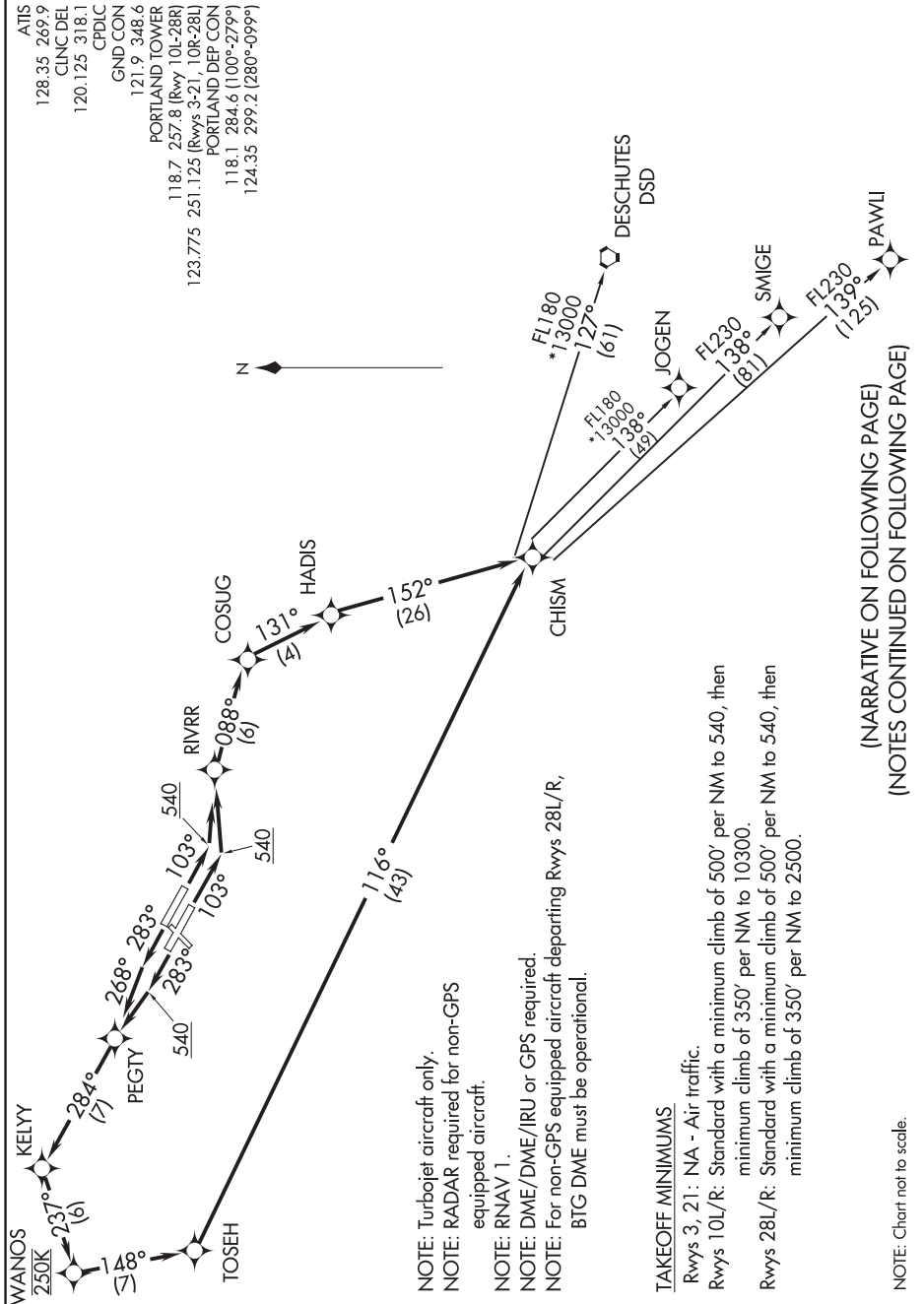
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

# AIRPORT DIAGRAM

PORTLAND, OREGON  
PORTLAND INTL (PDX)

# CASCADE TWO DEPARTURE (RNAV)

NW-1, 10 NOV 2016 to 05 JAN 2017



(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NW-1, 10 NOV 2016 to 05 JAN 2017

# CASCADE TWO DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/R: Climb heading 103° to 540, then direct to RIVRR, then on depicted route to CHISM, thence. . . .

TAKEOFF RUNWAY 28L: Climb heading 283° to 540, then direct PEGTY, then on depicted route to CHISM, thence. . . .

TAKEOFF RUNWAY 28R: Climb heading 283°, intercept course 268° to PEGTY, then on depicted route to CHISM, thence. . . .

. . . .via (transition), maintain assigned altitude, expect filed altitude 10 minutes after departure.

DESCHUTES TRANSITION (CASCD2.DSD)

JOGEN TRANSITION (CASCD2.JOGEN)

PAWLI TRANSITION (CASCD2.PAWLI)

SMIGE TRANSITION (CASCD2.SMIGE)

### TAKEOFF OBSTACLE NOTES

- Rwy 10L: Vehicles on road beginning abeam DER, 376' left of centerline, up to 15' AGL/78' MSL.  
Trees beginning 1201' from DER, 753' right of centerline, up to 75' AGL/95' MSL.
- Rwy 10R: Pole 1996' from DER, 759' right of centerline, 54' AGL/74' MSL
- Rwy 28L: Trees 1873' from DER, 837' left of centerline, up to 75' AGL/95' MSL.
- Rwy 28R: Building, antennas, vehicles on road, beginning 130' from DER, 257' right of centerline, up to 27' AGL/58' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# HRMNS FIVE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/R: Climb heading 103° to 540, then direct to RIVRR, then on depicted route to HRMNS, thence. . . .

TAKEOFF RUNWAY 28L: Climb heading 283° to 540, then direct PEGTY, then on depicted route to HRMNS, thence. . . .

TAKEOFF RUNWAY 28R: Climb heading 283°, intercept course 268° to PEGTY, then on depicted route to HRMNS, thence. . . .

. . . .maintain assigned altitude, expect filed altitude 10 minutes after departure.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# LAVAA SIX DEPARTURE (RNAV)

NW-1, 10 NOV 2016 to 05 JAN 2017

**NOTE:** For non-GPS equipped aircraft departing Rwy 10L/R, UBG DME must be operational for the YAKIMA TRANSITION.

**NOTE:** GPS required for aircraft departing Rwy 10L/R, for the PENDLETON TRANSITION.

**NOTE:** For non-GPS equipped aircraft departing Rwy 28L/R, UBG and BTG DME must be operational for all transitions.

### TAKEOFF MINIMUMS

Rwys 3, 21: NA - ATC

Rwys 10L/R, 28L/R: Standard with minimum climb of 500' per NM to 540, then minimum climb of 350' per NM to FL190.

### TAKEOFF OBSTACLE NOTES

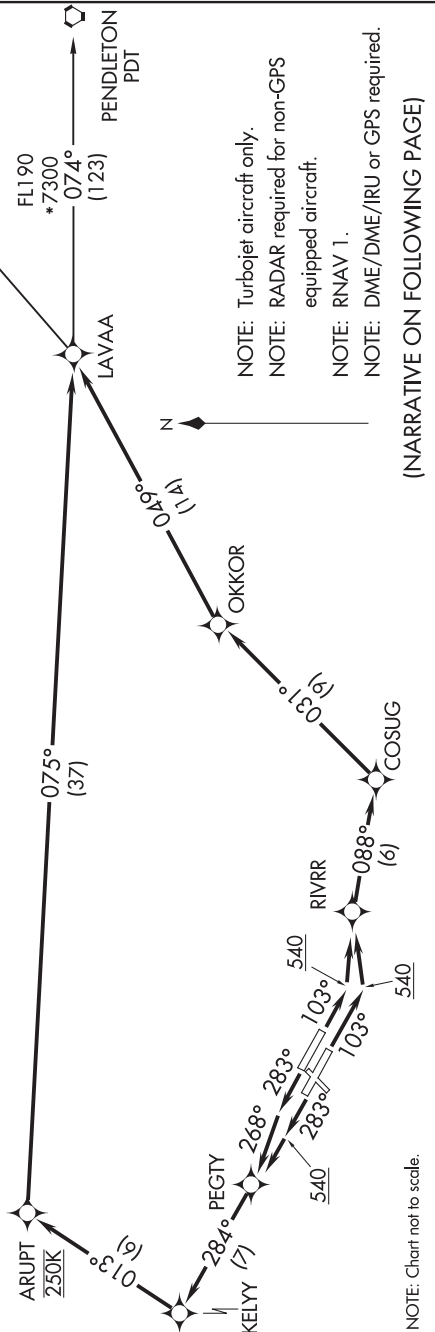
Rwy 10L: Vehicles on road beginning abeam DER, 376' left of centerline, up to 15' AGL/78' MSL.

Trees beginning 1201' from DER, 753' right of centerline, up to 75' AGL/95' MSL.

Rwy 10R: Pole 1996' from DER, 759' right of centerline, 54' AGL/74' MSL.

Rwy 28L: Trees 1873' from DER, 837' left of centerline, up to 75' AGL/95' MSL.

Rwy 28R: Building, antennas, vehicles on road, beginning 130' from DER, 257' right of centerline, up to 27' AGL/58' MSL.



**NOTE:** Turbojet aircraft only.

**NOTE:** RADAR required for non-GPS equipped aircraft.

**NOTE:** RNAV 1.

**NOTE:** DME/DME/IRU or GPS required.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

# LAVAA SIX DEPARTURE (RNAV)



# LAVAA SIX DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/R: Climb heading 103° to 540, then direct to RIVRR, then on depicted route to LAVAA, thence. . . .

TAKEOFF RUNWAY 28L: Climb heading 283° to 540, then direct PEGTY, then on depicted route to LAVAA, thence. . . .

TAKEOFF RUNWAY 28R: Climb heading 283°, intercept course 268° to PEGTY, then on depicted route to LAVAA, thence. . . .

. . . .via (Transition), maintain assigned altitude, expect filed altitude 10 minutes after departure.

PENDLETON TRANSITION (LAVAA6.PDT)

YAKIMA TRANSITION (LAVAA6.YKM)

NW-1, 10 NOV 2016 to 05 JAN 2017

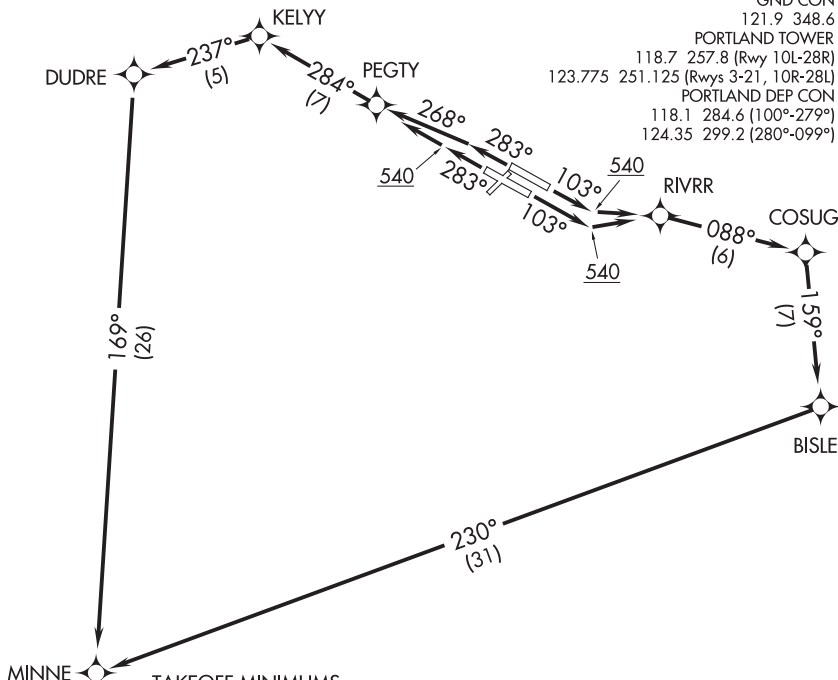
NW-1, 10 NOV 2016 to 05 JAN 2017

# MINNE FIVE DEPARTURE (RNAV)

PORTLAND, OREGON

NOTE: Turbojet aircraft only.  
 NOTE: RADAR required for non-GPS equipped aircraft.  
 NOTE: RNAV 1.  
 NOTE: DME/DME/IRU or GPS required.

ATIS  
 128.35 269.9  
 CLNC DEL  
 120.125 318.1  
 CPDLC  
 GND CON  
 121.9 348.6  
 PORTLAND TOWER  
 118.7 257.8 (Rwy 10L-28R)  
 123.775 251.125 (Rwys 3-21, 10R-28L)  
 PORTLAND DEP CON  
 118.1 284.6 (100°-279°)  
 124.35 299.2 (280°-099°)

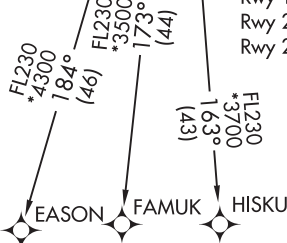


### TAKEOFF MINIMUMS

Rwys 3, 21: NA - Air Traffic.  
 Rwys 10L/R: Standard with minimum climb of 500' per NM to 540, then minimum climb of 350' per NM to 13000.  
 Rwys 28L/R: Standard with minimum climb of 500' per NM to 540, then minimum climb of 350' per NM to 15000.

### TAKEOFF OBSTACLE NOTES

Rwy 10L: Vehicles on road beginning abeam DER, 376' left of centerline, up to 15' AGL/78' MSL. Trees beginning 1201' from DER, 753' right of centerline, up to 75' AGL/95' MSL.  
 Rwy 10R: Pole 1996' from DER, 759' right of centerline, 54' AGL/74' MSL.  
 Rwy 28L: Trees 1873' from DER, 837' left of centerline, up to 75' AGL/95' MSL.  
 Rwy 28R: Building, antennas, vehicles on road, beginning 130' from DER, 257' right of centerline, up to 27' AGL/58' MSL.



(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# MINNE FIVE DEPARTURE (RNAV)

PORTLAND, OREGON

PORTLAND INTL (PDX)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/R: Climb heading 103° to 540, then direct to RIVRR, then on depicted route, thence. . . .

TAKEOFF RUNWAY 28L: Climb heading 283° to 540, then direct to PEGTY, then on depicted route, thence. . . .

TAKEOFF RUNWAY 28R: Climb heading 283°, intercept course 268° to PEGTY, then on depicted route thence. . . .

. . . .via (Transition), maintain assigned altitude, expect filed altitude 10 minutes after departure.

EASON TRANSITION (MINNE5.EASON)

FAMUK TRANSITION (MINNE5.FAMUK)

HISKU TRANSITION (MINNE5.HISKU)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

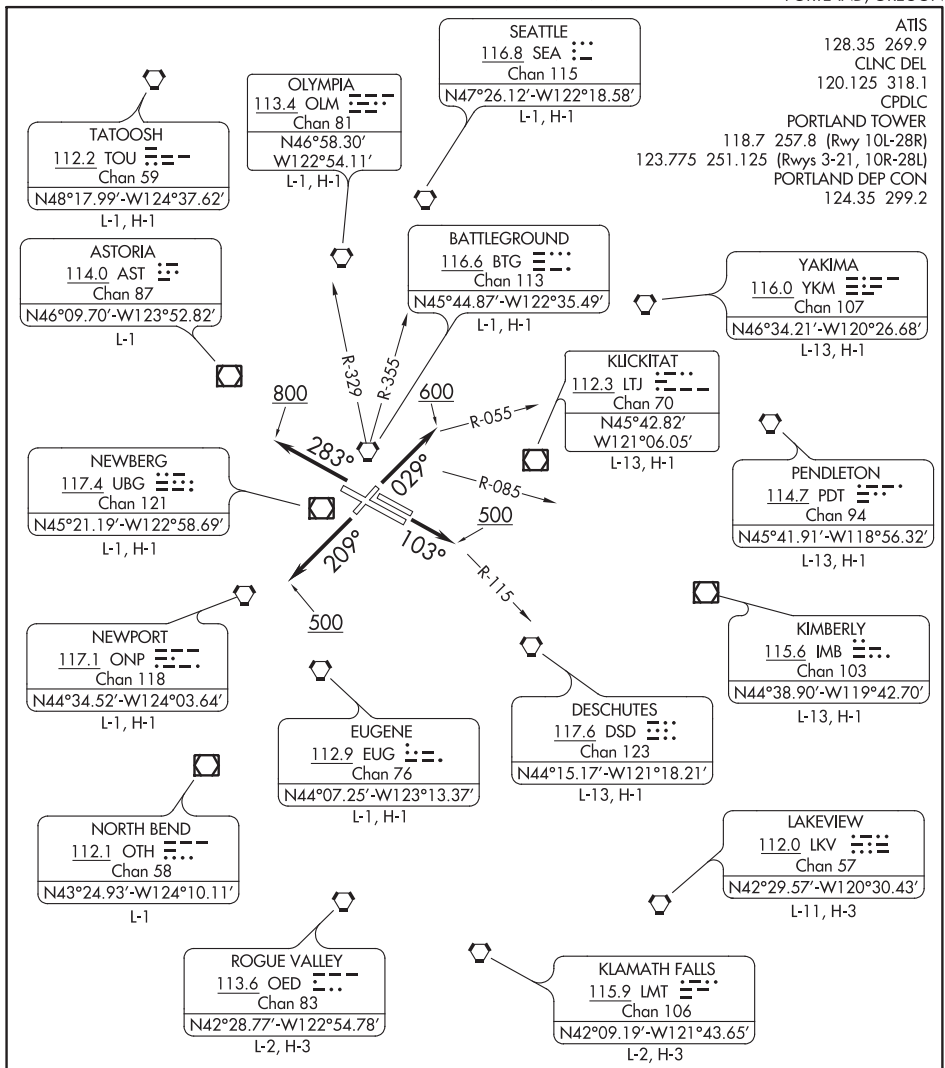
# PORTLAND ONE DEPARTURE

SL-330 (FAA)

PORTLAND INTL (PDX)  
PORTLAND, OREGON

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



### TAKEOFF MINIMUMS

- Rwy 3: Standard with minimum climb of 400' per NM to 2900.
- Rwy 10L: Standard with minimum climb of 450' per NM to 2900.
- Rwy 10R: Standard with minimum climb of 400' per NM to 2900.
- Rwy 21: Standard with minimum climb of 450' per NM to 2900.
- Rwy 28L: Standard with minimum climb of 375' per NM to 2900.
- Rwy 28R: Standard with minimum climb of 350' per NM to 2900.

NOTE: RADAR required.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

(NOTES CONTINUED ON FOLLOWING PAGE)

# PORTLAND ONE DEPARTURE

# PORTLAND ONE DEPARTURE



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb heading 029° to 600, thence. . . .

TAKEOFF RUNWAY 10L: Climb heading 103° to 500, thence. . . .

TAKEOFF RUNWAY 10R: Climb heading 103° to 500, thence. . . .

TAKEOFF RUNWAY 21: Climb heading 209° to 500, thence. . . .

TAKEOFF RUNWAY 28L: Climb heading 283° to 800, thence. . . .

TAKEOFF RUNWAY 28R: Climb heading 283° to 800, thence. . . .

. . . .on assigned heading expect RADAR vectors to assigned route/fix.  
Maintain assigned altitude, expect filed altitude five minutes after departure.

LOST COMMUNICATIONS: If no contact with ATC within 10 NM of airport, continue climb to assigned altitude and proceed direct BTG VORTAC. Continue climb on BTG R-329 within 10 NM to cross BTG VORTAC BTG R-355 CW R-055 or R-085 CW R-115 at or above 5000 feet. Continue climb on course.

### TAKEOFF OBSTACLE NOTES

- Rwy 3: Sign 1' from DER, 133' left of centerline, 5' AGL/28' MSL.  
Vehicle on road 1363' from DER, 795' left of centerline, 15' AGL/76' MSL.  
Vehicle on road 1675' from DER, 5' right of centerline, 15' AGL/76' MSL.  
Multiple trees, towers beginning 1.2 NM from DER, 278' left of centerline, up to 85' AGL/463' MSL.  
Multiple trees, building, electrical system and pole beginning 1.3 NM from DER, 63' right of centerline, up to 85' AGL/430' MSL.  
Tree 1.7 NM from DER, 8' right of centerline, 85' AGL/413' MSL.
- Rwy 10L: Vehicles on road beginning abeam DER, 376' left of centerline, up to 15' AGL/78' MSL.  
Trees beginning 1201' from DER, 753' right of centerline, up to 75' AGL/95' MSL.
- Rwy 10R: Pole 1996' from DER, 759' right of centerline, 54' AGL/74' MSL.
- Rwy 21: Light on DME 354' from DER, 255' left of centerline, 23' AGL/37' MSL.  
Multiple trees, poles, tower beginning 1327' from DER, 23' left of centerline, up to 93' AGL/328' MSL.  
Multiple trees, poles beginning 1098' from DER, 42' right of centerline up to 75' AGL/329' MSL.  
Trees beginning 2229' from DER, on centerline, up to 75' AGL/190' MSL.
- Rwy 28L: Trees 1873' from DER, 837' left of centerline, up to 75' AGL/95' MSL.
- Rwy 28R: Building, antennas, vehicles on road beginning 130' from DER, 257' right of centerline, up to 27' AGL/58' MSL.

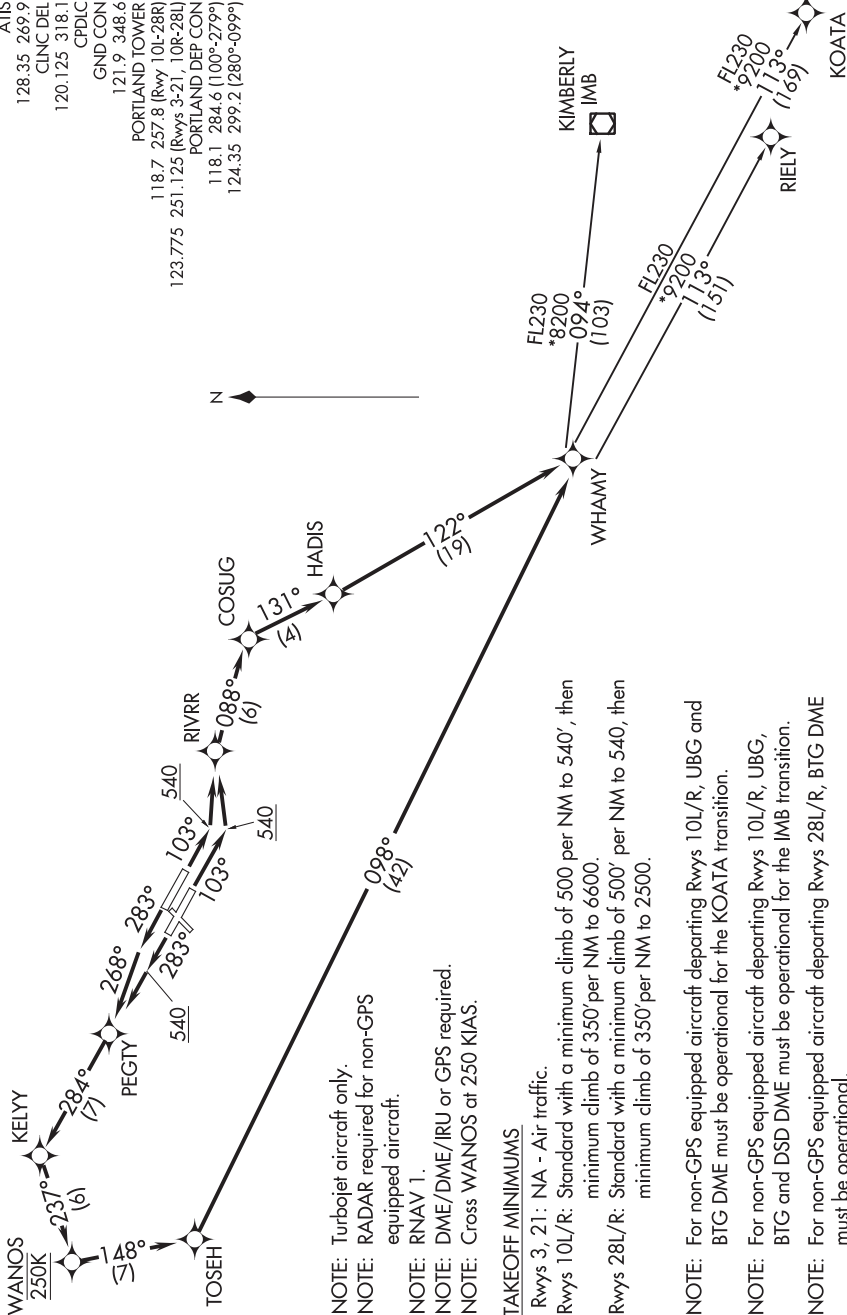
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# PORTLAND ONE DEPARTURE

# WHAMY FOUR DEPARTURE (RNAV)

ATIS  
128.35 269.9  
CLNC DEL  
120.125 318.1  
CPDLC  
GND CON  
121.9 348.6  
PORTLAND TOWER  
118.7 257.8 (Rwy 10L-28R)  
123.775 251.125 (Rwys 3-21, 10R-28L)  
PORTLAND DEP CON  
118.1 284.6 (100°-279°)  
124.35 299.2 (280°-099°)



- NOTE: Turbojet aircraft only.
- NOTE: RADAR required for non-GPS equipped aircraft.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Cross WANOS at 250 KIAS.

TAKEOFF MINIMUMS

- Rwys 3, 21: NA - Air traffic.
- Rwys 10L/R: Standard with a minimum climb of 500 per NM to 540', then minimum climb of 350' per NM to 6600.
- Rwys 28L/R: Standard with a minimum climb of 500' per NM to 540, then minimum climb of 350' per NM to 2500.

- NOTE: For non-GPS equipped aircraft departing Rwys 10L/R, UBG and BTG DME must be operational for the KOATA transition.
- NOTE: For non-GPS equipped aircraft departing Rwys 10L/R, UBG, BTG and DSD DME must be operational for the IMB transition.
- NOTE: For non-GPS equipped aircraft departing Rwys 28L/R, BTG DME must be operational.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

# WHAMY FOUR DEPARTURE (RNAV)

(WHAMY4.WHAMY) 13NOV14

# WHAMY FOUR DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/R: Climb heading 103° to 540, then direct to RIVRR, then on depicted route to WHAMY, thence. . . .

TAKEOFF RUNWAY 28L: Climb heading 283° to 540, then direct PEGTY, then on depicted route to WHAMY, thence. . . .

TAKEOFF RUNWAY 28R: Climb heading 283°, intercept course 268° to PEGTY, then on depicted route to WHAMY, thence. . . .

. . . .via (transition), maintain assigned altitude, expect filed altitude 10 minutes after departure.

KIMBERLY TRANSITION (WHAMY4.IMB)

KOATA TRANSITION (WHAMY4.KOATA)

RIELY TRANSITION (WHAMY4.RIELY)

### TAKEOFF OBSTACLE NOTES

- Rwy 10L: Vehicles on road beginning abeam DER, 376' left of centerline, up to 15' AGL/78' MSL.  
Trees beginning 1201' from DER, 753' right of centerline, up to 75' AGL/95' MSL.
- Rwy 10R: Pole 1996' from DER, 759' right of centerline, 54' AGL/74' MSL
- Rwy 28L: Trees 1873' from DER, 837' left of centerline, up to 75' AGL/95' MSL.
- Rwy 28R: Building, antennas, vehicles on road, beginning 130' from DER, 257' right of centerline, up to 27' AGL/58' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC I-HIO	APP CRS	Rwy Idg	6600
<b>110.7</b>	<b>128°</b>	TDZE	203
		Apt Elev	208

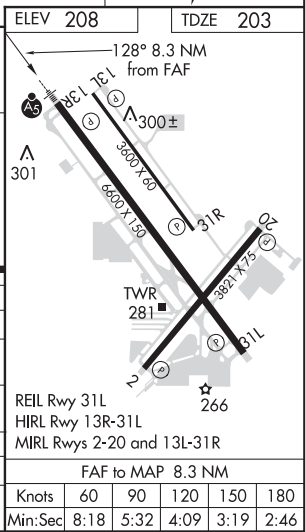
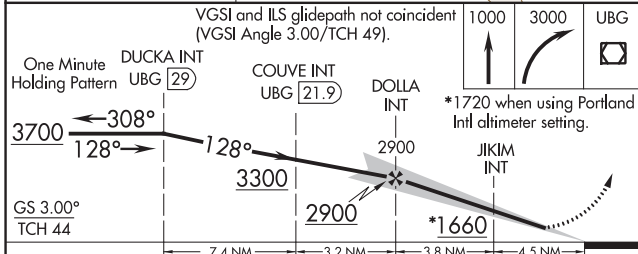
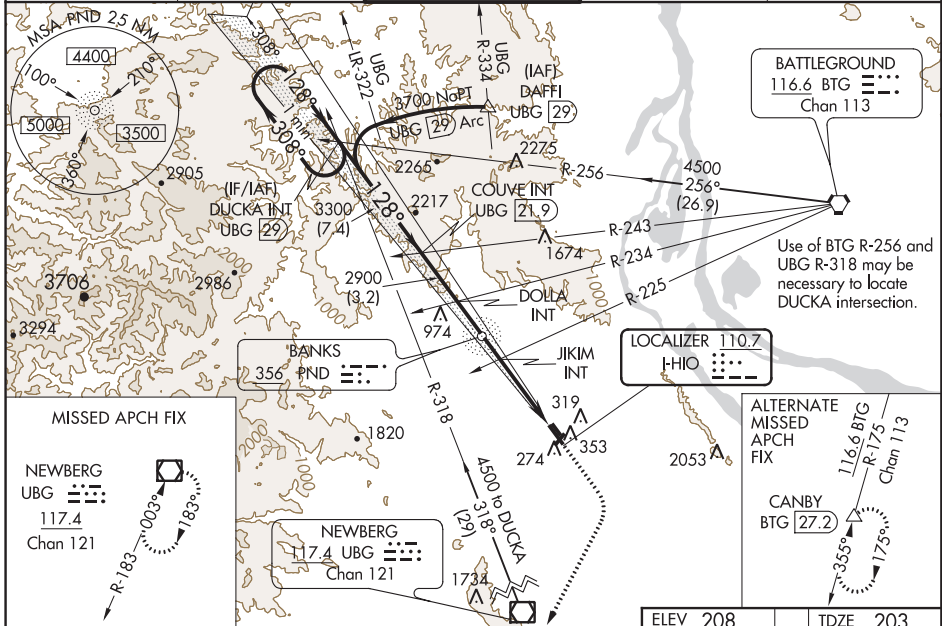
# ILS or LOC RWY 13R

PORTLAND-HILLSBORO (HIO)

**⚠** Inop table does not apply to S-LOC 13R Cats A and B. For inop MALSR when using Portland Intl altimeter setting, increase S-ILS 13R all Cats visibility to RVR 4500. When local altimeter setting not received, use Portland Intl altimeter setting and increase all DA/MDA 60 feet, increase JIKIM fix minimums S-LOC 13R Cats C and D visibility 1 1/2 mile.

**MALSR**  
 MISSED APPROACH: Climb to 1000 then climbing right turn to 3000 direct UBG VOR/DME and hold.

ATIS <b>127.65</b>	PORTLAND APP CON <b>126.0 269.175</b>	HILLSBORO TOWER * <b>119.3(CTAF) 0 239.3</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
S-ILS 13R	403/24 200 (200-1/2)			
S-LOC 13R	1660/60 1457 (1500-1 1/4)	1660-1 1/2 1457 (1500-1 1/2)	1660-3	1457 (1500-3)
<b>C</b> CIRCLING	1660-1 1/4 1452 (1500-1 1/4)	1660-1 1/2 1452 (1500-1 1/2)	1660-3	1452 (1500-3)
JIKIM FIX MINIMUMS (DUAL VOR RECEIVERS REQUIRED)				
S-LOC 13R	680/24	477 (500-1/2)	680/50	477 (500-1)
<b>C</b> CIRCLING	680-1 472 (500-1)	720-1 512 (600-1)	720-1 1/2 512 (600-1 1/2)	980-2 1/2 772 (800-2 1/2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>69502</b> W13A	APP CRS <b>127°</b>	Rwy Idg TDZE <b>203</b> Apt Elev <b>208</b>
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# RNAV (GPS) RWY 13R

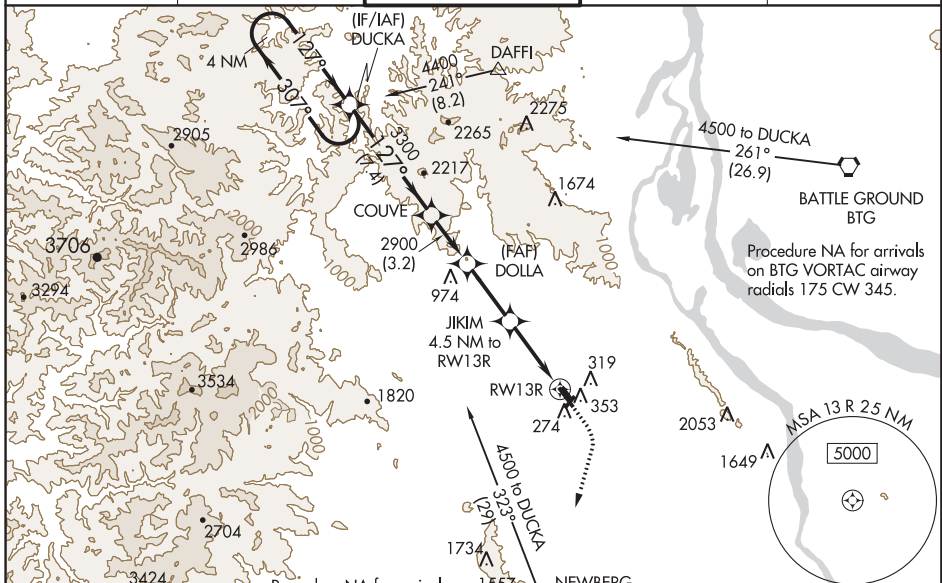
PORTLAND-HILLSBORO (HIO)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Portland Intl altimeter setting and increase all DA/MDA 60 feet, increase LNAV/VNAV and LNAV all Cats visibility ¼ mile. For inop MALSR when using Portland Intl altimeter setting, increase LPV all Cats visibility to RVR 4500, increase LNAV Cats C/D visibility to RVR 5500. VDP and Baro-VNAV NA when using Portland Intl altimeter setting.

**MALSR**

**MISSED APPROACH:** Climb to 1000 then climbing right turn to 3000 direct UBG VOR/DME and hold.

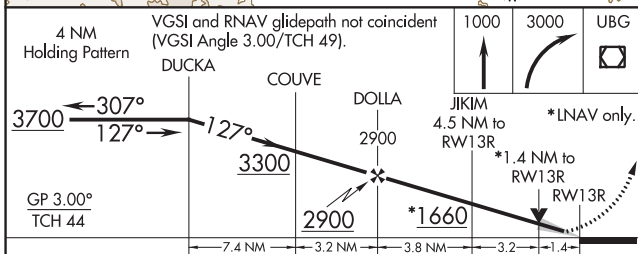
ATIS <b>127.65</b>	PORTLAND APP CON <b>126.0 269.175</b>	HILLSBORO TOWER * <b>119.3 (CTAF) 239.3</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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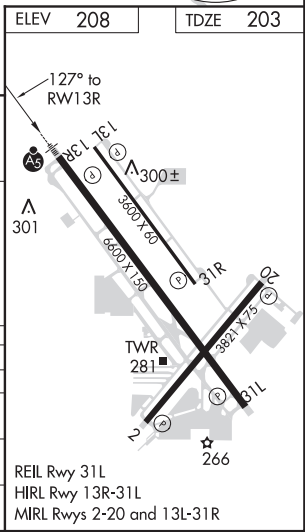
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 208	TDZE 203
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CATEGORY	A	B	C	D
LPV DA		403/24	200 (200-½)	
LNAV/VNAV DA		672/60	469 (500-1¼)	
LNAV MDA	680/40	477 (500-¾)	680/50	477 (500-1)
<b>C</b> CIRCLING	680-1 472 (500-1)	720-1 512 (600-1)	720-1½ 512 (600-1½)	980-2½ 772 (800-2½)



REIL Rwy 31L  
HIRL Rwy 13R-31L  
MIRL Rwy 2-20 and 13L-31R

WAAS CH <b>69417</b> <b>W31A</b>	APP CRS <b>308°</b>	Rwy ldg TDZE Apt Elev	<b>6600</b> <b>204</b> <b>208</b>
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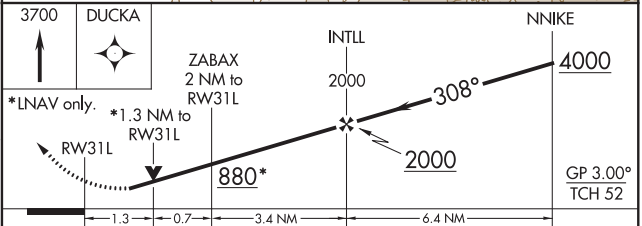
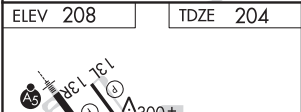
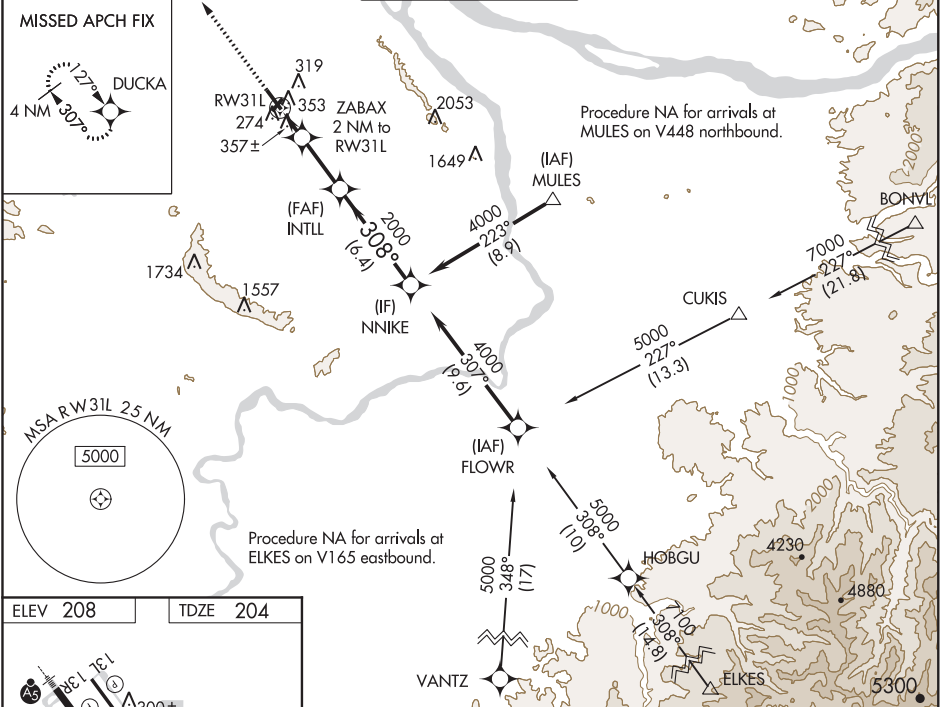
# RNAV (GPS) RWY 31L

PORTLAND-HILLSBORO (HIO)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Portland Intl altimeter setting and increase all DA/MDA 60 feet and increase LPV, LNAV/VNAV and Circling Cat D visibility ¼ mile. VDP and Baro-VNAV NA when using Portland Intl altimeter setting. Helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:** Climb to 3700 direct DUCKA and hold.

ATIS <b>127.65</b>	PORTLAND APP CON <b>126.0 269.175</b>	HILLSBORO TOWER * <b>119.3 (CTAF) 239.3</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA		583-1¼	379 (400-1¼)	
LNAV/VNAV DA		644-1½	440 (500-1½)	
LNAV MDA	660-1	456 (500-1)	660-1¾	456 (500-1¾)
<b>C</b> CIRCLING	680-1 472 (500-1)	720-1 512 (600-1)	720-1½ 512 (600-1½)	980-2½ 772 (800-2½)

REIL Rwy 31L  
HIRL Rwy 13R-31L  
MIRL Rwy 2-20 and 13L-31R

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VOR/DME UBG <b>117.4</b> Chan 121	APP CRS <b>345°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>208</b>
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# VOR/DME-C

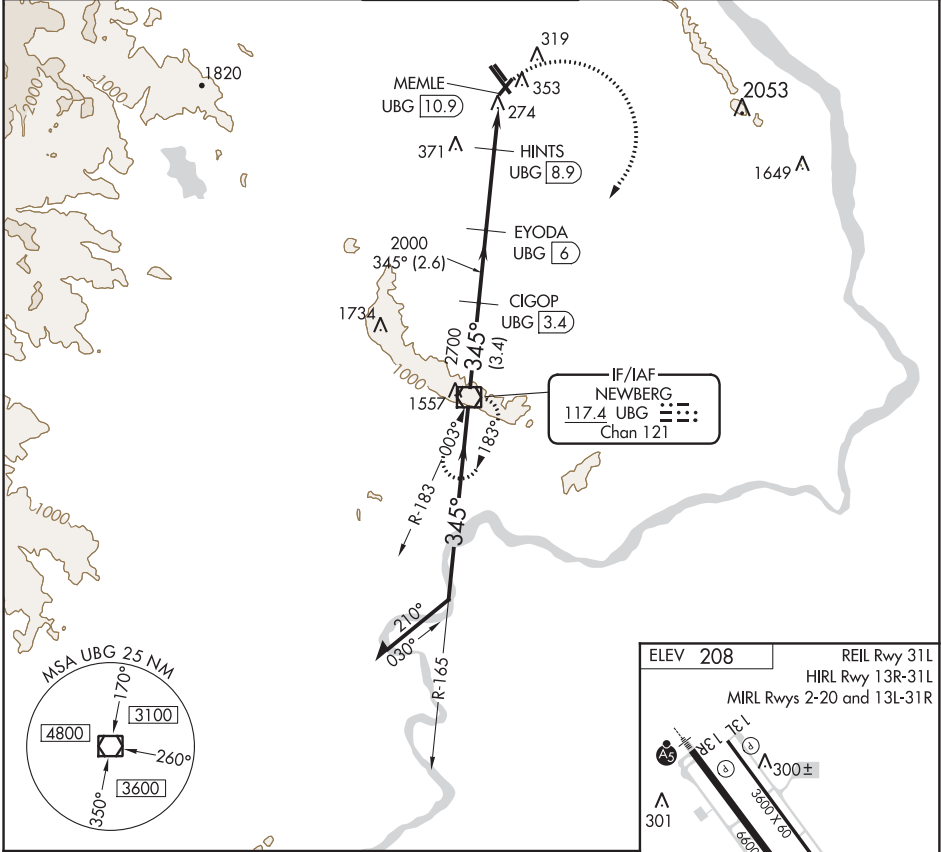
PORTLAND-HILLSBORO (HIO)



When local altimeter setting not received, use Portland Intl altimeter setting and increase all MDA 60 feet; increase Circling Cat D visibility 1/4 mile.

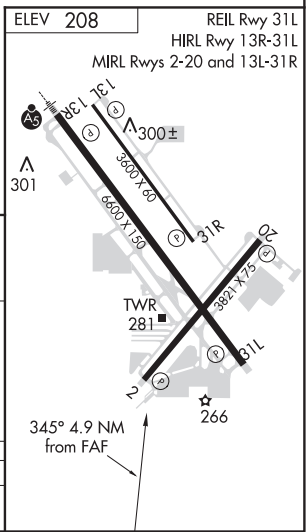
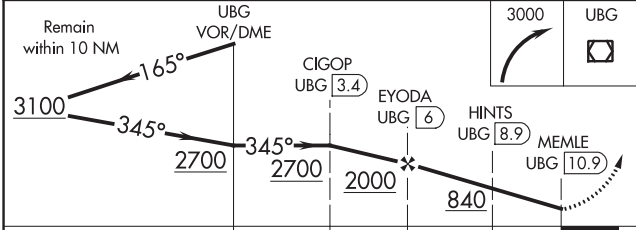
MISSED APPROACH: Climbing right turn to 3000 direct UBG VOR/DME and hold.

ATIS <b>127.65</b>	PORTLAND APP CON <b>126.0 269.175</b>	HILLSBORO TOWER ★ <b>119.3 (CTAF) 239.3</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	680-1 472 (500-1)	720-1 512 (600-1)	720-1½ 512 (600-1½)	980-2½ 772 (800-2½)

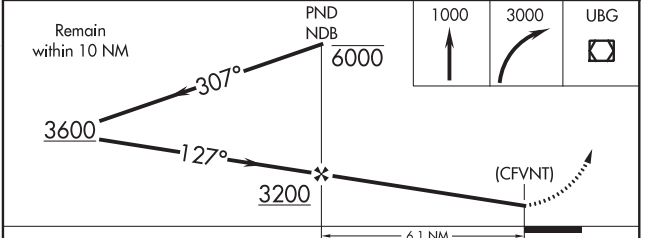
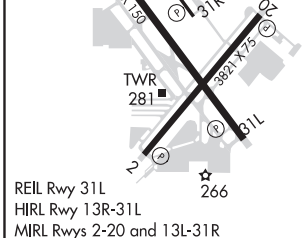
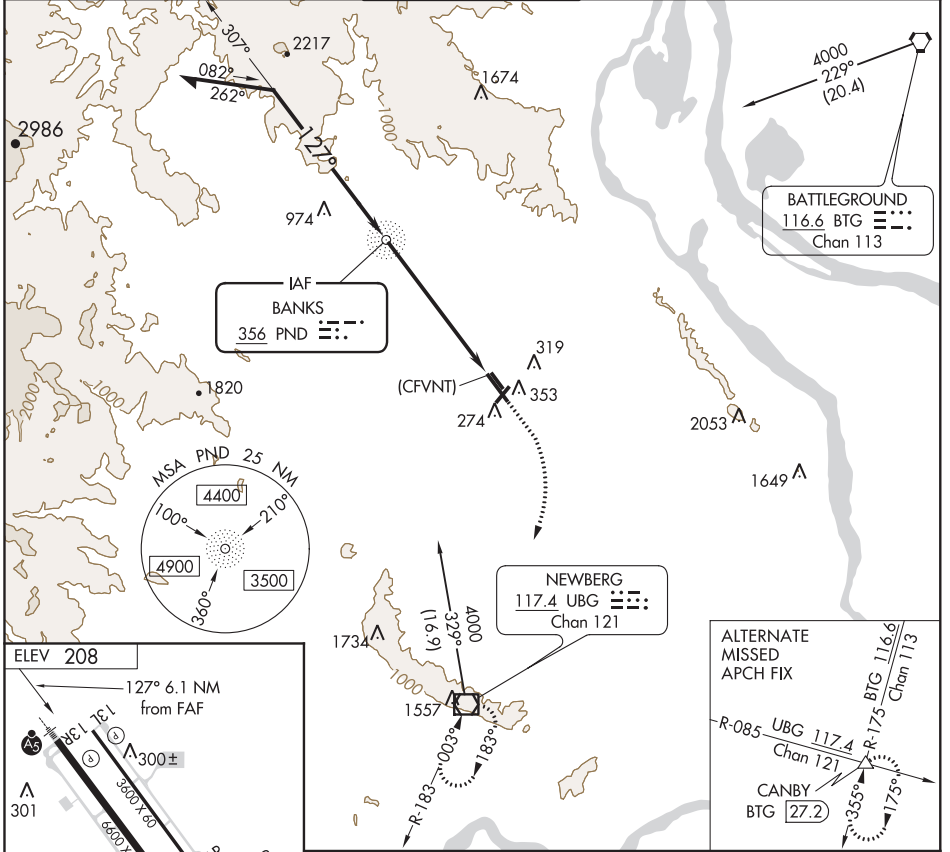
PND NDB <b>356</b>	APP CRS <b>127°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>208</b>
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**NDB-B**  
PORTLAND-HILLSBORO (HIO)

When local altimeter setting not received, use Portland Intl altimeter setting: increase all MDA 60 feet and visibility Cats C and D 1/4 mile.

MISSED APPROACH: Climb to 1000 then climbing right turn to 3000 direct UBG VOR/DME and hold.

ATIS <b>127.65</b>	PORTLAND APP CON <b>126.0 269.175</b>	HILLSBORO TOWER ★ <b>119.3 (CTAF) 239.3</b>	GND CON <b>121.7</b>	UNICOM <b>122.95</b>
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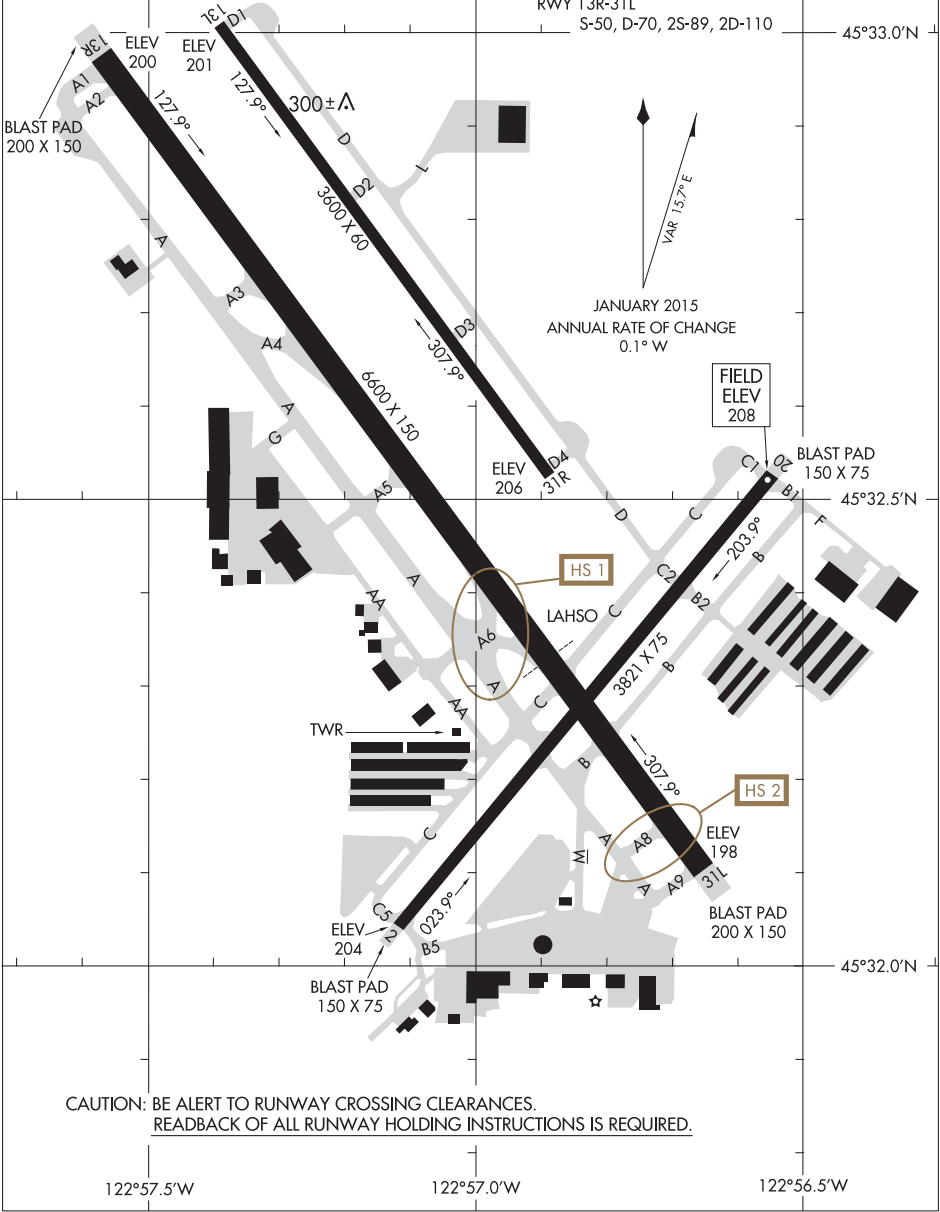
FAF to MAP 6.1 NM					
Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02
CATEGORY	A	B	C	D	
<input checked="" type="checkbox"/> CIRCLING	900-1	692 (700-1)	900-2 692 (700-2)	980-2½ 772 (800-2½)	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ATIS  
127.65  
HILLSBORO TOWER ★  
119.3 239.3  
GND CON  
121.7

RWY 02-20  
PCN 20 F/C/X/T  
S-54.5, D-74, 2D-139  
RWY 13L-31R  
PCN 10 F/D/Y/T  
S-28  
RWY 13R-31L  
S-50, D-70, 2S-89, 2D-110



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(BERNI2.BERNI) 16147

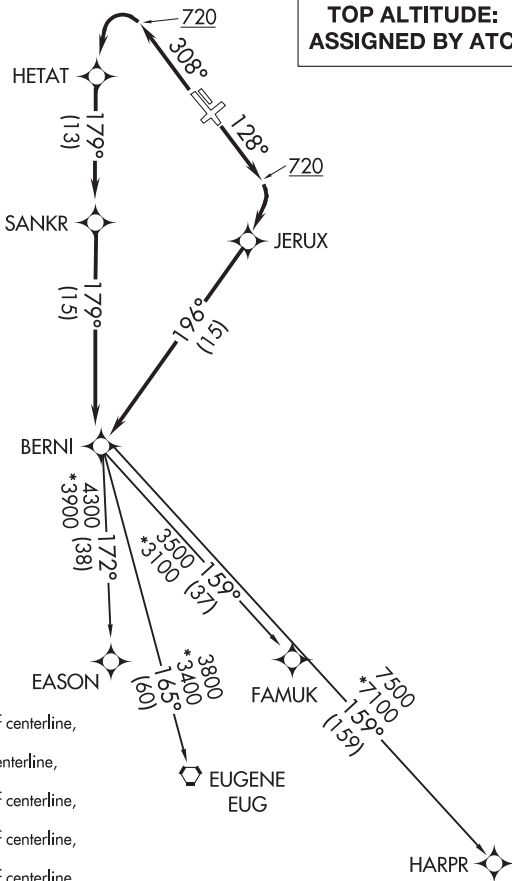
# BERNI TWO DEPARTURE (RNAV)

SL-5063 (FAA)

PORTLAND-HILLSBORO (HIO)  
PORTLAND, OREGON

ATIS  
127.65  
GND CON  
121.7  
HILLSBORO TOWER \*  
119.3 (CTAF) 239.3  
PORTLAND DEP CON  
126.0 269.175

**TOP ALTITUDE:  
ASSIGNED BY ATC**



NOTE: GPS required.  
NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: Turbojet aircraft only.

### TAKEOFF MINIMUMS

Rwys 2, 13L, 20, 31R: NA-ATC.  
Rwys 13R, 31L: Standard with minimum  
climb of 500' per NM  
to 720.

### TAKEOFF OBSTACLE NOTES

Rwy 13R: Pole 38' from DER, 149' left of centerline, 4' AGL/200' MSL.  
Sign 72' from DER, 299' right of centerline, 5' AGL/201' MSL.  
Tree 1030' from DER, 754' right of centerline, 60' AGL/260' MSL.  
Tree 1103' from DER, 613' left of centerline, 60' AGL/234' MSL.  
Trees beginning 1835' from DER, 609' right of centerline, up to 60' AGL/307' MSL.  
Trees beginning 3101' from DER, 9' right of centerline, up to 150' AGL/344' MSL.  
Trees beginning 5097' from DER, 582' right of centerline, up to 160' AGL/357' MSL.

Rwy 31L: Trees beginning 1664' from DER, 795' right of centerline, up to 80' AGL/271' MSL.  
Trees beginning 5874' from DER, 583' right of centerline, up to 200' AGL/380' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 13R:** Climb heading 128° to 720, then climbing right turn direct JERUX, then on track 196° to BERNI, thence . . .

**TAKEOFF RUNWAY 31L:** Climb heading 308° to 720, then climbing left turn direct HETAT, then on track 179° to SANKR, then on track 179° to BERNI, thence . . .

. . . on (transition). Maintain assigned altitude. Expect filed altitude 10 minutes after departure.

EASON TRANSITION (BERNI2.EASON)

EUGENE TRANSITION (BERNI2.EUG)

FAMUK TRANSITION (BERNI2.FAMUK)

HARPR TRANSITION (BERNI2.HARPR)

# BERNI TWO DEPARTURE (RNAV)

(BERNI2.BERNI) 30APR15

PORTLAND, OREGON  
PORTLAND-HILLSBORO (HIO)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(CANBY1.CANBY) 16147

# CANBY ONE DEPARTURE

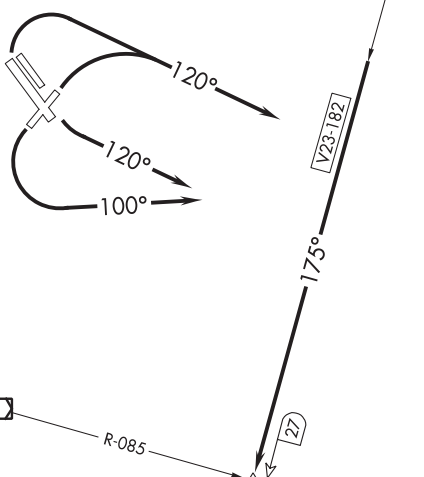
SL-5063 (FAA)


PORTLAND-HILLSBORO (HIO)  
PORTLAND, OREGON

ATIS  
127.65  
GND CON  
121.7  
HILLSBORO TOWER ★  
119.3 (CTAF) 239.3  
PORTLAND DEP CON  
126.0 269.175

BATTLEGROUND  
116.6 BTG   
Chan 113

**TOP ALTITUDE:  
ASSIGNED BY ATC**



NEWBERG  
117.4 UBG   
Chan 121

CANBY  
N45°18.63'  
W122°45.89'  
L-1

### TAKEOFF MINIMUMS

- Rwys 2: Standard with minimum climb of 305' per NM to 2700.
- Rwy 20: Standard.
- Rwys 13L/R: Standard with minimum climb of 235' per NM to 1500.
- Rwys 31L/R: Standard with minimum climb of 280' per NM to 2700.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 2, 31L/R: Climbing right turn heading 120°, thence. . . .

TAKEOFF RUNWAYS 13L/R: Climbing left turn heading 120°, thence. . . .

TAKEOFF RUNWAY 20: Climbing left turn heading 100°, thence. . . .

. . . .intercept BTG VORTAC R-175 to CANBY INT. Thence on assigned route.

CANBY ONE DEPARTURE  
(CANBY1.CANBY) 30APR15

PORTLAND, OREGON  
PORTLAND-HILLSBORO (HIO)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

TAKEOFF OBSTACLE NOTES

- Rwy 2: Fence 34' from DER, 498' left of centerline, 4' AGL/212' MSL.  
 Fence 70' from DER, 378' right of centerline, 8' AGL/214' MSL.  
 Fence 163' from DER, 332' left of centerline, 11' AGL/219' MSL.  
 Vehicles on road beginning 246' from DER, 253' right of centerline, up to 15' AGL/220' MSL.  
 Tree 1793' from DER, 609' right of centerline, 70' AGL/270' MSL.  
 Tank and buildings beginning 2423' from DER, 797' left of centerline, up to 67' AGL/279' MSL.
- Rwy 13L: Sign 60' from DER, 202' left of centerline, 2' AGL/208' MSL.  
 Trees beginning 2518' from DER, 295' left of centerline, up to 30' AGL/302' MSL.  
 Trees beginning 2718' from DER, 270' left of centerline, up to 40' AGL/329' MSL.  
 Trees beginning 3034' from DER, 259' left of centerline, up to 70' AGL/342' MSL.  
 Tower 4794' from DER, 780' left of centerline, 160' AGL/350' MSL.
- Rwy 13R: Pole 38' from DER, 149' left of centerline, 4' AGL/200' MSL.  
 Sign 72' from DER, 299' right of centerline, 5' AGL/201' MSL.  
 Tree 1030' from DER, 754' right of centerline, 60' AGL/260' MSL.  
 Tree 1103' from DER, 613' left of centerline, 60' AGL/234' MSL.  
 Trees beginning 1835' from DER, 609' right of centerline, up to 60' AGL/307' MSL.  
 Trees beginning 2458' from DER, 178' right of centerline, up to 100' AGL/290' MSL.  
 Trees beginning 2785' from DER, 4' left of centerline, up to 100' AGL/290' MSL.  
 Trees beginning 3101' from DER, 9' right of centerline, up to 150' AGL/344' MSL.  
 Trees beginning 3621' from DER, 8' left of centerline, up to 150' AGL/333' MSL.  
 Trees beginning 5097' from DER, 582' right of centerline, up to 160' AGL/357' MSL.
- Rwy 20: Poles, lights, fence beginning 14' from DER, 455' right of centerline, up to 29' AGL/232' MSL.  
 Windssock 57' from DER, 260' right of centerline, 7' AGL/210' MSL.  
 Pole and tree 215' from DER, 497' left of centerline, up to 34' AGL/236' MSL.  
 Hangars beginning 288' from DER, 418' left of centerline, up to 26' AGL/229' MSL.  
 Trees beginning 767' from DER, 625' left of centerline, up to 90' AGL/290' MSL.  
 Trees beginning 772' from DER, 417' right of centerline, up to 53' AGL/253' MSL.  
 Trees and poles beginning 1140' from DER, 454' left of centerline, up to 90' AGL/294' MSL.  
 Trees beginning 2232' from DER, 31' left of centerline, up to 100' AGL/311' MSL.  
 Tree 2430' from DER, 671' right of centerline, 80' AGL/280' MSL.  
 Tree 4822' from DER, 337' left of centerline, 130' AGL/327' MSL.
- Rwy 31L: Trees beginning 1664' from DER, 795' right of centerline, up to 80' AGL/271' MSL.  
 Trees beginning 5874' from DER, 583' right of centerline, up to 200' AGL/380' MSL.
- Rwy 31R: Sign 19' from DER, 162' right of centerline, 5' AGL/202' MSL.  
 Bush 116' from DER, 193' left of centerline, 5' AGL/205' MSL.  
 Trees, pole, tower beginning 1258' from DER, 138' right of centerline, up to 75' AGL/272' MSL.  
 Trees beginning 1 NM from DER, 433' right of centerline, up to 200' AGL/380' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

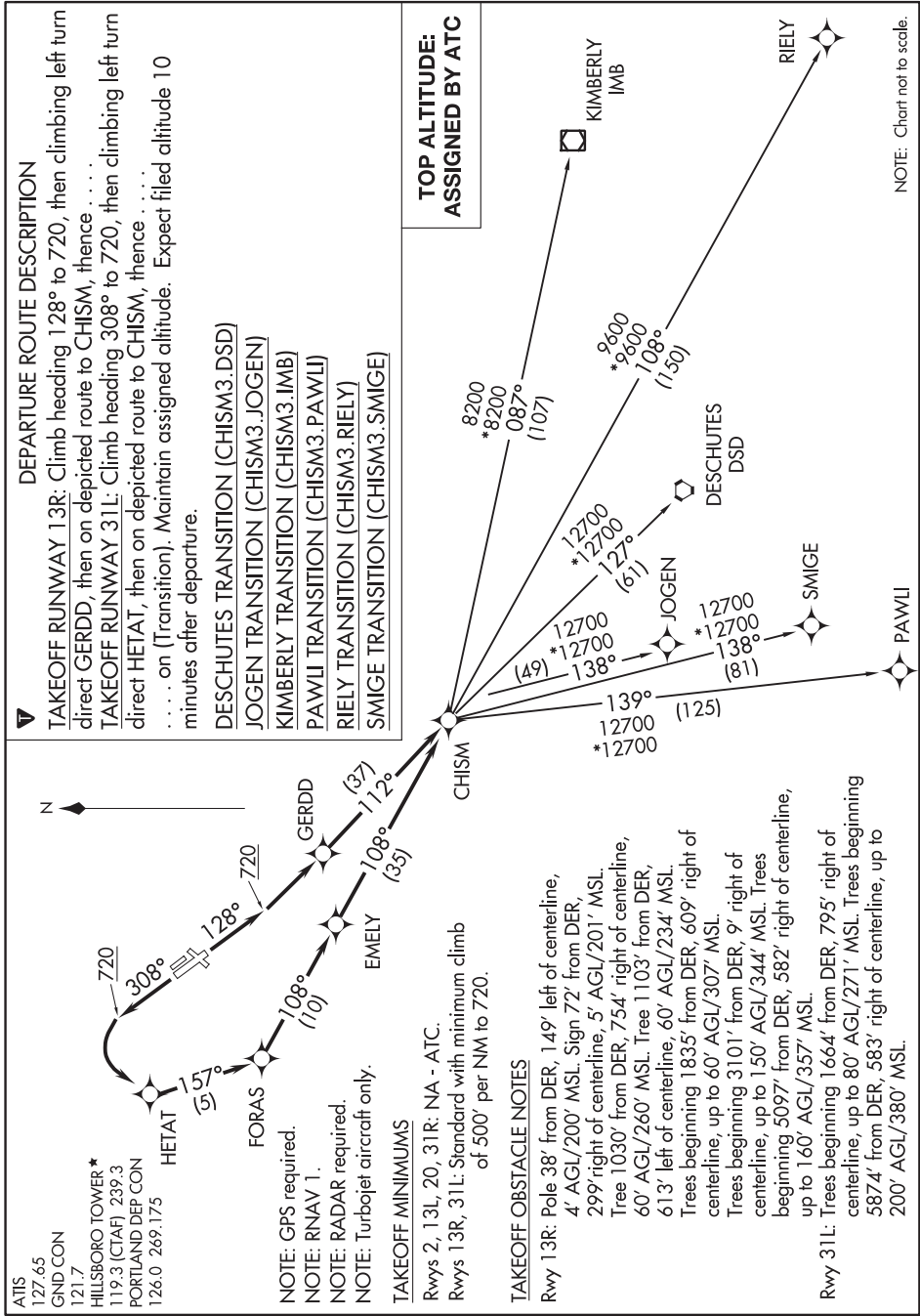
NW-1, 10 NOV 2016 to 05 JAN 2017



# CHISM THREE DEPARTURE (RNAV)

SL-5063 (FAA)

NW-1, 10 NOV 2016 to 05 JAN 2017



# CHISM THREE DEPARTURE (RNAV)

(CHISM3.CHISM) 30APR15

PORTLAND, OREGON  
PORTLAND-HILLSBORO (HIO)

NW-1, 10 NOV 2016 to 05 JAN 2017



TAKEOFF OBSTACLE NOTES

- Rwy 2: Fence 34' from DER, 498' left of centerline, 4' AGL/212' MSL.  
Fence 70' from DER, 378' right of centerline, 8' AGL/214' MSL.  
Fence 163' from DER, 332' left of centerline, 11' AGL/219' MSL.  
Vehicles on road beginning 246' from DER, 253' right of centerline, up to 15' AGL/220' MSL.  
Tree 1793' from DER, 609' right of centerline, 70' AGL/270' MSL.  
Tank and buildings beginning 2423' from DER, 797' left of centerline, up to 67' AGL/279' MSL.
- Rwy 13L: Sign 60' from DER, 202' left of centerline, 2' AGL/208' MSL.  
Trees beginning 2518' from DER, 295' left of centerline, up to 30' AGL/302' MSL.  
Trees beginning 2718' from DER, 270' left of centerline, up to 40' AGL/329' MSL.  
Trees beginning 3034' from DER, 259' left of centerline, up to 70' AGL/342' MSL.  
Tower 4794' from DER, 780' left of centerline, 160' AGL/350' MSL.
- Rwy 13R: Pole 38' from DER, 149' left of centerline, 4' AGL/200' MSL.  
Sign 72' from DER, 299' right of centerline, 5' AGL/201' MSL.  
Tree 1030' from DER, 754' right of centerline, 60' AGL/260' MSL.  
Tree 1103' from DER, 613' left of centerline, 60' AGL/234' MSL.  
Trees beginning 1835' from DER, 609' right of centerline, up to 60' AGL/307' MSL.  
Trees beginning 2458' from DER, 178' right of centerline, up to 100' AGL/290' MSL.  
Trees beginning 2785' from DER, 4' left of centerline, up to 100' AGL/290' MSL.  
Trees beginning 3101' from DER, 9' right of centerline, up to 150' AGL/344' MSL.  
Trees beginning 3621' from DER, 8' left of centerline, up to 150' AGL/333' MSL.  
Trees beginning 5097' from DER, 582' right of centerline, up to 160' AGL/357' MSL.
- Rwy 20: Poles, lights, fence beginning 14' from DER, 455' right of centerline, up to 29' AGL/232' MSL.  
Windsock 57' from DER, 260' right of centerline, 7' AGL/210' MSL.  
Pole and tree 215' from DER, 497' left of centerline, up to 34' AGL/236' MSL.  
Hangars beginning 288' from DER, 418' left of centerline, up to 26' AGL/229' MSL.  
Trees beginning 767' from DER, 625' left of centerline, up to 90' AGL/290' MSL.  
Trees beginning 772' from DER, 417' right of centerline, up to 53' AGL/253' MSL.  
Trees and poles beginning 1140' from DER, 454' left of centerline, up to 90' AGL/294' MSL.  
Trees beginning 2232' from DER, 31' left of centerline, up to 100' AGL/311' MSL.  
Tree 2430' from DER, 671' right of centerline, 80' AGL/280' MSL.  
Tree 4822' from DER, 337' left of centerline, 130' AGL/327' MSL.
- Rwy 31L: Trees beginning 1664' from DER, 795' right of centerline, up to 80' AGL/271' MSL.  
Trees beginning 5874' from DER, 583' right of centerline, up to 200' AGL/380' MSL.
- Rwy 31R: Sign 19' from DER, 162' right of centerline, 5' AGL/202' MSL.  
Bush 116' from DER, 193' left of centerline, 5' AGL/205' MSL.  
Trees, pole, tower beginning 1258' from DER, 138' right of centerline, up to 75' AGL/272' MSL.  
Trees beginning 1 NM from DER, 433' right of centerline, up to 200' AGL/380' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

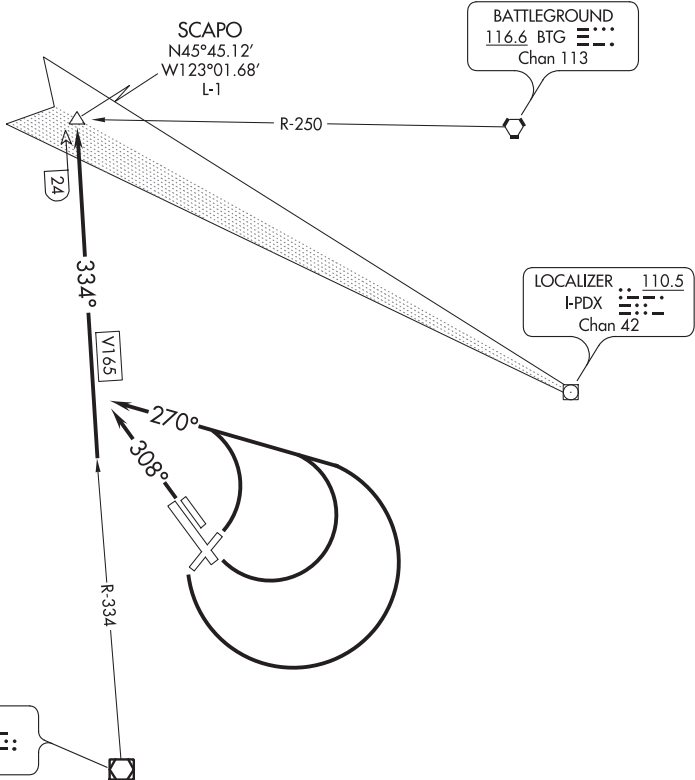
# (SCAPO6.SCAPO) 16147 SCAPO SIX DEPARTURE

SL-5063 (FAA)

PORTLAND-HILLSBORO (HIO)  
PORTLAND, OREGON

ATIS  
127.65  
GND CON  
121.7  
HILLSBORO TOWER \*  
119.3 (CTAF) 239.3  
PORTLAND DEP CON  
126.0 269.175

**TOP ALTITUDE:  
ASSIGNED BY ATC**



### TAKEOFF MINIMUMS

- Rwy 2: Standard with minimum climb of 235' per NM to 2000.
- Rwy 20: Standard.
- Rwys 13L/R: Standard with minimum climb of 305' per NM to 2700.
- Rwys 31L/R: Standard with minimum climb of 240' per NM to 600.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 2, 13L/R, 20: Climbing left turn heading 270°, thence . . . .

TAKEOFF RUNWAYS 31L/R: Climb heading 308°, thence . . . .

. . . . intercept UBG VOR/DME R-334 to SCAPO. Thence on assigned route.

TAKEOFF OBSTACLE NOTES

- Rwy 2: Fence 34' from DER, 498' left of centerline, 4' AGL/212' MSL.  
Fence 70' from DER, 378' right of centerline, 8' AGL/214' MSL.  
Fence 163' from DER, 332' left of centerline, 11' AGL/219' MSL.  
Vehicles on road beginning 246' from DER, 253' right of centerline, up to 15' AGL/220' MSL.  
Tree 1793' from DER, 609' right of centerline, 70' AGL/270' MSL.  
Tank and buildings beginning 2423' from DER, 797' left of centerline, up to 67' AGL/279' MSL.
- Rwy 13L: Sign 60' from DER, 202' left of centerline, 2' AGL/208' MSL.  
Trees beginning 2518' from DER, 295' left of centerline, up to 30' AGL/302' MSL.  
Trees beginning 2718' from DER, 270' left of centerline, up to 40' AGL/329' MSL.  
Trees beginning 3034' from DER, 259' left of centerline, up to 70' AGL/342' MSL.  
Tower 4794' from DER, 780' left of centerline, 160' AGL/350' MSL.
- Rwy 13R: Pole 38' from DER, 149' left of centerline, 4' AGL/200' MSL.  
Sign 72' from DER, 299' right of centerline, 5' AGL/201' MSL.  
Tree 1030' from DER, 754' right of centerline, 60' AGL/260' MSL.  
Tree 1103' from DER, 613' left of centerline, 60' AGL/234' MSL.  
Trees beginning 1835' from DER, 609' right of centerline, up to 60' AGL/307' MSL.  
Trees beginning 2458' from DER, 178' right of centerline, up to 100' AGL/290' MSL.  
Trees beginning 2785' from DER, 4' left of centerline, up to 100' AGL/290' MSL.  
Trees beginning 3101' from DER, 9' right of centerline, up to 150' AGL/344' MSL.  
Trees beginning 3621' from DER, 8' left of centerline, up to 150' AGL/333' MSL.  
Trees beginning 5097' from DER, 582' right of centerline, up to 160' AGL/357' MSL.
- Rwy 20: Poles, lights, fence beginning 14' from DER, 455' right of centerline, up to 29' AGL/232' MSL.  
Windsock 57' from DER, 260' right of centerline, 7' AGL/210' MSL.  
Pole and tree 215' from DER, 497' left of centerline, up to 34' AGL/236' MSL.  
Hangars beginning 288' from DER, 418' left of centerline, up to 26' AGL/229' MSL.  
Trees beginning 767' from DER, 625' left of centerline, up to 90' AGL/290' MSL.  
Trees beginning 772' from DER, 417' right of centerline, up to 53' AGL/253' MSL.  
Trees and poles beginning 1140' from DER, 454' left of centerline, up to 90' AGL/294' MSL.  
Trees beginning 2232' from DER, 31' left of centerline, up to 100' AGL/311' MSL.  
Tree 2430' from DER, 671' right of centerline, 80' AGL/280' MSL.  
Tree 4822' from DER, 337' left of centerline, 130' AGL/327' MSL.
- Rwy 31L: Trees beginning 1664' from DER, 795' right of centerline, up to 80' AGL/271' MSL.  
Trees beginning 5874' from DER, 583' right of centerline, up to 200' AGL/380' MSL.
- Rwy 31R: Sign 19' from DER, 162' right of centerline, 5' AGL/202' MSL.  
Bush 116' from DER, 193' left of centerline, 5' AGL/205' MSL.  
Trees, pole, tower beginning 1258' from DER, 138' right of centerline, up to 75' AGL/272' MSL.  
Trees beginning 1 NM from DER, 433' right of centerline, up to 200' AGL/380' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# RNAV (GPS)-A

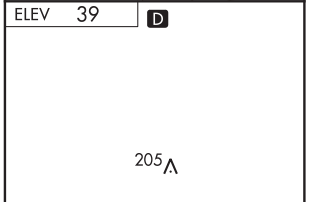
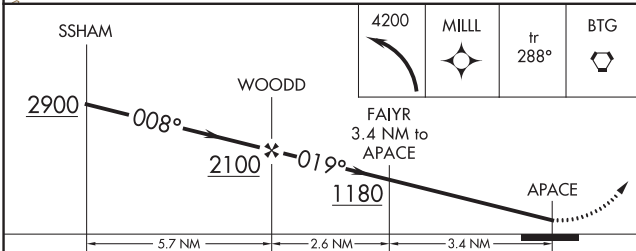
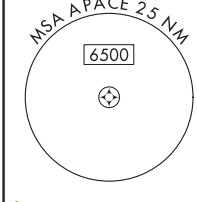
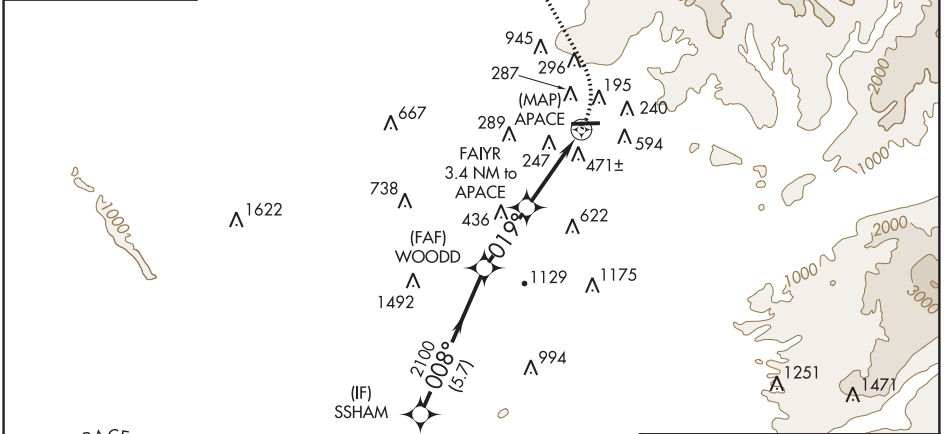
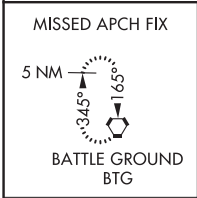
PORTLAND-TROUTDALE (TTD)

APP CRS <b>019°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>39</b>
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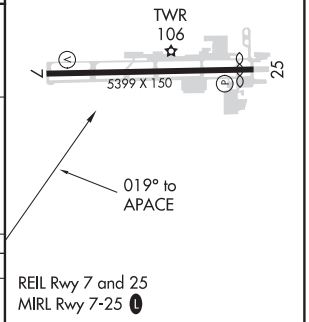
**▽** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Portland Intl altimeter setting and increase all MDA 40 feet.

**▲** MISSED APPROACH: Climbing left turn to 4200 direct MILLL and on track 288° to BTG VORTAC and hold, continue climb-in-hold to 4200.

ATIS <b>135.625</b>	PORTLAND APP CON <b>124.35 299.2</b>	TROUTDALE TOWER * <b>120.9 (CTAF) 254.3</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
<b>C</b> CIRCLING	1000-1¼ 961 (1000-1¼)	1040-1½ 1001 (1100-1½)	1300-3	1261 (1300-3)

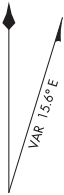


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

**FIELD  
 ELEV  
 39**

ATIS  
 135.625  
 TROUTDALE TOWER\*  
 120.9 254.3  
 GND CON  
 121.8  
**D**

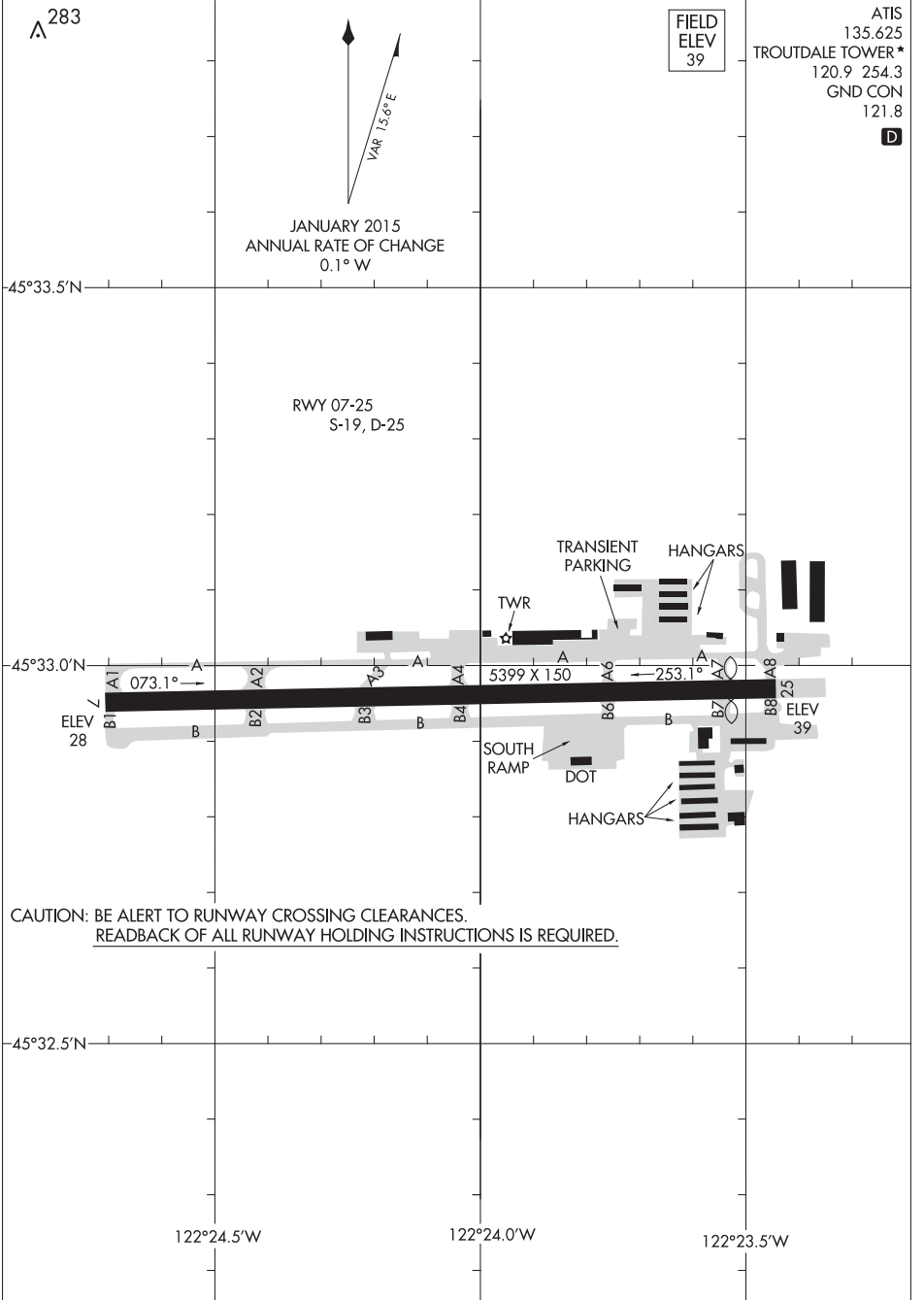


JANUARY 2015  
 ANNUAL RATE OF CHANGE  
 0.1° W

RWY 07-25  
 S-19, D-25

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



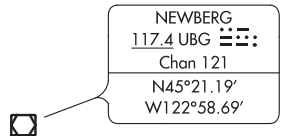
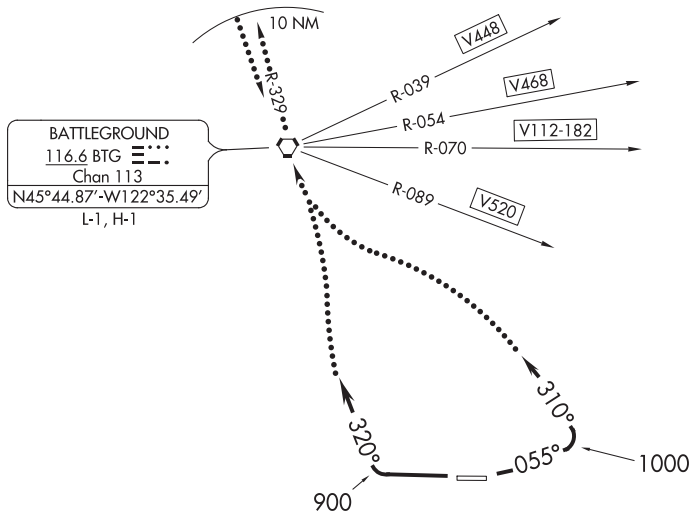
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

# BLUE LAKE THREE DEPARTURE

SL-649 (FAA)

PORTLAND-TROUTDALE (T'D)  
PORTLAND, OREGON

CTAF 120.9



NOTE: Rwy 7 requires a minimum climb gradient of 420' per NM to 4000'.  
Rwy 25 requires a minimum climb of 310' per NM to 2000'.

NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 7:** Climb via heading 055° to 1000', then turn left to 310° or as assigned.

**TAKEOFF RUNWAY 25:** Climb runway heading to 900', then turn right to 320° or as assigned.

**LOST COMMUNICATIONS:** Proceed direct to BTG VORTAC. Continue climb on the BTG R-329 within 10 NM to cross BTG VORTAC at or above: NE-bound V448, 9400'; NE-bound V468, 4500'; E-bound V112, V182, V520, 4700'; for non airways BTG R-355 CW BTG R-120, 8800'; all others, 2500'.

**ALTERNATE LOST COMMUNICATIONS PROCEDURE:** When BTG VORTAC is out of service: if no contact with ATC leaving 3000', continue climb to assigned altitude and proceed direct to UBG VOR/DME, thence via assigned route.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# BLUE LAKE THREE DEPARTURE

04FEB93

PORTLAND, OREGON  
PORTLAND-TROUTDALE (T'D)



WAAS CH <b>90233</b> <b>W13A</b>	APP CRS <b>134°</b>	Rwy Idg TDZE Apt Elev	<b>6200</b> <b>5046</b> <b>5096</b>
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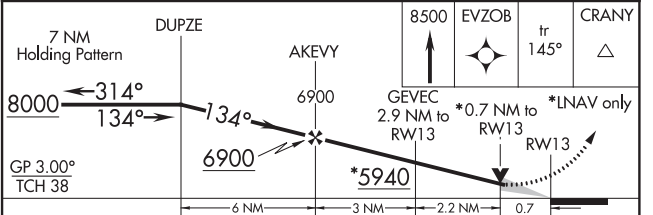
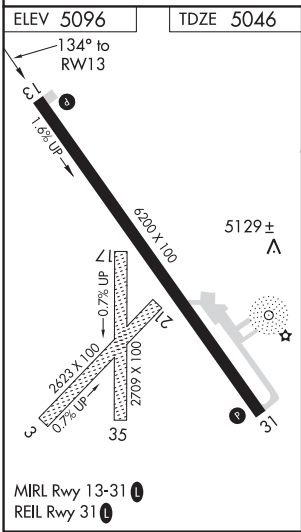
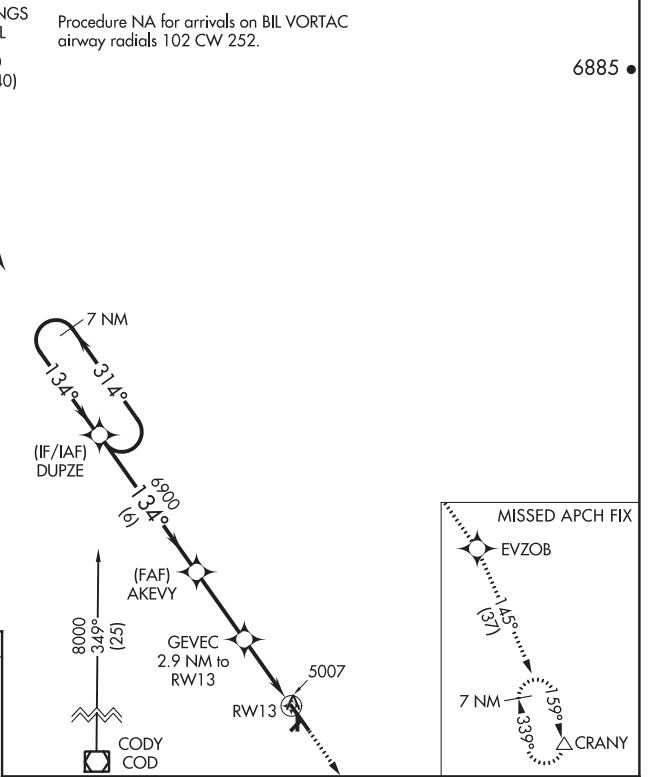
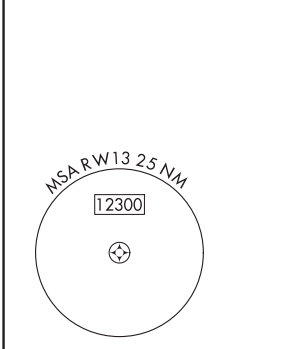
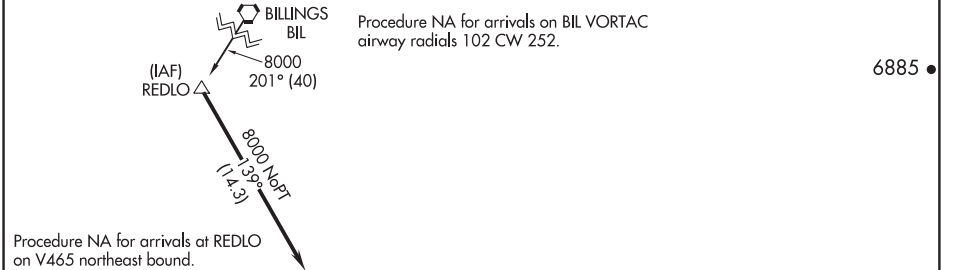
# RNAV (GPS) RWY 13

POWELL MUNI (POY)

**NA** Night landing: Rwy 31 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 51°C (125°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Cody altimeter setting. When local altimeter setting not received, use Cody altimeter setting: increase all DA 54 feet and all MDA 60 feet. Circling NA to Rwy's 3, 17, 21 and 35.

MISSED APPROACH: Climb to 8500 direct EVZOB and on track 145° to CRANY and hold.

AWOS-3 <b>119.275</b>	CASPER RADIO <b>122.3</b>	UNICOM <b>122.7 (CTAF)</b>
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CATEGORY	A	B	C	D
LPV DA		5296-1	250 (200-1)	
LNAV/VNAV DA		5296-1	250 (200-1)	
LNAV MDA		5300-1	254 (300-1)	
CIRCLING	5500-1 404 (500-1)	5560-1 464 (500-1)	5560-1½ 464 (500-1½)	5660-2 564 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>50233</b> <b>W31A</b>	APP CRS <b>314°</b>	Rwy Idg TDZE Apt Elev	<b>6200</b> <b>5096</b> <b>5096</b>
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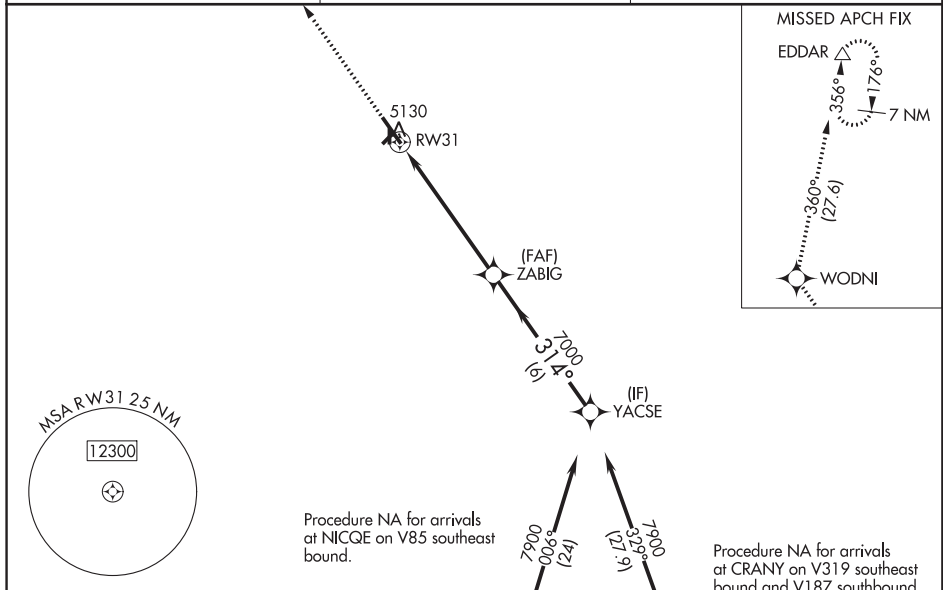
# RNAV (GPS) RWY 31

POWELL MUNI (POY)

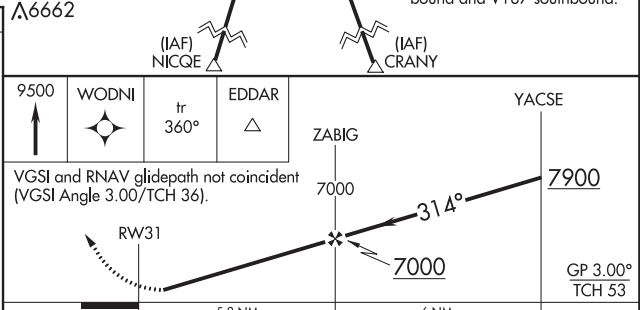
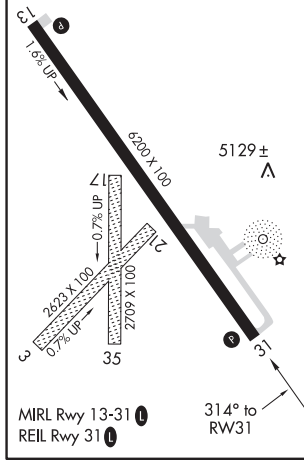
**⚠ NA** DME/DME RNP-0.3 NA. Night landing: Rwy 31 NA. Baro-VNAV NA when using Cody altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -25°C (-13°F) or above 48°C (118°F). Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Cody altimeter setting; increase all DA 54 feet and all MDA 60 feet. Circling NA to Rwys 3, 17, 21 and 35.

MISSED APPROACH: Climb to 9500 direct WODNI and on track 360° to EDDAR and hold.

AWOS-3 <b>119.275</b>	CASPER RADIO <b>122.3</b>	UNICOM <b>122.7</b> (CTAF) <b>①</b>
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ELEV 5096	TDZE 5096
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CATEGORY	A	B	C	D
LPV DA		5346-1	250 (300-1)	
LNAV/VNAV DA		5346-1	250 (300-1)	
LNAV MDA		5380-1	284 (300-1)	
<b>C</b> CIRCLING	5500-1 404 (500-1)	5560-1 464 (500-1)	5560-1½ 464 (500-1½)	5660-2 564 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NDB POY <b>344</b>	APP CRS <b>324°</b>	Rwy Idg TDZE Apt Elev	<b>6200</b> <b>5096</b> <b>5096</b>
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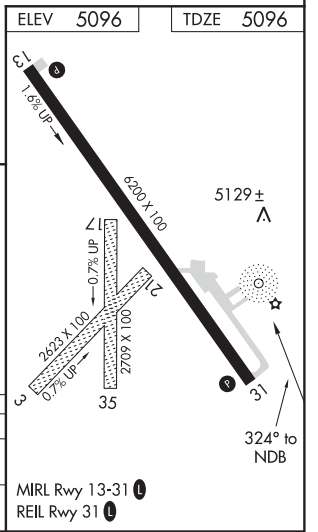
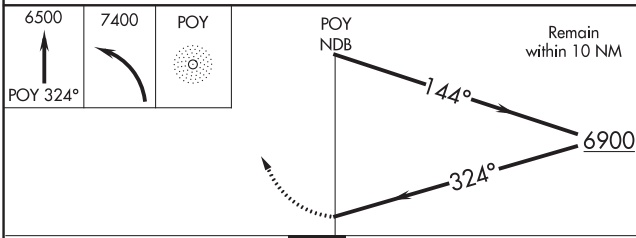
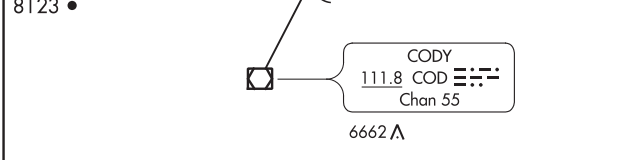
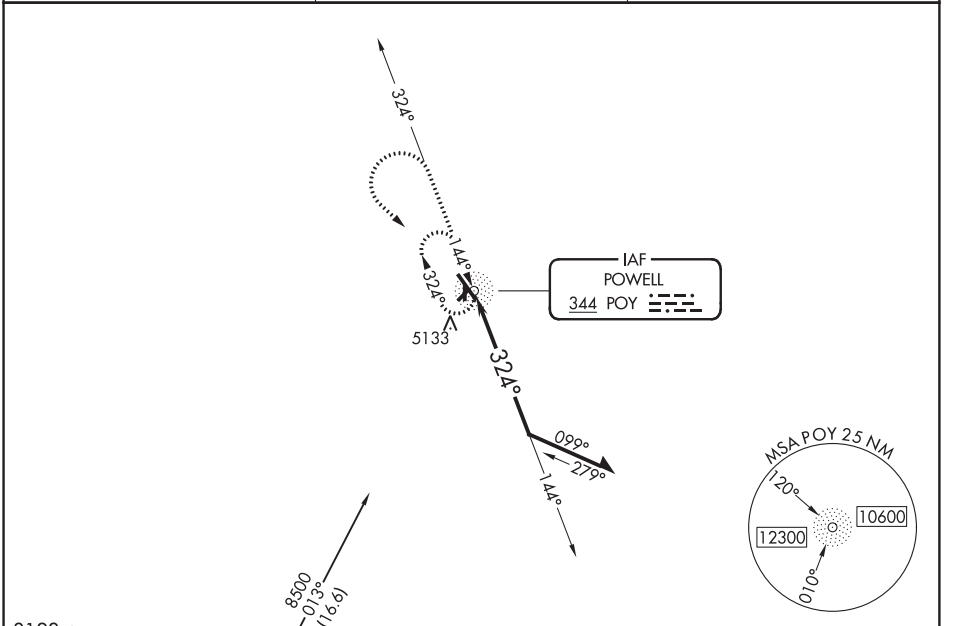
# NDB RWY 31

POWELL MUNI (POY)

**▼** Night landing: Rwy 31 NA. Helicopter visibility reduction below 1 SM NA. **▲** NA. When local altimeter not received, use Cody altimeter setting: increase all MDA 60 feet, and S-31 Cat C and D visibilities ¼ mile. Circling NA to Rwys 3, 17, 21 and 35.

MISSED APPROACH: Climb to 6500 via POY NDB bearing 324° then climbing left turn to 7400 direct POY NDB and hold.

AWOS-3 <b>119.275</b>	CASPER RADIO <b>122.3</b>	UNICOM <b>122.7 (CTAF) ①</b>
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CATEGORY	A	B	C	D
S-31	5500-1	404 (500-1)	5500-1½	404 (500-1½)
<b>C</b> CIRCLING	5500-1 404 (500-1)	5560-1 464 (500-1)	5560-1½ 464 (500-1½)	5660-2 564 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

PRINEVILLE, OREGON

AL-9340 (FAA)

15344

WAAS CH <b>60936</b> <b>W10A</b>	APP CRS <b>092°</b>	Rwy Idg THRE Apt Elev	<b>5751</b> <b>3246</b> <b>3251</b>
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# RNAV (GPS) RWY 10

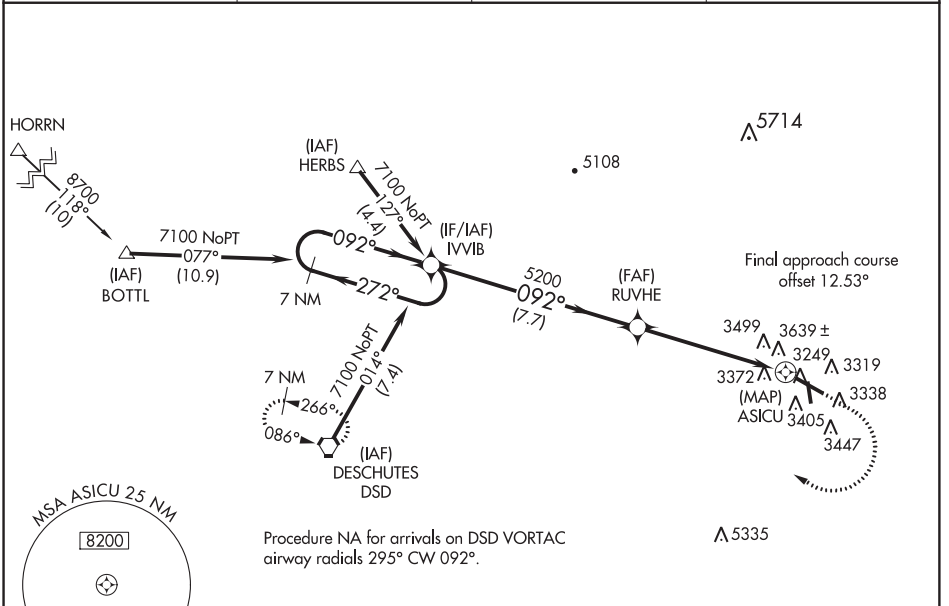
PRINEVILLE (S39)

**⚠** Circling NA for Cat D southwest of Rwy 10-28. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. Use Redmond altimeter setting; when not received, use Bend altimeter setting and increase all MDA 20 feet and \*LP Cat C/D visibility 1/8 NM.  
\*Missed approach requires a minimum climb of 220 feet per NM to 5500.

**⚠** NA  
**⚠** -26°C/-15°F

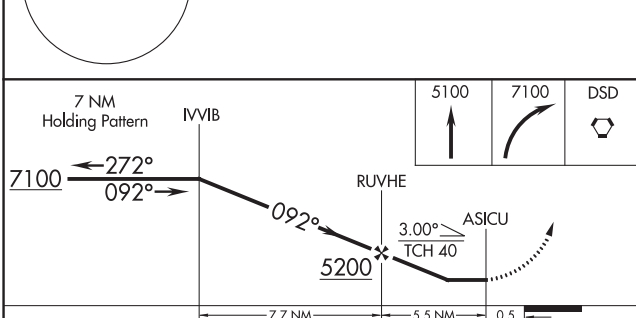
MISSED APPROACH: Climb to 5100 then climbing right turn to 7100 direct DSD VORTAC and hold.

AWOS-3PT <b>118.325</b>	REDMOND ASOS <b>119.025</b>	SEATTLE CENTER <b>128.15 257.75</b>	UNICOM <b>122.8 (CTAF)</b> <b>⓪</b>
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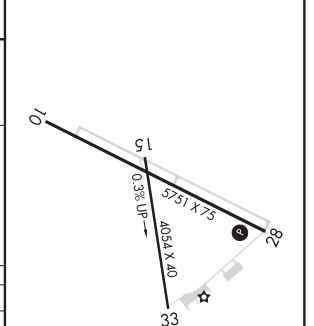


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 3251	THRE 3246
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CATEGORY	A	B	C	D
LP MDA	3840-1	594 (600-1)	3840-1 3/4	594 (600-1 3/4)
*LP MDA	3680-1	434 (500-1)	3680-1 1/4	434 (500-1 1/4)
LNNAV MDA	3940-1	694 (700-1)	3940-2	694 (700-2)
<b>⓪</b> CIRCLING	4000-1 749 (800-1)	4100-1 1/4 849 (900-1 1/4)	4100-2 1/2 849 (900-2 1/2)	4100-2 3/4 849 (900-2 3/4)

MIRL Rwy 10-28 **⓪**  
LIRL Rwy 15-33 **⓪**

PRINEVILLE, OREGON  
Amdt 1 06FEB14

44°17'N-120°54'W

# RNAV (GPS) RWY 10

PRINEVILLE (S39)



# DESCHUTES TWO DEPARTURE (RNAV)

PRINEVILLE (S39)  
PRINEVILLE, OREGON

11:02 AM on 10/05/2017

## DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 10:** Climb heading 104° to 3760 then climbing right turn direct DSD VORTAC. Thence . . . . .

**TAKEOFF RUNWAY 15:** Climb heading 156° to 3760 then climbing right turn direct DSD VORTAC. Thence . . . . .

**TAKEOFF RUNWAY 28:** Climb heading 284° to 3760 then climbing left turn direct DSD VORTAC. Thence . . . . .

**TAKEOFF RUNWAY 33:** Climb heading 336° to 3760 then climbing left turn direct DSD VORTAC. Thence . . . . .

. . . . . cross DSD VORTAC at or above MEA/MCA for route of flight.

## TAKEOFF OBSTACLE NOTES:

**Rwy 10:** Flag pole 69' from DER, 248' left of centerline, 22' AGL/3258' MSL. Tree, vehicle on road, and pole beginning 542' from DER, 277' right of centerline, up to 47' AGL/3307' MSL.

**Rwy 15:** Building 36' from DER, 368' left of centerline, 27' AGL/3277' MSL. Trees beginning 151' right of centerline, up to 20' AGL/3266' MSL. Trees beginning 192' from DER, 25' left of centerline, up to 27' AGL/3277' MSL.

**Rwy 28:** Trees beginning 51' from DER, 33' left of centerline, up to 28' AGL/3283' MSL. Trees beginning 14' from DER, 161' right of centerline, up to 22' AGL/3273' MSL.

**Rwy 33:** Terrain and trees beginning 100' from DER, 72' right of centerline, up to 43' AGL/3287' MSL. Terrain 129' from DER, 81' left of centerline, 3243' MSL.

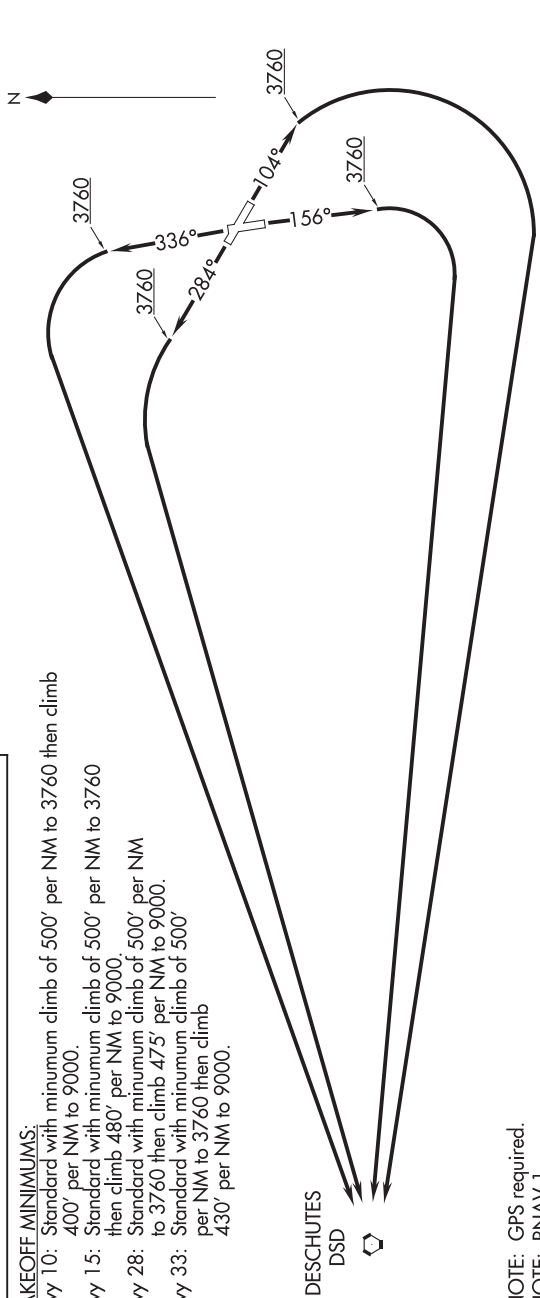
## TAKEOFF MINIMUMS:

**Rwy 10:** Standard with minimum climb of 500' per NM to 3760 then climb 400' per NM to 9000.

**Rwy 15:** Standard with minimum climb of 500' per NM to 3760 then climb 480' per NM to 9000.

**Rwy 28:** Standard with minimum climb of 500' per NM to 3760 then climb 475' per NM to 9000.

**Rwy 33:** Standard with minimum climb of 500' per NM to 3760 then climb 430' per NM to 9000.



NOTE: GPS required.  
NOTE: RNAV 1.

# DESCHUTES TWO DEPARTURE (RNAV)

PRINEVILLE, OREGON  
PRINEVILLE (S39)

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>6200</b>
<b>055°</b>	TDZE	<b>2538</b>
	Apt Elev	<b>2555</b>

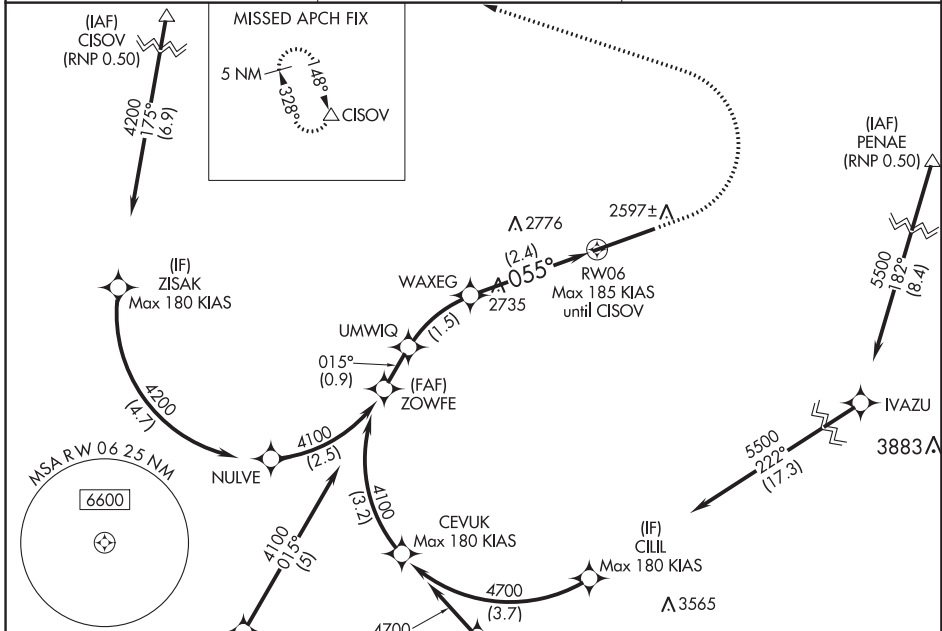
# RNAV (RNP) Z RWY 6

PULLMAN/MOSCOW RGNL (PUW)

**▽** For uncompensated Baro-VNAV systems, procedure NA below -20°C (-4°F) or above 52°C (127°F). RF required. GPS required.

MISSED APPROACH: Climb to 3500 then climbing left turn to 6000 direct CISOV and hold, continue climb-in-hold to 6000.

ASOS <b>135.675</b>	SEATTLE CENTER <b>123.95 290.55</b>	UNICOM <b>122.8 (CTAF) 0</b>
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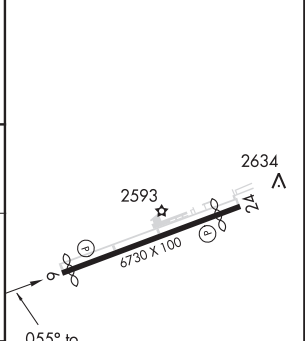
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2555	<b>D</b> TDZE 2538
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GP 3.00° TCH 55	3500	6000	CISOV
	↑	↻	△
	0.9 NM	1.5 NM	2.4 NM
CATEGORY	A	B	C
RNP 0.12 DA	2998-1½	460 (500-1½)	
RNP 0.30 DA	3086-1⅞	548 (600-1⅞)	



<b>AUTHORIZATION REQUIRED</b>			
HIRL Rwy 6-24 0			
REIL Rwy 6 and 24 0			

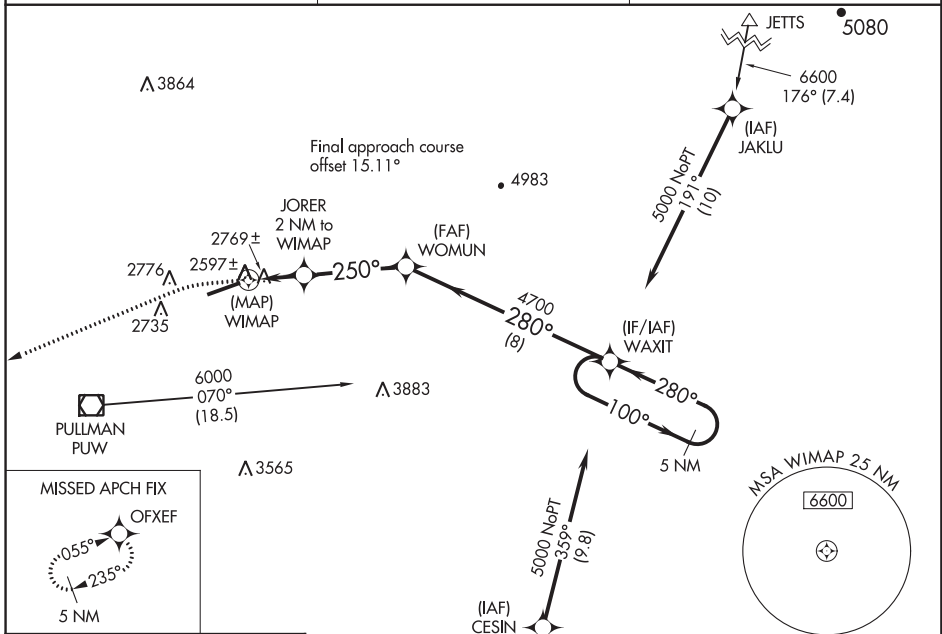
APP CRS  
250°  
Rwy Idg **5240**  
TDZE **2548**  
Apt Elev **2555**

**RNAV (GPS) RWY 24**  
PULLMAN/MOSCOW RGNL (PUW)

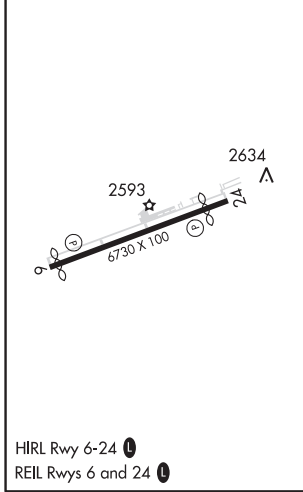
When local altimeter setting not received, use Lewiston altimeter setting and increase all MDAs 220 feet and LNAV visibility Cats C and D 3/8 mile. Circling visibility Cat C and D 3/4 mile. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM not authorized.

MISSED APPROACH: Climbing left turn to 5400 direct OFXEF and hold.

ASOS **135.675** SEATTLE CENTER **123.95 290.55** UNICOM **122.8 (CTAF)**



ELEV 2555 **D** TDZE 2548



	5400	OFXEF	Descent angle NA.		5 NM Holding Pattern
WIMAP	3460	250°	4700	280°	100° → 5000
CATEGORY	A	B	C	D	
LNAV MDA	3020-1	472 (500-1)	3020-1 3/8	472 (500-1 3/8)	
CIRCLING	3120-1	565 (600-1)	3120-1 1/2	3120-2	565 (600-1 1/2) 565 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



APP CRS	Rwy Idg	<b>6200</b>
<b>055°</b>	TDZE	<b>2538</b>
	Apt Elev	<b>2555</b>

# RNAV (GPS) Y RWY 6

PULLMAN/MOSCOW RGNL (PUW)

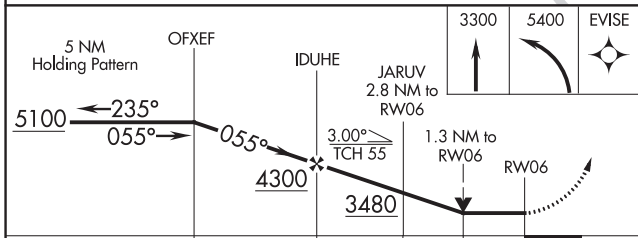
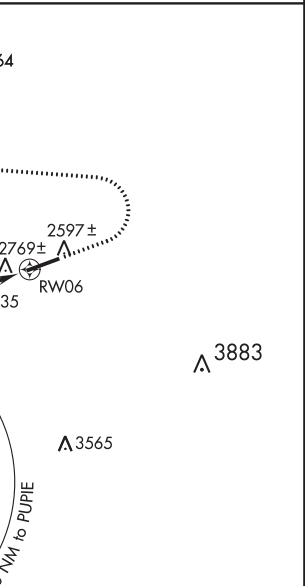
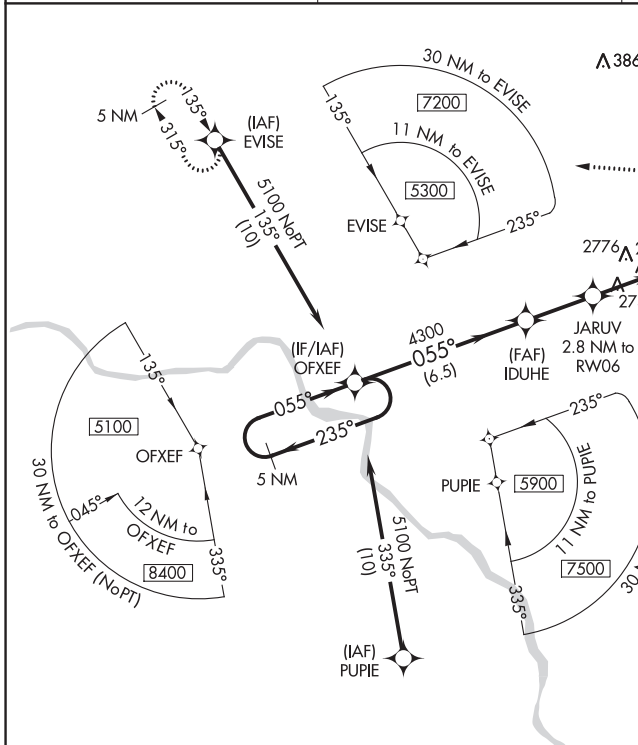
**⚠** When local altimeter setting not received, use Lewiston-Nez Perce County altimeter setting and increase all MDA 220 feet. Increase LNAV visibility Cats C and D  $\frac{1}{8}$  mile, Circling visibility Cat C  $\frac{3}{4}$  and Cat D  $\frac{1}{2}$  mile. DME/DME RNP-0.3 NA. VDP NA with Lewiston-Nez Perce County altimeter setting. Helicopter visibility reduction below  $\frac{3}{4}$  SM not authorized.

**MISSSED APPROACH:** Climb to 3300 then climbing left turn to 5400 direct EVISE and hold.

**ASOS**  
**135.675**

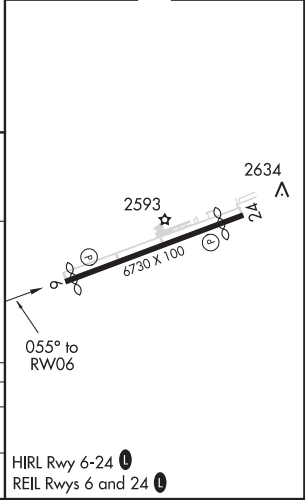
**SEATTLE CENTER**  
**123.95 290.55**

**UNICOM**  
**122.8 (CTAF) 0**



ELEV 2555	<b>D</b>	TDZE 2538
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CATEGORY	A	B	C	D
LNAV MDA	3020-1	482 (500-1)	3020-1 $\frac{3}{8}$	482 (500-1 $\frac{3}{8}$ )
CIRCLING	3120-1	565 (600-1)	3120-1 $\frac{1}{2}$	565 (600-2)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VOR/DME PUV <b>109.0</b> Chan 27	APP CRS <b>027°</b>	Rwy Idg TDZE Apt Elev	<b>6200</b> <b>2538</b> <b>2555</b>
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# VOR RWY 6

PULLMAN/MOSCOW RGNL (PUW)

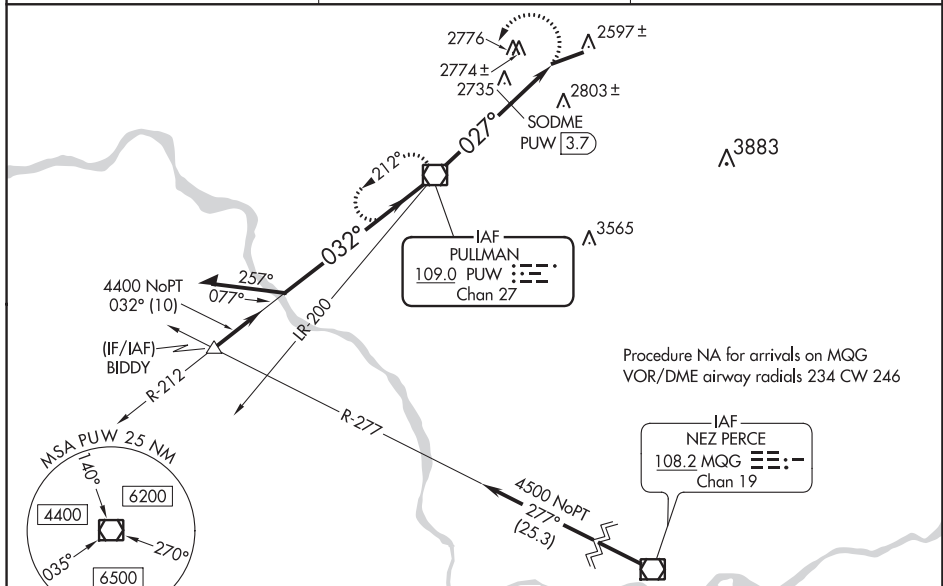
**⚠** When local altimeter setting not received, use Lewiston altimeter setting and increase all MDA 220 feet and S-6 visibility Cat A and B ¼ mile, Cat C and D ½ mile. Circling Cat A and B ¼ mile, Cat C and D 1 mile. SODME fix minimums S-6 visibility Cat C ½ mile. Circling Cat C ½ mile. VDP NA with Lewiston altimeter setting. SODME fix minimums Cat D Straight-in minima NA when using Lewiston altimeter setting. Helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:** Climbing left turn to 6000 direct PUV VOR/DME and hold, continue climb-in-hold to 6000.

ASOS <b>135.675</b>
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SEATTLE CENTER <b>123.95 290.55</b>
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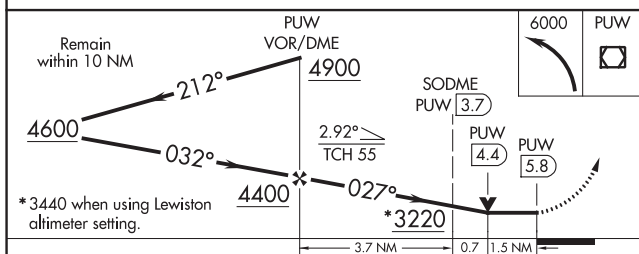
UNICOM <b>122.8 (CTAF) 0</b>
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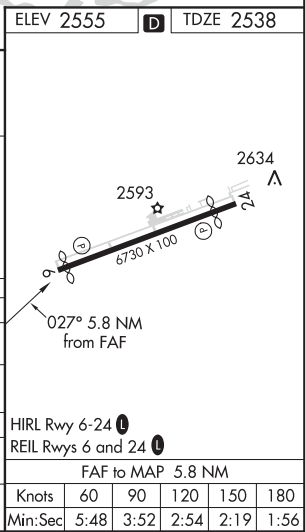
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2555	<b>D</b>	TDZE 2538
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CATEGORY	A	B	C	D
S-6	3220-1	682 (700-1)	3220-1 $\frac{7}{8}$	682 (700-1 $\frac{7}{8}$ )
CIRCLING	3220-1	665 (700-1)	3220-1 $\frac{7}{8}$	3220-2 665 (700-2)
SODME FIX MINIMUMS				
S-6	3060-1	522 (600-1)	3060-1 $\frac{3}{8}$	522 (600-1 $\frac{3}{8}$ )
CIRCLING	3120-1	565 (600-1)	3120-1 $\frac{1}{2}$	3120-2 565 (600-2)



HIRL Rwy 6-24	<b>0</b>
REIL Rws 6 and 24	<b>0</b>
FAF to MAP 5.8 NM	
Knots	60 90 120 150 180
Min:Sec	5:48 3:52 2:54 2:19 1:56

WAAS CH <b>57938</b> <b>W35A</b>	APP CRS <b>346°</b>	Rwy Idg TDZE <b>538</b> Apt Elev <b>538</b>	<b>3650</b>
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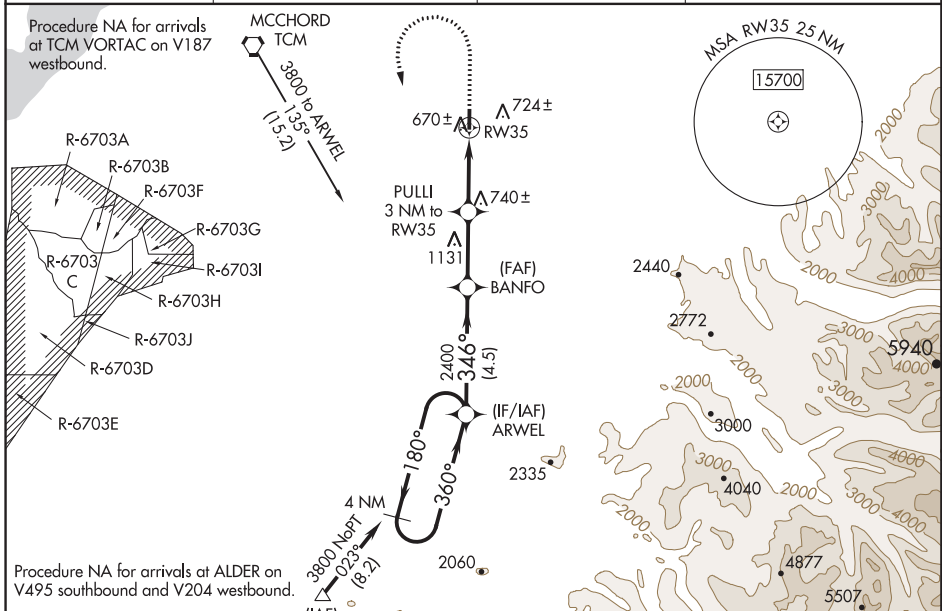
# RNAV (GPS) RWY 35

PIERCE COUNTY-THUN FIELD (PLU)

▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA. Baro-VNAV and VDP NA with McChord Field altimeter setting. When local altimeter not received, use McChord Field altimeter setting and increase all DA 49 feet and increase LPV and LNAV/VNAV visibilities ¼ mile; increase all MDA 60 feet.

MISSED APPROACH: Climb to 1900 then climbing left turn to 3800 direct ARWEL and hold.

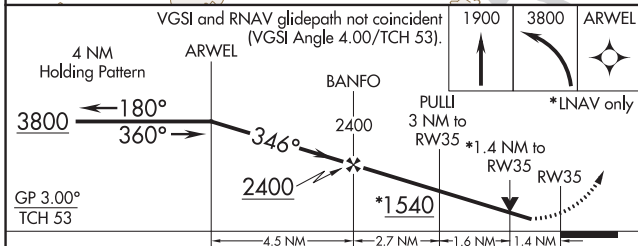
AWOS-3 <b>128.575</b>	SEATTLE APP CON <b>126.5 377.15</b>	CLNC DEL <b>121.85</b>	UNICOM <b>122.7 (CTAF)</b>
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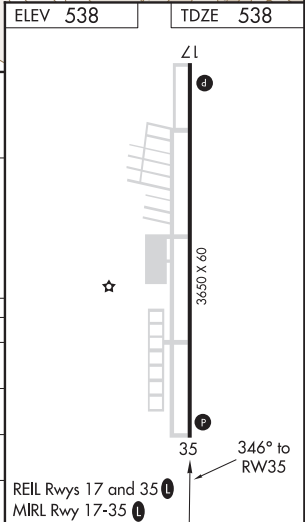
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 538	TDZE 538
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CATEGORY	A	B	C	D
LPV DA	877-1 ½	339 (400-1 ½)		NA
LNAV/VNAV DA	990-1 ½	452 (500-1 ½)		NA
LNAV MDA	1000-1	462 (500-1)		NA
CIRCLING	1080-1	542 (600-1)		NA



WAAS CH <b>93716</b> <b>W22A</b>	APP CRS <b>224°</b>	Rwy Idg TDZE Apt Elev	<b>7008</b> <b>6817</b> <b>6817</b>
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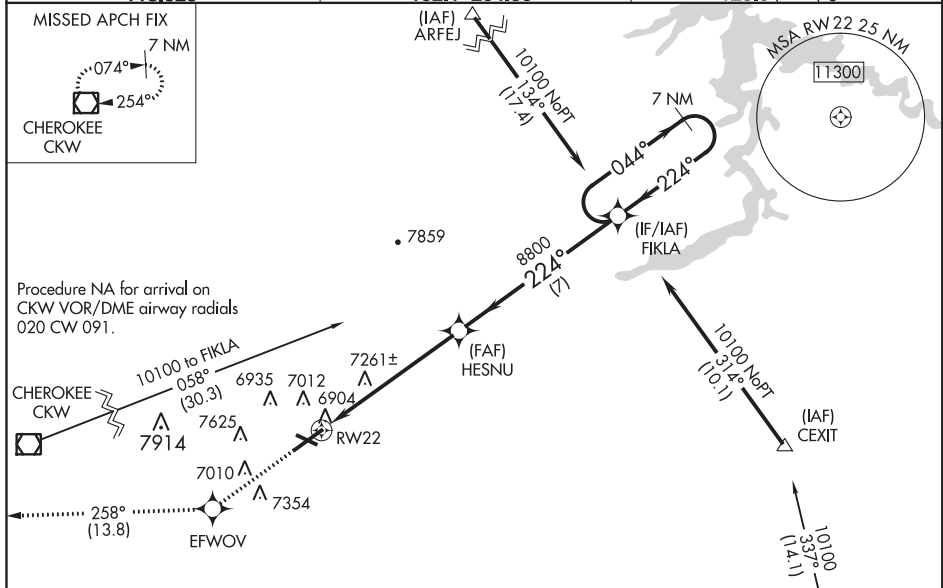
# RNAV (GPS) RWY 22

RAWLINS MUNI/HARVEY FIELD (RWL)

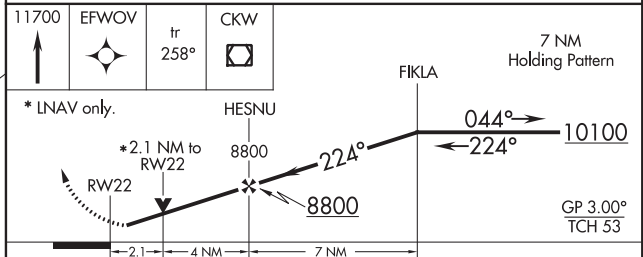
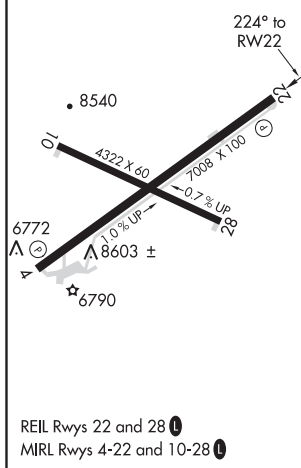
**⚠** Baro-VNAV NA when using Saratoga altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -28°C (-18°F) or above 44°C (111°F). Circling NA northwest of Rwy 4-22. DME/DME RNP-0.3 NA. VDP NA when using Saratoga altimeter setting. When local altimeter setting not received, use Saratoga altimeter setting and increase all DA 91 feet, and LPV visibility 3/8 mile, and LNAV/VNAV visibility 1 mile; increase all MDA 100 feet and LNAV visibility Cat B 1/2 mile, Cats C and D 1/2 mile, Circling visibility Cats B and C 1/2 mile. Helicopter visibility reduction below 3/4 SM NA.

**⚠** MISSED APPROACH: Climb to 11700 direct EFWOV and on track 258° to CKW VOR/DME and hold, continue climb-in-hold to 11700.

ASOS <b>118.525</b>	DENVER CENTER <b>132.1 254.35</b>	UNICOM <b>123.0 (CTAF)</b>
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ELEV 6817	TDZE 6817
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CATEGORY	A	B	C	D
LPV DA		7131-1	314 (400-1)	
LNAV/VNAV DA		7637-3	820 (900-3)	
LNAV MDA	7520-1	703 (800-1)	7520-2	703 (800-2)
<b>C</b> CIRCLING	7520-1 703 (800-1)	7540-1 723 (800-1)	7660-2 1/2 843 (900-2 1/2)	7900-3 1083 (1100-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



APP CRS	Rwy Idg	<b>7038</b>
<b>046°</b>	TDZE	<b>3075</b>
	Apt Elev	<b>3080</b>

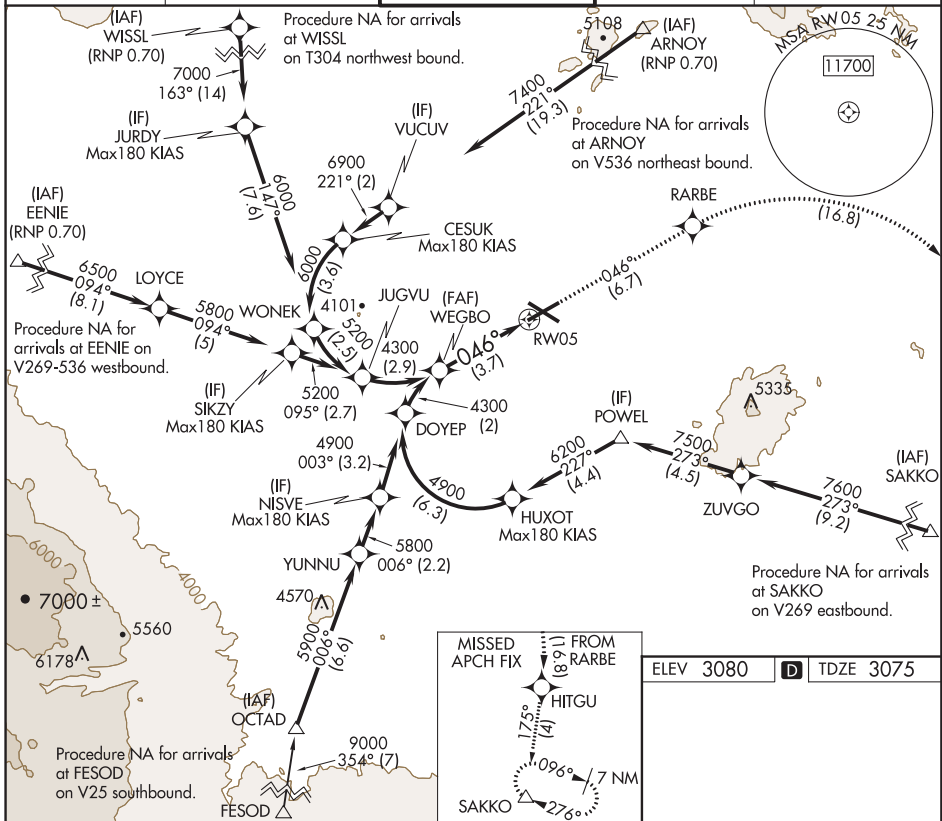
# RNAV (RNP) Z RWY 5

ROBERTS FIELD (RDM)

For uncompensated Baro-VNAV systems, procedure NA below -20°C (-4°F) or above 53°C (127°F).  
RF and GPS required.

MISSED APPROACH: Climb to 9500 on track 046° to RARBE, right turn to HITGU and on track 175° to SAKKO and hold, continue climb-in-hold to 9500.

ATIS <b>119.025</b>	SEATTLE CENTER <b>128.15 257.75</b>	REDMOND TOWER* <b>124.5 (CTAF) 256.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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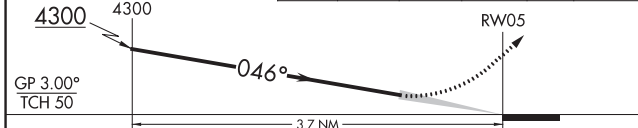
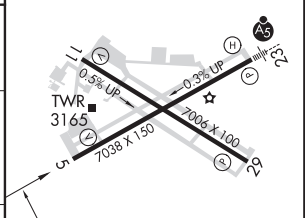


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

See planview for multiple IF locations.

WEGBO	9500	RARBE	HITGU	SAKKO
4300	↑	tr 046°	tr 175°	△



CATEGORY	A	B	C	D
RNP 0.10 DA		3350-7/8	276 (300-7/8)	
RNP 0.30 DA		3573-15/8	499 (500-15/8)	

046° to RWY 5

REIL Rwy 5, 11 and 29  
HIRL Rwy 5-23  
MIRL Rwy 11-29

## AUTHORIZATION REQUIRED

APP CRS	Rwy Idg	<b>7031</b>
<b>226°</b>	TDZE	<b>3065</b>
	Apt Elev	<b>3080</b>

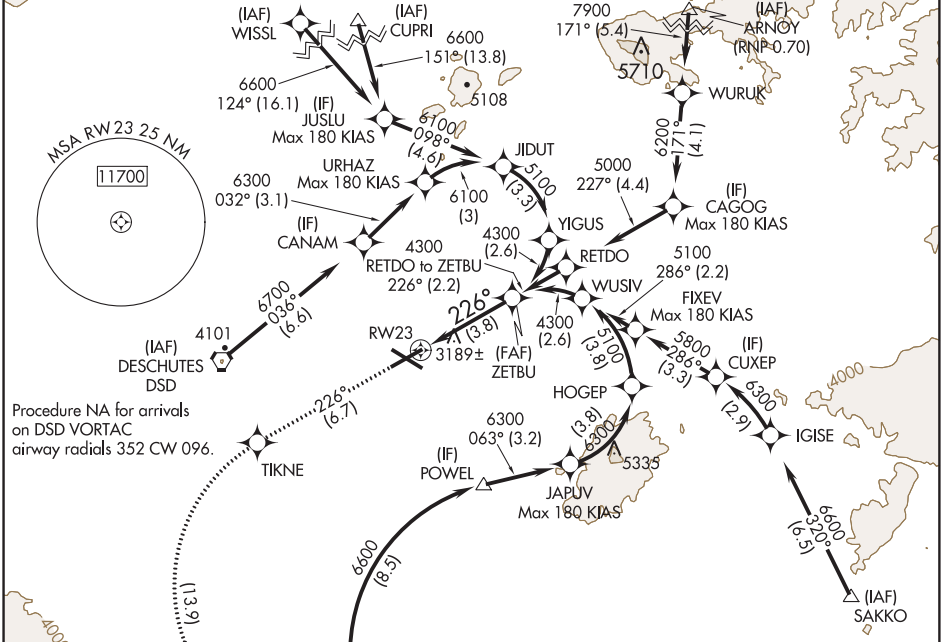
# RNAV (RNP) Z RWY 23

ROBERTS FIELD (RDM)

**V** For uncompensated Baro-VNAV systems, procedure NA below -20°C (-4°F) or above 53°C (129°F). For inop MALS, increase RNP 0.10 all Cats visibility to ¾ mile. RF required. GPS required.

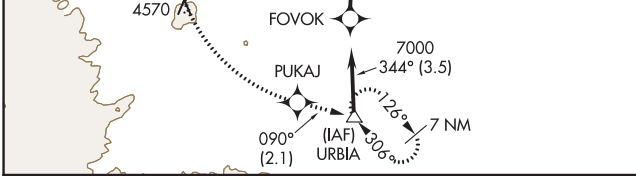
**MALS** MISSED APPROACH: Climb to 8500 on track 226° to TIKNE left turn to PUKAJ and on track 090° to URBIA and hold, continue climb-in-hold to 8500.

ATIS <b>119.025</b>	SEATTLE CENTER <b>128.15 257.75</b>	REDMOND TOWER* <b>124.5 (CTAF) 256.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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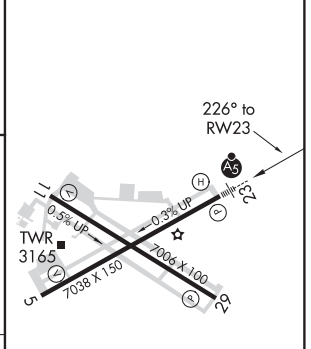
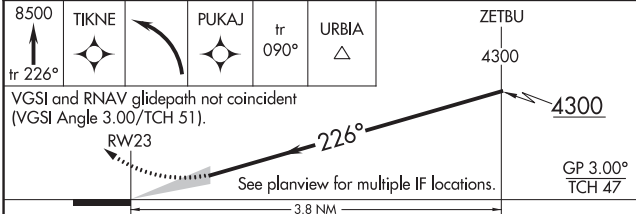


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 3080	<b>D</b> TDZE 3065
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CATEGORY	A	B	C	D
RNP 0.10 DA		3315-1/2	250 (300-1/2)	
RNP 0.30 DA		3552-1 1/4	487 (500-1 1/4)	

## AUTHORIZATION REQUIRED

REIL Rwy 5, 11, and 29 **Ⓛ**  
 HIRL Rwy 5-23 **Ⓛ**  
 MIRL Rwy 11-29 **Ⓛ**

# RNAV (GPS) RWY 11

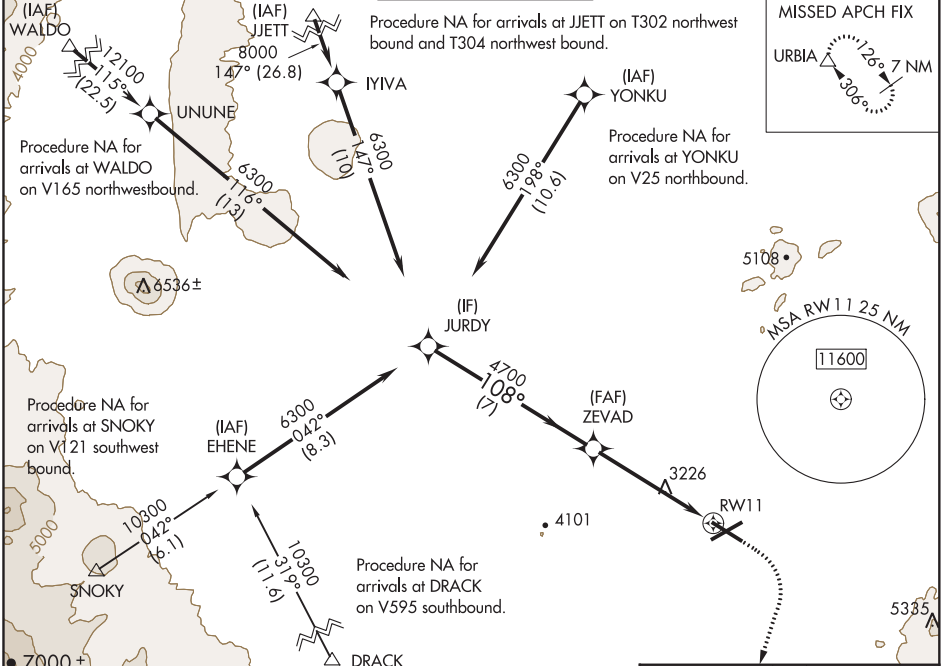
ROBERTS FIELD (RDM)

WAAS CH <b>53514</b> <b>W11A</b>	APP CRS <b>108°</b>	Rwy Idg TDZE Apt Elev	<b>7006</b> <b>3067</b> <b>3080</b>
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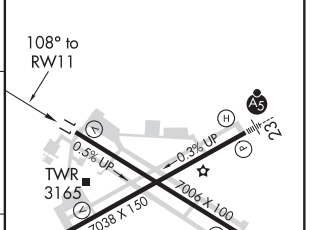
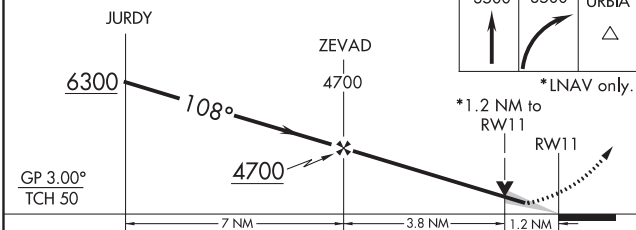
**Baro-VNAV NA** when using Bend altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 53°C (127°F). DME/DME RNP-0.3 NA. VDP NA with Bend altimeter setting. When local altimeter setting not received use Bend altimeter setting and increase all DA 76 feet and all MDA 80 feet; increase LPV all Cats visibility ¼ mile, LNAV/VNAV all Cats visibility ¼ mile, LNAV Cats C and D visibility ¼ mile and Circling Cats C and D visibility ¼ mile.

**MISSED APPROACH:** Climb to 3500 then climbing right turn to 8500 direct URBIA and hold, continue climb-in-hold to 8500.

ATIS <b>119.025</b>	SEATTLE CENTER <b>128.15 257.75</b>	REDMOND TOWER* <b>124.5 (CTAF) 256.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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ELEV 3080	TDZE 3067
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CATEGORY	A	B	C	D
LPV DA		3317-7/8	250 (300-7/8)	
LNAV/VNAV DA		3393-11/8	326 (400-11/8)	
LNAV MDA	3480-1	413 (400-1)	3480-11/8	413 (400-11/8)
CIRCLING	3540-1 460 (500-1)	3560-1 480 (500-1)	3640-11/2 560 (600-11/2)	3740-2 660 (700-2)

REIL Rwy 5, 11 and 29

HIRL Rwy 5-23

MIRL Rwy 11-29

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>70514</b> W05A	APP CRS <b>046°</b>	Rwy Idg TDZE Apt Elev	<b>7038</b> <b>3075</b> <b>3080</b>
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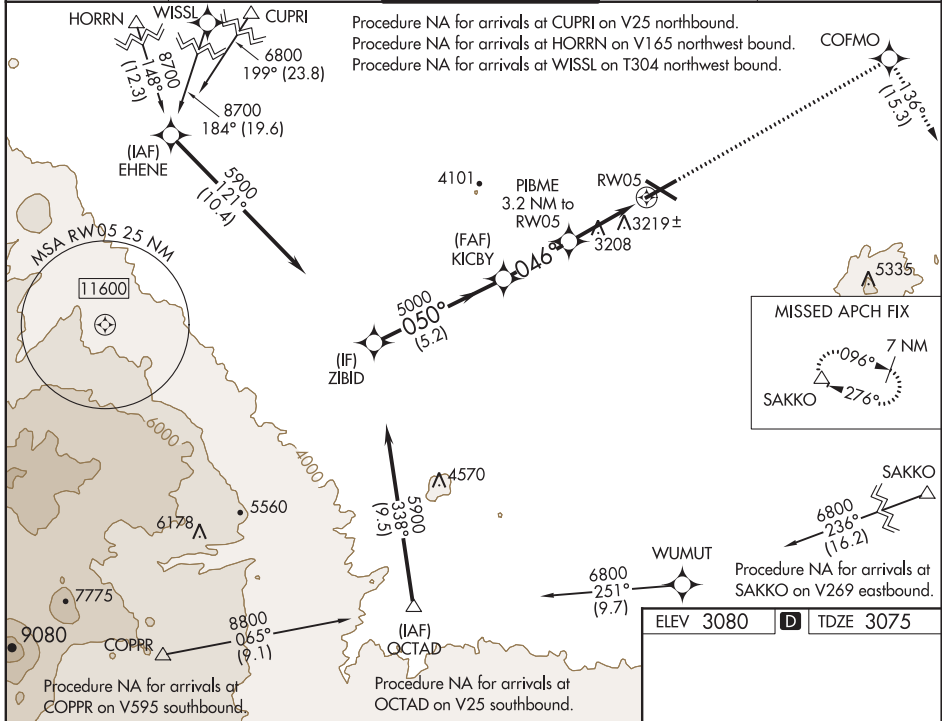
# RNAV (GPS) Y RWY 5

ROBERTS FIELD (RDM)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 53°C (127°F). DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA when using Bend altimeter setting. When local altimeter setting not received, use Bend altimeter setting and increase all DA 76 feet and all MDA 80 feet, increase LPV visibility all Cats 3/8 mile, LNAV/VNAV visibility all Cats 1/4 mile, LNAV Cat C/D visibility 1/8 mile, and Circling Cats C/D visibility 1/4 mile.

**⚠** MISSED APPROACH: Climb to 9500 direct COFMO and on track 136° to SAKKO and hold, continue dimb-in-hold to 9500.

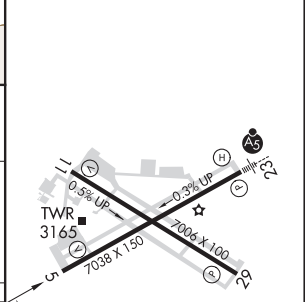
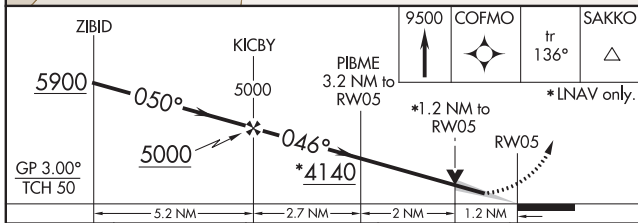
ATIS <b>119.025</b>	SEATTLE CENTER <b>128.15 257.75</b>	REDMOND TOWER* <b>124.5 (CTAF) 256.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3080	<b>D</b>	TDZE 3075
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CATEGORY	A	B	C	D
LPV DA		3325-3/4	250 (300-3/4)	
LNAV/VNAV DA		3347-7/8	272 (300-7/8)	
LNAV MDA	3520-1	445 (500-1)	3520-1 3/8	445 (500-1 3/8)
<b>C</b> CIRCLING	3540-1 460 (500-1)	3560-1 480 (500-1)	3640-1 1/2 560 (600-1 1/2)	3760-2 1/4 680 (700-2 1/4)

REIL Rwy 5, 11 and 29 **Ⓛ**  
 HIRL Rwy 5-23 **Ⓛ**  
 MIRL Rwy 11-29 **Ⓛ**

WAAS CH <b>82514</b> <b>W23A</b>	APP CRS <b>226°</b>	Rwy Idg TDZE Apt Elev	<b>7031</b> <b>3065</b> <b>3080</b>
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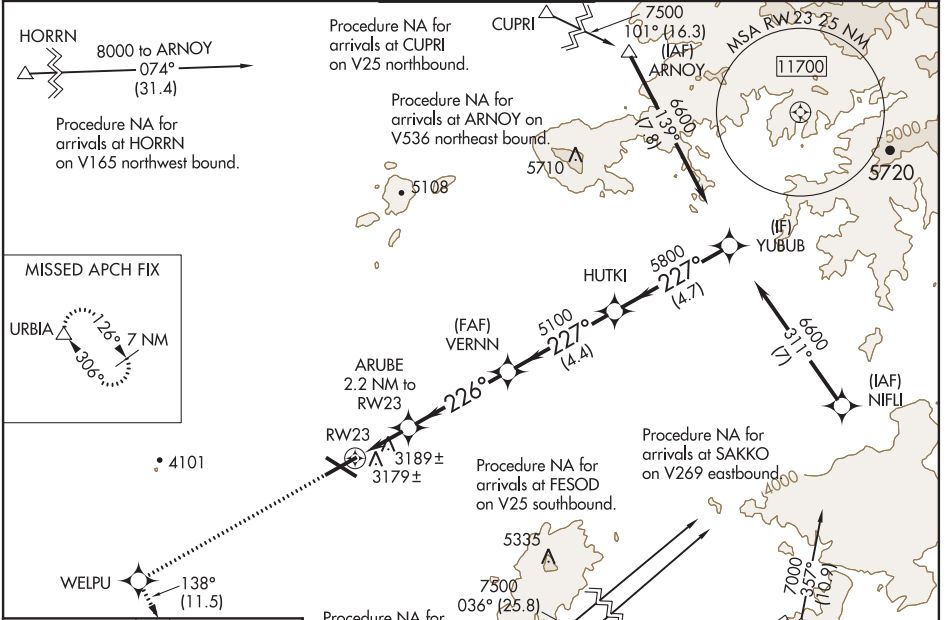
# RNAV (GPS) Y RWY 23

ROBERTS FIELD (RDM)

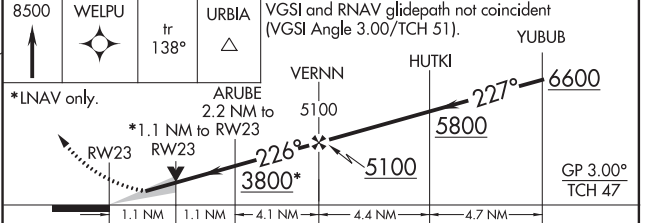
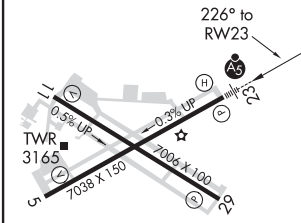
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 53°C (128°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Bend altimeter setting and increase all DA 76 feet and all MDA 80 feet, increase LNAV/VNAV all Cats visibility to ¾ mile, LNAV Cat C/D visibility to ½ mile, and Circling Cat C visibility to ¾ mile and Cat D visibility to 2 ½ miles. For inop MALSRL, increase LNAV Cat C/D visibility to 1 mile. For inop MALSRL when using Bend altimeter setting, increase LPV all Cats visibility to ¾ mile. Baro-VNAV and VDP NA when using Bend altimeter setting.

**MALSRL**  
Climb to 8500 direct WELPU and on track 138° to URBIA and hold, continue climb-in-hold to 8500.

ATIS <b>119.025</b>	SEATTLE CENTER <b>128.15 257.75</b>	<b>REDMOND TOWER*</b> <b>124.5 (CTAF) 256.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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ELEV 3080	<b>D</b>	TDZE 3065
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CATEGORY	A	B	C	D
LPV DA		3265-1/2	200 (200-1/2)	
LNAV/VNAV DA		3381-5/8	316 (400-5/8)	
LNAV MDA	3440-1/2	375 (400-1/2)	3440-3/4	375 (400-3/4)
<b>C</b> CIRCLING	3540-1 460 (500-1)	3560-1 480 (500-1)	3640-1 1/2 560 (600-1 1/2)	3760-2 1/4 680 (700-2 1/4)

REIL Rwy 5, 11 and 29  
HIRL Rwy 5-23  
MIRL Rwy 11-29

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>7006</b>
<b>288°</b>	TDZE	<b>3080</b>
	Apt Elev	<b>3080</b>

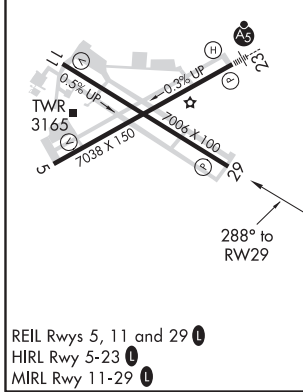
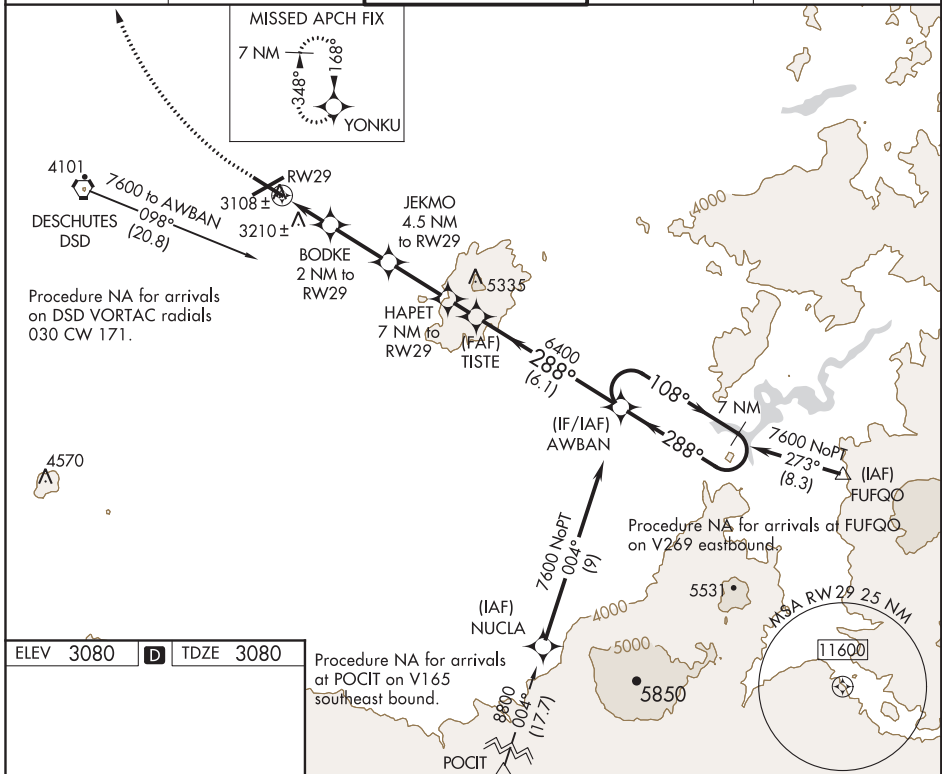
# RNAV (GPS) Y RWY 29

ROBERTS FIELD (RDM)

**⚠** -19°C/-2°F DME/DME RNP-0.3 NA. When local altimeter setting not received, use Bend altimeter setting and increase all MDA 80 feet, increase LNAV Cat C and Circling Cat C visibility 1/4 mile.

**MISSED APPROACH:** Climb to 4000 then climbing right turn to 7000 direct YONKU and hold, continue climb-in-hold to 7000.

ATIS <b>119.025</b>	SEATTLE CENTER <b>128.15 257.75</b>	REDMOND TOWER★ <b>124.5 (CTAF) 0 256.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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4000	7000	YONKU	HAPET 7 NM to RW29	TISTE	AWBAN 7 NM Holding Pattern
			BODKE 2 NM to RW29	JEKMO 4.5 NM to RW29	
			1.3 NM to RW29	3900	4900
			1.3 NM	0.7	2.5 NM
			2.5 NM	1.2 NM	6.1 NM
3900	4900	6400	5920	7600	
			3.76° TCH 43	108°	288°
CATEGORY	A	B	C	D	
LNAV MDA	3560-1	480 (500-1)	3560-1 3/8 480 (500-1 3/8)	NA	
<b>C</b> CIRCLING	3560-1	480 (500-1)	3640-1 1/2 560 (600-1 1/2)	NA	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

REDMOND, OREGON

AL-345 (FAA)

15288

WAAS CH <b>90214</b> <b>W29A</b>	APP CRS <b>288°</b>	Rwy Idg TDZE Apt Elev	<b>7006</b> <b>3080</b> <b>3080</b>
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# RNAV (GPS) Z RWY 29

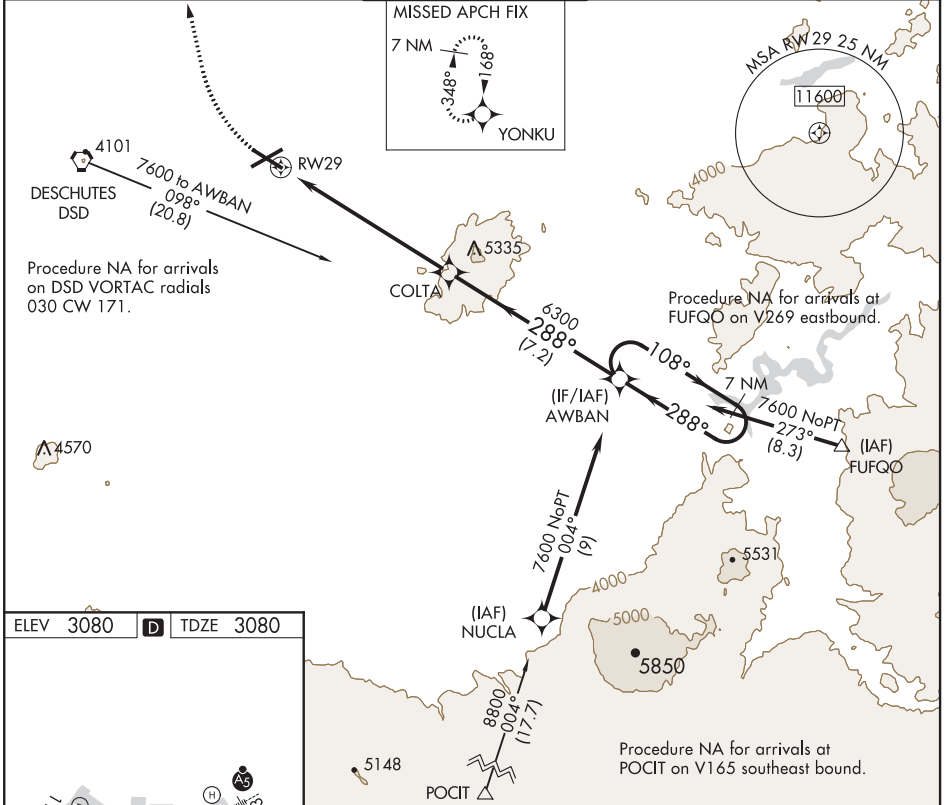
ROBERTS FIELD (RDM)

**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Bend altimeter setting and increase all DA 76 feet and all visibilities 1/4 mile. Baro-VNAV NA when using Bend altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 43°C (110°F).

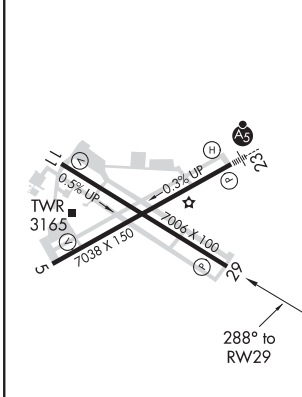
**⚠** -19°C/-2°F

**MISSED APPROACH:** Climb to 4000 then climbing right turn to 7000 direct YONKU and hold, continue climb-in-hold to 7000.

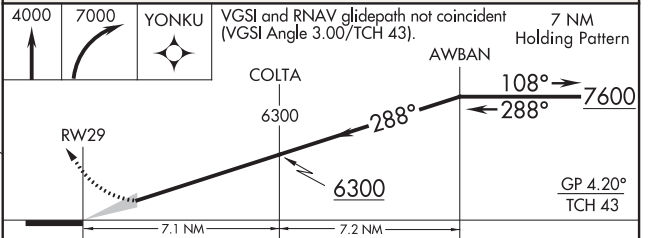
ATIS <b>119.025</b>	SEATTLE CENTER <b>128.15 257.75</b>	REDMOND TOWER★ <b>124.5 (CTAF) 256.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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ELEV 3080	<b>D</b>	TDZE 3080
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REIL Rws 5, 11 and 29  
HIRL Rwy 5-23  
MIRL Rwy 11-29



CATEGORY	A	B	C	D
LPV DA	3366-1	286 (300-1)		NA
LNAV/VNAV DA	3366-1	286 (300-1)		NA

REDMOND, OREGON  
Amdt 1 20AUG15

44°15'N-121°09'W

# RNAV (GPS) Z RWY 29

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VORTAC DSD <b>117.6</b> Chan 123	APP CRS <b>249°</b>	Rwy Idg TDZE Apt Elev	<b>7031</b> <b>3065</b> <b>3080</b>
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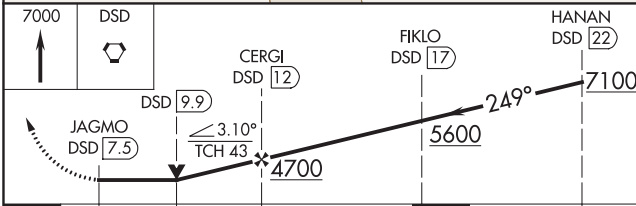
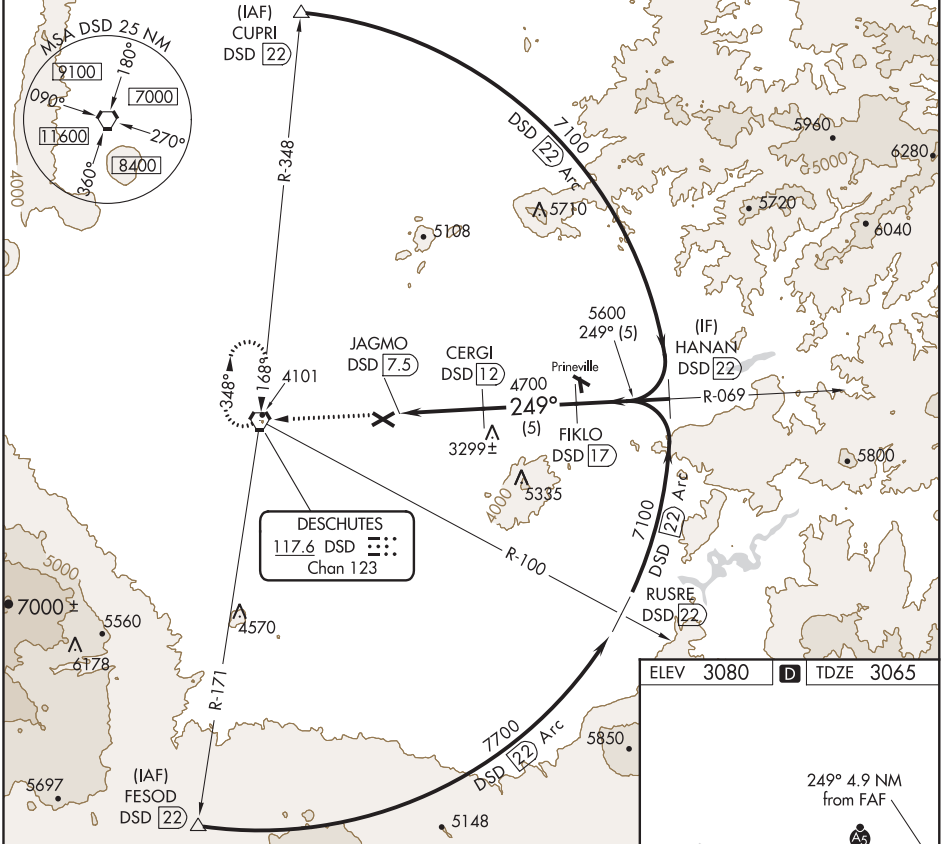
# VOR/DME RWY 23

ROBERTS FIELD (RDM)

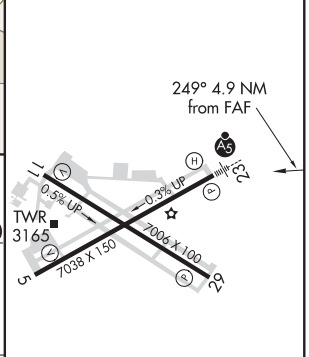
**⚠** Inop table does not apply. When local altimeter setting not received, use Bend altimeter setting and increase all MDAs 80 feet and visibility Cats B, C, D, and E ½ mile. VDP NA when using Bend altimeter.

**MALSR** MISSED APPROACH: Climb to 7000 direct DSD VORTAC and hold, continue climb-in-hold to 7000.

ATIS <b>119.025</b>	SEATTLE CENTER <b>128.15 257.75</b>	REDMOND TOWER* <b>124.5 (CTAF) 256.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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ELEV 3080	<b>D</b> TDZE 3065
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CATEGORY	A	B	C	D	E
S-23	4000-1¼ 935 (1000-1¼)		4000-2½ 935 (1000-2½)		
<b>C</b> CIRCLING	4000-1¼ 920 (1000-1¼)		4000-2¾ 920 (1000-2¾)	4000-3 920 (1000-3)	

REIL Rwy 5, 11 and 29 **Ⓛ**  
 HIRL Rwy 5-23 **Ⓛ**  
 MRL Rwy 11-29 **Ⓛ**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

REDMOND, OREGON

AL-345 (FAA)

15288

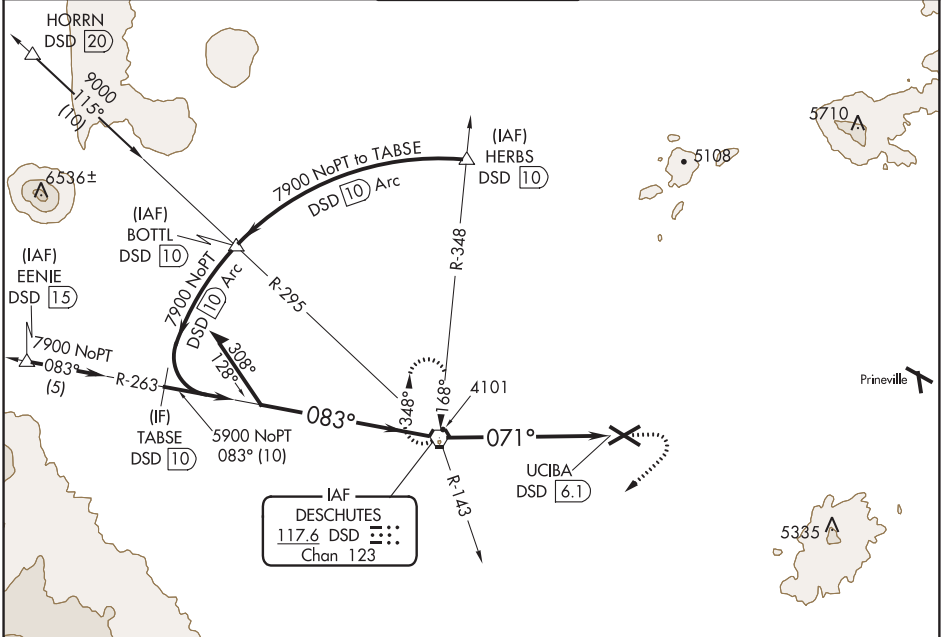
VORTAC DSD <b>117.6</b> Chan <b>123</b>	APP CRS <b>071°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>3080</b>
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**VOR-A**  
ROBERTS FIELD (RDM)

When local altimeter setting not received, use Bend altimeter setting and increase all MDA 80 feet and visibility Cats C and D ½ mile.

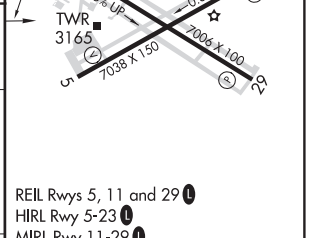
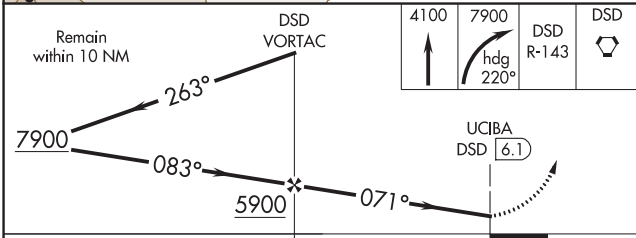
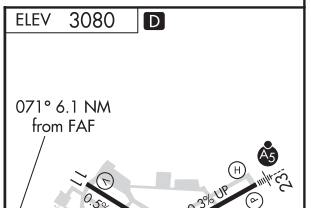
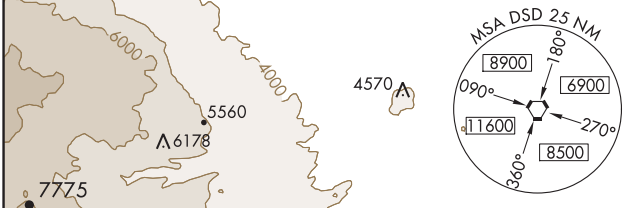
MISSED APPROACH: Climb to 4100 then climbing right turn to 7900 on heading 220° and on DSD VORTAC R-143 to DSD VORTAC and hold.

ATIS <b>119.025</b>	SEATTLE CENTER <b>128.15 257.75</b>	REDMOND TOWER* <b>124.5 (CTAF) 256.8</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D	FAF to MAP 6.1 NM					
CIRCLING	3660-1	580 (600-1)	3660-1½ 580 (600-1½)	3760-2¼ 680 (700-2¼)	Knots	60	90	120	150	180
					Min:Sec	6:06	4:04	3:03	2:26	2:02

REDMOND, OREGON  
Amdt 6 24JUL14

44°15'N-121°09'W

ROBERTS FIELD (RDM)  
**VOR-A**

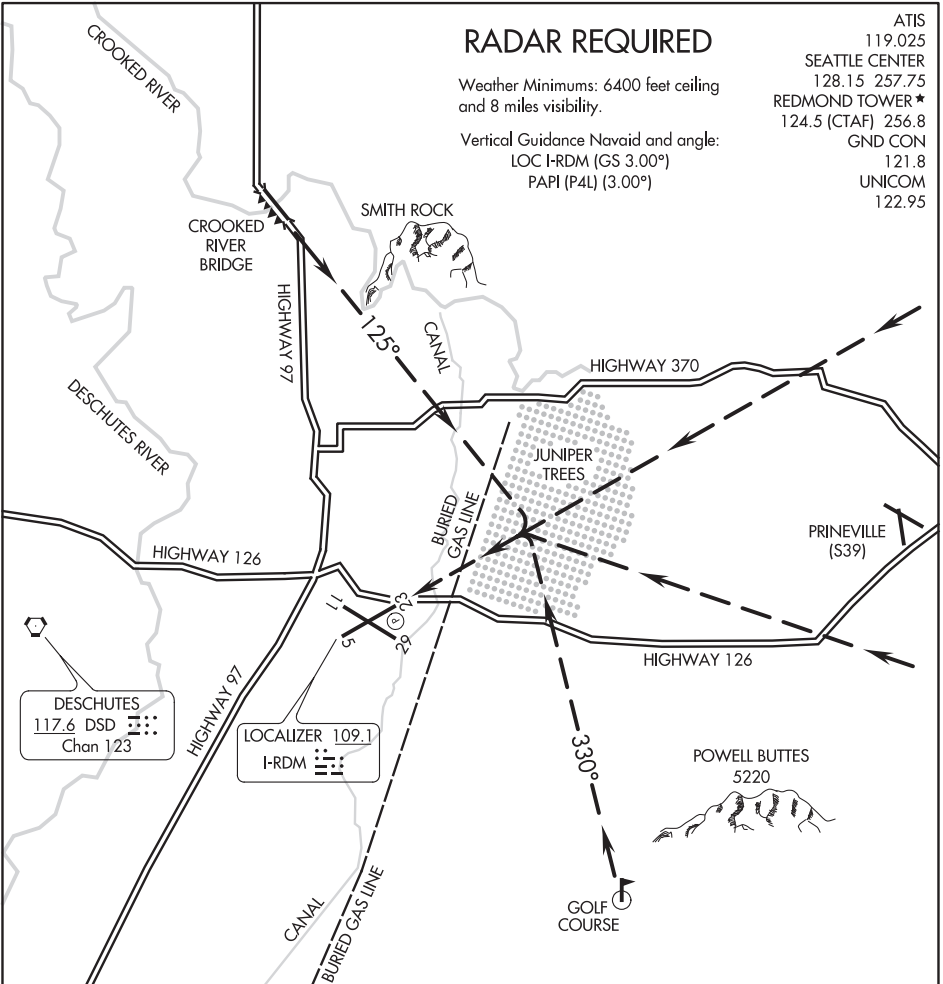
# JUNIPER VISUAL RWY 23

## RADAR REQUIRED

Weather Minimums: 6400 feet ceiling and 8 miles visibility.

Vertical Guidance Navaid and angle:  
LOC I-RDM (GS 3.00°)  
PAPI (P4L) (3.00°)

ATIS 119.025  
 SEATTLE CENTER 128.15 257.75  
 REDMOND TOWER \* 124.5 (CTAF) 256.8  
 GND CON 121.8  
 UNICOM 122.95



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

1 NM	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
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JUNIPER VISUAL APPROACH RWY 23  
PROCEDURE NOT AUTHORIZED AT NIGHT

# JUNIPER VISUAL RWY 23





# REDMOND THREE DEPARTURE

**TOP ALTITUDE:  
ASSIGNED BY ATC**

**BATTLE GROUND**  
116.6 BTG   
Chan 113  
N45°44.86'  
W122°35.54'  
L-1, H-1

**KUCKITAT**  
112.3 LTJ   
Chan 70  
N45°42.82'-W121°06.05'  
L-13, H-1

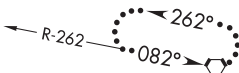
ATIS  
119.025  
GND CON  
121.8  
REDMOND TOWER ★  
124.5 256.8  
SEATTLE CENTER  
128.15 257.75

**NEWBERG**  
117.4 UBG   
Chan 121  
N45°21.19'  
W122°58.69'  
L-1, H-1

**KIMBERLY**  
115.6 IMB   
Chan 103  
N44°38.90'  
W119°42.70'  
L-13, H-1

**PENDLETON**  
114.7 PDT   
Chan 94  
N45°41.91'  
W118°56.32'  
L-13, H-1

**CORVALLIS**  
115.4 CVO   
Chan 101  
N44°29.97'  
W123°17.62'  
L-1, H-1



**EUGENE**  
112.9 EUG   
Chan 76  
N44°07.25'  
W123°13.37'  
L-1, H-1

**DESCHUTES**  
117.6 DSD   
Chan 123  
N44°15.17'  
W121°18.21'  
L-13, H-1

**WILDHORSE**  
113.8 ILR   
Chan 85  
N43°35.59'-W118°57.30'  
L-11

**KLAMATH FALLS**  
115.9 LMT   
Chan 106  
N42°09.19'-W121°43.65'  
L-21, H-3

**ROGUE VALLEY**  
113.6 OED   
Chan 83  
N42°28.77'-W122°54.78'  
L-21, H-3

**LAKEVIEW**  
112.0 LKV   
Chan 57  
N42°29.57'-W120°30.43'  
L-11, H-3

### TAKEOFF OBSTACLES

Rwy 29: Trees beginning 12' from DER, 421' right of centerline, up to 12' AGL/3079' MSL.  
Tree 364' from DER, 449' left of centerline, 15' AGL/3054' MSL.

### TAKEOFF MINIMUMS

Rwy 5: Standard with minimum climb of 390' per NM to 13000.  
Rwy 11: Standard with minimum climb of 406' per NM to 13000.  
Rwy 23: Standard with minimum climb of 356' per NM to 13000.  
Rwy 29: Standard with minimum climb of 358' per NM to 13000.

NOTE: RADAR required.

(NARRATIVE ON THE FOLLOWING PAGE)

NOTE: Chart not to scale.

# REDMOND THREE DEPARTURE

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# REDMOND THREE DEPARTURE



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on assigned heading for radar vectors to assigned route/fix, thence . . .

TAKEOFF RUNWAY 11: Climb on assigned heading for radar vectors to assigned route/fix, thence . . .

TAKEOFF RUNWAY 23: Climb on assigned heading for radar vectors to assigned route/fix, thence . . .

TAKEOFF RUNWAY 29: Climb on assigned heading for radar vectors to assigned route/fix, thence . . .

. . . maintain assigned altitude, expect filed altitude/flight level five minutes after departure.

**LOST COMMUNICATIONS:** If no contact with Seattle Center after reaching 7000, continue climbing to assigned altitude direct DSD VORTAC. Climb in DSD VORTAC holding pattern (hold W, LT, 082° inbound) to cross DSD VORTAC at or above MEA/MCA before proceeding on course.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>157°</b>	Rwy Idg <b>4742</b>
	TDZE <b>25</b>
	Apt Elev <b>32</b>

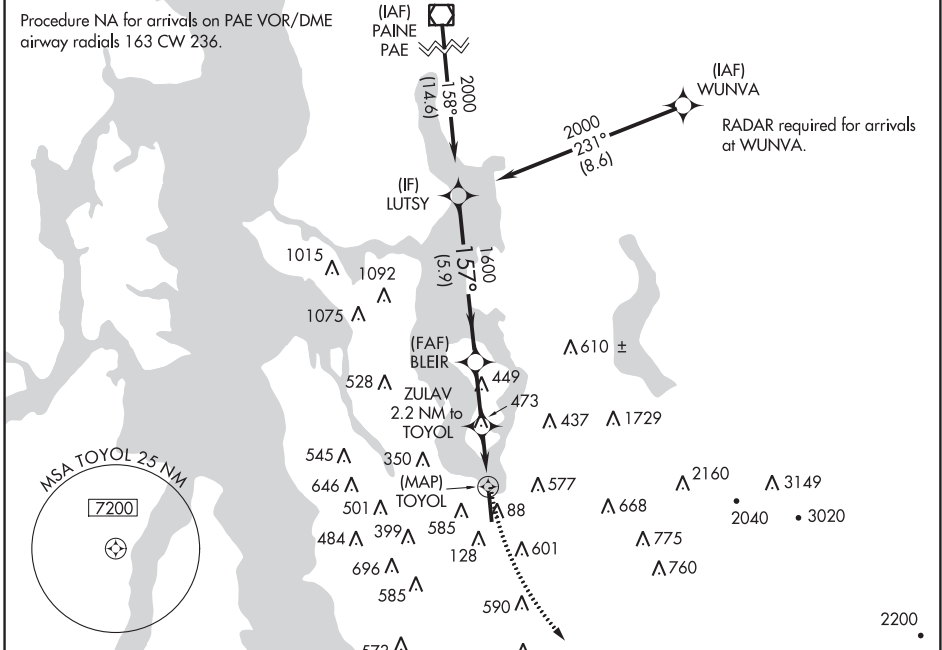
# RNAV (GPS) Y RWY 16

RENTON MUNI (RNT)

**▽** When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting. Circling NA west of Rwy 16-34. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA.

**MISSED APPROACH:** Climbing left turn to 2400 direct ZEBKU and hold.

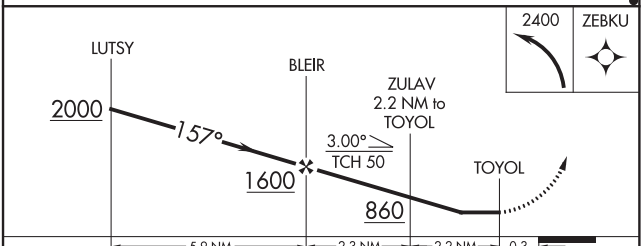
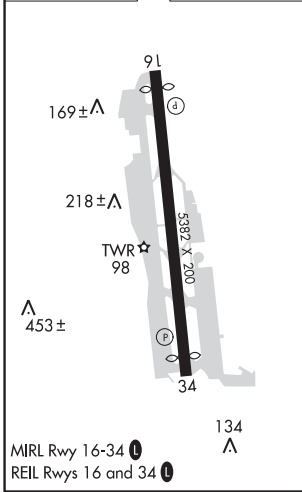
ATIS <b>126.95</b>	SEATTLE APP CON <b>119.2 284.7</b>	RENTON TOWER* <b>124.7 (CTAF) 0 256.9</b>	GND CON <b>121.6 256.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 32	<b>D</b>	TDZE 25
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CATEGORY	A	B	C	D
LNAV MDA	760-1	735 (800-1)	760-2	735 (800-2)
CIRCLING	920-1 1/4	888 (900-1 1/4)	920-2 3/4 888 (900-2 3/4)	920-3 888 (900-3)

RENTON, WASHINGTON

AL-5396 (FAA)

15288

WAAS CH <b>93610</b> W16A	APP CRS <b>157°</b>	Rwy Idg <b>4742</b> TDZE <b>25</b> Apt Elev <b>32</b>
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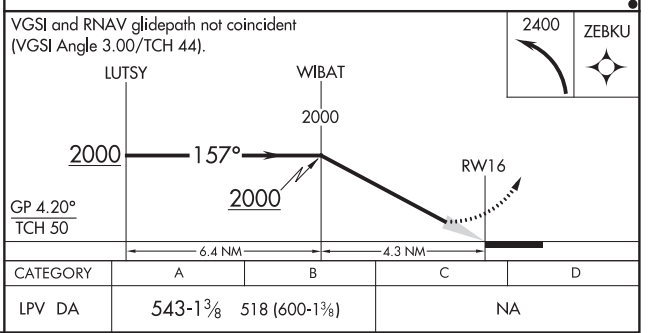
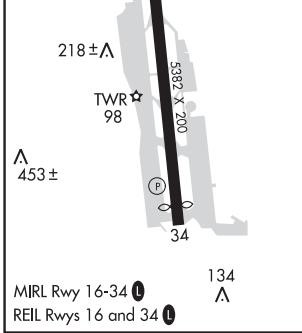
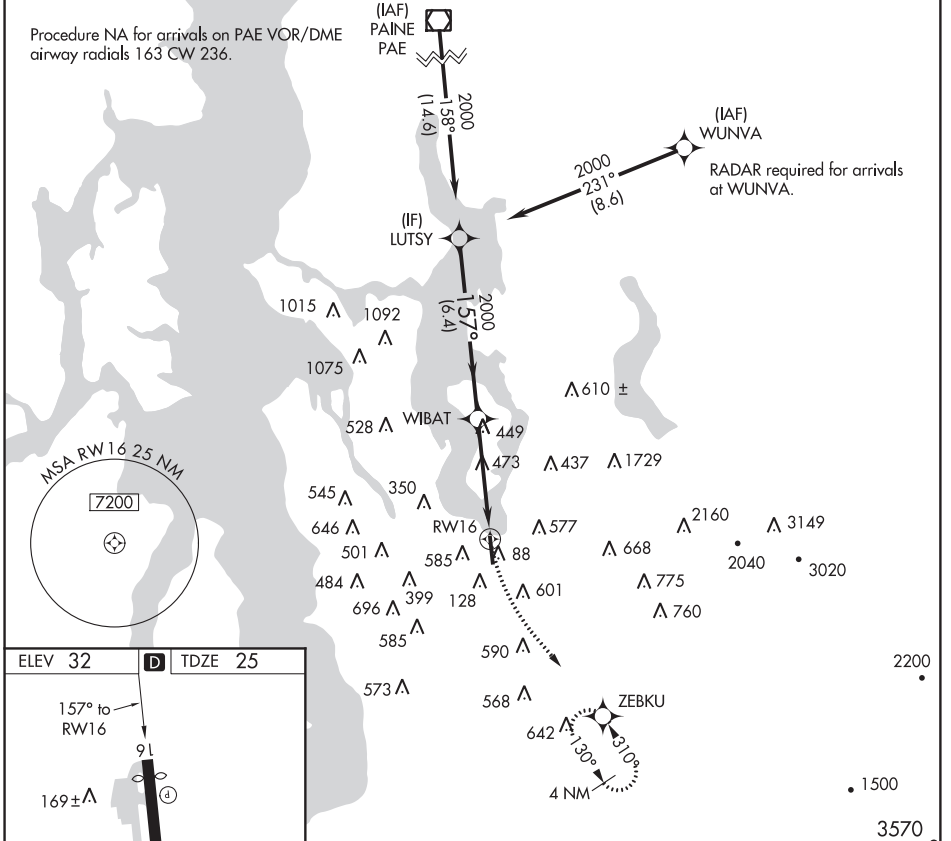
# RNAV (GPS) Z RWY 16

RENTON MUNI (RNT)

**NA** When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting. DME/DME RNP-0.3 NA.

**MISSED APPROACH:** Climbing left turn to 2400 direct ZEBKU and hold.

ATIS <b>126.95</b>	SEATTLE APP CON <b>119.2 284.7</b>	RENTON TOWER* <b>124.7 (CTAF) 0 256.9</b>	GND CON <b>121.6 256.9</b>	UNICOM <b>122.95</b>
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RENTON, WASHINGTON  
Amdt 2A 11DEC14

47°30'N-122°13'W

# RNAV (GPS) Z RWY 16

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

RENTON, WASHINGTON

AL-5396 (FAA)

14317

NDB RNT <b>353</b>	APP CRS <b>156°</b>	Rwy Idg TDZE Apt Elev	<b>4742</b> <b>25</b> <b>32</b>
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# NDB RWY 16

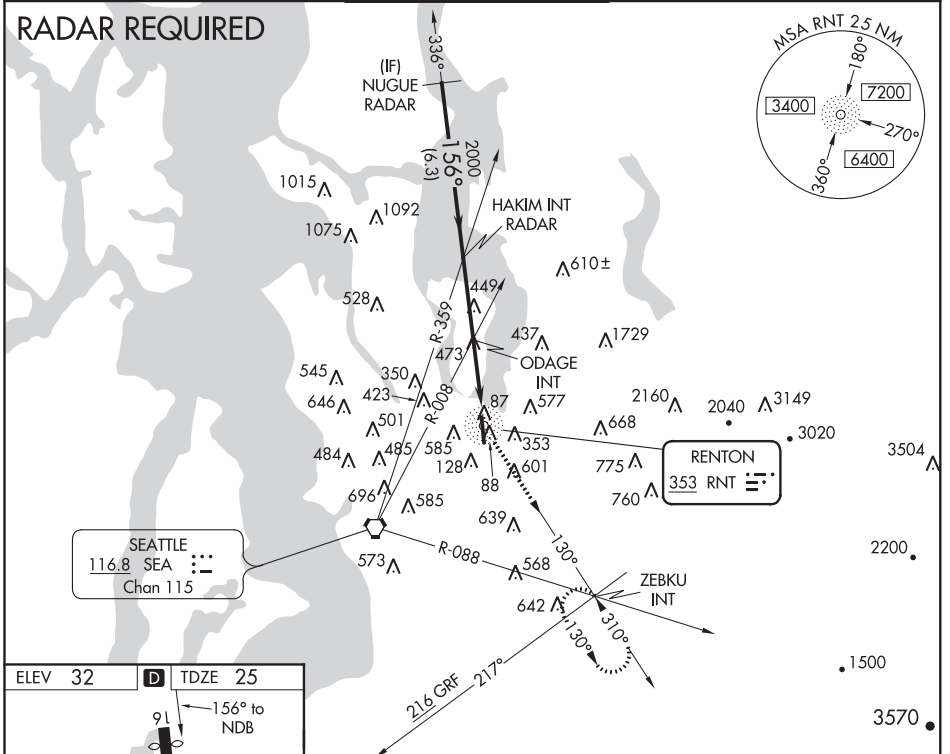
RENTON MUNI (RNT)

⚠ When local altimeter setting not received, use Seattle-Tacoma Intl altimeter setting.  
 ⚠ Circling NA west of Rwy 16-34.  
 ⚠ Helicopter visibility reduction below 3/4 SM not authorized.

MISSED APPROACH: Climb to 2400 on RNT  
 NDB brg 130° to ZEBKU INT and hold.

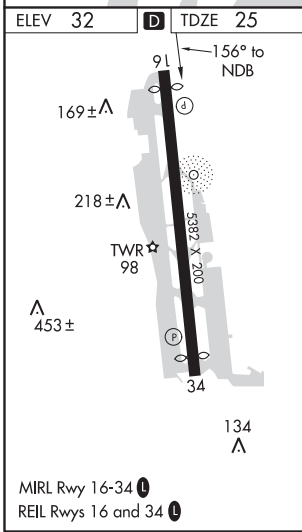
ATIS <b>126.95</b>	SEATTLE APP CON <b>119.2 284.7</b>	RENTON TOWER* <b>124.7 (CTAF) 0 256.9</b>	GND CON <b>121.6 256.9</b>	UNICOM <b>122.95</b>
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## RADAR REQUIRED



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 32	<b>D</b>	TDZE 25		
CATEGORY	A	B	C	D
S-16	1000-1¼ 975 (1000-1¼)	1000-1½ 975 (1000-1½)	1000-3	975 (1000-3)
<b>C</b> CIRCLING	1000-1¼ 968 (1000-1¼)	1000-1½ 968 (1000-1½)	1000-3 968 (1000-3)	1620-3 1588 (1600-3)
ODAGE FIX MINIMUMS				
S-16	900-1 875 (900-1)	900-1¼ 875 (900-1¼)	900-2½	875 (900-2½)
<b>C</b> CIRCLING	900-1¼ 868 (900-1¼)	920-1¼ 888 (900-1¼)	920-2¾ 888 (900-2¾)	1620-3 1588 (1600-3)

RENTON, WASHINGTON  
 Amdt 8 13NOV14

47°30'N-122°13'W  
 667

## RENTON MUNI (RNT) NDB RWY 16



(BELVU3.BELVU) 16203

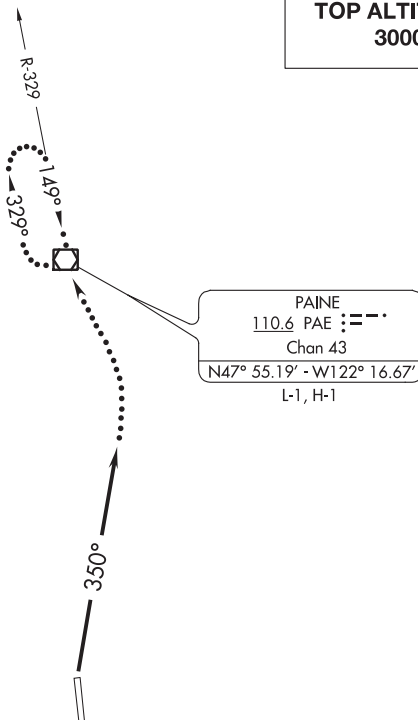
# BELLEVUE THREE DEPARTURE

SL-5396 (FAA)

RENTON MUNI (RNT)  
RENTON, WASHINGTON

ATIS 126.95  
GND CON  
121.6 256.9  
RENTON TOWER ★  
124.7 (CTAF) 256.9  
SEATTLE DEP CON  
119.2 284.7

**TOP ALTITUDE:  
3000**



NOTE: RADAR required.

### TAKEOFF MINIMUMS

Rwy 16: NA- ATC.

Rwy 34: Standard with minimum climb of 315' per NM to 800.

### TAKEOFF OBSTACLE NOTES

Rwy 34: Wood piling 75' from DER, 176' right of centerline, 2' AGL /26' MSL.

Tree 1.6 NM from DER, 1437' left of centerline, 130' AGL/327' MSL.

Trees beginning 1.8 NM from DER, 155' left of centerline, up to 128' AGL/485' MSL.

Trees beginning 2 NM from DER, 768' right of centerline, up to 195' AGL/459' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 34:** Climb heading 350°, maintain 3000, expect RADAR vectors, expect filed altitude within 5 minutes after departure.

**LOST COMMUNICATIONS:** If no contact with Seattle Departure Control within 3 minutes after departure, climbing left turn direct PAE VOR/DME, continue climb-in PAE VOR/DME holding pattern to cross PAE VOR/DME at or above MEA/MCA for direction of flight.

# BELLEVUE THREE DEPARTURE

(BELVU3.BELVU) 21JUL16

RENTON, WASHINGTON  
RENTON MUNI (RNT)

(RENTN3.RENTN) 16203

670

# RENTN THREE DEPARTURE

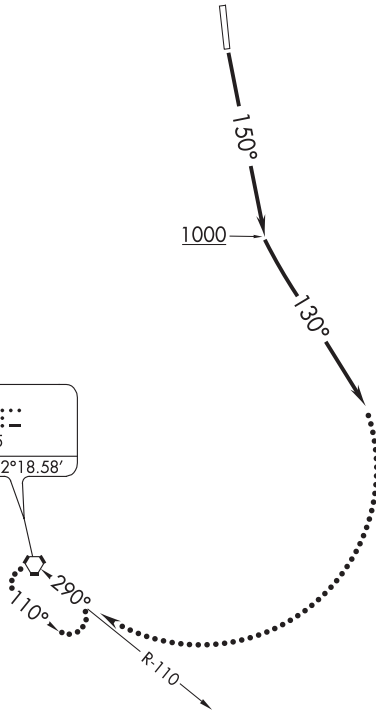
SL-5396 (FAA)

RENTON MUNI (R.N.T)  
RENTON, WASHINGTON

ATIS 126.95  
GND CON  
121.6 256.9  
RENTON TOWER ★  
124.7 (CTAF) 256.9  
SEATTLE DEP CON  
119.2 284.7

**TOP ALTITUDE:  
3000**

SEATTLE  
116.8 SEA : : :  
Chan 115  
N47°26.12'-W122°18.58'  
L-1, H-1



NOTE: RADAR required.

### TAKEOFF MINIMUMS

Rwy 16: Standard with a minimum climb of 405' per NM to 800.  
Rwy 34: NA- ATC.

### TAKEOFF OBSTACLE NOTES

- Rwy 16: Sign 40' from DER, 391' right of centerline, 17' AGL/49' MSL.
- Blast shield 185' from DER, 4' left of centerline, 17' AGL/49' MSL.
- Light poles left and right of centerline, beginning 267' from DER, up to 39' AGL/71' MSL.
- Trees beginning 947' from DER, 407' right of centerline, up to 82' AGL/114' MSL.
- Tree 1.2 NM from DER, 486' right of centerline, 90' AGL/232' MSL.
- Transmission towers beginning 1.4 NM from DER, 2119' left of centerline, up to 118' AGL/453' MSL.
- Trees left and right of centerline beginning 1.5 NM from DER, up to 108' AGL/334' MSL.
- Trees beginning 1.7 NM from DER, 3021' left of centerline, up to 100' AGL/574' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 16:** Climb heading 150° to 1000, then climbing left turn heading 130°, expect RADAR vectors, maintain 3000, expect filed altitude within 5 minutes after departure.

**LOST COMMUNICATIONS:** If no contact with Seattle Departure Control within 3 minutes after departure, climbing right turn direct SEA VORTAC, continue climb-in SEA VORTAC holding pattern to cross SEA VORTAC at or above MEA/MCA for direction of flight before proceeding on course.

# RENTN THREE DEPARTURE

(RENTN3.RENTN) 21JUL16

RENTON, WASHINGTON  
RENTON MUNI (R.N.T)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



APP CRS <b>351°</b>	Rwy Idg <b>3900</b>
	TDZE <b>4858</b>
	Apt Elev <b>4858</b>

# RNAV (GPS) RWY 35

REXBURG-MADISON COUNTY (R.X.E)

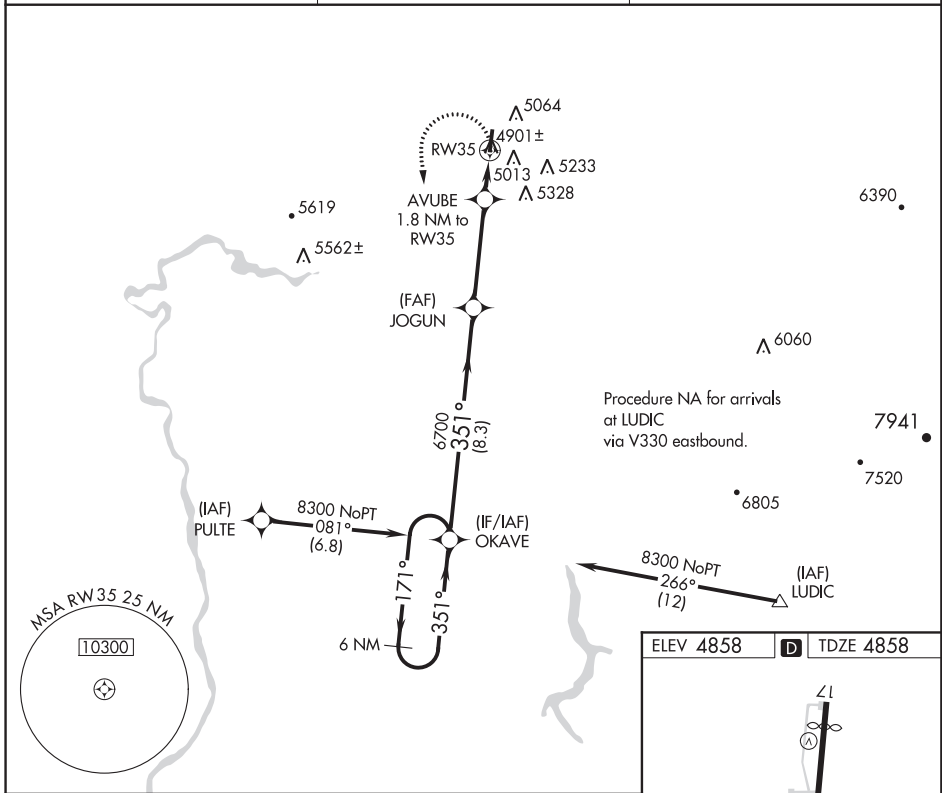
**⚠** If local altimeter setting not received, use Idaho Falls Rgnl altimeter setting and increase all MDAs 80 feet. Night Landing: Rwy 35 Cat C, D NA. DME/DME RNP-0,3 NA. Helicopter visibility reduction below 1 SM not authorized.

**MISSED APPROACH:** Climbing left turn to 8300 direct OKAVE and hold.

ASOS  
**135.075**

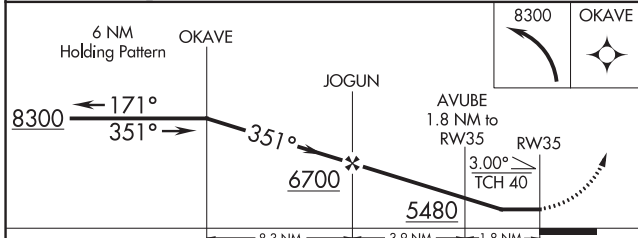
SALT LAKE CENTER  
**128.35 239.25**

UNICOM  
**122.8 (CTAF) 0**

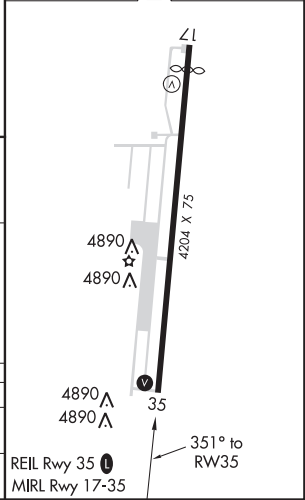


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 4858 **D** TDZE 4858



CATEGORY	A	B	C	D
RNAV MDA	5260-1	402 (500-1)	5260-1½	402 (500-1½)
CIRCLING	5380-1 522 (600-1)	5580-1 722 (800-1)	5580-2 722 (800-2)	5620-2½ 762 (800-2½)

REXBURG, IDAHO

AL-5977 (FAA)

14149

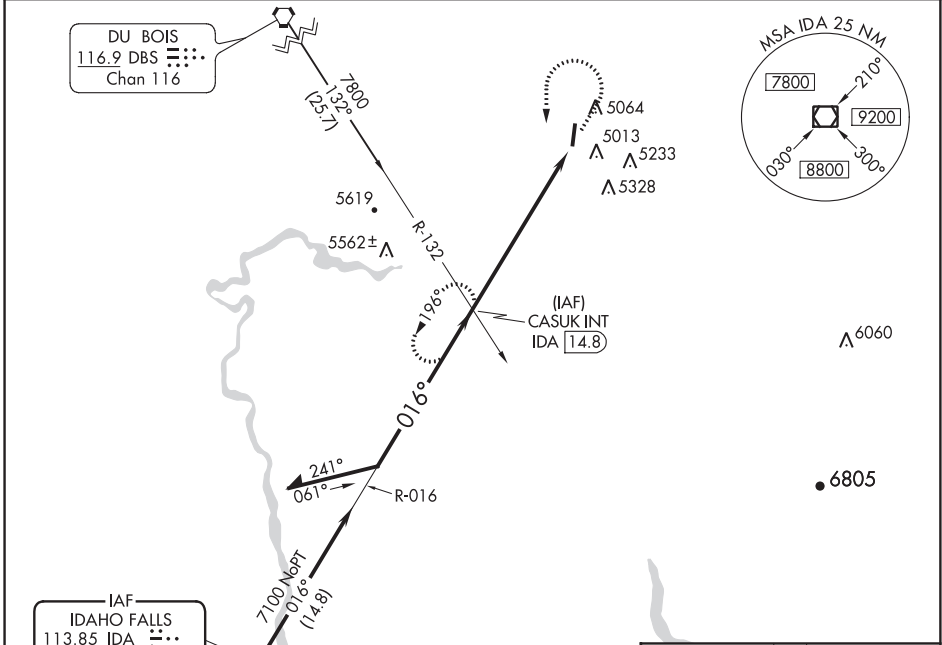
VOR/DME IDA <b>113.85</b> Chan 85 (Y)	APP CRS <b>016°</b>	Rwy Idg TDZE Apt Elev	<b>3900</b> <b>4858</b> <b>4858</b>
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**VOR RWY 35**  
REXBURG-MADISON COUNTY (R.X.E)

**⚠ NA** If local altimeter setting not received, use Idaho Falls Rgnl altimeter setting minima. Procedure NA at night. Helicopter visibility reduction below 1 SM not authorized.

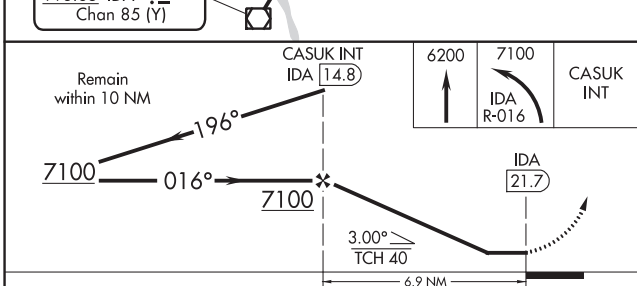
**MISSED APPROACH:** Climb to 6200 then climbing left turn to 7100 via IDA R-016 to CASUK INT/IDA 14.8 DME and hold.

ASOS <b>135.075</b>	SALT LAKE CENTER <b>128.35 239.25</b>	UNICOM <b>122.8 (CTAF)</b>
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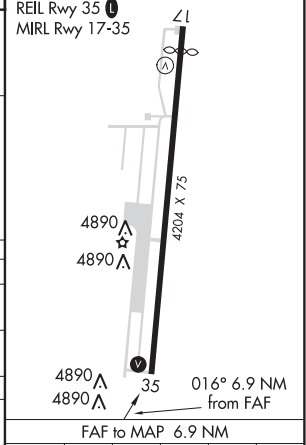


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 4858	<b>D</b>	TDZE 4858
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CATEGORY	A	B	C	D
S-35	5640-1 782 (800-1)	5640-1¼ 782 (800-1¼)	5640-2¼ 782 (800-2¼)	5640-2½ 782 (800-2½)
CIRCLING	5640-1 782 (800-1)	5640-1¼ 782 (800-1¼)	5640-2¼ 782 (800-2¼)	5660-2½ 802 (900-2½)
IDAHO FALLS RGNL ALTIMETER SETTING MINIMUMS				
S-35	5820-1¼ 962 (1000-1¼)	5820-1½ 962 (1000-1½)	5820-3	962 (1000-3)
CIRCLING	5820-1¼ 962 (1000-1¼)	5820-1½ 962 (1000-1½)	5820-3	962 (1000-3)

FAF to MAP 6.9 NM					
Knots	60	90	120	150	180
Min:Sec	6:54	4:36	3:27	2:46	2:18

REXBURG, IDAHO  
Amdt 4A 29MAY14

43°50'N-111°48'W

REXBURG-MADISON COUNTY (R.X.E)  
**VOR RWY 35**

WAAS CH <b>77903</b> <b>W26A</b>	APP CRS <b>259°</b>	Rwy Idg TDZE Apt Elev	<b>4001</b> <b>389</b> <b>394</b>
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# RNAV (GPS) RWY 26

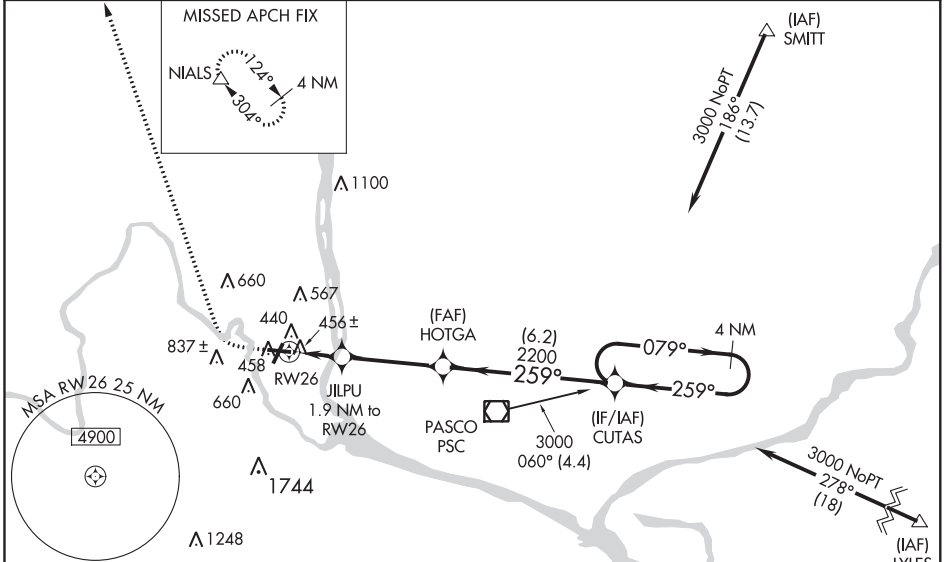
RICHLAND (R.LD)

**NA**  
-19°C/-2°F

DME/DME RNP-0.3 NA. When local altimeter setting not received, use Pasco altimeter setting and increase all DA 21 feet and all MDA 40 feet and increase LNAV/VNAV Cats A and B visibility 1/8 mile, Circling Cat C visibility 1/4 mile. Baro-VNAV NA when using Pasco altimeter setting. Helicopter visibility reduction below 3/4 SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (4°F) or above 41°C (107°F).

MISSED APPROACH: Climb to 900 then climbing right turn to 3500 direct NIALS and hold.

AWOS-3PT <b>132.675</b>	CHINOOK APP CON* <b>128.75 377.2</b>	CLNC DEL <b>122.4</b>	UNICOM <b>122.7 (CTAF) 0</b>
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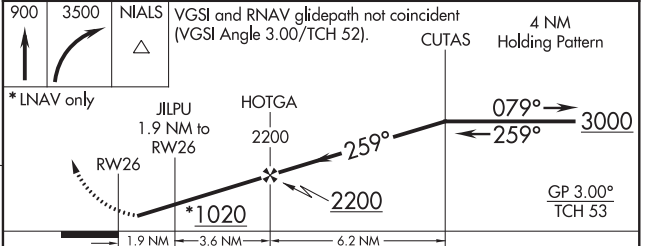
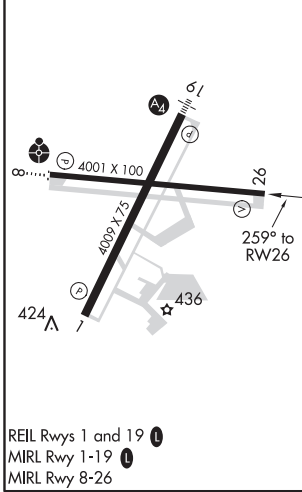


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV <b>394</b>	TDZE <b>389</b>
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Procedure NA for arrivals at PSC VOR/DME on V187 southwest bound and on V281 southeast bound.




CATEGORY	A	B	C	D
LPV DA	657-7/8	268 (300-7/8)	657-1	268 (300-1)
LNAV/VNAV DA	639-3/4	250 (300-3/4)	639-1	250 (300-1)
LNAV MDA	720-1 331 (400-1)			
<b>C</b> CIRCLING	920-1 526 (600-1)	1000-1 606 (700-1)	1200-2 1/4 806 (700-2 1/4)	1940-3 1546 (1600-3)

APP CRS	Rwy Idg	<b>4009</b>
<b>189°</b>	TDZE	<b>390</b>
	Apt Elev	<b>394</b>

# RNAV (GPS) Y RWY 19

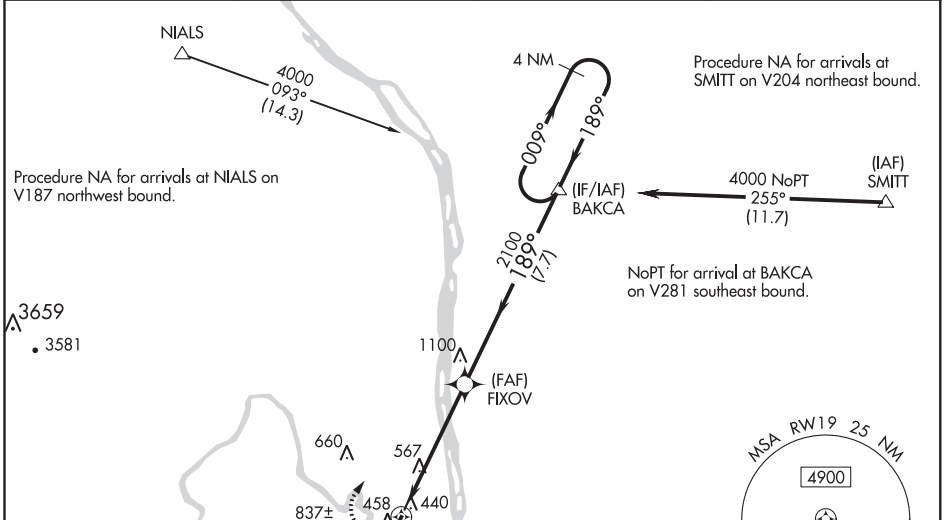
RICHLAND (R.LD)

**NA** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (4°F) or above 41°C (106°F). DME/DME-RNP-0.3 NA. When local altimeter setting not received, use Pasco altimeter setting and increase all DA 21 feet and all MDA 40 feet and increase LNAV Cat A visibility ¼ mile, Cat C and D ½ mile, and Circling Cat C visibility ¼ mile. For inop MALS increase LNAV/VNAV Cat D visibility 1 ⅓ mile, LNAV Cat C and D visibility to 2 ½ mile. When using Pasco altimeter setting increase LNAV/VNAV all Cats visibility to 1 ¾ mile, LNAV Cat C and D visibility to 2 ½ mile. VDP and Baro-VNAV NA when using Pasco altimeter setting. Helicopter visibility reduction below ¾ SM NA.

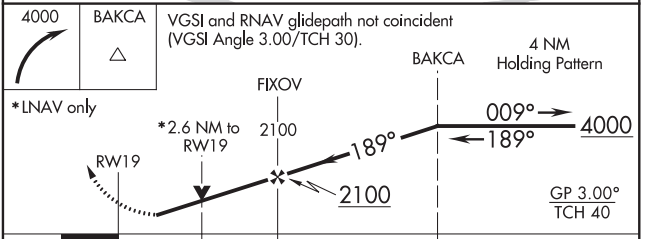
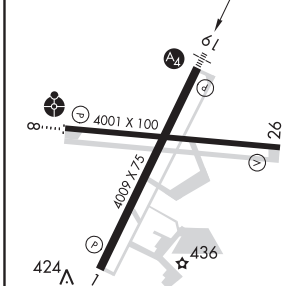
**MALS** 

**MISSED APPROACH:** Climbing right turn 4000 direct BAKCA and hold, continue climb-in-hold to 4000.

AWOS-3PT <b>132.675</b>	CHINOOK APP CON ★ <b>128.75 377.2</b>	CLNC DEL <b>122.4</b>	UNICOM <b>122.7 (CTAF) 0</b>
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ELEV 394	TDZE 390
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CATEGORY	A	B	C	D
LNAV/VNAV DA	861-1 ⅜		471 (500-1 ⅓)	
LNAV MDA	1240-¾ 850 (900-¾)	1240-1 850 (900-1)	1240-2	850 (900-2)
<b>C</b> CIRCLING	1240-1 ¼	846 (900-1 ¼)	1240-2 ½ 846 (900-2 ½)	1940-3 1546 (1600-3)

REIL Rws 1 and 19 **0**  
MIRL Rwy 1-19 **0**  
MIRL Rwy 8-26 **0**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>4009</b>
<b>189°</b>	TDZE	<b>390</b>
	Apt Elev	<b>394</b>


# RNAV (GPS) Z RWY 19

RICHLAND (R.LD)

**NA**  
 -19°C/-2°F

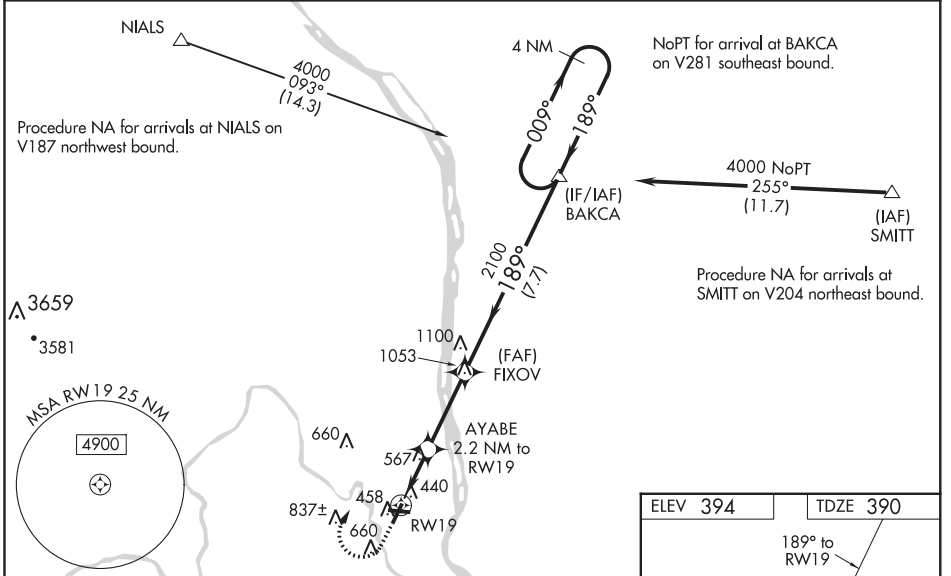
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (4°F) or above 41°C (106°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Pasco altimeter setting and increase all DA 21 feet and all MDA 40 feet. Increase LNAV Cats C and D visibility 1/8 mile and Circling Cat C 1/4 mile. For inop MALS increase LNAV/VNAV all Cats visibility to 3/8 mile and increase LNAV Cat D visibility to 1 3/8 mile. Helicopter visibility reduction below 3/4 SM NA. VDP and Baro/VNAV NA when using Pasco altimeter setting. For inoperative MALS when using Pasco altimeter setting increase LNAV/VNAV all Cats visibility to 3/8 mile and LNAV Cats C and D visibility to 1 1/2.

# Missed approach requires minimum climb of 340 feet per NM to 2000; if unable to meet climb gradient see RNAV (GPS) Y Rwy 19.

**MALS**  


**MISSED APPROACH:**  
 Climb to 900 then climbing right turn to 4000 direct BAKCA and hold, continue climb-in-hold to 4000.

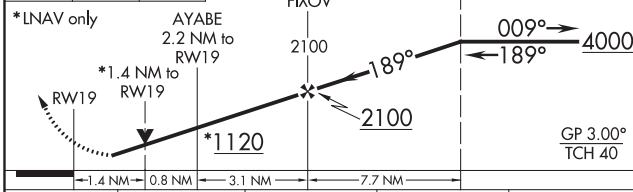
AWOS-3PT <b>132.675</b>	CHINOOK APP CON * <b>128.75 377.2</b>	CLNC DEL <b>122.4</b>	UNICOM <b>122.7 (CTAF)</b>
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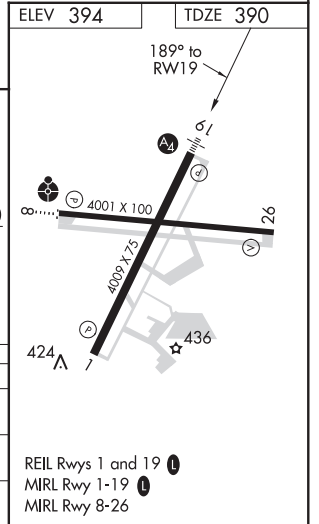
900 4000 BAKCA

VGSI and RNAV glidepath not coincident. (VGSI Angle 3.00/TCH 30).

BAKCA 4 NM Holding Pattern



CATEGORY	A	B	C	D
LNAV/VNAV DA	#640-3/4 250 (300-3/4)			
LNAV MDA	#880-3/4	490 (500-3/4)	#880-1 1/8	490 (500-1 1/8)
CIRCLING	920-1 526 (600-1)	1000-1 606 (700-1)	1200-2 1/4 806 (900-2 1/4)	1940-3 1546 (1600-3)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

RICHLAND, WASHINGTON

AL-5966 (FAA)

15344

LOC/DME I-RLD <b>110.5</b> Chan <b>42</b>	APP CRS <b>189°</b>	Rwy Idg TDZE Apt Elev	<b>4009</b> <b>390</b> <b>394</b>
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# LOC RWY 19

RICHLAND (R.LD)

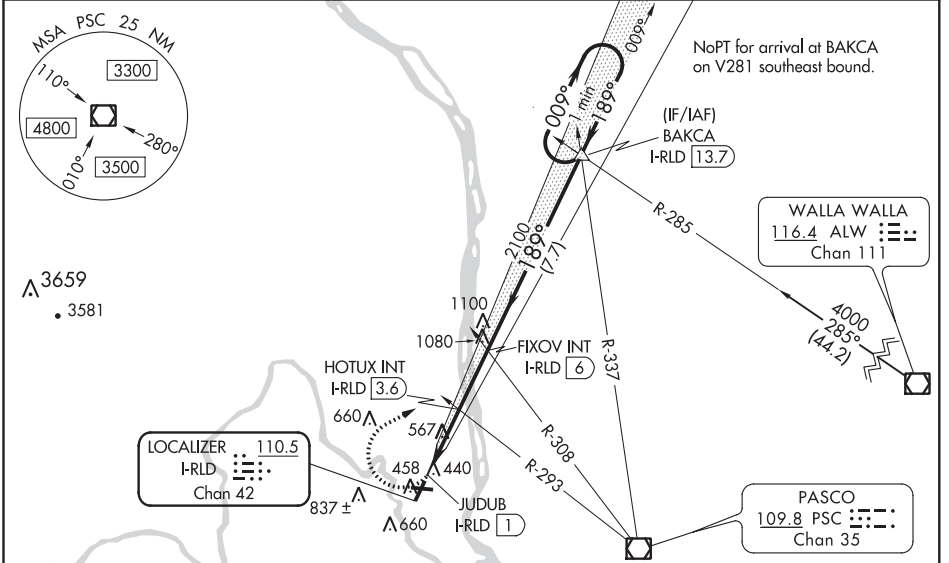
**⚠ NA**  
-19°C/-2°F

VDP NA with Pasco altimeter setting. When local altimeter setting not received, use Pasco altimeter setting and increase HOTUX FIX minimums S-19 Cats C and D  $\frac{1}{8}$  mile and Circling Cat C  $\frac{1}{4}$  mile. For inop MALS when using Pasco altimeter setting, HOTUX FIX minimums increase S-19 Cats C and D visibility  $\frac{3}{8}$  mile. Inop table does not apply to S-19 Cat C. Helicopter visibility reduction below  $\frac{3}{4}$  SM NA. For inop MALS increase HOTUX FIX minimums S-19 Cat D visibility  $\frac{1}{4}$  mile. Inop table does not apply to S-19 Cat C when using Pasco altimeter setting.

**MALS**  
**A4**

**MISSED APPROACH:**  
Climbing right turn to 4000 on heading 045° and on PSC VOR/DME R-337 to BAKCA INT/I-RLD 13.7 DME and hold, continue climb-in-hold to 4000.

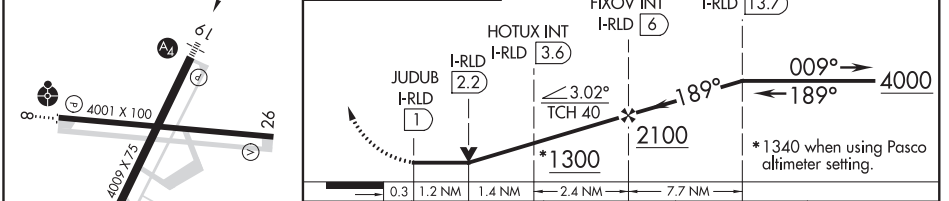
AWOS-3PT <b>132.675</b>	CHINOOK APP CON ★ <b>128.75 377.2</b>	CLNC DEL <b>122.4</b>	UNICOM <b>122.7 (CTAF)</b> <b>U</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 394	TDZE 390	4000	PSC R-337	BAKCA	VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 30).	One Minute Holding Pattern
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CATEGORY	A	B	C	D
S-19	1300-1	910 (1000-1)	1300-2½	910 (1000-2½)
<b>C</b> CIRCLING	1300-1¼	906 (1000-1¼)	1300-2¾ 906 (1000-2¾)	1940-3 1546 (1600-3)
HOTUX FIX MINIMUMS (DUAL VOR RECEIVERS OR DME REQUIRED)				
S-19	880-¾	490 (500-¾)	880-1⅛	490 (500-1⅛)
<b>C</b> CIRCLING	920-1 526 (600-1)	1000-1 606 (700-1)	1200-2¼ 806 (900-2¼)	1940-3 1546 (1600-3)

RICHLAND, WASHINGTON  
Amdt 9 13NOV14

46°18'N-119°18'W

# LOC RWY 19

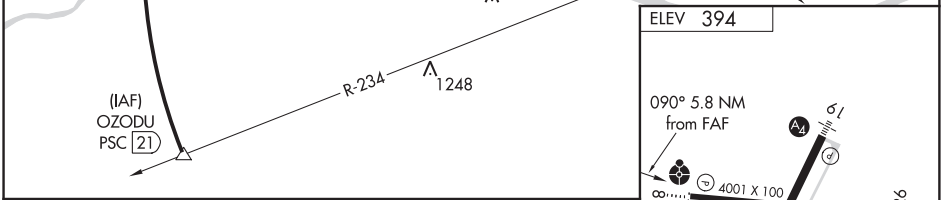
VOR/DME PSC <b>109.8</b> Chan 35	APP CRS <b>090°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>394</b>
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# VOR/DME-A RICHLAND (R.LD)

**NA** When local altimeter setting not received, use Pasco altimeter setting and increase all MDA 40 feet.

MISSED APPROACH: Climb to 3000 direct PSC VOR/DME and hold.

AWOS-3PT <b>132.675</b>	CHINOOK APP CON * <b>128.75 377.2</b>	CLNC DEL <b>122.4</b>	UNICOM <b>122.7 (CTAF)</b>
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CATEGORY	A	B	C	D
CIRCLING	1140-1	746 (800-1)	1200-2 1/4 806 (900-2 1/4)	1940-3 1546 (1600-3)

REIL Rwy 1 and 19

MIRL Rwy 1-19

MIRL Rwy 8-26

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC I-R/W <b>110.5</b>	APP CRS <b>284°</b>	Rwy Idg TDZE Apt Elev	<b>8204</b> <b>5459</b> <b>5528</b>
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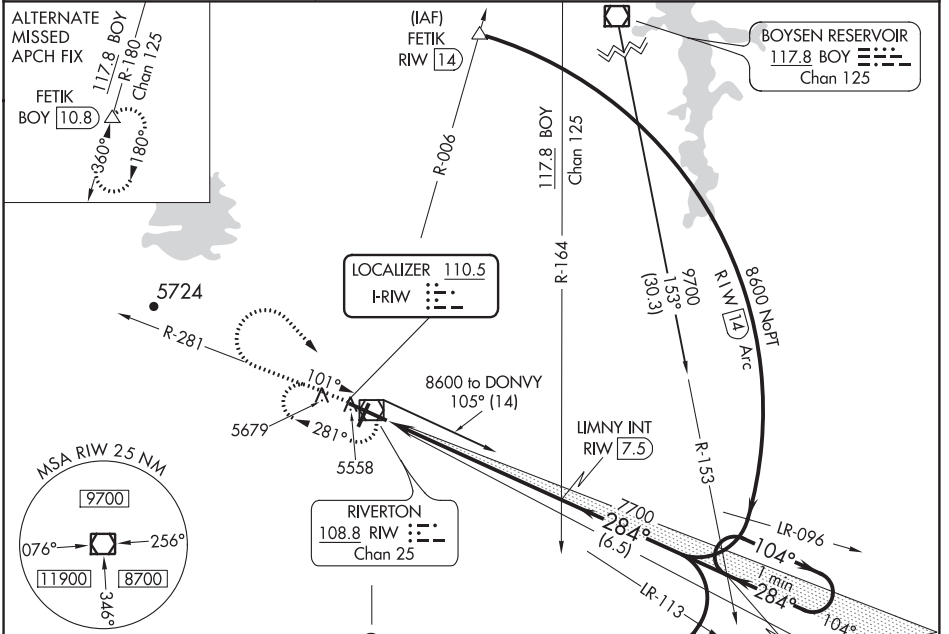
# ILS or LOC RWY 28

RIVERTON RGNL (RIW)

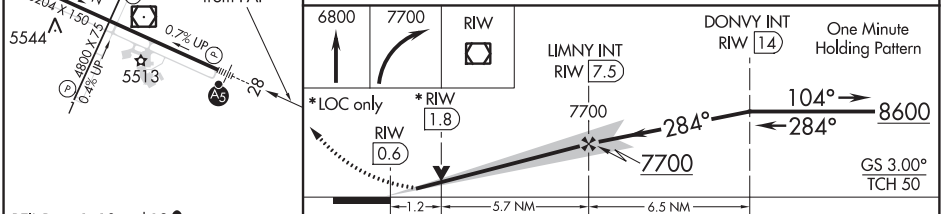
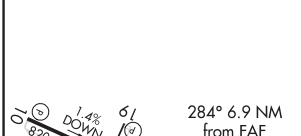
**NA** When local altimeter setting not received, use Lander altimeter setting: increase DA to 5713 feet; increase all MDA 60 feet and S-LOC 28 Cat C and D visibility ¼ mile. For inop MALSRL, when using Lander altimeter setting, increase S-ILS 28 all Cats visibility to ¾ mile and S-LOC 28 Cat C and D visibility to 1 ½ mile. VDP NA when using Lander altimeter setting.

**MALSRL** MISSED APPROACH: Climb to 6800 then climbing right turn to 7700 direct RIW VOR/DME and hold, continue climb-in-hold to 7700.

ASOS <b>121.425</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>122.8 (CTAF)</b>
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ELEV 5528	D	TDZE 5459
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REIL Rwy	1, 10 and 19	MIRL Rwy	1-19	HIRL Rwy	10-28
FAF to MAP 6.9 NM					
Knots	60	90	120	150	180
Min:Sec	6:54	4:36	3:27	2:46	2:18
<b>C</b> CIRCLING	6000-1 472 (500-1)		6000-1 ½ 472 (500-1 ½)		6120-2 592 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>42899</b> <b>W10A</b>	APP CRS <b>104°</b>	Rwy Idg TDZE Apt Elev	<b>8204</b> <b>5528</b> <b>5528</b>
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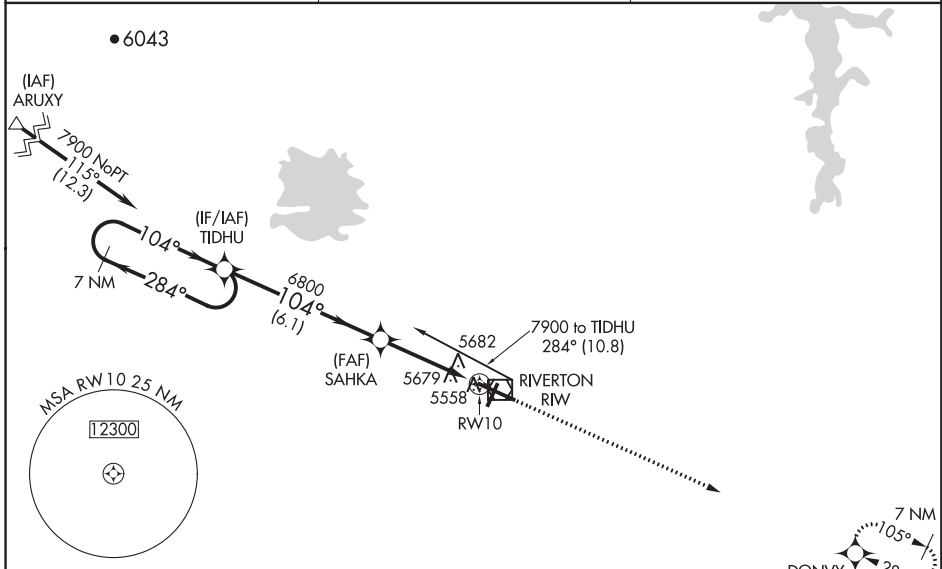
# RNAV (GPS) RWY 10

RIVERTON RGNL (RIW)

**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Lander altimeter setting and increase all DA 54 feet and all MDA 60 feet, and increase LPV and LNAV/VNAV all Cats visibility ¼ mile and increase LNAV Cat C/D visibility ½ mile. Baro-VNAV and VDP NA when using Lander altimeter setting. Helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-16°F) or above 48°C (118°F).

MISSED APPROACH: Climb to 8600 direct DONVY and hold.

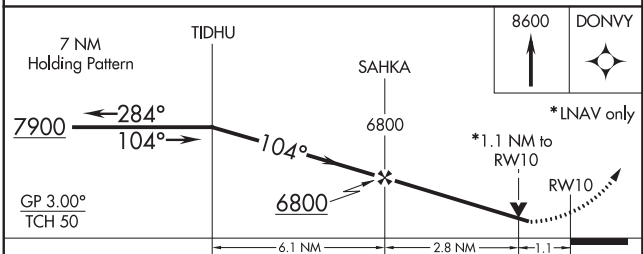
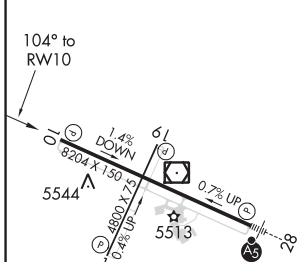
ASOS <b>121.425</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 5528	<b>D</b>	TDZE 5528
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CATEGORY	A	B	C	D
LPV DA		5914-1¼	386 (400-1¼)	
LNAV/VNAV DA		5977-1½	449 (500-1½)	
LNAV MDA	5940-1	412 (500-1)	5940-1¼	412 (500-1¼)
<b>C</b> CIRCLING	6000-1	472 (500-1)	6000-1½	6120-2 592 (600-2)


REIL Rwy 1, 10 and 19 **Ⓛ**  
MIRL Rwy 1-19 **Ⓛ**  
HIRL Rwy 10-28 **Ⓛ**

WAAS CH <b>61115</b> <b>W28A</b>	APP CRS <b>284°</b>	Rwy Idg <b>8204</b>
		TDZE <b>5459</b>
		Apt Elev <b>5528</b>

# RNAV (GPS) RWY 28

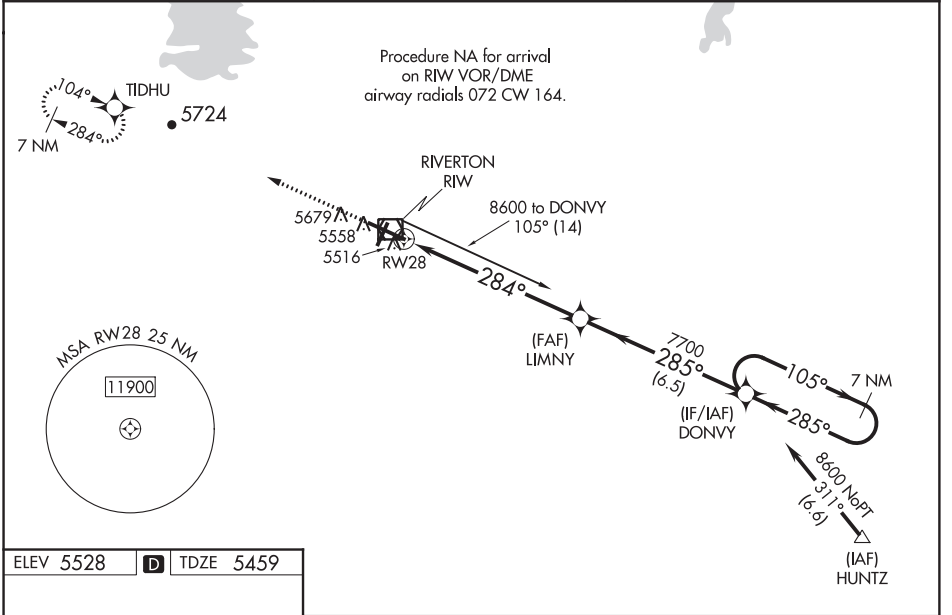
RIVERTON RGNL (RIW)

**⚠** DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Lander altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -27°C (-1.6°F) or above 48°C (118°F). For inop MALSR, increase LNAV/VNAV all Cats visibility to 7/8 mile and LNAV Cat C and D visibility to 1 mile. When local altimeter setting not received, use Lander altimeter setting: increase LPV DA to 5713 feet, LNAV/VNAV DA to 5763 and all visibilities 1/8 mile; increase all MDA 60 feet and LNAV Cat C and D visibility 1/8 mile. For inop MALSR, when using Lander altimeter setting, increase LPV all Cats visibility to 7/8 mile and LNAV/VNAV all Cats visibility to 1 mile.

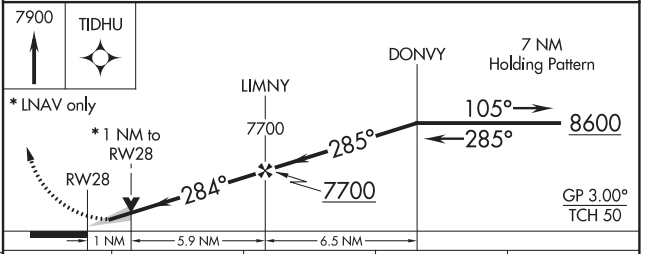
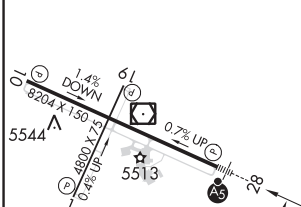
**MALSR** 

**MISSED APPROACH:** Climb to 7900 direct TIDHU and hold.




ASOS <b>121.425</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>122.8 (CTAF)</b> 
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ELEV 5528	<b>D</b>	TDZE 5459
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CATEGORY	A	B	C	D
LPV DA		5659-1/2	200 (200-1/2)	
LNAV/VNAV DA		5709-1/2	250 (200-1/2)	
LNAV MDA	5820-1/2	361 (400-1/2)	5820-5/8	361 (400-5/8)
<b>C</b> CIRCLING	6000-1	472 (500-1)	6000-1 1/2 472 (500-1 1/2)	6120-2 592 (600-2)

REIL Rwy 1, 10, and 19   
 MIRL Rwy 1-19   
 HIRL Rwy 10-28 

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VOR/DME R1W <b>108.8</b> Chan 25	APP CRS <b>101°</b>	Rwy Idg TDZE Apt Elev <b>8204</b> <b>5528</b> <b>5528</b>
--	------------------------	--

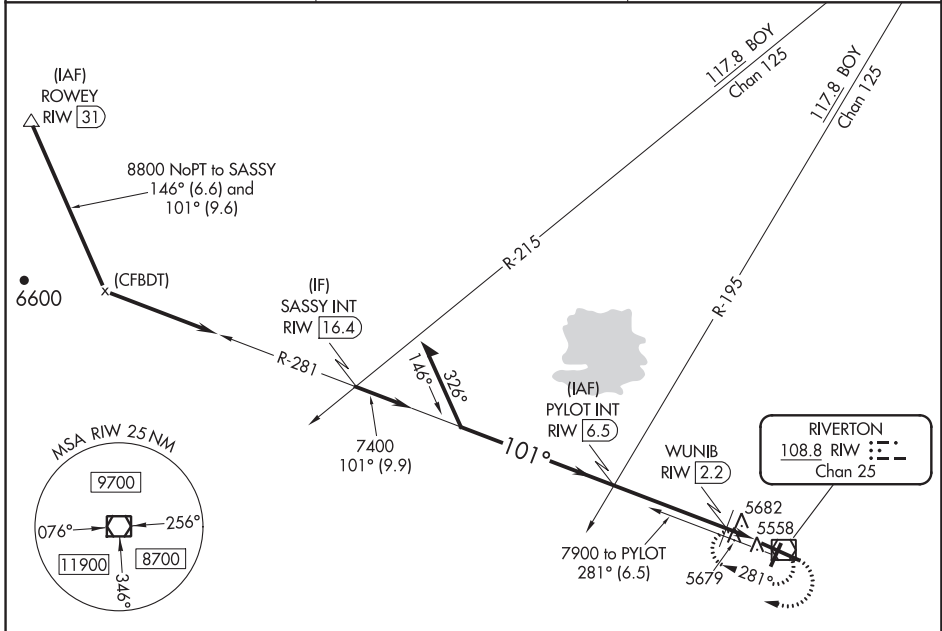
# VOR RWY 10

RIVERTON RGNL (R1W)

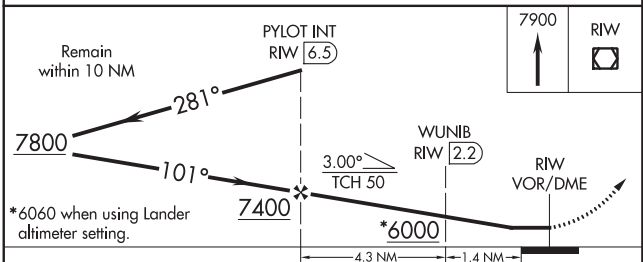
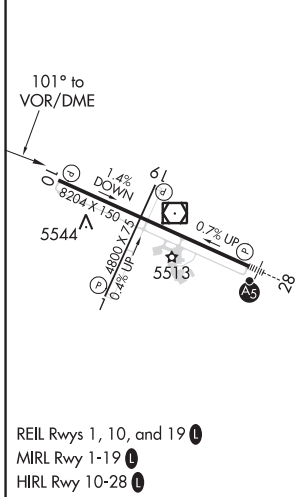
**⚠** When local altimeter setting not received, use Lander altimeter setting and increase all MDA 60 feet and increase S-10 Cat C and D visibility ¼ mile and Circling Cat C visibility ½ mile, increase WUNIB fix minimums Cat C and D visibility ½ mile. Helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 7900 in R1W VOR/DME holding pattern.

ASOS <b>121.425</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>122.8 (CTAF) 0</b>
------------------------	---	---------------------------------



ELEV 5528	<b>D</b>	TDZE 5528
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CATEGORY	A	B	C	D
S-10	6000-1	472 (500-1)	6000-1 3/8	472 (500-1 3/8)
<b>C</b> CIRCLING	6000-1	472 (500-1)	6000-1 1/2 472 (500-1 1/2)	6120-2 592 (600-2)
WUNIB FIX MINIMUMS (DME REQUIRED)				
S-10	5940-1	412 (500-1)	5940-1 1/4	412 (500-1 1/4)
<b>C</b> CIRCLING	6000-1	472 (500-1)	6000-1 1/2 472 (500-1 1/2)	6120-2 592 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

RIVERTON, WYOMING

AL-691 (FAA)


16203

VOR/DME RWY <b>108.8</b> Chan 25	APP CRS <b>293°</b>	Rwy Idg TDZE Apt Elev	<b>8204</b> <b>5459</b> <b>5528</b>
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# VOR RWY 28

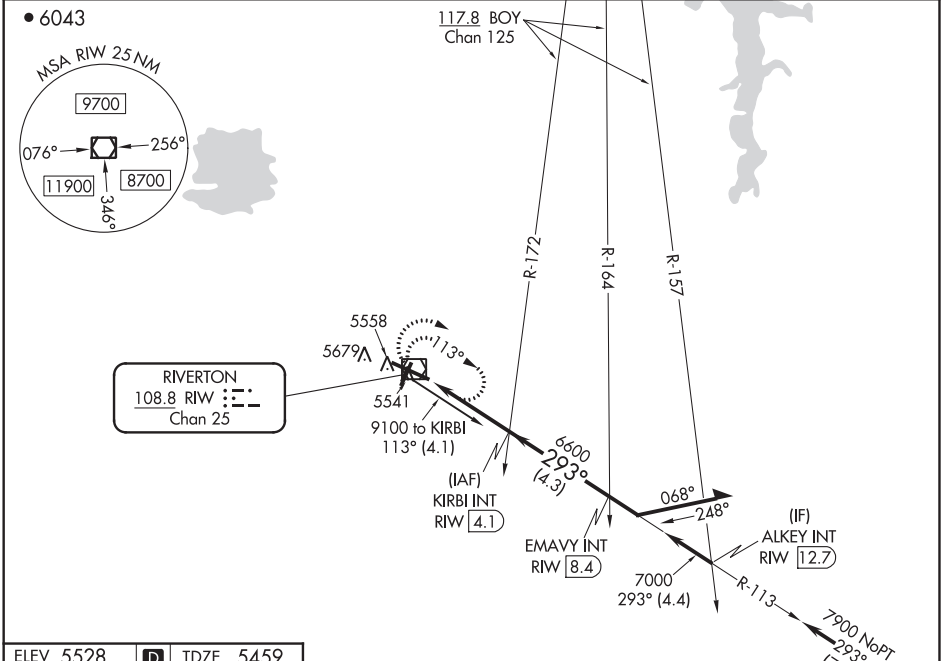
RIVERTON RGNL (RIW)

**⚠** When local altimeter setting not received, use Lander altimeter setting and increase all MDA 60 feet. VDP NA when using Lander altimeter setting. For inop MALSR, increase S-28 Cat C and D visibility to 1½ miles.

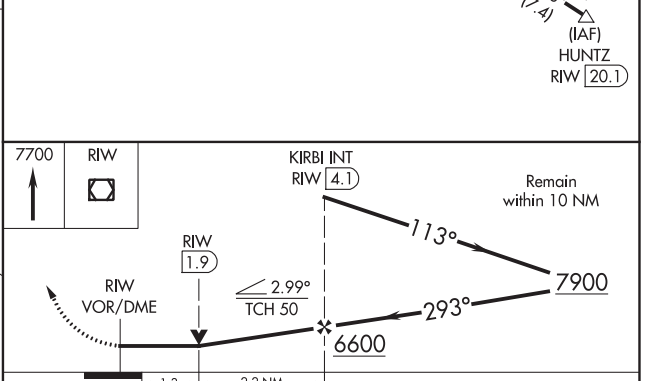
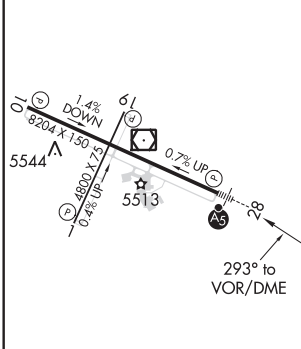
**MALSR** 

**MISSED APPROACH:** Climb to 7700 in RIW VOR/DME holding pattern.

ASOS <b>121.425</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>122.8</b> (CTAF) <b>Ⓛ</b>
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ELEV 5528	<b>D</b>	TDZE 5459
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CATEGORY	A	B	C	D
S-28	5920-½ 461 (500-½)		5920-1 461 (500-1)	
<b>C</b> CIRCLING	6000-1 472 (500-1)		6000-1½ 472 (500-1½)	6120-2 592 (600-2)

REIL Rwy 1, 10 and 19 **Ⓛ**

MIRL Rwy 1-19 **Ⓛ**

HIRL Rwy 10-28 **Ⓛ**

RIVERTON, WYOMING  
Amdt 10A 21JUL16

43°04'N-108°28'W

RIVERTON RGNL (RIW)  
**VOR RWY 28**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

16091

# AIRPORT DIAGRAM

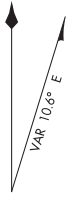
RIVERTON RGNL (RIW)  
RIVERTON, WYOMING

AL-691 (FAA)

ASOS  
121.425  
CTAF/UNICOM  
122.8

FIELD  
ELEV  
5528

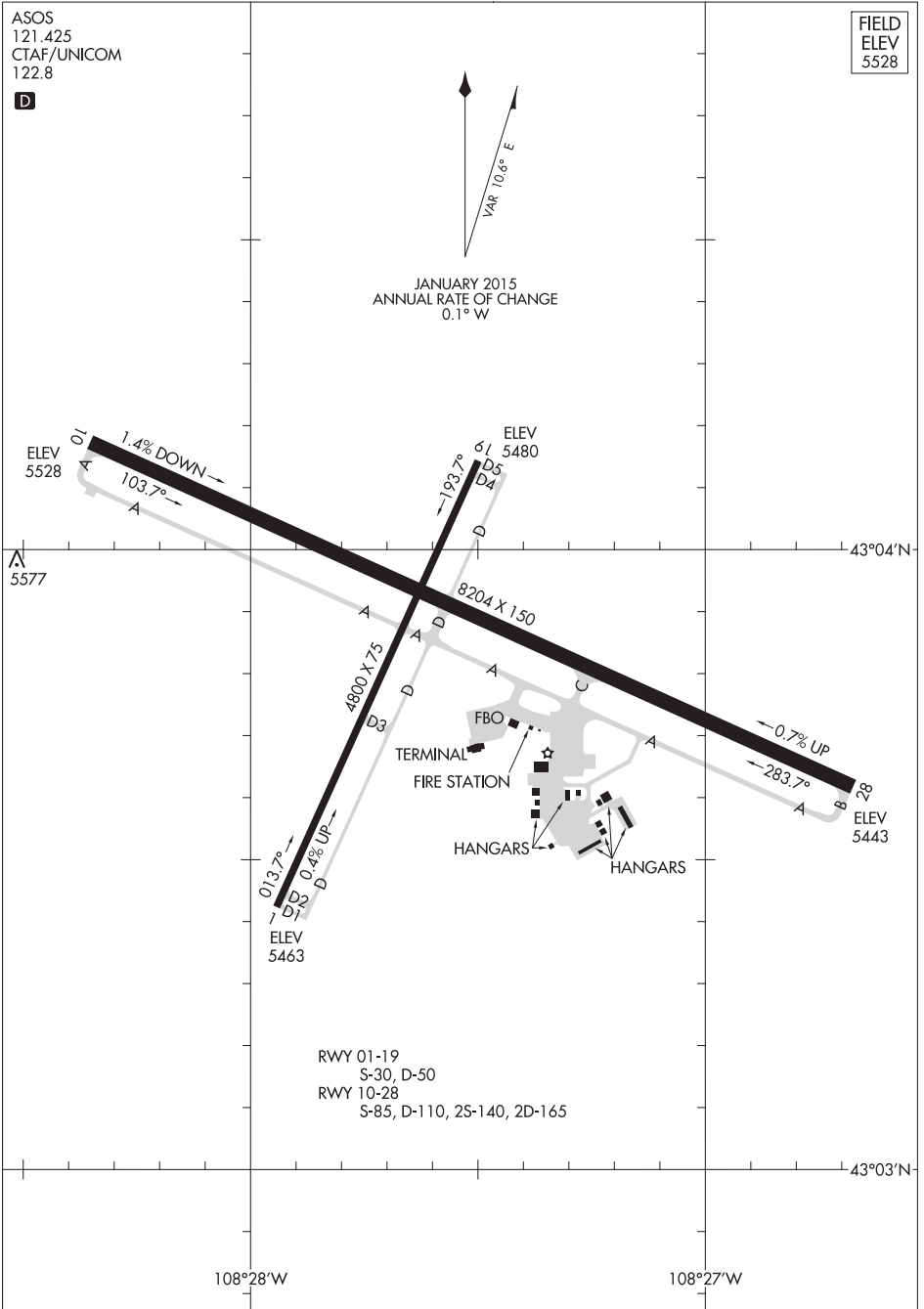
D



JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



RWY 01-19  
S-30, D-50  
RWY 10-28  
S-85, D-110, 2S-140, 2D-165

# AIRPORT DIAGRAM

RIVERTON, WYOMING  
RIVERTON RGNL (RIW)

16091

ROCK SPRINGS, WYOMING

AL-353 (FAA)

14261

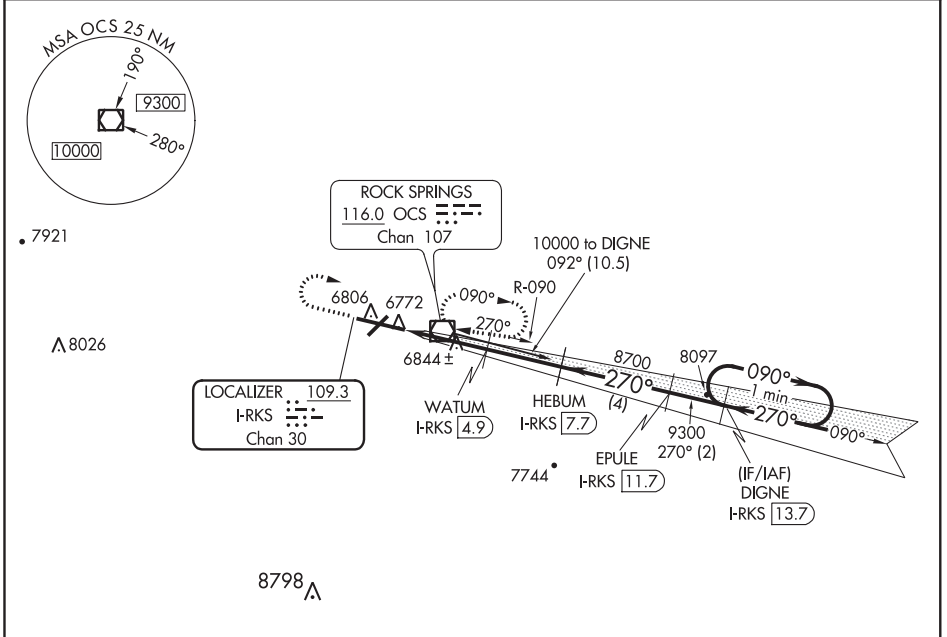
LOC/DME I-RKS <b>109.3</b> Chan <b>30</b>	APP CRS <b>270°</b>	Rwy Idg <b>10000</b> TDZE <b>6764</b> Apt Elev <b>6764</b>
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# ILS or LOC/DME RWY 27

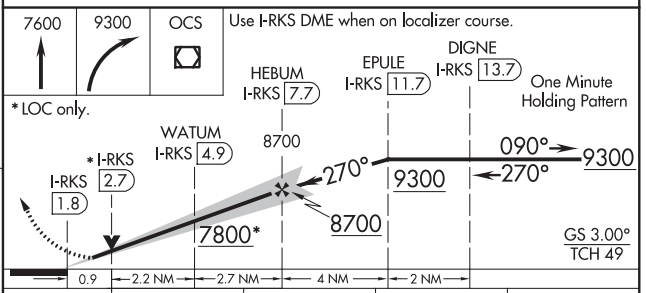
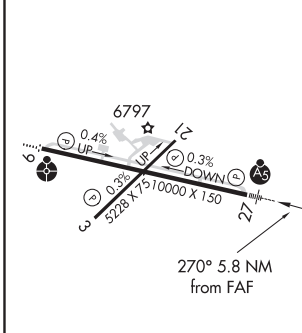
ROCK SPRINGS-SWEETWATER COUNTY (RKS)

<p><b>▼</b> For inoperative MALSR, increase S-LOC 27 Cat D visibility to 1 mile. Autopilot coupled approach NA below 7000.</p>	<p><b>MALSR</b></p>	<p><b>MISSED APPROACH:</b> Climb to 7600, then climbing right turn to 9300 direct OCS VOR/DME and hold, continue climb-in-hold to 9300.</p>
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ASOS <b>118.375</b>	CASPER RADIO <b>122.6</b>	UNICOM <b>122.8</b> (CTAF) <b>①</b>
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ELEV 6764	TDZE 6764
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CATEGORY	A	B	C	D
S-ILS-27	6964-½ 200 (200-½)			
S-LOC 27	7100-½ 336 (400-½)			7100-¾ 336 (400-¾)
CIRCLING	7140-1 376 (400-1)	7220-1 456 (500-1)	7220-1½ 456 (500-1½)	7320-2 556 (600-2)

- REIL Rwy 3 and 21 **①**
- MIRL Rwy 3-21 **①**
- HIRL Rwy 9-27 **①**

ROCK SPRINGS, WYOMING  
Amdt 1A 13JAN11

# ILS or LOC/DME RWY 27

ROCK SPRINGS-SWEETWATER COUNTY (RKS)

41°36'N-109°04'W

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

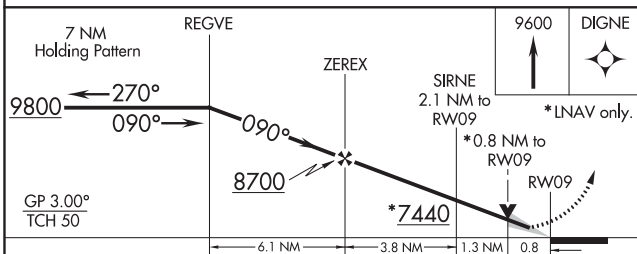
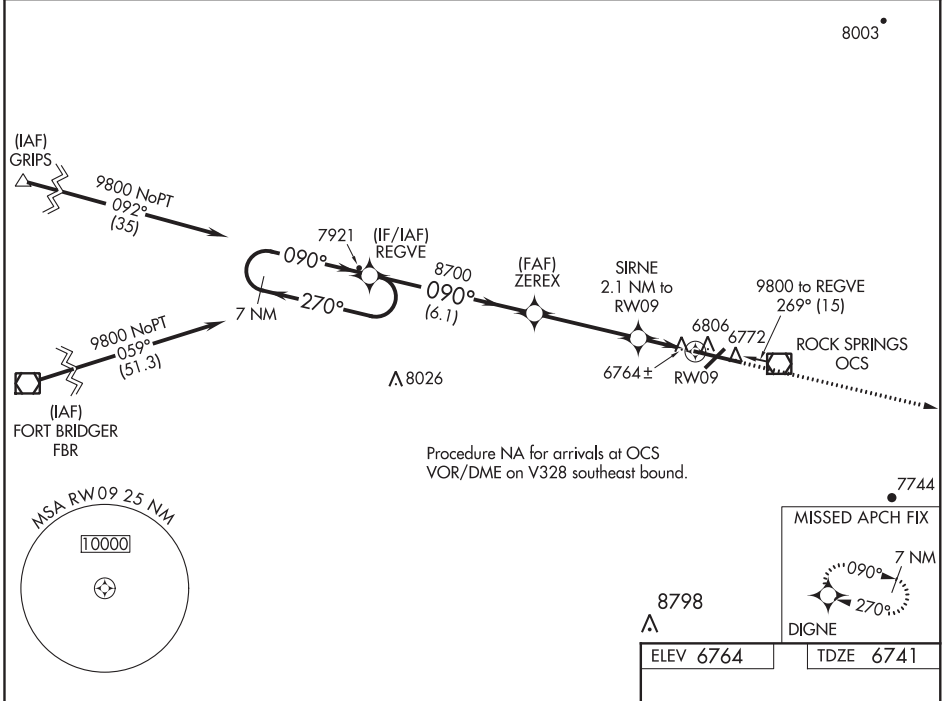
WAAS CH <b>66016</b> W09A	APP CRS <b>090°</b>	Rwy Idg <b>10000</b> TDZE <b>6741</b> Apt Elev <b>6764</b>
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# RNAV (GPS) RWY 9

ROCK SPRINGS-SWEETWATER COUNTY (R.K.S)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -28°C (-18°F) or above 35°C (95°F). DME/DME RNP-0.3 NA.	ODALS 	MISSED APPROACH: Climb to 9600 direct DIGNE and hold.
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ASOS <b>118.375</b>	CASPER RADIO <b>122.6</b>	UNICOM <b>122.8</b> (CTAF)
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CATEGORY	A	B	C	D
LPV DA	6941-¾ 200 (200-¾)			
LNAV/VNAV DA	7034-¾ 293 (300-¾)		7034-1 293 (300-1)	
LNAV MDA	7040-¾ 299 (300-¾)		7040-1 299 (300-1)	
CIRCLING	7140-1 376 (400-1)	7220-1 456 (500-1)	7220-1½ 456 (500-1½)	7320-2 556 (600-2)

REIL Rwy 3 and 21

MIRL Rwy 3-21

HIRL Rwy 9-27

NW-1, 10 NOV 2016 to 05 JAN 2017

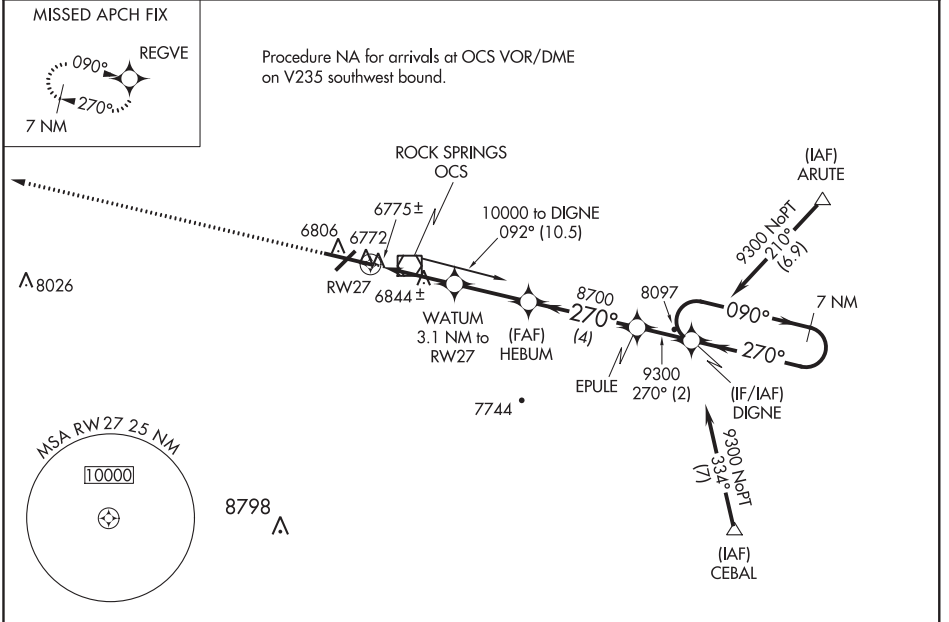
NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>49216</b> <b>W27A</b>	APP CRS <b>270°</b>	Rwy Idg <b>10000</b> TDZE <b>6764</b> Apt Elev <b>6764</b>
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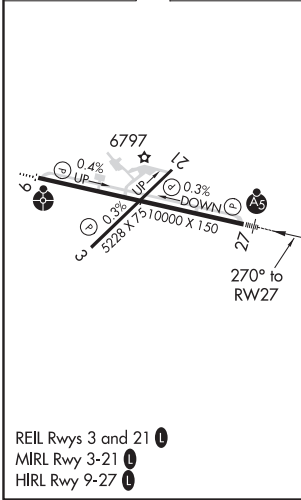
# RNAV (GPS) RWY 27

ROCK SPRINGS-SWEETWATER COUNTY (R.K.S)

<p><b>▼</b> For inoperative MALSR, increase LNAV/VNAV Cat D visibility to 1 mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -28°C (-18°F) or above 35° C (95°F). Inoperative table does not apply to LNAV Cat D. DME/DME RNP-0.3 NA.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climb to 9800 direct REGVE and hold.</p>
<p>ASOS <b>118.375</b></p>	<p>CASPER RADIO <b>122.6</b></p>	<p>UNICOM <b>122.8</b> (CTAF) <b>①</b></p>



ELEV 6764	TDZE 6764
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	9800	REGVE							
	↑	✦		WATUM 3.1 NM to RW27	HEBUM	EPULE	DIGNE	7 NM Holding Pattern	9300
	*LNAV only.			*0.9 NM to RW27	*7800	8700	9300	090° →	← 270°
	0.9 NM	2.2 NM	2.7 NM	4 NM	2 NM	GP 3.00° TCH 49			
CATEGORY	A	B	C	D					
LPV DA	6964-½ 200 (200-½)								
LNAV/VNAV DA	7035-½	271 (300-½)			7035-¾				
LNAV MDA	7100-½	336 (400-½)			7100-1				
CIRCLING	7140-1 376 (400-1)	7220-1 456 (500-1)	7220-1½	456 (500-1½)	7320-2				

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

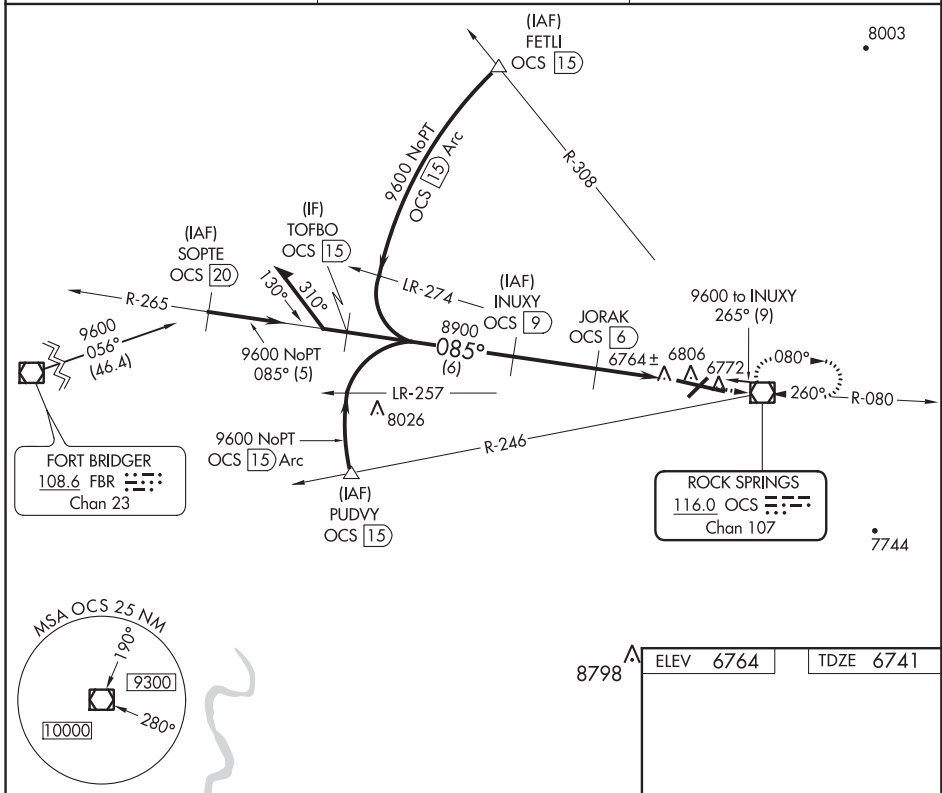


VOR/DME OCS <b>116.0</b> Chan <b>107</b>	APP CRS <b>085°</b>	Rwy Idg <b>10000</b> TDZE <b>6741</b> Apt Elev <b>6764</b>
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# VOR/DME RWY 9

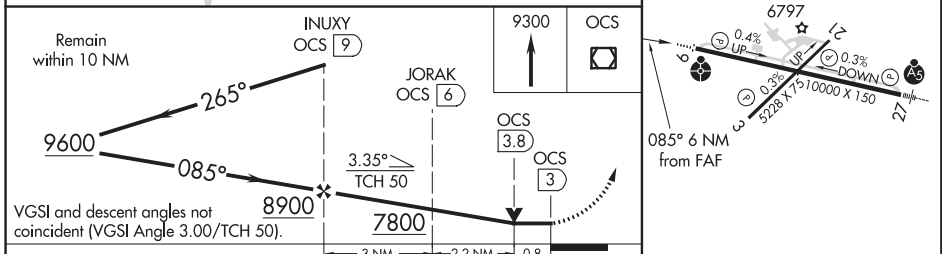
ROCK SPRINGS-SWEETWATER COUNTY (R.K.S)

ODALS 		MISSED APPROACH: Climb to 9300 direct OCS VOR/DME and hold, continue climb-in-hold to 9300.
ASOS <b>118.375</b>	CASPER RADIO <b>122.6</b>	UNICOM <b>122.8</b> (CTAF)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-9		7020- <sup>3</sup> / <sub>4</sub> 279 (300- <sup>3</sup> / <sub>4</sub> )		7020-1 279 (300-1)
CIRCLING	7140-1 376 (400-1)	7220-1 456 (500-1)	7220-1 <sup>1</sup> / <sub>2</sub> 456 (500-1 <sup>1</sup> / <sub>2</sub> )	7320-2 556 (600-2)

REIL Rwy 3 and 21  
MIRL Rwy 3-21  
HIRL Rwy 9-27

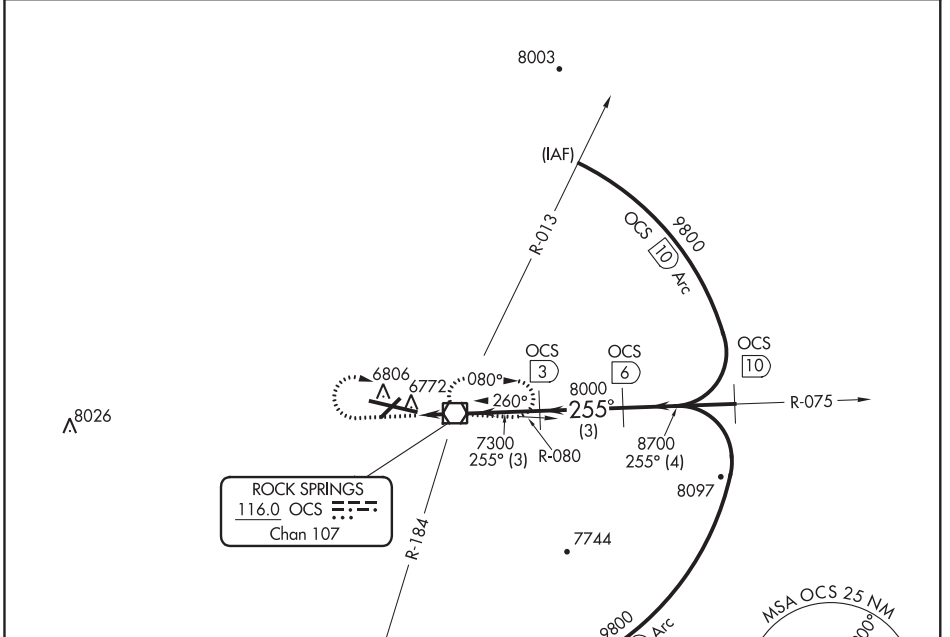
VOR/DME OCS <b>116.0</b> Chan <b>107</b>	APP CRS <b>255°</b>	Rwy Idg TDZE Apt Elev	<b>10000</b> <b>6760</b> <b>6760</b>
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# VOR/DME RWY 27

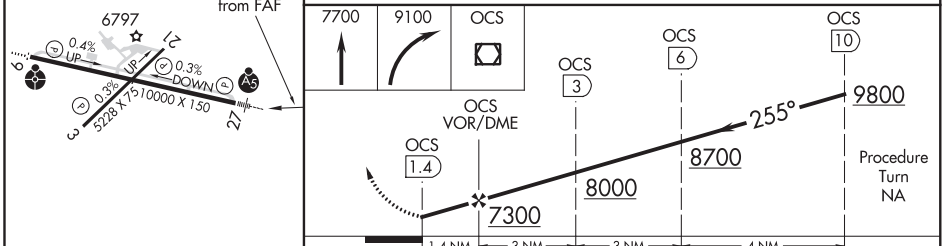
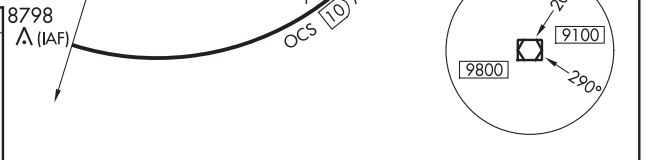
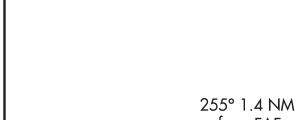
ROCK SPRINGS-SWEETWATER COUNTY (R.K.S)

<b>▼</b> Inoperative table does not apply to Cat D.	MALSR 	MISSED APPROACH: Climb to 7700, then climbing right turn to 9100 direct OCS VOR/DME and hold.
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ASOS <b>118.375</b>	CASPER RADIO <b>122.6</b>	UNICOM <b>122.8</b> (CTAF) <b>①</b>
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ELEV 6760	TDZE 6760
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CATEGORY	A	B	C	D
S-27	7040-½ 280 (300-½)			7040-1 280 (300-1)
CIRCLING	7120-1 360 (400-1)	7220-1 460 (500-1)	7220-1½ 460 (500-1½)	7320-2 560 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>45814</b> <b>W16A</b>	APP CRS <b>165°</b>	Rwy Idg TDZE Apt Elev	<b>4800</b> <b>3086</b> <b>3086</b>
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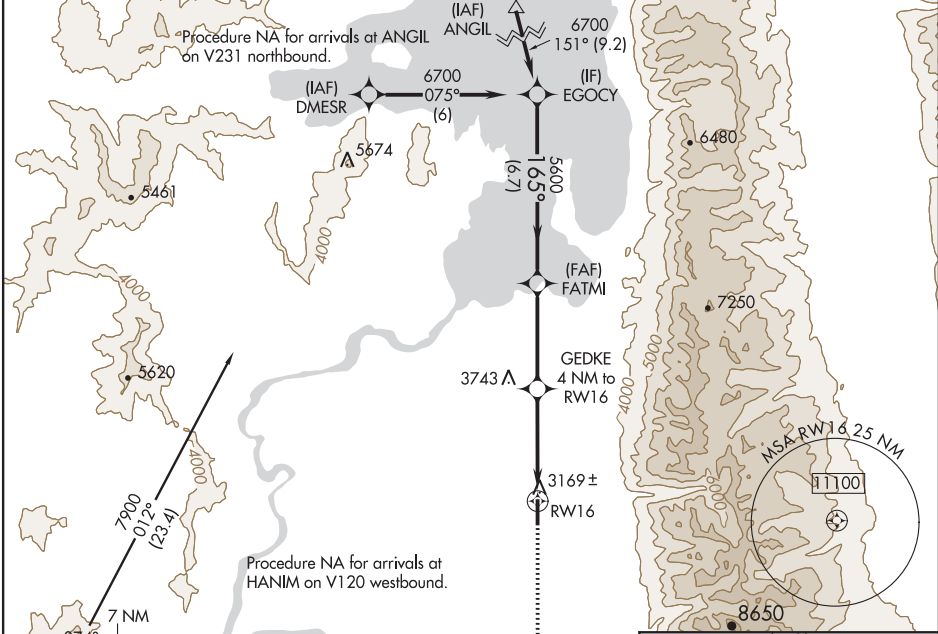
# RNAV (GPS) RWY 16

RONAN (7S)

**NA** DME/DME RNP-0.3 NA.  
Use Missoula altimeter setting; when not received, procedure NA.  
**27°C/-17°F** Circling NA east of Rwy 16-34. Baro-VNAV NA.

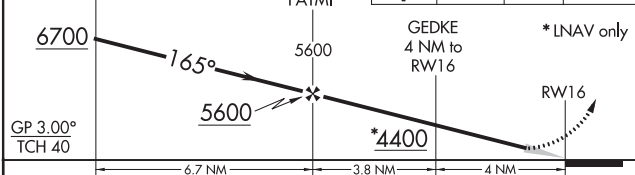
**MISSED APPROACH:** Climb to 13000 direct IBBOR and on track 255° to HANIM and hold, continue climb-in-hold to 13000.

MISSOULA ASOS <b>121.9</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	AUNICOM <b>122.8 (CTAF)</b>
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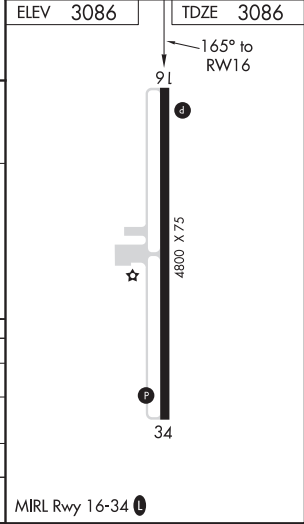


ELEV <b>3086</b>	TDZE <b>3086</b>
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VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 21).  
EGOCY      FATMI      GEDKE 4 NM to RW16      HANIM  
13000      tr 255°      \*LNAV only



CATEGORY	A	B	C	D
LPV DA	3443-1¼	357 (400-1¼)		NA
LNAV/VNAV DA	3443-1¼	357 (400-1¼)		NA
LNAV MDA	3800-1	714 (800-1)		NA
CIRCLING	3800-1	714 (800-1)		NA



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

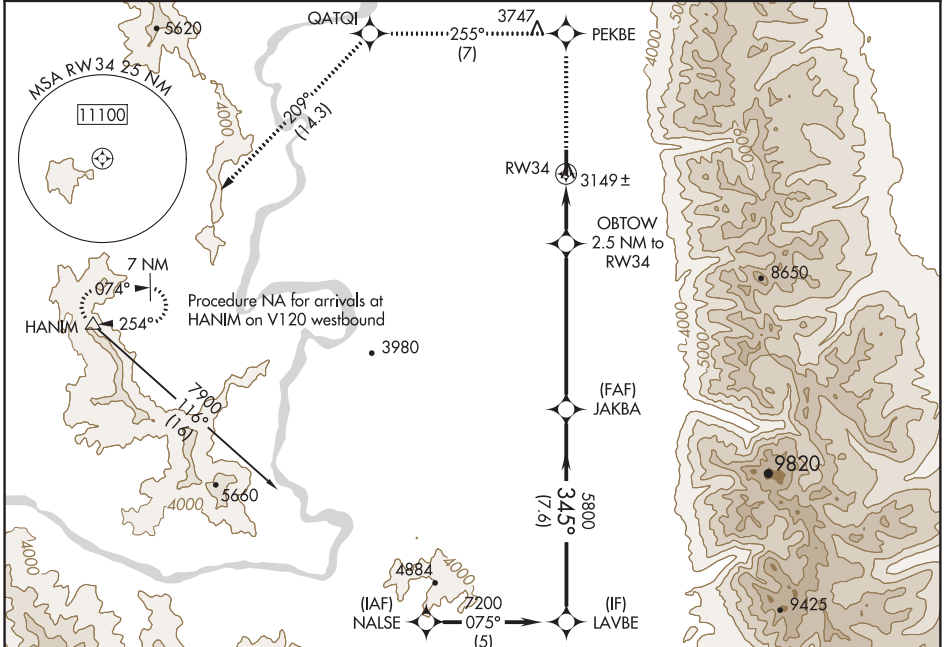
WAAS CH <b>86614</b> <b>W34A</b>	APP CRS <b>345°</b>	Rwy Idg TDZE Apt Elev	<b>4800</b> <b>3081</b> <b>3086</b>
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# RNAV (GPS) RWY 34

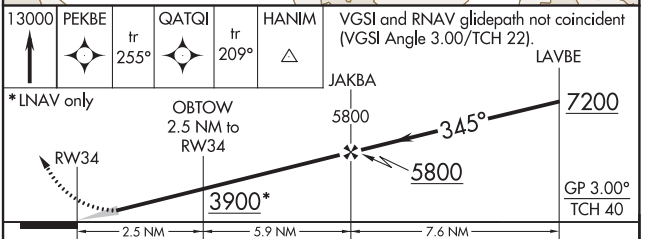
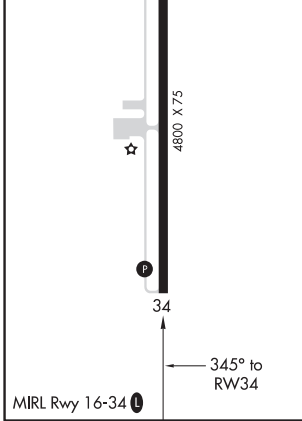
RONAN (7S)

**NA** Baro-VNAV NA. DME/DME RNP-0.3 NA. Use Missoula altimeter setting; when not received, procedure NA.  
**MISSED APPROACH:** Climb to 13000 direct PEKBE and on track 255° to QATQI and on track 209° to HANIM and hold, continue climb-in-hold to 13000.

MISSOULA ASOS <b>121.9</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	AUNICOM <b>122.8 (CTAF)</b>
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ELEV <b>3086</b>	TDZE <b>3081</b>
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CATEGORY	A	B	C	D
LPV DA	3438-1¼	357 (400-1¼)		NA
LNAV/VNAV DA	3438-1¼	357 (400-1¼)		NA
LNAV MDA	3520-1	439 (500-1)		NA
CIRCLING	3560-1	474 (500-1)		NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(HANIM2.HANIM) 16203

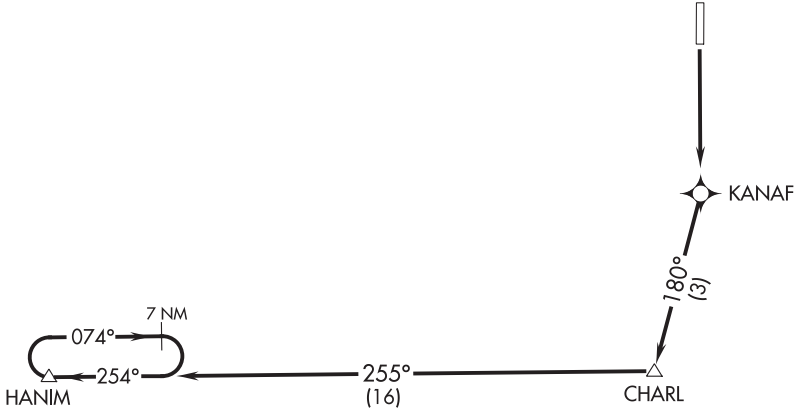
# HANIM TWO DEPARTURE (RNAV)

SL-9978 (FAA)

RONAN (7S)  
RONAN, MONTANA

SALT LAKE CITY CENTER  
133.4 285.4  
GREAT FALLS RADIO  
122.6  
CTAF 122.8

**TOP ALTITUDE:  
13000**



NOTE: RNAV 1.  
NOTE: GPS required.

### TAKEOFF MINIMUMS

Rwy 16: Standard.  
Rwy 34: NA. See RONAN DEPARTURE.

### TAKEOFF OBSTACLE NOTE

Rwy 16: Tree 485' from DER, 386' left of centerline, 50' AGL/3149' MSL.

NOTE: Chart not to scale



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb to 13000 direct KANAF and via track 180° to CHARL and via track 255° to HANIM and hold, continue climb-in-hold to 13000 before proceeding on course.

# HANIM TWO DEPARTURE (RNAV)

(HANIM2.HANIM) 21JUL16

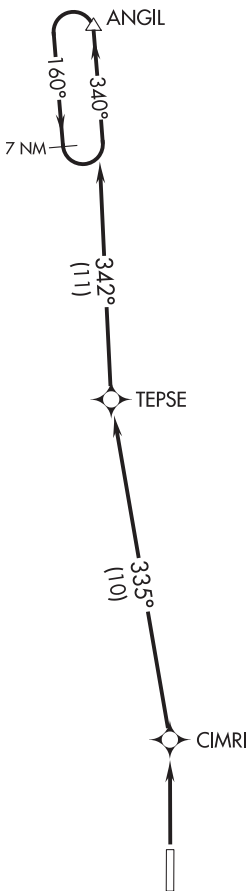
RONAN, MONTANA  
RONAN (7S)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SALT LAKE CITY CENTER  
133.4 285.4  
GREAT FALLS RADIO  
122.6  
CTAF 122.8

**TOP ALTITUDE:  
10000**



NOTE: RNAV 1.

NOTE: GPS required.

TAKEOFF MINIMUMS

Rwy 16: NA. See HANIM DEPARTURE.

Rwy 34: Standard.

TAKEOFF OBSTACLE NOTES

Rwy 34: Building 158' from DER, 370' left of centerline, 40' AGL/3130' MSL.

Tree 1358' from DER, 556' left of centerline, 50' AGL/3149' MSL.

NOTE: Chart not to scale



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 34: Climb to 10000 direct CIMRI and via track 335° to TEPSE and via track 342° to ANGIL and hold, continue climb-in-hold to appropriate MEA before proceeding on course.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>342°</b>	Rwy Idg TDZE Apt Elev	N/A N/A <b>529</b>
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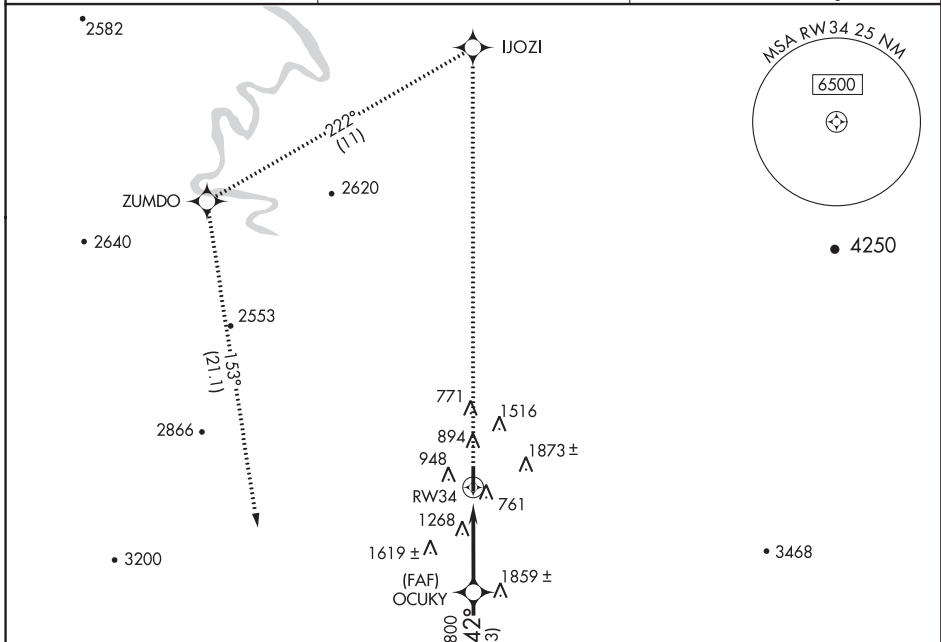
# RNAV (GPS)-B

ROSEBURG RGNL (R.B.G)

**⚠** Circling NA east of Rwy 16-34.  
**⚠** If local altimeter setting not received, use North Bend altimeter setting and increase all MDAs 520 feet.  
 DME/DME RNP -0.3 NA.

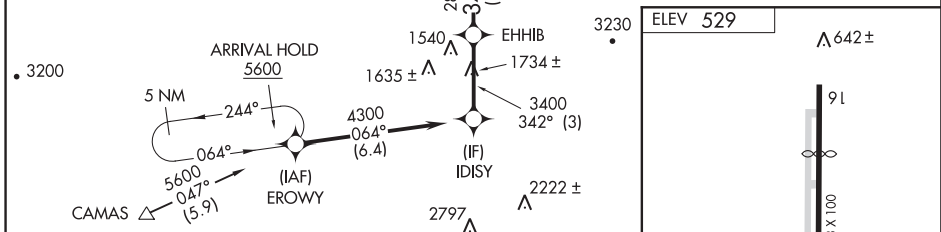
MISSED APPROACH: Climb to 5600 direct IJOZI and left turn via 222° track to ZUMDO and via 153° track to EROWY and hold.

ASOS <b>135.475</b>	SEATTLE CENTER <b>121.4 239.0</b>	UNICOM <b>122.8 (CTAF) 0</b>
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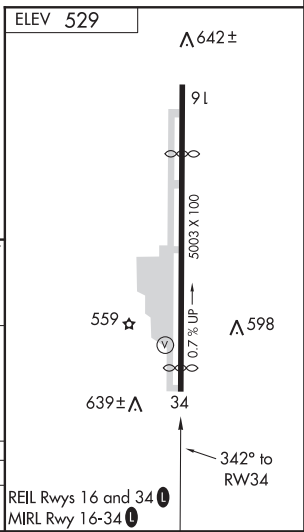


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



VGSIs and descent angles not coincident (VGSIs Angle 4.00/TCH 50).	5600	IJOZI	ZUMDO	153° tr	EROWY
	IDISY	↑	222° tr	↘	↘
Procedure Turn NA	4300	EHHIB	OCUKY	5.61° TCH 53	RW34
	3400	2800			
	3 NM	3 NM	3.8 NM		
CATEGORY	A	B	C	D	
CIRCLING	1700-1¼ 1171 (1200-1¼)	1700-1½ 1171 (1200-1½)	1700-3 1171 (1200-3)	1920-3 1391 (1400-3)	



ROSEBURG, OREGON

AL-888 (FAA)

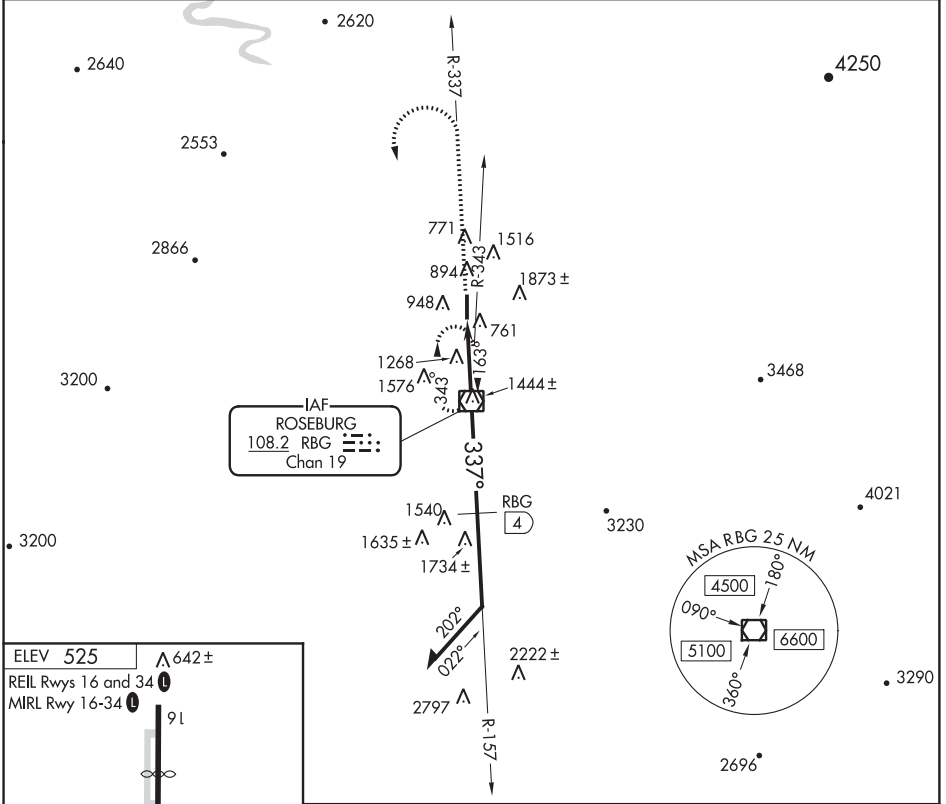
16259

VOR/DME RBG <b>108.2</b> Chan <b>19</b>	APP CRS <b>337°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>525</b>
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**VOR-A**  
ROSEBURG RGNL (R.BG)

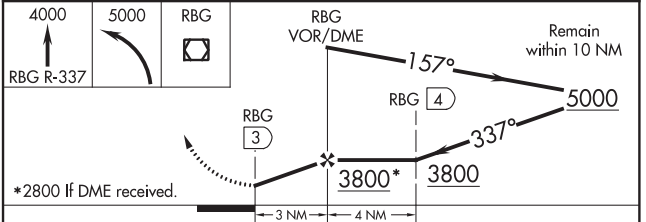
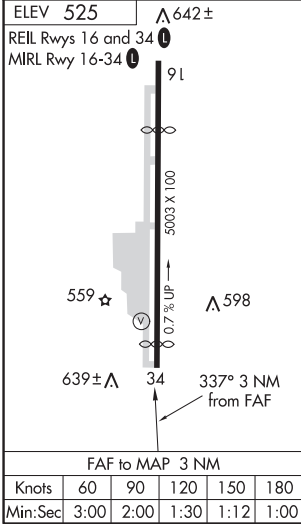
**NA** Circling not authorized east of Rwy 16-34. MISSED APPROACH: Climb to 4000 via RBG R-337 within 15 NM; then climbing left turn to 5000 direct RBG VOR/DME and hold.

ASOS <b>135.475</b>	SEATTLE CENTER <b>121.4 239.0</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	2600-1¼ 2075 (2100-1¼)	2600-1½ 2075 (2100-1½)	2600-3	2075 (2100-3)
DME MINIMUMS				
CIRCLING	1740-1¼ 1215 (1300-1¼)	1740-1½ 1215 (1300-1½)	1740-3 1215 (1300-3)	1920-3 1395 (1400-3)

ROSEBURG, OREGON  
Amdt 6 22MAY97

43°14'N-123°21'W

ROSEBURG RGNL (R.BG)  
**VOR-A**



WAAS CH <b>56529</b> <b>W07A</b>	APP CRS <b>067°</b>	Rwy Idg TDZE Apt Elev	<b>5099</b> <b>3490</b> <b>3490</b>
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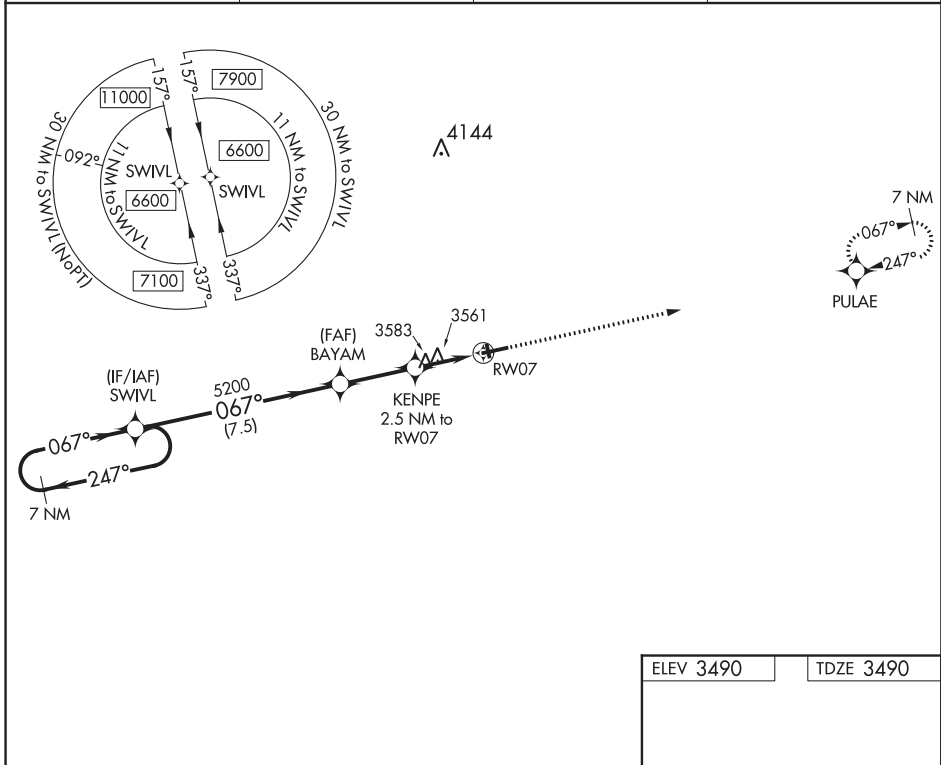
# RNAV (GPS) RWY 7

ROUNDUP (R.P.X)

**NA** Use Billings altimeter setting, when not received, procedure NA. When VGSI inop, Straight-in/Circling Rwy 7 procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

**MISSED APPROACH:** Climb to 6300 direct PULAE and hold.

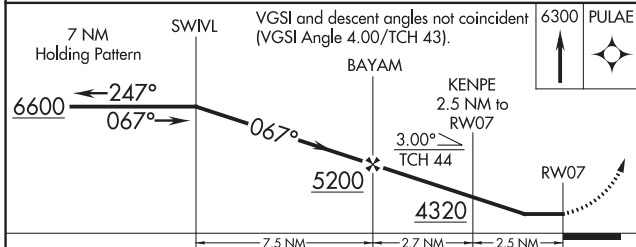
BILLINGS ASOS <b>126.3</b>	SALT LAKE CENTER <b>127.75 351.9</b>	UNICOM <b>122.8 (CTAF)</b>	<b>122.7</b>
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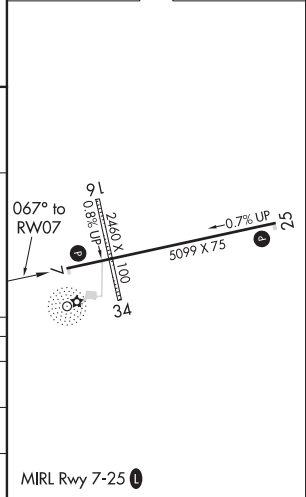
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3490	TDZE 3490
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CATEGORY	A	B	C	D
LP MDA	3940-1	450 (500-1)	3940-1 $\frac{3}{8}$	450 (500-1 $\frac{3}{8}$ )
LNAV MDA	3960-1	470 (500-1)	3960-1 $\frac{3}{8}$	470 (500-1 $\frac{3}{8}$ )
CIRCLING	4000-1	510 (600-1)	4000-1 $\frac{1}{2}$	4040-2 550 (600-2)



MIRL Rwy 7-25

WAAS CH <b>61229</b> <b>W25A</b>	APP CRS <b>247°</b>	Rwy Idg TDZE <b>3453</b> Apt Elev <b>3490</b>
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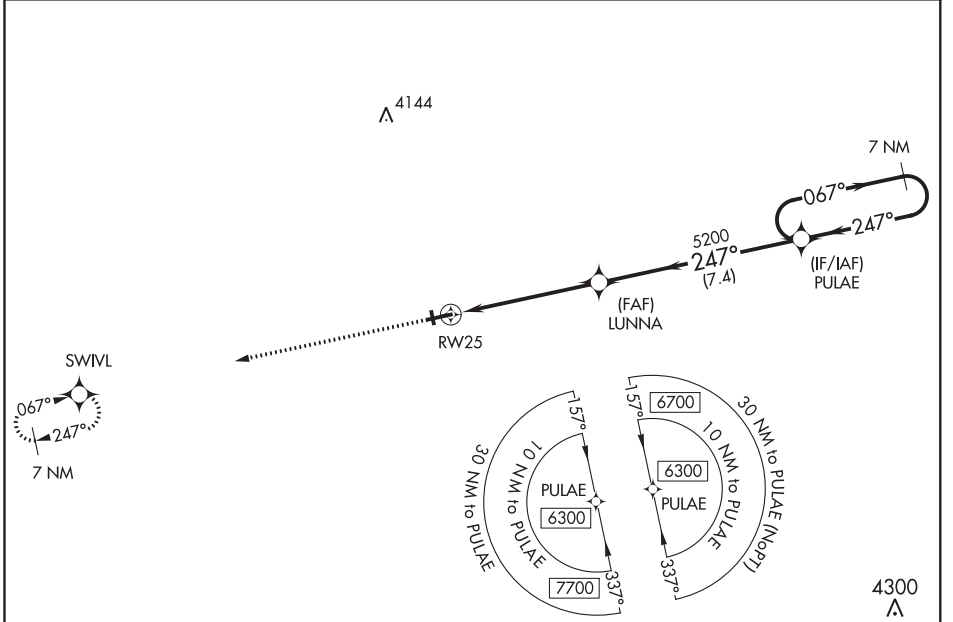
# RNAV (GPS) RWY 25

ROUNDUP (R.P.X)

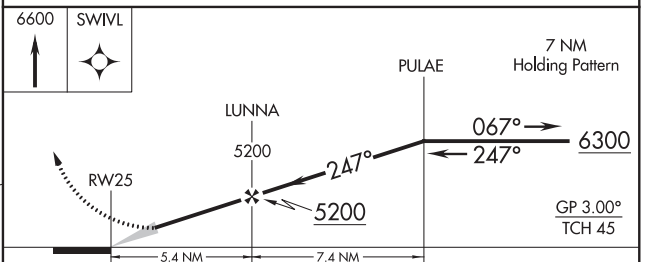
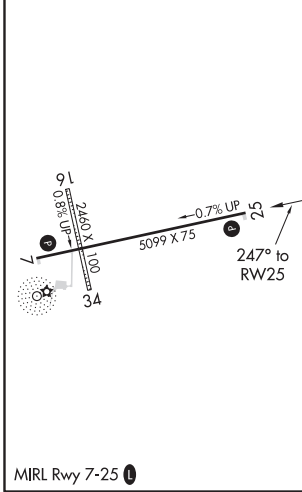
**NA** When VGSI inop, Circling to Rwy 7 NA at night. Baro-VNAV NA. Use Billings altimeter setting; when not received, procedure NA. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 6600 direct SWIVL and hold

BILLINGS ASOS <b>126.3</b>	SALT LAKE CENTER <b>127.75 351.9</b>	UNICOM <b>122.8</b> (CTAF)	<b>122.7</b>
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ELEV <b>3490</b>	TDZE <b>3453</b>
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CATEGORY	A	B	C	D
LPV DA		3768-1	315 (300-1)	
LNAV/VNAV DA		3818-1¼	365 (400-1¼)	
LNAV MDA	3900-1	447 (500-1)	3900-1⅓	447 (500-1⅓)
CIRCLING	4000-1	510 (600-1)	4000-1½ 510 (600-1½)	4040-2 550 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-SLE	APP CRS	Rwy Idg	5811
<b>110.3</b>	<b>313°</b>	TDZE	214
Chan 40		Apt Elev	214

# ILS or LOC Z RWY 31

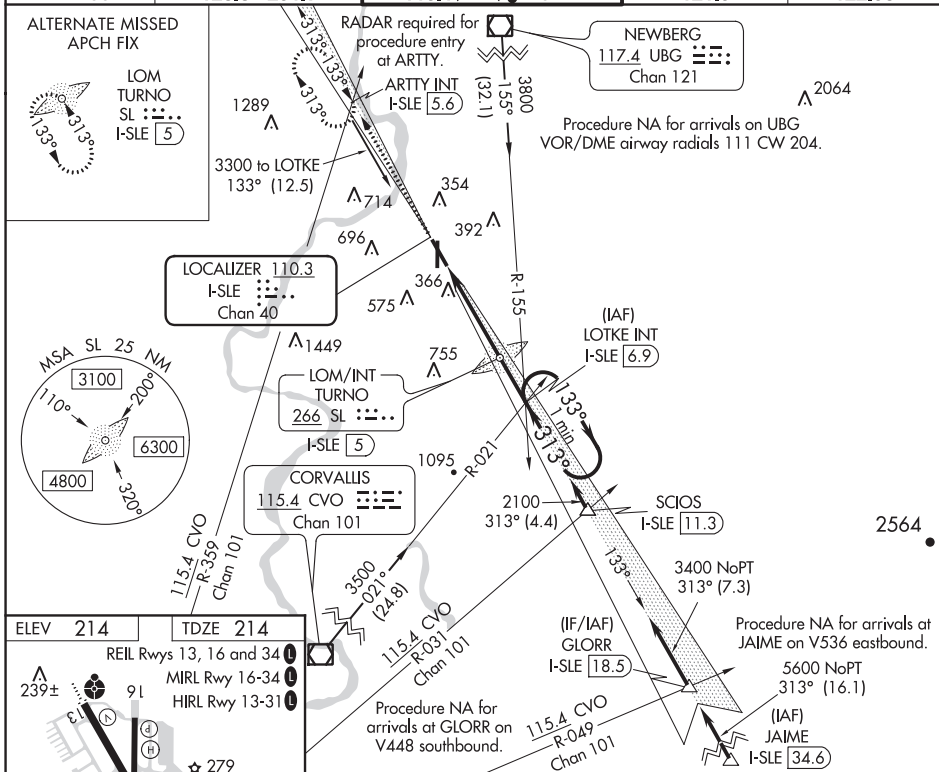
MCNARY FIELD (SLE)

**⚠** When local altimeter setting not received, use Mc Minville altimeter setting: increase DA 49 feet, and all MDA 60 feet; increase S-LOC 31 Cats C and D visibility to 1½ miles and Circling Cat C visibility to 2½ miles. VDP NA when using Mc Minville altimeter setting. For inop MALSRL, increase S-LOC 31 Cats C and D visibility to 2 miles. For inop MALSRL when using Mc Minville altimeter setting, increase S-ILS 31 all Cats visibility to RVR 4500, increase S-LOC 31 Cats C and D visibility to 2½ miles.  
# RVR 1800 authorized with the use of FD or AP or HUD to DA.

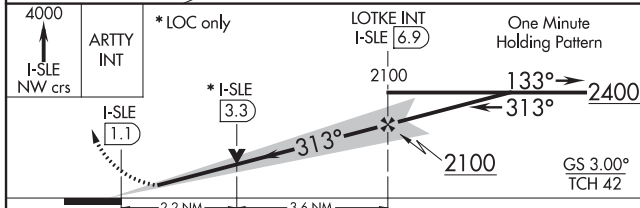


**MISSED APPROACH:** Climb to 4000 on I-SLE Localizer NW course to ARTTY INT/I-SLE 5.6 DME and hold, continue climb-in-hold to 4000.

ATIS	SEATTLE CENTER	SALEM TOWER *	GND CON	UNICOM
<b>124.55</b>	<b>125.8 291.7</b>	<b>119.1 (CTAF) 0 257.2</b>	<b>121.9</b>	<b>122.95</b>



ELEV 214	TDZE 214
REIL Rwy 13, 16 and 34	MIRL Rwy 16-34
	HIRL Rwy 13-31
TWR 270	
313° 5.8 NM from FAF	
FAF to MAP 5.8 NM	
Knots	60 90 120 150 180
Min:Sec	5:48 3:52 2:54 2:19 1:56



CATEGORY	A	B	C	D
S-ILS 31 #	414/24 200 (200-½)			
S-LOC 31	960/24 746 (800-½)	960/40 746 (800-¾)	960-1¾	746 (800-1¾)
CIRCLING	960-1 746 (800-1)	960-1¼ 746 (800-1¼)	1000-2¼ 786 (800-2¼)	1260-3 1046 (1100-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>86202</b> <b>W31A</b>	APP CRS <b>313°</b>	Rwy Idg TDZE Apt Elev	<b>5811</b> <b>214</b> <b>214</b>
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# RNAV (GPS) RWY 31

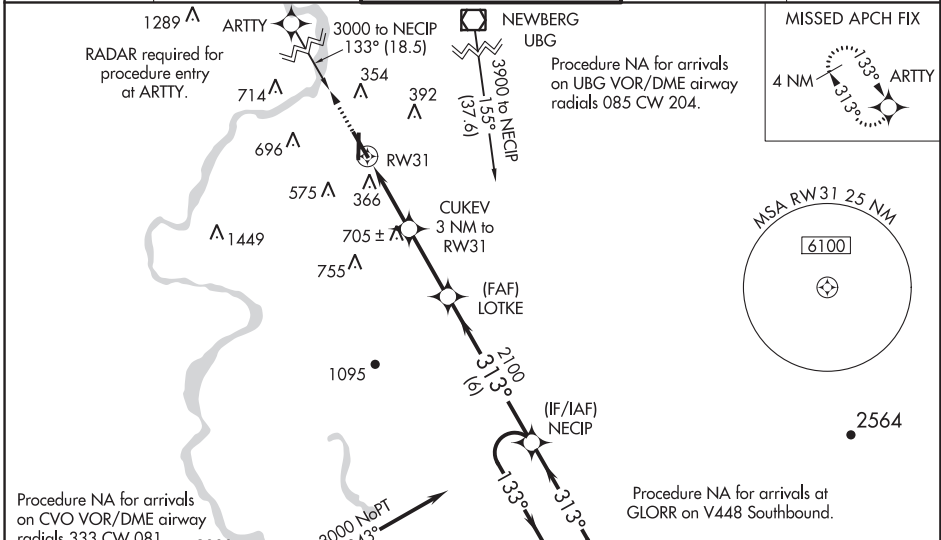
MCNARY FIELD (SLE)

**▽** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Mc Minnville altimeter setting and increase all DA 49 feet; increase all MDA 60 feet; increase LNAV/VNAV visibility all Cats to 1½ miles, LNAV Cat C and D visibility to 1¾ miles, and Circling Cat C visibility to 2½ miles. Baro-VNAV and VDP NA when using Mc Minnville altimeter setting. For inop MALSRL, increase LNAV/VNAV all Cats visibility to 1¾ miles and increase LNAV Cat C and D visibility to 2 miles. For inop MALSRL when using Mc Minnville altimeter setting, increase LPV all Cats visibility to RVR 4500, increase LNAV Cat C/D visibility to 2½ miles.

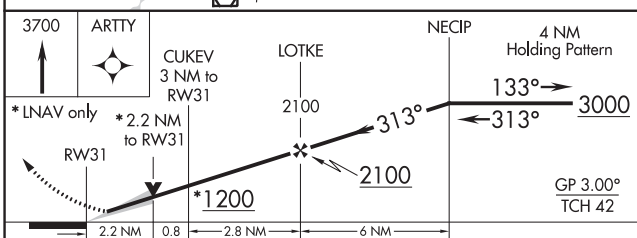
**▲** MISSED APPROACH: Climb to 3700 direct ARTTY and hold, continue climb-in-hold to 3700.

MALSRL

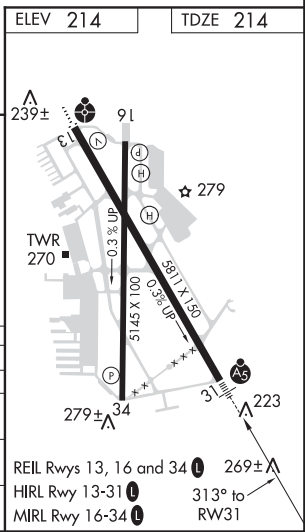
ATIS <b>124.55</b>	SEATTLE CENTER <b>125.8 291.7</b>	SALEM TOWER ★ <b>119.1(CTAF) 0 257.2</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 214	TDZE 214
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CATEGORY	A	B	C	D
LPV DA		414/24	200 (200-½)	
LNAV/VNAV DA		631/50	417 (500-1)	
LNAV MDA	960/24 746 (800-½)	960/40 746 (800-¾)	960-1¾ 746 (800-2¼)	746 (800-1¾)
<b>C</b> CIRCLING	960-1 746 (800-1)	960-1¼ 746 (800-1¼)	1000-2¼ 786 (800-2¼)	1260-3 1046 (1100-3)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-SLE <b>110.3</b> Chan 40	APP CRS <b>313°</b>	Rwy Idg TDZE <b>5811</b> <b>214</b>	Apt Elev <b>214</b>
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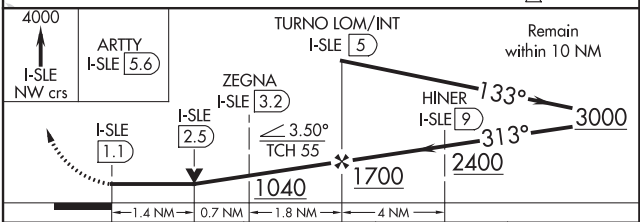
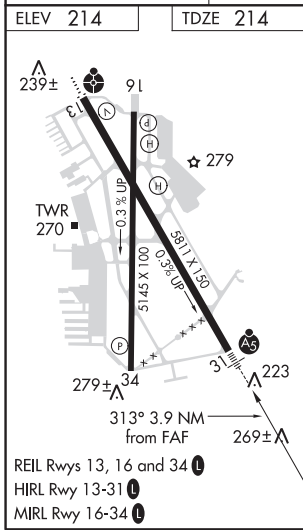
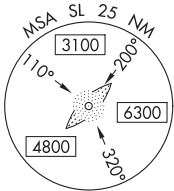
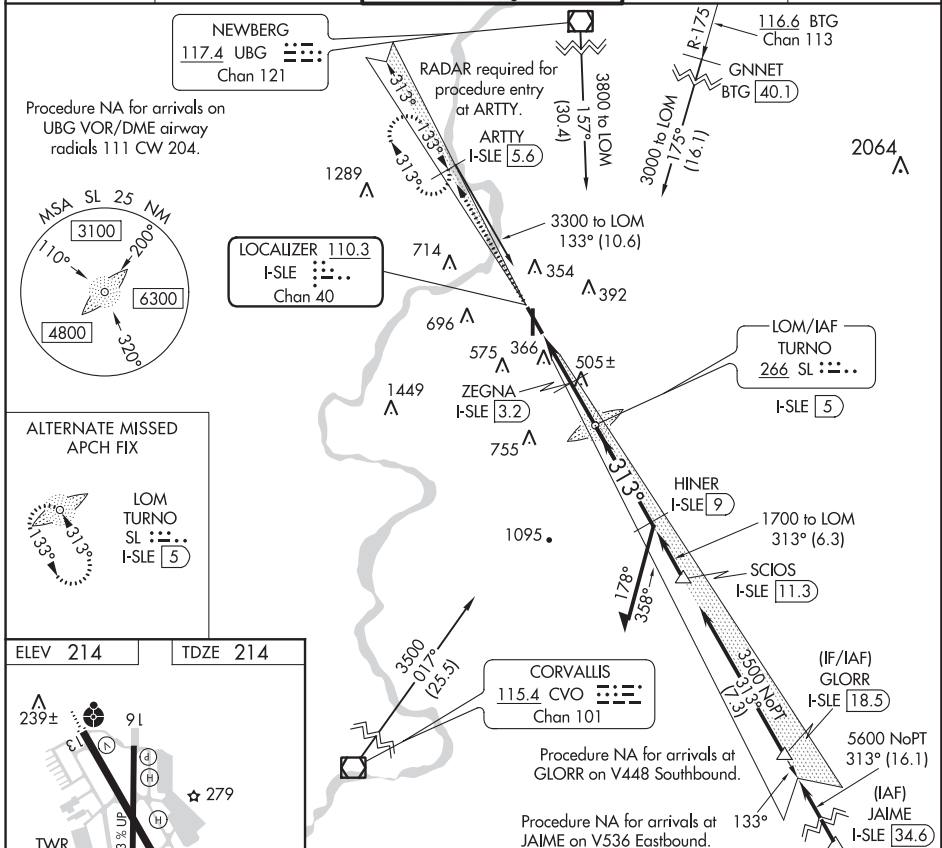
# LOC Y RWY 31

MCNARY FIELD (SLE)

▼ When local altimeter setting not received, use Mc Minnville altimeter setting; increase all MDA 60 feet; increase S-31 Cat C and D visibility to 1 3/8 miles, Circling Cat C visibility to 2 1/2 miles. For inop MALS, increase S-31 Cat C and D visibility to 1 3/8 miles. For inop MALS, increase S-31 Cat C and D visibility to 1 3/8 miles. VDP NA when using Mc Minnville altimeter setting. DME required.

MALS MISSED APPROACH: Climb to 4000 on I-SLE Localizer NW course to ARTY INT/I-SLE 5.6 DME and hold, continue climb-in-hold to 4000.

ATIS <b>124.55</b>	SEATTLE CENTER <b>125.8 291.7</b>	SALEM TOWER ★ <b>119.1 (CTAF) 0 257.2</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
S-31	780/24	566 (600-1/2)	780-1 1/4	566 (600-1 1/4)
<b>C</b> CIRCLING	900-1 686 (700-1)	940-1 726 (800-1)	1000-2 1/4 786 (800-2 1/4)	1260-3 1046 (1100-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

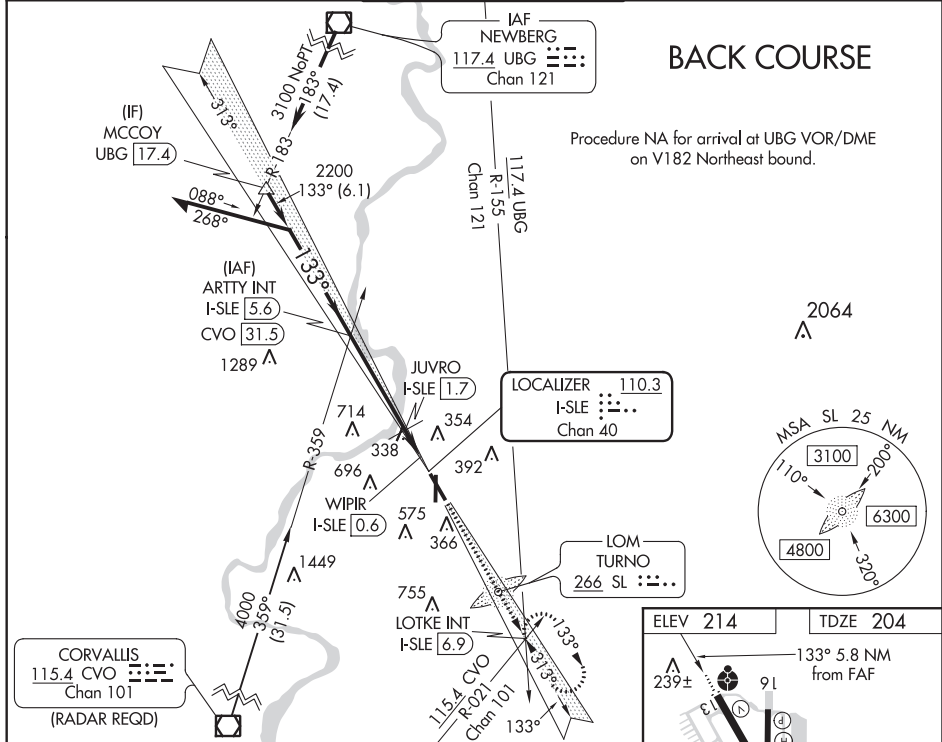
NW-1, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-SLE <b>110.3</b> Chan 40	APP CRS <b>133°</b>	Rwy Idg <b>5811</b> TDZE <b>204</b> Apt Elev <b>214</b>
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# LOC/DME BC RWY 13

MCNARY FIELD (SLE)

<p>▼ When local altimeter setting not received, use Mc Minnville altimeter setting: increase all MDA 60 feet; increase S-13 Cat C and D visibility to 1 1/2 miles and Circling Cat C to 2 1/2 miles. For inop ODALS, increase S-13 Cat C and D visibility to 1 1/2 miles. For inop ODALS when using Mc Minnville altimeter setting, increase S-13 Cat C and D visibility to 1 3/8 miles. Helicopter visibility reduction below 3/4 SM NA.</p>		<p>ODALS</p>	<p>MISSED APPROACH: Climb to 2400 on I-SLE SE course to LOTKE INT/I-SLE 6.9 DME and hold.</p>	
<p>ATIS <b>124.55</b></p>	<p>SEATTLE CENTER <b>125.8 291.7</b></p>	<p>SALEM TOWER ★ <b>119.1 (CTAF) 0 257.2</b></p>	<p>GND CON <b>121.9</b></p>	<p>UNICOM <b>122.95</b></p>

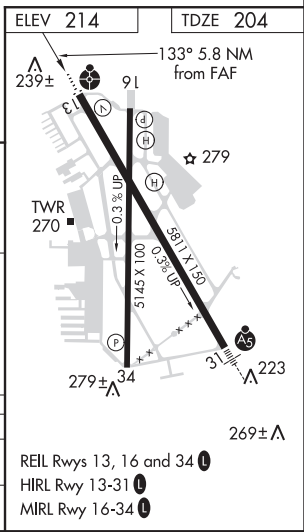
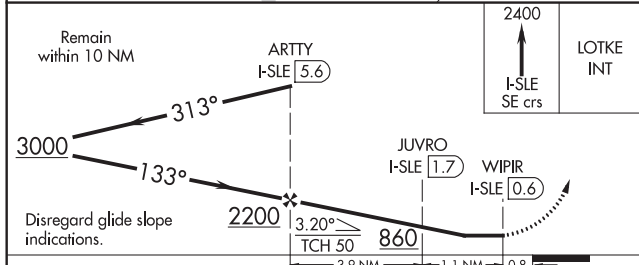


## BACK COURSE

Procedure NA for arrival at UBG VOR/DME on V182 Northeast bound.

NW-1, 10 NOV 2016 to 05 JAN 2017

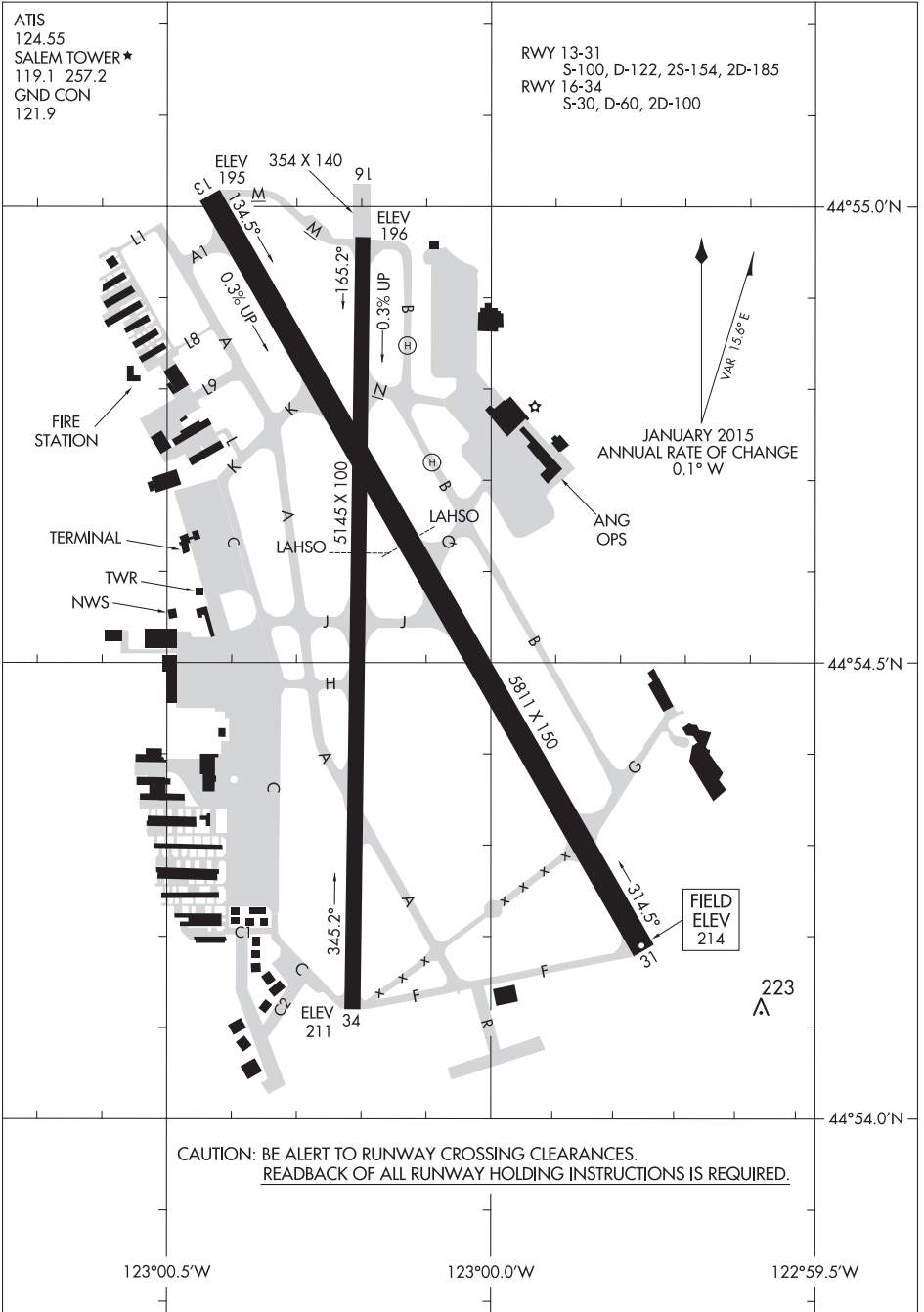
NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-13	600-3/4 396 (400-3/4)		600-1 396 (400-1)	
CIRCLING	900-1 686 (700-1)	940-1 726 (800-1)	1000-2 1/4 786 (800-2 1/4)	1260-3 1046 (1100-3)

ATIS  
124.55  
SALEM TOWER ★  
119.1 257.2  
GND CON  
121.9

RWY 13-31  
S-100, D-122, 2S-154, 2D-185  
RWY 16-34  
S-30, D-60, 2D-100



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READEBACK OF ALL RUNWAY HOLDING INSTRUCTIONS.

# SALEM THREE DEPARTURE

SL-361 (FAA)

MCNARY FIELD (SLE)  
SALEM, OREGON

ATIS  
124.55  
GND CON  
121.9  
SALEM TOWER ★  
119.1 (CTAF) 257.2

BATTLEGROUND  
116.6 BTG  
Chan 113  
N45°44.87'-W122°35.49'  
L-1, H-1

### TAKEOFF OBSTACLE NOTES

- Rwy 13: Vehicles on road beginning 381' from DER, 153' right of centerline, up to 15' AGL/225' MSL. Trees beginning 1515' from DER, 590' left of centerline, up to 100' AGL/320' MSL. Trees beginning 3712' from DER, 952' right of centerline, up to 80' AGL/372' MSL.
- Rwy 16: Trees beginning 554' from DER, 66' right of centerline, up to 75' AGL/569' MSL. Trees beginning 1202' DER, 302' left of centerline, up to 95' AGL/534' MSL. Pole beginning 750' from DER, 226' right of centerline, 21' AGL/231' MSL.
- Rwy 31: Trees beginning 1220' from DER, 480' left of centerline, up to 88' AGL/268' MSL. Tree beginning 2988' from DER, 277' right of centerline, 90' AGL/270' MSL.
- Rwy 34: Vehicle on road beginning 469' from DER, 252' right of centerline, 15' AGL/208' MSL. Trees beginning 1691' from DER, 229' right of centerline, up to 98' AGL/282' MSL. Tree 3238' from DER, 330' left of centerline, 98' AGL/288' MSL.

NEWBERG  
117.4 UBG  
Chan 121  
N45°21.19'-W122°58.69'  
L-1, H-1

BREAF  
N45°01.86'  
W123°05.90'  
L-1

CORVALLIS  
115.4 CVO  
Chan 101  
N44°29.97'-W123°17.62'  
L-1, H-1

LOM  
TURNO  
266 SL  
N44°50.85'-W122°57.07'

DESCHUTES  
117.6 DSD  
Chan 123  
N44°15.17'-W121°18.21'  
L-13, H-1

NEWPORT  
117.1 ONP  
Chan 118  
N44°34.52'-W124°03.64'  
L-1, H-1

EUGENE  
112.9 EUG  
Chan 76  
N44°07.25'-W123°13.37'  
L-1, H-1

NOTE: RADAR required.

NOTE: This is a RADAR vector SID route.  
Route depicted is lost communication procedures only. On initial clearance the Seattle Center shall assign magnetic headings of 310° through 130°.

### TAKEOFF MINIMUMS

- Rwy 13: Standard with minimum climb of 260' per NM to 4000.
- Rwy 16: Standard with minimum climb of 570' per NM to 2000 or 400-2½ with minimum climb of 260' per NM to 4000.
- Rwy 31: Standard with minimum climb of 230' per NM to 2800.
- Rwy 34: Standard with minimum climb of 235' per NM to 6700.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 13, 16, 31, 34: Climb on specified turn and heading, contact Seattle Center for vectors to assigned route.

LOST COMMUNICATIONS: If not in contact with Seattle Center after reaching 2000, continue climb to assigned altitude.

Take-off runway 13 and 16: (Runway 16 turn left) proceed direct to SL LOM thence on (assigned route) (ADF required).

Take-off runway 31 and 34: (Runway 31 turn right) proceed direct to UBG VOR/DME thence on (assigned route).

Helicopter only- Runways 31 and 34: (Runway 34 turn left) intercept and proceed outbound on the SL LOM 313° bearing to BREAF INT, thence on (assigned route) (ADF required).

# SALEM THREE DEPARTURE

SALEM, OREGON  
MCNARY FIELD (SLE)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



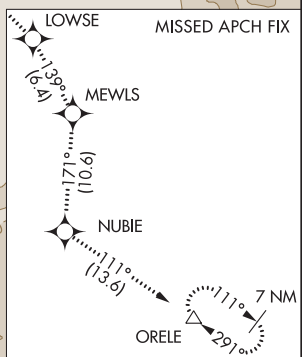
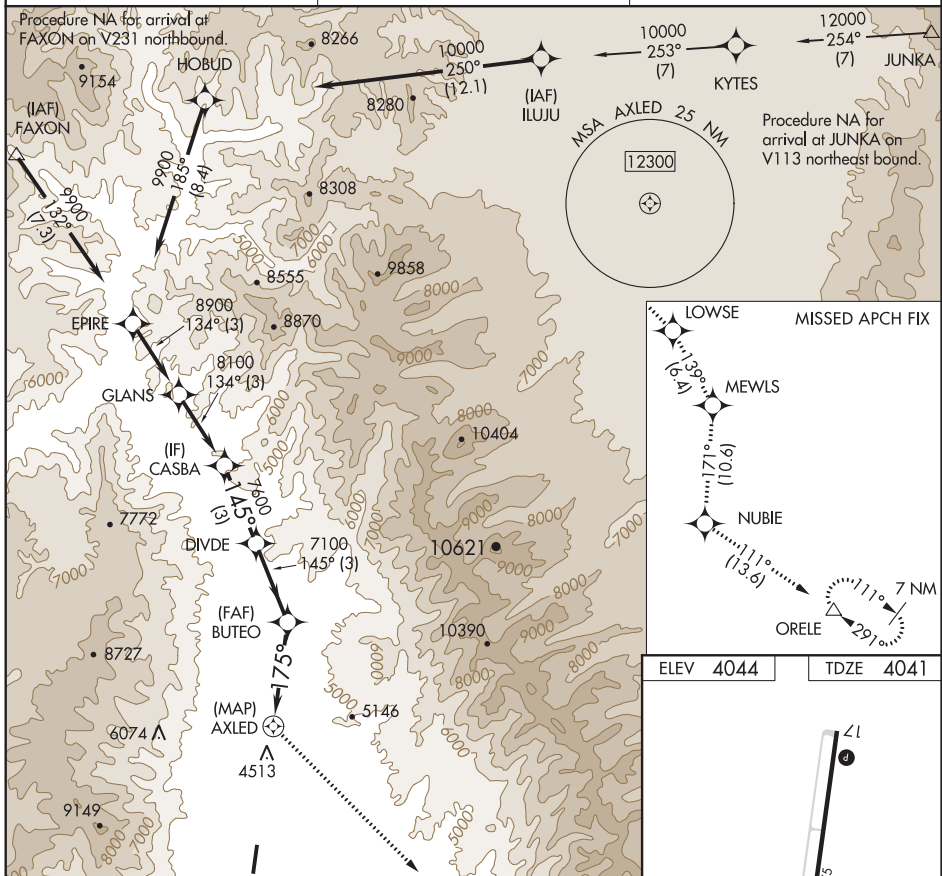
APP CRS <b>175°</b>	Rwy Idg TDZE Apt Elev	<b>5510</b> <b>4041</b> <b>4044</b>
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# RNAV (GPS) RWY 17

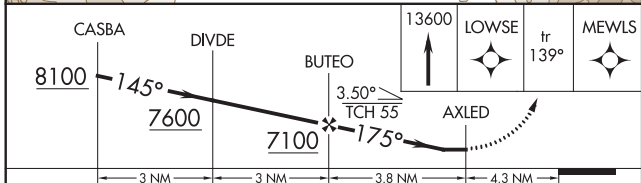
LEMHI COUNTY (SMN)

<p><b>NA</b></p> <p><b>-11°C/12°F</b></p>	<p>DME/DME RNP-0.3 NA. Night landing: Rwy 35 NA. Circling NA for Cats B and C east of Rwy 17-35. Helicopter visibility reduction below 3/4 SM NA.</p>	<p><b>MISSED APPROACH:</b> Climb to 13600 direct LOWSE and track 139° to MEWLS and track 171° to NUBIE and track 111° to ORELE and hold, continue climb-in-hold to 13600.</p>
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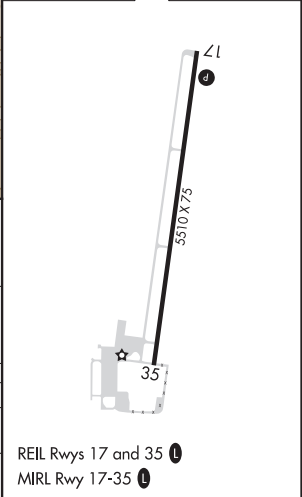
<p>AWOS-3 <b>135.075</b></p>	<p>SALT LAKE CENTER <b>132.4 338.3</b></p>	<p>UNICOM <b>122.8 (CTAF)</b></p>
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ELEV 4044	TDZE 4041
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CATEGORY	A	B	C	D
LNVA MDA	5740-5 1699 (1700-5)			NA
<b>C</b> CIRCLING	5740-5	1696 (1700-5)	6180-5 2136 (2200-5)	NA



REIL Rws 17 and 35 **1**  
MIRL Rwy 17-35 **1**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>006°</b>	Rwy Idg TDZE Apt Elev <b>4044</b>	N/A N/A <b>4044</b>
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**RNAV (GPS)-D**  
LEMHI COUNTY (SMN)

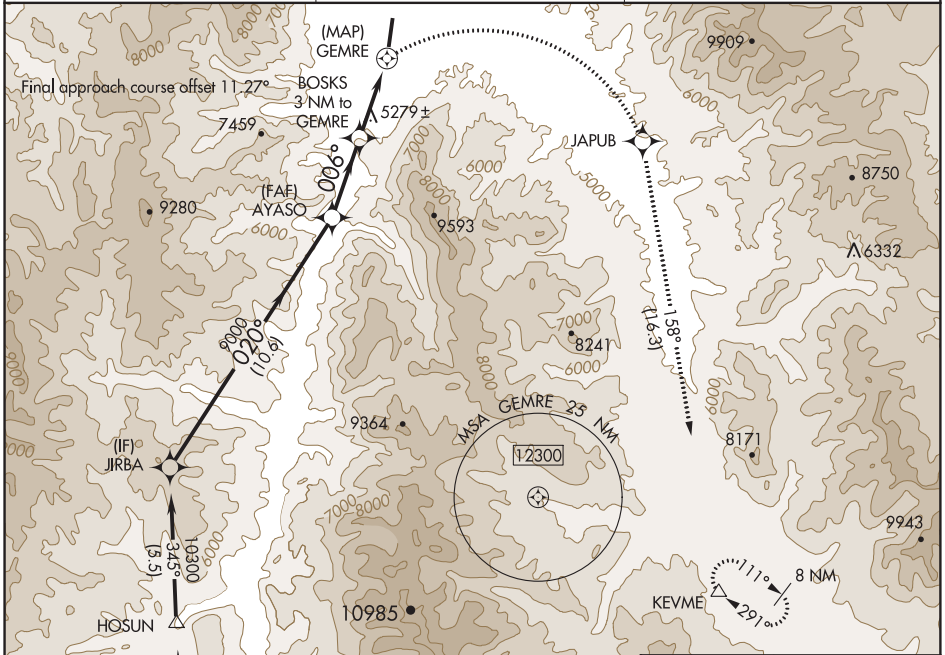
**NA** DME/DME RNP-0.3 NA. Circling NA for Cat C east of Rwy 17-35. Helicopter visibility reduction below 1 SM NA.  
**NA** Night landing: Rwy 35 NA.

**MISSED APPROACH:** Climbing right turn to 13600 direct JAPUB and on track 158° to KEVME and hold, continue climb-in-hold to 13600.

AWOS-3  
**135.075**

SALT LAKE CENTER  
**132.4 338.3**

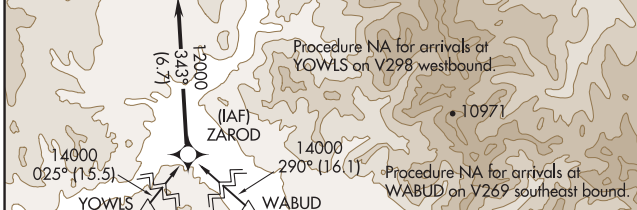
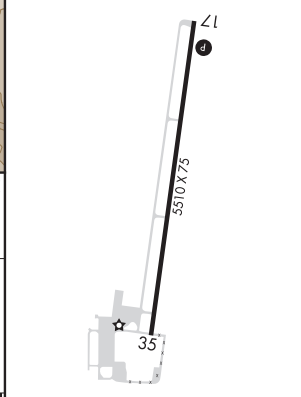
UNICOM  
**122.8 (CTAF)**



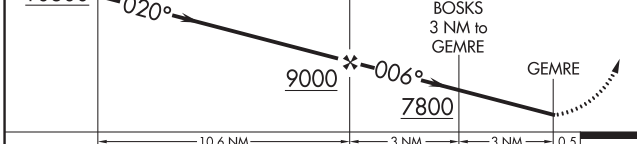
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4044



JIRBA	13600	JAPUB	tr 158°	KEVME
AYASO	BOSKS 3 NM to GEMRE	GEMRE		



CATEGORY	A	B	C	D
<b>CIRCLING</b>	6940-1¼ 2896 (2900-1¼)	6940-1½ 2896 (2900-1½)	6940-3 2896 (2900-3)	NA

REIL Rwy 17 and 35  
MIRL Rwy 17-35

VOR/DME LKT <b>113.5</b> Chan <b>82</b>	APP CRS <b>043°</b>	Rwy Idg TDZE Apt Elev <b>4044</b>	<b>N/A</b> <b>N/A</b> <b>4044</b>
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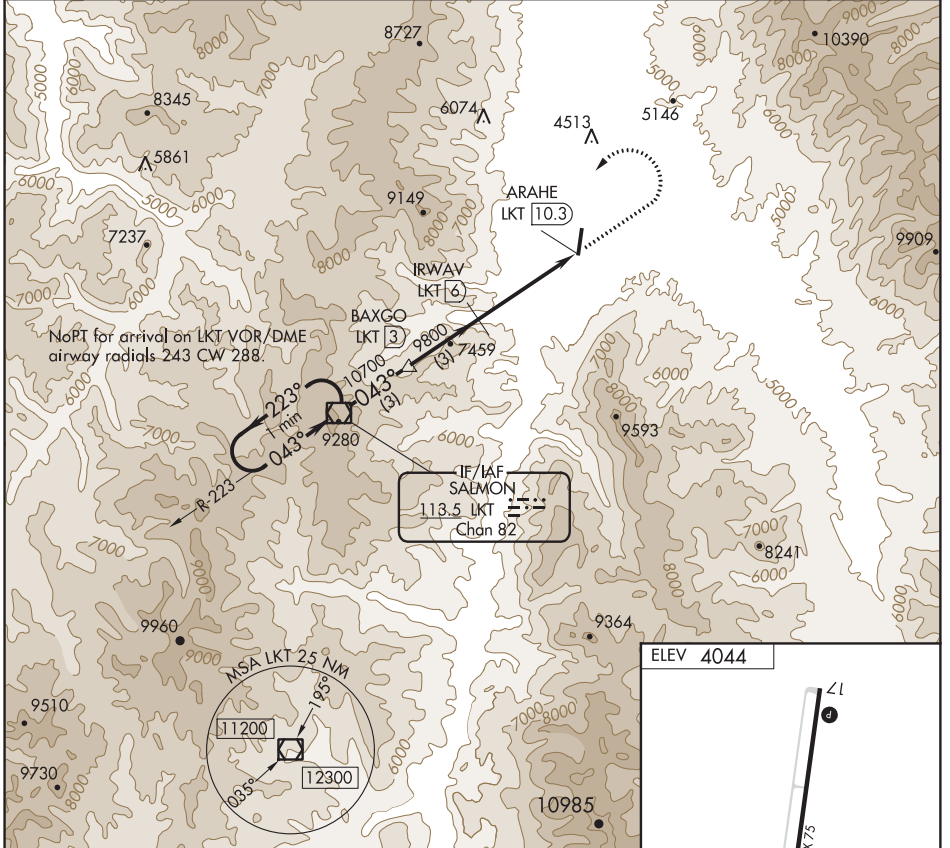
# VOR/DME-B

LEMHI COUNTY (SMN)

**NA** Circling NA for Cat C east of Rwy 17-35.  
**NA** Night Landing: Rwy 35 NA.

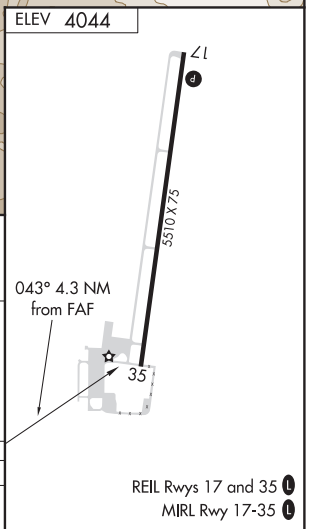
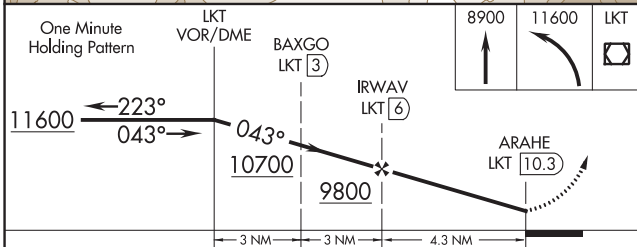
MISSED APPROACH: Climb to 8900 then climbing left turn to 11600 direct LKT VOR/DME and hold, continue climb-in-hold to 11600.

AWOS-3 <b>135.075</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
<b>CIRCLING</b>	8100-1¼ 4056 (4100-1¼)	8100-1½ 4056 (4100-1½)	8100-3 4056 (4100-3)	NA

REIL Rwy 17 and 35  
 MIRL Rwy 17-35

(AHEHU3.AHEHU) 16091

# AHEHU THREE DEPARTURE (RNAV)

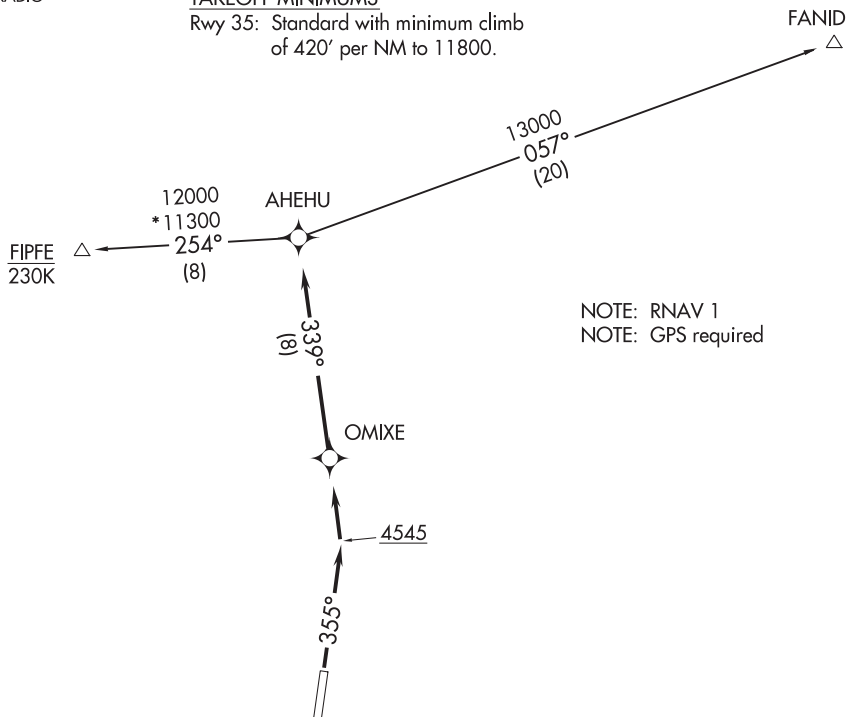
SL-9513 (FAA)

LEMHI COUNTY (SMN)  
SALMON, IDAHO

SALT LAKE CENTER  
132.4 338.3  
BOISE RADIO  
122.55

### TAKEOFF MINIMUMS

Rwy 35: Standard with minimum climb  
of 420' per NM to 11800.



NOTE: RNAV 1  
NOTE: GPS required

### TAKEOFF OBSTACLE NOTES

Rwy 35: Tree 104' from DER, 222' left of centerline, 13' AGL/4046' MSL. Power line 230' from DER, 498' left of centerline, 30' AGL/4060' MSL. Power line, fence, buildings, vehicles beginning 466' from DER, 394' right of centerline, up to 30' AGL/4104' MSL. Power line 814' from DER, 562' right of centerline, 30' AGL/4107' MSL. Rising terrain beginning 4198' from DER, 1373' right of centerline, up to 4187' MSL. Rising terrain beginning 4859' from DER, 1717' right of centerline, up to 4220' MSL. Rising terrain beginning 5189' from DER, 1889' right of centerline, up to 4262' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 35: Climb heading 355° to 4545, then left turn direct OMIXE, then on track 339° to AHEHU, thence . . . .  
. . . . on (transition).

FANID TRANSITION (AHEHU3.FANID)

FIPFE TRANSITION (AHEHU3.FIPFE)

# AHEHU THREE DEPARTURE (RNAV)

(AHEHU3.AHEHU) 31MAR16

SALMON, IDAHO  
LEMHI COUNTY (SMN)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	N/A
018°	TDZE	N/A
	Apt Elev	2131

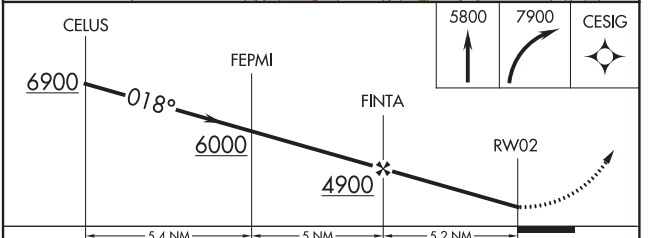
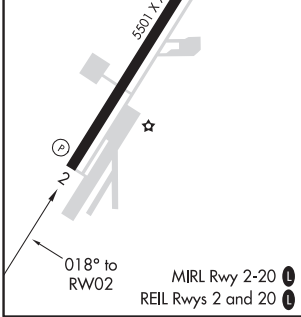
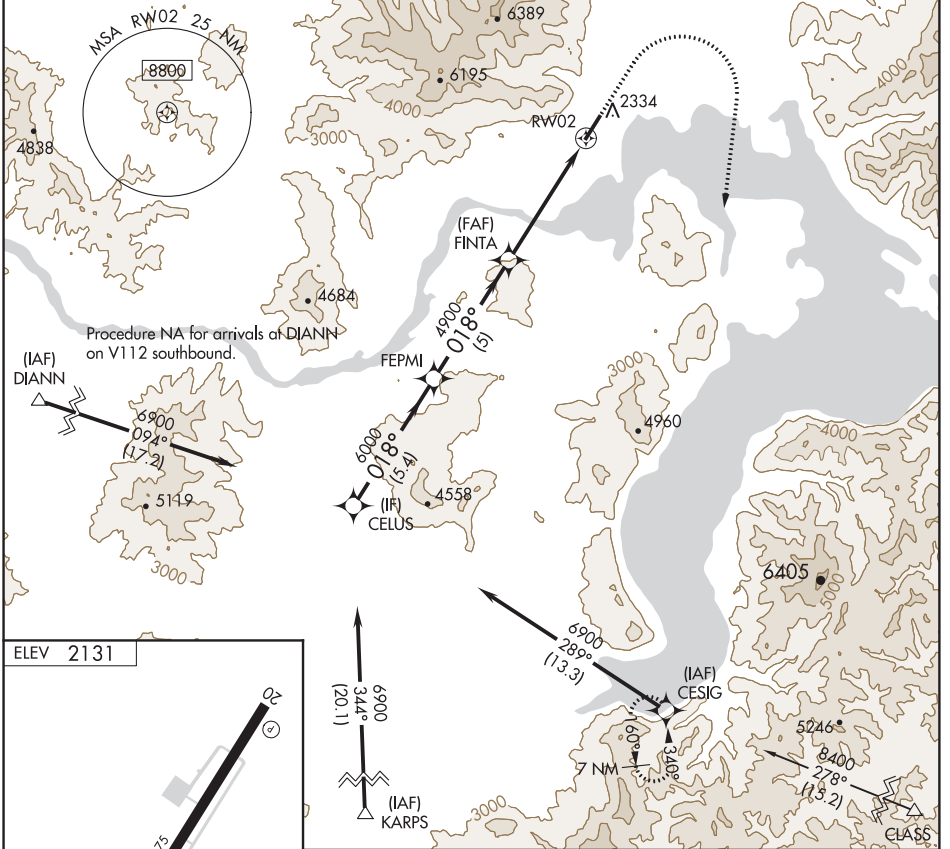
# RNAV (GPS)-B

## SANDPOINT (SZT)

**▼** DME/DME RNP-0.3 NA. Circling NA west of Rwy 2-20.  
**▲** When local altimeter setting not received, use Deer Park altimeter setting and increase all MDA 120 feet.  
**☄** -21°C/-6°F

**MISSED APPROACH:** Climb to 5800 then climbing right turn to 7900 direct CESIG and hold.

AWOS-3 <b>135.425</b>	SEATTLE CENTER <b>123.95 290.55</b>	UNICOM <b>122.7 (CTAF) ①</b>
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CATEGORY	A	B	C	D
<b>☑</b> CIRCLING	3600-1¼ 1469 (1500-1¼)	3600-1½ 1469 (1500-1½)	3600-3 1469 (1500-3)	4180-3 2049 (2100-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-RPO <b>109.1</b> Chan 28	APP CRS <b>018°</b>	Rwy Idg TDZE N/A	N/A
		Apt Elev <b>2131</b>	

**LOC-A**  
SANDPOINT (SZT)

**NA**  
-21°C/-6°F

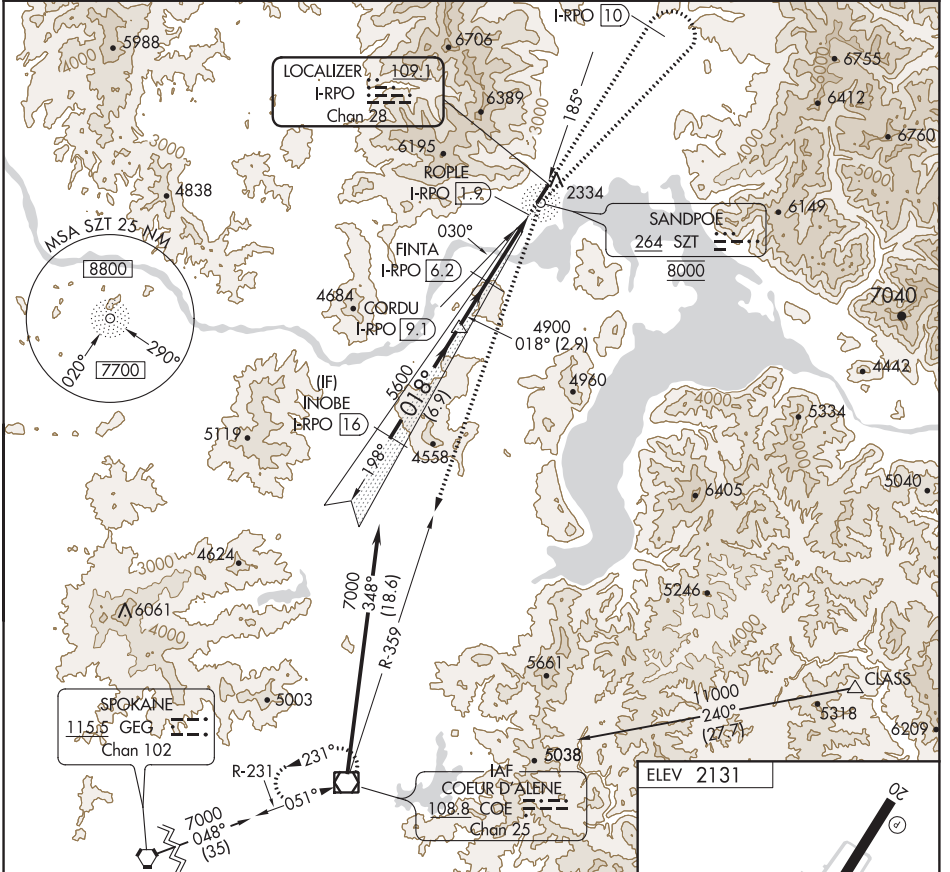
ADF and DME required. Circling NA west of Rwy 2-20. When local altimeter setting not received, use Deer Park altimeter setting and increase all MDA 120 feet.

MISSED APPROACH: Climb to 8000 on heading 018° to I-RPO 10 DME and climbing right turn on SZT bearing 030° to SZT NDB to cross SZT NDB at 8000 then on SZT NDB bearing 185° and COE VOR/DME R-359 to COE VOR/DME and hold.

AWOS-3  
**135.425**

SEATTLE CENTER  
**123.95 290.55**

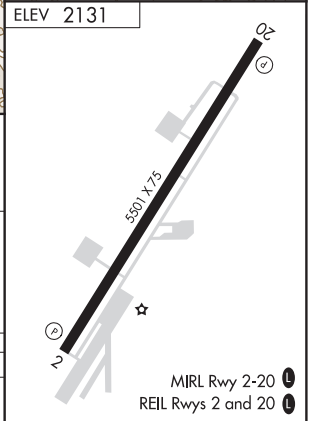
UNICOM  
**122.7 (CTAF)**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

INOBE I-RPO 16	8000 ↑ hdg 018°	I-RPO 10	SZT 8000	SZT 185° & COE R-359	COE
7000	CORDU I-RPO 9.1	FINTA I-RPO 6.2	ROBLE I-RPO 1.9		
018°	5600	4900			
6.9 NM	2.9 NM	4.3 NM	0.9		
CATEGORY	A	B	C	D	
CIRCLING	3180-1¼ 1049 (1100-1¼)	3180-1½ 1049 (1100-1½)	3180-3 1049 (1100-3)	4180-3 2049 (2100-3)	



WAAS CH <b>65820</b> W05A	APP CRS <b>054°</b>	Rwy Idg TDZE Apt Elev	<b>8801</b> <b>7015</b> <b>7015</b>
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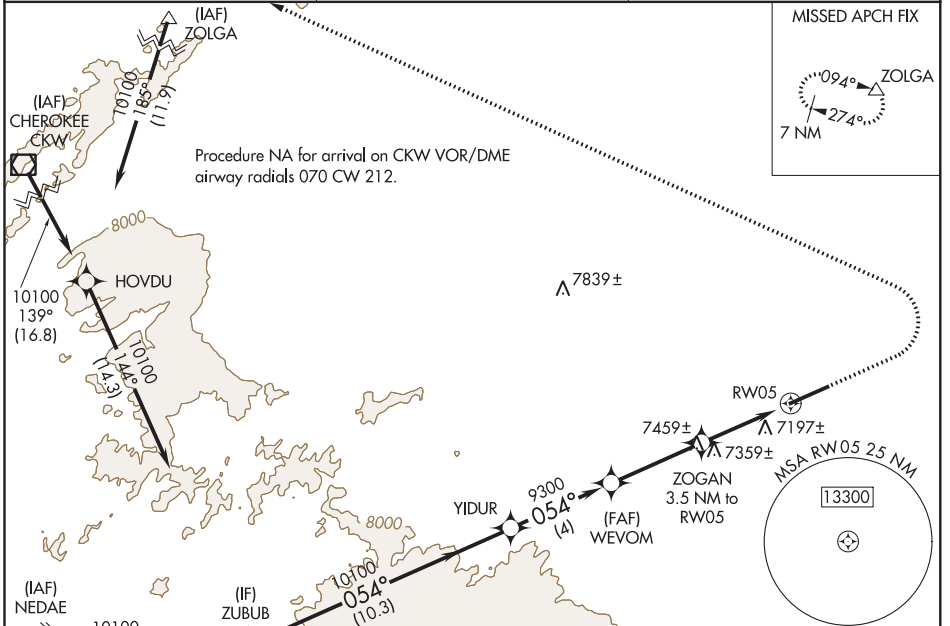
# RNAV (GPS) RWY 5

SHIVELY FIELD (SAA)

**NA** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Rawlins altimeter setting: increase LPV DA to 7357 feet, LNAV/VNAV DA to 7606 feet and all visibilities 1/4 mile; increase all MDA 100 feet and visibility Cats C and D 1/4 mile. Baro-VNAV NA.

**MISSED APPROACH:** Climb to 7500 then climbing left turn to 11000 direct ZOLGA and hold.

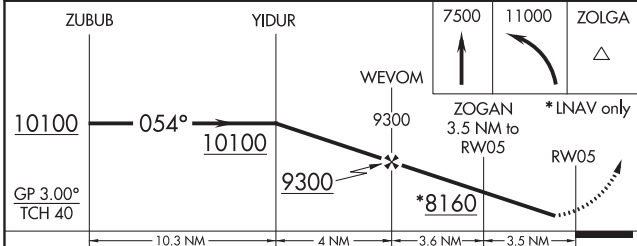
AWOS-3PT <b>118.175</b>	DENVER CENTER <b>132.1 254.35</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(IAF) NEDAE 10100 077° (18.4)	(IF) ZUBUB 10100 054° (10.3)	YIDUR 9300 054° (4)	(FAF) WEVOM 9300 054° (4)	RW05 7459± 7359± 7197±	ELEV 7015	TDZE 7015
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CATEGORY	A	B	C	D
LPV DA	7265-7/8 250 (300-7/8)			
LNAV/VNAV DA	7514-13/4 499 (500-13/4)			
LNAV MDA	7620-1 605 (700-1)		7620-13/4 605 (700-13/4)	
CIRCLING	7620-1 605 (700-1)		7620-13/4 605 (700-13/4)	7620-2 605 (700-2)

ELEV 7015 TDZE 7015

REIL Rwy 23 0

MIRL Rwy 5-23 0

APP CRS <b>151°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>7015</b>
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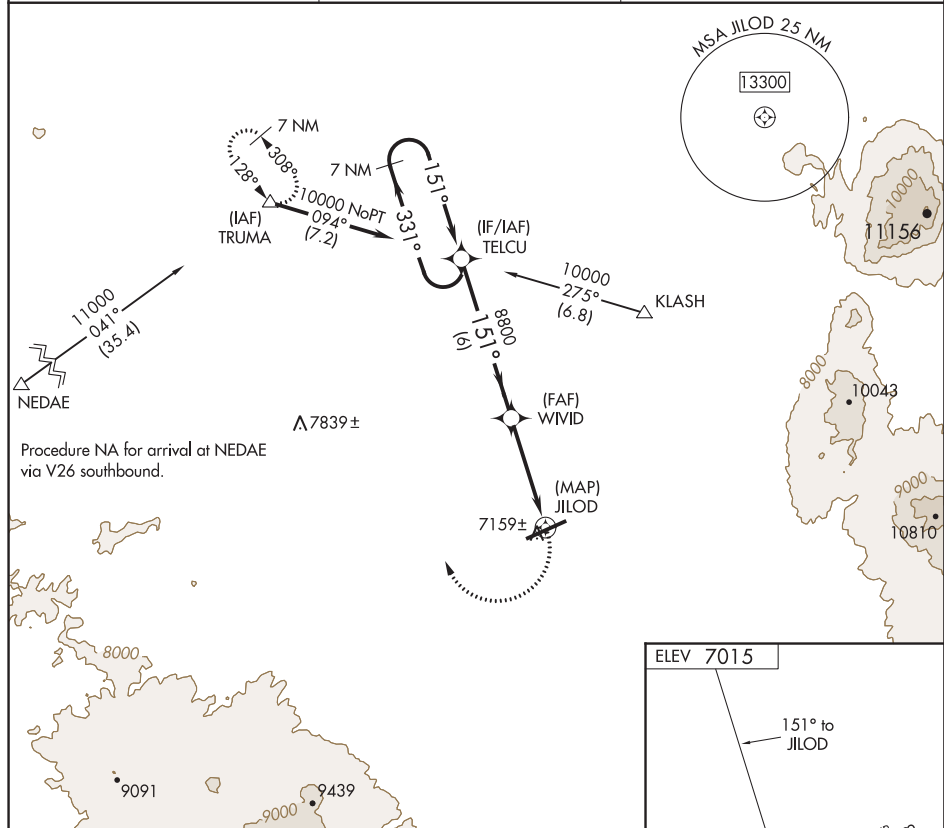
# RNAV (GPS)-B

SHIVELY FIELD (SAA)

**▽** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Rawlins altimeter setting: increase all MDA 100 feet and visibility Cats C and D ¼ mile.

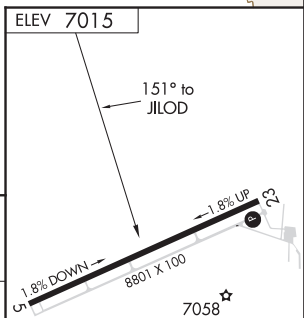
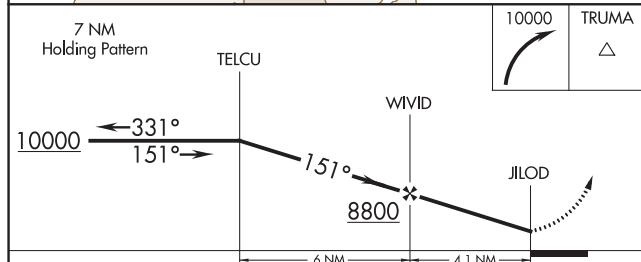
**△** NA MISSED APPROACH: Climbing right turn to 10000 direct TRUMA and hold, when authorized by ATC, climb-in-hold to 13000.

AWOS-3PT <b>118.175</b>	DENVER CENTER <b>132.1 254.35</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	7600-1	585 (600-1)	7620-1¾ 605 (700-1¾)	7620-2 605 (700-2)

REIL Rwy 23 **0**  
MIRL Rwy 5-23 **0**



NDB SAA <b>266</b>	APP CRS <b>150°</b>	Rwy Idg TDZE Apt Elev <b>7015</b>	<b>N/A</b> <b>N/A</b> <b>7015</b>
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# NDB-A

SHIVELY FIELD (SAA)

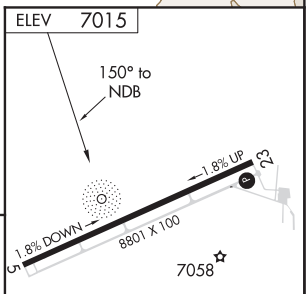
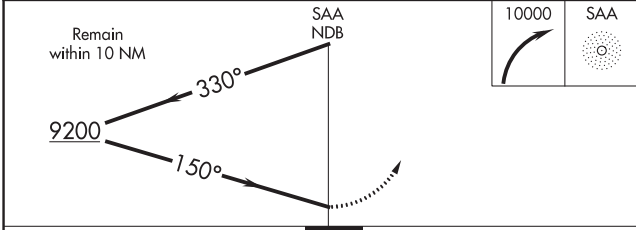
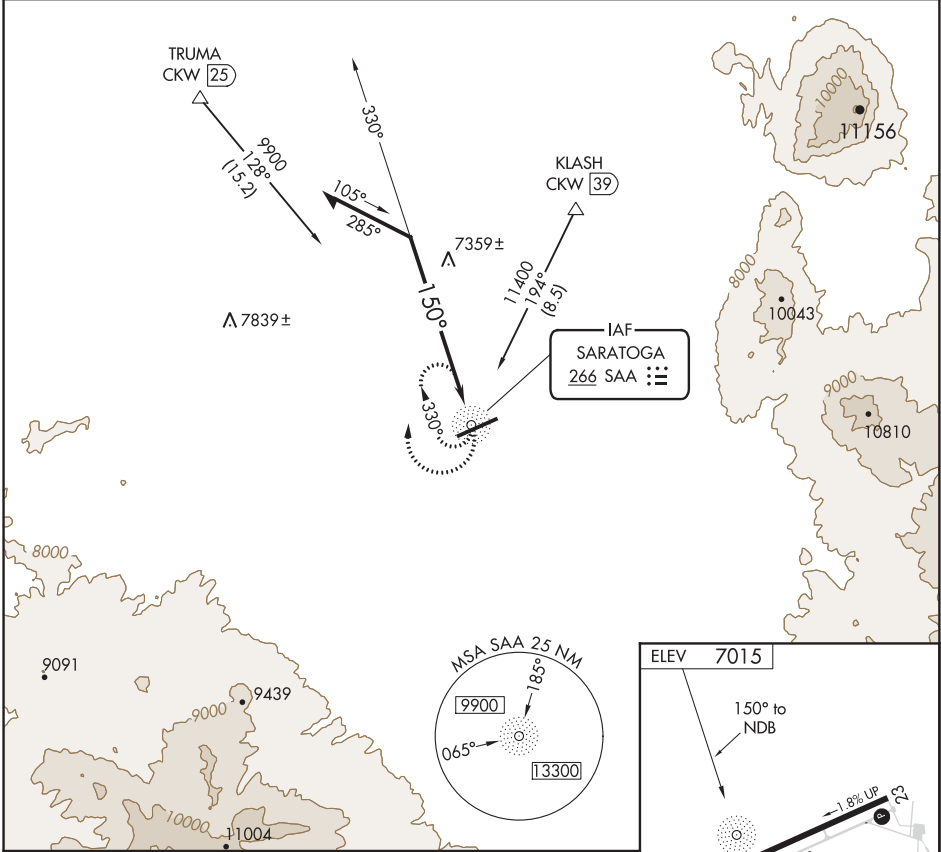
**▽** When local altimeter setting not received, use Rawlins altimeter setting: increase all MDA 100 feet and visibility Cats C and D ¼ mile.

**MISSED APPROACH:** Climbing right turn to 10000 in SAA NDB holding pattern.

AWOS-3PT  
**118.175**

DENVER CENTER  
**132.1 254.35**

UNICOM  
**122.8 (CTAF)**



CATEGORY	A	B	C	D
CIRCLING	7720-1¼	705 (800-1¼)	7720-2 705 (800-2)	7720-2¼ 705 (800-2¼)

REIL Rwy 23 **0**  
MIRL Rwy 5-23 **0**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>65720</b> <b>W15A</b>	APP CRS <b>152°</b>	Rwy Idg <b>5100</b> TDZE <b>58</b> Apt Elev <b>58</b>
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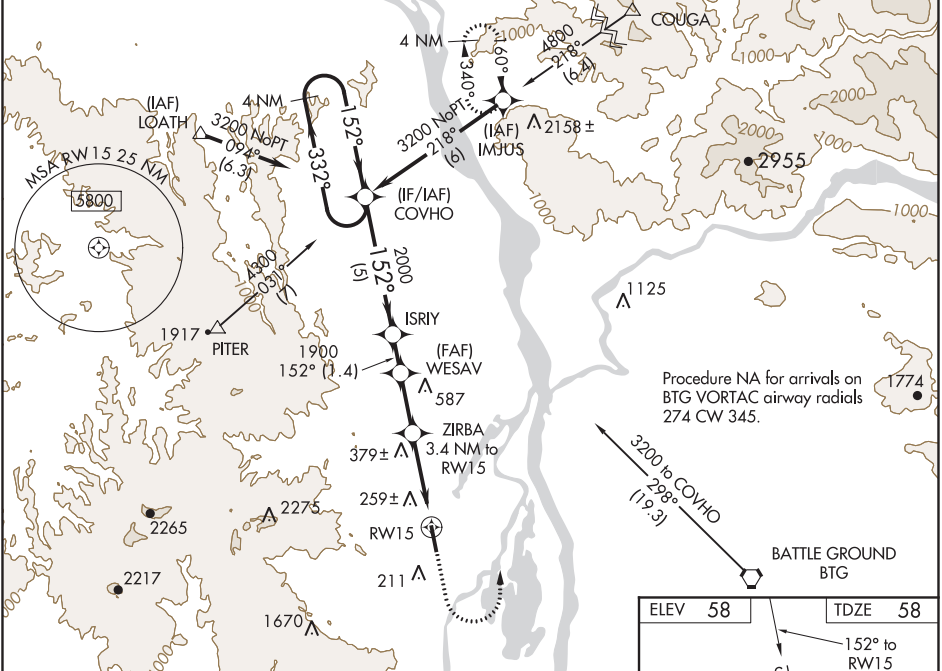
# RNAV (GPS) RWY 15

SCAPPOOSE INDUSTRIAL AIRPARK (SPB)

**⚠** Circling NA west of Rwy 15-33. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.  
**⚠** When VGSI inop, Straight in and Circling to Rwy 15 NA at night. When local altimeter setting not received, use Portland Intl altimeter setting and increase all DA/MDA 40 feet and increase LNAV/VNAV all Cats visibility 1/8 mile. Baro-VNAV NA when using Portland Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 42°C (107°F).

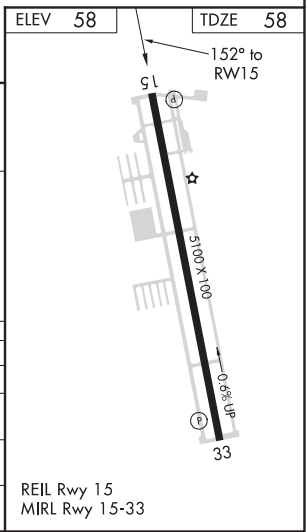
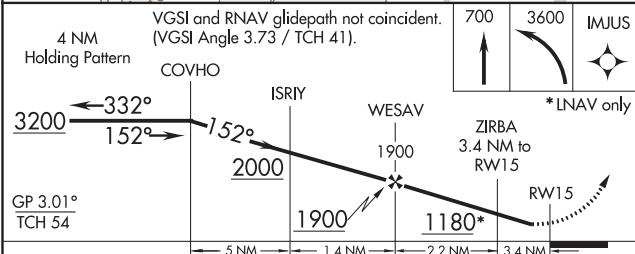
**MISSED APPROACH:** Climb to 700 then climbing left turn to 3600 direct IMJUS and hold.

ASOS <b>135.875</b>	PORTLAND APP CON <b>124.35 299.2</b>	CLNC DEL <b>121.65</b>	UNICOM <b>122.8</b> (CTAF)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA		350-1	292 (300-1)	
LNAV/VNAV DA		580-1 3/4	522 (600-1 3/4)	
LNAV MDA	640-1	582 (600-1)	640-1 3/4	582 (600-1 3/4)
CIRCLING	640-1	582 (600-1)	640-1 3/4	640-2
			582 (600-1 3/4)	582 (600-2)

LOC/DME I-FKO <b>111.1</b> Chan <b>48</b>	APP CRS <b>152°</b>	Rwy Idg <b>5100</b> TDZE <b>58</b> Apt Elev <b>58</b>
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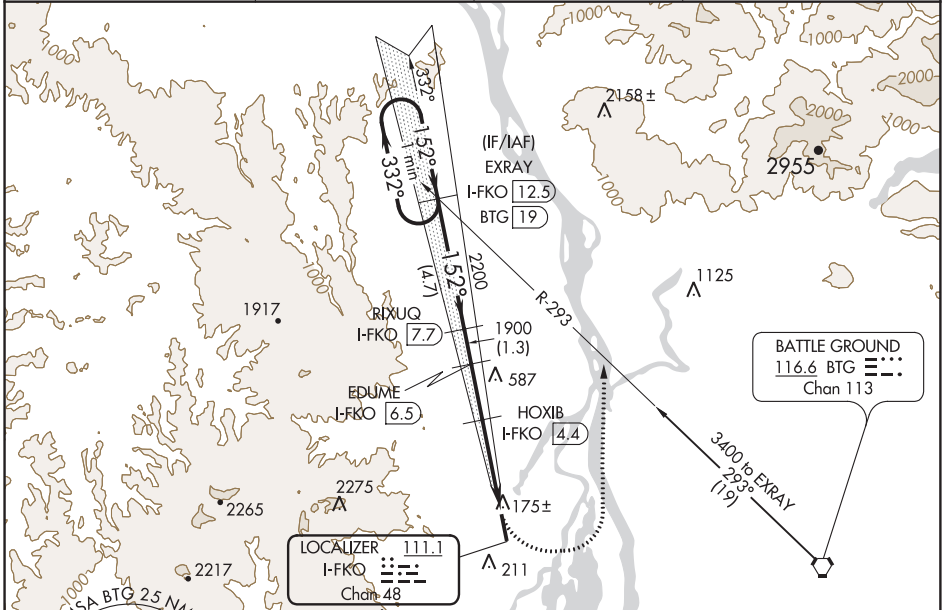
# LOC/DME RWY 15

SCAPOOSE INDUSTRIAL AIRPARK (SPB)

**⚠** Circling NA west of Rwy 15-33. When local altimeter setting not received, use Portland Intl altimeter setting and increase all MDA 40 feet; increase S-15 Cat C/D visibility and Circling Cat C visibility 1/8 mile, Cat D visibility 1/4 mile. Helicopter visibility reduction below 1 SM NA. Night Landing Rwy 15 NA.

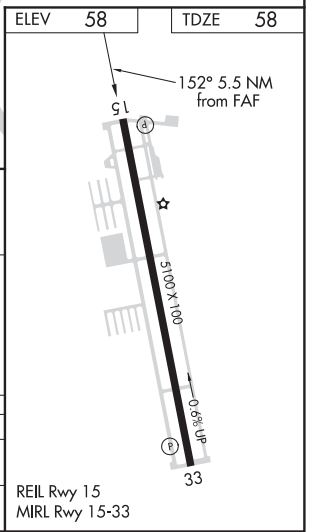
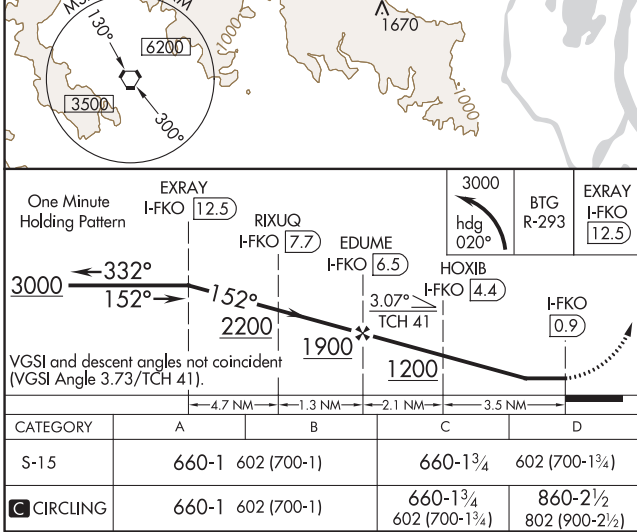
**MISSED APPROACH:** Climbing left turn to 3000 on heading 020° and on BTG VORTAC R-293 to EXRAY/I-FKO 12.5 DME and hold.

ASOS <b>135.875</b>	PORTLAND APP CON <b>124.35 299.2</b>	CLNC DEL <b>121.65</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



VORTAC BTG <b>116.6</b> Chan <b>113</b>	APP CRS <b>255°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>58</b>
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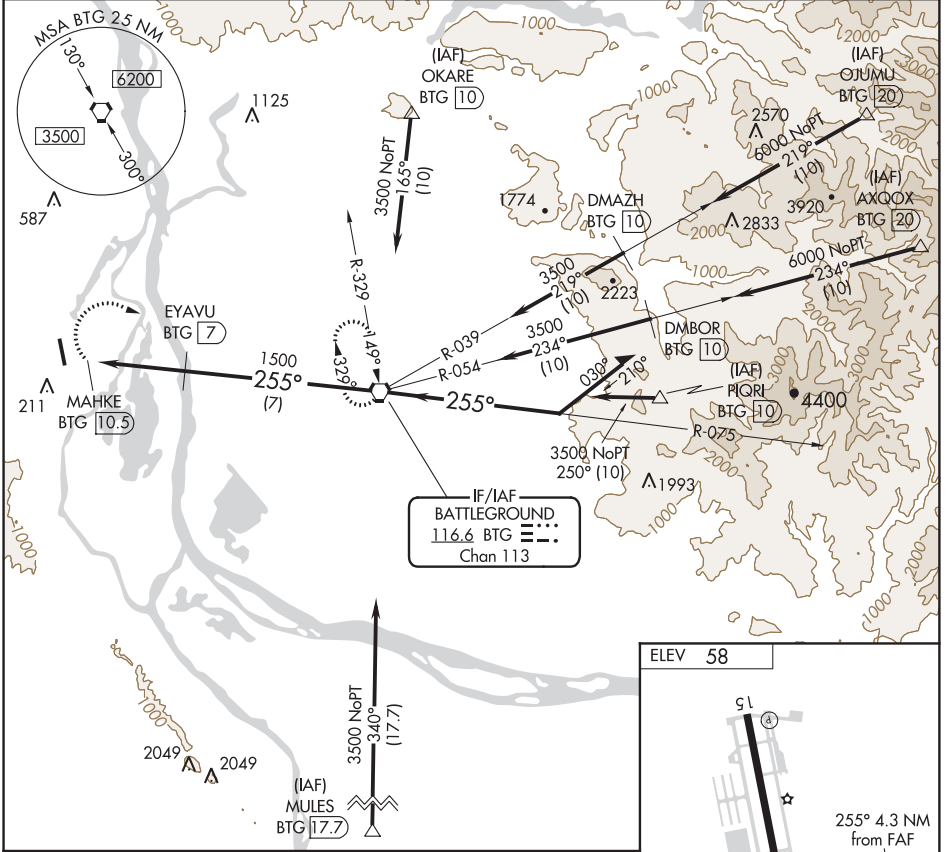
# VOR/DME-A

SCAPOOSE INDUSTRIAL AIRPARK (SPB)

**⚠** Circling NA west of Rwy 15-33. Helicopter visibility reduction below 1 SM NA.  
**⚠** When local altimeter setting not received, use Portland Intl altimeter setting and increase all MDA 40 ft. Circling to Rwy 15 NA at night.

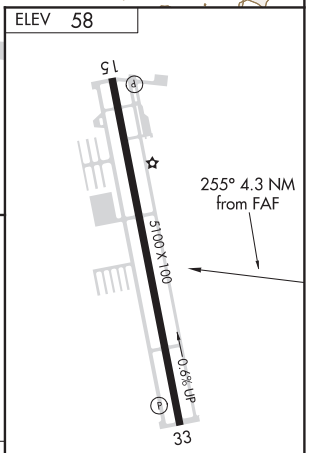
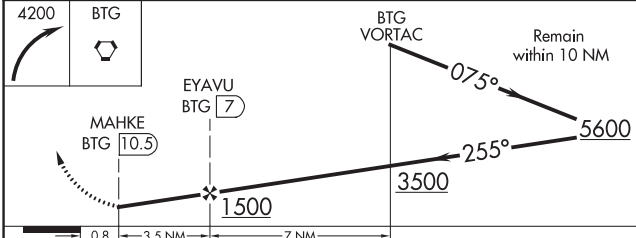
MISSED APPROACH: Climbing right turn to 4200 direct BTG VORTAC and hold, continue climb-in-hold to 4200.

ASOS <b>135.875</b>	PORTLAND APP CON <b>124.35 299.2</b>	CLNC DEL <b>121.65</b>	UNICOM <b>122.8</b> (CTAF)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	600-1 542 (600-1)		600-1½ 542 (600-1½)	620-2 562 (600-2)

REIL Rwy 15  
MIRL Rwy 15-33

APP CRS <b>122°</b>	Rwy Idg <b>4020</b>
	TDZE <b>2426</b>
	Apt Elev <b>2434</b>

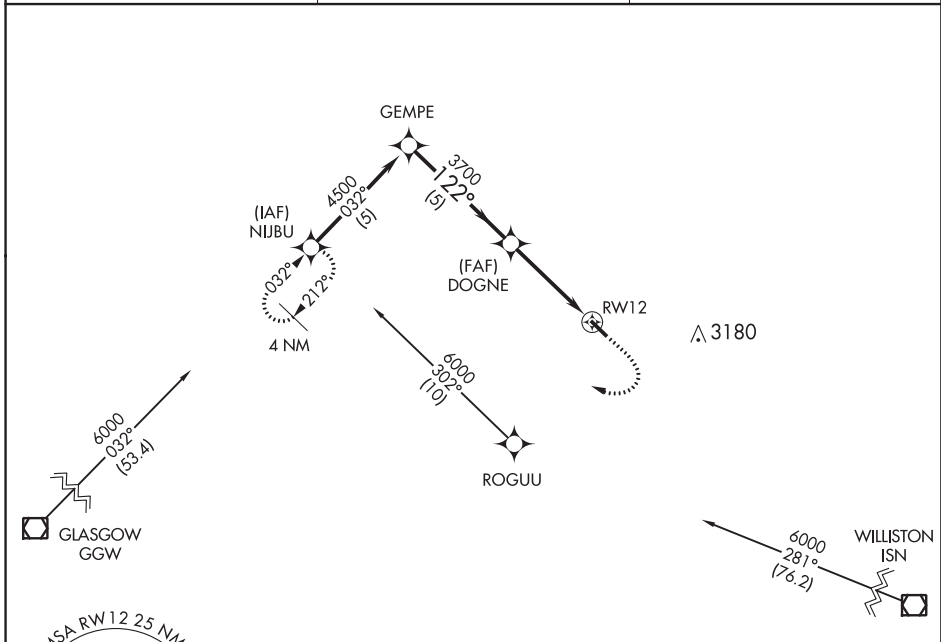
# RNAV (GPS) RWY 12

SCOBEY (9S2)

**▽** DME/DME RNP-0.3 NA. Use Wolf Point altimeter setting; when not received procedure not authorized.  
**△ NA** Helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climb to 3600 then climbing right turn to 6000 direct NIJBU WP and hold.

L M CLAYTON ASOS <b>118.325</b>	SALT LAKE CITY CENTER <b>126.85 305.2</b>	AUNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

	ELEV 2434	TDZE 2426		
CATEGORY	A	B	C	D
LNVA MDA	3100-1	674 (700-1)		NA
CIRCLING	3100-1	666 (700-1)		NA

	ELEV 2434	TDZE 2426		
CATEGORY	A	B	C	D
LNVA MDA	3100-1	674 (700-1)		NA
CIRCLING	3100-1	666 (700-1)		NA

LOC/DME I-CHJ <b>110.9</b> Chan 46	APP CRS <b>310°</b>	Rwy Idg <b>9120</b> TDZE <b>21</b> Apt Elev <b>21</b>
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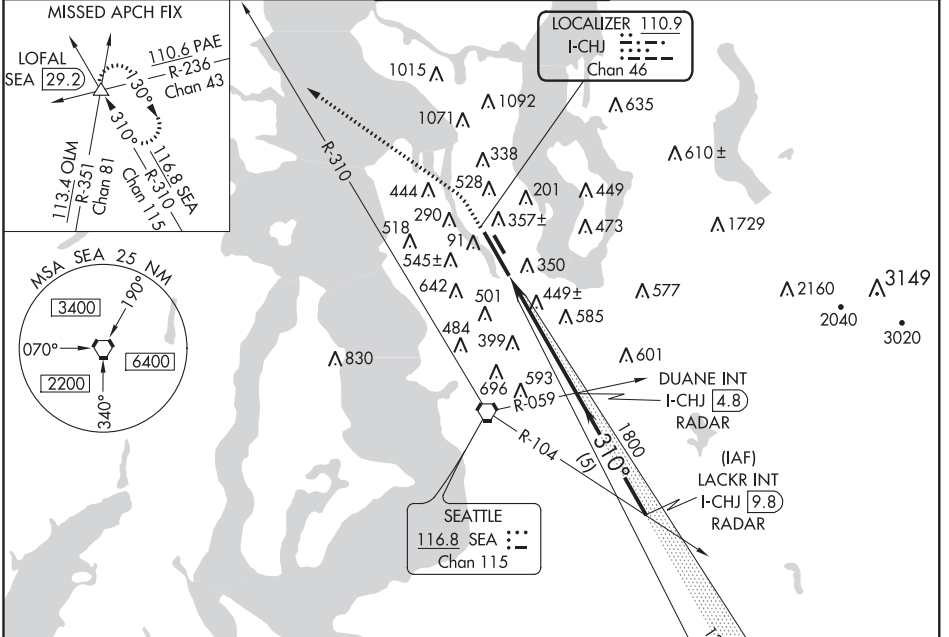
# ILS or LOC RWY 31L

BOEING FIELD/KING COUNTY INTL (BFI)

**Helicopter visibility reduction below 3/4 SM NA.**

**MISSED APPROACH:** Climb to 700 then climbing left turn to 6000 on heading 285° and SEA R-310 to LOFAL INT/SEA 29.2 DME and hold, continue climb-in-hold to 6000.

ATIS <b>127.75</b>	SEATTLE APP CON <b>119.2 284.7</b>	BOEING TOWER <b>120.6 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>132.4</b>
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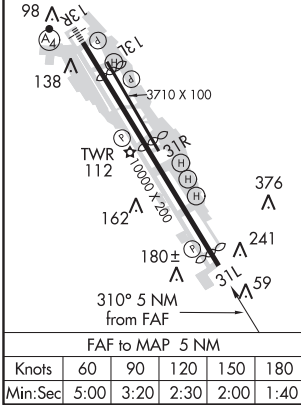


NW-1, 10 NOV 2016 to 05 JAN 2017

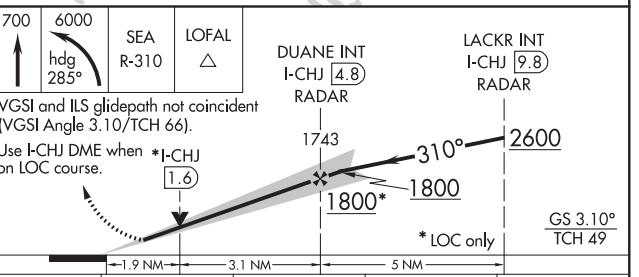
NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 21	<b>D</b> TDZE 21
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REIL Rwy 13L, 31L and 31R  
HIRL Rwy 13R-31L  
MIRL Rwy 13L-31R



## RADAR REQUIRED



CATEGORY	A	B	C	D
S-ILS 31L	428-1½ 407 (500-1½)			
S-LOC 31L	700-1 679 (700-1)	700-2 679 (700-2)	700-2 679 (700-2½)	700-2 679 (700-2½)
CIRCLING	780-1 759 (800-1)	840-1¼ 819 (900-1¼)	860-2½ 839 (900-2½)	960-3 939 (1000-3)

LOC/DME I-BFI <b>110.9</b> Chan <b>46</b>	APP CRS <b>130°</b>	Rwy Idg TDZE Apt Elev <b>9120</b> <b>18</b> <b>21</b>
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# ILS RWY 13R

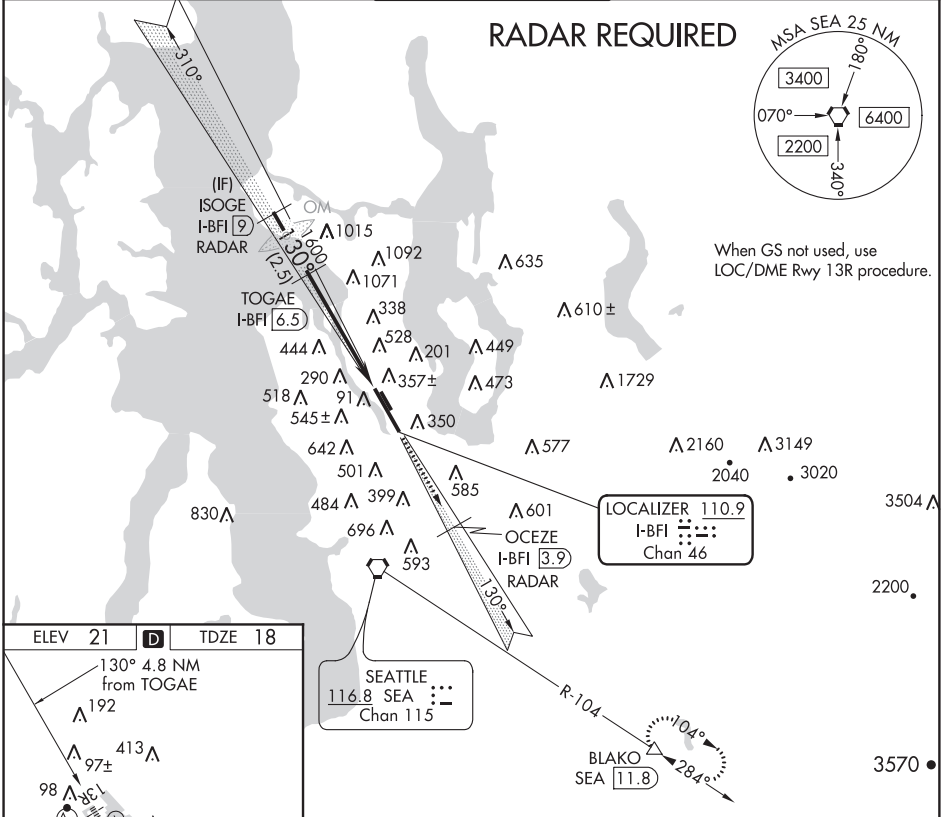
BOEING FIELD/KING COUNTY INTL (BFI)

**▽** Inoperative table does not apply.  
DME required.  
Visibility reduction by helicopters NA.  
Disregard OM indications.

**MALSF**

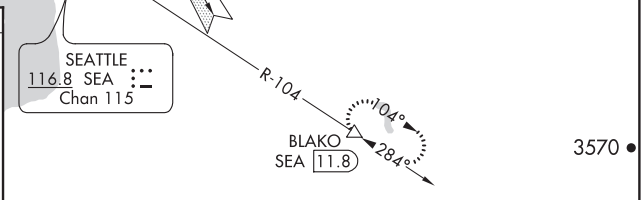
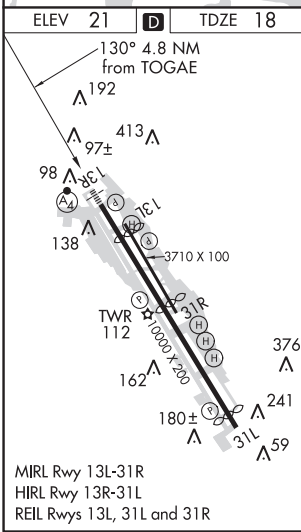
**MISSED APPROACH:** Climb on I-BFI SE course to cross OCEZE/I-BFI 3.9 DME/RADAR at or below 1500, then climb to 6400 on I-BFI SE course and SEA R-104 to BLAKO/SEA 11.8 DME and hold, continue climb-in-hold to 6400.

<b>ATIS</b> <b>127.75</b>	<b>SEATTLE APP CON</b> <b>119.2 284.7</b>	<b>BOEING TOWER</b> <b>120.6 257.8</b>	<b>GND CON</b> <b>121.9</b>	<b>CLNC DEL</b> <b>132.4</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



Procedure Turn NA	ISOGE I-BFI (9) RADAR	↑ 1500 OCEZE I-BFI (3.9)	↑ 6400 I-BFI SE crs	SEA R-104	BLAKO △
<p>VGSI and ILS glidepath not coincident (VGSI Angle 3.00°/TCH 75).</p>					
CATEGORY	A	B	C	D	
S-ILS 13R	291/50 273 (300-1)				





# RNAV (GPS) Y RWY 13R

BOEING FIELD/KING COUNTY INTL (BFI)

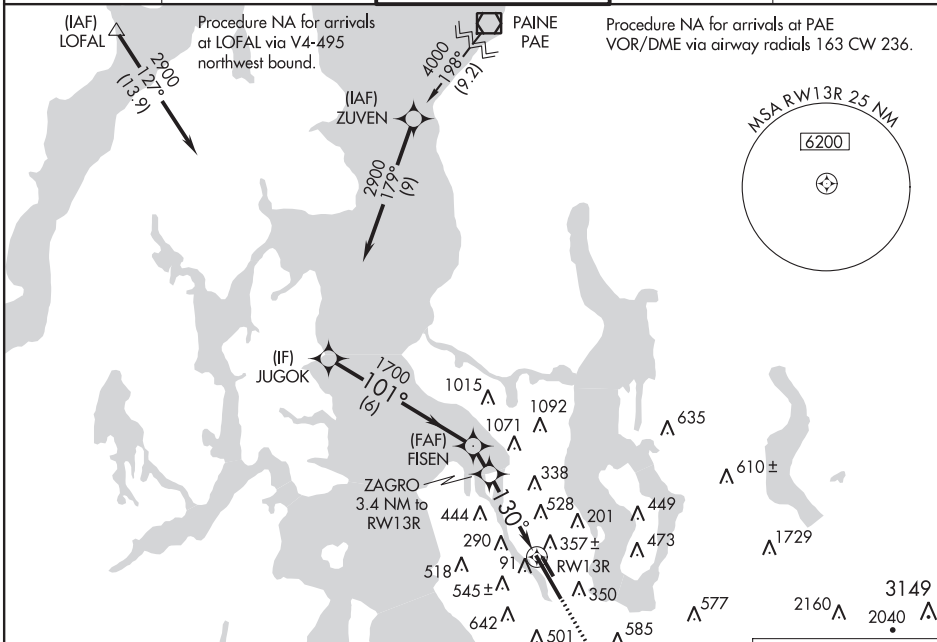
APP CRS <b>130°</b>	Rwy Idg <b>9120</b>
	TDZE <b>18</b>
	Apt Elev <b>21</b>

**▽** Circling to Rwy 31R NA at night.  
**▲** DME/DME RNP -0.3 NA.  
 Helicopter visibility reduction below RVR 4000 not authorized.

**MALSF**

**MISSED APPROACH:** Climb to 6400 direct DUANE and via 117° track to BLAKO and hold, continue climb-in-hold to 6400.

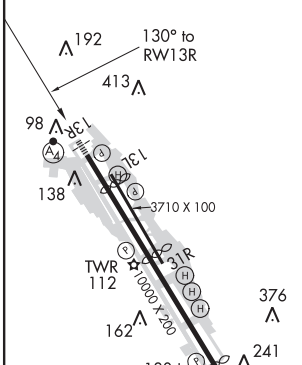
ATIS <b>127.75</b>	SEATTLE APP CON <b>119.2 284.7</b>	BOEING TOWER <b>120.6 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>132.4</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

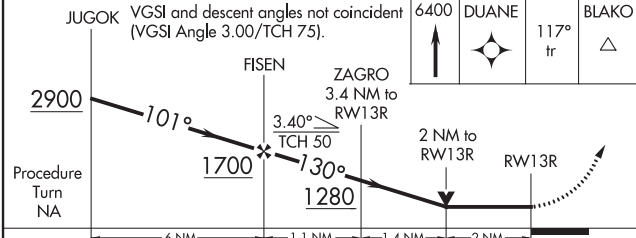
NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 21	<b>D</b>	TDZE 18
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MIRL Rwy 13L-31R  
 HIRL Rwy 13R-31L  
 REIL Rws 13L, 31L and 31R

**MISSED APCH FIX**  
 BLAKO 103° 7 NM  
 283°



CATEGORY	A	B	C	D
RNAV MDA	720/40	703 (700-¾)	720-1¼	703 (700-1¼)
CIRCLING	780-1 759 (800-1)	840-1¼ 819 (900-1¼)	900-2¾ 879 (900-2¾)	960-3 939 (1000-3)

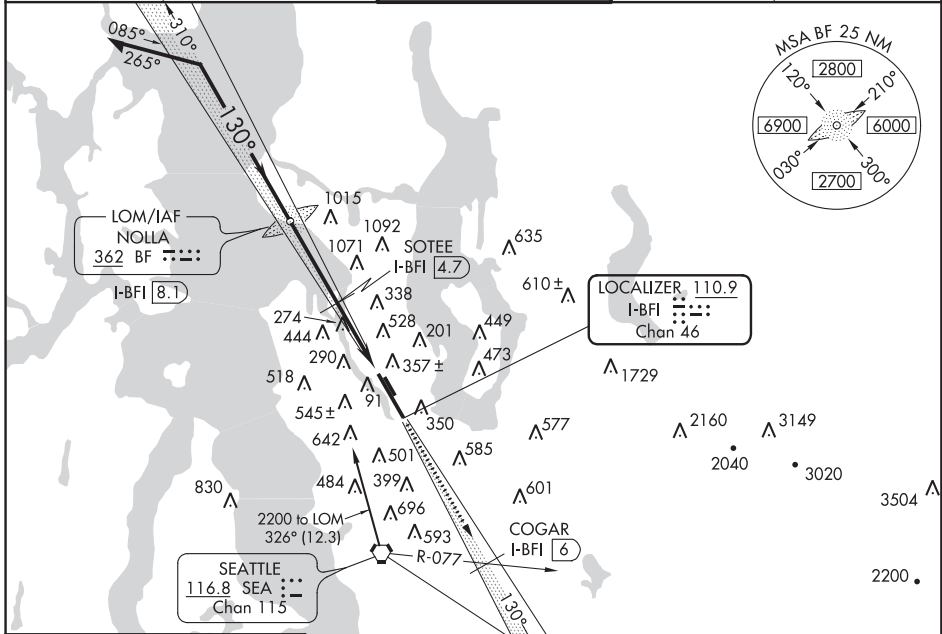
LOC/DME I-BFI <b>110.9</b> Chan 46	APP CRS <b>130°</b>	Rwy Idg TDZE Apt Elev	<b>9120</b> <b>18</b> <b>21</b>
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# LOC/DME RWY 13R

BOEING FIELD/KING COUNTY INTL (BFI)

Inoperative table does not apply. Visibility reduction by helicopters NA. Front course unusable beyond 20 degrees left of course.		MISSED APPROACH: Climb to 2000 on I-BFI SE course to COGAR/I-BFI 6 DME/SEA R-077, then continue climb to 6400 on I-BFI SE course and SEA R-104 to BLAKO/SEA 11.8 DME and hold, continue climb-in-hold to 6400.

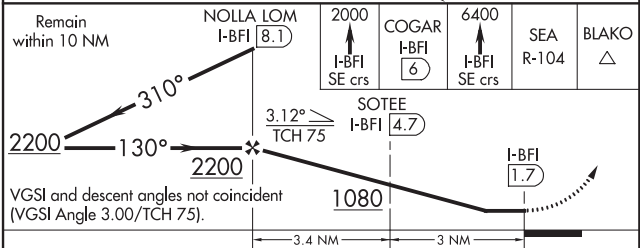
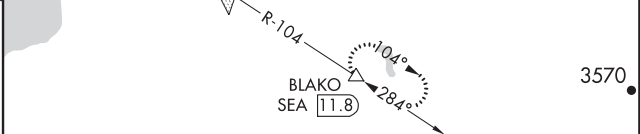
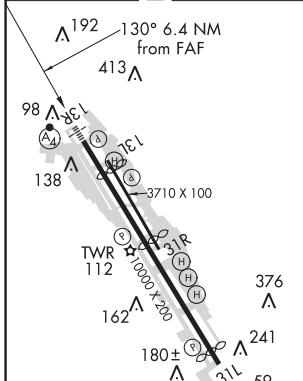
ATIS <b>127.75</b>	SEATTLE APP CON <b>119.2 284.7</b>	BOEING TOWER <b>120.6 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>132.4</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 21	<b>D</b>	TDZE 18
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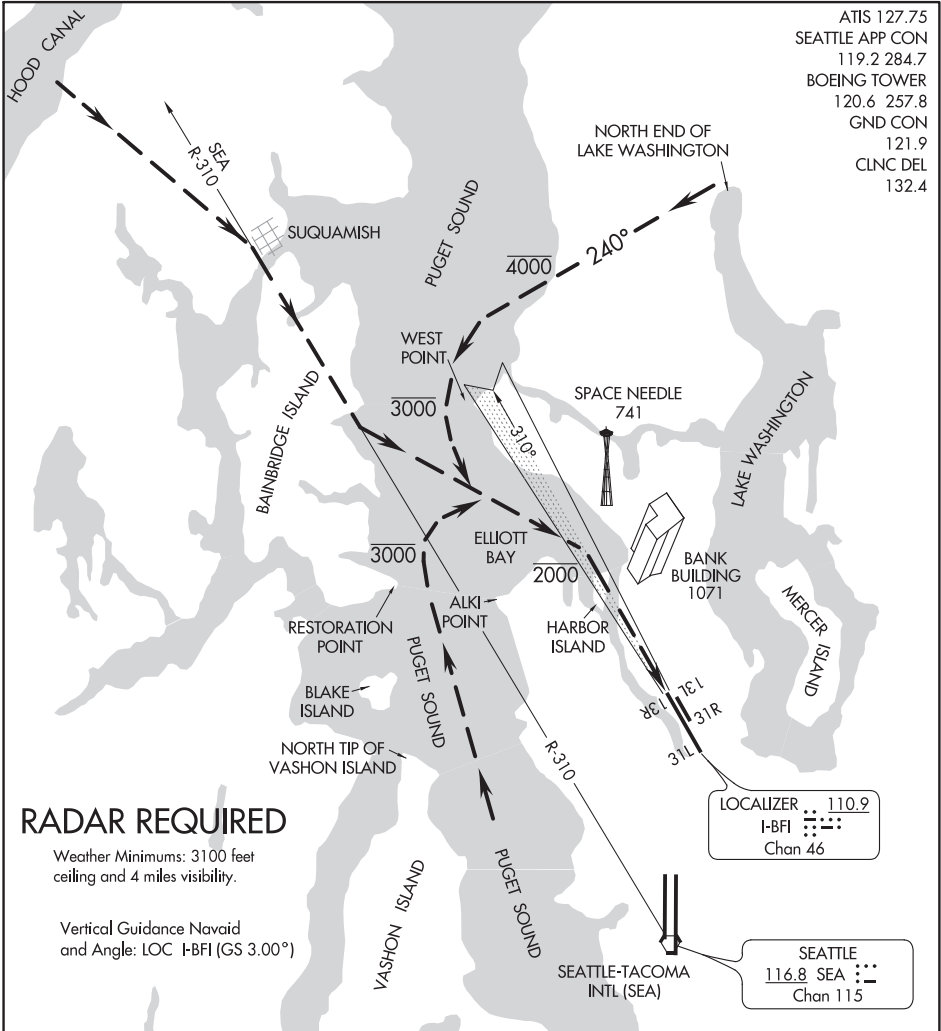
CATEGORY	A	B	C	D
S-LOC 13R	560/50	542 (600-1)	560-1½ 542 (600-1½)	560-1¾ 542 (600-1¾)
CIRCLING	780-1 759 (800-1)	840-1¼ 819 (900-1¼)	900-2½ 879 (900-2½)	960-3 939 (1000-3)

# HARBOR VISUAL RWY 13R

AL-384 (FAA)

BOEING FIELD/KING COUNTY INTL (BFI)  
SEATTLE, WASHINGTON

- ATIS 127.75
- SEATTLE APP CON 119.2 284.7
- BOEING TOWER 120.6 257.8
- GND CON 121.9
- CLNC DEL 132.4



## RADAR REQUIRED

Weather Minimums: 3100 feet ceiling and 4 miles visibility.

Vertical Guidance Navaid and Angle: LOC I-BFI (GS 3.00°)

NM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
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## HARBOR VISUAL APPROACH RWY 13R

Expect radar vectors from the Northwest, over the Hood Canal on the SEA R-310; from the North and Northeast, to the north end of Lake Washington; from the Southwest, South and Southeast, to Puget Sound abeam the north tip of Vashon Island. When cleared for the Harbor Visual Approach Runway 13R, proceed via the depicted routes over the middle of Puget Sound and Elliott Bay to Harbor Island and complete a straight in visual approach to Boeing Field/King County Intl Airport (BFI). Adherence to the recommended altitudes is strongly recommended to reduce the incidence of TCAS alarms. Visual approaches to Seattle-Tacoma Intl Airport (SEA) may be conducted simultaneously through Elliott Bay. It is essential that all aircraft remain in the center of Elliott Bay for noise abatement.

# HARBOR VISUAL RWY 13R

47°32'N - 122°18'W

SEATTLE, WASHINGTON  
BOEING FIELD/KING COUNTY INTL (BFI)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# KENT SEVEN DEPARTURE

SL-384 (FAA)

ATIS 127.75  
CLINC DEL  
132.4  
GND CON  
121.9  
BOEING TOWER  
120.6 257.8  
SEATTLE DEP CON  
119.2 284.7

VANCOUVER  
115.9 YVR  
Chan 106  
N49°04.64'-W123°08.94'

WHATCOM  
113.0 HUH  
Chan 77  
N48°56.72'-W122°34.76'

**TOP ALTITUDE:  
2000**

CRANBROOK  
112.1 YXC  
Chan 58  
N49°33.30'-W116°05.26'

VICTORIA  
113.7 YYJ  
Chan 84  
N48°43.62'-W123°29.06'

PAINÉ  
110.6 PAE  
Chan 43  
N47°55.19'-W122°16.67'

WENATCHEE  
111.0 EAT  
Chan 47  
N47°23.98'-W120°12.65'

LOCALIZER 110.9  
I-BFI  
Chan 46

SEATTLE  
116.8 SEA  
Chan 115  
N47°26.12'-W122°18.58'

DUANE  
N47°26.78'  
W122°13.92'  
2000

MOSES LAKE  
115.0 MWH  
Chan 97  
N47°12.65'-W119°19.01'

HOGUAM  
117.7 HQM  
Chan 124  
N46°56.82'-W124°08.96'

OLYMPIA  
113.4 OLM  
Chan 81  
N46°58.30'-W122°54.11'

ELLENSBURG  
117.9 ELN  
Chan 126  
N47°01.46'-W120°27.51'

BATTLE GROUND  
116.6 BTG  
Chan 113  
N45°44.87'-W122°35.49'

YAKIMA  
116.0 YKM  
Chan 107  
N46°34.21'-W120°26.68'

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

### TAKEOFF MINIMUMS

- Rwy 13L: Standard with minimum climb of 663' per NM to 500 or 500-3 with minimum climb of 240' per NM to 800.
- Rwy 13R: Standard with minimum climb of 490' per NM to 700 or 500-2 1/2 with minimum climb of 250' per NM to 600.
- Rwys 31L/R: NA-ATC.

NOTE: RADAR required.

(NOTES CONTINUED ON FOLLOWING PAGE)  
(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# KENT SEVEN DEPARTURE

(KENT7.DUANE) 16147

## KENT SEVEN DEPARTURE

SL-384 (FAA)

BOEING FIELD/KING COUNTY INTL (BFI)  
SEATTLE, WASHINGTON

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13L: Climb heading 132° and I-BFI SE course to cross DUANE INT/I-BFI 5 DME at 2000, maintain 2000 or ATC assigned altitude, expect RADAR vectors to assigned route/fix. Expect clearance to filed altitude within 3 minutes after departure.

TAKEOFF RUNWAY 13R: Climb heading 130° and I-BFI SE course to cross DUANE INT/I-BFI 5 DME at 2000, maintain 2000 or ATC assigned altitude, expect RADAR vectors to assigned route/fix. Expect clearance to filed altitude within 3 minutes after departure.

TAKEOFF OBSTACLE NOTES

- Rwy 13L: Hangar 402' from DER, 411' left of centerline 16' AGL/32' MSL. Building 621' from DER, 526' left of centerline 16' AGL/51' MSL. Trees beginning 2475' from DER, 353' left of centerline, up to 100' AGL/362' MSL.
- Rwy 13R: Train on tracks 197' from DER, 379' left of centerline, 23' AGL/48' MSL. Obstruction light on DME 552' from DER, 304' right of centerline, 16' AGL/38' MSL. Aircraft 521' from DER, 576' right of centerline, up to 64' AGL/96' MSL. Trees beginning 602' from DER, left and right of centerline, up to 100' AGL/411' MSL. Vehicles on road, 621' from DER, 657' left of centerline, up to 15' AGL/64' MSL. Obstruction light on floodlight 837' from DER, 607' right of centerline, up to 16' AGL/61' MSL. Obstruction light on poles, 1277' from DER, left and right of centerline, up to 16' AGL/55' MSL. Poles 1333' from DER, 251' left of centerline, up to 16' AGL/64' MSL. Powerline, 1338' from DER, 294' left of centerline, 16' AGL/82' MSL. Power pole, 4014' from DER, 910' right of centerline, up to 82' AGL/134' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

KENT SEVEN DEPARTURE

(KENT7.DUANE) 25JUN15

SEATTLE, WASHINGTON  
BOEING FIELD/KING COUNTY INTL (BFI)

# NEEDLE NINE DEPARTURE

SL-384 (FAA)

BOEING FIELD/KING COUNTY INTL (BFI)  
SEATTLE, WASHINGTON

ATIS  
127.75  
CLNC DEL  
132.4  
GND CON  
121.9  
BOEING TOWER  
120.6 257.8  
SEATTLE DEP CON  
119.2 284.7

**TOP ALTITUDE:  
2100**

VANCOUVER  
115.9 YVR   
Chan 106  
N49°04.64'-W123°08.94'  
L-1, H-1

CRANBROOK  
112.1 YXC   
Chan 58  
N49°33.30'-W116°05.26'  
H-1

WHATCOM  
113.0 HUH   
Chan 77  
N48°56.72'-W122°34.76'  
L-1, H-1

VICTORIA  
113.7 YYJ   
Chan 84  
N48°43.62'-W123°29.06'  
L-1, H-1

PAINÉ  
110.6 PAE   
Chan 43  
N47°55.19'-W122°16.67'  
L-1, H-1

SEATTLE  
116.8 SEA   
Chan 115  
N47°26.12'-W122°18.58'  
L-1, H-1

WENATCHEE  
111.0 EAT   
Chan 47  
N47°23.98'-W120°12.65'  
L-13

MOSES LAKE  
115.0 MWH   
Chan 97  
N47°12.65'-W119°19.01'  
L-13, H-1

HOQUIAM  
117.7 HQM   
Chan 124  
N46°56.82'-W124°08.96'  
L-1, H-1

OLYMPIA  
113.4 OLM   
Chan 81  
N46°58.30'-W122°54.11'  
L-1, H-1

ELLENSBURG  
117.9 ELN   
Chan 126  
N47°01.46'-W120°27.51'  
L-13, H-1

BATTLE GROUND  
116.6 BTG   
Chan 113  
N45°44.87'-W122°35.49'  
L-1, H-1

YAKIMA  
116.0 YKM   
Chan 107  
N46°34.21'-W120°26.68'  
L-13, H-1

### TAKEOFF MINIMUMS

Rwys 13L/R: NA - ATC.

Rwy 31L: Standard with minimum climb of 480' per NM to 1400' or 300-1¼ with minimum climb of 265' per NM to 1400.

Rwy 31R: Standard with minimum climb of 371' per NM to 1400' or 400-2 with minimum climb of 240' per NM to 1400.

NOTE: Rwys 31L/R, no right turns authorized until leaving 1400'.

NOTE: RADAR required.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAYS 31L/R:** Climb heading 310°, maintain 2100 or ATC assigned altitude, expect RADAR vectors to assigned route/fix, expect clearance to filed altitude within 3 minutes after departure.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# NEEDLE NINE DEPARTURE

SEATTLE, WASHINGTON

BOEING FIELD/KING COUNTY INTL (BFI)

## NEEDLE NINE DEPARTURE

SL-384 (FAA)

BOEING FIELD/KING COUNTY INTL (BFI)  
SEATTLE, WASHINGTONTAKEOFF OBSTACLE NOTES

- Rwy 31L: Airplane on taxiway 28' from DER, 327' left of centerline, up to 64' AGL/96' MSL.  
 Obstruction light on blast fence, 249' from DER, 452' left of centerline, 16' AGL/26' MSL.  
 Obstruction light on building 1217' from DER, 626' left of centerline, up to 16' AGL/101' MSL.  
 Vent on building 1244' from DER, 446' right of centerline, 16' AGL/59' MSL.  
 Trees beginning 1456' from DER, left and right of centerline, up to 100' AGL/313' MSL.  
 Powerline 2507' from DER, 439' right of centerline, 100' AGL/132' MSL.  
 Light standard 2980' from DER, 876' right of centerline, 16' AGL/99' MSL.  
 Floodlights, 3499' from DER, 1023' right of centerline, up to 164' AGL/199' MSL.  
 Flagpole 3763' from DER, 1278' right of centerline, up to 131' AGL/196' MSL.  
 Stack, 3792' from DER, 543' right of centerline, up to 16' AGL/120' MSL.
- Rwy 31R: Airplane on taxiway 5' from DER, left and right of centerline, up to 64' AGL/96 MSL.  
 Weather rod on obstruction lights, 214' from DER, 99' left of centerline, up to 16' AGL/51' MSL.  
 Obstruction light on glideslope, 527' from DER, 101' left of centerline, up to 16' AGL/44' MSL.  
 Hangars 854' from DER, 405' right of centerline, up to 16' AGL/57' MSL.  
 Antenna on building 1425' from DER, 516' right of centerline, 32' AGL/81' MSL.  
 Obstruction light on building, 2495' from DER, 1002' left of centerline, up to 16' AGL/101' MSL.  
 Trees beginning 2734' from DER, left and right of centerline, up to 100' AGL/362' MSL.  
 Vehicles on road beginning 469' from DER, 252' right of centerline, 15' AGL/208' MSL.  
 Trees beginning 1691' from DER, 229' right of centerline, up to 98' AGL/282' MSL.  
 Tree 3238' from DER, 330' left of centerline, 98' AGL/288' MSL.  
 Flagpole 5040' from DER, 902' right of centerline, 131' AGL/196' MSL.  
 Transmission tower 1.5 NM from DER, 2390' right of centerline, 229' AGL/350' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## NEEDLE NINE DEPARTURE

30APR15

SEATTLE, WASHINGTON  
BOEING FIELD/KING COUNTY INTL (BFI)



LOC/DME I-SZI <b>111.7</b> Chan 54	APP CRS <b>163°</b>	Rwy Idg <b>9426 11901</b> TDZE <b>430 433</b> Apt Elev <b>433 433</b>
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# ILS or LOC RWY 16C

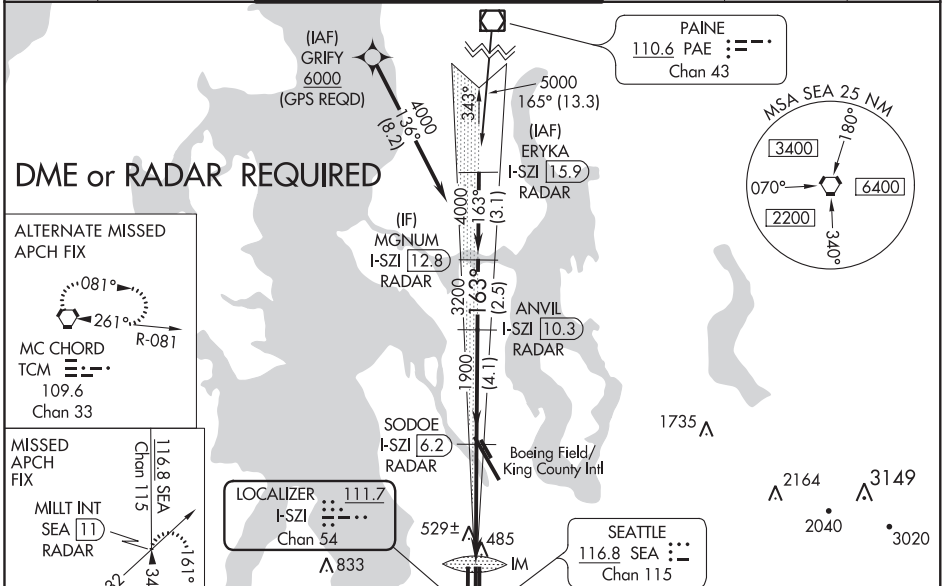
SEATTLE-TACOMA INTL (SEA)

▼ Inoperative table does not apply to Sidestep 16L. For inop ALSF-2, increase S-LOC 16C Cat C, D visibility to RVR 5000. Simultaneous approach authorized with ILS or LOC RWY 16R. Simultaneous operations require use of vertical guidance, maintain last assigned altitude until established on glideslope. DME or RADAR required. See additional requirements on adjacent information page.

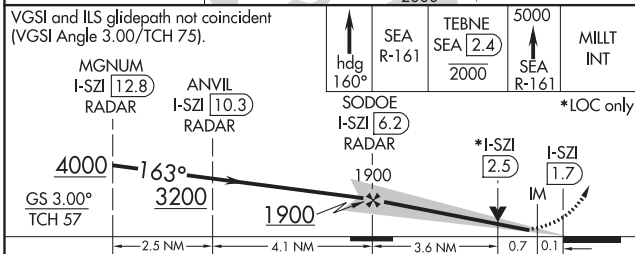
ALSF-2  
Rwy 16C/L  
A

MISSED APPROACH: Climb on heading 160° and SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/RADAR at or below 2000, then climb to 5000 on SEA VORTAC R-161 to MILLT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.

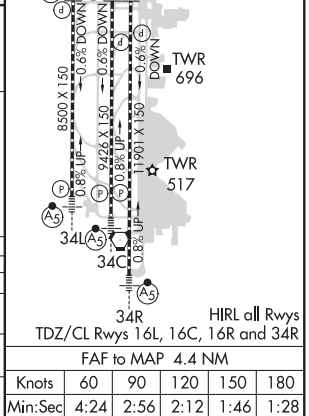
ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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TEBNE SEA 2.4 RADAR 2000	SODOE I-SZI 6.2 RADAR	ANVIL I-SZI 10.3 RADAR	MILLT INT
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ELEV 433	TDZE 16C 430	TDZE 16L 433
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CATEGORY	A	B	C	D
S-ILS 16C	630/18 200 (200-½)			
S-LOC 16C	760/24	330 (400-½)	760/26	330 (400-¾)
SIDESTEP 16L	780/50	347 (400-1)	780-1½	347 (400-1½)
C CIRCLING	1000-1	567 (600-1)	1000-1½	567 (600-1½)
			1000-2	567 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

**SEATTLE-TACOMA INTL AIRPORT**

**ALERT NOTICE**

**ATTENTION ALL AIRCRAFT LANDING TO THE SOUTH:**

When transitioning from an instrument procedure to a visual approach to Runway 16C, verify you are aligned for the intended landing Runway, not Taxiway Tango. Taxiway Tango is west and parallel to Runway 16C.

**TRANSITION TO VISUAL:**

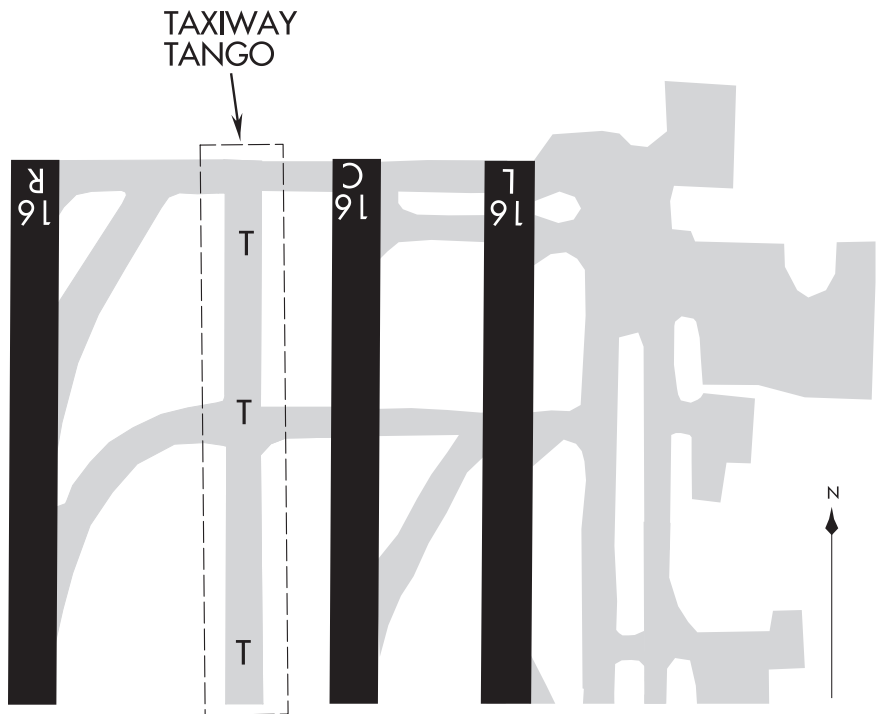
Taxiway Tango has been mistaken for Runway 16C from the air during certain visibility conditions, i.e., wet runway, low sun angle reflections. Aircrews are advised to be aware of the proximity of the taxiway to Runway 16C and its runway-like appearance while on approach.

**RECOMMENDATION:**

Aircrews should use visual cues, e.g., approach lighting systems, REILs, when available, to confirm alignment with Runway 16C not Taxiway Tango. Additionally, it is recommended when executing a segment of the ILS approach for a visual transition, track the localizer until the runway environment is visually verified.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



LOC/DME I-SNQ <b>110.3</b> Chan <b>40</b>	APP CRS <b>163°</b>	Rwy Idg <b>11901</b> TDZE <b>433</b> Apt Elev <b>433</b>
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# ILS or LOC RWY 16L

SEATTLE-TACOMA INTL (SEA)

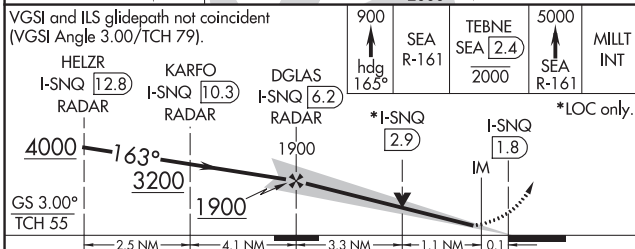
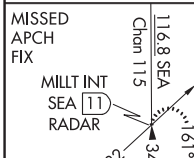
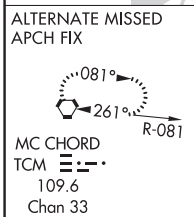
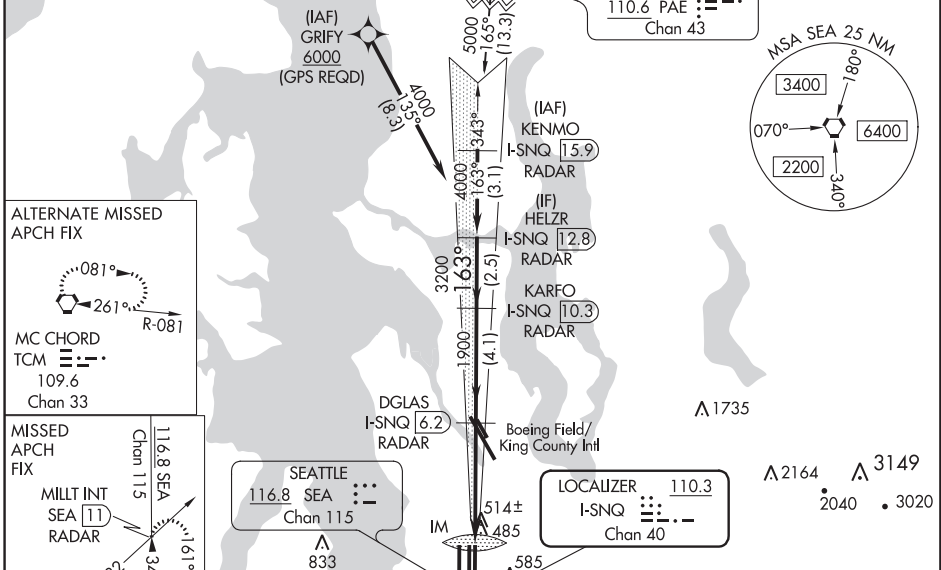
**Simultaneous approach authorized with Rwy 16R.**  
DME or RADAR required. For Inop ALSF-2, increase S-ILS 16L Cat A visibility to RVR 4500, and Cats B,C,D to RVR 4000.



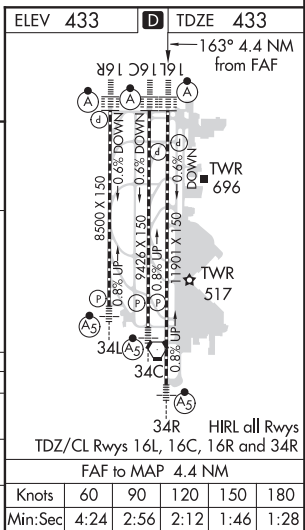
**MISSED APPROACH:** Climb to 900 on heading 165° then on SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/ RADAR at or below 2000 then climb to 5000 on SEA VORTAC R-161 to MILIT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.

ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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## DME or RADAR REQUIRED



CATEGORY	A	B	C	D
S-ILS 16L	697/20 264 (300-1/2)	633/18 200 (200-1/2)		
S-LOC 16L	880/24 447 (500-1/2)	880/45 447 (500-7/8)		
CIRCLING	1000-1 567 (600-1)	1000-1 1/2 567 (600-1/2)	1000-2 567 (600-2)	



NW-1, 10 NOV 2016 to 05 JAN 2017

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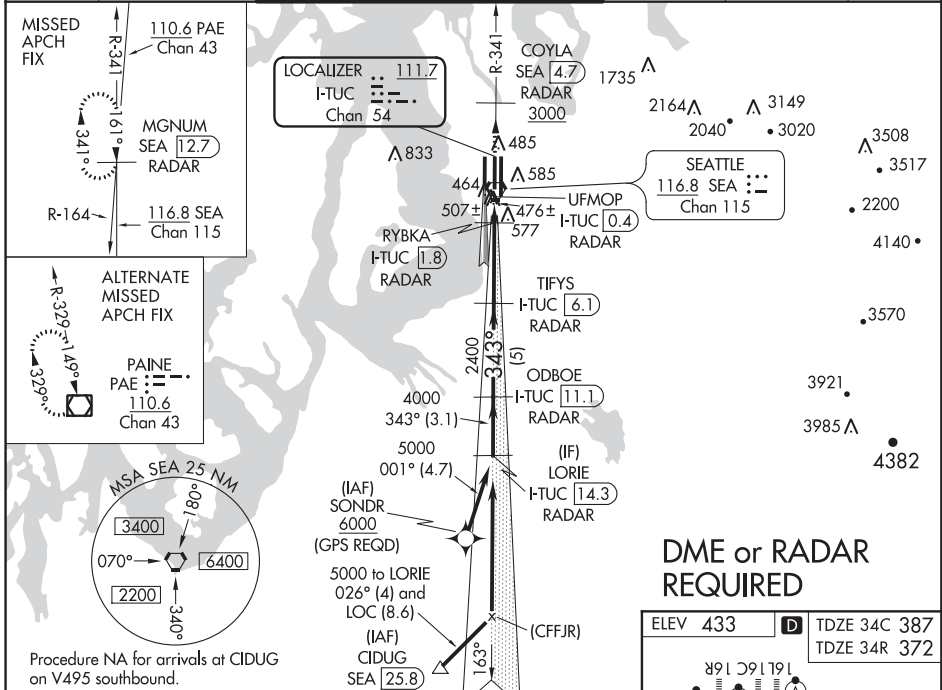
LOC/DME I-TUC <b>111.7</b> Chan 54	APP CRS <b>343°</b>	Rwy Idg 34C 34R 3426 <b>11901</b> 387 <b>372</b> Apt Elev 433 433
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# ILS or LOC RWY 34C

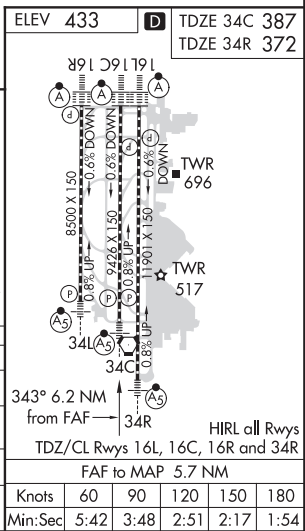
SEATTLE-TACOMA INTL (SEA)

<p><b>▽</b> DME or RADAR required. Inoperative table does not apply to MALSR Rwy 34R. Simultaneous approach authorized with Rwy 34L. #RVR 1800 authorized with the use of FD or AP or HUD to DA.</p>	<p>MALSR Rwy 34C/R</p>	<p>MISSED APPROACH: Climb on heading 345° and outbound on SEA VORTAC R-341 to cross COYLA/SEA 4.7 DME/RADAR at or above 3000 then climb to 5000 on SEA VORTAC R-341 to MGNUM/SEA 12.7 DME/RADAR and hold, continue climb-in-hold to 5000.</p>
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ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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## DME or RADAR REQUIRED



hdg 345°	SEA R-341	COYLA SEA 4.7 RADAR 3000	5000 SEA R-341	MGNUM SEA 12.7 RADAR	VGSI and ILS glidepath not coincident (VGSI Angle 3.00°/TCH 75).	LORIE I-TUC 14.3 RADAR
*LOC only	RYBKA I-TUC 1.8 RADAR	TIFYS I-TUC 6.1 RADAR	ODBOE I-TUC 11.1 RADAR			
	UFMOP I-TUC 0.4 RADAR					
CATEGORY	A	B	C	D		
S-ILS 34C#	604/24		217 (200-½)			
S-LOC 34C	760/24	373 (400-½)	760/35	373 (400-¾)		
SIDESTEP 34R	760/50	388 (400-1)	760/60	388 (400-1¼)		
CIRCLING	1000-1	567 (600-1)	1000-1½	567 (600-1½)	1000-2	567 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

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SEATTLE, WASHINGTON

AL-582 (FAA)

16315

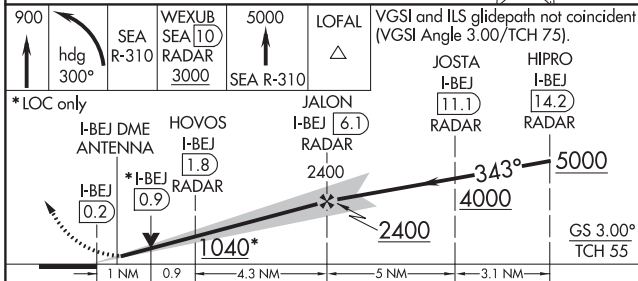
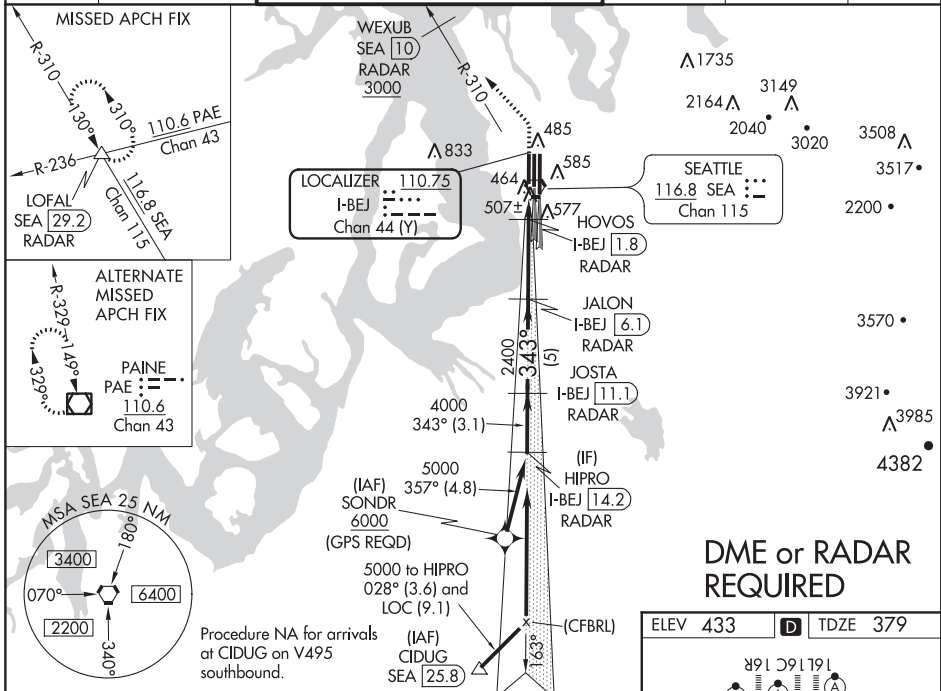
LOC/DME I-BEJ <b>110.75</b> Chan 44 (Y)	APP CRS <b>343°</b>	Rwy ldg TDZE <b>8500</b> <b>379</b> Apt Elev <b>433</b>
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# ILS or LOC RWY 34L

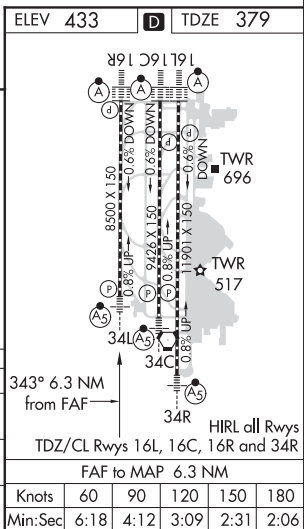
SEATTLE-TACOMA INTL (SEA)

DME or RADAR required. Simultaneous approach authorized with Rwy 34R/C.		MALS/R 	MISSED APPROACH: Climb to 900 then climbing left turn on heading 300° and on SEA VORTAC R-310 to cross WEXUB/10 DME/RADAR at or above 3000 then climb to 5000 on SEA VORTAC R-310 to LOFAL/SEA 29.2 DME/RADAR and hold.
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ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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CATEGORY	A	B	C	D
S-ILS 34L	579/24		200 (200-½)	
S-LOC 34L	760/24	381 (400-½)	760/40	381 (400-¾)
CIRCLING	1000-1	567 (600-1)	1000-1½ 567 (600-1½)	1000-2 567 (600-2)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SEATTLE, WASHINGTON  
Amdt 1D 28APR16

47°27'N-122°19'W

# SEATTLE-TACOMA INTL (SEA)

## ILS or LOC RWY 34L

LOC/DME I-SEA <b>110.3</b> Chan 40	APP CRS <b>343°</b>	Rwy Idg TDZE Apt Elev	34R <b>11901</b> <b>372</b> <b>433</b>	34C <b>9426</b> <b>387</b> <b>433</b>
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# ILS or LOC RWY 34R

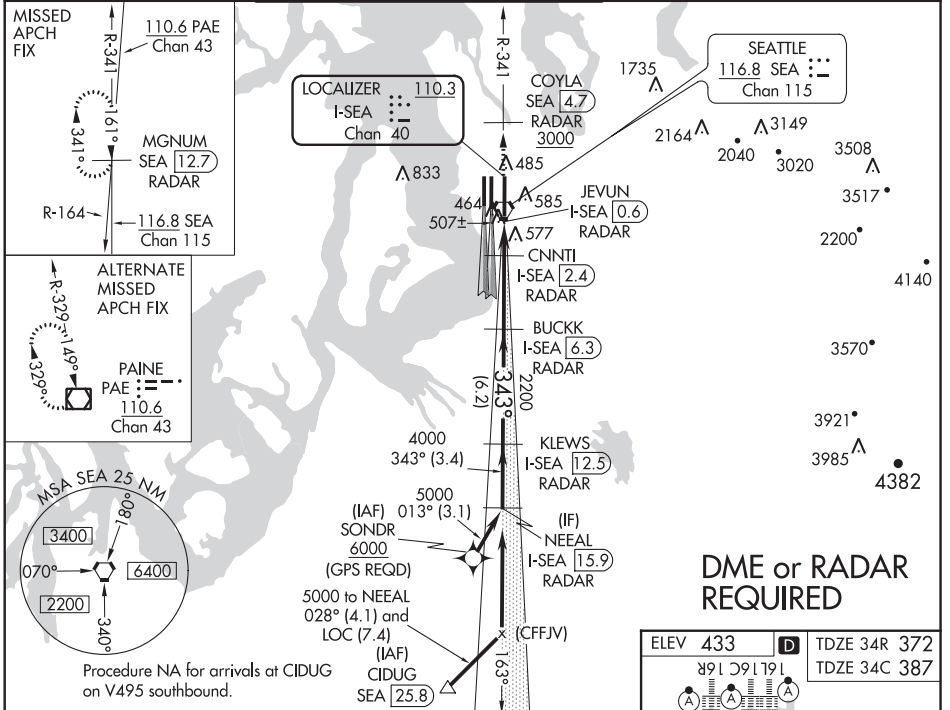
SEATTLE-TACOMA INTL (SEA)

**▼** DME or RADAR required. Simultaneous approach authorized with Rwy 34L. Inoperative table does not apply to SIDESTEP 34C Cats A and B.

**MALSR** Rwy 34R/C

**MISSED APPROACH:** Climb on heading 343° and outbound on SEA VORTAC R-341 to cross COYLA/SEA 4.7 DME/RADAR at or above 3000 then climb to 5000 on SEA VORTAC R-341 to MGNUM/SEA 12.7 DME/RADAR and hold, continue climb-in-hold to 5000.

ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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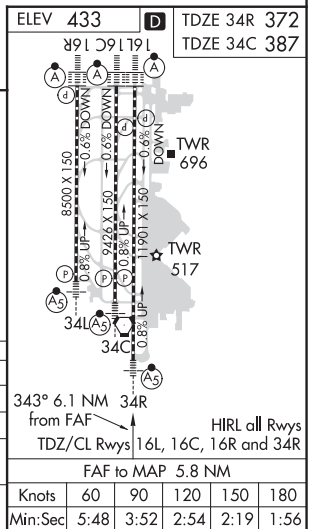


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

hdg 343°	SEA R-341	COYLA SEA [4.7] RADAR 3000	5000 SEA R-341	MGNUM SEA [12.7] RADAR	Use I-SEA DME when on localizer course. VGSI and ILS glidepath not coincident (VGSI Angle 2.75/TCH 83).
*LOC only		CNNTI I-SEA [2.4] RADAR	BUCKK I-SEA [6.3] RADAR	KLEWS I-SEA [12.5] RADAR	NEEL I-SEA [15.9] RADAR
		JEVUN I-SEA [0.6] RADAR			

CATEGORY	A	B	C	D
S-ILS 34R		572/18	200 (200-½)	
S-LOC 34R	720/24	348 (300-½)	720/35	348 (300-¾)
SIDESTEP 34C		760/50	373 (400-1)	
CIRCLING	1000-1	567 (600-1)	1000-1½ 567 (600-1½)	1000-2 567 (600-2)











LOC/DME I-TUC <b>111.7</b> Chan <b>54</b>	APP CRS <b>343°</b>	Rwy ldg TDZE <b>9426</b> <b>387</b>	Apt Elev <b>433</b>
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# ILS RWY 34C (SA CAT I & II)

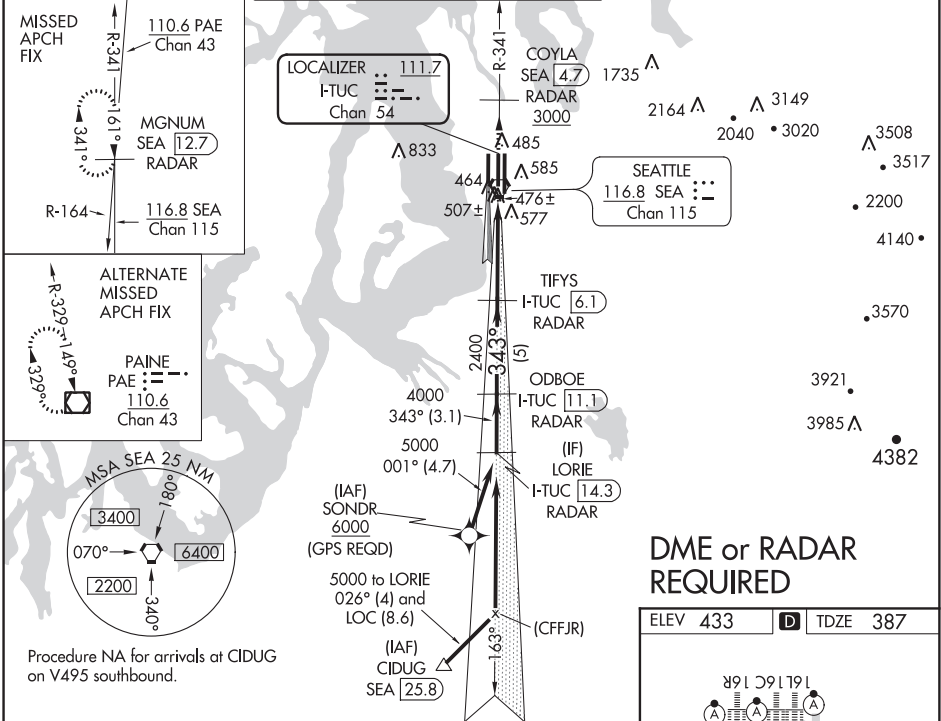
SEATTLE-TACOMA INTL (SEA)

**▽** DME or RADAR required. Simultaneous approach authorized with Rwy 34L. SA CAT I: Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH. SA CAT II: Reduced lighting: Requires specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown



**MISSED APPROACH:** Climb on heading 345° and outbound on SEA VORTAC R-341 to cross COYLA/SEA 4.7 DME/RADAR at or above 3000 then climb to 5000 on SEA VORTAC R-341 to MGNUM/SEA 12.7 DME/RADAR and hold, continue climb-in-hold to 5000.

ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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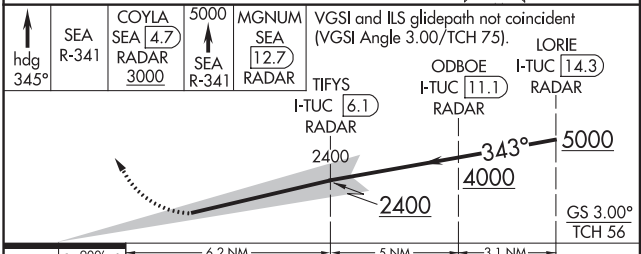
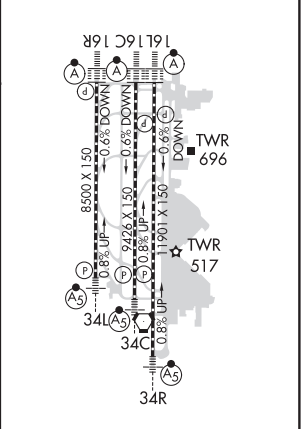


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## DME or RADAR REQUIRED

ELEV 433	<b>D</b> TDZE 387
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CATEGORY	A	B	C	D
S-ILS 34C	SA CAT I	RA 231/14	150	DA 537
S-ILS 34C	SA CAT II	RA 112/12	100	DA 487

## SA CATEGORY I & II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

# ILS RWY 34C (SA CAT I & II)

HIRL all Rwys  
TDZ/CL Rwys 16L, 16C, 16R and 34R

SEATTLE, WASHINGTON

AL-582 (FAA)

16315

LOC/DME I-BEJ <b>110.75</b> Chan 44 (Y)	APP CRS <b>343°</b>	Rwy ldg TDZE <b>8500</b> <b>379</b> Apt Elev <b>433</b>
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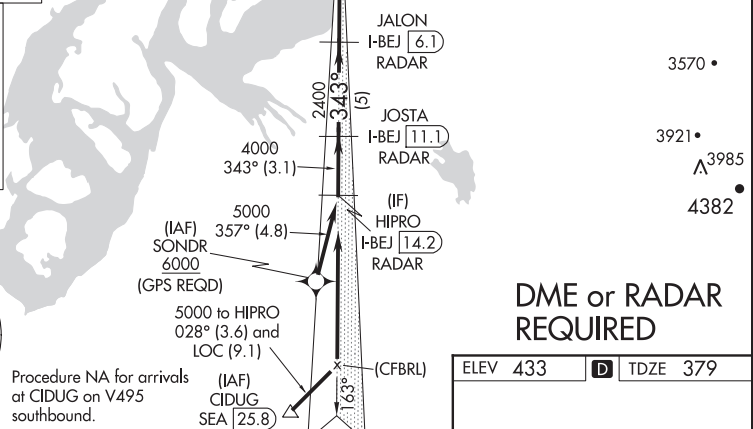
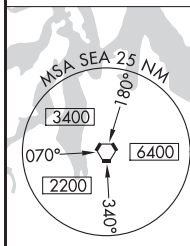
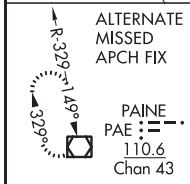
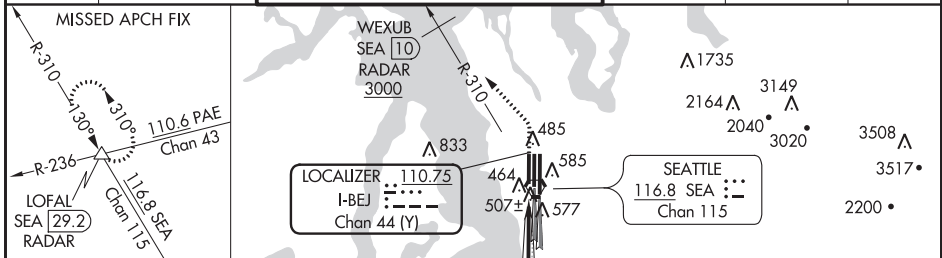
# ILS RWY 34L (SA CAT I & II)

SEATTLE-TACOMA INTL (SEA)

▼ DME or RADAR required. Simultaneous approach authorized with Rwy 34R/C. SA CAT I: Requires specific OPSPEC, MSPEC, or LOA approval and use of HD to DH. SA CAT II: Reduced lighting: Requires specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

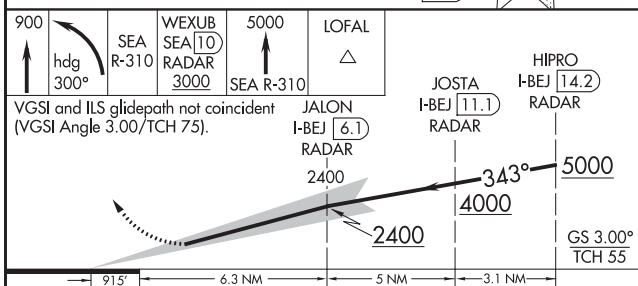
MALSR  
MISSED APPROACH: Climb to 900 then climbing left turn on heading 300° and on SEA VORTAC R-310 to cross WEXUB/10 DME/RADAR at or above 3000 then climb to 5000 on SEA VORTAC R-310 to LOFAL/SEA 29.2 DME/RADAR and hold.

ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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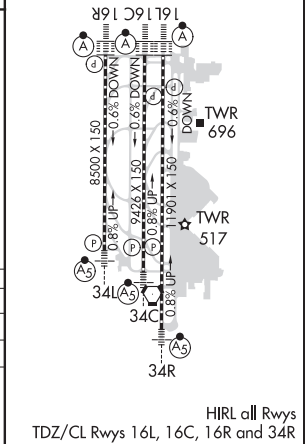
**DME or RADAR REQUIRED**

ELEV 433	<b>D</b> TDZE 379
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CATEGORY	A	B	C	D
S-ILS 34L	SA CAT I	RA 213/14	150	DA 529
S-ILS 34L	SA CAT II	RA 117/12	100	DA 479

**SA CATEGORY I & II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**



SEATTLE, WASHINGTON  
Amdt 1D 28APR16

SEATTLE-TACOMA INTL (SEA)

47°27'N-122°19'W **ILS RWY 34L (SA CAT I & II)**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



SEATTLE, WASHINGTON

AL-582 (FAA)

16315

LOC/DME I-SZI <b>111.7</b> Chan 54	APP CRS <b>163°</b>	Rwy Idg TDZE Apt Elev	<b>9426</b> <b>430</b> <b>433</b>
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# ILS RWY 16C (CAT II & III)

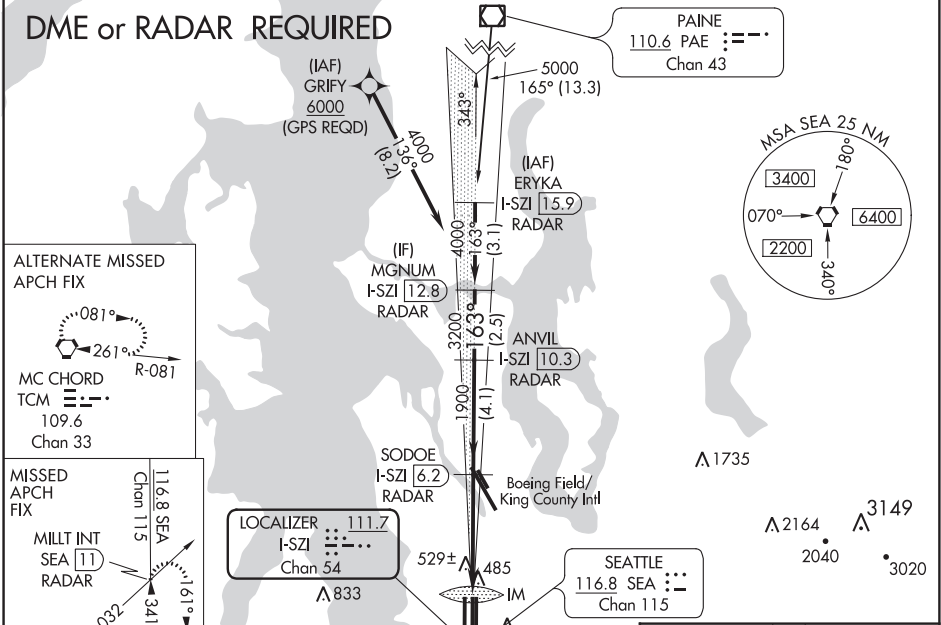
SEATTLE-TACOMA INTL (SEA)

Simultaneous approach NA.  
DME or RADAR required. CAT II: RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

ALSF-2

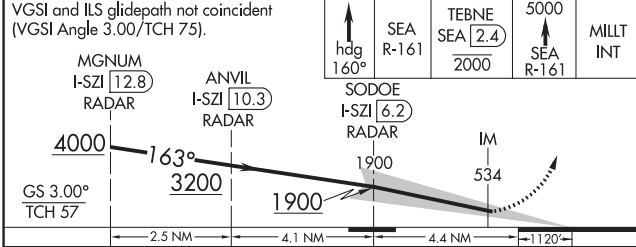
MISSED APPROACH: Climb on heading 160° and SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/RADAR at or below 2000, then climb to 5000 on SEA VORTAC R-161 to MILLT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.

ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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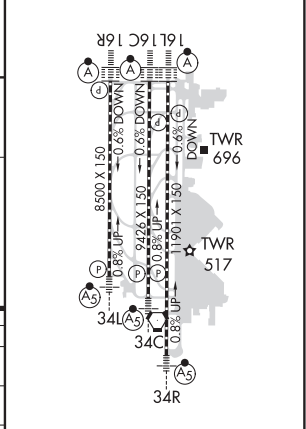
VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 75).

MGNUM I-SZI 12.8 RADAR	ANVIL I-SZI 10.3 RADAR	SODOE I-SZI 6.2 RADAR	IM
4000	3200	1900	534
hdg 160°	SEA R-161	TEBNE SEA 2.4 2000	5000 SEA R-161
GS 3.00° TCH 57			MILLT INT



CATEGORY	B	C	D
S-ILS 16C	CAT II RA 126/12 100 CA 530		
S-ILS 16C	CAT III RVR 03		

ELEV 433	TDZE 430
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## CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SEATTLE, WASHINGTON  
Amdt 16 15OCT15

SEATTLE-TACOMA INTL (SEA)  
47°27'N-122°19'W **ILS RWY 16C (CAT II & III)**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

HIRL all Rwys  
TDZ/CL Rwys 16L, 16C, 16R and 34R

LOC/DME I-SNQ <b>110.3</b> Chan 40	APP CRS <b>163°</b>	Rwy Idg <b>11901</b> TDZE <b>433</b> Apt Elev <b>433</b>
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# ILS RWY 16L (CAT II & III)

SEATTLE-TACOMA INTL (SEA)

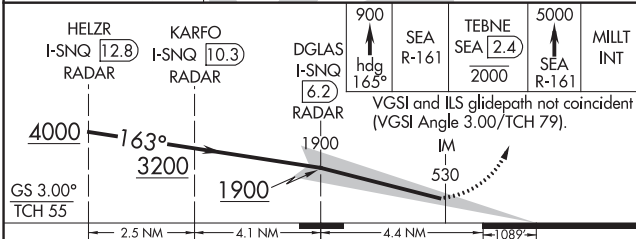
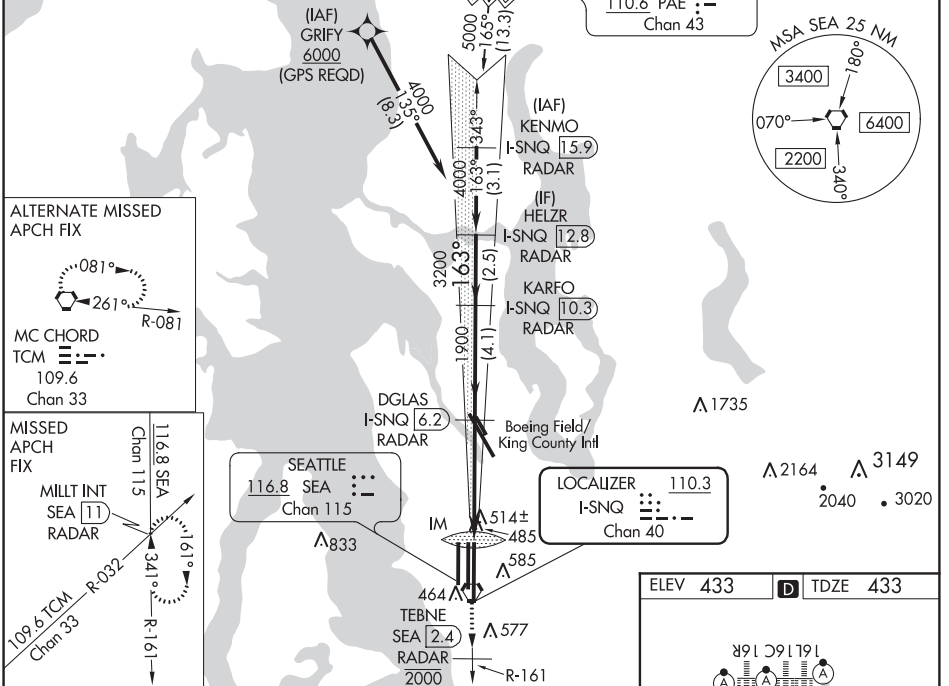
**Simultaneous approach authorized with Rwy 16R. DME or RADAR required. CAT II: RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.**

**ALSIF-2**  
A

**MISSED APPROACH:** Climb to 900 on heading 165° then on SEA VORTAC R-161 to cross TEBNE/SEA 2.4 DME/RADAR at or below 2000 then climb to 5000 on SEA VORTAC R-161 to MILIT INT/SEA 11 DME/RADAR and hold, continue climb-in-hold to 5000.

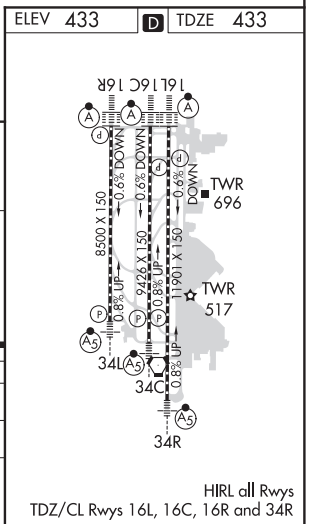
ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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## DME or RADAR REQUIRED



CATEGORY	A	B	C	D
S-ILS 16L	NA	CAT II RA 176/12 100 DA 533		
S-ILS 16L	NA	CAT III RVR 03		

## CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



HIRL all Rwys  
TDZ/CL Rwys 16L, 16C, 16R and 34R

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SEATTLE, WASHINGTON

AL-582 (FAA)

16315

LOC/DME I-CJL <b>110.75</b> Chan <b>44</b> (Y)	APP CRS <b>163°</b>	Rwy Idg TDZE Apt Elev	<b>8500</b> <b>415</b> <b>433</b>
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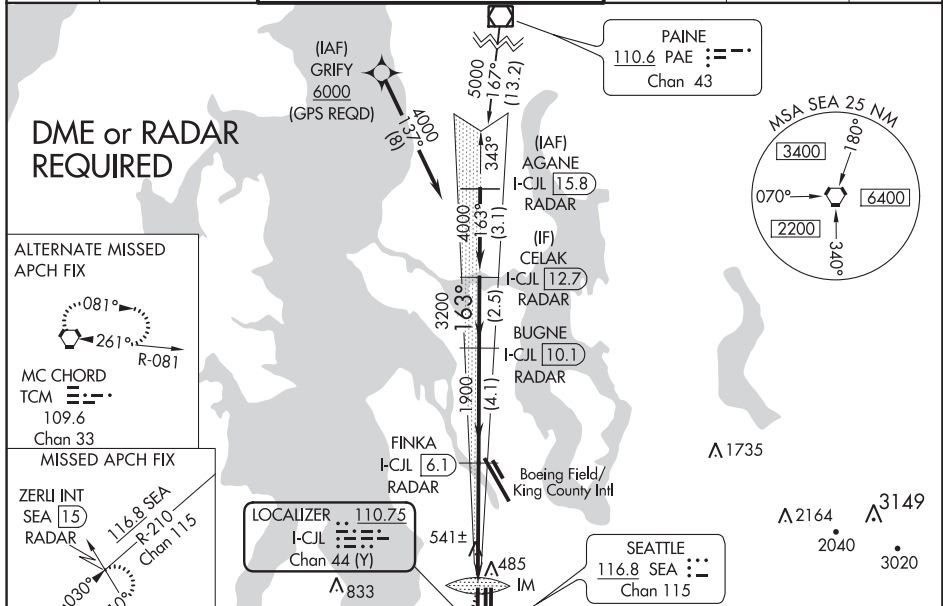
# ILS RWY 16R (CAT II & III)

SEATTLE-TACOMA INTL (SEA)

Simultaneous approach authorized with Rwy 16L DME or RADAR required. CAT II: RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

ALSIF-2  
MISSED APPROACH: Climb to 900 then climb on heading 195° and on SEA VORTAC R-210 to cross TECEE/SEA 3 DME/RADAR at or below 2000 then climb to 5000 on SEA VORTAC R-210 to ZERLI INT/SEA 15 DME/RADAR and hold, continue climb-in-hold to 5000.

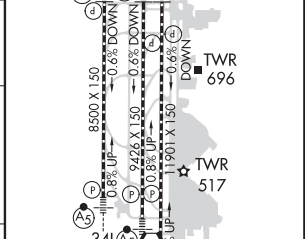
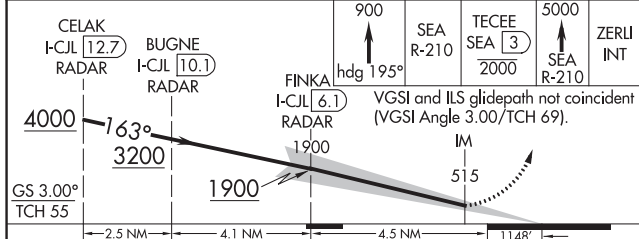
ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 433	<b>D</b> TDZE 415
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CATEGORY	A	B	C	D
S-ILS 16R	CAT II RA 139/12 100 DA 515			
S-ILS 16R	CAT III RVR 03			

**CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

SEATTLE, WASHINGTON

Amtd 4 15OCT15

47°27'N-122°19'W

SEATTLE-TACOMA INTL (SEA)

# ILS RWY 16R (CAT II & III)

HIRL all Rwys  
TDZ/CL Rwys 16L, 16C, 16R and 34R



# RNAV (RNP) Z RWY 16C

SEATTLE-TACOMA INTL (SEA)

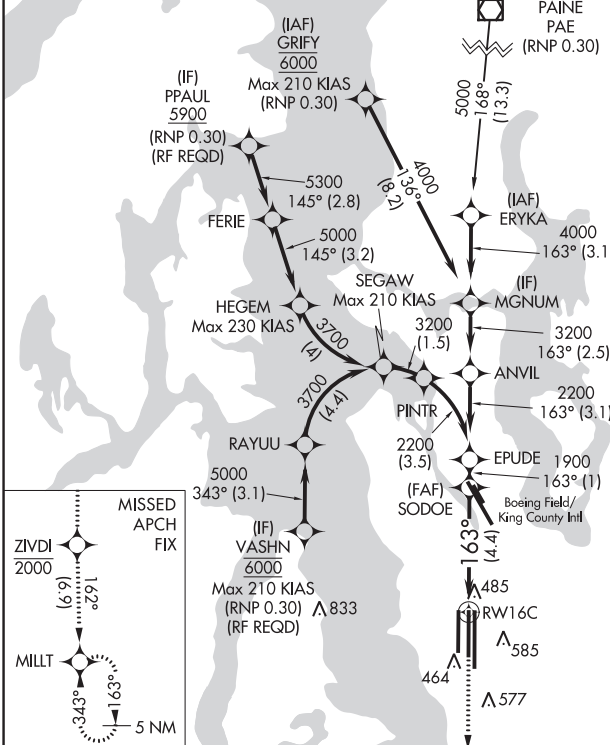
APP CRS	Rwy Idg	<b>9426</b>
<b>163°</b>	TDZE	<b>430</b>
	Apt Elev	<b>433</b>

▼ For uncompensated Baro-VNAV systems, procedure NA below -6°C (22°F) or above 54°C (130°F). For inop ALSF, increase RNP 0.12 all Cats visibility to RVR 5200, and increase RNP 0.30 all Cats visibility to 1 3/8 mile. GPS required. See additional requirements on adjacent information page.

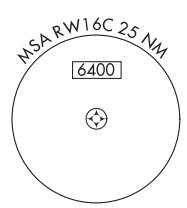
ALSF-2

MISSED APPROACH: Climb direct ZIVDI to cross ZIVDI at or below 2000, then climb to 5000 on track 162° to MILLT and hold, continue climb-in-hold to 5000.

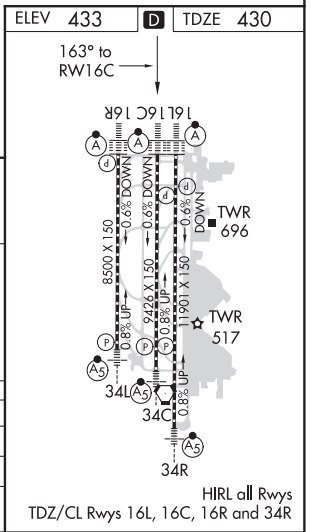
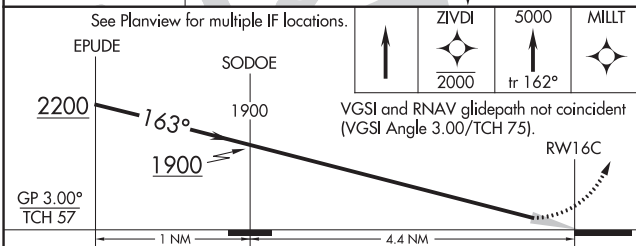
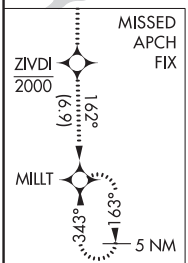
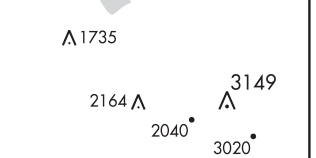
ATIS	SEATTLE APP CON	SEATTLE TOWER	GND CON	CLNC DEL	CPDLC
<b>118.0</b>	<b>133.65 273.45</b>	<b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	<b>121.7</b>	<b>128.0</b>	



Procedure NA for arrival on PAE VOR/DME airway radials 163 CW 236.



## RADAR REQUIRED



CATEGORY	A	B	C	D
RNP 0.12 DA		758/29	328 (400-5%)	
RNP 0.30 DA		834/43	404 (500-7%)	

## AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

**SEATTLE-TACOMA INTL AIRPORT**

**ALERT NOTICE**

**ATTENTION ALL AIRCRAFT LANDING TO THE SOUTH:**

When transitioning from an instrument procedure to a visual approach to Runway 16C, verify you are aligned for the intended landing Runway, not Taxiway Tango. Taxiway Tango is west and parallel to Runway 16C.

**TRANSITION TO VISUAL:**

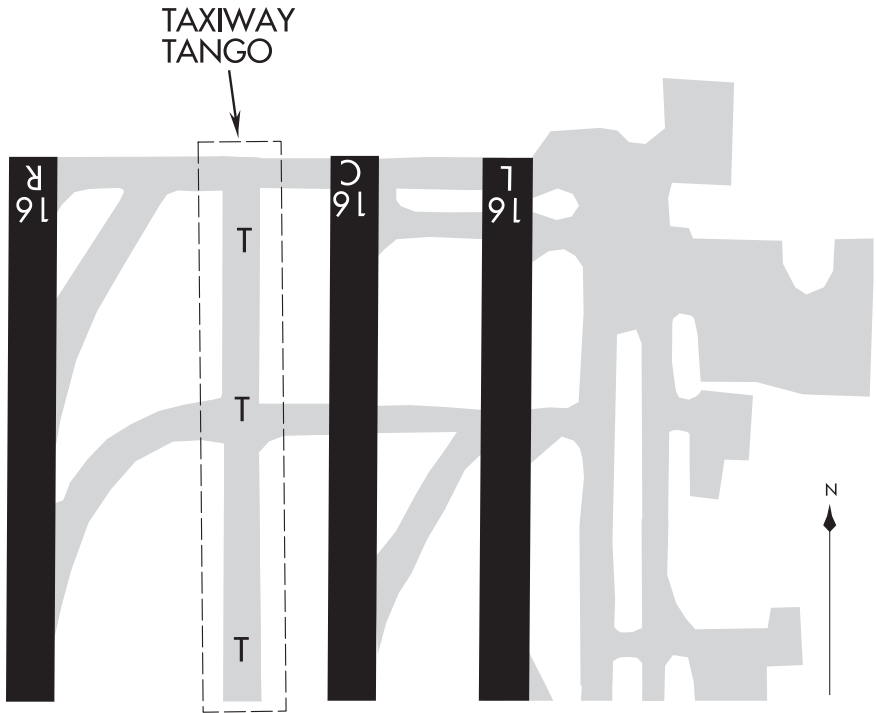
Taxiway Tango has been mistaken for Runway 16C from the air during certain visibility conditions, i.e., wet runway, low sun angle reflections. Aircrews are advised to be aware of the proximity of the taxiway to Runway 16C and its runway-like appearance while on approach.

**RECOMMENDATION:**

Aircrews should use visual cues, e.g., approach lighting systems, REILs, when available, to confirm alignment with Runway 16C not Taxiway Tango. Additionally, it is recommended when executing a segment of the ILS approach for a visual transition, track the localizer until the runway environment is visually verified.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



APP CRS	Rwy Idg	<b>11901</b>
<b>163°</b>	TDZE	<b>433</b>
	Apt Elev	<b>433</b>

# RNAV (RNP) Z RWY 16L

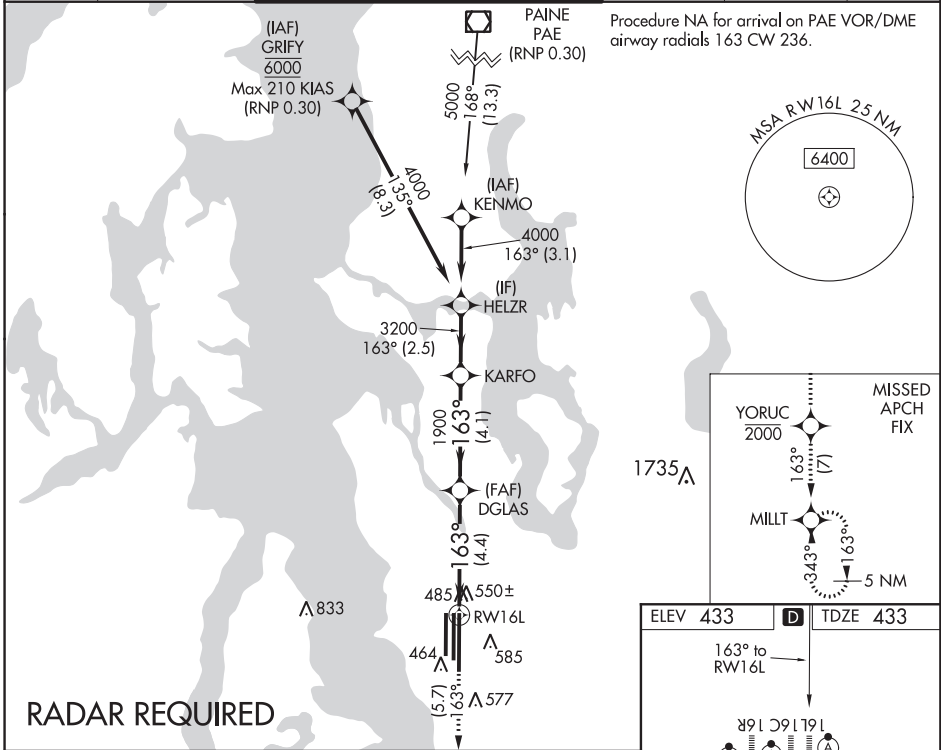
SEATTLE-TACOMA INTL (SEA)

**⚠** For uncompensated Baro-VNAV systems, procedure NA below -6°C (22°F) or above 54°C (130°F). For inop ALSF-2, increase RNP 0.30 all Cats visibility to 1 3/8 mile. Simultaneous approach authorized with Rwy 16R. GPS required. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

ALSF-2

**MISSED APPROACH:** Climb on track 163° to cross YORUC at or below 2000, then climb to 5000 on track 163° to MILLT and hold, continue climb-in-hold to 5000.

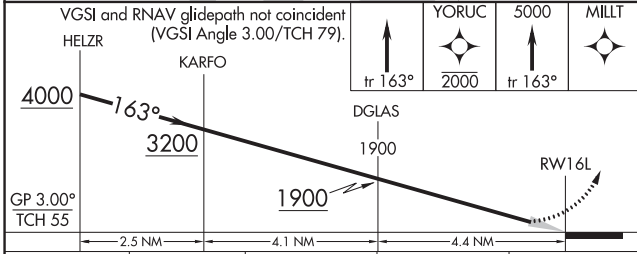
ATIS	SEATTLE APP CON	SEATTLE TOWER	GND CON	CLNC DEL	CPDLC
<b>118.0</b>	<b>133.65 273.45</b>	<b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	<b>121.7</b>	<b>128.0</b>	



NW-1, 10 NOV 2016 to 05 JAN 2017

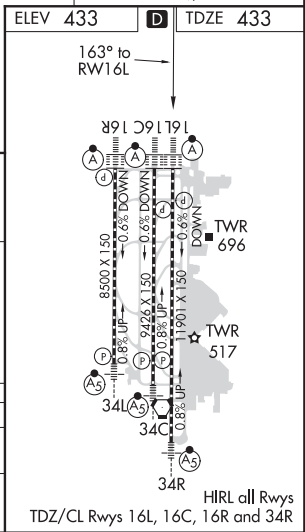
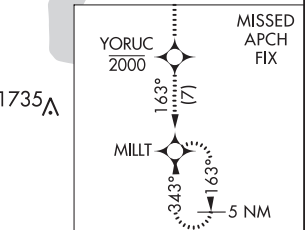
NW-1, 10 NOV 2016 to 05 JAN 2017

## RADAR REQUIRED



CATEGORY	A	B	C	D
RNP 0.30 DA		842/45	409 (500-7%)	

**AUTHORIZATION REQUIRED**






APP CRS <b>343°</b>	Rwy Idg <b>9426</b>
	TDZE <b>387</b>
	Apt Elev <b>433</b>

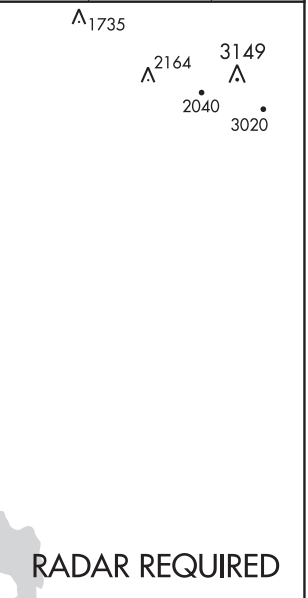
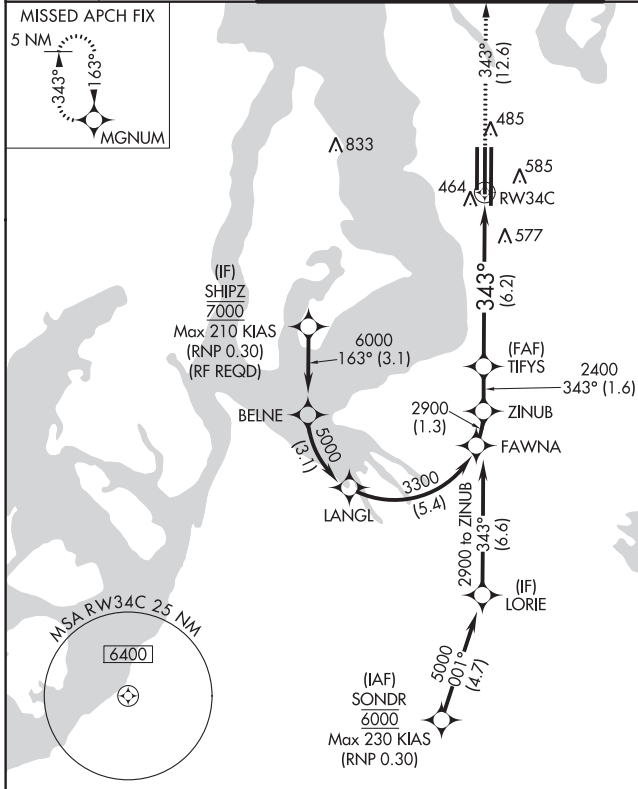
# RNAV (RNP) Z RWY 34C

SEATTLE-TACOMA INTL (SEA)

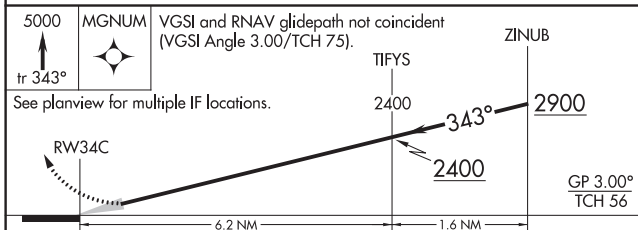
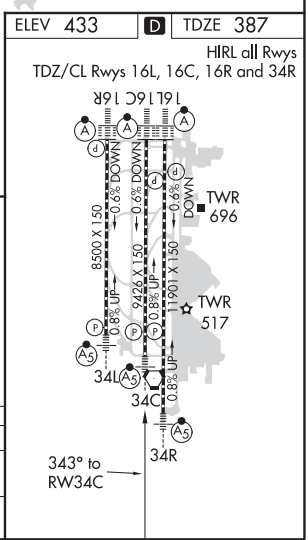
**GPS required.** For uncompensated Baro-VNAV systems, procedure NA below -6°C (22°F) or above 54°C (130°F). Simultaneous approach authorized with Rwy 34L except arrivals at SHIPZ. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

**MALSR**  
 MISSED APPROACH: Climb to 5000 on track 343° to MGNUM and hold, continue climb-in-hold to 5000.

ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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**RADAR REQUIRED**



CATEGORY	A	B	C	D
RNP 0.30 DA	808/50 421 (400-1)			

**AUTHORIZATION REQUIRED**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SEATTLE, WASHINGTON

AL-582 (FAA)

16315

APP CRS <b>343°</b>	Rwy Idg <b>8500</b>
	TDZE <b>379</b>
	Apt Elev <b>433</b>

# RNAV (RNP) Z RWY 34L

SEATTLE-TACOMA INTL (SEA)

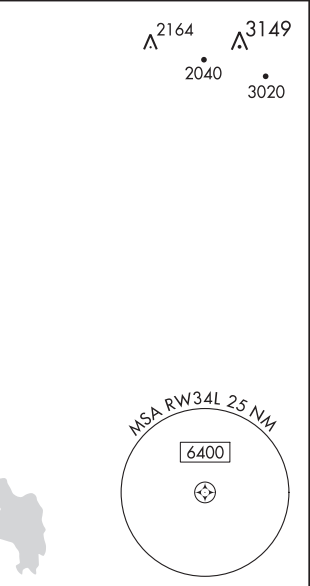
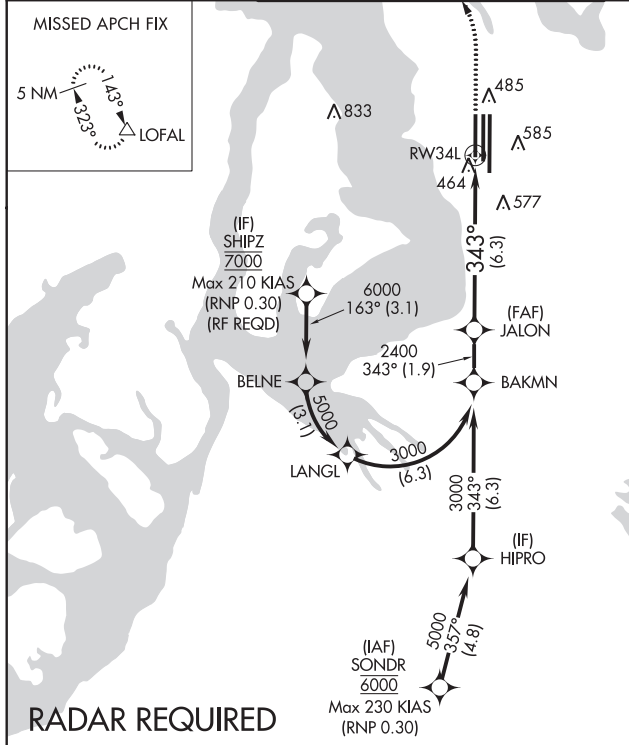
**▼** For uncompensated Baro-VNAV systems, procedure NA below -6°C (22°F) or above 54°C (130°F). GPS required. Simultaneous approach authorized with Rwy 34R except for arrivals at SHIPZ. Use of FD or AP providing RNAV track guidance required during simultaneous operations. For inop MALSR, increase RNP 0.15 all Cats visibility to RVR 6000 and RNP 0.30 all Cats visibility to 1½ mile.

MALSR



MISSED APPROACH: Climb to 900 then climbing left turn to 5000 direct LOFAL and hold.

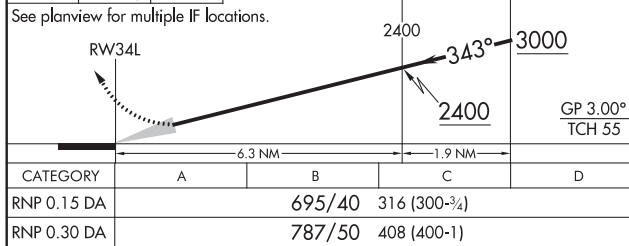
ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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**RADAR REQUIRED**

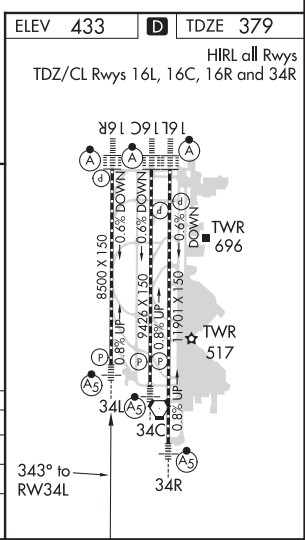
900 5000 LOFAL

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 75).



CATEGORY	A	B	C	D
RNP 0.15 DA		695/40	316 (300-¾)	
RNP 0.30 DA		787/50	408 (400-1)	

## AUTHORIZATION REQUIRED



SEATTLE, WASHINGTON  
Amdt 2 15OCT15

47°27'N-122°19'W

# SEATTLE-TACOMA INTL (SEA) RNAV (RNP) Z RWY 34L

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017







**SEATTLE-TACOMA INTL AIRPORT**

**ALERT NOTICE**

**ATTENTION ALL AIRCRAFT LANDING TO THE SOUTH:**

When transitioning from an instrument procedure to a visual approach to Runway 16C, verify you are aligned for the intended landing Runway, not Taxiway Tango. Taxiway Tango is west and parallel to Runway 16C.

**TRANSITION TO VISUAL:**

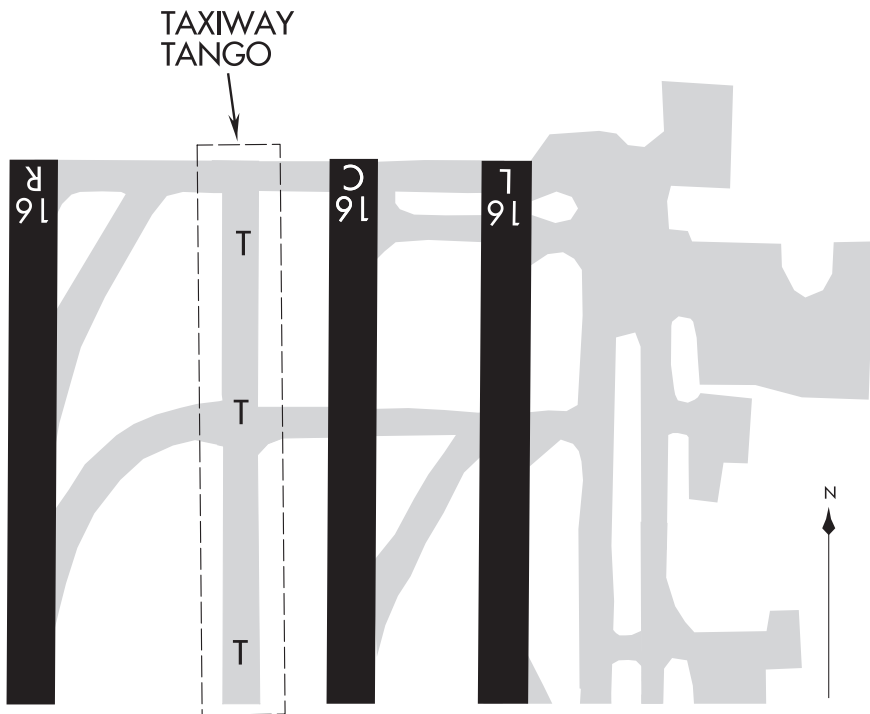
Taxiway Tango has been mistaken for Runway 16C from the air during certain visibility conditions, i.e., wet runway, low sun angle reflections. Aircrews are advised to be aware of the proximity of the taxiway to Runway 16C and its runway-like appearance while on approach.

**RECOMMENDATION:**

Aircrews should use visual cues, e.g., approach lighting systems, REILs, when available, to confirm alignment with Runway 16C not Taxiway Tango. Additionally, it is recommended when executing a segment of the ILS approach for a visual transition, track the localizer until the runway environment is visually verified.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017







SEATTLE, WASHINGTON

AL-582 (FAA)

16315

WAAS CH <b>77710</b> <b>W34B</b>	APP CRS <b>343°</b>	Rwy Idg TDZE <b>387</b> Apt Elev <b>433</b>
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# RNAV (GPS) Y RWY 34C

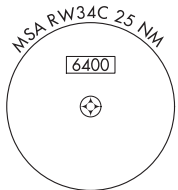
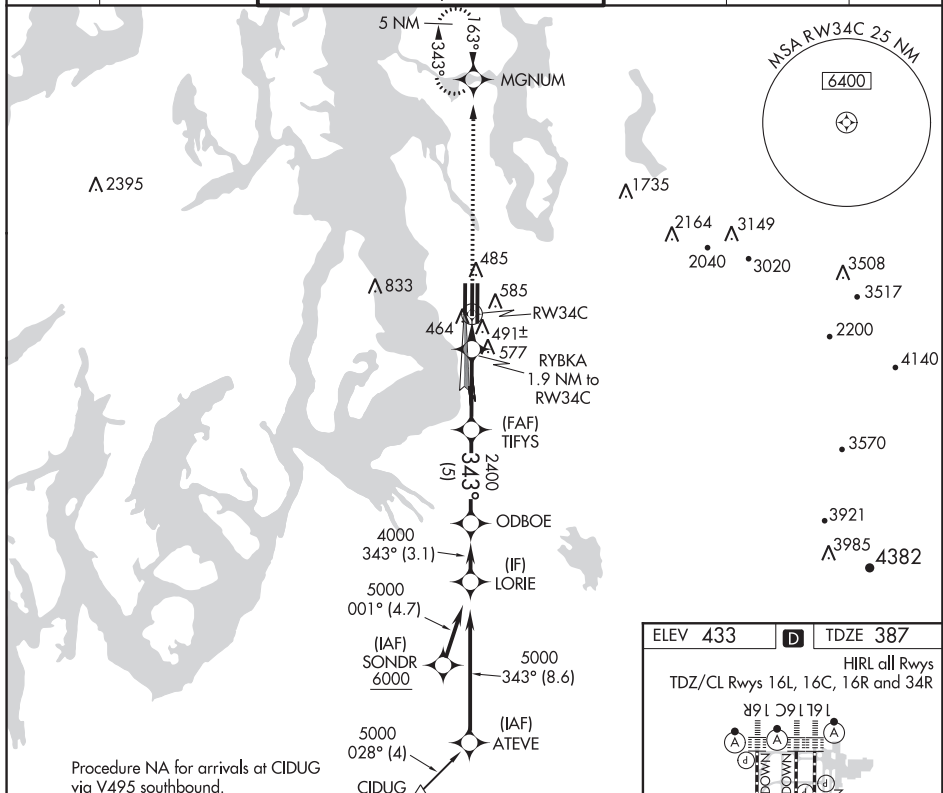
SEATTLE-TACOMA INTL (SEA)

**▼** DME/DME RNP-0.3 NA. Simultaneous approach authorized with Rwy 34L. LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -8°C (18°F) or above 54°C (130°F).



**MISSED APPROACH:**  
Climb to 5000 direct  
MGNUM and hold, continue  
climb-in-hold to 5000.

ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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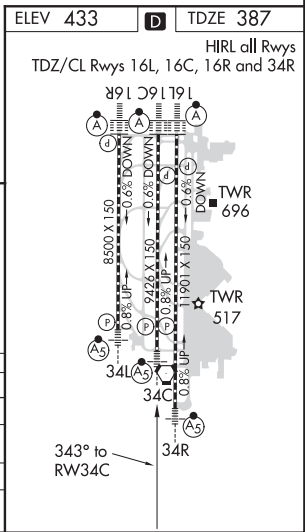


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

Procedure NA for arrivals at CIDUG via V495 southbound.

5000	MGNUM	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 75)		LORIE
				5000
				4000
				2400
				1020*
				GP 3.00° TCH 56
CATEGORY	A	B	C	D
LPV DA		610/24	223 (200-1/2)	
LNAV/VNAV DA		839/50	452 (500-1)	
LNAV MDA	880/24	493 (500-1/2)	880/55	493 (500-1/4)
CIRCLING	1000-1	567 (600-1)	1000-1 1/2 567 (600-1 1/2)	1000-2 567 (600-2)



SEATTLE, WASHINGTON  
Amdt 2B 29MAY14

47°27'N-122°19'W

# RNAV (GPS) Y RWY 34C

SEATTLE-TACOMA INTL (SEA)

WAAS CH <b>45810</b> <b>W34A</b>	APP CRS <b>343°</b>	Rwy Idg TDZE <b>379</b> Apt Elev <b>433</b>
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# RNAV (GPS) Y RWY 34L

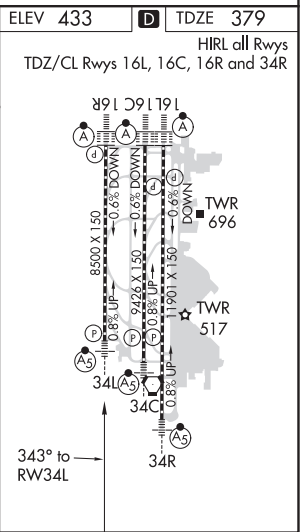
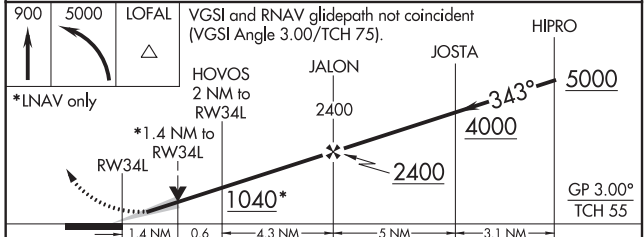
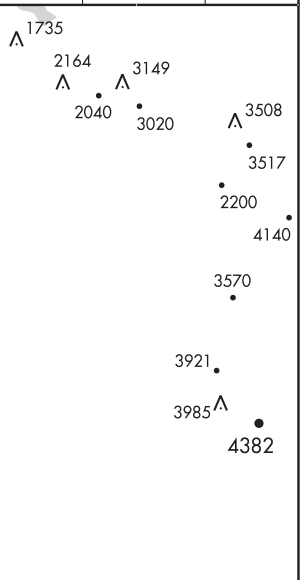
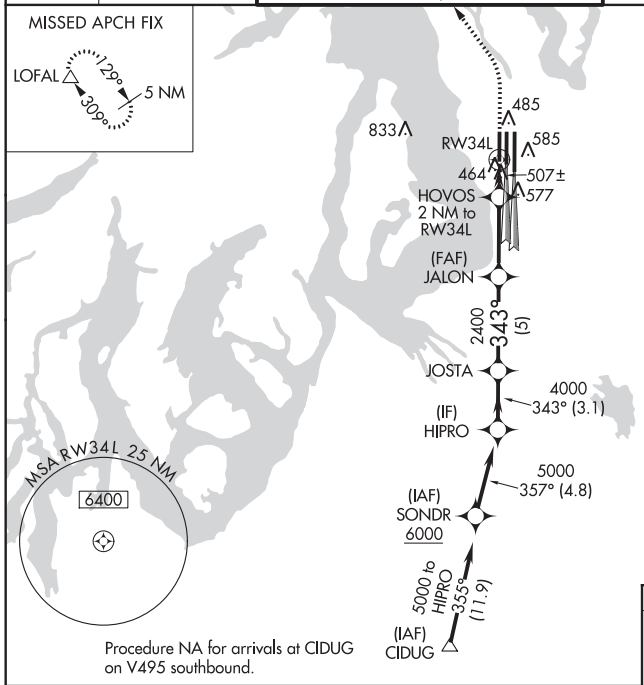
SEATTLE-TACOMA INTL (SEA)

**▼** DME/DME RNP -0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -8°C (18°F) or above 54°C (130°F). Use of FD or AP providing RNAV track guidance required during simultaneous operations. LNAV procedure NA during simultaneous operations. Simultaneous approach authorized with Rwy 34R/C. For inoperative MALS/R, increase LNAV/VNAV all Cats visibility to 1½, increase LNAV Cat A and B visibility to RVR 5500 and Cat C and D visibility to 1½.



**MISSED APPROACH:** Climb to 900 then climbing left turn to 5000 direct LOFAL and hold.

ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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CATEGORY	A	B	C	D
LPV DA	579/24		200 (200-½)	
LNAV/VNAV DA	808/40		429 (400-¾)	
LNAV MDA	860/24	481 (500-½)	860/55	481 (500-1¼)
CIRCLING	1000-1	567 (600-1)	1000-1½	1000-2
			567 (600-1½)	567 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SEATTLE, WASHINGTON

AL-582 (FAA)

16315

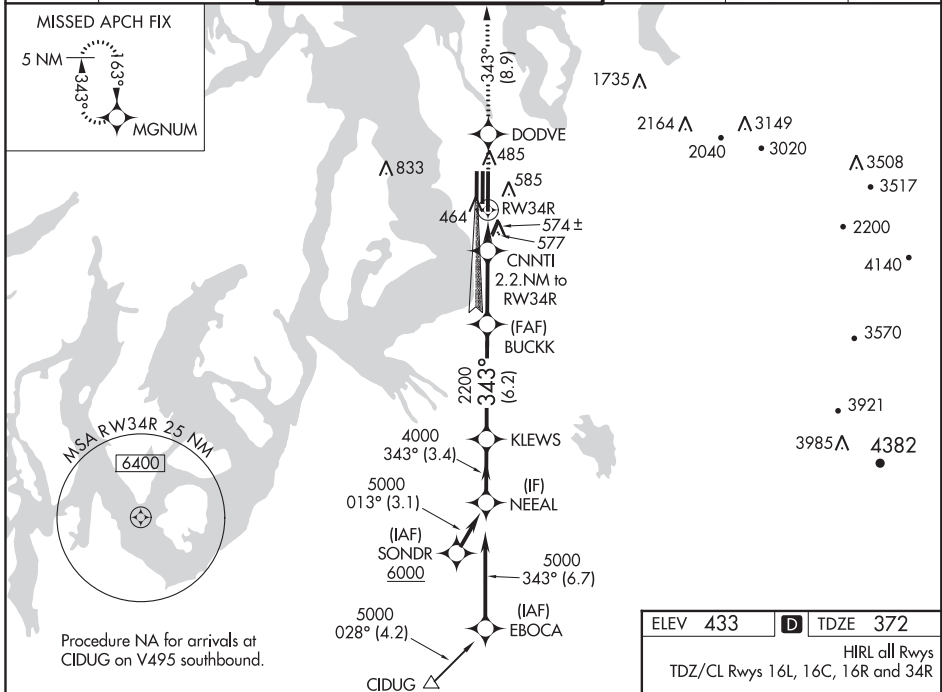
WAAS CH <b>42710</b> <b>W34D</b>	APP CRS <b>343°</b>	Rwy Idg <b>11901</b> TDZE <b>372</b> Apt Elev <b>433</b>
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# RNAV (GPS) Y RWY 34R

SEATTLE-TACOMA INTL (SEA)

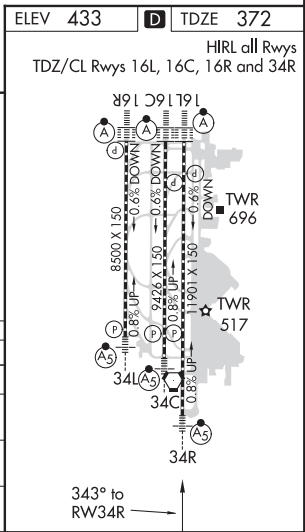
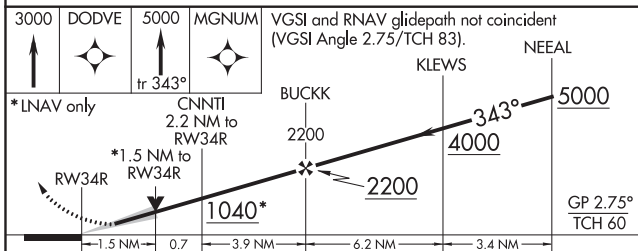
<p><b>▼</b> DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -8°C (18°F) or above 54°C (130°F). LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations. Simultaneous approach authorized with Rwy 34L. For inoperative MALS, increase LNAV Cat C and D visibility to 1½.</p>	<p>MALS R</p>	<p>MISSED APPROACH: Climb to 3000 direct DODVE then climb to 5000 on track 343° to MGNUM and hold, continue climb-in-hold to 5000.</p>
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ATIS <b>118.0</b>	SEATTLE APP CON <b>133.65 273.45</b>	SEATTLE TOWER <b>119.9 239.3</b> (Rwys 16L, 16C, 34R) <b>120.95 239.3</b> (Rwys 16R, 34C, 34L)	GND CON <b>121.7</b>	CLNC DEL <b>128.0</b>	CPDLC
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA		572/24	200 (200-½)	
LNAV/VNAV DA		915-1½	543 (500-1½)	
LNAV MDA	840/24	468 (500-½)	840/50	468 (500-1)
CIRCLING	1000-1	567 (600-1)	1000-1½	1000-2
			567 (600-1½)	567 (600-2)

SEATTLE, WASHINGTON  
Amdt 2C 18SEP14

47°27'N-122°19'W

SEATTLE-TACOMA INTL (SEA)

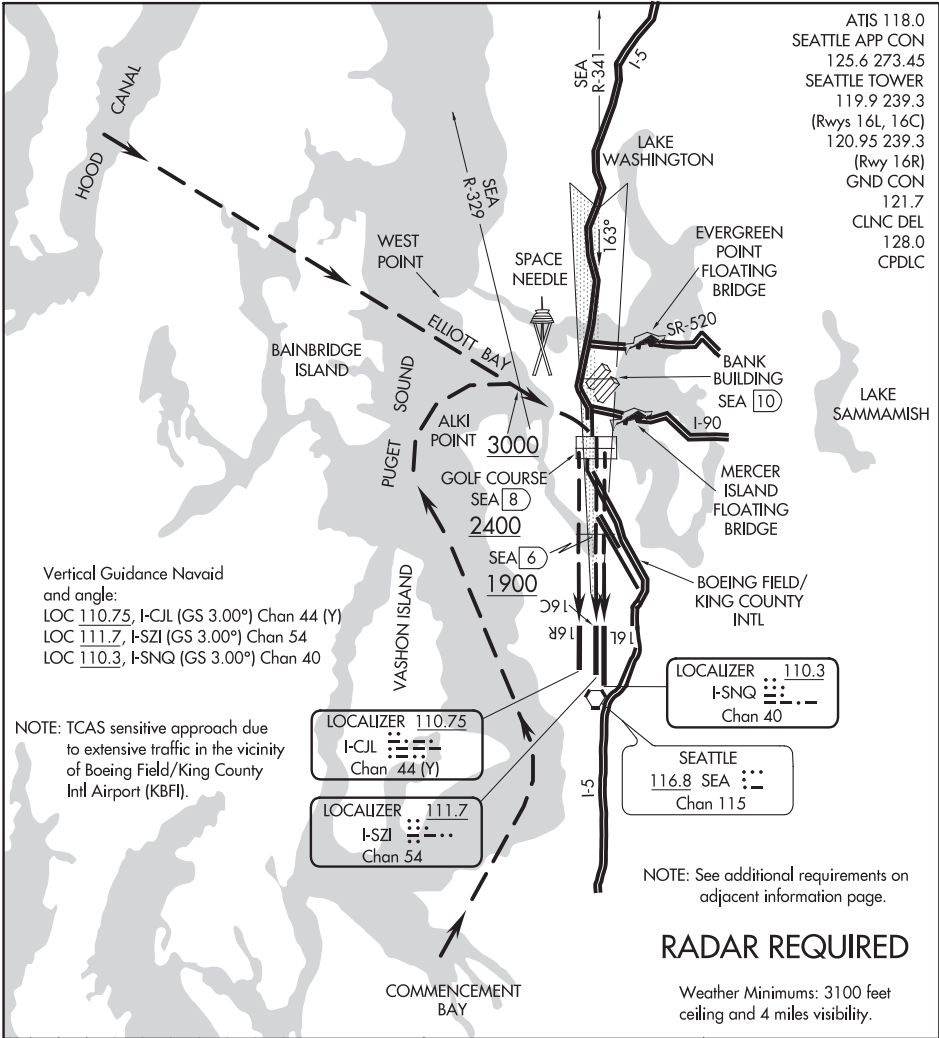
# RNAV (GPS) Y RWY 34R

# BAY VISUAL RWY 16R/C/L

AL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON

- ATIS 118.0
- SEATTLE APP CON 125.6 273.45
- SEATTLE TOWER 119.9 239.3
- (Rwys 16L, 16C) 120.95 239.3
- (Rwy 16R) GND CON 121.7
- CLNC DEL 128.0
- CPDLC



Vertical Guidance Navaid and angle:  
 LOC 110.75, I-CJL (GS 3.00°) Chan 44 (Y)  
 LOC 111.7, I-SZI (GS 3.00°) Chan 54  
 LOC 110.3, I-SNQ (GS 3.00°) Chan 40

NOTE: TCAS sensitive approach due to extensive traffic in the vicinity of Boeing Field/King County Intl Airport (KBFI).

LOCALIZER 110.75  
I-CJL  
Chan 44 (Y)

LOCALIZER 111.7  
I-SZI  
Chan 54

LOCALIZER 110.3  
I-SNQ  
Chan 40

SEATTLE 116.8 SEA  
Chan 115

NOTE: See additional requirements on adjacent information page.

## RADAR REQUIRED

Weather Minimums: 3100 feet ceiling and 4 miles visibility.



## BAY VISUAL APPROACH RWY 16R/C/L

When the ceiling is at least 3100' and visibility is at least 4 miles, aircraft may be vectored over Puget Sound for a Bay Visual Runway 16R/C/L Approach. When cleared for a Bay Visual Approach: proceed inbound visually over the middle of Elliott Bay (via route depicted); intercept the Runway 16R/C/L localizer/SEA R-341 on Runway 16R/C/L extended centerline at the golf course (8 DME) and complete a straight in visual approach to the airport. On final approach, a descent profile of approximately 300' per mile may be made with reference to the altitudes shown at the visual checkpoints or associated DME/fix positions.

# BAY VISUAL RWY 16R/C/L

Amdt 5 10MAR11

47°27'N-122°19'W

SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)

**SEATTLE-TACOMA INTL AIRPORT**

**ALERT NOTICE**

**ATTENTION ALL AIRCRAFT LANDING TO THE SOUTH:**

When transitioning from an instrument procedure to a visual approach to Runway 16C, verify that you are aligned for the intended landing Runway, not Taxiway Tango. Taxiway Tango is west and parallel to Runway 16C.

**TRANSITION TO VISUAL:**

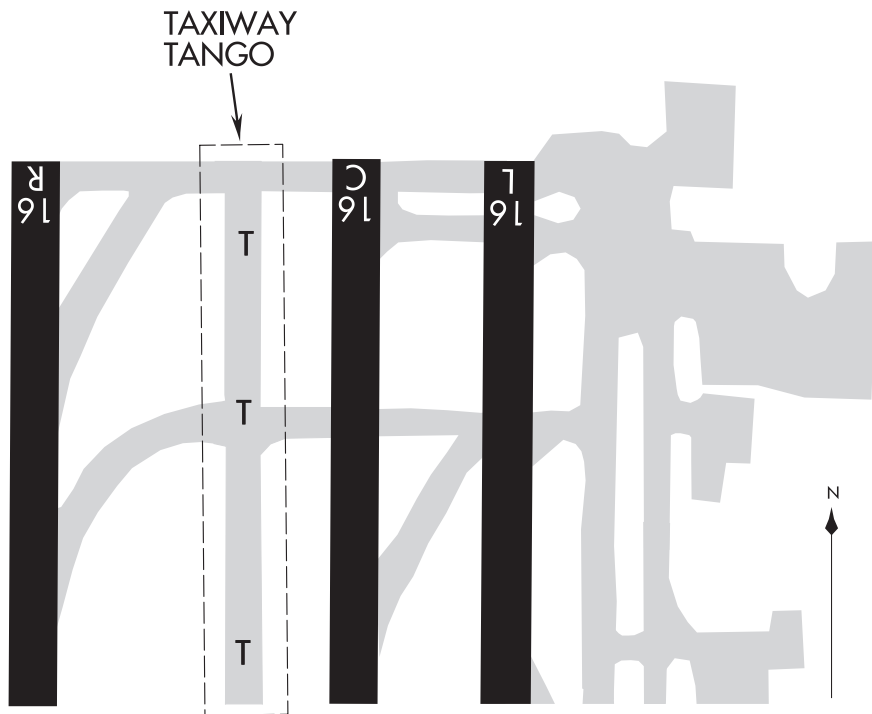
Taxiway Tango has been mistaken for Runway 16C from the air during certain visibility conditions, i.e., wet runway, low sun angle reflections. Aircrews are advised to be aware of the proximity of the taxiway to Runway 16C and its runway-like appearance while on approach.

**RECOMMENDATION:**

Aircrews should use visual cues, e.g., approach lighting systems, REILs, when available, to confirm alignment with Runway 16C not Taxiway Tango. Additionally, it is recommended to track the localizer until the runway environment is visually verified.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017







SEATTLE-TACOMA INTL AIRPORT

**ALERT NOTICE**

**ATTENTION ALL AIRCRAFT LANDING TO THE SOUTH:**

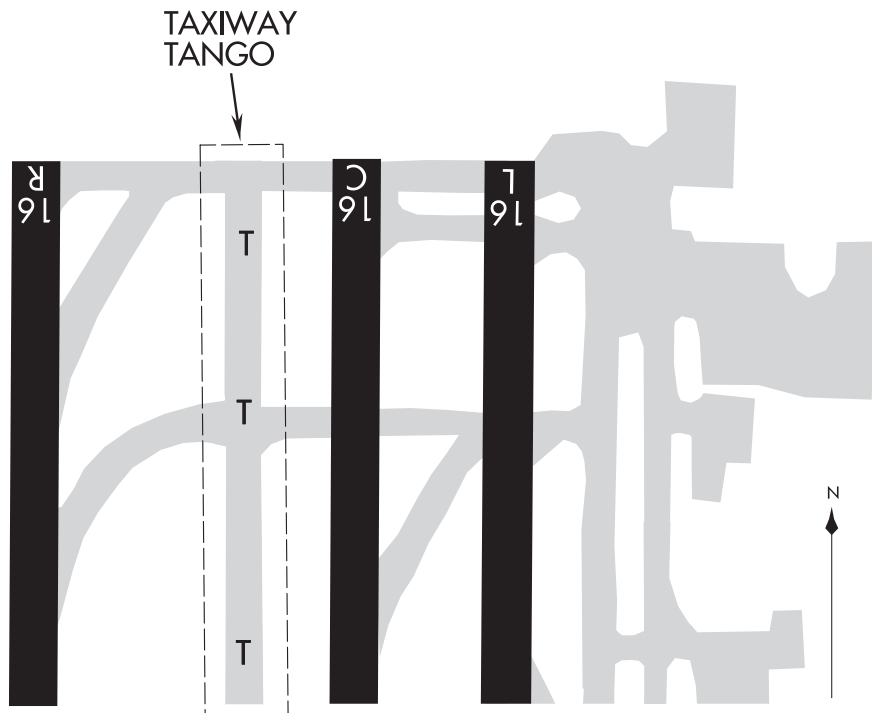
When transitioning from an instrument procedure to a visual approach to Runway 16C, verify that you are aligned for the intended landing Runway, not Taxiway Tango. Taxiway Tango is west and parallel to Runway 16C.

**TRANSITION TO VISUAL:**

Taxiway Tango has been mistaken for Runway 16C from the air during certain visibility conditions, i.e., wet runway, low sun angle reflections. Aircrews are advised to be aware of the proximity of the taxiway to Runway 16C and its runway-like appearance while on approach.

**RECOMMENDATION:**

Aircrews should use visual cues, e.g., approach lighting systems, REILs, when available, to confirm alignment with Runway 16C not Taxiway Tango. Additionally, it is recommended to track the localizer until the runway environment is visually verified.

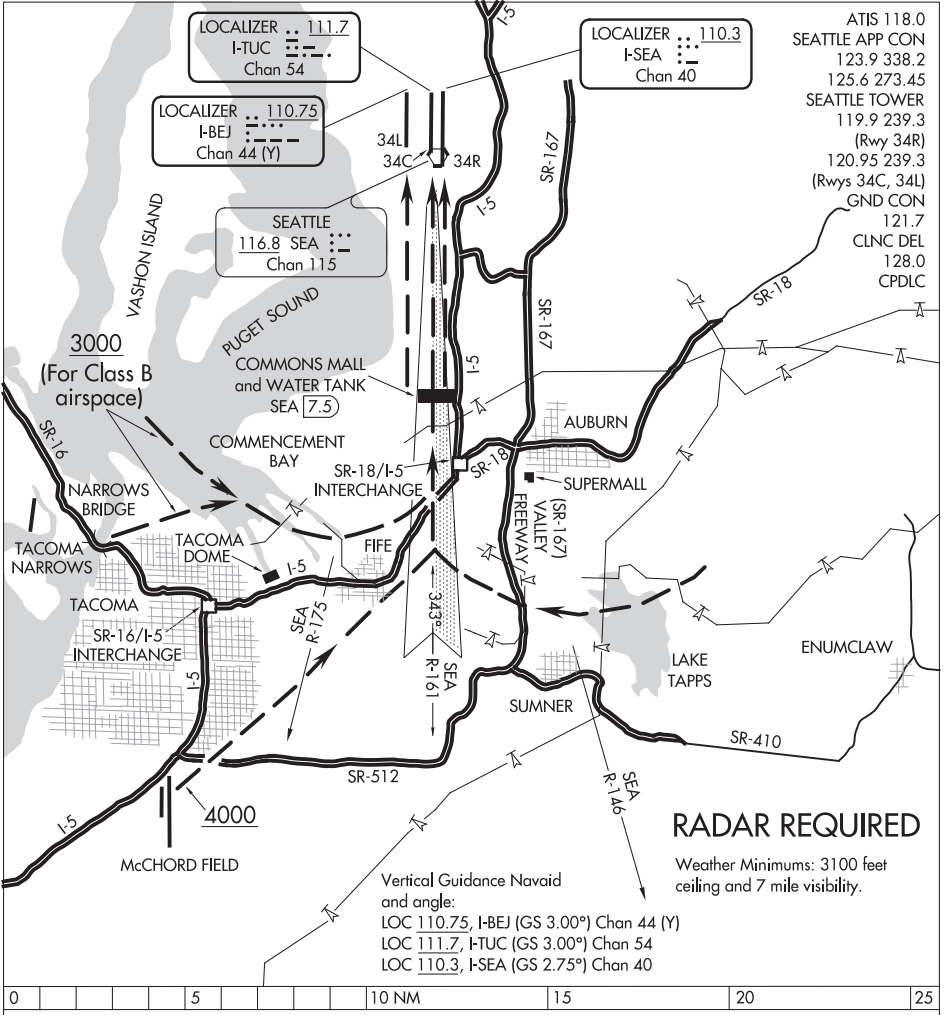


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# MALL VISUAL RWY 34R/C/L

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## MALL VISUAL APPROACH RWY 34R/C/L

When the ceiling is at least 3100' and visibility is at least 7 miles, aircraft may be vectored towards Commencement Bay or McChord Field or Lake Tapps for a Mall Visual Runway 34R/C/L Approach. When cleared for this approach; proceed inbound visually using the depicted landmarks to the centerline of runway 34R/C/L. Turn final before or over the interchange of State Road 18 (SR-18) and Interstate 5. Be established on the localizer or runway centerline at the Commons Mall and Water Tank (7.5 DME) and proceed visually to runway 34R/C/L.

# MALL VISUAL RWY 34R/C/L

Amdt 6 10MAR11

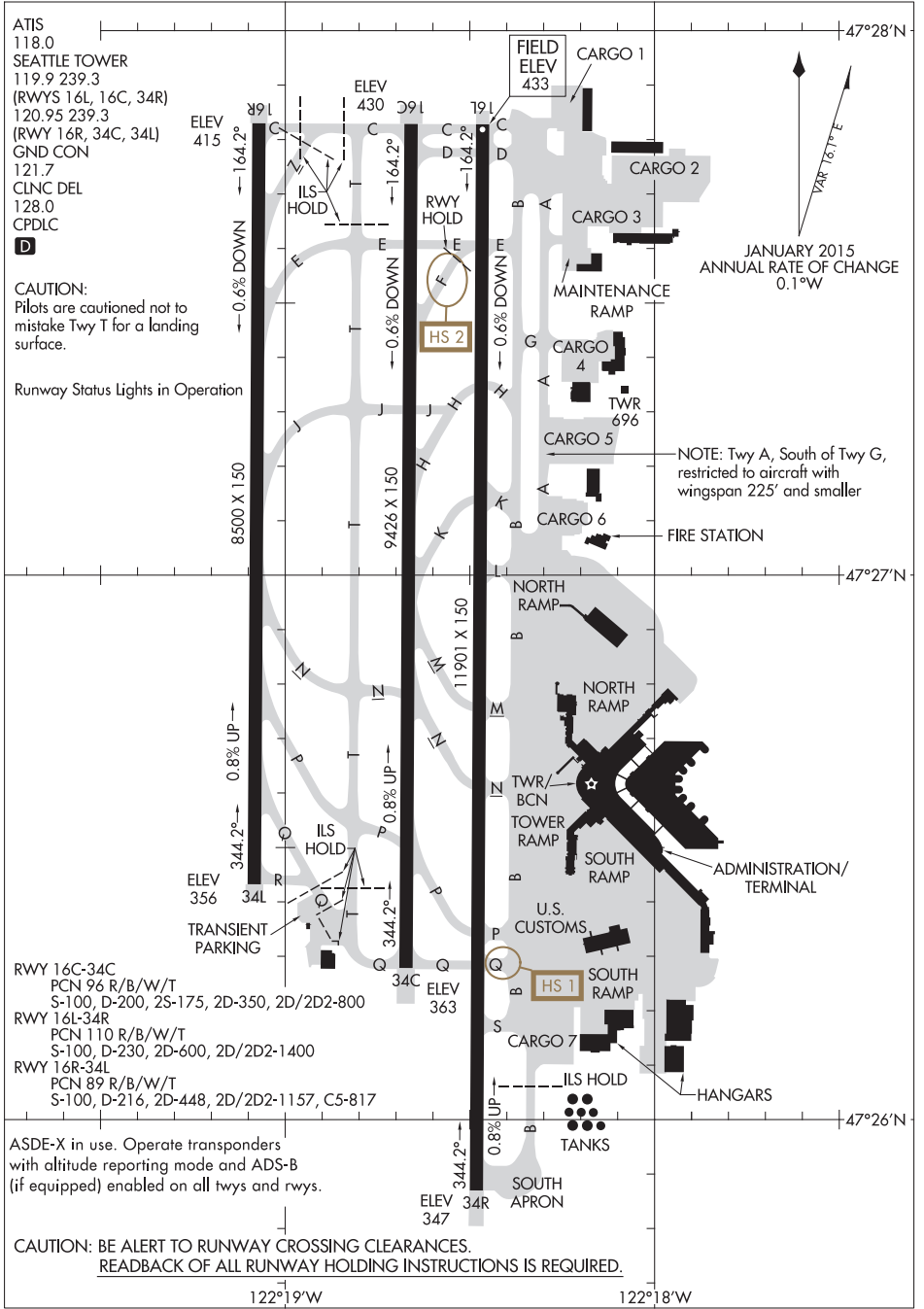
47°27'N-122°19'W

SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)

# AIRPORT DIAGRAM

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON

AL-582 (FAA)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

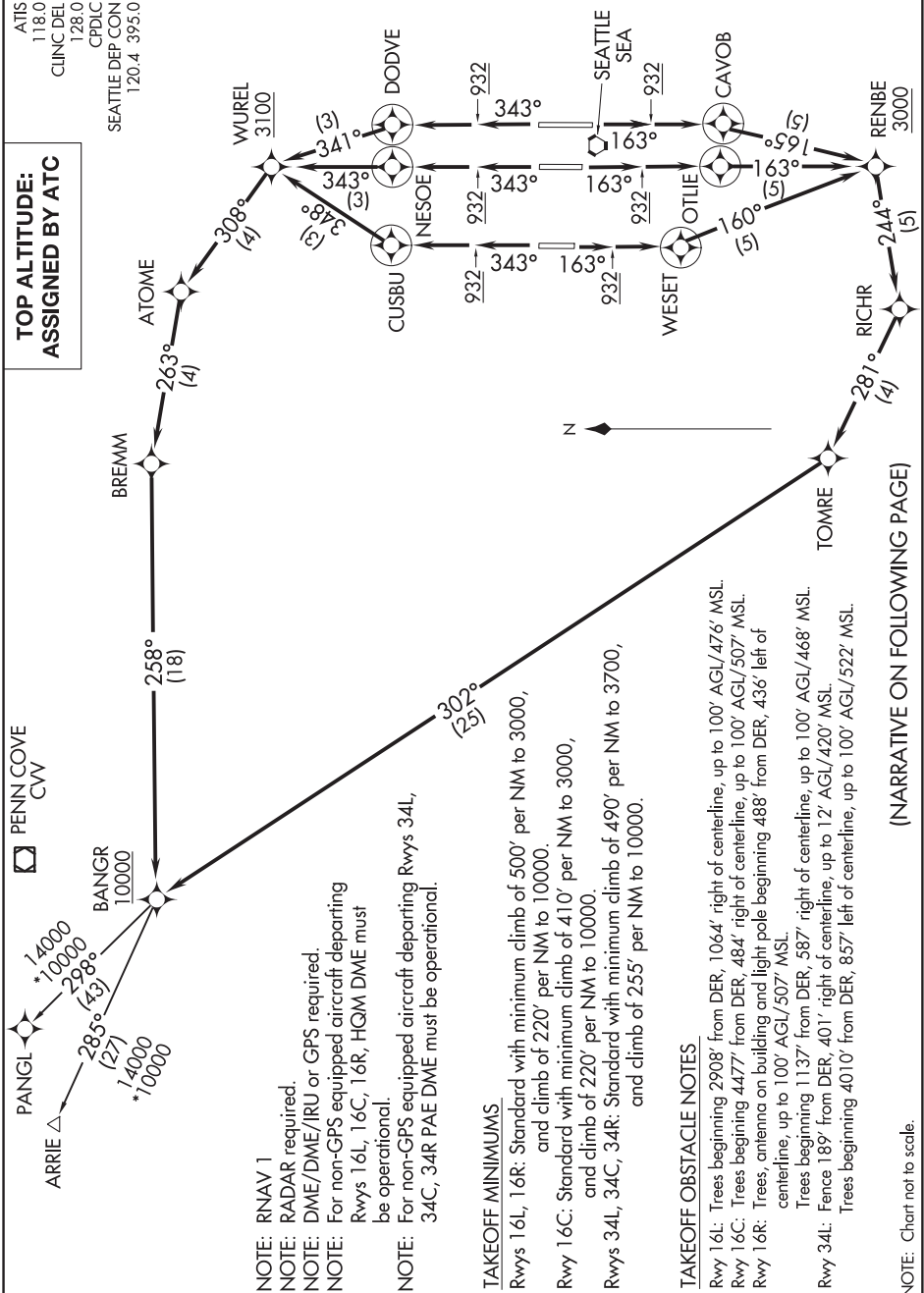
SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)

# BANGR EIGHT DEPARTURE (RNAV)

SL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON

11:01 AM 01/16/2016 01:11-WN



# BANGR EIGHT DEPARTURE (RNAV)

SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)

NW-1, 10 NOV 2016 to 05 JAN 2017

(BANGR8.BANGR) 16203

BANGR EIGHT DEPARTURE (RNAV)

SL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16L: Climb heading 163° to at/above 932, then direct CAVOB, then on track 165° to cross RENBE at or above 3000, then on depicted route to BANGR, cross BANGR at or above 10000, thence. . . .

TAKEOFF RUNWAY 16C: Climb heading 163° to at/above 932, then direct OTLIE, then on track 163° to cross RENBE at or above 3000, then on depicted route to BANGR, cross BANGR at or above 10000, thence. . . .

TAKEOFF RUNWAY 16R: Climb heading 163° to at/above 932, then direct WESET, then on track 160° to cross RENBE at or above 3000, then on depicted route to BANGR, cross BANGR at or above 10000, thence. . . .

TAKEOFF RUNWAY 34L: Climb heading 343° to at/above 932, then direct CUSBU, then on track 348° to cross WUREL at or above 3100, then on depicted route to BANGR, cross BANGR at or above 10000, thence. . . .

TAKEOFF RUNWAY 34C: Climb heading 343° to at/above 932, then direct NESOE, then on track 343° to cross WUREL at or above 3100, then on depicted route to BANGR, cross BANGR at or above 10000, thence. . . .

TAKEOFF RUNWAY 34R: Climb heading 343° to at/above 932, then direct DODVE, then on track 341° to cross WUREL at or above 3100, then on depicted route to BANGR, cross BANGR at or above 10000, thence. . . .

. . . . via (transition). Maintain assigned altitude, expect filed altitude/flight level 15 NM from SEA VORTAC.

ARRIE TRANSITION (BANGR8.ARIE)

PANGL TRANSITION (BANGR8.PANGL)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

BANGR EIGHT DEPARTURE (RNAV)  
(BANGR8.BANGR) 15OCT15

SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)

# ELMAA TWO DEPARTURE

SL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON

ATIS  
118.0  
CLNC DEL  
128.0  
CPDLC  
SEATTLE DEP CON  
120.4 395.0

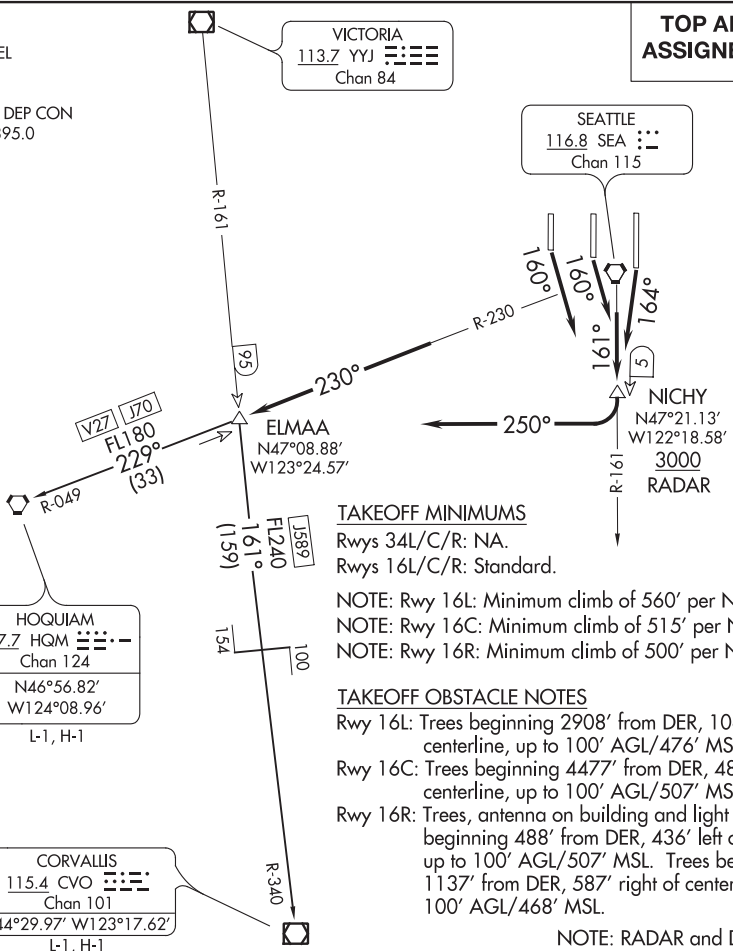
VICTORIA  
113.7 YYJ  
Chan 84

**TOP ALTITUDE:  
ASSIGNED BY ATC**

SEATTLE  
116.8 SEA  
Chan 115

HOQUIAM  
117.7 HQM  
Chan 124  
N46°56.82'  
W124°08.96'  
L-1, H-1

CORVALLIS  
115.4 CVO  
Chan 101  
N44°29.97' W123°17.62'  
L-1, H-1



### TAKEOFF MINIMUMS

Rwys 34L/C/R: NA.  
Rwys 16L/C/R: Standard.

NOTE: Rwy 16L: Minimum climb of 560' per NM to 3000.  
NOTE: Rwy 16C: Minimum climb of 515' per NM to 3000.  
NOTE: Rwy 16R: Minimum climb of 500' per NM to 3000.

### TAKEOFF OBSTACLE NOTES

Rwy 16L: Trees beginning 2908' from DER, 1064' right of centerline, up to 100' AGL/476' MSL.  
Rwy 16C: Trees beginning 4477' from DER, 484' right of centerline, up to 100' AGL/507' MSL.  
Rwy 16R: Trees, antenna on building and light pole beginning 488' from DER, 436' left of centerline, up to 100' AGL/507' MSL. Trees beginning 1137' from DER, 587' right of centerline, up to 100' AGL/468' MSL.

NOTE: RADAR and DME required.  
NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16L: Climb heading 164° and SEA R-161, thence. . .

TAKEOFF RUNWAYS 16C, 16R: Climb heading 160° and SEA R-161, thence. . .

. . . to cross NICHY/5 DME/RADAR at or above 3000, then right turn heading 250° to intercept SEA R-230 to ELMAA INT, then via (transition/assigned route), expect requested altitude/flight level 15 NM from SEA.

CORVALLIS TRANSITION (ELMAA2.CVO): From over ELMAA on YYJ R-161 and CVO R-340 to CVO VOR/DME.

HOQUIAM TRANSITION (ELMAA2.HQM): From over ELMAA on HQM R-049 to HQM VORTAC.

# ELMAA TWO DEPARTURE

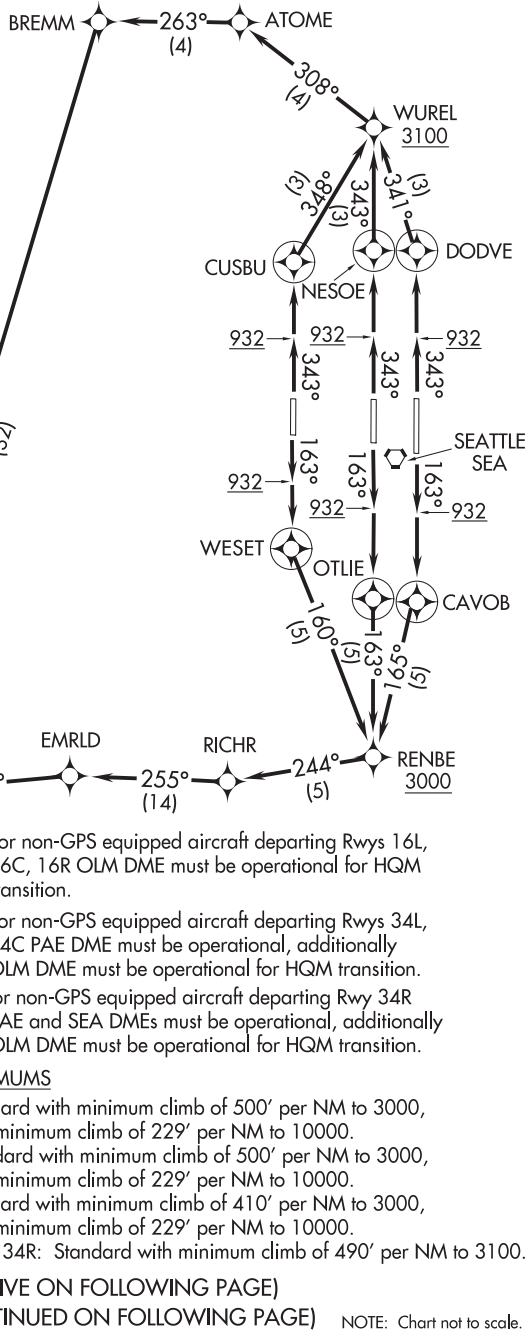
(HAROB5.HAROB) 16315

# HAROB FIVE DEPARTURE (RNAV)

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON

ATIS  
118.0  
CLNC DEL  
128.0  
CPDLC  
SEATTLE DEP CON  
120.4 395.0

**TOP ALTITUDE:  
ASSIGNED BY ATC**



NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NOTE: For non-GPS equipped aircraft departing Rwy 16L, 16C, 16R OLM DME must be operational for HQM transition.

NOTE: For non-GPS equipped aircraft departing Rwy 34L, 34C PAE DME must be operational, additionally OLM DME must be operational for HQM transition.

NOTE: For non-GPS equipped aircraft departing Rwy 34R PAE and SEA DMEs must be operational, additionally OLM DME must be operational for HQM transition.

### TAKEOFF MINIMUMS

- Rwy 16L: Standard with minimum climb of 500' per NM to 3000, and minimum climb of 229' per NM to 10000.
- Rwy 16R: Standard with minimum climb of 500' per NM to 3000, and minimum climb of 229' per NM to 10000.
- Rwy 16C: Standard with minimum climb of 410' per NM to 3000, and minimum climb of 229' per NM to 10000.
- Rwys 34L, 34C, 34R: Standard with minimum climb of 490' per NM to 3100.

(NARRATIVE ON FOLLOWING PAGE)

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# HAROB FIVE DEPARTURE (RNAV)

(HAROB5.HAROB) 15OCT15

SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)





DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16C: Climb heading 163° to at/above 932, then direct OTLIE, then on track 163° to cross RENBE at/above 3000, then on depicted route to HAROB, cross HAROB at or above 10000, thence. . . .

TAKEOFF RUNWAY 16L: Climb heading 163° to at/above 932, then direct CAVOB, then on track 165° to cross RENBE at/above 3000, then on depicted route to HAROB, cross HAROB at or above 10000, thence. . . .

TAKEOFF RUNWAY 16R: Climb heading 163° to at/above 932, then direct WESET, then on track 160° to cross RENBE at/above 3000, then on depicted route to HAROB, cross HAROB at or above 10000, thence. . . .

TAKEOFF RUNWAY 34C: Climb heading 343° to at/above 932, then direct NESOE, then on track 343° to cross WUREL at/above 3100, then on depicted route to HAROB, cross HAROB at or above 10000, thence. . . .

TAKEOFF RUNWAY 34L: Climb heading 343° to at/above 932, then direct CUSBU, then on track 348° to cross WUREL at/above 3100, then on depicted route to HAROB, cross HAROB at or above 10000, thence. . . .

TAKEOFF RUNWAY 34R: Climb heading 343° to at/above 932, then direct DODVE, then on track 341° to cross WUREL at/above 3100, then on depicted route to HAROB, cross HAROB at or above 10000, thence. . . .

. . . . via (transition). Maintain assigned altitude, expect filed altitude/flight level 15 NM from SEA VORTAC.

ERAVE TRANSITION (HAROB5.ERAVE)

FEPOT TRANSITION (HAROB5.FEPOT)

HISKU TRANSITION (HAROB5.HISKU)

HOQUIAM TRANSITION (HAROB5.HQM)

TAKEOFF OBSTACLE NOTES

Rwy 16L: Trees beginning 2908' from DER, 1064' right of centerline, up to 100' AGL/476' MSL.

Rwy 16C: Trees beginning 4477' from DER, 484' right of centerline, up to 100' AGL/507' MSL.

Rwy 16R: Trees, antenna on building and light pole beginning 488' from DER, 436' left of centerline, up to 100' AGL/507' MSL. Trees beginning 1137' from DER, 587' right of centerline, up to 100' AGL/468' MSL.

Rwy 34L: Fence 189' from DER, 401' right of centerline, up to 12' AGL/420' MSL.

Trees beginning 4010' from DER, 857' left of centerline, up to 100' AGL/522' MSL.

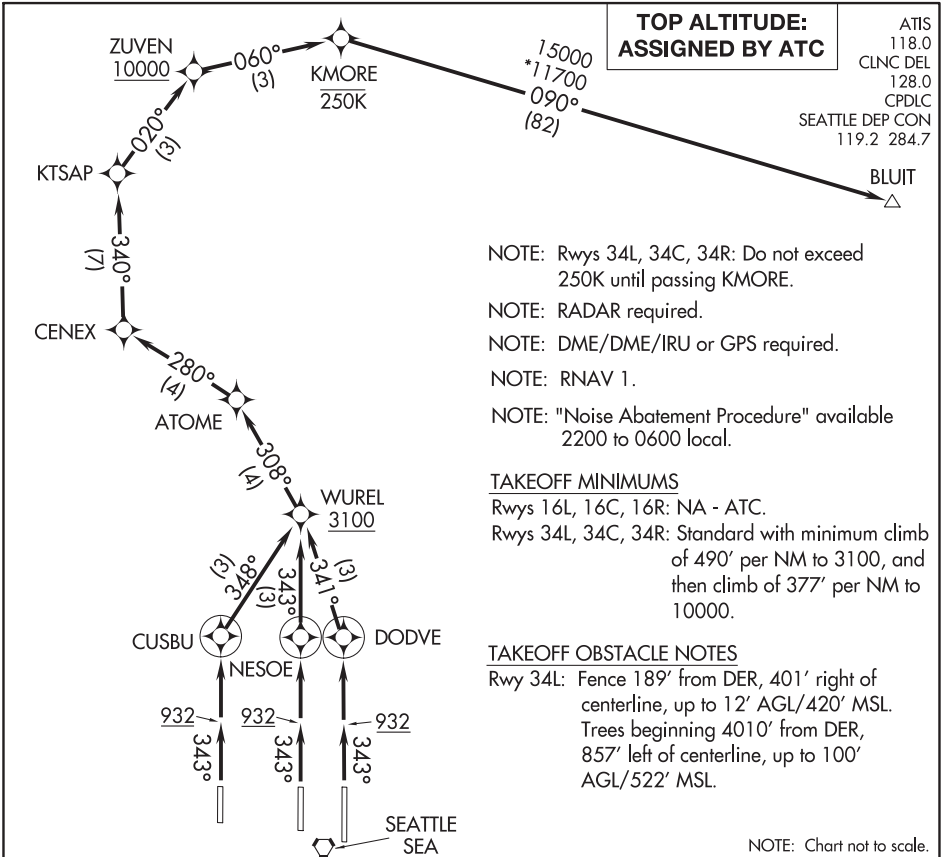
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# KMORE FOUR DEPARTURE (RNAV)

SL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON



**TOP ALTITUDE:  
ASSIGNED BY ATC**

ATIS 118.0  
CLNC DEL 128.0  
CPDLC  
SEATTLE DEP CON 119.2 284.7

- NOTE: Rwy's 34L, 34C, 34R: Do not exceed 250K until passing KMORE.
- NOTE: RADAR required.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: RNAV 1.
- NOTE: "Noise Abatement Procedure" available 2200 to 0600 local.

### TAKEOFF MINIMUMS

Rwys 16L, 16C, 16R: NA - ATC.  
Rwys 34L, 34C, 34R: Standard with minimum climb of 490' per NM to 3100, and then climb of 377' per NM to 10000.

### TAKEOFF OBSTACLE NOTES

Rwy 34L: Fence 189' from DER, 401' right of centerline, up to 12' AGL/420' MSL. Trees beginning 4010' from DER, 857' left of centerline, up to 100' AGL/522' MSL.

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 34L:** Climb heading 343° to 932, then direct CUSBU, then on track 348° to cross WUREL at or above 3100, then on track 308° to ATOME, then on track 280° to CENEX, then on track 340° to KTSAP, then on track 020° to cross ZUVEN at or above 10000, then on track 060° to KMORE, then on track 090° to BLUIT, thence. . .

**TAKEOFF RUNWAY 34C:** Climb heading 343° to 932, then direct NESOE, then on track 343° to cross WUREL at or above 3100, then on track 308° to ATOME, then on track 280° to CENEX, then on track 340° to KTSAP, then on track 020° to cross ZUVEN at or above 10000, then on track 060° to KMORE, then on track 090° to BLUIT, thence. . .

**TAKEOFF RUNWAY 34R:** Climb heading 343° to 932, then direct DODVE, then on track 341° to cross WUREL at or above 3100, then on track 308° to ATOME, then on track 280° to CENEX, then on track 340° to KTSAP, then on track 020° to cross ZUVEN at or above 10000, then on track 060° to KMORE, then on track 090° to BLUIT, thence. . .

. . . via assigned route. Maintain assigned altitude, expect filed altitude/flight level 15 NM from SEA VORTAC.

# KMORE FOUR DEPARTURE (RNAV)

TATOOSH  
TOU

15000  
\*9500  
274°  
(93)

**TOP ALTITUDE:  
ASSIGNED BY ATC**

ATIS  
118.0  
CLNC DEL  
128.0  
CPDLC  
SEATTLE DEP CON  
119.2 284.7

KTSAP  
340°  
(7)

CENEX

280°  
(4)

ATOME

308°  
(4)

WUREL  
3100

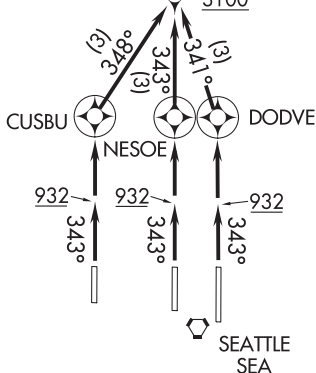
NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: "Noise Abatement Procedure" available  
2200 to 0600 local.

TAKEOFF MINIMUMS

Rwys 16L, 16C, 16R: NA - ATC.  
Rwys 34L, 34C, 34R: Standard with minimum climb of  
490' per NM to 3100.

TAKEOFF OBSTACLE NOTES

Rwy 34L: Fence 189' from DER, 401' right of centerline,  
up to 12' AGL/420' MSL. Trees beginning  
4010' from DER, 857' left of centerline, up to  
100' AGL/522' MSL.



NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

TAKEOFF RUNWAY 34L: Climb via heading 343° to 932, then direct CUSBU, then on track 348° to cross WUREL at or above 3100, then on depicted route to TOU VORTAC, thence. . .

TAKEOFF RUNWAY 34C: Climb via heading 343° to 932, then direct NESOE, then on track 343° to cross WUREL at or above 3100, then on depicted route to TOU VORTAC, thence. . .

TAKEOFF RUNWAY 34R: Climb via heading 343° to 932, then direct DODVE, then on track 341° to cross WUREL at or above 3100, then on depicted route to TOU VORTAC, thence. . .

. . . via assigned route. Maintain assigned altitude, expect filed altitude/flight level 15 NM from SEA VORTAC.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# MOUNTAIN EIGHT DEPARTURE

SL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON

ATIS  
118.0  
CLNC DEL  
128.0  
CPDLC  
SEATTLE DEP CON  
119.2 284.7

VANCOUVER  
115.9 YVR Chan 106  
N49°04.64'  
W123°08.94'  
L-1, H-1

PRINCETON  
113.9 YDC Chan 86  
N49°22.89'  
W120°22.42'  
H-1

**TOP ALTITUDE:  
ASSIGNED BY ATC**

CRANBROOK  
112.1 YXC Chan 58  
N49°33.30'  
W116°05.26'  
H-1

WHATCOM  
113.0 HUH Chan 77  
N48°56.72'  
W122°34.76'  
L-1, H-1

PAINE  
110.6 PAE Chan 43  
N47°55.19'  
W122°16.67'  
L-1, H-1

NEZUG  
N47°34.13'  
W122°18.58'  
4000

SPOKANE  
115.5 GEG Chan 102  
N47°33.90'  
W117°37.61'  
L-13, H-1

EPHRATA  
112.6 EPH Chan 73  
N47°22.68'  
W119°25.44'  
L-13, H-1

SEATTLE  
116.8 SEA Chan 115  
N47°26.12'  
W122°18.58'  
L-1, H-1

MULLAN PASS  
117.8 MLP Chan 125  
N47°27.41'  
W115°38.76'  
L-13, H-1

NICHY  
N47°21.13'  
W122°18.58'  
3000

MOSES LAKE  
115.0 MWH Chan 97  
N47°12.65'  
W119°19.01'  
L-13, H-1

ELLENSBURG  
117.9 ELN Chan 126  
N47°01.46'  
W120°27.51'  
L-13, H-1

YAKIMA  
116.0 YKM Chan 107  
N46°34.21'  
W120°26.68'  
L-13, H-1

PASCO  
109.8 PSC Chan 35  
N46°16.22'  
W119°07.04'  
L-13

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

### TAKEOFF MINIMUMS

Rwys 16L/C/R, 34 L/C/R: Standard.

NOTE: Rwy 16L: ATC climb of 560' per NM to 3000.

NOTE: Rwy 16C: ATC climb of 515' per NM to 3000.

NOTE: Rwy 16R: ATC climb of 500' per NM to 3000.

NOTE: Rwys 34L/C/R: ATC climb of 580' per NM to 4000.

NOTE: RADAR and DME required.

(NOTES CONTINUED ON FOLLOWING PAGE)  
(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# MOUNTAIN EIGHT DEPARTURE

SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16L: Climb heading 164° and SEA R-161 to cross NICHY at or above 3000, then left turn heading 070° for RADAR vectors to assigned route, thence. . . .

TAKEOFF RUNWAYS 16C/R: Climb heading 160° and SEA R-161 to cross NICHY at or above 3000, then left turn heading 070° for RADAR vectors to assigned route, thence. . . .

TAKEOFF RUNWAY 34L: Climb heading 346° and SEA R-341 to cross NEZUG at or above 4000, then right turn heading 070° for RADAR vectors to assigned route, thence. . . .

TAKEOFF RUNWAY 34C: Climb heading 343° and SEA R-341 to cross NEZUG at or above 4000, then right turn heading 070° for RADAR vectors to assigned route, thence. . . .

TAKEOFF RUNWAY 34R: Climb heading 340° and SEA R-341 to cross NEZUG at or above 4000, then right turn heading 070° for RADAR vectors to assigned route, thence. . . .

. . . .Maintain assigned altitude, expect altitude/flight level 15 NM from SEA.

LOST COMMUNICATIONS: If no contact with ATC leaving 4000', proceed direct SEA VORTAC, then proceed on course.

TAKEOFF OBSTACLE NOTES

Rwy 16L: Trees beginning 2908' from DER, 1064' right of centerline, up to 100' AGL/476' MSL.

Rwy 16C: Trees beginning 4477' from DER, 484' right of centerline, up to 100' AGL/507' MSL.

Rwy 16R: Trees, antenna on building and light pole beginning 488' from DER, 436' left of centerline, up to 100' AGL/507' MSL.

Trees beginning 1137' from DER, 587' right of centerline, up to 100' AGL/468' MSL.

Rwy 34L: Fence 189' from DER, 401' right of centerline, up to 12' AGL/468' MSL.

Trees beginning 4010' from DER, 857' left of centerline, up to 100' AGL/522' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

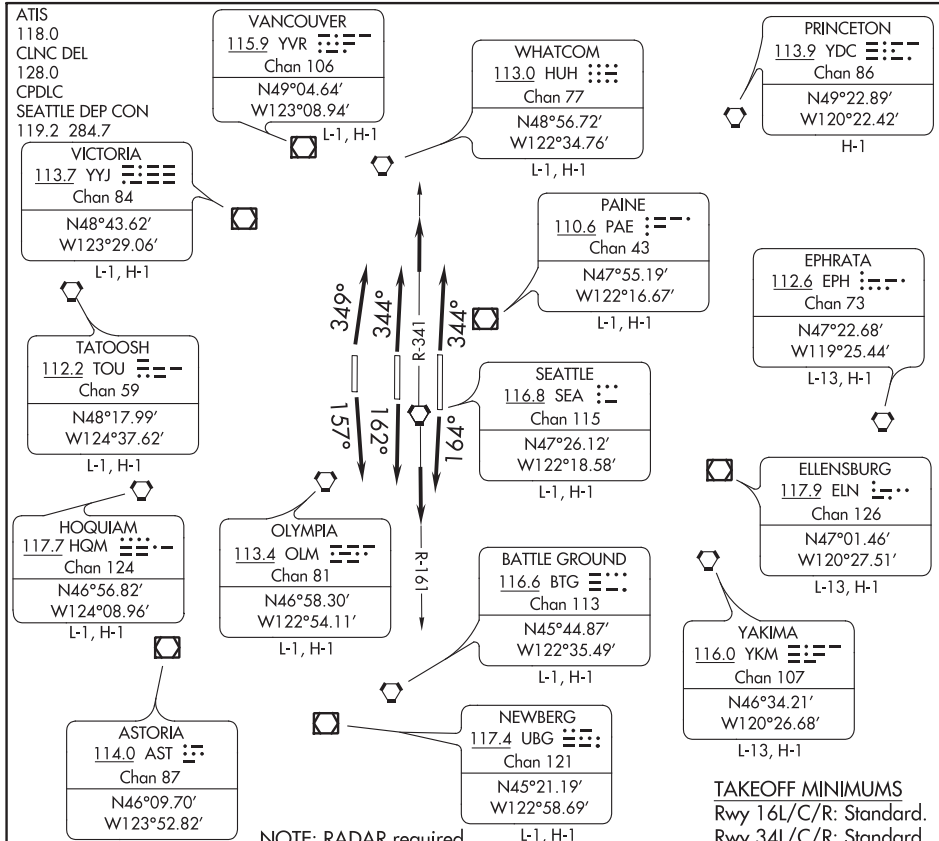
NW-1, 10 NOV 2016 to 05 JAN 2017

(SEATL.SEATL5) 16315

SEATTLE FIVE DEPARTURE

SL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NOTE: RADAR required.

NOTE: Between the hours of 2200 and 0600 local, large turbine powered aircraft departing runways 34L/C/R will be vectored over Puget Sound for noise abatement before proceeding on course.

TAKEOFF OBSTACLE NOTES

- Rwy 16L: Trees beginning 2908' from DER, 1064' right of centerline, up to 100' AGL/476' MSL.
- Rwy 16C: Trees beginning 4477' from DER, 484' right of centerline, up to 100' AGL/507' MSL.
- Rwy 16R: Trees, antenna on building and light pole beginning 488' from DER, 436' left of centerline, up to 100' AGL/507' MSL. Trees beginning 1137' from DER, 587' right of centerline, up to 100' AGL/468' MSL.
- Rwy 34L: Fence 189' from DER, 401' right of centerline, up to 12' AGL/420' MSL. Trees beginning 4010' from DER, 857' left of centerline, up to 100' AGL/522' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

- TAKEOFF RUNWAY 34L:** Climb heading 349° and SEA R-341, thence. . . .
  - TAKEOFF RUNWAY 34C/R:** Climb heading 344° and SEA R-341, thence. . . .
  - TAKEOFF RUNWAY 16L:** Climb heading 164° and SEA R-161, thence. . . .
  - TAKEOFF RUNWAY 16C:** Climb heading 162° and SEA R-161, thence. . . .
  - TAKEOFF RUNWAY 16R:** Climb heading 157° and SEA R-161, thence. . . .
- . . . . Maintain assigned altitude, expect radar vectors to assigned route.

SEATTLE FIVE DEPARTURE  
(SEATL.SEATL5) 10NOV16

SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)

# SUMMA NINE DEPARTURE

SEATTLE-TACOMA INTL (SEA)  
SEATTLE, WASHINGTON

SL-582 (FAA)

ATIS  
118.0  
SEATTLE DEP CON  
119.2 284.7 (Rwys 34R/C/L) (N)  
120.4 269.125 (Rwys 16L/C/R) (S)  
CPDLC

SEATTLE  
116.8 SEA  
Chan 115  
N47°26.12' W122°18.58'

OLYMPIA  
113.4 OLM  
Chan 81

LAKEVIEW  
112.0 LKV  
Chan 57  
N42°29.57' W120°30.43'  
L-11, H-3

PAINE  
110.6 PAE  
Chan 43

**TOP ALTITUDE:  
ASSIGNED BY ATC**

### TAKEOFF MINIMUMS

Rwys 16L/C/R: Standard.  
Rwys 34L/C/R: Standard with minimum climb  
of 580' per NM to 4000 (ATC).

### TAKEOFF OBSTACLE NOTES

- Rwy 16L: Trees beginning 2906' from DER, 1064' right of centerline, up to 100' AGL/476' MSL.
- Rwy 16C: Trees beginning 4477' from DER, 484' right of centerline, up to 100' AGL/507' MSL.
- Rwy 16R: Trees, antenna on building and light pole beginning 488' from DER, 436' left of centerline, up to 100' AGL/507' MSL. Trees beginning 1137' from DER, 587' right of centerline, up to 100' AGL/468' MSL.
- Rwy 34L: Fence 189' from DER, 401' right of centerline, up to 12' AGL/420' MSL. Trees beginning 4010' from DER, 857' left of centerline, up to 100' AGL/522' MSL.

BAKER CITY  
115.3 BKE  
Chan 100  
N44°50.44' W117°48.47'  
L-13, H-1

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NOTE: RADAR and DME required.  
NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 34L:** Climb heading 346° and SEA R-341, thence. . . .  
**TAKEOFF RUNWAY 34C:** Climb heading 343° and SEA R-341, thence. . . .  
**TAKEOFF RUNWAY 34R:** Climb heading 342° and SEA R-341, thence. . . .  
. . . . to cross NEZUG at or above 4000, then right turn heading 070° to cross the PAE R-139, then right turn heading 165° to intercept SEA R-146 to SUMMA INT, then via assigned transition.

**TAKEOFF RUNWAYS 16L/C:** Climb heading 163° and SEA R-161, thence. . . .  
**TAKEOFF RUNWAY 16R:** Climb heading 161° and SEA R-161, thence. . . .

. . . . to NEVJO, then left turn heading 130° to intercept the SEA R-146 to SUMMA INT, then via assigned transition.

**BAKER CITY TRANSITION (SUMMA9.BKE):** From over SUMMA INT on OLM R-100 and BKE R-283 to BKE VOR/DME.

**LAKEVIEW TRANSITION (SUMMA9.LKV):** From over SUMMA INT on SEA R-146 and LKV R-327 to LKV VORTAC.

# SUMMA NINE DEPARTURE

SEATTLE, WASHINGTON  
SEATTLE-TACOMA INTL (SEA)

SHELBY, MONTANA

AL-5372 (FAA)

16035

WAAS CH <b>69630</b> <b>W05A</b>	APP CRS <b>050°</b>	Rwy Idg TDZE Apt Elev	<b>5005</b> <b>3427</b> <b>3443</b>
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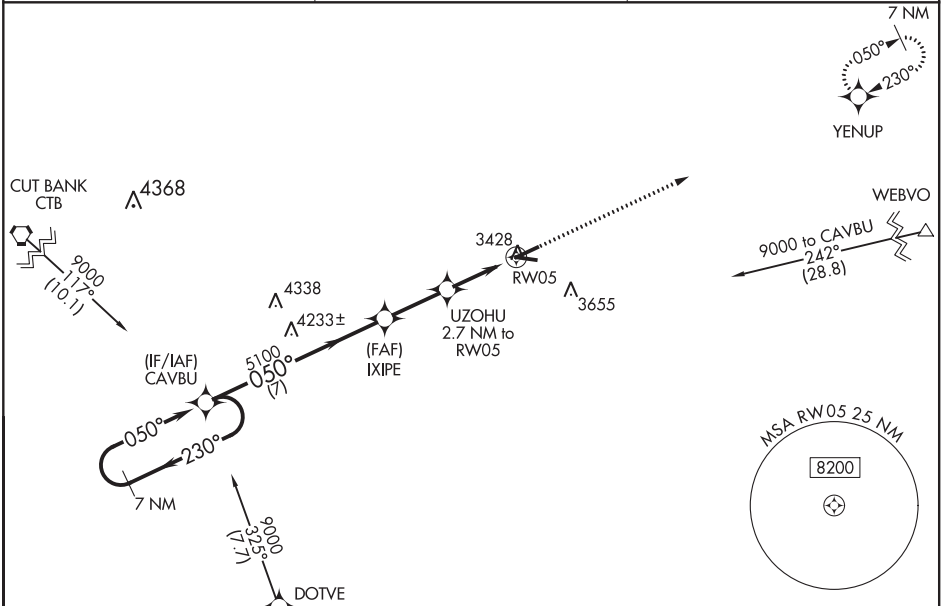
# RNAV (GPS) RWY 5

SHELBY (SBX)

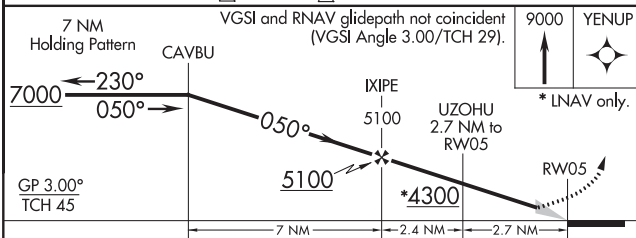
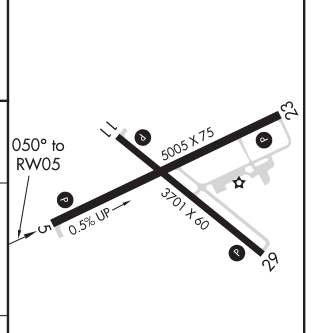
**Baro-VNAV NA.** DME/DME RNP-0.3 NA. Use Cut Bank altimeter setting, if not received use Great Falls altimeter setting and increase all DA 81 feet and all MDA 100 feet; increase LPV all Cats visibility 1/4 mile, LNAV/VNAV all Cats visibility 3/8 mile, LNAV Cats C/D and Circling Cat C/D visibilities 1/2 mile. Night Landing Rwy 23 NA.

**MISSED APPROACH:** Climb to 9000 direct YENUP and hold, continue climb-in-hold to 9000.

CUT BANK ASOS <b>119.025</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	UNICOM <b>122.8 (CTAF)</b>
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ELEV 3443	TDZE 3427
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CATEGORY	A	B	C	D
LPV DA		3733-1	306 (300-1)	
LNAV/VNAV DA		3783-1 1/8	356 (400-1 1/8)	
LNAV MDA	3800-1	373 (400-1)	3800-1 1/8	373 (400-1 1/8)
CIRCLING	4020-1 577 (600-1)	4080-1 637 (700-1)	4100-1 3/4 657 (700-1 3/4)	4220-2 1/2 777 (800-2 1/2)

MIRL Rwy 5-23 and 11-29

SHELBY, MONTANA  
Orig-A 29MAY14

48°32'N-111°52'W

# RNAV (GPS) RWY 5

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>78026</b> <b>W23A</b>	APP CRS <b>230°</b>	Rwy Idg TDZE Apt Elev	<b>5005</b> <b>3443</b> <b>3443</b>
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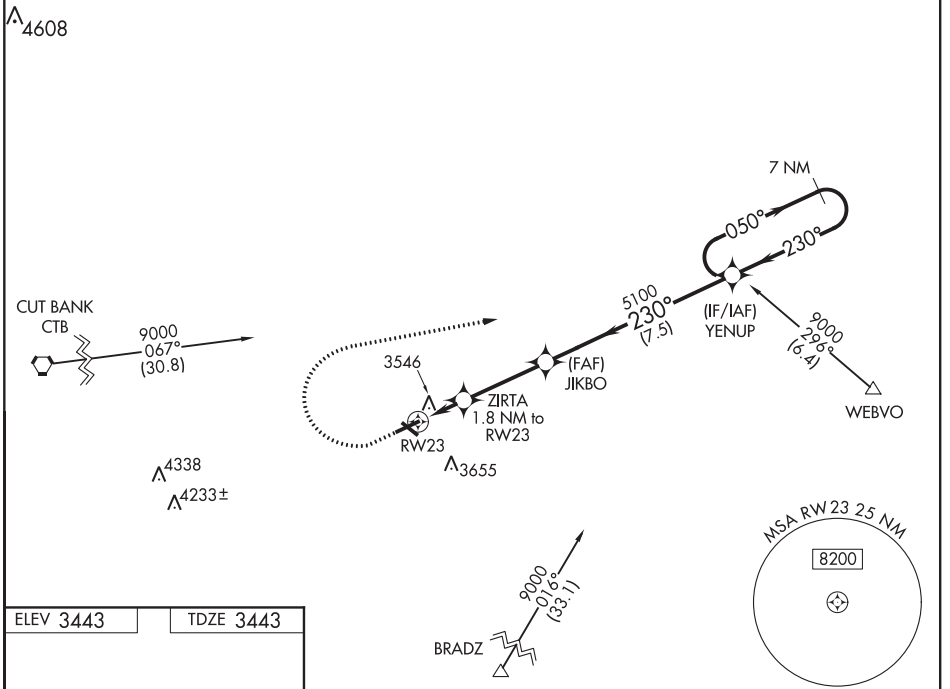
# RNAV (GPS) RWY 23

SHELBY (SBX)

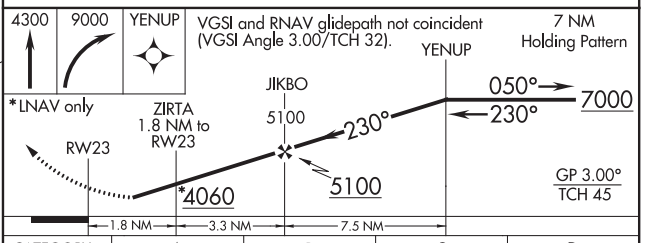
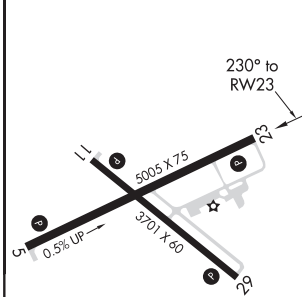
**NA** Baro-VNAV NA. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM not authorized. Use Cut Bank altimeter setting, if not received use Great Falls altimeter setting and increase all DA 81 feet and all MDA 100 feet; increase LPV all Cats visibility  $\frac{3}{8}$  mile, LNAV/VNAV all Cats, LNAV Cats C/D, Circling Cats C/D visibilities  $\frac{1}{4}$  mile. Night Landing Rwy 23 NA.

**MISSED APPROACH:** Climb to 4300 then climbing right turn to 9000 direct YENUP and hold, continue climb-in-hold to 9000.

CUT BANK ASOS <b>119.025</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV 3443	TDZE 3443
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CATEGORY	A	B	C	D
LPV DA		3799-1 $\frac{1}{8}$	356 (400-1 $\frac{1}{8}$ )	
LNAV/VNAV DA		3813-1 $\frac{1}{4}$	370 (400-1 $\frac{1}{4}$ )	
LNAV MDA	3920-1	477 (500-1)	3920-1 $\frac{3}{8}$	477 (500-1 $\frac{3}{8}$ )
<b>C</b> CIRCLING	4020-1 577 (600-1)	4080-1 637 (700-1)	4100-1 $\frac{3}{4}$ 657 (700-1 $\frac{3}{4}$ )	4220-2 $\frac{1}{2}$ 777 (800-2 $\frac{1}{2}$ )

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SHELBY, MONTANA

AL-5372 (FAA)

16035

NDB SBX <b>347</b>	APP CRS <b>213°</b>	Rwy Idg TDZE Apt Elev	<b>5005</b> <b>3443</b> <b>3443</b>
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# NDB RWY 23

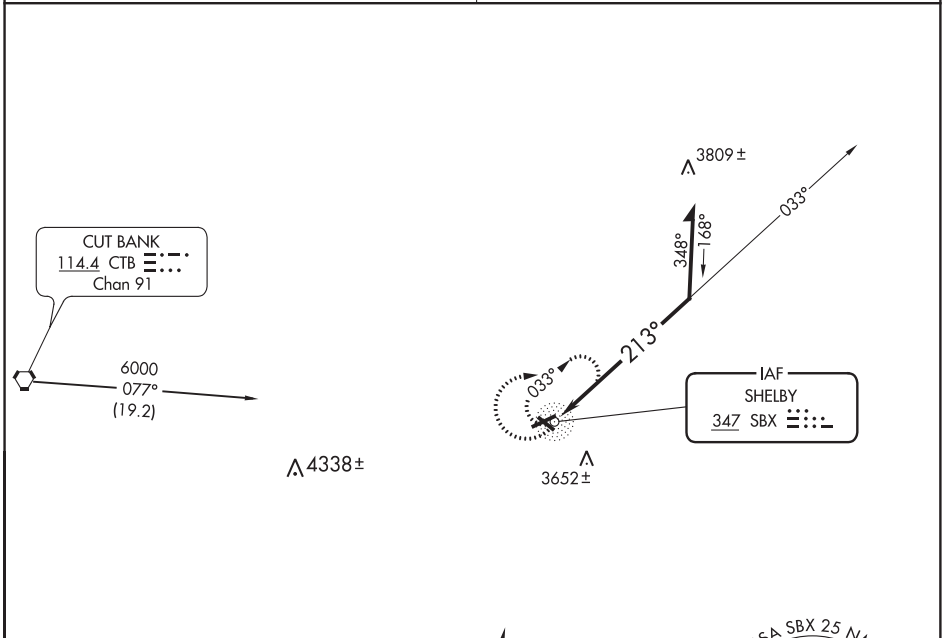
SHELBY (SBX)

**⚠** Visibility reduction by helicopters NA.  
**⚠** NA Use Cut Bank altimeter setting, if not received, use Great Falls altimeter setting and increase all MDAs 120 feet.

MISSED APPROACH: Climbing right turn to 5500 in SBX NDB holding pattern.

SALT LAKE CITY CENTER  
**133.4 285.4**

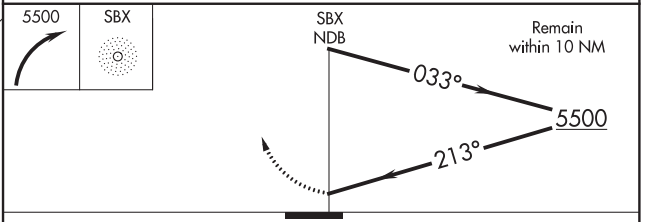
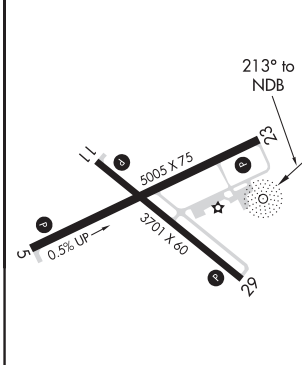
UNICOM  
**122.8 (CTAF)**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 3443	TDZE 3443
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CATEGORY	A	B	C	D
S-23	4240-1 797 (800-1)	4240-1¼ 797 (800-1¼)	4240-2¼ 797 (800-2¼)	NA
CIRCLING	4240-1 797 (800-1)	4240-1¼ 797 (800-1¼)	4240-2¼ 797 (800-2¼)	NA

SHELBY, MONTANA  
Amdt 7 15MAR07

48°32'N-111°52'W

# SHELBY (SBX) NDB RWY 23

WAAS CH <b>61038</b> W05A	APP CRS <b>053°</b>	Rwy Idg TDZE Apt Elev	<b>5005</b> <b>270</b> <b>273</b>
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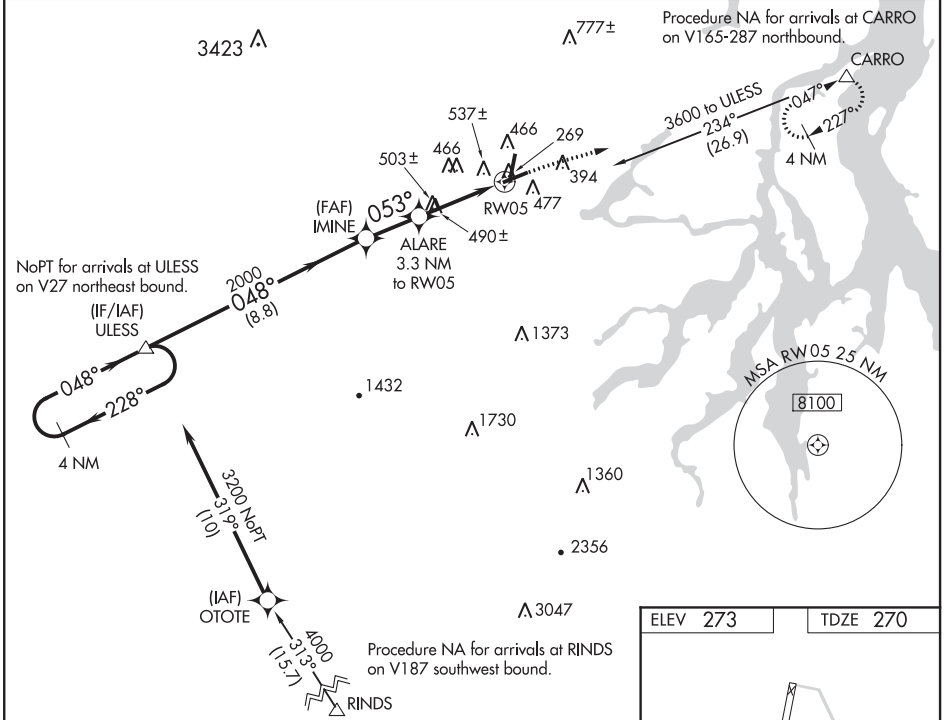
# RNAV (GPS) RWY 5

SANDERSON FIELD (SHN)

**⚠** DME/DME RNP-0.3 NA. Circling NA for Cats C and D south of Rwy 5-23. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Olympia altimeter setting and increase all MDA by 60 feet, increase LP and LNAV visibility Cats C, D and Circling Cat C visibility 1/8 mile.

MISSED APPROACH:  
Climb to 3000 direct CARRO and hold.

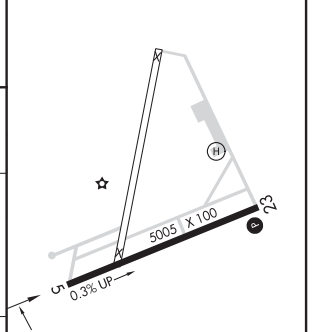
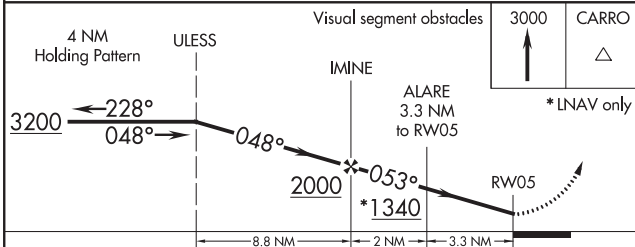
ASOS <b>119.275</b>	SEATTLE APP CON <b>121.1 290.9</b>	UNICOM <b>122.8</b> (CTAF)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 273	TDZE 270
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CATEGORY	A	B	C	D
LP MDA	740-1	470 (500-1)	740-1 1/8	470 (500-1 1/8)
LNAV MDA	800-1	530 (600-1)	800-1 1/8	530 (600-1 1/8)
<b>C</b> CIRCLING	840-1	567 (600-1)	840-1 1/2 567 (600-1 1/2)	1200-3 927 (1000-3)

REIL Rwy 23  
MIRL Rwy 5-23

WAAS CH <b>58335</b> <b>W23A</b>	APP CRS <b>233°</b>	Rwy Idg TDZE Apt Elev	<b>5005</b> <b>273</b> <b>273</b>
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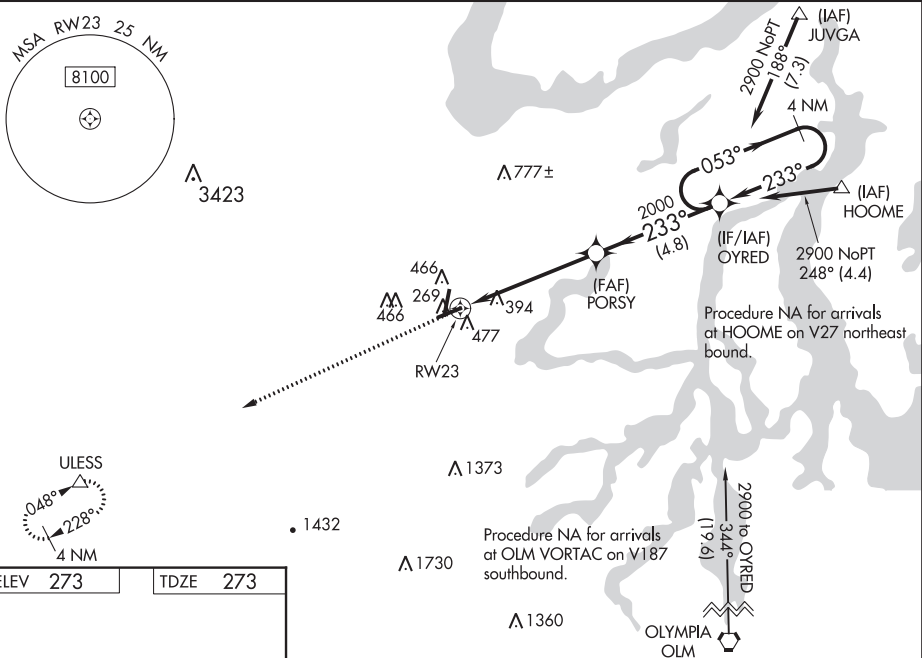
# RNAV (GPS) RWY 23

SANDERSON FIELD (SHN)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -10°C (14°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Olympia altimeter setting. Circling NA for Cats C and D south of Rwy 5-23. When local altimeter setting not received, use Olympia altimeter setting and increase # LPV DA to 576 feet, LPV DA to 720 feet, and LNAV/VNAV DA to 773 feet. Increase all visibilities ¼ mile. Increase all MDA 60 feet and LNAV visibility Cat C and D and Circling Cat C visibility ½ mile.  
# LPV missed approach requires minimum climb of 244 feet per NM to 1700.

**MISSED APPROACH:**  
Climb to 3200 direct ULESS and hold.

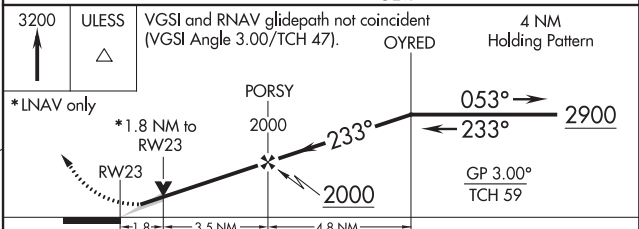
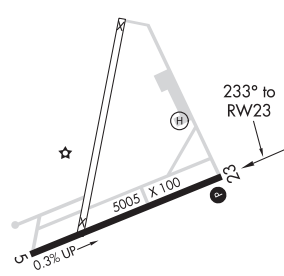
ASOS <b>119.275</b>	SEATTLE APP CON <b>121.1 290.9</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 273	TDZE 273
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CATEGORY	A	B	C	D
# LPV DA		523-¾	250 (300-¾)	
LPV DA		667-1¼	394 (400-1¼)	
LNAV/VNAV DA		720-1½	447 (500-1½)	
LNAV MDA	880-1	607 (700-1)	880-1¾	607 (700-1¾)
<b>C</b> CIRCLING	880-1	607 (700-1)	880-1¾	1200-3 927 (1000-3)

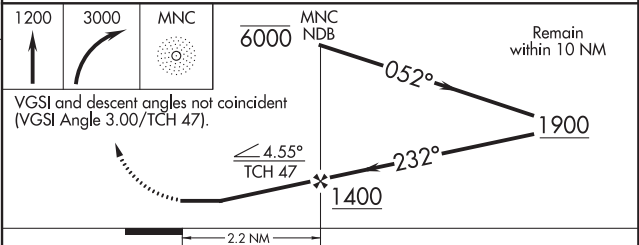
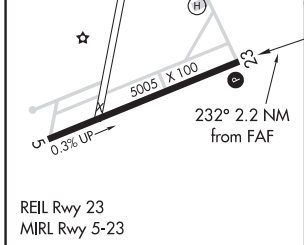
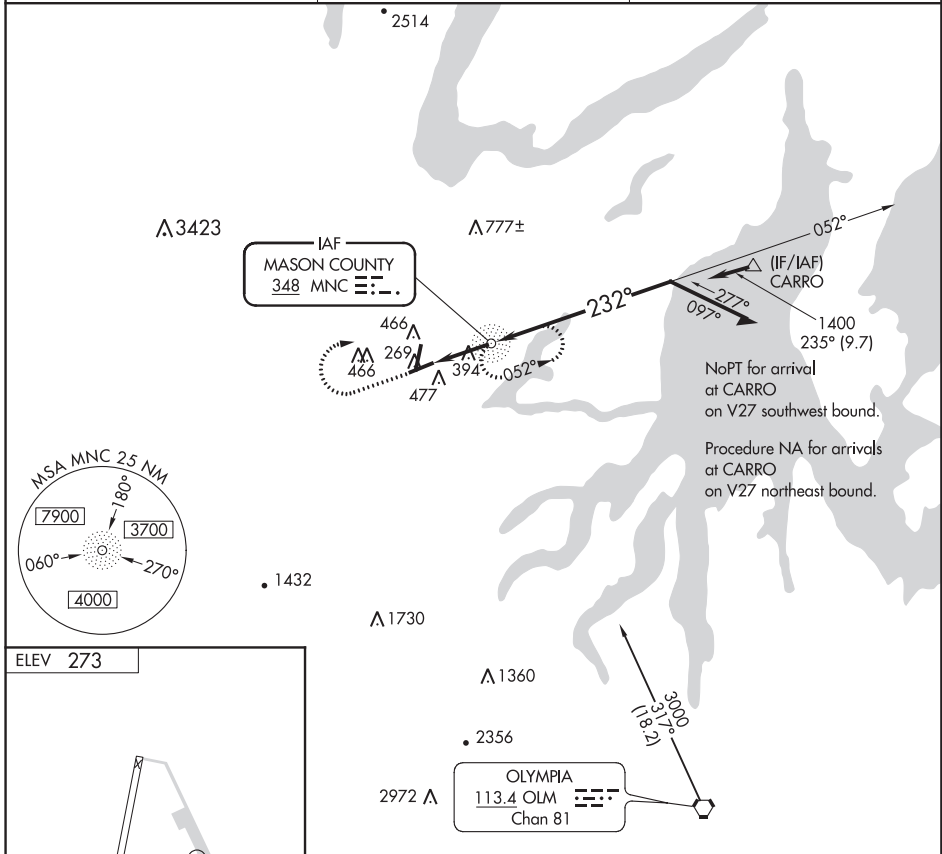
NDB MNC <b>348</b>	APP CRS <b>232°</b>	Rwy Idg TDZE Apt Elev	N/A N/A <b>273</b>
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**NDB-A**  
SANDERSON FIELD (SHN)

**NA** Circling NA for Cats C and D south of Rwy 5-23 When local altimeter setting not received, use Olympia altimeter setting and increase all MDA 60 feet; increase Cat C visibility ¼ mile. Circling to Rwy 5 NA at night.

**MISSED APPROACH:** Climb to 1200 then climbing right turn to 3000 direct MNC NDB and hold, continue climb-in-hold to 3000.

ASOS <b>119.275</b>	SEATTLE APP CON <b>121.1 290.9</b>	UNICOM <b>122.8</b> (CTAF)
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FAF to MAP 2.2 NM					
Knots	60	90	120	150	180
Min:Sec	2:12	1:28	1:06	0:53	0:44
<b>CIRCLING</b>	840-1 567 (600-1)	860-1 587 (600-1)	860-1½ 587 (600-1½)	1200-3 927 (1000-3)	

NW-1, 10 NOV 2016 to 05 JAN 2017


NW-1, 10 NOV 2016 to 05 JAN 2017


LOC/DME I-SHR <b>108.7</b> Chan 24	APP CRS <b>326°</b>	Rwy Idg TDZE Apt Elev	<b>8301</b> <b>3985</b> <b>4021</b>
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# ILS or LOC/DME RWY 33

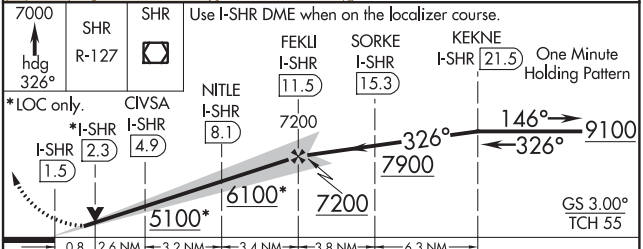
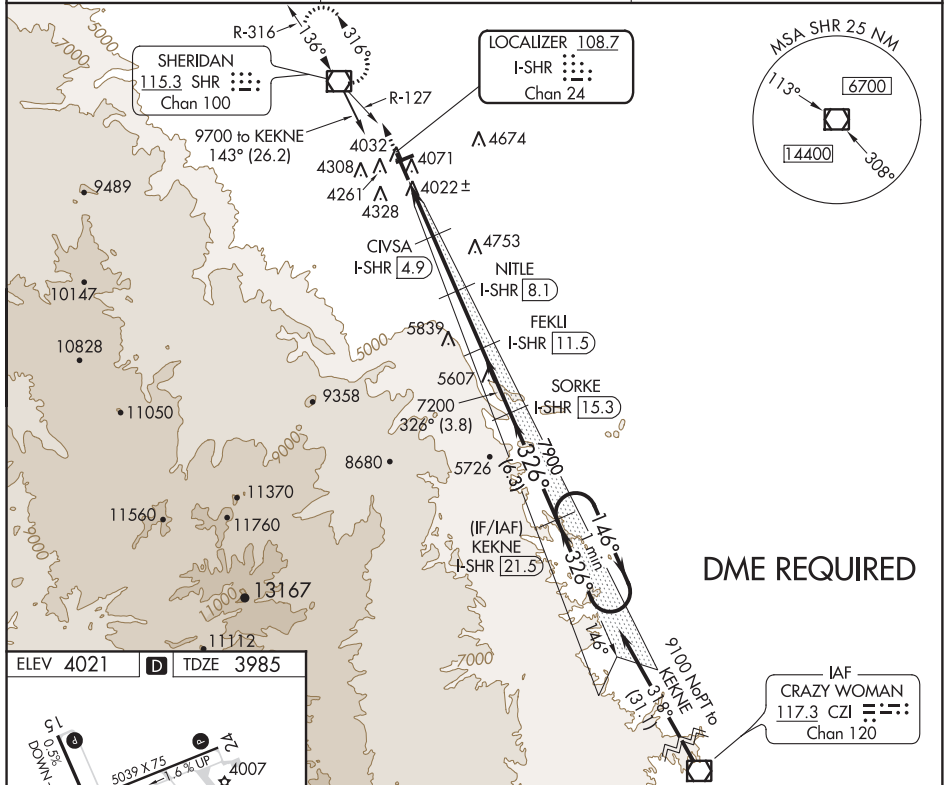
SHERIDAN COUNTY (SHR)


When local altimeter setting not received, procedure NA.  
 Night landing: Rwy 24 NA. For inoperative MALS/R, increase S-LOC 33 Cats C and D visibility to ½ mile.

MALS/R  MISSED APPROACH: Climb to 7000 on heading 326° and on SHR VOR/DME R-127 to SHR VOR/DME and hold, continue climb-in-hold to 7000.

 -22°C/-8°F

ASOS <b>135.175</b>	SALT LAKE CENTER <b>127.75 351.9</b>	UNICOM <b>123.0 (CTAF)</b>
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CATEGORY	A	B	C	D
S-ILS 33		4185-½	200 (200-½)	
S-LOC 33		4280-½	295 (300-½)	
 CIRCLING	4600-1 579 (600-1)	4640-1 619 (700-1)	4860-2½ 839 (900-2½)	5220-3 1199 (1200-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

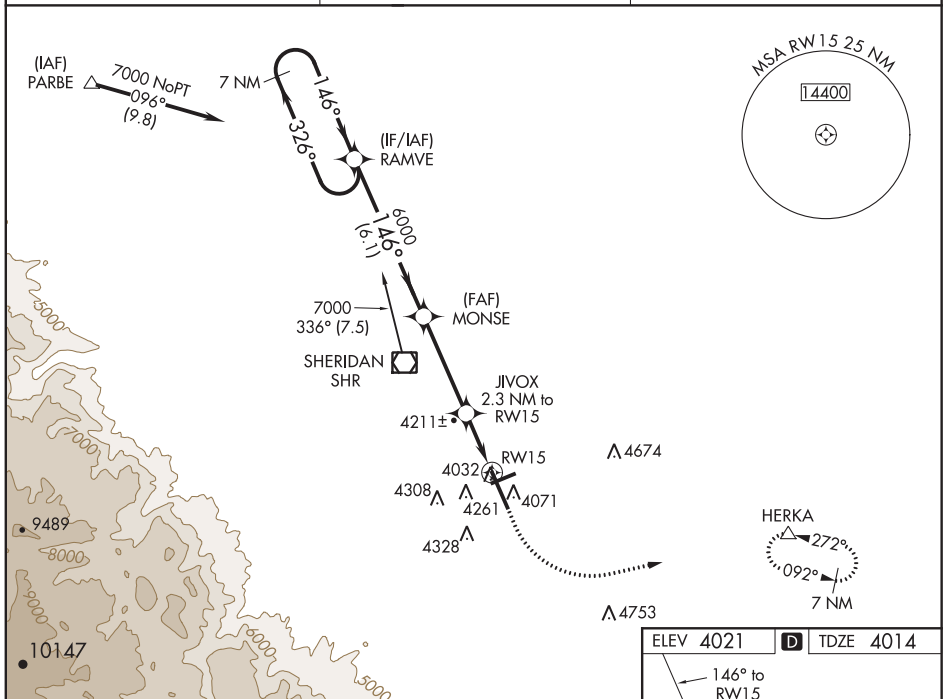
NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>81899</b> <b>W15A</b>	APP CRS <b>146°</b>	Rwy Idg <b>8301</b> TDZE <b>4014</b> Apt Elev <b>4021</b>
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# RNAV (GPS) RWY 15

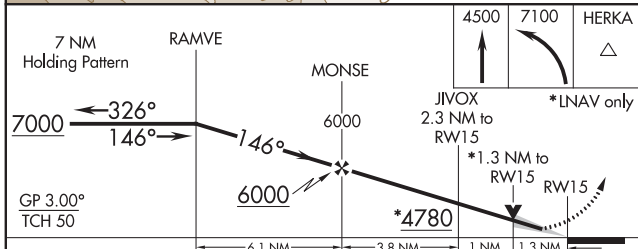
SHERIDAN COUNTY (SHR)

<p><b>⚠</b> For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -26°C (-14°F) or above 51°C (124°F). When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA. Night Landing: Rwy 24 NA.</p> <p><b>❄</b> -22°C/-8°F</p>	<p>MISSED APPROACH: Climb to 4500 then climbing left turn to 7100 direct HERKA and hold, continue climb-in-hold to 7100.</p>
<p>ASOS <b>135.175</b></p>	<p>SALT LAKE CENTER <b>127.75 351.9</b></p>
<p>UNICOM <b>123.0 (CTAF) Ⓛ</b></p>	



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 4021	<b>D</b>	TDZE 4014
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HIRL Rwy 15-33 Ⓛ
MIRL Rwy 6-24 Ⓛ
REIL Rws 6, 15, and 24 Ⓛ

CATEGORY	A	B	C	D
LPV DA		4264-3/4	250 (300-3/4)	
LNAV/VNAV DA		4292-7/8	278 (300-7/8)	
LNAV MDA	4480-1	466 (500-1)	4480-1 3/8	466 (500-1 3/8)
CIRCLING	4600-1 579 (600-1)	4640-1 619 (700-1)	4860-2 1/2 839 (900-2 1/2)	5220-3 1199 (1200-3)

SHERIDAN, WYOMING

AL-388 (FAA)

16035

WAAS CH <b>65699</b> <b>W33A</b>	APP CRS <b>326°</b>	Rwy Idg TDZE Apt Elev	<b>8301</b> <b>3985</b> <b>4021</b>
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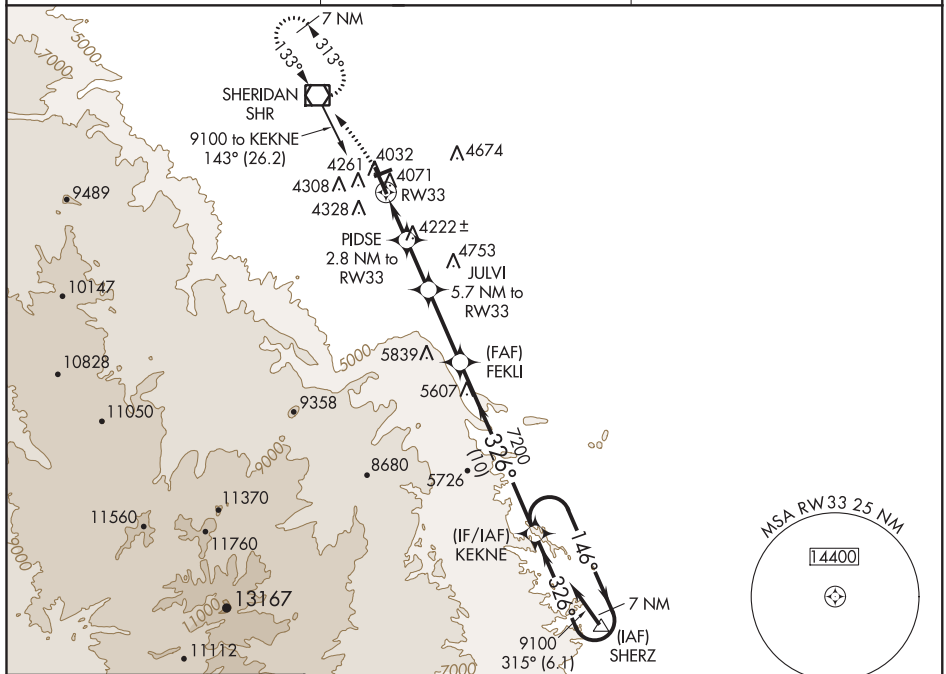
# RNAV (GPS) RWY 33

SHERIDAN COUNTY (SHR)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -26°C (-14°F) or above 51°C (124°F). When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA. Night landing: Rwy 24 NA.

**MALSR** MISSED APPROACH: Climbing left turn to 7300 direct SHR VOR/DME and hold, continue climb-in-hold to 7300.

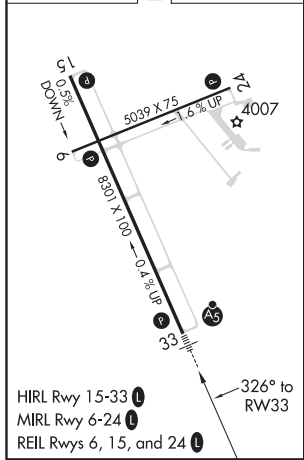
ASOS <b>135.175</b>	SALT LAKE CENTER <b>127.75 351.9</b>	UNICOM <b>123.0</b> (CTAF) <b>📶</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4021	<b>D</b>	TDZE 3985
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7300	SHR	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 53).	KEKNE	7 NM Holding Pattern
	PIDSE	JULVI	FEKLI	9100
*LNAV only	2.8 NM to RW33	5.7 NM to RW33	7200	146°
*1.1 NM to RW33				326°
	4920*	5840*	7200	GP 3.00° TCH 55

CATEGORY	A	B	C	D
LPV DA		4205-1/2	220 (200-1/2)	
LNAV/VNAV DA		4355-3/4	370 (400-3/4)	
LNAV MDA	4380-1/2	395 (400-1/2)	4380-5/8	395 (400-5/8)
<b>C</b> CIRCLING	4600-1 579 (600-1)	4640-1 619 (700-1)	4860-2 1/2 839 (900-2 1/2)	5220-3 1199 (1200-3)

SHERIDAN, WYOMING  
Amdt 1 25JUN15

44°46'N-106°59'W

# SHERIDAN COUNTY (SHR)

## RNAV (GPS) RWY 33

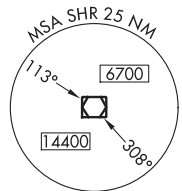
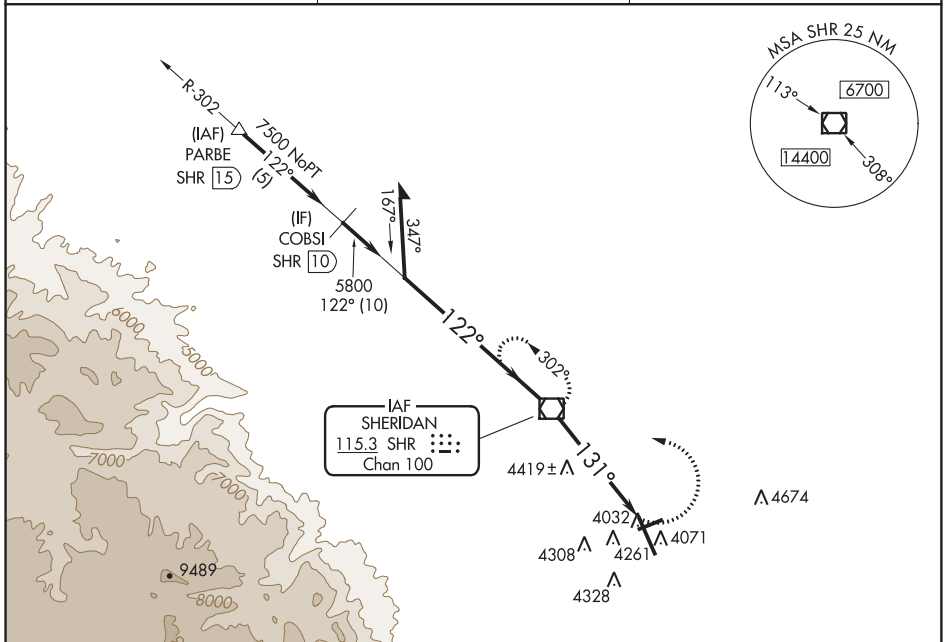


VOR/DME SHR	APP CRS	Rwy Idg	<b>8301</b>
<b>115.3</b>	<b>131°</b>	TDZE	<b>4014</b>
Chan <b>100</b>		Apt Elev	<b>4021</b>

# VOR RWY 15

SHERIDAN COUNTY (SHR)

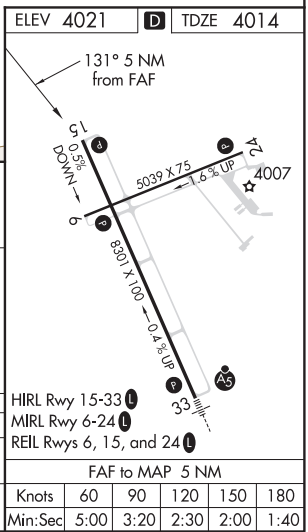
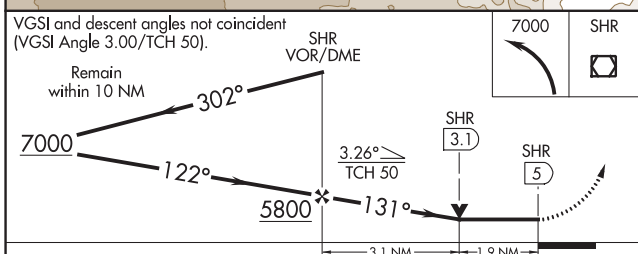
<p>-22°C/-8°F</p>	When local altimeter setting not received, procedure NA. Night landing: Rwy 24 NA.	MISSED APPROACH: Climbing left turn to 7000 direct SHR VOR/DME and hold, continue climb-in-hold to 7000.
	ASOS <b>135.175</b>	SALT LAKE CENTER <b>127.75 351.9</b>



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4021		TDZE 4014
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CATEGORY	A	B	C	D
S-15	4680-1	666 (700-1)	4680-1 7/8	666 (700-1 7/8)
CIRCLING	4680-1	659 (700-1)	4860-2 1/2 839 (900-2 1/2)	5220-3 1199 (1200-3)

# AIRPORT DIAGRAM

AL-388 (FAA)

SHERIDAN COUNTY (SHR)  
SHERIDAN, WYOMING

ASOS  
135.175  
CTAF/UNICOM  
123.0



ELEV  
4014

ELEV  
3939

44°46.5'N

FIELD  
ELEV  
4021

S1

BA

146.2°

0.5% DOWN

6

057.9°

A4

5039 X 75

237.9°

1.6% UP

44°46.0'N

8301 X 100

NW-1, 10 NOV 2016 to 05 JAN 2017



JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

44°45.5'N

4069

RWY 06-24  
PCN 11 F/B/X/U  
S-36, D-50  
RWY 15-33  
PCN 22 F/B/X/U  
S-60, D-75, 2S-95

44°45.5'N

ELEV  
3975

33

106°59.0'W

106°58.5'W

106°58.0'W

# AIRPORT DIAGRAM

16035

SHERIDAN, WYOMING  
SHERIDAN COUNTY (SHR)

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>62918</b> <b>W01A</b>	APP CRS <b>015°</b>	Rwy Idg TDZE Apt Elev	<b>5705</b> <b>1985</b> <b>1985</b>
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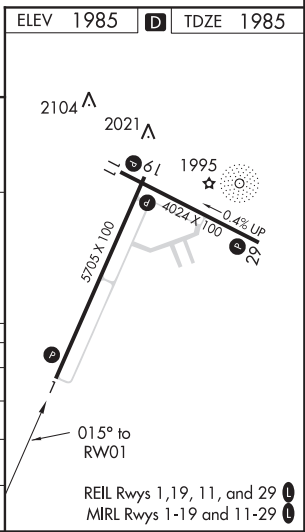
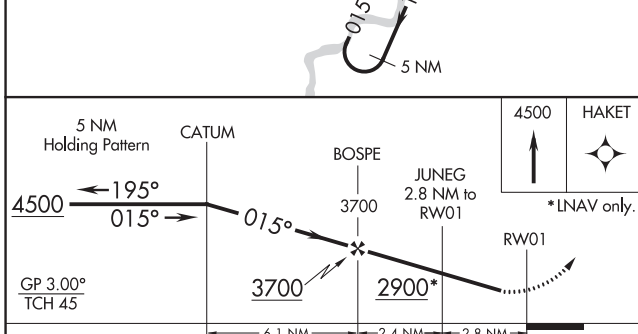
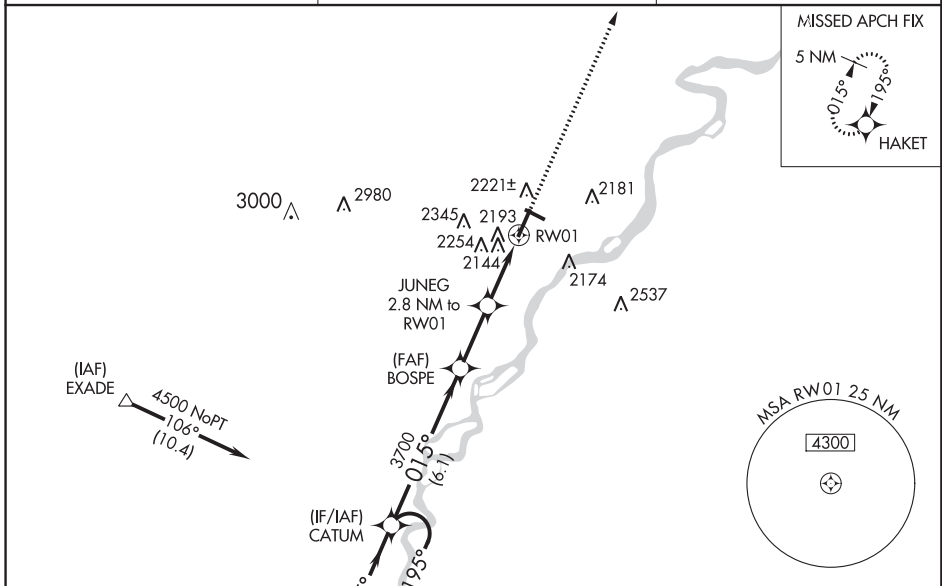
# RNAV (GPS) RWY 1

SIDNEY-RICHLAND MUNI (SDY)

**▽** Baro-VNAV NA when using Williston altimeter setting.  
**▲** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 45°C (113°F).  
 DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.  
 When local altimeter setting not received, use Williston altimeter setting and increase all DA 84 feet and MDA 100 feet, increase LPV and LNAV/VNAV visibility ¼ mile all Cats, increase LNAV Cat C and D visibility ¼ mile, Circling Cat C visibility ½ mile, Cat D visibility ¼ mile.

**MISSED APPROACH:**  
 Climb to 4500 direct HAKET and hold.

AWOS-3PT <b>119.275</b>	GREAT FALLS RADIO <b>123.65</b>	UNICOM <b>122.8 (CTAF)</b> <b>0</b>
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CATEGORY	A	B	C	D
LPV DA		2235-1	250 (300-1)	
LNAV/VNAV DA		2541-2	556 (600-2)	
LNAV MDA	2480-1	495 (500-1)	2480-1¼ 495 (500-1¼)	2480-1½ 495 (500-1½)
CIRCLING	2540-1 555 (600-1)	2560-1 575 (600-1)	2580-1½ 595 (600-1½)	2680-2¼ 695 (700-2¼)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SIDNEY, MONTANA

AL-5303 (FAA)

16259

WAAS CH <b>86818</b> <b>W19A</b>	APP CRS <b>195°</b>	Rwy Idg TDZE Apt Elev	<b>5705</b> <b>1981</b> <b>1985</b>
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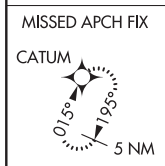
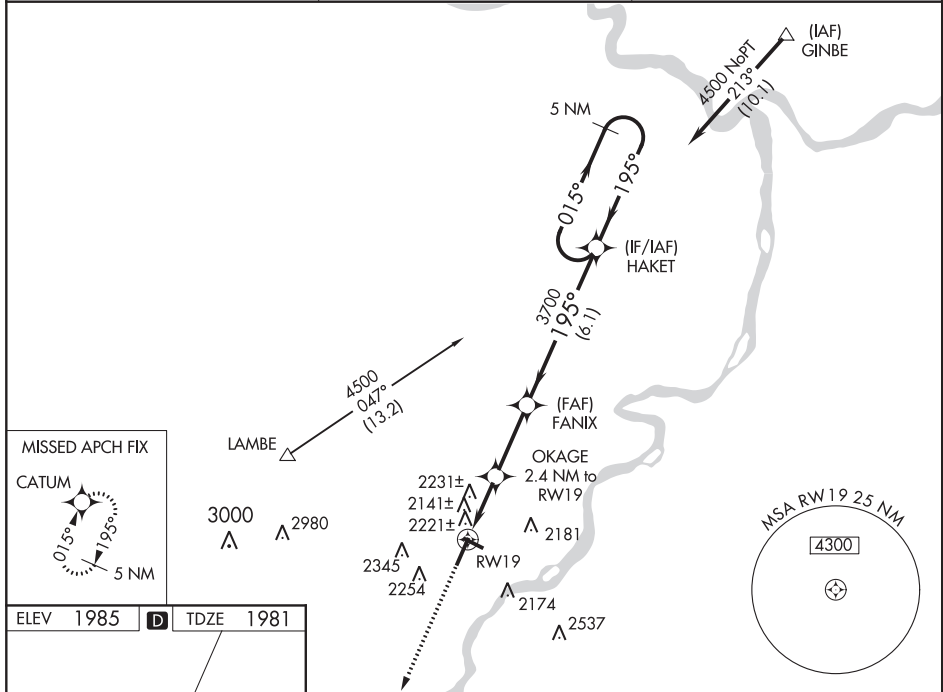
# RNAV (GPS) RWY 19

SIDNEY-RICHLAND MUNI (SDY)

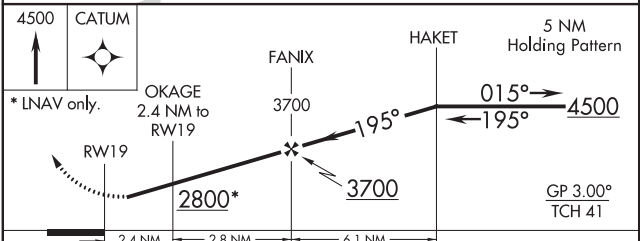
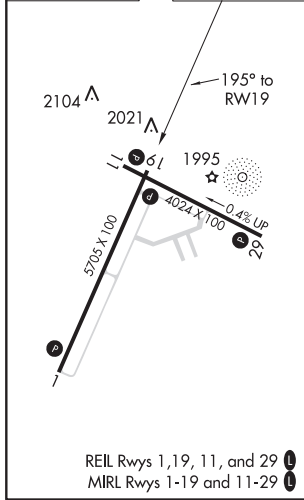
**⚠** Baro-VNAV NA when using Williston altimeter setting.  
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 45°C (113°F).  
 DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.  
 When local altimeter setting not received, use Williston altimeter setting and increase all DA 84 feet and MDA 100 feet, increase LPV and LNAV/VNAV visibility ¼ mile all Cats, increase LNAV Cat C and D visibility ¼ mile, Circling Cat C visibility ½ mile, Cat D visibility ¼ mile.

**MISSED APPROACH:**  
Climb to 4500 direct CATUM and hold.

AWOS-3PT <b>119.275</b>	GREAT FALLS RADIO <b>123.65</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV 1985	<b>D</b>	TDZE 1981
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CATEGORY	A	B	C	D
LPV DA		2231-1	250 (300-1)	
LNAV/VNAV DA		2615-2	634 (700-2)	
LNAV MDA	2500-1	519 (600-1)	2500-1½ 519 (600-1½)	2500-1¾ 519 (600-1¾)
CIRCLING	2540-1 555 (600-1)	2560-1 575 (600-1)	2580-1½ 595 (600-1½)	2680-2¼ 695 (700-2¼)

SIDNEY, MONTANA  
Amdt 1 29JUL10

47°42'N - 104°12'W

# RNAV (GPS) RWY 19

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NDB SDY <b>359</b>	APP CRS <b>165°</b>	Rwy Idg <b>5705</b>
		TDZE <b>1981</b>
		Apt Elev <b>1985</b>

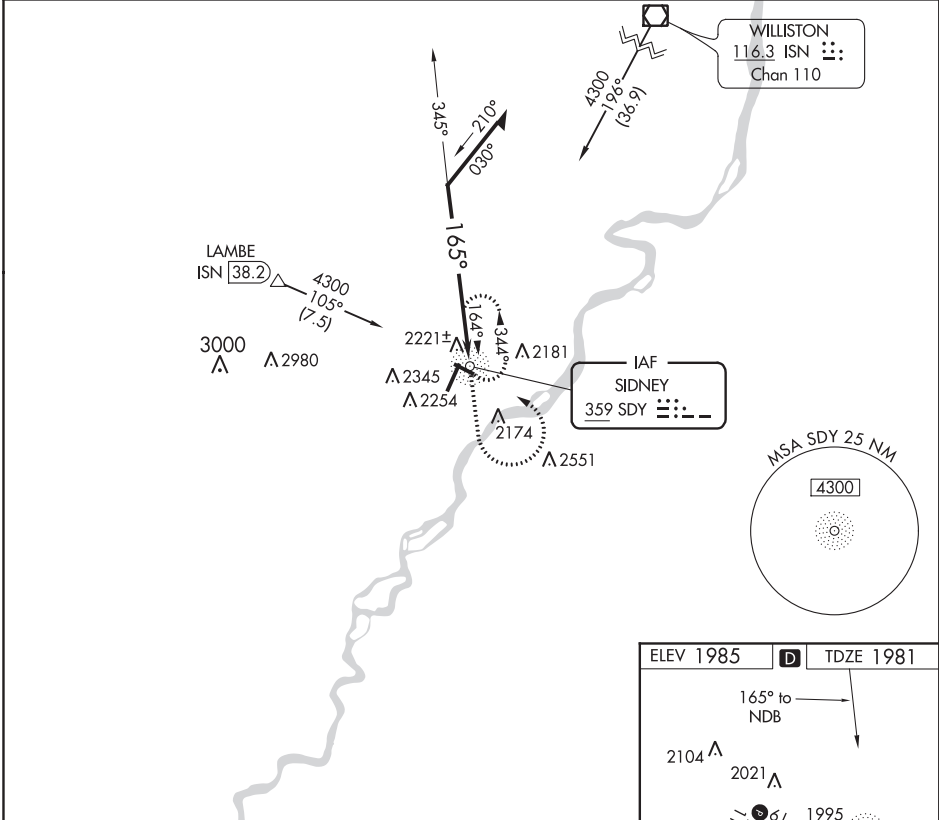
# NDB RWY 19

SIDNEY-RICHLAND MUNI (SDY)

**⚠** When local altimeter setting not received, use Williston altimeter setting: increase all MDAs 100 feet and visibility Cats B and C ¼ mile. Visibility reduction by helicopters NA.

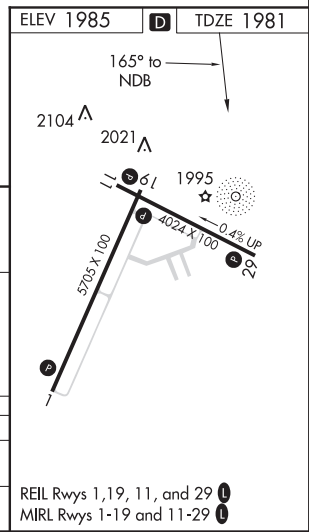
MISSED APPROACH: Climb to 4000 then left turn direct SDY NDB and hold.

AWOS-3PT <b>119.275</b>	GREAT FALLS RADIO <b>123.65</b>	UNICOM <b>122.8</b> (CTAF) <b>Ⓛ</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-19	2920-1¼ 939 (1000-1¼)		2920-2¾ 939 (1000-2¾)	2920-3 939 (1000-3)
CIRCLING	2920-1¼ 935 (1000-1¼)		2920-2¾ 935 (1000-2¾)	2920-3 935 (1000-3)

# AIRPORT DIAGRAM

AL-5303 (FAA)

SIDNEY-RICHLAND MUNI (SDY)  
SIDNEY, MONTANA

AWOS-3PT  
119.275  
CTAF/UNICOM  
122.8  
**D**

47°43'N

FIELD  
ELEV  
1985

A<sub>2104</sub>

61 ELEV 1981  
108.3°

193.0°

4024 X 100

288.3°

0.4% UP

ELEV 1966

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

5705 X 100

A2

VAR 87°E

JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

47°42'N

ELEV 1983

015.0°

104°12'W

RWY 01-19  
PCN 18 F/D/X/T  
S-46.5, D-61, 2D-109  
RWY 11-29  
PCN 18 F/D/X/T  
S-12, D-18

104°11'W

# AIRPORT DIAGRAM

APP CRS <b>328°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>22</b>
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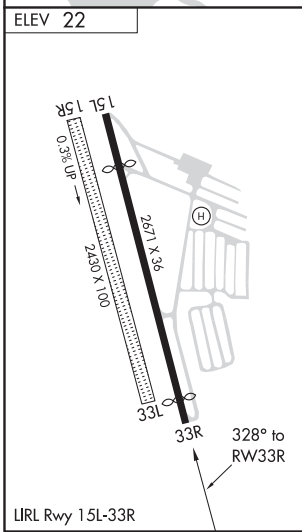
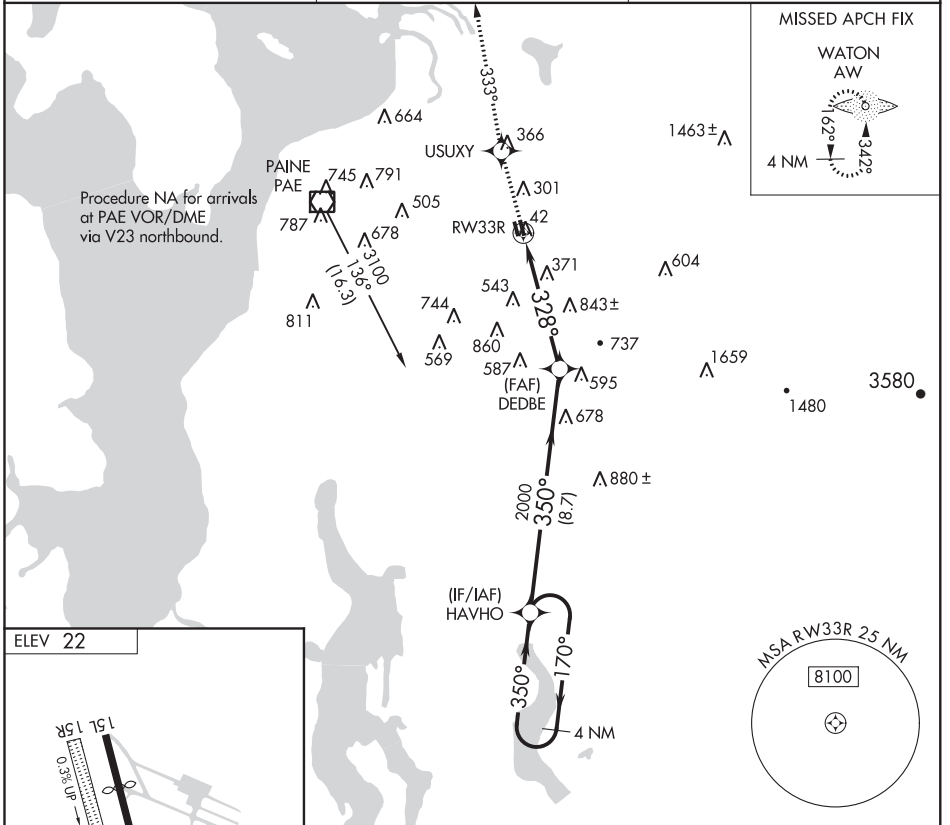
# RNAV (GPS)-A

HARVEY FIELD (S43)

**NA** DME/DME RNP-0.3 NA. Procedure NA at night. Use Arlington altimeter setting. When not received, use Everett altimeter setting and increase all MDA 60 feet. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 2000 direct USUXY and via 333° track to WATON LOM and hold.

ARLINGTON AWOS-3 <b>135,625</b>	SEATTLE APP CON <b>128.5 306.9</b>	UNICOM <b>123.0</b> (CTAF)
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2000	USUXY	333° tr	AW	Visual segment-obstacles.
				4 NM Holding Pattern
CATEGORY	A	B	C	D
CIRCLING	1220-1¼ 1198 (1200-1¼)	1220-1½ 1198 (1200-1½)	NA	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-FLZ <b>111.7</b> Chan <b>54</b>	APP CRS <b>221°</b>	Rwy Ldg TDZE Apt Elev	<b>4499</b> <b>1957</b> <b>1957</b>
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# ILS or LOC RWY 22R

FELTS FIELD (SFF)

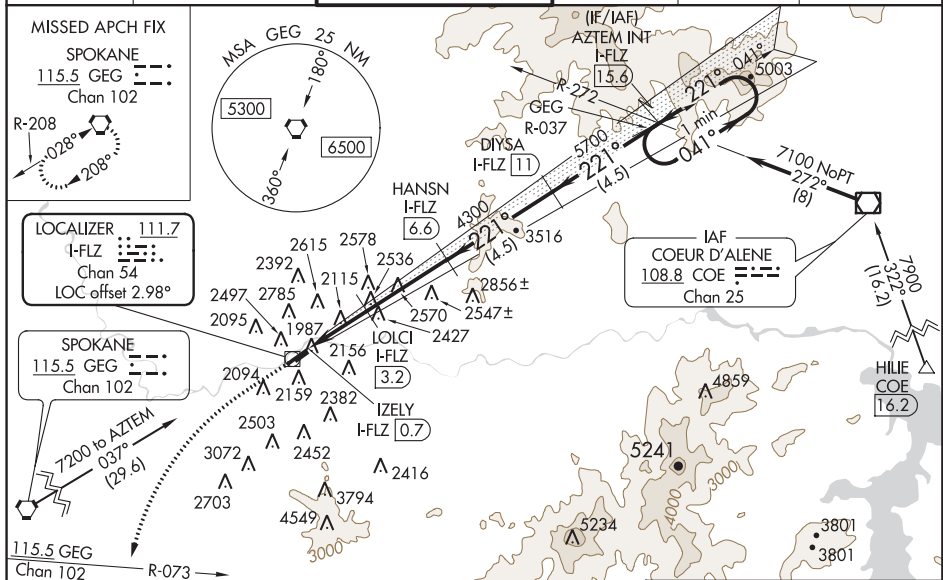
**⚠** Inop table does not apply to S-ILS all Cats. Circling NA northwest of Rwy 4L-22R. DME required. Helicopter visibility reduction below 3/4 SM NA.

**⚠** When local altimeter setting not received, use Spokane Intl altimeter setting and increase all DA 82 feet and all MDA 100 feet; and increase S-LOC Cat C visibility 1/8 and Circling Cat C visibility 1/4. For inop MALSR, increase S-LOC Cat A visibility to 1 and Cat C visibility to 2 1/2.

MALSR

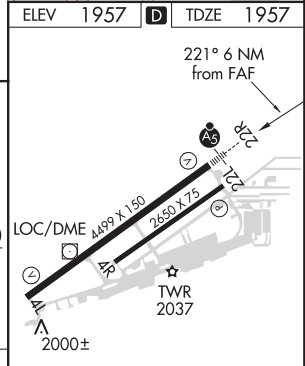
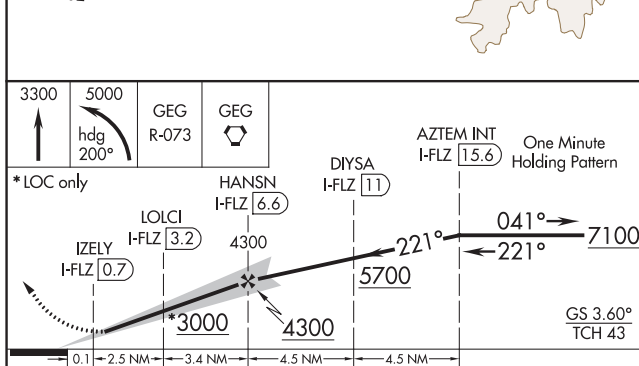
MISSED APPROACH: Climb to 3300 then climbing left turn to 5000 on heading 200° and on GEG VORTAC R-073 to GEG VORTAC and hold.

ATIS <b>120.55</b>	SPOKANE APP CON <b>133.35 263.0</b>	FELTS TOWER ★ <b>132.5 (CTAF) 239.025</b>	GND CON <b>121.7</b>	CLNC DEL <b>121.7</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-ILS 22R	2227-3/4	270 (300-3/4)	2227-1 7/8 270 (300-1 7/8)	NA
S-LOC 22R	2800-3/4	843 (900-3/4)	2800-1 7/8 843 (900-1 7/8)	NA
<b>C</b> CIRCLING	2800-1 1/4 843 (900-1 1/4)	2800-1 1/2 843 (900-1 1/2)	3020-3 1063 (1100-3)	NA

ELEV 1957	TDZE 1957
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REIL Rwy 4L  
MIRL Rwy 4L-22R



WAAS CH <b>65931</b> <b>W04A</b>	APP CRS <b>038°</b>	Rwy Idg TDZE Apt Elev	<b>4499</b> <b>1949</b> <b>1957</b>
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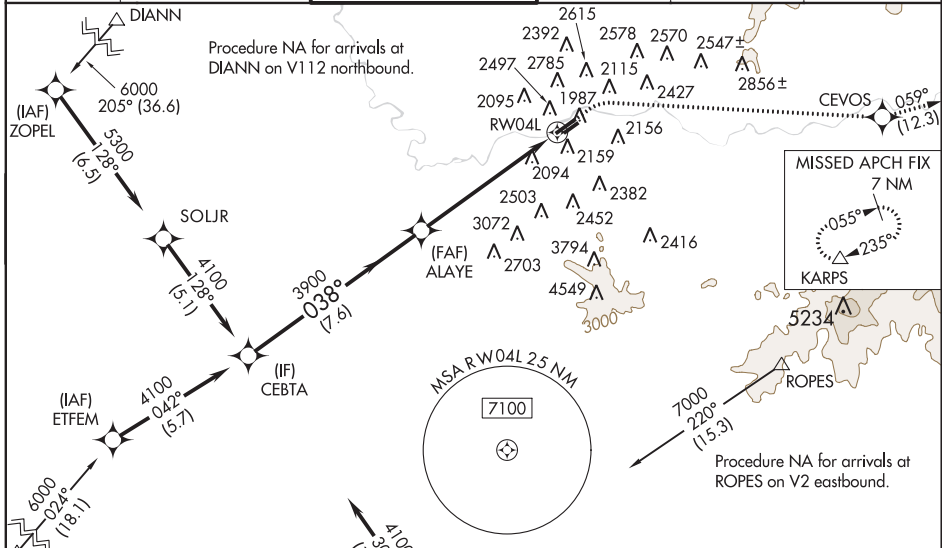
# RNAV (GPS) RWY 4L

FELTS FIELD (SF/F)

**⚠** Baro-VNAV NA when using Spokane Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (-1°F) or above 54°C (130°F). Circling NA northwest of Rwy 4L-22R. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Spokane Intl altimeter setting and increase all DA 82 feet and all MDA 100 feet. Increase LPV all Cats, LNAV/VNAV all Cats, LNAV Cat C and Circling Cat C visibility ½ mile; increase LNAV Cat A/B/D and Circling Cat B/D visibility ¼ mile. Helicopter visibility reduction below ¼ SM NA. \*LPV missed approach requires a minimum climb of 330 feet per NM to 5400.

**MISSED APPROACH:** Climb to 2850 then climbing right turn to 8000 direct CEVOS and on track 059° to KARPS INT and hold, continue climb-in-hold to 8000.

ATIS <b>120.55</b>	SPOKANE APP CON <b>133.35 263.0</b>	FELTS TOWER * <b>132.5 (CTAF) 239.025</b>	GND CON <b>121.7</b>	CLNC DEL <b>121.7</b>	UNICOM <b>122.95</b>
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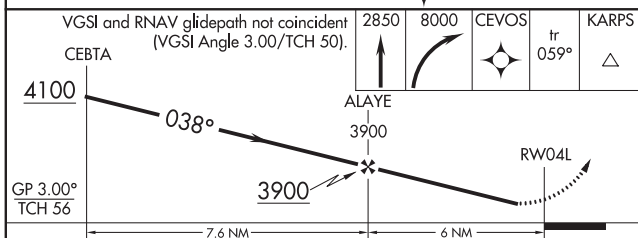
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

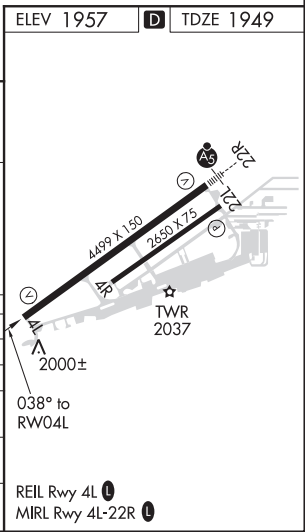
Procedure NA for arrivals at DIANN on V112 northbound.

Procedure NA for arrivals at GRAPH on V204 southwest bound.

Procedure NA for arrivals at ROPES on V2 eastbound.



CATEGORY	A	B	C	D
LPV DA*		2199-1	250 (300-1)	
LPV DA		2529-2	580 (600-2)	
LNAV/VNAV DA		2779-3	830 (900-3)	
LNAV MDA	2820-1 871 (900-1)	2820-1¼ 871 (900-1¼)	2820-2½	871 (900-2½)
CIRCLING	2820-1¼	863 (900-1¼)	3020-3 1063 (1100-3)	3360-3 1403 (1500-3)



SPOKANE, WASHINGTON

AL-402 (FAA)

16259

APP CRS	Rwy Idg	N/A
<b>256°</b>	TDZE	N/A
	Apt Elev	<b>1957</b>

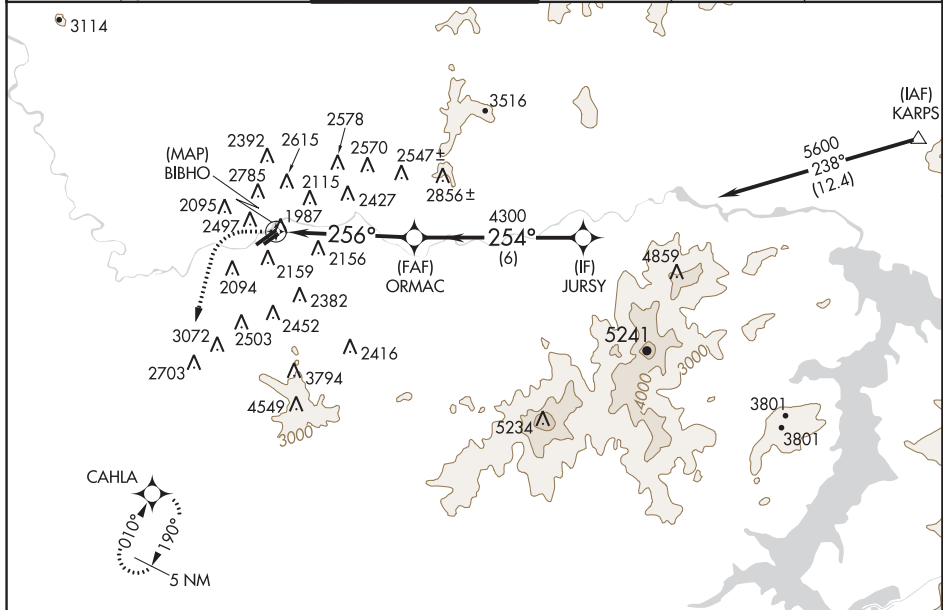
# RNAV (GPS)-A

## FELTS FIELD (SFF)

**⚠** When local altimeter setting not received, use Spokane Intl altimeter setting and increase all MDA 100 feet and increase Cat B/C visibility ¼ mile. Circling NA northwest of Rwy 4L-22R. DME/DME RNP-0.3 NA.

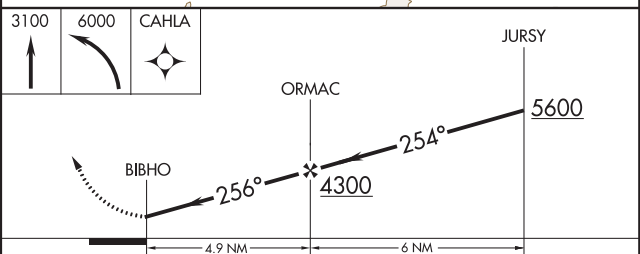
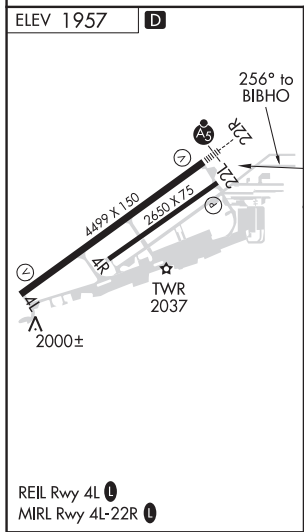
**⚠** MISSED APPROACH: Climb to 3100 then climbing left turn to 6000 direct CAHLA and hold, continue climb-in-hold to 6000.

ATIS <b>120.55</b>	SPOKANE APP CON <b>133.35 263.0</b>	FELTS TOWER * <b>132.5 (CTAF) 239.025</b>	GND CON <b>121.7</b>	CLNC DEL <b>121.7</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	2880-1¼	923 (1000-1¼)	3020-3 1063 (1100-3)	3360-3 1403 (1500-3)

SPOKANE, WASHINGTON  
Amdt 1A 15SEP16

47°41'N-117°19'W

# RNAV (GPS)-A

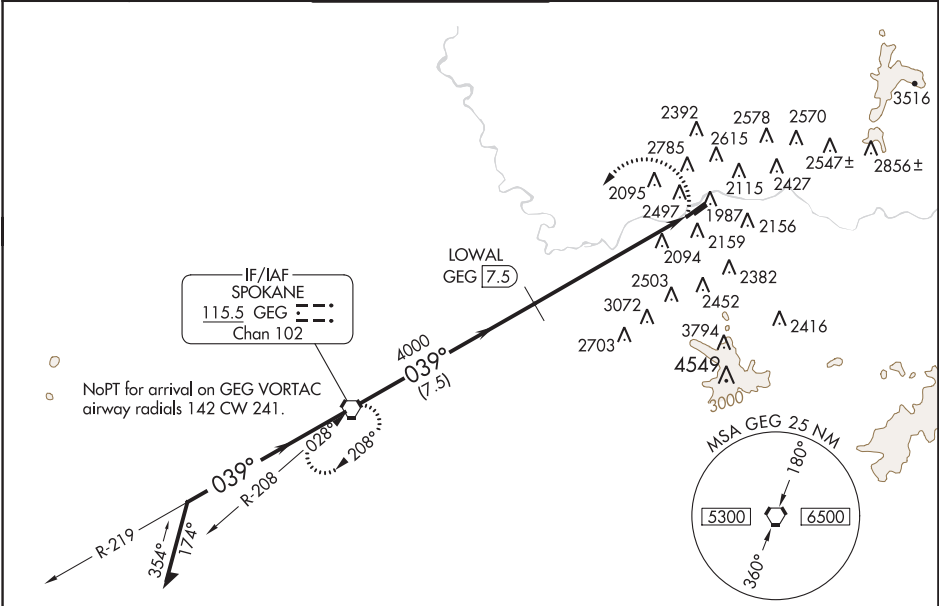
## FELTS FIELD (SFF)

VORTAC GEG <b>115.5</b> Chan <b>102</b>	APP CRS <b>039°</b>	Rwy Idg TDZE <b>1949</b> Apt Elev <b>1957</b>
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# VOR RWY 4L

FELTS FIELD (SF'F)

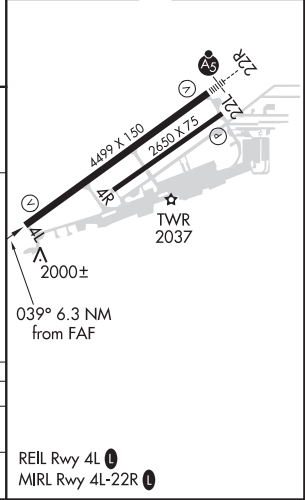
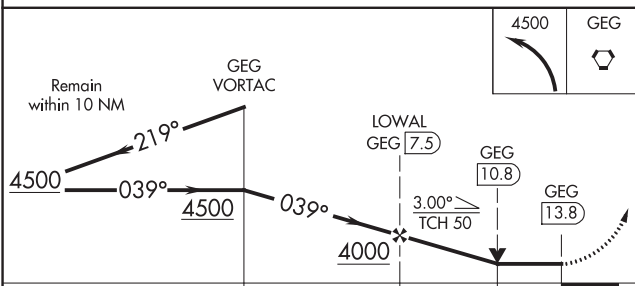
<p><b>⚠</b> Circling NA northwest of Rwy 4L-22R. VDP NA when using Spokane Intl altimeter setting. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Spokane Intl altimeter setting and increase all MDA 100 feet. DME Required.</p>		<p>MISSED APPROACH: Climbing left turn to 4500 direct GEG VORTAC and hold.</p>			
ATIS <b>120.55</b>	SPOKANE APP CON <b>133.35 263.0</b>	FELTS TOWER ★ <b>132.5 (CTAF) 239.025</b>	GND CON <b>121.7</b>	CLNC DEL <b>121.7</b>	UNICOM <b>122.95</b>



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV	1957	TDZE	1949
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CATEGORY	A	B	C	D
S-4L	2960-1¼ 1011 (1100-1¼)	2960-1½ 1011 (1100-1½)	2960-3	1011 (1100-3)
CIRCLING	2960-1¼ 1003 (1100-1¼)	2960-1½ 1003 (1100-1½)	3020-3 1063 (1100-3)	3360-3 1403 (1500-3)

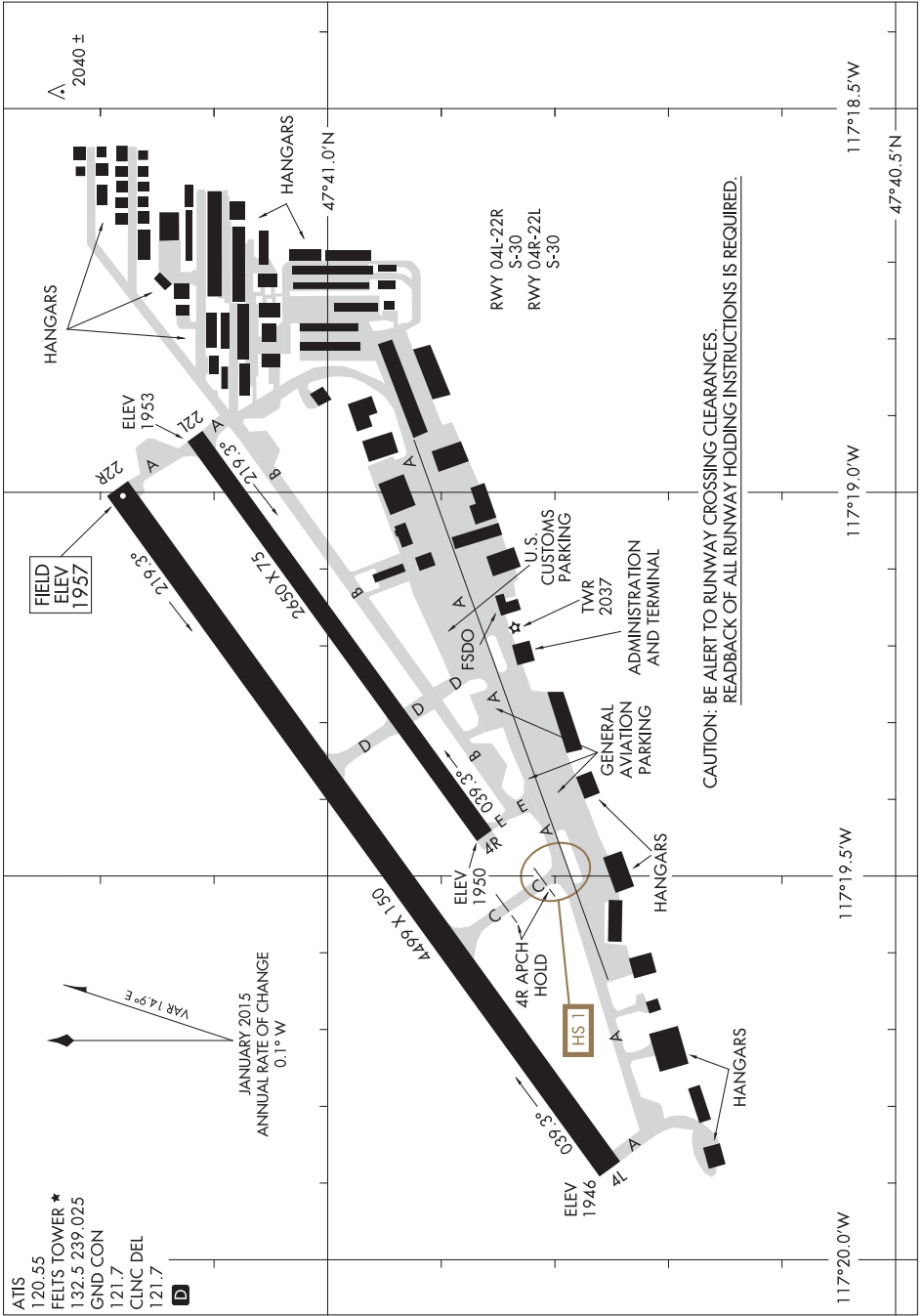
# AIRPORT DIAGRAM

AL-402 (FAA)

FELTS FIELD (S'F'F)  
SPOKANE, WASHINGTON

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
REARBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

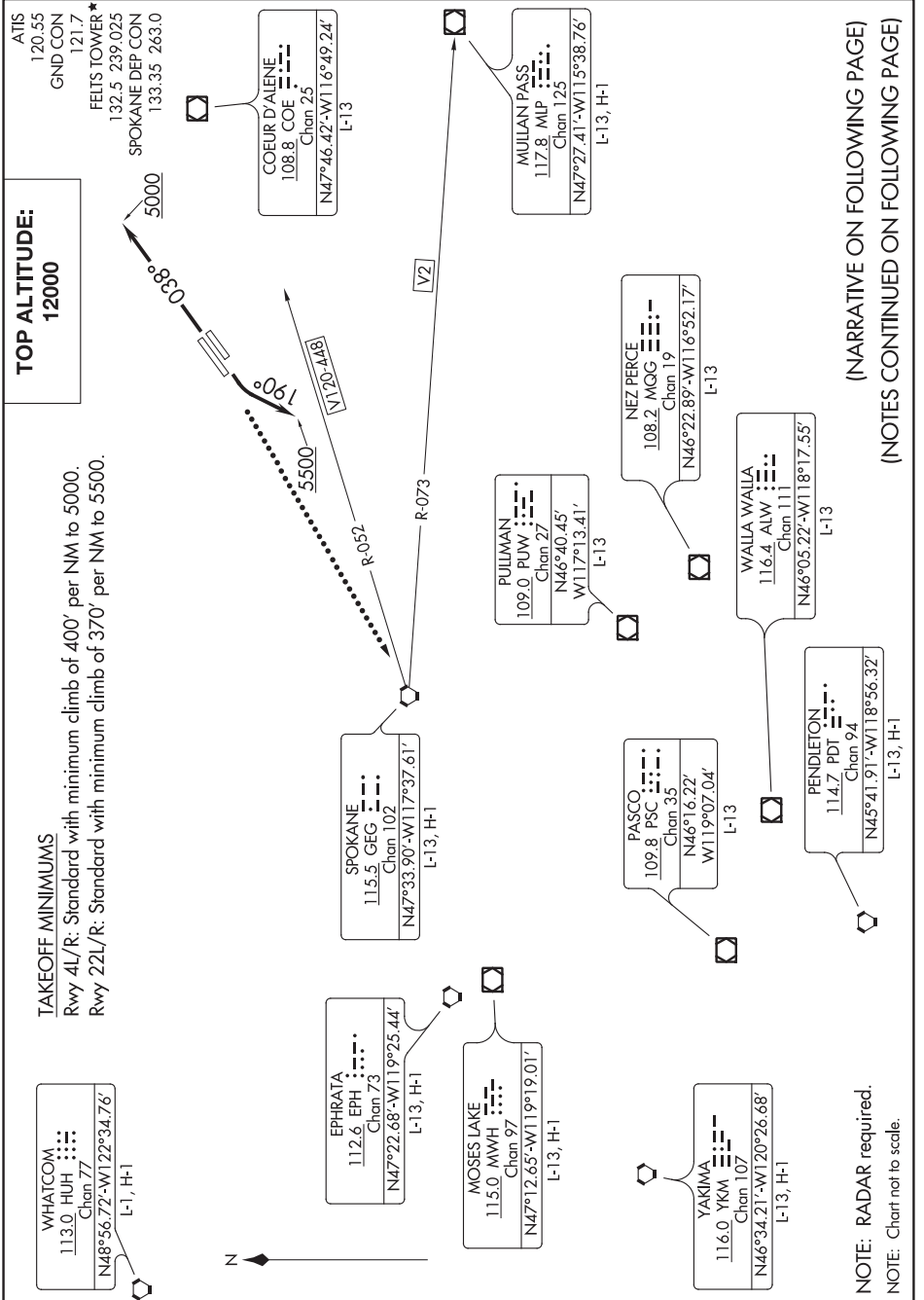
- ATIS 120.55
- FELTS TOWER ★ 132.5 239.025
- GND CON 121.7
- CLNC DEL 121.7

# AIRPORT DIAGRAM

SPOKANE, WASHINGTON  
FELTS FIELD (S'F'F)

# FELTS FOUR DEPARTURE

NW-1, 10 NOV 2016 to 05 JAN 2017



(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: RADAR required.  
NOTE: Chart not to scale.

# FELTS FOUR DEPARTURE

NW-1, 10 NOV 2016 to 05 JAN 2017

# FELTS FOUR DEPARTURE

FELTS FIELD (SF<sup>F</sup>)  
SPOKANE, WASHINGTON



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4L/R: Climb heading 038° to 5000. Expect RADAR vectors to assigned airway/route, thence. . . .

TAKEOFF RUNWAYS 22L/R: Climbing left turn heading 190° to 5500. Expect RADAR vectors to assigned airway/route, thence. . . .

. . . .maintain 12000 or assigned lower altitude, expect filed altitude/flight level 10 minutes after departure.

LOST COMMUNICATIONS: Climb direct GEG VORTAC before proceeding on course. Cross GEG VORTAC at or above: northeast bound V120-448 and eastbound V2 5200.

### TAKEOFF OBSTACLE NOTES

- Rwy 4L: Trees and buildings beginning 1151' from DER, 757' right of centerline, up to 25' AGL/2037' MSL.  
Trees beginning 4873' from DER, 384' left of centerline, up to 25' AGL/2099' MSL.  
Trees and buildings beginning 1.1 NM from DER, 67' left of centerline, up to 25' AGL/2274' MSL.  
Trees 1.2 NM from DER, 970' left of centerline, up to 25' AGL/2304' MSL.  
Buildings beginning 1.5 NM from DER, 1151' left of centerline, up to 2350' MSL.  
Trees 1.6 NM from DER, 517' left of centerline, up to 25' AGL/2385' MSL.  
Trees 2.0 NM from DER, 590' left of centerline, up to 25' AGL/2513' MSL.  
Trees 2.4 NM from DER, 13' right of centerline, up to 25' AGL/2480' MSL.  
Transmission pole, trees and building beginning 2.5 NM from DER, 13' left of centerline, up to 25' AGL/2534' MSL.  
Vertical structures beginning 2.7 NM from DER, 2839' left of centerline, 2449' MSL.  
High terrain beginning 2.7 NM from DER, 42' left of centerline, 2439' MSL.  
High terrain beginning 2.8 NM from DER, 48' right of centerline, 3375' MSL.  
Vertical structure, trees and poles beginning 2.9 NM from DER, 605' right of centerline, up to 25' AGL/3442' MSL.  
Trees, poles and antenna beginning 3.0 NM from DER, 1899' left of centerline, up to 25' AGL/2578' MSL.  
Transmission tower 3.9 NM from DER, 995' right of centerline, 2570' MSL.
- Rwy 4R: Buildings, hangar and NDB 86' from DER, 257' right of centerline, up to 1987' MSL.  
Trees beginning 930' from DER, 272' right of centerline, up to 25' AGL/2029' MSL.  
Trees beginning 4884' from DER, 884' left of centerline, up to 25' AGL/2092' MSL.  
Trees beginning 1.1 NM from DER, 29' left of centerline, up to 25' AGL/2295' MSL.  
Trees and buildings beginning 2.4 NM from DER, 11' right of centerline, up to 25' AGL/2494' MSL.  
Poles/transmission poles beginning 2.5 NM from DER, 93' left of centerline, up to 2534' MSL.  
Poles/transmission poles beginning 2.6 NM from DER, 516' right of centerline, up to 2424' MSL.  
High terrain beginning 2.5 NM from DER, 67' left of centerline, 2439' MSL.  
High terrain beginning 2.6 NM from DER, 33' right of centerline, 3375' MSL.  
Trees, poles and antenna beginning 3.1 NM from DER, 3238' left of centerline, 25' AGL/3442' MSL.  
Transmission tower 3.9 NM from DER, 496' right of centerline, 2570' MSL.
- Rwy 22L: Buildings and signs beginning 55' from DER, 74' left of centerline, up to 1998' MSL.  
Sign 95' from DER, 74' right of centerline, 1953' MSL.  
OL pole on building 728' from DER, 301' left of centerline, 1992' MSL.  
Vehicle on roadway 739' from DER, 481' left of centerline, up to 15' AGL/1971' MSL.  
Trees and poles beginning 1294' from DER, 183' left of centerline, up to 25' AGL/2045' MSL.  
Buildings and elevators 4492' from DER, 573' left of centerline, up to 2082' MSL.
- Rwy 22R: NAVAIDs: 38' from DER, left and right of centerline, 1953' MSL.  
Vehicles on roadway 187' from DER, 446' right of centerline, up to 15' AGL/1954' MSL.  
Trees beginning 187' from DER, 511' right of centerline, up to 25' AGL/1979' MSL.  
Lt on hangar 202' from DER, 496' left of centerline, 1969' MSL.  
Buildings, OL on buildings beginning 210' from DER, 230' left of centerline, up to 1979' MSL.  
Poles beginning 1271' from DER, 63' right of centerline, up to 1987' MSL.  
Transmission line towers beginning 1396' from DER, 2' left of centerline, up to 41' AGL/1986' MSL.  
Elevator and building beginning 2653' from DER, 1073' left of centerline, up to 2082' MSL.  
Tower 4066' from DER, 1554' left of centerline, 120' AGL/2072' MSL.  
Rising terrain beginning 3.2 NM from DER, 5087' left of centerline, up to 2339' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# FELTS FOUR DEPARTURE

SPOKANE, WASHINGTON  
FELTS FIELD (SF<sup>F</sup>)

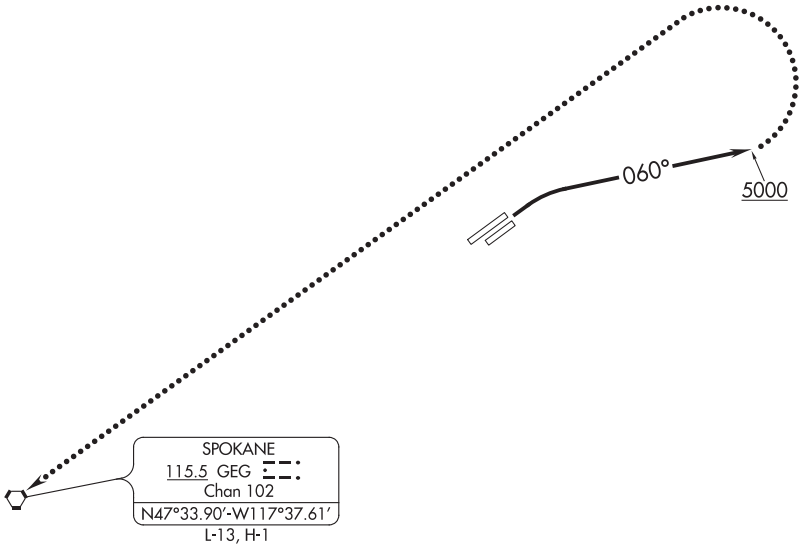
# HAYDEN FOUR DEPARTURE

SL-402 (FAA)

FELTS FIELD (SFF)  
SPOKANE, WASHINGTON

ATIS  
120.55  
GND CON  
121.7  
FELTS TOWER★  
132.5 239.025  
SPOKANE DEP CON  
133.35 263.0

**TOP ALTITUDE:  
12000**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NOTE: RADAR required.

TAKEOFF MINIMUMS

Rwy 22L/R: NA- ATC.

Rwy 4L/R: Standard with minimum climb of 400' per NM to 5000.

NOTE: Chart not to scale.



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 22L/R: NA - ATC.

TAKEOFF RUNWAYS 4L/R: Climbing right turn heading 060° to 5000. Expect RADAR vectors to assigned route/fix.

LOST COMMUNICATIONS: If no radio contact with departure control after leaving 3000, continue climb to 5000, then left turn direct to GEG VORTAC, thence proceed on course.

(NOTES CONTINUED ON FOLLOWING PAGE)

# HAYDEN FOUR DEPARTURE

SPOKANE, WASHINGTON  
FELTS FIELD (SFF)

## HAYDEN FOUR DEPARTURE

SL-402 (FAA)

FELTS FIELD (SF F)  
SPOKANE, WASHINGTONTAKEOFF OBSTACLE NOTES

- Rwy 4L: Trees and building beginning 1151' from DER, 757' right of centerline, up to 25' AGL/2037' MSL.  
Trees beginning 4873' from DER, 384' left of centerline, up to 25' AGL/2099' MSL.  
Trees and buildings beginning 1.1 NM from DER, 67' left of centerline, up to 25' AGL/2274' MSL.  
Trees 1.2 NM from DER, 970' left of centerline, up to 25' AGL/2304' MSL.  
Buildings beginning 1.5 NM from DER, 1151' left of centerline, up to 2350' MSL.  
Trees 1.6 NM from DER, 517' left of centerline, up to 25' AGL/2385' MSL.  
Trees 2.0 NM from DER, 590' left of centerline, up to 25' AGL/2513' MSL.  
Trees 2.4 NM from DER, 13' right of centerline, up to 25' AGL/2480' MSL.  
Transmission pole, trees and buildings beginning 2.5 NM from DER, 13' left of centerline, up to 25' AGL/2534' MSL.  
Vertical structures beginning 2.7 NM from DER, 2839' left of centerline, 2449' MSL.  
High terrain beginning 2.7 NM from DER, 42' left of centerline, 2439' MSL.  
High terrain beginning 2.8 NM from DER, 48' right of centerline, 3375' MSL.  
Vertical structure, trees and poles beginning 2.9 NM from DER, 605' right of centerline, up to 25' AGL/3442' MSL.  
Trees, poles and antenna beginning 3.0 NM from DER, 1899' left of centerline, up to 25' AGL/2578' MSL.  
Transmission tower 3.9 NM from DER, 995' right of centerline, 2570' MSL.
- Rwy 4R: Buildings, hangar and NDB 86' from DER, 257' right of centerline, up to 1987' MSL.  
Trees beginning 930' from DER, 272' right of centerline, up to 25' AGL/2029' MSL.  
Trees beginning 4884' from DER, 884' left of centerline, up to 25' AGL/2092' MSL.  
Trees beginning 1.1 NM from DER, 29' left of centerline, up to 25' AGL/2295' MSL.  
Trees and buildings beginning 2.4 NM from DER, 11' right of centerline, up to 25' AGL/2494' MSL.  
Poles/Transmission poles beginning 2.5 NM from DER, 93' left of centerline, up to 2534' MSL.  
Poles/Transmission pole beginning 2.6 NM from DER, 516' right of centerline, up to 2424' MSL.  
High terrain beginning 2.5 NM from DER, 67' left of centerline, 2439' MSL.  
High terrain beginning 2.6 NM from DER, 33' right of centerline, 3375' MSL.  
Trees, poles and antenna beginning 3.1 NM from DER, 3238' left of centerline, 25' AGL/3442' MSL.  
Transmission tower 3.9 NM from DER, 496' right of centerline, 2570' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## HAYDEN FOUR DEPARTURE

SPOKANE, WASHINGTON  
FELTS FIELD (SF F)





SPOKANE, WASHINGTON

AL-403 (FAA)

15344

LOC/DME I-GEG <b>111.1</b> Chan 48	APP CRS <b>210°</b>	Rwy Idg <b>11002</b> TDZE <b>2346</b> Apt Elev <b>2385</b>
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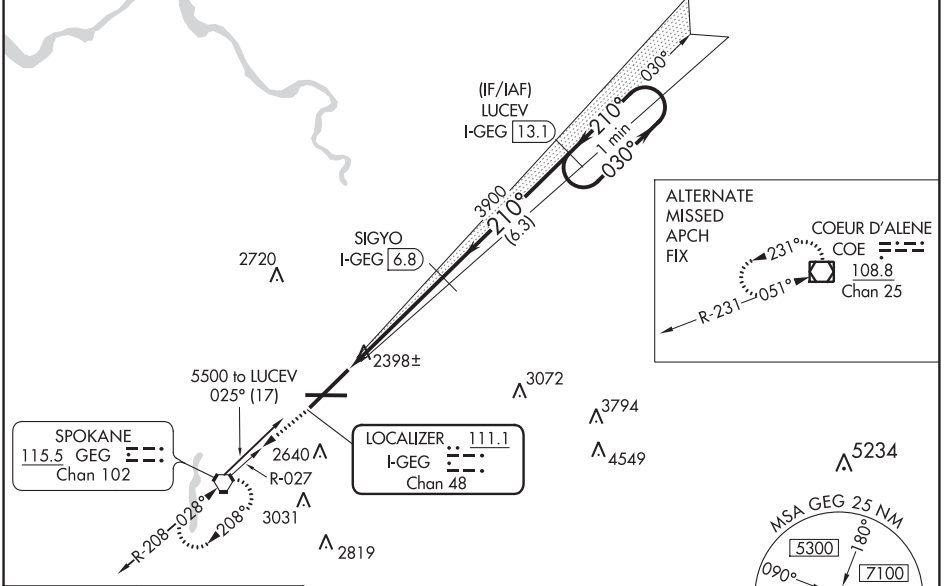
# ILS or LOC/DME RWY 21

SPOKANE INTL (GEG)

		MISSED APPROACH: Climb to 4200 on GEG VORTAC R-027 to GEG VORTAC and hold.		
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ATIS <b>124.325 254.375</b>	SPOKANE APP CON <b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)	SPOKANE TOWER <b>118.3 278.3</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55</b>
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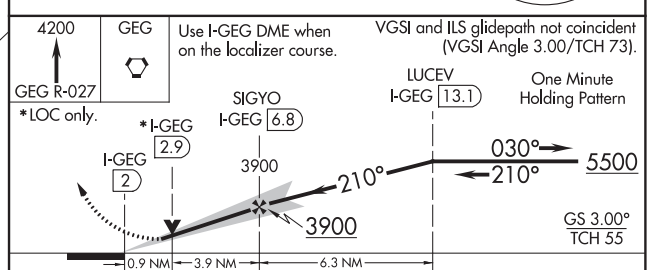
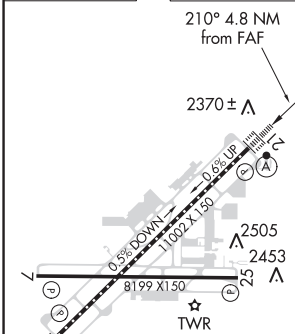
## DME REQUIRED



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2385	<b>D</b>	TDZE 2346
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CATEGORY	A	B	C	D
S-ILS 21	2546/18 200 (200-½)			
S-LOC 21	2680/24	334 (300-½)	2680/30	334 (300-¾)
CIRCLING	2960-1	575 (600-1)	2960-1½ 575 (600-1½)	2980-2 595 (600-2)

TDZ/CL Rwy 3 and 21  
REIL Rwy 7 and 25  
HIRL Rwy 3-21  
MIRL Rwy 7-25

SPOKANE, WASHINGTON  
Amdt 23B 24JUL14

47°37'N-117°32'W

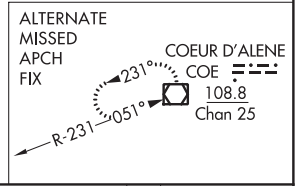
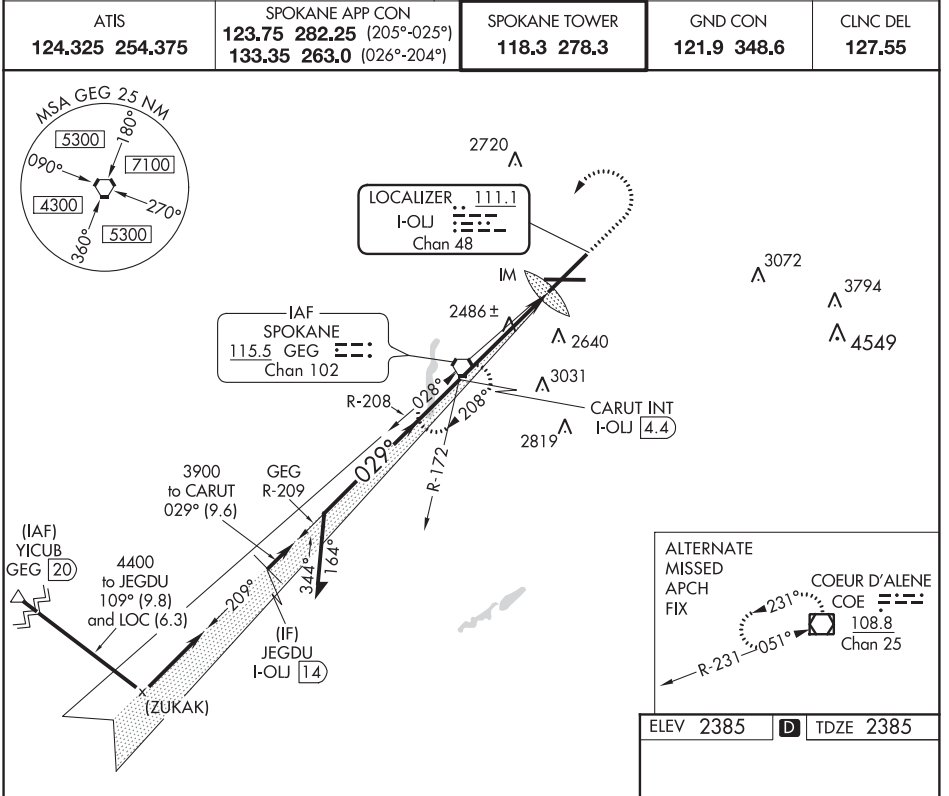
# SPOKANE INTL (GEG) ILS or LOC/DME RWY 21

LOC/DME I-OLJ <b>111.1</b> Chan 48	APP CRS <b>029°</b>	Rwy Idg <b>11002</b> TDZE <b>2385</b> Apt Elev <b>2385</b>
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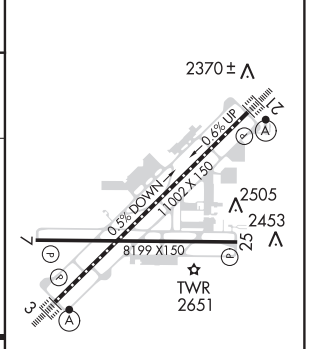
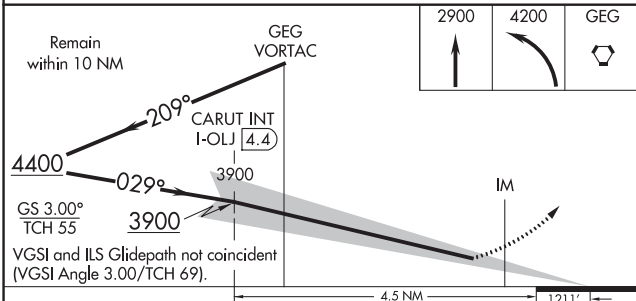
# ILS RWY 3 (SA CAT I)

SPOKANE INTL (GEG)

Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.	ALSIF-2	MISSED APPROACH: Climb to 2900 then dimbing left turn to 4200 direct GEG VORTAC and hold.		
	ATIS <b>124.325 254.375</b>	SPOKANE APP CON <b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)	SPOKANE TOWER <b>118.3 278.3</b>	GND CON <b>121.9 348.6</b>



ELEV 2385	<b>D</b>	TDZE 2385
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CATEGORY	A	B	C	D
S-ILS 3	RA 154/14 150 DA 2535			

TDZ/CL Rwy 3 and 21  
REIL Rwy 7 and 25  
HIRL Rwy 3-21  
MIRL Rwy 7-25

## SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SPOKANE, WASHINGTON

AL-403 (FAA)

15344

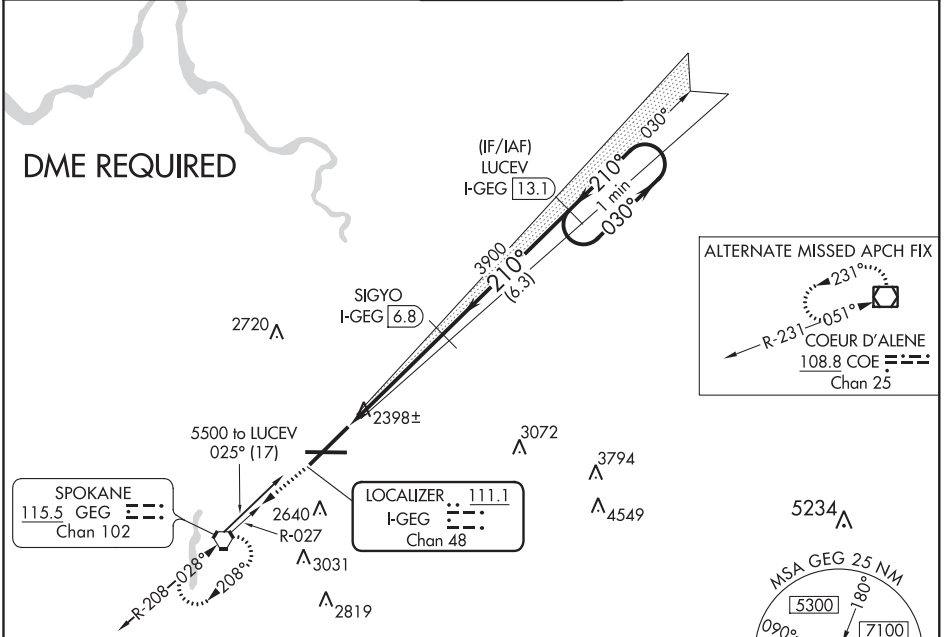
LOC/DME I-GEG <b>111.1</b> Chan 48	APP CRS <b>210°</b>	Rwy Idg <b>11002</b> TDZE <b>2346</b> Apt Elev <b>2385</b>
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# ILS RWY 21 (SA CAT I)

SPOKANE INTL (GEG)

<p>Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.</p>	<p>ALS-F-2</p>	<p>MISSED APPROACH: Climb to 4200 on GEG VORTAC R-027 to GEG VORTAC and hold.</p>
	<p>Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.</p>	

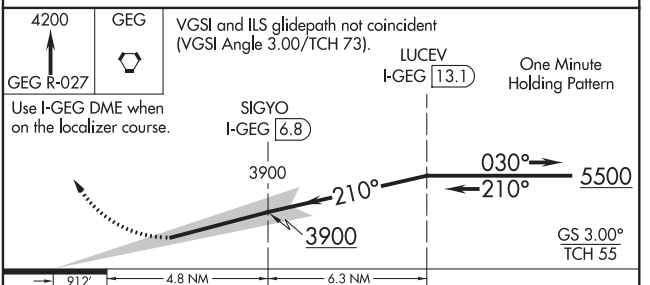
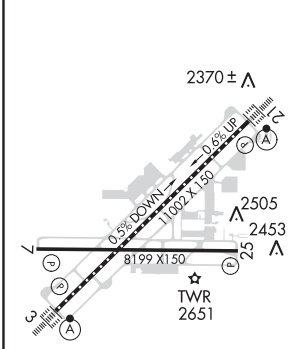
ATIS <b>124.325 254.375</b>	SPOKANE APP CON <b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)	SPOKANE TOWER <b>118.3 278.3</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2385	<b>D</b>	TDZE 2346
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CATEGORY	A	B	C	D
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S-ILS 21 RA 197/14 150 DA 2496

**SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

SPOKANE, WASHINGTON  
Amdt 23B 24JUL14

47°37'N-117°32'W

SPOKANE INTL (GEG)  
**ILS RWY 21 (SA CAT I)**

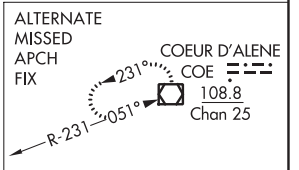
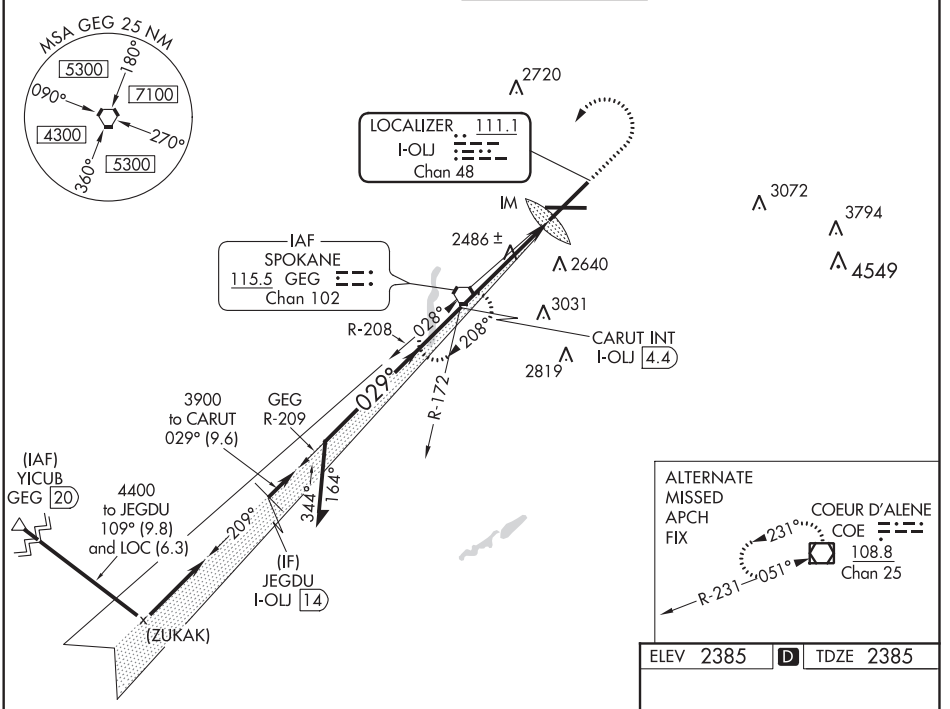
LOC/DME I-OLJ <b>111.1</b> Chan 48	APP CRS <b>029°</b>	Rwy Idg <b>11002</b> TDZE <b>2385</b> Apt Elev <b>2385</b>
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# ILS RWY 3 (CAT II & III)

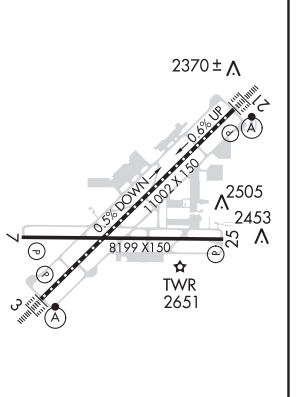
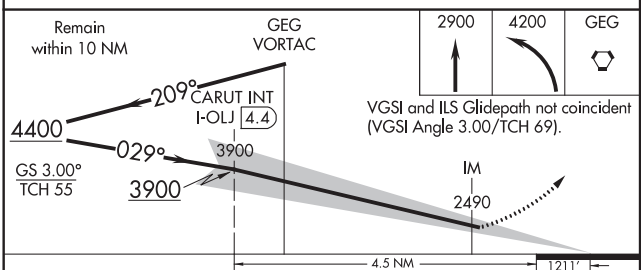
SPOKANE INTL (GEG)

	ALS-F-2	MISSED APPROACH: Climb to 2900 then climbing left turn to 4200 direct GEG VORTAC and hold.

ATIS <b>124.325 254.375</b>	SPOKANE APP CON <b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)	SPOKANE TOWER <b>118.3 278.3</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55</b>
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ELEV 2385	<b>D</b>	TDZE 2385
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CATEGORY	A	B	C	D
S-ILS 3		CAT II RA 104/12	100	DA 2485
S-ILS 3		CAT IIIa	RVR 07	
S-ILS 3		CAT IIIb	RVR 06	
S-ILS 3		CAT IIIc	NA	

TDZ/CL Rwy 3 and 21  
REIL Rwy 7 and 25  
HIRL Rwy 3-21  
MIRL Rwy 7-25

## CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SPOKANE, WASHINGTON

AL-403 (FAA)

15344

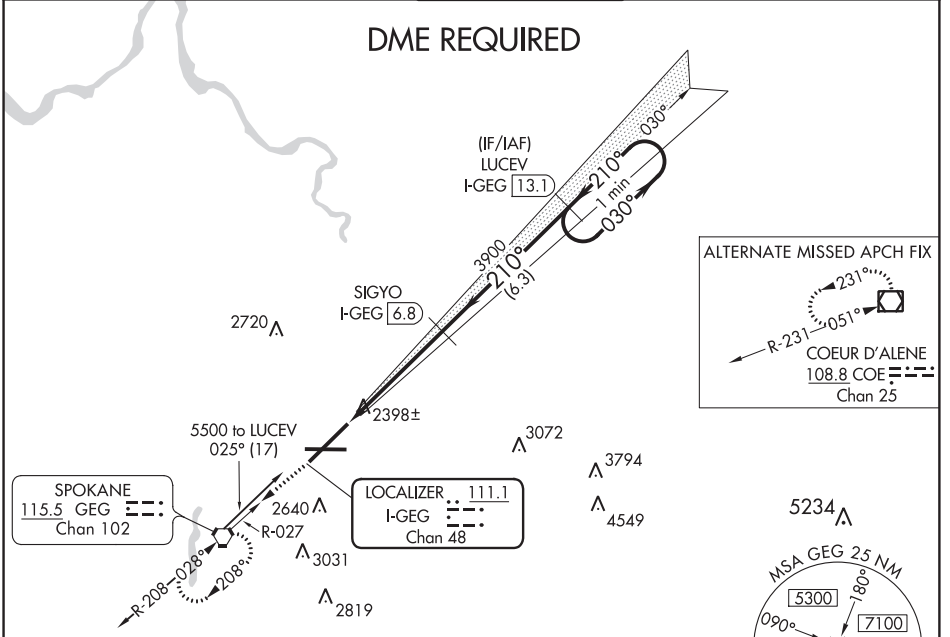
LOC/DME I-GEG <b>111.1</b> Chan 48	APP CRS <b>210°</b>	Rwy Idg <b>11002</b> TDZE <b>2346</b> Apt Elev <b>2385</b>
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# ILS RWY 21 (CAT II & III)

SPOKANE INTL (GEG)

<p><b>▼</b> CAT II; RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.</p>		<p>ALSIF-2</p>	<p>MISSED APPROACH: Climb to 4200 on GEG VORTAC R-027 to GEG VORTAC and hold.</p>
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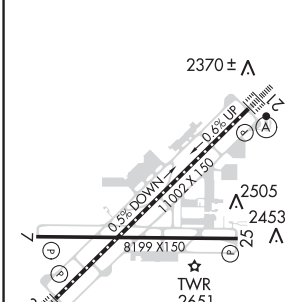
<p>ATIS <b>124.325 254.375</b></p>	<p>SPOKANE APP CON <b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)</p>	<p>SPOKANE TOWER <b>118.3 278.3</b></p>	<p>GND CON <b>121.9 348.6</b></p>	<p>CLNC DEL <b>127.55</b></p>
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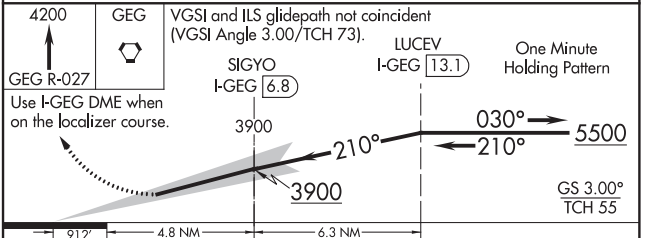
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV <b>2385</b>	<b>D</b>	TDZE <b>2346</b>
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TDZ/CL Rwy 3 and 21  
REIL Rwy 7 and 25  
HIRL Rwy 3-21  
MIRL Rwy 7-25



CATEGORY	A	B	C	D
S-ILS 21	CAT II RA 147/12 100 DA 2446			
S-ILS 21	CAT IIIa RVR 07			
S-ILS 21	CAT IIIb RVR 06			
S-ILS 21	CAT IIIc NA			

## CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SPOKANE, WASHINGTON  
Amdt 23B 24JUL14

47°37'N-117°32'W

# ILS RWY 21 (CAT II & III)

SPOKANE INTL (GEG)

APP CRS	Rwy Idg	<b>11002</b>
<b>027°</b>	TDZE	<b>2385</b>
	Apt Elev	<b>2385</b>

# RNAV (RNP) Z RWY 3

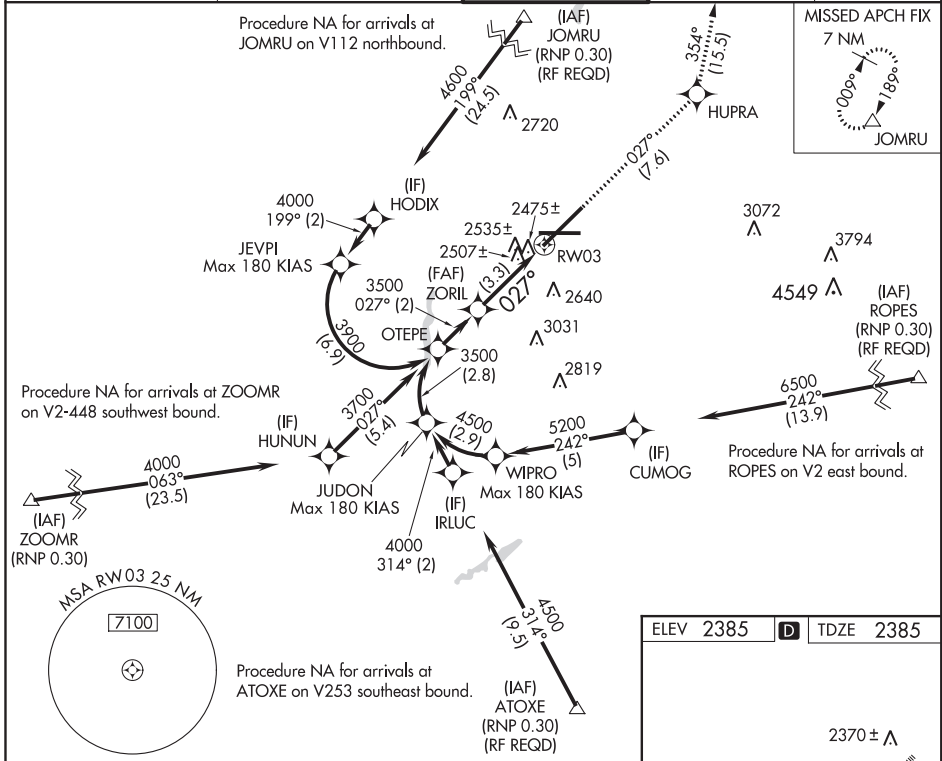
SPOKANE INTL (GEG)

**GPS required.** When VGSI inoperative, procedure NA at night. For uncompensated Baro-VNAV systems, procedure NA below -19°C (-3°F) or above 43°C (109°F). For inoperative ALSF-2 increase RNP 0.11 DA all Cats visibility to 1¼, increase RNP 0.30 DA all Cats visibility to 1½.

**ALSF-2**

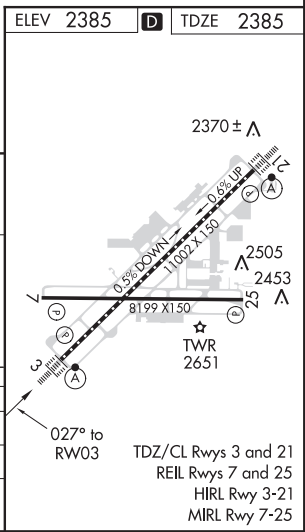
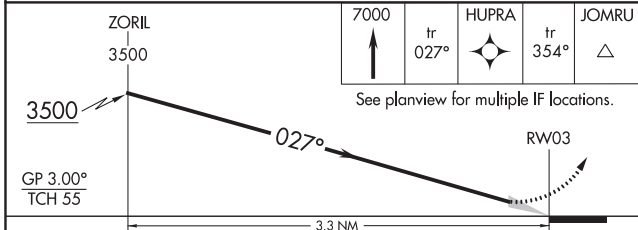
**MISSED APPROACH:** Climb to 7000 on track 027° to HUPRA, and on track 354° to JOMRU and hold.

<b>ATIS</b> <b>124.325 254.375</b>	<b>SPOKANE APP CON</b> <b>123.75 282.25 (205°-025°)</b> <b>133.35 263.0 (026°-204°)</b>	<b>SPOKANE TOWER</b> <b>118.3 278.3</b>	<b>GND CON</b> <b>121.9 348.6</b>	<b>CLNC DEL</b> <b>127.55</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
RNP 0.11 DA		2727/40	342 (400-¾)	
RNP 0.30 DA		2850/60	465 (500-1¼)	

**AUTHORIZATION REQUIRED**

SPOKANE, WASHINGTON

AL-403 (FAA)

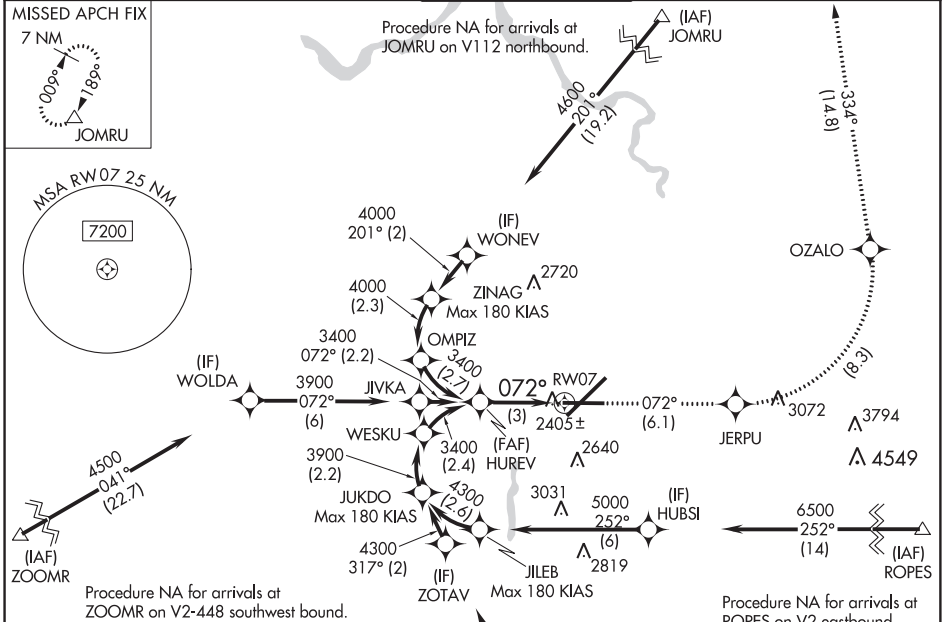
16119

APP CRS	Rwy Idg	<b>8199</b>
<b>072°</b>	TDZE	<b>2376</b>
	Apt Elev	<b>2385</b>

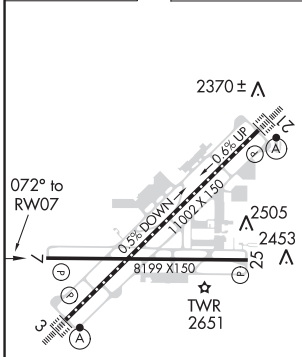
# RNAV (RNP) Z RWY 7

SPOKANE INTL (GEG)

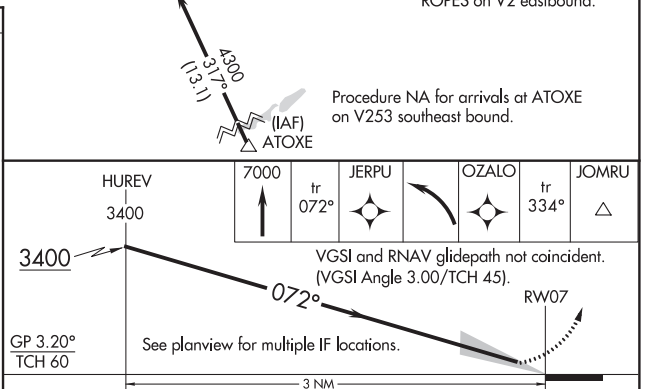
<p>GPS required. RF required. For uncompensated Baro-VNAV systems, procedure NA below -19°C (-3°F) or above 42°C (109°F). * Missed approach requires minimum climb of 281 feet per NM to 3000.</p>		<p>MISSED APPROACH: Climb to 7000 on track 072° to JERPU, left turn to OZALO, and on track 334° to JOMRU and hold.</p>		
ATIS	SPOKANE APP CON	SPOKANE TOWER	GND CON	CLNC DEL
<b>124.325 254.375</b>	<b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)	<b>118.3 278.3</b>	<b>121.9 348.6</b>	<b>127.55</b>



ELEV 2385	<b>D</b>	TDZE 2376
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TDZ/CL Rwy 3 and 21
REIL Rwy 7 and 25
HIRL Rwy 3-21
MIRL Rwy 7-25



CATEGORY	A	B	C	D
RNP 0.11 DA		* 2649-1	273 (300-1)	
RNP 0.30 DA		2853-1¾	477 (500-1¾)	

## AUTHORIZATION REQUIRED

SPOKANE, WASHINGTON  
Orig-A 28APR16

47°37'N-117°32'W

# RNAV (RNP) Z RWY 7

SPOKANE INTL (GEG)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



# RNAV (RNP) Z RWY 21

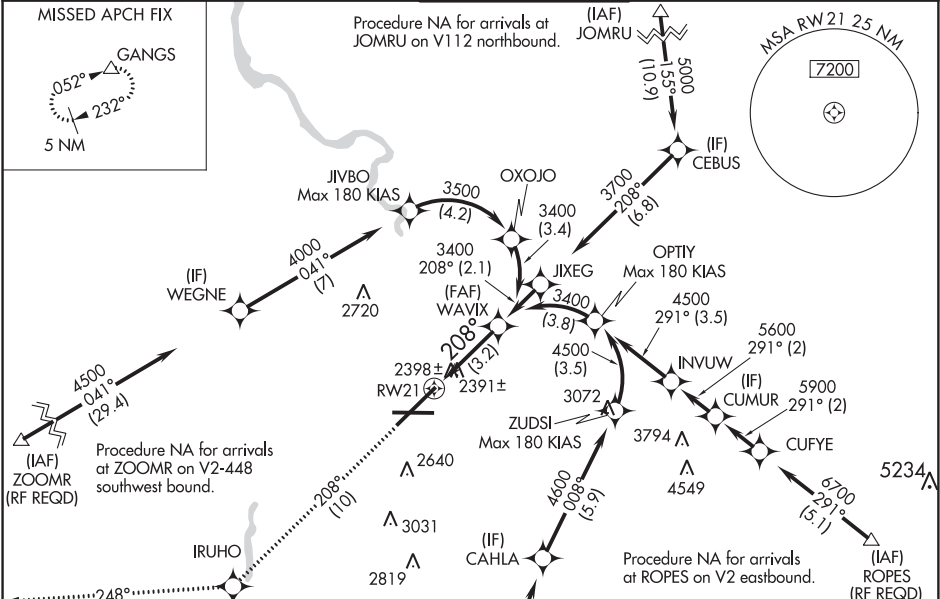
SPOKANE INTL (GEG)

APP CRS	Rwy Idg	<b>11002</b>
<b>208°</b>	TDZE	<b>2346</b>
	Apt Elev	<b>2385</b>

**GPS required.** For unconsolidated Baro-VNAV systems, procedure NA below -19°C (-3°F) or above 43°C (109°F). For inoperative ALSF-2 increase RNP 0.11 visibility all Cats to ¾, RNP 0.15 visibility all Cats to 1 ½, and RNP 0.30 visibility all Cats to 1 ¾.  
\*Missed approach requires minimum climb of 310 feet per NM to 3000.

**ALSF-2**  
 MISSED APPROACH: Climb to 5000 on track 208° to IRUHO and on track 248° to GANGS and hold.

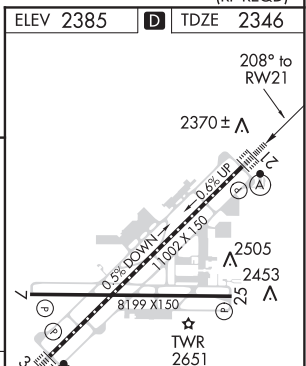
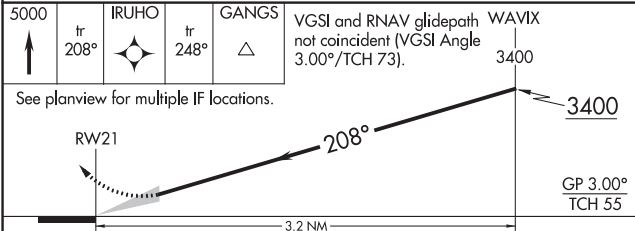
ATIS	SPOKANE APP CON	SPOKANE TOWER	GND CON	CLNC DEL
<b>124.325 254.375</b>	<b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)	<b>118.3 278.3</b>	<b>121.9 348.6</b>	<b>127.55</b>



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 5000	IRUHO tr 208°	GANGS tr 248°	TDZE 2346
VGSI and RNAV glidepath not coincident (VGSI Angle 3.00°/TCH 73). WAVIX 3400			



CATEGORY	A	B	C	D
RNP 0.11 DA		*2596/24	250 (300-½)	
RNP 0.15 DA		2699/30	353 (400-¾)	
RNP 0.30 DA		2752/45	406 (400-¾)	

GP 3.00° TCH 55  
 TDZ/CL Rws 3 and 21  
 REIL Rws 7 and 25  
 HIRL Rwy 3-21  
 MIRL Rwy 7-25

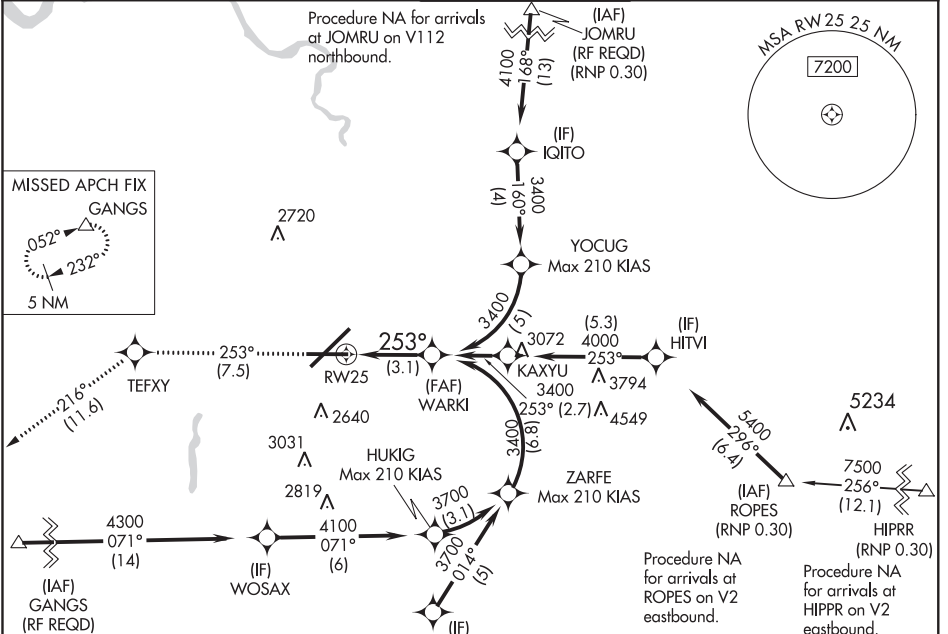
## AUTHORIZATION REQUIRED

APP CRS <b>253°</b>	Rwy Idg <b>8199</b>
	TDZE <b>2372</b>
	Apt Elev <b>2385</b>

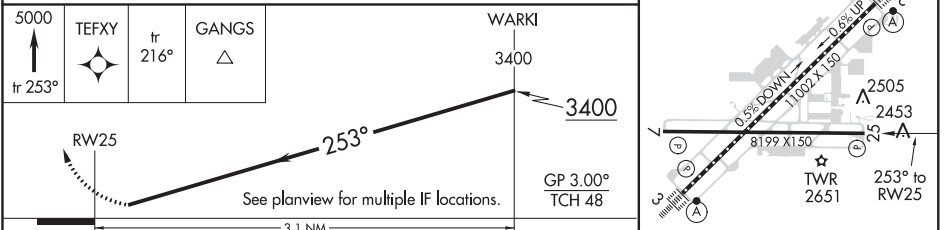
# RNAV (RNP) Z RWY 25

SPOKANE INTL (GEG)

GPS required. For uncompensated Baro-VNAV systems, procedure NA below -17°C (2°F) or above 54°C (130°F).		MISSED APPROACH: Climb to 5000 on track 253° to TEFXY and on track 216° to GANGS and hold.		
ATIS <b>124.325 254.375</b>	SPOKANE APP CON <b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)	SPOKANE TOWER <b>118.3 278.3</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55</b>



ELEV 2385	<b>D</b>	TDZE 2372
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CATEGORY	A	B	C	D
RNP 0.11 DA		2745-1¼	373 (400-1¼)	
RNP 0.30 DA		2795-1¾	423 (500-1¾)	

## AUTHORIZATION REQUIRED

TDZ/CL Rwy 3 and 21  
REIL Rwy 7 and 25  
HIRL Rwy 3-21  
MIRL Rwy 7-25

NW-1, 10 NOV 2016 to 05 JAN 2017

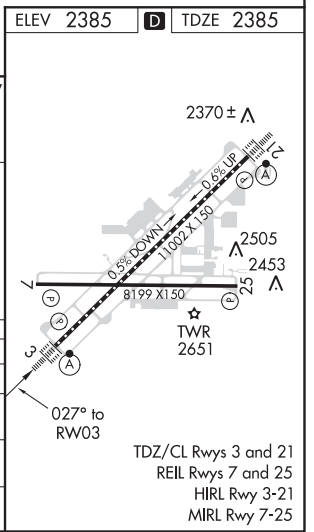
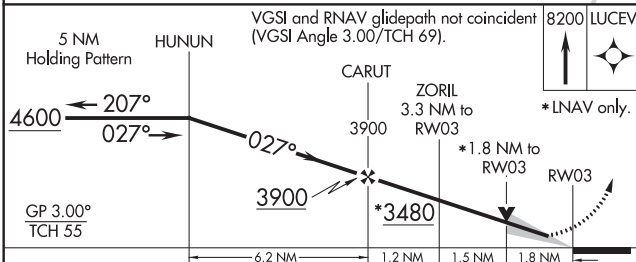
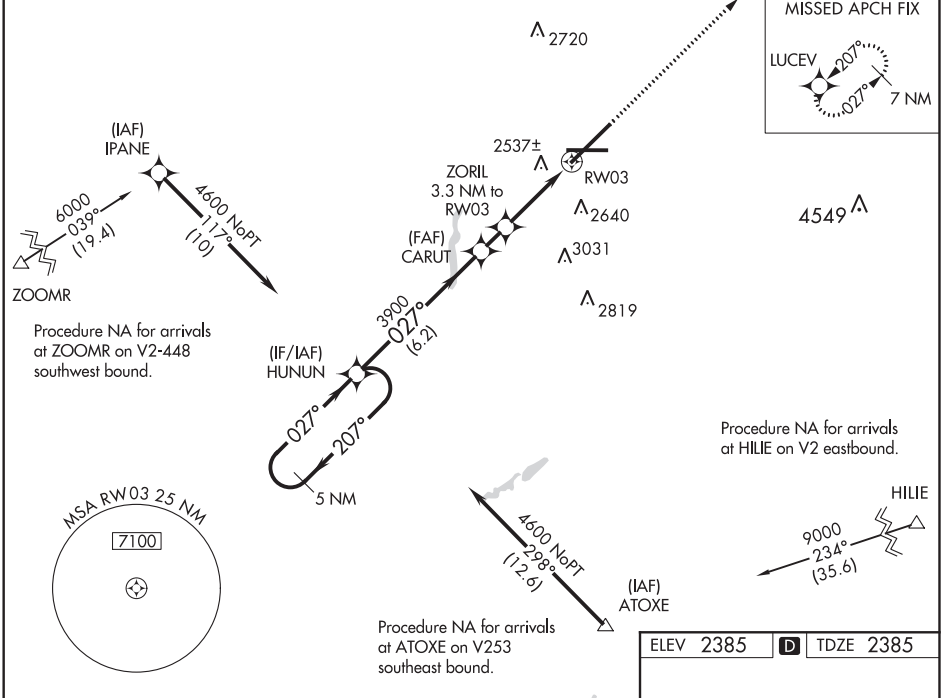
NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>81920</b> <b>W03A</b>	APP CRS <b>027°</b>	Rwy Idg TDZE Apt Elev	<b>11002</b> <b>2385</b> <b>2385</b>
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# RNAV (GPS) Y RWY 3

SPOKANE INTL (GEG)

<p>For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F). DME/DME RNP-0.3 NA.</p>		<p>ALSF-2</p>	<p>MISSED APPROACH: Climb to 8200 direct LUCEV and hold, continue climb-in-hold to 8200.</p>	
<p>ATIS <b>124.325 254.375</b></p>	<p>SPOKANE APP CON <b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)</p>	<p>SPOKANE TOWER <b>118.3 278.3</b></p>	<p>GND CON <b>121.9 348.6</b></p>	<p>CLNC DEL <b>127.55</b></p>



CATEGORY	A	B	C	D
LPV DA	2585/24		200 (200-½)	
LNAV/VNAV DA	2962-1½		577 (600-1½)	
LNAV MDA	3020/24	635 (700-½)	3020/60 635 (700-1¼)	3020-1½ 635 (700-1½)
CIRCLING	3020-1	635 (700-1)	3020-1¾ 635 (700-1¾)	3020-2 635 (700-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>48801</b> <b>W07A</b>	APP CRS <b>072°</b>	Rwy Idg TDZE Apt Elev	<b>8199</b> <b>2376</b> <b>2385</b>
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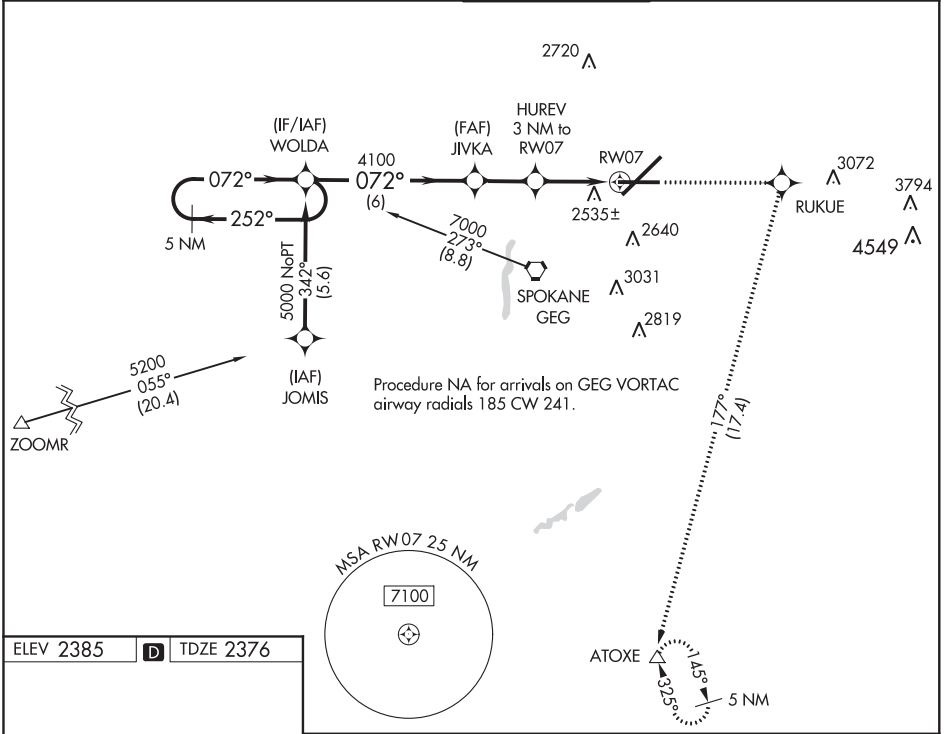
# RNAV (GPS) Y RWY 7

SPOKANE INTL (GEG)

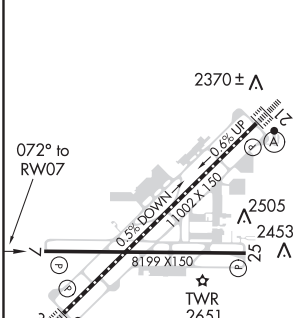
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F).  
DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 6000 direct RUKUE and right turn on track 177° to ATOXE and hold.

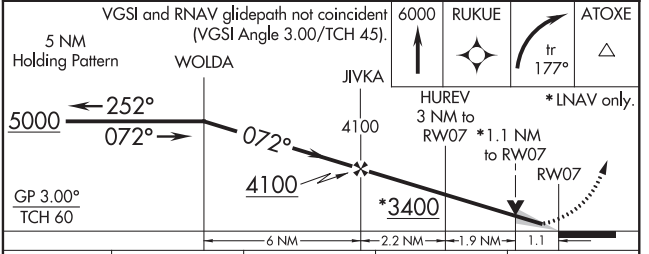
ATIS <b>124.325 254.375</b>	SPOKANE APP CON <b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)	SPOKANE TOWER <b>118.3 278.3</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55</b>
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ELEV 2385	<b>D</b>	TDZE 2376
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TDZ/CL Rwys 3 and 21	REIL Rwys 7 and 25	HIRL Rwy 3-21	MIRL Rwy 7-25
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CATEGORY	A	B	C	D
LPV DA		2576-3/4	200 (200-3/4)	
LNAV/VNAV DA		2834-1 1/2	458 (500-1 1/2)	
LNAV MDA	2800-1	424 (500-1)	2800-1 1/4	424 (500-1 1/4)
CIRCLING	2960-1	575 (600-1)	2960-1 1/2	2980-2
			575 (600-1 1/2)	595 (600-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

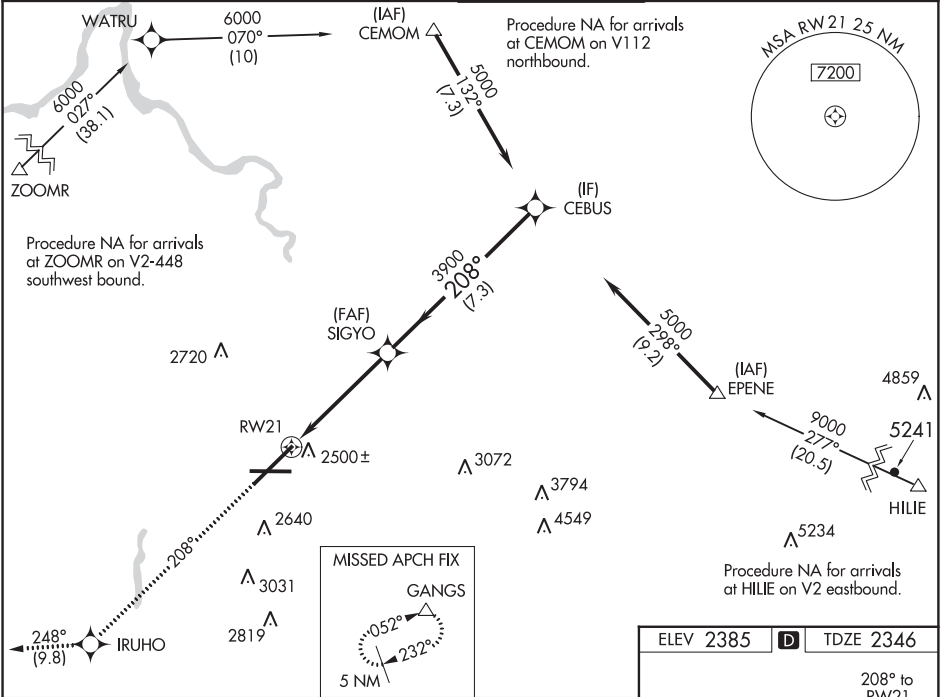
NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>82619</b> <b>W21A</b>	APP CRS <b>208°</b>	Rwy Idg TDZE <b>2346</b> Apt Elev <b>2385</b>
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# RNAV (GPS) Y RWY 21

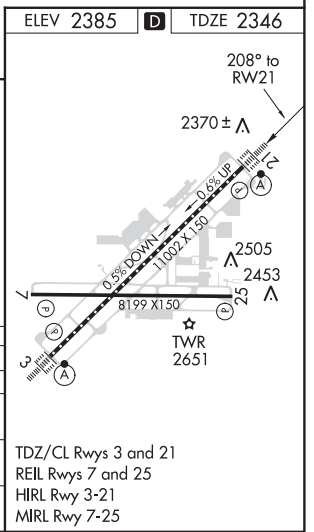
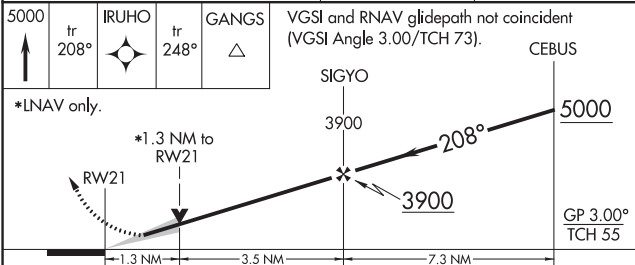
SPOKANE INTL (GEG)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 29°C (84°F). DME/DME RNP-0.3 NA.		ALSF-2 	MISSED APPROACH: Climb to 5000 on track 208° to IRUHO and on track 248° to GANGS and hold.	
ATIS <b>124.325 254.375</b>	SPOKANE APP CON <b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)	SPOKANE TOWER <b>118.3 278.3</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55</b>



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA	2546/24		200 (200-½)	
LNAV/VNAV DA	2744/45		398 (400-¾)	
LNAV MDA	2800/24 454 (500-½)		2800/50	454 (500-1)
CIRCLING	2960-1	575 (600-1)	2960-1½ 575 (600-1½)	2980-2 595 (600-2)

WAAS CH <b>93501</b> W25A	APP CRS <b>253°</b>	Rwy Idg TDZE Apt Elev	<b>8199</b> <b>2372</b> <b>2385</b>
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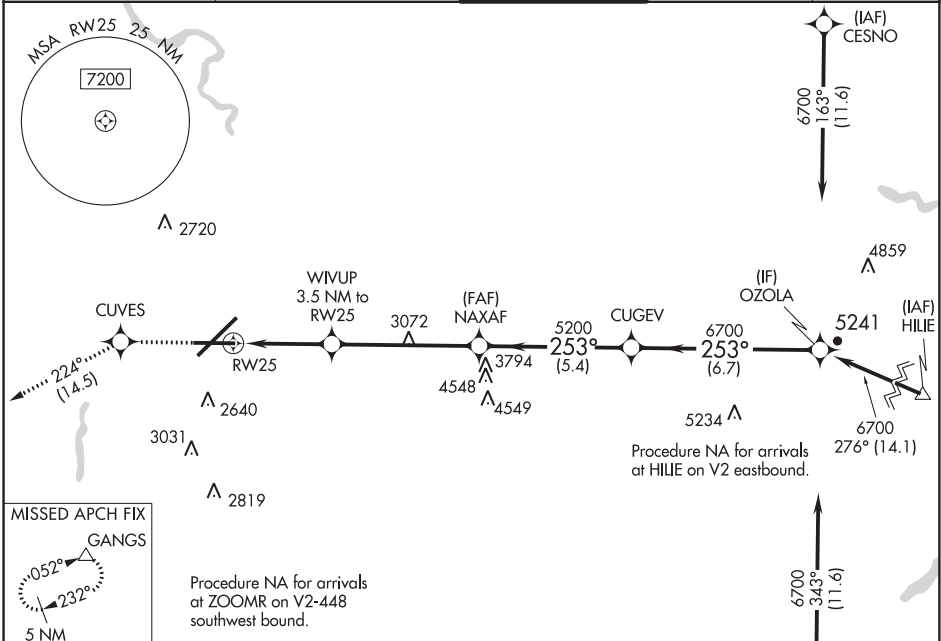
# RNAV (GPS) Y RWY 25

SPOKANE INTL (GEG)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM not authorized.

**MISSED APPROACH:** Climb to 5000 direct CUVES and on track 224° to GANGS and hold.

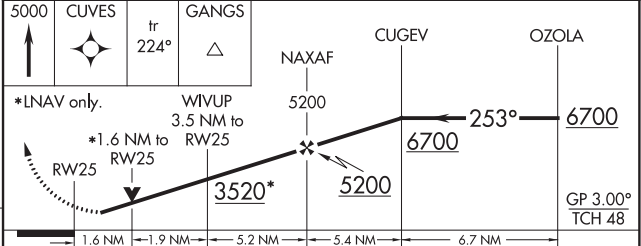
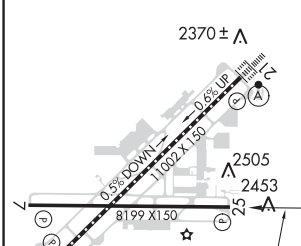
ATIS <b>124.325 254.375</b>	SPOKANE APP CON <b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)	SPOKANE TOWER <b>118.3 278.3</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 2385	<b>D</b>	TDZE 2372
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CATEGORY	A	B	C	D
LPV DA	2688-1		316 (400-1)	
LNAV/VNAV DA	2911-1½		539 (600-1½)	
LNAV MDA	2920-1	548 (600-1)	2920-1½	548 (600-1½)
<b>C</b> CIRCLING	2960-1 575 (600-1)	2980-1 595 (600-1)	3180-2¼ 795 (800-2¼)	3440-3 1055 (1100-3)

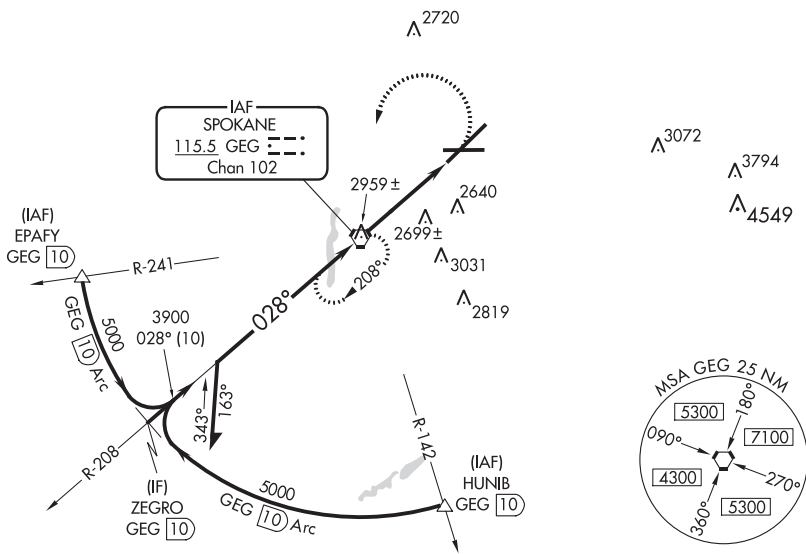
VORTAC GEG <b>115.5</b> Chan <b>102</b>	APP CRS <b>028°</b>	Rwy Idg <b>11002</b> TDZE <b>2385</b> Apt Elev <b>2385</b>
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# VOR RWY 3

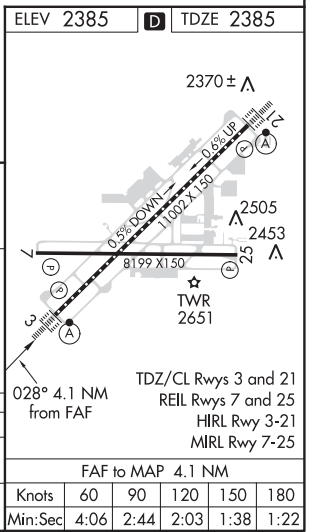
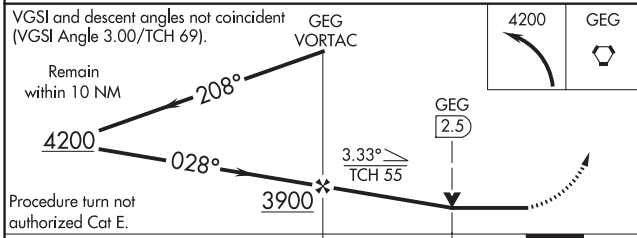
SPOKANE INTL (GEG)

<p><b>⚠</b> Circling NA for Cat E southeast of Rwy 3-21.</p>		<p>ALSF-2</p>	<p>MISSED APPROACH: Climbing left turn to 4200 direct GEG VORTAC and hold, continue climb-in-hold to 4200.</p>		
<p>ATIS <b>124.325 254.375</b></p>	<p>SPOKANE APP CON <b>123.75 282.25</b> (205°-025°) <b>133.35 263.0</b> (026°-204°)</p>	<p>SPOKANE TOWER <b>118.3 278.3</b></p>	<p>GND CON <b>121.9 348.6</b></p>	<p>CLNC DEL <b>127.55</b></p>	

NW-1, 10 NOV 2016 to 05 JAN 2017



NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D	E
S-3	2960/40	575 (600-¾)	2960-1¼	575 (600-1¼)	
CIRCLING	2960-1	575 (600-1)	2960-1½	2980-2	3260-3
			575 (600-1½)	595 (600-2)	875 (900-3)

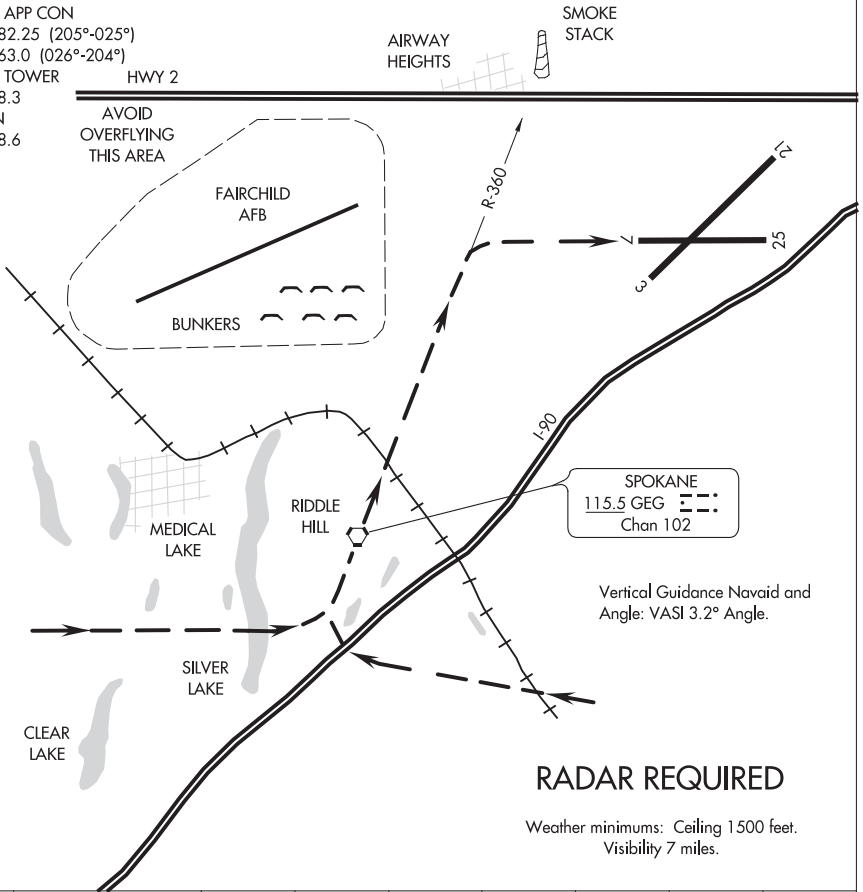
Orig 10322

# RIDDLE HILL VISUAL RWY 7

AL-403 (FAA)

SPOKANE INTL (GEG)  
SPOKANE, WASHINGTON

ATIS  
 124.325 254.375  
 SPOKANE APP CON  
 123.75 282.25 (205°-025°)  
 133.35 263.0 (026°-204°)  
 SPOKANE TOWER  
 118.3 278.3  
 GND CON  
 121.9 348.6  
 CLNC DEL  
 127.55



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## RIDDLE HILL VISUAL APPROACH RWY 7

PROCEDURE NOT AUTHORIZED AT NIGHT.

# RIDDLE HILL VISUAL RWY 7

Orig 10322

47°37'N - 117°32'W

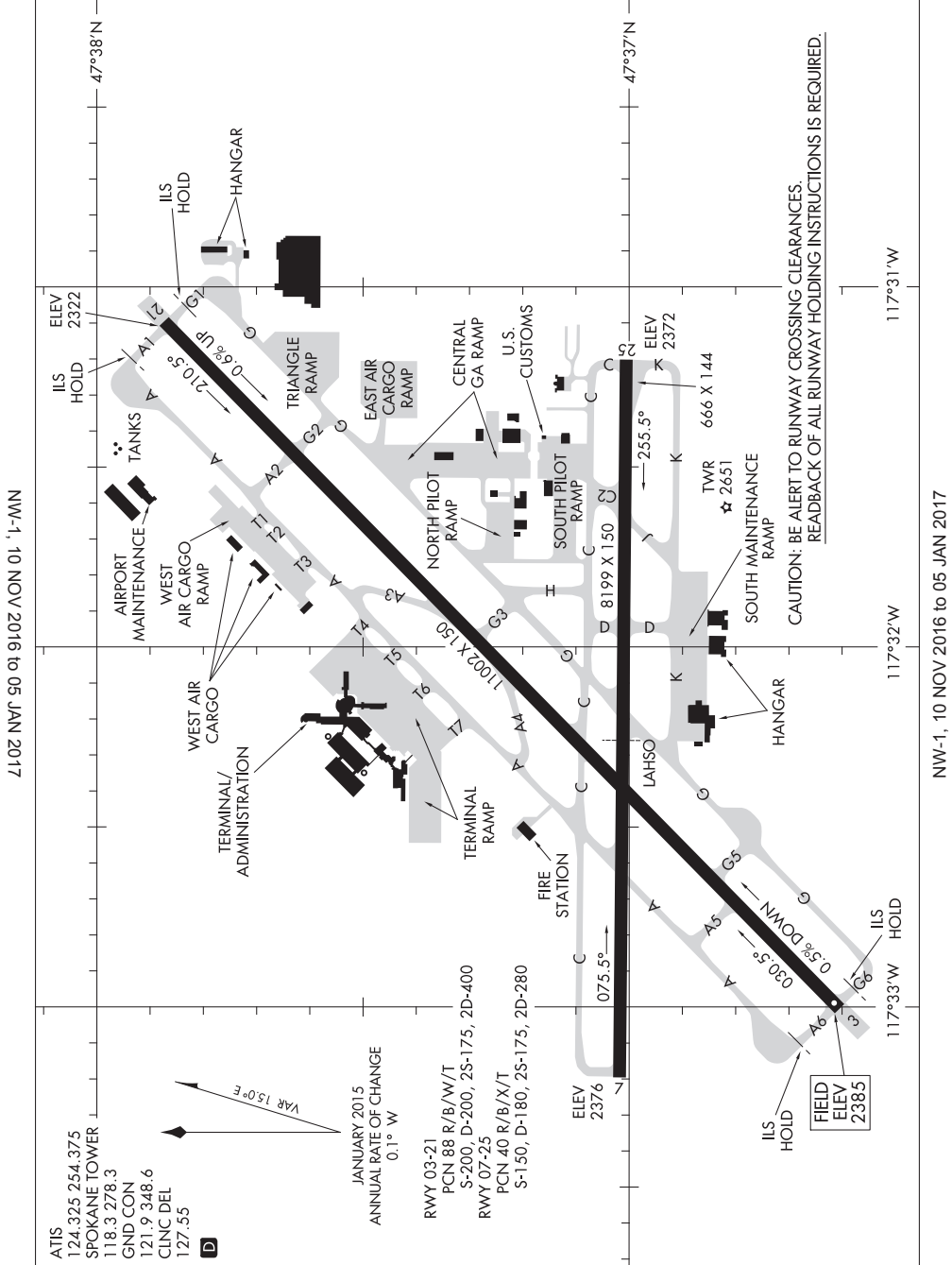
SPOKANE, WASHINGTON  
SPOKANE INTL (GEG)



# AIRPORT DIAGRAM

AL-403 (FAA)

SPOKANE INTL (GEG)  
SPOKANE, WASHINGTON



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

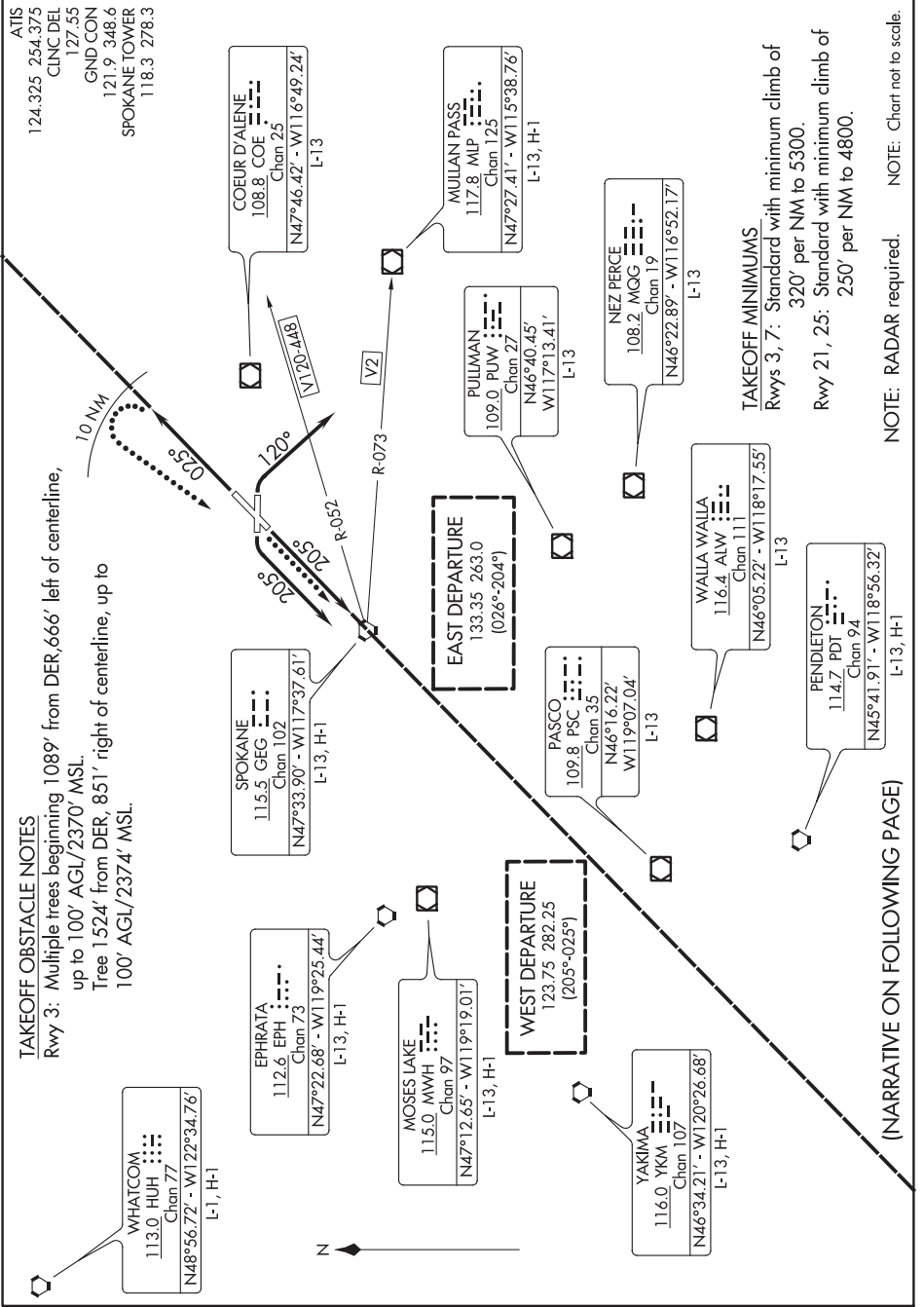
SPOKANE, WASHINGTON  
SPOKANE INTL (GEG)

# SPOKANE THREE DEPARTURE

SL-403 (FAA)

SPOKANE INTL (GEG)  
SPOKANE, WASHINGTON

21.01.2017 09:05:00 AM 01.1'-WN



# SPOKANE THREE DEPARTURE

SPOKANE, WASHINGTON  
SPOKANE INTL (GEG)

NOTE: RADAR required. NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

**TAKEOFF MINIMUMS**  
 Rws 3, 7: Standard with minimum climb of 320' per NM to 5300.  
 Rwy 21, 25: Standard with minimum climb of 250' per NM to 4800.

**TAKEOFF OBSTACLE NOTES**  
 Rwy 3: Multiple trees beginning 1089' from DER, 666' left of centerline, up to 100' AGL/2370' MSL.  
 Tree 1524' from DER, 851' right of centerline, up to 100' AGL/2374' MSL.

ATIS 124.325 254.375  
 CLNC DEL 127.55  
 GND CON 121.9 348.6  
 SPOKANE TOWER 118.3 278.3



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb heading 025° (or ATC assigned heading) for vectors to assigned route/fix, thence . . . .

TAKEOFF RUNWAY 7: Climbing right turn heading 120° (or ATC assigned heading) for vectors to assigned route/fix, thence . . . .

TAKEOFF RUNWAY 21: Climb heading 205° (or ATC assigned heading) for vectors to assigned route/fix, thence . . . .

TAKEOFF RUNWAY 25: Climbing left turn heading 205° (or ATC assigned heading) for vectors to assigned route/fix, thence . . . .

. . . . maintain 12000 or assigned lower altitude, expect filed altitude/flight level 10 minutes after departure.

LOST COMMUNICATIONS: Climb direct GEG VORTAC before proceeding on course. Cross GEG VORTAC at or above: NE-bound V1 20-448 5200': E-bound V2 5200'. Aircraft departing RWY 3, if not in contact with ATC within 10 NM after takeoff, turn left direct GEG VORTAC, cross GEG VORTAC at or above 5200', thence via assigned fix/route.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

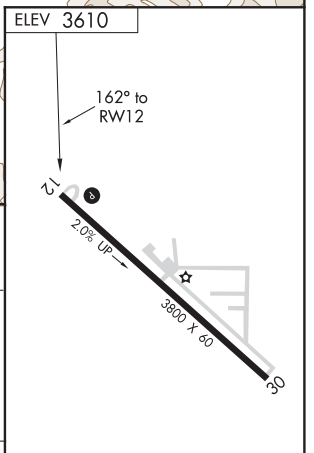
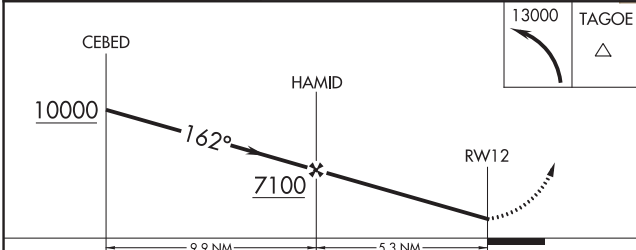
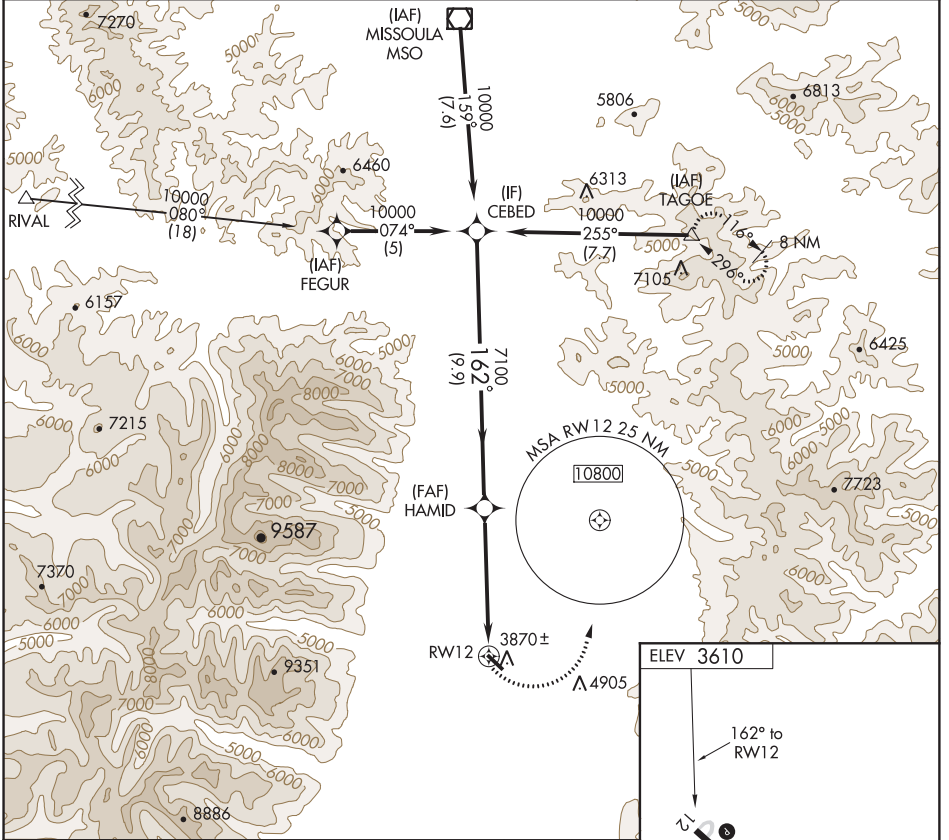
# RNAV (GPS)-A STEVENSVILLE (32S)

APP CRS <b>162°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>3610</b>
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**NA** Circling NA at night.  
**-20°C/-4°F** DME/DME RNP- 0.3 NA.  
 Use Missoula Intl altimeter setting.

MISSED APPROACH: Climbing left turn to 13000 direct TAGOE and hold, continue climb-in-hold to 13000.

MISSOULA ASOS <b>126.65</b>	SPOKANE APP CON* <b>124.9 298.95</b>	SALT LAKE CITY CENTER <b>133.4 285.4</b>	UNICOM <b>122.8 (CTAF)</b>
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CATEGORY	A	B	C	D
CIRCLING	6400-1¼ 2790 (2800-1¼)	6400-1½ 2790 (2800-1½)	NA	

MRL Rwy 12-30

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>178°</b>	Rwy Idg <b>5461</b>
	TDZE <b>4162</b>
	Apt Elev <b>4163</b>

# RNAV (GPS) RWY 18

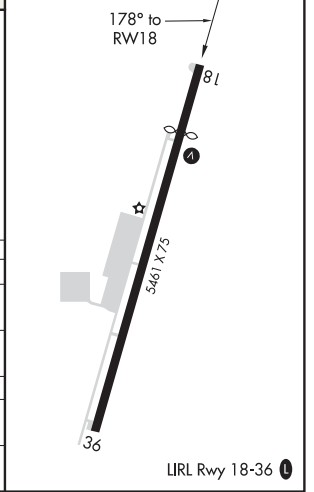
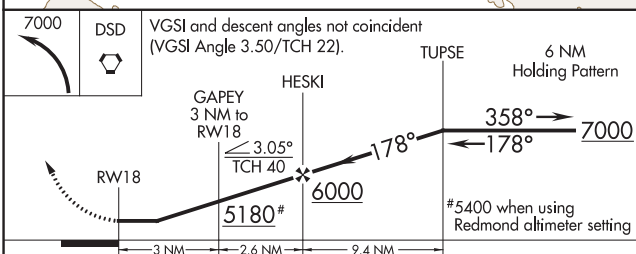
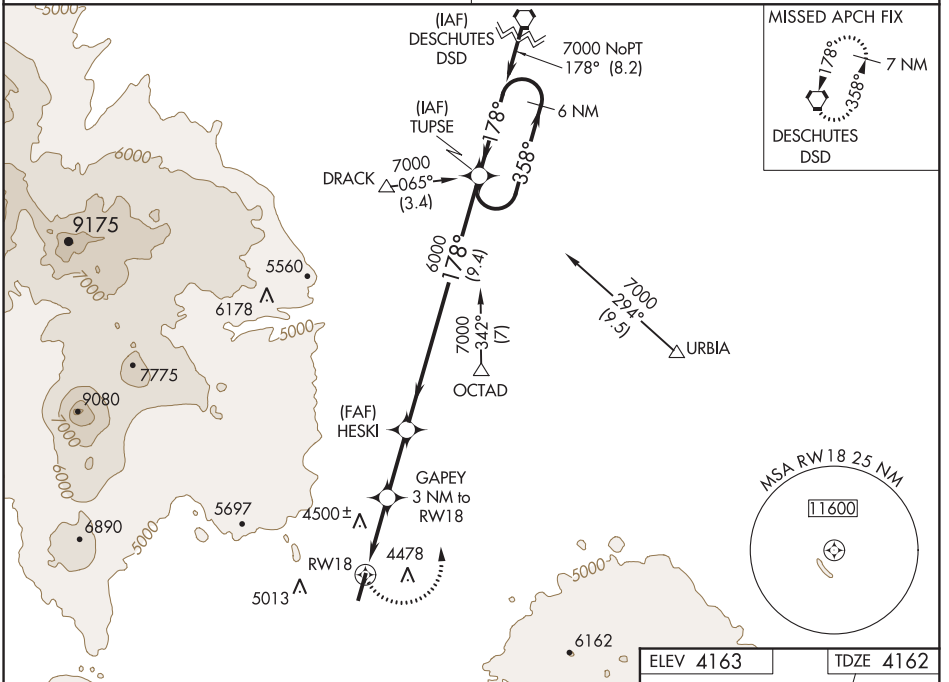
SUNRIVER (S21)

**▽** Obtain local altimeter setting on CTAF; when not received, use Redmond altimeter setting. DME/DME RNP-0.3 NA.  
**▲ NA** Helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climbing left turn to 7000 direct DSD VORTAC and hold.

SEATTLE CENTER **128.15 257.75**

UNICOM **122.8 (CTAF)**



CATEGORY	A	B	C	D
LNAV MDA	4760-1	598 (600-1)	4760-1½ 598 (600-1½)	4960-2½ 798 (800-2½)
CIRCLING	4920-1 757 (800-1)	4920-1¼ 757 (800-1¼)	5040-2½ 877 (900-2½)	5380-3 1217 (1300-3)
REDMOND ALTIMETER SETTING MINIMUMS				
LNAV MDA	4980-1 818 (900-1)	4980-1¼ 818 (900-1¼)	4980-2½ 818 (900-2½)	4980-2¾ 818 (900-2¾)
CIRCLING	5140-1¼ 977 (1000-1¼)	5140-1½ 977 (1000-1½)	5260-3 1097 (1100-3)	5580-3 1417 (1500-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

SUNRIVER, OREGON

AL-6978 (FAA)

16091

VORTAC DSD <b>117.6</b> Chan 123	APP CRS <b>178°</b>	Rwy Idg 5461 TDZE 4162 Apt Elev 4163
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# VOR/DME RWY 18

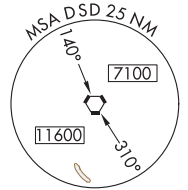
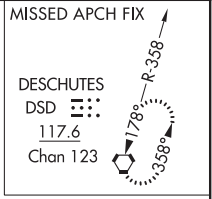
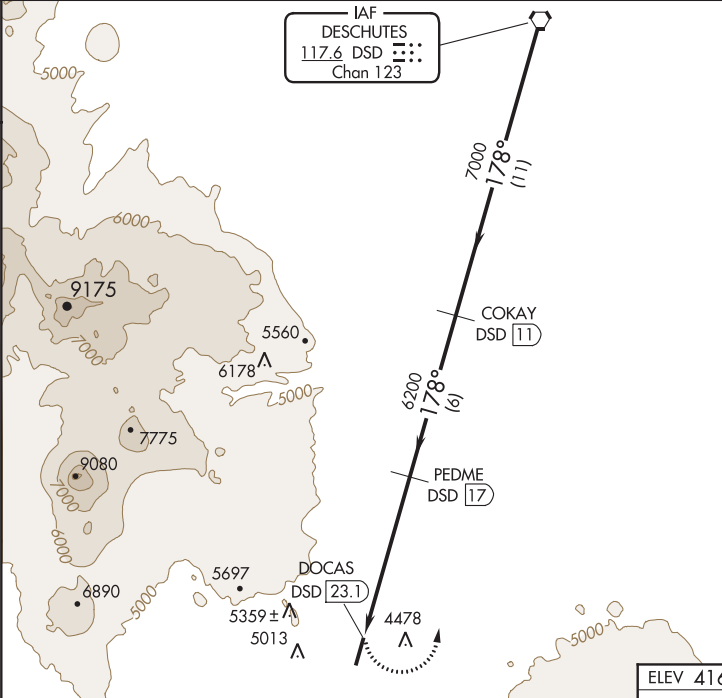
SUNRIVER (S21)

**NA** Obtain local altimeter setting on CTAF; when not received, use Redmond altimeter setting. Helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climbing left turn to 7000 via DSD R-178 to DSD VORTAC and hold.

SEATTLE CENTER  
**128.15 257.75**

UNICOM  
**122.8 (CTAF)**

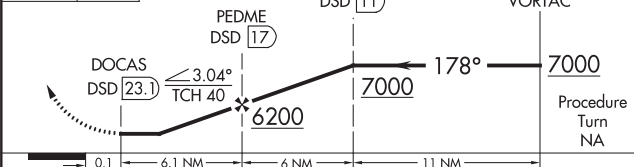


NW-1, 10 NOV 2016 to 05 JAN 2017

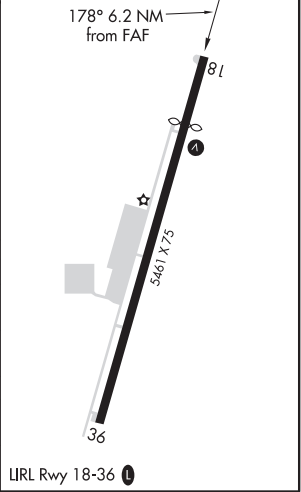
NW-1, 10 NOV 2016 to 05 JAN 2017

7000 DSD VGSi and descent angles not coincident (VGSi Angle 3.50/TCH 22).

DSD R-178



ELEV 4163 TDZE 4162



CATEGORY	A	B	C	D
S-18	5440-1¼ 1278 (1300-1¼)	5440-1½ 1278 (1300-1½)	5440-3	1278 (1300-3)
CIRCLING	5440-1¼ 1277 (1300-1¼)	5440-1½ 1277 (1300-1½)	5440-3	1277 (1300-3)
REDMOND ALTIMETER SETTING MINIMUMS				
S-18	5660-1¼ 1498 (1500-1¼)	5660-1½ 1498 (1500-1½)	5660-3	1498 (1500-3)
CIRCLING	5660-1¼ 1497 (1500-1¼)	5660-1½ 1497 (1500-1½)	5660-3	1497 (1500-3)

SUNRIVER, OREGON  
Amdt 1C 31MAR16

43°53'N-121°27'W

# SUNRIVER (S21) VOR/DME RWY 18



WAAS CH <b>82608</b> <b>W17A</b>	APP CRS <b>167°</b>	Rwy Idg TDZE <b>294</b> Apt Elev <b>295</b>	<b>5002</b>
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# RNAV (GPS) RWY 17

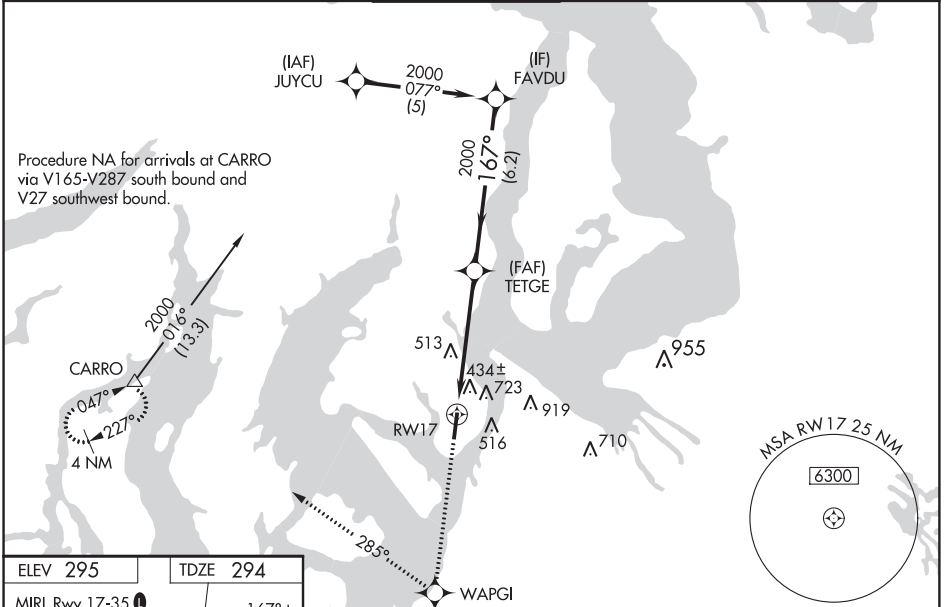
TACOMA NARROWS (TIW)

**V** VDP NA with McChord Field altimeter setting. For inoperative MALSRS, increase LPV all Cats visibility to 1½ mile. Circling NA east of Rwy 17/35.  
**A** Baro-VNAV NA when using McChord Field altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use McChord Field altimeter setting and increase all DA 25 feet, all MDA 40 feet, and increase LPV all Cats visibility ½ mile.



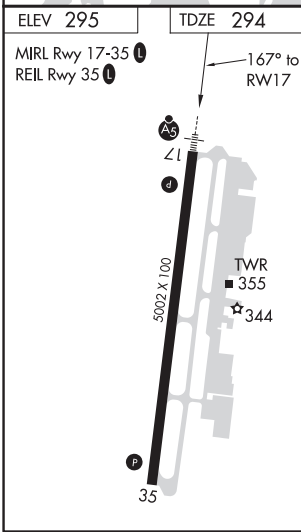
**MISSED APPROACH:** Climb to 4000 direct WAPGI and right turn via 285° track to CARRO and hold, continue climb-in-hold to 4000.

ATIS <b>124.05</b>	SEATTLE APP CON <b>120.1 290.9</b>	<b>TACOMA TOWER ★</b> <b>118.5 (CTAF) 0 253.5</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



4000	WAPGI	CARRO	TETGE	FAVDU	Procedure Turn NA
↑	✧	↷ tr 285°	△		
* LNAV only.		* 2 NM to RWY 17	← 167°	2000	GP 3.00° TCH 52
RWY 17		2 NM	3.1 NM	6.2 NM	
CATEGORY	A	B	C	D	
LPV DA		638-5/8	344 (400-5/8)		
LNAV/VNAV DA		992-2	698 (700-2)		
LNAV MDA	980-1/2	686 (700-1/2)	980-1 1/2	686 (700-1 1/2)	
CIRCLING	980-1	685 (700-1)	980-2 685 (700-2)	980-2 1/4 685 (700-2 1/4)	



WAAS CH <b>50312</b> <b>W35A</b>	APP CRS <b>347°</b>	Rwy Idg TDZE Apt Elev	<b>5002</b> <b>295</b> <b>295</b>
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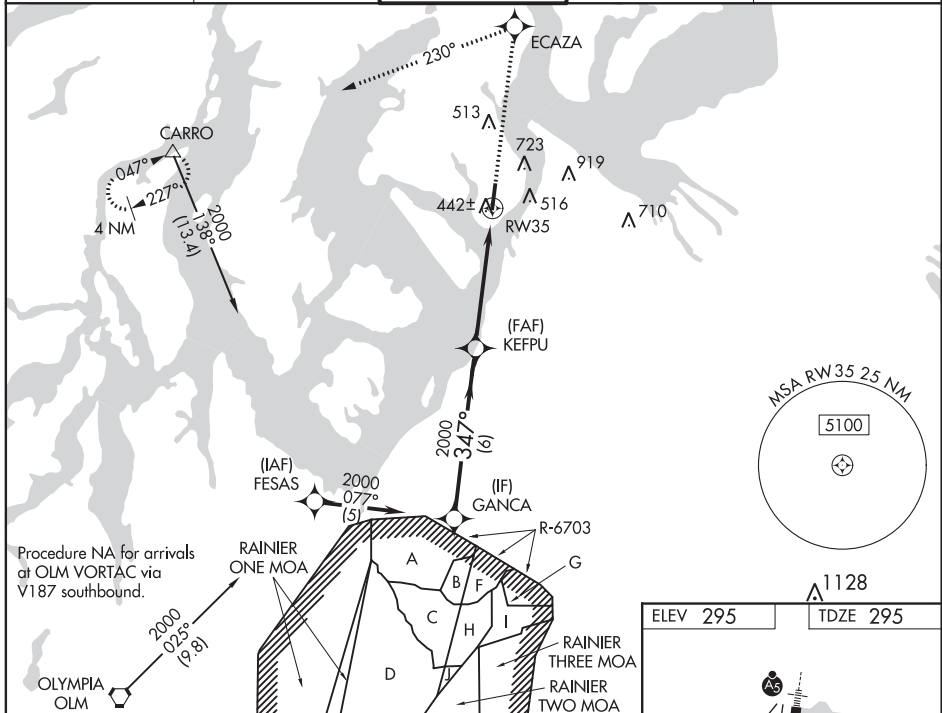
# RNAV (GPS) RWY 35

TACOMA NARROWS (TIW)

**⚠** Baro-VNAV NA when using McCord Field altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. Circling NA east of Rwy 17-35. When local altimeter setting not received, use McCord Field altimeter setting and increase all DA 25 feet and all MDA 40 feet.

**MISSED APPROACH:** Climb to 4000 direct ECAZA and left turn via 230° track to CARRO and hold, continue climb-in-hold to 4000.

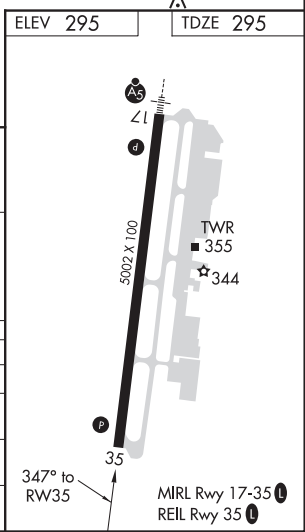
ATIS <b>124.05</b>	SEATTLE APP CON <b>120.1 290.9</b>	<b>TACOMA TOWER *</b> <b>118.5 (CTAF) 0 253.5</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

Procedure Turn NA	VGSIs and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 45)			
	GANCA	KEFPU	ECAZA	CARRO
GP 3.00° TCH 51	2000 → 347° → 2000		*1.6 NM to RW35 *LNAV only	
	← 6 NM		← 3.5 NM	← 1.6 NM
CATEGORY	A	B	C	D
LPV DA	561-7/8 266 (300-7/8)			
LNAV/VNAV DA	769-1 3/4 474 (500-1 3/4)			
LNAV MDA	840-1 545 (600-1)	840-1 1/2 545 (600-1 1/2)	840-1 3/4 545 (600-1 3/4)	
CIRCLING	980-1 685 (700-1)	980-2 685 (700-2)	980-2 1/4 685 (700-2 1/4)	



NDB GRF <b>216</b>	APP CRS <b>353°</b>	Rwy Idg TDZE Apt Elev	<b>5002</b> <b>295</b> <b>295</b>
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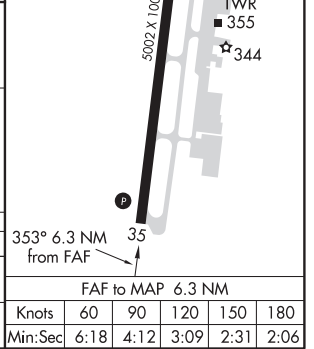
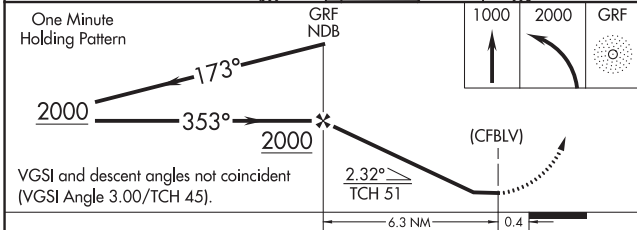
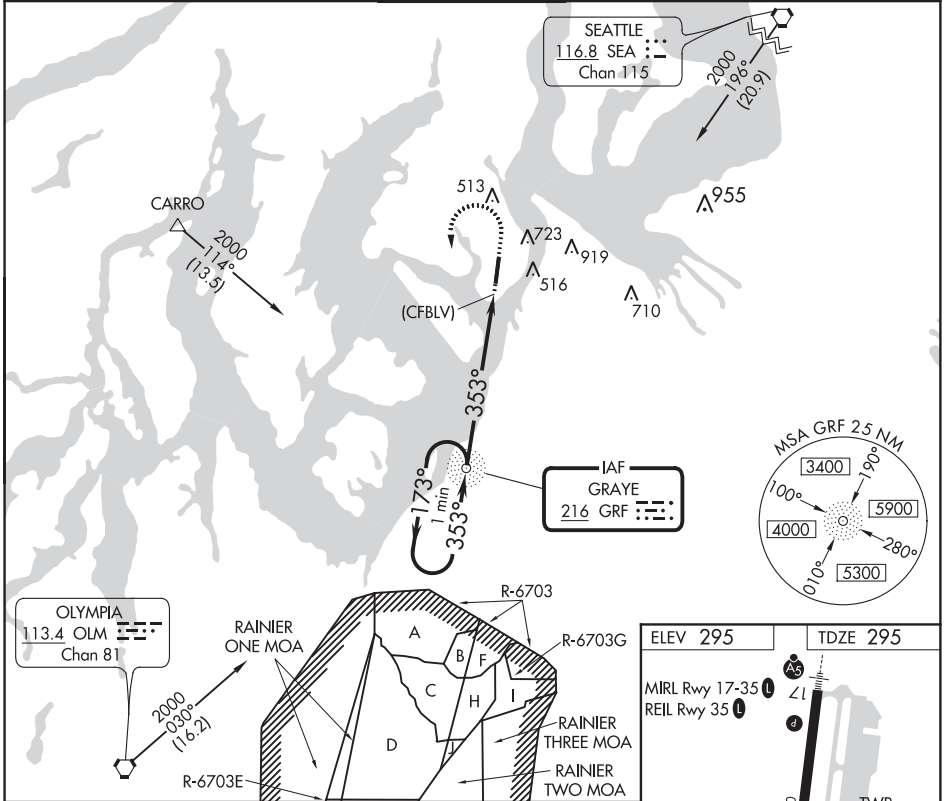
# NDB RWY 35

TACOMA NARROWS (TIW)

**⚠** When local altimeter setting not received, use McChord AFB altimeter setting and increase all MDA 40 feet and S-35 Cat B visibility and Circling Cat B/C/D visibility ½ mile. Circling NA east of Rwy 17-35.

**⚠** MISSED APPROACH: Climb to 1000 then climbing left turn to 2000 direct GRF NDB and hold.

ATIS <b>124.05</b>	SEATTLE APP CON <b>120.1 290.9</b>	TACOMA TOWER* <b>118.5 (CTAF) 0 253.5</b>	GND CON <b>121.8</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
S-35	1000-1	705 (800-1)	1000-2	705 (800-1)
CIRCLING	1000-1	705 (800-1)	1000-2 705 (800-2)	1000-2¼ 705 (800-2¼)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

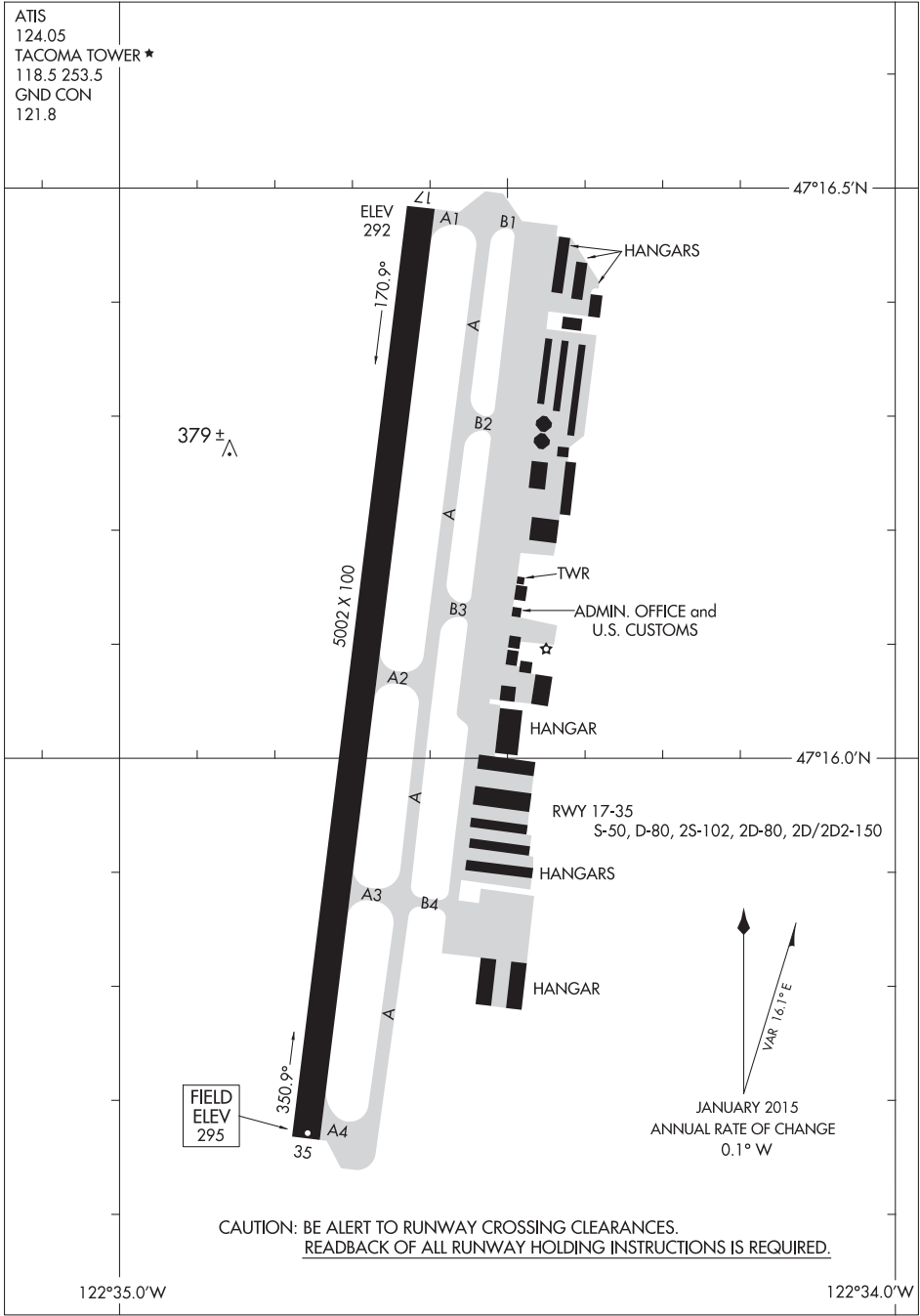
AL-5186 (FAA)

TACOMA NARROWS (TIW)  
TACOMA, WASHINGTON

ATIS  
124.05  
TACOMA TOWER ★  
118.5 253.5  
GND CON  
121.8

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017




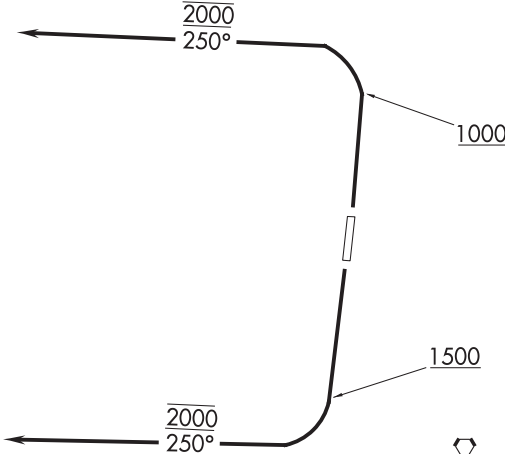
# AIRPORT DIAGRAM


TACOMA, WASHINGTON  
TACOMA NARROWS (TIW)


# NARROWS ONE DEPARTURE

ATIS 124.05  
GND CON 121.8  
TACOMA TOWER  
118.5 (CTAF) 253.5  
SEATTLE DEP CON  
120.1 290.9

SEATTLE  
116.8 SEA   
Chan 115  
N47°26.12'-W122°18.58'



McCHORD  
109.6 TCM   
Chan 33  
N47°08.86'-W122°28.50'

OLYMPIA  
113.4 OLM   
Chan 81  
N46°58.30'-W122°54.11'

NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 17:** Climb runway heading until leaving 1500, turn right heading 250°, maintain 2000. Expect filed altitude 5 minutes after departure. Expect radar vectors to assigned route

**TAKEOFF RUNWAY 35:** Climb runway heading until leaving 1000, turn left heading 250°, maintain 2000. Expect filed altitude 5 minutes after departure. Expect radar vectors to assigned route.

**LOST COMMUNICATIONS:** If no transmissions are received for 3 minutes after departure, climb to filed altitude direct SEA VORTAC, thence via assigned route.

# NARROWS ONE DEPARTURE

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	N/A
<b>339°</b>	TDZE	N/A
	Apt Elev	<b>247</b>

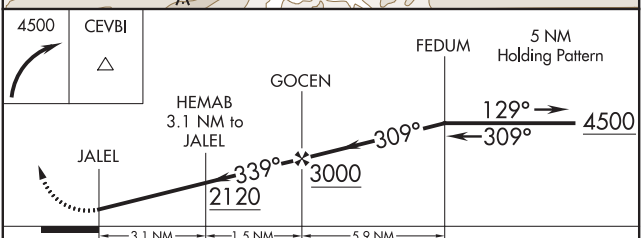
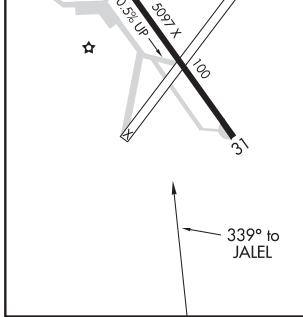
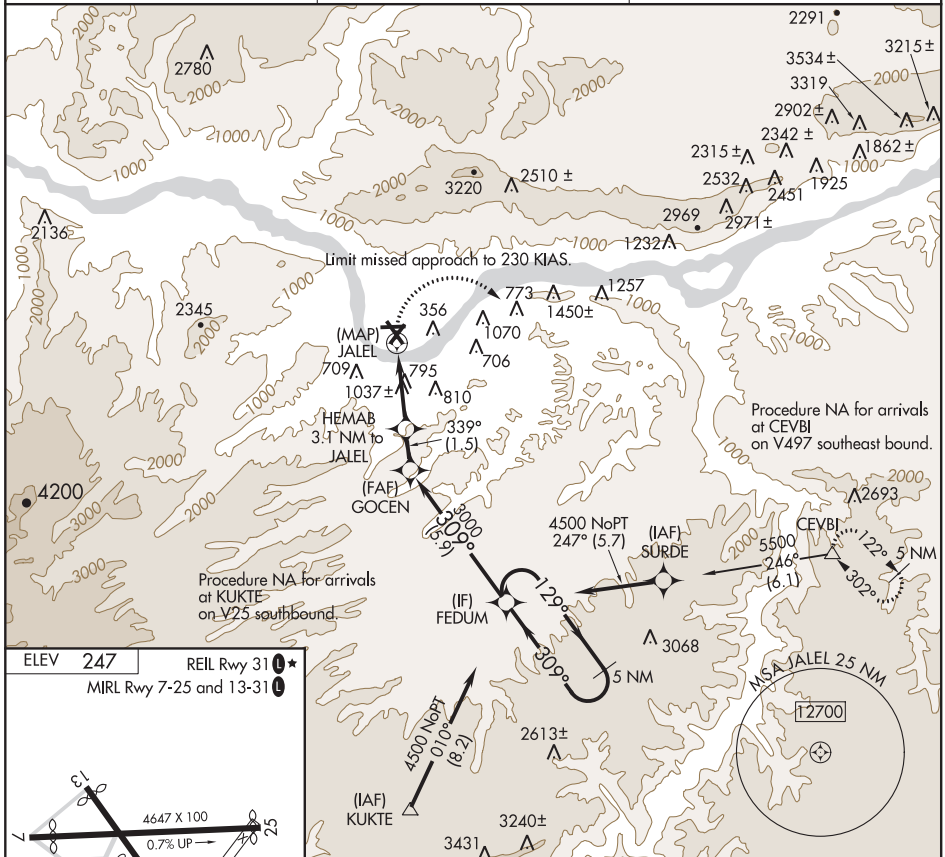
# RNAV (GPS)-A

COLUMBIA GORGE RGNL/THE DALLES MUNI (DLS)

**⚠** Circling to Rwy 7, 31 NA at night. When local altimeter setting not received, procedure NA. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM not authorized.

**⚠** MISSED APPROACH: Climbing right turn to 4500 direct CEVBI and hold.

ASOS <b>135,175</b>	SEATTLE CENTER <b>119,65 257,6</b>	UNICOM <b>123.0 (CTAF) 0</b>
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CATEGORY	A	B	C	D
CIRCLING	1320-1¼ 1073 (1100-1¼)	1320-1½ 1073 (1100-1½)	1320-3 1073 (1100-3)	1360-3 1113 (1200-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

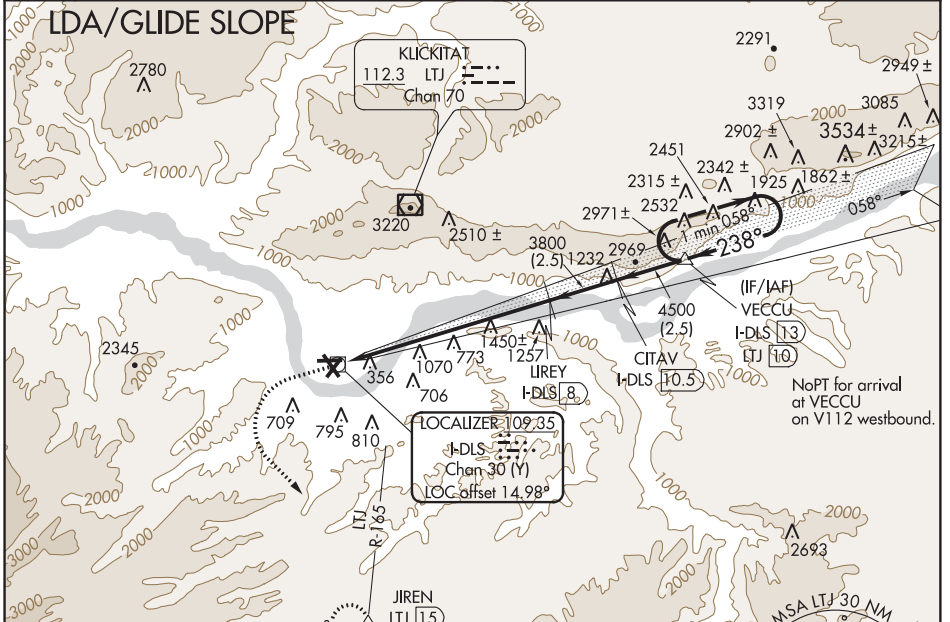
LOC/DME I-DLS <b>109.35</b> Chan <b>30</b> (Y)	APP CRS <b>238°</b>	Rwy Idg TDZE Apt Elev	<b>4451</b> <b>243</b> <b>247</b>
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**LDA/DME RWY 25**  
COLUMBIA GORGE RGNL/THE DALLES MUNI(DLS)

**NA** When local altimeter setting not received, procedure NA. Glide slope provided by standard glide slope equipment.

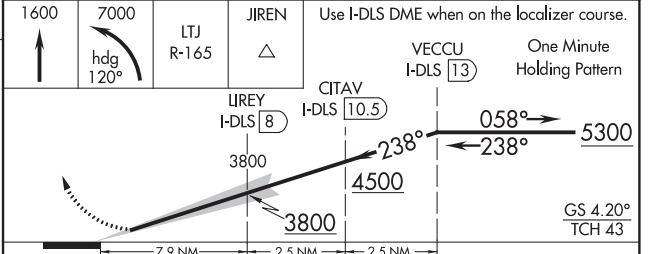
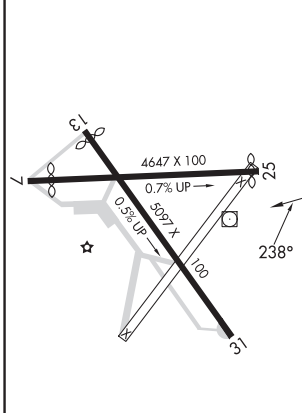
**MISSED APPROACH:** Climb to 1600 then climbing left turn to 7000 on heading 120° and LTJ VOR/DME R-165 to JIREN/LTJ 15 DME and hold, continue climb-in-hold to 7000.

ASOS <b>135.175</b>	SEATTLE CENTER <b>119.65 257.6</b>	UNICOM <b>123.0</b> (CTAF) <b>0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 247	TDZE 243
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REIL Rwy 31 **1\***  
MIRL Rws 7-25 and 13-31 **0**

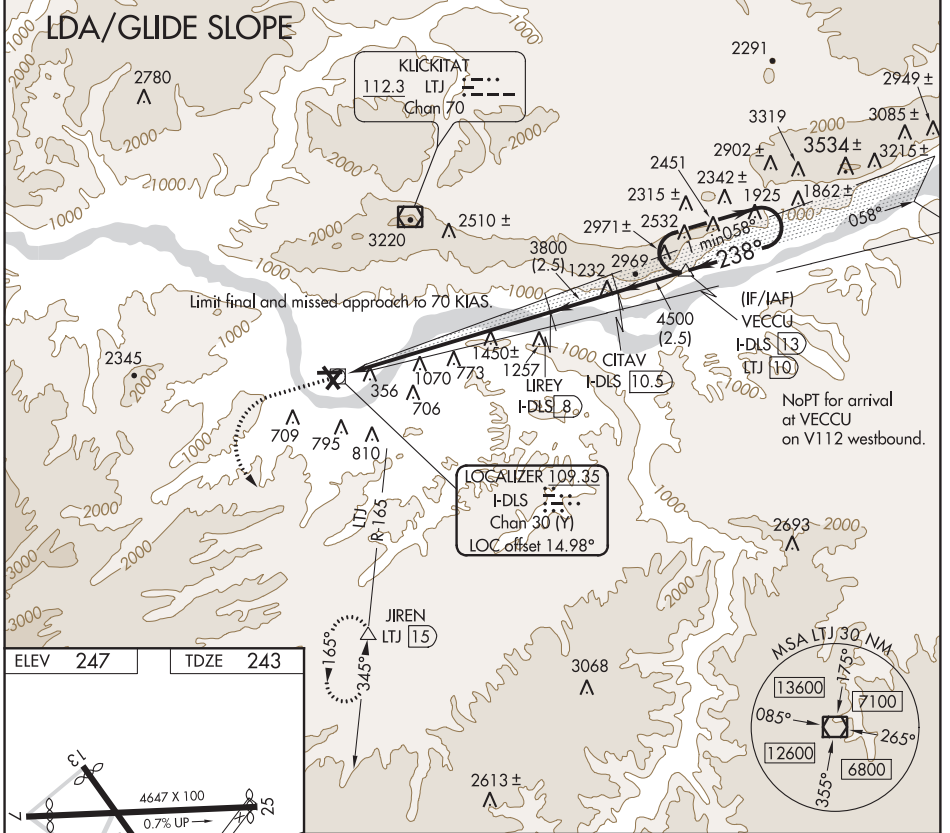
LOC/DME I-DLS <b>109.35</b> Chan 30(Y)	APP CRS <b>238°</b>	Rwy Ldg TDZE Apt Elev	<b>4451</b> <b>243</b> <b>247</b>
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# COPTER LDA/DME RWY 25

COLUMBIA GORGE RGNL/THE DALLES MUNI(DLS)

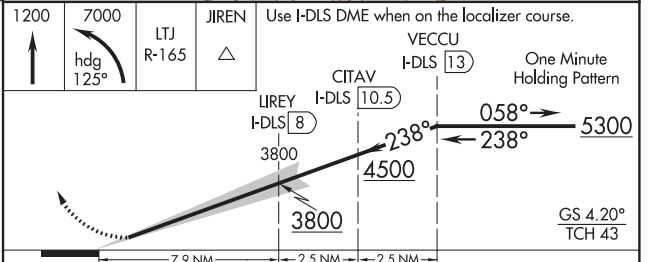
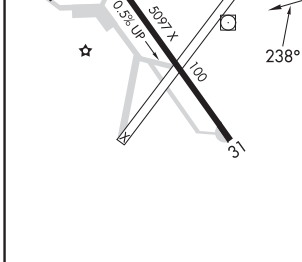
**NA** When local altimeter setting not received, procedure NA. MISSED APPROACH: Climb to 1200 then climbing left turn to 7000 on heading 125° and LTJ VOR/DME R-165 to JIREN/LTJ 15 DME and hold, continue climb-in-hold to 7000. Glide slope provided by standard glide slope equipment.

ASOS <b>135.175</b>	SEATTLE CENTER <b>119.65 257.6</b>	UNICOM <b>123.0 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



REIL Rwy 31 <b>0</b> ★	MIRL Rwy 7-25 and 13-31 <b>0</b>
CATEGORY	COPTER
H-25	783-1½ 540 (600-1½)

(DALLS1.LTJ) 16147

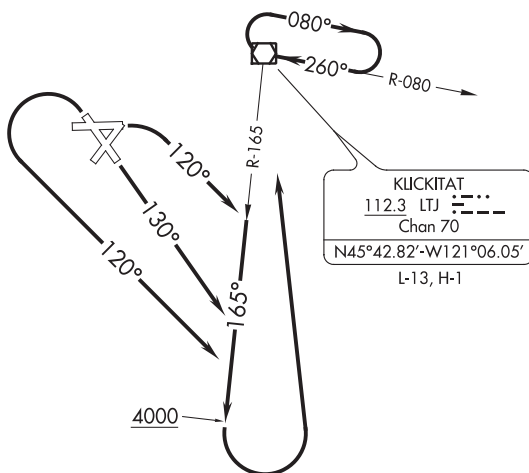
COLUMBIA GORGE RGNL/THE DALLES MUNI (DLS)

## DALLES ONE DEPARTURE (OBSTACLE)

SL-530 (FAA)

THE DALLES, OREGON

ASOS  
135.175  
SEATTLE CENTER  
119.65 257.6

TAKEOFF MINIMUMS

Rwy 25: NA - Terrain.

Rwy 7: Standard with minimum climb of 490' per NM to 3000.

Rwy 13: Standard with minimum climb of 650' per NM to 1800 or 900-2¾ with minimum climb of 415' per NM to 3000.

Rwy 31: Standard with minimum climb of 620' per NM to 3000.

TAKEOFF OBSTACLE NOTES

Rwy 7: Terrain 83' from DER, 249' right of centerline, 248' MSL.

Rwy 13: Fence 136' from DER, 316' right of centerline, up to 249' MSL.

Rising terrain beginning 1.2 NM from DER, left and right of centerline, up to 836' MSL.

Buildings beginning 1.3 NM from DER, 1069' right of centerline, up to 663' MSL.

Trees beginning 1.5 NM from DER, 833' right of centerline, up to 100' AGL/1059' MSL.

Tower 2.2 NM from DER, 462' right of centerline, 210' AGL/810' MSL.

Trees beginning 3 NM from DER, left and right of centerline, up to 100' AGL/1220' MSL.

Rwy 31: Trees beginning 86' from DER, 418' left of centerline, up to 40' AGL/247' MSL.

Trees beginning 714' from DER, 120' right of centerline, up to 45' AGL/256' MSL.

Trees beginning 1004' from DER, 354' right of centerline, up to 80' AGL/290' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 7: Climbing right turn heading 120° to intercept LTJ VOR/DME R-165, then climb on LTJ VOR/DME R-165 southbound to 4000, thence. . . .

TAKEOFF RUNWAY 13: Climb heading 130° to intercept LTJ VOR/DME R-165, then climb on LTJ VOR/DME R-165 southbound to 4000, thence. . . .

TAKEOFF RUNWAY 31: Climbing left turn heading 120° to intercept LTJ VOR/DME R-165, then climb on LTJ VOR/DME R-165 southbound to 4000, thence. . . .

. . . .Climbing left turn direct LTJ VOR/DME. Continue climb-in-hold, hold east, LTJ VOR/DME, RT, 260° inbound to cross LTJ VOR/DME at or above MEA/MCA for route of flight.

DALLES ONE DEPARTURE (OBSTACLE)

THE DALLES, OREGON

(DALLS1.LTJ) 12DEC13

COLUMBIA GORGE RGNL/THE DALLES MUNI (DLS)



APP CRS	Rwy Idg	<b>5001</b>
<b>136°</b>	TDZE	<b>31</b>
	Apt Elev	<b>39</b>

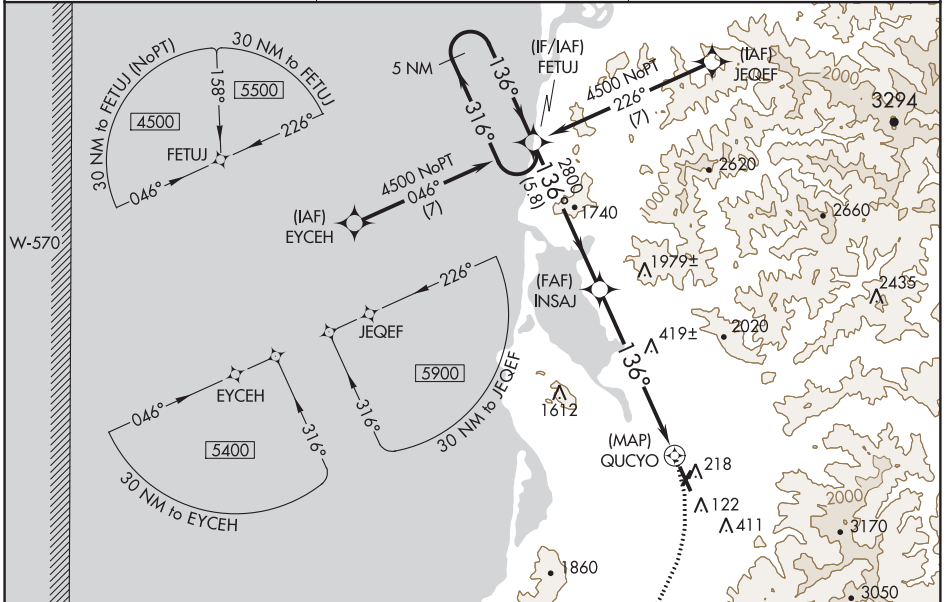
# RNAV (GPS) RWY 13

TILLAMOOK (TMK)

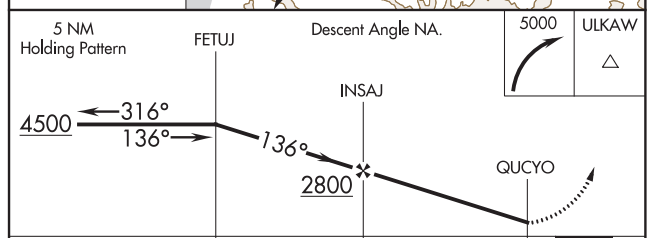
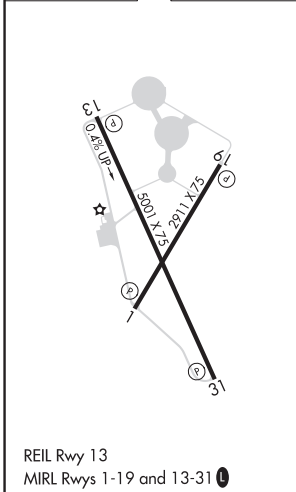
**NA** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Astoria altimeter setting and increase all MDA by 540 feet; increase LNAV visibility Cat A ¼, Cat B ½, and Cat C 1 mile and Circling visibility Cats B and C ¼ mile.  
 Night Landing: Rwy 1, 19 NA. Helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:** Climbing right turn to 5000 direct ULKAW and hold, continue climb-in-hold to 5000.

AWOS-3 <b>120.0</b>	SEATTLE CENTER <b>124.2 317.6</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV 39	TDZE 31
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CATEGORY	A	B	C	D
LNAV MDA	760-1	729 (800-1)	760-2 729 (800-2)	NA
CIRCLING	880-1¼ 841 (900-1¼)	920-1¼ 881 (900-1¼)	920-2¾ 881 (900-2¾)	NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(FETUJ3.FETUJ) 16147

FETUJ THREE DEPARTURE (OBSTACLE) (RNAV)

SL-475 (FAA)

TILLAMOOK (TMK)

TILLAMOOK, OREGON

SEATTLE CENTER

124.2 317.6

McMINNVILLE RADIO

122.45

CONTIGUOUS U.S. ADIZ

W-570

FETUJ  
5000

540

316°

TAKEOFF MINIMUMS

Rwys 1, 13, 19: NA-ATC.

Rwy 31: Standard with minimum climb of 395' per NM to 5000.

TAKEOFF OBSTACLE NOTES

Rwy 31: Bush 76' from DER, 283' right of centerline, 3' AGL/32' MSL. Fence 111' from DER, 383' left of centerline, 8' AGL/26' MSL. Monument 1275' from DER, 383' left of centerline, 40' AGL/64' MSL. Pole 1505' from DER, 155' right of centerline, 34' AGL/60' MSL. Trees beginning 1974' from DER, left and right of centerline, up to 86' AGL/105' MSL.

NOTE: RNAV 1.

NOTE: GPS required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 31: Climb heading 316° to 540, then climb to 5000, or as assigned by ATC, direct FETUJ. Cross FETUJ at or above 5000.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

FETUJ THREE DEPARTURE (OBSTACLE) (RNAV)

(FETUJ3.FETUJ) 07MAR13

TILLAMOOK, OREGON

TILLAMOOK (TMK)

WAAS CH <b>58017</b> <b>W06A</b>	APP CRS <b>057°</b>	Rwy Idg TDZE Apt Elev	<b>4479</b> <b>367</b> <b>374</b>
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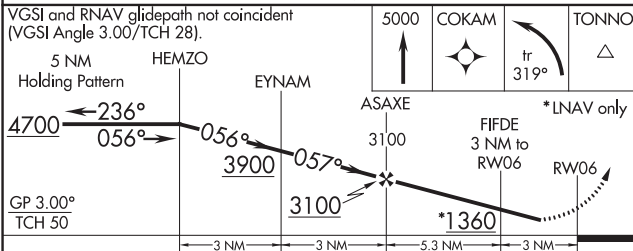
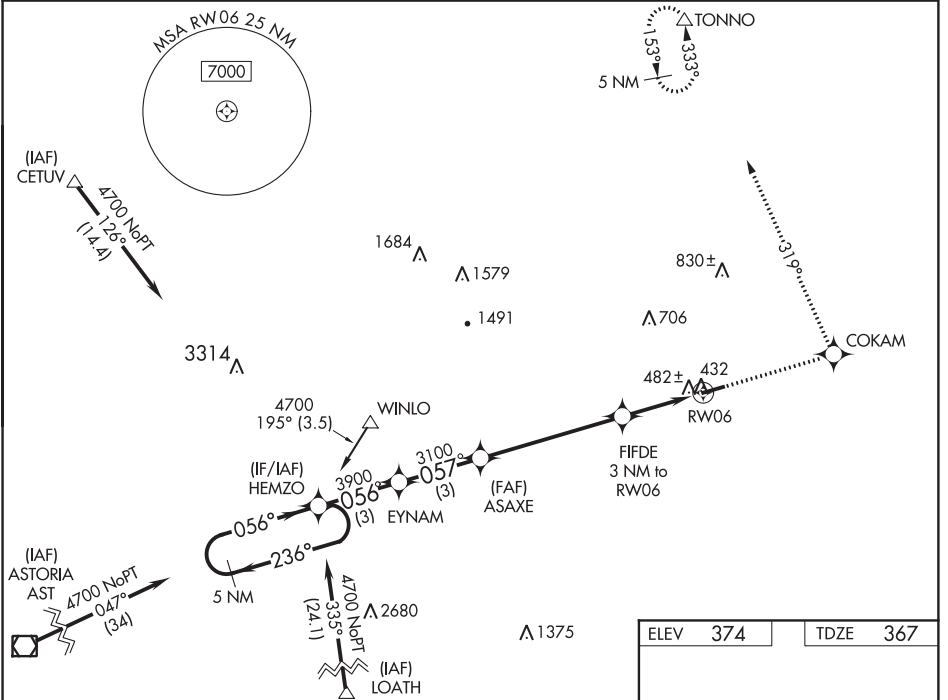
# RNAV (GPS) RWY 6

ED CARLSON MEMORIAL FIELD-SOUTH LEWIS COUNTY (TDO)

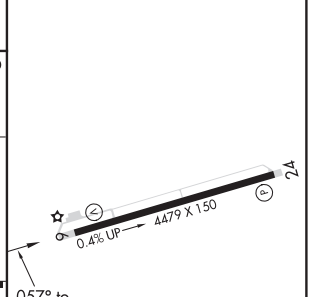
**⚠ NA** Circling NA at night. Baro-VNAV NA. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Use Chehalis altimeter setting, when not received use Kelso altimeter setting and increase all DA/MDA 40 feet and increase LNAV/VNAV visibility all Cats ¼ mile.

MISSED APPROACH: Climb to 5000 direct COKAM and left turn on track 319° to TONNO and hold, continue climb-in-hold to 5000.

SEATTLE CENTER <b>124.2 317.6</b>	CTAF <b>122.9</b>
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ELEV 374	TDZE 367
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CATEGORY	A	B	C	D
LPV DA		767-1½	400 (400-1½)	
LNAV/VNAV DA		813-1½	446 (500-1½)	
LNAV MDA	800-1	433 (500-1)	800-1¼ 433 (500-1¼)	800-1½ 433 (500-1½)
CIRCLING	900-1	526 (600-1)	900-1½ 526 (600-1½)	940-2 566 (600-2)

REIL Rwy 6 and 24

MIRL Rwy 6-24

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

TOLEDO, WASHINGTON

AL-422 (FAA)

15288

WAAS CH <b>72617</b> <b>W24A</b>	APP CRS <b>237°</b>	Rwy Idg TDZE Apt Elev	<b>4479</b> <b>374</b> <b>374</b>
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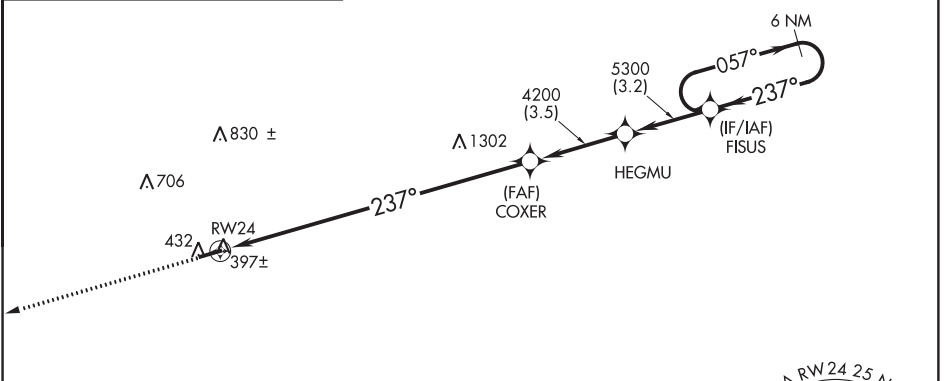
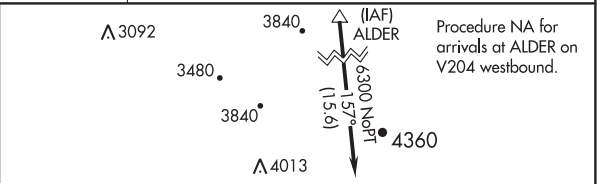
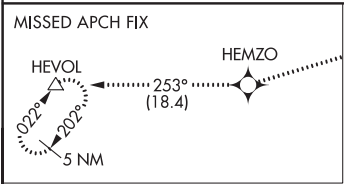
# RNAV (GPS) RWY 24

ED CARLSON MEMORIAL FIELD-SOUTH LEWIS COUNTY (TDO)

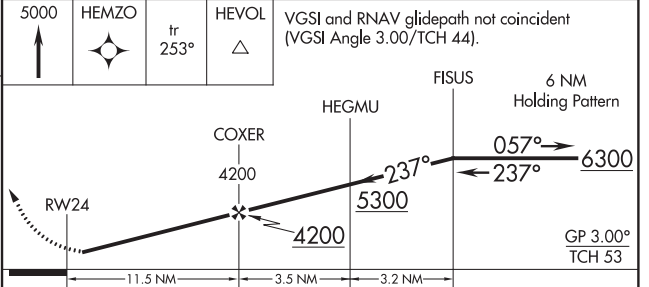
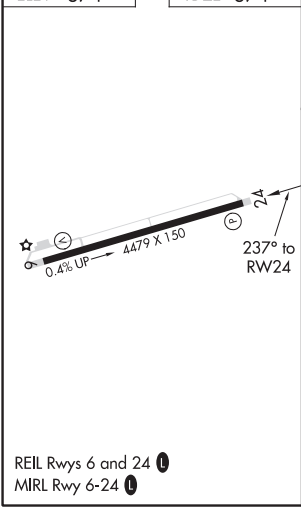
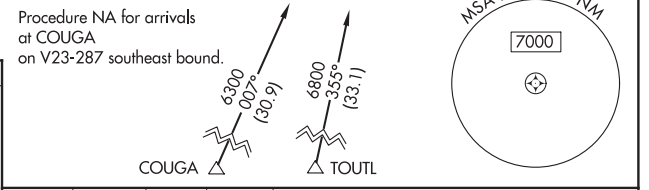
**NA** Baro-VNAV NA. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM not authorized. Use Chehalis altimeter setting, when not received use Kelso altimeter setting and increase all DA/MDA 40 feet and increase LPV visibility all Cats ¼ mile. Procedure NA at night.

MISSED APPROACH: Climb to 5000 direct HEMZO and on track 253° to HEVOL and hold.

SEATTLE CENTER <b>124.2 317.6</b>	CTAF <b>122.9</b>
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ELEV 374	TDZE 374
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CATEGORY	A	B	C	D
LPV DA		685-1	311 (400-1)	
LNAV/VNAV DA		802-1½	428 (500-1½)	

TOLEDO, WASHINGTON  
Orig-B 26JUN14

ED CARLSON MEMORIAL FIELD-SOUTH LEWIS COUNTY (TDO)  
46°29'N-122°48'W  
**RNAV (GPS) RWY 24**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

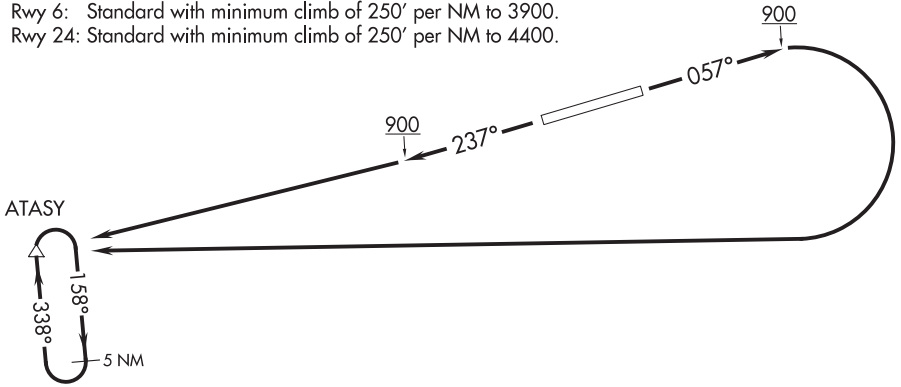
SEATTLE CENTER  
124.2 317.6

TAKEOFF OBSTACLE NOTES

- Rwy 6: Antenna 9' from DER, 344' left of centerline, 16' AGL/390' MSL. Trees beginning 190' from DER, 12' right of centerline, up to 27' AGL/397' MSL.
- Rwy 24: Trees, buildings, and airport beacon on tower beginning 53' from DER, 328' right of centerline, up to 71' AGL/432' MSL. Trees 434' from DER, 267' left of centerline, 26' AGL/381' MSL. Vehicle on road 529' from DER, 83' left of centerline, 13' AGL/370' MSL. Trees beginning 2525' from DER, 72' right of centerline, up to 141' AGL/482' MSL.

TAKEOFF MINIMUMS

- Rwy 6: Standard with minimum climb of 250' per NM to 3900.
- Rwy 24: Standard with minimum climb of 250' per NM to 4400.



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NOTE: RNAV 1.

NOTE: GPS required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb heading 057° to 900, then climbing right turn to 5000 direct ATASY and hold, continue climb-in-hold to 5000, when authorized by ATC, continue climb-in-hold to 6000, thence. . . .

TAKEOFF RUNWAY 24: Climb heading 237° to 900, then climb to 5000 direct ATASY and hold, continue climb-in-hold to 5000, when authorized by ATC, continue climb-in-hold to 6000, thence. . . .

. . . .Expect filed altitude 10 minutes after departure.

TORRINGTON, WYOMING

AL-6845 (FAA)

16119

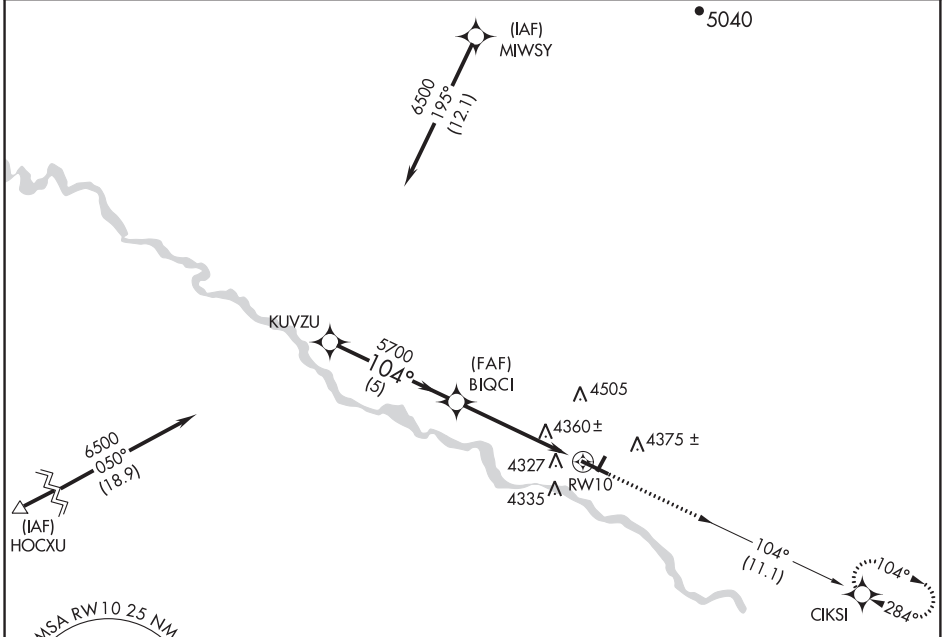
APP CRS	Rwy Idg	<b>5703</b>
<b>104°</b>	TDZE	<b>4207</b>
	Apt Elev	<b>4207</b>

# GPS RWY 10

TORRINGTON MUNI (TOR)

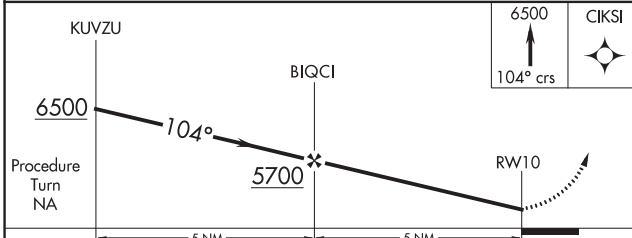
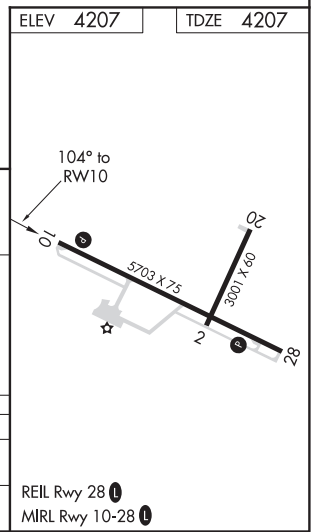
<p><b>V</b> Procedure NA at night.  <b>A</b> NA Helicopter visibility reduction below 1 SM NA.</p>	<p>MISSED APPROACH: Climb to 6500 via 104° course to CIKSI WP and hold.</p>
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<p>ASOS <b>118.375</b></p>	<p>DENVER CENTER <b>127.95 338.2</b></p>	<p>UNICOM <b>122.8</b> (CTAF) <b>0</b></p>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-10	4660-1	453 (500-1)	4660-1 <sup>3</sup> / <sub>8</sub>	453 (500-1 <sup>3</sup> / <sub>8</sub> )
CIRCLING	4740-1	533 (600-1)	4740-1 <sup>1</sup> / <sub>2</sub> 533 (600-1 <sup>1</sup> / <sub>2</sub> )	4820-2 613 (700-2)

TORRINGTON, WYOMING  
Orig-D 28APR16

42°04'N-104°09'W

TORRINGTON MUNI (TOR)  
**GPS RWY 10**

REIL Rwy 28 **0**  
MIRL Rwy 10-28 **0**

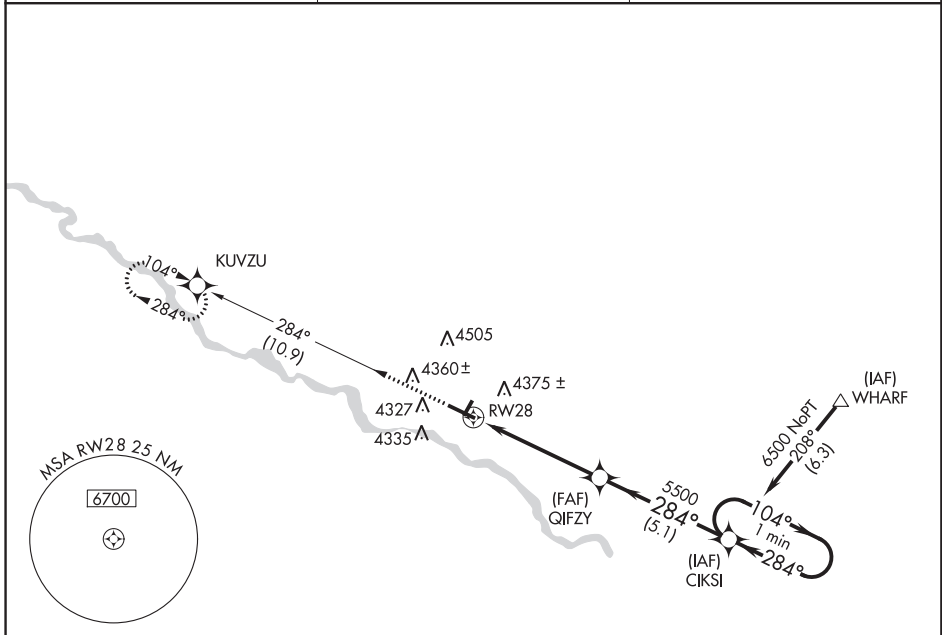
APP CRS	Rwy Idg	<b>5703</b>
<b>284°</b>	TDZE	<b>4202</b>
	Apt Elev	<b>4207</b>

# GPS RWY 28

TORRINGTON MUNI (TOR)

<p><b>NA</b></p> <p>Procedure NA at night. Helicopter visibility reduction below 1 SM NA.</p>	<p><b>MISSED APPROACH:</b> Climb to 6500 via 284° course to KUVZU WP and hold.</p>
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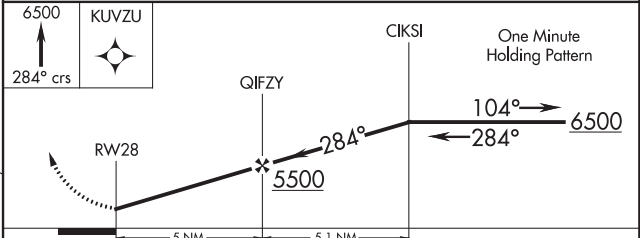
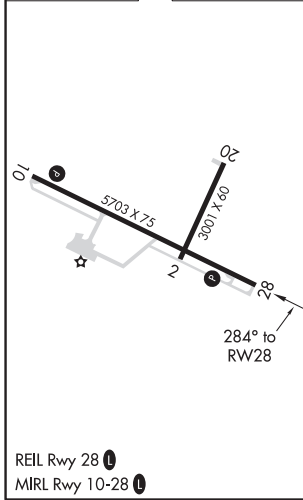
<p>ASOS</p> <p><b>118.375</b></p>	<p>DENVER CENTER</p> <p><b>127.95 338.2</b></p>	<p>UNICOM</p> <p><b>122.8 (CTAF) 0</b></p>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV	4207	TDZE	4202
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CATEGORY	A	B	C	D
S-28	4620-1	418 (500-1)	4620-1½	418 (500-1½)
CIRCLING	4740-1	533 (600-1)	4740-1½ 533 (600-1½)	4820-2 613 (700-2)

TORRINGTON, WYOMING

AL-6845 (FAA)

16119

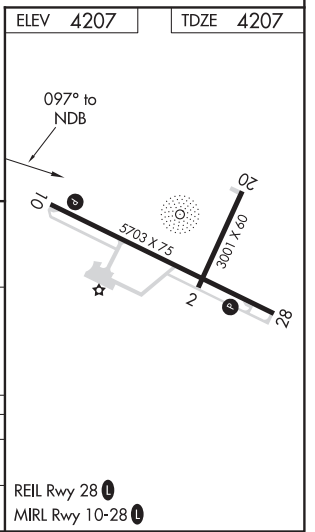
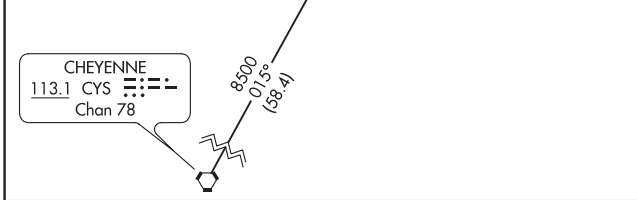
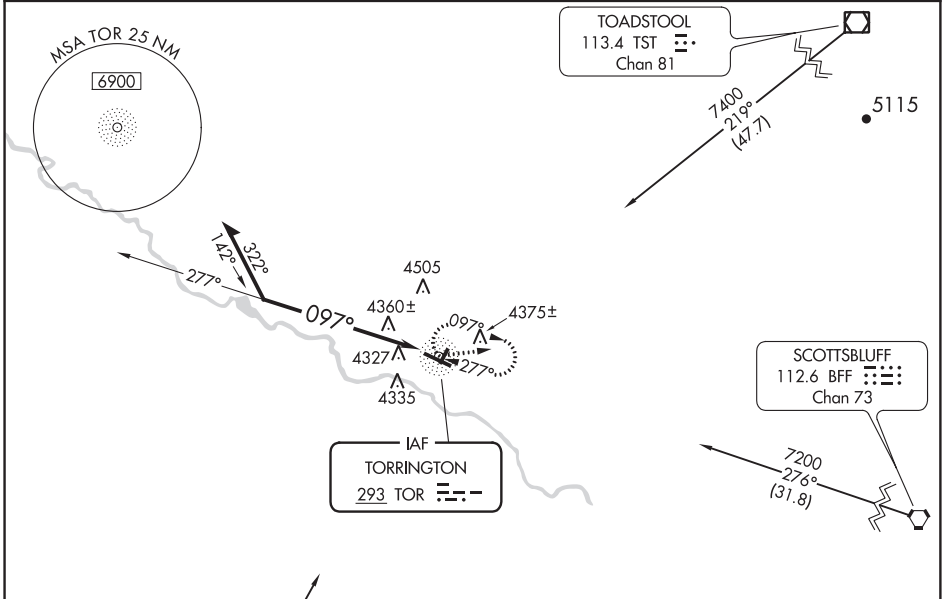
NDB TOR <b>293</b>	APP CRS <b>097°</b>	Rwy Idg <b>5703</b>
		TDZE <b>4207</b>
		Apt Elev <b>4207</b>

**NDB RWY 10**  
TORRINGTON MUNI (TOR)

**▽** **▲** NA When local altimeter setting not received, use Scottsbluff altimeter setting and increase all MDA 100 feet; increase S-10 Cat A visibility ¼ mile; increase Circling Cat C and D visibility ¼ mile.  
Procedure NA at night.  
Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH:  
Climb to 6500 in TOR  
NDB holding pattern.

ASOS <b>118.375</b>	DENVER CENTER <b>127.95 338.2</b>	UNICOM <b>122.8 (CTAF) 0</b>
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Remain within 10 NM	TOR NDB			
6500	277°	097°	6500 TOR	

CATEGORY	A	B	C	D
S-10	5040-1 833 (900-1)	5040-1¼ 833 (900-1¼)	5040-2½	833 (900-2½)
CIRCLING	5040-1¼	833 (900-1¼)	5040-2½ 833 (900-2½)	5040-2¾ 833 (900-2¾)

TORRINGTON, WYOMING  
Amdt 2B 28APR16

42°04'N-104°09'W

TORRINGTON MUNI (TOR)  
**NDB RWY 10**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



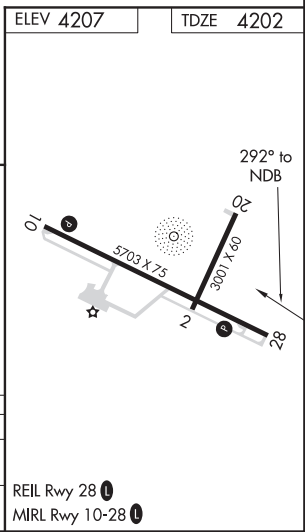
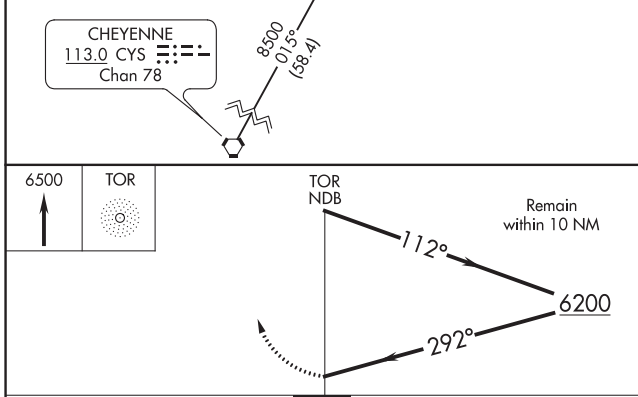
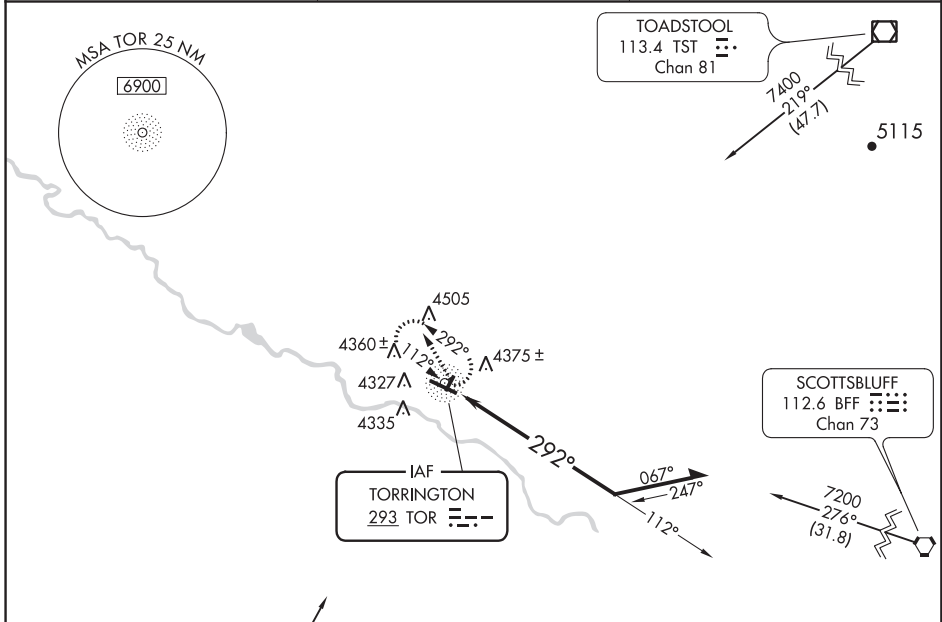
NDB TOR <b>293</b>	APP CRS <b>292°</b>	Rwy Idg TDZE Apt Elev	<b>5703</b> <b>4202</b> <b>4207</b>
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**NDB RWY 28**  
TORRINGTON MUNI (TOR)

**NA** When local altimeter setting not received, use Scottsbluff altimeter setting and increase all MDA 100 feet; increase all Cat C and D visibility ¼ mile. Procedure NA at night. Helicopter visibility reduction below 1 SM NA.

**MISSED APPROACH:** Climb to 6500 in TOR NDB holding pattern.

ASOS <b>118.375</b>	DENVER CENTER <b>127.95 338.2</b>	UNICOM <b>122.8 (CTAF)</b>
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CATEGORY	A	B	C	D
S-28	4780-1	578 (600-1)	4780-1¾	578 (600-1¾)
CIRCLING	4780-1	573 (600-1)	4780-1¾ 573 (600-1¾)	4820-2 613 (700-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

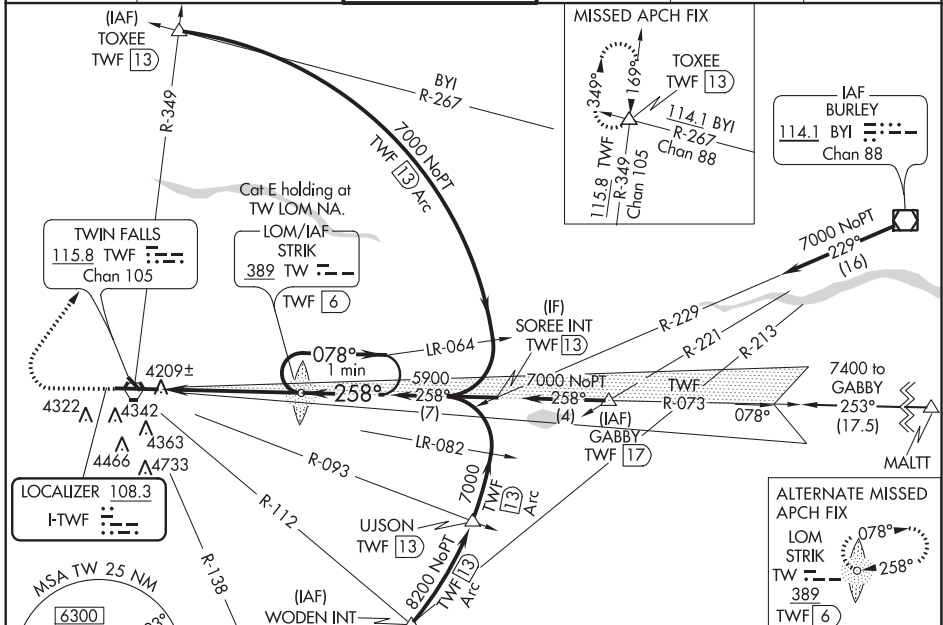
LOC I-TWF <b>108.3</b>	APP CRS <b>258°</b>	Rwy Idg <b>8703</b>
		TDZE <b>4154</b>
		Apt Elev <b>4154</b>

**ILS or LOC RWY 26**  
JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)

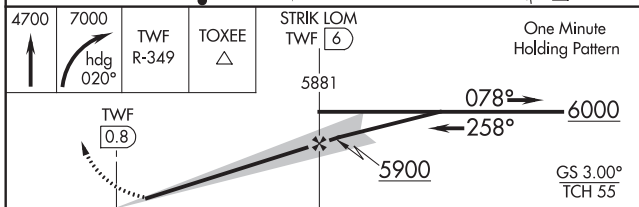
**Night landing:** Rwy 30 NA. When local altimeter setting not received, use Jerome altimeter setting and increase all DA 49 feet, and all MDA 60 feet, increase S-LOC 26 Cat E visibility 1/8 mile. For inoperative MALS/R when using local or Jerome altimeter setting, increase S-ILS 26 Cat E visibility 1/4 mile and S-LOC 26 Cat E visibility 1/2 mile. ADF or DME required.

**MALS/R**  
MISSED APPROACH: Climb to 4700 then climbing right turn to 7000 on heading 020° and TWF VORTAC R-349 to TOXEE INT/TWF 13 DME and hold.

ASOS <b>135.025</b>	TWIN FALLS APP CON* <b>126.7 353.75</b>	TWIN FALLS TOWER* <b>118.2 (CTAF) 0 317.5</b>	GND CON <b>121.7</b>	CLNC DEL <b>123.65</b>	UNICOM <b>122.95</b>
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ELEV 4154	TDZE 4154
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CATEGORY	A	B	C	D	E
S-ILS 26		4354-1/2	200 (200-1/2)		
S-LOC 26		4480-1/2	326 (400-1/2)		
CIRCLING	4700-1 546 (600-1)	4780-1 626 (700-1)	5100-2 3/4 946 (1000-2 3/4)	5100-3	946 (1000-3)

**REIL Rwy 8**  
**HIRL Rwy 8-26**

FAF to MAP 5.2 NM

Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

**Diagram Details:**

- Altitudes: 4163, 4223, 4208, 4220.
- Distances: 5.2 NM from FAF.
- Heading: 258°.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>40211</b> <b>W08A</b>	APP CRS <b>078°</b>	Rwy Idg TDZE Apt Elev	<b>8703</b> <b>4149</b> <b>4154</b>
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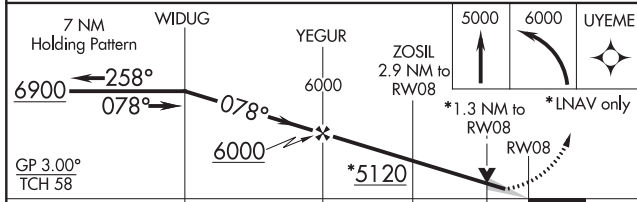
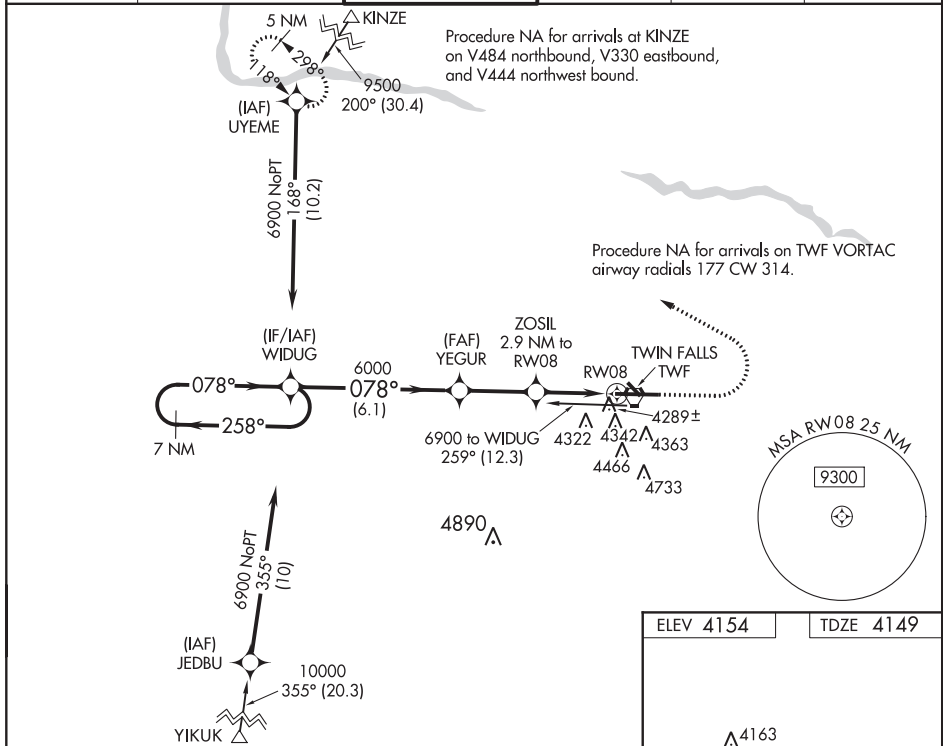
# RNAV (GPS) RWY 8

JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)

**⚠** Night landing: Rwy 30 NA. Baro-VNAV NA when using Jerome altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 48°C (120°F). DME/DME RNP-0.3 NA. VDP NA with Jerome altimeter setting. When local altimeter setting not received, use Jerome altimeter setting and increase all DA 49 feet and all MDA 60 feet, and increase LPV and LNAV/VNAV all Cats visibility ½ mile, and LNAV Cats C and D visibility ½ mile, and Circling Cat C visibility ½ mile.

**MISSED APPROACH:** Climb to 5000 then climbing left turn to 6000 direct UYEME and hold.

ASOS <b>135.025</b>	TWIN FALLS APP CON * <b>126.7 353.75</b>	TWIN FALLS TOWER * <b>118.2 (CTAF) 0 317.5</b>	GND CON <b>121.7</b>	CLNC DEL <b>123.65</b>	UNICOM <b>122.95</b>
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ELEV 4154	TDZE 4149
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4163

TWR 4223

3222 X 75

26

8703 X 150

4208 4220

078° to RWY 8

REIL Rwy 8 0  
HIRL Rwy 8-26 0

CATEGORY	A	B	C	D
LPV DA		4399-3/4	250 (300-3/4)	
LNAV/VNAV DA		4673-1 3/4	524 (600-1 3/4)	
LNAV MDA	4620-1	471 (500-1)	4620-1 3/8	471 (500-1 3/8)
CIRCLING	4700-1 546 (600-1)	4780-1 626 (700-1)	5100-2 3/8 946 (1000-2 3/8)	5100-3 946 (1000-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

TWIN FALLS, IDAHO

AL-885 (FAA)

16119

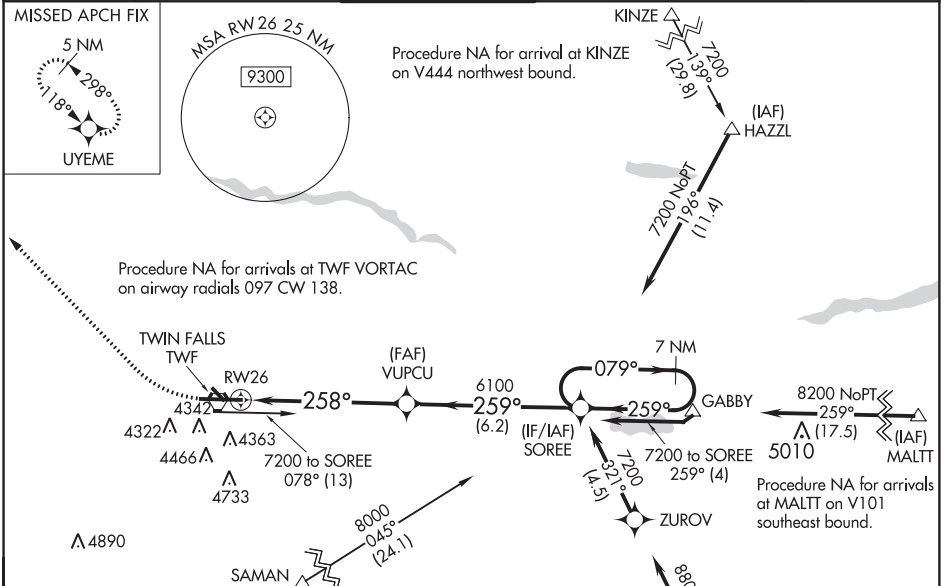
WAAS CH <b>56311</b> <b>W26A</b>	APP CRS <b>258°</b>	Rwy Idg <b>8703</b> TDZE <b>4154</b> Apt Elev <b>4154</b>
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# RNAV (GPS) RWY 26

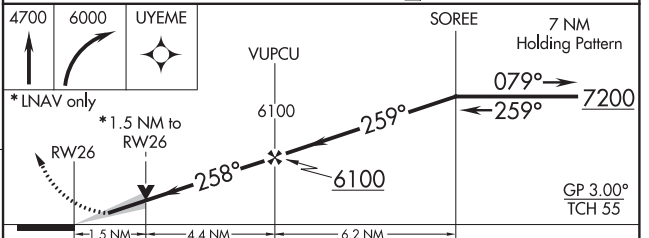
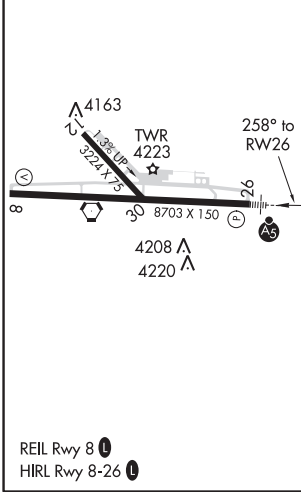
JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)

<p><b>⚠</b> Night landing: Rwy 30 NA. Baro-VNAV NA when using Jerome altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 49°C (121°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Jerome altimeter setting and increase all DA 49 feet and all MDA 60 feet; increase LNAV Cat C and D and Circling Cat C visibility ¼ mile. VDP NA when using Jerome altimeter setting.</p>	<p>MALS R</p>	<p>MISSED APPROACH: Climb to 4700 then climbing right turn to 6000 direct UYEME and hold.</p>
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ASOS <b>135.025</b>	TWIN FALLS APP CON * <b>126.7 353.75</b>	TWIN FALLS TOWER * <b>118.2 (CTAF) 0 317.5</b>	GND CON <b>121.7</b>	CLNC DEL <b>123.65</b>	UNICOM <b>122.95</b>
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ELEV <b>4154</b>	TDZE <b>4154</b>
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CATEGORY	A	B	C	D
LPV DA		4354-½	200 (200-½)	
LNAV/VNAV DA		4533-¾	379 (400-¾)	
LNAV MDA	4680-½	526 (600-½)	4680-1	526 (600-1)
<b>C</b> CIRCLING	4700-1 546 (600-1)	4780-1 626 (700-1)	5100-2¾ 946 (1000-2¾)	5100-3 946 (1000-3)

TWIN FALLS, IDAHO  
Amdt 1A 28APR16

42°29'N-114°29'W

# RNAV (GPS) RWY 26

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

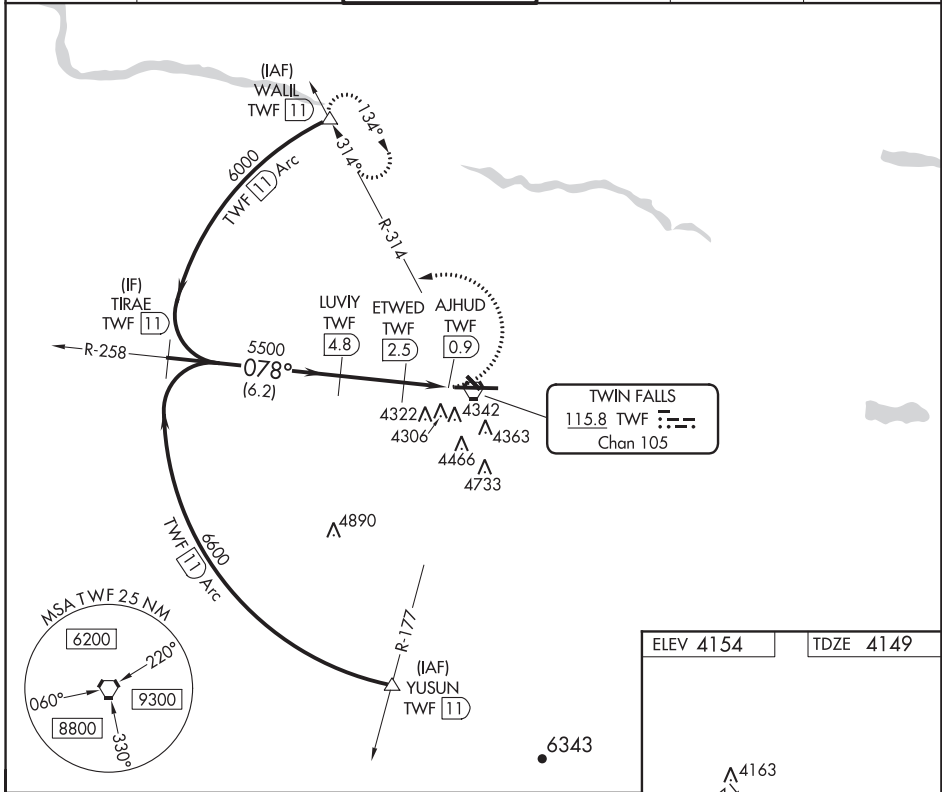
VORTAC TWF <b>115.8</b> Chan <b>105</b>	APP CRS <b>078°</b>	Rwy Idg TDZE Apt Elev	<b>8703</b> <b>4149</b> <b>4154</b>
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**VOR/DME RWY 8**  
JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)

**▼** Night landing: Rwy 30 NA. VDP NA with Jerome altimeter setting.  
**▲** When local altimeter setting not received, use Jerome altimeter setting and increase all MDA 60 feet and S-8 Cats C and D visibility ¼ mile and Circling Cat C visibility ¼ mile.

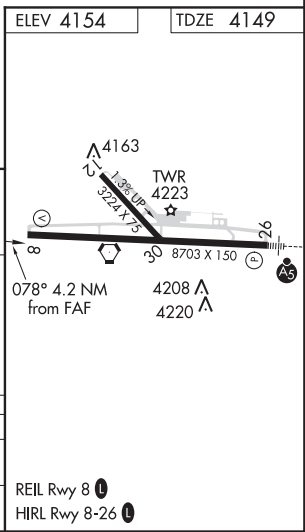
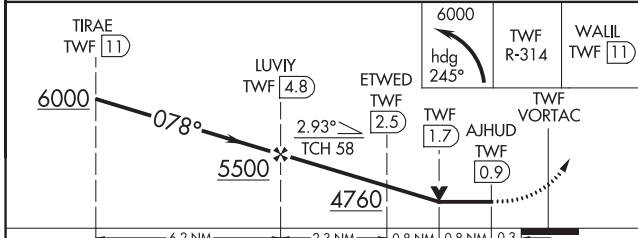
MISSED APPROACH: Climbing left turn to 6000 on heading 245° and TWF R-314 to WALL/TWF 11 MDE and hold.

ASOS <b>135.025</b>	TWIN FALLS APP CON* <b>126.7 353.75</b>	TWIN FALLS TOWER* <b>118.2 (CTAF) 0 317.5</b>	GND CON <b>121.7</b>	CLNC DEL <b>123.65</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-8	4560-1	411 (500-1)	4560-1 1/8	411 (500-1 1/8)
<b>C</b> CIRCLING	4700-1 546 (600-1)	4780-1 626 (700-1)	5100-2 3/4 946 (1000-2 3/4)	5100-3 946 (1000-3)

TWIN FALLS, IDAHO

AL-885 (FAA)

16119

VORTAC TWF <b>115.8</b> Chan <b>105</b>	APP CRS <b>077°</b>	Rwy Idg TDZE Apt Elev	<b>8703</b> <b>4149</b> <b>4154</b>
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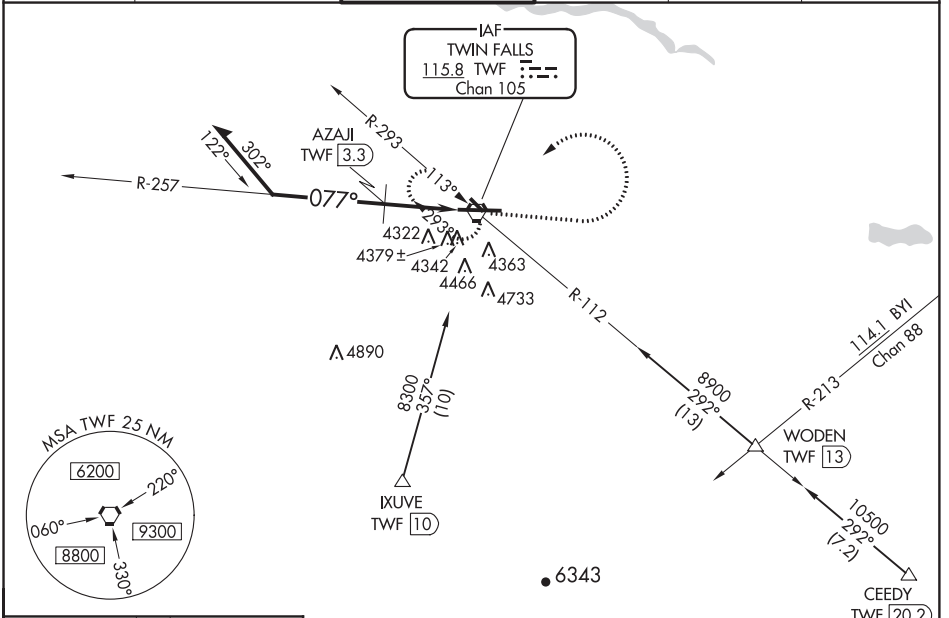
# VOR RWY 8

JOSLIN FIELD-MAGIC VALLEY RGNL (TWF')

**N** Night landing: Rwy 30 NA. When local altimeter setting not received, use Jerome altimeter setting and increase all MDA 60 feet and S-8 Cats C and D visibility ½ mile, S-8 Cat B and Circling Cat B and C visibility ¼ mile. Increase AZAJI FIX minimums S-8 Cat C and D and Circling Cat C visibility ¼ mile. VDP NA when using Jerome altimeter setting.

**MISSED APPROACH:** Climb to 6000 then left turn direct TWF VORTAC and hold.

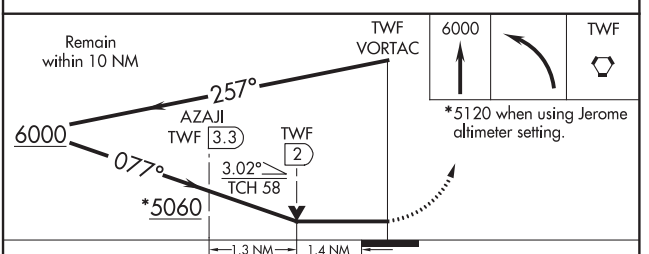
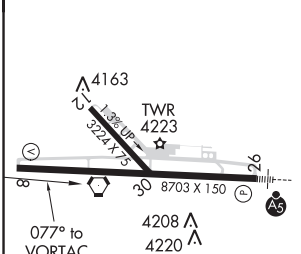
ASOS <b>135.025</b>	TWIN FALLS APP CON* <b>126.7 353.75</b>	TWIN FALLS TOWER* <b>118.2 (CTAF) 317.5</b>	GND CON <b>121.7</b>	CLNC DEL <b>123.65</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4154	TDZE 4149
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CATEGORY	A	B	C	D
S-8	5060-1¼	911 (1000-1¼)	5060-2½	911 (1000-2½)
<b>C</b> CIRCLING	5060-1¼	906 (1000-1¼)	5100-2¾ 946 (1000-2¾)	5100-3 946 (1000-3)
<b>AZAJI FIX MINIMUMS</b>				
S-8	4640-1	491 (500-1)	4640-1¾	491 (500-1¾)
<b>C</b> CIRCLING	4700-1 546 (600-1)	4780-1 626 (700-1)	5100-2¾ 946 (1000-2¾)	5100-3 946 (1000-3)

TWIN FALLS, IDAHO  
Amdt 5A 28APR16

42°29'N-114°29'W

# VOR RWY 8

VORTAC TWF <b>115.8</b> Chan <b>105</b>	APP CRS <b>248°</b>	Rwy Idg TDZE Apt Elev	<b>8703</b> <b>4154</b> <b>4154</b>
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# VOR RWY 26

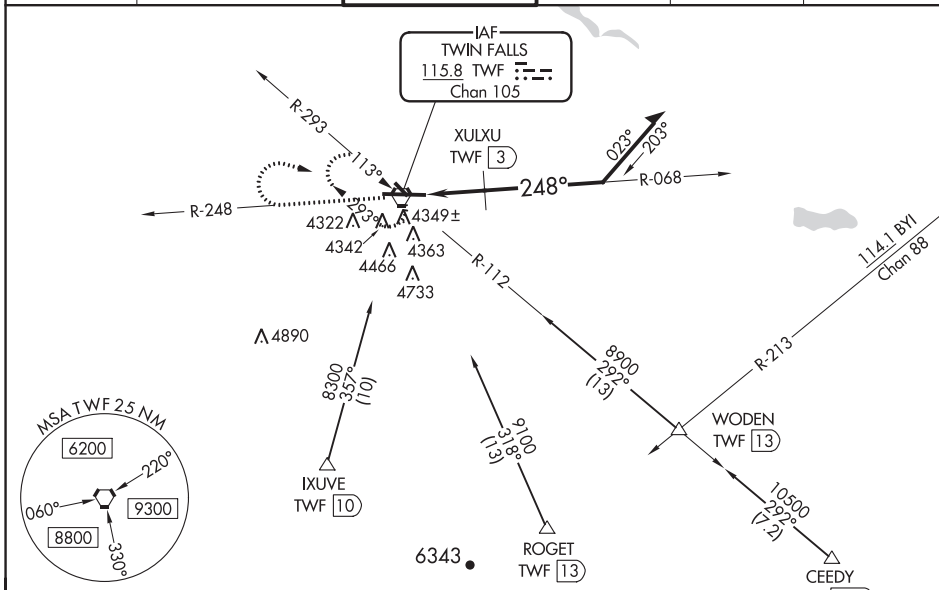
JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)

**⚠** Night landing: Rwy 30 NA. VDP NA with Jerome altimeter setting. When local altimeter setting not received, use Jerome altimeter setting and increase all MDA 60 feet; increase S-26 Cat A visibility 1/4 mile, Cat C/D 1/8 mile, Circling Cat C 1/4 mile, and XULXU FIX S-26 Cat C/D 1/8 mile. For inop MALSR, increase S-26 Cat C/D visibility to 2 1/2 miles; when using Jerome altimeter setting increase XULXU FIX S-26 Cat C/D visibility to 1 3/8 mile.



**MISSED APPROACH:** Climb to 6000 on TWF VORTAC R-248 then right turn direct TWF VORTAC and hold.

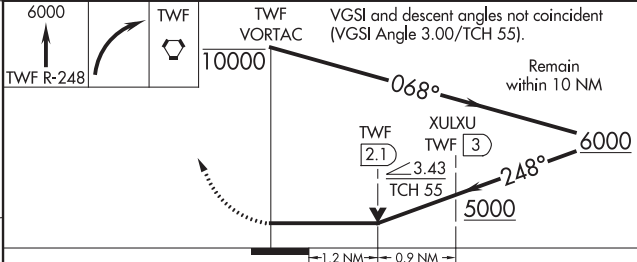
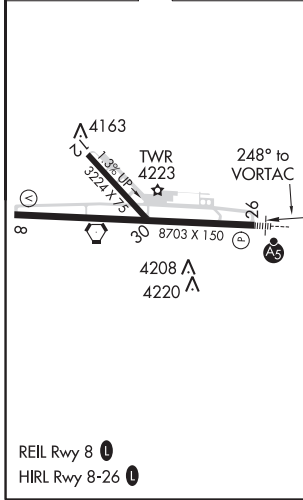
ASOS <b>135.025</b>	TWIN FALLS APP CON * <b>126.7 353.75</b>	TWIN FALLS TOWER * <b>118.2 (CTAF) 0 317.5</b>	GND CON <b>121.7</b>	CLNC DEL <b>123.65</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 4154	TDZE 4154
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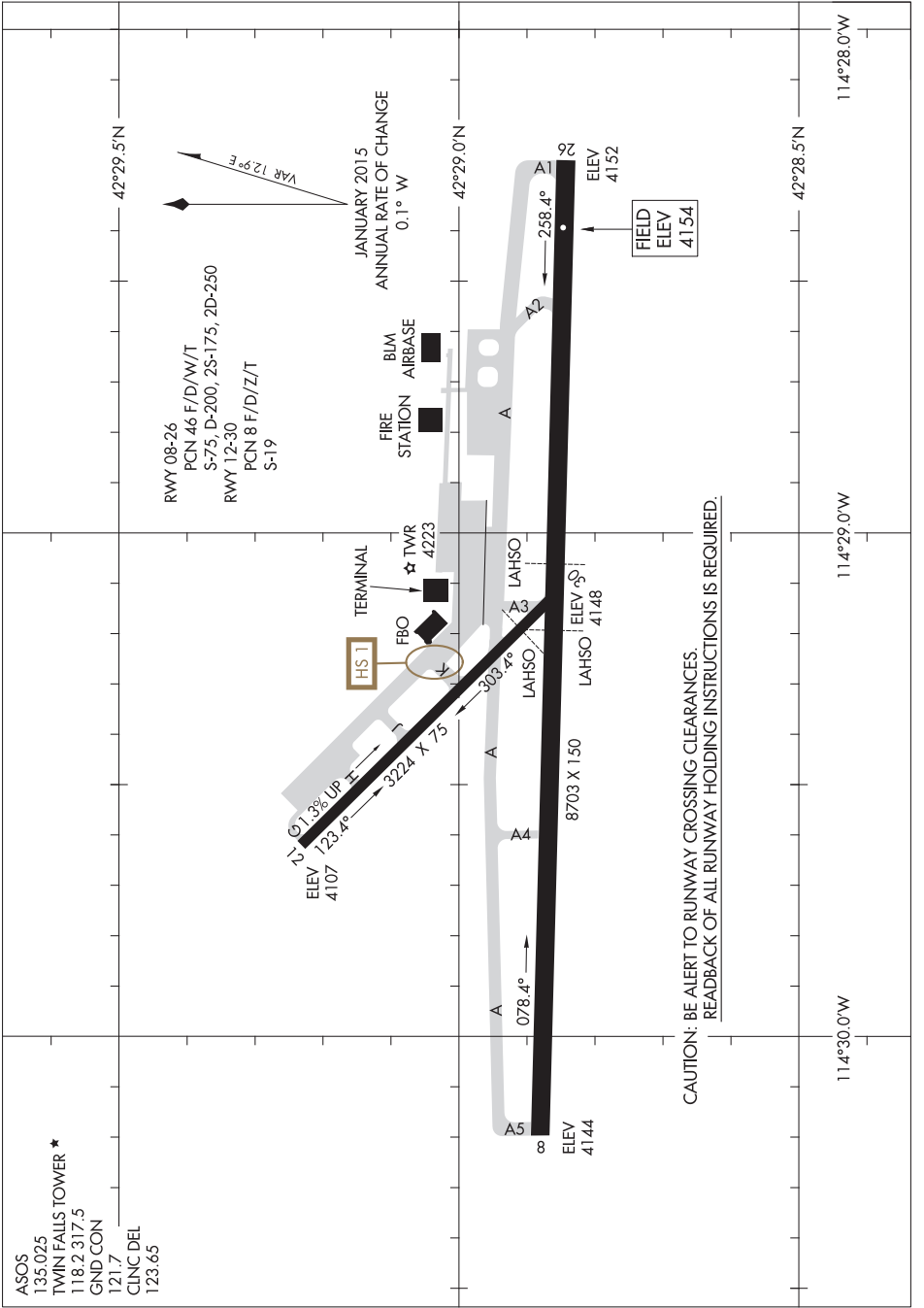
CATEGORY	A	B	C	D
S-26	5000-1/2 846 (900-1/2)	5000-3/4 846 (900-3/4)	5000-17/8	846 (900-17/8)
<b>C</b> CIRCLING	5000-1 1/4	846 (900-1 1/4)	5100-2 3/4 946 (1000-2 3/4)	5100-3 946 (1000-3)
<b>XULXU FIX MINIMUMS</b>				
S-26	4600-1/2	446 (500-1/2)	4600-7/8	446 (500-7/8)
<b>C</b> CIRCLING	4700-1 546 (600-1)	4780-1 626 (700-1)	5100-2 3/4 946 (1000-2 3/4)	5100-3 946 (1000-3)

# AIRPORT DIAGRAM

AL-885 (FAA)

JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)  
TWIN FALLS, IDAHO

NW-1, 10 NOV 2016 to 05 JAN 2017



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
REARBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

# AIRPORT DIAGRAM

NW-1, 10 NOV 2016 to 05 JAN 2017



# SNAKO THREE DEPARTURE

SL-885 (FAA)

TWIN FALLS, IDAHO

TWIN FALLS DEP CON\*  
126.7 353.75  
SALT LAKE CENTER  
118.05

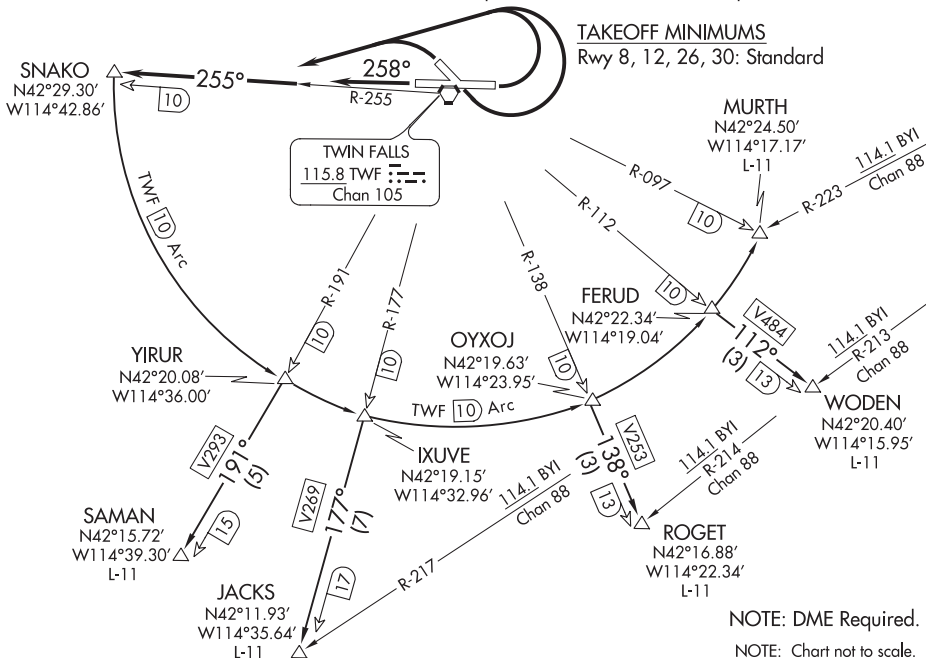
### TAKEOFF OBSTACLE NOTES

Rwy 12: Trees beginning 69' from DER, 3' right of centerline, up to 88' AGL/4286' MSL.  
Tree 2639' from DER, 264' left of centerline, 40' AGL/4221' MSL.  
Rwy 30: Tree 1184' from DER, 751' right of centerline, 71' AGL/4149' MSL.

NOTE: ROGET transition requires minimum climb of 290' per NM to 7600'.  
NOTE: MURTH transition requires minimum climb of 295' per NM to 15000'.  
NOTE: SAMAN transition requires minimum climb of 254' per NM to 10600'.  
NOTE: JACKS transition requires minimum climb of 292' per NM to 13000'.

### TAKEOFF MINIMUMS

Rwy 8, 12, 26, 30: Standard



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NOTE: DME Required.  
NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

- TAKEOFF RUNWAYS 8, 30 and 12:** Climbing left turn to intercept TWF R-255 to SNAKO, thence. . . .
- TAKEOFF RUNWAY 26:** Climb heading 258° to intercept TWF R-255 to SNAKO, thence. . . .  
. . . .(transition) expect filed altitude 10 minutes after departure.
- JACKS TRANSITION (SNAKO3.JACKS):** From over SNAKO on TWF VORTAC 10 DME Arc to IXUVE, then on V269 to JACKS INT.
- MURTH TRANSITION (SNAKO3.MURTH):** From over SNAKO on TWF VORTAC 10 DME Arc to MURTH INT.
- ROGET TRANSITION (SNAKO3.ROGET):** From over SNAKO on TWF VORTAC 10 DME Arc to OYXOJ then on V253 to ROGET INT.
- SAMAN TRANSITION (SNAKO3.SAMAN):** From over SNAKO on TWF VORTAC 10 DME Arc to YIRUR then on V293 to SAMAN.
- WODEN TRANSITION (SNAKO3.WODEN):** From over SNAKO on TWF VORTAC 10 DME Arc to FERUD then on V484 to WODEN INT.

# SNAKO THREE DEPARTURE

LOC/DME I-VDG <b>111.3</b> Chan <b>50</b>	APP CRS <b>103°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>25</b>
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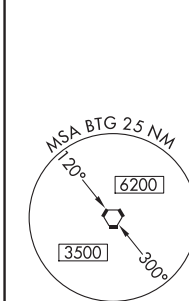
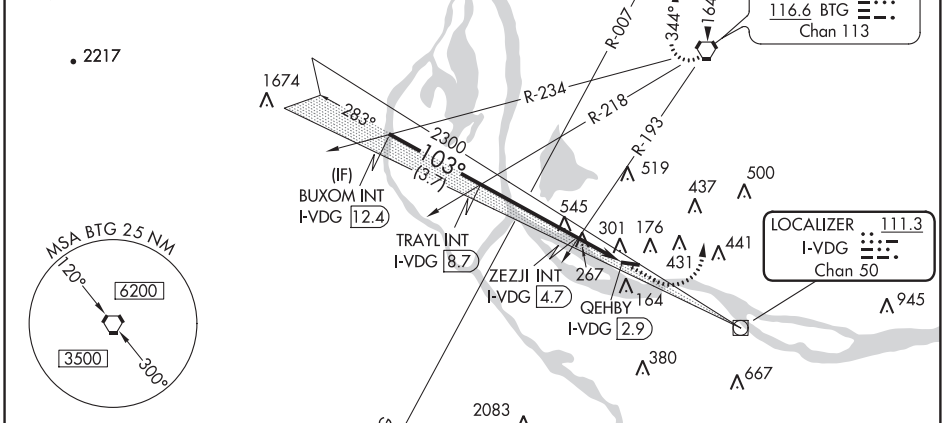
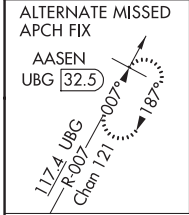
**LDA-A**

PEARSON FIELD (VUO)

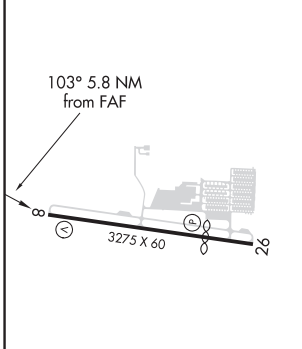
**⚠** When local altimeter setting not received, use Portland Intl altimeter setting. Helicopter visibility reduction below 1 SM (or RVR 5000 as appropriate) not authorized.

**⚠** MISSED APPROACH: Climb to 900 then climbing left turn to 4200 direct BTG VORTAC and hold, continue climb-in-hold to 4200.

ASOS <b>135.125</b>	PORTLAND APP CON <b>124.35 360.8</b>	CLNC DEL <b>119.0 (CTAF) 0</b>	UNICOM <b>123.0</b>
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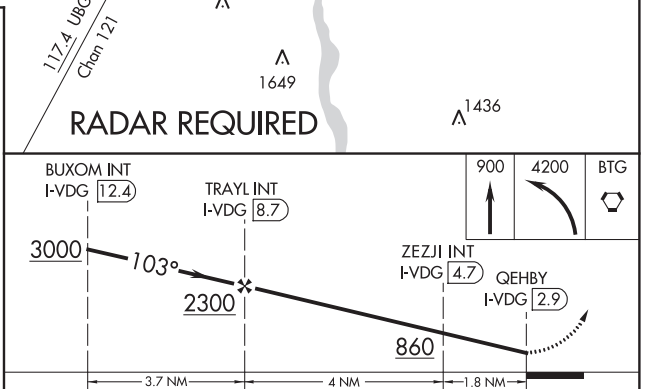
ELEV 25 **D**



REIL Rwy 26  
MRL Rwy 8-26 **0**

FAF to MAP 5.8 NM

Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56



CATEGORY	A	B	C	D
CIRCLING	860-1 1/4	835 (900-1 1/4)	NA	NA
ZEJJI FIX MINIMUMS (DUAL VOR RECEIVERS OR DME REQUIRED)				
CIRCLING	700-1 675 (700-1)	740-1 715 (800-1)	NA	NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC I-ALW <b>111.7</b>	APP CRS <b>196°</b>	Rwy Idg TDZE Apt Elev	<b>6527</b> <b>1194</b> <b>1194</b>
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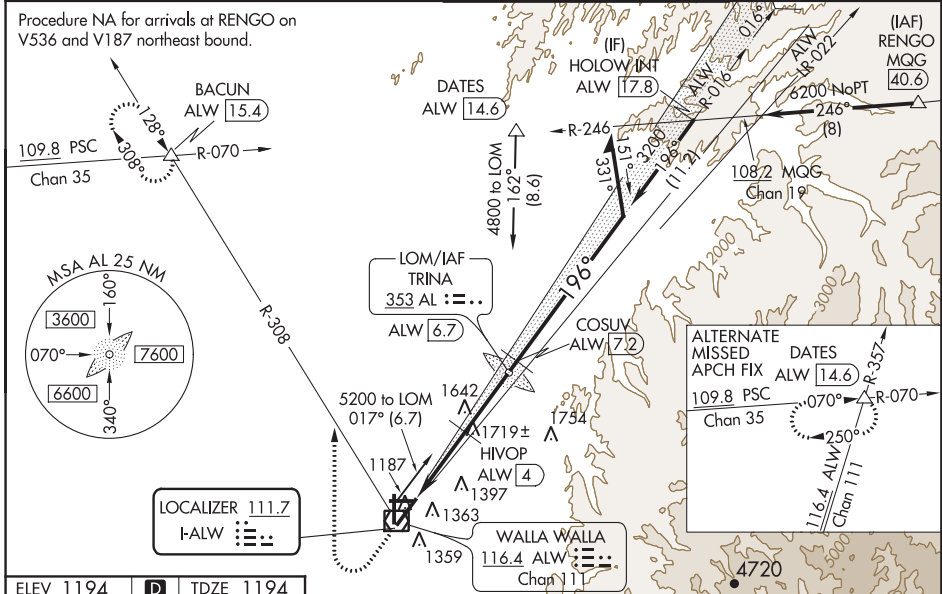
# ILS Y or LOC RWY 20

WALLA WALLA RGNL (ALW)

**⚠** VDP NA when using Pendleton altimeter setting. When local altimeter setting not received, use Pendleton altimeter setting and increase all DA and all MDA 120 feet. Increase S-ILS 20 visibility all Cats to RVR 3200, S-LOC 20 Cat A/C/D visibility ½ mile. Increase HIVOP DME FIX S-LOC 20 Cat A/C/D visibility ¼ mile, and Circling Cat A and C visibility ¼ mile. For inoperative MALSRS, when using Pendleton altimeter setting increase S-ILS 20 all Cats visibility to RVR 5500. For inoperative MALSRS increase HIVOP DME FIX minimums S-LOC 20 Cat C/D visibility ¾ mile. Inoperative table does not apply to S-LOC 20 Cat A, C, and D visibility when using Pendleton altimeter setting. # RVR 1800 authorized with use of FD or AP or HUD to DA.

**MALSRS**  
Climb to 1800 then climbing right turn to 4000 on heading 340° and ALW VOR/DME R-308 to BACUN INT/ALW 15.4 DME and hold.

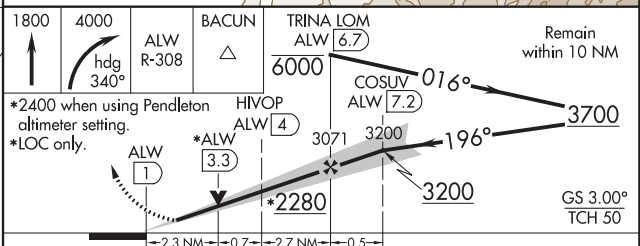
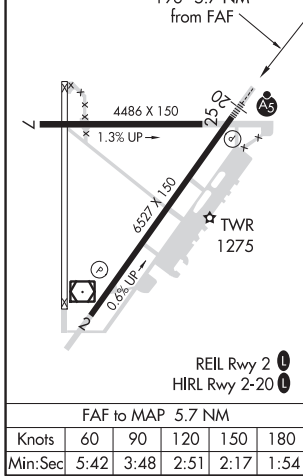
ASOS <b>135.875</b>	CHINOOK APP CON ★ <b>133.15 379.15</b>	WALLA WALLA TOWER ★ <b>118.5 (CTAF) 289.4</b>	GND CON <b>121.6 289.4</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1194	<b>D</b>	TDZE 1194
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CATEGORY	A	B	C	D
S-ILS 20		#1394/24	200 (200-½)	
S-LOC 20	2280/40 1086 (1100-¾)	2280/55 1086 (1100-¼)	2280-2½ 1086 (1100-2½)	
<b>C</b> CIRCLING	2280-1¼ 1086 (1100-1¼)	2280-1½ 1086 (1100-1½)	2280-3 1086 (1100-3)	2300-3 1106 (1200-3)
HIVOP DME FIX MINIMUMS				
S-LOC 20	1980/24 786 (800-½)	1980/40 786 (800-¾)	1980-1¾ 786 (800-1¾)	
<b>C</b> CIRCLING	1980-1 786 (800-1)	1980-1¼ 786 (800-1¼)	2120-2¾ 926 (1000-2¾)	2300-3 1106 (1200-3)

LOC I-ALW <b>111.7</b>	APP CRS <b>196°</b>	Rwy Idg <b>6527</b>
		TDZE <b>1194</b>
		Apt Elev <b>1194</b>

# ILS Z or LOC/DME RWY 20

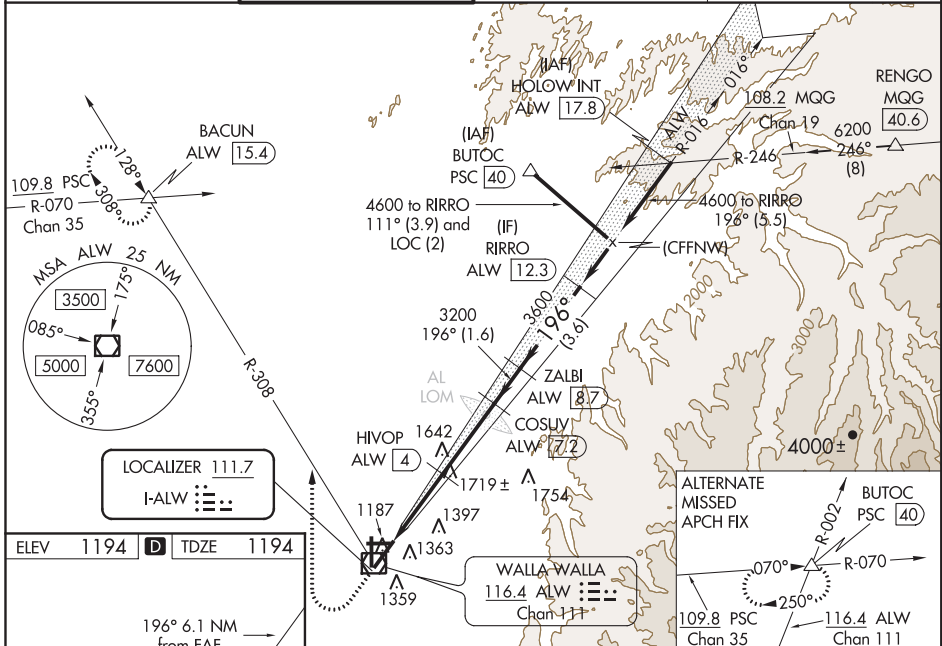
WALLA WALLA RGNL (ALW)

**▼** DME required. When local altimeter setting not received, use Pendleton altimeter setting and increase all DA and all MDA 120 feet, increase S-ILS 20 visibility to RVR 3200, increase S-LOC 20 Cat A visibility 3/8 mile, Cat C and D visibility 1/4 mile and Circling Cat A and C/D visibility 1/4 mile. VDP NA when using Pendleton altimeter setting. For inoperative MALSRS, when using Pendleton altimeter setting, increase S-ILS 20 all Cats visibility to 5000 RVR. DME from ALW VOR/DME. Simultaneous reception of I-ALW and ALW VOR/DME required. For inoperative MALSRS, increase S-LOC 20 Cat C/D visibility 3/4 mile. # RVR 1800 authorized with use of FD or AP or HUD to DA.



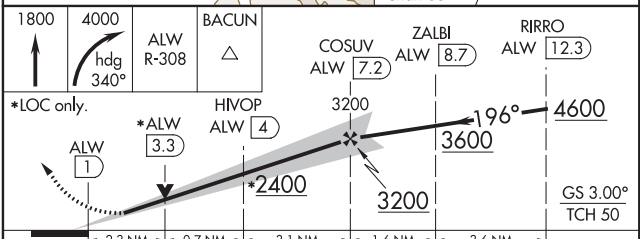
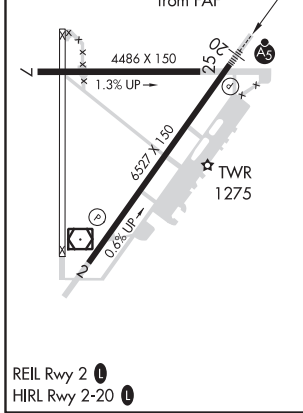
**MALSRS**  
MISSED APPROACH: Climb to 1800 then climbing right turn to 4000 on heading 340° and ALW VOR/DME R-308 to BACUN INT/ALW 15.4 DME and hold.

ASOS <b>135,875</b>	CHINOOK APP CON ★ <b>133.15 379,15</b>	WALLA WALLA TOWER ★ <b>118.5 (CTAF) 289,4</b>	GND CON <b>121.6 289,4</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-ILS 20	#1394/24		200 (200-1/2)	
S-LOC 20	1980/24 786 (800-1/2)	1980/40 786 (800-3/4)	1980-1 3/4 786 (800-1 3/4)	786 (800-1 3/4)
<b>C</b> CIRCLING	1980-1 786 (800-1)	1980-1 1/4 786 (800-1 1/4)	2120-2 3/4 926 (1000-2 3/4)	2300-3 1106 (1200-3)

WAAS CH <b>72805</b> <b>W02A</b>	APP CRS <b>016°</b>	Rwy Idg TDZE <b>1173</b> Apt Elev <b>1194</b>	<b>6527</b>
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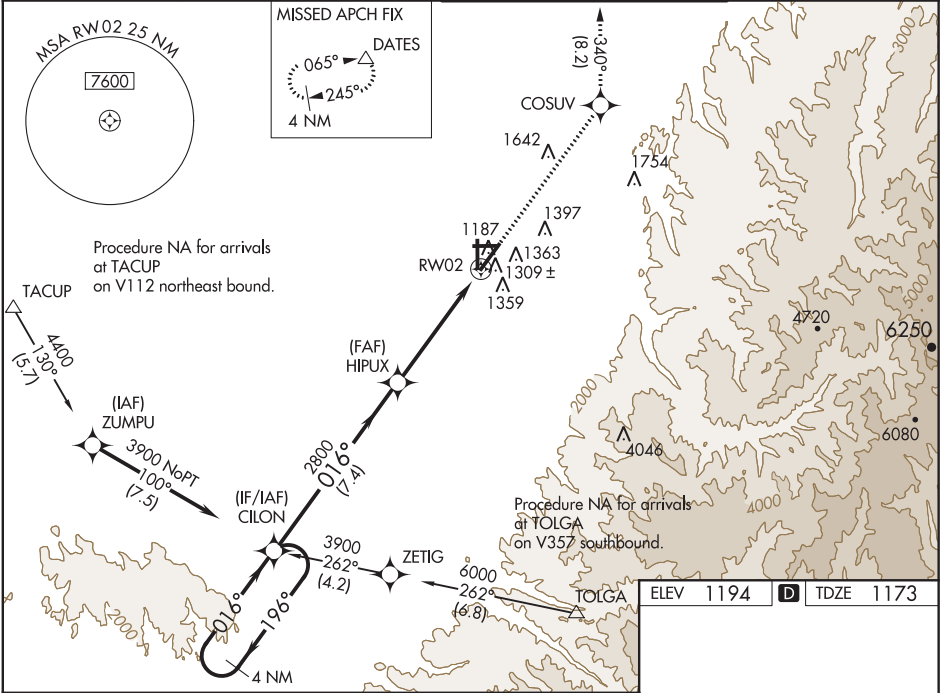
# RNAV (GPS) RWY 2

WALLA WALLA RGNL (ALW)

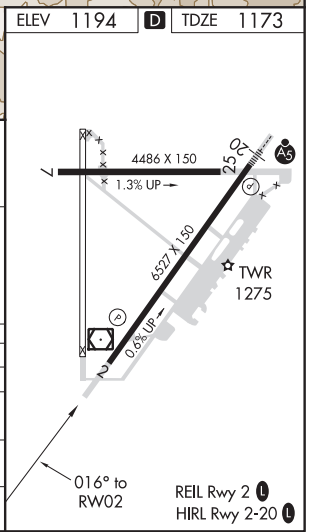
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Pendleton altimeter setting and increase all DA/MDA 120 feet and LPV all visibilities ¼ mile, LNAV/VNAV all visibilities ⅓ mile, LNAV Cats C/D visibility ⅓ mile, and Circling Cat C visibility ¼ mile. VDP and Baro-VNAV NA when using Pendleton altimeter setting.

**⚠** MISSED APPROACH: Climb to 4000 direct COSUV and on track 340° to DATES and hold.

ASOS <b>135.875</b>	CHINOOK APP CON * <b>133.15 379.15</b>	WALLA WALLA TOWER * <b>118.5 (CTAF) 0 289.4</b>	GND CON <b>121.6 289.4</b>
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4 NM Holding Pattern		CILON	4000	COSUV	tr 340°	DATES
3900		2800	↑	⬠	↔	△
GP 3.00° TCH 45		HIPIX	*1.1 NM to RWY2		*LNAV only.	
016°		2800	RWY2			
7.4 NM		3.9 NM	1.1 NM			
CATEGORY	A	B	C	D		
LPV DA		1373-3/4	200 (200-3/4)			
LNAV/VNAV DA		1509-1 1/8	336 (400-1 1/8)			
LNAV MDA	1560-1	387 (400-1)	1560-1 1/8	387 (400-1 1/8)		
<b>C</b> CIRCLING	1760-1 566 (600-1)	1820-1 626 (700-1)	2120-2 3/4 926 (1000-2 3/4)	2300-3 1106 (1200-3)		



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>90299</b> <b>W20A</b>	APP CRS <b>196°</b>	Rwy Idg <b>6527</b> TDZE <b>1194</b> Apt Elev <b>1194</b>
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# RNAV (GPS) RWY 20

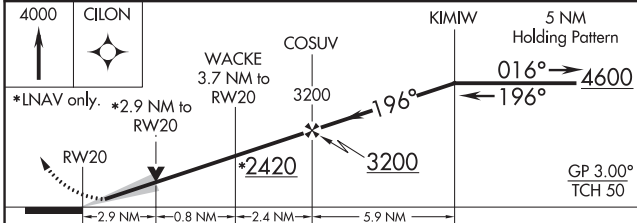
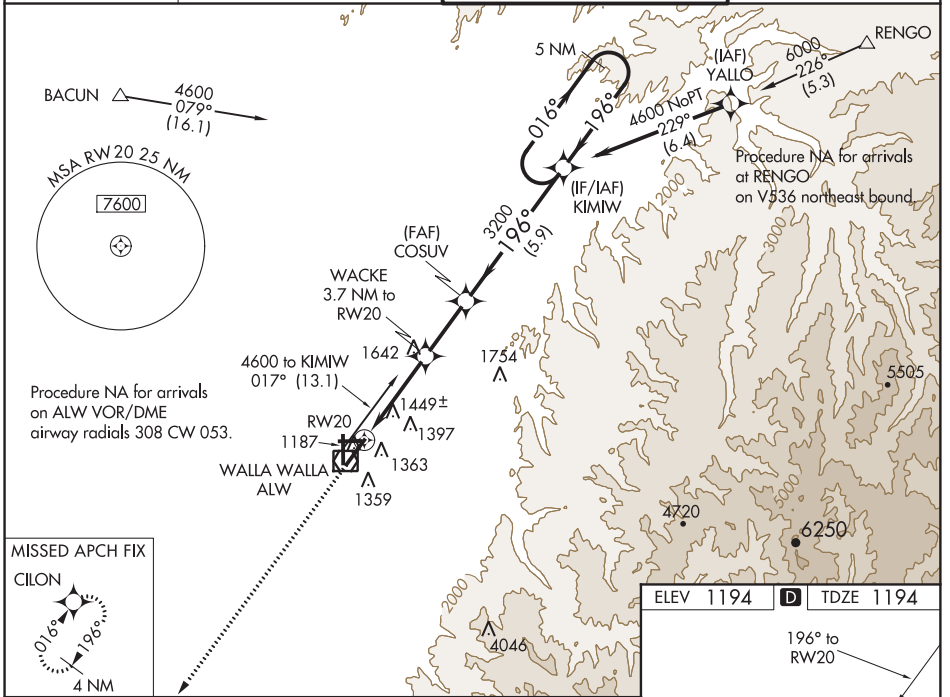
WALLA WALLA RGNL (ALW)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Pendleton altimeter setting and increase all DAs/MDAs 120 feet and increase LPV RVR to 2800, LNAV/VNAV visibilities to 1 7/8 miles, and LNAV Cat A RVR to 6000. VDP and Baro-VNAV NA when using Pendleton altimeter setting. For inoperative MALSR when using Pendleton altimeter setting, increase LPV all Cats visibility to 1 and LNAV Cat A to 1 1/4.

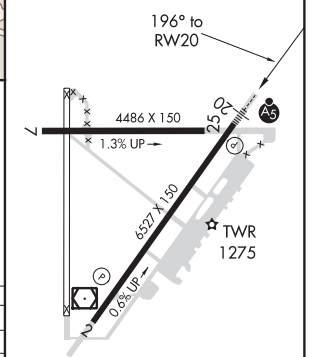
**MALSR**

**MISSED APPROACH:**  
Climb to 4000 direct CILON and hold.

ASOS <b>135.875</b>	CHINOOK APP CON * <b>133.15 379.15</b>	WALLA WALLA TOWER * <b>118.5 (CTAF) 0 289.4</b>	GND CON <b>121.6 289.4</b>
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ELEV 1194	<b>D</b>	TDZE 1194
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CATEGORY	A	B	C	D
LPV DA		1394/24	200 (200-1/2)	
LNAV/VNAV DA		1773-1 1/2	579 (600-1 1/2)	
LNAV MDA	2160/40 966 (1000-3/4)	2160/55 966 (1000-1 1/4)	2160-2 1/2	966 (1000-2 1/2)
<b>C</b> CIRCLING	2160-1 1/4 966 (1000-1 1/4)	2160-1 1/2 966 (1000-1 1/2)	2160-3 966 (1000-3)	2300-3 1106 (1200-3)

REIL Rwy 2 **0**  
HIRL Rwy 2-20 **0**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VOR/DME ALW <b>116.4</b> Chan 111	APP CRS <b>015°</b>	Rwy Idg <b>6527</b> TDZE <b>1175</b> Apt Elev <b>1194</b>
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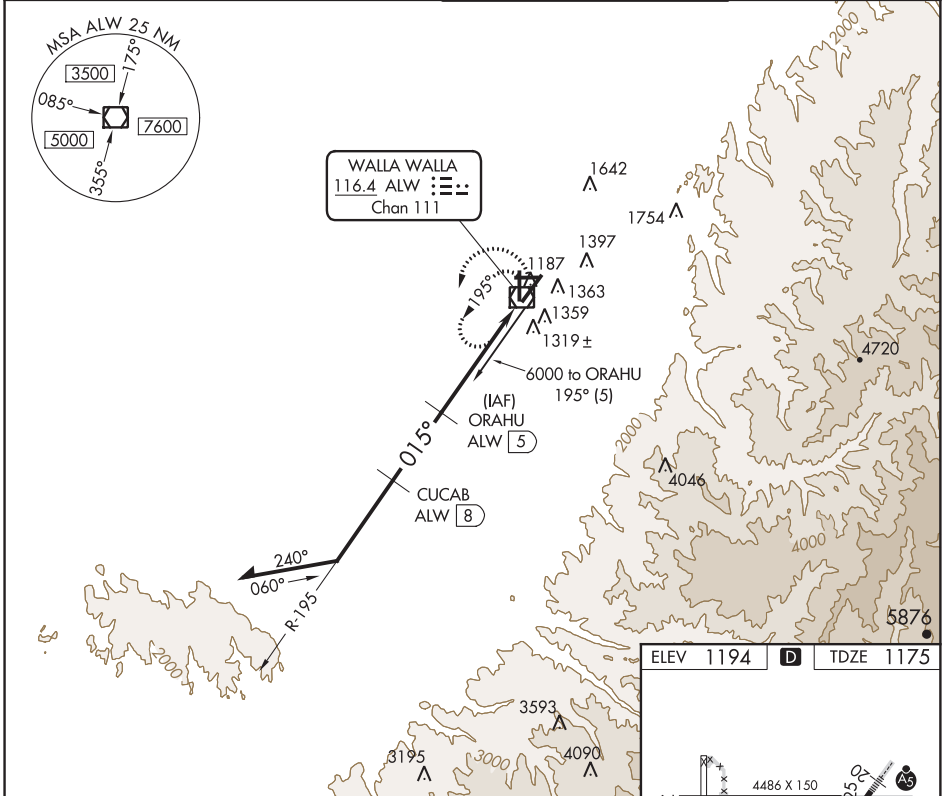
# VOR/DME RWY 2

WALLA WALLA RGNL (ALW)

**▽**  
**▲**

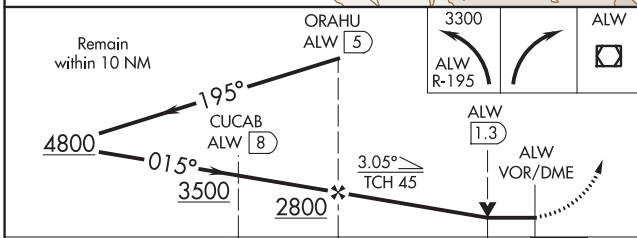
MISSED APPROACH: Climbing left turn to 3300 via ALW VOR/DME R-195 within 10 DME then turn right direct ALW VOR/DME and hold.

ASOS <b>135.875</b>	CHINOOK APP CON * <b>133.15 379.15</b>	WALLA WALLA TOWER * <b>118.5 (CTAF) 0 289.4</b>	GND CON <b>121.6 289.4</b>
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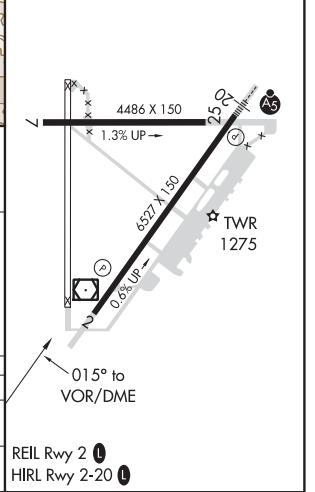


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 1194	<b>D</b>	TDZE 1175
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CATEGORY	A	B	C	D
S-2	1580-1	405 (400-1)	1580-1¼	405 (400-1¼)
CIRCLING	1760-1	566 (600-1)	1820-1¾ 626 (700-1¾)	1980-2½ 786 (800-2½)

REIL Rwy 2 0  
HIRL Rwy 2-20 0

WALLA WALLA, WASHINGTON

AL-440 (FAA)

15120

VOR/DME ALW <b>116.4</b> Chan 111	APP CRS <b>197°</b>	Rwy Idg <b>6527</b> TDZE <b>1194</b> Apt Elev <b>1194</b>
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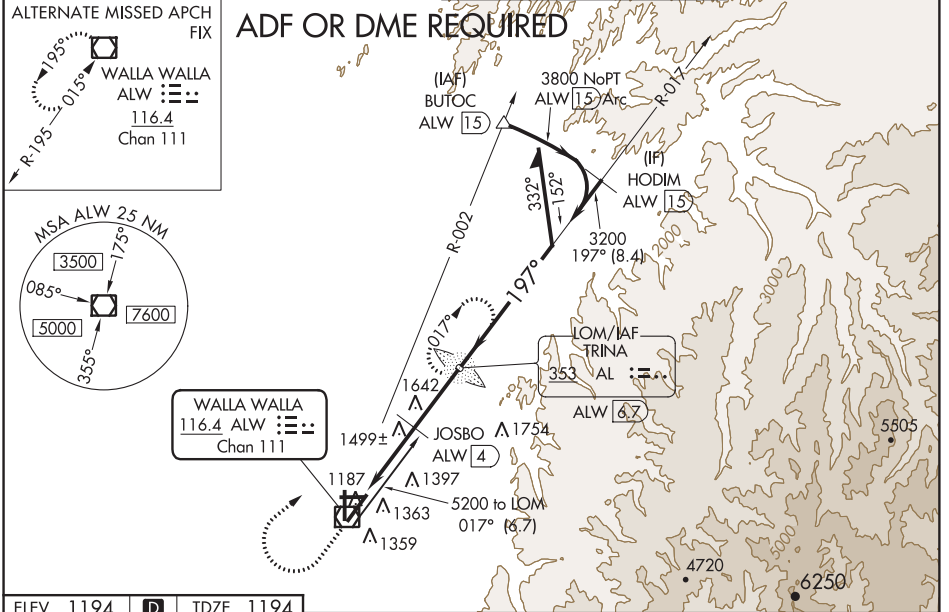
**VOR RWY 20**  
WALLA WALLA RGNL (ALW)

**ADF required. VDP NA with Pendleton altimeter setting. When local altimeter setting not received, use Pendleton altimeter setting and increase all MDA 120 feet. Increase S-20 visibility Cat B ¼ mile, Cat C and D ½ mile. Increase JOSBO fix minimums S-20 visibility Cat C and D ¼ mile, Circling visibility Cat A and C ¼ mile, and Cat B ½ mile.**

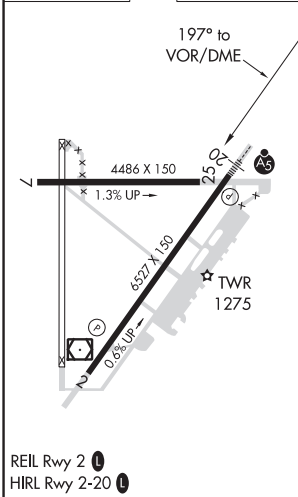
**MALSRL**

**MISSED APPROACH:** Climb to 2300 then climbing right turn to 4000 direct TRINA LOM and hold.

ASOS <b>135.875</b>	CHINOOK APP CON * <b>133.15 379.15</b>	WALLA WALLA TOWER * <b>118.5 (CTAF) 0 289.4</b>	GND CON <b>121.6 289.4</b>
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ELEV 1194	<b>D</b>	TDZE 1194
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CATEGORY	A	B	C	D
S-20	2120/40	926 (1000-¾)	2120-2	926 (1000-2)
<b>C</b> CIRCLING	2120-1¼	926 (1000-1¼)	2120-3	2240-3
			926 (1000-3)	1046 (1100-3)
<b>JOSBO FIX MINIMUMS (DME REQUIRED)</b>				
S-20	1760/24	566 (600-½)	1760-1¼	566 (600-1¼)
<b>C</b> CIRCLING	1760-1	1820-1	2080-2¾	2240-3
	566 (600-1)	626 (700-1)	886 (900-2¾)	1046 (1100-3)

WALLA WALLA, WASHINGTON  
Orig 30APR15

46°06'N-118°17'W

WALLA WALLA RGNL (ALW)  
**VOR RWY 20**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



16147

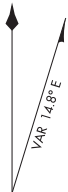
# AIRPORT DIAGRAM

WALLA WALLA RGNL (A1.W)  
WALLA WALLA, WASHINGTON

AL-440 (FAA)

ASOS  
135.875  
WALLA WALLA TOWER ★  
118.5 289.4  
GND CON  
121.6 289.4

D



JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

46°06.0'N

074.9°

ELEV  
1124

1.3% UP →

4486 X 150

ELEV  
1184

25

← 254.9°

← 201.4°

FIELD  
ELEV  
1194

HS 1

HOT  
CARGO  
AREA

HANGARS

TRANSIENT  
PARKING

FBO

FIRE STATION

TWR  
1275

46°05.5'N

6527 X 150

ELEV  
1154

0.8% UP →

021.4°

AIR TERMINAL

46°05.0'N

LOC HOLD

RWY 02-20  
S-60, D-72, 2D-110  
RWY 07-25  
PCN 28 R/C/W/T  
S-42, D-55, 2D-105

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

118°17.5'W

118°17.0'W

118°16.5'W

# AIRPORT DIAGRAM

16147

WALLA WALLA, WASHINGTON  
WALLA WALLA RGNL (A1.W)

NW-1, 10 NOV 2016 to 05 JAN 2017


NW-1, 10 NOV 2016 to 05 JAN 2017


# WALLA WALLA ONE DEPARTURE


SL-440 (FAA)


WALLA WALLA RGNL (ALW)  
WALLA WALLA, WASHINGTON


WALLA WALLA GND CON  
121.6 289.4  
WALLA WALLA TOWER \*  
118.5 (CTAF) 289.4  
CHINOOK APP CON \*  
133.15 379.15


MOSES LAKE  
115.0 MWH   
Chan 97  
N47°12.65'-W119°19.01'  
L-13, H-1


SPOKANE  
115.5 GEG   
Chan 102  
N47°33.90'-W117°37.61'  
L-13, H-1


PULLMAN  
109.0 PUW   
Chan 27  
N46°40.45'-W117°13.41'  
L-13

YAKIMA  
116.0 YKM   
Chan 107  
N46°34.21'-W120°26.68'  
L-13, H-1

PASCO  
109.8 PSC   
Chan 35  
N46°16.22'-W119°07.04'  
L-13

NEZ PERCE  
108.2 MQG   
Chan 19  
N46°22.89'-W116°52.17'  
L-13

WALLA WALLA  
116.4 ALW   
Chan 111  
N46°05.22'-W118°17.55'  
L-13

PENDLETON  
114.7 PDT   
Chan 94  
N45°41.91'-W118°56.32'  
L-13, H-1

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## DEPARTURE ROUTE DESCRIPTION

**TAKEOFF ALL RUNWAYS:** Climb via specified turn and heading for vector to assigned route.

**LOST COMMUNICATIONS:** If not in contact with Departure Control after reaching 2500' continue climb to assigned altitude and proceed direct to ALW VOR/DME, thence via assigned route.

**NOTE:** Air Traffic Control may assign turns and magnetic headings of 195° clockwise through 020° in the initial clearance.

# WALLA WALLA ONE DEPARTURE

WALLA WALLA, WASHINGTON  
WALLA WALLA RGNL (ALW)



WENATCHEE, WASHINGTON

AL-641 (FAA)

16315

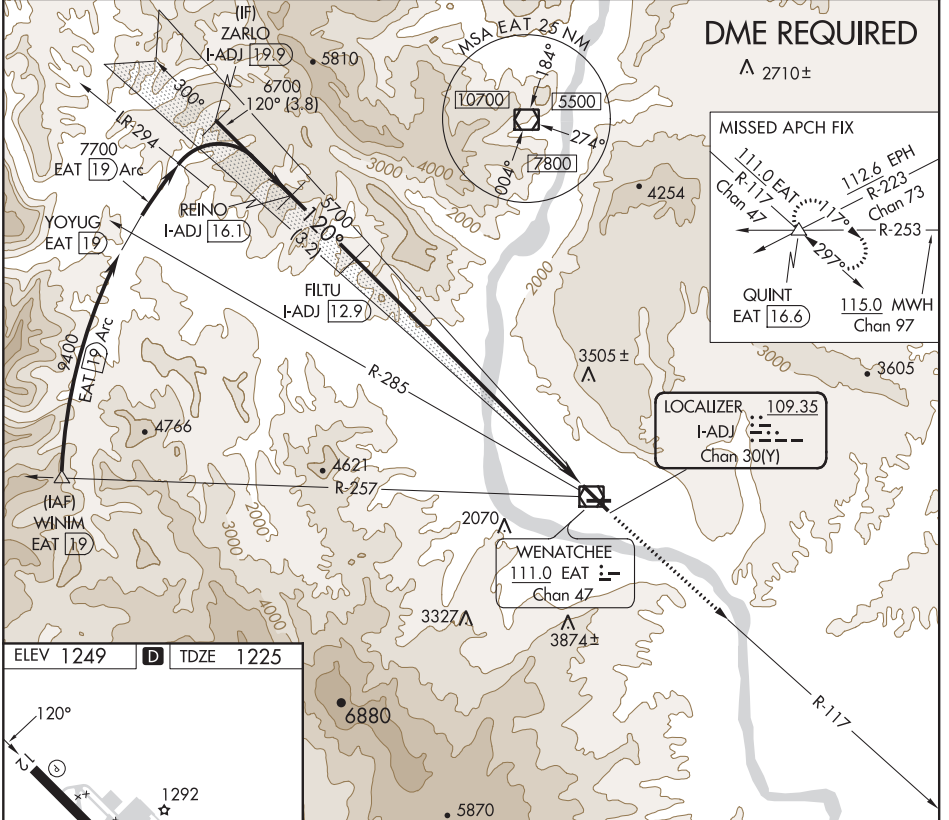
LOC/DME I-ADJ <b>109.35</b> Chan 30(Y)	APP CRS <b>120°</b>	Rwy Idg TDZE <b>1225</b> Apt Elev <b>1249</b>	<b>5700</b>
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# ILS Y RWY 12

PANGBORN MEMORIAL (EAT)

DME Required. -7°C/19°F	MISSED APPROACH: Climb to 2700 then climb to 4000 direct EAT VOR/DME and on EAT VOR/DME R-117 to QUINT INT/EAT 16.6 DME and hold.
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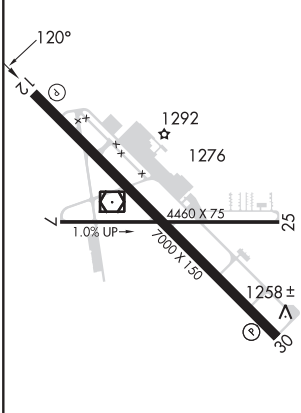
ASOS <b>119.925</b>	SEATTLE CENTER <b>126.1 291.6</b>	UNICOM <b>123.0</b> (CTAF)
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1249		TDZE 1225
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RAIL Rwy 30  
REIL Rws 12 and 30   
MIRL Rwy 12-30

ZARLO I-ADJ 19.9	REINO I-ADJ 16.1	FILTU I-ADJ 12.9	2700	4000	EAT	EAT R-117	QUINT
7700	6700	5700					
GS 3.60° TCH 58 Use I-ADJ DME when on the localizer course.							
3.8 NM		3.2 NM		11.6 NM			
CATEGORY	A	B	C	D			
S-ILS 12	2433-4		1208 (1200-4)		NA		

WENATCHEE, WASHINGTON  
Amdt 1 10NOV16

47°24'N-120°12'W

# PANGBORN MEMORIAL (EAT)

## ILS Y RWY 12

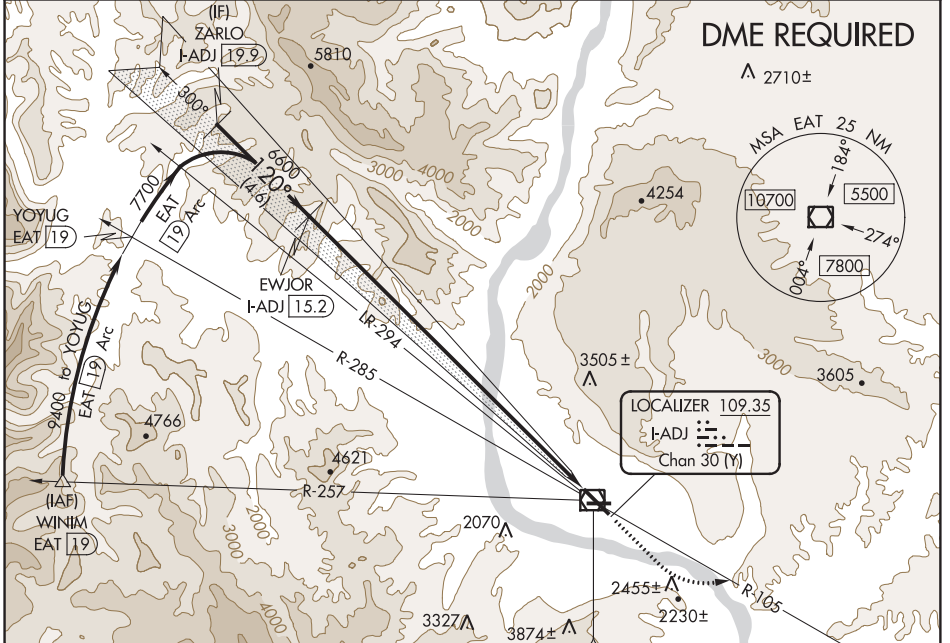
LOC/DME I-ADJ <b>109.35</b> Chan 30 (Y)	APP CRS <b>120°</b>	Rwy ldg TDZE Apt Elev	<b>5700</b> <b>1225</b> <b>1249</b>
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# ILS Z RWY 12

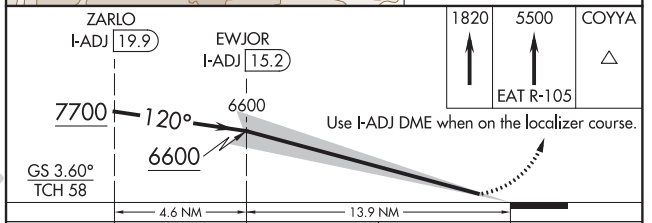
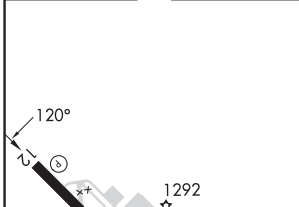
PANGBORN MEMORIAL (EAT)

**DME Required.** MISSED APPROACH: Climb to 1820 then climb to 5500 on EAT VOR/DME R-105 to COYYA INT/EAT 18.5 DME and hold. \*Missed approach requires minimum climb of 420' per NM to 3200; if unable to meet climb gradient, see ILS Y RWY 12.

ASOS <b>119.925</b>	SEATTLE CENTER <b>126.1 291.6</b>	UNICOM <b>123.0 (CTAF) 0</b>
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ELEV 1249	<b>D</b>	TDZE 1225
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ZARLO I-ADJ 19.9	EWJOR I-ADJ 15.2	1820	5500	COYYA
7700	6600	↑	↑	△
GS 3.60° TCH 58		EAT R-105		
CATEGORY	A	B	C	D
S-ILS 12	1555-1	330 (400-1)		NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>5700</b>
<b>120°</b>	TDZE	<b>1225</b>
	Apt Elev	<b>1249</b>

# RNAV (RNP) RWY 12

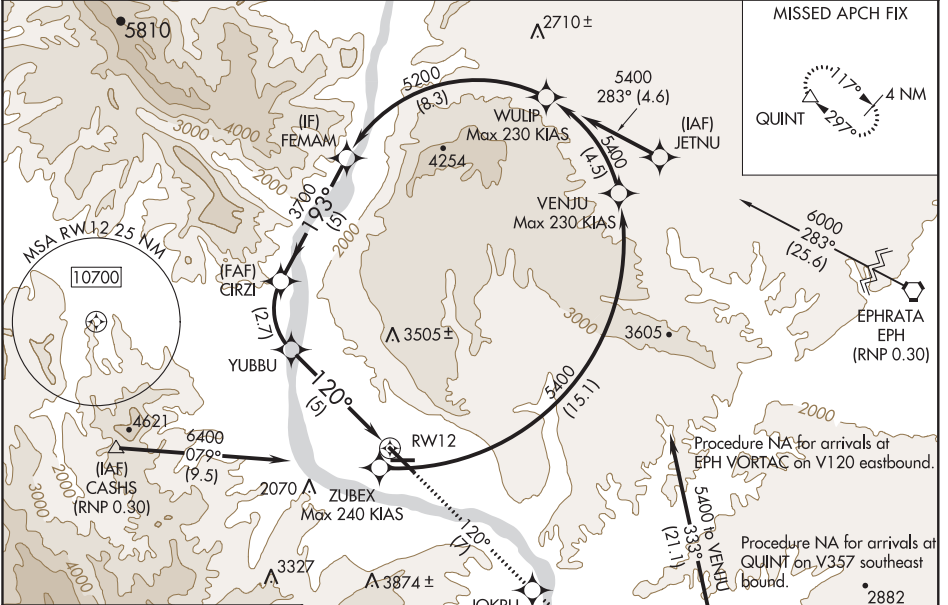
## PANGBORN MEMORIAL (EAT)

**⚠** For uncompensated Baro-VNAV systems, procedure NA below -10°C (14°F) or above 54°C (130°F). RF required. GPS required. FD or HUD required.

**✳** -7°C/19°F

**MISSED APPROACH:** Climb to 5400 on track 120° to JOKRU and on track 115° to QUINT and hold. \*Missed approach requires a minimum climb of 319 feet per NM to 3700. #Missed approach requires a minimum climb of 295 feet per NM to 3700.

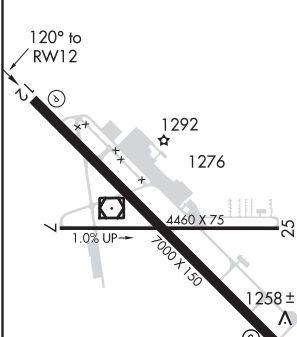
ASOS <b>119.925</b>	SEATTLE CENTER <b>126.1 291.6</b>	UNICOM <b>123.0 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

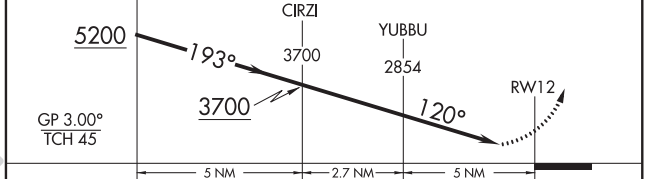
NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1249	<b>D</b>	TDZE 1225
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VGSI and RNAV glidepath not coincident (VGSI Angle 3.60/TCH 58).

5400	JOKRU	QUINT
↑	✳	△
tr 120°		tr 115°



CATEGORY	A	B	C	D
RNP 0.15 DA*		1995-3	770 (800-3)	
RNP 0.19 DA#		2072-3	847 (900-3)	
RNP 0.30 DA		2417-5	1192 (1200-5)	

### AUTHORIZATION REQUIRED

APP CRS	Rwy Idg	<b>5700</b>
<b>300°</b>	TDZE	<b>1232</b>
	Apt Elev	<b>1249</b>

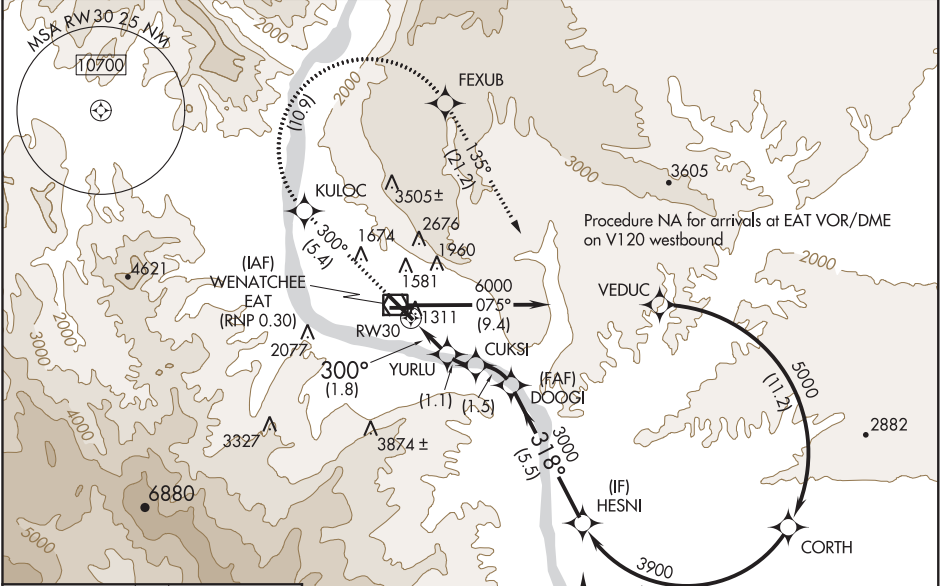
# RNAV (RNP) Z RWY 30

PANGBORN MEMORIAL (EAT)

**⚠** -7°C/19°F For uncompensated Baro-VNAV systems, procedure NA below -10°C (14°F) or above 44°C (111°F).  
RF required. GPS required. FD or HUD required.

**MISSED APPROACH:** Climb to 6000 on track 300° to KULOC, right turn to FEXUB, and on track 135° to QUINT and hold. \*Missed approach requires minimum climb of 320 feet per NM to 5500. #Missed approach requires minimum climb of 325 feet per NM to 5500.

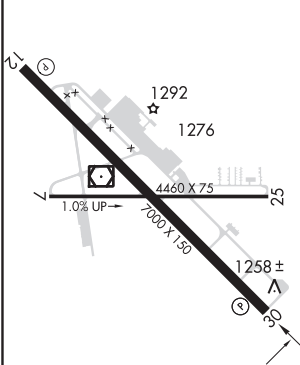
ASOS <b>119.925</b>	SEATTLE CENTER <b>126.1 291.6</b>	UNICOM <b>123.0 (CTAF) ①</b>
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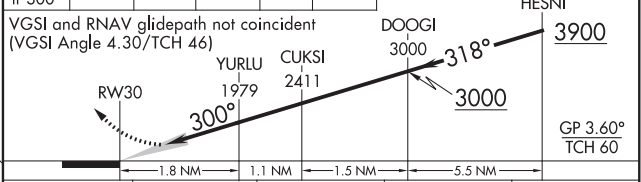
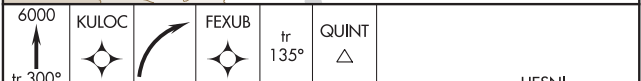
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1249	<b>D</b>	TDZE 1232
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RAIL Rwy 30  
REIL Rws 12 and 30 ①  
MIRL Rwy 12-30 ①



CATEGORY	A	B	C	D
RNP 0.17 DA*	1595-1 363 (400-1)			NA
RNP 0.30 DA#	1686-1 454 (500-1%)			NA

## AUTHORIZATION REQUIRED

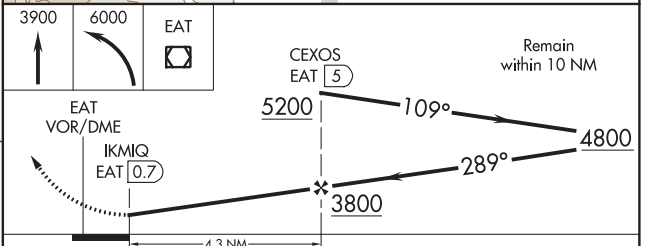
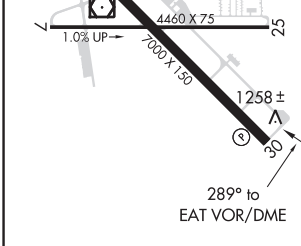
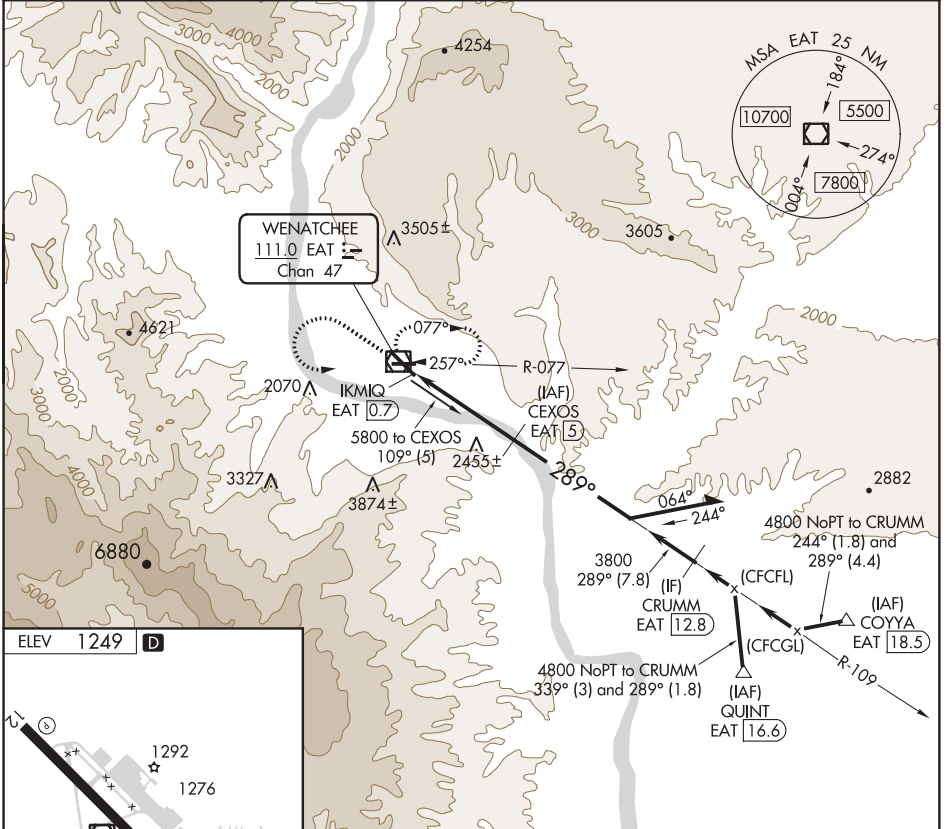
VOR/DME EAT <b>111.0</b> Chan <b>47</b>	APP CRS <b>289°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>1249</b>
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**VOR-A**  
PANGBORN MEMORIAL (EAT)

**⚠** Circling to Rwy 7 NA at night.  
**⚠** Circling NA northeast of Rwy 12-30.  
**⚠** -7°C/19°F

MISSED APPROACH: Climb to 3900 then climbing left turn to 6000 direct EAT VOR/DME and hold, continue climb-in-hold to 6000.

ASOS <b>119,925</b>	SEATTLE CENTER <b>126.1 291.6</b>	UNICOM <b>123.0 (CTAF)</b>
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RAIL Rwy 30 REIL Rws 12 and 30 MIRL Rwy 12-30	<table border="1"> <tr> <td>CATEGORY</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> </tr> <tr> <td><b>C</b> CIRCLING</td> <td>3180-1¼ 1931 (2000-1¼)</td> <td>3180-1½ 1931 (2000-1½)</td> <td>3180-3 1931 (2000-3)</td> <td>3260-3 2011 (2100-3)</td> </tr> </table>	CATEGORY	A	B	C	D	<b>C</b> CIRCLING	3180-1¼ 1931 (2000-1¼)	3180-1½ 1931 (2000-1½)	3180-3 1931 (2000-3)	3260-3 2011 (2100-3)
CATEGORY	A	B	C	D							
<b>C</b> CIRCLING	3180-1¼ 1931 (2000-1¼)	3180-1½ 1931 (2000-1½)	3180-3 1931 (2000-3)	3260-3 2011 (2100-3)							

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



VOR/DME EAT <b>111.0</b> Chan <b>47</b>	APP CRS <b>104°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>1249</b>
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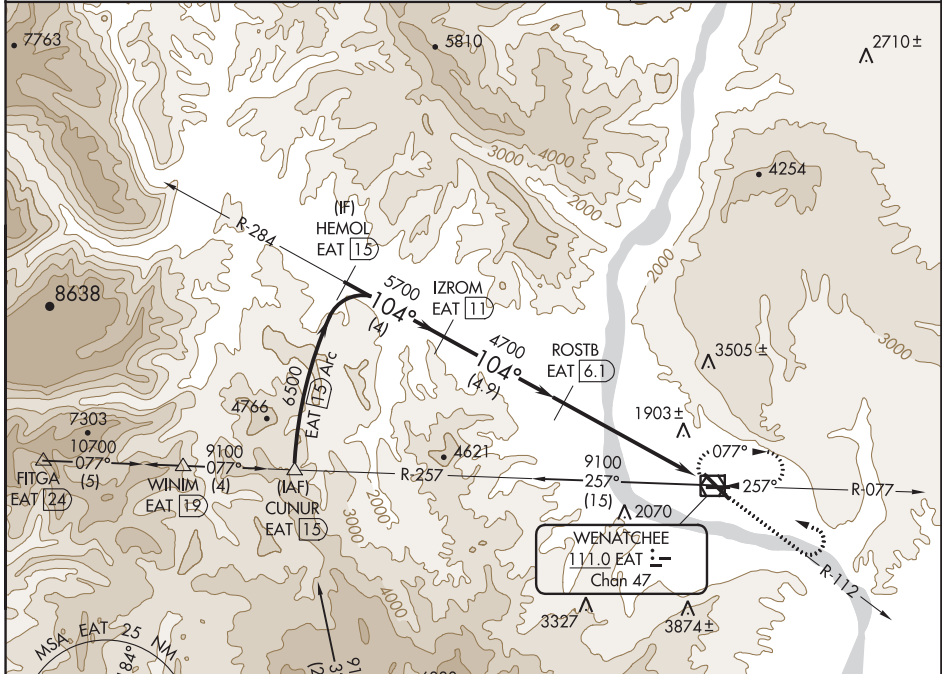
# VOR-B

## PANGBORN MEMORIAL (EAT)

**⚠** Circling to Rwy 7 NA at night.  
**⚠** Circling NA northeast of Rwy 12-30.  
**⚠** -7°C/19°F DME required.

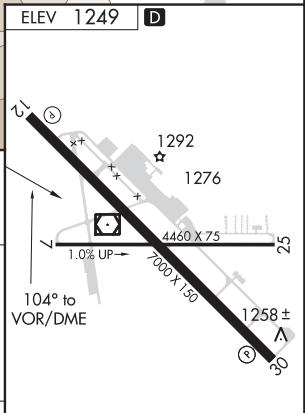
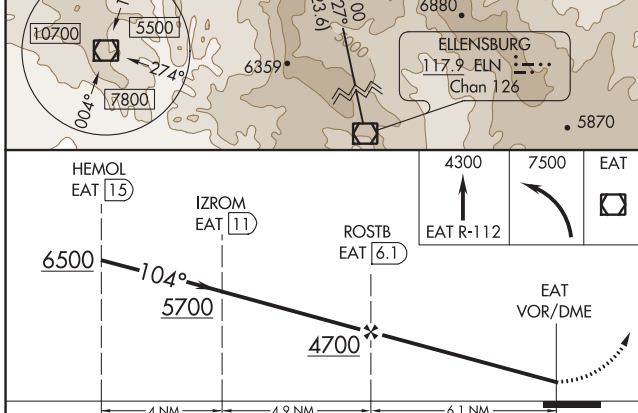
MISSED APPROACH: Climb to 4300 on EAT VOR/DME R-112 then climbing left turn to 7500 direct EAT VOR/DME and hold, continue climb-in-hold to 7500.

ASOS <b>119.925</b>	SEATTLE CENTER <b>126.1 291.6</b>	UNICOM <b>123.0 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
<b>C</b> CIRCLING	2660-1 1/4 1411 (1500-1 1/4)	2660-1 1/2 1411 (1500-1 1/2)	2660-3 1411 (1500-3)	3260-3 2011 (2100-3)

RAIL Rwy 30  
 REIL Rws 12 and 30  
 MRIL Rwy 12-30

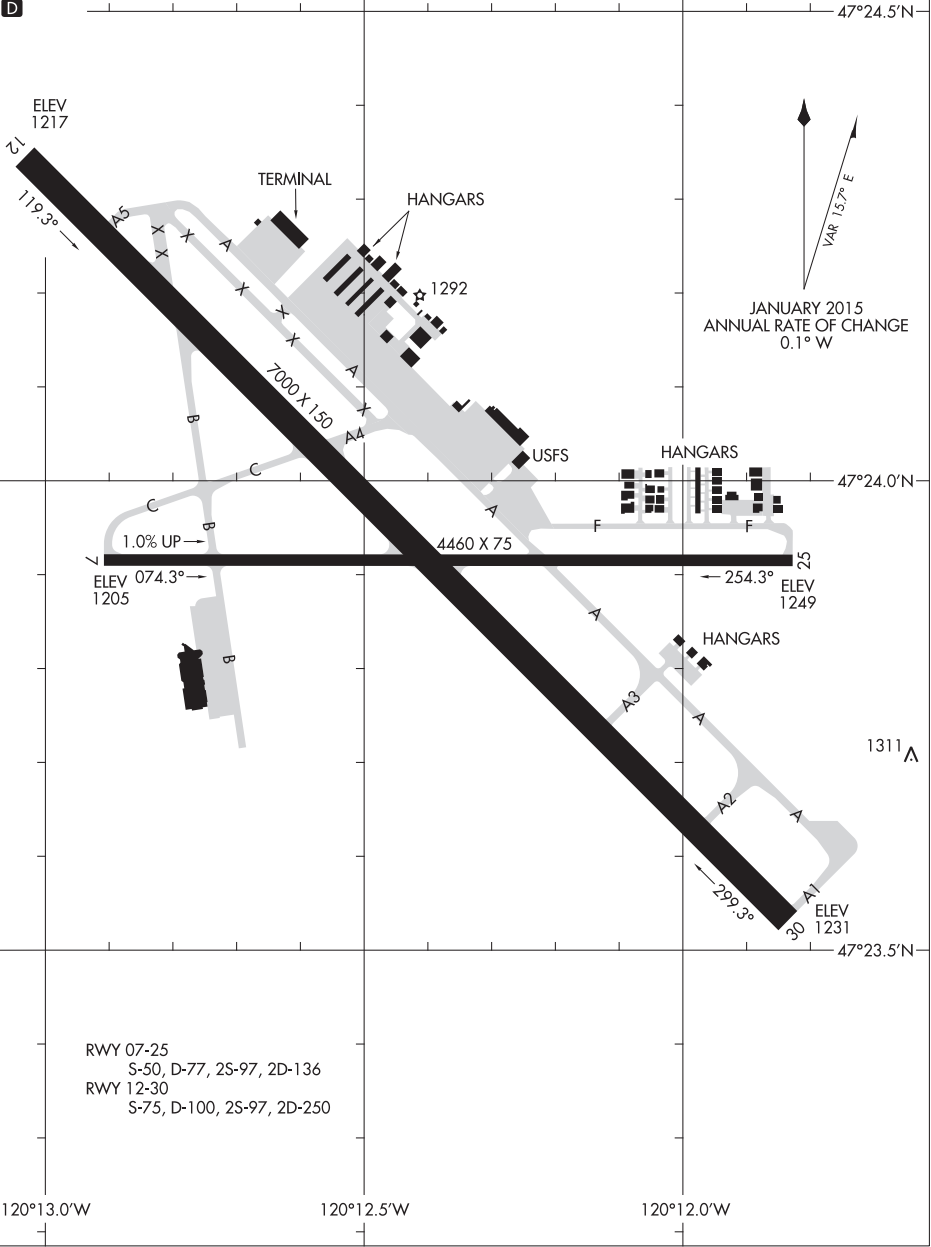
# AIRPORT DIAGRAM

PANGBORN MEMORIAL (EAT)  
WENATCHEE, WASHINGTON

ASOS  
119.925  
CTAF/UNICOM  
123.0

FIELD  
ELEV  
1249

AL-641 (FAA)



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

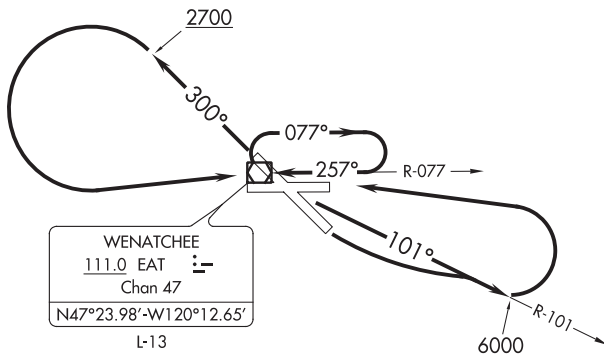
RWY 07-25  
S-50, D-77, 2S-97, 2D-136  
RWY 12-30  
S-75, D-100, 2S-97, 2D-250

# AIRPORT DIAGRAM

WENATCHEE, WASHINGTON  
PANGBORN MEMORIAL (EAT)

# WENATCHEE ONE DEPARTURE (OBSTACLE)

ASOS  
119.925  
UNICOM  
123.0  
SEATTLE CENTER  
126.1 291.6



### TAKEOFF MINIMUMS

Rwy 12: Standard with minimum climb of 575' per NM to 3300 or 4000-3 for VCOA.  
Rwy 30: Standard with minimum climb of 500' per NM to 3500 or 4000-3 for VCOA.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climbing left turn to 6000 to intercept EAT VOR/DME R-101 eastbound, thence . . . .

TAKEOFF RUNWAY 30: Climb heading 300° to 2700, then climbing left turn to 6000 direct EAT VOR/DME, then on EAT VOR/DME R-101 eastbound, thence . . . .

. . . . leaving 6000, turn left direct EAT VOR/DME. Continue climb-in-hold at EAT VOR/DME until reaching the MCA/MEA for direction of flight before proceeding on course.

VCOA ALL RUNWAYS: Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross EAT VOR/DME at or above 5100. Continue climb-in-hold at EAT VOR/DME until reaching the MCA/MEA for direction of flight before proceeding on course.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

## WENATCHEE ONE DEPARTURE (OBSTACLE)

## TAKEOFF OBSTACLE NOTES

- Rwy 12: Terrain 25' from DER, 194' left of centerline, 1234' MSL.  
 Sign 68' from DER, 474' left of centerline, 1237' MSL.  
 Building beginning 133' from DER, 399' right of centerline, up to 19' AGL/1237' MSL.  
 Terrain 171' from DER, 340' left of centerline, 1241' MSL.  
 Terrain 317' from DER, 486' left of centerline, 1247' MSL.  
 Agricultural equipment 435' from DER, 575' left of centerline, 37' AGL/1260' MSL.  
 Tree 1190' from DER, 815' left of centerline, 1301' MSL.
- Rwy 30: Terrain 66' from DER, 411' right of centerline, 1219' MSL.  
 Vehicles on road, 201' from DER, 535' left of centerline, 1224' MSL.  
 Transmission tower 304' from DER, 274' left of centerline, 42' AGL/1253' MSL.  
 Building 1185' from DER, 480' right of centerline, 40' AGL/1247' MSL.  
 Terrain beginning 1.4 NM from DER, 2496' right of centerline, up to 1518' MSL.  
 Terrain 1.4 NM from DER, 2729' right of centerline, 1546' MSL.  
 Pole 1.4 NM from DER, 2257' right of centerline, 43' AGL/1574' MSL.  
 Terrain beginning 1.4 NM from DER, 2490' right of centerline, up to 1586' MSL.  
 Terrain beginning 1.5 NM from DER, 410' right of centerline, up to 1606' MSL.  
 Terrain beginning 1.5 NM from DER, 136' right of centerline, up to 1651' MSL.  
 Terrain 1.5 NM from DER, 10' left of centerline, 1449' MSL.  
 Terrain beginning 1.5 NM from DER, 402' right of centerline, up to 1670' MSL.  
 Transmission tower, pole, and terrain beginning 1.5 NM from DER, 820' right of centerline, up to 65' AGL/1666' MSL.  
 Terrain beginning 1.5 NM from DER, 1252' right of centerline, up to 1672' MSL.  
 Terrain beginning 1.5 NM from DER, 521' right of centerline, up to 1682' MSL.  
 Terrain, transmission tower, and pole beginning 1.6 NM from DER, 80' right of centerline, up to 1690' MSL.  
 Transmission tower, pole, and terrain beginning 1.8 NM from DER, 186' left of centerline, up to 65' AGL/1590' MSL.  
 Terrain 1.9 NM from DER, 1516' right of centerline, 1565' MSL.

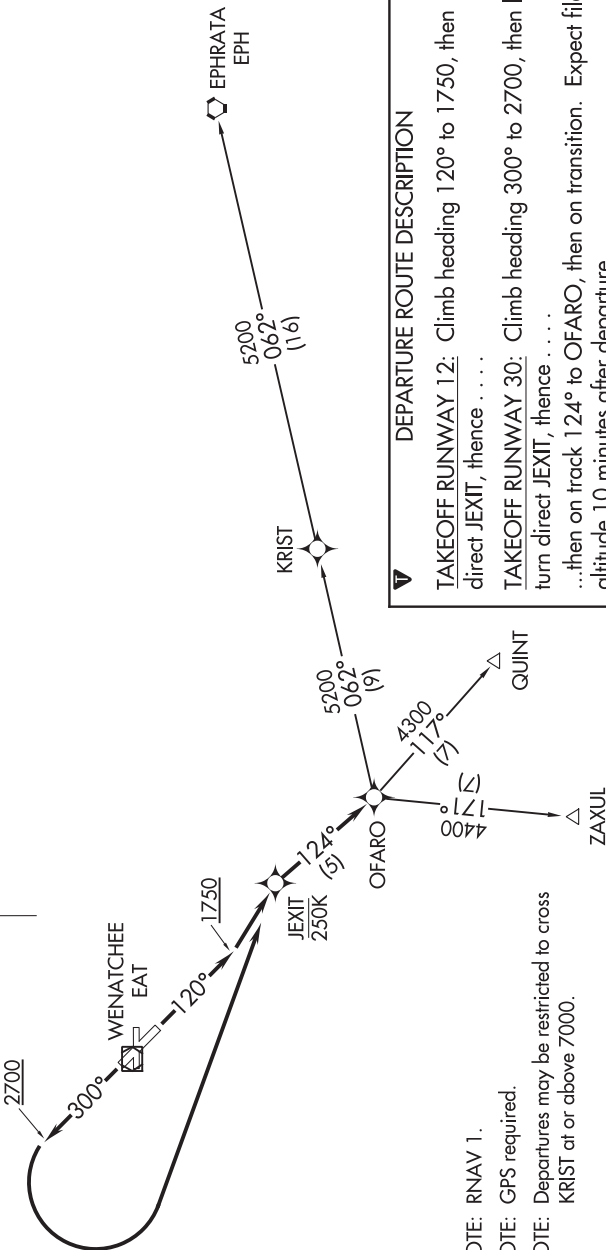
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(NOTES CONTINUED ON FOLLOWING PAGE)

SEATTLE CENTER  
126.1 291.6  
UNICOM  
123.0  
ASOS  
119.925



TOP ALTITUDE:  
ASSIGNED BY ATC

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climb heading 120° to 1750, then direct JEXIT, thence . . . .

TAKEOFF RUNWAY 30: Climb heading 300° to 2700, then left turn direct JEXIT, thence . . . .

...then on track 124° to OFARO, then on transition. Expect filed altitude 10 minutes after departure.

- EPHRATA TRANSITION (OFARO2.EPH)
- QUINT TRANSITION (OFARO2.QUINT)
- ZAXUL TRANSITION (OFARO2.ZAXUL)

- NOTE: RNAV 1.
- NOTE: GPS required.
- NOTE: Departures may be restricted to cross KRIST at or above 7000.

TAKEOFF MINIMUMS

Rwy 12: Standard with minimum climb of 550' per NM to 3200.  
Rwy 30: Standard with minimum climb of 500' per NM to 4000.

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017

(OFARO2.OFARO) 16315

PANGBORN MEMORIAL (EAT)  
WENATCHEE, WASHINGTON

OFARO TWO DEPARTURE (RNAV) SL-641 (FAA)

TAKEOFF OBSTACLE NOTES

Rwy 12: Terrain 25' from DER, 194' left of centerline, 1234' MSL.

Sign 68' from DER, 474' left of centerline, 1237' MSL.

Building beginning 133' from DER, 399' right of centerline, up to 19' AGL/1237' MSL.

Terrain 171' from DER, 340' left of centerline, 1241' MSL.

Terrain 317' from DER, 486' left of centerline, 1247' MSL.

Agricultural equipment 435' from DER, 575' left of centerline, 37' AGL/1260' MSL.

Tree 1190' from DER, 815' left of centerline, 1301' MSL.

Rwy 30: Terrain 66' from DER, 411' right of centerline, 1219' MSL.

Vehicles on road, 201' from DER, 535' left of centerline, 1224' MSL.

Transmission tower 304' from DER, 274' left of centerline, 42' AGL/1253' MSL.

Building 1185' from DER, 480' right of centerline, 40' AGL/1247' MSL.

Terrain beginning 1.4 NM from DER, 2496' right of centerline, up to 1518' MSL.

Terrain 1.4 NM from DER, 2729' right of centerline, 1546' MSL.

Pole 1.4 NM from DER, 2257' right of centerline, 43' AGL/1574' MSL.

Terrain beginning 1.4 NM from DER, 2490' right of centerline, up to 1586' MSL.

Terrain beginning 1.5 NM from DER, 410' right of centerline, up to 1606' MSL.

Terrain beginning 1.5 NM from DER, 136' right of centerline, up to 1651' MSL.

Terrain 1.5 NM from DER, 10' left of centerline, 1449' MSL.

Terrain beginning 1.5 NM from DER, 402' right of centerline, up to 1670' MSL.

Transmission tower, pole, and terrain beginning 1.5 NM from DER, 820' right of centerline, up to 65' AGL/1666' MSL.

Terrain beginning 1.5 NM from DER, 1252' right of centerline, up to 1672' MSL.

Terrain beginning 1.5 NM from DER, 521' right of centerline, up to 1682' MSL.

Terrain, transmission tower, and pole beginning 1.6 NM from DER, 80' right of centerline, up to 1690' MSL.

Transmission tower, pole, and terrain beginning 1.8 NM from DER, 186' left of centerline, up to 65' AGL/1590' MSL.

Terrain 1.9 NM from DER, 1516' right of centerline, 1565' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

OFARO TWO DEPARTURE (RNAV)

(OFARO2.OFARO) 10NOV16

WENATCHEE, WASHINGTON  
PANGBORN MEMORIAL (EAT)

11 NOV 2016 05 JAN 2017

SEATTLE CENTER  
126.1 291.6  
UNICOM  
123.0  
ASOS  
119.925

**TOP ALTITUDE:  
ASSIGNED BY ATC.**

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 12:** Climb heading 120° to 3700, then left turn direct PREBE, thence . . .  
**TAKEOFF RUNWAY 30:** Climb heading 300° to 1750, then direct PREBE, thence . . .

. . . on track 300° to cross UBIYO at or above 6700, then on depicted route to ZARLO, then on transition. Expect filed altitude 10 minutes after departure.

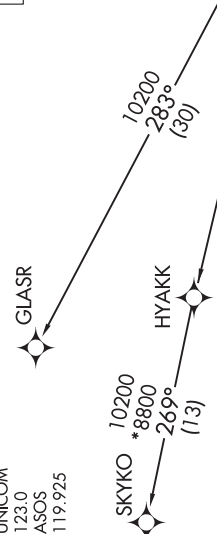
**GLASR TRANSITION (ZARLO2.GLASR)  
SKYKO TRANSITION (ZARLO2.SKYKO)**

**TAKEOFF MINIMUMS**

Rwy 12: Standard with minimum climb of 650' per NM to 3300.  
Rwy 30: Standard with minimum climb of 465' per NM to 6200.

**NOTE: RNAV 1.**  
**NOTE: GPS required.**  
**NOTE: Departures may be restricted to cross UBIYO at or below 11000.**

**TOP ALTITUDE:  
ASSIGNED BY ATC.**



**TAKEOFF OBSTACLE NOTES**

Rwy 12: Terrain 25' from DER, 194' left of centerline, 1234' MSL.  
Sign 68' from DER, 474' left of centerline, 1237' MSL.  
Building beginning 133' from DER, 399' right of centerline, up to 19' AGL/1237' MSL.  
Terrain 171' from DER, 340' left of centerline, 1241' MSL.  
Terrain 317' from DER, 486' left of centerline, 1247' MSL.  
Agricultural equipment 435' from DER, 575' left of centerline, 37' AGL/1260' MSL.  
Tree 1190' from DER, 815' left of centerline, 1301' MSL.  
Terrain 66' from DER, 411' right of centerline, 1219' MSL.  
Vehicles on road, 201' from DER, 535' left of centerline, 1224' MSL.  
Transmission tower, 304' from DER, 274' left of centerline, 42' AGL/1253' MSL.  
Building 1185' from DER, 480' right of centerline, 40' AGL/1247' MSL.  
Terrain beginning 1.4 NM from DER, 2496' right of centerline, up to 1518' MSL.  
Terrain 1.4 NM from DER, 2729' right of centerline, 1546' MSL.  
Pole 1.4 NM from DER, 2257' right of centerline, 43' AGL/1574' MSL.  
Terrain beginning 1.4 NM from DER, 2490' right of centerline, up to 1586' MSL.  
Terrain beginning 1.5 NM from DER, 410' right of centerline, up to 1606' MSL.  
Terrain beginning 1.5 NM from DER, 136' right of centerline, up to 1651' MSL.  
Terrain 1.5 NM from DER, 10' left of centerline, 1449' MSL.  
Terrain beginning 1.5 NM from DER, 402' right of centerline, up to 1670' MSL.  
Transmission tower, pole, and terrain beginning 1.5 NM from DER, 820' right of centerline, up to 65' AGL/1666' MSL.  
Terrain beginning 1.5 NM from DER, 1252' right of centerline, up to 1672' MSL.  
Terrain beginning 1.5 NM from DER, 521' right of centerline, up to 1682' MSL.  
Terrain, transmission tower, and pole beginning 1.6 NM from DER, 80' right of centerline, up to 1690' MSL.  
Transmission tower, pole, and terrain beginning 1.8 NM from DER, 186' left of centerline, up to 65' AGL/1590' MSL.  
Terrain 1.9 NM from DER, 1516' right of centerline, 1565' MSL.

NOTE: Chart not to scale.

11 NOV 2016 05 JAN 2017

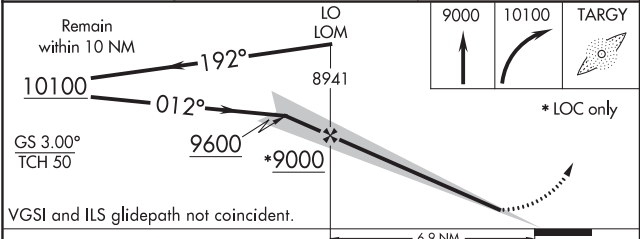
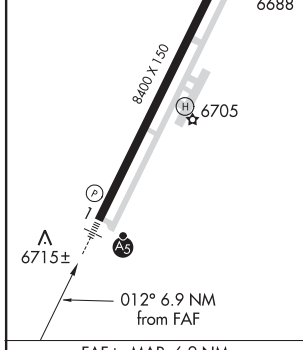
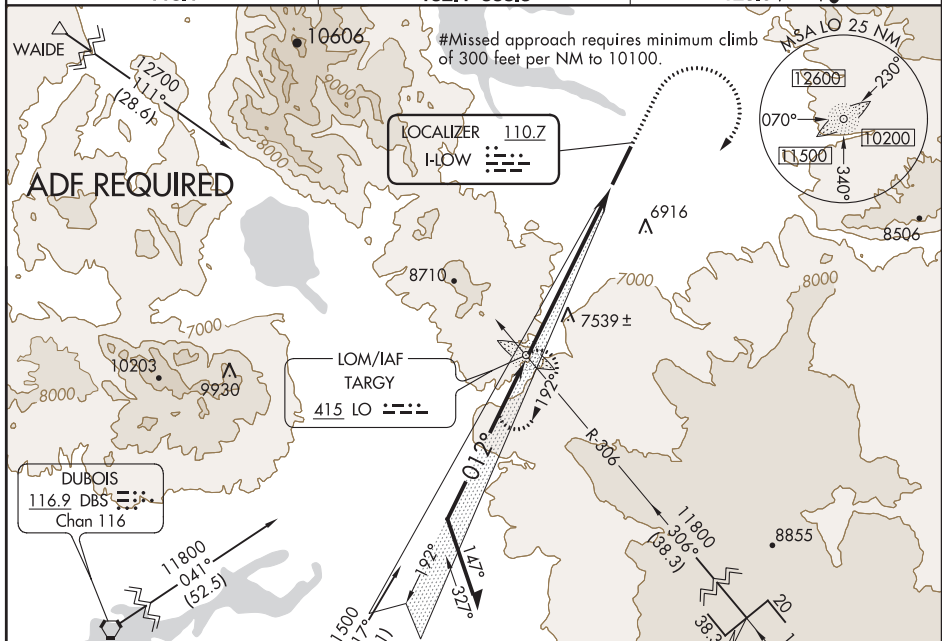
LOC I-LOW <b>110.7</b>	APP CRS <b>012°</b>	Rwy Idg TDZE Apt Elev	<b>8399</b> <b>6649</b> <b>6649</b>
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# ILS or LOC RWY 1

## YELLOWSTONE (WYS)

<p>▼ NA</p> <p>⚠ -18°C/0°F</p>	<p>Obtain local altimeter setting on CTAF, when not received procedure NA. Inoperative table does not apply to S-LOC 1 Cat A. ADF required. For inoperative MALSRS, increase S-ILS 1 all Cts visibility to 2 3/4 mile.</p>	<p>MALSRS</p>	<p>MISSED APPROACH: Climb to 9000, then climbing right turn to 10100 direct TARGY LOM and hold.</p>
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AWOS-3P <b>118.1</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>123.0 (CTAF) 0</b>
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CATEGORY	A	B	C	D
S-ILS 1#		6849-1/2	200 (200-1/2)	
S-ILS 1		7449-2 1/4	800 (800-2 1/4)	
S-LOC 1	7780-1 1/4 1131 (1200-1 1/4)	7780-1 1131 (1200-1)	7780-2 1/2	1131 (1200-2 1/2)
CIRCLING	7780-1 1/4 1131 (1200-1 1/4)	7780-1 1/2 1131 (1200-1 1/2)	7780-3	1131 (1200-3)

FAF to MAP 6.9 NM					
Knots	60	90	120	150	180
Min:Sec	6:54	4:36	3:27	2:46	2:18

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



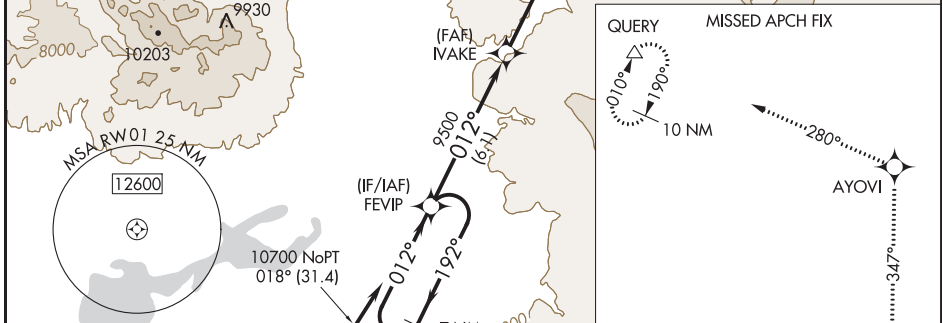
WAAS CH <b>86916</b> <b>W01A</b>	APP CRS <b>012°</b>	Rwy Idg TDZE Apt Elev	<b>8399</b> <b>6649</b> <b>6649</b>
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# RNAV (GPS) RWY 1

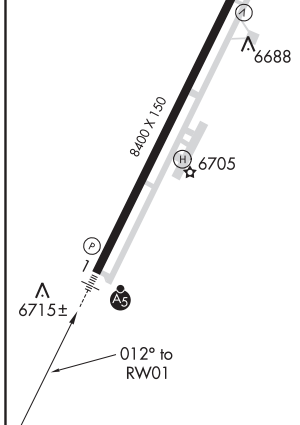
## YELLOWSTONE (WYS)

NA -18°C/0°F	DME/DME RNP- 0.3 NA. Obtain local altimeter setting on CTAF; when not received, procedure NA. Inoperative table does not apply to LNAV Cats A and B.	MALSR 	MISSED APPROACH: Climb to 15000 direct HUKET and via track 347° to AYОВI and via track 280° to QUERY and hold.
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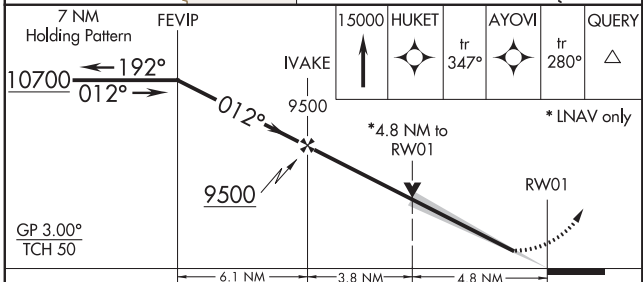
AWOS-3P <b>118.1</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>123.0 (CTAF)</b>
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ELEV 6649		TDZE 6649
HIRL Rwy 1-19		
REIL Rwy 19		



7 NM Holding Pattern	FEVIP	15000 HUKET	AYОВI	QUERY
10700	192°	↑	tr 347°	tr 280°
10700 NoPT 018° (31.4)	10700 NoPT 344° (30)			
(IAF) SABAT	(IAF) LAMON			



GP 3.00°	TCH 50			
CATEGORY	A	B	C	D
LPV DA	6849-1/2 200 (200-1/2)			
LNAV MDA	8240-1 1/4 1591 (1600-1 1/4)	8240-1 1/2 1591 (1600-1 1/2)	8240-2 1/2 1591 (1600-2 1/2)	1591 (1600-2 1/2)
CIRCLING	8240-1 1/4 1591 (1600-1 1/4)	8240-1 1/2 1591 (1600-1 1/2)	8240-3	1591 (1600-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>82016</b> <b>W19A</b>	APP CRS <b>192°</b>	Rwy Idg TDZE Apt Elev	<b>8399</b> <b>6638</b> <b>6649</b>
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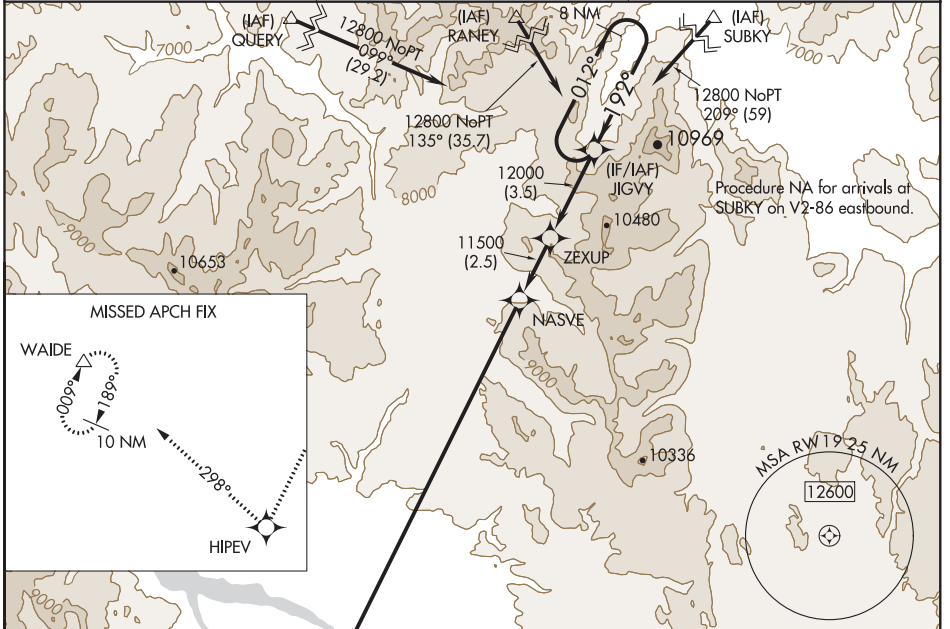
# RNAV (GPS) RWY 19

## YELLOWSTONE (WYS)

**NA** DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA. Obtain local altimeter setting on CTAF, when not received, procedure NA.

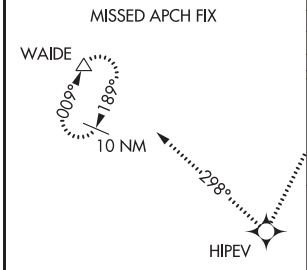
**MISSED APPROACH:** Climb to 15000 direct HIPEV and right turn on track 298° to WAIDE and hold, continue climb-in-hold to 15000.

AWOS-3P <b>118.1</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>123.0 (CTAF)</b>
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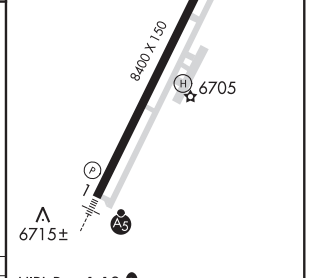
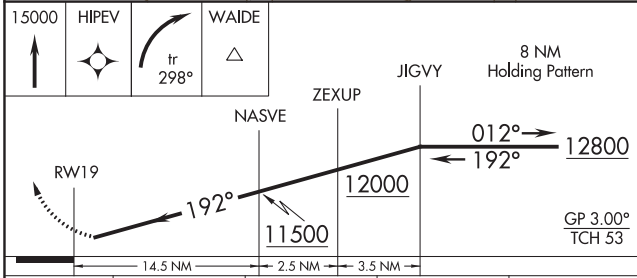
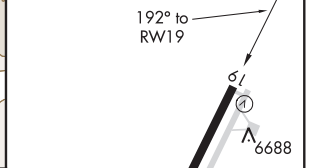
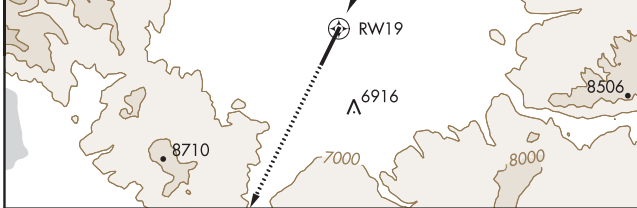


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 6649	<b>D</b> TDZE 6638
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CATEGORY	A	B	C	D
LPV	DA	7184-2	546 (600-2)	

# NDB RWY 1 YELLOWSTONE (WYS)

LOM LO <b>415</b>	APP CRS <b>013°</b>	Rwy Idg 8399
		TDZE 6649
		Apt Elev 6649

Obtain local altimeter setting on CTAF, when not received procedure NA. Inoperative table does not apply to S-1 Cat A and Cat B.

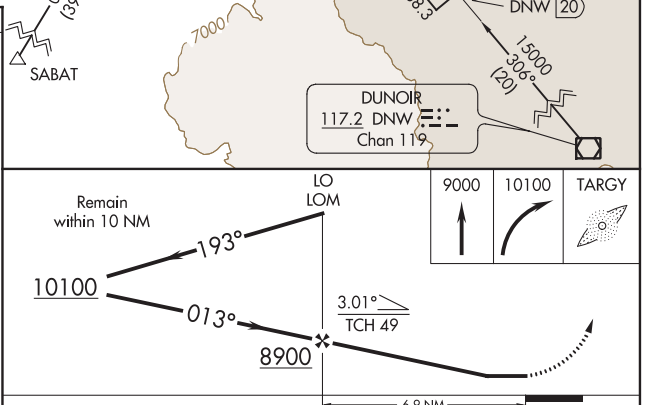
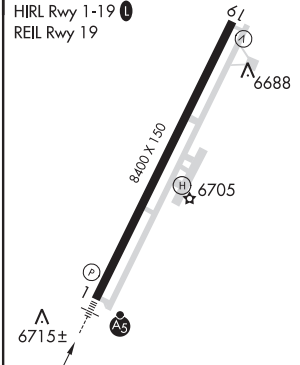
MALSR

MISSED APPROACH: Climb to 9000 then climbing right turn to 10100 direct TARGY LOM and hold.

AWOS-3P <b>118.1</b>	SALT LAKE CENTER <b>132.4 338.3</b>	UNICOM <b>123.0 (CTAF)</b>
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ELEV 6649	TDZE 6649
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CATEGORY	A	B	C	D
S-1	8240-1¼ 1591 (1600-1¼)	8240-1½ 1591 (1600-1½)	8240-2½ 1591 (1600-2½)	8240-2¾ 1591 (1600-2¾)
CIRCLING	8240-1¼ 1591 (1600-1¼)	8240-1½ 1591 (1600-1½)	8240-3	1591 (1600-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(LOW1.LOW) 16147

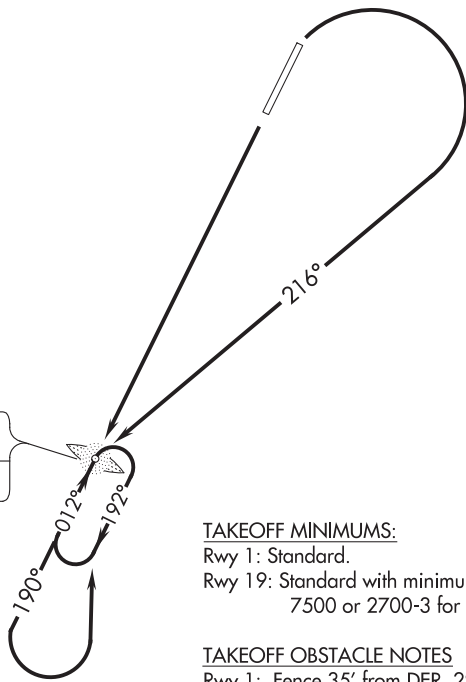
# TARGY ONE DEPARTURE (OBSTACLE)

SL-632 (FAA)

YELLOWSTONE (WYS)  
WEST YELLOWSTONE, MONTANA

SALT LAKE CENTER  
132.4 338.30  
CTAF  
123.0

TARGY
415 LO
N44°34.49'
W111°11.76'
10100



### TAKEOFF MINIMUMS:

Rwy 1: Standard.  
Rwy 19: Standard with minimum climb of 270'/NM to 7500 or 2700-3 for climb in visual conditions.

### TAKEOFF OBSTACLE NOTES

Rwy 1: Fence 35' from DER, 298' left of centerline, 14' AGL/6635' MSL.  
Rwy 19: Tree 487' from DER, 581' right of centerline, 17' AGL/6665' MSL.

NOTE: ADF required.  
NOTE: RADAR required.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 1:** Climbing right turn to intercept course 216° to TARGY LOM, then on bearing 190° outbound and a left turn direct to cross TARGY LOM at or above 10100. Thence. . .

**TAKEOFF RUNWAY 19:** Climb direct to TARGY LOM then outbound bearing 190° and a left turn direct to cross TARGY LOM at or above 10100. Thence..or climb in visual conditions to cross Yellowstone Airfield at or above 9200, then direct TARGY LOM at or above 10100. Thence. . .

. . .continue climb in holding to 12000 at TARGY LOM (Hold S, RT 012° inbound), expect RADAR vectors with Salt Lake Center.

# TARGY ONE DEPARTURE (OBSTACLE)

(LOW1.LOW) 09FEB12

WEST YELLOWSTONE, MONTANA  
YELLOWSTONE (WYS)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>261°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>4776</b>
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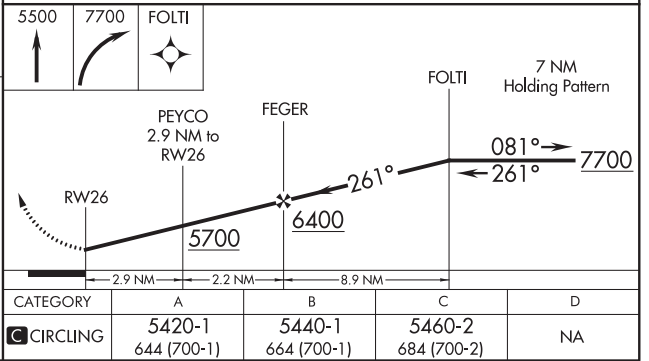
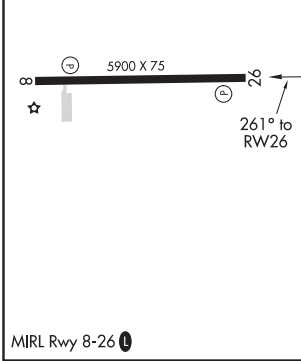
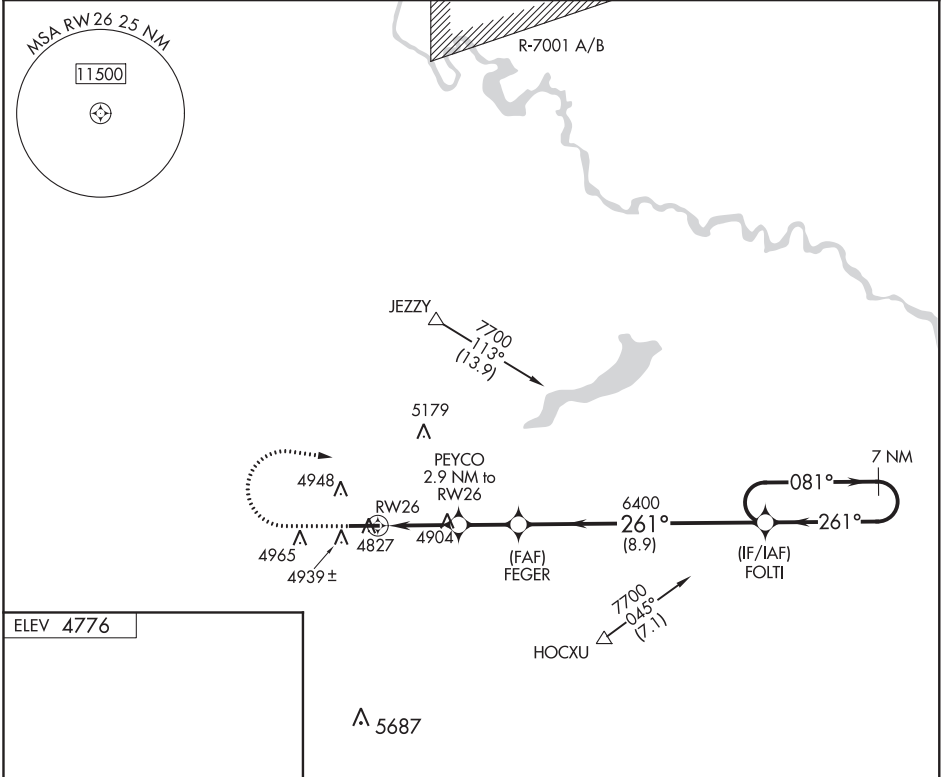
# RNAV (GPS)-A

PHIFER AIRFIELD (EAN)

**NA** Use Torrington altimeter setting; when not received, use Western Nebraska Rgnl/ William B Heilig Field altimeter setting and increase all MDA 100 feet and Cat C visibility ¼ mile. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM not authorized. Night landing: Rwy 8 NA.

MISSED APPROACH: Climb to 5500 then climbing right turn to 7700 direct FOLTI and hold.

AWOS-3PT <b>121.125</b>	TORRINGTON MUNI ASOS <b>118.375</b>	DENVER CENTER <b>135.6 363.025</b>	CTAF <b>122.9</b>
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CATEGORY	A	B	C	D
<b>C</b> CIRCLING	5420-1 644 (700-1)	5440-1 664 (700-1)	5460-2 684 (700-2)	NA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

OAK HARBOR, WASHINGTON

# ILS or LOC/DME RWY 14

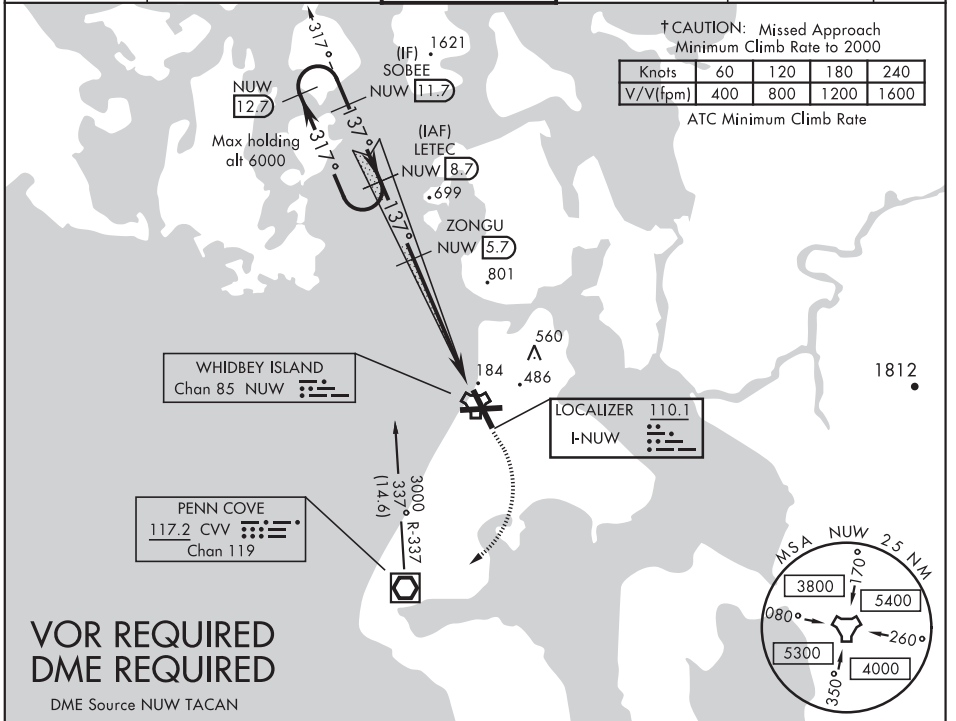
LOC I-NUW <b>110.1</b>	APCH CRS <b>137°</b>	Rwy ldg THRE <b>39</b> Arpt Elev <b>47</b>	AL-451 [USN]	WHIDBEY ISLAND NAS (AULT FLD) (KNUW)
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▼ \* When ALS inop, increase CAT ABCDE vis to  $\frac{3}{4}$  mile.  
\*\* When ALS inop, increase CAT ABCDE vis to 1 mile.



† MISSED APPROACH: Climb to 2000 via hdg 137°, then climbing right turn to 3000, direct CVV VOR/DME, then via CVV R-337 to LETEC and hold.

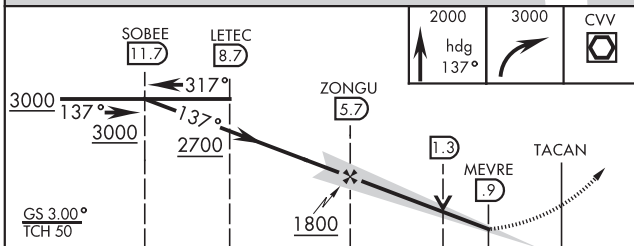
ATIS <b>134.15 281.5</b>	WHIDBEY APP CON <b>120.7 270.8</b> EAST <b>118.2 285.65</b> WEST	WHIDBEY TOWER <b>127.9 340.2</b>	GND CON <b>121.75 336.4</b>	CLNC DEL <b>135.1 379.9</b>	ASR/PAR
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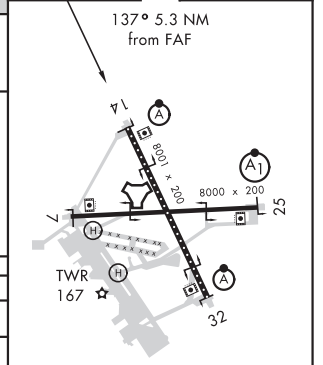
**VOR REQUIRED  
DME REQUIRED**

DME Source NUW TACAN

EMERG SAFE ALT 100 NM 16,500



ELEV 47	THRE 39
---------	---------



CATEGORY	A	B	C	D	E
S-ILS 14 *	239- $\frac{1}{2}$		200 (200- $\frac{1}{2}$ )		
S-LOC 14 **	400- $\frac{1}{2}$	361 (400- $\frac{1}{2}$ )	400- $\frac{5}{8}$	361 (400- $\frac{5}{8}$ )	
CIRCLING	680-1 633 (700-1)	740-1 693 (700-1)	740-2 693 (700-2)	860-2 $\frac{3}{4}$ 813 (900-2 $\frac{3}{4}$ )	1000-3 953 (1000-3)

REIL Rwy 7  
 TDZL/CL Rwy 14  
 HIRL Rwy 7-25, 14-32

OAK HARBOR, WASHINGTON      48°21'N-122°39'W      WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

Amdt 1 10DEC15

# ILS or LOC/DME RWY 14

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

OAK HARBOR, WASHINGTON

# RNAV (GPS) RWY 14

WAAS Chan <b>50004</b> <b>W14A</b>	APCH CRS <b>137°</b>	Rwy Ldg THRE <b>39</b> Arpt Elev <b>47</b>
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AL-451 [USN]

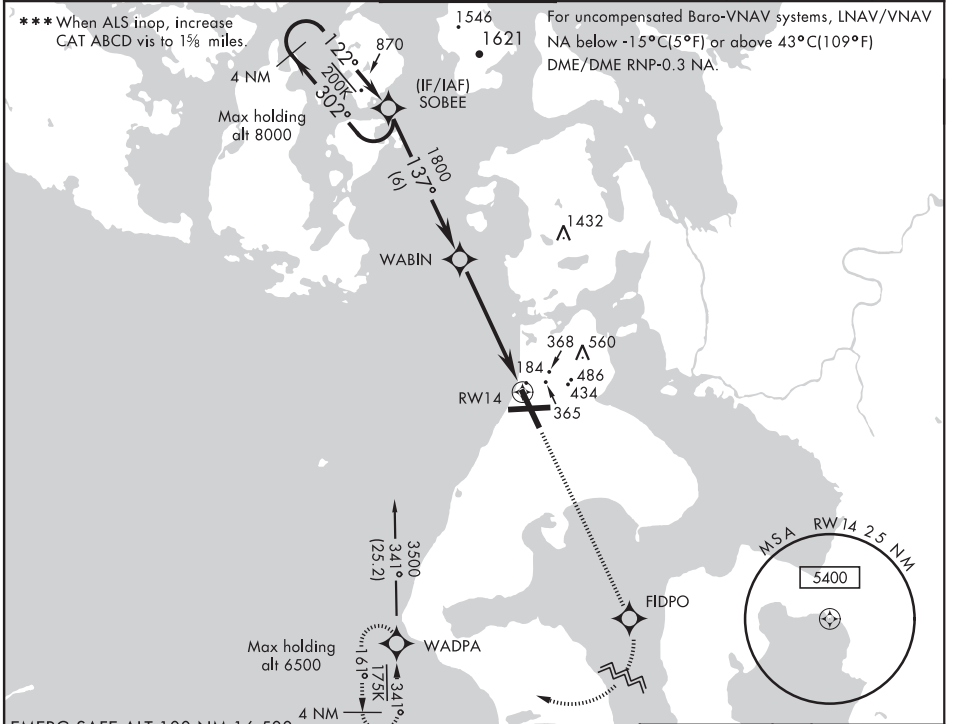
WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

**▼** \* When ALS inop, increase CAT ABCD vis to ¾ mile.  
\*\* When ALS inop, increase CAT AB vis to 1 mile,  
CAT CD to 1 ½ miles.



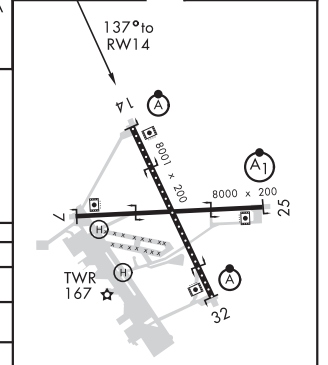
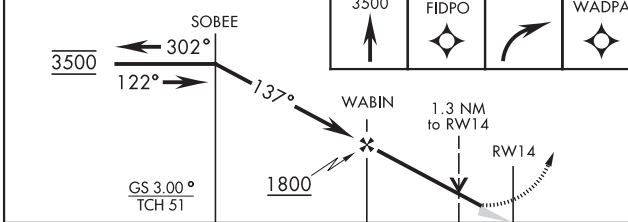
MISSED APPROACH: Climb to 3500 direct FIDPO,  
then turn right direct WADPA and hold.

ATIS <b>134.15 281.5</b>	WHIDBEY APP CON <b>120.7 270.8</b> EAST <b>118.2 285.65</b> WEST	WHIDBEY TOWER <b>127.9 340.2</b>	GND CON <b>121.75 336.4</b>	CLNC DEL <b>135.1 379.9</b>	ASR/PAR
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EMERG SAFE ALT 100 NM 16,500

ELEV 47	THRE 39
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CATEGORY	A	B	C	D
LPV DA *		239-½	200	(200-½)
LNAV MDA **	520-½	481 (500-½)	520-1	481 (500-1)
LNAV/VNAV DA ***		520-1½	481	(500-1½)
CIRCLING	680-1 633 (700-1)	740-1 693 (700-1)	740-2 693 (700-2)	860-2¾ 813 (900-2¾)

REIL Rwy 7  
TDZL/CL Rwy 14  
HIRL Rwy 7-25, 14-32

OAK HARBOR, WASHINGTON

48°21'N-122°39'W

WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

Amdt 1 10DEC15

# RNAV (GPS) RWY 14

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

OAK HARBOR, WASHINGTON

# RNAV (GPS) RWY 25

WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

WAAS Chan <b>44487</b> <b>W25A</b>	APCH CRS <b>249°</b>	Rwy Idg THRE <b>24</b> Arpt Elev <b>47</b>
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AL-451 [USN]

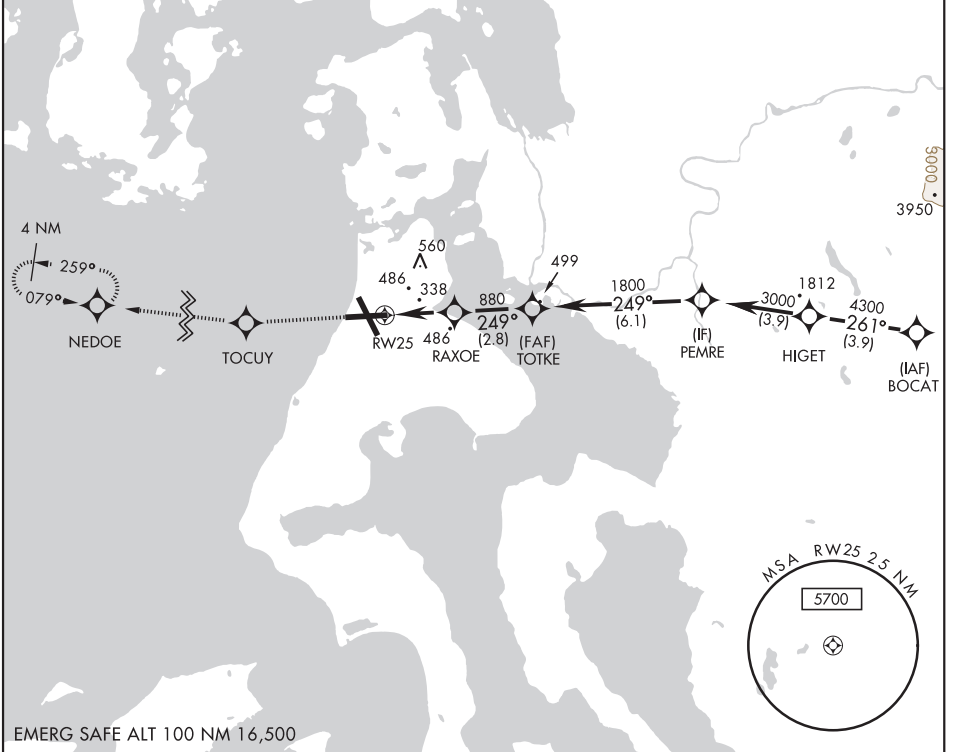
▼ \* When ALS inop, increase CAT ABCD vis to 3/4 mile.  
 \*\* When ALS inop, increase CAT AB vis to 1 mile,  
 CAT CD vis to 1 1/4 miles.



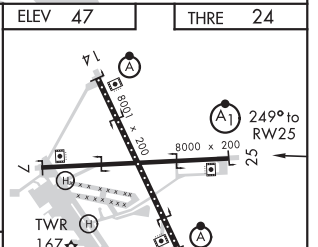
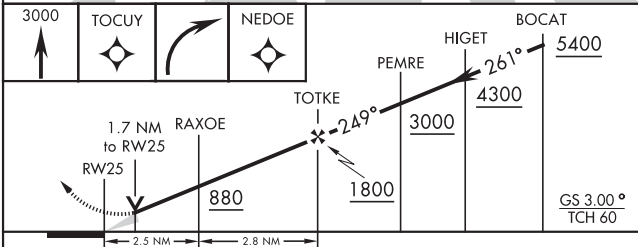
MISSED APPROACH: Climb to 3000 direct TOCUY,  
 direct NEDOE and hold. Continue climb in hold.

ATIS <b>134.15 281.5</b>	WHIDBEY APP CON <b>120.7 270.8</b> <b>118.2 285.65</b>	EAST WEST	WHIDBEY TOWER <b>127.9 340.2</b>	GND CON <b>121.75 336.4</b>	CLNC DEL <b>135.1 379.9</b>	ASR/PAR
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DME/DME RNP-0.3 NA.



EMERG SAFE ALT 100 NM 16,500



CATEGORY	A	B	C	D
LPV DA *	224-1/2		200	(200-1/2)
LNAV MDA **	620-1/2	596 (600-1/2)	620-1 1/4	596 (600-1 1/4)
CIRCLING	680-1 633 (700-1)	740-1 693 (700-1)	740-2 693 (700-2)	860-2 3/4 813 (900-2 3/4)

REL Rwy 7  
 TDZL/CL Rwy 14  
 HIRL Rwy 7-25, 14-32

OAK HARBOR, WASHINGTON  
 Orig 30APR15

48°21'N-122°39'W

WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

# RNAV (GPS) RWY 25

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



OAK HARBOR, WASHINGTON

# TACAN RWY 7

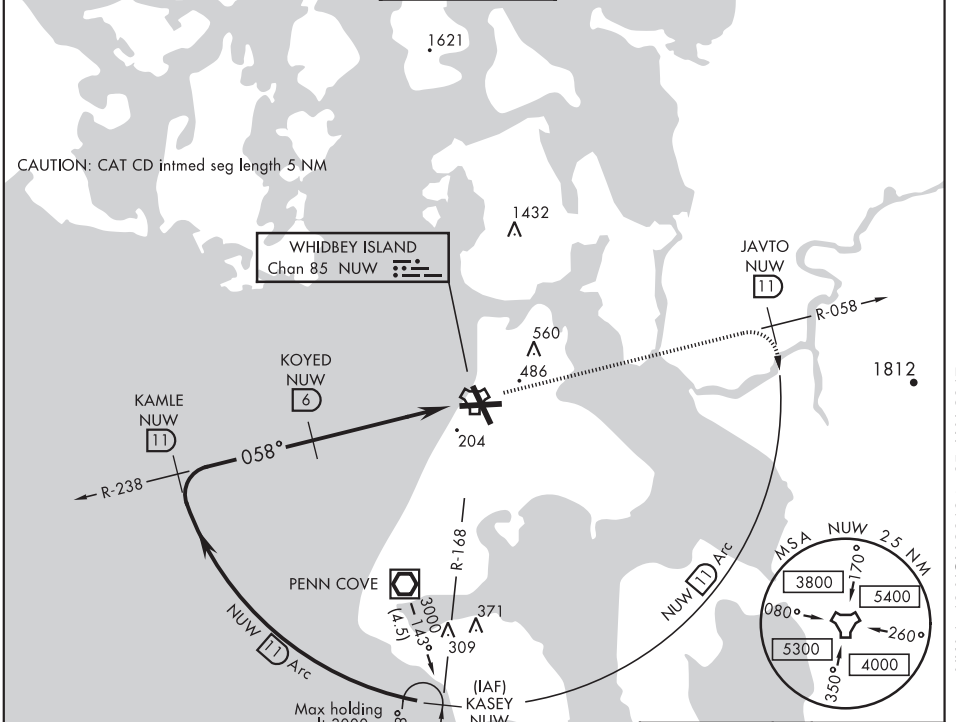
TACAN NUW Chan <b>85</b>	APCH CRS <b>058°</b>	Rwy ldg THRE <b>18</b> Arpt Elev <b>47</b>
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AL-451 [USN]

WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

**▼** MISSED APPROACH: Climb to 3000 via NUW TACAN R-058 to JAVTO, then arc SE of NUW via 11 DME Arc to KASEY and hold.

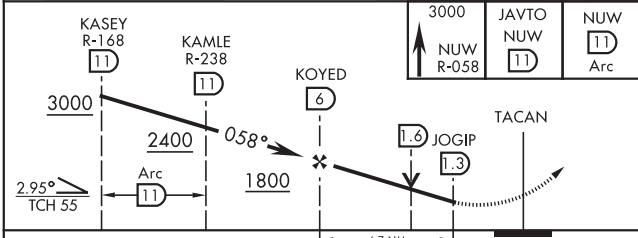
ATIS <b>134.15 281.5</b>	WHIDBEY APP CON <b>120.7 270.8</b> EAST <b>118.2 285.65</b> WEST	WHIDBEY TOWER <b>127.9 340.2</b>	GND CON <b>121.75 336.4</b>	CLNC DEL <b>135.1 379.9</b>	ASR/PAR
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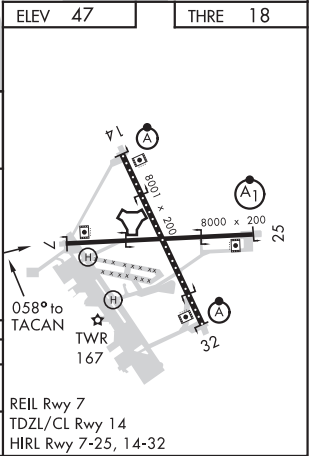
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 47	THRE 18
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CATEGORY	A	B	C	D
S-7	420-1 402 (400-1)		420-1½ 402 (400-1½)	
CIRCLING	680-1 633 (700-1)	740-1 693 (700-1)	740-2 693 (700-2)	860-2¾ 813 (900-2¾)



OAK HARBOR, WASHINGTON

48°21'N-122°39'W

WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

Orig 16OCT14

# TACAN RWY 7

OAK HARBOR, WASHINGTON

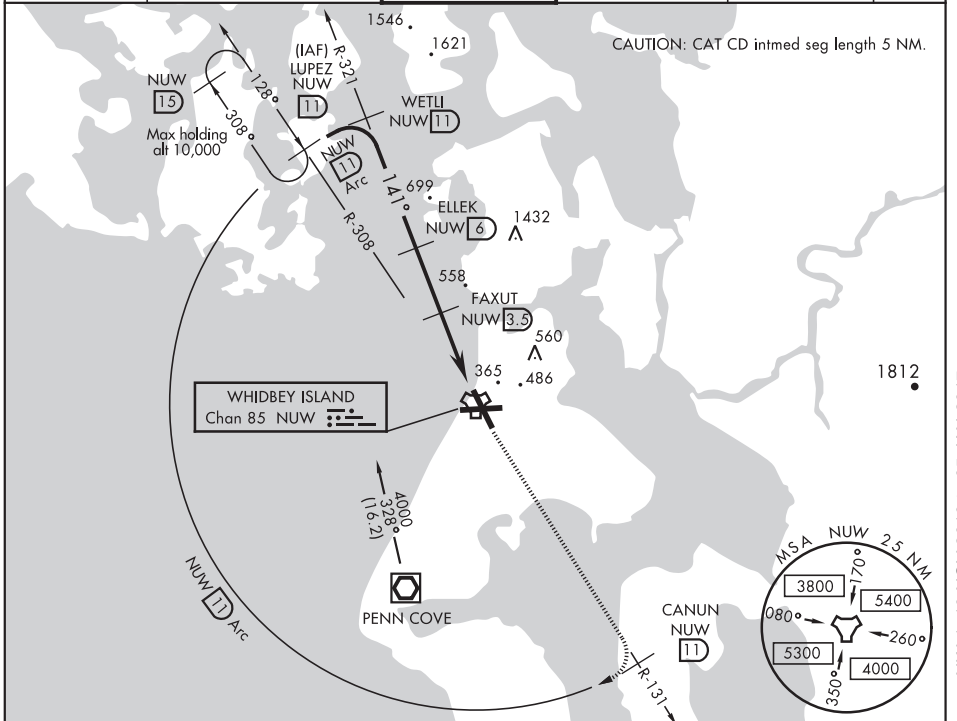
# TACAN RWY 14

TACAN NUW Chan <b>85</b>	APCH CRS <b>141°</b>	Rwy ldg THRE <b>39</b> Arpt Elev <b>47</b>	AL-451 [USN]	WHIDBEY ISLAND NAS (AULT FLD) (KNUW)
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**▼** \*When ALS inop, increase CAT AB vis to 1 mile, CAT CD to 1 1/4 miles.

ALS-F-2 MISSED APPROACH: Climb to 4000 via NUW TACAN R-131 to CANUN, then arc SW of NUW via 11 DME Arc to LUPEZ and hold.

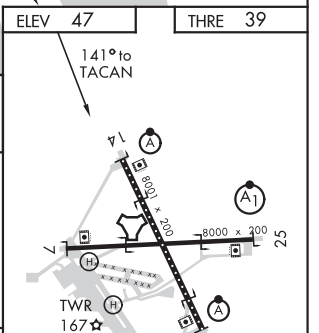
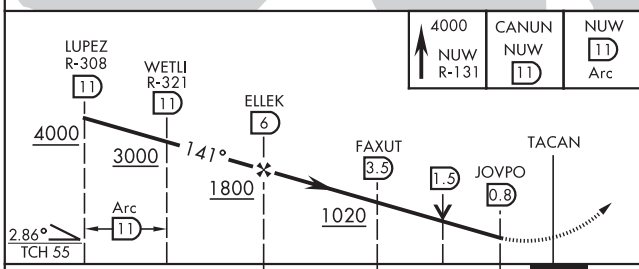
ATIS <b>134.15 281.5</b>	WHIDBEY APP CON <b>120.7 270.8</b> <b>118.2 285.65</b>	EAST WEST	WHIDBEY TOWER <b>127.9 340.2</b>	GND CON <b>121.75 336.4</b>	CLNC DEL <b>135.1 379.9</b>	ASR/PAR
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 16,500	ELEV 47	THRE 39
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CATEGORY	A	B	C	D
S-14 *	460-1/2	421 (500-1/2)	460-3/4	421 (500-3/4)
CIRCLING	680-1 633 (700-1)	740-1 693 (700-1)	740-2 693 (700-2)	860-2 3/4 813 (900-2 3/4)

REIL Rwy 7  
TDZL/CL Rwy 14  
HIRL Rwy 7-25, 14-32

OAK HARBOR, WASHINGTON 48°21'N-122°39'W WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

Orig 16OCT14

# TACAN RWY 14

OAK HARBOR, WASHINGTON

# TACAN RWY 25

TACAN NUV Chan <b>85</b>	APCH CRS <b>254°</b>	Rwy Idg THRE <b>24</b> Arpt Elev <b>47</b>
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AL-451 [USN]

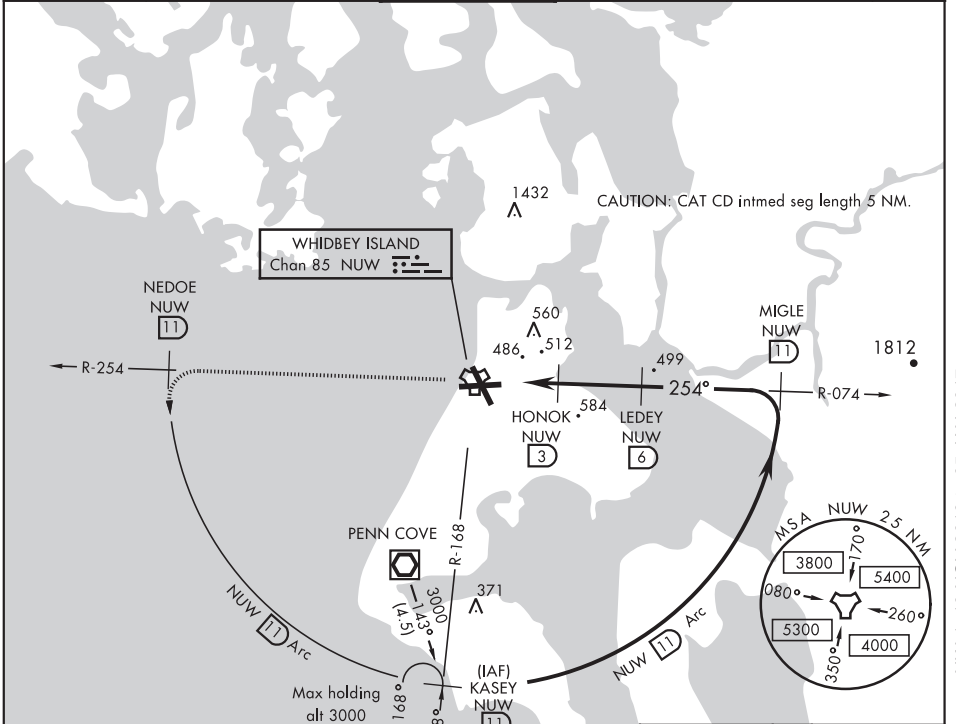
WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

▼ \*When ALS inop, increase CAT AB vis to 1 mile, CAT CD 1 1/4 miles.



MISSED APPROACH: Climb to 3000 via NUV TACAN R-254 to NEDOE, then arc SW of NUV via 11 DME Arc to KASEY and hold.

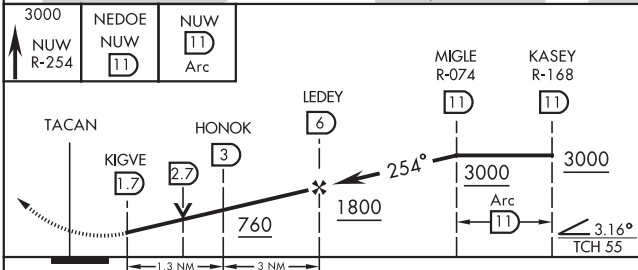
ATIS <b>134.15 281.5</b>	WHIDBEY APP CON <b>120.7 270.8</b> EAST <b>118.2 285.65</b> WEST	WHIDBEY TOWER <b>127.9 340.2</b>	GND CON <b>121.75 336.4</b>	CLNC DEL <b>135.1 379.9</b>	ASR/PAR
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NW-1, 10 NOV 2016 to 05 JAN 2017

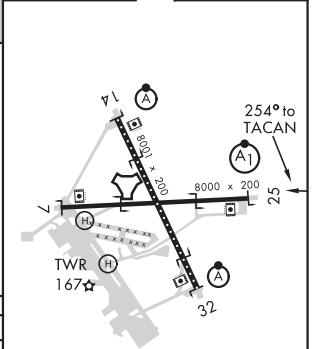
NW-1, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 16,500



CATEGORY	A	B	C	D
S-25 *	660-5/8 636 (700-5/8)		660-1 3/8 636 (700-1 3/8)	
CIRCLING	680-1 633 (700-1)	740-1 693 (700-1)	740-2 693 (700-2)	860-2 3/4 813 (900-2 3/4)

ELEV 47	THRE 24
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REIL Rwy 7  
TDZL/CL Rwy 14  
HIRL Rwy 7-25, 14-32

OAK HARBOR, WASHINGTON

48° 21' N-122° 39' W

WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

Orig 30APR15

# TACAN RWY 25

OAK HARBOR, WASHINGTON

# TACAN RWY 32

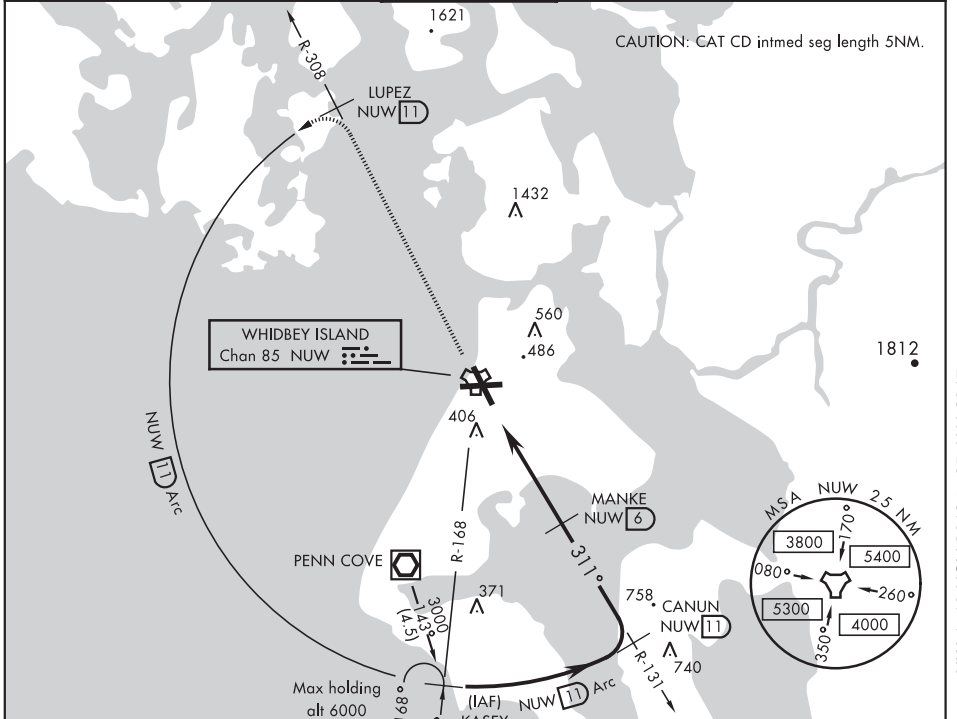
TACAN NUW Chan <b>85</b>	APCH CRS <b>311°</b>	Rwy ldg THRE <b>8001</b> Arpt Elev <b>47</b>
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AL-451 [USN]

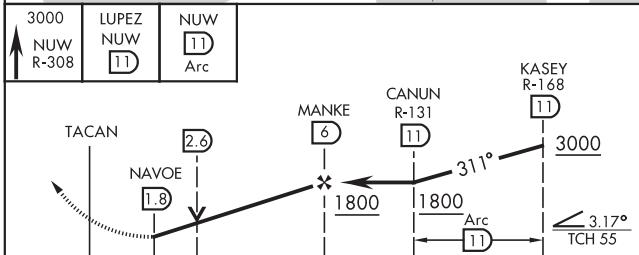
WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

<p>▼ * When ALS inop, increase CAT AB vis to 1 mile, CAT CD to 1 3/4 miles.</p>	<p>ALS F-2</p>	<p>MISSED APPROACH: Climb to 3000 via NUW TACAN R-308 to LUPEZ, then Arc SW of NUW via 11 DME Arc to KASEY and hold.</p>
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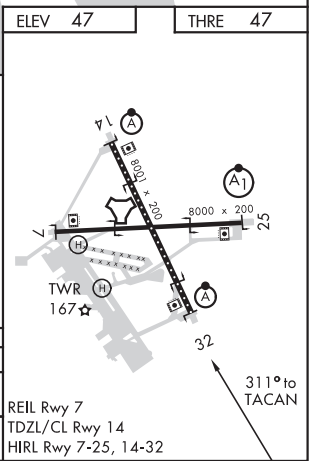
<p>ATIS</p> <p><b>134.15 281.5</b></p>	<p>WHIDBEY APP CON</p> <p><b>120.7 270.8</b> EAST <b>118.2 285.65</b> WEST</p>	<p>WHIDBEY TOWER</p> <p><b>127.9 340.2</b></p>	<p>GND CON</p> <p><b>121.75 336.4</b></p>	<p>CLNC DEL</p> <p><b>135.1 379.9</b></p>	<p>ASR/PAR</p>
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ELEV 47	THRE 47
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CATEGORY	A	B	C	D
S-32*	660-3/8 613 (700-3/8)		660-1 3/8 613 (700-1 3/8)	
CIRCLING	680-1 633 (700-1)	740-1 693 (700-1)	740-2 693 (700-2)	860-2 3/4 813 (900-2 3/4)



OAK HARBOR, WASHINGTON      48°21'N-122°39'W      WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

Orig 16OCT14

# TACAN RWY 32

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

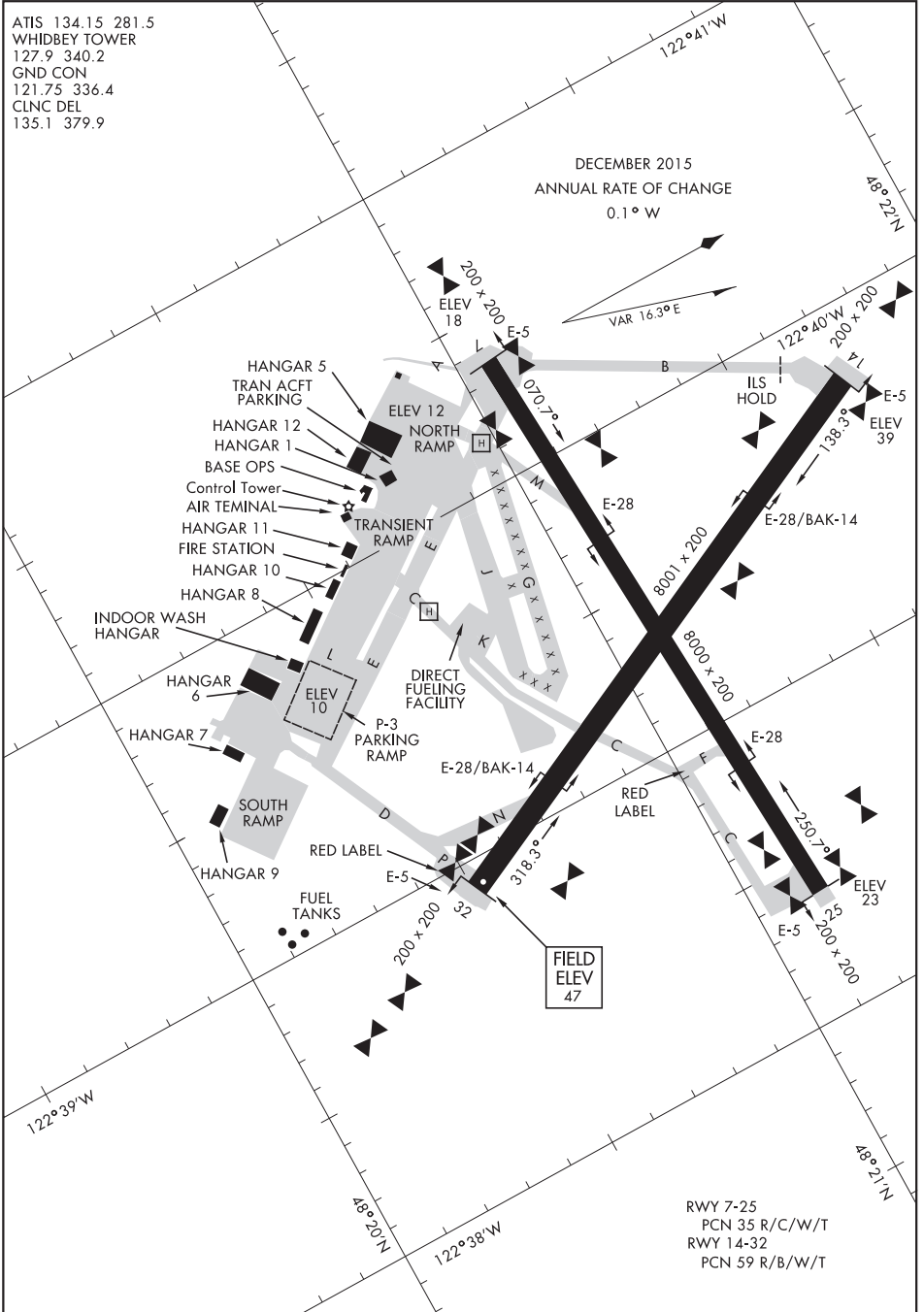
# AIRPORT DIAGRAM

ATIS 134.15 281.5  
 WHIDBEY TOWER  
 127.9 340.2  
 GND CON  
 121.75 336.4  
 CLNC DEL  
 135.1 379.9

DECEMBER 2015  
 ANNUAL RATE OF CHANGE  
 0.1° W  
 VAR 16.3° E

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



RWY 7-25  
 PCN 35 R/C/W/T  
 RWY 14-32  
 PCN 59 R/B/W/T

# AIRPORT DIAGRAM

PENN COVE THREE DEPARTURE (CVV3.CVV)

WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

OAK HARBOR, WASHINGTON

ATIS 134.15 281.5  
 CLNC DEL  
 135.1 379.9  
 GND CON  
 121.75 336.4  
 WHIDBEY TOWER  
 127.9 340.2  
 WHIDBEY DEP CON  
 120.7 270.8 EAST  
 118.2 285.65 WEST

JAL-451 [USN]

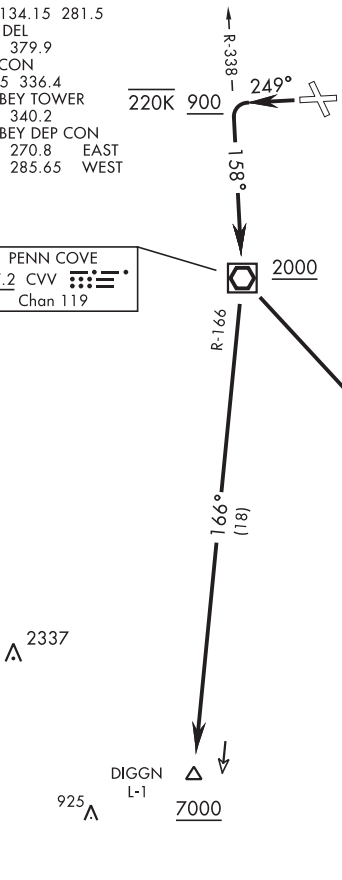
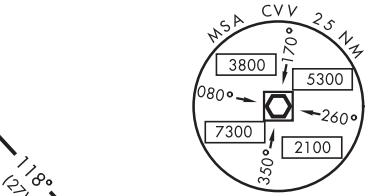
Rwy	Knots	60	120	180	240
25 (a)	V/V(fpm)	203	406	609	812
25 (b)	V/V(fpm)	257	514	771	1028


ATC Climb Rate

- (a) to 2000
- (b) to 7000

PROCEDURE NA FOR CAT E AIRCRAFT

PENN COVE  
 117.2 CVV   
 Chan 119



PAINE  
 110.6 PAE   
 Chan 43  
 L-1, H-1

DEPARTURE ROUTE DESCRIPTION

**TAKE-OFF RWY 25:** Climb to 900 feet on heading 249°, do not exceed 220 KIAS until 900. Then climbing left turn to intercept CVV VOR/DME R-338 to CVV. Cross CVV at or above 2000 feet. Thence...

...Via assigned transition or fly heading 158° and expect vectors to join assigned route.

**DIGGN TRANSITION (CVV3.DIGGN):** Via CVV R-166 to DIGGN, cross DIGGN at or above 7000 feet.

**PAINE TRANSITION (CVV3.PAE):** Via CVV R-118 to PAE VOR/DME. Cross PAE at or above 3000 feet.

PENN COVE THREE DEPARTURE (CVV3.CVV)

OAK HARBOR, WASHINGTON  
 WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

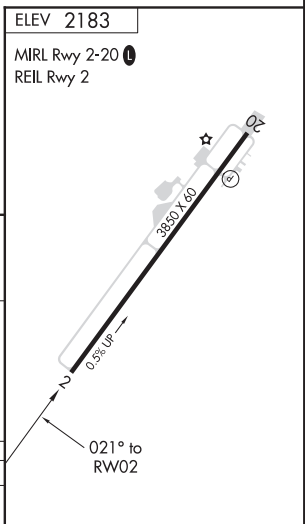
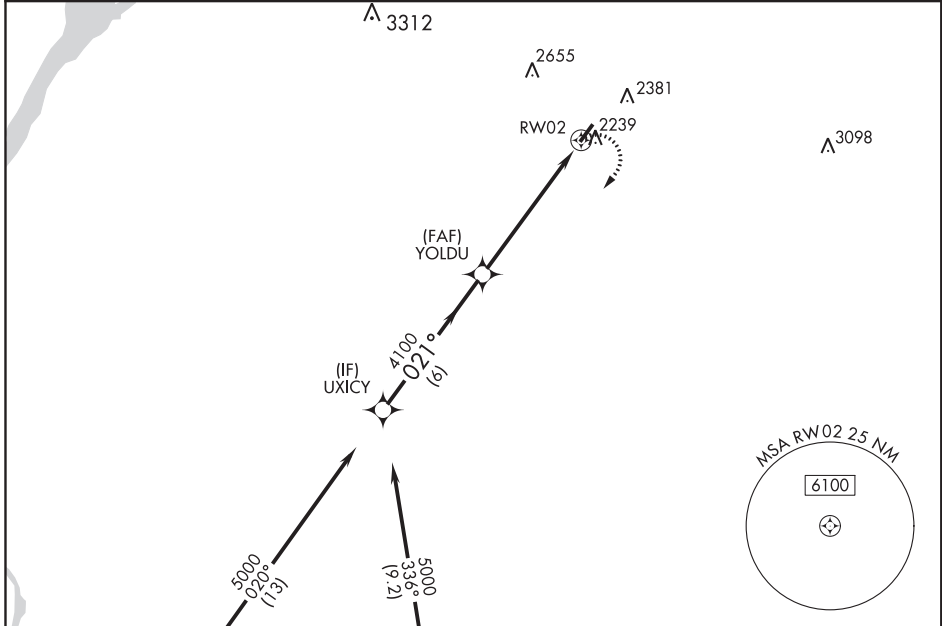
APP CRS	Rwy Idg	N/A
021°	TDZE	N/A
	Apt Elev	2183

**RNAV (GPS)-A**  
WILBUR (2S8)

**⚠** Circling NA at night. Use Moses Lake/Grant Co Intl altimeter setting; when not received, use Ephrata Muni altimeter setting and increase all MDAs 20 feet.  
**⚠ NA** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM not authorized.

MISSED APPROACH: Climbing right turn to 5000 direct WIPES and hold.

AWOS-2 <b>124.175</b>	GRANT COUNTY APP CON* <b>126.4 379.95</b>	CTAF <b>122.9</b>
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	5000	WIPES
	UXICY	△
	021°	
	YOLDU	
	4100	
	RW02	
	3.00°	
	TCH 40	
	6 NM	6 NM
CATEGORY	A	B
CIRCLING	3000-1¼	817 (900-1¼)
	NA	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(WIPES1.WIPES) 16147

# WIPES ONE DEPARTURE (OBSTACLE) (RNAV)

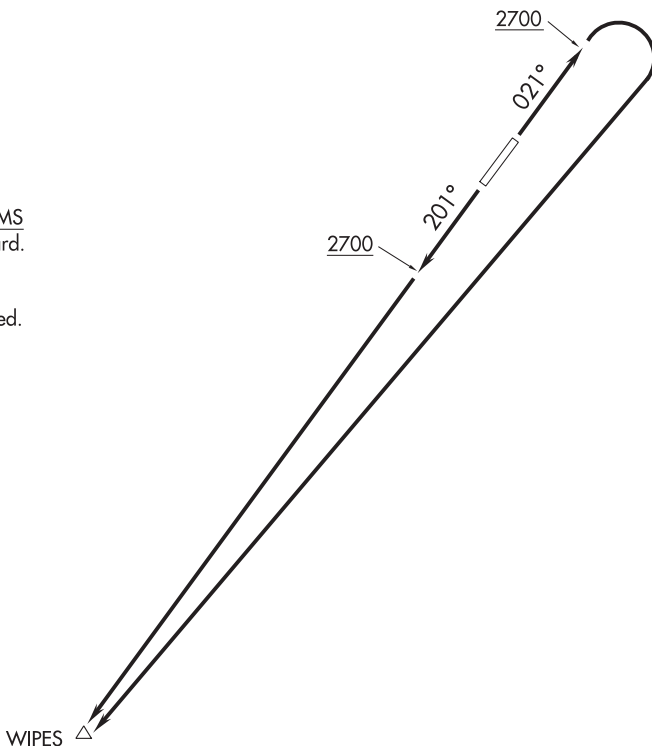
SL-10463 (FAA)

WILBUR (2S8)  
WILBUR, WASHINGTON

SEATTLE CENTER  
126.1 291.6  
GRANT COUNTY TOWER ★  
118.25 257.8 (EAST)  
128.0 257.8 (WEST)  
CTAF  
122.9

TAKEOFF MINIMUMS  
Rwys 2, 20: Standard.

NOTE: GPS required.  
NOTE: RNAV-1



### TAKEOFF OBSTACLE NOTES

- Rwy 2: Vehicle on road beginning 4' from DER, 192' right of centerline, 15' AGL/2207' MSL.  
Vehicle on road 145' from DER, 485' left of centerline, up to 15' AGL/2215' MSL.  
Pole 34' from DER, 495' left of centerline, 39' AGL/2223' MSL.
- Rwy 20: Train, 122' from DER, 515' left of centerline, 20' AGL/2185' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb heading 021° to 2700 then climbing right turn direct WIPES, thence. . . .

TAKEOFF RUNWAY 20: Climb heading 201° to 2700 then direct WIPES, thence. . . .

. . . . maintain 5000 or assigned altitude. Expect filed altitude 10 minutes after departure.

WIPES ONE DEPARTURE (OBSTACLE) (RNAV)  
(WIPES1.WIPES) 07MAR13

WILBUR, WASHINGTON  
WILBUR (2S8)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>77929</b> <b>W11A</b>	APP CRS <b>111°</b>	Rwy Idg TDZE Apt Elev	<b>5091</b> <b>1988</b> <b>1989</b>
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# RNAV (GPS) RWY 11

L M CLAYTON (OLF)

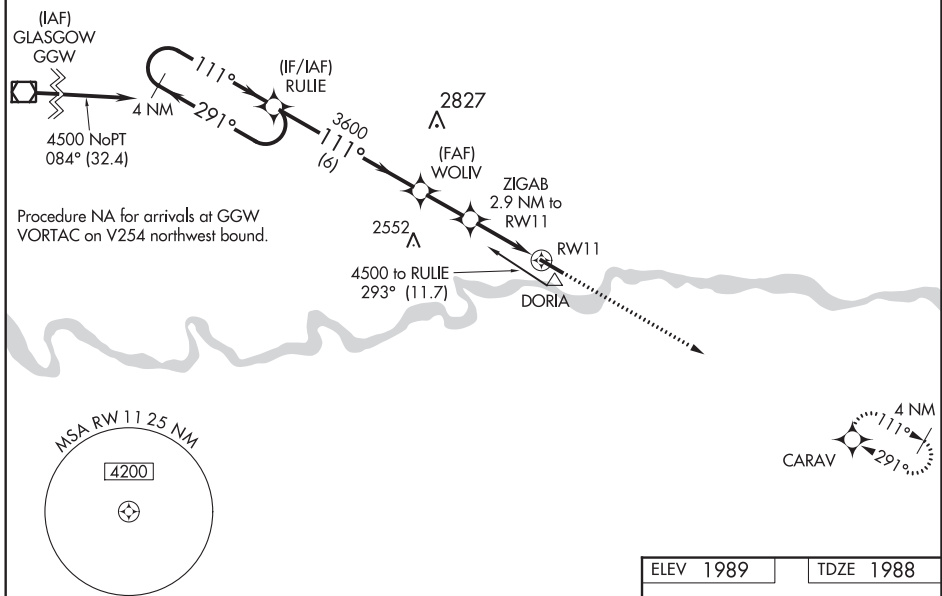
**A** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter not received, use Glasgow altimeter setting and increase all DA 141 feet and all MDA 160 feet and increase LPV all Cats visibility 3/8 mile; LNAV/VNAV all Cats 1/2 mile; LNAV Cats C/D 1/2 mile; Circling Cat C 1/2 mile and Cat D 1/4 mile. Baro-VNAV and VDP NA with Glasgow altimeter setting.

**MISSED APPROACH:**  
Climb to 4800 direct CARAV and hold.

ASOS  
**118.325**

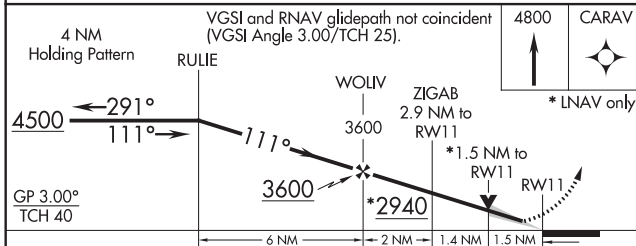
SALT LAKE CENTER  
**126.85 305.2**

UNICOM  
**122.8 (CTAF) 0**



NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 1989	TDZE 1988
<p>MIRL Rwy 11-29 <b>0</b> REIL Rwy 11-29 <b>0</b></p>	

CATEGORY	A	B	C	D
LPV DA		2188-3/4	200 (200-3/4)	
LNAV/VNAV DA		2266-7/8	278 (300-7/8)	
LNAV MDA	2500-1	512 (600-1)	2500-1 3/8	512 (600-1 3/8)
CIRCLING	2500-1	511 (600-1)	2500-1 1/2	2540-2 551 (600-2)

WOLF POINT, MONTANA

AL-6018 (FAA)

15288

WAAS CH <b>49229</b> W29A	APP CRS <b>291°</b>	Rwy Idg TDZE Apt Elev	<b>5091</b> <b>1989</b> <b>1989</b>
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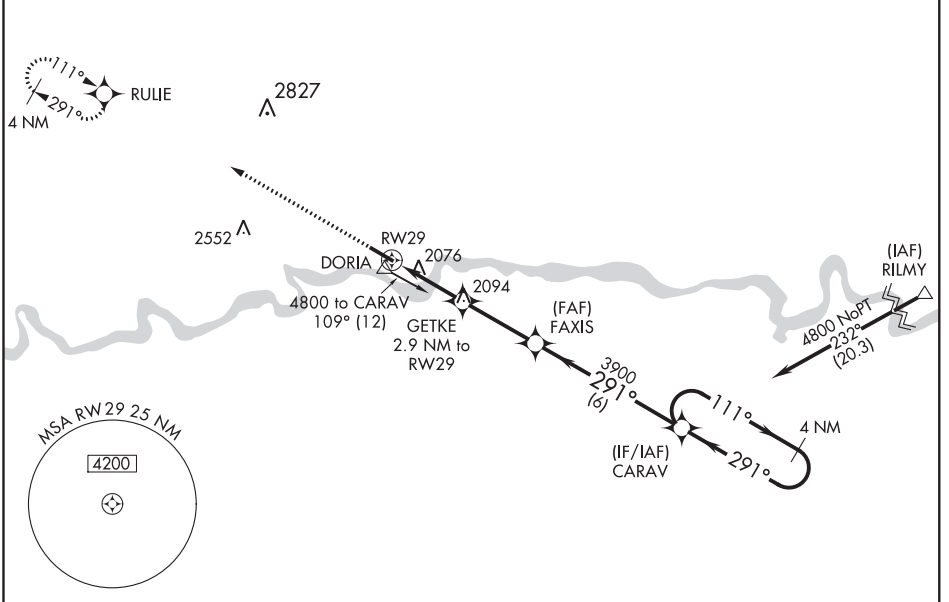
# RNAV (GPS) RWY 29

L M CLAYTON (OLF)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Glasgow altimeter setting and increase all DA 141 feet and all MDA 160 feet and increase LPV all Cats visibility  $\frac{3}{8}$  mile, LNAV/VNAV all Cats visibility  $\frac{1}{2}$  mile, LNAV Cats C/D visibility  $\frac{1}{2}$  mile, and Circling Cats C/D visibility  $\frac{1}{4}$  mile. Baro-VNAV and VDP NA with Glasgow altimeter setting.

**MISSED APPROACH:**  
Climb to 4500 direct RULIE and hold.

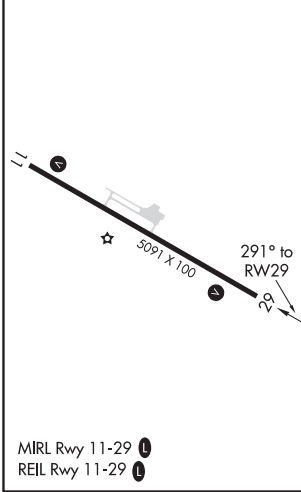
ASOS <b>118.325</b>	SALT LAKE CENTER <b>126.85 305.2</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1989	TDZE 1989
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4500	RULIE	VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 25).			4800	4 NM Holding Pattern
*LNAV only.	GETKE 2.9 NM to RW29	FAXIS 3900	CARAV	4800	GP 3.00°	TCH 40
	*1 NM to RW29	2940*	3900	111°		
	1 NM	1.9 NM	3 NM	6 NM		
CATEGORY	A	B	C	D		
LPV DA		2189- $\frac{3}{4}$	200 (200- $\frac{3}{4}$ )			
LNAV/VNAV DA		2239- $\frac{7}{8}$	250 (300- $\frac{7}{8}$ )			
LNAV MDA		2340-1	351 (400-1)			
CIRCLING	2480-1	491 (500-1)	2480-1 $\frac{1}{2}$ 491 (500-1 $\frac{1}{2}$ )	2540-2 551 (600-2)		

WOLF POINT, MONTANA  
Amdt 1A 11DEC14

48°06'N-105°35'W

# RNAV (GPS) RWY 29

L M CLAYTON (OLF)

NDB OLF <b>404</b>	APP CRS <b>288°</b>	Rwy Idg TDZE Apt Elev	<b>5091</b> <b>1989</b> <b>1989</b>
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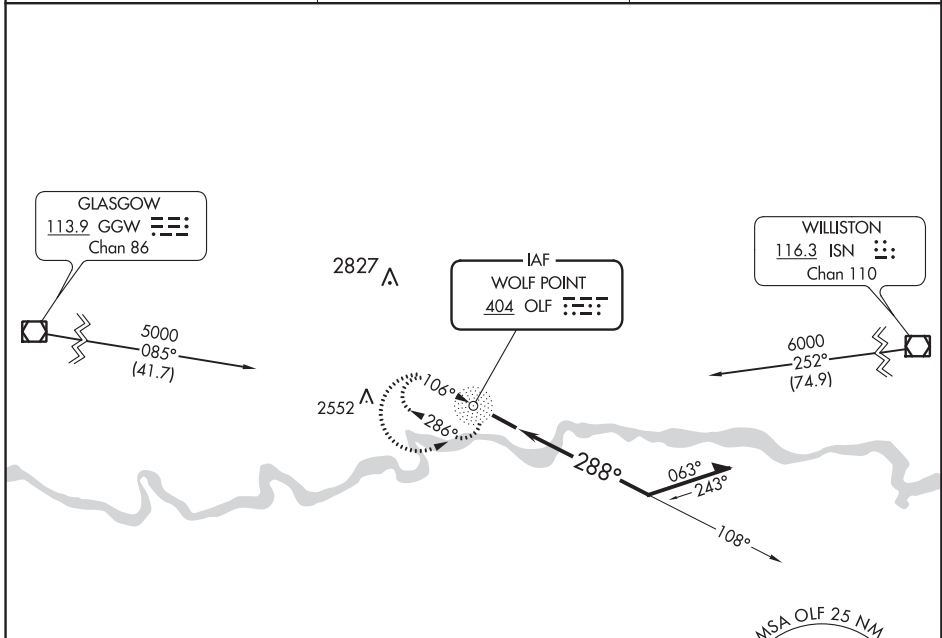
# NDB RWY 29

L M CLAYTON (OLF)

**▲ NA** When local altimeter setting not received, use Glasgow altimeter setting and increase all MDA 160 feet and increase S-29 visibility Cat B ¼ mile and Cat C/D ½ mile; increase Circling Cat B/C ¼ mile.

**MISSED APPROACH:** Climbing left turn to 4000 direct OLF NDB and hold, continue climb-in-hold to 4000.

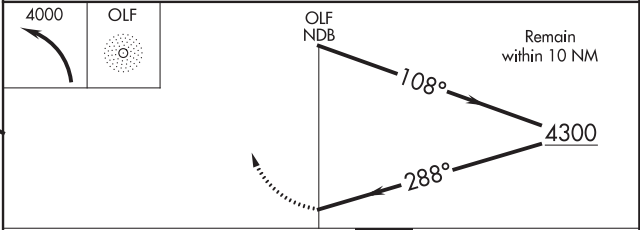
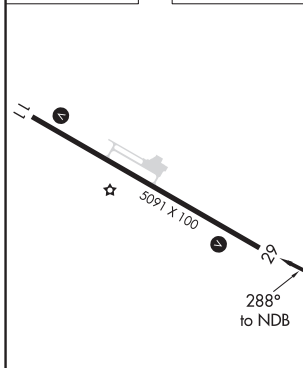
ASOS <b>118.325</b>	SALT LAKE CENTER <b>126.85 305.2</b>	UNICOM <b>122.8 (CTAF)</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1989	TDZE 1989
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CATEGORY	A	B	C	D
S-29	2880-1¼	891 (900-1¼)	2880-2½	891 (900-2½)
CIRCLING	2880-1¼	891 (900-1¼)	2880-2¾ 891 (900-2¾)	2880-3 891 (900-3)

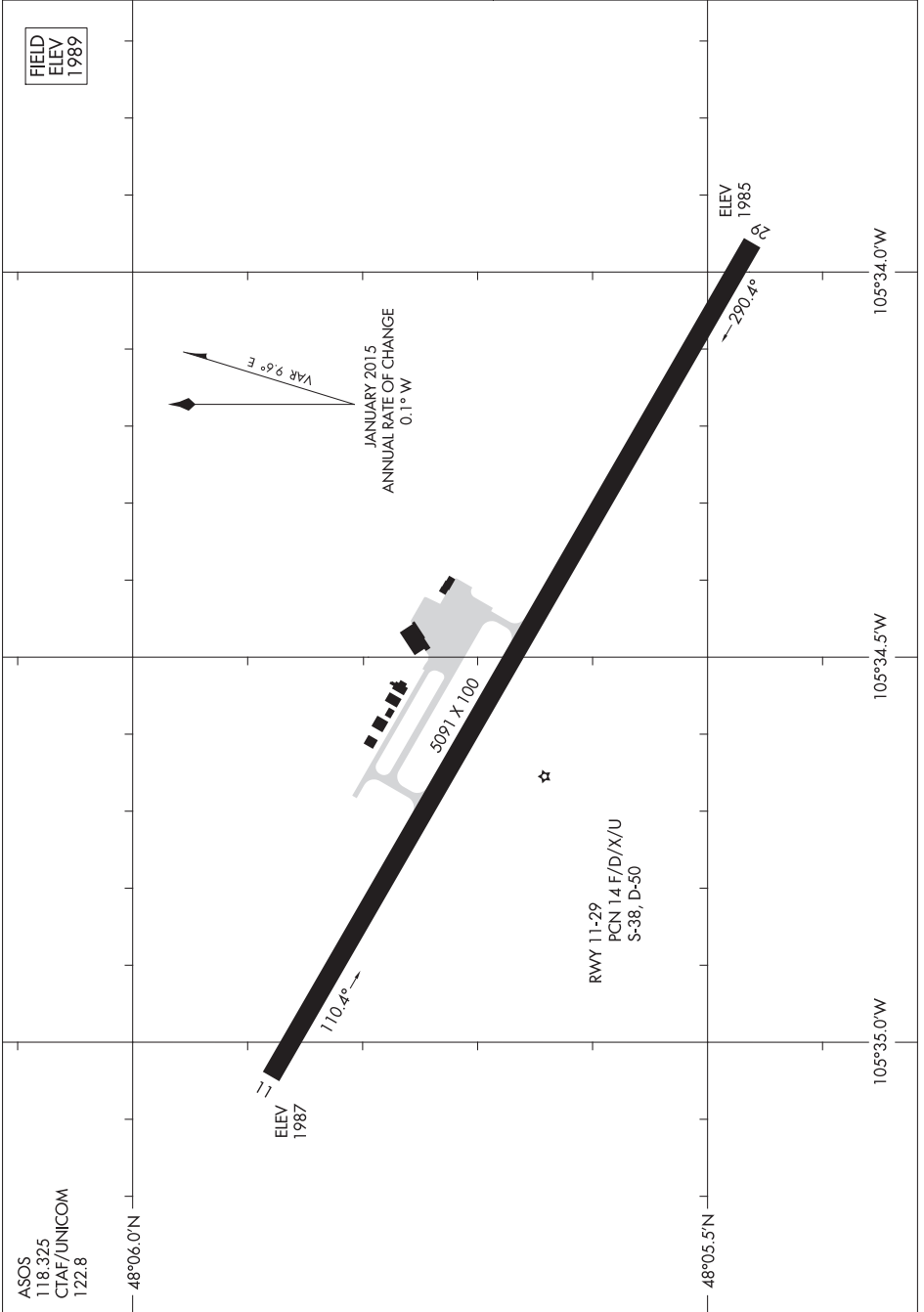
# AIRPORT DIAGRAM

AL-6018 (FAA)

L M CLAYTON (OLF)  
WOLF POINT, MONTANA

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



FIELD  
ELEV  
1989

ASOS  
118.325  
CTAF/UNICOM  
122.8

48°06.0'N

ELEV  
1987

110.4°

5091 X 100

JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W

VAR 9.6° E

RWY 11-29  
PCN 14 F/D/X/U  
S-38, D-50

ELEV  
1985

290.4°

105°35.0'W

105°34.5'W

105°34.0'W

WOLF POINT, MONTANA  
L M CLAYTON (OLF)

# AIRPORT DIAGRAM

WAAS CH <b>40228</b> <b>W16A</b>	APP CRS <b>162°</b>	Rwy Idg TDZE Apf Elev	<b>7000</b> <b>4202</b> <b>4252</b>
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# RNAV (GPS) RWY 16

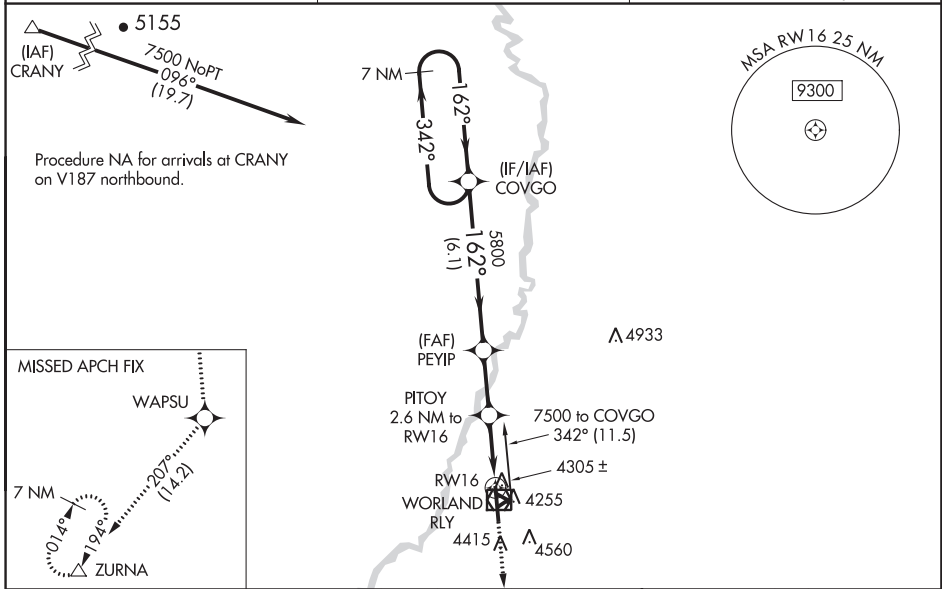
WORLAND MUNI (WRL)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -32°C (-25°F) or above 17°C (62°F). DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA with Greybull altimeter setting. When local altimeter not received, use Greybull altimeter setting and increase all DA/MDA 140 feet, and all visibilities ½ mile. Helicopter visibility reduction below ¾ SM NA.

**❄** -33°C

**MISSED APPROACH:** Climb to 9600 direct WAPSU and on track 207° to ZURNA and hold, continue climb-in-hold to 9600.

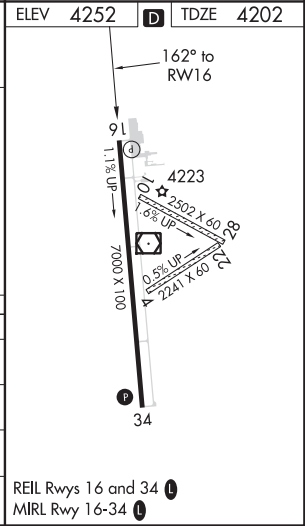
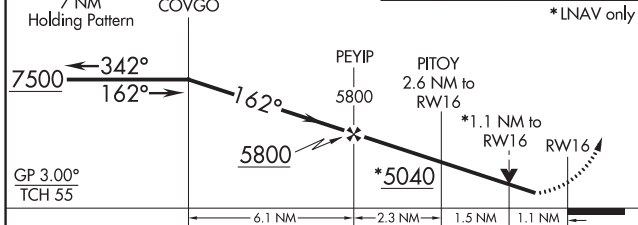
ASOS <b>135.475</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>123.05</b> (CTAF) <b>📻</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 40).	9600	WAPSU	ZURNA	ELEV 4252	D	TDZE 4202
	↑	✧	△			
		Ir 207°				



CATEGORY	A	B	C	D
LPV DA		4452-¾	250 (200-¾)	
LNAV/VNAV DA		4494-7/8	292 (300-7/8)	
LNAV MDA	4560-1	358 (400-1)	4560-1 1/8	358 (400-1 1/8)
CIRCLING	4880-1 628 (700-1)	4900-1 648 (700-1)	4900-1 3/4 648 (700-1 3/4)	4900-2 648 (700-2)

APP CRS	Rwy Idg	<b>7000</b>
<b>342°</b>	TDZE	<b>4252</b>
	Apt Elev	<b>4252</b>

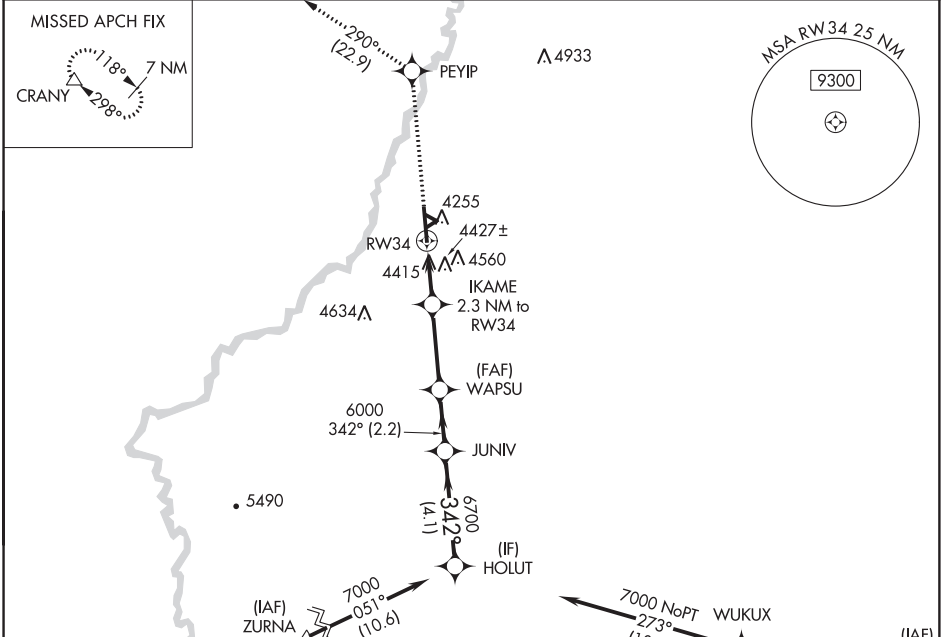
# RNAV (GPS) RWY 34

WORLAND MUNI (WRL)

When local altimeter setting not received, use Greybull altimeter setting and increase all MDA 140 feet, and all visibilities ½ mile. DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA.

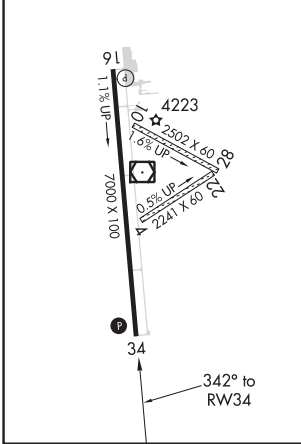
MISSED APPROACH: Climb to 8500 direct PEYIP and on track 290° to CRANY and hold.

ASOS <b>135.475</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>123.05 (CTAF)</b>
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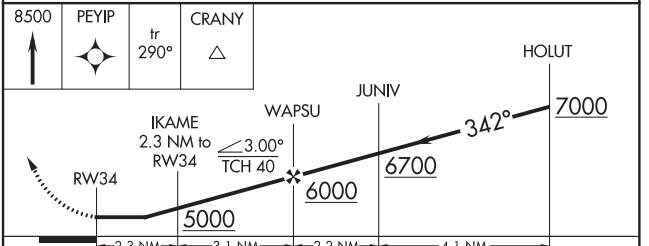


ELEV 4252	<b>D</b>	TDZE 4252
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REIL Rwy 16 and 34  
MIRL Rwy 16-34



Procedure NA for arrivals at ZURNA on V319 southbound and at JIIP on V401 eastbound.



CATEGORY	A	B	C	D
LNAV MDA	4680-1	428 (500-1)	4680-1¼	428 (500-1¼)
CIRCLING	4880-1 628 (700-1)	4900-1 648 (700-1)	4900-1¾ 648 (700-1¾)	4900-2 648 (700-2)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

VOR/DME RLY <b>114.8</b> Chan <b>95</b>	APP CRS <b>157°</b>	Rwy Idg <b>7000</b> TDZE <b>4202</b> Apt Elev <b>4252</b>
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# VOR RWY 16

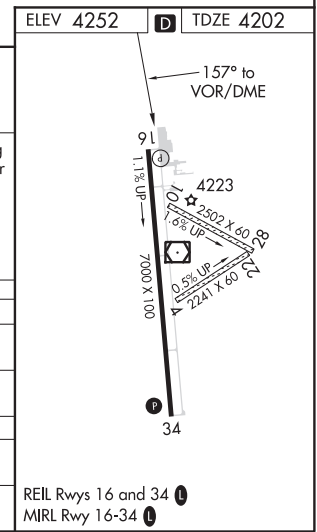
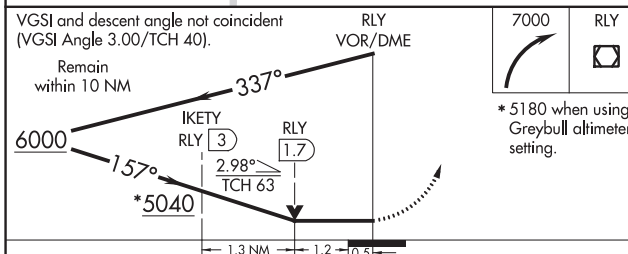
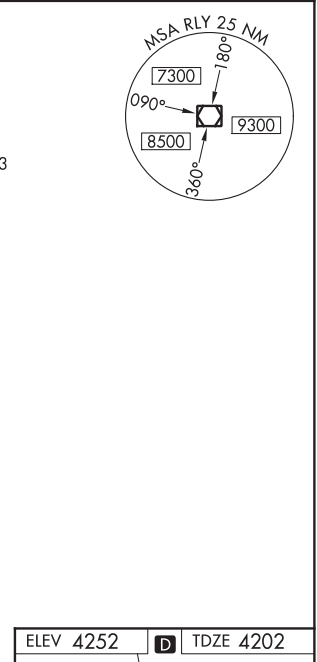
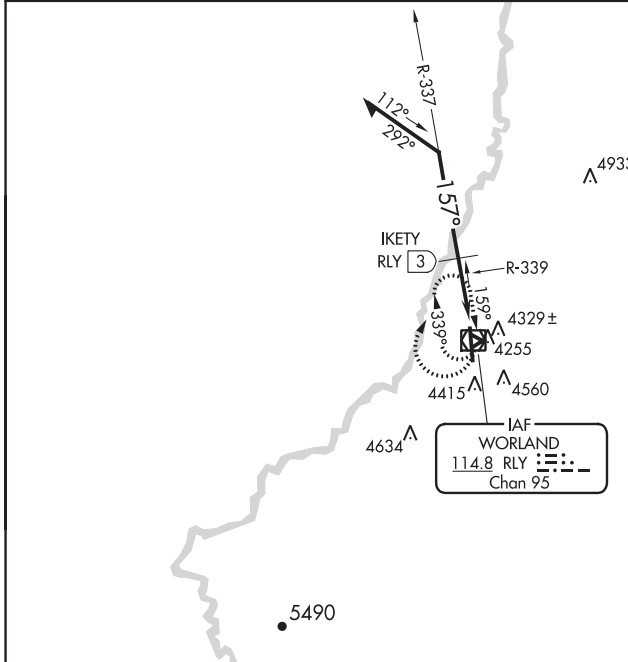
WORLAND MUNI (W.R.L.)

**⚠** When local altimeter setting not received, use Greybull altimeter setting and increase all MDA 140 feet, and all visibilities ½ mile. Helicopter visibility reduction below ¾ SM NA. VDP NA with Greybull altimeter setting.

**❄** -33°C

**MISSED APPROACH:** Climbing right turn to 7000 in RLY VOR/DME holding pattern.

ASOS <b>135.475</b>	SALT LAKE CENTER <b>133.25 285.6</b>	UNICOM <b>123.05 (CTAF)</b> <b>📻</b>
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CATEGORY	A	B	C	D
S-16	5040-1 838 (800-1)	5040-1¼ 838 (800-1¼)	5040-2½	838 (800-2½)
CIRCLING	5040-1 788 (800-1)	5040-1¼ 788 (800-1¼)	5040-2½	788 (800-2½)
<b>IKETY FIX MINIMUMS</b>				
S-16	4600-1	398 (400-1)	4600-1¼	398 (400-1¼)
CIRCLING	4880-1 628 (700-1)	4900-1 648 (700-1)	4900-1¾ 648 (700-1¾)	4900-2 648 (700-2)

REIL Rlys 16 and 34 **📻**  
MIRL Rwy 16-34 **📻**

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

AL-801 (FAA)

WORLAND MUNI (W.R.L.)  
WORLAND, WYOMING

ASOS  
135.475  
CTAF/UNICOM  
123.050



△ 4213

ELEV 91  
4174

A1

164.5°

1.1% UP



A2

ELEV 4185

108.0°

1.6% UP

JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.1° W



43°58.0'N

2502 X 60

288.0°

ELEV 4225

28

ELEV 4225

2241 X 60

226.3°

ELEV 4225

A3

7000 X 100

0.5% UP

0.46.3°

ELEV 4214

RWY 16-34  
PCN 18 F/C/X/T

A4

344.5°

A5

FIELD  
ELEV 4252

34

43°57.0'N

107°57.5'W

107°56.5'W

# AIRPORT DIAGRAM

WORLAND, WYOMING  
WORLAND MUNI (W.R.L.)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



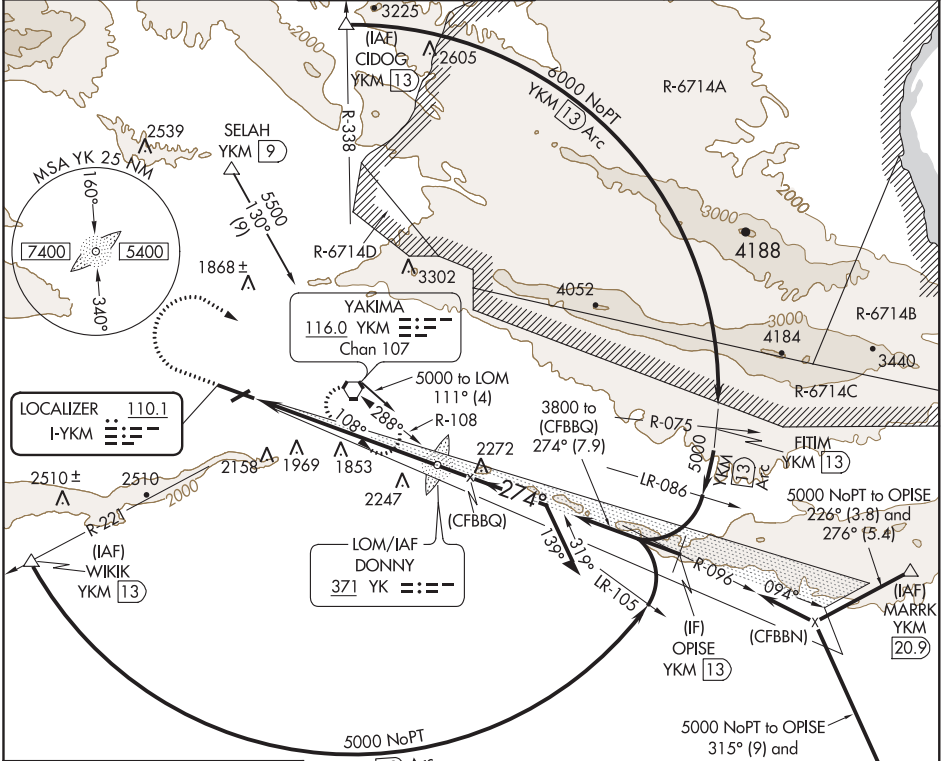
LOC I-YKM <b>110.1</b>	APP CRS <b>274°</b>	Rwy Idg TDZE Apt Elev	<b>7604</b> <b>1068</b> <b>1099</b>
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# ILS Y RWY 27

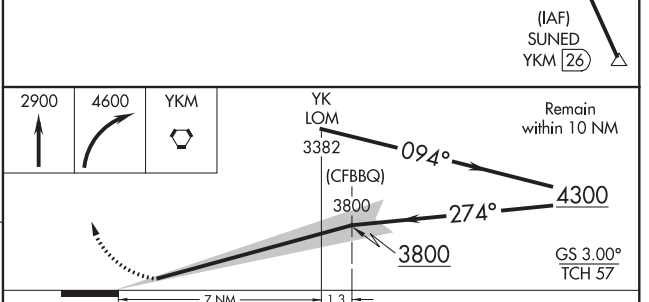
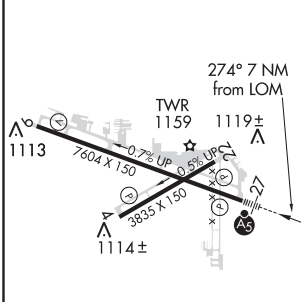
YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

	When local altimeter setting not received, procedure NA. ADF or DME required. Inoperative table does not apply.		MISSED APPROACH: Climb to 2900 then climbing right turn to 4600 direct YKM VORTAC and hold, continue climb-in-hold to 4600.
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ATIS <b>125.25</b>	CHINOOK APP CON* <b>123.8 263.15</b>	YAKIMA TOWER* <b>133.25 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 1099		TDZE 1068
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MIRL Rwy 4-22 HIRL Rwy 9-27 REIL Rws 4, 9, and 22	CATEGORY	A	B	C	D
	S-ILS 27		1725-2	657 (700-2)	

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

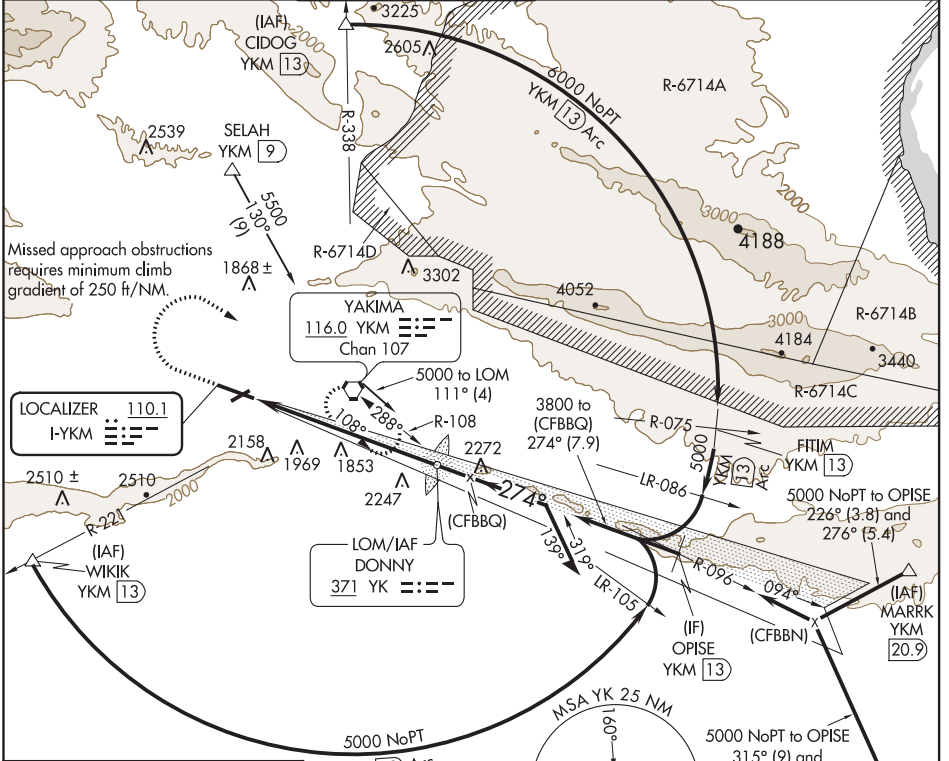
LOC I-YKM <b>110.1</b>	APP CRS <b>274°</b>	Rwy Idg TDZE Apt Elev	<b>7604</b> <b>1068</b> <b>1099</b>
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# ILS Z RWY 27

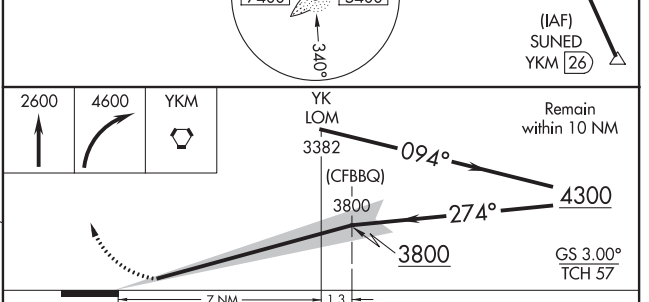
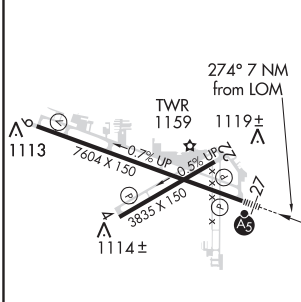
YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

-23°C/-9°F	ADF or DME required. When local altimeter setting not received, procedure NA. **RVR 1800 authorized with use of FD or AP or HUD to DA.	MALS R 	MISSED APPROACH: Climb to 2600 then climbing right turn to 4600 direct YKM VORTAC and hold, continue climb-in-hold to 4600.
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ATIS <b>125.25</b>	CHINOOK APP CON* <b>123.8 263.15</b>	YAKIMA TOWER* <b>133.25 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 1099	<b>D</b>	TDZE 1068
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MIRL Rwy 4-22 HIRL Rwy 9-27 REIL Rwy 4, 9, and 22	CATEGORY	A	B	C	D
	S-ILS 27		**1268/24	200 (200-1/2)	

# ILS Z RWY 27

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

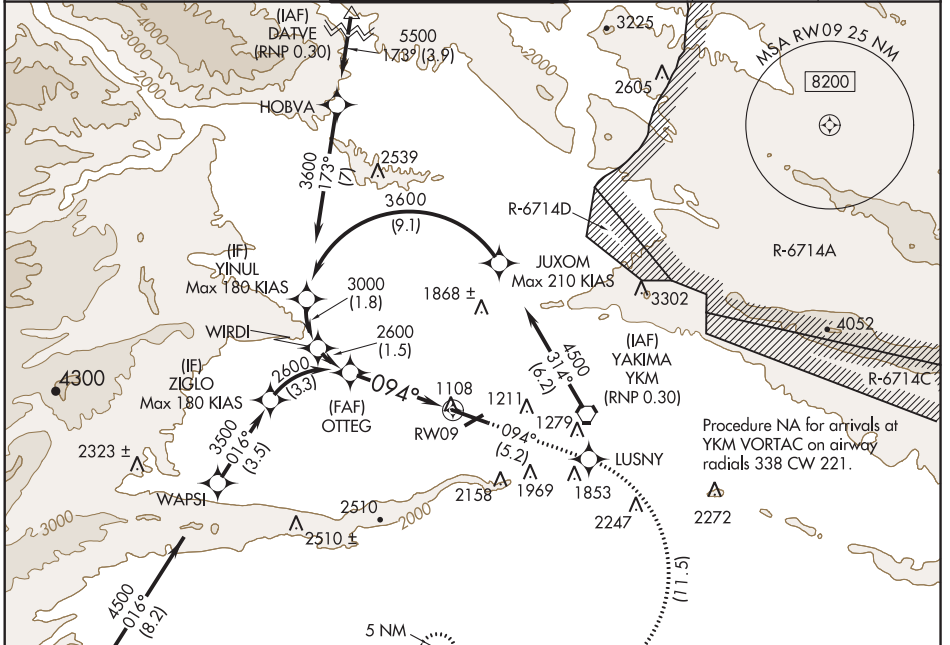
APP CRS	Rwy Idg	<b>7604</b>
<b>094°</b>	TDZE	<b>1099</b>
	Apt Elev	<b>1099</b>

# RNAV (RNP) RWY 9

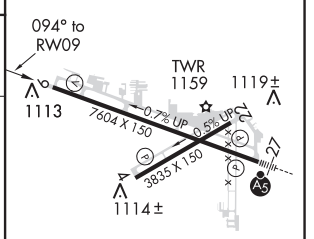
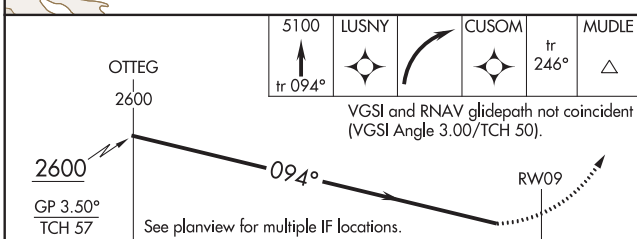
YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

**RF required.** GPS required. For uncompensated Baro-VNAV systems, procedure NA below -17°C (2°F) or above 45°C (113°F).  
 \* Missed approach requires a minimum climb of 425 feet per NM to 3000.  
**MISSED APPROACH:** Climb to 5100 on track 094° to LUSNY right turn to CUSOM and on track 246° to MUDLE and hold.

ATIS <b>125.25</b>	CHINOOK APP CON * <b>123.8 263.15</b>	YAKIMA TOWER * <b>133.25 (CTAF) 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 1099	TDZE 1099
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CATEGORY	A	B	C	D
RNP 0.30 DA*	1473-1	374 (400-1)		NA
RNP 0.30 DA	1934-2½	835 (900-2½)		NA

## AUTHORIZATION REQUIRED

MRL Rwy 4-22  
 HIRL Rwy 9-27  
 REIL Rws 4, 9, and 22

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

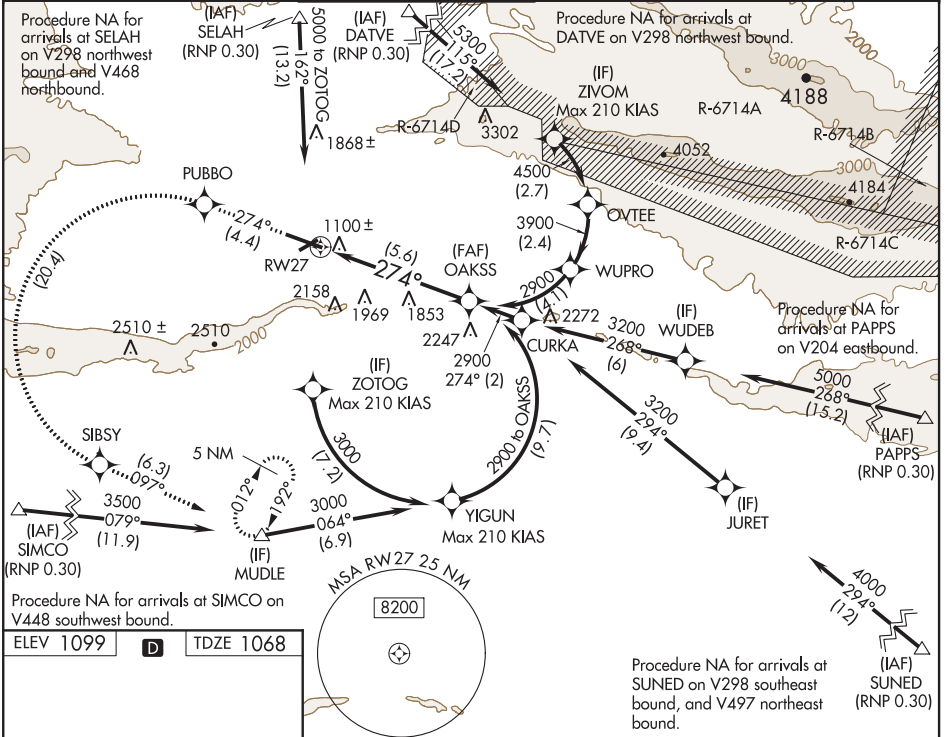
APP CRS <b>274°</b>	Rwy Idg TDZE Apt Elev	<b>7604</b> <b>1068</b> <b>1099</b>
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# RNAV (RNP) Y RWY 27

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

RF required. GPS required. For uncompensated Baro-VNAV systems, procedure NA below -17°C (2°F) or above 46°C (114°F). For inoperative MALSR increase *RNP 0.30 DA visibility all Cats to RVR 6000 and RNP 0.30 DA visibility all Cats to 2 3/4 mile. -23°C/-9°F *Missed approach requires minimum climb of 425 feet per NM to 3400.	MALSR MISSED APPROACH: Climb to 5100 on track 274° to PUBBO left turn to SIBSY and on track 097° to MUDLE and hold.				
		ATIS <b>125.25</b>	CHINOOK APP CON* <b>123.8 263.15</b>	YAKIMA TOWER* <b>133.25 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>

ATIS <b>125.25</b>	CHINOOK APP CON* <b>123.8 263.15</b>	YAKIMA TOWER* <b>133.25 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 1099 **D** TDZE 1068

MIRL Rwy 4-22  
HIRL Rwy 9-27 **1**  
REIL Rwys 4, 9, and 22

5100 ↑	tr 274°	PUBBO	←	SIBSY	tr 097°	MUDLE	OAKSS 2900
See Planview for multiple IF locations							
GP 3.00° TCH 57							

CATEGORY	A	B	C	D
RNP 0.30 DA*		1418/30	350 (400-5%)	
RNP 0.30 DA		1845-2 1/4	777 (800-2 1/4)	

## AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

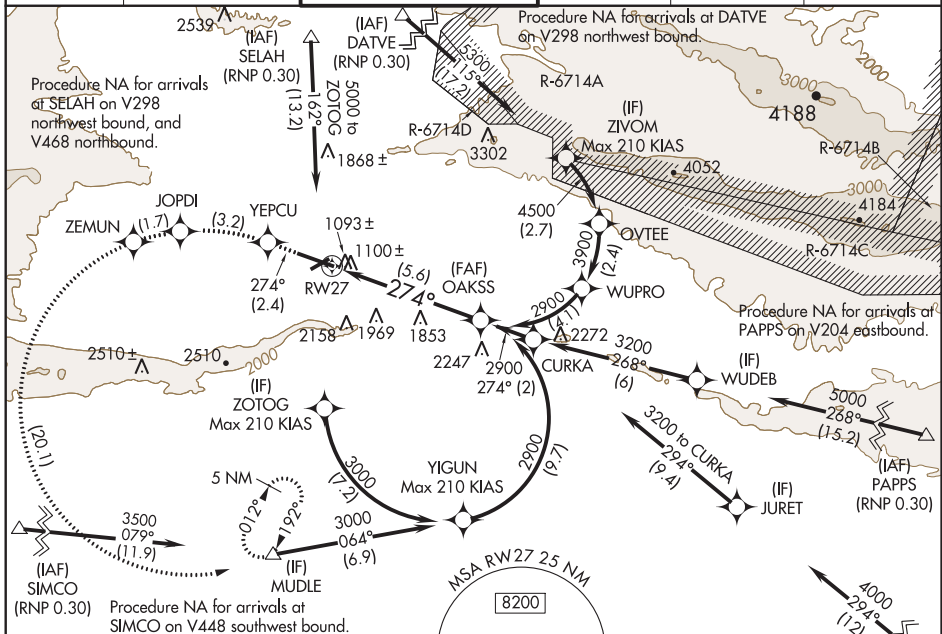
APP CRS	Rwy Idg	<b>7604</b>
<b>274°</b>	TDZE	<b>1068</b>
	Apt Elev	<b>1099</b>

# RNAV (RNP) Z RWY 27

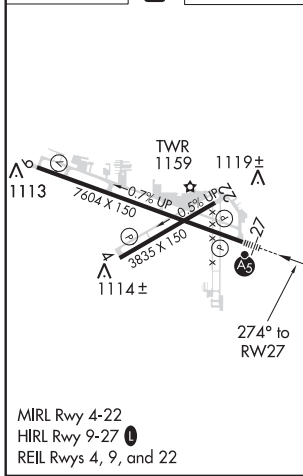
YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKIM)

-23°C/-9°F	RF required. GPS required. Missed approach requires RNP less than 1.0. For uncompensated Baro-VNAV systems, procedure NA below -17°C (2°F) or above 46°C (114°F). DATVE transition NA when R-6714 A, C, D active. For inoperative MALSR increase *RNP 0.10 DA visibility all Cats to RVR 4500 and RNP 0.30 DA visibility all Cats to 1 1/4 mile. *Missed approach requires minimum climb of 215 feet per NM to 4300 feet.	MALSR 	MISSED APPROACH: Climb to 5100 on track 274° to YEPCU left turn to JOPDI left turn to ZEMUN left turn to MUDLE and hold.

ATIS <b>125.25</b>	CHINOOK APP CON * <b>123.8 263.15</b>	YAKIMA TOWER * <b>133.25 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>	UNICOM <b>122.95</b>
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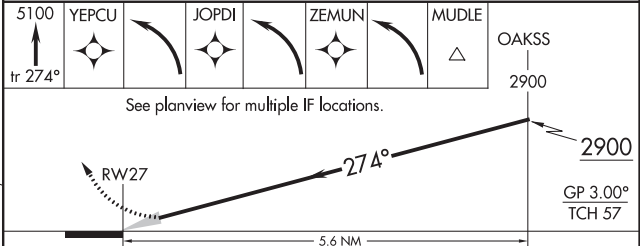


ELEV 1099	<b>D</b>	TDZE 1068
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Procedure NA for arrivals at SUNED on V298 eastbound, and V497 northeast bound.

(IAF) SUNED (RNP 0.30)



CATEGORY	A	B	C	D
RNP 0.10 DA*		1348/24	280 (300-1/2)	
RNP 0.30 DA		1468/45	400 (400-7/8)	

## AUTHORIZATION REQUIRED

NW-1, 10 NOV 2016 to 05 JAN 2017

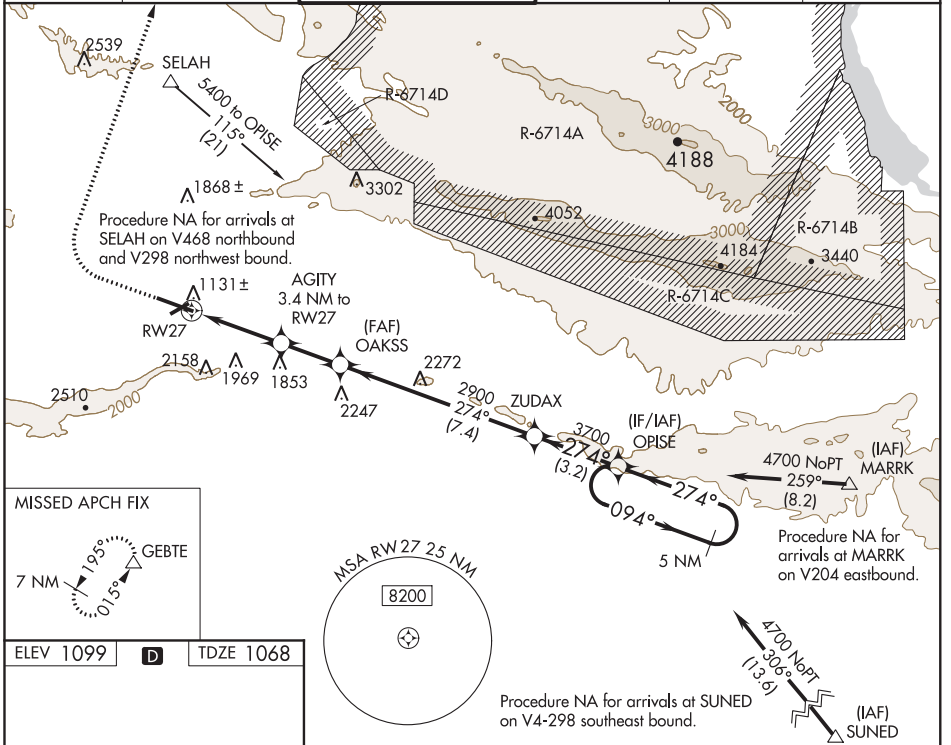
NW-1, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>7604</b>
<b>274°</b>	TDZE	<b>1068</b>
	Apt Elev	<b>1099</b>

# RNAV (GPS) W RWY 27

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

  	DME/DME RNP-0.3 NA. Circling NA south of Rwy 9/27. Night landing: Rwy 4 NA. *Missed approach requires minimum climb of 290 feet per NM to 4100.		 	MISSED APPROACH: Climb to 2000 then climbing right turn to 6500 direct GEBTE and hold, continue climb-in-hold to 6500.	
	ATIS <b>125.25</b>	CHINOOK APP CON* <b>123.8 263.15</b>		YAKIMA TOWER* <b>133.25 (CTAF) 257.8</b>	GND CON <b>121.9</b>



ELEV 1099	<b>D</b>	TDZE 1068		
CATEGORY	A	B	C	D
LNAV MDA*	1400/24	332 (400-½)	1400/30	332 (400-¾)
LNAV MDA	1980/40	912 (900-¾)	1980-2	912 (900-2)
CIRCLING	1980-1¼	881 (900-1¼)	1980-2¾ 881 (900-2¾)	1980-3 881 (900-3)

NW-1, 10 NOV 2016 to 05 JAN 2017

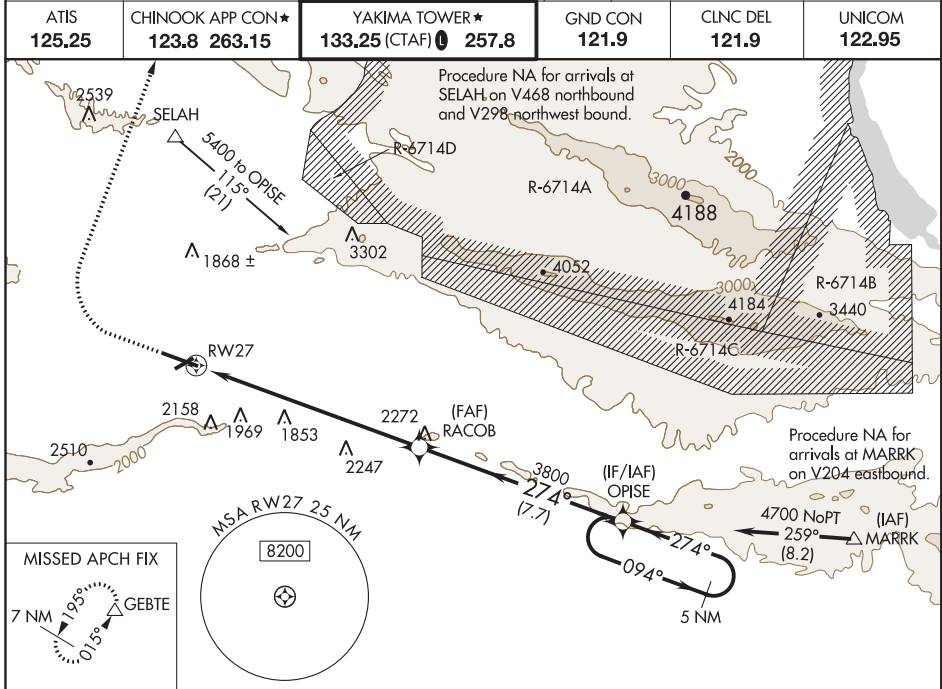
NW-1, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>90512</b> <b>W27A</b>	APP CRS <b>274°</b>	Rwy Idg <b>7604</b> TDZE <b>1068</b> Apt Elev <b>1099</b>
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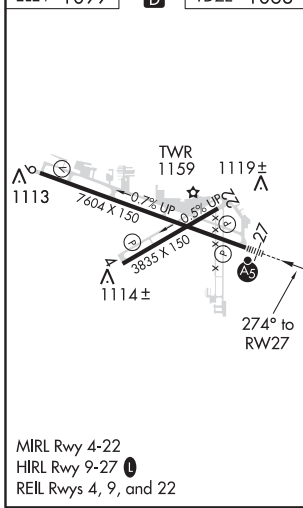
# RNAV (GPS) X RWY 27

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

-23°C/-9°F For inoperative MALS, increase LPV DA all Cats visibility to 1 1/2 mile. DME/DME RNP-0.3 NA. *Missed approach requires a minimum climb of 300 feet per NM to 3700.		MISSED APPROACH: Climb to 2100 then climbing right turn to 6500 direct GEBTE and hold, continue climb-in-hold to 6500.			
		ATIS <b>125.25</b>	CHINOOK APP CON* <b>123.8 263.15</b>	YAKIMA TOWER* <b>133.25 (CTAF) 257.8</b>	GND CON <b>121.9</b>



ELEV 1099	<b>D</b>	TDZE 1068
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MIRL Rwy 4-22  
HIRL Rwy 9-27  
REIL Rwys 4, 9, and 22

Procedure NA for arrivals at SUNED on V4-298 southeast bound, V497 northeast bound, and V497 southbound.			
2100	6500	GEBTE	
↑	↷	△	
RWY 27 (Elev 1099)		RACOB (Elev 3800)	OPISE (Elev 4700)
8.5 NM		7.7 NM	5 NM Holding Pattern
274°		274°	094°
3800		4700	
GP 3.00° TCH 57			
CATEGORY	A	B	C
LPV DA*	1268/24 200 (200-1/2)		
LPV DA	1568/60 500 (500-1 1/4)		

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

LOC I-YKM <b>110.1</b>	APP CRS <b>094°</b>	Rwy Idg TDZE Apt Elev	N/A N/A <b>1099</b>
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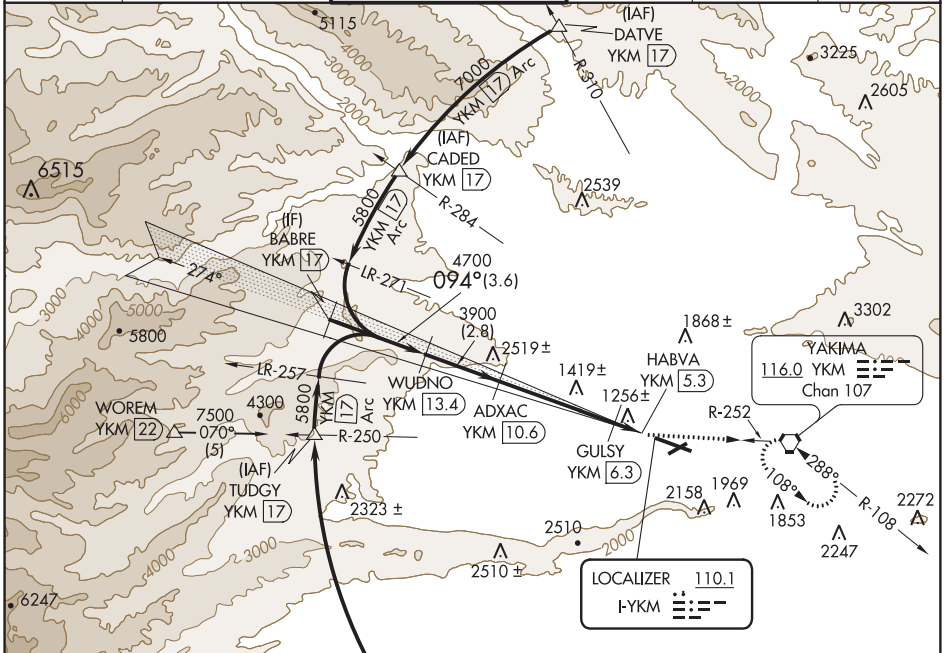
# LOC/DME BC-B

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

**Simultaneous reception of I-YKM and YKM DME required. Circling NA south of Rwy 9-27.**  
 -23°C/-9°F  
 When local altimeter setting not received, procedure NA.

**MISSED APPROACH:** Climb to 4600 via YKM VORTAC R-252 to YKM VORTAC and hold, continue climb-in-hold to 4600.

ATIS <b>125.25</b>	CHINOOK APP CON ★ <b>123.8 263.15</b>	YAKIMA TOWER ★ <b>133.25 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>	UNICOM <b>122.95</b>
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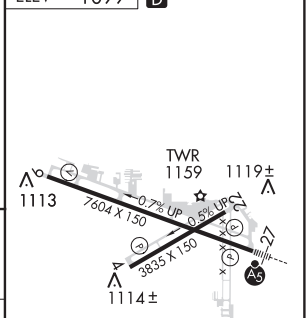


NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 1099 **D**



BABRE YKM 17	WUDNO YKM 13.4	ADXAC YKM 10.6	GULSY YKM 6.3	HABVA YKM 5.3	YKM 4600 YKM R-252
Procedure Turn NA	4700	3900	2160	5.94° TCH 50	Disregard glide slope indications.
3.6 NM		2.8 NM		4.4 NM	

CATEGORY	A	B	C	D
CIRCLING	1760-1	661 (700-1)	1760-1¾ 661 (700-1¾)	1800-2¼ 701 (800-2¼)

MIRL Rwy 4-22  
 HIRL Rwy 9-27  
 REIL Rws 4, 9, and 22

# LOC/DME BC-B




VORTAC YKM <b>116.0</b> Chan <b>107</b>	APP CRS <b>244°</b>	Rwy Idg TDZE Apt Elev	<b>7604</b> <b>1068</b> <b>1099</b>
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# VOR/DME or TACAN RWY 27

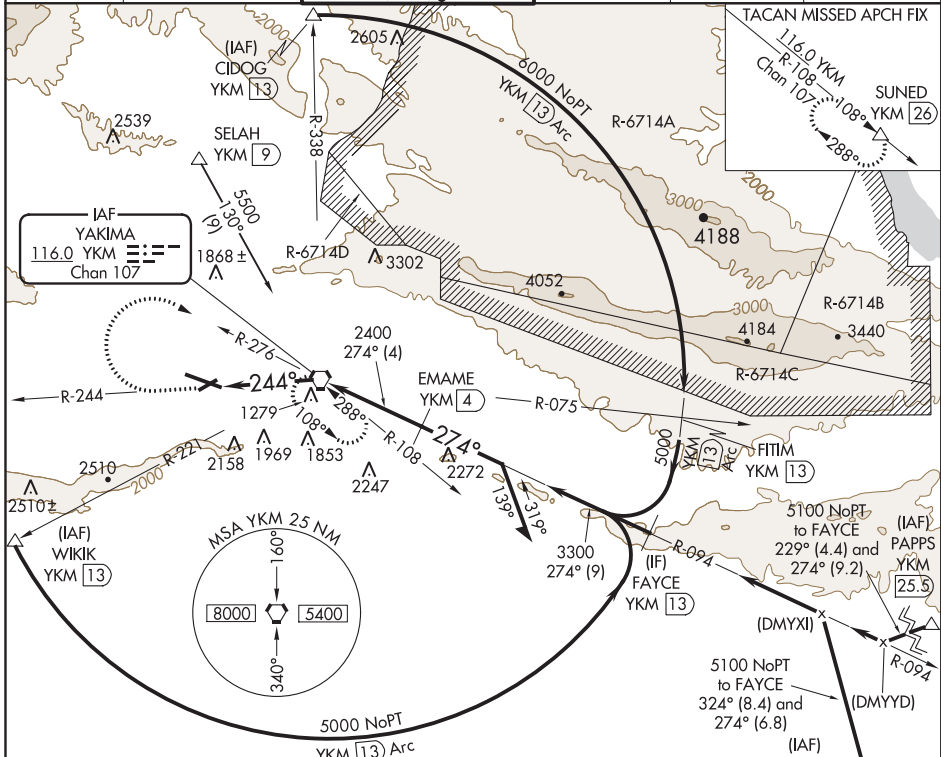
YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

**⚠** Inoperative table does not apply. Circling NA south of Rwy 9-27. When local altimeter setting not received, procedure NA.

**MALSR** 

**MISSED APPROACH:** Climb to 2600 via YKM VORTAC R-244, then climbing right turn to 4600 via YKM VORTAC R-276 to YKM VORTAC and hold, continue climb-in-hold to 4600 (TACAN aircraft, continue climb to 5000 via YKM VORTAC R-108 to SUNED/YKM 26 DME and hold west, right turns, 108° inbound).

ATIS <b>125.25</b>	CHINOOK APP CON * <b>123.8 263.15</b>	YAKIMA TOWER * <b>133.25 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

ELEV 1099	<b>D</b>	TDZE 1068
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MIRL Rwy 4-22  
HIRL Rwy 9-27  
REIL Rws 4, 9, and 22

2600	4600	YKM	YKM VORTAC	VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 57).
YKM R-244	YKM R-276		10000	Remain within 10 NM
		YKM 3.6	≤3.40° TCH 57	
		2400	274°	4400
		3300	094°	
		4 NM		

CATEGORY	A	B	C	D
S-27	2100/60 1032 (1100-1¼)	2100-1½ 1032 (1100-1½)	2100-3	1032 (1100-3)
CIRCLING	2100-1¼ 1001 (1100-1¼)	2100-1½ 1001 (1100-1½)	2100-3	1001 (1100-3)

YAKIMA, WASHINGTON

AL-465 (FAA)

16259

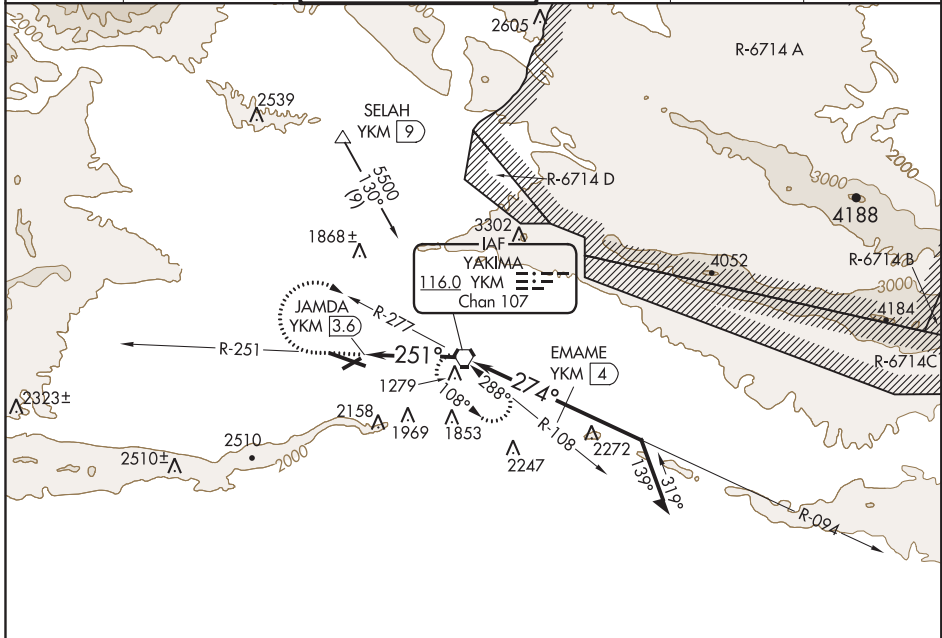
VORTAC YKM <b>116.0</b> Chan <b>107</b>	APP CRS <b>251°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>1099</b>
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**VOR-A**

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

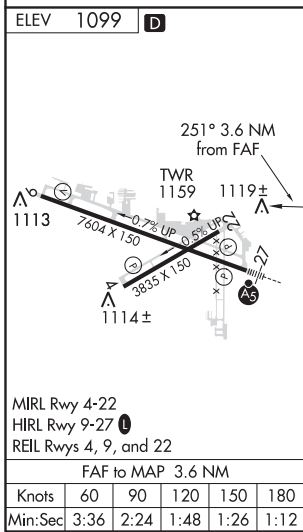
<p><b>▼</b> DME required. Circling not authorized south of Rwy 9-27. When local altimeter setting not received, procedure NA.</p>	<p><b>MISSED APPROACH:</b> Climb to 2600 via YKM VORTAC R-251 then climbing right turn to 4600 via YKM VORTAC R-277 to YKM VORTAC and hold, continue climb-in-hold to 4600.</p>
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ATIS <b>125.25</b>	CHINOOK APP CON* <b>123.8 263.15</b>	YAKIMA TOWER* <b>133.25 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 1099 <b>D</b>				
<p>2600 YKM R-251</p> <p>4600 YKM R-277</p> <p>YKM VORTAC</p> <p>10000</p> <p>Remain within 10 NM</p> <p>094°</p> <p>4500</p> <p>EMAME YKM 4</p> <p>274°</p> <p>3300</p> <p>251°</p> <p>2800</p> <p>3.6 NM</p> <p>4 NM</p>				
<p>FAF to MAP 3.6 NM</p> <p>Knots 60 90 120 150 180</p> <p>Min:Sec 3:36 2:24 1:48 1:26 1:12</p>	<p>CATEGORY</p> <p>A</p>	<p>B</p>	<p>C</p>	<p>D</p>
<p>CIRCLING</p>	<p>1840-1 741 (800-1)</p>	<p>1840-1¼ 741 (800-1¼)</p>	<p>1840-2¼ 741 (800-2¼)</p>	<p>1840-2½ 741 (800-2½)</p>

YAKIMA, WASHINGTON  
Amdt 7 17DEC09

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

46°34'N-120°33'W

**VOR-A**

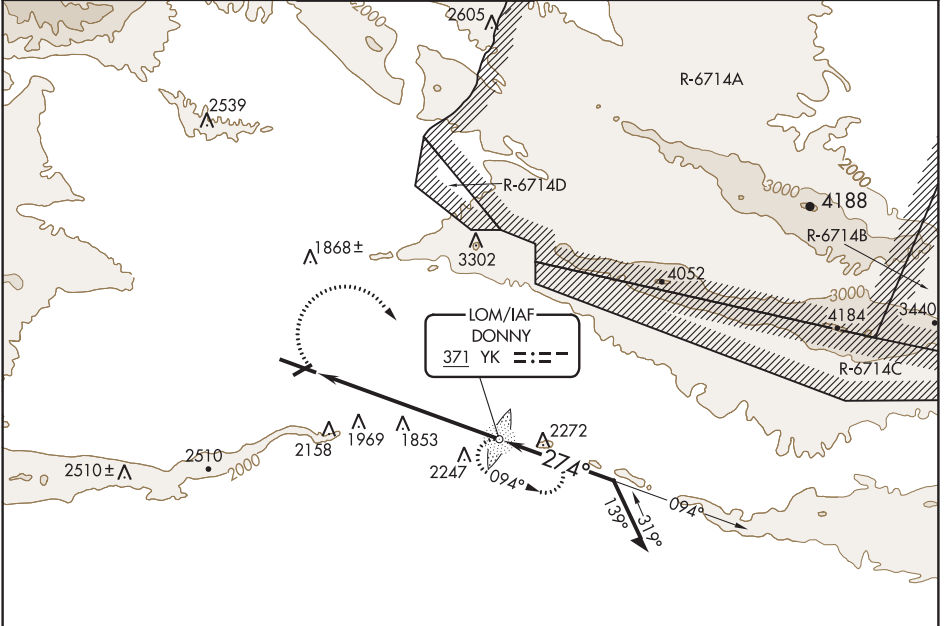
LOM YK <b>371</b>	APP CRS <b>274°</b>	Rwy Idg 7604 TDZE 1068 Apt Elev 1099
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# COPTER NDB RWY 27

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

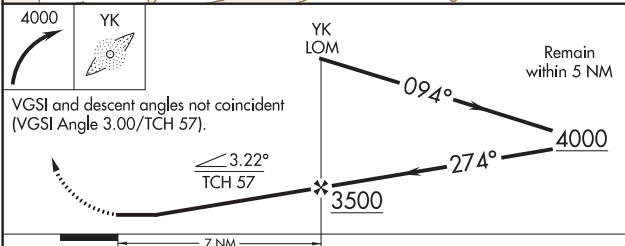
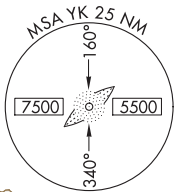
NA -23°C/-9°F	For inoperative MALS, increase H-27 visibility to RVR 5500.	MALS AS	MISSED APPROACH: Climbing right turn to 4000 direct DONNY LOM and hold.
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ATIS <b>125.25</b>	CHINOOK APP CON* <b>123.8 263.15</b>	YAKIMA TOWER* <b>133.25 (CTAF) 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>121.9</b>	UNICOM <b>122.95</b>
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NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017



ELEV 1099	<b>D</b>	TDZE 1068
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MIRL Rwy 4-22  
HIRL Rwy 9-27  
REIL Rws 4, 9, and 22

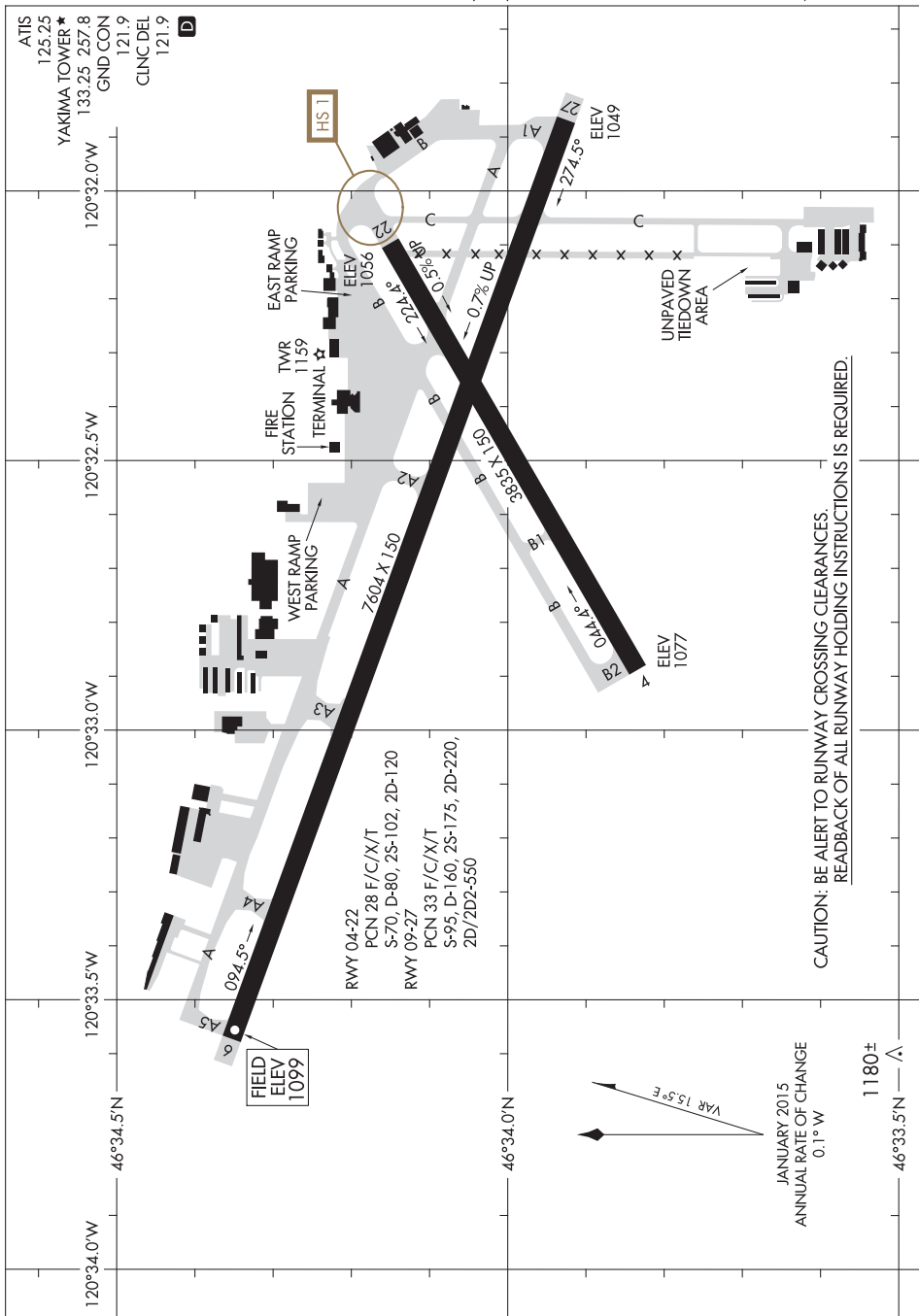
FAF to MAP 7 NM					
Knots	45	60	75	90	105
Min:Sec	9:20	7:00	5:36	4:40	4:00

CATEGORY	COPTER
H-27	2560/30 1492 (1500-5%)

# COPTER NDB RWY 27

# AIRPORT DIAGRAM

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)  
AL-465 (FAA)  
YAKIMA, WASHINGTON



NW-1, 10 NOV 2016 to 05 JAN 2017

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
REARBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NW-1, 10 NOV 2016 to 05 JAN 2017

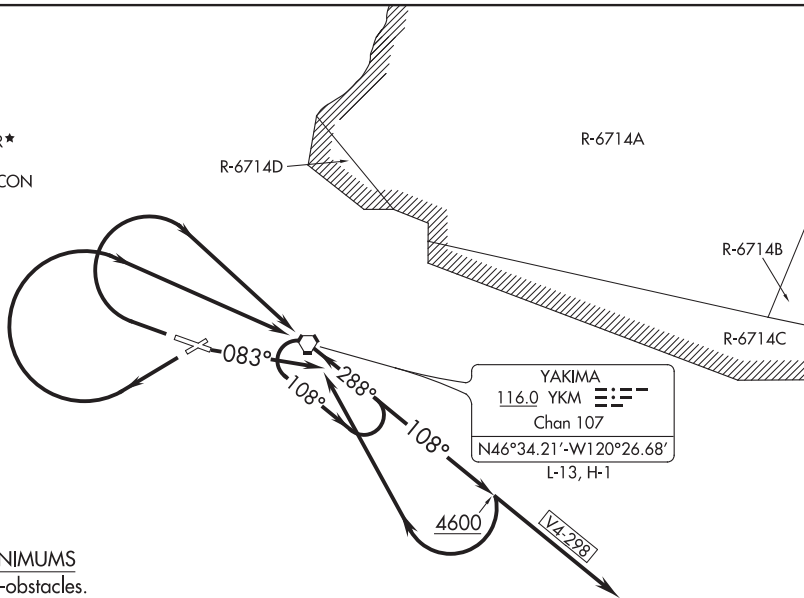
# AIRPORT DIAGRAM

16259

YAKIMA, WASHINGTON

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

ATIS  
 125.25  
 CLNC DEL  
 121.9  
 GND CON  
 121.9  
 YAKIMA TOWER\*  
 133.25 257.8  
 CHINOOK DEP CON  
 123.8 263.15



TAKEOFF MINIMUMS

- Rwy 4: NA-obstacles.
- Rwy 9: Standard with minimum climb of 250' per NM to 2600.
- Rwy 22: Standard with minimum climb of 325' per NM to 3900.
- Rwy 27: Standard with minimum climb of 330' per NM to 2600.

TAKEOFF OBSTACLE NOTES

- Rwy 9: OL on bldg 27' from DER, 507' right of centerline, 34' AGL/1074' MSL. Pole 388' from DER, 561' right of centerline, 34' AGL/1073' MSL. Trees beginning 586' from DER, 550' right of centerline, up to 100' AGL/1139' MSL.
- Rwy 22: Fence beginning 27' from DER, 435' right of centerline, up to 10' AGL/1085' MSL. Trees beginning 570' from DER, 228' left of centerline, up to 100' AGL/1199' MSL. Trees beginning 3195' from DER, 202' right of centerline, up to 100' AGL/1199' MSL. Trees beginning 1 NM from DER, 732' left of centerline, up to 100' AGL/1239' MSL.
- Rwy 27: Antenna on bldg 398' from DER, 282' left of centerline, 15' AGL/1117' MSL. Trees beginning 3824' from DER, 1341' right of centerline, up to 100' AGL/1239' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb heading 083° and outbound YKM R-108.

Thence. . .

TAKEOFF RUNWAYS 22, 27: Climbing right turn direct YKM VORTAC and outbound YKM R-108. Thence. . .

. . . . eastbound aircraft V4-298 continue on course, all other departures continue climb on YKM R-108 until 4600, then climbing right turn direct YKM VORTAC and hold to cross YKM VORTAC at or above MEA/MCA for route of flight.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017





DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9,27: Climbing left turn thence. . . .

TAKEOFF RUNWAY 22: Climbing right turn thence. . . .

. . . . intercept and proceed on YKM R-250 to GROMO/YKM 9 DME,  
then on assigned transition.

GUBSE TRANSITION (GROMO4.GUBSE): From over GROMO DME Fix on YKM 9 DME  
Arc to OGZOF DME fix and YKM VORTAC R-187 to GUBSE DME fix.

HITCH TRANSITION (GROMO4.HITCH): From over GROMO DME Fix on YKM 9 DME  
Arc to OGJOB DME fix and YKM VORTAC R-206 to HITCH DME fix.

PAPPS TRANSITION (GROMO4.PAPPS): From over GROMO DME Fix on YKM 9 DME  
Arc to OHKAR DME fix and YKM VORTAC R-087 to PAPPS DME fix.

SIMCO TRANSITION (GROMO4.SIMCO): From over GROMO DME Fix on YKM 9 DME  
Arc to OGFAW DME fix and YKM VORTAC R-221 to SIMCO INT.

SUNED TRANSITION (GROMO4.SUNED): From over GROMO DME Fix on YKM 9 DME  
Arc to OHAWY DME fix and YKM R-108 to SUNED INT.

TAMPO TRANSITION (GROMO4.TAMPO): From over GROMO DME Fix on  
YKM VORTAC R-250 to TAMPO INT.

TAKEOFF OBSTACLE NOTES

Rwy 9: OL on building 27' from DER, 507' right of centerline, 34' AGL/1074' MSL.  
Pole 388' from DER, 561' right of centerline, 34' AGL/1073' MSL.

Trees beginning 586' from DER, 550' right of centerline, up to 100' AGL/1139' MSL.

Rwy 22: Fence beginning 27' from DER, 435' right of centerline, up to 10' AGL/1085' MSL.

Trees beginning 570' from DER, 228' left of centerline, up to 100' AGL/1199' MSL.

Trees beginning 3195' from DER, 202' right of centerline, up to 100' AGL/1199' MSL.

Trees beginning 1 NM from DER, 732' left of centerline, up to 100' AGL/1239' MSL.

Rwy 27: Antenna on building 398' from DER, 282' left of centerline, 15' AGL/1117' MSL.

Trees beginning 3824' from DER, 1341' right of centerline, up to 100' AGL/1239' MSL.

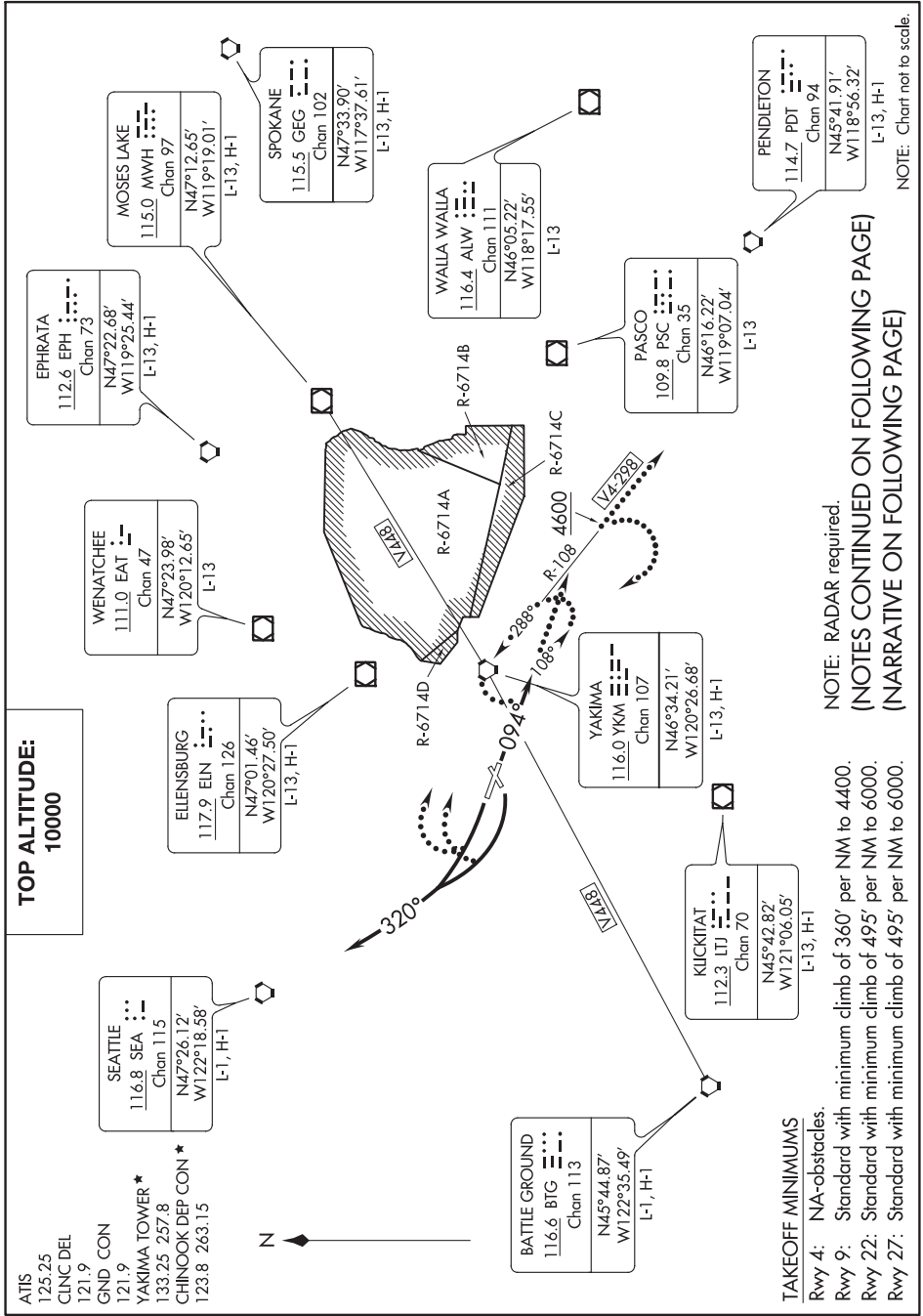
NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# NACHES FOUR DEPARTURE

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)  
SL-465 (FAA) YAKIMA, WASHINGTON

11.01.2016 10:05 AM NW-1



# NACHES FOUR DEPARTURE

10NOV16

NOTE: RADAR required.  
(NOTES CONTINUED ON FOLLOWING PAGE)  
(NARRATIVE ON FOLLOWING PAGE)

**TAKEOFF MINIMUMS**  
Rwy 4: NA-obstacles.  
Rwy 9: Standard with minimum climb of 360' per NM to 4400.  
Rwy 22: Standard with minimum climb of 495' per NM to 6000.  
Rwy 27: Standard with minimum climb of 495' per NM to 6000.

NOTE: Chart not to scale.

NW-1, 10 NOV 2016 to 05 JAN 2017





## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb heading 094° for vector to assigned route/fix. Thence . . . .

TAKEOFF RUNWAYS 22, 27: Climbing right turn heading 320° for vector to assigned route/fix. Thence . . . .

. . . . maintain 10000 or assigned lower altitude. Expect clearance to filed altitude 5 minutes after departure.

LOST COMMUNICATIONS: If no transmissions are received for one minute after departure:

Runway 9: Climb heading 094° and outbound YKM VORTAC R-108.

Runways 22, 27: Climbing right turn direct YKM VORTAC and outbound YKM R-108, eastbound aircraft V4-V298 continue on course, all other departures continue climb on YKM R-108, until 4600, then climbing right turn direct YKM VORTAC and hold to cross YKM VORTAC at or above MEA or MCA for route of flight.

### TAKEOFF OBSTACLE NOTES

Rwy 9: OL on building 27' from DER, 507' right of centerline, 34' AGL/1074' MSL.

Pole 388' from DER, 561' right of centerline, 34' AGL/1073' MSL.

Trees beginning 586' from DER, 550' right of centerline, up to 100' AGL/1139' MSL.

Multiple trees, poles and towers beginning 3.6 NM from DER, 4462' right of centerline, up to 303' AGL/2247' MSL.

Rwy 22: Fence beginning 27' from DER, 435' right of centerline, up to 10' AGL/1083' MSL.

Trees beginning 570' from DER, 228' left of centerline, up to 100' AGL/1199' MSL.

Trees beginning 3195' from DER, 202' right of centerline, up to 100' AGL/1199' MSL.

Trees beginning 1 NM from DER, 732' left of centerline, up to 100' AGL/1239' MSL.

Rwy 27: Antenna on bldg 398' from DER, 282' left of centerline, 15' AGL/1117' MSL.

Trees beginning 3824' from DER, 1341' right of centerline, up to 100' AGL/1239' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(WENAS7.WENAS) 16315

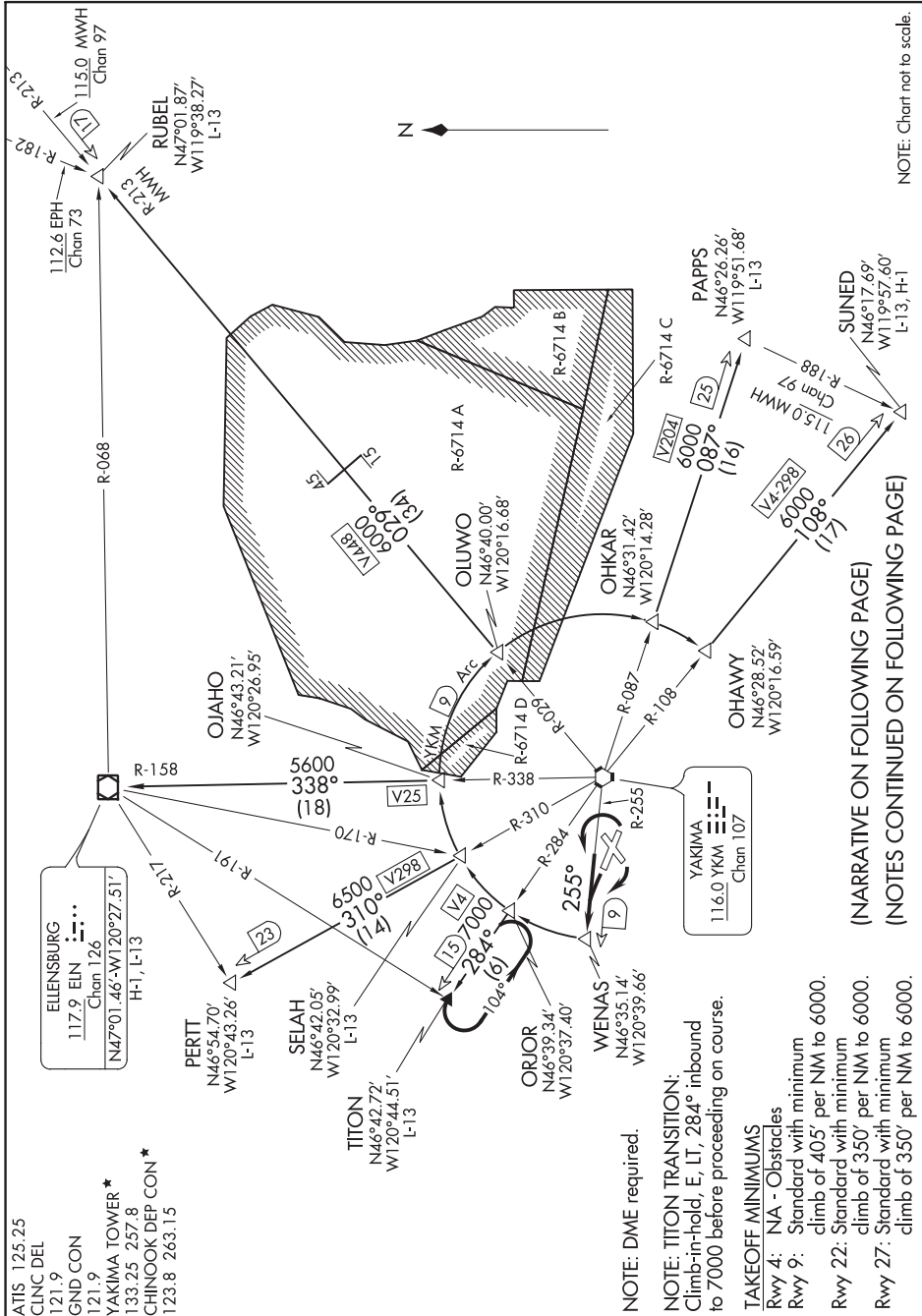
# WENAS SEVEN DEPARTURE

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

SL-465 (FAA)

YAKIMA, WASHINGTON

NW-1, 10 NOV 2016 to 05 JAN 2017



NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NW-1, 10 NOV 2016 to 05 JAN 2017

- ATIS 125.25
- CLNC DEL 121.9
- GND CON 121.9
- YAKIMA TOWER\* 133.25 257.8
- CHINOOK DEP CON\* 123.8 263.15

# WENAS SEVEN DEPARTURE

(WENAS7.WENAS) 10NOV16

NOTE: DME required.

NOTE: TITON TRANSITION:  
Climb-in-hold, E, LT, 284° inbound  
to 7000 before proceeding on course.

TAKEOFF MINIMUMS

- Rwy 4: NA - Obstacles
- Rwy 9: Standard with minimum climb of 405' per NM to 6000.
- Rwy 22: Standard with minimum climb of 350' per NM to 6000.
- Rwy 27: Standard with minimum climb of 350' per NM to 6000.

YAKIMA, WASHINGTON

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9,27: Climbing left turn thence. . . .

TAKEOFF RUNWAY 22 : Climbing right turn thence. . . .

. . . . intercept and proceed on YKM VORTAC R-255 to WENAS/YKM 9 DME, then on assigned transition.

ELLENSBURG TRANSITION (WENAS7.ELN): From over WENAS DME Fix on YKM 9 DME Arc to OJAHO DME fix and YKM VORTAC R-338 and ELN VORTAC R-158 to ELN VOR/DME.

PAPPS TRANSITION (WENAS7.PAPPS): From over WENAS DME Fix on YKM 9 DME Arc to OHKAR DME fix and YKM VORTAC R-087 to PAPPS INT.

PERTT TRANSITION (WENAS7.PERTT): From over WENAS DME Fix on YKM 9 DME Arc to SELAH DME fix and YKM VORTAC R-310 to PERTT INT.

RUBEL TRANSITION (WENAS7.RUBEL): From over WENAS DME Fix on YKM 9 DME Arc to OLUWO DME fix and YKM VORTAC R-029 and MWH VOR/DME R-213 to RUBEL INT.

SUNED TRANSITION (WENAS7.SUNED): From over WENAS DME Fix on YKM 9 DME Arc to OHAWY DME fix and YKM VORTAC R-108 to SUNED INT.

TITON TRANSITION (WENAS7.TITON): From over WENAS DME Fix on YKM 9 DME Arc to ORJOR DME fix and YKM VORTAC R-284 to TITON INT.

TAKEOFF OBSTACLE NOTES

- Rwy 9: OL on building 27' from DER, 507' right of centerline, 34' AGL/1074' MSL.  
Pole 388' from DER, 561' right of centerline, 34' AGL/1073' MSL.  
Trees beginning 586' from DER, 550' right of centerline, up to 100' AGL/1139' MSL.
- Rwy 22: Fence beginning 27' from DER, 435' right of centerline, up to 10' AGL/1085' MSL.  
Trees beginning 570' from DER, 228' left of centerline, up to 100' AGL/1199' MSL.  
Trees beginning 3195' from DER, 202' right of centerline, up to 100' AGL/1199' MSL.  
Trees beginning 1 NM from DER, 732' left of centerline, up to 100' AGL/1239' MSL.
- Rwy 27: Antenna on building 398' from DER, 282' left of centerline, 15' AGL/1117' MSL.  
Trees beginning 3824' from DER, 1341' right of centerline, up to 100' AGL/1239' MSL.

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

(YKM7.YKM) 16315

# YAKIMA SEVEN DEPARTURE

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)  
YAKIMA, WASHINGTON

SL-465 (FAA)

ATIS 125.25  
CLNC DEL  
121.9  
GND CON  
121.9  
YAKIMA TOWER \*  
133.25 257.8  
CHINOOK DEP CON \*  
123.8 263.15

ELLENSBURG  
117.9 ELN  
Chan 126

TITON  
N46°42.72'  
W120°44.51'  
L-13

V4

284°  
(15)

YAKIMA  
116.0 YKM  
Chan 107  
N46°34.21'-W120°26.68'

**TAKEOFF MINIMUMS**

- Rwy 4: NA - obstacles.
- Rwy 9: Standard with minimum climb of 325' per NM to 5000.
- Rwy 22: Standard with minimum climb of 325' per NM to 5000.
- Rwy 27: Standard with minimum climb of 325' per NM to 5000.

**TAKEOFF OBSTACLE NOTES**

- Rwy 9: OL on Building 27' from DER, 507' right of centerline, 34' AGL/1074' MSL. Pole 388' from DER, 561' right of centerline, 34' AGL/1073' MSL. Trees beginning 586' from DER, 550' right of centerline, up to 100' AGL/1139' MSL.
- Rwy 22: Fence beginning 27' from DER, 435' right of centerline, up to 10' AGL/ 1085' MSL. Trees beginning 570' from DER, 228' left of centerline, up to 100' AGL/ 1199' MSL. Trees beginning 3195' from DER, 202' right of centerline, up to 100' AGL/ 1199' MSL. Trees beginning 1 NM from DER, 732' left of centerline, up to 100' AGL/ 1239' MSL.
- Rwy 27: Antenna on Bldg 398' from DER, 282' left of centerline, 15' AGL/1117' MSL. Trees beginning 3824' from DER, 1341' right of centerline, up to 100' AGL/ 1239' MSL.

NOTE: Chart not to scale.



**DEPARTURE ROUTE DESCRIPTION**

TAKEOFF RUNWAY 9: Climbing left turn direct YKM VORTAC, Thence...  
TAKEOFF RUNWAYS 22, 27: Climbing right turn direct YKM VORTAC. Thence ...  
.....Then climbing right turn to intercept YKM R-284 outbound to TITON INT and hold.  
Continue climb in hold to MEA/MCA for route of flight. Then on (assigned route).

# YAKIMA SEVEN DEPARTURE

(YKM7.YKM) 10NOV16

YAKIMA, WASHINGTON  
YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

NW-1, 10 NOV 2016 to 05 JAN 2017

NW-1, 10 NOV 2016 to 05 JAN 2017

# CLIMB/DESCENT TABLE 10042

## INSTRUMENT TAKEOFF OR APPROACH PROCEDURE CHARTS RATE OF CLIMB/DESCENT TABLE

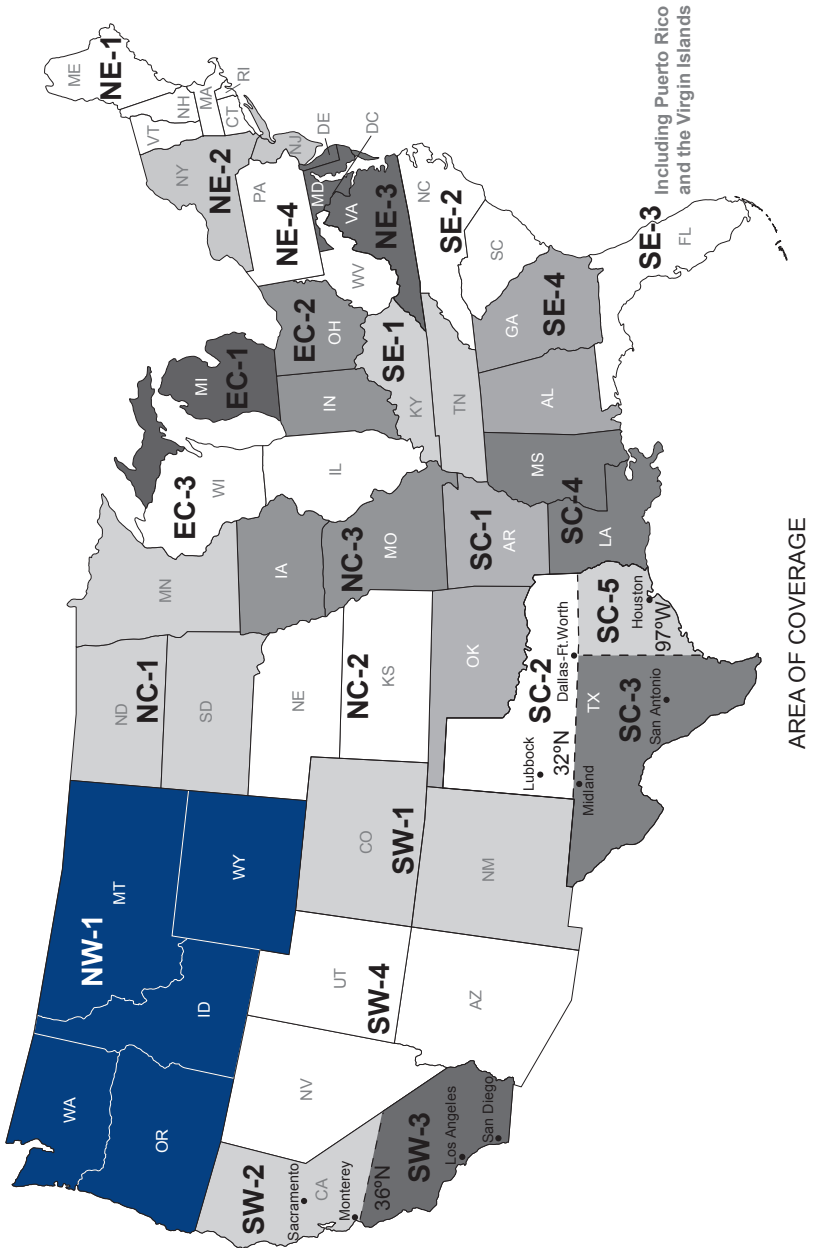
(ft. per min)

A rate of climb/descent table is provided for use in planning and executing climbs or descents under known or approximate ground speed conditions. It will be especially useful for approaches when the localizer only is used for course guidance. A best speed, power, altitude combination can be programmed which will result in a stable glide rate and altitude favorable for executing a landing if minimums exist upon breakout. Care should always be exercised so that minimum descent altitude and missed approach point are not exceeded.

CLIMB/ DESCENT ANGLE (degrees and tenths)	ft/NM	GROUND SPEED (knots)											
		60	90	120	150	180	210	240	270	300	330	360	
2.0	210	210	320	425	530	635	743	850	955	1060	1165	1275	
2.5	265	265	400	530	665	795	930	1060	1195	1325	1460	1590	
VERTICAL PATH ANGLE	2.7	287	287	430	574	717	860	1003	1147	1290	1433	1576	1720
	2.8	297	297	446	595	743	892	1041	1189	1338	1486	1635	1783
	2.9	308	308	462	616	770	924	1078	1232	1386	1539	1693	1847
	3.0	318	318	478	637	797	956	1115	1274	1433	1593	1752	1911
	3.1	329	329	494	659	823	988	1152	1317	1481	1646	1810	1975
	3.2	340	340	510	680	850	1020	1189	1359	1529	1699	1869	2039
	3.3	350	350	526	701	876	1052	1227	1402	1577	1752	1927	2103
	3.4	361	361	542	722	903	1083	1264	1444	1625	1805	1986	2166
3.5	370	370	555	745	930	1115	1300	1485	1670	1860	2045	2230	
4.0	425	425	640	850	1065	1275	1490	1700	1915	2125	2340	2550	
4.5	480	480	715	955	1195	1435	1675	1915	2150	2390	2630	2870	
5.0	530	530	795	1065	1330	1595	1860	2125	2390	2660	2925	3190	
5.5	585	585	880	1170	1465	1755	2050	2340	2635	2925	3220	3510	
6.0	640	640	960	1275	1595	1915	2235	2555	2875	3195	3510	3830	
6.5	690	690	1040	1385	1730	2075	2425	2770	3115	3460	3805	4155	
7.0	745	745	1120	1490	1865	2240	2610	2985	3355	3730	4105	4475	
7.5	800	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800	
8.0	855	855	1280	1710	2135	2560	2990	3415	3845	4270	4695	5125	
8.5	910	910	1360	1815	2270	2725	3180	3630	4085	4540	4995	5450	
9.0	960	960	1445	1925	2405	2885	3370	3850	4330	4810	5295	5775	
9.5	1015	1015	1525	2035	2540	3050	3560	4065	4575	5085	5590	6100	
10.0	1070	1070	1605	2145	2680	3215	3750	4285	4820	5355	5890	6430	

# CLIMB/DESCENT TABLE 10042

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AREA OF COVERAGE

FAA Product ID: BTPPNW1



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