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U.S. Terminal Procedures Publication

Southwest (SW) Vol 2 of 4

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10 NOV 2016

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05 JAN 2017

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



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CORRECTIONS, COMMENTS AND/OR PROCUREMENT

**FOR CHARTING ERRORS,
OR FOR CHANGES, ADDITIONS,
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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
	DA	Visibility (RVR 100's of feet)	Aircraft Approach Category	HAT/HATH	D
S-ILS 27		1352/24		200	(200-½)
S-LOC 27		1440/24	288	(300-½)	1440/50 288 (300-1)
CIRCLING	1540-1 361 (400-1)	MDA	1640-1 461 (500-1)	1640-1½ 461 (500-1½)	1740-2 561 (600-2)

Straight-in ILS to Runway 27
 Straight-in with Glide Slope Inoperative or not used to Runway 27
 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

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

TERMS/LANDING MINIMA DATA

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 ½ mile.

RVR (feet)	Visibility (statute miles)	RVR (feet)	Visibility (statute miles)
1600	¼	4500	⅝
2400	½	5000	1
3200	⅝	6000	1¼
4000	¾		

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	(100-¼)				
	28	2.5°/48/1068	ABCDE	187/16	100	(100-¼)				
ASR	10		ABC	560/40	463	(500-¾)	DE	560/50	463	(500-1)
	28		AB	600/50	513	(600-1)	CDE	600/60	513	(600-1¼)
CIR	10		AB	560-1¼	463	(500-1¼)	CDE	560-1½	463	(500-1½)
	28		AB	600-1¼	503	(600-1¼)	CDE	600-1½	503	(600-1½)

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 500-1½.

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., .
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., .

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

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		

GENERAL INFO

GENERAL INFO

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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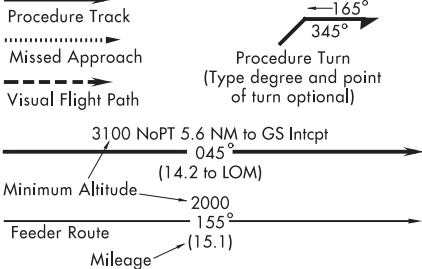
GENERAL INFO

LEGEND

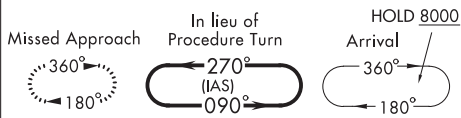
INSTRUMENT APPROACH PROCEDURES (CHARTS)

PLANVIEW SYMBOLS

TERMINAL ROUTES

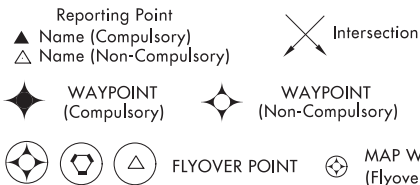


HOLDING PATTERNS

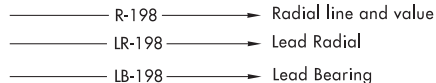


Holding pattern with max. restricted airspeed: (175K) applies to all altitudes. (210K) applies to altitudes above 6000' to and including 14000'. Arrival Holding Pattern altitude restrictions will be indicated when they deviate from the adjacent leg. Limits will only be specified when they deviate from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

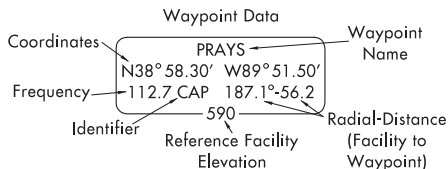
Marker beacons that are not specifically part of the procedure but underlie the final approach course are shown in screened color.

Localizer (LOC/LDA) Course
Right side shading- Front course; Left side shading- Back Course

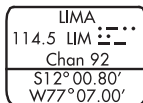
SDF Course

LOC/DME

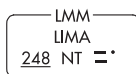
LOC/LDA/SDF Transmitter
(shown when installation is offset from its normal position off the end of the runway.)



Primary Navaid with Coordinate Values



Secondary Navaid



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LEGEND

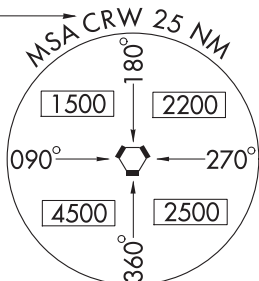
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INSTRUMENT APPROACH PROCEDURES (CHARTS)

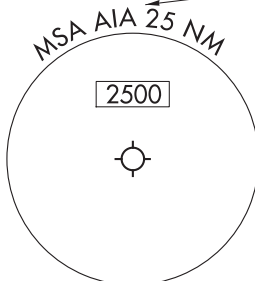
PLANVIEW SYMBOLS

MINIMUM SAFE ALTITUDE (MSA)

Facility Identifier

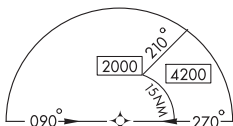


Airport Identifier

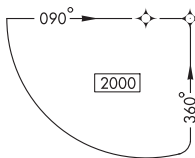


(arrows on distance circle identify sectors)

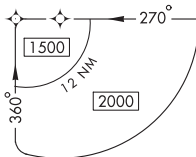
TERMINAL ARRIVAL AREA (TAA)



Straight-in Area

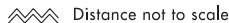
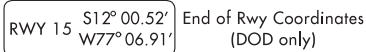


Right Base Area



Left Base Area

MISCELLANEOUS



AIRPORTS



Primary and Secondary (named in planview)



Seaplane Base

SPECIAL USE AIRSPACE



R-Restricted

P-Prohibited

W-Warning

A-Alert

OBSTACLES

• Spot Elevation



△ Highest Obstacle

● Highest Spot Elevation



± Doubtful accuracy

LEGEND

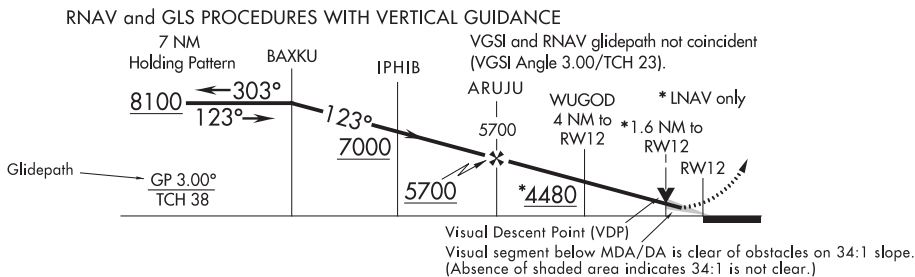
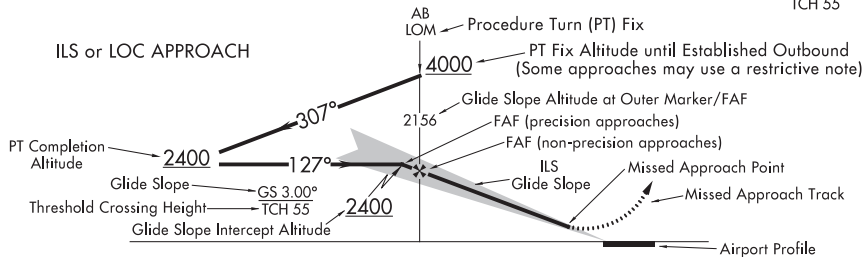
PROFILE VIEW

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

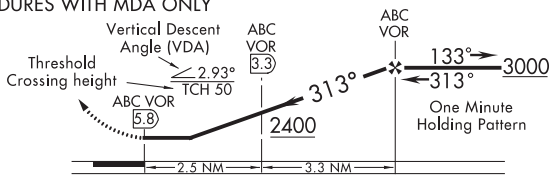
1. "GS" indicates that an Instrument Landing System (ILS) electronic glide slope (a ground antenna) provides vertical guidance. The profile section of ILS procedures depict a GS angle and TCH in the following format: $GS\ 3.00^\circ$.
TCH 55

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

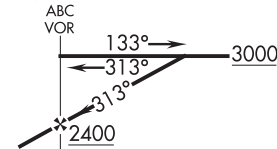
3. An advisory vertical descent angle (VDA) is provided on non-vertically guided conventional procedures and RNAV procedures with only a minimum descent altitude (MDA) to assist in preventing controlled flight into terrain. On Civil (FAA) procedures, this information is placed above or below the procedure 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

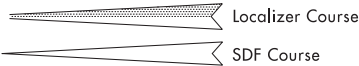
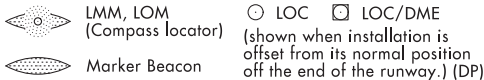
Applies to both STAR and DP Charts unless otherwise noted.

RADIO AIDS TO NAVIGATION

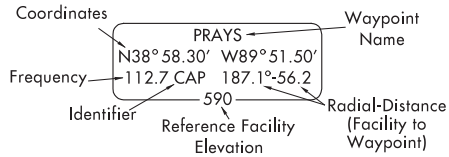
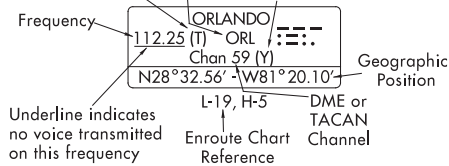
Compulsory:



Non-Compulsory:



(T) indicates frequency protection range (STAR) (Y) TACAN must be placed in "Y" mode to receive distance information



FIXES/ATC REPORTING REQUIREMENTS

Reporting Points
N00°00.00' W00°00.00'

(75) → DME Mileage (when not obvious)

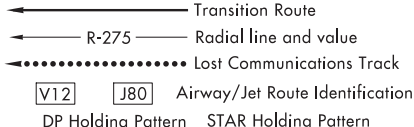
▲ Fix-Compulsory and
△ Non-Compulsory Position Report



X Computer Navigation Fix (CNF)
N00°00.00' W00°00.00'

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

5500 2300 4800

Mandatory Altitude (Cross at) Minimum Altitude (Cross at or above) Maximum Altitude (Cross at or below)

15000 12000

Block Altitude

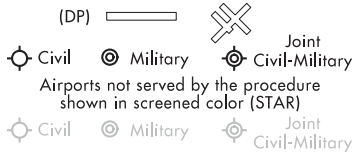
Altitude change at other than Radio Aids (STAR)

INDICATED AIRSPEED

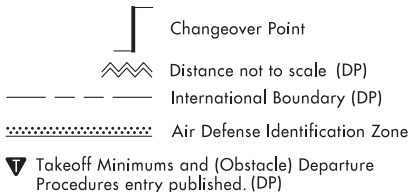
175K 120K 250K

Mandatory Airspeed Minimum Airspeed Maximum Airspeed

AIRPORTS



MISCELLANEOUS



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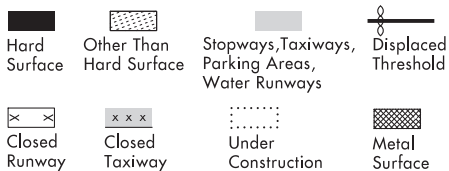
LEGEND

LEGEND

INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM/AIRPORT SKETCH

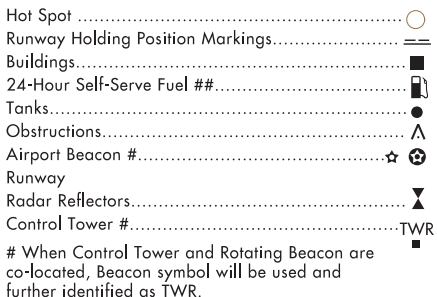
Runways



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



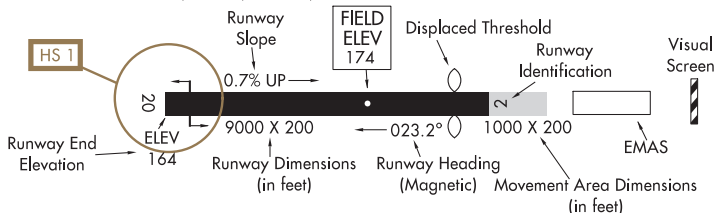
A fuel symbol is shown to indicate 24-hour self-serve fuel available, see appropriate Chart Supplement for information.

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) (H) (H) (H)
 Negative Symbols used to identify Copter Procedures landing point..... (H) (H) (H) (H) (H)

Runway Threshold elevation.....THRE 123
 Runway TDZ elevation.....TDZE 123
 Runway Slope.....0.8% UP (shown when runway slope is greater than or equal to 0.3%)
 ← 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

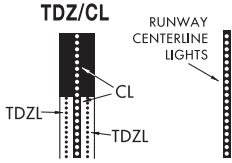
15344
LEGEND

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.

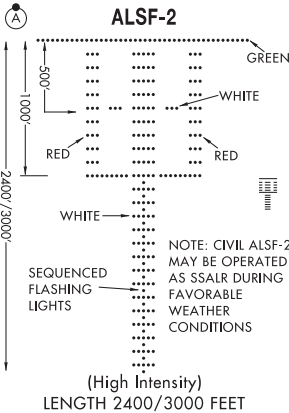
A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., (A1). Negative symbology, e.g., (A1), (V) indicates Pilot Controlled Lighting (PCL).

RUNWAY TOUCHDOWN ZONE AND CENTERLINE LIGHTING SYSTEMS

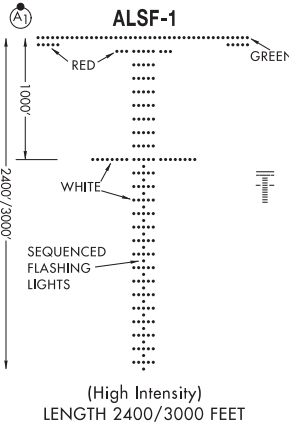


AVAILABILITY of TDZ/CL will be shown by NOTE in SKETCH e.g. "TDZ/CL Rwy 15"

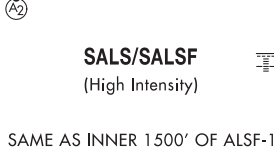
APPROACH LIGHTING SYSTEM



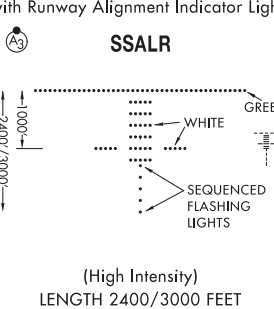
APPROACH LIGHTING SYSTEM



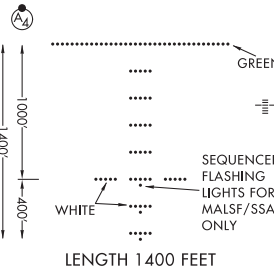
SHORT APPROACH LIGHTING SYSTEM



SIMPLIFIED SHORT APPROACH LIGHTING SYSTEM with Runway Alignment Indicator Lights



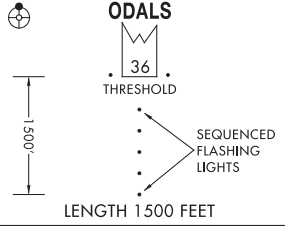
MEDIUM INTENSITY (MALS and MALSF) OR SIMPLIFIED SHORT (SSALS and SSALF) APPROACH LIGHTING SYSTEMS



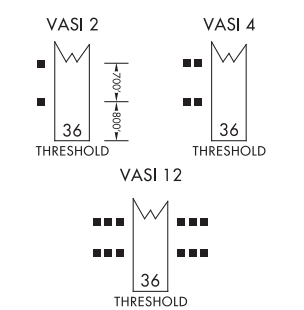
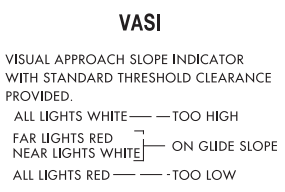
MEDIUM INTENSITY APPROACH LIGHTING SYSTEM with Runway Alignment Indicator Lights



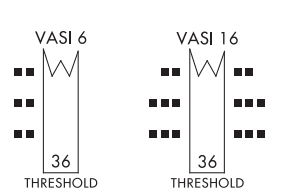
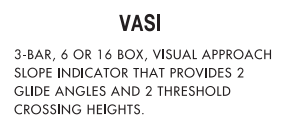
OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM



VISUAL APPROACH SLOPE INDICATOR



VISUAL APPROACH SLOPE INDICATOR



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LEGEND

04330
LEGEND

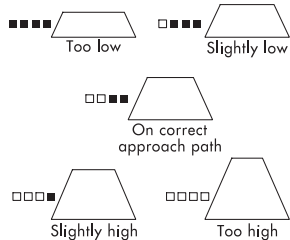
INSTRUMENT APPROACH PROCEDURES (CHARTS)
APPROACH LIGHTING SYSTEM - UNITED STATES

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

A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., (A₁F). Negative symbology, e.g., (A₁), (V) indicates Pilot Controlled Lighting (PCL).

(P) **PRECISION APPROACH PATH INDICATOR**

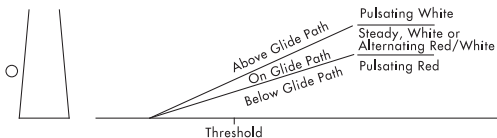
PAPI



Legend: □ White ■ Red

(V₂) **PULSATING VISUAL APPROACH SLOPE INDICATOR**

PVASI



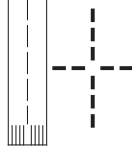
CAUTION: When viewing the pulsating visual approach slope indicators in the pulsating white or pulsating red sectors, it is possible to mistake this lighting aid for another aircraft or a ground vehicle. Pilots should exercise caution when using this type of system.

(V₁) **"T"-VISUAL APPROACH SLOPE INDICATOR**

"T"-VASI

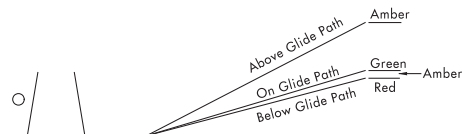


"T" ON BOTH SIDES OF RWY
ALL LIGHTS VARIABLE WHITE.
CORRECT APPROACH SLOPE-
ONLY CROSS BAR VISIBLE.
UPRIGHT "T"- FLY UP.
INVERTED "T"- FLY DOWN.
RED "T"- GROSS
UNDERSHOOT.



(V₄) **TRI-COLOR VISUAL APPROACH SLOPE INDICATOR**

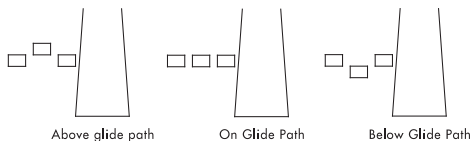
TRCV



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

(V₅) **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

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INDEX OF TERMINAL CHARTS AND MINIMUMS

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 ALTERNATE MINIMUMSM
 HOT SPOTP
 IAPS RNAV (GPS) Y RWY 19R48
 RNAV (GPS) Z RWY 19R49
 LDA RWY 19R50
 VOR RWY 19R51
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 DPS BUCHANAN ONE53
 KANAN THREE55

CRESCENT CITY, CA

JACK MCNAMARA FIELD(CEC)
 TAKEOFF MINIMUMSL
 ALTERNATE MINIMUMSM
 IAPS ILS OR LOC RWY 1257
 RNAV (GPS) RWY 1258
 RNAV (GPS) RWY 3659
 VOR/DME RWY 1260
 VOR/DME RWY 3661
 VOR RWY 1262

DAVIS, CA

UNIVERSITY(EDU)
 TAKEOFF MINIMUMSL
 IAPS RNAV (GPS) RWY 1763

DAVIS/WOODLAND/WINTERS, CA

YOLO COUNTY(DWA)
 TAKEOFF MINIMUMSL
 IAPS RNAV (GPS) RWY 1664
 RNAV (GPS) RWY 3465

ELLS FIELD

---SEE WILLITS, CA

EUREKA, CA

MURRAY FIELD(EKA)
 TAKEOFF MINIMUMSL
 IAPS RNAV (GPS) RWY 1266
 RNAV (GPS)-B67
 VOR-A68

FAIRFIELD, CA

---SEE TRAVIS AFB

FIREBAUGH, CA

FIREBAUGH(F34)
 TAKEOFF MINIMUMSL
 IAPS RNAV (GPS)-B69
 VOR/DME-A70

FORTUNA, CA

ROHNERVILLE(FOT)
 TAKEOFF MINIMUMSL
 IAPS GPS RWY 1171
 GPS RWY 2972
 VOR RWY 1173

FRESNO, CA

FRESNO CHANDLER EXECUTIVE(FCH)
 TAKEOFF MINIMUMSL
 IAPS GPS RWY 1274
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 AIRPORT DIAGRAM77
FRESNO YOSEMITE INTL(FAT)
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 TAKEOFF MINIMUMSL
 IAPS VOR OR GPS-A92
 AIRPORT DIAGRAM93

GROVELAND, CA

PINE MOUNTAIN LAKE(E45)
 TAKEOFF MINIMUMSL
 IAPS RNAV (GPS) RWY 0994
 GPS RWY 2795

HAIGH FIELD

---SEE ORLAND, CA

HALF MOON BAY, CA

HALF MOON BAY(HAF)
 TAKEOFF MINIMUMSL
 DIVERSE VECTOR AREAL
 ALTERNATE MINIMUMSM
 IAPS RNAV (GPS) Y RWY 1296
 RNAV (GPS) Y RWY 3097
 RNAV (GPS) Z RWY 1298
 RNAV (GPS) Z RWY 3099

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HANFORD, CA			LEMOORE NAS (REEVES FIELD)(NLC)		
HANFORD MUNI(HJO)			LEMOORE, CA		
TAKEOFF MINIMUMS		L	TAKEOFF MINIMUMS		L
ALTERNATE MINIMUMS		M	RADAR MINIMUMS		N
IAPS	RNAV (GPS) RWY 32	100	IAPS	RNAV (GPS) RWY 14L	112
	RNAV (GPS)-A	101		RNAV (GPS) RWY 14R	113
	VOR-A	102		RNAV (GPS) RWY 32L	114
				RNAV (GPS) RWY 32R	115
				TACAN RWY 14L	116
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				TACAN RWY 32L	118
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	LOC/DME RWY 28L	104			
	VOR/DME-A	105			
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HERLONG, CA			LITTLE RIVER, CA		
---SEE AMEDEE AAF			LITTLE RIVER(LLR)		
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				RNAV (GPS) RWY 32	135
				VOR/DME RWY 32	136
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			MADERA MUNI(MAE)		
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			IAPS	RNAV (GPS) RWY 12	137
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TAKEOFF MINIMUMS		L	TAKEOFF MINIMUMS		L
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MARIPOSA-YOSEMITE(MPI)			SISKIYOU COUNTY(SIY)		
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			DIVERSE VECTOR AREA		L
			ALTERNATE MINIMUMS		M
			STARS PEBBS ONE		Z28
			IAPS ILS OR LOC RWY 10R		165
			RNAV (RNP) Z RWY 28L		166
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---SEE GRASS VALLEY, CA

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---SEE SAN JOSE, CA

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STARS	POINT REYES TWO	Z30		VOR/DME-A	261
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			IAPS		
			ILS OR LOC RWY 02		
			RNAV (GPS) RWY 02		
			VOR RWY 02		
			AIRPORT DIAGRAM		
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	RNAV (GPS) RWY 33	247	ILS RWY 16R (SA CAT I)		
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	RNAV (GPS) RWY 34	251	RNAV (GPS) Y RWY 34L		
	LOC/DME BC RWY 16	252	RNAV (GPS) Y RWY 34R		
	VOR RWY 34	253	RNAV (GPS) Y RWY 16R		
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	KENDL THREE	256	RNAV (GPS) Y RWY 34R		
	KREST THREE	257	RNAV (GPS) Y RWY 16R		
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			DUDES NINE		
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			FTHIL TWO (RNAV)		
			RVRCT TWO (RNAV)		
			SCTWN TWO (RNAV)		
			SACRAMENTO MATHER(MHR)		
			TAKEOFF MINIMUMS		
			ALTERNATE MINIMUMS		
			STARS		
			AMRVR ONE (RNAV)		
			IAPS		
			ILS OR LOC/DME RWY 22L		
			RNAV (GPS) RWY 04R		
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TAKEOFF MINIMUMS		L	TAKEOFF MINIMUMS		L
DIVERSE VECTOR AREA		L	DIVERSE VECTOR AREA		L
ALTERNATE MINIMUMS		M	ALTERNATE MINIMUMS		M
HOT SPOT		P	HOT SPOT		P
IAPS	ILS RWY 31	293	STARS	ALWYS ONE (RNAV)	23
	RNAV (GPS) RWY 13	294		BDEGA TWO (RNAV)	28
	RNAV (GPS) Y RWY 31	295		BIG SUR THREE	29
	RNAV (GPS) Z RWY 31	296		DYAMD THREE (RNAV)	214
	LOC/DME RWY 31	297		GOLDEN GATE SEVEN	221
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				ILS RWY 28R (SA CAT I)	310
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				RNAV (GPS) Y RWY 10R	320
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BRIXX TWO (RNAV)Z11

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ALTERNATE MINIMUMSM

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	PEBLN ONE (RNAV)	Z29	IAPS	ILS OR LOC/DME RWY 30	444
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IAPS	ILS OR LOC RWY 03L	417	WATSONVILLE MUNI(WVI)		
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	ILS RWY 21L (CAT II)	419	ALTERNATE MINIMUMS		M
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IAPS	RNAV (GPS) RWY 11	429		RNAV (GPS) RWY 34	454
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			IAPS	RNAV (GPS) RWY 34	457
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MEFFORD FIELD(TLR)			WATTS-WOODLAND(O41)		
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	LOC RWY 15	438			
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DPS	RONHU ONE (RNAV)	440			
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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
ALTURAS, CA		ARCATA-EUREKA, CA	
ALTURAS MUNI (AAT)		ARCATA (ACV)	
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES		TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES	
AMDT 2 08101 (FAA)		AMDT 7 12040 (FAA)	
DEPARTURE PROCEDURE: Use BACHS DEPARTURE.		TAKEOFF MINIMUMS: Rwy 1 , Std. w/min. climb of 355' per NM to 1100 or 1000-2½ for climb in visual conditions. Rwy 14 , 500-2 1/8 or std. w/min. climb of 445' per NM to 900.	
AMEDEE AAF (KAHC),		DEPARTURE PROCEDURE: Rwy 1 , climbing left turn thence ..., or for climb in visual conditions: cross Arcata Airport westbound at or above 1100. When executing VCOA, notify ATC prior to departure. Thence ...	
HERLONG, CA		Rwys 14, 19 , climbing right turn thence ...	
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES		Rwy 32 , climbing left turn thence ...	
AMDT 1, 09239		... On ACV R-250 to HOCUT INT and continue climb to MEA on V27.	
Rwy 8, 26: 4000-3 for climb in visual conditions.		NOTE: Rwy 1 , trees beginning 222' from DER, 391' right of centerline, up to 200' AGL/799' MSL. Trees beginning 321' from DER, 343' left of centerline, up to 200' AGL/839' MSL.	
Rwy 8, 26: Cross Amedee AAF at or above 7900 before proceeding on course.		Rwy 14 , trees beginning 1086' from DER, 716' right of centerline, up to 100' AGL/286' MSL. Trees beginning 4708' from DER, 1558' left of centerline, up to 200' AGL/679' MSL. Rwy 19 , trees beginning 543' from DER, 298' right of centerline, up to 31' AGL/218' MSL. Vegetation 16' from DER, 270' right of centerline, 4' AGL/191' MSL. Rwy 32 , trees beginning 4' from DER, 334' left of centerline, up to 20' AGL/202' MSL. Trees beginning 1037' from DER, 644' right of centerline, up to 85' AGL/267' MSL. Fence 268' from DER, 476' right of centerline, 15' AGL/197' MSL. NAVAID 581' from DER, 258' right of centerline, 20' AGL/202' 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)

ATWATER, CA

CASTLE (MER)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1A 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, std. w/ min. climb of 250' per NM to 2500 or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 13**, climb heading 126° to 2500 before turning left. For climb in visual conditions, cross Castle Airport at or above 2200 before proceeding on course. **Rwy 31**, climb heading 306° to 1100 before turning right.

NOTE: **Rwy 13**, tree 2539' from DER, 1005' right of centerline, 89' AGL/261' MSL. **Rwy 31**, tree 1274' from DER, 829' left of centerline, 20' AGL/224' MSL. Trees beginning 2909' from DER, 542' right of centerline, 65' AGL/269' MSL.

AUBURN, CA

AUBURN MUNI (AUN)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1A 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, 300-1 w/ min. climb of 387' per NM to 2500, or 1100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 7**, climbing left turn to 5000 heading 310°, and MYV VOR/DME R-083 to MYV VOR/DME, then via MYV VOR/DME R-263 to YUBBA INT before proceeding on course, or for climb in visual conditions: cross Auburn Muni airport at or above 2500, continue climb to 5000 via heading 275° and MYV VOR/DME R-094 to MYV VOR/DME, then via MYV VOR/DME R-263 to YUBBA INT before proceeding on course. **Rwy 25**, climbing right turn to 5000 via heading 310° and MYV VOR/DME R-083 to MYV VOR/DME, then via MYV VOR/DME R-263 to YUBBA INT before proceeding on course.

NOTE: **Rwy 7**, trees beginning 1117' from DER, 504' right of centerline, up to 40' AGL/1708' MSL. Pole 1365' from DER, 600' right of centerline, 59' AGL/1679' MSL. Tree 3791' from DER, 700' right of centerline, 40' AGL/1639' MSL. **Rwy 25**, tree 37' from DER, 479' left of centerline, 40' AGL/1528' MSL. Tree 86' from DER, 461' right of centerline, 40' AGL/1532' MSL. Fence 301' from DER, 244' right of centerline, 8' AGL/1508' MSL. Trees beginning 660' from DER, 249' right of centerline, up to 40' AGL/1559' MSL.

BEALE AFB (KBAB)

MARYSVILLE, CA

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2, 14149

DEPARTURE PROCEDURE: **Rwy 15**, Climb on a heading between 100° CW to 325° from DER.

Rwy 33, Climb on a heading between 146° CW to 344° from DER.

TAKE-OFF OBSTACLES: **Rwy 33**, terrain 118' MSL, 62' from DER, 500' right of centerline. Terrain 118' MSL, 63' from DER, 517' right of centerline. Aircraft tail 16' AGL/134' MSL, 39' from DER, 533' right of centerline. Aircraft tail 16' AGL/134' MSL, 129' from DER, 525' right of centerline.

BECKWOURTH, CA

NERVINO (O02)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 13290 (FAA)

TAKEOFF MINIMUMS: **Rwys 8, 26**, 3500-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 8, 26**, for climb in visual conditions: cross Nervino Airport at or above 8300 before proceeding on course.

NOTE: **Rwy 8**, road 58' from DER, 469' right of centerline, 15' AGL/4920' MSL. Pole 310' from DER, 522' right of centerline, 49' AGL/4925' MSL. Pole 528' from DER, 522' right of centerline, 39' AGL/4924' MSL. Tree 1.47 NM from DER, 727' right of centerline, 100' AGL/5193' MSL. Tree 1.9 NM from DER, 2534' right of centerline, 100' AGL/5499' MSL. Bush 2.03 NM from DER, 2126' right of centerline, 4' AGL/5406' MSL. **Rwy 26**, tree 5856' from DER, 1984' right of centerline, 100' AGL/5339' MSL. Tree 1.25 NM from DER, 2439' right of centerline, 100' AGL/5420' MSL. Tree 2.07 NM from DER, 3302' left of centerline, 100' AGL/5570' MSL.

BISHOP, CA

BISHOP (BIH)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 3B 16259 (FAA)

TAKEOFF MINIMUMS: **Rwys 7,12,17**, NA-terrain. **Rwy 25**, std. w/ min. climb of 280' per NM to 10300. **Rwys 30, 35**, std. w/ min. climb of 285' per NM to 10300.

DEPARTURE PROCEDURE: **Rwys 25, 30**, climbing right turn on heading 360, thence...

Rwy 35, climb left turn on heading 290°, thence...
...all aircraft intercept BIH R-322 to NIKOL INT/BIH 38.46 DME.

NOTE: **Rwy 25**, trees and bushes beginning 69' from DER, 32' right of centerline, up to 100' AGL/4234' MSL. Trees beginning 709' from DER, 31' left of centerline, up to 47' AGL/4167' MSL. **Rwy 30**, rising terrain 58' from DER, 422' right of centerline, 4143' MSL. Trees beginning 763' from DER, 155' right of centerline, up to 100' AGL/4207' MSL. Trees beginning 1598' from DER, 21' left of centerline, up to 100' AGL/4205' MSL. **Rwy 35**, trees beginning 83' from DER, 31' right of centerline, up to 60' AGL/4146' MSL. Rising terrain 31' from DER, 348' left of centerline, 4118' MSL. Trees beginning 95' from DER, 141' left of centerline, up to 60' AGL/4146' MSL.

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

BYRON, CA

BYRON (C83)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 06047 (FAA)

TAKEOFF MINIMUMS: **Rwy 23**, NA-obstacles.

Rwy 30, 200-1 or std. with a min. climb of 240' per NM to 300. Alternatively, with standard TAKEOFF minimums and a normal 200'/NM climb gradient, TAKEOFF must occur no later than 2000' prior to DER.

DEPARTURE PROCEDURE: **Rwy 5**, climbing right turn via heading 120° and ECA VORTAC before proceeding on course. **Rwy 12**, climbing left turn via heading 050° and ECA VORTAC R-250 to ECA VORTAC before proceeding on course. **Rwy 30**, climbing right turn via heading 130° and ECA VORTAC R-250 to ECA VORTAC before proceeding on course.

NOTE: **Rwy 5**, bush 17' from DER, 67' right of centerline, 6' AGL/52' MSL. **Rwy 12**, multiple trees and bush beginning 240' from DER, 286' right of centerline, up to 39' AGL/76' MSL. **Rwy 30**, multiple poles, building, and terrain beginning 66' from DER, 228' left of centerline, up to 65' AGL/225' MSL. Multiple poles beginning 949' from DER, 28' right of centerline, up to 42' AGL/103' MSL.

CHICO, CA

CHICO MUNI (CIC)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6A 13346 (FAA)

DEPARTURE PROCEDURE: **Rwy 13L/R**, climbing right turn to intercept CIC R-205, thence ... **Rwy 31L/R**, climbing left turn heading 140° to intercept CIC R-205. Thenceall aircraft climb via CIC R-205 to JINGO INT. Aircraft departing JINGO INT 030° CW 345° climb on course. All others climb in JINGO INT holding pattern (hold SE, right turns, 320° inbound) to depart JINGO INT at or above 3800.

NOTE: **Rwy 13L**, terrain 298' from DER, 534' left of centerline, 216' MSL. Pole 957' from DER, 735' left of centerline, 35' AGL/232' MSL. Trees beginning 948' from DER, 559' left of centerline, up to 51' AGL/241' MSL. **Rwy 13R**, plane on tarmac 582' from DER, 647' left of centerline, up to 40' AGL/255' MSL. **Rwy 31L**, plane on tarmac 570' from DER, 647' right of centerline, up to 40' AGL/279' MSL. Tower 611' from DER, 349' right of centerline, 35' AGL/267' MSL. **Rwy 31R**, trees beginning 1124' from DER, right and left of centerline, up to 60' AGL/282' MSL.

CLOVERDALE, CA

CLOVERDALE MUNI (O60)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 14**, 700-3 w/min. climb of 390' per NM to 1200 or std. w/min. climb of 744' per NM to 1000, or 3600-3 for climb in visual conditions. **Rwy 32**, NA - Obstacles.

DEPARTURE PROCEDURE: **Rwy 14**, climb direct STS VOR/DME, thence...

Or climb in visual conditions to cross Cloverdale Muni airport at or above 3700 before proceeding on course. ...Climb in STS VOR/DME holding pattern (hold NW, right turns, 140° inbound) to cross STS VOR/DME at or above MEA/MCA for direction of flight.

NOTE: **Rwy 14**, trees beginning 19' from DER, 23' right of centerline, up to 100' AGL/404' MSL. Trees beginning 1.6 NM from DER, 491' right of centerline, up to 100' AGL/959' MSL. Trees beginning 258' from DER, on centerline, up to 100' AGL/296' MSL. Trees beginning 21' from DER, 7' left of centerline, up to 100' AGL/442' MSL. Trees beginning 1.7 NM from DER, 34' left of centerline, up to 100' AGL/679' MSL. Buildings 1524' from DER, 110' right of centerline, up to 427' MSL. Buildings 4605' from DER, 532' left of centerline, up to 408' MSL.

COLUMBIA, CA

COLUMBIA (O22)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 99364 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, 300-1 with a min. climb rate of 300' per NM to 3000. **Rwy 35**, NA.

DEPARTURE PROCEDURE: **Rwy 17**, use FICHU RNAV DEPARTURE. **Rwy 35**, NA.

NOTE: **Rwy 17**, 51' AGL pole 502' from DER, 368' right of centerline, 90' AGL tree 483' from DER, 535' right of centerline; 100 AGL tree 1258' from DER, 494' left of centerline; 167' AGL tree 1644' from DER, 924' right of centerline.

COLUSA, CA

COLUSA COUNTY (O08)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 16315 (FAA)

TAKEOFF MINIMUMS: **Rwy 31**, 300-1 or std. w/min. climb of 310' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 31**, climbing left turn direct ILA VORTAC before proceeding on course. **Rwy 13**, climbing right turn direct ILA VORTAC before proceeding on course.

NOTE: **Rwy 13**, fence 1' from DER, 234 right of centerline, 49' MSL. Tree 138' from DER, 346' left of centerline, 77' MSL. Bldg 255' from DER, 496' right of centerline, 62' MSL. Trees beginning 543' from DER, 146' right of centerline, up to 85' MSL. Bldg 1476' from DER, 428' left of centerline, 61' AGL/107' MSL. **Rwy 13**, tower 1396' from DER, 92' right of centerline, 55' AGL/105' MSL. Tower 4958' from DER, 1806' right of centerline, 190' AGL/240' MSL.

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

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CONCORD, CA

BUCHANAN FIELD (CCR)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 2 07354 (FAA)

TAKEOFF MINIMUMS: **Rwys 1L/R**, std. w/ min. climb of 360' per NM to 1100, or 2200-3 for climb in visual conditions.

Rwys 14L/R, std. w/ min. climb of 420' per NM to 2700, or 2200-3 for climb in visual conditions. **Rwys 19L/R**, std. w/ min. climb of 490' per NM to 4000, or 2200-3 for climb in visual conditions. **Rwys 32L/R**, std. w/ min. climb of 320' per NM to 500, or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 1L/R**, climb direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence...**Rwys 14L/R, 19L/R** climbing left turn direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence...**Rwys 32L/R**, climbing right turn direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence...

...aircraft departing CCR VOR/DME R-150 clockwise R-110 climb on course. All others climb in CCR VOR/DME holding pattern (north, left turns, 191° inbound) to cross CCR VOR/DME at or above 2700 before proceeding on course.

NOTE: **Rwy 1L**, multiple trees and bushes beginning 675' from DER, 9' left of centerline, up to 48' AGL/98' MSL. Multiple poles, light poles and antennas on buildings beginning 639' from DER, 120' left of centerline, up to 50' AGL/72' MSL. Fence 117' from DER, 2' right of centerline, 12' AGL/29' MSL. Sign 1996' from DER, 812' left of centerline, 45' AGL/78' MSL. Flagpole 1520' from DER, 753' left of centerline, 40' AGL/71' MSL. **Rwy 1R**, multiple trees and poles beginning 1552' from DER, 98' right of centerline, up to 52' AGL/131' MSL. **Rwy 19R**, multiple trees beginning 604' from DER, 82' left of centerline, up to 70' AGL/108' MSL. Light pole 1392' from DER, 749' right of centerline, 51' AGL/71' MSL. Obstruction light on building 2451' from DER, 911' left of centerline, 73' AGL/97' MSL. Fence 123' from DER, 503' left of centerline, 6' AGL/30' MSL. **Rwy 19L**, multiple trees beginning 2132' from DER, 28' left of centerline, up to 70' AGL/106' MSL. **Rwy 32L**, road/vehicle 561' from DER, on centerline, 15' AGL/49' MSL. Light on tank 6617' from DER, 1926' right of centerline, 114' AGL/213' MSL. Hangar 259' from DER, 300' left of centerline, 21' AGL/37' MSL. Transmission tower 6015' from DER, 1338' left of centerline, 145' AGL/173' MSL. Tree 825' from DER, 136' left of centerline, 25' AGL/40' MSL, building 633' from DER, 254' right of centerline, 20' AGL/35' MSL. **Rwy 32R**, train 6345' from DER, 1948' left of centerline, 23' AGL/102' MSL, obstruction light on hopper 2110' from DER, 601' right of centerline, 79' AGL/99' MSL. Obstacle light on tank 6617' from DER, 1426' right of centerline, 193' AGL/213' MSL. Flagpole 655' from DER, 300' right of centerline, 35' AGL/43' MSL. Sign 697' from DER, 248' right of centerline, 25' AGL/41' MSL. Road/vehicle 561' from DER, on centerline, 15' AGL/49' MSL. Building 633' from DER, 246' left of centerline, 20' AGL/35' MSL, tree 825' from DER, 635' left of centerline, 25' AGL/40' MSL, transmission tower 6015' from DER, 1839' left of centerline, 145' AGL/173' MSL. **Rwy 14R**, obstacle lights, obstacle lights on buildings, obstacle lights on windsocks, buildings and trees beginning 412' from DER, 167' right of centerline, up to 104' AGL/136' MSL. **Rwy 14L**, multiple trees beginning 841' from DER, 61' left of centerline, up to 78' AGL/102' MSL, building 1071' from DER, 35' left of centerline, 30' AGL/58' MSL. Fence 225' from DER, 29' left of centerline, 12' AGL/33' MSL.

CRESCENT CITY, CA

JACK MC NAMARA FIELD (CEC)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 2 15288 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, 300-1 or std. w/min. climb of 294' per NM to 300. **Rwy 36**, 300-1 or std. w/min. climb of 443' per NM to 300.

DEPARTURE PROCEDURE: **Rwys 12, 18**, climbing right turn, thence...

Rwys 30, 36, climbing left turn, thence...

...climb direct CEC VORTAC, aircraft departing CEC R-144 CW R-350 climb on course. All others continue climb in CEC VORTAC holding pattern (hold South, left turns, 346° inbound) to cross CEC VORTAC at or above: R-351 CW R-048, 2900; R-049 CW R-113, 4300; R-114 CW R-143, 2900.

NOTE: **Rwy 12**, trees and vegetation 77' from DER, 265' left of centerline, up to 32' AGL/82' MSL. Tree 174' from DER, 301' right of centerline, 22' AGL/77' MSL. Trees beginning 507' from DER, 207' left of centerline, up to 58' AGL/108' MSL. Trees beginning 354' from DER, 396' right of centerline, up to 66' AGL/116' MSL. Trees beginning 811' from DER, 569' left of centerline, up to 105' AGL/158' MSL. Trees beginning 1124' from DER, left and right of centerline, up to 90' AGL/140' MSL. Tree 1129' from DER, 734' right of centerline, 102' AGL/152' MSL. Trees and pole beginning 1398' from DER, left and right of centerline, up to 144' AGL/187' MSL. **Rwy 18**, trees and vegetation beginning 27' from DER, 274' right of centerline, up to 14' AGL/64' MSL. Runway end ident light 35' from DER, 115' left of centerline, 4' AGL/53' MSL. Runway end ident light 115' right of centerline, 5' AGL/53' MSL. Vehicles on road beginning 329' from DER, left and right of centerline, up to 15' AGL/60' MSL. Ground 4976' from DER, 1720' right of centerline, 239' MSL. **Rwy 30**, trees and vegetation abeam DER, 359' left of centerline, up to 21' AGL/71' MSL. Trees and vegetation beginning 18' from DER, 370' right of centerline, up to 22' AGL/67' MSL. **Rwy 36**, trees and bushes abeam DER, 258' left of centerline, up to 32' AGL/82' MSL. Ground, bushes, and terrain beginning 140' from DER, left and right of centerline, up to 15' AGL/76' MSL. Ground, bushes, and trees beginning 58' from DER, 364' right of centerline, up to 50' AGL/100' MSL. Ground, bushes, trees and vegetation beginning 406' from DER, left and right of centerline, up to 47' AGL/97' MSL. Trees and vegetation beginning 968' from DER, left and right of centerline, up to 86' AGL/136' MSL. Trees beginning 1549' from DER, 148' left of centerline, up to 122' AGL/172' MSL. Trees beginning 2136' from DER, 252' right of centerline, up to 156' AGL/206' MSL. Tree 2787' from DER, 672' right of centerline, 165' AGL/215' MSL.

DAVIS, CA

UNIVERSITY (EDU)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 3 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 17**, climbing right turn via heading 200° and ILA R-151 to EMBER INT/ILA 48 DME before proceeding on course. **Rwy 35**, climbing left turn via heading 320° and ILA R-145 to ILA VORTAC before proceeding on course.

NOTE: **Rwy 17**, trees beginning 1353' from DER, 31' right of centerline, up to 40' AGL/109' MSL. **Rwy 35**, tree 24' from DER, 433' left of centerline, 40' AGL/104' MSL. Vehicle 288' from DER, on centerline, 15' AGL/74' 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)

16315

DAVIS/WOODLAND/WINTERS, CA

YOLO COUNTY (DWA)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 164° to 2100 before turning right. **Rwy 34**, climb heading 344° to 1500 before turning left.

NOTE: **Rwy 16**, multiple trees beginning 595' from DER, 308' right of centerline, up to 120' AGL/206' MSL. Multiple trees beginning 1046' from DER, 257' left of centerline, up to 120' AGL/195' MSL. **Rwy 34**, multiple trees beginning 417' from DER, 361' right of centerline, up to 120' AGL/206' MSL. Trees beginning 683' from DER, 491' left of centerline, up to 120' AGL/206' MSL. Pole 859' from DER, 548' left of centerline, 47' AGL/137' MSL.

EUREKA, CA

MURRAY FIELD (EKA)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 09239 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, std. w/ min. climb of 465' per NM to 1800 or 3800-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 12** climbing right turn heading 265° to intercept V27. For climb in visual conditions: cross Eureka airport at or above 3700 before proceeding on course. **Rwy 30**, climbing left turn heading 265° to intercept V27.

NOTE: **Rwy 12**, bush 50' from DER, 82' left of centerline, 6' AGL/16' MSL. Multiple trees beginning 1.5 NM from DER, 2993' left of centerline. Multiple trees beginning 1.6 NM from DER, 2318' right of centerline. **Rwy 30**, multiple trees, beginning 443' from DER, 389' right of centerline, up to 93' AGL/103' MSL. Tree 664' from DER, 587' left of centerline, 46' AGL/56' MSL. Pole 753' from DER, 155' right of centerline 27' AGL/ 37' MSL. Railroad 786' from DER, 4' left of centerline 23' AGL/31' MSL. Road beginning 602' from DER, 4' left of centerline up to 15' AGL/23' MSL. Bush 566' from DER, 69' left of centerline, 8' AGL/18' MSL.

FIREBAUGH, CA

FIREBAUGH (F34)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 12264 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn heading 134° to intercept the PXN VORTAC R-061 to MENDO INT. Aircraft departing MENDO INT heading 230° CW 150°, climb on course. All others, climb in MENDO INT holding pattern (hold NE, right turns, 241° inbound) to cross MENDO INT at or above 3000 before proceeding on course. **Rwy 30**, climbing left turn heading 180° to intercept PXN VORTAC R-061 to PXN VORTAC, continue climb in PXN VORTAC holding pattern (SW, right turns, 049° inbound) to cross PXN VORTAC at or above airway MEA/MCA for route of flight.

NOTE: **Rwy 30**, poles beginning 921' from DER, 525' left of centerline, up to 65' AGL/203' MSL. Elevator 1941' from DER, 739' right of centerline, 97' AGL/242' MSL.

FORTUNA, CA

ROHNERVILLE (FOT)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 3 86296 (FAA)

TAKEOFF MINIMUMS: **Rwy 11**, NA.

DEPARTURE PROCEDURE: Climb direct FOT VORTAC.

Continue climb in holding pattern (hold N, right turns, 161° inbound) to cross FOT VORTAC at or above 3000.

FRESNO, CA

FRESNO-CHANDLER EXECUTIVE (FCH)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 09015 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 111° to 2000 then climbing right turn to 6300 via heading 200° and CZQ VORTAC R-167 before proceeding on course.

Rwy 30, climb heading 291° to 2000 then climbing left turn to 5500 via heading 140° and CZQ VORTAC R-167 before proceeding on course.

NOTE: **Rwy 12**, multiple trees, poles, and terrain beginning 84' from DER, 16' left of centerline, up to 92' AGL/371' MSL. Multiple trees, poles, road, fence and terrain beginning 53' from DER, 94' right of centerline, up to 62' AGL/341' MSL. **Rwy 30**, multiple trees, poles, bushes and terrain beginning 125' from DER, 46' left of centerline, up to 111' AGL/389' MSL. Multiple poles, road, and fence beginning 236' from DER, 23' right of centerline, up to 42' AGL/320' MSL.

FRESNO YOSEMITE INTL (FAT)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 8A 16147 (FAA)

DEPARTURE PROCEDURE: **Rwy 11L, 11R**, climbing left turn heading 291°, thence ...

Rwy 29L, 29R, climb heading 291°, thence ...

... Continue climb via heading 291° and FRA VORTAC R-202 to NIVEE INT/FRA 8 DME, Continue climb-in-hold (hold South, right turns, 022° inbound) to cross NIVEE at or above 5000.

NOTE: **Rwy 11L**, sign 1693' from DER, 863' right of centerline, 51' AGL/383' MSL. Tree 1420' from DER, 667' right of centerline, 375' MSL. Terrain 128' from DER, 506' right of centerline, 338' MSL. Pole 1228' from DER, 664' right of centerline, 33' AGL/365' MSL. Terrain 175' from DER, 271' left of centerline, 338' MSL. Pole 648' from DER, 542' left of centerline, 16' AGL/349' MSL. Electrical system 1223' from DER, 662' right of centerline, 30' AGL/363' MSL. **Rwy 11R**, poles beginning 1205' from DER, 394' right of centerline, up to 54' AGL/384' MSL. Electrical system 1598' from DER, 294' right of centerline, 57' AGL/386' MSL. Tower 664' from DER, 274' left of centerline, 34' AGL/362' MSL. Poles beginning 1598' from DER, 263' right of centerline, up to 55' AGL/385' MSL. Pole 329' from DER, 279' left of centerline, 21' AGL/349' MSL. **Rwy 29L**, trees beginning 998' from DER, 14' left of centerline, up to 396' MSL. Trees beginning 1659' from DER, 81' right of centerline, up to 379' MSL. Pole 1638' from DER, 427' right of centerline, 42' AGL/375' MSL. Pole 998' from DER, 620' left of centerline, 47' AGL/377' MSL. **Rwy 29R**, poles beginning 993' from DER, 547' right of centerline, up to 32' AGL/365' MSL. Tree 2315' from DER, 874' left of centerline, 395' 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)

GRASS VALLEY, CA

NEVADA COUNTY AIR PARK (GOO)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 1 98001 (FAA)
TAKEOFF MINIMUMS: **Rwy 7**, NA.
DEPARTURE PROCEDURE: **Rwy 25**, climb via MYV R-058 to 6000 then continue climb on course.

GROVELAND, CA

PINE MOUNTAIN LAKE (E45)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 1 16315 (FAA)
TAKEOFF MINIMUMS: **Rwy 9**, 600-2¼ or std. w/min. climb of 400' per NM to 4000.
DEPARTURE PROCEDURE: **Rwy 9**, turn right. **Rwy 27**, turn left. All aircraft climb direct LIN VOR/DME. Cross LIN VOR/DME at or above 5000.

HALF MOON BAY, CA

HALF MOON BAY (HAF)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 1 16259 (FAA)
TAKEOFF MINIMUMS: **Rwy 12**, 2600-2 or std. with a min. climb of 306' per NM to 3400. **Rwy 30**, NA.
DEPARTURE PROCEDURE: **Rwy 12**, climb runway heading to 3000, then climb direct OSI VOR/DME, to cross OSI VOR/DME at or above 3500 before proceeding on course.
NOTE: **Rwy 12**, tree 2556' from DER, 212' left of centerline, 90' AGL/104' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 14289 (FAA)
Rwy 12, heading as assigned by ATC.

HANFORD, CA

HANFORD MUNI (HJO)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 1A 16259 (FAA)
DEPARTURE PROCEDURE: **Rwy 14**, climbing left turn heading 050° to intercept V-23. **Rwy 32**, climbing right turn heading 050° to intercept V-23.
NOTE: **Rwy 14**: fence 9' from DER, 298' left of centerline, 244' MSL. Catenary 1293' from DER, 1293' left of centerline, 39' AGL/287' MSL. Poles beginning 1679' from DER, crossing centerline, up to 52' AGL/296' MSL. Trees beginning 2224' from DER, 391' left of centerline up to 313' MSL. **Rwy 32**: fence 168' from DER, 9' left of centerline, 245' MSL. Pole 588' from DER, 588' left of centerline, 25' AGL/278' MSL. Sign 614' from DER, 151' right of centerline, 9' AGL/261' MSL. Trees and poles beginning 592' from DER, 3' left of centerline, up to 300' MSL. Poles beginning 1127' from DER, 222' right of centerline, up to 40' AGL/293' MSL. Tree 2159' from DER, 434' right of centerline, 299' MSL.

HAYWARD, CA

HAYWARD EXECUTIVE (HWD)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 1 11013 (FAA)
DEPARTURE PROCEDURE: **Rwys 10L, 10R**, Climbing right turn direct OSI VORTAC. **Rwys 28L, 28R**, Climbing left turn direct OSI VORTAC.
NOTE: **Rwy 10L**, hangars, trees and buildings beginning 625' from DER, 67' left of centerline, up to 100' AGL/155' MSL. Trees beginning 2050' from DER, 1' right of centerline, up to 60' AGL/107' MSL. **Rwy 10R**, trees, poles, and buildings beginning 21' from DER, 61' left of centerline, up to 100' AGL/155' MSL. Windsock, blast fence, trees, buildings and pole beginning 23' from DER, 38' right of centerline, up to 74' AGL/119' MSL. **Rwy 28L**, trees beginning 899' from DER, 141' left of centerline, up to 93' AGL/108' MSL. Antennas, road, and trees beginning 108' from DER, 68' right of centerline, up to 87' AGL/102' MSL. **Rwy 28R**, antenna and trees beginning 728' from DER, 28' left of centerline, up to 87' AGL/102' MSL. Trees beginning 391' from DER, 4' right of centerline, up to 95' AGL/125' MSL.

HAYWARD EXECUTIVE (HWD) DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 16007 (FAA)
Rwy 10L/R, Heading as assigned by ATC. **Rwy 28L/R**, Heading as assigned by ATC; requires minimum climb of 310' per NM to 4600.

HOLLISTER, CA

HOLLISTER MUNI (CVH)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 1 08157 (FAA)
TAKEOFF MINIMUMS: **Rwy 6**, NA-obstacles. **Rwy 24**, NA -ATC. **Rwy 13**, std. w/ min. climb of 391' per NM to 3500, or 3100-3 for climb in visual conditions. **Rwy 31**, std. w/ min climb of 209' per NM to 2300, or 3100-3 for climb in visual conditions.
DEPARTURE PROCEDURE: **Rwy 13**, climbing right turn to heading 332° and via SJC R-121 direct SJC VOR/DME to 6000 before proceeding on course or for climb in visual conditions: cross Hollister Muni Airport at or above 3100 MSL before proceeding on course. **Rwy 31**, climb heading 307° and via SJC R-121 direct SJC VOR/DME to 6000 before proceeding on course or for climb in visual conditions: cross Hollister Muni Airport at or above 3100 MSL before proceeding on course.
NOTE: **Rwy 13**, terrain beginning 992' from DER, 348' left of centerline, up to 289' MSL. Terrain beginning 2467' from DER, 154' right of centerline, up to 309' MSL, trees beginning 1277' from departure end of runway, 348' left of centerline, up to 309' MSL, trees beginning 2467' from DER, 153' right of centerline, up to 270' MSL. **Rwy 31**, terrain beginning 76' from DER, 392' left of centerline, up to 247' MSL. Terrain beginning 14' from DER, 179' right of centerline, up to 231' MSL.

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

JACKSON, CA

WESTOVER FIELD AMADOR COUNTY (JAQ)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 1 16315 (FAA)

DEPARTURE PROCEDURE: **Rwy 1**, turn left. **Rwy 19**, turn right. **All aircraft** climb direct LIN VOR/DME, continue climb on course.

LAKEPORT, CA

LAMPSON FIELD (1O2)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 1 10098 (FAA)

TAKEOFF MINIMUMS: **Rwy 10**, std. with a min. climb of 400' per NM to 4500, do not exceed 210 Knots until intercepting the ENI R-073 or 3200-3 for climb in visual conditions. **Rwy 28**, NA-Rapidly rising terrain.

DEPARTURE PROCEDURE: **Rwy 10**, climbing left turn to 6000 via heading 310° and ENI R-073 to ENI VORTAC before proceeding on course, or for climb in visual conditions: cross Lampson Field at or above 4400 MSL before proceeding on course.

NOTE: **Rwy 10**, vehicle on road 347' from DER, 7' right of centerline, 15' AGL/1394' MSL. Trees beginning 280' from DER, 201' left of centerline, up to 100' AGL/1479' MSL. Trees beginning 494' from DER, 219' right of centerline, up to 100' AGL/1479' MSL.

LEMOORE NAS (REEVES FIELD) (KNLC)

LEMOORE, CA
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
07270

Rwy 14L, Cross DER at or above 15' AGL/235' MSL.

Rwy 14R, Cross DER at or above 15' AGL/245' MSL.

Rwy 32L, Cross DER at or above 15' AGL/ 234' MSL,

Departure headings 142° CW 283°, minimum military climb 220 ft/NM to 6400, minimum civil climb 220 ft/NM to 6600.

Rwy 32R, Cross DER at or above 15' AGL/239' MSL,

Departure headings 142° CW 281° minimum military climb 220 ft/NM to 6400, minimum civil climb 220 ft/NM to 6600.

LINCOLN, CA

LINCOLN RGNL/KARL HARDER FIELD (LHM)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 3 95201 (FAA)

DEPARTURE PROCEDURE: **Rwy 15**, climbing right turn.

Rwy 33, climbing left turn. **All aircraft** climb direct MYV VOR/DME, then climb on course.

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 15036 (FAA)

Rwys 15,33, headings as assigned by ATC.

LITTLE RIVER, CA

LITTLE RIVER (LLR)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

ORIG 10154 (FAA)

DEPARTURE PROCEDURE: Use LITTLE RIVER DEPARTURE.

LIVERMORE, CA

LIVERMORE MUNI (LVK)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

TAKEOFF MINIMUMS: **Rwys 7L, 7R**, 1500-2 or std. with a min. climb of 260' per NM to 2200. **Rwys 25L, 25R**, 2300-2 or std. with a min. climb of 375' per NM to 3100.

DEPARTURE PROCEDURE: **Rwys 7L, 7R**, climb direct REIGA LOM, then climbing left turn via the 030° bearing from REIGA LOM to intercept V109, then proceed on course. **Rwys 25L, 25R**, climb runway heading to 1200, then climbing right turn via heading 020° and OAK R-060 to ALTAM Int, then proceed on course.

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 15092 (FAA)

Rwys 7L, 7R, 25L, 25R, heading as assigned by ATC; requires minimum climb of 375' per NM to 5000.

LODI, CA

LODI (1O3)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 2A 16315 (FAA)

TAKEOFF MINIMUMS: **Rwys 12, 30**, NA-Environmental. DEPARTURE PROCEDURE: **Rwy 8**, climb heading 076° to 600 then climbing right turn on LIN R-290 to LIN VOR/DME, thence... **Rwy 26**, climb heading 256° to 800 climbing right turn on heading 080° to intercept LIN R-290 to LIN VOR/DME, thence... ..continue climb in hold (hold Southeast, right turns, 326° inbound) to MCA or MEA for route of flight.

NOTE: **Rwy 8**, hangars, buildings, and vehicles on roadways beginning at DER, left and right of centerline, up to 25' AGL/84' MSL. Power lines beginning at 4.9 NM from DER, left and right of centerline, up to 160' AGL/220' MSL. **Rwy 26**, vehicles on roadway beginning 7' from DER, 265' right of centerline, up to 15' AGL/69' MSL. Trees beginning 15' from DER, left and right of centerline, up to 100' AGL/154' MSL. Power lines beginning at 4.6 NM from DER, left and right of centerline, up to 160' AGL/220' MSL.

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

LOS BANOS, CA

LOS BANOS MUNI (LSN)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 2 09351 (FAA)

DEPARTURE PROCEDURE: **Rwy 14**, climb on a heading between 318° CW to 151° from DER, or minimum climb of 320' per NM to 5100 for all other courses. **Rwy 32**, climb on a heading between 260° CW to 137° from DER, or minimum climb of 273' per NM to 5200 for all other courses.

NOTE: **Rwy 14**, multiple trees, poles, buildings beginning 3' from DER, 24' left of centerline, up to 73' AGL/194' MSL. Multiple trees, poles, buildings beginning 20' from DER, 21' right of centerline, up to 85' AGL/206' MSL. **Rwy 32**, multiple trees beginning 220' from DER, 453' right of centerline, up to 40' AGL/160' MSL. Multiple poles, beginning 1120' from DER, 173' left of centerline, up to 60' AGL/181' MSL.

MADERA, CA

MADERA MUNI (MAE)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 4 16203 (FAA)

TAKEOFF MINIMUMS: **Rwy 8, 26**, NA-Environmental. DEPARTURE PROCEDURE: **Rwy 12**, climbing left turn heading 334° and FRA R-243 to BEREN INT/FRA 18.6 DME before proceeding on course. **Rwy 30**, climbing right turn to intercept FRA R-243 to BEREN INT/FRA 18.6 DME before proceeding on course.

MAMMOTH LAKES, CA

MAMMOTH YOSEMITE (MMH)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 2 15064 (FAA)
DEPARTURE PROCEDURE: Use NIKOL DEPARTURE.

MARINA, CA

MARINA MUNI (OAR)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 2 10042 (FAA)

TAKEOFF MINIMUMS: **Rwy 11**, std. with a min. climb of 307' per NM to 4500, or 2000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 11**, climb heading 108° and SNS VORTAC R-252 to SNS VORTAC, thence..., or for climb in visual conditions: cross Marina Muni Airport at or above 2100, then proceed on SNS VORTAC R-261 to SNS VORTAC, thence... **Rwy 29**, climb via heading 288° to 1200', then climbing right turn direct SNS VORTAC, thence...

All aircraft continue climb in SNS holding pattern (West, left turns, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for direction of flight before proceeding on course.

NOTE: **Rwy 11**, windsock 32' from DER, 386' left of centerline, 8' AGL/148' MSL. **Rwy 29**, bush 158' from DER, 272' right of centerline, 10' AGL/142' MSL.

MARIPOSA, CA

MARIPOSA-YOSEMITE (MPI)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
ORIG 05020 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, N/A-Obstacles
DEPARTURE PROCEDURE: **Rwy 26**, climb via heading 265° to 3000, then climbing left turn to 7000 direct FRA VORTAC before proceeding on course.

NOTE: **Rwy 26**, tree 10' from DER, 313' left of centerline, 100' AGL/2265' MSL. Tree 1146' from DER, 303' left of centerline, 100' AGL/2298' MSL.

MARYSVILLE, CA

YUBA COUNTY (MYV)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 1A 13178 (FAA)

DEPARTURE PROCEDURE: All runways, climb direct ILA VORTAC.

NOTE: **Rwy 5**, tree 750' from DER, 239' right of centerline, 44' AGL/109' MSL. Tower 986' from DER, 258' left of centerline, 46' AGL/108' MSL. Tree 1737' from DER, 191' left of centerline, 70' AGL/134' MSL. Tree 2792' from DER, 607' left of centerline, 81' AGL/145' MSL. **Rwy 23**, railroad 822' from DER, 1' right of centerline, 23' AGL/85' MSL. Building 903' from DER, 387' right of centerline, 29' AGL/89' MSL. **Rwy 32**, pole 1040' from DER, 717' left of centerline, 32' AGL/94' MSL. Tree 2487' from DER, 586' left of centerline, 75' AGL/134' MSL. Tree 3135' from DER, 672' right of centerline, 93' AGL/157' MSL.

MERCED, CA

MERCED RGNL/MACREADY FIELD (MCE)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 5B 15344 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn to 3000 via heading 330° and MOD R-120 to MOD. **Rwy 30**, climb to 3000 via heading 300° and MOD R-120 to MOD.

NOTE: **Rwy 12**, tree 1321' from DER, 785' left of centerline, 50' AGL/190' MSL. **Rwy 30**, bush 183' from DER, 490' right of centerline, 20' AGL/161' MSL. Bush 486' from DER, 604' left of centerline, 20' AGL/170' MSL. Tree 2457' from DER, 263' left of centerline, 50' AGL/220' MSL.

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

MODESTO, CA

MODESTO CITY-COUNTY HARRY SHAM
FIELD (MOD)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 5A 13010 (FAA)

DEPARTURE PROCEDURE: **Rwys 28L, 28R**, climb on a heading between 256° CW to 109° from DER, or minimum climb of 230' per NM to 5000 for all other courses.

NOTE: **Rwy 10R**, trees beginning 169' from DER, 37' right of centerline, up to 91' AGL/195' MSL. Sign 57' from DER, 211' right of centerline, 15' AGL/89' MSL. Sign 16' from DER, 135' left of centerline, 4' AGL/87' MSL. Trees beginning 823' from DER, 79' left of centerline, up to 89' AGL/148' MSL. **Rwy 10L**, trees beginning 15' from DER, 65' right of centerline, up to 68' AGL/172' MSL. Vehicles on road beginning 178' from DER, 17' left of centerline, up to 15' AGL/96' MSL. Trees beginning 1413' from DER, 184' left of centerline, up to 63' AGL/126' MSL. **Rwy 28R**, vehicles on road beginning 47' from DER, 332' right of centerline, up to 15' AGL/114' MSL. Pole 754' from DER, 699' right of centerline, 34' AGL/133' MSL. Building 979' from DER, 697' right of centerline, 29' AGL/128' MSL. Tree 1390' from DER, 516' right of centerline, 37' AGL/136' MSL. Trees beginning 2077' from DER, 379' left of centerline, up to 79' AGL/173' MSL. **Rwy 28L**, multiple poles, trees, and buildings beginning 128' from DER, 34' left of centerline, up to 102' AGL/196' MSL. Vehicles on road beginning 448' from DER, 219' left of centerline, up to 15' AGL/112' MSL. Multiple poles and building beginning 1021' from DER, 350' right of centerline, up to 57' AGL/154' MSL. Trees beginning 1112' from DER, 20' right of centerline, up to 70' AGL/164' MSL.

MONTAGUE, CA

SISKIYOU COUNTY (SIY)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2A 14009 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, CAT A,B 2400-2 or std. with a min. climb of 350' per NM to 5500. CAT C,D 4100-2 or std. with a min. climb of 350' per NM to 7400. **Rwy 35**, 4000-2 or std. with a min. climb of 300' per NM to 7000.

DEPARTURE PROCEDURE: **Rwy 17**, climb direct MOG NDB. Continue climb to 10000 in MOG holding pattern (hold N, right turns, 176° inbound). **Rwy 35**, climb to 7000 via runway heading and 356° bearing from MOG NDB, then climbing right turn to 10000 direct MOG NDB. All aircraft depart MOG NDB at or above MEA for route of flight.

MONTEREY, CA

MONTEREY RGNL (MRY)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 8 15344 (FAA)

TAKEOFF MINIMUMS: **Rwy 10L**, std. w/min. climb of 449' per NM to 1800, or 1700-2½ for climb in visual conditions.

Rwy 10R, std. w/min. climb of 459' per NM to 1800, or 1700-2½ for climb in visual conditions. **Rwy 28L**, std. w/min. climb of 218' per NM to 3300, or 1700-2½ for climb in visual conditions. **Rwy 28R**, std. w/min. climb of 205' per NM to 3300, or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 10L**, climbing left turn heading 045.00 and SNS VORTAC R-225 to SNS VORTAC, climb in SNS holding pattern (hold W, LT, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for route of flight. **Rwy 10R**, climbing left turn heading 045° and SNS VORTAC R-225 to SNS VORTAC, climb in SNS holding pattern (hold W, LT, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for route of flight.

Rwy 28L, climbing right turn heading 045° and SNS VORTAC R-260 to SNS VORTAC, climb in SNS holding pattern (hold W, LT, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for route of flight. **Rwy 28R**, climbing right turn heading 045.00 and SNS VORTAC R-260 to SNS VORTAC, climb in SNS holding pattern (hold W, LT, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for route of flight.

VCOA: Obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Monterey RGNL at or above 1800, then on SNS VORTAC R-231 to SNS VORTAC. Climb in SNS holding pattern (hold W, LT, 084° inbound) to cross SNS VORTAC at or above MEA/MCA for route of flight.

NOTE: **Rwy 10L**, NAVAID 556' from DER, 217' right of centerline, 20' AGL/272' MSL. Bushes beginning 1.6 NM from DER, 1188' left of centerline up to 9' AGL/729' MSL. Trees beginning 1.7 NM from DER, 923' left of centerline up to 102' AGL/764' MSL. Trees beginning 1.6 NM from DER, 1993' right of centerline up to 90' AGL/923' MSL. Bushes beginning 1.9 NM from DER, 2497' right of centerline up to 9' AGL/781' MSL. Tower 2 NM from DER 3305' left of centerline, 27' AGL/767' MSL. **Rwy 10R**, ground 11' from DER, 358' left of centerline 258' MSL. Tree 230' from DER 388' left of centerline 21' AGL/265' MSL. NAVAID 240' from DER, 282' left of centerline, 20' AGL/272' MSL. Bushes beginning 1.5 NM from DER, 2381' left of centerline, up to 9' AGL/648' MSL. Trees beginning 1.7 NM from DER, 388' left of centerline up to 76' AGL/629' MSL. Bushes beginning 1.8 NM from DER, 2005' right of centerline up to 9' AGL/741' MSL. Trees beginning 1.5 NM from DER, 1749' right of centerline up to 90' AGL/843' MSL. **Rwy 28L**, terrain abeam DER, 198' left of centerline, up to 163' MSL. Trees beginning 797' from DER, 678' left of centerline, up to 83' AGL/228' MSL. Tree 1008' from DER, 616' left of centerline, 100' AGL/195' MSL. Pole 1128' from DER, 716' left of centerline, 54' AGL/195' MSL. Tree 1372' from DER, 755' left of centerline, 93' AGL/227' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 16175 (FAA)

Rwy 10L, heading as assigned by ATC; requires minimum climb of 360' per NM to 2900. **Rwy 10R**, heading as assigned by ATC; requires minimum climb of 370' per NM to 2800. **Rwy 28L**, heading as assigned by ATC; requires minimum climb of 310' per NM to 1100. **Rwy 28R**, heading as assigned by ATC; requires minimum climb of 250' per NM to 1100.

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

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MOUNTAIN VIEW, CA

MOFFETT FEDERAL AFLD (NUQ)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 12292 (FAA)

TAKEOFF MINIMUMS: **Rwys 14L, 14R**, std. w/ min. climb of 550' per NM to 4000 or 1700-2½ for climb in visual conditions. **Rwys 32L, 32R**, std. w/ min. climb of 285' per NM to 3500 or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 14L, 14R**, climbing right turn direct OSI VORTAC, thence...

or for climb in visual conditions cross Moffett Federal Airfield at or above 1600 then on OSI R-066 to OSI VORTAC, thence...

When executing VCOA notify ATC prior to departure.

Rwys 32L, 32R, climb heading 322° to 700, then climbing left turn heading 230° until receiving OSI VORTAC, then direct OSI VORTAC, thence...

or for climb in visual conditions cross Moffett Federal Airfield at or above 1600 then on OSI R-066 to OSI VORTAC, thence...

When executing VCOA notify ATC prior to departure.

...continue climb in OSI VORTAC holding pattern (hold southeast, left turns, 321° inbound) to cross OSI VORTAC at or above MEA for route of flight.

NOTE: **Rwy 32R**, light support structures abeam DER, 76' left and 76' right of centerline, up to 3' AGL/7' MSL. Vehicles on road beginning 5' from DER, 92' left of centerline, up to 15' AGL/20' MSL. Vehicles on road beginning 512' from DER, 158' right of centerline, up to 15' AGL/20' MSL. Fence 134' from DER, left and right of centerline, up to 8' AGL/12' MSL. **Rwy 32L**, light support structures abeam DER, 76' left and 76' right of centerline, up to 1' AGL/5' MSL. Navaid 449' from DER, 315' right of centerline, up to 17' AGL/21' MSL. Tree 1632' from DER, 934' left of centerline, up to 100' AGL/129' MSL. **Rwy 14L**, light support structure 13' from DER, 126' right of centerline, up to 4' AGL/34' MSL. Vehicles on road beginning 770' from DER, 547' right of centerline, 15' AGL/53' MSL. Rail car on railroad beginning 774' from DER, 261' right of centerline, up to 23' AGL/60' MSL. Trees beginning 1191' from DER, 71' right of centerline, up to 100' AGL/171' MSL. Trees beginning 1922' from DER, 109' left of centerline, up to 100' AGL/153' MSL. **Rwy 14R**, light support structures abeam DER, 77' right and 77' left of centerline, up to 3' AGL/37' MSL. Fence, 187' from DER, 488' right of centerline, up to 8' AGL/45' MSL. Vehicles on road beginning 207' from DER, 520' right of centerline, 15' AGL/55' MSL. Rail car on railroad beginning 955' from DER, 342' left of centerline, up to 23' AGL/60' MSL. Trees beginning 1066' from DER, 34' left of centerline, up to 100' AGL/153' MSL.

NOVATO, CA

GNOSS FIELD (DVO)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 13122 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, 400-2¼ or std. w/ min. climb of 580' per NM to 500. **Rwy 31**, 600-2½ w/ min. climb of 285' per NM to 1500 or std. w/ min. climb of 679' per NM to 800 or 2000-2½ for climb in visual conditions...

DEPARTURE PROCEDURE: **Rwy 13**, climb heading 132° to 600 then turn left direct SGD VORTAC before proceeding on course. **Rwy 31**, climbing right turn direct SGD VORTAC before proceeding on course

... For climb in visual conditions, cross Gnoass Field at or above 1900' MSL then proceed direct SGD VORTAC before proceeding on course. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 13**, trees beginning 2633' from DER, 627' left of centerline, up to 50' AGL/346' MSL. Trees beginning 3630' from DER, 1274' right of centerline, up to 50' AGL/369' MSL. Power line 1.7 NM from DER, 1980' left of centerline, 121' AGL/360' MSL. **Rwy 31**, trees beginning 3237' from DER, 321' left of centerline, up to 50' AGL/569' MSL.

OAKDALE, CA

OAKDALE (O27)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 16315 (FAA)

DEPARTURE PROCEDURE: **Rwy 10**, climbing left turn via heading 020° and LIN VOR/DME R-124 to WRAPS INT/ LIN 16.66 DME. Climb in WRAPS holding pattern (Northwest, right turn, 124° inbound) to cross WRAPS INT at or above MEA for direction of flight. **Rwy 28**, climb via heading 276° and LIN VOR/DME R-146 to LIN VOR/DME to cross LIN VOR/DME at or above MEA for direction of flight.

NOTE: **Rwy 10**, terrain beginning 388' from DER, up to 279' MSL. **Rwy 28**, power line 3447' from DER, 407' right of centerline, 115' AGL/329' MSL.

NAPA, CA

NAPA COUNTY (APC)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 10154 (FAA)

DEPARTURE PROCEDURE: Use NAPAA DEPARTURE.

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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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OAKLAND, CA

METROPOLITAN OAKLAND INTL (OAK)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 7 13290 (FAA)

DEPARTURE PROCEDURE: **Rwys 10L, 10R, 12, 15, 30**, climbing right turn to intercept V107-301, thence ...

Rwys 28L, 28R, climb heading 278° to intercept V107-301, thence ...

Rwy 33, climbing left turn to intercept V107-301, thence...
... to cross COMMO INT at or above 4000, continue climb-in-hold (hold E, right turns, 288° inbound) to 4000 before proceeding on course.

NOTE: **Rwy 10L**, building, hanger and road beginning 225' from DER, 554' left of centerline, up to 37' AGL/42' MSL. Trees beginning 1644' from DER, 309' left of centerline, up to 59' AGL/67' MSL. **Rwy 10R**, Runway lights 9' from DER, 26' left and right of centerline, 1' AGL/9' MSL. Sign 63' from DER, 251' left of centerline, 4' AGL/10' MSL. Signs, fence and poles beginning 361' from DER, 540' right of centerline up to 35' AGL/44' MSL. Signs and trees beginning 1160' from DER, 177' right of centerline, up to 36' AGL/50' MSL. **Rwy 12**, Runway end and ALS lights beginning 11' from DER, 9' left and right of centerline, 1' AGL/10' MSL. **Rwy 15**, ATCT 3613' from DER, 1017' left of centerline, 88' AGL/101' MSL. Obstruction light on WSK 813' from DER, 577' right of centerline, 24' AGL/27' MSL. **Rwy 28L**, rising terrain beginning 8' from DER, crossing centerline, up to 9' MSL. Multiple trees beginning 105' from DER, 35' left of centerline, up to 64' AGL/80' MSL. Traffic lights and poles beginning 895' from DER, 164' left of centerline, up to 29' AGL/37' MSL. Substation 1593' from DER, 871' left of centerline, 37' AGL/53' MSL. Fence 95' from DER, 410' left of centerline, 6' AGL/13' MSL. Multiple trees beginning 994' from DER, 55' right of centerline, up to 91' AGL/96' MSL. **Rwy 28R**, multiple trees beginning 1745' from DER, 23' left of centerline, up to 91' AGL/96' MSL. Multiple trees beginning 2053' from DER, 88' right of centerline, up to 109' AGL/111' MSL. **Rwy 30**, light pole 582' from DER, 483' left of centerline, 16' AGL/26' MSL. **Rwy 33**, multiple trees, buildings and poles beginning 256' from DER, 497' left of centerline, up to 41' AGL/45' MSL. Multiple trees, buildings, poles and towers beginning 762' from DER, 267' right of centerline, up to 39' AGL/51' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 14289 (FAA)

Rwy 10L, headings as assigned by ATC; requires minimum climb of 340' per NM to 2300. **Rwy 10R**, headings as assigned by ATC; requires minimum climb of 330' per NM to 2300. **Rwys 12, 15**, headings as assigned by ATC. **Rwys 28L, 28R, 30**, headings as assigned by ATC; requires minimum climb of 240' per NM to 2400. **Rwy 33**, headings as assigned by ATC; requires minimum climb of 210' per NM to 2400.

ORLAND, CA

HAIGH FIELD (O37)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 94286 (FAA)

DEPARTURE PROCEDURE: **Rwy 15**, climbing left turn.

Rwy 33, climbing right turn. **All aircraft** climb via CIC R-238 to GONGS Int. Aircraft departing GONGS Int. 070° CW 240° or 290° CW 360° climb on course. All others climb in GONGS holding pattern (NE, right turns, 238° inbound) to depart GONGS Int at or above: 001° CW 069°, 3200; 241° CW 289°, 2300.

OROVILLE, CA

OROVILLE MUNI (OVE)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 3 13122 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, std. w/ min. climb of 260' per NM to 1700, or 1000-2½ for climb in visual conditions. **Rwy 31**, 400-1¼ or std. w/ min. climb of 245' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 2**, climbing left turn heading 170°, thence ...

or for climb in visual conditions: cross Oroville Muni airport at or above 1100 then proceed on MXW R-052 to TALUM INT/MXW 16.92 DME before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 31**, climbing left turn heading 170° thence ...

Rwys 13, 20, climbing right turn heading 290° thence ...

... All aircraft climb on MXW R-052 to TALUM INT/MXW 16.92 DME. Continue climb on course.

NOTE: **Rwy 2**, tree 513' from DER, 603' left of centerline, 52' AGL/236' MSL. Light poles beginning 1368' from DER, 537' right of centerline, up to 71' AGL/255' MSL. Windssock 1143' from DER, 350' right of centerline, 19' AGL/215' MSL. Ground 191' from DER, 489' right of centerline, 191' MSL. **Rwy 13**, light on pole 128' from DER, 293' right of centerline, 27' AGL/203' MSL. **Rwy 20**, pole 902' from DER, 655' right of centerline, 36' AGL/217' MSL. Vehicle on road 819' from DER, 376' left of centerline, 15' AGL/203' MSL. **Rwy 31**, obstruction light on transmission tower 1.4 NM from DER, 1825' right of centerline, 250' AGL/442' MSL. Tree 642' from DER, 638' left of centerline, 52' AGL/244' MSL.

PALO ALTO, CA

PALO ALTO (PAO)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-B 15288 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, turn left.

Rwy 31, turn right. **All aircraft** climb direct SJC VOR/DME before proceeding on course.

NOTE: **Rwy 13**, building with ship mast 1325' from DER, 450' left of centerline, 60' AGL/67' 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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PETALUMA, CA

PETALUMA MUNI (O69)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 2 14317 (FAA)

TAKEOFF PROCEDURES: **Rwy 11**, std. w/min. climb of 235' per NM to 1500. **Rwy 29**, 300-1¼ or std. w/min. climb of 276' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 11**, climb heading 108° to 1500 then continue climb direct SGD VORTAC. **Rwy 29**, climb heading 289° to 1500 then climbing left turn to 3000 direct SGD VORTAC. All aircraft continue climb to MEA for route of flight.

NOTE: **Rwy 11**, tree 1095' from DER, 779' right of centerline, 55' AGL/116' MSL. Sign 69' from DER, 141' right of centerline, 9' AGL/80' MSL. Vertical structure 8' from DER, 248' left of centerline, 10' AGL/81' MSL. Trees 172' from DER, beginning 399' left of centerline, up to 46' AGL/117' MSL. Trees 40' from DER, beginning 465' left of centerline, up to 40' AGL/111' MSL. **Rwy 29**, trees 1091' from DER, beginning 151' right of centerline, up to 91' AGL/172' MSL. Vertical structure 194' from DER, 248' right of centerline, up to 19' AGL/98' MSL. Trees 121' from DER, beginning 282' right of centerline, up to 51' AGL/132' MSL. Trees and buildings 88' from DER, beginning 292' left of centerline, up to 40' AGL/121' MSL. Trees 1363' from DER, 462' left of centerline, up to 96' AGL/177' MSL. Pole 1262' from DER, 90' left of centerline, 41' MSL/ 122' AGL. Poles 2508' from DER, beginning 87' left of centerline, up to 94' AGL/175' MSL.

PLACERVILLE, CA

PLACERVILLE (PVF)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 3 12320 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, NA-obstacles.

DEPARTURE PROCEDURE: **Rwy 23**, climb to 5000 on HNW R-226 then climbing right turn on HNW R-276 to HNW VOR/DME. Aircraft departing HNW VOR/DME R-180 CW R-303 climb on course; all others climb in HNW VOR/DME holding pattern (hold SW, right turns, 048° inbound) to cross HNW VOR/DME at or above MEA/MCA for direction of flight before proceeding on course.

NOTE: **Rwy 23**, hangar 20' from DER, 340' right of centerline, 27' AGL/2586' MSL.

PORTERVILLE, CA

PORTERVILLE MUNI (PTV)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 2 98057 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, 200-1 or std. with a min. climb rate of 220' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn. **Rwy 30**, climbing left turn. All aircraft climb direct to TTE VOR/DME. Aircraft departing TTE R-146 CW R-330 climb on course. All others, continue climb in TTE holding pattern (NW, right turns, 143° inbound) to cross: TTE R-331 CW R-060, 8600; R-061 CW R-145, 7000.

NOTE: 559' frost fan 3000' east southeast runway 12.

RED BLUFF, CA

RED BLUFF MUNI (RBL)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 4 11041 (FAA)

DEPARTURE PROCEDURE: **Rwy 15**, climb direct RBL VORTAC, thence... **Rwy 33**, climbing right turn direct RBL VORTAC, thence... ..continue climb in RBL holding pattern (S, right turns, 341° inbound) to cross RBL VORTAC at or above MEA for route of flight.

NOTE: **Rwy 15**, WSK 5' from DER, 258' right of centerline, 18' AGL/361' MSL. Tree 2065' from DER, 879' left of centerline, 100' AGL/449' MSL. **Rwy 33**, trees beginning 468' from DER, 563' left of centerline, up to 54' AGL/387' MSL. Trees beginning 587' from DER, 493' right of centerline, up to 73' AGL/393' MSL.

REDDING, CA

REDDING MUNI (RDD)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 5A 13290 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 122° and RBL R-344 to RBL VORTAC to 3000 before proceeding on course. **Rwy 16**, climbing left turn heading 110° and RBL R-344 to RBL VORTAC to 3000 before proceeding on course. **Rwys 30, 34**, climbing right turn heading 110° and RBL R-344 to RBL VORTAC to 3000 before proceeding on course.

NOTE: **Rwy 12**, bush 86' from DER, 388' left of centerline, 11' AGL/500' MSL. Numerous trees beginning 462' from DER, 209' left of centerline, up to 91' AGL/570' MSL. **Rwy 30**, numerous trees beginning 1936' from DER, 210' left of centerline, up to 85' AGL/594' MSL. Numerous poles beginning 289' from DER, 442' left of centerline, up to 34' AGL/ 534' MSL. Pole 850' from DER, 524' right of centerline, 35' AGL/536' MSL. Numerous trees beginning 1686' from DER, 326' right of centerline, up to 68' AGL/577' MSL. Building 305' from DER, 385' left of centerline 24' AGL/522' MSL. Hangar 1126' from DER, 528' left of centerline, 34' AGL/537' MSL. **Rwy 34**, sign 98' from DER, 356' left of centerline 5' AGL/510' MSL. Tree 588' from DER, 483' left of centerline, 121' AGL/521' 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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RIO VISTA, CA

RIO VISTA MUNI (O88)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 12208 (FAA)

DEPARTURE PROCEDURE: **Rwy 7**, climbing left turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight. **Rwy 15**, climb to 800 then climbing left turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight. **Rwy 25**, climb to 500 then climbing right turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight. **Rwy 33**, climbing right turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight.

NOTE: **Rwy 7**, trees 11' from DER, 402' right of centerline, up to 20' AGL/39' MSL. Trees 184' from DER, 216' left of centerline, up to 20' AGL/39' MSL. **Rwy 15**, trees 917' from DER, 124' right of centerline, up to 20' AGL/49' MSL. Vehicle on road 168' from DER, 437' right of centerline, up to 15' AGL/44' MSL. Vehicle on road 268' from DER, 234' left of centerline, up to 15' AGL/34' MSL. Buildings 61' from DER, 354' right of centerline, up to 20' AGL/49' MSL. **Rwy 25**, trees 526' from DER, 169' left of centerline, up to 20' AGL/59' MSL. Vehicles on road 179' from DER, 228' left of centerline, up to 15' AGL/44' MSL. Buildings 231' from DER, 546' left of centerline, up to 20' AGL/49' MSL. **Rwy 33**, trees 316' from DER, 138' left of centerline, up to 20' AGL/39' MSL.

SACRAMENTO, CA

SACRAMENTO EXECUTIVE (SAC)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 08325 (FAA)

NOTE: **Rwy 2**, multiple trees 1128' from DER, 108' left of centerline, up to 76' AGL/96' MSL. Antenna 1376' from DER, 663' left of centerline, 51' AGL/71' MSL. Trees 1858' from DER, 137' right of centerline, 73' AGL/93' MSL. **Rwy 12**, multiple trees 518' from DER, 26' left of centerline, up to 83' AGL/98' MSL. Light pole 507' from DER, 336' left of centerline, 37' AGL/52' MSL. Transmission pole 3971' from DER 647' left of centerline, 130' AGL/154' MSL. Multiple trees 475' from DER, 476' right of centerline up to 97' AGL/112' MSL. Light poles 711' from DER, 241' right of centerline, 36' AGL/51' MSL. **Rwy 16**, light pole 22' from DER, 481' left of centerline, 38' AGL/53' MSL. Antenna 540' from DER, 516' left of centerline, 53' AGL/67' MSL. Multiple trees beginning 1317' from DER, 36' left of centerline, up to 78' AGL/88' MSL. Multiple trees beginning 588' from DER, 195' right of centerline, up to 67' AGL/77' MSL. **Rwy 20**, multiple trees beginning 850' from DER, 626' left of centerline, up to 92' AGL/107' MSL. Multiple trees beginning 714' from DER, 515' right of centerline, up to 66' AGL/81' MSL. **Rwy 30**, obstruction light on hangers 460' from DER, 360' right of centerline, 25' AGL/43' MSL. Multiple trees beginning 631' from DER, 195' right of centerline, up to 56' AGL/74' MSL. Multiple trees beginning 1331' from DER, 247' left of centerline, up to 90' AGL/110' MSL. Antenna on building 1543' from DER, 442' left of centerline, 47' AGL/67' MSL. **Rwy 34**, trees 1724' from DER, 854' left of centerline, 56' AGL/74' MSL. Tree 2233' from DER, 1062' right of centerline, 79' AGL/99' MSL.

SACRAMENTO, CA (CON'T)

SACRAMENTO INTL (SMF)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 15008 (FAA)

DEPARTURE PROCEDURE: **Rwy 16L**, climb heading 164° to 700 before turning east.

NOTE: **Rwy 16L**, vehicles on road, 225' from DER, crossing runway centerline, 10' AGL/31' MSL. **Rwy 34L**, tree 3656' from DER, 1296' left of centerline, 98' AGL/123' MSL. **Rwy 34R**, pole 1786' from DER, 945' right of centerline, 46' AGL/73' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 16175 (FAA)

Rwy 16L, heading as assigned by ATC; requires minimum climb of 220' per NM to 700.

SACRAMENTO MATHER (MHR)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 94006 (FAA)

DEPARTURE PROCEDURE: **Rwys 4L,4R**, climbing right turn direct SAC VORTAC. **Rwys 22L,22R** climb direct SAC VORTAC.

SALINAS, CA

SALINAS MUNI (SNS)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 11321 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, std. w/min climb of 243' per NM to 800 or 1800-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 8**, climbing right turn to intercept SNS VORTAC R-124 to 5500 before proceeding on course or for climb in visual conditions: cross Salinas Muni Airport at or above 1700 then intercept SNS VORTAC R-124 to 5500 before proceeding on course. **Rwy 13**, climbing left turn to intercept SNS VORTAC R-124 to 5500 before proceeding on course. **Rwy 26**, climbing right turn to intercept SNS VORTAC R-264 to 5000 before proceeding on course. **Rwy 31**, climbing left turn to intercept SNS VORTAC R-264 to 5000 before proceeding on course.

NOTE: **Rwy 8**, trees beginning 1967' from DER, 900' left of centerline, up to 100' AGL/199' MSL. **Rwy 26**, tree, light pole and road beginning 109' from DER, 266' left of centerline, up to 38' AGL/98' MSL. Light pole and road beginning 137' from DER, 281' right of centerline, up to 40' AGL/100' MSL. Poles beginning 909' from DER, 232' right of centerline, up to 52' AGL/102' MSL. Antenna on building, tower and tree beginning 1645' from DER, 426' left of centerline, up to 116' AGL/176' MSL. Microwave tower and tree beginning 1909' from DER, 31' right of centerline, up to 85' AGL/145' MSL. **Rwy 31**, building, road, and trees beginning 170' from DER, 1' right of centerline, up to 79' AGL/159' MSL. Road and trees 205' from DER, 200' left of centerline, up to 63' AGL/133' MSL. Pole and trees beginning 1042' from DER, 5' left of centerline up to 102' AGL/172' MSL. Fence, poles and trees 1109' from DER, 202' right of centerline, up to 78' AGL/158' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

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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)

16315

SALINAS, CA (CON'T)

SALINAS MUNI (SNS)

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 15064 (FAA)

Rwys 8, 13, heading as assigned by ATC; requires minimum climb of 330' per NM to 5000.

Rwys 26, 31, heading as assigned by ATC.

SAN ANDREAS, CA

CALAVERAS CO-MAURY RASMUSSEN FIELD (CPU)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 16315 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, 1800-5 or std. w/min. climb of 300' per NM to 3700.

DEPARTURE PROCEDURE: **Rwy 13**, climb runway heading to 3100, then climbing right turn via LIN R-085 to LIN VOR/DME. **Rwy 31**, climb via heading 311° to 3000, then climbing left turn via Linden (LIN) VOR/DME R-029 to LIN VOR/DME.

NOTE: **Rwy 13**, windsock 4' from DER, 129' right of centerline, 14' AGL/1341' MSL. Lights 4' from DER, 68' right of centerline, up to 2' AGL/1330' MSL. Bush 24' from DER, 140' right of centerline, 3' AGL/1331' MSL. Tree 43' from DER, 287' right of centerline, up to 8' AGL/ 1336' MSL. Bush 26' from DER, 96' left of centerline, up to 1' AGL/1329' MSL. **Rwy 31**, tree 19' from DER, 242' left of centerline, up to 30' AGL/1335' MSL. Trees 220' from DER, 375' right of centerline, up to 40' AGL/1345' MSL. Pole 667' from DER, 653' left of centerline, 23' AGL/1326' MSL. Trees 1010' from DER, 651' right of centerline, up to 46' AGL/1351' MSL.

SAN CARLOS, CA

SAN CARLOS (SQL)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 09295 (FAA)

TAKEOFF MINIMUMS: **Rwy 30**, NA.

DEPARTURE PROCEDURE: **Rwy 12**, climbing left turn via heading 120° and SJC VOR/DME R-281 to SJC VOR/DME before proceeding on course.

NOTE: **Rwy 12**, ground 0' from DER, 148' left of centerline, 0' AGL/11' MSL. Building 2' from DER, 167' right of centerline, 27' AGL/30' MSL. Levee beginning 117' from DER, 90' left of centerline, up to 12' AGL/12' MSL. Pole 715' from DER, 294' right of centerline, 34' AGL/38' MSL. Tower 1674' from DER, 741' right of centerline, 106' AGL/111' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 16147 (FAA)

Rwy 12, headings as assigned by ATC; requires minimum climb of 470' per NM to 3400.

SAN FRANCISCO, CA

SAN FRANCISCO INTL (SFO)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 9 14205 (FAA)

TAKEOFF MINIMUMS: **Rwys 19L, 19R**, std. w/min. climb of 575' per NM to 2000. **Rwys 28L, 28R**, std. w/min. climb of 351' per NM to 1300.

DEPARTURE PROCEDURE: **Rwys 1L, 1R**, climb heading 014° to 2000, thence ...

Rwys 10L, 10R, climbing left turn heading 053° to intercept SFO R-090 eastbound to 2300; thence ...

Rwys 19L, 19R, climbing left turn heading 053° to intercept SFO R-090 eastbound to 2600, thence ...

Rwys 28L, 28R, climb heading 284° to 2000, thence ... continue climb on course.

NOTE: **Rwy 1L**, ships beginning 1646' from DER, right and left of centerline, up to 150' AGL/150' MSL. **Rwy 1R**, ships beginning 1173' from DER, right and left of centerline, up to 150' AGL/150' MSL. **Rwy 10L**, sign 62' from DER, 300' left of centerline, 4' AGL/15' MSL. Building and rod on building beginning 257' from DER, 560' left of centerline, up to 14' AGL/24' MSL. **Rwy 19L**, multiple poles beginning 548' from DER, 46' left of centerline, up to 20' AGL/48' MSL. Multiple poles and signs beginning 652' from DER, 337' right of centerline, up to 20' AGL/38' MSL. Multiple buildings, transmission towers, poles, trees, signs, electrical system beginning 937' from DER, 11' left of centerline, up to 100' AGL/127' MSL. Multiple buildings, transmission towers, poles, trees, signs, electrical system beginning 887' from DER, 61' right of centerline, up to 100' AGL/128' MSL. Multiple buildings 3831' from DER, 1138' left of centerline, up to 105' AGL/127' MSL. Multiple buildings and trees beginning 3831' from DER, 74' right of centerline up to 100' AGL/167' MSL. **Rwy 19R**, multiple poles, trees, electrical system beginning 454' from DER, 82' right of centerline, up to 40' AGL/60' MSL. Multiple transmission towers, trees beginning 918' from DER, 7' left of centerline, up to 80' AGL/96' MSL. Poles and electrical system 1188' from DER, 1' right of centerline, 44' AGL/50' MSL. Multiple transmission towers, trees beginning 1617' from DER, 16' right of centerline, up to 80' AGL/85' MSL. **Rwy 28L**, sign 19' from DER, 500' right of centerline, 5' AGL/9' MSL. Obstruction lights on DME beginning 277' from DER, 162' left of centerline, up to 16' AGL/26' MSL. Obstruction light on localizer beginning 219' from DER, on centerline, up to 10' AGL/17' MSL. Multiple poles, electrical system beginning 824' from DER, 300' left of centerline, up to 40' AGL/56' MSL. Multiple buildings, transmission towers, tank and pole beginning 1305' from DER, 370' left of centerline, up to 95' AGL/103' MSL. **Rwy 28R**, multiple signs, beginning 23' from DER, 140' right of centerline, up to 5' AGL/10' MSL. Terrain beginning 58' from DER, 146' right of centerline, up to 10' MSL. Sign, 63' from DER, 250' left of centerline 5' AGL/8' MSL. Terrain beginning 130' from DER, 235' left of centerline, up to 10' MSL. Antenna on building, obstruction light on DME, tree, beginning 556' from DER, 268' right of centerline, up to 35' AGL/43' MSL. Multiple poles beginning 918' from DER, 598' left of centerline, up to 22' AGL/35' MSL. Multiple buildings, trees beginning 1467' from DER, 683' right of centerline, up to 60' AGL/68' MSL. Multiple buildings, transmission towers, trees and electrical system beginning 1826' from DER, 123' left of centerline, up to 95' AGL/103' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 15232 (FAA)

Rwy 1L, 1R, headings as assigned by ATC; requires minimum climb of 420' per NM to 2600. **Rwys 10L, 10R**, headings 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)

16315

SAN JOSE, CA

NORMAN Y MINETA SAN JOSE INTL (SJC)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 6C 16203 (FAA)

TAKEOFF MINIMUMS: **Rwy12 L/R**, 400-2½ or std. w/min. climb of 261' per NM to 500.

DEPARTURE PROCEDURE: **Rwy 12L/R**, climbing right turn to 2000 on Heading 318° and on OAK R-135 to OAK VOR/ DME before proceeding on course. **Rwy 30L/R**, climb via heading 315° to 2000, then via OAK R-132 to OAK VOR/ DME before proceeding on course.

NOTE: **Rwy 12L**, fence 156' from DER, 57' left of centerline, 14' AGL/73' MSL. Ol on blast fence, 156' from DER, 57' left of centerline, 73' MSL. Pole 191' from DER, 81' left of centerline, 34' AGL/93' MSL. Trees beginning 286' from DER, 161' right of centerline, up to 107' MSL. T-L twr, pole beginning 466' from DER, 228' left of centerline, up to 46' AGL/105' MSL. Tree 1281' from DER, 529' left of centerline, 117' MSL. T-L twr 1731' from DER, 729' left of centerline, 86' AGL/156' MSL. Tree 1799' from DER, 273' left of centerline, 144' MSL. Tree 1887' from DER, 68' right of centerline, 124' MSL. T-L twr 3047' from DER, 543' left of centerline, 73' AGL/147' MSL. Building 1.2 NM from DER, 630' left of centerline, 170' AGL/250' MSL. Building 1.3 NM from DER, 1051' left of centerline, 265' MSL. Building 1.3 NM from DER, 445' left of centerline, 217' AGL/301' MSL. Building 1.3 NM from DER, 51' left of centerline, 228' AGL/309' MSL.

Buildings beginning 1.3 NM from DER, 81' left of centerline, up to 312' MSL. Building 1.5 NM from DER, 975' left of centerline, 262' AGL/351' MSL. Building 1.5 NM from DER, 1591' left of centerline, 268' AGL/358' MSL. Buildings beginning 1.5 NM from DER, 82' left of centerline, up to 365' MSL. Buildings beginning 1.6 NM from DER, 280' right of centerline, up to 346' MSL. Buildings beginning 1.6 NM from DER, 350' right of centerline, up to 260' AGL/350' MSL. Building 1.6 NM from DER, 1977' left of centerline, 286' AGL/368' MSL. Buildings beginning 1.6 NM from DER, 640' left of centerline, up to 274' AGL/370' MSL. Building 1.9 NM from DER, 313' right of centerline, 284' AGL/373' MSL. Building 1.9 NM from DER, 282' right of centerline, 281' AGL/372' MSL. **Rwy 12R**, ol on loc 10' from DER, on centerline, 68' MSL. Ol on blast fence 45' from DER, 115' right of centerline, 75' MSL. Fence 45' from DER, 115' right of centerline, 14' AGL/75' MSL. Tree 269' from DER, 149' right of centerline, 100' MSL. Trees, beginning 285' from DER, 193' left of centerline, up to 107' MSL. Rd 338' from DER, 2' right of centerline, 82' MSL. Tree, pole beginning 519' from DER, 279' right of centerline, up to 122' MSL. Trees beginning 1798' from DER, 631' left of centerline, up to 144' MSL. Poles beginning 1948' from DER, 688' right of centerline, up to 59' AGL/128' MSL. Tree 2604' from DER, 551' right of centerline, 133' MSL. T-L twr 3046' from DER, 1243' left of centerline, 73' AGL/147' MSL. Tree 3079' from DER, 873' right of centerline, 142' MSL. Building 1.3 NM from DER, 1145' left of centerline, 217' AGL/301' MSL. Building 1.3 NM from DER, 751' left of centerline, 228' AGL/309' MSL. Buildings beginning 1.3 NM from DER, 781' left of centerline, up to 312' MSL. Building 1.5 NM from DER, 1676' left of centerline, 262' AGL/351' MSL. Building 1.5 NM from DER, 2291' left of centerline, 268' AGL/358' MSL. Buildings beginning 1.5 NM from DER, 134' left of centerline, up to 365' MSL. Building 1.6 NM from DER, 2678' left of centerline, 286' AGL/368' MSL. Buildings beginning 1.6 NM from DER, 1340' left of centerline, up to 274' AGL/370' MSL. Building 1.6 NM from DER, 345' right of centerline, 320' MSL. Building 1.9 NM from DER, 386' left of centerline, 284' AGL/373' MSL. Building 1.9 NM from DER, 417' left of centerline, 281' AGL/372' MSL.

SAN JOSE, CA (CON'T)

Rwy 30L, poles beginning 166' from DER, 494' left of centerline, up to 69' MSL. NAVIAID 174' from DER, on centerline, 7' AGL/44' MSL. Fence 184' from DER, 369' right of centerline, 15' AGL/51' MSL. Tree 308' from DER, 424' left of centerline, 71' MSL. Tree, pole beginning 473' from DER, 118' right of centerline, up to 72' MSL. Poles beginning 711' from DER, 544' right of centerline, up to 75' MSL. NAVIAID 782' from DER, 350' left of centerline, 47' AGL/83' MSL. Pole 1227' from DER, 607' left of centerline, 48' AGL/86' MSL. Pole 1315' from DER, 548' right of centerline, 49' AGL/80' MSL. Pole 1329' from DER, 743' left of centerline, 57' AGL/94' MSL. Tree 1852' from DER, 179' right of centerline, 85' MSL. Tree 2561' from DER, 738' right of centerline, 108' MSL. Trmsn twr, t-twr, beginning 2616' from DER, 1130' left of centerline, up to 120' MSL. Pole 2806' from DER, 1215' left of centerline, 135' MSL. Pole 2897' from DER, 614' left of centerline, 113' MSL. Pole, t-twr, beginning 4145' from DER, 1329' left of centerline, up to 152' MSL. **Rwy 30R**, pole 100' from DER, 449' right of centerline, 40' AGL/75' MSL. Fence 138' from DER 243' right of centerline, 13' AGL/47' MSL. Fence 184' from DER, 329' left of centerline, 15' AGL/51' MSL. Tree 411' from DER, 37' left of centerline, 70' MSL. Tree 473' from DER, 319' left of centerline, 72' MSL. Pole 526' from DER, 580' left of centerline, 26' AGL/61' MSL. Pole 657' from DER, 369' right of centerline, 53' AGL/84' MSL. Vehicle on rd beginning 688' from DER, on centerline, up to 68' MSL. Poles beginning 711' from DER, 57' left of centerline, up to 25' AGL/75' MSL. Pole 961' from DER, 133' right of centerline, 56' AGL/88' MSL. Pole 1315' from DER, 150' left of centerline, 49' AGL/80' MSL. Tree 1852' from DER, 519' left of centerline, 85' MSL. Tree 2561' from DER, 39' right of centerline, 108' MSL. Building 3424' from DER, 146' right of centerline, 96' AGL/124' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 16203(FAA)

Rwy 12L/12R, heading as assigned by ATC; requires minimum climb of 470' per NM to 5600. **Rwys 30L/30R**, heading as assigned by ATC; requires minimum climb of 490' per NM to 5600 and do not exceed 210 KTS until established on assigned heading.

REID-HILLVIEW OF SANTA CLARA COUNTY (RHV)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

TAKEOFF MINIMUMS: **Rwys 13L, 13R**, NA - environmental.

DEPARTURE PROCEDURE: Use DECOT DEPARTURE.

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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)**

SAN MARTIN, CA

SAN MARTIN (E16)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 1A 15288 (FAA)

TAKEOFF MINIMUMS: **Rwy 14**, std. w/min. climb of 324' per NM to 2200 or 1700-2½ for climb in visual conditions.

Rwy 32, std. w/min. climb of 324' per NM to 1600 or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 14, all aircraft**, climb to 2100 on heading 141°. Aircraft departing northwest on V485, climbing left turn heading 284° to intercept SJC R-121 (V485) to SJC VOR/DME and proceed on course; aircraft departing southeast on V485, climb on SJC R-121 and proceed on course. For climb in visual conditions: cross San Martin airport northwest bound at or above 1900, then climb on SJC R-121 to SJC VOR/DME. When executing VCOA, notify ATC prior to departure. **Rwy 32, all aircraft**, climb to 1600 on heading 321°. Aircraft departing northwest on V485, climbing left turn heading 270° to intercept SJC R-121 (V485) to SJC VOR/DME and proceed on course; aircraft departing southeast on V485, climbing left turn heading 120° to intercept SJC R-121 (V485) southeast bound to GILRO INT and proceed on course. For climb in visual conditions cross San Martin airport northwest bound at or above 1900, then climb on SJC R-121 to SJC VOR/DME. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 14**, multiple trees, poles and vehicles on road beginning 25' from DER, 800' left of centerline, up to 100' AGL/359' MSL. **Rwy 32**, multiple trees, poles and vehicles on road beginning 17' from DER, 1521' left of centerline, up to 100' AGL/399' MSL. Trees beginning 3.9 NM from DER, 1.1 NM right of center, up to 200' AGL/1239' MSL.

SANTA ROSA, CA

CHARLES M SCHULZ-SONOMA COUNTY
(STS)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 7 14317 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, std. with a min. climb of 319' per NM to 2400, or 1200-2½ for climb in visual conditions.

Rwy 32, std. with a min. climb of 391' per NM to 2500, or 1200-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 2, 32**, climbing left turn heading 164°, thence...

Rwy 14, climbing right turn heading 250°, thence...

Rwy 20, climb on heading 190°, thence...

...intercept and climb on STS R-202 to cross FREES INT at or above MEA for route of flight or continue climb in FREES holding pattern (hold SE, right turns, PYE VORTAC 335° inbound) to MEA for route of flight.

VCOA: **Rwys 2, 32**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross STS VOR/DME southwest bound at or above 1200. Thence...

... Intercept and climb on STS R-202 to cross FREES INT at or above MEA for route of flight or continue climb in FREES holding pattern (hold SE, right turns, PYE VORTAC 335° inbound) to MEA for route of flight.

NOTE: **Rwy 2**, trees beginning 492' from DER, 36' left of centerline, up to 60' AGL/156' MSL. Trees beginning 515' from DER, 114' right of centerline, up to 55' AGL/156' MSL. Trees beginning 1000' from DER, 9' left of centerline, up to 100' AGL/178' MSL. Trees beginning 1109' from DER, 135' right of centerline, up to 100' AGL/184' MSL. Trees beginning 2104' from DER, 342' right of centerline, up to 100' AGL/196' MSL. Tree 2119' from DER, 619' right of centerline, up to 100' AGL/173' MSL. **Rwy 14**, tree 1' from DER, 498' right of centerline, 20' AGL/136' MSL. Light structure 6' from DER, 40' left of centerline, 1' AGL/121' MSL. Trees beginning 409' from DER, 602' left of centerline, up to 50' AGL/147' MSL. Trees beginning 1201' from DER, 275' left of centerline, up to 70' AGL/167' MSL. Tree 2194' from DER, 1034' right of centerline, 60' AGL/180' MSL. **Rwy 20**, tree 108' from DER, 462' right of centerline, 40' AGL/162' MSL. Trees beginning 1596' from DER, 403' left of centerline, up to 100' AGL/187' MSL. Trees beginning 1498' from DER, 566' right of centerline, up to 144' AGL/274' MSL. Trees beginning 2841' from DER, 109' left of centerline, up to 123' AGL/228' MSL. **Rwy 32**, trees beginning 67' from DER, 891' right of centerline, up to 55' AGL/158' MSL. Trees beginning 89' from DER, on centerline, up to 55' AGL/153' MSL. Tree 1492' from DER, 319' left of centerline, up to 60' AGL/158' MSL. Tree 3187' from DER, 140' left of centerline, 167' AGL/257' MSL.

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

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SOUTH LAKE TAHOE, CA

LAKE TAHOE (TVL)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7 15008 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, std. w/min. climb of 804' per NM to 11500, or 1600-3 w/min. climb of 741' per NM to 11500, or 5000-3 for climb in visual conditions. **Rwy 36**, to 600-1 or std. w/min. climb of 269' per NM to 3500.

DEPARTURE PROCEDURE: **Rwy 18**, climb heading 177° to 7900 then climbing right turn to intercept and climb on SWR R-133 to SWR VOR/DME thence ...

Rwy 36, climb heading 357° to intercept and climb on SWR R-113 to SWR VOR/DME thence ...
... proceed on course.

VCOA: **Rwy 18**, Obtain ATC approval for climb in visual conditions when requesting IFR clearance. Remain within 3 NM, climb in visual conditions to cross South Lake Tahoe airport at or above 11100 MSL then intercept and proceed on SWR-127 to SWR VOR/DME.

NOTE: **Rwy 18**, light pole 10' from DER, 41' left of centerline, 2' AGL/6270' MSL. Sign, pole, tree, and vehicles on road beginning 17' from DER, 229' right of centerline, up to 80' AGL/6349' MSL. Trees beginning 34' from DER, 353' left of centerline, up to 68' AGL/6337' MSL. Trees beginning 158' from DER, crossing centerline, up to 120' AGL/6420' MSL. Pole 263' from DER, 428' right of centerline, 102' AGL/6369' MSL. Buildings and a pole beginning 2654' from DER, 278' left of centerline, up to 43' AGL/6419' MSL. Rapidly rising terrain beginning 2.1 NM from DER, 1534' left of centerline, up to 7092' MSL. Tree 2.57 NM from DER, 1454' left of centerline, 117' AGL/7837' MSL. **Rwy 36**, vehicles on road beginning 18' from DER, 360' left of centerline, up to 15' AGL/6266' MSL. Trees, windsock, obstruction light on LDA antenna, and obstruction light on DME antenna beginning 118' from DER, 18' right of centerline, up to 85' AGL/6405' MSL.

Trees beginning 386' from DER, 170' left of centerline, up to 105' AGL/6345' MSL. Vehicles on road beginning 688' from DER, 69' right of centerline, up to 15' AGL/6341' MSL. Trees beginning 2788' from DER, 590' right of centerline, up to 126' AGL/6406' MSL. Trees beginning 2789' from DER, 1231' left of centerline, up to 122' AGL/6402' MSL.

STOCKTON, CA

STOCKTON METROPOLITAN (SCK)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 09015 (FAA)

TAKEOFF MINIMUMS: **Rwy 29R**, 300-1 or std. w/ min. climb of 210' per NM to 300 or alternatively, with standard TAKEOFF minimums and a normal 200'/NM climb gradient, TAKEOFF must occur no later than 1300' prior to DER.

NOTE: **Rwy 11L**, truck on road 199' from DER, 439' left of centerline, 15' AGL/49' MSL. Obstruction light on blast fence and antenna on building beginning 294' from DER, 39' right of centerline, up to 20' AGL/50' MSL. **Rwy 29L**, antenna on building 2956' from DER, 1204' left of centerline, 90' AGL/117' MSL. Stack 5562' from DER, 1721' right of centerline, 143' AGL/171' MSL. **Rwy 29R**, obstruction light on grain elevator, 1.0 NM from DER, 1882' left of centerline, 161' AGL/191' MSL. Light tower and rod on field light tower beginning 245' from DER, 1' left of centerline up to 44' AGL/71' MSL. Stacks and light on silo beginning 256' from DER, 381' right of centerline, up to 144' AGL/171' MSL.

SUSANVILLE, CA

SUSANVILLE MUNI (SVE)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 03359 (FAA)

DEPARTURE PROCEDURE: Use AMEDEE DEPARTURE.

TRACY, CA

TRACY MUNI (TCY)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 09295 (FAA)

TAKEOFF MINIMUMS: **Rwy 26**, 700-3 or std. w/ a min. climb of 320' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 8**, climb to 3000 via heading 073° and MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course. **Rwy 12**, climbing left turn to 3000 to intercept MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course. **Rwy 26**, climbing right turn to 3000 via heading 150° and MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course.

Rwy 30, climbing right turn to 3000 via heading 150° to intercept MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course.

NOTE: **Rwy 8**, tree 472' from DER, 198' left of centerline, 50' AGL/194' MSL. Fence 167' from DER, 8' right of centerline, 25' AGL/176' MSL. Vehicle on road 241' from DER, 412' left of centerline, 15' AGL/183' MSL. Vehicles on roads starting 241' from DER, 7' right of centerline, up to 15' AGL/189' MSL. Poles starting 403' from DER, 204' left of centerline, up to 54' AGL/208' MSL. Poles starting 727' from DER, 49' right of centerline, up to 54' AGL/212' MSL. **Rwy 12**, trees starting 436' from DER, 251' right of centerline, up to 72' AGL/253' MSL. Conveyor 1995' from DER, 504' left of centerline, 66' AGL/270' MSL. Poles starting 832' from DER, 396' right of centerline, up to 56' AGL/240' MSL. Obstruction light on hopper 1934' from DER, 274' right of centerline, 74' AGL/255' MSL. Vehicles on road starting 133' from DER, 272' left of centerline, up to 15' AGL/206' MSL. Fence 32' from DER 405' left of centerline, 25' AGL/194' MSL. **Rwy 26**, tree 1173' from DER, 180' right of centerline, 35' AGL/234' MSL. Trees starting 1067' from DER, 125' left of centerline, up to 35' AGL/794' MSL. Vehicle on road 236' from DER, 150' left of centerline, 15' AGL/214' MSL. Fence 69' from DER, 133' left of centerline, 23' AGL/203' MSL. Rising terrain 1105' from DER, 2814' left of centerline, up to 739' MSL.

Rwy 30, trees starting 438' from DER, 30' right of centerline, up to 35' AGL/209' MSL. Tree 1079' from DER, 82' left of centerline, 35' AGL/214' MSL. Obstruction light on hopper 985' from DER, 353' right of centerline, 72' AGL/236' MSL. Bush 195' from DER, 364' left of centerline, 25' AGL/189' MSL. Light pole 1149' from DER, 160' left of centerline, 47' AGL/211' MSL. Obstruction light on building 2289' from DER, 65' right of centerline, 74' AGL/238' 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)
TRAVIS AFB (KSUU)

FAIRFIELD, CA

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
11069

All Rwy: Comply with assigned SID or ATC radar vectors.

DEPARTURE PROCEDURE: **Rwy 3L**, Climb on a heading between 344° CW to 137° from DER. **Rwy 3R**, Climb on a heading between 328° CW to 140° from DER. **Rwy 21L/R**, Climb on a heading between 187° CW to 237° from DER.

TAKEOFF OBSTACLES: **Rwy 3L**, Potential vehicle, 15' AGL/72' MSL, 616' from DER, 289' left of centerline. Potential vehicle, 15' AGL/71' MSL, 615' from DER, 267' right of centerline. **Rwy 21L**, Light pole 15' AGL/83' MSL, 148' from DER, 546' left of centerline. Light pole 15' AGL/84' MSL, 346' from DER, 547' left of centerline. Light pole 15' AGL/84' MSL, 521' from DER, 548' left of centerline. Light pole 15' AGL/83' MSL, 702' from DER, 549' left of centerline. Light pole 15' AGL/84' MSL, 880' from DER, 549' left of centerline. Light pole 15' AGL/85' MSL, 926' from DER, 661' left of centerline.

TRUCKEE, CA

TRUCKEE-TAHOE (TRK)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 5 15008 (FAA)

TAKEOFF MINIMUMS: **Rwys 11, 20**, NA - obstacles.
DEPARTURE PROCEDURE: **Rwys 2, 29**, use TRUCK DEPARTURE.

TULARE, CA

MEFFORD FIELD (TLR)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
ORIG 93147 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, climbing right turn. **Rwy 31**, climbing left turn. **All aircraft** climb direct to VIS VOR/DME. Aircraft departing VIS R-001 CW R-140 continue climb in VIS holding pattern (E, right turns, 287° inbound) to cross VIS VOR/DME at or above 4000. All other aircraft climb on course.

UKIAH, CA

UKIAH MUNI (UKI)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 2 14317 (FAA)

TAKEOFF MINIMUMS: **Rwy 15**, std. w/min. climb of 678' per NM to 3100 or 3100-2½ for climb in visual conditions.

Rwy 33, std. w/min. climb of 350' per NM to 5000, or 3100-2½ or climb in visual conditions

DEPARTURE PROCEDURE: **Rwy 15**, climb heading 151° to 3100 before proceeding on course. **Rwy 33**, climb heading 345° to 5000, then left turn direct to cross ENI VORTAC at or above 6000.

VCOA: **Rwys 15, 33**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross UKIAH MUNI airport at or above 3700 before proceeding on course.

NOTE: **Rwy 15**, buildings and signs beginning 34' from DER, 493' right of centerline, up to 30' AGL/629' MSL. Road with vehicles beginning 70' from DER, 245' right of centerline, up to 15' AGL/624' MSL. Road with vehicles beginning 111' from DER, 256' left of centerline, up to 15' AGL/629' MSL. Poles and trees beginning 275' from DER, 357' right of centerline, up to 15' AGL/712' MSL. Trees and poles beginning 527' from DER, 452' left of centerline, up to 100' AGL/698' MSL. Trees beginning 1.2 NM from DER, 2023' right of centerline, up to 100' AGL/1073' MSL. Trees beginning 1.5 NM from DER, 1715' right of centerline, up to 100' AGL/1160' MSL. Trees beginning 2.4 NM from DER, 77' left of centerline, up to 100' AGL/1644' MSL. Trees beginning 3.5 NM from DER, 2704' right of centerline, up to 100' AGL/2331' MSL. **Rwy 33**, poles and trees beginning 27' from DER, 391' right of centerline, up to 100' AGL/679' MSL. Road with vehicles beginning 124' from DER, 147' right of centerline, up to 15' AGL/629' MSL. Trees and poles beginning 461' from DER, 555' right of centerline, up to 100' AGL/679' MSL. Road with vehicles beginning 587' from DER, 313' left of centerline, up to 15' AGL/637' MSL. Trees, poles and signs beginning 888' from DER, 506' left of centerline, up to 100' AGL/709' MSL. Building 1003' from DER, 553' right of centerline, 42' AGL/649' MSL. Tower 5774' from DER, 1155' left of centerline, 124' AGL/770' MSL. Trees beginning 5909' from DER, 1590' left of centerline, up to 100' AGL/769' MSL.

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

VACAVILLE, CA

NUT TREE (VCB)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 4 09127 (FAA)

TAKEOFF MINIMUMS: **Rwy 20**, std. w/ min. climb of 424' per NM to 1600, or 1200-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 2**, climbing right turn to intercept SAC R-242 to SAC VORTAC, to 2000 before proceeding on course. **Rwy 20**, climbing left turn to intercept SAC R-242 to SAC VORTAC, to 2000 before proceeding on course, or, for climb in visual conditions: cross Nut Tree Airport eastbound at or above 1300, then climb to 2000 via SAC R-242 to SAC VORTAC, proceed on course.

NOTE: **Rwy 2**, trees beginning 222' from DER, 514' left of centerline up to 106' AGL/225' MSL. Light pole 337' from DER, 534' left of centerline, 28' AGL/147' MSL. **Rwy 20**, pole 161' from DER, 500' left of centerline, 120' AGL/239' MSL. Trees beginning 269' from DER, 335' left of centerline, up to 117' AGL/236' MSL. Pole 777' from DER, 436' left of centerline, 119' AGL/238' MSL. Windssock 6' from DER, 166' right of centerline, 8' AGL/127' MSL. Fence 193' from DER, 202' right of centerline, 3' AGL/122' MSL.

VISALIA, CA

VISALIA MUNI (VIS)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 3 09239 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn via heading 230° to 2000 to intercept V23. **Rwy 30**, climbing left turn via heading 230° to 2000 to intercept V23.

NOTE: **Rwy 12**, tree 774' from DER, 618' right of centerline, 46' AGL/340' MSL. Tree 1327' from DER, 823' left of centerline, 55' AGL/349' MSL. **Rwy 30**, multiple trees beginning 179' from DER, 260' left of centerline, up to 54' AGL/343' MSL. Antenna on building 285' from DER, 250' right of centerline, 16' AGL/305' MSL. Truck on road 522' from DER, on centerline, 17' AGL/342' MSL. Railroad 690' from DER, 549' left of centerline, 23' AGL/317' MSL. Multiple trees beginning 876' to 3029' from DER, 341' to 461' left of centerline, up to 90' AGL/379' MSL. Multiple trees beginning 1886' from DER, 103' right of centerline, up to 58' AGL/347' MSL.

WATSONVILLE, CA

WATSONVILLE MUNI (WVI)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 5 11013 (FAA)
DEPARTURE PROCEDURE: Use WATSONVILLE DEPARTURE.

WILLITS, CA

ELLS FIELD-WILLITS MUNI (O28)

TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 1 04218 (FAA)
DEPARTURE PROCEDURE: **Rwy 16**, use MENDOCINO RNAV DEPARTURE. **Rwy 34**, use FLUEN RNAV DEPARTURE.

WILLOWS, CA

WILLOWS-GLENN COUNTY (WLW)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES

AMDT 1B 15344 (FAA)

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

Rwy 16, climb heading 161°. **Rwys 31, 34**, climbing left turn. All aircraft climb direct to MXW VORTAC. Aircraft departing MXW Vortac R-330 CW R-220, climb on course. All others continue climb in MXW holding pattern (S, 350° inbound, left turns) to depart MXW Vortac 220° CW 290°, 6500, 291° CW 330°, 5500.

NOTE: **Rwy 16**, poles beginning 14' from DER, 409' right of centerline up to 35' AGL/172' MSL. **Rwy 34**, 55' AGL pole 530' from DER, 430' right of centerline. Pole 917' from DER, 404' right of centerline, 55' AGL/193' MSL.

WOODLAND, CA

WATTS-WOODLAND (O41)
TAKEOFF MINIMUMS AND (OBSTACLE)
DEPARTURE PROCEDURES
AMDT 3 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 18**, climb heading 185° and ILA R-151 to EMBER INT/ILA 48 DME before proceeding on course. **Rwy 36**, climbing left turn via heading 320° and ILA R-145 to ILA VORTAC before proceeding on course.

NOTE: **Rwy 18**, tree 2478' from DER, 283' right of centerline, 100' AGL/249' MSL. Vehicle on road 192' from DER, on centerline, 15' AGL/144' MSL. **Rwy 36**, tree 453' from DER, 69' left of centerline, 100' AGL/224' MSL. Vehicle on road 350' from DER, on centerline, 15' AGL/134' MSL. Tree 4489' from DER, 1688' left of centerline, 100' AGL/234' MSL.

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INSTRUMENT APPROACH PROCEDURE CHARTS



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

ARCATA-EUREKA, CA
ARCATA (ACV) ILS Z Rwy 32
ILS Y or LOC/DME Rwy 32¹
RNAV (GPS) Rwy 1³
RNAV (GPS) Rwy 14
RNAV (GPS) Rwy 32²
VOR/DME Rwy 14

NA when local weather not available.

¹ILS, Categories A, B, C, D, 700-2.

²Category D, 800-2½.

³Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.

ATWATER, CA

CASTLE (MER) ILS or LOC/DME Rwy 31¹
RNAV (GPS) Rwy 13
RNAV (GPS) Rwy 31
VOR/DME Rwy 31

NA when local weather not available.

¹NA when control tower closed.

AUBURN, CA

AUBURN MUNI (AUN) RNAV (GPS) Rwy 7
NA when local weather not available.

BISHOP, CA

BISHOP (BIH) LDA/DME Rwy 16¹
RNAV (GPS) Y Rwy 12²
RNAV (GPS) Z Rwy 12³
VOR or GPS-A⁴, 3300-3

¹Categories A, B, 2300-2; Categories C, D, 2300-3.

²Categories A, B 2500-2; Category C, 2500-3.

³Categories A, B, 2300-2; Category C, 2300-3.

⁴NA when Bishop altimeter setting not available.

CHICO, CA

CHICO MUNI (CIC) VOR/DME Rwy 31R
NA when control tower closed except for operators with approved weather reporting service.

NAME ALTERNATE MINIMUMS

CONCORD, CA

BUCHANAN FIELD (CCR) RNAV (GPS) Y Rwy 19R
Categories A, B, 1000-2; Category C, 1000-3.

COLUMBIA, CA

COLUMBIA (O22) RNAV (GPS) Rwy 35
Categories A, B, 1100-2; Category C, 1100-3.

CRESCENT CITY, CA

JACK MC NAMARA
FIELD (CEC) RNAV (GPS) Rwy 12
RNAV (GPS) Rwy 36
VOR Rwy 12
VOR/DME Rwy 12
VOR/DME Rwy 36

NA when local weather not available.

FRESNO, CA

FRESNO YOSEMITE
INTL (FAT) ILS or LOC/DME Rwy 29R
LOC Rwy 11L
VOR/DME or TACAN Rwy 11L
VOR/DME or TACAN Rwy 29R
Category E, 900-2¾.

HALF MOON BAY, CA

HALF MOON
BAY (HAF) RNAV (GPS) Y Rwy 12
RNAV (GPS) Y Rwy 30
NA when local weather not available.

HANFORD, CA

HANFORD MUNI (HJO) RNAV (GPS) Rwy 32
RNAV (GPS)-A
VOR-A
NA when local weather not available.

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NAME ALTERNATE MINIMUMS

HAYWARD, CA

HAYWARD
EXECUTIVE (HWD) **LOC/DME Rwy 28L¹**
RNAV (GPS) Rwy 28L
VOR/DME-A

NA when local weather not available.
¹NA when control tower closed.

HOLLISTER, CA

HOLLISTER
MUNI (CVH) **RNAV (GPS) Rwy 31**
 NA when local weather not available.

LINCOLN, CA

LINCOLN RGNL/KARL
HARDER FIELD (LHM) **RNAV (GPS) Rwy 15**
RNAV (GPS) Rwy 33
 NA when local weather not available.

LIVERMORE, CA

LIVERMORE MUNI (LVK) **ILS Rwy 25R¹**
RNAV (GPS) Rwy 25R²³

¹Category D, 800-2¼.
²NA when local weather not available.
³Category D, 1400-3.

MAMMOTH LAKES, CA

MAMMOTH
YOSEMITE (MMH) **RNAV (GPS) Rwy 27**
 Categories A, B, 1300-2; Category C, 1300-3.

MARYSVILLE, CA

YUBA COUNTY (MYV) **RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 32
 NA when local weather not available.

MERCED, CA

MERCED RGNL/MACREADY
FIELD (MCE) **ILS or LOC Rwy 30¹**
LOC BC Rwy 12¹
RNAV (GPS) Rwy 12²
RNAV (GPS) Rwy 30²
VOR Rwy 30²

¹NA when class E airspace not in effect.
²NA when local weather not available.

MODESTO, CA

MODESTO CITY-COUNTY-HARRY SHAM
FIELD (MOD) **ILS or LOC/DME Rwy 28R¹**
RNAV (GPS) Rwy 28R
 NA when local weather not available.
¹NA when control tower closed.

NAME ALTERNATE MINIMUMS

MONTEREY, CA

MONTEREY
RGNL (MRY) **ILS or LOC Rwy 10R¹²**
LOC/DME Rwy 28L¹³
RNAV (GPS) Rwy 10R⁶
RNAV (GPS) Y Rwy 28L⁴
RNAV (RNP) Z Rwy 28L⁵

¹NA when control tower closed.
²ILS, Categories A, B, 700-2; Category C, 1100-3; Category D, 1600-3. LOC, Category C, 1100-3; Category D, 1600-3.
⁴Categories A, B, 900-2, Categories C, 1100-3.
⁵Categories A, B, C, 1000-3.
⁶Category C, 1100-3; Category D, 1600-3.

NAPA, CA

NAPA COUNTY (APC) **ILS or LOC Rwy 36L¹²**
RNAV (GPS) Y Rwy 36L³
RNAV (GPS) Z Rwy 36L
VOR Rwy 6⁴

NA when local weather not available.
¹NA when control tower closed.
²ILS, Category A, 700-2; Category B, 800-2; Category C, 900-2¼; Category D, 1200-3. LOC, Category C, 900-2¼, Category D, 1200-3.
³Categories A, B, 1300-2; Categories C, D, 1300-3.
⁴Category D, 1300-3.

OAKLAND, CA

METROPOLITAN
OAKLAND INTL (OAK) **ILS or LOC Rwy 12¹**
ILS or LOC Rwy 30¹
ILS or LOC/DME Rwy 28R¹
RNAV (GPS) Rwy 10L²
RNAV (GPS) Rwy 10R²
RNAV (GPS) Y Rwy 12²
RNAV (GPS) Y Rwy 28L²
RNAV (GPS) Y Rwy 28R²
RNAV (GPS) Y Rwy 30²
VOR Rwy 10R²

¹ILS, Category C, 700-2; Category D, 1400-3; LOC, Category D, 1400-3.
²Category D, 1400-3.

OROVILLE, CA

OROVILLE MUNI (OVE) **RNAV (GPS) Rwy 2**
VOR-A

NA when local weather not available.

PALO ALTO, CA

PALO ALTO (PAO) **VOR/DME Rwy 31**
 NA when control tower closed.

PETALUMA, CA

PETALUMA MUNI (O69) **RNAV (GPS) Rwy 29**
 NA when local weather not available.

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NAME **ALTERNATE MINIMUMS**
PLACERVILLE, CA
 PLACERVILLE (PVF) **RNAV (GPS) Rwy 5**
 NA when local weather not available.

RED BLUFF, CA
 RED BLUFF
 MUNI (RBL)..... **RNAV (GPS) Rwy 15¹**
 RNAV (GPS) Rwy 33
 VOR Rwy 33
 VOR/DME Rwy 15¹
 NA when local weather not available.
¹Category D, 800-2½.

REDDING, CA
 REDDING
 MUNI (RDD)..... **ILS or LOC/DME Rwy 34¹²³**
 LOC/DME BC Rwy 16²³
 RNAV (GPS) Rwy 34³
 VOR Rwy 34⁴
¹ILS, Categories A, B, C, D, 700-2; Category E, 900-3. LOC, Category E, 900-3.
²NA when control tower closed.
³NA when local weather not available.
⁴Category C, 800-2½; Category D, 800-2½.

SACRAMENTO, CA
 SACRAMENTO
 EXECUTIVE (SAC)..... **ILS or LOC Rwy 2¹**
 RNAV (GPS) Rwy 2
 VOR Rwy 2
 NA when local weather not available.
¹NA when control tower closed.

SACRAMENTO
 INTL (SMF) **ILS or LOC Rwy 16L³**
 ILS or LOC Rwy 34L²
 RNAV (GPS) Y Rwy 16L¹
 RNAV (GPS) Y Rwy 34R¹
¹Category D, 900-2¾.
²NA when local weather not available.
³ILS, LOC Category D, 900-2¾.

SACRAMENTO
 MATHER (MHR) **ILS or LOC/DME Rwy 22L**
 NA when control tower closed.
 Category D, 800-2½.

SALINAS, CA
 SALINAS MUNI (SNS)..... **ILS Rwy 31¹**
 LOC/DME Rwy 31²
 RNAV (GPS) Rwy 13¹²
 RNAV (GPS) Y Rwy 31¹²
 RNAV (GPS) Z Rwy 31¹
 VOR Rwy 13³
¹NA when local weather not available.
²Category D, 800-2¾.
³Category D, 1000-3.

NAME **ALTERNATE MINIMUMS**
SAN FRANCISCO, CA
 SAN FRANCISCO
 INTL (SFO)..... **ILS or LOC Rwy 19L²**
 ILS or LOC Rwy 28L⁶
 ILS or LOC Rwy 28R³
 RNAV (GPS) Rwy 10L¹
 RNAV (GPS) Rwy 28L⁷
 RNAV (GPS) Y Rwy 10R²
 RNAV (GPS) Z Rwy 28R⁴
 RNAV (RNP) Z Rwy 10R⁵

¹Categories A, B, 1200-2; Categories C, D, 1200-3.
²Categories A, B, 1800-2; Categories C, D, 1800-3.
³ILS, Category A, 700-2; Category B, 1000-2; Category C, 1600-3; LOC, Category B, 1000-2; Category C, 1600-3.
⁴Category B, 1000-2; Category C, 1600-3.
⁵Categories A, B, C, D, 1100-4.
⁶ILS, LOC, Categories A, B, 1100-2; Category C, 1600-3.
⁷Categories A, B, 1100-2; Category C, 1600-3; Category D, 1100-2½.

SAN JOSE, CA
 NORMAN Y MINETA SAN JOSE
 INTL (SJC)..... **ILS or LOC Rwy 12R**
 ILS or LOC Rwy 30L
 NA when control tower closed.

SANTA ROSA, CA
 CHARLES M SCHULZ-SONOMA
 COUNTY (STS) **ILS or LOC/DME Rwy 32¹²³**
 RNAV (GPS) Rwy 14²⁴
 RNAV (GPS) Rwy 2²⁴
 RNAV (GPS) Rwy 32⁴
 VOR/DME Rwy 14²⁴
¹NA when control tower closed.
²NA when local weather not available.
³ILS, LOC, Category C, 1000-3; Category D, 1300-3.
⁴Category C, 1000-3; Category D, 1300-3.

STOCKTON, CA
 STOCKTON METROPOLITAN
 (SCK) **ILS or LOC Rwy 29R¹²**
 RNAV (GPS) Rwy 11L
 RNAV (GPS) Rwy 29R
 NA when local weather not available.
¹ILS, Category D, 700-2.
²NA when control tower closed.

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ALTERNATE MINS

M4



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NAME	ALTERNATE MINIMUMS	NAME	ALTERNATE MINIMUMS
UKIAH, CA			
UKIAH MUNI (UKI)	RNAV (GPS)-B¹		
	VOR-A²		

¹Categories A, B, 2000-2; Categories C, D, 2000-3.

²Categories A, B, 2800-2; Categories C, D, 2800-3.

VACAVILLE, CA

NUT TREE (VCB)	VOR/DME-A
NA when local weather not available.	

VISALIA, CA

VISALIA	
MUNI (VIS)	ILS or LOC/DME Rwy 30
	RNAV (GPS) Rwy 12
	RNAV (GPS) Rwy 30
	VOR Rwy 12
NA when local weather not available.	

WATSONVILLE, CA

WATSONVILLE	
MUNI (WVI)	RNAV (GPS) Rwy 2
	VOR/DME-A¹

NA when local weather not available.

¹Categories A, B, 1200-2; Categories C, D, 1200-3.

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ALTERNATE MINS

M4

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RADAR MINS

N1

16091

RADAR INSTRUMENT APPROACH MINIMUMS

LEMOORE NAS (KNLC), (REEVES FIELD), CA (Amdt 3, 16091 USN) ELEV **232**
RADAR - (E) 125.95 270.8x 314.0x 317.575x 322.45x 323.15x 336.4x 346.375x 348.75x 353.55x
 363.7x 370.875x 377.075x 

	<u>RWY</u>	<u>GS/TCH/RPI</u>	<u>CAT</u>	<u>DH/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATh/</u> <u>HAA</u>	<u>CEIL-VIS</u>
PAR ¹	32L ²	3.0°/45/840	ABCDE	329/16	100	(100-¼)
	14L	3.0°/56/1015	ABCDE	320/24	100	(100-½)
	32R	3.0°/45/853	ABCDE	324/24	100	(100-½)
	14R	3.0°/53/984	ABCDE	330/24	100	(100-½)
PAR W/O GS	32L ³		ABCDE	520/29	291	(300-¾)
	14L		ABCDE	520/55	300	(300-1)
	14R		ABCDE	580/55	350	(400-1)
	32R		ABCDE	540/55	316	(400-1)
ASR	14L		ABCDE	520/55	300	(300-1)
	14R		ABCDE	520/55	290	(300-1)
	32L ³		ABCDE	540/24	311	(400-½)
	32R		AB	620/55	396	(400-1)
			CDE	620/60	396	(400-1⅙)
CIR	ALL RWYS		A	680-1	448	(500-1)
			B	700-1	468	(500-1)
			C	700-1½	468	(500-1½)
			DE	800-2	568	(600-2)

¹No-NOTAM MP: PAR-Rwy 14R-32L 1600-2400Z++ Mon, Rwy 14L-32R 1600-2400Z++ Wed.

²When ALS inop, increase CAT ABCDE RVR to 24 and vis to ½ mile.

³When ALS inop, increase CAT ABCDE RVR to 55 and vis to 1 mile.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2

RADAR INSTRUMENT APPROACH MINIMUMS

RADAR MINS

16091

N1

15120

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
NAPA, CA			
NAPA COUNTY (APC)	18R	06-24	5,450 feet
	24	18R-36L	3,700 feet
SANTA ROSA, CA			
CHARLES M SCHULZ-SONOMA COUNTY (STS)	02	14-32	4,608 feet

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

15120

16315

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*
ATWATER, CA CASTLE (MER)	HS 1	Twy A, Twy A1, Twy B, and Twy G complex int.
	HS 2	Twy A and southeast ramp, traffic congestion.
BEALE AFB, CA BEALE AFB (BAB)	HS 1	Twy B, high-speed U-2 mobile traffic when Rwy 15 in use.
	HS 2	Twy E, high-speed U-2 mobile traffic when Rwy 33 in use.
	HS 3	Twy F, in the vicinity of Twy C, Twy L, and Twy K. Frequent U-2 and high speed mobile traffic, slope of the twy limits visibility in both directions.
CONCORD, CA BUCHANAN FIELD (CCR)	HS 1	Rwy 32L and run-up area, Twy J.
	HS 2	Complex int at Rwy 01R-19L, Twy J, Twy A, Twy C, and Twy K.
	HS 3	Rwy 32L apch, Twy A.
HAYWARD, CA HAYWARD EXECUTIVE (HWD)	HS 1	Rwy 10L-28R, Twy E and Twy A.
	HS 2	Area not visible from ATCT.
	HS 3	Area not visible from ATCT.
	HS 4	Area not visible from ATCT.
	HS 5	Rwy holding position marking on Twy A1.
LIVERMORE, CA LIVERMORE MUNI (LVK)	HS 1	Rwy 25R, Twy B.
	HS 2	Rwy 25L, Twy C.
	HS 3	Rwy 07L, Twy H.
	HS 4	Rwy 07R, Twy G.
	HS 5	Rwy 25R, Twy G.
	HS 6	Ints of Twy J, Twy A, and Twy G.
NAPA, CA NAPA COUNTY (APC)	HS 1	Twy A, Twy C, Twy E and the ramp.
	HS 2	Rwy 24, Twy A.
	HS 3	Rwy 24 and Rwy 36L.
OAKLAND, CA METROPOLITAN OAKLAND INTL (OAK)	HS 1	Rwy 28R, Twy A and Twy B.
	HS 2	Rwy 10L-28R, Twy H, Twy G, Twy C and Twy D.
	HS 3	Rwy 10L and Rwy 33, Twy J, Twy P, and Twy C, complex int.
SACRAMENTO, CA SACRAMENTO EXECUTIVE (SAC)	HS 1	Rwy 16-34 and Rwy 12-30 at Twy M.
	HS 2	Inbound Twy A and outbound Twy B.
	HS 3	Portion of Twy E not visible from twr.
SACRAMENTO, CA SACRAMENTO INTL (SMF)	HS 1	Twy B2, Twy A, and Twy A10.
	HS 2	Area not visible from the twr.

(SEE CONTINUATION PAGE FOR MORE LISTINGS)

16315

16147

HOT SPOTS

(CONTINUED)

CITY/AIRPORT	HOT SPOT	DESCRIPTION*
SALINAS, CA SALINAS MUNI (SNS)	HS 1	Twy A and Twy C int in close proximity of Rwy 08-26.
SAN FRANCISCO, CA SAN FRANCISCO INTL (SFO)	HS 1 HS 2 HS 3	Twy B, Twy J, and Twy F. Rwy 01L-19R, Twy C and Twy E. Rwy 28R and Twy T.
SAN JOSE, CA NORMAN Y. MINETA SAN JOSE INTL (SJC)	HS 1 HS 2	Twy D crosses Twy W1. Rwy 30L and Twy D "Run-up Area" near Active rwy.
SAN JOSE, CA REID-HILLVIEW OF SANTA CLARA COUNTY (RHV)	HS 1 HS 2	Numerous inbounds and outbounds at twy intersections Twy D, Twy Z, and Twy Y. Numerous aircraft maneuvering at twy int of Twy Y, Twy Z, Twy A and the Rwy 31R run-up area.
SANTA ROSA, CA CHARLES M. SCHULZ- SONOMA COUNTY (STS)	HS 1 HS 2 HS 3	Twy A, Twy A5, Twy Z complex int in close proximity to Rwy 14-32. Area not visible from the twr. Rwy 14-20 run-up area east of Twy A and Twy H int in close proximity of Rwy 20 Apch Hold.
STOCKTON, CA STOCKTON METROPOLITAN (SCK)	HS 1	Area not visible from control twr.
TRUCKEE, CA TRUCKEE-TAHOE (TRK)	HS 1	Simultaneous ops on Rwy 11-29 and Rwy 02-20.

*See appropriate Chart Supplement HOT SPOT table for additional information.

16147

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(WINDSR.AANET1) 16091

AANET ONE ARRIVAL (RNAV)

ST-294 (FAA)

METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

SPAMY
FL260 280K
FL240

11000
*7600
160°
(10)

HUBRT
FL230

9000
*5600
155°
(22)

WNSDR
FL220
16000

*9000
*5100
208°
(6)

AANET
13000

*5200
171°
(30)

10 NM
35°
155°

RAIDR
5000

RBUCI
FL300 280K

11000
*5100
208°
(14)

BMBOO
FL260
FL240

11000
*5300
208°
(11)

DRAXE
FL230

ATIS
133.775
OAKLAND CENTER
125.85 323.0
NORCAL APP CON
125.35 310.8
OAKLAND TOWER
127.2 256.9 (Rwy 12)
GND CON
121.75

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Corresponding STAR is WNSDR. Expect WNSDR when KOAK is landing Rwy 28L/R and 30.

ARRIVAL ROUTE DESCRIPTION

RBUCI TRANSITION (RBUCI.AANET1)

SPAMY TRANSITION (SPAMY.AANET1)

From WNSDR on track 171° to cross AANET at or above 13000.

LANDING RUNWAY 12: From AANET on track 171° to cross RAIDR at 5000. Expect assigned instrument approach procedure.

NOTE: Chart not to scale.



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

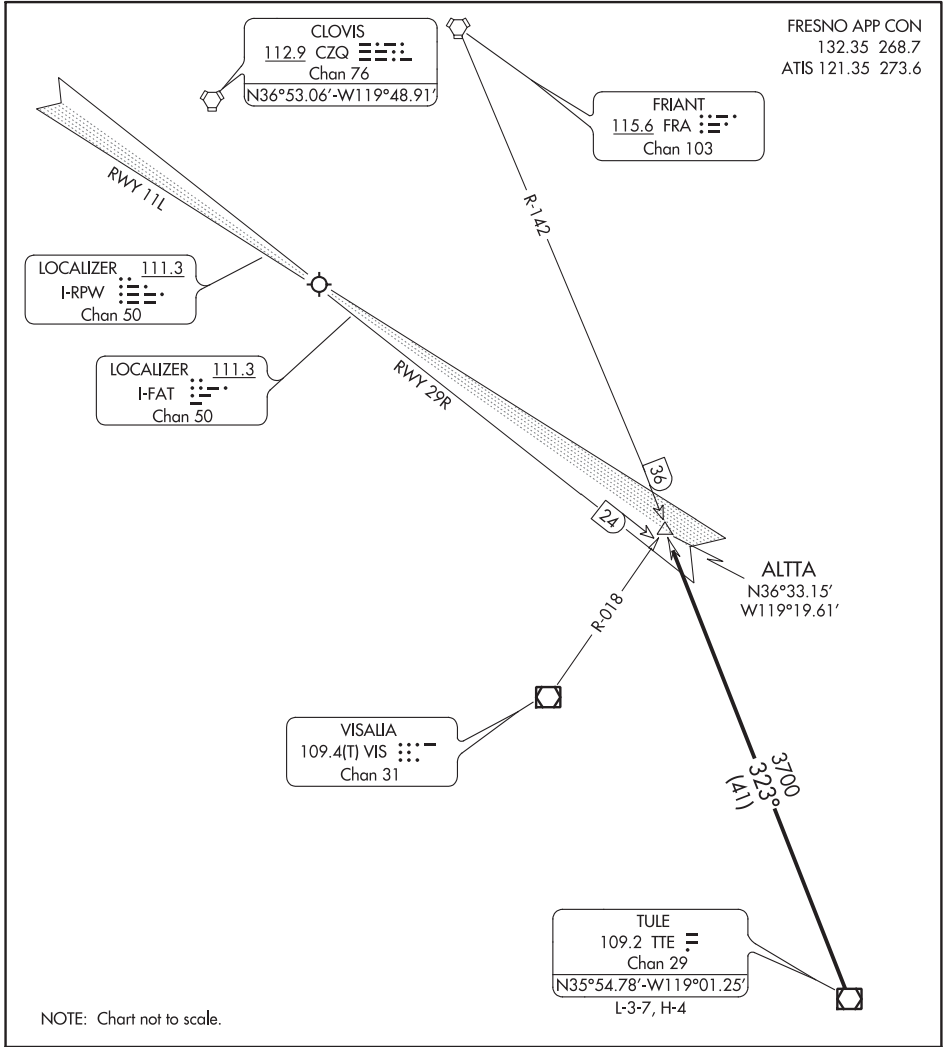
AANET ONE ARRIVAL (RNAV)
(WNSDR.AANET1) 05MAR15

OAKLAND, CALIFORNIA
METROPOLITAN OAKLAND INTL (OAK)

(TTE.ALTA8) 16091

ALTA EIGHT ARRIVAL

FRESNO YOSEMITE INTL (FAT)
FRESNO, CALIFORNIA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

From over TTE VOR/DME via TTE R-323 and FRA R-142 to ALTA DME fix. Expect ILS or LOC Rwy 29R approach. For Rwy 11L operations: Expect routing via CZQ VORTAC and radar vectors to Fresno Localizer Rwy 11L approach.

LOST COMMUNICATIONS: Rwy 11L: Execute VOR/DME or TACAN Rwy 11L approach.

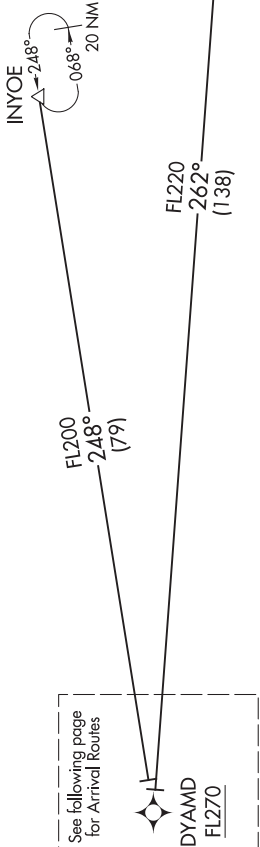
ALTA EIGHT ARRIVAL

(TTE.ALTA8) 13APR06

FRESNO, CALIFORNIA
FRESNO YOSEMITE INTL (FAT)

ALWAYS ONE ARRIVAL (RNAV) Transition Routes

OAKLAND CENTER
134.37 281.5
NORCAL APP CON
128.325 254.3
ATIS
113.7
SAN FRANCISCO TOWER
120.5 269.1
GND CON
121.8



See following page
for Arrival Routes

DYAMD
FL270

RUSME

INYOE TRANSITION (INYOE.ALWYS1)
RUSME TRANSITION (RUSME.ALWYS1)

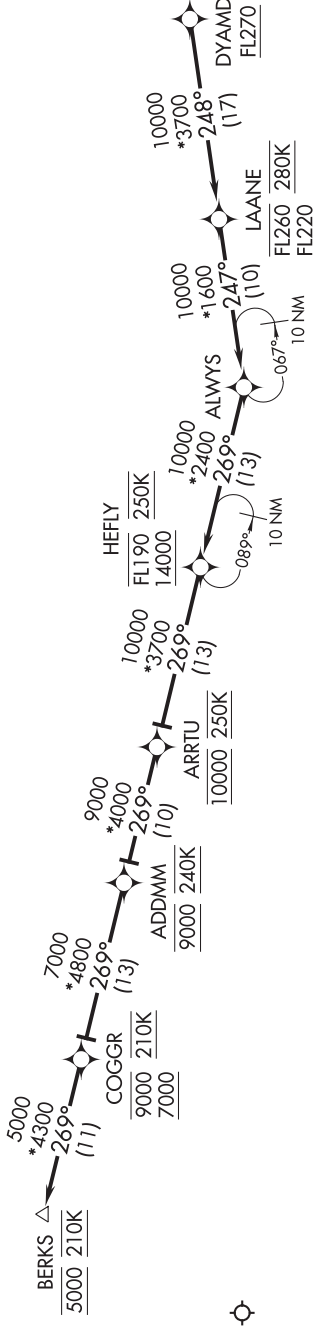
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Expect "descend via" clearance from Oakland Center.
Northern California TRACON will assign landing runway.

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

ALWAYS ONE ARRIVAL (RNAV) Arrival Routes

OAKLAND CENTER
134.37 281.5
NORCAL APP CON
128.325 254.3
ATIS
113.7
SAN FRANCISCO TOWER
120.5 269.1
GND CON
121.8



ARRIVAL ROUTE DESCRIPTION

From DYAMD on track 248° to cross LAANE between FL220 and FL260 and at 280K, then on track 247° to ALWAYS.

LANDING RUNWAYS 19L/R: From ALWAYS on track 269° to cross HEFLY between 14000 and FL190 and at 250K, then on track 269° to cross ARRTU at 10000 and at 250K, then on track 269° to cross ADDMM at 9000 and at 240K, then on track 269° to cross COGGR between 7000 and 9000 and at 210K, then on track 269° to cross BERKS at 5000 and at 210K. Expect assigned instrument approach procedure or vectors to final approach course.

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Expect "descend via" clearance from Oakland Center.
- NOTE: Northern California TRACON will assign landing runway.
- NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

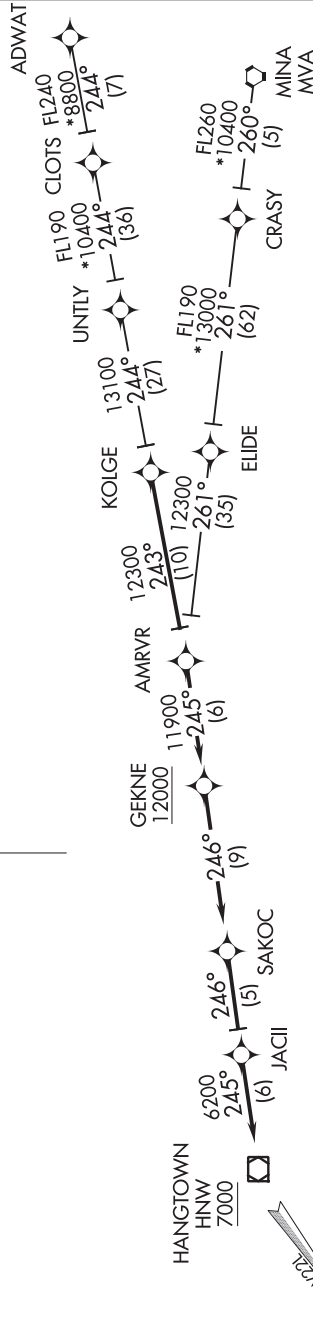
AMRV ONE ARRIVAL (RNAV)

ST-356 (FAA)

SACRAMENTO MATHER (MHR)
SACRAMENTO, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017

NORCAL APP CON
127.4 317.5
MATHER TOWER ★
120.65 282.25
MATHER ATIS
118.325



ARRIVAL ROUTE DESCRIPTION

ADWAT TRANSITION (ADWAT.AMVR1):

MINA TRANSITION (MVA.AMVR1):

... From AMRV on 245° track to cross GEKNE at or above 12000, then as depicted to cross HNW VOR/DME at or above 7000, expect ILS Rwy 22L/Visual approach.

- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS Required.
- NOTE: Radar Required for non-GPS equipped aircraft.
- NOTE: Turboprops only.

LOCALIZER 111.35
I-MHR
Chan 50(Y)

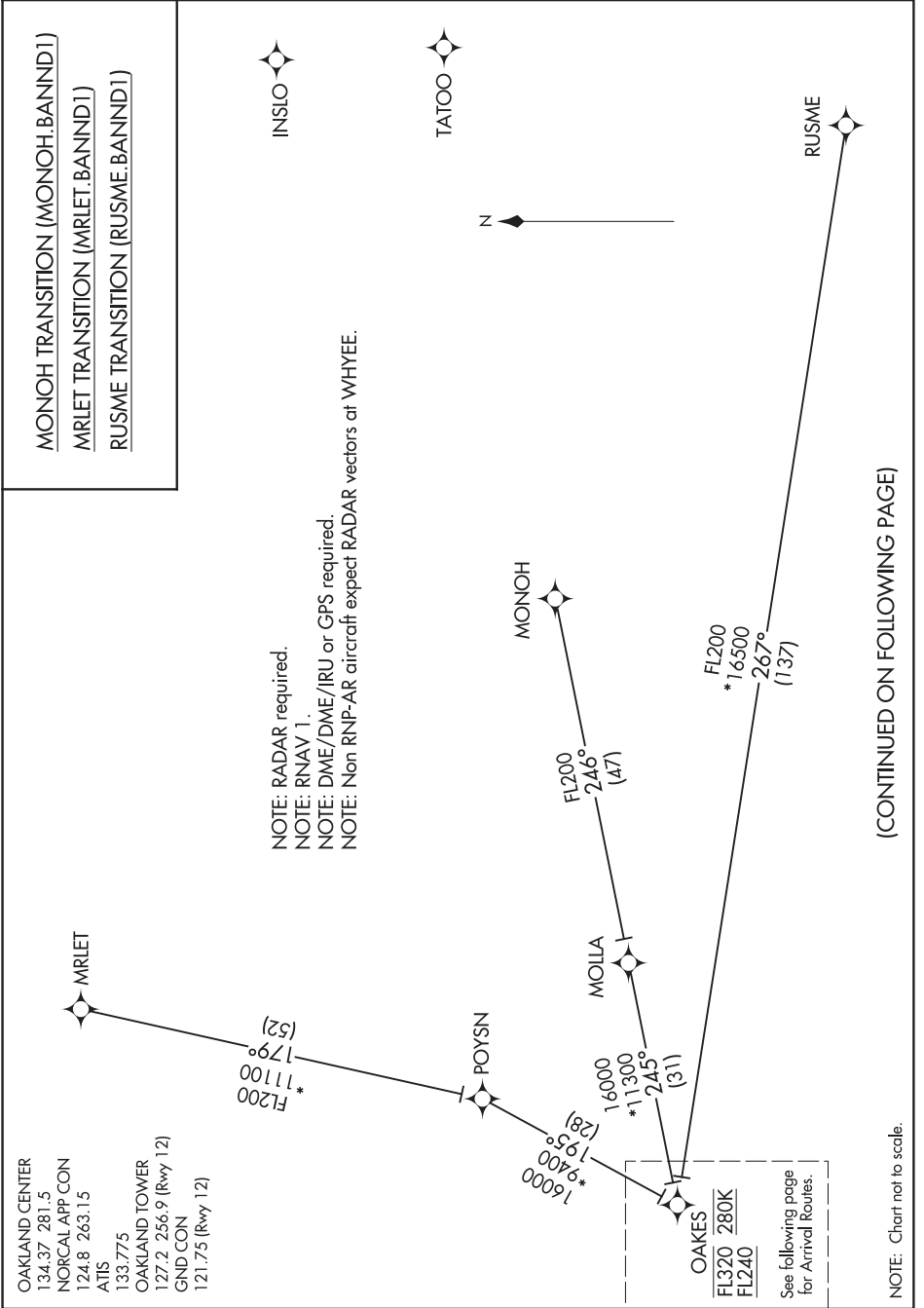
NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

AMRV ONE ARRIVAL (RNAV)

BANND ONE ARRIVAL (RNAV) Transition Routes

SW-2, 10 NOV 2016 to 05 JAN 2017



(CONTINUED ON FOLLOWING PAGE)

SW-2, 10 NOV 2016 to 05 JAN 2017

BANND ONE ARRIVAL (RNAV) Transition Routes

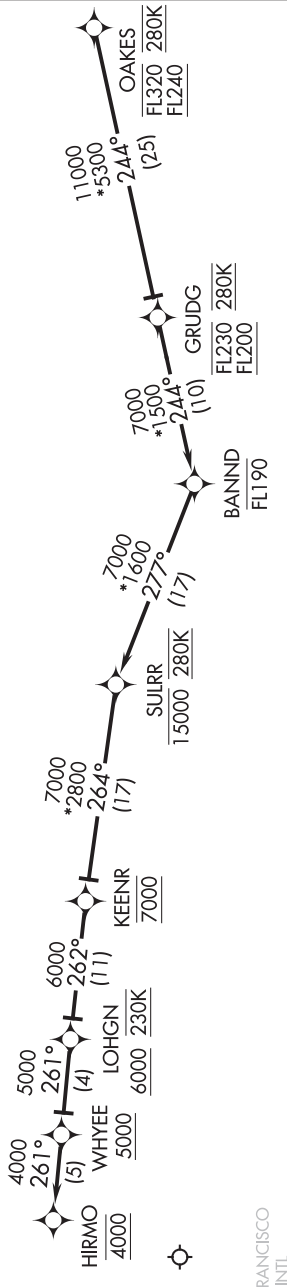
BANND ONE ARRIVAL (RNAV) Arrival Routes

SW-2, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

From OAKES on track 244° to cross GRUDG between FL200 and FL230 and at 280K, then on track 244° to cross BANND at or below FL190.

LANDING RUNWAY 12: From BANND on track 277° to cross SULRR at or below 15000 and at 280K, then on track 264° to cross KEENR at 7000, then on track 262° to cross LOHGN at or above 6000 and at 230K, then on track 261° to cross WHYEE at or above 5000, then on track 261° to cross HIRMO at 4000. Expect assigned instrument approach procedure.



NOTE: RADAR required.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: Non RNP-AR aircraft expect RADAR vectors at WHYEE.

- OAKLAND CENTER 134.37 281.5
- NORCAL APP CON 124.8 263.15
- ATIS 133.775
- OAKLAND TOWER 127.2 256.9 (Rwy 12)
- GND CON 121.75 (Rwy 12)

SAN FRANCISCO INTL

NORMAN Y. MINETA SAN JOSE INTL

BANND ONE ARRIVAL (RNAV) Arrival Routes

SW-2, 10 NOV 2016 to 05 JAN 2017

(LOZIT.BDEGA2) 16147

BDEGA TWO ARRIVAL (RNAV)

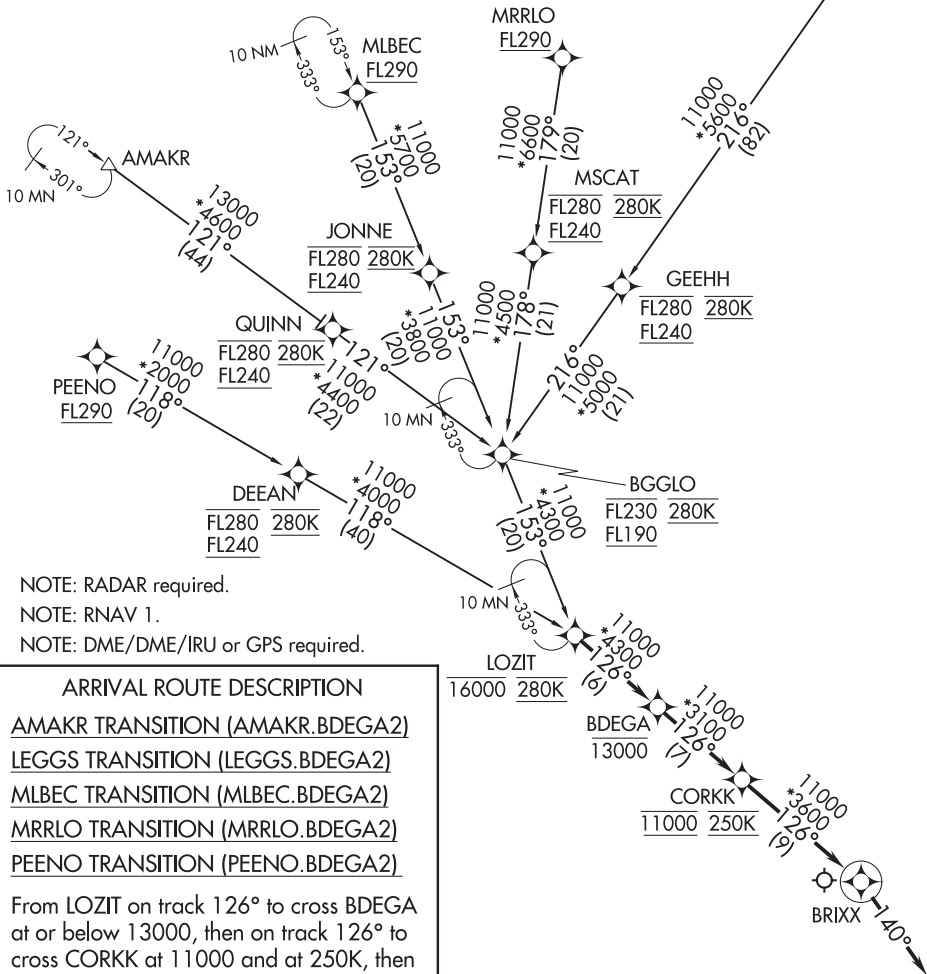
SAN FRANCISCO INTL (SF'O)
SAN FRANCISCO, CALIFORNIA

ST-375 (FAA)



ATIS
113.7
OAKLAND CENTER
125.85 323.0
NORCAL APP CON
133.95 317.6
SAN FRANCISCO TOWER
120.5 269.1
GND CON
121.8

LEGG'S



NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.

ARRIVAL ROUTE DESCRIPTION

AMAKR TRANSITION (AMAKR.BDEGA2)

LEGG'S TRANSITION (LEGG'S.BDEGA2)

MLBEC TRANSITION (MLBEC.BDEGA2)

MRRLO TRANSITION (MRRLO.BDEGA2)

PEENO TRANSITION (PEENO.BDEGA2)

From LOZIT on track 126° to cross BDEGA at or below 13000, then on track 126° to cross CORKK at 11000 and at 250K, then on track 126° to BRIXX, then on track 140°.

Expect RADAR vectors to final approach course.

NOTE: Chart not to scale.

BDEGA TWO ARRIVAL (RNAV)

(LOZIT.BDEGA2) 15OCT15

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SF'O)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(BSR.BSR3) 16259

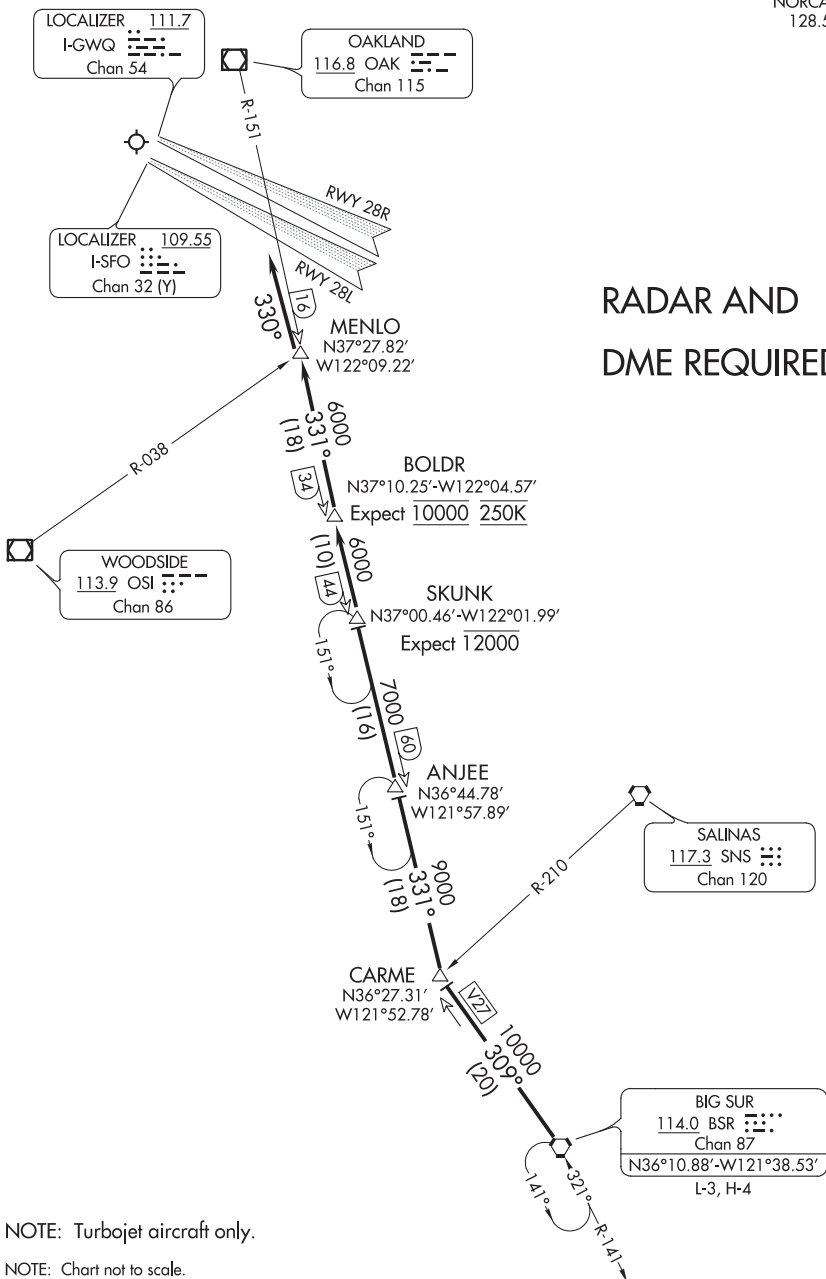
BIG SUR THREE ARRIVAL

ST-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

OAKLAND CENTER
125.45 307.3
NORCAL APP CON
128.575 254.25
ATIS
113.7

RADAR AND DME REQUIRED



NOTE: Turbopjet aircraft only.

NOTE: Chart not to scale.

BIG SUR THREE ARRIVAL

(BSR.BSR3) 15SEP16

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

SW-2, 10 NOV 2016 to 05 JAN 2017

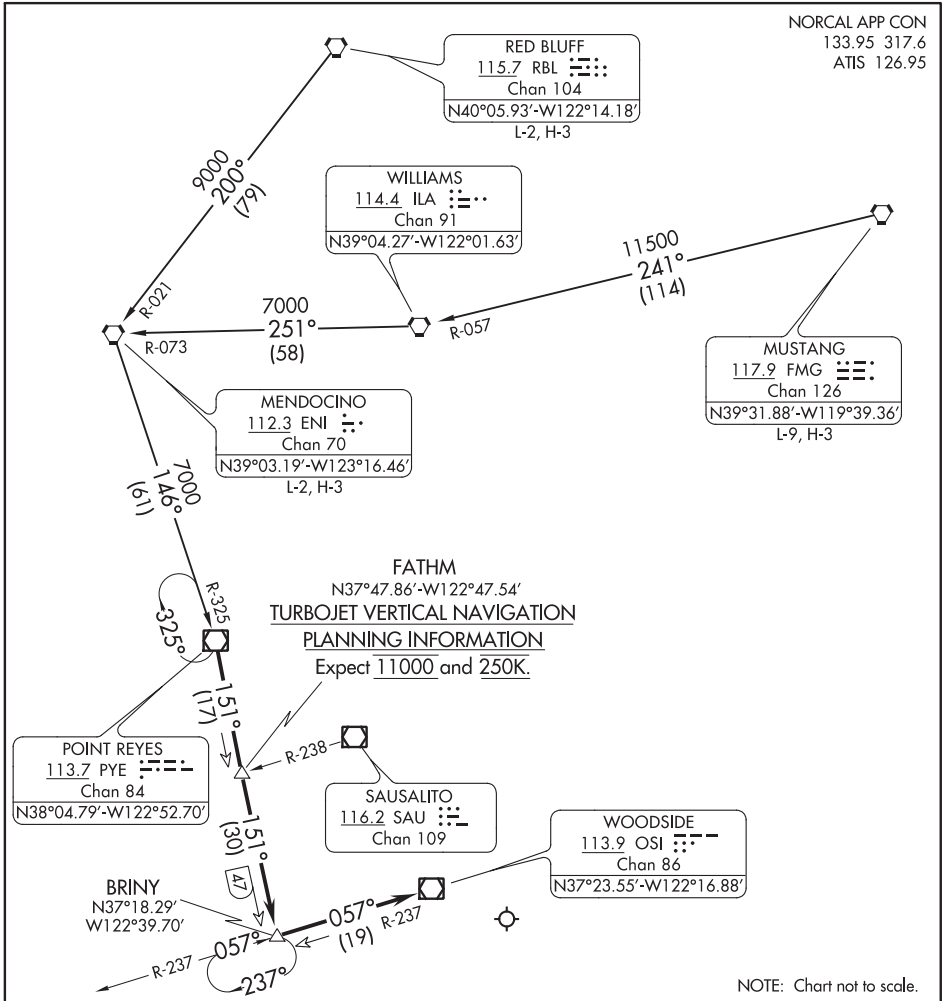
SW-2, 10 NOV 2016 to 05 JAN 2017

(PYE.BRINY2)¹⁶²⁵⁹
BRINY TWO ARRIVAL

NORMAN Y MINETA SAN JOSE INTL (SJC)
 SAN JOSE, CALIFORNIA

ST-693 (FAA)

NORCAL APP CON
 133.95 317.6
 ATIS 126.95



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

MENDOCINO TRANSITION (ENI.BRINY2): From over ENI VORTAC via ENI R-146 and PYE R-325 to PYE VOR/DME. Thence

MUSTANG TRANSITION (FMG.BRINY2): From over FMG VORTAC via FMG R-241 to ILA VORTAC then via ILA R-251 to ENI VORTAC, then via ENI R-146 to PYE VOR/DME. Thence

RED BLUFF TRANSITION (RBL.BRINY2): From over RBL VORTAC via RBL R-200 and ENI R-146 to PYE VOR/DME. Thence

. . . . From over PYE VOR/DME via PYE R-151 to BRINY INT/DME, then via OSI R-237 to OSI VOR/DME. Expect RADAR vectors to Rwy 12R final approach course.

BRINY TWO ARRIVAL
 (PYE.BRINY2) ^{15SEP16}

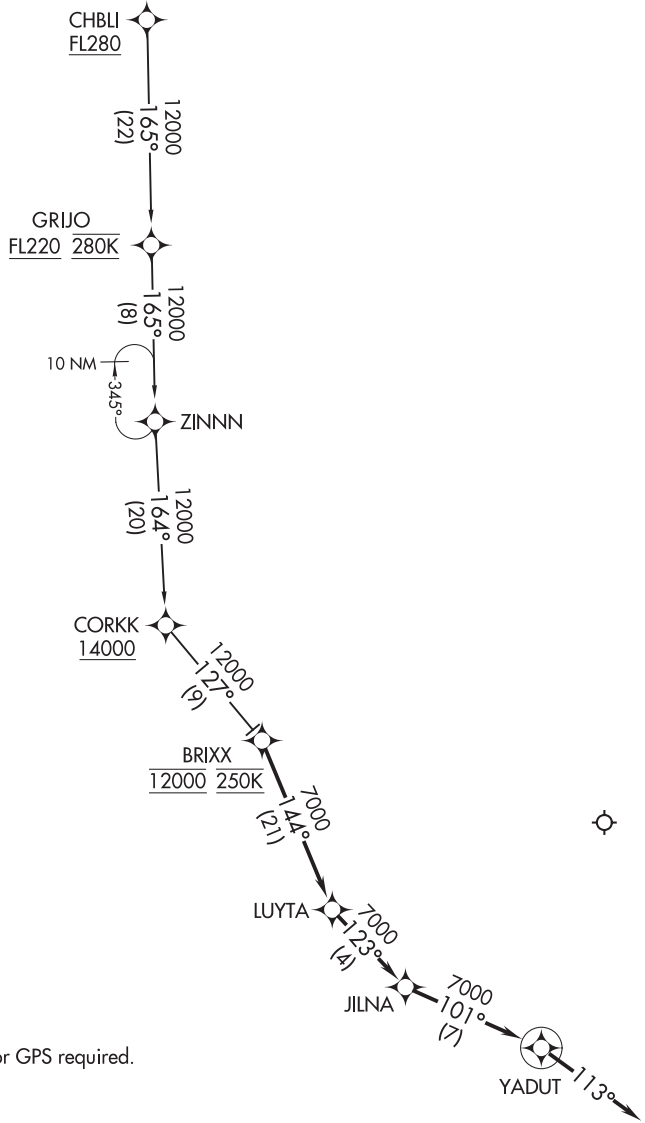
SAN JOSE, CALIFORNIA
 NORMAN Y MINETA SAN JOSE INTL (SJC)

BRXX TWO ARRIVAL (RNAV)

ST-693 (FAA)

NORMAN Y MINETA SAN JOSE INTL (SJC)
SAN JOSE, CALIFORNIA

OAKLAND CENTER
 125.85 323.0
 NORCAL APP CON
 133.95 317.6
 ATIS
 126.95
 SAN JOSE TOWER ★
 124.0 257.6
 GND CON
 121.7



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

CHBLI TRANSITION (CHBLI.BRXX2)

From BRXX on track 144° to LUYTA, then on track 123° to JILNA, then on track 101° to YADUT, then on track 113°. Expect RADAR vectors to final approach course.

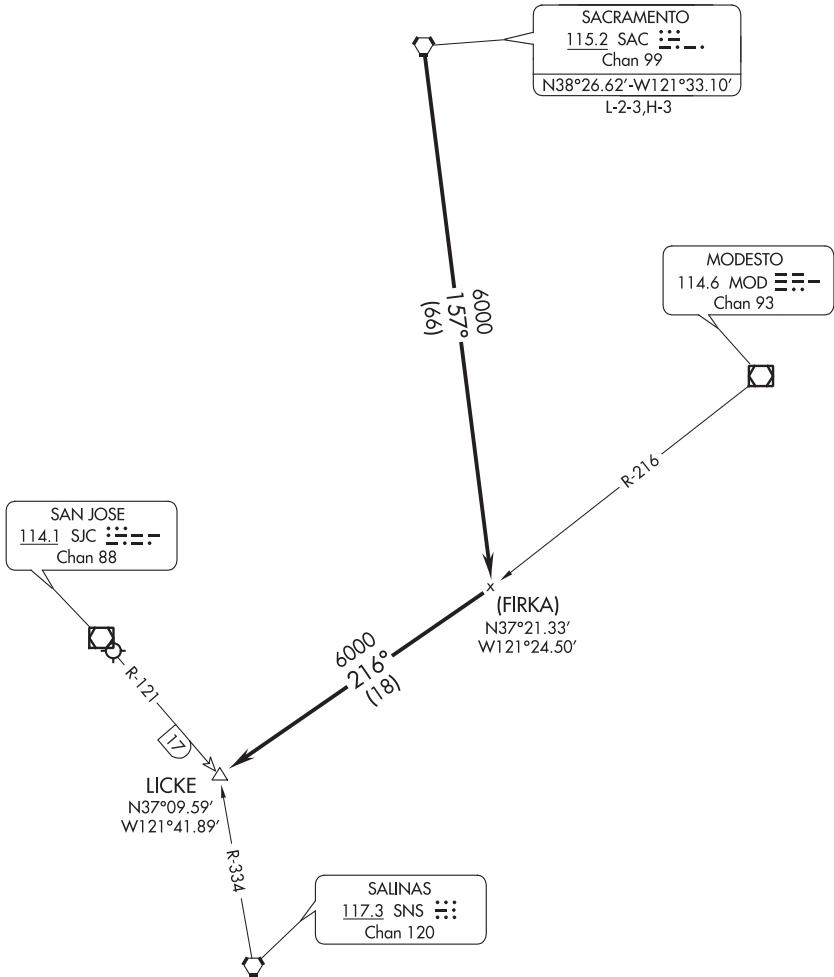
BRXX TWO ARRIVAL (RNAV)

CAPITOL THREE ARRIVAL

ST-693 (FAA)

NORMAN Y MINETA SAN JOSE INTL
SAN JOSE, CALIFORNIA

NORCAL APP CON
120.1 290.25
ATIS 126.95



NOTE: Chart not to scale

ARRIVAL ROUTE DESCRIPTION

From over SAC VORTAC via SAC R-157 to intercept and proceed via MOD R-216 to LICKE INT. Then via RADAR vector to Norman Y Mineta San Jose Intl.

CAPITOL THREE ARRIVAL

SW-2, 10 NOV 2016 to 05 JAN 2017

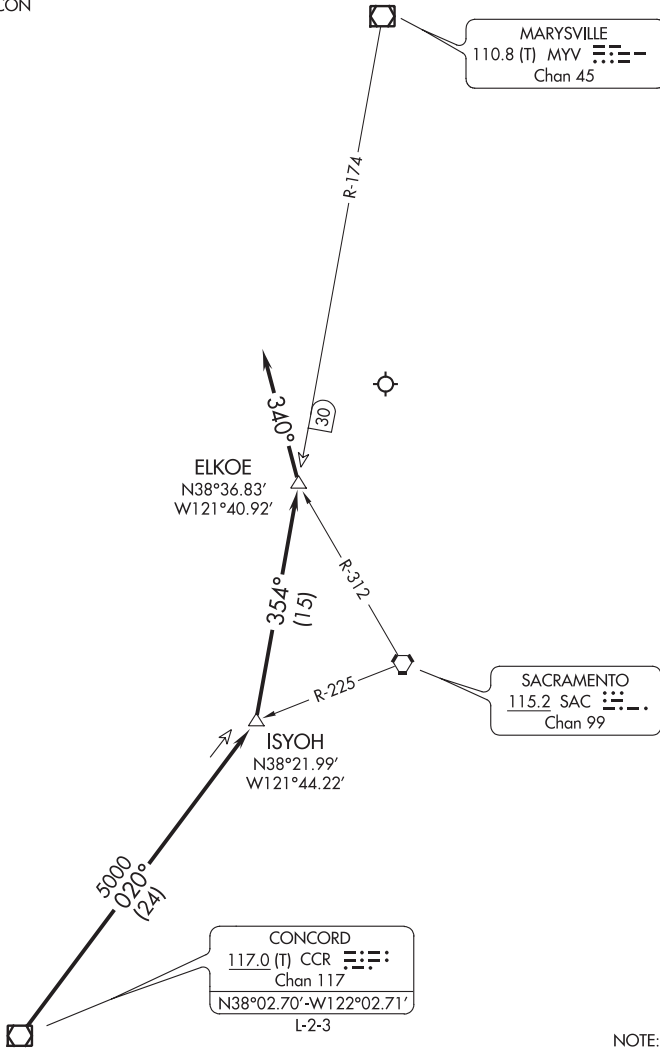
SW-2, 10 NOV 2016 to 05 JAN 2017

CONCORD TWO ARRIVAL

ST-5490 (FAA)

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

NORCAL APP CON
125.25 257.9



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

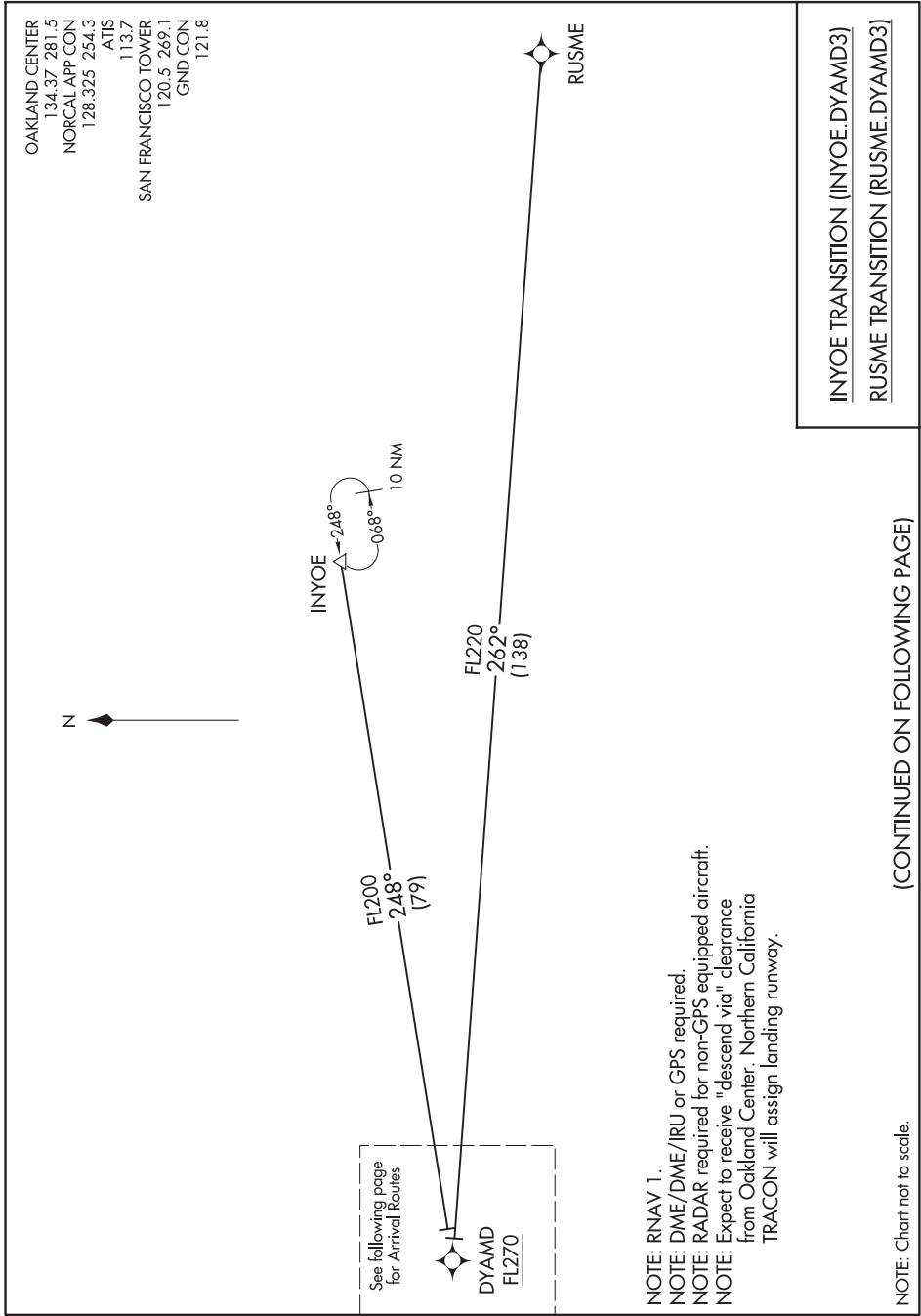
ARRIVAL ROUTE DESCRIPTION

From over CCR VOR/DME via CCR R-020 to ISYOH INT, then via MYV R-174 to ELKOE INT, then on heading 340°. Expect RADAR vectors to final approach course.

CONCORD TWO ARRIVAL

DYAMD THREE ARRIVAL (RNAV) Transition Routes

SW-2, 10 NOV 2016 to 05 JAN 2017



OAKLAND CENTER
134.37 281.5
NORCAL APP CON
128.325 254.3
ATIS
113.7

SAN FRANCISCO TOWER
120.5 269.1
GND CON
121.8

FL200
248°
(7.9)

FL220
262°
(13.8)

10 NM

248°

068°

INYOE TRANSITION (INYOE.DYAMD3)

RUSME TRANSITION (RUSME.DYAMD3)

NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required for non-GPS equipped aircraft.
NOTE: Expect to receive "descend via" clearance from Oakland Center. Northern California TRACON will assign landing runway.

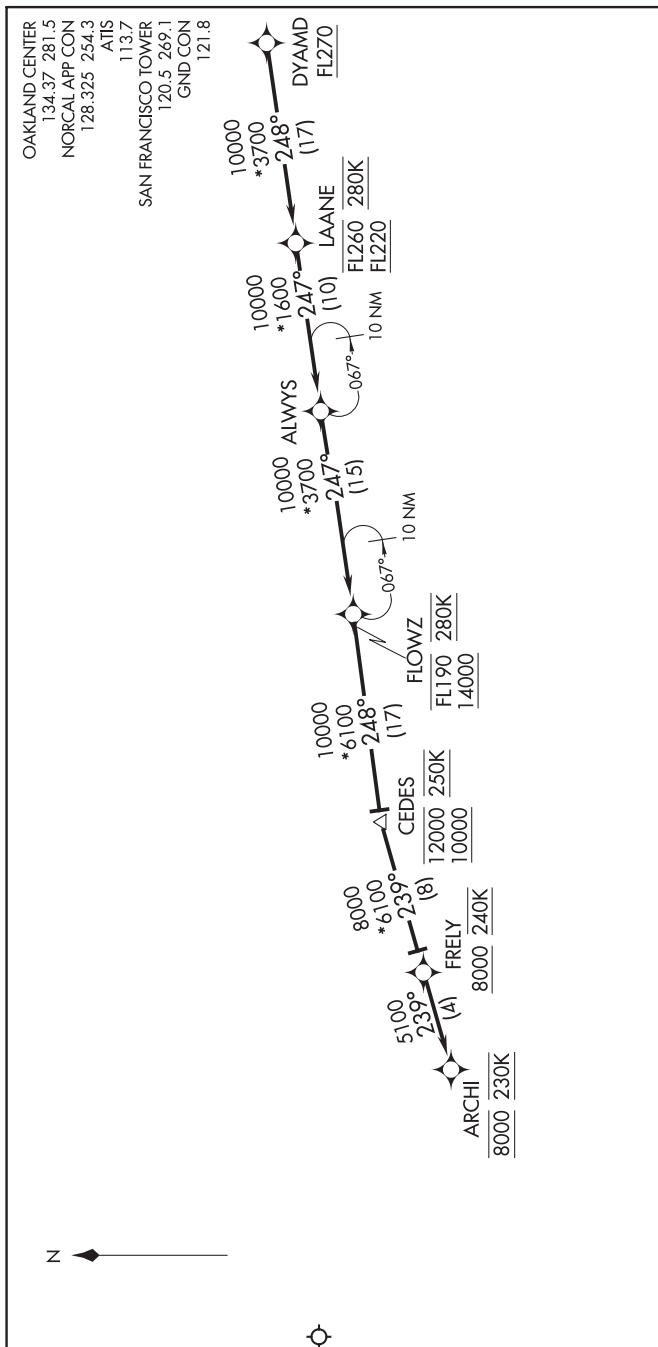
(CONTINUED ON FOLLOWING PAGE)

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

DYAMD THREE ARRIVAL (RNAV) Arrival Routes

SW-2, 10 NOV 2016 to 05 JAN 2017



ARRIVAL ROUTE DESCRIPTION

From DYAMD on track 248° to cross LAANE between FL220 and FL260 and at 280K, then on track 247° to ALWAYS.

LANDING RUNWAYS 28L/R: From ALWAYS on track 247° to cross FLOWZ between 14000 and FL190 and at 280K, then on track 248° to cross CEDES between 10000 and 12000 and at 250K, then on track 239° to cross FRELY at or above 8000 and at 240K, then on track 239° to cross ARCHI at 8000 and at 230K. Expect assigned instrument approach procedure.

- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: RADAR required for non-GPS equipped aircraft.
- NOTE: Expect to receive "descend via" clearance from Oakland Center, Northern California TRACON will assign landing runway.

NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

EL NIDO FIVE ARRIVAL

ST-693 (FAA)

NORMAN Y MINETA SAN JOSE INTL
SAN JOSE, CALIFORNIA

NORCAL APP CON
126.475 317.775
ATIS 126.95

SW-2, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

COALDALE TRANSITION (OAL.HYP5): From over OAL VORTAC on OAL R-216 and HYP R-067 to HYP VOR/DME. Thence

MUSTANG TRANSITION (FMG.HYP5): From over FMG VORTAC on FMG R-167 and CZQ R-348 to ELCAP INT, then on HYP R-032 to HYP VOR/DME. Thence.

. From over HYP VOR/DME via HYP R-240 to PAPEE DME fix, then via HYP R-240 to TORCH DME fix, then via SJC R-121 to GILRO INT. Expect the ILS Rwy 30L Approach.

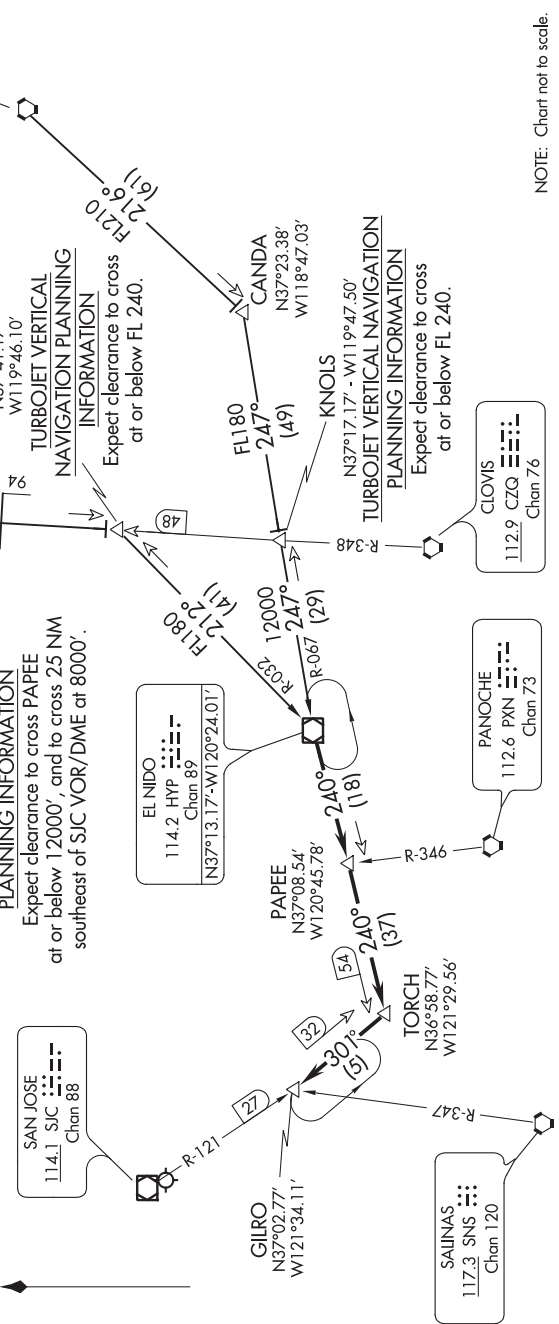
For Rwy 12 Operations: Expect RADAR vectors to final approach course.

TURBOJET VERTICAL NAVIGATION PLANNING INFORMATION
Expect clearance to cross PAPEE at or below 12000', and to cross 25 NM southeast of SJC VOR/DME at 8000'.

TURBOJET VERTICAL NAVIGATION PLANNING INFORMATION
Expect clearance to cross at or below FL 240.

TURBOJET VERTICAL NAVIGATION PLANNING INFORMATION
Expect clearance to cross at or below FL 240.

NOTE: Chart not to scale.



EL NIDO FIVE ARRIVAL

SW-2, 10 NOV 2016 to 05 JAN 2017

EMZOH THREE ARRIVAL (RNAV)

ST-294 (FAA)

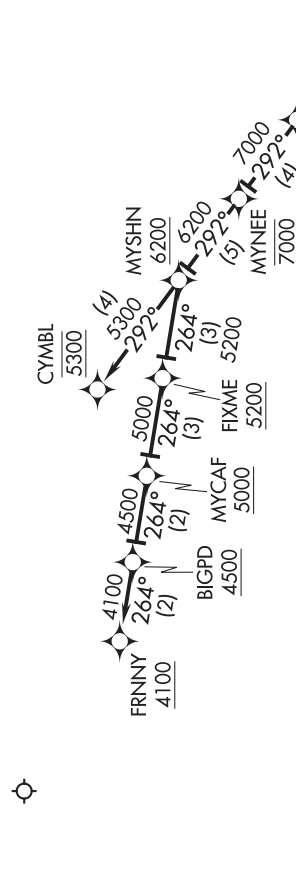
METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

7 10 NOV 2016 10:05 JAN 2017

OAKLAND CENTER
133.7 285.4
NORCAL APP CON
124.525 348.675
ATIS
133.775

OAKLAND TOWER
118.3 291.65 (Rwys 28L/R)
127.2 256.9 (Rwy 30)
GND CON
121.9 (Rwys 28L/R)
121.75 (Rwy 30)

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Expect to receive "descend via" clearance from Oakland Center. Northern California TRACON will assign landing runway.



ARRIVAL ROUTE DESCRIPTION

RGOOD TRANSITION (RGOOD.EMZOH3)

From EMZOH on track 304° to cross MYJAW at or above FL220 and at 280K, then on track 304° to cross SKIZM between 15000 and FL190.

LANDING RUNWAYS 28L/R: From SKIZM on track 303° to cross MYRIB between 9000 and 10000 and at 240K, then on track 304° to MYHIP, then on track 292° to cross MYNEE at 7000, then on track 292° to cross MYSHN at or above 6200, then on track 292° to cross CYMBL at 5300. Expect assigned instrument approach procedure.

LANDING RUNWAY 30: From SKIZM on track 303° to cross MYRIB between 9000 and 10000 and at 240K, then on track 304° to MYHIP, then on track 292° to cross MYNEE at 7000, then on track 292° to cross MYSHN at or above 6200, then on track 264° to cross FIXME at or above 5200, then on track 264° to cross MYCAF at or above 5000, then on track 264° to cross BIGPD at or above 4500, then on track 264° to cross FRNNY at or above 4100. Expect assigned instrument approach procedure.



NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

(SWR.FLUNK3) 16315

FLUNK THREE ARRIVAL

ST-5490 (FAA)

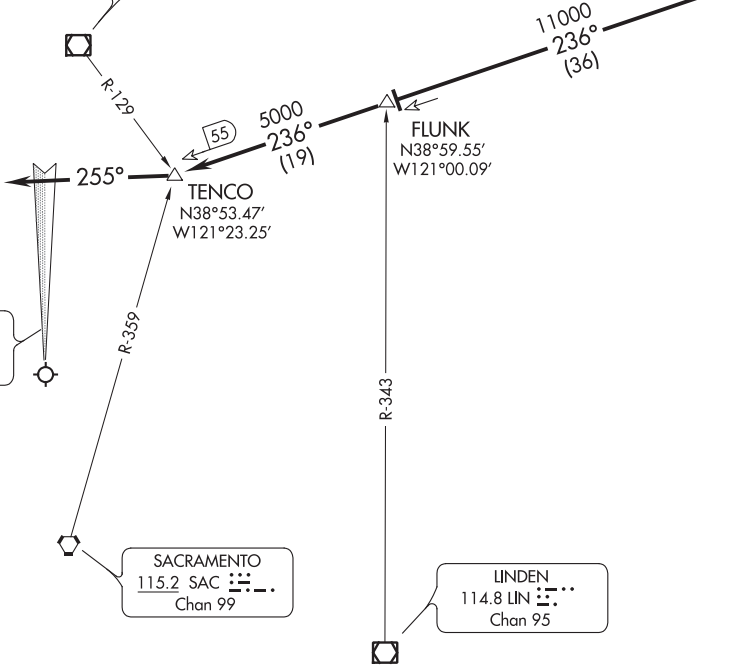
SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

NORCAL APP CON
120.45 353.7

SQUAW VALLEY
113.2 SWR
Chan 79
N39°10.82'-W120°16.18'
L-9, H-3

**TURBOJET VERTICAL NAVIGATION
PLANNING INFORMATION**
Expect FL240

MARYSVILLE
110.8 (T) MYV
Chan 45



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

From over SWR VOR/DME on SWR R-236 to TENCO INT. Depart TENCO INT heading 255° for vector to final approach course. Expect descent below 10000' passing FLUNK INT.

FLUNK THREE ARRIVAL

(SWR.FLUNK3) 05MAY88

SACRAMENTO, CALIFORNIA
SACRAMENTO INTL (SMF)

(FRLON.FRLON2) 16203

FRLON TWO ARRIVAL (RNAV)

ST-693 (FAA)

NORMAN Y MINETA SAN JOSE INTL (SJC)
SAN JOSE, CALIFORNIA

- OAKLAND CENTER
125.85 323.0
- NORCAL APP CON
133.95 317.6
- ATIS
126.95
- SAN JOSE TOWER*
124.0 257.6
- GND CON
121.7

GGULF
FL280

11000
154°
(61)

FRLON
13000 280K

8000
145°
(10)

STLER
12000 250K

7000
145°
(11)

MNTNA
7000
105°
(8)

MISSS
7000

5500
105°
(11)

PPEGS
5500 210K

140°

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

GGULF TRANSITION (GGULF.FRLON2)

From FRLON on track 145° to cross STLER at 12000 and at 250K, then on track 145° to MNTNA, then on track 105° to cross MISSS at 7000, then on track 105° to cross PPEGS at 5500 and at 210K, then on track 140°. Expect RADAR vectors to final approach course.

FRLON TWO ARRIVAL (RNAV)
(FRLON.FRLON2) 21JUL16

SAN JOSE, CALIFORNIA
NORMAN Y MINETA SAN JOSE INTL (SJC)

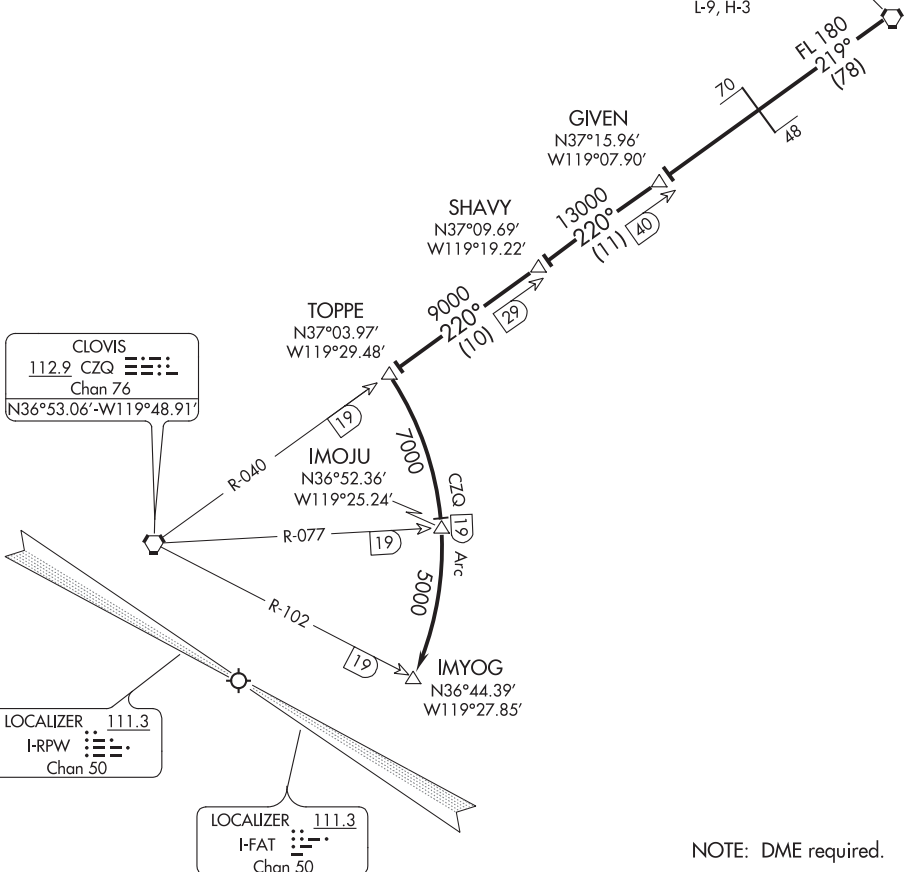
FRESNO APP CON
119.6 351.95
ATIS 121.35 273.6

COALDALE
117.7 OAL
Chan 124
N38°00.20'-W117°46.23'
L-9, H-3

CLOVIS
112.9 CZQ
Chan 76
N36°53.06'-W119°48.91'

LOCALIZER 111.3
I-RPW
Chan 50

LOCALIZER 111.3
I-FAT
Chan 50



NOTE: DME required.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

From over OAL VORTAC via OAL R-219 and CZQ R-040 to TOPPE DME fix, thence

. . . . RWY 11L: arrivals can expect RADAR vectors from TOPPE DME fix to Fresno Rwy 11L localizer.

. . . . RWY 29R: south via CZQ 19 DME arc to IMYOG R-102/19 DME, then via RADAR vectors to intercept the Fresno ILS Rwy 29R localizer course.

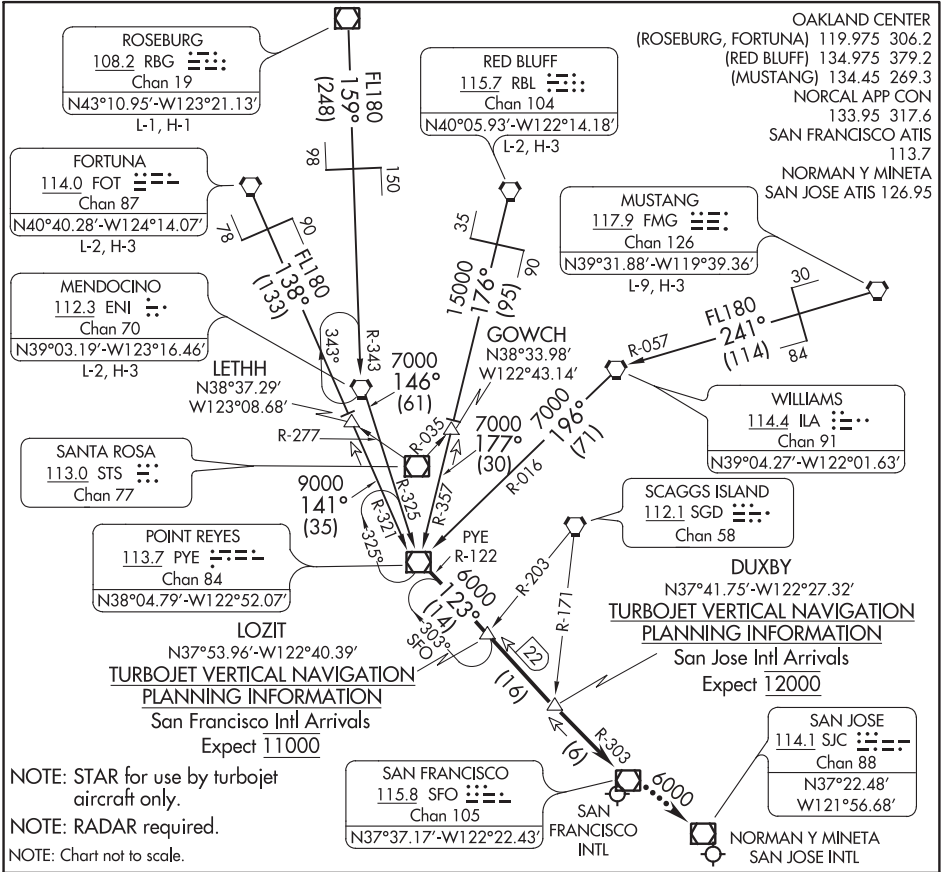
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

GOLDEN GATE SEVEN ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

FORTUNA TRANSITION (FOT.GOLDN7): From over FOT VORTAC on FOT R-138 to LETHHH INT, then on PYE R-321 to PYE VOR/DME. Thence. . .

MENDOCINO TRANSITION (ENI.GOLDN7): From over ENI VORTAC on ENI R-146 and PYE R-325 to PYE VOR/DME. Thence. . .

MUSTANG TRANSITION (FMG.GOLDN7): From over FMG VORTAC on FMG R-241 and ILA R-057 to ILA VORTAC, then via ILA R-196 and PYE R-016 to PYE VOR/DME. Thence. . .

RED BLUFF TRANSITION (RBL.GOLDN7): From over RBL VORTAC on RBL R-176 to GOWCH INT, then on PYE R-357 to PYE VOR/DME. Thence. . .

ROSEBURG TRANSITION (RBG.GOLDN7): From over RBG VOR/DME on RBG R-159 and ENI R-343 to ENI VORTAC, then on ENI R-146 and PYE R-325 to PYE VOR/DME. Thence. . .

. . . From over PYE VOR/DME via SFO R-303 to SFO VOR/DME. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS: San Jose Intl: After SFO VOR/DME proceed direct SJC VOR/DME.

GOLDEN GATE SEVEN ARRIVAL

SAN FRANCISCO, CALIFORNIA

MADWIN SIX ARRIVAL

ST-294 (FAA)

OAKLAND, CALIFORNIA

7-W-2 10 NOV 2016 10:05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

COALDALE TRANSITION (OAL.MADN6): From over OAL VORTAC on OAL R-250 and ECA R-068 to JOFAY INT then on ECA R-068 to ECA VOR/DME. Thence, . . .

MINA TRANSITION (MVA.MADN6): From over MVA VORTAC on MVA R-225 to JOFAY INT then on ECA R-068 to ECA VOR/DME. Thence, . . .

MUSTANG TRANSITION (FMG.MADN6): From over FMG VORTAC on FMG R-182 to BIFFY INT then on ECA R-068 to ECA VOR/DME. Thence, . . .

. . . From over ECA VOR/DME on ECA R-229 to SUNOL INT. Expect vectors to final approach course.

OAKLAND CENTER
134.37 281.5
NORCAL APP CON
124.8 263.15
OAKLAND ATIS
133.775
HAYWARD ATIS
126.7

MINA
115.1 MVA
Chan 98
N38°33.92' - W118°01.97'
L-9, H-3

COALDALE
117.7 OAL
Chan 124
N38°00.20' - W117°46.23'
L-9, H-3

MUSTANG
117.9 FMG
Chan 126
N39°31.88'
W119°39.36'
L-9, H-3

LINDEN
114.8 LIN
Chan 95

MANTECA
116.0 ECA
Chan 107
N37°50.02'
W121°10.28'

LOCKE
N37°42.81'
W121°30.58'

MAMIE
N37°50.42'
W121°03.99'

WRAPS
N37°51.48'
W120°47.02'

MATEE
N37°54.37'
W119°56.77'

BIFFY
N37°53.09'
W120°19.81'

JOFAY
N37°55.72'
W119°30.76'

SCAGGS ISLAND
112.1 SGD
Chan 58

OAKLAND
116.8 OAK
Chan 115

METROPOLITAN
OAKLAND INTL
R-083
R-093

SHARR
N37°47.81' - W121°16.52'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect 12000

CATTY
N37°38.95'
W121°41.34'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect 8000

DUGLE
N37°51.90' - W120°40.07'
VERTICAL NAVIGATION
PLANNING INFORMATION
Expect FL240

MODesto
114.6 MOD
Chan 93

PANOCHE
112.6 PNX
Chan 73

SUNOL
N37°36.33'
W121°48.62'
R-009

SAN JOSE
114.1 SJG
Chan 88

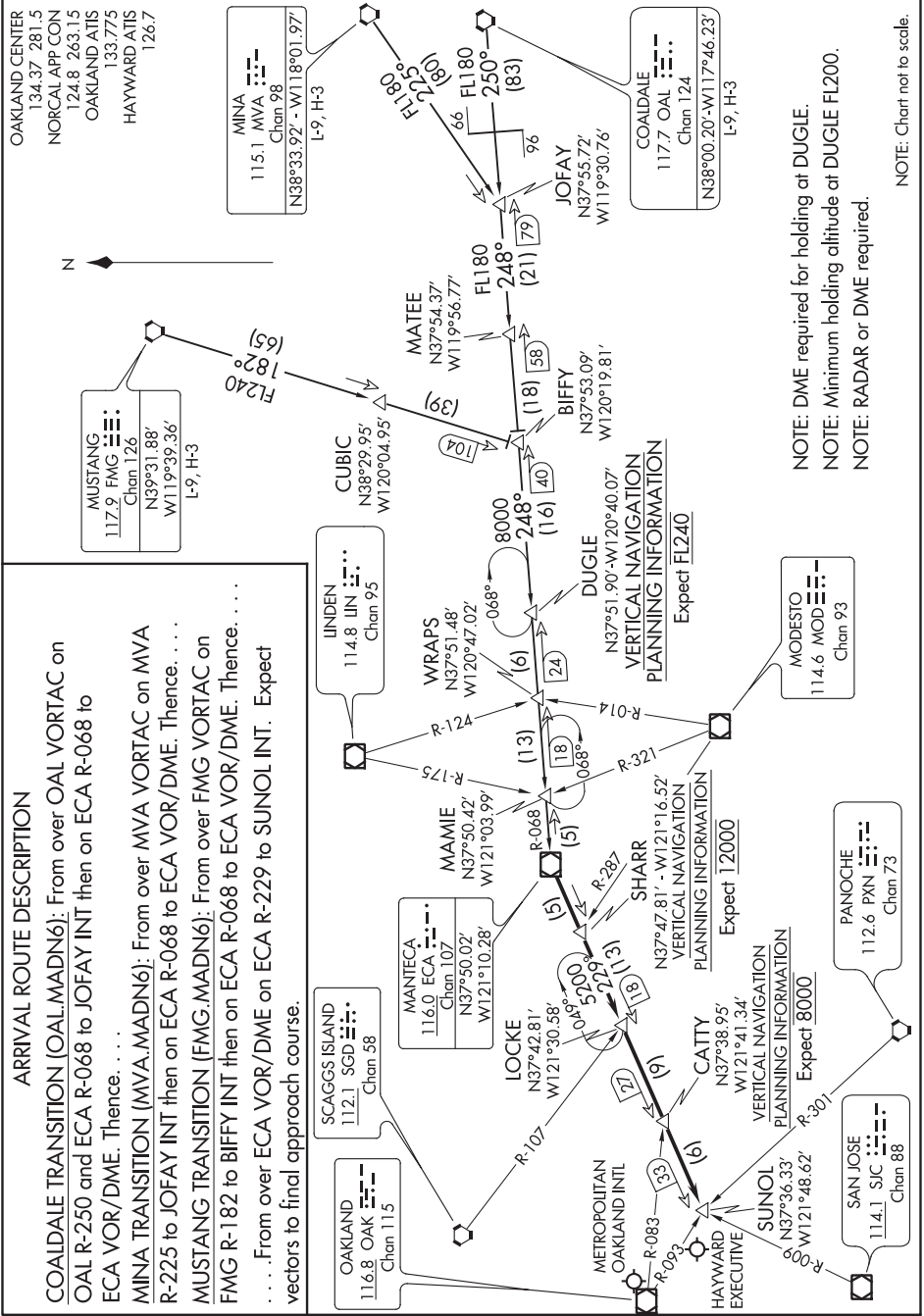
MADWIN SIX ARRIVAL

OAKLAND, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

NOTE: DME required for holding at DUGLE.
NOTE: Minimum holding altitude at DUGLE FL200.
NOTE: RADAR or DME required.



MODESTO SIX ARRIVAL

ST-375 (FAA)

SAN FRANCISCO INTL (SFO) SAN FRANCISCO, CALIFORNIA

7-W-5 10 01 91 01 2016 2015 JAN 2011

ARRIVAL ROUTE DESCRIPTION

CLOVIS TRANSITION (CZQ.MOD6): From over CZQ VORTAC on CZQ R-305 to LNDA DME, then on MOD R-092 to MOD VOR/DME. Thence. . . .

COALDALE TRANSITION (OAL.MOD6): From over OAL VORTAC on OAL R-246 to KYLLA DME, then on MOD R-064 to MOD VOR/DME. Thence. . . .

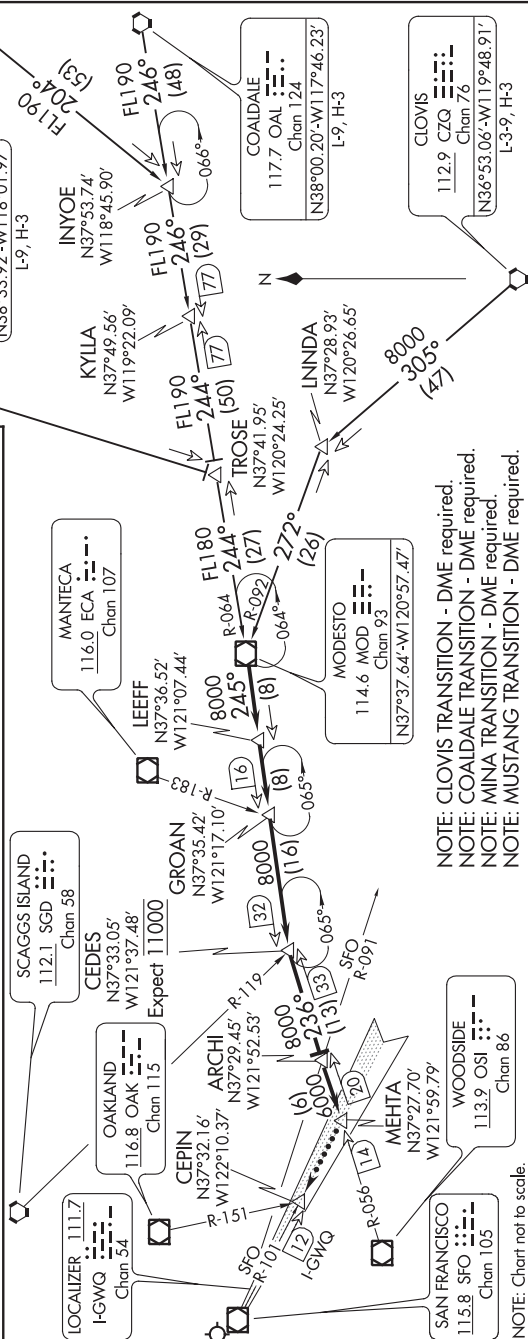
MINA TRANSITION (MVA.MOD6): From over MVA VORTAC on MVA R-204 to INYOE DME, then on OAL R-246 to KYLLA DME, then on MOD R-064 to MOD VOR/DME. Thence. . . .

MUSTANG TRANSITION (FMG.MOD6): From over FMG VORTAC on FMG R-182 to TROSE DME, then on MOD R-064 to MOD VOR/DME. Thence. . . .

. . . . From over MOD VOR/DME on MOD R-245 to LEEFF INT/8 DME, then on MOD R-245 to GROAN INT/16 DME, then on MOD R-245 to CEDES INT/32 DME, then on OSI VORTAC R-056 to ARCHI/20 DME INT, then on OSI R-056 to METHA INT/14 DME. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS: Intercept and proceed via SFO RWY 28R localizer to CEPIN INT.

MODESTO SIX ARRIVAL (MOD.MOD6) 15SEP16



SAN FRANCISCO, CALIFORNIA SAN FRANCISCO INTL (SFO)

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

OAKES TWO ARRIVAL (RNAV) Transition Routes

SW-2, 10 NOV 2016 to 05 JAN 2017

MONOH TRANSITION (MONOH.OAKES2)
MRLET TRANSITION (MRLET.OAKES2)
RUSME TRANSITION (RUSME.OAKES2)

OAKLAND CENTER
 134.37 281.5
 NORCAL APP CON
 124.8 263.15
 ATIS
 133.775
 OAKLAND TOWER
 118.3 291.65 (Rwys 28L/R)
 127.2 256.9 (Rwy 30)
 GND CON
 121.9 (Rwys 28L/R)
 121.75 (Rwy 30)



MRLET
 179° (52)
 *11100
 FL200

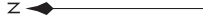
NOTE: RADAR required.
 NOTE: RNAV 1.
 NOTE: DME/DME/IRU or GPS required.



INSLO



TATOO



N



MONOH

FL200

246° (47)



MOLLA

16000

*11400

245° (31)

18000
 *9400
 195° (28)

OAKES
 FL320 280K
 FL240

See following page
 for Arrival Routes.

FL200
 *16500
 267° (137)



RUSME

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

OAKES TWO ARRIVAL (RNAV) Transition Routes

OAKES TWO ARRIVAL (RNAV) Arrival Routes

17.101 NAF 01 01.102 VON 01: "Z-WS

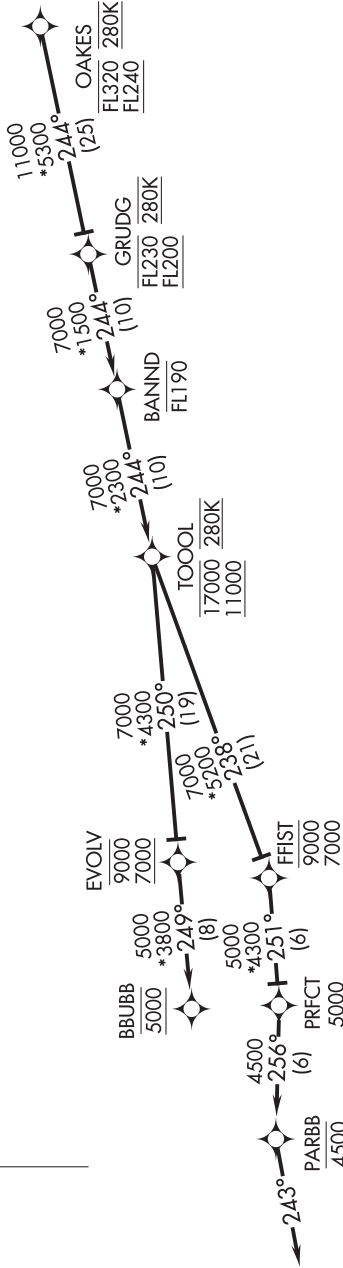
ARRIVAL ROUTE DESCRIPTION

From OAKES on track 244° to cross GRUDG between FL200 and FL230 and at 280K, then on track 244° to cross BANND at or below FL190.

LANDING RUNWAYS 28L/R: From BANND on track 244° to cross TOOOL between 11000 and 17000 and at 280K, then on track 250° to cross EVOLV between 7000 and 9000, then on track 249° to cross BBUBB at 5000. Expect assigned instrument approach procedure.

LANDING RUNWAY 30: From BANND on track 244° to cross TOOOL between 11000 and 17000 and at 280K, then on track 238° to cross FFIST between 7000 and 9000, then on track 251° to cross PRFCT at or above 5000, then on track 256° to cross PARBB at 4500, then on track 243°. Expect assigned instrument approach procedure.

- OAKLAND CENTER
134.37 281.5
- NORCAL APP CON
124.8 263.15
- ATIS
133.775
- OAKLAND TOWER
118.3 291.65 (Rwys 28L/R)
- 127.2 256.9 (Rwy 30)
- GND CON
121.9 (Rwys 28L/R)
- 121.75 (Rwy 30)



NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

LIBBO TRANSITION (LIBBO.OSVEE1)

ROVUE TRANSITION (ROVUE.OSVEE1)

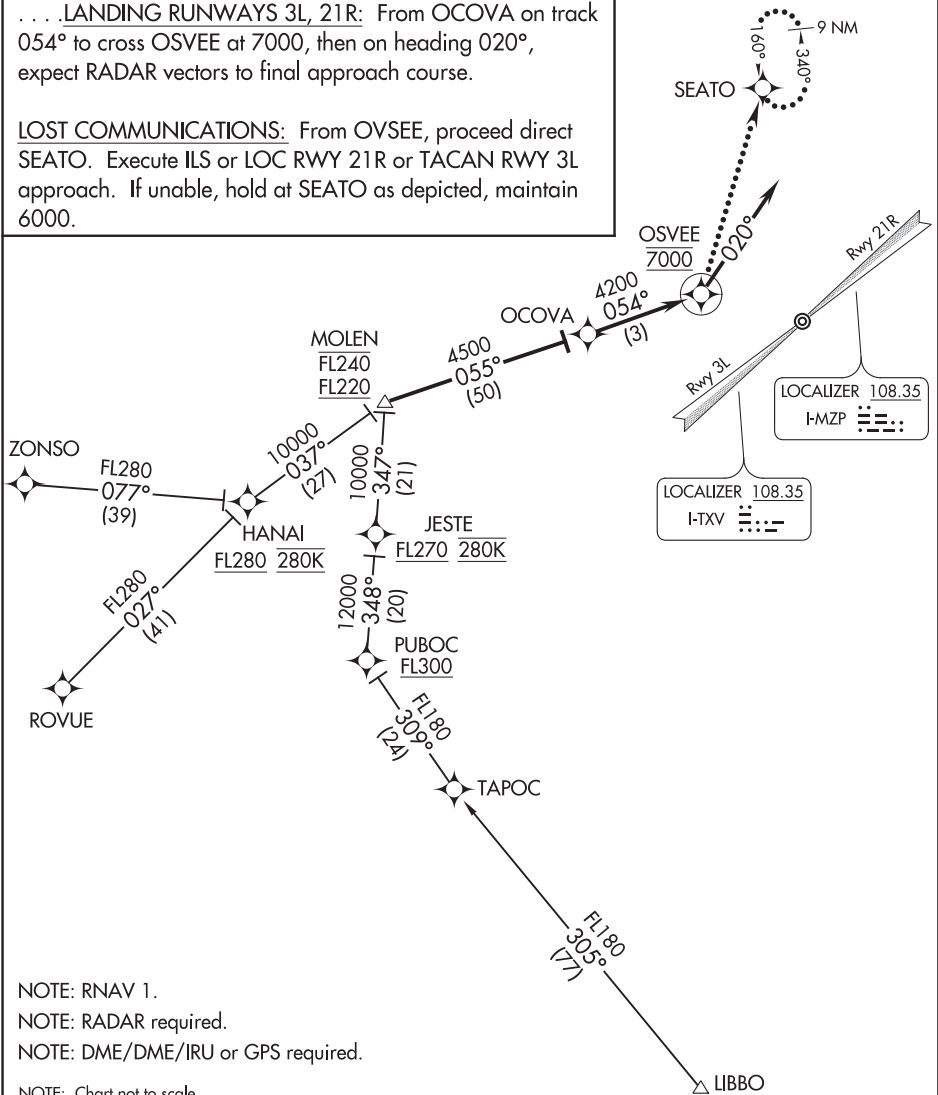
ZONSO TRANSITION (ZONSO.OSVEE1)

From MOLEN on track 055° to OCOVA, thence

. . . .LANDING RUNWAYS 3L, 21R: From OCOVA on track 054° to cross OSVEE at 7000, then on heading 020°, expect RADAR vectors to final approach course.

LOST COMMUNICATIONS: From OSVEE, proceed direct SEATO. Execute ILS or LOC RWY 21R or TACAN RWY 3L approach. If unable, hold at SEATO as depicted, maintain 6000.

TRAVIS APP CON
126.6 281.45 (N)
119.9 322.325 (S)
TRAVIS TOWER
120.75 254.4
GND CON
121.8 289.4
ATIS
135.55 292.125



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

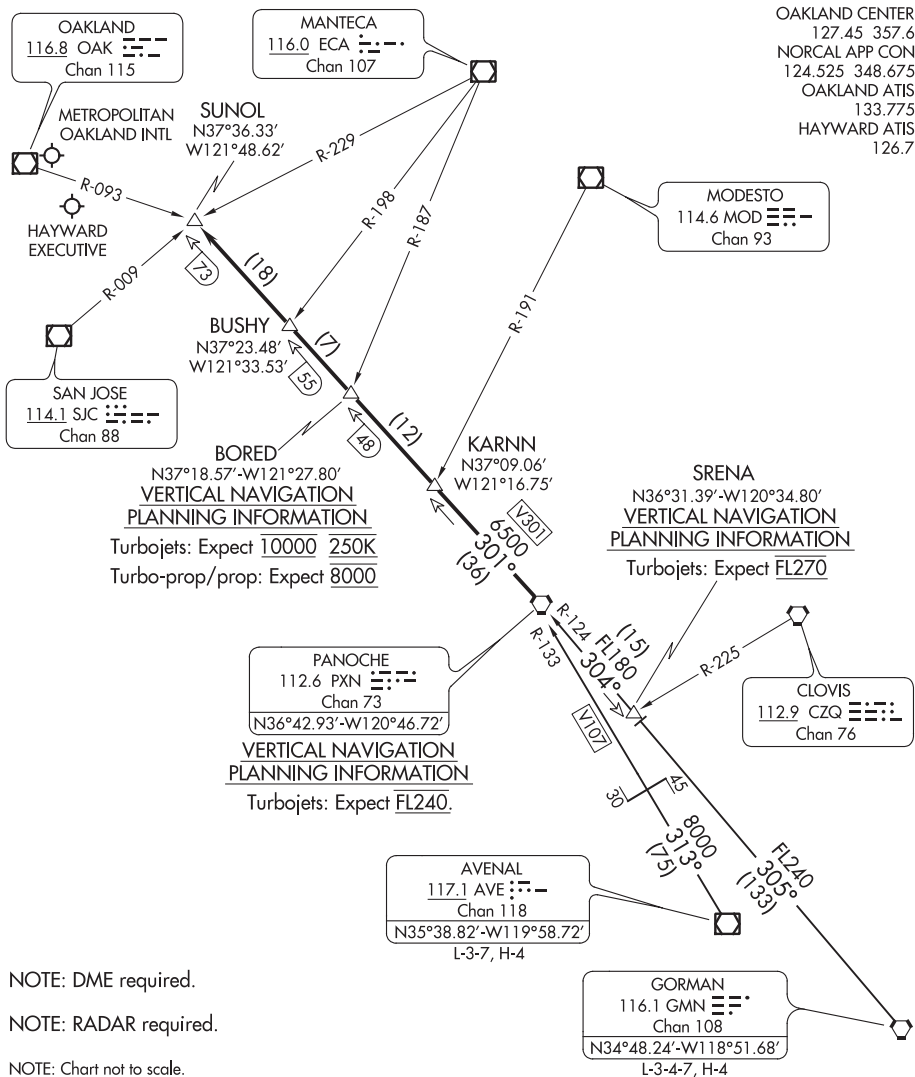
- NOTE: RNAV 1.
- NOTE: RADAR required.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Chart not to scale.

(PXN.PXN4) 16259

PANOCHÉ FOUR ARRIVAL

ST-294 (FAA)

OAKLAND, CALIFORNIA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

AVENAL TRANSITION (AVE.PXN4): From over AVE VOR/DME on AVE R-133 and PXN R-133 to PXN VORTAC. Thence. . .

GORMAN TRANSITION (GMN.PXN4): From over GMN VORTAC on GMN R-305 to SRENA INT then on PXN R-124 to PXN VORTAC. Thence. . .

. . . From over PXN VORTAC on PXN R-301 to SUNOL INT. Expect RADAR vectors to the final approach course.

PANOCHÉ FOUR ARRIVAL

(PXN.PXN4) 15SEP16

OAKLAND, CALIFORNIA

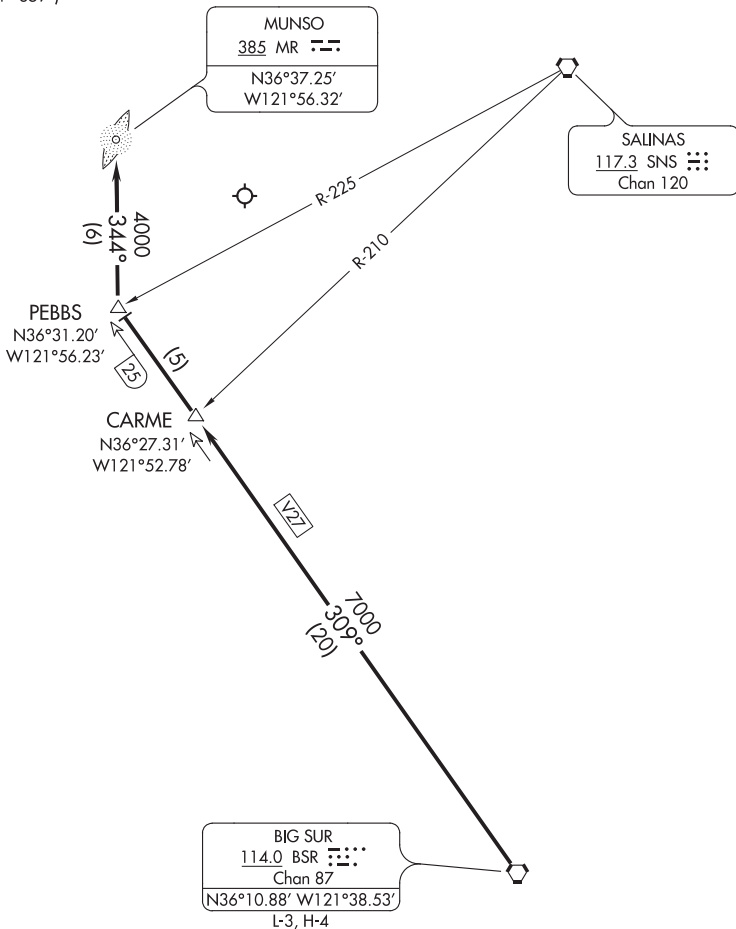
(BSR.PEBB1) 16091

PEBBS ONE ARRIVAL

ST-271 (FAA)

MONTEREY RGNL (MRY)
MONTEREY, CALIFORNIA

ATIS
119.25
NORCAL APP CON
133.0 251.15 (360°-150°)
127.15 307.125 (151°-359°)
OAKLAND CENTER
128.7 307.0



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: ADF required

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

From over BSR VORTAC via BSR R-309 to PEBBS Int/DME Fix, thence via 344° course to MUNSO LOM. Expect ILS Runway 10R Approach.

PEBBS ONE ARRIVAL

(BSR.PEBB1) 01SEP05

MONTEREY, CALIFORNIA
MONTEREY RGNL (MRY)

(PEBL.PEBLL1) 16091

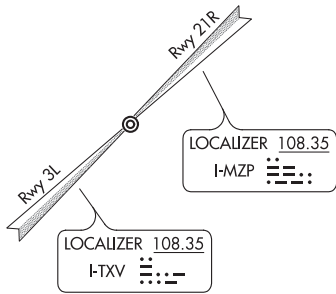
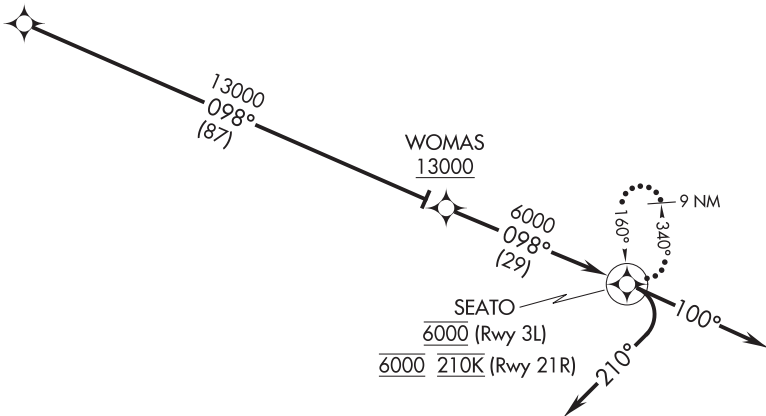
PEBL ONE ARRIVAL (RNAV)

ST-488 (FAA)

TRAVIS AFB (KSUU)
FAIRFIELD, CALIFORNIA

TRAVIS APP CON
126.6 281.45 (N)
119.9 322.325 (S)
TRAVIS TOWER
120.75 254.4
GND CON
121.8 289.4
ATIS
135.55 292.125

PEBL
FL290



- NOTE: RNAV 1.
- NOTE: RADAR required.
- NOTE: DME/DME/IRU or GPS required.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

From PEBL on track 098° to cross WOMAS at/above 13000, thence. . .

. . . LANDING RUNWAY 3L: From WOMAS on track 098° to cross SEATO at 6000, then right turn heading 210°, expect RADAR vectors to final approach course.

. . . LANDING RUNWAY 21R: From WOMAS on track 098° to cross SEATO at 6000, at 210K, then on heading 100°, expect RADAR vectors to final approach course.

LOST COMMUNICATIONS: From SEATO, execute ILS or LOC RWY 21R or TACAN RWY 3L approach. If unable hold at SEATO as depicted, maintain 6000.

PEBL ONE ARRIVAL (RNAV)

(PEBL.PEBLL1) 10JAN13

FAIRFIELD, CALIFORNIA
TRAVIS AFB (KSUU)

SW-2, 10 NOV 2016 to 05 JAN 2017

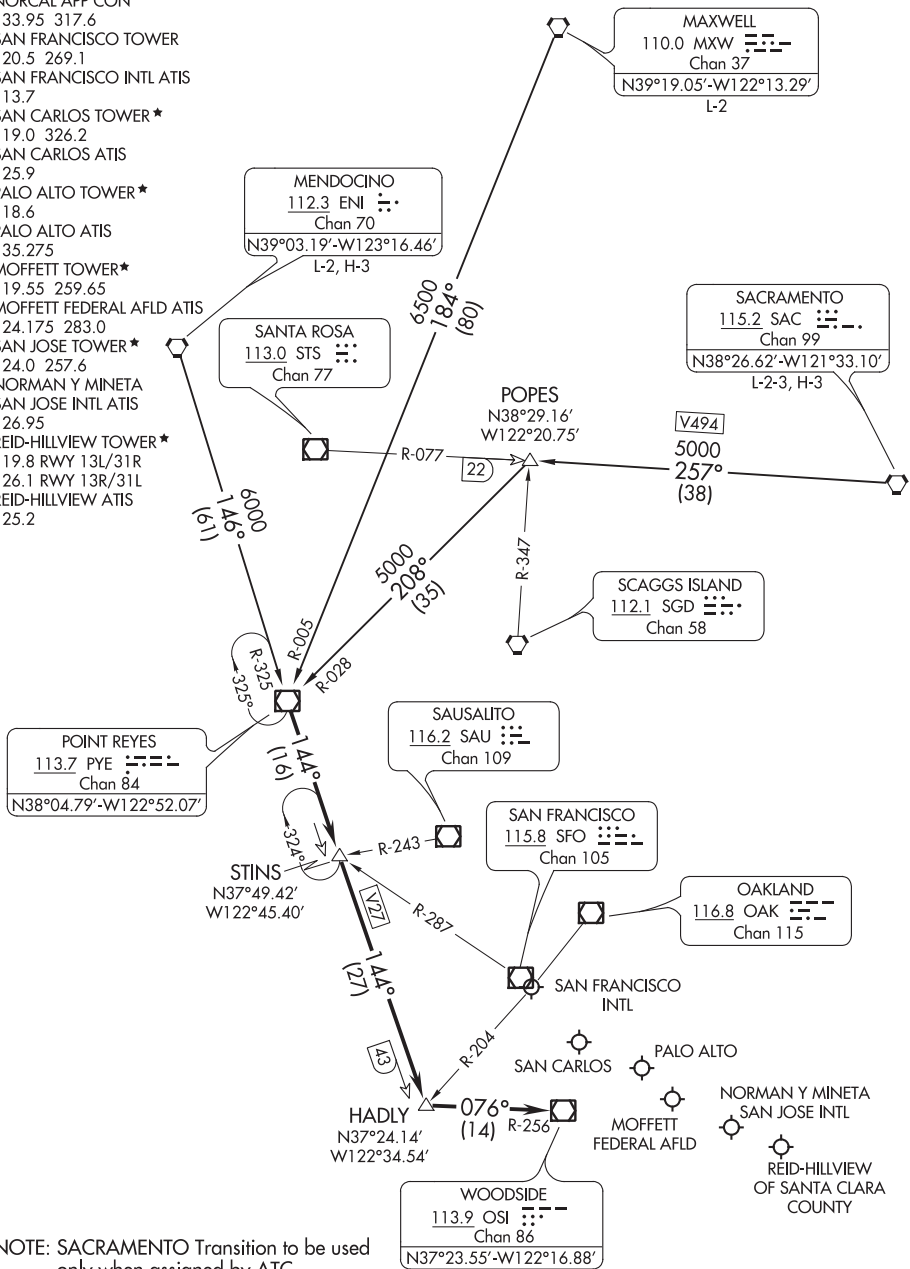
SW-2, 10 NOV 2016 to 05 JAN 2017

POINT REYES TWO ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA

NORCAL APP CON
 133.95 317.6
 SAN FRANCISCO TOWER
 120.5 269.1
 SAN FRANCISCO INTL ATIS
 113.7
 SAN CARLOS TOWER *
 119.0 326.2
 SAN CARLOS ATIS
 125.9
 PALO ALTO TOWER *
 118.6
 PALO ALTO ATIS
 135.275
 MOFFETT TOWER *
 119.55 259.65
 MOFFETT FEDERAL AFLD ATIS
 124.175 283.0
 SAN JOSE TOWER *
 124.0 257.6
 NORMAN Y MINETA
 SAN JOSE INTL ATIS
 126.95
 REID-HILLVIEW TOWER *
 119.8 RWY 13L/31R
 126.1 RWY 13R/31L
 REID-HILLVIEW ATIS
 125.2



NOTE: SACRAMENTO Transition to be used only when assigned by ATC.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

POINT REYES TWO ARRIVAL

SAN FRANCISCO, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(PYE.PYE2) 16259

POINT REYES TWO ARRIVAL

ST-375 (FAA)

SAN FRANCISCO, CALIFORNIA

ARRIVAL ROUTE DESCRIPTION

MAXWELL TRANSITION (MXW.PYE2): From over MXW VORTAC via MXW R-184 and PYE R-005 to PYE VOR/DME. Thence. . . .

MENDOCINO TRANSITION (ENI.PYE2): From over ENI VORTAC via ENI R-146 and PYE R-325 to PYE VOR/DME. Thence. . . .

SACRAMENTO TRANSITION (SAC. PYE2): From over SAC VORTAC via SAC R-257 and PYE R-028 to PYE VOR/DME. Thence. . . .

. . . .From over PYE VOR/DME via PYE R-144 to HADLY INT, then via OSI R-256 to OSI VOR/DME. Expect RADAR vectors to final approach course.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

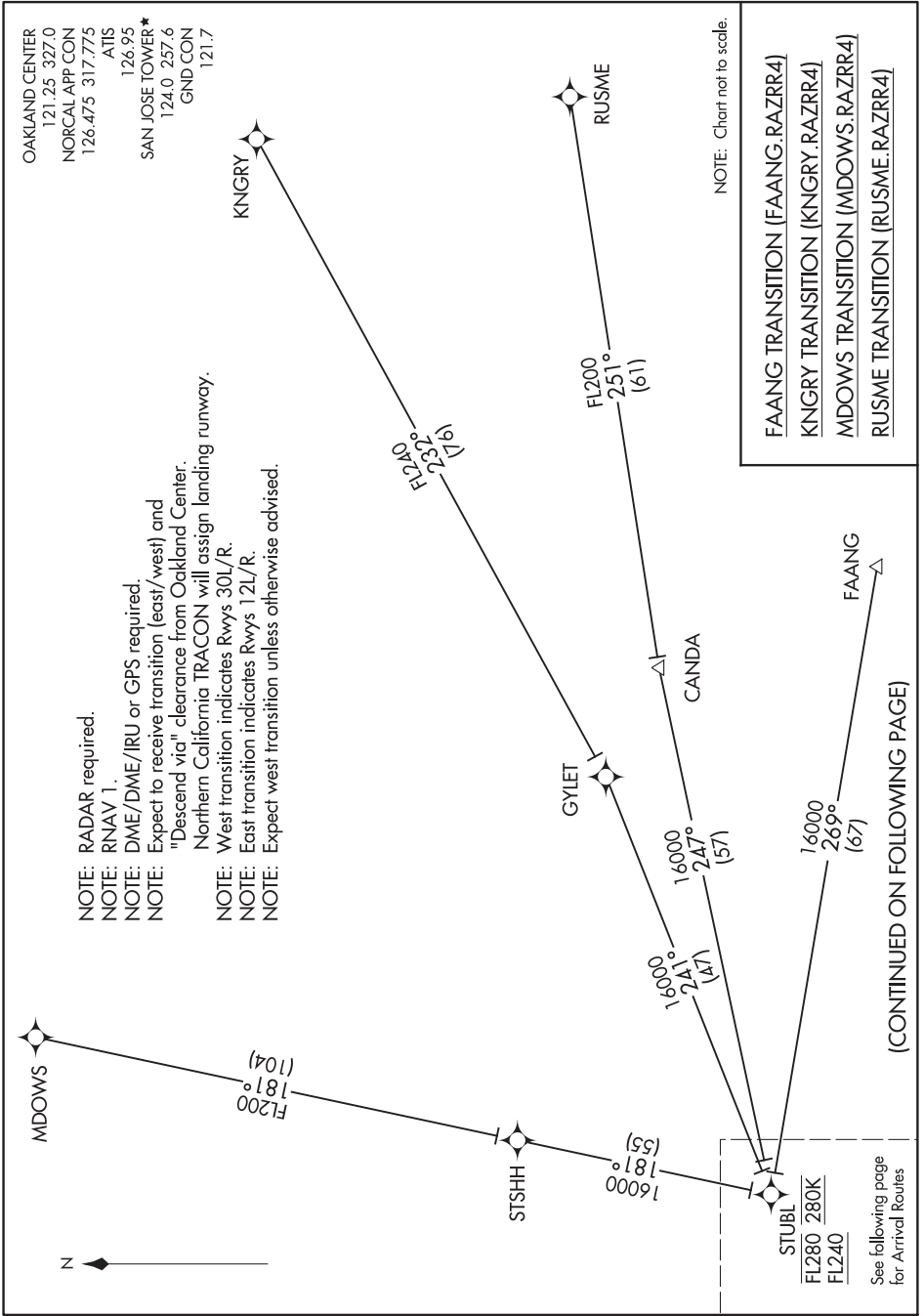
POINT REYES TWO ARRIVAL

SAN FRANCISCO, CALIFORNIA

(PYE.PYE2) 15SEP16

RAZRR FOUR ARRIVAL (RNAV) Transition Routes

SW-2, 10 NOV 2016 to 05 JAN 2017



SW-2, 10 NOV 2016 to 05 JAN 2017

RAZRR FOUR ARRIVAL (RNAV) Transition Routes

RAZRR FOUR ARRIVAL (RNAV) Arrival Routes

SAN JOSE, CALIFORNIA

10 NOV 2016 05 05 10Z AON 01 'Z-WS

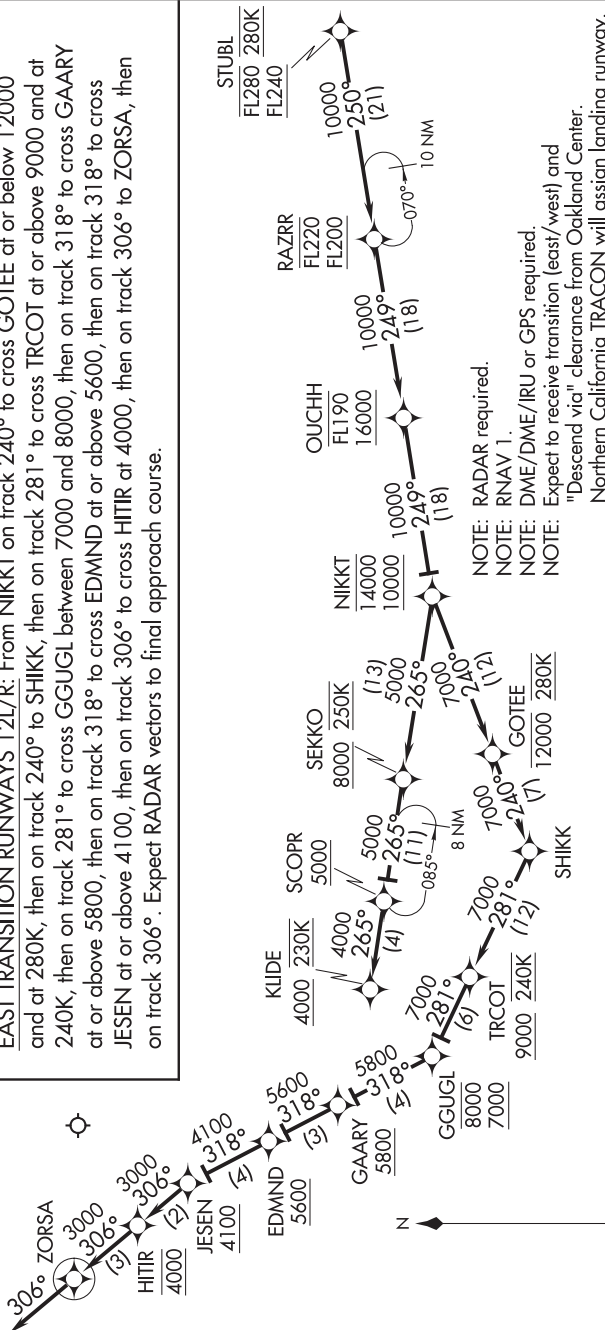
ARRIVAL ROUTE DESCRIPTION

From STUBL on track 250° to cross RAZRR between FL200 and FL220, then on track 249° to cross OUCHH between 16000 and FL190, then on track 249° to cross NIKKT between 10000 and 14000.

WEST TRANSITION RUNWAYS 30L/R: From NIKKT on track 265° to cross SEKKO at or above 8000 and at 250K, then on track 265° to cross SCOPR at or above 5000, then on track 265° to cross KLIDE at or above 4000 and at 230K. Expect assigned instrument approach procedure.

EAST TRANSITION RUNWAYS 12L/R: From NIKKT on track 240° to cross GOTEE at or below 12000 and at 280K, then on track 240° to SHIKK, then on track 281° to cross TRCOT at or above 9000 and at 240K, then on track 281° to cross GGUGL between 7000 and 8000, then on track 318° to cross GAARY at or above 5800, then on track 318° to cross EDMND at or above 5600, then on track 318° to cross JESEN at or above 4100, then on track 306° to cross HITIR at 4000, then on track 306° to ZORSA, then on track 306°. Expect RADAR vectors to final approach course.

- OAKLAND CENTER
121.25 327.0
- NORCAL APP CON
126.475 317.775
- ATIS
126.95
- SAN JOSE TOWER*
124.0 257.6
- GND CON
121.7



- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Expect to receive transition (east/west) and "Descend via" clearance from Oakland Center.
- NOTE: Northern California TRACON will assign landing runway.
- NOTE: West transition indicates Rwy 30L/R.
- NOTE: East transition indicates Rwy 12L/R.
- NOTE: Expect west transition unless otherwise advised.

RAZRR FOUR ARRIVAL (RNAV) Arrival Routes

SAN JOSE, CALIFORNIA

NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

NORCAL APP CON
134.5 338.2
ATIS
113.7

SACRAMENTO
115.2 SAC
Chan 99
N38°26.62'-W121°33.10'
L-2-3, H-3

MANTECA
116.0 ECA
Chan 107
N37°50.02'-W121°10.28'
L-2-3, H-3

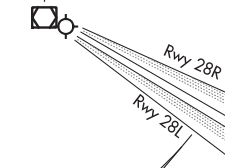
BYRON
N37°49.37'
W121°28.16'

SAN FRANCISCO
115.8 SFO
Chan 105

OAKLAND
116.8 OAK
Chan 115

RISTI
N37°36.49'
W121°32.00'

MOVDD
N37°39.68'
W121°26.89'



WOODSIDE
113.9 OSI
Chan 86

CEDES
N37°33.05'
W121°37.48'

MODESTO
114.6 MOD
Chan 93

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

MANTECA TRANSITION (ECA.RISTI4): From over ECA VOR/DME on ECA R-215 to RISTI INT. Thence

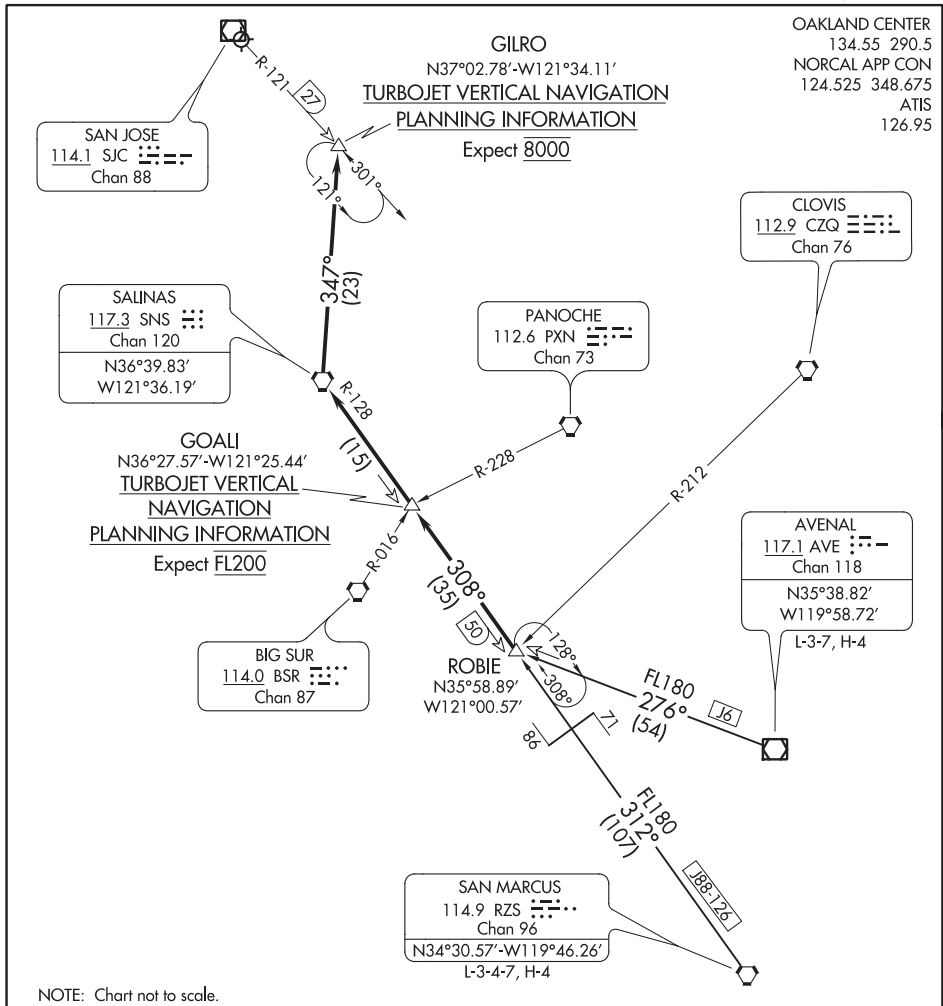
SACRAMENTO TRANSITION (SAC.RISTI4): From over SAC VORTAC on SAC R-157 and ECA R-215 to RISTI INT. Thence

. . . . From over RISTI INT on ECA R-215 to CEDES INT, then on RADAR vector to San Francisco Intl Airport.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ROBIE FOUR ARRIVAL



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

AVENAL TRANSITION (AVE.ROBIE4): From over AVE VOR/DME on AVE R-276 to ROBIE INT. Thence . . .

SAN MARCUS TRANSITION (RZS.ROBIE4): From over RZS VORTAC on RZS R-312 and SNS R-128 to ROBIE INT. Thence . . .

. . . From over ROBIE INT via SNS R-128 to SNS VORTAC. Then via SNS R-347 to GILRO INT/DME fix. Expect the ILS RWY 30L approach.

FOR RUNWAY 12 OPERATIONS: Expect routing via SNS direct SJC VOR/DME and RADAR vectors to final approach course.

ROBIE FOUR ARRIVAL

(SEATO.SEATO4) 16091
SEATO FOUR ARRIVAL

ST-488 (FAA)

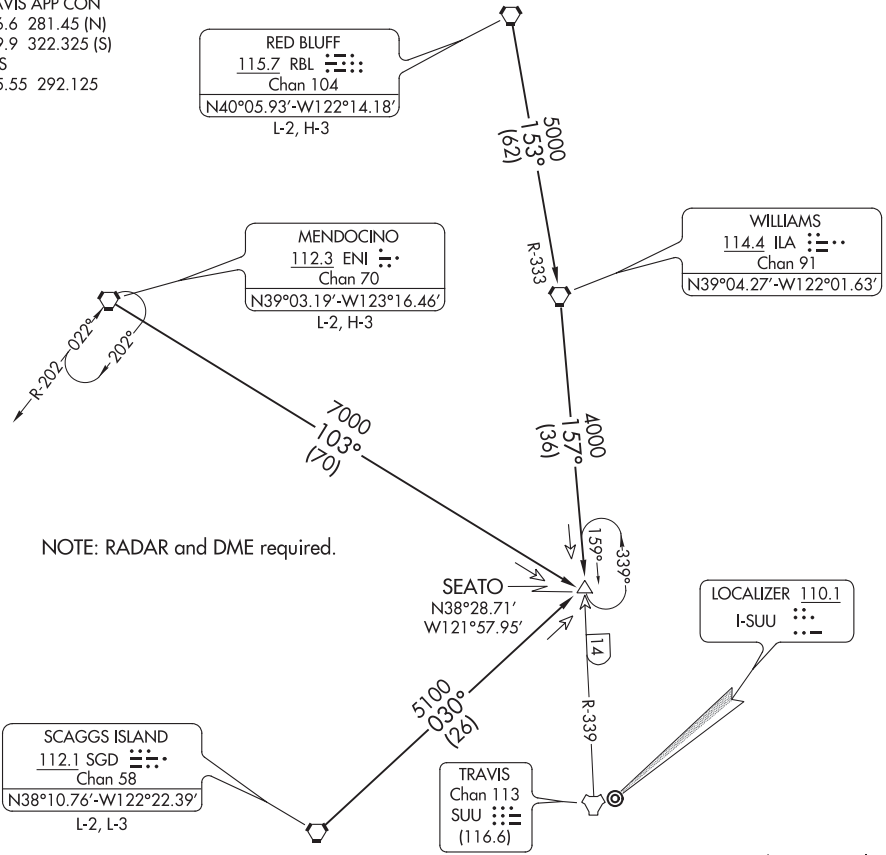
TRAVIS AFB (KSTU)
 FAIRFIELD, CALIFORNIA

TRAVIS APP CON
 126.6 281.45 (N)
 119.9 322.325 (S)
 ATIS
 135.55 292.125

RED BLUFF
 115.7 RBL
 Chan 104
 N40°05.93'-W122°14.18'
 L-2, H-3

MENDOCINO
 112.3 ENI
 Chan 70
 N39°03.19'-W123°16.46'
 L-2, H-3

WILLIAMS
 114.4 ILA
 Chan 91
 N39°04.27'-W122°01.63'



NOTE: RADAR and DME required.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

MENDOCINO TRANSITION (ENI.SEATO4): From over ENI VORTAC via ENI R-103 to SEATO INT. Thence . . .

RED BLUFF TRANSITION (RBL.SEATO4): From over RBL VORTAC via RBL R-153 and ILA R-333 to ILA VORTAC, then via ILA R-157 to SEATO INT. Thence . . .

SCAGGS ISLAND TRANSITION (SGD.SEATO4): From over SGD VORTAC via SGD R-030 to SEATO INT. Thence . . .

. . . . From over SEATO INT:

RWY 3L/R: Expect RADAR vectors for ILS or LOC RWY 3L approach.

RWY 21L/R: Expect RADAR vectors for ILS or LOC RWY 21L approach.

LOST COMMUNICATIONS:

RWY 3L via SEATO then TACAN RWY 3L.

RWY 21R via SEATO then TACAN RWY 21R.

SEATO FOUR ARRIVAL
 (SEATO.SEATO4) 12DEC13

FAIRFIELD, CALIFORNIA
 TRAVIS AFB (KSTU)

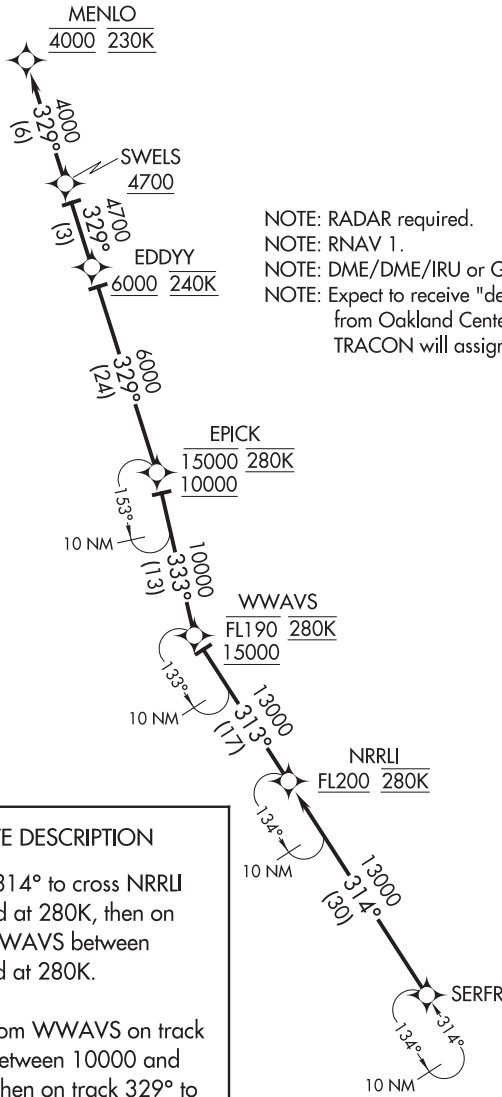
(SERFR.SERFR2) 16147

SERFR TWO ARRIVAL (RNAV)

ST-375 (FAA)

SAN FRANCISCO INTL (SF'O)
SAN FRANCISCO, CALIFORNIA

ATIS 113.7
 OAKLAND CENTER 134.55 290.5
 NORCAL APP CON 128.575 254.25
 SAN FRANCISCO TOWER 120.5 269.1
 GND CON 121.8



NOTE: RADAR required.
 NOTE: RNAV 1.
 NOTE: DME/DME/IRU or GPS required.
 NOTE: Expect to receive "descend via" clearance from Oakland Center. Northern California TRACON will assign landing runway.

ARRIVAL ROUTE DESCRIPTION

From SERFR on track 314° to cross NRRLI at or above FL200 and at 280K, then on track 313° to cross WWAVS between 15000 and FL190 and at 280K.

RUNWAYS 28L/R: From WWAVS on track 333° to cross EPICK between 10000 and 15000 and at 280K, then on track 329° to cross EDDYY at or above 6000 and at 240K, then on track 329° to cross SWELS at or above 4700, then on track 329° to cross MENLO at 4000 and at 230K. Expect assigned instrument approach.

MAKRS Δ

STOKD \diamond

NOTE: Chart not to scale.

SERFR TWO ARRIVAL (RNAV)

(SERFR.SERFR2) 10DEC15

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SF'O)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(SILCN.SILCN4) 16203

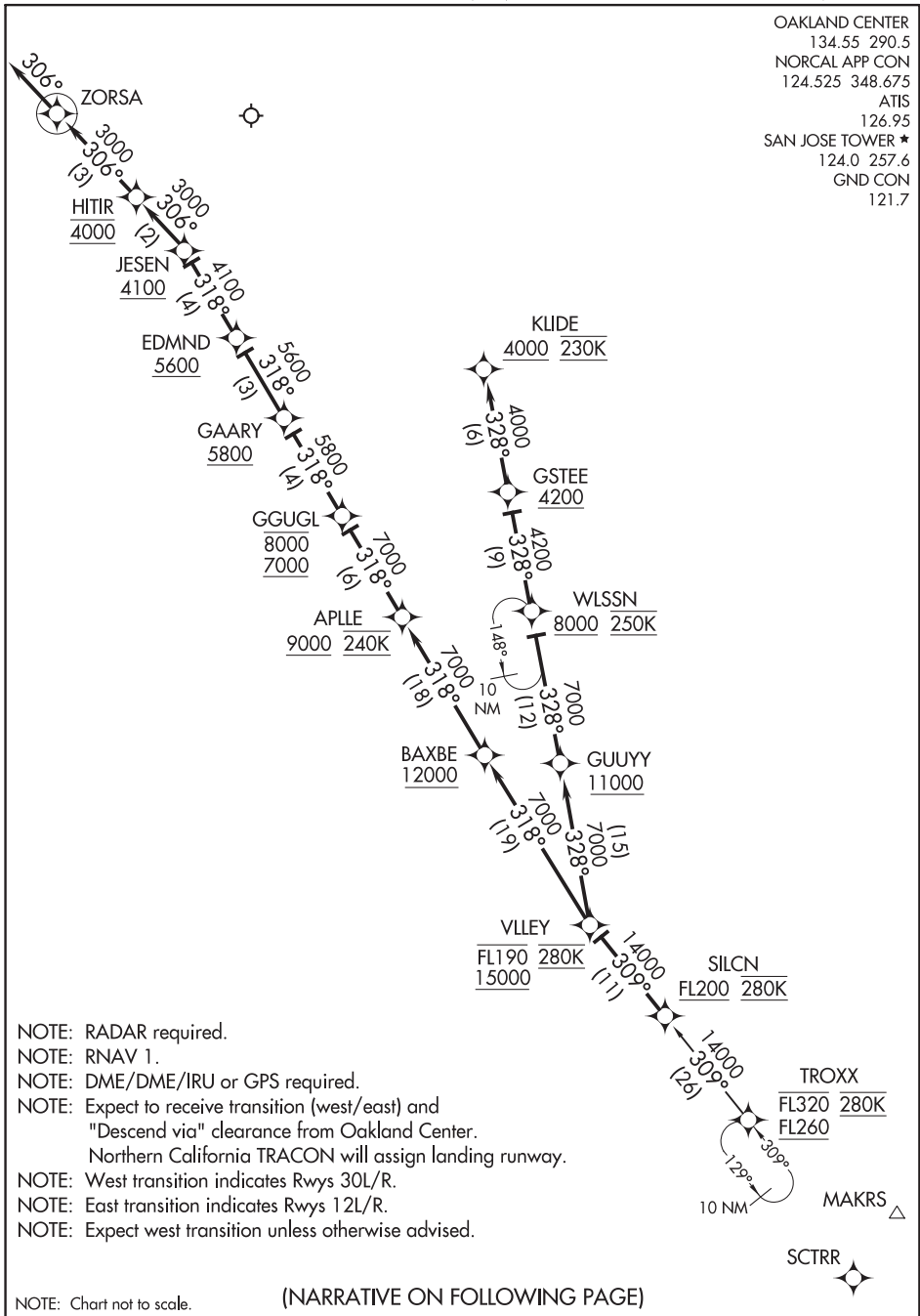
SILCN FOUR ARRIVAL (RNAV)

ST-693 (FAA)

NORMAN Y MINETA SAN JOSE INTL (SJC)

SAN JOSE, CALIFORNIA

OAKLAND CENTER
 134.55 290.5
 NORCAL APP CON
 124.525 348.675
 ATIS
 126.95
 SAN JOSE TOWER *
 124.0 257.6
 GND CON
 121.7



- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Expect to receive transition (west/east) and "Descend via" clearance from Oakland Center.
- NOTE: Northern California TRACON will assign landing runway.
- NOTE: West transition indicates Rwy 30L/R.
- NOTE: East transition indicates Rwy 12L/R.
- NOTE: Expect west transition unless otherwise advised.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SILCN FOUR ARRIVAL (RNAV)

(SILCN.SILCN4) 21JUL16

SAN JOSE, CALIFORNIA

NORMAN Y MINETA SAN JOSE INTL (SJC)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

TROXX TRANSITION (TROXX.SILCN4)

From SILCN on track 309° to cross VLLEY between 15000 and FL190 and at 280K.

WEST TRANSITION RUNWAYS 30L/R: From VLLEY on track 328° to cross GUUYU at or above 11000, then on track 328° to cross WLSSN at or above 8000 and at 250K, then on track 328° to cross GSTEE at or above 4200, then on track 328° to cross KLIDE at or above 4000 and at 230K. Expect assigned instrument approach procedure.

EAST TRANSITION RUNWAYS 12L/R: From VLLEY on track 318° to cross BAXBE at or above 12000, then on track 318° to cross APLE at or above 9000 and at 240K, then on track 318° to cross GGUGL between 7000 and 8000, then on track 318° to cross GAARY at or above 5800, then on track 318° to cross EDMND at or above 5600, then on track 318° to cross JESEN at or above 4100, then on track 306° to cross HITIR at 4000, then on track 306° to ZORSA, then on track 306°. Expect RADAR vectors to final approach course.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

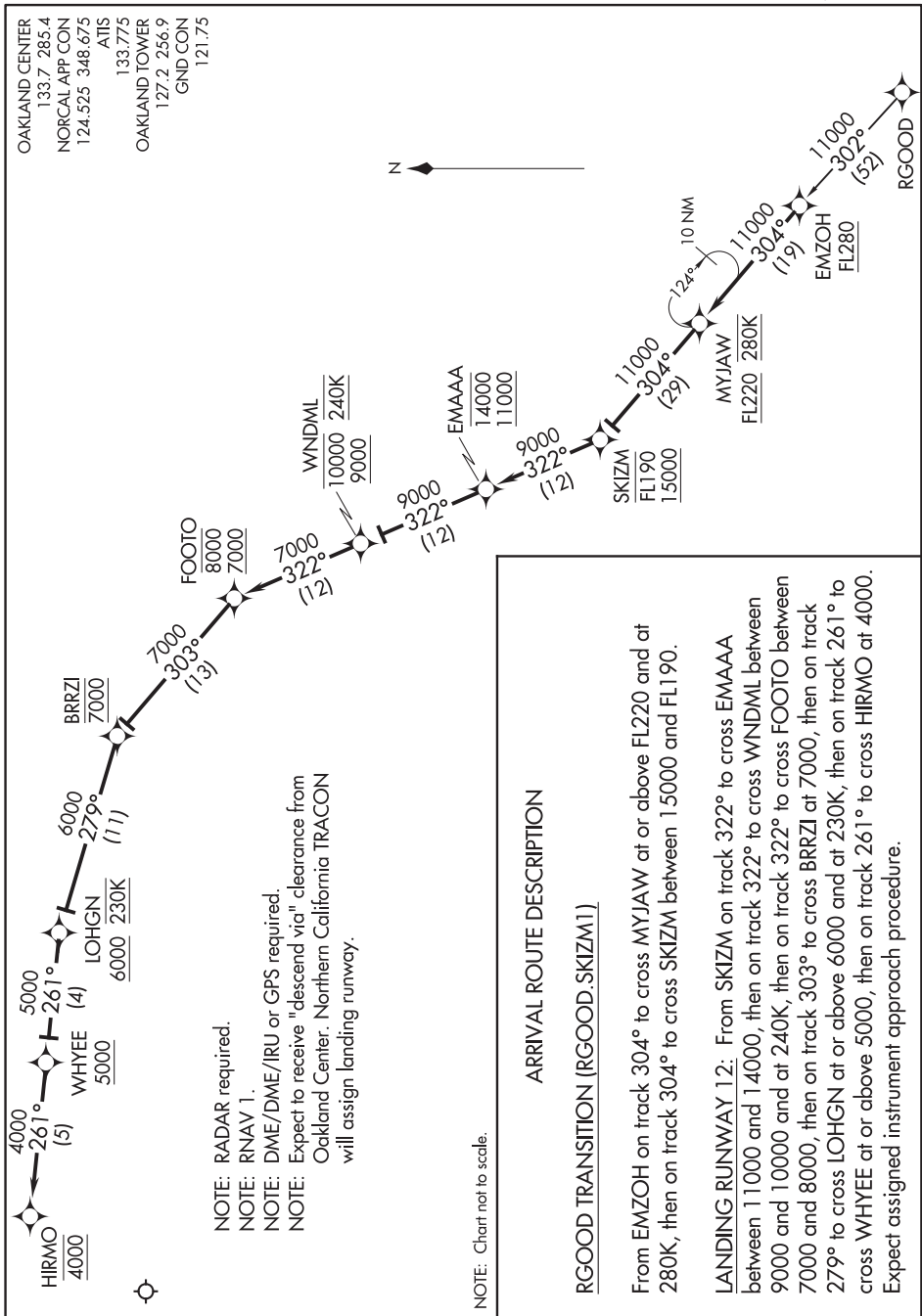
(EMZOH.SKIZM1) 16091

SKIZM ONE ARRIVAL (RNAV)

ST-294 (FAA)

METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017



SW-2, 10 NOV 2016 to 05 JAN 2017

SKIZM ONE ARRIVAL (RNAV)

(EMZOH.SKIZM1) 10DEC15

OAKLAND, CALIFORNIA
METROPOLITAN OAKLAND INTL (OAK)

(SLMMR.SLMMR3) 16091

SLMMR THREE ARRIVAL (RNAV)

ST-5490 (FAA)

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: RADAR required.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

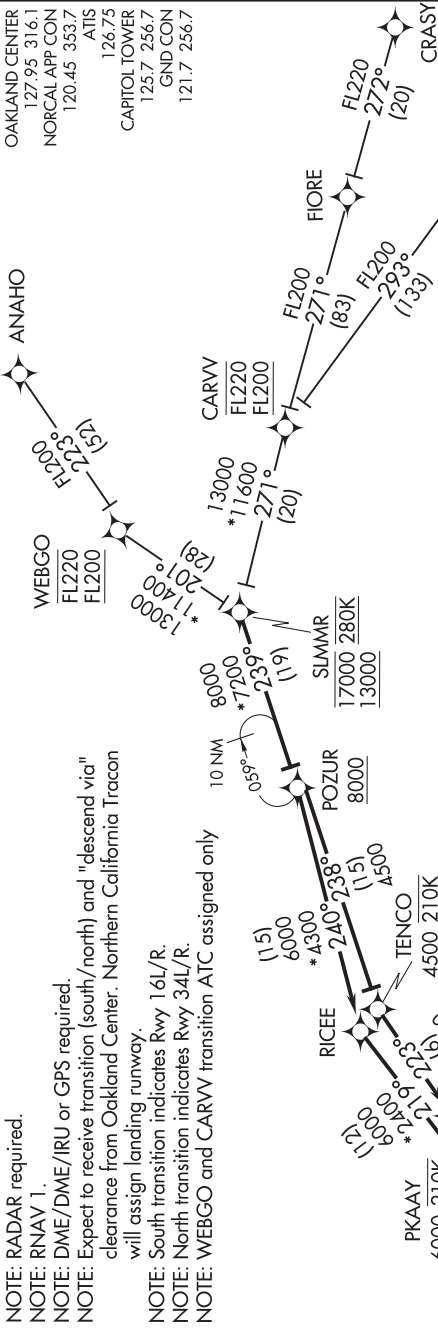
NOTE: Expect to receive transition (south/north) and "descend via" clearance from Oakland Center. Northern California Tracon will assign landing runway.

NOTE: South transition indicates Rwy 16L/R.

NOTE: North transition indicates Rwy 34L/R.

NOTE: WEBGO and CARVY transition ATC assigned only

OAKLAND CENTER
127.95 316.1
NORCAL APP CON
120.45 353.7
ATIS
126.75
CAPITOL TOWER
125.7 256.7
GND CON
121.7 286.7



NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

ANAHO TRANSITION (ANAHO.SLMMR3)
CARVY TRANSITION (CARVY.SLMMR3)
CRASY TRANSITION (CRASY.SLMMR3)
DONNR TRANSITION (DONNR.SLMMR3)
WEBGO TRANSITION (WEBGO.SLMMR3)

From SLMR on track 239° to cross POZUR at or above 8000.

SOUTH TRANSITION RUNWAYS 16L/R: From POZUR on track 238° to cross TENCO at or above 4500 and at 210K; then on track 223° to cross ZIMAM at or above 3000 and at 210K, expect assigned instrument approach procedure.

NORTH TRANSITION RUNWAYS 34L/R: From POZUR on track 240° to RICEE, then on track 219° to cross PKAAAY at or above 6000 and at 210K; then on track 221° to THANN; then on track 168° to cross BANZA at 4000 and at 210K; then on track 168° to ZITUL; then on track 168°. Expect RADAR vectors to final approach course.

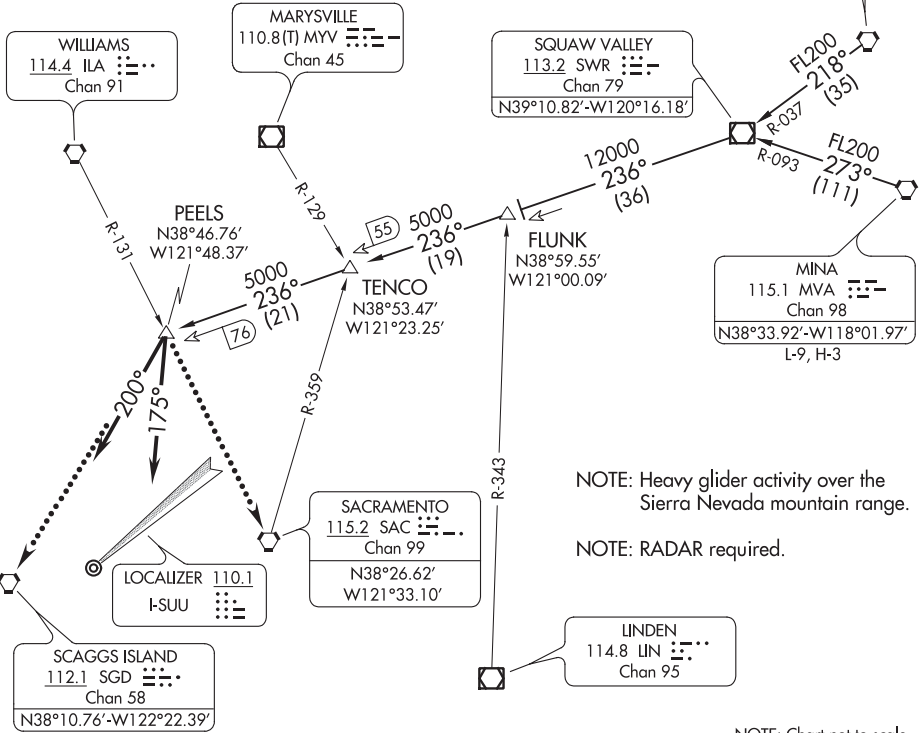
SLMMR THREE ARRIVAL (RNAV)

(SLMMR.SLMMR3) 10DEC15

SACRAMENTO, CALIFORNIA
SACRAMENTO INTL (SMF)

SW-2, 10 NOV 2016 to 05 JAN 2017

TRAVIS APP CON
126.6 281.45 (N)
119.9 322.325 (S)
ATIS
135.55 292.125



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: Heavy glider activity over the Sierra Nevada mountain range.
NOTE: RADAR required.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

MINA TRANSITION (MVA.SWR3): From over MVA VORTAC on MVA R-273 and SWR R-093 to SWR VOR/DME then on SWR R-236 to PEELS INT. Thence. . .

MUSTANG TRANSITION (FMG.SWR3): From over FMG VORTAC on FMG R-218 and SWR R-037 to SWR VOR/DME then on SWR R-236 to PEELS INT. Thence. . .

LANDING RUNWAYS 3L/R

. . . Depart PEELS INT heading 200° expect RADAR vectors to final approach course.

LANDING RUNWAYS 21L/R

. . . Depart PEELS INT heading 175° expect RADAR vectors to final approach course.

LOST COMMUNICATIONS

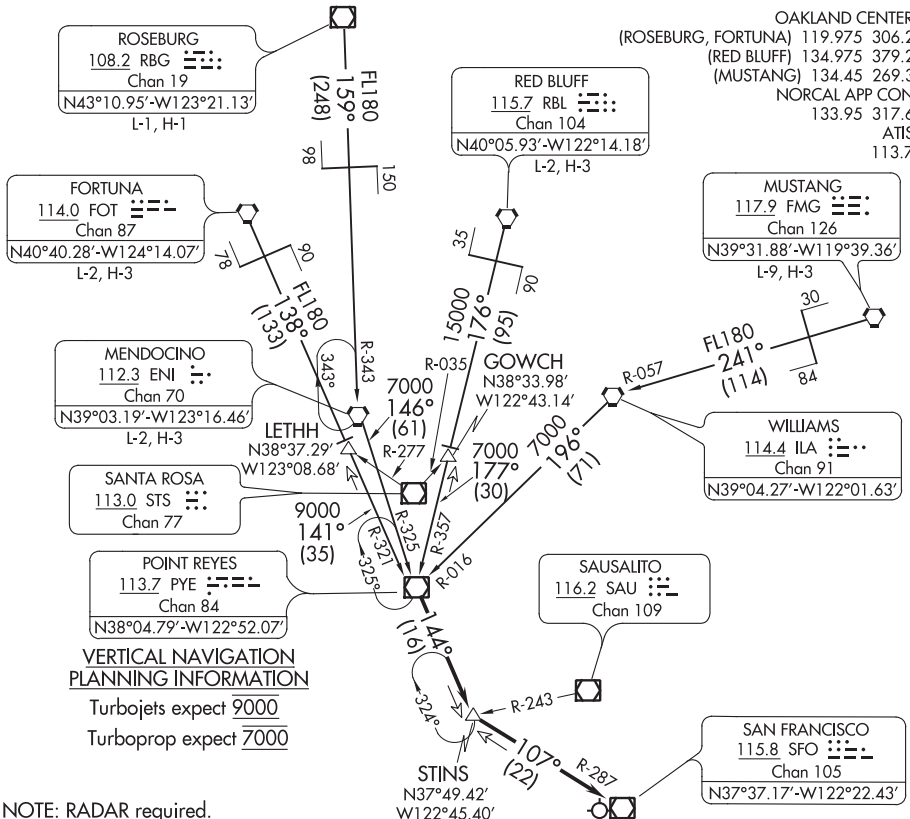
RUNWAY 3L: From over PEELS INT proceed direct SGD VORTAC. Expect ILS or LOC RWY 3L.

RUNWAY 21L: From over PEELS INT proceed direct SAC VORTAC. Expect ILS or LOC RWY 21L.

STINS THREE ARRIVAL

ST-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

FORTUNA TRANSITION (FOT.STINS3): From over FOT VORTAC on FOT R-138 to LETHH INT, then on PYE R-321 to PYE VOR/DME. Thence. . .

MENDOCINO TRANSITION (ENI.STINS3): From over ENI VORTAC on ENI R-146 and PYE R-325 to PYE VOR/DME. Thence. . .

MUSTANG TRANSITION (FMG.STINS3): From over FMG VORTAC on FMG R-241 and ILA R-057 to ILA VORTAC, then on ILA R-196 and PYE R-016 to PYE VOR/DME. Thence. . .

RED BLUFF TRANSITION (RBL.STINS3): From over RBL VORTAC on RBL R-176 to GOWCH INT, then on PYE R-357 to PYE VOR/DME. Thence. . .

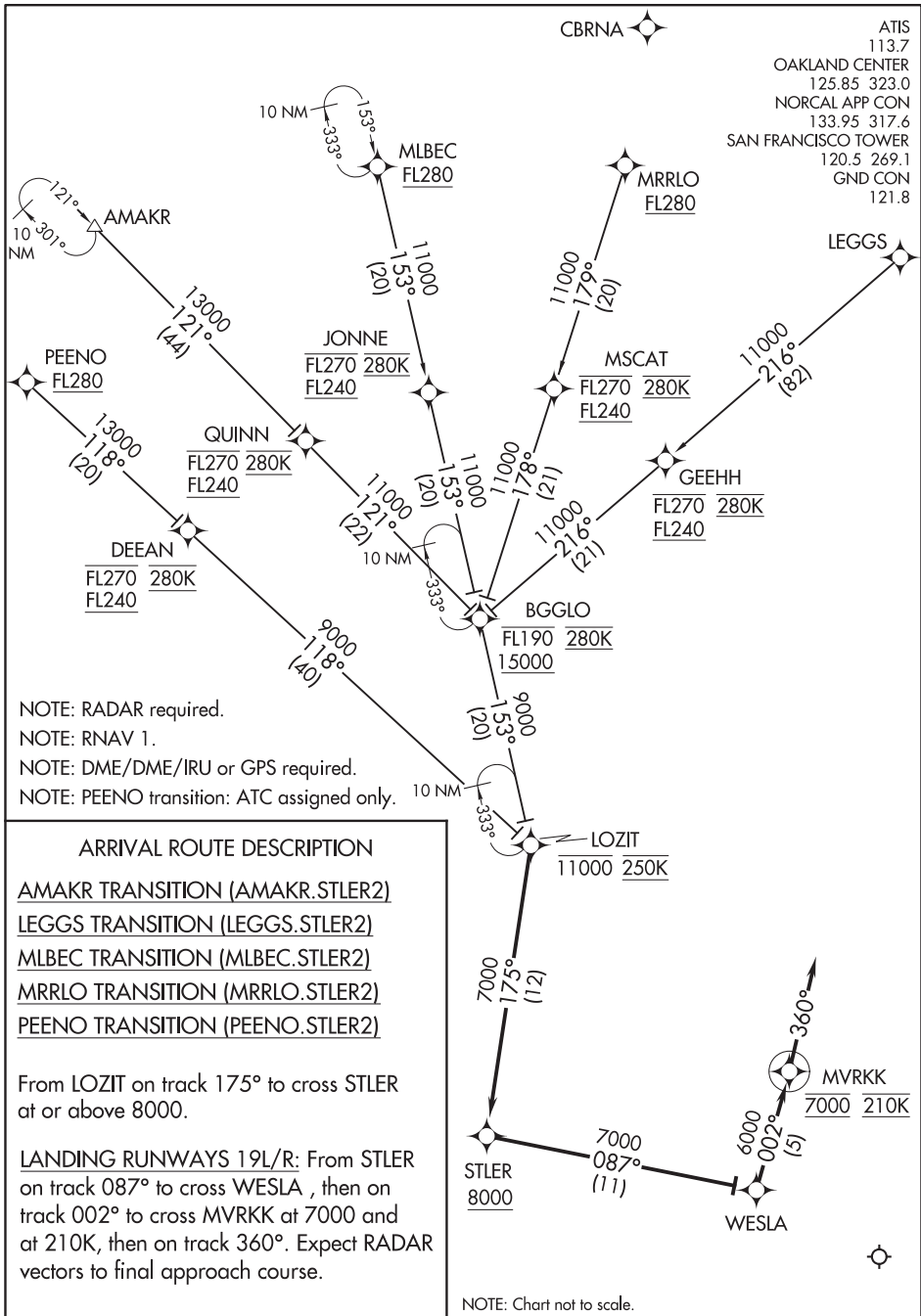
ROSEBURG TRANSITION (RBG.STINS3): From over RBG VOR/DME on RBG R-159 and ENI R-343 to ENI VORTAC, then on ENI R-146 and PYE R-325 to PYE VOR/DME. Thence. . .

. . . From over PYE VOR/DME on PYE R-144 to STINS INT, thence on SFO R-287 to SFO VOR/DME. Expect RADAR vectors to final approach course.

STLER TWO ARRIVAL (RNAV)

ST-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

STLER TWO ARRIVAL (RNAV)

(LOZIT.STLER2) 10DEC15

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

(SUTHU.SUTHU1) 16091

SUTHU ONE ARRIVAL (RNAV)

TRAVIS AFB (KSUU)
FAIRFIELD, CALIFORNIA

ST-488 (FAA)

TOCOS
FL370
FL330

OKNIE
FL300

TRAVIS APP CON	126.6 281.45 (N)
	119.9 322.325 (S)
TRAVIS TOWER	120.75 254.4
GND CON	121.8 289.4
ATIS	135.55 292.125

WALBO
FL300

SUTHU
15000
13000

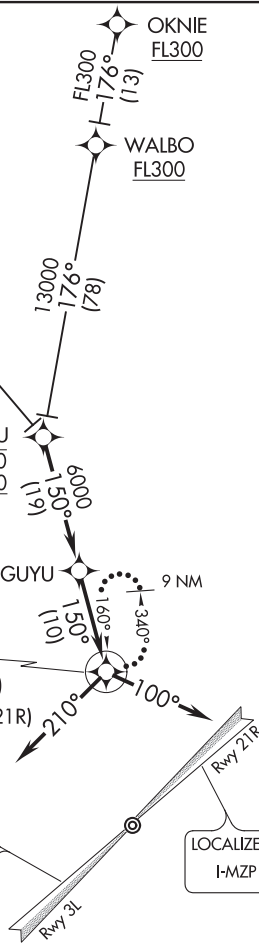
EGUYU

SEATO
6000 (Rwy 3L)
6000 210K (Rwy 21R)

9 NM

LOCALIZER 108.35
I-TXV

LOCALIZER 108.35
I-MZP



- NOTE: RNAV 1.
- NOTE: RADAR required.
- NOTE: DME/DME/IRU or GPS required.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

OKNIE TRANSITION (OKNIE.SUTHU1)

TOCOS TRANSITION (TOCOS.SUTHU1)

From SUTHU on track 150° to EGUYU, thence. . . .

. . . . LANDING RUNWAY 3L: From EGUYU on track 150° to cross SEATO at 6000, then on heading 210°, expect RADAR vectors to final approach course.

. . . . LANDING RUNWAY 21R: From EGUYU on track 150° to cross SEATO at 6000, at 210K, then on heading 100°, expect RADAR vectors to final approach course.

LOST COMMUNICATIONS: From SEATO, execute ILS or LOC RWY 21R or TACAN RWY 3L approach. If unable hold at SEATO as depicted, maintain 6000.

SUTHU ONE ARRIVAL (RNAV)

(SUTHU.SUTHU1) 10JAN13

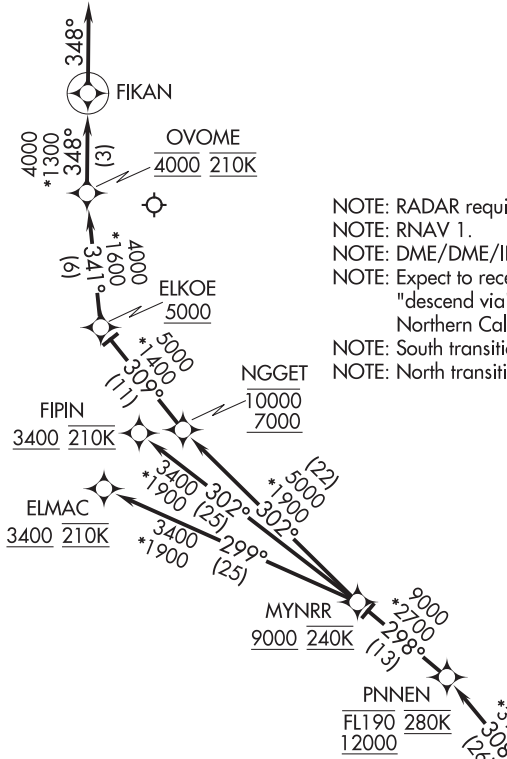
FAIRFIELD, CALIFORNIA
TRAVIS AFB (KSUU)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

OAKLAND CENTER
132.8 319.1
NORCAL APP CON
124.8 263.15
ATIS
126.75
CAPITOL TOWER
125.7 256.7
GND CON
121.7 256.7

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Expect to receive transition (south/north) and "descend via" clearance from Oakland Center.
- NOTE: Northern California TRACON will assign landing runway.
- NOTE: South transition indicates Rwy's 16L/R.
- NOTE: North transition indicates Rwy's 34L/R.



ARRIVAL ROUTE DESCRIPTION

NURAY TRANSITION (NURAY.SUUTR2)

From SUUTR on track 308° to cross FOOLZ at or below FL210, then on track 308° to cross GLDDDD at or below FL190, then on track 308° to cross PNNEN between 12000 and FL190 and at 280K, then on track 298° to cross MYNRR at or above 9000 and at 240K.

SOUTH TRANSITION RUNWAYS 16L/R: From MYNRR on track 302° to cross NGGET between 7000 and 10000, then on track 309° to cross ELKOE at or above 5000, then on track 341° to cross OVOME at 4000 and at 210K, then on track 348° to FIKAN, then on track 348°.

Expect RADAR vectors to final approach course.

NORTH TRANSITION RUNWAY 34L: From MYNRR on track 299° to cross ELMAC at or above 3400 and at 210K. Expect assigned instrument approach procedure.

NORTH TRANSITION RUNWAY 34R: From MYNRR on track 302° to cross FIPIN at or above 3400 and at 210K. Expect assigned instrument approach procedure.

NOTE: Chart not to scale.

10 NM

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TUDOR TWO ARRIVAL

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

ST-5490 (FAA)

NORCAL APP CON
120.45 353.7
OAKLAND CENTER
132.2 350.3

KLAMATH FALLS
115.9 LMT
Chan 106
N42°09.19'-W121°43.65'
L-2, H-3

LAKEVIEW
112.0 LKV
Chan 57
N42°29.57'-W120°30.43'
L-11, H-3

(OXIHU)
N41°30.24'
W121°06.12'

(OWLEK)
N40°26.47'
W121°43.17'

RED BLUFF
115.7 RBL
Chan 104
N40°05.93'-W122°14.18'
L-2, H-3

EWOKS
N40°21.48'
W121°42.75'

LOMBO
N39°57.50'
W121°40.69'

BOWLS
N39°30.55'-W121°38.40'
TURBOJET VERTICAL NAVIGATION
PLANNING INFORMATION
Expect 12000

(PUJWO)
N39°22.26'
W121°42.55'

PIECH
N39°14.57'
W121°37.06'

WILLIAMS
114.4 IIA
Chan 91

TUDOR
N38°59.19'
W121°35.79'

LOCALIZER 111.1
I-SMF
Chan 48

SACRAMENTO
115.2 SAC
Chan 99

NOTE: RADAR required.

NOTE: Expect RADAR vectors to final approach course.

NOTE: DME required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

TUDOR TWO ARRIVAL

ARRIVAL ROUTE DESCRIPTION

KLAMATH FALLS TRANSITION (LMT.TUDOR2): From over LMT VORTAC via LMT R-163 and SAC R-339 to PIECH INT. Thence

LAKEVIEW TRANSITION (LKV.TUDOR2): From over LKV VORTAC via LKV R-185 and SAC R-339 to PIECH INT. Thence

RED BLUFF TRANSITION (RBL.TUDOR2): From over RBL VORTAC via RBL R-133 to PIECH INT. Thence

. . . . From PIECH INT via SAC R-339 to TUDOR INT/DME. Expect RADAR vectors.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WEBGO ONE ARRIVAL (RNAV)

ST-488 (FAA)

TRAVIS AFB (KSUU)
FAIRFIELD, CALIFORNIA

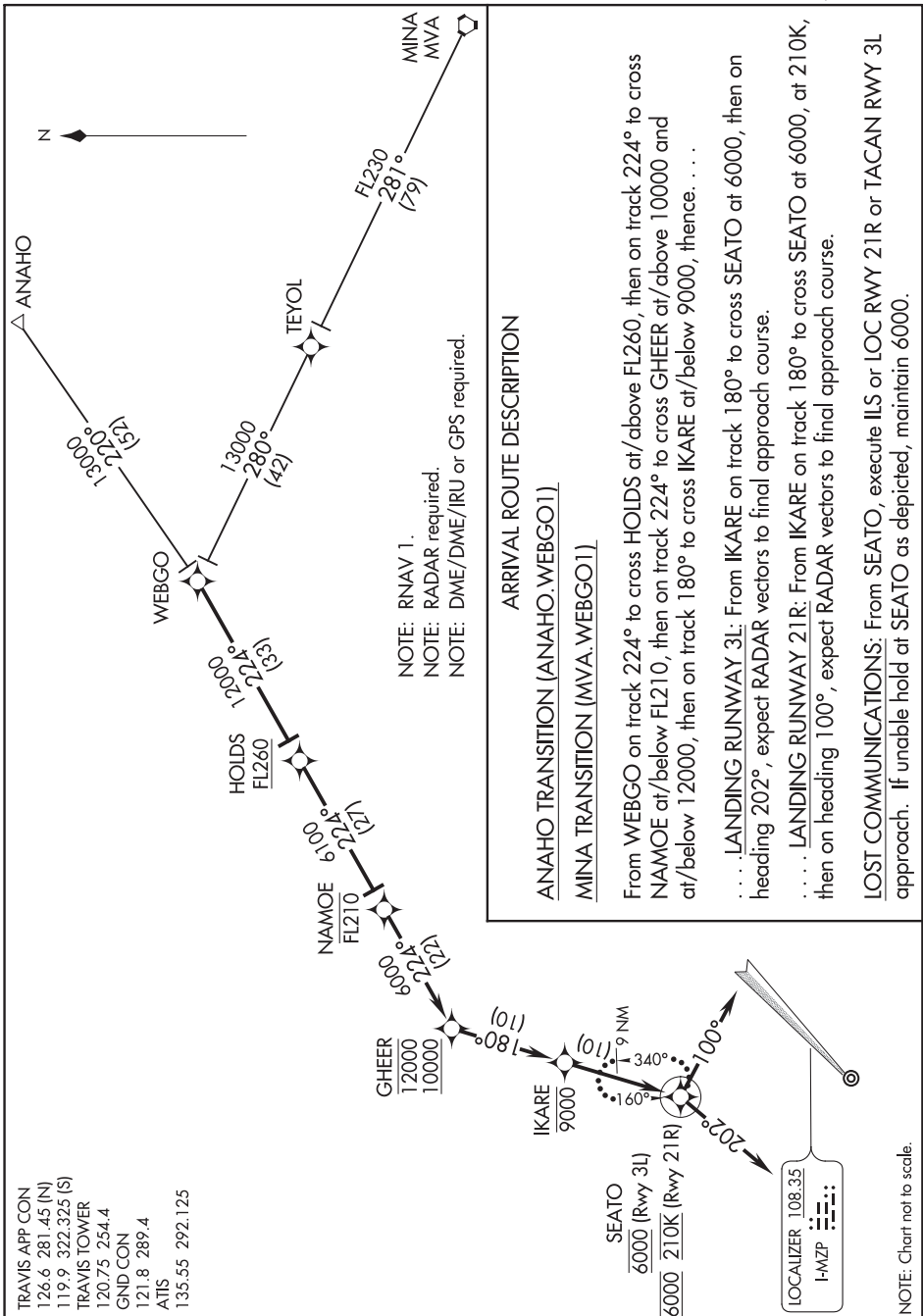
SW-2, 10 NOV 2016 to 05 JAN 2017

TRAVIS APP CON
126.6 281.45 (N)
119.9 322.325 (S)
TRAVIS TOWER
120.75 254.4
GND CON
121.8 289.4
ATIS
135.55 292.125

WEBGO ONE ARRIVAL (RNAV)

(WEBGO.WEBGO1) 10JAN13

FAIRFIELD, CALIFORNIA
TRAVIS AFB (KSUU)



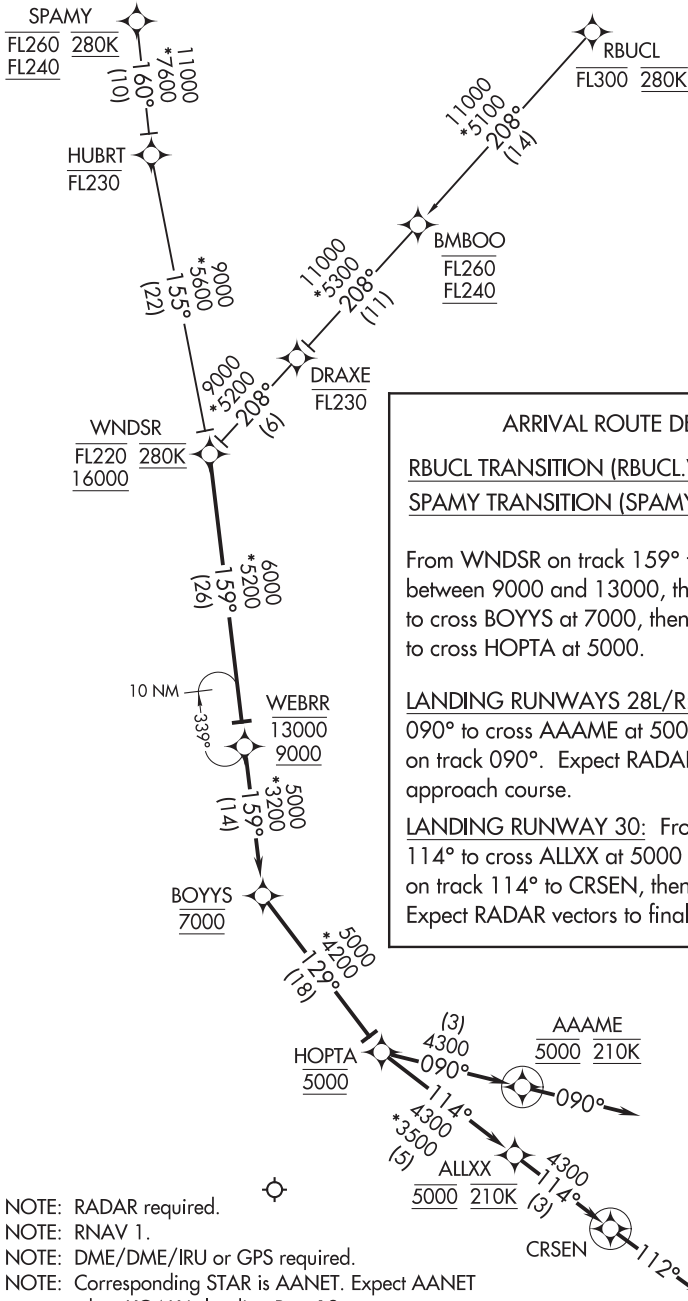
(WNDSR.WNDSR2) 16091

WNDSR TWO ARRIVAL (RNAV)

ST-294 (FAA)

METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

OAKLAND CENTER
125.85 323.0
NORCAL APP CON
120.9 323.2
ATIS
133.775
OAKLAND TOWER
127.2 256.9 (Rwy 30)
118.3 291.65 (Rwys 28L/R)
GND CON
121.75 (Rwy 30)
121.9 (Rwys 28L/R)



ARRIVAL ROUTE DESCRIPTION

RBUCL TRANSITION (RBUC.LWNDSR2)
SPAMY TRANSITION (SPAMY.WNDSR2)

From WNDZR on track 159° to cross WEBRR between 9000 and 13000, then on track 159° to cross BOYYS at 7000, then on track 129° to cross HOPTA at 5000.

LANDING RUNWAYS 28L/R: From HOPTA on track 090° to cross AAAME at 5000 and at 210K, then on track 090°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 30: From HOPTA on track 114° to cross ALLXX at 5000 and at 210K, then on track 114° to CRSEN, then on track 112°. Expect RADAR vectors to final approach course.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Corresponding STAR is AANET. Expect AANET when KOAK is landing Rwy 12.

NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WNDSR TWO ARRIVAL (RNAV)

(WNDSR.WNDSR2) 15OCT15

OAKLAND, CALIFORNIA
METROPOLITAN OAKLAND INTL (OAK)

WRAPS SIX ARRIVAL

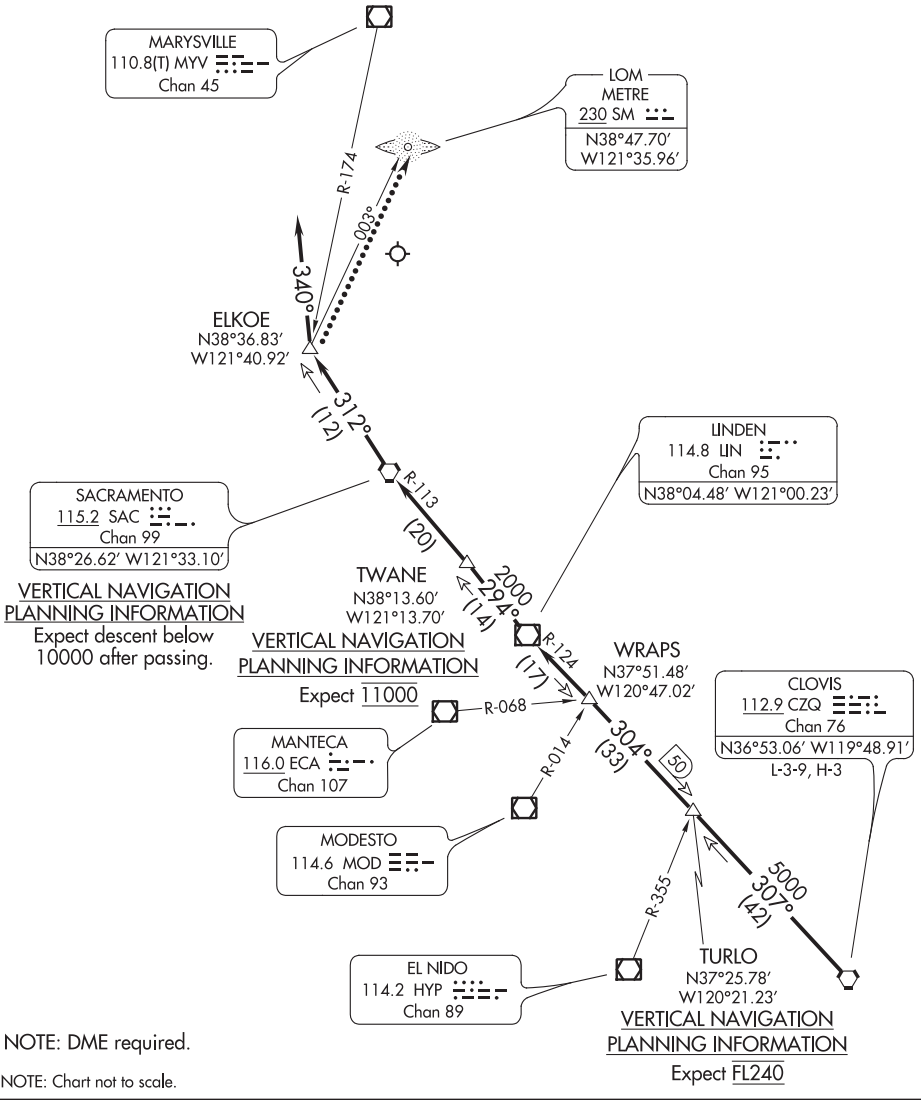
ST-5490 (FAA)

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

NORCAL APP CON
124.8 263.15

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



ARRIVAL ROUTE DESCRIPTION

From over CZQ VORTAC via CZQ R-307 to TURLO INT, then via LIN R-124 to LIN VOR/DME, then via LIN R-294 and SAC R-113 to SAC VORTAC, then via SAC R-312 to ELKOE INT, then via heading 340° for RADAR vector to final approach course.

LOST COMMUNICATIONS: After passing ELKOE INT proceed direct SM LOM.

(SERFR.WWAVS1) 16147

WWAVS ONE ARRIVAL (RNAV)

ST-375 (FAA)

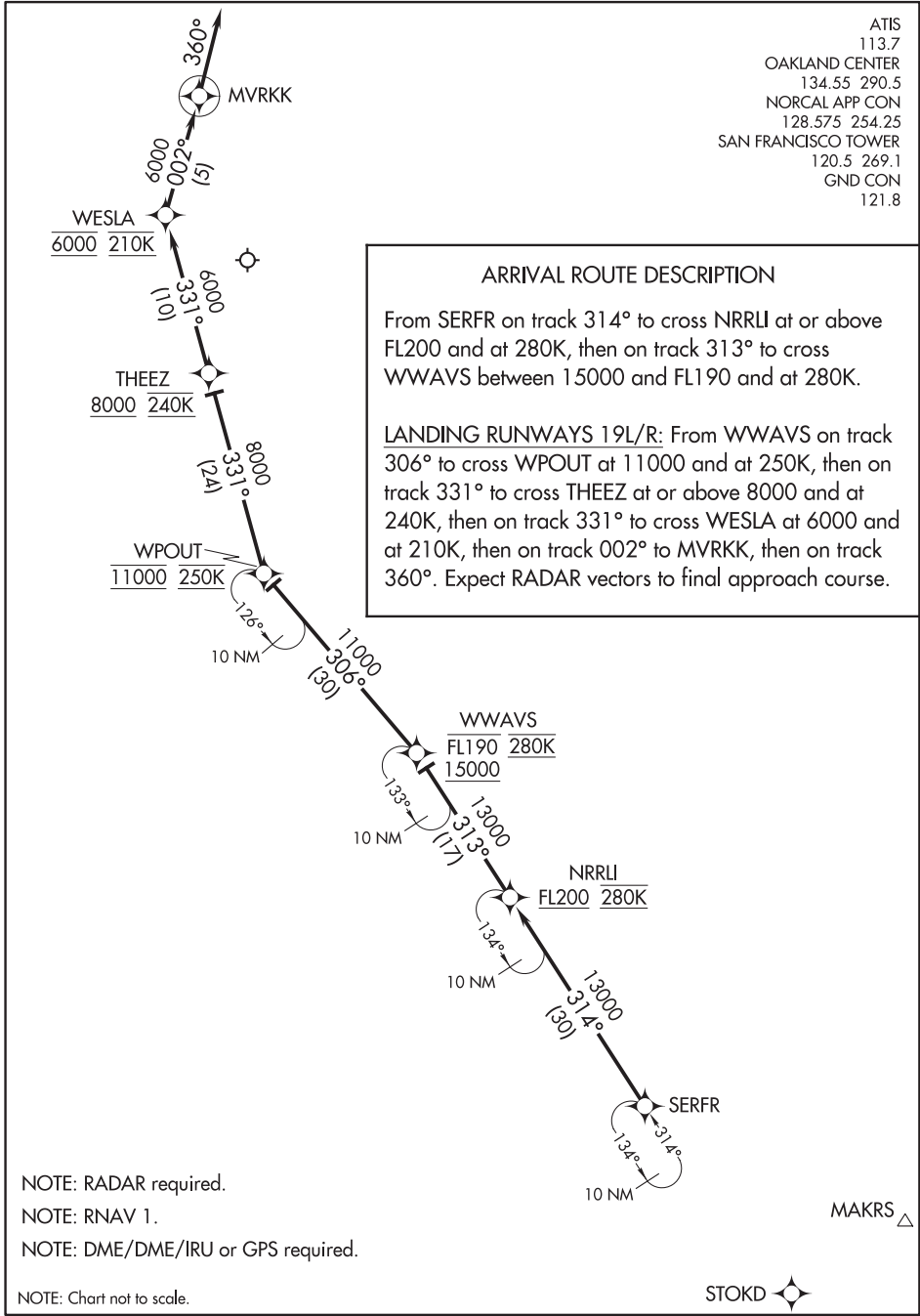
SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

ATIS 113.7
 OAKLAND CENTER 134.55 290.5
 NORCAL APP CON 128.575 254.25
 SAN FRANCISCO TOWER 120.5 269.1
 GND CON 121.8

ARRIVAL ROUTE DESCRIPTION

From SERFR on track 314° to cross NRRLI at or above FL200 and at 280K, then on track 313° to cross WWAVS between 15000 and FL190 and at 280K.

LANDING RUNWAYS 19L/R: From WWAVS on track 306° to cross WPOUT at 11000 and at 250K, then on track 331° to cross THEEZ at or above 8000 and at 240K, then on track 331° to cross WESLA at 6000 and at 210K, then on track 002° to MVRKK, then on track 360°.



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: RADAR required.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: Chart not to scale.

MAKRS Δ

STOKD \diamond

WWAVS ONE ARRIVAL (RNAV)
(SERFR.WWAVS1) 10DEC15

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

YOSEM THREE ARRIVAL (RNAV)

ST-375 (FAA)

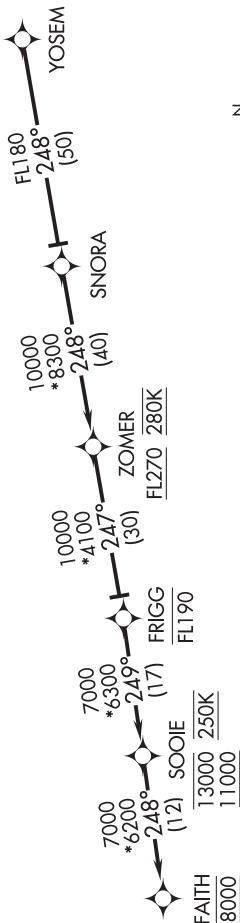
SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017

ARRIVAL ROUTE DESCRIPTION

From YOSEM on track 248° to SNORA, then on track 248° to cross ZOMER at/above FL270 and at 280K.

LANDING RUNWAYS 28L/R: From ZOMER on track 247° to cross FRIGG at/below FL190, then on track 249° to cross SOOIE between 11000 and 13000 and at 250K, then on track 248° to cross FAITH at 8000. Expect assigned instrument approach procedure, or expect RADAR vectors to final.



OAKLAND CENTER
134.37 281.5
NORCAL APP CON
128.325 254.3
ATIS
113.7
SAN FRANCISCO TOWER
120.5 269.1
GND CON
121.8

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: YOSEM3 STAR ATC assigned only.

NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

YOSEM THREE ARRIVAL (RNAV)

WAAS CH 70620 W31A	APP CRS 312°	Rwy Idg TDZE Apt Elev	4300 4378 4378
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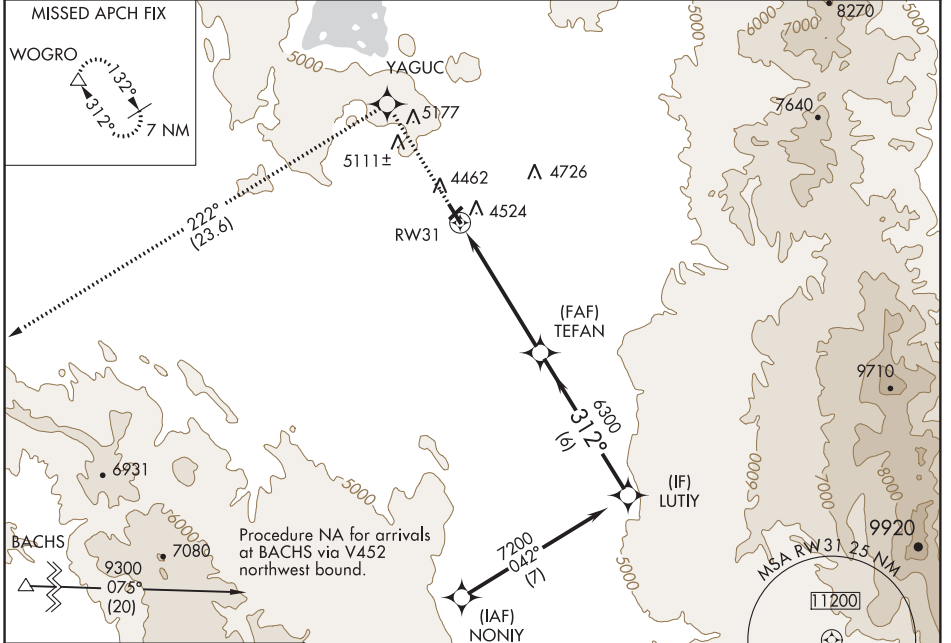
RNAV (GPS) RWY 31

ALTURAS MUNI (AAT)

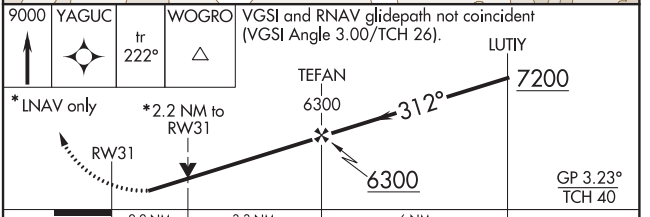
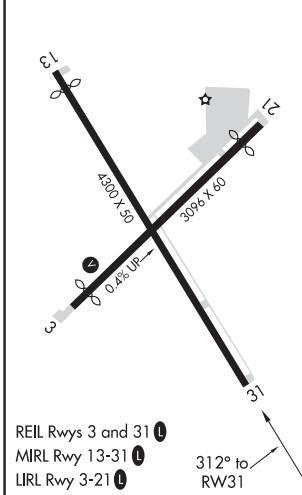
⚠ Circling to Rwy 13, 21 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 9000 direct YAGUC and on track 222° to WOGRO and hold.

ASOS 124.175	SEATTLE CENTER 127.6 346.35	UNICOM 122.8 (CTAF) 0
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ELEV 4378	TDZE 4378
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CATEGORY	A	B	C	D
LPV DA	4895-1 $\frac{1}{8}$	517 (600-1 $\frac{1}{8}$)		NA
LNAV/VNAV DA	4874-1 $\frac{1}{8}$	496 (500-1 $\frac{1}{8}$)		NA
LNAV MDA	5120-1 742 (800-1)	5120-1 $\frac{1}{4}$ 742 (800-1 $\frac{1}{4}$)		NA
CIRCLING	5120-1 742 (800-1)	5120-1 $\frac{1}{4}$ 742 (800-1 $\frac{1}{4}$)		NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(BACHS2.BACHS) 16091

BACHS TWO DEPARTURE (OBSTACLE) (RNAV)

SL-6436 (FAA)

ALTURAS MUNI (AAT)

ALTURAS, CALIFORNIA

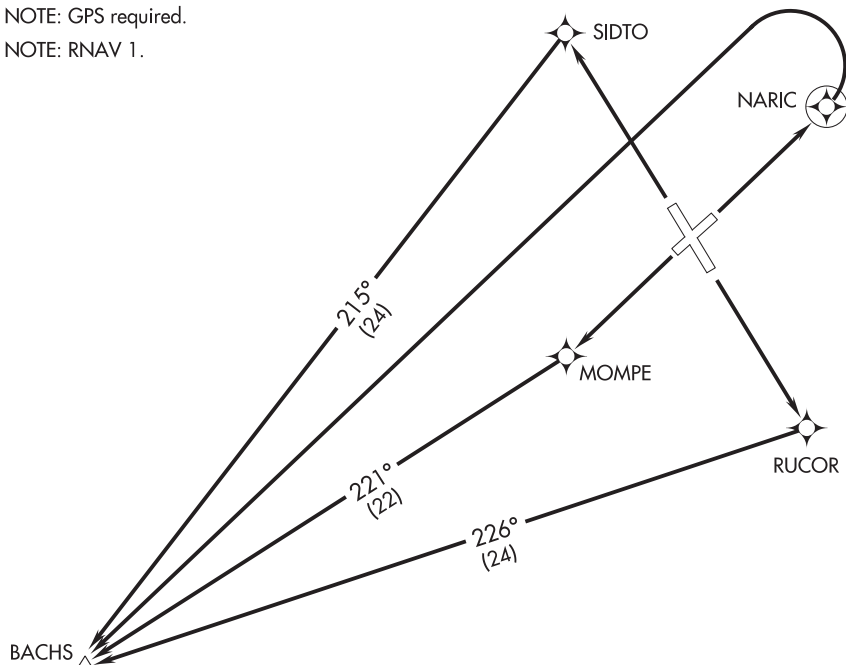
TAKEOFF MINIMUMS

- Rwy 3: Standard with minimum climb of 340' per NM to 5900.
 Rwy 13: Standard with minimum climb of 230' per NM to 8200.
 Rwy 21: Standard with minimum climb of 365' per NM to 6000.
 Rwy 31: Standard with minimum climb of 450' per NM to 5800.

SEATTLE CENTER
 127.6 346.35
 CTAF
 122.8

NOTE: GPS required.

NOTE: RNAV 1.

TAKEOFF OBSTACLE NOTES

- Rwy 3: Trees, buildings, poles and a road with vehicles beginning 1' from DER, right and left of centerline, up to 100' AGL/4659' MSL.
 Rwy 21: Trees and road with vehicles beginning 1' from DER, right and left of centerline, to 100' AGL/4469' MSL.
 Rwy 13: Trees and a road with vehicles beginning 1' from DER, right and left of centerline, up to 100' AGL/4519' MSL.
 Rwy 31: Trees and road with vehicles beginning 1' from DER, right and left of centerline, up to 100' AGL/4469' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

- TAKEOFF RUNWAY 3: Climb to 9000 direct NARIC, then climbing left turn direct BACHS.
TAKEOFF RUNWAY 13: Climb to 9000 direct RUCOR, turn right via 226° track to BACHS.
TAKEOFF RUNWAY 21: Climb to 9000 direct MOMPE, then via 221° track to BACHS.
TAKEOFF RUNWAY 31: Climb to 9000 direct SIDTO, turn left via 215° track to BACHS.

BACHS TWO DEPARTURE (OBSTACLE) (RNAV)

(BACHS2.BACHS) 10APR08

ALTURAS, CALIFORNIA
 ALTURAS MUNI (AAT)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

CHOIR THREE DEPARTURE (RNAV)

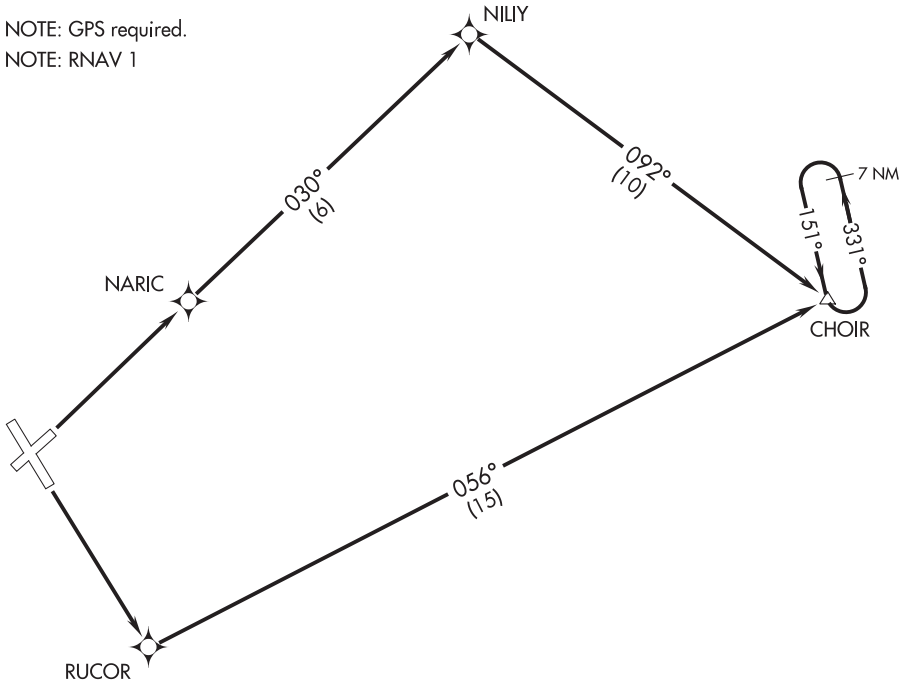
**TOP ALTITUDE:
ASSIGNED BY ATC**

SEATTLE CENTER
127.6 346.35
CTAF 122.8

TAKE OFF MINIMUMS

Rwy 3: Standard with minimum climb of 367' per NM to 11000.
Rwy 13: Standard with minimum climb of 389' per NM to 11000.
Rwys 21 and 31: NA - ATC.

NOTE: GPS required.
NOTE: RNAV 1



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKE OFF OBSTACLE NOTES

Rwy 3: Trees, buildings, poles and a road with vehicles beginning 1' from DER, right and left of centerline, up to 100' AGL/4659' MSL.
Rwy 13: Trees and road with vehicles beginning 1' from DER, right and left of centerline, up to 100' AGL/4519' MSL.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKE OFF RUNWAY 3: Climb to 11000 direct NARIC and via 030° track to NILIY and via 092° track to CHOIR, thence....

TAKE OFF RUNWAY 13: Climb to 11000 direct RUCOR and via 056° track to CHOIR, thence....

....climb in holding, (if required) before proceeding on course.

CHOIR THREE DEPARTURE (RNAV)

HERLONG, CALIFORNIA

RNAV (GPS) RWY 26

APCH CRS	Rwy Idg	10,000
262°	TDZE	4012
	Arpt Elev	4012

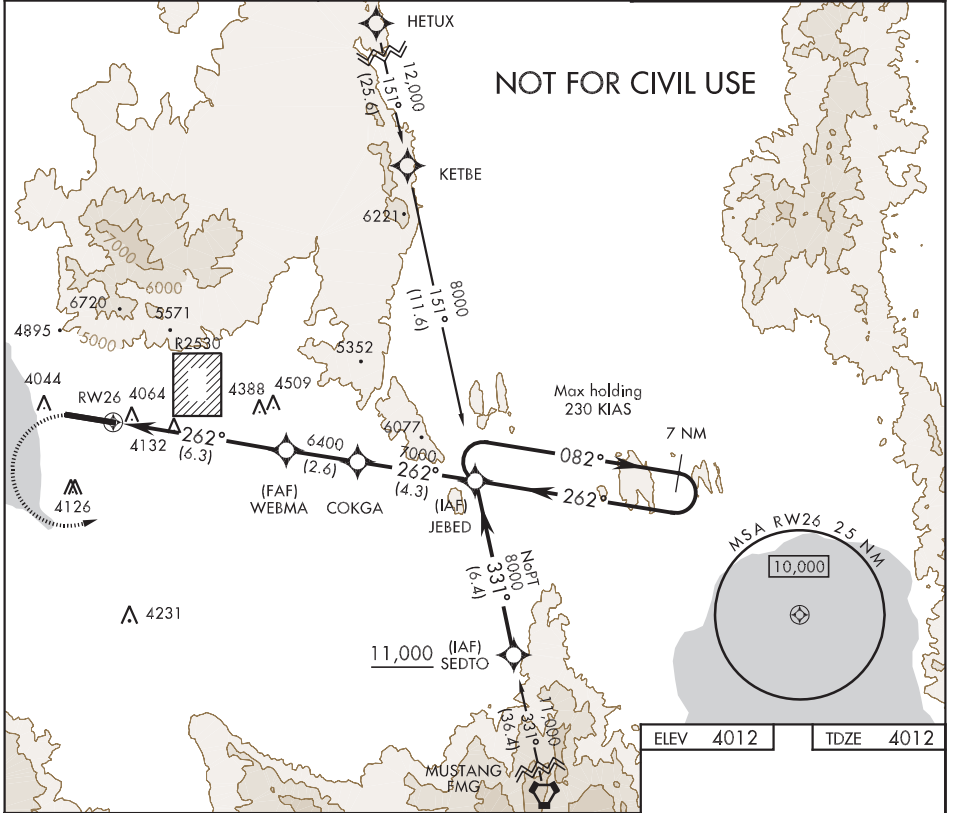
AL-6624 [USA]

AMEDEE AAF (KAHC)

▼ DME/DME RNP-0.3 NA.
 Procedure not authorized at night.
 *Circling NA for CATS DE north of Rwy 8-26.

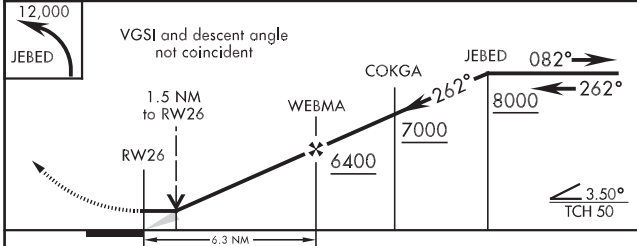
MISSED APPROACH: Climbing left turn to 12,000 direct JEBED and hold, continue climb-in-hold to 12,000. When authorized by ATC, climb in hold to 14,000.

AWOS-3 118.825	OAKLAND CENTER 128.8 285.5	CTAF 126.2 241.9
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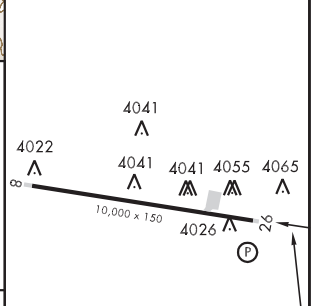


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



ELEV 4012	TDZE 4012
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CATEGORY	A	B	C	D	E
RNAV MDA	4600-1 588 (600-1)		4600-1½ 588 (600-1½)	4600-1¾ 588 (600-1¾)	4600-2 588 (600-2)
CIRCLING*	4600-1 588 (600-1)		4600-1½ 588 (600-1½)	4600-2	588 (600-2)

HERLONG, CALIFORNIA
 Amdt 1 13234

40°16'N-120°09'W

AMEDEE AAF (KAHC)

RNAV (GPS) RWY 26

HERLONG, CALIFORNIA

VOR/DME RWY 26

VOR/DME AHC 109.0 Chan 27	APCH CRS 268°	Rwy Idg TDZE Arpt Elev 10,000 4012 4012
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AL-6624 [USA]

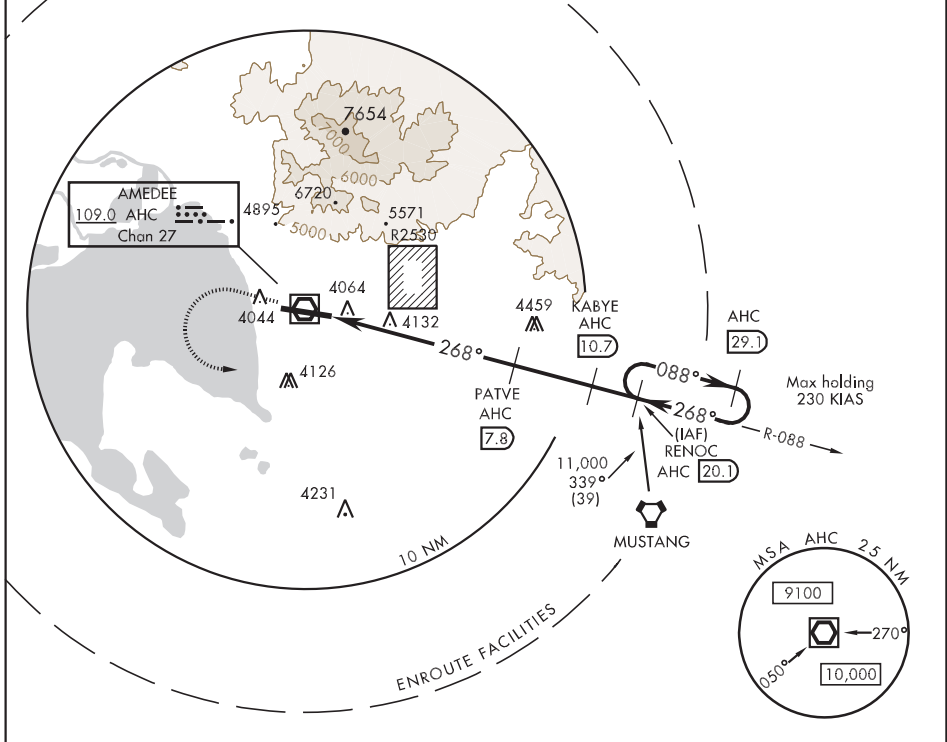
AMEDEE AAF (KAHC)

Procedure not authorized at night.
* Circling NA for CATS DE north of Rwy 8-26.

MISSED APPROACH: Climb to 5500, then climbing left turn to 10,500 via AHC R-088 to RENOC (20.1 DME) and hold, continue climb-in-hold to 10,500. When authorized by ATC, climb-in-hold to 14,000.

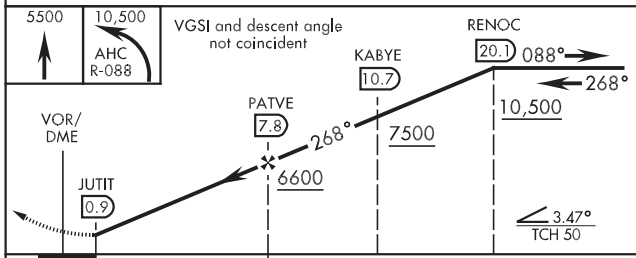
AWOS-3 118.825	OAKLAND CENTER 128.8 285.5	CTAF 126.2 241.9
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NOT FOR CIVIL USE

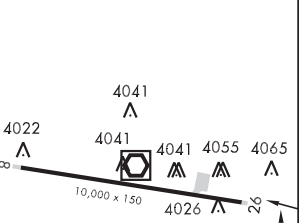


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



ELEV 4012	TDZE 4012
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CATEGORY	A	B	C	D	E
S-26	4620-1 608 (700-1)	4620-1 608 (700-1)	4620-1¾ 608 (700-1¾)	4620-2 608 (700-2)	4620-2¼ 608 (700-2¼)
CIRCLING*	4620-1 608 (700-1)	4620-1 608 (700-1)	4620-1¾ 608 (700-1¾)	4620-2 608 (700-2)	4620-2¼ 608 (700-2¼)

HERLONG, CALIFORNIA
Amdt 1 13234

40°16'N-120°09'W

AMEDEE AAF (KAHC)


VOR/DME RWY 26

LOC/DME I-ACV 109.5 Chan 32	APP CRS 316°	Rwy Idg TDZE Apt Elev	5846 221 222
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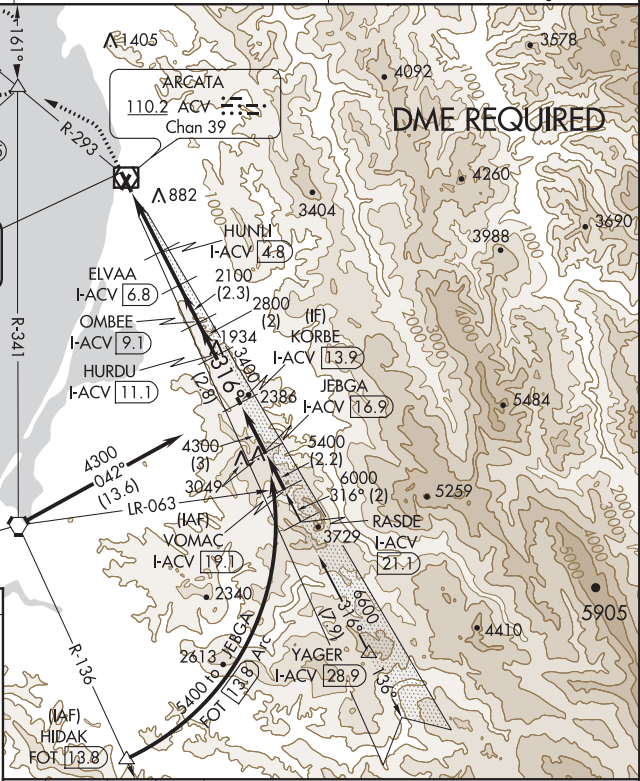
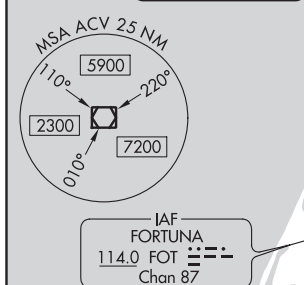
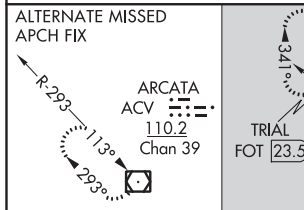
ILS Y or LOC/DME RWY 32

ARCATA (ACV)

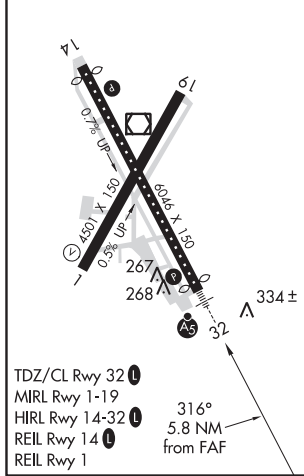
When local altimeter setting not received, use Crescent City altimeter setting and increase all DA 135 feet and all MDA 140 feet, increase S-ILS 32 visibility all Cats to RVR 3200, S-LOC 32 Cat B visibility to RVR 4000, Cat C/D to 1 3/4 mile, increase visibility Circling Cat B to 1 1/4 mile, Cat C to 2 1/4 mile, Cat D to 2 1/2 mile. For inop MALSRL increase S-LOC 32 visibility Cats C/D to 1 3/4 mile. For inop MALSRL when using Crescent City altimeter setting increase S-ILS 32 visibility all Cats to RVR 6000, LOC Cat B visibility to 1 3/4, Cat C/D visibility to 2 miles. Circling NA east of Rwy 14-32.

MALSRL

MISSED APPROACH:
 Climb to 800, then climbing left turn to 3000 on heading 280° and on FOT VORTAC R-341 to TRIAL/FOT 23.5 DME and hold, continue climb-in-hold to 3000.

ASOS 118.525	SEATTLE CENTER 124.85 306.3	UNICOM 123.0 (CTAF)
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ELEV 222	TDZE 221
D	355 ± Δ



800	3000	FOT TRIAL R-341	Use I-ACV DME when on the localizer course.	HURDU I-ACV 11.1	KORBE I-ACV 13.9
hdg 280°				OMBEE I-ACV 9.1	
*LOC only	HUNLI I-ACV 4.8	ELVAA I-ACV 6.8			
	*I-ACV 2.9	2100			
		1440*		2800	3400
					GS 3.00° TCH 47
					VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 43).

CATEGORY	A	B	C	D
S-ILS 32	421/18 200 (200-1/2)			
S-LOC 32	840/24	619 (700-1/2)	840-1 3/8	619 (700-1 3/8)
CIRCLING	840-1	618 (700-1)	840-1 3/4	618 (700-1 3/4)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-ACV 109.5 Chan 32	APP CRS 316°	Rwy Idg TDZE Apt Elev	5846 221 222
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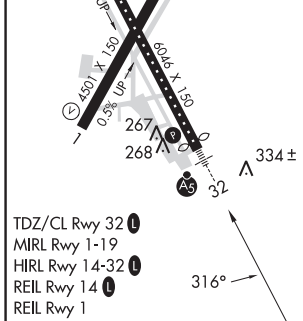
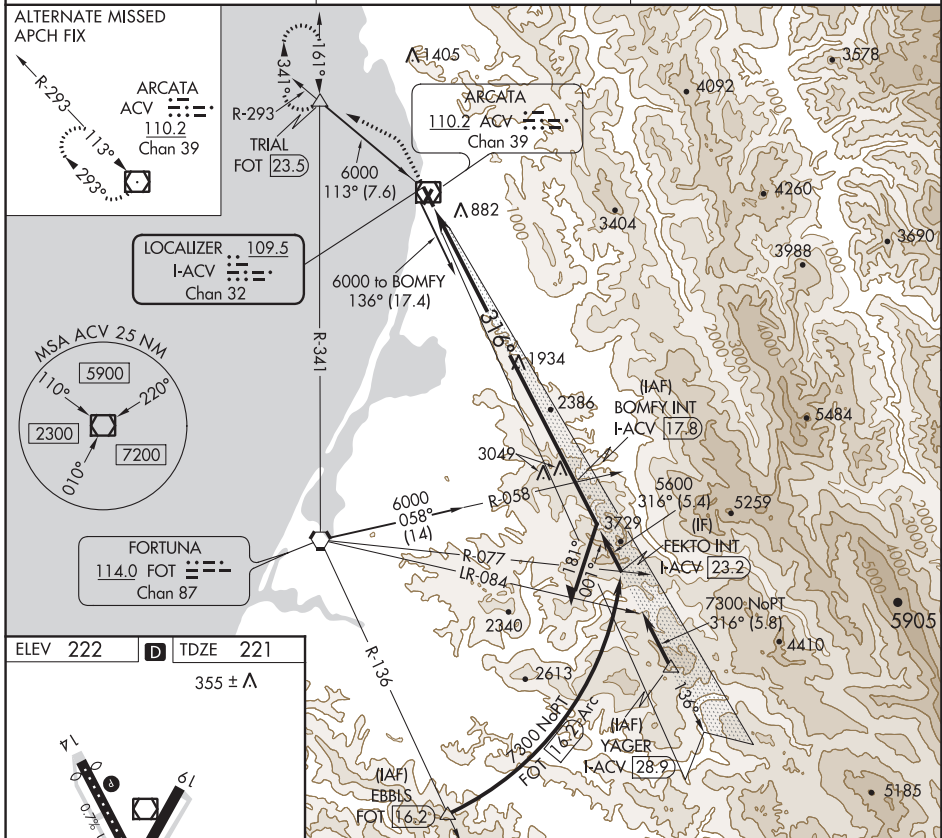
ILS Z RWY 32

ARCATA (ACV)

⚠ When local altimeter setting not received use Crescent City altimeter setting and increase all DA 135 feet and S-ILS 32 all Cats visibility to RVR 3000. For inop MALSRS, increase S-ILS 32 all Cats visibility to RVR 4000, RVR 5500 when using Crescent City altimeter setting.

MALSRS
⚠ MISSED APPROACH: Climb to 800, then climbing left turn to 3000 on heading 280° and on FOT VORTAC R-341 to TRIAL INT/FOT 23.5 DME and hold, continue climb-in-hold to 3000.

ASOS 118.525	SEATTLE CENTER 124.85 306.3	UNICOM 123.0 (CTAF)
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ELEV 222	D	TDZE 221	355 ± Δ	
		BOMFY INT I-ACV 17.8 Remain within 10 NM 6000 → 136° → 6000 316° → 5600 GS 3.00° TCH 47		
Use I-ACV DME when on the localizer course. VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 43).		16.7 NM		
CATEGORY	A	B	C	D
S-ILS 32	430/18 209 (300-1/2)			

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 63200 W01A	APP CRS 013°	Rwy Idg TDZE Apt Elev	4501 204 222
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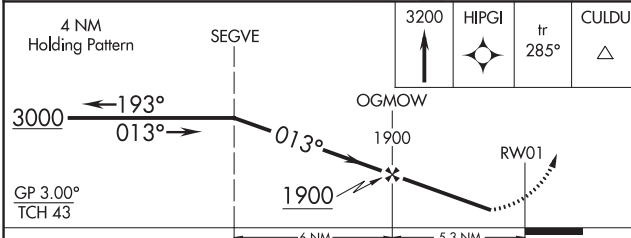
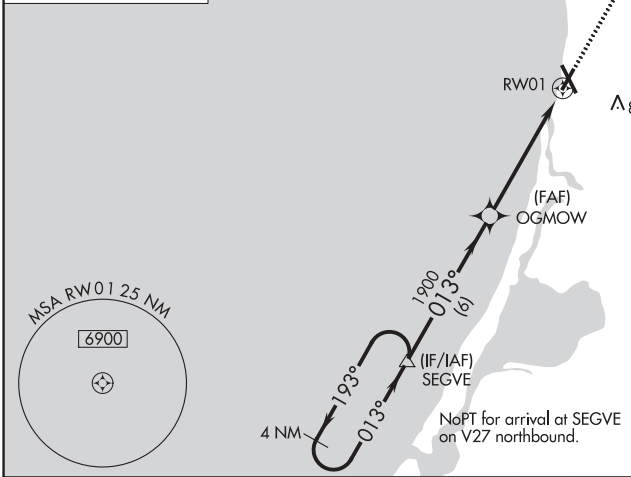
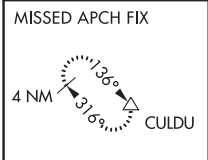
RNAV (GPS) RWY 1

ARCATA (ACV)

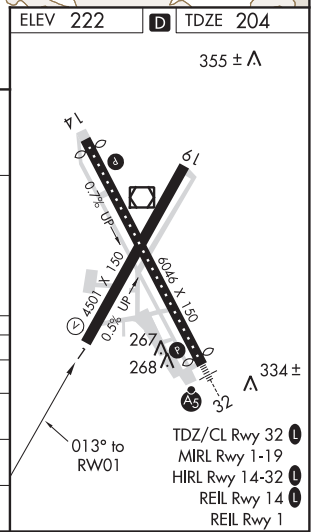
Baro-VNAV NA when using Crescent City altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 42°C (107°F). When VGSI inop, Straight-in/Circling Rwy 1 procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Circling NA east of Rwy 14-32. When local altimeter setting not received, use Crescent City altimeter setting and increase all DA 135 feet and all MDA 140 feet, increase LPV visibility all Cats to 3 mile, LNAV/VNAV visibility all Cats to 2 3/4 mile, LNAV Cat B visibility to 1 1/2 mile, Cats C and D visibility to 3 mile, and Circling Cat B visibility to 1 1/2 mile, Cats C and D visibility to 3 mile.

MISSED APPROACH:
Climb to 3200 direct HIPGI and on track 285° to CULDU and hold.

ASOS 118.525	SEATTLE CENTER 124.85 306.3	UNICOM 123.0 (CTAF) 0
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CATEGORY	A	B	C	D
LPV DA	880-2 1/2		676 (700-2 1/2)	
LNAV/VNAV DA	847-2 1/4		643 (700-2 1/4)	
LNAV MDA	1080-1 1/4	876 (900-1 1/4)	1080-2 1/2	876 (900-2 1/2)
CIRCLING	1080-1 1/4	858 (900-1 1/4)	1080-2 1/2	1080-2 3/4 858 (900-2 1/2) 858 (900-2 3/4)



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 62801 W14A	APP CRS 136°	Rwy Idg TDZE Apt Elev	5801 205 222
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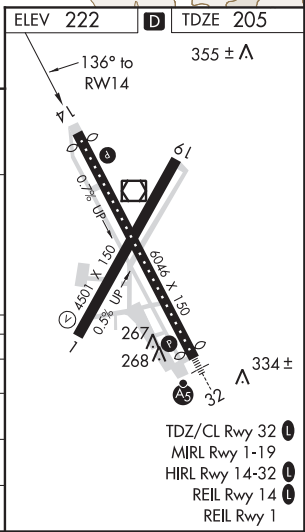
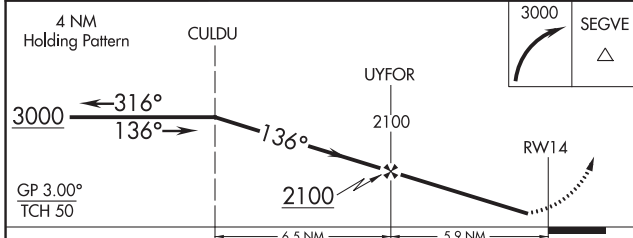
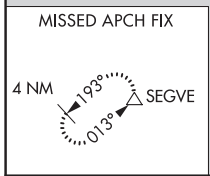
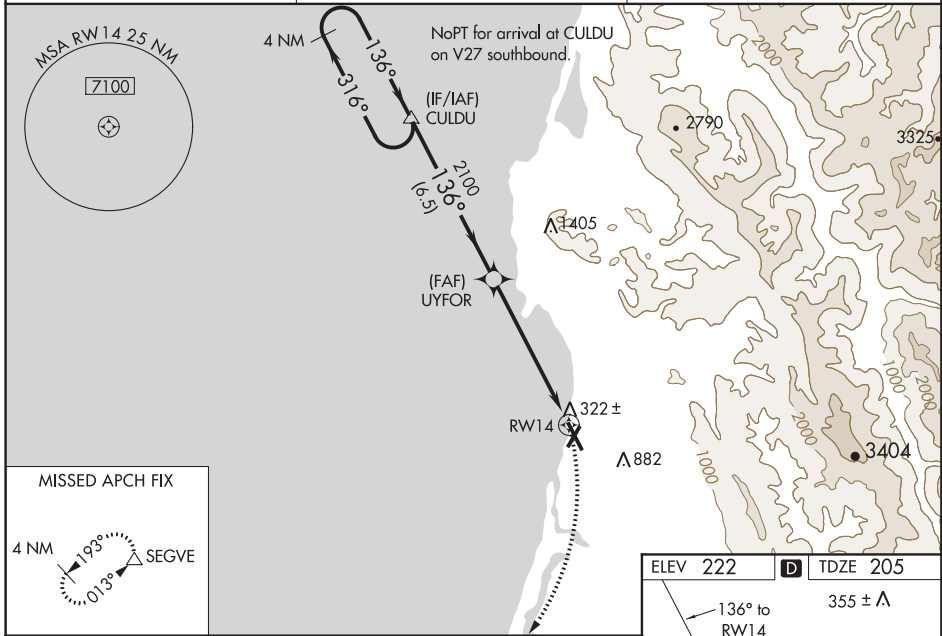
RNAV (GPS) RWY 14

ARCATA (ACV)

⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 42°C (107°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Baro-VNAV NA when using Crescent City altimeter setting. Circling NA east of Rwy 14-32. When VGSI inop, Straight-in/Circling Rwy 14 procedure NA at night. When local altimeter setting not received, use Crescent City altimeter setting and increase all DA 135 feet and all MDA 140 feet, increase LPV visibility all Cats to 1¼ mile, LNAV/VNAV visibility all Cats to 1¼ mile, LNAV Cat B visibility to 1¼ mile, Cats C and D visibility to 2½ mile, and Circling Cat B visibility to 1¼ mile, Cats C and D visibility to 2½ mile.

MISSED APPROACH:
Climbing right turn to 3000 direct SEGVE and hold.

ASOS 118.525	SEATTLE CENTER 124.85 306.3	UNICOM 123.0 (CTAF)
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CATEGORY	A	B	C	D
LPV DA		455-1	250 (300-1)	
LNAV/VNAV DA		570-1¼	365 (400-1¼)	
LNAV MDA	820-1	615 (600-1)	820-1¾	615 (600-1¾)
CIRCLING	820-1	598 (600-1)	820-1¾	820-2 598 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 63108 W32A	APP CRS 316°	Rwy Idg TDZE Apt Elev	5846 221 222
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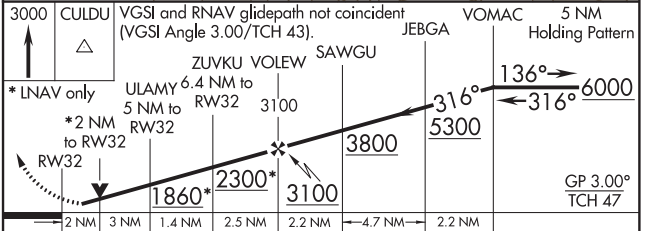
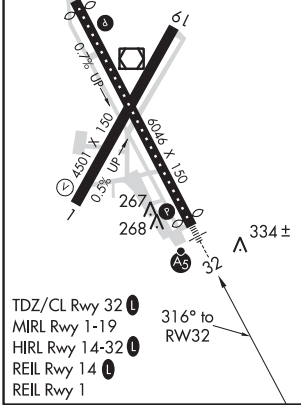
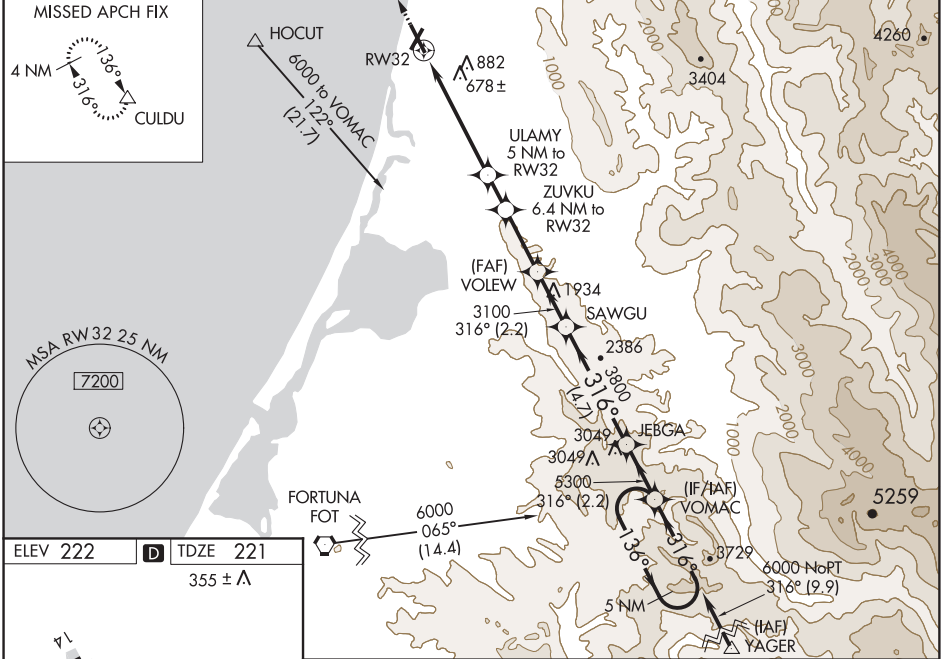
RNAV (GPS) RWY 32

ARCATA (ACV)

⚠ Baro-VNAV NA when using Crescent City altimeter setting. 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 Crescent City altimeter setting and increase NA. -5°C/23°F LPV DA to 606, LNAV/VNAV DA to 1115 and all MDA 140 feet, increase LPV all Cats visibility to RVR 4500, increase LNAV/VNAV visibility all Cats to 4 miles, increase LNAV Cats C/D visibility to 1 7/8 mile, increase Circling Cats A/B visibility to 1 1/4 mile, Cat C visibility to 2 1/2 mile, and Cat D visibility to 2 3/4 mile. For inop MALSRL increase LNAV Cats A/B visibility to RVR 5500 and Cats C/D visibility to 1 7/8 mile. Inop table does not apply to LPV. Inop table does not apply to LNAV/VNAV when using Crescent City altimeter setting. For inop MALSRL when using Crescent City altimeter setting increase LPV visibility all Cats to 1 1/4 mile and increase LNAV Cat A visibility to RVR 5500, and Cat B to RVR 6000, and Cats C/D visibility to 2 1/2 mile. Circling NA east of Rwy 14-32. VDP NA when using Crescent City altimeter setting.

MALSRL
APPROACH:
Climb to 3000 direct CULDU and hold.

ASOS 118.525	SEATTLE CENTER 124.85 306.3	UNICOM 123.0 (CTAF)
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CATEGORY	A		B		C		D
	LPV DA	471/40		250 (300-3/4)			
LNAV/VNAV DA	980-2 1/2		759 (800-2 1/2)				
LNAV MDA	900/40 679 (700-3/4)		900-1 1/2 679 (700-1 1/2)				
CIRCLING	900-1 678 (700-1)		900-2 678 (700-2)		900-2 1/4 678 (700-2 1/4)		

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

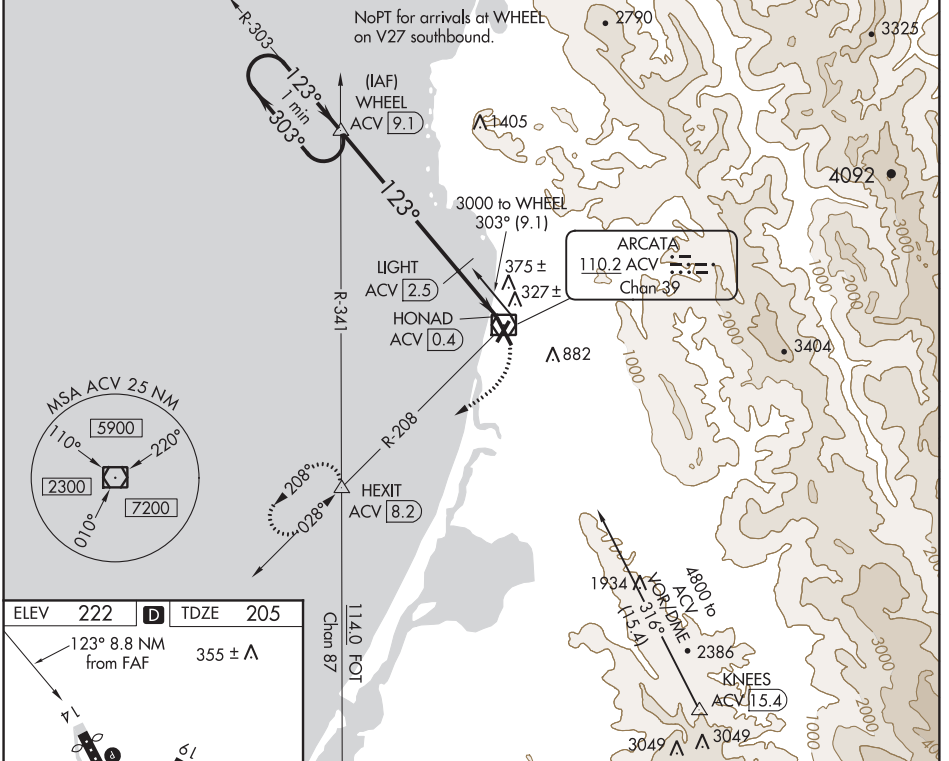
VOR/DME ACV 110.2 Chan 39	APP CRS 123°	Rwy Idg TDZE Apt Elev	5801 205 222
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VOR/DME RWY 14

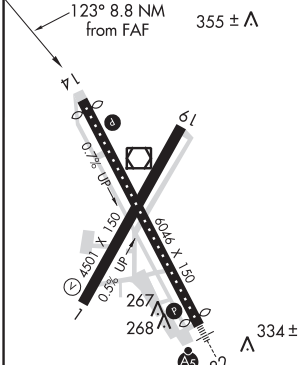
ARCATA (ACV)

⚠ Circling NA east of Rwy 14-32. Helicopter visibility reduction below $\frac{3}{4}$ SM NA.
⚠ When local altimeter setting not received, use Crescent City altimeter setting and increase all MDA 140 feet and S-14 Cat C/D visibility $\frac{3}{8}$ mile, Circling Cat C visibility $\frac{1}{8}$ mile, and Circling Cat D visibility $\frac{1}{4}$ mile.
MISSED APPROACH: Climbing right turn to 3000 on ACV R-208 to HEXIT INT/ACV 8.2 DME and hold, continue climb-in-hold to 3000.

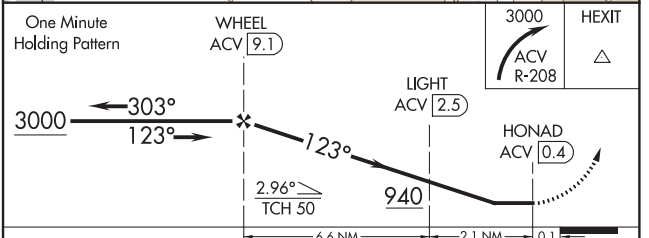
ASOS 118.525	SEATTLE CENTER 124.85 306.3	UNICOM 123.0 (CTAF)
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ELEV 222	D	TDZE 205
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- TDZ/CL Rwy 32 **Ⓛ**
- MIRA Rwy 1-19 **Ⓛ**
- HIRL Rwy 14-32 **Ⓛ**
- REL Rwy 14 **Ⓛ**
- REL Rwy 1 **Ⓛ**



CATEGORY	A	B	C	D
S-14	640-1	435 (500-1)	640-1 $\frac{3}{8}$	435 (500-1 $\frac{3}{8}$)
CIRCLING	640-1 418 (500-1)	680-1 458 (500-1)	680-1 $\frac{1}{2}$ 458 (500-1 $\frac{1}{2}$)	780-2 558 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(HOCUT4.HOCUT) 16091 HOCUT FOUR DEPARTURE

ARCATA (ACV)
ARCATA-EUREKA, CALIFORNIA

SL-519 (FAA)

OAKLAND FSS
122.6
SEATTLE CENTER
124.85 306.3

CRESCENT CITY
109.0 CEC
Chan 27
N41°46.77' - W124°14.45'
L-2, H-3

TAKEOFF MINIMUMS

Rwy 19, 32: Standard.

Rwy 1: Standard with minimum climb of 355' per NM to 1100.

Rwy 14: 500-2½ or standard with minimum climb of 445' per NM to 900.

TRIAL
N41°03.78'
W124°14.20'

HOCUT
N40°58.58'
W124°14.17'

SEVLY
N40°58.32'
W124°20.45'

ARCATA
110.2 ACV
Chan 39

TAKEOFF OBSTACLE NOTES

- Rwy 1: Trees beginning 222' from DER, 391' right of centerline, up to 200' AGL/799' MSL
Trees beginning 321' from DER, 343' left of centerline, up to 200' AGL/839' MSL
- Rwy 14: Trees beginning 1086' from DER, 716' right of centerline, up to 100' AGL/286' MSL
Trees beginning 4708' from DER, 1558' left of centerline, up to 200' AGL/679' MSL
- Rwy 19: Trees beginning 543' from DER, 298' right of centerline, up to 31' AGL/218' MSL
Vegetation 16' from DER, 270' right of centerline, 4' AGL/191' MSL
- Rwy 32: Trees beginning 4' from DER, 334' left of centerline, up to 20' AGL/202' MSL
Trees beginning 1037' from DER, 644' right of centerline, up to 85' AGL/267' MSL
Fence 268' from DER, 476' right of centerline, 15' AGL/197' MSL
Navaid 581' from DER, 258' right of centerline, 20' AGL/202' MSL

FORTUNA
114.0 FOT
Chan 87
N40°40.28' - W124°14.07'
L-2, H-3

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1 and 32: Climbing left turn on ACV R-250, thence. . . .

TAKEOFF RUNWAYS 14 and 19: Climbing right turn on ACV R-250, thence. . . .

. . . .on (transition) or (assigned route).

CRESCENT CITY TRANSITION (HOCUT4.CEC): From over HOCUT INT via FOT R-341 and CEC R-161 to CEC VORTAC.

FORTUNA TRANSITION (HOCUT4.FOT): From over HOCUT INT via ACV R-250 to SEVLY INT, then via FOT R-326 to FOT VORTAC.

HOCUT FOUR DEPARTURE (HOCUT4.HOCUT) 09FEB12

ARCATA-EUREKA, CALIFORNIA
ARCATA (ACV)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ILS or LOC/DME RWY 31

CASTLE (MER)

LOC I-MER 109.5	APP CRS 306°	Rwy Idg 11802 TDZE 181 Apt Elev 191
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⚠ DME from HYP VOR/DME. Simultaneous reception of I-MER and HYP DME required. Circling NA southwest of Rwy 13-31. When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all DA/MDA 20 feet. Increase S-LOC 31 visibility Cats C/D to 1 mile.

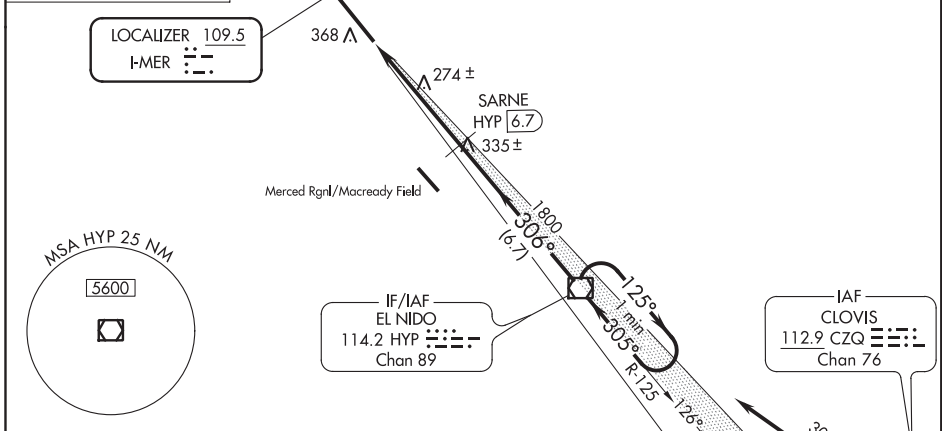
ALSIF-1

MISSED APPROACH:
Climb to 800 then climbing right turn to 3000 direct HYP VOR/DME and hold.

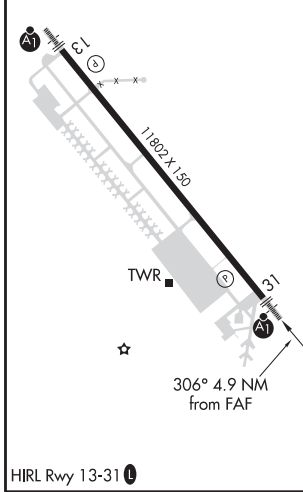
ATIS 124.475	NORCAL APP CON 120.95 269.45	CASTLE TOWER * 118.175 (CTAF) 235.775	GND CON 133.575	UNICOM 122.95	123.0
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MODESTO MOD 114.6 Chan 93

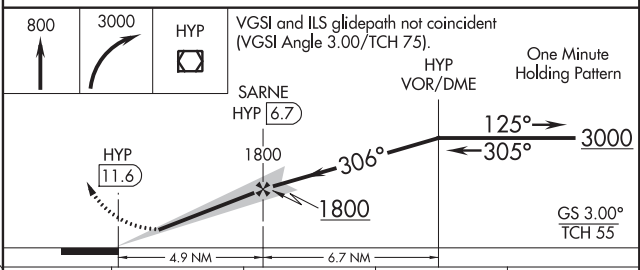
ALTERNATE MISSED APCH FIX



ELEV 191	TDZE 181
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Procedure NA for arrivals on CZQ VORTAC airway radials 243 CW 348.



CATEGORY	A	B	C	D
S-ILS 31		381-½	200 (200-½)	
S-LOC 31	620-½	439 (500-½)	620-¾	439 (500-¾)
CIRCLING	640-1 449 (500-1)	660-1 469 (500-1)	660-1½ 469 (500-1½)	760-2 569 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ATWATER, CALIFORNIA

AL-568 (FAA)

16035


WAAS CH 50211 W13A	APP CRS 126°	Rwy Idg 11802 TDZE 191 Apt Elev 191
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RNAV (GPS) RWY 13

CASTLE (MER)

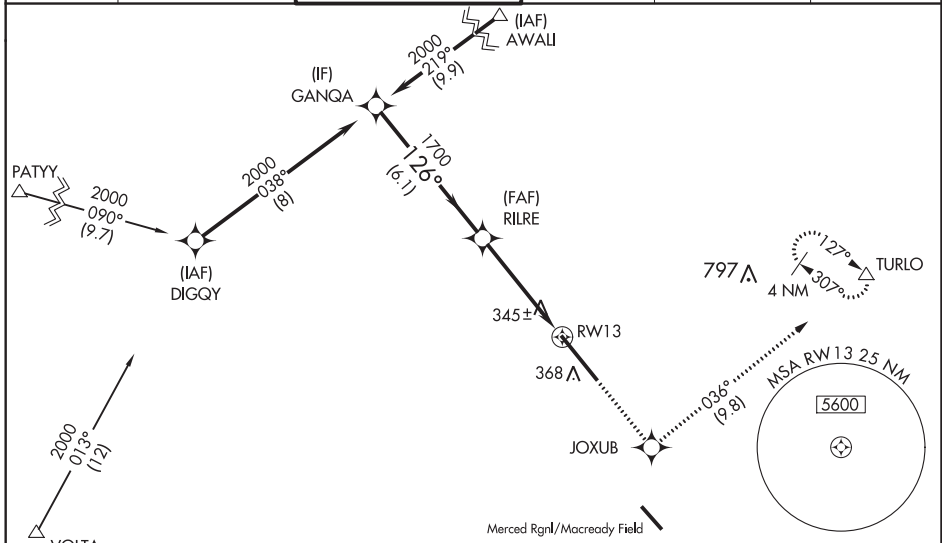
⚠ Circling NA southwest of Rwy 13-31. Baro-VNAV NA when using Merced Rgnl/Macready Field altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. VDP NA when using Merced Rgnl/Macready Field altimeter setting. When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all DA/MDA 20 feet and LNAV/VNAV visibility ¼ mile. For inoperative ALSF-1 increase visibility LPV all Cats and LNAV Cat D to 1¼, and LNAV Cats A and B to 1. For inoperative ALSF-1 when using Merced Rgnl/Macready Field altimeter setting, increase visibility LPV all Cats to 1¼, and LNAV Cats A and B to 1.

ALSF-1



MISSED APPROACH:
Climb to 4000 direct JOXUB and on track 036° to TURLO and hold, continue climb-in-hold to 4000.

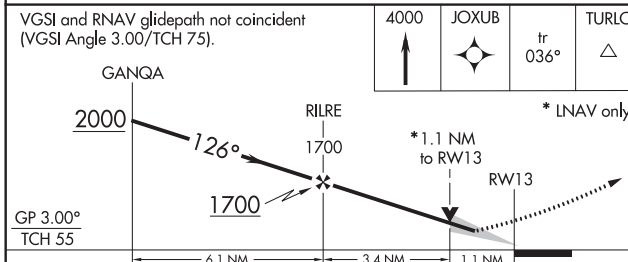
ATIS 124.475	NORCAL APP CON 120.95 269.45	CASTLE TOWER * 118.175 (CTAF) 235.775	GND CON 133.575	UNICOM 122.95	123.0 
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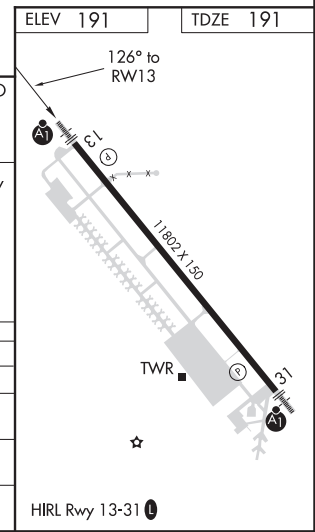
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 191	TDZE 191
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CATEGORY	A	B	C	D
LPV DA		555-¾	364 (400-¾)	
LNAV/VNAV DA		655-1	464 (500-1)	
LNAV MDA	600-¾	409 (500-¾)		600-1 409 (500-1)
CIRCLING	640-1 449 (500-1)	660-1 469 (500-1)	660-1½ 469 (500-1½)	760-2 569 (600-2)



ATWATER, CALIFORNIA
Orig-C 08MAR12

37°23'N-120°34'W

CASTLE (MER)


RNAV (GPS) RWY 13

WAAS CH 87110 W31A	APP CRS 306°	Rwy Idg 11802 TDZE 181 Apt Elev 191
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RNAV (GPS) RWY 31

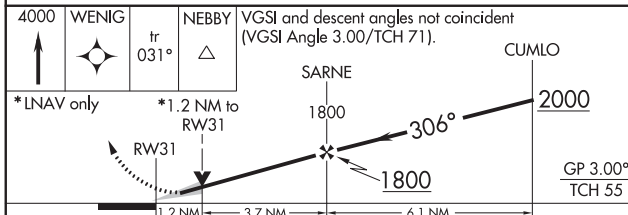
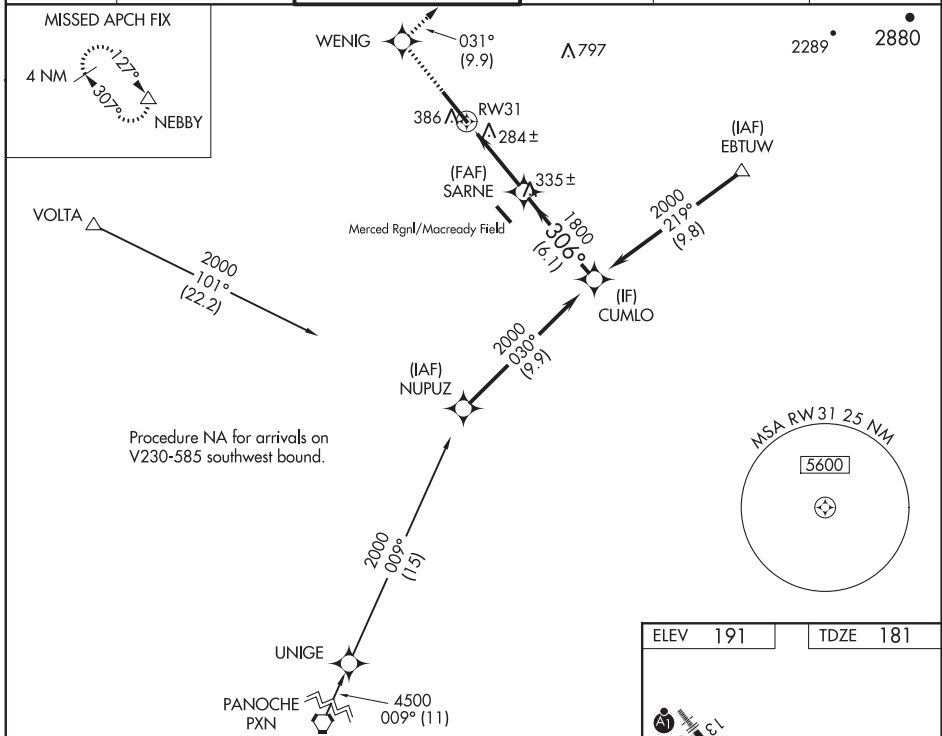
CASTLE (MER)

⚠ Circling NA southwest of Rwy 13-31. 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. VDP and Baro-VNAV NA when using Merced Rgnl/Macready Field altimeter setting. When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all DA/MDA 20 feet.

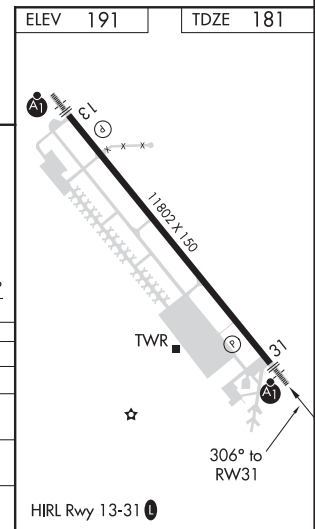
ALSF-1 

MISSED APPROACH: Climb to 4000 direct WENIG and on 031° track to NEBBY and hold, continue climb-in-hold to 4000.

ATIS 124.475	NORCAL APP CON 120.95 269.45	CASTLE TOWER ★ 118.175 (CTAF) 235.775	GND CON 133.575	UNICOM 122.95	123.0
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CATEGORY	A	B	C	D
LPV DA		381-1/2	200 (200-1/2)	
LNAV/VNAV DA		540-3/4	359 (400-3/4)	
LNAV MDA	640-1/2	459 (500-1/2)	640-3/4 459 (500-3/4)	640-1 459 (500-1)
CIRCLING	640-1 449 (500-1)	660-1 469 (500-1)	660-1 1/2 469 (500-1 1/2)	760-2 569 (600-2)



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ATWATER, CALIFORNIA

AL-568 (FAA)

14149

VOR/DME HYP 114.2 Chan 89	APP CRS 305°	Rwy Idg 11802 TDZE 181 Apt Elev 191
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VOR/DME RWY 31

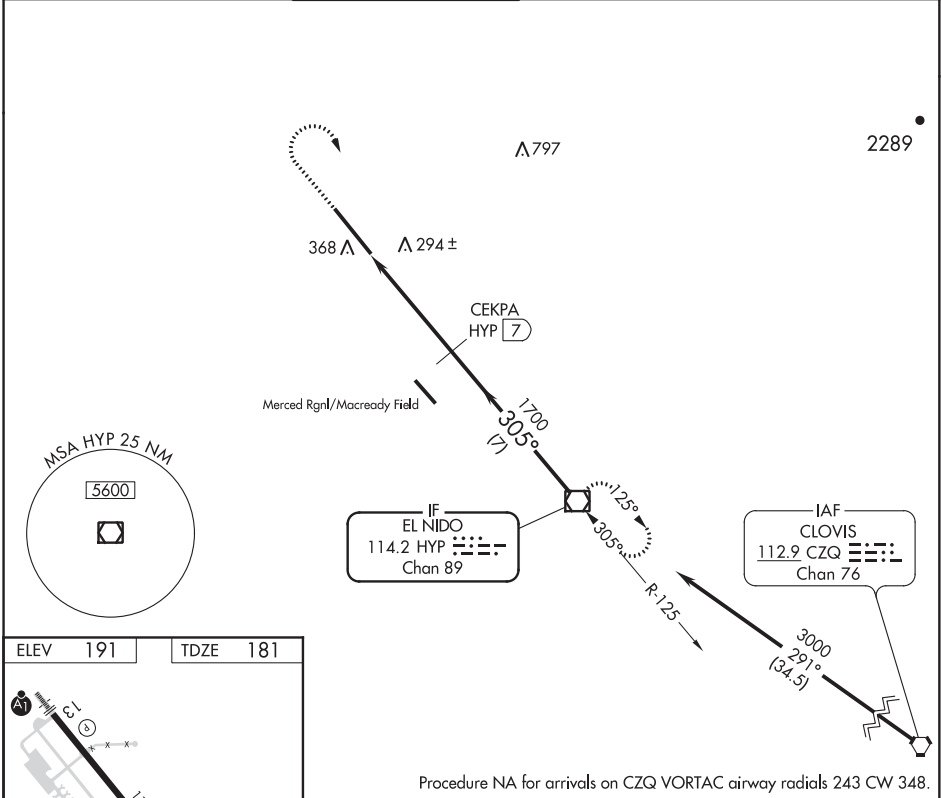
CASTLE (MER)

⚠ When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all MDA 20 feet. VDP NA when using Merced Rgnl/Macready Field altimeter setting. Circling NA southwest of Rwy 13 and 31. For inoperative ALSF-1, increase S-31 Cat D visibility to 1 1/4 mile.



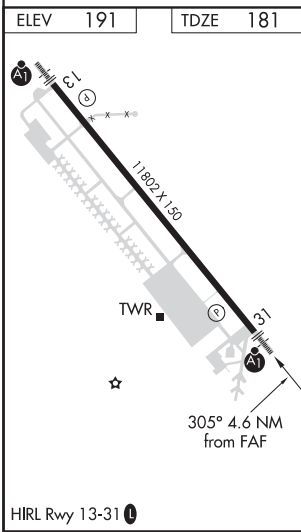
MISSED APPROACH: Climb to 800 then climbing right turn to 3000 direct HYP VOR/DME and hold.

ATIS 124.475	NORCAL APP CON 120.95 269.45	CASTLE TOWER * 118.175 (CTAF) 235.775	GND CON 133.575	UNICOM 122.95	123.0
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



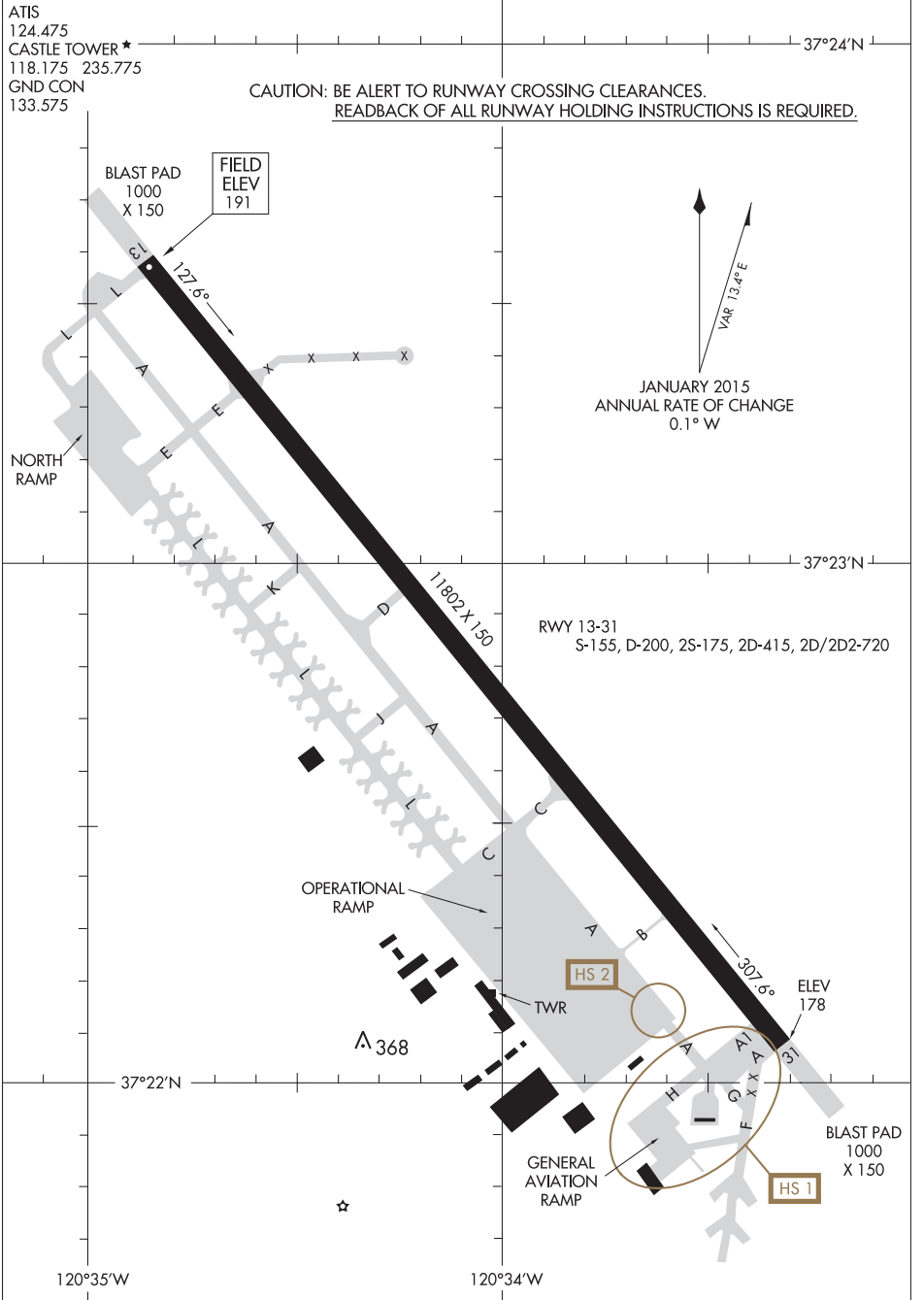
Procedure NA for arrivals on CZQ VORTAC airway radials 243 CW 348.

CATEGORY	A	B	C	D
S-31	560-1/2 379 (400-1/2)		560-1 379 (400-1)	
CIRCLING	640-1 449 (500-1)	660-1 469 (500-1)	660-1 1/2 469 (500-1 1/2)	760-2 569 (600-2)

ATWATER, CALIFORNIA
Amdt 1B 15DEC11

37°23'N-120°34'W

CASTLE (MER) VOR/DME RWY 31



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AUBURN, CALIFORNIA

AL-9143 (FAA)

16035

WAAS CH 90515 W07A	APP CRS 068°	Rwy Idg TDZE Apt Elev	3500 1533 1539
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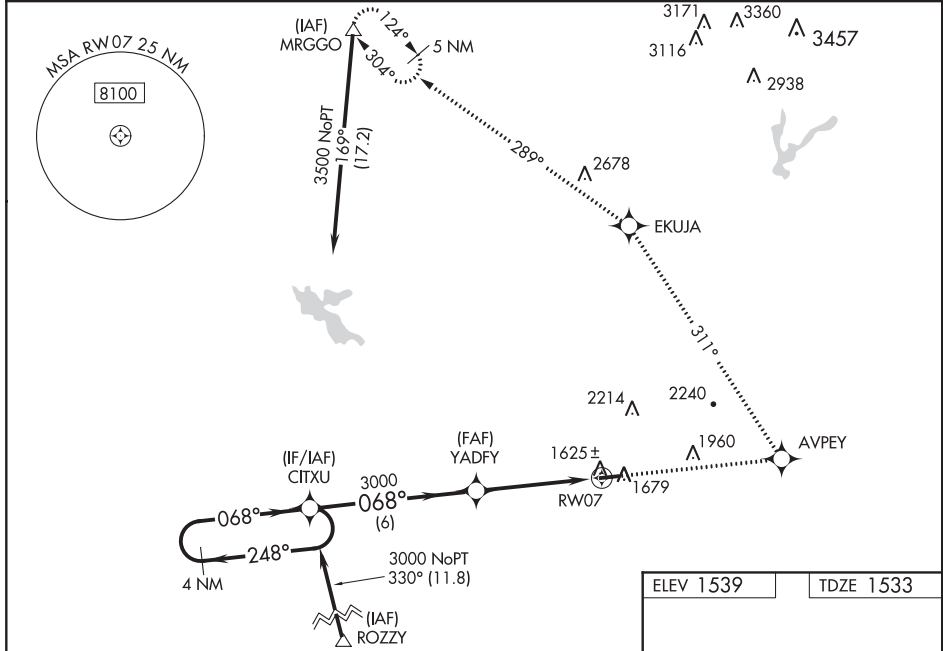
RNAV (GPS) RWY 7

AUBURN MUNI (AUN)

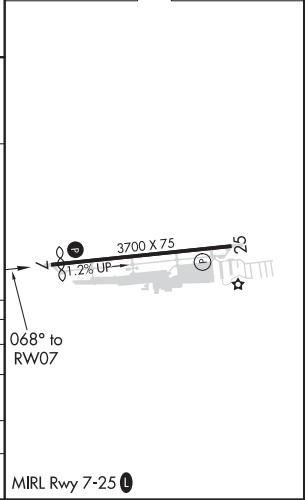
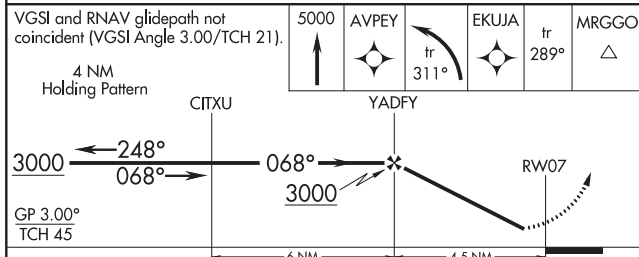
⚠ Baro-VNAV NA when using Lincoln altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received use Lincoln altimeter setting and increase all DA 229 feet and all MDA 240 feet, increase LPV and LNAV/VNAV Cats A/B visibility ¾ mile and LNAV and Circling Cat B visibility ¼ mile. Helicopter visibility reduction below ¾ SM not authorized.

MISSED APPROACH: Climb to 5000 direct AVPEY and left turn via track 311° to EKUJA and via track 289° to MRGGO and hold.

AWOS-3 119.375	NORCAL APP CON 125.4 317.5	UNICOM 122.7 (CTAF) 0
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ELEV 1539	TDZE 1533
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CATEGORY	A	B	C	D
LPV DA	1848-1¼	315 (400-1¼)		NA
LNAV/VNAV DA	1968-1¾	435 (500-1¾)		NA
LNAV MDA	2100-1	567 (600-1)		NA
CIRCLING	2140-1 601 (700-1)	2200-1 661 (700-1)		NA

AUBURN, CALIFORNIA
Orig-A 03APR14

38°57'N-121°05'W

RNAV (GPS) RWY 7

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ILS or LOC/DME RWY 15

LOC I-BAB 109.5	APCH CRS 145°	Rwy Idg THRE 12,001 Arpt Elev 113
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AL-771 [USAF]

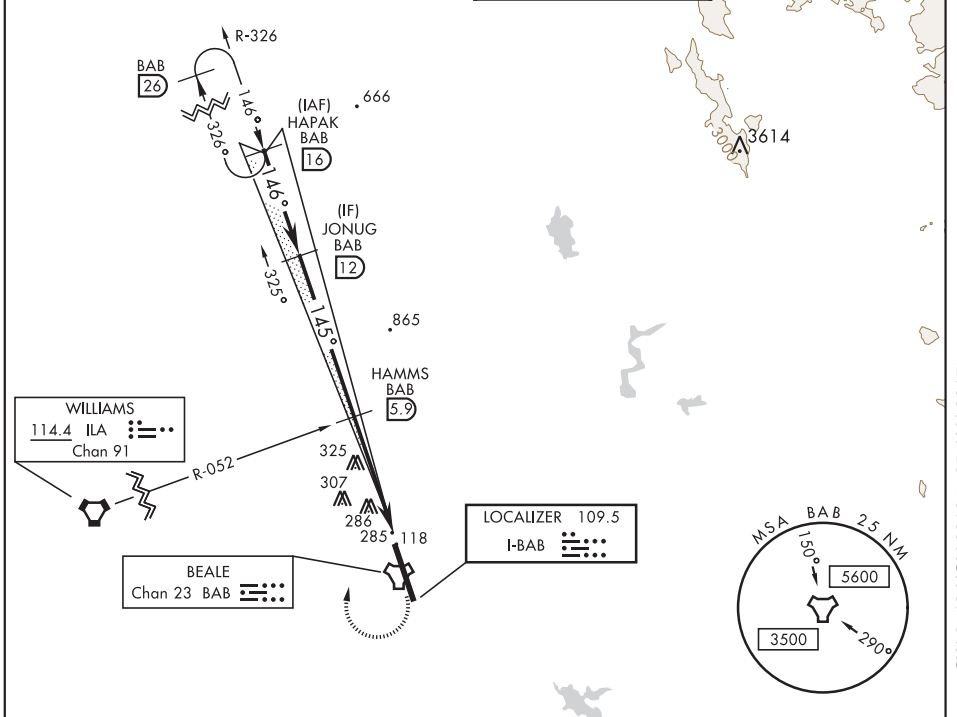
BEALE AFB (KBAB)

▼ * When ALS inop, increase all CAT RVR to 40 and vis to ¾ mile.
 ** When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1 ½ miles.
 *** Circling not authorized E of Rwy 15-33.

ALSF-1 

MISSED APPROACH: Climb to 4400 direct BAB TACAN. Turn right to intercept BAB R-326 to HAPAK and hold, continue climb in hold to 4400.

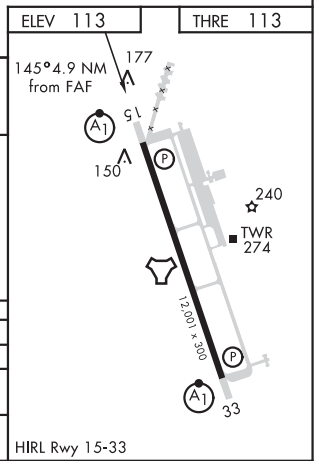
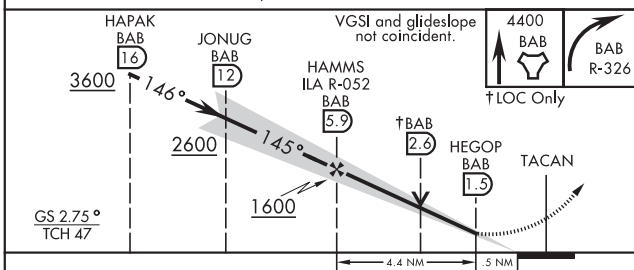
ATIS ★ 124.55 273.5	NORCAL APP CON 125.4 259.1	BEALE TOWER ★ 119.4 284.75	GND CON 121.6 257.75
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 113	THRE 113
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CATEGORY	A	B	C	D	E
S-ILS 15*	313/24		200	(200-½)	
S-LOC 15**	620/24	507 (600-½)	620/55		507 (600-1)
CIRCLING***	620-1 507 (600-1)	640-1 527 (600-1)	660-1½ 547(600-1½)	680-2	567 (600-2)

MARYSVILLE, CALIFORNIA 39°08'N-121°26'W BEALE AFB (KBAB)

Amtd 4 29MAY14

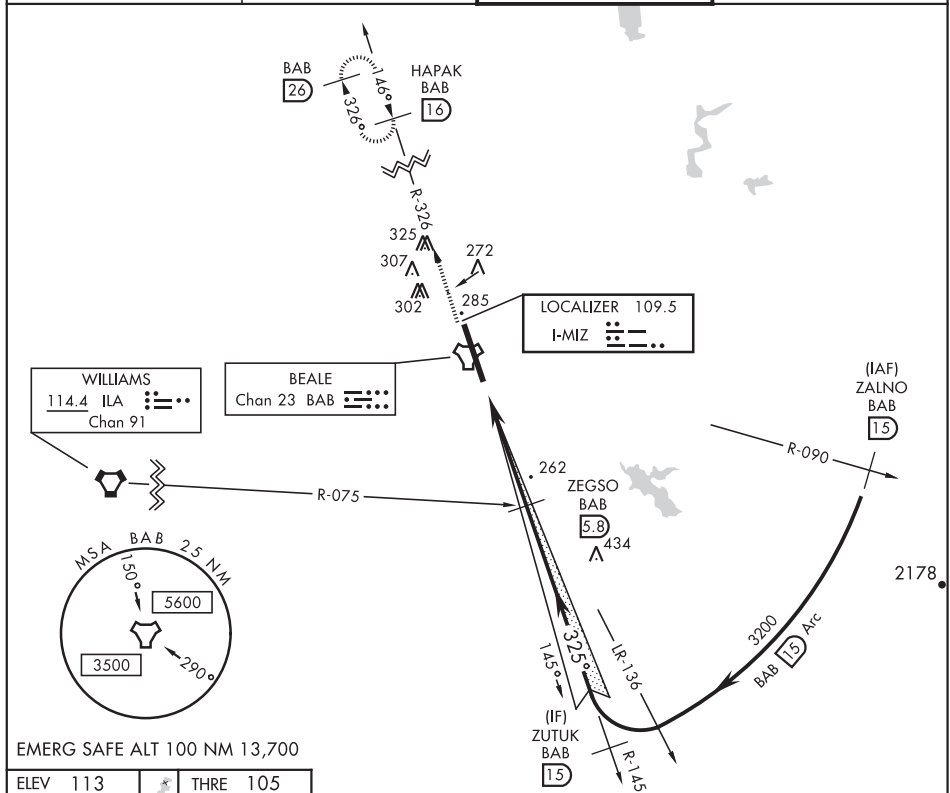
ILS or LOC/DME RWY 15

MARYSVILLE, CALIFORNIA

ILS or LOC/DME RWY 33

LOC I-MIZ 109.5	APCH CRS 325°	Rwy Idg THRE 12,001 Arpt Elev 105 113	AL-771 [USAF]	BEALE AFB (KBAB)
▼ ** When ALS inop, increase CAT ABCDE RVR to 40 and vis to ¾ mile. *** When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE RVR to 60 and vis to 1½ miles. *** Circling not authorized E of Rwy 15-33.			ALS-F1 	MISSED APPROACH: Climb to 3600 intercept BAB TACAN R-326 to HAPAK and hold.

ATIS ★ 124.55 273.5	NORCAL APP CON 125.4 259.1	BEALE TOWER ★ 119.4 284.75	GND CON 121.6 257.75
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EMERG SAFE ALT 100 NM 13,700

ELEV 113	THRE 105	HIRL Rwy 15-33				
		3600 BAB R-326	HAPAK BAB 16	ZEGSO ILA R-075 BAB 5.8	ZUTUK R-145 BAB 15	ZALNO R-090 BAB 15
† LOC Only TACAN ZAPUX BAB 1.5 † BAB 2.1 325° 1700 3200 Arc 8000 GS 3.00° TCH 51						
CATEGORY	A	B	C	D	E	
S-ILS 33 *	305/24		200	(200-½)		
S-LOC 33 **	520/24	415 (500-½)	520/40	415 (500-¾)		
CIRCLING ***	600-1 487 (500-1)	640-1 527 (600-1)	660-1½ 547 (600-1½)	680-2	567 (600-2)	

MARYSVILLE, CALIFORNIA 39°08'N-121°26'W BEALE AFB (KBAB)

Amtd 4 29MAY14

ILS or LOC/DME RWY 33

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

RNAV (GPS) RWY 15

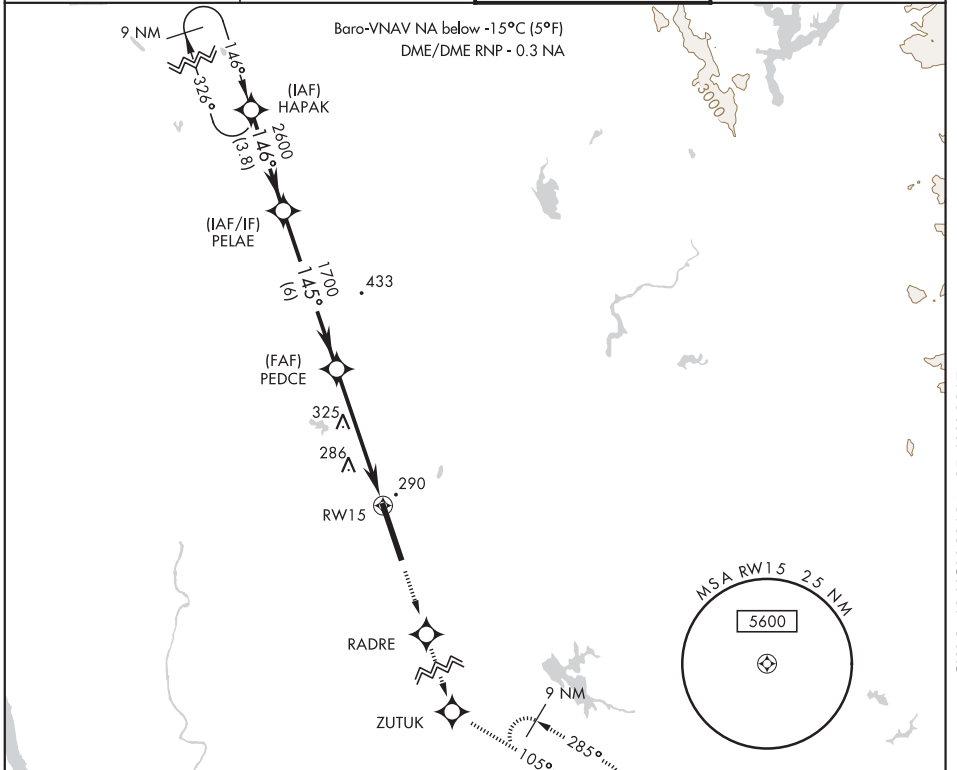
APCH CRS 145°	Rwy ldg 12,001
	THRE 113
	Arpt Elev 113

AL-771 [USAF]

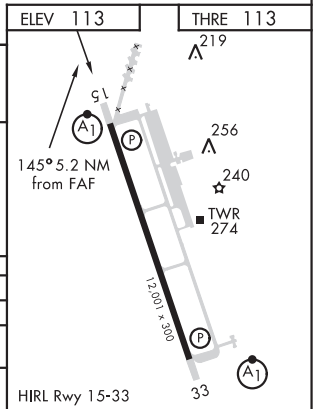
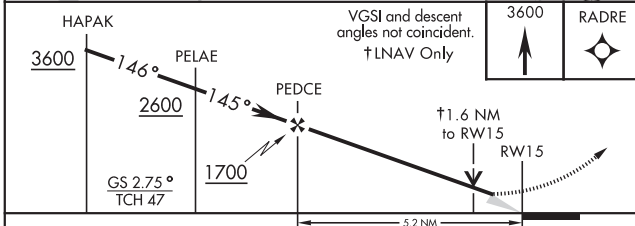
BEALE AFB (KBAB)

<p>▼ * When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1 1/8 miles. ** When ALS inop, increase vis to 2 1/2 miles. *** Circling not authorized E of Rwy 15-33.</p>	<p>ALSF-1 </p>	<p>MISSED APPROACH: Climb direct RADRE, then track 145° to ZUTUK, then turn left and track 105° to RAGTE and hold, maintain 3600.</p>
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<p>ATIS ★ 124.55 273.5</p>	<p>NORCAL APP CON 125.4 259.1</p>	<p>BEALE TOWER ★ 119.4 284.75</p>	<p>GND CON 121.6 257.75</p>
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EMERG SAFE ALT 100 NM 13,700	ELEV 113	THRE 113
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CATEGORY	A	B	C	D	E
LNAV MDA *	620/24	507 (600-1/2)	620/55	507	(600-1)
LNAV/VNAV ** DA	680-1 1/8		567	(600-1 1/8)	
CIRCLING ***	620-1 507 (600-1)	640-1 527 (600-1)	660-1 1/2 547 (600-1 1/2)	680-2	567 (600-2)

MARYSVILLE, CALIFORNIA 39°08'N-121°26'W BEALE AFB (KBAB)

Amdt 1 29MAY14

RNAV (GPS) RWY 15

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

MARYSVILLE, CALIFORNIA

RNAV (GPS) RWY 33

APCH CRS 325°	Rwy ldg 12,001
	THRE 105
	Arpt Elev 113

AL-771 [USAF]

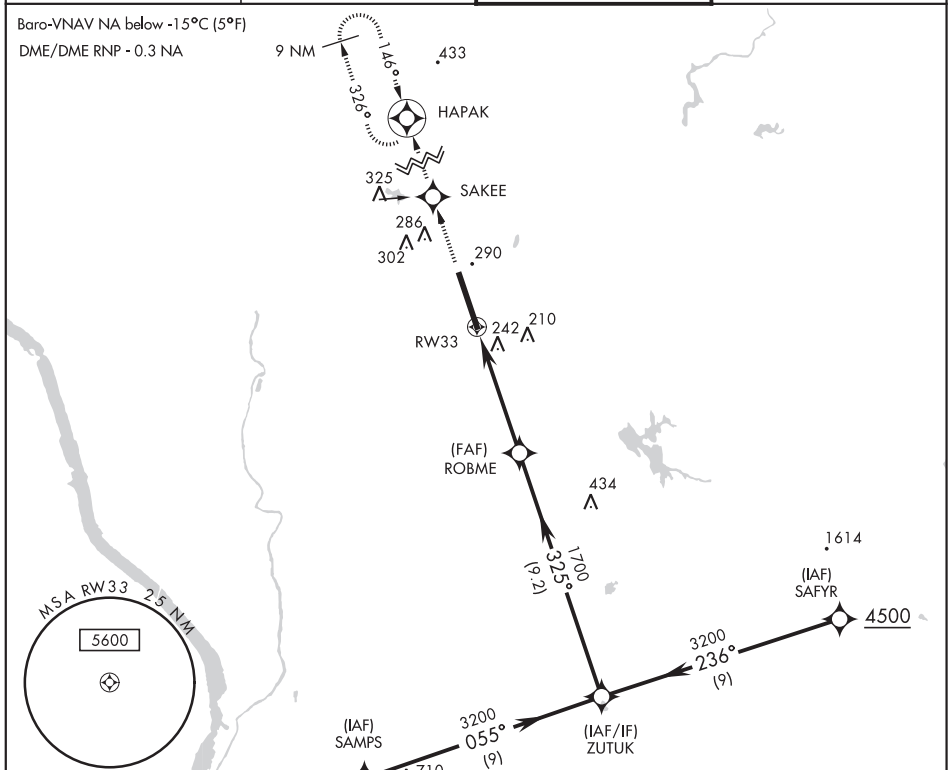
BEALE AFB (KBAB)

▼ * When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1¼ miles.
 ** When ALS inop, increase all CAT's vis to 17/8 miles.
 *** Circling not authorized E of Rwy 15-33.

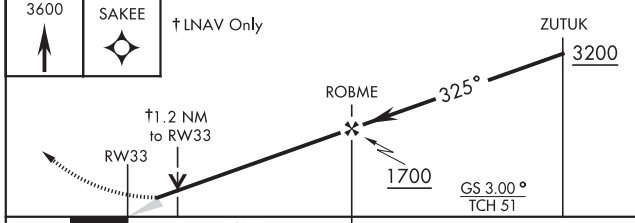


MISSED APPROACH: Climb direct SAKEE, then track 326° to HAPAK and hold, maintain 3600.

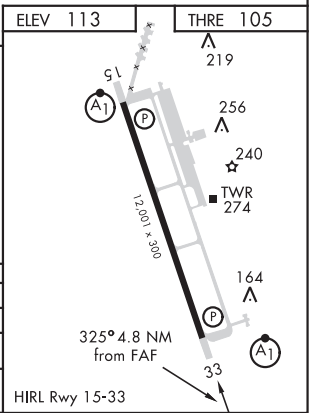
ATIS * 124.55 273.5	NORCAL APP CON 125.4 259.1	BEALE TOWER * 119.4 284.75	GND CON 121.6 257.75
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EMERG SAFE ALT 100 NM 13,700



CATEGORY	A	B	C	D	E
LNAV MDA *	540/24	435 (500-½)	540/40	435 (500-¾)	
LNNAV/VNAV **	640-1¾		535	(600-1¾)	
DA	600-1	640-1	660-1½	680-2	567 (600-2)
CIRCLING ***	487 (500-1)	527 (600-1)	547 (600-1½)		



MARYSVILLE, CALIFORNIA
Amdt 1 29MAY14

39°08'N-121°26'W

BEALE AFB (KBAB)

RNAV (GPS) RWY 33

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TACAN RWY 15

TACAN BAB Chan 23	APCH CRS 153°	Rwy ldg 12,001 THRE 113 Arpt Elev 113
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AL-771 [USAF]

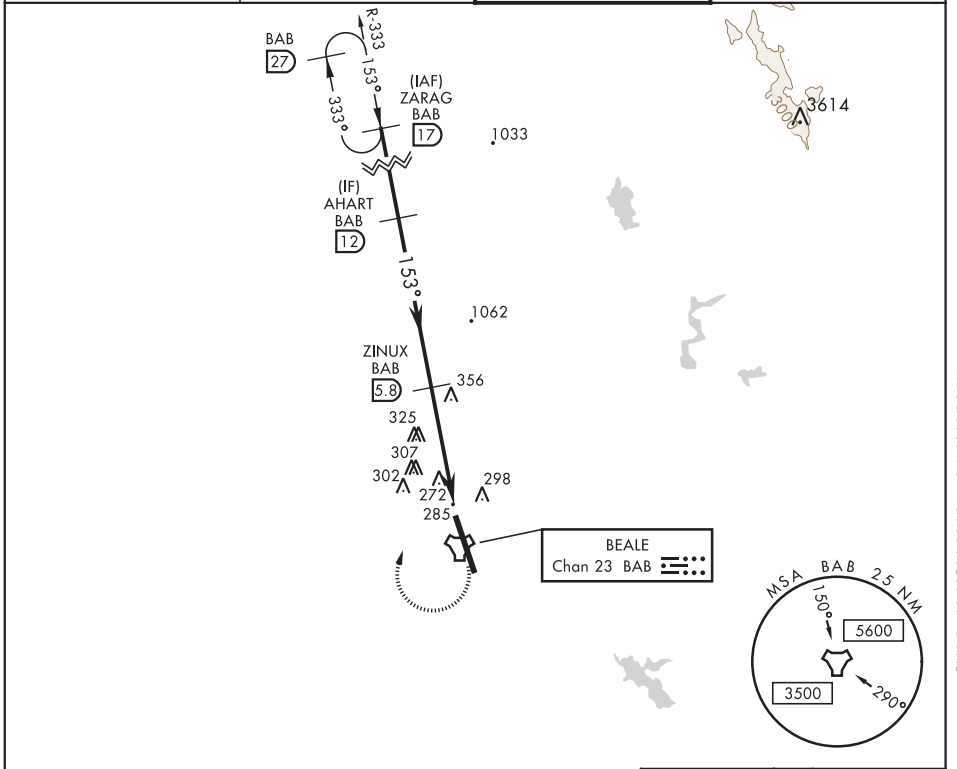
BEALE AFB (KBAB)

▼ * When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1½ miles.
** Circling not authorized E of Rwy 15-33.



MISSED APPROACH: Climb to 4500 direct to BAB TACAN. Turn right to intercept BAB R-333 to ZARAG and hold, continue climb in hold to 4500.

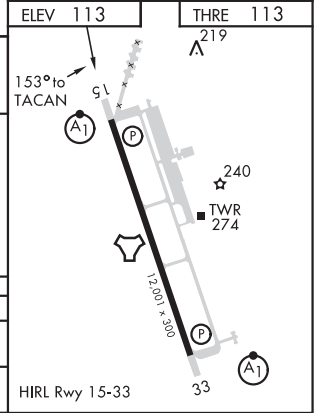
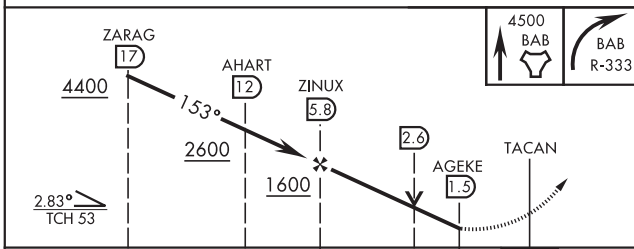
ATIS ★ 124.55 273.5	NORCAL APP CON 125.4 259.1	BEALE TOWER ★ 119.4 284.75	GND CON 121.6 257.75
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 13,700



CATEGORY	A	B	C	D	E
S-15 *	640/24	527 (600-½)	640/55	527	(600-1)
CIRCLING **	640-1	527 (600-1)	660-1½ 547(600-1½)	680-2	567 (600-2)

HIRL Rwy 15-33

TACAN RWY 15

MARYSVILLE, CALIFORNIA

TACAN RWY 33

TACAN Chan 23	APCH CRS 317°	Rwy Idg THRE 12,001 Arpt Elev 113
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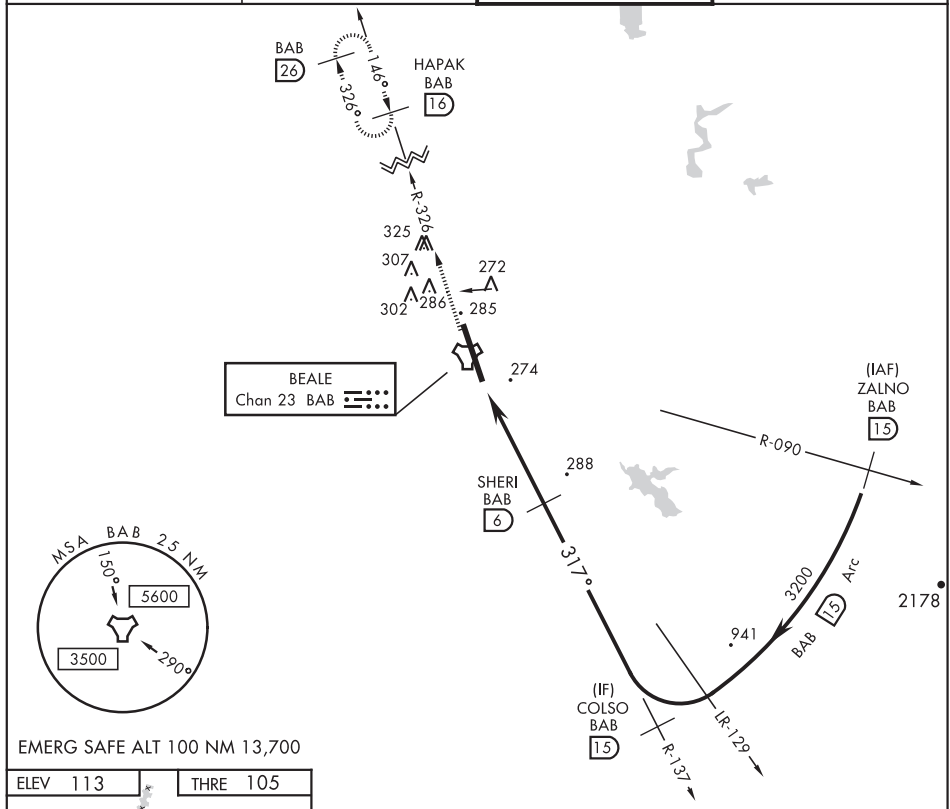
AL-771 [USAF]

BEALE AFB (KBAB)

▼ * When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1 1/4 miles.
** Circling not authorized E of Rwy 15-33.

ALSF-1 MISSED APPROACH: Climb to 3600 intercept BAB TACAN R-326 to HAPAK and hold.

ATIS ★ 124.55 273.5	NORCAL APP CON 125.4 259.1	BEALE TOWER ★ 119.4 284.75	GND CON 121.6 257.75
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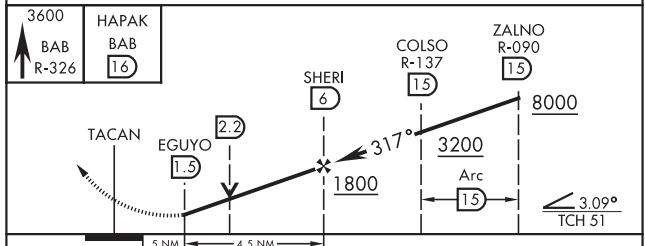
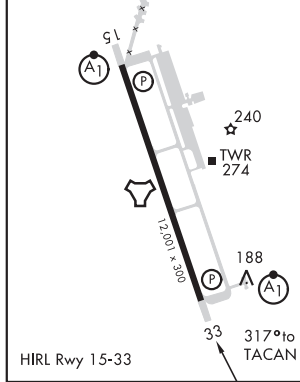


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 13,700

ELEV 113	THRE 105
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CATEGORY	A	B	C	D	E
S-33*	540/24	435 (500-1/2)	540/40	435	(500-3/4)
CIRCLING**	600-1 487 (500-1)	640-1 527 (600-1)	660-1 1/2 547 (600-1 1/2)	680-2	567 (600-2)

MARYSVILLE, CALIFORNIA
Amdt 4 29MAY14

39°08'N-121°26'W

BEALE AFB (KBAB)

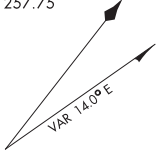
TACAN RWY 33

AIRPORT DIAGRAM

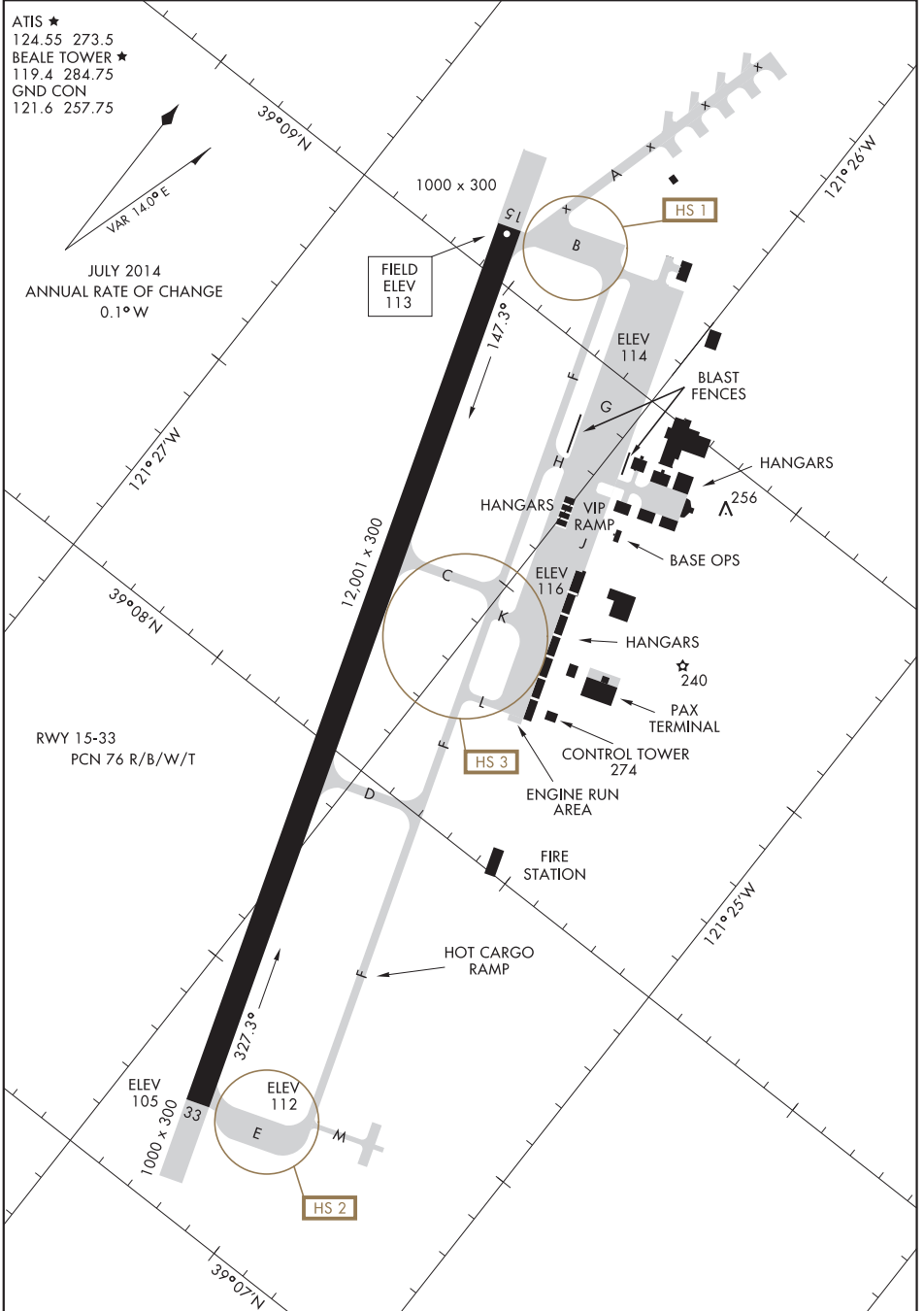
AFD-771 [USAF]

BEALE AFB (KBAB)
MARYSVILLE, CALIFORNIA

ATIS ★
 124.55 273.5
 BEALE TOWER ★
 119.4 284.75
 GND CON
 121.6 257.75



JULY 2014
 ANNUAL RATE OF CHANGE
 0.1° W



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

MARYSVILLE, CALIFORNIA
BEALE AFB (KBAB)

14149

PYNUN-SIX DEPARTURE (PYNUN6 • PYNUN)

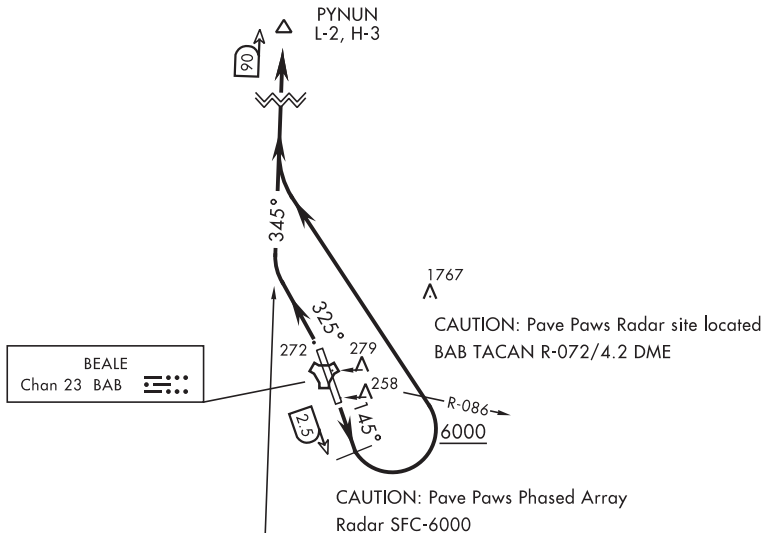
BEALE AFB (KBAB)
MARYSVILLE, CALIFORNIA

6768

ATIS ★
 124.55 273.5
 GND CON
 121.6 257.75
 BEALE TOWER ★
 119.4 284.75
 NORCAL DEP CON
 125.4 259.1

SHL-771 [USAF]

PYNUN
L-2, H-3



FOR USE BY 9 RW AIRCRAFT ONLY

Ⓐ to 3400

Ⓑ to 6000 * Minimum Climb Rate † ATC Climb Rate

Rwy	Knots	60	120	180	240	300	360
* 15 Ⓐ	V/V(fpm)	227	454	681	908	1135	1362
† 15 Ⓑ	V/V(fpm)	534	1068	1602	2136	2670	3204

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 15: Fly heading 145° until BAB TACAN 2.5 DME, turn left intercept SAC VORTAC R-345 to PYNUN. Cross BAB R-086 at or above 6000. Then via assigned route.

TAKE-OFF RWY 33: Fly heading 325° intercept SAC VORTAC R-345 to PYNUN. Then via assigned route.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	4651
267°	TDZE	4896
	Apt Elev	4900

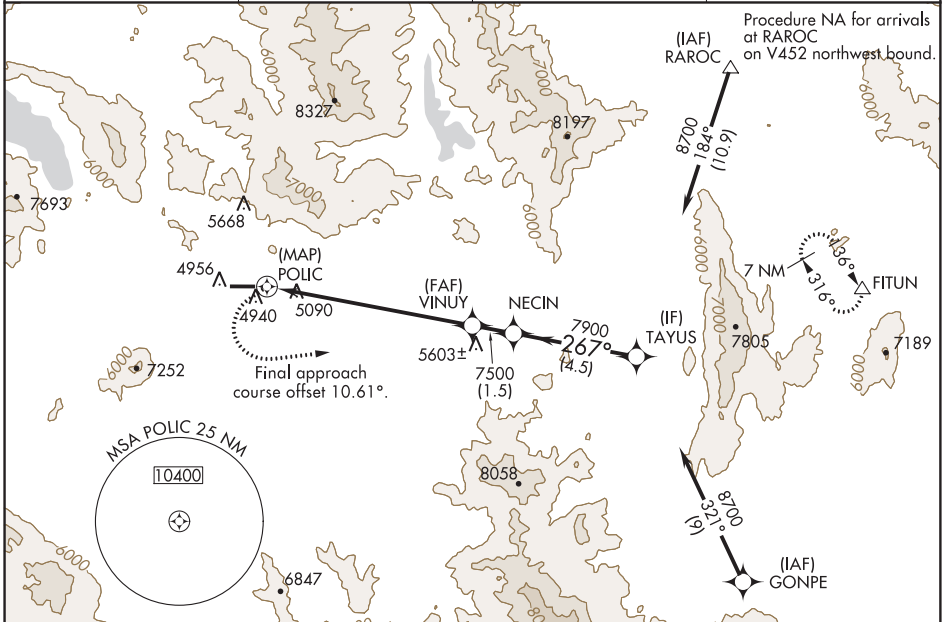
RNAV (GPS) Y RWY 26

NERVINO (O02)

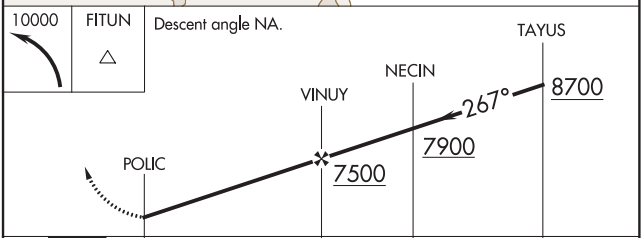
NA Circling NA at night. Use Reno/Stead altimeter setting; when not received, use Reno/Tahoe Inlt altimeter setting and increase all MDA 180 feet. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climbing left turn to 10000 direct FITUN and hold.

AWOS-2 119.35	RENO/STEAD AWOS-A 135.175	NORCAL APP CON 126.3 353.9	UNICOM 122.8 (CTAF)
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ELEV 4900	TDZE 4896
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CATEGORY	A	B	C	D
INAV MDA	7300-1¼ 2404 (2400-1¼)	7300-1½ 2404 (2400-1½)	7300-3	2404 (2400-3)
CIRCLING	7300-1¼ 2400 (2400-1¼)	7300-1½ 2400 (2400-1½)	7300-3	2400 (2400-3)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 49203 W26A	APP CRS 256°	Rwy Idg TDZE 4651 Apt Elev 4900
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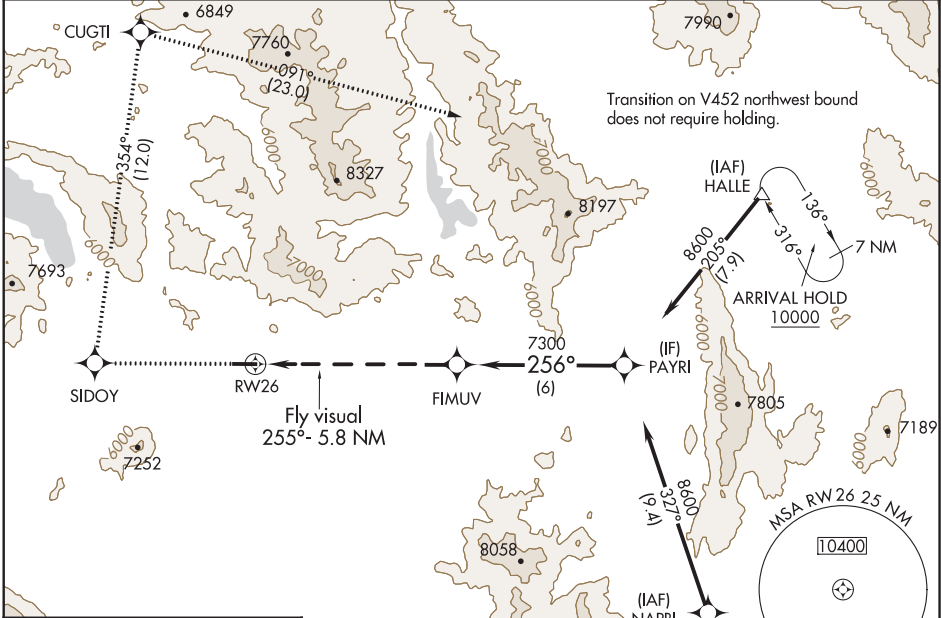
RNAV (GPS) Z RWY 26

NERVINO (002)

NA Use Reno/Stead altimeter setting; when not received, use Reno/Tahoe Intl altimeter setting and increase DA 180 feet.
DME/DME RNP -0.3 NA.
Helicopter visibility reduction below 3/4 SM not authorized.

MISSED APPROACH: Climb to 10000 direct SIDOY and right turn on track 354° to CUGTI and right turn on track 091° to HALLE and hold.

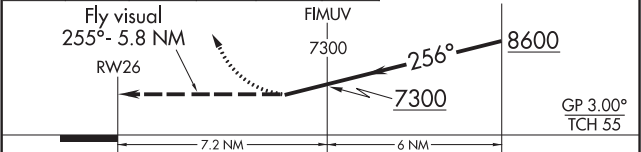
AWOS-2 119.35	RENO/STEAD AWOS-A 135.175	NORCAL APP CON 126.3 353.9	UNICOM 122.8 (CTAF) 0
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ELEV 4900	TDZE 4896
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10000	SIDOY	CUGTI	HALLE	VERGI
↑	✦	✦ tr 354°	✦ tr 091°	△



CATEGORY	A	B	C	D
LPV DA	6787-2	1891 (1900-2)	6787-3	1891 (1900-3)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

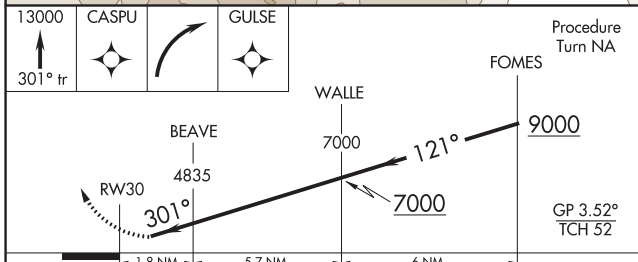
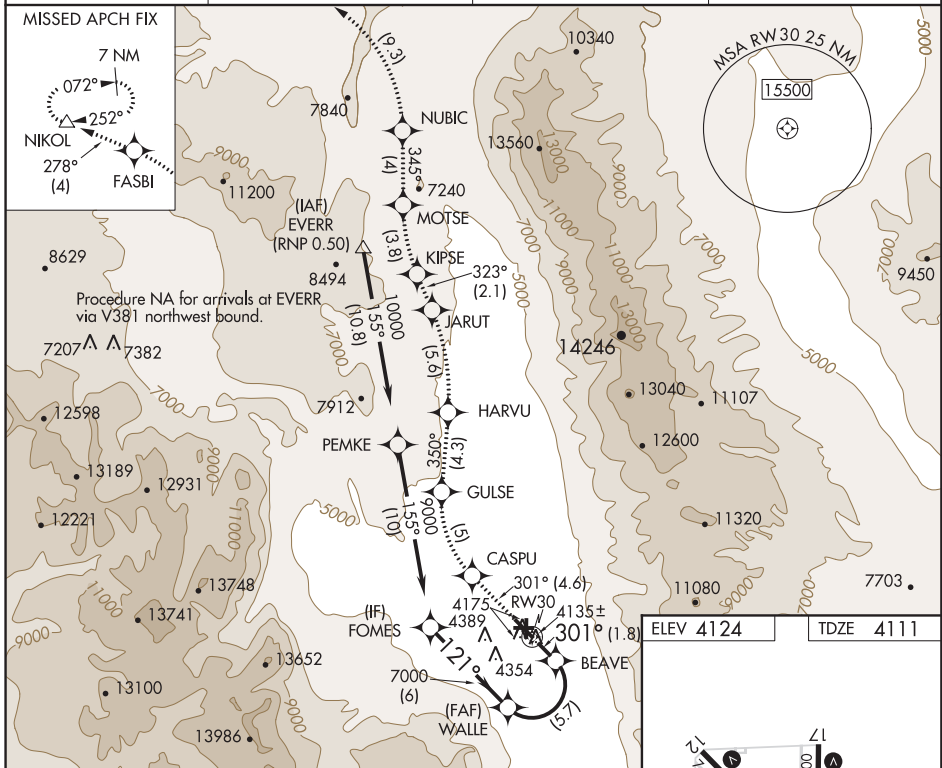
APP CRS 301°	Rwy Idg TDZE Apt Elev	7498 4111 4124
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RNAV (RNP) RWY 30

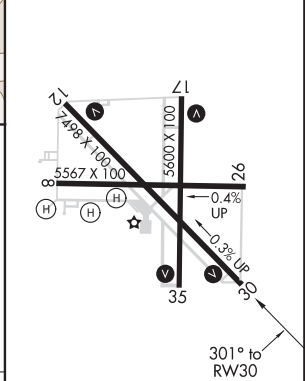
BISHOP (BIH)

NA -09°C/16°F	RF and GPS required. For uncompensated Baro-VNAV systems, procedure NA below -12°C (11°F) or above 38°C (100°F).	MISSED APPROACH: Climb to 13000 via 301° track to CASPU, right turn to GULSE, 350° track to HARVU, left turn to JARUT, 323° track to KIPSE, right turn to MOTSE, 345° track to NUBIC, left turn to FASBI, 278° track to NIKOL and hold.
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ASOS 119.025	OAKLAND CENTER 125.75 284.65	RIVERSIDE RADIO 122.6	UNICOM 123.0 (CTAF)
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ELEV 4124	TDZE 4111
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CATEGORY	A	B	C	D
RNP 0.30 DA	4434-1	323 (400-1)		NA

AUTHORIZATION REQUIRED

MIRL Rwy 8-26

HIRL Rwy 12-30 and 17-35

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

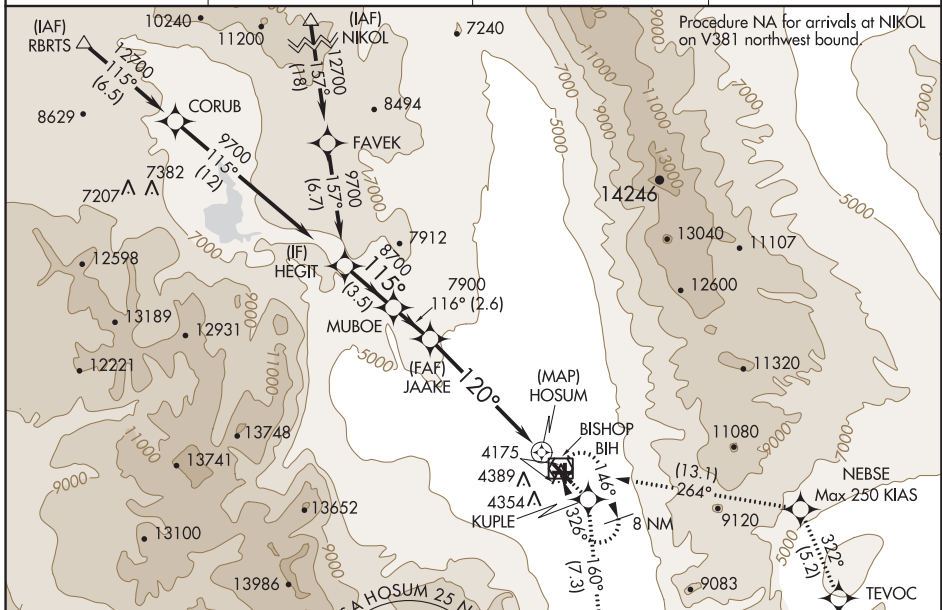
APP CRS	Rwy Idg	7498
120°	TDZE	4123
	Apt Elev	4124

RNAV (GPS) Y RWY 12

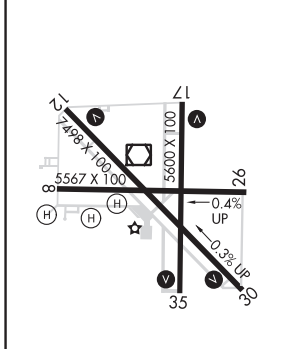
BISHOP (BIH)

	DME/DME RNP-0.3 NA	MISSED APPROACH: (Do not exceed 250 KIAS until NEBSE) Climb to 3000 direct KUPLE and on track 160° to ROCOS and on track 115° to PULIE and on track 051° to WEBAT and on track 341° to TEVOC and on track 322° to NEBSE and on track 264° to BIH VOR/DME and hold.
		-09°C/16°F

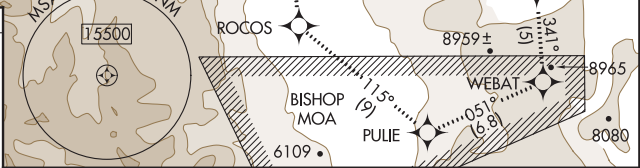
ASOS 119.025	OAKLAND CENTER 125.75 284.65	RIVERSIDE RADIO 122.6	UNICOM 123.0 (CTAF)
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ELEV 4124	TDZE 4123
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MIRL Rwy 8-26	
HIRL Rwy 12-30 and 17-35	



HEGIT	MUBOE	JAAKE	HOSUM
9700	8700	7900	
115°	116°	120°	
3.5 NM	2.6 NM	8.5 NM	1 NM

CATEGORY	A	B	C	D
LNAV MDA	6600-1¼ 2477 (2500-1¼)	6600-1½ 2477 (2500-1½)	6600-3 2477 (2500-3)	NA
CIRCLING	6600-1¼ 2476 (2500-1¼)	6600-1½ 2476 (2500-1½)	6600-3 2476 (2500-3)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

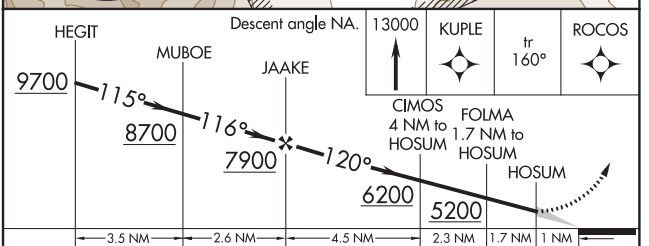
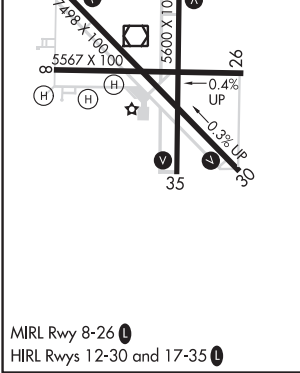
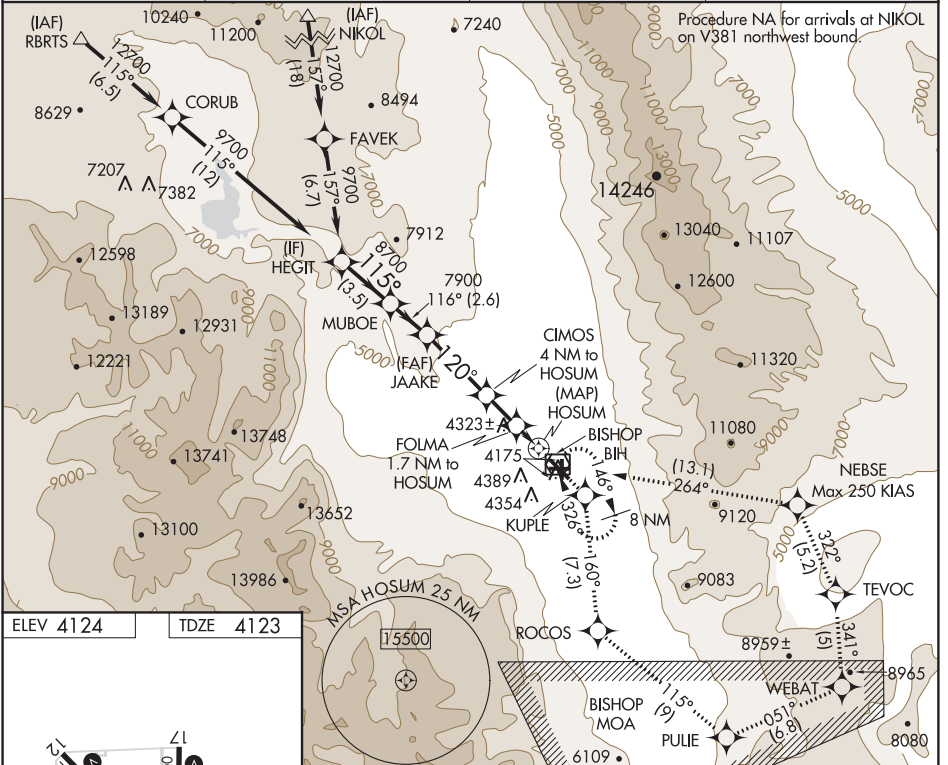
APP CRS	Rwy Idg	7498
120°	TDZE	4123
	Apt Elev	4124

RNAV (GPS) Z RWY 12

BISHOP (BIH)

	DME/DME RNP-0.3 NA	MISSED APPROACH: (Do not exceed 250 KIAS until NEBSE) Climb to 13000 direct KUPLE and on track 160° to ROCOS and on track 115° to PULIE and on track 051° to WEBAT and on track 341° to TEVOC and on track 322° to NEBSE and on track 264° to BIH VOR/DME and hold.
	Missed approach requires minimum climb of 325 feet per NM to 11000; if unable, see RNAV (GPS) Y RWY 12.	

ASOS 119.025	OAKLAND CENTER 125.75 284.65	RIVERSIDE RADIO 122.6	UNICOM 123.0 (CTAF)
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CATEGORY	A	B	C	D
LNAV MDA	4580-1¼	457 (500-1¼)		NA
CIRCLING	6420-1¼ 2296 (2300-1¼)	6420-1½ 2296 (2300-1½)	6420-3 2296 (2300-3)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

BISHOP, CALIFORNIA

AL-5737 (FAA)

16203

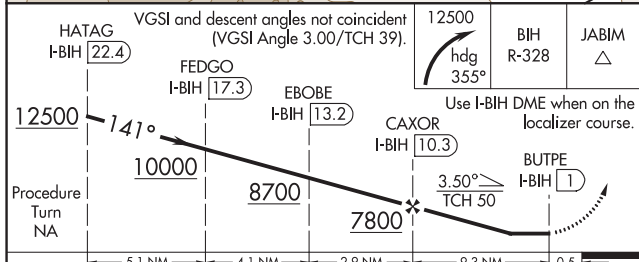
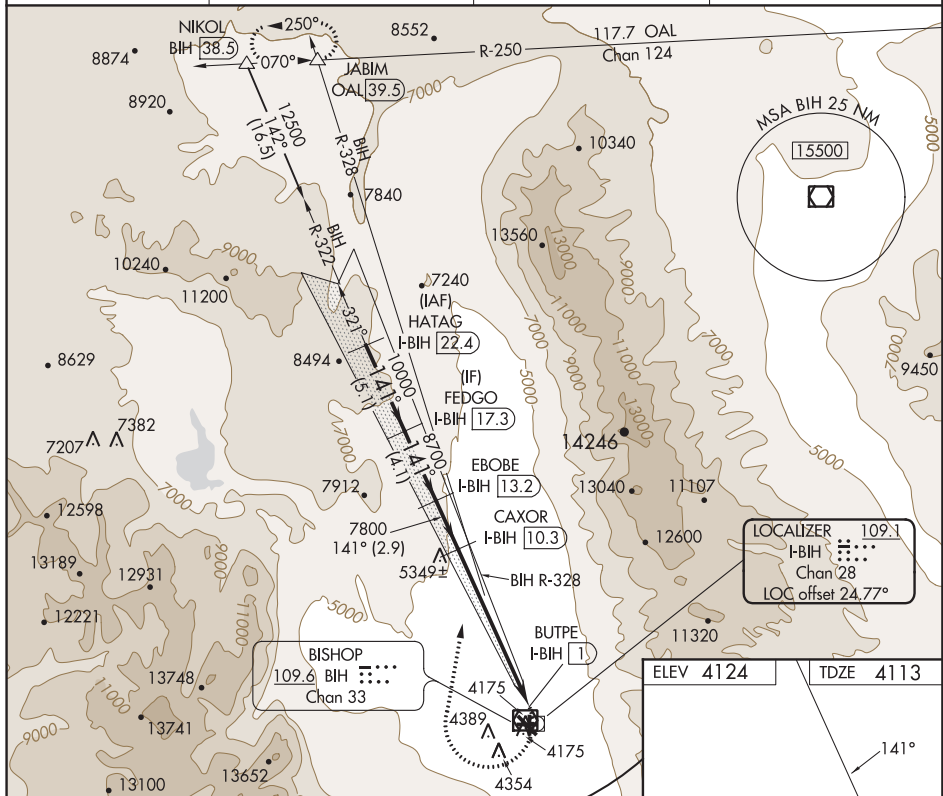
LOC/DME I-BIH 109.1 Chan 28	APP CRS 141°	Rwy Idg TDZE Apt Elev	5600 4113 4124
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LDA/DME RWY 16

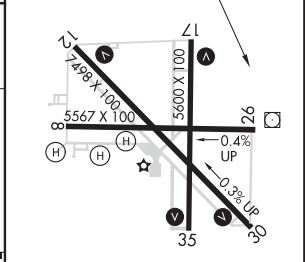
BISHOP (BIH)

-09°C/16°F			
MISSED APPROACH: Climbing right turn to 12500 via heading 355° and via BIH VOR/DME R-328 to JABIM INT/OAL 39.5 DME and hold.			

ASOS 119.025	OAKLAND CENTER 125.75 284.65	RIVERSIDE RADIO 122.6	UNICOM 123.0 (CTAF)
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ELEV 4124	TDZE 4113
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CATEGORY	A	B	C	D
S-16	6340-1¼ 2227 (2300-1¼)	6340-1½ 2227 (2300-1½)	6340-3	2227 (2300-3)
CIRCLING	6340-1¼ 2216 (2300-1¼)	6340-1½ 2216 (2300-1½)	6340-3	2216 (2300-3)

MIRL Rwy 8-26
HIRL Rwy 12-30 and 17-35

BISHOP, CALIFORNIA
Orig-B 10DEC15

37°22'N-118°22'W

LDA/DME RWY 16

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

VOR/DME BIH 109.6 Chan 33	APP CRS 142°	Rwy Idg TDZE N/A N/A Apt Elev 4120
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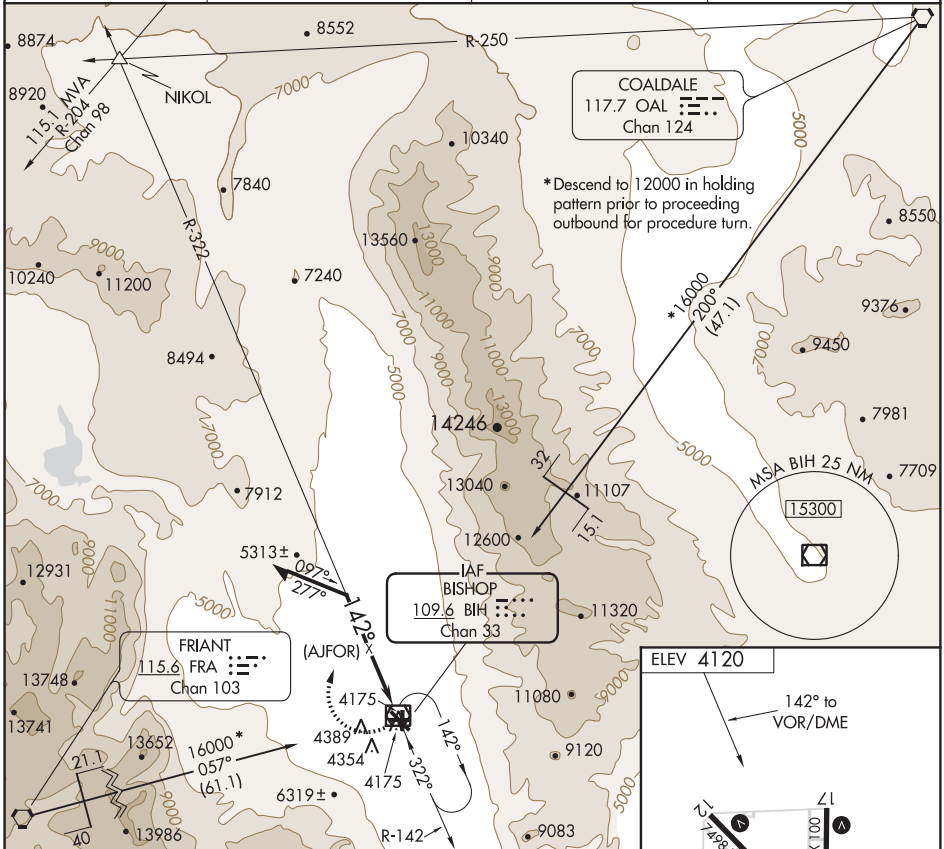
VOR or GPS-A

BISHOP (BIH)

-09°C/16°F

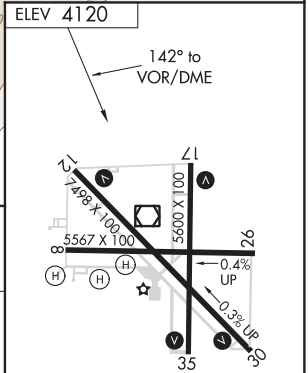
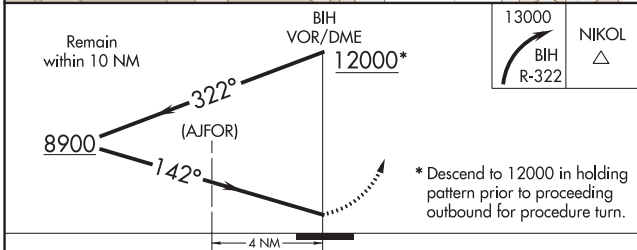
MISSED APPROACH: Climbing right turn to 13000 via BIH R-322 to NIKOL INT.

ASOS 119.025	OAKLAND CENTER 125.75 284.65	RIVERSIDE RADIO 122.6	UNICOM 123.0 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	7400-1¼ 3280 (3300-1¼)	7400-1½ 3280 (3300-1½)	7400-3	3280 (3300-3)

MIRL Rwy 8-26

HIRL Rwy 12-30 and 17-35

BYRON, CALIFORNIA

AL-9141 (FAA)

16035

WAAS CH 65902 W30A	APP CRS 300°	Rwy Idg TDZE Apt Elev	4500 55 79
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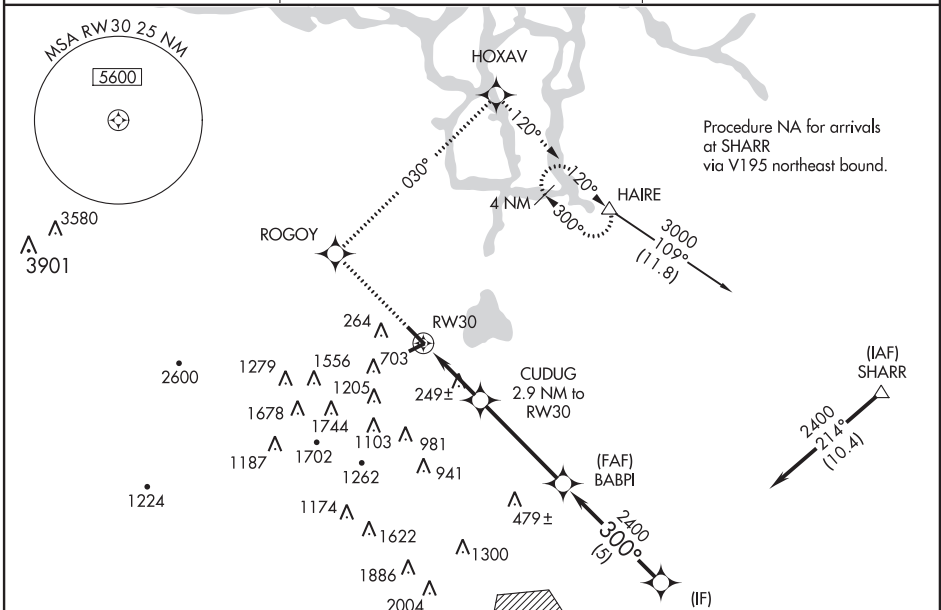
RNAV (GPS) RWY 30

BYRON (C83)

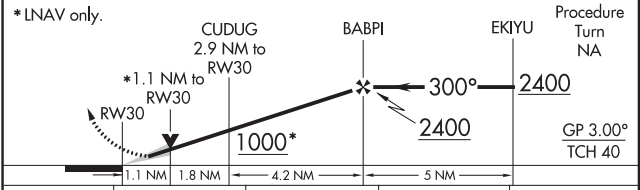
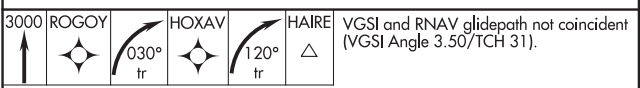
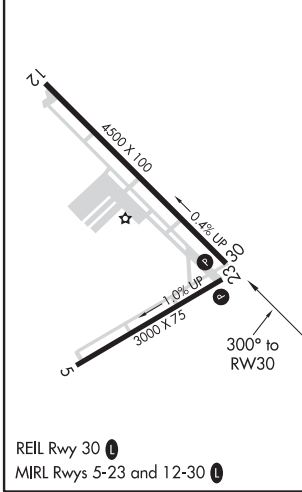
⚠ Circling to Rwy 5, 12 NA at night. Circling NA SW of Rwy 12-30.
⚠ NA If local altimeter setting not received, use Stockton Metropolitan altimeter setting and increase all DA/MDAs 60 feet.
⚠ DME/DME RNP-0.3 NA.
 VDP NA when using Stockton Metropolitan altimeter setting.

MISSED APPROACH: Climb to 3000 direct ROGOY and right turn via 030° track to HOXAV and right turn via 120° track to HAIRE and hold, continue climb-in-hold to 3000.

AWOS-3 123.775	NORCAL APP CON 123.85 278.3	UNICOM 123.05 (CTAF)
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ELEV 79	TDZE 55
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CATEGORY	A	B	C	D
LPV DA	305-1	250 (300-1)		NA
RNAV MDA	500-1	445 (500-1)		NA
CIRCLING	520-1 441 (500-1)	540-1 461 (500-1)		NA

BYRON, CALIFORNIA
 Orig-A 20DEC07

37°50'N-121°38'W

RNAV (GPS) RWY 30

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC I-CIC 111.3	APP CRS 131°	Rwy Idg 6724
		TDZE 240
		Apt Elev 240

ILS or LOC/DME RWY 13L

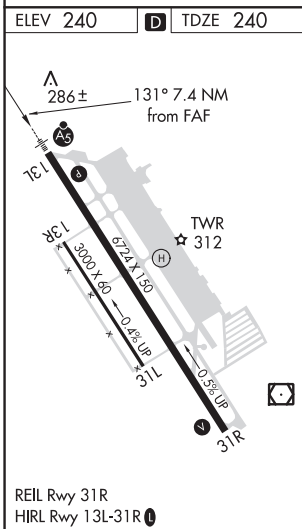
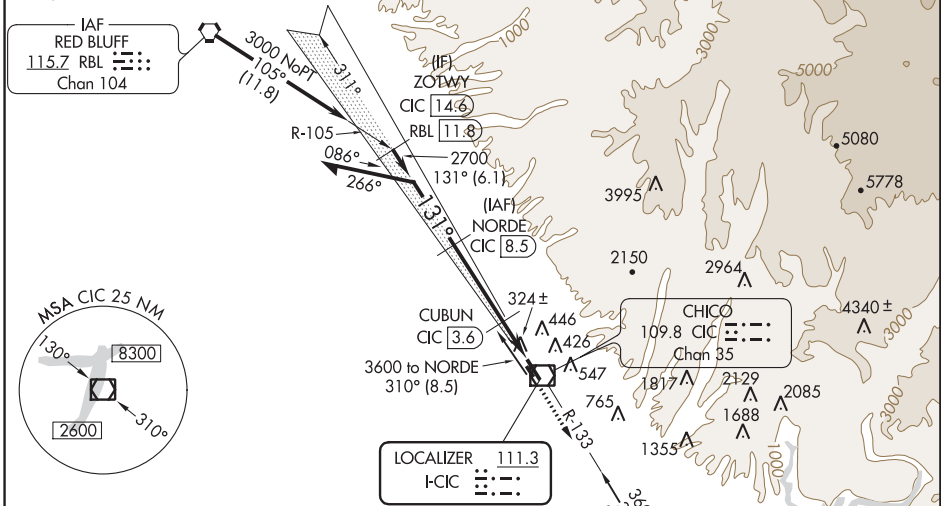
CHICO MUNI (CIC)

NA Circling NA east of Rwy 13L/31R. DME from CIC VOR/DME. Simultaneous reception of I-CIC and CIC DME required. When local altimeter setting not received, use Red Bluff Muni altimeter setting and increase all DA 81 feet and all MDA 100 feet. Increase S-LOC 13L Cat. C and D visibility 1/4 mile. For inoperative MALSRS, increase S-LOC Cat. D visibility 1/4 mile. For inoperative MALSRS when using Red Bluff Muni altimeter setting, increase S-ILS 13L all Cats. visibility 1/2 mile.

MALSRS
MISSED APPROACH: Climb to 3600 via CIC VOR/DME R-133 to UNJED/CIC 11.4 DME and hold, continue climb-in-hold to 3600.

ATIS 119.675	OAKLAND CENTER 132.2 350.3	CHICO TOWER ★ 121.0 (CTAF) 0 239.3	GND CON 121.9	UNICOM 122.95
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Procedure NA for arrivals on Red Bluff VORTAC airway radials 122 CW 161.



DME REQUIRED

Remain within 10 NM	NORDE CIC 8.5	3600	UNJED CIC 11.4
3100	311°	2700	CUBUN CIC 3.6
2700	131°		CIC 1.1
GS 3.00° TCH 52		*1080	
		4.9 NM	2.5 NM

CATEGORY	A	B	C	D
S-ILS 13L		440-1/2	200 (200-1/2)	
S-LOC 13L		580-1/2	340 (400-1/2)	580-3/4 340 (400-3/4)
CIRCLING	640-1 400 (400-1)	700-1 460 (500-1)	700-1/2 460 (500-1/2)	800-2 560 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

CHICO, CALIFORNIA

AL-557 (FAA)


16259

WAAS CH 65912 W13A	APP CRS 131°	Rwy Idg 6724 TDZE 240 Apt Elev 240
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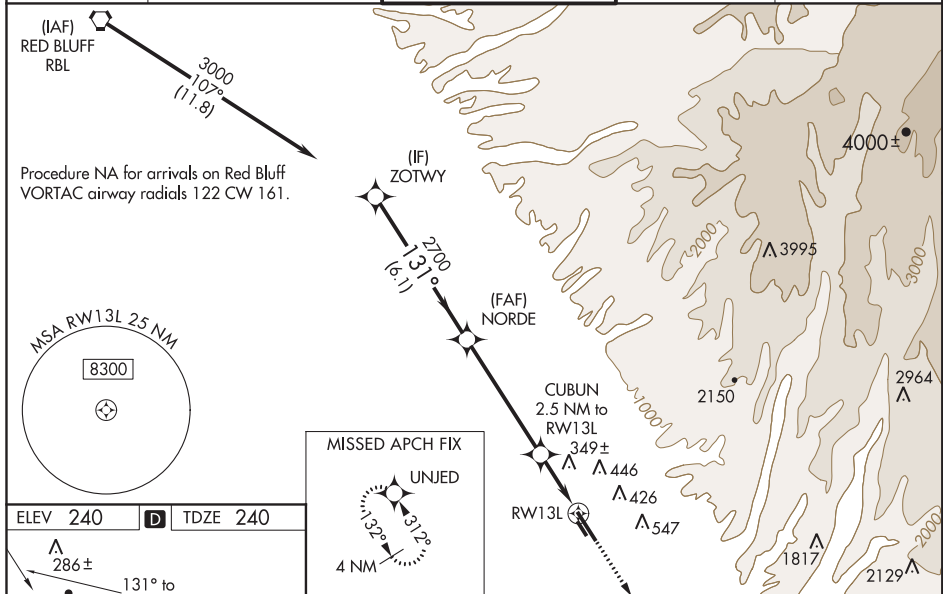
RNAV (GPS) RWY 13L

CHICO MUNI (CIC)

NA Inoperative table does not apply to LPV and LNAV Cats A/B/C.
For inoperative MALSRS, increase LNAV Cat D visibility to 1 1/4.
Circling NA east of Rwy 13L/31R. Baro-VNAV NA when using Red Bluff altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Red Bluff Muni altimeter setting and increase all DA 81 feet, and all MDA 100 feet, increase LNAV/VNAV all Cats visibility 1/4 mile. For inoperative MALSRS when using Red Bluff altimeter setting, LNAV Cats A/B inoperative table does not apply, increase Cat C visibility 1/4 mile.

MALSRS  MISSED APPROACH: Climb to 3600 direct UNJED and hold, continue climb-in-hold to 3600.

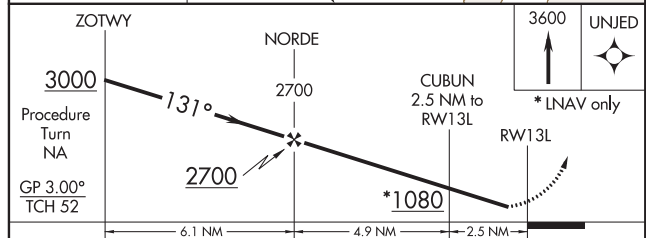
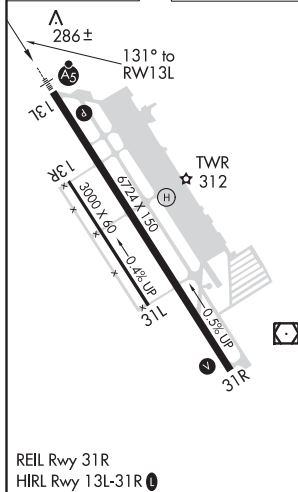
ATIS 119.675	OAKLAND CENTER 132.2 350.3	CHICO TOWER ★ 121.0 (CTAF) 239.3	GND CON 121.9	UNICOM 122.95
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 240	D	TDZE 240
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CATEGORY	A	B	C	D
LPV DA		536-1	296 (300-1)	
LNAV/ VNAV DA		648-1	408 (500-1)	
LNAV MDA		600-1	360 (400-1)	
CIRCLING	640-1 400 (500-1)	700-1 460 (500-1)	700-1 1/2 460 (500-1 1/2)	800-2 560 (600-2)

CHICO, CALIFORNIA
Orig 02JUL09

39°48'N-121°52'W

RNAV (GPS) RWY 13L

CHICO MUNI (CIC)

WAAS CH 77912 W31A	APP CRS 311°	Rwy Idg 6724 TDZE 226 Apt Elev 240
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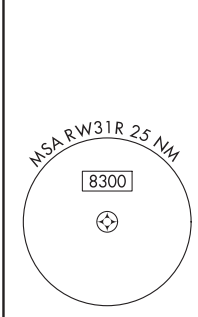
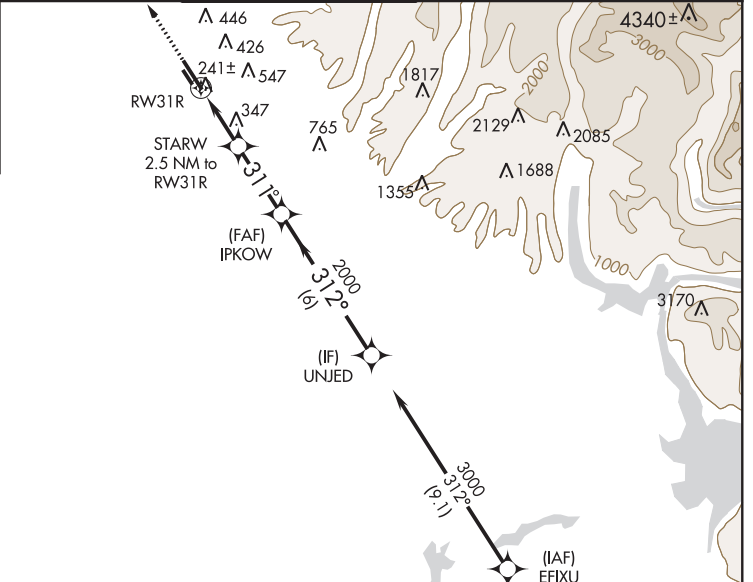
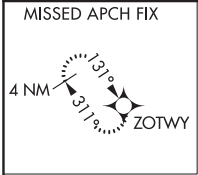
RNAV (GPS) RWY 31R

CHICO MUNI (CIC)

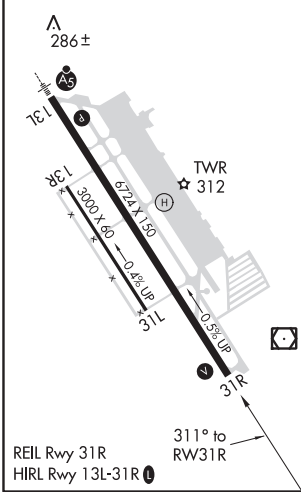
NA Circling NA east of Rwy 13L/31R. Baro-VNAV NA when using Red Bluff altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Red Bluff altimeter setting and increase all DA 81 feet and MDA 100 feet and increase LPV visibility all Cats ¼ mile, visibility LNAV/VNAV all Cats ½ mile and visibility LNAV Cats C/D ¼ mile. VDP NA when using Red Bluff altimeter setting.

MISSED APPROACH:
Climb to 3000 direct ZOTWY and hold.

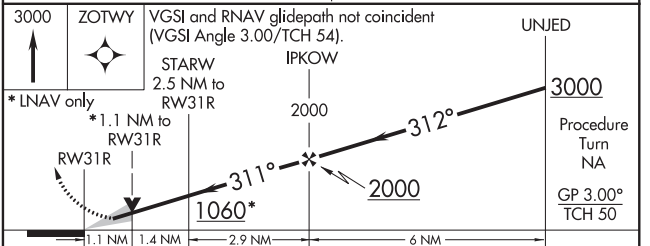
ATIS 119.675	OAKLAND CENTER 132.2 350.3	CHICO TOWER ★ 121.0 (CTAF) 239.3	GND CON 121.9	UNICOM 122.95
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ELEV 240	D	TDZE 226
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Procedure NA for arrivals at GRIDD on V23 southeast bound.



CATEGORY	A	B	C	D
LPV DA	476-1 250 (300-1)			
LNAV/VNAV DA	733-1¾ 507 (500-1¾)			
LNAV MDA	600-1 374 (400-1)			600-1¼ 374 (400-1¼)
CIRCLING	640-1 400 (400-1)	700-1 460 (500-1)	700-1½ 460 (500-1½)	800-2 560 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

CHICO, CALIFORNIA

AL-557 (FAA)

16259

VOR/DME CIC 109.8 Chan 35	APP CRS 327°	Rwy Idg TDZE Apt Elev	6724 224 238
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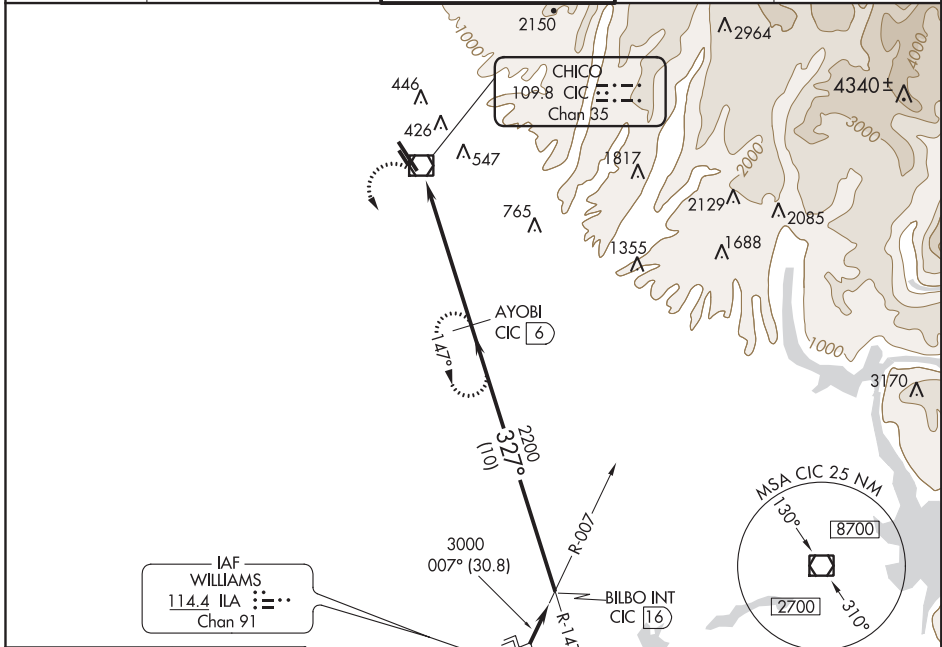
VOR/DME RWY 31R

CHICO MUNI (CIC)

⚠ Circling not authorized east of Rwy 13L-31R.
⚠ When control tower closed, except for operators with approved weather reporting service, use Red Bluff altimeter setting.

MISSED APPROACH: Climbing left turn to 2000 via CIC R-147 to AYOB/6 DME and hold.

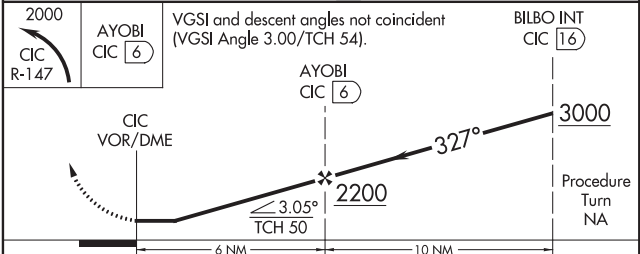
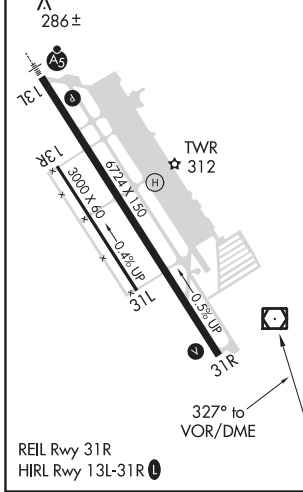
ATIS 119.675	OAKLAND CENTER 132.2 350.3	CHICO TOWER ★ 121.0 (CTAF) 239.3	GND CON 121.9	UNICOM 122.95
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 238	D	TDZE 224
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CATEGORY	A	B	C	D
S-31R	760-1 536 (600-1)	760-1½ 536 (600-1½)	760-1¾ 536 (600-1¾)	760-2 536 (600-2)
CIRCLING	760-1 522 (600-1)	760-1½ 522 (600-1½)	760-2 522 (600-2)	800-2 562 (600-2)
RED BLUFF ALTIMETER SETTING MINIMUMS				
S-31R	840-1 616 (700-1)	840-1¾ 616 (700-1¾)	840-2 616 (700-2)	840-2 616 (700-2)
CIRCLING	840-1 602 (700-1)	840-1¾ 602 (700-1¾)	840-2 602 (700-2)	840-2 602 (700-2)

CHICO, CALIFORNIA
 Orig-F 02MAY13

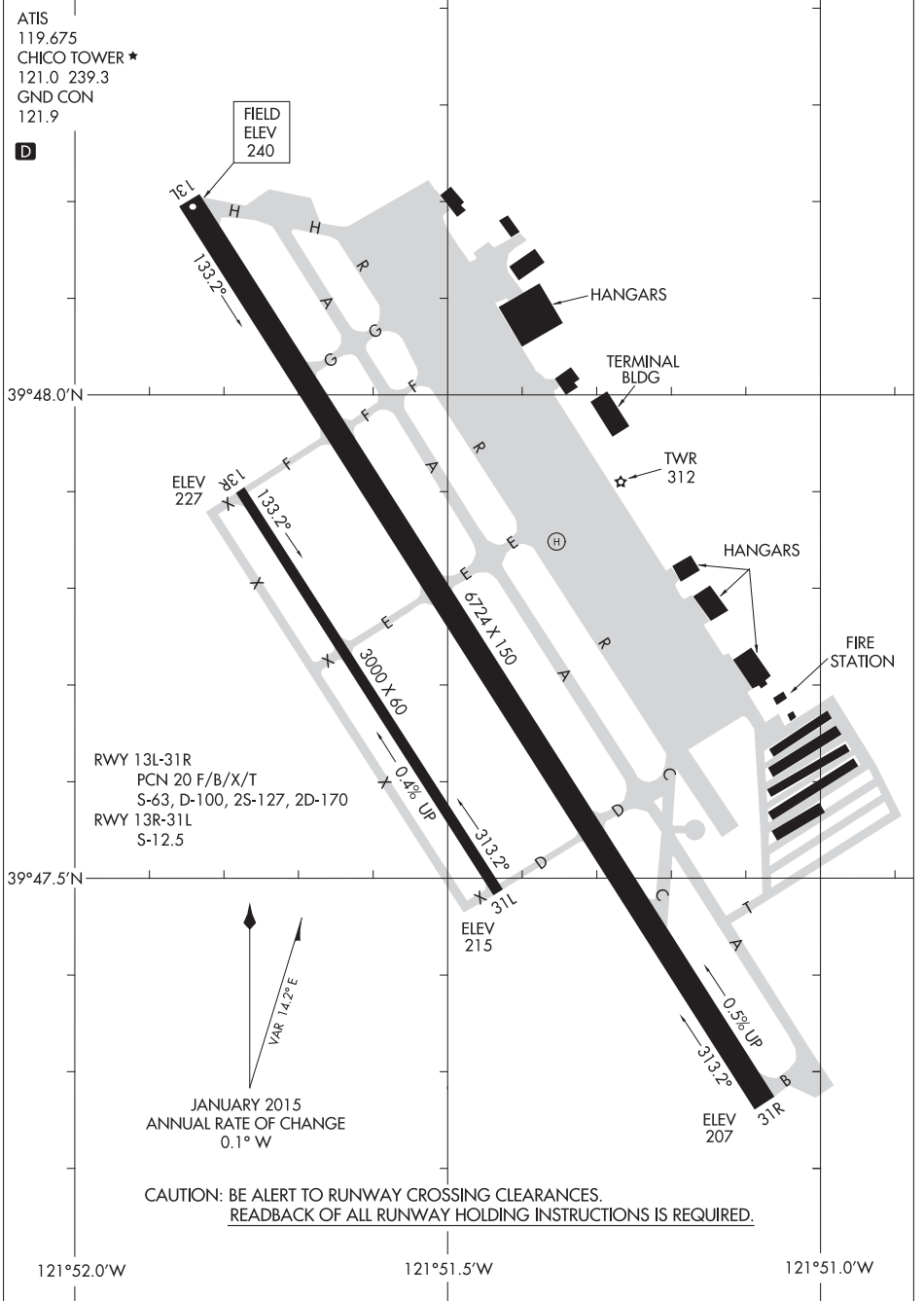
39°48'N-121°52'W

CHICO MUNI (CIC) VOR/DME RWY 31R

AIRPORT DIAGRAM

AL-557 (FAA)

CHICO MUNI (CIC)
CHICO, CALIFORNIA



AIRPORT DIAGRAM

CHICO, CALIFORNIA
CHICO MUNI (CIC)

CHICO TWO DEPARTURE

SL-557 (FAA)

CHICO MUNI ATIS
119.675
OAKLAND CENTER
132.2
CHICO TOWER *
121.0 (CTAF)
GND CON
121.9

FORT JONES
109.6 FJS
Chan 33
N41°26.98'-W122°48.39'
L-2

KLAMATH FALLS
115.9 LMT
Chan 106
N42°09.19'-W121°43.65'
L-2, H-3

TAKEOFF MINIMUMS

Rwy 13L/R, 31L/R: Standard.

TAKEOFF OBSTACLE NOTES

Rwy 13L: Terrain 298' from DER, 534' left of centerline, 216' MSL. Pole 957' from DER, 735' left of centerline, 35' AGL/232' MSL. Trees beginning 948' from DER, 559' left of centerline, up to 51' AGL/241' MSL.

Rwy 13R: Plane on tarmac 582' from DER, 647' left of centerline, up to 40' AGL/255' MSL.

Rwy 31L: Plane on tarmac 570' from DER, 647' right of centerline, up to 40' AGL/279' MSL.

Tower 611' from DER, 349' right of centerline, 35' AGL/267' MSL.

Rwy 31R: Trees beginning 1124' from DER, right and left of centerline, up to 60' AGL/282' MSL.

REDDING
108.4 RDD
Chan 21
N40°30.27'-W122°17.50'
L-2

RED BLUFF
115.7 RBL
Chan 104
N40°05.93'
W122°14.18'
L-2, H-3

MAXWELL
110.0 MXW
Chan 37
N39°19.05'-W122°13.29'
L-2

CHICO
109.8 CIC
Chan 35
N39°47.39'-W121°50.83'
L-2

WILLIAMS
114.4 ILA
Chan 91
N39°04.27'-W122°01.63'
L-2-3

SACRAMENTO
115.2 SAC
Chan 99
N38°26.62'-W121°33.10'
L-2-3, H-3

MUSTANG
117.9 FMG
Chan 126
N39°31.88'-W119°39.36'
L-9, H-3

NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13L: Climb heading 131° or assigned heading between 120° CW through 310° to assigned altitude. Thence. . . .

TAKEOFF RUNWAY 13R: Climb heading 131° or assigned heading between 120° CW through 310° to assigned altitude. Thence. . . .

TAKEOFF RUNWAY 31L: Climb heading 311° or assigned heading between 320° CCW through 131° to assigned altitude. Thence. . . .

TAKEOFF RUNWAY 31R: Climb heading 311° or assigned heading between 320° CCW through 131° to assigned altitude. Thence. . . .

. . . .expect RADAR vectors to assigned route. Maintain assigned altitude, expect filed altitude/flight level 10 minutes after departure.

LOST COMMUNICATIONS: If not in contact with Oakland Center after reaching 3000, proceed to MXW VORTAC and hold.

CHICO TWO DEPARTURE

GONGS TWO DEPARTURE

SL-557 (FAA)

CHICO MUNI (CIC)
CHICO, CALIFORNIA

CHICO MUNI ATIS
119.675
OAKLAND CENTER
132.2
CHICO TOWER★
121.0 (CTAF)
GND CON
121.9

RED BLUFF
115.7 RBL
Chan 104
N40°05.93'
W122°14.18'
L-2, H-3

CHICO
109.8 CIC
Chan 35

MAXWELL
110.0 MXW
Chan 37

WILLIAMS
114.4 ILA
Chan 91
N39°04.27'-W122°01.63'
L-2-3

SACRAMENTO
115.2 SAC
Chan 99
N38°26.62'-W121°33.10'
L-2-3, H-3

GONGS
N39°44.60'
W122°03.02'

JINGO
N39°39.01'
W122°00.12'

GRIDD
N39°19.64'
W121°50.13'

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13L/R: Turn right heading 260° within 1 NM of takeoff. Intercept CIC R-238 to GONGS INT. Thence....

TAKEOFF RUNWAY 31L/R: Turn left heading 210° within 1 NM of takeoff. Intercept CIC R-238 to GONGS INT. Thence....

...via transition or assigned route.

RED BLUFF TRANSITION (GONGS2.RBL): From over GONGS INT via RBL R-140 to RBL VORTAC.

SACRAMENTO TRANSITION (GONGS2.SAC): From over GONGS INT via V23 and SAC R-329 to SAC VORTAC.

WILLIAMS TRANSITION (GONGS2.ILA): From over GONGS INT via RBL R-140 and V195 to ILA VORTAC.

TAKEOFF OBSTACLES NOTES

RWY 13L: Terrain 298' from DER, 534' left of centerline, 216' MSL. Pole 957' from DER, 735' left of centerline, 35' AGL/ 232' MSL. Trees beginning 948' from DER, 559' left of centerline, up to 51' AGL/ 241' MSL.

RWY 13R: Plane on tarmac 582' from DER, 647' right of centerline, up to 40' AGL/ 255' MSL.

RWY 31L: Plane on tarmac 570' from DER, 647' right of centerline, up to 40' AGL/ 279' MSL. Tower 611' from DER, 349' right of centerline, 35' AGL/ 267' MSL.

RWY 31R: Trees beginning 1124' from DER, right and left of centerline, up to 60' AGL/ 282' MSL.

GONGS TWO DEPARTURE

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

CLOVERDALE, CALIFORNIA

AL-9503 (FAA)

16091

APP CRS	Rwy Idg	2909
314°	TDZE	271
	Apt Elev	272

RNAV (GPS) RWY 32

CLOVERDALE MUNI (O60)

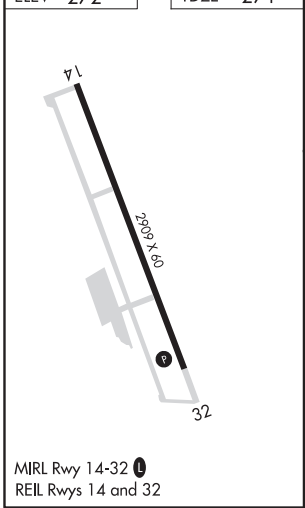
▽ Use Santa Rosa/Charles M Schulz-Sonoma County altimeter setting; when not received procedure NA.
△ NA Procedure NA at night. Circling NA east of Rwy 14-32. GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climbing left turn to 6000 direct NATIC WP and hold.

OAKLAND CENTER **127.8 353.5** UNICOM **122.8 (CTAF)**

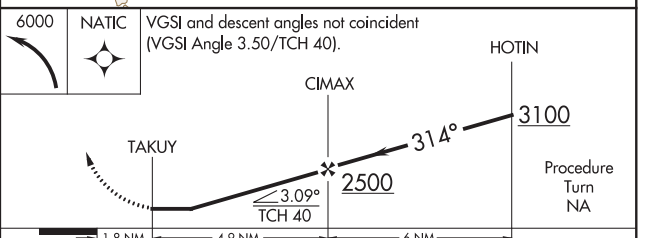


ELEV 272 TDZE 271



CLOVERDALE, CALIFORNIA
 Orig-A 25NOV04

Procedure NA for arrival at STS VOR/DME via V494 southbound.



CATEGORY	A	B	C	D
LNAV MDA	1440-2	1169 (1200-2)	1440-3 1169 (1200-3)	NA
CIRCLING	1440-2	1168 (1200-2)	1640-3 1368 (1400-3)	NA

38°47'N-123°00'W

CLOVERDALE MUNI (O60)

RNAV (GPS) RWY 32

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	4289
354°	TDZE	2105
	Apt Elev	2121

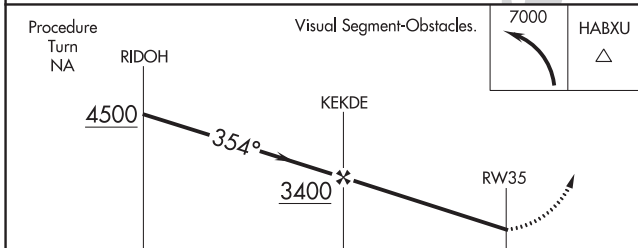
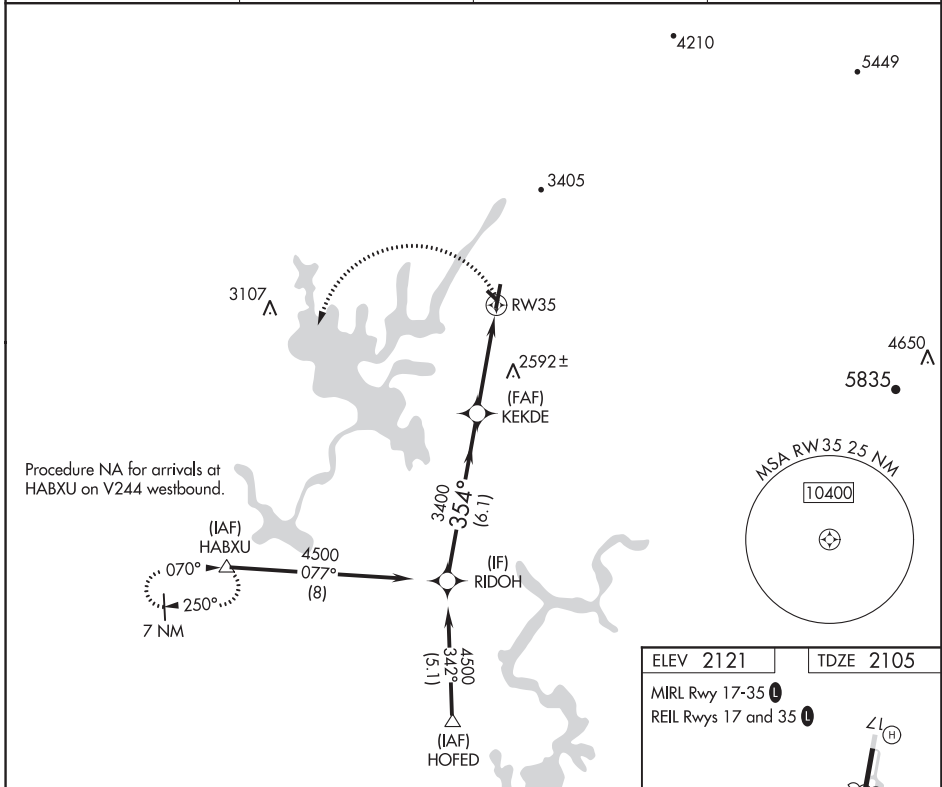
RNAV (GPS) RWY 35

COLUMBIA (O22)

⚠ Circling NA east of Rwy 17-35. DME/DME RNP-0.3 NA.
⚠ Helicopter visibility reduction below 1 SM NA. Procedure NA at night.

MISSED APPROACH: Climbing left turn to 7000 direct HABXU and hold, continue climb-in-hold to 7000.

AWOS-3 124.65	NORCAL APP CON (N) 123.7 338.25 (W) 125.1 363.2	OAKLAND CENTER (E) 126.85 322.55	UNICOM 122.975 (CTAF) Ⓛ
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ELEV 2121	TDZE 2105
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MIRL Rwy 17-35 **Ⓛ**
 REIL Rws 17 and 35 **Ⓛ**

4673 X 75
 0.8% UP
 1.0% UP

35
 354° to RW35

CATEGORY	A	B	C	D
RNAV MDA	3140-1¼ 1035 (1100-1¼)	3140-1½ 1035 (1100-1½)	3140-3 1035 (1100-3)	NA
CIRCLING	3140-1¼ 1019 (1100-1¼)	3140-1½ 1019 (1100-1½)	3140-3 1019 (1100-3)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

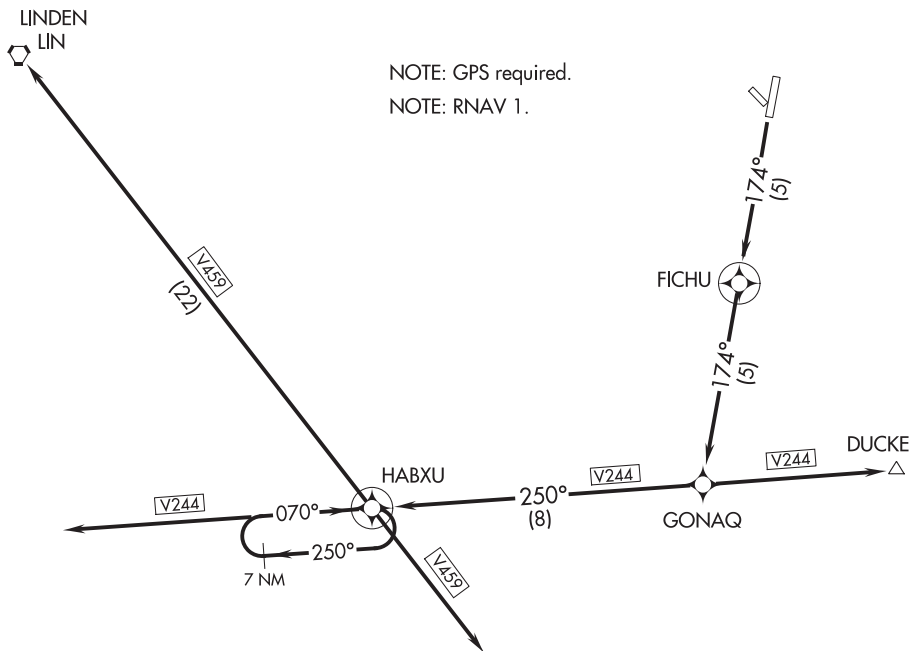
(FICHU1.FICHU) 16091

FICHU ONE DEPARTURE (OBSTACLE) (RNAV)

SL-6786 (FAA) COLUMBIA (O22)
COLUMBIA, CALIFORNIA

NORCAL DEP CON
(N) 123.7 338.25
(W) 125.1 363.2
OAKLAND CENTER
(E) 126.85 322.55
RANCHO MURIETA RADIO
122.3

NOTE: GPS required.
NOTE: RNAV 1.



TAKEOFF MINIMUMS

Rwy 17: 300-1 with a climb rate of 300' per NM to 3000'.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb to 4000 via 174° course to FICHU WP, 174° course to GONAQ WP, 250° course to HABXU WP; Aircraft V-459 southeast, northwest and V-244 westbound proceed on course; Aircraft departing V-244 eastbound climb in HABXU WP holding pattern to 8000, Then proceed on course.

TAKEOFF RUNWAY 35: Not authorized.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

FICHU ONE DEPARTURE (OBSTACLE) (RNAV)
(FICHU1.FICHU) 30DEC99

COLUMBIA, CALIFORNIA
COLUMBIA (O22)

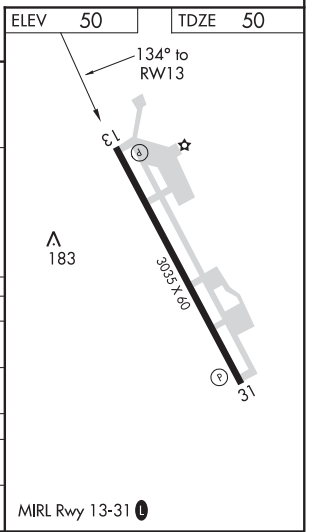
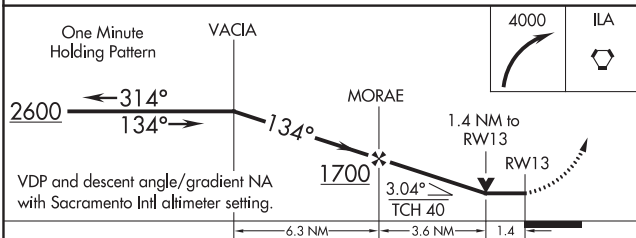
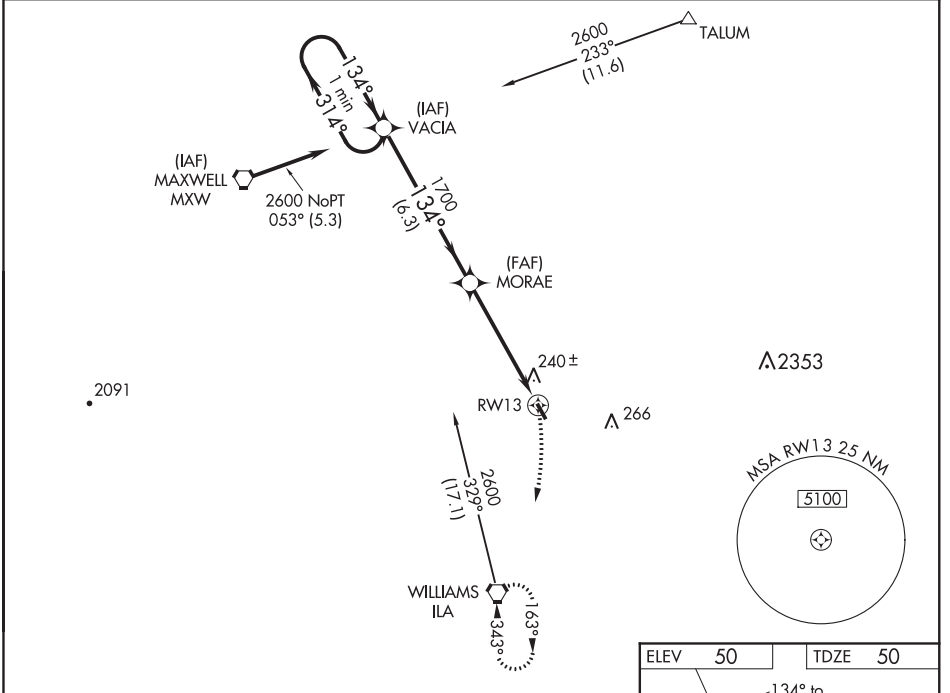
APP CRS	Rwy Idg	3035
134°	TDZE	50
	Apt Elev	50

GPS RWY 13

COLUSA COUNTY (008)

OAKLAND CENTER
132.2 350.3

UNICOM
122.8 (CTAF)



CATEGORY	A	B	C	D
S-13	540-1	490 (500-1)	540-1¼ 490 (500-1¼)	NA
CIRCLING	600-1	550 (600-1)	600-1½ 550 (600-1½)	NA
SACRAMENTO ALTIMETER SETTING MINIMUMS				
S-13	640-1	590 (600-1)	640-1½ 590 (600-1½)	NA
CIRCLING	680-1	630 (700-1)	680-1¾ 630 (700-1¾)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

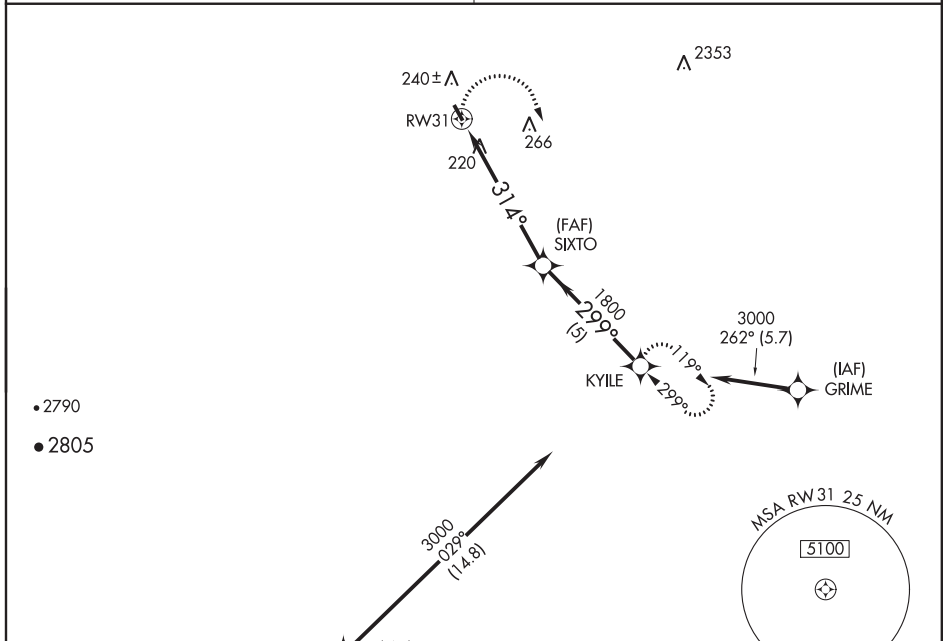
APP CRS	Rwy Idg	3035
314°	TDZE	50
	Apt Elev	50

GPS RWY 31

COLUSA COUNTY (O08)

<p>NA Obtain local altimeter setting on CTAF; when not received, use Sacramento Intl altimeter setting.</p>	<p>MISSED APPROACH: Climbing right turn to 4000 direct to KYILE WP and hold.</p>
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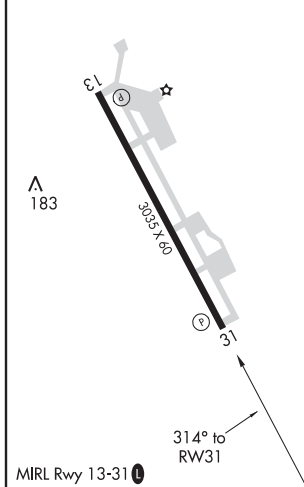
<p>OAKLAND CENTER 132.2 350.3</p>	<p>UNICOM 122.8 (CTAF)</p>
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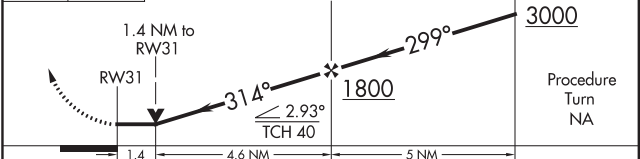
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 50	TDZE 50
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4000	KYILE	VDP and descent angle NA with Sacramento Intl altimeter.
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CATEGORY	A	B	C	D
S-31	520-1	470 (500-1)	520-1¼ 470 (500-1¼)	NA
CIRCLING	600-1	550 (600-1)	600-1½ 550 (600-1½)	NA
SACRAMENTO INTL ALTIMETER SETTING MINIMUMS				
S-31	620-1	580 (600-1)	620-1½ 580 (600-1½)	NA
CIRCLING	680-1	630 (700-1)	680-1¾ 630 (700-1¾)	NA

VORTAC ILA 114.4 Chan 91	APP CRS 356°	Rwy Idg TDZE Apt Elev	N/A N/A 50
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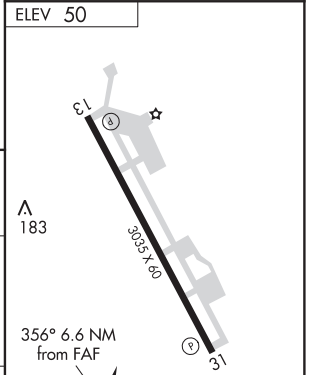
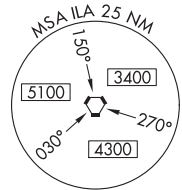
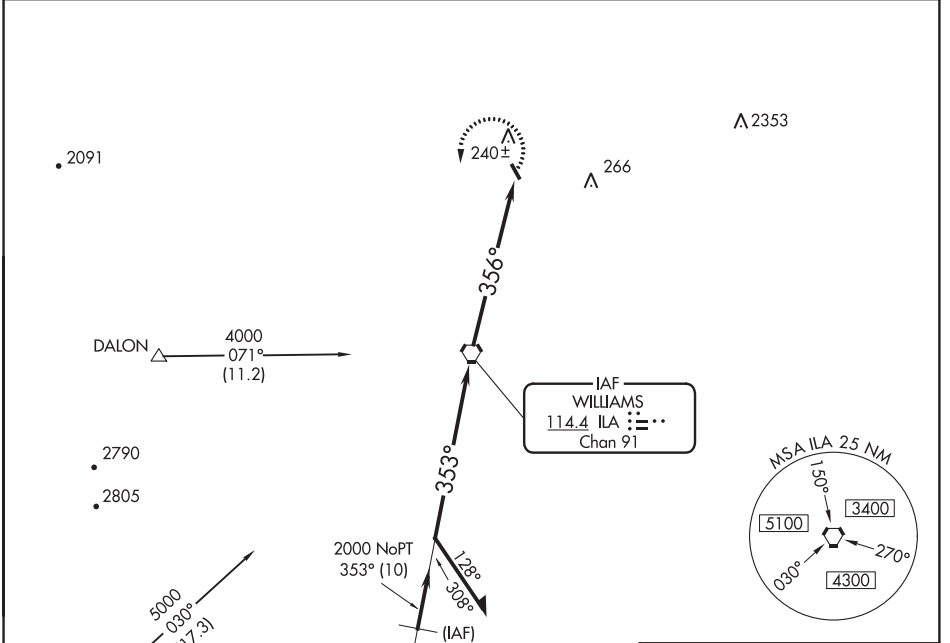
VOR-A
COLUSA COUNTY (008)

NA Obtain local altimeter setting on CTAF; when not received, use Sacramento Intl altimeter setting.

MISSED APPROACH: Climbing left turn to 4000 direct ILA VORTAC.

OAKLAND CENTER **132.2 350.3**

UNICOM **122.8 (CTAF)**



Remain within 10 NM	3500	173°	353°	2000	356°	6.6 NM	4000	ILA

CATEGORY	A	B	C	D
CIRCLING	600-1	550 (600-1)		NA
SACRAMENTO INTL ALTIMETER SETTING MINIMUMS				
CIRCLING	680-1	630 (700-1)		NA

FAF to MAP 6.6 NM					
Knots	60	90	120	150	180
Min:Sec	6:36	4:24	3:18	2:38	2:12

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 86424 W19A	APP CRS 187°	Rwy Idg 4401 TDZE 23 Apt Elev 26
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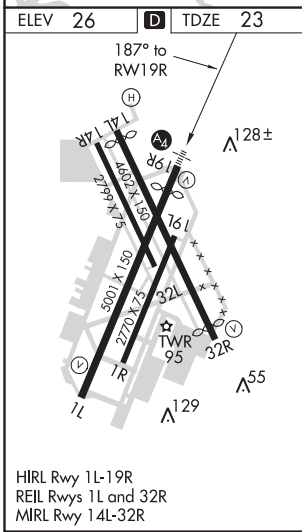
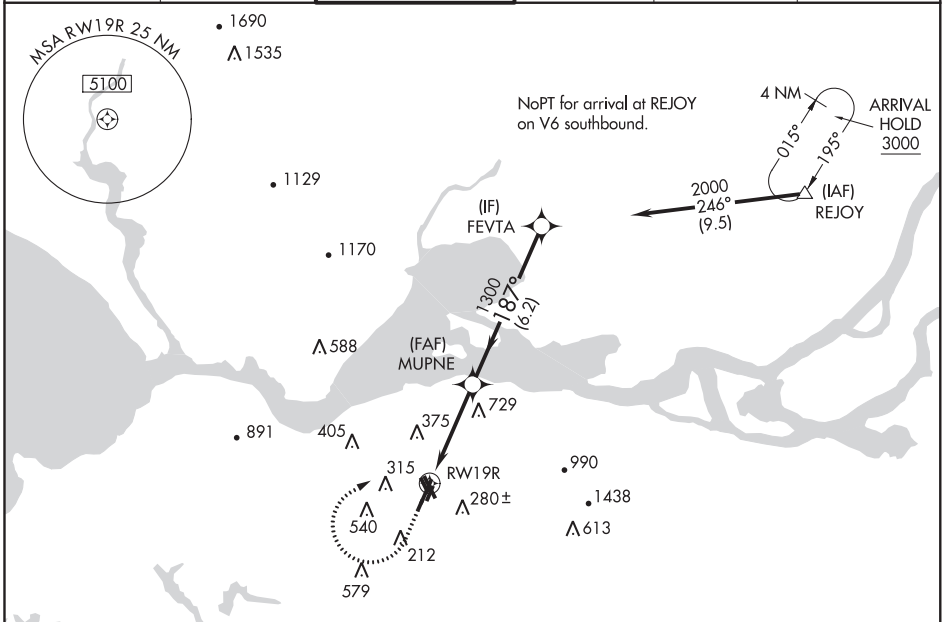
RNAV (GPS) Z RWY 19R

BUCHANAN FIELD (CCR)

V DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. For inop MALS, increase LPV all Cats visibility to 2 3/4 miles.
NA * Inoperative table does not apply.
 * Missed approach requires minimum climb of 500 feet per NM to 2000.

MALS MISSED APPROACH: Climb to 1350 then climbing right turn to 3000 direct REJOY and hold.

ATIS 124.7	TRAVIS APP CON 119.9 322.325	CONCORD TOWER* 119.7 (CTAF) 257.8	GND CON 121.9	CLNC DEL 118.75	UNICOM 122.95
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ELEV 26	D	TDZE 23	
187° to RWY 19R			
1350	3000	REJOY	VGSI and RNAV glidepath not coincident (VGSI Angle 4.00/TCH 29).
MUPNE		FEVTA	
RWY 19R		1300	2000
3.9 NM		6.2 NM	
GP 3.00°	TCH 45		
CATEGORY	A	B	C
LPV DA *	273-3/4		250 (300-3/4)
LPV DA	823-2 1/2		800 (800-2 1/2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LDA RWY 19R

BUCHANAN FIELD (CCR)

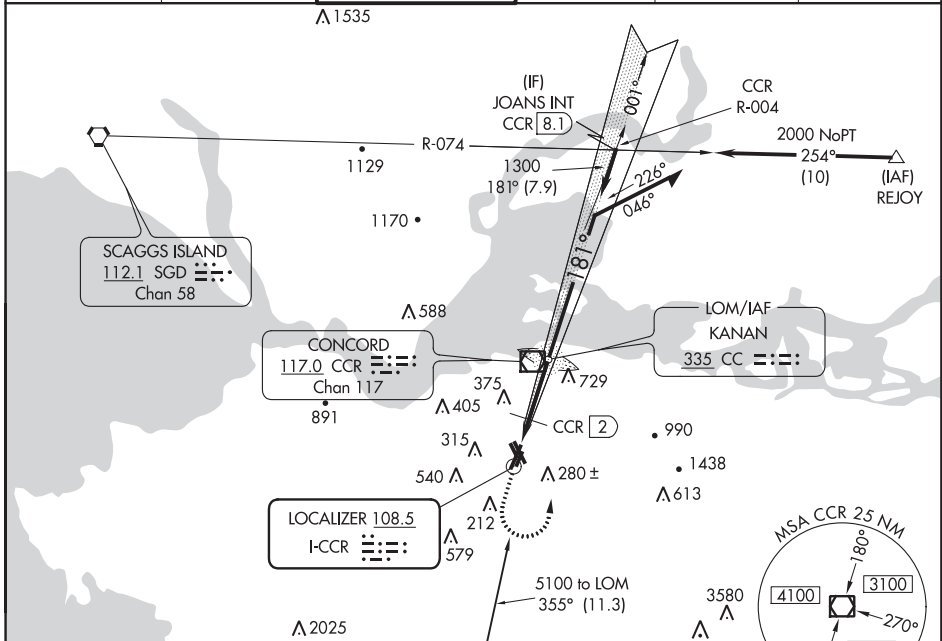
LOC I-CCR 108.5	APP CRS 181°	Rwy Idg TDZE Apt Elev	4401 22 26
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▼ Inoperative table does not apply to Cat C.
Helicopter visibility reduction below ¼ SM NA.
Circling NA west of Rwy 1L-19R.

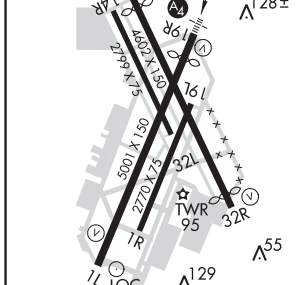
MALS
☐

MISSED APPROACH: Climb to 900 then climbing left turn to 3500 direct CCR VOR/DME.

ATIS 124.7	TRAVIS APP CON 119.9 322.325	CONCORD TOWER* 119.7 (CTAF) 257.8	GND CON 121.9	CLNC DEL 118.75	UNICOM 122.95
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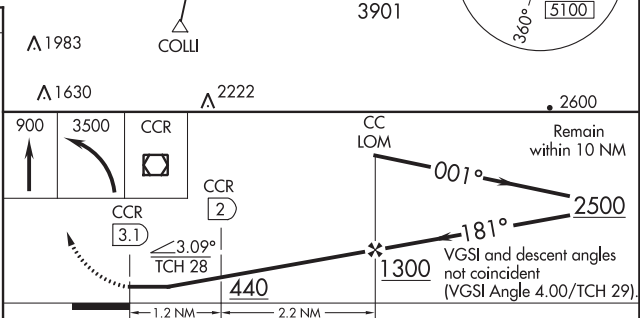
ELEV 26	D	TDZE 22
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HIRL Rwy 1L-19R
REIL Rwy 1L and 32R
MIRL Rwy 14L-32R

FAF to MAP 3.4 NM

Knots	60	90	120	150	180
Min:Sec	3:24	2:16	1:42	1:22	1:08



CATEGORY	A	B	C	D
S-19R	440-¾	418 (500-¾)	440-1¼	418 (500-1¼)
CIRCLING	600-1	680-1	680-1¾	654 (700-1¾)
DME MINIMUMS				
S-19R	380-¾ 358 (400-¾)			NA
CIRCLING	600-1	680-1	680-1¾	654 (700-1¾)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

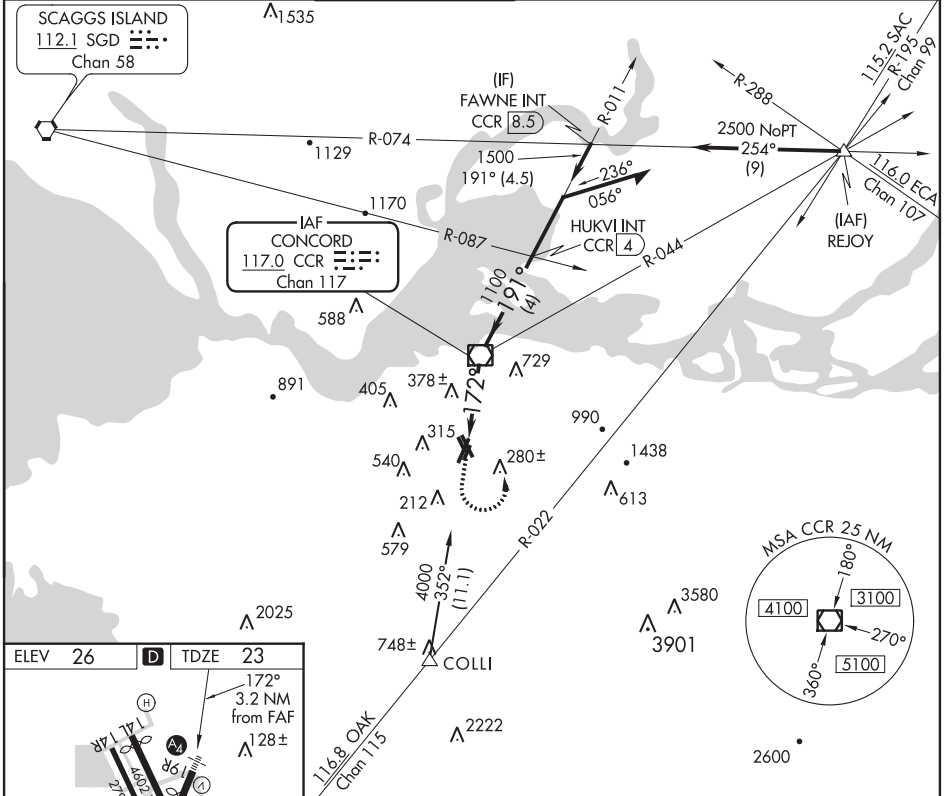
VOR/DME CCR 117.0 Chan 117	APP CRS 172°	Rwy Idg TDZE 23 Apt Elev 26	4401
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VOR RWY 19R

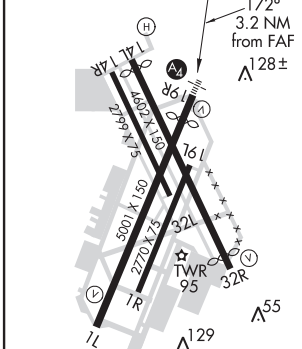
BUCHANAN FIELD (CCR)

<p>▼ Inoperative table does not apply. Circling NA west of Rwys 1L and 14R. Visibility reduction by helicopters NA.</p>		<p>MALS =</p>	<p>MISSED APPROACH: Climb to 1500 then climbing left turn to 2900 direct CCR VOR/DME then via CCR R-044 to REJOY INT.</p>
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ATIS 124.7	TRAVIS APP CON 119.9 322.325	CONCORD TOWER* 119.7 (CTAF) 257.8	GND CON 121.9	CLNC DEL 118.75	UNICOM 122.95
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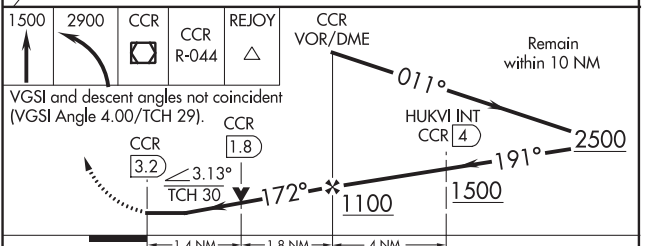
ELEV 26	D	TDZE 23
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HIRL Rwy 1L-19R
REIL Rws 1L and 32R
MIRL Rwy 14L-32R

FAF to MAP 3.2 NM

Knots	60	90	120	150	180
Min:Sec	3:12	2:08	1:36	1:17	1:04



CATEGORY	A	B	C	D
S-19R	640-1	617 (700-1)	640-1¾ 617 (700-1¾)	NA
CIRCLING	640-1 614 (700-1)	680-1 654 (700-1)	680-1¾ 654 (700-1¾)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

AL-5320 (FAA)

BUCHANAN FIELD (CCR)
CONCORD, CALIFORNIA

ATIS
124.7
CONCORD TOWER ★
119.7 257.8
GND CON
121.9
CLNC DEL
118.75

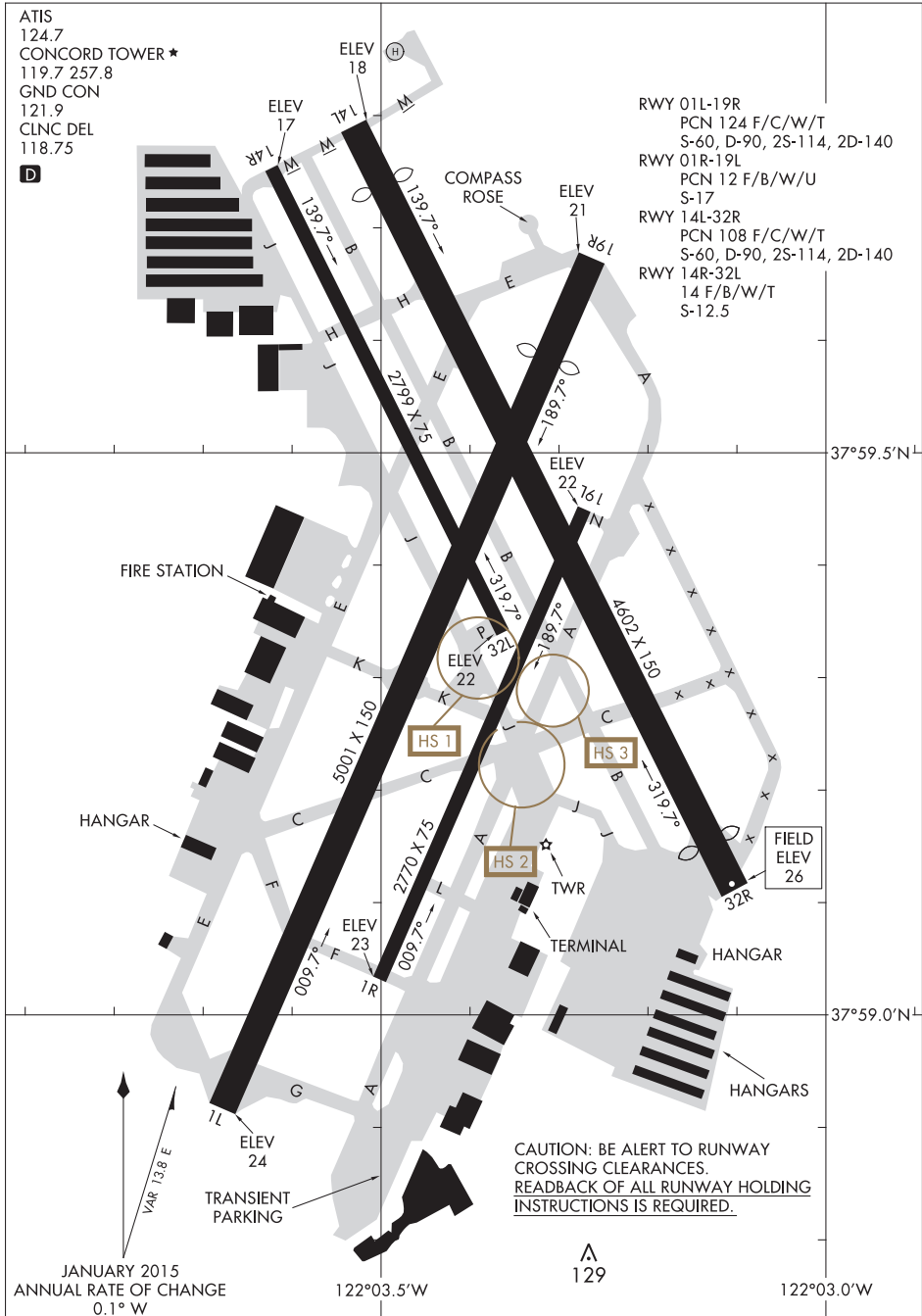
D

RWY 01L-19R
PCN 124 F/C/W/T
S-60, D-90, 2S-114, 2D-140

RWY 01R-19L
PCN 12 F/B/W/U
S-17

RWY 14L-32R
PCN 108 F/C/W/T
S-60, D-90, 2S-114, 2D-140

RWY 14R-32L
14 F/B/W/T
S-12.5



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

16147

CONCORD, CALIFORNIA
BUCHANAN FIELD (CCR)

BUCHANAN ONE DEPARTURE

SL-5320 (FAA)

BUCHANAN FIELD (CCR)
CONCORD, CALIFORNIA

GND CON
121.9
CONCORD TOWER *
119.7 (CTAF) 257.8
TRAVIS DEP CON
119.9 322.325

SACRAMENTO
115.2 SAC
Chan 99

SCAGGS ISLAND
112.1 SGD
Chan 58
N38°10.76'-W122°22.39'
L-2-3

CONCORD
117.0 CCR
Chan 117
N38°02.70'-W122°02.71'

REJOY
N38°09.99'
W121°46.25'
L-2-3

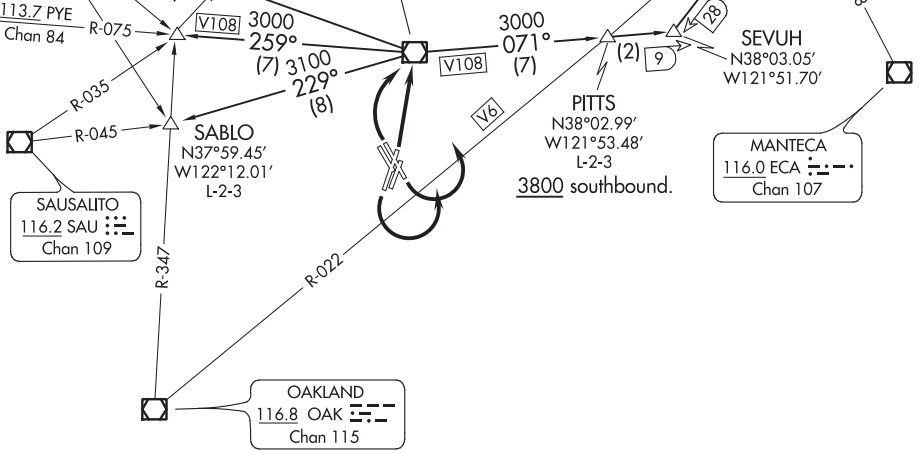
CROIT
N38°03.37'
W122°11.66'
L-2-3

SEVUH
N38°03.05'
W121°51.70'

MANTECA
116.0 ECA
Chan 107

SAUSALITO
116.2 SAU
Chan 109

OAKLAND
116.8 OAK
Chan 115



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKE-OFF MINIMUMS

Rwys 1L, 14L, 19R, 32R: Standard with the following minimum climb requirements:

Rwy 1L: Obstacle climb of 360' per NM to 1100 (3800 for PITTS Transition).

ATC climb of 360' per NM to 3000.

Rwy 14L: Obstacle climb of 420' per NM to 2700 (3800 for PITTS Transition).

ATC climb of 420' per NM to 3000.

Rwy 19R: Obstacle climb of 490' per NM to 4000.

Rwy 32R: Obstacle climb of 360' per NM to 500 (3800 for PITTS Transition).

ATC climb of 320' per NM to 3000.

Rwys 1R, 14R, 19L, 32L: NA-air traffic.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

BUCHANAN ONE DEPARTURE

(BCHN1.CCR) 16259

BUCHANAN ONE DEPARTURE

SL-5320 (FAA)

BUCHANAN FIELD (CCR)
CONCORD, CALIFORNIA

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1L: Climb direct CCR VOR/DME, thenceTAKEOFF RUNWAY 14L: Climbing left turn direct CCR VOR/DME, thenceTAKEOFF RUNWAY 19R: Climbing left turn direct CCR VOR/DME, thenceTAKEOFF RUNWAY 32R: Climbing right turn direct VOR/DME, thence

....via (transition) or (assigned route).

CROIT TRANSITION (BCHN1.CROIT): From over CCR VOR/DME on CCR R-259 to CROIT INT.PITTS TRANSITION (BCHN1.PITTS): From over CCR VOR/DME on CCR R-071 to PITTS INT.REJOY TRANSITION (BCHN1.REJOY): From over CCR VOR/DME on CCR R-071 and SAC R-195 to REJOY INT.SABLO TRANSITION (BCHN1.SABLO): From over CCR VOR/DME on CCR R-229 to SABLO INT.SCAGGS ISLAND TRANSITION (BCHN1.SGD): From over CCR VOR/DME on CCR R-281 to SGD VORTAC.

TAKEOFF OBSTACLE NOTES

- Rwy 1L: Multiple trees and bushes beginning 675' from DER, 9' left of centerline, up to 48' AGL/98' MSL.
Multiple poles, light poles and antennas on buildings beginning 639' from DER, 120' left of centerline, up to 50' AGL/72' MSL.
Fence 117' from DER, 2' right of centerline, 12' AGL/29' MSL.
Sign 1996' from DER, 812' left of centerline, 45' AGL/78' MSL.
Flagpole 1520' from DER, 753' left of centerline, 40' AGL/71' MSL.
- Rwy 14L: Multiple trees beginning 841' from DER, 61' left of centerline, up to 78' AGL/102' MSL.
Building 1071' from DER, 35' left of centerline, 30' AGL/58' MSL.
Fence 225' from DER, 29' left of centerline, 12' AGL/33' MSL.
- Rwy 19R: Multiple trees beginning 604' from DER, 82' left of centerline, up to 70' AGL/108' MSL.
Light pole 1392' from DER, 749' right of centerline, 51' AGL/71' MSL.
Obstruction light on building 2451' from DER, 911' left of centerline, 73' AGL/97' MSL.
Fence 123' from DER, 503' left of centerline, 6' AGL/30' MSL.
- Rwy 32R: Train 1 NM from DER, 1948' left of centerline, 23' AGL/102' MSL.
Obstruction light on hopper 2110' from DER, 601' right of centerline, 79' AGL/99' MSL.
Obstruction light on tank 1.1 NM from DER, 1426' right of centerline, 193' AGL/213' MSL.
Flagpole 655' from DER, 300' right of centerline, 35' AGL/43' MSL.
Sign 697' from DER, 248' right of centerline, 25' AGL/41' MSL.
Road/vehicle 561' from DER, on centerline, 15' AGL/49' MSL.
Building 633' from DER, 246' left of centerline, 20' AGL/35' MSL.
Tree 825' from DER, 635' left of centerline, 25' AGL/40' MSL.
Transmission tower 6015' from DER, 1839' left of centerline, 145' AGL/173' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

BUCHANAN ONE DEPARTURE

(BCHN1.CCR) 15SEP16

CONCORD, CALIFORNIA
BUCHANAN FIELD (CCR)

KANAN THREE DEPARTURE

SL-5320 (FAA)

BUCHANAN FIELD (CCR)
CONCORD, CALIFORNIA

TAKEOFF MINIMUMS

Rwys 1L/1R, 14L/14R, 19L/19R, 32L/32R, standard with the following minimum climb gradients:

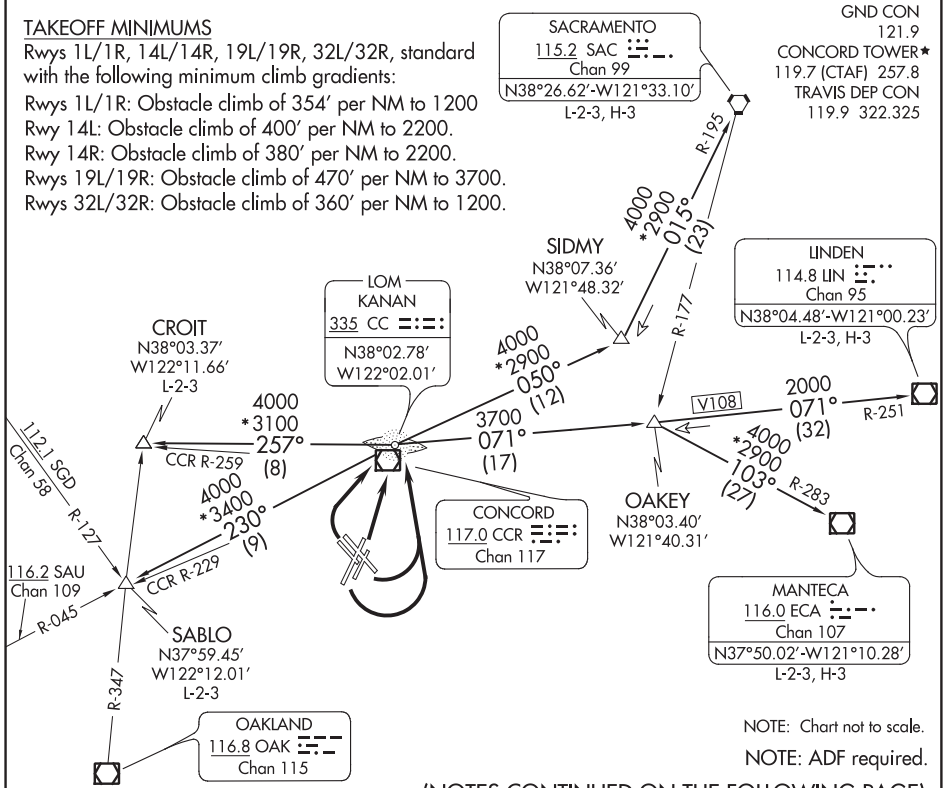
Rwys 1L/1R: Obstacle climb of 354' per NM to 1200

Rwy 14L: Obstacle climb of 400' per NM to 2200.

Rwy 14R: Obstacle climb of 380' per NM to 2200.

Rwys 19L/19R: Obstacle climb of 470' per NM to 3700.

Rwys 32L/32R: Obstacle climb of 360' per NM to 1200.



(NOTES CONTINUED ON THE FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1L/R: Climb direct CC LOM, thence. . .

TAKEOFF RUNWAYS 14L/R: Climbing left turn direct CC LOM, thence. . .

TAKEOFF RUNWAYS 19L/R: Climbing left turn direct CC LOM, thence. . .

TAKEOFF RUNWAYS 32L/R: Climbing right turn direct CC LOM, thence. . .

. . . via (transition) or (assigned route).

CROIT TRANSITION (KANA3.CROIT): From over CC LOM via CC 257° bearing to CROIT INT.

LINDEN TRANSITION (KANA3.LIN): From over CC LOM via CC 071° bearing and LIN R-251 to LIN VOR/DME.

MANTECA TRANSITION (KANA3.ECA): From over CC LOM via CC 071° bearing and ECA R-283 to ECA VOR/DME.

SABLO TRANSITION (KANA3.SABLO): From over CC LOM via CC 230° bearing to SABLO INT.

SACRAMENTO TRANSITION (KANA3.SAC): From over CC LOM via CC 050° bearing and SAC R-195 to SAC VOR/DME.

KANAN THREE DEPARTURE

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKEOFF OBSTACLE NOTES

- Rwy 1L: Multiple trees and bushes beginning 675' from DER, 9' left of centerline, up to 48' AGL/98' MSL.
Multiple poles, light poles and antennas on buildings beginning 639' from DER, 120' left of centerline up to 50' AGL/72' MSL.
Fence 117' from DER, 2' right of centerline, 12' AGL/29' MSL.
Sign 1996' from DER, 812' left of centerline, 45' AGL/78' MSL.
Flagpole 1520' from DER, 753' left of centerline, 40' AGL/71' MSL.
- Rwy 1R: Multiple trees and poles beginning 1552' from DER, 98' right of centerline, up to 52' AGL/131' MSL.
- Rwy 14L: Multiple trees beginning 841' from DER, 61' left of centerline, up to 78' AGL/102' MSL.
Building 1071' from DER, 35' left of centerline, 30' AGL/58' MSL.
Fence 225' from DER, 29' left of centerline, 12' AGL/33' MSL.
- Rwy 14R: Obstacle lights, obstacle lights on buildings, obstacle lights on windsocks, buildings, and trees beginning 412' from DER, 167' right of centerline, up to 104' AGL/136' MSL.
- Rwy 19L: Multiple trees beginning 2132' from DER, 28' left of centerline, up to 70' AGL/106' MSL.
- Rwy 19R: Multiple trees beginning 604' from DER, 82' left of centerline, up to 70' AGL/108' MSL.
Light pole 1392' from DER, 749' right of centerline, 51' AGL/71' MSL.
OL light on building 2451' from DER, 911' left of centerline, 73' AGL/97' MSL.
Fence 123' from DER, 503' left of centerline, 6' AGL/30' MSL.
- Rwy 32L: Road/vehicle 561' from DER, on centerline, 15' AGL/49' MSL.
Light on tank 6617' from DER, 1926' right of centerline, 114' AGL/213' MSL.
Hangar 259' from DER, 300' left of centerline, 21' AGL/37' MSL.
Transmission tower 6015' from DER, 1338' left of centerline, 145' AGL/ 173' MSL.
Tree 825' from DER, 136' left of centerline, 25' AGL/40' MSL.
Building 633' from DER, 254' right of centerline, 20' AGL/35' MSL.
- Rwy 32R: Train 6345' from DER, 1948' left of centerline, 23' AGL/102' MSL.
Obstacle light on hopper 2110' from DER, 601' right of centerline, 79' AGL/99' MSL.
Obstacle light on tank 6617' from DER, 1426' right of centerline, 193' AGL/213' MSL.
Flagpole 655' from DER, 300' right of centerline, 35' AGL/43' MSL.
Sign 697' from DER, 248' right of centerline, 25' AGL/41' MSL.
Road/vehicle 561' from DER, on centerline, 15' AGL/49' MSL.
Building 633' from DER, 246' left of centerline, 20' AGL/35' MSL.
Tree 825' from DER, 635' left of centerline, 25' AGL/40' MSL.
Transmission tower 6015' from DER, 1839' left of centerline, 145' AGL/173' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC I-CEC 108.7	APP CRS 119°	Rwy Idg TDZE Apt Elev	5000 60 61
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ILS or LOC RWY 12

JACK MC NAMARA FIELD (CEC)

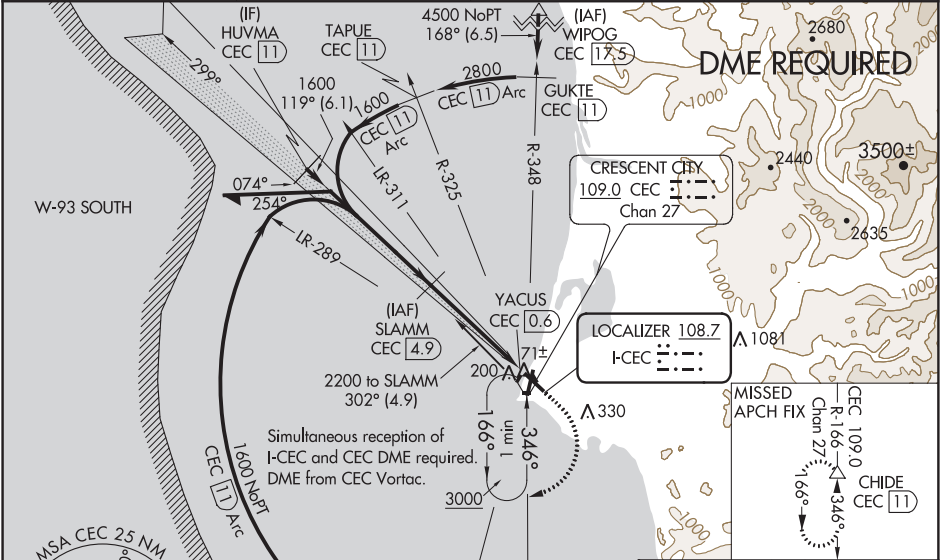
NA

DME required. S-ILS 12: ½ mile visibility authorized with use of FD or AP or HUD to DA. Inop table does not apply to S-ILS 12, except with use of FD or AP or HUD to DA. For inop MALS, increase S-LOC 12 all Cats visibility ¼ mile. When local altimeter setting not received, use Brookings altimeter setting and increase DA to 407 feet and all MDA 100 feet; increase S-LOC 12 Cat C/D, and Circling Cat D visibilities ¼ mile. For inop MALS, when using Brookings altimeter setting, increase S-ILS 12 all Cats visibility to 1 mile. Night Landing: Rwy 36 operational VGSi required, remain on or above VGSi glidepath until threshold. Circling to Rwy 18, 30 NA at night.



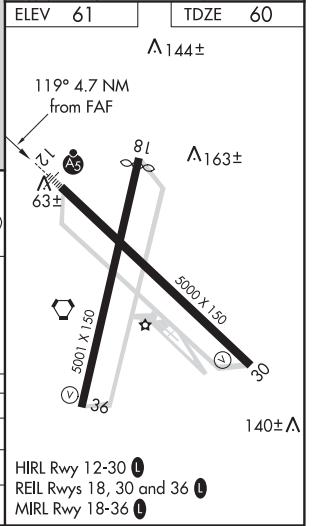
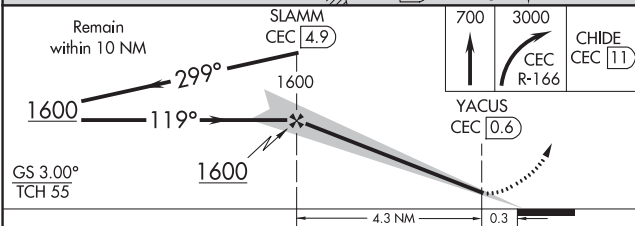
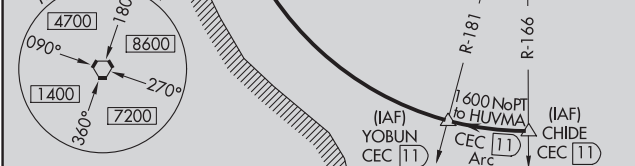
MISSED APPROACH:
Climb to 700 then climbing right turn to 3000 on CEC VORTAC R-166 to CHIDE/CEC 11 DME and hold, continue climb-in-hold to 3000.

ASOS 119.925	SEATTLE CENTER 124.85 306.3	OAKLAND RADIO 122.3	UNICOM 122.8 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-ILS 12		310-¾	250 (300-¾)	
S-LOC 12		380-¾	250 (400-¾)	
CIRCLING	540-1	479 (500-1)	640-1½ 579 (600-1½)	640-2 579 (600-2)

WAAS CH 90310 W12A	APP CRS 119°	Rwy Idg TDZE Apt Elev	5000 60 61
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RNAV (GPS) RWY 12

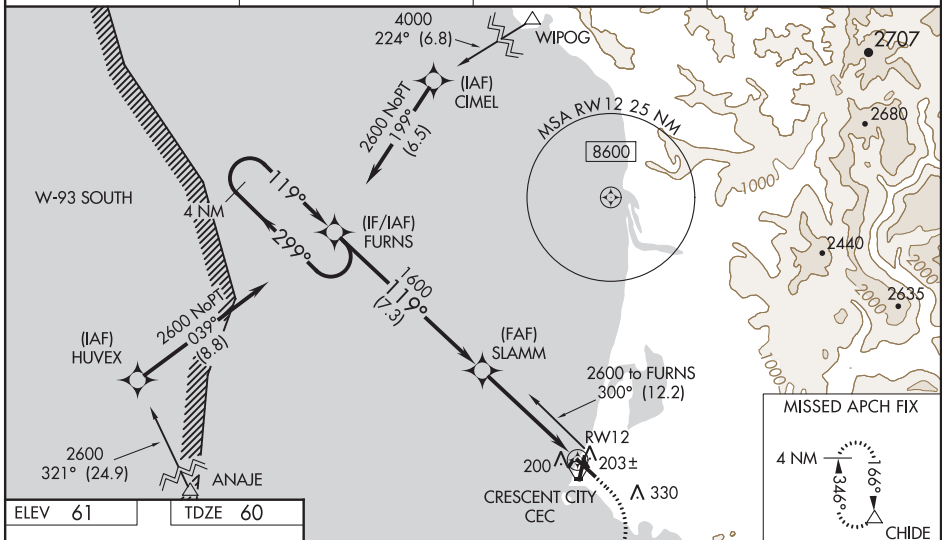
JACK MC NAMARA FIELD (C/C)

▽ Inop table does not apply to LPV all Cats. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 0°C (32°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Brookings altimeter setting and increase LPV DA to 407 feet, LNAV/VNAV DA to 484 feet and all MDA 100 feet; increase LPV all Cats visibility to ½ mile, LNAV/VNAV all Cats visibility to 1½ mile, LNAV Cat C/D to 1½ mile, and Circling Cat C to 2 miles, Cat D to 2½ miles. For inop MALS, increase LNAV/VNAV all Cats visibility to 1 mile and LNAV Cat A/B visibility to 1 mile, Cat C/D to 1½ mile. For inop MALS, when using Brookings altimeter setting, increase LPV all Cats visibility to 1½ mile, LNAV/VNAV all Cats visibility to 1½ mile, and LNAV Cat A/B to 1 mile, Cat C/D to 1½ mile. VDP and Baro-VNAV NA when using Brookings altimeter setting. Night landing: Rwy 18, 30 NA. Night landing: Rwy 36, operational VGSI required, remain on or above VGSI glidepath until threshold.

MALS

MISSED APPROACH:
Climb to 600 then climbing right turn to 3000 direct CHIDE and hold, continue climb-in-hold to 3000.

ASOS 119.925	SEATTLE CENTER 124.85 306.3	OAKLAND RADIO 122.3	UNICOM 122.8 (CTAF)
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ELEV 61 TDZE 60

△ 144±

△ 163±

△ 140±

119° to RWY 12

81

63±

5000 x 1.50

5001 x 1.50

36

HIRL Rwy 12-30

REL Rwys 18, 30 and 36

MIRL Rwy 18-36

4 NM Holding Pattern FURNS 2600 ← 299° → 119° → 1600 SLAMM GP 3.00° TCH 55 1600 7.3 NM 3.6 NM 1.1 NM RWY 12	600	3000	CHIDE
	* LNAV only.		
CATEGORY	A	B	C
LPV DA		310-¾	250 (300-¾)
LNAV/VNAV DA		387-¾	327 (400-¾)
LNAV MDA	460-¾	400 (400-¾)	460-⅞ 400 (400-⅞)
C CIRCLING	540-1	479 (500-1)	640-1½ 579 (600-1½) 640-2 579 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 72927 W36A	APP CRS 359°	Rwy Idg TDZE Apt Elev	5001 59 61
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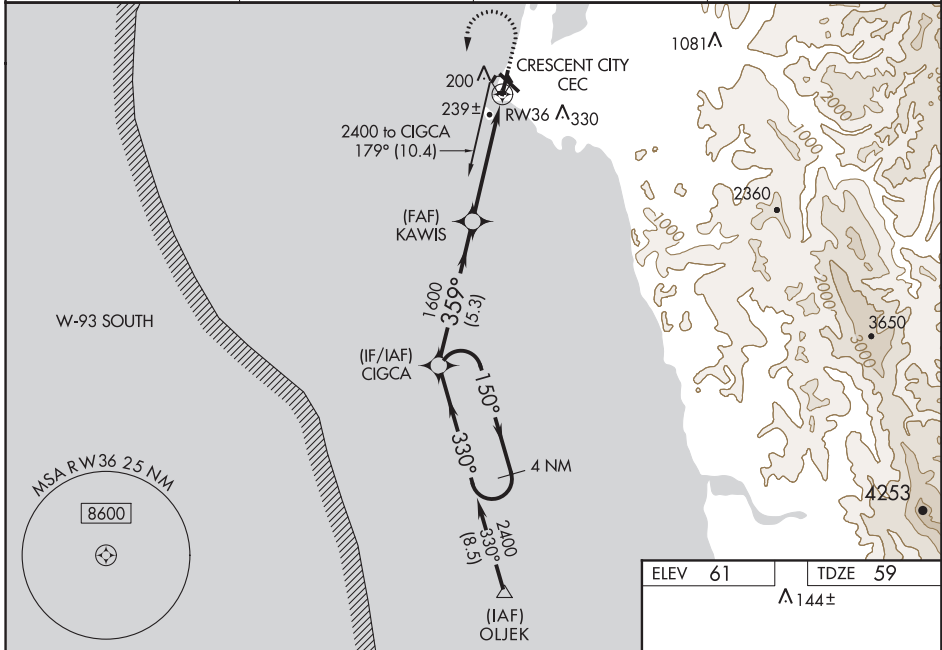
RNAV (GPS) RWY 36

JACK MC NAMARA FIELD (CEC)

⚠ Baro-VNAV NA when using Brookings altimeter setting. 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 Brookings altimeter setting and increase LPV DA to 406 feet and LNAV/VNAV DA to 505 feet and all MDA 100 feet; increase LPV all Cats and LNAV Cat C/D and Circling Cat D visibilities ¼ mile, increase LNAV/VNAV all Cats visibility ⅓ mile, and Circling Cat C visibility ½ mile. Helicopter visibility reduction below 1 SM NA. Night landing: Rwy 36 operational VGSI required, remain on or above VGSI glidepath until threshold. Night landing: Rwy 18, 30 NA at night.

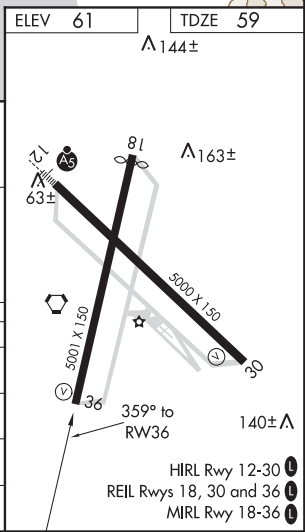
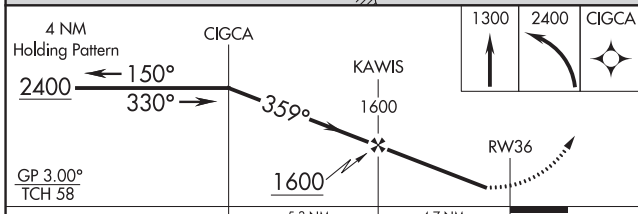
MISSED APPROACH: Climb to 1300 then climbing left turn to 2400 direct CIGCA and hold.

ASOS 119.925	SEATTLE CENTER 124.85 306.3	OAKLAND RADIO 122.3	UNICOM 122.8 (CTAF) 0
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017




CATEGORY	A	B	C	D
LPV DA	309-1		250 (300-1)	
LNAV/VNAV DA	408-1½		349 (400-1½)	
LNAV MDA	500-1	441 (500-1)	500-1¾	441 (500-1¾)
C CIRCLING	540-1	479 (500-1)	640-1½	640-2
			579 (600-1½)	579 (600-2)

VORTAC CEC 109.0 Chan 27	APP CRS 131°	Rwy Idg 5000 TDZE 60 Apt Elev 61
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VOR/DME RWY 12

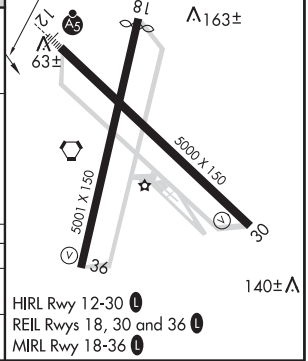
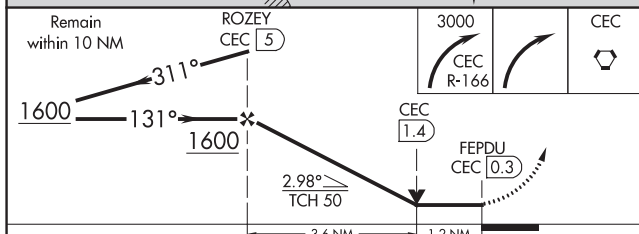
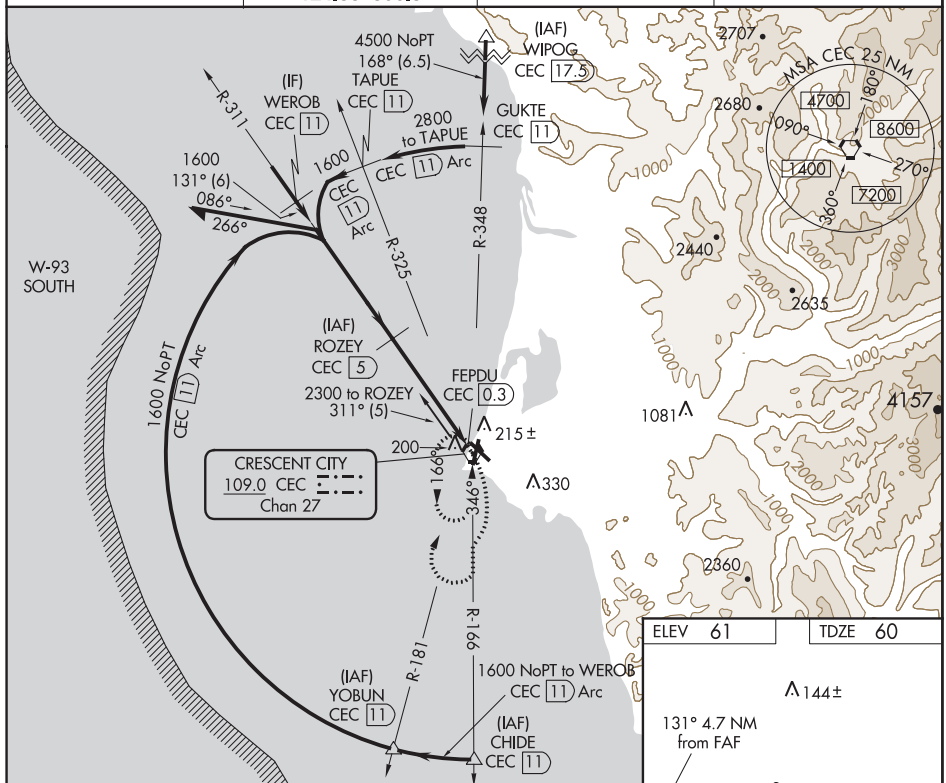
JACK MC NAMARA FIELD (CEC)

▽ VDP NA with Brookings altimeter setting. When local altimeter setting not received, use Brookings altimeter setting and increase all MDA 100 feet; increase S-12 Cat C/D, and Circling Cat D visibility 1/2 mile, and Circling Cat C visibility 1/2 mile. For inop MALSR, increase S-12 Cats A/B visibility to 1 mile, Cats C/D visibility to 1 1/2 mile. For inop MALSR when using Brookings altimeter setting, increase S-12 Cats A/B visibility to 1 mile, Cats C/D visibility to 1 1/2 mile. Night Landing: Rwy 18, 30 NA. Night Landing: Rwy 36 operational VGSJ required, remain on or above VGSJ glidepath until threshold.

MALSR 

MISSED APPROACH: Climbing right turn to 3000 on CEC VORTAC R-166 then right turn direct CEC VORTAC and hold.

ASOS 119,925	SEATTLE CENTER 124,85 306,3	OAKLAND RADIO 122.3	UNICOM 122.8 (CTAF) 
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CATEGORY	A	B	C	D
S-12	480-3/4	420 (500-3/4)	480-1	420 (500-1)
C CIRCLING	540-1	479 (500-1)	640-1 1/2 579 (600-1 1/2)	640-2 579 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

VORTAC CEC 109.0 Chan 27	APP CRS 346°	Rwy Idg 5001 TDZE 59 Apt Elev 61
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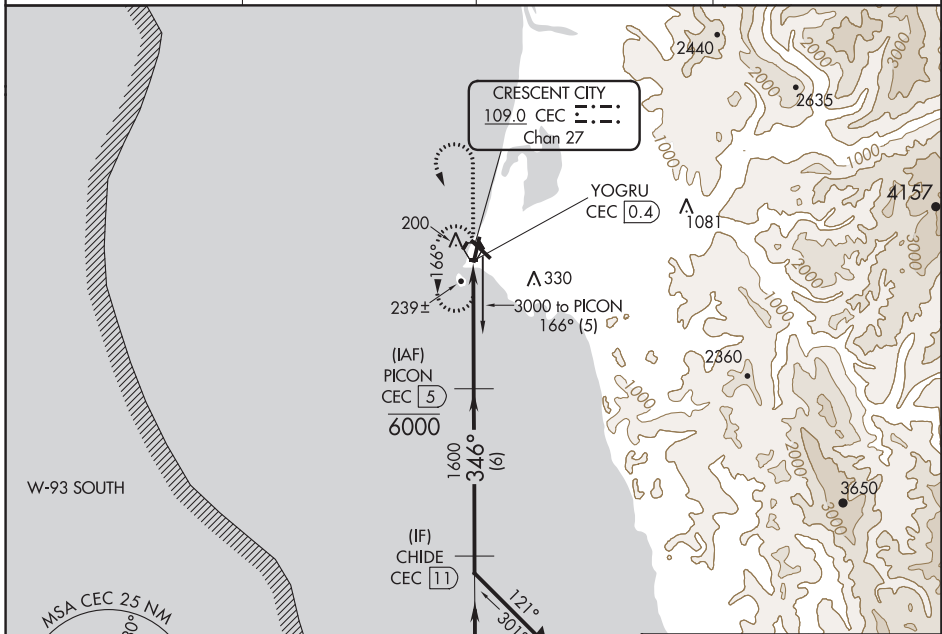
VOR/DME RWY 36

JACK MC NAMARA FIELD (CEC)

⚠ When local altimeter setting not received, use Brookings altimeter setting and increase all MDA 100 feet; increase S-36 Cat C/D and Circling Cat D visibilities 1/4 mile and Circling Cat C visibility 1/2 mile. Helicopter visibility reduction below 1 SM NA. Night landing: Rwy 36 operational VGSi required, remain on or above VGSi glidepath until threshold. Night landing: Rwy 18, 30 NA.

MISSED APPROACH: Climb to 1000 then climbing left turn to 3000 direct CEC VORTAC and hold, continue climb-in-hold to 3000.

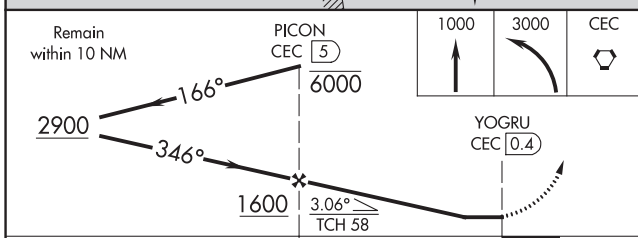
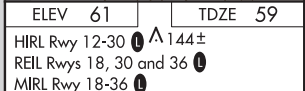
ASOS 119.925	SEATTLE CENTER 124.85 306.3	OAKLAND RADIO 122.3	UNICOM 122.8 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 61	TDZE 59
HIRL Rwy 12-30 Δ 144±	REIL Rws 18, 30 and 36 Δ
MIRL Rwy 18-36 Δ	




CATEGORY	A	B	C	D
S-36	500-1	441 (500-1)	500-1 3/8	441 (500-1 3/8)
C CIRCLING	540-1	479 (500-1)	640-1 1/2 579 (600-1 1/2)	640-2 579 (600-2)

VORTAC CEC 109.0 Chan 27	APP CRS 131°	Rwy Idg TDZE Apt Elev	5000 60 61
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VOR RWY 12
JACK MC NAMARA FIELD (CEC)

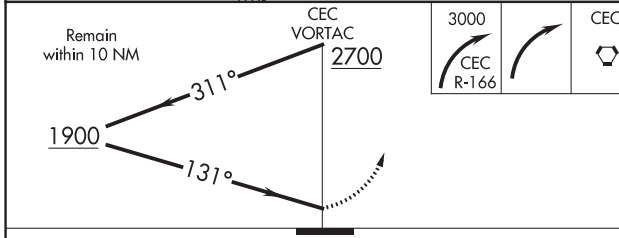
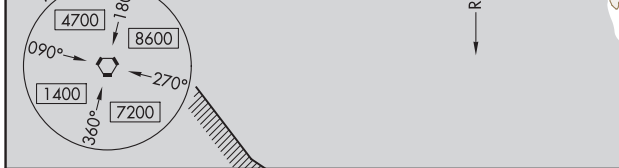
⚠ When local altimeter setting not received, use Brookings altimeter setting and increase all MDA 100 feet; increase S-12 Cat C/D visibility $\frac{3}{8}$ mile, Circling Cat D visibility $\frac{1}{4}$ mile and Circling Cat C visibility $\frac{1}{2}$ mile. For inop MALSAR increase S-12 Cat A/B visibility to 1 mile, and Cat C/D visibility to $1\frac{1}{8}$ mile. For inop MALSAR when using Brookings altimeter setting, increase S-12 Cat A/B visibility to 1 mile, and Cat C/D visibility to $1\frac{1}{8}$ mile. Night Landing: Rwy 36 operational VGSI required, remain on or above VGSI glidepath until threshold. Night Landing: Rwy 18, 30 NA.

MALSAR



MISSED APPROACH: Climbing right turn to 3000 on CEC VORTAC R-166 then right turn direct CEC VORTAC and hold.

ASOS 119.925	SEATTLE CENTER 124.85 306.3	OAKLAND RADIO 122.3	UNICOM 122.8 (CTAF) 0
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ELEV 61	TDZE 60
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$\Delta 144\pm$

HIRL Rwy 12-30 **0**
MIRL Rwy 18-36 **0**
REIL Rws 18, 30 and 36 **0**

CATEGORY	A	B	C	D
S-12	520- $\frac{3}{4}$	460 (500- $\frac{3}{4}$)	520-1	460 (500-1)
C CIRCLING	540-1	479 (500-1)	640-1 $\frac{1}{2}$ 579 (600-1 $\frac{1}{2}$)	640-2 579 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	3176
167°	TDZE	64
	Apt Elev	69

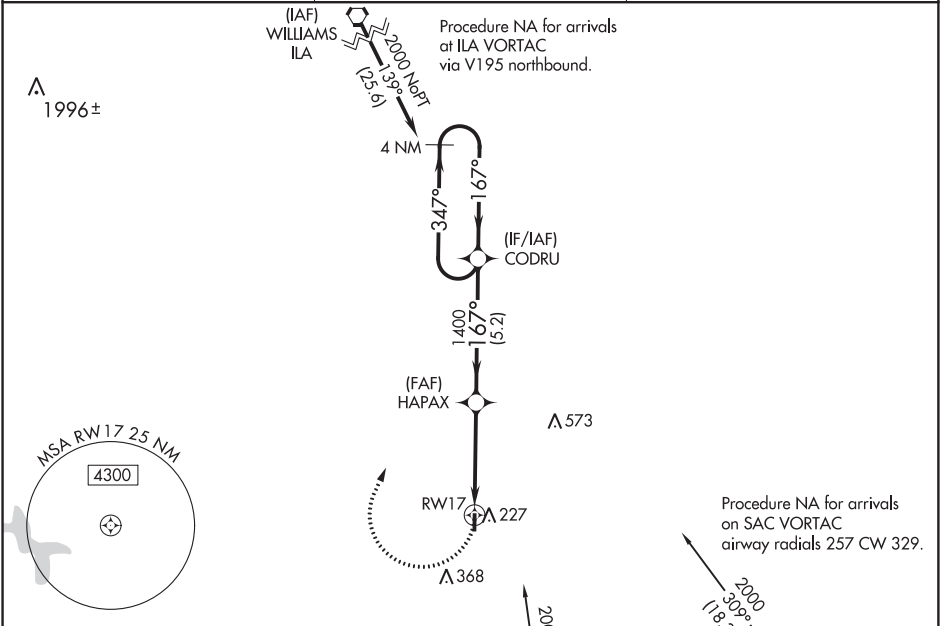
RNAV (GPS) RWY 17

UNIVERSITY (EDU)

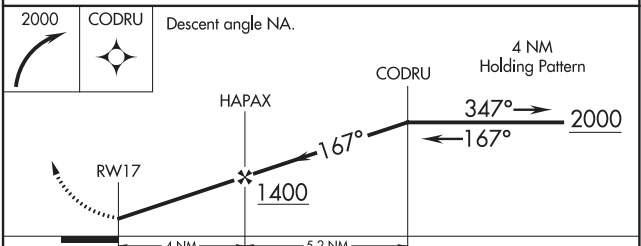
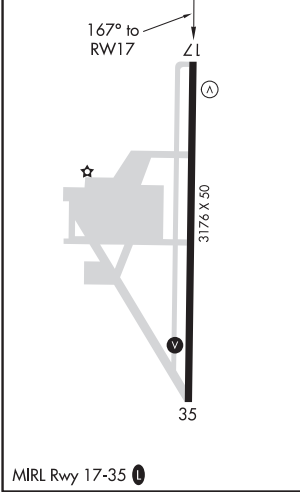
▽ DME/DME RNP-0.3 NA. When local altimeter setting not received, use Travis AFB altimeter setting and increase all MDA 60 feet.
▲ NA Helicopter visibility reduction below 1 SM not authorized. Procedure NA at night.

MISSED APPROACH: Climbing right turn to 2000 direct CODRU and hold.

AWOS-3 119.025	TRAVIS APP CON 126.6 281.45	UNICOM 123.075 (CTAF) 0
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ELEV 69	TDZE 64
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CATEGORY	A	B	C	D
LNAV MDA	520-1	456 (500-1)	NA	
CIRCLING	580-1	511 (600-1)	NA	

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 99719 W16A	APP CRS 164°	Rwy Idg TDZE Apt Elev	6000 99 100
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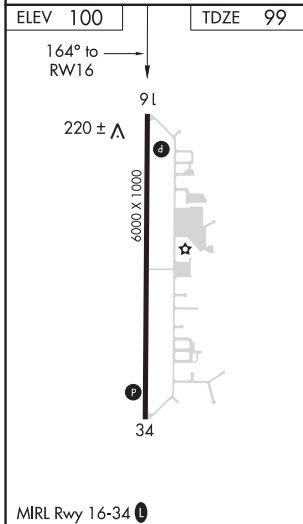
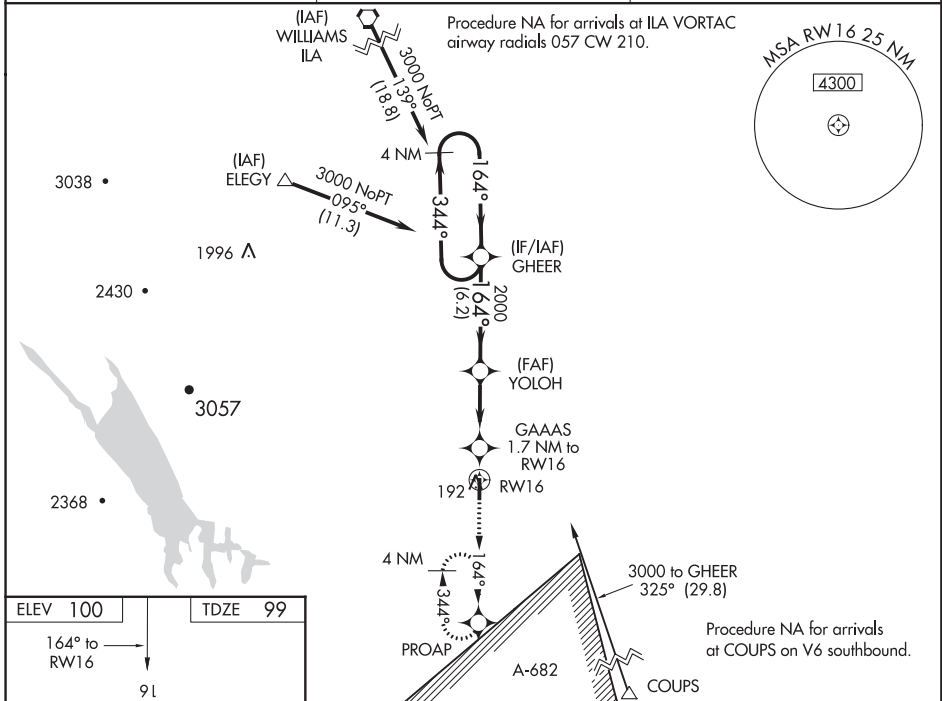
RNAV (GPS) RWY 16

YOLO COUNTY (DWA)

NA DME/DME RNP-0.3 NA. When local altimeter setting not received, use Travis AFB altimeter setting and increase all DA 50 feet and all MDA 60 feet, and increase LNAV/VNAV all Cats and LNAV Cat C and D visibility ¼ mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 43°C (109°F). Baro-VNAV NA when using Travis AFB altimeter setting.

MISSED APPROACH: Climb to 3600 direct PROAP and hold, continue climb-in-hold to 3600.

AWOS-3 125.775	TRAVIS APP CON 126.6 281.45	UNICOM 123.0 (CTAF) ①
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3600 PROAP	YOLOH		GHEER		4 NM Holding Pattern
*LNAV only	GAAAS 1.7 NM to RW16	2000	2000	3000	344°
RW16	680*	164°	164°	2000	
	1.7 NM	4.2 NM	6.2 NM		
CATEGORY	A	B	C	D	
LPV DA	360-1 261 (300-1)				
LNAV/VNAV DA	402-1 303 (400-1)				
LNAV MDA	480-1	381 (400-1)	480-1½	381 (400-1½)	
CIRCLING	560-1	460 (500-1)	560-1½	460 (500-1½)	660-2 560 (600-2)

GP 3.00° TCH 40

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 58319 W34A	APP CRS 344°	Rwy Idg TDZE Apt Elev	6000 100 100
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RNAV (GPS) RWY 34

YOLO COUNTY (DWA)

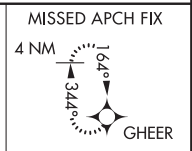
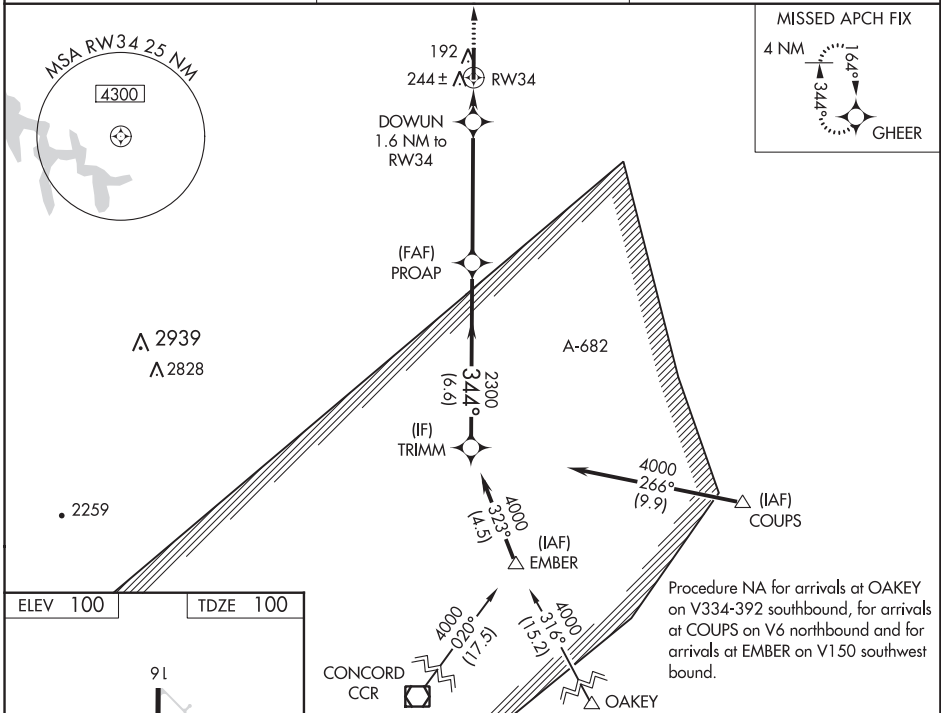
NA DME/DME RNP-0.3 NA. When local altimeter setting not received, use Travis AFB altimeter setting and increase all DA 50 feet and all MDA 60 feet, and increase LPV visibility all Cats 1/8 mile, LNAV/VNAV visibility all Cats 1/4 mile, and LNAV Cat C and D visibility 1/4 mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 42°C (107°F). Baro-VNAV NA when using Travis AFB altimeter setting.

MISSED APPROACH: Climb to 3000 direct GHEER and hold.

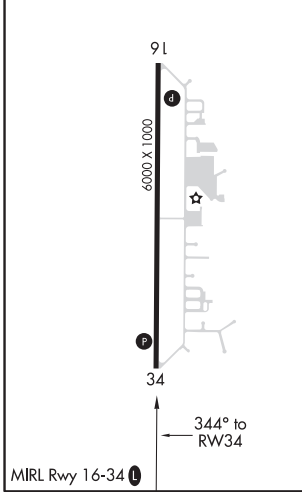
AWOS-3
125.775

TRAVIS APP CON
126.6 281.45

UNICOM
123.0 (CTAF)



ELEV 100 TDZE 100



TRIMM	VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 40).			3000	GHEER
4000	344°	2300	DOWUN 1.6 NM to RWY34		*LNAV only
GP 3.00° TCH 58	2300	*660	RWY34		
	6.6 NM	5.1 NM	1.6 NM		
CATEGORY	A	B	C	D	
LPV DA		415-1	315 (400-1)		
LNAV/VNAV DA		425-1	325 (400-1)		
LNAV MDA	500-1	400 (400-1)	500-1 1/8	400 (400-1 1/8)	
CIRCLING	560-1	460 (500-1)	560-1 1/2 460 (500-1 1/2)	660-2 560 (600-2)	

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	3000
115°	TDZE	7
	Apt Elev	7

RNAV (GPS) RWY 12

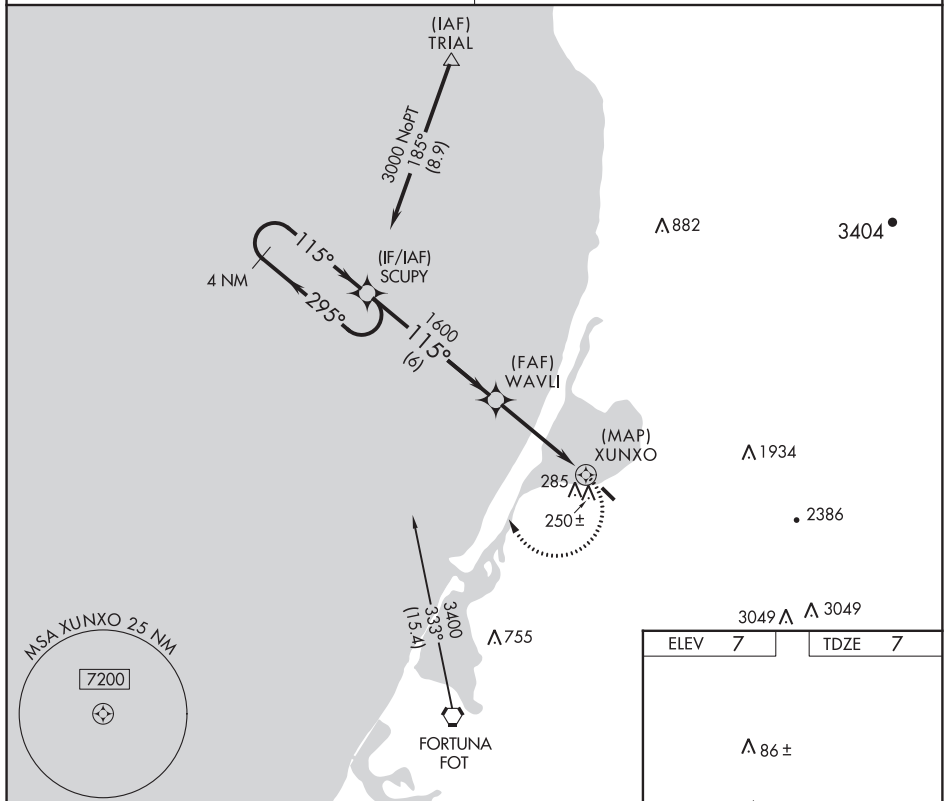
MURRAY FIELD (EKA)

NA DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. Use Arcata altimeter setting, when not received, use Crescent City altimeter setting and increase all MDA 100 feet and increase LNAV Cat C and circling Cat B visibility ¼ mile.

MISSED APPROACH: Climbing right turn to 3000 direct SCUPY and hold.

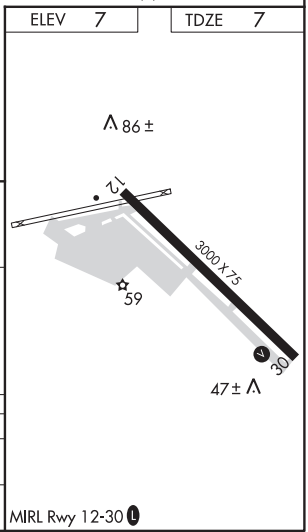
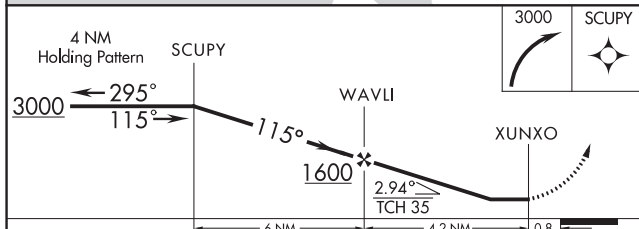
SEATTLE CENTER **124.85 306.3**

UNICOM **122.7 (CTAF)**



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LNAV MDA	760-1 753 (800-1)	760-1¼ 753 (800-1¼)	760-2¼ 753 (800-2¼)	NA
CIRCLING	760-1 753 (800-1)	880-1¼ 873 (900-1¼)	1060-3 1053 (1100-3)	NA

APP CRS 020°	Rwy Idg TDZE Apt Elev	N/A N/A 7
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RNAV (GPS)-B

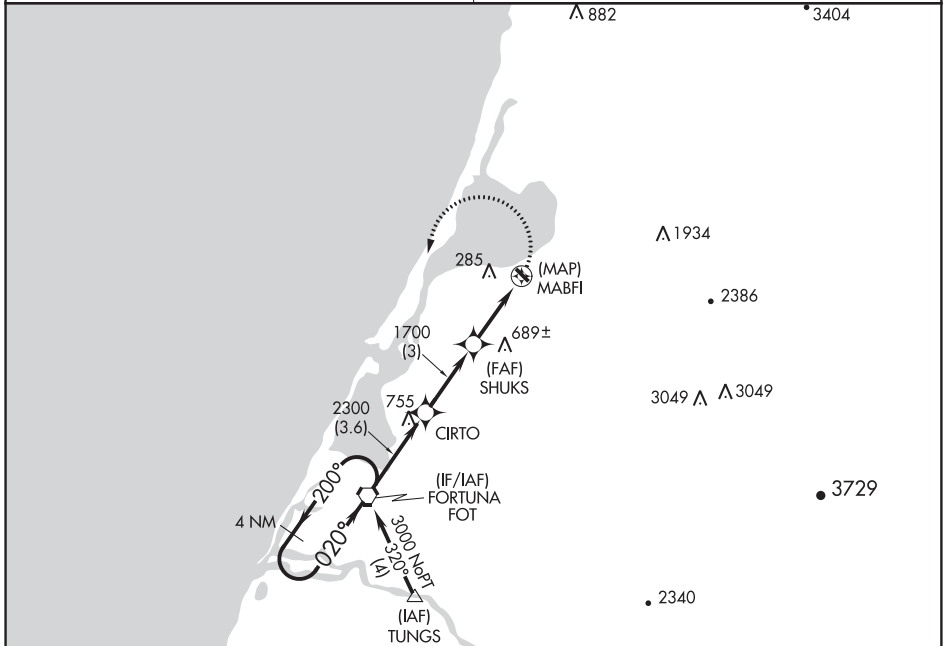
MURRAY FIELD (EKA)

NA DME/DME RNP -0.3 NA. Use Arcata altimeter setting when not received, use Crescent City altimeter setting and increase all MDA 100 feet.

MISSED APPROACH: Climbing left turn to 3000 direct FOT VORTAC and hold.

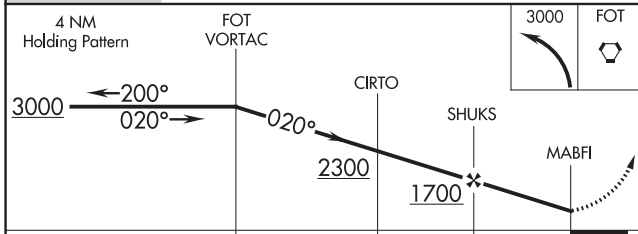
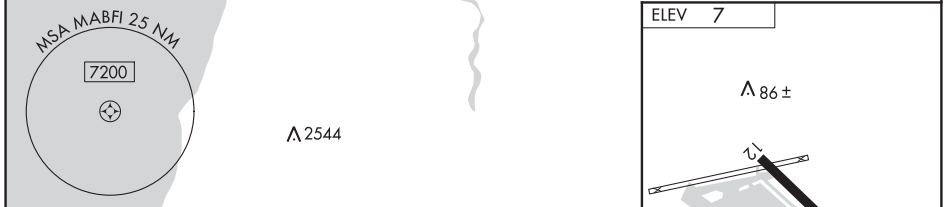
SEATTLE CENTER **124.85 306.3**

UNICOM **122.7** (CTAF) **0**

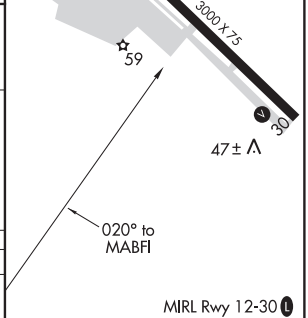


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	980-1¼ 973 (1000-1¼)	980-1½ 973 (1000-1½)	1060-3 1053 (1100-3)	NA



EUREKA, CALIFORNIA
Orig 27AUG09

40°48'N-124°07'W
67

MURRAY FIELD (EKA)

RNAV (GPS)-B

EUREKA, CALIFORNIA

AL-5888 (FAA)

16315

VORTAC FOT 114.0 Chan 87	APP CRS 016°	Rwy Idg TDZE Apt Elev N/A N/A 7
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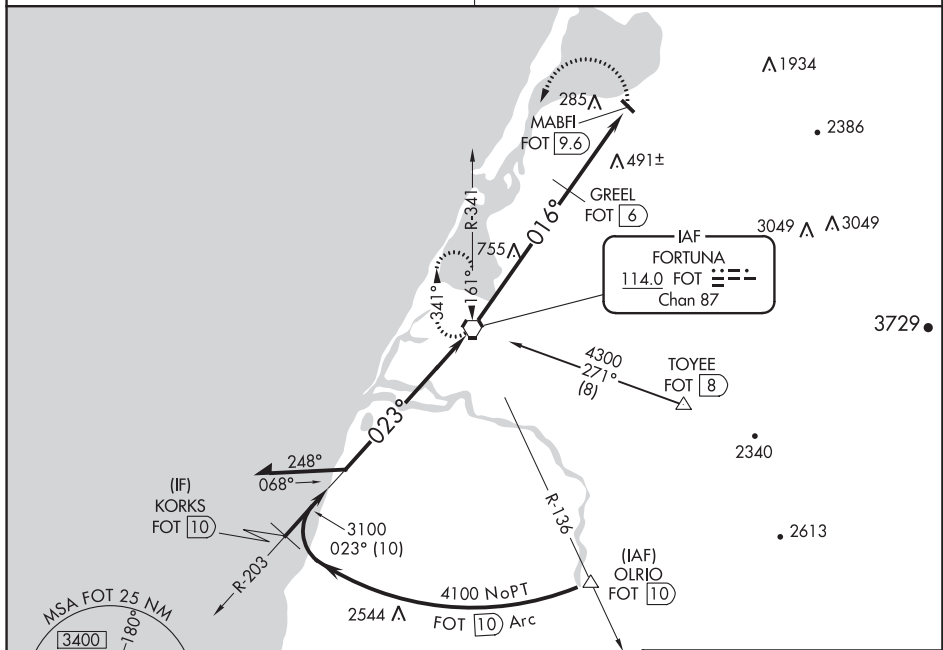
VOR-A
MURRAY FIELD (EKA)

NA Use Arcata altimeter setting; when not received, use Crescent City altimeter setting and increase all MDA 100 feet and increase GREEL fix minimums visibility Cats. A and B ¼ mile.

MISSED APPROACH: Climbing left turn to 3000 direct FOT VORTAC and hold.

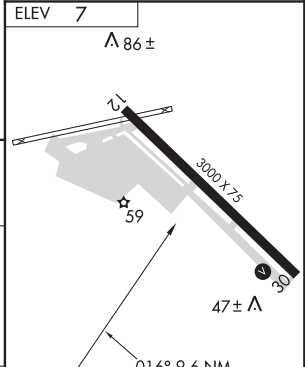
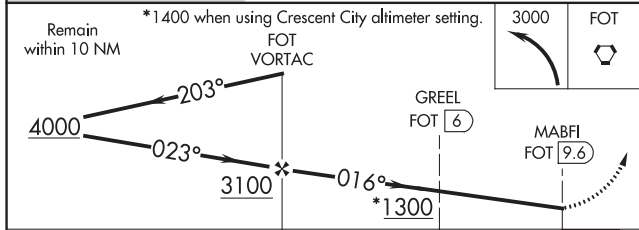
SEATTLE CENTER
124.85 306.3

UNICOM
122.7 (CTAF) **1**



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	1300-1¼ 1293 (1300-1¼)	1300-1½ 1293 (1300-1½)	1300-3 1293 (1300-3)	NA
GREEL FIX MINIMUMS				
CIRCLING	860-1 853 (900-1)	880-1¼ 873 (900-1¼)	1060-3 1053 (1100-3)	NA

FAF to MAP 9.6 NM					
Knots	60	90	120	150	180
Min:Sec	9:36	6:24	4:48	3:50	3:12

EUREKA, CALIFORNIA
Amdt 7A 24SEP09

40°48'N-124°07'W

MURRAY FIELD (EKA)
VOR-A

APP CRS	Rwy Idg	N/A
044°	TDZE	N/A
	Apt Elev	157

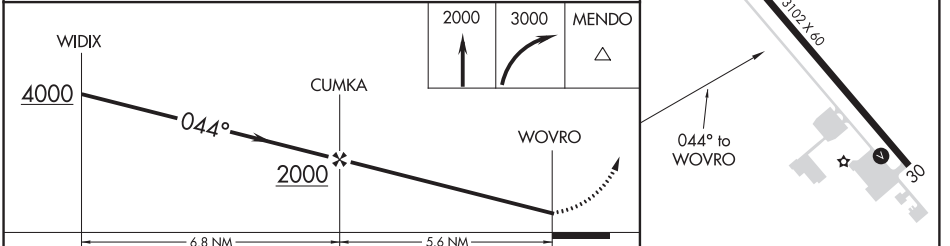
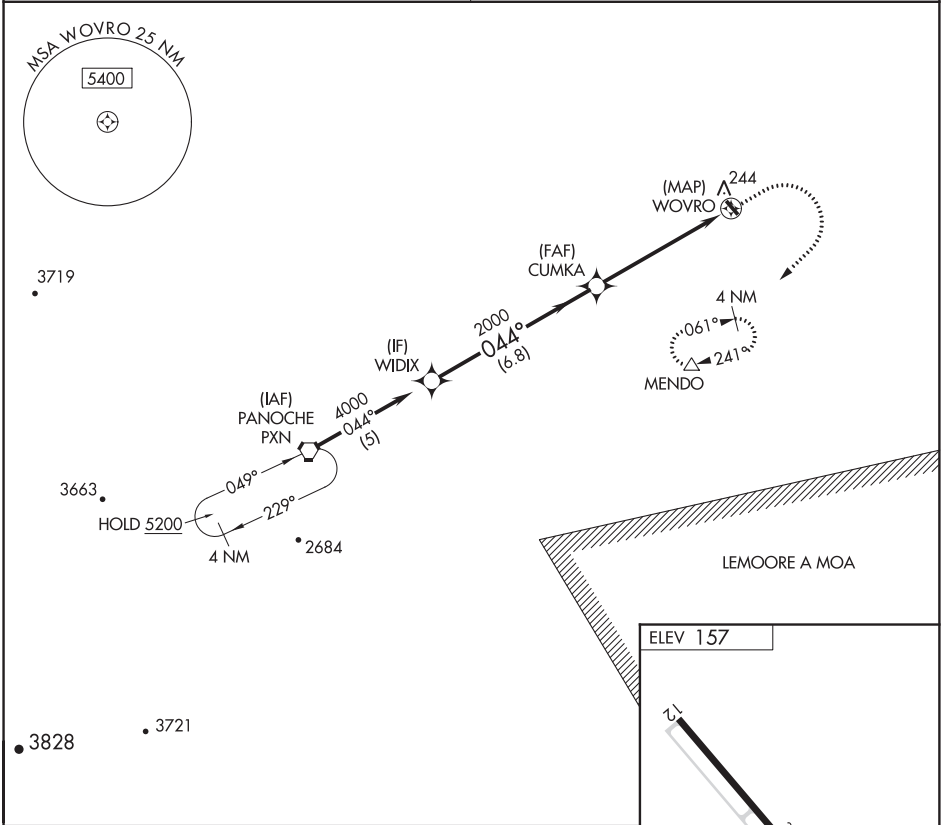
RNAV (GPS)-B

FIREBAUGH (F34)

▽ Use Madera altimeter setting, when not received, use Merced Rgnl/ Macready Field altimeter setting and increase all MDA 20 feet.
▲ NA Procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 2000 then climbing right turn to 3000 direct MENDO and hold.

NORCAL APP CON 120.95 269.45	CTAF 122.9
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CATEGORY	A	B	C	D
CIRCLING	740-1	583 (600-1)	NA	



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

FIREBAUGH, CALIFORNIA

AL-6268 (FAA)

14205

VORTAC PXN 112.6 Chan 73	APP CRS 044°	Rwy Idg TDZE Apt Elev	N/A N/A 157
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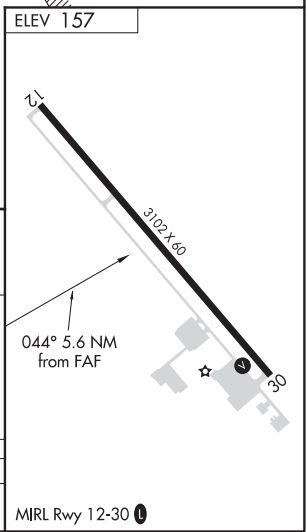
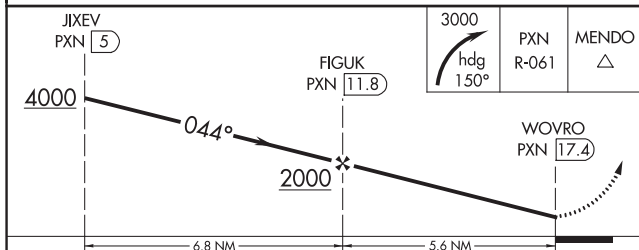
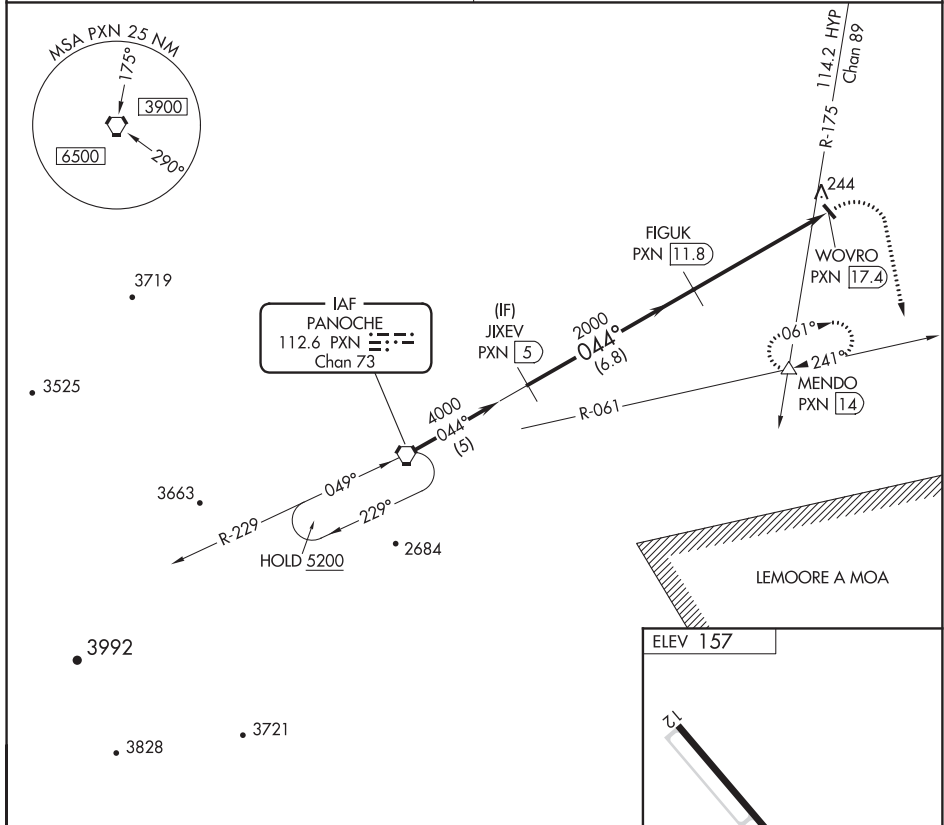
VOR/DME-A

FIREBAUGH (F34)

NA Use Madera altimeter setting, when not received, use Merced Rgnl/Macready Field altimeter setting. Procedure NA at night. Visibility reduction by helicopters NA.

MISSED APPROACH: Climbing right turn to 3000 on heading 150° and on PXN VORTAC R-061 to MENDO INT/PXN 14 DME and hold, continue climb-in-hold to 3000.

NORCAL APP CON 120,95 269,45	CTAF 122.9
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CATEGORY	A	B	C	D
CIRCLING	740-1	583 (600-1)	NA	

FIREBAUGH, CALIFORNIA
Amdt 3 30JUN11

36°52'N-120°28'W

FIREBAUGH (F34)

VOR/DME-A

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	4005
110°	TDZE	382
	Apt Elev	392

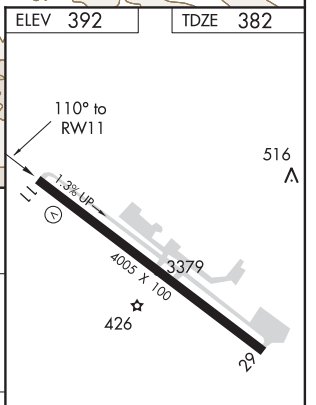
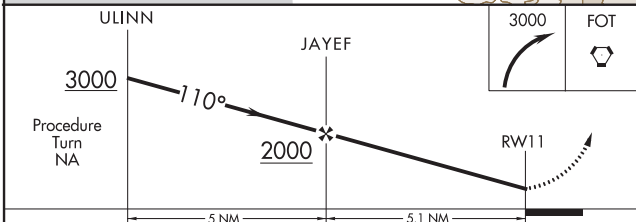
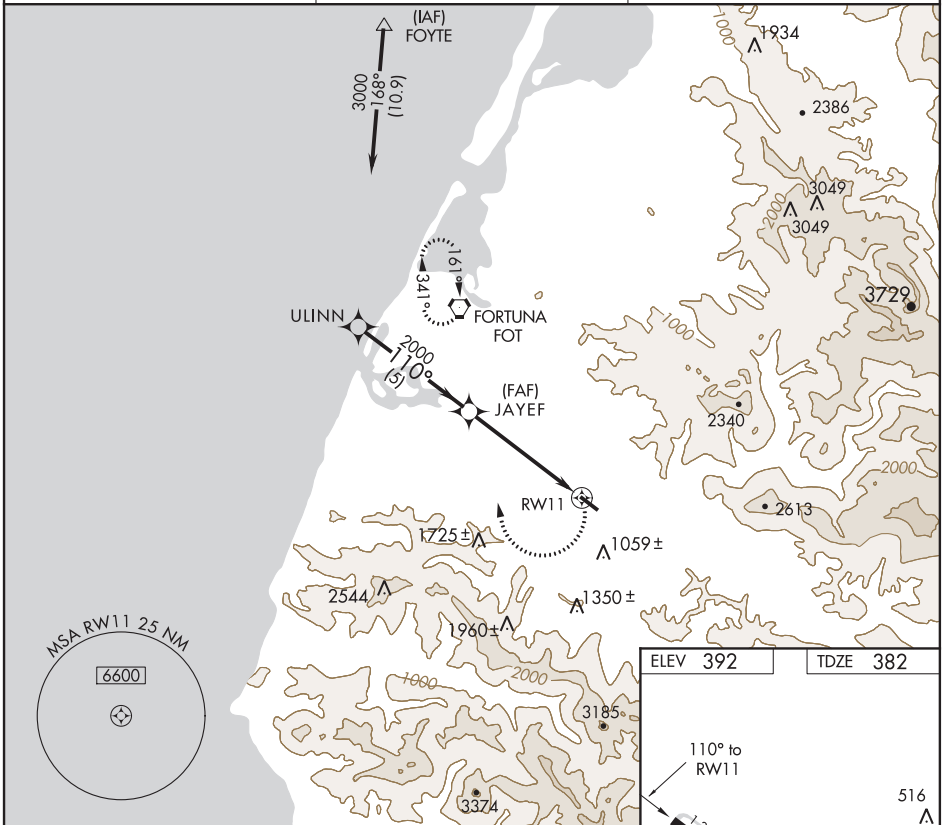
GPS RWY 11

ROHNERVILLE (FOT)

NA When local altimeter setting not received, use Arcata altimeter setting.

MISSED APPROACH: Climbing right turn to 3000 direct FOT VORTAC and hold.

AWOS-3 133.8	SEATTLE CENTER 124.85 306.3	CTAF 122.9
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CATEGORY	A	B	C	D
S-11	1140-1 758 (800-1)	1160-1 ¼ 778 (800-1 ¼)	1200-2 ½ 818 (900-2 ½)	1560-3 1178 (1200-3)
CIRCLING	1140-1 748 (800-1)	1160-1 ¼ 768 (800-1 ¼)	1320-2 ¾ 928 (1000-2 ¾)	1560-3 1168 (1200-3)

REIL Rwy 11 and 29 **0**
MIRL Rwy 11-29 **0**

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	4005
276°	TDZE	392
	Apt Elev	392

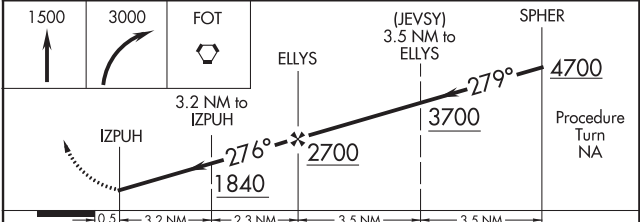
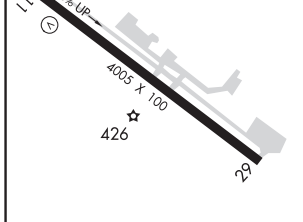
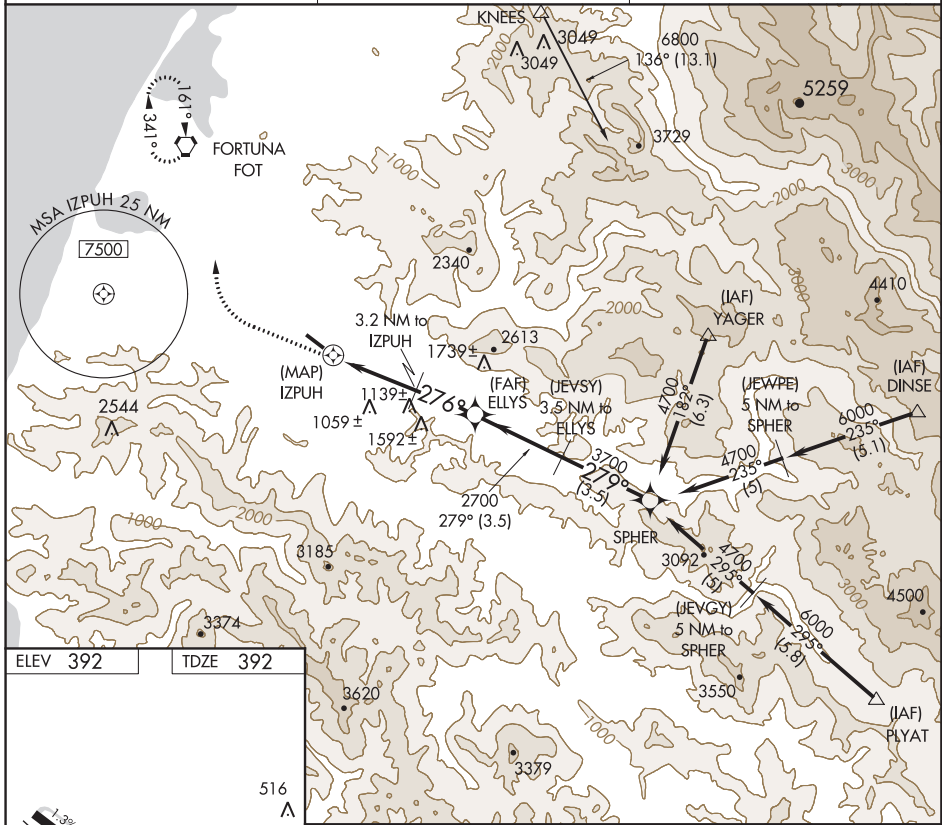
GPS RWY 29

ROHNERVILLE (FOT)

NA When local altimeter setting not received, use Arcata altimeter setting.

MISSED APPROACH: Climb to 1500 then climbing right turn to 3000 direct FOT VORTAC and hold.

AWOS-3 133.8	SEATTLE CENTER 124.85 306.3	CTAF 122.9
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CATEGORY	A	B	C	D
S-29	1160-1 768 (800-1)	1160-1¼ 768 (800-1¼)	1160-2¼ 768 (800-2¼)	1160-2½ 768 (800-2½)
CIRCLING	1160-1 768 (800-1)	1160-1¼ 768 (800-1¼)	1320-2¾ 928 (1000-2¾)	1460-3 1068 (1100-3)

FORTUNA, CALIFORNIA
Orig-A 26MAY16

40°33'N-124°08'W

ROHNERVILLE (FOT)

GPS RWY 29

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

VORTAC FOT 114.0 Chan 87	APP CRS 128°	Rwy Idg TDZE Apt Elev	4005 382 392
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VOR RWY 11
ROHNERVILLE (FOT)

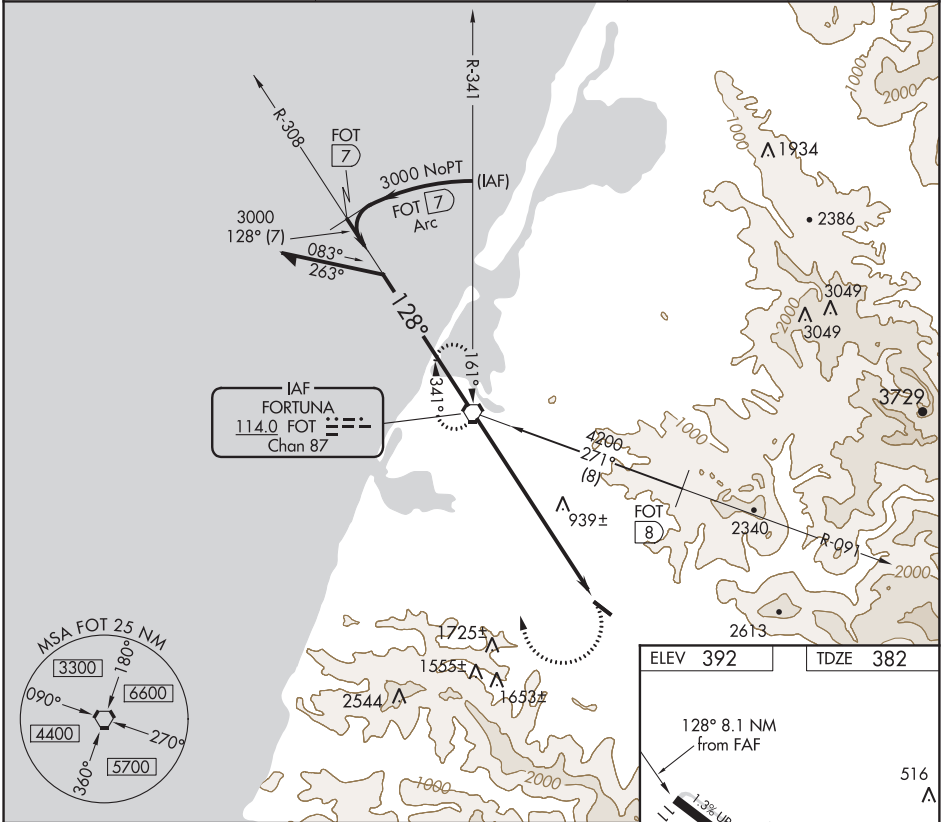
▼ When local altimeter setting not received, use Arcata altimeter setting.
▲ NA

MISSED APPROACH: Climbing right turn to 3000 direct FOT VORTAC and hold.

AWOS-3
133.8

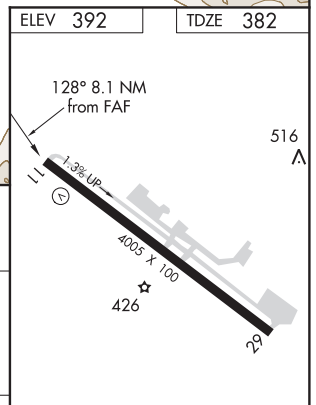
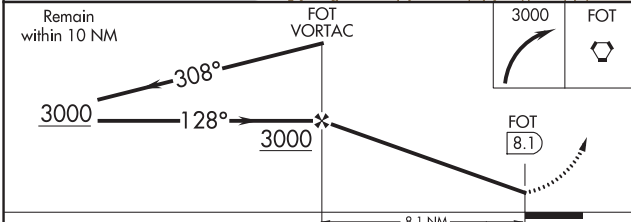
SEATTLE CENTER
124.85 306.3

CTAF
122.9



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-11	1640-1¼ 1258 (1300-1¼)	1680-1½ 1298 (1300-1½)	1720-3	1338 (1400-3)
CIRCLING	1640-1¼ 1248 (1300-1¼)	1680-1½ 1288 (1300-1½)	1720-3	1338 (1400-3)

REIL Rwy 11 and 29

MRL Rwy 11-29

FAF to MAP 8.1 NM

Knots	60	90	120	150	180
Min:Sec	8:06	5:24	4:03	3:14	2:42

FRESNO, CALIFORNIA

AL-161 (FAA)

16007

APP CRS 111°	Rwy Idg 3212
	TDZE 280
	Apt Elev 280

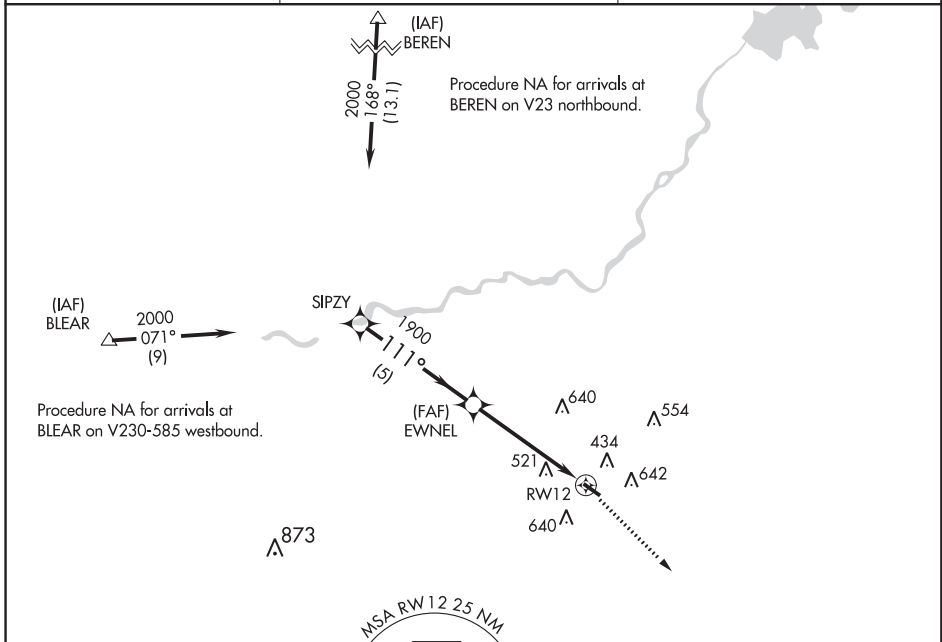
GPS RWY 12

FRESNO CHANDLER EXECUTIVE (FCH)

NA If local altimeter setting not received, use Fresno Yosemite Init altimeter setting and increase all MDAs 20 feet. Helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climbing right turn to 2000 direct FRAME WP and hold.

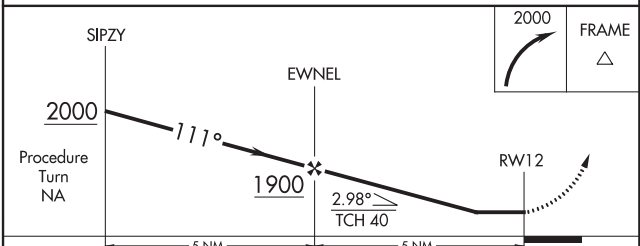
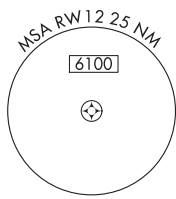
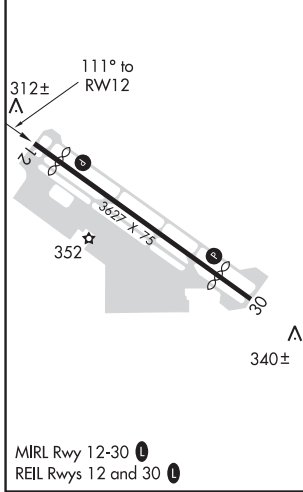
AWOS-3 135.225	FRESNO APP CON 119.0 323.25	UNICOM 123.0 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 280	TDZE 280
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CATEGORY	A	B	C	D
S-12	820-1	540 (600-1)	820-1½ 540 (600-1½)	NA
CIRCLING	1020-1	740 (800-1)	1020-2 740 (800-2)	NA

FRESNO, CALIFORNIA
Orig-C 07JAN16

36°44'N-119°49'W

FRESNO CHANDLER EXECUTIVE (FCH)

GPS RWY 12

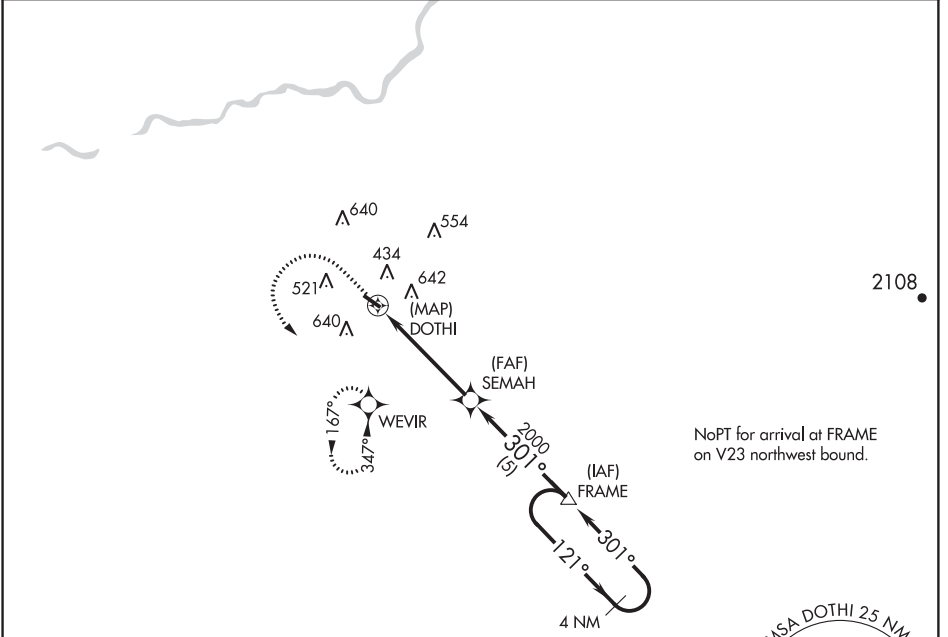
APP CRS	Rwy Idg	3089
301°	TDZE	280
	Apt Elev	280

GPS RWY 30

FRESNO CHANDLER EXECUTIVE (F'CH)

	If local altimeter setting not received, use Fresno Yosemite Int'l altimeter setting and increase all MDAs 20 feet. Helicopter visibility reduction below 3/4 SM NA.	MISSED APPROACH: Climb to 1000 then climbing left turn to 2000 direct WEVIR WP and hold.

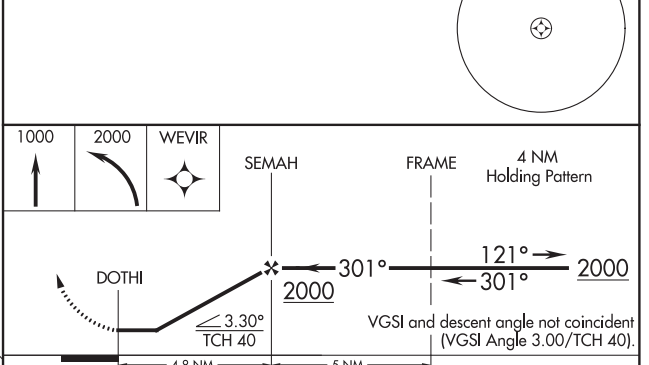
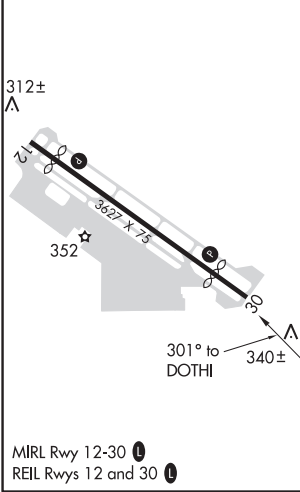
AWOS-3 135.225	FRESNO APP CON 119.0 323.25	UNICOM 123.0 (CTAF) 0
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 280	TDZE 280
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CATEGORY	A	B	C	D
S-30	900-1	620 (700-1)	900-1 3/4 620 (700-1 3/4)	NA
CIRCLING	1020-1	740 (800-1)	1020-2 740 (800-2)	NA

FRESNO, CALIFORNIA

AL-161 (FAA)

15008

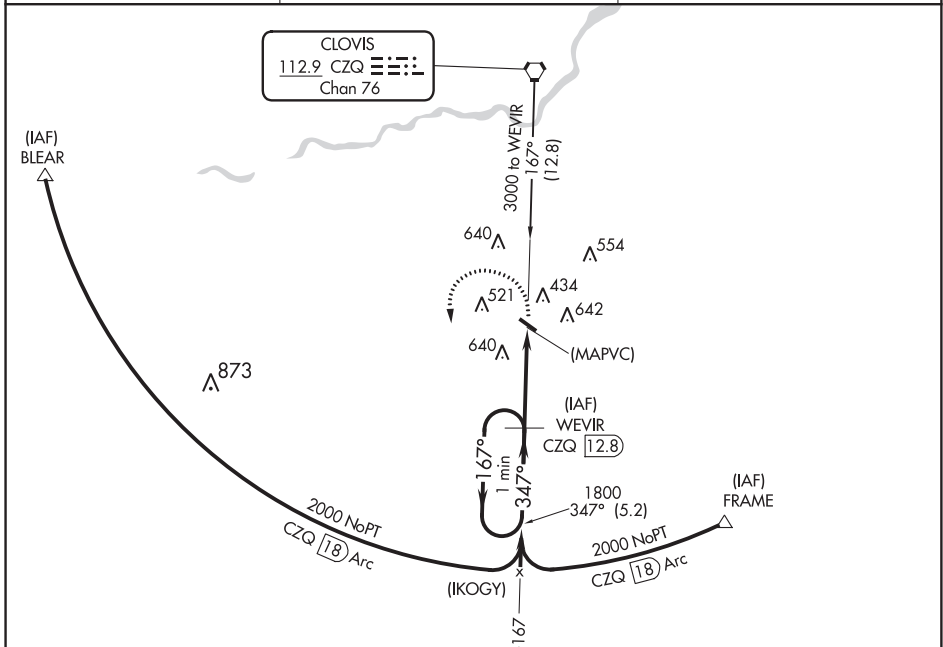
VORTAC CZQ 112.9 Chan 76	APP CRS 347°	Rwy Idg TDZE Apt Elev	N/A N/A 280
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VOR/DME or GPS-C
FRESNO CHANDLER EXECUTIVE (FCH)

If local altimeter setting not received, use Fresno Yosemite Intl altimeter setting and increase MDA 20 feet.

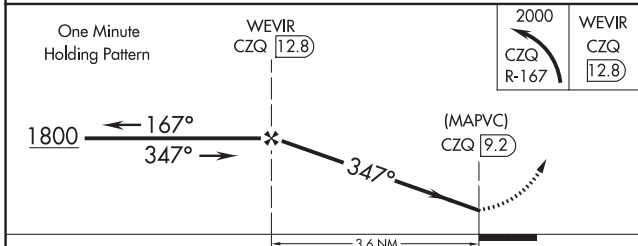
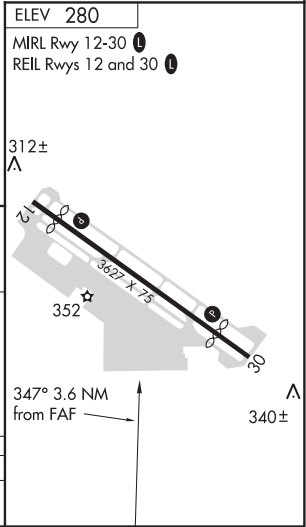
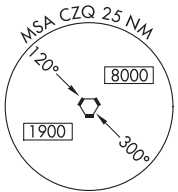
MISSED APPROACH: Climbing left turn to 2000 via R-167 to WEVIR 12.8 DME and hold.

AWOS-3 135.225	FRESNO APP CON 119.0 323.25	UNICOM 123.0 (CTAF) 1
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	1020-1	740 (800-1)	1020-2 740 (800-2)	NA

FRESNO, CALIFORNIA
Amdt 5A 15MAR07

36°44'N-119°49'W

FRESNO CHANDLER EXECUTIVE (FCH)

VOR/DME or GPS-C

AIRPORT DIAGRAM

AL-161 (FAA)

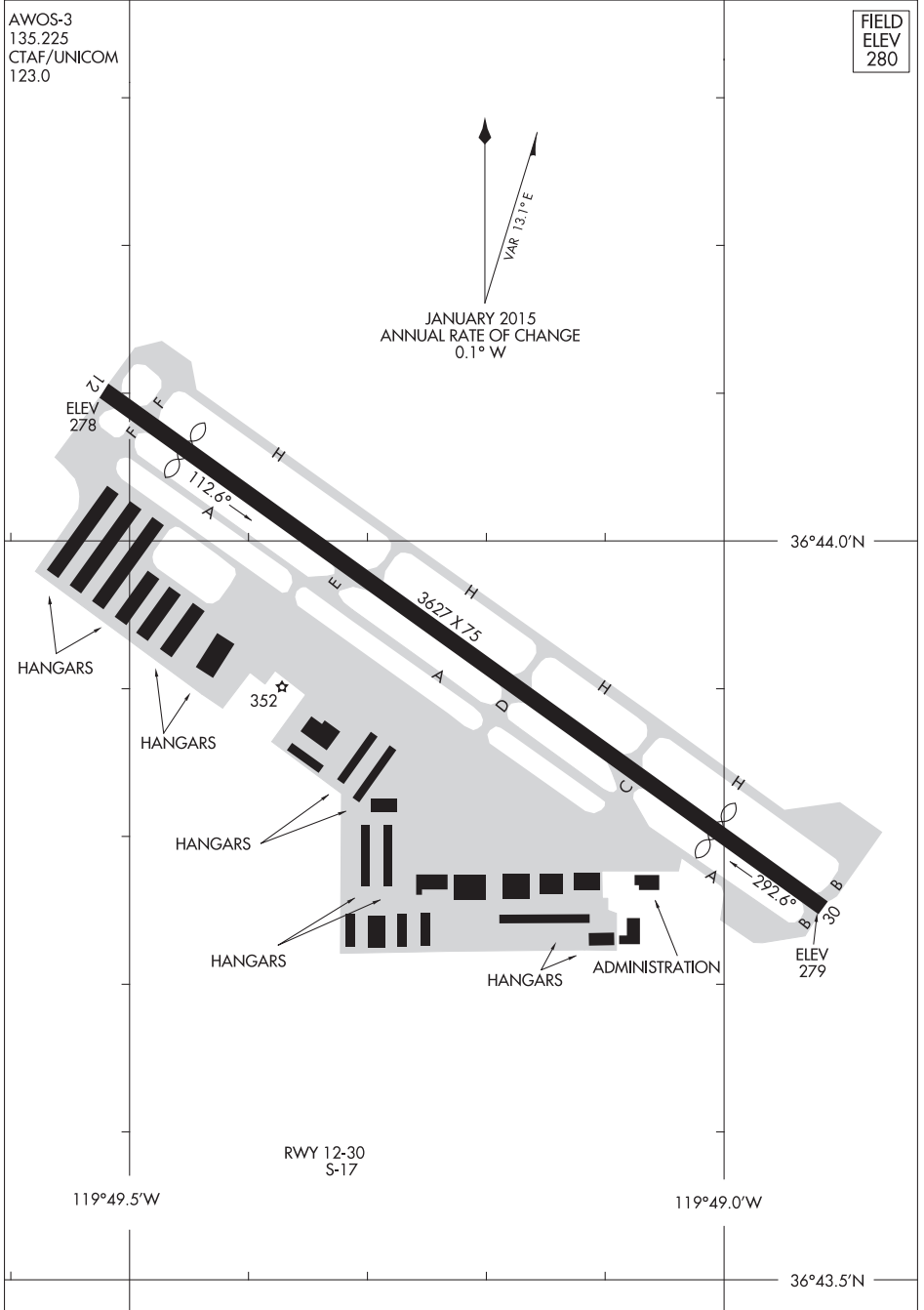
AWOS-3
135.225
CTAF/UNICOM
123.0

FIELD
ELEV
280

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

JANUARY 2015
ANNUAL RATE OF CHANGE
0.1° W
VAR 13.7° E



AIRPORT DIAGRAM

FRESNO, CALIFORNIA

AL-162 (FAA)

16035

LOC/DME I-FAT 111.3 Chan 50	APP CRS 291°	Rwy Idg 29R	29L 8008
		TDZE 333	331
		Apt Elev 336	336

ILS or LOC/DME RWY 29R

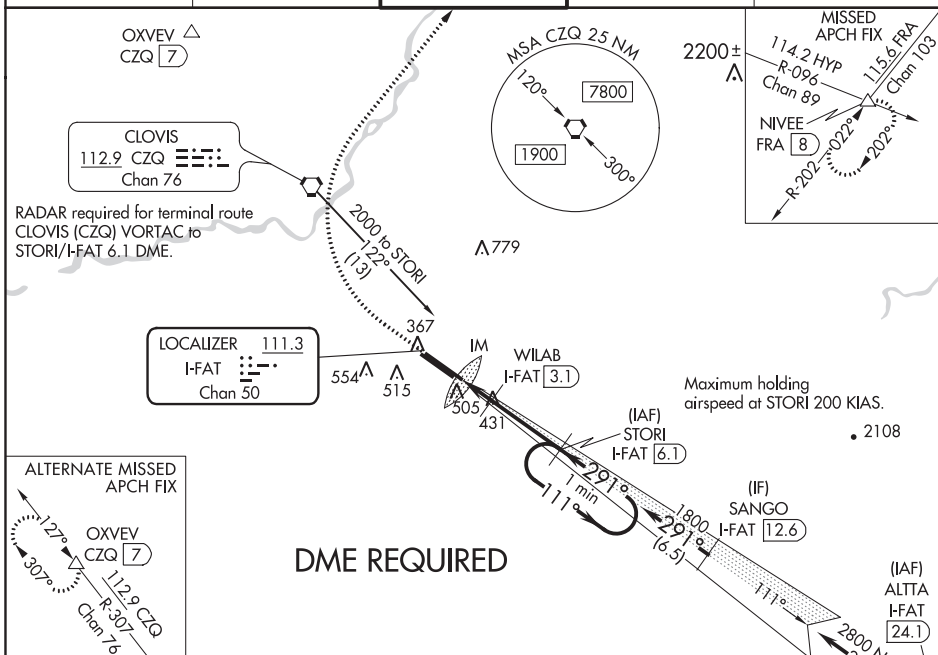
FRESNO YOSEMITE INTL (FAT)

▼ Hold in lieu of PT NA for Cat E aircraft.
 ▲ For inop ALSF, increase S-ILS 29R Cat E visibility to RVR 4000 and S-LOC 29R Cat E visibility to RVR 5500.



MISSED APPROACH: Climb to 800 then climbing right turn to 5000 on heading 330° and FRA VORTAC R-202 to NIVEE INT/FRA 8 DME and hold, continue climb-in-hold to 5000.

ATIS 121.35 273.6	FRESNO APP CON 119.6 351.95	FRESNO TOWER 118.2 251.1	GND CON 121.7 348.6	CLNC DEL 124.35 348.6
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ELEV 336	D	TDZE 29R 333
		TDZE 29L 331

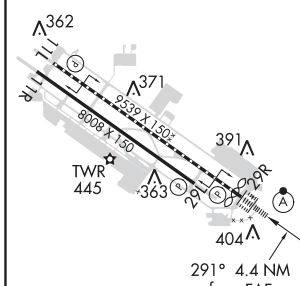
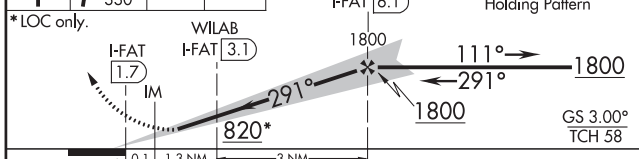
Procedure NA for arrivals at ALTA on V459 southbound.

800	5000	FRA R-202	NIVEE
↑	hdg 330°		Δ

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 76).

STORI I-FAT 6.1

One Minute Holding Pattern



REIL Rwy 11L and 11R
 HIRL Rwy 11L-29R
 MIRL Rwy 11R-29L
 TDZ/CL Rwy 29R

CATEGORY	A	B	C	D	E
S-ILS 29R	533/18 200 (200-½)				
S-LOC 29R	700/24 367 (400-½)	700/35 367 (400-¾)			
SIDESTEP RWY 29L	700-1 369 (400-1)	700-1½ 369 (400-1½)	700-2 369 (400-2)		
C CIRCLING	820-1 484 (500-1)	920-1½ 584 (600-1½)	920-2 584 (600-2)	1140-2¾ 804 (900-2¾)	

FRESNO, CALIFORNIA
 Amdt 38A 24JUL14

36°47'N-119°43'W

ILS or LOC/DME RWY 29R

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

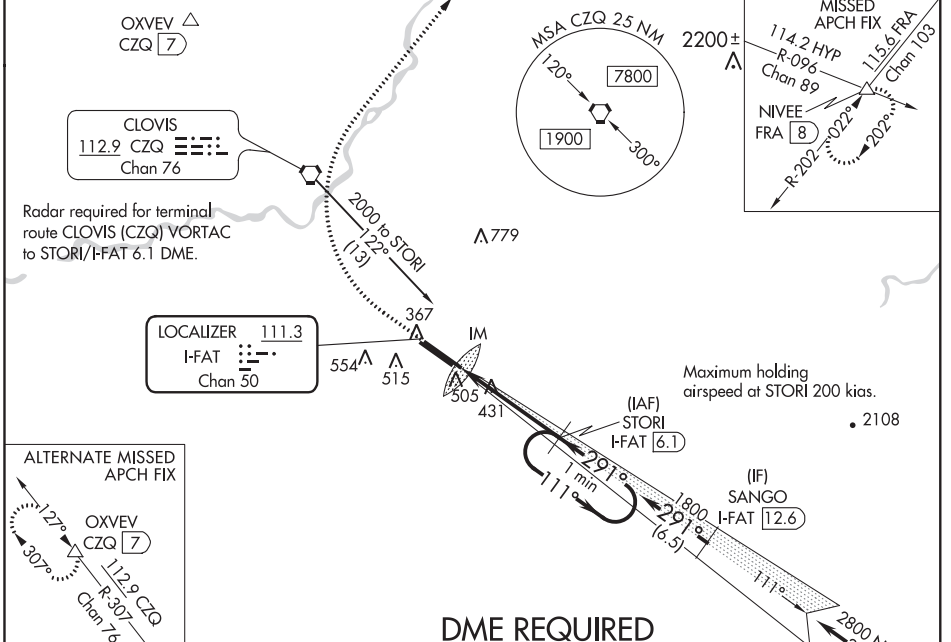
LOC/DME I-FAT 111.3 Chan 50	APP CRS 291°	Rwy Idg 9227 TDZE 333 Apt Elev 336
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ILS RWY 29R (SA CAT I)

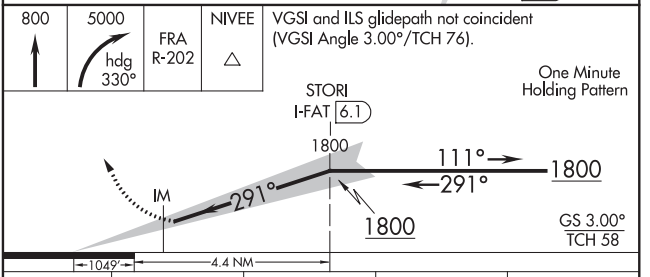
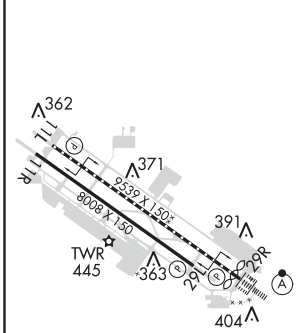
FRESNO YOSEMITE INTL (FAT)

<p>Requires specific OPSPEC, MSPEC or LOA approval and use of HUD to DH.</p>	ALSF-2 	MISSED APPROACH: Climb to 800 then climbing right turn to 5000 on heading 330° and FRA VORTAC R-202 to NIVEE INT/FRA 8 DME and hold, continue climb-in-hold to 5000.
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ATIS 121.35 273.6	FRESNO APP CON 119.6 351.95	FRESNO TOWER 118.2 251.1	GND CON 121.7 348.6	CLNC DEL 124.35 348.6
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ELEV 336	D	TDZE 333
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CATEGORY	A	B	C	D
S-ILS 29R	RA 151/14		150	DA 483

SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

FRESNO, CALIFORNIA

LOC/DME I-FAT 111.3 Chan 50	APP CRS 291°	Rwy Idg 9227 TDZE 333 Apt Elev 336
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ILS RWY 29R (CAT II & III)

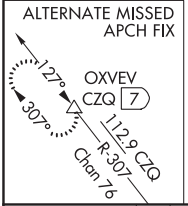
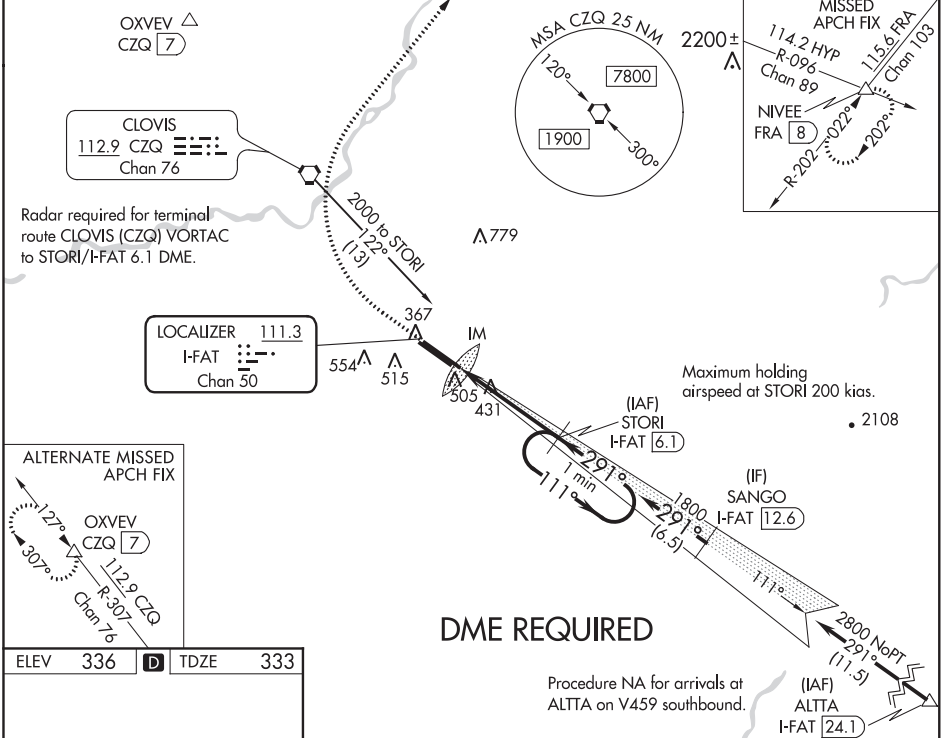
FRESNO YOSEMITE INTL (FAT)

▼ CAT II: RVR 1000 authorized with specific OPSEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

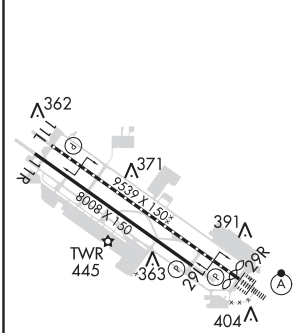
▲ ALSF-2

MISSED APPROACH: Climb to 800 then climbing right turn to 5000 on heading 330° and FRA VORTAC R-202 to NIVEE INT/FRA 8 DME and hold, continue climb-in-hold to 5000.

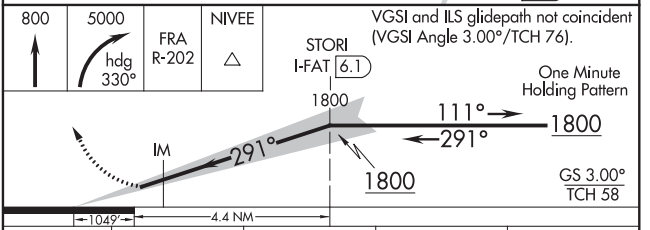
ATIS 121.35 273.6	FRESNO APP CON 119.6 351.95	FRESNO TOWER 118.2 251.1	GND CON 121.7 348.6	CLNC DEL 124.35 348.6
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ELEV 336	D	TDZE 333
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REIL Rwy 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R



CATEGORY	A	B	C	D
S-ILS 29R		CAT II	RA 101/12	100 DA 433
S-ILS 29R		CAT IIIa	RVR 07	
S-ILS 29R		CAT IIIb	RVR 06	
S-ILS 29R		CAT IIIc	NA	

CATEGORY II and III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

FRESNO, CALIFORNIA
Amdt 38A 24JUL14

36°47'N-119°43'W

FRESNO YOSEMITE INTL (FAT) ILS RWY 29R (CAT II & III)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 77505 W11A	APP CRS 111°	Rwy Idg TDZE Apt Elev	9279 336 336
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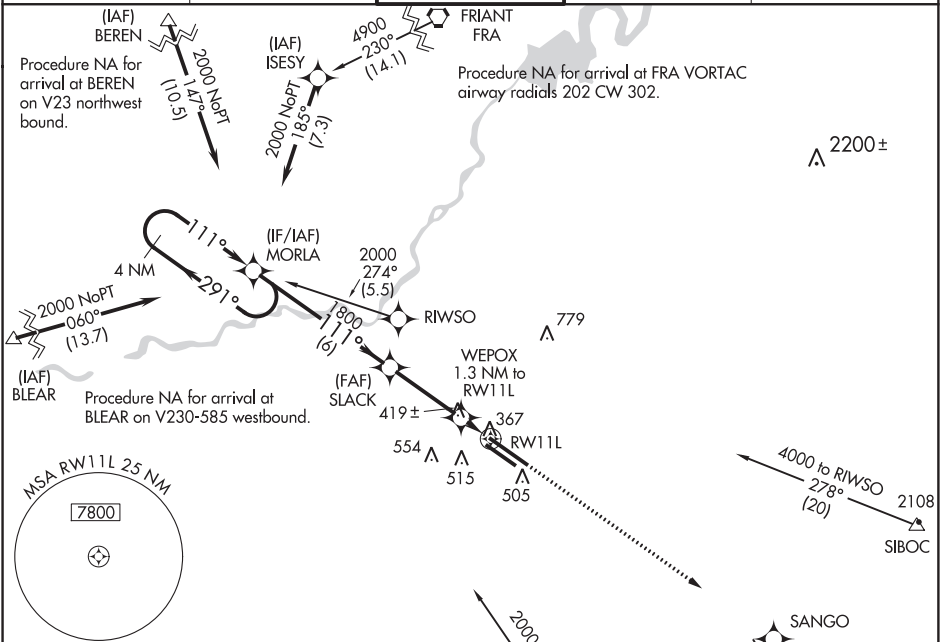
RNAV (GPS) RWY 11L

FRESNO YOSEMITE INTL (FAT)

▽ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 0°C (32°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 2600 direct SANGO and hold.

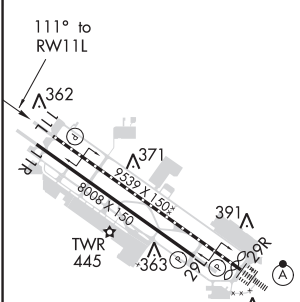
ATIS 121.35 273.6	FRESNO APP CON 119.6 351.95	FRESNO TOWER 118.2 251.1	GND CON 121.7 348.6	CLNC DEL 124.35 348.6
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SW-2, 10 NOV 2016 to 05 JAN 2017

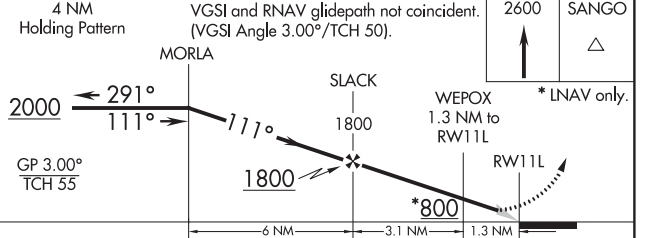
SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 336	D	TDZE 336
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REIL Rwy 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

Procedure NA for arrivals at FRAME on V23 southeast bound. **△** FRAME



CATEGORY	A	B	C	D
LPV DA		536/40	200 (200-¾)	
LNAV/VNAV DA		586/40	250 (300-¾)	
LNAV MDA		680/55	344 (400-1¼)	
C CIRCLING	820-1	484 (500-1)	920-1½ 584 (600-1½)	920-2 584 (600-2)

FRESNO, CALIFORNIA

AL-162 (FAA)

16035

WAAS CH 78330 W11B	APP CRS 111°	Rwy Idg TDZE Apt Elev	8008 333 336
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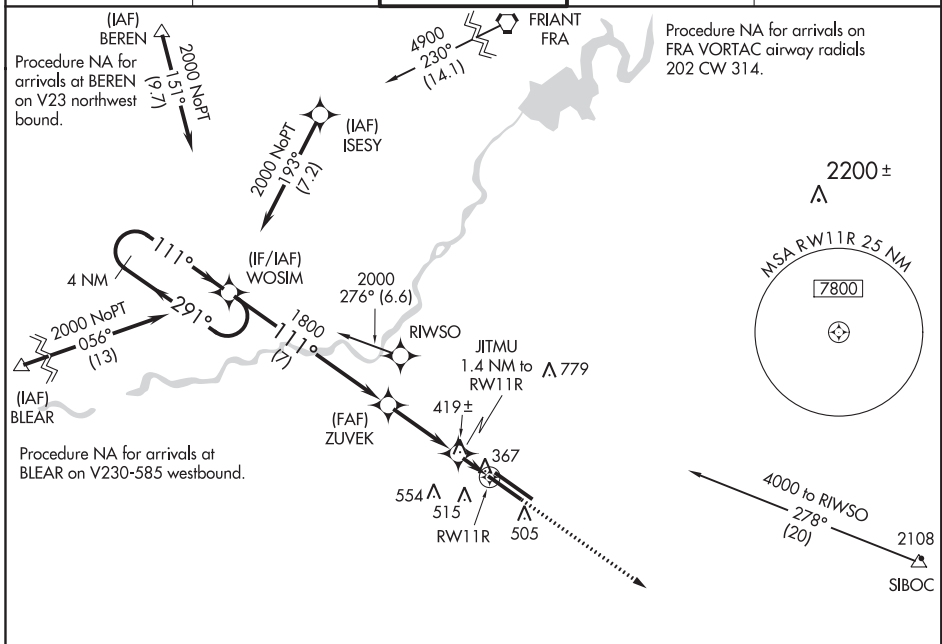
RNAV (GPS) RWY 11R

FRESNO YOSEMITE INTL (FAT)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 0°C (32°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 2600 direct IPUJE and hold.

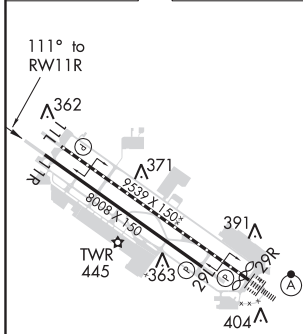
ATIS 121.35 273.6	FRESNO APP CON 119.6 351.95	FRESNO TOWER 118.2 251.1	GND CON 121.7 348.6	CLNC DEL 124.35 348.6
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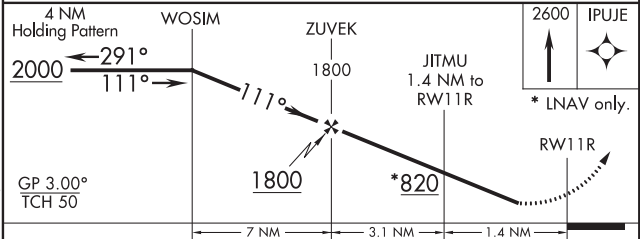
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 336	D	TDZE 333
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REIL Rwy 11L and 11R
 HIRL Rwy 11L-29R
 MIRL Rwy 11R-29L
 TDZ/CL Rwy 29R



CATEGORY		A	B	C	D
LPV	DA		583-3/4	250 (300-3/4)	
LNAV/VNAV	DA		583-3/4	250 (300-3/4)	
LNAV	MDA		700-1	367 (400-1)	
C	CIRCLING	820-1	484 (500-1)	920-1 1/2 584 (600-1 1/2)	920-2 584 (600-2)

FRESNO, CALIFORNIA
 Amdt 2A 24JUL14

36°47'N-119°43'W

FRESNO YOSEMITE INTL (FAT) RNAV (GPS) RWY 11R

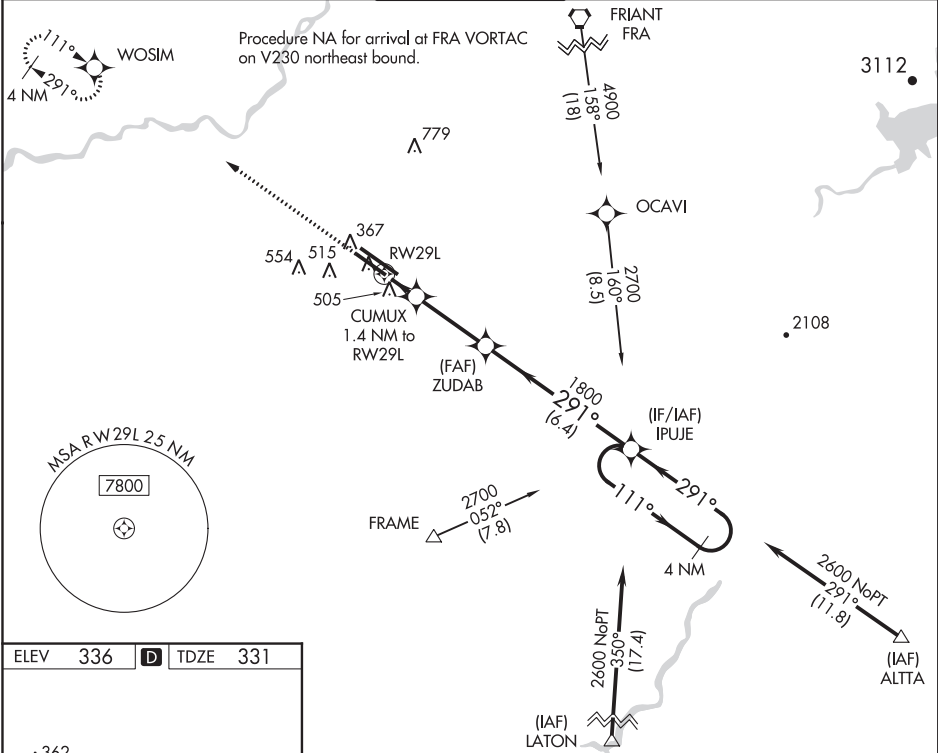
WAAS CH 50530 W29B	APP CRS 291°	Rwy Idg TDZE Apt Elev	8008 331 336
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RNAV (GPS) RWY 29L

FRESNO YOSEMITE INTL (FAT)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 0°C (32°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA. MISSED APPROACH: Climb to 2000 direct WOSIM and hold.

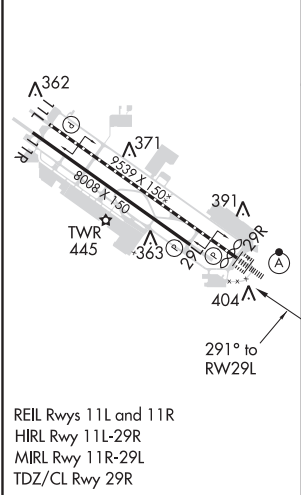
ATIS 121.35 273.6	FRESNO APP CON 119.6 351.95	FRESNO TOWER 118.2 251.1	GND CON 121.7 348.6	CLNC DEL 124.35 348.6
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SW-2, 10 NOV 2016 to 05 JAN 2017

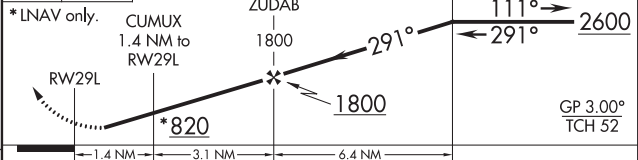
SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 336	D	TDZE 331
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REIL Rwy 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

2000 WOSIM VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 50). 4 NM Holding Pattern IPUJE



CATEGORY	A	B	C	D
LPV DA		581-¾	250 (300-¾)	
LNAV/VNAV DA		667-1½	336 (400-1½)	
LNAV MDA	760-1	429 (500-1)	760-1¼	429 (500-1¼)
C CIRCLING	820-1	484 (500-1)	920-1½ 584 (600-1½)	920-2 584 (600-2)

FRESNO, CALIFORNIA

AL-162 (FAA)

16035

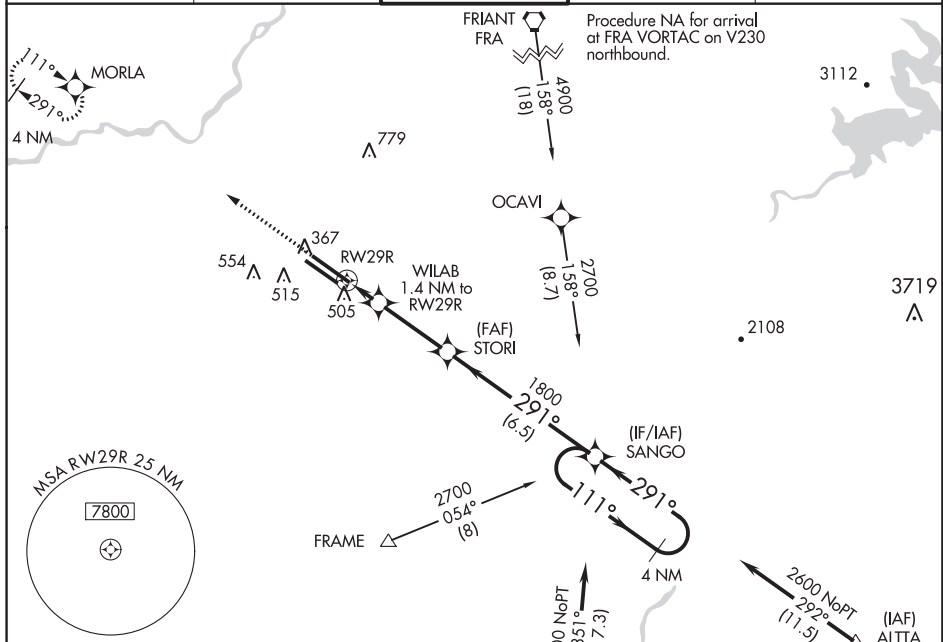
WAAS CH 81803 W29A	APP CRS 291°	Rwy Idg TDZE Apt Elev	9227 333 336
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RNAV (GPS) RWY 29R

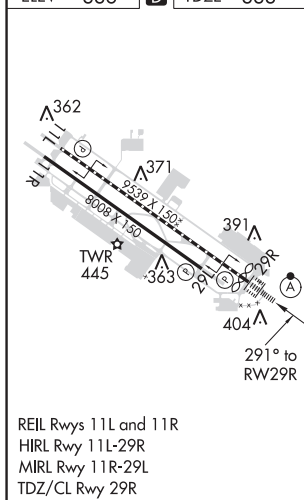
FRESNO YOSEMITE INTL (FAT)

<p>For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 0°C (32°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.</p>	ALSF-2	MISSED APPROACH: Climb to 2000 direct MORLA and hold.

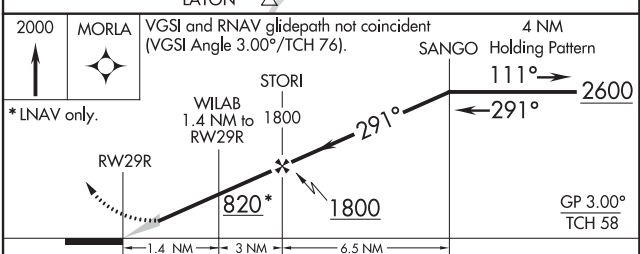
ATIS 121.35 273.6	FRESNO APP CON 119.6 351.95	FRESNO TOWER 118.2 251.1	GND CON 121.7 348.6	CLNC DEL 124.35 348.6
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ELEV 336	D	TDZE 333
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FRESNO, CALIFORNIA
Amdt 1A 24JUL14



CATEGORY	A	B	C	D
LPV DA		533/24	200 (200-½)	
LNAV/VNAV DA		689/30	356 (400-¾)	
LNAV MDA	760/24	427 (500-½)	760/40	427 (500-¾)
C CIRCLING	820-1	484 (500-1)	920-1½ 584 (600-1½)	920-2 584 (600-2)

FRESNO YOSEMITE INTL (FAT)
36°47'N-119°43'W
RNAV (GPS) RWY 29R

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

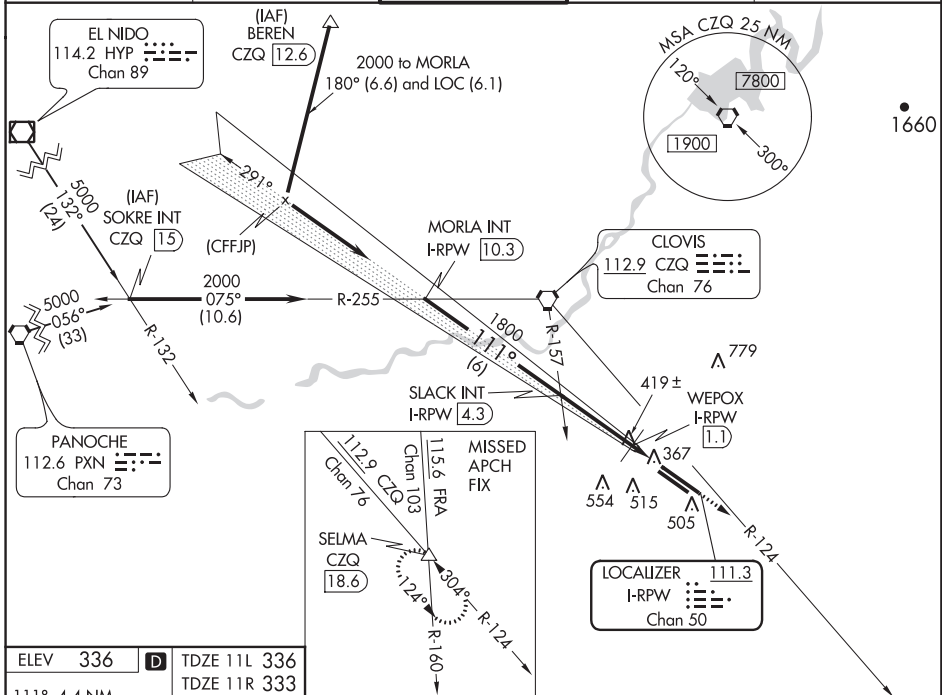
LOC/DME I-RPW 111.3 Chan 50	APP CRS 111°	Rwy Idg TDZE Apt Elev	11L 9279 336 336	11R 8008 333 336
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LOC RWY 11L

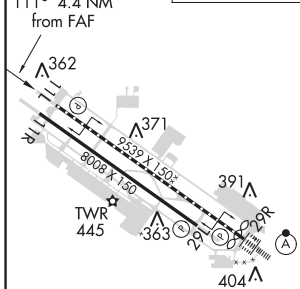
FRESNO YOSEMITE INTL (FAT)

MISSED APPROACH: Climb to 2000 on heading 111° and CZQ R-124 to SELMA/CZQ 18.6 DME and hold.

ATIS 121.35 273.6	FRESNO APP CON 119.6 351.95	FRESNO TOWER 118.2 251.1	GND CON 121.7 348.6	CLNC DEL 124.35 348.6
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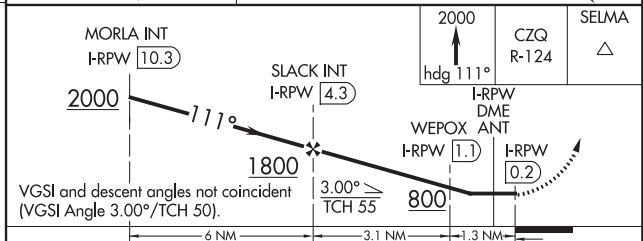


ELEV 336	D	TDZE 11L 336	TDZE 11R 333
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REIL Rwy 11L and 11R
HIRL Rwy 11L-29R
MIRL Rwy 11R-29L
TDZ/CL Rwy 29R

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	E
S-LOC 11L	800-1	464 (500-1)	800-1½	464 (500-1½)	
SIDESTEP 11R	800-1	467 (500-1)	800-1½	467 (500-1½)	800-2 467 (500-2)
C CIRCLING	820-1	484 (500-1)	920-1½	584 (600-1½)	920-2 1140-2¾
			584 (600-1½)	584 (600-2)	804 (900-2¾)
WEPOX FIX MINIMUMS					
S-LOC 11L	680/55 344 (400-1½)				
SIDESTEP 11R	680-1 347 (400-1)		680-2 347 (400-1)		

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

FRESNO, CALIFORNIA

AL-162 (FAA)

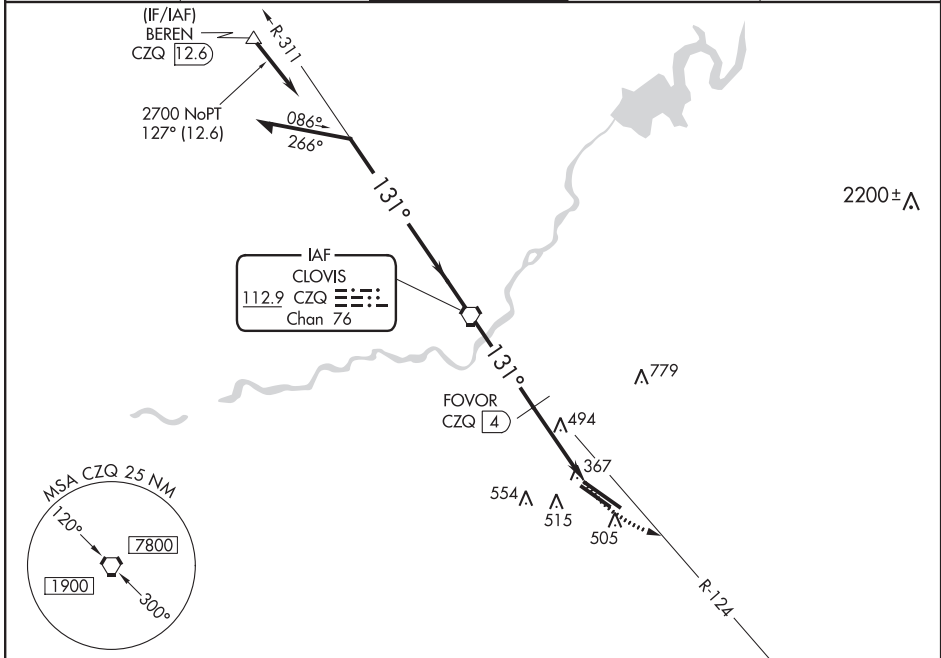
15008

VORTAC CZQ 112.9 Chan 76	APP CRS 131°	Rwy Idg 9279	11L 8008	11R 333
		TDZE 336		
		Apt Elev 336		

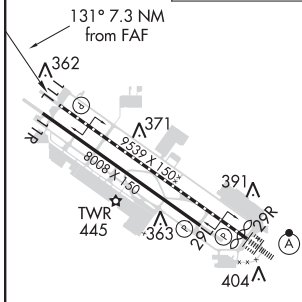
VOR/DME or TACAN RWY 11L

FRESNO YOSEMITE INTL (FAT)

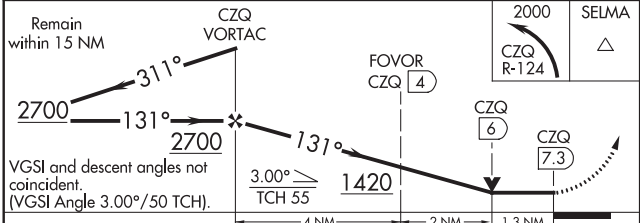
		Helicopter visibility reduction below 3/4 SM NA.	MISSED APPROACH: Climbing left turn to 2000 on CZQ VORTAC R-124 to SELMA/CZQ 18.6 DME and hold.		
ATIS 121.35 273.6	FRESNO APP CON 119.6 351.95	FRESNO TOWER 118.2 251.1	GND CON 121.7 348.6	CLNC DEL 124.35 348.6	



ELEV 336	D	TDZE 11L 336
		TDZE 11R 333



REIL Rwy 11L and 11R
 HIRL Rwy 11L-29R
 MIRL Rwy 11R-29L
 TDZ/CL Rwy 29R



CATEGORY	A	B	C	D	E
S-11L	800/55	464 (500-1¼)	800-1⅜ 464 (500-1⅜)		
SIDESTEP 11R	800-1	467 (500-1)	800-1½ 467 (500-1½)	800-2 467 (500-2)	
C CIRCLING	820-1	484 (500-1)	920-1½ 584 (600-1½)	920-2 584 (600-2)	1140-2¾ 804 (900-2¾)

FRESNO, CALIFORNIA
 Amdt 2A 24JUL14

36°47'N - 119°43'W

FRESNO YOSEMITE INTL (FAT)

VOR/DME or TACAN RWY 11L

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

FRESNO, CALIFORNIA

AL-162 (FAA)

16035

VORTAC CZQ 112.9 Chan 76	APP CRS 307°	Rwy Idg TDZE Apt Elev	29R 9227 333 336	29L 8008 331 336
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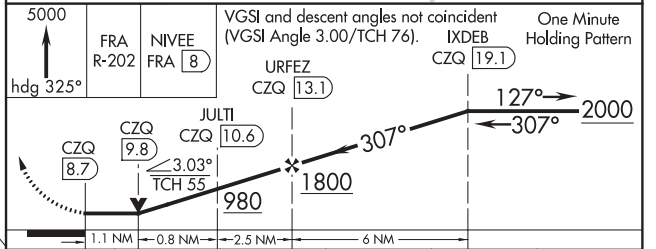
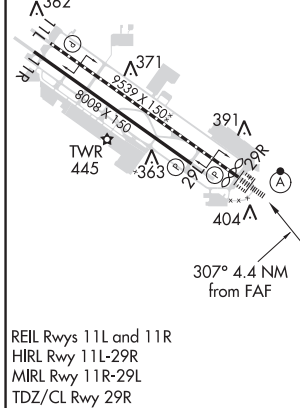
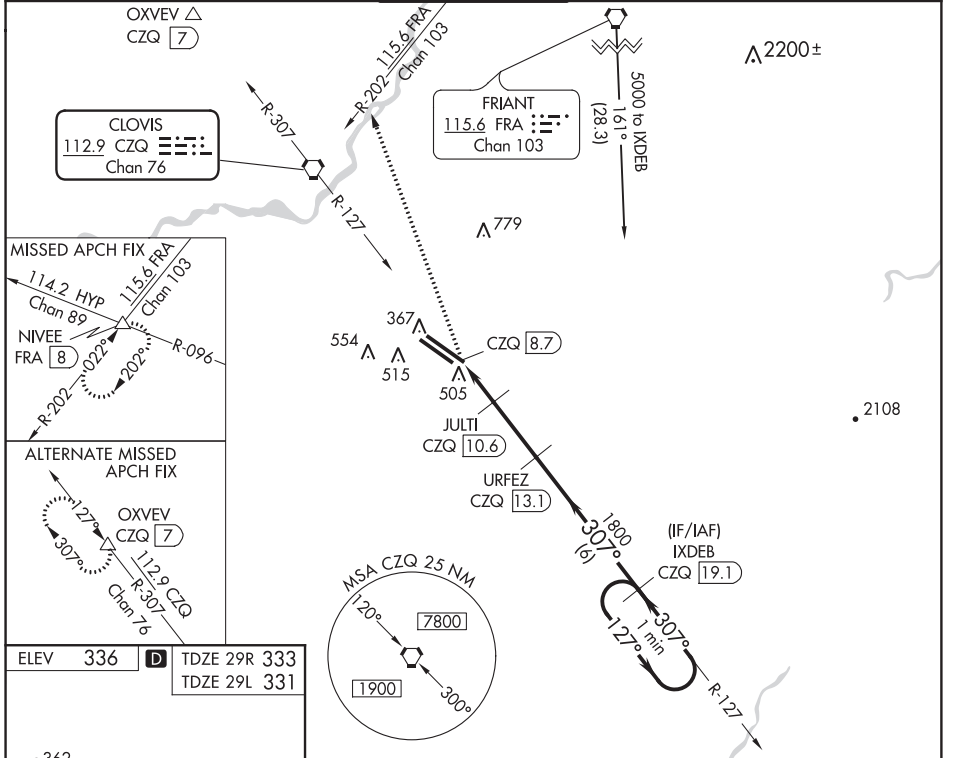
VOR/DME or TACAN RWY 29R

FRESNO YOSEMITE INTL (FAT)

⚠ For inop ALSF, increase S-29R Cat A/B visibility to RVR 5500 and CAT E visibility to 1 1/4. Helicopter visibility reduction below 3/4 SM NA.

⚠ MISSED APPROACH: Climb to 5000 on heading 325° and FRA VORTAC R-202 to NIVEE INT/FRA 8 DME and hold, continue climb-in-hold to 5000.

ATIS 121.35 273.6	FRESNO APP CON 119.6 351.95	FRESNO TOWER 118.2 251.1	GND CON 121.7 348.6	CLNC DEL 124.35 348.6
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CATEGORY	A	B	C	D	E
S-29R	760/40		427 (500-3/4)		
SIDESTEP 29L	760-1	429 (500-1)	760-1 1/2	429 (500-1 1/2)	
C CIRCLING	820-1	484 (500-1)	920-1 1/2 584 (600-1 1/2)	920-2 584 (600-2)	1140-2 3/4 804 (900-2 3/4)

FRESNO, CALIFORNIA
Amdt 2A 24JUL14

36°47'N-119°43'W

FRESNO YOSEMITE INTL (FAT)

VOR/DME or TACAN RWY 29R

SW-2, 10 NOV 2016 to 05 JAN 2017

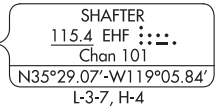
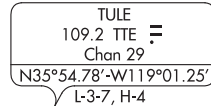
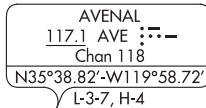
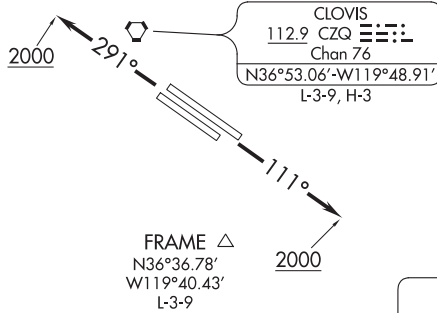
SW-2, 10 NOV 2016 to 05 JAN 2017

BULLDOG ONE DEPARTURE

SL-162 (FAA)

FRESNO YOSEMITE INTL (FAT)
FRESNO, CALIFORNIA

ATIS
121.35 273.6
CLNC DEL
124.35 348.6
GND CON
121.7 348.6
FRESNO TOWER
118.2 251.1
FRESNO DEP CON
132.35 323.25



NOTE: RADAR required.

TAKEOFF MINIMUMS

Rwys 11L/R, 29L/R: Standard.

TAKEOFF OBSTACLE NOTES

- Rwy 11L: Sign 1693' from DER, 863' right of centerline, 51' AGL/383' MSL.
Tree 1420' from DER, 667' right of centerline, 375' MSL.
Terrain 128' from DER, 506' right of centerline, 338' MSL.
Pole 1228' from DER, 664' right of centerline, 33' AGL/365' MSL.
Terrain 175' from DER, 271' left of centerline, 338' MSL.
Pole 648' from DER, 542' left of centerline, 16' AGL/349' MSL.
Electrical system 1223' from DER, 662' right of centerline, 30' AGL/363' MSL.
- Rwy 11R: Poles beginning 1205' from DER, 394' right of centerline, up to 54' AGL/384' MSL.
Electrical system 1598' from DER, 294' right of centerline, 57' AGL/386' MSL.
Tower 664' from DER, 274' left of centerline, 34' AGL/362' MSL.
Poles beginning 1598' from DER, 263' right of centerline, up to 55' AGL/385' MSL.
Pole 329' from DER, 279' left of centerline, 21' AGL/349' MSL.
- Rwy 29L: Trees beginning 998' from DER, 14' left of centerline, up to 396' MSL.
Trees beginning 1659' from DER, 81' right of centerline, up to 379' MSL.
Pole 1638' from DER, 427' right of centerline, 42' AGL/375' MSL.
Pole 998' from DER, 620' left of centerline, 47' AGL/377' MSL.
- Rwy 29R: Poles beginning 993' from DER, 547' right of centerline, up to 32' AGL/365' MSL.
Tree 2315' from DER, 874' left of centerline, 395' MSL.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 11L/R: Climb heading 111° to 2000, thence. . .

TAKEOFF RUNWAYS 29L/R: Climb heading 291° to 2000, thence. . .

. . . expect RADAR vectors to join assigned route. Maintain assigned altitude; expect clearance to filed altitude five minutes after departure.

BULLDOG ONE DEPARTURE

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(OAL3.OAL) 16259

COALDALE THREE DEPARTURE

SL-162 (FAA)

FRESNO YOSEMITE INTL (FAT)
FRESNO, CALIFORNIA

ATIS
121.35 273.6
CLNC DEL
124.35 348.6
GND CON
121.7 348.6
FRESNO TOWER
118.2 251.1
FRESNO DEP CON
119.6 351.95

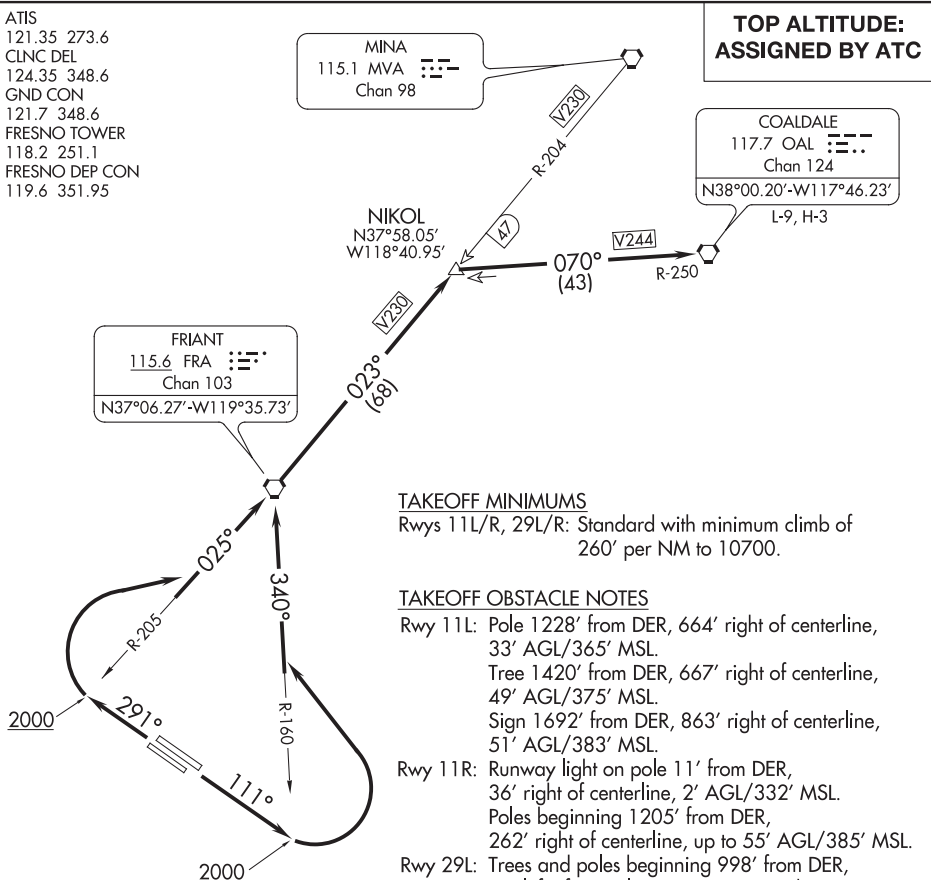
**TOP ALTITUDE:
ASSIGNED BY ATC**

MINA
115.1 MVA
Chan 98

COALDALE
117.7 OAL
Chan 124
N38°00.20'-W117°46.23'
L-9, H-3

NIKOL
N37°58.05'
W118°40.95'

FRIANT
115.6 FRA
Chan 103
N37°06.27'-W119°35.73'



TAKEOFF MINIMUMS

Rwys 11L/R, 29L/R: Standard with minimum climb of 260' per NM to 10700.

TAKEOFF OBSTACLE NOTES

- Rwy 11L: Pole 1228' from DER, 664' right of centerline, 33' AGL/365' MSL.
Tree 1420' from DER, 667' right of centerline, 49' AGL/375' MSL.
Sign 1692' from DER, 863' right of centerline, 51' AGL/383' MSL.
- Rwy 11R: Runway light on pole 11' from DER, 36' right of centerline, 2' AGL/332' MSL.
Poles beginning 1205' from DER, 262' right of centerline, up to 55' AGL/385' MSL.
- Rwy 29L: Trees and poles beginning 998' from DER, 14' left of centerline, up to 70' AGL/396' MSL.
Trees and poles beginning 1638' from DER, 81' right of centerline, up to 53' AGL/379' MSL.
- Rwy 29R: Poles beginning 994' from DER, 548' right of centerline, up to 32' AGL/365' MSL.
Trees beginning 1762' from DER, 873' left of centerline, up to 69' AGL/395' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 11L/R: Climb on heading 111° to 2000', then climbing left turn to intercept FRA R-160 to FRA VORTAC thence. . . .

TAKEOFF RUNWAYS 29L/R: Climb on heading 291° to 2000', then climbing right turn to intercept FRA R-205 to FRA VORTAC thence. . . .

. . . .continue climb to 14300 on FRA VORTAC R-023 and MVA VORTAC R-204 to NIKOL INT and on OAL VORTAC R-250 to OAL VORTAC.

COALDALE THREE DEPARTURE
(OAL3.OAL) 15SEP16

FRESNO, CALIFORNIA
FRESNO YOSEMITE INTL (FAT)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

YOSEMITE ONE DEPARTURE

SL-162 (FAA)

FRESNO YOSEMITE INTL (FAT)
FRESNO, CALIFORNIA

ATIS
121.35 273.6
CLNC DEL
124.35 348.6
GND CON
121.7 348.6
FRESNO TOWER
118.2 251.1
FRESNO DEP CON
119.6 351.95

MUSTANG
117.9 FMG
Chan 126
N39°31.88'-W119°39.36'
L-9, H-3

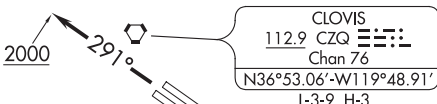
MINA
115.1 MVA
Chan 98
N38°33.92'-W118°01.97'
L-9, H-3

COALDALE
117.7 OAL
Chan 124
N38°00.20'-W117°46.23'
L-9, H-3

EL NIDO
114.2 HYP
Chan 89
N37°13.17'-W120°24.01'
L-3, H-3

FRIANT
115.6 FRA
Chan 103
N37°06.27'-W119°35.73'
L-3-9, H-3

PANOCHÉ
112.6 PXN
Chan 73
N36°42.93'-W120°46.72'
L-3, H-3



CLOVIS
112.9 CZQ
Chan 76
N36°53.06'-W119°48.91'
L-3-9, H-3

TAKEOFF OBSTACLE NOTES

- Rwy 11L: Sign 1693' from DER, 863' right of centerline, 51' AGL/383' MSL.
Tree 1420' from DER, 667' right of centerline, 375' MSL.
Terrain 128' from DER, 506' right on centerline, 338' MSL.
Pole 1228' from DER, 664' right of centerline, 33' AGL/365' MSL.
Terrain 175' from DER, 271' left of centerline, 338' MSL.
Pole 648' from DER, 542' left of centerline, 16' AGL/349' MSL.
Electrical system 1223' from DER, 662' right of centerline, 30' AGL/363' MSL.
- Rwy 11R: Poles beginning 1205' from DER, 394' right of centerline, up to 54' AGL/384' MSL.
Electrical system 1598' from DER, 294' right of centerline, 57' AGL/386' MSL.
Tower 664' from DER, 274' left of centerline, 34' AGL/362' MSL.
Poles beginning 1598' from DER, 263' right of centerline, up to 55' AGL/385' MSL.
Pole 329' from DER, 279' left of centerline, 21' AGL/349' MSL.
- Rwy 29L: Trees beginning 998' from DER, 14' left of centerline, up to 396' MSL.
Trees beginning 1659' from DER, 81' right of centerline, up to 379' MSL.
Pole 1638' from DER, 427' right of centerline, 42' AGL/375' MSL.
Pole 998' from DER, 620' left of centerline, 47' AGL/377' MSL.
- Rwy 29R: Poles beginning 993' from DER, 547' right of centerline, up to 32' AGL/365' MSL.
Tree 2315' from DER, 874' left of centerline, 395' MSL.

TAKEOFF MINIMUMS
Rwys 11L/R, 29L/R: Standard.

NOTE: RADAR required.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 11L/R: Climb heading 111° to 2000, thence. . .

TAKEOFF RUNWAYS 29L/R: Climb heading 291° to 2000, thence. . .

. . . expect RADAR vectors to join assigned route. Maintain assigned altitude; expect clearance to filed altitude five minutes after departure.

LOST COMMUNICATIONS: If not in contact with Fresno Departure Control within two minutes of takeoff, aircraft enroute to FRA, MVA, FMG and OAL proceed direct FRA VORTAC, cross FRA VORTAC at or above 9000, thence via assigned route to filed altitude.

YOSEMITE ONE DEPARTURE

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

GRASS VALLEY, CALIFORNIA

AL-6659 (FAA)

15008

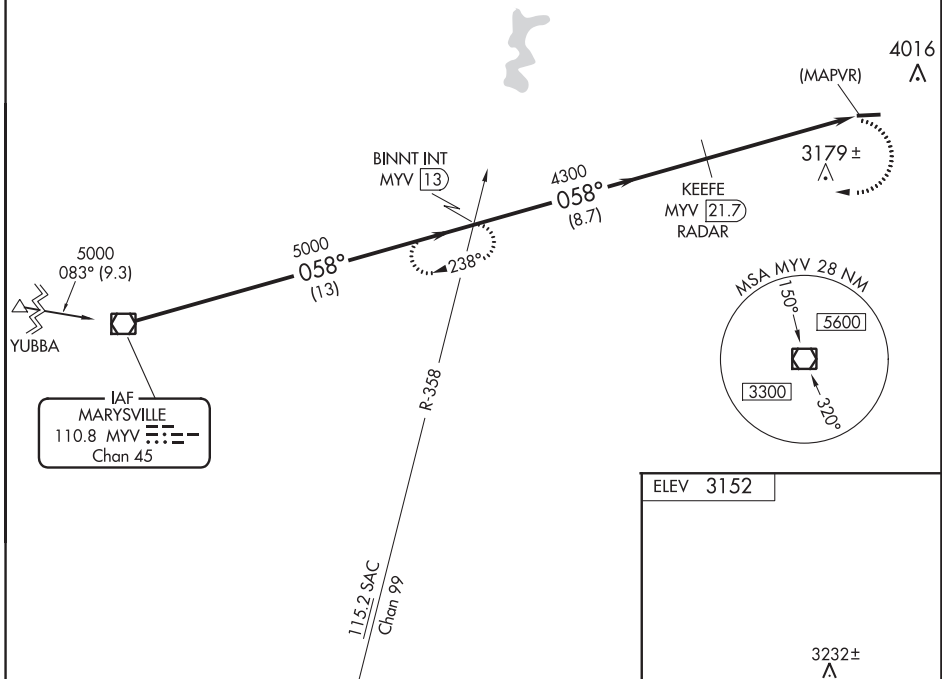
VOR/DME MYV 110.8 Chan 45	APP CRS 058°	Rwy Idg TDZE Apt Elev 3152	N/A N/A
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VOR or GPS-A
NEVADA COUNTY AIR PARK (GOO)

<p>▽ ▲ NA</p> <p>When local altimeter setting not received, use Emigrant Gap altimeter setting. Circling not authorized north of Rwy 7-25.</p>	<p>MISSED APPROACH: Climbing right turn to 5000 via MYV R-058 to BINNT Int/MYV 13 DME and hold.</p>
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AWOS-3 121.325	NORCAL APP CON 125.4 259.1	UNICOM 122.725 (CTAF) 📻
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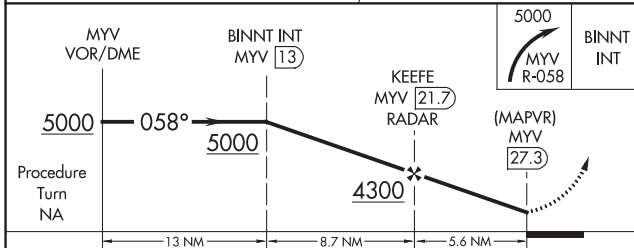
DME or RADAR REQUIRED



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 3152																	
<p>REIL Rwys 7 and 25 MIRL Rwy 7-25</p>																	
<table border="1"> <tr> <td colspan="5">FAF to MAP 5.6 NM</td> </tr> <tr> <td>Knots</td> <td>60</td> <td>90</td> <td>120</td> <td>150</td> <td>180</td> </tr> <tr> <td>Min:Sec</td> <td>5:36</td> <td>3:44</td> <td>2:48</td> <td>2:14</td> <td>1:52</td> </tr> </table>	FAF to MAP 5.6 NM					Knots	60	90	120	150	180	Min:Sec	5:36	3:44	2:48	2:14	1:52
FAF to MAP 5.6 NM																	
Knots	60	90	120	150	180												
Min:Sec	5:36	3:44	2:48	2:14	1:52												



CATEGORY	A	B	C	D
CIRCLING	4280-1¼ 1128 (1200-1¼)	4280-1½ 1128 (1200-1½)	4280-3 1128 (1200-3)	NA

GRASS VALLEY, CALIFORNIA
Amdt 1A 22OCT09

39°13'N-121°00'W

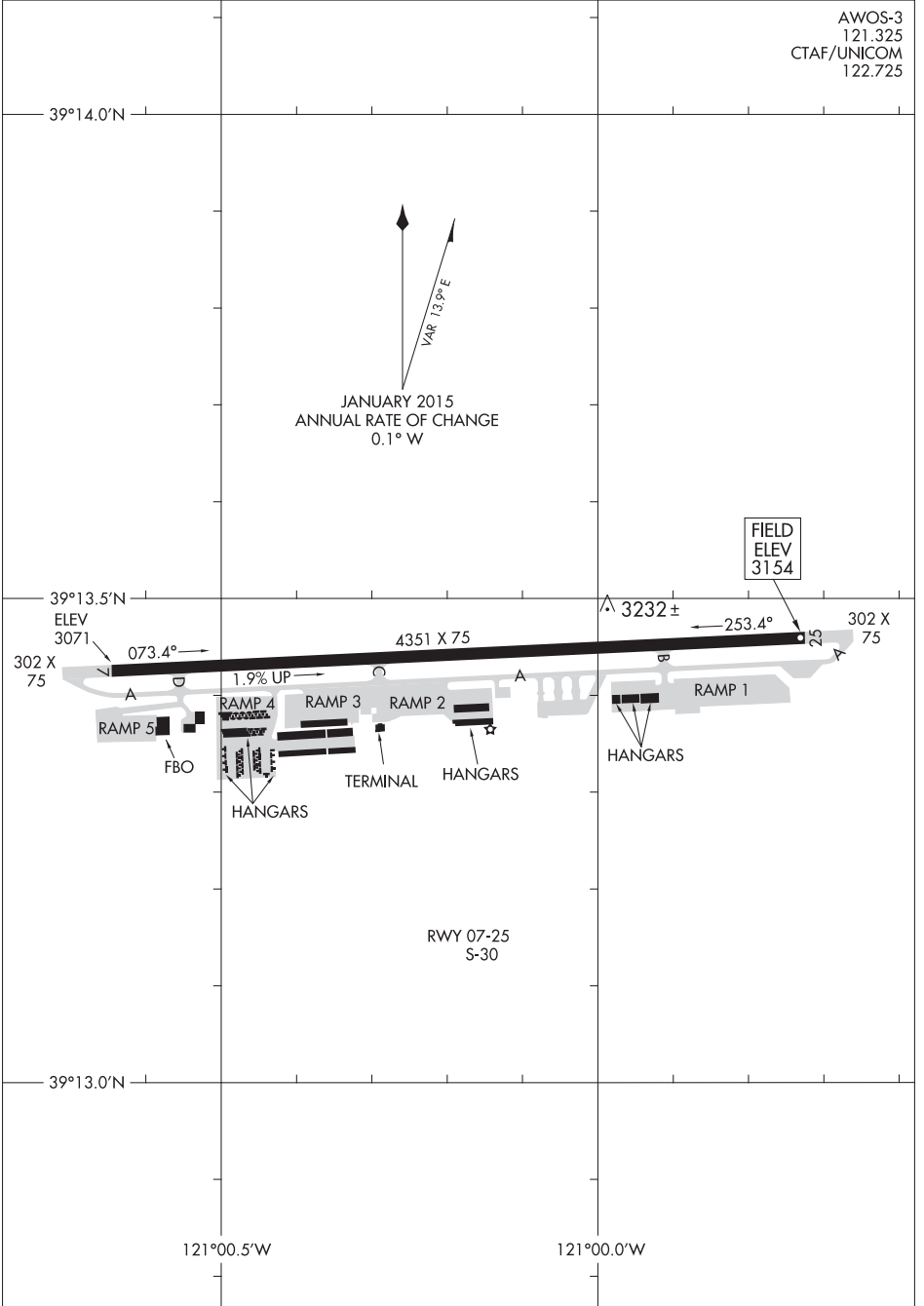
NEVADA COUNTY AIR PARK (GOO)
VOR or GPS-A

AIRPORT DIAGRAM

AL-6659 (FAA)

NEVADA COUNTY AIR PARK (GOO)
GRASS VALLEY, CALIFORNIA

AWOS-3
121.325
CTAF/UNICOM
122.725



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

GRASS VALLEY, CALIFORNIA
NEVADA COUNTY AIR PARK (GOO)

APP CRS	Rwy Idg	3624
095°	TDZE	2919
	Apt Elev	2930

RNAV (GPS) RWY 9

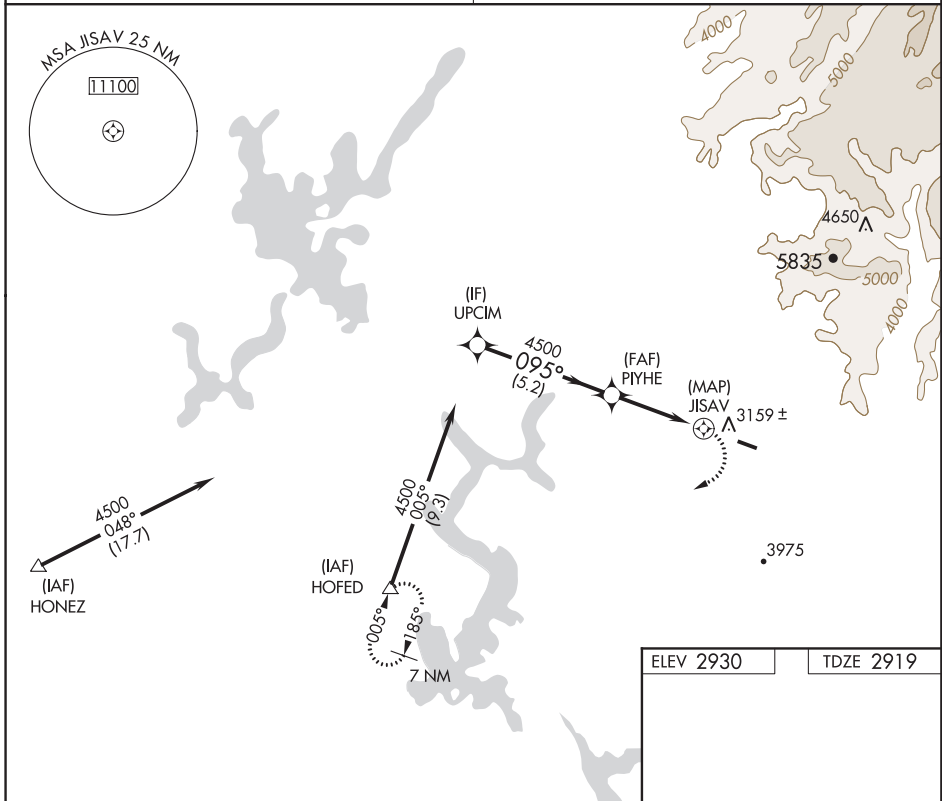
PINE MOUNTAIN LAKE (E45)

▽ DME/DME RNP-0.3 NA. Procedure NA at night. Use Columbia altimeter setting; if not received, use Castle altimeter setting and increase all MDA's 560 feet.

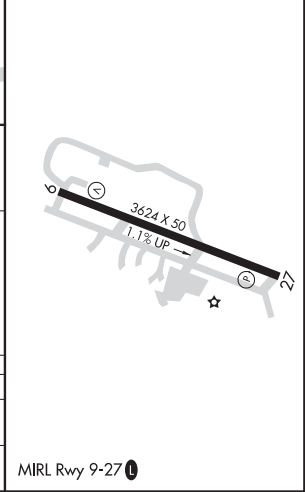
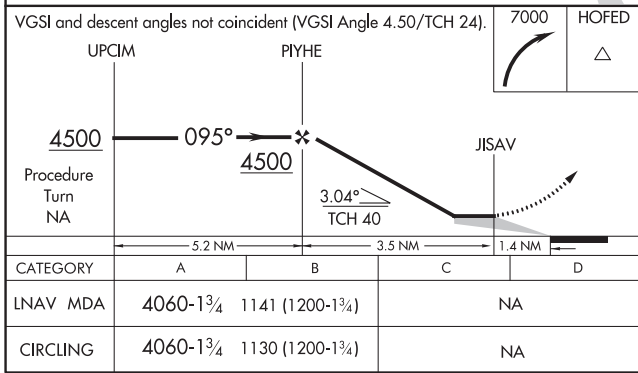
△ NA MISSED APPROACH: Climbing right turn to 7000 direct HOFED and hold, continue climb-in-hold to 7000.

OAKLAND CENTER
121.25 327.0

CTAF
122.9 0



ELEV 2930	TDZE 2919
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	3624
291°	TDZE	2930
	Apt Elev	2930

GPS RWY 27

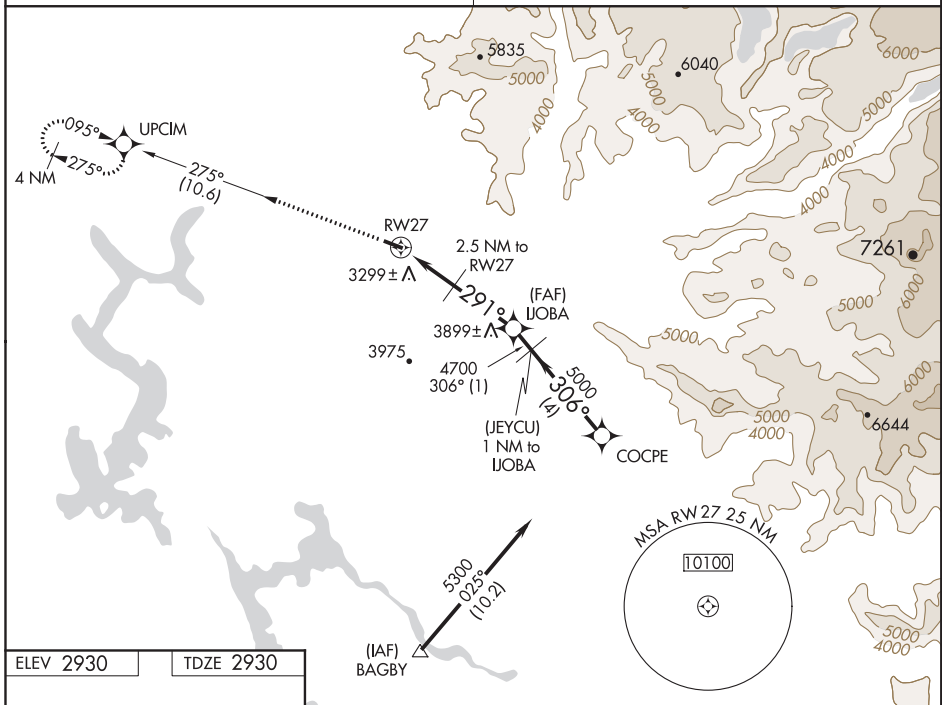
PINE MOUNTAIN LAKE (E45)

▽ Obtain local altimeter setting on CTAF; when not received, use Columbia altimeter setting. Procedure NA at night.

▲ NA MISSED APPROACH: Climb to 4500 via 275° course to UPCIM WP and hold.

OAKLAND CENTER
121.25 327.0

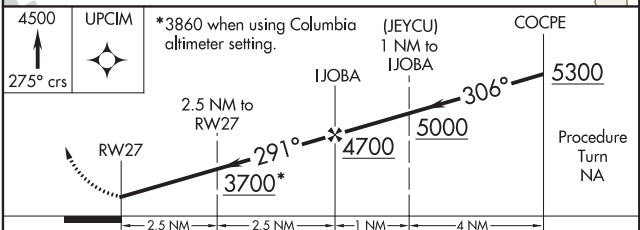
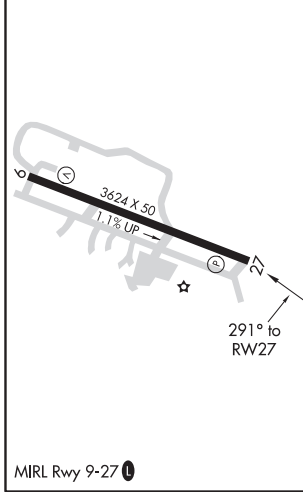
CTAF
122.9 0



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 2930	TDZE 2930
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CATEGORY	A	B	C	D
S-27	3560-1	630 (700-1)		NA
CIRCLING	3560-1 630 (700-1)	3700-1¼ 770 (800-1¼)		NA
COLUMBIA ALTIMETER SETTING MINIMUMS				
S-27	3700-1 770 (800-1)	3700-1¼ 770 (800-1¼)		NA
CIRCLING	3700-1 770 (800-1)	3860-1¼ 930 (1000-1¼)		NA

APP CRS	Rwy Idg	4248
122°	TDZE	59
	Apt Elev	66

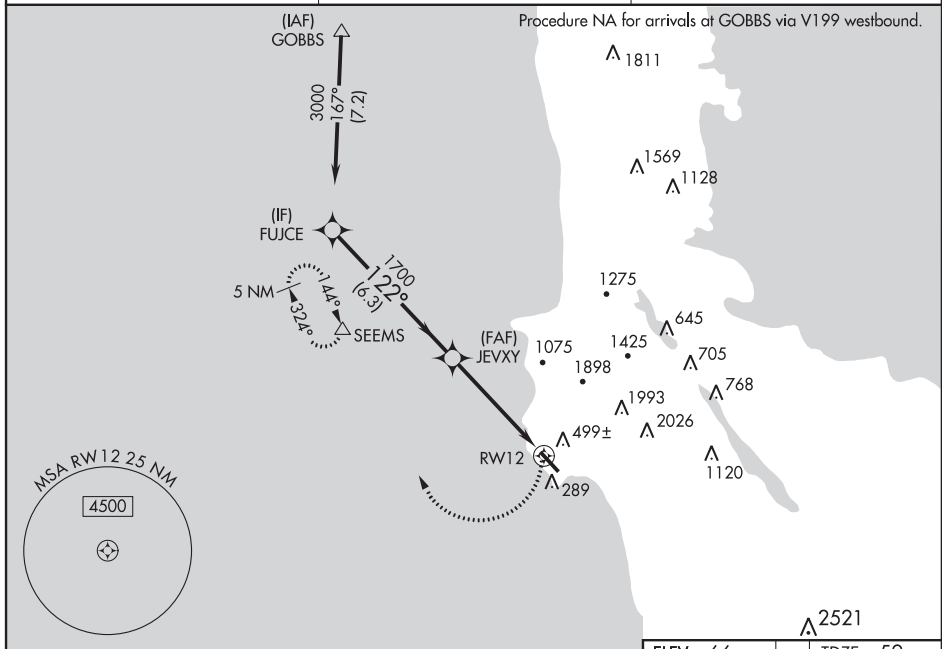
RNAV (GPS) Y RWY 12

HALF MOON BAY (HAF)

▽ Circling NA east of Rwy 12/30. DME/DME RNP -0.3 NA.
▲ Visibility reduction by helicopters NA.
 VDP NA when using San Francisco Intl altimeter setting.
 When local altimeter setting not received, use San Francisco Intl altimeter setting.

MISSED APPROACH: Climbing right turn to 6000 direct SEEMS and hold, continue climb-in-hold to 6000.

AWOS 127.275	NORCAL APP CON 135.1 307.2	UNICOM 122.8 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

	ELEV 66	TDZE 59
FUJCE	VGS1 and descent angles not coincident	
3000	JEVXY	SEEMS
Procedure Turn NA	122°	3.14°
	1700	TCH 40
	2 NM to RWY 12	
	6.3 NM	2.8 NM
CATEGORY	A	B
LNAV MDA	760-1	701 (700-1)
CIRCLING	760-1	694 (700-1)
SAN FRANCISCO ALTIMETER SETTING MINIMUMS		
LNAV MDA	780-1	721 (800-1)
CIRCLING	780-1	714 (800-1)

REIL Rwy 30
MIRL Rwy 12-30

APP CRS 317°	Rwy Idg 4238
	TDZE 54
	Apt Elev 66

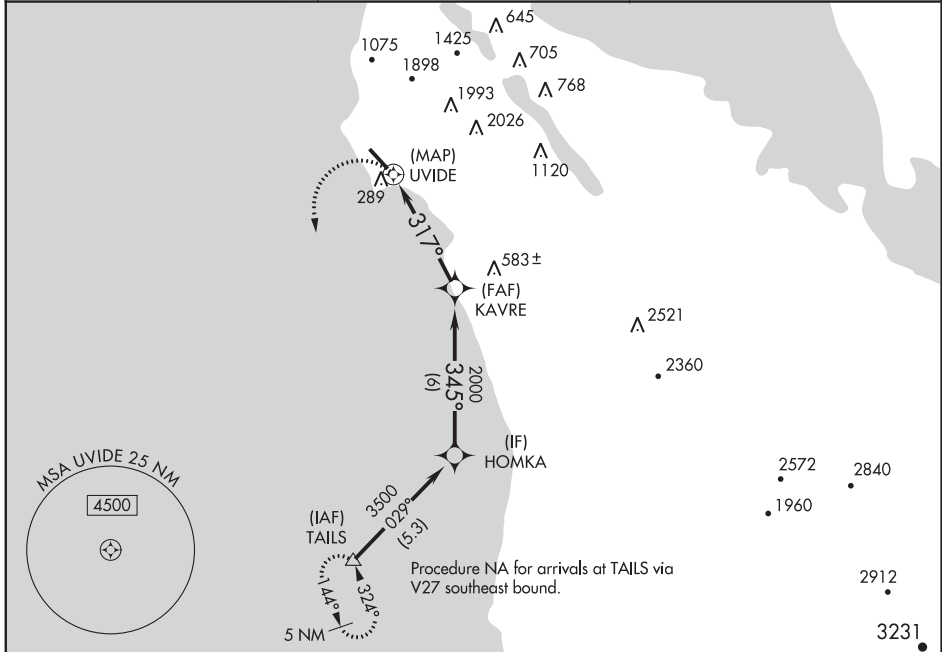
RNAV (GPS) Y RWY 30

HALF MOON BAY (HAF)

▽ Circling NA east of Rwy 12/30.
▲ DME/DME RNP-0.3 NA.
 When local altimeter setting not received, use San Francisco Intl altimeter setting.
 VDP NA when using San Francisco Intl altimeter setting.

MISSED APPROACH: Climbing left turn to 6000 direct TAILS and hold, continue climb-in-hold to 6000.

AWOS 127.275	NORCAL APP CON 135.1 307.2	UNICOM 122.8 (CTAF) 0
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

6000 TAILS ▲	VGSI and descent angles not coincident		ELEV 66	TDZE 54
CATEGORY	A	B	C	D
LNAV MDA	800-1 746 (800-1)	800-1¼ 746 (800-1¼)		NA
CIRCLING	800-1 734 (800-1)	800-1¼ 734 (800-1¼)		NA
SAN FRANCISCO ALTIMETER SETTING MINIMUMS				
LNAV MDA	840-1 786 (800-1)	840-1¼ 786 (800-1¼)		NA
CIRCLING	840-1 774 (800-1)	840-1¼ 774 (800-1¼)		NA

REIL Rwy 30 0
MIRL Rwy 12-30 0

▲ 229

317° to UVIDE

HALF MOON BAY, CALIFORNIA

AL-6675 (FAA)

16035

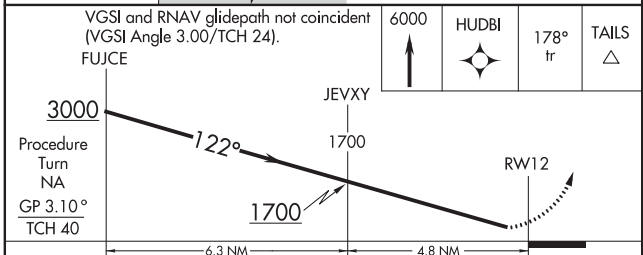
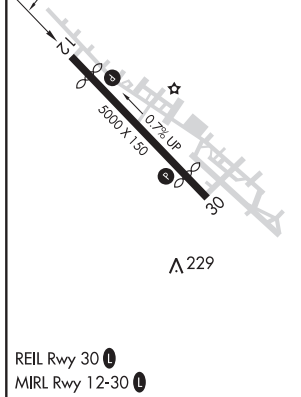
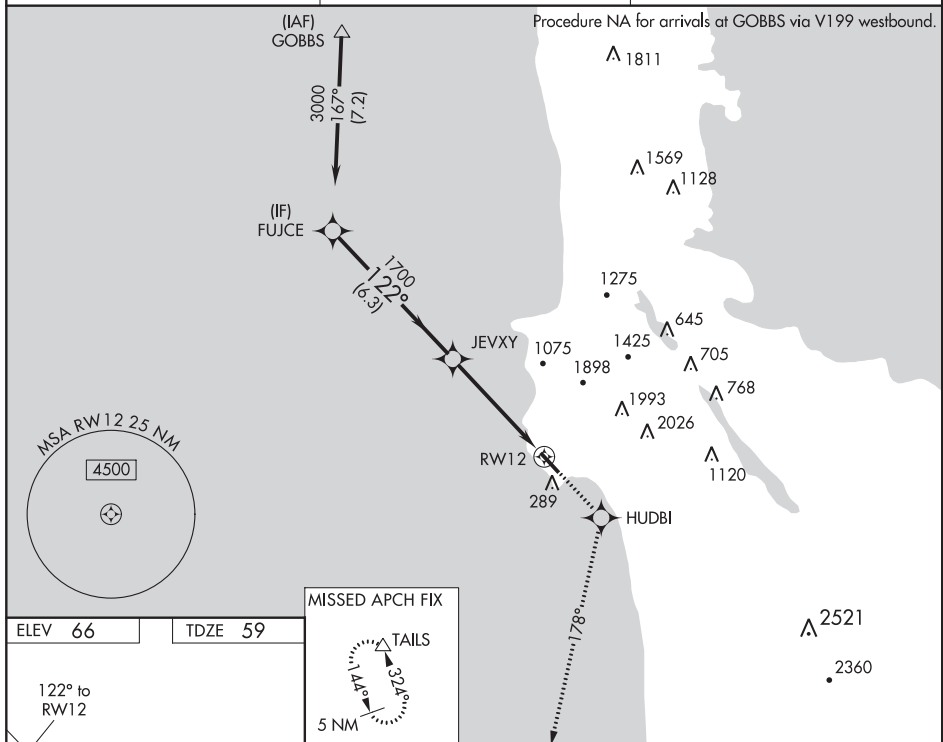
WAAS CH 93802 W12A	APP CRS 122°	Rwy ldg 4248 TDZE 59 Apt Elev 66
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RNAV (GPS) Z RWY 12

HALF MOON BAY (HAF)

<p>NA DME/DME RNP-0.3 NA. When local altimeter setting not received, use San Francisco Intl altimeter setting. Helicopter visibility reduction below 3/4 SM NA.</p>	<p>MISSED APPROACH: Climb to 6000 direct HUDBI and via 178° track to TAILS and hold, continue climb-in-hold to 6000.</p>
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AWOS 127.275	NORCAL APP CON 135.1 307.2	UNICOM 122.8 (CTAF)
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CATEGORY	A	B	C	D
LPV DA	395-1¼	336 (400-1¼)		NA
SAN FRANCISCO ALTIMETER SETTING MINIMUMS				
LPV DA	423-1¼	364 (400-1¼)		NA

HALF MOON BAY, CALIFORNIA
Orig-B 27JUN13

37°31'N-122°30'W

HALF MOON BAY (HAF)

RNAV (GPS) Z RWY 12

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

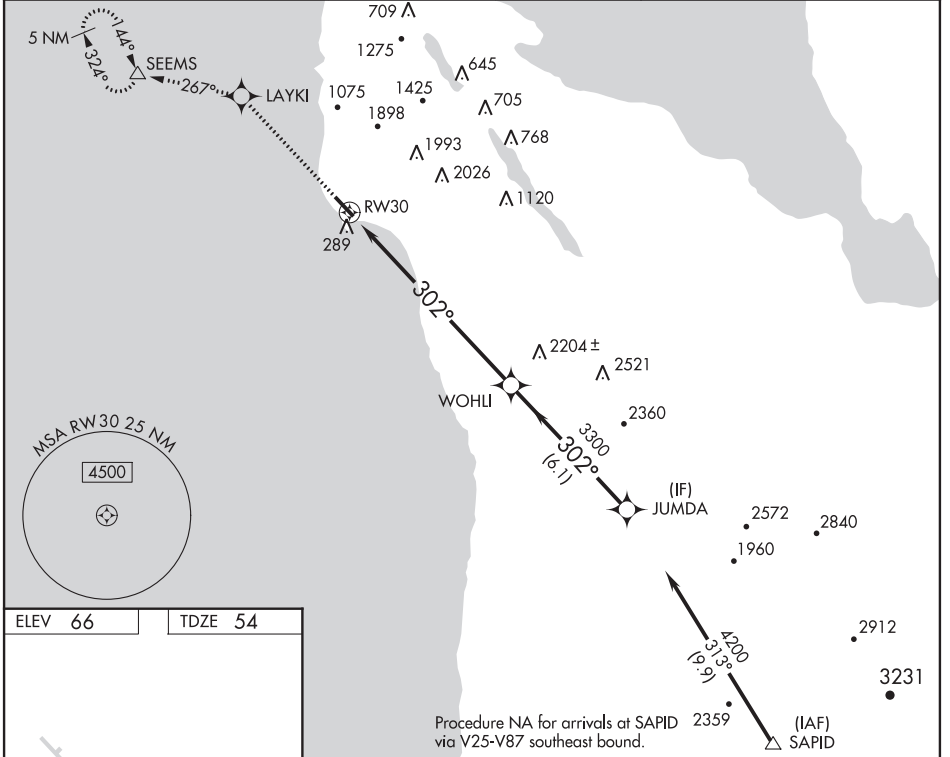
WAA5 CH 50302 W30A	APP CRS 302°	Rwy Idg 4238 TDZE 54 Apt Elev 66
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RNAV (GPS) Z RWY 30

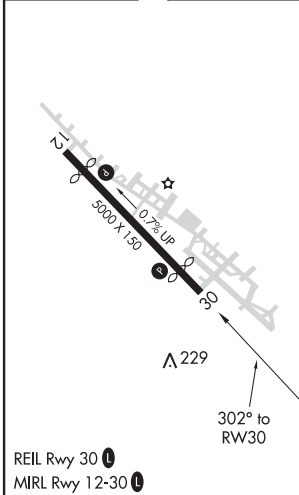
HALF MOON BAY (HAF)

<p>NA DME/DME RNP-0.3 NA. When local altimeter setting not received, use San Francisco Intl altimeter setting.</p>	<p>MISSED APPROACH: Climb to 6000 direct LAYKI and via 267° track to SEEMS and hold, continue climb-in-hold to 6000.</p>
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AWOS 127.275	NORCAL APP CON 135.1 307.2	UNICOM 122.8 (CTAF) U
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ELEV 66	TDZE 54
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6000	LAYKI	267° tr	SEEMS	Procedure Turn NA	JUMDA
<p>VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 24).</p>					
	RWY 30			3300	4200
		8.5 NM		6.1 NM	GP 3.50° TCH 40
CATEGORY	A	B	C	D	
LPV DA	363-1	309 (300-1)			NA
SAN FRANCISCO ALTIMETER SETTING MINIMUMS					
LPV DA	391-1	337 (400-1)			NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS 318°	Rwy Idg 5179
	TDZE 238
	Apt Elev 240

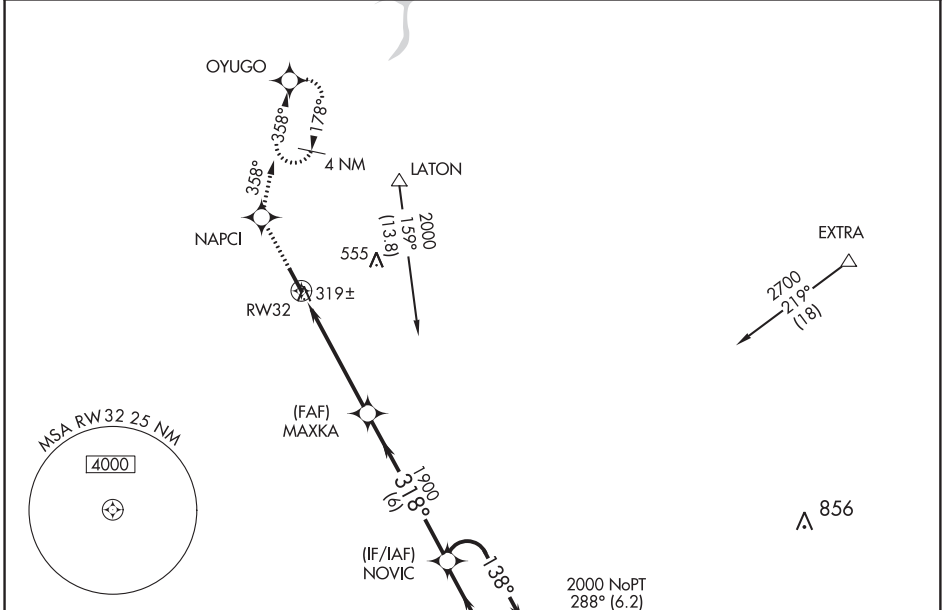
RNAV (GPS) RWY 32

HANFORD MUNI (HJO)

⚠ 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. Helicopter visibility reduction below ¾ SM not authorized. When local altimeter setting not received, use Visalia altimeter setting and increase all DA/MDA 40 feet, and LNAV Cat C visibility ¼ mile. Baro-VNAV and YDP NA when using Visalia altimeter setting. Night Landing: Rwy 14 NA.

MISSED APPROACH: Climb to 2000 direct NAPCI and via 358° track to OYUGO and hold.

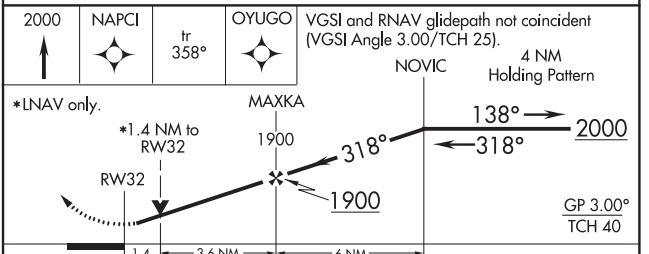
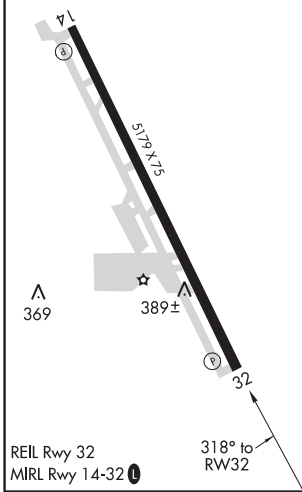
ASOS 134.75	FRESNO APP CON 123.9	UNICOM 122.8 (CTAF) 📻
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 240	TDZE 238
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CATEGORY	A	B	C	D
LNAV/VNAV DA	619-1¼		381 (400-1¼)	NA
LNAV MDA	700-1	462 (500-1)	700-1¼ 462 (500-1¼)	NA
CIRCLING	720-1	480 (500-1)	740-1½ 500 (500-1½)	NA

APP CRS 137°	Rwy Idg TDZE Apt Elev	N/A N/A 240
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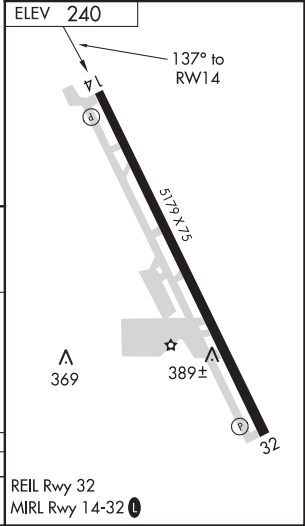
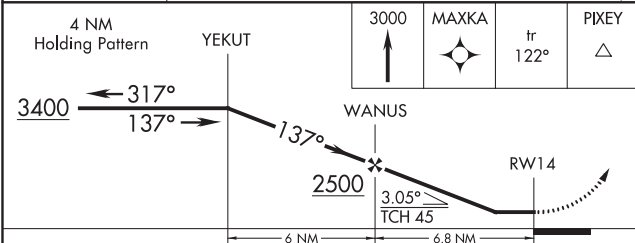
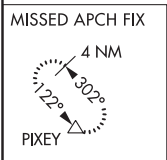
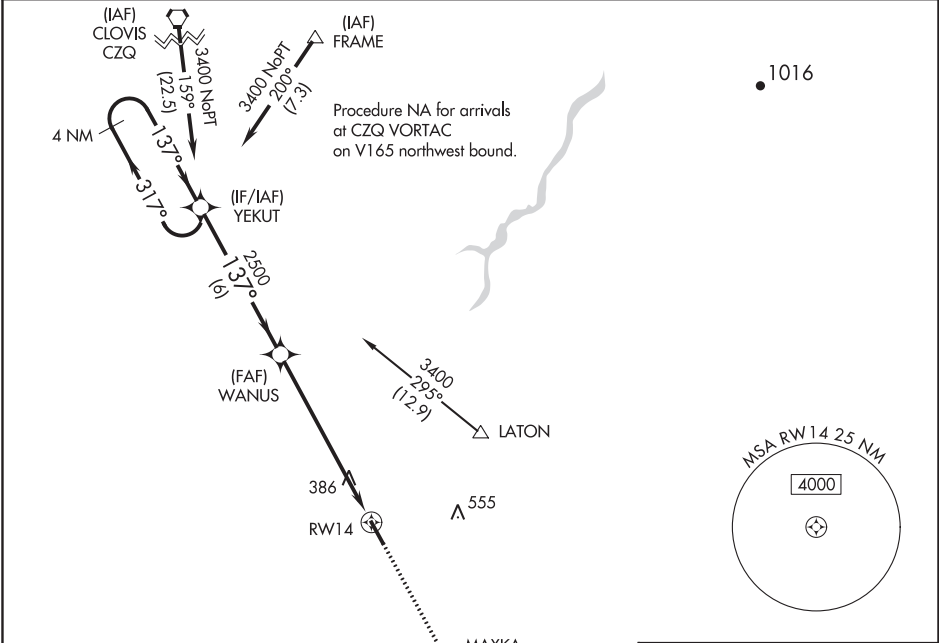
RNAV (GPS)-A

HANFORD MUNI (HJO)

⚠ DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM not authorized. When local altimeter setting not received, use Visalia altimeter setting and increase all MDA 40 feet.
⚠ Night landing Rwy 14 NA.

MISSED APPROACH: Climb to 3000 direct MAXKA and on track 122° to PIXEY and hold.

ASOS 134.75	FRESNO APP CON 123.9	UNICOM 122.8 (CTAF) ①
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CATEGORY	A	B	C	D
CIRCLING	720-1	480 (500-1)	740-1½ 500 (500-1½)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

HANFORD, CALIFORNIA

AL-5736 (FAA)

14261

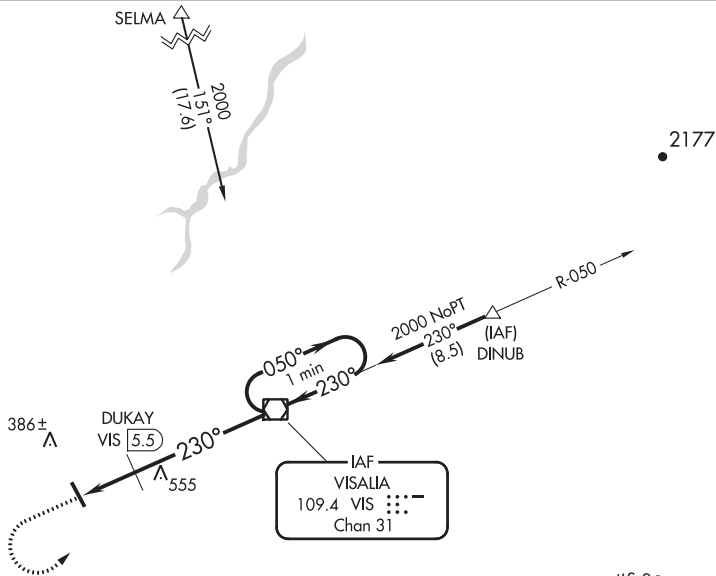
VOR/DME VIS 109.4 Chan 31	APP CRS 230°	Rwy Idg TDZE Apt Elev 240	N/A N/A 240
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VOR-A
HANFORD MUNI (HJO)

⚠ When local altimeter setting not received, use Fresno Yosemite Intl altimeter setting and increase all MDA's 80 feet. Helicopter visibility reduction below 1 SM not authorized. Night landing Rwy 14 NA.

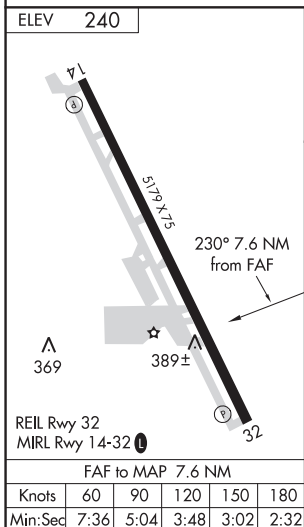
MISSED APPROACH: Climb to 1300 then climbing left turn to 2000 direct VIS VOR/DME and hold.

ASOS 134.75	FRESNO APP CON 123.9	UNICOM 122.8 (CTAF) 📻
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



1300	2000	VIS	VIS VOR/DME	One Minute Holding Pattern
↑	↶	☐	☐	
DUKAY VIS 5.5		*940		
VIS 7.6		*1020 when using Fresno Yosemite Intl altimeter setting.		
2.1 NM		5.5 NM		
CATEGORY	A	B	C	D
CIRCLING	940-1	700 (700-1)	NA	
DUKAY FIX MINIMUMS				
CIRCLING	720-1	480 (500-1)	NA	

HANFORD, CALIFORNIA
Amdt 9C 18SEP14

36°19'N-119°38'W

HANFORD MUNI (HJO)
VOR-A

WAAS CH 40330 W28A	APP CRS 285°	Rwy Idg 5018 TDZE 50 Apt Elev 52
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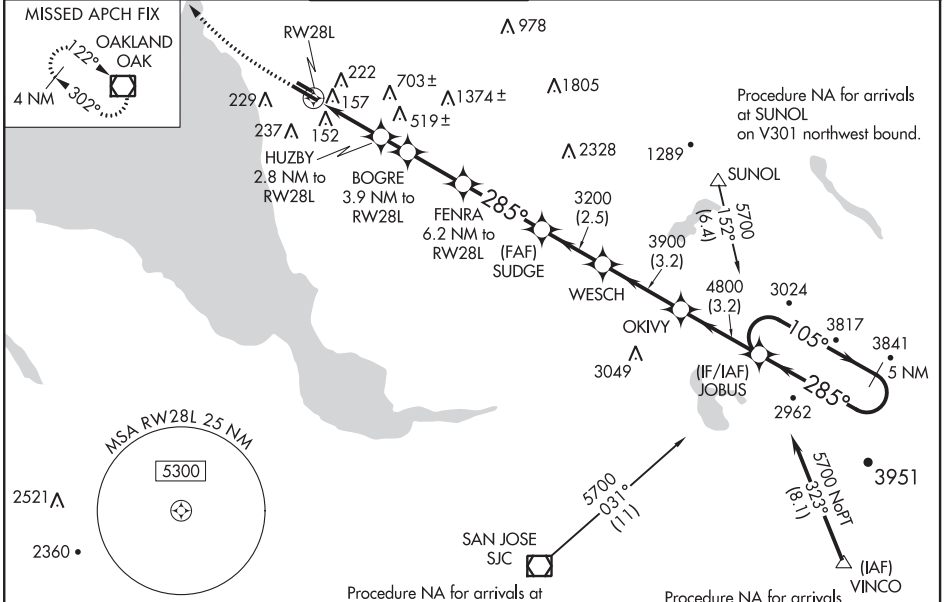
RNAV (GPS) RWY 28L

HAYWARD EXECUTIVE (HWD)

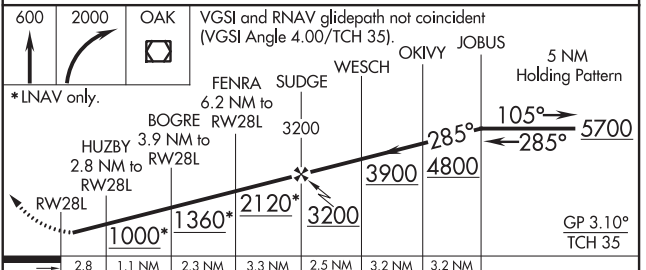
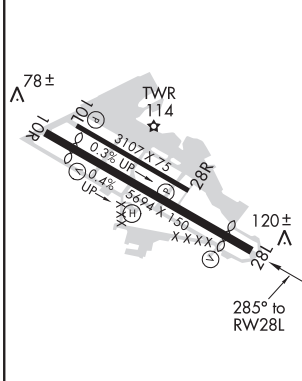
Baro-VNAV NA. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Oakland altimeter setting and increase all DA and MDA 20 feet, and increase all LNAV/VNAV and LNAV Cats C and D visibility 1/8 mile. Circling NA north of Rwy 10L-28R. When VGSI inop, Straight-in/Circling Rwy 28L procedures NA at night. When VGSI inop, Circling to Rwy 10L-28R NA at night. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 600 then climbing right turn to 2000 direct OAK VOR/DME and hold.

ATIS 126.7	NORCAL APP CON 124.4 351.8	HAYWARD TOWER ★ 120.2 (CTAF) 0 257.8	GND CON 121.4	CLNC DEL 128.05	UNICOM 122.95
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ELEV 52	TDZE 50
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CATEGORY	A	B	C	D
LPV DA		348-1	298 (300-1)	
LNAV/VNAV DA		400-1 1/8	350 (400-1 1/8)	
LNAV MDA	460-1	410 (500-1)	460-1 1/8	410 (500-1 1/8)
CIRCLING	540-1	488 (500-1)	540-1 1/2	620-2
			488 (500-1 1/2)	568 (600-2)

MIRL Rwy 10R-28L
MIRL Rwy 10L-28R
REIL Rwy 10R and 28L

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-HWID 111.5	APP CRS 288°	Rwy Idg TDZE Apt Elev	5018 50 52
Chan 52			

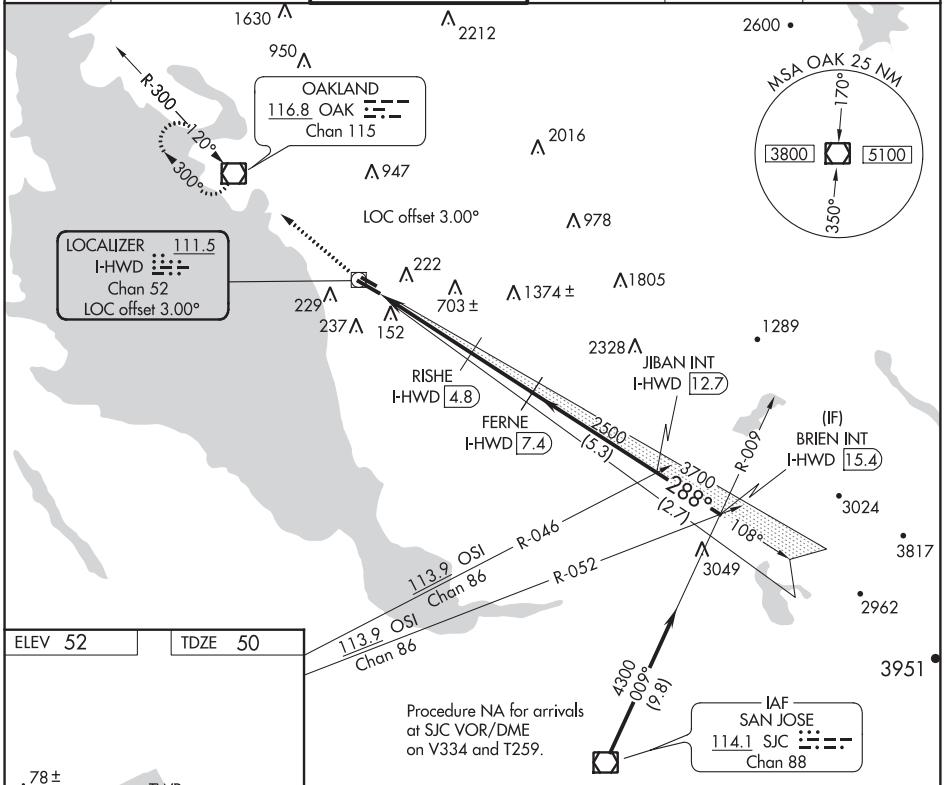
LOC/DME RWY 28L

HAYWARD EXECUTIVE (HWD)

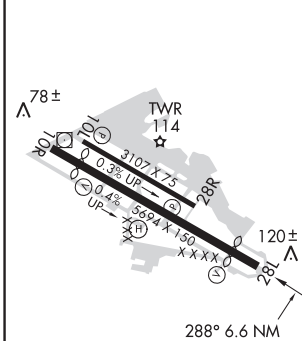
⚠ Circling NA north of Rwy 10L-28R. When VGSI inop, Straight-in/Circling Rwy 28L procedures NA at night. When VGSI inop, Circling to Rwy 10L-28R NA at night. When local altimeter setting not received, use Oakland altimeter setting and increase all MDA 20 feet. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 2000 direct OAK VOR/DME and hold.

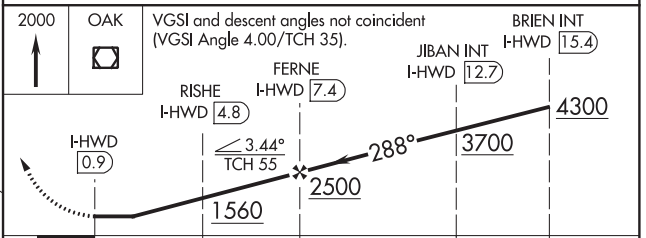
ATIS 126.7	NORCAL APP CON 124.4 351.8	HAYWARD TOWER * 120.2 (CTAF) 257.8	GND CON 121.4	CLNC DEL 128.05	UNICOM 122.95
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ELEV 52	TDZE 50
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MIRL Rwy 10R-28L
MIRL Rwy 10L-28R
REIL Rwy 10R and 28L



CATEGORY	A	B	C	D
S-28L	500-1	450 (500-1)	500-1 $\frac{3}{8}$	450 (500-1 $\frac{3}{8}$)
CIRCLING	540-1	488 (500-1)	540-1 $\frac{1}{2}$ 488 (500-1 $\frac{1}{2}$)	620-2 568 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

VOR/DME OAK 116.8 Chan 115	APP CRS 293°	Rwy Idg TDZE Apt Elev	N/A N/A 52
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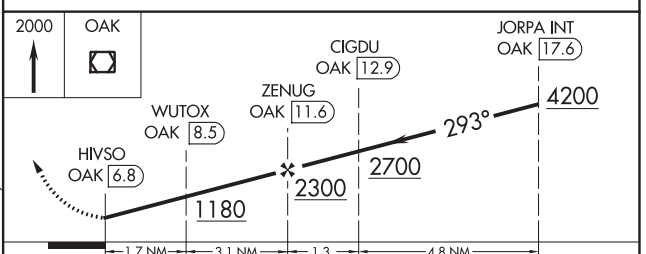
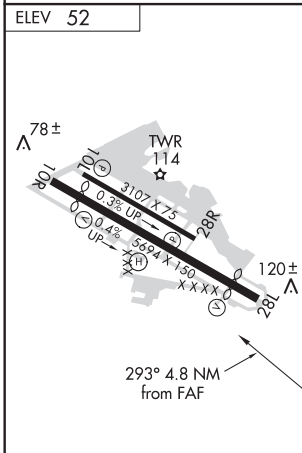
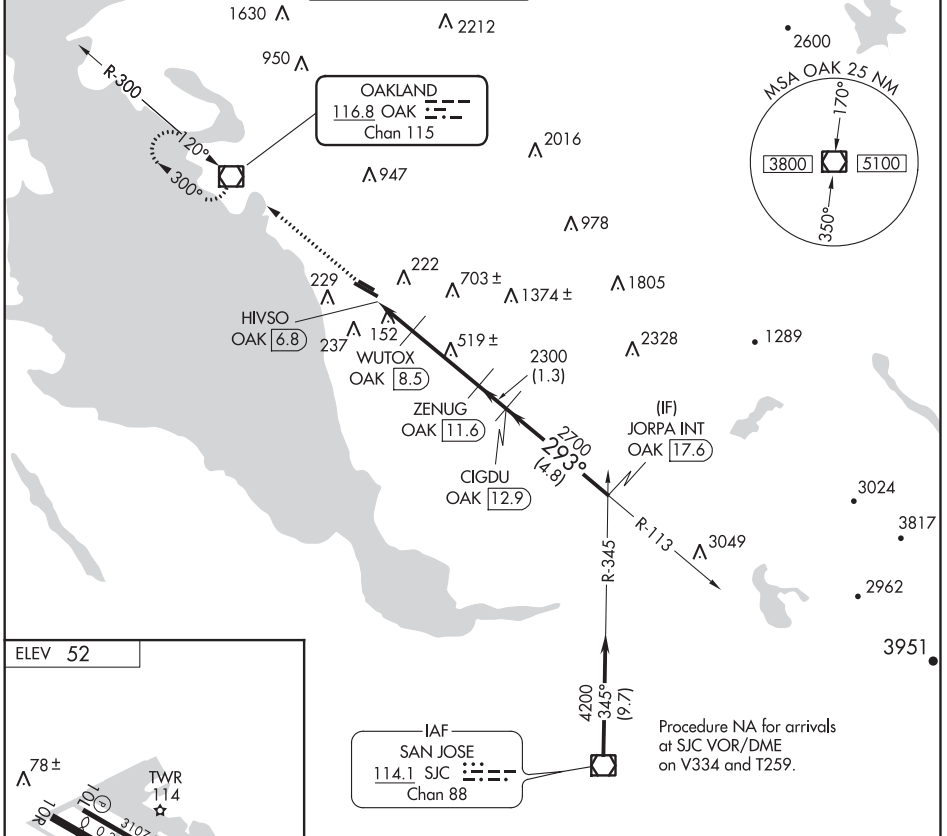
VOR/DME-A

HAYWARD EXECUTIVE (HWD)

⚠ When local altimeter setting not received, use Oakland altimeter setting and increase all MDA 20 feet. Circling NA north of Rwy 10L-28R. When VGSi inop, Circling to Rwy 10L-28R NA at night. Visibility reduction by helicopters NA.

⚠ MISSED APPROACH: Climb to 2000 direct OAK VOR/DME and hold.

ATIS 126.7	NORCAL APP CON 124.4 351.8	HAYWARD TOWER * 120.2 (CTAF) 257.8	GND CON 121.4	CLNC DEL 128.05	UNICOM 122.95
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MIRL Rwy 10R-28L	MIRL Rwy 10L-28R	REIL Rwy 10R and 28L		
CATEGORY	A	B	C	D
CIRCLING	560-1	508 (600-1)	560-1½ 508 (600-1½)	620-2 568 (600-2)

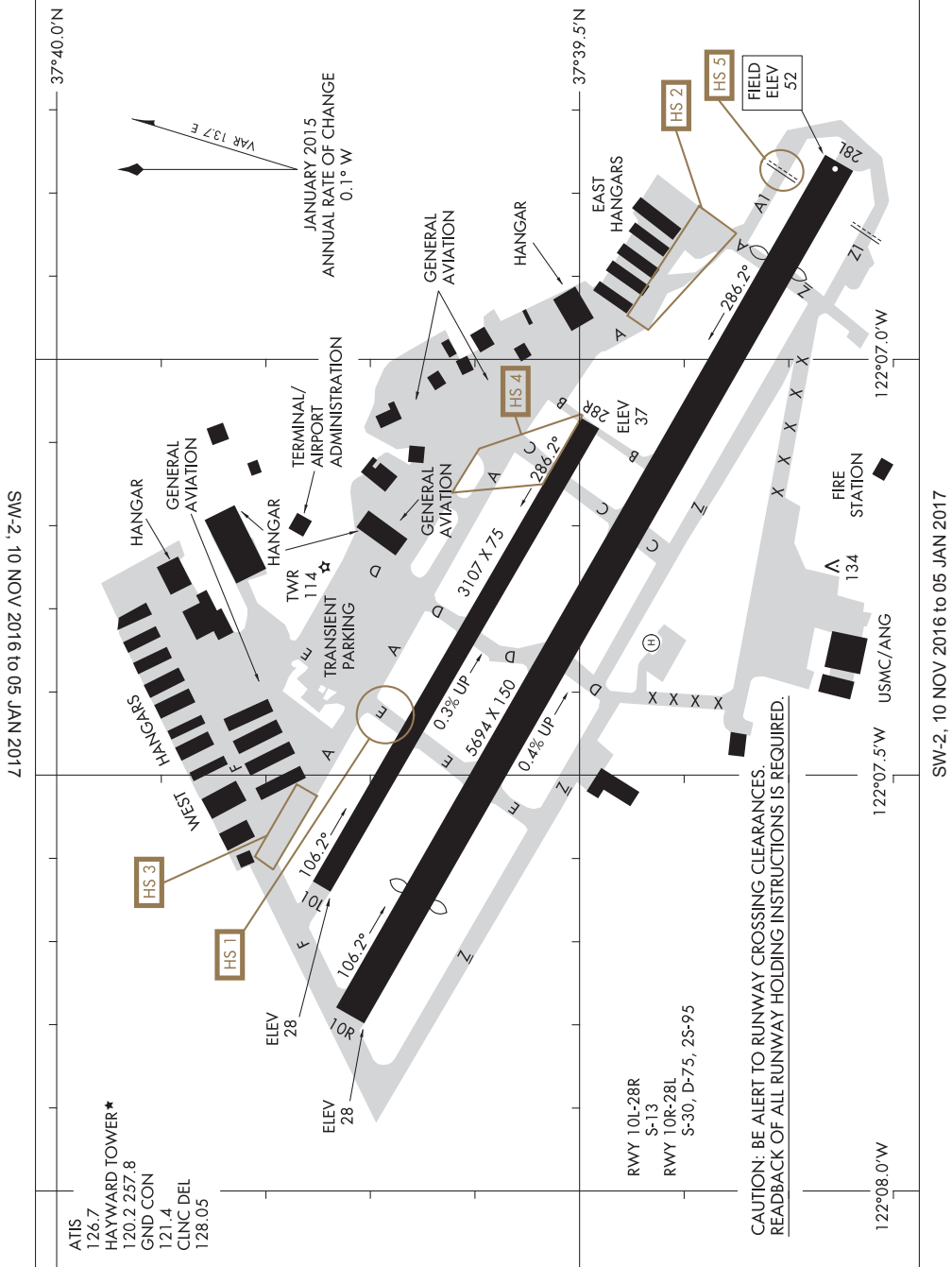
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

AL-5015 (FAA)

HAYWARD EXECUTIVE (HWD)
HAYWARD, CALIFORNIA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

WAAS CH 93806 W31A	APP CRS 307°	Rwy Idg TDZE Apt Elev	6350 230 230
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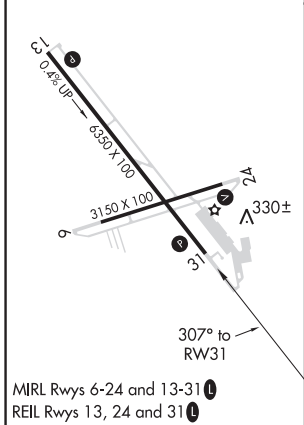
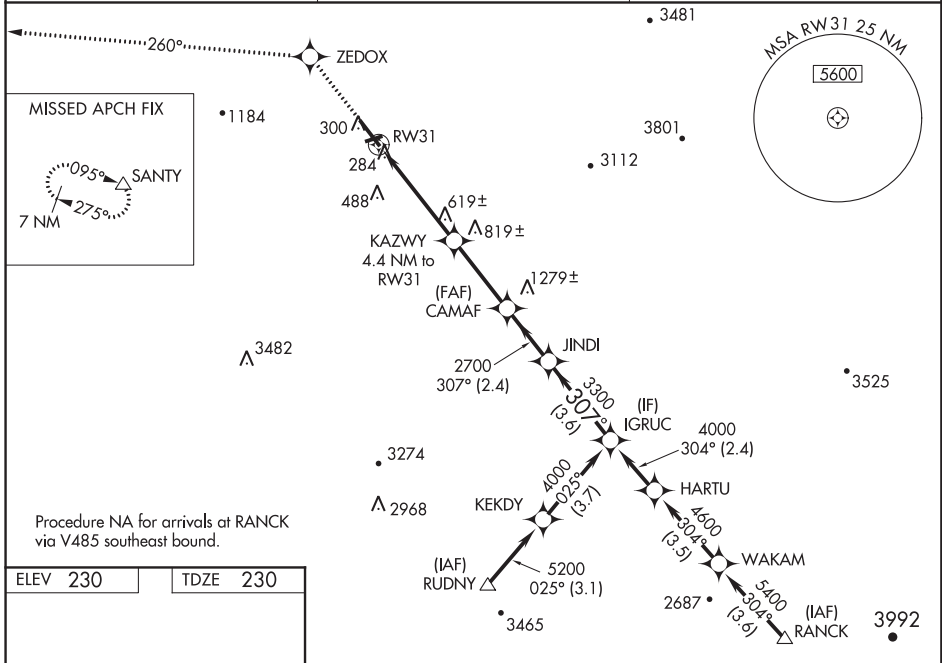
RNAV (GPS) RWY 31

HOLLISTER MUNI (CVH)

⚠ DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
⚠ Baro-VNAV NA when using Norman Y Mineta (KSJC) San Jose Intl altimeter setting.
 For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F).
 When local altimeter setting not received, use Norman Y Mineta (KSJC) San Jose Intl altimeter setting, and increase all DAs/MDAs 120 feet and all visibilities ½ mile.
 VDP NA when using Norman Y Mineta (KSJC) San Jose Intl altimeter setting.

MISSED APPROACH: Climb to 7000 direct ZEDOX and via 260° track to SANTY and hold, continue climb-in-hold to 7000.

AWOS-3 120.425	NORCAL APP CON 124.525 348.675	UNICOM 123.0 (CTAF)
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ELEV 230	TDZE 230			
7000	ZEDOX	260° tr	SANTY	Procedure Turn NA
*LNAV only	KAZWY 4.4 NM to RW31	CAMAF	JINDI	IGRUC
	RW31	1580*	2700	307°
	1.9 NM	2.5 NM	3.1 NM	2.4 NM
	3.6 NM			
GP 3.00°				TCH 40'
CATEGORY	A	B	C	D
LPV DA	553-1¼ 323 (400-1¼)			NA
LNAV/VNAV DA	801-2 571 (600-2)			NA
LNAV MDA	880-1	650 (700-1)	880-1¾ 650 (700-1¾)	NA
CIRCLING	880-1	650 (700-1)	880-1¾ 650 (700-1¾)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

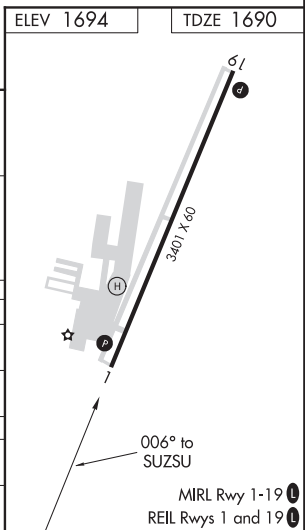
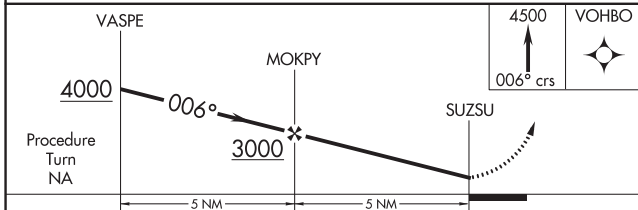
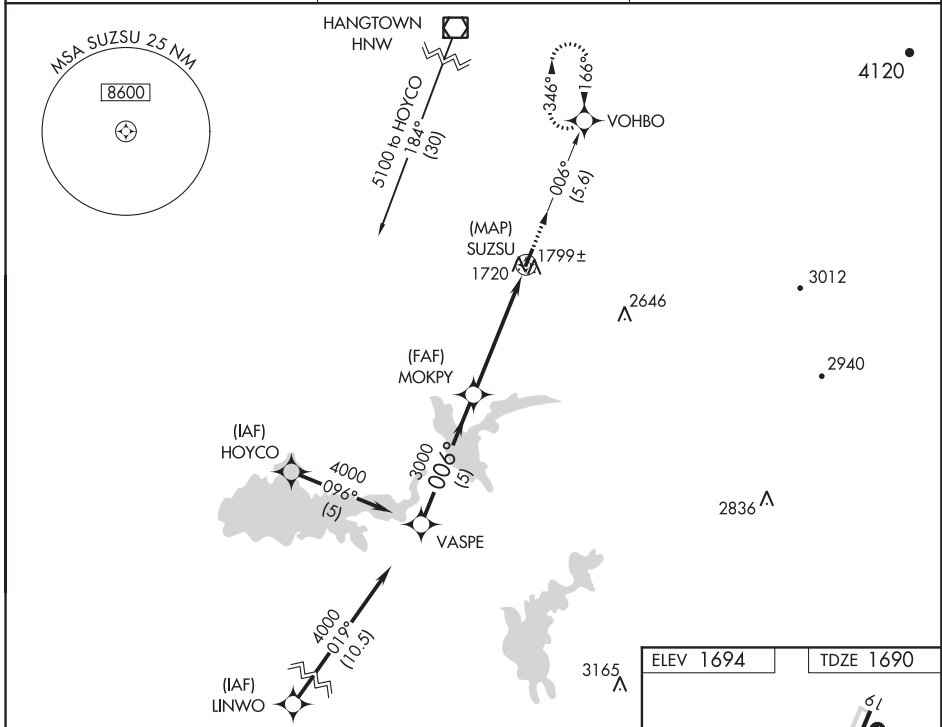
SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	3401
006°	TDZE	1690
	Apt Elev	1694

GPS RWY 1
WESTOVER FIELD AMADOR COUNTY (JAQ)

NA If local altimeter not received, use Sacramento Executive altimeter setting. **MISSED APPROACH:** Climb to 4500 via 006° course to VOHBO WP and hold.

AWOS-3 121.125	NORCAL APP CON 125.1 363.2	UNICOM 123.075 (CTAF)
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CATEGORY	A	B	C	D
S-1	2060-1	370 (400-1)		NA
CIRCLING	2200-1	506 (600-1)		NA
SACRAMENTO EXECUTIVE ALTIMETER SETTING MINIMUMS				
S-1	2380-1	690 (700-1)		NA
CIRCLING	2520-1 826 (900-1)	2520-1¼ 826 (900-1¼)		NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

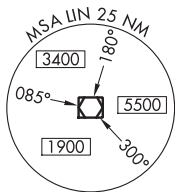
VOR/DME LIN 114.8 Chan 95	APP CRS 012°	Rwy Idg TDZE 1690 Apt Elev 1694
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VOR/DME RWY 1

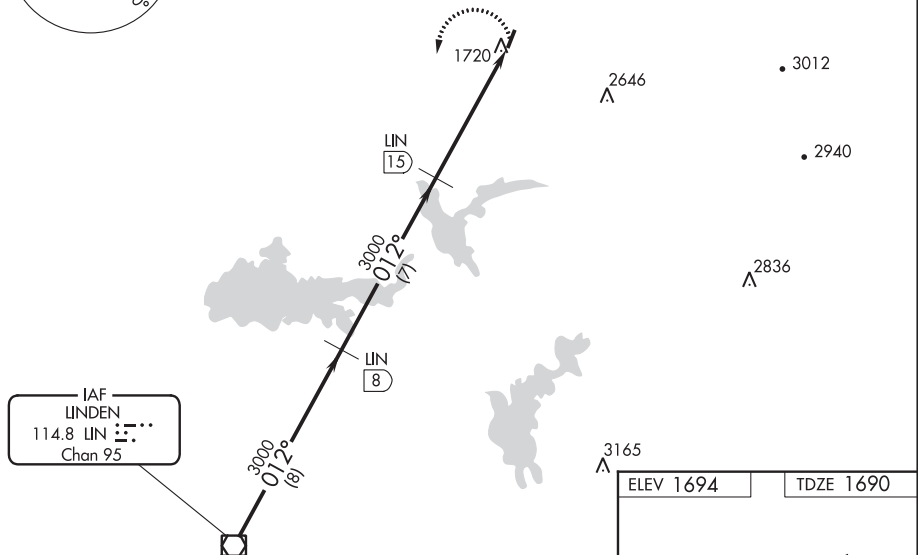
WESTOVER FIELD AMADOR COUNTY (JAQ)

NA If local altimeter not received, use Sacramento Executive altimeter setting. MISSED APPROACH: Climbing left turn to 3000 via LIN R-012 to LIN VOR/DME.

AWOS-3 121.125	NORCAL APP CON 125.1 363.2	UNICOM 123.075 (CTAF) 0
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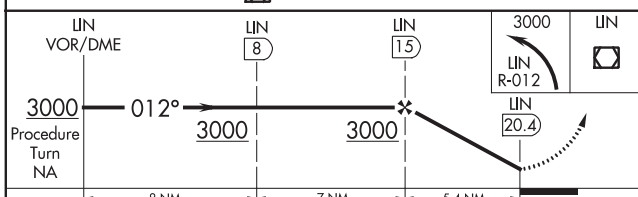


4120

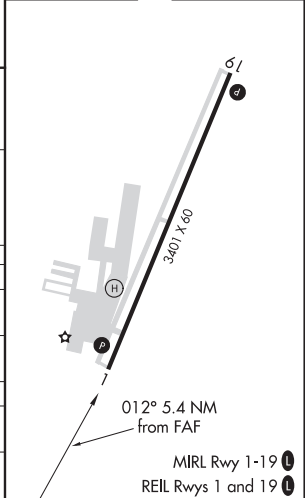


IAF
LINDEN
114.8 LIN
Chan 95

ELEV 1694	TDZE 1690
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CATEGORY	A	B	C	D
S-1	2080-1 390 (400-1)	2080-1¼ 390 (400-1¼)		NA
CIRCLING	2200-1 506 (600-1)	2200-1¼ 506 (600-1¼)		NA
SACRAMENTO EXECUTIVE ALTIMETER SETTING MINIMUMS				
S-1	2380-1 690 (700-1)	2380-1¼ 690 (700-1¼)		NA
CIRCLING	2520-1 826 (900-1)	2520-1¼ 826 (900-1¼)		NA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS 164°	Rwy Idg TDZE Apt Elev	N/A N/A 1380
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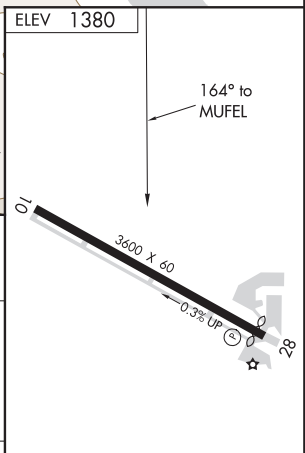
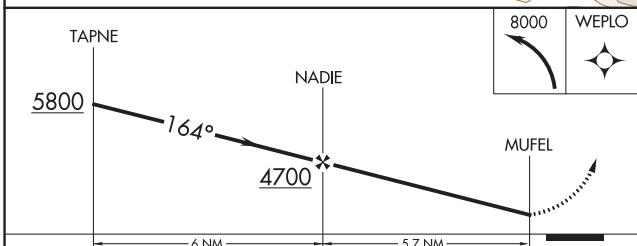
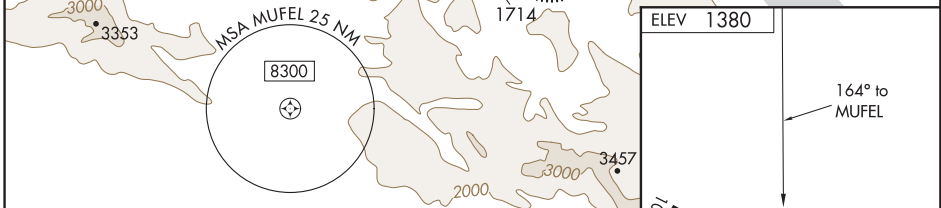
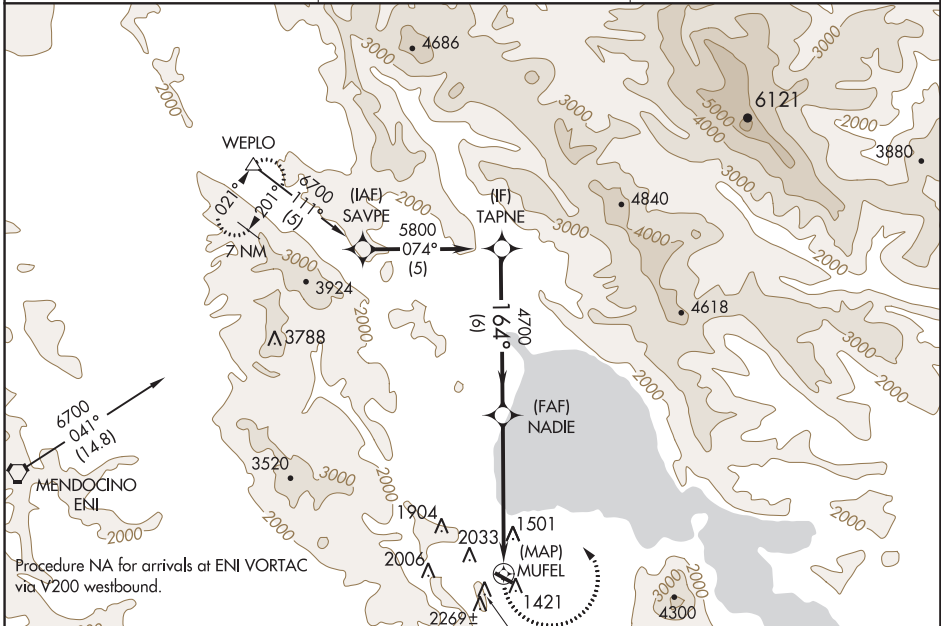
RNAV (GPS)-A

LAMPSON FIELD (102)

Procedure NA at night. Helicopter visibility reduction below 1 SM NA.
Circle NA south of Rwy 10 and 28. DME/DME RNP-0.3 NA.
 When local altimeter setting not received, use Ukiah altimeter setting and increase all MDA 560 feet.

MISSED APPROACH: Climbing left turn to 8000 direct WEPLO and hold, continue climb-in-hold to 8000.

AWOS-3 118.35	OAKLAND CENTER 127.8 353.5	UNICOM 122.8 (CTAF)
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CATEGORY	A	B	C	D
CIRCLING	2580-1¼ 1200 (1200-1¼)	2580-1½ 1200 (1200-1½)	NA	NA

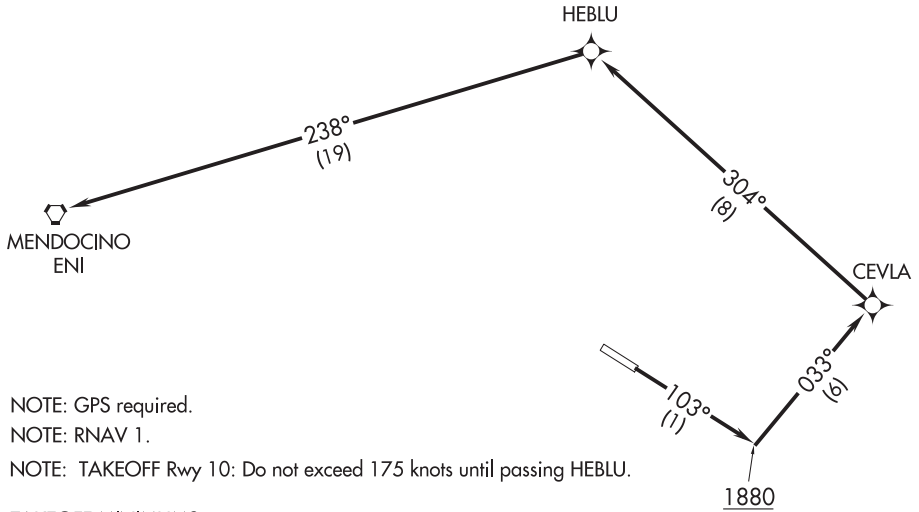
MIRL Rwy 10-28

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

OAKLAND CENTER
127.8 353.5

TOP ALTITUDE:
6000



NOTE: GPS required.
NOTE: RNAV 1.
NOTE: TAKEOFF Rwy 10: Do not exceed 175 knots until passing HEBLU.

TAKEOFF MINIMUMS

Rwy 10: Standard with minimum climb of 496' per NM to 4500.
Rwy 28: NA- Rapidly rising terrain.

TAKEOFF OBSTACLE NOTES

Rwy 10: Vehicle on road 347' from DER, 7' right of centerline, 15' AGL/1394' MSL.
Trees beginning 280' from DER, 201' left of centerline, up to 100' AGL/1479' MSL.
Trees beginning 494' from DER, 219' right of centerline, up to 100' AGL/1479' MSL.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb heading 103° to 1880, then climb on 033° course to CEVLA, then via 304° track to HEBLU, then via 238° track to ENI VORTAC, thence
. . . . via assigned route, expect clearance to filed altitude 10 minutes after departure.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LEMOORE, CALIFORNIA

RNAV (GPS) RWY 14L

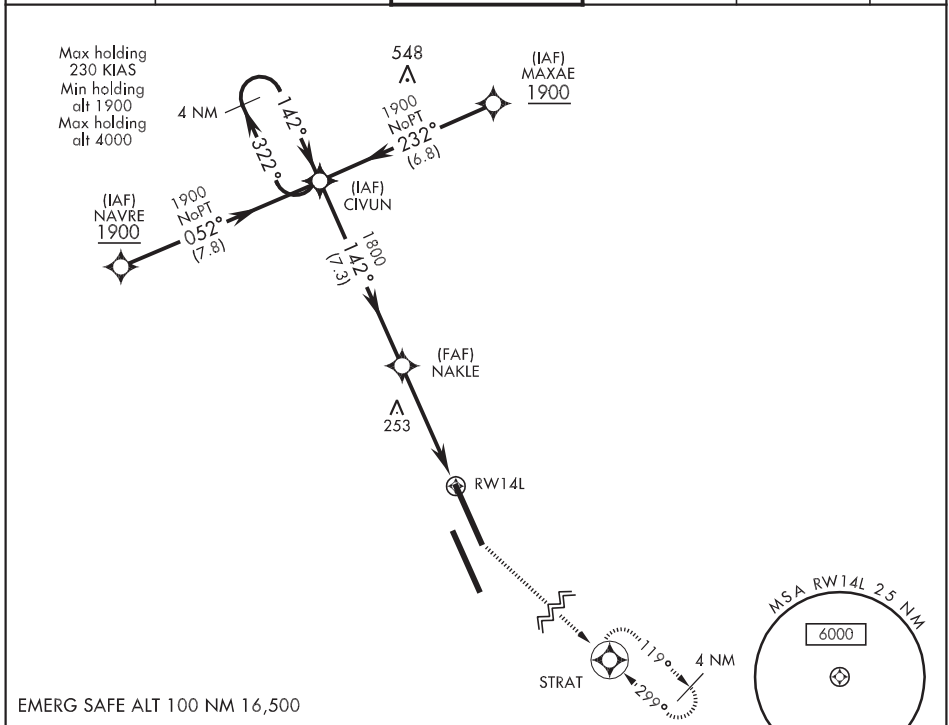
APCH CRS	Rwy Idg	13,500
142°	THRE	220
	Arpt Elev	232

AL-5067 [USN]

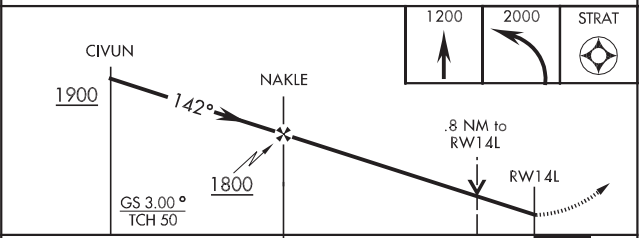
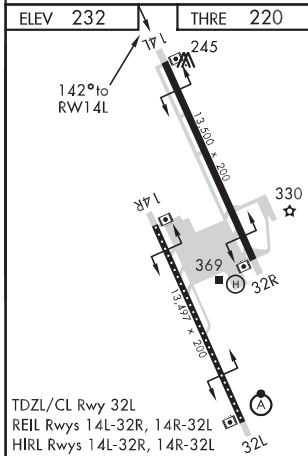
LEMOORE NAS (REEVES FLD) (KNLC)

<p>▼ Baro VNAV NA below - 15.46°C (4.17°F).</p> <p>DME/DME RNP-0.3 NA</p>	<p>MISSED APPROACH: Climb straight ahead to 1200, then climb to 2000 direct STRAT and hold.</p>
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<p>ATIS ★</p> <p>121.575 327.15</p>	<p>LEMOORE APP CON</p> <p>N124.1 S118.15 269.025</p>	<p>LEMOORE TOWER ★</p> <p>128.3 340.2</p>	<p>GND CON</p> <p>121.65 305.2</p>	<p>CLNC DEL</p> <p>124.1 371.9</p>	<p>ASR/PAR</p>
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EMERG SAFE ALT 100 NM 16,500



CATEGORY	A	B	C	D
LNNAV/VNAV DA	520-1	300	(300-1)	
LNNAV MDA	520-1	300	(300-1)	
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)

LEMOORE, CALIFORNIA
Amdt 3 08MAR12

36°20'N-119°57'W

LEMOORE NAS (REEVES FLD) (KNLC)

RNAV (GPS) RWY 14L

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LEMOORE, CALIFORNIA

RNAV (GPS) RWY 14R

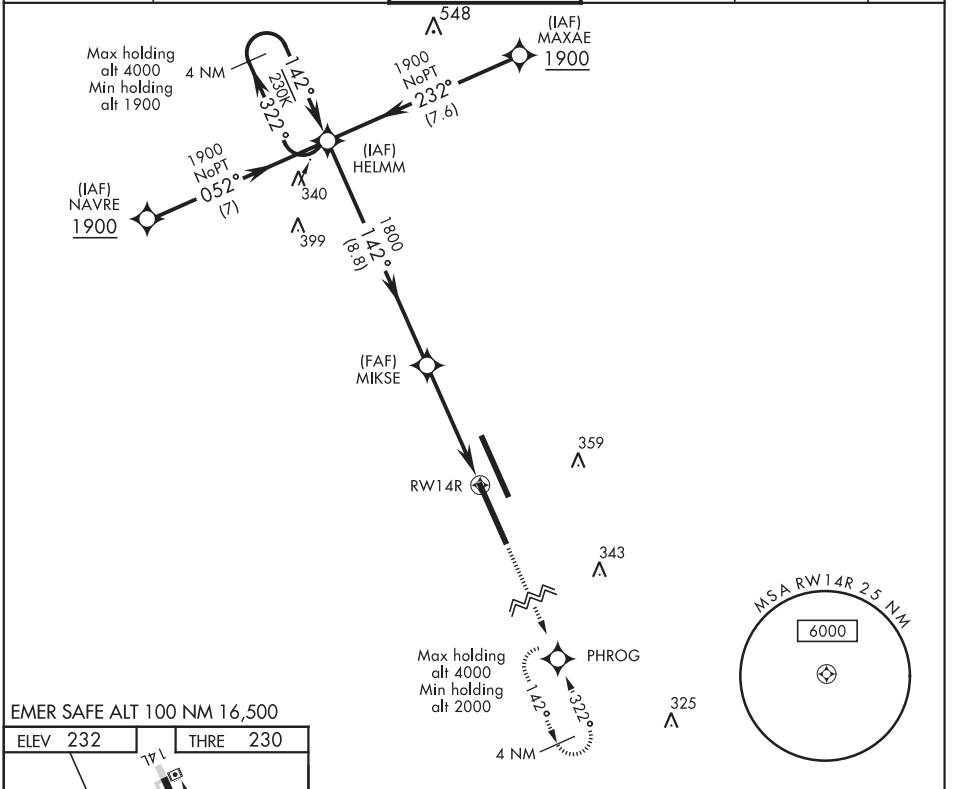
APCH CRS 142°	Rwy Idg 13,497
THRE 230	Arpt Elev 232

AL-5067 [USN]

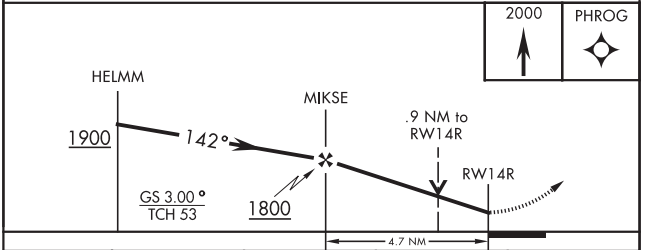
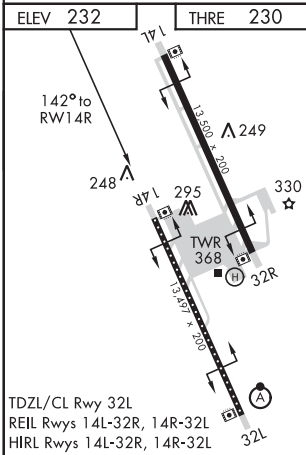
LEMOORE NAS (REEVES FIELD) (KNLC)

DME/DME RNP-0.3 NA		MISSED APPROACH: Climb to 2000 direct PHROG and hold.			
Baro VNAV NA below -1.5° C (5° F)					

ATIS ★ 121.575 327.15	LEMOORE APP CON N124.1 S118.15 269.025	LEMOORE TOWER ★ 128.3 360.2	GND CON 121.65 305.2	CLNC DEL 124.1 371.9	ASR/PAR
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EMER SAFE ALT 100 NM 16,500



CATEGORY	A	B	C	D
LNAV/VNAV DA	520/46	290	(300-7%)	
LNAV MDA	560/55	330	(400-1)	
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)

LEMOORE, CALIFORNIA

36°20'N-119°57'W

LEMOORE NAS (REEVES FIELD) (KNLC)

Amdt 4 05FEB15

RNAV (GPS) RWY 14R

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LEMOORE, CALIFORNIA

RNAV (GPS) RWY 32L

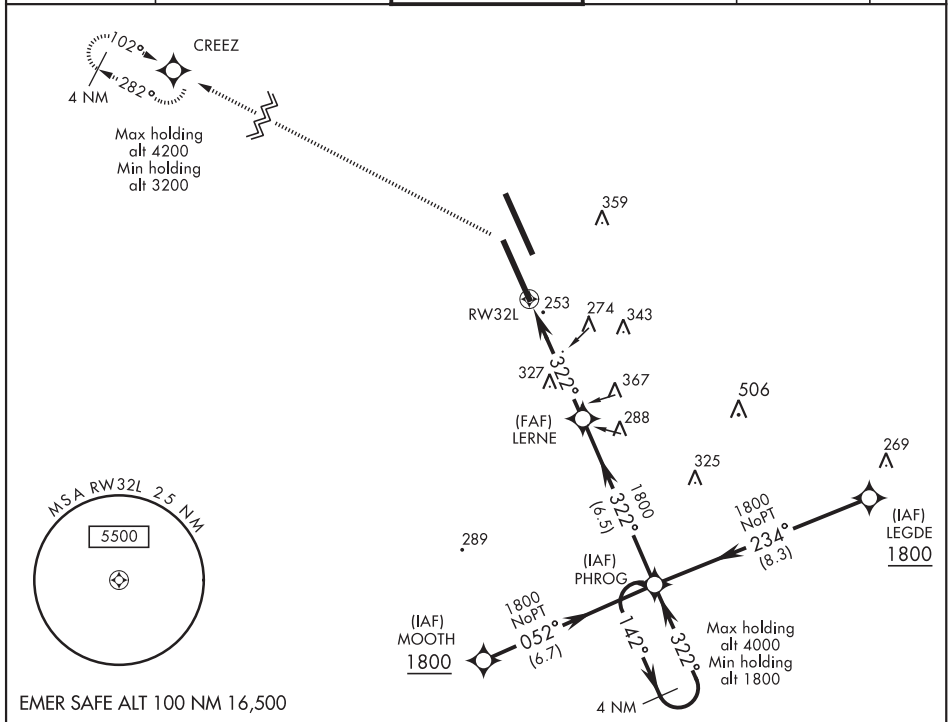
APCH CRS 322°	Rwy Idg 13,497
THRE 229	Arpt Elev 232

AL-5067 [USN]

LEMOORE NAS (REEVES FIELD) (KNLC)

<p>▼ * When ALS inop, increase CAT ABCD RVR to 47 and vis to 1 mile. ** When ALS inop, increase RVR to 55 and vis to 1 mile. Baro VNAV NA below - 15°C (5°F). DME/DME RNP-0.3 NA</p>	<p>ALSf-2</p>	<p>MISSED APPROACH: Climb to 1000, then climbing left turn to 3200 direct CREEZ and hold.</p>
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<p>ATIS ★ 121.575 327.15</p>	<p>LEMOORE APP CON N124.1 S118.15 269.025</p>	<p>LEMOORE TOWER ★ 128.3 340.2</p>	<p>GND CON 121.65 305.2</p>	<p>CLNC DEL 124.1 371.9</p>	<p>ASR/PAR</p>
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

EMER SAFE ALT 100 NM 16,500

ELEV 232	THRE 229	1000	3200	CREEZ
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TDZL/CL Rwy 32L	REIL Rwy 14L-32R, 14R-32L	HIRL Rwy 14L-32R, 14R-32L
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<p>LERNE</p> <p>PHROG</p> <p>1800</p> <p>GS 3.00° TCH 45</p>
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CATEGORY	A	B	C	D
LNAV/VNAV DA*	520/24	291	(300-½)	
LNAV MDA**	580/24	351	580/30	351 (400-⅝)
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)

LEMOORE, CALIFORNIA

36°20'N-119°57'W

LEMOORE NAS (REEVES FIELD) (KNLC)

Amf 3 05FEB15

RNAV (GPS) RWY 32L

LEMOORE, CALIFORNIA

RNAV (GPS) RWY 32R

APCH CRS 322°	Rwy Idg 13,500
THRE 224	
Arpt Elev 232	

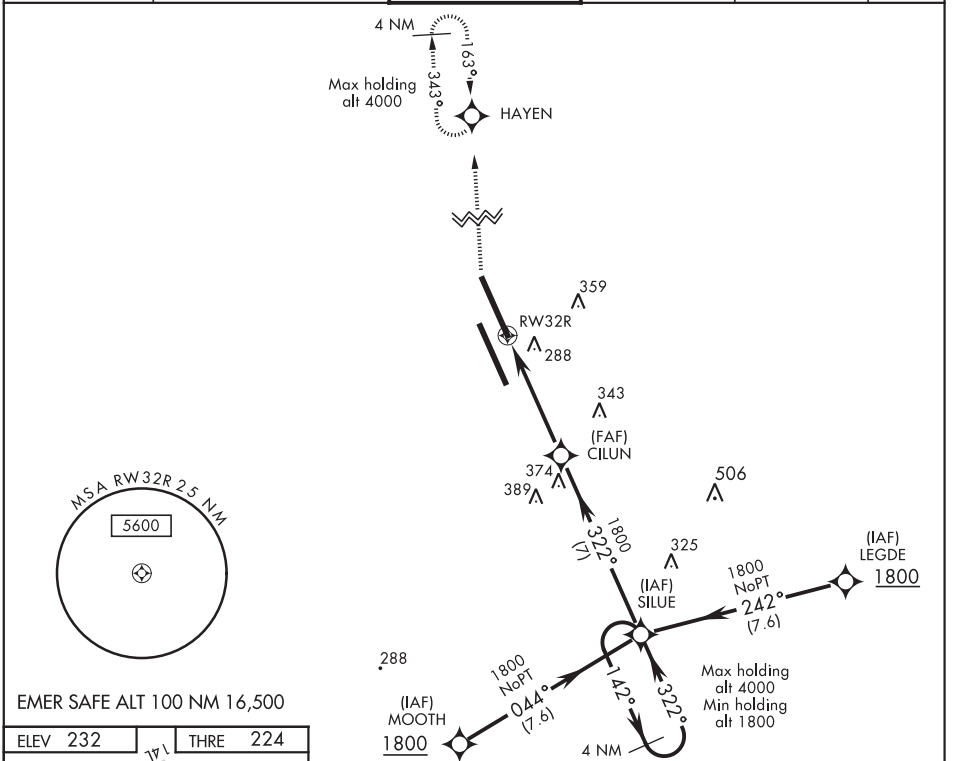
AL-5067 [USN]

LEMOORE NAS (REEVES FIELD) (KNLC)

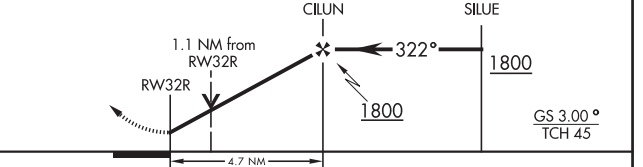
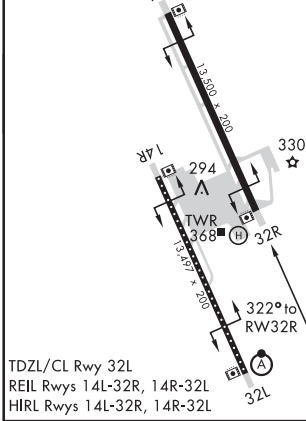
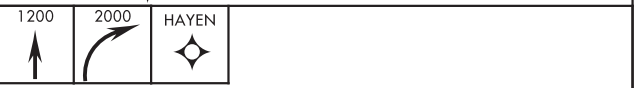
▼ DME/DME RNP-0.3 NA
Baro VNAV NA below -15°C (5°F)

MISSED APPROACH: Climb to 1200, then climbing right turn to 2000 direct HAYEN and hold.

ATIS ★ 121.575 327.15	LEMOORE APP CON N124.1 S118.15 269.025	LEMOORE TOWER ★ 128.3 360.2	GND CON 121.65 305.2	CLNC DEL 124.1 371.9	ASR/PAR
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ELEV 232	THRE 224
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CATEGORY	A	B	C	D
LNAV MDA	620/55	396 (400-1)	620/60	396 (400-1½)
LNAV/VNAV DA	620-1¾ 396 (400-1¾)			
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)

LEMOORE, CALIFORNIA
Amdt 3 05FEB15

36° 20' N - 119° 57' W

LEMOORE NAS (REEVES FIELD) (KNLC)

RNAV (GPS) RWY 32R

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LEMOORE, CALIFORNIA

TACAN RWY 14L

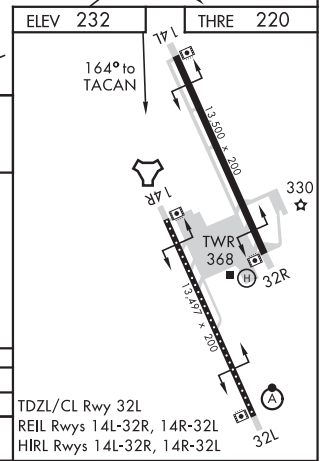
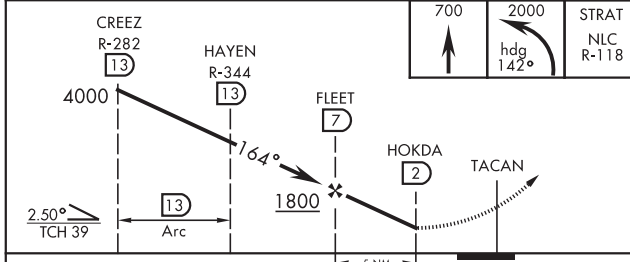
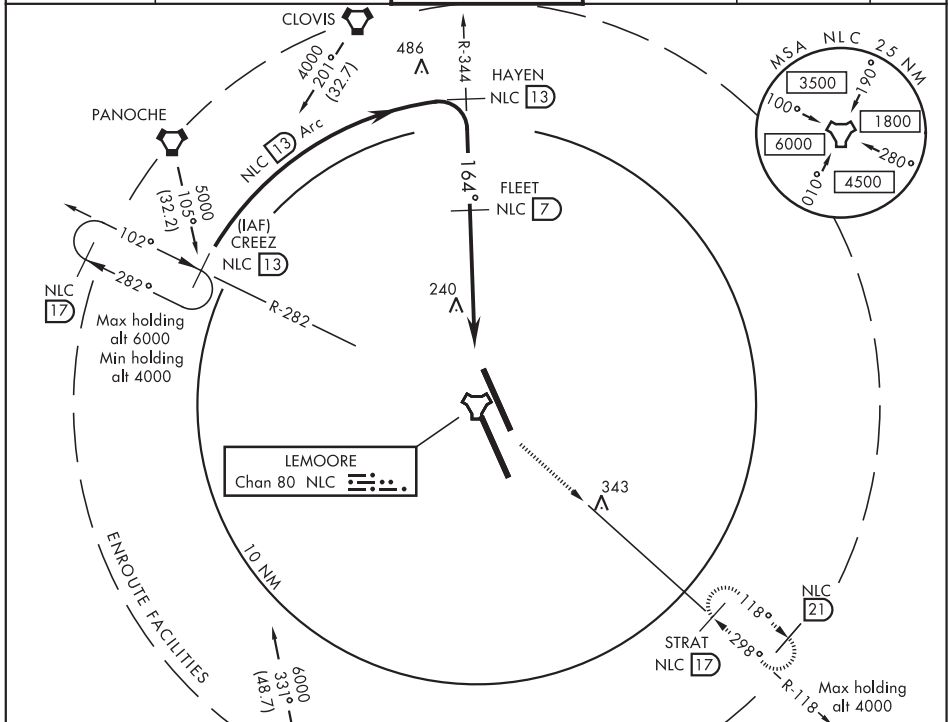
TACAN Chan 80	NLC	APCH CRS 164°	Rwy ldg THRE 220 Arprt Elev 232
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AL-5067 [USN]

LEMOORE NAS (REEVES FIELD) (KNLC)

▽ MISSED APPROACH: Climb to 700 then climbing left turn to 2000 via heading 142°, intercept R-118 to STRAT and hold.

ATIS ★ 121.575 327.15	LEMOORE APP CON N124.1 S118.15 269.025	LEMOORE TOWER ★ 128.3 340.2	GND CON 121.65 305.2	CLNC DEL 124.1 371.9	ASR/PAR
---------------------------------	--	---------------------------------------	--------------------------------	--------------------------------	---------



CATEGORY	A	B	C	D
S-14L	520/55 300 (300-1)			
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)

TDZL/CL Rwy 32L
REIL Rwys 14L-32R, 14R-32L
HIRL Rwys 14L-32R, 14R-32L

LEMOORE, CALIFORNIA
Amdt 3 05FEB15

36°20'N-119°57'W

LEMOORE NAS (REEVES FIELD) (KNLC)

TACAN RWY 14L

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LEMOORE, CALIFORNIA

TACAN RWY 14R

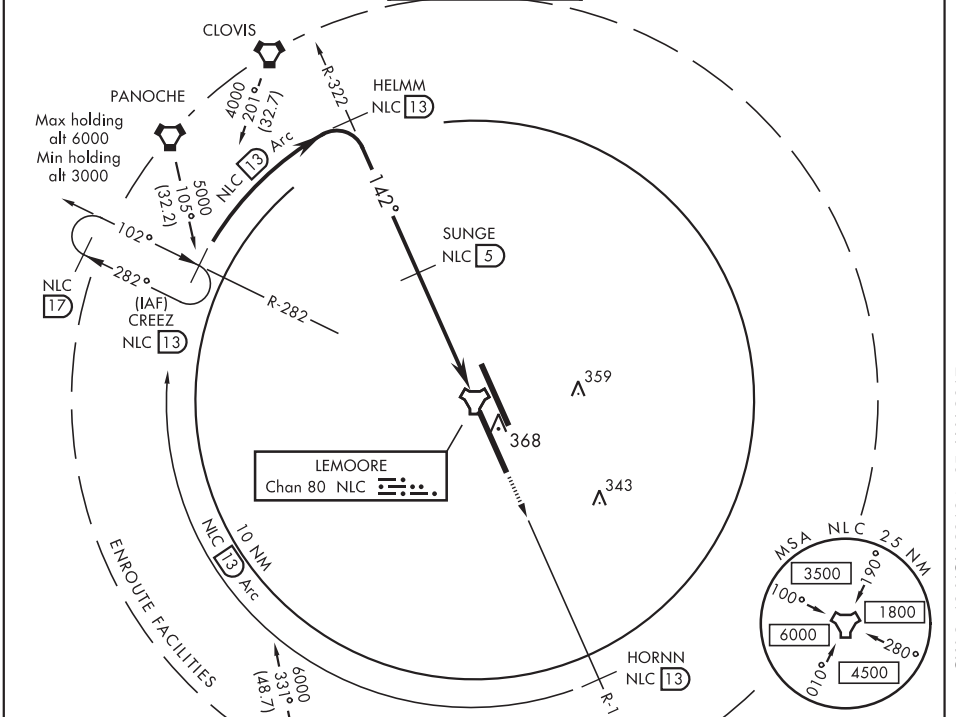
TACAN NLC Chan 80	APCH CRS 142°	Rwy ldg 13,497 THRE 230 Arpt Elev 232
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AL-5067 [UN]

LEMOORE NAS (REEVES FIELD) (KNLC)

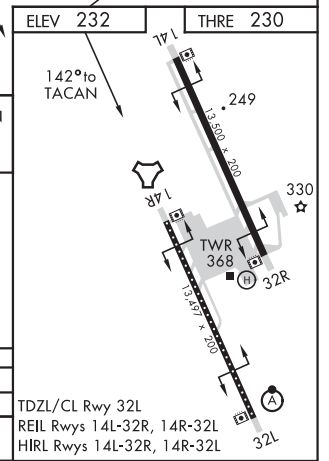
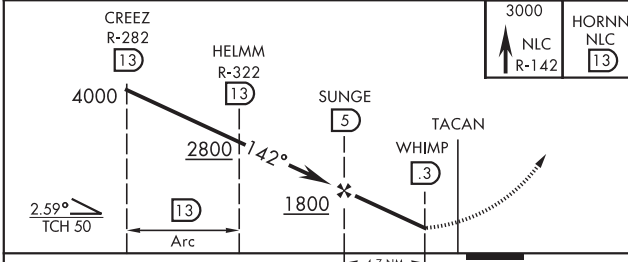
▼ MISSED APPROACH: Climb to 3000 via R-142 to HORNN, then arc SW of NLC TACAN via the 13 DME Arc to CREEZ and hold.

ATIS ★ 121.575 327.15	LEMOORE APP CON N124.1 S118.15 269.025	LEMOORE TOWER ★ 128.3 360.2	GND CON 121.65 305.2	CLNC DEL 124.1 371.9	ASR/PAR
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-14R	520/55		290	(300-1)
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)

TDZL/CL Rwy 32L
REIL Rwys 14L-32R, 14R-32L
HIRL Rwys 14L-32R, 14R-32L

LEMOORE, CALIFORNIA
Amdt 3 05FEB15

36°20'N-119°57'W

LEMOORE NAS (REEVES FIELD) (KNLC)

TACAN RWY 14R

LEMOORE, CALIFORNIA

TACAN RWY 32L

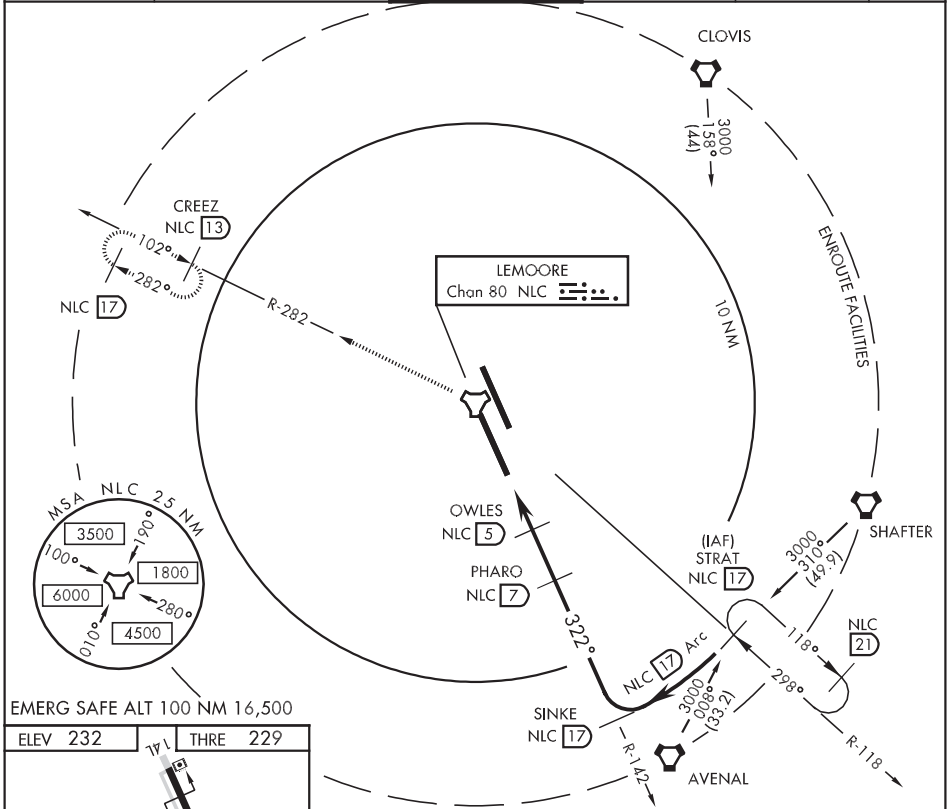
TACAN NLC Chan 80	APCH CRS 322°	Rwy ldg THRE 13,497 Arpt Elev 229
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AL-5067 [USN]

LEMOORE NAS (REEVES FIELD) (KNLC)

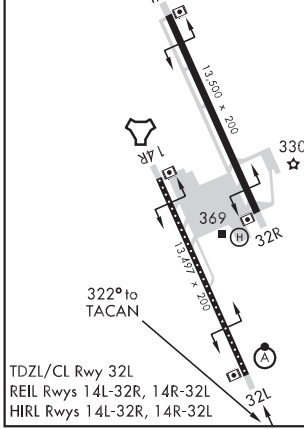
V *When ALS inop, increase CAT ABCD RVR to 55 and vis to 1 mile. **ALS-F-2** MISSED APPROACH: Climb to 3000 via R-142 to NLC TACAN, then via R-282 to CREEZ and hold.

ATIS ★ 121.575 327.15	LEMOORE APP CON N124.1 S118.15 269.025	LEMOORE TOWER ★ 128.3 340.2	GND CON 121.65 305.2	CLNC DEL 124.1 371.9	ASR/PAR
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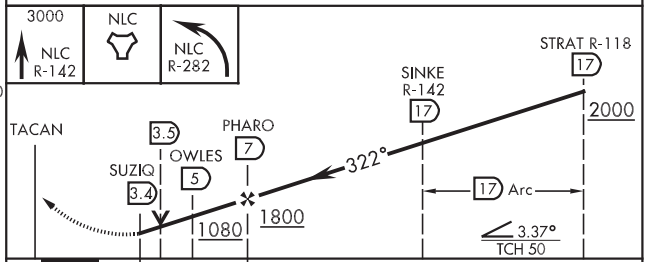


EMERG SAFE ALT 100 NM 16,500

ELEV 232	THRE 229
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TDZL/Cl Rwy 32L
REIL Rwy 14L-32R, 14R-32L
HIRL Rwy 14L-32R, 14R-32L



CATEGORY	A	B	C	D
S-32L*		540/24	311 (400-½)	
CIRCLING	680-1 448 (500-1)	700-1 468 (500-1)	700-1½ 468 (500-1½)	800-2 568 (600-2)

LEMOORE, CALIFORNIA
Amdt 5 12152

36°20'N-119°57'W

LEMOORE NAS (REEVES FIELD) (KNLC)

TACAN RWY 32L

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

AFD-5067 [USN]

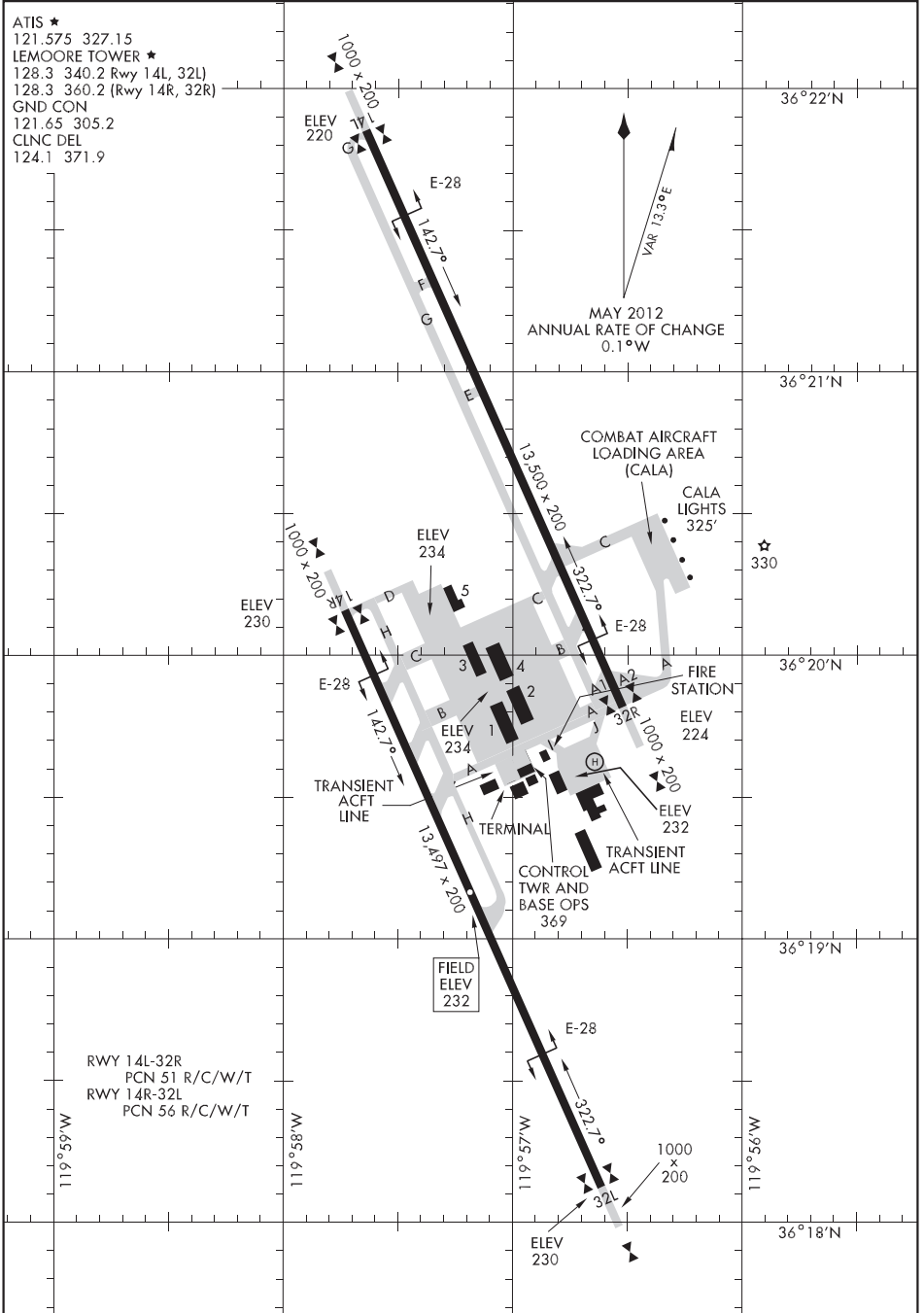
LEMOORE NAS (REEVES FIELD) (KNLC)

LEMOORE, CALIFORNIA

ATIS ★
 121.575 327.15
 LEMOORE TOWER ★
 128.3 340.2 Rwy 14L, 32L
 128.3 360.2 (Rwy 14R, 32R)
 GND CON
 121.65 305.2
 CLNC DEL
 124.1 371.9

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



AIRPORT DIAGRAM

LEMOORE, CALIFORNIA
LEMOORE NAS (REEVES FIELD) (KNLC)

12264

LEMOORE-EIGHT DEPARTURE (NLC8•NLC)

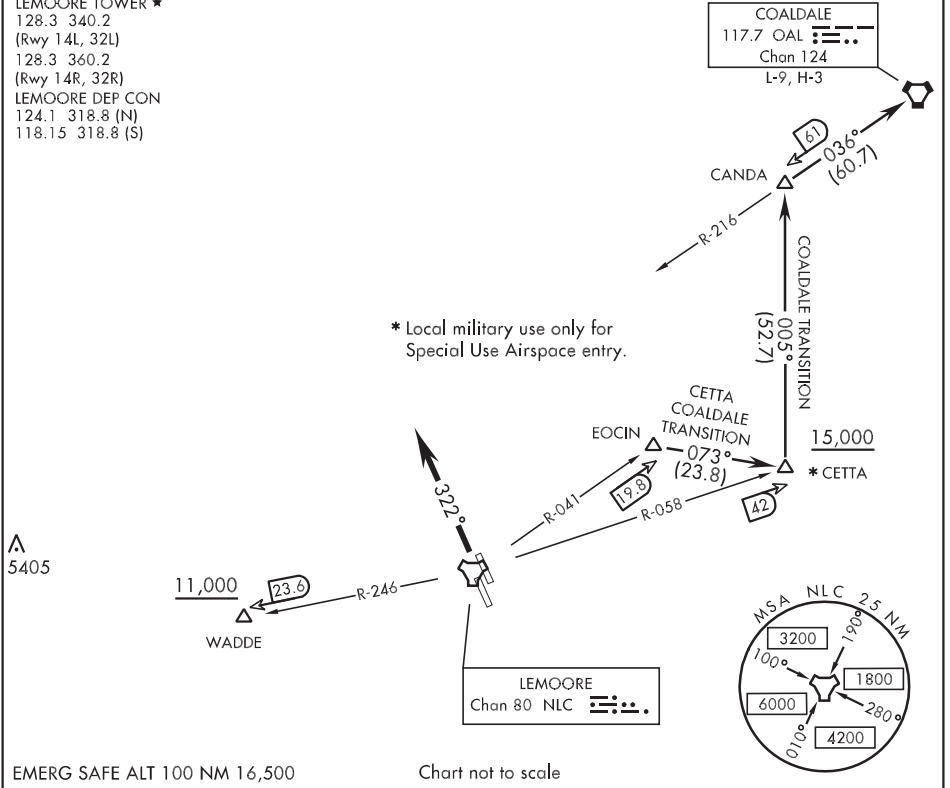
LEMOORE NAS (REEVES FIELD) (KNLC)

SHL-5067 [USN] LEMOORE, CALIFORNIA

ATIS ★ 121.575 327.15
 CLNC DEL
 124.1 371.9
 GND CON
 121.65 305.2
 LEMOORE TOWER ★
 128.3 340.2
 (Rwy 14L, 32L)
 128.3 360.2
 (Rwy 14R, 32R)
 LEMOORE DEP CON
 124.1 318.8 (N)
 118.15 318.8 (S)

Rwy	Knots	60	120	180	240	300	360
32L/R	V/V(fpm)	315	630	945	1260	1575	1890

ATC Climb Rate to 15,000 CETTA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 32L/32R: Climb to 2000 via heading 322°. Expect radar vectors to join assigned transition or route.

CETTA TRANSITION (NLC8.CETTA): From over EOCIN direct CETTA thence as filed. Cross CETTA at or above 15,000.

COALDALE TRANSITION (NLC8.OAL): From over EOCIN direct CETTA, direct CANDA, direct COALDALE VORTAC. Cross CETTA at or above 15,000.

WADDE TRANSITION (NLC8.WADDE): From over WADDE thence as filed. Cross WADDE at or above 11,000.

LOST COMMUNICATIONS: If no transmissions are received within 8 DME of NLC TACAN, fly departure heading to intercept NLC 10 DME arc, arc to respective departure radial then via departure radial to assigned departure fix. Then via assigned route. Once established on departure radial climb to filed altitude.

LEMOORE-EIGHT DEPARTURE (NLC8•NLC)

LEMOORE, CALIFORNIA
LEMOORE NAS (REEVES FIELD) (KNLC)

REEVES-TWO DEPARTURE (REVES2 • NLC)

LEMOORE NAS (REEVES FIELD) (KNLC)

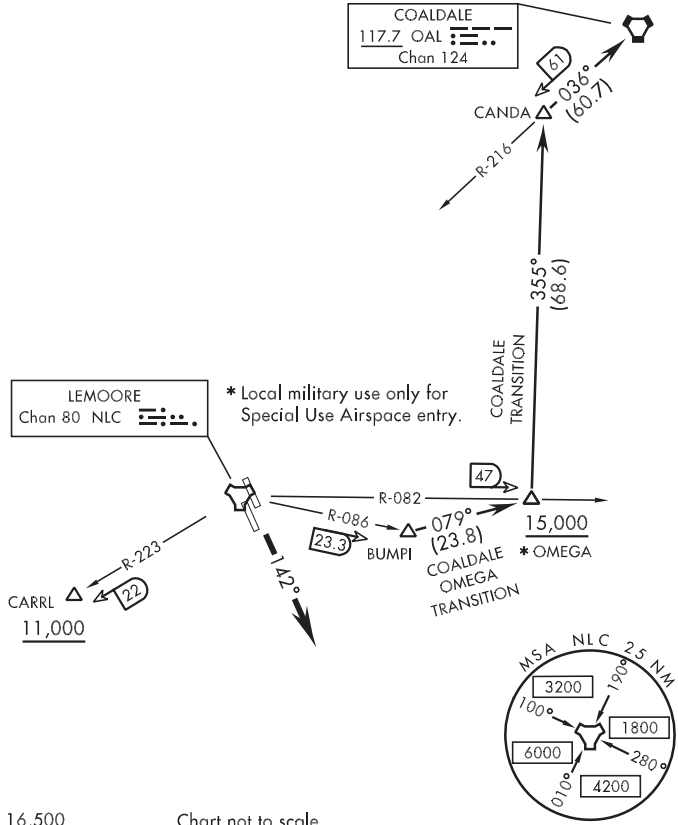
SHL-5067 [USN]

LEMOORE, CALIFORNIA

ATIS ★ 121.575 327.15
 CLNC DEL
 124.1 371.9
 GND CON
 121.65 305.2
 LEMOORE TOWER ★
 128.3 340.2
 (Rwy 14L, 32L)
 128.3 360.2
 (Rwy 14R, 32R)
 LEMOORE DEP CON
 124.1 318.8 (N)
 118.15 318.8 (S)

Rwy	Knots	60	120	180	240	300	360
14L/R	V/V(fpm)	312	624	936	1248	1560	1872

ATC Climb Rate to 15,000 OMEGA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 16,500

Chart not to scale

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 14L/14R: Climb to 2000 via heading 142°. Expect radar vectors to join assigned transition or route.

CARRL TRANSITION (REVES2.CARRL): From over CARRL thence as filed. Cross CARRL at or above 11,000.

COALDALE TRANSITION (REVES2.OAL): From over BUMPI direct OMEGA, direct CANDA, direct COALDALE VORTAC. Cross OMEGA at or above 15,000.

OMEGA TRANSITION (REVES2.OMEGA): From over BUMPI direct OMEGA thence as filed.

LOST COMMUNICATIONS: If no transmissions are received within 8 DME of NLC TACAN, fly departure heading to intercept NLC 10 DME arc, arc to respective departure radial then via departure radial to assigned departure fix. Then via assigned route. Once established on departure radial climb to filed altitude.

REEVES-TWO DEPARTURE (REVES2 • NLC)

LEMOORE, CALIFORNIA
LEMOORE NAS (REEVES FIELD) (KNLC)

LINCOLN, CALIFORNIA

AL-5850 (FAA)

12096

LOC/DME I-LHM 108.75 Chan 24 (Y)	APP CRS 151°	Rwy Idg TDZE 121 Apt Elev 121	6001
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ILS or LOC RWY 15

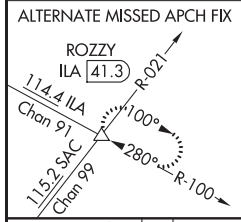
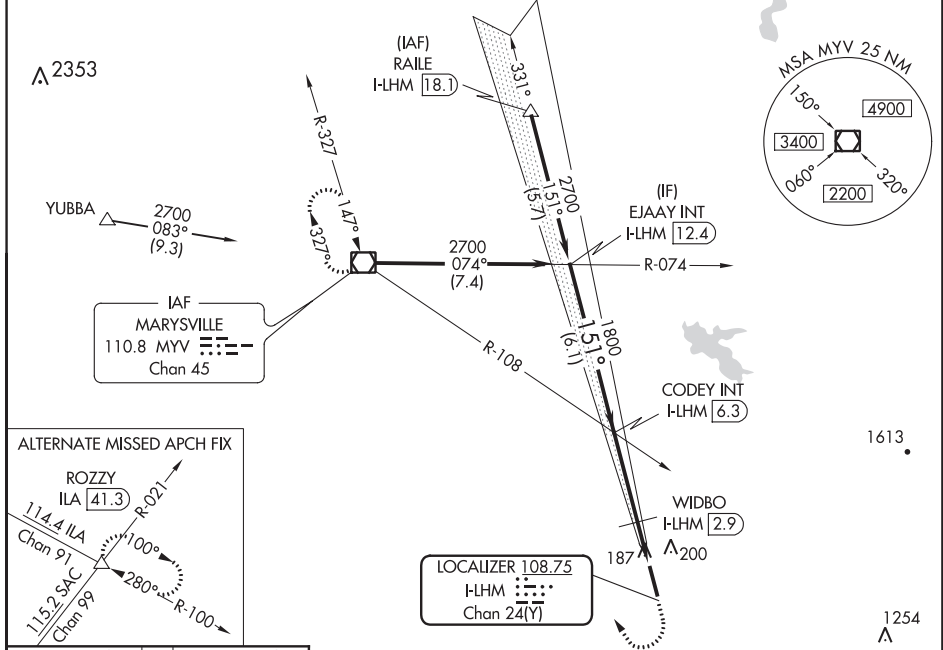
LINCOLN RGNL/KARL HARDER FIELD (LHM)

⚠ When local altimeter setting not received, use Beale AFB altimeter setting and increase all DA/MDA 40 feet, and increase S-LOC 15 Cat C/D visibility ¼ mile.
⚠ NA VDP NA with Beale AFB altimeter setting. **WIDBO FIX MINIMUMS:** For inoperative MALSR, increase S-LOC 15 Cat D visibility to 1 mile.

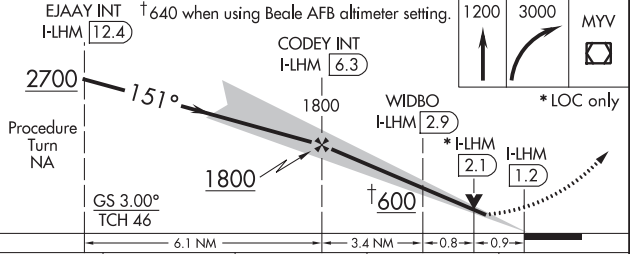
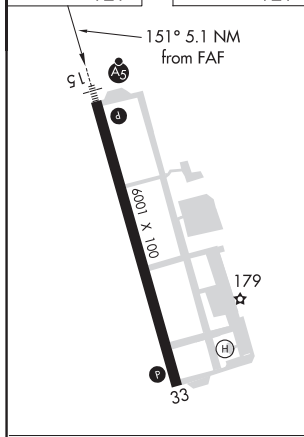


MISSED APPROACH: Climb to 1200 then climbing right turn to 3000 direct MYV VOR/DME and hold.

AWOS-3 124.25	NORCAL APP CON 125.4 259.1	UNICOM 123.0 (CTAF) 0
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ELEV	121	TDZE	121
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CATEGORY	A	B	C	D
S-ILS 15	321-½ 200 (200-½)			
S-LOC 15	600-½	479 (500-½)	600-¾ 479 (500-¾)	600-1 479 (500-1)
CIRCLING	600-1	479 (500-1)	600-1½ 479 (500-1½)	680-2 559 (600-2)
WIDBO FIX MINIMUMS				
S-LOC 15	460-½ 339 (400-½)		460-¾ 339 (400-¾)	
CIRCLING	500-1 379 (400-1)	580-1 459 (500-1)	580-1½ 459 (500-1½)	680-2 559 (600-2)

FAF to MAP 5.1 NM					
Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

LINCOLN, CALIFORNIA
 Amdt 1 23SEP10

38°55'N - 121°21'W

ILS or LOC RWY 15

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 82618 W15A	APP CRS 151°	Rwy Idg TDZE Apt Elev	6001 121 121
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RNAV (GPS) RWY 15

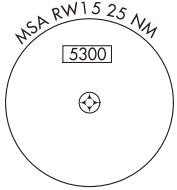
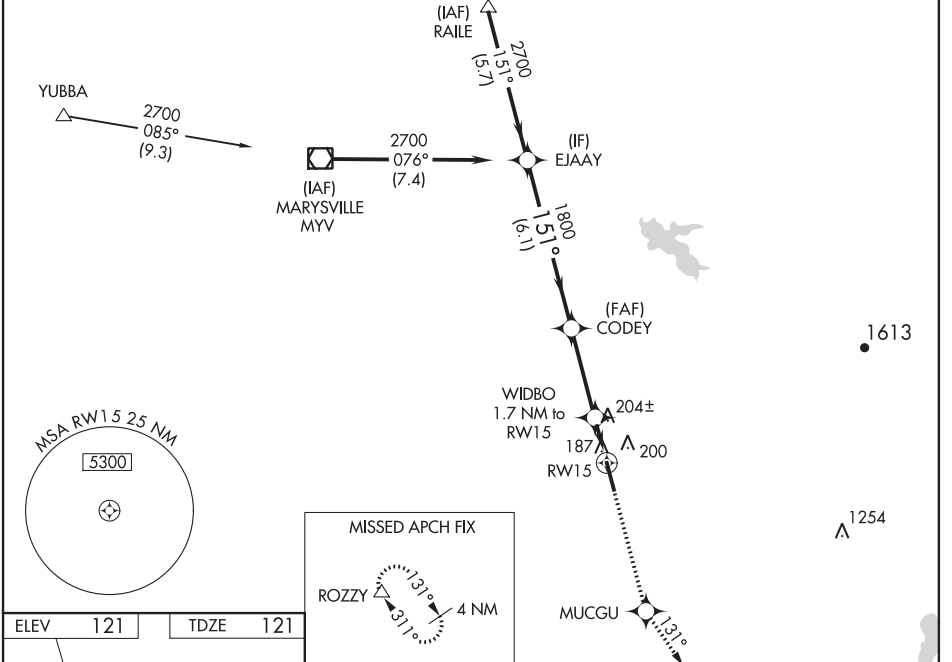
LINCOLN RGNL/KARL HARDER FIELD (LHM)

⚠ Inoperative table does not apply to LNAV Cat D. 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. VDP and Baro-VNAV NA when using Beale AFB altimeter setting. When local altimeter setting not received, use Beale AFB altimeter setting and increase all DA/MDA 40 feet. For inoperative MALSR when using Beale AFB altimeter setting, increase LNAV Cat D visibility to 1 ½.

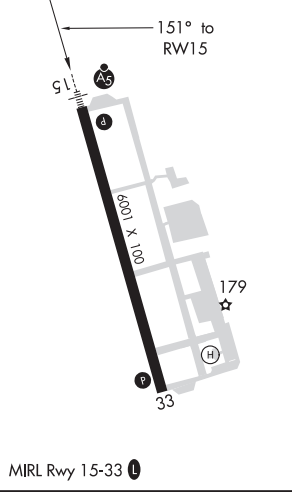


MISSED APPROACH:
Climb to 2500 direct MUCGU and on track 131° to ROZZY and hold.

AWOS-3 124.25	NORCAL APP CON 125.4 259.1	UNICOM 123.0 (CTAF)
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ELEV	121	TDZE	121
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Procedure Turn NA	2500	MUCGU	tr 131°	ROZZY
EJAAY	CODEY	WIDBO	RW15	
2700	1800	1800	1800	
GP 3.00°				
TCH 46				
	6.1 NM	3.4 NM	0.8 NM	0.9 NM
CATEGORY	A	B	C	D
LPV DA		321-½	200 (200-½)	
LNAV/VNAV DA		452-¾	331 (400-¾)	
LNAV MDA		460-½	339 (400-½)	460-1 339 (400-1)
CIRCLING	500-1 379 (400-1)	580-1 459 (500-1)	580-1½ 459 (500-1½)	680-2 559 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LINCOLN, CALIFORNIA

AL-5850 (FAA)

12096

APP CRS 331°	Rwy Idg TDZE Apt Elev	6001 121 121
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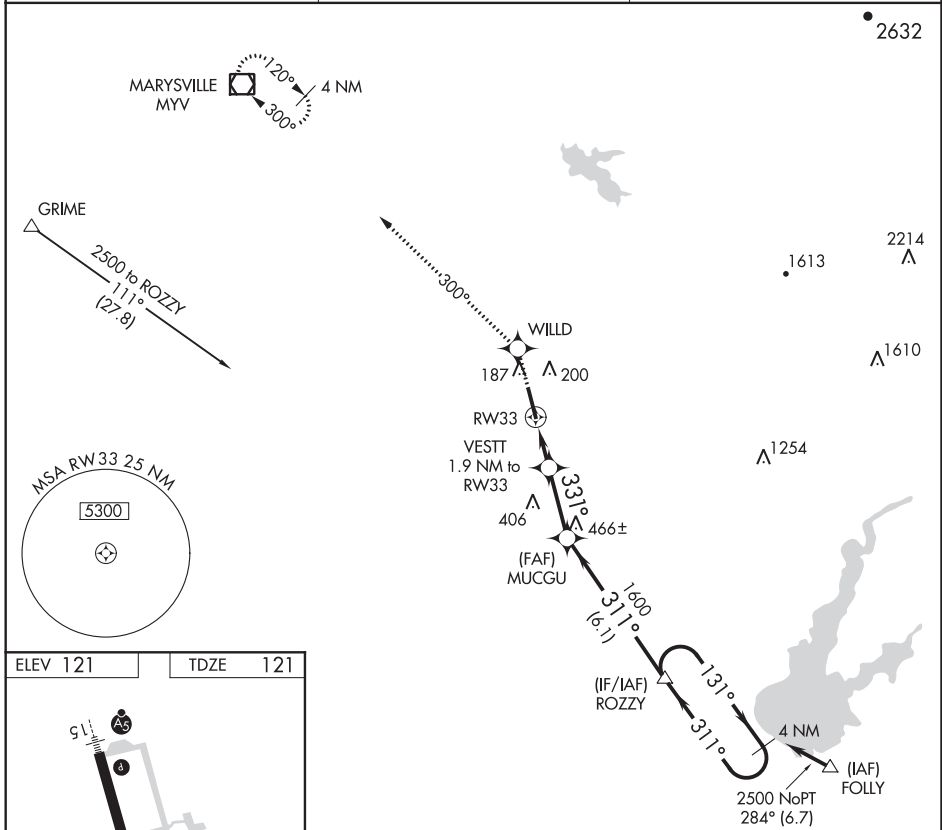
RNAV (GPS) RWY 33

LINCOLN RGNL/KARL HARDER FIELD (LHM)

▼ DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use BEALE AFB altimeter setting and increase all MDA 40 feet, and increase LNAV Cat D visibility ¼ mile. VDP NA with BEALE AFB altimeter setting.

▲ MISSED APPROACH: Climb to 2000 direct WILLD and on track 300° to MYV VOR/DME and hold.

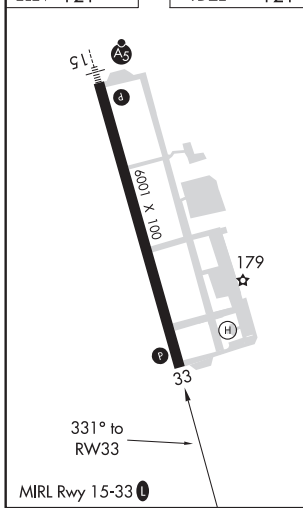
AWOS-3 124.25	NORCAL APP CON 125.4 259.1	UNICOM 123.0 (CTAF) 0
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 121	TDZE 121
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2000	WILLD fr 300°	MYV	ROZZY	4 NM Holding Pattern
	VESTT 0.9 NM to RW33	1.9 NM to RW33	MUCGU	
	RW33	760	1600	2500
	0.9	1 NM	2.6 NM	6.1 NM
CATEGORY	A	B	C	D
LNAV MDA	440-1 319 (400-1)			
CIRCLING	500-1 379 (400-1)	580-1 459 (500-1)	580-1½ 459 (500-1½)	680-2 559 (600-2)

LINCOLN, CALIFORNIA
Orig 23SEP10

38°55'N - 121°21'W

RNAV (GPS) RWY 33

WAAS CH 77829 W29A	APP CRS 293°	Rwy Idg TDZE Apt Elev	5249 574 574
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RNAV (GPS) RWY 29

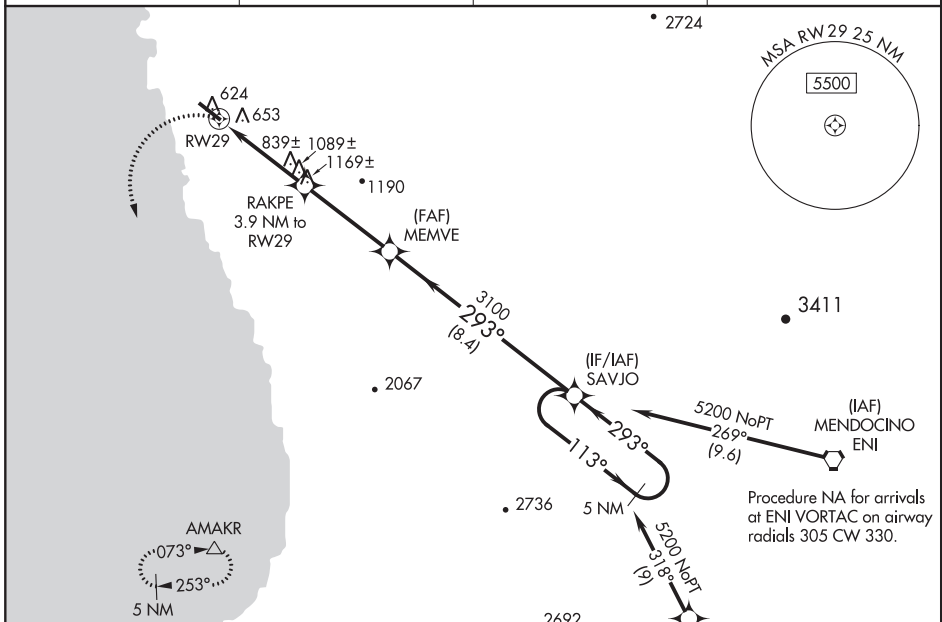
LITTLE RIVER (LLR)

▼ DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. Use Ukiah altimeter setting; when not received, procedure NA. Circling NA northeast of Rwy 11-29. Procedure NA at night.

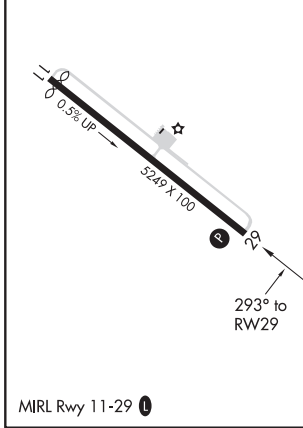
▲ NA

MISSED APPROACH: Climbing left turn to 6000 direct AMAKR and hold, continue climb-in-hold to 6000.

AWOS-AV 121.125	UKIAH ASOS 119.275	OAKLAND CENTER 132.2 350.3	AUNICOM 122.7 (CTAF) 0
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ELEV 574	TDZE 574
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RADAR required for procedure entry from WIMUK.

6000	AMAKR	VGSI and descent angles not coincident (VGSI Angle 3.50/TCH 42).	5 NM Holding Pattern	
5200	SAVJO	MEMVE	5200	
3100	RAKPE 3.9 NM to RWY 29	MEMVE	5200	
1860	RWY 29	MEMVE	5200	
3.9 NM	3.9 NM	8.4 NM		
CATEGORY	A	B	C	D
LP MDA	1160-1	586 (600-1)	1160-1¾	586 (600-1¾)
LNAV MDA	1420-1 846 (900-1)	1420-1¼ 846 (900-1¼)	1420-2¼ 846 (900-2¼)	1420-2½ 846 (900-2½)
CIRCLING	1420-1¼	846 (900-1¼)	1420-2½ 846 (900-2½)	1420-2¾ 846 (900-2¾)

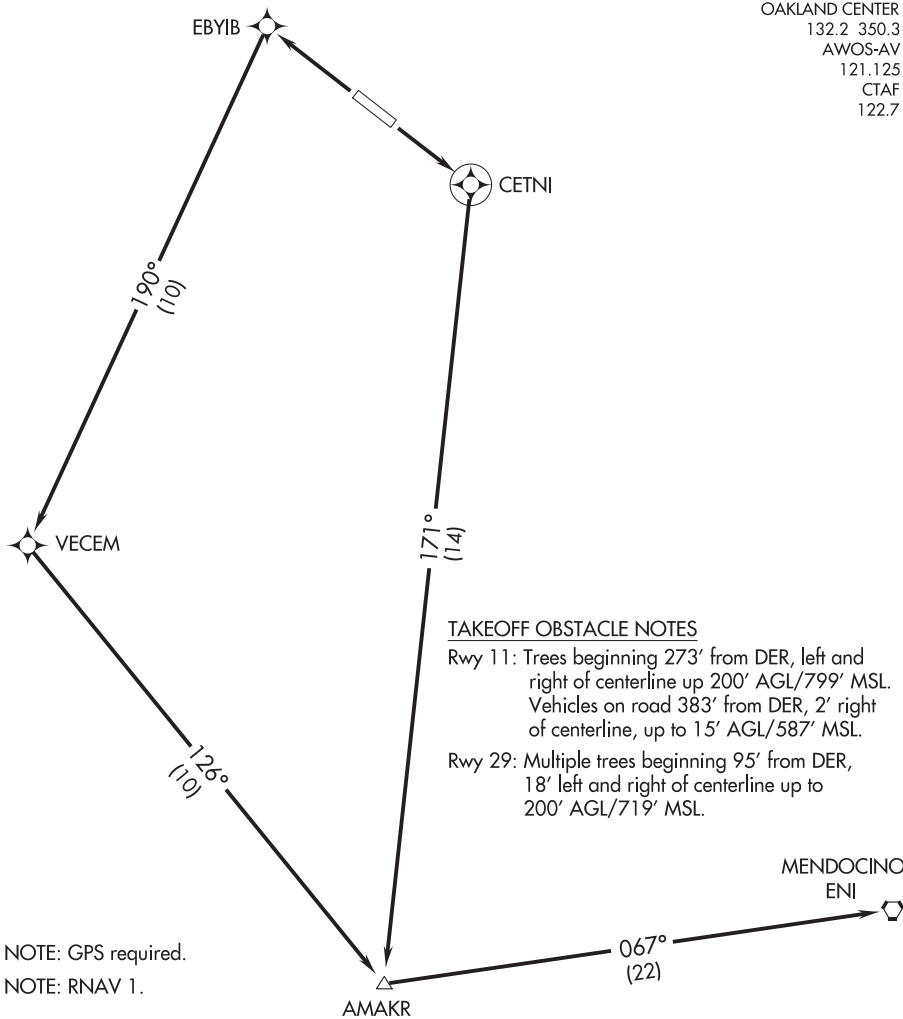
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LITTLE RIVER ONE DEPARTURE (OBSTACLE) (RNAV)

LITTLE RIVER (LLR)
LITTLE RIVER, CALIFORNIA

OAKLAND CENTER
132.2 350.3
AWOS-AV
121.125
CTAF
122.7



TAKEOFF OBSTACLE NOTES

Rwy 11: Trees beginning 273' from DER, left and right of centerline up 200' AGL/799' MSL. Vehicles on road 383' from DER, 2' right of centerline, up to 15' AGL/587' MSL.

Rwy 29: Multiple trees beginning 95' from DER, 18' left and right of centerline up to 200' AGL/719' MSL.

NOTE: GPS required.

NOTE: RNAV 1.

TAKEOFF MINIMUMS

Rwy 11: 300-1 with minimum climb of 330' per NM climb to 2100'.

Rwy 29: 300-1.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 11: Climb to 6000 direct CETNI and via track 171° to AMAKR and left turn via track 067° to ENI VORTAC, thence . . .

TAKEOFF RUNWAY 29: Climb to 6000 direct EBYYB and left turn via track 190° to VECEM and via track 126° to AMAKR and via track 067° to ENI VORTAC, thence . . .
. . . via assigned route.

LITTLE RIVER ONE DEPARTURE (OBSTACLE) (RNAV)

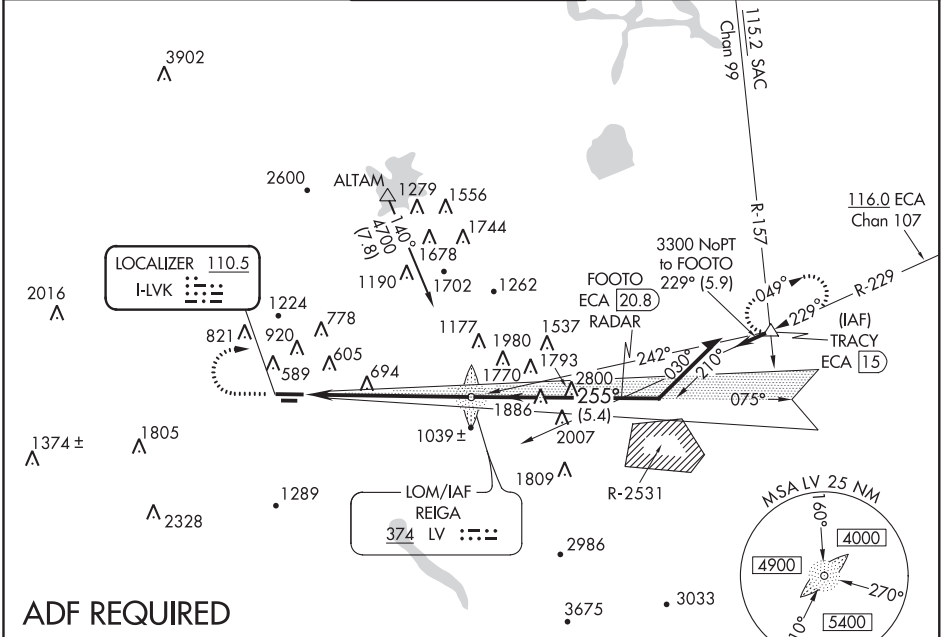
LOC I-LVK 110.5	APP CRS 255°	Rwy Idg TDZE Apt Elev	5253 397 397
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ILS RWY 25R

LIVERMORE MUNI (LVK)

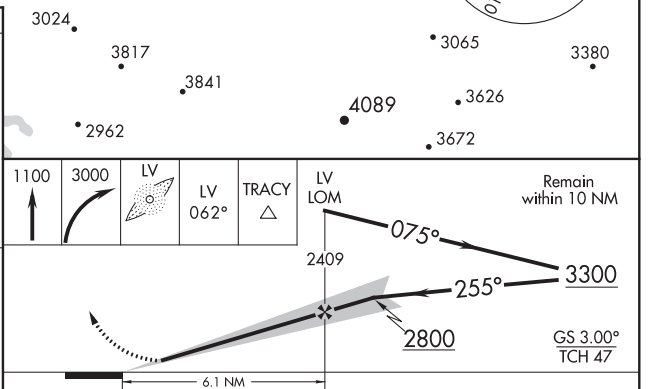
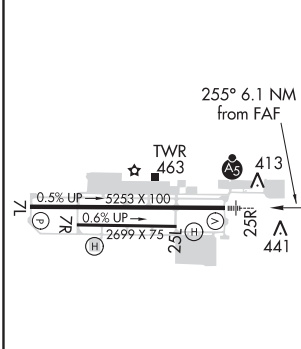
<p>V Circling NA north of Rwy 7L-25R.</p> <p>A Autopilot coupled approaches NA below 1700.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climb to 1100, then climbing right turn to 3000 direct REIGA LOM, then via REIGA LOM 062° bearing to TRACY Int and hold.</p>
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ATIS 119.65	NORCAL APP CON 123.85 278.3	LIVERMORE TOWER * 118.1 (CTAF) 0 239.25	GND CON 121.6	UNICOM 122.95
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ADF REQUIRED

ELEV 397	TDZE 397
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MIRL Rwy 7L-25R	<table border="1"> <tr> <td>CATEGORY</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> </tr> <tr> <td>S-ILS 25R</td> <td colspan="2">597-1/2</td> <td colspan="2">200 (200-1/2)</td> </tr> <tr> <td>S-LOC 25R</td> <td>940-1/2</td> <td>543 (600-1/2)</td> <td>940-1 543 (600-1)</td> <td>940-1 1/4 543 (600-1 1/4)</td> </tr> <tr> <td>CIRCLING</td> <td>940-1</td> <td>543 (600-1)</td> <td>940-1 1/2 543 (600-1 1/2)</td> <td>1100-2 1/4 703 (800-2 1/4)</td> </tr> </table>				CATEGORY	A	B	C	D	S-ILS 25R	597-1/2		200 (200-1/2)		S-LOC 25R	940-1/2	543 (600-1/2)	940-1 543 (600-1)	940-1 1/4 543 (600-1 1/4)	CIRCLING	940-1	543 (600-1)	940-1 1/2 543 (600-1 1/2)	1100-2 1/4 703 (800-2 1/4)
CATEGORY	A	B	C	D																				
S-ILS 25R	597-1/2		200 (200-1/2)																					
S-LOC 25R	940-1/2	543 (600-1/2)	940-1 543 (600-1)	940-1 1/4 543 (600-1 1/4)																				
CIRCLING	940-1	543 (600-1)	940-1 1/2 543 (600-1 1/2)	1100-2 1/4 703 (800-2 1/4)																				
FAF to MAP 6.1 NM	<table border="1"> <tr> <td>Knots</td> <td>60</td> <td>90</td> <td>120</td> <td>150</td> <td>180</td> </tr> <tr> <td>Min:Sec</td> <td>6:06</td> <td>4:04</td> <td>3:03</td> <td>2:26</td> <td>2:02</td> </tr> </table>				Knots	60	90	120	150	180	Min:Sec	6:06	4:04	3:03	2:26	2:02								
Knots	60	90	120	150	180																			
Min:Sec	6:06	4:04	3:03	2:26	2:02																			

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LIVERMORE, CALIFORNIA

AL-6075 (FAA)

16315

WAAS CH 50214 W25A	APP CRS 255°	Rwy Idg TDZE Apt Elev	5253 400 400
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RNAV (GPS) RWY 25R

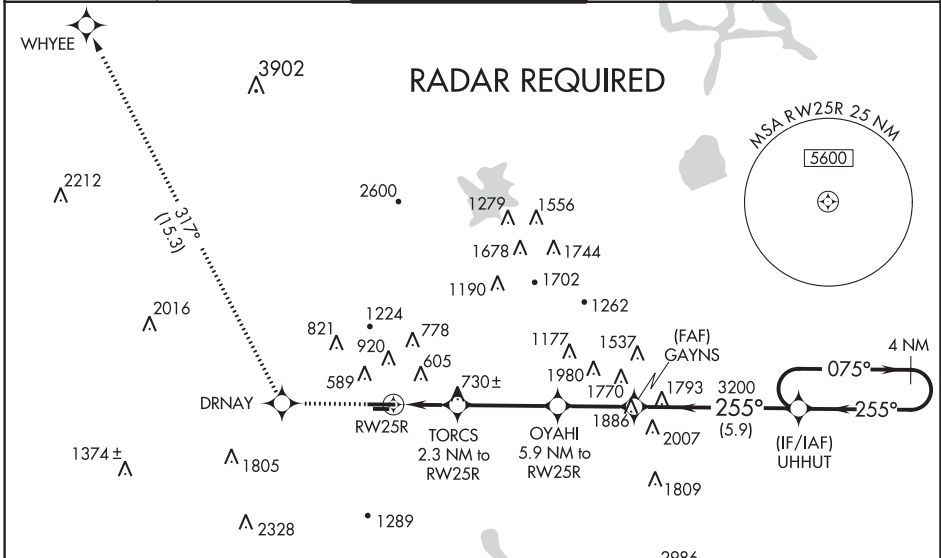
LIVERMORE MUNI (L.V.K)

▼ 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. Circling Rwy 25L NA at night. When local altimeter not received, use Hayward altimeter setting: increase LPV DA to 683 feet, LNAV/VNAV DA to 888 feet and all MDA 100 feet; increase LNAV/VNAV all Cats visibility 3/8 SM, LNAV Cats C/D visibility 1/4 SM and increase Circling Cat C visibility 1/2 SM. For inoperative MALSR, increase LNAV Cat C/D visibility to 1 1/8 SM. Circling NA north of Rwy 7L-25R. For inop MALSR when using Hayward altimeter setting, increase LPV all Cats visibility to 3/8 SM, LNAV/VNAV all Cats visibility to 1/8 SM and LNAV Cat C/D to 1 1/8 SM. VDP and Baro-VNAV NA when using Hayward altimeter setting.

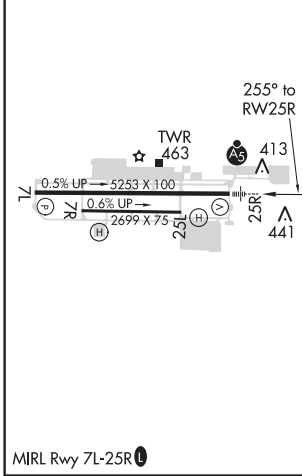
MALSR
AS

MISSED APPROACH:
Climb to 4000 direct DRNAY and on track 317° to WHYEE.

ATIS 119.65	NORCAL APP CON 123.85 278.3	LIVERMORE TOWER * 118.1 (CTAF) 0 239.25	GND CON 121.6	UNICOM 122.95
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ELEV 400	TDZE 400
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CATEGORY	A	B	C	D
LPV DA		600-1/2	200 (200-1/2)	
LNAV/VNAV DA		805-7/8	405 (500-7/8)	
LNAV MDA	980-1/2	580 (600-1/2)	980-1 1/4	580 (600-1 1/4)
C CIRCLING	980-1	580 (600-1)	1140-2 740 (800-2)	1780-3 1380 (1400-3)

LIVERMORE, CALIFORNIA
Amdt 1 15SEP16

37°42'N-121°49'W

RNAV (GPS) RWY 25R

LIVERMORE MUNI (L.V.K)

SW-2, 10 NOV 2016 to 05 JAN 2017

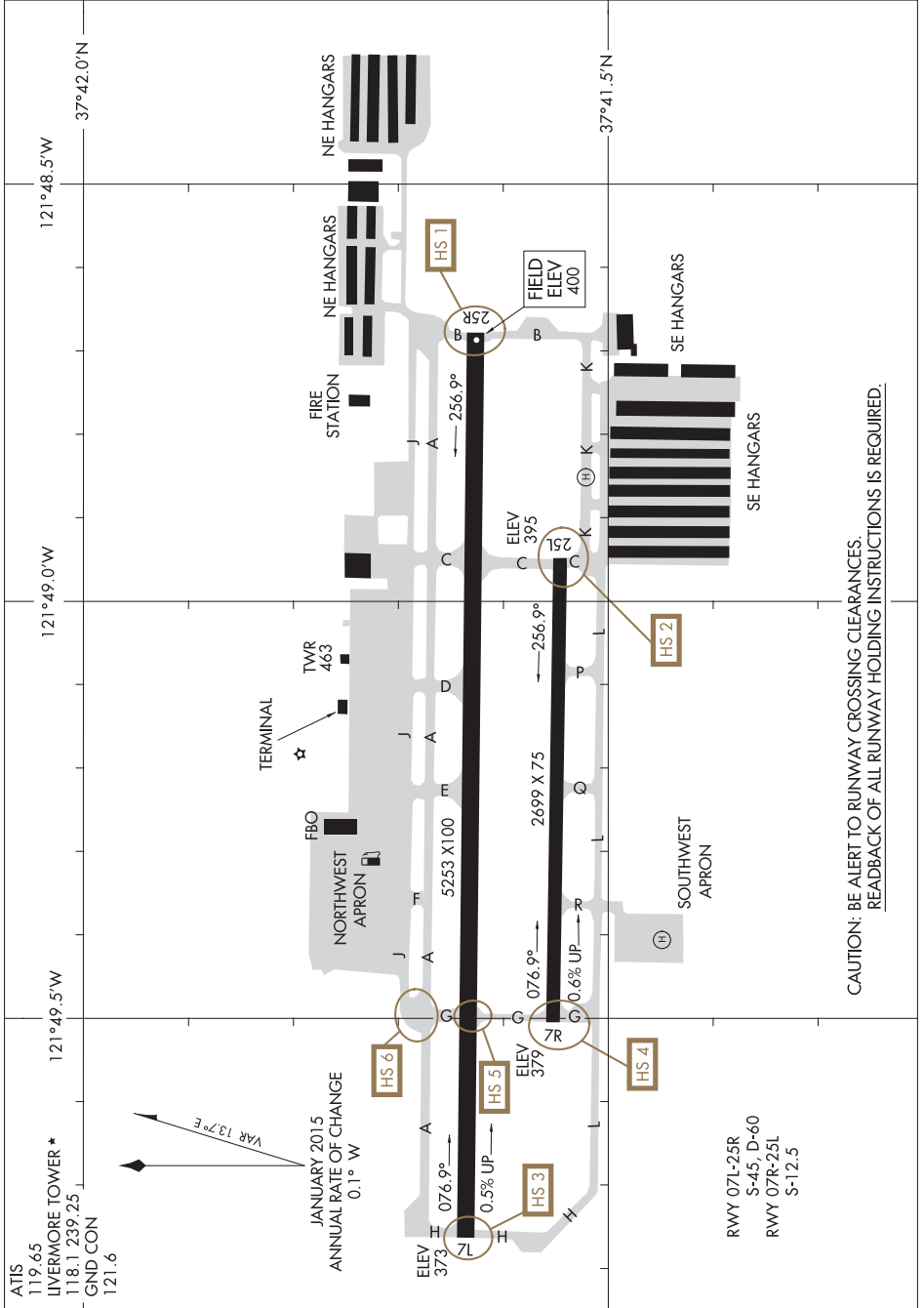
SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

AL-6075 (FAA)

LIVERMORE MUNI (LVK)
LIVERMORE, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

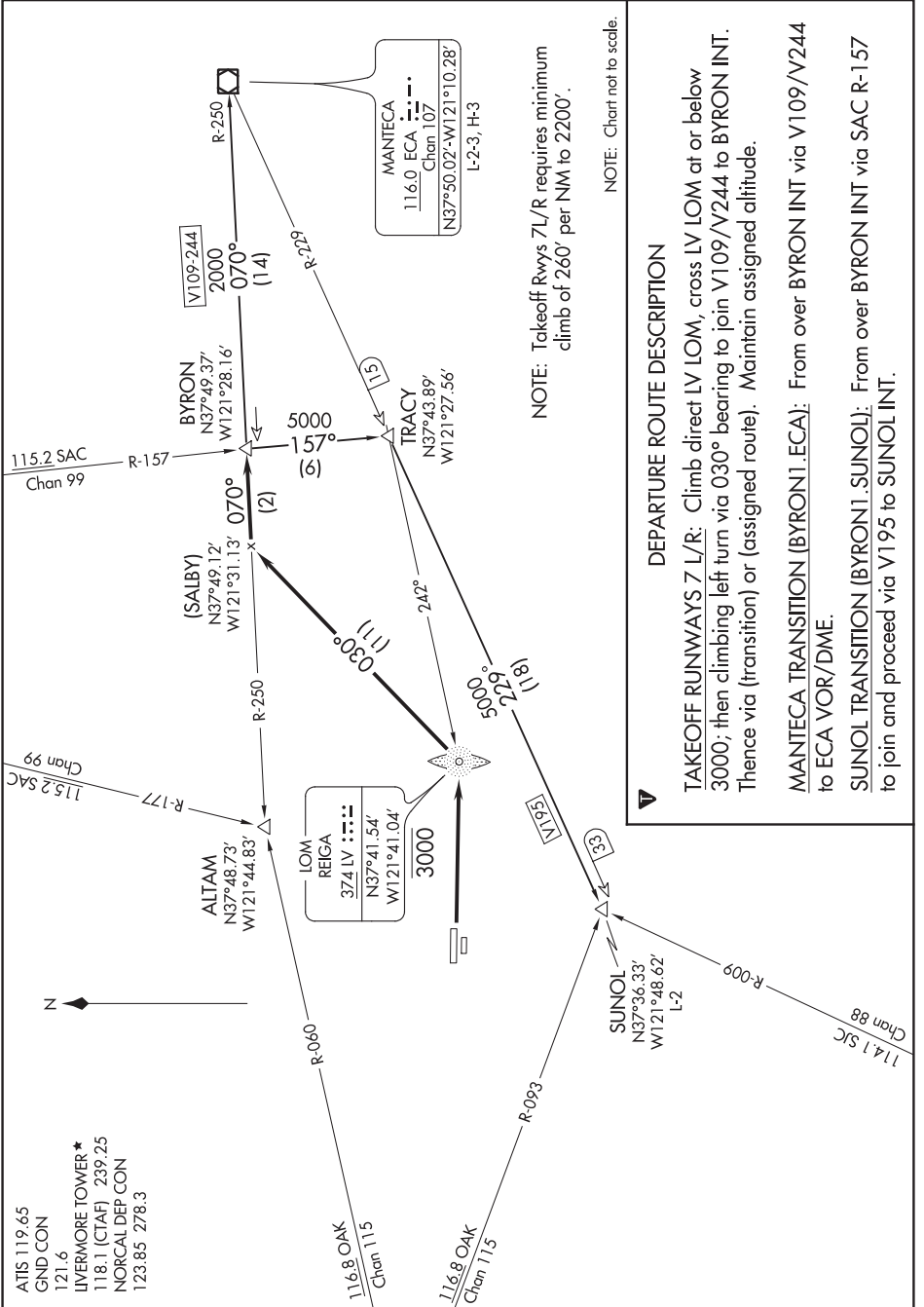
LIVERMORE, CALIFORNIA
LIVERMORE MUNI (LVK)

BYRON ONE DEPARTURE

SL-6075 (FAA)

LIVERMORE MUNI (LVK)
LIVERMORE, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017



NOTE: Chart not to scale.

NOTE: Takeoff Rwys 7L/R requires minimum climb of 260' per NM to 2200'.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 7 L/R: Climb direct LV LOM, cross LV LOM at or below 3000'; then climbing left turn via 030° bearing to join V109/V244 to BYRON INT. Thence via (transition) or (assigned route). Maintain assigned altitude.

MANTECA TRANSITION (BYRON1.ECA): From over BYRON INT via V109/V244 to ECA VOR/DME.

SUNOL TRANSITION (BYRON1.SUNOL): From over BYRON INT via SAC R-157 to join and proceed via V195 to SUNOL INT.

ATIS 119.65
GND CON 121.6
LIVERMORE TOWER *
118.1 (CTAF) 239.25
NORCAL DEP CON
123.85 278.3

SW-2, 10 NOV 2016 to 05 JAN 2017

ATIS
119.65
GND CON
121.6
LIVERMORE TOWER *
118.1 (CTAF) 239.25
NORCAL DEP CON
125.35 354.1

SACRAMENTO
115.2 SAC
Chan 99

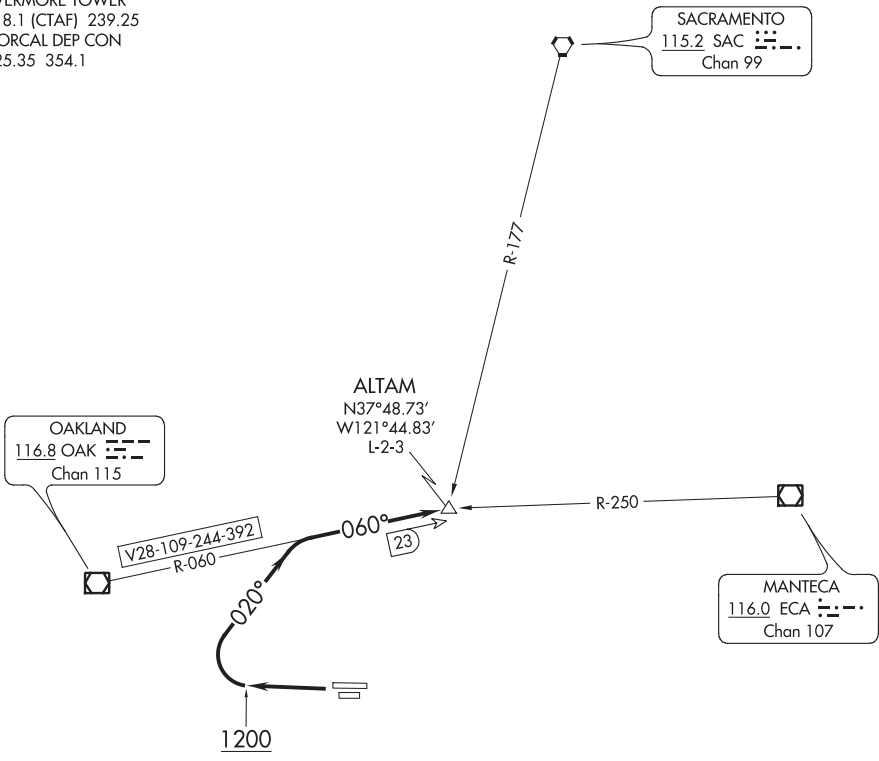
OAKLAND
116.8 OAK
Chan 115

ALTAM
N37°48.73'
W121°44.83'
L-2-3

MANTECA
116.0 ECA
Chan 107

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



TAKEOFF MINIMUMS: 2300-2 or standard with a minimum climb of 375' per NM to 3100'.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 25 L/R: Climb runway heading to 1200, then climbing right turn heading 020° and OAK R-060 to ALTAM INT. Maintain assigned altitude.

LODI, CALIFORNIA

AL-6044 (FAA)

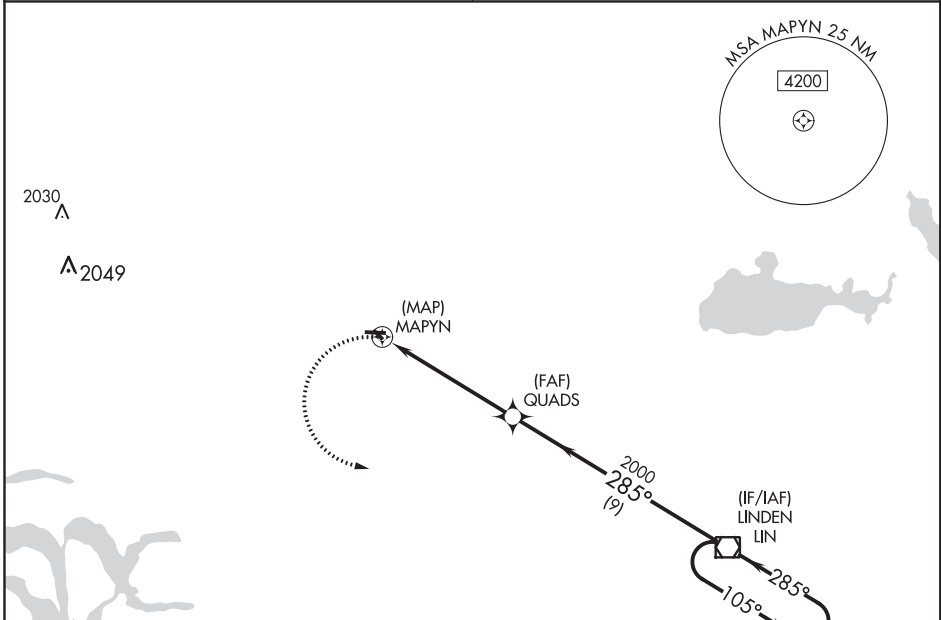
16315

APP CRS 285°	Rwy Idg TDZE Apt Elev	N/A N/A 60
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RNAV (GPS)-B

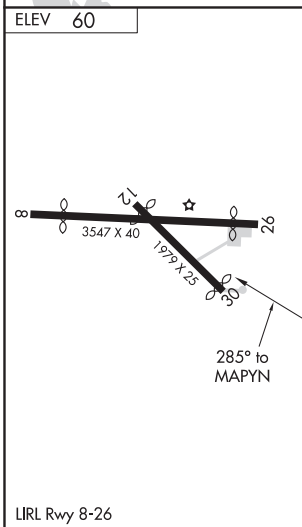
LODI (103)

<p>▽ DME/DME RNP-0.3 NA. △ NA Use Stockton altimeter setting, when not received, use Sacramento Intl altimeter setting and increase all MDA 40 feet.</p>	<p>MISSED APPROACH: Climbing left turn to 2000 direct LIN VOR/DME and hold.</p>
<p>NORCAL APP CON 125.1 363.2</p>	<p>CTAF 122.9</p>



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



NoPT for arrival on LIN VOR/DME airway radials 124 CW 192.

2000	LIN	QUADS	LIN VOR/DME	4 NM Holding Pattern
2000	MAPYN	285°	105°	2000
5.5 NM	9 NM			
CATEGORY	A	B	C	D
CIRCLING	640-1	580 (600-1)		NA

LODI, CALIFORNIA
Orig-A 10NOV16

38°12'N-121°16'W

RNAV (GPS)-B

LODI (103)

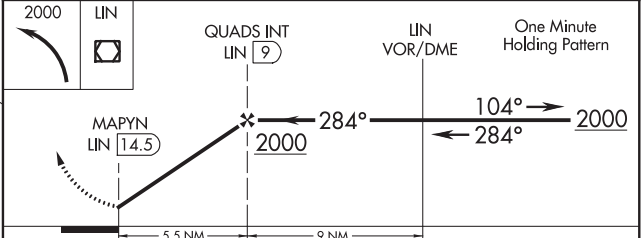
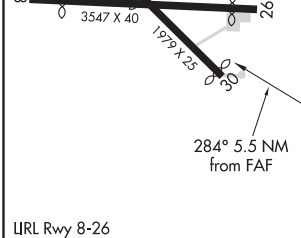
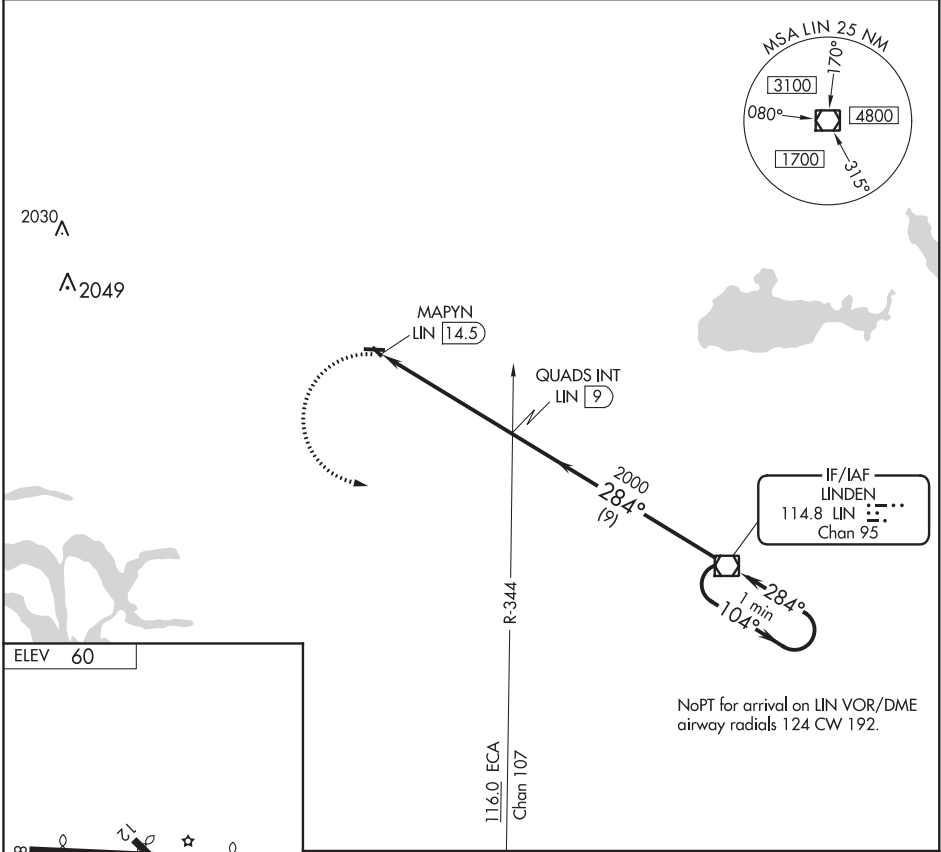
VOR/DME LIN 114.8 Chan 95	APP CRS 284°	Rwy Idg TDZE Apt Elev	N/A N/A 60
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VOR-A
LODI (103)

NA Use Stockton altimeter setting, when not received, use Sacramento Intl altimeter setting and increase all MDA 40 feet.

MISSED APPROACH: Climbing left turn to 2000 direct LIN VOR/DME and hold.

NORCAL APP CON 125.1 363.2	CTAF 122.9
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FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50
CATEGORY	A	B	C	D	
CIRCLING	640-1		580 (600-1)		NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 53715 W14A	APP CRS 137°	Rwy Idg TDZE 121 Apt Elev 121	3801
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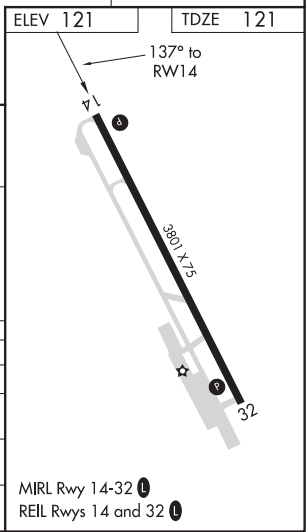
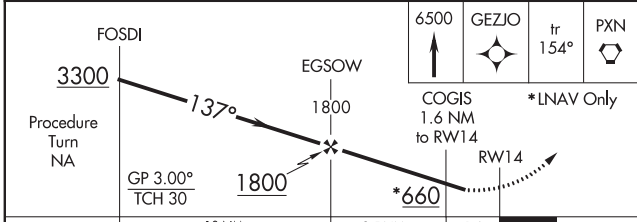
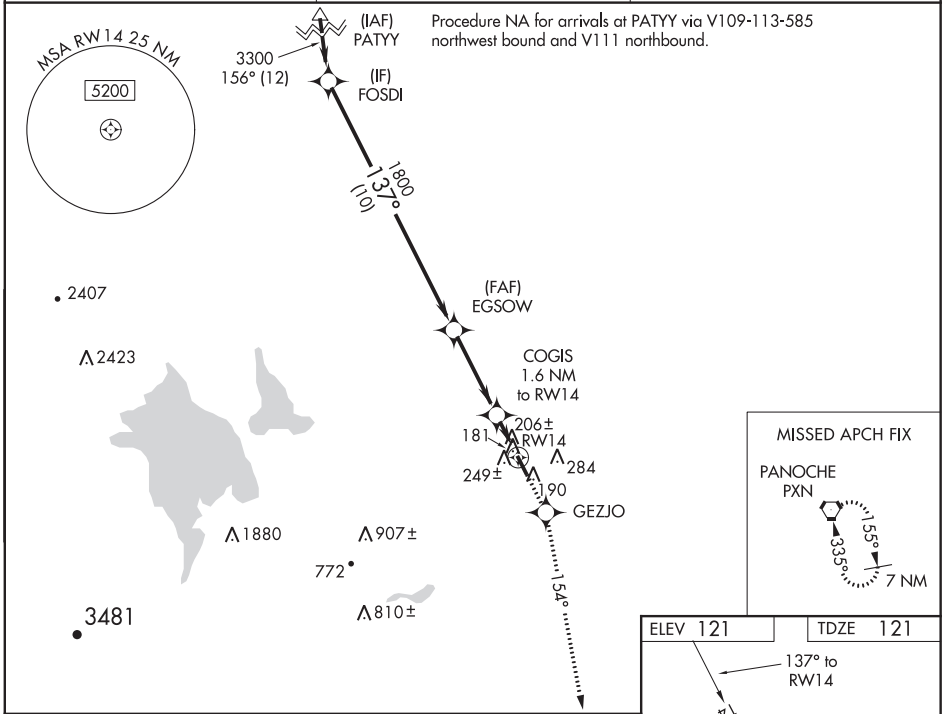
RNAV (GPS) RWY 14

LOS BANOS MUNI (LSN)

NA Baro-VNAV NA when using Merced Rgnl/Macready 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. Visibility reduction by helicopters NA. When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all DA/MDA 60 feet and all visibility ¼ mile.

MISSED APPROACH: Climb to 6500 direct GEZJO and via track 154° to PXN VORTAC and hold, continue climb-in-hold to 6500.

AWOS-3 118.675	NORCAL APP CON 120.95 269.45	UNICOM 122.8 (CTAF)
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CATEGORY	A	B	C	D
LPV DA		455-1¼	334 (400-1¼)	
LNAV/VNAV DA		519-1½	398 (400-1½)	
LNAV MDA		520-1	399 (400-1)	520-1¼ 399 (400-1¼)
CIRCLING	640-1	519 (600-1)	640-1½ 519 (600-1½)	680-2 559 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

MIRL Rwy 14-32
REIL Rwy 14 and 32

APP CRS
317°

Rwy Idg **3801**
TDZE **121**
Apt Elev **121**

RNAV (GPS) RWY 32

LOS BANOS MUNI (LSN)

▽ DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all MDA 60 feet. Increase all visibility ¼ mile.

MISSED APPROACH: Climb to 3000 direct COGIS and via track 323° to VOLTA and hold.

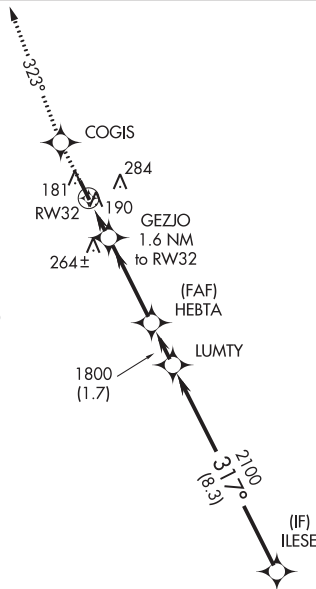
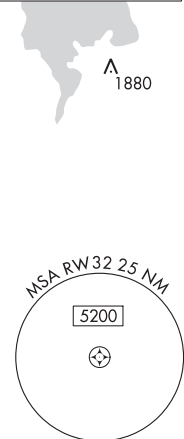
AWOS-3
118.675

NORCAL APP CON
120.95 269.45

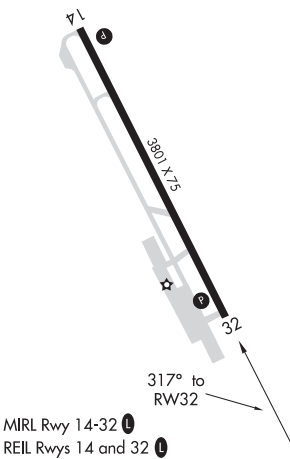
UNICOM
122.8 (CTAF) 0

MISSED APCH FIX

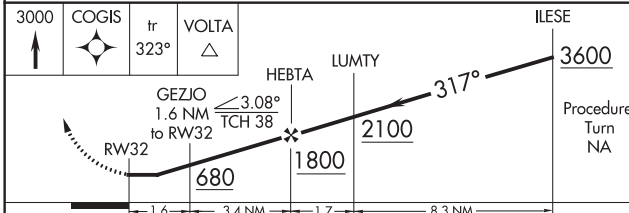
VOLTA



ELEV 121 TDZE 121



Procedure NA for arrivals at PNX VORTAC via V109-113-585 southeast bound.



CATEGORY	A	B	C	D
LNAV MDA	520-1 399 (400-1)			520-1½ 399 (400-1½)
CIRCLING	640-1 519 (600-1)		640-1½ 519 (600-1½)	680-2 559 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOS BANOS, CALIFORNIA

AL-5819 (FAA)

16035

VORTAC PXN 112.6 Chan 73	APP CRS 332°	Rwy Idg 3801 TDZE 121 Apt Elev 121
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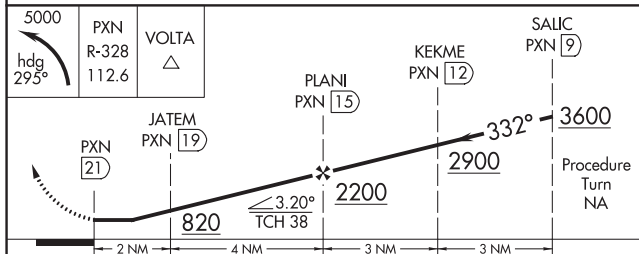
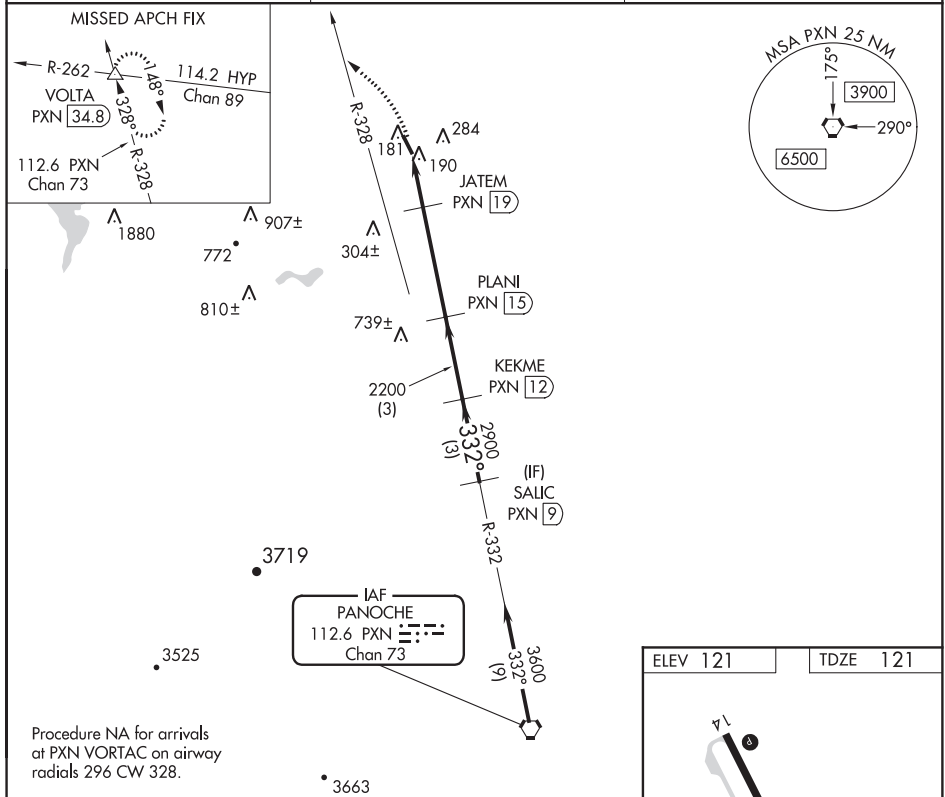
VOR/DME RWY 32

LOS BANOS MUNI (LSN)

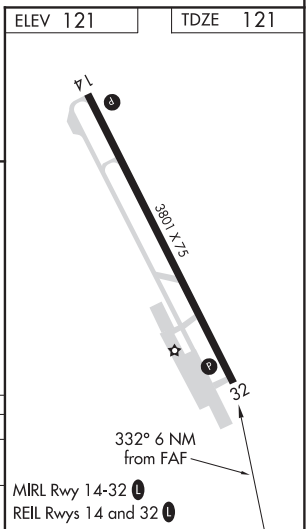
NA When local altimeter setting not received, use Merced Rgnl/Macready Field altimeter setting and increase all MDA 60 feet.

MISSED APPROACH: Climbing left turn to 5000 via heading 295° and PXN VORTAC R-328 to VOLTA INT/PXN 34.8 DME and hold.

AWOS-3 118.675	NORCAL APP CON 120.95 269.45	UNICOM 122.8 (CTAF) 1
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CATEGORY	A	B	C	D
S-32	580-1 459 (500-1)	580-1¼ 459 (500-1¼)	580-1½ 459 (500-1½)	580-1¾ 459 (500-1¾)
CIRCLING	640-1 519 (600-1)	640-1¼ 519 (600-1¼)	640-1½ 519 (600-1½)	680-2 559 (600-2)



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOS BANOS, CALIFORNIA
Amdt 5 17DEC09

37°04'N-120°52'W

LOS BANOS MUNI (LSN) VOR/DME RWY 32

WAAS CH 62909 W12A	APP CRS 122°	Rwy Idg TDZE Apt Elev	5545 253 255
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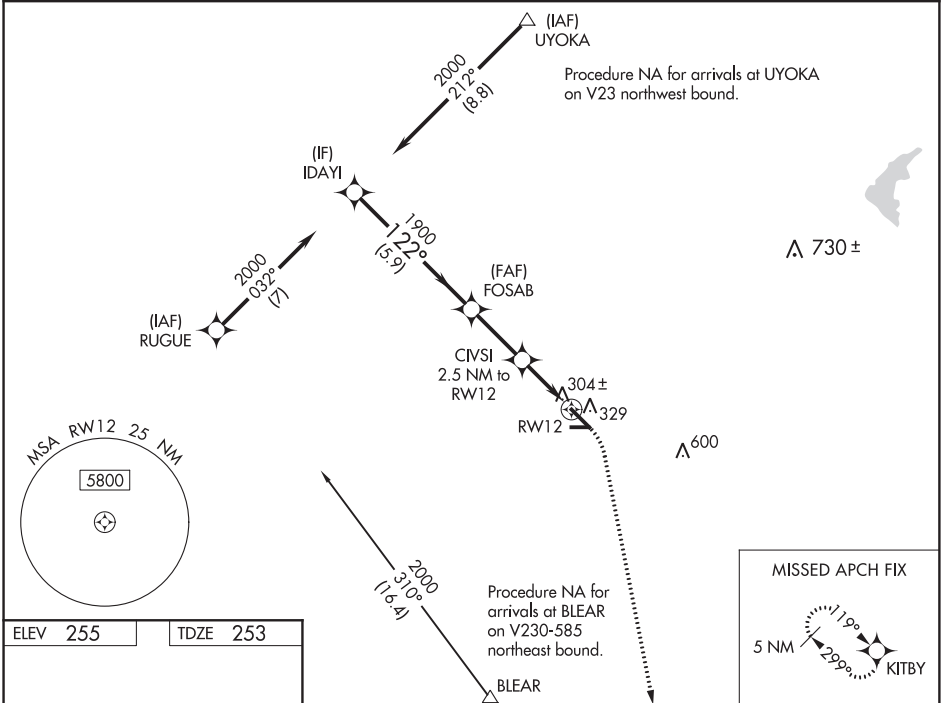
RNAV (GPS) RWY 12

MADERA MUNI (M.A.E)

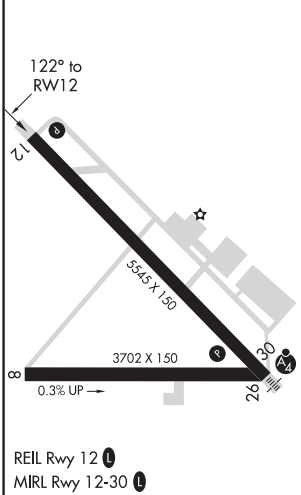
▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C (25°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Circling NA to Rwy 8 and 26. Baro-VNAV NA when using Fresno Yosemite Intl altimeter setting. When local altimeter not received, use Fresno Yosemite Intl altimeter setting and increase all DA 64 feet and all visibility ¼ mile; increase all MDA 80 feet and all visibility ¼ mile. VDP NA when using Fresno Yosemite Intl altimeter setting.

MISSED APPROACH:
Climb to 700 then climbing right turn to 2000 direct KITBY and hold.

ASOS 134.725	FRESNO APP CON 119.45	UNICOM 122.8 (CTAF) ①
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ELEV 255	TDZE 253
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	IDAYI	FOSAB	CIVSI 2.5 NM to RW12	RW12
	2000	1900	1080	
	GP 3.00° TCH 34		*0.9 NM to RW12	
	5.9 NM	2.6 NM	1.6 NM	0.9 NM
CATEGORY	A	B	C	D
LPV DA		503-7/8	250 (300-7/8)	NA
LNAV/VNAV DA		503-7/8	250 (300-7/8)	NA
LNAV MDA	560-1	307 (400-1)	560-7/8 307 (400-7/8)	NA
C CIRCLING	680-1 425 (500-1)	720-1 465 (500-1)	720-1½ 465 (500-1½)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

MADERA, CALIFORNIA

AL-6399 (FAA)


16203

WAAS CH 90209 W30A	APP CRS 302°	Rwy Idg TDZE 255 Apt Elev 255	5545
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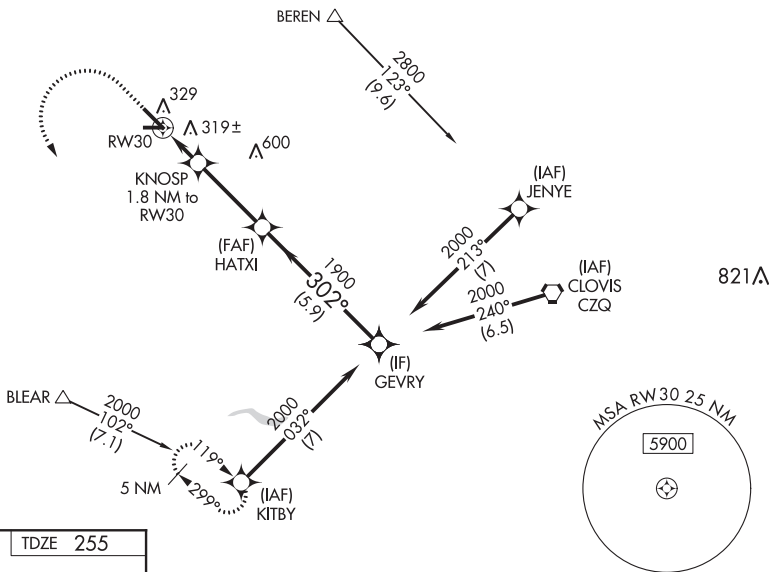
RNAV (GPS) RWY 30

MADERA MUNI (MAE)

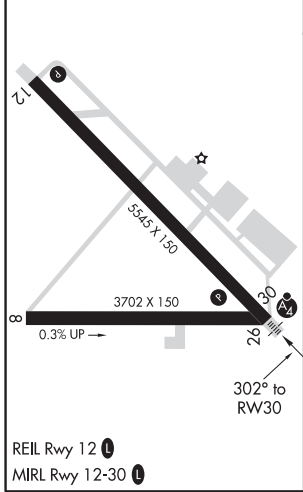
⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C (25°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Circling NA to Rwy 8 and 26. Baro-VNAV NA when using Fresno Yosemite Intl altimeter setting. When local altimeter setting not received, use Fresno Yosemite Intl altimeter setting and increase all DA 64 feet and all visibility 1/4 mile; increase all MDA 80 feet and all visibility 1/4 mile. VDP NA when using Fresno Yosemite Intl altimeter setting.




MALSF

MISSED APPROACH: Climb to 700 then climbing left turn to 2000 direct KITBY and hold.

ASOS 134.725	FRESNO APP CON 119.45	UNICOM 122.8 (CTAF) 0
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ELEV 255	TDZE 255
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	700	2000	KITBY	
				
*LNAV only			KNOSP 1.8 NM to RW30	
			HATXI 1900	GEVRY 2000
			RW30 860*	GP 3.00° TCH 34
	0.9 NM	0.9 NM	3.3 NM	5.9 NM
CATEGORY	A	B	C	D
LPV DA	505-7/8	250 (300-7/8)		NA
LNAV/VNAV DA	505-7/8	250 (300-7/8)		NA
LNAV MDA	580-1	325 (400-1)		NA
C CIRCLING	680-1 425 (500-1)	720-1 465 (500-1)	720-1½ 465 (500-1½)	NA

MADERA, CALIFORNIA
 Amdt 1 21JUL16

36°59'N-120°07'W

MADERA MUNI (MAE)

RNAV (GPS) RWY 30

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

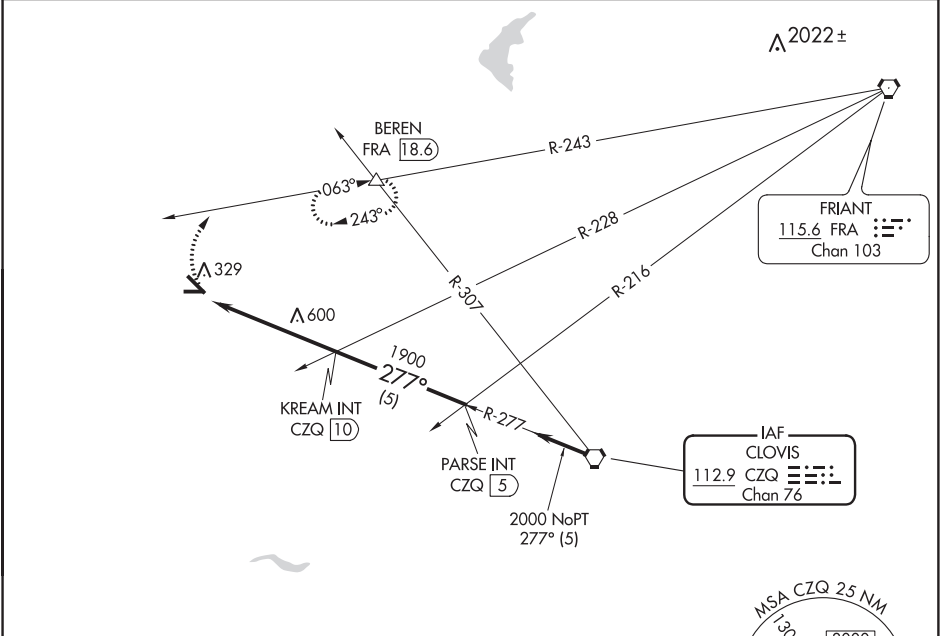
VORTAC CZQ 112.9 Chan 76	APP CRS 277°	Rwy Idg TDZE 253 Apt Elev 253
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VOR RWY 30

MADERA MUNI (M.A.E.)

NA Circling to Rwy 7-25 not authorized.	MALSIF	MISSED APPROACH: Climbing right turn to 2000 via FRA R-243 to BEREN INT/FRA 18.6 DME and hold.
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ASOS 134.725	FRESNO APP CON 119.45	UNICOM 122.8 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 253	TDZE 253
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REIL Rwy 12

MIRL Rwy 12-30

FAF to MAP 5.2 NM

Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

2000 FRA R-243	BEREN	PARSE INT CZQ 5
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CATEGORY	A	B	C	D
S-30	960-1 707 (800-1)		960-2 707 (800-2)	NA
CIRCLING	960-1 707 (800-1)		960-2 707 (800-2)	NA

APP CRS 259°	Rwy Idg 7000
	TDZE 7097
	Apt Elev 7135

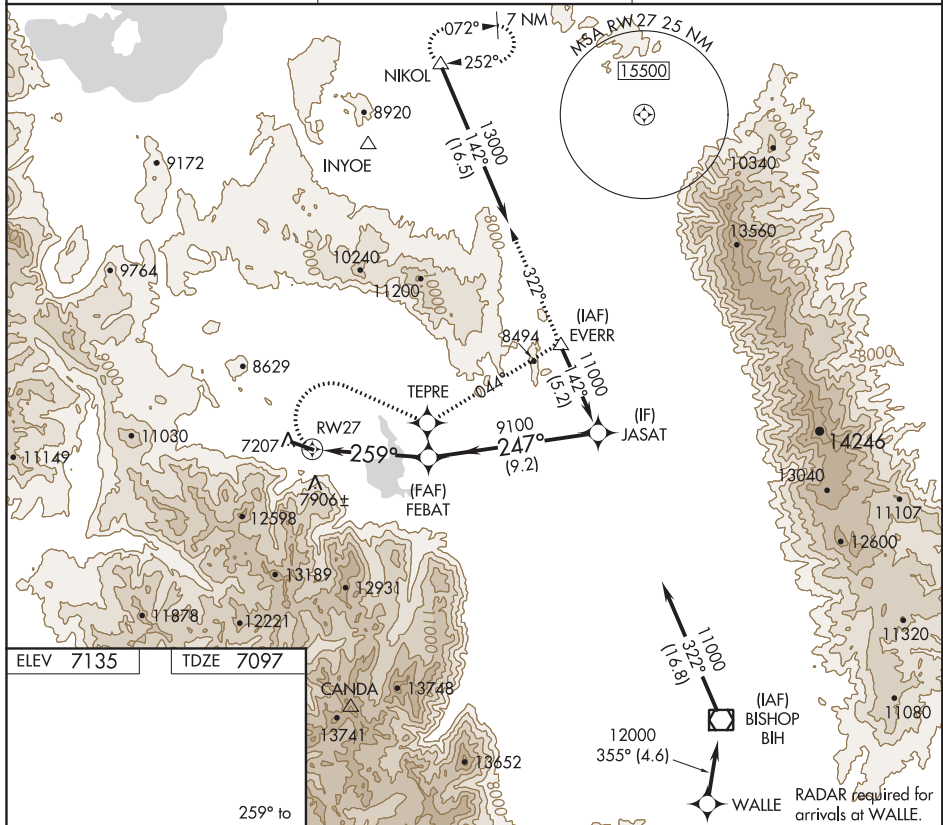
RNAV (GPS) RWY 27

MAMMOTH YOSEMITE (MMH)

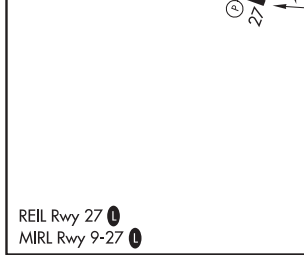
⚠ Circling NA at night. Circling NA south of Rwy 9-27.
⚠ DME/DME RNP-0.3 NA. When local altimeter setting not received, procedure NA.
❄ -25°C/-13°F

MISSED APPROACH: Climbing right turn to 13000 direct TEPRE and via track 044° to EVERR and via track 322° to NIKOL and hold.

AWOS-3 118.05	OAKLAND CENTER 125.75 284.65	UNICOM 122.8 (CTAF) ①
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ELEV 7135	TDZE 7097
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13000	TEPRE	tr 044°	EVERR	tr 322°	NIKOL	FEBAT	JASAT
							11000
							Procedure Turn NA
CATEGORY	A	B	C	D			
LNAV MDA	8380-1¼ 1283 (1300-1¼)	8380-1½ 1283 (1300-1½)	8380-3 1283 (1300-3)	NA			
CIRCLING	8380-1¼ 1245 (1300-1¼)	8380-1½ 1245 (1300-1½)	8380-3 1245 (1300-3)	NA			

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

OAKLAND CENTER
125.75 284.65
UNICOM
122.8 (CTAF)
AWOS-3
118.05

MINA
115.1 MVA
Chan 98

TAKEOFF MINIMUMS

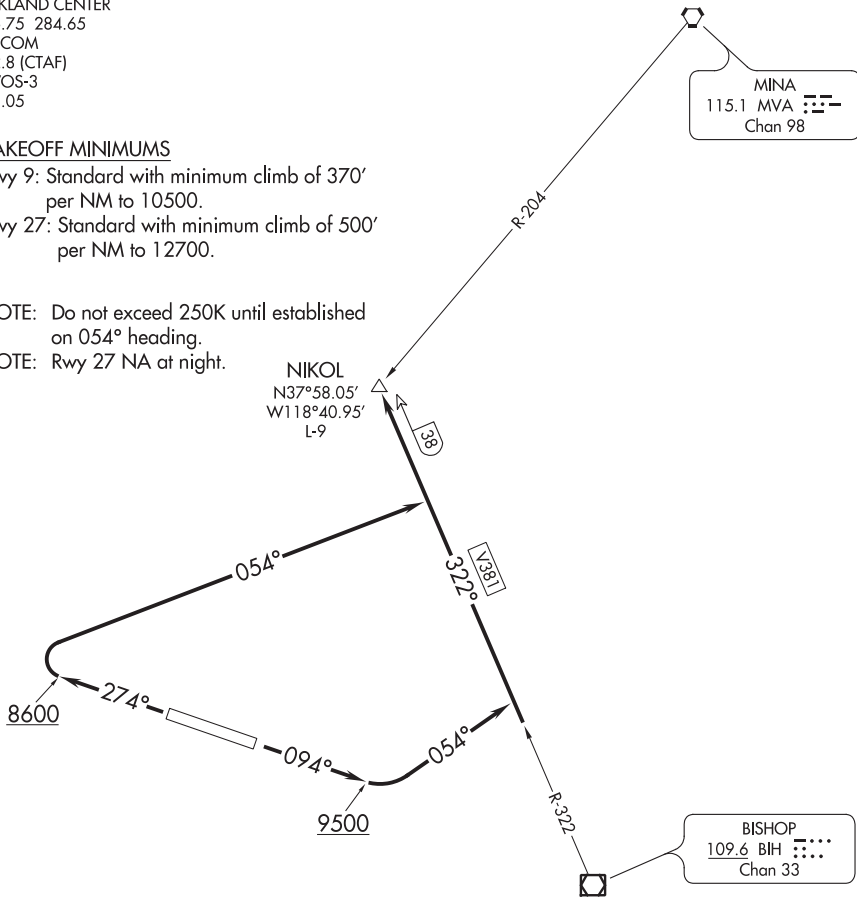
Rwy 9: Standard with minimum climb of 370' per NM to 10500.

Rwy 27: Standard with minimum climb of 500' per NM to 12700.

NOTE: Do not exceed 250K until established on 054° heading.

NOTE: Rwy 27 NA at night.

NIKOL
N37°58.05'
W118°40.95'
L-9



TAKEOFF OBSTACLE NOTES

- Rwy 9: Vehicles on roadway beginning 11' from DER, 460' right of centerline, up to 17' AGL/7078' MSL. Trees beginning 1956' from DER, 554' left of centerline, up to 100' AGL/7186' MSL. Trees beginning 3994' from DER, 963' right of centerline, up to 100' AGL/7252' MSL.
- Rwy 27: Vehicles on roadway and bushes beginning 178' from DER, 269' left of centerline, up to 17' AGL/7160' MSL. Building 386' from DER, 434' right of centerline, 21' AGL/7155' MSL. Terrain and trees beginning 1.9 NM from DER, 334' right of centerline, up to 68' AGL/7970' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb heading 094° to 9500, then climbing left turn heading 054° to intercept BIH R-322 to NIKOL INT.

TAKEOFF RUNWAY 27: Climb heading 274° to 8600, then climbing right turn heading 054° to intercept BIH R-322 to NIKOL INT.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(CROL1.CROL1) 16091

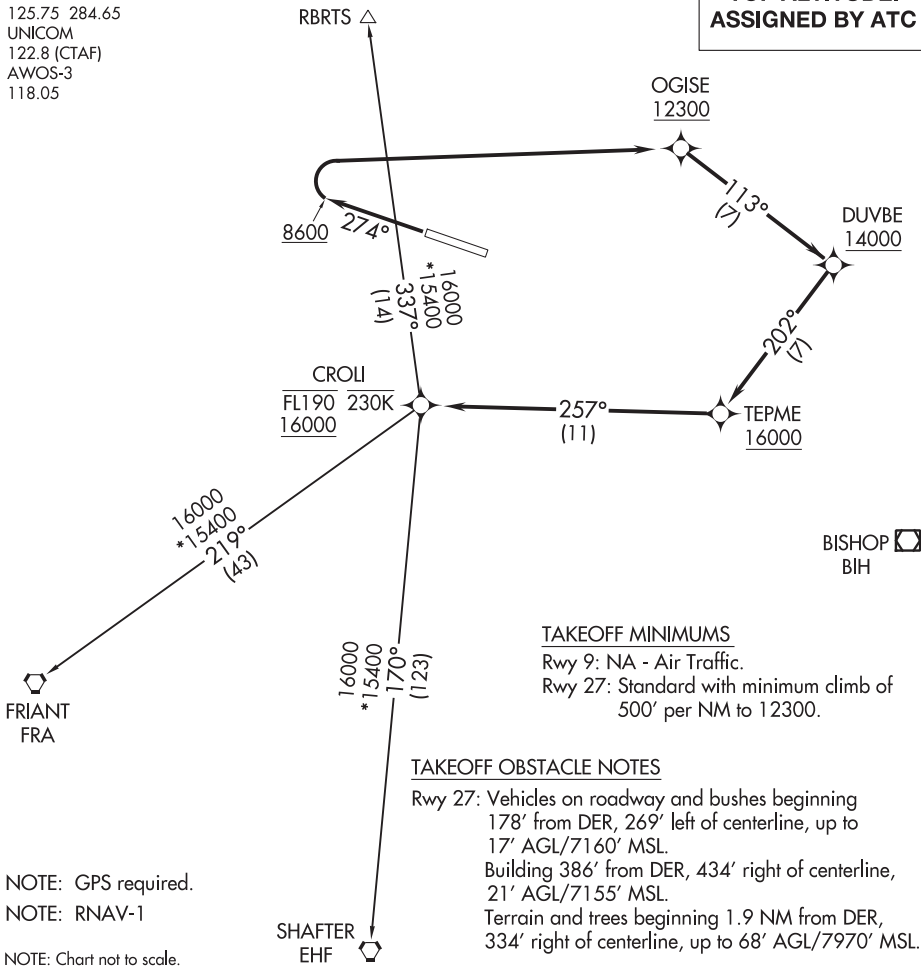
CROL1 ONE DEPARTURE (RNAV)

SL-6841 (FAA)

MAMMOTH YOSEMITE (MMH)
MAMMOTH LAKES, CALIFORNIA

**TOP ALTITUDE:
ASSIGNED BY ATC**

OAKLAND APP CON
125.75 284.65
UNICOM
122.8 (CTAF)
AWOS-3
118.05



TAKEOFF MINIMUMS

Rwy 9: NA - Air Traffic.
Rwy 27: Standard with minimum climb of 500' per NM to 12300.

TAKEOFF OBSTACLE NOTES

Rwy 27: Vehicles on roadway and bushes beginning 178' from DER, 269' left of centerline, up to 17' AGL/7160' MSL.
Building 386' from DER, 434' right of centerline, 21' AGL/7155' MSL.
Terrain and trees beginning 1.9 NM from DER, 334' right of centerline, up to 68' AGL/7970' MSL.

NOTE: GPS required.

NOTE: RNAV-1

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 27: Climb heading 274° to 8600, then right turn direct to cross OGISE at or above 12300, then on track 113° to cross DUVBE at or above 14000, then on track 202° to cross TEPME at or above 16000, then on track 257° to cross CROL1 at or above 16000 and at or below FL190, thence. . .

. . . .on (transition) maintain 16000, expect filed altitude 10 minutes after departure.

SHAFTER TRANSITION (CROL1 .EHF)

FRIANT TRANSITION (CROL1 .FRA)

RBRTS TRANSITION (CROL1 .RBRTS)

CROL1 ONE DEPARTURE (RNAV)

(CROL1.CROL1) 05MAR15

MAMMOTH LAKES, CALIFORNIA
MAMMOTH YOSEMITE (MMH)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

OENNS ONE DEPARTURE (RNAV)

SL-6841 (FAA)

MAMMOTH YOSEMITE (MMH)
MAMMOTH LAKES, CALIFORNIA

OAKLAND CENTER
125.75 284.65
UNICOM
122.8 (CTAF)
AWOS-3
118.05

TAKEOFF OBSTACLES NOTES

Rwy 9: Vehicles on roadway beginning 11' from DER, 460' right of centerline, up to 17' AGL/7078' MSL.
Trees beginning 1956' from DER, 554' left of centerline, up to 100' AGL/ 7186' MSL.
Trees beginning 3994' from DER, 963' right of centerline, up to 100' AGL/7252' MSL.

COALDALE
OAL

*14800
03°
(35)

UNING
16200

JEBAD
15200

OENNS
13100 230K

BISHOP
BIH

NOTE: GPS required.
NOTE: RNAV-1.

TAKEOFF MINIMUMS

Rwy 27: NA-ATC.

Rwy 9: Standard with minimum climb of 500' per NM to 12400.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 9: Climb heading 094° to 7635, then direct to cross SEDOC at or above 9300, then on depicted route to cross OENNS at or above 13100. Thence . . .

. . . on (transition), maintain 16200, expect filed altitude 10 min after departure.

COALDALE TRANSITION (OENNS1.OAL)

FRIANT TRANSITION (OENNS1.FRA)

RBRTS TRANSITION (OENNS1.RBRTS)

SHAFTER TRANSITION (OENNS1.EHF)

FRIANT
FRA

WIBOK
FL195

CABAB
(10)

ZNAME
17000
16200

SHAFTER
EHF

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

OENNS ONE DEPARTURE (RNAV)

MARINA, CALIFORNIA

AL-5271 (FAA)

13178

APP CRS	Rwy Idg	3483
108°	TDZE	137
	Apt Elev	137

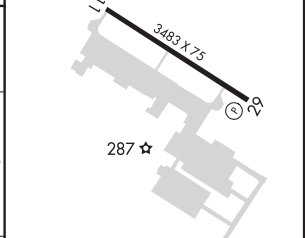
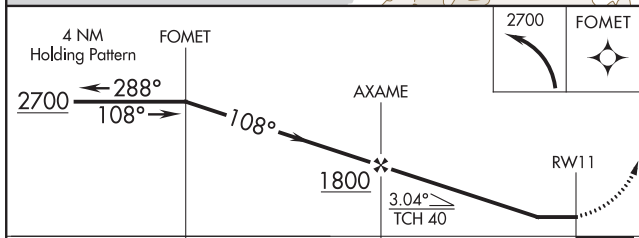
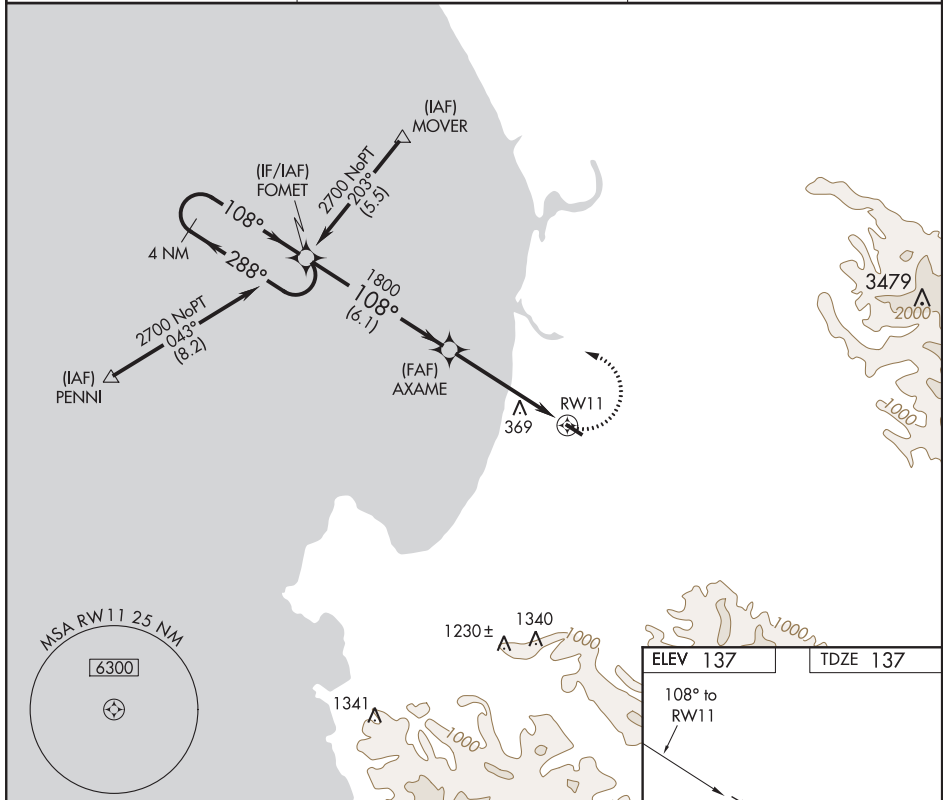
RNAV (GPS) RWY 11

MARINA MUNI (OAR)

▽ DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA. Use Monterey altimeter setting; when not received, use Salinas altimeter setting and increase all MDA 220 feet and all Cat B visibilities 1/4 mile.

△ NA MISSED APPROACH: Climbing left turn to 2700 direct FOMET and hold.

AWOS-3PT 134.025	NORCAL APP CON 133.0 251.15	UNICOM 122.7 (CTAF) 0
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CATEGORY	A	B	C	D
LNVA MDA	720-1	583 (600-1)		NA
CIRCLING	720-1 583 (600-1)	740-1 603 (700-1)		NA

MIRL Rwy 11-29 0

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

MARINA, CALIFORNIA
Amdt 1 11FEB10

36°41'N-121°46'W

RNAV (GPS) RWY 11

MARINA MUNI (OAR)

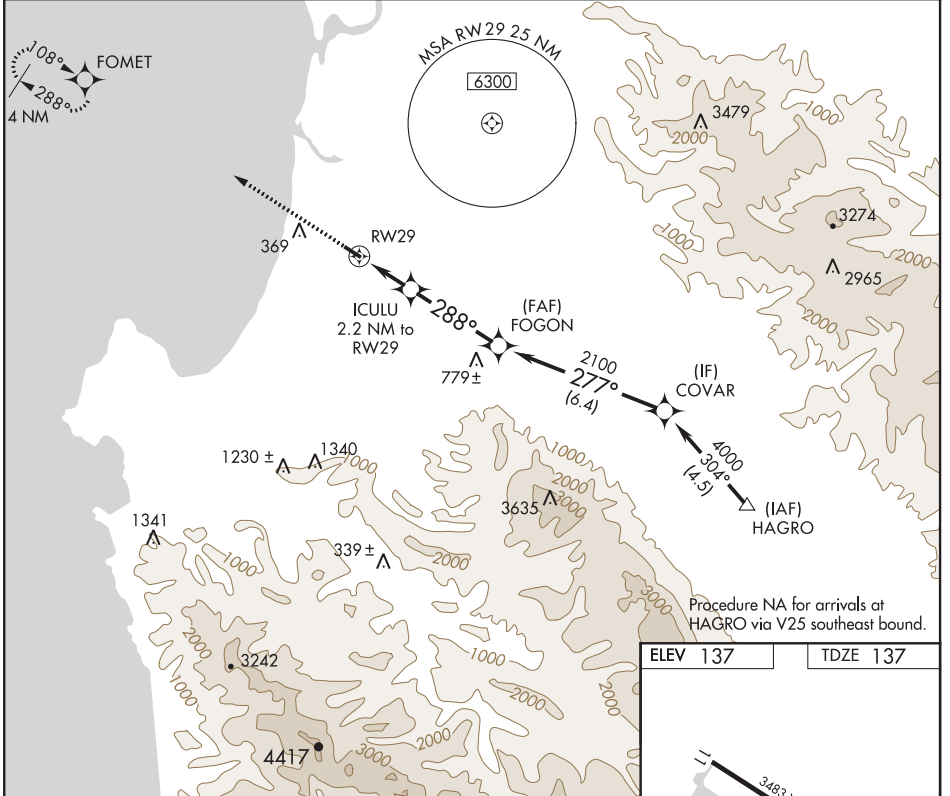
APP CRS 288°	Rwy Idg 3483
	TDZE 137
	Apt Elev 137

RNAV (GPS) RWY 29

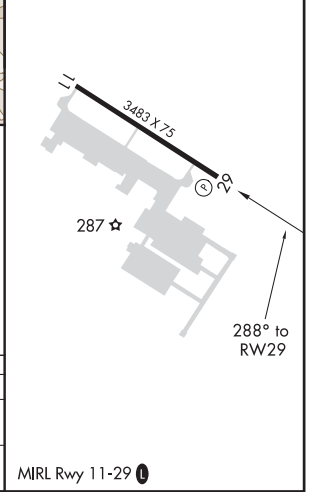
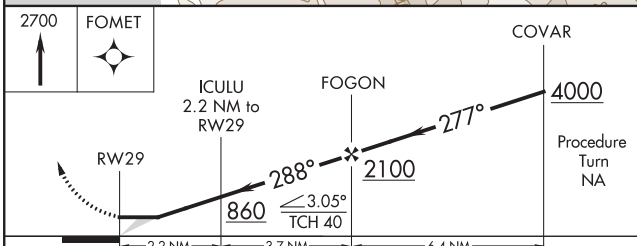
MARINA MUNI (OAR)

<p>▽ Inoperative table does not apply. ▲ NA DME/DME RNP 0.3 NA. Use Monterey altimeter setting; when not received, procedure NA.</p>	<p>MISSED APPROACH: Climb to 2700 direct FOMET and hold.</p>
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AWOS-3PT 134.025	NORCAL APP CON 133.0 251.15	UNICOM 122.7 (CTAF) 0
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ELEV 137	TDZE 137
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CATEGORY	A	B	C	D
LNVA MDA	640-1	503 (600-1)	NA	
CIRCLING	680-1 543 (600-1)	740-1 603 (700-1)	NA	

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

VORTAC SNS 117.3 Chan 120	APP CRS 260°	Rwy Idg TDZE 137 Apt Elev 137	3483
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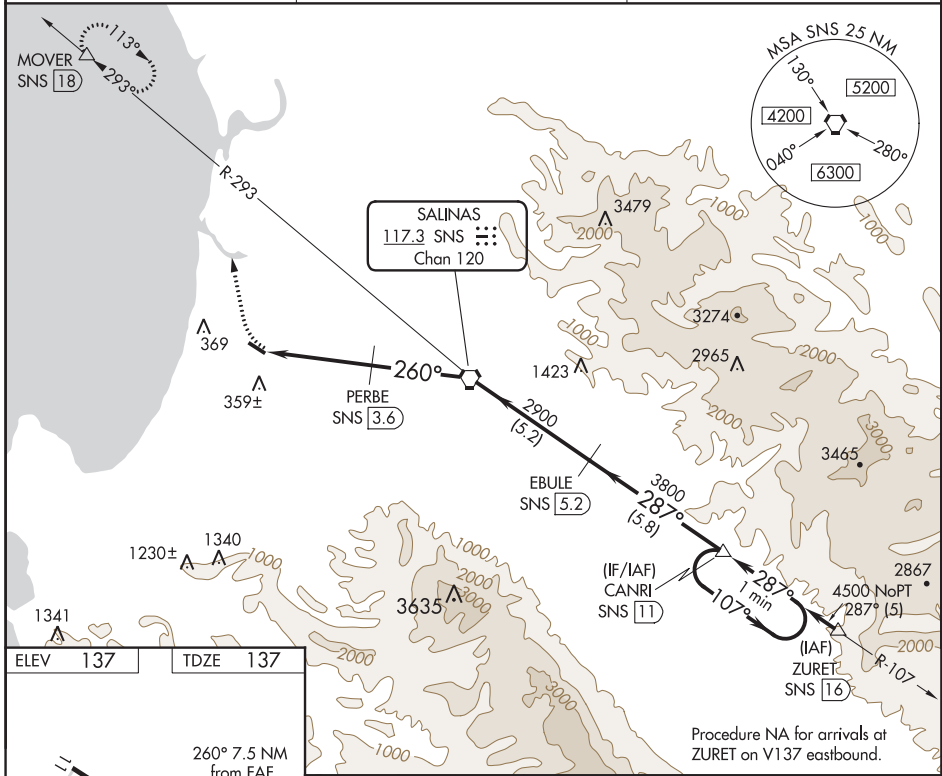
VOR/DME RWY 29

MARINA MUNI (OAR)

▼ Helicopter visibility reduction below 3/4 SM NA. VDP NA with Monterey altimeter setting. When local altimeter setting not received, use Monterey altimeter setting and increase all MDA 40 feet.

▲ NA MISSED APPROACH: Climbing right turn to 3000 on heading 332° and on SNS VORTAC R-293 to MOVER INT/SNS 18 DME and hold.

AWOS-3PT 134.025	NORCAL APP CON 133.0 251.15	UNICOM 122.7 (CTAF) 0
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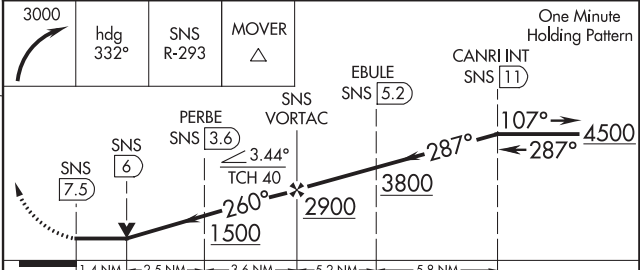
ELEV 137	TDZE 137
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260° 7.5 NM from FAF

3483 x 75

287 ☆

317±



CATEGORY	A	B	C	D
S-29	700-1	563 (600-1)		NA
CIRCLING	700-1	563 (600-1)		NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

VORTAC SNS 117.3 Chan 120	APP CRS 082°	Rwy Idg 3483 TDZE 137 Apt Elev 137
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VOR RWY 11

MARINA MUNI (OAR)

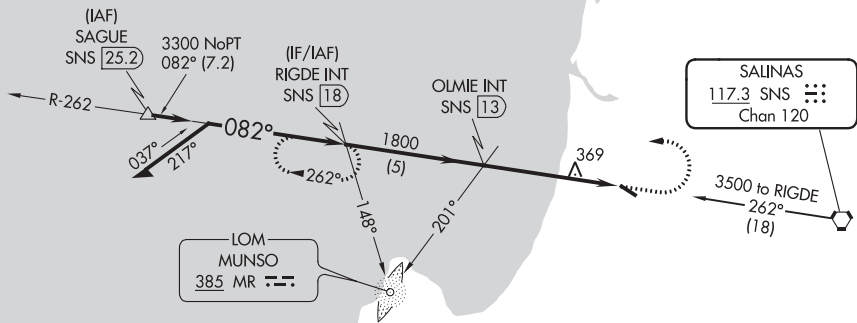
⚠ ADF or DME required. Helicopter visibility reduction below $\frac{3}{4}$ SM
⚠ NA. VDP NA with Monterey altimeter setting. When local altimeter setting not received, use Monterey altimeter setting and increase all MDA 40 feet.

MISSED APPROACH: Climb to 1200, then climbing left turn to 3300 on heading 230° and on SNS VORTAC R-262 to RIGDE INT/SNS 18 DME and hold.

AWOS-3PT 134.025	NORCAL APP CON 133.0 251.15	UNICOM 122.7 (CTAF) 0
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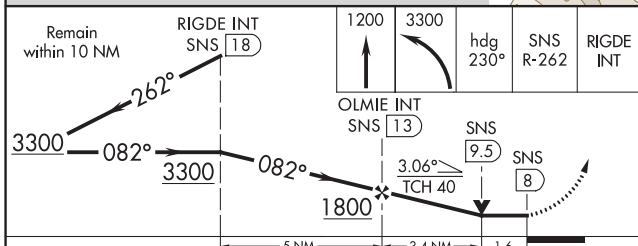
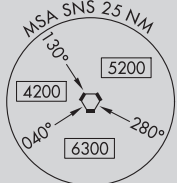
ADF or DME REQUIRED

Procedure NA for arrivals at SAGUE on V27 northwest bound.

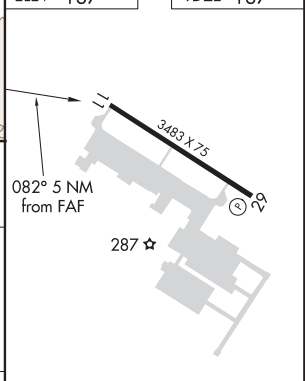


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



ELEV 137	TDZE 137
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CATEGORY	A	B	C	D
S-11	680-1	543 (600-1)		NA
CIRCLING	680-1 543 (600-1)	700-1 563 (600-1)		NA

MIRL Rwy 11-29 0	FAF to MAP 5 NM				
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

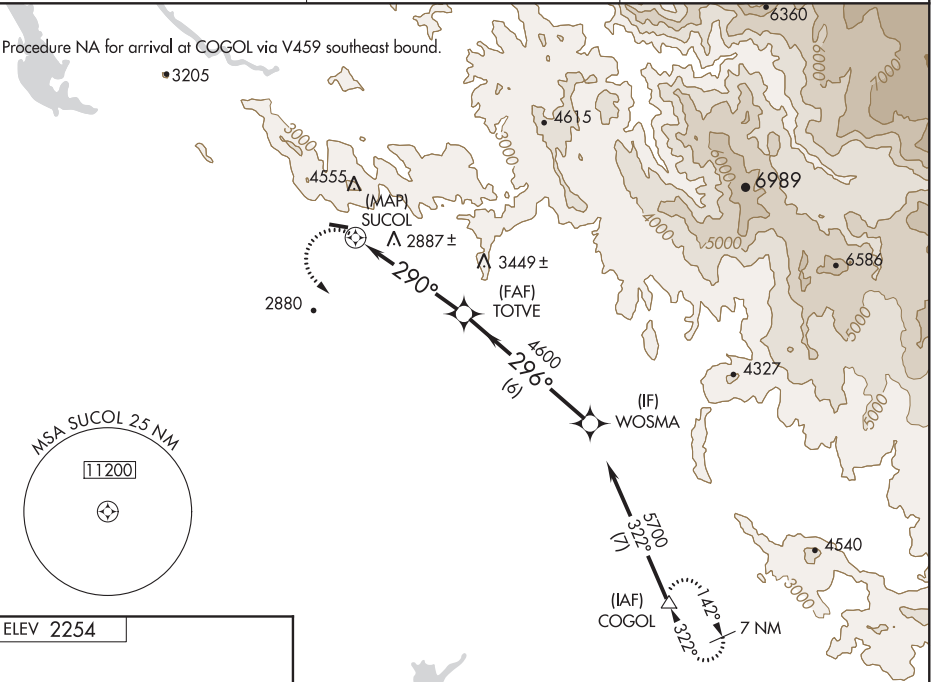
APP CRS 290°	Rwy Idg TDZE Apt Elev	N/A N/A 2254
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RNAV (GPS)-A
MARIPOSA-YOSEMITE (MPI)

▽ DME/DME RNP-0.3 NA.
△ NA Circling NA north of Rwy 8-26. Procedure NA at night. When local altimeter setting not received, use Atwater altimeter setting and increase all MDA 360 feet.

MISSED APPROACH: Climbing left turn to 7000 direct COGOL and hold.

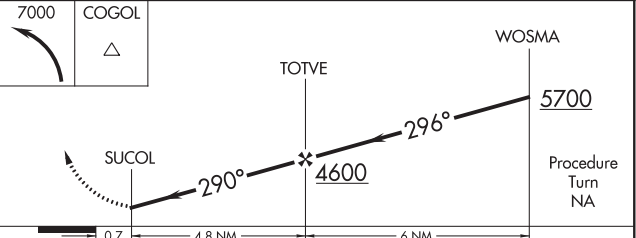
AWOS-3 135.6	OAKLAND CENTER 121.25 327.0	UNICOM 122.7 (CTAF) ①
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 2254



CATEGORY	A	B	C	D
CIRCLING	3900-1¼ 1646 (1700-1¼)	3900-1½ 1646 (1700-1½)	NA	

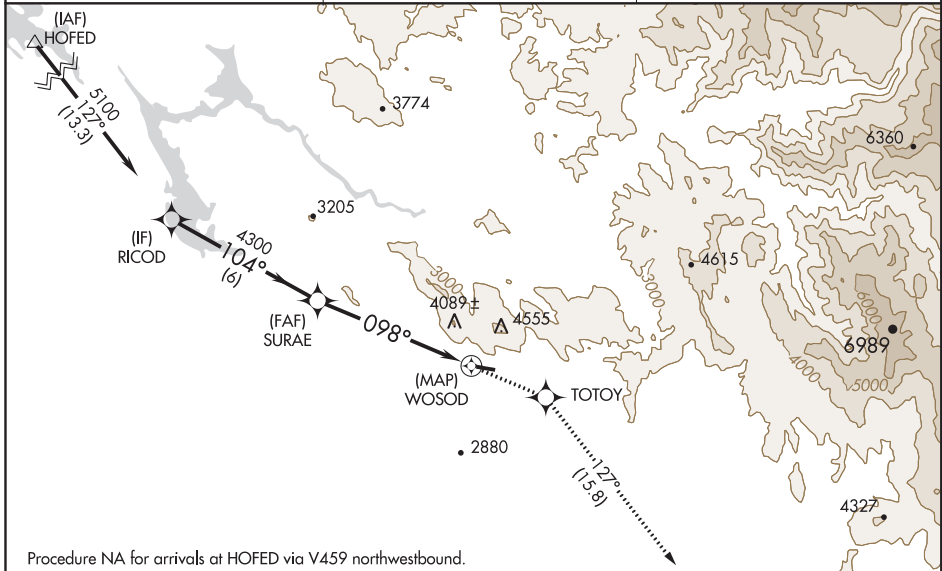
APP CRS	Rwy Idg	N/A
098°	TDZE	N/A
	Apt Elev	2254

RNAV (GPS)-B
MARIPOSA-YOSEMITE (MPI)

NA DME/DME RNP-0.3 NA.
Circling NA north of Rwy 8-26. Procedure NA at night.
When local altimeter setting not received, procedure NA.

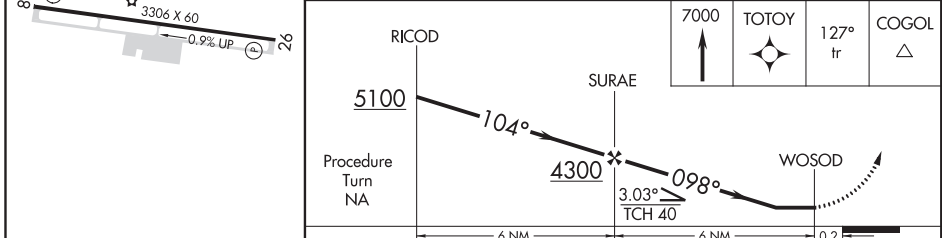
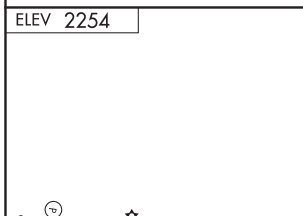
MISSED APPROACH: Climb to 7000 direct TOTOY and via 127° track to COGOL and hold.

AWOS-3 135.6	OAKLAND CENTER 121.25 327.0	UNICOM 122.7 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	4180-1¼ 1926 (2000-1¼)	4180-1½ 1926 (2000-1½)	NA	

LOC I-MYV 110.5	APP CRS 141°	Rwy ldg 6006 TDZE 64 Apt Elev 64
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ILS or LOC RWY 14

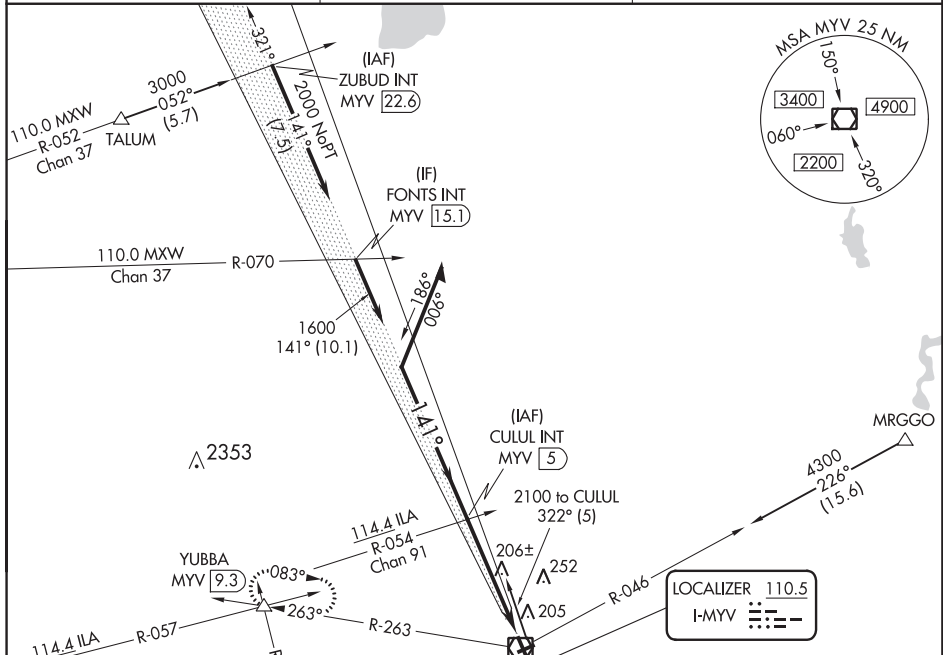
YUBA COUNTY (MYV)

⚠ Helicopter visibility reduction below 3/4 SM NA. Night landing: Rwy 5, 23 NA.
⚠ NA When local altimeter setting not received, use Lincoln altimeter setting and increase DA to 308 feet, and all MDA 60 feet. Increase LOC Cats C/D visibility 1/4 mile. Inop table does not apply to S-ILS 14. For inop MALSR, increase S-LOC Cat A/B visibility to 1 mile. For inop MALSR when using Lincoln altimeter setting, increase S-ILS 14 all Cats visibility to 3/4 mile. Autopilot coupled approach NA below 576.

MALSR

MISSED APPROACH: Climb to 1000, then climbing right turn to 4000 via MYV R-263 to YUBBA INT/MYV VOR/DME 9.3 DME and hold. Continue climb in hold to 4000.

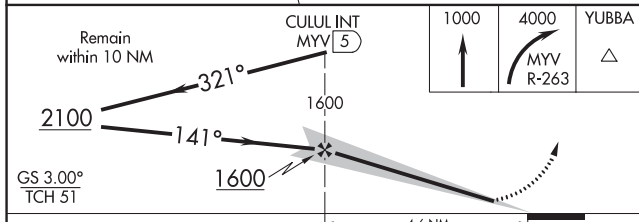
ASOS 118.475	NORCAL APP CON 125.4 259.1	UNICOM 123.05 (CTAF)
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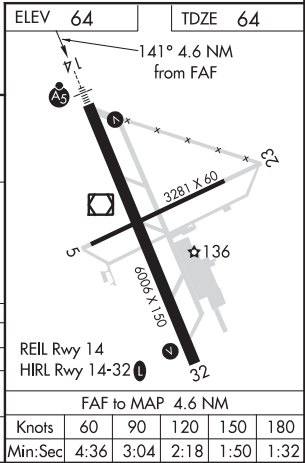
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 64	TDZE 64
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CATEGORY	A	B	C	D
S-ILS 14		264-3/4	200 (200-3/4)	
S-LOC 14	560-3/4	496 (500-3/4)	560-1	496 (500-1)
CIRCLING		560-1	496 (500-1)	620-2 558 (600-2)



WAAS CH 42814 W14A	APP CRS 141°	Rwy Idg TDZE Apf Elev	6006 64 64
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RNAV (GPS) RWY 14

YUBA COUNTY (MYV)

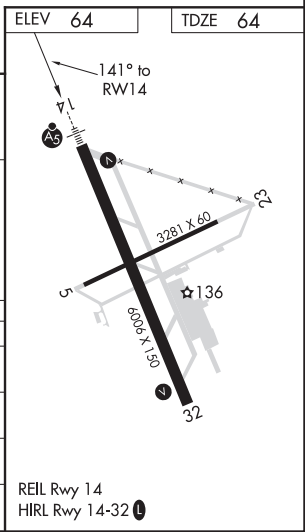
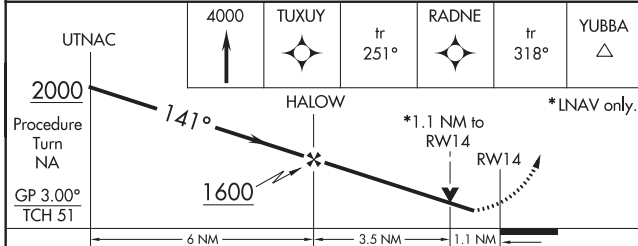
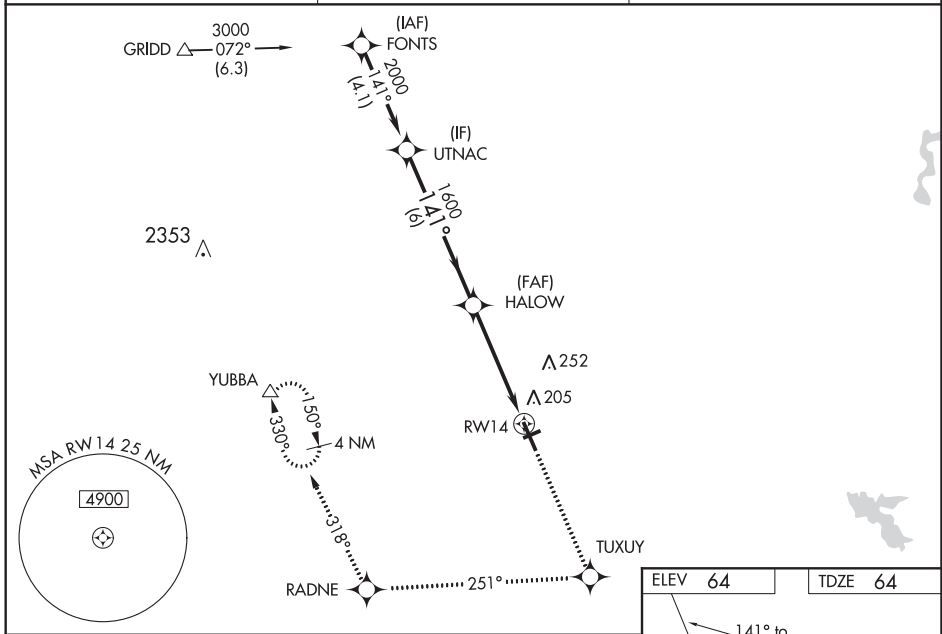
▽ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA.

▲ Baro-VNAV and VDP NA when using Lincoln altimeter setting. When local altimeter setting not received, use Lincoln altimeter setting and increase LPV DA to 308 feet, LNAV/VNAV DA to 514 feet and all MDA 60 feet; increase LNAV/VNAV all Cats visibility 1/8 mile, LNAV Cats C/D visibility 1/8 mile. Inop table does not apply to LPV all Cats. For inop MALSR increase LNAV Cats A/B visibility 1/4 mile. Night landing: Rwy 5, 23 NA.

MALSR
A5

MISSED APPROACH:
Climb to 4000 direct TUXUY and via track 251° to RADNE and via track 318° to YUBBA and hold.

ASOS 118.475	NORCAL APP CON 125.4 259.1	UNICOM 123.05 (CTAF) 0
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CATEGORY	A	B	C	D
LPV DA		264-3/4	200 (200-3/4)	
LNAV/VNAV DA		470-7/8	406 (500-7/8)	
LNAV MDA		500-3/4	436 (500-3/4)	
CIRCLING	540-1	476 (500-1)	540-1 1/2 476 (500-1 1/2)	620-2 556 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 87014 W32A	APP CRS 321°	Rwy Idg 6006 TDZE 63 Apt Elev 64
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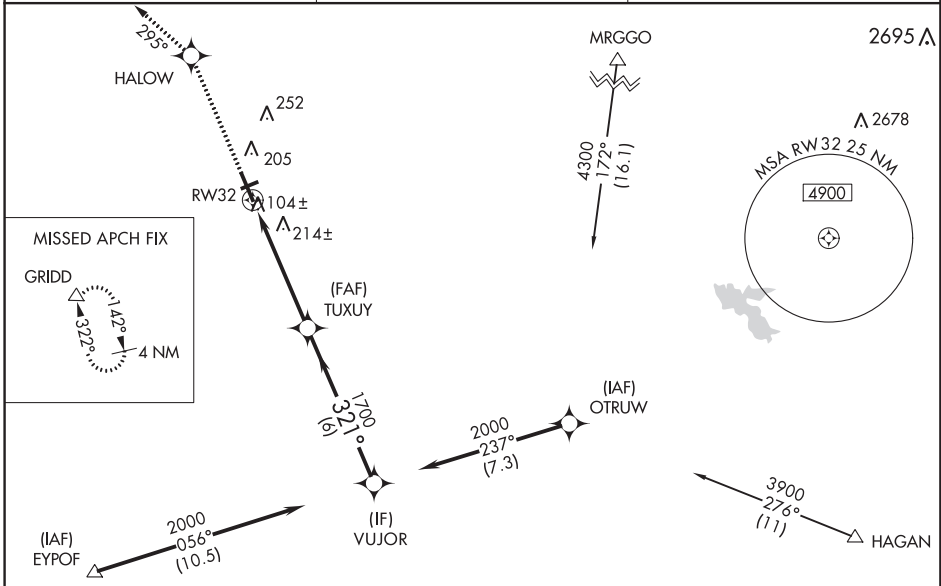
RNAV (GPS) RWY 32

YUBA COUNTY (MYV)

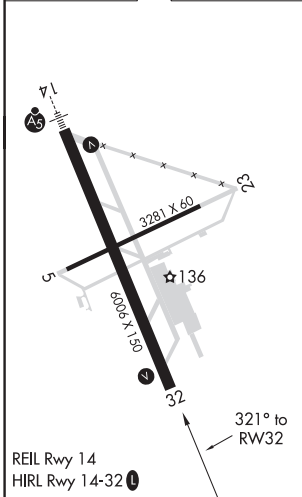
⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Lincoln altimeter setting and increase LPV DA to 357 feet, LNAV/VNAV DA to 418 feet and all MDA 60 feet; increase LPV and LNAV/VNAV all Cats visibility 1/8 mile, LNAV Cats C/D visibility 1/4 mile. Night landing: Rwy 5, 23 NA. Baro-VNAV and VDP NA when using Lincoln altimeter setting.

MISSED APPROACH: Climb to 4000 direct HALOW and via track 295° to GRIDD and hold.

ASOS 118.475	NORCAL APP CON 125.4 259.1	UNICOM 123.05 (CTAF) 0
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ELEV 64	TDZE 63
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4000	HALOW	tr 295°	GRIDD	*LNAV only	VUJOR	Procedure Turn NA
					2000	
					1700	
						GP 3.00° TCH 32
CATEGORY	A	B	C	D		
LPV DA		313-7/8	250 (300-7/8)			
LNAV/VNAV DA		374-11/8	311 (400-11/8)			
LNAV MDA	480-1	417 (500-1)	480-11/8	417 (500-11/8)		
CIRCLING	540-1	476 (500-1)	540-11/2	620-2		
			476 (500-11/2)	556 (600-2)		

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

VOR/DME MYV 110.8 Chan 45	APP CRS 316°	Rwy Idg 6006 TDZE 63 Apt Elev 64
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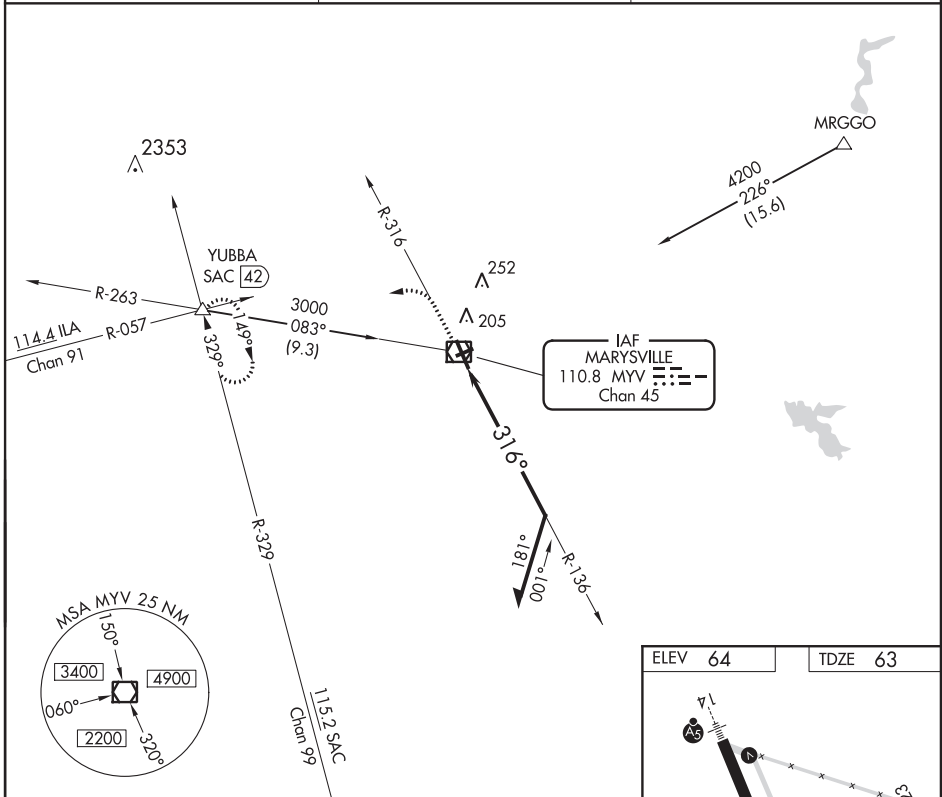
VOR RWY 32

YUBA COUNTY (MYV)

▼ Night landing: Rwy 5, 23 NA. When local altimeter setting not received, use Lincoln altimeter setting and increase all MDA 60 feet.

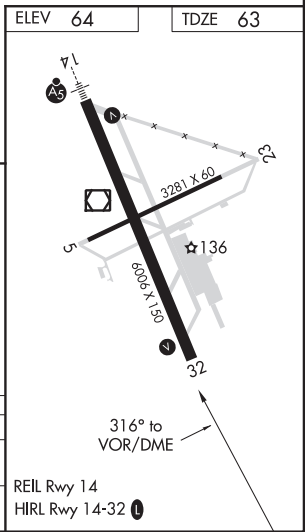
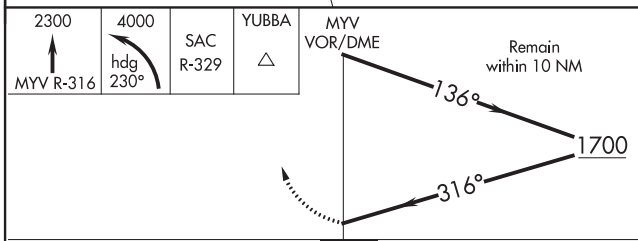
MISSED APPROACH: Climb to 2300 via MYV R-316, then climbing left turn to 4000 via heading 230° and SAC R-329 to YUBBA Int/SAC 42 DME and hold.

ASOS 118.475	NORCAL APP CON 125.4 259.1	UNICOM 123.05 (CTAF) 0
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-32	880-1 817 (900-1)	880-1¼ 817 (900-1¼)	880-2½ 817 (900-2½)	
CIRCLING	880-1¼ 816 (900-1¼)		880-2½ 816 (900-2½)	880-2¾ 816 (900-2¾)

AIRPORT DIAGRAM

AL-664 (FAA)

YUBA COUNTY (MYV)
MARYSVILLE, CALIFORNIA

ASOS
118.475
CTAF/UNICOM
123.05

39°06.5'N



JANUARY 2015
ANNUAL RATE OF CHANGE
0.1° W

ELEV
63

142.8°

FIELD
ELEV
64

509 X 60

39°06.0'N

ELEV
62

052.8°

210 X 60

6006 X 150

3281 X 60

232.8°

73

SW-2, 10 NOV 2016 to 05 JAN 2017

39°05.5'N

RWY 05-23
S-42, D-60, 2D-95
RWY 14-32
S-75, D-100, 2S-127, 2D-150

ELEV
60

32

322.8°

121°34.5'W

121°34.0'W

AIRPORT DIAGRAM

15064

MARYSVILLE, CALIFORNIA
YUBA COUNTY (MYV)

LOC/DME I-MCE 109.3 Chan 30	APP CRS 303°	Rwy Idg 5914 TDZE 155 Apt Elev 155
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ILS or LOC RWY 30

MERCED RGNL/MACREADY FIELD (MCE)

⚠ When local altimeter setting not received, use Castle altimeter setting and increase all DA/MDA 20 feet. Autopilot coupled approach NA below 585. For inoperative MALSRL increase S-LOC 30 Cat D visibility to 1. Circling NA NE of Rwy 12-30.

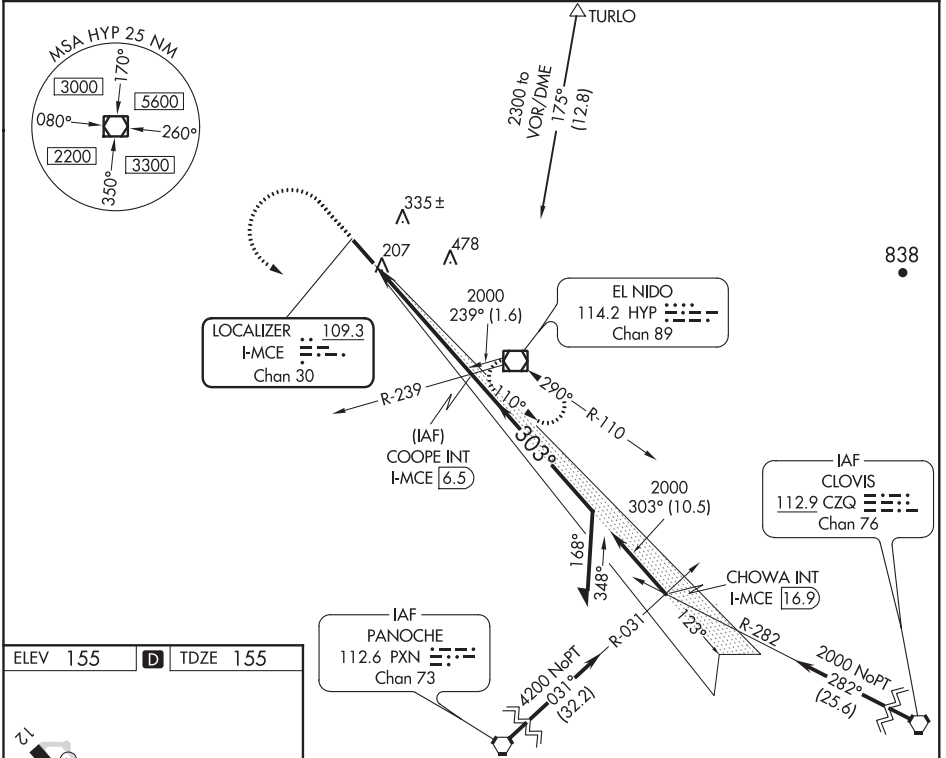


MISSED APPROACH: Climb to 1000 then climbing left turn to 2000 direct HYP VOR/DME and hold.

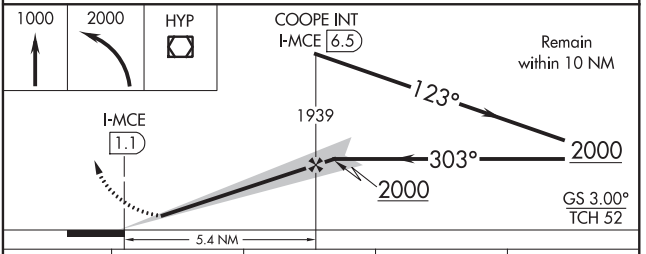
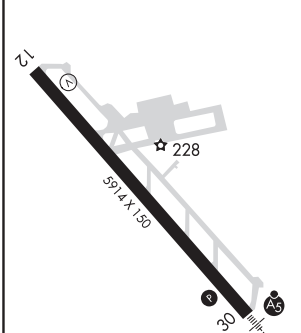
ASOS
132.175

NORCAL APP CON
120.95 269.45

UNICOM
122.7 (CTAF)



ELEV 155	D	TDZE 155
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	A	B	C	D
S-ILS 30	355-½ 200 (200-½)			
S-LOC 30	480-½ 325 (400-½)			
CIRCLING	560-1 405 (500-1)	620-1 465 (500-1)	620-1½ 465 (500-1½)	720-2 565 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

MERCED, CALIFORNIA

AL-665 (FAA)

15232

WAAS CH 93923 W12A	APP CRS 123°	Rwy Idg TDZE 155 Apt Elev 155
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RNAV (GPS) RWY 12

MERCED RGNL/MACREADY FIELD (MCE)

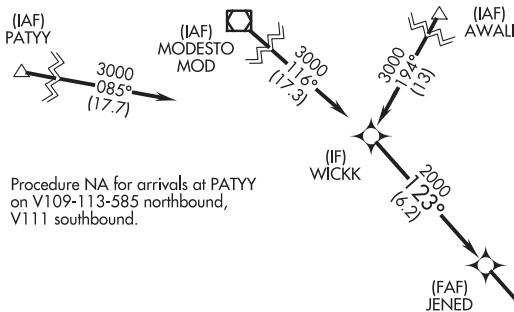
⚠ When local altimeter setting not received, use Castle altimeter setting and increase all DA/MDA 20 feet. When VGSI inop, Straight-in/Circling Rwy 12 procedure NA at night. Circling NA NE of Rwy 12-30. DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA.

MISSED APPROACH:
Climb to 3600 direct CHOWA and hold.

ASOS
132.175

NORCAL APP CON
120.95 269.4

UNICOM
122.7 (CTAF)



Procedure NA for arrivals at AWALI on V23 northwest bound.

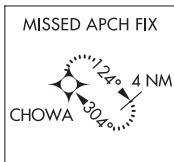
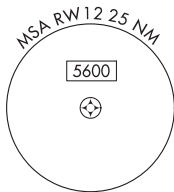
797

335 ±

207

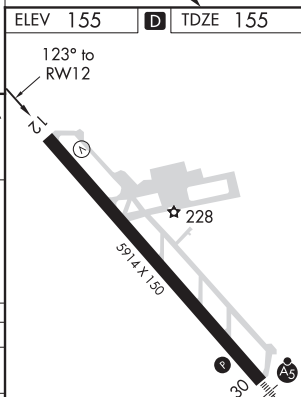
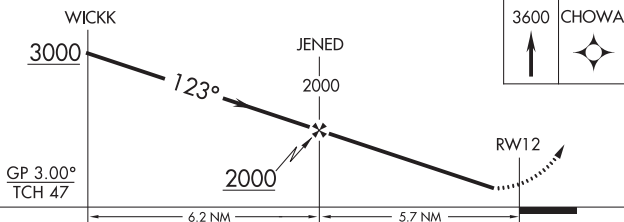
478

RW12



ELEV 155 **D** TDZE 155

123° to RW12



CATEGORY	A	B	C	D
LPV DA		408-1	253 (300-1)	
LNAV/VNAV DA		434-1	279 (300-1)	
LNAV MDA	640-1	485 (500-1)	640-1 3/8 485 (500-1 3/8)	640-1 1/2 485 (500-1 1/2)
CIRCLING	640-1	485 (500-1)	640-1 1/2 485 (500-1 1/2)	720-2 565 (600-2)

REIL Rwy 12
HIRL Rwy 12-30

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

MERCED, CALIFORNIA
Orig-A 21AUG14

37°17'N-120°31'W

MERCED RGNL/MACREADY FIELD (MCE) RNAV (GPS) RWY 12

WAAS CH 93709 W30A	APP CRS 304°	Rwy Idg 5914 TDZE 155 Apt Elev 155
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RNAV (GPS) RWY 30

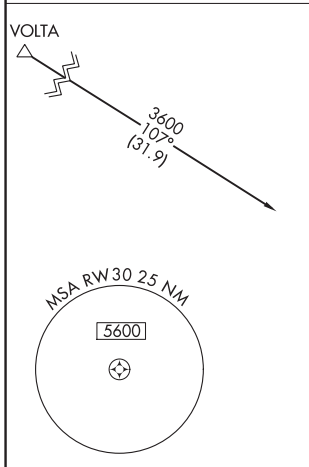
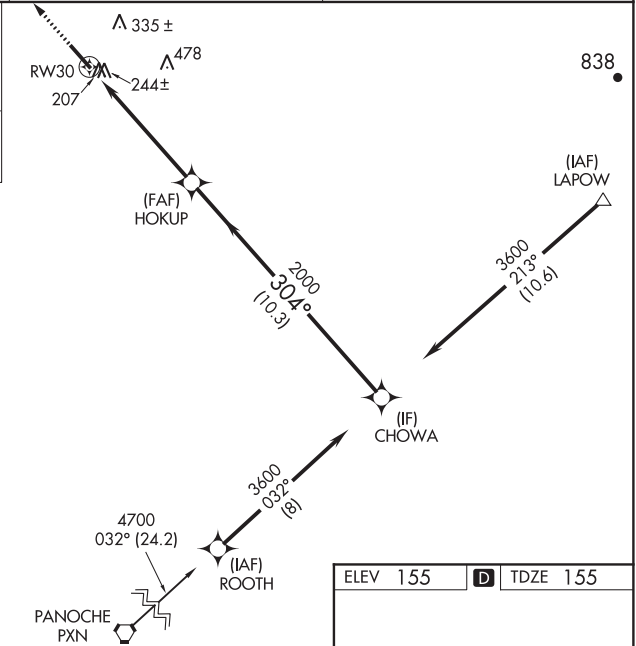
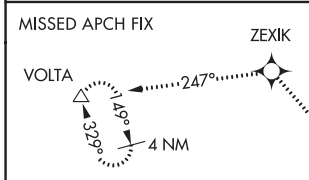
MERCED RGNL/MACREADY FIELD (MCE)

⚠ Circling NA NE of Rwy 12-30. Baro-VNAV NA when using Merced/Castle 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. Visibility reduction by helicopters NA. VDP NA when using Castle altimeter setting. For inoperative MALSR, increase LNAV visibilities Cat A, B, C to 1 mile and Cat D to 1 1/4 mile. When local altimeter setting not received, use Castle altimeter setting and increase all DA/MDA 20 feet. Inoperative table does not apply.

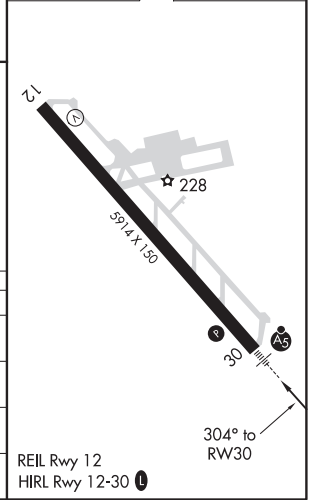
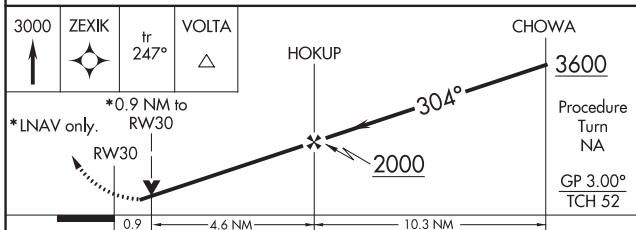


MISSED APPROACH: Climb to 3000 direct ZEXIK and via track 247° to VOLTA and hold.

ASOS 132.175	NORCAL APP CON 120.95 269.4	UNICOM 122.7 (CTAF)
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ELEV 155	D TDZE 155
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CATEGORY	A	B	C	D
LPV DA	449-3/4 294 (300-3/4)			
LNAV/VNAV DA	514-3/4 359 (400-3/4)			
LNAV MDA	500-3/4 345 (400-3/4)		500-1 345 (400-1)	
CIRCLING	560-1 405 (500-1)	620-1 465 (500-1)	620-1 1/2 465 (500-1 1/2)	720-2 565 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

MERCED, CALIFORNIA

AL-665 (FAA)

15232

LOC/DME I-MCE 109.3 Chan 30	APP CRS 123°	Rwy Idg TDZE 155 Apt Elev 155	5914
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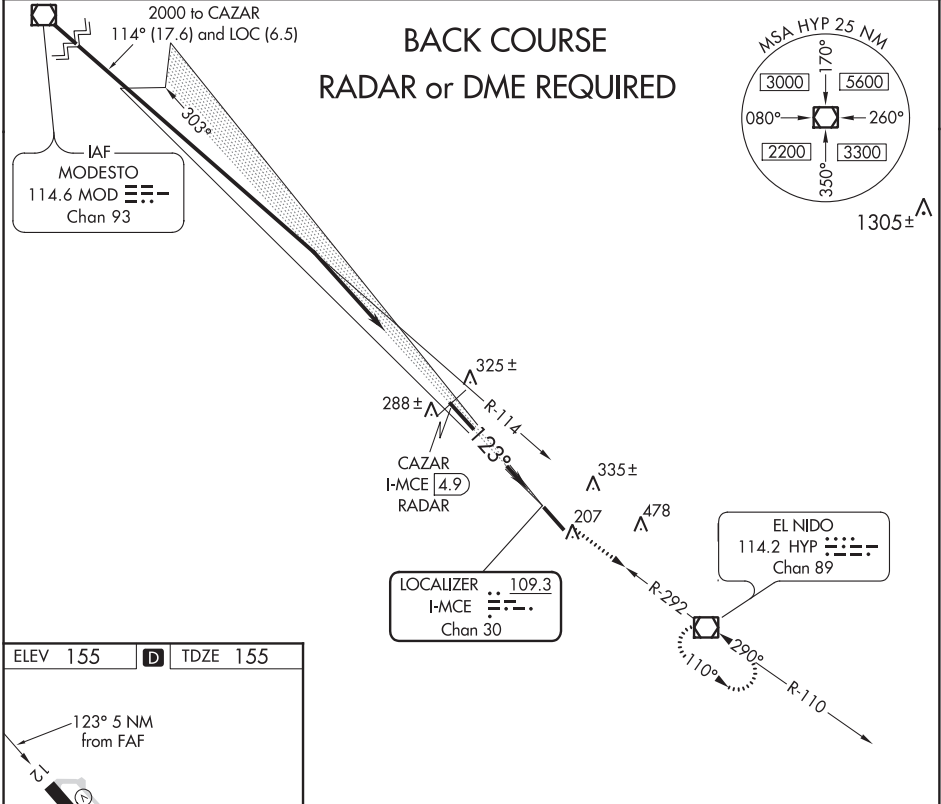
LOC BC RWY 12

MERCED RGNL/MACREADY FIELD (MCE)

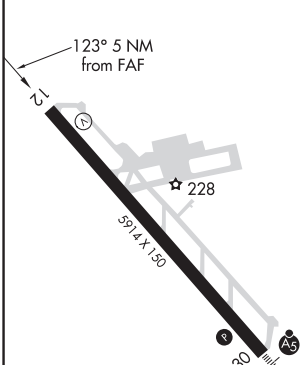
⚠ When local altimeter setting not received, use Castle altimeter setting and increase all MDAs 20 feet.
⚠ Circling NA NE of Rwy 12-30.

MISSED APPROACH: Climb to 2000 via HYP R-292 to HYP VOR/DME and hold.

ASOS 132.175	NORCAL APP CON 120.95 269.45	UNICOM 122.7 (CTAF) 📻
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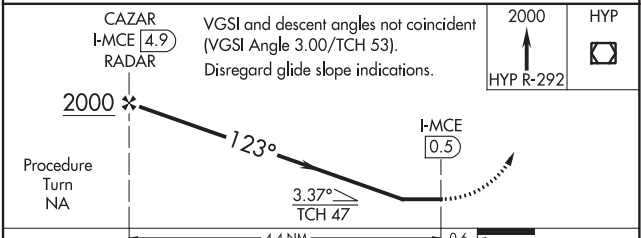
ELEV 155	D	TDZE 155
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HIRL Rwy 12-30 **📻**
REIL Rwy 12

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
S-12	520-1	365 (400-1)		520-1½ 365 (400-1½)
CIRCLING	560-1 405 (500-1)	620-1 465 (500-1)	620-1½ 465 (500-1½)	720-2 565 (600-2)

MERCED, CALIFORNIA
Amdt 10F 21AUG14

37°17'N-120°31'W

MERCED RGNL/MACREADY FIELD (MCE) LOC BC RWY 12

SW-2, 10 NOV 2016 to 05 JAN 2017


SW-2, 10 NOV 2016 to 05 JAN 2017

VOR/DME HYP 114.2 Chan 89	APP CRS 289°	Rwy Idg 5914 TDZE 155 Apt Elev 155
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VOR RWY 30

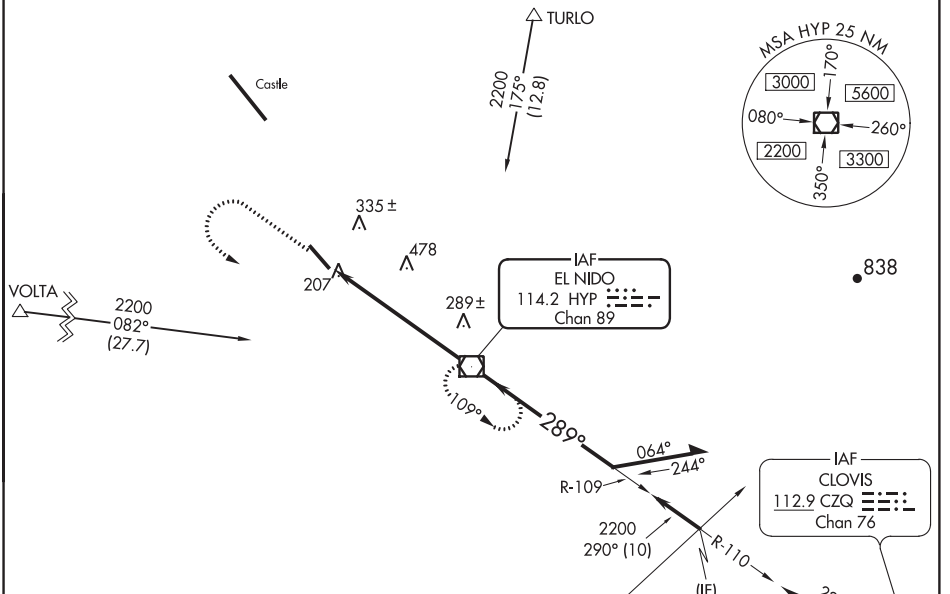
MERCED RGNL/MACREADY FIELD (MCE)

⚠ For inoperative MALS, increase S-30 Cat A and B visibility to 1 mile, and Cat D to 1½ mile. Circling NA northeast of Rwy 12-30. Visibility reduction by helicopters NA. VDP NA when using Castle altimeter setting. When local altimeter setting not received, use Castle altimeter setting and increase all MDAs 20 feet.

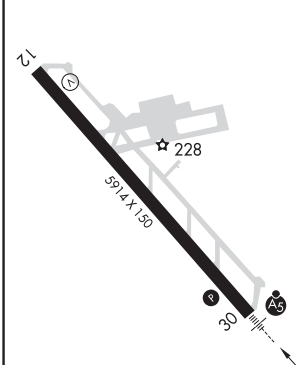
MALS 

MISSED APPROACH: Climb to 1000 then climbing left turn to 2200 direct HYP VOR/DME and hold.

ASOS 132.175	NORCAL APP CON 120.95 269.45	UNICOM 122.7 (CTAF)
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ELEV 155	D	TDZE 155
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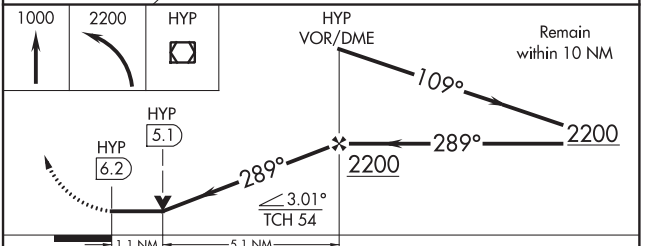
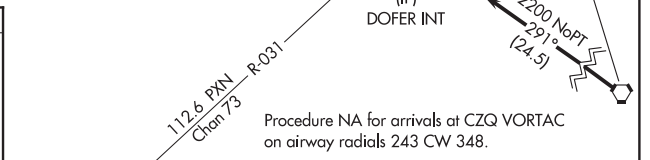


HIRL Rwy 12-30 **L**
REIL Rwy 12

289° 6.2 NM from FAF

FAF to MAP 6.2 NM

Knots	60	90	120	150	180
Min:Sec	6:12	4:08	3:06	2:29	2:04



CATEGORY	A	B	C	D
S-30	560-3/4	405 (500-3/4)		560-1 405 (500-1)
CIRCLING	560-1 405 (500-1)	620-1 465 (500-1)	620-1½ 465 (500-1½)	720-2 565 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017


SW-2, 10 NOV 2016 to 05 JAN 2017

LOC I-MOD 111.9	APP CRS 288°	Rwy Idg 5904
	TDZE 91	
	Apt Elev 99	

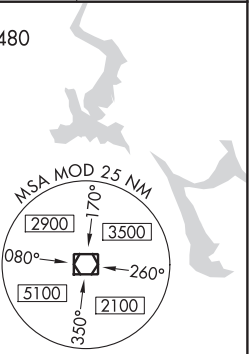
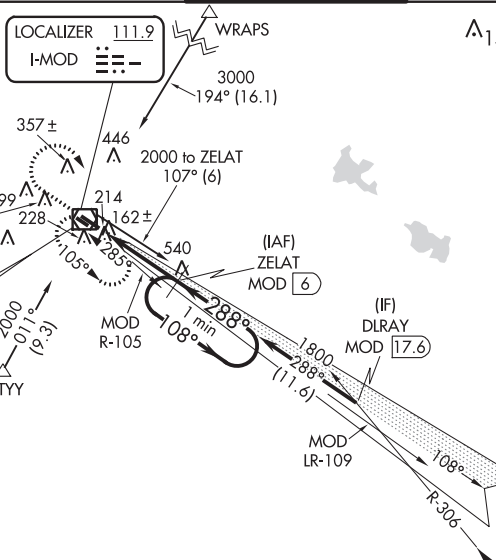
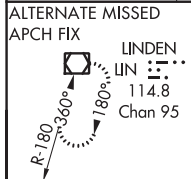
ILS or LOC/DME RWY 28R

MODESTO CITY-COUNTY-HARRY SHAM FIELD (MOD)

⚠ DME from MOD VOR/DME. Simultaneous reception of I-MOD and MOD DME required. Autopilot coupled approach NA below 660. For inoperative MALSRS, increase S-LOC Cat D visibility to 1 mile. When local altimeter setting not received, use Atwater altimeter setting and increase DA 68 feet and all MDA's 80 feet. Increase S-LOC Cat C visibility to $\frac{3}{4}$. For inoperative MALSRS, when using Atwater altimeter setting; increase S-ILS 28R all visibilities $\frac{1}{2}$ mile.

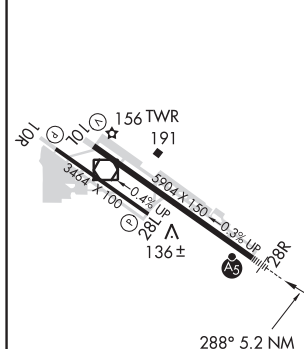
MALSRS

MISSED APPROACH: Climb to 1500 then climbing right turn to 2000 direct MOD VOR/DME and hold.

ATIS 127.7	NORCAL APP CON 120.95 269.45	MODESTO TOWER* 125.3 (CTAF) 257.8	GND CON 121.7	UNICOM 122.95
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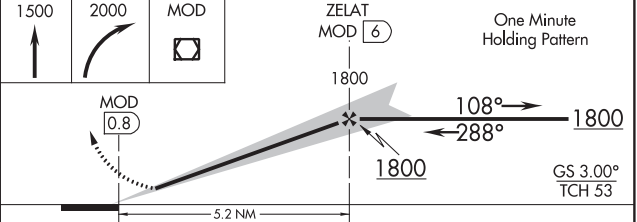
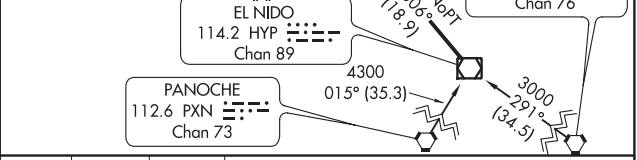


DME or RADAR REQUIRED

ELEV 99	D	TDZE 91
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REIL Rwy 10L
MIRL Rwy 10R-28L
HIRL Rwy 10L-28R



CATEGORY	A	B	C	D
S-ILS 28R	291- $\frac{1}{2}$ 200 (200- $\frac{1}{2}$)			
S-LOC 28R	420- $\frac{1}{2}$ 329 (400- $\frac{1}{2}$)			
CIRCLING	540-1	560-1	560- $\frac{1}{2}$	660-2
	441 (500-1)	461 (500-1)	461 (500- $\frac{1}{2}$)	561 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017


WAAS CH 70609 W28A	APP CRS 288°	Rwy Idg TDZE Apt Elev	5904 88 97
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RNAV (GPS) RWY 28R

MODESTO CITY-COUNTY-HARRY SHAM FIELD (MOD)

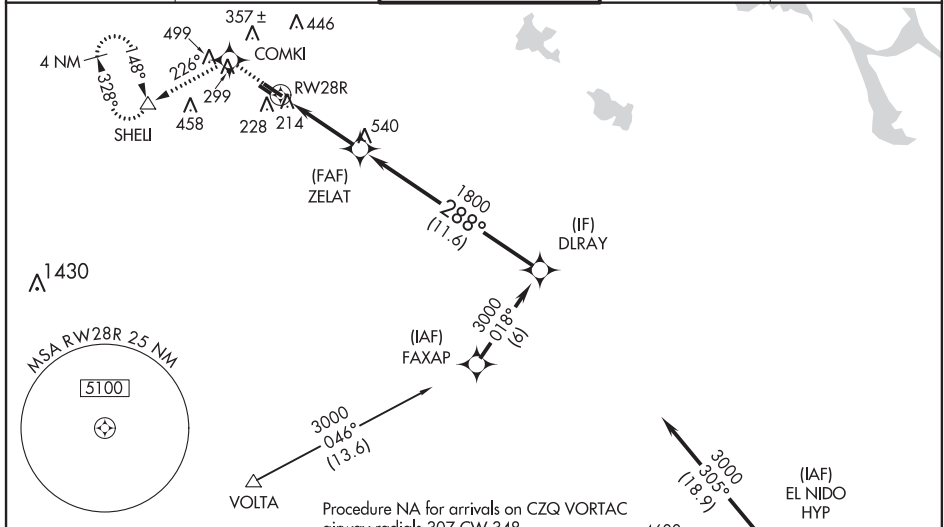
⚠ For inoperative MALSRL, increase LPV visibility to 1 mile all Cats and LNAV Cat D to 1 1/4 mile.
⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.
 When local altimeter setting not received, use Atwater/Castle altimeter setting and increase all DA/MDA 80 feet; increase LPV, LNAV/VNAV visibilities 1/4 mile all Cats and LNAV Cat C visibility 1/2 mile.
 Baro-VNAV and VDP NA when using Atwater/Castle altimeter setting.
 For inoperative MALSRL, when using Atwater/Castle altimeter setting, increase LPV visibility to 1 1/4 mile all Cats.

MALSRL

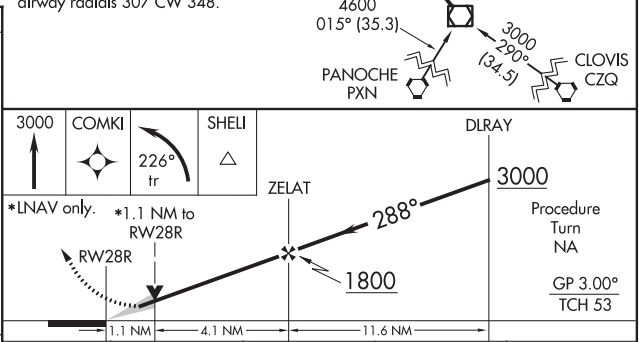
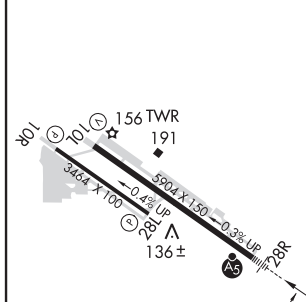


MISSED APPROACH: Climb to 3000 direct COMKI and left turn via 226° track to SHELI and hold, continue climb-in-hold to 3000.

ATIS 127.7	NORCAL APP CON 120.95 269.45	MODESTO TOWER* 125.3 (CTAF) 257.8	GND CON 121.7	UNICOM 122.95
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ELEV 97	D TDZE 88
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CATEGORY	A	B	C	D
LPV DA		385-1/2	297 (300-1/2)	
LNAV/VNAV DA		495-1	407 (400-1)	
LNAV MDA	480-1/2	392 (400-1/2)		480-1 392 (400-1)
CIRCLING	540-1 443 (500-1)	560-1 463 (500-1)	560-1 1/2 463 (500-1 1/2)	660-2 563 (600-2)

REIL Rwy 10L **Ⓛ**
 MIRL Rwy 10R-28L
 HIRL Rwy 10L-28R **Ⓛ**

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

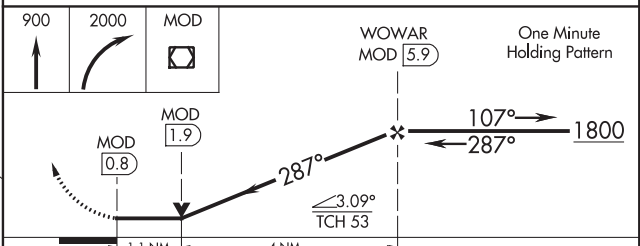
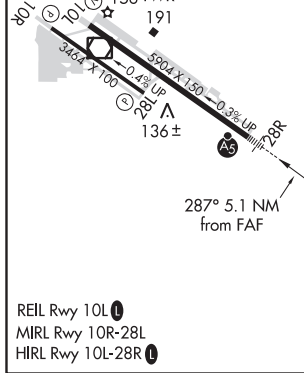
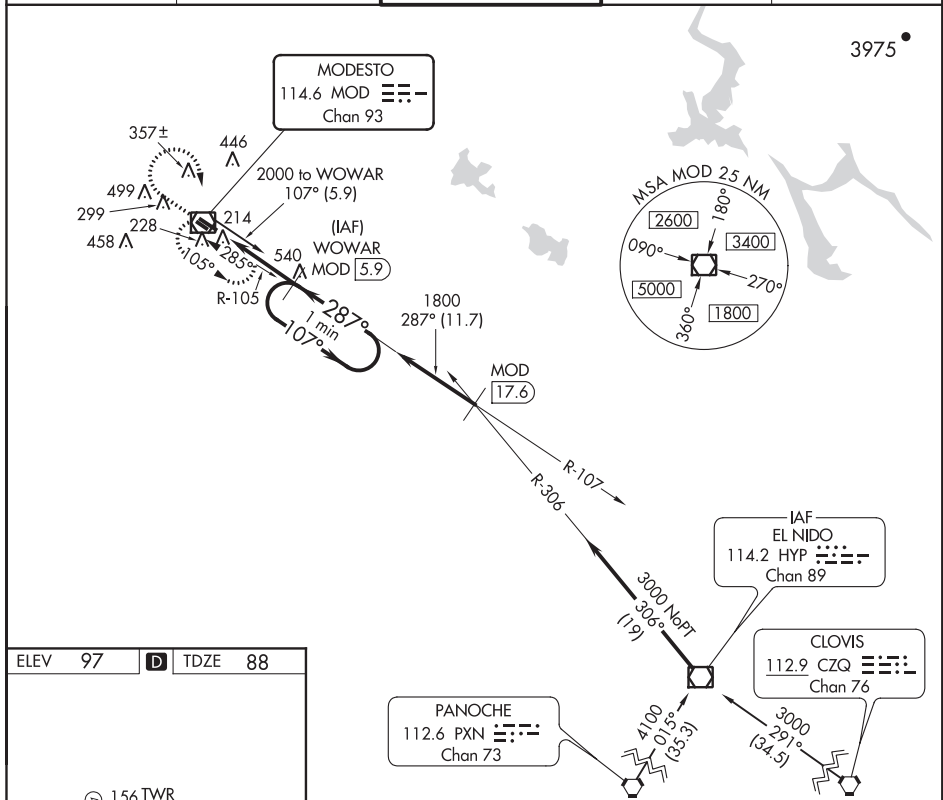
VOR/DME MOD 114.6 Chan 93	APP CRS 287°	Rwy Idg TDZE 88 Apt Elev 97	5904
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VOR/DME RWY 28R

MODESTO CITY-COUNTY-HARRY SHAM FIELD (MOD)

	For inoperative MALSR increase S-28R Cat D visibility to 1 1/4.		MISSED APPROACH: Climb to 900 then climbing right turn to 2000 direct MOD VOR/DME and hold.
	<p>MALSR</p>		

ATIS 127.7	NORCAL APP CON 120.95 269.45	MODESTO TOWER* 125.3 (CTAF) 257.8	GND CON 121.7	UNICOM 122.95
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CATEGORY	A	B	C	D
S-28R	480-1/2 392 (400-1/2)			480-1 392 (400-1)
CIRCLING	540-1 443 (500-1)	560-1 463 (500-1)	560-1 1/2 463 (500-1 1/2)	660-2 563 (600-2)

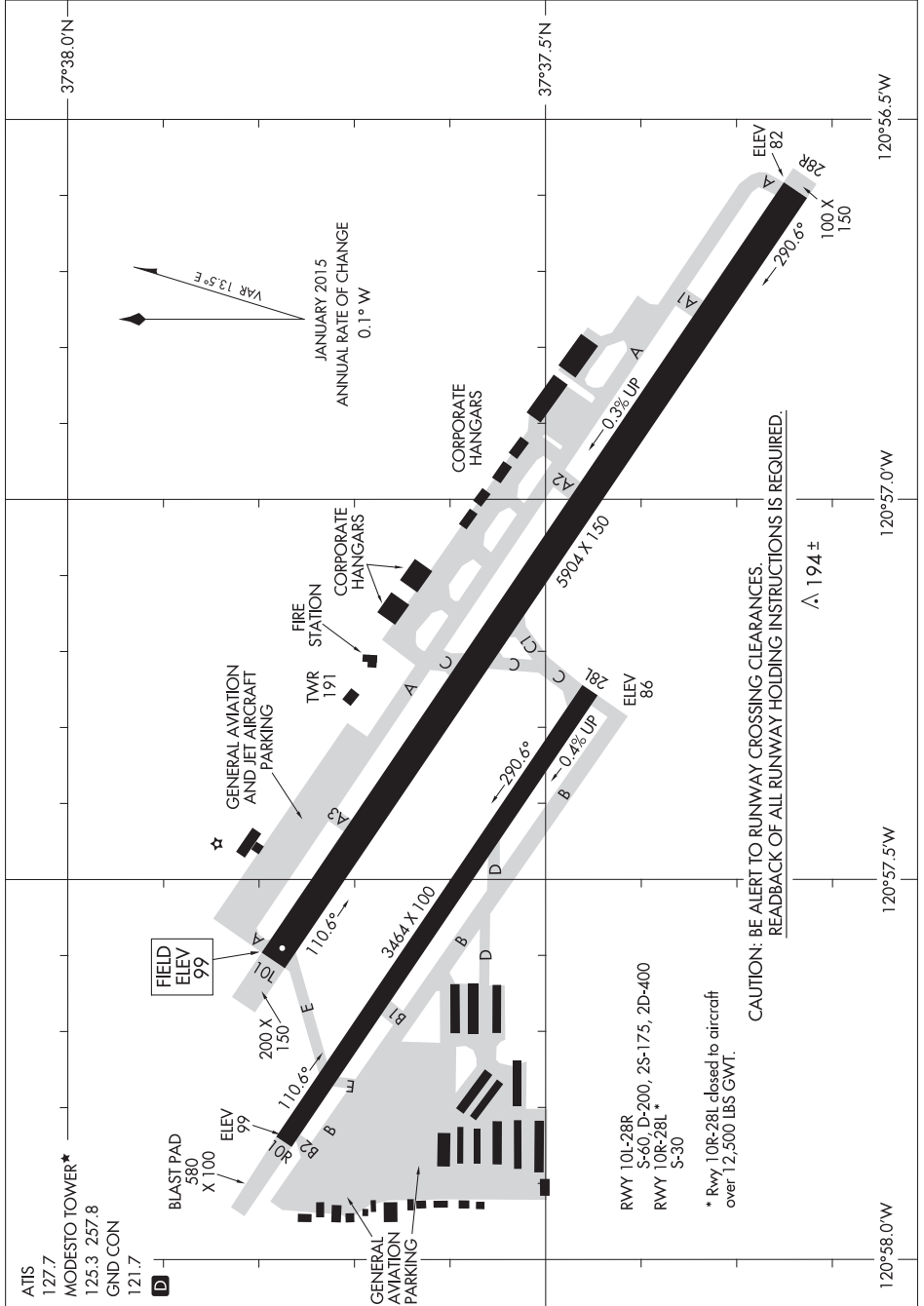
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

MODESTO CITY-COUNTY-HARRY SHAM FIELD (MOD)
AL-643 (FAA)
MODESTO, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017



SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

MODESTO, CALIFORNIA
MODESTO CITY-COUNTY-HARRY SHAM FIELD (MOD)

MONTAGUE, CALIFORNIA

AL-882 (FAA)

14009

NDB MOG 404	APP CRS 356°	Rwy Idg TDZE Apt Elev	N/A N/A 2648
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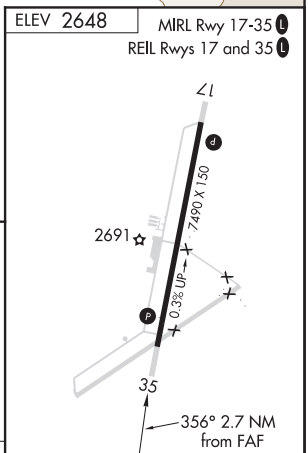
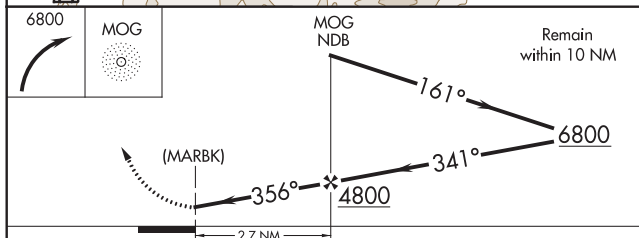
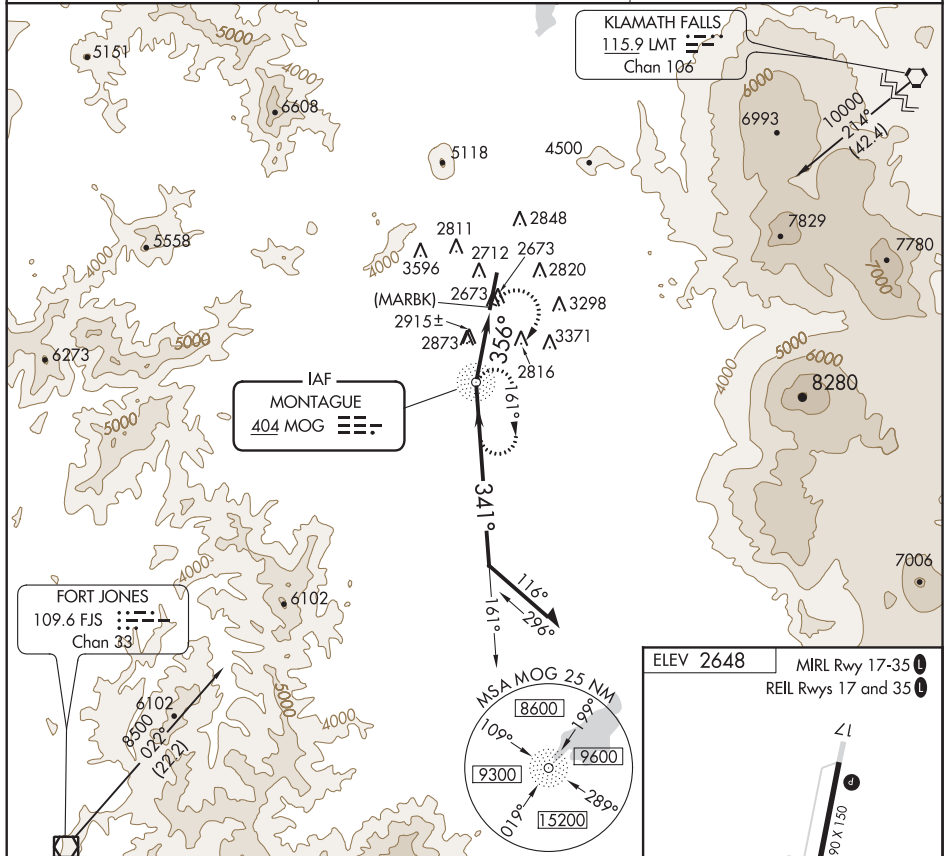
NDB or GPS-A

SISKIYOU COUNTY (SIY)

▼ Use Siskiyou County altimeter setting; when not available, use Montague-Yreka Rohrer Field altimeter setting; when neither received, procedure not authorized.

▲ NA MISSED APPROACH: Climbing right turn to 6800 direct MOG NDB and hold.

ASOS 121.125	SEATTLE CENTER 124.85 306.3	UNICOM 123.0 (CTAF)
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CATEGORY	A	B	C	D	FAF to MAP 2.7 NM					
CIRCLING	3760-1¼ 1112 (1200-1¼)	3760-1½ 1112 (1200-1½)	3760-3	1112 (1200-3)	Knots	60	90	120	150	180
					Min:Sec	2:42	1:48	1:21	1:05	0:54

MONTAGUE, CALIFORNIA
Amdt 7A 09JAN14

41°47'N-122°28'W

SISKIYOU COUNTY (SIY)

NDB or GPS-A

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-MRY	APP CRS	Rwy Idg	7000
110.7	098°	TDZE	198
Chan 44		Apt Elev	257

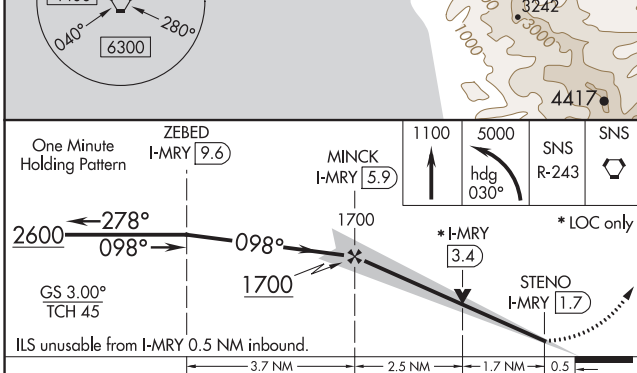
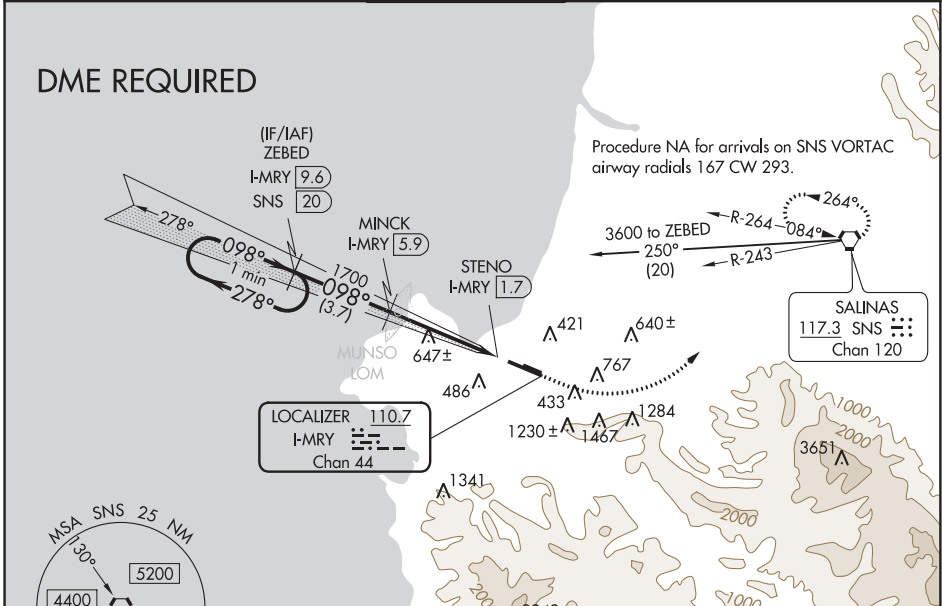
ILS or LOC RWY 10R

MONTEREY RGNL (MRY)

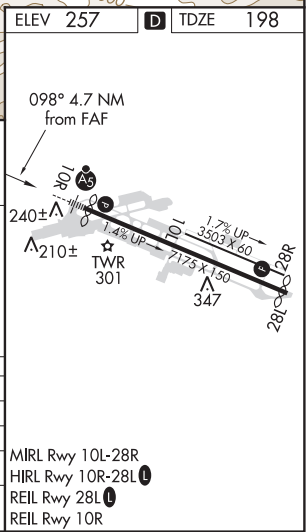
⚠ For inop MALS, increase S-ILS 10R visibility all Cats to 2½ and increase S-LOC 10R visibility Cat B to 1¼, Cat C/D to 2. DME required. Circling NA south of Rwy 10R-28L.
Missed approach requires minimum climb of 385 feet per NM to 1800.

MALS
AS
MISSED APPROACH: Climb to 1100 then climbing left turn to 5000 on heading 030° and on SNS VORTAC R-243 to SNS VORTAC and hold, continue climb-in-hold to 5000.

ATIS 119.25	NORCAL APP CON 133.0 251.15 (360°-150°) 127.15 307.125 (151°-359°)	MONTEREY TOWER * 118.4 (CTAF) 257.8	GND CON 120.875 348.6	CLNC DEL 135.45	UNICOM 122.95
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CATEGORY	A	B	C	D
S-ILS 10R		# 498/24	300 (300-½)	
S-ILS 10R		878-2	680 (700-2)	
S-LOC 10R	920/24	722 (700-½)	920-1½ 722 (700-1½)	
C CIRCLING	920-1	663 (700-1)	1280-3 1023 (1100-3)	1820-3 1563 (1600-3)



SW-2, 10 NOV 2016 to 05 JAN 2017


SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 69602 W10A	APP CRS 098°	Rwy Idg TDZE Apt Elev	7000 198 257
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RNAV (GPS) RWY 10R

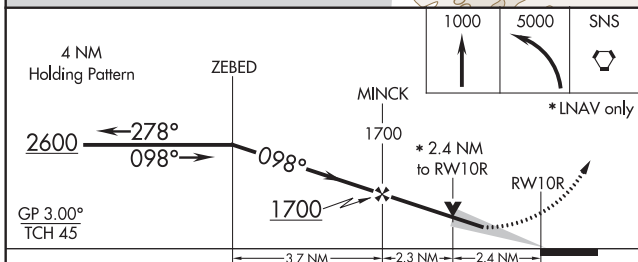
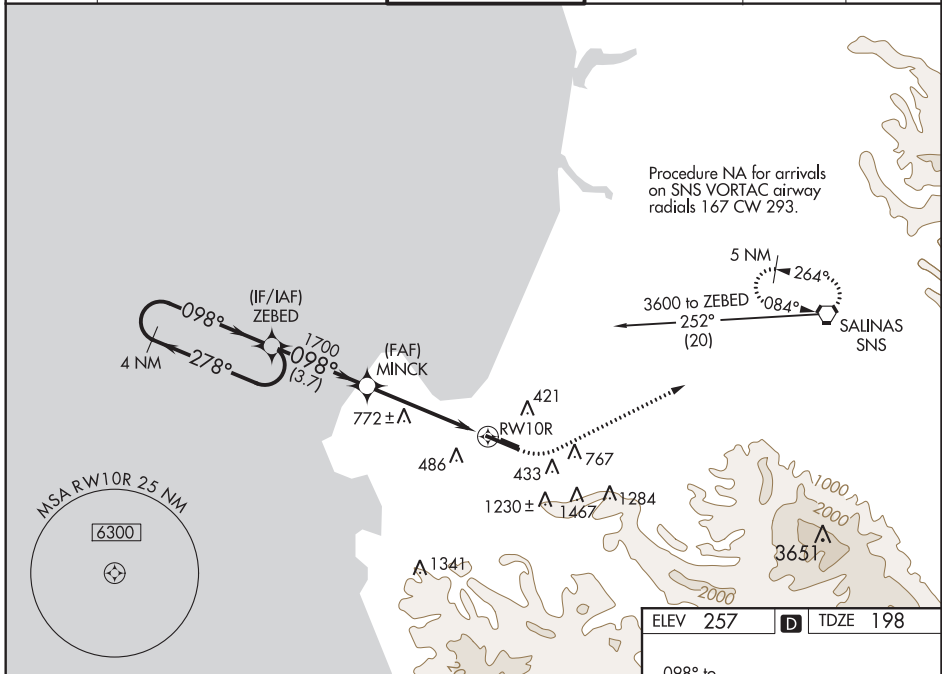
MONTEREY RGNL (MR Y)

⚠ DME/DME RNP-0.3 NA. Circling NA south of Rwy 10R-28L.
 For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 0°C (32°F) or above 54°C (130°F). For inop MALSRL, increase LPV visibility all Cats to 1½ mile, LNAV/VNAV visibility all Cats to 2½ miles, and LNAV Cat C/D visibility to 2½ miles.

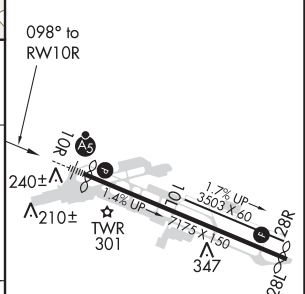
MALSRL 

MISSED APPROACH: Climb to 1000 then climbing left turn to 5000 direct SNS VORTAC and hold, continue climb-in-hold to 5000.

ATIS 119.25	NORCAL APP CON 133.0 251.15 (360°-150°) 127.15 307.125 (151°-359°)	MONTEREY TOWER ★ 118.4 (CTAF) 0 257.8	GND CON 120.875 348.6	CLNC DEL 135.45	UNICOM 122.95
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ELEV 257	D TDZE 198
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CATEGORY	A	B	C	D
LPV DA		718-1½	520 (500-1½)	
LNAV/VNAV DA		789-1¾	591 (600-1¾)	
LNAV MDA	980/24 782 (800-½)	980/40 782 (800-¾)	980-1¾	782 (800-1¾)
C CIRCLING	980-1 723 (800-1)	980-1¼	1280-3 1023 (1100-3)	1820-3 1563 (1600-3)

MIRL Rwy 10L-28R
 HIRL Rwy 10R-28L **Ⓛ**
 REIL Rwy 28L **Ⓛ**
 REIL Rwy 10R

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

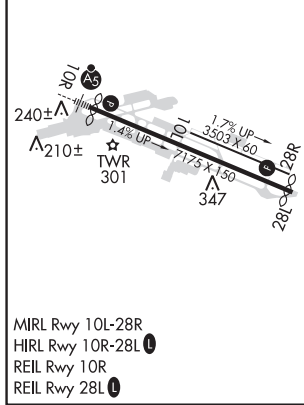
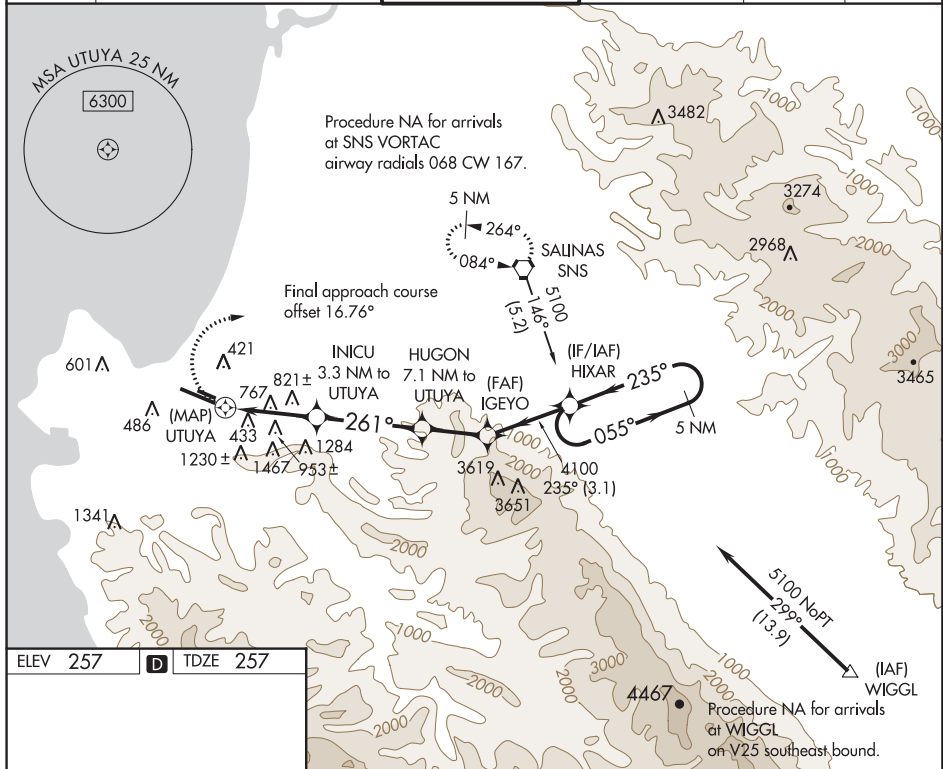
WAAS CH 61237 W28A	APP CRS 261°	Rwy Idg TDZE Apt Elev	7000 257 257
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RNAV (GPS) Y RWY 28L

MONTEREY RGNL (MR.Y)

⚠ Circling NA South of Rwy 28L-10R. DME/DME RNP-0.3 NA.
⚠ Helicopter visibility reduction below RVR 4000 NA.
MISSED APPROACH: Climbing right turn to 6000 direct SNS VORTAC and hold, continue climb-in-hold to 6000.

ATIS 119.25	NORCAL APP CON 133.0 251.15 127.15 307.125 (360°-150°) (151°-359°)	MONTEREY TOWER ★ 118.4 (CTAF) 0 257.8	GND CON 120.875 348.6	CLNC DEL 135.45	UNICOM 122.95
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ELEV 257	D	TDZE 257		
6000	SNS	HIXAR 5 NM Holding Pattern		
INICU 3.3 NM to UTUYA	HUGON 7.1 NM to UTUYA	IGEYO		
1.6 NM to UTUYA	UTUYA 1740	IGEYO 3200		
UTUYA	IGEYO 4100	HIXAR 5100		
0.4	1.6	1.7 NM		
3.8 NM	2.4 NM	3.1 NM		
CATEGORY	A	B	C	D
LP MDA	1080/55 823 (900-1¼)	1080/60 823 (900-1¼)	1080-2½ 823 (900-2½)	NA
LNAV MDA	1120/55 863 (900-1¼)	1120/60 863 (900-1¼)	1120-2½ 863 (900-2½)	NA
C CIRCLING	1120-1¼	863 (900-1¼)	1260-3 1003 (1100-3)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-MTB 110.7 Chan 44	APP CRS 278°	Rwy Idg TDZE 7000 245 Apt Elev 254
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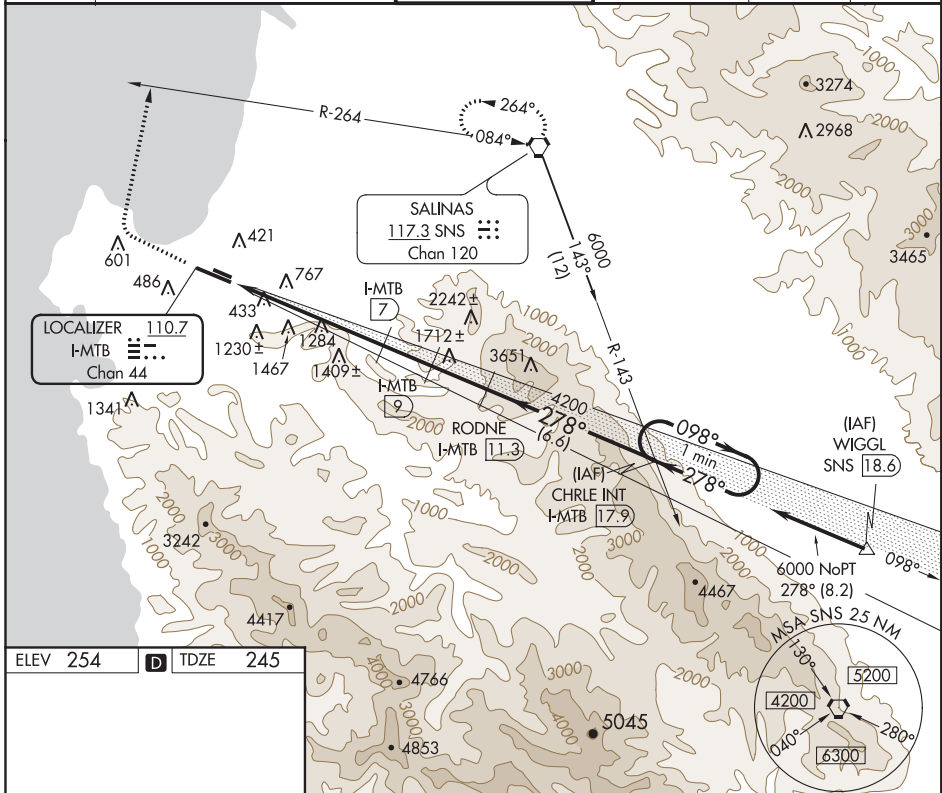
LOC/DME RWY 28L

MONTEREY RGNL (MR Y)

⚠ Circling NA south of Rwy 28L.
⚠ Procedure NA when control tower closed.

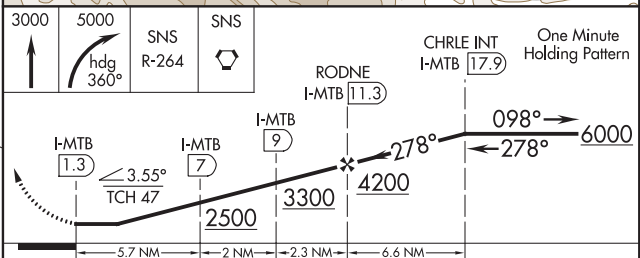
MISSED APPROACH: Climb straight ahead to 3000 then climbing right turn to 5000 via heading 360° and SNS R-264 to SNS VORTAC and hold.

ATIS 119.25	NORCAL APP CON 133.0 251.15 (360°-150°) 127.15 307.125 (151°-359°)	MONTEREY TOWER ★ 118.4 (CTAF) 0 257.8	GND CON 120.875 348.6	CLNC DEL 135.45	UNICOM 122.95
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ELEV 254	D	TDZE 245
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MIRL Rwy 10L-28R
HIRL Rwy 10R-28L
REIL Rwy 10R
REIL Rwy 28L



CATEGORY	A	B	C	D
S-28L	1660-1¼ 1415 (1500-1¼)	1660-1½ 1415 (1500-1½)	1660-3	1415 (1500-3)
CIRCLING	1660-1¼ 1406 (1500-1¼)	1660-1½ 1406 (1500-1½)	1660-3	1406 (1500-3)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

170
AL-271 (FAA)

Orig 16091

CARMEL VISUAL RWY 28L

MONTEREY RGNL (MRY)
MONTEREY, CALIFORNIA

ATIS 119.25
NORCAL APP CON
133.0 251.15 (360°-150°)
127.15 307.125 (151°-359°)
MONTEREY TOWER*
118.4 (CTAF) 257.8
GND CON
120.875 348.6
CLNC DEL
135.45
UNICOM
122.95

MONTEREY BAY

ROUTE 1

At or Above 3000

POINT PINOS



LOM
MUNSO
385 MR

10R
10L
28R
28L

At or Above 3000
until abeam airport on
left downwind Runway 28L

CARMEL BAY

ROUTE 1

CARMEL VALLEY ROAD

2249



PINYON PEAK

PALO
CORONA 3181



RADAR REQUIRED

Weather Minimums: 3500 feet
ceiling and 5 miles visibility.

Vertical Guidance Navaid
and Angle: VASI (V4L)-3.5°

1 NM	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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CARMEL VISUAL APPROACH RWY 28L
PROCEDURE NOT AUTHORIZED AT NIGHT

CARMEL VISUAL RWY 28L

MONTEREY, CALIFORNIA
MONTEREY RGNL (MRY)

Orig 30MAY91

36°35'N-121°51'W

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(MRY3.MRY) 16203

MONTEREY THREE DEPARTURE

SL-271 (FAA)

MONTEREY RGNL (MRY)
MONTEREY, CALIFORNIA

**TOP ALTITUDE:
7000**

ATIS 119.25
GND CON 120.875 348.6
CLNC DEL 135.45
MONTEREY TOWER * 118.4 257.8
NORCAL DEP CON 133.0 251.15 (360°-150°)
127.15 307.125 (151°-359°)

WOODSIDE
113.9 OSI
Chan 86
N37°23.55'-W122°16.88'
L-2-3, H-3

SAN JOSE
114.1 SJC
Chan 88
N37°22.48'-W121°56.68'
L-2-3

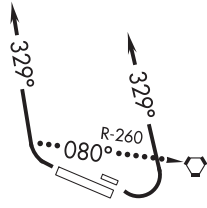
SALINAS
117.3 SNS
Chan 120
N36°39.83'-W121°36.19'
L-3, H-3

PANOCHÉ
112.6 PXN
Chan 73
N36°42.93'-W120°46.72'
L-3, H-3

BIG SUR
114.0 BSR
Chan 87
N36°10.88'-W121°38.53'
L-3, H-4

PASO ROBLES
114.3 PRB
Chan 90
N35°40.35'-W120°37.63'
L-3-7

AVENAL
117.1 AVE
Chan 118
N35°38.82'-W119°58.72'
L-3-7, H-4



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKEOFF MINIMUMS

- Rwy 10L: Standard with minimum climb of 449' per NM to 1800.
- Rwy 10R: Standard with minimum climb of 459' per NM to 1800.
- Rwy 28L: Standard with minimum climb of 218' per NM to 3300.
- Rwy 28R: Standard with minimum climb of 205' per NM to 3300.

(NARRATIVE ON FOLLOWING PAGE)
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

MONTEREY THREE DEPARTURE
(MRY3.MRY) 21JUL16

MONTEREY, CALIFORNIA
MONTEREY RGNL (MRY)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/R: Climbing left turn heading 329°. Thence. . . .

TAKEOFF RUNWAYS 28L/R: Climbing right turn heading 329°. Thence. . . .

. . . .all aircraft expect vectors to assigned route/fix. Altitude will be assigned by ATC. Maintain 7000 or assigned altitude. Expect clearance to filed altitude five minutes after departure.

LOST COMMUNICATIONS: If no transmissions received for one minute after departure, proceed on SNS R-260 to SNS VORTAC, then on assigned fix/route. Climb to 7000.

TAKEOFF OBSTACLE NOTES

- Rwy 10L: Navaid 556' from DER, 217' right of centerline, 20' AGL/272' MSL.
 Bushes beginning 1.6 NM from DER, 1188' left of centerline, up to 9' AGL/729' MSL.
 Trees beginning 1.7 NM from DER, 923' left of centerline, up to 102' AGL/764' MSL.
 Trees beginning 1.6 NM from DER, 1993' right of centerline, up to 90' AGL/923' MSL.
 Bushes beginning 1.9 NM from DER, 2497' right of centerline, up to 9' AGL/781' MSL.
 Tower 2 NM from DER, 3305' left of centerline, 27' AGL/767' MSL.
- Rwy 10R: Ground 11' from DER, 358' left of centerline, 258' MSL.
 Tree 230' from DER, 388' left of centerline 21' AGL/265' MSL.
 Navaid 240' from DER, 282' left of centerline, 20' AGL/272' MSL.
 Bushes beginning 1.5 NM from DER, 2381' left of centerline, up to 9' AGL/648' MSL.
 Trees beginning 1.7 NM from DER, 388' left of centerline, up to 76' AGL/629' MSL.
 Bushes beginning 1.8 NM from DER, 2005' right of centerline, up to 9' AGL/741' MSL.
 Trees beginning 1.5 NM from DER, 1749' right of centerline, up to 90' AGL/843' MSL.
- Rwy 28L: Terrain abeam DER, 198' left of centerline, up to 163' MSL.
 Trees beginning 797' from DER, 678' left of centerline, up to 83' AGL/228' MSL.
 Tree 1008' from DER, 616' left of centerline, 100' AGL/195' MSL.
 Pole 1128' from DER, 716' left of centerline, 54' AGL/195' MSL.
 Tree 1372' from DER, 755' left of centerline, 93' AGL/227' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017


(TOR07.TORO) 16203
TORO SEVEN DEPARTURE


SL-271 (FAA)


MONTEREY RGNL (MRY)
MONTEREY, CALIFORNIA


**TOP ALTITUDE:
7000**

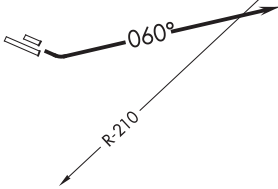
ATIS
119.25
GND CON
120.875 348.6
MONTEREY TOWER *
118.4 257.8
NORCAL DEP CON
133.0 251.15 (360°-150°)
127.15 307.125 (151°-359°)


WOODSIDE
113.9 OSI 
Chan 86
N37°23.55'-W122°16.88'
L-2-3, H-3


SAN JOSE
114.1 SJC 
Chan 88
N37°22.48'-W121°56.68'
L-2-3

SALINAS
117.3 SNS 
Chan 120
N36°39.83'-W121°36.19'
L-3, H-3

PANOCHÉ
112.6 PXN 
Chan 73
N36°42.93'-W120°46.72'
L-3, H-3




BIG SUR
114.0 BSR 
Chan 87
N36°10.88'-W121°38.53'
L-3, H-4

PASO ROBLES
114.3 PRB 
Chan 90
N35°40.35'-W120°37.63'
L-3-7

NOTE: Takeoff Rwy's 28L/R NA.

TAKEOFF MINIMUMS

Rwys 10L/R: Standard with minimum climb of 449' per NM to 4600.

AVENAL
117.1 AVE 
Chan 118
N35°38.82'-W119°58.72'
L-3-7, H-4

(NARRATIVE ON FOLLOWING PAGE)
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/R: Climbing left turn heading 060°. Expect vectors to filed route after passing SNS R-210. Maintain 7000 or assigned altitude. Expect clearance to filed altitude five minutes after departure.

LOST COMMUNICATIONS: If no transmissions are received within one minute after departure, climb direct SNS VORTAC, then via assigned fix/route. Maintain 7000.

TAKEOFF OBSTACLE NOTES

- Rwy 10L: Navaid 556' from DER, 217' right of centerline, 20' AGL/272' MSL.
 Bushes beginning 1.6 NM from DER, 1188' left of centerline, up to 9' AGL/729' MSL.
 Trees beginning 1.7 NM from DER, 923' left of centerline, up to 102' AGL/764' MSL.
 Trees beginning 1.6 NM from DER, 1993' right of centerline, up to 90' AGL/923' MSL.
 Bushes beginning 1.9 NM from DER, 2497' right of centerline, up to 9' AGL/781' MSL.
 Tower 2 NM from DER, 3305' left of centerline, 27' AGL/767' MSL.
- Rwy 10R: Ground 11' from DER, 358' left of centerline, 258' MSL.
 Tree 230' from DER, 388' left of centerline 21' AGL/265' MSL.
 Navaid 240' from DER, 282' left of centerline, 20' AGL/272' MSL.
 Bushes beginning 1.5 NM from DER, 2381' left of centerline, up to 9' AGL/648' MSL.
 Trees beginning 1.7 NM from DER, 388' left of centerline, up to 76' AGL/629' MSL.
 Bushes beginning 1.8 NM from DER, 2005' right of centerline, up to 9' AGL/741' MSL.
 Trees beginning 1.5 NM from DER, 1749' right of centerline, up to 90' AGL/843' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC I-NUQ 110.35	APP CRS 322°	Rwy ldg 9197 TDZE 31 Apt Elev 37
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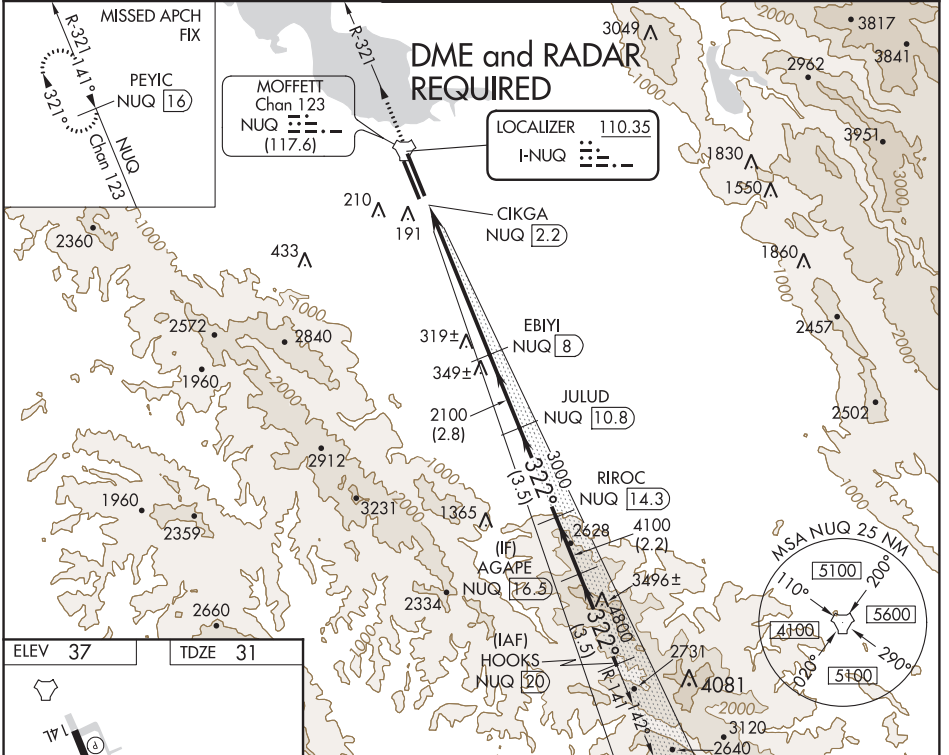
ILS OR LOC/DME RWY 32R

MOFFETT FEDERAL AFLD (NUQ)

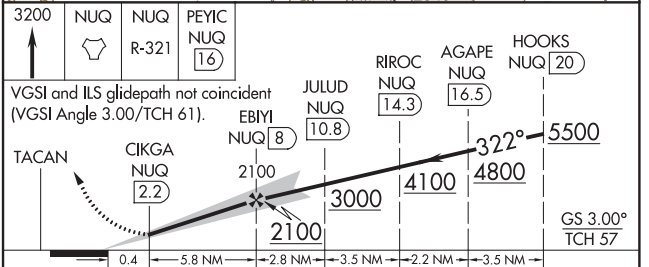
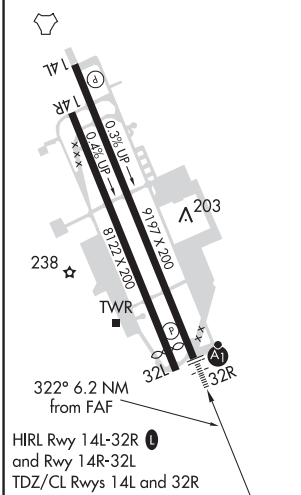
NA DME from NUQ TACAN. Simultaneous reception of I-NUQ and NUQ DME required. For inoperative ALSF, increase S-LOC 32R Cats A/B visibility to RVR 5000 and Cat E to 2. Inoperative table does not apply to S-ILS 32R. TACAN required. Circling to Rwy 32L NA at night. Helicopter visibility reduction below RVR 4000 NA.

ALSF-1 MISSED APPROACH: Climb to 3200 via NUQ TACAN and NUQ R-321 to PEYIC/NUQ 16 DME and hold.

ATIS 124.175 283.0	NORCAL APP CON 120.1 290.25	MOFFETT TOWER * 119.55 (CTAF) 259.65	GND CON 121.85 278.95	CLNC DEL 296.75
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ELEV 37	TDZE 31
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CATEGORY	A	B	C	D	E
S-ILS 32R	281/40 250 (300-¾)				
S-LOC 32R	580/40	549 (600-¾)	580/50 549 (600-1)	580/60 549 (600-1¼)	580-1½ 549 (600-1½)
CIRCLING	580-1	543 (600-1)	600-1½ 563 (600-1½)	620-2 583 (600-2)	840-2¾ 803 (900-2¾)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC I-MNQ 110.35	APP CRS 142°	Rwy ldg TDZE Apt Elev	9197 5 37
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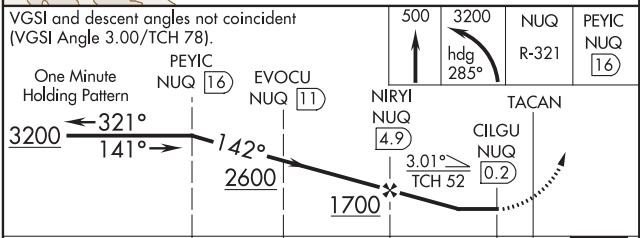
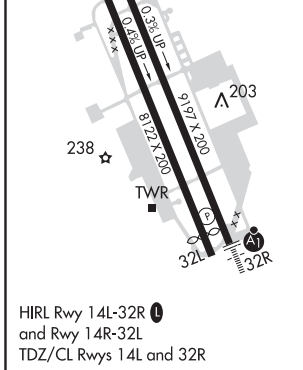
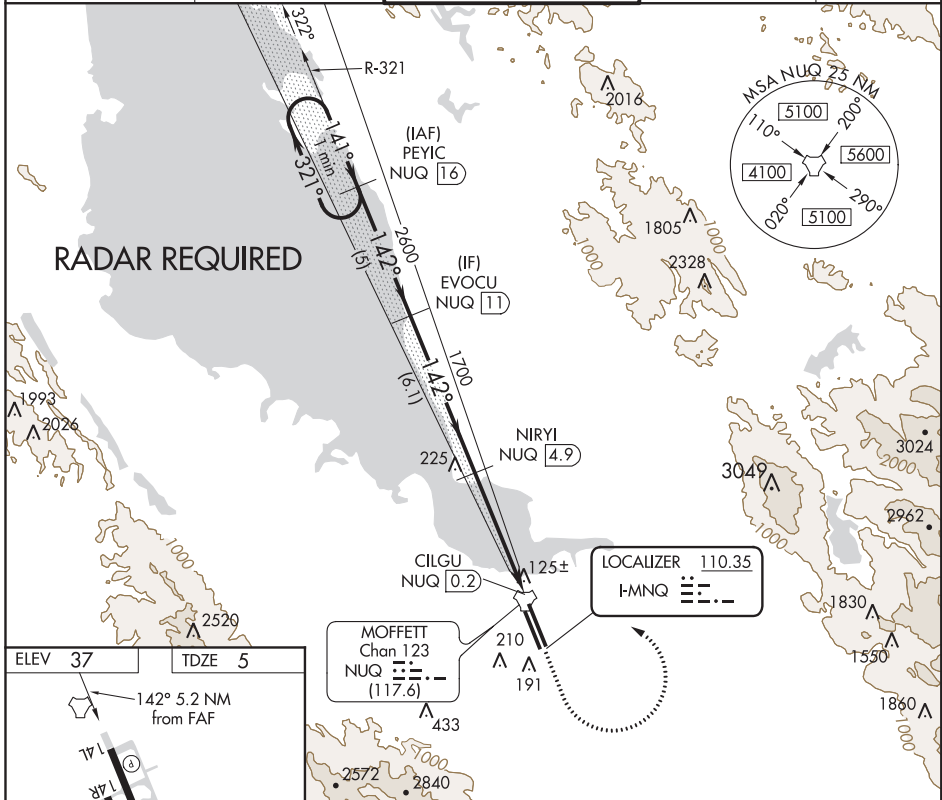
LOC/DME RWY 14L

MOFFETT FEDERAL AFLD (NUQ)

NA DME from NUQ TACAN. Simultaneous reception of I-MNQ and NUQ DME required. TACAN required. Circling to Rwy 32L NA at night.

MISSED APPROACH: Climb to 500 then climbing left turn to 3200 via heading 285° and NUQ R-321 to PEYIC NUQ 16 DME and hold.

ATIS 124.175 283.0	NORCAL APP CON 120.1 290.25	MOFFETT TOWER ★ 119.55 (CTAF) 259.65	GND CON 121.85 278.95	CLNC DEL 296.75
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CATEGORY	A	B	C	D
S-LOC 14L	380-1	375 (400-1)		380-1½ 375 (400-1½)
CIRCLING	540-1	503 (600-1)	600-1½ 563 (600-1½)	620-2 583 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TACAN NUQ Chan 123	APP CRS 321°	Rwy ldg TDZE 36	Rwy Elev 36
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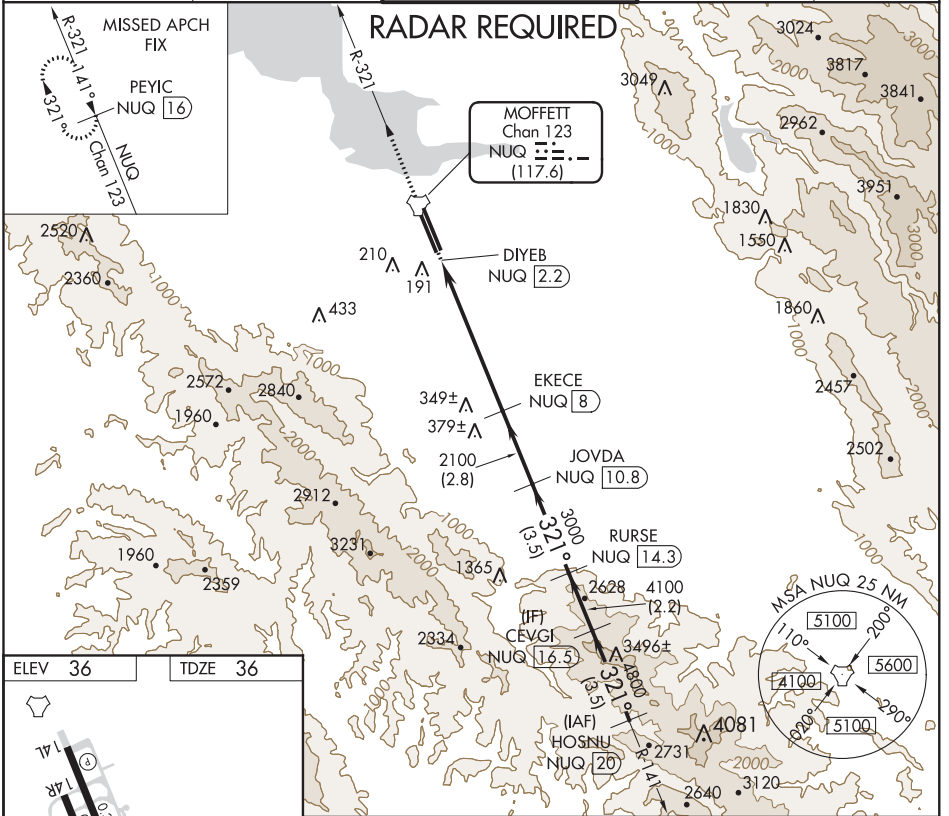
TACAN RWY 32L

MOFFETT FEDERAL AFLD (NUQ)

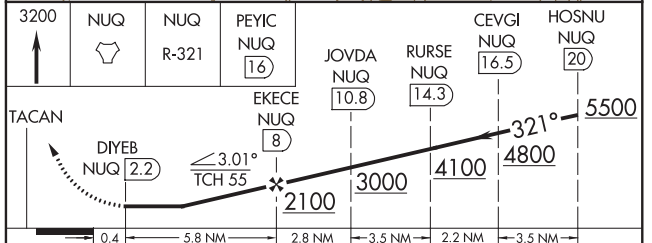
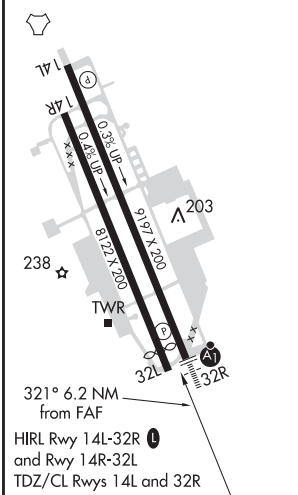
NA Procedure NA at night. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 3200 via NUQ TACAN and NUQ R-321 to PEYIC/16 DME and hold.

ATIS 124.175 283.0	NORCAL APP CON 120.1 290.25	MOFFETT TOWER ★ 119.55 (CTAF) 259.65	GND CON 121.85 278.95	CLNC DEL 296.75
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ELEV 36	TDZE 36
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CATEGORY	A	B	C	D	E
S-32L	620-1	584 (600-1)	620-1½ 584 (600-1½)	620-1¾ 584 (600-2)	620-2 584 (600-2)
CIRCLING	620-1	583 (600-1)	620-1½ 583 (600-1½)	620-2 583 (600-2)	840-2¾ 803 (900-2¾)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TACAN NUQ Chan 123	APP CRS 321°	Rwy Idg TDZE Apt Elev	9197 31 37
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TACAN RWY 32R

MOFFETT FEDERAL AFLD (NUQ)

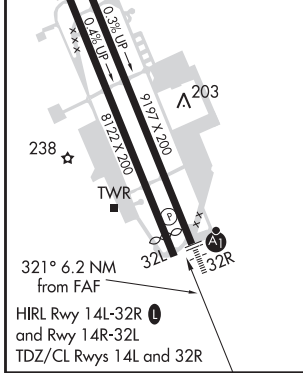
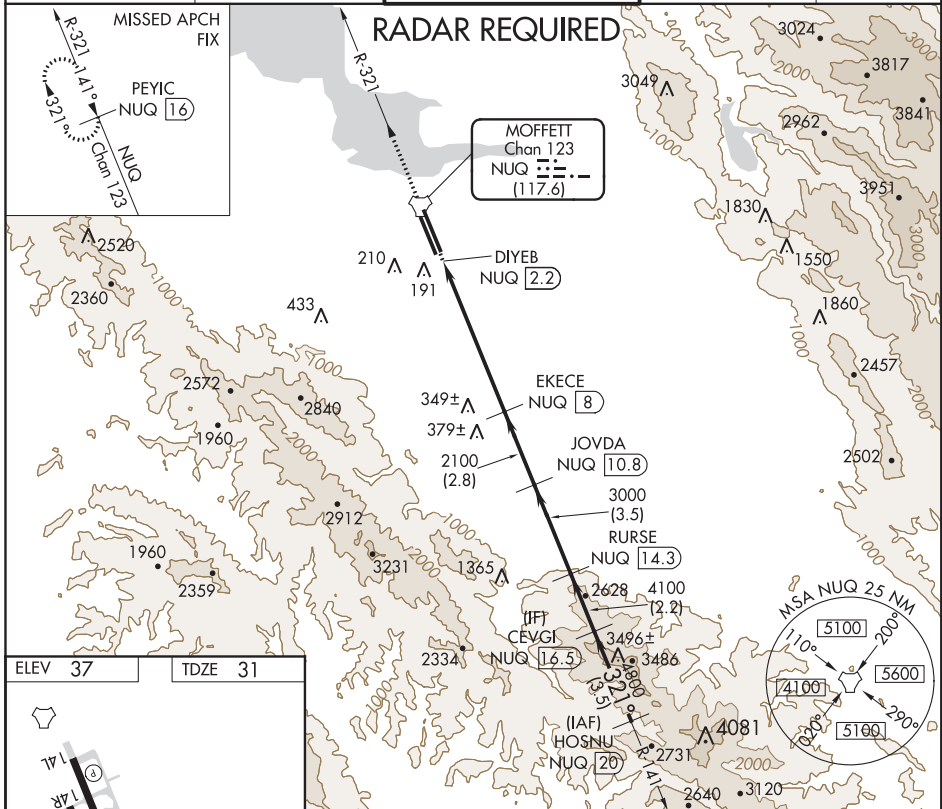
▲ For inoperative ALSF, increase S-32R Cats A/B visibility to RVR 5000 and Cat E to 2. Circling to Rwy 32L NA at night. Helicopter visibility reduction below RVR 4000 NA.

▲ NA

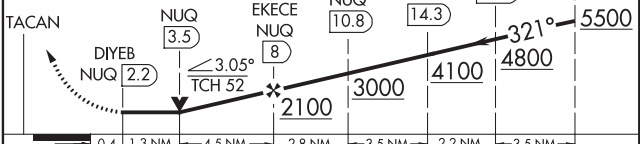
ALSF-1

MISSED APPROACH: Climb to 3200 via NUQ TACAN and NUQ R-321 to PEYIC/16 DME and hold.

ATIS 124.175 283.0	NORCAL APP CON 120.1 290.25	MOFFETT TOWER ★ 119.55 (CTAF) 259.65	GND CON 121.85 278.95	CLNC DEL 296.75
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3200	NUQ	NUQ	PEYIC	VGS1 and descent angles not coincident (VGS1 Angle 3.00/TCH 61).
↑	NUQ	R-321	NUQ	CEVGI HOSNU
			16	NUQ 20



CATEGORY	A	B	C	D	E
S-32R	620/40	589 (600-34)	620/50 589 (600-1)	620/60 589 (600-1½)	620-1½ 589 (600-1½)
CIRCLING	620-1	583 (600-1)	620-1½ 583 (600-1½)	620-2 583 (600-2)	840-2¾ 803 (900-2¾)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

MOFFETT FEDERAL AIRFIELD (NUQ)
MOUNTAIN VIEW, CALIFORNIA

AL-410 (FAA)

ATIS
124.175 283.0
MOFFETT TOWER ★
119.55 259.65
GND CON
121.85 278.95
CLNC DEL
296.75

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

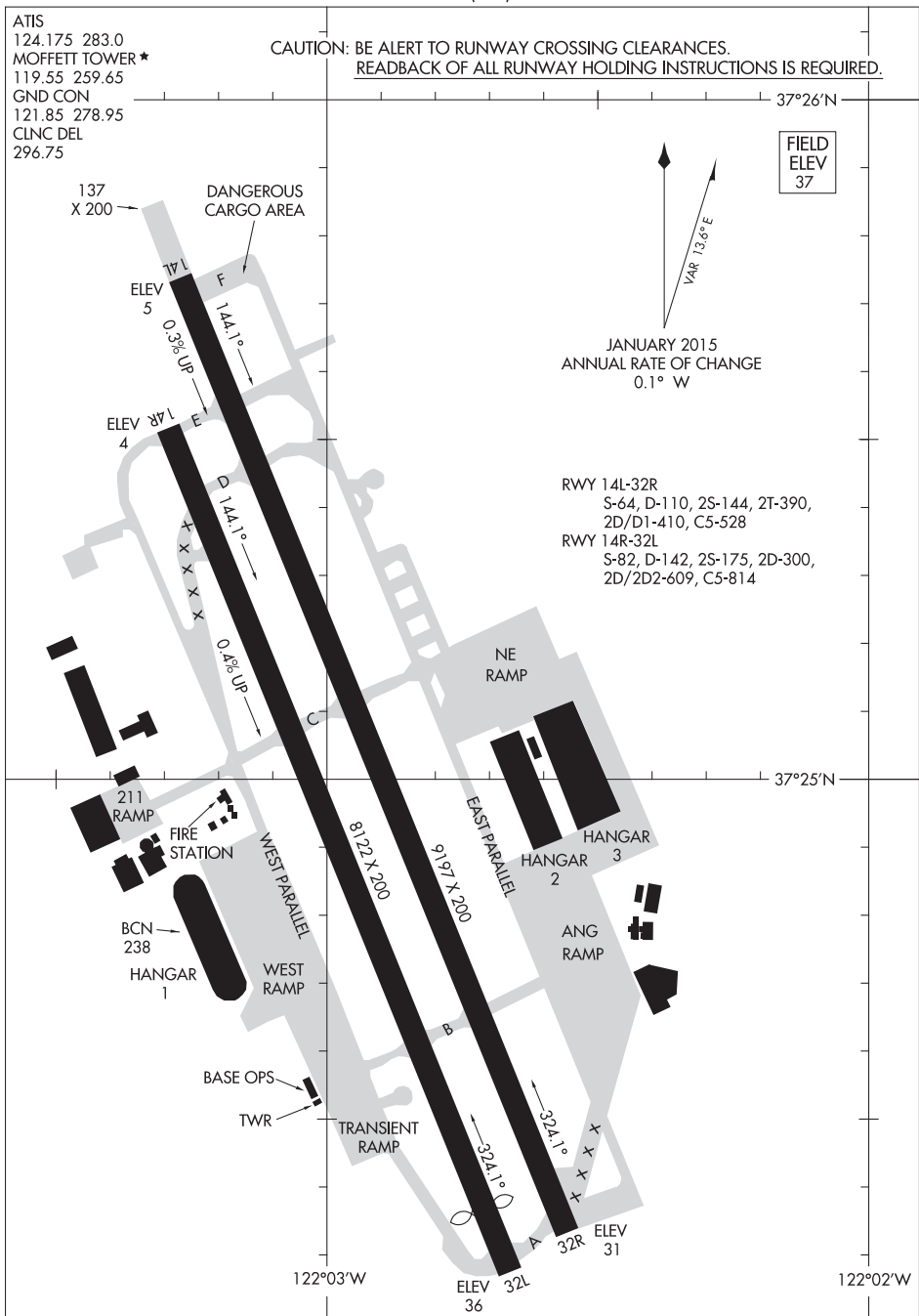
FIELD
ELEV
37

JANUARY 2015
ANNUAL RATE OF CHANGE
0.1° W

RWY 14L-32R
S-64, D-110, 2S-144, 2T-390,
2D/D1-410, C5-528
RWY 14R-32L
S-82, D-142, 2S-175, 2D-300,
2D/2D2-609, C5-814

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



AIRPORT DIAGRAM

MOUNTAIN VIEW, CALIFORNIA
MOFFETT FEDERAL AIRFIELD (NUQ)

HOOKS TWO DEPARTURE

SL-410 (FAA)

MOFFETT FEDERAL AFLD (NUQ)
MOUNTAIN VIEW, CALIFORNIA

ATIS
124.175 283.0
CLNC DEL
296.75
GND CON
121.85 278.95
MOFFETT TOWER*
119.55 (CTAF) 259.65
NORCAL DEP CON
120.1 290.25

**TOP ALTITUDE:
ASSIGNED BY ATC**

TAKEOFF OBSTACLES NOTES:

Rwy 14L: Light support structures 13' from DER, 126' right of centerline, up to 4' AGL/34' MSL. Vehicles on road beginning 770' from DER, 547' right of centerline, 15' AGL/53' MSL. Rail car on railroad beginning 774' from DER, 261' right of centerline, up to 23' AGL/60' MSL. Trees beginning 1191' from DER, 71' right of centerline, up to 100' AGL/171' MSL. Trees beginning 1922' from DER, 109' left of centerline, up to 100' AGL/ 153' MSL.

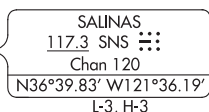
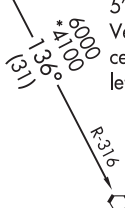
Rwy 14R: Light support structures abeam DER, 77' right and 77' left of centerline, up to 3' AGL/ 37' MSL. Fence, 187' from DER, 488' right of centerline, up to 8' AGL/45' MSL. Vehicles on road beginning 207' from DER, 520' right of centerline, 15' AGL/ 55' MSL. Rail car on railroad beginning 955' from DER, 342' left of centerline, up to 23' AGL/60' MSL. Trees beginning 1066' from DER, 34' left of centerline, up to 100' AGL/153' MSL.

Rwy 32L: Light support structures abeam DER, 76' left and 76' right of centerline, up to 1' AGL/5' MSL. Navaid 449' from DER, 315' right of centerline, up to 17' AGL/21' MSL. Tree 1632' from DER, 934' left of centerline, up to 100' AGL/129' MSL.

Rwy 32R: Light support structures abeam DER, 76' left and 76' right of centerline, up to 3' AGL/7 MSL. Vehicles on road beginning 5' from DER, 92' left of centerline, up to 15' AGL/20' MSL. Vehicles on road beginning 512' from DER, 158' right of centerline, up to 15' AGL/20' MSL. Fence 134' from DER, left and right of centerline, up to 8' AGL/12' MSL.



HOOKS
N37°07.43'
W121°53.91'
6000



NOTE: TACAN required.

TAKEOFF MINIMUMS

Rwy 14R/L: Standard with the following minimum climb gradients:

Rwy 14R: Obstacle climb of 314' per NM to 4900, ATC climb of 332' per NM to 6000.

Rwy 14L: Obstacle climb of 314' per NM to 4900, ATC climb of 328' per NM to 6000.

Rwy 32R/L: NA, ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 14L/R: Climb via NUQ R-141 to cross HOOKS/NUQ 20 DME at 6000, thence

. . . . via (transition).

VALLEY TRANSITION (HOOKS2.SNS): From over HOOKS DME on SNS R-316 to SNS VORTAC.

HOOKS TWO DEPARTURE

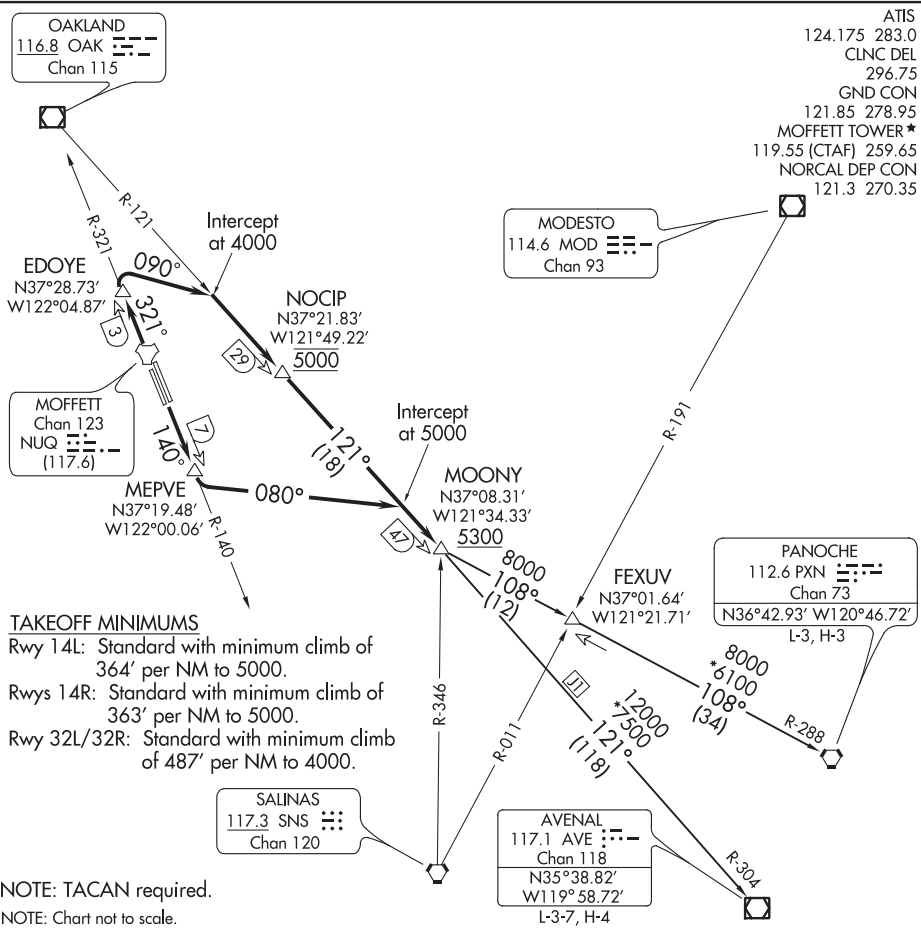
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SOUTHLAND TWO DEPARTURE

SL-410 (FAA)

MOFFETT FEDERAL AFLD (NUQ)
MOUNTAIN VIEW, CALIFORNIA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 14L/14R: Climb via NUQ R-140 to MEPEVE/NUQ 7 DME, then climbing left turn via heading 080° to intercept OAK R-121 at 5000, then via OAK R-121 to MOONY INT, thence

TAKEOFF RUNWAYS 32L/32R: Climb via NUQ R-321 to EDOYE/NUQ 3 DME, then climbing right turn via heading 090° to intercept OAK R-121 at 4000, then via OAK R-121 to cross NOCIP/OAK 29 DME at 5000, then via OAK R-121 to MOONY INT, thence cross MOONY INT at/above 5300, then via (Transition).

AVENAL TRANSITION (SOLN2.AVE): From over MOONY INT on OAK R-121 and AVE R-304 to AVE VOR/DME.

PANOICHE TRANSITION (SOLN2.PXN): From over MOONY INT on PXN R-288 to PXN VORTAC.

SOUTHLAND TWO DEPARTURE

SL-410 (FAA)

MOFFETT FEDERAL AFLD (NTUQ)
MOUNTAIN VIEW, CALIFORNIA

TAKEOFF OBSTACLE NOTES

Rwy 32R: Light support structures abeam DER, 76' left and 76' right of centerline, up to 3' AGL/7' MSL.

Vehicles on road beginning 5' from DER, 92' left of centerline, up to 15' AGL/20' MSL.

Vehicles on road beginning 512' from DER, 158' right of centerline, up to 15' AGL/20' MSL.

Fence 134' from DER, left and right of centerline, up to 8' AGL/12' MSL.

Rwy 32L: Light support structures abeam, 76' left and 76' right of centerline, up to 1' AGL/5' MSL.

Navaid 449' from DER 315' right of centerline, up to 17' AGL/21' MSL.

Tree 1632' from DER, 934' left of centerline, up to 100' AGL/129' MSL.

Rwy 14L: Light support structure 13' from DER, 126' right of centerline, up to 4' AGL/34' MSL.

Vehicles on road beginning 770' from DER, 547' right of centerline, 15' AGL/53' MSL.

Rail car on railroad beginning 774' from DER, 261' right of centerline, up to 23' AGL/60' MSL.

Trees beginning 1191' from DER, 71' right of centerline, up to 100' AGL/171' MSL.

Trees beginning 1922' from DER, 109' left of centerline, up to 100' AGL/153' MSL.

Rwy 14R: Light support structures abeam DER, 77' right and 77' left of centerline, up to 3' AGL/37' MSL.

Fence 187' from DER, 488' right of centerline, up to 8' AGL/45' MSL.

Vehicles on road beginning 207' from DER, 520' right of centerline, 15' AGL/55' MSL.

Rail car on railroad beginning 955' from DER, 342' left of centerline, up to 23' AGL/60' MSL.

Trees beginning 1066' from DER, 34' left of centerline, up to 100' AGL/153' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SOUTHLAND TWO DEPARTURE


(OSI2.OSI) 16259

WOODSIDE TWO DEPARTURE

MOUNTAIN VIEW/ MOFFETT FEDERAL AFLD (NUQ)
SL-410 (FAA) MOUNTAIN VIEW, CALIFORNIA

ATIS
124.175 283.0
CLNC DEL
296.75
GND CON
121.85 278.95
MOFFETT TOWER*
119.55 (CTAF) 259.65
NORCAL DEP CON
121.3 270.35

**TOP ALTITUDE:
ASSIGNED BY ATC**

WOODSIDE
113.9 OSI  ---
Chan 86
N37°23.55' - W122°16.88'
L-2-3, H-3

NOTE: TACAN required.
NOTE: Chart not to scale.

Rwys 14L/R: 5000
Rwys 32L/R: 4000

TAKEOFF MINIMUMS

Rwy 14L/R: Standard with minimum climb of 402' per NM to 5000.
Rwy 32R: Standard with minimum climb of 250' per NM to 4000.
Rwy 32L: Standard with minimum climb of 246' per NM to 4000.

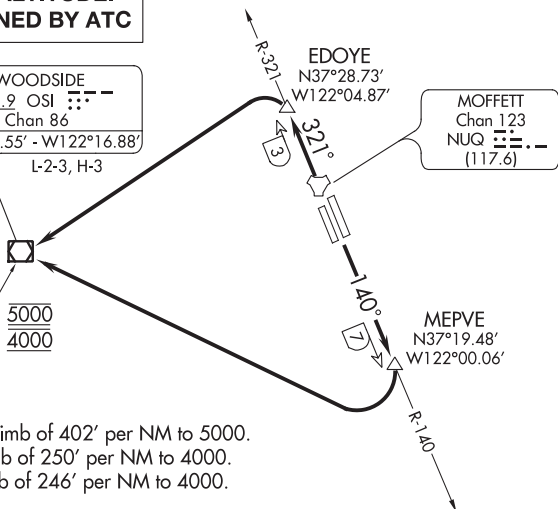
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 14L/R: Climb via NUQ R-140 to MEPVE/NUQ 7 DME, then right turn direct to cross OSI VOR/DME at 5000, thence

TAKEOFF RUNWAYS 32L/R: Climb via NUQ R-321 to EDOYE/NUQ 3 DME, then turn left direct to cross OSI VOR/DME at 4000, thence
. . . . via RADAR vectors or assigned route.

TAKEOFF OBSTACLES

- Rwy 14L: Light support structure 13' from DER, 126' right of centerline, up to 4' AGL/34' MSL. Vehicles on road beginning 770' from DER, 547' right of centerline, 15' AGL/53' MSL. Rail car on railroad beginning 774' from DER, 261' right of centerline, up to 23' AGL/ 60' MSL. Trees beginning 1191' from DER, 71' right of centerline, up to 100' AGL/171' MSL. Trees beginning 1922' from DER, 109' left of centerline, up to 100' AGL/ 153' MSL.
- Rwy 14R: Light support structures abeam DER, 77' right and 77' left of centerline, up to 3' AGL/37' MSL. Fence, 187' from DER, 488' right of centerline, up to 8' AGL/45' MSL. Vehicles on road beginning 207' from DER, 520' right of centerline, 15' AGL/ 55' MSL. Rail car on railroad beginning 955' from DER, 342' left of centerline, up to 23' AGL/60' MSL. Trees beginning 1066' from DER, 34' left of centerline, up to 100' AGL/153' MSL.
- Rwy 32L: Light support structures abeam DER, 76' left and 76' right of centerline, up to 1' AGL/ 5' MSL. Navaid 449' from DER, 315' right of centerline, up to 17' AGL/ 21' MSL. Tree 1632' from DER, 934' left of centerline, up to 100' AGL/ 129' MSL.
- Rwy 32R: Light support structures abeam DER, 76' left and 76' right of centerline, up to 3' AGL/ 7' MSL. Vehicles on road beginning 5' from DER, 92' left of centerline, up to 15' AGL/ 20' MSL. Vehicles on road beginning 512' from DER, 158' right of centerline, up to 15' AGL/ 20' MSL. Fence 134' from DER, left and right of centerline, up to 8' AGL/ 12' MSL.



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WOODSIDE TWO DEPARTURE

(OSI2.OSI) 15SEP16


MOUNTAIN VIEW, CALIFORNIA
MOUNTAIN VIEW/ MOFFETT FEDERAL AFLD (NUQ)

LOC/DME I-APC 111.3 Chan 50	APP CRS 006°	Rwy Idg 5930	TDZE 17
		Apr Elev 35	

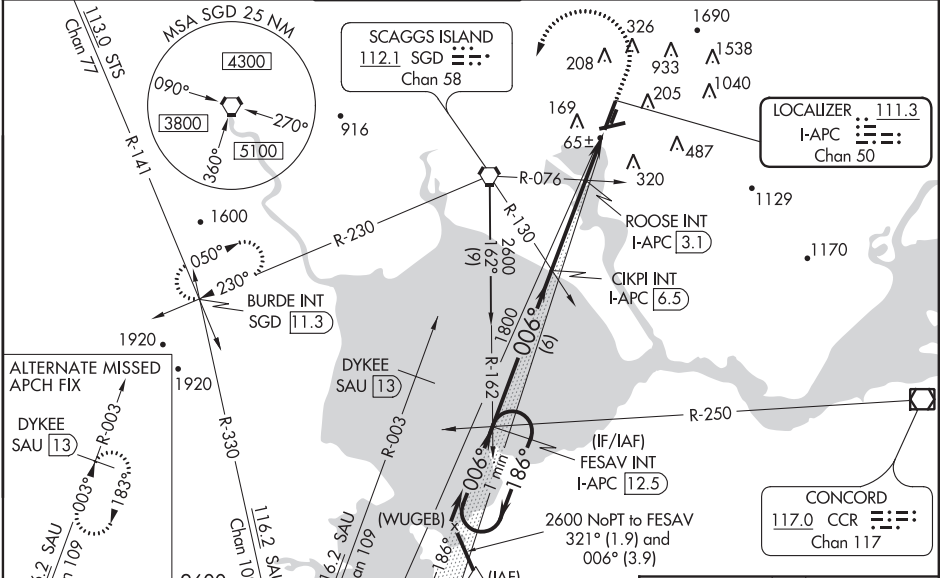
ILS or LOC RWY 36L

NAPA COUNTY (APC)

⚠ When local altimeter setting not received, use Concord altimeter setting and increase all DA 41 feet; increase all MDA 60 feet and visibility Circling Cat B ¼ mile and; increase ROOSE fix minimums S-L 36L visibility Cats C and D ¼ mile, Circling Cat B ¼ mile. VDP NA when using Concord altimeter setting. For inoperative MALS, increase S-LOC Cats C and D visibility ½ mile; increase ROOSE fix S-LOC Cats C and D visibility ¾ mile. When using Concord altimeter setting; for inoperative MALS, increase ROOSE fix S-LOC Cats C and D visibility ½ mile. Autopilot coupled approach NA below 530. Night Landing: Rwy 6 NA.

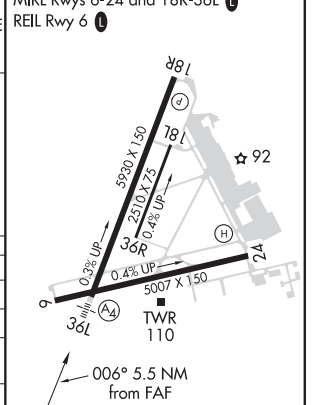
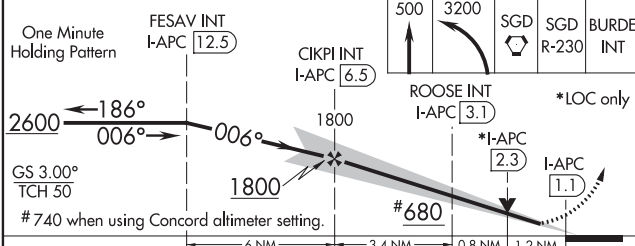
MALS

MISSED APPROACH:
 Climb to 500 then climbing left turn to 3200 direct SGD VORTAC then on SGD R-230 to BURDE INT SGD 11.3 DME and hold.

ATIS 124.05	OAKLAND CENTER 127.8 353.5	NAPA TOWER ★ 118.7 (CTAF) 257.8	GND CON 121.7	CLNC DEL 127.85	UNICOM 122.95
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ELEV 35	TDZE 17
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MIRL Rwy 6-24 and 18R-36L
 REIL Rwy 6



CATEGORY	A	B	C	D
S-ILS 36L		217-¾	200 (200-¾)	
S-LOC 36L	680-¾	663 (700-¾)	680-1¾	663 (700-1¾)
CIRCLING	700-1 665 (700-1)	820-1 785 (800-1)	920-2¾ 885 (900-2¾)	1180-3 1145 (1200-3)
ROOSE FIX MINIMUMS (DUAL VOR RECEIVERS OR DME REQUIRED)				
S-LOC 36L	460-¾	443 (500-¾)	460-1	443 (500-1)
CIRCLING	700-1 665 (700-1)	820-1 785 (800-1)	920-2¾ 885 (900-2¾)	1180-3 1145 (1200-3)

FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	5007
062°	TDZE	19
	Apt Elev	33

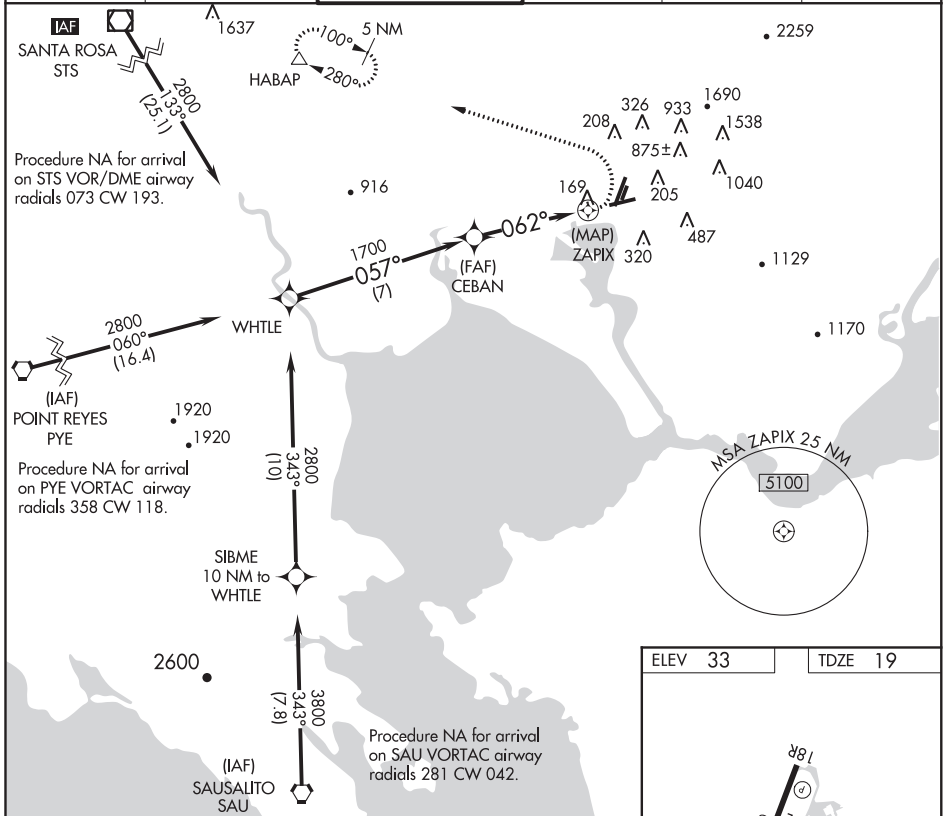
RNAV (GPS) RWY 6

NAPA COUNTY (APC)

NA Circling NA northeast of Rwys 18R and 24.
IAF ARM APPROACH MODE PRIOR TO IAF.
 GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climbing left turn to 3800 direct HABAP and hold.

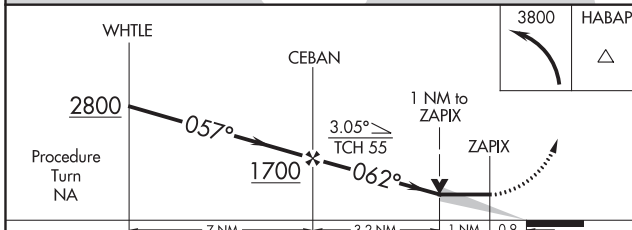
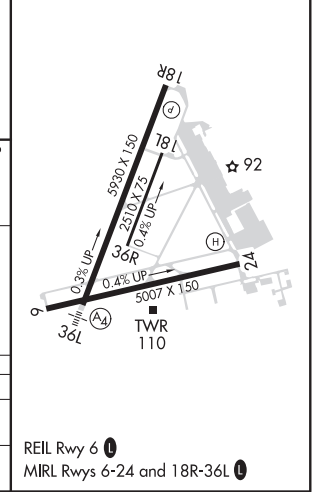
ATIS 124.05	OAKLAND CENTER 127.8 353.5	NAPA TOWER ★ 118.7 (CTAF) 257.8	GND CON 121.7	CLNC DEL 127.85	UNICOM 122.95
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 33	TDZE 19
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CATEGORY	A	B	C	D
LNVA MDA	660-1 641 (700-1)		660-1¼ 641 (700-1¼)	660-2 641 (700-2)
CIRCLING	660-1 627 (700-1)		720-2 687 (700-2)	1240-3 1207 (1300-3)

WAAS CH 56613 W36A	APP CRS 006°	Rwy Idg 5930 TDZE 17 Apt Elev 35
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RNAV (GPS) Y RWY 36L

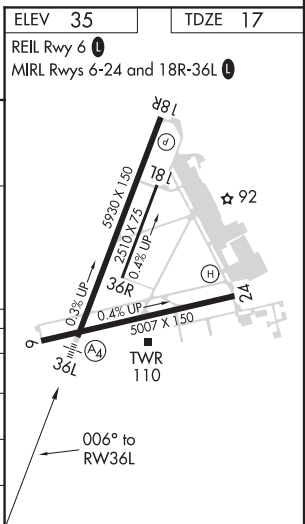
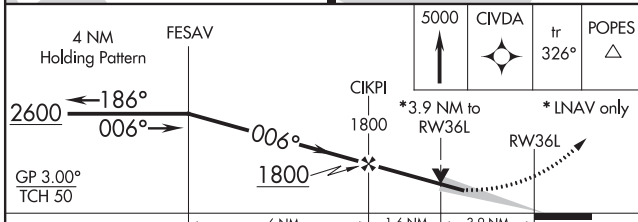
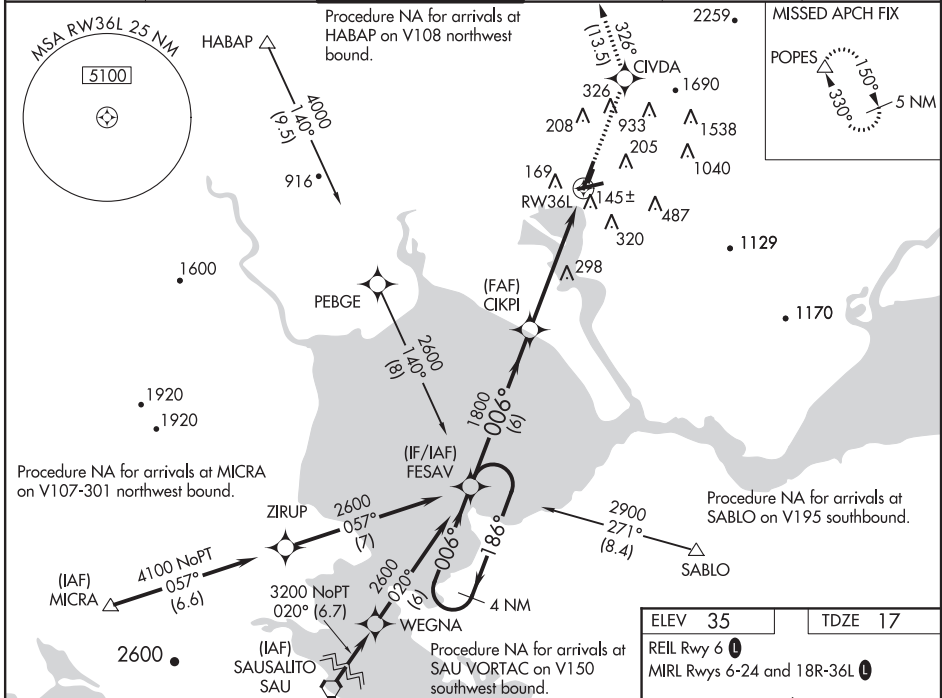
NAPA COUNTY (APC)

⚠ Inoperative table does not apply. 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 Concord altimeter setting and increase all DA 41 feet, all MDA 60 feet. VDP and Baro-VNAV NA when using Concord altimeter setting. Night Landing: Rwy 6 NA.

MALS

MISSED APPROACH: Climb to 5000 direct CIVDA and on track 326° to POPES and hold, continue climb-in-hold to 5000.

ATIS 124.05	OAKLAND CENTER 127.8 353.5	NAPA TOWER ★ 118.7 (CTAF) 0 257.8	GND CON 121.7	CLNC DEL 127.85	UNICOM 122.95
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CATEGORY	A	B	C	D
LPV DA		1249-5	1232 (1300-5)	
LNAV/VNAV DA		1042-4	1025 (1100-4)	
LNAV MDA	1300-1¼	1283 (1300-1¼)	1300-3	1283 (1300-3)
CIRCLING	1300-1¼ 1265 (1300-1¼)	1300-1½ 1265 (1300-1½)	1300-3	1265 (1300-3)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

RNAV (GPS) Z RWY 36L

NAPA COUNTY (APC)

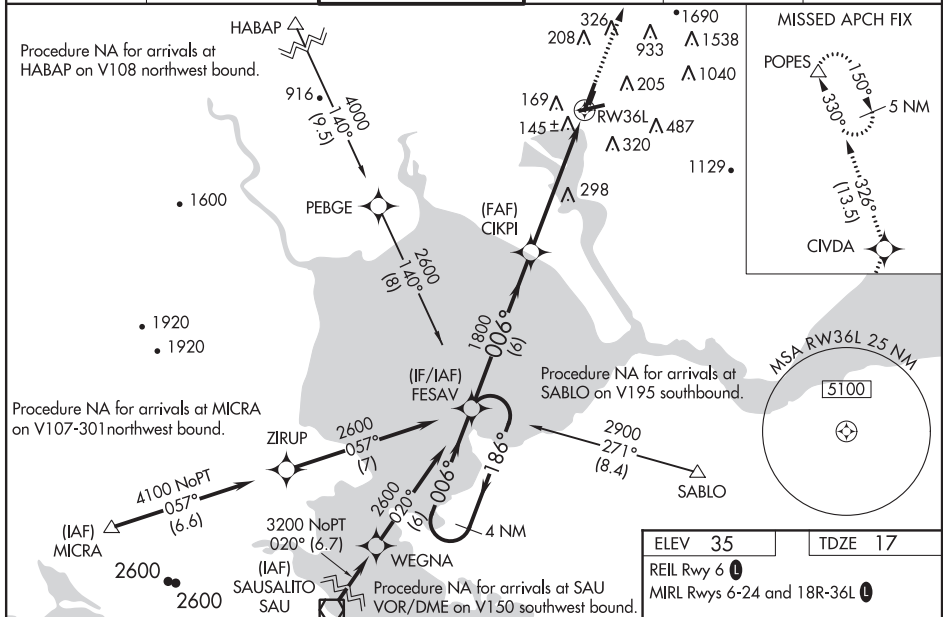
WAAS CH 40313 W36B	APP CRS 006°	Rwy Idg 5930 TDZE 17 Apt Elev 35
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▽ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 43°C (109°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Concord altimeter setting and increase all DA 41 feet, all MDA 60 feet, and increase visibility LNAV/VNAV all Cats ½ mile and LNAV Cats C/D and Circling Cat C ¼ mile. VDP and Baro-VNAV NA when using Concord altimeter setting. For inop MALS, increase visibility LNAV/VNAV Cat D ¼ mile and LNAV Cats C/D ⅓ mile. For inop MALS when using Concord altimeter setting, increase visibility LPV all Cats ½ mile, LNAV/VNAV all Cats ⅓ mile, and LNAV Cat D ¼ mile. Missed approach requires minimum climb of 480 feet per NM to 2200. If unable to meet climb gradient see RNAV (GPS) Y RWY 36L.

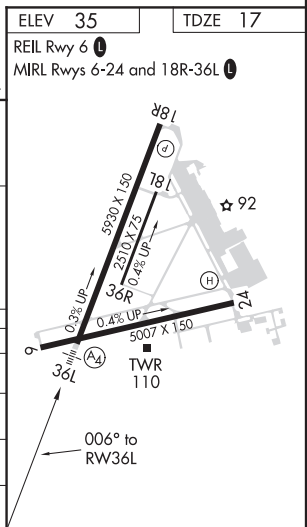


MISSED APPROACH:
Climb to 5000 direct CIVDA and on track 326° to POPES and hold, continue climb-in-hold to 5000.

ATIS 124.05	OAKLAND CENTER 127.8 353.5	NAPA TOWER ★ 118.7 (CTAF) 0257.8	GND CON 121.7	CLNC DEL 127.85	UNICOM 122.95
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4 NM Holding Pattern		FESAV	5000 CIVDA	tr 326°	POPES
2600 ← 186°		→ 006°	1800	*1.7 NM to RWY36L	*LNAV only
GP 3.00° TCH 50		1800	1800	1800	1800
		6 NM	3.8 NM	1.7 NM	
CATEGORY	A	B	C	D	
LPV DA		267-¾	250 (300-¾)		
LNAV/VNAV DA		372-⅞	355 (400-⅞)		
LNAV MDA	600-¾	583 (600-¾)	600-1⅜	583 (600-1⅜)	
CIRCLING	NA				



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

VORTAC	SGD	APP CRS	Rwy Idg	5007
112.1		050°	TDZE	21
Chan 58			Apr Elev	35

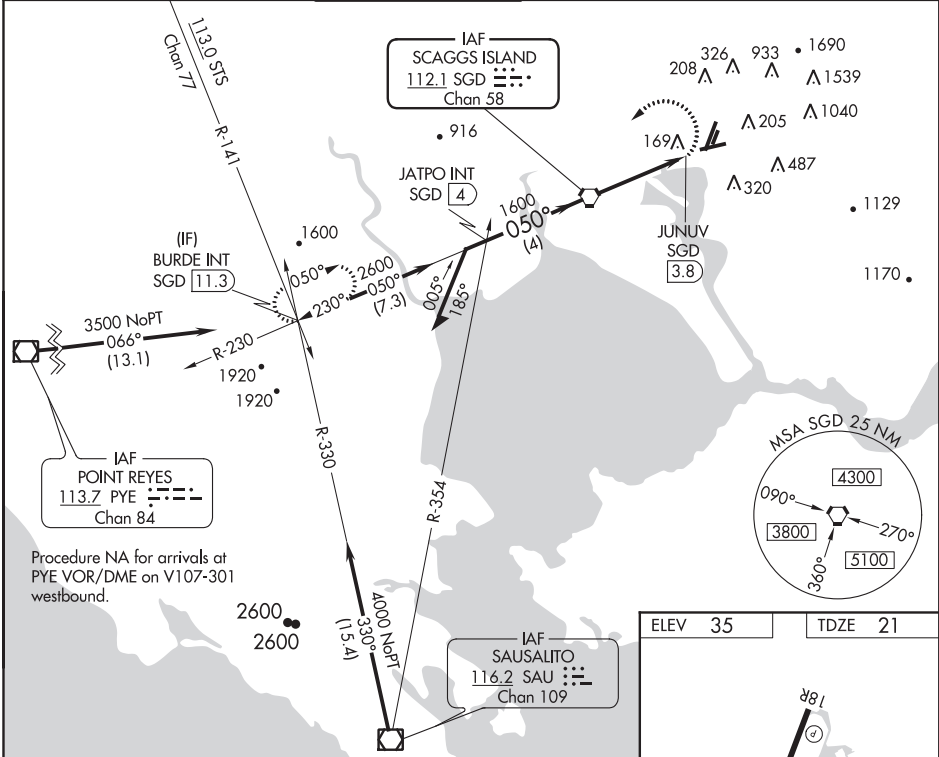
VOR RWY 6

NAPA COUNTY (APC)

N Night Landing: Rwy 6 NA. Circling NA northeast of Rws 18R and 24.
A Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Concord altimeter setting and increase all MDA 60 feet and Circling Cat C visibility ¼ mile. VDP NA with Concord altimeter setting.

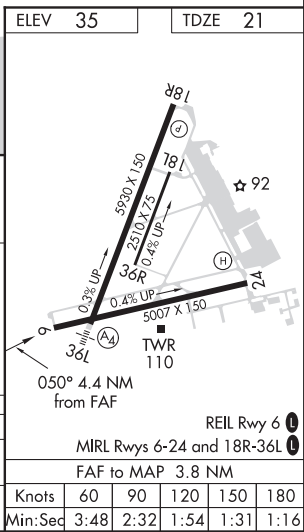
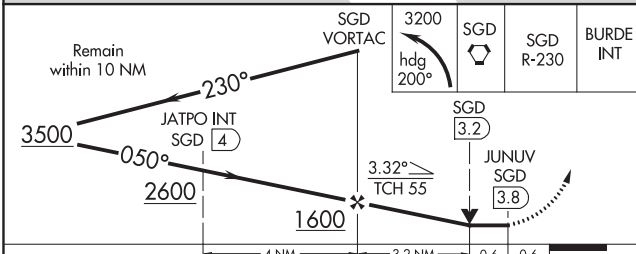
MISSED APPROACH: Climbing left turn to 3200 on heading 200° to SGD VORTAC R-230 to BURDE INT/SGD 11.3 DME and hold.

ATIS 124.05	OAKLAND CENTER 127.8 353.5	NAPA TOWER ★ 118.7 (CTAF) 257.8	GND CON 121.7	CLNC DEL 127.85	UNICOM 122.95
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



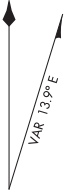
CATEGORY	A	B	C	D
S-6	460-1	439 (500-1)	460-1 3/8	439 (500-1 3/8)
CIRCLING	600-1 565 (600-1)	620-1 585 (600-1)	720-2 685 (700-2)	1240-3 1205 (1300-3)

AIRPORT DIAGRAM

AL-281 (FAA)

NAPA COUNTY (APC)
NAPA, CALIFORNIA

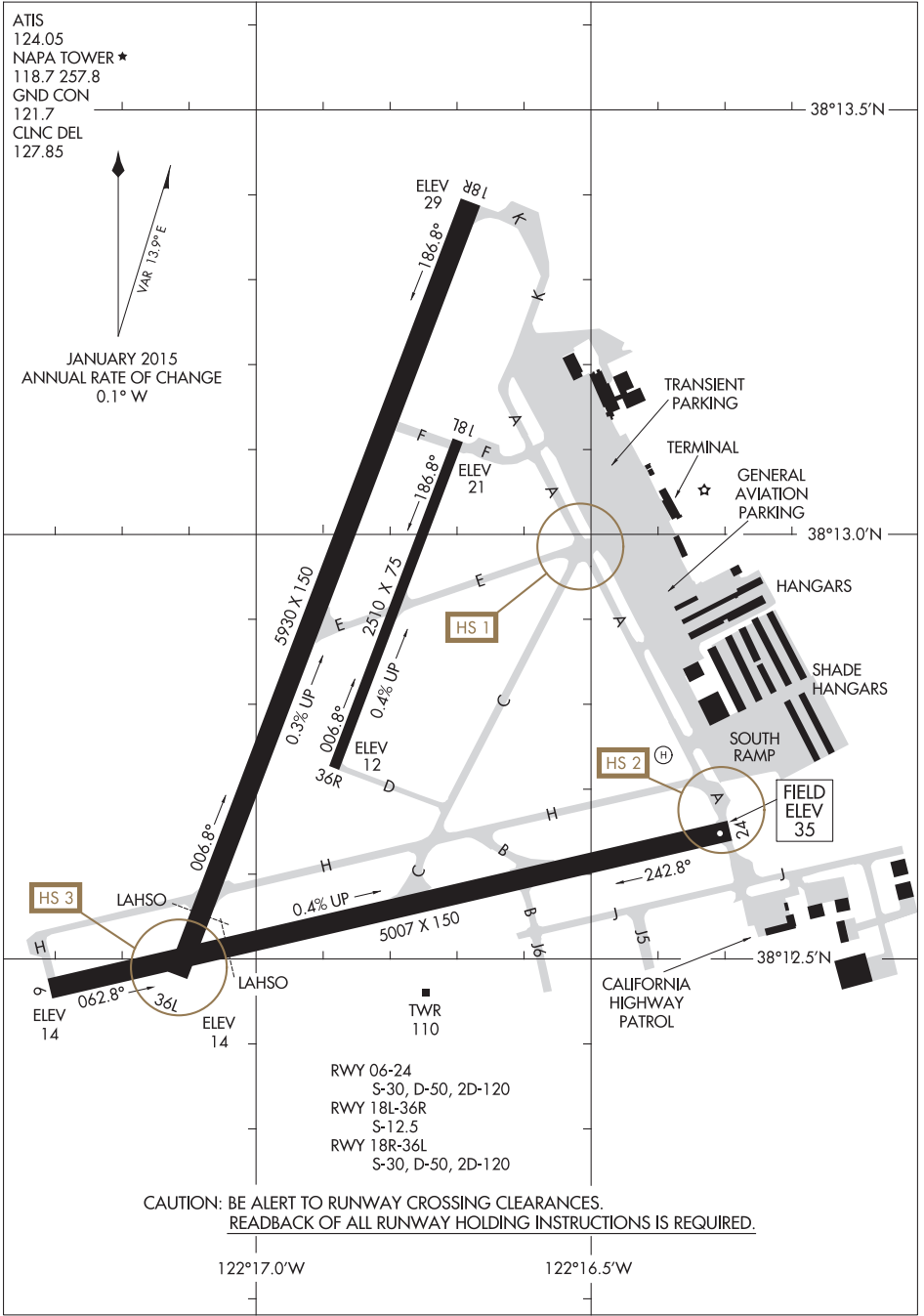
ATIS
 124.05
 NAPA TOWER ★
 118.7 257.8
 GND CON
 121.7
 CLNC DEL
 127.85



JANUARY 2015
 ANNUAL RATE OF CHANGE
 0.1° W

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

NAPA, CALIFORNIA
NAPA COUNTY (APC)

TAKEOFF MINIMUMS

Rwy 6: Standard with minimum climb of 430' per NM to 1500.

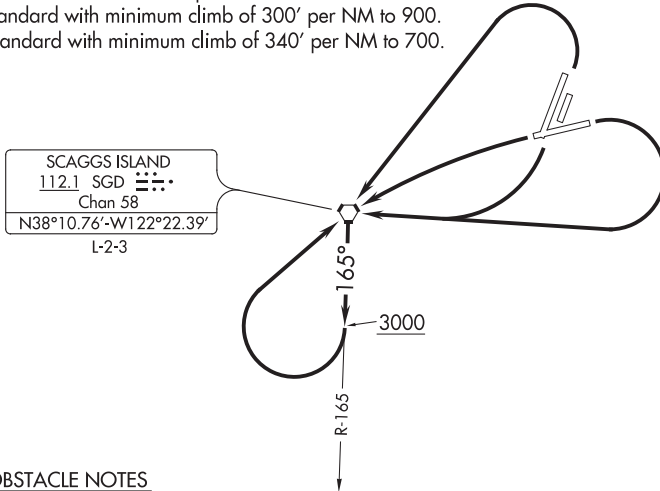
Rwys 18L, 18R: Standard.

Rwy 24: 300-1 or standard with minimum climb of 250' per NM to 300, or alternatively, with standard takeoff minimums and normal 200' per NM climb gradient, takeoff must occur no later than 2000' prior to DER.

Rwy 36L: Standard with minimum climb of 300' per NM to 900.

Rwy 36R: Standard with minimum climb of 340' per NM to 700.

ATIS
124.05
GND CON
121.7
CLNC DEL
127.85
NAPA TOWER*
118.7 (CTAF) 257.8
OAKLAND CENTER
127.8 353.5



TAKEOFF OBSTACLE NOTES

- Rwy 6: Light support structure 2' from DER, 59' left and right centerline, 2' AGL/37' MSL. Electrical light poles beginning 89' from DER, left and right of centerline, up to 35' AGL/78' MSL. Buildings beginning 664' from DER, 659' right of centerline, up to 50' AGL/84' MSL. Train 1058' from DER, left and right of centerline, 23' AGL/67' MSL. Trees beginning 1288' from DER, 738' left of centerline, up to 40' AGL/187' MSL. Trees beginning 2082' from DER, 141' right of centerline, up to 40' AGL/130' MSL.
- Rwy 18L: NAVAJD 1281' from DER, 814' left of centerline, 30' AGL/49' MSL.
- Rwy 18R: Terrain 9' from DER, 96' left of centerline, up to 17' MSL. Light support structure 9' from DER, 45' right of centerline, 2' AGL/15' MSL. Vehicles on roadway 349' from DER, left and right centerline, up to 15' AGL/34' MSL. Tree 3157' from DER, 764' left of centerline, 40' AGL/101' MSL.
- Rwy 24: Vehicles on roadway 56' from DER, left and right of centerline, up to 15' AGL/26' MSL. Terrain 59' from DER, 123' left of centerline, up to 17' MSL. Trees beginning 1458' from DER, 795' left of centerline, up to 40' AGL/69' MSL.
- Rwy 36L: Terrain beginning 1' from DER, 490' left of centerline, up to 36' MSL. Vehicles on roadway 105' from DER, left and right of centerline, up to 15' AGL/45' MSL. Train 558' from DER, left and right of centerline, 23' AGL/44' MSL.
- Rwy 36R: Electrical light poles beginning 262' from DER, 519' left of centerline, up to 35' AGL/59' MSL. Wind sock 628' from DER, 282' left of centerline, 10' AGL/49' MSL. Vehicles on roadway 640' from DER, left and right of centerline, up to 15' AGL/39' MSL. Tree 813' from DER, 673' right of centerline, 40' AGL/70' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 6, 18L, 18R: Turn right direct SGD VORTAC, thence. . . .

TAKEOFF RUNWAYS 24, 36L, 36R: Turn left direct SGD VORTAC, thence. . . .

. . . .aircraft departing SGD VORTAC on R-165 climb on course. All other aircraft continue climb on SGD VORTAC R-165 to 3000, then turn right direct SGD VORTAC before proceeding on course.

SW-2, 10 NOV 2016 to 05 JAN 2017

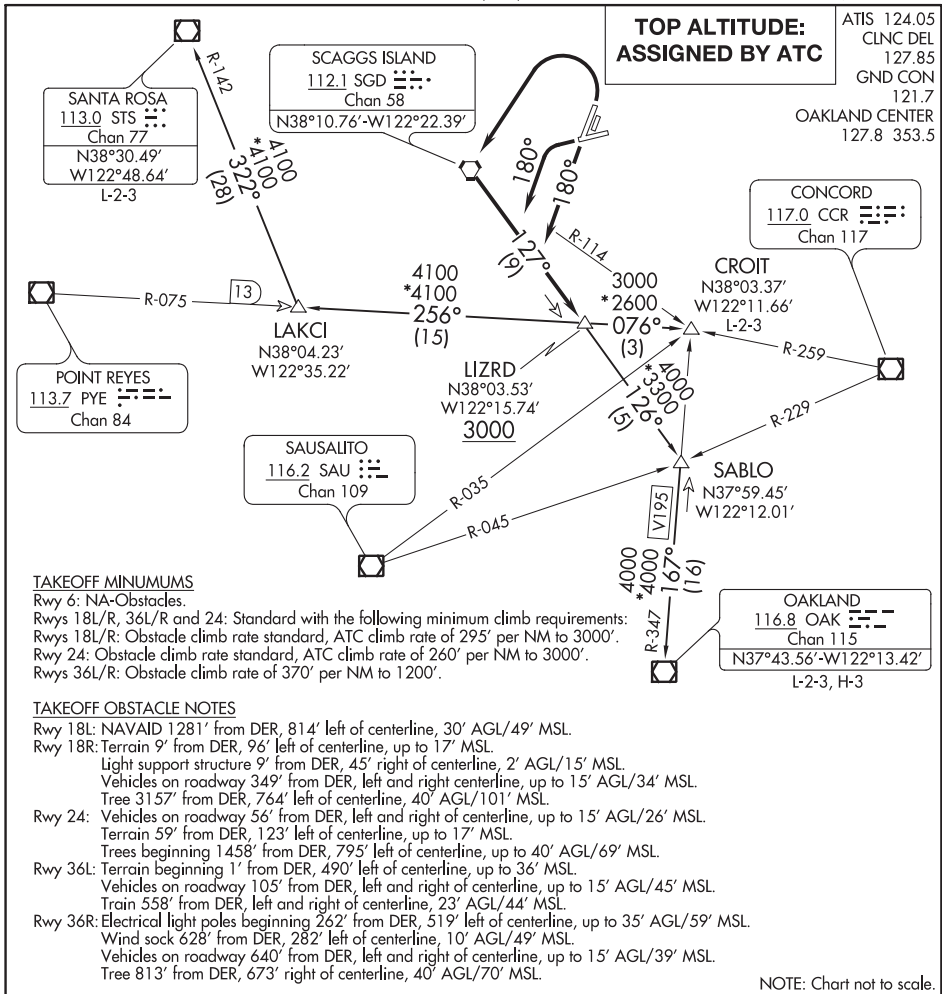
SW-2, 10 NOV 2016 to 05 JAN 2017

LIZRD FOUR DEPARTURE

SL-281 (FAA)

NAPA COUNTY (APC)

NAPA, CALIFORNIA



TAKEOFF MINIMUMS

- Rwy 6: NA-Obstacles.
- Rwys 18L/R, 36L/R and 24: Standard with the following minimum climb requirements:
- Rwys 18L/R: Obstacle climb rate standard, ATC climb rate of 295' per NM to 3000'.
- Rwy 24: Obstacle climb rate standard, ATC climb rate of 260' per NM to 3000'.
- Rwys 36L/R: Obstacle climb rate of 370' per NM to 1200'.

TAKEOFF OBSTACLE NOTES

- Rwy 18L: NAVAID 1281' from DER, 814' left of centerline, 30' AGL/49' MSL.
- Rwy 18R: Terrain 9' from DER, 96' left of centerline, up to 17' MSL.
 - Light support structure 9' from DER, 45' right of centerline, 2' AGL/15' MSL.
 - Vehicles on roadway 349' from DER, left and right centerline, up to 15' AGL/34' MSL.
 - Tree 1357' from DER, 764' left of centerline, 40' AGL/101' MSL.
- Rwy 24: Vehicles on roadway 56' from DER, left and right of centerline, up to 15' AGL/26' MSL.
 - Terrain 59' from DER, 123' left of centerline, up to 17' MSL.
 - Trees beginning 1458' from DER, 795' left of centerline, up to 40' AGL/69' MSL.
- Rwy 36L: Terrain beginning 1' from DER, 490' left of centerline, up to 36' MSL.
 - Vehicles on roadway 105' from DER, left and right of centerline, up to 15' AGL/45' MSL.
 - Train 558' from DER, left and right of centerline, 23' AGL/44' MSL.
- Rwy 36R: Electrical light poles beginning 262' from DER, 519' left of centerline, up to 35' AGL/59' MSL.
 - Wind sock 628' from DER, 282' left of centerline, 10' AGL/49' MSL.
 - Vehicles on roadway 640' from DER, left and right of centerline, up to 15' AGL/39' MSL.
 - Tree 813' from DER, 673' right of centerline, 40' AGL/70' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 18L/R: Climb via 180° heading to intercept and proceed outbound via the SGD R-127 to LIZRD INT. Cross LIZRD INT at or above 3000'. Thence. . . .

TAKEOFF RUNWAY 24: Turn left, climb via 180° heading to intercept and proceed outbound via the SGD R-127 to LIZRD INT. Cross LIZRD INT at or above 3000'. Thence. . . .

TAKEOFF RUNWAYS 36L/R: Turn left direct SGD VORTAC, proceed outbound via the SGD R-127 to LIZRD INT. Cross LIZRD INT at or above 3000'. Thence. . . .

. . . . via (transition) or (assigned route).

- CROIT TRANSITION (LIZRD4.CROIT):** From over LIZRD INT via PYE R-075 to CROIT INT.
- OAKLAND TRANSITION (LIZRD4.OAK):** From over LIZRD INT via SGD R-127 and OAK R-347 to OAK VOR/DME.
- SANTA ROSA TRANSITION (LIZRD4.STS):** From over LIZRD INT via PYE R-075 and STS R-142 to STS VOR/DME.

LIZRD FOUR DEPARTURE

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

MERLOT TWO DEPARTURE

ATIS
124.05
CLNC DEL
127.85
GND CON
121.7
NAPA TOWER ★
118.7 (CTAF) 257.8
OAKLAND CENTER
127.8 353.5

TAKEOFF MINIMUMS

Rwy 6: Standard with minimum climb of 430' per NM to 1600.
Rwy 18L: Standard with minimum climb of 320' per NM to 1500.
Rwy 18R: Standard with minimum climb of 330' per NM to 1600.
Rwy 24: Standard with minimum climb of 250' per NM to 1300.
Rwy 36L: Standard with minimum climb of 420' per NM to 2900.
Rwy 36R: Standard with minimum climb of 460' per NM to 3000.

RED BLUFF
115.7 RBL
Chan 104
N40°05.93'
W122°14.18'
L-2, H-3

WILLIAMS
114.4 ILA
Chan 91
N39°04.27'-W112°01.63'
L-2-3

MENDOCINO
112.3 ENI
Chan 70
N39°03.19'
W123°16.46'
L-2, H-3

SANTA ROSA
113.0 STS
Chan 77
N38°30.49'
W122°48.64'
L-2-3

NOTE: RADAR required.

SACRAMENTO
115.2 SAC
Chan 99
N38°26.62'-W121°33.10'
L-2-3, H-3

LINDEN
114.8 LIN
Chan 95
N38°04.48'
W121°00.23'
L-2-3, H-3

SCAGGS ISLAND
112.1 SGD
Chan 58
N38°10.76'-W122°22.39'
L-2-3

POINT REYES
113.7 PYE
Chan 84
N38°04.79'
W122°52.07'
L-2-3, H-3

CONCORD
117.0 CCR
Chan 117
N38°02.70'-W122°02.71'
L-2-3

SAUSALITO
116.2 SAU
Chan 109
N37°51.32'
W122°31.37'
L-2-3

OAKLAND
116.8 OAK
Chan 115
N37°43.56'-W122°13.42'
L-2-3, H-3

(NARRATIVE ON FOLLOWING PAGE)
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

MERLOT TWO DEPARTURE (MER2.SGD) 15SEP16

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

MERLOT TWO DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climbing right turn on assigned heading between 130 CW 242; thence. . . .

TAKEOFF RUNWAYS 18L/R: Climb heading 186° (or ATC assigned heading 130 CW 270); thence. . . .

TAKEOFF RUNWAY 24: Climb heading 242° (or ATC assigned heading 130 CW 270); thence. . . .

TAKEOFF RUNWAYS 36 L/R: Climb heading 006° (or climbing left turn on ATC assigned heading 186 CW 006); thence. . . .

. . . . expect vectors to join assigned route. Maintain assigned altitude; expect filed altitude/flight level ten minutes after departure.

LOST COMMUNICATIONS:

If not in contact with Oakland Center after reaching 4000, proceed to the SGD VORTAC and hold.

TAKEOFF OBSTACLE NOTES

- Rwy 6: Light support structure 2' from DER, left and right of centerline, 2' AGL/37' MSL.
Electrical light poles beginning 89' from DER, left and right of centerline, up to 35' AGL/78' MSL. Buildings beginning 664' from DER, 659' right of centerline, up to 50' AGL/84' MSL. Train 1058' from DER, left and right of centerline, 23' AGL/67' MSL.
Trees beginning 1288' from DER, 738' left of centerline, up to 40' AGL/187' MSL.
Trees beginning 2082' from DER, 141' right of centerline, up to 40' AGL/130' MSL.
- Rwy 18L: Navaid 1281' from DER, 814' left of centerline, 30' AGL/49' MSL.
- Rwy 18R: Terrain 9' from DER, 96' left of centerline, 17' MSL.
Light support structure 9' from DER, 45' right of centerline, 2' AGL/15' MSL.
Vehicles on roadway 349' from DER, left and right of centerline, up to 15' AGL/34' MSL.
Tree 3157' from DER, 764' left of centerline, 40' AGL/101' MSL.
- Rwy 24: Vehicles on roadway 56' from DER, left and right of centerline, up to 15' AGL/26' MSL.
Terrain 59' from DER, 123' left of centerline, 17' MSL.
Trees beginning 1458' from DER, 795' left of centerline, up to 40' AGL/69' MSL.
- Rwy 36L: Terrain beginning 1' from DER, 490' left of centerline, up to 36' MSL.
Vehicles on roadway 105' from DER, left and right of centerline, up to 15' AGL/45' MSL.
Train 558' from DER, left and right of centerline, 23' AGL/44' MSL.
- Rwy 36R: Electrical light poles beginning 262' from DER, 519' left of centerline, up to 35' AGL/59' MSL. Wind sock 628' from DER, 282' left of centerline, 10' AGL/49' MSL.
Vehicles on roadway 640' from DER, left and right of centerline, up to 15' AGL/39' MSL.
Tree 813' from DER, 673' right of centerline, 40' AGL/70' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

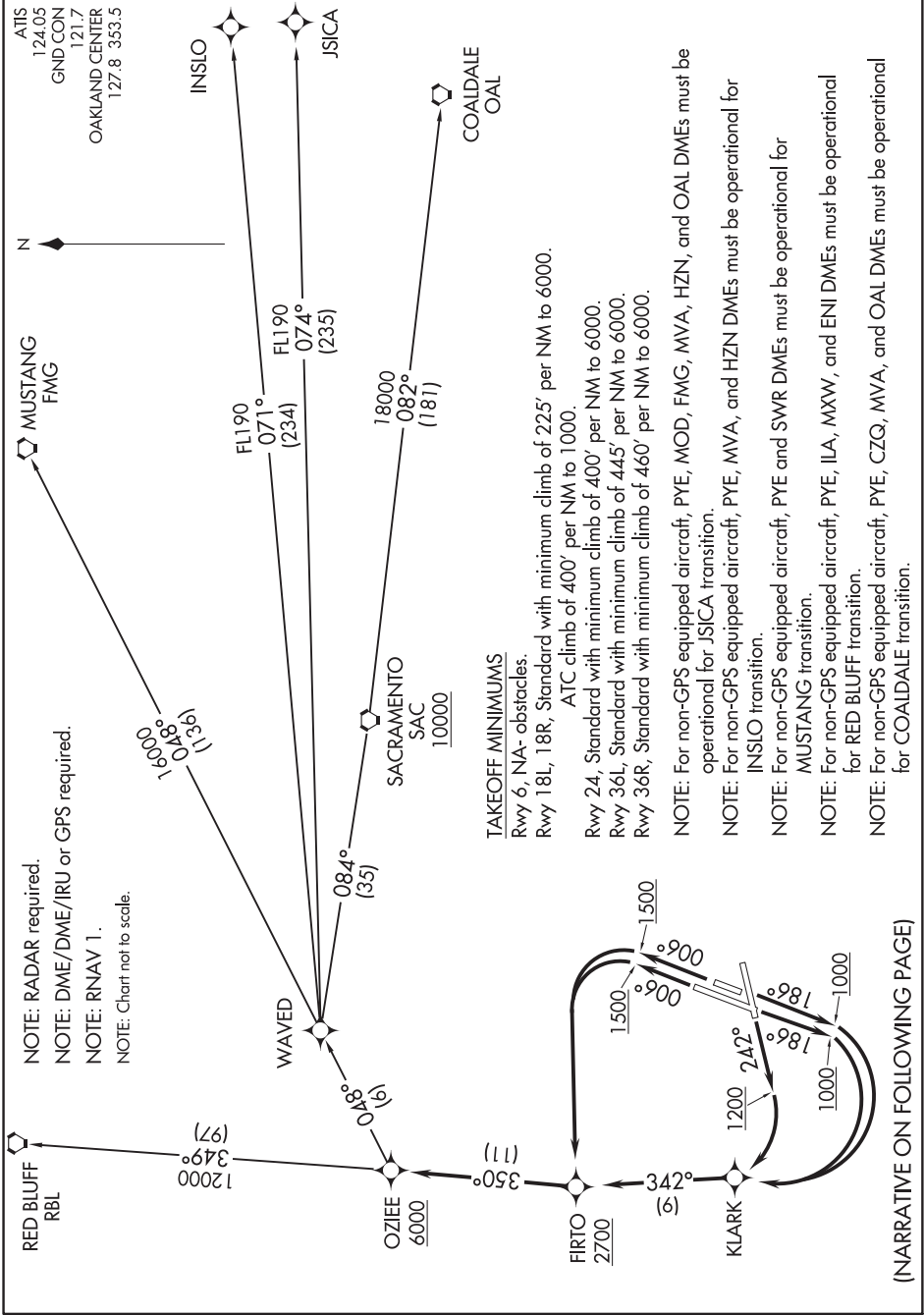
SW-2, 10 NOV 2016 to 05 JAN 2017

OZIEE TWO DEPARTURE (RNAV)

SL-281 (FAA)

NAPA COUNTY (APC)
NAPA, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017



SW-2, 10 NOV 2016 to 05 JAN 2017

OZIEE TWO DEPARTURE (RNAV)

NAPA, CALIFORNIA
NAPA COUNTY (APC)

(NARRATIVE ON FOLLOWING PAGE)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18L: Climb heading 186° to 1000', then right turn direct KLARK, and via track 342° to cross FIRTO at or above 2700, and via track 350° to cross OZIEE at or above 6000, thence. . . .

TAKEOFF RUNWAY 18R: Climb heading 186° to 1000', then right turn direct KLARK, and via track 342° to cross FIRTO at or above 2700, and via track 350° to cross OZIEE at or above 6000, thence. . . .

TAKEOFF RUNWAY 24: Climb heading 242° to 1200', then right turn direct KLARK, and via track 342° to cross FIRTO at or above 2700, and via track 350° to cross OZIEE at or above 6000, thence. . . .

TAKE-OFF RUNWAY 36L: Climb heading 006° to 1500', then left turn direct to cross FIRTO at or above 2700, and via track 350° to cross OZIEE at or above 6000, thence. . . .

TAKE-OFF RUNWAY 36R: Climb heading 006° to 1500', then left turn direct to cross FIRTO at or above 2700, and via track 350° to cross OZIEE at or above 6000, thence. . . .

. . . .(transition). Maintain assigned altitude, expect filed altitude 10 minutes after departure.

COALDALE TRANSITION (OZIEE2.OAL)

INSLO TRANSITION (OZIEE2.INSLO)

JSICA TRANSITION (OZIEE2.JSICA)

MUSTANG TRANSITION (OZIEE2.FMG)

RED BLUFF TRANSITION (OZIEE2.RBL)

TAKEOFF OBSTACLE NOTES

Rwy 18R: Tree 3191' from DER, 750' left of centerline, 67' AGL/106' MSL.

Rwy 24: OL on bldg 4950' from DER, 1630' right of centerline, 162' AGL/169' MSL.

Bridge 4963' from DER, 1714' right of centerline, 167' AGL/167' MSL.

Trees beginning at 2651' from DER, 527' left of centerline, up to 104' AGL/133' MSL.

Rwy 36R: Trees beginning 1.43 NM from DER, 1289' right of centerline, up to 79' AGL/385' MSL.

Multiple light poles, beginning 262' from DER, 333' from right of centerline, up to 30' AGL/59' MSL.

Windsock, 628' from DER, 282' left of centerline, 20' AGL/49' MSL.

Rwy 36L: Trees and terrain, beginning at DER, 345' right of centerline, up to 120' AGL/160' MSL.

Railroad 594' from DER, 517' right of centerline, 23' AGL/44' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	3300
147°	TDZE	2
	Apt Elev	2

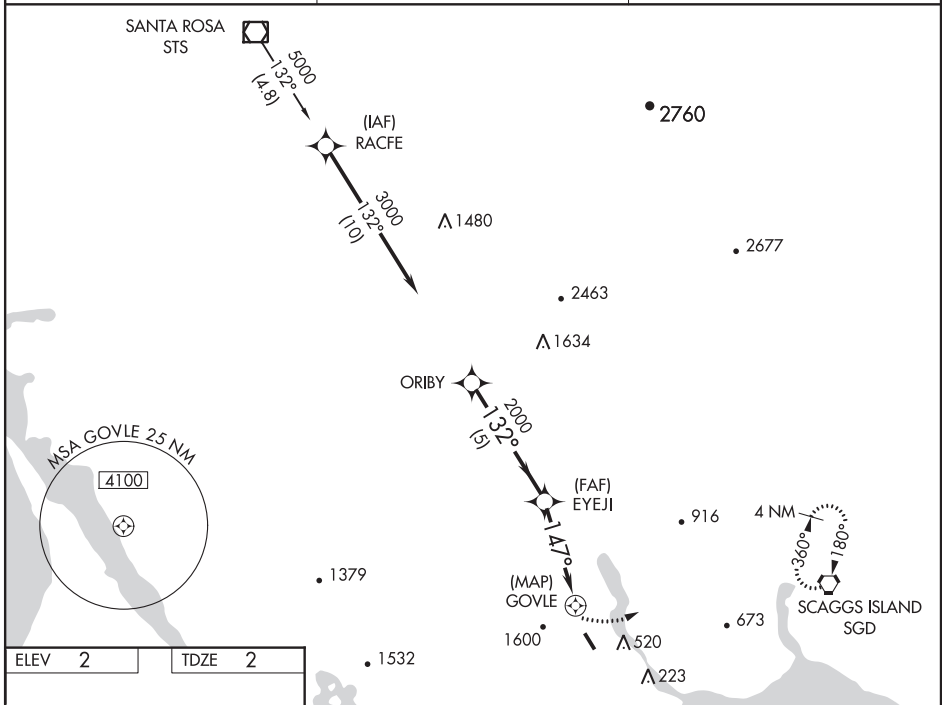
GPS RWY 13

GNOSS FIELD (DVO)

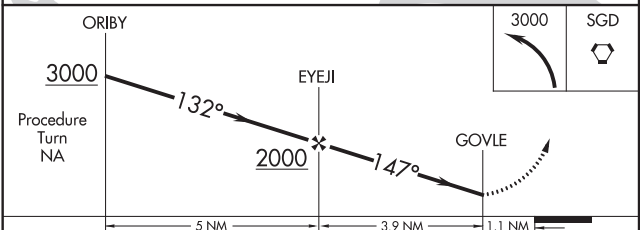
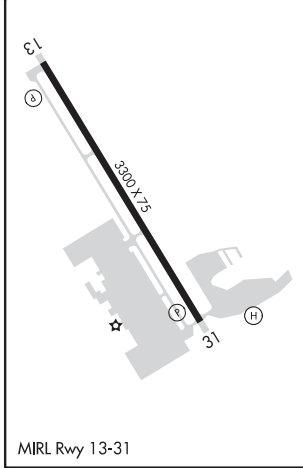
NA Circling NA west of Rwy 13-31. When local altimeter not received, use Napa altimeter setting and increase all MDAs 40 feet. If neither is received procedure is NA.

MISSED APPROACH: Climbing left turn to 3000 direct SGD VORTAC and hold.

AWOS-3P 120.675	OAKLAND CENTER 127.8 353.5	UNICOM 123.075 (CTAF)
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ELEV	2	TDZE	2
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CATEGORY	A	B	C	D
S-13	1000-1¼ 998 (1000-1¼)	1000-1½ 998 (1000-1½)		NA
CIRCLING	1000-1¼ 998 (1000-1¼)	1000-1½ 998 (1000-1½)		NA
NAPA ALTIMETER SETTING MINIMUMS				
S-13	1040-1¼ 1038 (1100-1¼)	1040-1½ 1038 (1100-1½)		NA
CIRCLING	1040-1¼ 1038 (1100-1¼)	1040-1½ 1038 (1100-1½)		NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

OAKDALE, CALIFORNIA

AL-6135 (FAA)

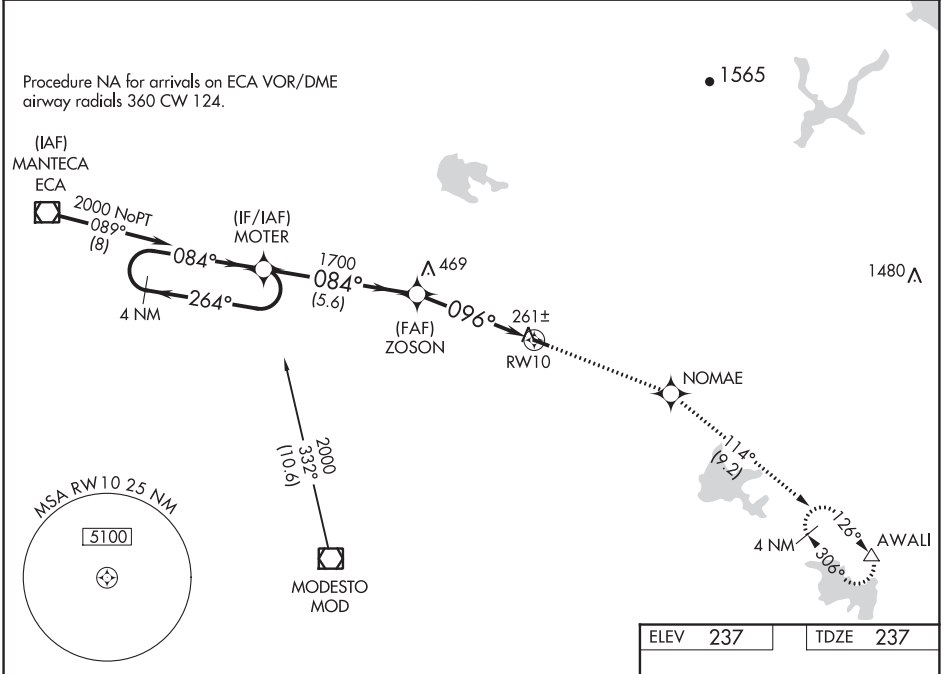
16203

WAAS CH 42524 W10A	APP CRS 096°	Rwy Idg 3013 TDZE 237 Apt Elev 237
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RNAV (GPS) RWY 10

OAKDALE (O27)

<p>▼ Baro-VNAV NA. DME/DME RNP-0.3 NA. ▲ NA Use Modesto altimeter setting, when not received, use Stockton altimeter setting and increase all DA 36 feet and all MDA 40 feet; increase LPV and LNAV/VNAV all Cats visibility 1/8 mile.</p>	<p>MISSED APPROACH: Climb to 2000 direct NOMAE and on track 114° to AWALI and hold. When authorized by ATC, climb-in-hold to 4000.</p>
<p>NORCAL APP CON 125.1 363.2</p>	<p>UNICOM 122.8 (CTAF) 📻</p>



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

4 NM Holding Pattern	MOTER	2000	NOMAE	tr 114°	AWALI
2000 ← 264°	→ 084°	084°	ZOSON	1700	096°
GP 3.00°	TCH 40	5.6 NM	4.5 NM	RWY 10	
CATEGORY	A	B	C	D	
LPV DA	532-1	295 (300-1)		NA	
LNAV/VNAV DA	547-1	310 (400-1)		NA	
LNAV MDA	760-1	523 (600-1)		NA	
CIRCLING	760-1	523 (600-1)		NA	

ELEV 237	TDZE 237
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REIL Rwy 10 and 28
MIRL Rwy 10-28 **📻**

OAKDALE, CALIFORNIA
Amdt 1B 10DEC15

37°45'N-120°48'W

OAKDALE (O27)

RNAV (GPS) RWY 10

WAAS CH 70523 W28A	APP CRS 277°	Rwy Idg 3013 TDZE 237 Apt Elev 237
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RNAV (GPS) RWY 28

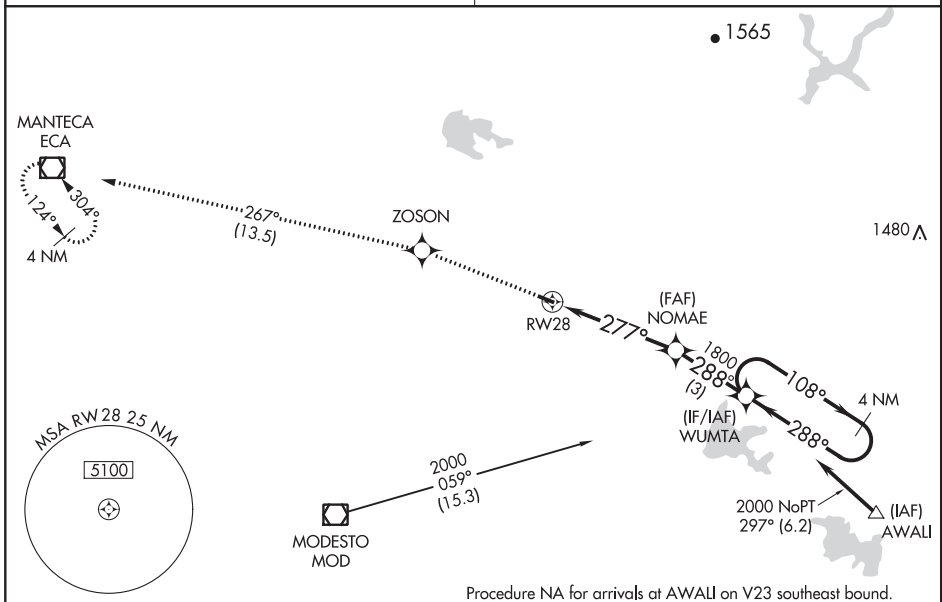
OAKDALE (O27)

▼ Baro-VNAV NA. DME/DME RNP-0.3 NA.
▲ NA Use Modesto altimeter setting, when not received, use Stockton altimeter setting and increase all DA 36 feet and all MDA 40 feet; increase LPV all Cats visibility ¼ mile and LNAV/VNAV all Cats visibility ½ mile.

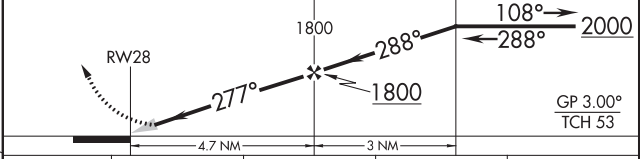
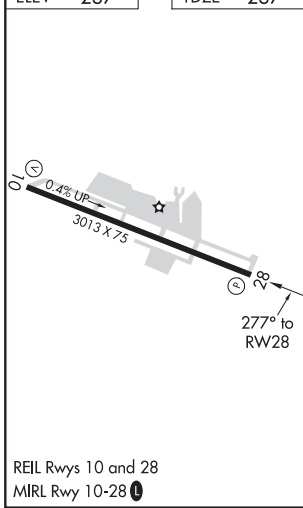
MISSED APPROACH: Climb to 3000 direct ZOSON and on track 267° to ECA VOR/DME and hold.

NORCAL APP CON
125.1 363.2

UNICOM
122.8 (CTAF) 0



ELEV 237	TDZE 237
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CATEGORY	A	B	C	D
LPV DA	532-7/8	295 (300-7/8)		NA
LNAV/VNAV DA	532-1	295 (300-1)		NA
LNAV MDA	820-1	583 (600-1)		NA
CIRCLING	820-1	583 (600-1)		NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

OAKDALE, CALIFORNIA

AL-6135 (FAA)

16203

VOR/DME MOD 114.6 Chan 93	APP CRS 027°	Rwy Idg TDZE Apt Elev	N/A N/A 237
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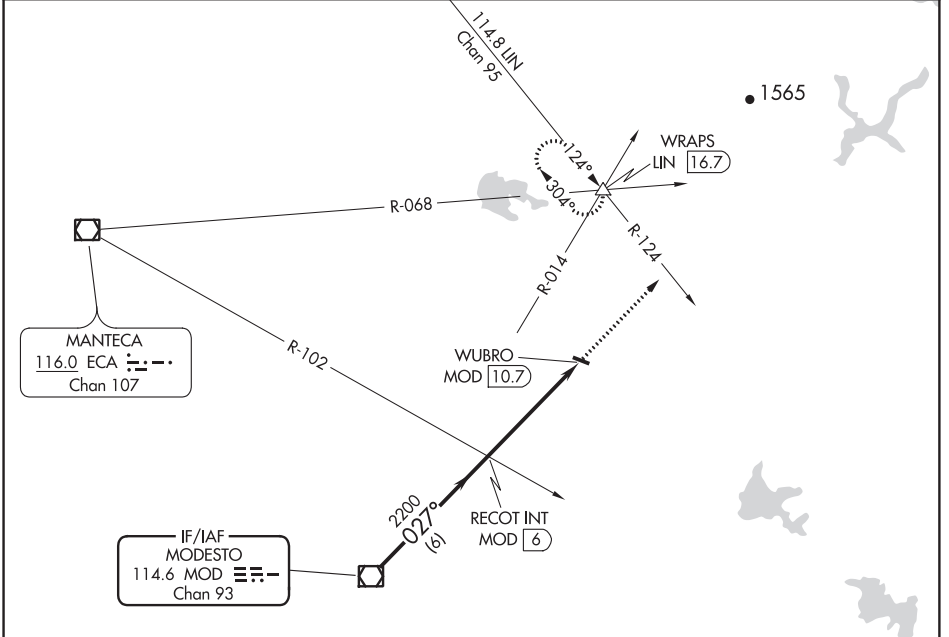
VOR-A

OAKDALE (O27)

▼ Use Modesto altimeter setting, when not received, use Stockton altimeter setting, increase all MDA 40 feet.

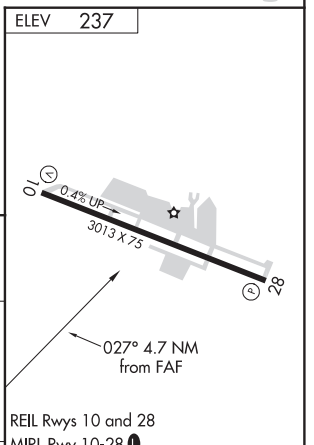
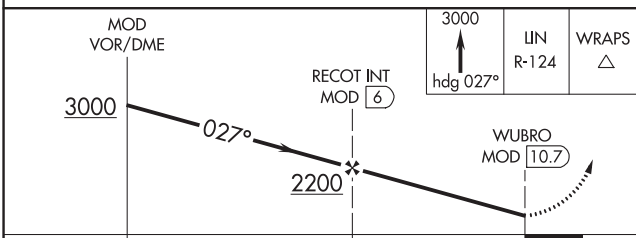
MISSED APPROACH: Climb to 3000 via heading 027° and LIN R-124 to WRAPS INT/LIN 16.7 DME and hold, continue climb-in-hold to 3000.

NORCAL APP CON 125.1 363.2	UNICOM 122.8 (CTAF) 0
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D	FAF to MAP 4.7 NM					
CIRCLING	860-1 623 (700-1)		NA		Knots	60	90	120	150	180
					Min:Sec	4:42	3:08	2:21	1:53	1:34

OAKDALE, CALIFORNIA
Orig-B 25AUG11

37°45'N-120°48'W

OAKDALE (O27)

VOR-A

LOC I-AAZ 111.9	APP CRS 116°	Rwy Idg 10000
	TDZE 9	
	Apt Elev 9	

ILS or LOC RWY 12

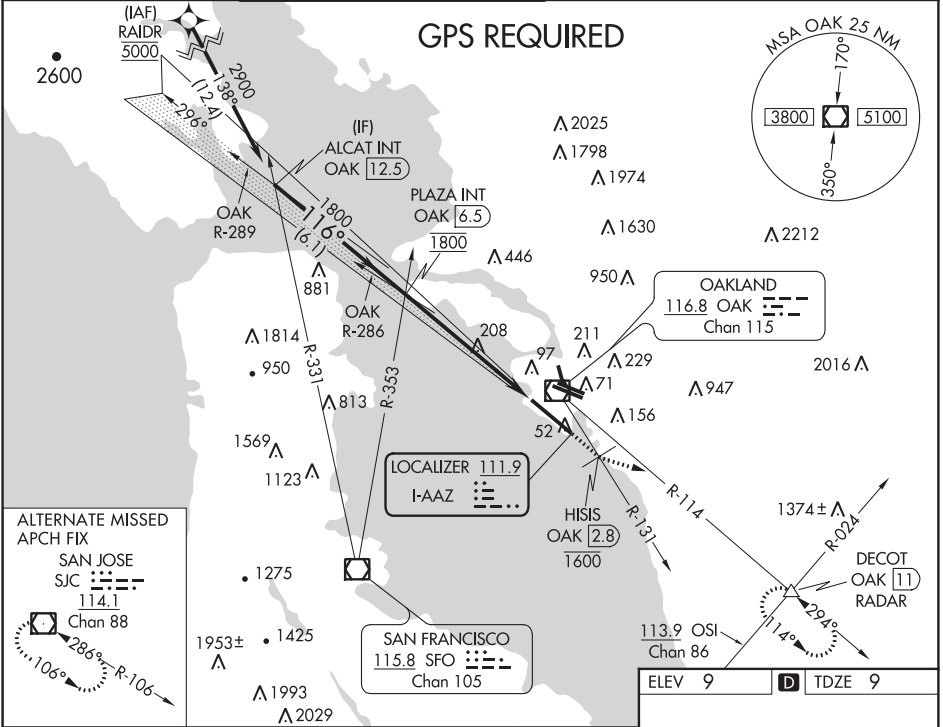
METROPOLITAN OAKLAND INTL (OAK)

▼ DME required.
▲ *RVR 1800 authorized with the use of FD or AP or HUD to DA.



MISSED APPROACH: Climb on heading 116° and on OAK VOR/DME R-131 to cross HISIS/OAK 2.8 DME at or below 1600 then climb to 5100 on heading 090° and on OAK VOR/DME R-114 to DECOT INT/OAK 11 DME/RADAR and hold, continue climb-in-hold to 5100.

ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)	CLNC DEL 121.1	CPDLC
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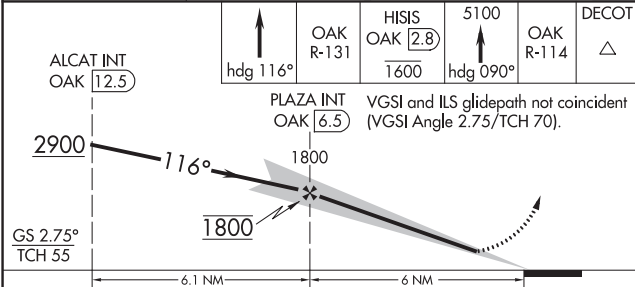
ALTERNATE MISSED APCH FIX

SAN JOSE SJC 114.1 Chan 88

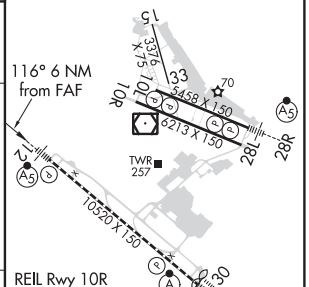
SAN FRANCISCO 115.8 SFO Chan 105

113.9 OSI Chan 86

286° R-106



ELEV 9	TDZE 9
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CATEGORY	A	B	C	D
S-ILS 12*	209/24		200 (200-½)	
S-LOC 12	460/24	451 (500-½)	460/45	451 (500-¾)
CIRCLING	560-1	551 (600-1)	660-1¼ 651 (700-1¼)	1400-3 1391 (1400-3)

FAF to MAP 6 NM					
Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

SW-2, 10 NOV 2016 to 05 JAN 2017


SW-2, 10 NOV 2016 to 05 JAN 2017

LOC I-OAK	APP CRS	Rwy Idg	28R	28L
109.9	278°	TDZE	5458	6213
		Apt Elev	7	9

ILS or LOC/DME RWY 28R

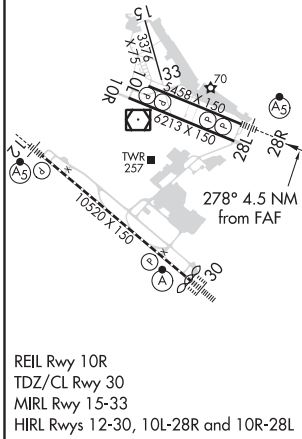
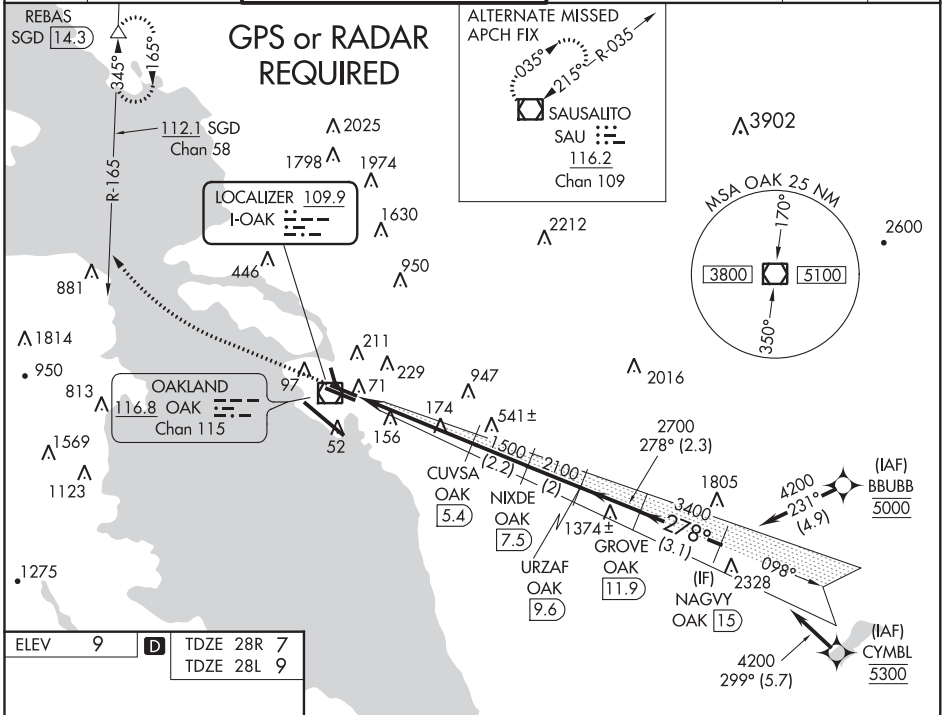
METROPOLITAN OAKLAND INTL (OAK)

⚠ DME required. DME from OAK VOR/DME. Simultaneous reception of I-OAK and OAK DME required.
***RVR 1800 authorized with use of FD or AP or HUD to DA.**

MALS Rwy 28R 

MISSED APPROACH: Climb to 1900 then climbing right turn to 3000 on heading 340° and SGD VORTAC R-165 to REBAS/SGD 14.3 DME and hold.

ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)	CLNC DEL 121.1	CPDLC
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CATEGORY	A	B	C	D
*S-ILS 28R	207/24 200 (200-½)			
S-LOC 28R	440/24 433 (500-½)			
SIDESTEP 28L	440/55	431 (500-¼)	440-1½	431 (500-½)
C CIRCLING	560-1	551 (600-1)	660-1¾ 651 (700-1¾)	1400-3 1391 (1400-3)

SW-2, 10 NOV 2016 to 05 JAN 2017

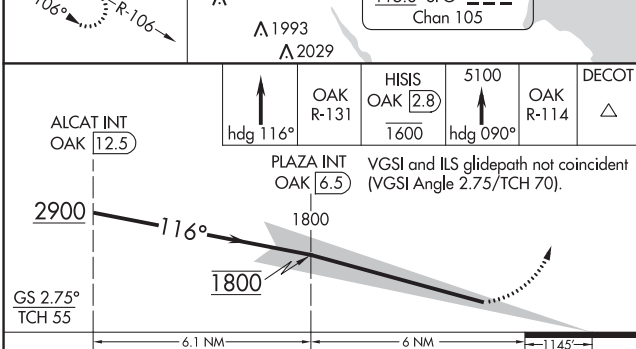
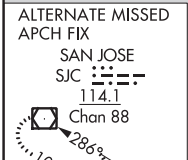
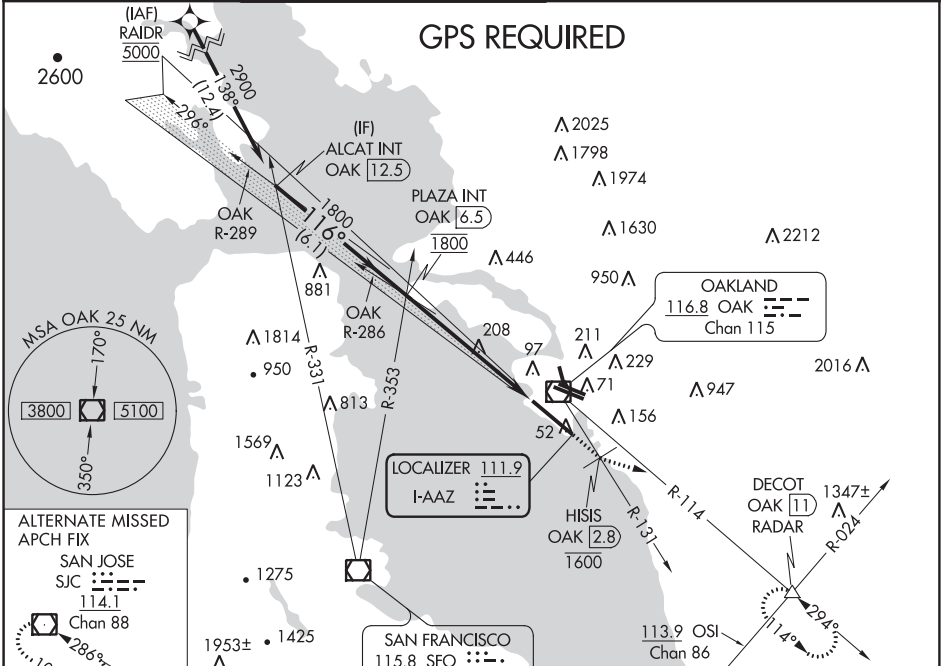
SW-2, 10 NOV 2016 to 05 JAN 2017

LOC I-AAZ 111.9	APP CRS 116°	Rwy Idg 10000
	TDZE 9	
	Apt Elev 9	

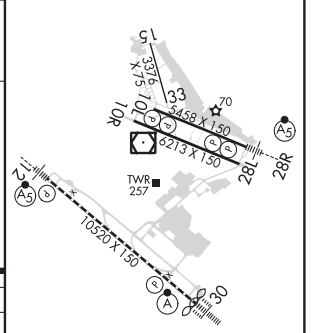
ILS RWY 12 (SA CAT I)
METROPOLITAN OAKLAND INTL (OAK)

▼ DME required. ▲ Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.	MALSR 	MISSED APPROACH: Climb on heading 116° and on OAK VOR/DME R-131 to cross HISIS/OAK 2.8 DME at or below 1600 then climb to 5100 on heading 090° and on OAK VOR/DME R-114 to DECOT INT/OAK 11 DME/RADAR and hold, continue climb-in-hold to 5100.

ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)	CLNC DEL 121.1	CPDLC
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ELEV 9	D TDZE 9
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CATEGORY	A	B	C	D
S-ILS 12	RA 153/24 150 DA 159			

SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-INB 108.7 Chan 24	APP CRS 296°	Rwy Idg 10000 TDZE 9 Apt Elev 9
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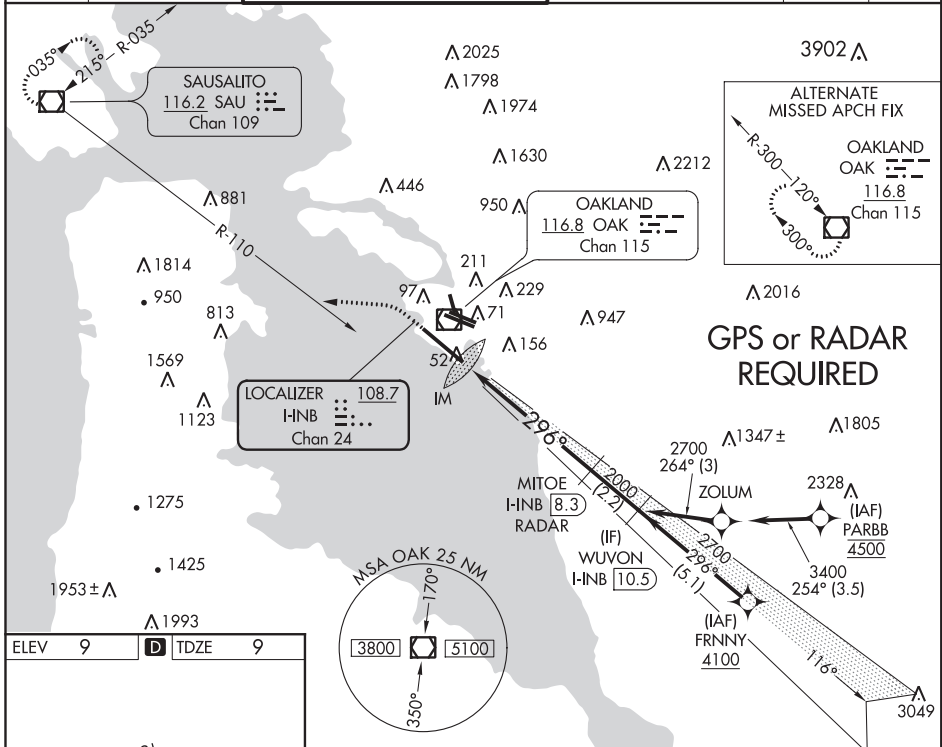
ILS RWY 30 (SA CAT I)
METROPOLITAN OAKLAND INTL (OAK)

⚠ DME or RADAR required. Requires specific OPSPEC, MSPEC or LOA approval and use of HUD to DH. Missed approach requires minimum climb of 240 feet per NM to 2700, if unable to meet climb gradient, see ILS or LOC RWY 30.

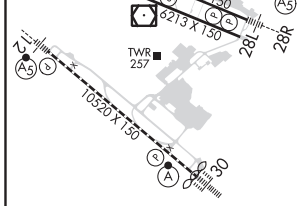


MISSED APPROACH: Climb to 600 then climbing left turn to 4000 on heading 260° and on SAU VOR/DME R-110 to SAU VOR/DME and hold, continue climb-in-hold to 4000.

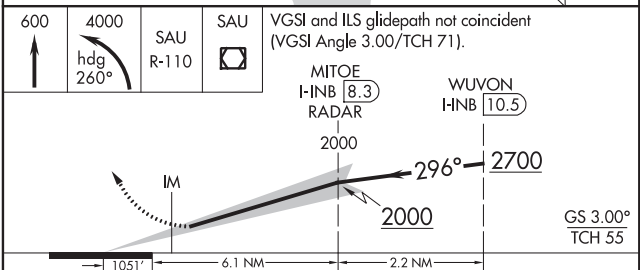
ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33)	CLNC DEL 121.1	CPDLC
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ELEV 9	D TDZE 9
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REIL Rwy 10R
TDZ/CL Rwy 30
MIRL Rwy 15-33
HIRL Rwys 12-30, 10L-28R and 10R-28L



CATEGORY	A	B	C	D
S-ILS 30		RA 159/14	150 DA 159	

SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-INB 108.7 Chan 24	APP CRS 296°	Rwy Idg 10000 TDZE 9 Apt Elev 9
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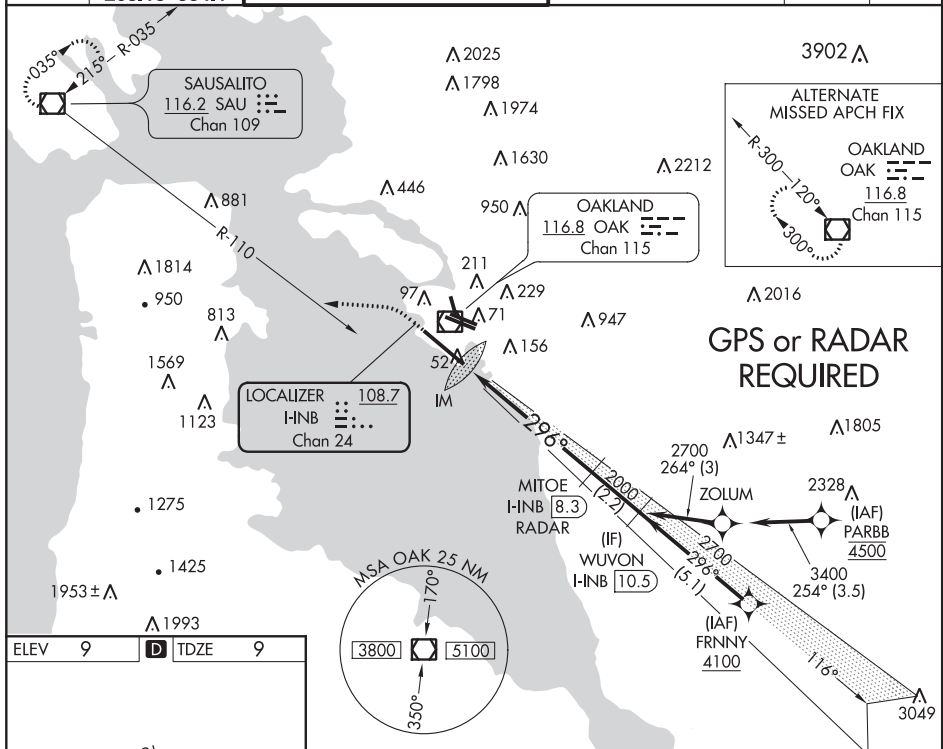
ILS RWY 30 (CAT II & III)

METROPOLITAN OAKLAND INTL (OAK)

⚠ DME or RADAR required. Missed approach requires minimum climb of 240 feet per NM to 2700, if unable to meet climb gradient, see ILS or LOC RWY 30. 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 600 then climbing left turn to 4000 on heading 260° and on SAU VOR/DME R-110 to SAU VOR/DME and hold, continue climb-in-hold to 4000.

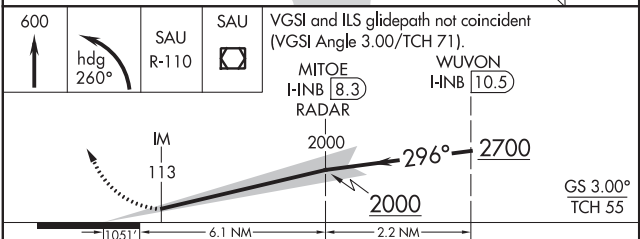
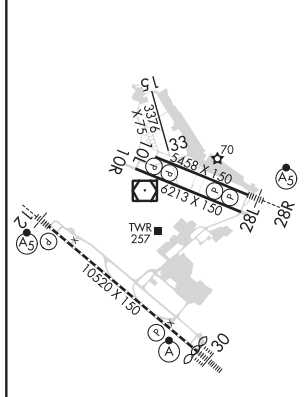
ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33)	CLNC DEL 121.1	CPDLC
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 9	D TDZE 9
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CATEGORY	A	B	C	D
S-ILS 30	CAT II RA 109/12 100 DA 109			
S-ILS 30	CAT III RVR 06			

CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

APP CRS	Rwy Idg 10000
116°	TDZE 9
	Apt Elev 9

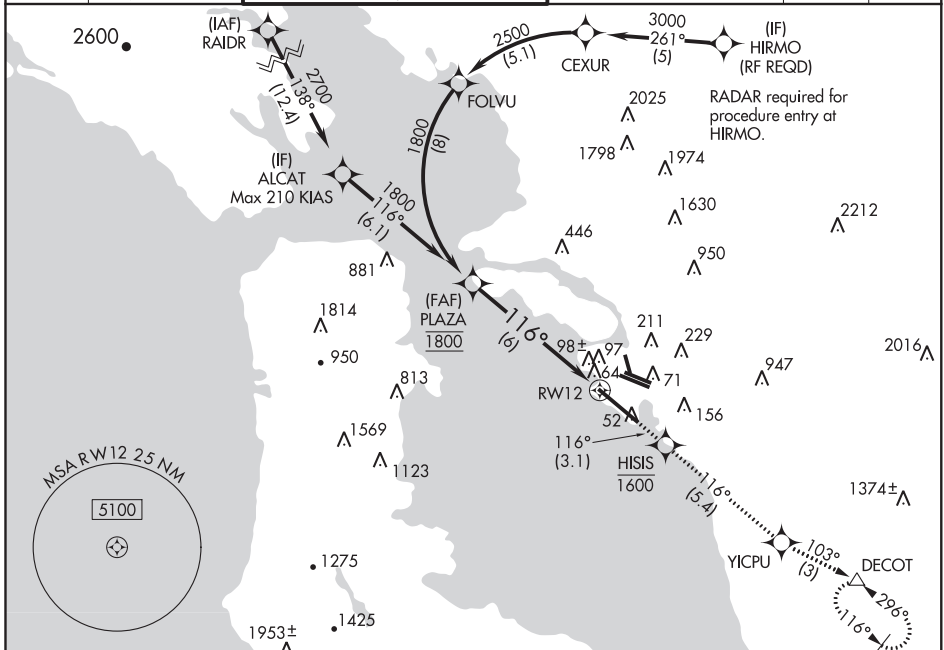
RNAV (RNP) Z RWY 12

METROPOLITAN OAKLAND INTL (OAK)

GPS required. For inoperative MALS increase RNP 0.15 visibility all Cats to RVR 4500, RNP 0.30 visibility all Cats to 1½ mile. For uncompensated Baro-VNAV systems, procedure NA below 1°C (34°F) or above 54°C (130°F).

MALS R MISSED APPROACH: Climb on track 116° to HISIS at or below 1600 then climb to 5400 on track 116° to YICPU and on track 103° to DECOT and hold, continue climb-in-hold to 5400.

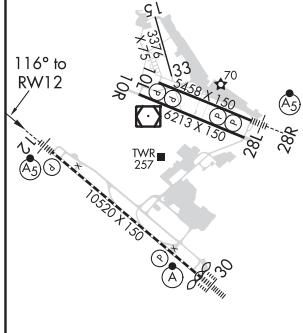
ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)	CLNC DEL 121.1	CPDLC
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 9	D	TDZE 9
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REIL Rwy 10R
TDZ/CL Rwy 30
MIRL Rwy 15-33
HIRL Rwys 12-30, 10L-28R and 10R-28L

See planview for multiple IF locations.

PLAZA 1800	HISIS 1600 tr 116°	5400 tr 116°	YICPU tr 103°	DECOT △
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VGSI and RNAV glidepath not coincident (VGSI Angle 2.75/TCH 70).

GP 2.75°
TCH 55

CATEGORY	A	B	C	D
RNP 0.15 DA		299/40	290 (300-¾)	
RNP 0.30 DA		435/54	426 (500-1¼)	

AUTHORIZATION REQUIRED

OAKLAND, CALIFORNIA

AL-294 (FAA)

16259

APP CRS 278°	Rwy Idg 6213
	TDZE 9
	Apt Elev 9

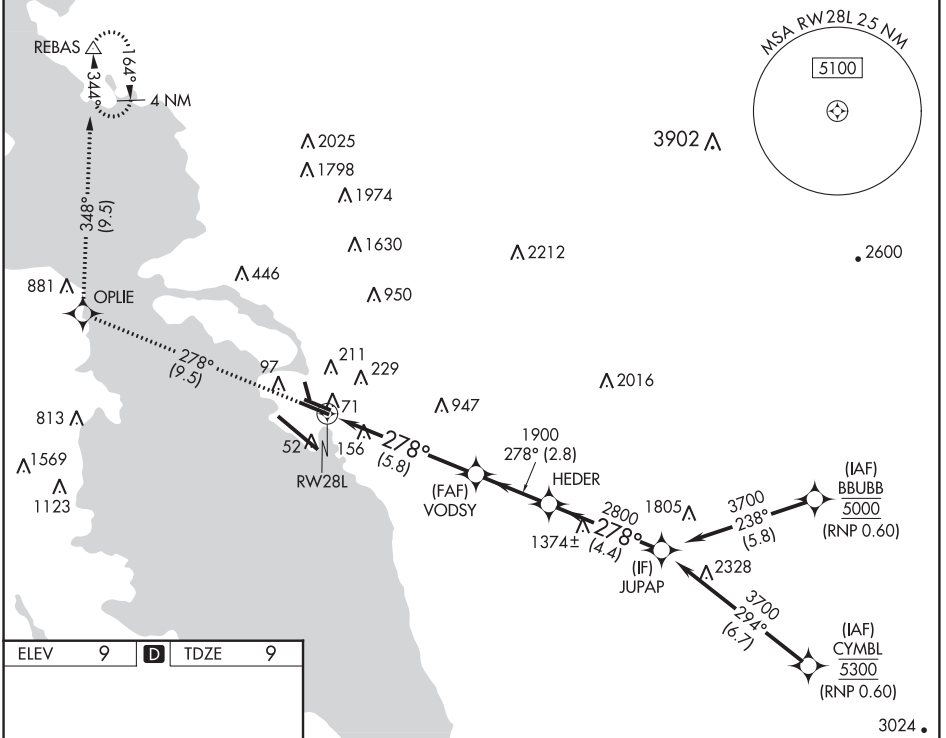
RNAV (RNP) Z RWY 28L

METROPOLITAN OAKLAND INTL (OAK)

▼ For uncompensated Baro-VNAV systems, procedure NA below 0°C (32°F) or above 54°C (130°F). GPS required.

MISSED APPROACH: Climb to 3000 on track 278° to OPLIE and on track 348° to REBAS and hold.

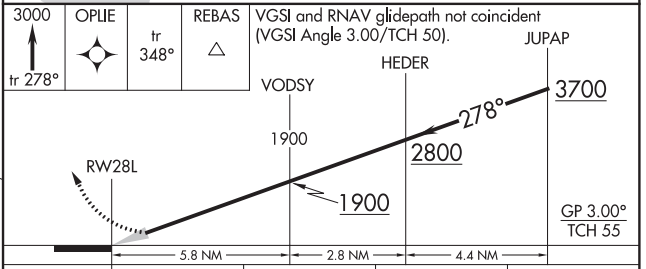
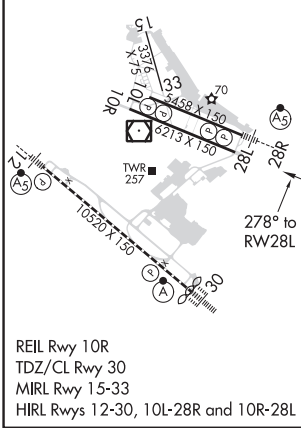
ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)	CLNC DEL 121.1	CPDLC
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV	9	D	TDZE	9
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CATEGORY	A	B	C	D
RNP 0.15 DA		341/53	332 (400-1¼)	
RNP 0.30 DA		399-1¼	390 (400-1¼)	

AUTHORIZATION REQUIRED

OAKLAND, CALIFORNIA
Amdt 2 30APR15

37°43'N-122°13'W


METROPOLITAN OAKLAND INTL (OAK)
RNAV (RNP) Z RWY 28L

APP CRS	Rwy Idg	5458
278°	TDZE	7
	Apt Elev	9

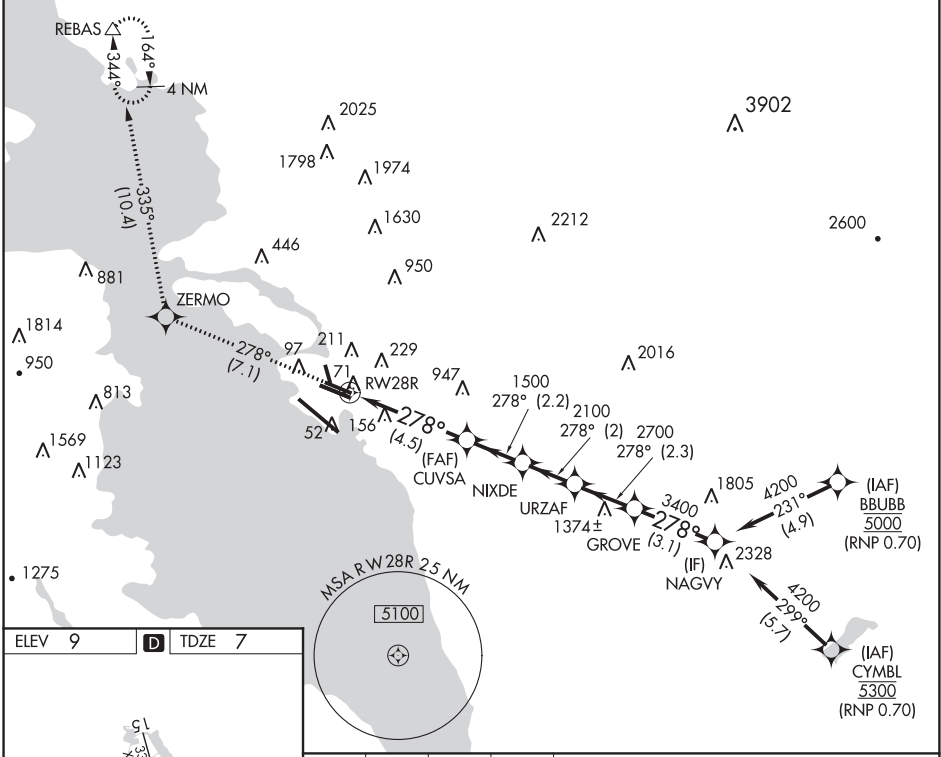
RNAV (RNP) Z RWY 28R

METROPOLITAN OAKLAND INTL (OAK)

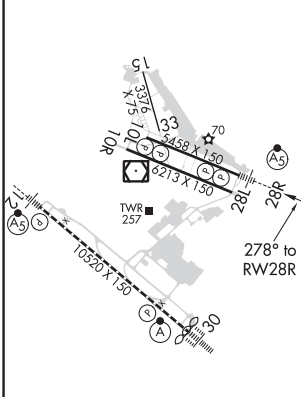
For uncompensated Baro-VNAV systems, procedure NA below 1°C (34°F) or above 54°C (130°F). For inop MALSR, increase RNP 0.11 DA all Cats visibility to RVR 4500. GPS required.

MALSR

MISSED APPROACH: Climb to 3000 on track 278° to ZERMO and on track 335° to REBAS and hold.

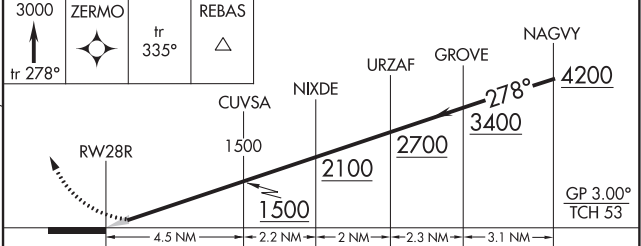
ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)	CLNC DEL 121.1	CPDLC
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ELEV 9	D	TDZE 7
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REIL Rwy 10R
 TDZ/CL Rwy 30
 MIRL Rwy 15-33
 HIRL Rwys 12-30, 10L-28R and 10R-28L



CATEGORY	A	B	C	D
RNP 0.11 DA		276/24	269 (300-½)	
RNP 0.30 DA		414/45	407 (500-¾)	

AUTHORIZATION REQUIRED

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	10000
296°	TDZE	9
	Apt Elev	9

RNAV (RNP) Z RWY 30

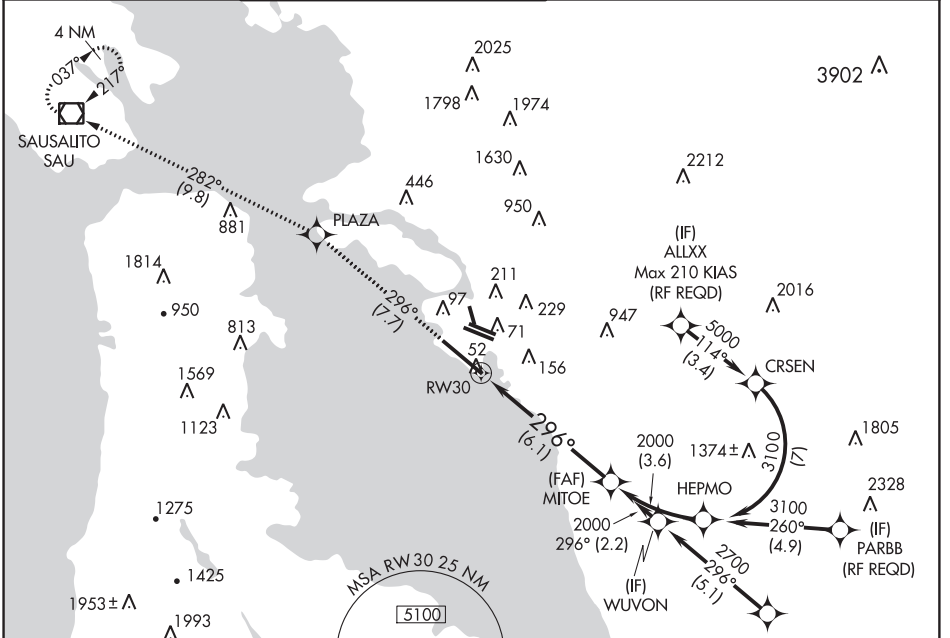
METROPOLITAN OAKLAND INTL (OAK)

ATIS 133.775	NORCAL APP CON	OAKLAND TOWER		GND CON	CLNC DEL	CPDLC
	125.35 310.8	118.3 291.65	(Rwys 10L/R-28L/R, 15-33)			
	263.15 354.1	127.2 256.9	(Rwy 12-30)	121.75	(Rwy 12-30)	

GPS required. For uncompensated Baro-VNAV systems, procedure NA below 1°C (32°F) or above 54°C (130°F). For inop ALSF-2 increase RNP 0.11 visibility all Cats to RVR 4000.

ALSF-2

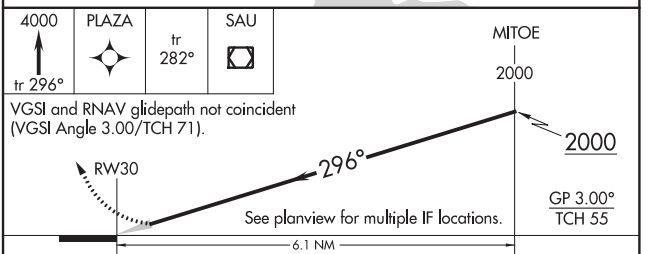
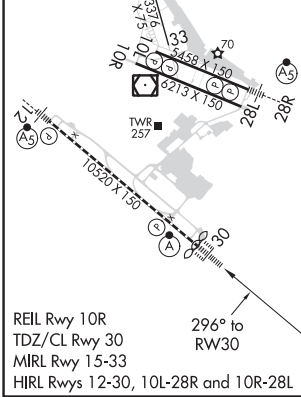
MISSED APPROACH: Climb to 4000 on track 296° to PLAZA and on track 282° to SAU VOR/DME and hold, continue climb-in-hold to 4000.



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV	9	TDZE	9
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CATEGORY	A	B	C	D
RNP 0.11 DA		267/24	258 (300-½)	
RNP 0.30 DA		317/24	308 (400-½)	

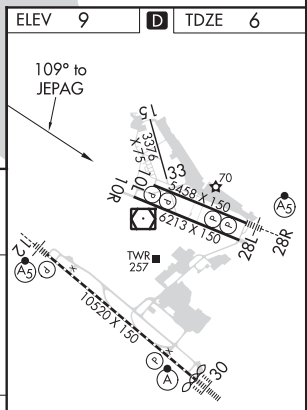
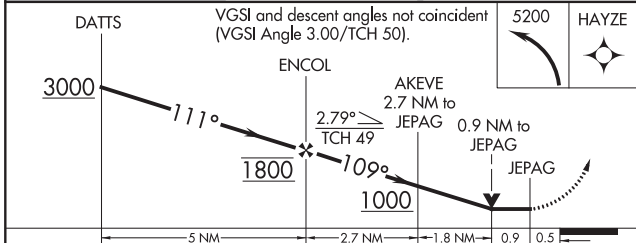
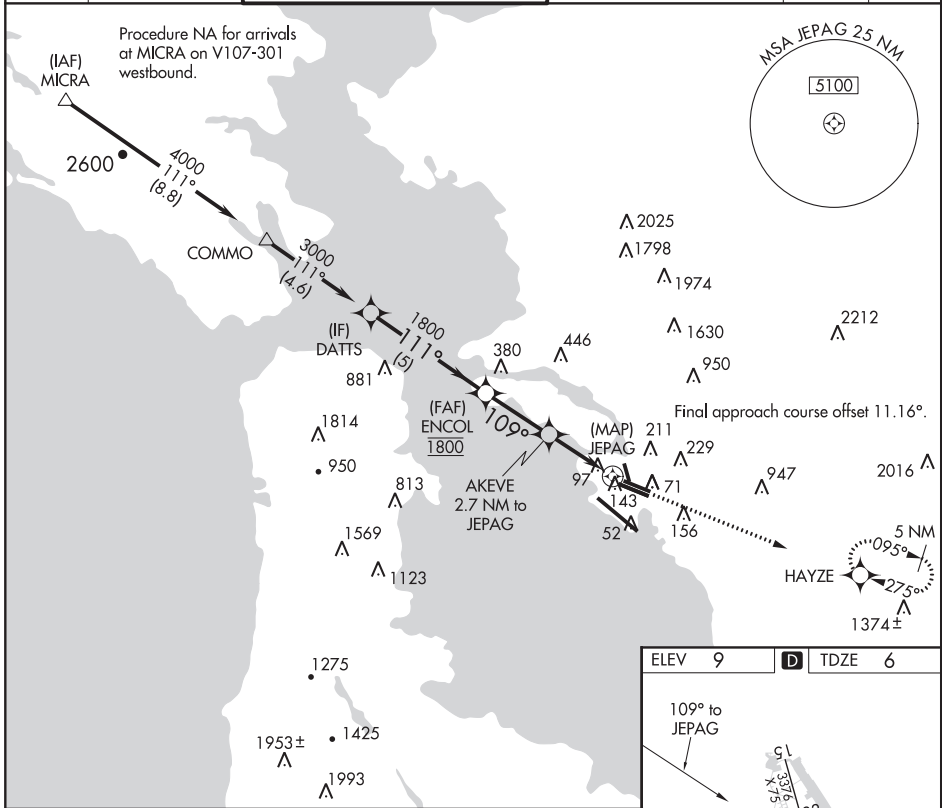
AUTHORIZATION REQUIRED

APP CRS	Rwy Idg	5336
109°	TDZE	6
	Apt Elev	9

RNAV (GPS) RWY 10L

METROPOLITAN OAKLAND INTL (OAK)

<p>▽ DME/DME RNP-0.3 NA. ▲ Helicopter visibility reduction below 3/4 SM not authorized.</p>	<p>OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)</p>		<p>GND CON 121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)</p>		<p>CLNC DEL 121.1</p>	<p>CPDLC</p>
	<p>ATIS 133.775</p>	<p>NORCAL APP CON 125.35 310.8 263.15 354.1</p>				



CATEGORY	A	B	C	D
LNVA MDA	500-1 494 (500-1)		500-1 3/4 494 (500-1 3/4)	
C CIRCLING	560-1 551 (600-1)		660-1 3/4 651 (700-1 3/4)	1380-3 1371 (1400-3)

REIL Rwy 10R
TDZ/CL Rwy 30
MIRL Rwy 15-33
HIRL Rwys 12-30, 10L-28R and 10R-28L

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

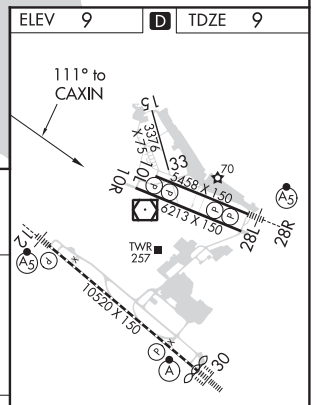
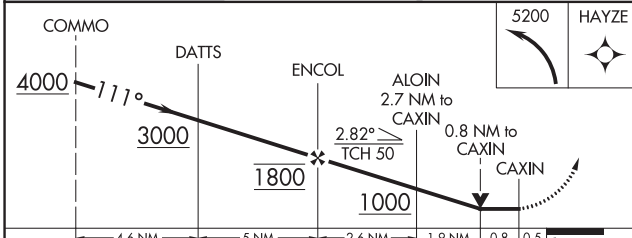
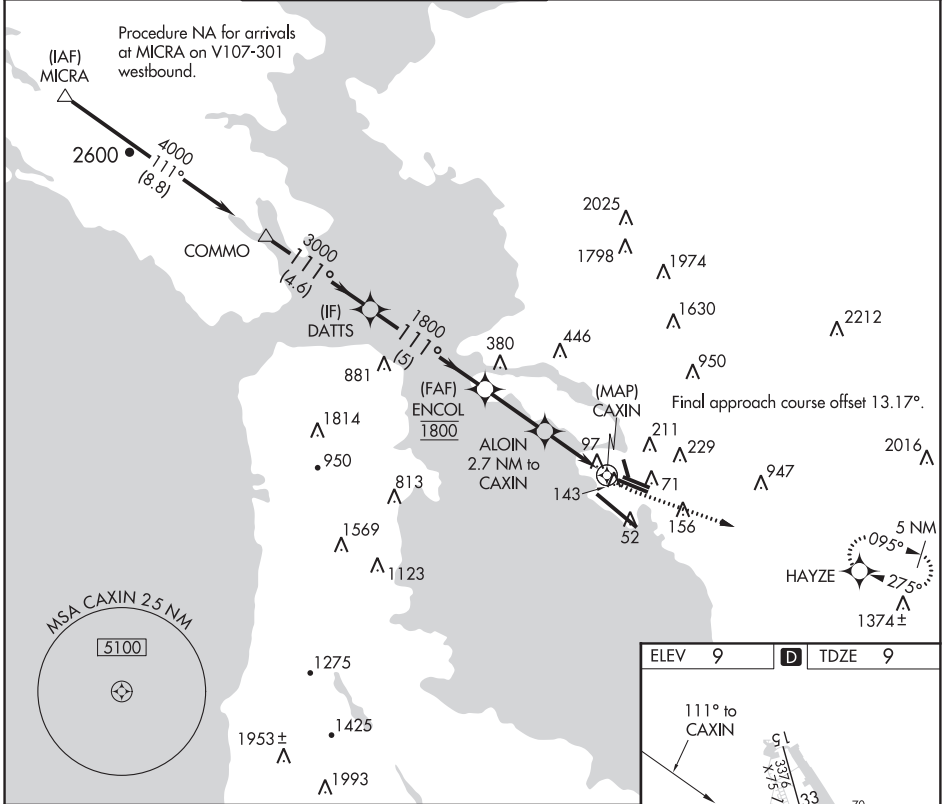
APP CRS	Rwy Idg	6213
111°	TDZE	9
	Apt Elev	9

RNAV (GPS) RWY 10R

METROPOLITAN OAKLAND INTL (OAK)

<p>▽ DME/DME RNP-0.3 NA. ▲ Helicopter visibility reduction below 3/4 SM not authorized.</p>	<p>MISSED APPROACH: Climbing left turn to 5200 direct HAYZE and hold, continue climb-in-hold to 5200.</p>	
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ATIS	NORCAL APP CON	OAKLAND TOWER	GND CON	CLNC DEL	CPDLC
133.775	125.35 310.8	118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)	121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)	121.1	



CATEGORY	A	B	C	D
LNVA MDA	480-1 471 (500-1)		480-1 3/8 471 (500-1 3/8)	
C CIRCLING	560-1 551 (600-1)		660-1 3/4 651 (700-1 3/4)	1380-3 1371 (1400-3)

REIL Rwy 10R
TDZ/CL Rwy 30
MIRL Rwy 15-33
HIRL Rwys 12-30, 10L-28R and 10R-28L

SW-2, 10 NOV 2016 to 05 JAN 2017

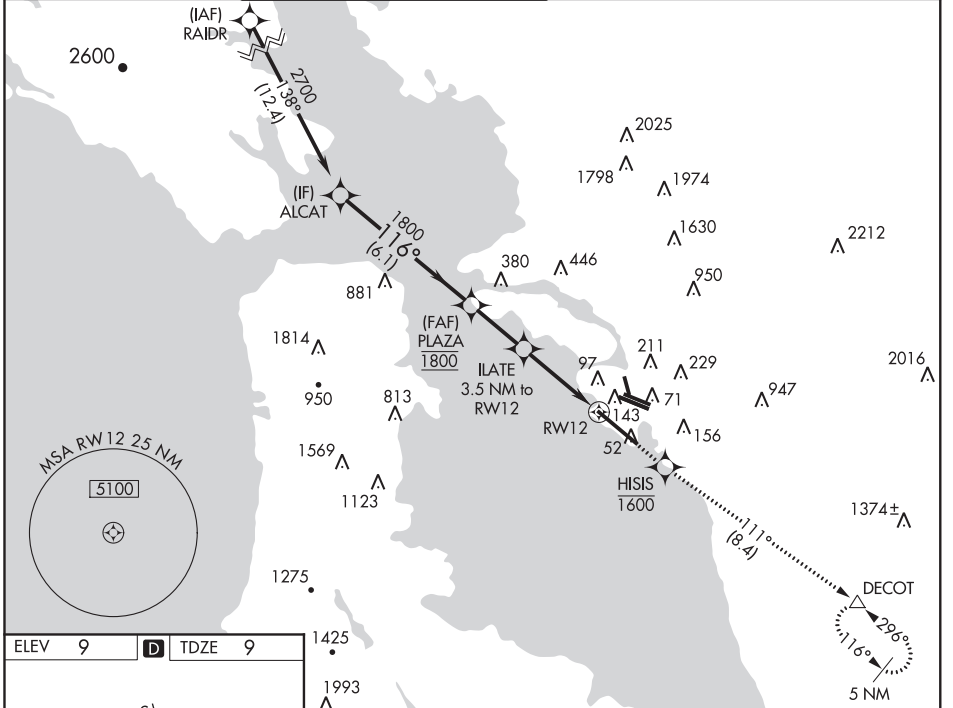
SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 86418 W12A	APP CRS 116°	Rwy Idg 10000 TDZE 9 Apt Elev 9
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RNAV (GPS) Y RWY 12

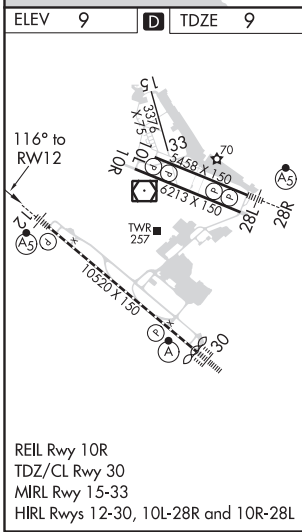
METROPOLITAN OAKLAND INTL (OAK)

<p>▽ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 0°C (32°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.</p> <p>▲ MISLSR</p>	<p>OAKLAND TOWER</p> <p>118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)</p>		<p>GND CON</p> <p>121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)</p>		<p>CLNC DEL 121.1</p>	<p>CPDLC</p>
	<p>ATIS 133.775</p>	<p>NORCAL APP CON 125.35 310.8 263.15 354.1</p>	<p>MISSED APPROACH: Climb direct HISIS to cross HISIS at or below 1600, then climb to 5400 on track 111° to DECOT and hold, continue climb-in-hold to 5400.</p>			



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



<p>VGSI and RNAV glidepath not coincident (VGSI Angle 2.75/TCH 70).</p>			
<p>ALCAT</p> <p>2700</p>		<p>HISIS 5400 tr 111°</p>	
<p>PLAZA 1800</p>		<p>DECOT</p>	
<p>ILATE 3.5 NM to RWY 12</p>		<p>*LNAV only.</p>	
<p>GP 2.75° TCH 55</p>		<p>*1080</p>	
<p>6.1 NM</p>		<p>1 NM</p>	
<p>CATEGORY</p>	A	B	D
<p>LPV DA</p>	209/24 200 (200-½)		
<p>LNAV/ VNAV DA</p>	304/27 295 (300-⅝)		
<p>LNAV MDA</p>	360/24 351 (400-½)	360/30	351 (400-⅝)
<p>C CIRCLING</p>	560-1 551 (600-1)	660-1¾ 651 (700-1¾)	1380-3 1371 (1400-3)

OAKLAND, CALIFORNIA

AL-294 (FAA)

16259

WAAS CH 72700 W28A	APP CRS 278°	Rwy Idg TDZE Apt Elev	6213 9 9
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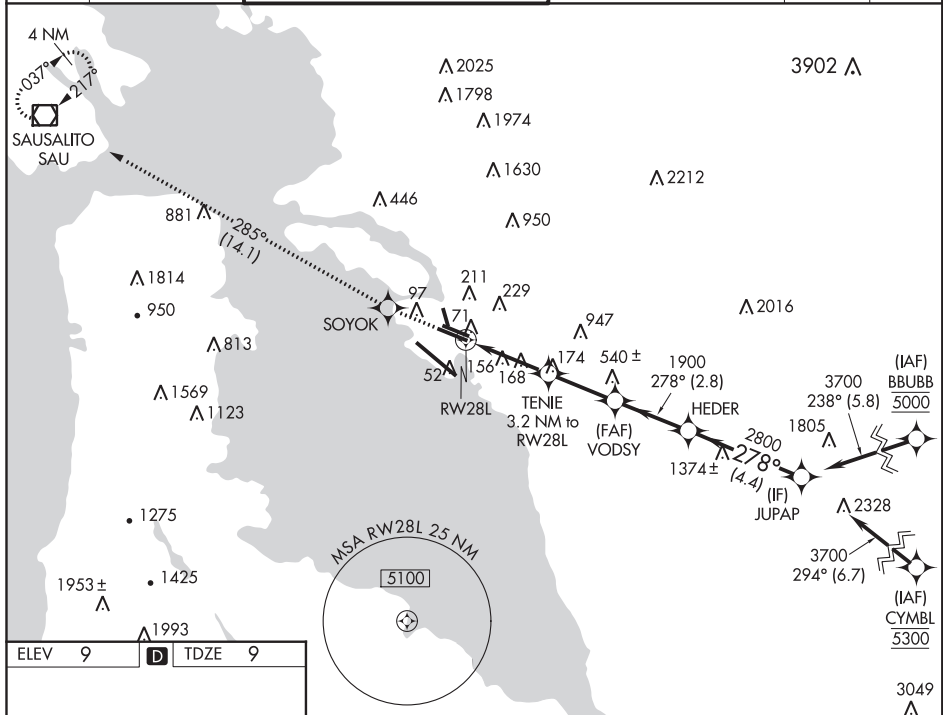
RNAV (GPS) Y RWY 28L

METROPOLITAN OAKLAND INTL (OAK)

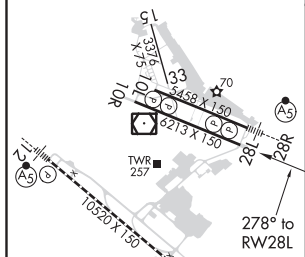
▽ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 0°C (32°F) or above 54°C (130°F).
▲ DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 4000 direct SOYOK and on track 285° to SAU VOR/DME and hold, continue climb-in-hold to 4000.

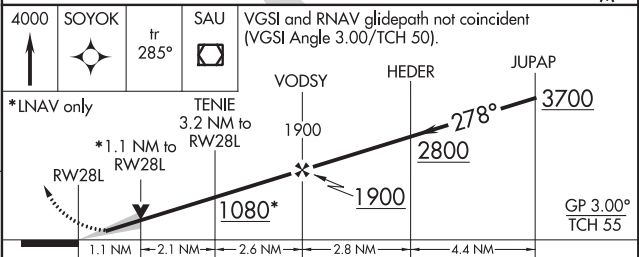
ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)	CLNC DEL 121.1	CPDLC
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ELEV 9	D	TDZE 9
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REIL Rwy 10R
 TDZ/CL Rwy 30
 MIRL Rwy 15-33
 HIRL Rwys 12-30, 10L-28R and 10R-28L



CATEGORY	A	B	C	D
LPV DA		209/40	200 (200-¾)	
LNAV/VNAV DA		387-1¼	378 (400-1¼)	
LNAV MDA	420/55	411 (500-1¼)	420/60	411 (500-1¼)
C CIRCLING	560-1	551 (600-1)	660-1¾ 651 (700-1¾)	1400-3 1391 (1400-3)

OAKLAND, CALIFORNIA
 Amdt 4A 15SEP16

37°43'N-122°13'W

RNAV (GPS) Y RWY 28L

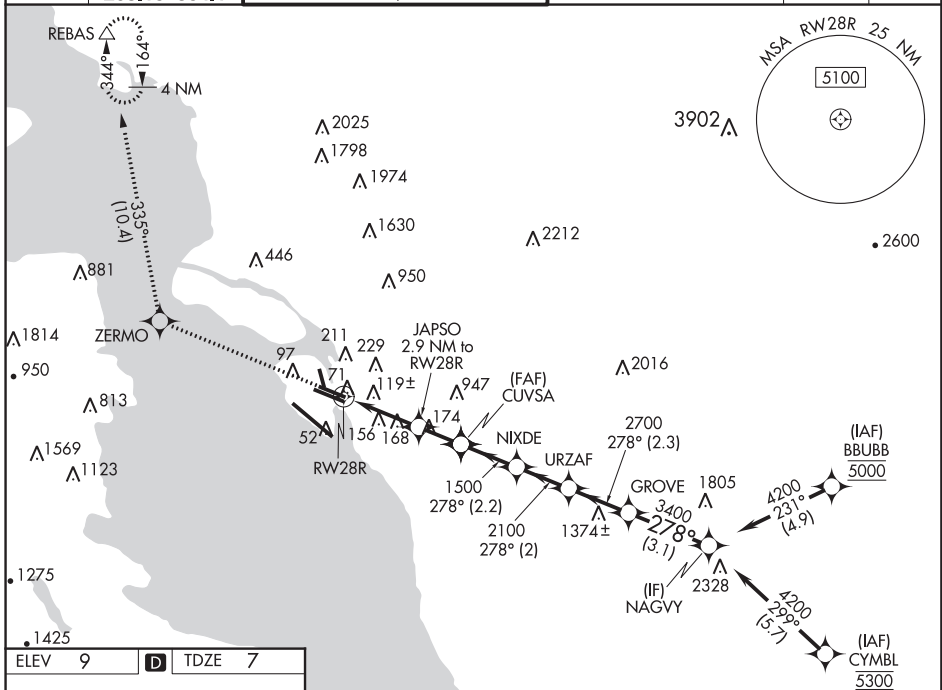
SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 42535 W28B	APP CRS 278°	Rwy Idg TDZE Apt Elev	5458 7 9
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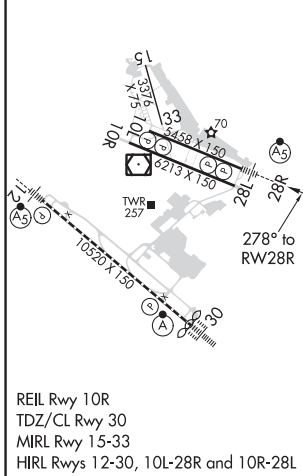
RNAV (GPS) Y RWY 28R

METROPOLITAN OAKLAND INTL (OAK)

V DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, A LNAV/VNAV NA below 1°C (34°F) or above 54°C (130°F).	MALSR 	MISSED APPROACH: Climb to 3000 direct ZERMO and on track 335° to REBAS and hold.			
		ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)



ELEV 9	D	TDZE 7
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3000	ZERMO	tr	REBAS					
		335°						
*LNAV only.								
				JAPSO	CUVSA	NIXDE	URZAF	GROVE
				2.9 NM to RWY 28R	1500			
				1.2 NM to RWY 28R	980	1500	2700	3400
								278°
								278°
								4200
								(IF) NAGVY
								GP 3.00°
								TCH 53
CATEGORY	A		B		C		D	
LPV DA	207/24		200 (200-½)					
LNAV/VNAV DA	387/40		380 (400-¾)					
LNAV MDA	440/24	433 (500-½)	440/40		433 (500-¾)			
C CIRCLING	560-1	551 (600-1)	660-1¾		651 (700-1¾)		1400-3	
					1391 (1400-3)			

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 93535 W30A	APP CRS 296°	Rwy Idg 10000 TDZE 9 Apt Elev 9
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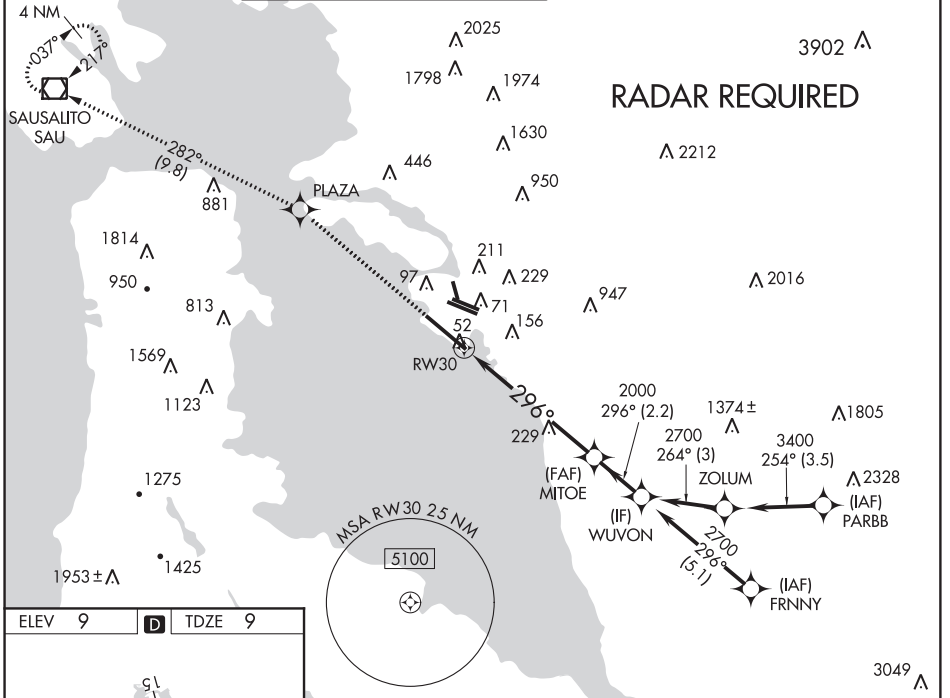
RNAV (GPS) Y RWY 30

METROPOLITAN OAKLAND INTL (OAK)

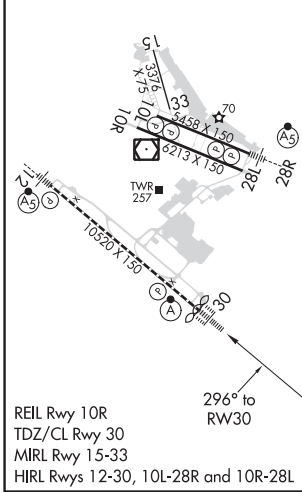
⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 1°C (34°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inop ALSF-2, increase LNAV/VNAV all Cats visibility to RVR 4500 and LNAV Cat C/D visibility to 1½ mile.

ALSF-2 MISSED APPROACH: Climb to 4000 direct PLAZA and on track 282° to SAU VOR/DME and hold, continue climb-in-hold to 4000.

ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)	CLNC DEL 121.1	CPDLC
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ELEV 9	D	TDZE 9
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4000	PLAZA	tr 282°	SAU	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 71).	WUVON
*LNAV only		*1.6 NM to RWY 30		MITOE 2000	2700
				2000	GP 3.00° TCH 55
				1.6 NM	4.5 NM
				2.2 NM	
CATEGORY	A	B	C	D	
LPV DA		209/24	200 (200-½)		
LNAV/VNAV DA		283/24	274 (300-½)		
LNAV MDA	580/24	571 (600-½)	580-1¼	571 (600-1¼)	
C CIRCLING	580-1	571 (600-1)	660-1¾ 651 (700-1¾)	1400-3 1391 (1400-3)	

SW-2, 10 NOV 2016 to 05 JAN 2017

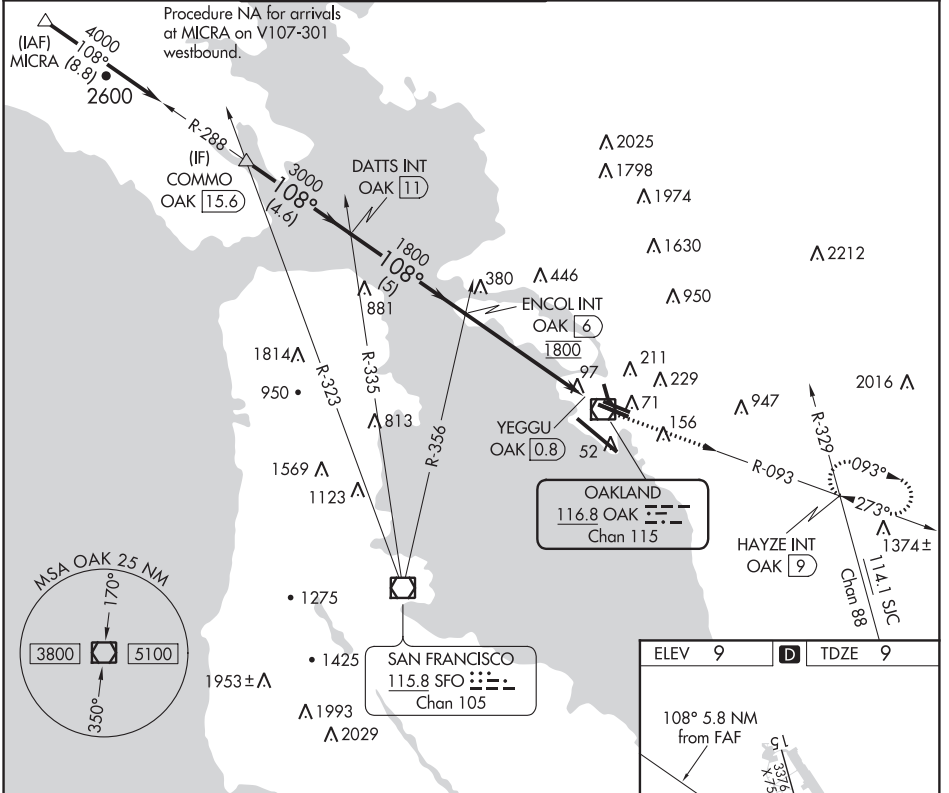
SW-2, 10 NOV 2016 to 05 JAN 2017

VOR/DME OAK 116.8 Chan 115	APP CRS 108°	Rwy Idg TDZE Apt Elev	6213 9 9
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VOR RWY 10R

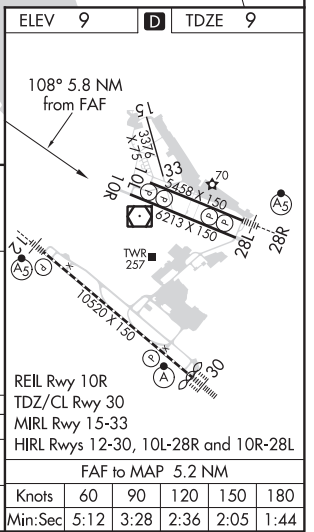
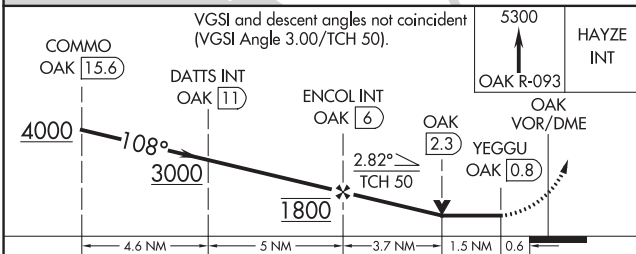
METROPOLITAN OAKLAND INTL (OAK)

Helicopter visibility reduction below $\frac{3}{4}$ SM NA.		MISSED APPROACH: Climb to 5300 on OAK VOR/DME R-093 to HAYZE INT/OAK 9 DME and hold, continue climb-in-hold to 5300.	
ATIS 133.775	NORCAL APP CON 125.35 310.8 263.15 354.1	OAKLAND TOWER 118.3 291.65 (Rwys 10L/R-28L/R, 15-33) 127.2 256.9 (Rwy 12-30)	GND CON 121.9 (Rwys 10L/R-28L/R, 15-33) 121.75 (Rwy 12-30)
			CLNC DEL 121.1
CPDLC			



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-10R	740-1 731 (800-1)		740-2 731 (800-2)	
CIRCLING	740-1 731 (800-1)		740-2 731 (800-2)	1380-3 1371 (1400-3)

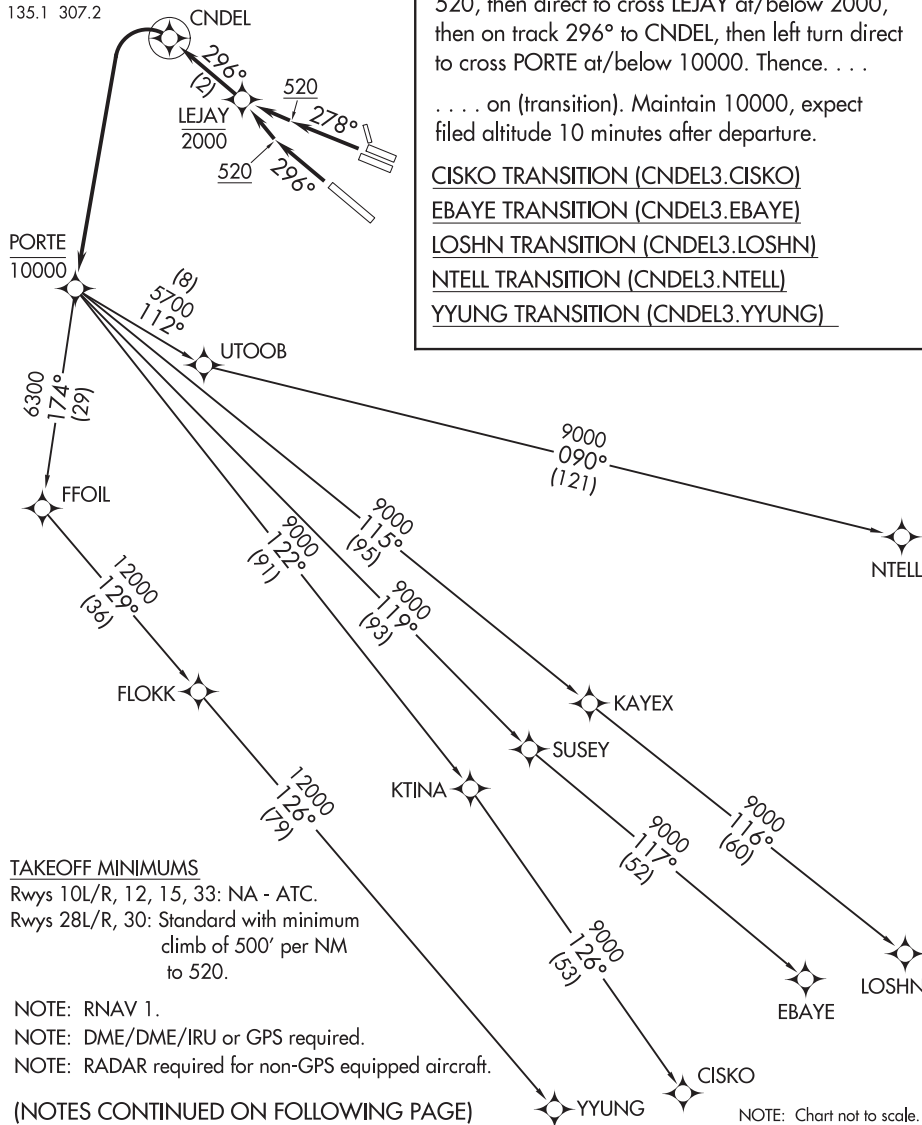
ATIS 133.775
 CLNC DEL
 121.1
 CPDLC
 GND CON
 121.9 (Rwys 28L/R)
 121.75 (Rwy 30)
 OAKLAND TOWER
 118.3 291.65 (Rwys 28L/R)
 127.2 256.9 (Rwy 30)
 NORCAL DEP CON
 135.1 307.2

TOP ALTITUDE:
10000

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 28L, 28R: Climb heading 278° to 520, then direct to cross LEJAY at/below 2000, then on track 296° to CNDEL, then left turn direct to cross PORTE at/below 10000. Thence. . . .
TAKEOFF RUNWAY 30: Climb heading 296° to 520, then direct to cross LEJAY at/below 2000, then on track 296° to CNDEL, then left turn direct to cross PORTE at/below 10000. Thence. . . .
 on (transition). Maintain 10000, expect filed altitude 10 minutes after departure.

- CISKO TRANSITION (CNDEL3.CISKO)
- EBAYE TRANSITION (CNDEL3.EBAYE)
- LOSHN TRANSITION (CNDEL3.LOSHN)
- NTELL TRANSITION (CNDEL3.NTELL)
- YYUNG TRANSITION (CNDEL3.YYUNG)



TAKEOFF MINIMUMS

Rwys 10L/R, 12, 15, 33: NA - ATC.
 Rwys 28L/R, 30: Standard with minimum climb of 500' per NM to 520.

- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: RADAR required for non-GPS equipped aircraft.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(CNDEL3.CNDEL) 16091

CNDEL THREE DEPARTURE (RNAV)

METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

SL-294 (FAA)

TAKEOFF OBSTACLE NOTES

- Rwy 28L: Rising terrain beginning 8' from DER, crossing centerline, up to 9' MSL.
Multiple trees beginning 105' from DER, 35' left of centerline, up to 64' AGL/80' MSL.
Traffic lights and poles beginning 895' from DER, 164' left of centerline, up to 29' AGL/37' MSL.
Substation 1593' from DER, 871' left of centerline, 37' AGL/53' MSL.
Fence 95' from DER, 410' left of centerline, 6' AGL/13' MSL.
Multiple trees beginning 994' from DER, 55' right of centerline, up to 91' AGL/96' MSL.
- Rwy 28R: Multiple trees beginning 1745' from DER, 23' left of centerline, up to 91' AGL/96' MSL.
Multiple trees beginning 2053' from DER, 88' right of centerline, up to 109' AGL/111' MSL.
- Rwy 30: Light pole 582' from DER, 483' left of centerline, 16' AGL/26' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

CNDEL THREE DEPARTURE (RNAV)

(CNDEL3.CNDEL) 20AUG15

OAKLAND, CALIFORNIA
METROPOLITAN OAKLAND INTL (OAK)

(COAST8.MCKEY) 16259
COAST EIGHT DEPARTURE

SL-294 (FAA)

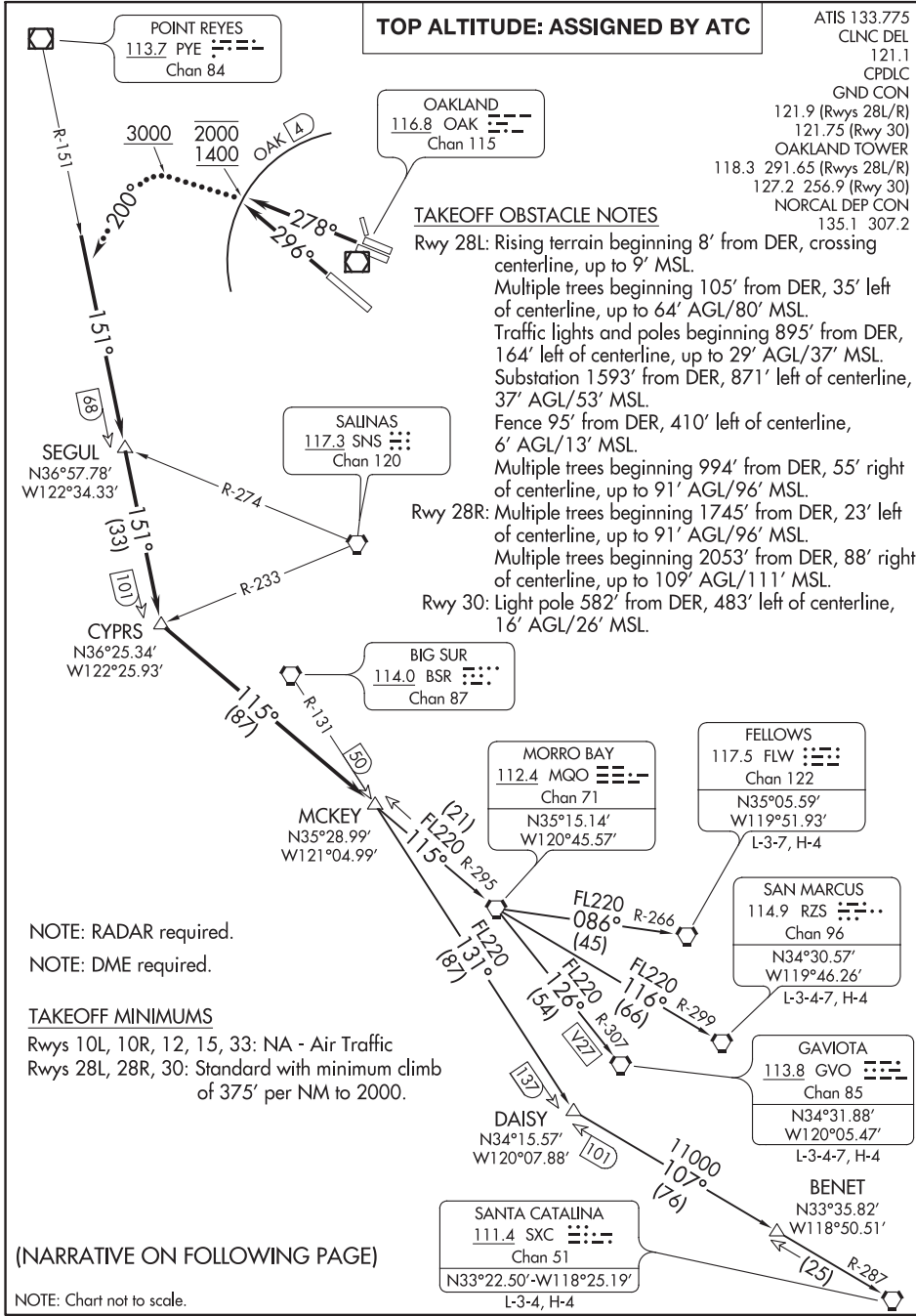
METROPOLITAN OAKLAND INTL (OAK)
 OAKLAND, CALIFORNIA

TOP ALTITUDE: ASSIGNED BY ATC

ATIS 133.775
 CLNC DEL
 121.1
 CPDLC
 GND CON
 121.9 (Rwys 28L/R)
 121.75 (Rwy 30)
 OAKLAND TOWER
 118.3 291.65 (Rwys 28L/R)
 127.2 256.9 (Rwy 30)
 NORCAL DEP CON
 135.1 307.2

TAKEOFF OBSTACLE NOTES

Rwy 28L: Rising terrain beginning 8' from DER, crossing centerline, up to 9' MSL.
 Multiple trees beginning 105' from DER, 35' left of centerline, up to 64' AGL/80' MSL.
 Traffic lights and poles beginning 895' from DER, 164' left of centerline, up to 29' AGL/37' MSL.
 Substation 1593' from DER, 871' left of centerline, 37' AGL/53' MSL.
 Fence 95' from DER, 410' left of centerline, 6' AGL/13' MSL.
 Multiple trees beginning 994' from DER, 55' right of centerline, up to 91' AGL/96' MSL.
 Rwy 28R: Multiple trees beginning 1745' from DER, 23' left of centerline, up to 91' AGL/96' MSL.
 Multiple trees beginning 2053' from DER, 88' right of centerline, up to 109' AGL/111' MSL.
 Rwy 30: Light pole 582' from DER, 483' left of centerline, 16' AGL/26' MSL.



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: RADAR required.
 NOTE: DME required.

TAKEOFF MINIMUMS
 Rwys 10L, 10R, 12, 15, 33: NA - Air Traffic
 Rwys 28L, 28R, 30: Standard with minimum climb of 375' per NM to 2000.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

COAST EIGHT DEPARTURE
 (COAST8.MCKEY) 15SEP16

OAKLAND, CALIFORNIA
 METROPOLITAN OAKLAND INTL (OAK)

(COAST8.MCKEY) 16259

COAST EIGHT DEPARTURE

SL-294 (FAA)

METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 28L/R: Climb heading 278° for RADAR vectors to PYE R-151, cross 4 DME northwest of OAK VOR/DME above 1400 and at or below 2000. Thence

TAKEOFF RUNWAY 30: Climb heading 296° for RADAR vectors to PYE R-151, cross 4 DME northwest of OAK VOR/DME at or above 1400 and at or below 2000. Thence

. . . . intercept and proceed on the PYE R-151 to SEGUL INT, then on PYE R-151 to CYPRS INT, then on MQO R-295 to MCKEY INT, then on assigned (transition). Maintain FL220. Expect clearance to filed altitude ten minutes after departure.

LOST COMMUNICATIONS: After reaching 3000, turn left heading 200° to intercept and proceed on PYE R-151, then resume own navigation.

FELLOWS TRANSITION (COAST8.FLW): From over MCKEY INT on MQO R-295 to MQO VORTAC, then on MQO R-086 and FLW R-266 to FLW VORTAC.

GAVIOTA TRANSITION (COAST8.GVO): From over MCKEY INT on MQO R-295 to MQO VORTAC, then on MQO R-126 and GVO R-307 to GVO VORTAC.

SAN MARCUS TRANSITION (COAST8.RZS): From over MCKEY INT on MQO R-295 to MQO VORTAC, then on MQO R-116 and RZS R-299 to RZS VORTAC.

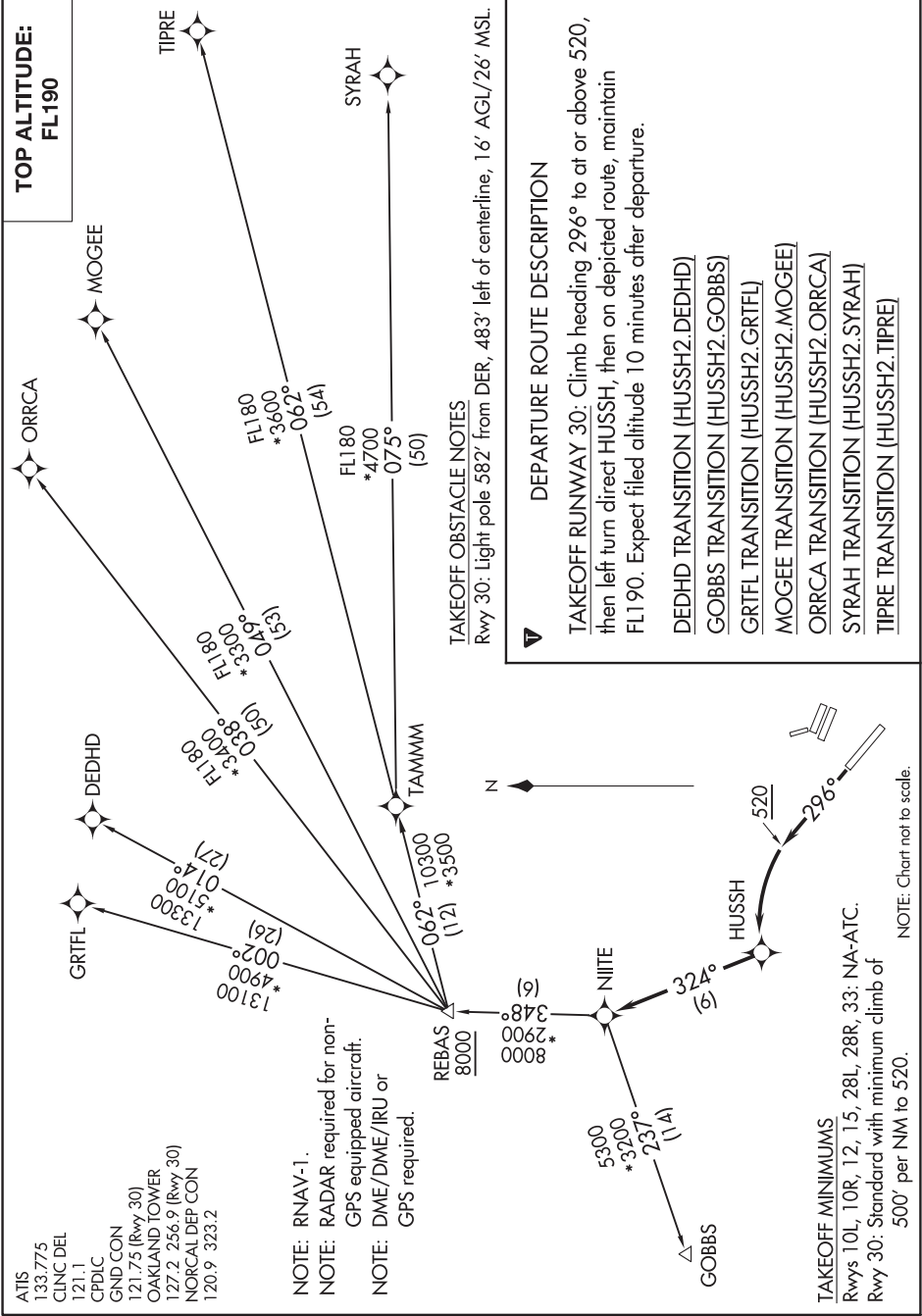
SANTA CATALINA TRANSITION (COAST8.SXC): From over MCKEY INT on BSR R-131 to DAISY INT, then on SXC R-287 to SXC VORTAC.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

COAST EIGHT DEPARTURE
(COAST8.MCKEY) 15SEP16OAKLAND, CALIFORNIA
METROPOLITAN OAKLAND INTL (OAK)

SW-2, 10 NOV 2016 to 05 JAN 2017



SW-2, 10 NOV 2016 to 05 JAN 2017

(KATFH2.KATFH) 16203

KATFH TWO DEPARTURE (RNAV)

SL-294 (FAA)

METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

ATIS 133.775
 CLNC DEL
 121.1
 CPDLC
 GND CON
 121.9 (Rwys 10L/R)
 121.75 (Rwy 12)
 OAKLAND TOWER
 118.3 291.65 (Rwys 10L/R)
 127.2 256.9 (Rwy 12)
 NORCAL DEP CON
 135.1 307.2

TOP ALTITUDE:
3000



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L, 10R: Climb heading 098° to 520, then right turn direct to cross ROWLY at/below 3000, then on track 150° to cross VYYDA at/below 4000, then on track 150° to cross KATFH at/above 6000. Thence. . . .

TAKEOFF RUNWAY 12: Climb heading 116° to 520, then direct to cross ROWLY at/below 3000, then on track 150° to cross VYYDA at/below 4000, then on track 150° to cross KATFH at/above 6000. Thence. . . .

. . . .on (transition). Expect filed altitude 10 minutes after departure.

CISCO TRANSITION (KATFH2.CISCO)

EBAYE TRANSITION (KATFH2.EBAYE)

LOSHN TRANSITION (KATFH2.LOSHN)

NTELL TRANSITION (KATFH2.NTELL)

TAKEOFF MINIMUMS

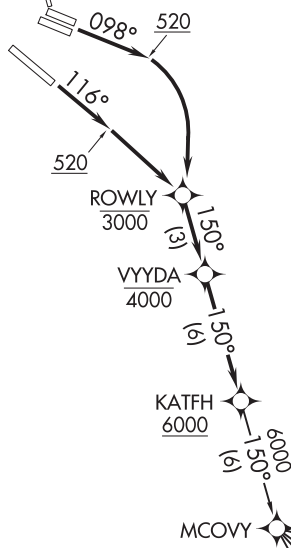
Rwys 15, 28L/R, 30, 33: NA-ATC.

Rwys 10L/R, 12: Standard with minimum climb of 500' per NM to 520.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: RADAR required for non-GPS equipped aircraft.



TAKEOFF OBSTACLE NOTES

Rwy 10L: Building, hangar and road beginning 225' from DER, 554' left of centerline, up to 37' AGL/42' MSL.

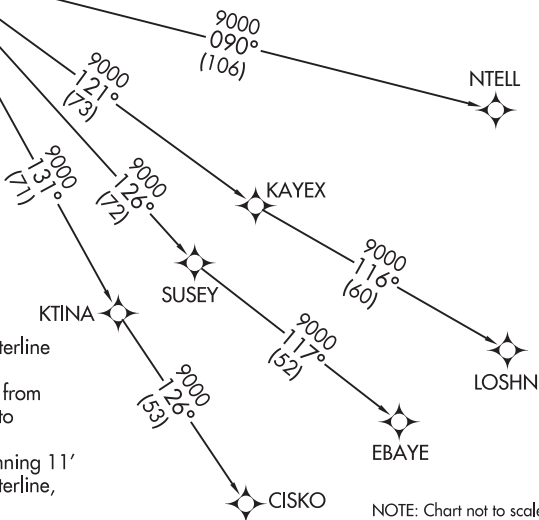
Trees beginning 1644' from DER, 309' left of centerline, up to 59' AGL/67' MSL.

Rwy 10R: Runway lights 9' from DER, 26' left and right of centerline, 1' AGL/9' MSL.

Sign 63' from DER, 251' left of centerline, 4' AGL/10' MSL.
 Signs, fence and poles beginning 361' from DER, 540' right of centerline up to 35' AGL/44' MSL.

Signs and trees beginning 1160' from DER, 177' right of centerline, up to 36' AGL/50' MSL.

Rwy 12: Runway end and ALS lights beginning 11' from DER, 9' left and right of centerline, 1' AGL/10' MSL.



NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

KATFH TWO DEPARTURE (RNAV)

(KATFH2.KATFH) 20AUG15

OAKLAND, CALIFORNIA
METROPOLITAN OAKLAND INTL (OAK)

NIMITZ FOUR DEPARTURE

SL-294 (FAA)

METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

ATIS
133.775
CLNC DEL
121.1
CPDLC
NORCAL DEP CON
127.0 298.95

SCAGGS ISLAND
112.1 SGD
Chan 58
N38°10.76'-W122°22.39'
L-2-3

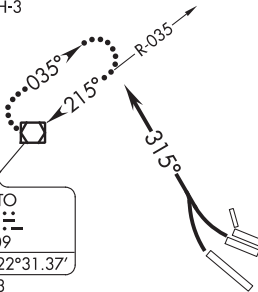
SACRAMENTO
115.2 SAC
Chan 99
N38°26.62'-W121°33.10'
L-2-3, H-3

POINT REYES
113.7 PYE
Chan 84
N38°04.79'-W122°52.07'
L-2-3, H-3

MANTECA
116.0 ECA
Chan 107
N37°50.02'
W121°10.28'
L-2-3, H-3

CONCORD
117.0 CCR
Chan 117
N38°02.70'-W122°02.71'
L-2-3

SAUSALITO
116.2 SAU
Chan 109
N37°51.32'-W122°31.37'
L-2-3, H-3



NOTE: RADAR required.

TAKEOFF OBSTACLE NOTES

- Rwy 28L: Rising terrain beginning 8' from DER, crossing centerline, up to 9' MSL.
Multiple trees beginning 105' from DER, 35' left of centerline, up to 64' AGL/80' MSL.
Traffic lights and poles beginning 895' from DER, 164' left of centerline, up to 29' AGL/37' MSL.
Substation 1593' from DER, 871' left of centerline, 37' AGL/53' MSL.
Fence 95' from DER, 410' left of centerline, 6' AGL/13' MSL.
Multiple trees beginning 994' from DER, 55' right of centerline, up to 91' AGL/96' MSL.
- Rwy 28R: Multiple trees beginning 1745' from DER, 23' left of centerline, up to 91' AGL/96' MSL.
Multiple trees beginning 2053' from DER, 88' right of centerline, up to 109' AGL/111' MSL.
- Rwy 30: Light pole 582' from DER, 483' left of centerline, 16' AGL/26' MSL.

TAKEOFF MINIMUMS

- Rwys 10L, 10R, 12, 15, 33: NA-Air Traffic.
- Rwys 28L, 28R, 30: Standard with minimum climb of 375' per NM to 2000.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 28L/R and 30: Climbing right turn heading 315° for RADAR vectors to assigned route/fix. Expect filed altitude ten minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure control after reaching 4000, proceed direct to SAU VOR/DME and hold on SAU R-035. Climb in holding pattern to assigned altitude, then proceed to assigned fix/route.

NIMITZ FOUR DEPARTURE

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NUEVO EIGHT DEPARTURE

SL-294 (FAA)

METROPOLITAN OAKLAND INTL (OAK)

OAKLAND, CALIFORNIA

**TOP ALTITUDE:
ASSIGNED BY ATC**

POINT REYES
113.7 PYE Chan 84

SAUSALITO
116.2 SAU Chan 109

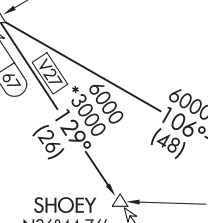
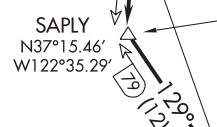
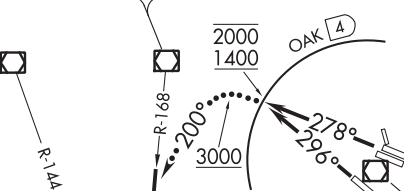
ATIS
133.775
CLNC DEL
121.1
CPDLC
GND CON
121.9 (Rwys 28L/R)
121.75 (Rwy 30)
OAKLAND TOWER
118.3 291.65 (Rwys 28L/R)
127.2 256.9 (Rwy 30)
NORCAL DEP CON
135.1 307.2

OAKLAND
116.8 OAK Chan 115

SAN JOSE
114.1 SJ Chan 88

SALINAS
117.3 SNS Chan 120
N36°39.83'-W121°36.19'
L-3, H-3

BIG SUR
114.0 BSR Chan 87



NOTE: RADAR required.

NOTE: DME required.

TAKEOFF MINIMUMS

Rwys 10L, 10R, 12, 15, 33: NA- Air traffic.
Rwys 28L, 28R, 30: Standard with minimum climb of 375' per NM to 2000.

TAKEOFF OBSTACLE NOTES

- Rwy 28L: Rising terrain beginning 8' from DER, crossing centerline, up to 9' MSL.
Multiple trees beginning 105' from DER, 35' left of centerline, up to 64' AGL/80' MSL.
Traffic lights and poles beginning 895' from DER, 164' left of centerline, up to 29' AGL/37' MSL.
Substation 1593' from DER, 871' left of centerline, 37' AGL/53' MSL.
Fence 95' from DER, 410' left of centerline, 6' AGL/13' MSL.
Multiple trees beginning 994' from DER, 55' right of centerline, up to 91' AGL/96' MSL.
- Rwy 28R: Multiple trees beginning 1745' from DER, 23' left of centerline, up to 91' AGL/96' MSL.
Multiple trees beginning 2053' from DER, 88' right of centerline, up to 109' AGL/111' MSL.
- Rwy 30: Light pole 582' from DER, 483' left of centerline, 16' AGL/26' MSL.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NUEVO EIGHT DEPARTURE

OAKLAND, CALIFORNIA

METROPOLITAN OAKLAND INTL (OAK)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 28L/R: Climb heading 278° for RADAR vectors to SAU R-168, cross 4 DME northwest of OAK VOR/DME at or above 1400 and at or below 2000. Thence

TAKEOFF RUNWAY 30: Climb heading 296° for RADAR vectors to SAU R-168, cross 4 DME northwest of OAK VOR/DME at or above 1400 and at or below 2000. Thence

. . . . intercept and proceed on the SAU R-168 to SAPLY INT and on BSR R-309 to EUGEN INT, then via assigned (transition). Expect clearance to filed altitude ten minutes after departure.

LOST COMMUNICATIONS: After reaching 3000, turn left heading 200° to intercept and proceed via SAU R-168, then resume own navigation.

SALINAS TRANSITION (NUEVO8.SNS): From over EUGEN INT on SNS R-286 to SNS VORTAC.

SHOEY TRANSITION (NUEVO8.SHOEY): From over EUGEN INT on BSR R-309 to SHOEY INT.

SW-2, 10 NOV 2016 to 05 JAN 2017

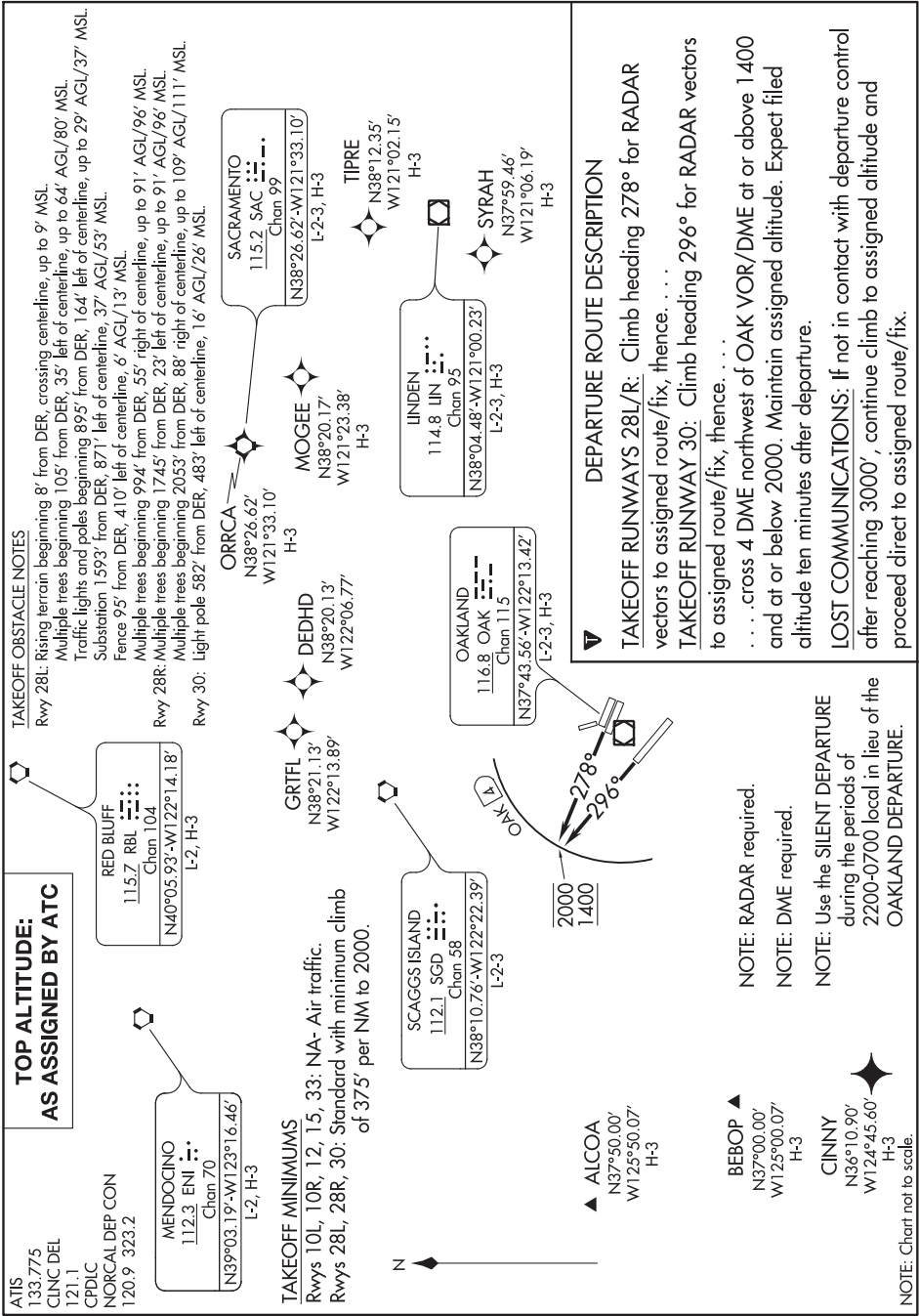
SW-2, 10 NOV 2016 to 05 JAN 2017

OAKLAND NINE DEPARTURE

SL-294 (FAA)

METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

7 NOV 2017 05:02:01 VON 01 'Z-WS



TOP ALTITUDE: AS ASSIGNED BY ATC

ATIS 133.775
 CLNC DEL 121.1
 CPDLC
 NORCAL DEP CON 120.9 323.2

MENDOCINO
 112.3 ENI
 Chan 70
 N39°03.19'-W123°16.46'
 L-2, H-3

RED BLUFF
 115.7 RBL
 Chan 104
 N40°05.93'-W122°14.18'
 L-2, H-3

TAKEOFF MINIMUMS
 Rwy 10L, 10R, 12, 15, 33: NA- Air traffic.
 Rwy 28L, 28R, 30: Standard with minimum climb of 375' per NM to 2000.



SCAGGS ISLAND
 112.1 SGD
 Chan 58
 N38°10.76'-W122°22.39'
 L-2-3

GRIFL
 N38°21.13'
 W122°13.89'

OAKLAND
 116.8 OAK
 Chan 115
 N37°43.56'-W122°13.42'
 L-2-3, H-3

SACRAMENTO
 115.2 SAC
 Chan 99
 N38°26.62'-W121°33.10'
 L-2-3, H-3

TIPRE
 N38°12.35'
 W121°02.15'
 H-3

▲ ALCOA
 N37°50.00'
 W125°50.07'
 H-3

▲ BEBOP
 N37°00.00'
 W125°00.07'
 H-3

▲ CINNY
 N36°10.90'
 W124°45.60'
 H-3

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 28L/R: Climb heading 278° for RADAR vectors to assigned route/fix, thence. . . .

TAKEOFF RUNWAY 30: Climb heading 296° for RADAR vectors to assigned route/fix, thence. . . .

. . . cross 4 DME northwest of OAK VOR/DME at or above 1400 and at or below 2000. Maintain assigned altitude. Expect filed altitude ten minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure control after reaching 3000', continue climb to assigned altitude and proceed direct to assigned route/fix.

NOTE: RADAR required.
 NOTE: DME required.

NOTE: Use the SILENT DEPARTURE during the periods of 2200-0700 local in lieu of the OAKLAND DEPARTURE.

SW-2, 10 NOV 2016 to 05 JAN 2017

(SALAD4.ALTAM) 16259

SALAD FOUR DEPARTURE

SL-294 (FAA)

METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

ATIS
133.775
CLNC DEL
121.1
CPDLC
GND CON
121.9 (Rwys 28L/R)
OAKLAND TOWER
118.3 291.65 (Rwys 28L/R)
NORCAL DEP CON
120.9 323.2

TAKEOFF MINIMUMS

Rwys 10L, 10R, 12, 15, 30, 33: NA-ATC.
Rwys 28L, 28R: Standard with minimum climb
of 370' per NM to 3000.

**TOP ALTITUDE:
ASSIGNED BY ATC**

SACRAMENTO
115.2 SAC .
Chan 99

SCAGGS ISLAND
112.1 SGD .
Chan 58

MANTECA
116.0 ECA .
Chan 107
N37°50.02'-W121°10.28'
L-2-3, H-3

SALAD
N37°46.43'
W121°57.61'
4000

V109-244
3500 *2800
070°
(27)

ALTAM
N37°48.73'
W121°44.83'
5000

OAKLAND
116.8 OAK .
Chan 115

NOTE: For Cat A/B prop aircraft only.
NOTE: For use 2200-0600L.

TAKEOFF OBSTACLE NOTES

- Rwy 28L: Rising terrain beginning 8' from DER, crossing centerline, up to 9' MSL.
Multiple trees beginning 105' from DER, 35' left of centerline, up to 64' AGL/80' MSL.
Traffic lights and poles beginning 895' from DER, 164' left of centerline, up to 29' AGL/37' MSL.
Substation 1593' from DER, 871' left of centerline, 37' AGL/53' MSL.
Fence 95' from DER, 410' left of centerline, 6' AGL/13' MSL.
Multiple trees beginning 994' from DER, 55' right of centerline, up to 91' AGL/96' MSL.
- Rwy 28R: Multiple trees beginning 1745' from DER, 23' left of centerline, up to 91' AGL/96' MSL.
Multiple trees beginning 2053' from DER, 88' right of centerline, up to 109' AGL/111' MSL.
- Rwy 30: Light pole 582' from DER, 483' left of centerline, 16' AGL/26' MSL. NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 28 L/R: Climbing right turn heading 097° to V28-109-244-392 to ALTAM INT. Cross SALAD INT/OAK 13 DME at or above 4000, cross ALTAM INT/OAK 23 DME at or above 5000. Thence . . .

. . . (transition). On depicted route. Expect filed altitude 10 minutes after departure.

MANTECA TRANSITION (SALAD4.ECA): From over ALTAM INT on ECA R-250 to ECA VOR/DME.

SALAD FOUR DEPARTURE

(SALAD4.ALTAM) 15SEP16

OAKLAND, CALIFORNIA
METROPOLITAN OAKLAND INTL (OAK)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SILENT ONE DEPARTURE

SL-294 (FAA)

METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

**TOP ALTITUDE:
ASSIGNED BY ATC**

ATIS
133.775
CLNC DEL
121.1
CPDLC
NORCAL DEP CON
120.9 323.2

RED BLUFF
115.7 RBL
Chan 104
N40°05.93'-W122°14.18'
L-2, H-3

CHICO
109.8 CIC
Chan 35
N39°47.39'-W121°50.83'
L-2

MENDOCINO
112.3 ENI
Chan 70
N39°03.19'-W123°16.46'
L-2, H-3

SAWNA
N38°52.11'
W122°24.11'

SCAGGS ISLAND
112.1 SGD
Chan 58

SACRAMENTO
115.2 SAC
Chan 99
N38°26.62'-W121°33.10'
L-2-3, H-3

SASSU
N38°22.07'
W122°23.43'

TAKEOFF MINIMUMS

Rwys 10L, 10R, 12, 15, 28L, 28R, 33: NA-ATC.

Rwy 30: Standard with minimum climb of 405' per NM to 6000.

TAKEOFF OBSTACLE NOTES

Rwy 30: Light pole 582' from DER, 483' left of centerline, 16' AGL/26' MSL.

SAUSALITO
116.2 SAU
Chan 109

LINDEN
114.8 LIN
Chan 95
N38°04.48'
W121°00.23'
L-2-3, H-3

REBAS
N37°56.44'
W122°23.02'
6000

SAN FRANCISCO
115.8 SFO
Chan 105

OAKLAND
116.8 OAK
Chan 115

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

SILENT ONE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 30: Climbing left turn heading 270° to V87 (commence right turn at SFO R-360) to REBAS INT/SFO 19 DME. Cross REBAS INT at or above 6000. Thence
. . . . (transition). Expect filed altitude 10 minutes after departure.

CHICO TRANSITION (SLNT1.CIC): From over REBAS INT on SFO R-342 to SAWNA INT, then on CIC R-189 to CIC VOR/DME.

LINDEN TRANSITION (SLNT1.LIN): From over REBAS INT on LIN R-246 to LIN VOR/DME.

MENDOCINO TRANSITION (SLNT1.ENI): From over REBAS INT on SFO R-342 to SASSU INT, then on ENI R-118 to ENI VORTAC.

RED BLUFF TRANSITION (SLNT1.RBL): From over REBAS INT on SFO R-342 to SAWNA INT, then on RBL R-168 to RBL VORTAC.

SACRAMENTO TRANSITION (SLNT1.SAC): From over REBAS INT on SAC R-216 to SAC VORTAC.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SKYLINE SIX DEPARTURE

SL-294 (FAA)

METROPOLITAN OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

**TOP ALTITUDE:
ASSIGNED BY ATC**

ATIS
133.775
CLNC DEL
121.1
CPDLC
NORCAL DEP CON
135.1 307.2

NOTE: DME required.

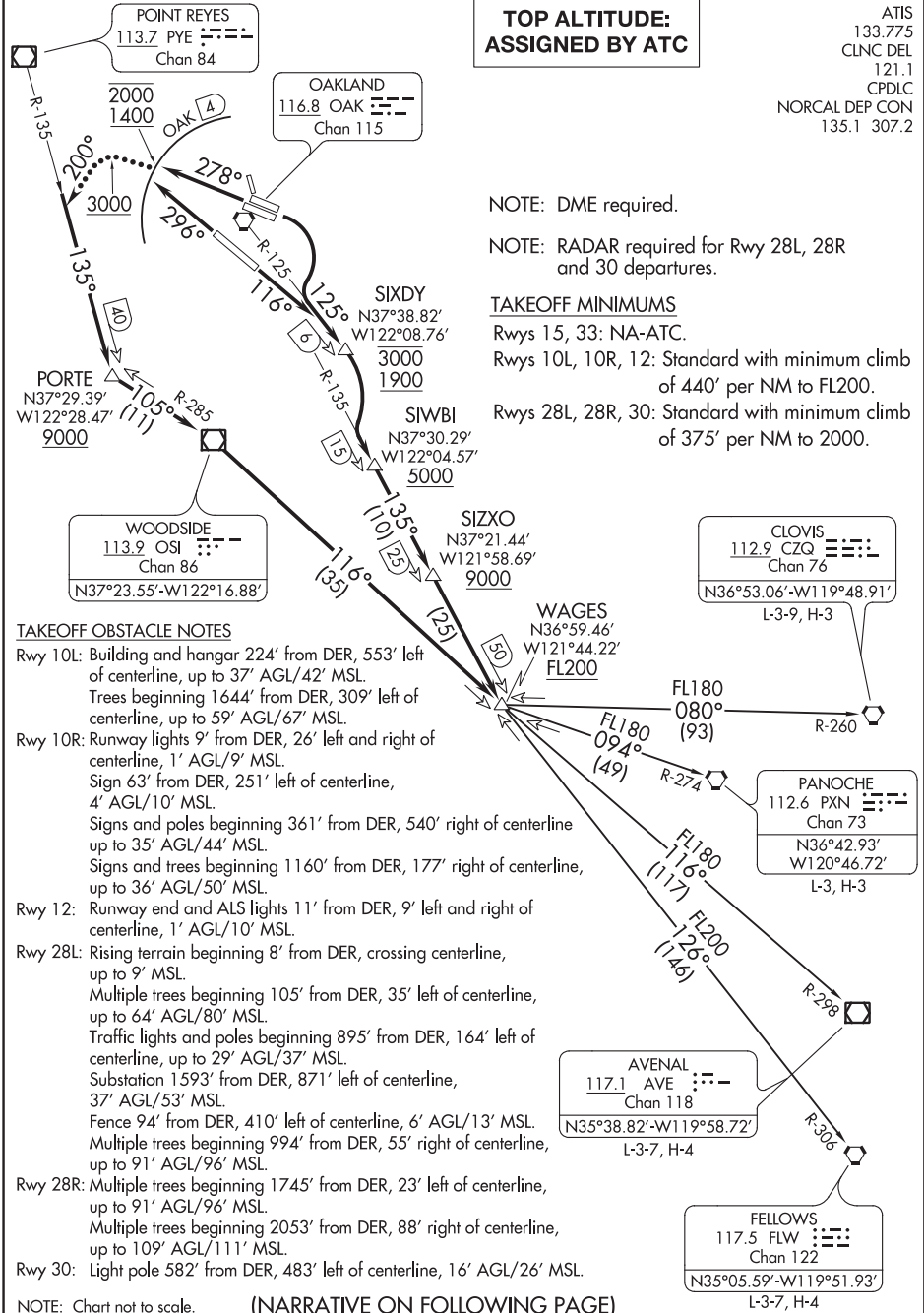
NOTE: RADAR required for Rwy 28L, 28R
and 30 departures.

TAKEOFF MINIMUMS

Rwys 15, 33: NA-ATC.

Rwys 10L, 10R, 12: Standard with minimum climb
of 440' per NM to FL200.

Rwys 28L, 28R, 30: Standard with minimum climb
of 375' per NM to 2000.



TAKEOFF OBSTACLE NOTES

- Rwy 10L: Building and hangar 224' from DER, 553' left of centerline, up to 37' AGL/42' MSL. Trees beginning 1644' from DER, 309' left of centerline, up to 59' AGL/67' MSL.
- Rwy 10R: Runway lights 9' from DER, 26' left and right of centerline, 1' AGL/9' MSL. Sign 63' from DER, 251' left of centerline, 4' AGL/10' MSL. Signs and poles beginning 361' from DER, 540' right of centerline up to 35' AGL/44' MSL. Signs and trees beginning 1160' from DER, 177' right of centerline, up to 36' AGL/50' MSL.
- Rwy 12: Runway end and ALS lights 11' from DER, 9' left and right of centerline, 1' AGL/10' MSL.
- Rwy 28L: Rising terrain beginning 8' from DER, crossing centerline, up to 9' MSL. Multiple trees beginning 105' from DER, 35' left of centerline, up to 64' AGL/80' MSL. Traffic lights and poles beginning 895' from DER, 164' left of centerline, up to 29' AGL/37' MSL. Substation 1593' from DER, 871' left of centerline, 37' AGL/53' MSL. Fence 94' from DER, 410' left of centerline, 6' AGL/13' MSL. Multiple trees beginning 994' from DER, 55' right of centerline, up to 91' AGL/96' MSL.
- Rwy 28R: Multiple trees beginning 1745' from DER, 23' left of centerline, up to 91' AGL/96' MSL. Multiple trees beginning 2053' from DER, 88' right of centerline, up to 109' AGL/111' MSL.
- Rwy 30: Light pole 582' from DER, 483' left of centerline, 16' AGL/26' MSL.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SKYLINE SIX DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/R: Climbing right turn to intercept OAK R-125, cross SIXDY/OAK 6 DME at or below 3000 and at or above 1900, then climbing right turn to intercept and proceed on the OAK R-135 to cross SIWBI/OAK 15 DME at or above 5000 and cross SIZXO/OAK 25 DME at or above 9000 to cross WAGES INT/OAK 50 DME at or above FL200. Thence

TAKEOFF RUNWAY 12: Climb on course 116° to intercept OAK R-125, cross SIXDY/OAK 6 DME at or below 3000 and at or above 1900, then climbing right turn to intercept and proceed on the OAK R-135 to cross SIWBI/OAK 15 DME at or above 5000 and cross SIZXO/OAK 25 DME at or above 9000 to cross WAGES INT/OAK 50 DME at or above FL200. Thence

TAKEOFF RUNWAYS 28L/R: Climb on heading 278° for vectors to PYE R-135, cross 4 DME northwest of OAK VORTAC at or below 2000 and at or above 1400. Intercept and proceed on the PYE R-135 to cross PORTE INT/PYE 40 DME at or above 9000, then on OSI R-285 to OSI VOR/DME, then on OSI R-116 to cross WAGES INT/OSI 35 DME at or above FL200. Thence

TAKEOFF RUNWAY 30: Climb on heading 296° for vectors to PYE R-135, cross 4 DME northwest of OAK VORTAC at or below 2000 and at or above 1400. Intercept and proceed on the PYE R-135 to cross PORTE INT/PYE 40 DME at or above 9000, then on OSI R-285 to OSI VOR/DME, then on OSI R-116 to cross WAGES INT/OSI 35 DME at or above FL200. Thence

. . . . via (transition) or (assigned route). Expect filed altitude 10 minutes after departure.

LOST COMMUNICATIONS

TAKEOFF RUNWAYS 28L/R and 30: After reaching 3000, turn left heading 200°, intercept and proceed via the PYE R-135. Resume your own navigation.

AVENAL TRANSITION (SKYL6.AVE): From over WAGES INT on OSI R-116 and AVE R-298 to AVE VOR/DME.

CLOVIS TRANSITION (SKYL6.CZQ): From over WAGES INT on CZQ R-260 to CZQ VORTAC.

FELLOWS TRANSITION (SKYL6.FLW): From over WAGES INT on FLW R-306 to FLW VORTAC.

PANOCHÉ TRANSITION (SKYL6.PXN): From over WAGES INT on PXN R-274 to PXN VORTAC.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ORLAND, CALIFORNIA

AL-6410 (FAA)

16035

VOR/DME CIC 109.8 Chan 35	APP CRS 238°	Rwy Idg TDZE Apt Elev	N/A N/A 215
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VOR or GPS-A

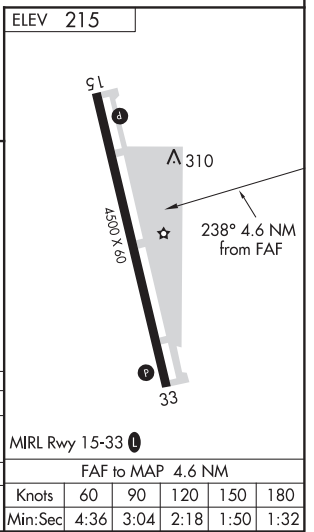
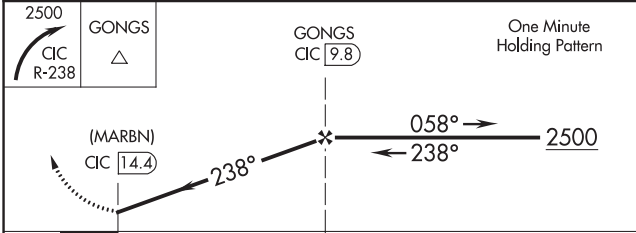
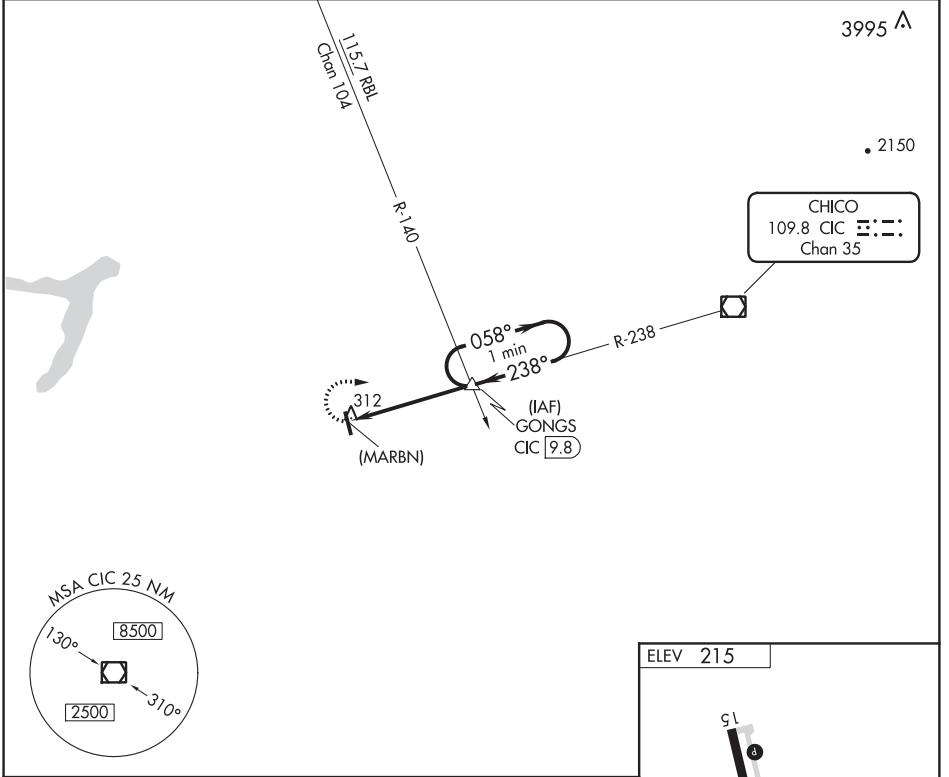
HAIGH FIELD (O37)

NA Use Chico altimeter setting, when not received, use Redding altimeter setting.

MISSED APPROACH: Climbing right turn to 2500 via CIC R-238 to GONGS INT and hold.

OAKLAND CENTER **132.2 350.3**

UNICOM **122.7**(CTAF) **1**



CATEGORY	A	B	C	D	
CIRCLING	1100-1¼	885 (900-1¼)	1100-2¾ 885 (900-2¾)	1100-3 885 (900-3)	
REDDING ALTIMETER SETTING MINIMUMS					
CIRCLING	1220-1¼ 1005 (1100-1¼)	1220-1½ 1005 (1100-1½)	1220-3	1005 (1100-3)	
FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

ORLAND, CALIFORNIA
Amdt 6A 29JUL10

39°43'N - 122°09'W

VOR or GPS-A

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 49026 W02A	APP CRS 017°	Rwy Idg TDZE 6020 182 Apt Elev 194
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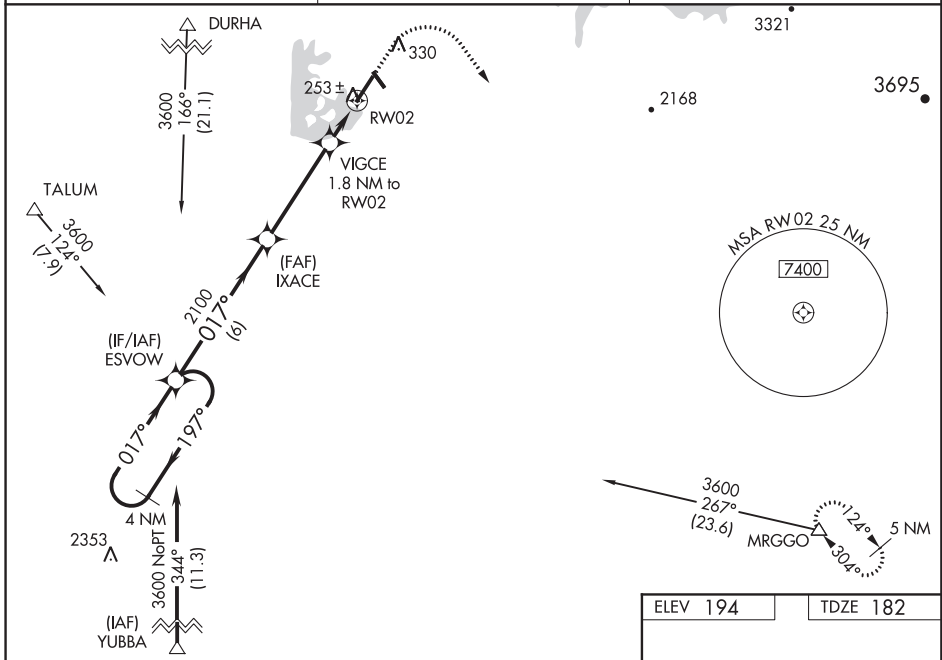
RNAV (GPS) RWY 2

OROVILLE MUNI (OVE)

⚠ Baro-VNAV and VDP NA when using Chico altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). Circling NA NE of Rwy 13-31. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Chico altimeter setting and increase all DA 56 feet and all MDA 60 feet, increase LPV and LNAV/VNAV all Cats and LNAV Cat C visibilities 1/8 mile.

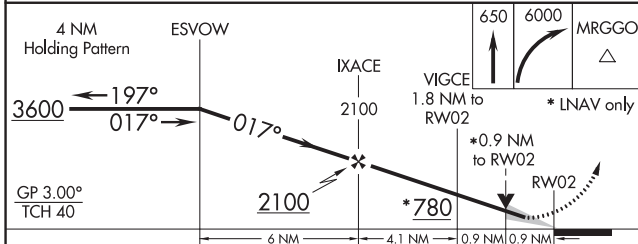
MISSED APPROACH: Climb to 650 then climbing right turn to 6000 direct MRGGO and hold, continue climb-in-hold to 6000.

ASOS 121.425	NORCAL APP CON 125.4 259.1	UNICOM 122.8 (CTAF) 1
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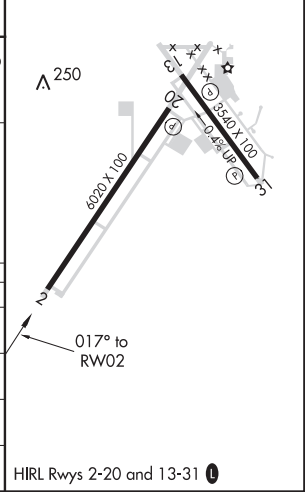


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



ELEV 194	TDZE 182
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CATEGORY	A	B	C	D
LPV DA	432-7/8	250 (300-7/8)		NA
LNAV/VNAV DA	432-7/8	250 (300-7/8)		NA
LNAV MDA	520-1	338 (400-1)		NA
CIRCLING	580-1 386 (400-1)	660-1 466 (500-1)	660-1 1/2 466 (500-1 1/2)	NA

HIRL Rwy 2-20 and 13-31 **1**

OROVILLE, CALIFORNIA

AL-5938 (FAA)

15288

VOR/DME MYV 110.8 Chan 45	APP CRS 338°	Rwy Idg TDZE N/A N/A Apt Elev 194
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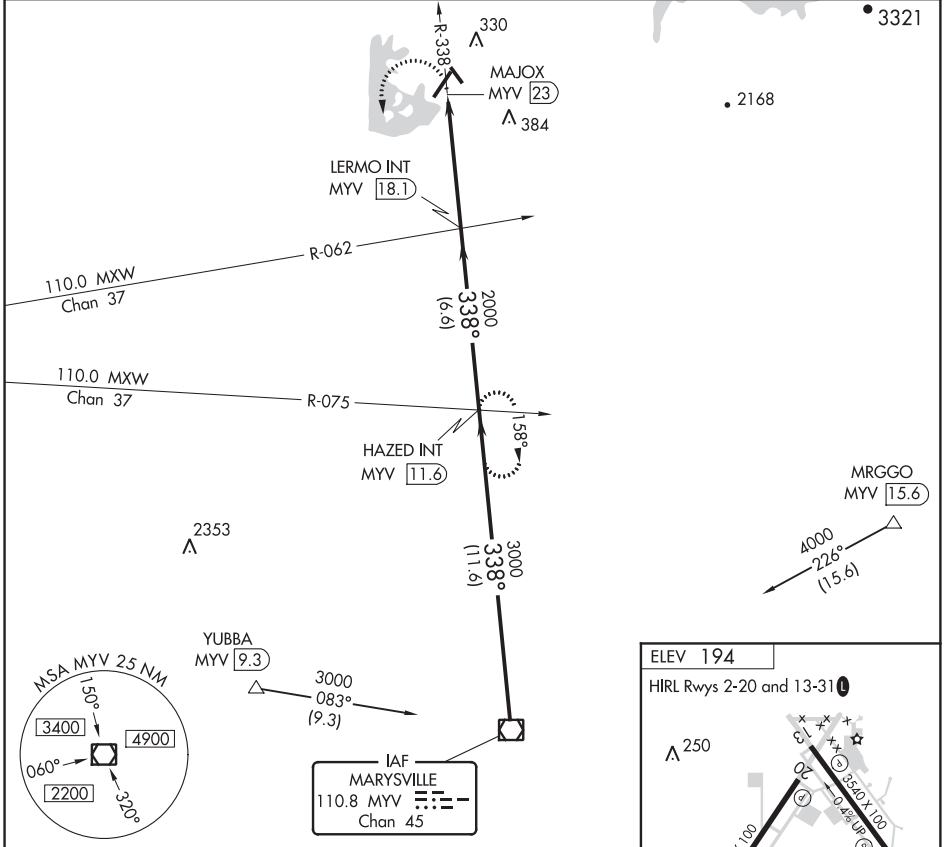
VOR-A
OROVILLE MUNI (OVE)



Circling NA northeast of Rwy 13-31. When local altimeter setting not received, use Chico altimeter setting and increase all MDA 60 feet and increase Circling Cat C visibility 1/4 mile.

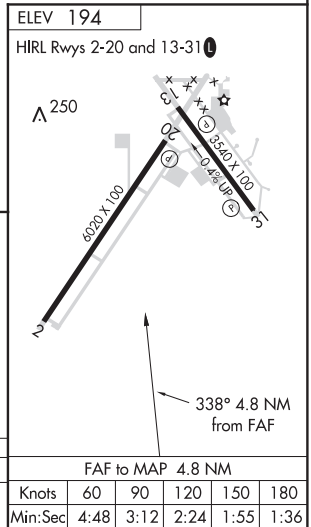
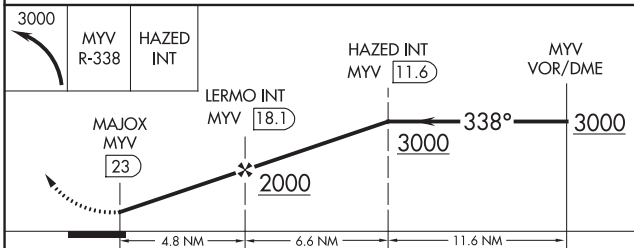
MISSED APPROACH: Climbing left turn to 3000 on MYV VOR/DME R-338 to HAZED INT/MYV 11.6 DME and hold.

ASOS 121.425	NORCAL APP CON 125.4 259.1	UNICOM 122.8 (CTAF) U
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D	FAF to MAP 4.8 NM					
CIRCLING	840-1	646 (700-1)	840-1 3/4 646 (700-1 3/4)	NA	Knots	60	90	120	150	180
					Min:Sec	4:48	3:12	2:24	1:55	1:36

OROVILLE, CALIFORNIA
Amdt 7C 15OCT15

39°29'N-121°37'W

OROVILLE MUNI (OVE)
VOR-A

APP CRS	Rwy Idg	2443
322°	TDZE	3
	Apt Elev	3

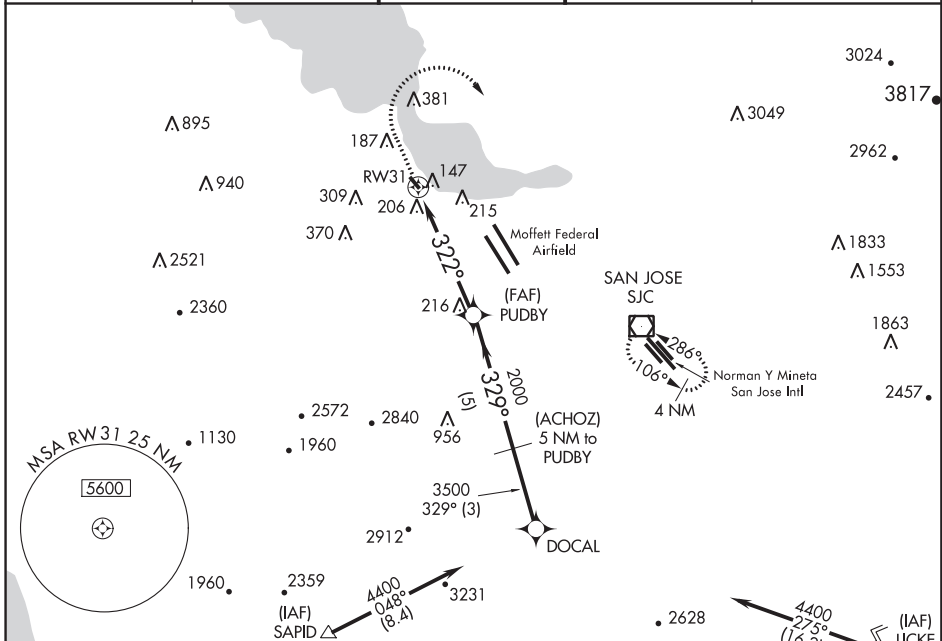
GPS RWY 31

PALO ALTO (PAO)

▼ When control tower closed, use Norman Y Mineta San Jose Intl altimeter setting.
▲ NA Circling not authorized southwest of Rwy 13-31.

MISSED APPROACH: Climb to 1000 then climbing right turn to 3000 direct SJC VOR/DME and hold.

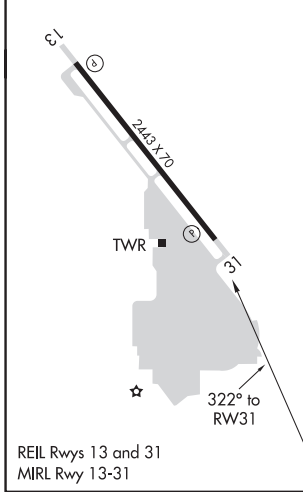
ATIS 135.275	NORCAL APP CON 121.3 270.35	PALO ALTO TOWER* 118.6 (CTAF)	GND CON 125.0	UNICOM 122.95
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV	3	TDZE	3
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1000	3000	SJC	VGSI and descent angles not coincident (VGSI Angle 4.00/TCH 29).	DOCAL
↑	↷	☐		
RWY 31		PUDBY	(ACHOZ) 5 NM to PUDBY	4400
322°		329°	3500	
5 NM		5 NM	3 NM	
3.68°	TCH 45			
2000				
CATEGORY	A	B	C	D
S-31	460-1	457 (500-1)		NA
CIRCLING	460-1	500-1		NA
	457 (500-1)	497 (500-1)		
NORMAN Y MINETA SAN JOSE INTL ALTIMETER SETTING MINIMUMS				
S-31	500-1	497 (500-1)		NA
CIRCLING	500-1	520-1		NA
	497 (500-1)	517 (600-1)		

PALO ALTO, CALIFORNIA

AL-9216 (FAA)

16259

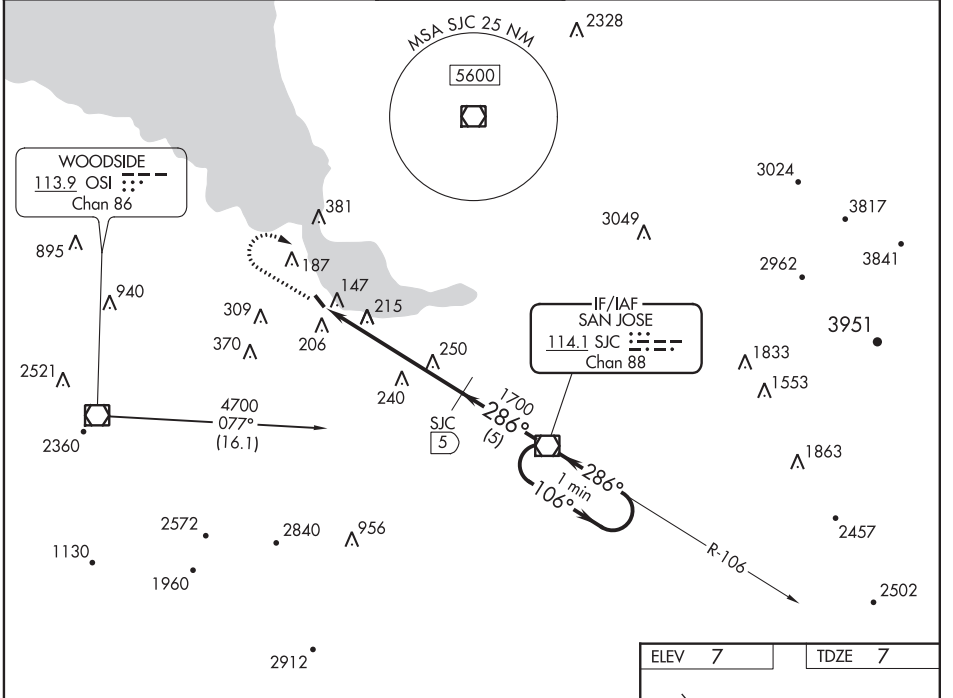
VOR/DME SJC 114.1 Chan 88	APP CRS 286°	Rwy Idg 2443 TDZE 7 Apt Elev 7
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VOR/DME RWY 31

PALO ALTO (PAO)

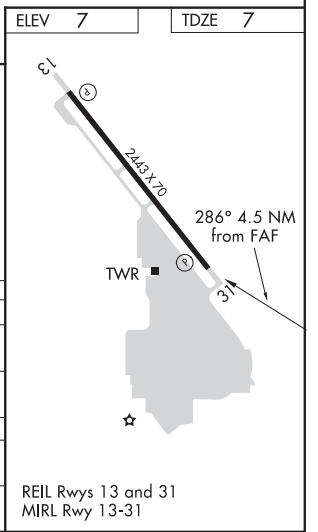
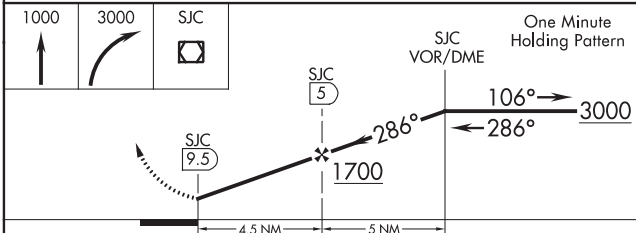
<p>⚠ Circling NA SW of Rwy 13-31. When control tower closed, use Norman Y Mineta San Jose Intl altimeter setting.</p>	<p>MISSED APPROACH: Climb to 1000 then climbing right turn to 3000 direct SJC VOR/DME and hold.</p>
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ATIS 135.275	NORCAL APP CON 121.3 270.35	PALO ALTO TOWER* 118.6 (CTAF)	GND CON 125.0	UNICOM 122.95
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-31	500-1	493 (500-1)		NA
CIRCLING	500-1 493 (500-1)	540-1 533 (600-1)		NA
NORMAN Y MINETA SAN JOSE INTL ALTIMETER SETTING MINIMUMS				
S-31	540-1	533 (600-1)		NA
CIRCLING	540-1 533 (600-1)	580-1 573 (600-1)		NA

PALO ALTO, CALIFORNIA
Orig-F 15SEP16

37°28'N-122°07'W

PALO ALTO (PAO) VOR/DME RWY 31

AIRPORT DIAGRAM

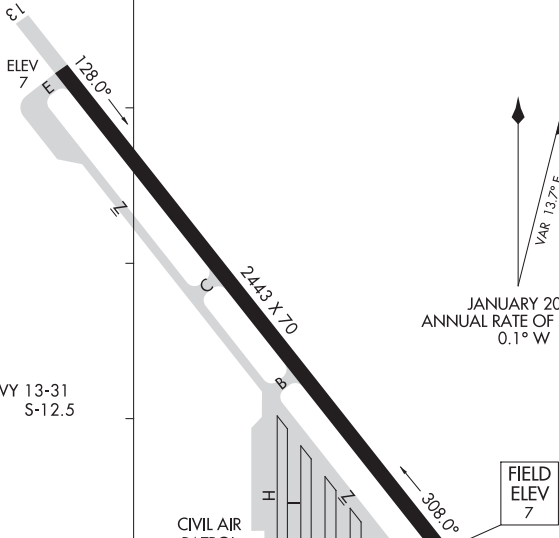
AL-9216 (FAA)

PALO ALTO (P.A.O)
PALO ALTO, CALIFORNIA

ATIS 135.275
PALO ALTO TOWER ★
118.6
GND CON
125.0

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READEBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

37°28'N



RWY 13-31
S-12.5

JANUARY 2015
ANNUAL RATE OF CHANGE
0.1° W

FIELD
ELEV
7

CIVIL AIR
PATROL

TWR

37°27.5'N

RUN-UP AREA

TIE-DOWN
AREAS

HANGARS

TRANSIENT
PARKING

HANGAR

HELICOPTER
PARKING

HANGARS

TERMINAL

122° 07'W

122°06.5'W

AIRPORT DIAGRAM

PALO ALTO, CALIFORNIA
PALO ALTO (P.A.O)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 49124 W29A	APP CRS 290°	Rwy Idg TDZE Apt Elev	3602 86 90
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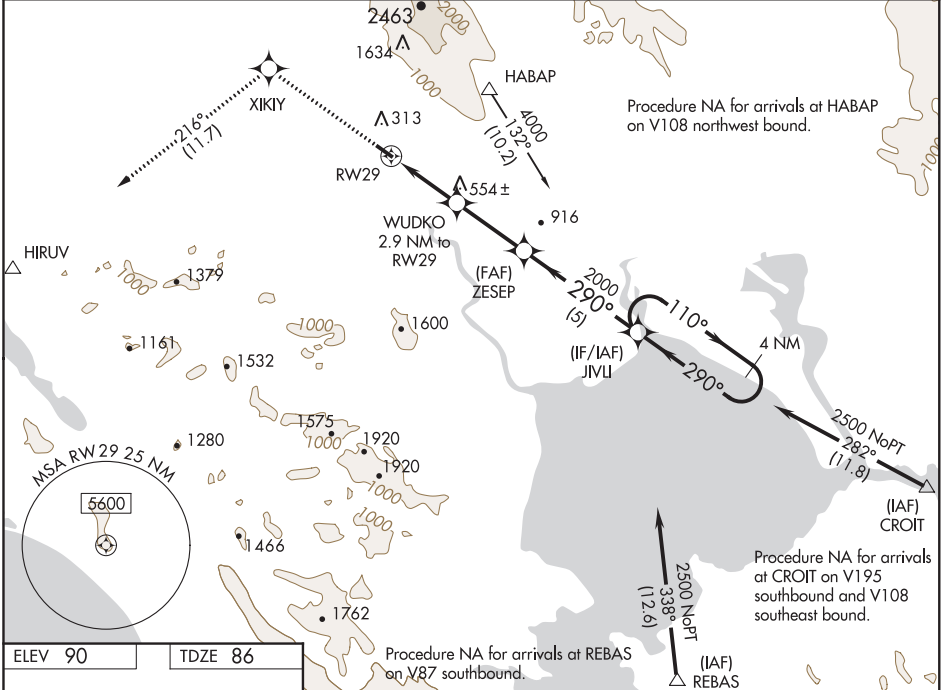
RNAV (GPS) RWY 29

PETALUMA MUNI (O69)

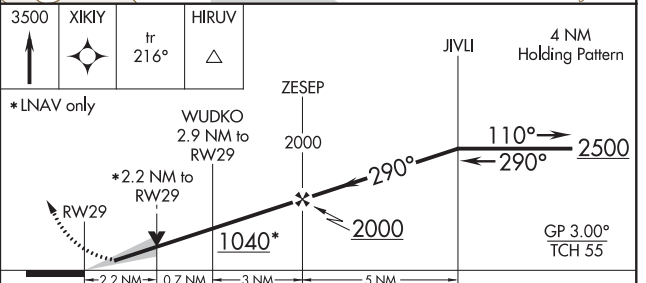
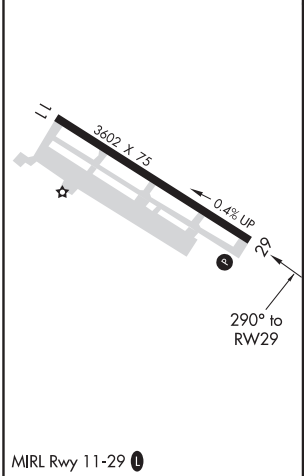
⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.
Night landing: Rwy 11 NA.

⚠ MISSED APPROACH: Climb to 3500 direct XIKIY and on track 216° to HIRUV.

AWOS-3P 132.325	OAKLAND CENTER 127.8 353.5	UNICOM 122.7 (CTAF) 📻
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ELEV 90	TDZE 86
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CATEGORY	A	B	C	D
LPV DA	356-7/8	270 (300-7/8)		NA
LNAV/VNAV DA	707-2 1/2	621 (700-2 1/2)		NA
LNAV MDA	820-1	734 (800-1)		NA
CIRCLING	820-1	730 (800-1)		NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

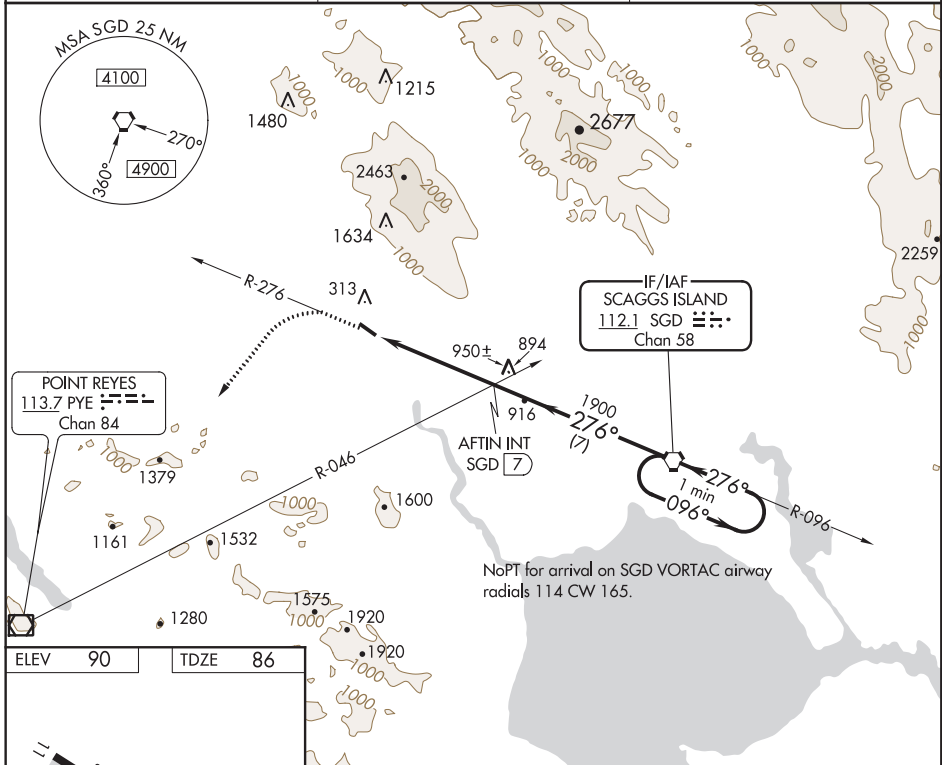
VORTAC SGD 112.1 Chan 58	APP CRS 276°	Rwy Idg 3602 TDZE 86 Apt Elev 90
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VOR RWY 29

PETALUMA MUNI (O69)

▼ Night landing: Rwy 11 NA, Rwy 29 operational VGSI required, remain on or above VGSI glidepath until threshold.
▲ NA Helicopter visibility reduction below 1 SM NA.
MISSED APPROACH: Climb to 2000 via SGD R-276 then climbing left turn to 3500 direct PYE VOR/DME.

AWOS-3P 132.325	OAKLAND CENTER 127.8 353.5	UNICOM 122.7 (CTAF) ①
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ELEV 90	TDZE 86
MIRL Rwy 11-29 ①	
FAF to MAP 4.7 NM	
Knots	60 90 120 150 180
Min:Sec	4:42 3:08 2:21 1:53 1:34

2000	3500	PYE	DME unusable from SGD VORTAC 11.1 DME to MAP.	
SGD R-276			SGD VORTAC	One Minute Holding Pattern
CATEGORY	A	B	C	D
S-29	1260-1¼ 1174 (1200-1¼)	1260-1½ 1174 (1200-1½)		NA
CIRCLING	1260-1⅛ 1170 (1200-1⅛)	1260-1½ 1170 (1200-1½)		NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 78324 W05A	APP CRS 049°	Rwy Idg TDZE Apt Elev	3910 2585 2585
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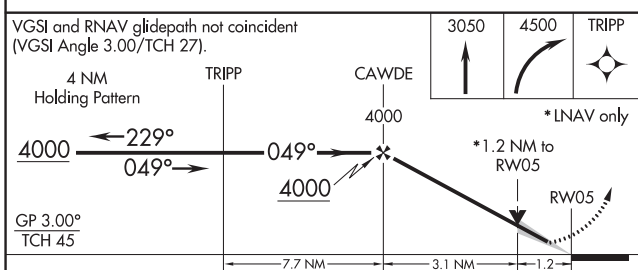
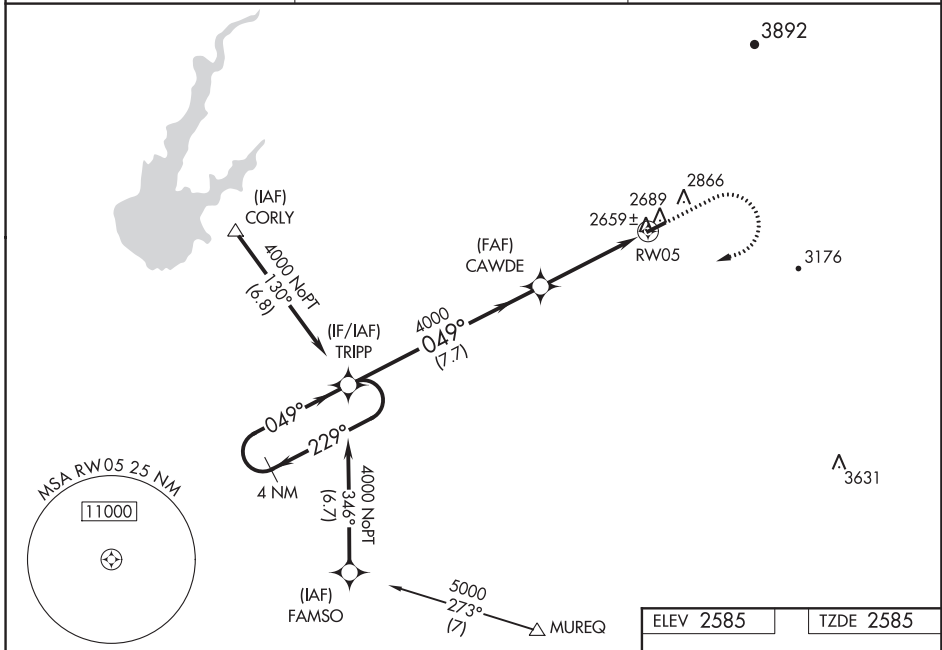
RNAV (GPS) RWY 5

PLACERVILLE (PVF)

⚠ Night landing: Rwy 23 NA. Baro-VNAV NA when using Auburn altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 54°C (130°F). Circling NA northwest of Rwy 5-23. DME/DME RNP-0.3 NA. VDP NA with Auburn altimeter setting. When local altimeter setting not received, use Auburn altimeter setting and increase all DA/MDA 200 feet, and all visibilities 3/4 mile.

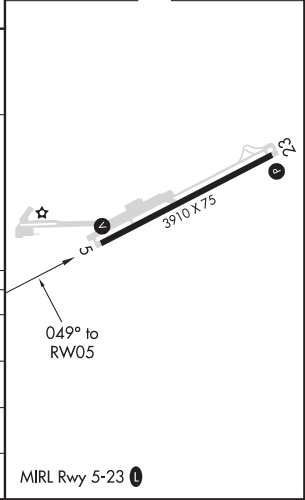
MISSED APPROACH: Climb to 3050 then climbing right turn to 4500 direct TRIPP and hold.

AWOS-3 128.125	NORCAL APP CON 127.4 317.5	UNICOM 122.8 (CTAF) 0
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ELEV 2585	TZDE 2585
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CATEGORY	A	B	C	D
LPV DA	2835-3/4	250 (300-3/4)		NA
LNAV/VNAV DA	2874-1	289 (300-1)		NA
LNAV MDA	3040-1	455 (500-1)		NA
CIRCLING	3200-1 615 (700-1)	3260-1 675 (700-1)		NA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

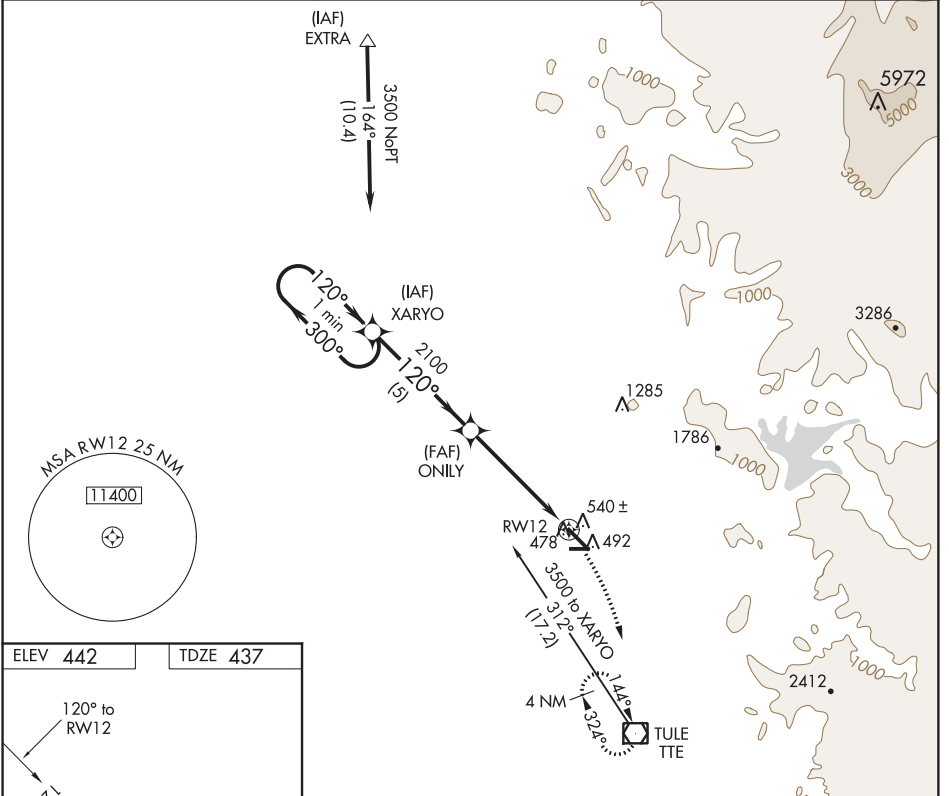
APP CRS	Rwy Idg	5960
120°	TDZE	437
	Apt Elev	442

GPS RWY 12

PORTERVILLE MUNI (PTV)

NA MISSED APPROACH: Climbing right turn to 3100 direct TTE VOR/DME and hold.

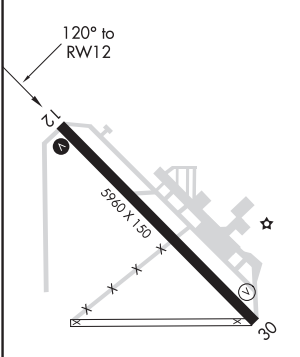
AWOS-3PT 134.625	BAKERSFIELD APP CON * 120.5	UNICOM 122.8 (CTAF)
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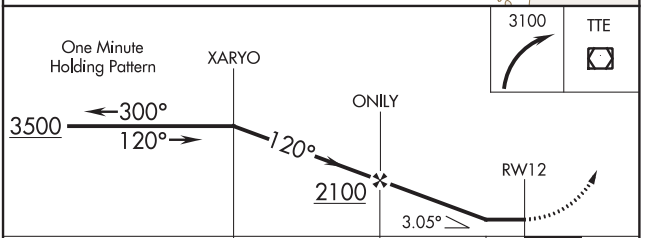
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 442	TDZE 437
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REIL Rwy 30
HIRL Rwy 12-30



CATEGORY	A	B	C	D
S-12	800-1 363 (400-1)			800-1¼ 363 (400-1¼)
CIRCLING	880-1 438 (500-1)	900-1 458 (500-1)	900-1½ 458 (500-1½)	1000-2 558 (600-2)

PORTERVILLE, CALIFORNIA

AL-569 (FAA)

16035

APP CRS **314°**
 Rwy Idg **5960**
 TDZE **442**
 Apt Elev **442**

GPS RWY 30
 PORTERVILLE MUNI (PTV)

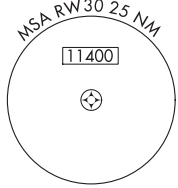
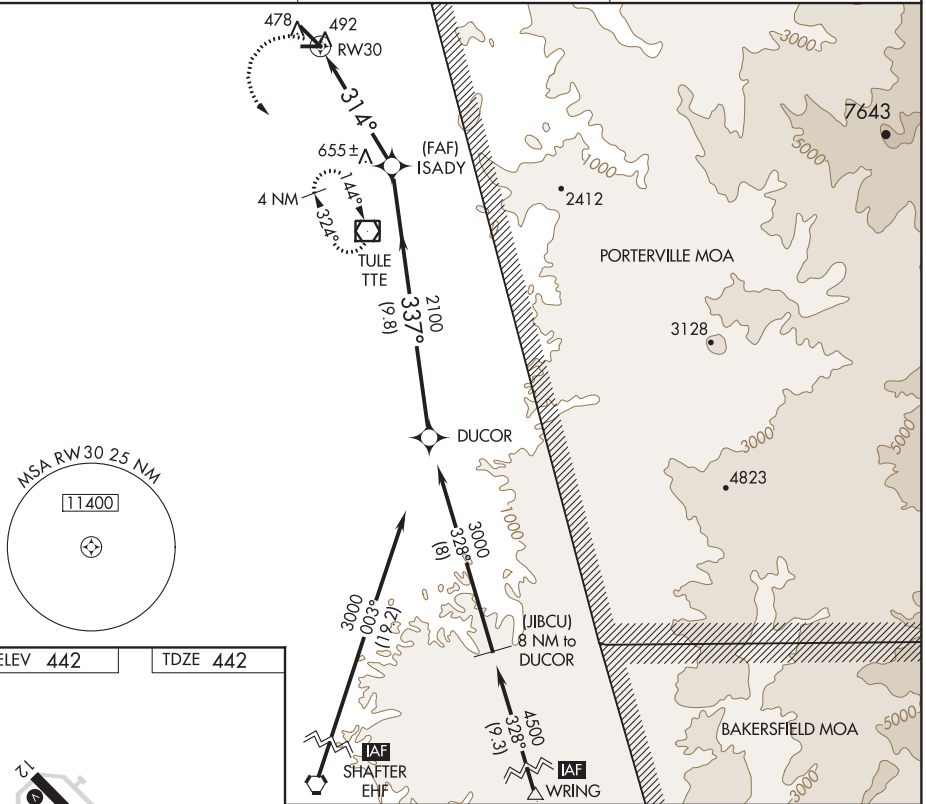
IAF ARM APPROACH MODE PRIOR TO IAF.
 Helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climbing left turn to 3100 direct TTE VOR/DME and hold.

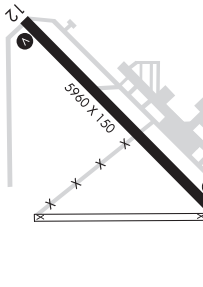
AWOS-3PT
134.625

BAKERFIELD APP CON*
120.5

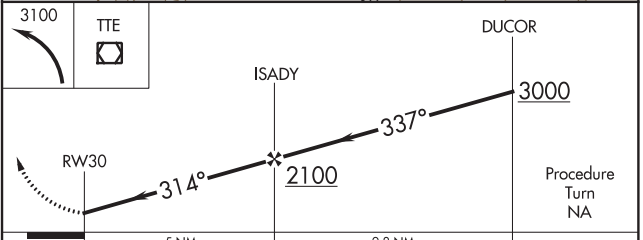
UNICOM
122.8 (CTAF)



ELEV **442** TDZE **442**



REIL Rwy 30
 HIRL Rwy 12-30



CATEGORY	A	B	C	D
S-30	900-1	458 (500-1)	900-1¼ 458 (500-1¼)	900-1½ 458 (500-1½)
CIRCLING	900-1	458 (500-1)	900-1½ 458 (500-1½)	1000-2 558 (600-2)

PORTERVILLE, CALIFORNIA
 Orig-A 01MAY14

36°02'N-119°04'W

PORTERVILLE MUNI (PTV)
GPS RWY 30

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

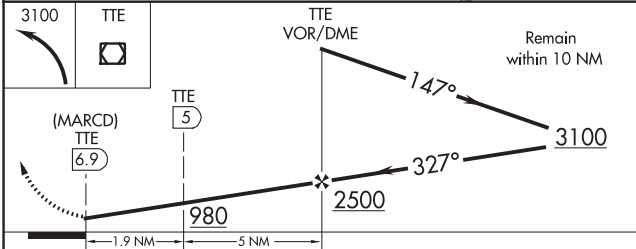
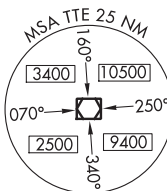
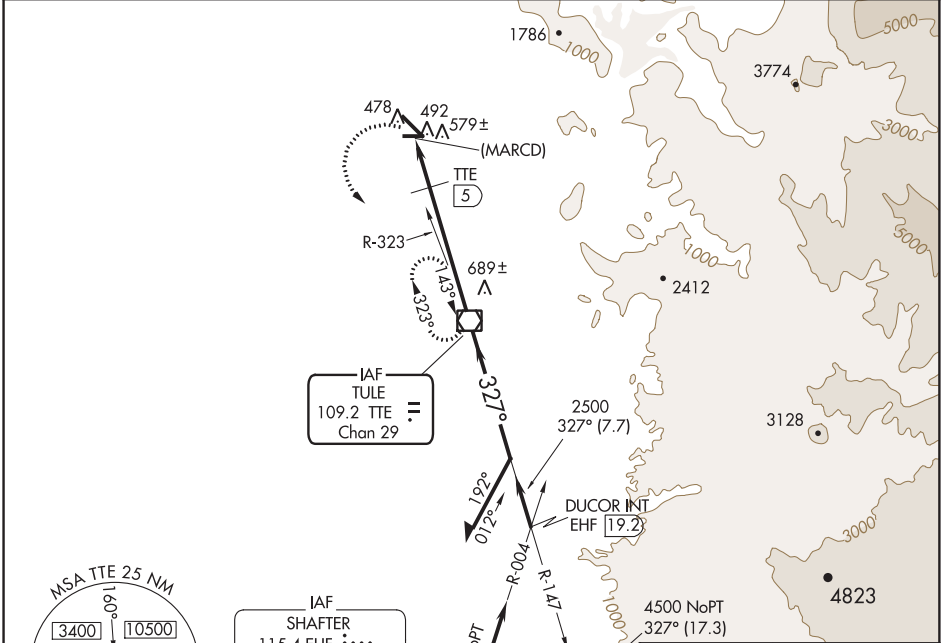
VOR/DME TTE 109.2 Chan 29	APP CRS 327°	Rwy Idg TDZE Apt Elev N/A N/A 442
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VOR or GPS-A

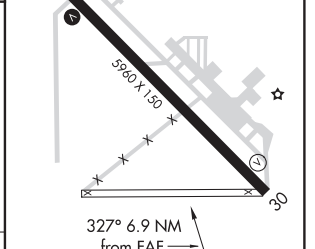
PORTERVILLE MUNI (PTV)

▽ MISSED APPROACH: Climbing left turn to 3100 direct TTE VOR/DME and hold.

AWOS-3PT 134.625	BAKERFIELD APP CON* 120.5	UNICOM 122.8 (CTAF) 0
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ELEV 442



CATEGORY	A	B	C	D
CIRCLING	980-1	538 (600-1)	980-1½ 538 (600-1½)	1000-2 558 (600-2)
DME MINIMA				
CIRCLING	880-1 438 (500-1)	900-1 458 (500-1)	900-1½ 458 (500-1½)	1000-2 558 (600-2)

FAF to MAP 6.9 NM					
Knots	60	90	120	150	180
Min:Sec	6:54	4:36	3:27	2:46	2:18

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

RED BLUFF, CALIFORNIA

AL-344 (FAA)

16035

WAAS CH 73008 W15A	APP CRS 151°	Rwy Idg TDZE Apt Elev	5431 352 352
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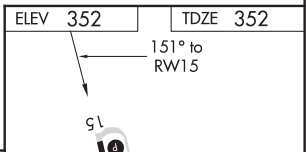
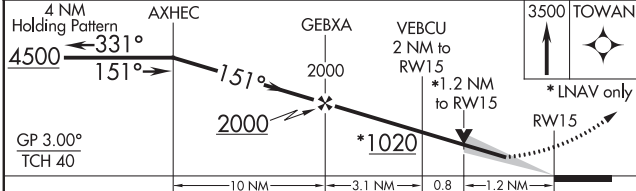
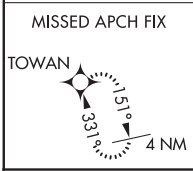
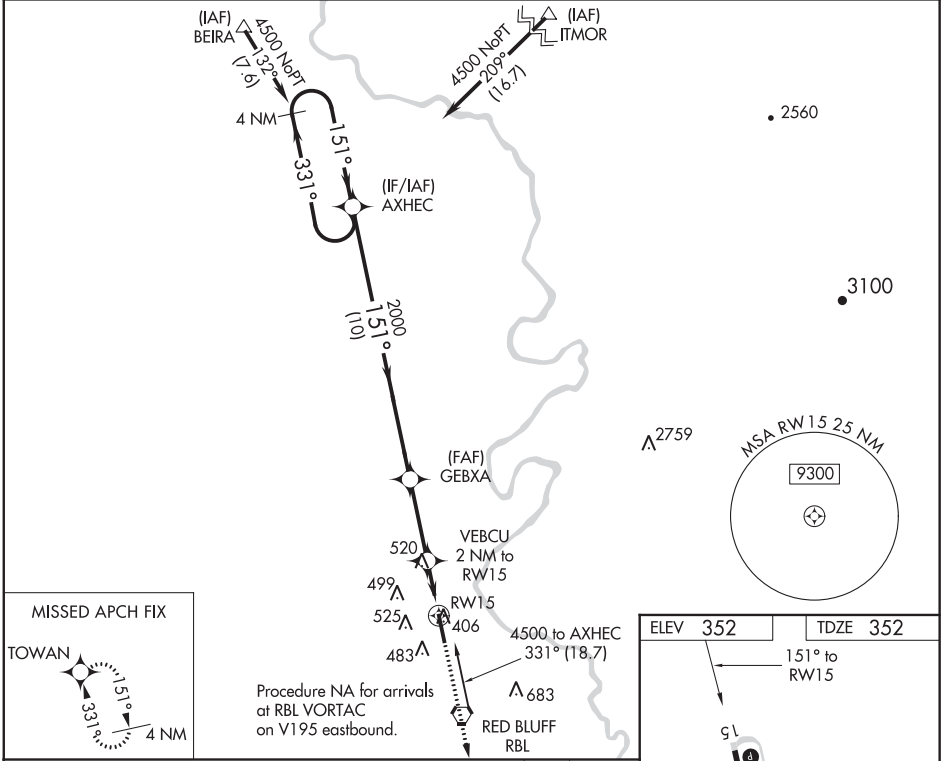
RNAV (GPS) RWY 15

RED BLUFF MUNI (RBL)

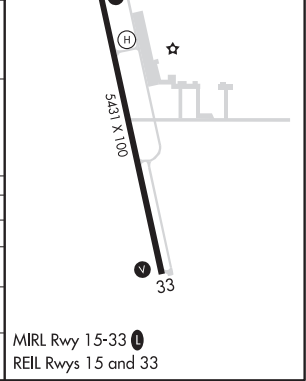
⚠ Circling to Rwy 33 NA at night. Baro-VNAV and VDP NA when using Redding altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -5°C (23°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received; use Redding altimeter setting and increase all DA/MDA 80 feet and increase LPV and LNAV/VNAV all Cats visibility ¼ mile, increase LNAV Cat C/D and Circling Cat C visibility ¼ mile.

MISSED APPROACH:
Climb to 3500 direct TOWAN and hold.

ASOS 120.775	OAKLAND CENTER 132.2 350.3	UNICOM 123.0 (CTAF) Ⓛ
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CATEGORY	A	B	C	D
LPV DA	602-7/8		250 (300-7/8)	
LNAV/VNAV DA	655-1		303 (400-1)	
LNAV MDA	780-1 428 (500-1)		780-1 1/4 428 (500-1 1/4)	
C CIRCLING	860-1 508 (600-1)		900-1 1/2 548 (600-1 1/2) 1060-2 1/4 708 (800-2 1/4)	



RED BLUFF, CALIFORNIA
Amdt 1A 24JUL14

40°09'N-122°15'W

RED BLUFF MUNI (RBL) RNAV (GPS) RWY 15

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 42609 W33A	APP CRS 331°	Rwy Idg TDZE Apt Elev	5431 352 352
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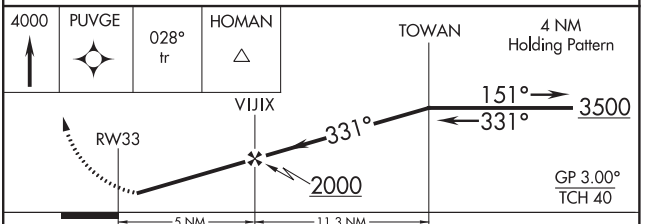
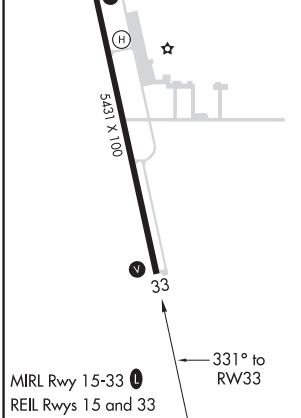
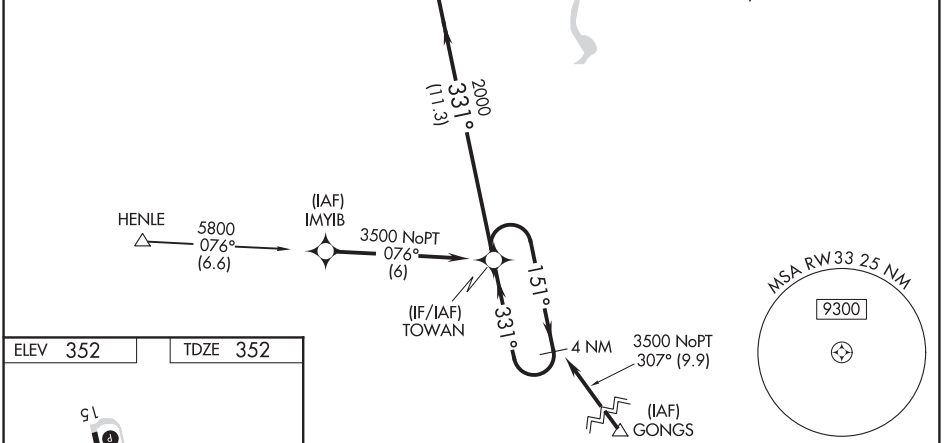
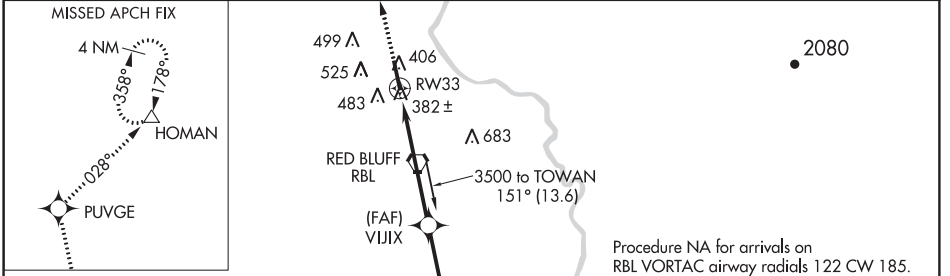
RNAV (GPS) RWY 33

RED BLUFF MUNI (RBL)

⚠ Baro-VNAV NA when using Redding 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.
⚠ Visibility reduction by helicopters NA. When local altimeter setting not received, use Redding altimeter setting and increase all DA/MDA 80 feet and increase visibilities LPV ¼ mile all Cats, LNAV/VNAV ¼ mile all Cats, and LNAV Cat C visibility ¼ mile.

MISSED APPROACH:
Climb to 4000 direct PUVGE and via 028° track to HOMAN and hold.

ASOS 120.775	OAKLAND CENTER 132.2 350.3	UNICOM 123.0 (CTAF) 0
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CATEGORY	A	B	C	D
LPV DA		602-1	250 (300-1)	
LNAV/VNAV DA		718-1¼	366 (400-1¼)	
LNAV MDA	780-1	428 (500-1)	780-1¼ 428 (500-1¼)	780-1½ 428 (500-1½)
CIRCLING	840-1	488 (500-1)	840-1½ 488 (500-1½)	920-2 568 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

RED BLUFF, CALIFORNIA

AL-344 (FAA)

14205

VORTAC RBL 115.7 Chan 104	APP CRS 149°	Rwy Idg 5431 TDZE 352 Apt Elev 352
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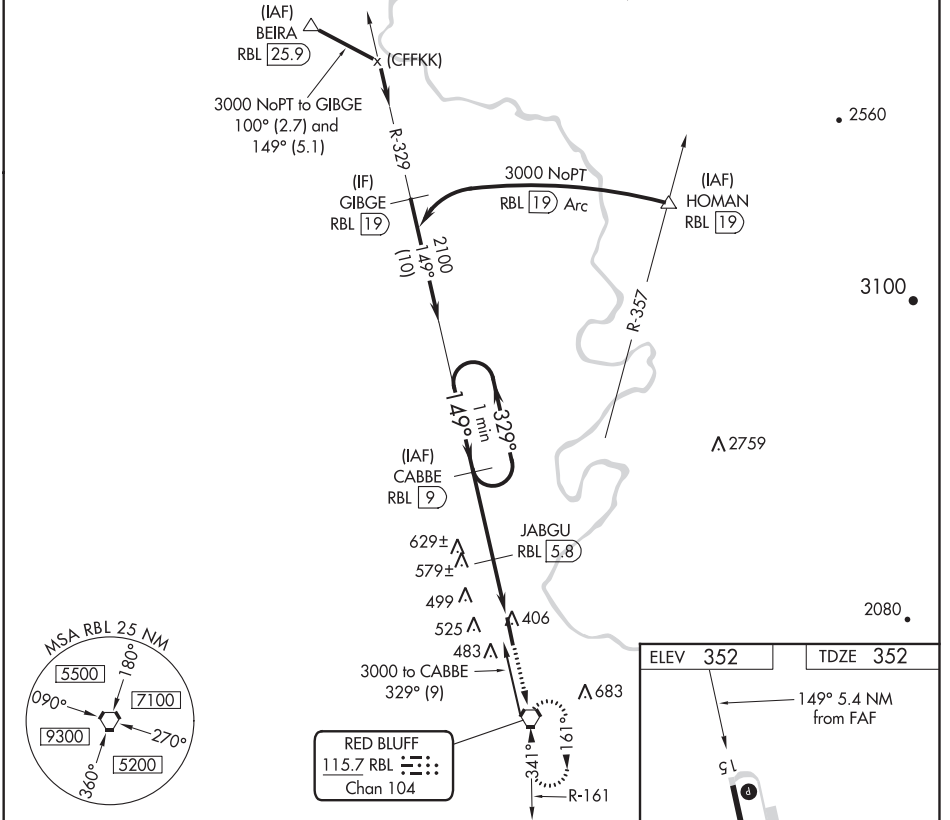
VOR/DME RWY 15

RED BLUFF MUNI (RBL)

⚠ Circling to Rwy 33 NA at night. When local altimeter setting not received, use Redding altimeter setting and increase all MDAs 80 feet and all Cat C/D visibilities ¼ mile. VDP NA with Redding altimeter setting.

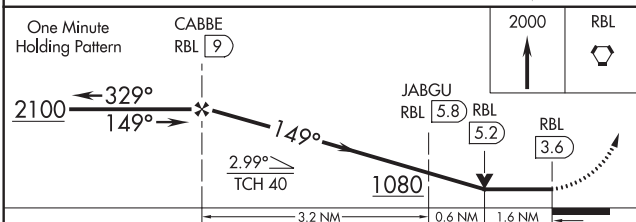
⚠ MISSED APPROACH: Climb to 2000 direct RBL VORTAC and hold.

ASOS 120.775	OAKLAND CENTER 132.2 350.3	UNICOM 123.0 (CTAF) ①
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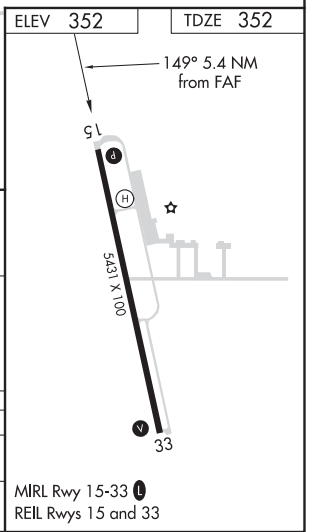


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-15	880-1	528 (600-1)	880-1½	528 (600-1½)
CIRCLING	880-1	528 (600-1)	900-1½ 548 (600-1½)	1060-2¼ 708 (800-2¼)



RED BLUFF, CALIFORNIA
Amdt 8A 24JUL14

40°09'N-122°15'W

RED BLUFF MUNI (RBL)
VOR/DME RWY 15

MIRL Rwy 15-33 ①
REIL Rwy 15 and 33

VORTAC RBL 115.7 Chan 104	APP CRS 328°	Rwy Idg 5431 TDZE 352 Apt Elev 352
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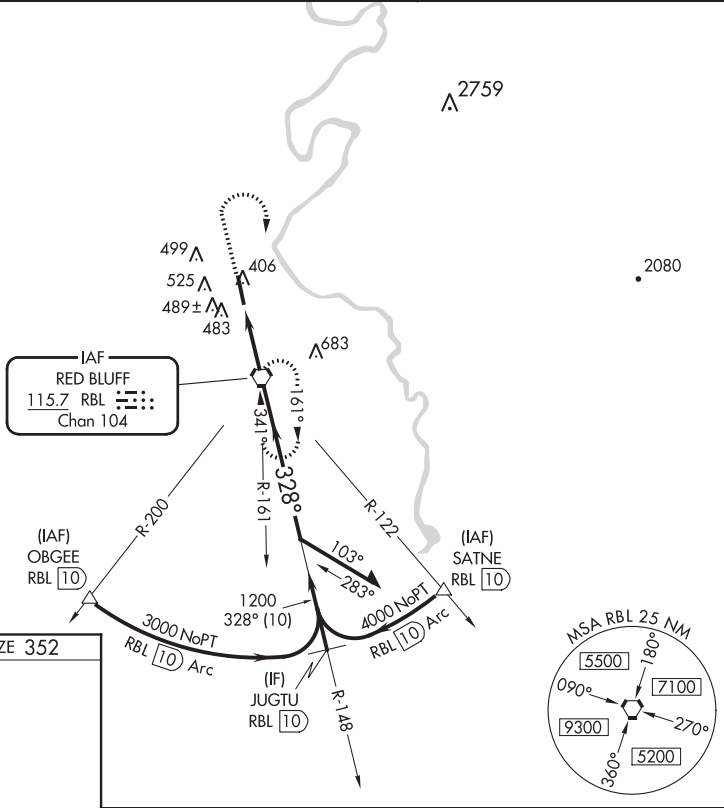
VOR RWY 33

RED BLUFF MUNI (RBL)

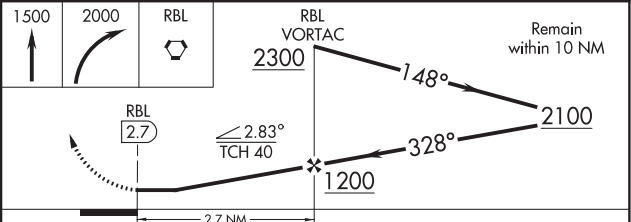
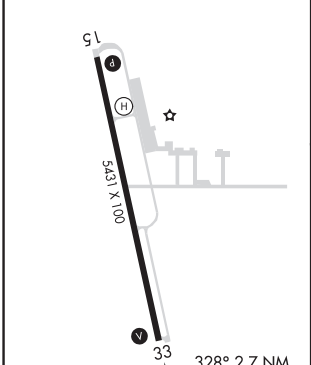
⚠ Visibility reduction by helicopters NA.
⚠ When local altimeter setting not received, use Redding altimeter setting and increase all MDA 80 feet, and increase visibilities S-33 Cat C and D ¼ mile.

MISSED APPROACH: Climb to 1500, then climbing right turn to 2000 direct RBL VORTAC and hold.

ASOS 120.775	OAKLAND CENTER 132.2 350.3	UNICOM 123.0 (CTAF) 0
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ELEV 352	TDZE 352
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FAF to MAP 2.7 NM					
Knots	60	90	120	150	180
Min:Sec	2:42	1:48	1:21	1:05	0:54
CATEGORY	A	B	C	D	
S-33	740-1 388 (400-1)			740-1¼ 388 (400-1¼)	
CIRCLING	860-1 508 (600-1)		860-1½ 508 (600-1½)		920-2 568 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017


SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-RDD 108.7 Chan 24	APP CRS 342°	Rwy Idg 7003 TDZE 499 Apt Elev 505
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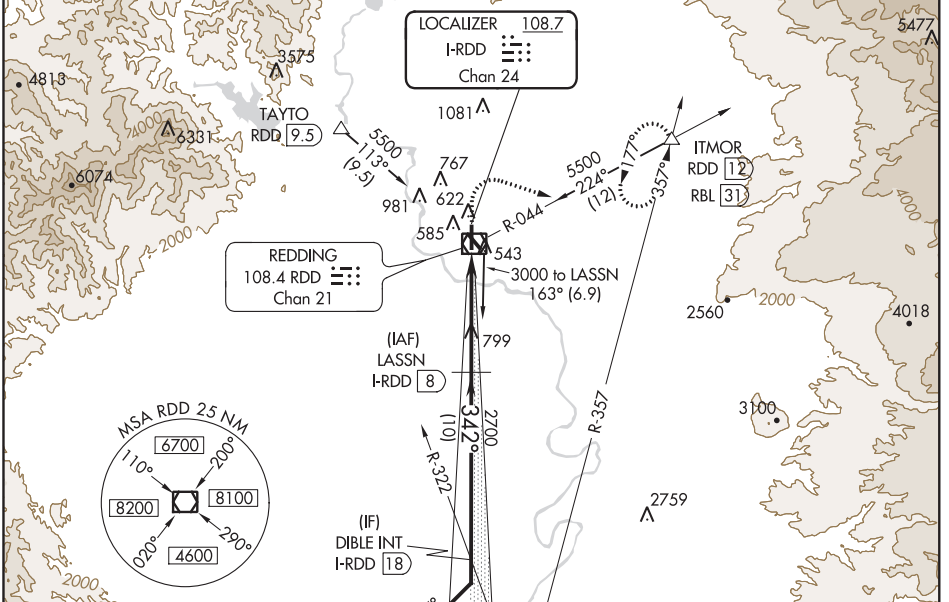
ILS or LOC/DME RWY 34

REDDING MUNI (RDD)

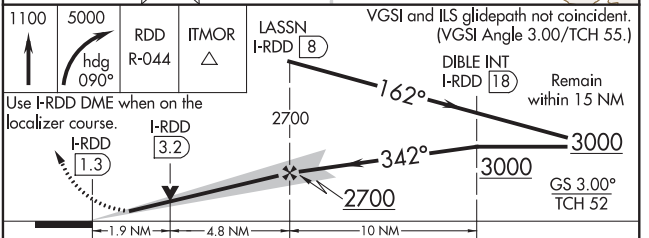
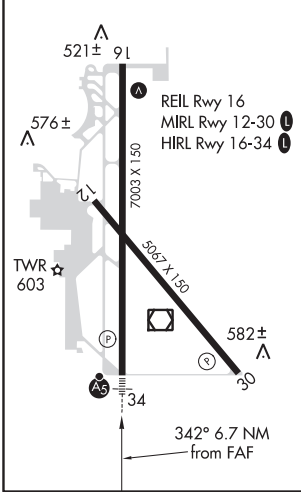
⚠ When local altimeter setting not received, use Red Bluff altimeter setting and increase all DAs/MDAs 80 feet, S-LOC 34 Cats C, D, and E visibility ¼ mile, and Circling Cat C and D visibility ¼ mile. VDP NA when using Red Bluff altimeter setting. For inoperative MALSR, increase S-ILS 34 Cat E visibility to ¾ mile, S-LOC 34 Cat E visibility to 2 ¼ mile. When using Red Bluff altimeter setting increase S-ILS 34 all Cats visibility to 1 mile, and S-LOC 34 Cat E visibility to 2 ½ mile.

MALSR

MISSED APPROACH: Climb to 1100 then climbing right turn to 5000 via heading 090° and RDD R-044 to ITMOR INT/RDD 12 DME and hold, continue climb-in-hold to 5000.

ATIS 124.1	OAKLAND CENTER 132.2 350.3	REDDING TOWER * 119.8(CTAF) 0 269.25	GND CON 121.7	UNICOM 122.95
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ELEV 505	D	TDZE 499
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CATEGORY	A	B	C	D	E
S-ILS 34	699-½ 200 (200-½)				
S-LOC 34	1140-½ 641 (700-½)	1140-1¼ 641 (700-1½)	1140-1½ 641 (700-1¾)	1140-1¾ 641 (700-1¾)	1140-1¾ 641 (700-1¾)
CIRCLING	1140-1 635 (700-1)	1140-1¾ 635 (700-1¾)	1140-2 635 (700-2)	1340-3 835 (900-3)	

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 56402 W34A	APP CRS 342°	Rwy Idg TDZE Apt Elev	7003 499 505
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RNAV (GPS) RWY 34

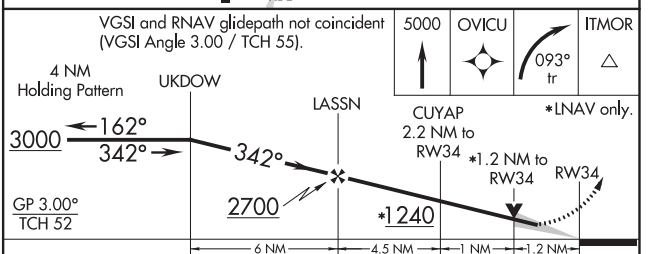
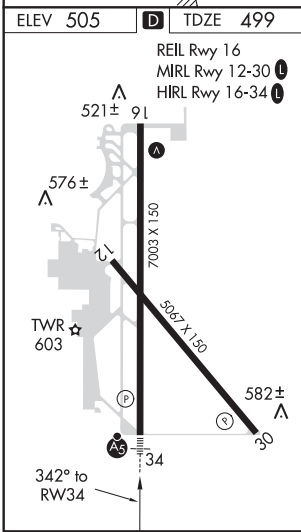
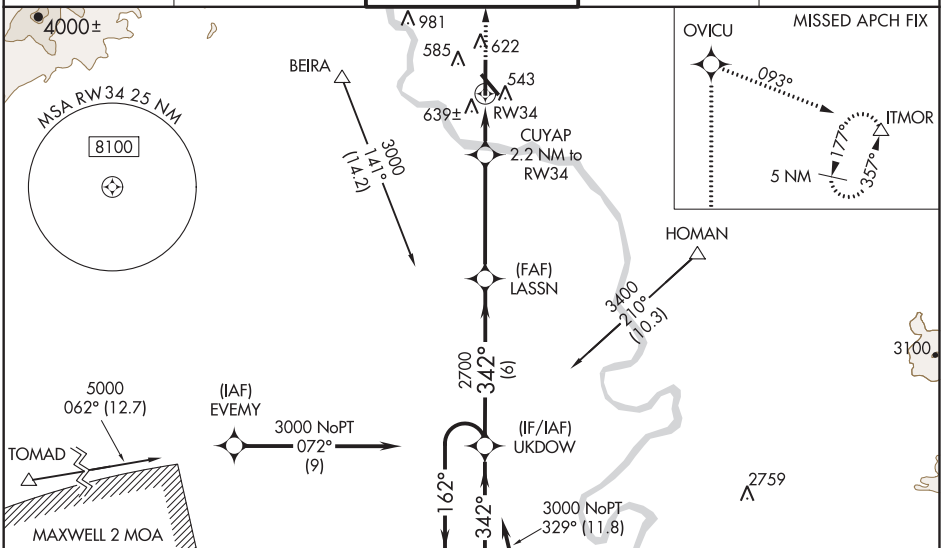
REDDING MUNI (R.DD)

⚠ DME/DME RNP-0.3 NA. Circling to Rwy 12 NA at night. For inoperative MALSR, increase LPV all Cats. visibility to 1 1/4 mile. When using Red Bluff altimeter setting increase LPV all Cats. visibility to 1 1/4 mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C(4°F) or above 48°C (118°F). VDP and Baro-VNAV NA when using Red Bluff altimeter setting. When local altimeter setting not received, use Red Bluff altimeter setting and increase all DAs/MDAs 80 feet, and increase LPV visibility 1/4 mile all Cats., LNAV/VNAV visibility 1/4 mile all Cats., and LNAV visibility Cat. C/D 1/4 mile.

MALSR

MISSED APPROACH:
Climb to 5000 direct OVICU and right turn via 093° track to ITMOR and hold, continue climb-in-hold to 5000.

ATIS 124.1	OAKLAND CENTER 132.2 350.3	REDDING TOWER * 119.8(CTAF) 0 269.25	GND CON 121.7	UNICOM 122.95
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CATEGORY	A	B	C	D
LPV DA		790-1/2	291 (300-1/2)	
LNAV/VNAV DA		944-1	445 (500-1)	
LNAV MDA	940-1/2	441 (500-1/2)	940-3/4 441 (500-3/4)	940-1 441 (500-1)
CIRCLING	1000-1	495 (500-1)	1000-1/2 495 (500-1/2)	1060-2 555 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-RDD 108.7 Chan 24	APP CRS 162°	Rwy Idg TDZE Apt Elev	7003 505 505
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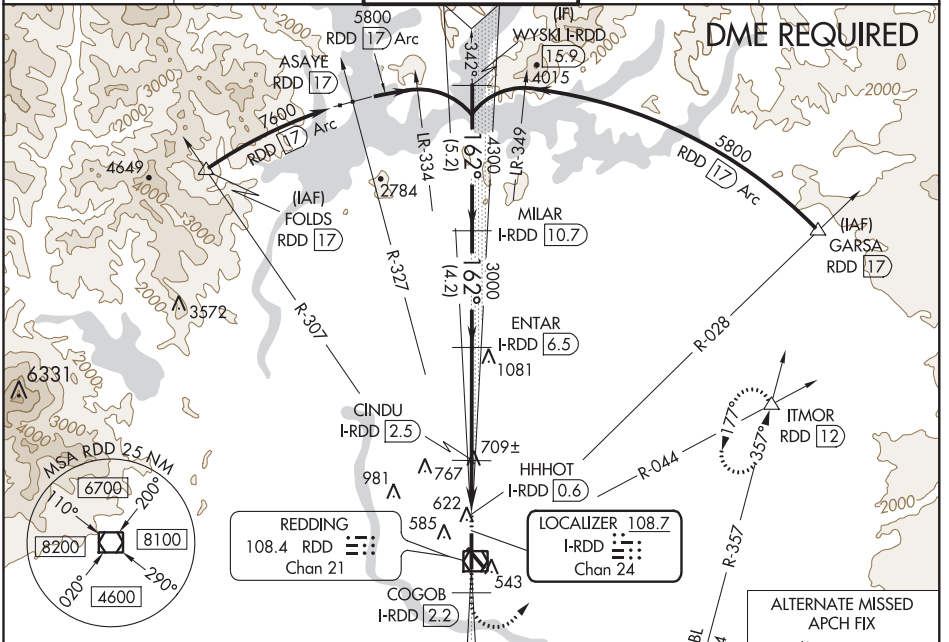
LOC/DME BC RWY 16

REDDING MUNI (RDD)

Visibility reduction by helicopters NA. When local altimeter setting not received, use Red Bluff altimeter setting and increase all MDA 80 feet and S-16 Cats. C/D visibilities ¼ mile.

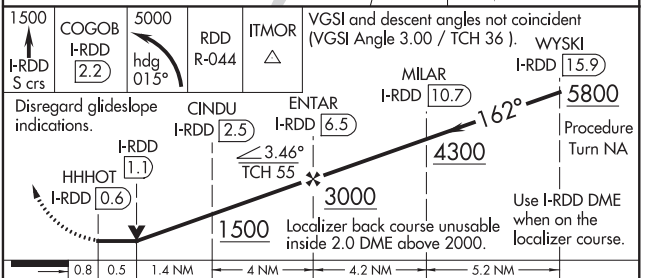
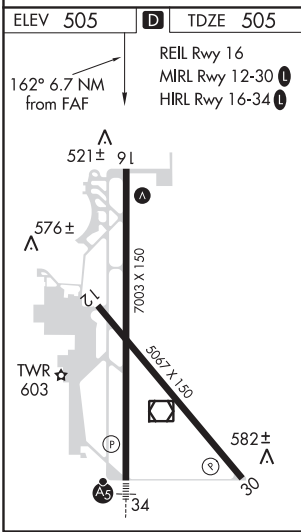
MISSED APPROACH: Climb to 1500 via I-RDD S course to COGOB/I-RDD 2.2 DME then climbing left turn to 5000 via heading 015° and RDD R-044 to ITMOR INT/RDD 12 DME and hold, continue climb-in-hold to 5000.

ATIS 124.1	OAKLAND CENTER 132.2 350.3	REDDING TOWER * 119.8 (CTAF) 0 269.25	GND CON 121.7	UNICOM 122.95
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-16	940-1	435 (500-1)	940-1½ 435 (500-1½)	940-1½ 435 (500-1½)
CIRCLING	960-1	455 (500-1)	980-1½ 475 (500-1½)	1060-2 555 (600-2)

VOR/DME RDD 108.4 Chan 21	APP CRS 355°	Rwy Idg TDZE Apt Elev	7003 496 502
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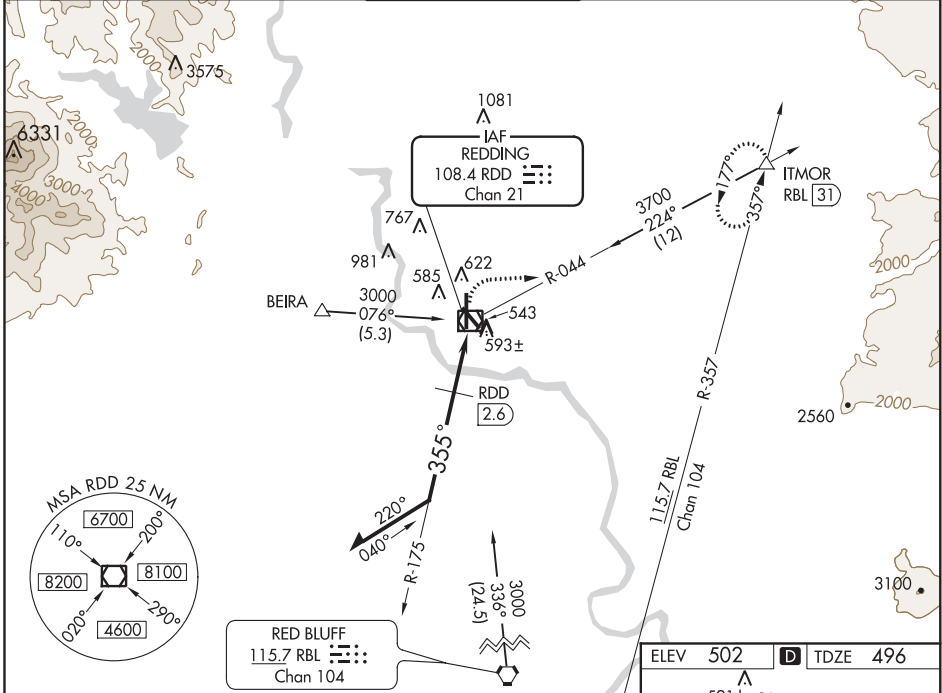
VOR RWY 34
REDDING MUNI (RDD)

▼ Cat D S-34 DME minimums visibility increased ¼ mile
▲ for inoperative MALS.R.



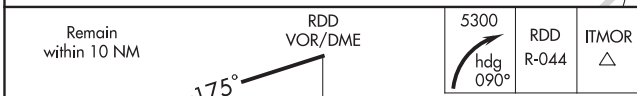
MISSED APPROACH: Climbing right turn to 5300 via heading 090° and RDD R-044 to ITMOR INT and hold.

ATIS 124.1	OAKLAND CENTER 132.2 350.3	REDDING TOWER ★ 119.8(CTAF) 0 269.25	GND CON 121.7	UNICOM 122.95
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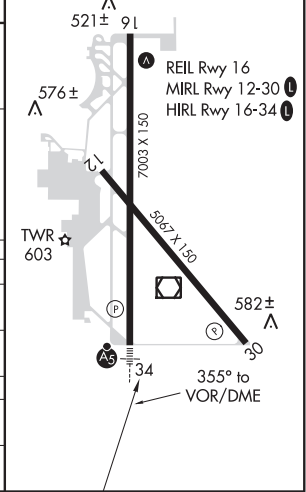


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



ELEV 502	D TDZE 496
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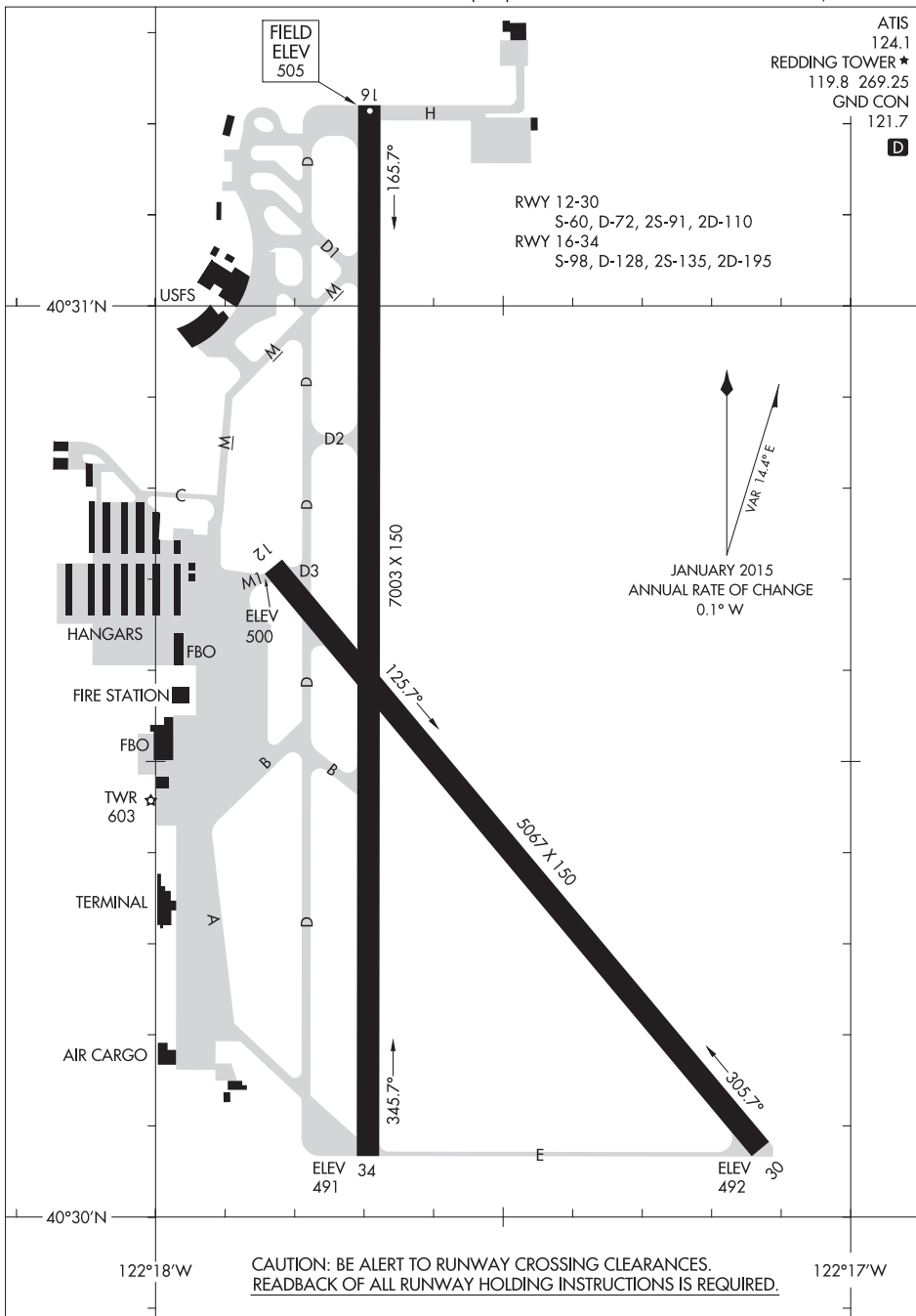
CATEGORY	A	B	C	D
S-34	1260-½ 764 (800-½)	1260-¾ 764 (800-¾)	1260-1¼ 764 (800-1¼)	1260-2 764 (800-2)
CIRCLING	1260-1 758 (800-1)	1260-1¼ 758 (800-1¼)	1260-2¼ 758 (800-2¼)	1260-2½ 758 (800-2½)
DME MINIMUMS				
S-34	860-½ 364 (400-½)			860-1 364 (400-1)
CIRCLING	920-1 418 (500-1)	960-1 458 (500-1)	960-1½ 458 (500-1½)	1060-2 558 (600-2)

AIRPORT DIAGRAM

AL-688 (FAA)

REDDING MUNI (R.DD)
REDDING, CALIFORNIA

ATIS 124.1
 REDDING TOWER ★ 119.8 269.25
 GND CON 121.7
D



AIRPORT DIAGRAM

REDDING, CALIFORNIA
REDDING MUNI (R.DD)

SW-2, 10 NOV 2016 to 05 JAN 2017

ATIS 124.1
GND CON
121.7
REDDING TOWER ★
119.8 (CTAF) 269.25
OAKLAND CENTER
132.2 350.3

REDDING
108.4 RDD
Chan 21



HOMAN
N40°24.30'
W122°07.74'
4000

V251
4000
177°
(119)

RED BLUFF
115.7 RBL
Chan 104
N40°05.93'-W122°14.18'
L-2, H-3

CHICO
109.8 CIC
Chan 35
N39°47.39'-W121°50.83'
L-2

NOTE: This SID requires minimum climb of 350' per NM to 4000'.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 12, 16: Turn left within 1 NM, thence....
TAKEOFF RUNWAYS 30,34: Turn right within 1 NM, thence....

....Intercept the RDD R-111, direct HOMAN INT, cross HOMAN INT at or above 4000'; then via (transition) or (assigned route). Expect clearance to filed altitude 10 minutes after departure.

CHICO TRANSITION (HOMAN2.CIC): From over HOMAN INT via CIC R-325 to CIC VOR/DME.

RED BLUFF TRANSITION (HOMAN2.RBL): From over HOMAN INT via RBL R-357 to RBL VORTAC.

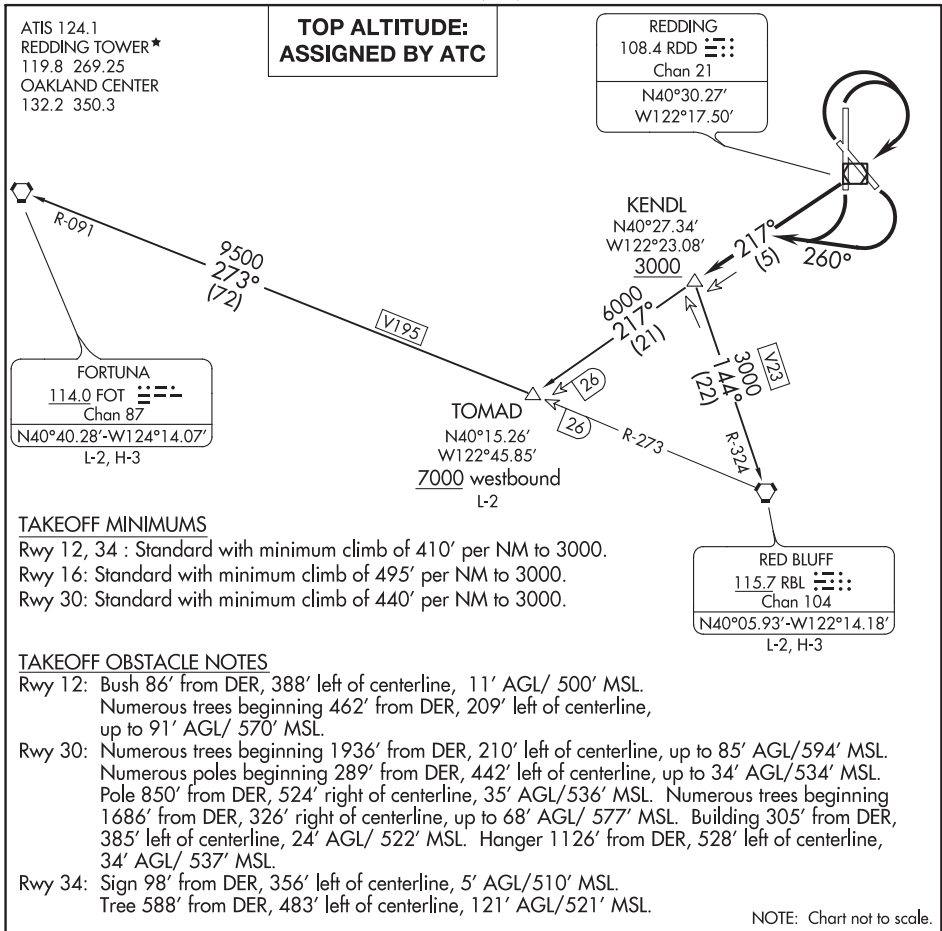
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

KENDL THREE DEPARTURE

SL-688 (FAA)

REDDING MUNI (R.DD)
REDDING, CALIFORNIA



ATIS 124.1
REDDING TOWER*
119.8 269.25
OAKLAND CENTER
132.2 350.3

**TOP ALTITUDE:
ASSIGNED BY ATC**

REDDING
108.4 RDD
Chan 21
N40°30.27'
W122°17.50'

FORTUNA
114.0 FOT
Chan 87
N40°40.28'-W124°14.07'
L-2, H-3

TOMAD
N40°15.26'
W122°45.85'
7000 westbound
L-2

RED BLUFF
115.7 RBL
Chan 104
N40°05.93'-W122°14.18'
L-2, H-3

TAKEOFF MINIMUMS

- Rwy 12, 34 : Standard with minimum climb of 410' per NM to 3000.
- Rwy 16: Standard with minimum climb of 495' per NM to 3000.
- Rwy 30: Standard with minimum climb of 440' per NM to 3000.

TAKEOFF OBSTACLE NOTES

- Rwy 12: Bush 86' from DER, 388' left of centerline, 11' AGL/ 500' MSL. Numerous trees beginning 462' from DER, 209' left of centerline, up to 91' AGL/ 570' MSL.
- Rwy 30: Numerous trees beginning 1936' from DER, 210' left of centerline, up to 85' AGL/594' MSL. Numerous poles beginning 289' from DER, 442' left of centerline, up to 34' AGL/534' MSL. Pole 850' from DER, 524' right of centerline, 35' AGL/536' MSL. Numerous trees beginning 1686' from DER, 326' right of centerline, up to 68' AGL/ 577' MSL. Building 305' from DER, 385' left of centerline, 24' AGL/ 522' MSL. Hanger 1126' from DER, 528' left of centerline, 34' AGL/ 537' MSL.
- Rwy 34: Sign 98' from DER, 356' left of centerline, 5' AGL/510' MSL. Tree 588' from DER, 483' left of centerline, 121' AGL/521' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 12 and 16: Climbing right turn heading 260° to intercept RDD R-217 to KENDL, cross KENDL at or above 3000, thence . . .
TAKEOFF RUNWAYS 30 and 34: Climbing right turn direct RDD VOR/DME then on RDD R-217 to KENDL, cross KENDL at or above 3000, thence . . .
 . . . via (transition) or (assigned route).

FORTUNA TRANSITION (KENDL3.FOT): From over KENDL via RDD R-217 to TOMAD, thence via RBL R-273 and FOT R-091 to FOT VORTAC.
RED BLUFF TRANSITION (KENDL3.RBL): From over KENDL via RBL R-324 to RBL VORTAC.
TOMAD TRANSITION (KENDL3.TOMAD): From over KENDL via RDD R-217 to TOMAD.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

KENDL THREE DEPARTURE

KREST THREE DEPARTURE

SL-688 (FAA)

REDDING MUNI (R.DD)
REDDING, CALIFORNIA

ATIS 124.1
GND CON
121.7
REDDING TOWER *
119.8 (CTAF) 269.25
OAKLAND CENTER
132.2 350.3

SHATA
N40°39.20'
W122°28.04'
L-2
8000
northwestbound
on V23

KREST
N40°41.97'
W122°13.95'
4000

ITMOR
N40°35.87'
W122°03.66'
L-2
7000
northbound
on V25

REDDING
108.4 RDD
Chan 21

(SIPJY)
N40°23.45'
W122°30.44'

TOMAD
N40°15.26'
W122°45.85'
L-2

RED BLUFF
115.7 RBL
Chan 104

NOTE: Rwy 12, 16 and 30 departures require minimum climb of 300' per NM to 4000'.
NOTE: Rwy 34 departure requires minimum climb of 320' per NM to 4000'.
NOTE: DME required.

NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 12 and 16: Turn left immediately after departure to intercept and proceed via the RDD R-355 to KREST DME Fix. Cross KREST DME Fix at or above 4000, thence via (transition) or (assigned route).

TAKEOFF RUNWAYS 30 and 34: Turn right immediately after departure to intercept and proceed via RDD R-355 to KREST DME Fix. Cross KREST DME Fix at or above 4000, thence via (transition) or (assigned route).

ITMOR TRANSITION (KREST3.ITMOR): From over KREST DME Fix via RDD 12 DME Arc clockwise to ITMOR INT.

SHATA TRANSITION (KREST3.SHATA): From over KREST DME Fix via RDD 12 DME Arc counterclockwise to SHATA INT.

TOMAD TRANSITION (KREST3.TOMAD): From over KREST DME Fix via RDD 12 DME Arc counterclockwise to RDD R-217, thence via RDD R-217 to TOMAD INT.

KREST THREE DEPARTURE

(KREST3.KREST) 30MAR95

REDDING, CALIFORNIA
REDDING MUNI (R.DD)

(SHA2.RDD) 16091

SHASTA TWO DEPARTURE

SL-688 (FAA)

REDDING MUNI (R.DD)
REDDING, CALIFORNIA

ATIS 124.1
 GND CON
 121.7
 REDDING TOWER★
 119.8 (CTAF) 269.25
 OAKLAND CENTER
 132.2 350.3



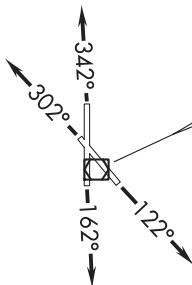
FORT JONES
 109.6 FJS
 Chan 33
 N41°26.98'-W122°48.39'

L-2



KLAMATH FALLS
 115.9 LMT
 Chan 106
 N42°09.19'-W121°43.65'

L-2, H-3



REDDING
 108.4 RDD
 Chan 21
 N40°30.27'-W122°17.50'

L-2, H-3

RED BLUFF
 115.7 RBL
 Chan 104
 N40°05.93'-W122°14.18'

L-2, H-3

MUSTANG
 117.9 FMG
 Chan 126
 N39°31.88'-W119°39.36'

L-9, H-3

MAXWELL
 110.0 MXW
 Chan 37
 N39°19.05'-W122°13.29'

L-2



CHICO
 109.8 CIC
 Chan 35
 N39°47.39'-W121°50.83'

L-2, H-3

WILLIAMS
 114.4 IIA
 Chan 91
 N39°04.27'-W122°01.63'

L-2-3, H-3

SACRAMENTO
 115.2 SAC
 Chan 99
 N38°26.62'-W121°33.10'

L-2-3, H-3

NOTE: RADAR required.

TAKEOFF MINIMUMS

- Rwy 12: Standard with minimum climb of 345' per NM to 12700
- Rwy 16: Standard with minimum climb of 335' per NM to 12700.
- Rwy 30: Standard with minimum climb of 460' per NM to 8400.
- Rwy 34: Standard with minimum climb of 445' per NM to 8300.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)
 (NOTES CONTINUED ON FOLLOWING PAGE)

SHASTA TWO DEPARTURE

(SHA2.RDD) 12DEC13

REDDING, CALIFORNIA
REDDING MUNI (R.DD)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climb heading 122° (or ATC assigned heading 340° CW 230°); thence

TAKEOFF RUNWAY 16: Climb heading 162° (or ATC assigned heading 350° CW 230°); thence

TAKEOFF RUNWAY 30: Climb heading 302° (or ATC assigned heading 130° CW 360°); thence

TAKEOFF RUNWAY 34: Climb heading 342° (or ATC assigned heading 170° CW 360°); thence

. . . . expect vectors to join assigned route. Maintain assigned altitude; expect filed altitude/flight level ten minutes after departure.

LOST COMMUNICATIONS: If no contact with Oakland Center after reaching 4000 proceed to RBL VORTAC and hold.

TAKEOFF OBSTACLE NOTES

Rwy 12: Bush 86' from DER, 388' left of centerline, 11' AGL/500' MSL.
Numerous trees beginning 462' from DER, 209' left of centerline, up to 91' AGL/570' MSL.

Rwy 30: Numerous trees beginning 1936' from DER, 210' left of centerline, up to 85' AGL/594' MSL.
Numerous poles beginning 289' from DER, 442' left of centerline, up to 34' AGL/534' MSL.
Pole 850' from DER, 524' right of centerline, 35' AGL/536' MSL.
Numerous trees beginning 1686' from DER, 326' right of centerline, up to 68' AGL/577' MSL.

Bldg. 305' from DER, 385' left of centerline, 24' AGL/522' MSL.
Hangar 1126' from DER, 528' left of centerline, 34' AGL/537' MSL.
Rwy 34: Sign 98' from DER, 356' left of centerline, 5' AGL/510' MSL.
Tree 588' from DER, 483' left of centerline, 121' AGL/521' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 82325 W25A	APP CRS 252°	Rwy Idg TDZE Apt Elev	4199 23 23
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RNAV (GPS) RWY 25

RIO VISTA MUNI (O88)

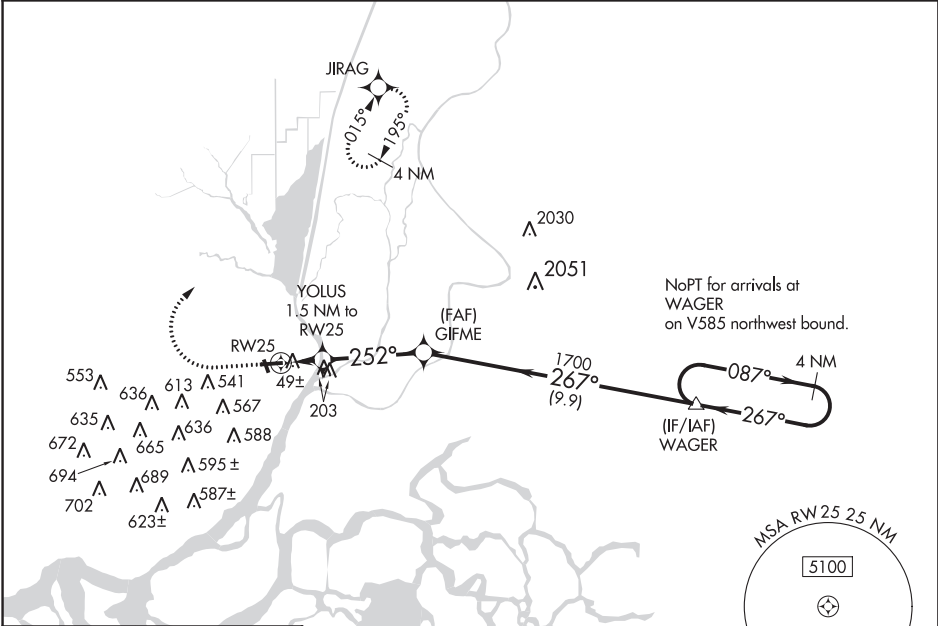
▽ DME/DME RNP-0.3 NA. When local altimeter setting not received, use Concord altimeter setting and increase all MDA 60 feet, increase LP and LNAV Cat C visibility 1/8 mile. VDP NA with Concord altimeter setting. Night Landing Rwy 33 NA.

MISSED APPROACH: Climb to 500 then climbing right turn to 3100 direct JIRAG and hold, continue climb-in-hold to 3100.

AWOS-AV
127.075

TRAVIS APP CON
119.9 322.325

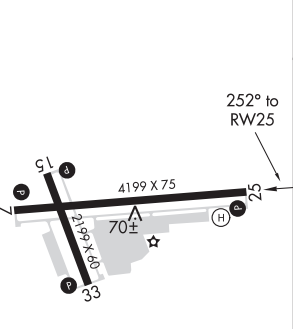
UNICOM
122.725 (CTAF) 0



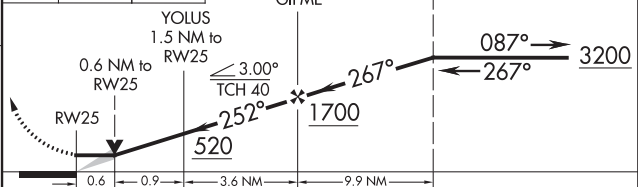
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 23	TDZE 23
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500	3100	JIRAG	VGSI and descent angles not coincident (VGSI Angle 4.00/TCH 40).
			4 NM Holding Pattern



CATEGORY	A	B	C	D
LP MDA	300-1	277 (300-1)	300-7/8 277 (300-7/8)	NA
LNAV MDA	460-1	437 (500-1)	460-1/4 437 (500-1/4)	NA
CIRCLING	520-1 497 (500-1)	560-1 537 (600-1)	580-1/2 557 (600-1/2)	NA

REIL Rwy 25 0
MIRL Rws 7-25 and 15-33 0

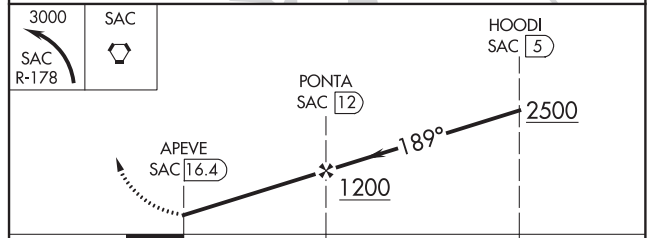
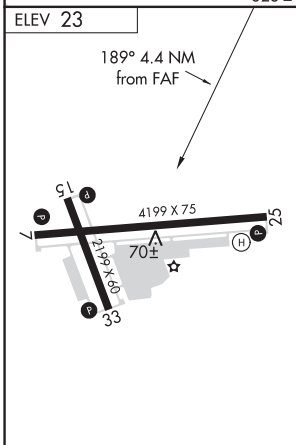
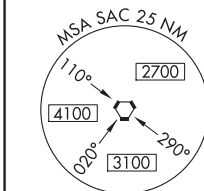
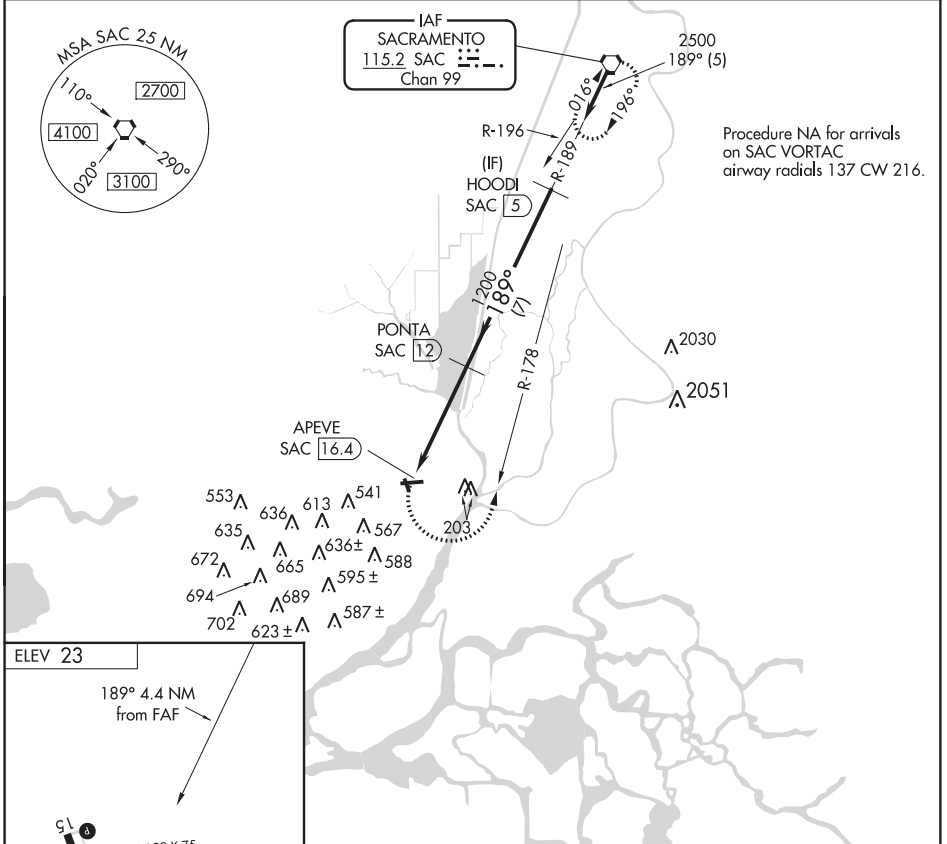
VORTAC SAC 115.2 Chan 99	APP CRS 189°	Rwy Idg TDZE Apt Elev	N/A N/A 23
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VOR/DME-A
RIO VISTA MUNI (O88)

NA When local altimeter setting not received, use Concord altimeter setting and increase all MDA 60 feet, increase Cat C visibility ¼ mile. Night Landing Rwy 33 NA. Visibility reduction by helicopters NA.

MISSED APPROACH: Climbing left turn to 3000 on SAC VORTAC R-178 to SAC VORTAC and hold.

AWOS-AV 127.075	TRAVIS APP CON 119.9 322.325	UNICOM 122.725 (CTAF) 0
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CATEGORY	A	B	C	D
CIRCLING	560-1 537 (600-1)	580-1 557 (600-1)	620-1½ 597 (600-1½)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

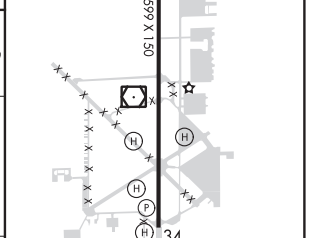
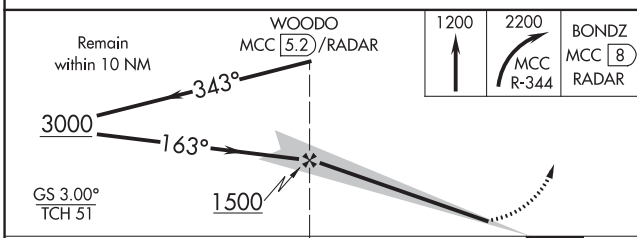
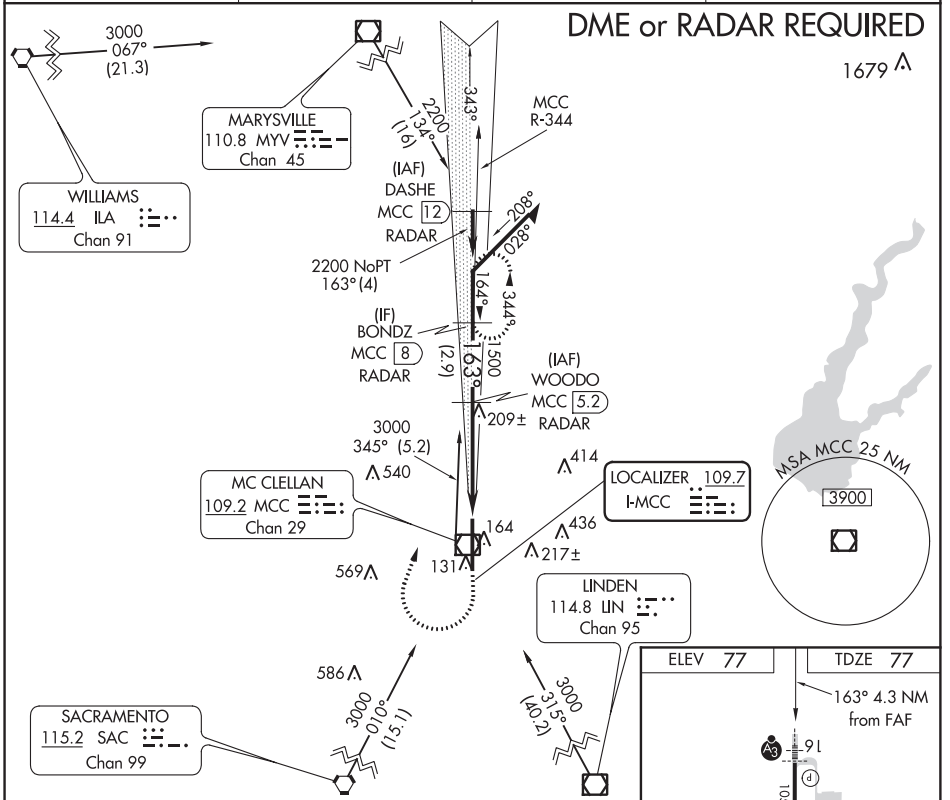
LOC I-MCC 109.7	APP CRS 163°	Rwy Idg 10599 TDZE 77 Apt Elev 77
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ILS or LOC RWY 16

MC CLELLAN AIRFIELD (MCC)

NA DME from MCC VOR/DME. If local altimeter setting is not received, use Sacramento Intl altimeter setting and increase all DH/MDAs 40 feet.	SSALR	MISSED APPROACH: Climb to 1200 then climbing right turn to 2200 via MCC VOR/DME R-344 to BONDZ/MCC 8 DME/RADAR and hold.
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AWOS-3 125.975	NORCAL APP CON 127.4 317.5	CINC DEL 119.825	UNICOM 122.975 (CTAF)
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CATEGORY	A	B	C	D
S-ILS 16		277-1/2	200 (200-1/2)	
S-LOC 16		460-1/2	383 (400-1/2)	460-3/4 383 (400-3/4)
CIRCLING		NA		

FAF to MAP 4.3 NM					
Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

VOR/DME MCC 109.2 Chan 29	APP CRS 333°	Rwy Idg 10599 TDZE 72 Apt Elev 77
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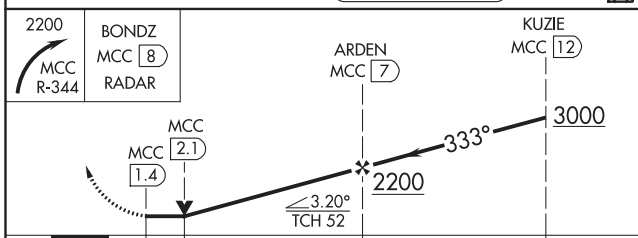
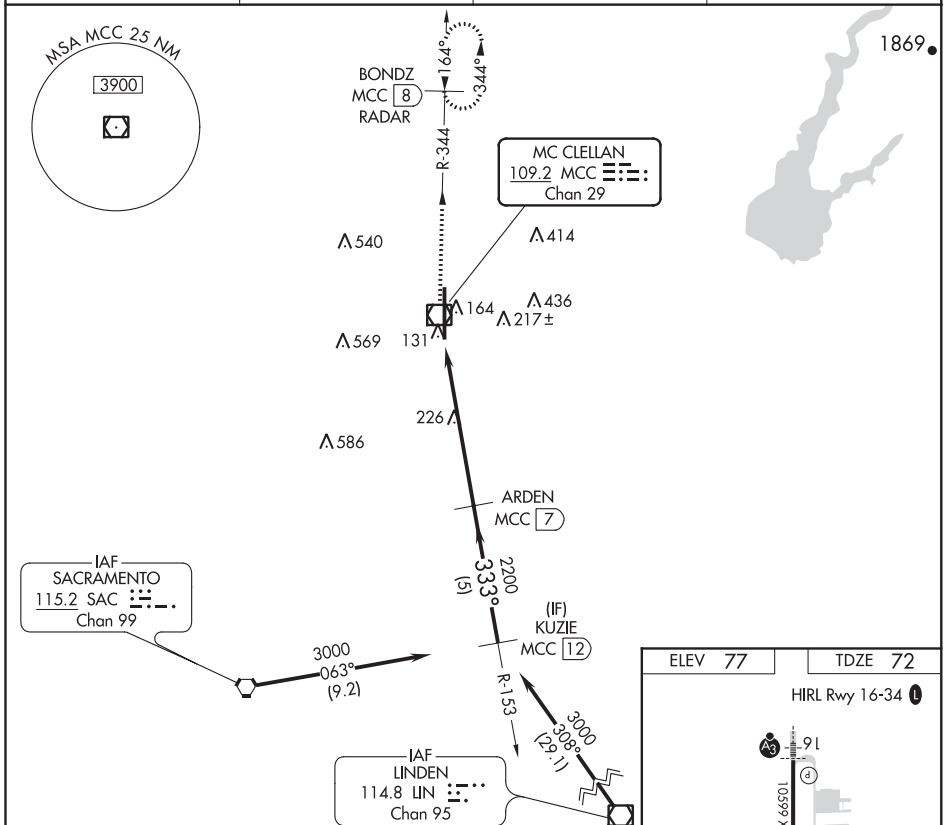
VOR/DME RWY 34

MC CLELLAN AIRFIELD (MCC)

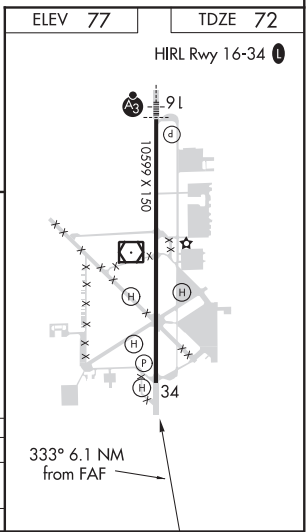
⚠ NA VDP NA when using Sacramento Intl altimeter setting.
When local altimeter setting not received, use Sacramento Intl altimeter setting and increase all MDAs 40 feet.

MISSED APPROACH: Climbing right turn to 2200 via MCC R-344 to BONDZ/MCC 8 DME/RADAR and hold.

AWOS-3 125.975	NORCAL APP CON 127.4 317.5	CLNC DEL 119.825	UNICOM 122.975 (CTAF)
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CATEGORY	A	B	C	D
S-34	500-1	428 (500-1)	500-1½ 428 (500-1½)	500-1½ 428 (500-1½)
CIRCLING	NA			



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

MC CLELLAN AIRFIELD (MCC)
SACRAMENTO, CALIFORNIA

AWOS-3
125.975
CTAF/UNICOM
122.975
CLNC DEL
119.825

AL-357 (FAA)

1000
X 200

FIELD
ELEV
77

38°41'N

RWY 16-34
S-155, D-300, 2S-175,
2D-500, 2D/D1-620, C5-840



JANUARY 2015
ANNUAL RATE OF CHANGE
0.1° W

FIRE STATION

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

38°40'N

FBO

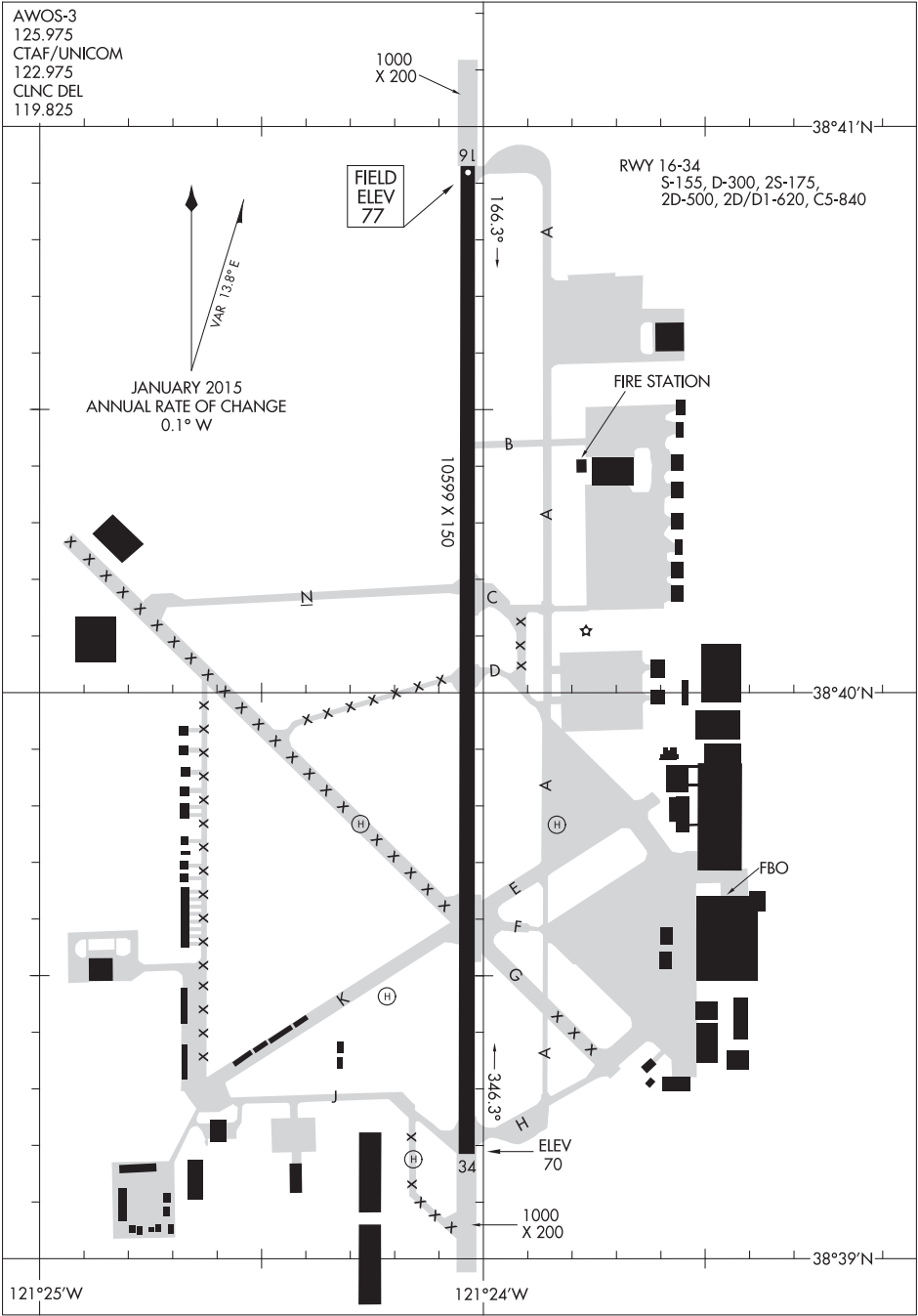
38°39'N

121°25'W

121°24'W

AIRPORT DIAGRAM

SACRAMENTO, CALIFORNIA
MC CLELLAN AIRFIELD (MCC)



LOC I-SAC 110.3	APP CRS 019°	Rwy Idg 5503
		TDZE 21
		Apt Elev 24

ILS or LOC RWY 2

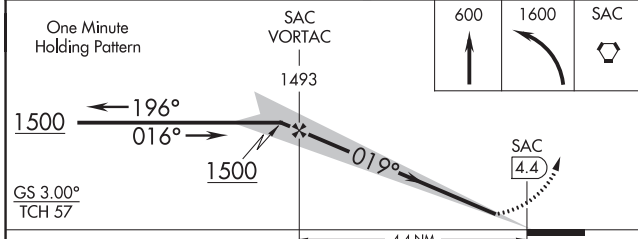
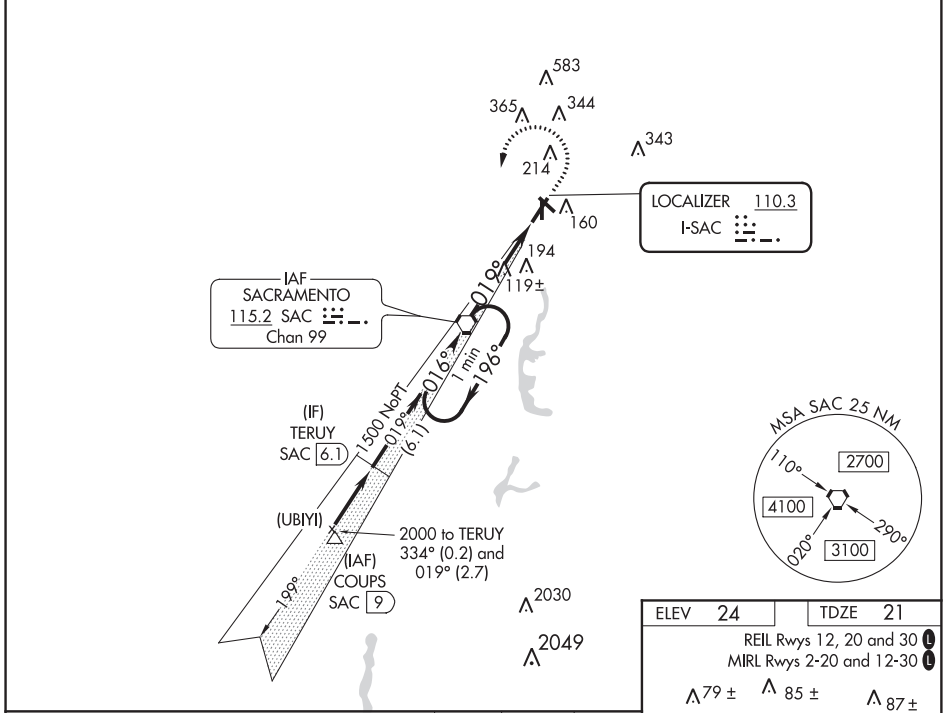
SACRAMENTO EXECUTIVE (SAC)

▽ Night landing: Rwy 34 NA. For inop MALSR, increase S-ILS 2 all Cats visibility to 7/6.
▲ For inop MALSR when using Sacramento Intl altimeter setting, increase S-ILS 2 all Cats visibility to 1. When local altimeter setting not received, use Sacramento Intl altimeter setting and increase DA to 322, increase all MDA 40 feet.

MALSR

MISSED APPROACH:
 Climb to 600 then climbing left turn to 1600 direct SAC VORTAC and hold.

ATIS 125.5	NORCAL APP CON 127.4 317.5	EXEC TOWER ★ 119.5 (CTAF) 0 278.8	GND CON 125.0	UNICOM 122.95
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ELEV 24	TDZE 21
REIL Rwys 12, 20 and 30	
MIRL Rwys 2-20 and 12-30	
Λ 79 ±	Λ 85 ±
Λ 183	Λ 87 ±
Λ 61 ±	Λ 76 ±
019° 4.4 NM from FAF	
FAF to MAP 4.4 NM	
Knots	60 90 120 150 180
Min:Sec	4:24 2:56 2:12 1:46 1:28

TWR 94

3500 X 150

3505 X 150

3527 X 100

100 ±

61 ±

CATEGORY	A	B	C	D
S-ILS 2	294-1/2 273 (300-1/2)			
S-LOC 2	380-1/2	359 (400-1/2)	380-5/8	359 (400-5/8)
CIRCLING	500-1 476 (500-1)	520-1 496 (500-1)	520-1 1/2 496 (500-1 1/2)	580-2 556 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017


WAAS CH 62810 W02A	APP CRS 019°	Rwy Idg 5503 TDZE 21 Apt Elev 24
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RNAV (GPS) RWY 2

SACRAMENTO EXECUTIVE (SAC)

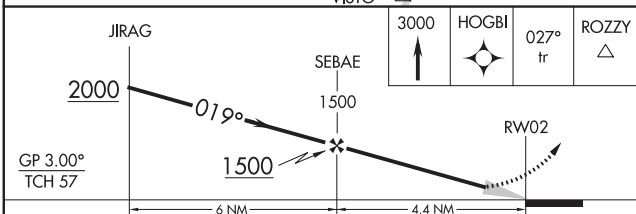
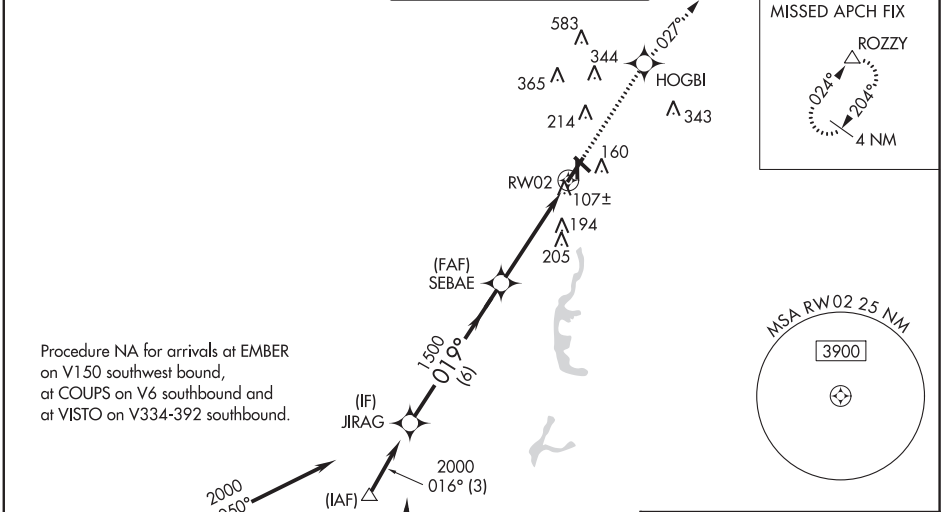
▼ Baro-VNAV NA when using Sacramento Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F).
▲ DME/DME RNP-0.3 NA.
 When local altimeter setting not received, use Sacramento Intl altimeter setting and increase LPV DA to 322; increase LNAV/VNAV DA to 401 and all visibilities 1/8 mile; increase all MDA 40 feet and LNAV Cats C/D visibility 1/8 mile.
 Night Landing: Rwy 34 NA.
 For inoperative MALS, increase LPV all Cats visibility to 3/8. For inoperative MALS when using Sacramento Intl altimeter setting, increase LPV all Cats visibility to 1.

MALS

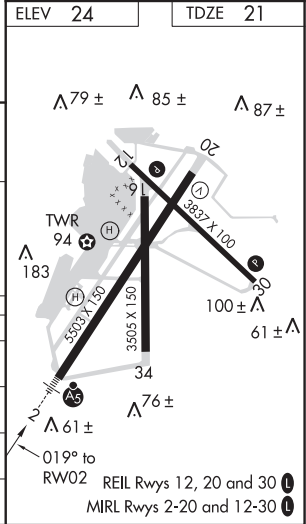


MISSED APPROACH:
Climb to 3000 direct HOGBI and on track 027° to ROZZY and hold.

ATIS 125.5	NORCAL APP CON 127.4 317.5	EXEC TOWER* 119.5 (CTAF) 0 278.8	GND CON 125.0	UNICOM 122.95
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CATEGORY	A	B	C	D
LPV DA		294-1/2	273 (300-1/2)	
LNAV/VNAV DA		373-5/8	352 (400-5/8)	
LNAV MDA	440-1/2	419 (500-1/2)	440-3/4	419 (500-3/4)
CIRCLING	500-1 476 (500-1)	520-1 496 (500-1)	520-1 1/2 496 (500-1 1/2)	580-2 556 (600-2)



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

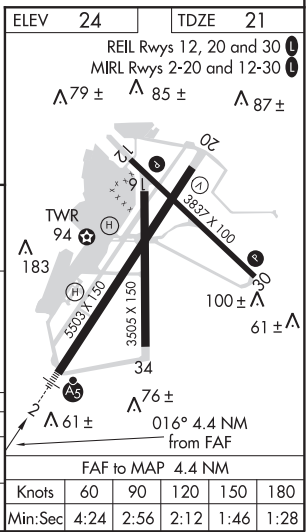
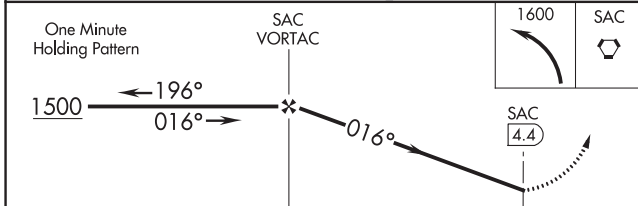
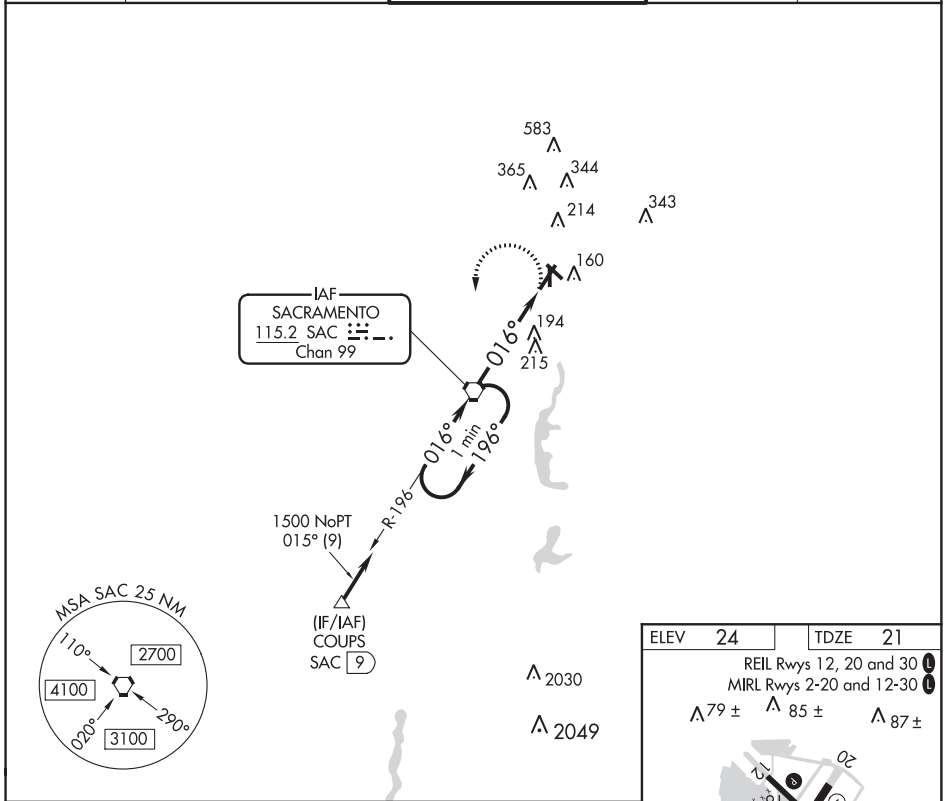
VORTAC SAC 115.2 Chan 99	APP CRS 016°	Rwy Idg 5503 TDZE 21 Apt Elev 24
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VOR RWY 2

SACRAMENTO EXECUTIVE (SAC)

	Night landing: Rwy 34 NA. When local altimeter setting not received, use Sacramento Intl altimeter setting and increase all MDA 40 feet.		MISSED APPROACH: Climbing left turn to 1600 direct SAC VORTAC and hold.

ATIS 125.5	NORCAL APP CON 127.4 317.5	EXEC TOWER * 119.5 (CTAF) 0 278.8	GND CON 125.0	UNICOM 122.95
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CATEGORY	A	B	C	D
S-2	520-1/2	499 (500-1/2)	520-1	499 (500-1)
CIRCLING	520-1	496 (500-1)	520-1/2	580-2
			496 (500-1/2)	556 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

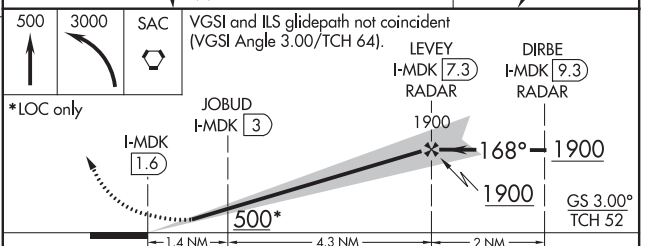
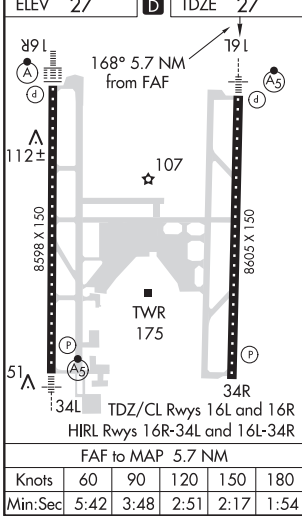
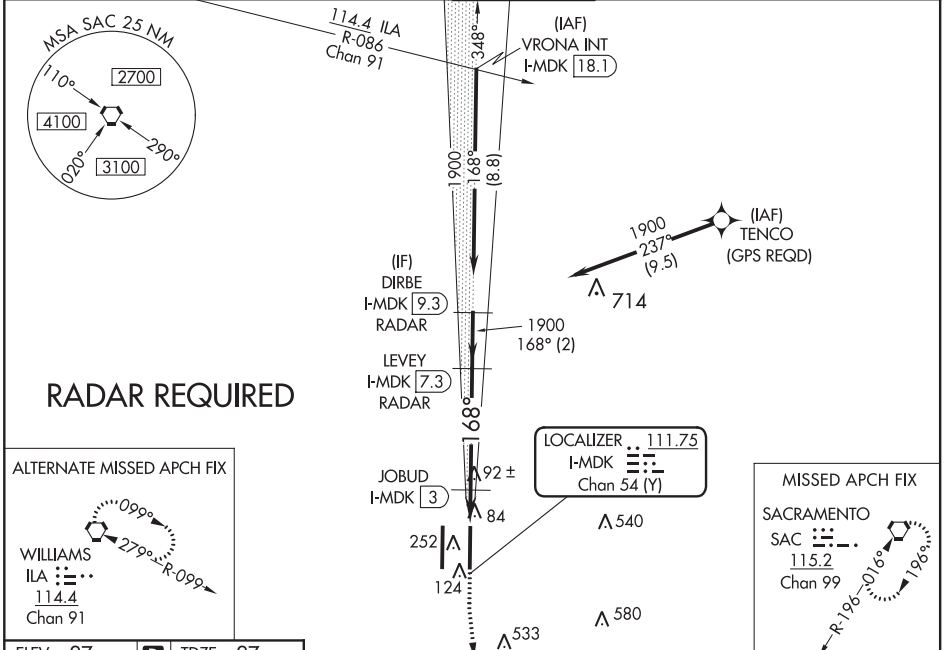
LOC/DME I-MDK 111.75 Chan 54 (Y)	APP CRS 168°	Rwy Idg 8605 TDZE 27 Apt Elev 27
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ILS or LOC RWY 16L

SACRAMENTO INTL (SMF)

<p>Simultaneous approach authorized with Rwy 16R. Circling NA west of Rwy 16L-34R. RADAR or DME required.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climb to 500 then climbing left turn to 3000 direct SAC VORTAC and hold.</p>
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ATIS 126.75	NORCAL APP CON 125.4 259.1 (W-NE) 125.25 257.9 (SW) 127.4 317.5 (E-SE)	CAPITOL TOWER 125.7 256.7	GND CON 121.7 256.7	CLNC DEL 121.1 256.7	CPDLC
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CATEGORY	A B C D			
S-ILS 16L	227-1/2 200 (200-1/2)			
S-LOC 16L	500-1/2	473 (500-1/2)	500-1	473 (500-1)
C CIRCLING	500-1	473 (500-1)	500-1 1/2 473 (500-1 1/2)	840-2 3/4 813 (900-2 3/4)
JOBUD FIX MINIMUMS (DME REQUIRED)				
S-LOC 16L	380-1/2	353 (400-1/2)	380-5/8	353 (400-5/8)
C CIRCLING	440-1 413 (500-1)	480-1 453 (500-1)	480-1 1/2 453 (500-1 1/2)	840-2 3/4 813 (900-2 3/4)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-SMF 111.1 Chan 48	APP CRS 168°	Rwy ldg TDZE Apt Elev	8598 25 27
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ILS or LOC RWY 16R

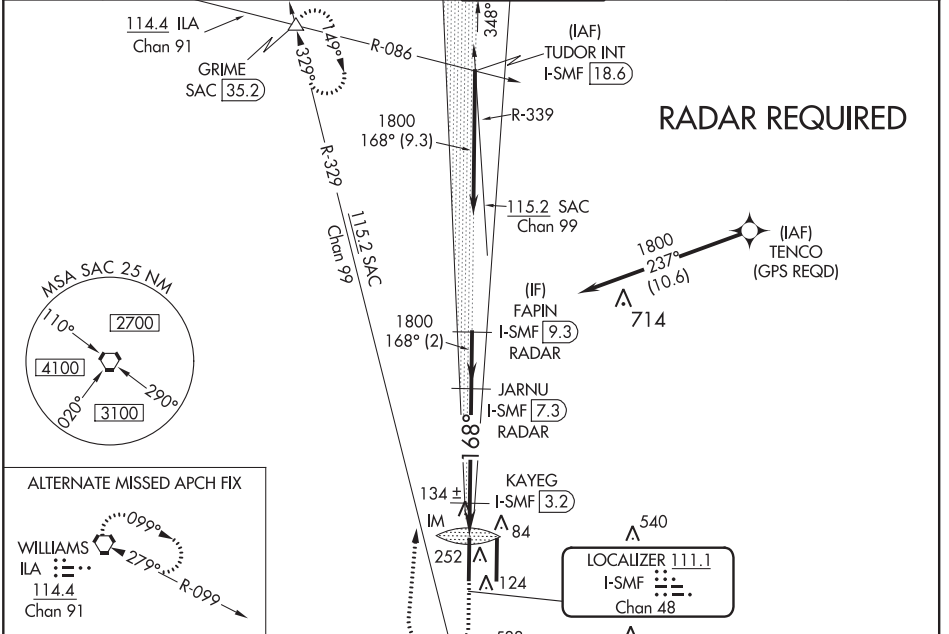
SACRAMENTO INTL (SMF)

Simultaneous approach authorized with Rwy 16L. DME or RADAR required. Circling NA east of Rwy 16R-34L.

ALSF-2

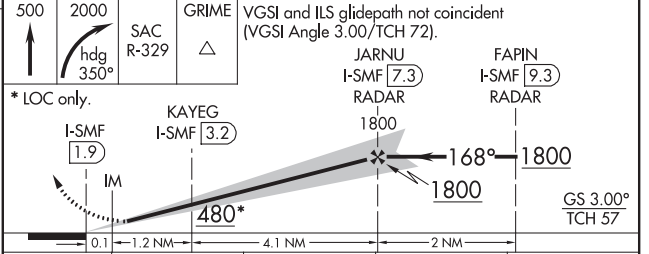
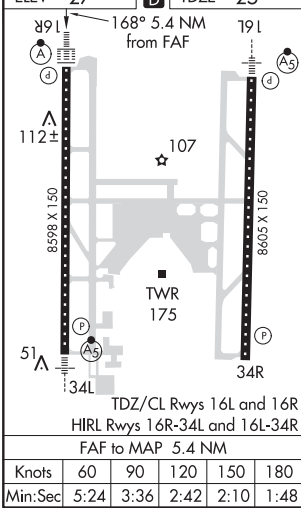
MISSED APPROACH: Climb to 500 then climbing right turn to 2000 on heading 350° and SAC VORTAC R-329 to GRIME INT/SAC 35.2 DME and hold.

ATIS 126.75	NORCAL APP CON 125.4 259.1 (W-NE) 125.25 257.9 (SW) 127.4 317.5 (E-SE)	CAPITOL TOWER 125.7 256.7	GND CON 121.7 256.7	CLNC DEL 121.1 256.7	CPDLC
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ALTERNATE MISSED APCH FIX

WILLIAMS ILA
114.4 Chan 91



CATEGORY	A	B	C	D
S-ILS 16R	225/18		200 (200-1/2)	
S-LOC 16R	480/24	455 (500-1/2)	480/45	455 (500-3/4)
C CIRCLING	480-1	453 (500-1)	480-1 1/2 453 (500-1 1/2)	580-2 553 (600-2)
KAYEG FIX MINIMUMS (DME REQUIRED)				
S-LOC 16R	400/24	375 (400-1/2)	400/35	375 (400-3/4)
C CIRCLING	440-1 413 (500-1)	480-1 453 (500-1)	480-1 1/2 453 (500-1 1/2)	580-2 553 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017


SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-HUX 111.1 Chan 48	APP CRS 348°	Rwy Idg 8598 TDZE 24 Apt Elev 27
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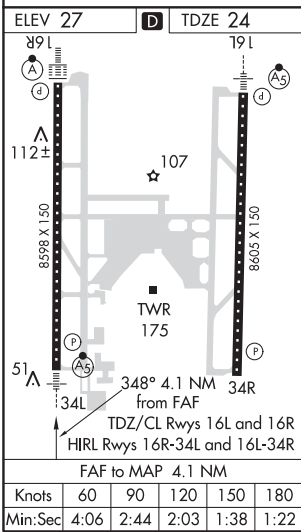
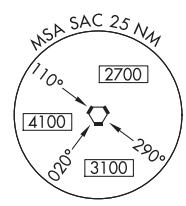
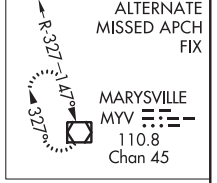
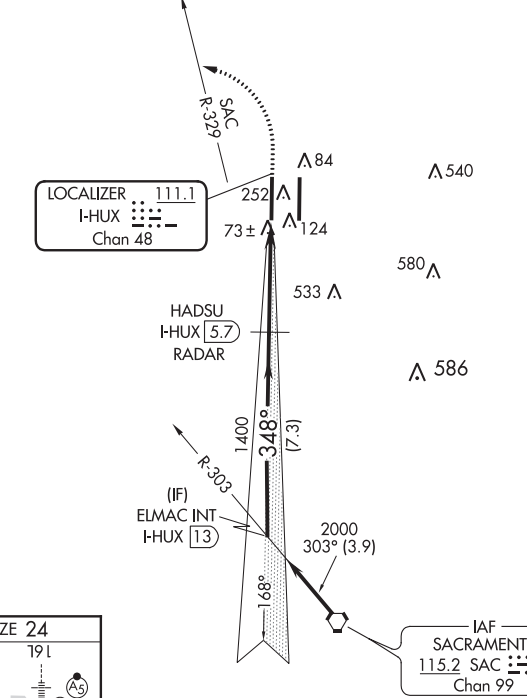
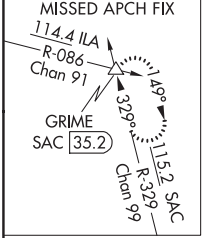
ILS or LOC RWY 34L

SACRAMENTO INTL (SMF)

⚠ RADAR or DME required. When local altimeter setting not received, use Sacramento Executive altimeter setting and increase all DA/MDA 40 feet. Circling NA east of Rwy 16R-34L. Inop table does not apply.

MALSR  MISSED APPROACH: Climb to 500, then climbing left turn to 2000 on heading 320° and SAC VORTAC R-329 to GRIME INT/ SAC 35.2 DME and hold.

ATIS 126.75	NORCAL APP CON 125.4 259.1 (W-NE) 125.25 257.9 (SW) 127.4 317.5 (E-SE)	CAPITOL TOWER 125.7 256.7	GND CON 121.7 256.7	CLNC DEL 121.1 256.7	CPDLC
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Procedure NA for arrivals on SAC VORTAC airway radials 257 CW 329.

	ELMAC INT I-HUX 13	HADSU I-HUX 5.7 RADAR	500	2000	SAC R-329	GRIME
			↑	hdg 320°	△	
	2000	1400			I-HUX 1.6	
	7.3 NM		4.1 NM			
GS 3.00° TCH 59						
CATEGORY	A	B	C	D		
S-ILS 34L		224-1	200 (200-1)			
S-LOC 34L		420-1	396 (400-1)			
C CIRCLING	440-1 413 (500-1)	480-1 453 (500-1)	480-1½ 453 (500-1½)	580-2 553 (600-2)		

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-SMF 111.1 Chan 48	APP CRS 168°	Rwy Idg TDZE Apt Elev	8598 25 27
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ILS RWY 16R (SA CAT I)

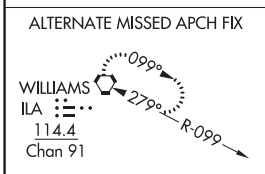
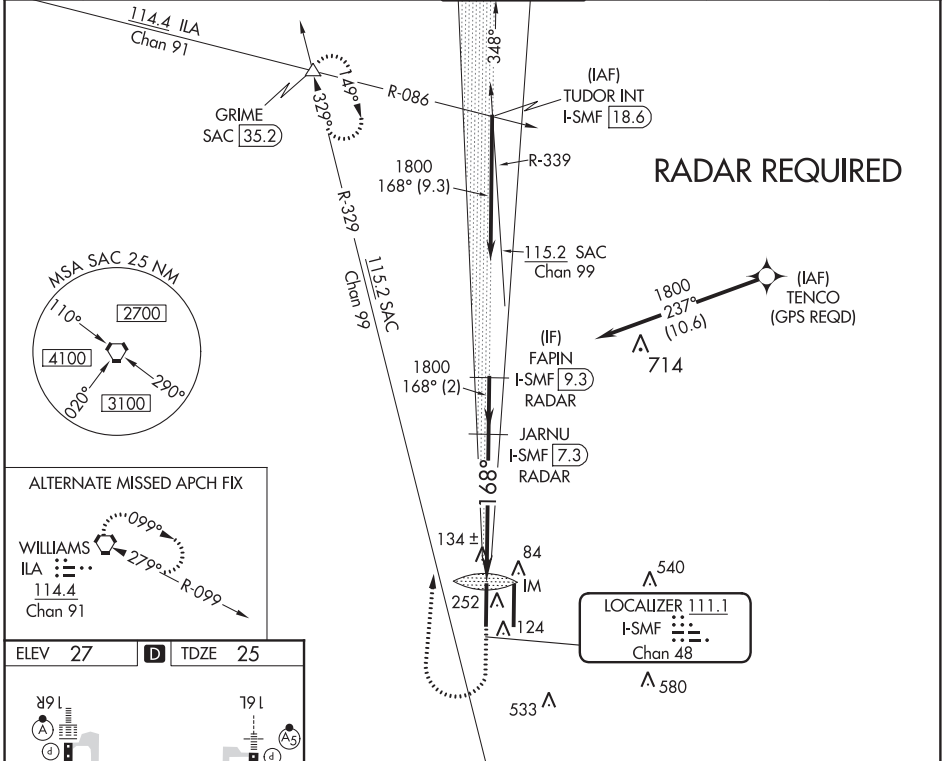
SACRAMENTO INTL (SMF)

Simultaneous approach authorized with Rwy 16L. DME or RADAR required. Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.

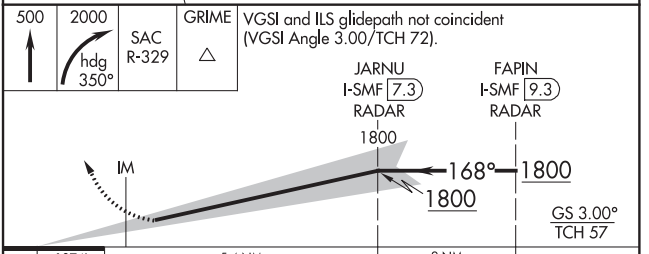
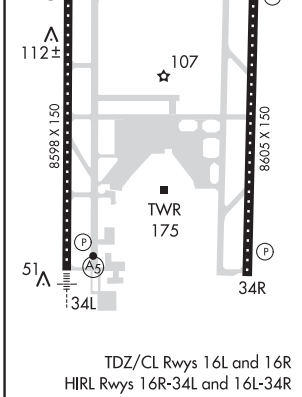
ALSF-2

MISSED APPROACH: Climb to 500 then climbing right turn to 2000 on heading 350° and SAC VORTAC R-329 to GRIME INT/SAC 35.2 DME and hold.

ATIS 126.75	NORCAL APP CON 125.4 259.1 (W-NE) 125.25 257.9 (SW) 127.4 317.5 (E-SE)	CAPITOL TOWER 125.7 256.7	GND CON 121.7 256.7	CLNC DEL 121.1 256.7	CPDLC
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ELEV 27	D	TDZE 25
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CATEGORY	A	B	C	D
S-ILS 16R	RA 154/14 150 DA 175			

SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

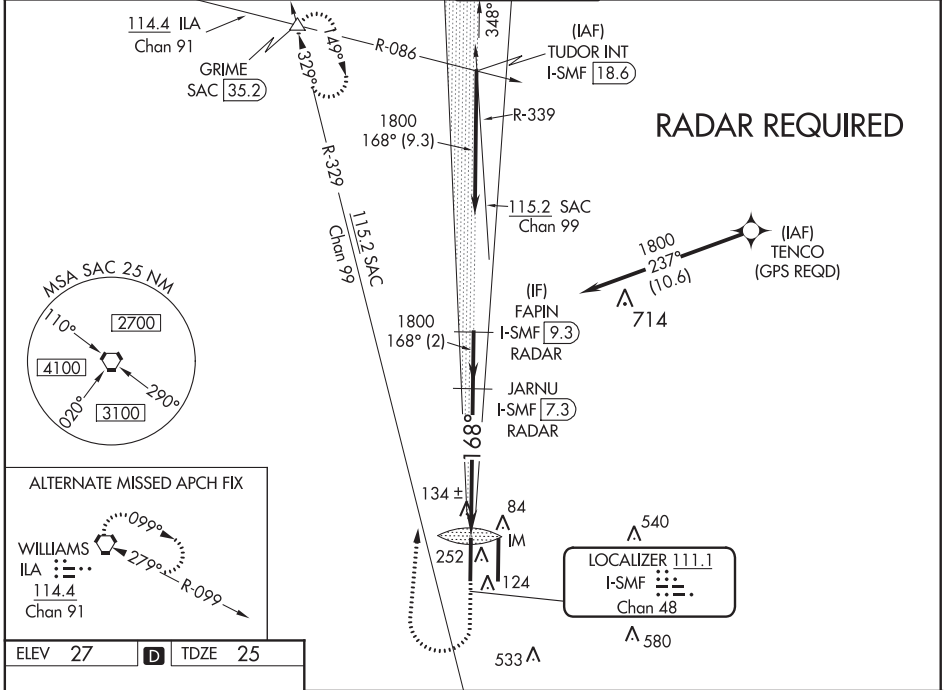
LOC/DME I-SMF	APP CRS	Rwy Idg	8598
111.1	168°	TDZE	25
Chan 48		Apt Elev	27

ILS RWY 16R (CAT II & III)

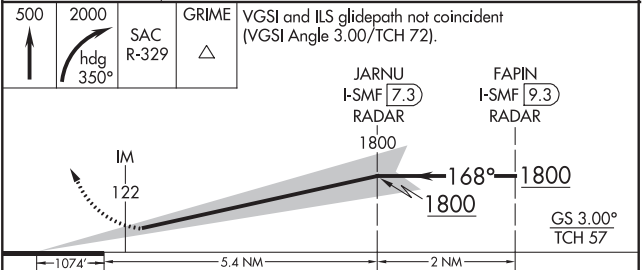
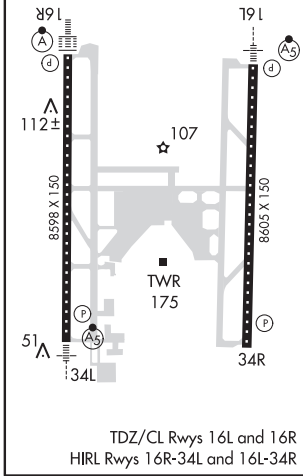
SACRAMENTO INTL (SMF)

<p>Simultaneous approach authorized with Rwy 16L. DME or RADAR required.</p>	<p>ALS-F-2</p>	<p>MISSED APPROACH: Climb to 500 then climbing right turn to 2000 on heading 350° and SAC VORTAC R-329 to GRIME INT/SAC 35.2 DME and hold.</p>			

ATIS	NORCAL APP CON	CAPITOL TOWER	GND CON	CLNC DEL	CPDLC
126.75	125.4 259.1 (W-NE) 125.25 257.9 (SW) 127.4 317.5 (E-SE)	125.7 256.7	121.7 256.7	121.1 256.7	



ELEV 27	D	TDZE 25
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CATEGORY	A	B	C	D
S-ILS 16R	CAT II RA 103/12 100 DA 125			
S-ILS 16R	CAT IIIa RVR 07			
S-ILS 16R	CAT IIIb RVR 06			
S-ILS 16R	CAT IIIc NA			


CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

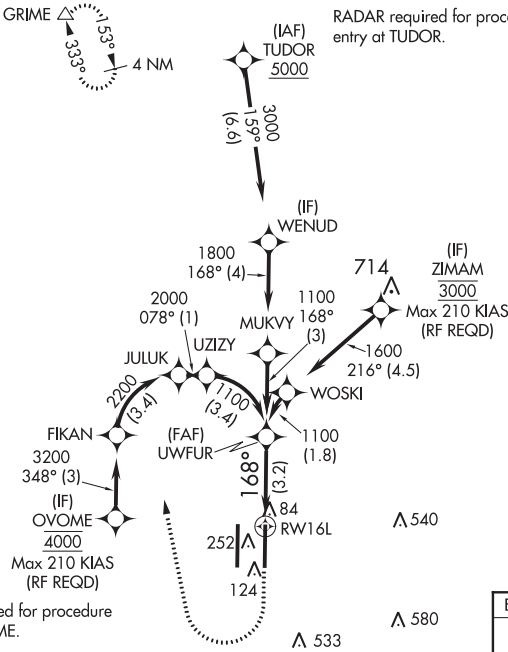
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

RNAV (RNP) Z RWY 16L
SACRAMENTO INTL (SMF)

APP CRS	Rwy Idg	8605
168°	TDZE	27
	Apt Elev	27

<p>▽ For uncompensated Baro-VNAV systems, procedure NA below -4°C (25°F) or above 54°C (130°F). GPS required.</p>	<p>MALS R</p> 		<p>MISSED APPROACH: Climb to 3000 then right turn direct GRIME and hold.</p>		
	<p>ATIS</p> <p>126.75</p>	<p>NORCAL APP CON</p> <p>125.4 259.1 (W-NE) 125.25 257.9 (SW)</p> <p>127.4 317.5 (E-SE)</p>	<p>CAPITOL TOWER</p> <p>125.7 256.7</p>	<p>GND CON</p> <p>121.7 256.7</p>	<p>CLNC DEL</p> <p>121.1 256.7</p>

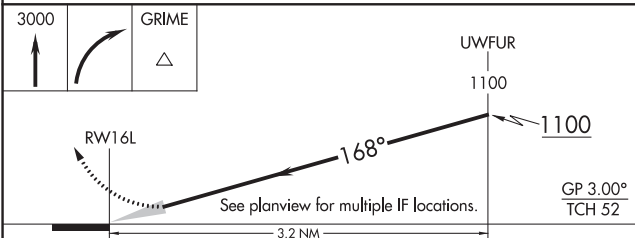


RADAR required for procedure entry at OVOME.

RADAR required for procedure entry at TUDOR.

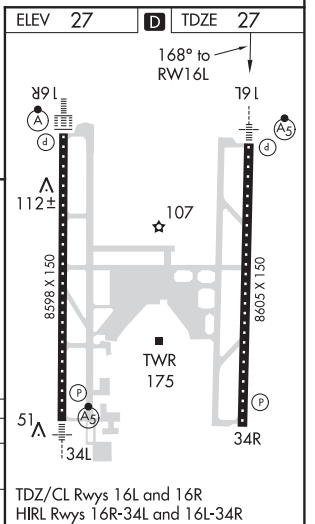
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
RNP 0.30 DA		322-½	295 (300-½)	

AUTHORIZATION REQUIRED



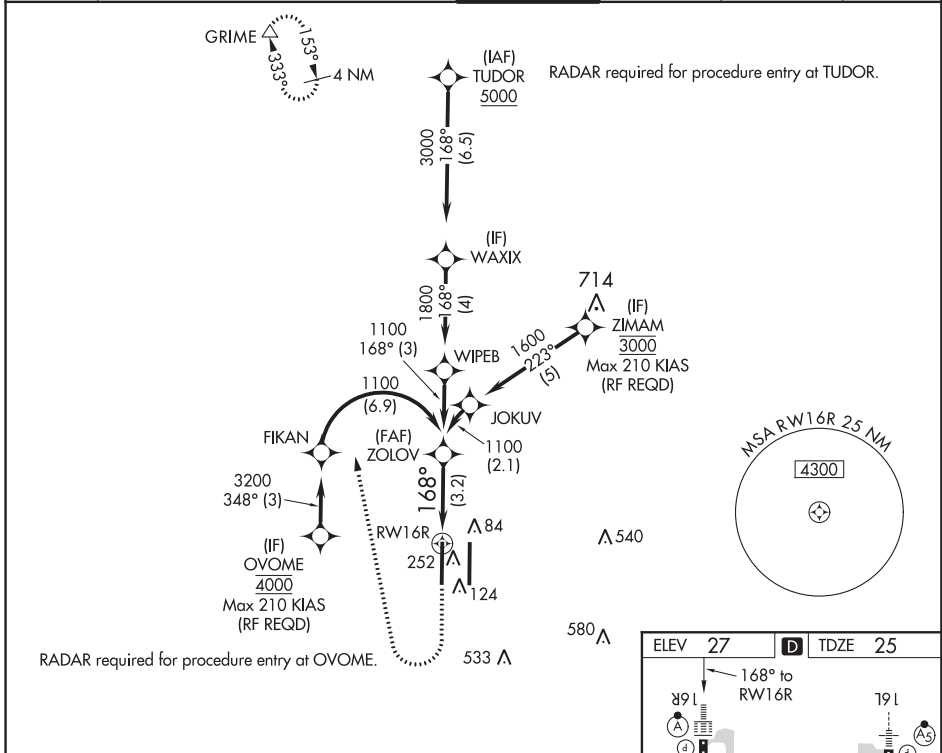
TDZ/CL Rwy 16L and 16R
HIRL Rwy 16R-34L and 16L-34R

APP CRS 168°	Rwy Idg 8598
	TDZE 25
	Apt Elev 27

RNAV (RNP) Z RWY 16R

SACRAMENTO INTL (SMF)

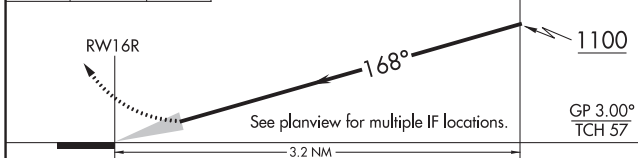
<p>▽ For uncompensated Baro-VNAV systems, procedure NA below -4°C (25°F) or above 54°C (130°F). GPS required. For inop ALSF-2, increase RNP 0.10 all Cats visibility to RVR 4500 and RNP 0.30 all Cats visibility to RVR 6000.</p>	<p>ALSF-2</p>		<p>MISSED APPROACH: Climb to 500 then climbing right turn to 2000 direct GRIME and hold.</p>	
	<p>ATIS 126.75</p>	<p>NORCAL APP CON 125.4 259.1 (W-NE) 125.25 257.9 (SW) 127.4 317.5 (E-SE)</p>	<p>CAPITOL TOWER 125.7 256.7</p>	<p>GND CON 121.7 256.7</p>



SW-2, 10 NOV 2016 to 05 JAN 2017

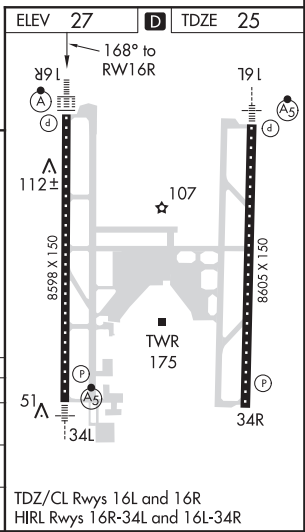
SW-2, 10 NOV 2016 to 05 JAN 2017

500	2000	GRIME \triangle	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 72).
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CATEGORY	A	B	C	D
RNP 0.10 DA	323/24 298 (300-1/2)			
RNP 0.30 DA	388/40 363 (400-3/4)			

AUTHORIZATION REQUIRED



TDZ/CL Rwy 16L and 16R
HIRL Rwy 16R-34L and 16L-34R

RNAV (RNP) Z RWY 34L

SACRAMENTO INTL (SMF)

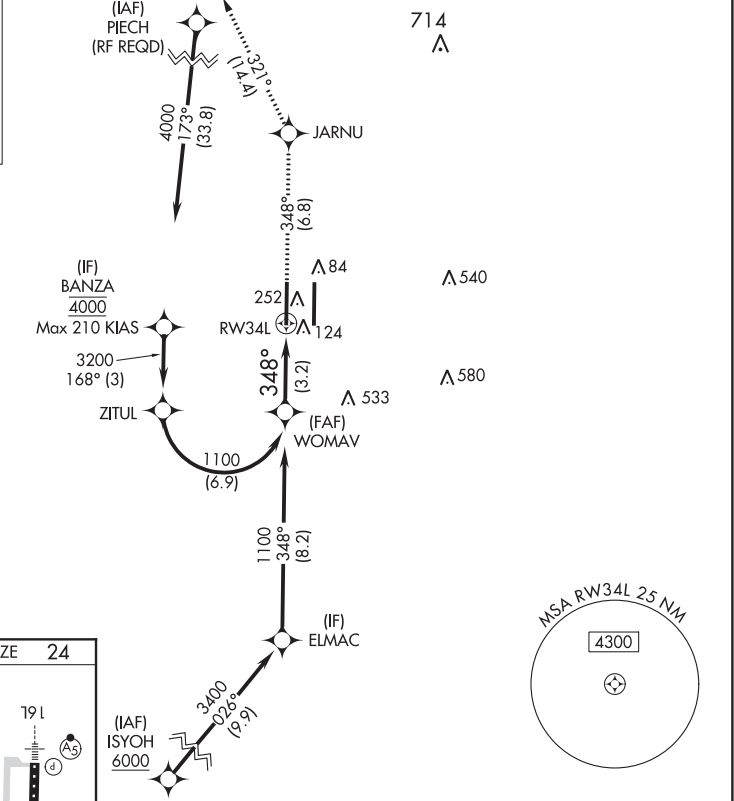
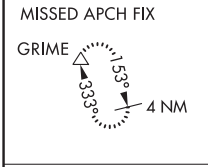
APP CRS	Rwy Idg	8598
348°	TDZE	24
	Apt Elev	27

▽ For uncompensated Baro-VNAV systems, procedure NA below -4°C (25°F) or above 54°C (130°F). GPS required. For inop MALSR, increase RNP 0.30 all Cats visibility to RVR 5000.

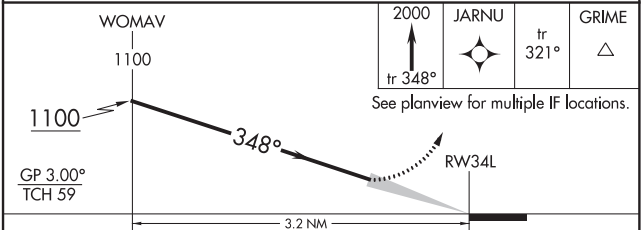
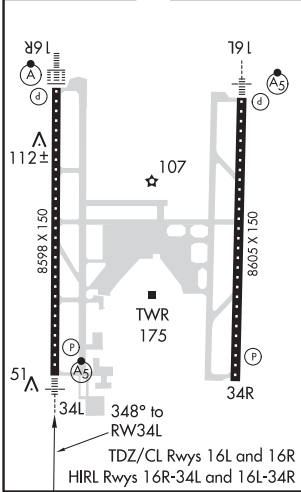


MISSED APPROACH: Climb to 2000 on track 348° to JARNU and on track 321° to GRIME and hold.

ATIS	NORCAL APP CON			CAPITOL TOWER	GND CON	CLNC DEL	CPDLC
126.75	125.4	259.1 (W-NE)	125.25 257.9 (SW)	125.7 256.7	121.7 256.7	121.1 256.7	
	127.4 317.5 (E-SE)						



ELEV 27	D	TDZE 24
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CATEGORY	A	B	C	D
RNP 0.30 DA	327/26 303 (300- ³ / ₄)			

AUTHORIZATION REQUIRED

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SW-2, 10 NOV 2016 to 05 JAN 2017

RNAV (RNP) Z RWY 34R

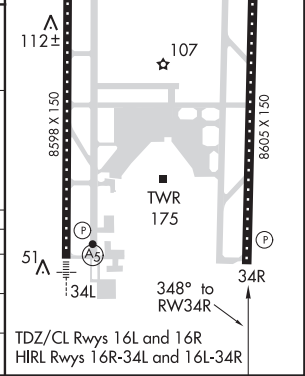
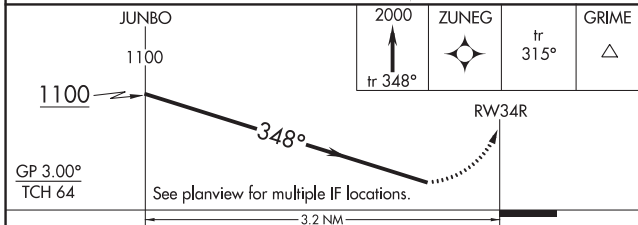
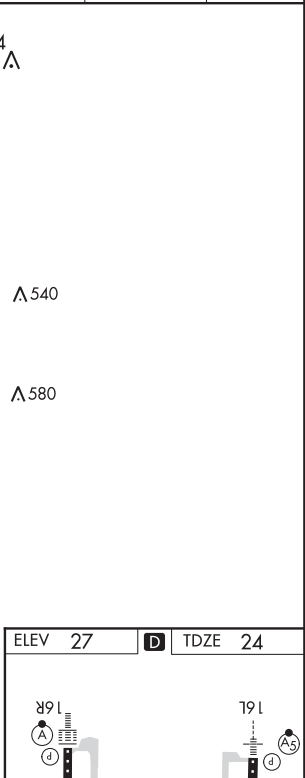
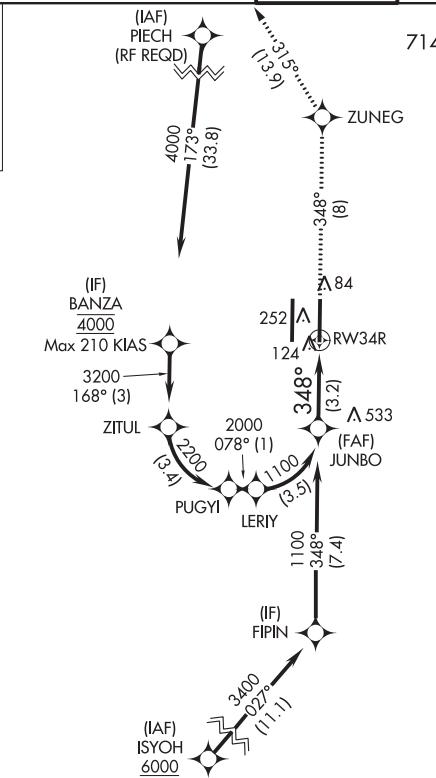
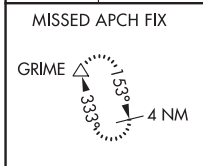
SACRAMENTO INTL (SMF)

APP CRS 348°	Rwy Idg 8605
	TDZE 24
	Apt Elev 27

For uncompensated Baro-VNAV systems, procedure NA below -4°C (25°F) or above 54°C (130°F). GPS required.

MISSED APPROACH: Climb to 2000 on track 348° to ZUNEG and track 315° to GRIME and hold.

ATIS 126.75	NORCAL APP CON 125.4 259.1 (W-NE) 125.25 257.9 (SW) 127.4 317.5 (E-SE)	CAPITOL TOWER 125.7 256.7	GND CON 121.7 256.7	CLNC DEL 121.1 256.7	CPDLC
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CATEGORY	A	B	C	D
RNP 0.10 DA		319-7/8	295 (300-7/8)	
RNP 0.30 DA		385-1 1/8	361 (400-1 1/8)	

AUTHORIZATION REQUIRED

SW-2, 10 NOV 2016 to 05 JAN 2017

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WAAS CH 78327 W16B	APP CRS 168°	Rwy Idg TDZE Apt Elev	8605 27 27
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RNAV (GPS) Y RWY 16L

SACRAMENTO INTL (SMF)

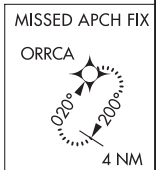
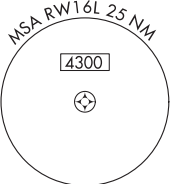
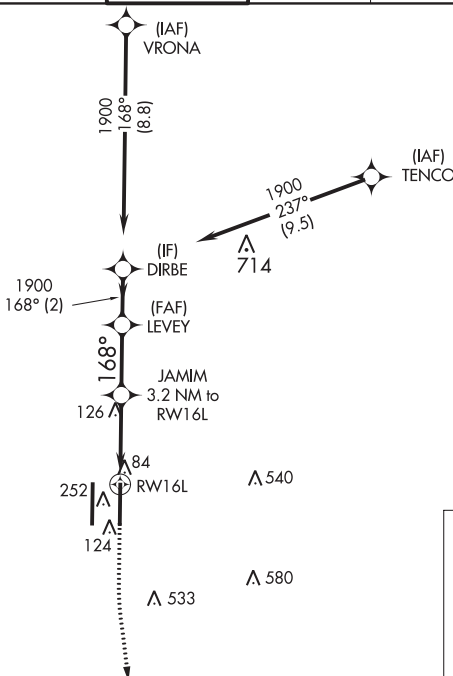
⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C (25°F) or above 54°C (130°F). Circling NA west of Rwy 16L-34R. DME/DME RNP-0.3 NA. LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations. Simultaneous approach authorized with Rwy 16R.



MISSED APPROACH: Climb to 500 then climbing left turn to 3000 direct ORRCA and hold.

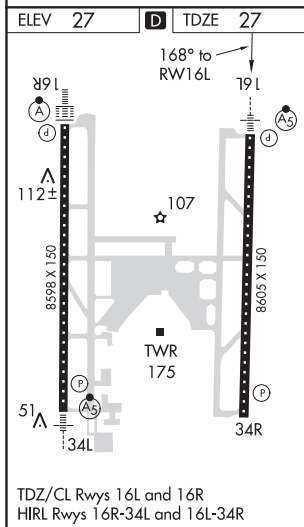
ATIS 126.75	NORCAL APP CON 125.4 259.1 (W-NE) 125.25 257.9 (SW) 127.4 317.5 (E-SE)	CAPITOL TOWER 125.7 256.7	GND CON 121.7 256.7	CLNC DEL 121.1 256.7	CPDLC
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RADAR REQUIRED



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ELEV 27	D TDZE 27	500	3000	ORRCA	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 64).	LEVEY	DIRBE
*LNAV only		*0.9 NM to RWY 16L		JAMIM 3.2 NM to RWY 16L	1900	1900	1900
RWY 16L		2.3 NM		2.5 NM	2 NM	GP 3.00°	TCH 52
CATEGORY	A	B	C	D			
LPV DA		227-½	200 (200-½)				
LNAV/VNAV DA		323-½	296 (300-½)				
LNAV MDA	380-½	353 (400-½)	380-⅝	353 (400-⅝)			
CIRCLING	440-1 413 (500-1)	480-1 453 (500-1)	480-1½ 453 (500-1½)	840-2¾ 813 (900-2¾)			

RNAV (GPS) Y RWY 16R

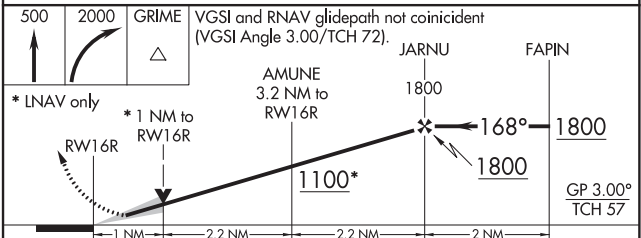
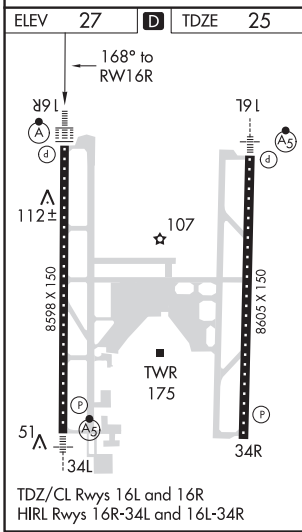
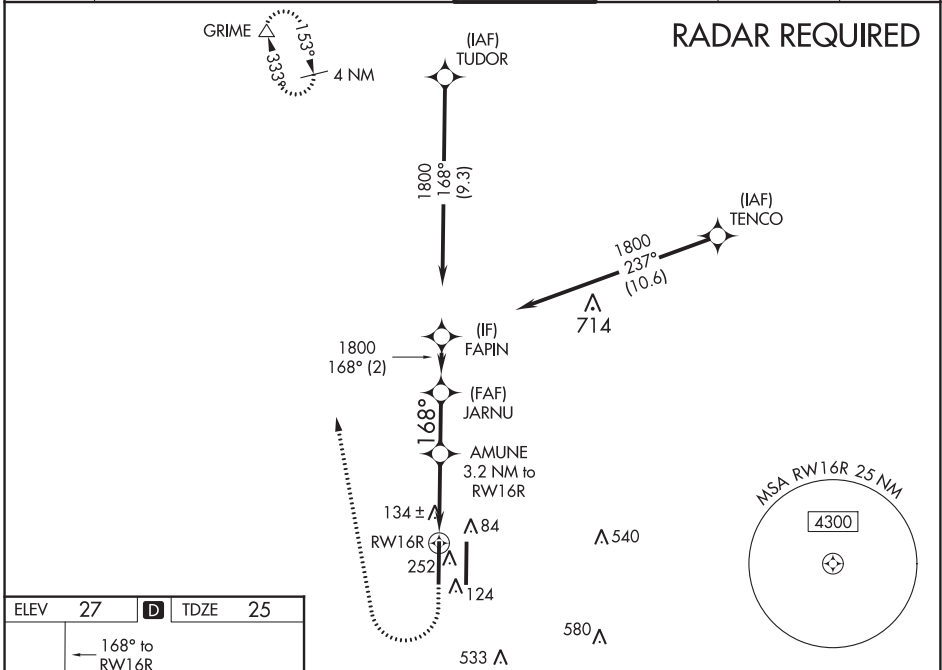
SACRAMENTO INTL (SMF)

WAAS CH 65728 W16A	APP CRS 168°	Rwy Idg 8598 TDZE 25 Apt Elev 27
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▽ DME/DME RNP-0.3 NA. For inop ALSF-2, increase LNAV/VNAV all Cats visibility to RVR 4500 and LNAV all Cats visibility to RVR 5500. Circling NA east of Rwy 16R-34L. Simultaneous approach authorized with Rwy 16L. 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 -4°C (25°F) or above 54°C (130°F).

ALSF-2  MISSED APPROACH: Climb to 500 then climbing right turn to 2000 direct GRIME and hold.

ATIS 126.75	NORCAL APP CON 125.4 259.1 (W-NE) 125.25 257.9 (SW) 127.4 317.5 (E-SE)	CAPITOL TOWER 125.7 256.7	GND CON 121.7 256.7	CLNC DEL 121.1 256.7	CPDLC
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CATEGORY	A	B	C	D
LPV DA		225/24	200 (200-½)	
LNAV/VNAV DA		323/24	298 (300-½)	
LNAV MDA	400/24	375 (400-½)	400/35	375 (400-¾)
C CIRCLING	440-1 413 (500-1)	480-1 453 (500-1)	480-1½ 453 (500-1½)	580-2 553 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

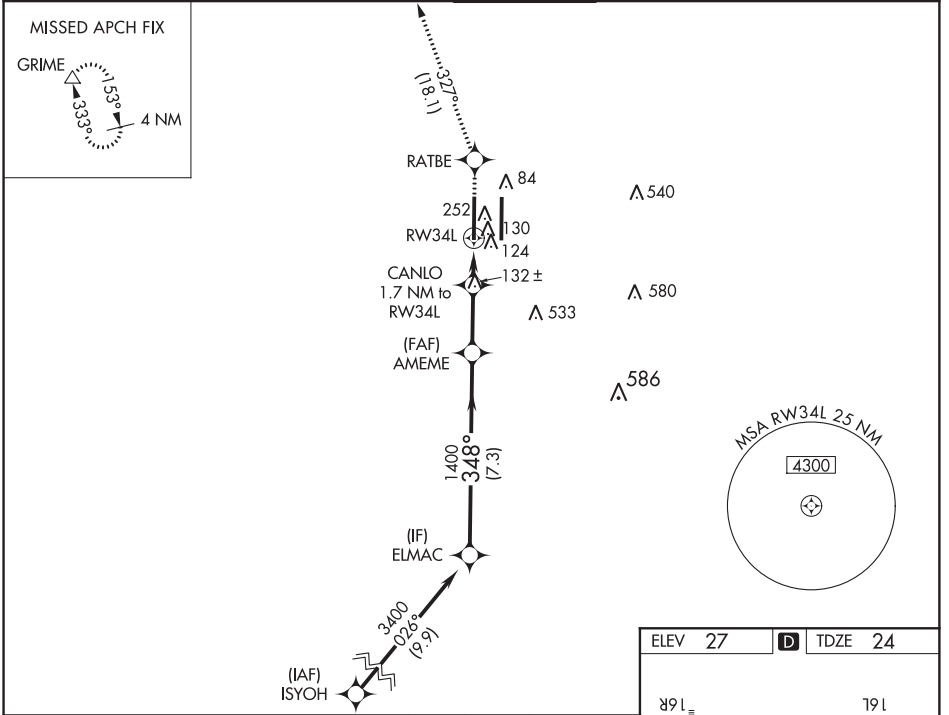
SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 86602 W34A	APP CRS 348°	Rwy Idg TDZE Apt Elev	8598 24 27
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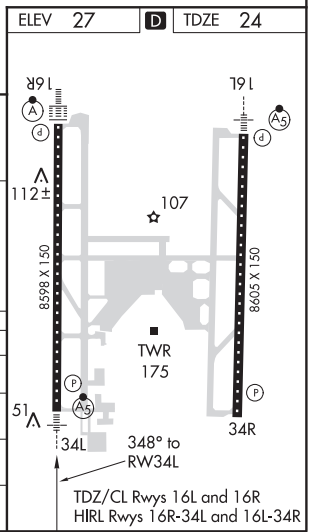
RNAV (GPS) Y RWY 34L

SACRAMENTO INTL (SMF)

<p>▽ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C (24°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Circling NA east of Rwy 16R-34L. For inop MALSRL, increase LPV all Cats visibility to RVR 4000 and LNAV Cat C/D visibility to RVR 5500.</p>				<p>MALSRL</p>		<p>MISSED APPROACH: Climb to 2000 direct RATBE and track 327° to GRIME and hold.</p>				
ATIS 126.75	NORCAL APP CON		CAPITOL TOWER		GND CON		CLNC DEL		CPDLC	
	125.4	259.1	125.25	257.9	125.7	256.7	121.7	256.7	121.1	256.7
	127.4		317.5							
	(W-NE)		(SW)							
	(E-SE)									



GP 3.00° TCH 59	ELMAC	AMEME	CANLO	RWY34L
	3400	1400	1.7 NM to RWY34L	0.9 NM to RWY34L
	348°	1400	*620	
	7.3 NM	2.4 NM	0.8 NM	0.9 NM
CATEGORY	A	B	C	D
LPV DA		224/24	200 (200-½)	
LNAV/VNAV DA		313/24	289 (300-½)	
LNAV MDA	380/24	356 (400-½)	380/30	356 (400-⅝)
CIRCLING	440-1	480-1	480-1½	580-2
	413 (500-1)	453 (500-1)	453 (500-½)	553 (600-2)



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SW-2, 10 NOV 2016 to 05 JAN 2017

RNAV (GPS) Y RWY 34R

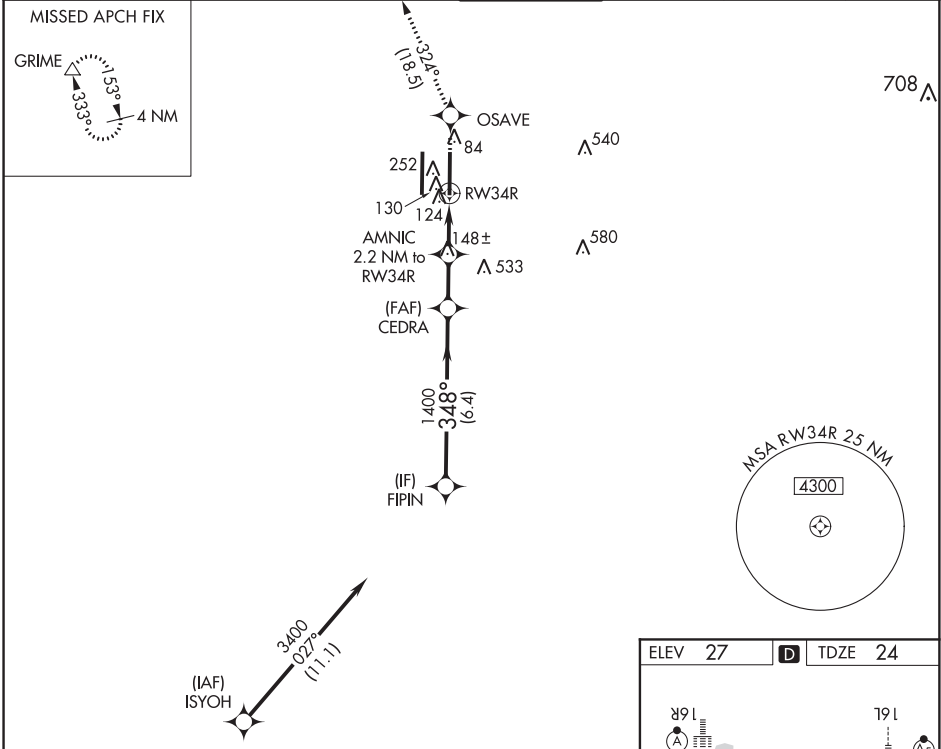
SACRAMENTO INTL (SMF)

APP CRS 348°	Rwy Idg 8605
	TDZE 24
	Apt Elev 27

▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C (25°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Circling NA west of Rwy 16L-34R. Helicopter visibility reduction below ¾ SM NA.

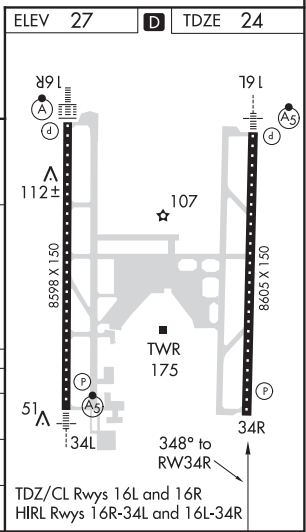
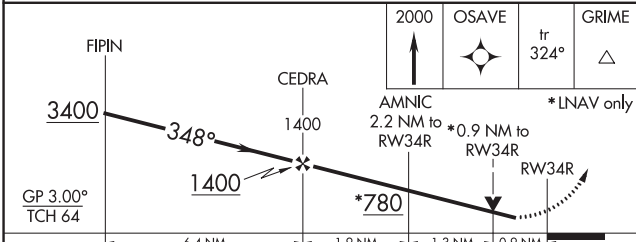
MISSED APPROACH: Climb to 2000 direct OSAVE and track 324° to GRIME and hold.

ATIS 126.75	NORCAL APP CON 125.4 259.1 (W-NE) 125.25 257.9 (SW) 127.4 317.5 (E-SE)	CAPITOL TOWER 125.7 256.7	GND CON 121.7 256.7	CLNC DEL 121.1 256.7	CPDLC
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



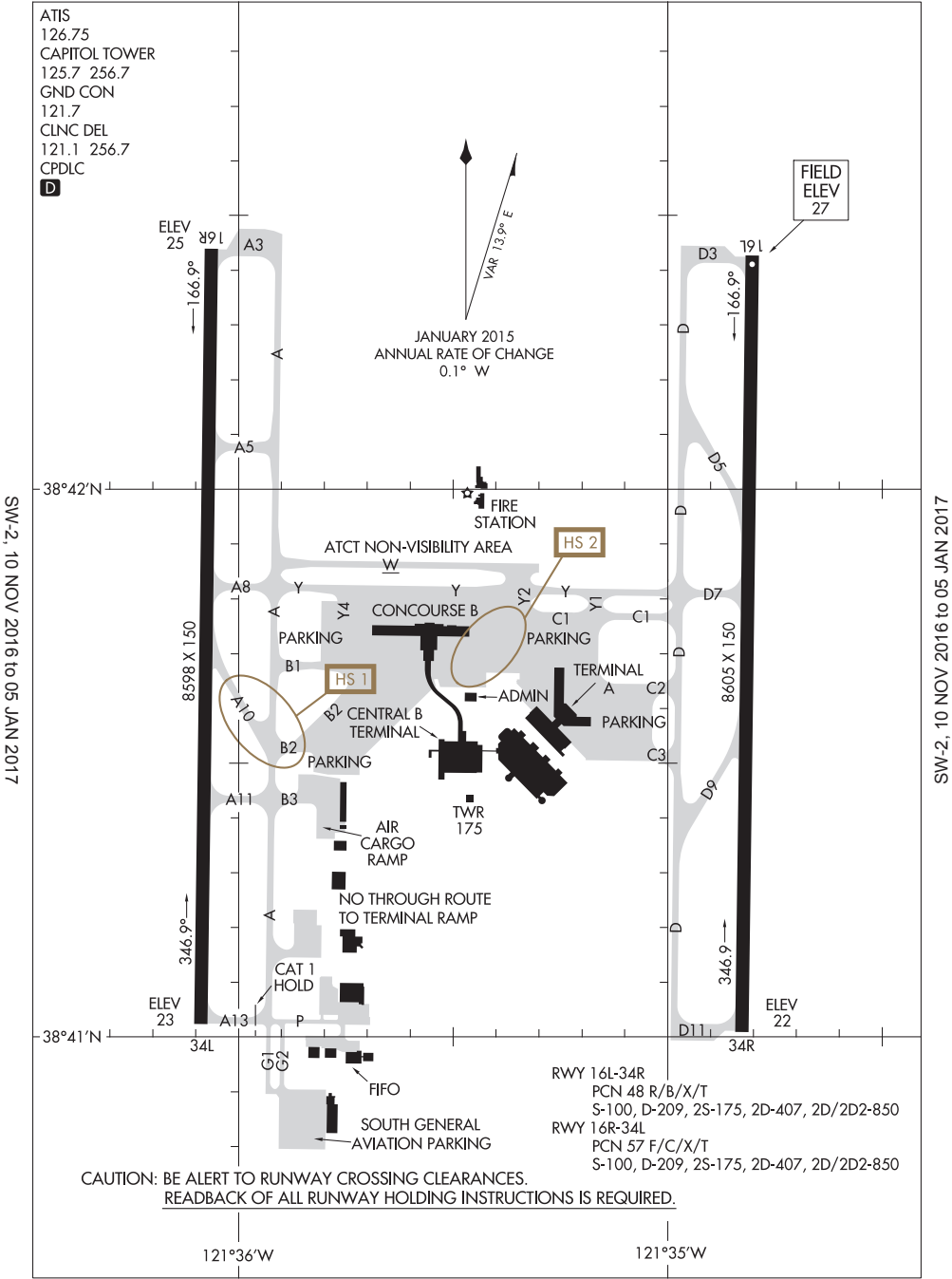
CATEGORY	A	B	C	D
LNAV/VNAV DA		316-7/8	292 (300-7/8)	
LNAV MDA		380-1	356 (400-1)	
C CIRCLING	400-1 373 (400-1)	480-1 453 (500-1)	480-1½ 453 (500-1½)	840-2¾ 813 (900-2¾)

AIRPORT DIAGRAM

AL-5490 (FAA)

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

ATIS
126.75
CAPITOL TOWER
125.7 256.7
GND CON
121.7
CLNC DEL
121.1 256.7
CPDLC
D



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
REBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

RWY 16L-34R
PCN 48 R/B/X/T
S-100, D-209, 2S-175, 2D-407, 2D/2D2-850
RWY 16R-34L
PCN 57 F/C/X/T
S-100, D-209, 2S-175, 2D-407, 2D/2D2-850

AIRPORT DIAGRAM

16259

SACRAMENTO, CALIFORNIA
SACRAMENTO INTL (SMF)

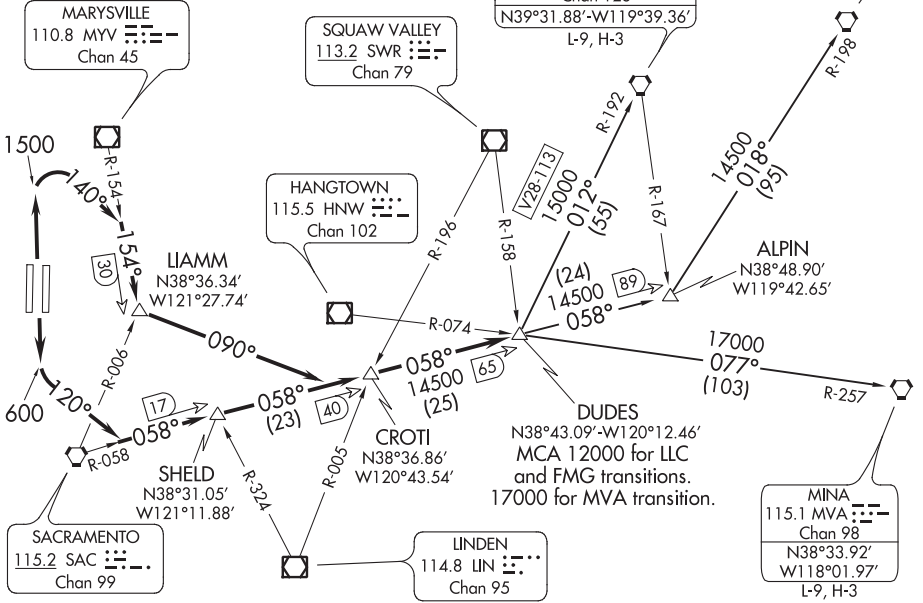
DUDES NINE DEPARTURE

SL-5490 (FAA)

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

CLNC DEL
121.1 256.7
CPDLC
NORCAL DEP CON
125.4 259.1 (W-NE)
125.25 257.9 (SW)
127.4 317.5 (E-SE)

NOTE: RADAR required.
NOTE: DME required.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 16L/R: Maintain rwy heading until 600', then turn left to a 120° heading to intercept and proceed via the SAC R-058 to DUDES INT, then via (transition) or (assigned route). Expect further clearance to filed altitude after CROTI INT.

TAKEOFF RUNWAYS 34L/R: Maintain rwy heading until 1500', then turn right to a 140° heading to intercept and proceed via the MYV R-154 to LIAMM INT, then turn left to a 090° heading to intercept and proceed via the SAC R-058 to DUDES INT, then via (transition) or (assigned route). Expect further clearance to filed altitude after CROTI INT.

LOST COMMUNICATIONS:

TAKEOFF RUNWAYS 34L/R: Maintain rwy heading until 1500', then turn right heading 140° to intercept and proceed via the MYV R-154 to intercept and proceed via the SAC R-058 to DUDES INT. Then resume own navigation.

LOVELOCK TRANSITION (DUDES9.LLC): From over DUDES INT via the SAC R-058 and the LLC R-198 to LLC VORTAC.

MINA TRANSITION (DUDES9.MVA): From over DUDES INT via the MVA R-257 to MVA VORTAC.

MUSTANG TRANSITION (DUDES9.FMG): From over DUDES INT via the FMG R-192 to FMG VORTAC.

DUDES NINE DEPARTURE

(DUDES9.DUDES) 100CT96

SACRAMENTO, CALIFORNIA
SACRAMENTO INTL (SMF)

SW-2, 10 NOV 2016 to 05 JAN 2017

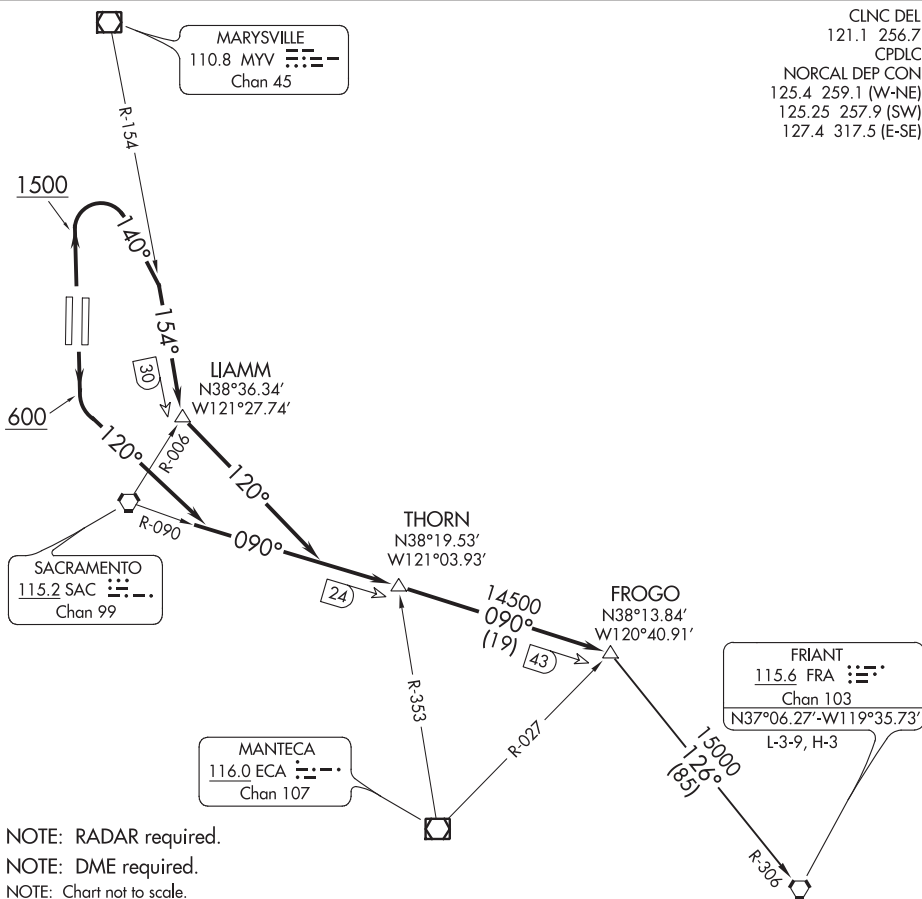
SW-2, 10 NOV 2016 to 05 JAN 2017

FROGO SIX DEPARTURE

SL-5490 (FAA)

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

CLNC DEL
121.1 256.7
CPDLC
NORCAL DEP CON
125.4 259.1 (W-NE)
125.25 257.9 (SW)
127.4 317.5 (E-SE)



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 16L/R: Maintain runway heading until 600', then turn left heading 120° to intercept and proceed via the SAC R-090 to FROGO INT. Then via (transition) or (assigned route). Expect further clearance to filed altitude after THORN INT.

TAKEOFF RUNWAYS 34L/R: Maintain runway heading until 1500', then turn right heading 140° to intercept the MYV R-154. Intercept and proceed via the MYV R-154 to LIAMM INT, then turn left heading 120° to intercept and proceed via the SAC R-090 to FROGO INT. Then via (transition) or (assigned route). Expect further clearance to filed altitude after LIAMM INT.

LOST COMMUNICATIONS: Take-off Runways 34L/R: Maintain runway heading until 1500' then turn right heading 140° to intercept the MYV R-154. Intercept and proceed via the MYV R-154 to intercept the SAC R-090 to FROGO INT. Then resume own navigation.

FRIANT TRANSITION (FROGO6.FRA): From over FROGO INT via FRA R-306 to FRA VORTAC.

FROGO SIX DEPARTURE

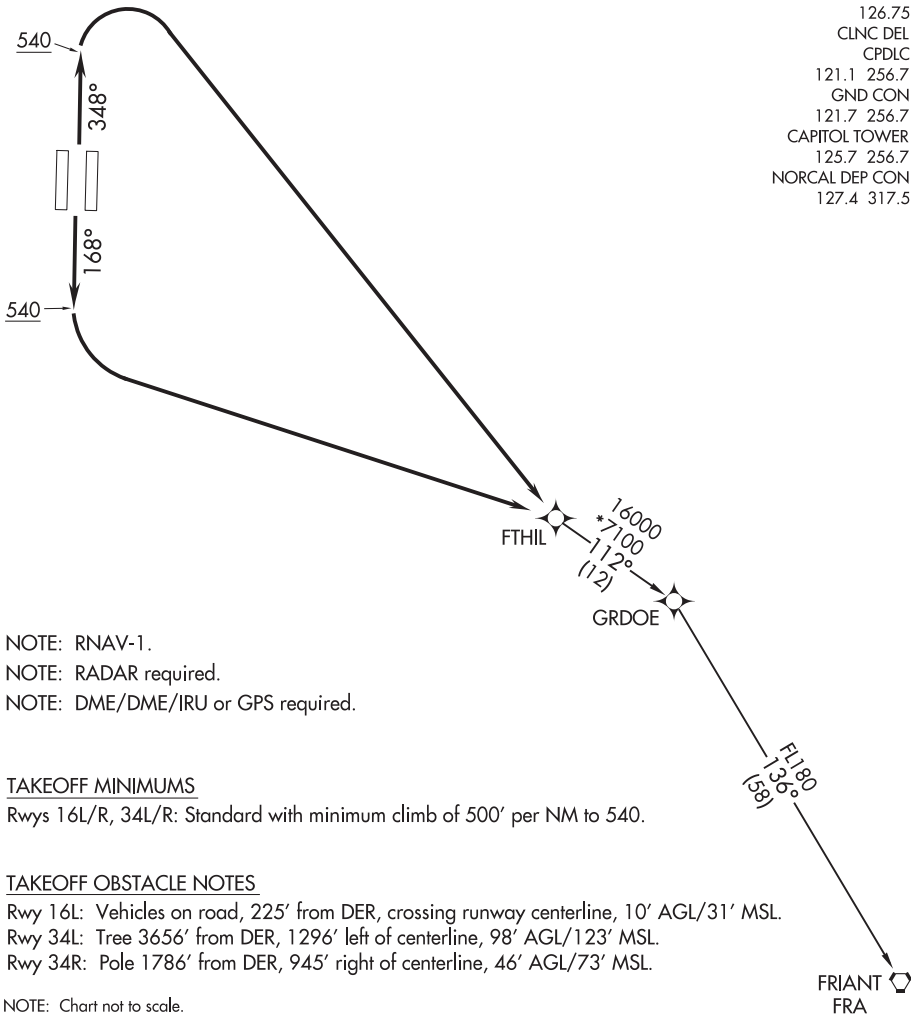
(FTHIL2.FTHIL) 16259

FTHIL TWO DEPARTURE (RNAV)

SL-5490 (FAA)

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

ATIS 126.75
 CLNC DEL 121.1 256.7
 CPDLC 121.7 256.7
 GND CON 121.7 256.7
 CAPITOL TOWER 125.7 256.7
 NORCAL DEP CON 127.4 317.5



NOTE: RNAV-1.
 NOTE: RADAR required.
 NOTE: DME/DME/IRU or GPS required.

TAKEOFF MINIMUMS

Rwys 16L/R, 34L/R: Standard with minimum climb of 500' per NM to 540.

TAKEOFF OBSTACLE NOTES

Rwy 16L: Vehicles on road, 225' from DER, crossing runway centerline, 10' AGL/31' MSL.
 Rwy 34L: Tree 3656' from DER, 1296' left of centerline, 98' AGL/123' MSL.
 Rwy 34R: Pole 1786' from DER, 945' right of centerline, 46' AGL/73' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 16L/R: Climb heading 168° to 540, then left turn direct to FTHIL. Thence. . . .

TAKEOFF RUNWAYS 34L/R: Climb heading 348° to 540, then right turn direct to FTHIL. Thence. . . .

. . . . on transition. Maintain FL190. Expect filed altitude 10 minutes after departure.

FRIANT TRANSITION (FTHIL2.FRA)

FTHIL TWO DEPARTURE (RNAV)

(FTHIL2.FTHIL) 30APR15

SACRAMENTO, CALIFORNIA
SACRAMENTO INTL (SMF)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(RVRCT2.RVRCT) 16259

RVRCT TWO DEPARTURE (RNAV)

SL-5490 (FAA)

SACRAMENTO INTL (SMF)
SACRAMENTO, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017

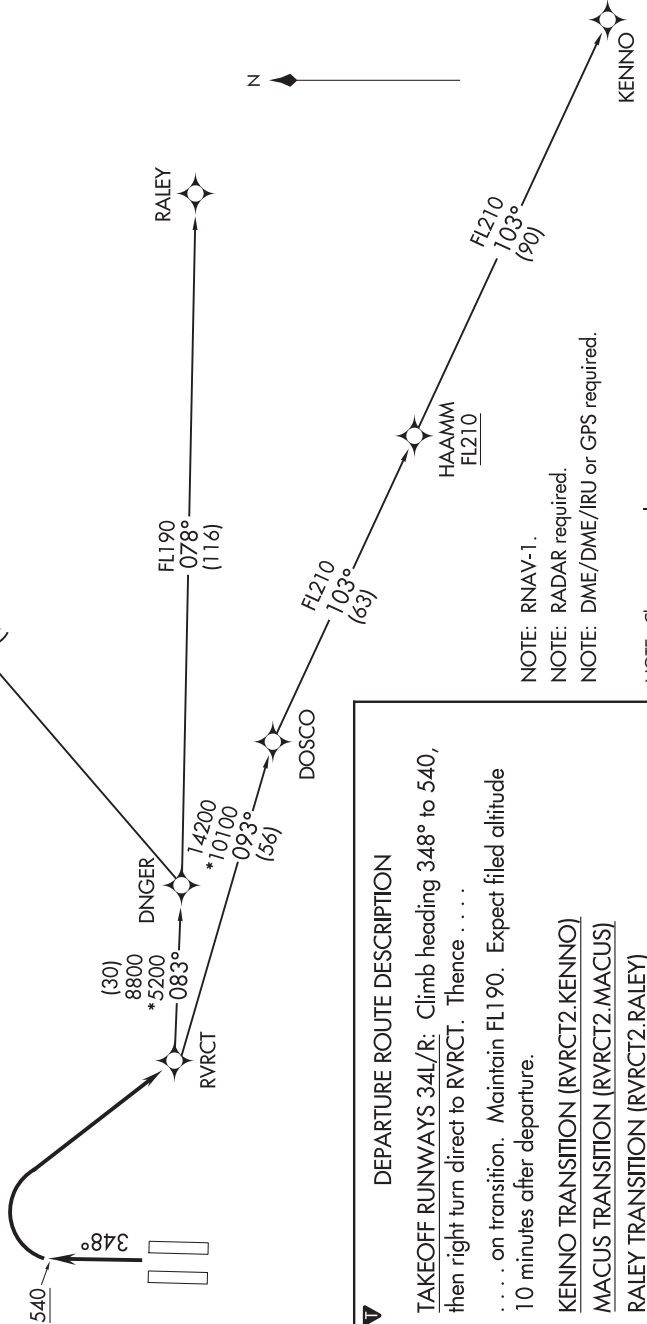
TAKEOFF OBSTACLE NOTES

Rwy 34L: Tree 3656' from DER, 1296' left of centerline, 98' AGL/123' MSL.
Rwy 34R: Pole 1786' from DER, 945' right of centerline, 46' AGL/73' MSL.

TAKEOFF MINIMUMS

Rwys 34L/R: Standard with minimum climb of 500' per NM to 540.

- ATIS 126.75
- CINCL DEL 121.1 256.7
- CPDLC GND CON 121.7 256.7
- CAPITOL TOWER 125.7 256.7
- NORCAL DEP CON 127.4 317.5



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 34L/R: Climb heading 348° to 540, then right turn direct to RVRCT. Thence

. on transition. Maintain FL190. Expect filed altitude 10 minutes after departure.

KENNO TRANSITION (RVRCT2.KENNO)
MACUS TRANSITION (RVRCT2.MACUS)
RALEY TRANSITION (RVRCT2.RALEY)

NOTE: RNAV-1.
 NOTE: RADAR required.
 NOTE: DME/DME/IRU or GPS required.
 NOTE: Chart not to scale.

RVRCT TWO DEPARTURE (RNAV)

(RVRCT2.RVRCT) 30APR15

SACRAMENTO, CALIFORNIA
SACRAMENTO INTL (SMF)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

- ATIS 126.75
- CINC DEL 121.1 256.7
- CPDLC GND CON 121.7 256.7
- CAPITOL TOWER 125.7 256.7
- NORCAL DEP CON 127.4 317.5

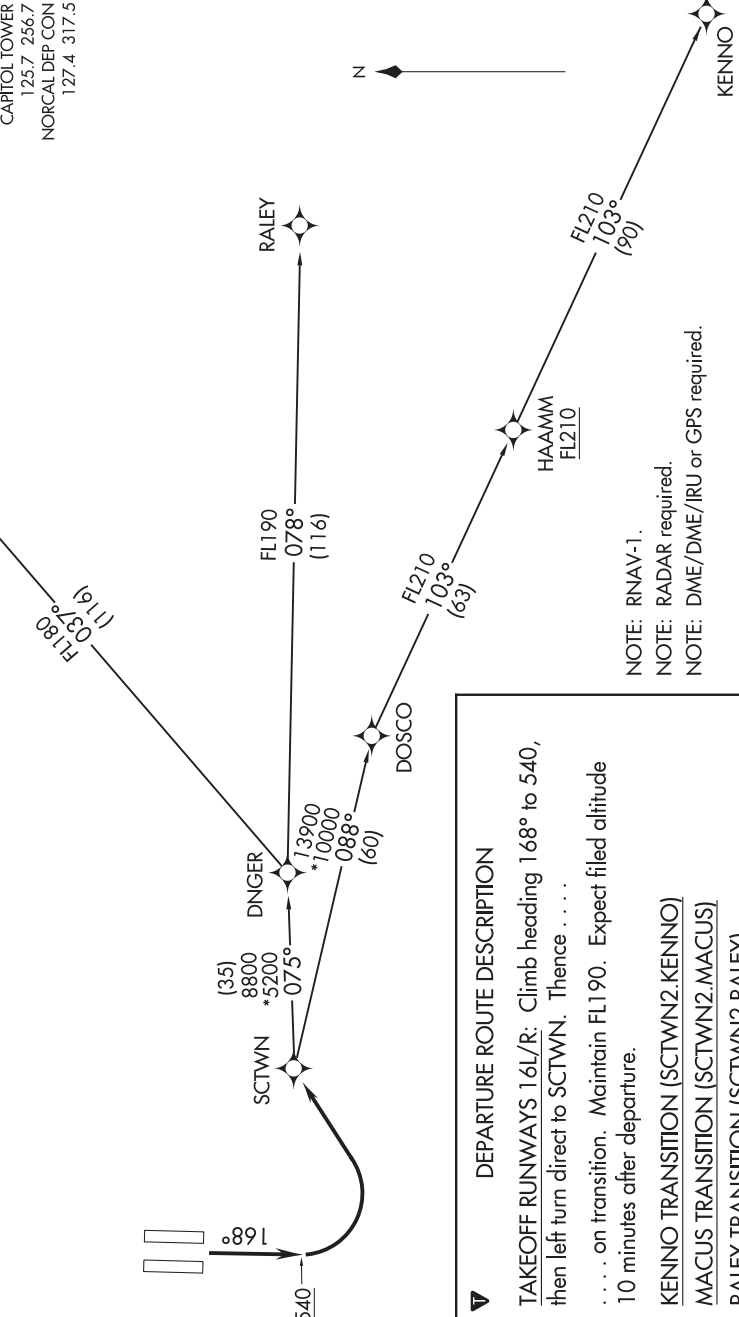
MACUS

TAKEOFF OBSTACLE NOTES
 Rwy 16L: Vehicles on road, 225' from DER, crossing runway centerline, 10' AGL/31' MSL.

TAKEOFF MINIMUMS
 Rwys 16L/R: Standard with minimum climb of 500' per NM to 540.

540

168°



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 16L/R: Climb heading 168° to 540, then left turn direct to SCTWN. Thence

. . . . on transition. Maintain FL190. Expect filed altitude 10 minutes after departure.

KENNO TRANSITION (SCTWN2.KENNO)
MACUS TRANSITION (SCTWN2.MACUS)
RALEY TRANSITION (SCTWN2.RALEY)

- NOTE: RNAV-1.
- NOTE: RADAR required.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-MHR 111.35 Chan 50(Y)	APP CRS 217°	Rwy Idg 11301 TDZE 98 Apt Elev 99
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ILS or LOC/DME RWY 22L

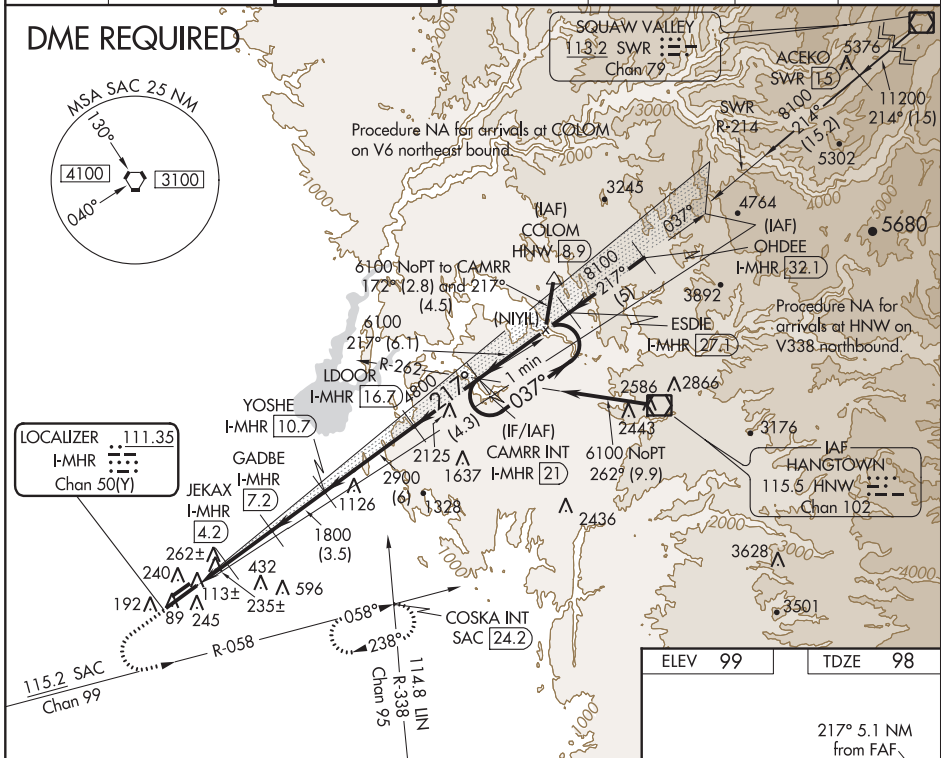
SACRAMENTO MATHER (MHR)

▼ Circling NA north of Rwy 4L-22R. For inoperative MALSr, increase S-ILS 22L Cat E visibility to 3/4, S-LOC 22L Cat E visibility to 1/2.



MISSED APPROACH: Climb to 500, then climbing left turn to 3000 on heading 090° and SAC VORTAC R-058 to COSKA INT/SAC 24.2 DME and hold, continue climb-in-hold to 3000.

ATIS 118.325	NORCAL APP CON 127.4 317.5	MATHER TOWER * 120.65 282.25	GND CON 121.85 307.9	CLNC DEL 121.85 307.9	UNICOM 122.95	CTAF 120.65
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

500	3000	SAC R-058	COSKA INT	VGSIs and ILS glidepath not coincident (VGSi Angle 3.00/TCH 50).					
*LOC only	*I-MHR 2.1	*I-MHR 3.2	*I-MHR 4.2	*I-MHR 7.2	*I-MHR 10.7	*I-MHR 16.7	CAMRR INT I-MHR 21	One Minute Holding Pattern	
700	1800	2900	4800	6100	GS 3.00° TCH 56				
1.1	1.0	3 NM	3.5 NM	6 NM	4.3 NM				
CATEGORY	A		B		C		D		E
S-ILS 22L	298-1/2		200 (200-1/2)						
S-LOC 22L	500-1/2 402 (500-1/2)		500-3/4 402 (500-3/4)		500-1 402 (500-1)				
CIRCLING	560-1 461 (500-1)		560-1 1/2 461 (500-1 1/2)		561 (600-2)		800-2 1/2 701 (800-2 1/2)		

ELEV 99	TDZE 98
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MIRL Rwy 4L-22R

HIRL Rwy 4R-22L

WAAS CH 45601 W04A	APP CRS 037°	Rwy Idg 11301 TDZE 81 Apt Elev 99
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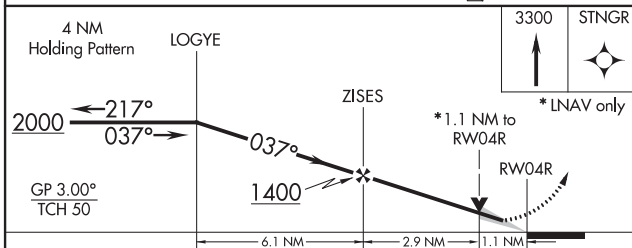
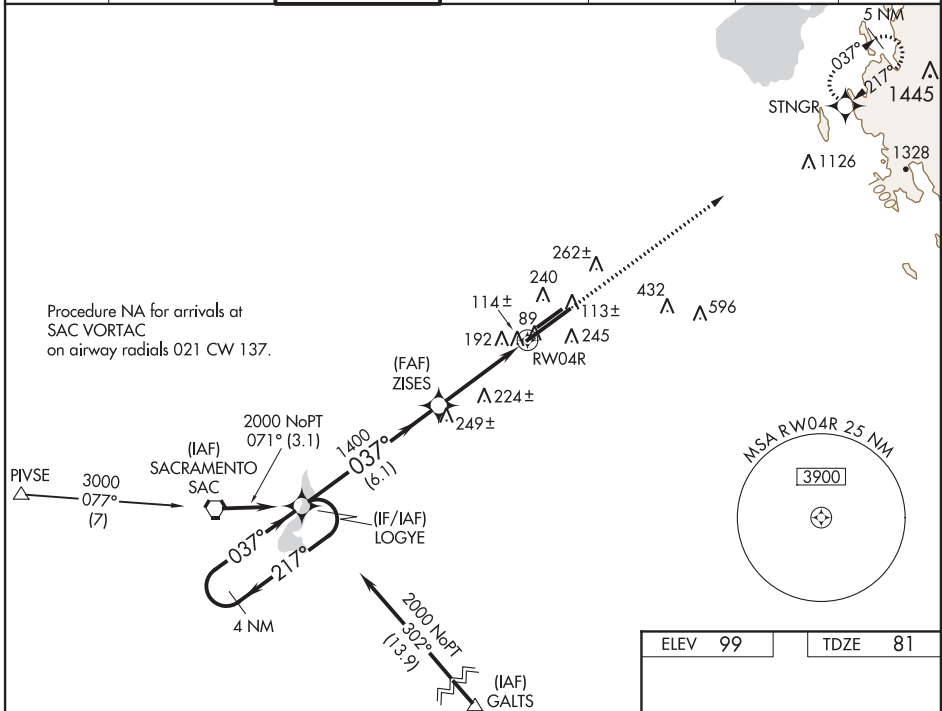
RNAV (GPS) RWY 4R

SACRAMENTO MATHER (MHR)

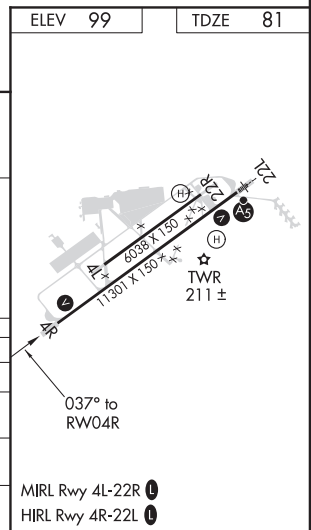
▼ DME/DME RNP-0.3 NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 48°C (119°F).
Circling NA north of Rwy 4L-22R.

MISSED APPROACH: Climb to 3300 direct STNGR and hold.

ATIS 118.325	NORCAL APP CON 127.4 317.5	MATHER TOWER* 120.65 282.25	GND CON 121.85 307.9	CLNC DEL 121.85 307.9	UNICOM 122.95	CTAF 120.65
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CATEGORY	A	B	C	D
LPV DA		331-¾	250 (300-¾)	
LNAV/VNAV DA		375-1	294 (300-1)	
LNAV MDA	480-1	399 (400-1)	480-1¼	399 (400-1¼)
CIRCLING	560-1	461 (500-1)	560-1½	660-2 561 (600-2)



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

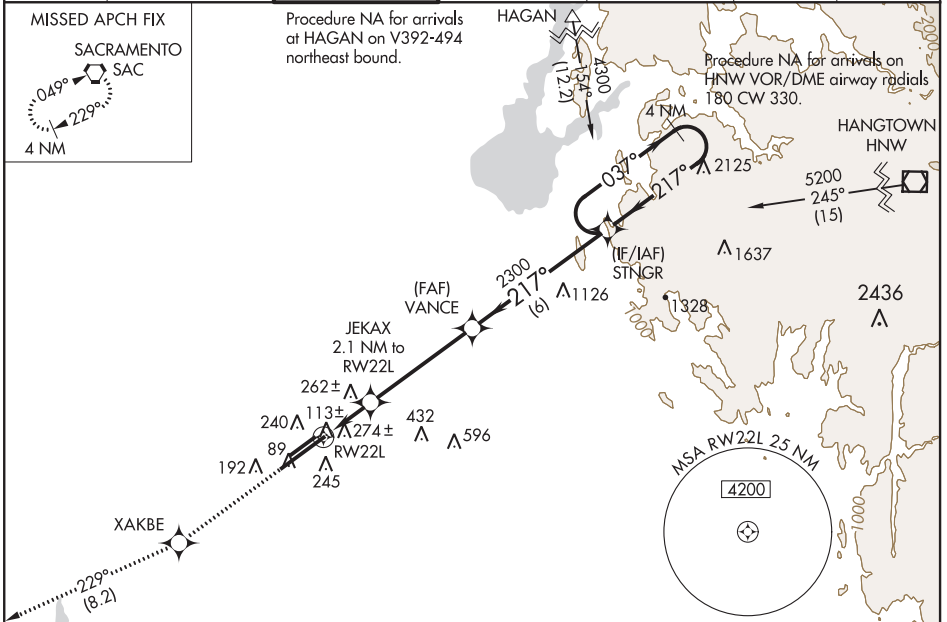
WAAS CH 40225 W22A	APP CRS 217°	Rwy Idg 11301 TDZE 98 Apt Elev 99
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RNAV (GPS) RWY 22L

SACRAMENTO MATHER (MHR)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 37°C (98°F). For inoperative MALSR, increase LNAV Cats C and D visibility to 1 3/8 mile. Circling NA north of Rwy 4L-22R. DME/DME RNP-0.3 NA.	MALSR 	MISSED APPROACH: Climb to 3000 direct XAKBE and on track 229° to SAC VORTAC and hold.
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ATIS 118.325	NORCAL APP CON 127.4 317.5	MATHER TOWER* 120.65 282.25	GND CON 121.85 307.9	CLNC DEL 121.85 307.9	UNICOM 122.95	CTAF 120.65
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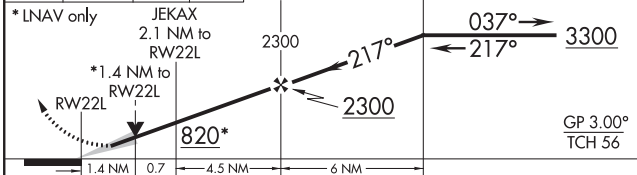


SW-2, 10 NOV 2016 to 05 JAN 2017

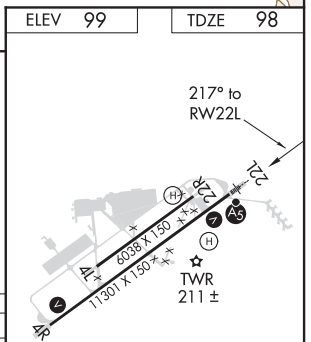
SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 99	TDZE 98
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3000	XAKBE	SAC	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 50).	4 NM Holding Pattern
	tr 229°			



CATEGORY	A	B	C	D
LPV DA		298-1/2	200 (200-1/2)	
LNAV/VNAV DA		487-3/4	389 (400-3/4)	
LNAV MDA	580-1/2	482 (500-1/2)	580-1	482 (500-1)
CIRCLING	580-1	481 (500-1)	580-1 1/2	660-2
			481 (500-1 1/2)	561 (600-2)



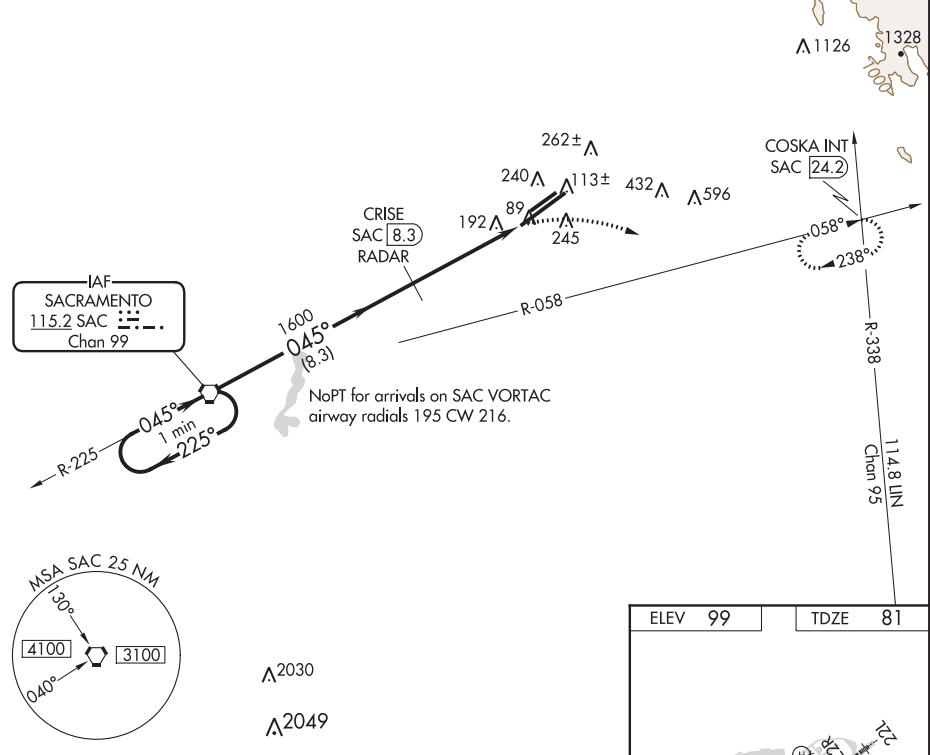
MIRL Rwy 4L-22R
HIRL Rwy 4R-22L

VORTAC SAC 115.2 Chan 99	APP CRS 045°	Rwy Idg 11301 TDZE 81 Apt Elev 99
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VOR RWY 4R
SACRAMENTO MATHER (MHR)

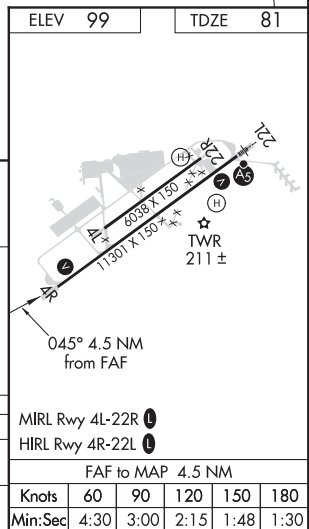
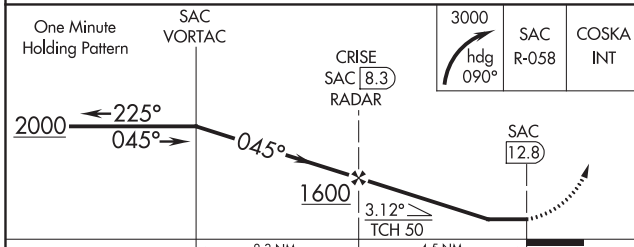
<p>⚠ Circling not authorized north of Rwy 4L-22R.</p>		<p>MISSED APPROACH: Climbing right turn to 3000 via heading 090° and SAC R-058 to COSKA INT/SAC 24.2 DME and hold.</p>				
ATIS 118.325	NORCAL APP CON 127.4 317.5	MATHER TOWER* 120.65 282.25	GND CON 121.85 307.9	CLNC DEL 121.85 307.9	UNICOM 122.95	CTAF 120.65 ⓪

RADAR or DME REQUIRED



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

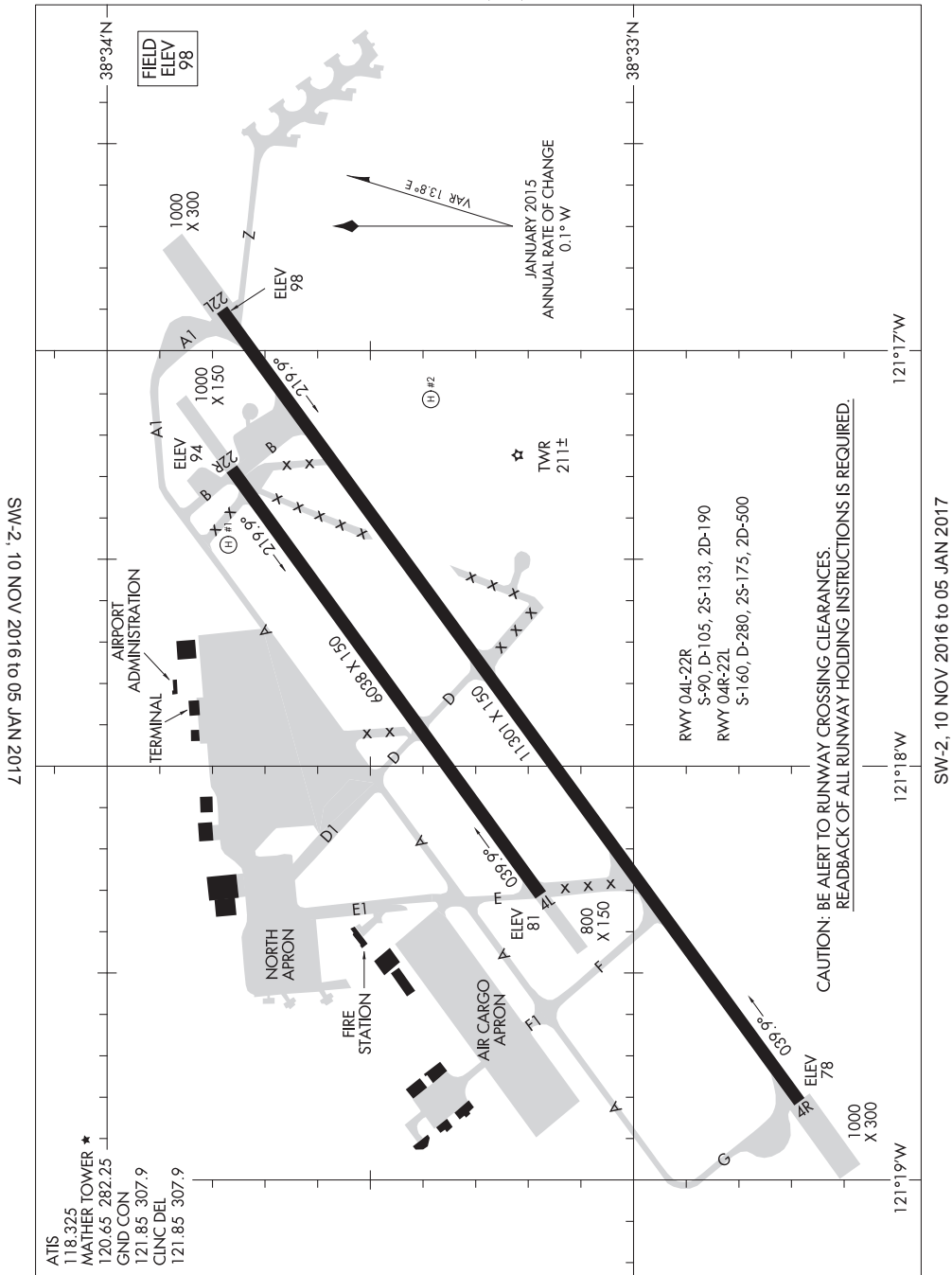


CATEGORY	A	B	C	D
S-4R	560-1 479 (500-1)		560-1½ 479 (500-1½)	560-1½ 479 (500-1½)
CIRCLING	560-1 461 (500-1)		560-1½ 461 (500-1½)	660-2 561 (600-2)

AIRPORT DIAGRAM

AL-356 (FAA)

SACRAMENTO MATHER (MHR)
SACRAMENTO, CALIFORNIA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

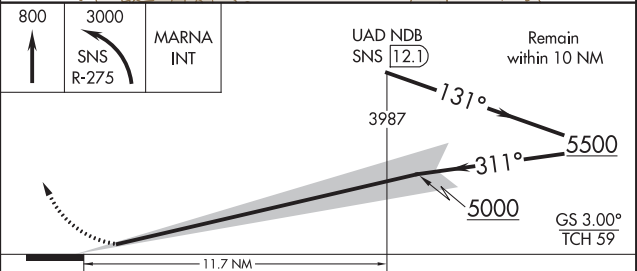
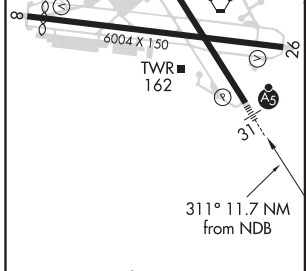
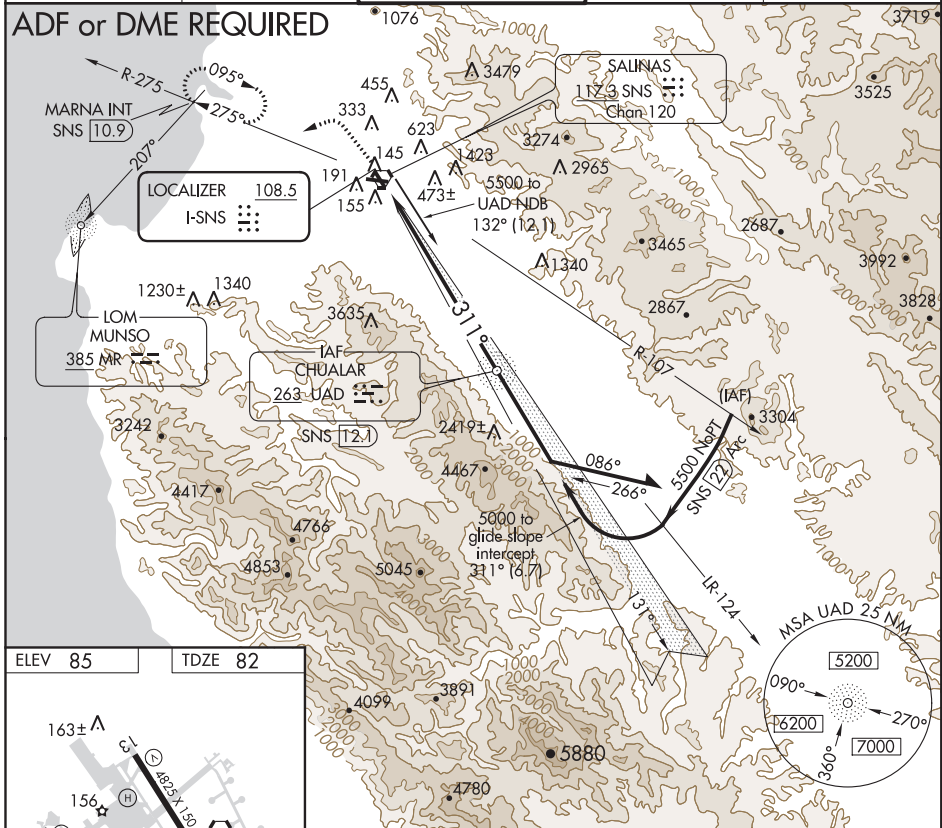
SACRAMENTO, CALIFORNIA
SACRAMENTO MATHER (MHR)

LOC I-SNS 108.5	APP CRS 311°	Rwy ldg TDZE Apt Elev	4825 82 85
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ILS RWY 31
SALINAS MUNI (SNS)

<p>▽ When local altimeter setting not received, use Monterey Rgnl altimeter setting and increase S-ILS 31 DA 53 feet.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climb to 800 then climbing left turn to 3000 via SNS R-275 to MARNA INT/10.9 DME and hold.</p>

ATIS 124.85	NORCAL APP CON 133.0 251.15	SALINAS TOWER* 119.525 (CTAF) 239.3	GND CON 121.7	UNICOM 122.95
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HIRL Rwy 13-31	MIRL Rwy 8-26	REIL Rwy 13 and 26		
CATEGORY	A	B	C	D
S-ILS 31	282/24 200 (200-1/2)			

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	4825
132°	TDZE	85
	Apt Elev	85

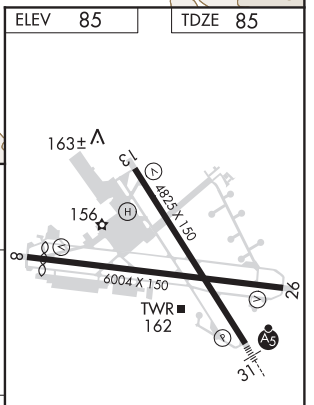
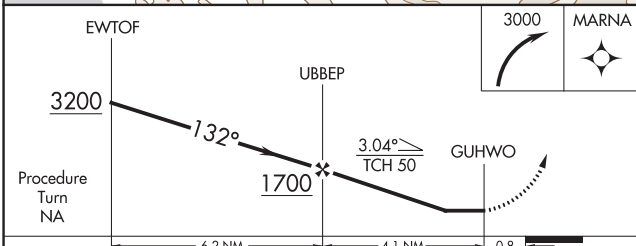
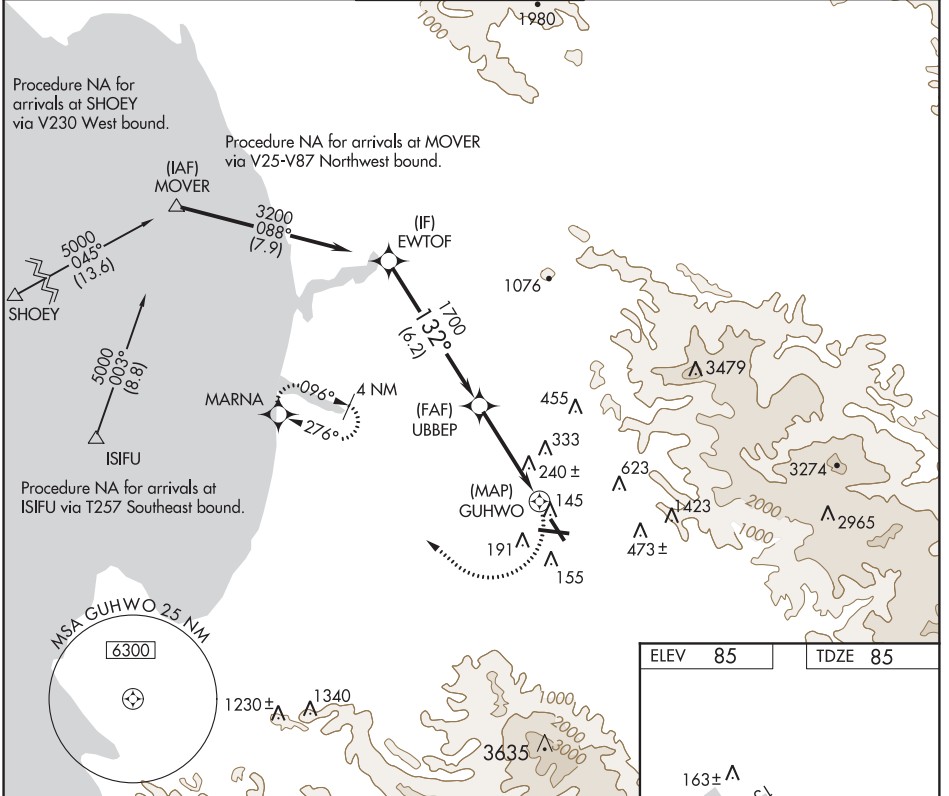
RNAV (GPS) RWY 13

SALINAS MUNI (SNS)

▼ DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
▲ When local altimeter setting not received, use Monterey Rgnl altimeter setting and increase all MDA 60 feet and increase LNAV Cat C and D visibility ¼ mile.

MISSED APPROACH: Climbing right turn to 3000 direct MARNA and hold.

ATIS 124.85	NORCAL APP CON 133.0 251.15	SALINAS TOWER ★ 119.525 (CTAF) 239.3	GND CON 121.7	UNICOM 122.95
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CATEGORY	A	B	C	D
LNAV MDA	540-1	455 (500-1)	540-1¼ 455 (500-1¼)	540-1½ 455 (500-1½)
CIRCLING	540-1	455 (500-1)	540-1½ 455 (500-1½)	760-2¼ 675 (700-2¼)

HIRL Rwy 13-31 **Ⓛ**
 MIRL Rwy 8-26 **Ⓛ**
 REIL Rws 13 and 26 **Ⓛ**

SW-2, 10 NOV 2016 to 05 JAN 2017


SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	4825
312°	TDZE	82
	Apt Elev	85

RNAV (GPS) Y RWY 31

SALINAS MUNI (SNS)

⚠ For inoperative MALSR, increase LNAV Cat D visibility to RVR 6000.
⚠ DME/DME RNP-0.3 NA. When local altimeter not received, use Monterey Rgnl altimeter setting and increase all MDA 60 feet and increase LNAV Cat C visibility to RVR 4000.

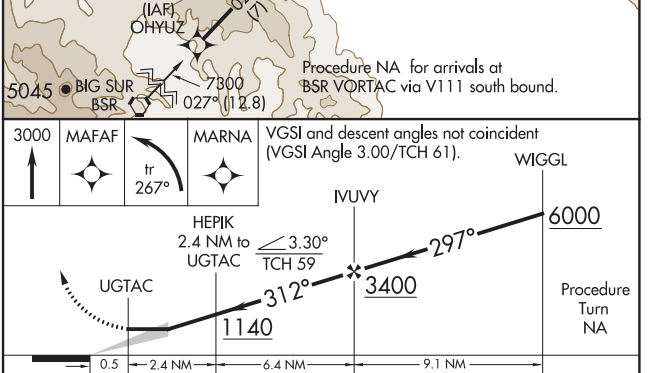
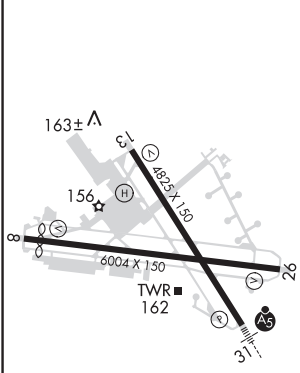
MALSR 

MISSED APPROACH: Climb to 3000 direct MAFAF and left turn via track 267° to MARNA and hold.

ATIS 124.85	NORCAL APP CON 133.0 251.15	SALINAS TOWER * 119.525 (CTAF) 0 239.3	GND CON 121.7	UNICOM 122.95
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ELEV 85	TDZE 82
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CATEGORY	A	B	C	D
LNAV MDA	440/24 358 (400-½)			440/50 358 (400-1)
CIRCLING	500-1 415 (500-1)	540-1 455 (500-1)	540-1½ 455 (500-1½)	760-2¼ 675 (700-2¼)

SW-2, 10 NOV 2016 to 05 JAN 2017


SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 69513 W31A	APP CRS 312°	Rwy Idg 4825 TDZE 82 Apt Elev 85
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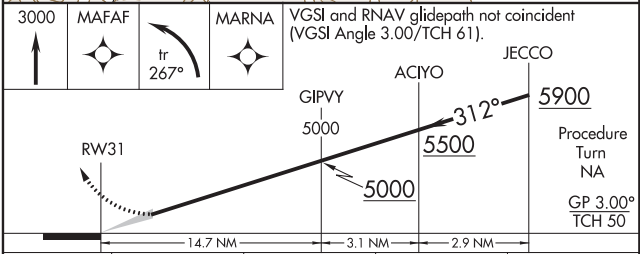
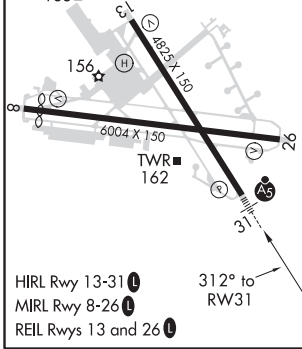
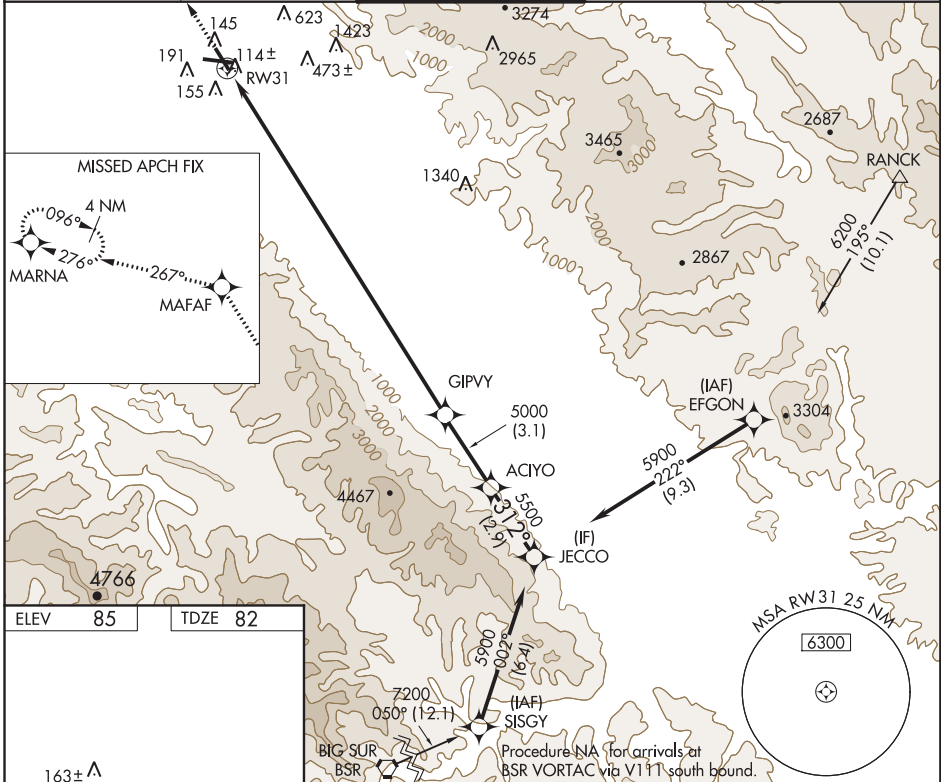
RNAV (GPS) Z RWY 31

SALINAS MUNI (SNS)

⚠ Baro-VNAV NA when using Monterey Rgnl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 50°C (122°F).
⚠ DME/DME RNP-0.3 NA. When local altimeter setting not received, use Monterey Rgnl altimeter setting and increase all DA 53 feet and LNAV/VNAV all Cats visibility to RVR 5000.

MALSR 
MISSED APPROACH: Climb to 3000 direct MAFAF and left turn via track 267° to MARNA and hold.

ATIS 124.85	NORCAL APP CON 133.0 251.15	SALINAS TOWER * 119.525 (CTAF) 0 239.3	GND CON 121.7	UNICOM 122.95
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CATEGORY	A	B	C	D
LPV DA		282/24	200 (200-½)	
LNAV/VNAV DA		478/40	396 (400-¾)	

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

LOC I-SNS 108.5	APP CRS 311°	Rwy ldg 4825	TDZE 79
		Apt Elev 84	

LOC/DME RWY 31

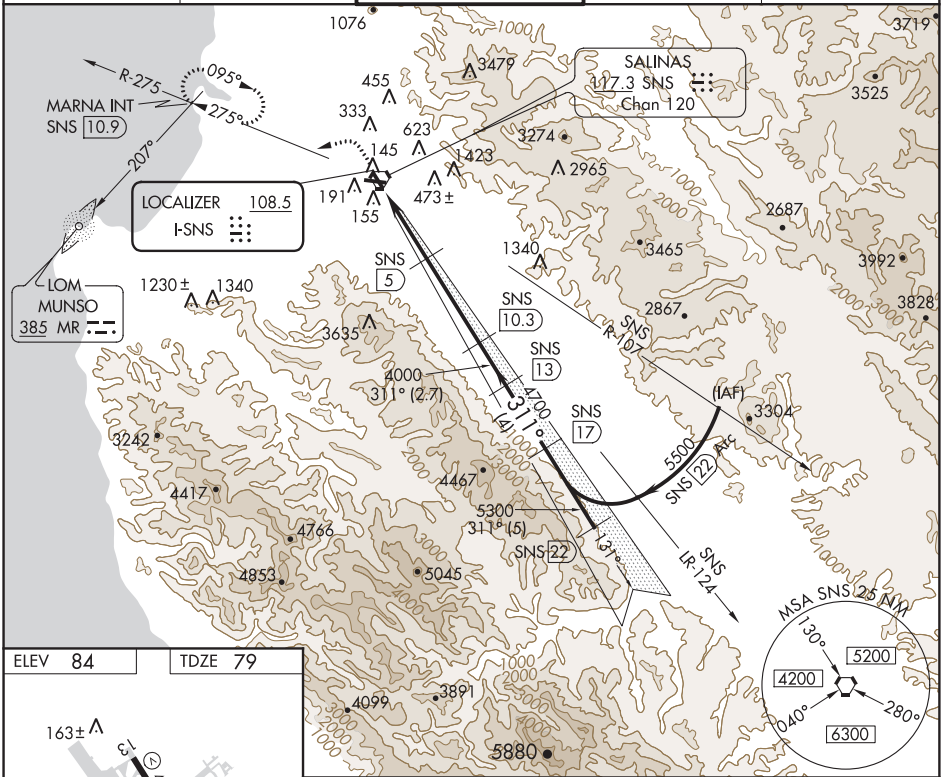
SALINAS MUNI (SNS)

▼ For inoperative MALSR increase S-LOC 31 Cat D visibility to RVR 5000.
▲ Simultaneous reception of I-SNS and SNS DME required.

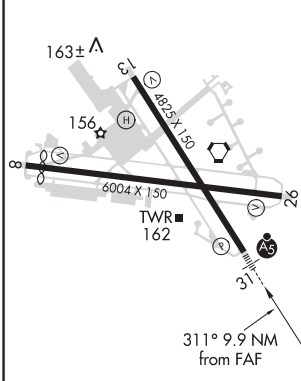
MALSR 




MISSED APPROACH: Climb to 800, then climbing left turn to 3000 via SNS R-275 to MARNA INT/10.9 DME and hold.

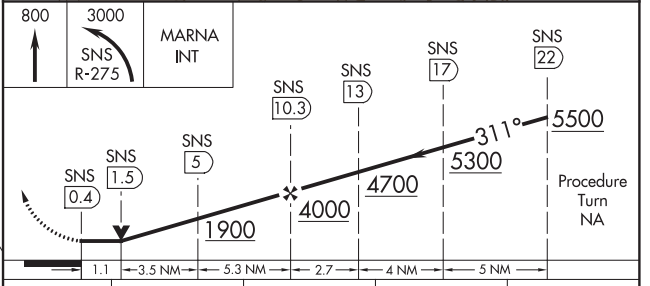
ATIS 124.85	NORCAL APP CON 133.0 251.15	SALINAS TOWER* 119.525 (CTAF) 239.3	GND CON 121.7	UNICOM 122.95
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ELEV 84	TDZE 79
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- HIRL Rwy 13-31 
- MIRL Rwy 8-26 
- REIL Rws 13 and 26 



CATEGORY	A	B	C	D
S-31	420/24 341 (400-½)			420/40 341 (400-¾)
CIRCLING	560-1 476 (500-1)	580-1 496 (500-1)	580-1½ 496 (500-1½)	780-2¼ 696 (700-2¼)

SW-2, 10 NOV 2016 to 05 JAN 2017

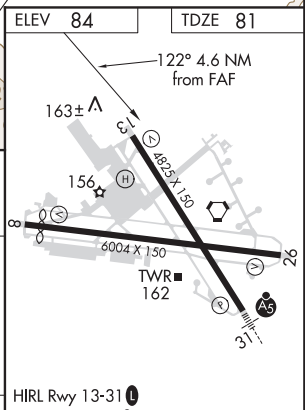
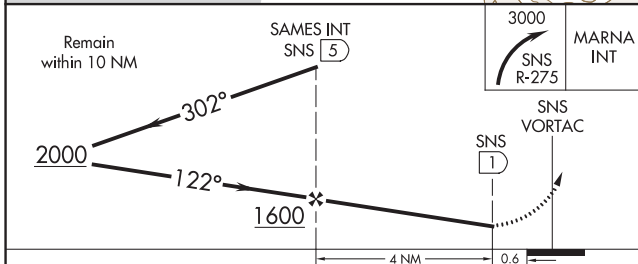
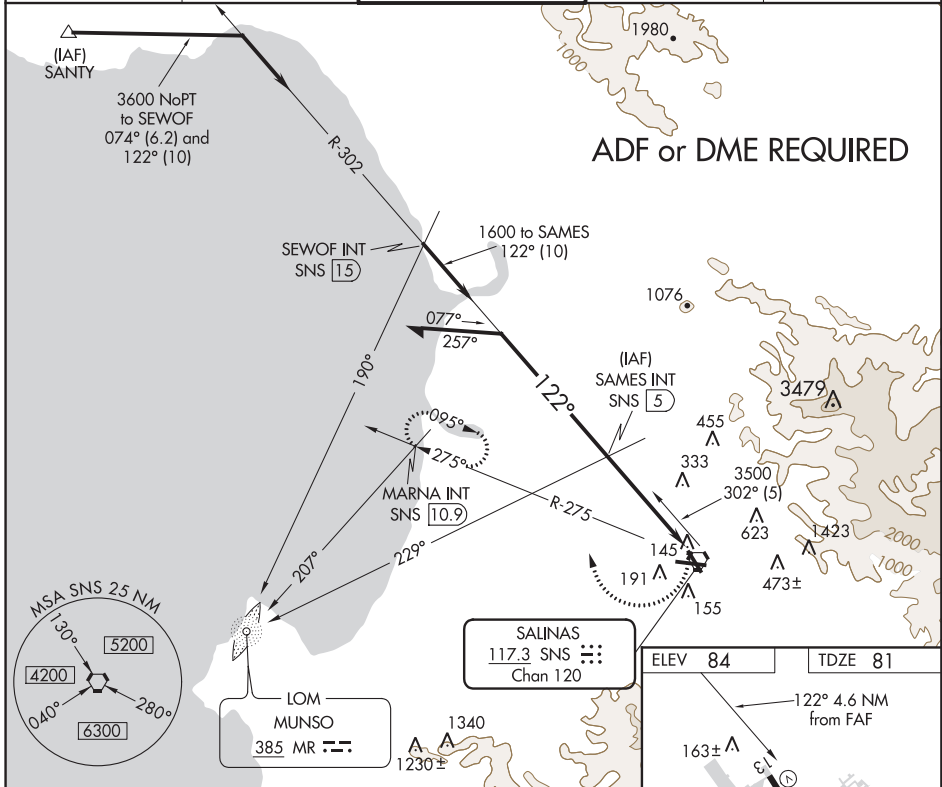
SW-2, 10 NOV 2016 to 05 JAN 2017

VORTAC SNS 117.3 Chan 120	APP CRS 122°	Rwy Idg 4825 TDZE 81 Apt Elev 84
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VOR RWY 13
SALINAS MUNI (SNS)

MISSED APPROACH: Climbing right turn to 3000 via SNS R-275 to MARNA INT and hold.

ATIS 124.85	NORCAL APP CON 133.0 251.15	SALINAS TOWER ★ 119.525 (CTAF) 239.3	GND CON 121.7	UNICOM 122.95
-----------------------	---------------------------------------	--	-------------------------	-------------------------



CATEGORY	A	B	C	D
S-13	500-1 419 (500-1)	500-1 419 (500-1)	500-1½ 419 (500-1½)	1020-3 939 (1000-3)
CIRCLING	560-1 476 (500-1)	580-1 496 (500-1)	580-1½ 496 (500-1½)	1020-3 936 (1000-3)

SW-2, 10 NOV 2016 to 05 JAN 2017

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AIRPORT DIAGRAM

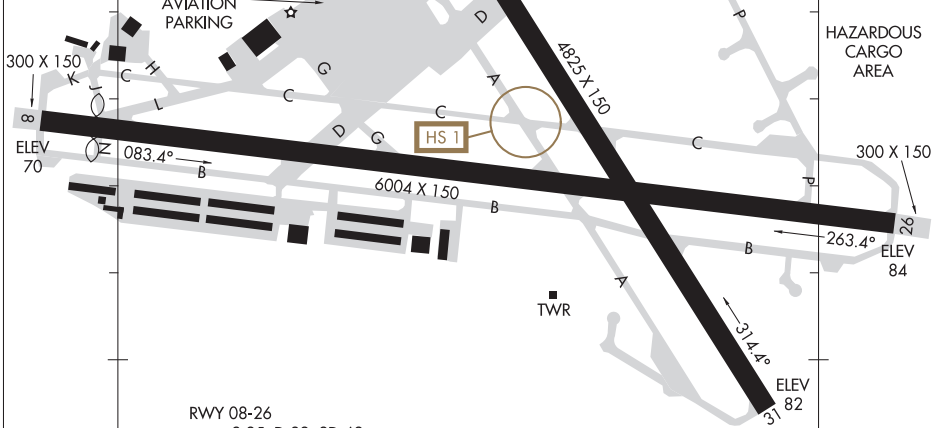
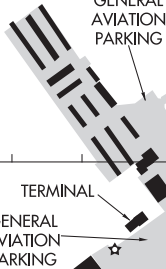
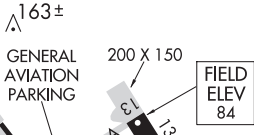
AL-363 (FAA)

SALINAS MUNI (SNS)
SALINAS, CALIFORNIA

ATIS
124.85
SALINAS TOWER*
119.525 239.3
GND CON
121.7



JANUARY 2015
ANNUAL RATE OF CHANGE
0.1° W



RWY 08-26
S-25, D-32, 2D-62
RWY 13-31
S-65, D-100, 2S-127, 2D-170

**CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.**

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SW-2, 10 NOV 2016 to 05 JAN 2017

121°37'W

121°36'W

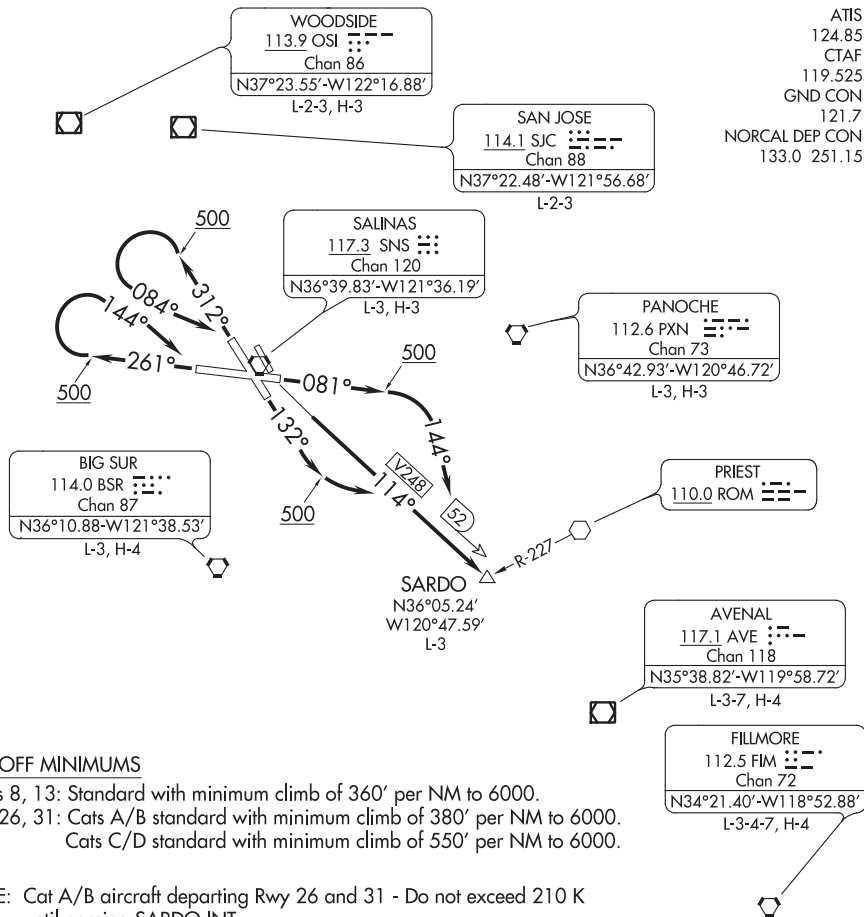
AIRPORT DIAGRAM

SALINAS, CALIFORNIA
SALINAS MUNI (SNS)

CHALONE THREE DEPARTURE

SL-363 (FAA)

SALINAS MUNI (SNS)
SALINAS, CALIFORNIA



ATIS
124.85
CTAF
119.525
GND CON
121.7
NORCAL DEP CON
133.0 251.15

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKEOFF MINIMUMS

- Rwys 8, 13: Standard with minimum climb of 360' per NM to 6000.
- Rwys 26, 31: Cats A/B standard with minimum climb of 380' per NM to 6000.
- Cats C/D standard with minimum climb of 550' per NM to 6000.

NOTE: Cat A/B aircraft departing Rwy 26 and 31 - Do not exceed 210 K until passing SARDO INT.

TAKEOFF OBSTACLE NOTES

- Rwy 8: Trees beginning 1967' from DER, 900' left of centerline, up to 100' AGL/199' MSL.
- Rwy 26: Tree, light pole and road beginning 109' from DER, 266' left of centerline, up to 38' AGL/98' MSL. Light pole and road beginning 137' from DER, 281' right of centerline, up to 40' AGL/100' MSL. Poles beginning 909' from DER, 232' right of centerline, up to 52' AGL/102' MSL. Antenna on building, tower and tree beginning 1645' from DER, 426' left of centerline, up to 116' AGL/176' MSL. Microwave tower and tree beginning 1909' from DER, 31' right of centerline, up to 85' AGL/145' MSL.
- Rwy 31: Building, road and trees beginning 170' from DER, 1' right of centerline, up to 79' AGL/159' MSL. Road and trees 205' from DER, 200' left of centerline, up to 63' AGL/133' MSL. Pole and trees beginning 1042' from DER, 5' left of centerline, up to 102' AGL/172' MSL. Fence, poles and trees 1109' from DER, 202' right of centerline, up to 78' AGL/158' MSL.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

CHALONE THREE DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb heading 081° to 500 then climbing right turn heading 144° to intercept SNS R-114 (V248) southeast bound to SARDO INT. Thence

TAKEOFF RUNWAY 13: Climb heading 132° to 500 then climbing left turn to intercept SNS R-114 (V248) southeast bound to SARDO INT. Thence

TAKEOFF RUNWAY 26: Climb heading 261° to 500 then climbing right turn heading 144° to intercept SNS R-114 (V248) southeast bound to SARDO INT. Thence

TAKEOFF RUNWAY 31: Climb heading 312° to 500 then climbing left turn heading 084° to intercept SNS R-114 (V248) southeast bound to SARDO INT. Thence

. . . .Proceed on assigned route. Expect clearance to filed altitude 5 minutes after departure.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SALINAS TWO DEPARTURE

SL-363 (FAA)

SALINAS MUNI (SNS)
SALINAS, CALIFORNIA

WOODSIDE
113.9 OSI
Chan 86
N37°23.55'-W122°16.88'
L-2-3, H-3

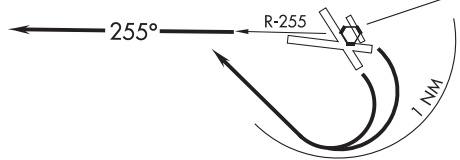
SAN JOSE
114.1 SJC
Chan 88
N37°22.48'-W121°56.68'
L-2-3

SALINAS
117.3 SNS
Chan 120
N36°39.83'-W121°36.19'
L-3, H-3

BIG SUR
114.0 BSR
Chan 87
N36°10.88'-W121°38.53'
L-3, H-4

AVENAL
117.1 AVE
Chan 118
N35°38.82'-W119°58.72'
L-3-7, H-4

FILLMORE
112.5 FIM
Chan 72
N34°21.40'-W118°52.88'
L-3-4-7, H-4



ATIS
124.85
GND CON
121.7 239.3
NORCAL DEP CON
133.0 251.15
CTAF
119.525

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

All aircraft expect vectors to assigned route. Maintain 6000'. Expect clearance to filed altitude five minutes after departure.

TAKEOFF RUNWAYS 8 and 13: Turn right within one mile to intercept and climb via SNS R-255 for vector.

TAKEOFF RUNWAYS 26 and 31: Climb on SNS R-255 for vector.

SALINAS TWO DEPARTURE

(SNS2.SNS) 30APR92

SALINAS, CALIFORNIA
SALINAS MUNI (SNS)

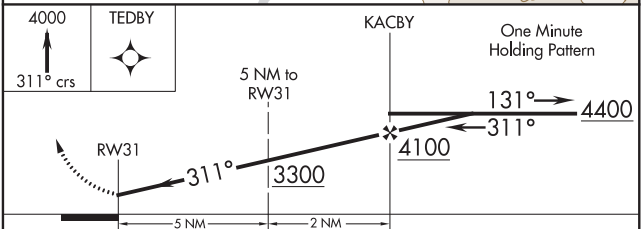
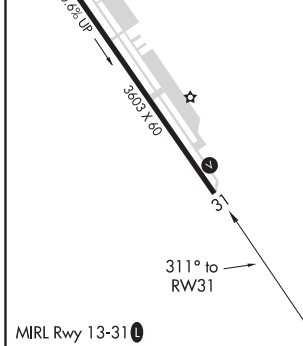
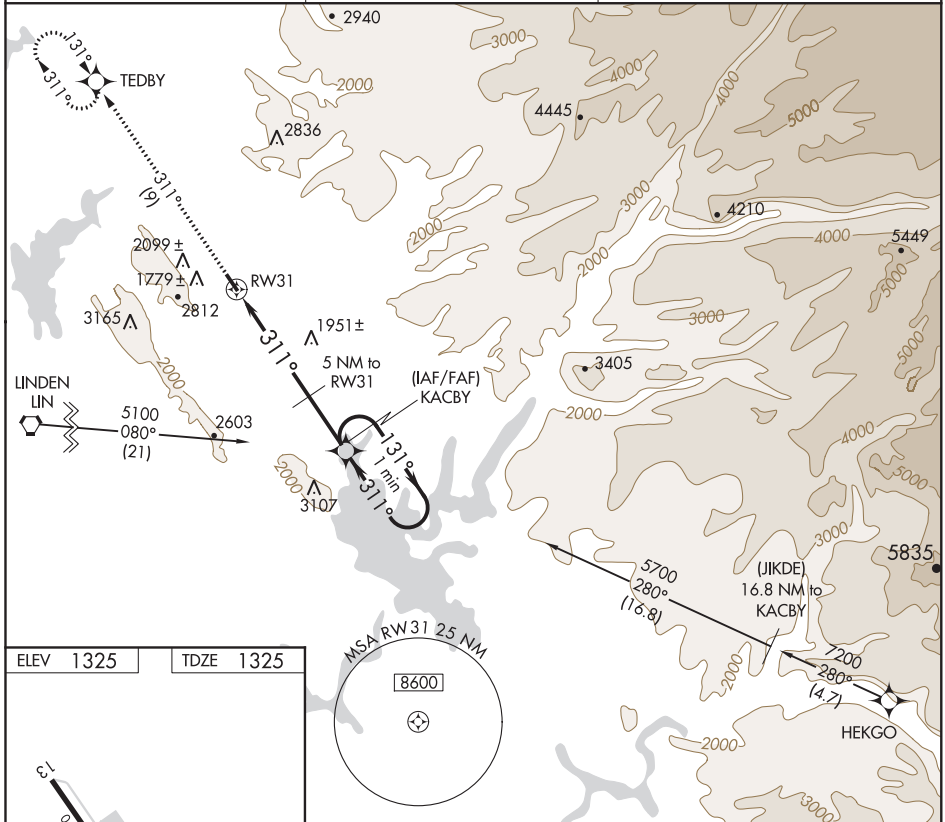
APP CRS 311°	Rwy Idg 3603
	TDZE 1325
	Apt Elev 1325

GPS RWY 31

CALAVERAS COUNTY-MAURY RASMUSSEN FIELD (CPU)

<p>NA Circling not authorized west of Rwy 13-31.</p>	<p>MISSED APPROACH: Climb to 4000 via 311° course to TEDBY WP and hold.</p>
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<p>AWOS-3P 118.525</p>	<p>NORCAL APP CON 125.1 363.2</p>	<p>UNICOM 123.0 (CTAF) 1</p>
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CATEGORY	A	B	C	D
S-31	2240-1¼	915 (1000-1¼)	NA	
CIRCLING	2240-1¼	915 (1000-1¼)	NA	

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

RNAV (GPS) Y RWY 30

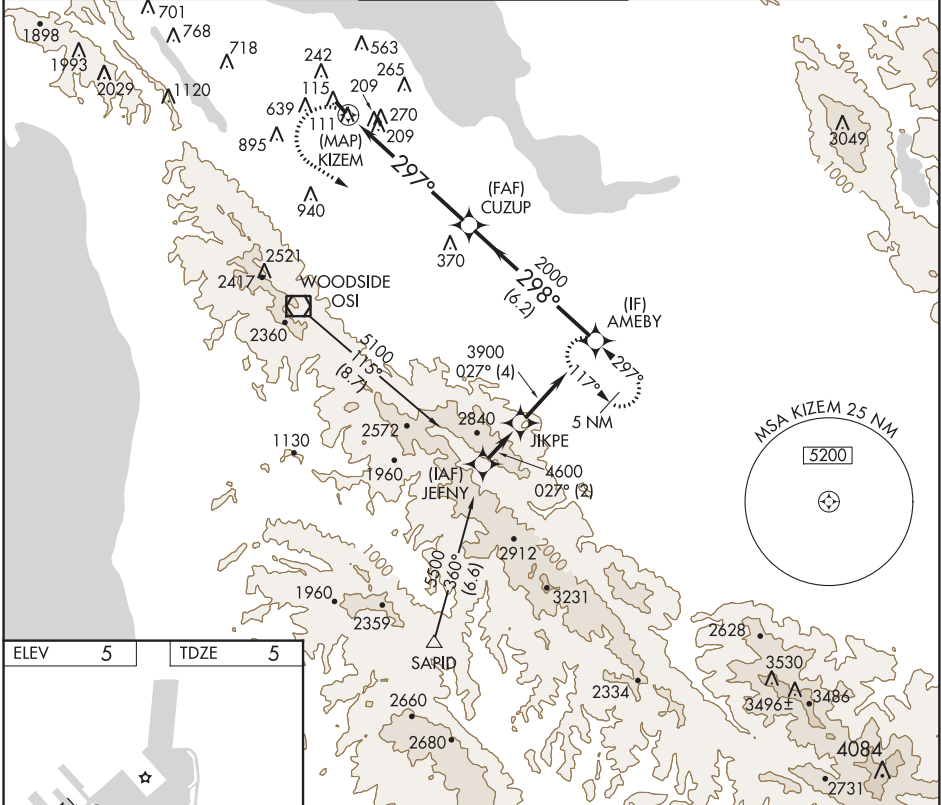
SAN CARLOS (SQL)

APP CRS	Rwy Idg	2600
297°	TDZE	5
	Apt Elev	5

▽ DME/DME RNP-0.3 NA. When local altimeter setting not received, use San Francisco Intl altimeter setting and increase all MDA 20 feet.
▲NA Visibility reduction by helicopters NA. Circling NA west of runway 12-30.

MISSED APPROACH: Climbing left turn to 4300 direct AMEBY and hold, continue climb-in-hold to 4300.

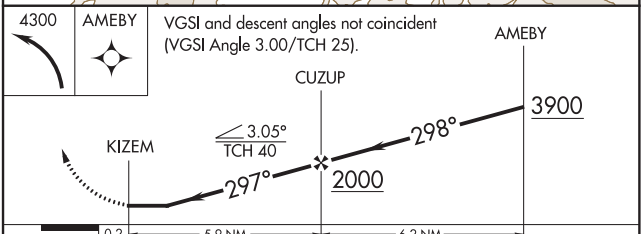
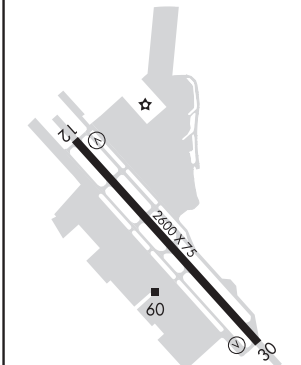
ATIS 125.9	NORCAL APP CON 133.95 317.6	SAN CARLOS TOWER ★ 119.0 (CTAF) 0 326.2	GND CON 121.6	UNICOM 122.95
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV	5	TDZE	5
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CATEGORY	A	B	C	D
LNAV MDA	1260-1 ¼ 1255 (1300-1 ¼)	1260-1 ½ 1255 (1300-1 ½)		NA
CIRCLING	1260-1 ¼ 1255 (1300-1 ¼)	1260-1 ½ 1255 (1300-1 ½)		NA

APP CRS	Rwy Idg	2600
297°	TDZE	5
	Apt Elev	5

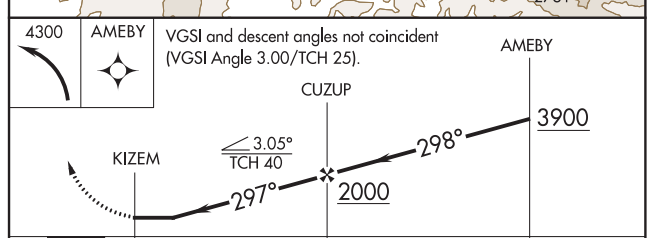
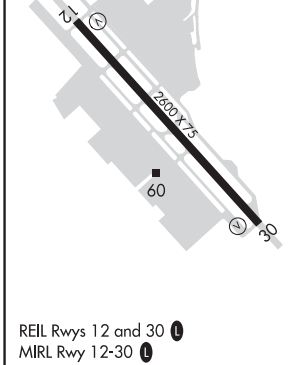
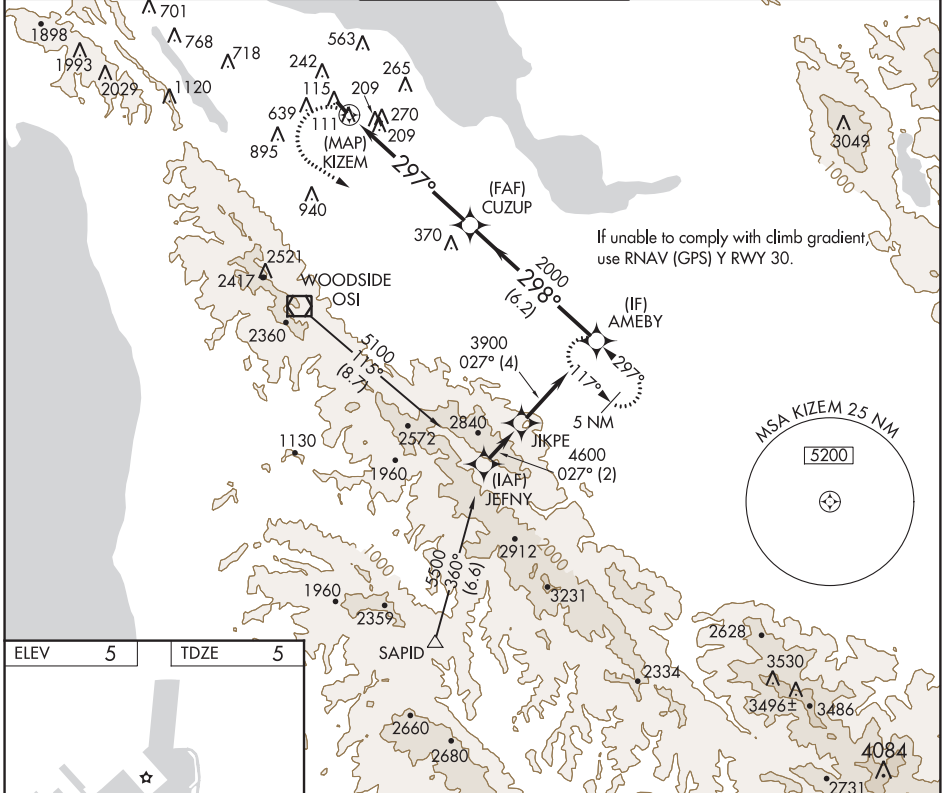
RNAV (GPS) Z RWY 30

SAN CARLOS (SQL)

NA DME/DME RNP-0.3 NA. When local altimeter setting not received, use San Francisco Intl altimeter setting and increase all MDA 20 feet. Missed approach requires minimum climb of 302 feet per NM to 4300. Circling NA west of runway 12-30. Visibility reduction by helicopters NA.

MISSED APPROACH: Climbing left turn to 4300 direct AMEBY and hold, continue climb-in-hold to 4300.

ATIS	NORCAL APP CON	SAN CARLOS TOWER ★	GND CON	UNICOM
125.9	133.95 317.6	119.0 (CTAF) 0 326.2	121.6	122.95



CATEGORY	A	B	C	D
LNAV MDA	580-1	575 (600-1)	NA	
CIRCLING	580-1	620-1	NA	
	575 (600-1)	615 (700-1)		

SW-2, 10 NOV 2016 to 05 JAN 2017

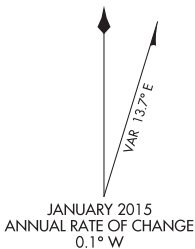
SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

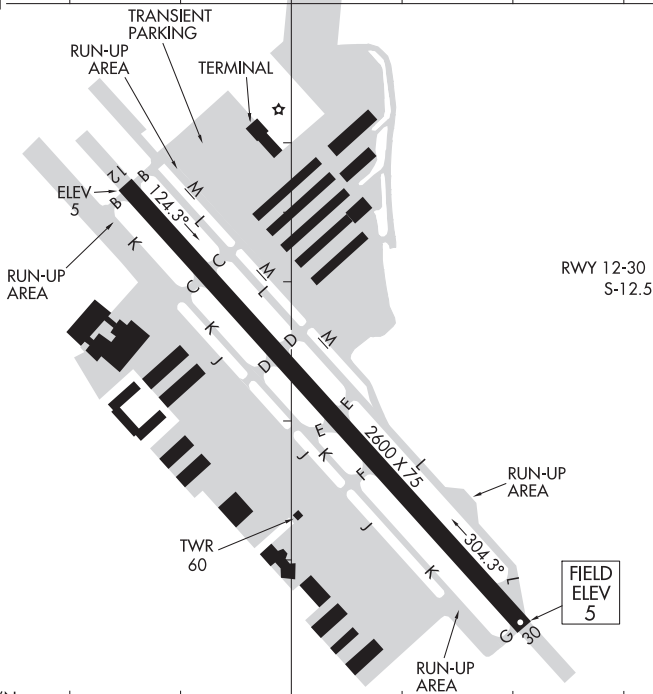
AL-9219 (FAA)

SAN CARLOS (SQL)
SAN CARLOS, CALIFORNIA

ATIS
125.9
SAN CARLOS TOWER ★
119.0 (CTAF) 326.2
GND CON
121.6



37°31'N



37°30.5'N

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

122°15'W

122°14.5'W

AIRPORT DIAGRAM

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SW-2, 10 NOV 2016 to 05 JAN 2017

ILS or LOC RWY 19L

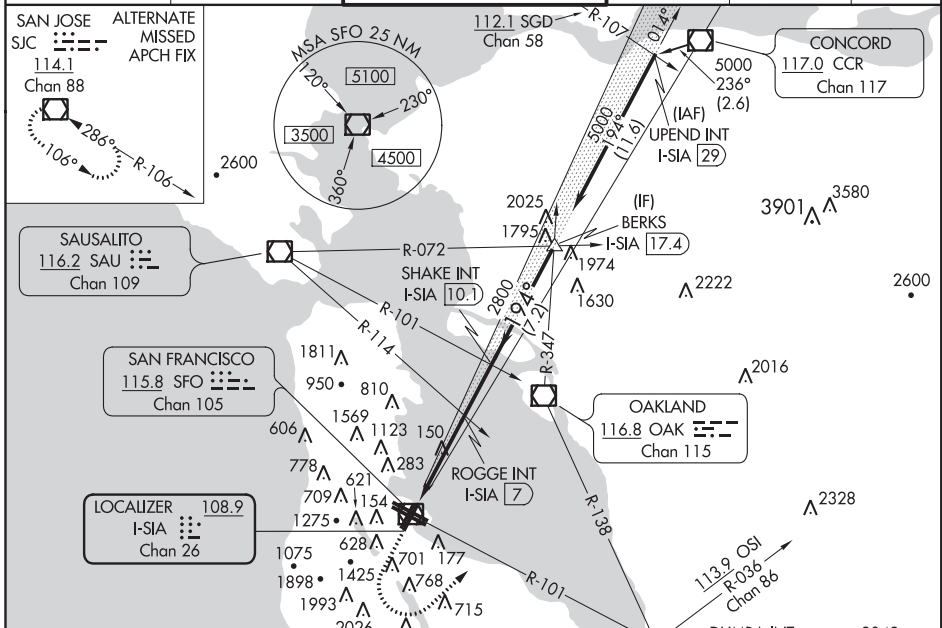
SAN FRANCISCO INTL (SFO)

LOC/DME I-SIA 108.9 Chan 26	APP CRS 194°	Rwy Idg TDZE Apt Elev	19L 8650 11 13	19R 7650 11 13
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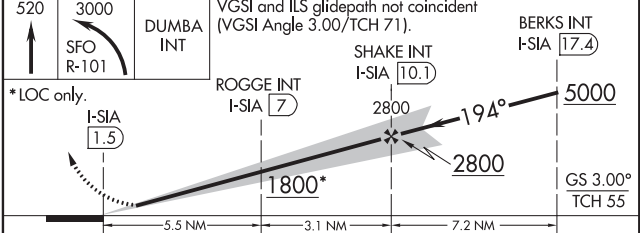
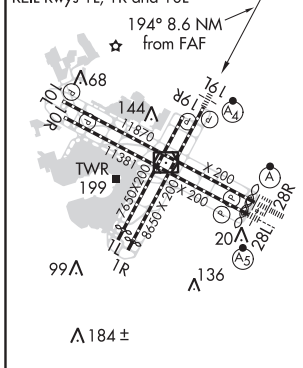
⚠ Sidestep NA until passing ROGGE INT.
⚠ For inop MALSF, increase ROGGE FIX minimums S-LOC 19L Cats C/D visibility to RVR 6000, increase S-ILS 19L Cat A/B visibility to RVR 4500. Inoperative table does not apply to Sidestep 19R or S-LOC 19L Cats C/D.

MALSF Rwy 19L MISSED APPROACH: Climb to 520 then climbing left turn to 3000 on SFO VOR/DME R-101 to DUMBA INT/SFO 15 DME and hold.

ATIS 113.7 115.8 118.85	NORCAL APP CON 134.5 338.2	SAN FRANCISCO TOWER 120.5 269.1	GND CON 121.8	CLNC DEL 118.2	CPDLC
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ELEV 13	D	TDZE 19L 11	TDZE 19R 11
HIRL all Rwy's			
TDZ/CL Rwy's 19L and 28R			
REIL Rwy's 1L, 1R and 10L			



CATEGORY	A	B	C	D
S-ILS 19L	300/40	289 (300-¾)	300/50	289 (300-1)
S-LOC 19L	1800/55	1800/60	1800-3	1789 (1800-3)
ROGGE FIX MINIMUMS (DUAL RECEIVERS OR DME REQUIRED)				
S-LOC 19L	400/40	389 (400-¾)	400/50	389 (400-1)
SIDESTEP 19R	400/55	389 (400-1¼)	400-1½	400-2
			389 (400-1½)	389 (400-2)

SW-2, 10 NOV 2016 to 05 JAN 2017


SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-SFO 109.55 Chan 32 (Y)	APP CRS 284°	Rwy Idg TDZE Apt Elev	10681 13 13
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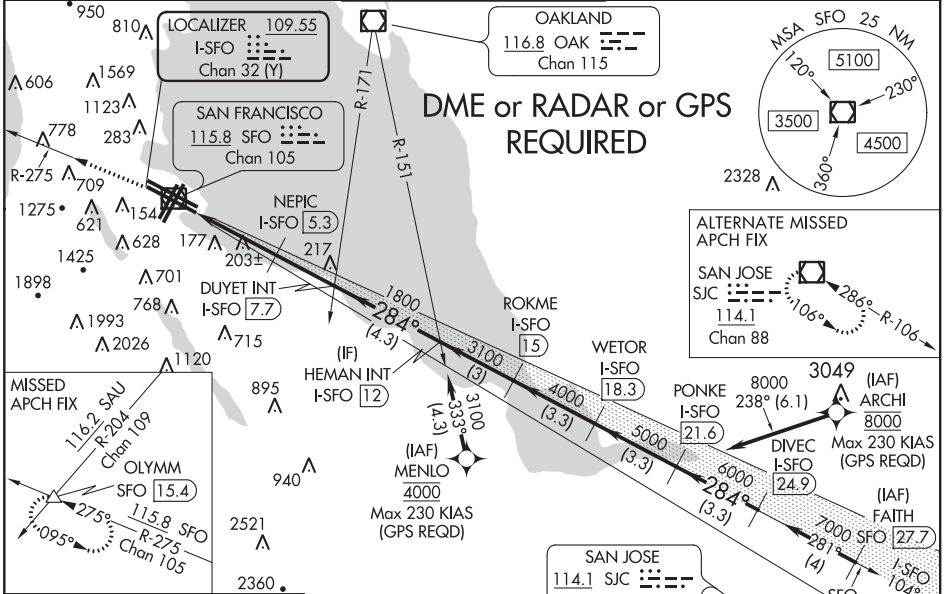
ILS or LOC RWY 28L

SAN FRANCISCO INTL (SFO)

⚠ DME required. Circling NA to Rwy's 10L, 10R, 19L, and 19R. Circling Rwy 1L, 1R NA at night.
⚠ Simultaneous approach authorized with ILS or LOC RWY 28R. Simultaneous operations require use of vertical guidance; maintain last assigned altitude until established on glide slope. LOC procedure NA during simultaneous operations. # RVR 1800 authorized with the use of FD or AP or HUD to DA. † Missed approach requires minimum climb of 325 feet per NM to 2100. **For inop MALSR increase S-LOC Cat C and D visibility to 2 mile.

MALSR  MISSED APPROACH: Climb to 4000 on SFO VOR/DME R-275 to OLYMM INT/SFO 15.4 DME and hold.

ATIS 113.7 115.8 118.85	NORCAL APP CON 134.5 338.2	SAN FRANCISCO TOWER 120.5 269.1	GND CON 121.8	CLNC DEL 118.2	CPDLC
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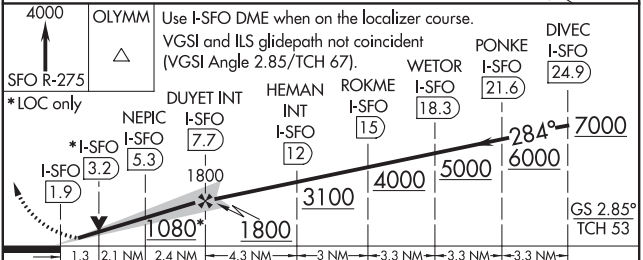
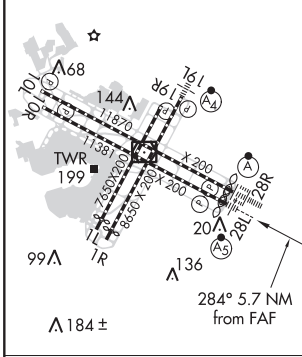


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 13	D	TDZE 13
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HIRL All Rwy's
 TDZ/CL Rwy's 19L and 28R
 REIL Rwy's 1L, 1R and 10L



CATEGORY	A	B	C	D
S-ILS 28L #†	213/24 200 (200-½)			
S-ILS 28L	789-2½ 776 (800-2½)			
S-LOC 28L †	460/24	447 (500-½)	460/45	447 (500-¾)
S-LOC 28L **	740/24	727 (800-½)	740-15%	727 (800-1%)
C CIRCLING	1080-1 1067 (1100-1)	1080-1½ 1067 (1100-1½)	1560-3 1547 (1600-3)	NA

ILS or LOC RWY 28R

SAN FRANCISCO INTL (SFO)

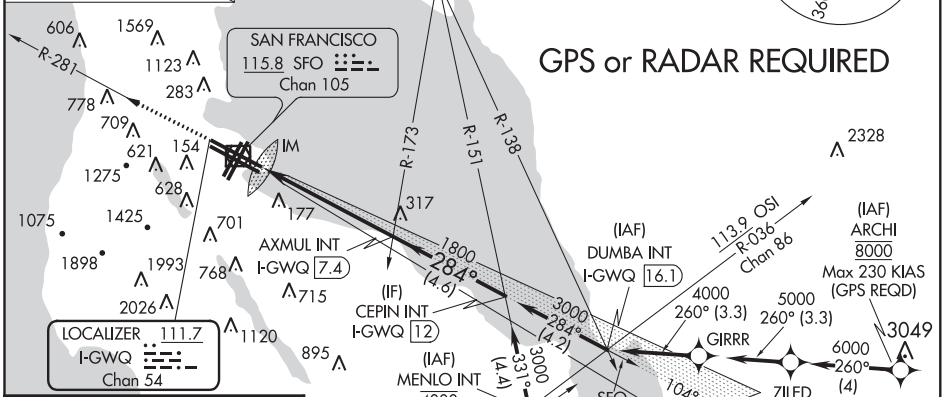
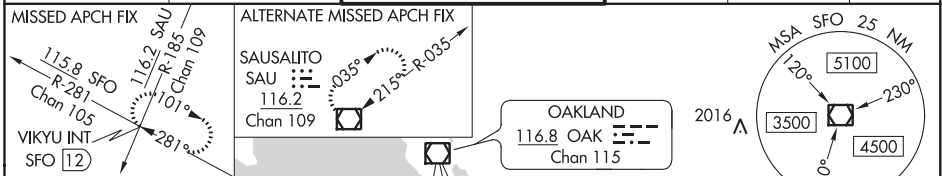
LOC/DME I-GWQ 111.7 Chan 54	APP CRS 284°	Rwy Idg 28R 11570 28L 10681 TDZE 13 Apt Elev 13
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⚠ Circling NA to Rwy 10L, 10R, 19L, and 19R. Circling to Rwy 1L, 1R NA at night. Inop table does not apply to Sidestep R28L. For inop ALSF increase S-LOC 28R Cat C and D visibility to 1 3/8 mile. Missed approach requires minimum climb of 350 feet per NM to 1900; if unable to meet climb gradient, see ILS or LOC RWY 28L. Simultaneous approach authorized with ILS or LOC RWY 28L. Simultaneous operations require use of vertical guidance: maintain last assigned altitude until established on glideslope.

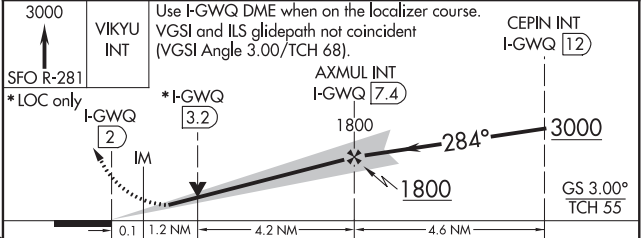
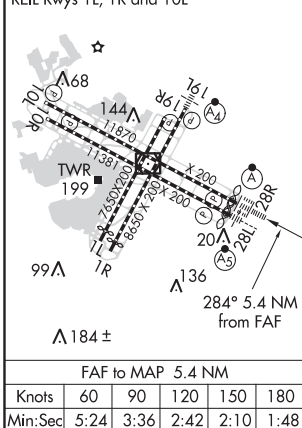
ALSF-2 Rwy 28R	MALS Rwy 28L
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MISSED APPROACH: Climb to 3000 on SFO VOR/DME R-281 to VIKYU INT/SFO 12 DME and hold.

ATIS 113.7 115.8 118.85	NORCAL APP CON 134.5 338.2	SAN FRANCISCO TOWER 120.5 269.1	GND CON 121.8	CLNC DEL 118.2	CPDLC
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ELEV 13	TDZE 28R 13
HIRL all Rwys	TDZE 28L 13
TDZ/CL Rwys 19L and 28R	
REIL Rwys 1L, 1R and 10L	



CATEGORY	A	B	C	D
S-ILS 28R	213/18		200 (200-1/2)	
S-LOC 28R	480/24	467 (500-1/2)	480/50	467 (500-1)
SIDESTEP 28L	480/55	467 (500-1 1/4)	480-1 1/2	467 (500-1 1/2)
C CIRCLING	640-1 627 (700-1)	960-1 1/4 947 (1000-1 1/4)	1560-3 1547 (1600-3)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

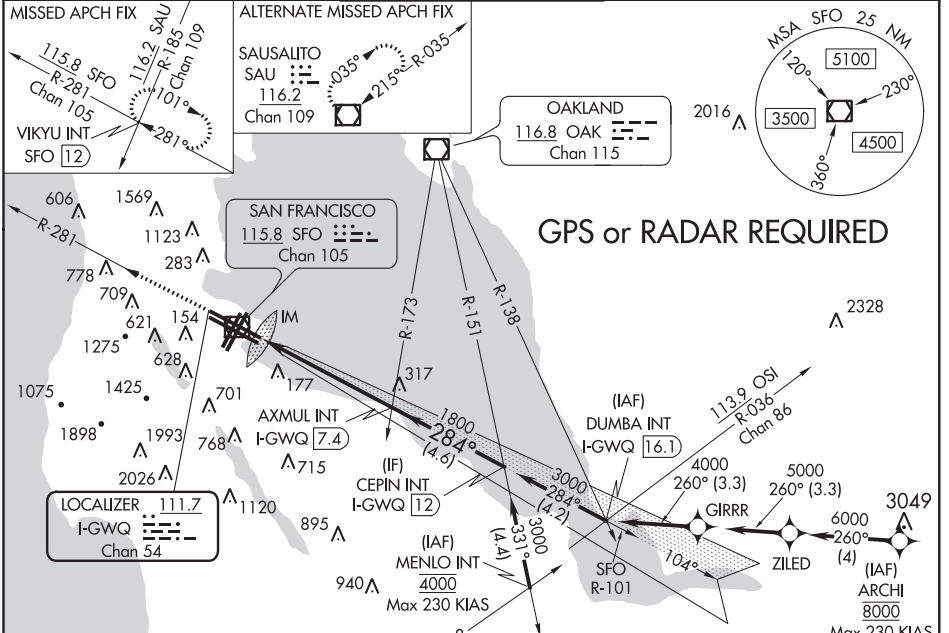
SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-GWQ 111.7 Chan 54	APP CRS 284°	Rwy Idg 11570 TDZE 13 Apt Elev 13
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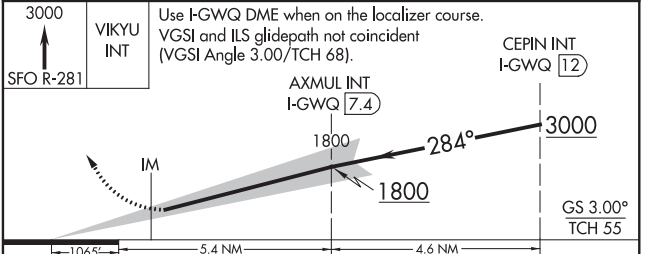
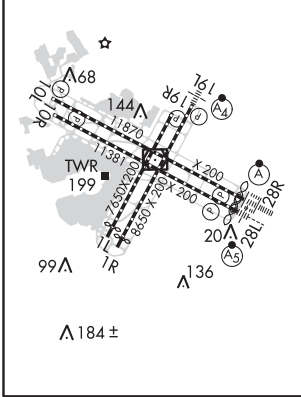
ILS RWY 28R (SA CAT I)

SAN FRANCISCO INTL (SFO)

<p>⚠ Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH. Missed approach requires minimum climb of 350 feet per NM to 1900; if unable to meet climb gradient, see ILS or LOC RWY 28L.</p>		<p>ALSF-2</p>	<p>MISSED APPROACH: Climb to 3000 on SFO VOR/DME R-281 to VIKYU INT/SFO 12 DME and hold.</p>		
<p>ATIS 113.7 115.8 118.85</p>	<p>NORCAL APP CON 134.5 338.2</p>	<p>SAN FRANCISCO TOWER 120.5 269.1</p>	<p>GND CON 121.8</p>	<p>CLNC DEL 118.2</p>	<p>CPDLC</p>



ELEV 13	D	TDZE 13
<p>HIRL all Rwys TDZ/CL Rwys 19L and 28R REIL Rwys 1L, 1R and 10L</p>		



CATEGORY	A	B	C	D
S-ILS 28R	RA 163/14 150 DA 163			

SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 10 NOV 2016 to 05 JAN 2017

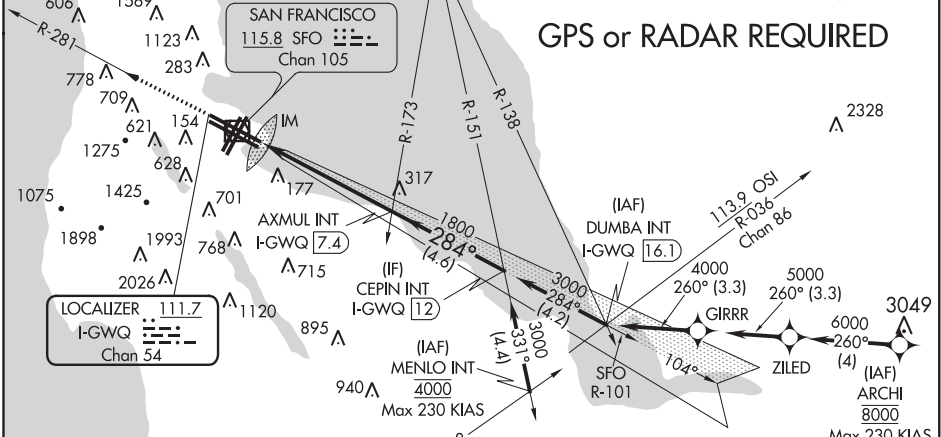
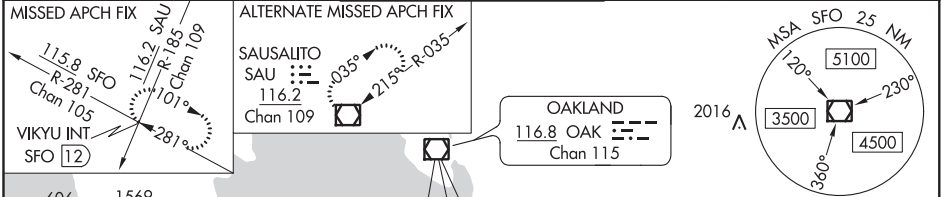
SW-2, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-GWQ 111.7 Chan 54	APP CRS 284°	Rwy Idg 11570 TDZE 13 Apt Elev 13
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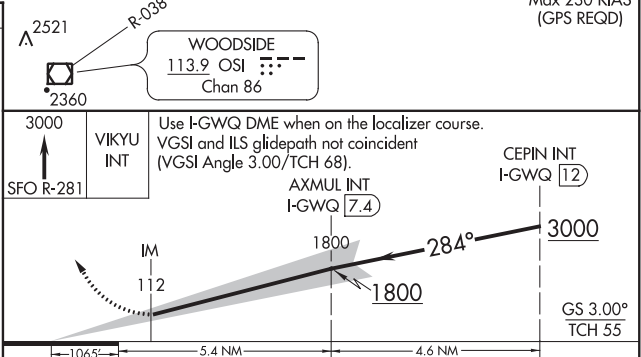
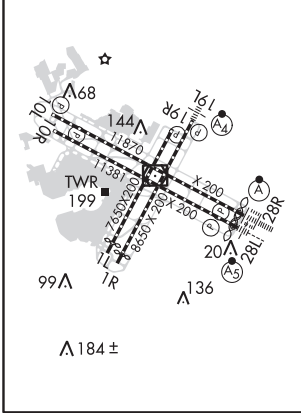
ILS RWY 28R (CAT II & III)

SAN FRANCISCO INTL (SFO)

<p>⚠ Missed approach requires minimum climb of 350 feet per NM to 1900; if unable to meet climb gradient, see ILS or LOC RWY 28L.</p>	<p>ALSIF-2</p>		<p>MISSED APPROACH: Climb to 3000 on SFO VOR/DME R-281 to VIKYU INT/ SFO 12 DME and hold.</p>		
	<p>ATIS 113.7 115.8 118.85</p>	<p>NORCAL APP CON 134.5 338.2</p>	<p>SAN FRANCISCO TOWER 120.5 269.1</p>	<p>GND CON 121.8</p>	<p>CLNC DEL 118.2</p>



ELEV 13	D	TDZE 13
<p>HIRL all Rwys TDZ/CL Rwys 19L and 28R REIL Rwys 1L, 1R and 10L</p>		



CATEGORY	A	B	C	D
S-ILS 28R	CAT II RA 113/12 100 DA 113			
S-ILS 28R	CAT III RVR 06			

CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

SW-2, 10 NOV 2016 to 05 JAN 2017


SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	11570
284°	TDZE	13
	Apt Elev	13

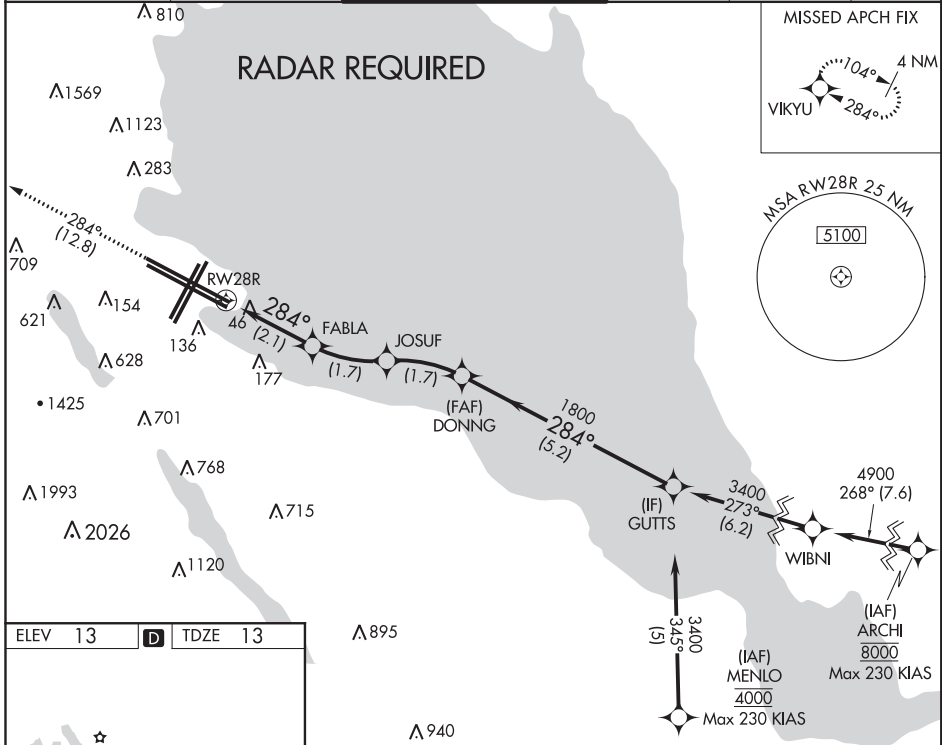
RNAV (RNP) Y RWY 28R

SAN FRANCISCO INTL (SFO)

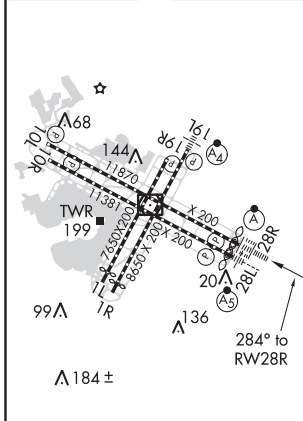
For uncompensated Baro-VNAV systems, procedure NA below 3°C (38°F) or above 54°C (130°F). RF required. GPS required.

ALSf-2
 MISSED APPROACH: Climb to 3000 on track 284° to VIKYU and hold.
 *Missed Approach requires minimum climb of 250 feet per NM to 2000.
 #Missed Approach requires minimum climb of 325 feet per NM to 2500.

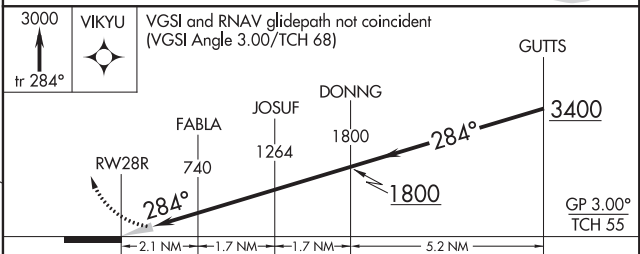
ATIS 113.7 115.8 118.85	NORCAL APP CON 134.5 338.2	SAN FRANCISCO TOWER 120.5 269.1	GND CON 121.8	CINC DEL 118.2	CPDLC
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ELEV 13	D	TDZE 13
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TDZ/CL Rwsy 19L and 28R
 REIL Rwsy 1L, 1R and 10L
 HIRL all Rwsy



CATEGORY	A	B	C	D
RNP 0.11 DA*		361/30	348 (400-%)	
RNP 0.30 DA#		415/45	402 (500-%)	

AUTHORIZATION REQUIRED

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 58015 W19A	APP CRS 194°	Rwy Idg 8650 TDZE 11 Apt Elev 13
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RNAV (GPS) RWY 19L

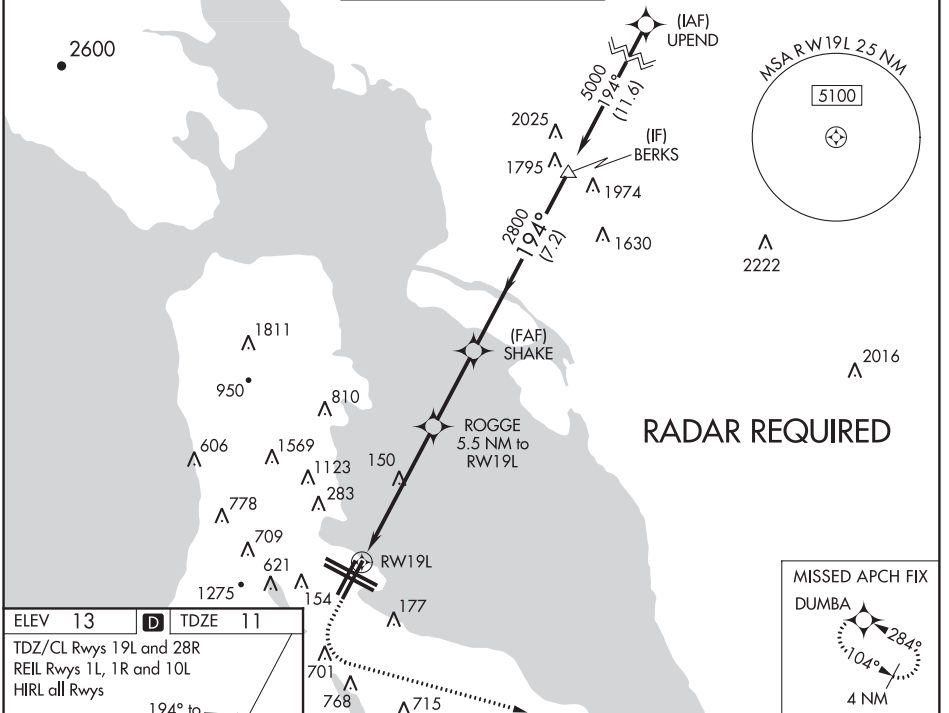
SAN FRANCISCO INTL (SFO)

▼ DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 3°C (38°F) or above 54°C (130°F). For inoperative MALSF, increase LPV Cat A/B visibility to RVR 4500, LNAV/VNAV all Cats visibility to RVR 6000 and LNAV Cat D to 1½ miles. Inoperative table does not apply to LPV Cat C/D.

MALSF

MISSED APPROACH: Climb to 420 then climbing left turn to 3000 direct DUMBA and hold.

ATIS 113.7 115.8 118.85	NORCAL APP CON 134.5 338.2	SAN FRANCISCO TOWER 120.5 269.1	GND CON 121.8	CLNC DEL 118.2	CPDLC
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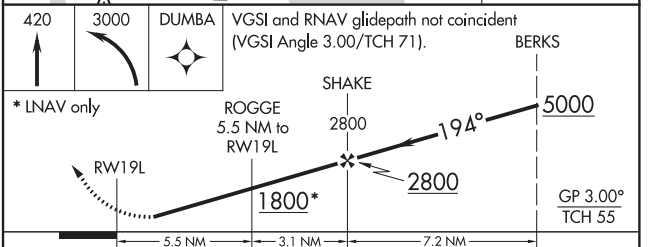


ELEV 13 **D** TDZE 11

TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys

194° to RWY 19L

99A 184±



CATEGORY	A	B	C	D
LPV DA	293/40	282 (300-¾)	293/50	282 (300-1)
LNAV/VNAV DA	350/40	339 (400-¾)	350/50	339 (400-1)
LNAV MDA	560/40	549 (600-¾)	560-1⅜	549 (600-1⅜)

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SW-2, 10 NOV 2016 to 05 JAN 2017

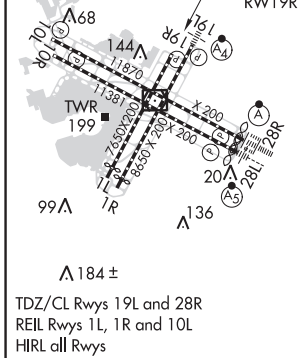
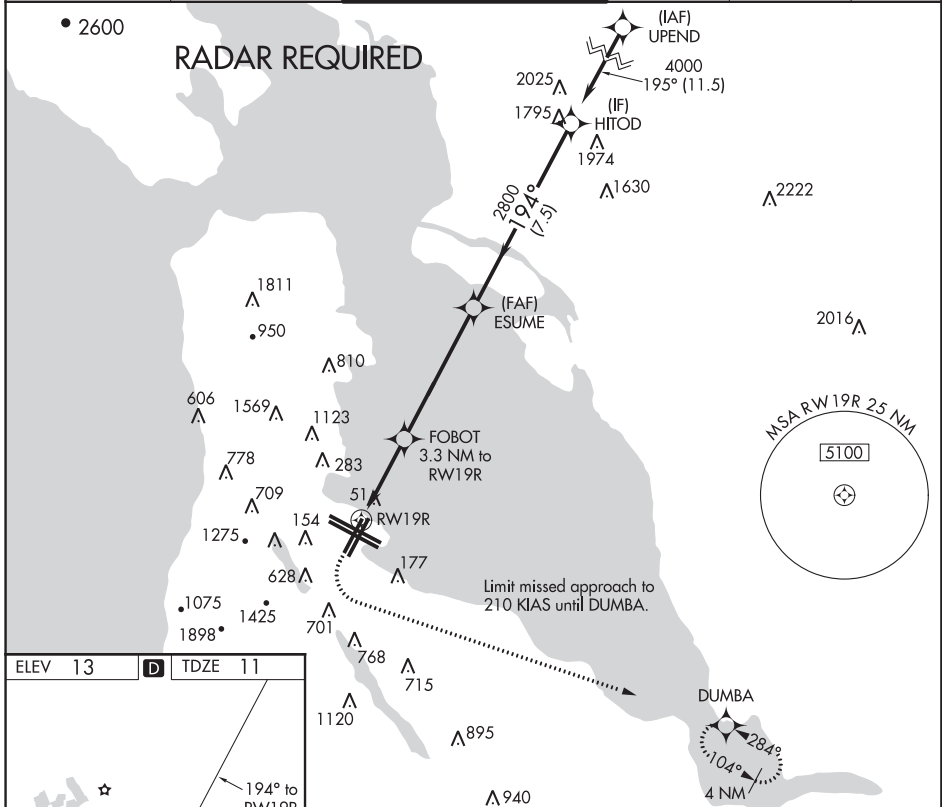
WAAS CH 53533 W19B	APP CRS 194°	Rwy Idg TDZE Apt Elev	7650 11 13
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RNAV (GPS) RWY 19R

SAN FRANCISCO INTL (SFO)

<p>▽ DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 3°C (38°F) or above 54°C (130°F).</p>		<p>MISSED APPROACH: Climb to 600 then climbing left turn to 3000 direct DUMBA and hold.</p>		
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ATIS 113.7 115.8 118.85	NORCAL APP CON 134.5 338.2	SAN FRANCISCO TOWER 120.5 269.1	GND CON 121.8	CLNC DEL 118.2	CPDLC
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ELEV 13	D	TDZE 11	
600	3000	DUMBA	HITOD
↑	↶	✧	✧
*LNAV only.		*1.6 NM to RWY 19R	FOBOT 3.3 NM to RWY 19R
RWY 19R		ESUME 2800	HITOD 4000
1100*		194°	GP 3.00°
1.6 NM		1.7 NM	5.3 NM
7.5 NM		TCH 55	
CATEGORY	A	B	C
LPV DA	366/59		355 (400-1½)
LNAV/VNAV DA	477-1½		466 (500-1½)
LNAV MDA	580/55	569 (600-1½)	580-1½ 569 (600-1½)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 53415 W28B	APP CRS 284°	Rwy Idg 10681 TDZE 13 Apt Elev 13
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RNAV (GPS) RWY 28L

SAN FRANCISCO INTL (SFO)

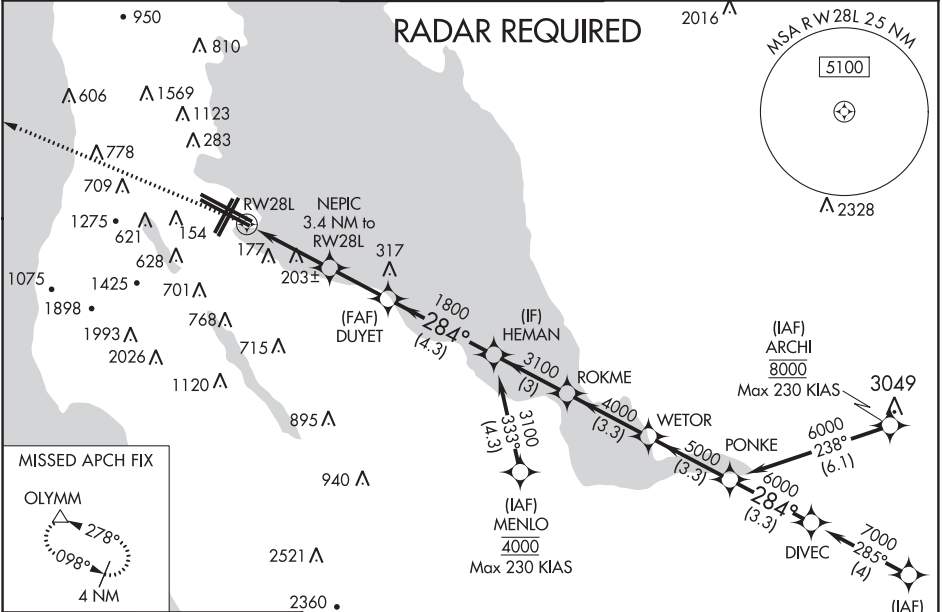
⚠ For uncompensated Baro-VNAV systems, procedure NA below 3°C (38°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inoperative MALSR, increase LPV all Cats visibility to 3 mile. Circling NA to Rwy's 10L, 10R, 19L, and 19R. Circling Rwy 1L, 1R NA at night.
#Missed approach requires minimum climb of 305 feet per NM to 1600.

MALSR

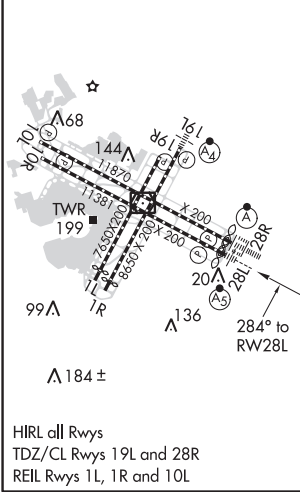


MISSED APPROACH: Climb to 4000 direct OLYMM and hold, continue climb-in-hold to 4000.

ATIS 113.7 115.8 118.85	NORCAL APP CON 134.5 338.2	SAN FRANCISCO TOWER 120.5 269.1	GND CON 121.8	CLNC DEL 118.2	CPDLC
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ELEV 13	D	TDZE 13
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4000	OLYMM	VGSi and RNAV glidepath not coincident (VGSi Angle 2.85/TCH 67).					
		DUYET	HEMAN	ROKME	WETOR	PONKE	DIVEC
	*LNAV only	1800	1800	4000	5000	6000	7000
		1080*	1800	3100	4000	5000	7000
		3.4 NM	2.4 NM	4.3 NM	3 NM	3.3 NM	3.3 NM
CATEGORY	A	B	C	D			
LPV DA#	213/24		200 (200-1/2)				
LPV DA	769-2 1/2		756 (800-2 1/2)				
LNAV/VNAV DA	754-2 1/2		741 (800-2 1/2)				
LNAV MDA	1020/40 1007 (1100-3/4)		1020/55 1007 (1100-1 1/4)		1020-2 1/2		1007 (1100-2 1/2)
C CIRCLING	1020-1 1/4 1007 (1100-1 1/4)		1020-1 1/2 1007 (1100-1 1/2)		1560-3 1547 (1600-3)		NA

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SW-2, 10 NOV 2016 to 05 JAN 2017

RNAV (GPS) X RWY 28R

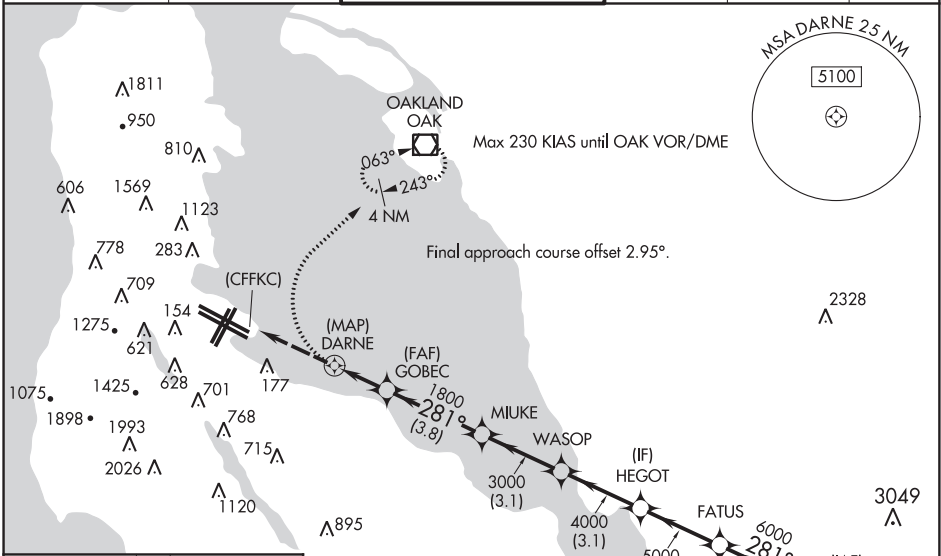
SAN FRANCISCO INTL (SFO)

APP CRS	Rwy Idg	11570
281°	TDZE	13
	Apt Elev	13

NA Runway 28L and 28R separated by 750 feet centerline to centerline. DME/DME RNP-0.3 NA. When executing a missed approach or go-around, unless otherwise instructed by ATC, initially turn right to 030° utilizing heading mode. Inoperative table does not apply. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 2°C (36°F) or above 54°C (130°F).
 *If a go-around executed after passing DARNÉ, go-around requires a minimum climb of 380 feet per NM to 1800.

ALS2 MISSED APPROACH: Climbing right turn to 3000 on heading 030° then direct OAK VOR/DME and hold.

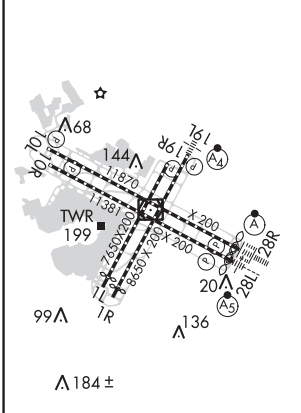
ATIS 113.7 115.8 118.85	NORCAL APP CON 134.5 338.2	SAN FRANCISCO TOWER 120.5 269.1	GND CON 121.8	CINC DEL 118.2	CPDLC
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SW-2, 10 NOV 2016 to 05 JAN 2017

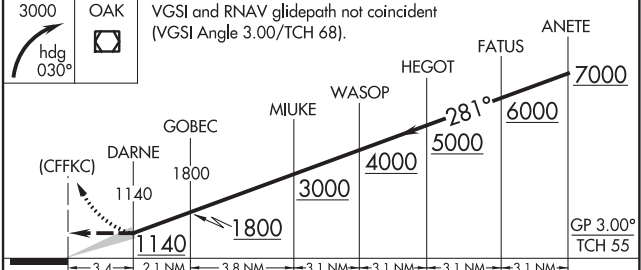
SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 13	D	TDZE 13
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TDZ/CL Rwy 19L and 28R
 REIL Rwy 1L, 1R, and 10L
 HIRL all Rwy

RADAR REQUIRED



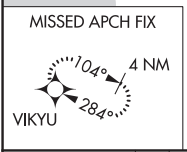
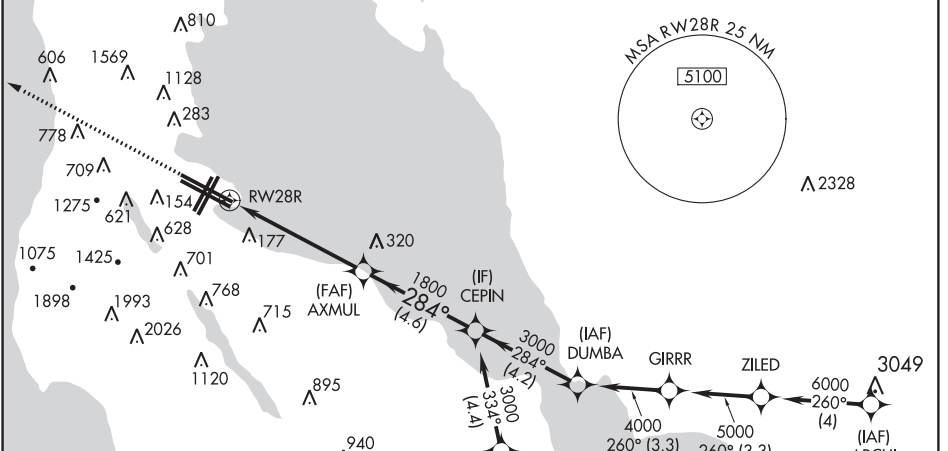
CATEGORY	A	B	C	D
LNAV/VNAV DA*	1140-4	1127	11200-4	

WAAS CH 48803 W28A	APP CRS 284°	Rwy Idg 11570 TDZE 13 Apt Elev 13
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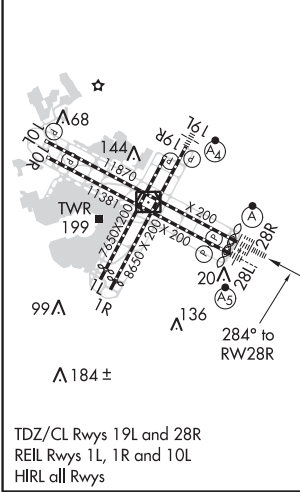
RNAV (GPS) Z RWY 28R

SAN FRANCISCO INTL (SFO)

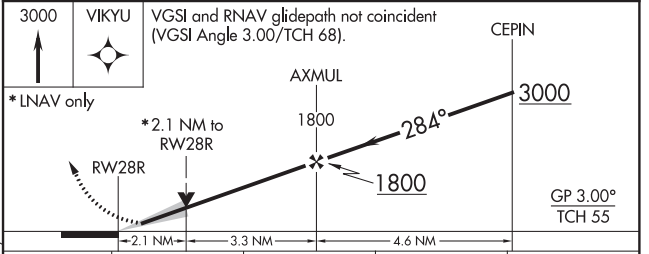
<p>⚠ Circling NA to Rwys 10L, 10R, 19L, and 19R. Circling Rwy 1L, 1R NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 3°C (38°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inop ALSF, increase LNAV/VNAV visibility all Cats to 2½ mile; increase LNAV visibility Cats C and D to 2 mile.</p>	<p>ALSF-2 </p>	<p>MISSED APPROACH: Climb to 3000 direct VIKYU and hold.</p>			
	<p>ATIS 113.7 115.8 118.85</p>	<p>NORCAL APP CON 134.5 338.2</p>	<p>SAN FRANCISCO TOWER 120.5 269.1</p>	<p>GND CON 121.8</p>	<p>CLNC DEL 118.2</p>



ELEV 13	D	TDZE 13
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TDZ/CL Rwys 19L and 28R
REIL Rwys 1L, 1R and 10L
HIRL all Rwys



CATEGORY	A	B	C	D
LPV DA		213/24	200 (200-½)	
LNAV/VNAV DA		642-1½	629 (700-1½)	
LNAV MDA	760/24 747 (800-½)	760/40 747 (800-¾)	760-1¾	747 (800-1¾)
C CIRCLING	760-1 747 (800-1)	960-1¼ 947 (1000-1¼)	1560-3 1547 (1600-3)	NA

RADAR REQUIRED

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

PRM APPROACH AAUP

ATTENTION ALL USERS PAGE (AAUP)

Pilots who are unable to participate will be afforded appropriate arrival services as operational conditions permit and must notify the controlling ARTCC as soon as practical, but at least 100 miles from destination.

Required Briefing: Brief the appropriate procedure bullet points below based on the expected or assigned IAP.

ILS PRM Rwy 28L

Briefing Points:

- When in range, tune in the PRM monitor frequency (125.15) on a secondary radio and set the audio volume, then deselect the audio.
- Re-select the PRM monitor frequency when communicating with the NORCAL approach control (frequency 135.65).
- Utilize glidepath; do not step down between fixes after passing ROKME.
- Descending on the glidepath ensures compliance with any charted crossing restriction. Inside NEPIC (I-SFO 5.3 DME), descending on (not above) the glidepath benefits the trailing 28R aircraft to avoid wake turbulence.
- While conducting the PRM approach to runway 28L, other aircraft may be conducting the PRM approach to runway 28R. These aircraft will approach from the right-rear and will re-align with runway 28R after making visual contact with the runway 28L traffic.
- Expect to be switched to SFO tower (120.5) at NEPIC (I-SFO 5.3 DME).
- PRM monitor frequency may be de-selected after determining that the aircraft is on the tower frequency.

LDA PRM Rwy 28R

Briefing Points: (Note: Non-standard missed approach coding initially requires use of heading mode.

Identify DARNE as I-FNP LOC/DME 4 NM if not in the FMC approach coding.)

- If required, develop a wake mitigation strategy as soon as practical. After passing DARNE pilots will be operating in close proximity to the 28L aircraft and will be responsible for wake turbulence avoidance.
- When in range, tune in the PRM monitor frequency (127.675) on a secondary radio and set the audio volume, then deselect the audio.
- Re-select the PRM monitor frequency when communicating with the NORCAL approach control (frequency 120.35).
- Utilize glidepath; do not step down between fixes after passing HEGOT.
- Descending on the glidepath ensures compliance with any charted crossing restrictions.
- Report the 28L traffic in sight as soon as practical and prior to DARNE (I-FNP 4 DME). **DO NOT PASS.**
- **Remain on the LDA** until passing DARNE so as not to penetrate the NTZ.
- Expect to be switched to SFO tower (120.5) at DARNE (I-FNP 4 DME).
- PRM monitor frequency may be de-selected after determining that the aircraft is on the tower frequency.
- After passing DARNE, **MANEUVER VISUALLY.**
- In the visual segment after DARNE, pilots are responsible for **collision and wake avoidance**. (See Visual Segment under Expanded Procedures for additional information).
- If executing a go-around between DARNE runway 28R, initially establish a climbing right turn heading 030° unless otherwise instructed by ATC. Missed approach leg from airport to OAK VORTAC, if depicted on a map display, is for reference only. Follow IAP published missed approach procedure unless otherwise instructed by ATC.

CONTINUED ON FOLLOWING PAGE

PRM APPROACH AAUP

PRM APPROACH AAUP

ATTENTION ALL USERS PAGE (AAUP) (CON'T)

CONTINUED FROM PREVIOUS PAGE

RNAV (GPS) PRM Rwy 28L

Briefing Points: (Note: Identify NEPIC WP as 3.3 NM from Rwy 28L WP if not in the FMC approach coding.)

- When in range, tune in the PRM monitor frequency (125.15) on a secondary radio and set the audio volume, then deselect the audio.
- Re-select the PRM monitor frequency when communicating with the NORCAL approach control (frequency 135.65).
- If practical, utilize constant descent angle after passing ROKME WP.
- Monitor descent path to ensure that fix crossing requirements are adhered to.
- VDA is 2.85° between all waypoints on the final approach course.
- Inside NEPIC, descending on (not above) the vertical path benefits the trailing 28R aircraft to avoid wake turbulence.
- While conducting the PRM approach to runway 28L, other aircraft may be conducting the PRM approach to runway 28R. These aircraft will approach from the right-rear and will re-align with runway 28R after making visual contact with the runway 28L traffic.
- Expect to be switched to SFO tower (120.5) at NEPIC WP, 3.3 NM from Rwy 28L WP.
- PRM monitor frequency may be de-selected after determining that the aircraft is on the tower frequency.

RNAV (GPS) PRM X Rwy 28R

Briefing Points: (Notes: Non-standard RNAV Missed Approach coding initially requires use of heading mode. Identify DARNE WP as 3.4 NM from CFFKC WP if not in the FMC approach coding.)

- If required, develop a wake mitigation strategy as soon as practical. After passing DARNE WP, pilots will be operating in close proximity to the 28L aircraft and will be responsible for wake turbulence avoidance.
- When in range, tune in the PRM monitor frequency (127.675) on a secondary radio and set the audio volume, then deselect the audio.
- Re-select the PRM monitor frequency when communicating with the NORCAL approach control (frequency 120.35).
- If practical, utilize constant descent angle after passing HEGOT WP.
- Monitor descent path to ensure that fix crossing requirements are adhered to.
- VDA is 3° between all waypoints on the final approach course.
- Report the 28L traffic in sight as soon as practical and prior to DARNE. DO NOT PASS.
- Remain on the RNAV track until passing DARNE WP so as not to penetrate the NTZ.
- Expect to be switched to SFO tower (120.5) at DARNE WP, 3.4 NM from CFFKC WP.
- After passing DARNE, MANEUVER VISUALLY.
- The VNAV path is valid to the runway threshold.
- PRM monitor frequency may be de-selected after determining that the aircraft is on the tower frequency.
- In the visual segment after DARNE, pilots are responsible for **collision** and **wake avoidance**. (See Visual Segment under Expanded Procedures for additional information).
- If executing a missed approach or go-around, initially establish a climbing right turn heading 030°. CAUTION: Missed approach leg from airport to OAK VORTAC, if depicted on a map display, is for reference only. Follow IAP published missed approach procedure unless otherwise instructed by ATC.

EXPANDED PROCEDURES (Optional, brief if necessary)

1. **ATIS.** When the ATIS broadcast advises that simultaneous PRM Rwy 28L and PRM Rwy 28R approaches are in progress, pilots should brief to fly the PRM approach. If later advised to expect an ILS, LDA or RNAV (GPS) approach, the PRM chart may be used after noting the following:
 - a. Minimums and missed approach procedures are unchanged.
 - b. Monitor frequency no longer required.
 - c. A different glidepath or VNAV path intercept altitude may be assigned when advised to expect ILS, LDA or RNAV (GPS) approach.

Simultaneous parallel approaches will only be offered/conducted when the weather is at least 1600 feet (ceiling) and 4 miles (visibility).

CONTINUED ON FOLLOWING PAGE

PRM APPROACH AAUP

PRM APPROACH AAUP

ATTENTION ALL USERS PAGE (AAUP) (CON'T)

CONTINUED FROM PREVIOUS PAGE

2. Dual VHF Communication required (Rwy 28R). To avoid blocked transmissions, each runway will have two frequencies, a primary and a PRM monitor frequency. The NORCAL approach controller will transmit on both frequencies. The PRM Monitor controller's transmissions, if needed, will override both frequencies. Pilots will ONLY transmit on the approach controller's frequency, but will listen to both frequencies. When practical, on a second communications radio, select the PRM monitor frequency. Set the audio level to about the same volume as the primary communications radio so that transmissions on the PRM monitor frequency can be heard in the event the approach control frequency is blocked. Then deselect the PRM monitor audio. Re-select the PRM monitor frequency audio only when in contact with the NORCAL approach controller (120.35).

Dual VHF Communication required (Rwy 28L). To avoid blocked transmissions, each runway will have two frequencies, a primary and a PRM monitor frequency. The NORCAL approach controller will transmit on both frequencies. The PRM Monitor controller's transmissions, if needed, will override both frequencies. Pilots will ONLY transmit on the approach controller's frequency, but will listen to both frequencies. When practical, on a second communications radio, select the PRM monitor frequency. Set the audio level to about the same volume as the primary communications radio so that transmissions on the PRM monitor frequency can be heard in the event the approach control frequency is blocked. Then deselect the PRM monitor audio. Re-select the PRM monitor frequency audio only when in contact with the NORCAL approach controller (135.65).

3. ALL "Breakouts" are to be hand flown to assure that the maneuver is accomplished in the shortest amount of time. Pilots, when directed by ATC to break off an approach, must assume that an aircraft is blundering toward their course and a breakout must be initiated immediately.

a. ATC Directed "Breakouts": ATC directed breakouts will consist of a turn and a climb or descent. Pilots must always initiate the breakout in response to an air traffic controller instruction. Controllers will give a descending breakout only when there are no other reasonable options available, but in no case will the descent be below minimum vectoring altitude (MVA) which provides at least 1000 feet required obstruction clearance.

b. Phraseology- "TRAFFIC ALERT": If an aircraft enters the "NO TRANSGRESSION ZONE (NTZ)", the controller will breakout the threatened aircraft on the adjacent approach. The phraseology for the breakout will be:

"TRAFFIC ALERT, (aircraft call sign) TURN (left/right) IMMEDIATELY, HEADING (degrees), CLIMB/DESCEND AND MAINTAIN (altitude)".

4. Visual Segment (Rwy 28R): If ATC advises that there is traffic approaching runway 28L, pilots are authorized to continue past DARNE to align with runway 28R centerline only when:

- the runway 28L traffic is in sight and is expected to remain in sight.
- ATC has been advised that "traffic is in sight". (ATC is not required to acknowledge this transmission.)
- the runway environment is in sight.


Otherwise, a missed approach must be executed at DARNE. Between DARNE and the runway threshold, pilots are responsible for separating themselves visually from traffic approaching runway 28L, which means maneuvering the aircraft as necessary to avoid the runway 28L traffic until landing (do not pass), and providing wake turbulence avoidance, as applicable. If visual contact with the runway 28L traffic is lost, advise ATC as soon as practical and execute the published missed approach unless otherwise instructed by ATC.

RNAV (GPS) PRM RWY 28L
(SIMULTANEOUS CLOSE PARALLEL)
 SAN FRANCISCO INTL (SFO)

WAAS CH 53333 W28D	APP CRS 284°	Rwy Idg TDZE Apt Elev	10681 13 13
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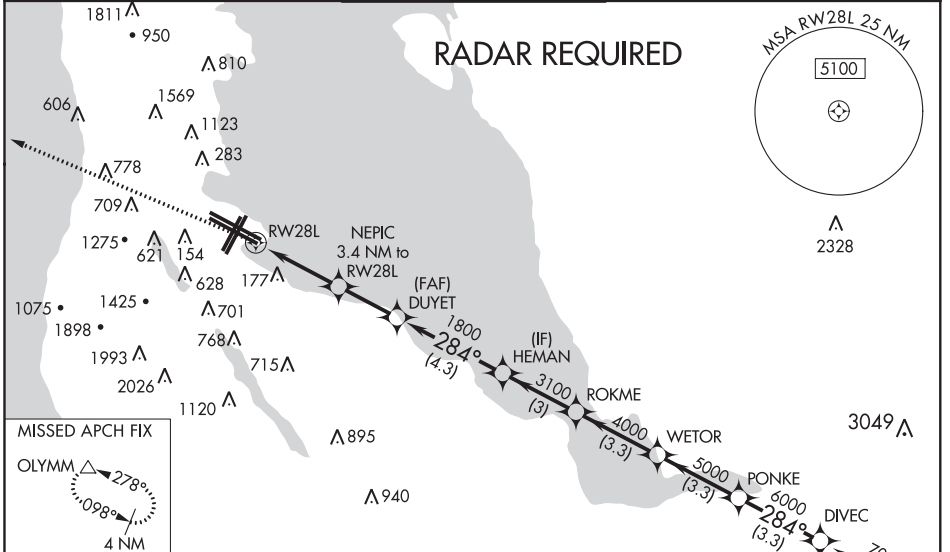
⚠ DME/DME RNP-0.3 NA. For inoperative MALSR, increase LPV all Cats visibility to 2½ mile. Simultaneous approach authorized with LDA PRM RWY 28R and RNAV (GPS) PRM X RWY 28R. Dual VHF comm required. Use of FD or AP providing RNAV track guidance required during simultaneous operations. Rwy 28L and 28R separated by 750 feet centerline to centerline. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 2°C (36°F) or above 54°C (130°F). See additional requirements on AAUP.
 *Missed approach requires minimum climb of 305 feet per NM to 1600.

MALSR

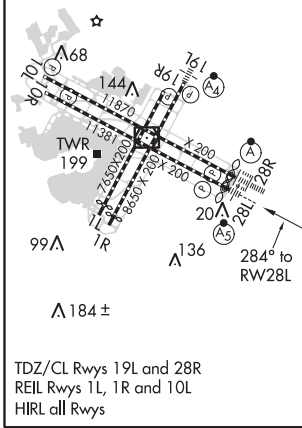


MISSED APPROACH:
 Climb to 4000 direct OLYMM and hold, continue climb-in-hold to 4000.

ATIS 113.7 115.8 118.85	NORCAL APP CON 134.5 338.2	SAN FRANCISCO TOWER 120.5 269.1 PRM 125.15	GND CON 121.8	CLNC DEL 118.2	CPDLC
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ELEV 13	D	TDZE 13
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4000	OLYMM	VGSI and RNAV glidepath not coincident (VGSI Angle 2.85/TCH 67).							
		NEPIC	DUYET	HEMAN	ROKME	WETOR	PONKE	DIVEC	
		3.4 NM to RW28L	1800	3100	4000	5000	6000	7000	
		1080	1800						
		3.4 NM	2.4 NM	4.3 NM	3 NM	3.3 NM	3.3 NM	3.3 NM	
		284° to RW28L							
								GP 2.85° TCH 53	
		CATEGORY	A	B	C	D			
		LPV DA*	213/24				200 (200-½)		
		LPV DA	769-2¼		756 (800-2¼)				
		LNAV/VNAV DA	754-2¼		741 (800-2¼)				

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SAN FRANCISCO, CALIFORNIA

AL-375 (FAA)

RNAV (GPS) PRM X RWY 28R (SIMULTANEOUS CLOSE PARALLEL)

SAN FRANCISCO INTL (SFO)

APP CRS 281°	Rwy Idg 11570
	TDZE 13
	Apt Elev 13

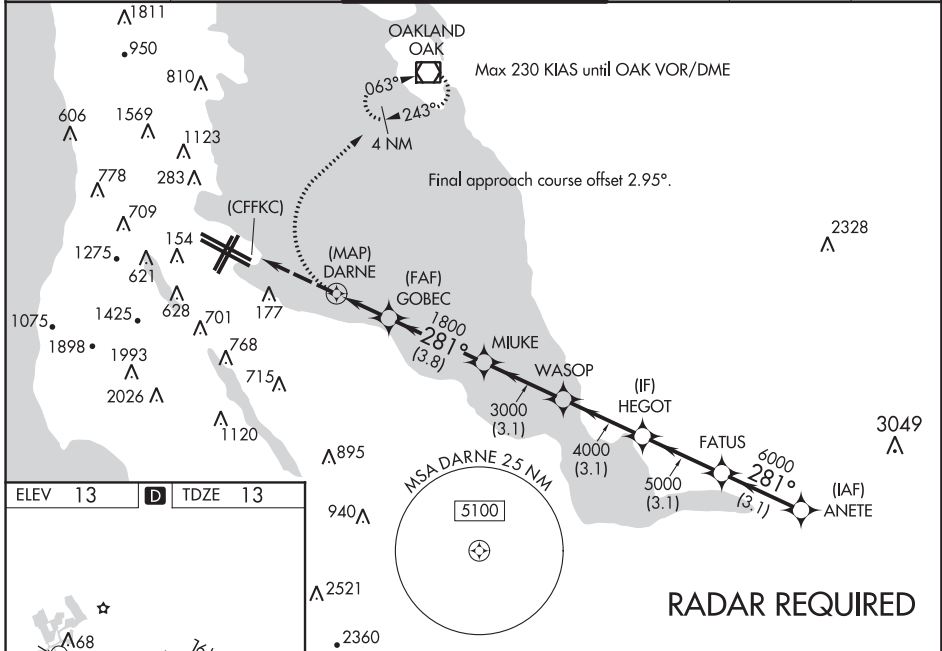
NA Runway 28L and 28R separated by 750 feet centerline to centerline. DME/DME RNP-0.3 NA. Simultaneous approach authorized with ILS PRM RWY 28L and RNAV (GPS) PRM RWY 28L. Dual VHF comm required. Use of FD or AP providing RNAV track guidance required during simultaneous operations. When executing a missed approach or go-around, unless otherwise instructed by ATC, initially turn right to 030° utilizing heading mode. Inoperative table does not apply. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 2°C (36°F) or above 54°F (130°F). See additional requirements on AAUP.

*If a go-around executed after passing DARNE, go-around requires a minimum climb of 380 feet per NM to 1800.

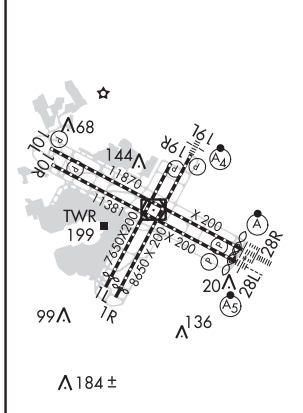
ALSF-2

MISSED APPROACH:
Climbing right turn to 3000 on heading 030° then direct OAK VOR/DME and hold.

ATIS 113.7 115.8 118.85	NORCAL APP CON 134.5 338.2	SAN FRANCISCO TOWER 120.5 269.1 PRM 127.675	GND CON 121.8	CLNC DEL 118.2	CPDLC
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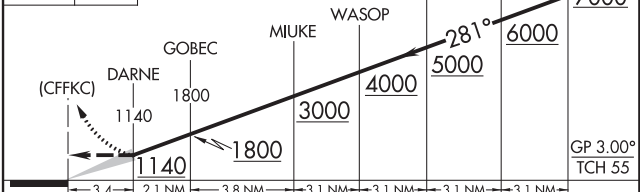


ELEV 13	D	TDZE 13
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TDZ/CL Rwy's 19L and 28R
REIL Rwy's 1L, 1R, and 10L
HIRL all Rwy's

3000 OAK VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 68).



CATEGORY	A	B	C	D
LNAV/VNAV DA*	1140-4	1127	(1200-4)	

SAN FRANCISCO, CALIFORNIA
Amdt 1B 13OCT16

37°37'N-122°23'W

SAN FRANCISCO INTL (SFO) (SIMULTANEOUS CLOSE PARALLEL) RNAV (GPS) PRM X RWY 28R

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SW-2, 10 NOV 2016 to 05 JAN 2017

LDA PRM RWY 28R (SIMULTANEOUS CLOSE PARALLEL)

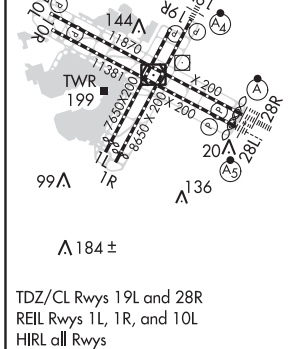
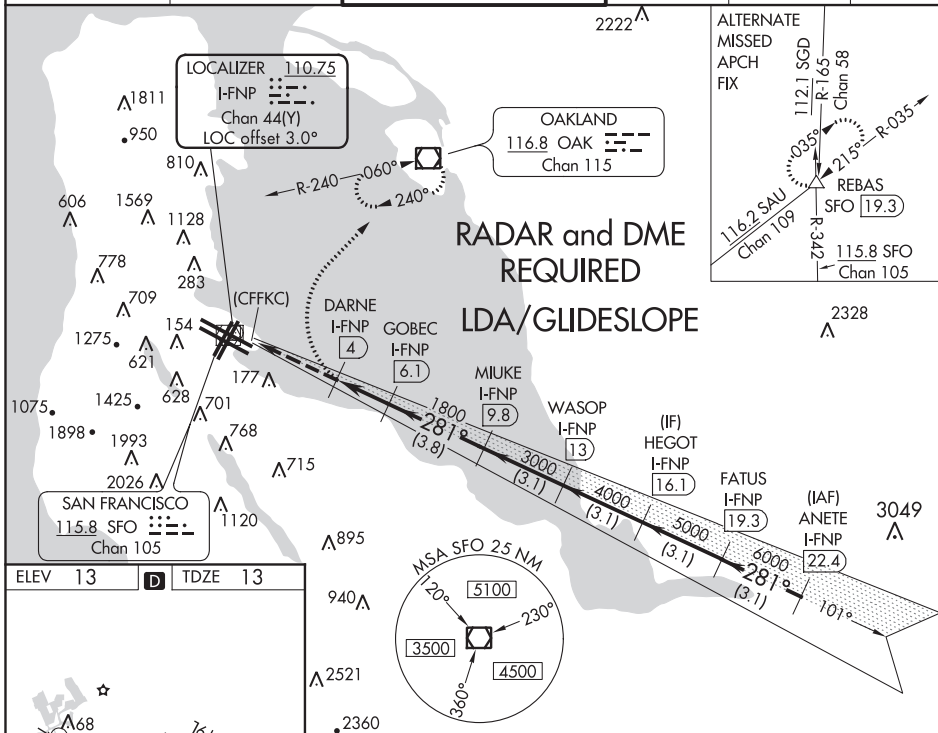
SAN FRANCISCO INTL (SFO)

LOC/DME I-FNP 110.75 Chan 44(Y)	APP CRS 281°	Rwy Idg TDZE Apt Elev	11570 13 13
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NA Simultaneous approach authorized with ILS PRM RWY 28L and RNAV (GPS) PRM RWY 28L. Procedure NA when glideslope not available. Dual VHF comm required. See additional requirements on AAUP. Runway 28L and 28R separated by 750 feet centerline to centerline. Inoperative table does not apply. DME required. Localizer course 1183 feet right of Rwy 28R threshold.
*If go around executed after passing DARNE, go around requires minimum climb of 380 feet per NM to 1800.

ALSF-2 	MISSED APPROACH: Climbing right turn to 3000 on heading 030° then direct OAK VOR/DME and hold.
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ATIS 113.7 115.8 118.85	NORCAL APP CON 134.5 338.2	SAN FRANCISCO TOWER 120.5 269.1 PRM 127.675	GND CON 121.8	CLNC DEL 118.2	CPDLC
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3000 OAK hdg 030°	VGSi and LDA glidepath not coincident (VGSi Angle 3.00/TCH 68).					
DARNE I-FNP 4	GOBEC I-FNP 6.1	MIUKE I-FNP 9.8	WASOP I-FNP 13	HEGOT I-FNP 16.1	FATUS I-FNP 19.3	ANETE I-FNP 22.4
1140	1800	3000	4000	5000	6000	7000
3.4	2.1 NM	3.8 NM	3.1 NM	3.1 NM	3.1 NM	3.1 NM
CATEGORY	A	B	C	D		
*S-LDA/GS 28R	1140-4 1127 (11200-4)					

LDA PRM RWY 28R (SIMULTANEOUS CLOSE PARALLEL)

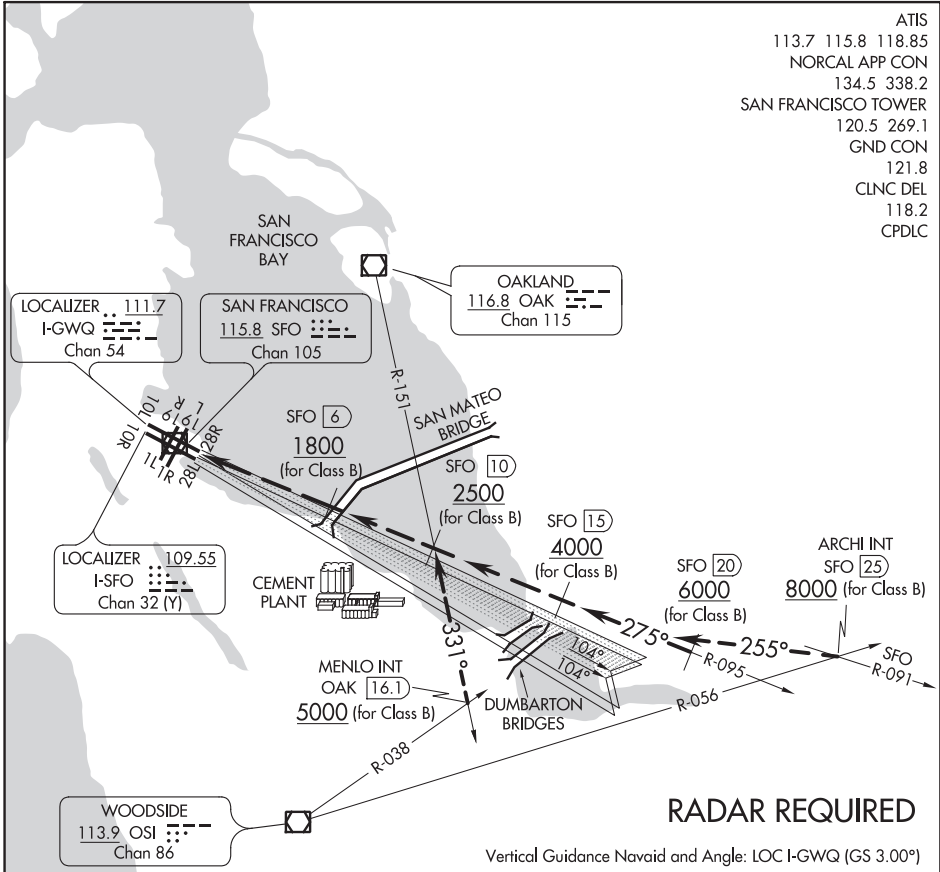
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QUIET BRIDGE VISUAL RWY 28L/R

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

- ATIS 113.7 115.8 118.85
- NORCAL APP CON 134.5 338.2
- SAN FRANCISCO TOWER 120.5 269.1
- GND CON 121.8
- CLNC DEL 118.2
- CPDLC



CAUTION: AIRCRAFT OPERATING WITHIN 500' TO PARALLEL RWY-POSSIBLE WAKE TURBULENCE.

Weather Minimums: SFO 2100'/5 or SFO 1000'/3 with 5 mile visibility in eastern quadrant (030° clockwise to 120°) and San Mateo AWOS 2400'/5 (If AWOS inoperative, SQL 2400'/5).

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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QUIET BRIDGE VISUAL APPROACH RUNWAY 28L/R

When visual approaches to Runways 28L/R are in progress, arriving aircraft may be vectored into a position for a straight-in visual approach to Runways 28L/R via the SFO VOR R-095.

Aircraft should remain on the SFO R-095 until passing the San Mateo Bridge.

NOTE: Closely spaced parallel visual approaches may be in progress to Runway 28L utilizing I-SFO. In the event of a go-around on Runway 28L, turn left heading 265°, or on Runway 28R, turn right heading 310°, climb and maintain 3000, or as directed by Air Traffic Control.

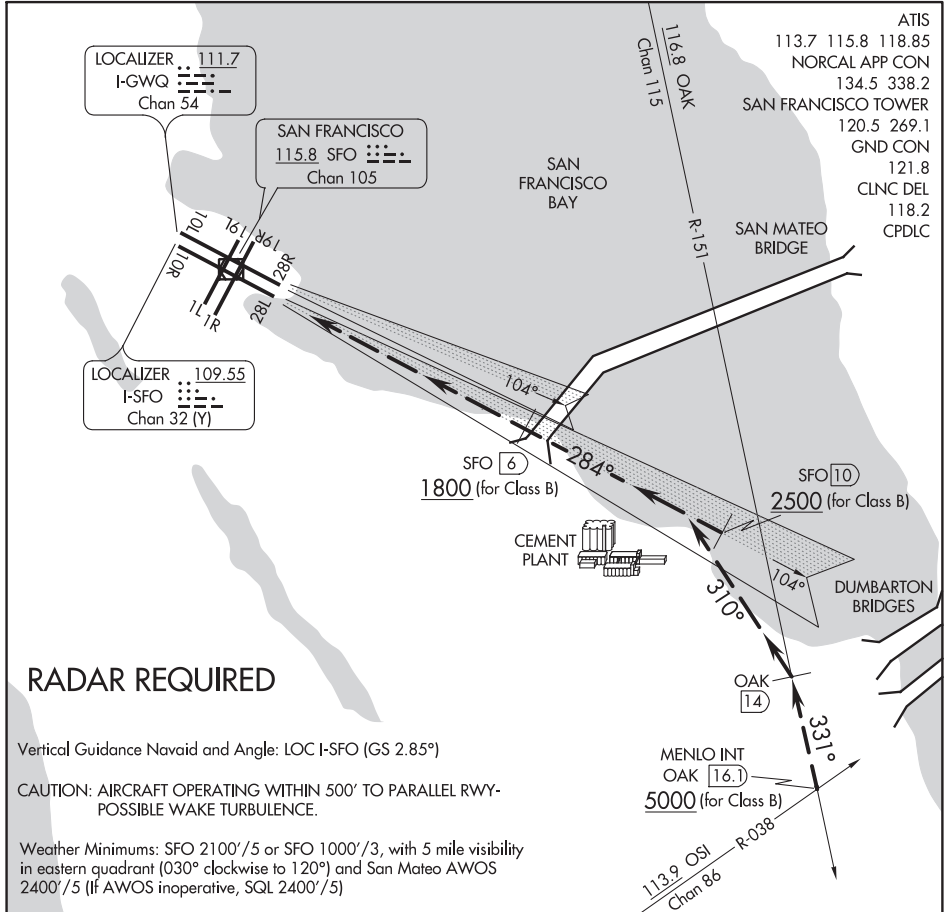
QUIET BRIDGE VISUAL RWY 28L/R

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

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TIPP TOE VISUAL RWY 28L/R



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RADAR REQUIRED

Vertical Guidance Navaid and Angle: LOC I-SFO (GS 2.85°)

CAUTION: AIRCRAFT OPERATING WITHIN 500' TO PARALLEL RWY- POSSIBLE WAKE TURBULENCE.

Weather Minimums: SFO 2100'/5 or SFO 1000'/3, with 5 mile visibility in eastern quadrant (030° clockwise to 120°) and San Mateo AWOS 2400'/5 (If AWOS inoperative, SQL 2400'/5)

1 NM	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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TIPP TOE VISUAL APPROACH RUNWAY 28L/R

When visual approaches to Runways 28L/R are in progress, arriving aircraft may be vectored into a position for a straight-in visual approach to Runways 28L/R via the I-SFO Localizer.

Aircraft should cross the OAK R-151/16.1 DME (MENLO INT) at or above 5000 and the San Mateo Bridge at or above 1800.

NOTE: Closely spaced parallel visual approaches may be in progress to Runway 28R utilizing the SFO R-095. In the event of a go-around on Runway 28L, turn left heading 265°, or on Runway 28R, turn right heading 310°, climb and maintain 3000, or as directed by Air Traffic Control.

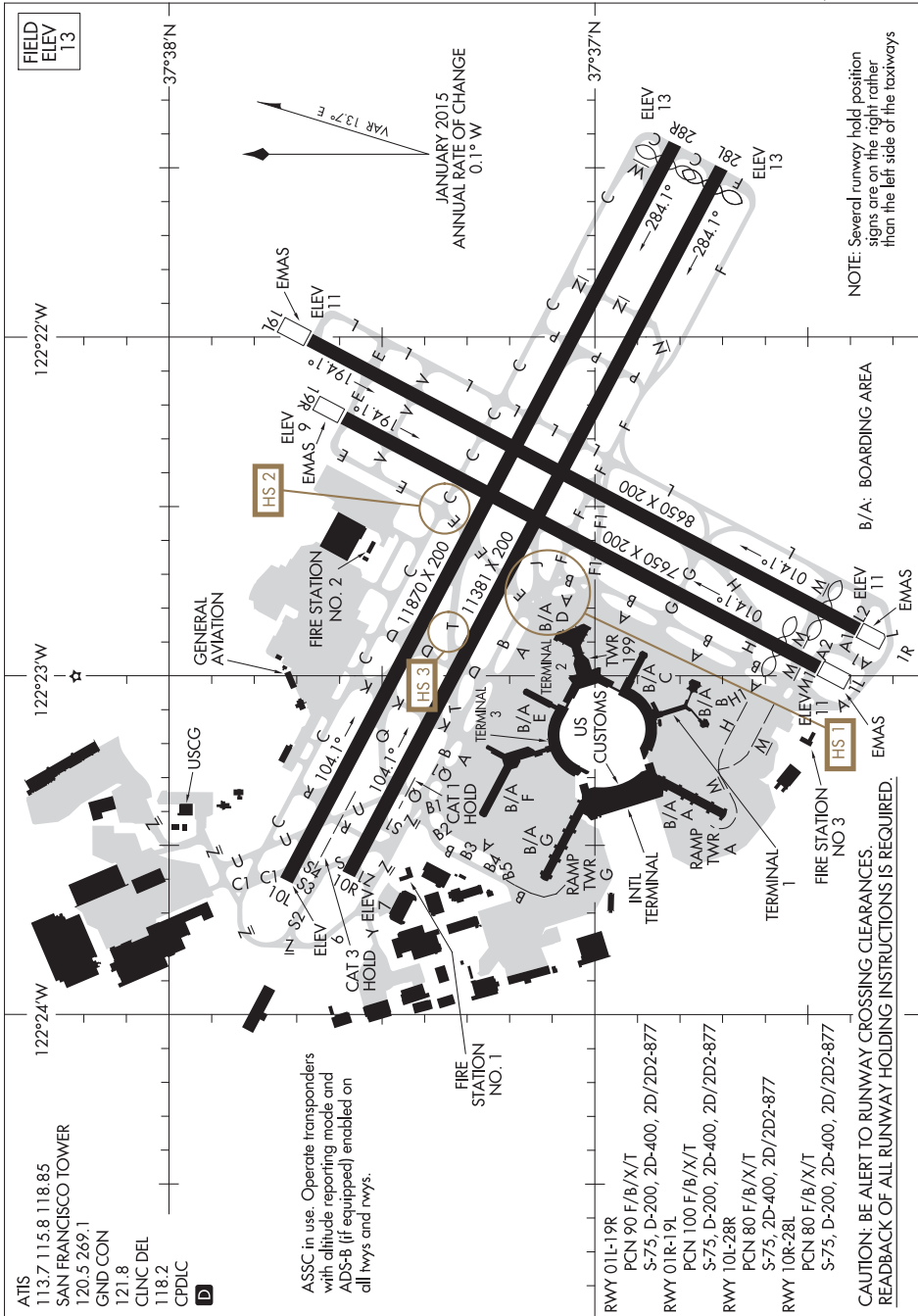
TIPP TOE VISUAL RWY 28L/R

AIRPORT DIAGRAM

AL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017



ATIS 113.7, 115.8, 118.85
 SAN FRANCISCO TOWER
 120.5, 269.1
 GND CON 121.8
 CLNC DEL 118.2
 CPDLC

ASC in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all rwy and rwy.

RWY 01L-19R
 PCN 90 F/B/X/T
 S-75, D-200, 2D-400, 2D/2D2-877

RWY 01R-19L
 PCN 100 F/B/X/T
 S-75, D-200, 2D-400, 2D/2D2-877

RWY 10L-28R
 PCN 80 F/B/X/T
 S-75, 2D-400, 2D/2D2-877

RWY 10R-28L
 PCN 80 F/B/X/T
 S-75, D-200, 2D-400, 2D/2D2-877

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

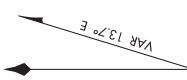
SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: Several runway hold position signs are on the right rather than the left side of the taxiways

B/A: BOARDING AREA

JANUARY 2015
 ANNUAL RATE OF CHANGE
 0.1° W



FIELD ELEV
 13

37°38'N

37°37'N

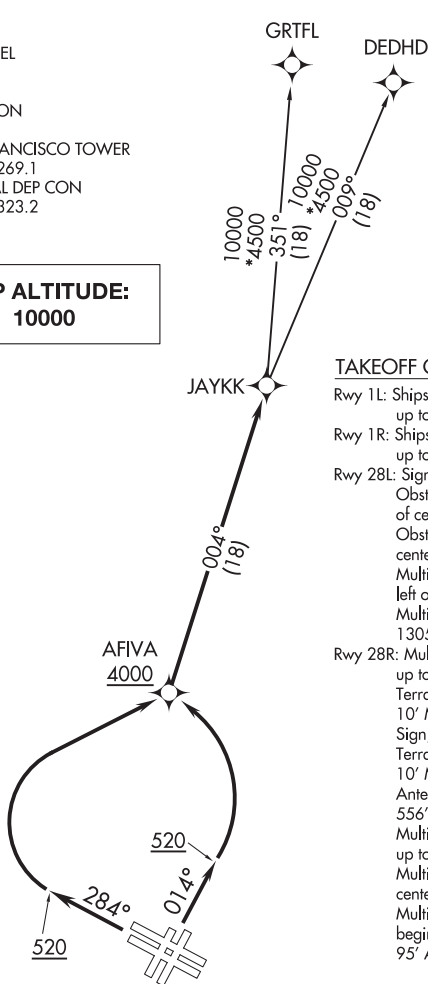
122°22'W

122°23'W

122°24'W

ATIS
113.7
CLNC DEL
118.2
CPDLC
GND CON
121.8
SAN FRANCISCO TOWER
120.5 269.1
NORCAL DEP CON
120.9 323.2

**TOP ALTITUDE:
10000**



NOTE: RNAV-1
NOTE: Turboprops only.
NOTE: DME/DME/IRU or GPS only.
NOTE: RADAR required for non-GPS equipped aircraft.

TAKEOFF MINIMUMS

Rwys 1L/R: Standard with minimum climb of 500' per NM to 520.
Rwy 28L: Standard with minimum climb of 535' per NM to 2100.
Rwy 28R: Standard with minimum climb of 560' per NM to 2100.

TAKEOFF OBSTACLE NOTES

Rwy 1L: Ships beginning 1646' from DER, right and left of centerline, up to 150' AGL/150' MSL.
Rwy 1R: Ships beginning 1173' from DER, right and left of centerline, up to 150' AGL/150' MSL.
Rwy 28L: Sign 19' from DER, 500' right of centerline, 5' AGL/9' MSL. Obstruction lights on DME beginning 277' from DER, 162' left of centerline, up to 16' AGL/26' MSL. Obstruction light on localizer beginning 219' from DER, on centerline, up to 10' AGL/17' MSL. Multiple poles, electrical system beginning 824' from DER, 300' left of centerline, up to 40' AGL/56' MSL. Multiple buildings, transmission towers, tank and pole beginning 1305' from DER, 370' left of centerline, up to 95' AGL/103' MSL.
Rwy 28R: Multiple signs, beginning 23' from DER, 140' right of centerline, up to 5' AGL/10' MSL. Terrain beginning 58' from DER, 146' right of centerline, up to 10' MSL. Sign, 63' from DER, 250' left of centerline 5' AGL/8' MSL. Terrain beginning 130' from DER, 235' left of centerline, up to 10' MSL. Antenna on building, obstruction light on DME, tree, beginning 556' from DER, 268' right of centerline, up to 35' AGL/43' MSL. Multiple poles beginning 918' from DER, 598' left of centerline, up to 22' AGL/35' MSL. Multiple buildings, trees beginning 1467' from DER, 683' right of centerline, up to 60' AGL/68' MSL. Multiple buildings, transmission towers, trees and electrical system beginning 1826' from DER, 123' left of centerline, up to 95' AGL/103' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1L, 1R: Climb heading 014° to 520, then left turn direct to cross AFIVA at or above 4000. Thence. . .

TAKEOFF RUNWAYS 28L, 28R: Climb heading 284° to 520, then right turn direct to cross AFIVA at or above 4000. Thence. . .

. . . on track 004° to JAYKK, then on (transition). Maintain 10000. Expect filed altitude 10 minutes after departure.

DEDHD TRANSITION (AFIVA1.DEDHD)

GRTFL TRANSITION (AFIVA1.GRTFL)

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CIITY THREE DEPARTURE (RNAV)

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TOP ALTITUDE:
FL190

TAKEOFF MINIMUMS

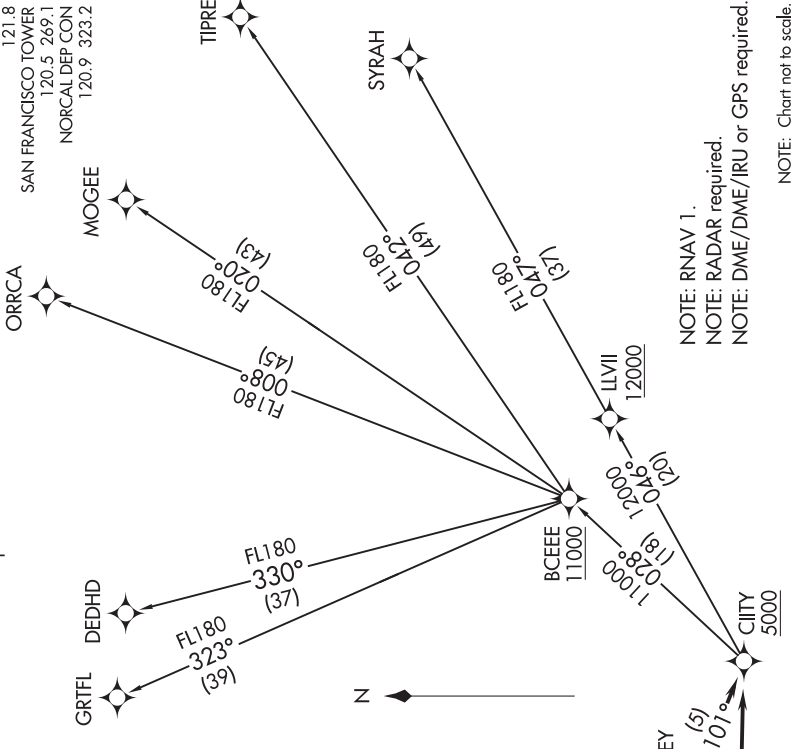
Rwys 10L/R: Standard with minimum climb of 500' per NM to 520.
Rwys 19L/R: Standard with minimum climb of 575' per NM to 2000.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10L: Climb heading 104° to 520, then direct ORYAN, then on track 102° to SAHEY, then on track 101° to cross CIITY at or above 5000. Thence. . . .
TAKEOFF RUNWAY 10R: Climb heading 104° to 520, then direct URRSA, then on track 101° to SAHEY, then on track 101° to cross CIITY at or above 5000. Thence. . . .
TAKEOFF RUNWAYS 19L/19R: Climb heading 194° to 520, then left turn direct to cross CIITY at or above 5000. Thence. . . .

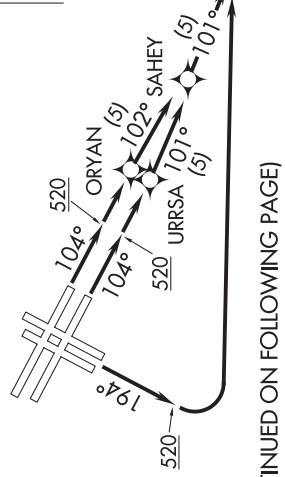
. . . on (transition). Maintain FL190. Expect filed altitude 10 minutes after departure.

- DEDHD TRANSITION (CIITY3.DEDHD)
- GRITFL TRANSITION (CIITY3.GRITFL)
- MOGEE TRANSITION (CIITY3.MOGEE)
- ORRCA TRANSITION (CIITY3.ORRCA)
- SYRAH TRANSITION (CIITY3.SYRAH)
- TIPRE TRANSITION (CIITY3.TIPRE)



NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.

NOTE: Chart not to scale.



(NOTES CONTINUED ON FOLLOWING PAGE)

CIITY THREE DEPARTURE (RNAV)

TAKEOFF OBSTACLE NOTES

- Rwy 10L: Sign 62' from DER, 300' left of centerline, 4' AGL/15' MSL.
Building and rod on building beginning 257' from DER, 560' left of centerline, up to 14' AGL/24' MSL.
- Rwy 19L: Multiple poles beginning 548' from DER, 46' left of centerline, up to 20' AGL/48' MSL.
Multiple poles and signs beginning 652' from DER, 337' right of centerline, up to 20' AGL/38' MSL.
Multiple buildings, transmission towers, poles, trees, signs, electrical system beginning 937' from DER, 11' left of centerline, up to 100' AGL/127' MSL.
Multiple buildings, transmission towers, poles, trees, signs, electrical system beginning 887' from DER, 61' right of centerline, up to 100' AGL/128' MSL.
Multiple buildings 3831' from DER, 1138' left of centerline, up to 105' AGL/127' MSL.
Multiple buildings and trees beginning 3831' from DER, 74' right of centerline, up to 100' AGL/167' MSL.
- Rwy 19R: Multiple poles, trees, electrical system beginning 454' from DER, 82' right of centerline, up to 40' AGL/60' MSL.
Multiple transmission towers, trees beginning 918' from DER, 7' left of centerline, up to 80' AGL/96' MSL.
Poles and electrical system 1188' from DER, 1' right of centerline, 44' AGL/50' MSL.
Multiple transmission towers, trees beginning 1617' from DER, 16' right of centerline, up to 80' AGL/85' MSL.

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FOGG TWO DEPARTURE (RNAV)

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L, 10R: Climb heading 104° to 520, then left turn direct FOGGG, cross FOGGG at or above 4000. Thence

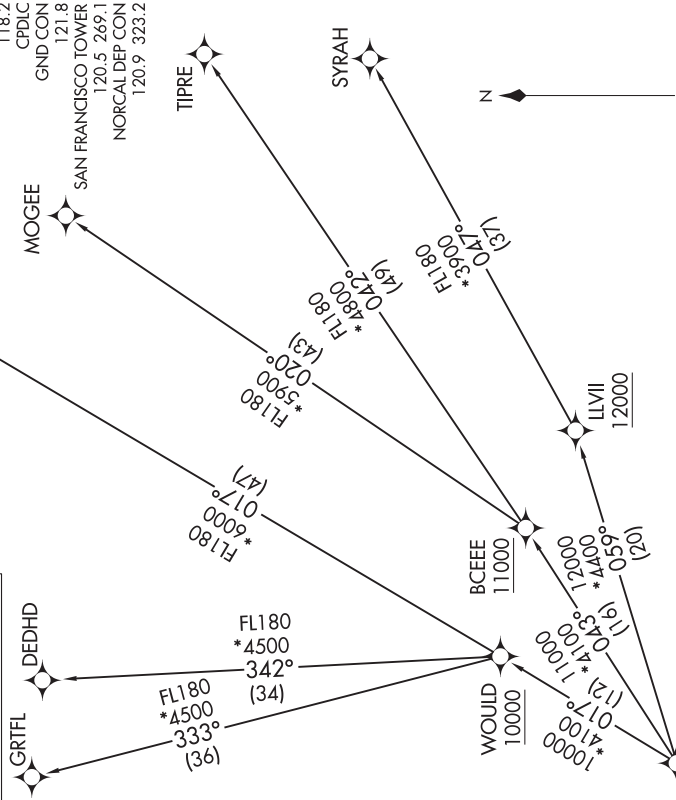
TAKEOFF RUNWAYS 19L, 19R: Climb heading 194° to 520, then left turn direct FOGGG, cross FOGGG at or above 4000. Thence

. . . . on (transition). Maintain FL190. Expect filed altitude 10 minutes after departure.

- DEHDH TRANSITION (FOGG2.DEDHDH)
- GRIFL TRANSITION (FOGG2.GRIFL)
- MOGEE TRANSITION (FOGG2.MOGEE)
- ORRCA TRANSITION (FOGG2.ORRCA)
- SYRAH TRANSITION (FOGG2.SYRAH)
- TIPRE TRANSITION (FOGG2.TIPRE)

- NOTE: RNAV 1.
- NOTE: RADAR required.
- NOTE: DME/DME/IRU or GPS required.

TOP ALTITUDE: FL190



TAKEOFF MINIMUMS

Rwys 10L/R: Standard with minimum climb of 500' per NM to 520.
Rwys 19L/R: Standard with minimum climb of 575' per NM to 2000.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

SW-2, 10 NOV 2016 to 05 JAN 2017

FOGG TWO DEPARTURE (RNAV)

TAKEOFF OBSTACLE NOTES

Rwy 10L: Sign 62' from DER, 300' left of centerline, 4' AGL/15' MSL.

Building and rod on building beginning 257' from DER, 560' left of centerline, up to 14' AGL/24' MSL.

Rwy 19L: Multiple poles beginning 548' from DER, 46' left of centerline, up to 20' AGL/48' MSL.

Multiple poles and signs beginning 652' from DER, 337' right of centerline, up to 20' AGL/38' MSL.

Multiple buildings, transmission towers, poles, trees, signs, electrical system beginning 937' from DER, 11' left of centerline, up to 100' AGL/127' MSL.

Multiple buildings, transmission towers, poles, trees, signs, electrical system beginning 887' from DER, 61' right of centerline, up to 100' AGL/128' MSL.

Multiple buildings 3831' from DER, 1138' left of centerline, up to 105' AGL/127' MSL.

Multiple buildings and trees beginning 3831' from DER, 74' right of centerline up to 100' AGL/167' MSL.

Rwy 19R: Multiple poles, trees, electrical system beginning 454' from DER, 82' right of centerline, up to 40' AGL/60' MSL.

Multiple transmission towers, trees beginning 918' from DER, 7' left of centerline, up to 80' AGL/96' MSL.

Poles and electrical system 1188' from DER, 1' right of centerline, 44' AGL/50' MSL.

Multiple transmission towers, trees beginning 1617' from DER, 16' right of centerline, up to 80' AGL/85' MSL.

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GAP SEVEN DEPARTURE

SL-375 (FAA)

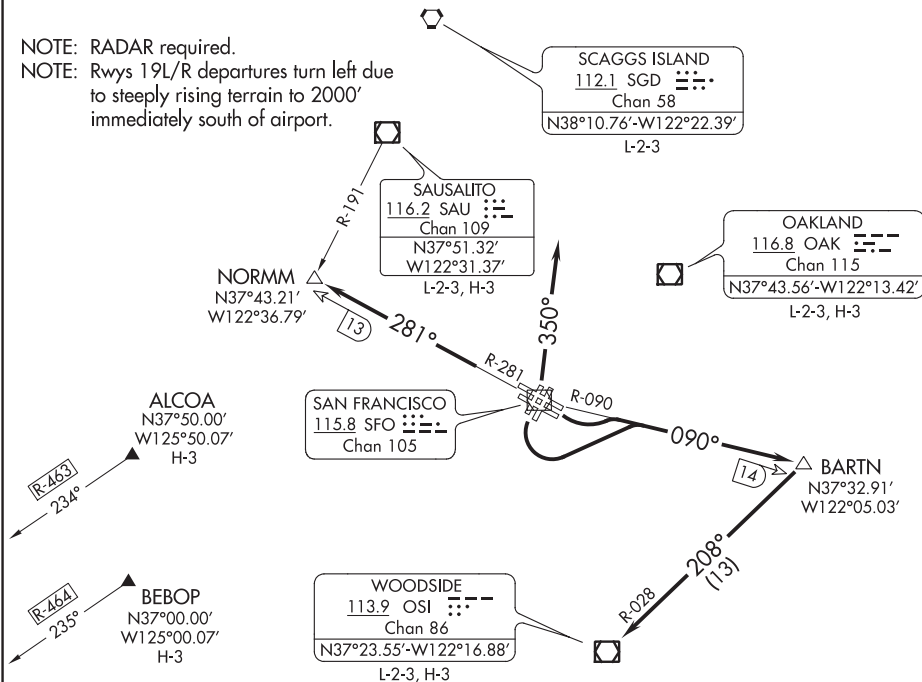
SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

ATIS
113.7 115.8 135.45
CPDLC
GND CON
121.8
SAN FRANCISCO TOWER
120.5 269.1
NORCAL DEP CON
120.9 323.2 (NW-E)
135.1 307.2 (SE-W)

TAKEOFF MINIMUMS

Rwy 19L/R: Standard with minimum climb of 575' per NM to 2000.
Rwy 28L: Standard with minimum climb of 351' per NM to 1300.
Rwy 28R: Standard with minimum climb of 351' per NM to 1300.

NOTE: RADAR required.
NOTE: Rwsy 19L/R departures turn left due to steeply rising terrain to 2000' immediately south of airport.



(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1L/R: Climb on SFO R-350 (or as assigned) for vectors to assigned route/fix. Thence

TAKEOFF RUNWAYS 10L/R and 19L/R: Turn left and climb on the SFO R-090 and OSI R-028 to OSI VOR/DME; expect vector to assigned route/fix after OSI VOR/DME. Thence

TAKEOFF RUNWAYS 28L/R: Climb on the SFO VOR/DME R-281 to NORMM INT/ SFO VOR/DME 13 DME; expect vector to assigned route/fix after NORMM INT. Thence

. . . . expect further clearance to filed altitude 10 minutes after departure.

GAP SEVEN DEPARTURE

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKEOFF OBSTACLE NOTES

- Rwy 1L: Ships beginning 1646' from DER, right and left of centerline, up to 150' AGL/150' MSL.
- Rwy 1R: Ships beginning 1173' from DER, right and left of centerline, up to 150' AGL/150' MSL.
- Rwy 10L: Sign 62' from DER, 300' left of centerline, 4' AGL/15' MSL.
Building and rod on building beginning 257' from DER, 560' left of centerline, up to 14' AGL/24' MSL.
- Rwy 19L: Multiple poles beginning 548' from DER, 46' left of centerline, up to 20' AGL/48' MSL.
Multiple poles and signs beginning 652' from DER, 337' right of centerline, up to 20' AGL/38' MSL.
Multiple buildings, transmission towers, poles, trees, signs, electrical system beginning 937' from DER, 11' left of centerline, up to 100' AGL/127' MSL.
Multiple buildings transmission towers, poles, trees, signs, electrical system beginning 887' from DER, 61' right of centerline, up to 100' AGL/128' MSL.
Multiple buildings 3831' from DER, 1138' left of centerline, up to 105' AGL/127' MSL.
Multiple buildings and trees beginning 3831' from DER, 74' right of centerline up to 100' AGL/167' MSL.
- Rwy 19R: Multiple poles, trees, electrical system beginning 454' from DER, 82' right of centerline, up to 40' AGL/60' MSL.
Multiple transmission towers, trees beginning 918' from DER, 7' left of centerline, up to 80' AGL/96' MSL.
Poles and electrical system 1188' from DER, 1' right of centerline, 44' AGL/50' MSL.
Multiple transmission towers, trees beginning 1617' from DER, 16' right of centerline, up to 80' AGL/85' MSL.
- Rwy 28L: Sign 19' from DER, 500' right of centerline, 5' AGL/9' MSL.
Obstruction lights on DME beginning 277' from DER, 162' left of centerline, up to 16' AGL/26' MSL.
Obstruction light on localizer beginning 219' from DER, on centerline up to 10' AGL/17' MSL.
Multiple poles, electrical system beginning 824' from DER, 300' left of centerline, up to 40' AGL/56' MSL.
Multiple buildings, transmission towers, tank and pole beginning 1305' from DER, 370' left of centerline, up to 95' AGL/103' MSL.
- Rwy 28R: Multiple signs beginning 23' from DER, 140' right of centerline, up to 5' AGL/10' MSL.
Terrain beginning 58' from DER, 146' right of centerline, up to 10' MSL.
Sign, 63' from DER, 250' left of centerline, 5' AGL/8' MSL.
Terrain beginning 130' from DER, 235' left of centerline, up to 10' MSL.
Antenna on building, obstruction light on DME, tree, beginning 556' from DER, 268' right of centerline, up to 35' AGL/43' MSL.
Multiple poles beginning 918' from DER, 598' left of centerline, up to 22' AGL/35' MSL.
Multiple buildings, trees beginning 1467' from DER, 683' right of centerline, up to 60' AGL/68' MSL.
Multiple buildings, transmission towers, trees and electrical system beginning 1826' from DER, 123' left of centerline, up to 95' AGL/103' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

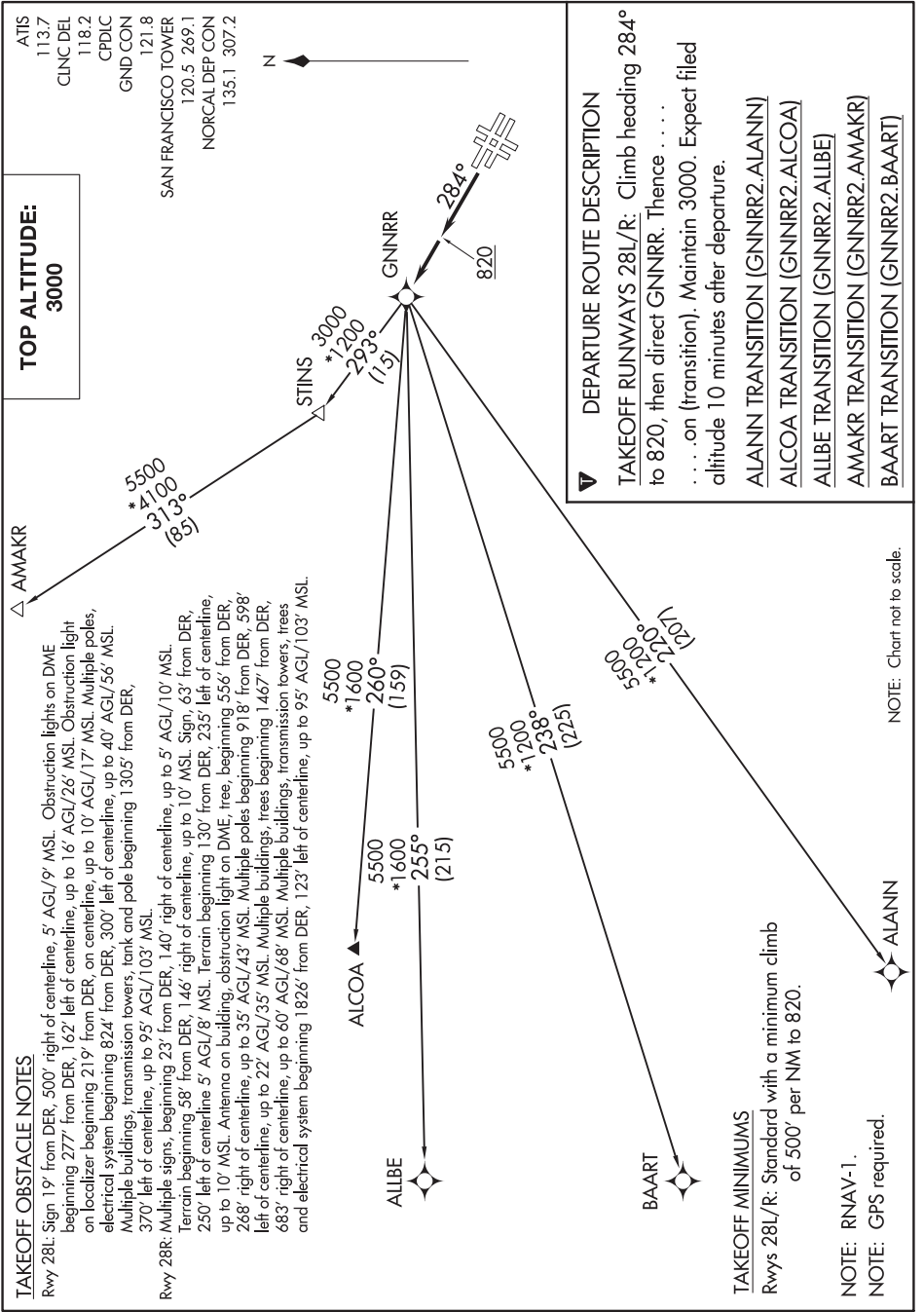
SW-2, 10 NOV 2016 to 05 JAN 2017

GNNRR TWO DEPARTURE (RNAV)

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

7
SW-2, 10 NOV 2016 to 01 9 16 10 NOV 2017 to 05 JAN 2017



SW-2, 10 NOV 2016 to 05 JAN 2017

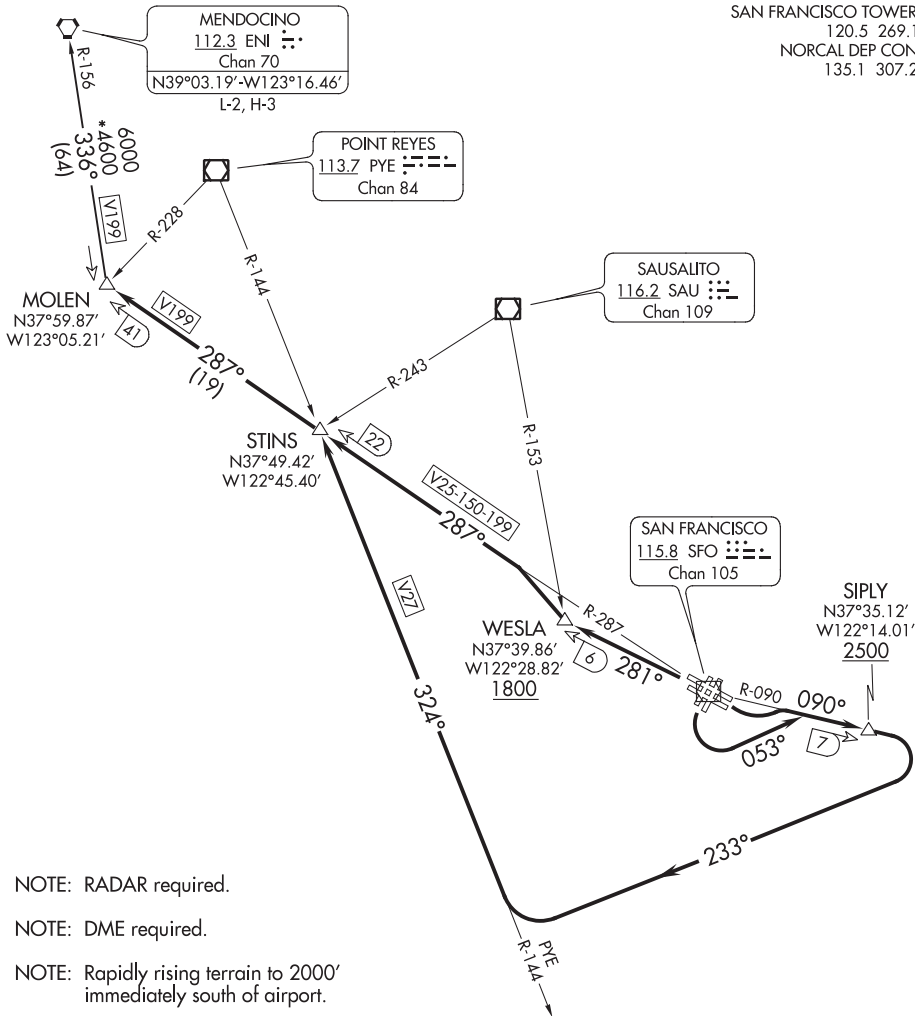
MOLEN EIGHT DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

**TOP ALTITUDE:
ASSIGNED BY ATC**

ATIS
113.7
CPDLC
GND CON
121.8
SAN FRANCISCO TOWER
120.5 269.1
NORCAL DEP CON
135.1 307.2



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: RADAR required.

NOTE: DME required.

NOTE: Rapidly rising terrain to 2000' immediately south of airport.

TAKEOFF MINIMUMS

Rwys 10L/R: Standard.

Rwys 19L/R: Standard with minimum climb of 575' per NM to 2000.

Rwys 28L/R: Standard with minimum climb of 351' per NM to 1300.

(NARRATIVE ON FOLLOWING PAGE)

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

MOLEN EIGHT DEPARTURE

(MOLEN8.MOLEN) 16259

MOLEN EIGHT DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 10L/R: Climbing left turn to intercept SFO R-090 to cross SIPLY 7 DME FIX at or above 2500, then climbing right turn to 5000 on heading 233° to intercept and proceed on PYE R-144 to STINS INT/SFO 22 DME, then on SFO VOR/DME R-287 to MOLEN INT/SFO 41 DME.

Thence

TAKEOFF RUNWAYS 19L/R: Climbing left turn to heading 053° to intercept SFO R-090 to cross SIPLY 7 DME FIX at or above 2500, then climbing right turn to 5000 heading 233° to intercept and proceed on PYE R-144 to STINS INT/SFO VOR/DME 22 DME, then on SFO VOR/DME R-287 to MOLEN INT/SFO 41 DME. Thence

TAKEOFF RUNWAYS 28 L/R: Climb on SFO VOR/DME R-281 to cross WESLA INT/SFO VOR/DME 6 DME at or above 1800 then turn right to intercept SFO R-287 to MOLEN INT/SFO 41 DME.

Thence

. . . . (transition). Expect clearance to filed altitude 10 minutes after departure.

MENDOCINO TRANSITION (MOLEN8.ENI): From over MOLEN INT on ENI R-156 to ENI VORTAC.

TAKEOFF OBSTACLE NOTES

Rwy 1L: Ships beginning 1646' from DER, right and left of centerline, up to 150' AGL/150' MSL.

Rwy 1R: Ships beginning 1173' from DER, right and left of centerline, up to 150' AGL/150' MSL.

Rwy 10L: Sign 62' from DER, 300' left of centerline, 4' AGL/15' MSL.

Building and rod on building beginning 257' from DER, 560' left of centerline, up to 14' AGL/24' MSL.

Rwy 19L: Multiple poles beginning 548' from DER, 46' left of centerline, up to 20' AGL/48' MSL.

Multiple poles and signs beginning 652' from DER, 337' right of centerline, up to 20' AGL/38' MSL.

Multiple buildings, transmission towers, poles, trees, signs, electrical system beginning 937' from DER, 11' left of centerline, up to 100' AGL/127' MSL.

Multiple buildings, transmission towers, poles, trees, signs, electrical system beginning 887' from DER, 61' right of centerline, up to 100' AGL/128' MSL.

Multiple buildings 3831' from DER, 1138' left of centerline, up to 105' AGL/127' MSL.

Multiple buildings and trees beginning 3831' from DER, 74' right of centerline up to 100' AGL/167' MSL.

Rwy 19R: Multiple poles, trees, electrical system beginning 454' from DER, 82' right of centerline, up to 40' AGL/60' MSL.

Multiple transmission towers, trees beginning 918' from DER, 7' left of centerline, up to 80' AGL/96' MSL.

Poles and electrical system 1188' from DER, 1' right of centerline, 44' AGL/50' MSL.

Multiple transmission towers, trees beginning 1617' from DER, 16' right of centerline, up to 80' AGL/85' MSL.

Rwy 28L: Sign 19' from DER, 500' right of centerline, 5' AGL/9' MSL.

Obstruction lights on DME beginning 277' from DER, 162' left of centerline, up to 16' AGL/26' MSL.

Obstruction light on localizer beginning 219 from DER, on centerline, up to 10' AGL/17' MSL.

Multiple poles, electrical system beginning 824' from DER, 300' left of centerline, up to 40' AGL/56' MSL.

Multiple buildings, transmission towers, tank and pole beginning 1305' from DER, 370' left of centerline, up to 95' AGL/103' MSL.

Rwy 28R: Multiple signs, beginning 23' from DER, 140' right of centerline, up to 5' AGL/10' MSL.

Terrain beginning 58' from DER, 146' right of centerline, up to 10' MSL.

Sign, 63' from DER, 250' left of centerline, 5' AGL/8' MSL.

Terrain beginning 130' from DER, 235' left of centerline, up to 10' MSL.

Antenna on building, obstruction light on DME, tree, beginning 556' from DER, 268' right of centerline, up to 35' AGL/43' MSL.

Multiple poles beginning 918' from DER, 598' left of centerline, up to 22' AGL/35' MSL.

Multiple buildings, trees beginning 1467' from DER, 683' right of centerline, up to 60' AGL/68' MSL.

Multiple buildings, transmission towers, trees and electrical system beginning 1826' from DER, 123' left of centerline, up to 95' AGL/103' MSL.

MOLEN EIGHT DEPARTURE

(MOLEN8.MOLEN) 15SEP16

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

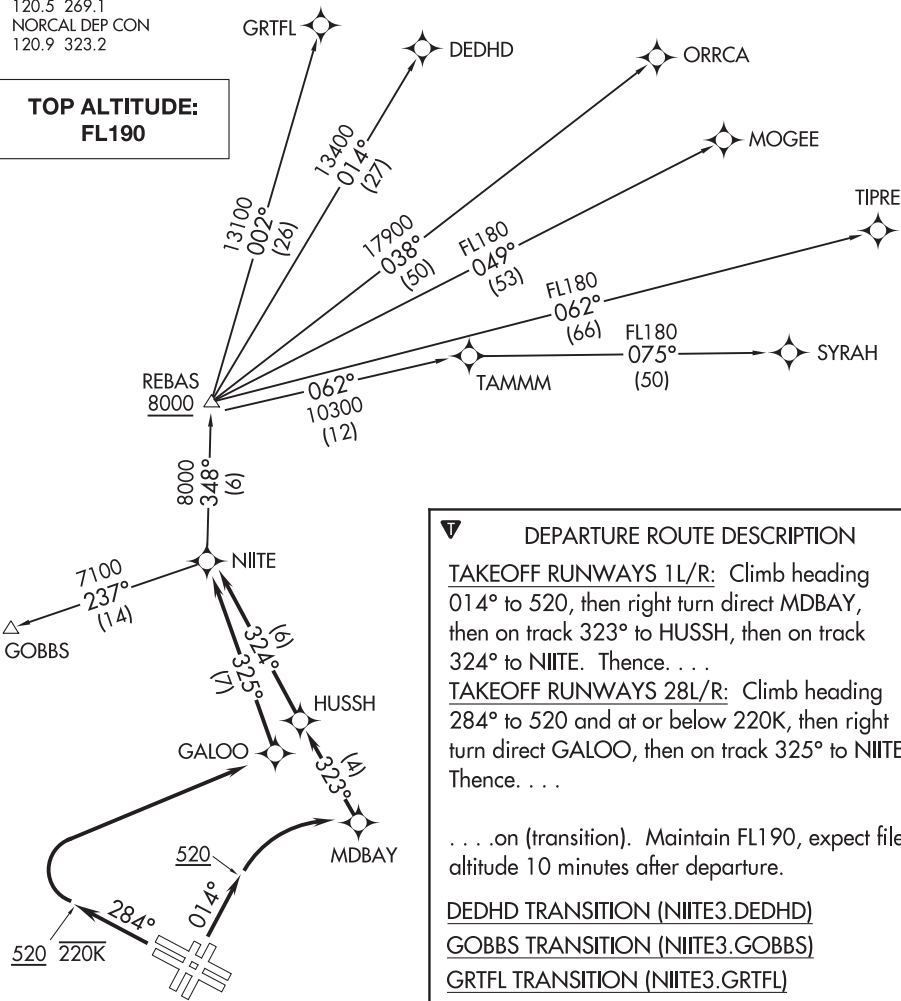
ATIS
113.7
CLNC DEL
118.2
CPDLC
GND CON
121.8
SAN FRANCISCO TOWER
120.5 269.1
NORCAL DEP CON
120.9 323.2

TAKEOFF MINIMUMS

Rwys 1L/R: Standard with a minimum climb of 500' per NM to 520.
Rwy 28L: Standard with minimum climb of 535' per NM to 2100.
Rwy 28R: Standard with minimum climb of 560' per NM to 2100.

(NOTES CONTINUED ON FOLLOWING PAGE)

TOP ALTITUDE:
FL190



NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1L/R: Climb heading 014° to 520, then right turn direct MDBAY, then on track 323° to HUSSH, then on track 324° to NIITE. Thence. . .

TAKEOFF RUNWAYS 28L/R: Climb heading 284° to 520 and at or below 220K, then right turn direct GALOO, then on track 325° to NIITE. Thence. . .

. . . on (transition). Maintain FL190, expect filed altitude 10 minutes after departure.

DEDHD TRANSITION (NIITE3.DEDHD)

GOBBS TRANSITION (NIITE3.GOBBS)

GRNFL TRANSITION (NIITE3.GRNFL)

MOGEE TRANSITION (NIITE3.MOGEE)

ORRCA TRANSITION (NIITE3.ORRCA)

SYRAH TRANSITION (NIITE3.SYRAH)

TIPRE TRANSITION (NIITE3.TIPRE)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(NIITE3.NIITE) 16091

NIITE THREE DEPARTURE (RNAV)

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIATAKEOFF OBSTACLE NOTES

- Rwy 1L: Ships beginning 1646' from DER, right and left of centerline, up to 150' AGL/150' MSL.
- Rwy 1R: Ships beginning 1173' from DER, right and left of centerline, up to 150' AGL/150' MSL.
- Rwy 28L: Sign 19' from DER, 500' right of centerline, 5' AGL/9' MSL.
Obstruction lights on DME beginning 277' from DER, 162' left of centerline, up to 16' AGL/26' MSL.
Obstruction light on localizer beginning 219' from DER, on centerline, up to 10' AGL/17' MSL.
Multiple poles, electrical system beginning 824' from DER, 300' left of centerline, up to 40' AGL/56' MSL.
Multiple buildings, transmission towers, tank and pole beginning 1305' from DER, 370' left of centerline, up to 95' AGL/103' MSL.
- Rwy 28R: Multiple signs, beginning 23' from DER, 140' right of centerline, up to 5' AGL/10' MSL.
Terrain beginning 58' from DER, 146' right of centerline, up to 10' MSL.
Sign, 63' from DER, 250' left of centerline, 5' AGL/8' MSL.
Terrain beginning 130' from DER, 235' left of centerline, up to 10' MSL.
Antenna on building, obstruction light on DME, tree, beginning 556' from DER, 268' right of centerline, up to 35' AGL/43' MSL.
Multiple poles beginning 918' from DER, 598' left of centerline, up to 22' AGL/35' MSL.
Multiple buildings, trees beginning 1467' from DER, 683' right of centerline, up to 60' AGL/68' MSL.
Multiple buildings, transmission towers, trees and electrical system beginning 1826' from DER, 123' left of centerline, up to 95' AGL/103' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NIITE THREE DEPARTURE (RNAV)

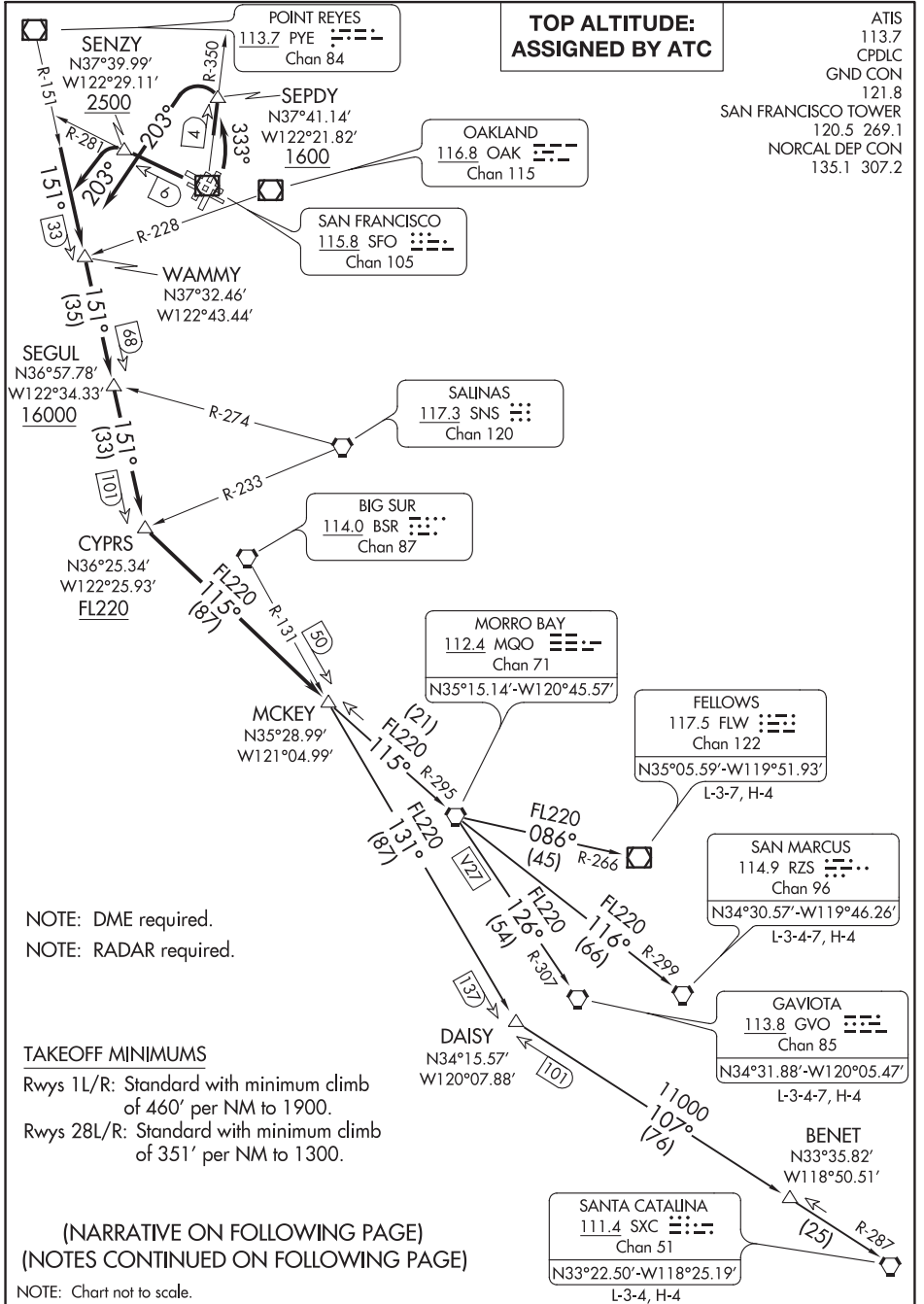
(NIITE3.NIITE) 20AUG15

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

OFFSHORE ONE DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(OFFSH1.MCKEY) 16259

OFFSHORE ONE DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1L/R: Climbing left turn heading 333° to intercept SFO R-350 to cross SEPDY INT/SFO 4 DME at or above 1600. Thence

TAKEOFF RUNWAYS 28L/R: Climb on SFO VOR/DME R-281 to cross SENZY INT/SFO VOR/DME 6 DME at or above 2500. Thence

. . . . climbing left turn heading 203° to intercept PYE R-151 to cross SEGUL INT/PYE 68 DME at or above 16000, then on PYE R-151 to cross CYPRS INT/PYE 101 DME at or above FL220. Then on MQO R-295 to MCKEY INT/MQO 21 DME, then on assigned (transition). Maintain FL220. Expect filed altitude 10 minutes after departure.

FELLOWS TRANSITION (OFFSH1.FLW): From over MCKEY INT on MQO R-295 to MQO VORTAC, then on MQO R-086 and FLW R-266 to FLW VOR/DME.

GAVIOTA TRANSITION (OFFSH1.GVO): From over MCKEY INT on MQO R-295 to MQO VORTAC, then on MQO R-126 and GVO R-307 to GVO VORTAC.

SAN MARCUS TRANSITION (OFFSH1.RZS): From over MCKEY INT on MQO R-295 to MQO VORTAC, then on MQO R-116 and RZS R-299 to RZS VORTAC.

SANTA CATALINA TRANSITION (OFFSH1.SXC): From over MCKEY INT on BSR R-131 to DAISY INT then on SXC R-287 to SXC VORTAC.

TAKEOFF OBSTACLE NOTES

Rwy 1L: Ships beginning 1646' from DER, right and left of centerline, up to 150' AGL/150' MSL.

Rwy 1R: Ships beginning 1173' from DER, right and left of centerline, up to 150' AGL/150' MSL.

Rwy 28L: Sign 19' from DER, 500' right of centerline, 5' AGL/9' MSL.

Obstruction lights on DME beginning 277' from DER, 162' left of centerline, up to 16' AGL/26' MSL.

Obstruction light on localizer beginning 219' from DER, on centerline, up to 10' AGL/17' MSL.

Multiple poles, electrical system beginning 824' from DER, 300' left of centerline, up to 40' AGL/56' MSL.

Multiple buildings, transmission towers, tank and pole beginning 1305' from DER, 370' left of centerline, up to 95' AGL/103' MSL.

Rwy 28R: Multiple signs beginning 23' from DER, 140' right of centerline, up to 5' AGL/10' MSL.

Terrain beginning 58' from DER, 146' right of centerline, up to 10' MSL.

Sign 63' from DER, 250' left of centerline, 5' AGL/8' MSL.

Terrain beginning 130' from DER, 235' left of centerline, up to 10' MSL.

Antenna on building, obstruction light on DME, tree, beginning 556' from DER, 268' right of centerline, up to 35' AGL/43' MSL.

Multiple poles beginning 918' from DER, 598' left of centerline, up to 22' AGL/35' MSL.

Multiple buildings, trees beginning 1467' from DER, 683' right of centerline, up to 60' AGL/68' MSL.

Multiple buildings, transmission towers, trees and electrical system beginning 1826' from DER, 123' left of centerline, up to 95' AGL/103' MSL.

OFFSHORE ONE DEPARTURE

(OFFSH1.MCKEY) 15SEP16

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SAHEY THREE DEPARTURE (RNAV)

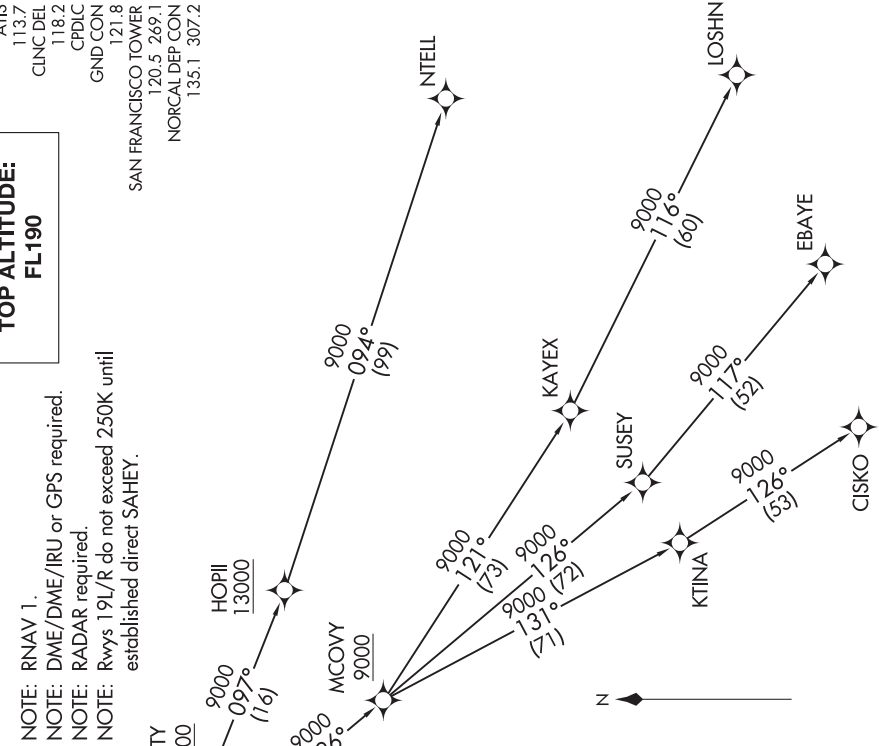
SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

TOP ALTITUDE:
FL190

ATIS 113.7
CUNC DEL 118.2
CPDC 118.2
GND CON 121.8
SAN FRANCISCO TOWER 120.5 269.1
NORCAL DEP CON 135.1 307.2

NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: Rvws 19L/R do not exceed 250K until established direct SAHEY.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10L: Climb heading 104° to 520, then direct ORYAN, then on track 102° to SAHEY, thence

TAKEOFF RUNWAY 10R: Climb heading 104° to 520, then direct URRSA, then on track 101° to SAHEY, thence

TAKEOFF RUNWAYS 19L/R: Climb heading 194° to 520, then left turn direct to SAHEY, thence

. . . . on (transition). Maintain FL190, expect filed altitude 10 minutes after departure.

- CISKO TRANSITION (SAHEY3.CISKO)
- EBAYE TRANSITION (SAHEY3.EBAYE)
- LOSHN TRANSITION (SAHEY3.LOSHN)
- NTELL TRANSITION (SAHEY3.NTELL)

TAKEOFF MINIMUMS

Rvws 10L/R: 500' per NM to 520.
Rvws 19L/R: 575' per NM to 2000.

NOTE: Chart not to scale.

(NOTES CONTINUED ON FOLLOWING PAGE)

(SAHEY3.SAHEY) 16091

SAHEY THREE DEPARTURE (RNAV)

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIATAKEOFF OBSTACLE NOTES

Rwy 10L: Sign 62' from DER, 300' left of centerline, 4' AGL/15' MSL.

Building and rod on building beginning 257' from DER, 560' left of centerline, up to 14' AGL/24' MSL.

Rwy 19L: Multiple poles beginning 548' from DER, 46' left of centerline, up to 20' AGL/48' MSL.

Multiple poles and signs beginning 652' from DER, 337' right of centerline, up to 20' AGL/38' MSL.

Multiple buildings, transmission towers, poles, trees, signs, electrical system beginning 937' from DER, 11' left of centerline, up to 100' AGL/127' MSL.

Multiple buildings, transmission towers, poles, trees, signs, electrical system beginning 887' from DER, 61' right of centerline, up to 100' AGL/128' MSL.

Multiple buildings 3831' from DER, 1138' left of centerline, up to 105' AGL/127' MSL.

Multiple buildings and trees beginning 3831' from DER, 74' right of centerline, up to 100' AGL/167' MSL.

Rwy 19R: Multiple poles, trees, electrical system beginning 454' from DER, 82' right of centerline, up to 40' AGL/60' MSL.

Multiple transmission towers, trees beginning 918' from DER, 7' left of centerline, up to 80' AGL/96' MSL.

Poles and electrical system 1188' from DER, 1' right of centerline, 44' AGL/50' MSL.

Multiple transmission towers, trees beginning 1617' from DER, 16' right of centerline, up to 80' AGL/85' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SAHEY THREE DEPARTURE (RNAV)

(SAHEY3.SAHEY) 20AUG15

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

SAN FRANCISCO FOUR DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

**TOP ALTITUDE:
ASSIGNED BY ATC**

RED BLUFF
115.7 RBL
Chan 104
N40°05.93'-W122°14.18'
L-2, H-3

ATIS
113.7
CPDLC
GND CON
121.8
SAN FRANCISCO TOWER
120.5 269.1
NORCAL DEP CON
120.9 323.2

TAKEOFF MINIMUMS

Rwys 1L/R: Standard.

Rwys 28L/R: Standard with a minimum climb of 351' per NM to 1300.

NOTE: RADAR required.

NOTE: Rwys 1L/R: DME required.

SACRAMENTO
115.2 SAC
Chan 99
N38°26.62'-W121°33.10'
L-2-3, H-3

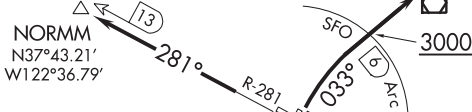
SAUSALITO
116.2 SAU
Chan 109
N37°51.32'-W122°31.37'
L-2-3, H-3

CONCORD
117.0 CCR
Chan 117
N38°02.70'-W122°02.71'
L-2-3

LINDEN
114.8 LIN
Chan 95
N38°04.48'-W121°00.23'
L-2-3, H-3

OAKLAND
116.8 OAK
Chan 115
N37°43.56'-W122°13.42'
L-2-3, H-3

SAN FRANCISCO
115.8 SFO
Chan 105



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

(NOTES CONTINUED ON FOLLOWING PAGE)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1L/R: Climbing right turn heading 033° or ATC assigned heading to cross SFO 6 DME at or above 3000 for RADAR vectors to assigned route/fix. Expect further clearance to filed altitude 10 minutes after departure.

TAKEOFF RUNWAYS 28L/R: Climb on SFO VOR/DME R-281 to NORMM INT/SFO 13 DME; then expect RADAR vectors to assigned route/fix. Expect further clearance to filed altitude 10 minutes after departure.

LOST COMMUNICATIONS:

If not in contact with departure control after reaching 3000, continue climb to filed altitude and proceed direct to assigned route/fix.

(SFO4.SFO) 16259

SAN FRANCISCO FOUR DEPARTURE

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIATAKEOFF OBSTACLE NOTES

- Rwy 1L: Ships beginning 1646' from DER, right and left of centerline, up to 150' AGL/150' MSL.
- Rwy 1R: Ships beginning 1173' from DER, right and left of centerline, up to 150' AGL/150' MSL.
- Rwy 28L: Sign 19' from DER, 500' right of centerline, 5' AGL/9' MSL.
Obstruction lights on DME beginning 277' from DER, 162' left of centerline, up to 16' AGL/26' MSL.
Obstruction light on localizer beginning 219' from DER, on centerline up to 10' AGL/17' MSL.
Multiple poles, electrical system beginning 824' from DER, 300' left of centerline, up to 40' AGL/56' MSL.
Multiple buildings, transmission towers, tank and pole beginning 1305' from DER, 370' left of centerline, up to 95' AGL/103' MSL.
- Rwy 28R: Multiple signs beginning 23' from DER, 140' right of centerline, up to 5' AGL/10' MSL.
Terrain beginning 58' from DER, 146' right of centerline, up to 10' MSL.
Sign, 63' from DER, 250' left of centerline, 5' AGL/8' MSL.
Terrain beginning 130' from DER, 235' left of centerline up to 10' MSL.
Antenna on building, obstruction light on DME, tree, beginning 556' from DER, 268' right of centerline, up to 35' AGL/43' MSL.
Multiple poles beginning 918' from DER, 598' left of centerline, up to 22' AGL/35' MSL.
Multiple buildings, trees beginning 1467' from DER, 683' right of centerline, up to 60' AGL/68' MSL.
Multiple buildings, transmission towers, trees and electrical system beginning 1826' from DER, 123' left of centerline, up to 95' AGL/103' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SAN FRANCISCO FOUR DEPARTURE
(SFO4.SFO) 15SEP16SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

(SSTIK3.SSTIK) 16203

SSTIK THREE DEPARTURE (RNAV)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

SL-375 (FAA)

ATIS 113.7
 CLNC DEL 118.2
 CPDLC
 GND CON 121.8
 SAN FRANCISCO TOWER 120.5 269.1
 NORCAL DEP CON 135.1 307.2

**TOP ALTITUDE:
FL190**

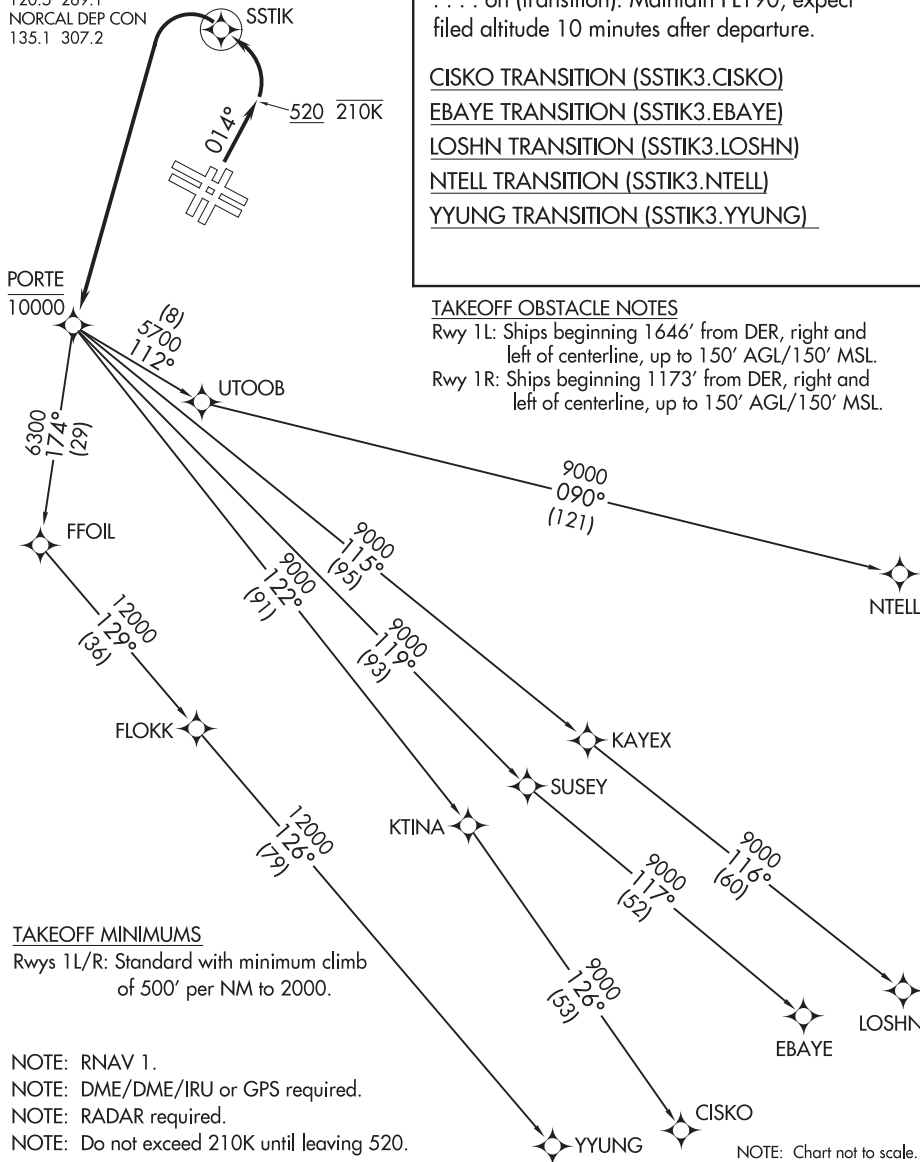
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1L/R: Climb heading 014° to 520 then left turn direct to SSTIK, then left turn direct to cross PORTE at/below 10000. Thence on (transition). Maintain FL190, expect filed altitude 10 minutes after departure.

- CISKO TRANSITION (SSTIK3.CISKO)
- EBAYE TRANSITION (SSTIK3.EBAYE)
- LOSHN TRANSITION (SSTIK3.LOSHN)
- NTELL TRANSITION (SSTIK3.NTELL)
- YYUNG TRANSITION (SSTIK3.YYUNG)

TAKEOFF OBSTACLE NOTES

Rwy 1L: Ships beginning 1646' from DER, right and left of centerline, up to 150' AGL/150' MSL.
 Rwy 1R: Ships beginning 1173' from DER, right and left of centerline, up to 150' AGL/150' MSL.



TAKEOFF MINIMUMS

Rwys 1L/R: Standard with minimum climb of 500' per NM to 2000.

- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: RADAR required.
- NOTE: Do not exceed 210K until leaving 520.

NOTE: Chart not to scale.

SSTIK THREE DEPARTURE (RNAV)

(SSTIK3.SSTIK) 20AUG15

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

SW-2, 10 NOV 2016 to 05 JAN 2017

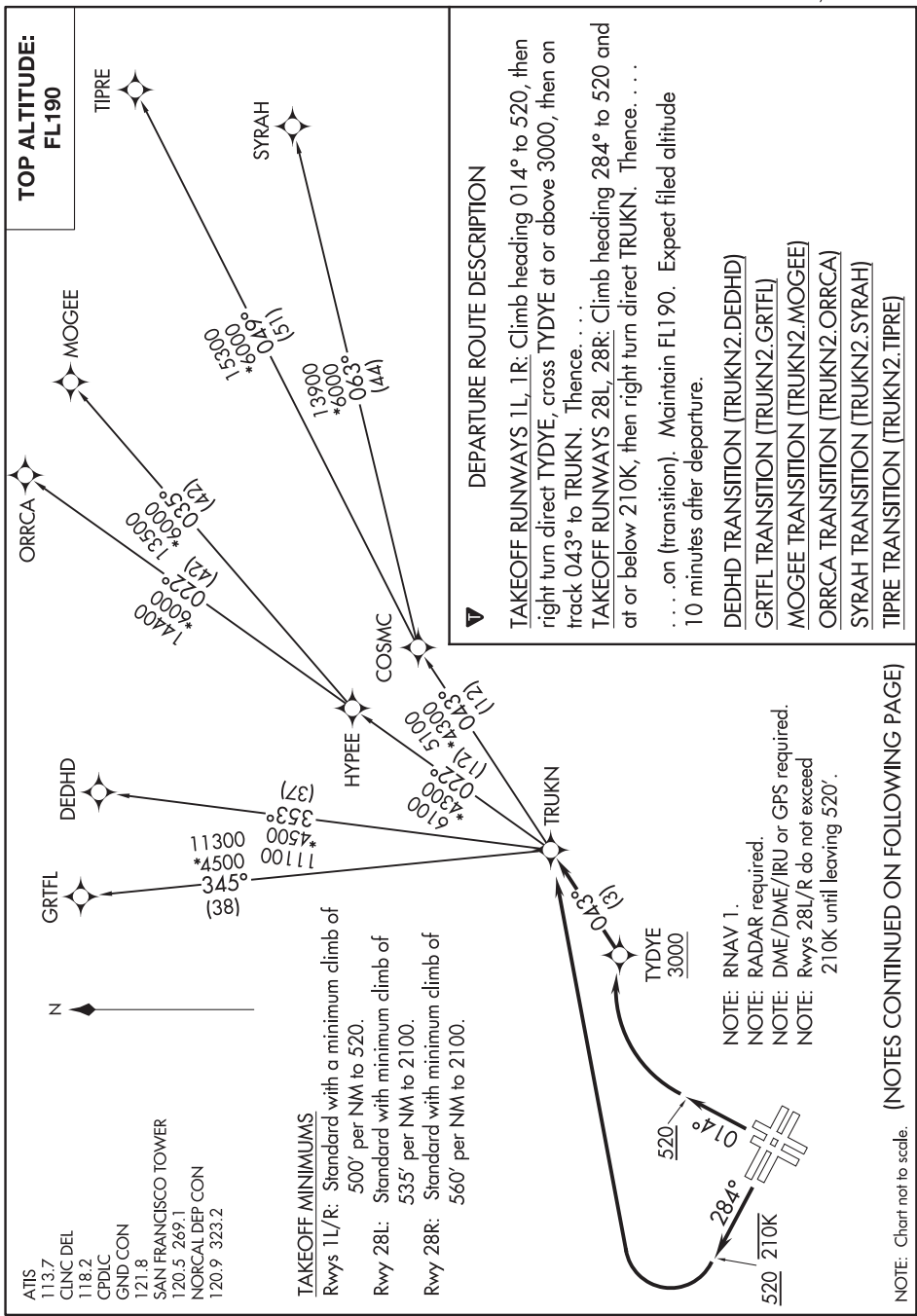
SW-2, 10 NOV 2016 to 05 JAN 2017

TRUKN TWO DEPARTURE (RNAV)

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017



TRUKN TWO DEPARTURE (RNAV)

(TRUKN2.TRUKN) 25JUN15

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

SW-2, 10 NOV 2016 to 05 JAN 2017

(TRUKN2.TRUKN) 16091

TRUKN TWO DEPARTURE (RNAV)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

SL-375 (FAA)

TAKEOFF OBSTACLE NOTES

Rwy 1L: Ships beginning 1646' from DER, right and left of centerline, up to 150' AGL/150' MSL.

Rwy 1R: Ships beginning 1173' from DER, right and left of centerline, up to 150' AGL/150' MSL.

Rwy 28L: Sign 19' from DER, 500' right of centerline, 5' AGL/9' MSL.

Obstruction lights on DME beginning 277' from DER, 162' left of centerline, up to 16' AGL/26' MSL.

Obstruction light on localizer beginning 219' from DER, on centerline, up to 10' AGL/17' MSL.

Multiple poles, electrical system beginning 824' from DER, 300' left of centerline, up to 40' AGL/56' MSL.

Multiple buildings, transmission towers, tank and pole beginning 1305' from DER, 370' left of centerline, up to 95' AGL/103' MSL.

Rwy 28R: Multiple signs, beginning 23' from DER, 140' right of centerline, up to 5' AGL/10' MSL.

Terrain beginning 58' from DER, 146' right of centerline, up to 10' MSL.

Sign, 63' from DER, 250' left of centerline 5' AGL/8' MSL.

Terrain beginning 130' from DER, 235' left of centerline, up to 10' MSL.

Antenna on building, obstruction light on DME, tree, beginning 556' from DER, 268' right of centerline, up to 35' AGL/43' MSL.

Multiple poles beginning 918' from DER, 598' left of centerline, up to 22' AGL/35' MSL.

Multiple buildings, trees beginning 1467' from DER, 683' right of centerline, up to 60' AGL/68' MSL.

Multiple buildings, transmission towers, trees and electrical system beginning 1826' from DER, 123' left of centerline, up to 95' AGL/103' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TRUKN TWO DEPARTURE (RNAV)

(TRUKN2.TRUKN) 25JUN15

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

WESLA THREE DEPARTURE (RNAV)

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIA

ATIS
113.7
CLNC DEL
118.2
CPDLC
GND CON
121.8
SAN FRANCISCO TOWER
120.5 269.1
NORCAL DEP CON
135.1 307.2

**TOP ALTITUDE:
3000**

DEPARTURE ROUTE DESCRIPTION

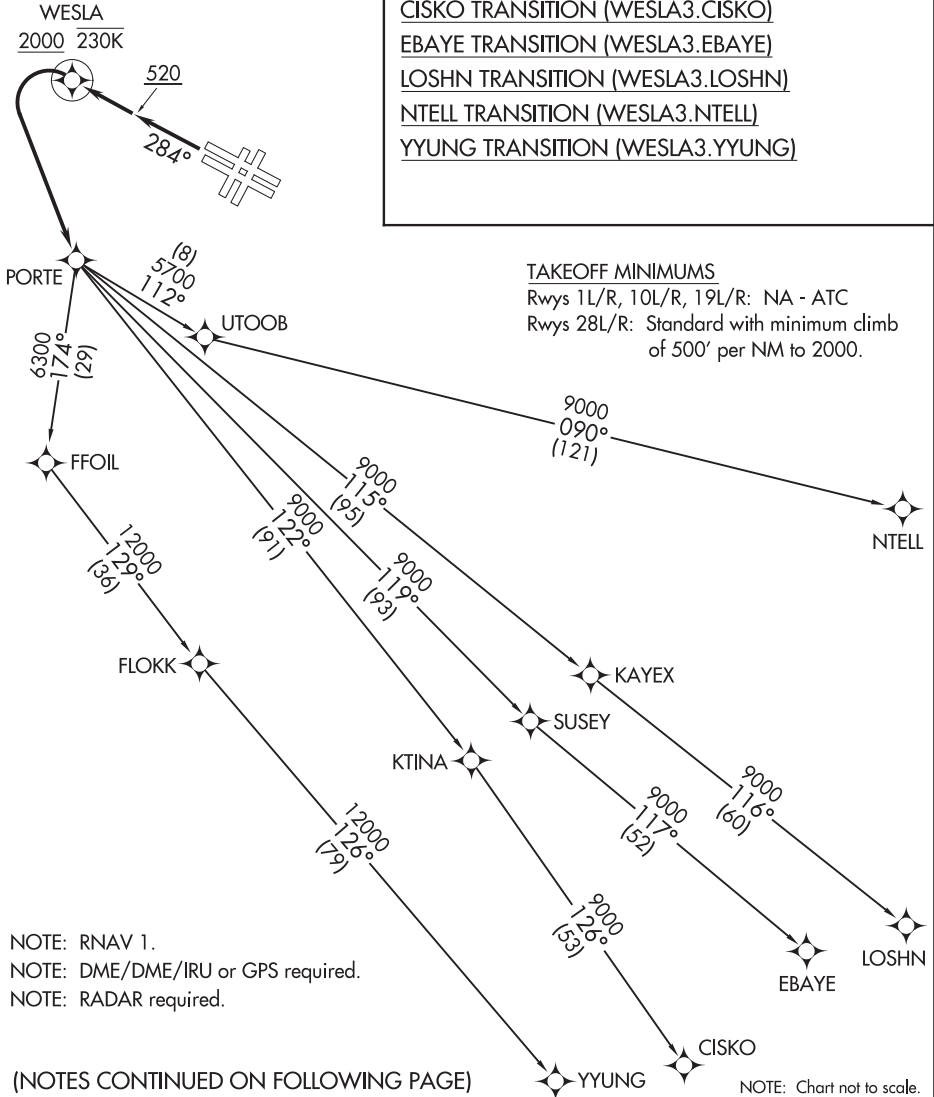
TAKEOFF RUNWAYS 28L/R: Climb heading 284° to 520, then direct to cross WESLA at or above 2000 then left turn direct to PORTE. Thence

. . . . on (transition). Maintain 3000, expect filed altitude 10 minutes after departure.

- CISKO TRANSITION (WESLA3.CISKO)
- EBAYE TRANSITION (WESLA3.EBAYE)
- LOSHN TRANSITION (WESLA3.LOSHN)
- NTELL TRANSITION (WESLA3.NTELL)
- YYUNG TRANSITION (WESLA3.YYUNG)

TAKEOFF MINIMUMS

Rwys 1L/R, 10L/R, 19L/R: NA - ATC
Rwys 28L/R: Standard with minimum climb of 500' per NM to 2000.



NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

WESLA THREE DEPARTURE (RNAV)

(WESLA3.WESLA) 20AUG15

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(WESLA3.WESLA) 16091

WESLA THREE DEPARTURE (RNAV)

SL-375 (FAA)

SAN FRANCISCO INTL (SFO)
SAN FRANCISCO, CALIFORNIATAKEOFF OBSTACLE NOTES

Rwy 28L: Sign 19' from DER, 500' right of centerline, 5' AGL/9' MSL.

Obstruction lights on DME beginning 277' from DER, 162' left of centerline, up to 16' AGL/26' MSL.

Obstruction light on localizer beginning 219' from DER, on centerline, up to 10' AGL/17' MSL.

Multiple poles, electrical system beginning 824' from DER, 300' left of centerline, up to 40' AGL/56' MSL.

Multiple buildings, transmission towers, tank and pole beginning 1305' from DER, 370' left of centerline, up to 95' AGL/103' MSL.

Rwy 28R: Multiple signs, beginning 23' from DER, 140' right of centerline, up to 5' AGL/10' MSL.

Terrain beginning 58' from DER, 146' right of centerline, up to 10' MSL.

Sign, 63' from DER, 250' left of centerline, 5' AGL/8' MSL.

Terrain beginning 130' from DER, 235' left of centerline, up to 10' MSL.

Antenna on building, obstruction light on DME, tree, beginning 556' from DER, 268' right of centerline, up to 35' AGL/43' MSL.

Multiple poles beginning 918' from DER, 598' left of centerline, up to 22' AGL/35' MSL.

Multiple buildings, trees beginning 1467' from DER, 683' right of centerline, up to 60' AGL/68' MSL.

Multiple buildings, transmission towers, trees and electrical system beginning 1826' from DER, 123' left of centerline, up to 95' AGL/103' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WESLA THREE DEPARTURE (RNAV)

(WESLA3.WESLA) 20AUG15

SAN FRANCISCO, CALIFORNIA
SAN FRANCISCO INTL (SFO)

LOC/DME I-SLV 110.9 Chan 46	APP CRS 126°	Rwy Idg TDZE Apt Elev	12R 8587 46 62	12L 8833 44 62
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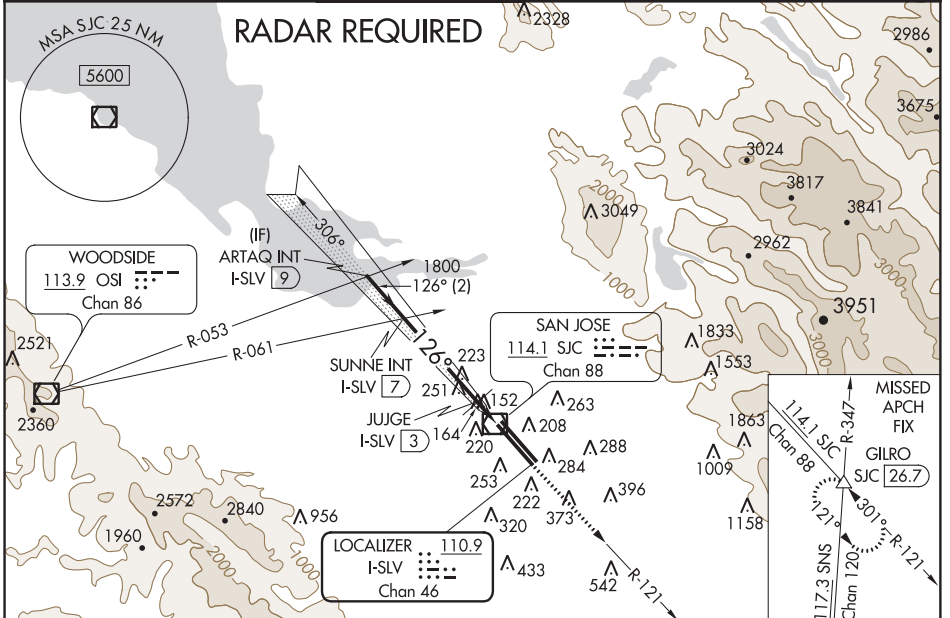
ILS or LOC RWY 12R
NORMAN Y MINETA SAN JOSE INTL (SJC)

DME required.
For inoperative MALS, increase S-LOC 12R
Cat C/D visibility to 1 mile.

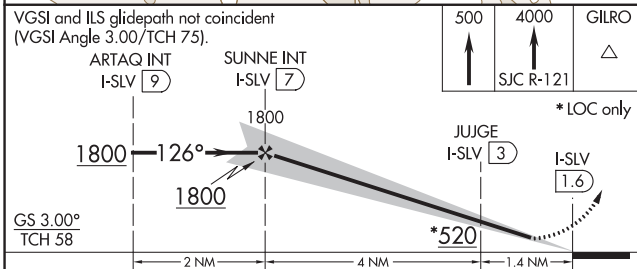
MALS
Rwy 12R

MISSED APPROACH: Climb to 500 then climb to 4000
on SJC VOR/DME R-121 to GILRO/SJC 26.7 DME
and hold.

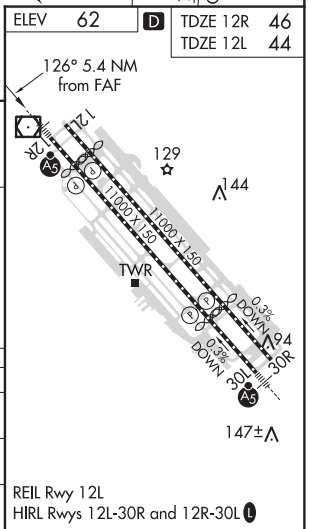
ATIS 126.95	NORCAL APP CON 120.1 290.25	SAN JOSE TOWER * 124.0 (CTAF) 257.6	GND CON 121.7	CLNC DEL 118.0	CPDLC
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ELEV 62	TDZE 12R 46	TDZE 12L 44
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CATEGORY	A	B	C	D
S-ILS 12R	251-1/2 205 (200-1/2)			
S-LOC 12R	420-1/2	374 (400-1/2)	420-5/8	374 (400-5/8)
SIDESTEP RWY 12L	600-1	556 (600-1)	600-1 1/2	600-2
			556 (600-1 1/2)	556 (600-2)



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

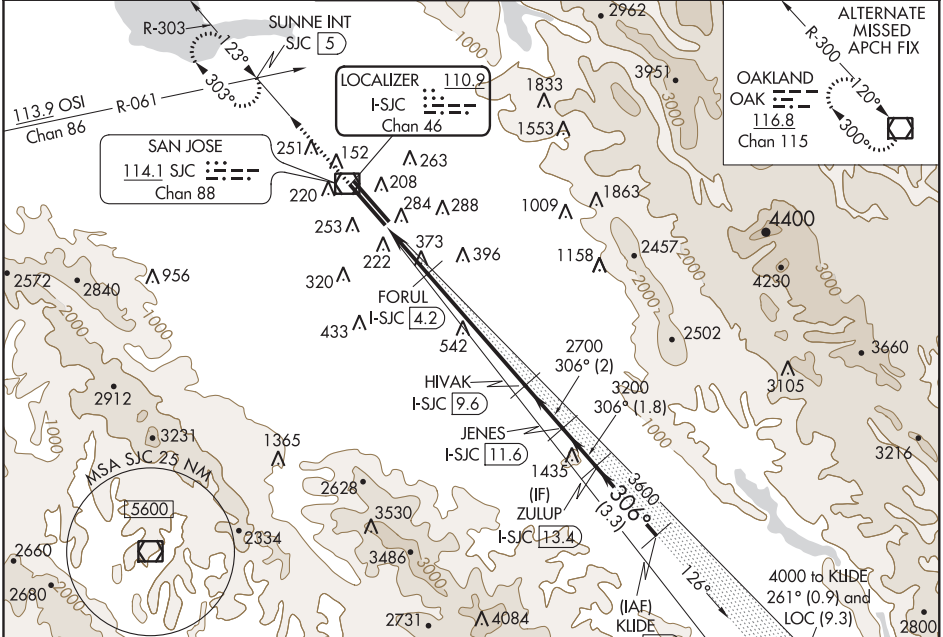
LOC/DME I-SJC 110.9 Chan 46	APP CRS 306°	Rwy Idg 7614	30L 7597	30R 55
		TDZE 57		
		Apt Elev 62		62

ILS or LOC RWY 30L

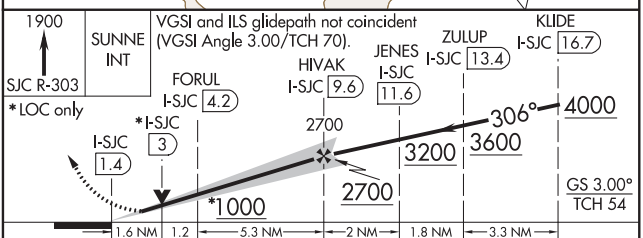
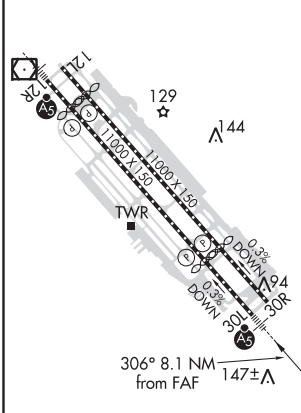
NORMAN Y MINETA SAN JOSE INTL (SJC)

<p>▼ DME required. ▲ # RVR 1800 authorized with use of FD or AP or HUD to DA.</p>	<p>MALSR Rwy 30L</p>	<p>VISSED APPROACH: Climb to 1900 on SJC VOR/DME R-303 to SUNNE INT/SJC 5 DME and hold.</p>			

ATIS 126.95	NORCAL APP CON 120.1 290.25	SAN JOSE TOWER * 124.0 (CTAF) 0 257.6	GND CON 121.7	CLNC DEL 118.0	CPDLC
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ELEV 62	D	TDZE 30L 57
		TDZE 30R 55



CATEGORY	A	B	C	D
S-ILS 30L #	257/24 200 (200-1/2)			
S-LOC 30L	640/24	583 (600-1/2)	640-1 1/4	583 (600-1/4)
SIDESTEP 30R	640-1	585 (600-1)	640-1 1/2	585 (600-1/2)
			585 (600-1/2)	585 (600-2)

REIL Rwy 12L
HIRL Rwy 12L-30R and 12R-30L

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

RNAV (RNP) Z RWY 12L

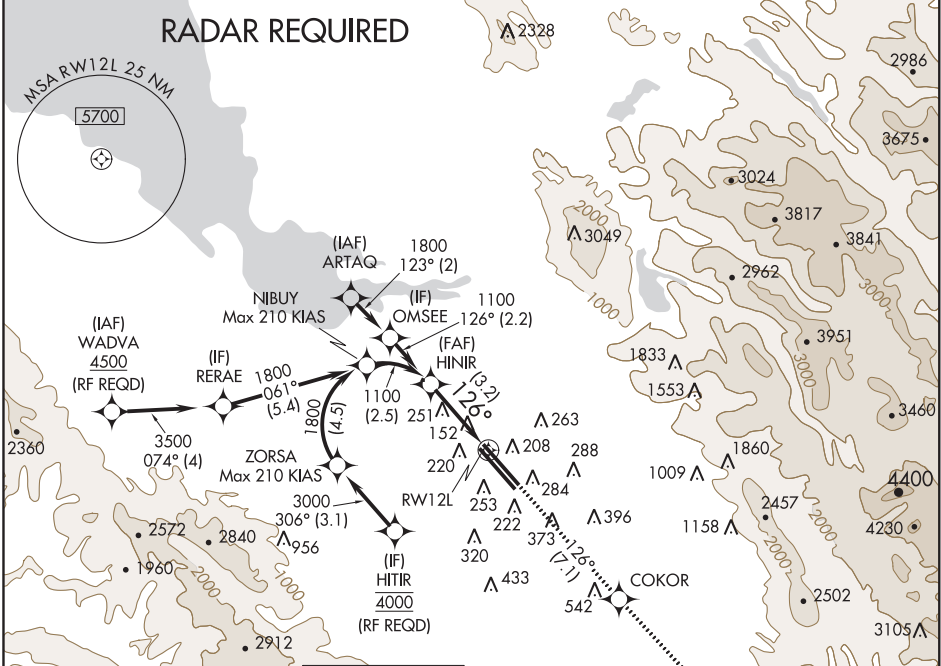
NORMAN Y MINETA SAN JOSE INTL (SJC)

APP CRS	Rwy Idg	8833
126°	TDZE	44
	Apt Elev	62

▽ For uncompensated Baro-VNAV systems, procedure NA below 0°C (32°F) or above 54°C (130°F). GPS required.

MISSED APPROACH: Climb to 4600 on track 126° to COKOR and on track 124° to GILRO and hold.

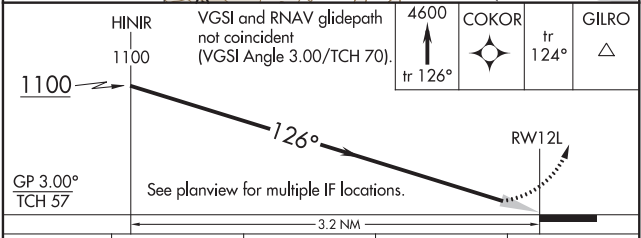
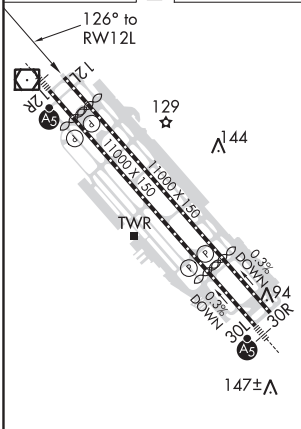
ATIS	NORCAL APP CON	SAN JOSE TOWER*	GND CON	CLNC DEL	CPDLC
126.95	120.1 290.25	124.0 (CTAF) 257.6	121.7	118.0	



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV	62	D	TDZE	44
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CATEGORY	A	B	C	D
RNP 0.18 DA		385-1 $\frac{1}{8}$	341 (400-1 $\frac{1}{8}$)	
RNP 0.30 DA		451-1 $\frac{3}{8}$	407 (400-1 $\frac{3}{8}$)	

REIL Rwy 12L
HIRL Rwys 12L-30R and 12R-30L

AUTHORIZATION REQUIRED

APP CRS	Rwy Idg	8587
126°	TDZE	46
	Apt Elev	62

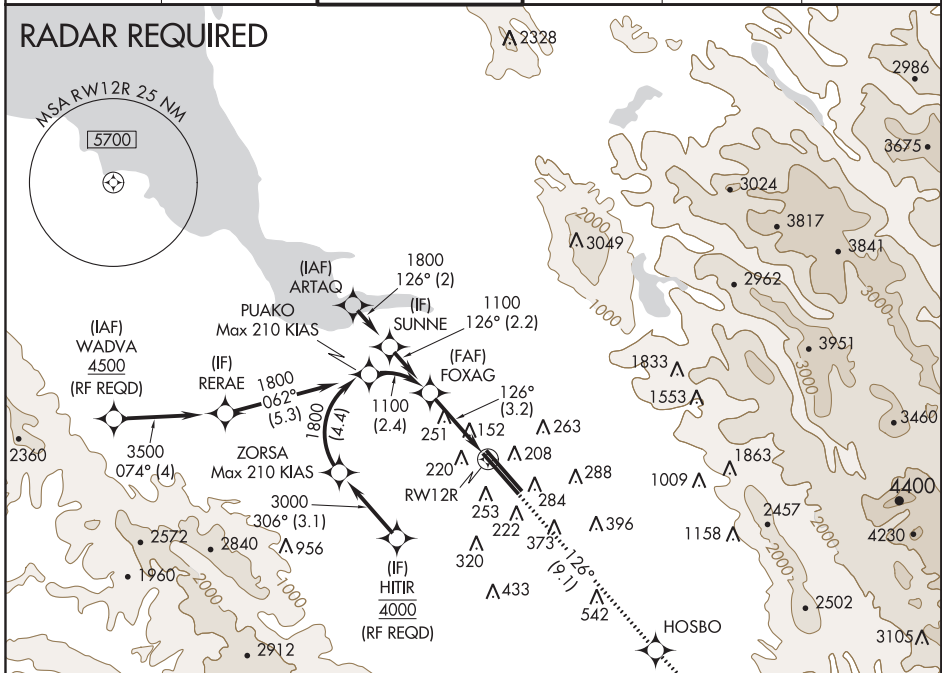
RNAV (RNP) Z RWY 12R

NORMAN Y MINETA SAN JOSE INTL (SJC)

<p>For uncompensated Baro-VNAV systems, procedure NA below 0°C (32°F) or above 54°C (130°F). GPS required.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climb to 4600 on track 126° to HOSBO and on track 124° to GILRO and hold.</p>

ATIS	NORCAL APP CON	SAN JOSE TOWER*	GND CON	CLNC DEL	CPDLC
126.95	120.1 290.25	124.0 (CTAF) 257.6	121.7	118.0	

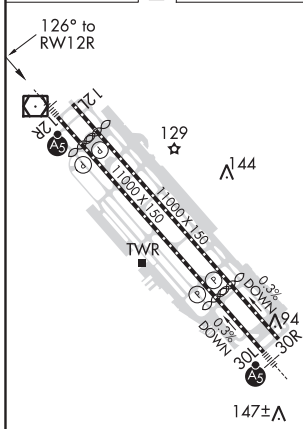
RADAR REQUIRED



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 62	D	TDZE 46
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FOXAG	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 75).	4600 tr 126°	HOSBO	tr 124°	GILRO
1100					
	See planview for multiple IF locations.				
		3.2 NM			

CATEGORY	A	B	C	D
RNP 0.15 DA		380-5/8	334 (400-5/8)	
RNP 0.30 DA		486-1	440 (500-1)	

REIL Rwy 12L
HIRL Rwy 12L-30R and 12R-30L

AUTHORIZATION REQUIRED

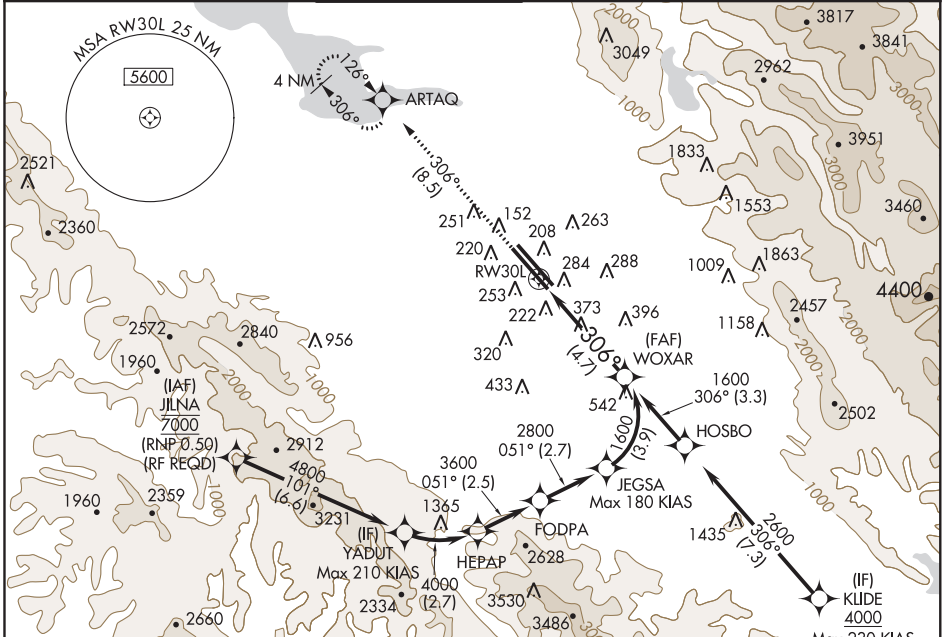
APP CRS	Rwy Idg	7614
306°	TDZE	57
	Apt Elev	62

RNAV (RNP) Z RWY 30L

NORMAN Y MINETA SAN JOSE INTL (SJC)

For uncompensated Baro-VNAV systems, procedure NA below -1°C (31°F) or above 54°C (130°F). GPS required. For inoperative MALS/R, increase RNP 0.15 all Cats visibility to RVR 6000 and increase RNP 0.30 all Cats visibility to 1 1/2 mile.		MISSED APPROACH: Climb to 2300 on track 306° to ARTAQ and hold.

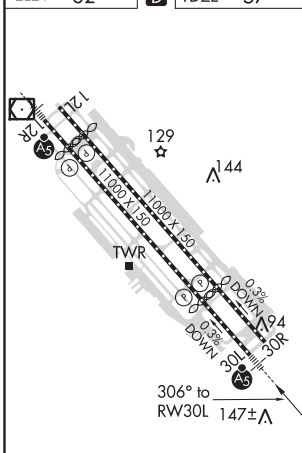
ATIS	NORCAL APP CON	SAN JOSE TOWER*	GND CON	CLNC DEL	CPDLC
126.95	120.1 290.25	124.0 (CTAF) 0 257.6	121.7	118.0	



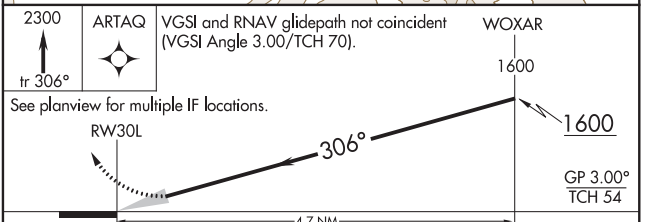
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 62	D	TDZE 57
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2300	ARTAQ	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 70).	WOXAR
tr 306°			1600



CATEGORY	A	B	C	D
RNP 0.15 DA		421/40	364 (400-3/4)	
RNP 0.30 DA		544/60	487 (500-1 1/4)	

REIL Rwy 12L
HIRL Rwys 12L-30R and 12R-30L

AUTHORIZATION REQUIRED

APP CRS	Rwy Idg	7597
306°	TDZE	55
	Apt Elev	62

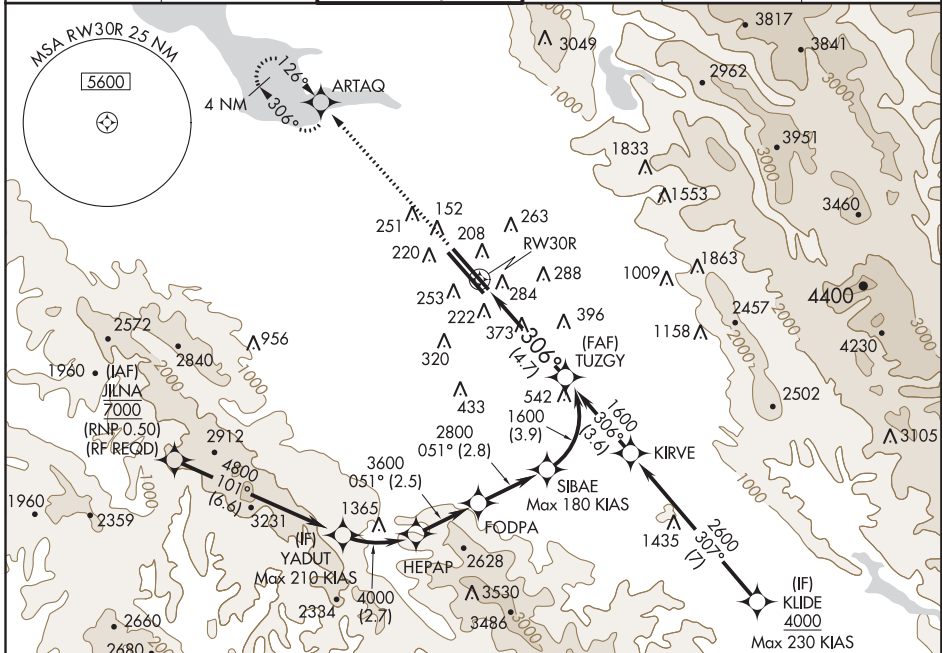
RNAV (RNP) Z RWY 30R

NORMAN Y MINETA SAN JOSE INTL (SJC)

▽ For uncompensated Baro-VNAV systems, procedure NA below -1°C (31°F) or above 54°C (130°F). GPS required.

MISSED APPROACH: Climb to 600 then climb to 2300 direct ARTAQ and hold.

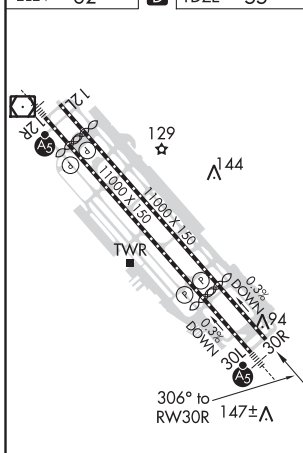
ATIS	NORCAL APP CON	SAN JOSE TOWER*	GND CON	CLNC DEL	CPDLC
126.95	120.1 290.25	124.0 (CTAF) 0 257.6	121.7	118.0	



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV	62	D	TDZE	55
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600	2300	ARTAQ	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 69).	TUZGY
↑	↑	✦		1600

See planview for multiple IF locations.

RWY 30R

306°

4.7 NM

GP 3.00° TCH 55

CATEGORY	A	B	C	D
RNP 0.11 DA		404-1 $\frac{1}{8}$	349 (400-1 $\frac{1}{8}$)	
RNP 0.20 DA		475-1 $\frac{3}{8}$	420 (500-1 $\frac{3}{8}$)	
RNP 0.30 DA		541-1 $\frac{5}{8}$	486 (500-1 $\frac{5}{8}$)	

AUTHORIZATION REQUIRED

SAN JOSE, CALIFORNIA

AL-693 (FAA)

16203

WAAS CH 69501 W12B	APP CRS 126°	Rwy Idg TDZE Apt Elev	8833 44 62
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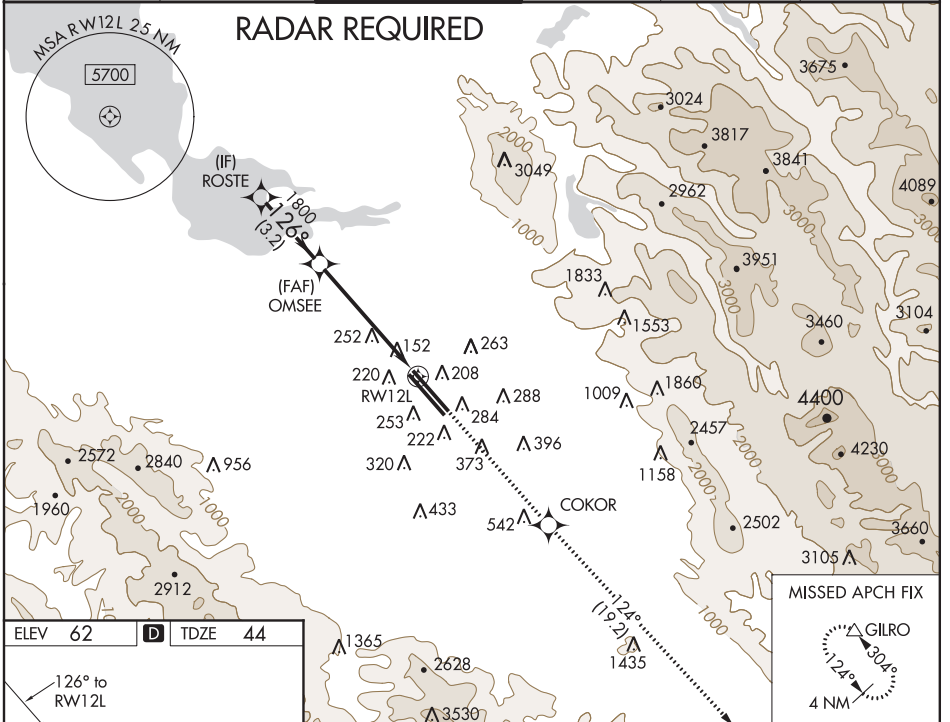
RNAV (GPS) Y RWY 12L

NORMAN Y MINETA SAN JOSE INTL (SJC)

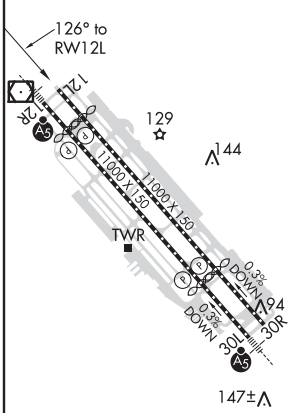
▽ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1°C (31°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 4600 direct COKOR and on track 124° to GILRO and hold.

ATIS 126.95	NORCAL APP CON 120.1 290.25	SAN JOSE TOWER * 124.0 (CTAF) 0 257.6	GND CON 121.7	CLNC DEL 118.0	CPDLC
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ELEV 62	D	TDZE 44
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REIL Rwy 12L
HIRL Rwwys 12L-30R and 12R-30L

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 70).

ROSTE	OMSEE	4600	COKOR	GILRO
			↑	△
			Ir 124°	
*LNAV only				
GP 3.00°	TCH 57			
	3.2 NM	4.1 NM	1.3 NM	
CATEGORY	A	B	C	D
LPV	DA	294-3/4	250 (300-3/4)	
LNAV/VNAV	DA	341-1	297 (300-1)	
LNAV	MDA	520-1	476 (500-1)	520-1 3/8 476 (500-1 3/8)

SAN JOSE, CALIFORNIA
Amdt 3A 21JUL16

37°22'N-121°56'W

NORMAN Y MINETA SAN JOSE INTL (SJC)

RNAV (GPS) Y RWY 12L

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 90106 W12A	APP CRS 126°	Rwy Idg 8587	12R 8833
		TDZE 46	44
		Apt Elev 62	62

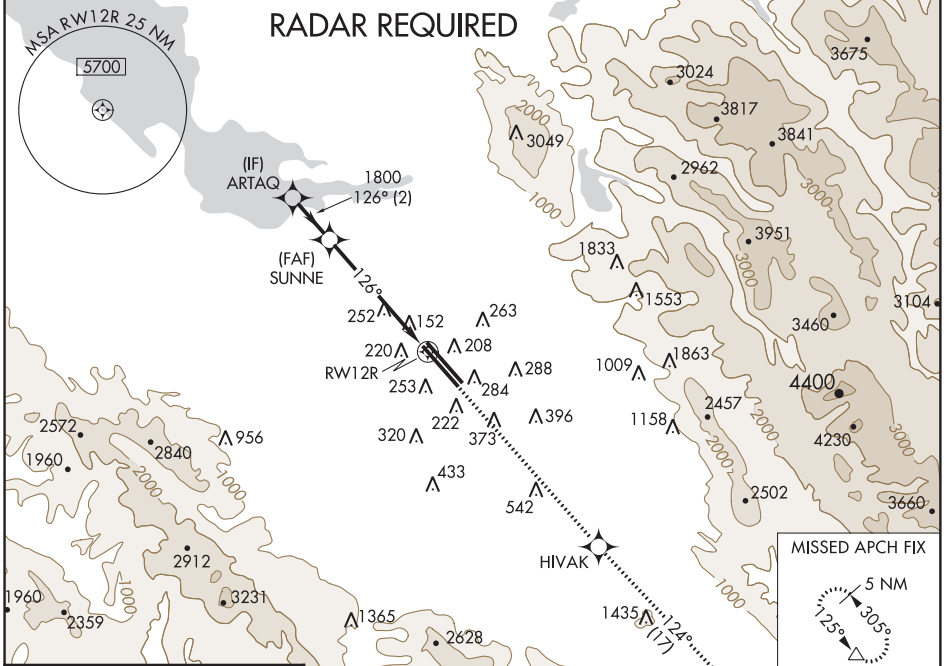
RNAV (GPS) Y RWY 12R

NORMAN Y MINETA SAN JOSE INTL (SJC)

⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1°C (31°F) or above 54°C (130°F). DME/DME RNP-0, 3 NA. For inoperative MALSR, increase LNAV/VNAV all Cats visibility to 1 mile and LNAV Cats C/D visibility to 1/2 mile.

MALSR Rwy 12R 	MISSED APPROACH: Climb to 4600 direct HIWAK and on track 124° to GILRO and hold.
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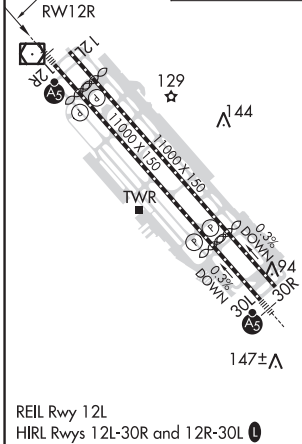
ATIS 126.95	NORCAL APP CON 120.1	SAN JOSE TOWER * 124.0 (CTAF) 257.6	GND CON 121.7	CLNC DEL 118.0	CPDLC
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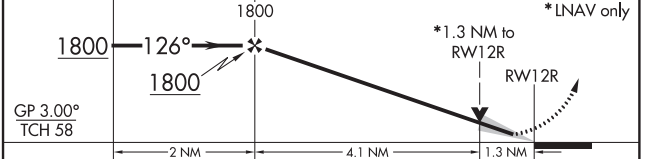
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 62	D	TDZE 12R 46
		TDZE 12L 44



VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 75).



GP 3.00° TCH 58	ARTAQ	SUNNE	1800	1800	1800	1800
			2 NM	4.1 NM	1.3 NM	
CATEGORY	A	B	C	D		
LPV DA		246-1/2	200 (200-1/2)			
LNAV/VNAV DA	371-5/8 325 (400-3/8)		371-1	325 (400-1)		
LNAV MDA	520-1/2	474 (500-1/2)	520-1	474 (500-1)		
SIDESTEP 12L	520-1	476 (500-1)	520-1 1/2 476 (500-1 1/2)	520-2 476 (500-2)		

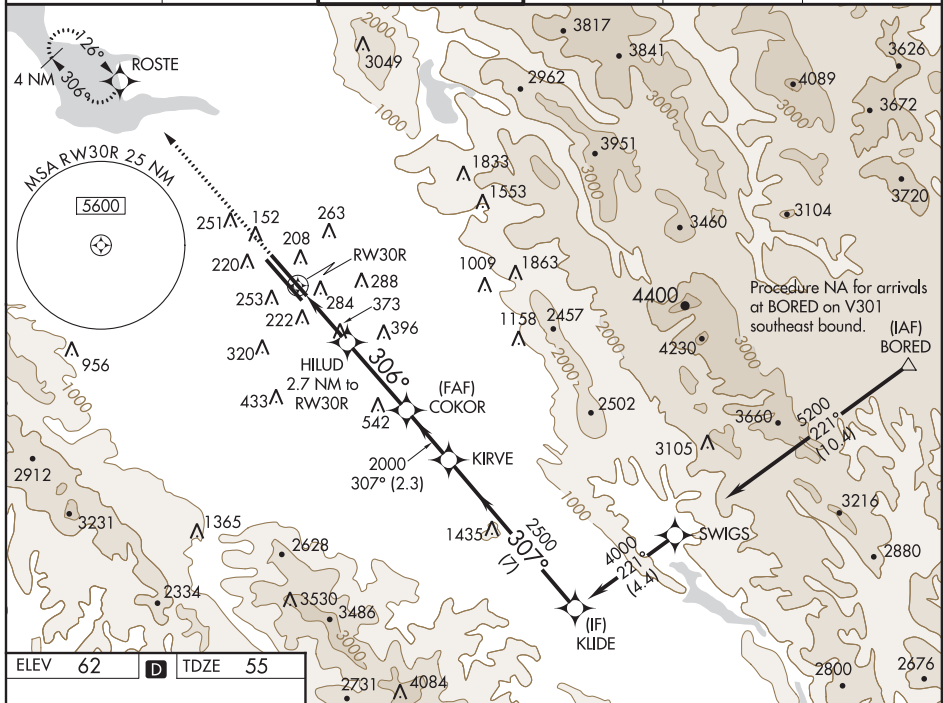
WAAS CH 72901 W30B	APP CRS 306°	Rwy Idg 7597 TDZE 55 Apt Elev 62
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RNAV (GPS) Y RWY 30R

NORMAN Y MINETA SAN JOSE INTL (SJC)

<p>▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1°C (31°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.</p>			<p>MISSED APPROACH: Climb to 2300 direct ROSTE and hold.</p>		
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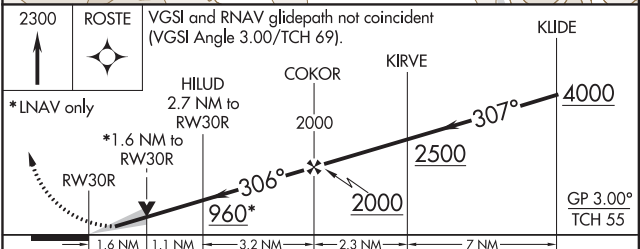
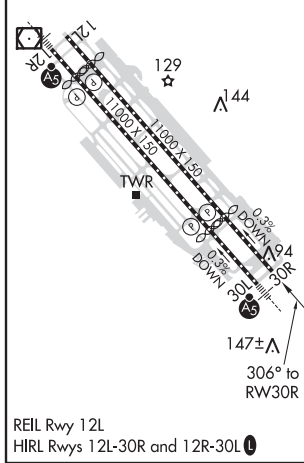
ATIS 126.95	NORCAL APP CON 120.1 290.25	SAN JOSE TOWER * 124.0 (CTAF) 0 257.6	GND CON 121.7	CLNC DEL 118.0	CPDLC
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 62	D	TDZE 55
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CATEGORY	A	B	C	D
LPV DA		255- ³ / ₄	200 (200- ³ / ₄)	
LNAV/VNAV DA		541-1 ⁵ / ₈	486 (500-1 ⁵ / ₈)	
LNAV MDA	640-1	585 (600-1)	640-1 ³ / ₄	585 (600-1 ³ / ₄)
C CIRCLING	640-1 578 (600-1)	700-1 638 (700-1)	700-1 ³ / ₄ 638 (700-1 ³ / ₄)	700-2 638 (700-2)

FAIRGROUNDS VISUAL RWYS 30L/R

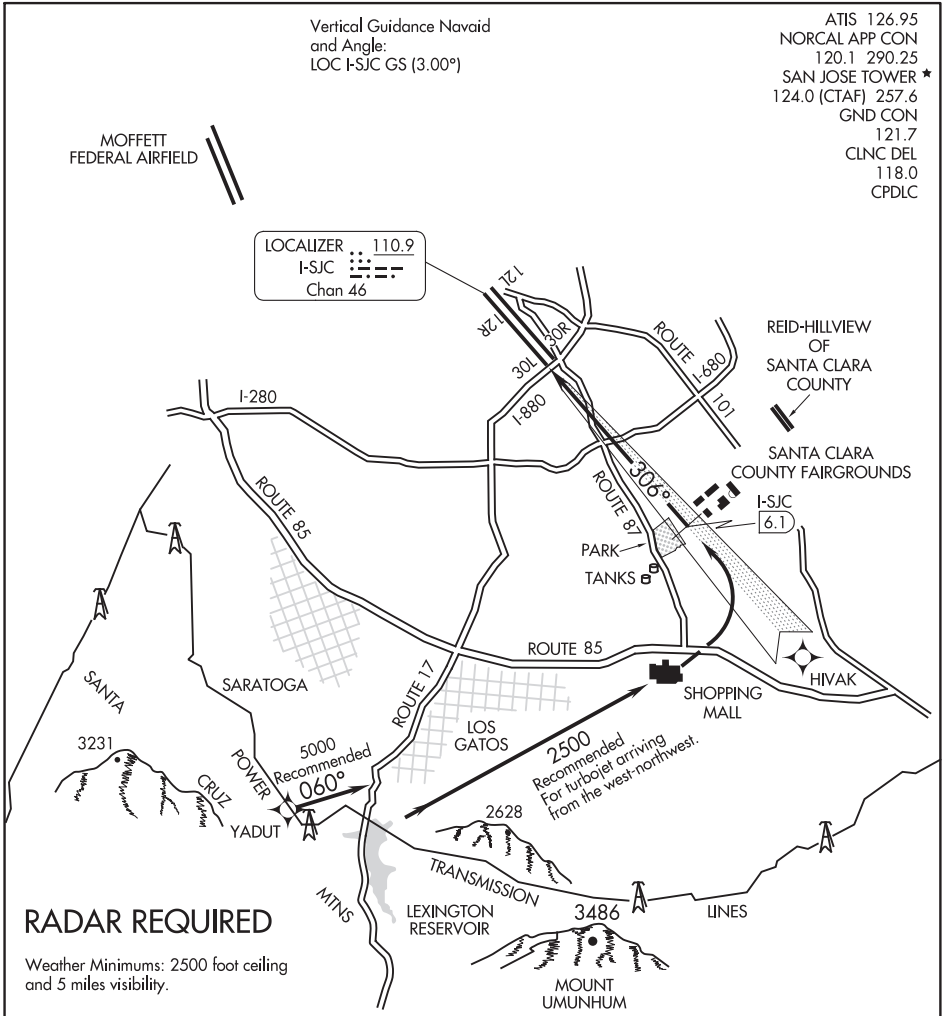
SAN JOSE, CALIFORNIA

Vertical Guidance Navaid
and Angle:
LOC I-SJC GS (3.00°)

- ATIS 126.95
- NORCAL APP CON 120.1 290.25
- SAN JOSE TOWER * 124.0 (CTAF) 257.6
- GND CON 121.7
- CLNC DEL 121.0
- CPDLC 118.0

MOFFETT
FEDERAL AIRFIELD

LOCALIZER 110.9
 I-SJC
 Chan 46



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

FAIRGROUNDS VISUAL APPROACH RUNWAYS 30L/R

When cleared for Fairgrounds Visual Approach, aircraft should turn final no closer than I-SJC 6.1 DME for noise abatement.

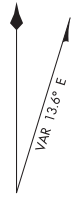
NOTE: Closely spaced parallel visual approaches may be in progress to Runways 30L/R. In the event of a go-around on Runway 30L, proceed straight-ahead heading 300°, or on Runway 30R, turn right heading 120°, climb and maintain 4000, or as directed by ATC.

FAIRGROUNDS VISUAL RWYS 30L/R

SAN JOSE, CALIFORNIA

ATIS 126.95
 SAN JOSE TOWER ★ 124.0 257.6
 GND CON 121.7
 CLNC DEL 118.0
 CPDLC

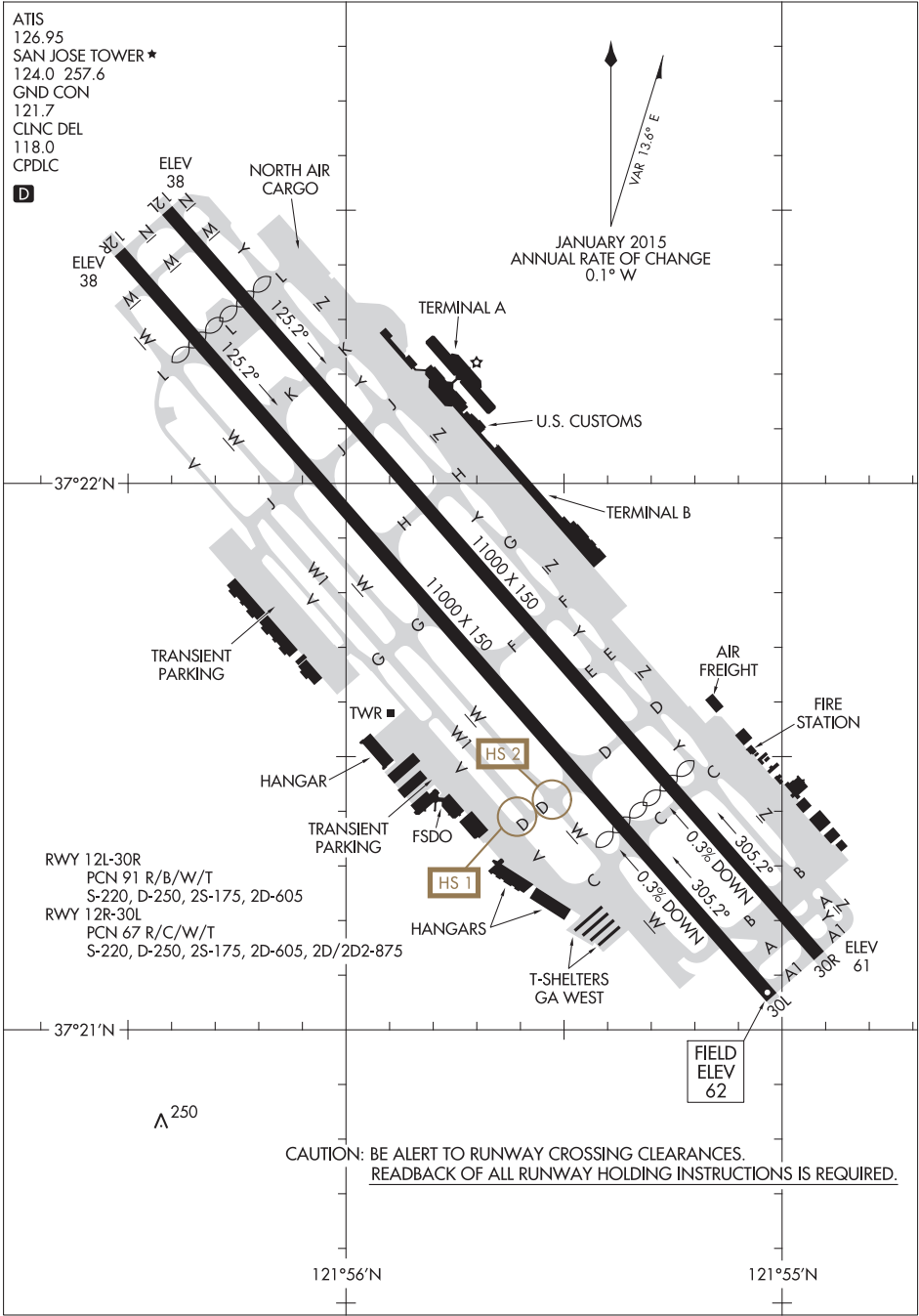
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JANUARY 2015 ANNUAL RATE OF CHANGE 0.1° W

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



ALMDN THREE DEPARTURE (RNAV)

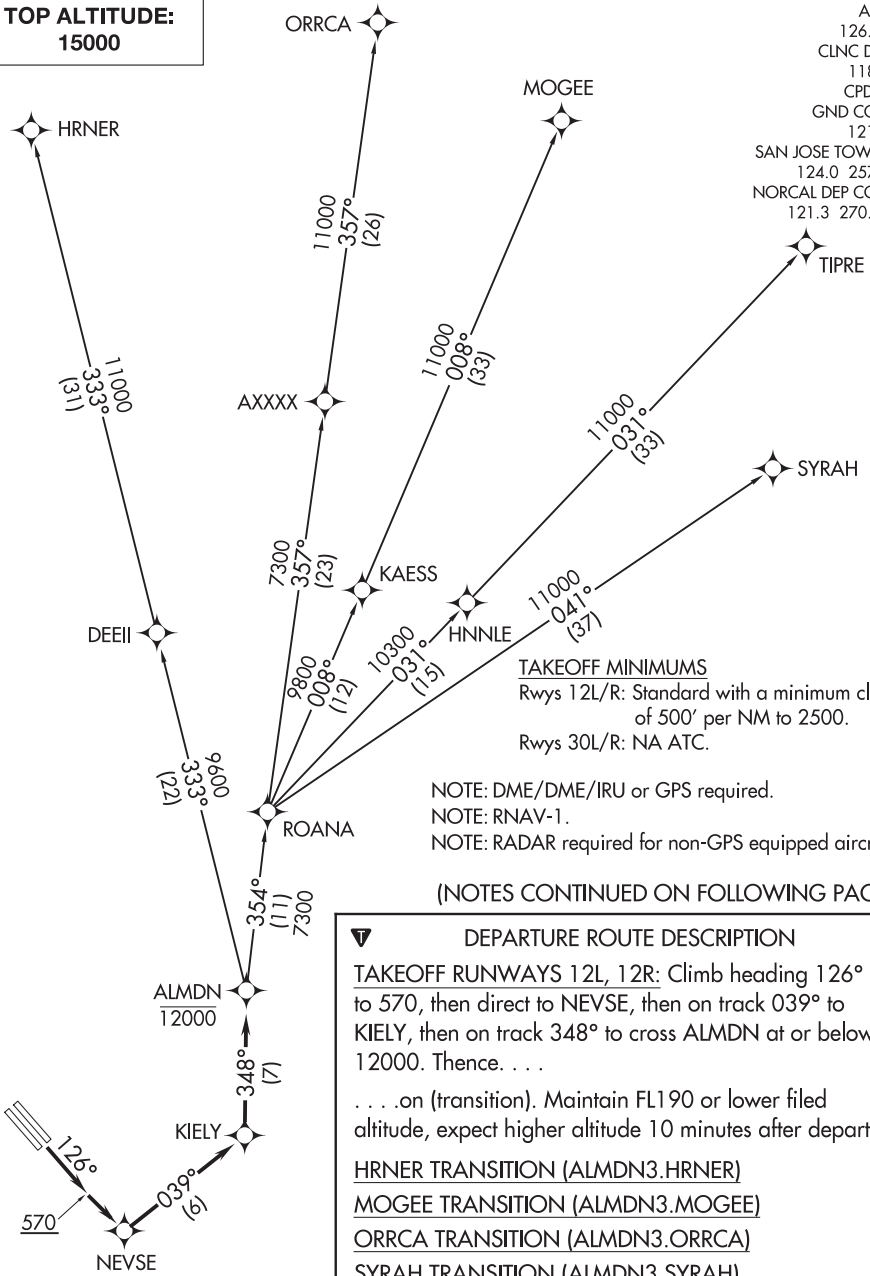
NORMAN Y MINETA SAN JOSE INTL (SJC)

SL-693 (FAA)

SAN JOSE, CALIFORNIA

**TOP ALTITUDE:
15000**

- ATIS 126.95
- CLNC DEL 118.0
- CPDLC 121.7
- GND CON 121.7
- SAN JOSE TOWER ★ 124.0 257.6
- NORCAL DEP CON 121.3 270.35



TAKEOFF MINIMUMS

Rwys 12L/R: Standard with a minimum climb of 500' per NM to 2500.
 Rwys 30L/R: NA ATC.

NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV-1.

NOTE: RADAR required for non-GPS equipped aircraft.

(NOTES CONTINUED ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 12L, 12R: Climb heading 126° to 570, then direct to NEVSE, then on track 039° to KIELY, then on track 348° to cross ALMDN at or below 12000. Thence. . .

. . . .on (transition). Maintain FL190 or lower filed altitude, expect higher altitude 10 minutes after departure.

HRNER TRANSITION (ALMDN3.HRNER)

MOGEE TRANSITION (ALMDN3.MOGEE)

ORRCA TRANSITION (ALMDN3.ORRCA)

SYRAH TRANSITION (ALMDN3.SYRAH)

TIPRE TRANSITION (ALMDN3.TIPRE)

NOTE: Chart not to scale.

ALMDN THREE DEPARTURE (RNAV)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKEOFF OBSTACLE NOTES

Rwy 12L: Fence 156' from DER, 57' left of centerline, 14' AGL/ 73' MSL.
 Obstruction light on blast fence, 156' from DER, 57' left of centerline, 73' MSL.
 Pole 191' from DER, 81' left of centerline, 34' AGL/ 93' MSL.
 Trees beginning 286' from DER, 161' right of centerline, up to 107' MSL.
 Transmission line tower, pole beginning 466' from DER, 228' left of centerline, up to 46' AGL/105' MSL.
 Tree 1281' from DER, 529' left of centerline, 117' MSL.
 Transmission line tower 1731' from DER, 729' left of centerline, 86' AGL/156' MSL.
 Tree 1799' from DER, 273' left of centerline, 144' MSL.
 Tree 1887' from DER, 68' right of centerline, 124' MSL.
 Transmission line tower 3047' from DER, 543' left of centerline, 73' AGL/147' MSL.
 Building 1.2 NM from DER, 630' left of centerline, 170' AGL /250' MSL.
 Building 1.3 NM from DER, 1051' left of centerline, 265' MSL.
 Building 1.3 NM from DER, 445' left of centerline, 217' AGL/301' MSL.
 Building 1.3 NM from DER, 51' left of centerline, 228' AGL/309' MSL.
 Buildings beginning 1.3 NM from DER, 81' left of centerline, up to 312' MSL.
 Building 1.5 NM from DER, 975' left of centerline, 262' AGL/351' MSL.
 Building 1.5 NM from DER, 1591' left of centerline, 268' AGL/358' MSL.
 Buildings beginning 1.5 NM from DER, 82' left of centerline, up to 365' MSL.
 Buildings beginning 1.6 NM from DER, 280' right of centerline, up to 346' MSL.
 Buildings beginning 1.6 NM from DER, 350' right of centerline, up to 260' AGL/350' MSL.
 Building 1.6 NM from DER, 1977' left of centerline, 286' AGL/368' MSL.
 Buildings beginning 1.6 NM from DER, 640' left of centerline, up to 274' AGL/ 370' MSL.
 Building 1.9 NM from DER, 313' right of centerline, 284' AGL/373' MSL.
 Building 1.9 NM from DER, 313' right of centerline, 284' AGL/373' MSL.

Rwy 12R: Obstruction light on localizer 10' from DER, on centerline, 68' MSL.
 Obstruction light on blast fence 45' from DER, 115' right of centerline 75' MSL.
 Fence 45 feet from DER, 115' right of centerline, 14' AGL/75' MSL.
 Tree 269' from DER, 149' right of centerline, 100' MSL.
 Trees, beginning 285' from DER , 193' left of centerline, up to 107' MSL.
 RD (I) 338' from DER, 2' right of centerline, 82' MSL.
 Tree, pole beginning 519' from DER, 279' right of centerline, up to 122' MSL.
 Trees beginning 1798' from DER, 631' left of centerline, up to 144' MSL.
 Poles beginning 1948' from DER, 688' right of centerline, up to 59' AGL/128' MSL.
 Tree 2604' from DER, 551' right of centerline, 133' MSL.
 Transmission line tower 3046' from DER, 1243' left of centerline, 73' AGL/147' MSL.
 Tree 3079' from DER, 873' right of centerline, 142' MSL.
 Building 1.3 NM from DER, 1145' left of centerline, 217' AGL/301' MSL.
 Building 1.3 NM from DER, 751' left of centerline, 228' AGL/309' MSL.
 Buildings beginning 1.3 NM from DER, 781' left of centerline, up to 312' MSL.
 Building 1.5 NM from DER, 1676' left of centerline, 262' AGL/351' MSL.
 Building 1.5 NM from DER, 2291' left of centerline, 268' AGL/358' MSL.
 Buildings beginning 1.5 NM from DER, 134' left of centerline, up to 365' MSL.
 Building 1.6 NM from DER, 2678' left of centerline, 286' AGL/ 368' MSL.
 Buildings beginning 1.6 NM from DER, 1340' left of centerline, up to 274' AGL/370' MSL.
 Building 1.6 NM from DER, 345' right of centerline, 320' MSL.
 Building 1.9 NM from DER, 386' left of centerline, 284' AGL/373' MSL.
 Building 1.9 NM from DER, 417' left of centerline, 281' AGL/ 372' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

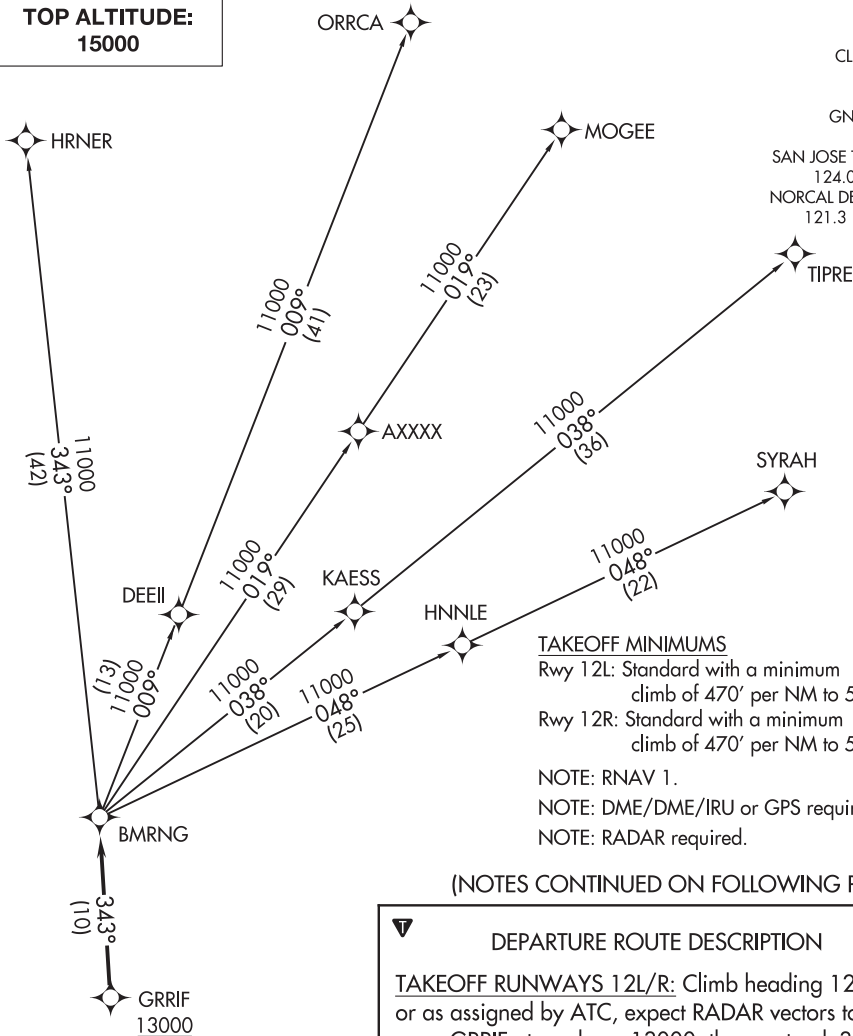
(BMRNG4.BMRNG) 16203

BMRNG FOUR DEPARTURE (RNAV)

NORMAN Y MINETA SAN JOSE INTL (SJC)
SL-693 (FAA) SAN JOSE, CALIFORNIA

**TOP ALTITUDE:
15000**

ATIS 126.95
 CLNC DEL 118.0
 CPDLC GND CON 121.7
 SAN JOSE TOWER * 124.0 257.6
 NORCAL DEP CON 121.3 270.35



TAKEOFF MINIMUMS

Rwy 12L: Standard with a minimum climb of 470' per NM to 5600.
 Rwy 12R: Standard with a minimum climb of 470' per NM to 5600.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: RADAR required.

(NOTES CONTINUED ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 12L/R: Climb heading 126° or as assigned by ATC, expect RADAR vectors to cross GRRIF at or above 13000, then on track 343° to BMRNG, thence
on (transition). Maintain 15000. Expect filed altitude 10 minutes after departure.

HRNER TRANSITION (BMRNG4.HRNER)

MOGEE TRANSITION (BMRNG4.MOGEE)

ORRCA TRANSITION (BMRNG4.ORRCA)

SYRAH TRANSITION (BMRNG4.SYRAH)

TIPRE TRANSITION (BMRNG4.TIPRE)

NOTE: Chart not to scale.

BMRNG FOUR DEPARTURE (RNAV)

(BMRNG4.BMRNG) 21JUL16

SAN JOSE, CALIFORNIA
NORMAN Y MINETA SAN JOSE INTL (SJC)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKEOFF OBSTACLE NOTES

Rwy 12L: Fence 156' from DER, 57' left of centerline, 14' AGL/ 73' MSL.
 Obstruction light on blast fence, 156' from DER, 57' left of centerline, 73' MSL.
 Pole 191' from DER, 81' left of centerline, 34' AGL/ 93' MSL.
 Trees beginning 286' from DER, 161' right of centerline, up to 107' MSL.
 Transmission line tower, pole beginning 466' from DER, 228' left of centerline, up to 46' AGL/105' MSL.
 Tree 1281' from DER, 529' left of centerline, 117' MSL.
 Transmission line tower 1731' from DER, 729' left of centerline, 86' AGL/156' MSL.
 Tree 1799' from DER, 273' left of centerline, 144' MSL.
 Tree 1887' from DER, 68' right of centerline, 124' MSL.
 Transmission line tower 3047' from DER, 543' left of centerline, 73' AGL/147' MSL.
 Building 1.2 NM from DER, 630' left of centerline, 170' AGL /250' MSL.
 Building 1.3 NM from DER, 1051' left of centerline, 265' MSL.
 Building 1.3 NM from DER, 445' left of centerline, 217' AGL/301' MSL.
 Building 1.3 NM from DER, 51' left of centerline, 228' AGL/309' MSL.
 Buildings beginning 1.3 NM from DER, 81' left of centerline, up to 312' MSL.
 Building 1.5 NM from DER, 975' left of centerline, 262' AGL/351' MSL.
 Building 1.5 NM from DER, 1591' left of centerline, 268' AGL/358' MSL.
 Buildings beginning 1.5 NM from DER, 82' left of centerline, up to 365' MSL.
 Buildings beginning 1.6 NM from DER, 280' right of centerline, up to 346' MSL.
 Buildings beginning 1.6 NM from DER, 350' right of centerline, up to 260' AGL/350' MSL.
 Building 1.6 NM from DER, 1977' left of centerline, 286' AGL/368' MSL.
 Buildings beginning 1.6 NM from DER, 640' left of centerline, up to 274' AGL/ 370' MSL.
 Building 1.9 NM from DER, 313' right of centerline, 284' AGL/373' MSL.
 Building 1.9 NM from DER, 282' right of centerline, 281' AGL/372' MSL.

Rwy 12R: Obstruction light on localizer 10' from DER, on centerline, 68' MSL.
 Obstruction light on blast fence 45' from DER, 115' right of centerline, 75' MSL.
 Fence 45 feet from DER, 115' right of centerline, 14' AGL/75' MSL.
 Tree 269' from DER, 149' right of centerline, 100' MSL.
 Trees, beginning 285' from DER , 193' left of centerline, up to 107' MSL.
 RD (I) 338' from DER, 2' right of centerline, 82' MSL.
 Tree, pole beginning 519' from DER, 279' right of centerline, up to 122' MSL.
 Trees beginning 1798' from DER, 631' left of centerline, up to 144' MSL.
 Poles beginning 1948' from DER, 688' right of centerline, up to 59' AGL/128' MSL.
 Tree 2604' from DER, 551' right of centerline, 133' MSL.
 Transmission line tower 3046' from DER, 1243' left of centerline, 73' AGL/147' MSL.
 Tree 3079' from DER, 873' right of centerline, 142' MSL.
 Building 1.3 NM from DER, 1145' left of centerline, 217' AGL/301' MSL.
 Building 1.3 NM from DER, 751' left of centerline, 228' AGL/309' MSL.
 Buildings beginning 1.3 NM from DER, 781' left of centerline, up to 312' MSL.
 Building 1.5 NM from DER, 1676' left of centerline, 262' AGL/351' MSL.
 Building 1.5 NM from DER, 2291' left of centerline, 268' AGL/358' MSL.
 Buildings beginning 1.5 NM from DER, 134' left of centerline, up to 365' MSL.
 Building 1.6 NM from DER, 2678' left of centerline, 286' AGL/ 368' MSL.
 Buildings beginning 1.6 NM from DER, 1340' left of centerline, up to 274' AGL/370' MSL.
 Building 1.6 NM from DER, 345' right of centerline, 320' MSL.
 Building 1.9 NM from DER, 386' left of centerline, 284' AGL/373' MSL.
 Building 1.9 NM from DER, 417' left of centerline, 281' AGL/ 372' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(LOUPE4.BMRNG) 16203

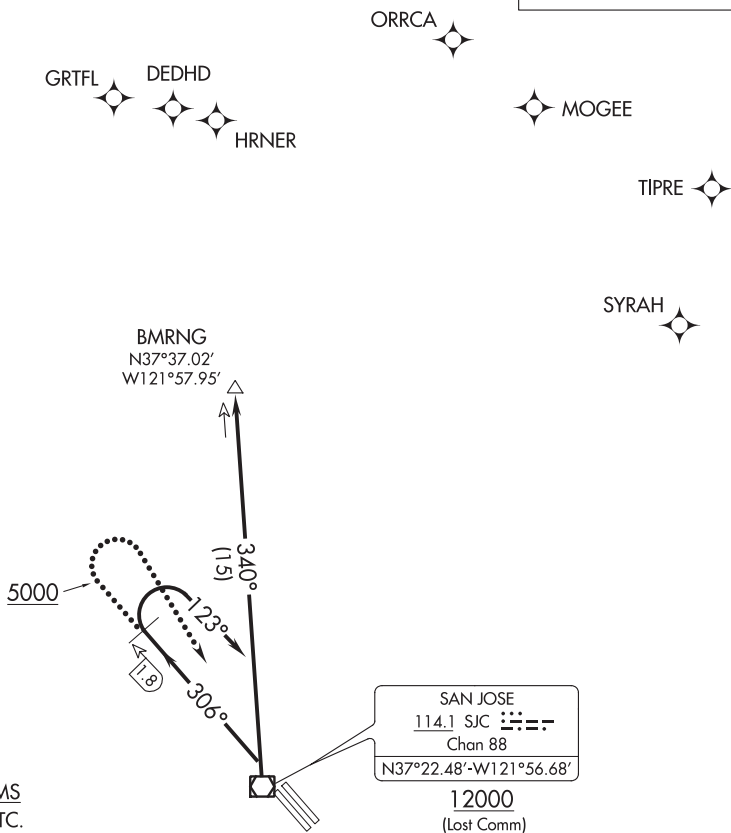
LOUPE FOUR DEPARTURE

SL-693 (FAA)

NORMAN Y MINETA SAN JOSE INTL (SJC)
SAN JOSE, CALIFORNIA

ATIS
 126.95
 CLNC DEL
 118.0
 CPDLC
 GND CON
 121.7
 SAN JOSE TOWER ★
 124.0 257.6
 NORCAL DEP CON
 121.3 270.35

TOP ALTITUDE:
5000



TAKEOFF MINIMUMS

Rwy's 12L/R: NA-ATC.
 Rwy's 30L/R: Standard with a minimum climb
 of 470' per NM to 5000.

NOTE: RADAR and DME required.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 30L/R: Climb heading 306°, at SJC VOR/DME 1.8 DME northwest turn right heading 123°. Expect vectors to SJC VOR/DME, then via SJC R-340 to BMRNG INT. Maintain 5000. Expect filed altitude 10 minutes after departure.

LOST COMMUNICATIONS

RUNWAYS 30L/R: If not in contact with departure control after reaching 5000' turn right direct SJC VOR/DME thence via SJC VOR/DME R-340 to BMRNG INT, thence via assigned route. Cross SJC VOR/DME at or above 12000, then climb to filed altitude.

LOUPE FOUR DEPARTURE
 (LOUPE4.BMRNG) 21JUL16

SAN JOSE, CALIFORNIA
 NORMAN Y MINETA SAN JOSE INTL (SJC)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKEOFF OBSTACLE NOTES

- Rwy 30L: Poles beginning 166' from DER, 494' left of centerline, up to 69' MSL.
 Navaid 174' from DER, on centerline, 7' AGL/44' MSL.
 Fence 184' from DER, 369' right of centerline, 15' AGL/51' MSL.
 Tree 308' from DER, 424' left of centerline, 71' MSL.
 Tree, pole beginning 473' from DER, 118' right of centerline, up to 72' MSL.
 Poles beginning 711' from DER, 544' right of centerline, up to 75' MSL.
 Navaid 782' from DER, 350' left of centerline, 47' AGL/ 83' MSL.
 Pole 1227' from DER, 607' left of centerline, 48' AGL/86' MSL.
 Pole 1315' from DER, 548' right of centerline, 49' AGL/80' MSL.
 Pole 1329' from DER, 743' left of centerline, 57' AGL/94' MSL.
 Tree 1852' from DER, 179' right of centerline, 85' MSL.
 Tree 2561' from DER, 738' right of centerline, 108' MSL.
 Transmission tower, transmission line tower, beginning 2616' from DER, 1130' left of centerline, up to 120' MSL.
 Pole 2806' from DER, 1215' left of centerline, 135' MSL.
 Transmission line tower 2897' from DER, 614' left of centerline, 80' AGL/113' MSL.
 Pole, Transmission line tower, beginning 4145' from DER, 1329' left of centerline, up to 152' MSL.
- Rwy 30R: Pole 100' from DER, 449' right of centerline, 40' AGL/75' MSL.
 Fence 138' from DER, 243' right of centerline, 13' AGL/47' MSL.
 Fence 184' from DER, 329' left of centerline, 15' AGL/ 51' MSL.
 Tree 411' from DER, 37' left of centerline, 70' MSL.
 Tree 473' from DER, 319' left of centerline, 72' MSL.
 Pole 526' from DER, 580' left of centerline, 26' AGL/61' MSL.
 Pole 657' from DER, 369' right of centerline, 53' AGL/84' MSL.
 Vehicle on road beginning 688' from DER, on centerline, up to 68' MSL.
 Poles beginning 711' from DER, 57' left of centerline, up to 25' AGL/75' MSL.
 Pole 961' from DER, 133' right of centerline, 56' AGL/88' MSL.
 Pole 1315' from DER, 150' left of centerline, 49' AGL/80' MSL.
 Tree 1852' from DER, 519' left of centerline, 85' MSL.
 Tree 2561' from DER, 39' right of centerline, 108' MSL.
 Building 3424' from DER, 146' right of centerline, 96' AGL/124' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SAN JOSE TWO DEPARTURE

SL-693 (FAA)


NORMAN Y MINETA SAN JOSE INTL (SJC)

SAN JOSE, CALIFORNIA

OAKLAND
116.8 OAK 
Chan 115


**TOP ALTITUDE:
5000**


- ATIS 126.95
- CLNC DEL 118.0
- CPDLC
- GND CON 121.7
- SAN JOSE TOWER* 124.0 257.6
- NORCAL DEP CON 121.3 270.35


SAN JOSE
114.1 SJC 
Chan 88
N37°22.48'-W121°56.68'

TAKEOFF MINIMUMS
Rwys 12L/R: NA-operational.
Rwys 30L/R: Standard with a minimum climb of 460' per NM to 4000.

MOONY
N37°08.31'
W121°34.33'

PANOCHÉ
112.6 PXN 
Chan 73
N36°42.93'
W120°46.72'
L-3, H-3

SALINAS
117.3 SNS 
Chan 120

AVENAL
117.1 AVE 
Chan 118
N35°38.82'-W119°58.72'
L-3-7, H-4

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 12L/R: NA.

TAKEOFF RUNWAYS 30L/R: Climb heading 306° to SJC 1.8 DME NW of SJC VOR/DME, then turn right heading 113° to intercept and proceed on OAK R-121 to MOONY INT, thence. . . .

. . . on (transition) or (assigned route). Maintain 5000, expect clearance to filed altitude ten minutes after departure.

AVENAL TRANSITION (SJC2.AVE): From over MOONY INT on OAK R-121 and AVE R-304 to AVE VOR/DME.

PANOCHÉ TRANSITION (SJC2.PXN): From over MOONY INT on PXN R-288 to PXN VORTAC.

SAN JOSE TWO DEPARTURE

(SJC2.MOONY) 21JUL16

SAN JOSE, CALIFORNIA
NORMAN Y MINETA SAN JOSE INTL (SJC)

TAKEOFF OBSTACLE NOTES

Rwy 30L: Poles beginning 166' from DER, 494' left of centerline, up to 69' MSL.
 Navaid 174' from DER, on centerline, 7' AGL/44' MSL.
 Fence 184' from DER, 369' right of centerline, 15' AGL/51' MSL.
 Tree 308' from DER, 424' left of centerline, 71' MSL.
 Tree, pole beginning 473' from DER, 118' right of centerline, up to 72' MSL.
 Poles beginning 711' from DER, 544' right of centerline, up to 75' MSL.
 Navaid 782' from DER, 350' left of centerline, 47' AGL/ 83' MSL.
 Pole 1227' from DER, 607' left of centerline, 48' AGL/86' MSL.
 Pole 1315' from DER, 548' right of centerline, 49' AGL/80' MSL.
 Pole 1329' from DER, 743' left of centerline, 57' AGL/94' MSL.
 Tree 1852' from DER, 179' right of centerline, 85' MSL.
 Tree 2561' from DER, 738' right of centerline, 108' MSL.
 Transmission tower, transmission line tower, beginning 2616' from DER, 1130' left of centerline, up to 120' MSL.
 Pole 2806' from DER, 1215' left of centerline, 135' MSL.
 Transmission line tower 2897' from DER, 614' left of centerline, 80' AGL/113' MSL.
 Pole, transmission line tower, beginning 4145' from DER, 1329' left of centerline, up to 152' MSL.

Rwy 30R: Pole 100' from DER, 449' right of centerline, 40' AGL/75' MSL.
 Fence 138' from DER, 243' right of centerline, 13' AGL/47' MSL.
 Fence 184' from DER, 329' left of centerline, 15' AGL/ 51' MSL.
 Tree 411' from DER, 37' left of centerline, 70' MSL.
 Tree 473' from DER, 319' left of centerline, 72' MSL.
 Pole 526' from DER, 580' left of centerline, 26' AGL/61' MSL.
 Pole 657' from DER, 369' right of centerline, 53' AGL/84' MSL.
 Vehicle on road beginning 688' from DER, on centerline, up to 68' MSL.
 Poles beginning 711' from DER, 57' left of centerline, up to 25' AGL/75' MSL.
 Pole 961' from DER, 133' right of centerline, 56' AGL/88' MSL.
 Pole 1315' from DER, 150' left of centerline, 49' AGL/80' MSL.
 Tree 1852' from DER, 519' left of centerline, 85' MSL.
 Tree 2561' from DER, 39' right of centerline, 108' MSL.
 Building 3424' from DER, 146' right of centerline, 96' AGL/124' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SUNOL EIGHT DEPARTURE

NORMAN Y MINETA SAN JOSE INTL (SJC)
SAN JOSE, CALIFORNIA

SL-693 (FAA)

ATIS
126.95
CLNC DEL
118.0
CPDLC
GND CON
121.7
SAN JOSE TOWER *
124.0 257.6
NORCAL DEP CON
121.3 270.35

SACRAMENTO
115.2 SAC
Chan 99
N38°26.62'-W121°33.10'
L-2-3, H-3

**TOP ALTITUDE:
ASSIGNED BY ATC**

MANTECA
116.0 ECA
Chan 107
N37°50.02'-W121°10.28'
L-2-3, H-3

OAKLAND
116.8 OAK
Chan 115

ALTAM
N37°48.73'
W121°44.83'

REIGA
374 LV
V195

TRACY
N37°43.89'
W121°27.56'

SUNOL
N37°36.33'
W121°48.62'
5000

SAN JOSE
114.1 SJC
Chan 88

NOTE: DME required for Rwy 30L/R departures.
NOTE: RADAR required.
NOTE: SUNOL DEPARTURE restricted to prop aircraft only.

(NOTES CONTINUED ON FOLLOWING PAGE)

TAKEOFF MINIMUMS

Rwys 12L/R: Standard with a minimum climb of 290' per NM to 4000.
Rwys 30L/R: Standard with a minimum climb of 460' per NM to 4000.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 12L/R: Climb on heading 126° to intercept and proceed on OAK R-129 to 4000, then turn left heading 303° for RADAR vectors to intercept and proceed on SJC R-009 to SUNOL INT. . . .

TAKEOFF RUNWAYS 30L/R: Climb heading 306°. At SJC 1.8 DME northwest of SJC VOR/DME, turn right heading 043° to intercept and proceed on SJC R-009 to SUNOL INT. . . .

. . . .cross SUNOL INT at 5000, then on (transition) or (assigned route).

MANTECA TRANSITION (SUNOL8.ECA): From over SUNOL INT on ECA R-229 to ECA VORTAC.

SACRAMENTO TRANSITION (SUNOL8.SAC): From over SUNOL INT on SAC R-177 to SAC VORTAC.

SUNOL EIGHT DEPARTURE

(SUNOL8.SUNOL) 21JUL16

SAN JOSE, CALIFORNIA
NORMAN Y MINETA SAN JOSE INTL (SJC)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKEOFF OBSTACLE NOTES

Rwy 12L: Fence 156' from DER, 57' left of centerline, 14' AGL/ 73' MSL. Obstruction light on blast fence, 156' from DER, 57' left of centerline, 73' MSL. Pole 191' from DER, 81' left of centerline, 34' AGL/ 93' MSL. Trees beginning 286' from DER, 161' right of centerline, up to 107' MSL. Transmission line tower, pole beginning 466' from DER, 228' left of centerline, up to 46' AGL/105' MSL. Tree 1281' from DER, 529' left of centerline, 117' MSL. Transmission line tower 1731' from DER, 729' left of centerline, 86' AGL/156' MSL. Tree 1799' from DER, 273' left of centerline, 144' MSL. Tree 1887' from DER, 68' right of centerline, 124' MSL. Transmission line tower 3047' from DER, 543' left of centerline, 73' AGL/147' MSL. Building 1.2 NM from DER, 630' left of centerline, 170' AGL /250' MSL. Building 1.3 NM from DER, 1051' left of centerline, 265' MSL. Building 1.3 NM from DER, 445' left of centerline, 217' AGL/301' MSL. Building 1.3 NM from DER, 51' left of centerline, 228' AGL/309' MSL. Buildings beginning 1.3 NM from DER, 81' left of centerline, up to 312' MSL. Building 1.5 NM from DER, 975' left of centerline, 262' AGL/351' MSL. Building 1.5 NM from DER, 1591' left of centerline, 268' AGL/358' MSL. Buildings beginning 1.5 NM from DER, 82' left of centerline, up to 365' MSL. Buildings beginning 1.6 NM from DER, 280' right of centerline, up to 346' MSL. Buildings beginning 1.6 NM from DER, 350' right of centerline, up to 260' AGL/350' MSL. Building 1.6 NM from DER, 1977' left of centerline, 286' AGL/368' MSL. Buildings beginning 1.6 NM from DER, 640' left of centerline, up to 274' AGL/ 370' MSL. Building 1.9 NM from DER, 313' right of centerline, 284' AGL/373' MSL. Building 1.9 NM from DER, 282' right of centerline, 281' AGL/372' MSL.

Rwy 12R: Obstruction light on localizer 10' from DER, on centerline, 68' MSL. Obstruction light on blast fence 45' from DER, 115' right of centerline, 75' MSL. Fence 45 feet from DER, 115' right of centerline, 14' AGL/75' MSL. Tree 269' from DER, 149' right of centerline, 100' MSL. Trees, beginning 285' from DER, 193' left of centerline, up to 107' MSL. Road (I) 338' from DER, 2' right of centerline, 82' MSL. Tree, pole beginning 519' from DER, 279' right of centerline, up to 122' MSL. Trees beginning 1798' from DER, 631' left of centerline, up to 144' MSL. Poles beginning 1948' from DER, 688' right of centerline, up to 59' AGL/128' MSL. Tree 2604' from DER, 551' right of centerline, 133' MSL. Transmission line tower 3046' from DER, 1243' left of centerline, 73' AGL/147' MSL. Tree 3079' from DER, 873' right of centerline, 142' MSL. Building 1.3 NM from DER, 1145' left of centerline, 217' AGL/301' MSL. Building 1.3 NM from DER, 751' left of centerline, 228' AGL/ 309' MSL. Buildings beginning 1.3 NM from DER, 781' left of centerline, up to 312' MSL. Building 1.5 NM from DER, 1676' left of centerline, 262' AGL/351' MSL. Building 1.5 NM from DER, 2291' left of centerline, 268' AGL/358' MSL. Buildings beginning 1.5 NM from DER, 134' left of centerline, up to 365' MSL. Building 1.6 NM from DER, 2678' left of centerline, 286' AGL/ 368' MSL. Buildings beginning 1.6 NM from DER, 1340' left of centerline, up to 274' AGL/370' MSL. Building 1.6 NM from DER, 345' right of centerline, 320' MSL. Building 1.9 NM from DER, 386' left of centerline, 284' AGL/373' MSL. Building 1.9 NM from DER, 417' left of centerline, 281' AGL/ 372' MSL.

Rwy 30L: Poles beginning 166' from DER, 494' left of centerline, up to 69' MSL. Navaid 174' from DER, on centerline, 7' AGL/44' MSL. Fence 184' from DER, 369' right of centerline, 15' AGL/51' MSL. Tree 308' from DER, 424' left of centerline, 71' MSL. Tree, pole beginning 473' from DER, 118' right of centerline, up to 72' MSL. Poles beginning 711' from DER, 544' right of centerline, up to 75' MSL. Navaid 782' from DER, 350' left of centerline, 47' AGL/ 83' MSL. Pole 1227' from DER, 607' left of centerline, 48' AGL/86' MSL. Pole 1315' from DER, 548' right of centerline, 49' AGL/ 80' MSL. Pole 1329' from DER, 743' left of centerline, 57' AGL/94' MSL. Tree 1852' from DER, 179' right of centerline, 85' MSL. Tree 2561' from DER, 738' right of centerline, 108' MSL. Transmission tower, transmission line tower, beginning 2616' from DER, 1130' left of centerline, up to 120' MSL. Pole 2806' from DER, 1215' left of centerline, 135' MSL. Pole 2897' from DER, 614' left of centerline, 113' MSL. Pole, transmission line tower, beginning 4145' from DER, 1329' left of centerline, up to 152' MSL.

Rwy 30R: Pole 100' from DER, 449' right of centerline, 40' AGL/75' MSL. Fence 138' from DER, 243' right of centerline, 13' AGL/47' MSL. Fence 184' from DER, 329' left of centerline, 15' AGL/ 51' MSL. Tree 411' from DER, 37' left of centerline, 70' MSL. Tree 473' from DER, 319' left of centerline, 72' MSL. Pole 526' from DER, 580' left of centerline, 26' AGL/61' MSL. Pole 657' from DER, 369' right of centerline, 53' AGL/84' MSL. Vehicle on road beginning 688' from DER, on centerline, up to 68' MSL. Poles beginning 711' from DER, 57' left of centerline, up to 25' AGL/75' MSL. Pole 961' from DER, 133' right of centerline, 56' AGL/88' MSL. Pole 1315' from DER, 150' left of centerline, 49' AGL/80' MSL. Tree 1852' from DER, 519' left of centerline, 85' MSL. Tree 2561' from DER, 39' right of centerline, 108' MSL. Building 3424' from DER, 146' right of centerline, 96' AGL/124' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TECKY THREE DEPARTURE (RNAV)

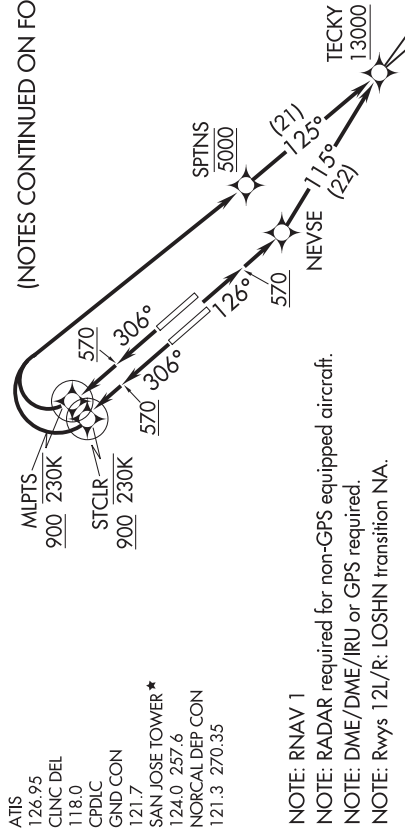
SL-693 (FAA)

NORMAN Y MINETA SAN JOSE INTL (SJC)
SAN JOSE, CALIFORNIA

**TOP ALTITUDE:
FL190**

(NOTES CONTINUED ON FOLLOWING PAGE)

TAKEOFF MINIMUMS
 Rwys 12L/R: Standard with a minimum climb of 500' per NM to 570.
 Rwys 30L/R: Standard with a minimum climb of 500' per NM to 700.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 12L, 12R: Climb heading 126° to 570, then direct NEVSE, then on track 11.5° to cross TECKY at or above 13000, thence. . . .

TAKEOFF RUNWAY 30L: Climb heading 306° to 570, then direct to cross STCLR at or above 900 at or below 230K, then right turn direct to cross SPTNS at 5000, then on track 12.5° to cross TECKY at or above 13000, thence. . . .

TAKEOFF RUNWAY 30R: Climb heading 306° to 570, then direct to cross MLPTS at or above 900 at or below 230K, then right turn direct to cross SPTNS at 5000, then on track 12.5° to cross TECKY at or above 13000, thence. . . .

. . . . (on transition), maintain FL190. Expect filed altitude 10 minutes after departure.

EBAYE TRANSITION (TECKY3.EBAYE)
 LOSHN TRANSITION (TECKY3.LOSHN)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKEOFF OBSTACLE NOTES

Rwy 12L: Fence 156' from DER, 57' left of centerline, 14' AGL/ 73' MSL. Obstruction light on blast fence, 156' from DER, 57' left of centerline, 73' MSL. Pole 191' from DER, 81' left of centerline, 34' AGL/ 93' MSL. Trees beginning 286' from DER, 161' right of centerline, up to 107' MSL. Transmission line tower, pole beginning 466' from DER, 228' left of centerline, up to 46' AGL/105' MSL. Tree 1281' from DER, 529' left of centerline, 117' MSL. Transmission line tower 1731' from DER, 729' left of centerline, 86' AGL/156' MSL. Tree 1799' from DER, 273' left of centerline, 144' MSL. Tree 1887' from DER, 68' right of centerline, 124' MSL. Transmission line tower 3047' from DER, 543' left of centerline, 73' AGL/147' MSL. Building 1.2 NM from DER, 630' left of centerline, 170' AGL /250' MSL. Building 1.3 NM from DER, 1051' left of centerline, 265' MSL. Building 1.3 NM from DER, 445' left of centerline, 217' AGL/301' MSL. Building 1.3 NM from DER, 51' left of centerline, 228' AGL/309' MSL. Buildings beginning 1.3 NM from DER, 81' left of centerline, up to 312' MSL. Building 1.5 NM from DER, 975' left of centerline, 262' AGL/351' MSL. Building 1.5 NM from DER, 1591' left of centerline, 268' AGL/358' MSL. Buildings beginning 1.5 NM from DER, 82' left of centerline, up to 365' MSL. Buildings beginning 1.6 NM from DER, 280' right of centerline, up to 346' MSL. Buildings beginning 1.6 NM from DER, 350' right of centerline, up to 260' AGL/350' MSL. Building 1.6 NM from DER, 1977' left of centerline, 286' AGL/368' MSL. Buildings beginning 1.6 NM from DER, 640' left of centerline, up to 274' AGL/ 370' MSL. Building 1.9 NM from DER, 313' right of centerline, 284' AGL/373' MSL. Building 1.9 NM from DER, 282' right of centerline, 281' AGL/372' MSL.

Rwy 12R: Obstruction light on localizer 10' from DER, on centerline, 68' MSL. Obstruction light on blast fence 45' from DER, 115' right of centerline, 75' MSL. Fence 45 feet from DER, 115' right of centerline, 14' AGL/75' MSL. Tree 269' from DER, 149' right of centerline, 100' MSL. Trees, beginning 285' from DER , 193' left of centerline, up to 107' MSL. Road (I) 338' from DER, 2' right of centerline, 82' MSL. Tree, pole beginning 519' from DER, 279' right of centerline, up to 122' MSL. Trees beginning 1798' from DER, 631' left of centerline, up to 144' MSL. Poles beginning 1948' from DER, 688' right of centerline, up to 59' AGL/128' MSL. Tree 2604' from DER, 551' right of centerline, 133' MSL. Transmission line tower 3046' from DER, 1243' left of centerline, 73' AGL/147' MSL. Tree 3079' from DER, 873' right of centerline, 142' MSL. Building 1.3 NM from DER, 1145' left of centerline, 217' AGL/301' MSL. Building 1.3 NM from DER, 751' left of centerline, 228' AGL/ 309' MSL. Buildings beginning 1.3 NM from DER, 781' left of centerline, up to 312' MSL. Building 1.5 NM from DER, 1676' left of centerline, 262' AGL/351' MSL. Building 1.5 NM from DER, 2291' left of centerline, 268' AGL/358' MSL. Buildings beginning 1.5 NM from DER, 134' left of centerline, up to 365' MSL. Building 1.6 NM from DER, 2678' left of centerline, 286' AGL/ 368' MSL. Buildings beginning 1.6 NM from DER, 1340' left of centerline, up to 274' AGL/370' MSL. Building 1.6 NM from DER, 345' right of centerline, 320' MSL. Building 1.9 NM from DER, 386' left of centerline, 284' AGL/373' MSL. Building 1.9 NM from DER, 417' left of centerline, 281' AGL/ 372' MSL.

Rwy 30L: Poles beginning 166' from DER, 494' left of centerline, up to 69' MSL. Navaid 174' from DER, on centerline, 7' AGL/44' MSL. Fence 184' from DER, 369' right of centerline, 15' AGL/51' MSL. Tree 308' from DER, 424' left of centerline, 71' MSL. Tree, pole beginning 473' from DER, 118' right of centerline, up to 72' MSL. Poles beginning 711' from DER, 544' right of centerline, up to 75' MSL. Navaid 782' from DER, 350' left of centerline, 47' AGL/ 83' MSL. Pole 1227' from DER, 607' left of centerline, 48' AGL/86' MSL. Pole 1315' from DER, 548' right of centerline, 49' AGL/ 80' MSL. Pole 1329' from DER, 743' left of centerline, 57' AGL/94' MSL. Tree 1852' from DER, 179' right of centerline, 85' MSL. Tree 2561' from DER, 738' right of centerline, 108' MSL. Transmission tower, transmission line tower, beginning 2616' from DER, 1130' left of centerline, up to 120' MSL. Pole 2806' from DER, 1215' left of centerline, 135' MSL. Pole 2897' from DER, 614' left of centerline, 113' MSL. Pole, transmission line tower, beginning 4145' from DER, 1329' left of centerline, up to 152' MSL.

Rwy 30R: Pole 100' from DER, 449' right of centerline, 40' AGL/75' MSL. Fence 138' from DER, 243' right of centerline, 13' AGL/47' MSL. Fence 184' from DER, 329' left of centerline, 15' AGL/ 51' MSL. Tree 411' from DER, 37' left of centerline, 70' MSL. Tree 474' from DER, 319' left of centerline, 72' MSL. Pole 526' from DER, 580' left of centerline, 26' AGL/61' MSL. Pole 657' from DER, 369' right of centerline, 53' AGL/84' MSL. Vehicle on road beginning 688' from DER, on centerline, up to 68' MSL. Poles beginning 711' from DER, 57' left of centerline, up to 25' AGL/75' MSL. Pole 961' from DER, 133' right of centerline, 56' AGL/88' MSL. Pole 1315' from DER, 150' left of centerline, 49' AGL/80' MSL. Tree 1852' from DER, 519' left of centerline, 85' MSL. Tree 2561' from DER, 39' right of centerline, 108' MSL. Building 3424' from DER, 146' right of centerline, 96' AGL/124' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 82216 W13A	APP CRS 127°	Rwy Idg TDZE 133 Apt Elev 135	2601
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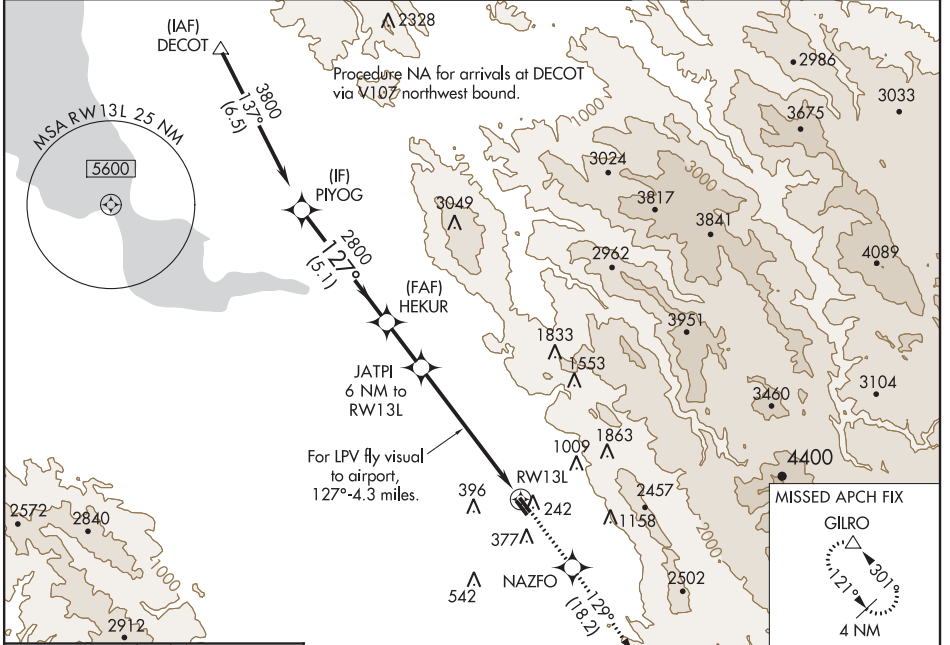
RNAV (GPS) RWY 13L

REID-HILLVIEW OF SANTA CLARA COUNTY (R.H.V)

NA DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When control tower closed, use Norman Y Mineta San Jose Intl altimeter setting. Circling east of Rwy 13L-31R NA at night. VDP NA with Norman Y Mineta San Jose Intl altimeter setting.

MISSED APPROACH: Climb to 4600 direct NAZFO and on track 129° to GILRO and hold.

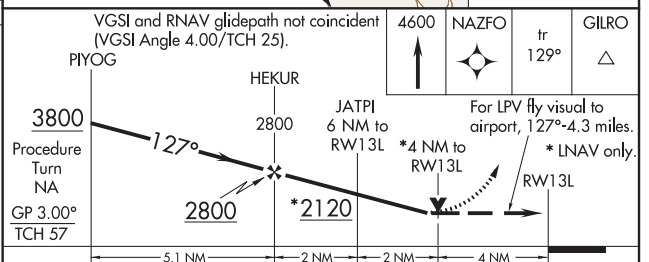
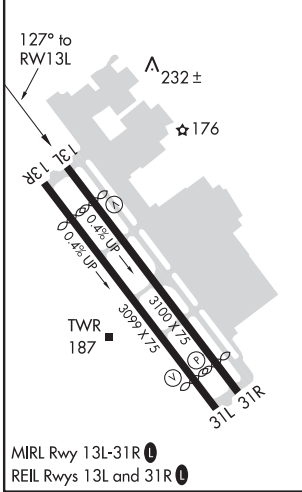
ATIS 125.2	NORCAL APP CON 120.1 290.25	REID-HILLVIEW TOWER* (Rwy 13L-31R) (Rwy 13R-31L) 119.8 (CTAF) 126.1	GND CON 121.65	UNICOM 122.95
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 135	TDZE 133
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CATEGORY	A	B	C	D
LPV DA	1554-3	1421 (1500-3)		NA
LNAV MDA	1840-1¼ 1707 (1800-1¼)	1840-1½ 1707 (1800-1½)		NA
CIRCLING	1840-1¼ 1705 (1800-1¼)	1840-1½ 1705 (1800-1½)		NA
NORMAN Y MINETA SAN JOSE INTL ALTIMETER SETTING MINIMUMS				
LPV DA	NA			
LNAV MDA	1860-1¼ 1727 (1800-1¼)	1860-1½ 1727 (1800-1½)		NA
CIRCLING	1860-1¼ 1725 (1800-1¼)	1860-1½ 1725 (1800-1½)		NA

ATIS
125.2
REID-HILLVIEW TOWER ★
119.8 (RWY 13L-31R)
126.1 (RWY 13R-31L)
GND CON
121.65

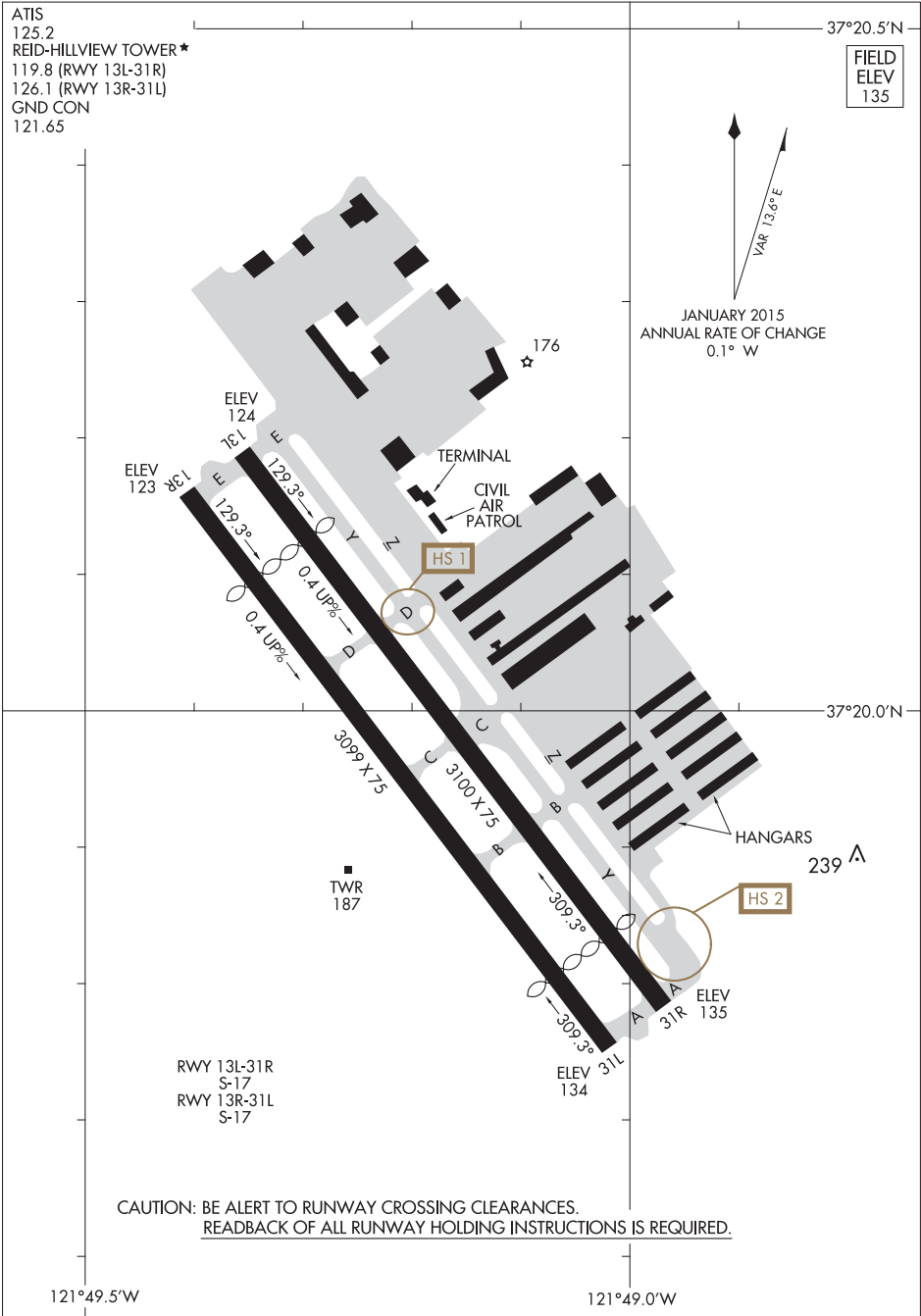
FIELD
ELEV
135



JANUARY 2015
ANNUAL RATE OF CHANGE
0.1° W

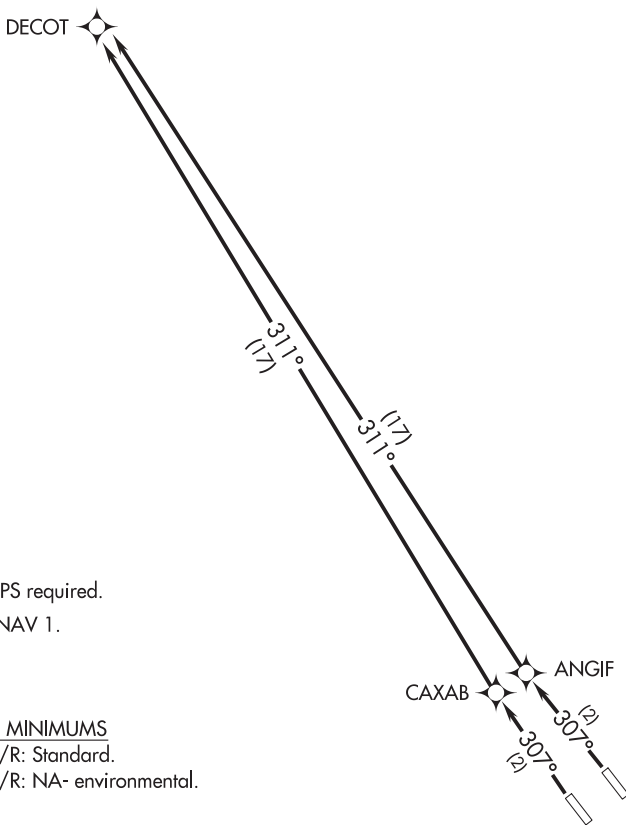
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NORCAL DEP CON
121.3 270.35



NOTE: GPS required.
NOTE: RNAV 1.

TAKEOFF MINIMUMS
Rwys 31L/R: Standard.
Rwys 13L/R: NA- environmental.

TAKEOFF OBSTACLE NOTES
Rwys 31L/R: Trees 1070' from DER, 500' right and left of centerline, 173' and 169' MSL.
Rwy 31R: Light 125' from DER, 370' right of centerline, 159' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 31L: Climb to 4000 via 307° course to CAXAB WP and 311° track to DECOT WP. Then via assigned route.

TAKEOFF RUNWAY 31R: Climb to 4000 via 307° course to ANGIF WP and 311° track to DECOT WP. Then via assigned route.

TAKEOFF RUNWAYS 13L/13R: NA.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	3095
321°	TDZE	280
	Apt Elev	281

RNAV (GPS) RWY 32

SAN MARTIN (E16)

NA Circling NA west of Rwy 14-32. Procedure NA at night. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Norman Y Mineta San Jose Intl altimeter setting and increase all MDAs 100 feet; increase Cat B visibility ¼ mile.

MISSED APPROACH: Climb to 1700 then climbing left turn to 3500 direct ACETY and hold.

AWOS-3P 118.35	NORCAL APP CON 124.525 348.675	UNICOM 122.7 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

Procedure NA for arrivals on SNS VORTAC airway radials 293 CW 083.

SALINAS SNS

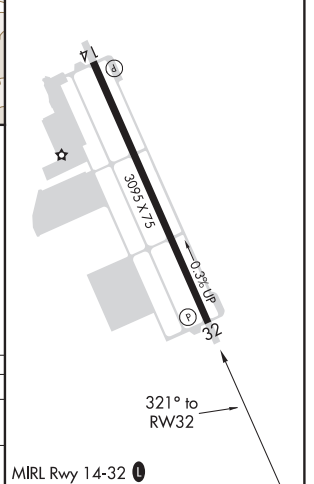
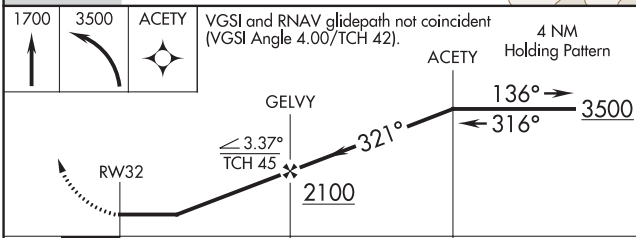
(IAF) HUXUM

(IF/IAF) ACETY

(FAF) GELVY

RW32

ELEV	281	TDZE	280
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CATEGORY	A	B	C	D
LNVA MDA	1200-1¼	920 (1000-1¼)		NA
CIRCLING	1200-1¼	919 (1000-1¼)		NA

WAAS CH 69230 W02A	APP CRS 013°	Rwy Idg TDZE Apt Elev	4802 129 129
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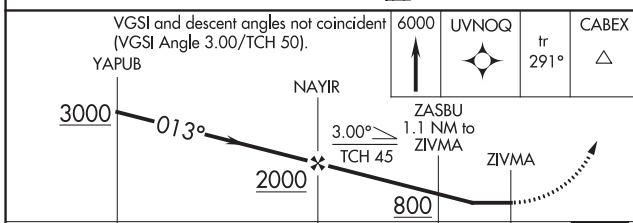
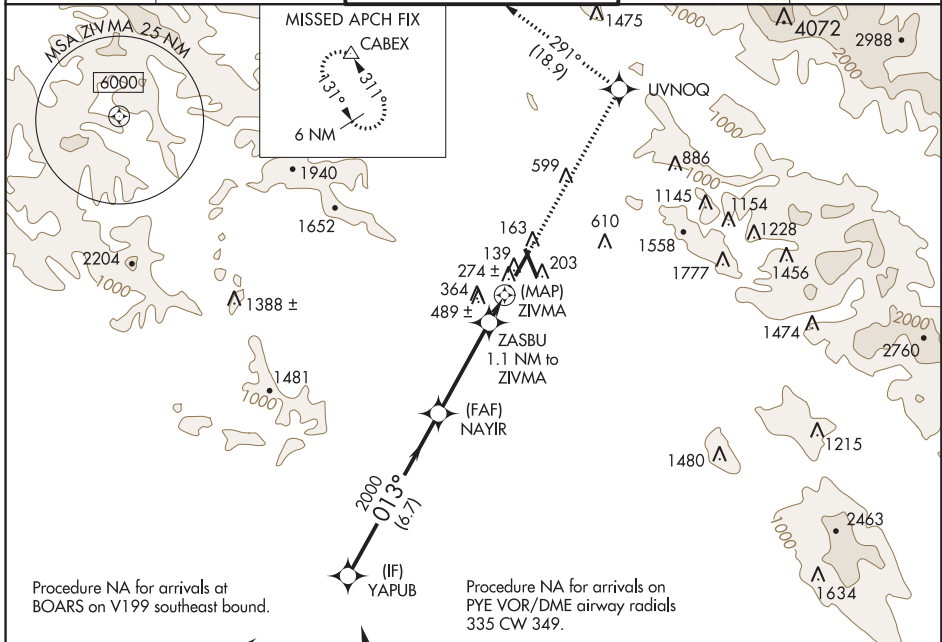
RNAV (GPS) RWY 2

CHARLES M SCHULZ-SONOMA COUNTY (STS)

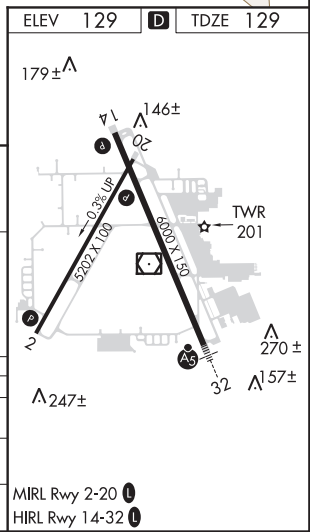
⚠ DME/DME RNP-0.3 NA. When local altimeter setting not received, use Petaluma altimeter setting and increase all MDA 60 feet and visibility LP and LNAV Cats C and D ¼ mile. Rwy 2 helicopter visibility reduction below ¾ SM NA.

⚠ MISSED APPROACH: Climb to 6000 direct UVNOQ and on track 291° to CABEX and hold, continue climb-in-hold to 6000.

ATIS 120.55	OAKLAND CENTER 127.8 353.5	SANTA ROSA TOWER* 118.5 (CTAF) 0 363.0	GND CON 121.9	UNICOM 122.95
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CATEGORY	A	B	C	D
LP MDA	500-1 371 (400-1)			
LNAV MDA	660-1	531 (600-1)	660-1½	531 (600-1½)
C CIRCLING	660-1 531 (600-1)	680-1 551 (600-1)	1080-3 951 (1000-3)	1420-3 1291 (1300-3)



RNAV (GPS) RWY 2

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

SANTA ROSA, CALIFORNIA

AL-696 (FAA)

16231

APP CRS	Rwy Idg	5880
126°	TDZE	122
	Apt Elev	129

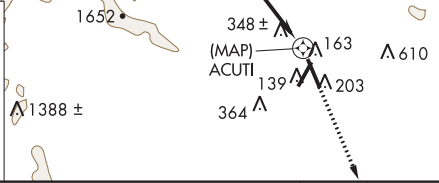
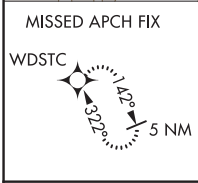
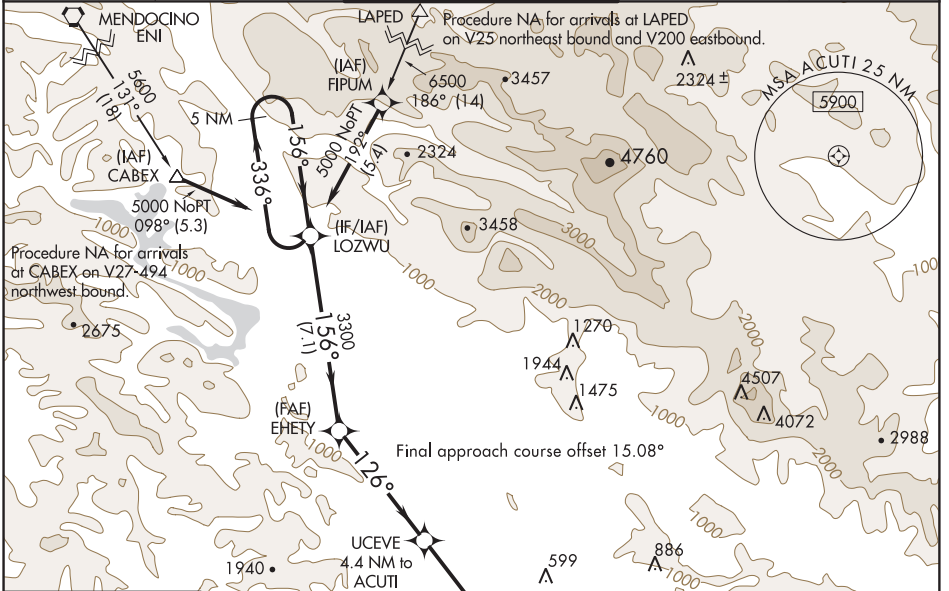
RNAV (GPS) RWY 14

CHARLES M SCHULZ-SONOMA COUNTY (STS)

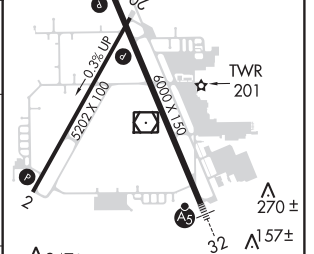
▽ DME/DME RNP-0.3 NA. When local altimeter setting not received, use Petaluma altimeter setting and increase all MDA 60 feet and increase LNAV visibility Cat C and D ¼ mile.

▲ MISSED APPROACH: Climb to 5000 direct WDSTC and hold, continue climb-in-hold to 5000.

ATIS 120.55	OAKLAND CENTER 127.8 353.5	SANTA ROSA TOWER* 118.5 (CTAF) 363.0	GND CON 121.9	UNICOM 122.95
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5 NM Holding Pattern	LOZWU	EHETY	UCEVE 4.4 NM to ACUTI	ACUTI
5000	336°	156°	3300	126°
			1700	
	7.1 NM	5 NM	3.5 NM	0.9 NM



CATEGORY	A	B	C	D
LNAV MDA	600-1	478 (500-1)	600-1 ³ / ₈	478 (500-1 ³ / ₈)
C CIRCLING	600-1 471 (500-1)	680-1 551 (600-1)	1080-3 951 (1000-3)	1420-3 1291 (1300-3)

MRL Rwy 2-20 **U**
HIRL Rwy 14-32 **U**

SANTA ROSA, CALIFORNIA
Amdt 2A 08JAN15

CHARLES M SCHULZ-SONOMA COUNTY (STS)
38°31'N-122°49'W
RNAV (GPS) RWY 14

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

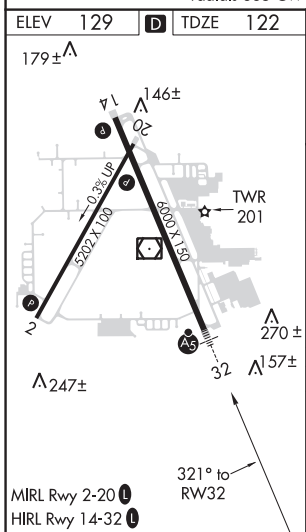
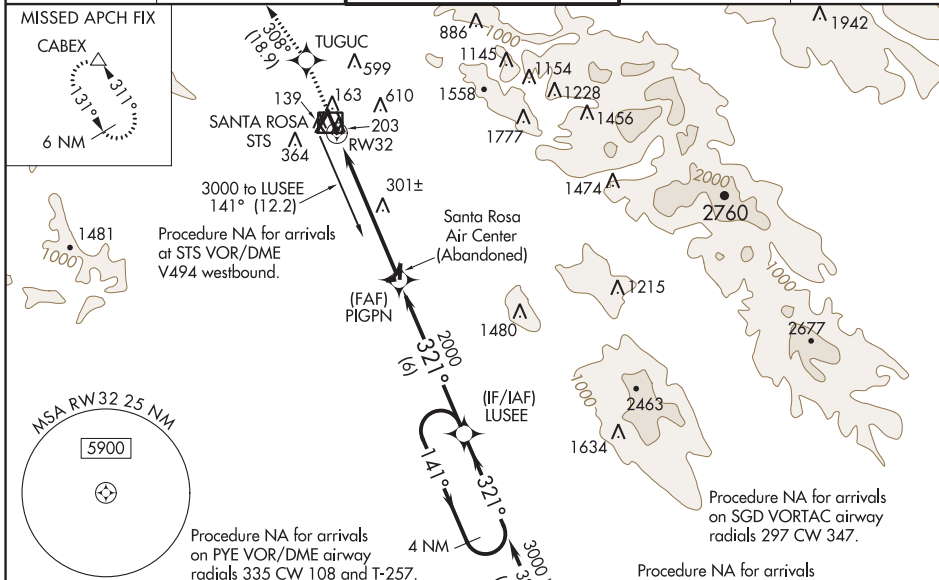
WAAS CH 72611 W32A	APP CRS 321°	Rwy Ldg 6000 TDZE 122 Apt Elev 129
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RNAV (GPS) RWY 32

CHARLES M SCHULZ-SONOMA COUNTY (STS)

<p>⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -4°C (25°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received use Petaluma altimeter setting: Increase all DA 47 feet, all MDA 60 feet, increase LPV, LNAV/VNAV and LNAV Cat C/D visibilities ¾ mile. Baro-VNAV and VDP NA when using Petaluma altimeter setting.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climb to 6000 direct TUGUC and on track 308° to CABEX and hold, continue climb-in-hold to 6000.</p>
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ATIS 120.55	OAKLAND CENTER 127.8 353.5	SANTA ROSA TOWER* 118.5 (CTAF) 0 363.0	GND CON 121.9	UNICOM 122.95
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6000	TUGUC	tr 308°	CABEX	LUSEE	4 NM Holding Pattern
↑	⊙	⊙	△	→ 141°	← 321° 3000
* LNAV only.				PIGPN 2000	GP 3.00° TCH 53
* 1.2 NM to RW32		6 NM			
1.2	4.5	6			
CATEGORY	A	B	C	D	
LPV DA		322/24	200 (200-½)		
LNAV/VNAV DA		570/50	448 (500-1)		
LNAV MDA	560/24	438 (500-½)	560/40	438 (500-¾)	
CIRCLING	600-1	680-1	1080-3	1420-3	
	471 (500-1)	551 (600-1)	951 (1000-3)	1291 (1300-3)	

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

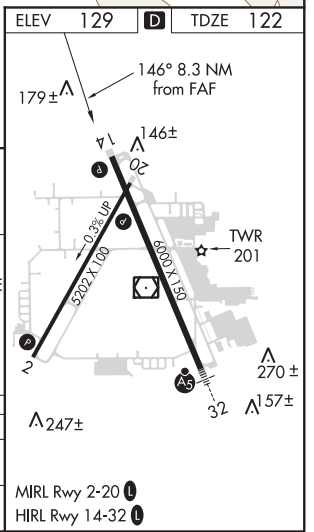
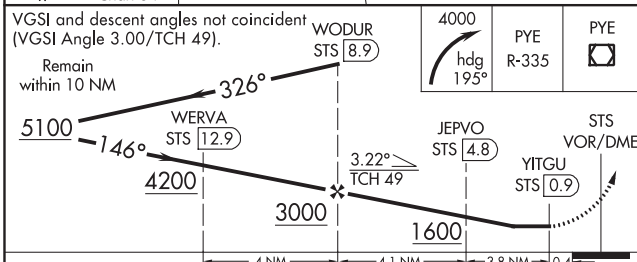
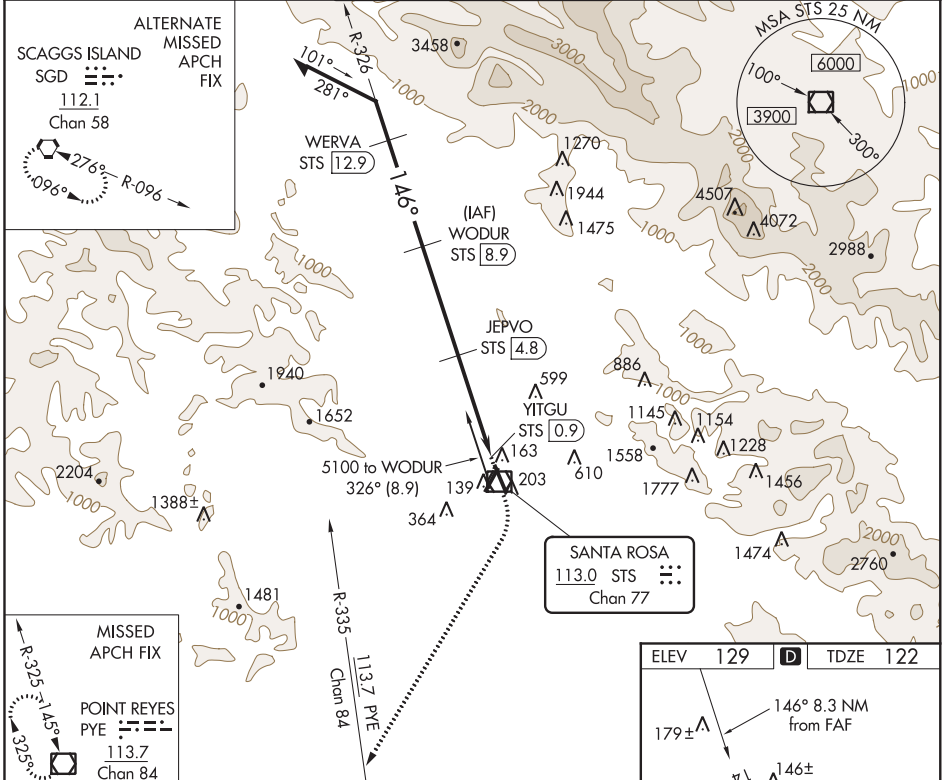
VOR/DME STS 113.0 Chan 77	APP CRS 146°	Rwy Idg TDZE 122 Apt Elev 129	5880
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VOR/DME RWY 14
CHARLES M SCHULZ-SONOMA COUNTY (STS)

⚠ Helicopter visibility reduction below 3/4 SM NA.
⚠ When local altimeter setting not received, use Petaluma altimeter setting and increase all MDA 60 feet, and increase S-14 Cats C and D visibility 1/2 mile. Increase Circling Cat A visibility 1/4 mile.

MISSED APPROACH: Climbing right turn to 4000 on heading 195° and on PYE VOR/DME R-335 to PYE VOR/DME and hold.

ATIS 120.55	OAKLAND CENTER 127.8 353.5	SANTA ROSA TOWER ★ 118.5 (CTAF) 363.0	GND CON 121.9	UNICOM 122.95
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CATEGORY	A	B	C	D
S-14	880-1 758 (800-1)	880-1 1/4 758 (800-1 1/4)	880-2 1/2 758 (800-2 1/2)	
C CIRCLING	880-1 751 (800-1)	880-1 1/4 751 (800-1 1/4)	1080-3 951 (1000-3)	1420-3 1291 (1300-3)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

16315
AIRPORT DIAGRAM

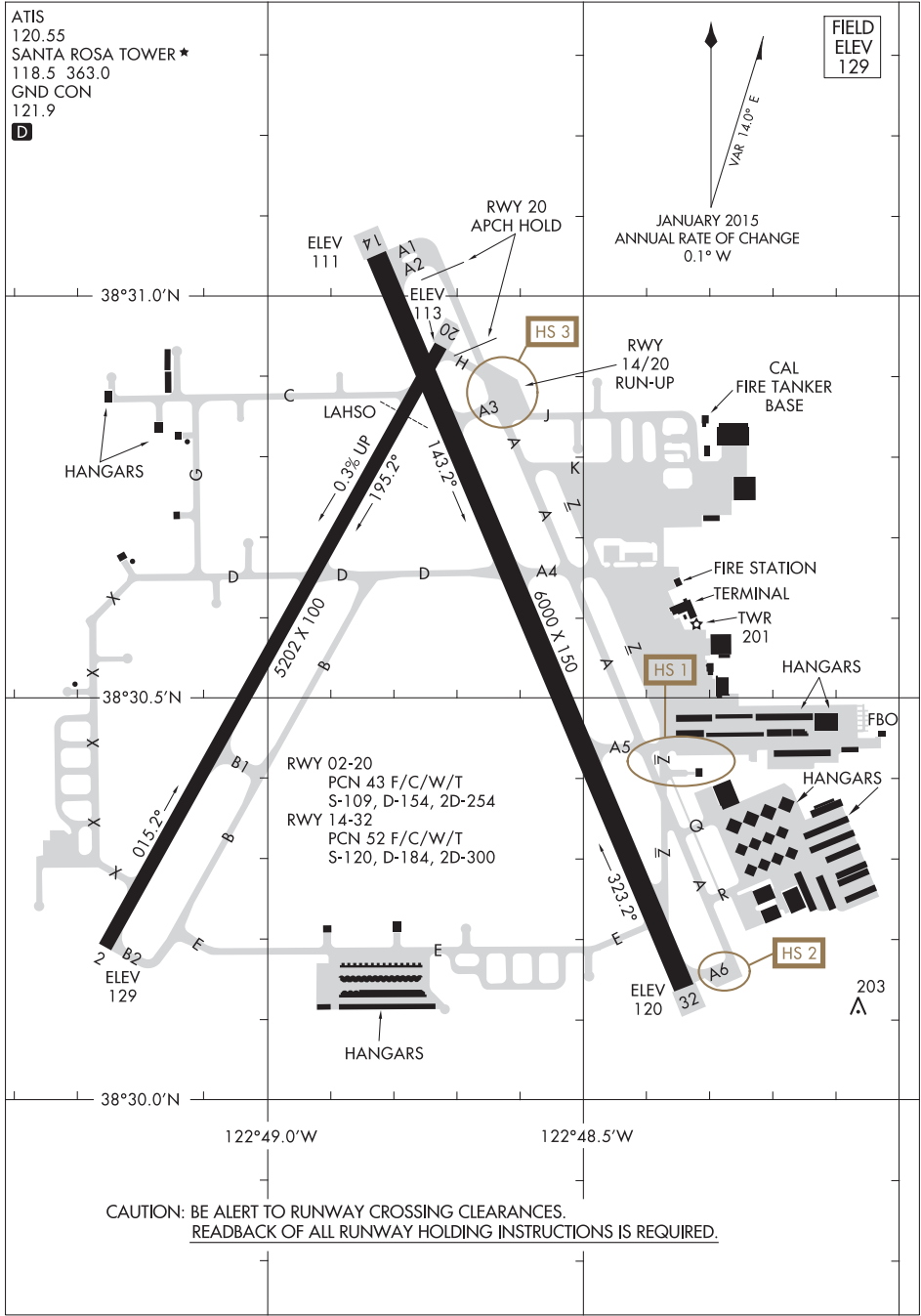
CHARLES M SCHULZ-SONOMA COUNTY (STS)
 AL-696 (FAA)
 SANTA ROSA, CALIFORNIA

ATIS
 120.55
 SANTA ROSA TOWER ★
 118.5 363.0
 GND CON
 121.9
D

FIELD
 ELEV
 129



JANUARY 2015
 ANNUAL RATE OF CHANGE
 0.1° W



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

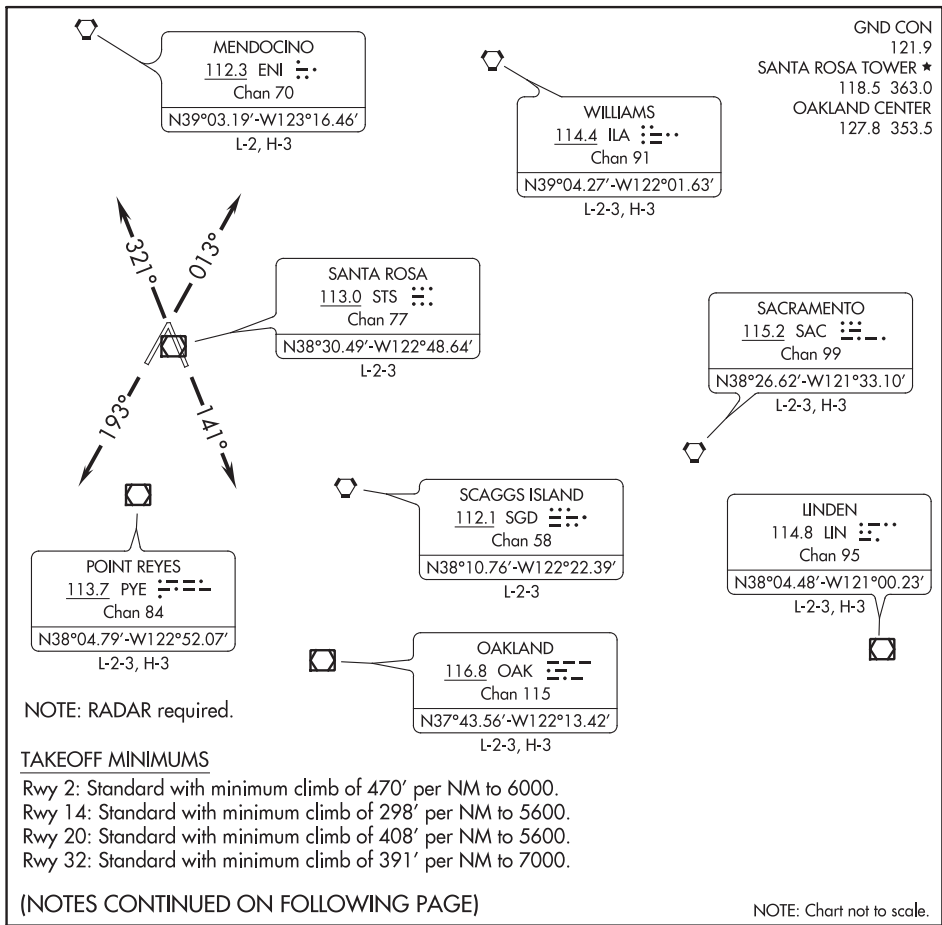
**CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.**

16315
AIRPORT DIAGRAM

SANTA ROSA, CALIFORNIA
 CHARLES M SCHULZ-SONOMA COUNTY (STS)

CHARLIE FIVE DEPARTURE

CHARLES M SCHULZ-SONOMA COUNTY (STS)
SL-696 (FAA) SANTA ROSA, CALIFORNIA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb heading 013° (or assigned heading 295° CW 325° or 130° CW 190°), thence

TAKEOFF RUNWAY 14: Climb heading 141° (or assigned heading 295° CW 320° or 130° CW 220°), thence

TAKEOFF RUNWAY 20: Climb heading 193° (or assigned heading 295° CW 325° or 130° CW 220°), thence

TAKEOFF RUNWAY 32: Climb heading 321° (or assigned heading 295° CW 325° or 141° CW 220°), thence

. . . . expect RADAR vectors to join assigned route. Maintain assigned altitude; expect filed altitude/flight level ten minutes after departure.

LOST COMMUNICATIONS: If not in contact with Oakland Center after reaching 4000, proceed direct to the PYE VOR/DME. Thence via assigned route.

CHARLIE FIVE DEPARTURE

CHARLIE FIVE DEPARTURE

TAKEOFF OBSTACLE NOTES

- Rwy 2: Trees beginning 492' from DER, 36' left of centerline, up to 60' AGL/156' MSL.
Trees beginning 515' from DER, 114' right of centerline, up to 55' AGL/156' MSL.
Trees beginning 1000' from DER, 9' left of centerline, up to 100' AGL/178' MSL.
Trees beginning 1109' from DER, 135' right of centerline, up to 100' AGL/184' MSL.
Trees beginning 2104' from DER, 342' right of centerline, up to 100' AGL/196' MSL.
Tree 2119' from DER, 619' right of centerline, up to 100' AGL/173' MSL.
- Rwy 14: Tree 1' from DER, 498' right of centerline, 20' AGL/136' MSL.
Light structure 6' from DER, 40' left of centerline, 1' AGL/121' MSL.
Trees beginning 409' from DER, 602' left of centerline, up to 50' AGL/147' MSL.
Trees beginning 1201' from DER, 275' left of centerline, up to 70' AGL/167' MSL.
Tree 2194' from DER, 1034' right of centerline, 60' AGL/180' MSL.
- Rwy 20: Tree 108' from DER, 462' right of centerline, 40' AGL/162' MSL.
Trees beginning 1596' from DER, 403' left of centerline, up to 100' AGL/187' MSL.
Trees beginning 1498' from DER, 566' right of centerline, up to 144' AGL/274' MSL.
Trees beginning 2841' from DER, 109' left of centerline, up to 123' AGL/228' MSL.
- Rwy 32: Trees beginning 67' from DER, 891' right of centerline, up to 55' AGL/158' MSL.
Trees beginning 89' from DER, on centerline, up to 55' AGL/153' MSL.
Tree 1492' from DER, 319' left of centerline, up to 60' AGL/158' MSL.
Tree 3187' from DER, 140' left of centerline, 167' AGL/257' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

CHARLIE FIVE DEPARTURE

(FREES9.FREES) 16259

FREES NINE DEPARTURE

CHARLES M SCHULZ-SONOMA COUNTY (STS)
SANTA ROSA, CALIFORNIA

SL-696 (FAA)

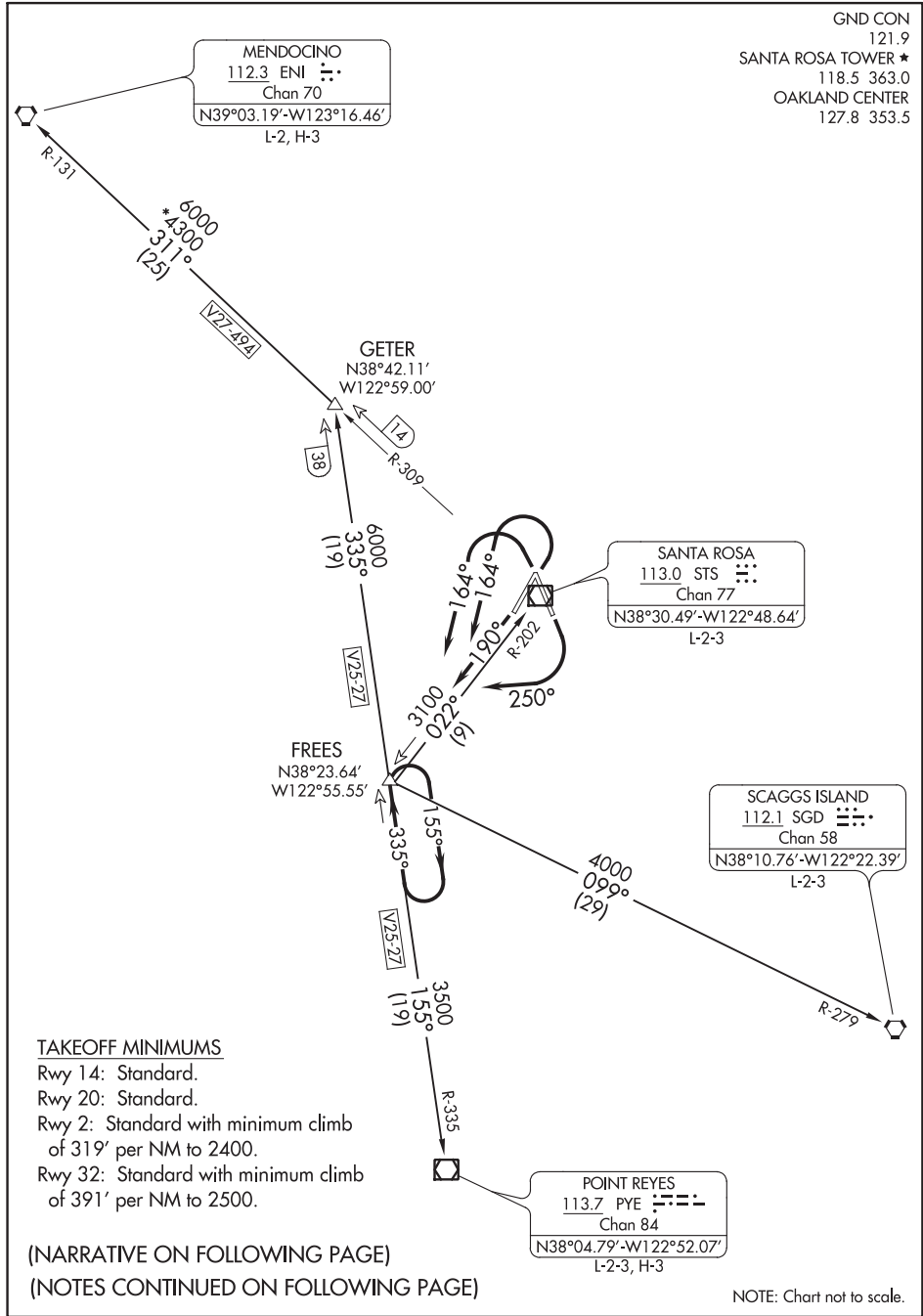
GND CON
121.9
SANTA ROSA TOWER ★
118.5 363.0
OAKLAND CENTER
127.8 353.5

MENDOCINO
112.3 ENI
Chan 70
N39°03.19'-W123°16.46'
L-2, H-3

SANTA ROSA
113.0 STS
Chan 77
N38°30.49'-W122°48.64'
L-2-3

SCAGGS ISLAND
112.1 SGD
Chan 58
N38°10.76'-W122°22.39'
L-2-3

POINT REYES
113.7 PYE
Chan 84
N38°04.79'-W122°52.07'
L-2-3, H-3



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKEOFF MINIMUMS

- Rwy 14: Standard.
- Rwy 20: Standard.
- Rwy 2: Standard with minimum climb of 319' per NM to 2400.
- Rwy 32: Standard with minimum climb of 391' per NM to 2500.

(NARRATIVE ON FOLLOWING PAGE)
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

FREES NINE DEPARTURE

(FREES9.FREES) 15SEP16

SANTA ROSA, CALIFORNIA
CHARLES M SCHULZ-SONOMA COUNTY (STS)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 2, 32: Climbing left turn heading 164°, thence

TAKEOFF RUNWAY 14: Climbing right turn heading 250°, thence

TAKEOFF RUNWAY 20: Climb on heading 190°, thence

. . . . intercept and climb on STS R-202 to cross FREES INT at or above MEA for route of flight, or continue climb in FREES holding pattern to MEA for route of flight then on (transition).

MENDOCINO TRANSITION (FREES9.ENI): From over FREES INT on PYE R-335 to GETER INT, then on ENI R-131 to ENI VORTAC.

POINT REYES TRANSITION (FREES9.PYE): From over FREES INT on PYE R-335 to PYE VOR/DME.

SANTA ROSA TRANSITION (FREES9.STS): From over FREES INT on STS R-202 to STS VOR/DME.

SCAGGS ISLAND TRANSITION (FREES9.SGD): From over FREES INT on SGD R-279 to SGD VORTAC.

TAKEOFF OBSTACLE NOTES

- Rwy 2: Trees beginning 492' from DER, 36' left of centerline, up to 60' AGL/156' MSL.
Trees beginning 515' from DER, 114' right of centerline, up to 55' AGL/156' MSL.
Trees beginning 1000' from DER, 9' left of centerline, up to 100' AGL/178' MSL.
Trees beginning 1109' from DER, 135' right of centerline, up to 100' AGL/184' MSL.
Trees beginning 2104' from DER, 342' right of centerline, up to 100' AGL/196' MSL.
Tree 2119' from DER, 619' right of centerline, up to 100' AGL/173' MSL.
- Rwy 14: Tree 1' from DER, 498' right of centerline, 20' AGL/136' MSL.
Light structure 6' from DER, 40' left of centerline, 1' AGL/121' MSL.
Trees beginning 409' from DER, 602' left of centerline, up to 50' AGL/147' MSL.
Trees beginning 1201' from DER, 275' left of centerline, up to 70' AGL/167' MSL.
Tree 2194' from DER, 1034' right of centerline, 60' AGL/180' MSL.
- Rwy 20: Tree 108' from DER, 462' right of centerline, 40' AGL/162' MSL.
Trees beginning 1596' from DER, 403' left of centerline, up to 100' AGL/187' MSL.
Trees beginning 1498' from DER, 566' right of centerline, up to 144' AGL/274' MSL.
Trees beginning 2841' from DER, 109' left of centerline, up to 123' AGL/228' MSL.
- Rwy 32: Trees beginning 67' from DER, 891' right of centerline, up to 55' AGL/158' MSL.
Trees beginning 89' from DER, on centerline, up to 55' AGL/153' MSL.
Tree 1492' from DER, 319' left of centerline, up to 60' AGL/158' MSL.
Tree 3187' from DER, 140' left of centerline, 167' AGL/257' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

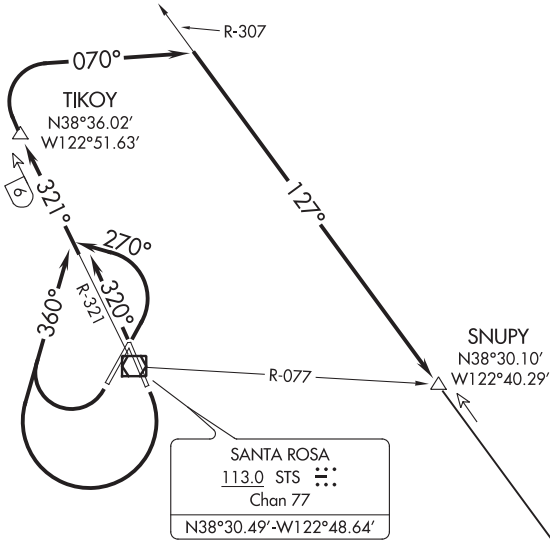
SW-2, 10 NOV 2016 to 05 JAN 2017

(STS8.SNUPY) 16091

SANTA ROSA EIGHT DEPARTURE

CHARLES M SCHULZ-SONOMA COUNTY (STS)
SL-696 (FAA) SANTA ROSA, CALIFORNIA

GND CON
121.9
SANTA ROSA TOWER *
118.5 363.0
OAKLAND CENTER
127.8 353.5



SANTA ROSA
113.0 STS
Chan 77
N38°30.49'-W122°48.64'

SCAGGS ISLAND
112.1 SGD
Chan 58
N38°10.76'-W122°22.39'
L-2-3

NOTE: DME required.

TAKEOFF MINIMUMS

- Rwy 2: Standard with minimum climb of 281' per NM to 3900.
- Rwy 14: Standard with minimum climb of 298' per NM to 2400.
- Rwy 20: Standard with minimum climb of 408' per NM to 2800.
- Rwy 32: Standard with minimum climb of 281' per NM to 2700.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climbing left turn heading 270°, thence . . .
TAKEOFF RUNWAYS 14 and 20: Climbing right turn heading 360°, thence . . .
TAKEOFF RUNWAY 32: Climb on heading 320°, thence . . .

. . . intercept and climb on STS R-321 to TIKOY/6 DME, then turn right heading 070° to intercept SGD R-307 to SNUPY INT/SGD 24 DME, then on (transition).

SCAGGS ISLAND TRANSITION (STS8.SGD): From over SNUPY INT/SGD 24 DME on SGD R-307 to SGD VORTAC.

SANTA ROSA EIGHT DEPARTURE

(STS8.SNUPY) 13NOV14

SANTA ROSA, CALIFORNIA
CHARLES M SCHULZ-SONOMA COUNTY (STS)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TAKEOFF OBSTACLE NOTES

- Rwy 2: Trees beginning 492' from DER, 36' left of centerline, up to 60' AGL/156' MSL.
Trees beginning 515' from DER, 114' right of centerline, up to 55' AGL/156' MSL.
Trees beginning 1000' from DER, 9' left of centerline, up to 100' AGL/178' MSL.
Trees beginning 1109' from DER, 135' right of centerline, up to 100' AGL/184' MSL.
Trees beginning 2104' from DER, 342' right of centerline, up to 100' AGL/196' MSL.
Tree 2119' from DER, 619' right of centerline, up to 100' AGL/173' MSL.
- Rwy 14: Tree 1' from DER, 498' right of centerline, 20' AGL/136' MSL.
Light structure 6' from DER, 40' left of centerline, 1' AGL/121' MSL.
Trees beginning 409' from DER, 602' left of centerline, up to 50' AGL/147' MSL.
Trees beginning 1201' from DER, 275' left of centerline, up to 70' AGL/167' MSL.
Tree 2194' from DER, 1034' right of centerline, 60' AGL/180' MSL.
- Rwy 20: Tree 108' from DER, 462' right of centerline, 40' AGL/162' MSL.
Trees beginning 1596' from DER, 403' left of centerline, up to 100' AGL/187' MSL.
Trees beginning 1498' from DER, 566' right of centerline, up to 144' AGL/274' MSL.
Trees beginning 2841' from DER, 109' left of centerline, up to 123' AGL/228' MSL.
- Rwy 32: Trees beginning 67' from DER, 891' right of centerline, up to 55' AGL/158' MSL.
Trees beginning 89' from DER, on centerline, up to 55' AGL/153' MSL.
Tree 1492' from DER, 319' left of centerline, up to 60' AGL/158' MSL.
Tree 3187' from DER, 140' left of centerline, 167' AGL/257' MSL.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

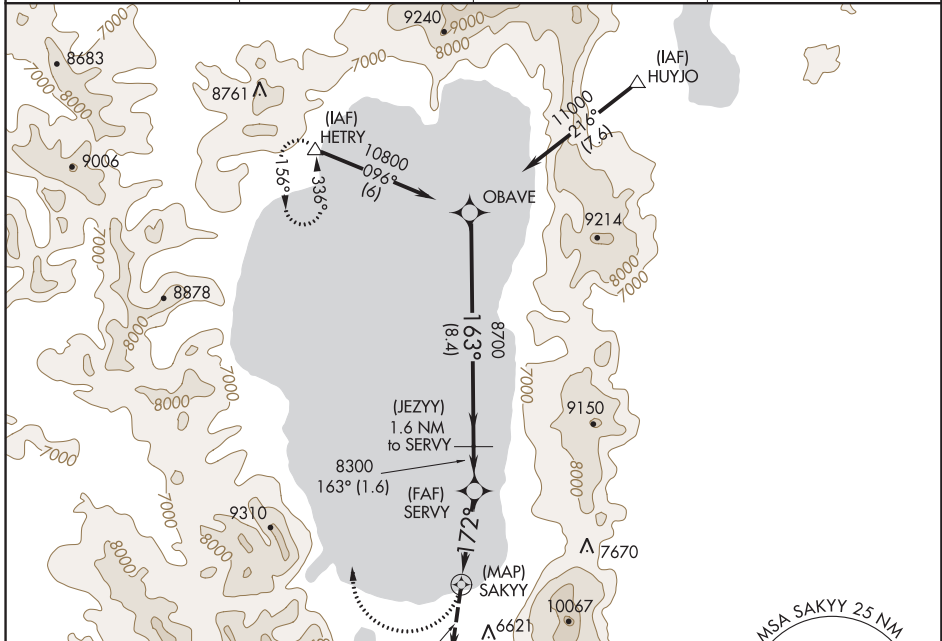
APP CRS 172°	Rwy Idg 7017
	TDZE 6254
	Apt Elev 6264

GPS RWY 18

LAKE TAHOE (TVL)

NA Circling not authorized at night. -21°C/-6°F	MALSF 	MISSED APPROACH: Climbing right turn to 12000 direct HETRY WP and hold.
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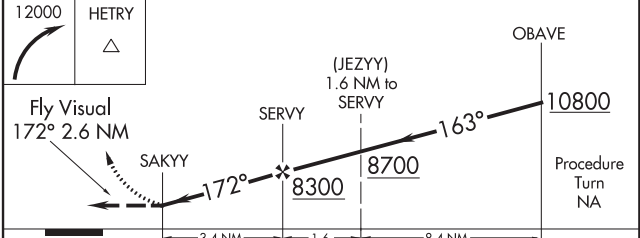
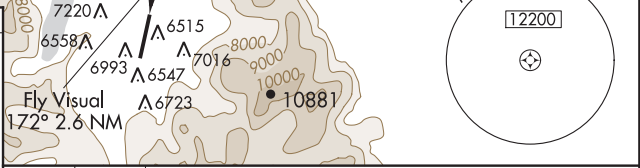
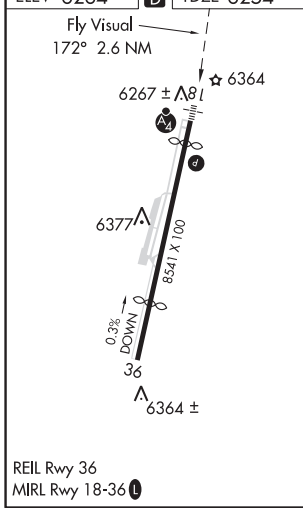
ASOS 124.725	OAKLAND CENTER 127.95 316.1	CLNC DEL 134.3	UNICOM 122.7 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 6264	D	TDZE 6254
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CATEGORY	A	B	C	D
S-18	7160-3 906 (900-3)			8700-3 2446 (2500-3)
CIRCLING	7420-3 1156 (1200-3)	7520-3 1256 (1300-3)	7560-3 1296 (1300-3)	8700-3 2436 (2500-3)

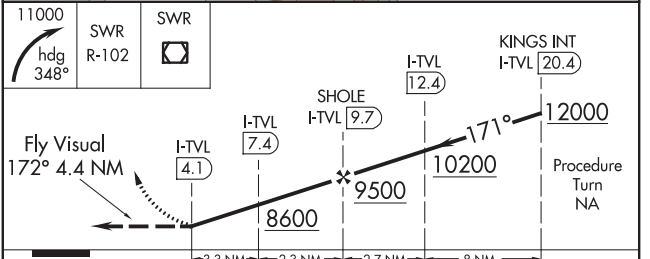
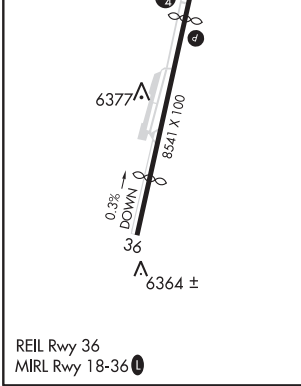
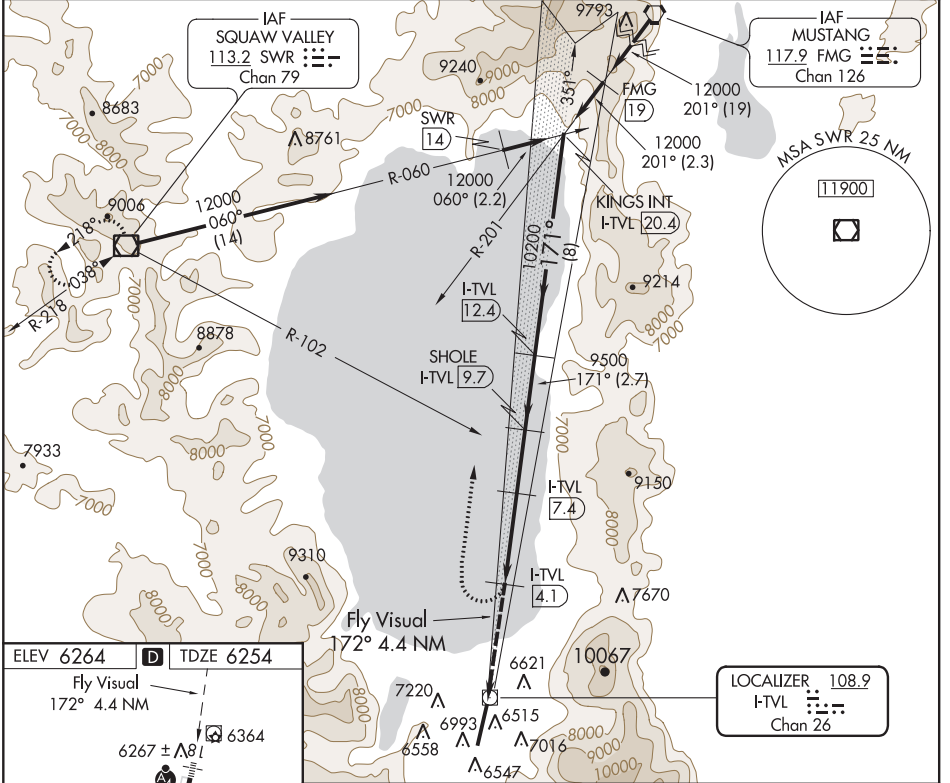
LOC/DME I-TVL 108.9 Chan 26	APP CRS 171°	Rwy Idg TDZE Apt Elev	7017 6254 6264
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LDA/DME-1 RWY 18

LAKE TAHOE (TVL)

<p>NA Circling not authorized at night.</p> <p>-21°C/-6°F</p>	<p>MAISF</p>	<p>MISSED APPROACH: Climbing right turn to 11000 via heading 348° and SWR R-102 to SWR VOR/DME and hold.</p>
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ASOS 124.725	OAKLAND CENTER 127.95 316.1	CLNC DEL 134.3	UNICOM 122.7 (CTAF)
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CATEGORY	A	B	C	D
S-18	7280-5 1026 (1100-5)			8540-5 2286 (2300-5)
CIRCLING	7420-5 1156 (1200-5)	7520-5 1256 (1300-5)	7540-5 1276 (1300-5)	8540-5 2276 (2300-5)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

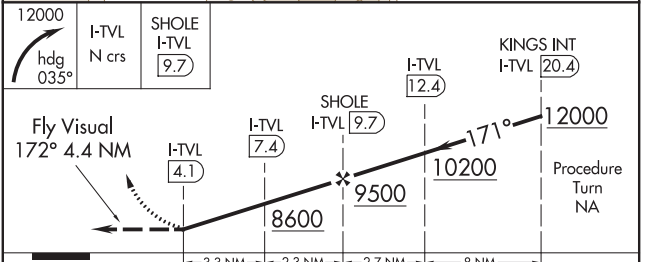
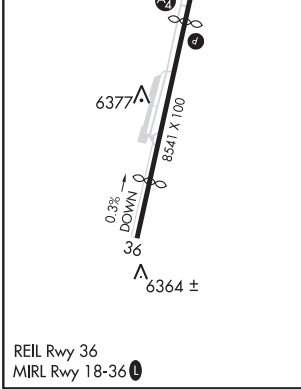
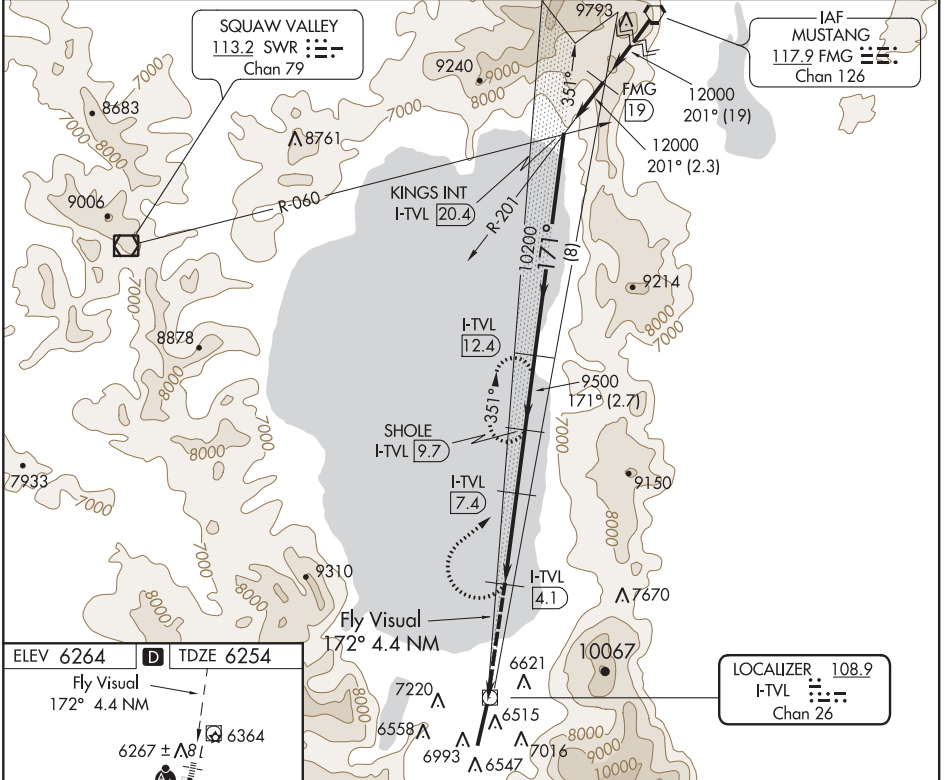
LOC/DME I-TVL 108.9 Chan 26	APP CRS 171°	Rwy Idg 7017
		TDZE 6254
		Apt Elev 6264

LDA/DME-2 RWY 18

LAKE TAHOE (TVL)

<p>NA Circling not authorized at night.</p> <p>-21°C/-6°F</p>	<p>MAISF</p>	<p>MISSED APPROACH: Climbing right turn to 12000 via heading 035° and I-TVL north course to SHOLE/9.7 DME and hold.</p>
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ASOS 124.725	OAKLAND CENTER 127.95 316.1	CLNC DEL 134.3	UNICOM 122.7 (CTAF)
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CATEGORY	A	B	C	D
S-18	8380-5	2126 (2200-5)		8540-5 2286 (2300-5)
CIRCLING	8380-5	2116 (2200-5)		8540-5 2276 (2300-5)

SW-2, 10 NOV 2016 to 05 JAN 2017

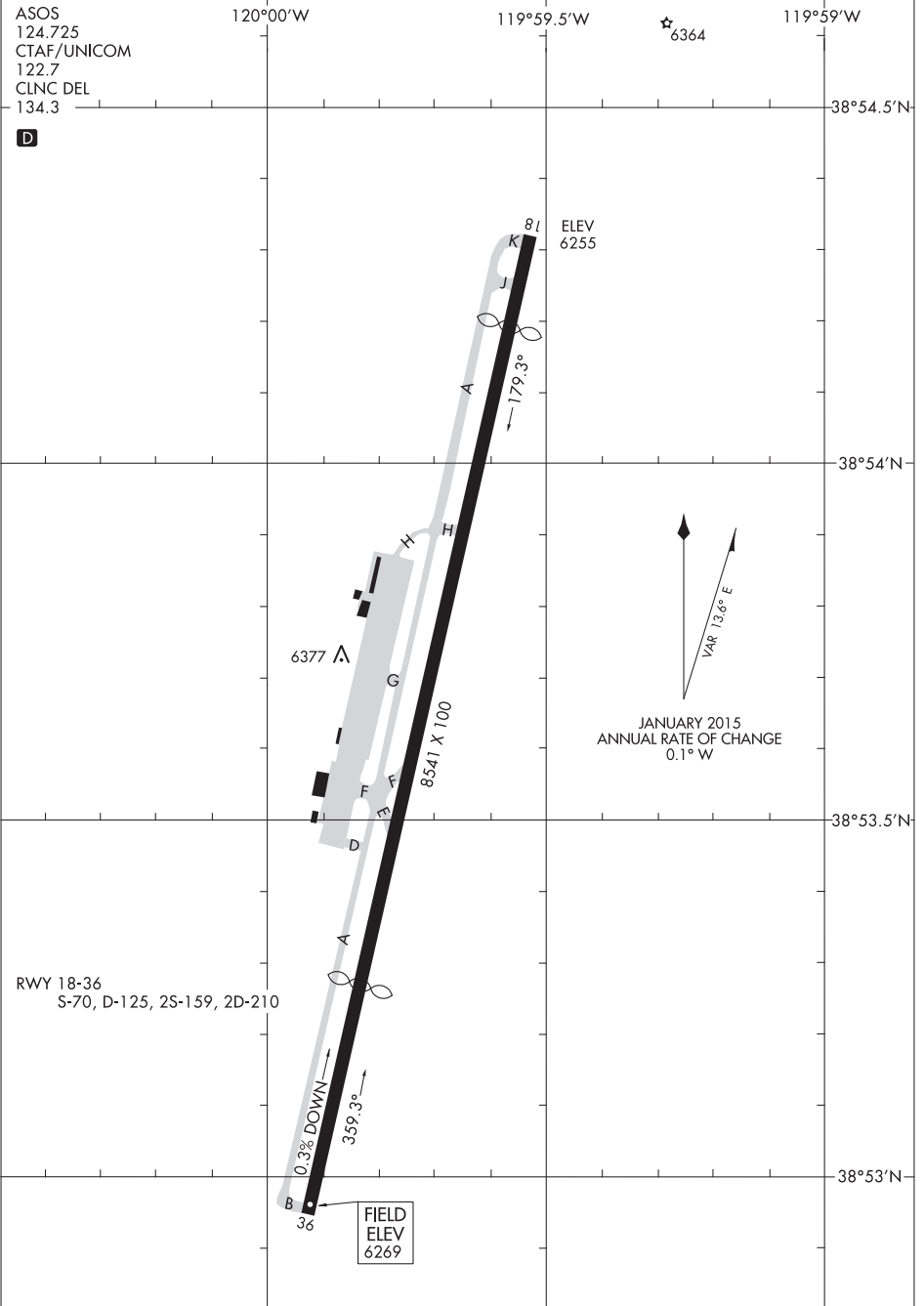
SW-2, 10 NOV 2016 to 05 JAN 2017

15288

AIRPORT DIAGRAM

AL-5416 (FAA)

LAKE TAHOE (TVL)
SOUTH LAKE TAHOE, CALIFORNIA



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

15288

SOUTH LAKE TAHOE, CALIFORNIA
LAKE TAHOE (TVL)

(RICHY6.SWR) 16315

RICHY SIX DEPARTURE

SL-5416 (FAA)

LAKE TAHOE (TVL)
SOUTH LAKE TAHOE, CALIFORNIA

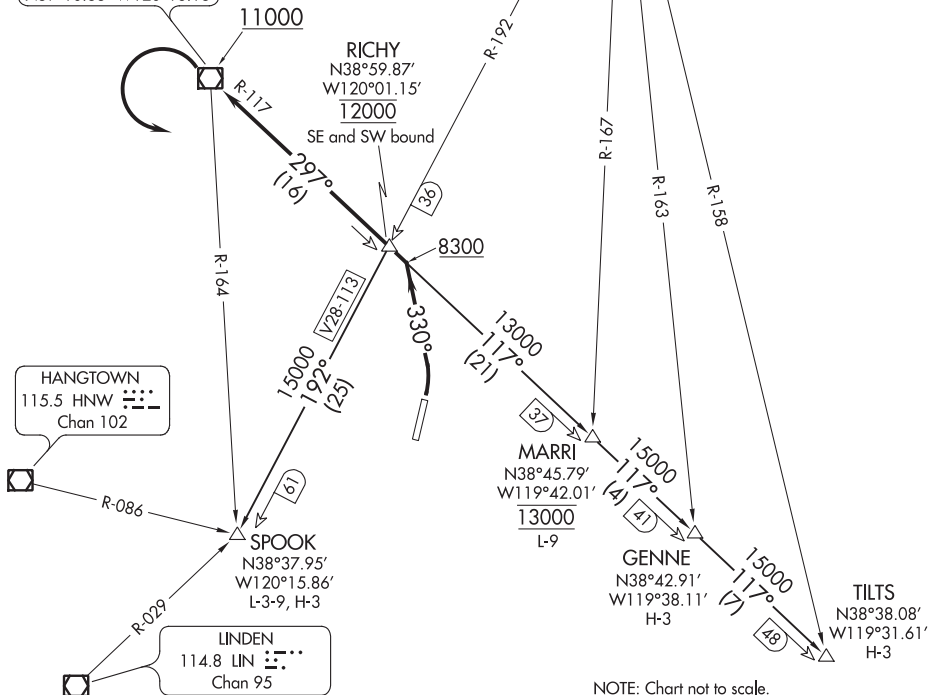
NOTE: Minimum crossing altitude at RICHY INT northwest bound, direct SWR VOR/DME: 8300.

NOTE: This SID requires a minimum climb rate of 400' per NM to 10000.

OAKLAND CENTER
127.95 316.1
CLNC DEL
134.3
CTAF
122.7

MUSTANG
117.9 FMG
Chan 126

SQUAW VALLEY
113.2 SWR
Chan 79
N39°10.83'-W120°16.18'



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 36: Turn left heading 330° thence. . . .

. . . . intercept SWR R-117 at or above 8300 continue climb northwest bound on SWR R-117 to SWR VOR/DME. Cross SWR VOR/DME at or above 11000. Aircraft cleared via a transition, reverse course to the left after crossing the SWR VOR/DME, and proceed to RICHY INT via SWR R-117. Cross RICHY INT at 12000 southeast and southwest bound, thence via (transition).

GENNE TRANSITION (RICHY6.GENNE): From over RICHY INT on SWR R-117 to GENNE INT.

MARRI TRANSITION (RICHY6.MARRI): From over RICHY INT on SWR R-117 to MARRI INT.

SPOOK TRANSITION (RICHY6.SPOOK): From over RICHY INT on FMG R-192 to SPOOK INT.

TILTS TRANSITION (RICHY6.TILTS): From over RICHY INT on SWR R-117 to TILTS INT.

RICHY SIX DEPARTURE

(RICHY6.SWR) 10NOV16

SOUTH LAKE TAHOE, CALIFORNIA
LAKE TAHOE (TVL)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(SHOLE2.SHOLE) 16315

SHOLE TWO DEPARTURE

SL-5416 (FAA)

LAKE TAHOE (TVL)
SOUTH LAKE TAHOE, CALIFORNIA

OAKLAND CENTER
127.95 316.1
CLNC DEL
134.3
CTAF
122.7

SQUAW VALLEY
113.2 SWR
Chan 79

MUSTANG
117.9 FMG
Chan 126
N39°31.88'-W119°39.36'
L-9, H-3

HANGTOWN
115.5 HNW
Chan 102

LINDEN
114.8 LIN
Chan 95

SHOLE
N39°04.23'
W119°57.76'

LOCALIZER
I-TVL 108.9
Chan 26

SPOOK
N38°37.95'
W120°15.86'
L-3-9, H-3

NOTE: This SID requires a minimum climb of 300' per NM to 9000.

NOTE: DME required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 18: NA.

TAKEOFF RUNWAY 36: Climb northbound via I-TVL localizer north course to SHOLE I-TVL 9.7 DME Fix. Continue climb in SHOLE 9.7 DME holding pattern until reaching 13000, thence via (transition) or (assigned route).

MUSTANG TRANSITION (SHOLE2.FMG): From over SHOLE DME on FMG R-192 to FMG VORTAC.

SPOOK TRANSITION (SHOLE2.SPOOK): From over SHOLE DME on FMG R-192 to SPOOK INT.

SHOLE TWO DEPARTURE

(SHOLE2.SHOLE) 10NOV16

SOUTH LAKE TAHOE, CALIFORNIA
LAKE TAHOE (TVL)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ILS or LOC RWY 29R

STOCKTON METROPOLITAN (SCK)

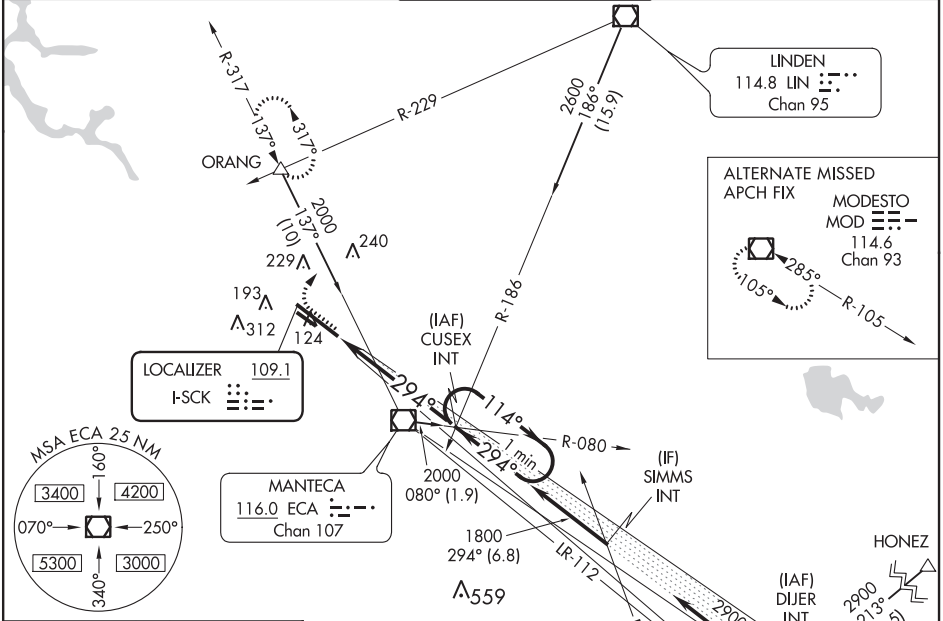
LOC I-SCK 109.1	APP CRS 294°	Rwy Idg 8650	TDZE 32
		Apt Elev 33	

When local altimeter setting not received, use Modesto altimeter setting and increase all DA 58 feet and all MDA 60 feet; increase S-LOC 29R Cat C/D visibility to RVR 5500. For inoperative MALSRS, increase S-LOC 29R Cat C/D visibility to 1 3/8 mile. For inoperative MALSRS when using Modesto altimeter setting, increase S-LOC 29R Cat C/D visibility to 1 1/2 mile.



MISSED APPROACH: Climb to 500 then climbing right turn to 2000 on heading 010° and ECA VOR/DME R-317 to ORANG INT and hold.

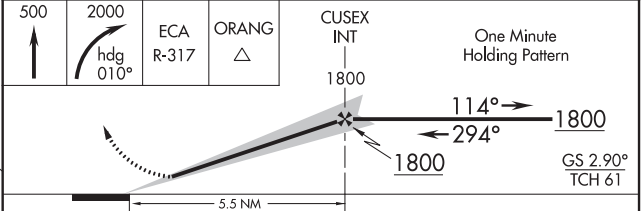
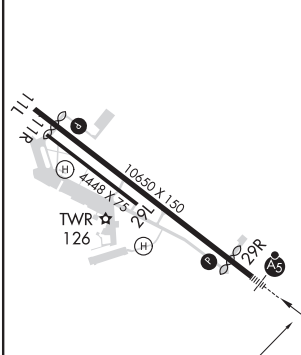
ATIS 118.25	NORCAL APP CON (SE-NW) 123.85 278.3 (N-SE) 125.1 363.2	STOCKTON TOWER ★ 120.3 (CTAF) 0 239.0	GND CON 121.9	UNICOM 122.95
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 33	TDZE 32
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CATEGORY	A	B	C	D
S-ILS 29R		232/24	200 (200-1/2)	
S-LOC 29R	500/24	468 (500-1/2)	500/50	468 (500-1)
CIRCLING	500-1 467 (500-1)	540-1 507 (600-1)	540-1 1/2 507 (600-1 1/2)	680-2 647 (700-2)

WAAS CH 72910 W11A	APP CRS 114°	Rwy Idg 8650 TDZE 29 Apt Elev 33
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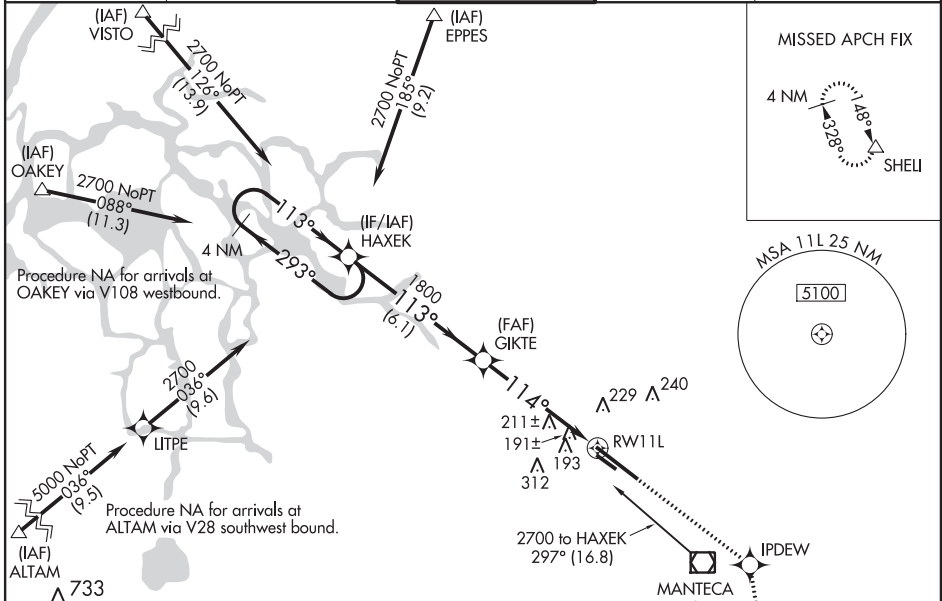
RNAV (GPS) RWY 11L

STOCKTON METROPOLITAN (SCK)

▼ Baro-VNAV NA when using Modesto altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME-RNP-0.3 NA.
 ▲ When local altimeter setting not received, use Modesto altimeter setting: increase all DA 58 feet and LPV and LNAV/VNAV all Cats visibility ¼ mile; increase all MDA 60 feet and LNAV Cat C and Circling Cat D visibility ¼ mile. VDP NA with Modesto altimeter setting.

MISSED APPROACH: Climb to 3000 direct IPDEW and right turn via 157° track to SHELI and hold.

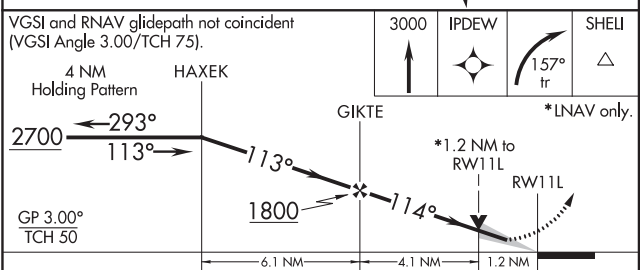
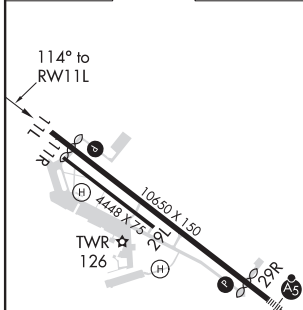
ATIS 118.25	NORCAL APP CON (SE-NW) 123.85 278.3 (N-SE) 125.1 363.2	STOCKTON TOWER * 120.3 (CTAF) 0 239.0	GND CON 121.9	UNICOM 122.95
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 33	D	TDZE 29
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CATEGORY	A	B	C	D
LPV DA		279-¾	250 (300-¾)	
LNAV/VNAV DA		512-1¾	483 (500-1¾)	
LNAV MDA	480-1	451 (500-1)	480-1¼ 451 (500-1¼)	480-1½ 451 (500-1½)
CIRCLING	500-1 467 (500-1)	540-1 507 (600-1)	540-1½ 507 (600-1½)	680-2 647 (700-2)

STOCKTON, CALIFORNIA

AL-407 (FAA)

16203

WAAS CH 87010 W29A	APP CRS 294°	Rwy Idg 8650 TDZE 32 Apt Elev 33
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RNAV (GPS) RWY 29R

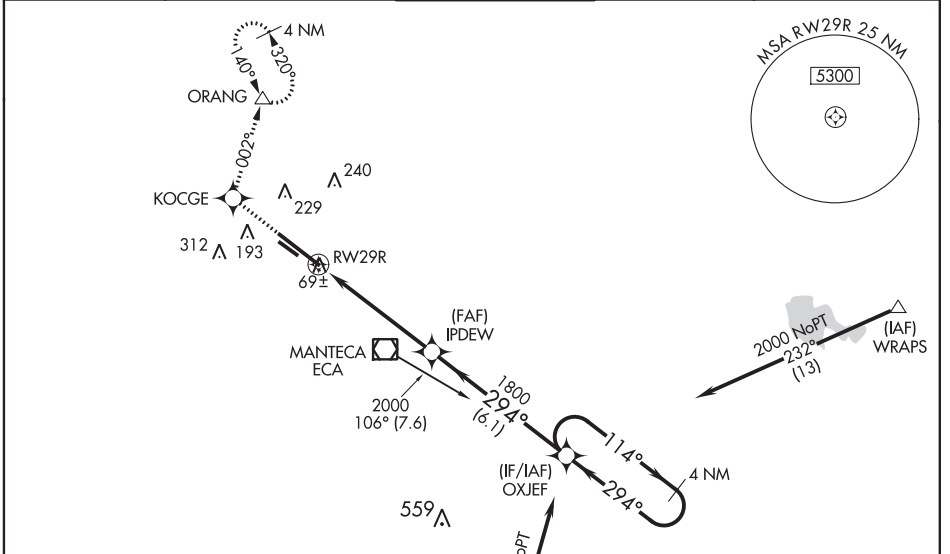
STOCKTON METROPOLITAN (SCK)

▼ For inoperative MALSR, increase LNAV/VNAV Cat D visibility to RVR 5000. Baro-VNAV NA when using Modesto altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Modesto altimeter setting: increase all DA 58 feet and LNAV/VNAV Cats A/B/C visibility ¼ mile; increase all MDA 60 feet and Circling Cat D visibility ¼ mile. For inoperative MALSR, when using Modesto altimeter setting, increase LPV all Cats visibility to 1 mile. VDP NA with Modesto altimeter setting.

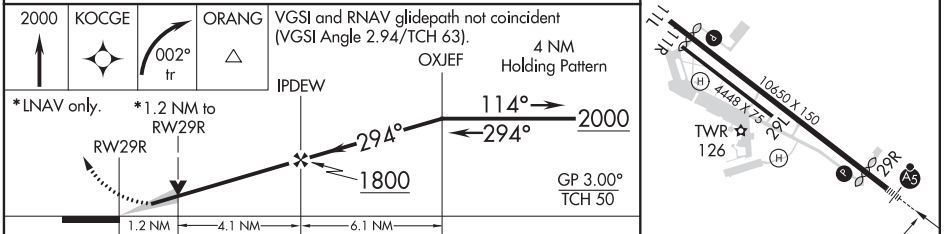
MALSR
A5

MISSED APPROACH:
Climb to 2000 direct KOCGE and right turn via 002° track to ORANG and hold, continue climb-in-hold to 2000.

ATIS 118.25	NORCAL APP CON (SE-NW) 123.85 278.3 (N-SE) 125.1 363.2	STOCKTON TOWER * 120.3 (CTAF) 0 239.0	GND CON 121.9	UNICOM 122.95
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ELEV 33	D	TDZE 32
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CATEGORY	A	B	C	D
LPV DA	282/24			
LNAV/VNAV DA	327/24	295 (300-½)		327/40 295 (300-¾)
LNAV MDA	460/24	428 (500-½)		460/50 428 (500-1)
CIRCLING	500-1 467 (500-1)	540-1 507 (600-1)	540-1½ 507 (600-1½)	680-2 647 (700-2)

HIRL Rwy 11L-29R

STOCKTON, CALIFORNIA
Orig 15JAN09

37°54'N-121°14'W

STOCKTON METROPOLITAN (SCK) RNAV (GPS) RWY 29R

SW-2, 10 NOV 2016 to 05 JAN 2017

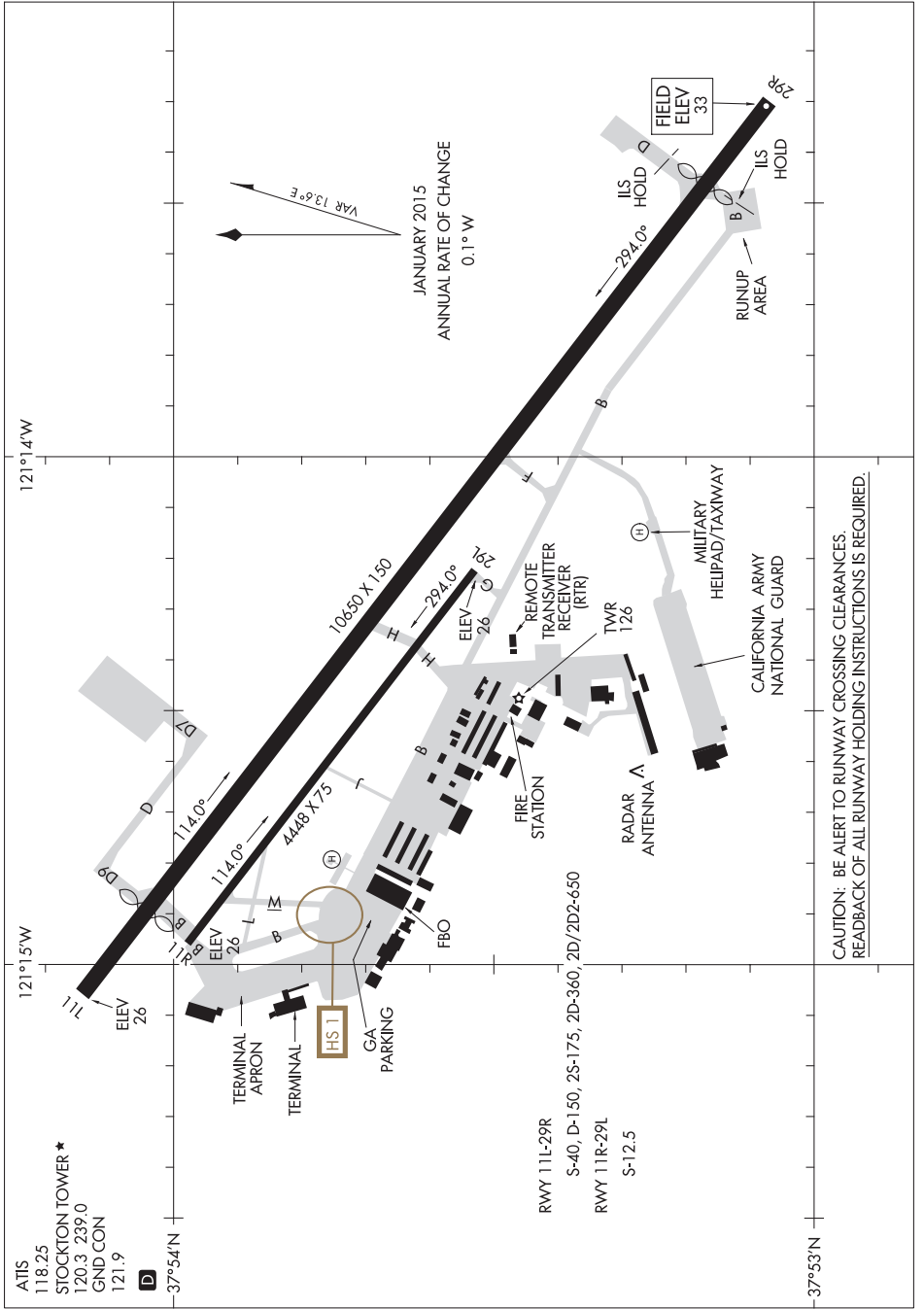
SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

AL-407 (FAA)

STOCKTON METROPOLITAN (SCK)
STOCKTON, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017



SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

STOCKTON, CALIFORNIA
STOCKTON METROPOLITAN (SCK)

SUSANVILLE, CALIFORNIA

AL-9479 (FAA)

15344

APP CRS
297°

Rwy Idg **4051**
TDZE **4146**
Apt Elev **4149**

RNAV (GPS) RWY 29

SUSANVILLE MUNI (SVL)

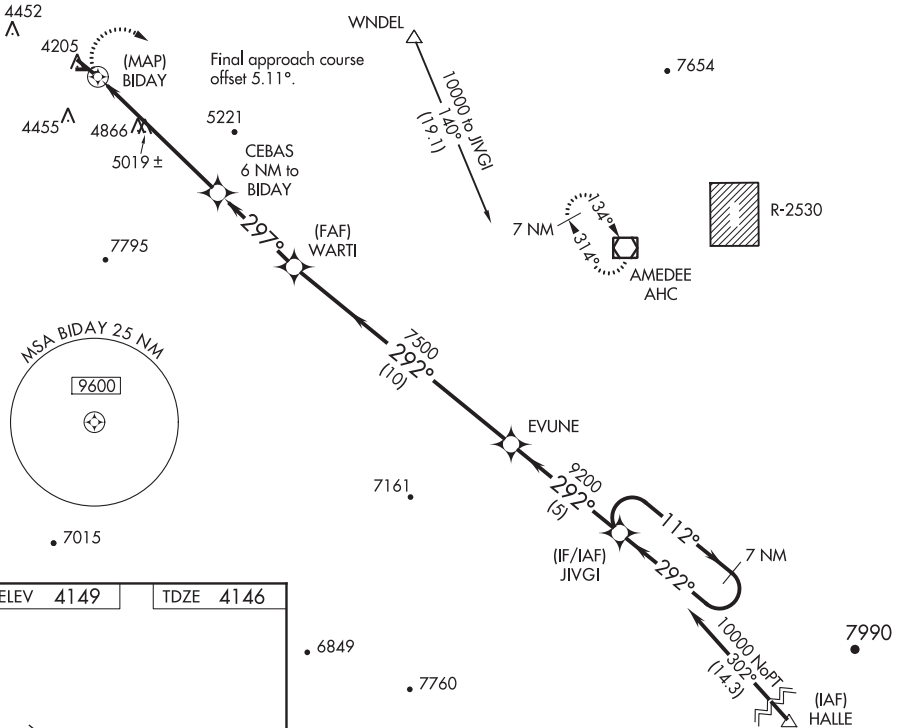
NA DME/DME RNP-0.3 NA. When local altimeter setting not received, use Reno/Stead altimeter setting and increase all MDA 720 feet. Circling to Rwy 7/25 NA. Helicopter visibility reduction below $\frac{3}{4}$ SM NA.

MISSED APPROACH: Climbing right turn to 14000 direct AHC VOR/DME and hold, continue climb-in-hold to 14000.

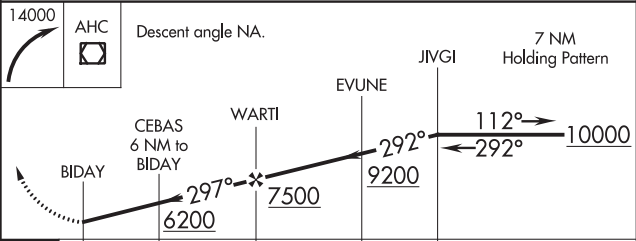
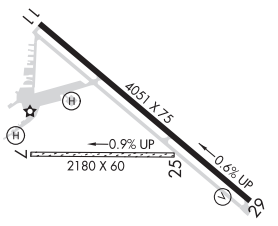
AWOS-3
133.8

OAKLAND CENTER
128.8 285.5

UNICOM
122.8 (CTAF)



ELEV 4149 TDZE 4146



CATEGORY	A	B	C	D
LNAV MDA	5560-1¼	1414 (1500-1¼)	5560-3	1414 (1500-3)
CIRCLING	5560-1¼ 1411 (1500-1¼)	5560-1½ 1411 (1500-1½)	5560-3	1411 (1500-3)

SUSANVILLE, CALIFORNIA
Amdt 1A 24JUL14

40°23'N-120°34'W

RNAV (GPS) RWY 29

SUSANVILLE MUNI (SVL)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

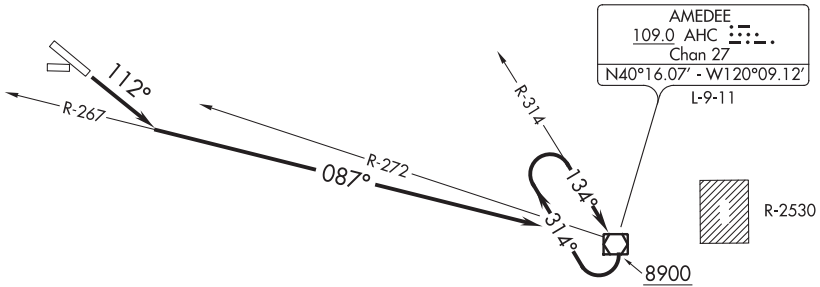
(AHC1.AHC) 16091

AMEDEE ONE DEPARTURE (OBSTACLE)

SL-9479 (FAA)

SUSANVILLE MUNI (SV'E)
SUSANVILLE, CALIFORNIA

OAKLAND CENTER
128.8 285.5
CTAF
122.8



TAKEOFF MINIMUMS

Rwys 7, 25, 29: NA- obstacles.

Rwy 11: Standard with minimum climb of 410' per NM to 6000 or 1900-2½ for climb in visual conditions.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 11: Climb via 112° heading and AHC R-267 to AHC VOR/DME, Thence. . . .

Or climb in visual conditions to cross Susanville Muni Airport eastbound at or above 6000, then via AHC R-272 to AHC VOR/DME, Thence. . . .

. . . .cross AHC VOR/DME at or above 8900'. Climb in AHC holding pattern to depart AHC VOR/DME at or above 14000 before proceeding on course.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AMEDEE ONE DEPARTURE (OBSTACLE)

(AHC1.AHC) 19FEB04

SUSANVILLE, CALIFORNIA
SUSANVILLE MUNI (SV'E)

WAAS CH 49200 W12A	APP CRS 116°	Rwy Idg TDZE Apt Elev	4001 193 193
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RNAV (GPS) RWY 12

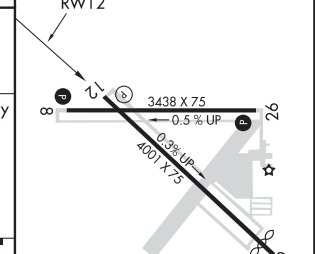
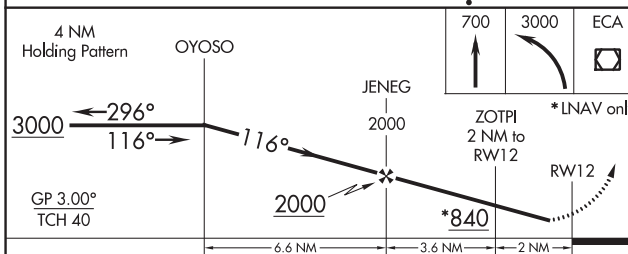
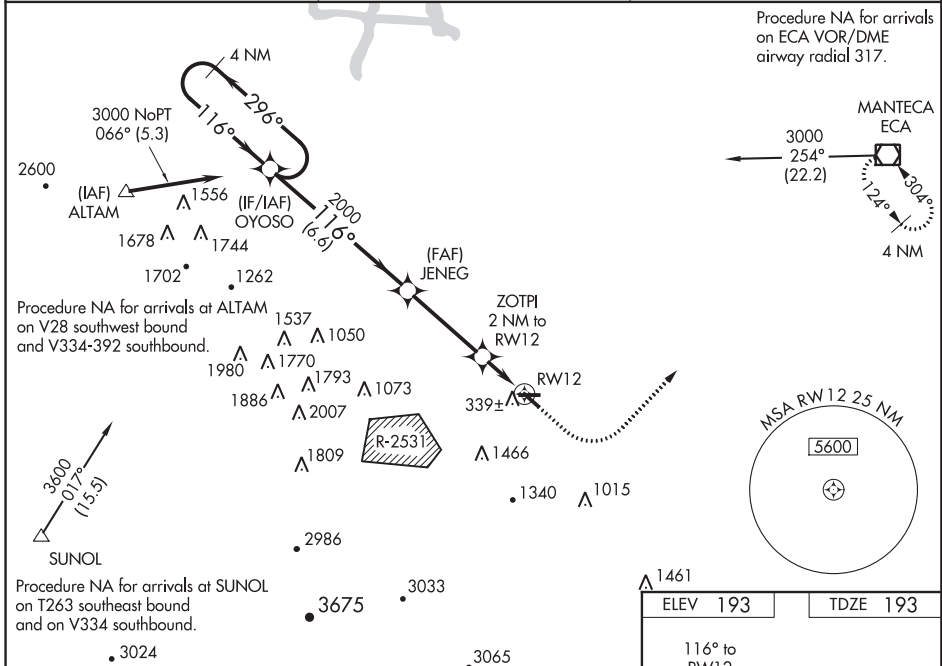
TRACY MUNI (TCY)

Baro-VNAV NA when using Stockton altimeter setting. 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. Circling NA southwest of Rwy 12-30. When local altimeter setting not received, use Stockton altimeter setting: increase all DA 59 feet and LNAV/VNAV visibilities all Cats ¼ mile; increase all MDA 60 feet and LNAV Cat C visibility ¼ mile. Night landing: Rwy 08, 30 NA. Helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH:
Climb to 700 then climbing left turn to 3000 direct ECA VOR/DME and hold.

AWOS-3 118.375	NORCAL APP CON 123.85 278.3	UNICOM 123.075 (CTAF)
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Procedure NA for arrivals on ECA VOR/DME airway radial 317.



CATEGORY	A	B	C	D
LPV DA	443-1	250 (300-1)		NA
LNAV/VNAV DA	638-1½	445 (500-1½)		NA
LNAV MDA	600-1	407 (500-1)	600-1½ 407 (500-1½)	NA
CIRCLING	600-1 407 (500-1)	660-1 467 (500-1)	660-1½ 467 (500-1½)	NA

MIRL Rwy 8-26 and 12-30

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TRACY, CALIFORNIA

AL-5815 (FAA)

16259

APP CRS	Rwy Idg	3438
255°	TDZE	185
	Apt Elev	193

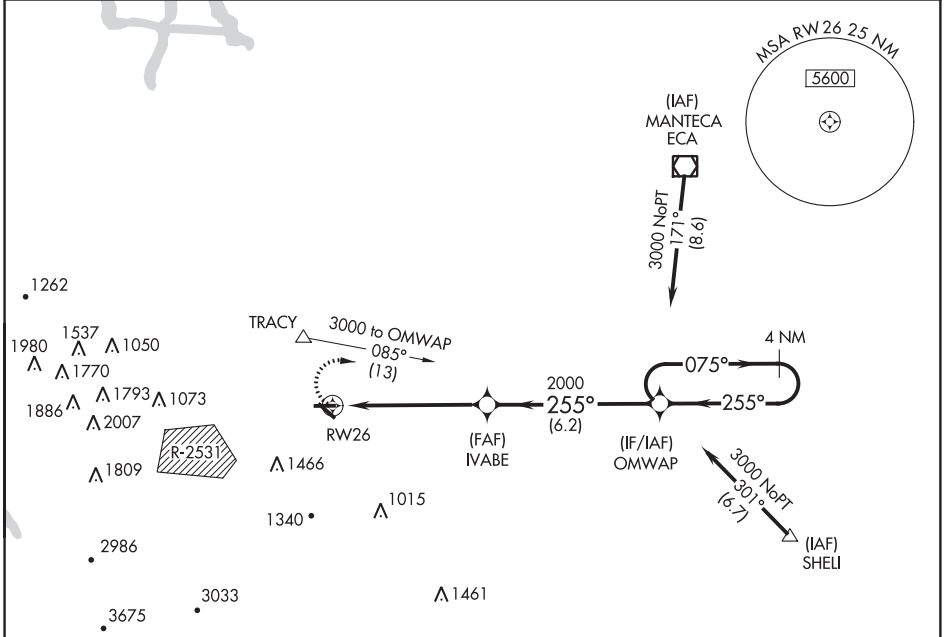
RNAV (GPS) RWY 26

TRACY MUNI (TCY)

NA DME/DME RNP-0.3 NA. When local altimeter setting not received use Stockton Metropolitan altimeter setting and increase all MDA 60 feet. Circling NA Southwest of Rwy 12-30. Night landing: Rwys 08, 30 NA.

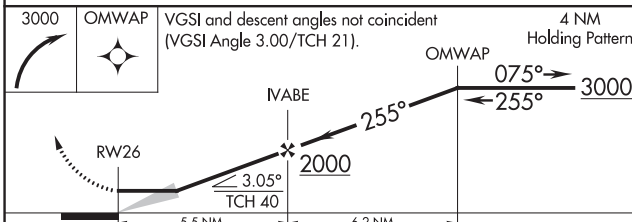
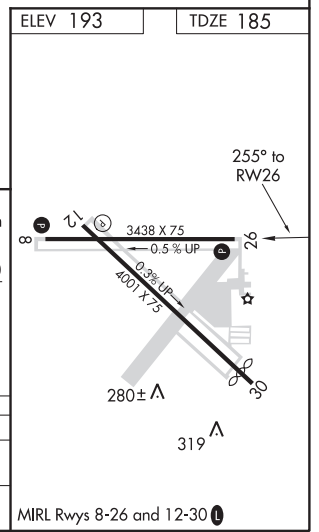
MISSED APPROACH: Climbing right turn to 3000 direct to OMWAP and hold.

AWOS-3 118.375	NORCAL APP CON 123.85 278.3	UNICOM 123.075 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LNVA MDA	600-1	415 (500-1)	600-1¼ 415 (500-1¼)	NA
CIRCLING	600-1 407 (500-1)	660-1 467 (500-1)	660-1½ 467 (500-1½)	NA

TRACY, CALIFORNIA
Orig-A 31MAR16

37°41'N-121°26'W

RNAV (GPS) RWY 26

TRACY MUNI (TCY)

MIRL Rwys 8-26 and 12-30

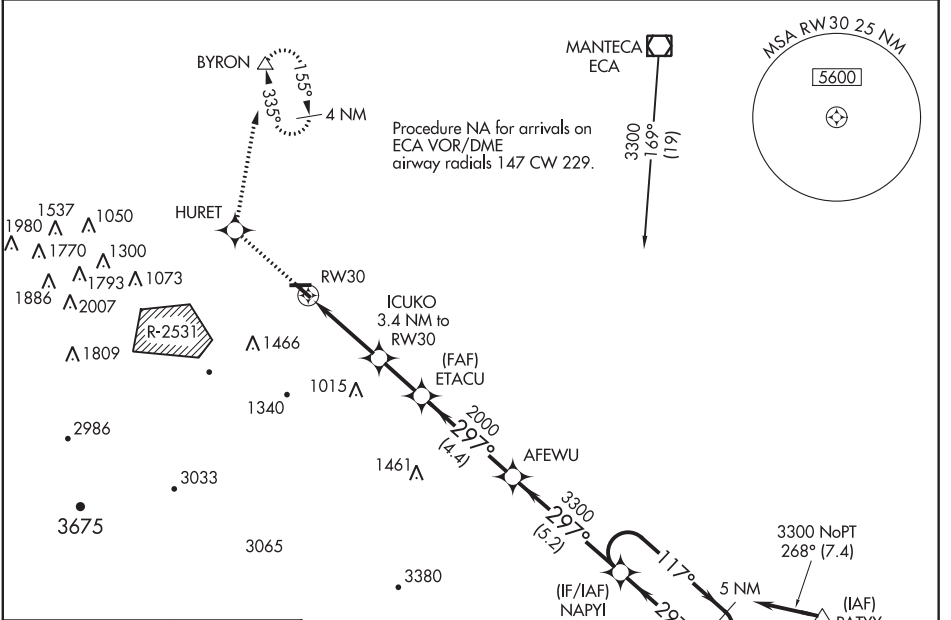
WAAS CH 69201 W30A	APP CRS 297°	Rwy Idg TDZE Apt Elev	3740 193 193
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RNAV (GPS) RWY 30

TRACY MUNI (TCY)

V If local altimeter setting not received, use Stockton Metropolitan altimeter setting and increase all DAs/MDAs 60 feet. Circling NA southwest of Rwy 12-30.
NA DME/DME RNP-0.3 NA. Night landing: Rwy 08, 30 NA. Helicopter visibility reduction below 1 SM not authorized.
MISSED APPROACH: Climb to 2300 direct HURET and via 355° track to BYRON and hold.

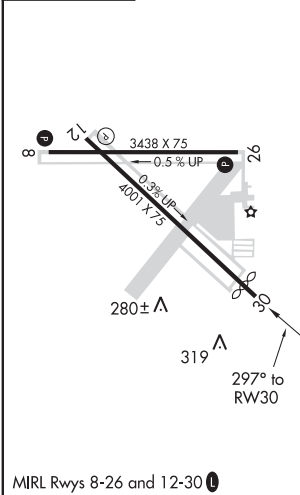
AWOS-3 118.375	NORCAL APP CON 123.85 278.3	UNICOM 123.075 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 193	TDZE 193
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2300	HURET	355° tr	BYRON	VGSJ and RNAV glidepath not coincident.			
*LNAV only		ETACU	AFEWU	NAPIY	5 NM Holding Pattern		
RW30		ICUKO 3.4 NM to RW30	297°	3300	117°	297°	3300
3.4 NM		2.1 NM	4.4 NM	5.2 NM	GP 3.00° TCH 45		
CATEGORY	A	B	C	D			
LPV DA	477-1 284 (300-1)			NA			
LNAV/VNAV DA	NA						
LNAV MDA	680-1	487 (500-1)	680-1½		487 (500-1½)		
CIRCLING	680-1	487 (500-1)	680-1½		487 (500-1½)		

TRACY, CALIFORNIA

AL-5815 (FAA)

16259

VOR/DME MOD 114.6 Chan 93	APP CRS 263°	Rwy Idg TDZE Apt Elev	3438 185 193
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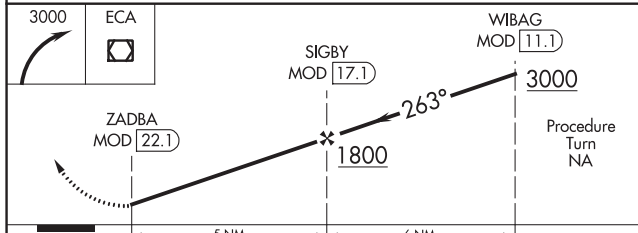
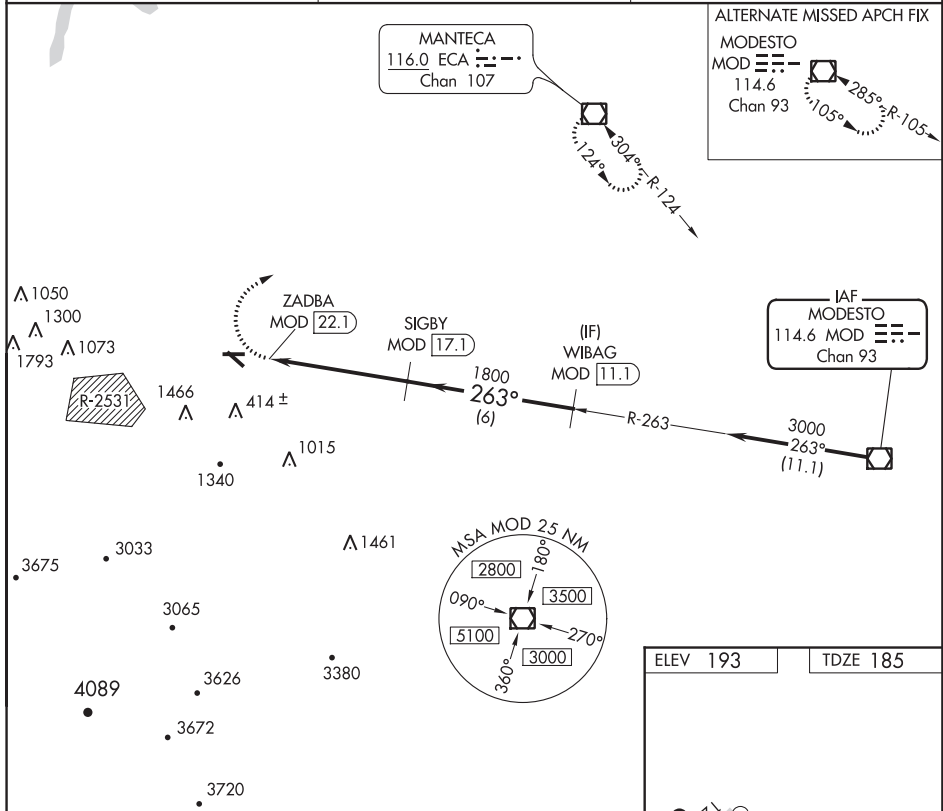
VOR/DME RWY 26

TRACY MUNI (TCY)

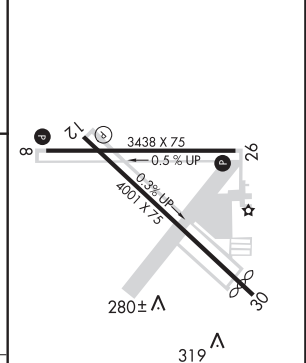
NA When local altimeter setting not received use Stockton Metro altimeter setting and increase all MDA 60 feet, increase S-26 Cat C visibility ¼ mile and Circling Cat C visibility ¼ mile. Circling NA Southwest of Rwy 12-30. Night landing: Rwy 08, 30 NA.

MISSED APPROACH: Climbing right turn to 3000 direct to ECA VOR/DME and hold.

AWOS-3 118.375	NORCAL APP CON 123.85 278.3	UNICOM 123.075 (CTAF)
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ELEV 193	TDZE 185
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CATEGORY	A	B	C	D
S-26	760-1¼	575 (600-1¼)	760-1½ 575 (600-1½)	NA
CIRCLING	760-1¼	567 (600-1¼)	760-1½ 567 (600-1½)	NA

MIRL Rwy 8-26 and 12-30

TRACY, CALIFORNIA
Orig-A 31MAR16

37°41'N-121°26'W

VOR/DME RWY 26

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ILS or LOC RWY 3L

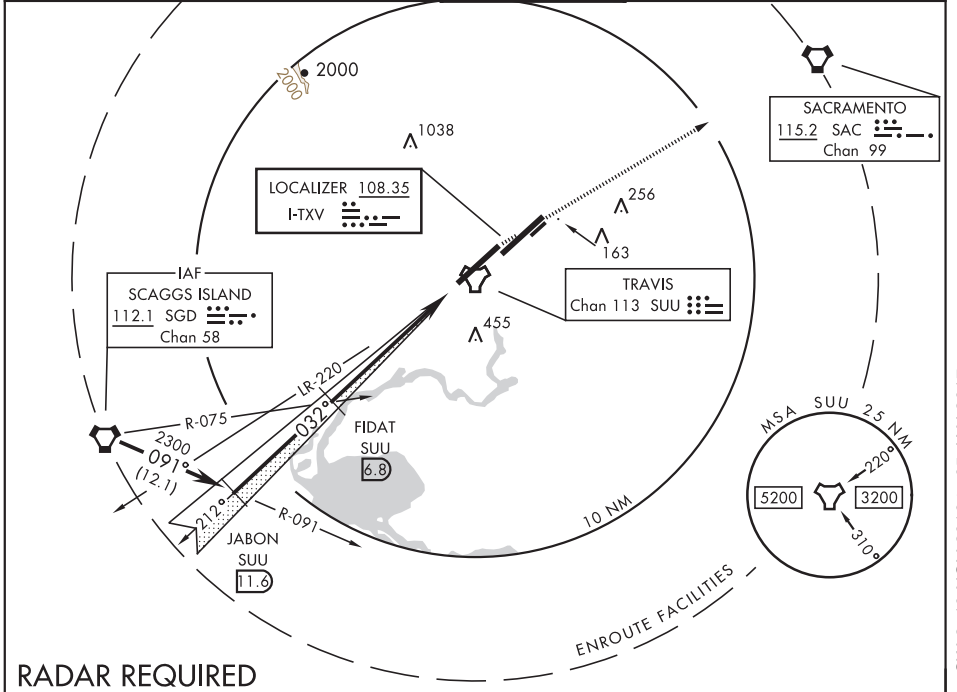
LOC I-TXV 108.35	APCH CRS 032°	Rwy Idg 11,001 THRE 33 Arpt Elev 63
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AL-488 [USAF]

TRAVIS AFB (KSUU)

▽ * Circling not authorized NW of Rwy 3L-21R. MISSED APPROACH: Climb to 4700 direct SAC VORTAC. Prior to reaching SAC expect further clearance from ATC.

ATIS 135.55 292.125	TRAVIS APP CON 119.9 (S) 126.6 (N) 281.45	TRAVIS TOWER 120.75 254.4	GND CON 121.8 289.4	CLNC DEL 127.55 335.8
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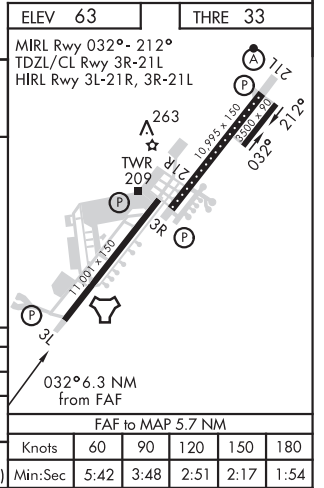
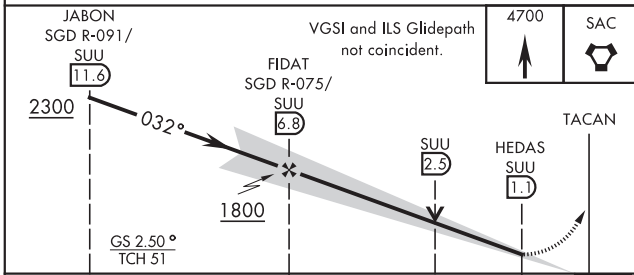


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

RADAR REQUIRED

EMERG SAFE ALT 100 NM
12,600 FROM "SUU" TACAN



CATEGORY	A	B	C	D	E
S-ILS 3L	233/40		200	(200-¾)	
S-LOC 3L	620/55 587 (600-1)		620-1¼	587	(600-1¼)
C CIRCLING*	620-1 557 (600-1)		740-2 677 (700-2)	740-2¼ 677 (700-2¼)	1440-3 1377 (1400-3)

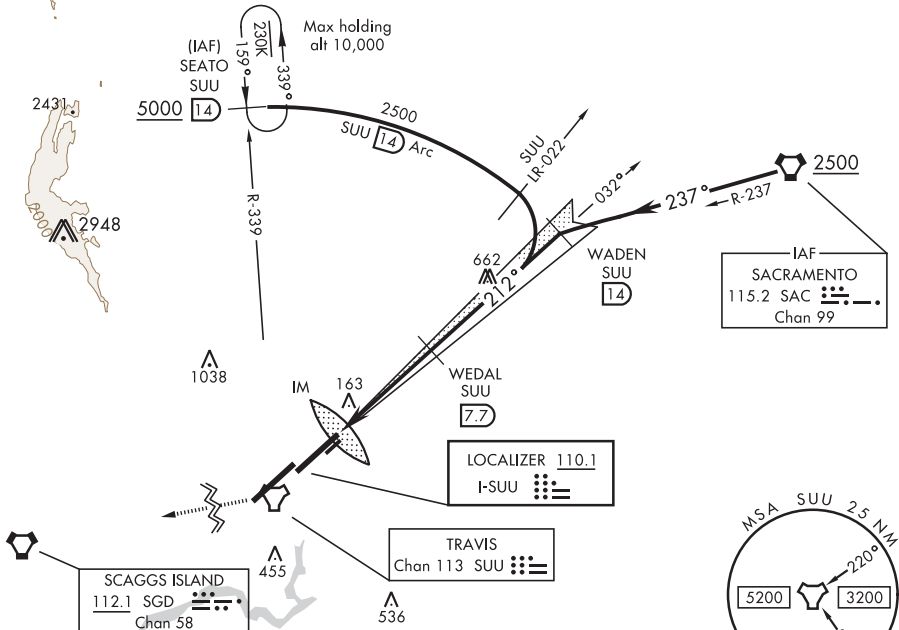
ILS or LOC RWY 3L

ILS RWY 21L (CAT II)

LOC I-SUU 110.1	APCH CRS 212°	Rwy Idg THRE 53 Arpt Elev 63	AL-488 [USAF]	TRAVIS AFB (KSUU)
		MISSED APPROACH: Climb straight ahead to SUU TACAN then turn right direct SGD VORTAC climbing to 3200. Expect further clearance prior to SGD		

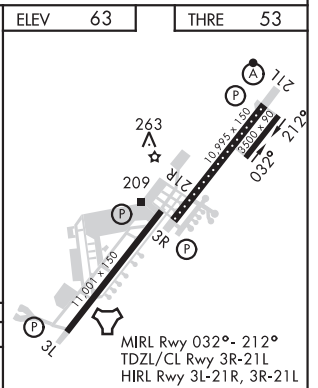
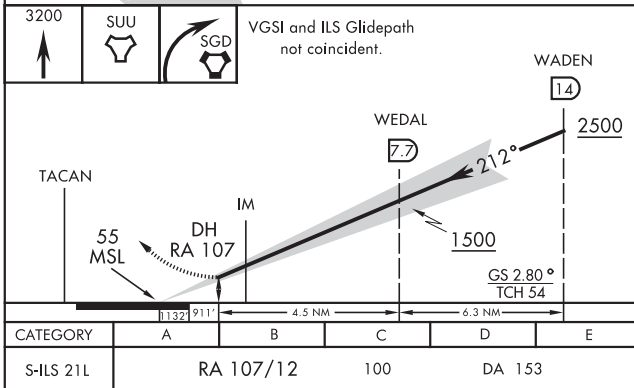
ATIS 135.55 292.125	TRAVIS APP CON 119.9(S) 126.6(N) 281.45	TRAVIS TOWER 120.75 254.4	GND CON 121.8 289.4	CLNC DEL 127.55 335.8
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CATEGORY II ILS SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



ATC RADAR REQUIRED

EMERG SAFE ALT 100 NM 12,600 FROM "SUU" TACAN



FAIRFIELD, CALIFORNIA	38°16'N-121°56'W	TRAVIS AFB (KSUU)
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Amdt 1 27JUN13

ILS RWY 21L (CAT II)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

FAIRFIELD, CALIFORNIA

RNAV (GPS) RWY 3L

APCH CRS 032°	Rwy Ldg 11,001
	THRE 33
	Arpt Elev 63

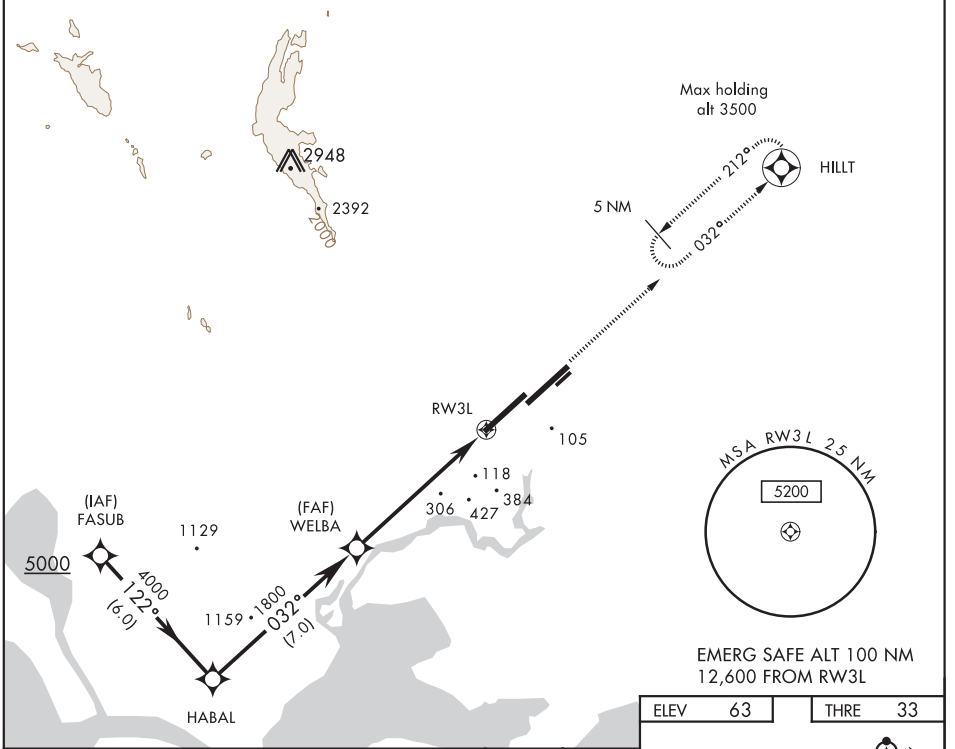
AL-488 [USAF]

TRAVIS AFB (KSUU)

▼ * Circling not authorized NW of Rwy 3L-21R. DME/DME RNP-0.3 NA	MISSED APPROACH: Climbing straight ahead to 3500 direct HILLT and hold.
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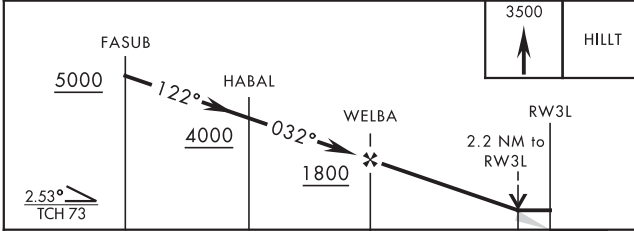
ATIS 135.55 292.125	TRAVIS APP CON 119.9 (S) 126.6 (N) 281.45	TRAVIS TOWER 120.75 254.4	GND CON 121.8 289.4	CLNC DEL 127.55 335.8
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RADAR REQUIRED



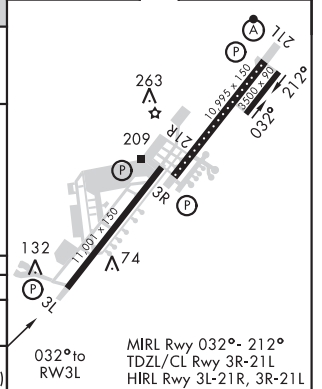
SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



ELEV	63	THRE	33
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CATEGORY	A	B	C	D	E
RNAV MDA	680/55	647 (700-1)	680-1 $\frac{7}{8}$	647	(700-1 $\frac{7}{8}$)
CIRCLING*	680-1	617 (700-1)	740-2 677 (700-2)	740-2 $\frac{1}{4}$ 677 (700-2 $\frac{1}{4}$)	1440-3 1377 (1400-3)



FAIRFIELD, CALIFORNIA

38°16'N-121°56'W

TRAVIS AFB (KSUU)

Amdt 2 22AUG13

RNAV (GPS) RWY 3L

FAIRFIELD, CALIFORNIA

RNAV (GPS) RWY 21L

APCH CRS 212°	Rwy ldg 10,995
THRE 53	Arpt Elev 63

AL-488 [USAF]

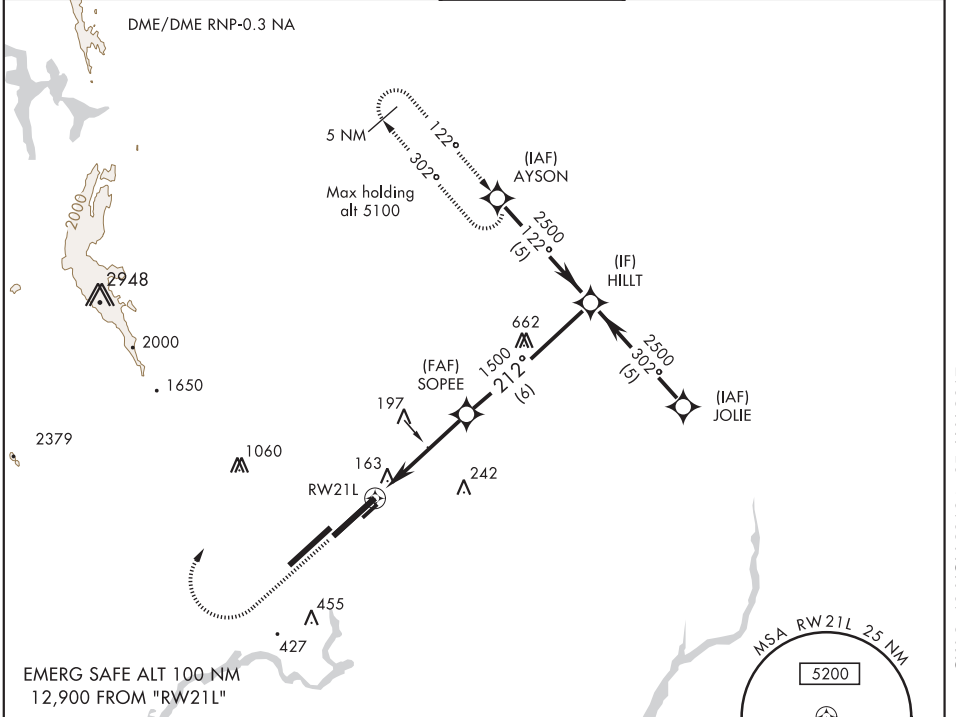
TRAVIS AFB (KSUU)

▼ * When ALS inop, increase CAT A RVR to 55 and vis to 1 mile, CAT B RVR to 60 and vis to 1 ¼ miles, CAT CDE vis to 2 miles.
 ** Circling not authorized NW of Rwy 3L-21R.

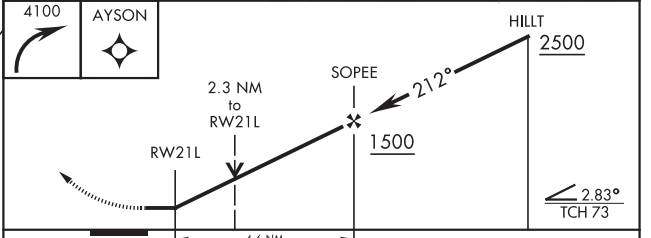
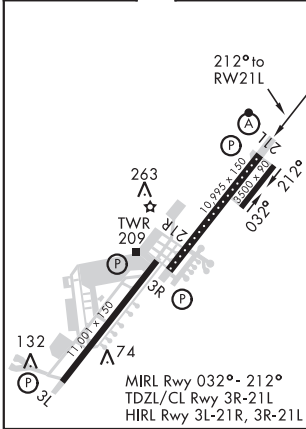


MISSED APPROACH: Climbing right turn to 4100 direct AYSON and hold. Climb in holding may be required.

ATIS 135.55 292.125	TRAVIS APP CON 119.9(S) 126.6(N) 281.45	TRAVIS TOWER 120.75 254.4	GND CON 121.8 289.4	CLNC DEL 127.55 335.8
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ELEV 63	THRE 53
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CATEGORY	A	B	C	D	E
LNAV MDA *	800/24 747 (800-½)	800/40 747 (800-¾)	800-1¾	747	(800-1¾)
CIRCLING **	800-1 737 (800-1)	800-1¼ 737 (800-1¼)	800-2 737 (800-2)	800-2¼ 737 (800-2¼)	1440-3 1377(1400-3)

FAIRFIELD, CALIFORNIA
Amdt 1 12NOV15

38° 16'N-121° 56'W

TRAVIS AFB (KSUU)

RNAV (GPS) RWY 21L

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TACAN RWY 3L

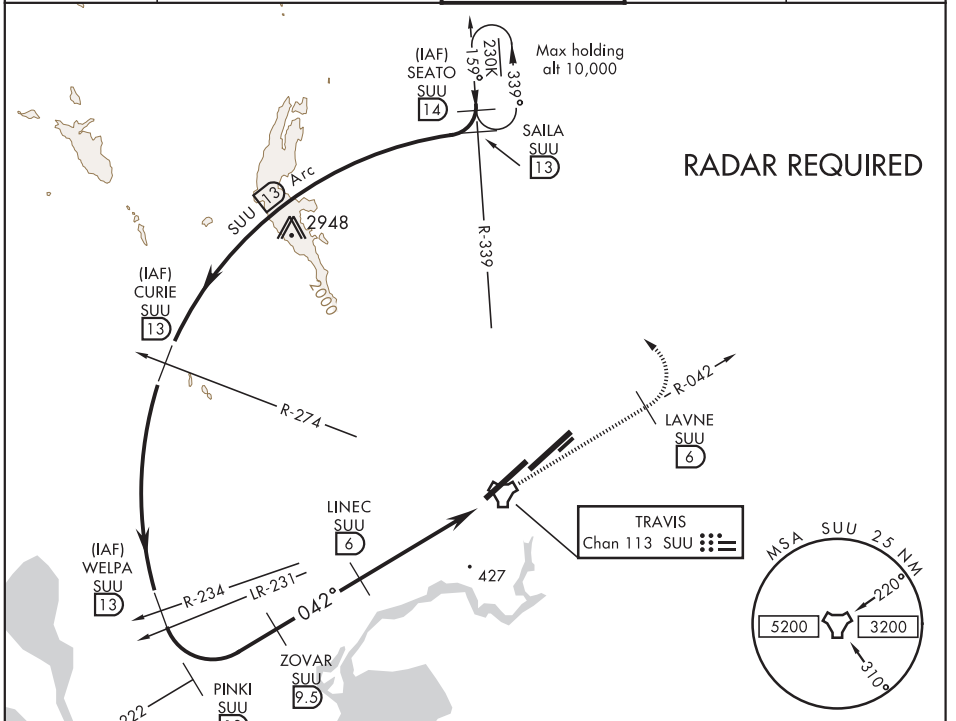
TACAN SUU Chan 113	APCH CRS 042°	Rwy ldg 11,001 THRE 33 Arprt Elev 63
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AL-488 [USAF]

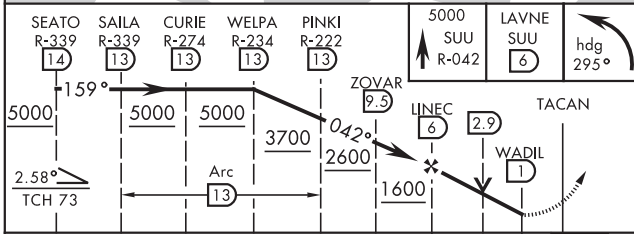
TRAVIS AFB (KSUU)

<p>▼ * Circling not authorized NW of Rwy 3L-21R.</p>	<p>MISSED APPROACH: Climb to 5000 via SUU TACAN R-042 to LAVNE, then turn left via 295° course to intercept SUU R-339 to SEATO and hold, continue climb in hold to 5000.</p>
--	--

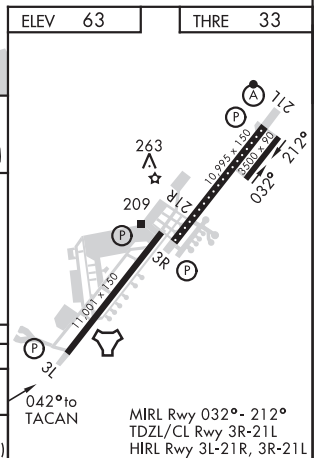
ATIS 135.55 292.125	TRAVIS APP CON 119.9(S) 126.6(N) 281.45	TRAVIS TOWER 120.75 254.4	GND CON 121.8 289.4	CLNC DEL 127.55 335.8
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EMERG SAFE ALT 100 NM
12,600 FROM "SUU" TACAN



CATEGORY	A	B	C	D	E
S-3L	740/55 707 (700-1)		740-2	707	(700-2)
CIRCLING*	740-1 677 (700-1)		740-2 677 (700-2)	740-2¼ 677 (700-2¼)	1440-3 1377(1400-3)



TACAN RWY 3L

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

TACAN RWY 21R

TACAN SUU Chan 113	APCH CRS 202°	Rwy ldg 11,001 THRE 50 Arpt Elev 63
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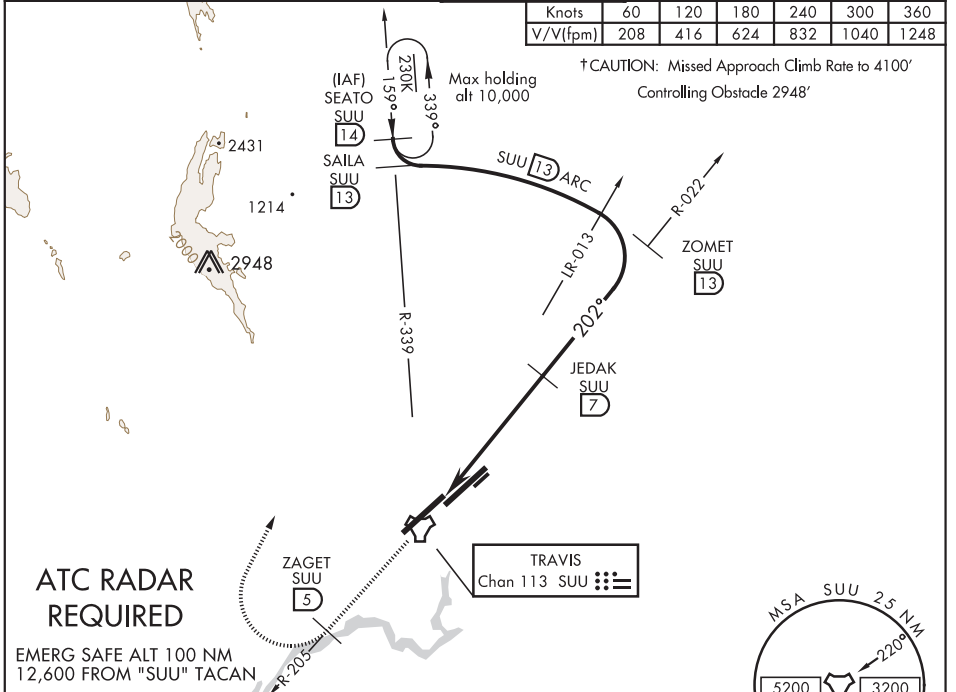
AL-488 [USAF]

TRAVIS AFB (KSUU)

<p>⚠ * Circling not authorized NW of Rwys 3L-21R.</p>	<p>† MISSED APPROACH: Climb to 5000 via SUU TACAN R-205 to ZAGET, then turn right heading 010° to intercept SUU R-339 to SEATO and hold, continue climb in hold to 5000.</p>
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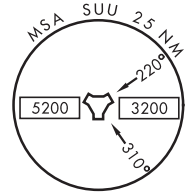
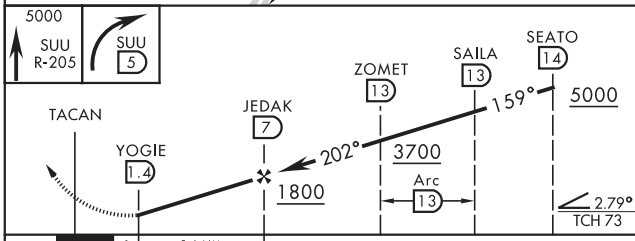
ATIS 135.55 292.125	TRAVIS APP CON 119.9(S) 126.6(N) 281.45	TRAVIS TOWER 120.75 254.4	GND CON 121.8 289.4	CLNC DEL 127.55 335.8
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Knots	60	120	180	240	300	360
V/V(fpm)	208	416	624	832	1040	1248

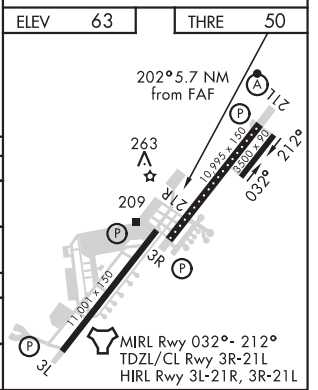


ATC RADAR REQUIRED

EMERG SAFE ALT 100 NM
12,600 FROM "SUU" TACAN



CATEGORY	A	B	C	D	E
S-21R	700-1	650 (700-1)	700-1 $\frac{7}{8}$	650	(700-1 $\frac{7}{8}$)
C CIRCLING*	700-1	637 (700-1)	740-2 677 (700-2)	740-2 $\frac{1}{4}$ 677 (700-2 $\frac{1}{4}$)	1440-3 1377(1400-3)
† NON-STANDARD CLIMB GRADIENT					
S-21R	600-1	550 (600-1)	600-1 $\frac{5}{8}$	550	(600-1 $\frac{5}{8}$)
C CIRCLING*	600-1	537 (600-1)	740-2 677 (700-2)	740-2 $\frac{1}{4}$ 677 (700-2 $\frac{1}{4}$)	1440-3 1377(1400-3)



TACAN RWY 21R

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

AFD-488 [USAF]

TRAVIS AFB (KSUU)
FAIRFIELD, CALIFORNIA

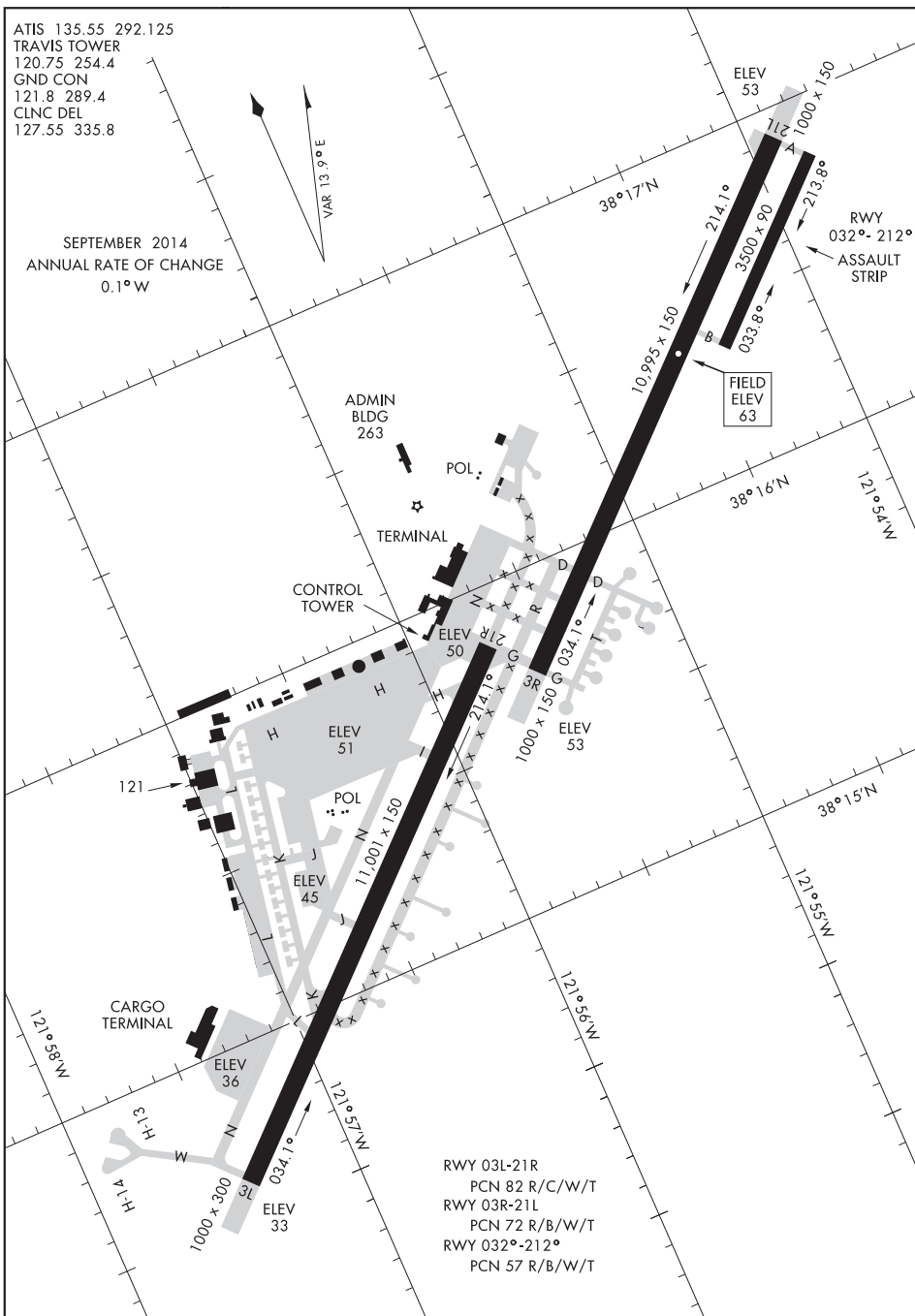
ATIS 135.55 292.125
 TRAVIS TOWER
 120.75 254.4
 GND CON
 121.8 289.4
 CLNC DEL
 127.55 335.8

SEPTEMBER 2014
 ANNUAL RATE OF CHANGE
 0.1°W

VAR 13.9° E

SW-2, 10 NOV 2016 to 05 JAN 2017

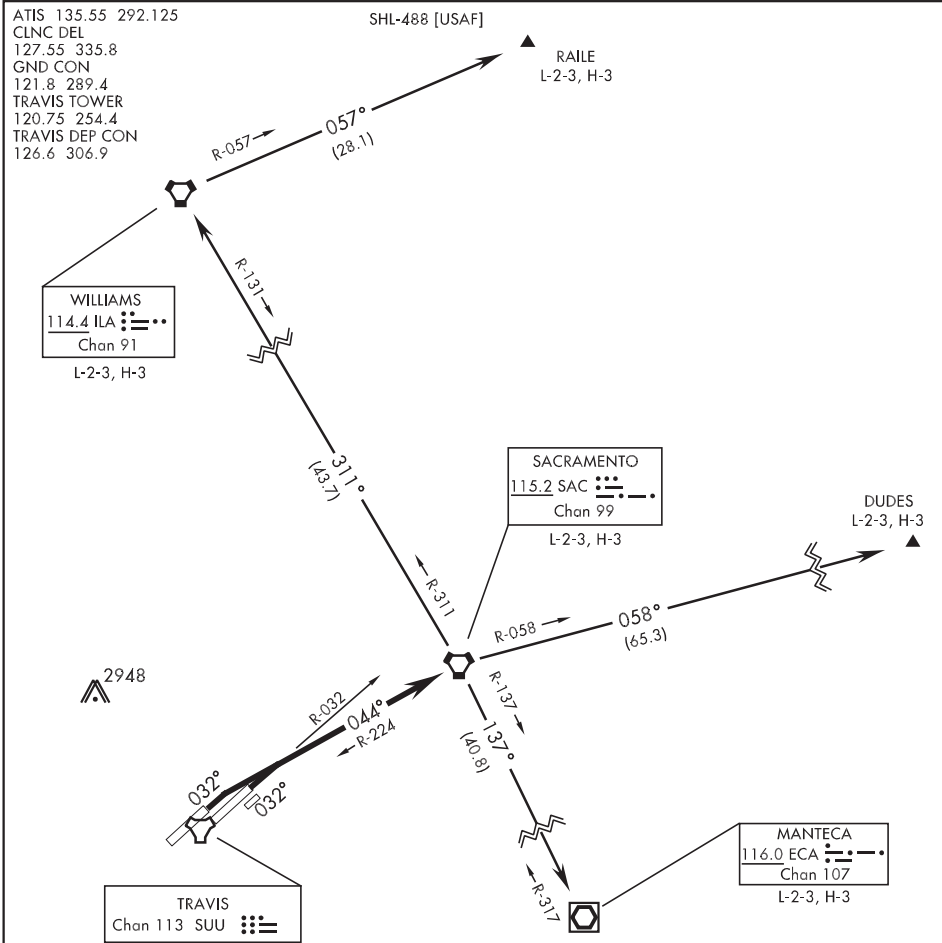
SW-2, 10 NOV 2016 to 05 JAN 2017



RWY 03L-21R
 PCN 82 R/C/W/T
 RWY 03R-21L
 PCN 72 R/B/W/T
 RWY 032°-212°
 PCN 57 R/B/W/T

AIRPORT DIAGRAM

FAIRFIELD, CALIFORNIA
TRAVIS AFB (KSUU)



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3L/R: Climb via heading 032° to intercept and fly SAC VORTAC R-224 to SAC. Then via assigned transition.

DUDES TRANSITION (MENTO1•DUDES): Turn right intercept and fly SAC R-058 to 65.3 DME (DUDES).

MANTECCA TRANSITION (MENTO1•ECA): Turn right intercept and fly SAC R-137 to ECA VOR/DME R-317 to ECA.

RAILE TRANSITION (MENTO1•RAILE): Turn left intercept and fly SAC R-311 to ILA VORTAC R-131 to ILA then turn right intercept and fly ILA R-057 to 28.1 DME (RAILE).

WILLIAMS TRANSITION (MENTO1•ILA): Turn left intercept and fly SAC R-311 to ILA VORTAC R-131 to ILA.

WAPEX-ONE DEPARTURE (WAPEX 1 • WAPEX)

SHL-488 [USAF]

FAIRFIELD, CALIFORNIA

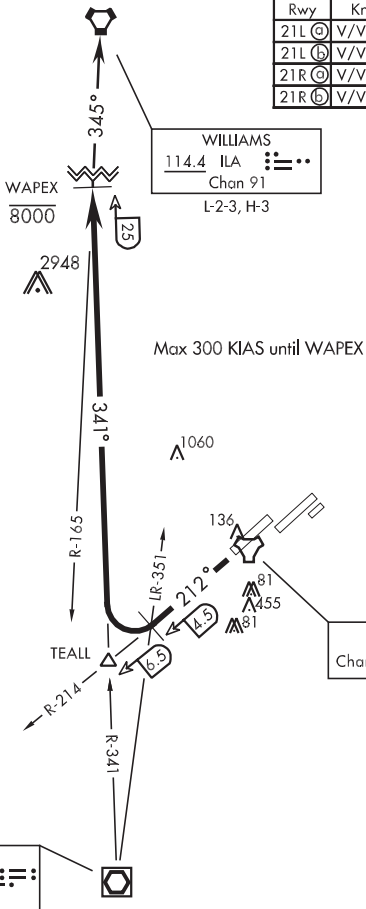
ATIS 135.55 292.125
 CLNC DEL
 127.55 335.8
 GND CON
 121.8 289.4
 TRAVIS TOWER
 120.75 254.4
 TRAVIS DEP CON
 126.6 306.9

Rwy	Knots	60	120	180	240	300	360
21L (a)	V/V(fpm)	230	460	690	920	1150	1380
21L (b)	V/V(fpm)	250	500	750	1000	1250	1500
21R (a)	V/V(fpm)	250	500	750	1000	1250	1500
21R (b)	V/V(fpm)	270	540	810	1080	1350	1620

WILLIAMS
 114.4 ILA
 Chan 91
 L-2-3, H-3

Minimum Climb Rate to 4100

- (a) With SUU TACAN
- (b) Without SUU TACAN



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 21 L/R:

With SUU TACAN: Climb via heading 212° to intercept SUU R-214, turn right intercept CCR VOR/DME R-341 to WAPEX, then via assigned transition or filed flight plan.

Without SUU TACAN: Climb via heading 212°, turn right intercept CCR VOR/DME R-341 to WAPEX, then via assigned transition or filed flight plan.

WILLIAMS TRANSITION (WAPEX 1 • ILA): Turn right intercept ILA VORTAC R-165 to ILA.

WAPEX-ONE DEPARTURE (WAPEX 1 • WAPEX)

RNAV (GPS) RWY 11

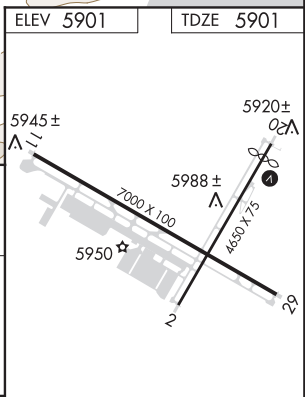
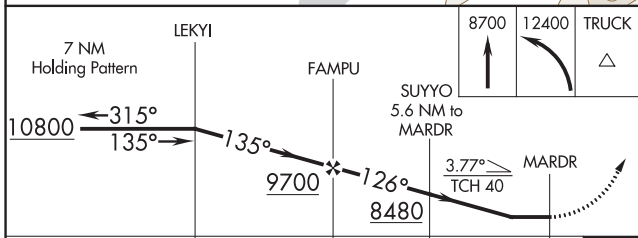
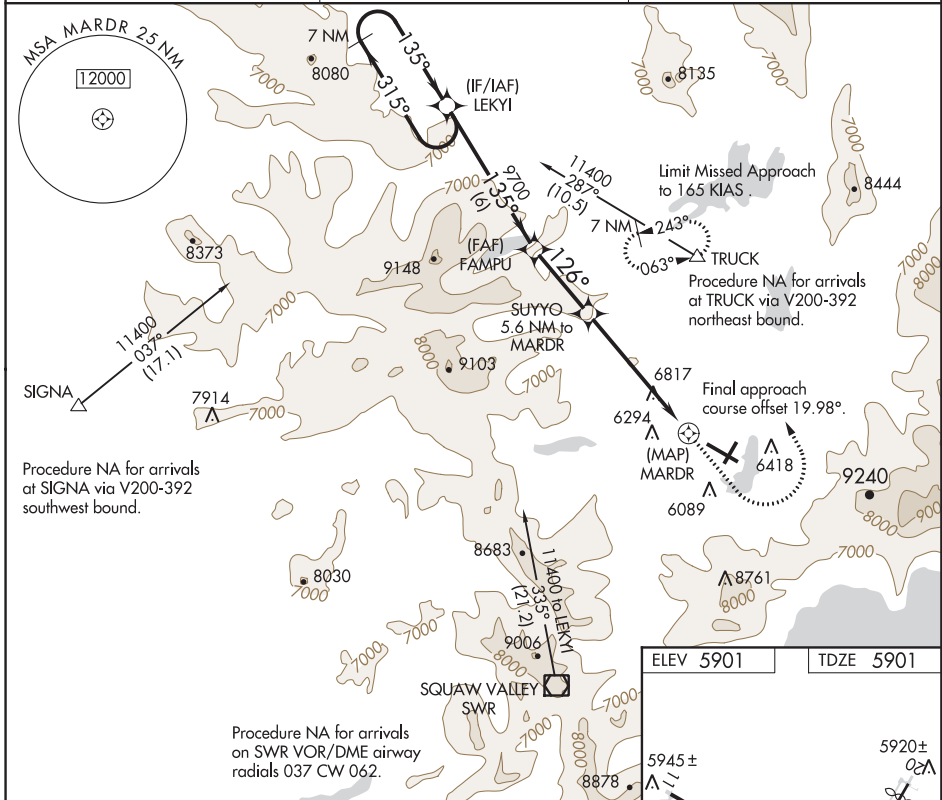
TRUCKEE-TAHOE (TRK)

APP CRS	Rwy ldg TDZE	7000
126°	Apt Elev	5901

NA DME/DME RNP-0.3 NA. When local altimeter setting not received, procedure NA. Night Landing: Rwy 11 NA.
-13°C/9°F Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 8700 then climbing left turn to 12400 direct TRUCK and hold, continue climb-in-hold to 12400.

AWOS-3PT 118.0	OAKLAND CENTER 127.95 316.1	UNICOM 122.8 (CTAF) 0
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CATEGORY	A	B	C	D
LNVA MDA	8160-1¼ 2259 (2300-1¼)	8160-1½ 2259 (2300-1½)	8160-3 2259 (2300-3)	NA
CIRCLING	8160-1¼ 2259 (2300-1¼)	8160-1½ 2259 (2300-1½)	8480-3 2579 (2600-3)	NA

REIL Rwy 11
 MIRL Rwys 11-29 and 2-20 **0**

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

RNAV (GPS) Y RWY 20

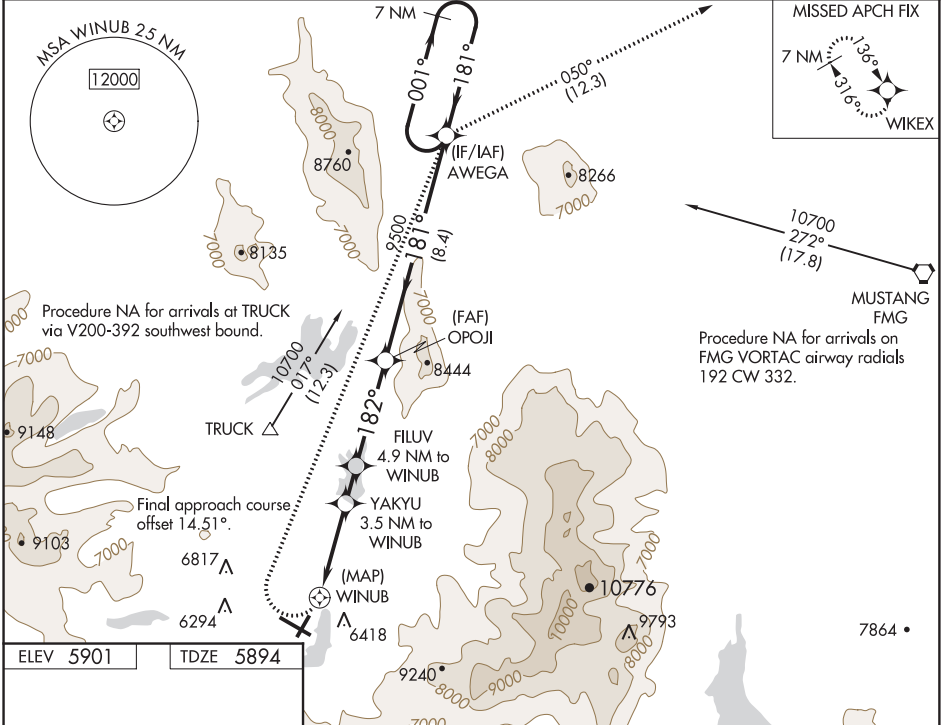
TRUCKEE-TAHOE (TRK)

WAAS CH 50535 W20A	APP CRS 182°	Rwy Idg 4535 TDZE 5894 Apt Elev 5901
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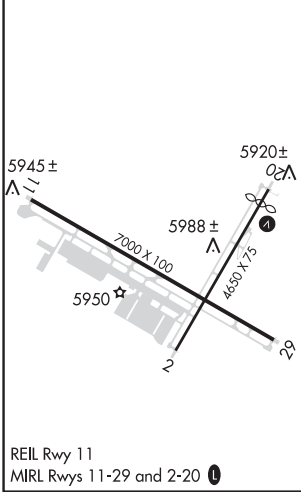
NA DME/DME RNP-0.3 NA. When local altimeter setting not received, procedure NA. Helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climbing right turn to 11500 direct AWEGA and on track 050° to WIKEX and hold.

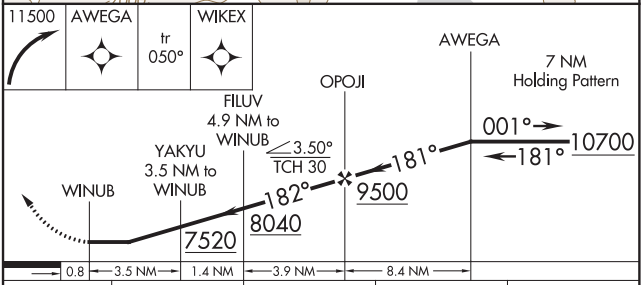
AWOS-3PT 118.0	OAKLAND CENTER 127.95 316.1	UNICOM 122.8 (CTAF)
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ELEV 5901	TDZE 5894
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REIL Rwy 11
MIRL Rwy 11-29 and 2-20



CATEGORY	A	B	C	D
LP MDA	7400-1¼ 1506 (1500-1¼)	7400-1½ 1506 (1500-1½)	7400-3 1506 (1500-3)	NA
LNAV MDA	7460-1¼ 1566 (1600-1¼)	7460-1½ 1566 (1600-1½)	7460-3 1566 (1600-3)	NA
C CIRCLING	7460-1¼ 1559 (1600-1¼)	7460-1½ 1559 (1600-1½)	8480-3 2579 (2600-3)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 87135 W20B	APP CRS 182°	Rwy Idg TDZE Apt Elev	4535 5894 5901
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RNAV (GPS) Z RWY 20

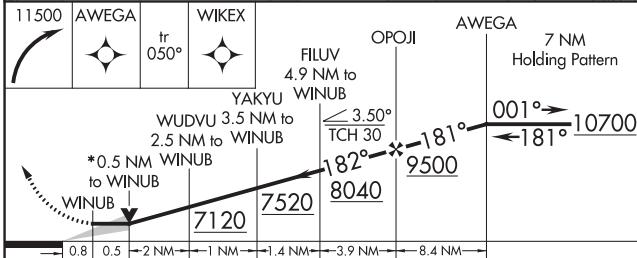
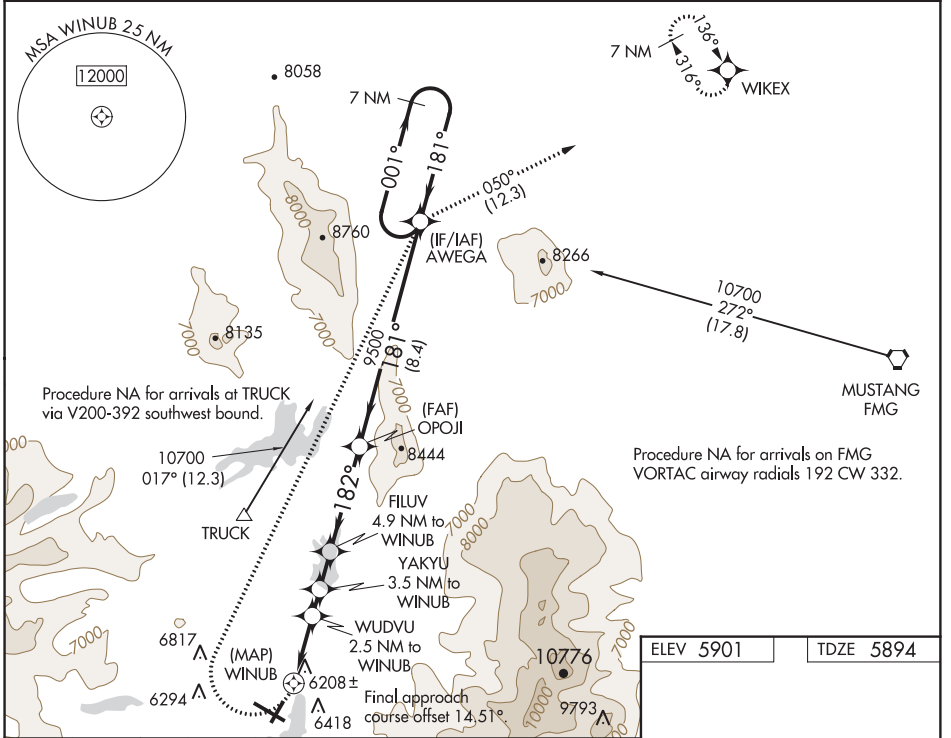
TRUCKEE-TAHOE (TRK)

⚠ NA DME/DME RNP-0.3 NA. When local altimeter setting not received, procedure NA. Missed approach requires minimum climb of 310 feet per NM to 9200; if unable, see RNAV (GPS) Y Rwy 20.

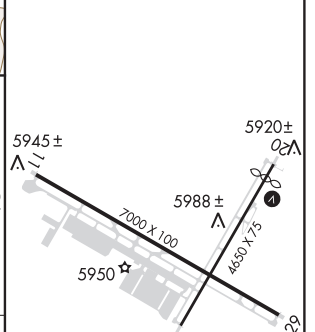
❄ -13°C/9°F

MISSED APPROACH: Climbing right turn to 11500 direct AWEGA and on track 050° to WIKEX and hold.

AWOS-3PT 118.0	OAKLAND CENTER 127.95 316.1	UNICOM 122.8 (CTAF)
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ELEV 5901	TDZE 5894
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CATEGORY	A	B	C	D
LP MDA	6420-1	526 (600-1)	6420-1½ 526 (600-1½)	NA
LNAV MDA	7120-1¼ 1226 (1300-1¼)	7120-1½ 1226 (1300-1½)	7120-3 1226 (1300-3)	NA
C CIRCLING	7120-1¼ 1219 (1300-1¼)	7200-1½ 1299 (1300-1½)	8480-3 2579 (2600-3)	NA

REIL Rwy 11
MIRL Rwys 11-29 and 2-20

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

AIRPORT DIAGRAM

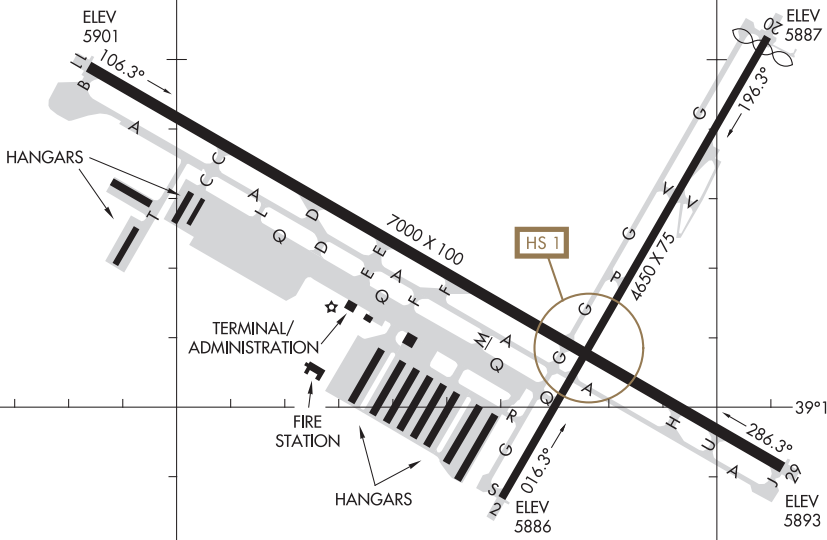
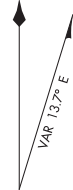
AL-6021 (FAA)

TRUCKEE - TAHOE (TRK)
TRUCKEE, CALIFORNIA

AWOS-3PT
118.0
CTAF/UNICOM
122.8

FIELD
ELEV
5901

39°20'N



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

RWY 02-20
S-35, D-50
RWY 11-29
S-50, D-80

120°09'W

120°08'W

AIRPORT DIAGRAM

TRUCKEE, CALIFORNIA
TRUCKEE - TAHOE (TRK)

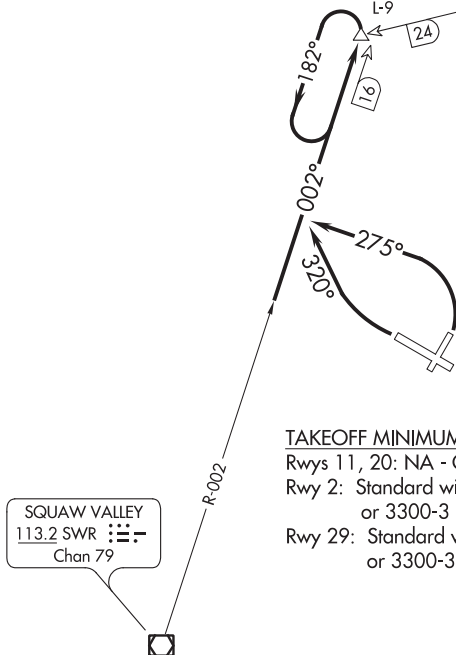
OAKLAND CENTER
127.95 316.1
UNICOM (CTAF)
122.8
AWOS-3PT
118.0

TRUCK
N39°26.26'
W120°09.71'
11500
L-9

V200-392

R-241

MUSTANG
117.9 FMG
Chan 126



TAKEOFF MINIMUMS

Rwys 11, 20: NA - Obstacles.

Rwy 2: Standard with minimum climb of 415' per NM to 11500, or 3300-3 for climb in visual conditions.

Rwy 29: Standard with minimum climb of 500' per NM to 11500, or 3300-3 for climb in visual conditions.

TAKEOFF OBSTACLE NOTES

Rwy 2: Trees beginning 2' from DER, 288' left of centerline, up to 60' AGL/5939' MSL.

Trees beginning 420' from DER, 312' right of centerline, up to 60' AGL/5939' MSL.

Rwy 29: Trees beginning 679' from DER, 507' left of centerline, up to 60' AGL/5997' MSL.

Trees beginning 116' from DER, 412' right of centerline, up to 60' AGL/5971' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climbing left turn to 11500 on heading 275° and SWR R-002 to TRUCK INT, thence. . . , or for climb in visual conditions cross Truckee-Tahoe Airport heading 290° at or above 9100, then proceed on SWR R-002 to TRUCK INT. When executing VCOA, notify ATC prior to departure. Thence. . .

TAKEOFF RUNWAY 29: Climbing right turn to 11500 on heading 320° and SWR R-002 to TRUCK INT, thence. . . , or for climb in visual conditions cross Truckee-Tahoe Airport heading 290° at or above 9100, then proceed on SWR R-002 to TRUCK INT. When executing VCOA, notify ATC prior to departure. thence. . .

. . . continue climb in TRUCK INT holding pattern to cross TRUCK INT at or above 11500 before proceeding on course.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

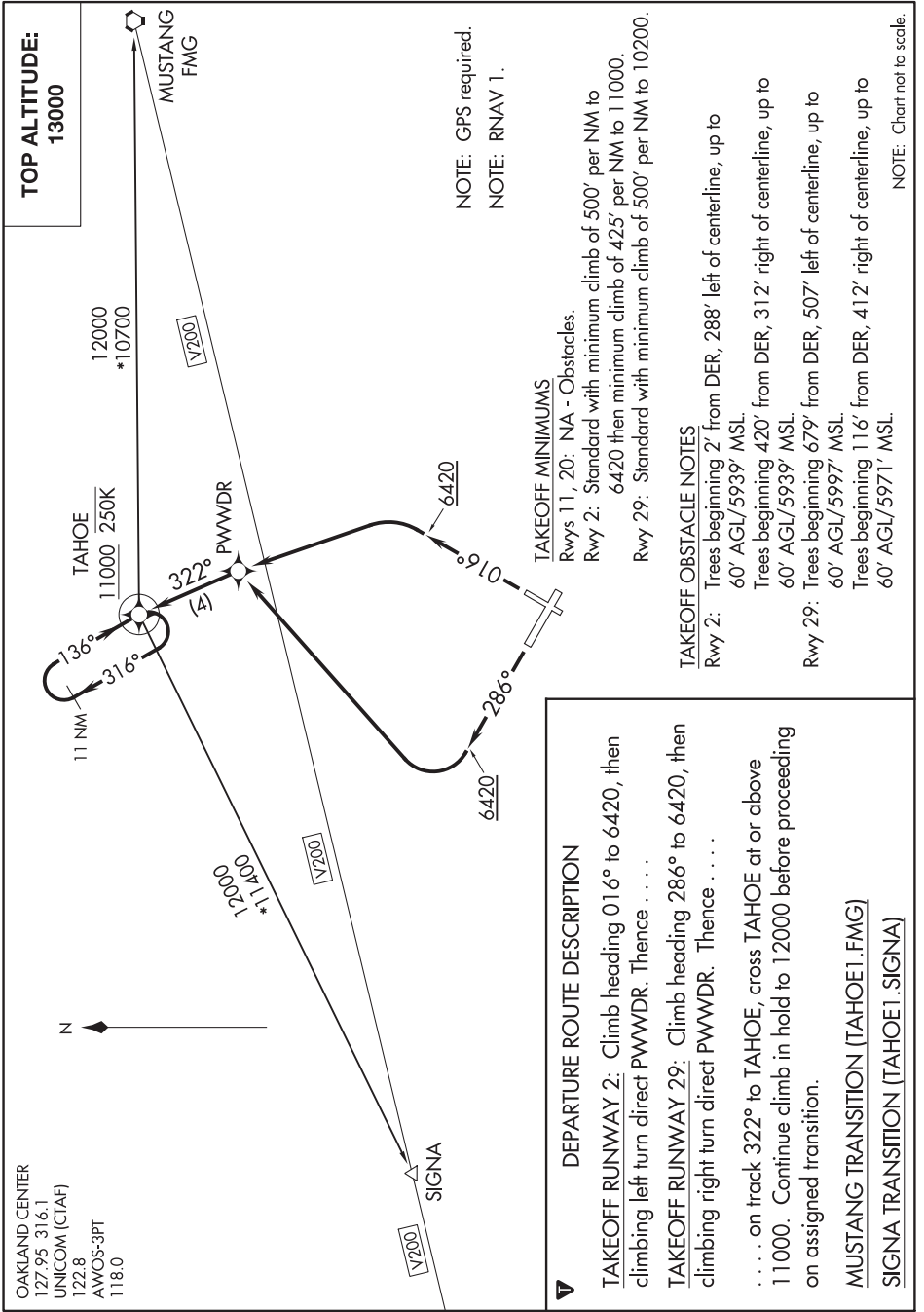
(TAHOE1.TAHOE) 16091

TAHOE ONE DEPARTURE (RNAV)

SL-6021 (FAA)

TRUCKEE-TAHOE (TRK)
TRUCKEE, CALIFORNIA

SW-2, 10 NOV 2016 to 05 JAN 2017



TAHOE ONE DEPARTURE (RNAV)

(TAHOE1.TAHOE) 04FEB16

TRUCKEE, CALIFORNIA
TRUCKEE-TAHOE (TRK)

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APP CRS **132°**
 Rwy Idg **3901**
 TDZE **265**
 Apt Elev **265**

RNAV (GPS) RWY 13

MEFFORD FIELD (TLR)

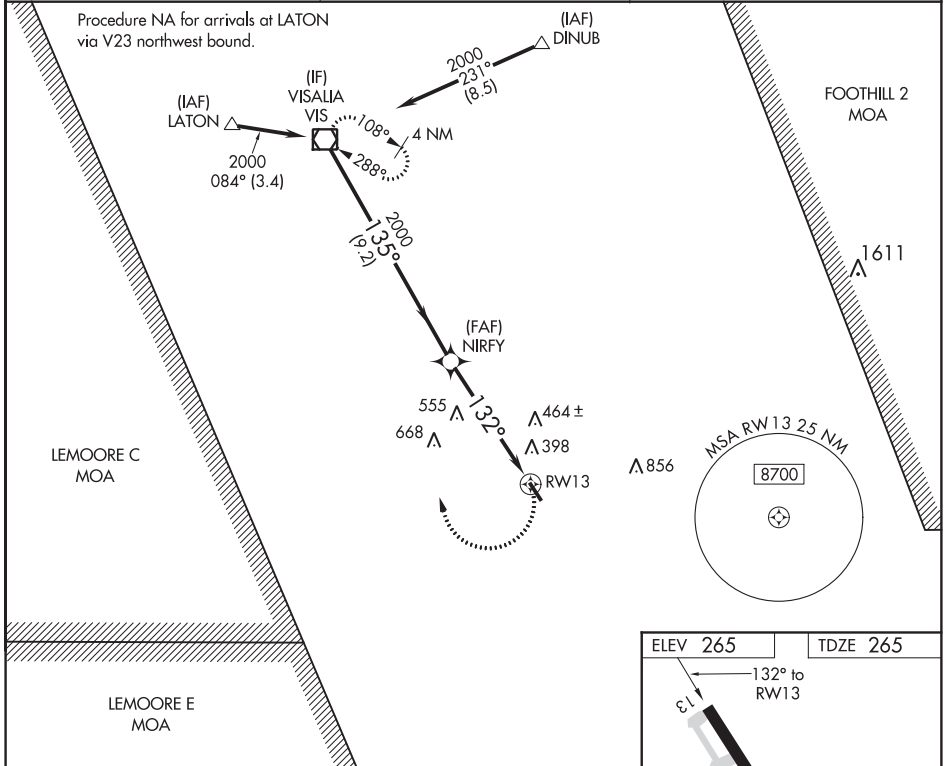
NA DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Visalia altimeter setting and increase all MDA 40 feet and increase Circling Cat C visibility 1/4 mile.

MISSED APPROACH: Climbing right turn to 2000 direct VIS VOR/DME and hold.

AWOS-3PT
120.0

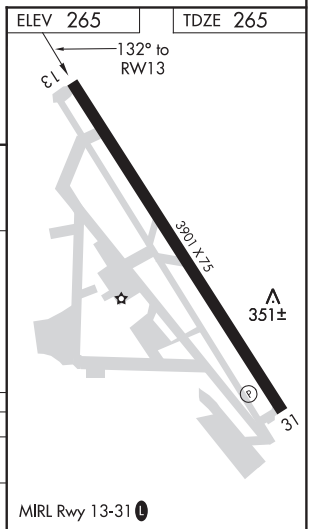
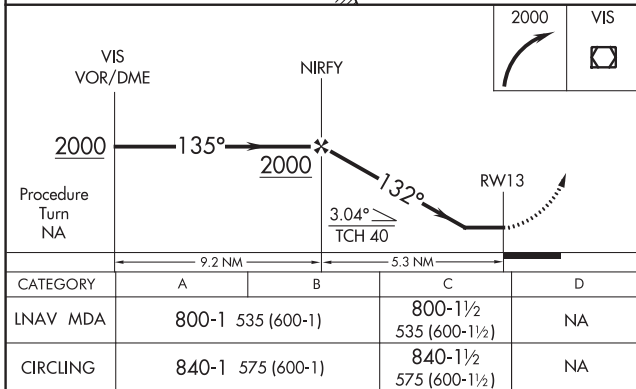
FRESNO APP CON
118.5 268.7

UNICOM
122.7 (CTAF)



SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



VOR/DME VIS 109.4 Chan 31	APP CRS 133°	Rwy Idg 3901 TDZE 265 Apt Elev 265
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VOR/DME RWY 13

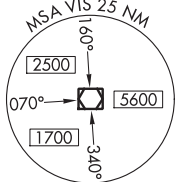
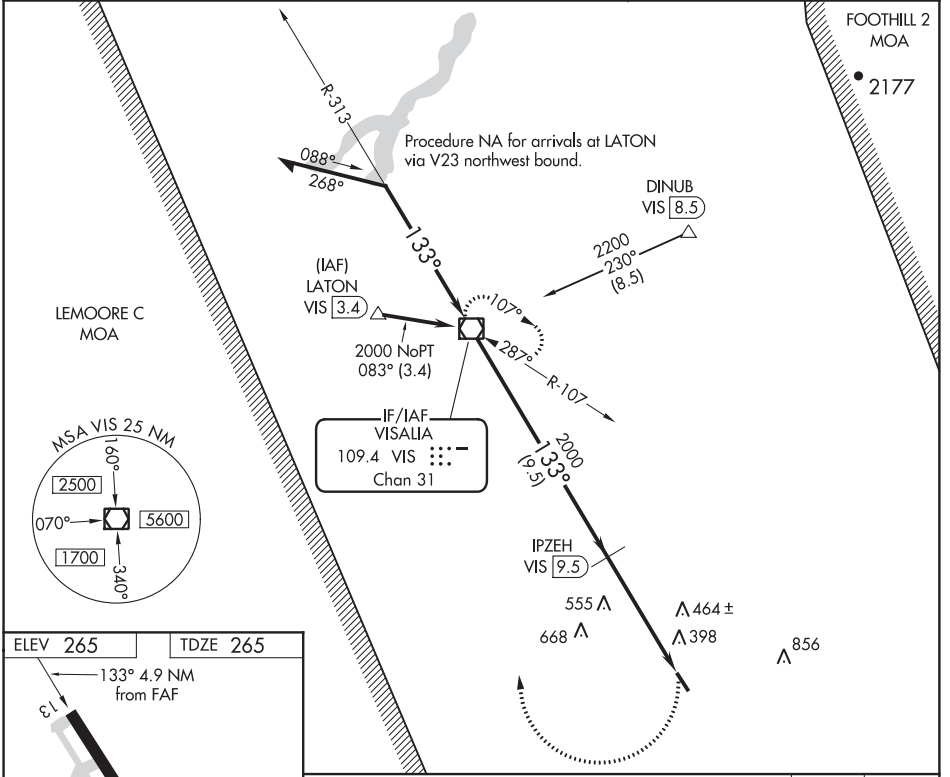
MEFFORD FIELD (TLR)

⚠ Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Visalia altimeter setting and increase all MDA 40 feet, and increase S-13 Cat C visibility to 2 miles and Circling Cat C visibility to 2 1/4 miles.

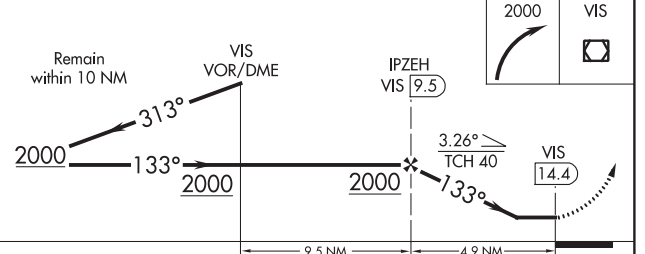
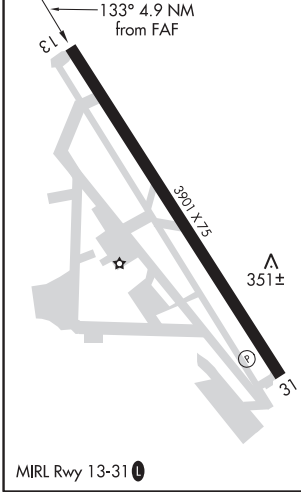
⚠ NA

MISSED APPROACH: Climbing right turn to 2000 direct VIS VOR/DME and hold.

AWOS-3PT 120.0	FRESNO APP CON 118.5 268.7	UNICOM 122.7 (CTAF) 0
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ELEV 265	TDZE 265
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CATEGORY	A	B	C	D
S-13	920-1	655 (700-1)	920-1 7/8 655 (700-1 7/8)	NA
CIRCLING	920-1	655 (700-1)	920-2 655 (700-2)	NA

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APP CRS	Rwy Idg	N/A
331°	TDZE	N/A
	Apt Elev	614

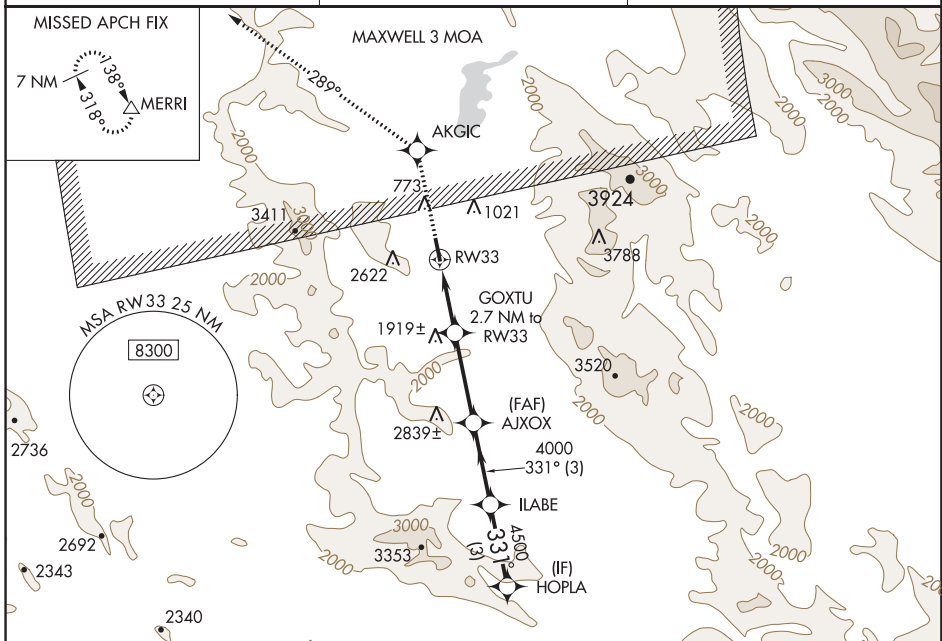
RNAV (GPS)-B

UKIAH MUNI (UKI)

⚠ Circling NA west of Rwy 15-33. DME/DME RNP-0.3 NA. When local altimeter setting not received, procedure NA.

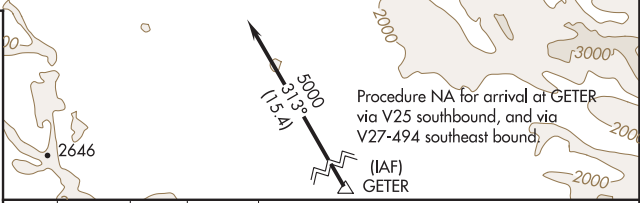
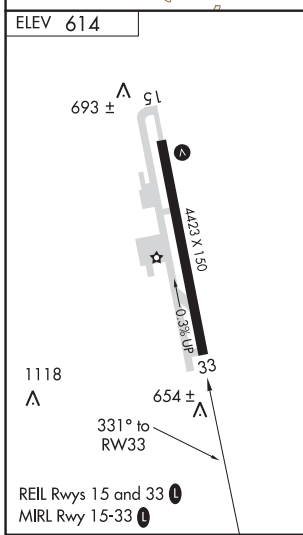
⚠ MISSED APPROACH: Climb to 6700 direct AKGIC and via track 289° to MERRI and hold, continue climb-in-hold to 6700.

ASOS 119,275	OAKLAND CENTER 127.8 353.5	UNICOM 123.0 (CTAF) ①
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



6700	AKGIC	MERRI	HOPLA	
↑	⬠	tr 289°	⬠	
	GOXTU 2.7 NM to RW33	AJXOX	ILABE	5000
	RW33	4000	4500	Procedure Turn NA
	7.49° TCH 40	2800	331°	
	2.7 NM	3.3 NM	3 NM	3 NM
CATEGORY	A	B	C	D
CIRCLING	2540-1¼ 1926 (2000-1¼)	2540-1½ 1926 (2000-1½)	2540-3	1926 (2000-3)

LOC/DME I-UKI 109.1 Chan 28	APP CRS 151°	Rwy Idg 4415 TDZE 614 Apt Elev 614
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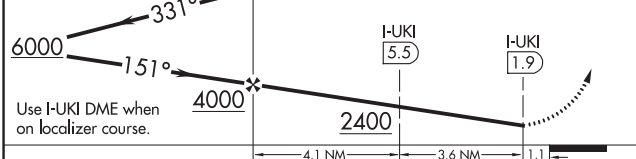
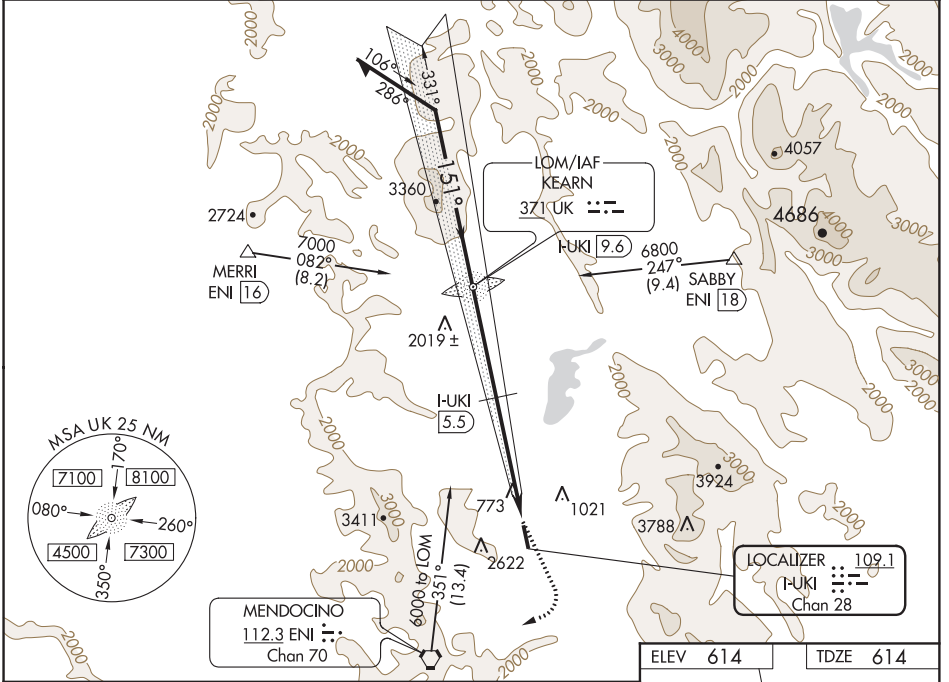
LOC RWY 15

UKIAH MUNI (UKI)

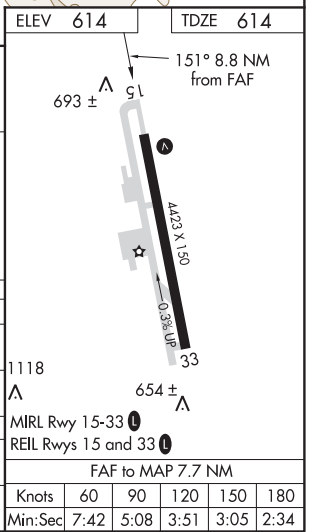
NA Circling NA west of Rwy 15-33.
When local altimeter setting not received, procedure NA.

MISSED APPROACH: Climbing left turn to 4000 via heading 140°, then climbing right turn to 6000 direct ENI VORTAC.

ASOS 119.275	OAKLAND CENTER 127.8 353.5	UNICOM 123.0 (CTAF)
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CATEGORY	A	B	C	D
S-15	2400-1¼ 1786 (1800-1¼)	2400-1½ 1786 (1800-1½)	2400-3	1786 (1800-3)
CIRCLING	2400-1¼ 1786 (1800-1¼)	2400-1½ 1786 (1800-1½)	2400-3	1786 (1800-3)
DME MINIMUMS				
S-15	1720-1¼ 1106 (1200-1¼)	1720-1½ 1106 (1200-1½)	1720-3	1106 (1200-3)
CIRCLING	1720-1¼ 1106 (1200-1¼)	1720-1½ 1106 (1200-1½)	1720-3	1106 (1200-3)



SW-2, 10 NOV 2016 to 05 JAN 2017

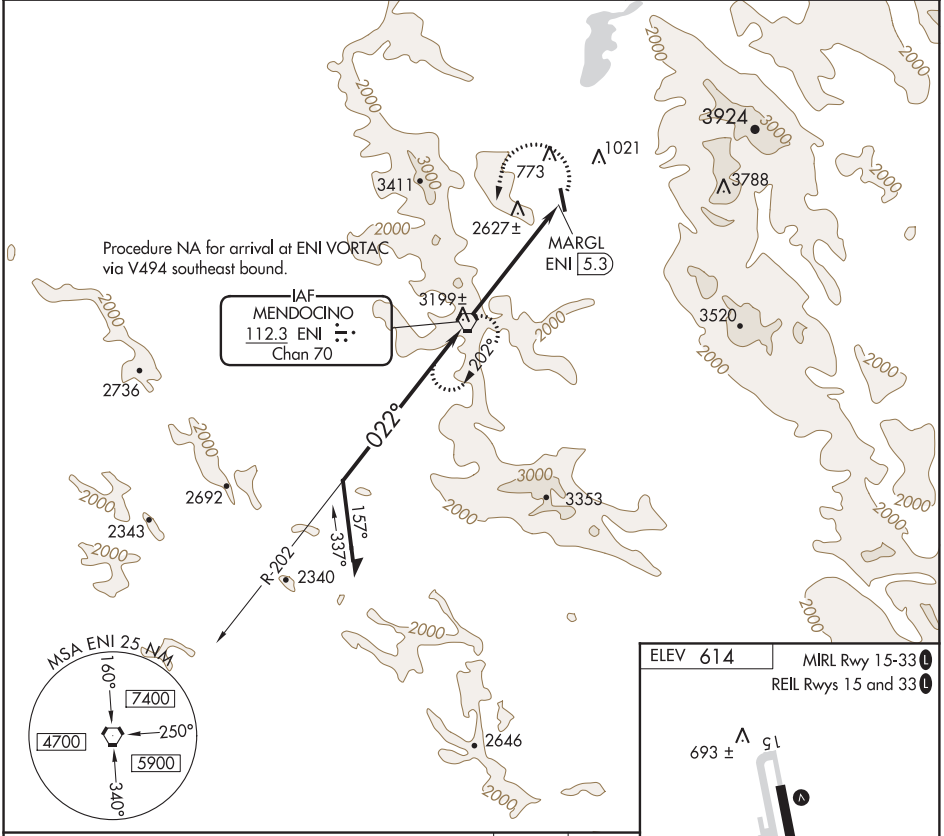
SW-2, 10 NOV 2016 to 05 JAN 2017

VORTAC ENI 112.3 Chan 70	APP CRS 022°	Rwy Idg TDZE Apt Elev N/A N/A 614
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VOR-A
UKIAH MUNI (UKI)

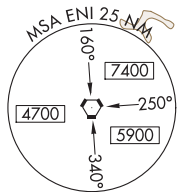
<p>▽ Circling NA west of Rwy 15-33. ▲ When local altimeter setting not received, procedure NA.</p>	<p>MISSED APPROACH: Climbing left turn to 6000 direct ENI VORTAC and hold, continue climb-in-hold to 6000.</p>
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ASOS 119,275	OAKLAND CENTER 127.8 353.5	UNICOM 123.0 (CTAF) ①
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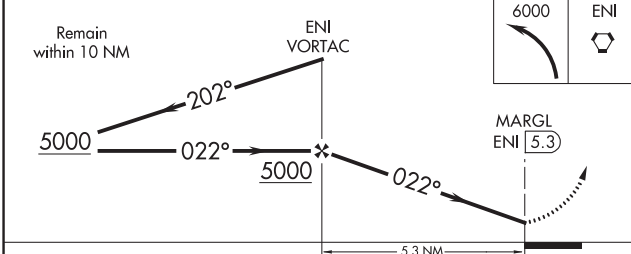
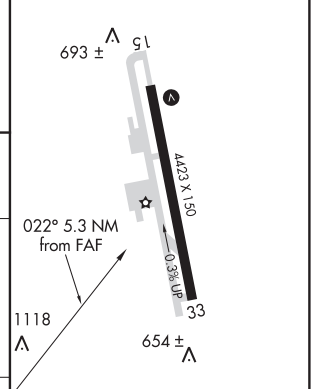


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



ELEV 614	MIRL Rwy 15-33 ①
	REIL Rwy 15 and 33 ①



CATEGORY	A	B	C	D	FAF to MAP 5.3 NM					
CIRCLING	3400-1¼ 2786 (2800-1¼)	3400-1½ 2786 (2800-1½)	3400-3	2786 (2800-3)	Knots	60	90	120	150	180
					Min:Sec	5:18	3:32	2:39	2:07	1:46

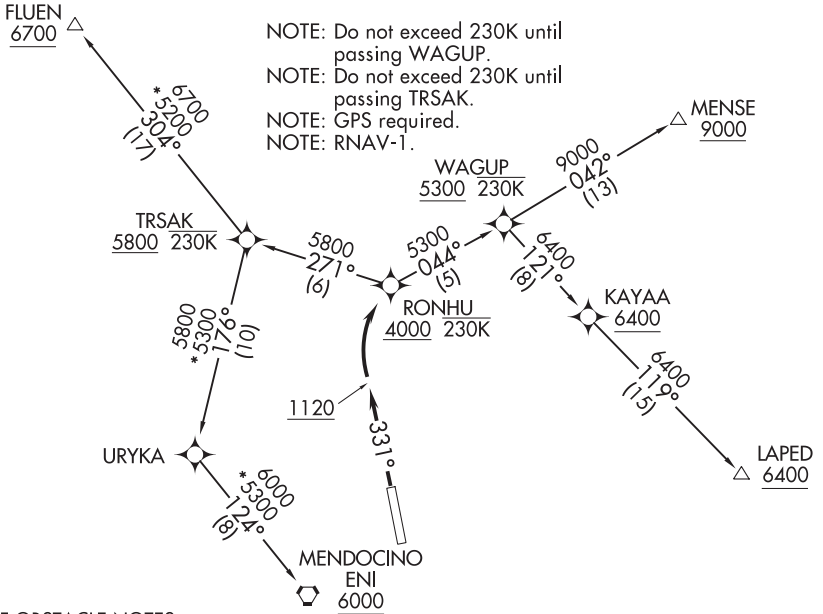
RONHU ONE DEPARTURE (RNAV)

OAKLAND CENTER
127.8 353.5
CTAF
123.0

TAKEOFF MINIMUMS

Rwy 33: MENSE TRANSITION, minimum climb of 500' per NM to 1120', then minimum climb of 316' per NM to 8200.
LAPED TRANSITION, minimum climb of 500' per NM to 1120', then minimum climb of 316' per NM to 6000.
FLUEN/MENDOCINO TRANSITION, minimum climb of 500' per NM to 1120', then minimum climb of 316' per NM to 5800.

NOTE: Do not exceed 230K until passing WAGUP.
NOTE: Do not exceed 230K until passing TRSAK.
NOTE: GPS required.
NOTE: RNAV-1.



TAKEOFF OBSTACLE NOTES

Rwy 33: Poles and trees beginning 27' from DER, 391' right of centerline, up to 30' AGL/645' MSL. Road with vehicles beginning 124' from DER, 147' right of centerline, up to 15' AGL/629' MSL. Trees and poles beginning 461' from DER, 555' right of centerline, up to 100' AGL/679' MSL. Road with vehicles beginning 587' from DER, 313' left of centerline, up to 15' AGL/637' MSL. Trees, poles and signs beginning 888' from DER, 506' left of centerline, up to 100' AGL/709' MSL. Building 1003' from DER, 553' right of centerline, 42' AGL/649' MSL. Tower 5774' from DER, 1155' left of centerline, 124' AGL/770' MSL. Trees beginning 5909' from DER, 1590' left of centerline, up to 100' AGL/773' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 33: Climb heading 331° to 1120, then right turn direct to cross RONHU at or above 4000, thence
. . . . on assigned transition, maintain assigned altitude, expect filed altitude/flight level ten minutes after departure.

- FLUEN TRANSITION (RONHU1.FLUEN)
- LAPED TRANSITION (RONHU1.LAPED)
- MENDOCINO TRANSITION (RONHU1.ENI)
- MENSE TRANSITION (RONHU1.MENSE)

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SW-2, 10 NOV 2016 to 05 JAN 2017

(RYPAX1.RYPAX) 16091

RYPAX ONE DEPARTURE (RNAV)

SL-698 (FAA)

UKIAH MUNI (UKI)

UKIAH, CALIFORNIA

MERRI
6700

TAKEOFF MINIMUMS

Rwy 15: Standard with minimum climb of 678' per NM to 3100.

SABBY
8300

OAKLAND CENTER
127.8 353.5
CTAF
123.0

6700
330°
(151)

8300
028°
(20)

NOTE: MERRI and SABBY
TRANSITIONS:
Do not exceed 230K
until passing BEYTT.

NOTE: GPS required.

NOTE: RNAV 1

BEYTT
230K

MENDOCINO
ENI

3100

RYPAX
3500 230K

LAPED
6200

CEJAA
5300

5300
308°
(111)

5300
219°
(7)

5300
070°
(7)

6200
034°
(8)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb heading 151° to 3100', then left turn direct to cross RYPAX at or above 3500', thence. . . .

. . . . on assigned transition, maintain assigned altitude, expect filed altitude/flight level ten minutes after departure.

GETER TRANSITION (RYPAX1.GETER)

LAPED TRANSITION (RYPAX1.LAPED)

MERRI TRANSITION (RYPAX1.MERRI)

SABBY TRANSITION (RYPAX1.SABBY)

TAKEOFF OBSTACLE NOTES:

Rwy 15: Buildings and signs beginning 34' from DER, 493' right of centerline, up to 30' AGL/629' MSL.
Road with vehicles beginning 70' from DER, 245' right of centerline, up to 15' AGL/624' MSL.
Road with vehicles beginning 111' from DER, 256' left of centerline, up to 15' AGL/629' MSL.
Poles and trees beginning 275' from DER, 357' right of centerline, up to 15' AGL/712' MSL.
Trees and poles beginning 527' from DER, 452' left of centerline, up to 100' AGL/698' MSL.
Trees beginning 1.2 NM from DER, 2023' right of centerline up to 100' AGL/1073' MSL.
Trees beginning 1.5 NM from DER, 1715' right of centerline, up to 100' AGL/1160' MSL.
Trees beginning 2.4 NM from DER, 77' left of centerline, up to 100' AGL/1644' MSL.
Trees beginning 3.5 NM from DER, 2704' right of centerline, up to 100' AGL/2331' MSL.

RYPAX ONE DEPARTURE (RNAV)

(RYPAX1.RYPAX) 13NOV14

UKIAH, CALIFORNIA
UKIAH MUNI (UKI)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

VACAVILLE, CALIFORNIA

AL-6094 (FAA)

15204

VORTAC SAC 115.2 Chan 99	APP CRS 241°	Rwy Idg TDZE Apt Elev	N/A N/A 117
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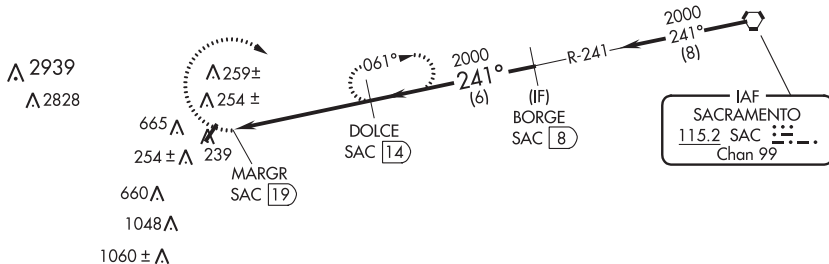
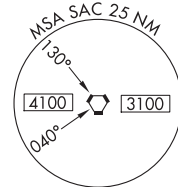
VOR/DME-A
NUT TREE (VCB)

⚠ Circling NA west of Rwy 2-20. When local altimeter setting not received, use Travis AFB altimeter setting and increase all MDA 40 feet and Cat C visibility 1/4 mile. Helicopter visibility reduction below 1 SM NA. Night Landing: Rwy 2 NA.

⚠ MISSED APPROACH: Climbing right turn to 2000 via heading 100° and SAC R-241 to DOLCE/14 DME and hold.

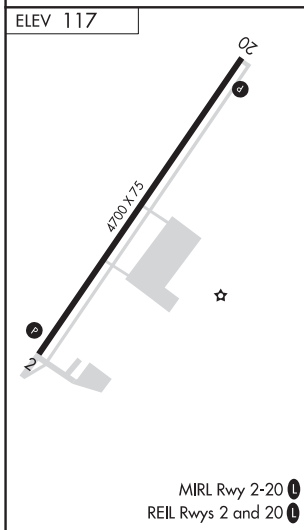
ASOS 134.75	TRAVIS APP CON 128.4 281.45	UNICOM 122.7 (CTAF) 0
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Procedure NA for arrivals on SAC VORTAC airway radials 137 CW 237.



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2000 hdg 100°	SAC R-241	DOLCE SAC 14	DOLCE SAC 14	BORGE SAC 8
	MARGR SAC 19	2000	2000	Procedure Turn NA
5 NM		6 NM		
CATEGORY	A	B	C	D
CIRCLING	760-1	643 (700-1)	760-1 3/4 643 (700-1 3/4)	NA

VACAVILLE, CALIFORNIA
Amdt 5A 23JUL15

38°23'N-121°58'W

NUT TREE (VCB)
VOR/DME-A

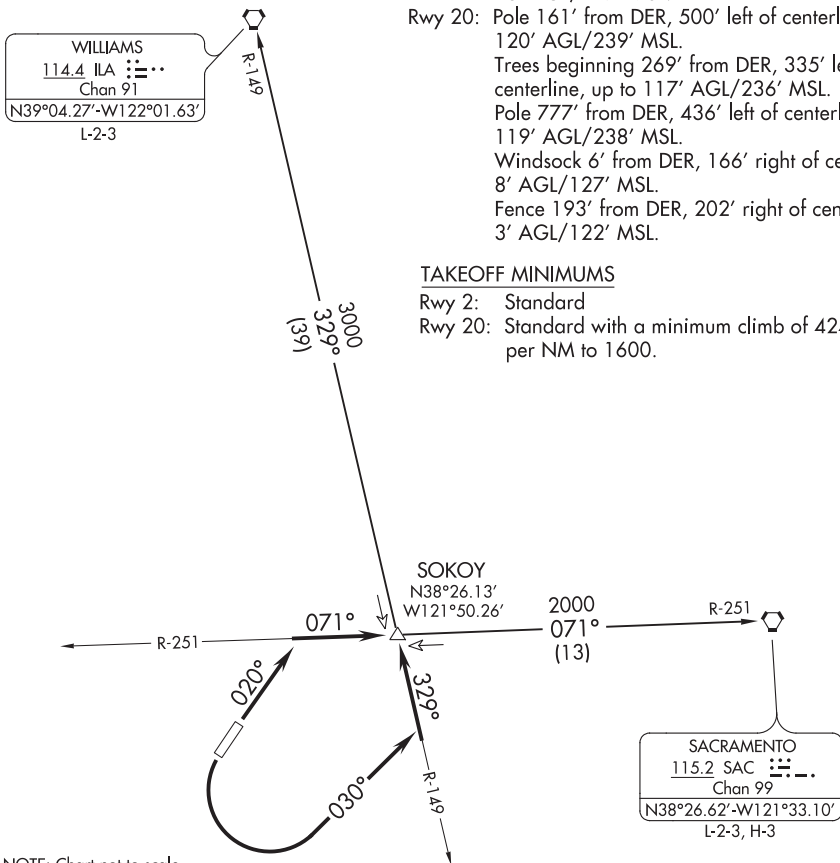
TRAVIS DEP CON
128.4 281.45

TAKEOFF OBSTACLE NOTES

- Rwy 2: Trees beginning 222' from DER, 514' left of centerline, up to 106' AGL/225' MSL.
Light pole 337' from DER, 534' left of centerline, 28' AGL/147' MSL.
- Rwy 20: Pole 161' from DER, 500' left of centerline, 120' AGL/239' MSL.
Trees beginning 269' from DER, 335' left of centerline, up to 117' AGL/236' MSL.
Pole 777' from DER, 436' left of centerline, 119' AGL/238' MSL.
Windsock 6' from DER, 166' right of centerline, 8' AGL/127' MSL.
Fence 193' from DER, 202' right of centerline, 3' AGL/122' MSL.

TAKEOFF MINIMUMS

- Rwy 2: Standard
Rwy 20: Standard with a minimum climb of 424' per NM to 1600.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb via heading 020°, intercept SAC R-251 to SOKOY INT/ SAC 13 DME.

TAKEOFF RUNWAY 20: Turn left heading 030°, intercept ILA R-149 to SOKOY INT/ ILA 39 DME.

SACRAMENTO TRANSITION (SOKOY2.SAC): From over SOKOY INT via SAC R-251 to SAC VORTAC.


WILLIAMS TRANSITION (SOKOY2.ILA): From over SOKOY INT via ILA R-149 to ILA VORTAC.

ILS or LOC/DME RWY 30

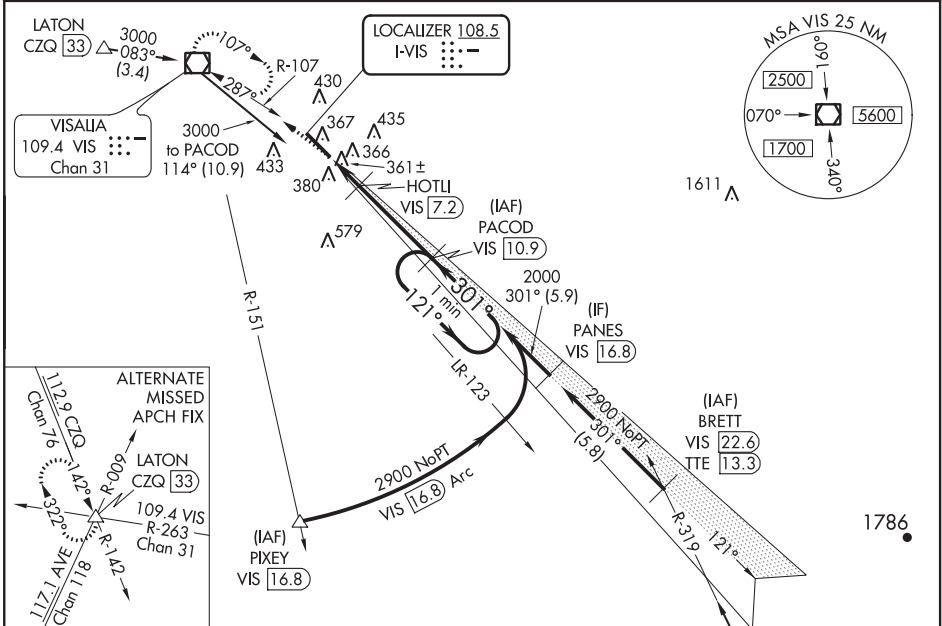
VISALIA MUNI (VIS)

LOC I-VIS 108.5	APP CRS 301°	Rwy Idg 6562
		TDZE 295
		Apt Elev 295

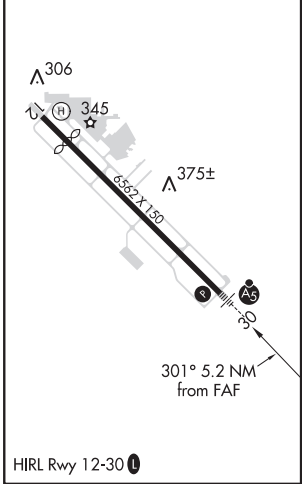
▼ When local altimeter setting not received, use Hanford altimeter setting and increase all DA 34 feet and all MDA 40 feet and increase S-LOC Cat C and D visibility to 3/8 mile.
▲ DME from VIS VOR/DME.
 Simultaneous reception of I-VIS and VIS DME required.

MALSR

MISSED APPROACH: Climb to 1000 then climbing left turn to 3000 direct VIS VOR/DME and hold, continue climb-in-hold to 3000.

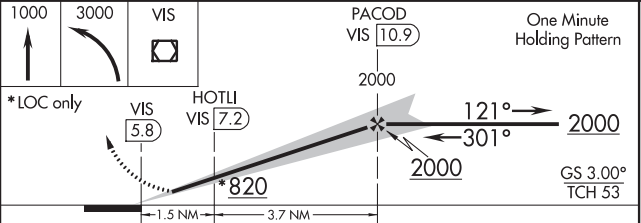
AWOS-3PT 119.925	FRESNO APP CON 118.5	UNICOM 123.05 (CTAF)
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ELEV 295	D	TDZE 295
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Procedure NA for arrival at TTE VOR/DME on V165-459 southeast bound.
TULE 109.2 TTE Chan 29



CATEGORY	A	B	C	D
S-ILS 30		495-1/2	200 (200-1/2)	
S-LOC 30		620-1/2	325 (400-1/2)	
CIRCLING	720-1 425 (500-1)	760-1 465 (500-1)	760-1 1/2 465 (500-1 1/2)	860-2 565 (600-2)

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WAAS CH 82423 W12A	APP CRS 121°	Rwy Idg 5645 TDZE 293 Apt Elev 295
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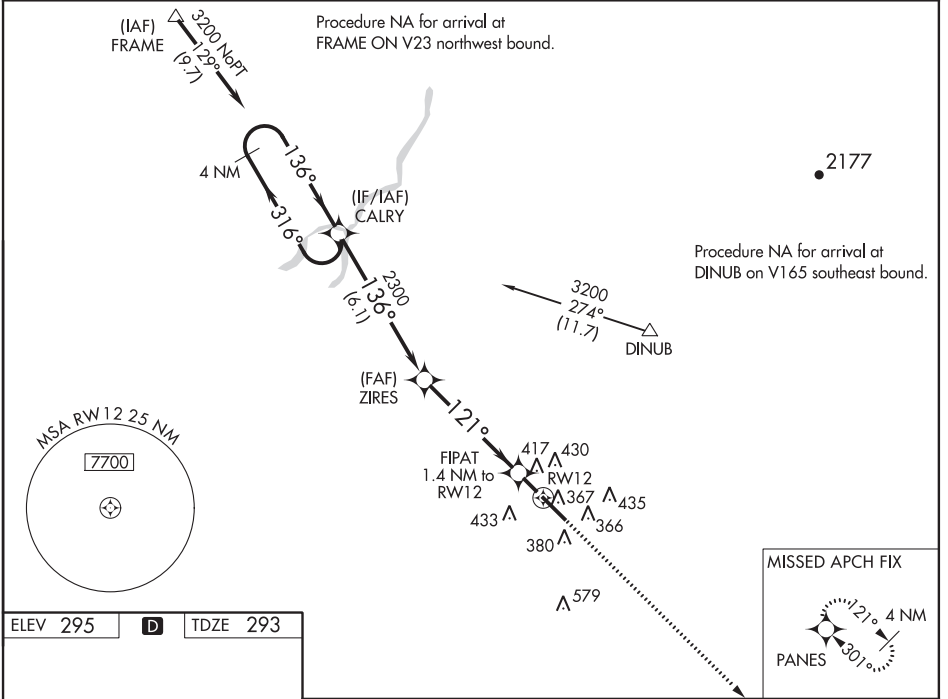
RNAV (GPS) RWY 12

VISALIA MUNI (VIS)

⚠ DME/DME RNP-0.3 NA. When local altimeter setting not received, use Hanford altimeter setting and increase all DA 34 feet and all MDA 40 feet and increase LNAV/VNAV Cat C and D and LNAV Cat C and D visibility 1/8 mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 41°C (105°F). VDP and Baro/VNAV NA when using Hanford altimeter setting. Helicopter visibility reduction below 3/4 SM not authorized.

MISSED APPROACH:
Climb to 2900 direct PANES and hold.

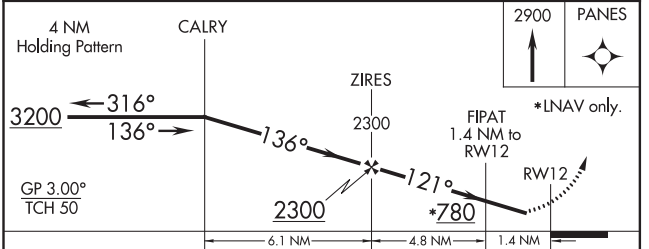
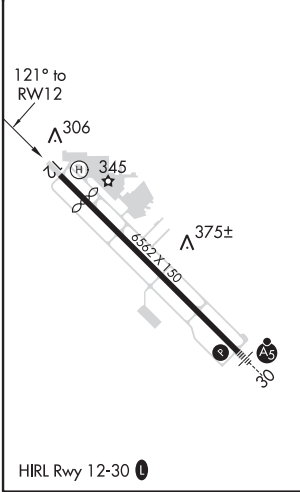
AWOS-3PT 119,925	FRESNO APP CON 118.5	UNICOM 123.05 (CTAF) 0
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 295	D	TDZE 293
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CATEGORY	A	B	C	D
LPV DA		543-3/4	250 (300-3/4)	
LNAV/ VNAV DA		697-13/8	404 (500-13/8)	
LNAV MDA	680-1	387 (400-1)	680-1 1/8	387 (400-1 1/8)
CIRCLING	720-1 425 (500-1)	760-1 465 (500-1)	760-1 1/2 465 (500-1 1/2)	860-2 565 (600-2)

WAAS CH 77623 W30A	APP CRS 301°	Rwy Idg TDZE Apt Elev	6562 295 295
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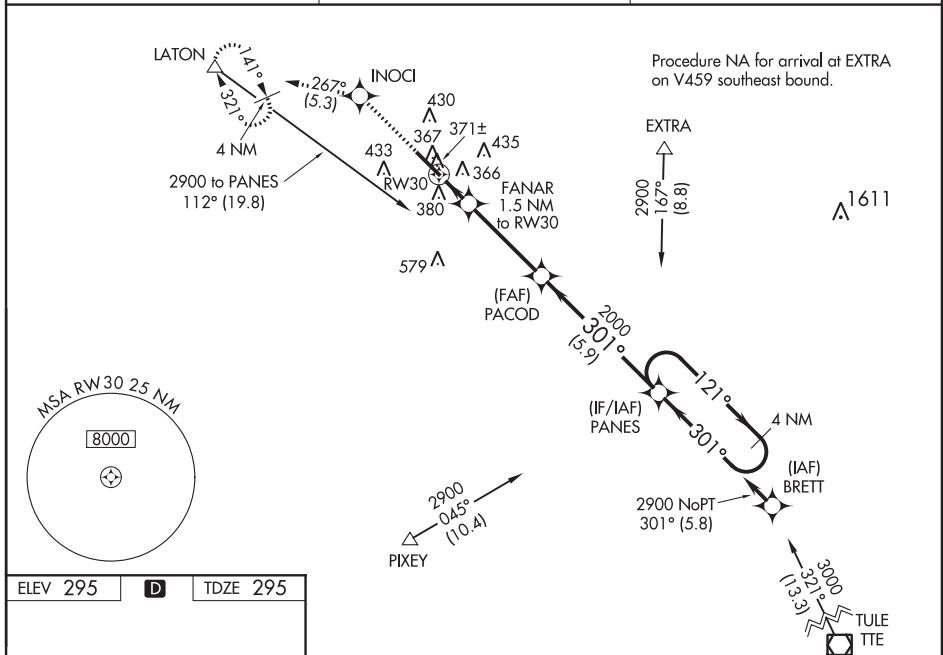
RNAV (GPS) RWY 30

VISALIA MUNI (VIS)

⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 42°C (107°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Hanford altimeter setting. When local altimeter setting not received, use Hanford altimeter setting and increase all DA 34 feet and all MDA 40 feet. For inoperative CATs when using Hanford altimeter setting increase LNAV/VNAV DA visibility all Cats to 3/8 mile. For inoperative MALSR increase LNAV/VNAV all Cats visibility 3/8 mile.

MALSR
MISSED APPROACH: Climb to 3000 direct INOCI and on track 267° to LATON and hold, continue climb-in-hold to 3000.

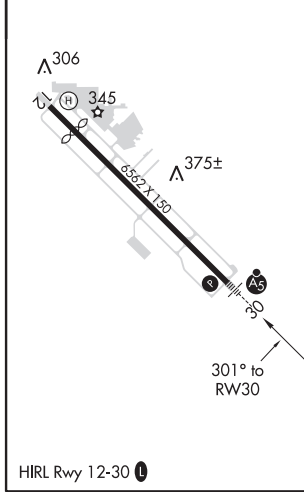
AWOS-3PT 119.925	FRESNO APP CON 118.5	UNICOM 123.05 (CTAF)
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 295	D	TDZE 295
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3000	INOCI	tr 267°	LATON	PANES	4 NM Holding Pattern
*LNAV only.					
*0.9 NM to RW30		FANAR 1.5 NM to RW30		PACOD	
RW30		*820		121° → 2900	
0.9 NM		0.6 NM		3.7 NM	
CATEGORY		A		B	
LPV DA		495-1/2		200 (200-1/2)	
LNAV/VNAV DA		545-1/2		250 (300-1/2)	
LNAV MDA		640-1/2 345 (400-1/2)		640-5/8 345 (400-5/8)	
CIRCLING		720-1 425 (500-1)		760-1 465 (500-1)	
		760-1 1/2 465 (500-1 1/2)		860-2 565 (600-2)	

VOR/DME VIS 109.4 Chan 31	APP CRS 107°	Rwy Idg TDZE Apt Elev	5645 293 295
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VOR RWY 12

VISALIA MUNI (VIS)

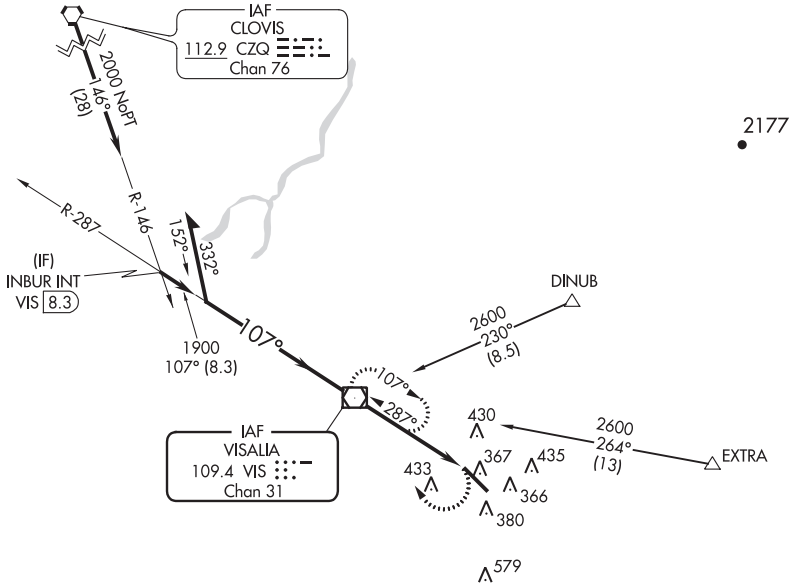
⚠ When local altimeter setting not received, use Hanford altimeter setting and increase all MDA 40 feet. Helicopter visibility reduction below 3/4 SM not authorized.

⚠ MISSED APPROACH: Climbing right turn to 2000 direct VIS VOR/DME and hold.

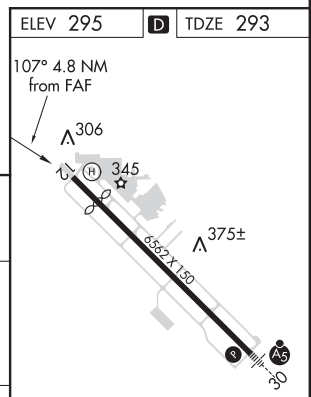
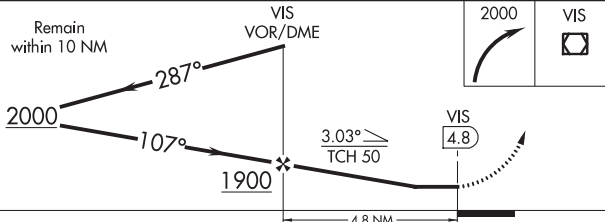
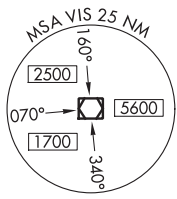
AWOS-3PT
119.925

FRESNO APP CON
118.5

UNICOM
123.05 (CTAF)



2177



CATEGORY	A	B	C	D
S-12	740-1	447 (500-1)	740-1 3/8	447 (500-1 3/8)
CIRCLING	740-1 445 (500-1)	760-1 465 (500-1)	760-1 1/2 465 (500-1 1/2)	860-2 565 (600-2)

ELEV 295	TDZE 293				
107° 4.8 NM from FAF					
FAF to MAP 4.8 NM					
Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

RNAV (GPS) RWY 2

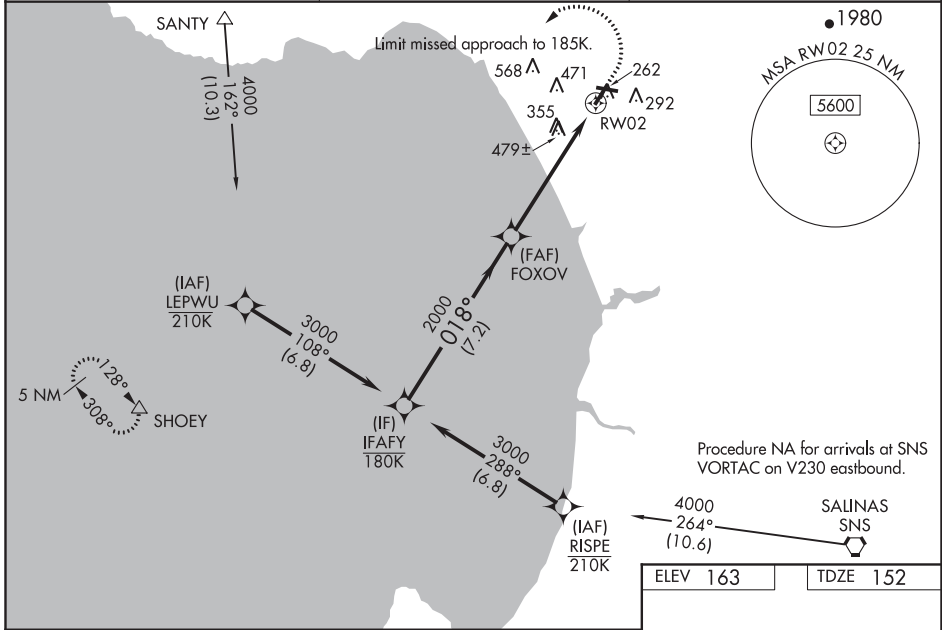
WATSONVILLE MUNI (WVI)

WAAS CH 61330 W02A	APP CRS 018°	Rwy Idg 4501 TDZE 152 Apt Elev 163
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⚠ Baro-VNAV NA when using Monterey Rgnl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -2°C (29°F) or above 54°C (130°F). When VGSI inop, procedure NA at night. DME/DME RNP-0.3 NA. Circling NA at night. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Monterey Rgnl altimeter setting: increase LPV DA to 507, LNAV/VNAV DA to 868 and all visibilities ¼ mile; increase all MDA 80 feet, increase LNAV Cat C and D visibility ¼ mile and Circling Cat C visibility ¼ mile. Circling NA west of Rwy 02-20.

MISSED APPROACH:
Climb to 650 then climbing left turn to 6000 direct SHOEV and hold, continue climb-in-hold to 6000.

ASOS 132.275	NORCAL APP CON 127.15 307.125	UNICOM 122.8 (CTAF) Ⓛ
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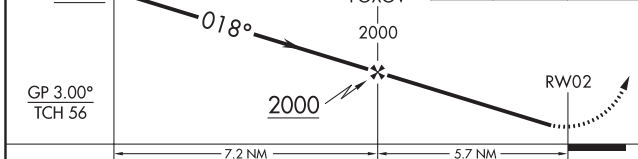


SW-2, 10 NOV 2016 to 05 JAN 2017

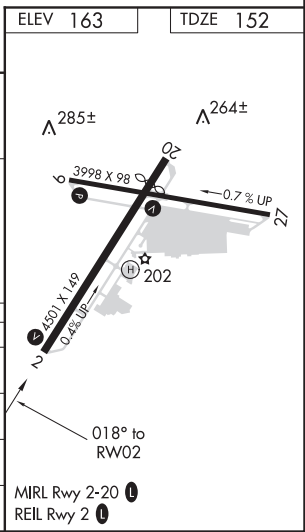
SW-2, 10 NOV 2016 to 05 JAN 2017

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 48).

ELEV 163	TDZE 152
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CATEGORY	A	B	C	D
LPV DA	458-1		306 (300-1)	
LNAV/VNAV DA	819-2 ¼		667 (700-2 ¼)	
LNAV MDA	740-1	588 (600-1)	740-1 ¾	588 (600-1 ¾)
CIRCLING	740-1	577 (600-1)	740-1 ¾	740-2
			577 (600-1 ¾)	577 (600-2)



LOC I-AYN 108.3	APP CRS 018°	Rwy Idg 4501
		TDZE 152
		Apt Elev 163

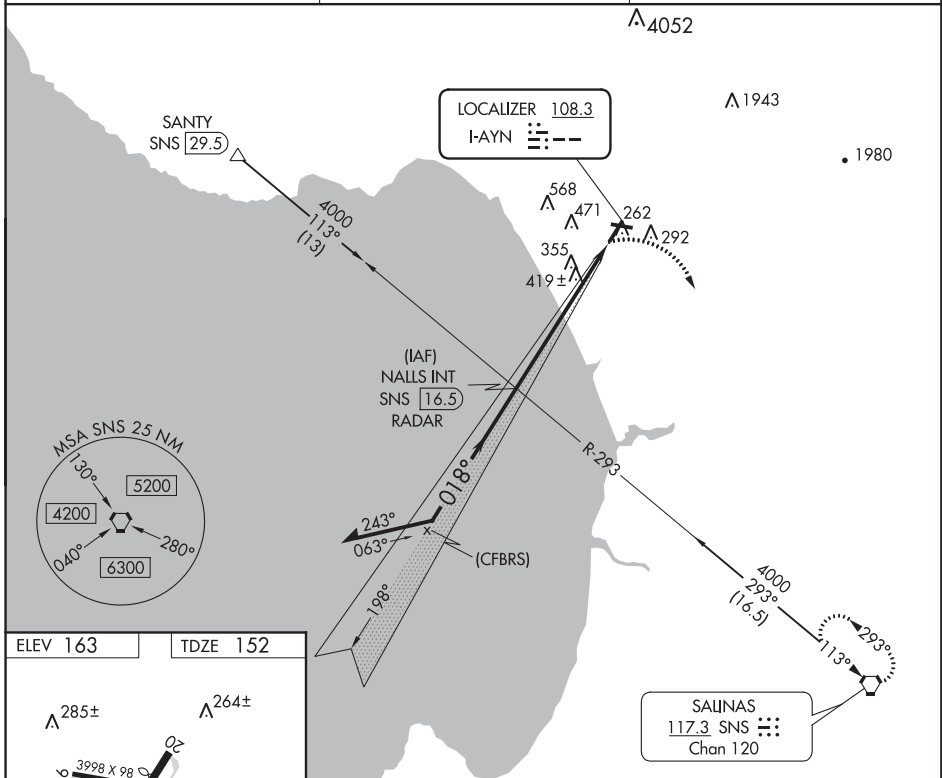
LOC RWY 2

WATSONVILLE MUNI (WVI)

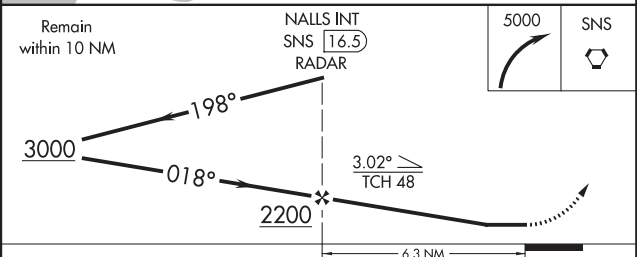
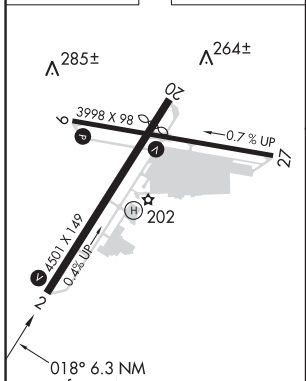
⚠ Circling NA at night. When VGSI inop, procedure NA at night. Circling NA west of Rwy 02-20. When local altimeter setting not received, use Monterey altimeter setting and increase all MDA 60 feet and visibility Cats C and D 1/8 mile and Circling Cat C 1/8 mile. Helicopter visibility below 1 SM not authorized.

MISSED APPROACH: Climbing right turn to 5000 direct SNS VORTAC and hold, continue climb-in-hold to 5000.

ASOS 132.275	NORCAL APP CON 127.15 307.125	UNICOM 122.8 (CTAF) 0
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ELEV 163	TDZE 152
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CATEGORY	A	B	C	D
S-2	700-1	548 (600-1)	700-1½	548 (600-1½)
CIRCLING	700-1	537 (600-1)	700-1½	720-2
			537 (600-1½)	557 (600-2)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

(WVI3.WVI) 16091

SL-805 (FAA)

WATSONVILLE THREE DEPARTURE (OBSTACLE)

WATSONVILLE MUNI (WVI)
WATSONVILLE, CALIFORNIAASOS
132.275
NORCAL DEP CON
127.15 307.125**TOP ALTITUDE:
ASSIGNED BY ATC**

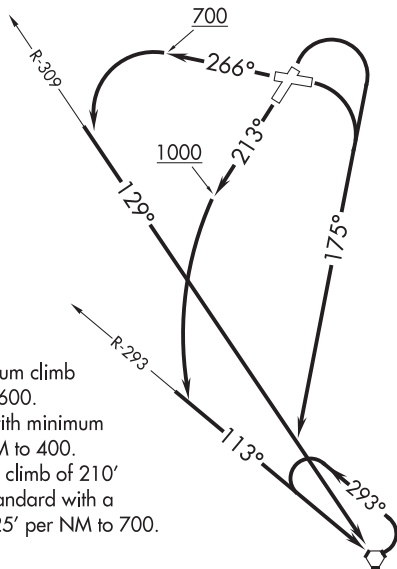
NOTE: Chart not to scale.

TAKEOFF MINIMUMS

Rwy 20: Standard.

Rwy 2: Standard with minimum climb
of 500' per NM to 2600.Rwy 9: 300-1 or standard with minimum
climb of 260' per NM to 400.Rwy 27: 500-3 with minimum climb of 210'
per NM to 700 or standard with a
minimum climb of 425' per NM to 700.TAKEOFF OBSTACLE NOTES

- Rwy 2: Multiple poles beginning 15' from DER, left and right of centerline, up to 58' AGL/224' MSL. Multiple buildings beginning 71' from DER, left and right of centerline, up to 26' AGL/180' MSL. Vehicles on road beginning 107' from DER, left and right of centerline, up to 15' AGL/177' MSL. Obstruction light on pole, 1177' from DER, 330' right of centerline, up to 224' MSL. Multiple stacks, 524' from DER, 329' left of centerline, 24' AGL/186' MSL. Trees beginning 124' from DER, left and right of centerline, up to 170' AGL/280' MSL. Fence 179' from DER, 322' left of centerline, 6' AGL/168' MSL. Multiple threshold lights 9' from DER, left and right of centerline, 1' AGL/159' MSL.
- Rwy 9: Tower 4698' from DER, 1367' right of centerline, 189' AGL/292' MSL. Tower 829' from DER, 291' left of centerline, 52' AGL/181' MSL. Multiple poles beginning 211' from DER, 139' left of centerline, up to 43' AGL/177' MSL. Vehicle on road, 161' from DER, 348' left of centerline, up to 15' AGL/152' MSL. Multiple stacks 75' from DER, 356' left of centerline, 36' AGL/168' MSL. Multiple buildings beginning 108' from DER, 299' left of centerline, up to 36' AGL/167' MSL. Trees beginning 2' from DER, left and right of centerline, up to 70' AGL/215' MSL. Fence 91' from DER, 251' left of centerline, 7' AGL/145' MSL. Multiple electric systems 66' from DER, 251' right of centerline, 32' AGL/153' MSL.
- Rwy 20: Trees beginning 52' from DER, left and right of centerline, up to 70' AGL/281' MSL. Fence 125' from DER, 244' right of centerline, 7' AGL/143' MSL. Multiple poles beginning 45' from DER, 486' left of centerline, up to 31' AGL/184' MSL. Terrain 3' from DER, 346' left of centerline, up to 141' MSL.
- Rwy 27: Trees beginning 35' from DER, left and right of centerline, up to 70' AGL/615' MSL. Rising terrain 1.1 NM from DER, 907' left of centerline, up to 499' MSL. Multiple vegetation 1.4 NM from DER, 1313' left of centerline, up to 519' MSL. Fence 85' from DER, 431' right of centerline, 7' AGL/177' MSL. Fence 1.4 NM from DER, 2230' left of centerline, 4' AGL/437' MSL. Vehicles on road, 203' from DER, 452' right of centerline, up to 15' AGL/400' MSL. Multiple buildings beginning 584' from DER, left and right of centerline, up to 21' AGL/438' MSL. Multiple poles 1064' from DER, 433' left of centerline, 44' AGL/486' MSL. Multiple towers 1.9 NM from DER, 1372' left of centerline, 63' AGL/557' MSL. Stack 1477' from DER, 638' right of centerline, 19' AGL/201' MSL.

DEPARTURE ROUTE DESCRIPTIONTAKEOFF RUNWAYS 2 and 9: Climbing right turn on heading 175° to intercept SNS VORTAC R-309 to SNS VORTAC, thenceTAKEOFF RUNWAY 20: Climb heading 213° to 1000, then climbing left turn to intercept SNS VORTAC R-293 to SNS VORTAC, thenceTAKEOFF RUNWAY 27: Climb heading 266° to 700, then climbing left turn on SNS VORTAC R-309 to SNS VORTAC, thence
. . . . continue climb in SNS holding pattern to cross SNS VORTAC at or above MEA/MCA for route of flight.

SALINAS	
117.3	SNS
Chan 120	
N36°39.83'-W121°36.19'	
L-3,H-3	

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WATSONVILLE THREE DEPARTURE (OBSTACLE)

(WVI3.WVI) 30APR15

WATSONVILLE, CALIFORNIA
WATSONVILLE MUNI (WVI)

APP CRS	Rwy Idg	3000
145°	TDZE	2063
	Apt Elev	2063

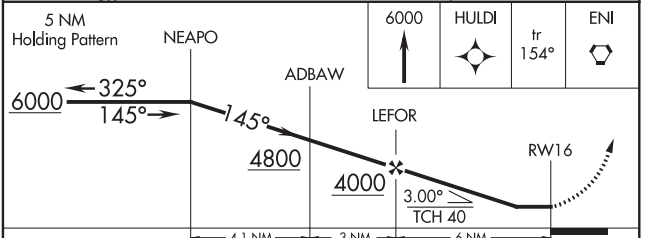
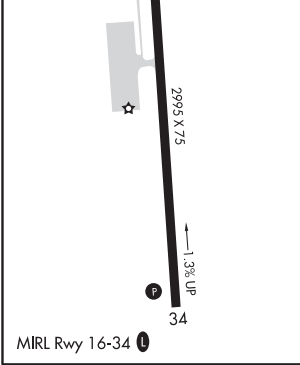
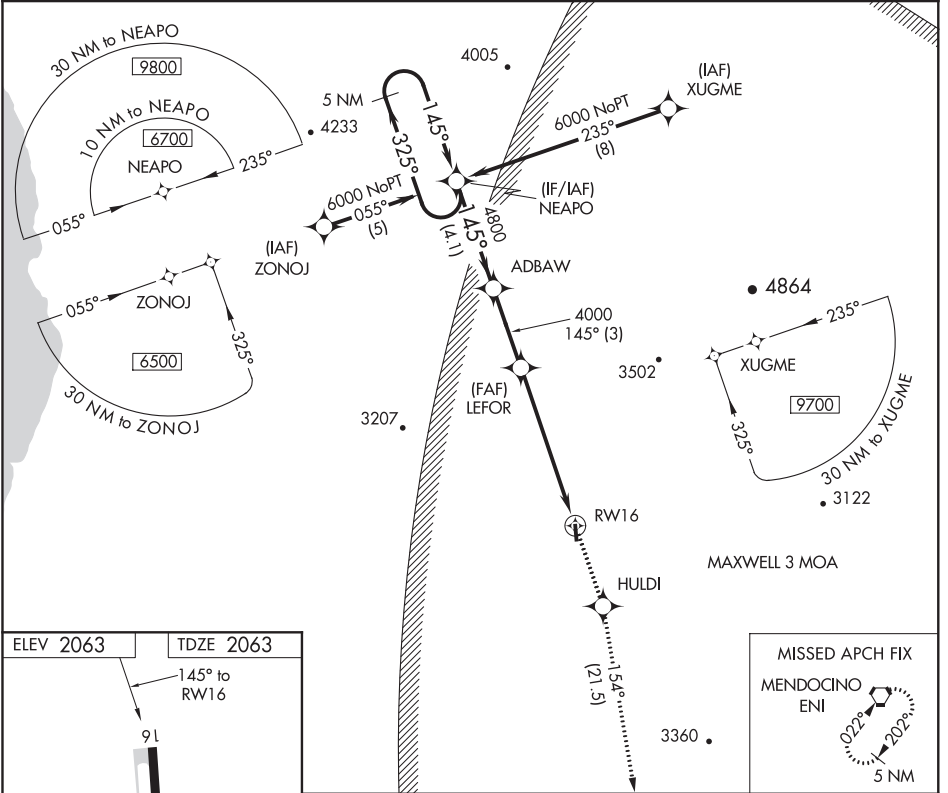
RNAV (GPS) RWY 16

ELLS FIELD-WILLITS MUNI (O28)

NA DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. Circling NA west of Rwy 16/34. Procedure NA at night. Use Ukiah altimeter setting.

MISSED APPROACH: Climb to 6000 direct HULDI and on track 154° to ENI VORTAC and hold.

UKIAH MUNI ASOS 119.275	OAKLAND CENTER 132.2 350.3	UNICOM 122.8 (CTAF)
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CATEGORY	A	B	C	D
LNAV MDA	3680-1¼ 1617 (1700-1¼)	3680-1½ 1617 (1700-½)	3680-3 1617 (1700-3)	NA
CIRCLING	3680-1¼ 1617 (1700-¼)	3680-1½ 1617 (1700-½)	3680-3 1617 (1700-3)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	3000
339°	TDZE	2063
	Apt Elev	2063

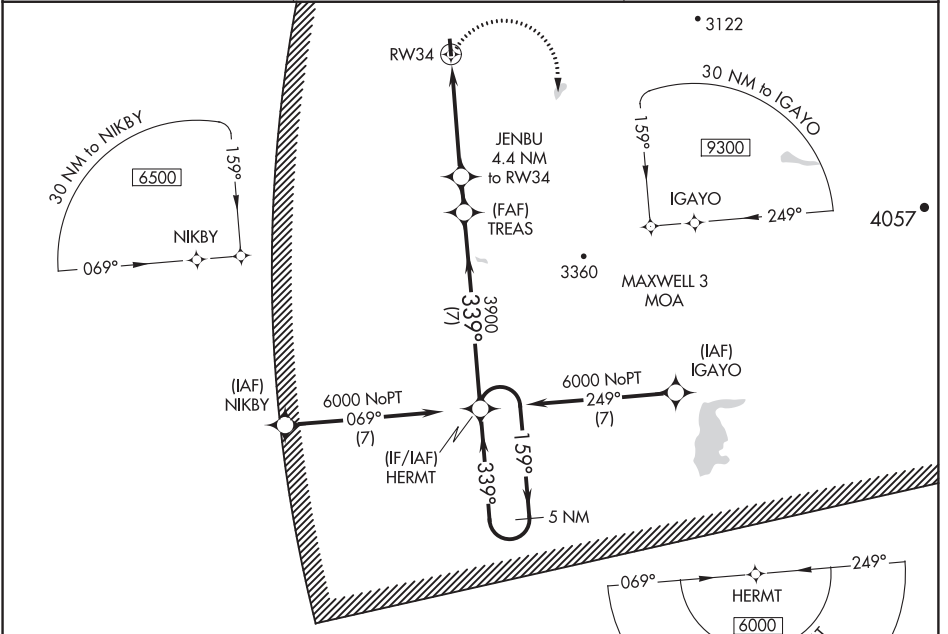
RNAV (GPS) RWY 34

ELLS FIELD-WILLITS MUNI (O28)

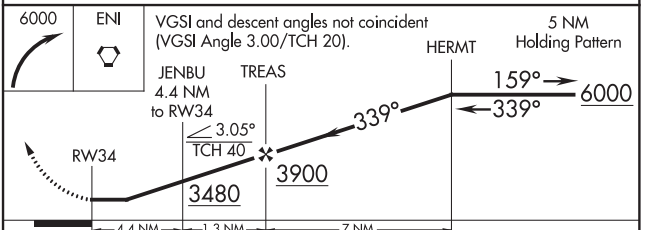
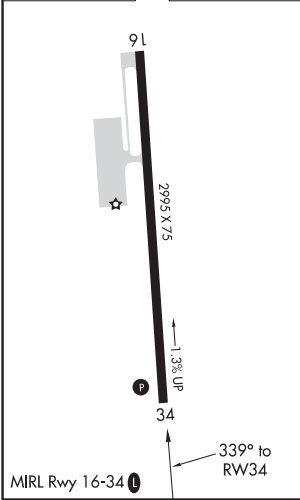
NA Circling NA west of Rws 16 and 34. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. Procedure NA at right. Use Ukiah altimeter setting.

MISSED APPROACH: Climbing right turn to 6000 direct ENI VORTAC and hold.

UKIAH MUNI ASOS 119.275	OAKLAND CENTER 132.2 350.3	UNICOM 122.8 (CTAF) 0
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ELEV 2063	TDZE 2063
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CATEGORY	A	B	C	D
LNAV MDA	3200-1¼ 1137 (1200-1¼)	3200-1½ 1137 (1200-1½)	3200-3 1137 (1200-3)	NA
CIRCLING	3200-1¼ 1137 (1200-1¼)	3200-1½ 1137 (1200-1½)	3200-3 1137 (1200-3)	NA

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

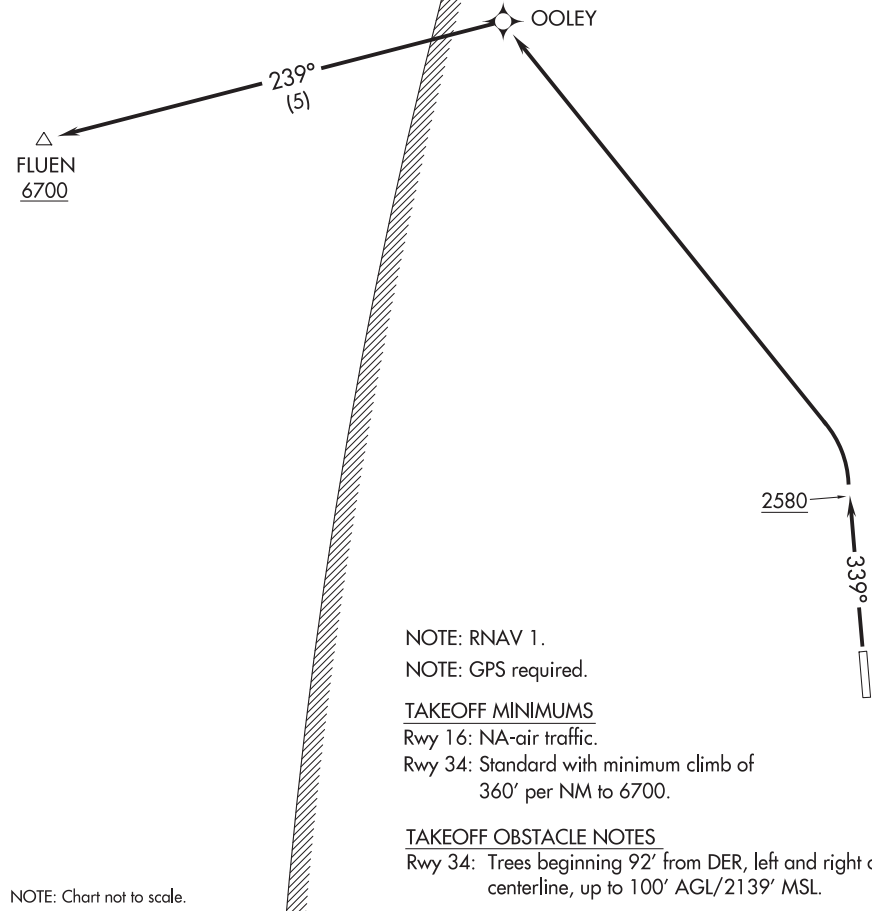
(FLUEN2.FLUEN) 16091

FLUEN TWO DEPARTURE (OBSTACLE) (RNAV)

ELLS FIELD-WILLITS MUNI (O28)
SL-9480 (FAA) WILLITS, CALIFORNIA

OAKLAND CENTER
132.2 350.3

MAXWELL 3 MOA



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 34: Climb heading 339° to 2580, then left turn direct OOLEY, and on track 239° to cross FLUEN at or above 6700.

(FLUEN2.FLUEN) 30JUN11

WILLITS, CALIFORNIA
ELLS FIELD-WILLITS MUNI (O28)

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

MENDOCINO ONE DEPARTURE (OBSTACLE) (RNAV)

OAKLAND CENTER
132.2 350.3
UNICOM 122.8 (CTAF)



TAKEOFF MINIMUMS

Rwy 16: Standard
Rwy 34: N/A Obstacles

TAKEOFF OBSTACLE NOTES

Rwy 16: Trees 1812' from DER, 844' left of centerline, 100' AGL/2139' MSL.



NOTE: GPS Required.
NOTE: RNAV 1

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb to 6000 direct VICOR WP, then via 153° track to ENI VORTAC, thence proceed on course.

SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

WAAS CH 78422 W34A	APP CRS 341°	Rwy Idg 4125 TDZE 138 Apt Elev 141
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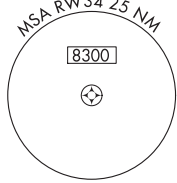
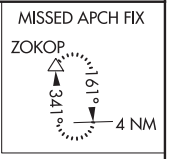
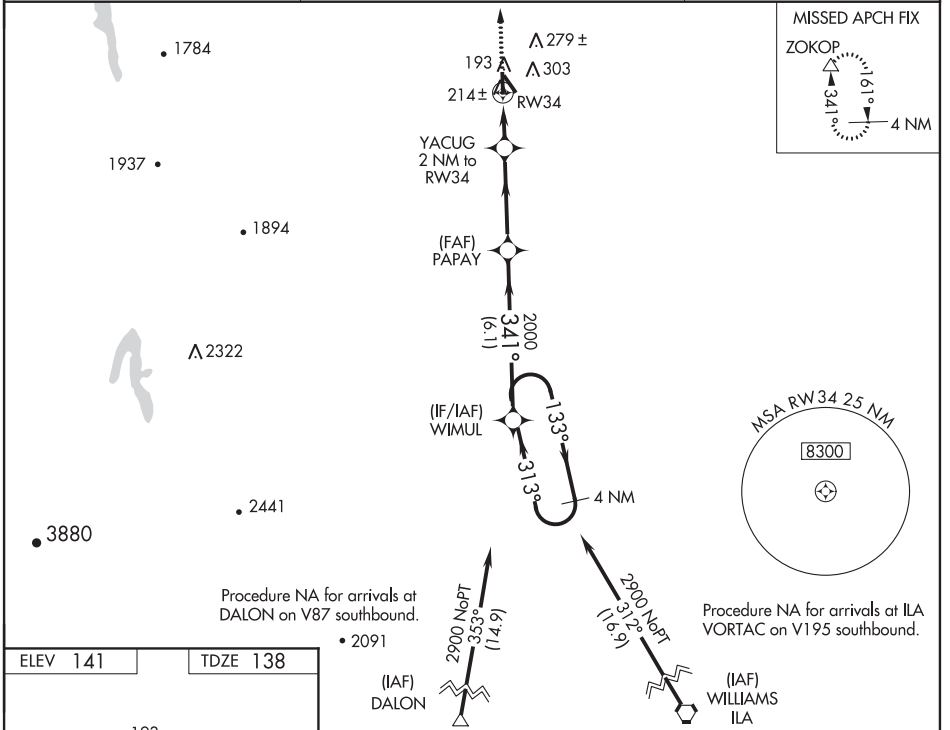
RNAV (GPS) RWY 34

WILLOWS-GLENN COUNTY (WLW)

Baro-VNAV NA. Use Oroville Muni altimeter setting, when not received procedure NA. When VGSI inop, Straight-in/Circling Rwy 34 procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 3000 direct ZOKOP and hold.

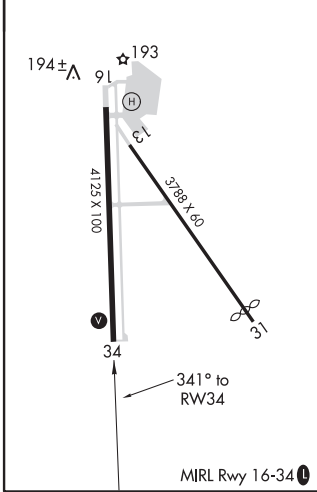
OROVILLE MUNI ASOS 121.425	OAKLAND CENTER 132.2 350.3	UNICOM 122.8 (CTAF) 0
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 141	TDZE 138
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4 NM Holding Pattern	WIMUL		PAPAY		YACUG 2 NM to RW34		3000 ZOKOP
	2900	2000	2000	2000	2000	2000	* LNAV only.
GP 3.00° TCH 40 VGSI and RNAV Glidepath not coincident (VGSI Angle 3.00°/TCH 31).							
		6.1 NM	3.7 NM	2 NM			
CATEGORY	A	B	C	D			
LPV DA	460-1½	322 (400-1½)		NA			
LNAV/VNAV DA	460-1½	322 (400-1½)		NA			
LNAV MDA	540-1	402 (400-1)	540-1½	402 (400-1½) NA			
CIRCLING	680-1	539 (600-1)	680-1½	539 (600-1½) NA			

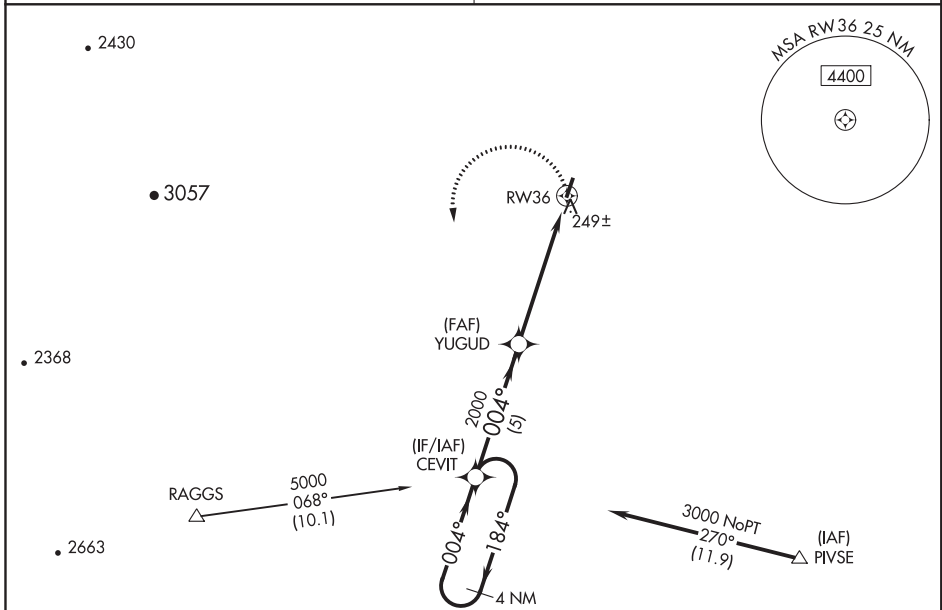
APP CRS 004°	Rwy Idg 3244
	TDZE 125
	Apt Elev 125

RNAV (GPS) RWY 36

WATTS-WOODLAND (O41)

<p>NA Procedure NA at night. Use Sacramento Inif altimeter setting; when not received, use Sacramento Executive altimeter setting and increase all MDA 20 feet.</p>	<p>MISSED APPROACH: Climbing left turn to 3000 direct CEVIT and hold.</p>
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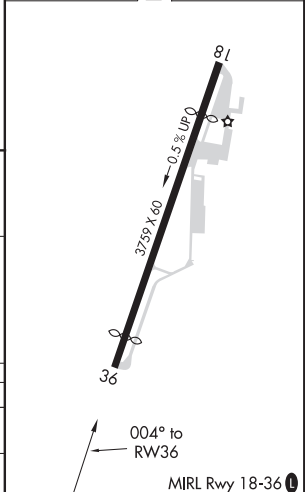
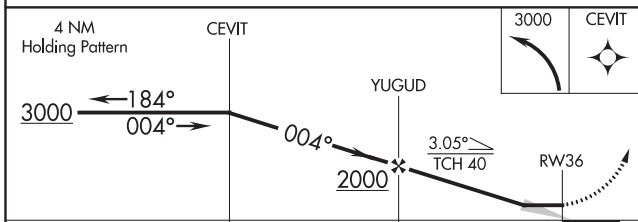
<p>TRAVIS APP CON 126.6 281.45</p>	<p>UNICOM 122.8 (CTAF)</p>
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SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017

ELEV 125	D	TDZE 125
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CATEGORY	A	B	C	D
LNVA MDA	560-1	435 (500-1)		NA
CIRCLING	620-1	495 (500-1)		NA

WOODLAND, CALIFORNIA

AL-6353 (FAA)

15008

VORTAC SAC 115.2 Chan 99	APP CRS 296°	Rwy Idg TDZE Apt Elev	N/A N/A 125
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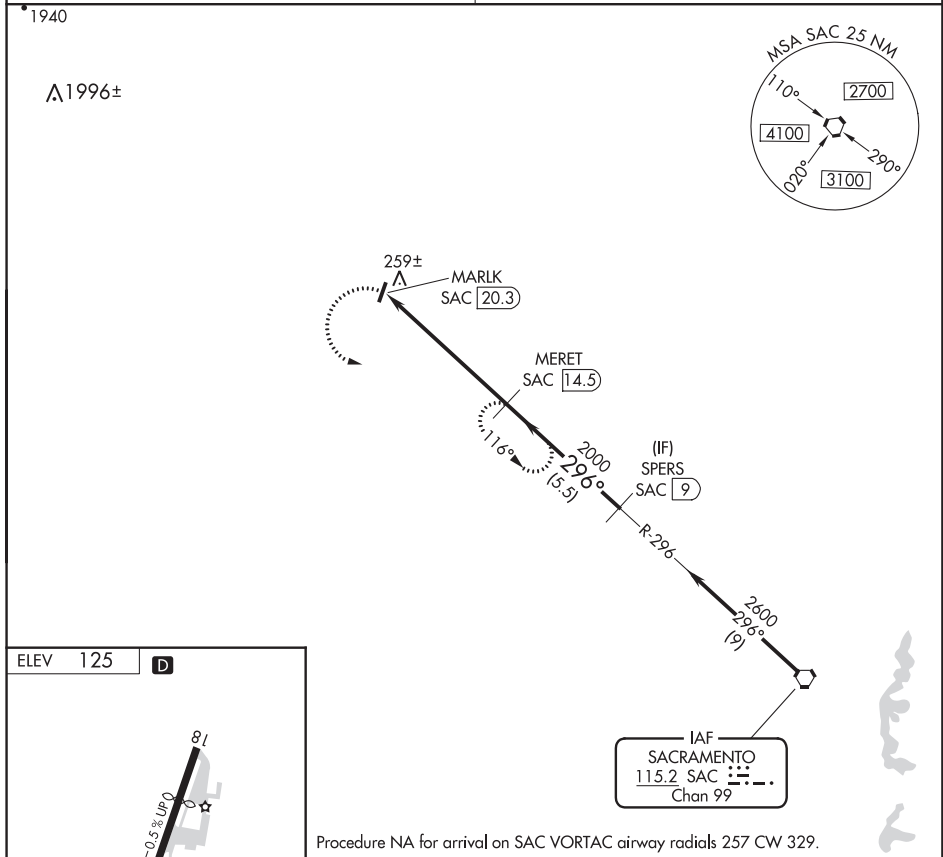
VOR/DME-A

WATTS-WOODLAND (O41)

Procedure NA at night.
NA Use Sacramento Infil altimeter setting; when not received, use Sacramento Executive altimeter setting and increase all MDA 20 feet.

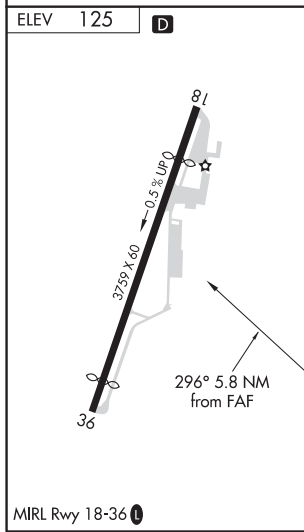
MISSED APPROACH: Climbing left turn to 2000 via SAC VORTAC R-296 to MERET/14.5 DME and hold.

TRAVIS APP CON 126.6 281.45	UNICOM 122.8 (CTAF)
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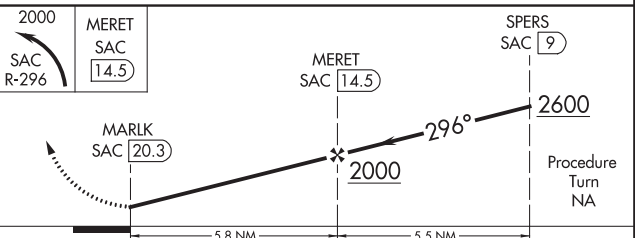


SW-2, 10 NOV 2016 to 05 JAN 2017

SW-2, 10 NOV 2016 to 05 JAN 2017



Procedure NA for arrival on SAC VORTAC airway radials 257 CW 329.



CATEGORY	A	B	C	D
CIRCLING	620-1 495 (500-1)	620-1¼ 495 (500-1¼)	NA	

WOODLAND, CALIFORNIA
Amdt 5 07MAY09

38°40'N - 121°52'W

WATTS-WOODLAND (O41)
VOR/DME-A

CLIMB/DESCENT TABLE 10042

INSTRUMENT TAKEOFF OR APPROACH PROCEDURE CHARTS RATE OF CLIMB/DESCENT TABLE

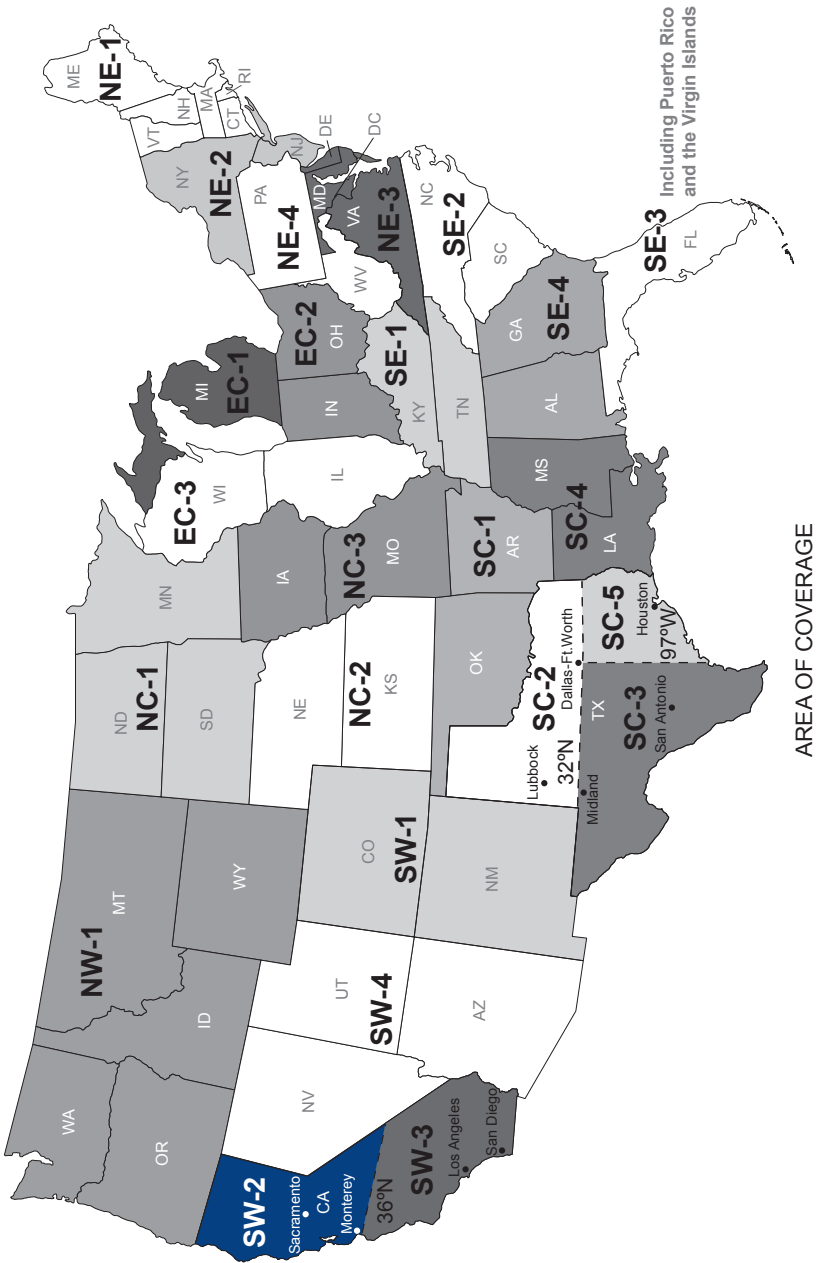
(ft. per min)

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	

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