

NE-3

DC DE MD VA

10 NOV 16 to 05 JAN 17



Federal Aviation  
Administration

TM

# U.S. Terminal Procedures Publication

Northeast (NE) Vol 3 of 4

Effective: 0901Z

**10 NOV 2016**

to: 0901Z

**05 JAN 2017**

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



Consult NOTAMs for latest information

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### CORRECTIONS, COMMENTS AND/OR PROCUREMENT

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

FAA, Aeronautical Information Services  
Customer Operations Team  
1305 East-West Highway  
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**FOR PROCUREMENT:**

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visit our website at [http://www.faa.gov/  
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aeronav/digital\\_products/](http://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/)

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

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

## INOP COMPONENTS

## INOPERATIVE COMPONENTS OR VISUAL AIDS TABLE

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

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

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

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

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

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

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

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

## (4) NDB

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

# TERMS/LANDING MINIMA DATA

## IFR LANDING MINIMA

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

### LANDING MINIMA FORMAT

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

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

Labels: DA (1352), Visibility (RVR 100's of feet) (24), Aircraft Approach Category (A, B, C, D), HAT/HATH (200), MDA (1540-1), HAA (361), Visibility in Statute Miles (400-1, 500-1, 500-1½, 600-2).

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

### COPTER MINIMA ONLY

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

Copter Approach Direction

Height of MDA/DA Above Landing Area (HAL)

No circling minimums are provided

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

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

### COLD TEMPERATURE RESTRICTED AIRPORTS

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

### COLD TEMPERATURE ERROR TABLE

#### HEIGHT ABOVE AIRPORT IN FEET

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

### AIRCRAFT APPROACH CATEGORIES

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

### MANEUVERING TABLE

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

# TERMS/LANDING MINIMA DATA

# 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 1/2 mile.

RVR (feet)	Visibility (statute miles)	RVR (feet)	Visibility (statute miles)
1600	1/4	4500	7/8
2400	1/2	5000	1
3200	5/8	6000	1 1/4
4000	3/4		

## RADAR MINIMA

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

Visibility in Statute Miles ↙

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

Radars Minima:

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

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

(E) VHF and UHF emergency frequencies monitored

(V) VHF emergency frequency (121.5) monitored

(U) UHF emergency frequency (243.0) monitored

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

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

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

⚠ Takeoff Minimums 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 (FREQ3.RBV), FREEHOLD THREE DEPARTURE, ELWOOD CITY TRANSITION, file (FREQ3.EWC).

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

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

**Standard RNAV 1 Procedure Chart Notes**

NOTE: RNAV 1

NOTE: DME/DME/IRU or GPS required

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

**RNAV 1 Procedure Characteristics and Operations**

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

## GENERAL INFO

## GENERAL INFO

PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

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

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

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

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

CHART CURRENCY INFORMATION

Date of Latest Revision                      09365

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



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

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

MISCELLANEOUS

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

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

## GENERAL INFO

## GENERAL INFO

## ABBREVIATIONS

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



## 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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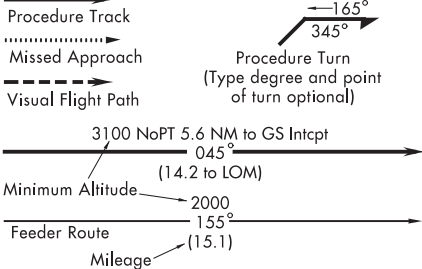
## GENERAL INFO

# LEGEND

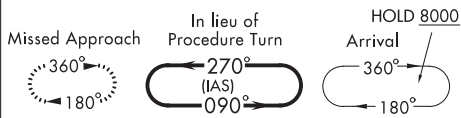
## INSTRUMENT APPROACH PROCEDURES (CHARTS)

### PLANVIEW SYMBOLS

#### TERMINAL ROUTES



#### HOLDING PATTERNS

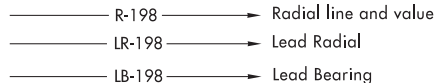
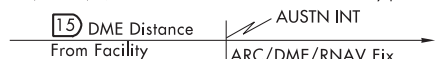


Holding pattern with max. restricted airspeed: (175K) applies to all altitudes. (210K) applies to altitudes above 6000' and including 14000'. Arrival Holding Pattern altitude restrictions will be indicated when they deviate from the adjacent leg. Limits will only be specified when they deviate from the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

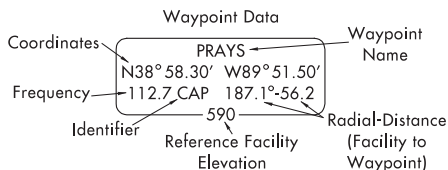
Marker beacons that are not specifically part of the procedure but underlie the final approach course are shown in screened color.

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

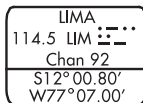
SDF Course

LOC/DME

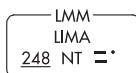
LOC/LDA/SDF Transmitter  
(shown when installation is offset from its normal position off the end of the runway.)



Primary Navaid with Coordinate Values



Secondary Navaid



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# LEGEND

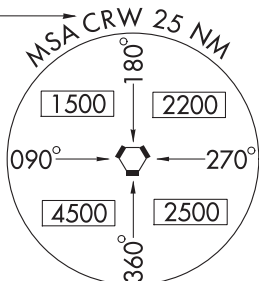
# LEGEND

## INSTRUMENT APPROACH PROCEDURES (CHARTS)

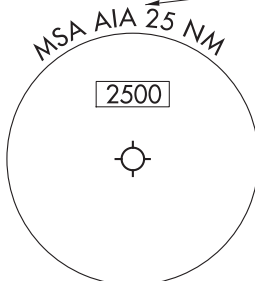
### PLANVIEW SYMBOLS

#### MINIMUM SAFE ALTITUDE (MSA)

Facility Identifier

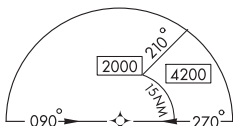


Airport Identifier

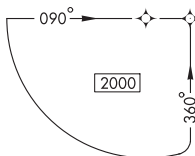


(arrows on distance circle identify sectors)

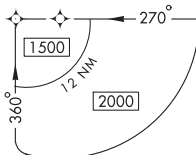
#### TERMINAL ARRIVAL AREA (TAA)



Straight-in Area



Right Base Area

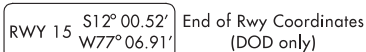


Left Base Area

#### MISCELLANEOUS



VOR Changeover Point



End of Rwy Coordinates (DOD only)

Distance not to scale

International Boundary

Air Defense Identification Zone

#### AIRPORTS



Primary and Secondary (named in planview)



Seaplane Base

#### SPECIAL USE AIRSPACE



R-Restricted

P-Prohibited

W-Warning

A-Alert

#### OBSTACLES

• Spot Elevation

△ Obstacle

△ Highest Obstacle

• Highest Spot Elevation

△ Group of Obstacles

± Doubtful accuracy

# LEGEND

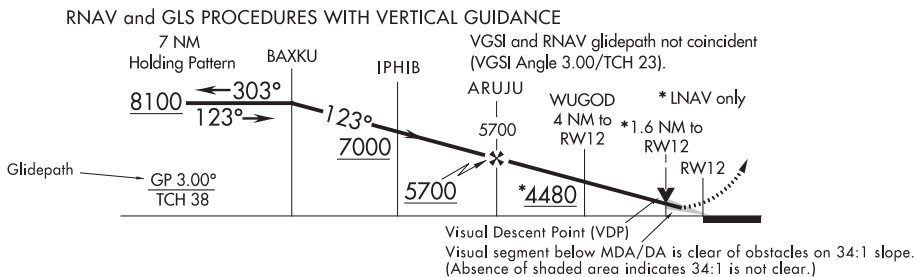
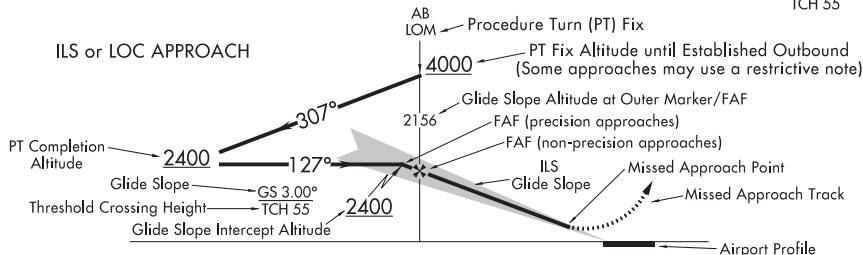
**PROFILE VIEW**

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

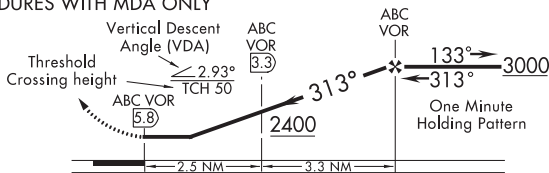
1. "GS" indicates that an Instrument Landing System (ILS) electronic glide slope (a ground antenna) provides vertical guidance. The profile section of ILS procedures depict a GS angle and TCH in the following format: **GS 3.00°**, TCH 55

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°**, TCH 50

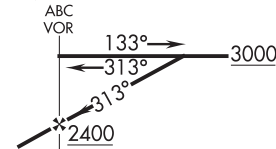
3. An advisory vertical descent angle (VDA) is provided on non-vertically guided conventional procedures and RNAV procedures with only a minimum descent altitude (MDA) to assist in preventing controlled flight into terrain. On Civil (FAA) procedures, this information is placed above or below the procedure 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: **≤ 3.00°**, 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 STANDARD TERMINAL ARRIVAL (STAR) CHARTS DEPARTURE PROCEDURE (DP) CHARTS

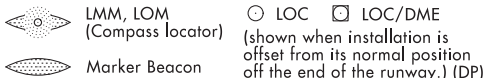
Applies to both STAR and DP Charts unless otherwise noted.

### RADIO AIDS TO NAVIGATION

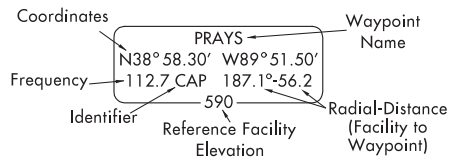
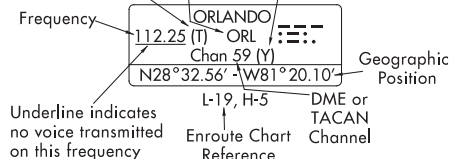
Compulsory:



Non-Compulsory:



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



### 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

→ DME fix

◆ WAYPOINT (Compulsory)    ◆ WAYPOINT (Non-Compulsory)

○ FLYOVER POINT

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

———— Transition Route  
 — R-275 — Radial line and value  
 ..... Lost Communications Track

**(Y12)**    **(J80)**    Airway/Jet Route Identification  
 DP Holding Pattern    STAR Holding Pattern

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

### SPECIAL USE AIRSPACE

R-Restricted    W-Warning  
 P-Prohibited    A-Alert  
 MOA-Military Operations Area

**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

(DP) ———

Joint Civil-Military

Airports not served by the procedure shown in screened color (STAR)

○ Civil    ⊗ Military    ⊕ Joint Civil-Military

### MISCELLANEOUS

┌ Changeover Point

⋯ Distance not to scale (DP)

— — — — — International Boundary (DP)

..... Air Defense Identification Zone

▼ Takeoff Minimums and (Obstacle) Departure Procedures entry published. (DP)

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# LEGEND

# LEGEND

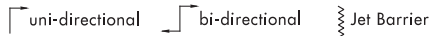
## INSTRUMENT APPROACH PROCEDURES (CHARTS)

### AIRPORT DIAGRAM/AIRPORT SKETCH

#### Runways

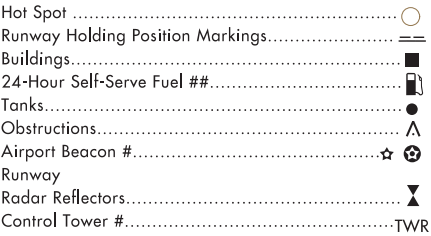


ARRESTING GEAR: Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.



ARRESTING SYSTEM  (EMAS)

#### REFERENCE FEATURES



# When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

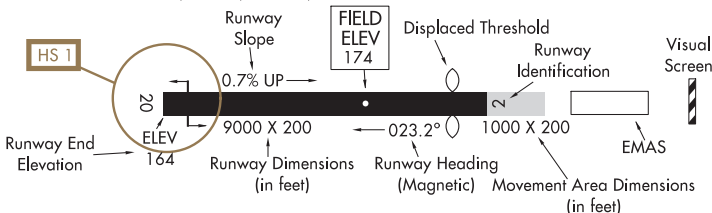
## A fuel symbol is shown to indicate 24-hour self-serve fuel available, see appropriate Chart Supplement for information.

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  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       
 Negative Symbols used to identify Copter Procedures landing point.....     

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

#### 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 ½ minute increments. They are further broken down into 6 seconds 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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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**

**TDZ/CL**  
 RUNWAY CENTERLINE LIGHTS

TDZL  
 CL  
 TDZL

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

---

**APPROACH LIGHTING SYSTEM**

(A) **ALSF-2**

500'  
 1000'  
 2400'/3000'

GREEN  
 WHITE  
 RED

SEQUENCED FLASHING LIGHTS

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

(High Intensity)  
 LENGTH 2400/3000 FEET

---

**APPROACH LIGHTING SYSTEM**

(A1) **ALSF-1**

1000'  
 1000'  
 2400'/3000'

GREEN  
 WHITE  
 RED

SEQUENCED FLASHING LIGHTS

(High Intensity)  
 LENGTH 2400/3000 FEET

**SHORT APPROACH LIGHTING SYSTEM**

(A2) **SALS/SALSF**  
 (High Intensity)

SAME AS INNER 1500' OF ALSF-1

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

(A3) **SSALR**

1000'  
 2400'/3000'

GREEN  
 WHITE

SEQUENCED FLASHING LIGHTS

(High Intensity)  
 LENGTH 2400/3000 FEET

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

(A4) **MALS**

1000'  
 1000'  
 1400'

GREEN  
 WHITE

SEQUENCED FLASHING LIGHTS FOR MALSF/SSALF ONLY

LENGTH 1400 FEET

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

(A5) **MALSR**

SAME LIGHT CONFIGURATION AS SSALR.

**OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM**

(V) **ODALS**

36'  
 THRESHOLD

1500'

SEQUENCED FLASHING LIGHTS

LENGTH 1500 FEET

**VISUAL APPROACH SLOPE INDICATOR**

(V) **VASI**

VISUAL APPROACH SLOPE INDICATOR WITH STANDARD THRESHOLD CLEARANCE PROVIDED.

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

**VASI 2**      **VASI 4**

36'  
 THRESHOLD

36'  
 THRESHOLD

**VASI 12**

36'  
 THRESHOLD

**VISUAL APPROACH SLOPE INDICATOR**

(V6) **VASI**

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

**VASI 6**      **VASI 16**

36'  
 THRESHOLD

36'  
 THRESHOLD

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**LEGEND**

04330  
**LEGEND**

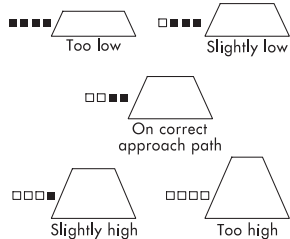
INSTRUMENT APPROACH PROCEDURES (CHARTS)  
APPROACH LIGHTING SYSTEM - UNITED STATES

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

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

(P) **PRECISION APPROACH PATH INDICATOR**

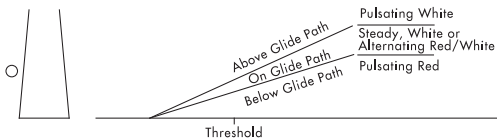
**PAPI**



Legend: □ White ■ Red

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

**PVASI**



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

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

**"T"-VASI**

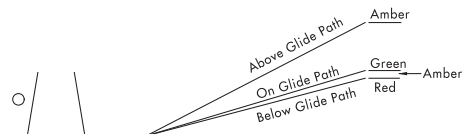


"T" ON BOTH SIDES OF RWY  
ALL LIGHTS VARIABLE WHITE.  
CORRECT APPROACH SLOPE-  
ONLY CROSS BAR VISIBLE.  
UPRIGHT "T"- FLY UP.  
INVERTED "T"- FLY DOWN.  
RED "T"- GROSS  
UNDERSHOOT.



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

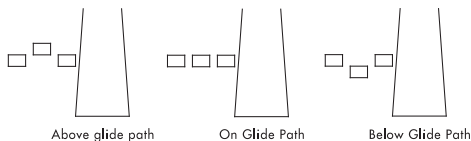
**TRCV**



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

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

**APAP**



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

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## 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

NAME PROC SECT PG NAME PROC SECT PG

ABERDEEN PROVING GROUND, MD

---SEE PHILLIPS AAF

ABINGDON, VA

VIRGINIA HIGHLANDS(VJI)

TAKEOFF MINIMUMS .....	L
ALTERNATE MINIMUMS .....	M
IAPS .....	
RNAV (GPS) RWY 06 .....	1
RNAV (GPS) RWY 24 .....	2
LOC RWY 24 .....	3
VOR/DME-B .....	4

ACCOMACK COUNTY

---SEE MELFA, VA

ALLEN C PERKINSON BLACKSTONE AAF

---SEE BLACKSTONE, VA

ANNAPOLIS, MD

LEE(ANP)

TAKEOFF MINIMUMS .....	L
ALTERNATE MINIMUMS .....	M
IAPS .....	
RNAV (GPS)-A .....	5

BALTIMORE, MD

BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL(BWI)

TAKEOFF MINIMUMS .....	L
ALTERNATE MINIMUMS .....	M
STARS .....	
ANTHM THREE (RNAV) .....	Z1
MIIDY TWO (RNAV) .....	Z31
RAVNN SIX (RNAV) .....	Z36
RIPKN TWO .....	Z38
TRISH THREE (RNAV) .....	Z49
WESTMINSTER FIVE .....	Z56
IAPS .....	
ILS OR LOC RWY 10 .....	6
ILS OR LOC RWY 15L .....	7
ILS OR LOC RWY 28 .....	8
ILS OR LOC RWY 33L .....	9
ILS OR LOC RWY 33R .....	10
ILS OR LOC RWY 15R .....	11
ILS RWY 10 (SA CAT I) .....	12
ILS RWY 33L (SA CAT I - II) .....	13
ILS RWY 10 (CAT II - III) .....	14
RNAV (RNP) Z RWY 10 .....	15
RNAV (RNP) Z RWY 15R .....	16
RNAV (RNP) Z RWY 28 .....	17
RNAV (RNP) Z RWY 33L .....	18
RNAV (GPS) RWY 15L .....	19
RNAV (GPS) RWY 33R .....	20
RNAV (GPS) Y RWY 10 .....	21
RNAV (GPS) Y RWY 15R .....	22
RNAV (GPS) Y RWY 28 .....	23
RNAV (GPS) Y RWY 33L .....	24
INTERSTATE VISUAL RWY 33L .....	25
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DPS .....	
CONLE THREE (RNAV) .....	27
FIXET TWO (RNAV) .....	29
PALEO THREE .....	31
SWANN THREE .....	32
TERPZ SIX (RNAV) .....	33

MARTIN STATE(MTN)

TAKEOFF MINIMUMS .....	L
ALTERNATE MINIMUMS .....	M
STARS .....	
ANTHM THREE (RNAV) .....	Z1
MIIDY TWO (RNAV) .....	Z31
RAVNN SIX (RNAV) .....	Z36
RIPKN TWO .....	Z38
TRISH THREE (RNAV) .....	Z49
WESTMINSTER FIVE .....	Z56
IAPS .....	
RNAV (GPS) RWY 15 .....	35
RNAV (GPS) RWY 33 .....	36
LOC RWY 15 .....	37
LDA RWY 33 .....	38
VOR/DME OR TACAN Z RWY 15 .....	39
AIRPORT DIAGRAM .....	40
DPS .....	
CONLE THREE (RNAV) .....	41
TERPZ SIX (RNAV) .....	42

BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL

---SEE BALTIMORE, MD

BAY BRIDGE

---SEE STEVENSVILLE, MD

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INDEX OF TERMINAL CHARTS AND MINIMUMS

NAME	PROC	SECT PG	NAME	PROC	SECT PG
<b>BLACKSBURG, VA</b>			<b>CAMP SPRINGS, MD</b>		
<b>VIRGINIA TECH/MONTGOMERY EXECUTIVE(BCB)</b>			<b>---SEE JOINT BASE ANDREWS</b>		
TAKEOFF MINIMUMS		L	<b>CARROLL COUNTY RGNL/ JACK B. POAGE FIELD</b>		
ALTERNATE MINIMUMS		M	<b>---SEE WESTMINSTER, MD</b>		
IAPS	RNAV (GPS) RWY 12	44	<b>CHARLOTTESVILLE, VA</b>		
	RNAV (GPS) RWY 30	45	<b>CHARLOTTESVILLE-ALBEMARLE(CHO)</b>		
	LOC/DME RWY 12	46	TAKEOFF MINIMUMS		L
	NDB-A	47	ALTERNATE MINIMUMS		M
DPS	BEMAR TWO (RNAV)	48	IAPS	ILS OR LOC RWY 03	67
	SETHY FOUR (RNAV)	49		RNAV (GPS) RWY 03	68
				RNAV (GPS) Y RWY 21	69
				RNAV (GPS) Z RWY 21	70
			AIRPORT DIAGRAM		71
<b>BLACKSTONE, VA</b>			<b>CHASE CITY, VA</b>		
<b>ALLEN C PERKINSON BLACKSTONE AAF(BKT)</b>			<b>CHASE CITY MUNI(CXE)</b>		
TAKEOFF MINIMUMS		L	TAKEOFF MINIMUMS		L
IAPS	RNAV (GPS) RWY 04	50	IAPS	RNAV (GPS) RWY 18	72
	RNAV (GPS) RWY 22	51		RNAV (GPS) RWY 36	73
	NDB-A	52	<b>CHESAPEAKE RGNL</b>		
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DPS	BLACKSTONE ONE	54	<b>CHURCHVILLE, MD</b>		
<b>BLUE RIDGE</b>			<b>HARFORD COUNTY(0W3)</b>		
<b>---SEE MARTINSVILLE, VA</b>			TAKEOFF MINIMUMS		L
<b>BRIDGEWATER, VA</b>			IAPS	RNAV (GPS)-B	74
<b>BRIDGEWATER AIRPARK(VBW)</b>			<b>CLAREMONT</b>		
TAKEOFF MINIMUMS		L	<b>---SEE ELKTON, MD</b>		
IAPS	RNAV (GPS) RWY 15	55	<b>CLARKSVILLE, VA</b>		
	RNAV (GPS) RWY 33	56	<b>LAKE COUNTRY RGNL(W63)</b>		
<b>BROOKNEAL, VA</b>			TAKEOFF MINIMUMS		L
<b>BROOKNEAL/CAMPBELL COUNTY(0V4)</b>			ALTERNATE MINIMUMS		M
TAKEOFF MINIMUMS		L	IAPS	RNAV (GPS)-A	75
ALTERNATE MINIMUMS		M		RNAV (GPS)-B	76
IAPS	RNAV (GPS) RWY 06	57	<b>CLEARVIEW AIRPARK</b>		
	RNAV (GPS) RWY 24	58	<b>---SEE WESTMINSTER, MD</b>		
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<b>BUMPASS, VA</b>			<b>WASHINGTON EXECUTIVE/HYDE FIELD(W32)</b>		
<b>LAKE ANNA(7W4)</b>			TAKEOFF MINIMUMS		L
TAKEOFF MINIMUMS		L	STARS	TIKEE THREE (RNAV)	Z48
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IAPS	RNAV (GPS) RWY 08	60	<b>COLLEGE PARK, MD</b>		
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<b>CAMBRIDGE, MD</b>			TAKEOFF MINIMUMS		L
<b>CAMBRIDGE-DORCHESTER RGNL(CG6)</b>			ALTERNATE MINIMUMS		M
TAKEOFF MINIMUMS		L	IAPS	RNAV (GPS) RWY 15	78
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	NDB RWY 34	63	<b>CAMP PEARY(KW94)</b>		
<b>CAMBRIDGE-DORCHESTER RGNL</b>			<b>WILLIAMSBURG, VA</b>		
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<b>CAMP PEARY(KW94)</b>			IAPS	RNAV (GPS) RWY 05	64
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<b>CREWE MUNI(W81)</b>			<b>---SEE GEORGETOWN, DE</b>		
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IAPS	RNAV (GPS) RWY 15	79			
	RNAV (GPS) RWY 33	80			
<b>CRISFIELD, MD</b>			<b>DINWIDDIE COUNTY</b>		
<b>CRISFIELD-SOMERSET COUNTY(W41)</b>			<b>---SEE PETERSBURG, VA</b>		
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IAPS	RNAV (GPS)-B	81			
<b>CULPEPER, VA</b>			<b>DOVER AFB(KDOV)</b>		
<b>CULPEPER RGNL(CJR)</b>			<b>DOVER, DE</b>		
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ALTERNATE MINIMUMS		M	HOT SPOT		P
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<b>GREATER CUMBERLAND RGNL(CBE)</b>			<b>DOVER-CHESWOLD, DE</b>		
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STARS	FRDMM THREE (RNAV)	Z18	TAKEOFF MINIMUMS		L
	NUMMY TWO	Z32	ALTERNATE MINIMUMS		M
	TIKEE THREE (RNAV)	Z48	HOT SPOT		P
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ALTERNATE MINIMUMS		M	ALTERNATE MINIMUMS		M
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	RNAV (GPS) RWY 34	133	STARS	TRSTN THREE (RNAV)	Z51
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			ALTERNATE MINIMUMS		
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			IAPS		
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			NDB RWY 03		
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			ALTERNATE MINIMUMS		
			STARS		
			IAPS		
			NDB RWY 03		
			NDB RWY 03		
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<b>FARMVILLE RGNL(FVX)</b>			TAKEOFF MINIMUMS		
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			NDB RWY 24		
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			CONLE THREE (RNAV)		
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<b>FORT MEADE (ODENTON), MD</b>			<b>GALAX-HILLSVILLE, VA</b>		
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ALTERNATE MINIMUMS			ALTERNATE MINIMUMS		
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RNAV (GPS) RWY 28			RNAV (GPS) RWY 19		
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---SEE SOUTH HILL, VA			<b>NEWPORT NEWS/WILLIAMSBURG INTL(PHF)</b>		
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<b>ACCOMACK COUNTY(MFV)</b>			ALTERNATE MINIMUMS .....		
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			RNAV (GPS) RWY 07 .....		
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<b>SUMMIT(EVY)</b>			ALTERNATE MINIMUMS .....		
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<b>MECKLENBURG-BRUNSWICK RGNL(AVC)</b>			<b>TAPPAHANNOCK-ESSEX COUNTY(XSA)</b>		
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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## INSTRUMENT APPROACH PROCEDURE CHARTS



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

#### Civil Airports and Selected Military Airports

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

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

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

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

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

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

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

NAME TAKEOFF MINIMUMS

NAME TAKEOFF MINIMUMS

#### ABINGDON, VA

VIRGINIA HIGHLANDS (VJI)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 10266 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, 300-2 or 300-1½ w/ min. climb of 225' per NM to 2500, or std. w/ min. climb of 749' per NM to 2500.

DEPARTURE PROCEDURE: **Rwy 6**, climb heading 061° and HNV VORTAC R-034 to 5500 before proceeding on course. **Rwy 24**, climb heading 241° to 3700 before proceeding on course.

NOTE: **Rwy 6**, vehicle 89' from DER, 411' left of centerline, 15' AGL/2094' MSL. Obstruction light 504' from DER, 314' left of centerline, 22' AGL/2122' MSL. Trees beginning 214' from DER, 245' right of centerline, up to 100' AGL/2240' MSL. Trees beginning 579' from DER, 35' left of centerline, up to 100' AGL/2379' MSL. **Rwy 24**, hangar vent 13' from DER, 496' left of centerline, 55' AGL/2086' MSL. Buildings 828' from DER, 628' left of centerline, up to 25' AGL/2084' MSL. Trees beginning 2222' from DER, 262' right of centerline, up to 100' AGL/2200' MSL. Tree 3592' from DER, 14' left of centerline, 100' AGL/2167' MSL.

#### ANNAPOLIS, MD

LEE (ANP)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 01361 (FAA)

TAKEOFF MINIMUMS: **Rwy 30**, 300-1 or std. with a min. climb of 410' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 12**, climb runway heading to 700 before proceeding on course.

**Rwy 30**, climb runway heading to 1000 before proceeding right on course. Climb runway heading to 700 before proceeding left on course.

NOTE: **Rwy 12**, cross DER at or above 35' AGL/66' MSL. **Rwy 30**, trees, 1433' from DER, 85' left of centerline, 100' AGL/139' MSL. Cross DER at or above 35' AGL/66' MSL.

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

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## BALTIMORE, MD

BALTIMORE/WASHINGTON INTL  
THURGOOD MARSHALL (BWI)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 10 15064 (FAA)

TAKEOFF MINIMUMS: **Rwy 33R**, std. w/min. climb of 255' per NM to 2000.

DEPARTURE PROCEDURE: **Rwy 28**, climb heading 285° to 900 before turning right. **Rwy 33L**, climb heading 320° to 2000 before turning right.

NOTE: **Rwy 10**, buildings beginning 52' from DER, 319' left of centerline, up to 10' AGL/133' MSL. Trees beginning 1144' from DER, 383' left of centerline, up to 70' AGL/163' MSL. **Rwy 15L**, poles and trees beginning 615' from DER, 547' left of centerline, up to 79' AGL/169' MSL. Pole and trees beginning 1762' from DER, 666' right of centerline, up to 82' AGL/205' MSL. **Rwy 15R**, REIL abeam DER, 85' right of centerline, 2' AGL/130' MSL. Trees beginning 1086' from DER, 737' right of centerline, up to 77' AGL/184' MSL. **Rwy 28**, light pole 149' from DER, 40' right of centerline, 4' AGL/143' MSL. Trees beginning 1293' from DER, 259' left of centerline, up to 115' AGL/192' MSL. Trees beginning 2830' from DER, 838' right of centerline, up to 135' AGL/212' MSL. **Rwy 33L**, pole and fences beginning 161' from DER, 520' right of centerline, up to 33' AGL/156' MSL. Pole 910' from DER, 595' left of centerline, 82' AGL/165' MSL. Trees beginning 1662' from DER, 629' right of centerline, up to 73' AGL/214' MSL. Antenna and buildings beginning 4726' from DER, 877' right of centerline, up to 157' AGL/265' MSL. **Rwy 33R**, sign, fences, vertical structures, poles, and buildings beginning 400' from DER, 600' left of centerline, up to 42' AGL/198' MSL. Trees beginning 974' from DER, 518' right of centerline, up to 54' AGL/188' MSL. Poles and trees beginning 1531' from DER, 584' right of centerline, up to 76' AGL/265' MSL. Trees beginning 2453' from DER, 685' left of centerline, up to 79' AGL/231' MSL. Pole and trees beginning 2949' from DER, 2' left of centerline, up to 116' AGL/291' MSL. Poles and trees beginning 2736' from DER, 2' right of centerline, up to 76' AGL/281' MSL.

## MARTIN STATE (MTN)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 5 15064 (FAA)

TAKEOFF MINIMUMS: **Rwy 33**, std. w/min. climb of 215' per NM to 1700 or 1300-2½ for climb in visual conditions.

VCOA: **Rwy 33**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Martin State airport at or above 1200 before proceeding on course.

NOTE: **Rwy 15**, trees 625' from DER, 184' right of centerline, up to 20' AGL/29' MSL. Pole and trees beginning 1689' from DER, 580' left of centerline, up to 89' AGL/97' MSL. Trees beginning 2568' from DER, 68' right of centerline, up to 92' AGL/103' MSL. Trees beginning 2906' from DER, 550' left of centerline, up to 100' AGL/109' MSL. **Rwy 33**, terrain 91' from DER, 482' right of centerline, 0' AGL/25' MSL. Poles and trees beginning 1170' from DER, 3' left of centerline, up to 84' AGL/133' MSL. Poles and trees beginning 1175' from DER, 10' right of centerline, up to 79' AGL/128' MSL. Trees beginning 3108' from DER, 8' left of centerline, up to 86' AGL/145' MSL. Trees beginning 2843' from DER, 14' right of centerline, up to 96' AGL/175' MSL.

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

## BLACKSBURG, VA

VIRGINIA TECH/MONTGOMERY  
EXECUTIVE (BCB)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 5 11181 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, 400-1¼ or std. w/min. climb of 500' per NM to 2700.

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn direct PSK VORTAC to 3500 before proceeding on course. **Rwy 30**, climbing left turn direct PSK VORTAC to 4100 before proceeding on course.

NOTE: **Rwy 12**, trees beginning 19' from DER, 418' left of centerline, up to 100' AGL/ 2453' MSL. Trees beginning 242' from DER, 151' right of centerline, up to 100' AGL/ 2279' MSL. **Rwy 30**, rising terrain, trees, and poles beginning 3' from DER, 273' right of centerline, up to 45' AGL/ 2165' MSL. Rising terrain, trees, and poles beginning 90' from DER, 187' left of centerline, up to 100' AGL/ 2222' MSL. Vehicle on road beginning 567' from DER left and right of centerline up to 15' AGL/ 2146' MSL. Fence beginning 697' from DER, left and right of centerline, up to 10' AGL/2136' MSL.

## BLACKSTONE, VA

ALLEN C. PERKINSON BLACKSTONE AAF  
(BKT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 14093 (FAA)

TAKEOFF MINIMUMS: **Rwys 1, 19**, NA - environmental. DEPARTURE PROCEDURE: **Rwy 4**, climb heading 044° to 1300 before turning left.

NOTE: **Rwy 4**, sign and trees beginning 12' from DER, 177' left of centerline, up to 100' AGL/511' MSL. Trees beginning 779' from DER, 707' right of centerline, up to 100' AGL/508' MSL. **Rwy 22**, terrain, trees beginning 178' from DER, 426' left of centerline, up to 100' AGL/507' MSL. Trees beginning 2624' from DER, 325' right of centerline, up to 100' AGL/507' MSL.

NOTE: Do not overfly ammunition dump 1.1 NM south southwest of runway 4.

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

16315

## BRIDGEWATER, VA

BRIDGEWATER AIRPARK (VBW)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2A 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 15**, 300-2½ w/ min. climb of 280'/NM to 3900, or std. w/ min. climb of 440'/NM to 2600, or 2400-3 for climb in visual conditions. **Rwy 33**, 800-2½ w/ min. climb of 390'/NM to 3900, or std. w/ min. climb of 522' per NM to 2800, or 2400-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 15**, climb heading 152° to 3900, or for climb in visual conditions, cross Bridgewater Air Park at or above 3400 before proceeding on course. **Rwy 33**, climb heading 347° to 5000, or for climb in visual conditions, cross Bridgewater Air Park at or above 3400 before proceeding on course.

NOTE: **Rwy 15**, vehicles on roadway 53' from DER, 14' right of centerline, 15' AGL/1180' MSL. Trees beginning 158' from DER, 259' right of centerline, up to 100' AGL/1279' MSL. Trees beginning 499' from DER, 628' left of centerline, up to 100' AGL/1279' MSL. Pole 908' from DER, 183' left of centerline, 35' AGL/1200' MSL. Trees beginning 3205' from DER, 1329' right of centerline, up to 100' AGL/1359' MSL. **Rwy 33**, trees beginning 318' from DER, 252' right of centerline, up to 100' AGL/1249' MSL. Trees beginning 470' from DER, 191' left of centerline, up to 100' AGL/1249' MSL.

## BROOKNEAL, VA

BROOKNEAL/CAMPBELL COUNTY (0V4)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 13290 (FAA)

NOTE: **Rwy 6**, multiple trees beginning 48' from DER, 314' left of centerline, up to 100' AGL/626' MSL. Multiple trees beginning 31' from DER, 341' right of centerline, up to 100' AGL/673' MSL. Fence beginning 162' from DER, 379' right of centerline, up to 8' AGL/607' MSL. **Rwy 24**, multiple trees beginning 61' from DER, 8' left of centerline, up to 100' AGL/692' MSL. Multiple trees beginning 1938' from DER, 27' right of centerline, up to 100' AGL/677' MSL.

## BUMPASS, VA

LAKE ANNA (7W4)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 11349 (FAA)

DEPARTURE PROCEDURE: **Rwy 8**, climb heading 085° to 800 before turning. **Rwy 26**, climb heading 265° to 800 before turning.

NOTE: **Rwy 8**, trees beginning 32' from DER, 114' right of centerline, up to 100' AGL/469' MSL. Buildings beginning 162' from DER, 152' left of centerline, up to 25' AGL/384' MSL. **Rwy 26**, trees beginning 31' from DER, 97' left and 119' right of centerline, up to 100' AGL/459' MSL.

## CAMBRIDGE, MD

CAMBRIDGE-DORCHESTER RGNL (CGE)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 16203 (FAA)

NOTE: **Rwy 16**, railroad 81' from DER, 375' right of centerline, 40' MSL. Road 224' from DER, 397' right of centerline, 33' MSL. Tree 1558' from DER, 546' left of centerline, 102' MSL. Tree 1923' from DER, 298' left of centerline, 89' MSL. Tree 1993' from DER, 380' left of centerline, 92' MSL. Tree 2062' from DER, 575' left of centerline, 96' MSL. **Rwy 34**, tree 331' from DER, 534' left of centerline, 73' MSL. Pole 637' from DER, 323' left of centerline, 37' AGL/55' MSL. Tree 861' from DER, 329' left of centerline, 97' MSL. Tree 892' from DER, 340' left of centerline, 104' MSL. Tree 953' from DER, 755' right of centerline, 98' MSL. Tree 1151' from DER, 713' right of centerline, 113' MSL. Tree 1286' from DER, 599' left of centerline, 106' MSL. Tree 1517' from DER, 401' right of centerline, 97' MSL. Tree 1981' from DER, 277' left of centerline, 124' MSL. Tree 2178' from DER, 658' left of centerline, 116' MSL. Tree 2824' from DER, 9' left of centerline, 98' MSL. Tree 3106' from DER, 362' left of centerline, 108' MSL. Tree 3178' from DER, 512' right of centerline, 103' MSL. Tree 3204' from DER, 516' right of centerline, 109' MSL.

## CAMP PEARY LNDG STRIP (KW94)

WILLIAMSBURG, VA  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
08213

TAKEOFF OBSTACLES: **Rwy 5**: trees and multiple transmission lines 120' from DER, 184' left of centerline up to 95' AGL/126' MSL. Trees and multiple transmission lines 162' from DER, 257' right of centerline up to 100' AGL/132' MSL. **Rwy 23**: trees and multiple transmission lines 1891' from DER, 69' left of centerline up to 95' AGL/136' MSL. Multiple trees and transmission lines 537' from DER, 437' right of centerline up to 110' AGL/151' MSL.

## CHARLOTTESVILLE, VA

CHARLOTTESVILLE-ALBEMARLE (CHO)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 10 13234 (FAA)

TAKEOFF MINIMUMS: **Rwy 3**, std. w/min. climb of 342' per NM to 1500, or 1200-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 3**, climb on heading 030° to 1500 then climbing right turn direct GVE  
VORTAC before proceeding on course. For climb in visual conditions: cross Charlottesville-Albemarle airport at or above 1700 then proceed direct GVE VORTAC before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 21**, climb on heading 210° to 1400 then climbing left turn direct GVE VORTAC before proceeding on course.

NOTE: **Rwy 3**, trees beginning 183' from DER, left and right of centerline, up to 100' AGL/684' MSL. **Rwy 21**, vehicles on road, 32' from DER, 496' right of centerline, up to 17' AGL/667' MSL. Light support structures, 1178' from DER, 778' right of centerline, 62' AGL/670' 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

## CHASE CITY, VA

CHASE CITY MUNI (CXE)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

NOTE: **Rwy 18**, trees beginning 191' from DER, 116' left of centerline, up to 100' AGL/609' MSL. Multiple trees beginning 327' from DER, 133' right of centerline, up to 100' AGL/599' MSL. **Rwy 36**, trees beginning 164' from DER, 154' right of centerline, up to 100' AGL/649' MSL. Trees beginning 470' from DER, 124' left of centerline, up to 100' AGL/649' MSL.

## CHURCHVILLE, MD

HARFORD COUNTY (0W3)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 10322 (FAA)

TAKEOFF MINIMUMS: **Rwys 1,14,19,32**, N/A-Environmental. **Rwy 10**, 300-2 or std. w/ min. climb of 210' per NM to 800' or alternatively, with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1500' prior to DER.  
NOTE: **Rwy 10**, vehicles on roadway beginning 328' from DER, left and right of centerline, up to 17' AGL/416' MSL. Trees beginning 690' from DER, 271' left of centerline, up to 100' AGL/499' MSL. Trees beginning 2226' from DER, 454' right of centerline, up to 100' AGL/519' MSL. Rising terrain beginning 1.6 NM from DER, 2510' left of centerline, up to 639' MSL. **Rwy 28**, trees beginning 665' from DER, left and right of centerline, up to 100' AGL/519' MSL.

## CLARKSVILLE, VA

LAKE COUNTRY RGNL (W63)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 10098 (FAA)

NOTE: **Rwy 4**, trees beginning 5' from DER, 438' left of centerline, up to 100' AGL/539' MSL. Building 27' from DER, 94' right of centerline, 20' AGL/449' MSL. Vehicles on road beginning 200' from DER, from left to right of centerline, up to 15' AGL/444' MSL. Warehouse 313' from DER, on centerline, 75' AGL/495' MSL. Building 385' from DER, 257' right of centerline, 20' AGL/439' MSL. Trees beginning 444' from DER, 518' right of centerline, up to 100' AGL/509' MSL. **Rwy 22**, trees beginning 3' from DER from 452' left of centerline to 547' right of centerline, up to 100' AGL/422' MSL. Trees beginning 1624' from DER, from 632' left of centerline to 535' right of centerline, up to 100' AGL/485' MSL.

## CLINTON, MD

WASHINGTON EXECUTIVE/HYDE FIELD  
(W32)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG -A 10126 (FAA)

NOTE: **Rwy 5**, Vehicle on road beginning 20' from DER, on centerline, up to 15' AGL/261' MSL. Antenna on tower beginning 2333' from DER, 556' right of centerline, 137' AGL/361' MSL. **Rwy 23**, Vehicle on road 23' from DER, 329' left of centerline, 15' AGL/260' MSL.

## COLLEGE PARK, MD

COLLEGE PARK (CGS)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3B 08157 (FAA)

TAKEOFF MINIMUMS: **Rwy 15**, 400-2½ or std. w/ min. climb of 486' per NM to 600. **Rwy 33**, 400-2½ or std. w/ min. climb of 433' per NM to 600.  
DEPARTURE PROCEDURE: **Rwy 15**, climb heading 149° to 600 before proceeding on course. **Rwy 33**, climb heading 329° to 600 before proceeding on course.  
NOTE: **Rwy 15**, trees beginning 2799' from DER, 570' left of centerline, up to 100' AGL/259' MSL. Antenna 1.1 NM from DER, 149' left of centerline, 167' AGL/270' MSL. **Rwy 33**, terrain beginning 1 NM from DER, 3700' right of centerline to 3700' left of centerline, up to 439' MSL. Building 3811' from DER, 467' right of centerline, 184' AGL/254' MSL. Tower 1.9 NM from DER, 1447' left of centerline, 255' AGL/405' MSL.

## CREWE, VA

CREWE MUNI (W81)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 11013 (FAA)

NOTE: **Rwy 15**, trees beginning 140' from DER, 464' left of centerline, up to 100' AGL/449' MSL. Trees beginning 406' from DER, 448' right of centerline, up to 100' AGL/509' MSL. **Rwy 33**, trees beginning 985' from DER, 587' left of centerline, up to 100' AGL/539' MSL. Trees beginning 520' from DER, 513' right of centerline, up to 100' AGL/529' MSL.

## CRISFIELD, MD

CRISFIELD-SOMERSET COUNTY AIRPORT  
(W41)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG-A 15232 (FAA)

TAKEOFF MINIMUMS: **Rwys 6, 24**, NA-obstacles  
DEPARTURE PROCEDURE: **Rwy 14**, climb via heading 142° to 900 before proceeding on course. **Rwy 32**, climb via heading 322° to 900 before proceeding on course.

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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)

## CULPEPER, VA

CULPEPER RGNL (CJR)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 07354 (FAA)

DEPARTURE PROCEDURE: **Rwy 22**, climb heading 218° to 1000 before turning right.

NOTE: **Rwy 4**, tree 79' from DER, 418' left of centerline, 86' AGL/337' MSL. Vehicle on road 207' from DER, 367' left of centerline, 15' AGL/330' MSL. Tree 3396' from DER, 514' right of centerline, 91' AGL/410' MSL. **Rwy 22**, tree 128' from DER, 332' left of centerline, 25' AGL/334' MSL. Multiple trees beginning 272' from DER, 179' right of centerline up to 22' AGL/341' MSL. Pole 1480' from DER, 68' left of centerline, 27' AGL/356' MSL.

## CUMBERLAND, MD

GREATER CUMBERLAND RGNL (CBE)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 7 16091 (FAA)

TAKEOFF MINIMUMS: **Rwy 11, 29**, NA - obstacles.

**Rwy 5**, 700-3 w/min. climb of 310' per NM to 3200 or std. w/min. climb of 370' per NM to 2600 or 2500-3 for climb in visual conditions. **Rwy 23**, 1000-3 w/min. climb of 480' per NM to 2000 or std. w/min. climb of 925' per NM to 1900 or 2500-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 5**, climb heading 049° to 2900 before proceeding on course. **Rwy 23**, climb heading 214° to 3400 before proceeding on course.

VCOA: Obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Greater Cumberland Rgnl Airport at or above 3100 before proceeding on course. NOTE: **Rwy 5**, trees beginning 146' from DER, 388' left of centerline, up to 50' AGL/798' MSL. Trees beginning 511' from DER, 466' right of centerline, up to 48' AGL/821' MSL. Trees 2.3 NM from DER, 4178' right of centerline, up to 100' AGL/1439' MSL. **Rwy 23**, NAVAID 169' from DER, 269' left of centerline, 22' AGL/732' MSL. Trees 53' from DER, 497' right of centerline, up to 42' AGL/751' MSL. Trees beginning 1188' from DER, 422' right of centerline, up to 67' AGL/836' MSL. Tower 2029' from DER, 757' right of centerline, 99' AGL/958' MSL. Trees 2.4 NM from DER, 729' right of centerline, up to 100' AGL/1679' MSL.

## DANVILLE, VA

DANVILLE RGNL (DAN)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2A 16119 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, 300-1¼ or std. w/min. climb of 232' per NM to 800.

NOTE: **Rwy 2**, trees beginning 285' from DER, 455' right of centerline, up to 22' AGL/587' MSL. **Rwy 20**, tree 1328' from DER, 633' right of centerline, 30' AGL/569' MSL. **Rwy 13**, trees beginning 189' from DER, 90' right of centerline, up to 100' AGL/711' MSL. Building 1310' from DER, 194' right of centerline, 10' AGL/562' MSL. Pole 1496' from DER, 277' right of centerline, 29' AGL/590' MSL. Trees beginning at DER, 8' left of centerline, up to 74' AGL/613' MSL. **Rwy 31**, Trees beginning 823' from DER, 6' left of centerline, up to 85' AGL/699' MSL. Pole 1185' from DER, 253' left of centerline, 30' AGL/608' MSL. Pole 2056' from DER, 253' left of centerline, 38' AGL/626' MSL. Sign 2196' from DER, 328' left of centerline, 36' AGL/628' MSL. Tower 1165' from DER, 416' left of centerline, 64' AGL/641' MSL. Building 568' from DER, 455' left of centerline, 37' AGL/612' MSL. Building 395' from DER, 573' left of centerline, 28' AGL/602' MSL. Trees beginning 1358' from DER, 24' right of centerline, up to 73' AGL/700' MSL. Pole 1540' from DER, 111' right of centerline, 44' AGL/613' MSL. Pole 1365' from DER, 131' right of centerline, 32' AGL/606' MSL. Pole 3042' from DER, 174' right of centerline, 75' AGL/681' MSL. Pole 2897' from DER, 284' right of centerline, 75' AGL/682' MSL. Building 2308' from DER, 584' right of centerline, 40' AGL/647' MSL. Sign 1839' from DER, 104' right of centerline, 30' AGL/636' MSL.

## DAVISON AAF (KDAV)

FORT BELVOIR, VA  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG . . . . . 16091

TAKEOFF MINIMUMS: **Rwy 32**, 400-2, or std with min climb of 300 ft/NM to 500.

TAKE-OFF OBSTACLES: **Rwy 32**, gen utilities beginning 138' from DER, 519' right of cntrln, up to 28' AGL/75' MSL. Trees 348' from DER, 455' right of cntrln, 100' MSL. Trees 889' from DER, 560' left of cntrln, 141' MSL. Trees 941' from DER, 293' left of cntrln, 142' MSL. Trees 1897' from DER, 600' left of cntrln, 155' MSL. Pole 2090' from DER, 741' right of cntrln, 35' AGL/132' MSL. Trees 2100' from DER, 650' left of cntrln, 155' MSL. T-L towers beginning 1 NM from DER, 323' left of cntrln, up to 108' AGL/243' MSL. Trees 1.1 NM from DER, 1749' left of cntrln, 307' MSL. Trees 1.2 NM from DER, 1692' left of cntrln, 308' MSL. T-L towers beginning 1.2 NM from DER, 265' left of cntrln, up to 85' AGL/ 308' MSL. Tower 1.4 NM from DER, 1883' right of cntrln, 83' AGL/319' MSL. Tower 1.5 NM from DER, 1328' right of cntrln, 149' AGL/375' 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

DOVER AFB (KDOV)

DOVER, DE . . . . . 09155

TAKEOFF OBSTACLES: Rwy 1, possible aircraft/ vehicles at DER hammerhead just left of rwy centerline, up to 65' AGL/91' MSL. Rwy 19, possible aircraft/vehicles at DER hammerhead just right of rwy centerline, up to 65' AGL/91' MSL. Rwy 32, multiple C-5s parked on ramp beginning 1535' thru 2780' from DER, 1010' left of centerline, up to 65' AGL/98' MSL. Bldg 3900' from DER, 760' left of centerline, 88' AGL/119' MSL. Possible taxiing aircraft/vehicles on taxi lane Alpha beginning 565' thru 2780' from DER, 750' left of centerline, up to 65' AGL/98' MSL. Possible large aircraft 2800' from DER, on taxiway Golf just left of centerline, up to 65' AGL/92' MSL.

DOVER/CHESWOLD, DE DELAWARE AIRPARK (33N)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 07186 (FAA)

NOTE: Rwy 9, multiple trees beginning 26' from DER, 50' left of centerline, up to 100' AGL/149' MSL. Pole line 1151' from DER, 36' right of centerline, 50' AGL/99' MSL. Multiple trees beginning 815' from DER, 505' right of centerline, up to 100' AGL/154' MSL. Rwy 27, multiple trees beginning 231' from DER, 85' left of centerline, up to 100' AGL/169' MSL. Multiple trees beginning 829' from DER, 43' right of centerline, up to 100' AGL/164' MSL.

DUBLIN, VA NEW RIVER VALLEY (PSK)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2 09071 (FAA)

TAKEOFF MINIMUMS: Rwy 24, 200-1/2 or std. w/ min. climb of 310' per NM to 2400. DEPARTURE PROCEDURE: Rwy 6, climbing right turn heading 150° to intercept PSK VORTAC R-120 outbound to 5200 before proceeding on course. Rwy 24, climb heading 238° to 4000 before proceeding on course.

NOTE: Rwy 6, tree 321' from DER, 493' left of centerline, 100' AGL/2112' MSL. Terrain 122' from DER, 460' left of centerline, up to 2105' MSL. Rwy 24, pole 1223' from DER, 671' right of centerline, 42' AGL/2161' MSL. Pole 669' from DER, 558' right of centerline, 18' AGL/2137' MSL. Pole 4851' from DER, 1170' left of centerline, 32' AGL/2231' MSL. Tower 5078' from DER 1017' left of centerline, 101' AGL/2300' MSL. Trees 226' from DER, 271' left of centerline, up to 103' AGL/2302' MSL. Terrain 68' from DER, 281' right of centerline, up to 2116' MSL.

EASTON, MD

EASTON/NEWNAM FIELD (ESN) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1 15064 (FAA)

TAKEOFF MINIMUMS: Rwy 22, 300-2 or std. w/min. climb of 245' per NM to 500.

NOTE: Rwy 4, pole and vehicles on road beginning 199' from DER, 278' right of centerline, up to 21' AGL/91' MSL. Poles beginning 834' from DER, 27' right of centerline, up to 34' AGL/100' MSL. Trees beginning 1508' from DER, 38' left of centerline, up to 37' AGL/116' MSL. Trees beginning 1484' from DER, 45' right of centerline, up to 54' AGL/133' MSL. Rwy 15, fence 2' from DER, 410' left of centerline, 8' AGL/57' MSL. Poles beginning 720' from DER, 331' left of centerline, up to 36' AGL/92' MSL. Trees beginning 861' from DER, 621' left of centerline, up to 89' AGL/148' MSL. Poles and trees beginning 827' from DER, 514' right of centerline, up to 57' AGL/116' MSL. Trees beginning 1924' from DER, 237' right of centerline, up to 94' AGL/153' MSL. Pole and trees beginning 2017' from DER, 182' left of centerline, up to 89' AGL/148' MSL. Rwy 22, trees 1250' from DER, 785' right of centerline, up to 56' AGL/95' MSL. Trees beginning 1322' from DER, 759' left of centerline, up to 90' AGL/129' MSL. Tower 1.6 NM from DER, 2374' left of centerline, 276' AGL/290' MSL. Rwy 33, vehicles on road and trees beginning 9' from DER, 405' right of centerline, up to 49' AGL/88' MSL. Pole 887' from DER, 409' left of centerline, 34' AGL/58' MSL. Trees 1497' from DER, 19' right of centerline, up to 48' AGL/87' MSL. Trees beginning 1884' from DER, 209' right of centerline, up to 99' AGL/158' MSL. Trees 2889' from DER, 682' left of centerline, up to 69' AGL/118' MSL.

ELKTON, MD

CLAREMONT (58M) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1 15008 (FAA)

TAKEOFF MINIMUMS: Rwy 31, 600-2/4 or std. w/ min. climb of 360' per NM to 900.

DEPARTURE PROCEDURE: Rwy 31, climb heading 308° to 900 before turning left.

NOTE: Rwy 13, poles beginning 9' from DER, 39' left of centerline, up to 30' AGL/95' MSL. Trees beginning 22' from DER, 55' left of centerline, up to 47' AGL/107' MSL. Trees beginning 154' from DER, 145' left of centerline, up to 93' AGL/153' MSL. Trees beginning 389' from DER, 14' left of centerline, up to 117' AGL/177' MSL. Trees beginning 873' from DER, 56' left of centerline, up to 107' AGL/157' MSL. Poles beginning 37' from DER, 21' right of centerline, up to 36' AGL/86' MSL. Trees beginning 119' from DER, 34' right of centerline, up to 83' AGL/143' MSL. Trees beginning 470' from DER, 33' right of centerline, up to 83' AGL/153' MSL. Trees beginning 1379' from DER, 59' right of centerline, up to 92' AGL/142' MSL. Rwy 31, trees beginning 2' from DER, 231' left of centerline, up to 84' AGL/184' MSL. Trees beginning 177' from DER, 152' left of centerline, up to 101' AGL/201' MSL. Trees beginning 655' from DER, 8' left of centerline, up to 99' AGL/199' MSL. Trees beginning 2214' from DER, 10' left of centerline, up to 109' AGL/189' MSL. Antenna 1.9 NM from DER, 3436' left of centerline, 345' AGL/620' MSL. Terrain beginning 6' from DER, 67' right of centerline, 117' MSL. Trees beginning 256' from DER, 81' right of centerline, up to 60' AGL/170' MSL. Trees beginning 776' from DER, 23' right of centerline, up to 91' AGL/201' MSL. Trees beginning 1965' from DER, 15' right of centerline, up to 81' AGL/261' 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

**EMPORIA, VA**

EMPORIA-GREENSVILLE RGNL (EMV)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG-A 14093 (FAA)

NOTE: **Rwy 16**, trees beginning 188' from DER, 433' left of centerline, up to 42' AGL/141' MSL. **Rwy 34**, trees beginning 56' from DER, 489' right of centerline, up to 75' AGL/204' MSL. Trees beginning 2290' from DER, 250' right of centerline, up to 111' AGL/230' MSL. Trees beginning 2131' from DER, 106' left of centerline, up to 101' AGL/220' MSL. Trees beginning 1276' from DER, 459' left of centerline, up to 66' AGL/195' MSL. Trees beginning 1889' from DER, 9' right of centerline, up to 75' AGL/204' MSL. Trees beginning 1804' from DER, 136' left of centerline, up to 60' AGL/189' MSL. Trees beginning 1982' from DER, 83' left of centerline, up to 60' AGL/189' MSL. Trees beginning 571' from DER, 5' right of centerline, up to 23' AGL/152' MSL. Trees beginning 565' from DER, 57' left of centerline, up to 14' AGL/143' MSL. Trees beginning 3423' from DER, 256' left of centerline, up to 105' AGL/214' MSL. Trees beginning 3444' from DER, 140' left of centerline, up to 105' AGL/214' MSL. Trees beginning 3508' from DER, 44' right of centerline, up to 105' AGL/214' MSL.

**FARMVILLE, VA**

FARMVILLE RGNL (FVX)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1A 16259 (FAA)

NOTE: **Rwy 3**, tree 35' from DER, 406' right of centerline, 436' MSL. Trees beginning 56' from DER, 403' right of centerline, up to 437' MSL. Trees beginning 56' from DER, 334' left of centerline, up to 491' MSL. Trees beginning 66' from DER, 295' left of centerline, up to 496' MSL. Trees beginning 148' from DER, 332' right of centerline, up to 440' MSL. Tree 453' from DER, 561' right of centerline, 456' MSL. Trees beginning 460' from DER, 409' right of centerline, up to 459' MSL. Trees beginning 518' from DER, 414' right of centerline, up to 467' MSL. Trees beginning 623' from DER, 413' right of centerline, up to 468' MSL. Trees beginning 647' from DER, 504' right of centerline, up to 476' MSL. Trees beginning 661' from DER, 452' right of centerline, up to 480' MSL. Trees beginning 752' from DER, 402' right of centerline, up to 495' MSL. Trees beginning 757' from DER, 402' right of centerline, up to 498' MSL. Trees beginning 837' from DER, 398' right of centerline, up to 502' MSL. Trees beginning 994' from DER, 295' left of centerline, up to 506' MSL. Trees beginning 1136' from DER, 153' left of centerline, up to 513' MSL. **Rwy 21**, terrain and tree beginning abeam DER, 90' right of centerline, up to 471' MSL. Vehicles on road beginning 2' from DER, 475' left of centerline, up to 413' MSL. Vehicles on road beginning 22' from DER, 475' left of centerline, up to 414' MSL. Vehicles on road beginning 116' from DER, 475' left of centerline, up to 415' MSL. Terrain and vehicles on road beginning 163' from DER, 213' left of centerline, up to 416' MSL. Terrain, pole, and vehicles on road beginning 199' from DER, 14' left of centerline, up to 26' AGL/429' MSL. Trees beginning 298' from DER, 427' right of centerline, up to 478' MSL. Trees beginning 399' from DER, 480' right of centerline, up to 479' MSL. Tree 450' from DER, 496' right of centerline, 480' MSL. Trees beginning 482' from DER, 454' right of centerline, up to 483' MSL. Pole and vehicles on road beginning 506' from DER, 475' left of centerline, up to 30' AGL/438' MSL. Tree 538' from DER, 539' left of centerline, 471' MSL. Tree, pole, and vehicles on road beginning 553' from DER, 21' left of centerline, up to 474' MSL. Tree and fence beginning 570' from DER, 5' right of centerline, up to 489' MSL. Trees beginning 1798' from DER, 59' left of centerline, up to 475' MSL. Tree 2118' from DER, 476' left of centerline, 479' MSL. Trees beginning 2127' from DER, 258' left of centerline, up to 482' MSL. Trees beginning 2363' from DER, 379' left of centerline, up to 483' MSL. Trees beginning 2465' from DER, 436' left of centerline, up to 491' MSL.

**FELKER AAF (KFAF),**

FORT EUSTIS, VA

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

08297

**Rwy 14, 32** standard.

TAKEOFF OBSTACLES: **Rwy 14**: Tree 3133' from DER, 167' left of centerline, 103' AGL/112' MSL. **Rwy 32**: Crane 2938' from DER, 941' left of centerline, 114' AGL/124' MSL. Trees beginning 2931' from DER, 186' left of centerline up to 74' AGL/85' 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

## FOREST, VA

### NEW LONDON (W90)

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

ORIG 12152 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, 300-1 or std. w/min. climb of 511' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 18**, climb heading 176° to 2200 before proceeding on course. **Rwy 36**, climbing right turn heading 066° and on LYH R-005 outbound to 3500 before proceeding on course.

NOTE: **Rwy 18**, trees beginning at DER, left and right of centerline, up to 100' AGL/ 919' MSL. **Rwy 36**, trees beginning at DER, left and right of centerline, up to 100' AGL/979' MSL. Vehicle on roadway, 19' from DER, 186' left of centerline, up to 15' AGL/ 894' MSL.

## FREDERICK, MD

### FREDERICK MUNI (FDK)

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

AMDT 4 15064 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, 300-2 or std. w/min. climb of 260' per NM to 600. **Rwy 12**, 500-2½ or std. w/min. climb of 395' per NM to 1000. **Rwy 30**, std. w/min. climb of 285' per NM to 900 or 1500-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 5**, climbing left turn heading 340° and on FDK VOR R-010 to 2100 before proceeding on course. **Rwy 12**, climb heading 124° to 900 before proceeding westbound. **Rwy 23**, climb heading 229° to 1200 before turning right. **Rwy 30**, climbing right turn heading 040° and on FDK R-010 to 2400 before proceeding on course.

VCOA: **Rwy 30**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Frederick Muni airport at or above 1700 before proceeding on course.

NOTE: **Rwy 5**, light and sign beginning 44' from DER, 123' left of centerline, up to 3' AGL/286' MSL. Trees beginning 1467' from DER, 630' right of centerline, up to 90' AGL/389' MSL. Trees beginning 2645' from DER, 610' left of centerline, up to 75' AGL/394' MSL. Trees beginning 4525' from DER, 597' left of centerline, up to 75' AGL/434' MSL. Elevator and trees beginning 4824' from DER, 341' right of centerline, up to 76' AGL/435' MSL. Trees 1.2 NM from DER, 1562' right of centerline, up to 95' AGL/514' MSL. Trees 1.4 NM from DER, 936' right of centerline, up to 89' AGL/508' MSL. **Rwy 12**, wall and trees beginning 45' from DER, 283' right of centerline, up to 14' AGL/308' MSL. Trees beginning 1312' from DER, 228' left of centerline, up to 82' AGL/391' MSL. Trees beginning 1667' from DER, 75' right of centerline, up to 83' AGL/362' MSL. Building and trees beginning 3292' from DER, 45' left of centerline, up to 113' AGL/552' MSL. Tower, pole, grain silos, and trees beginning 3365' from DER, 41' from DER, up to 101' AGL/520' MSL. Trees 2.1 NM from DER, 1377' left of centerline, up to 90' AGL/779' MSL. Trees 2.3 NM from DER, 2711' left of centerline, up to 107' AGL/636' MSL. **Rwy 23**, vehicles on road and trees beginning 134' from DER, 376' right of centerline, up to 21' AGL/327' MSL. Pole, buildings, and trees beginning 737' from DER, 286' right of centerline, up to 47' AGL/362' MSL. Poles and trees beginning 1477' from DER, 41' left of centerline, up to 72' AGL/411' MSL. Trees beginning 1701' from DER, 55' right of centerline, up to 78' AGL/397' MSL. **Rwy 30**, poles and trees beginning 4' from DER, 320' right of centerline, up to 22' AGL/316' MSL. Antenna on building and trees beginning 1255' from DER, 750' left of centerline, up to 56' AGL/335' MSL. Trees beginning 1096' from DER, 351' right of centerline, up to 77' AGL/336' MSL. Trees 1962' from DER, 105' right of centerline, up to 77' AGL/356' MSL.

## FORT MEADE (ODENTON), MD

### TIPTON (FME)

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

ORIG 02052 (FAA)

NOTE: **Rwy 10**, cross DER at or above 17' AGL/167' MSL. Trees 1052' right of DER, 88' AGL/238' MSL.

## FRANKLIN, VA

### FRANKLIN MUNI-JOHN BEVERLY ROSE (FKN)

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

AMDT 2A 16259 (FAA)

NOTE: **Rwy 9**, tree 159' from DER, 306' right of centerline, 69' MSL. Tree 233' from DER, 315' right of centerline, 73' MSL. Trees beginning 235' from DER, 386' right of centerline, up to 96' MSL. Tree and vehicle on road beginning 432' from DER, 191' right of centerline, up to 102' MSL. Trees beginning 944' from DER, 621' left of centerline, up to 106' MSL. Trees beginning 1191' from DER, 594' left of centerline, up to 109' MSL. Trees beginning 1279' from DER, 79' left of centerline, up to 117' MSL. Trees beginning 1877' from DER, 178' right of centerline, up to 118' MSL. Tree 2341' from DER, 770' right of centerline, 128' MSL. Trees beginning 2386' from DER, 931' right of centerline, up to 139' MSL. Trees beginning 2523' from DER, 312' right of centerline, up to 144' MSL. Trees beginning 3122' from DER, 901' right of centerline, up to 149' MSL. Trees beginning 3203' from DER, 415' right of centerline, up to 151' MSL. Trees beginning 3484' from DER, 107' right of centerline, up to 159' MSL. Tree 3573' from DER, 20' left of centerline, 131' MSL. Tree 4245' from DER, 157' left of centerline, 149' MSL. **Rwy 27**, trees beginning abeam DER, 362' left of centerline, up to 119' MSL. Trees beginning 211' from DER, 121' right of centerline, up to 55' MSL. Pole and tree beginning 559' from DER, 470' right of centerline, up to 33' AGL/63' MSL. Pole 596' from DER, 299' right of centerline, 43' AGL/68' MSL. Trees beginning 606' from DER, 298' right of centerline, up to 71' MSL. Tree 946' from DER, 550' right of centerline, 96' MSL. Trees beginning 997' from DER, 593' right of centerline, up to 107' MSL. Trees beginning 1017' from DER, 24' right of centerline, up to 109' 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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## FREDERICKSBURG, VA

SHANNON (EZF)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 11069 (FAA)

TAKEOFF MINIMUMS: **Rwy 15,33**, NA-Environmental. **Rwy 6**, 300-2¼ or std. w/min. climb of 270' per NM to 500. **Rwy 24**, 400-3 or std. with a min. climb of 380' per NM to 600.DEPARTURE PROCEDURE: **Rwy 6**, climb heading 055° to 700 before turning left. **Rwy 24**, climb heading 235° to 700 before turning right.

NOTE: **Rwy 6**, hanger abeam DER, 208' left of centerline, 25' AGL/119' MSL. Trees abeam DER. 154' right of centerline, up to 100' AGL/189' MSL. Power lines abeam DER, 193' right of centerline, up to 75' AGL/164' MSL. Buildings abeam DER, 237' right of centerline, up to 25' AGL/114' MSL. Vehicle on road 237' from DER, left and right of centerline, up to 15' AGL/1 04' MSL. Building 449' from DER, 234' left of centerline, 25' AGL/124' MSL. Building 382' from DER, 180' left of centerline, 25' AGL/104' MSL. Light poles beginning 439' from DER, 162' left of centerline, 75' AGL/154' MSL. Power lines beginning 315' from DER, 308' left of centerline, up to 75' AGL/154' MSL. Power lines beginning 613' from DER, left and right of centerline, up to 75' AGL/144' MSL. Building 668' from DER, 169' left of centerline, 25' AGL/104' MSL. Tower 4876' from DER, 1092' left of centerline, 210' AGL/250' MSL. **Rwy 24**, trees beginning abeam DER, left and right of centerline, up to 100' AGL/369' MSL. Train 10' from DER, left and right of centerline, 23' AGL/112' MSL. Rising terrain beginning 5161' from DER, left and right of centerline, up to 269' MSL. Power lines beginning 7248' from DER, left and right of centerline, up to 125' AGL/374' MSL.

## FRIENDLY, MD

POTOMAC AIRFIELD (VKX)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 11097 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, 500-2½ or std. w/min. climb of 290' per NM to 700. **Rwy 24**, 300-1.NOTE: **Rwy 6**, 50' AGL trees 300' left of DER, 75' AGL trees 320' right of DER. Tower 1.9 NM from DER, on centerline 301' AGL/550' MSL. **Rwy 24**, 80' AGL trees 200' right of DER. 75' AGL trees 200' left of DER. 30' AGL hanger 200' from DER, 190' right of centerline.

## FRONT ROYAL, VA

FRONT ROYAL-WARREN COUNTY (FRR)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 10210 (FAA)

TAKEOFF MINIMUMS: **Rwy 10**, 300-1¼ or std. w/min. climb of 415' per NM to 1100. **Rwy 28**, NA-obstacles. DEPARTURE PROCEDURE: **Rwy 10**, climbing left turn direct MRB VORTAC before proceeding on course.NOTE: **Rwy 10**, vehicles on roadway beginning 221' from DER, left and right of centerline, up to 17' AGL/736' MSL. Power lines beginning 835' from DER, left and right of centerline, up to 79' AGL/828' MSL. Trees beginning 1060' from DER, 51' left of centerline, up to 100' AGL/779' MSL. Trees beginning 1660' from DER, 550' right of centerline, up to 100' AGL/939' MSL.

## GAITHERSBURG, MD

MONTGOMERY COUNTY AIRPARK (GAI)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 15064 (FAA)

NOTE: **Rwy 14**, building, pole, and trees beginning 217' from DER, 81' right of centerline, up to 52' AGL/601' MSL. Building, poles, and trees beginning 244' from DER, 196' left of centerline, up to 51' AGL/610' MSL. Trees 1323' from DER, 841' right of centerline, up to 117' AGL/656' MSL. Trees beginning 1965' from DER, 628' left of centerline, up to 104' AGL/663' MSL. **Rwy 32**, trees beginning 26' from DER, 181' left of centerline, up to 77' AGL/556' MSL. Trees beginning 72' from DER, 202' right of centerline, up to 53' AGL/532' MSL. Trees beginning 3350' from DER, 903' right of centerline, up to 93' AGL/592' MSL.

## GALAX-HILLSVILLE, VA

TWIN COUNTY (HLX)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 3 12152 (FAA)

TAKEOFF MINIMUMS: **Rwy 1**, 300-1 or std. w/min. climb of 310' per NM to 2900.DEPARTURE PROCEDURE: **Rwy 19**, climb heading 187° to 3300 before turning left.

NOTE: **Rwy 1**, vehicles on roadway beginning 122' from DER, left and right of centerline, up to 15' AGL/2674' MSL. Tree 195' from DER, 432' right of centerline, 49' AGL/2669' MSL. Trees beginning 1215' from DER, left and right of centerline, up to 107' AGL/2699' MSL. Trees beginning 2098' from DER, left and right of centerline, up to 105' AGL/2768' MSL. Trees beginning 4071' from DER, 1192' left of centerline, up to 79' AGL/2799' MSL. **Rwy 19**, trees beginning 135' from DER, 455' left of centerline, up to 108' AGL/2748' MSL. Trees beginning 314' from DER, 434' right of centerline, up to 100' AGL/2760' MSL. Tree 925' from DER, 254' left of centerline, 80' AGL/2720' MSL. Trees beginning 1470' from DER, 248' right of centerline, up to 113' AGL/2753' MSL.

## GEORGETOWN, DE

DELAWARE COASTAL (GED)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4B 16315 (FAA)

TAKEOFF MINIMUMS: **Rwy 22**, 200-1¼ or std. w/min. climb of 201' per NM to 300, or alternatively with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1100' prior to DER.

NOTE: **Rwy 04**, trees beginning 7' from DER, 459' left of centerline, up to 74' AGL/118' MSL. Tree 2322' from DER, 428' right of centerline, 61' AGL/109' MSL. Tree 5161' from DER, 710' left of centerline, 180' MSL. **Rwy 10**, vehicle on road 94' from DER, 446' left of centerline, 15' AGL/59' MSL. Trees and pole beginning 443' from DER, 87' left of centerline, up to 100' AGL/144' MSL. Trees beginning 641' from DER, 109' right of centerline, up to 100' AGL/144' MSL. Tree 3732' from DER, 37' left of centerline, 100' AGL/149' MSL. **Rwy 22**, tree 2035' from DER, 781' left of centerline, 172' MSL. Tower 1 NM from DER, 465' left of centerline, 215' MSL. **Rwy 28**, trees beginning 358' from DER, 567' left of centerline, up to 100' AGL/149' MSL. Trees beginning 1299' from DER, 686' right of centerline, up to 100' AGL/149' MSL. Trees beginning 1595' from DER, 647' right of centerline, up to 100' AGL/154' MSL. Trees beginning 1892' from DER, crossing centerline, up to 100' AGL/154' MSL. Tank 4498' from DER, 219' right of centerline, 180' 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

**GORDONSVILLE, VA**

**GORDONSVILLE MUNI (GVE)**

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

**ORIG 11349 (FAA)**

**TAKEOFF MINIMUMS: Rwy 5, 500-2½ or std. w/min. climb of 317/per NM to 1100. Rwy 23, 300-2½ or std. w/min. climb of 384/per NM to 700.**

**DEPARTURE PROCEDURE: Rwy 5, climb heading 048° to 1500 before proceeding on course. Rwy 23, climb heading 213° to 2000 before turning right.**

**NOTE: Rwy 5, trees beginning 341' from DER, 529' right of centerline, up to 100' AGL/699' MSL. Vehicles on roadway 738' from DER, 477' left of centerline, up to 17' AGL/476' MSL. Trees beginning 789' from DER, 507' left of centerline, up to 100' AGL/939' MSL. Railroad 1111' from DER, 255' right of centerline, up to 23' AGL/482' MSL. Rwy 23, trees beginning 300' from DER, 199' right of centerline, up to 100' AGL/739' MSL. Trees beginning 805' from DER, 423' left of centerline, up to 100' AGL/739' MSL. Rising terrain beginning 2.9 NM from DER, 2.5 NM right of centerline, up to 2039' MSL.**

**HAGERSTOWN, MD**

**HAGERSTOWN RGNL -RICHARD A.**

**HENSON FIELD (HGR)**

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

**AMDT 6 13290 (FAA)**

**DEPARTURE PROCEDURE: Rwy 9, climbing left turn to intercept HGR VOR R-084 to 2500 before proceeding on course. Rwy 27, climb on heading 272° to 2300 before turning right.**

**NOTE: Rwy 2, pole 22' from DER, 434' right of centerline, 20' AGL/719' MSL. Telephone pylon 98' from DER, 351' right of centerline, 30' AGL/729' MSL. Pole 100' from DER, 352' right of centerline, 31' AGL/730' MSL. Catenary 113' from DER, 515' right of centerline, 32' AGL/731' MSL. Antenna 190' from DER, 392' right of centerline, 38' AGL/737' MSL. Building 1115' from DER, 289' left of centerline, 10' AGL/749' MSL. Road 1215' from DER, 8' right of centerline, 3' AGL/742' MSL. Trees beginning 1295' from DER, left and right of centerline, up to 99' AGL/838' MSL. Rwy 9, MALSR 6' from DER, 5' left of centerline, 48' AGL/687' MSL. Tree 963' from DER, 754' left of centerline, 75' AGL/714' MSL. Rwy 20, light and poles beginning 334' from DER, left and right of centerline, up to 40' AGL/734' MSL. Tree 1504' from DER, 342' left of centerline, 36' AGL/735' MSL. Silo 1590' from DER, 93' left of centerline, 34' AGL/733' MSL. Tree 2051' from DER, 592' left of centerline, 100' AGL/759' MSL. Tree 2540' from DER, 722' left of centerline, 100' AGL/779' MSL. Rwy 27, trees beginning 668' from DER, 515' left of centerline, up to 80' AGL/719' MSL. Building 1895' from DER, 510' left of centerline, 73' AGL/713' MSL.**

**HOT SPRINGS, VA**

**INGALLS FIELD (HSP)**

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

**AMDT 4 11013 (FAA)**

**DEPARTURE PROCEDURE: Rwy 25, climb heading 247° to 4400 before turning left.**

**NOTE: Rwy 7, tree 52' from DER, 395' left of centerline, 64' AGL/3784' MSL. Rwy 25, trees, building, and terrain beginning 172' from DER, 167' left of centerline, up to 60' AGL/3860' MSL. Obstacle light on pipe 376' from DER, 421' left of centerline, up to 28' AGL/3828' MSL.**

**INDIAN HEAD, MD**

**MARYLAND (2W5)**

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

**ORIG 14205 (FAA)**

**NOTE: Rwy 2, trees beginning at DER, 208' right of centerline up to 100' AGL/279' MSL. Trees beginning 1103' from DER, 366' left of centerline up to 100' AGL/279' MSL. Trees beginning 1564' from DER, left and right of centerline up to 100' AGL/279' MSL. Building beginning 1255' from DER, 759' right of centerline, 25' AGL/204' MSL. Rwy 20, trees beginning 404' from DER, 25' right of centerline up to 100' AGL/259' MSL. Trees beginning at DER, 243' left of centerline up to 100' AGL/249' MSL. Trees beginning 1069' from DER, 316' right of centerline up to 100' AGL/279' MSL. Trees beginning 1388' from DER, 332' left of centerline up to 100' AGL/279' MSL. Building 1401' from DER, 744' right of centerline, 25' AGL/194' MSL.**

**JOINT BASE ANDREWS (KADW)**

**CAMP SPRINGS, MD . . . . . 12152**

**TAKEOFF OBSTACLES: Rwy 1R, terrain 41' from DER, 500' left of centerline, 279' MSL. Terrain 46' from DER, 512' left of centerline, 279' MSL. Stadium light 3036' from DER, 1020' right of centerline, 80' AGL/361' MSL. Rwy 19L, terrain 0' inward of DER, 450' left of centerline, 253' MSL. Terrain 110' from DER, 529' left of centerline, 255' MSL. Terrain 270' from DER, 581' left of centerline, 260' MSL. Rwy 19R, tower 4629' from DER, 1664' right of centerline, 108' AGL/372' MSL. Tower 4713' from DER, 1727' right of centerline, 131' AGL/390' MSL.**

**JONESVILLE, VA**

**LEE COUNTY (0VG)**

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

**ORIG 06327 (FAA)**

**TAKEOFF MINIMUMS: Rwy 7, std. w/ min. climb of 467' per NM to 3800, or 1900-3 for climb in visual conditions. Rwy 25, std. w/ min. climb of 442' per NM to 3500, or 1900-3 for climb in visual conditions.**

**DEPARTURE PROCEDURE: Rwys 7, 25, for climb in visual conditions cross Lee County Airport at or above 3200 before proceeding on course.**

**NOTE: Rwy 7, terrain 116' from DER, 72' right of centerline, 1439' MSL. Terrain 691' from DER, 53' right of centerline, 1459' MSL. Terrain 267' from DER, 190' left of centerline, 1439' MSL. Terrain 479' from DER, 68' left of centerline, 1459' 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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## KENBRIDGE, VA

LUNENBURG COUNTY (W31)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 11013 (FAA)

NOTE: **Rwy 2**, trees beginning 219' from DER, left and right of centerline, up to 100' AGL/639' MSL. Vehicles on roadway, beginning 561' from DER, 519' right of centerline, up to 15' AGL/544' MSL. **Rwy 20**, trees at DER, left and right of centerline, up to 100' AGL/599' MSL.

## LAWRENCEVILLE, VA

LAWRENCEVILLE/BRUNSWICK MUNI (LVL)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 04330 (FAA)

TAKEOFF MINIMUMS: **Rwys 6,24**, NA.  
NOTE: **Rwy 18**, trees 1654' from DER, 772' left of centerline, 88' AGL/407' MSL. Trees 200' from DER, on centerline, 22' AGL/321' MSL. **Rwy 36**, trees 1487' from DER, 20' left of centerline, 88' AGL/420' MSL. Trees 113' from DER, 372' right of centerline, 88' AGL/420' MSL.

## LANGLEY AFB (KLFJ),

HAMPTON, VA  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 13234

**Rwy 8**, 600-3\*

\* Or standard with minimum climb of 256 ft/NM to 800.  
TAKE-OFF OBSTACLES: **Rwy 8**, Boat 2257' from DER, 777' left of centerline, 60' AGL/60' MSL. Boat 2497' from DER, 57' left of centerline, 60' AGL/60' MSL. Vehicle on road 1048' from DER, 703' right of centerline, 15' AGL/23' MSL. Boat 1807' from DER, 552' right of centerline, 60' AGL/60' MSL. Boat 2837' from DER, 643' right of centerline, 60' AGL/60' MSL. **Rwy 26**, Terrain 0' from DER, 369' left of centerline, 11' MSL. Tree 4052' from DER, 688' left of centerline, 100' AGL/116' MSL. Tree 4842' from DER, 690' left of centerline, 100' AGL/116' MSL. Tree 4093' from DER, 82' left of centerline, 99' AGL/111' MSL. Tree 4155' from DER, 339' right of centerline, 100' AGL/113' MSL. Tree 4039' from DER, 620' right of centerline, 100' AGL/109' MSL. Tree 3807' from DER, 1181' right of centerline, 100' AGL/113' MSL. Building 1390' from DER, 825' left of centerline, 24' AGL/36' MSL.

## LEESBURG, VA

LEESBURG EXECUTIVE (JYO)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 10266 (FAA)

DEPARTURE PROCEDURE: **Rwy 35**, climb heading 351° to 1200 before proceeding on course.  
NOTE: **Rwy 17**, vehicle on roadway, 320' from DER, 565' left of centerline, up to 15' AGL/414' MSL. Building 167' from DER, 360' left of centerline, 22' AGL/401' MSL. Pole 958' from DER, 373' left of centerline, 32' AGL/421' MSL. Trees beginning 138' from DER, left and right of centerline, up to 100' AGL/464' MSL. **Rwy 35**, terrain 96' from DER, 453' left of centerline, 381' MSL. Tree 1078' from DER, 525' left of centerline, up to 100' AGL/413' MSL. Pole 638' from DER, 642' right of centerline, 49' AGL/428' MSL.

## LEONARDTOWN, MD

ST MARY'S COUNTY RGNL (2W6)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 07018 (FAA)

NOTE: **Rwy 11**, multiple trees beginning 88' from DER, 339' left of centerline, up to 80' AGL/205' MSL. Multiple trees beginning 61' from DER, 193' right of centerline up to 80' AGL/205' MSL. **Rwy 29**, multiple trees beginning 996' from DER, 227' left of centerline up to 79' AGL/221' MSL. Multiple trees beginning 596' from DER, 277' right of centerline up to 71' AGL/213' MSL. Multiple towers on buildings beginning 53' from DER, 400' right of centerline up to 26' AGL/168' MSL. Equipment on building 223' from DER, 449' right of centerline, 15' AGL/169' MSL. Tower 402' from DER, 399' right of centerline, 33' AGL/175' MSL. Fence 496' from DER, 241' right of centerline, 22' AGL/164' MSL.

## LAUREL, DE

LAUREL (N06)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 12096 (FAA)

TAKEOFF MINIMUMS: **Rwy 15**, 600-2¼ or std. w/min. climb of 286' per NM to 800.  
DEPARTURE PROCEDURE: **Rwy 15**, climb heading 148° to 1200 before proceeding on course. **Rwy 33**, climb heading 328° to 1200 before preceding on course.  
NOTE: **Rwy 15**, tower 2.4 NM from DER, 253' left of centerline, 500' AGL/542' MSL.

## LOUISA, VA

LOUISA COUNTY/FREEMAN FIELD (LKU)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 10210 (FAA)

NOTE: **Rwy 9**, trees beginning abeam DER, 316' right of centerline, up to 100' AGL/589' MSL. Trees beginning 765' from DER, 644' left of centerline, up to 95' AGL/545' MSL. Trees beginning 889' from DER, 150' right of centerline, up to 59' AGL/519' MSL. **Rwy 27**, trees beginning abeam DER, 350' right of centerline, up to 100' AGL/569' MSL. Trees beginning 212' from DER, 133' right of centerline, up to 100' AGL/569' MSL. Trees beginning 70' from DER, 513' left of centerline, up to 100' AGL/569' MSL. Building 148' from DER, 440' left of centerline, 14' AGL/484' MSL. Trees beginning 587' from DER, left and right of centerline, up to 100' AGL/549' MSL.

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

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

  
**DIVERSE VECTOR AREA (RADAR VECTORS)**

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**LURAY, VA****LURAY CAVERNS (LUA)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

AMDT 2 15316 (FAA)

TAKEOFF MINIMUMS: **Rwy 4**, std. w/min. climb of 400' per NM to 3900 or 3100-3 for climb in visual conditions. **Rwy 22**, std.w/min. climb of 400' per NM to 4000 or 3100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 4**, climb heading 44° to intercept bearing 44° from LUA NDB to 4000 before proceeding on course. **Rwy 22**, climbing left turn heading 224° to intercept LDN VORTAC R230 to 5000 before proceeding on course.

VCOA: **All Runways**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Luray Caverns airport at or above 3900 before proceeding on course.

NOTE: **Rwy 4**, trees, antennas, roads, flagpole and building beginning 113' from DER, 137' right of centerline, up to 44' AGL/938 MSL. Trees beginning 1081' from DER, 280' right of centerline, up to 42' AGL/942' MSL. Trees and pole beginning 1282' from DER, 103' right of centerline, up to 59' AGL/959' MSL. Trees beginning 1597' from DER, 22' right of centerline, up to 68' AGL/968' MSL. Trees beginning 2247' from DER, 14' right of centerline, up to 93' AGL/995' MSL. Tree 3955' from DER, 967' right of centerline, 100' AGL/1004' MSL. Trees beginning 2166' from DER, 5' left of the centerline, up to 113' AGL/976' MSL. **Rwy 22**, trees beginning 23' from DER, 313' right of centerline, up to 34' AGL/929' MSL. Trees beginning 333' from DER, 184' right of centerline, up to 56' AGL/936' MSL. Tree 4552' from DER, 1100' right of centerline, 100' AGL/1019' MSL. Trees beginning 68' from DER, 186' left of centerline, up to 30' AGL/910' MSL. Trees beginning 261' from DER, 26' left of centerline, up to 65' AGL/955' MSL. Tree 4194' from DER, 1238' left of centerline, 100' AGL/1019' MSL.

**LYNCHBURG, VA****FALWELL (W24)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

AMDT 1 07186 (FAA)

TAKEOFF MINIMUMS: **Rwy 10**, 1100-2½ for climb in visual conditions. **Rwy 28**, NA-obstacle.

DEPARTURE PROCEDURE: **Rwy 10**, for climb in visual conditions: cross Falwell Airport at or above 1900 before proceeding on course.

NOTE: **Rwy 10**, multiple trees 9' from DER, 87' right of centerline, up to 100' AGL/899' MSL. Multiple power lines 2896' from DER, 1192' right of centerline, up to 149' AGL/968' MSL.

**LYNCHBURG RGNL/PRESTON GLENN  
FIELD (LYH)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

AMDT 8 08073 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, 300-2¼ or std. w/ min. climb of 232' per NM to 1500. **Rwy 35**, std. w/ min. climb of 350' per NM to 3000, or 1700-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 4**, climb heading 036° to 2200 before proceeding on course. **Rwy 17**, climb heading 169° to 1800 before turning right. **Rwy 22**, climb heading 216° to 1800 before turning right. **Rwy 35**, climb heading 349° to 3000 before turning left, or for climb in visual conditions: cross Lynchburg Rgnl/Preston Glenn Field at or above 2500' MSL before proceeding on course.

NOTE: **Rwy 4**, trees beginning 2029' from DER, 62' right of centerline up to 81' AGL/999' MSL. Trees beginning 1422' from DER, 3' left of centerline up to 76' AGL/995' MSL. Poles beginning 427' from DER, 483' right of centerline up to 44' AGL/1044' MSL. Obstruction lights on fence beginning 2' from DER, 500' right of centerline up to 30' AGL/ 948' MSL. Antenna on building 395' from DER, 277' right of centerline 15' AGL/954' MSL. Light 606' from DER, 599' right of centerline, 18' AGL/982' MSL. Building 400' from DER, 345' right of centerline, 12' AGL/951' MSL. **Rwy 17**, trees beginning 284' from DER, 77' left of centerline up to 277' AGL/1195' MSL. Trees beginning 265' from DER, 178' right of centerline up to 57' AGL/969' MSL. Obstruction light on pole 9326' from DER 333' left of centerline, 270' AGL/1188 MSL. **Rwy 22**, trees beginning 274' from DER, 245' right of centerline up to 41' AGL/979' MSL. Trees beginning 2616' from DER, 206' left of centerline up to 41' AGL/ 979' MSL. Poles beginning 2872' from DER, 603' right of centerline up to 44' AGL/982' MSL. **Rwy 35**, trees beginning 2955' from DER, 140' right of centerline up to 96' AGL/ 1014' MSL. Trees beginning 722' from DER, 71' left of centerline up to 119' AGL/1037' MSL. Pole 36' from DER 98' left of centerline, 25' AGL/ 943' 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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## MARION/WYTHEVILLE, VA

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 12208

TAKEOFF MINIMUMS: **Rwy 8**, 300-1¾. **Rwy 26**, std. w/ min. climb of 265' per NM to 3400 or 4600-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 8**, climb heading 079° to 4100 before proceeding on course. **Rwy 26**, climb heading 259° to 4400 before proceeding on course or for climb in visual conditions: cross Mountain Empire airport at or above 4600' MSL before proceeding on course. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 8**, trees beginning 58' from DER, left and right of centerline, up to 100' AGL/2819' MSL. Vehicles beginning 225' from DER, left and right of centerline, up to 17' AGL/2540' MSL. Poles beginning 703' from DER, left and right of centerline, up to 123' AGL/2537' MSL. **Rwy 26**, trees and vehicles beginning 250' from DER, left and right of centerline, up to 100' AGL/3039' MSL.

## MARTINSVILLE, VA

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 10042 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, std. with a min. climb of 249' per NM to 2100 or 1900-3 for climb in visual conditions. **Rwy 30**, std. with a min. climb of 321' per NM to 4300 or 1900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 125° to 2200 before proceeding on course. For climb in visual conditions: cross Blue Ridge airport at or above 2700 MSL before proceeding on course. **Rwy 30**, for climb in visual conditions: cross Blue Ridge airport at or above 2700 MSL before proceeding on course.

NOTE: **Rwy 12**, trees beginning 316' from DER, 320' left of centerline, up to 47' AGL/956' MSL. Trees beginning 38' from DER, 380' right of centerline, 82' AGL/941' MSL. **Rwy 30**, trees beginning 82' from DER, 9' right of centerline, up to 100' AGL/1058' MSL. Vehicle on road 638' from DER, 418' right of centerline, 15' AGL/974' MSL. Obstruction light on DME 1031' from DER, 304' right of centerline, 18' AGL/977' MSL. Fence 947' from DER, 400' right of centerline, 12' AGL/971' MSL. Trees beginning 102' from DER, 94' left of centerline, up to 77' AGL/1047' MSL.

## MELFA, VA

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 07298 (FAA)

NOTE: **Rwy 3**, multiple trees beginning 41' from DER, 221' right of centerline, up to 84' AGL/128' MSL. Truck on road 204' from DER, 231' left of centerline, 15' AGL/61' MSL. Multiple trees beginning 249' from DER, 14' left of centerline, up to 106' AGL/155' MSL. Truck on road 494' from DER, 228' left of centerline, 15' AGL/62' MSL. Rod on obstruction light tower 862' from DER, 402' left of centerline, 55' AGL/99' MSL. **Rwy 21**, multiple trees beginning 27' from DER, 395' right of centerline, up to 91' AGL/135' MSL. Multiple trees 504' from DER, 403' left of centerline, up to 110' AGL/144' MSL.

## MIDDLETOWN, DE

SUMMIT (EVY)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 00027 (FAA)

TAKEOFF MINIMUMS: **Rwy 35**, 300-1, or std. with a min. climb of 280' per NM to 400.

## MITCHELLVILLE, MD

FREEWAY (W00)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 12320 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, 300-1 or std. w/min. climb of 380' per NM to 400. **Rwy 36**, 300-2 or std. w/min. climb of 725' per NM to 600.

NOTE: **Rwy 18**, trees beginning 138' from DER, 30' left of centerline, up to 100' AGL/299' MSL. Trees beginning 220' from DER, 119' right of centerline, up to 100' AGL/279' MSL. Trees 3468' from DER, 1125' left of centerline, up to 100' AGL/319' MSL. Tower 3699' from DER, 1126' left of centerline, 125' AGL/305' MSL. **Rwy 36**, vehicles on road, trees, and transmission line towers beginning 107' from DER, 40' left of centerline, up to 100' AGL/299' MSL. Vehicles on road, trees, and transmission line towers beginning 112' from DER, 39' right of centerline, up to 100' AGL/319' MSL. Transmission line tower 2610' from DER, 3' left of centerline, 133' AGL/332' MSL.

## MONETA, VA

SMITH MOUNTAIN LAKE (W91)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 14261 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, 400-2¼ or std. w/min. climb of 565' per NM to 1200.

DEPARTURE PROCEDURE: **Rwy 5**, climb heading 054° to 2600 before proceeding on course. **Rwy 23**, climb heading 234° to 1900 before proceeding on course.

NOTE: **Rwy 5**, trees beginning abeam DER, 144' right of centerline, up to 100' AGL/1019' MSL. Vehicles on road beginning 3' from DER, left and right of centerline, up to 15' AGL/1034' MSL. Aircraft on taxiway, 132' left of centerline, up to 20' AGL/939' MSL. Trees beginning 303' from DER, 211' left of centerline, up to 100' AGL/1039' MSL. Trees beginning 3234' from DER, 44' right of centerline, up to 100' AGL/1119' MSL. Trees beginning 2954' from DER, 83' left of centerline, up to 100' AGL/1099' MSL. **Rwy 23**, trees beginning 13' from DER, 149' left of centerline, up to 100' AGL/979' MSL. Vehicles on road beginning 19' from DER, left and right of centerline, up to 15' AGL/894' MSL. Trees beginning 622' from DER, 316' right of centerline, up to 100' AGL/979' MSL.

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

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
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**NEWPORT NEWS, VA**

**NEWPORT NEWS/WILLIAMSBURG INTL  
(PHF)**

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

AMDT 1 16147 (FAA)

NOTE: **Rwy 2**, REIL 15' from DER, 150' left of centerline, 43' MSL. Tree and airport sign beginning 21' from DER, 259' left of centerline, up to 50' MSL. Trees beginning 45' from DER, 386' right of centerline, up to 51' MSL. Trees beginning 212' from DER, 375' right of centerline, up to 53' MSL. Tree 366' from DER, 597' right of centerline, 55' MSL. Tree 439' from DER, 487' right of centerline, 56' MSL. Tree 689' from DER, 652' right of centerline, 60' MSL. Pole 840' from DER, 625' left of centerline, 78' MSL. Poles beginning 840' from DER, 522' left of centerline, up to 37' AGL/80' MSL. Trees beginning 898' from DER, 723' right of centerline, up to 124' MSL. Tree and pole beginning 935' from DER, 427' left of centerline, up to 131' MSL. Trees beginning 1067' from DER, 253' right of centerline, up to 135' MSL. Tree and pole beginning 1183' from DER, 498' right of centerline, up to 140' MSL. Trees beginning 1399' from DER, 428' left of centerline, up to 150' MSL. Trees beginning 1629' from DER, 413' right of centerline, up to 151' MSL. Tree and t-l tower beginning 1704' from DER, 47' left of centerline, up to 156' MSL. T-l towers and trees beginning 3347' from DER, 5' left of centerline, up to 163' MSL. **Rwy 7**, signs beginning 55' from DER, 282' left of centerline, up to 8' AGL/42' MSL. Tree 368' from DER, 588' left of centerline, 73' MSL. Tree 1557' from DER, 906' right of centerline, 95' MSL. Trees beginning 1557' from DER, 904' right of centerline, up to 96' MSL. Tree 2279' from DER, 932' right of centerline, 99' MSL. Trees beginning 2477' from DER, 909' right of centerline, up to 110' MSL. Tree 3535' from DER, 1395' left of centerline, 140' MSL. Trees beginning 3535' from DER, 1291' left of centerline, up to 141' MSL. Trees beginning 3884' from DER, 965' left of centerline, up to 144' MSL. Trees beginning 3927' from DER, 315' left of centerline, up to 147' MSL. Trees beginning 3958' from DER, 235' left of centerline, up to 153' MSL. Tree 4288' from DER, 454' right of centerline, 154' MSL. T-l towers beginning 5621' from DER, 1337' left of centerline, up to 189' MSL. **Rwy 20**, airport sign 41' from DER, 310' right of centerline, 39' MSL. Bush 96' from DER, 290' left of centerline, 52' MSL. Trees beginning 1038' from DER, 489' left of centerline, up to 90' MSL. Trees beginning 2779' from DER, 1002' right of centerline, up to 111' MSL. **Rwy 25**, tree 357' from DER, 563' right of centerline, 48' MSL. Tree 539' from DER, 594' right of centerline, 59' MSL. Trees beginning 623' from DER, 550' right of centerline, up to 71' MSL. Tree 719' from DER, 580' right of centerline, 79' MSL. Trees beginning 776' from DER, 581' right of centerline, up to 86' MSL. Trees beginning 853' from DER, 600' right of centerline, up to 91' MSL. Trees beginning 1021' from DER, 587' right of centerline, up to 97' MSL. Tree 1046' from DER, 672' right of centerline, 112' MSL. Tree 1121' from DER, 726' right of centerline, 115' MSL. Tree 1121' from DER, 745' right of centerline, 119' MSL. Trees beginning 1125' from DER, 335' right of centerline, up to 123' MSL. Tree 3437' from DER, 1126' right of centerline, 139' MSL.

**NEW MARKET, VA**

**NEW MARKET (8W2)**

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

ORIG 12152 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, 1100-3 w/ min. climb of 376' per NM to 3700 or 2600-3 for climb in visual conditions. **Rwy 24**, 1100-3 w/ min. climb of 290' per NM to 3700 or 2600-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 6**, climb heading 048° to 3700 before proceeding on course or for climb in visual conditions: cross New Market airport at or above 3400 MSL before proceeding on course. When executing VCOA, notify ATC prior to departure.

**Rwy 24**, climb heading 243° to 3700 before proceeding on course or for climb in visual conditions: cross New Market airport at or above 3400 MSL before proceeding on course. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 6**, train beginning 2' from DER, 396' left of centerline, up to 23' AGL/1002' MSL. Vehicles on road beginning 57' from DER, left and right of centerline, up to 15' AGL/994' MSL. Trees beginning 754' from DER, 522' left of centerline, up to 100' AGL/1279' MSL. **Rwy 24**, train beginning 11' from DER, 404' right of centerline, up to 23' AGL/1002' MSL. Trees beginning 564' from DER, 257' right of centerline, up to 100' AGL/1319' MSL.

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

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## NORFOLK, VA

### CHESAPEAKE RGNL (CPK)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 3 12040 (FAA)

NOTE: **Rwy 5**, trees beginning 143' from DER, left and right of centerline, up to 100' AGL/108' MSL. **Rwy 23**, trees beginning 153' from DER, left and right of centerline, up to 105' AGL/122' MSL.

### HAMPTON ROADS EXECUTIVE (PVG)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 14261 (FAA)

TAKEOFF MINIMUMS: **Rwy 10**, std. w/ min. climb of 210' per NM to 600, or alternatively w/std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1500' prior to DER or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 2**, climb heading 019° to 1600 before turning west. **Rwy 10**, climb heading 102° to 1000 before proceeding on course, or for climb in visual conditions, cross Hampton Roads Executive Airport at or above 1600 before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 20**, climb heading 199° to 900 before turning North. **Rwy 28**, climb heading 282° to 1500 before turning North.

NOTE: **Rwy 2**, vehicles on roadway beginning 213' from DER, left and right of centerline, up to 15' AGL/39' MSL. trees beginning 663' from DER, left and right of centerline, up to 100' AGL/124' MSL. **Rwy 10**, aircraft on taxiway beginning 9' from DER, 390' right of centerline, up to 26' AGL/49' MSL. Bushes beginning 30' from DER, 156' right of centerline, up to 5' AGL/26' MSL. Bushes beginning 96' from DER, 486' left of centerline, up to 12' AGL/33' MSL. Trees beginning 2086' from DER, 19' left of centerline, up to 103' AGL/124' MSL. Trees beginning 2103' from DER, 13' right of centerline, up to 113' AGL/134' MSL. **Rwy 20**, aircraft on taxiway and buildings beginning 11' from DER, 144' right of centerline, up to 40' AGL/50' MSL. Vehicles on roadway beginning 97' from DER, 14' left of centerline, up to 23' AGL/47' MSL. Trains on railroad tracks and trees beginning 333' from DER, 571' left of centerline, up to 100' AGL/124' MSL. Trains on railroad tracks and trees beginning 796' from DER, 90' right of centerline, up to 100' AGL/124' MSL. **Rwy 28**, trees beginning 2267' from DER, 1071' left of centerline, up to 100' AGL/121' MSL. Trees beginning 3793' from DER, 408' left of centerline, up to 113' AGL/134' MSL.

## NORFOLK, VA (CON'T)

### NORFOLK INTL (ORF)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1 14149 (FAA)

NOTES: **Rwy 5**, multiple trees beginning 1521' from DER, 628' right of centerline, up to 85' AGL/95' MSL. Towers beginning 2974' from DER, 773' right of centerline, up to 127' AGL/131' MSL. Mobile crane 4334' from DER, 1106' right of centerline, 162' AGL/163' MSL. Sign 82' from DER, 301' left of centerline, 11' AGL/19' MSL. Pole 2696' from DER, 1063' left of centerline, 87' AGL/91' MSL. Multiple towers beginning 2938' from DER, 927' left of centerline, up to 145' AGL/146' MSL. **Rwy 14**, vehicle on road 2' from DER, 450' right of centerline, up to 10' AGL/36' MSL. Multiple trees beginning 1193' from DER, 117' right of centerline, up to 82' AGL/97' MSL. Multiple trees beginning 1755' from DER, 413' right of centerline, up to 85' AGL/100' MSL. Numerous trees beginning 2109' from DER, 150' right of centerline, up to 121' AGL/136' MSL. Tree 3323' from DER, 308' right of centerline, 101' AGL/121' MSL. Poles beginning 1307' from DER, 255' right of centerline, up to 43' AGL/62' MSL. Numerous trees beginning 1230' from DER, 40' left of centerline, up to 84' AGL/104' MSL. Pole 1567' from DER, 95' left of centerline, 42' AGL/62' MSL. Multiple trees beginning 2347' from DER, 57' left of centerline, up to 83' AGL/103' MSL. Multiple trees beginning 3086' from DER, 235' left of centerline, up to 101' AGL/121' MSL. **Rwy 23**, trees beginning 324' from DER, 484' right of centerline, up to 28' AGL/43' MSL. Trees beginning 1989' from DER, 26' right of centerline, up to 61' AGL/76' MSL. Pole 1012' from DER, 650' right of centerline, 62' AGL/73' MSL. Pole 2166' from DER, 840' right of centerline, 41' AGL/74' MSL. Vehicle on road 128' from DER, 508' left of centerline, 10' AGL/31' MSL. Multiple trees beginning 619' from DER, 560' left of centerline, up to 66' AGL/76' MSL. Pole 1434' from DER, 739' left of centerline, 57' AGL/71' MSL. Multiple trees beginning 1801' from DER, 46' left of centerline, up to 65' AGL/85' MSL. Trees beginning 2797' from DER, 448' left of centerline, up to 103' AGL/113' MSL. **Rwy 32**, multiple trees beginning 17' from DER, 459' right of centerline, up to 92' AGL/112' MSL. Vehicles on road beginning 207' from DER, 231' right of centerline, up to 15' AGL/29' MSL. Tree 317' from DER, 183' right of centerline, 24' AGL/31' MSL. Trees 775' from DER, 54' right of centerline, up to 61' AGL/71' MSL. Multiple trees beginning 1085' from DER, 698' right of centerline, up to 88' AGL/98' MSL. Multiple trees beginning 1696' from DER, 1' right of centerline, up to 85' AGL/95' MSL. Numerous trees beginning 2128' from DER, 1' right of centerline, up to 103' AGL/113' MSL. Multiple trees beginning 3955' from DER, 936' right of centerline, up to 124' AGL/134' MSL. Vehicles on road beginning 265' from DER, on centerline, up to 15' AGL/26' MSL. Tree 9' from DER, 414' left of centerline, 25' AGL/35' MSL. Tree 166' from DER, 264' left of centerline, 17' AGL/27' MSL. Towers beginning 201' from DER, 86' left of centerline, 12' AGL/27' MSL. Vehicle on road 217' from DER, 81' left of centerline, 10' AGL/27' MSL. Trees beginning 677' from DER, 568' left of centerline, up to 60' AGL/70' MSL. Trees beginning 764' from DER, 109' left of centerline, up to 40' AGL/47' MSL. Poles beginning 846' from DER, 223' left of centerline, up to 41' AGL/51' MSL. Multiple trees beginning 1110' from DER, 181' left of centerline, up to 49' AGL/59' MSL. Tree 1359' from DER, 817' left of centerline, 93' AGL/103' MSL. Multiple trees located 1566' from DER, 7' left of centerline, up to 85' AGL/95' MSL. Trees beginning 3528' from DER, 186' left of centerline, up to 106' AGL/113' 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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## NORFOLK NS (CHAMBERS FIELD)(KNGU)

NORFOLK, VA  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1, 13178

TAKE-OFF OBSTACLES: **Rwy 10**: Trees with a maximum height of 100' within 1500' of departure end of rwy. Cross departure end of rwy at or above 35' AGL/48' MSL. **Rwy 28**: Four stadium lights 2327' to 2588' from DER, 742' to 849' left of centerline, 74' AGL/73' MSL.

## OAKLAND, MD

GARRETT COUNTY (2G4)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 08101 (FAA)

NOTE: **Rwy 9**, Multiple trees beginning 75' from DER, 94' left of centerline, up to 100' AGL/2939' MSL. Multiple trees beginning 76' from DER, 47' right of centerline, up to 100' AGL/2939' MSL. **Rwy 27**, Multiple trees beginning 15' from DER, 334' left of centerline, up to 100' AGL/3019' MSL. Multiple trees beginning 19' from DER, 107' right of centerline, up to 100' AGL/3019' MSL.

## OCEAN CITY, MD

OCEAN CITY MUNI (OXB)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3A 15176 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, 300-1½ or std. w/min. climb of 262' per NM to 300. **Rwy 32**, 400-2 or std. w/min. climb of 280' per NM to 500.

NOTE: **Rwy 2**, trees beginning 158' from DER, 499' right of centerline, up to 78' AGL/88' MSL. Tower 5556' from DER, 1981' right of centerline, 146' AGL/157' MSL. Trees beginning 679' from DER, 523' left of centerline, up to 64' AGL/74' MSL. Pole 1535' from DER, 79' left of centerline, 42' AGL/54' MSL. Tank 4708' from DER, 1600' right of centerline, 160' AGL/169' MSL. Trees beginning 1141' from DER, left and right of centerline, up to 104' AGL/114' MSL. Pole 1126' from DER, 522' right of centerline, 31' AGL/40' MSL. Antenna 4675' from DER, 1653' right of centerline, 129' AGL/137' MSL. **Rwy 14**, tree 94' from DER, 182' right of centerline, 20' AGL/29' MSL. **Rwy 20**, trees beginning 8' from DER, 154' right of centerline, up to 32' AGL/42' MSL. Trees beginning 185' from DER, 162' left of centerline, up to 48' AGL/58' MSL. Trees beginning 959' from DER, 16' right of centerline, up to 62' AGL/72' MSL. **Rwy 32**, bushes beginning 7' from DER, 250' left of centerline, up to 13' AGL/23' MSL. Poles beginning 626' from DER, 493' left of centerline, up to 47' AGL/58' MSL. Trees beginning 858' from DER, 18' right of centerline, up to 91' AGL/101' MSL. Trees beginning 303' from DER, 71' left of centerline, up to 104' AGL/114' MSL. Tower 1.7 NM from DER, 929' right of centerline, 347' AGL/357' MSL.

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

## OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

VIRGINIA BEACH, VA  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2, 15008

TAKE-OFF OBSTACLES: **Rwy 5L**, trees 3707' from DER, 98' right of centerline, 91' AGL/114' MSL. **Rwy 5R**, trees 3706' from DER, 602' left of centerline, 91' AGL/114' MSL. Trees 966' from DER, 598' right of centerline, 0' AGL/47' MSL. **Rwy 14L**, trees 198' from DER, 592' left of centerline, 0' AGL/60' MSL. Trees 1047' from DER, 252' left of centerline, 0' AGL/47' MSL. Bldg 741' from DER, 2291' right of centerline, 17' AGL/59' MSL. Trees 285' from DER, 1227' right of centerline, 0' AGL/45' MSL. **Rwy 14R**, trees 286' from DER, 527' right of centerline, 45' MSL. **Rwy 23R**, trees 2' inward of DER, 518' right of centerline, 57' AGL/71' MSL. **Rwy 32L**, trees 2792' from DER, 7' left of centerline, 89' AGL/104' MSL. **Rwy 32R**, trees 2792' from DER, 707' left of centerline, 89' AGL/104' MSL.

## ORANGE, VA

ORANGE COUNTY (OMH)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 14149 (FAA).

DEPARTURE PROCEDURE: **Rwy 8**, climb heading 075° to 1500 before turning left. **Rwy 26**, climb heading 255° to 2000 before turning.

NOTE: **Rwy 8**, terrain, trees and poles beginning 103' from DER, 361' right of centerline, up to 126' AGL/576' MSL. Terrain, trees and poles beginning 404' from DER, 600' left of centerline, up to 101' AGL/581' MSL. **Rwy 26**, terrain, trees, and poles beginning 14' from DER, 429' right of centerline, up to 101' AGL/559' MSL. Vehicle on road 378' from DER, 406' right of centerline, 17' AGL/463' MSL. Terrain, trees, poles, building and catenary beginning 101' from DER, 888' left of centerline, up to 102' AGL/522' MSL.

## PATUXENT RIVER NAS (TRAPNELL FIELD), (KNHK)

PATUXENT RIVER, MD  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
15288

TAKEOFF OBSTACLES: **Rwy 6**, pylon 1976' from DER, 982' left of centerline, 63' AGL/83' MSL. **Rwy 14**, tree 271' from DER, 572' left of centerline, 79' AGL/87' MSL.

## PETERSBURG, VA

DINWIDDIE COUNTY (PTB)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 07354 (FAA)

TAKEOFF MINIMUMS: **Rwys 32, 14**, NA-obstacles. NOTE: **Rwy 5**, numerous trees beginning 911' from DER, 551' left of centerline, up to 65' AGL/254' MSL. Fence 161' from DER, 472' right of centerline, 7' AGL/196' MSL. Tree 1031' from DER, 690' right of centerline, 57' AGL/256' MSL. **Rwy 23**, numerous trees beginning 2615' from DER, 69' right of centerline, up to 80' AGL/289' MSL. Fence 10' from DER, 476' left of centerline, 10' AGL/199' MSL. Numerous trees beginning 819' from DER, 528' left of centerline, up to 72' AGL/281' MSL.

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## DIVERSE VECTOR AREA (RADAR VECTORS)

### PHILLIPS AAF (KAPG)

ABERDEEN PROVING GROUND, MD

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

07270

TAKEOFF OBSTACLES: **Rwy 4**, vehicle on road 1059' from DER, on centerline, 10' AGL/86' MSL. Tree 1126' from DER, 118' left of centerline, 29' AGL/88' MSL.

**Rwy 22**, vehicle on road 234' from DER, 27' right of centerline, 10' AGL/49' MSL. Multiple trees beginning 398' from DER, 311' right of centerline, up to 50' AGL/89' MSL. Tree 1094'

from DER, 49' left of centerline, 43' AGL/62' MSL.

### QUANTICO MCAF (TURNER FIELD) (KNYG)

QUANTICO, VA

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

16259

DEPARTURE PROCEDURE: **Rwy 2**, diverse departures authorized only from 090° CW to 203° with minimum civil climb of 260'/NM to 600, minimum military climb of 250'/NM to 700.

TAKE-OFF OBSTACLES: **Rwy 2**, building 3549' from DER, 1735' right of centerline, 50' AGL/80' MSL.

Tower 3081' from DER, 1139' left of centerline, 69' AGL/121' MSL. Tower 3119' from DER, 1346' left of centerline, 69' AGL/126' MSL. Pylon 2457' from DER, 799' left of centerline, 62' AGL/100' MSL. Terrain 5117' from DER, 1871' left of centerline, 151' MSL.

Terrain 5177' from DER, 1646' left of centerline, 148' MSL. Terrain 5470' from DER, 1723' left of centerline, 157' MSL. Terrain 5434' from DER, 1956' left of centerline, 157' MSL. Security camera pole 115' from DER, 192' left of centerline, 23' MSL. Tower 2641' from DER, 1221' left of centerline, 69' AGL/103' MSL.

**Rwy 20**, pole 9' from DER, 457' right of centerline, 30' MSL. Terrain 331' from DER, 582' right of centerline, 40' MSL. Terrain 0' from DER, 500' right of centerline, 40' MSL. Jetty 393' from DER, 273' right of centerline, 27' MSL.

### QUINTON, VA

NEW KENT COUNTY (W96)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 13262(FAA)

NOTE: **Rwy 11**, trees beginning abeam DER, 189' right of centerline, up to 100' AGL/199' MSL. Trees beginning abeam DER, 113' left of centerline, up to 100' AGL/209' MSL. Trees beginning 257' from DER, left and right of centerline, up to 100' AGL/199' MSL.

**Rwy 29**, trees beginning abeam DER, 183' right of centerline, up to 100' AGL/189' MSL. Trees beginning abeam DER, 209' left of centerline, up to 100' AGL/219' MSL. Fence 246' from DER, 8' AGL/127' MSL. Trees beginning 247' from DER, 153' right of centerline up to 100' AGL/199' MSL. Vehicles on roadway 269' from DER, left and right of centerline, 15' AGL/134' MSL. Trees beginning 396' from DER, 5' right of centerline, up to 100' AGL/239' MSL.

### RICHLANDS, VA

TAZEWELL COUNTY (JFZ)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, std. w/min. climb of 630' per NM to 3200 or 300-1½ w/ min. climb of 235' per NM to 5000 or 2000-2½ for climb in visual conditions. **Rwy 25**, std. w/min. climb of 713' per NM to 2900 or 300-1 w/ min. climb of 220' per NM to 5000 or 2000-2 ½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 7**, climb heading 072° to 5000 before proceeding on course, or for climb in visual conditions: cross Tazewell County airport at or above 4500 before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 25**, climb heading 252° to 5000 before proceeding on course or for climb in visual conditions: cross Tazewell County airport at or above 4500 before proceeding on course. When executing VCOA, notify ATC prior to departure. NOTE: **Rwy 7**, rising terrain beginning at DER, left and right of centerline, up to 2773' MSL. Vehicles on road beginning at DER, 425' right of centerline, up to 15' AGL/2682' MSL. Trees beginning at DER, left and right of centerline, up to 100' AGL/2939' MSL. **Rwy 25**, trees beginning 116' from DER, left and right of centerline, up to 100' AGL/2828' MSL. DME facility 176' from DER, 256' left of centerline, 28' AGL/2668' MSL. Fence beginning 566' from DER, 363' left of centerline, up to 10' AGL/2734' MSL. Rising terrain beginning 620' from DER, 361' left of centerline, up to 2669' MSL.

### RICHMOND, VA

RICHMOND EXECUTIVE-CHESTERFIELD  
COUNTY (FCI)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 4 13122 (FAA)

DEPARTURE PROCEDURE: **Rwy 33**, climb heading 316° to 2000 before turning right.

NOTE: **Rwy 15**, vehicles on roadway and trees beginning abeam DER, 260' right of centerline, up to 59' AGL/260' MSL. Trees beginning 99' from DER, 266' left of centerline, up to 57' AGL/258' MSL. **Rwy 33**, rising terrain, trees and pole beginning 62' from DER, 29' right of centerline, up to 37' AGL/278' MSL. Trees beginning 1844' from DER, 660' left of centerline, up to 95' AGL/306' 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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## RICHMOND, VA (CON'T)

RICHMOND INTL (RIC)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 15008 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, 300-1¼ or std. w/ min. climb of 230' per NM to 400, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1600' prior to DER.

NOTE: **Rwy 2**, bushes 104' from DER, 223' left of centerline, up to 4' AGL/169' MSL. Trees beginning 2363' from DER, 235' left of centerline, up to 82' AGL/251' MSL. Trees beginning 2918' from DER, 367' right of centerline, up to 91' AGL/260' MSL. Tower 5423' from DER, 1709' left of centerline, 157' AGL/321' MSL. **Rwy 7**, trees beginning 1892' from DER, 283' left of centerline, up to 67' AGL/226' MSL. Trees 2346' from DER, 190' right of centerline, up to 69' AGL/218' MSL. **Rwy 20**, building 817' from DER, 665' right of centerline, 53' AGL/212' MSL. Trees 2307' from DER, 1065' left of centerline, up to 76' AGL/235' MSL. Pole and trees beginning 2645' from DER, 424' right of centerline, up to 86' AGL/255' MSL. **Rwy 25**, railroad and tower beginning 779' from DER, 1' left of centerline, up to 26' AGL/187' MSL. Trees beginning 2414' from DER, 285' right of centerline, up to 86' AGL/255' MSL. Pole and trees beginning 3056' from DER, 357' left of centerline, up to 90' AGL/252' MSL. **Rwy 34**, pole 1262' from DER, 732' left of centerline, 41' AGL/200' MSL. Trees beginning 2202' from DER, 1052' right of centerline, up to 63' AGL/232' MSL. Trees beginning 2689' from DER, 998' left of centerline, up to 78' AGL/237' MSL.

## RICHMOND/ASHLAND, VA

HANOVER COUNTY MUNI (OFF)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 09239 (FAA)

NOTE: **Rwy 16**, trees beginning 48' from DER, 479' left of centerline, up to 101' AGL/291' MSL. Poles beginning 1077' from DER, 36' left of centerline, up to 36' AGL/236' MSL. Pole 1120' from DER 166' right of centerline 30' AGL/230' MSL. Trees beginning 1307' from DER, 26' left of centerline, up to 108' AGL/298' MSL. Trees beginning 1431' from DER, 319' right of centerline, up to 104' AGL/294' MSL. **Rwy 34**, road and trees beginning 149' from DER, 345' right of centerline, up to 47' AGL/247' MSL. Road and trees beginning 410' from DER, 386' left of centerline, up to 103' AGL/293' MSL. Poles beginning 660' from DER, on centerline, up to 39' AGL/239' MSL. Trees beginning 1402' from DER, 445' right of centerline, up to 100' AGL/290' MSL. Trees beginning 2714' from DER, 487' right of centerline, up to 104' AGL/304' MSL.

## RIDGELY, MD

RIDGELY AIRPARK (RJD)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

NOTE: **Rwy 12**, multiple trees beginning 592' from DER, 6' left of centerline, up to 100' AGL/160' MSL. Multiple trees beginning 239' from DER, 338' right of centerline, up to 100' AGL/160' MSL.

## ROANOKE, VA

ROANOKE-BLACKSBURG RGNL/

WOODRUM FIELD (ROA)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 11 15344 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, std. w/ min. climb of 585' per NM to 3000, or 2600-3 for climb in visual conditions. **Rwy 16**, std. w/ min. climb of 340' per NM to 3000, or 2600-3 for climb in visual conditions. **Rwy 24**, std. w/ min. climb of 242' per NM to 2800, or 2600-3 for climb in visual conditions. **Rwy 34**, NA- Obstacles.

DEPARTURE PROCEDURE: **Rwy 6**, climb on heading 058° to 3200 before proceeding on course. **Rwy 16**, climb on heading 156° to 3000 before proceeding on course. **Rwy 24**, climb on heading 238° and on I-SZK LDA localizer west course to 4200 to DIXXY INT/I-SZK 15.25 DME before proceeding on course.

VCOA: Obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Roanoke-Blacksburg Rgnl/Woodrum Field at or above 3600 before proceeding on course.

NOTE: **Rwy 6**, trees and bushes beginning 88' from DER, 340' right of centerline, up to 59' AGL/1159' MSL. Trees 238' from DER, 540' right of centerline, up to 71' AGL/1171' MSL. Trees beginning 1536' from DER, 298' right of centerline, up to 100' AGL/1219' MSL. Trees beginning 2.7 NM from DER, 2645' left of centerline, up to 84' AGL/1864' MSL. Trees beginning 2.8 NM from DER, 2912' left of centerline, up to 51' AGL/2271' MSL. Towers beginning 2.9 NM from DER, 3455' left of centerline, up to 216' AGL/2407' MSL. **Rwy 16**, sign 40' from DER, 252' left of centerline, 18' AGL/1144' MSL. Trees on hilltop 1.1 NM from DER, 2211' left of centerline, up to 56' AGL/1336' MSL. **Rwy 24**, sign 42' from DER, 249' left of centerline, 13' AGL/1154' MSL. Tree 2872' from DER, 1246' left of centerline, 92' AGL/1232' MSL.

## SALISBURY, MD

SALISBURY-OCEAN CITY WICOMICO

RGNL (SBY)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 10322 (FAA)

NOTE: **Rwy 5**, terrain and trees beginning 21' from DER, right and left of centerline, up to 100' AGL/148' MSL. Poles beginning 1213' from DER, 664' right of centerline, up to 36' AGL/85' MSL. Antenna on building 1388' from DER, 49' left of centerline, 36' AGL/86' MSL. **Rwy 14**, trees beginning 1539' from DER, right and left of centerline, up to 100' AGL/153' MSL. **Rwy 23**, trees beginning 22' from DER, right and left of centerline, up to 100' AGL/163' MSL. Vehicles on road beginning 220' from DER, right and left of centerline, up to 17' AGL/60' MSL. Antenna on building 1141' from DER, 304' right of centerline, 47' AGL/83' MSL. **Rwy 32**, trees beginning 14' from DER, right and left of centerline, up to 100' AGL/134' MSL. Hangars beginning 121' from DER, 510' left of centerline, up to 23' AGL/72' MSL. Trailer 396' from DER, 275' left of centerline, 10' AGL/59' 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

## SALUDA, VA

### HUMMEL FIELD (W75)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 01305 (FAA)

DEPARTURE PROCEDURE: **Rwy 1, 19**, climb runway heading to 1000 before turning on course.NOTE: **Rwy 1**, 23' AGL tree left of DER, 65' AGL tree 663' from DER, 129' left of centerline. **Rwy 19**, 26' AGL tree 237' from DER, 116' right of centerline.

## SOUTH BOSTON, VA

### WILLIAM M. TUCK (W78)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 3A 12012 (FAA)

TAKEOFF MINIMUMS: **Rwy 1**, 300-1. **Rwys 6, 24**, NA.NOTE: **Rwy 1**, tower 334' from DER, 283' left of centerline, 72' AGL/502' MSL.

## SOUTH HILL, VA

### MECKLENBURG-BRUNSWICK RGNL (AVC)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 10210 (FAA)

NOTE: **Rwy 1**, train on tracks 118' from DER, 514' left of centerline, 23' AGL/452' MSL. Trees beginning 181' from DER, 408' left of centerline, up to 80' AGL/500' MSL. Trees beginning 1858' from DER, 600' right of centerline, up to 71' AGL/500' MSL. **Rwy 19**, trees beginning 191' from DER, 13' left of centerline, up to 77' AGL/457' MSL. Trees beginning 1176' from DER, 57' right of centerline, up to 76' AGL/500' MSL.

## STAFFORD, VA

### STAFFORD RGNL (RMN)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 13234 (FAA)

TAKEOFF MINIMUMS: **Rwy 33**, 300-2 or std. w/min. climb of 304' per NM to 700.DEPARTURE PROCEDURE: **Rwy 15**, climbing left turn to 2000 on BRV R-310 direct BRV VORTAC before proceeding on course. **Rwy 33**, climbing left turn to 2000 on BRV R-306 direct BRV VORTAC before proceeding on course.NOTE: **Rwy 15**, approach light, 8' from DER, 9' right of centerline, 2' AGL/174' MSL. Multiple trees beginning 183' from DER, 598' left of centerline, up to 100' AGL/323' MSL. Multiple trees beginning 2197' from DER, 912' right of centerline, up to 100' AGL/274' MSL. **Rwy 33**, REIL, 40' from DER, 123' right of centerline, 2' AGL/214' MSL. REIL, 40' from DER, 123' left of centerline, 2' AGL/214' MSL. Tower, 9344' from DER, 420' left of centerline, 168' AGL/529' MSL. Tower, 9312' from DER, 357' left of centerline, 151' AGL/467' MSL. Multiple trees, beginning 978' from DER, 10' left of centerline, up to 100' AGL/245' MSL. Multiple trees, beginning 234' from DER, 100' right of centerline, up to 100' AGL/384' MSL.

## STAUNTON-WAYNESBORO- HARRISONBURG, VA

### SHENANDOAH VALLEY RGNL (SHD)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 6 09239 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, std. w/min. climb of 273' per NM to 3800, or 2200-2½ for climb in visual conditions. **Rwy 23**, standard, or 2200-2½ for climb in visual conditions.DEPARTURE PROCEDURE: **Rwy 5**, climb heading 047°to 3400 before turning right, or for climb in visual conditions cross Shenandoah Valley Rgnl airport at or above 3300 before proceeding on course. **Rwy 23**, climb heading 227° to 4400 before proceeding on course, or for climb in visual conditions cross Shenandoah Valley Rgnl airport at or above 3300 before proceeding on course.NOTE: **Rwy 5**, trees 1720' from DER, 635' right of centerline, up to 100' AGL/1279' MSL. **Rwy 23**, tree 679' from DER, 616' left of centerline, 35' AGL/1194' MSL.

## STEVENSVILLE, MD

### BAY BRIDGE (W29)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 16315 (FAA)

TAKEOFF MINIMUMS: **Rwy 29**, 400-2¼ or std. w/min. climb of 220' per NM to 500.NOTE: **Rwy 11**, tree 109' from DER, 513' right of centerline, 71' MSL. Tree, parking lot, vehicles on road, building, and sign beginning 150' from DER, 23' right of centerline, up to 79' MSL. Tree 193' from DER, 488' left of centerline, 25' MSL. Tree 221' from DER, 489' left of centerline, 27' MSL. Pole and tree beginning 318' from DER, 157' left of centerline, up to 37' MSL. Tree and vehicles on road beginning 350' from DER, 54' left of centerline, up to 44' MSL. Pole, vehicles on road, and tree beginning 611' from DER, 120' left of centerline, up to 51' MSL. Pole and tree beginning 751' from DER, 334' left of centerline, up to 54' MSL. Pole and tree beginning 876' from DER, 445' left of centerline, up to 83' MSL. Pole, tree, and building beginning 1195' from DER, 22' left of centerline, up to 87' MSL. Tree 2141' from DER, 53' left of centerline, 90' MSL. **Rwy 29**, windsock 14' from DER, 161' left of centerline, 18' MSL. Trees beginning 17' from DER, 329' left of centerline, up to 46' MSL. Tree 93' from DER, 502' left of centerline, 52' MSL. Bridge 2.2 NM from DER, 3052' right of centerline, 377' AGL/377' 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)**

**SUFFOLK, VA**

**SUFFOLK EXECUTIVE (SFQ)**  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 5 13122 (FAA)

NOTE: **Rwy 4**, trees beginning 4' from DER, 462' right and 428' left of centerline, up to 100' AGL/173' MSL. Trees beginning 1052' from DER, 783' right and 554' left of centerline, up to 100' AGL/173' MSL. Transmission poles and T-L towers beginning 1291' from DER, 600' right of centerline, up to 65' AGL/130' MSL. **Rwy 7**, trees beginning 10' from DER, 541' right and 400' left of centerline, up to 100' AGL/161' MSL. Trees beginning 1004' from DER 689' right of and 1280' left of centerline, up to 100' AGL/160' MSL. Transmission poles and T-L towers beginning 1152' from DER, right and left of centerline, up to 65' AGL/130' MSL. **Rwy 22**, trees beginning 44' from DER, 342' right and 494' left of centerline, up to 100' AGL/174' MSL. Trees beginning 1005' from DER, 1078' right and 481' left of centerline, up to 100' AGL/174' MSL. Vehicles on road beginning 483' from DER, right and left of centerline, up to 15' AGL/80' MSL. **Rwy 25**, vehicles on road beginning 199' from DER, right and left of centerline, up to 17' AGL/84' MSL. Trees beginning 231' from DER, right and left of centerline, up to 100' AGL/186' MSL.

**TANGIER, VA**

**TANGIER ISLAND (TGI)**  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 09015 (FAA)

NOTE: **Rwy 2**, vehicle on road 343' from DER, on centerline, 15' AGL/19' MSL. Boat masts 638' from DER, 632' right to 755' left of centerline, up to 63' MSL. **Rwy 20**, buildings beginning 7' from DER, 206' left of centerline, 45' AGL/50' MSL. Rock wall at DER, 57' right of centerline, 4' AGL/8' MSL.

**TAPPAHANNOCK, VA**

**TAPPAHANNOCK-ESSEX COUNTY (XSA)**  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 07298 (FAA)

TAKEOFF MINIMUMS: **Rwy 10**, 300-1¼ or std. w/ min. climb of 303' per NM to 500. **Rwy 28**, 300-1 or std. w/ min. climb of 366' per NM to 500.  
NOTE: **Rwy 10**, terrain 6' from DER, 20' left of centerline, up to 135' MSL. Terrain 29' from DER, 281' left of centerline, up to 139' MSL. **Rwy 28**, terrain beginning 12' from DER, 5' right of centerline, up to 151' MSL.

**WALLOPS ISLAND, VA**

**WALLOPS FLIGHT FACILITY (WAL)**  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 09127 (FAA)

NOTE: **Rwy 4**, trees beginning 1254' from DER, 741' left of centerline, up to 100' AGL/109' MSL. Trees beginning 1814' from DER, 79' right of centerline, up to 100' AGL/134' MSL. **Rwy 10**, trees beginning 1252' from DER, 818' left of centerline, up to 100' AGL/124' MSL. **Rwy 17**, trees beginning 169' from DER, 218' left of centerline, up to 100' AGL/119' MSL. **Rwy 22**, trees beginning 793' from DER, 315' left of centerline, up to 100' AGL/129' MSL. **Rwy 28**, trees beginning 945' from DER, 495' right of centerline, up to 100' AGL/139' MSL. **Rwy 35**, trees beginning 3' from DER, 394' left of centerline, up to 100' AGL/124' MSL. Trees beginning 21' from DER, 219' right of centerline, up to 100' AGL/124' MSL.

**WAKEFIELD, VA**

**WAKEFIELD MUNI (AKQ)**  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 78278 (FAA)

DEPARTURE PROCEDURE: Climb straight ahead to 500 before proceeding on course.

**WARRENTON, VA**

**WARRENTON-FAUQUIER (HWY)**  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 09099 (FAA)

NOTE: **Rwy 15**, trees 436' from DER, 518' right of centerline, 100' AGL/439' MSL. Vehicle on road 647' from DER, 649' right of centerline, 15' AGL/354' MSL. Trees 1034' from DER, 763' left of centerline, 100' AGL/449' MSL. Trees 1924' from DER, 781' right of centerline, 100' AGL/459' MSL. Trees beginning 2239' from DER, 41' left of centerline, up to 100' AGL/459' MSL. **Rwy 33**, trees beginning 1272' from DER, 59' right of centerline, up to 41' AGL/370' MSL. Trees beginning 2610' from DER, 116' left of centerline, up to 74' AGL/413' MSL.

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**WASHINGTON, DC**

MANASSAS RGNL/HARRY P DAVIS  
FIELD (HEF)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4A 15176 (FAA)

NOTE: **Rwy 16L**, trees beginning 1247' from DER, 178' left of centerline, up to 99' AGL/268' MSL. Trees beginning 1810' from DER, 88' right of centerline, up to 73' AGL/272' MSL. Trees beginning 2618' from DER, 4' left of centerline, up to 84' AGL/293' MSL. Trees beginning 3414' from DER, 14' right of centerline, up to 75' AGL/284' MSL. Trees beginning 3703' from DER, 145' left of centerline, up to 100' AGL/299' MSL. Trees beginning 4193' from DER, 1343' left of centerline, up to 82' AGL/311' MSL. Trees beginning 4677' from DER, 313' right of centerline, up to 89' AGL/303' MSL. **Rwy 16R**, trees beginning 119' from DER, 473' right of centerline, up to 32' AGL/221' MSL. Trees beginning 749' from DER, on centerline, up to 29' AGL/197' MSL. Trees beginning 745' from DER, 85' right of centerline, up to 33' AGL/212' MSL. Trees beginning 588' from DER, 536' right of centerline, up to 37' AGL/236' MSL. **Rwy 34L**, terrain and sign beginning 1' from DER, 392' right of centerline, up to 5' AGL/192' MSL. Trees and poles beginning 877' from DER, 616' left of centerline, up to 54' AGL/247' MSL. Building and trees beginning 1573' from DER, 249' left of centerline, up to 39' AGL/252' MSL. Trees beginning 1752' from DER, 187' right of centerline, up to 39' AGL/238' MSL. Tower and trees beginning 2563' from DER, 182' left of centerline, up to 64' AGL/283' MSL. Trees beginning 2563' from DER, 250' right of centerline, up to 56' AGL/279' MSL. **Rwy 34R**, terrain, airfield light, and sign beginning 25' from DER, 92' right of centerline, up to 7' AGL/196' MSL. Airfield light and vegetation beginning 26' from DER, 78' left of centerline, up to 9' AGL/197' MSL. Vehicles on road and poles beginning 518' from DER, 595' right of centerline, up to 24' AGL/215' MSL. Trees beginning 1759' from DER, 448' left of centerline, up to 39' AGL/238' MSL. Trees 1859' from DER, 828' right of centerline, up to 39' AGL/248' MSL. Trees beginning 2548' from DER, 828' left of centerline, up to 54' AGL/283' MSL. Trees beginning 2653' from DER, 1082' right of centerline, up to 57' AGL/280' MSL.

**WASHINGTON, DC (CON'T)**

RONALD REAGAN WASHINGTON  
NATIONAL (DCA)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 8 15232 (FAA)

TAKEOFF MINIMUMS: **Rwy 1**, 600-2 w/min. climb of 275' per NM to 1500 or std. w/min. climb of 460' per NM to 800. **Rwy 4**, 300-2 or std. w/min. climb of 210' per NM to 400, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur not later than 1400' prior to DER. **Rwy 15**, 300-1½ or std. w/min. climb of 215' per NM to 400, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1500' prior to DER. **Rwy 19**, 300-1½ or std. w/min. climb of 205' per NM to 300, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1200' prior to DER.

**Rwy 22**, 500-2½ or std. w/min. climb of 305' per NM to 600. **Rwy 33**, std. w/min. climb of 285' per NM to 700. DEPARTURE PROCEDURE: **Rwy 1**, Climbing left turn as soon as practical to intercept DCA VOR/DME R-328. Maintain 5000 or as assigned. **Rwy 4**, Climbing right turn as soon as practical to intercept DCA VOR/DME R-070. Maintain 2000 or as assigned. **Rwy 15**, Climb heading 152° to 5000 or as assigned. **Rwy 19**, Climb heading 185° to 500 before turning right. Maintain 5000 or as assigned. **Rwy 22**, Climb heading 215° to 3000 or as assigned. **Rwy 33**, Climb on DCA VOR/DME R-328. Maintain 5000 or as assigned.

NOTE: **Rwy 1**, buildings beginning 118' from DER, 332' right of centerline, up to 10' AGL/22' MSL. Fence 261' from DER, 514' left of centerline, 9' AGL/19' MSL. Light pole and trees beginning 995' from DER, 210' left of centerline, up to 47' AGL/49' MSL. Trees beginning 1008' from DER, 499' left of centerline, up to 71' AGL/72' MSL. Trees 1365' from DER, 333' right of centerline, up to 50' AGL/51' MSL. Trees beginning 1744' from DER, 152' left of centerline, up to 70' AGL/71' MSL. Monument 1.7 NM from DER, 1787' right of centerline, 556' AGL/595' MSL. **Rwy 4**, terrain and microwave sensors beginning 3' from DER, 260' right of centerline, up to 7' AGL/18' MSL. Sign and tower beginning 857' from DER, 677' left of centerline, up to 72' AGL/84' MSL. Spire 1.6 NM from DER, 208' right of centerline, 236' AGL/265' MSL. **Rwy 15**, electrical systems beginning 178' from DER, 288' right of centerline, up to 10' AGL/19' MSL. Trees 1.4 NM from DER, 13' right of centerline, up to 94' AGL/245' MSL. Trees 1.5 NM from DER, 520' right of centerline, up to 80' AGL/235' MSL. **Rwy 19**, trees 3434' from DER, 1135' right of centerline, up to 96' AGL/105' MSL. Building 1.1 NM from DER, 1891' right of centerline, 171' AGL/189' MSL. **Rwy 22**, light pole 216' from DER, 478' left of centerline, 15' AGL/23' MSL. Trees beginning 550' from DER, 498' right of centerline, up to 56' AGL/57' MSL. Trees, buildings, and poles beginning 1324' from DER, 205' right of centerline, up to 82' AGL/110' MSL. Trees 3098' from DER, 18' right of centerline, up to 82' AGL/91' MSL. Trees 2898' from DER, 605' left of centerline, up to 98' AGL/102' MSL. Building and pole beginning 4270' from DER, 651' right of centerline, up to 110' AGL/148' MSL. Building 1.7 NM from DER, 2473' right of centerline, 200' AGL/420' MSL. Building 2.3 NM from DER, 1008' right of centerline, 324' AGL/443' MSL.

**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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## WASHINGTON, DC (CON'T) RONALD REAGAN WASHINGTON NATIONAL (CON'T)

**Rwy 33**, sign 18' from DER, 191' left of centerline, 3' AGL/15' MSL. Fence and pole beginning 27' from DER, 332' right of centerline, up to 18' AGL/28' MSL. Vehicles on road and trees beginning 365' from DER, 344' left of centerline, up to 51' AGL/70' MSL. Trees beginning 533' from DER, 101' left of centerline, up to 37' AGL/39' MSL. Poles and trees beginning 641' from DER, 165' right of centerline, up to 56' AGL/60' MSL. Cranes and trees beginning 882' from DER, 289' left of centerline, up to 82' AGL/95' MSL. Trees beginning 1603' from DER, 78 right of centerline, up to 79' AGL/83' MSL. Poles and buildings beginning 1777' from DER, 868' left of centerline, up to 124' AGL/145' MSL. Poles beginning 2917' from DER, 511' right of centerline, up to 78' AGL' MSL. Buildings and antennas beginning 4379' from DER, 246' left of centerline, up to 115' AGL/151' MSL.  
NOTE: Prohibited area P-56 1.5 NM north of airport.

## WASHINGTON DULLES INTL (IAD) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2 12208 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 121° to 700 before turning left.  
NOTE: **Rwy 1C**, trees 2815' from DER, 1031' left of centerline, up to 80' AGL/345' MSL. Sign 64' from DER, 303' right of centerline, 13' AGL/272' MSL. **Rwy 1L**, tower 1917' from DER, 680' left of centerline, 51' AGL/330' MSL. **Rwy 19C**, sign 100' from DER, 472' left of centerline, 4' AGL/289' MSL. Vehicles on road 24' from DER, 274' right of centerline, up to 15' AGL/293' MSL. **Rwy 30**, trees 2264' from DER, 1033' right of centerline, up to 72' AGL/383' MSL.

## WAYNESBORO, VA EAGLE'S NEST (W13) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 11181 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, std. w/min. climb of 400' per NM to 3300, or 2100-3 for climb in visual conditions. **Rwy 24**, 300-2 w/min. climb of 400' per NM to 3800 or 2100-3 for climb in visual conditions.  
DEPARTURE PROCEDURE: **Rwy 6**, climb heading 061° to 3300 before proceeding on course, or for climb in visual conditions: cross Eagle's Nest Airport at or above 3400 MSL before proceeding on course. **Rwy 24**, climb heading 241° to 3800 before proceeding on course. Or for climb in visual conditions: cross Eagle's Nest Airport at or above 3400 MSL before proceeding on course.  
NOTE: **Rwy 6**, hangar at DER, 220' left of centerline, 30' AGL/1469' MSL. Trees beginning 35' from DER, 158' right of centerline, up to 100' AGL/1539' MSL. Vehicles on road beginning 131' from DER, 201' left of centerline, up to 15' AGL/1454' MSL. Trees beginning 263' from DER, 189' left of centerline, up to 100' AGL/1539' MSL. Towers beginning 1.41NM from DER, 2539' right of centerline, 300' AGL/1670' MSL. **Rwy 24**, Trees beginning at DER left and right of centerline up to 100' AGL/1579' MSL. Trees beginning 1259' from DER, 143' right of centerline, up to 100' AGL/1730' MSL.

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

## WEST POINT, VA MIDDLE PENINSULA RGNL (FYJ) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 08157 (FAA)

NOTE: **Rwy 10**, multiple trees beginning 86' from DER, left and right of centerline, up to 100' AGL/129' MSL. **Rwy 28**, multiple trees beginning 33' from DER, left and right of centerline, up to 100' AGL/119' MSL. Ship mast 3427' from DER, left and right of centerline, 135' AGL/135' MSL.

## WESTMINSTER, MD CARROLL COUNTY RGNL/JACK B POAGE FIELD (DMW) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 6 15064 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, 400-2¼ or std. w/min. climb of 255' per NM to 1400.  
NOTE: **Rwy 16**, trees 1995' from DER, 657' left of centerline, up to 59' AGL/838' MSL. Tower 2.3 NM from DER, 2042' left of centerline, 195' AGL/1144' MSL. **Rwy 34**, trees beginning 105' from DER, 423' left of centerline, up to 87' AGL/886' MSL. Trees beginning 967' from DER, 395' right of centerline, up to 85' AGL/864' MSL. Terrain and trees beginning 1851' from DER, 123' left of centerline, up to 63' AGL/902' MSL. Trees beginning 2603' from DER, 470' right of centerline, up to 69' AGL/868' MSL.

## CLEARVIEW AIRPARK (2W2) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG 09239 (FAA)

TAKEOFF MINIMUMS: **Rwy 32**, 300-2¼ or std. w/min. climb of 290' per NM to 1200.  
NOTE: **Rwy 14**, vehicles and aircraft on road/taxiway 14' from DER, 47' right to left of centerline, 15' AGL/834' MSL. Trees beginning 35' from DER, 200' left of centerline, up to 100' AGL/939' MSL. Trees beginning 21' from DER, 90' right of centerline, up to 100' AGL/919' MSL. **Rwy 32**, vehicle on road 191' from DER, 516' left of centerline, 15' AGL/774' MSL. Trees beginning 8' from DER, 24' left of centerline, up to 100' AGL/959' MSL. Trees beginning 60' from DER, 50' right of centerline, up to 100' AGL/859' MSL.

## WILLIAMSBURG, VA WILLIAMSBURG-JAMESTOWN (JGG) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2 11349 (FAA)

DEPARTURE PROCEDURE: **Rwy 31**, climb heading 311° to 700 before turning right.  
NOTE: **Rwy 13**, boat on creek 468' from DER, 608' left of centerline, up to 35' AGL/35' MSL. Homes beginning 1399' from DER, 278' left of centerline, up to 25' AGL/94' MSL. Trees beginning 712' from DER, left and right of centerline, up to 100' AGL/169' MSL. **Rwy 31**, aircraft on tarmac 2' from DER, 209' right of centerline, up to 20' AGL/79' MSL. Hanger 418' from DER, 268' right of centerline, up to 25' AGL/84' MSL. Multiple buildings and homes beginning 320' from DER, left and right of centerline, up to 30' AGL/109' MSL. Multiple trees beginning 1' from DER, left and right of centerline, up to 100' AGL/199' MSL.

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
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**WILMINGTON, DE****NEW CASTLE (ILG)**

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

**TAKEOFF MINIMUMS: Rwy 19**, 300-1 or std. w/ min. climb of 266' per NM to 300.

**NOTE: Rwy 1**, multiple trees beginning 751' from DER, 32' left of centerline, up to 59' AGL/120' MSL, tree 1219' from DER, 482' right of centerline, 57' AGL/118' MSL, bush 118' from DER, 385' left of centerline, 4' AGL/65' MSL. **Rwy 9**, multiple trees beginning 1229' from DER, 30' right of centerline up to 62' AGL/133' MSL, tree 975' from DER, 66' left of centerline, 53' AGL/124' MSL, light pole 948' from DER, 596' right of centerline, 44' AGL/115' MSL, tree 1740' from DER, 458' left of centerline, 83' AGL/134' MSL, light pole 945' from DER, 316' right of centerline, 38' AGL/109' MSL, rod on building 916' from DER, 457' left of centerline, 29' AGL/100' MSL. **Rwy 14**, obstacle light 553' from DER, 440' left of centerline, 29' AGL/103' MSL, rod on obstacle light 606' from DER, 615' left of centerline, 19' AGL/93' MSL. **Rwy 19**, antenna on obstruction light tower 4469' from DER, 1684' right of centerline, 153' AGL/228' MSL, tree 1575' from DER, 850' right of centerline, 45' AGL/120' MSL, obstruction light on sign 971' from DER, 448' left of centerline, 28' AGL/103' MSL. **Rwy 27**, tree 697' from DER, 533' left of centerline, 68' AGL/147' MSL. Tree 1110' from DER, 584' right of centerline, 38' AGL/117' MSL, pole 793' from DER, 615' right of centerline, 28' AGL/107' MSL, bush 408' from DER, 415' left of centerline, 12' AGL/91' MSL. **Rwy 32**, tree 711' from DER, 207' right of centerline, 29' AGL/104' MSL, tree 1162' from DER, 83' right of centerline, 32' AGL/107' MSL.

**WINCHESTER, VA****WINCHESTER RGNL (OKV)**

**TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 16119 (FAA)**

**TAKEOFF MINIMUMS: Rwy 32**, std. w/min. climb of 240' per NM to 1900 or 1300-2½ for climb in visual conditions. **DEPARTURE PROCEDURE: Rwy 32**, climb heading 339° to 2500 before turning left.

**VCOA: Rwy 32**, obtain ATC approval for climb in visual conditions when requesting IFR clearance. Climb in visual conditions to cross Winchester Rgnl airport at or above 1900 before proceeding on course.

**NOTE: Rwy 14**, tree 496' from DER, 587' right of centerline, 720' MSL. Tree 591' from DER, 561' left of centerline, 729' MSL. Tree 594' from DER, 566' left of centerline, 730' MSL. Tree 1490' from DER, 652' right of centerline, 739' MSL. Tree 1491' from DER, 666' right of centerline, 743' MSL. Tree 1971' from DER, 778' right of centerline, 753' MSL. Tree 2048' from DER, 882' right of centerline, 761' MSL. Trees beginning 2059' from DER, 876' right of centerline, up to 765' MSL. **Rwy 32**, terrain beginning 2' from DER, 428' left of centerline, up to 729' MSL. Tree 86' from DER, 508' left of centerline, 762' MSL. Tree 94' from DER, 474' left of centerline, 763' MSL. Tree 102' from DER, 478' left of centerline, 764' MSL. Trees beginning 118' from DER, 209' left of centerline, up to 772' MSL. Tree 374' from DER, 596' right of centerline, 774' MSL. Trees beginning 452' from DER, 482' right of centerline, up to 776' MSL. Tree 1589' from DER, 243' left of centerline, 774' MSL. Trees beginning 1610' from DER, 248' left of centerline, up to 777' MSL. Trees beginning 1718' from DER, 269' left of centerline, up to 782' MSL. Tree 1754' from DER, 291' left of centerline, 786' MSL. Tree 1760' from DER, 754' left of centerline, 791' MSL. Trees beginning 1774' from DER, 27' left of centerline, up to 794' MSL. Trees beginning 1974' from DER, 9' right of centerline, up to 787' MSL. Trees beginning 2169' from DER, 625' right of centerline, up to 799' MSL. Trees beginning 2255' from DER, 742' right of centerline, up to 805' MSL.

**WISE, VA****LONESOME PINE (LNP)**

**TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 10210 (FAA)**

**DEPARTURE PROCEDURE: Rwy 6**, climb on heading 062° to 3600 before proceeding on course. **Rwy 24**, climb on heading 247° to 4900 before proceeding on course.

**NOTE: Rwy 6**, trees beginning 775' from DER, left and right of centerline, up to 100' AGL/2801' MSL. Terrain beginning 86' from DER, left and right of centerline, up to 2728' MSL. **Rwy 24**, trees beginning 159' from DER, left and right of centerline, up to 100' AGL/2794' MSL. Obstruction light on LOC 308' from DER 22' left of centerline, 8' AGL/2678' MSL. Obstruction light on LOC 304' from DER 22' right of centerline, 8' AGL/2678' MSL. Obstruction light on LOC/DME 306' from DER, 189' right of centerline, 15' AGL/2685' MSL. Terrain 159' from DER, 363' left of centerline, 2676' MSL.

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



INSTRUMENT APPROACH PROCEDURE CHARTS

**A** IFR ALTERNATE AIRPORT MINIMUMS

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

NAME ALTERNATE MINIMUMS

**ABINGDON, VA**

VIRGINIA HIGHLANDS (VJI) ..... **LOC Rwy 24<sup>2</sup>**  
**RNAV (GPS) Rwy 6<sup>1</sup>**  
**RNAV (GPS) Rwy 24<sup>1</sup>**  
**VOR/DME-B<sup>1</sup>**

NA when local weather not available.  
<sup>1</sup>Category C, 800-2½, Category D, 800-2½.  
<sup>2</sup>Categories A, B, 900-2, Category C, 900-2½, Category D, 1000-3.

**ANNAPOLIS, MD**

LEE (ANP).....**RNAV (GPS)-A**  
NA when local weather not available.

**BALTIMORE, MD**

BALTIMORE-WASHINGTON INTL THURGOOD MARSHALL (BWI).....**ILS or LOC Rwy 15R<sup>1</sup>**  
**ILS or LOC Rwy 28<sup>1</sup>**  
**ILS or LOC Rwy 33L<sup>1</sup>**  
**RNAV (GPS) Y Rwy 15R<sup>2</sup>**  
**RNAV (GPS) Y Rwy 28<sup>2</sup>**  
**RNAV (GPS) Y Rwy 33L<sup>2</sup>**

<sup>1</sup>ILS, LOC, Category D, 800-2½.  
<sup>2</sup>Category D, 800-2½.

MARTIN STATE (MTN)..... **LDA Rwy 33<sup>12</sup>**  
**LOC Rwy 15<sup>123</sup>**  
**RNAV (GPS) Rwy 15<sup>2</sup>**  
**RNAV (GPS) Rwy 33<sup>2</sup>**  
**VOR/DME or TACAN Z Rwy 15<sup>3</sup>**

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

**BLACKSBURG, VA**

VIRGINIA TECH/MONTGOMERY EXECUTIVE (BCB) ..... **RNAV (GPS) Rwy 12<sup>1</sup>**  
**RNAV (GPS) Rwy 30**

NA when local weather not available.  
<sup>1</sup>Category C, 900-2½.

NAME ALTERNATE MINIMUMS

**BROOKNEAL, VA**

BROOKNEAL/CAMPBELL COUNTY (0V4) .....**RNAV (GPS) Rwy 6**  
**RNAV (GPS) Rwy 24**  
NA when local weather not available.

**BUMPASS, VA**

LAKE ANNA (7W4) .....**RNAV (GPS) Rwy 8**  
**RNAV (GPS) Rwy 26**  
NA when local weather not available.

**CAMBRIDGE, MD**

CAMBRIDGE-DORCHESTER RGNL (CGE).....**NDB Rwy 34**  
**RNAV (GPS) Rwy 34**  
NA when local weather not available.  
Category D, 800-2½.

**CHARLOTTESVILLE, VA**

CHARLOTTESVILLE-ALBEMARLE (CHO) .....**ILS or LOC Rwy 3<sup>2</sup>**  
**RNAV (GPS) Rwy 3<sup>3</sup>**  
**RNAV (GPS) Y Rwy 21<sup>4</sup>**  
**RNAV (GPS) Z Rwy 21<sup>1</sup>**

NA when local weather not available.  
<sup>1</sup>Categories, A, B, C, D, 1000-4.  
<sup>2</sup>ILS, Categories A, B, 700-2; Category C, 900-2½; Category D, 900-2½. LOC, Category C, 900-2½; Category D, 900-2½.  
<sup>3</sup>Category C, 900-2½; Category D, 900-2½.  
<sup>4</sup>Category D, 900-2½.

**CLARKSVILLE, VA**

LAKE COUNTRY REGIONAL (W63).....**RNAV (GPS)-A**  
**RNAV (GPS)-B**  
NA when local weather not available.

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NAME	ALTERNATE MINIMUMS	NAME	ALTERNATE MINIMUMS
<b>WILLIAMSBURG, VA</b>			
WILLIAMSBURG- JAMESTOWN (JGG).....	<b>RNAV (GPS)-C VOR-B</b>		

NA when local weather not available.  
Categories A, B, C, 1100-3.

## WILMINGTON, DE

NEW CASTLE (ILG).....	<b>ILS or LOC Rwy 1<sup>1</sup> RNAV (GPS) Rwy 1 RNAV (GPS) Rwy 9 RNAV (GPS) Rwy 19 RNAV (GPS) Rwy 27 VOR Rwy 9<sup>1</sup> VOR Rwy 27<sup>12</sup></b>
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NA when local weather not available.

<sup>1</sup>NA when control tower closed.

<sup>2</sup>Category D, 800-2¼.

## WINCHESTER, VA

WINCHESTER RGNL (OKV).....	<b>RNAV (GPS) Rwy 14<sup>1</sup> RNAV (GPS) Rwy 32 VOR/DME-A</b>
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NA when local weather not available.

<sup>1</sup>Category D, 800-2½.

## WISE, VA

LONESOME PINE (LNP).....	<b>LOC/DME Rwy 24<sup>12</sup> RNAV (GPS) Rwy 6<sup>12</sup> RNAV (GPS) Rwy 24<sup>3</sup></b>
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<sup>1</sup>NA when local weather not available.

<sup>2</sup>Category D, 800-2¼.

<sup>3</sup>Category C, 800-2¼; Category D, 900-2¼.

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# ALTERNATE MINS

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# RADAR MINS

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## RADAR INSTRUMENT APPROACH MINIMUMS

**DAVISON AAF (KDA), VA (Ft. Belvoir) (Amdt 11, 14205 USA)**

ELEV 73

**RADAR<sup>1</sup> - (E)** 118.85 119.95 248.5x 265.6  **NA**


	<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	32	3.0°/34/689	ABCD	<b>346/50</b>	280	(300-1)
	14	3.0°/59/1114	ABCD	<b>642-2</b>	590	(600-2)



When control tower clsd procedure NA.

<sup>1</sup>Opr 1100-0230Z++ Mon-Fri excld hol.

**NORFOLK NS (KNGU), (CHAMBERS FIELD), VA (Amdt 4, 15288 USN)**

ELEV 15

**RADAR - (E)** 119.2x 120.2x 279.525 322.525 335.8 353.55 

	<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 <sup>1</sup>	10 <sup>2</sup> 3 <sup>10</sup>	3.0°/54/1024	ABCDE	<b>113-¾</b>	100	(100-¾)
	28 <sup>4</sup> 11	3.0°/37/709	ABCDE	<b>301-¾</b>	289	(300-¾)
PAR W/O GS <sup>1</sup>	28 <sup>5</sup>		ABCDE	<b>380-1</b>	368	(400-1)
	10 <sup>9</sup>		ABCDE	<b>440-¾</b>	427	(500-¾)
ASR	28 <sup>6</sup>		ABCDE	<b>460-1</b>	448	(500-1)
	10 <sup>9</sup> 9		AB	<b>520-¾</b>	507	(600-¾)
			CDE	<b>520-1</b>	507	(600-1)
 CIR ASR <sup>7 8</sup>	10, 28		A	<b>520-1½</b>	505	(600-1½)
			B	<b>540-1½</b>	525	(600-1½)
			C	<b>540-1½</b>	525	(600-1½)
			DE	<b>580-2</b>	565	(600-2)
 CIR PAR W/O GS <sup>7 8</sup>	10, 28		A	<b>500-1½</b>	485	(500-1½)
			B	<b>540-1½</b>	525	(600-1½)
			C	<b>540-1½</b>	525	(600-1½)
			DE	<b>580-2</b>	565	(600-2)

<sup>1</sup>No-NOTAM MP Sun 1230-1630Z++.

<sup>2</sup>When ALS inop, increase vis CAT ABCDE to ½ mile.

<sup>3</sup>PAPI RRP and PAR RPI are not coincidental.

<sup>4</sup>When ALS inop, increase vis CAT ABCDE to 1 mile.

<sup>5</sup>When ALS inop, increase vis CAT ABCDE to 1¼ miles.

<sup>6</sup>When ALS inop, increase vis CAT AB to 1¼ miles, CAT CDE to 1¾ miles.

<sup>7</sup>Cir not auth south of Rwy 10-28.

<sup>8</sup>Norfolk NS Heliport lctd 1 NM NW, use caution in cir apch.

<sup>9</sup>VGSI and Final Descent Angle not coincident.

<sup>10</sup>CAUTION: VGSI runway reference point (RRP) not coincident with procedure RPI.

<sup>11</sup>CAUTION: Wheel Crossing Height Group 3: 17 ft, Group 4: 12 ft is less than 20 ft.

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## RADAR INSTRUMENT APPROACH MINIMUMS

# RADAR MINS

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## RADAR MINS

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## RADAR INSTRUMENT APPROACH MINIMUMS

OCEANA NAS (KNTU), (APOLLO SOUCEK FIELD) VA (Amdt 2, 15008 USN)

ELEV 22

RADAR - (E) 124.825 310.8 328.4 346.4 348.75 352.1 363.1



	<u>RWY</u>	<u>GS/TCH/RPI</u>	<u>CAT</u>	<u>DH/ MDA-VIS</u>	<u>HAT/ HATh/ HAA</u>	<u>CEIL-VIS</u>
PAR <sup>5</sup>	5R <sup>1</sup>	3.0°/34/652	ABCDE	118-¼	100	(100-¼)
	23L <sup>1</sup>	3.0°/39/741	ABCDE	121-¼	100	(100-¼)
	32L <sup>1</sup>	3.0°/40/746	ABCDE	121-¼	100	(100-¼)
	5L	3.0°/39/745	ABCDE	120-½	100	(100-½)
	23R	3.0°/40/781	ABCDE	120-½	100	(100-½)
PAR W/O GS <sup>5</sup>	32L <sup>2</sup>		ABCDE	360-¾	339	(400-¾)
	5R <sup>2</sup>		ABCDE	440-¾	422	(500-¾)
	5L		ABCDE	440-1¼	420	(500-1¼)
	23L <sup>2</sup>		ABCDE	380-¾	359	(400-¾)
SIDESTEP <sup>5 6</sup>	23R		ABCDE	440-1½	420	(500-1½)
	5L		ABCDE	440-1½	420	(500-1½)
	23L		ABCDE	460-1¼	439	(500-1¼)
	23R		ABCDE	460-1¼	440	(500-1¼)
ASR	5R <sup>3</sup>		AB	440-¾	422	(500-¾)
			CDE	440-¾	422	(500-¾)
	5L		AB	440-1	420	(500-1)
			CDE	440-1½	420	(500-1½)
	32L <sup>4</sup>		AB	440-¾	419	(500-¾)
			CDE	440-¾	419	(500-¾)
	23L <sup>3</sup>		AB	460-¾	439	(500-¾)
			CDE	460-¾	439	(500-¾)
	14R		AB	440-1	421	(500-1)
			CDE	440-1¼	421	(500-1¼)
	14L		AB	440-1	421	(500-1)
			CDE	440-1¼	421	(500-1¼)
	23R		AB	460-1	440	(500-1)
			CDE	460-1¼	440	(500-1¼)
32R		AB	440-1	420	(500-1)	
		CDE	440-1½	420	(500-1½)	
CIR	ALL RWY		AB	500-1¼	478	(500-1¼)
			C	640-1¾	618	(700-1¾)
			D	640-2	618	(700-2)
			E	900-3	878	(900-3)

<sup>1</sup>When ALS inop, increase vis CAT ABCDE to ½ mile.<sup>2</sup>When ALS inop, increase vis CAT ABCDE to 1¼ miles.<sup>3</sup>When ALS inop, increase vis CAT AB to 1 mile, CAT CDE to 1¼ miles.<sup>4</sup>When ALS inop, increase vis CAT AB to 1 mile, CAT CDE to 1½ miles.<sup>5</sup>No-NOTAM preventive maintenance TUE 1030-1430Z++.<sup>6</sup>Sidestep PAR W/O GS or ASR only.

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## RADAR INSTRUMENT APPROACH MINIMUMS

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## RADAR MINS

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## RADAR INSTRUMENT APPROACH MINIMUMS

PATUXENT RIVER NAS (KNHK), (TRAPNELL FLD), MD (15288 USN)

ELEV 39

RADAR - (E) 120.05 121.0 135.025 250.3 257.75 281.8 318.8 348.0 362.6 

	<u>RWY</u>	<u>GS/TCH/RPI</u>	<u>CAT</u>	<u>DH/ MDA-VIS</u>	<u>HAT/ HATH/ HAA</u>	<u>CEIL-VIS</u>
PAR <sup>1</sup>	6 <sup>2</sup>	3.0°/46/999	ABCDE	139-¼	100	(100-¼)
	24	3.0°/45/857	ABCDE	120-½	100	(100-½)
	14	3.0°/42/814	ABCDE	127-½	100	(100-½)
	32	3.0°/48/906	ABCDE	266-¾	250	(300-¾)
PAR W/O GS	6 <sup>4</sup>		ABCDE	400-¾	361	(400-¾)
	14		ABCDE	360-1	333	(400-1)
	24		ABCDE	360-1	340	(400-1)
	32		ABCDE	340-1	324	(400-1)
ASR	14		ABCDE	400-1	373	(400-1)
			AB	400-1	384	(400-1)
			CDE	400-1½	384	(400-1½)
	6 <sup>3</sup>		AB	520-½	481	(500-½)
			CDE	520-1	481	(500-1)
			24	AB	440-1	420
		CDE	440-1½	420	(500-1½)	
CIR	6-24, 14-32		A	560-1	521	(600-1)
			B	600-1	561	(600-1)
			C	620-1½	581	(600-1½)
			D	660-2	621	(700-2)
			E	800-2¾	761	(800-2¾)

<sup>1</sup>PAR No-NOTAM preventive maint period Wed 1300-1700Z++.<sup>2</sup>When ALS inop, increase CAT ABCDE vis to ½ mile.<sup>3</sup>When ALS inop, increase CAT AB vis to 1 mile, CAT CDE vis to 1½ miles.<sup>4</sup>When ALS inop, increase vis CAT ABCDE to 1 mile.

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## RADAR INSTRUMENT APPROACH MINIMUMS

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# RADAR MINS

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## RADAR INSTRUMENT APPROACH MINIMUMS

**QUANTICO MCAF (KNYG), (TURNER FIELD) VA** (Amdt 2, 15SEP16, 16259 USN) ELEV 11  
**RADAR**<sup>1 5</sup> - 120.925 351.95 353.65 363.15 ▾

	<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 <sup>2 6</sup>	2	3.0°/35/666	ABCD	<b>267-1</b>	257	(300-1)
PAR W/O GS <sup>2 3 5</sup>	2		ABCD	<b>420-1½</b>	410	(500-1½)
ASR <sup>2 3</sup>	2		AB	<b>560-1</b>	550	(600-1)
			CD	<b>560-1½</b>	550	(600-1½)
CIR PAR W/O GS <sup>4</sup>	2		A	<b>440-1½</b>	429	(500-1½)
			B	<b>480-1½</b>	469	(500-1½)
			C	<b>480-1½</b>	469	(500-1½)
			D	<b>700-2¼</b>	689	(700-2¼)
CIR ASR <sup>4</sup>	2		AB	<b>560-1</b>	549	(600-1)
			C	<b>720-2</b>	709	(800-2)
			D	<b>760-2½</b>	749	(800-2½)

<sup>1</sup>GCA avbl daily during published field opr hours. Ctc twr for freq asgn.

<sup>2</sup>Procedure NA at night when VGSI inop.

<sup>3</sup>VGSI and final descent angle not coincident.

<sup>4</sup>Circling not authorized W of Rwy 2-20.

<sup>5</sup>CAUTION: 20:1 visual surface penetrated by terrain.

<sup>6</sup>WCH (Group 3: 15ft, Group 4: 10ft) is less than the minimum height (20ft).

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## RADAR INSTRUMENT APPROACH MINIMUMS

# RADAR MINS

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## LAND AND HOLD-SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for "Land and Hold-Short Operations." These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold-short operations and markings.

CITY/AIRPORT	LDG RWY	HOLD-SHORT POINT	AVBL LDG DIST
NEWPORT NEWS, VA			
NEWPORT NEWS/WILLIAMSBURG			
NTL (PHF)	20	07-25	5,200 feet
	25	02-20	6,550 feet
NORFOLK, VA			
NORFOLK INTL (ORF)	14	05-23	2,850 feet
	23	14-32	6,300 feet
WILMINGTON, DE			
NEW CASTLE (ILG)			
	01	09-27	4,050 feet
	19	14-32	5,750 feet
	32	09-27	3,600 feet

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## HOT SPOTS

An "airport surface hot spot" is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

A "hot spot" is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as "HS 1", "HS 2", etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

CITY/AIRPORT	HOT SPOT	DESCRIPTION*
DOVER, DE DOVER AFB (DOV)	HS 1	Intersecting Twys and Rwys can create confusion. Query tower if lost or need help
	HS 2	Notice: Controlled Movement Area (CMA) boundary lines and stop lines are not always collocated with rwy hold lines.
	HS 3	Hold lines are further back from rwy than anticipated.
EASTON, MD EASTON/NEWMAM FIELD (ESN)	HS 1	Twy A and Twy B int in close proximity to the rwy.
FREDERICK, MD FREDERICK MUNI (FDK)	HS 1	Twy A and Twy E at Rwy 05-23.
	HS 2	Int of Twy A and Twy B.
	HS 3	Potential for inadvertent entry onto Rwy 30.
	HS 4	Potential for inadvertent entry onto Rwy 23.
NEWPORT NEWS, VA NEWPORT NEWS/WILLIAMSBURG INTL (PHF)	HS1	Int of Rwy 07-25 and Rwy 02-20.
	HS2	Rwy 07 and Rwy 02 thlds in close proximity.
RICHMOND, VA RICHMOND INTL (RIC)	HS 1	Wrong rwy departure risk. Frequent rwy crossings due to aircraft exiting Rwy 34.
ROANOKE, VA ROANOKE RGNL/ WOODRUM FIELD (ROA)	HS 1	Twy A and Twy G at Rwy 24.
	HS 2	Maintain situation awareness at Twy A and Twy D.
WASHINGTON, DC RONALD REAGAN WASHINGTON NATIONAL (DCA)	HS 1	Twy M and Twy J int in close proximity of the rwy.
	HS 2	Twy N, Twy K, Twy L, and Twy J complex int in close proximity of the rwy.
WILMINGTON, DE NEW CASTLE (ILG)	HS 1	Twy F, Rwy 09-27 and Rwy 14-32.

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

16147

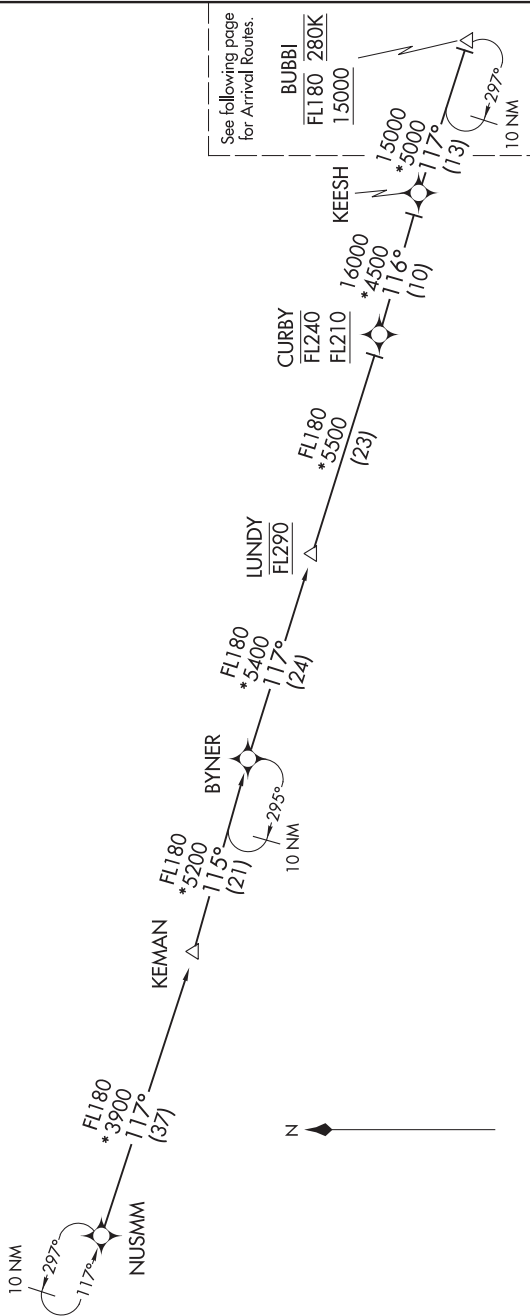
# ANTHM THREE ARRIVAL (RNAV) Transition Routes

BALTIMORE, MARYLAND

NE-3, 10 NOV 2016 to 05 JAN 2017

BALTIMORE ATIS  
115.1  
POTOMAC APP CON  
133.85 254.25

- NOTE: RADAR required
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turbojet aircraft only.
- NOTE: Prohibited area (P56) 1.5 NM north of DCA avoid surface to 18000 MSL.
- NOTE: ARTCC will issue landing direction assignment (east or west). Potomac TRACON will issue runway assignments.



See following page for Arrival Routes.

BUBBI  
FL180 280K  
15000

NOTE: Chart not to scale.

KEESH TRANSITION (KEESH.ANTHM3)  
 KEMAN TRANSITION (KEMAN.ANTHM3)  
 NUSMM TRANSITION (NUSMM.ANTHM3)

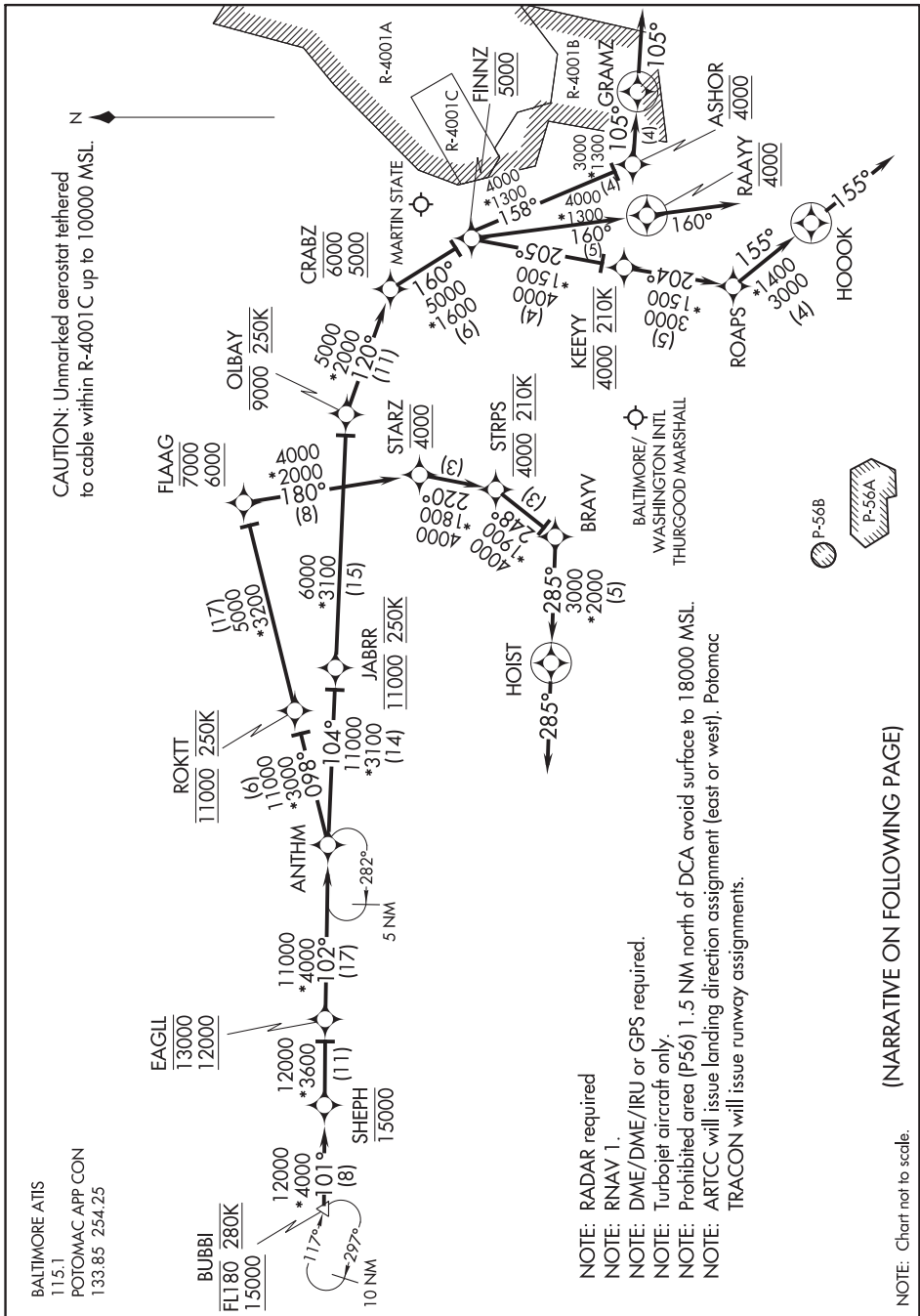
(CONTINUED ON FOLLOWING PAGES)

NE-3, 10 NOV 2016 to 05 JAN 2017

# ANTHM THREE ARRIVAL (RNAV) Arrival Routes

BALTIMORE, MARYLAND

NE-3, 10 NOV 2016 to 05 JAN 2017



NE-3, 10 NOV 2016 to 05 JAN 2017

# ANTHM THREE ARRIVAL (RNAV) Arrival Routes

BALTIMORE, MARYLAND

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

## ANTHM THREE ARRIVAL (RNAV)

BALTIMORE, MARYLAND

## ARRIVAL ROUTE DESCRIPTION

## Landing BWI:

From BUBBI on track 101° to cross SHEPH at or below 15000, then on track 101° to cross EAGLL between 12000 and 13000, then on track 102° to cross ANTHM.

LANDING EAST: RWYS 10 and 15L/R: From ANTHM on track 098° to cross ROKTT at 11000 and at 250K, then on track 098° to cross FLAAG between 6000 and 7000, then on track 180° to cross STARZ at 4000, then on track 220° to cross STRPS at 4000 and at 210K, then on track 248° to BRAYV, then on track 285° to HOIST, then on heading 285° or as assigned by ATC.

Expect RADAR vectors to final approach course.

LANDING WEST: RWY 28: From ANTHM on track 104° to cross JABRR at 11000 and at 250K, then on track 104° to cross OLBAY at or below 9000 and at 250K, then on track 120° to cross CRABZ between 5000 and 6000, then on track 160° to cross FINNZ at 5000, then on track 158° to cross ASHOR at 4000, then on track 105° to GRAMZ, then on heading 105°.

Expect RADAR vectors to final approach course.

LANDING WEST: RWYS 33L/R: From ANTHM on track 104° to cross JABRR at 11000 and at 250K, then on track 104° to cross OLBAY at or below 9000 and at 250K, then on track 120° to cross CRABZ between 5000 and 6000, then on track 160° to cross FINNZ at 5000, then on track 205° to cross KEEYY at 4000 and at 210K, then on track 204° to ROAPS, then on track 155° to HOOOK, then on heading 155°.

Expect RADAR vectors to final approach course.

LANDING MTN: From BUBBI on track 101° to cross SHEPH at or below 15000, then on track 101° to cross EAGLL between 12000 and 13000, then on track 102° to ANTHM, then on track 104° to cross JABRR at 11000 and at 250K, then on track 104° to cross OLBAY at or below 9000 and at 250K, then on track 120° to cross CRABZ between 5000 and 6000, then on track 160° to cross FINNZ at 5000, then on track 160° to cross RAAYY at 4000, then on heading 160°.

Expect RADAR vectors to final approach course.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



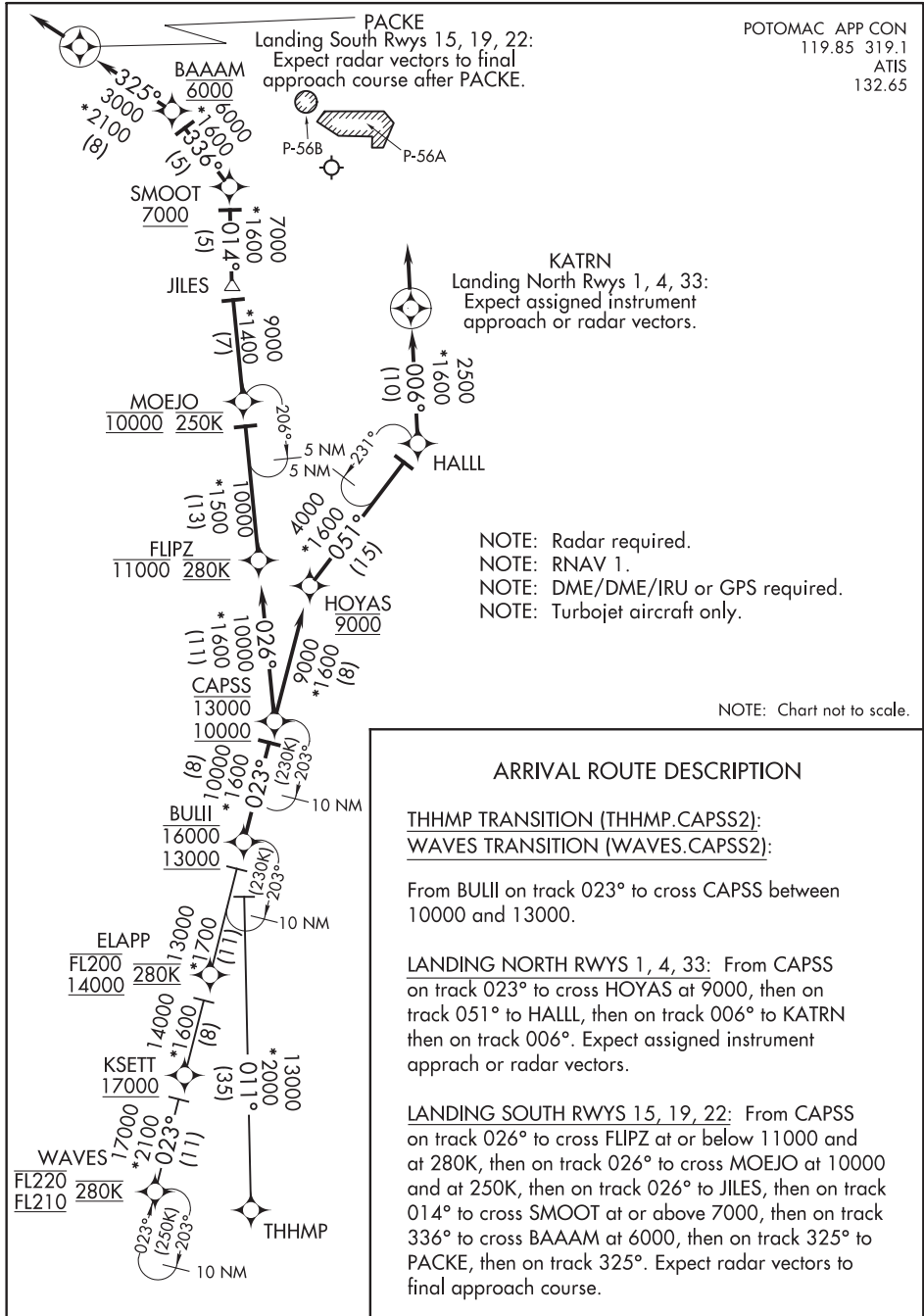
(BULLI.CAPSS2) 15344

CAPSS TWO ARRIVAL (RNAV) ST-443 (FAA)

RONALD REAGAN WASHINGTON NATIONAL (DCA)

WASHINGTON, DC

POTOMAC APP CON  
119.85 319.1  
ATIS  
132.65



- NOTE: Radar required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turbojet aircraft only.

NOTE: Chart not to scale.

### ARRIVAL ROUTE DESCRIPTION

THHMP TRANSITION (THHMP.CAPSS2):  
WAVES TRANSITION (WAVES.CAPSS2):

From BULLI on track 023° to cross CAPSS between 10000 and 13000.

LANDING NORTH RWYS 1, 4, 33: From CAPSS on track 023° to cross HOYAS at 9000, then on track 051° to HALLL, then on track 006° to KATR N then on track 006°. Expect assigned instrument approach or radar vectors.

LANDING SOUTH RWYS 15, 19, 22: From CAPSS on track 026° to cross FLIPZ at or below 11000 and at 280K, then on track 026° to cross MOEJO at 10000 and at 250K, then on track 026° to JILES, then on track 014° to cross SMOOT at or above 7000, then on track 336° to cross BAAAM at 6000, then on track 325° to PACKE, then on track 325°. Expect radar vectors to final approach course.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CAPSS TWO ARRIVAL (RNAV)  
(BULLI.CAPSS2) 15344

WASHINGTON, DC  
RONALD REAGAN WASHINGTON NATIONAL (DCA)

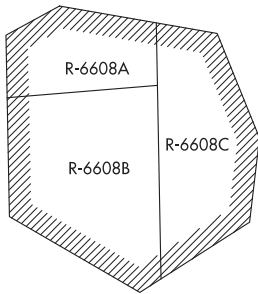
# CAVLR THREE ARRIVAL (RNAV)

ST-5100 (FAA)

WASHINGTON DULLES INTL (IAD)  
WASHINGTON, DC

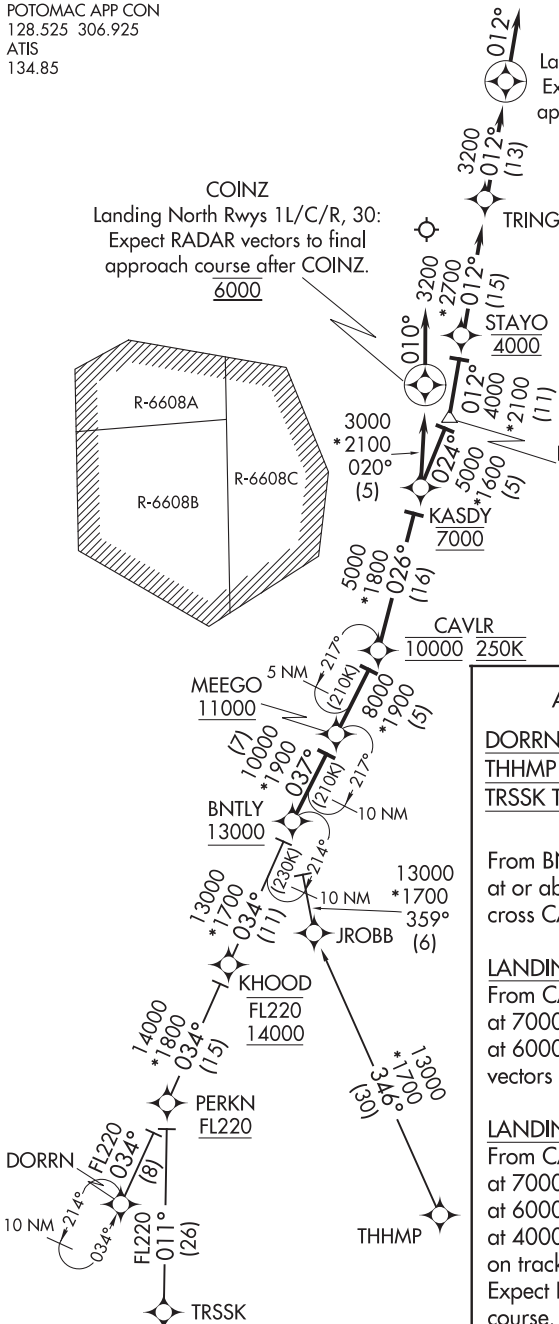
POTOMAC APP CON  
128.525 306.925  
ATIS  
134.85

**COINZ**  
Landing North Rws 1L/C/R, 30:  
Expect RADAR vectors to final  
approach course after COINZ.  
6000



**MIXNN**  
Landing South Rws 19L/C/R:  
Expect RADAR vectors to final  
approach course after MIXNN.

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turbojet aircraft only.
- NOTE: ARTCC will issue landing direction (North or South) and Potomac TRACON will issue runway assignments.



**ARRIVAL ROUTE DESCRIPTION**

DORRN TRANSITION (DORRN.CAVLR3)  
THHMP TRANSITION (THHMP.CAVLR3)  
TRSSK TRANSITION (TRSSK.CAVLR3)

From BNTLY on track 037° to cross MEEGO at or above 11000, then on track 037° to cross CAVLR at 10000 and at 250K.

**LANDING NORTH RUNWAYS 1L/C/R, 30:**  
 From CAVLR on track 026° to cross KASDY at 7000, then on track 020° to cross COINZ at 6000, then on track 010°. Expect RADAR vectors to final approach course.

**LANDING SOUTH RUNWAYS 19L/C/R:**  
 From CAVLR on track 026° to cross KASDY at 7000, then on track 024° to cross BARIN at 6000, then on track 012° to cross STAYO at 4000, then on track 012° to TRING, then on track 012° to MIXNN, then on track 012°. Expect RADAR vectors to final approach course.

NOTE: Chart not to scale.

# CAVLR THREE ARRIVAL (RNAV)

(BNTLY.CAVLR3) 04FEB16

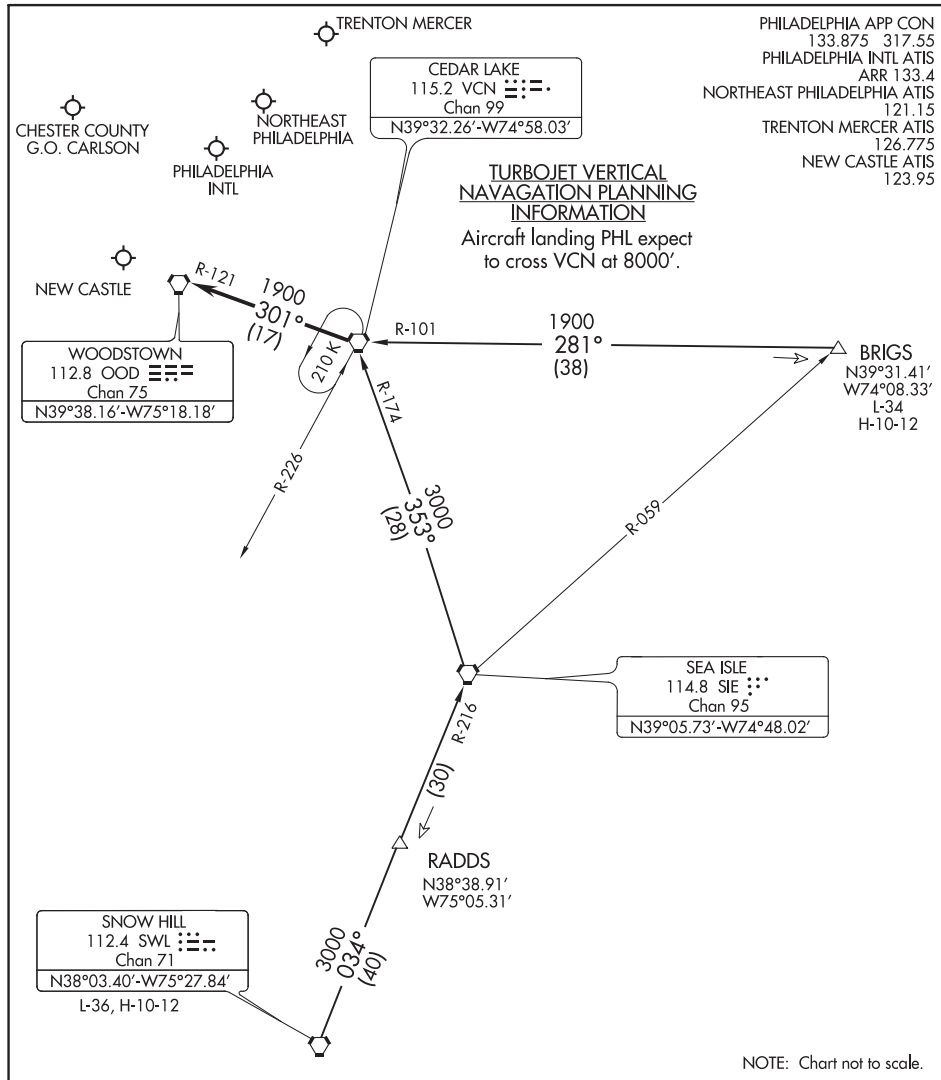
WASHINGTON, DC  
WASHINGTON DULLES INTL (IAD)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# CEDAR LAKE EIGHT ARRIVAL

PHILADELPHIA, PENNSYLVANIA

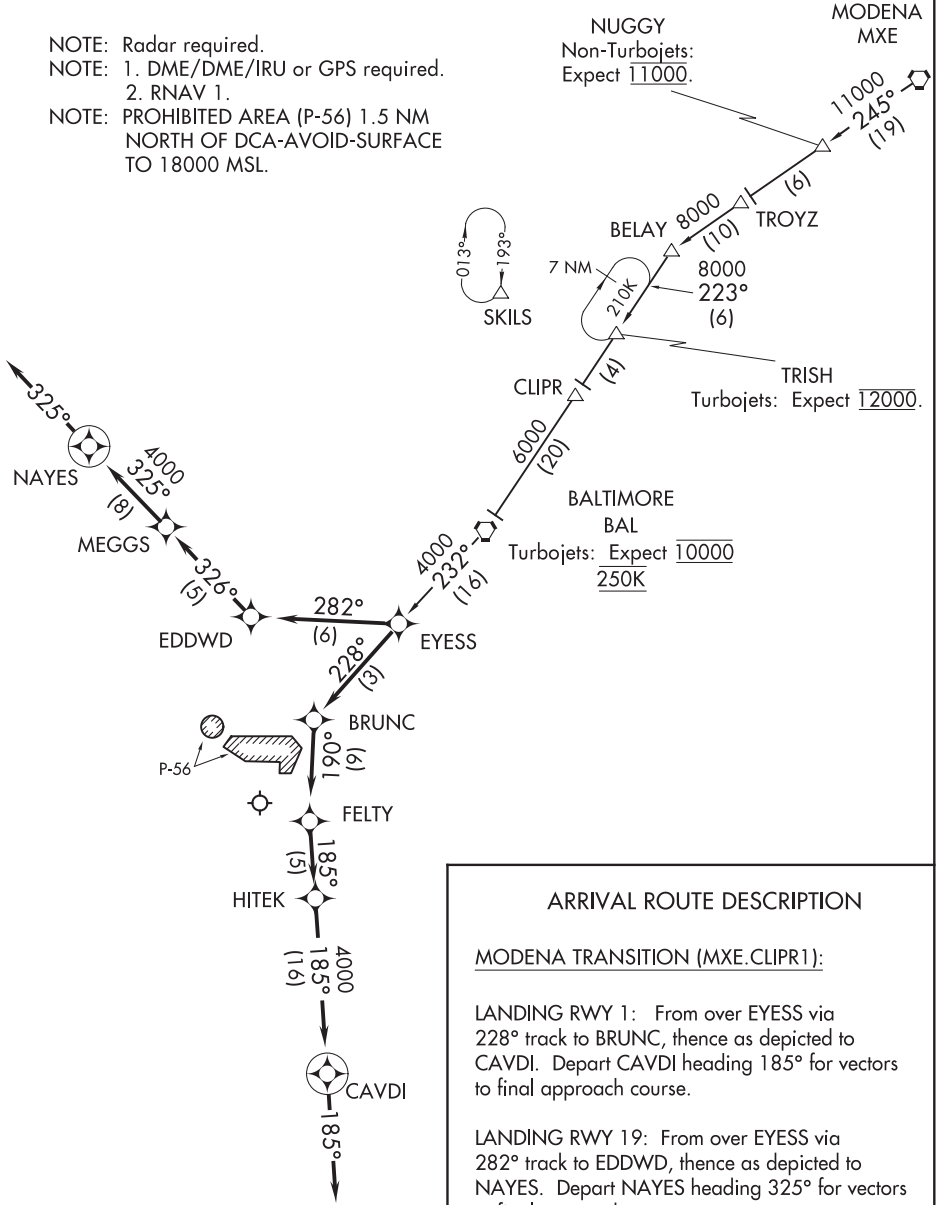




# CLIPR ONE ARRIVAL (RNAV)

POTOMAC APP CON  
128.7 307.9  
WASHINGTON NATIONAL ATIS  
132.65

- NOTE: Radar required.
- NOTE: 1. DME/DME/IRU or GPS required.
- 2. RNAV 1.
- NOTE: PROHIBITED AREA (P-56) 1.5 NM NORTH OF DCA-AVOID-SURFACE TO 18000 MSL.



## ARRIVAL ROUTE DESCRIPTION

### MODENA TRANSITION (MXE.CLIPR1):

LANDING RWY 1: From over EYESS via 228° track to BRUNC, thence as depicted to CAVDI. Depart CAVDI heading 185° for vectors to final approach course.

LANDING RWY 19: From over EYESS via 282° track to EDDWD, thence as depicted to NAYES. Depart NAYES heading 325° for vectors to final approach course..

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# COATT FOUR ARRIVAL

WASHINGTON, DC

POTOMAC APP CON  
128.525 306.925  
DULLES ATIS 134.85

LEESBURG EXECUTIVE

WASHINGTON  
DULLES  
INTL

MANASSAS RGNL/  
HARRY P DAVIS FIELD

ARMEI  
113.5 AML  
Chan 82  
N38°56.08'-W77°28.00'

CASANOVA  
116.3 CSN  
Chan 110

R-104

BARIN

N38°35.18'-W77°21.83'

TURBOJET VERTICAL NAVIGATION  
PLANNING INFORMATION

Expect 5000.

BROOKE  
114.5 BRV  
Chan 92  
N38°20.18'-W77°21.17'

2400  
007°  
(15)

FALKO

N38°11.11'-W77°26.56'

TURBOJET VERTICAL NAVIGATION  
PLANNING INFORMATION

Expect 10000 and 250K.

USE FAK R-031 TO BRV,  
BRV R-214 UNUSEABLE.

4 NM

210K  
18  
43

OGATE  
N38°03.48'  
W77°31.07'

COATT  
N37°57.49'  
W77°34.61'

NABBS  
N37°52.60'  
W77°37.49'

DEAND  
N37°48.42'  
W77°29.48'

FLAT ROCK  
113.3 FAK  
Chan 80  
N37°31.71'-W77°49.69'  
L-36, H-10-12

3500  
031°  
(23)

R-050

(10)

3500  
345°  
(20)

RICHMOND  
114.1 RIC  
Chan 88  
N37°30.14'-W77°19.22'  
L-34-36, H-10-12

NOTE: Chart not to scale.

**FLAT ROCK TRANSITION (FAK.COATT4):** From over FAK VORTAC via FAK R-031 to COATT INT. Thence . . .

**RICHMOND TRANSITION (RIC.COATT4):** From over RIC VORTAC via RIC R-345 to COATT INT. Thence . . .

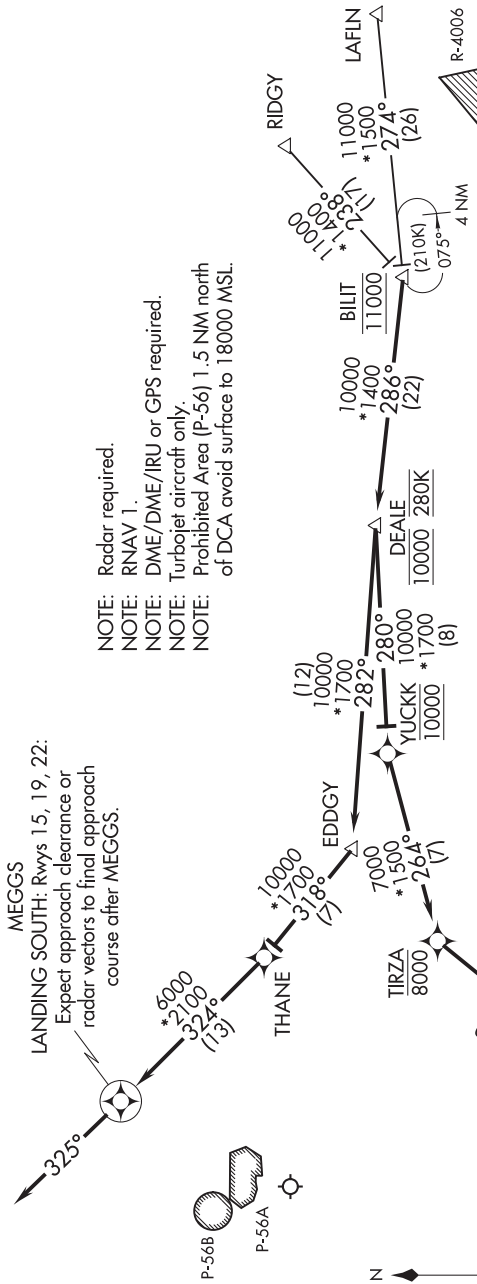
. . . From over COATT INT via FAK R-031 to BRV VORTAC, then from over BRV VORTAC via BRV R-007 to BARIN INT. Expect radar vectors to final approach course after BARIN INT.

# COATT FOUR ARRIVAL

WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017

POTOMAC\_APP CON  
124.55 317.425  
RONALD REAGAN WASHINGTON NATIONAL ATIS  
132.65



- NOTE: Radar required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turbojet aircraft only.
- NOTE: Prohibited Area (P-56) 1.5 NM north of DCA avoid surface to 18000 MSL.

MEGGS  
LANDING SOUTH: Rwys 15, 19, 22:  
Expect approach clearance or  
radar vectors to final approach  
course after MEGGS.

MITEY  
LANDING NORTH:  
Rwys 1, 4, 33:  
Expect approach clearance  
or radar vectors to final  
approach course after MITEY.

ARRIVAL ROUTE DESCRIPTION  
LAFIN TRANSITION (LAFIN,DEALE2):  
RIDGY TRANSITION (RIDGY,DEALE2):  
From BILIT on track 286° to cross DEALE at 10000 and at 280K.  
From DEALE on track 280° to cross YUCKK at 10000, then on track 264° to cross TIRZA at or below 8000, then on track 228° to cross HITEK at 7000, then on track 185° to MITEY, then on heading 185°. Expect radar vectors to final approach course.  
LANDING SOUTH RWYS 15, 19, 22: From DEALE on track 282° to EDDGY, then on track 318° to THANE, then on track 324° to MEGGS, then on heading 325°. Expect radar vectors to final approach course.

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

# DELRO FOUR ARRIVAL

POTOMAC APP CON  
133.0 288.35  
DULLES ATIS  
134.85  
DULLES TOWER  
120.1 317.8 (Rwy 1R/19L)  
120.25 348.6 (Rwy 1C/19C)  
134.425 348.6 (1L/19R, 12/30)

RAVINE  
114.6 RAV  
Chan 93

LANCASTER  
117.3 LRP  
Chan 120  
N40°07.20'-W76°17.48'  
L-29-34, H-10-12

LIRCH  
N39°49.61'-W76°55.33'  
Turbojets: Expect 14000

DELRO  
N39°57.93'  
W76°37.52'

JOANE  
N40°02.64'  
W76°27.36'

MODENA  
113.2 MXE  
Chan 79  
N39°55.08'  
W75°40.25'  
L-34, H-10-12

HYPER  
N39°41.04' W77°13.51'  
Turbojets: Expect 10000  
Non-turbojets: Expect 8000

BINNS  
N39°47.10'  
W77°00.66'

MARTINSBURG  
112.1 MRB  
Chan 58

DUPONT  
114.0 DQO  
Chan 87

FREDERICK  
109.0(T) FDK  
N39°24.73'  
W77°22.51'

WESTMINSTER  
117.9 EMI  
Chan 126

TWEAK  
N39°20.29'  
W77°22.19'

BALTIMORE  
115.1 BAL  
Chan 98

HUSEL  
N39°09.86'  
W77°21.46'

WASHINGTON  
111.0 DCA  
Chan 47

IVVVY  
N38°45.20'  
W77°21.32'

BROOKE  
114.5 BRV  
Chan 92

NOTE: RADAR required.  
NOTE: For aircraft capable of 180K or greater.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# DELRO FOUR ARRIVAL

## ARRIVAL ROUTE DESCRIPTION

LANCASTER TRANSITION (LRP.DELRO4): From over LRP VOR/DME on LRP R-248 to DELRO INT. Thence. . . .

MODENA TRANSITION (MXE.DELRO4): From over MXE VORTAC on MXE R-283 to DELRO INT. Thence. . . .

. . . .From DELRO on LRP R-248 to LIRCH, then on LRP R-248 to BINNS, then on LRP R-248 to HYPER, then on FDK R-031 to FDK VOR, then on FDK R-185 to TWEAK, then on FDK R-185 to HUSEL, then on BRV R-009 to IVVVY, then on heading 190° or as assigned by ATC.

LANDING RWYS 01L/C/R and 30: Expect RADAR vectors to final approach course after IVVVY.

LANDING RWYS 19L/C/R and 12: Expect RADAR vectors to final approach course prior to FDK VOR.

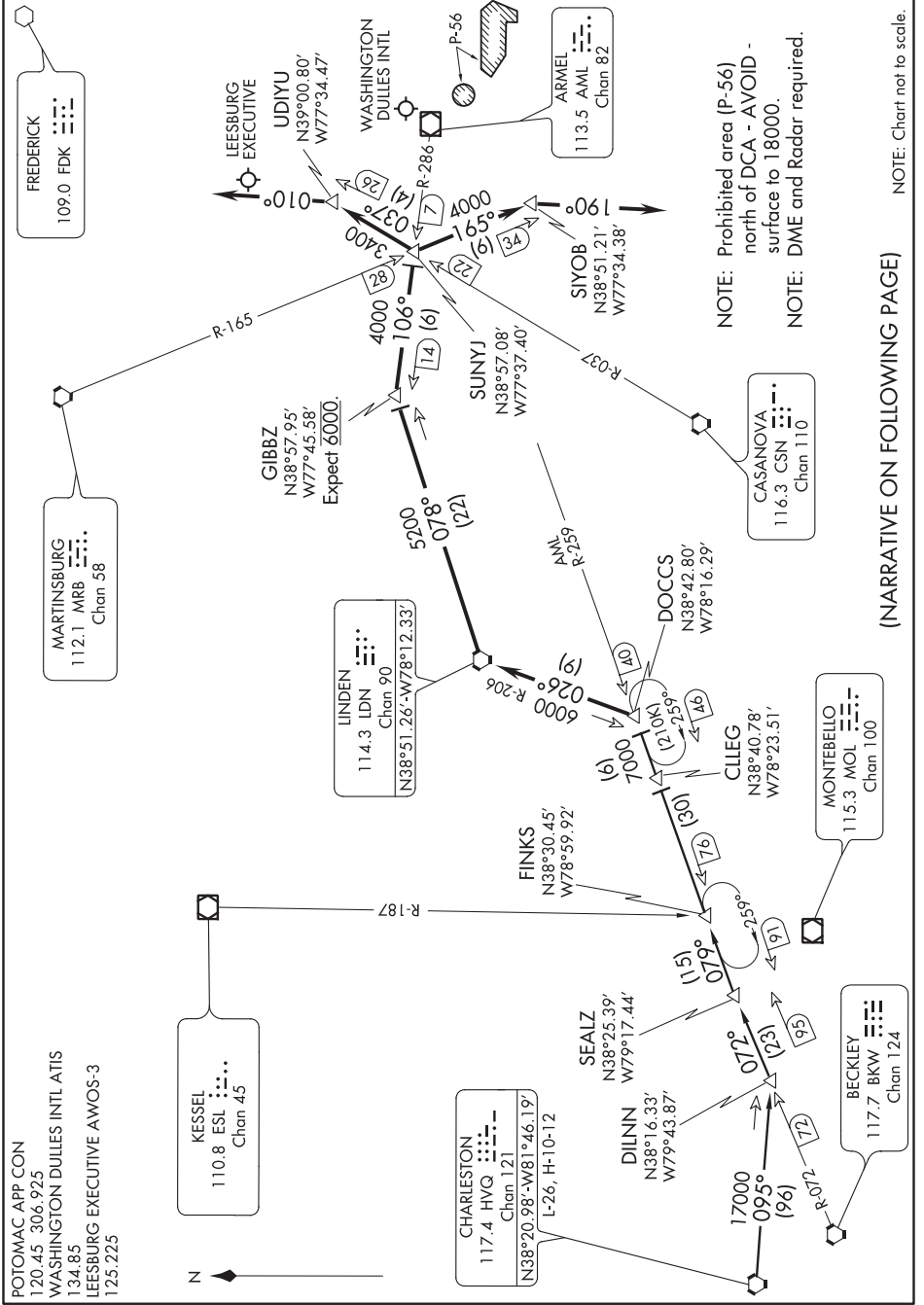
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# DOCCS TWO ARRIVAL

WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017



(NARRATIVE ON FOLLOWING PAGE)

NE-3, 10 NOV 2016 to 05 JAN 2017

# DOCCS TWO ARRIVAL

WASHINGTON, DC

ARRIVAL ROUTE DESCRIPTION

CHARLESTON TRANSITION (HVQ.DOCCS2): From over HVQ VORTAC on HVQ R-095 to DILNN, then on BKW R-072 to SEALZ, then on AML R-259 to DOCCS. Thence....

LANDING IAD RWYS 1C, 1L, 1R, 30: From over DOCCS/LDN 9 on LDN R-206 to LDN VORTAC, then on LDN R-078 to GIBBZ/LDN 22, then on AML R-286 to SUNYJ/AML 7, then on MRB R-165 to SIYOB/MRB 34, then fly heading 190°, expect radar vectors to final approach course.

LANDING IAD RWYS 19C, 19L, 19R: From over DOCCS/LDN 9 on LDN R-206 to LDN VORTAC, then on LDN R-078 to GIBBZ/LDN 22, then on AML R-286 to SUNYJ/AML 7, then on CSN R-037 to UDIYU/CSN 26, then fly heading 010°, expect radar vectors to final approach course.

LANDING IAD RWY 12: From over DOCCS/LDN 9, expect radar vectors to final approach course.

LANDING JYO: From over DOCCS/LDN 9 on LDN R-206 to LDN VORTAC, expect radar vectors to final approach course.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017





ARRIVAL DESCRIPTION

KINSTON TRANSITION (ISO.DRONE1): From over ISO VORTAC via ISO R-034 and CVI R-218 to CVI VORTAC, then via CVI R-055 to DRONE INT. Thence. . . .

RALEIGH/DURHAM (RDU.DRONE1): From over RDU VORTAC via RDU R-087 and TYI R-269 to TYI VORTAC, then via TYI R-064 and CVI R-249 to CVI VORTAC, then via CVI R-055 to DRONE INT. Thence. . . .

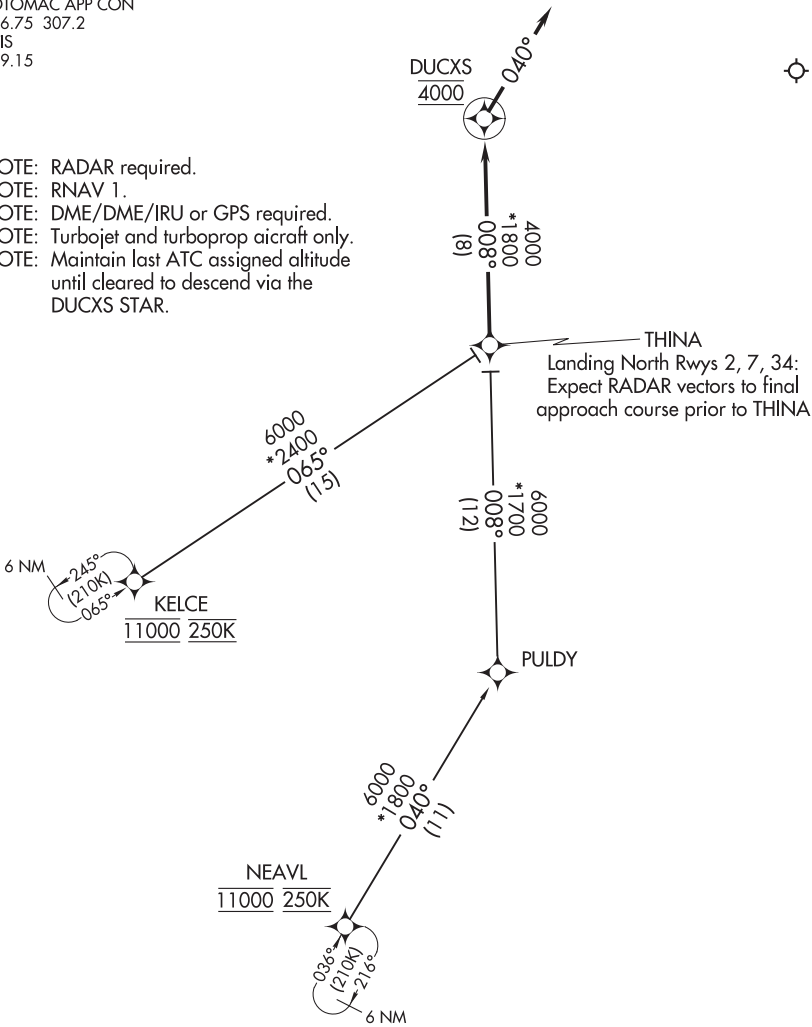
....From over DRONE INT expect radar vectors to final approach course.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

POTOMAC APP CON  
 126.75 307.2  
 ATIS  
 119.15

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turbojet and turboprop aircraft only.
- NOTE: Maintain last ATC assigned altitude until cleared to descend via the DUCXS STAR.



NOTE: Chart not to scale.

**ARRIVAL ROUTE DESCRIPTION**

KELCE TRANSITION (KELCE.DUCXS3):  
NEAVL TRANSITION (NEAVL.DUCXS3):

From THINA on track 008° to cross DUCXS at 4000, then on heading 040° or as assigned by ATC. Expect RADAR vectors to final approach course.

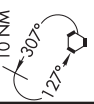
# FRDMM THREE ARRIVAL (RNAV) Transition Route

WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017

## BUCKO TRANSITION (BUCKO.FRDM3):

- POTOMAC APP CON  
118.675 323.175
- RONALD REAGAN WASHINGTON NATIONAL ATIS  
132.65
- JOINT BASE ANDREWS ATIS  
113.1 251.05
- DAVISON AAF ATIS  
128.175 230.0



MORGANTOWN  
MGW

DRRON  
FL310  
FL270

BUCKO 17000  
FL310 \*5500  
105° (12)

HONNR  
FL280 250K  
FL240

BRVRY  
FL260  
FL220

COURG  
FL230 280K  
FL200

PLDGE  
17000 280K  
15000

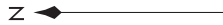
WEWIL  
14000

NEWR  
12000

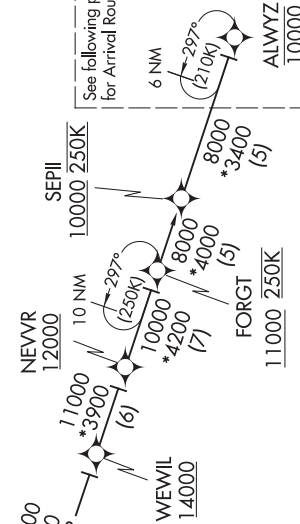
SEPIL  
10000 250K

FORGT  
11000 250K

ALWYZ  
10000



- NOTE: Radar required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turboprops only, turboprops as assigned by ATC only.
- NOTE: Prohibited (P56) 1.5 NM north of DCA avoid surface to 18000 MSL. DME/DME/IRU or GPS required.
- NOTE: Maintain last assigned altitude until cleared to "descend via" the FRDMM3. ARTCC will issue landing direction assignment (north or south) and Potomac TRACON will issue runway assignments.



See following page for Arrival Routes.

6 NM  
297°  
(210K)  
8000 \*3400 (5)  
11000 250K

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

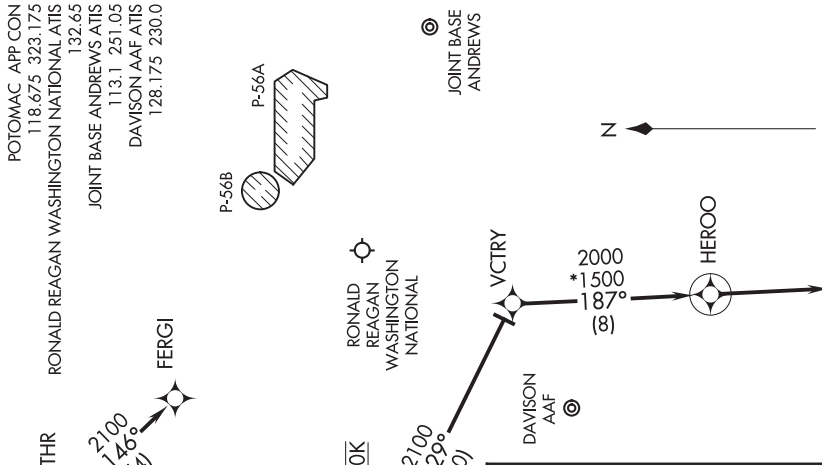
# FRDMM THREE ARRIVAL (RNAV) Transition Route

WASHINGTON, DC

# FRDMM THREE ARRIVAL (RNAV) Arrival Routes

WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017



NOTE: Radar required.  
 NOTE: RNAV 1.  
 NOTE: DME/DME/IRU or GPS required.  
 NOTE: Turboprops only, turboprops as assigned by ATC only.  
 NOTE: Prohibited (P56) 1.5 NM north of DCA avoid surface to 18000 MSL. DME/DME/IRU or GPS required.  
 NOTE: Maintain last assigned altitude until cleared to "descend via" the FRDMM3. ARTCC will issue landing direction assignment (north or south) and Potomac TRACON will issue runway assignments.

**ARRIVAL ROUTE DESCRIPTION**

**LANDING DCA RWYS 1, 4, 33, and ADW RWYS 1L/R and LANDING DAA:** From ALWYZ on track 123° to cross LETZZ at 8000, then on track 128° to cross RLLLL at 6000 and at 250K, then on track 129° to VCTRY, then on track 187° to HEROQ, then on track 187°. Expect radar vectors to final approach course.

**LANDING DCA RWYS 15, 19, 22:** From ALWYZ on track 120° to cross FRDMM at 8000 and 240K, then on track 076° to STAND, then on track 076° to TGTHR, then on track 146° to FERGI. Expect LDA/DME RWY 19, RNAV/RNP RWY 19, RIVER VISUAL RWY 19 or radar vectors to final approach course.

**LANDING ADW RWYS 19L/R:** From ALWYZ on track 120° to cross FRDMM at 8000 and at 240K, then on track 076° to STAND, then on track 076°. Expect radar vectors to final approach course.

NOTE: Chart not to scale.

# FRDMM THREE ARRIVAL (RNAV) Arrival Routes

WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017

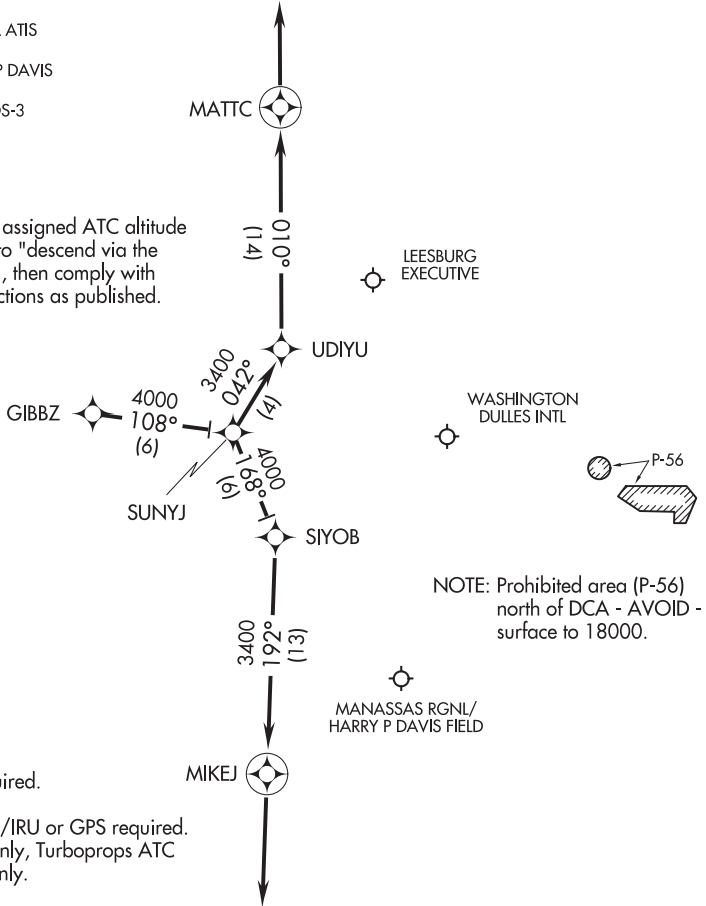


# GIBBZ TWO ARRIVAL (RNAV) Arrival Routes

WASHINGTON, DC

POTOMAC APP CON  
120.45 306.925 343.775  
WASHINGTON DULLES INTL ATIS  
134.85  
MANASSAS RGNL/HARRY P DAVIS  
FIELD ATIS 125.175  
LEESBURG EXECUTIVE AWOS-3  
125.225

NOTE: Maintain last assigned ATC altitude until cleared to "descend via the GIBBZ TWO", then comply with altitude restrictions as published.



NOTE: Radar required.  
NOTE: RNAV 1.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Turbojets only, Turboprops ATC assigned only.

NOTE: Chart not to scale.

## ARRIVAL ROUTE DESCRIPTION

LANDING IAD RWYS 19C, 19L, 19R: From over GIBBZ on track 108° to SUNYJ, then on track 042° to UDIYU, then on track 010° to MATTC, then on track 010°, expect radar vectors to final approach course.

LANDING IAD RWYS 1C, 1L, 1R, 30: From over GIBBZ on track 108° to SUNYJ, then on track 168° to SIYOB, then on track 192° to MIKEJ, then on track 192°, expect radar vectors to final approach course.

LANDING IAD RWY 12 (FROM HVQ AND BKW TRANSITIONS): Expect radar vectors to final approach course after KILMR.

LANDING IAD RWY 12, JYO, AND HEF (FROM MGW TRANSITION): Expect radar vectors to final approach course after IGGGY.

LANDING JYO AND HEF (FROM HVQ AND BKW TRANSITIONS): Expect radar vectors to final approach course after KILMR.

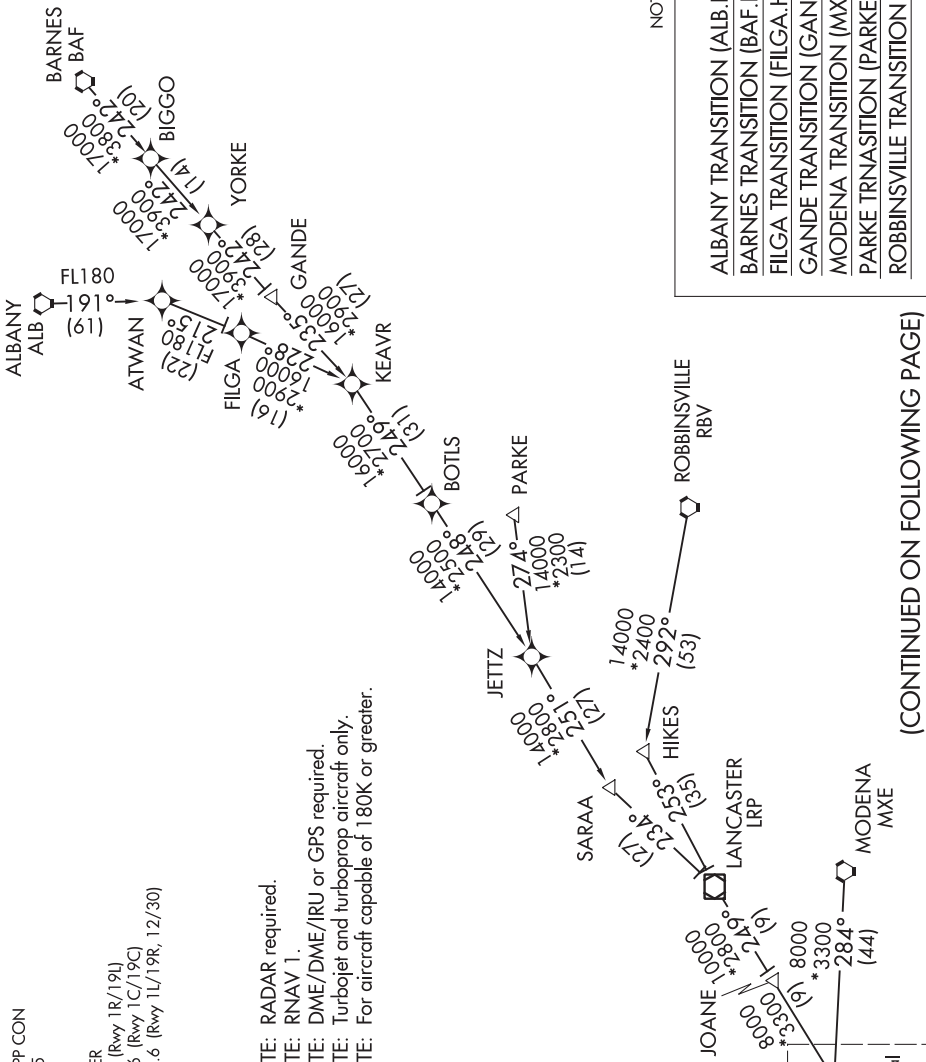
# HYPER SEVEN ARRIVAL (RNAV) Transition Routes

WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017

POTOMAC APP CON  
 133.0 288.35  
 DUILLES ATIS  
 134.85  
 DUILLES TOWER  
 120.1 317.8 (Rwy 1R/19L)  
 120.25 348.6 (Rwy 1C/19C)  
 134.425 348.6 (Rwy 1L/19R, 12/30)

NOTE: RADAR required.  
 NOTE: RNAV 1.  
 NOTE: DME/DME/IRU or GPS required.  
 NOTE: Turbojet and turboprop aircraft only.  
 NOTE: For aircraft capable of 180K or greater.



NOTE: Chart not to scale.

- ALBANY TRANSITION (ALB.HYPER7)
- BARNES TRANSITION (BAF.HYPER7)
- FILGA TRANSITION (FILGA.HYPER7)
- GANDE TRANSITION (GANDE.HYPER7)
- MODENA TRANSITION (MXE.HYPER7)
- PARKE TRNANSITION (PARKE.HYPER7)
- ROBBINSVILLE TRANSITION (RBV.HYPER7)

(CONTINUED ON FOLLOWING PAGE)

NE-3, 10 NOV 2016 to 05 JAN 2017

# HYPER SEVEN ARRIVAL (RNAV) Transition Routes

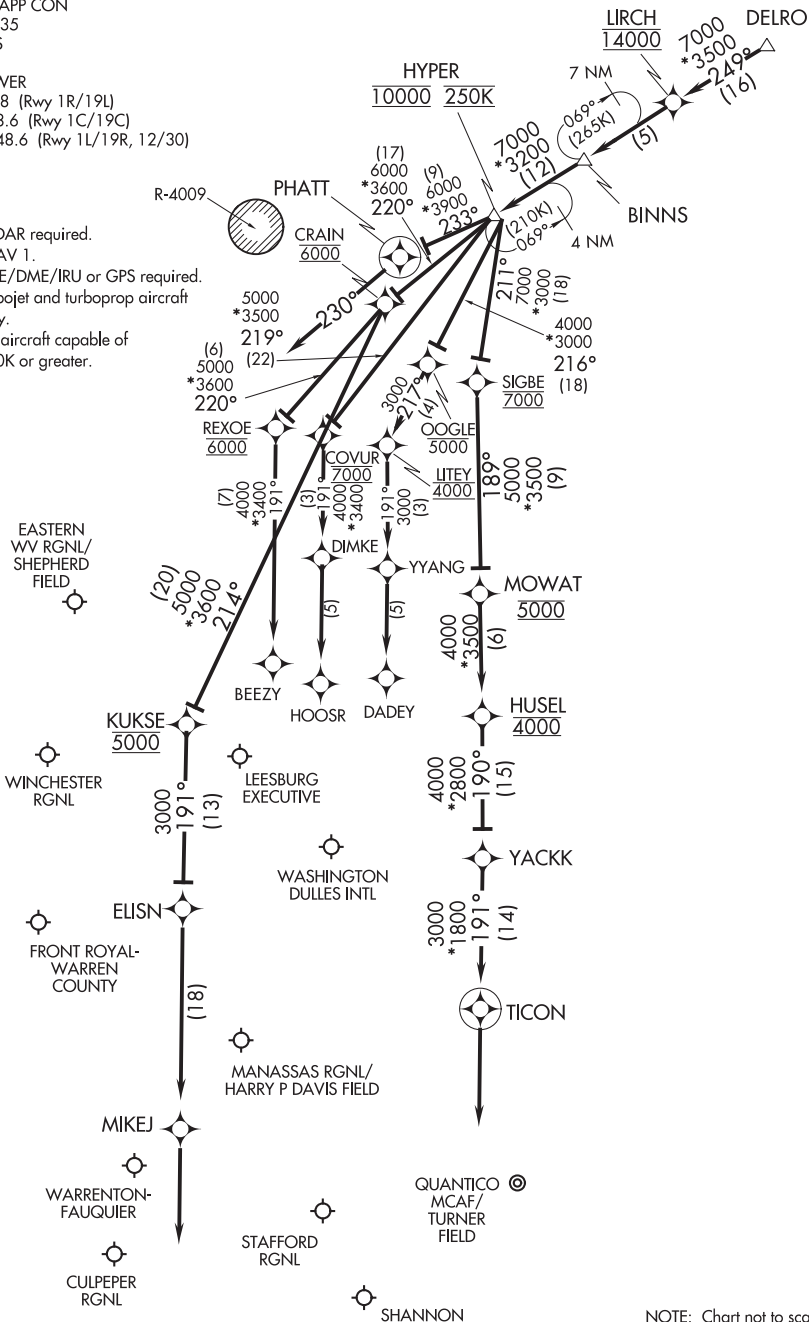
WASHINGTON, DC

# HYPER SEVEN ARRIVAL (RNAV) Arrival Routes

WASHINGTON, DC

POTOMAC APP CON  
 133.0 288.35  
 DULLES ATIS  
 134.85  
 DULLES TOWER  
 120.1 317.8 (Rwy 1R/19L)  
 120.25 348.6 (Rwy 1C/19C)  
 134.425 348.6 (Rwy 1L/19R, 12/30)

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turbojet and turboprop aircraft only.
- NOTE: For aircraft capable of 180K or greater.



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

# HYPER SEVEN ARRIVAL (RNAV) Arrival Routes

WASHINGTON, DC



# HYPER SEVEN ARRIVAL (RNAV)

WASHINGTON, DC

## ARRIVAL ROUTE DESCRIPTION

From DELRO on track 249° to cross LIRCH at 14000, then on track 249° to BINNS, then on track 249° to cross HYPER at 10000 and at 250K.

LANDING RWY 1C/R: From HYPER on track 211° to cross SIGBE at 7000, then on track 189° to cross MOWAT at 5000, then on track 189° to cross HUSEL at 4000, then on track 190° to YACKK, then on track 191° to TICON, then on track 191°. Expect RADAR vectors to final approach course.

LANDING RWY 1L: From HYPER on track 220° to cross CRAIN at 6000, then on track 214° to cross KUKSE at 5000, then on track 191° to ELISN, then on track 191° to MIKEJ, then on track 191°. Expect RADAR vectors to final approach course.

LANDING RWY 19L: From HYPER on track 216° to cross OOGLE at/below 5000, then on track 217° to cross LITEY at 4000, then on track 191° to YYANG, then on track 191° to DADEY. Expect ILS or LOC to RWY 19L.

LANDING RWY 19C: From HYPER on track 219° to cross COVUR at 7000, then on track 191° to DIMKE, then on track 191° to HOOSR. Expect ILS or LOC to RWY 19C.

LANDING RWY 19R: From HYPER on track 220° to cross CRAIN at 6000, then on track 220° to cross REXOE at 6000, then on track 191° to BEEZY. Expect ILS or LOC to RWY 19R.

LANDING KNYG/KRMN/KHWY/KCJR/KEZF/KHEF: From DELRO on track 249° to cross LIRCH at 14000, then on track 249° to BINNS, then on track 249° to cross HYPER at 10000 and at 250K, then on track 211° to cross SIGBE at 7000, then on track 189° to cross MOWAT at 5000, then on track 189° to cross HUSEL at 4000, then on track 190° to YACKK, then on track 191° to TICON, then on track 191°. Expect RADAR vectors to final approach course.

LANDING KFRR/KOKV/KMRB/KJYO: From DELRO on track 249° to cross LIRCH at 14000, then on track 249° to BINNS, then on track 249° to cross HYPER at 10000 and at 250K, then on track 233° to PHATT, then on heading 230° or as assigned by ATC. Expect RADAR vectors to final approach course.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# HYPER SEVEN ARRIVAL (RNAV)

WASHINGTON, DC

# IRONS SEVEN ARRIVAL

POTOMAC APP CON  
119.85 319.1  
RONALD REAGAN  
WASHINGTON NATIONAL ATIS  
132.65

WASHINGTON  
111.0 DCA  
Chan 47

CASANOVA  
116.3 CSN  
Chan 110

SAMMO  
N38°44.66'  
W77°03.66'

IRONS  
N38°31.87'  
W77°06.37'

OJAAY  
N38°17.56'  
W77°09.38'  
**TURBOJET VERTICAL  
NAVIGATION PLANNING:**  
Expect 10000  
and expect 250K in a north operation

GORDONSVILLE  
115.6 GVE  
Chan 103

PEGBY  
N38°04.72'  
W77°12.06'  
**TURBOJET VERTICAL  
NAVIGATION PLANNING:**  
Expect 13000

FLAT ROCK  
113.3 FAK  
Chan 80

EPICS  
N37°47.20'  
W77°15.70'

HARCUM  
108.8 HCM  
Chan 25

RICHMOND  
114.1 RIC  
Chan 88  
N37°30.14' - W77°19.22'  
L-34-36, H-10-12

NOTE: Radar required.  
NOTE: Aircraft use DCA ATIS to determine the direction of landing prior to IRONS.  
NOTE: PROHIBITED AREA (P-56) 1.5 NM NORTH OF DCA-AVOID-SURFACE TO 18000 MSL.

NOTE: Chart not to scale.

## ARRIVAL ROUTE DESCRIPTION

RICHMOND TRANSITION (RIC.IRONS7): From over RIC VORTAC via RIC R-018 and DCA R-198 to IRONS. Thence....

....from IRONS:

LANDING SOUTH: Then on DCA R-198 to SAMMO, then on 320° heading or assigned by ATC, expect radar vectors to final approach course.

LANDING NORTH: Expect radar vectors to final approach course.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# JIIIMS TWO ARRIVAL (RNAV)

PHILADELPHIA, PENNSYLVANIA

NE-3, 10 NOV 2016 to 05 JAN 2017

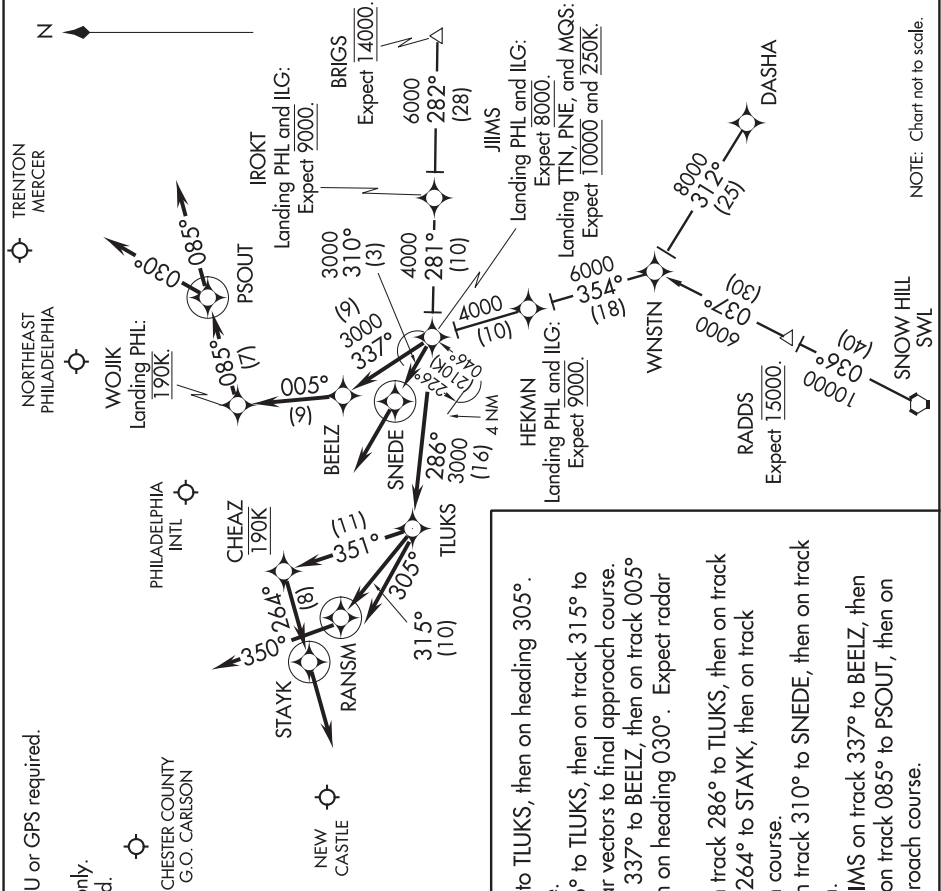
- NOTE: DME/DME/IRU or GPS required.
- NOTE: RNAV 1.
- NOTE: For turbojets only.
- NOTE: Radar required.

PHILADELPHIA INTL  
 ATIS ARR 133.4  
 NORTHEAST PHILADELPHIA  
 ATIS 121.15  
 TRENTON MERCER  
 ATIS 126.775  
 NEW CASTLE ATIS 123.95  
 CHESTER COUNTY G.O. CARLSON  
 AWOS-3 126.25  
 PHILADELPHIA APP CON  
 133.875 317.55

### ARRIVAL ROUTE DESCRIPTION

- BRIGS TRANSITION (BRIGS.JIIMS2):
- DASHA TRANSITION (DASHA.JIIMS2):
- SNOW HILL TRANSITION (SWL.JIIMS2):

Landing ILG: From over JIIMS on track 286° to TLUKS, then on heading 305°. Expect radar vectors to final approach course.  
 Landing MQS: From over JIIMS on track 286° to TLUKS, then on track 315° to RANSM, then on heading 350°. Expect radar vectors to final approach course.  
 Landing PNE, TTN: From over JIIMS on track 337° to BEELZ, then on track 005° to WOJJK, then on track 085° to PSOUT, then on heading 030°. Expect radar vectors to final approach course.  
 Landing PHL Rwy 9L, 9R: From over JIIMS on track 286° to TLUKS, then on track 351° to cross CHEAZ at 190K, then on track 264° to STAYK, then on track 264°. Expect radar vectors to final approach course.  
 Landing PHL Rwy 17, 35: From over JIIMS on track 310° to SNEDE, then on track 310°. Expect radar vectors to final approach.  
 Landing PHL Rwy 26, 27L, 27R: From over JIIMS on track 337° to BEELZ, then on track 005° to cross WOJJK at 190K, then on track 085° to PSOUT, then on track 085°. Expect radar vectors to final approach course.



NE-3, 10 NOV 2016 to 05 JAN 2017

# JIIIMS TWO ARRIVAL (RNAV)

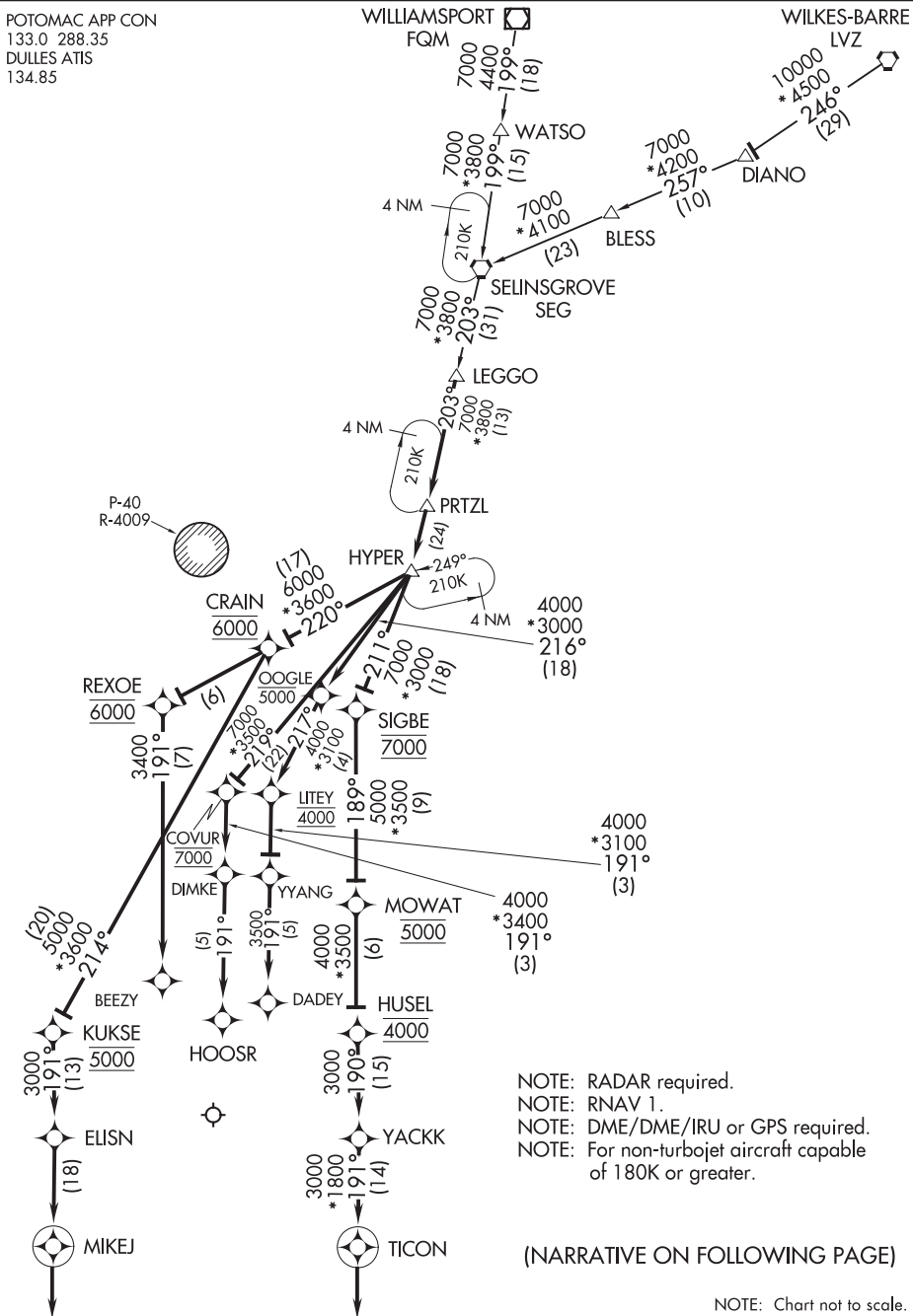
PHILADELPHIA, PENNSYLVANIA

# LEGGO THREE ARRIVAL (RNAV)

POTOMAC APP CON  
133.0 288.35  
DULLES ATIS  
134.85

WILLIAMSPORT  
FQM

WILKES-BARRE  
LVZ



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: For non-turbojet aircraft capable of 180K or greater.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# LEGGO THREE ARRIVAL (RNAV)

# LEGGO THREE ARRIVAL (RNAV)

## ARRIVAL ROUTE DESCRIPTION

WILKES-BARRE TRANSITION (LVZ.LEGGO3)  
WILLIAMSPORT TRANSITION (FQM.LEGGO3)  
SELINGSGROVE TRANSITION (SEG.LEGGO3)

From LEGGO on track 203° to PRTZL, then on track 203° to HYPER.

LANDING RWYS 01R/C: From HYPER on track 211° to cross SIGBE at 7000, then on track 189° to cross MOWAT at 5000, then on track 189° to cross HUSEL at 4000, then on track 190° to YACKK, then on track 191° to TICON, then on track 191°. Expect RADAR vectors to final approach course.

LANDING RWY 01L: From HYPER on track 220° to cross CRAIN at 6000, then on track 214° to cross KUKSE at 5000, then on track 191° to ELISN, then on track 191° to MIKEJ, then on track 191°. Expect RADAR vectors to final approach course.

LANDING RWY 19C: From HYPER on track 219° to cross COVUR at 7000, then on track 191° to DIMKE, then on track 191° to HOOSR. Expect ILS or LOC to Rwy 19C.

LANDING RWY 19L: From HYPER on track 216° to cross OOGLE at/below 5000, then on track 217° to cross LITEY at 4000, then on track 191° to YYANG, then on track 191° to DADEY. Expect ILS or LOC to Rwy 19L.

LANDING RWY 19R: From HYPER on track 220° to cross CRAIN at 6000, then on track 220° to cross REXOE at 6000, then on track 191° to BEEZY. Expect ILS or LOC to Rwy 19R.

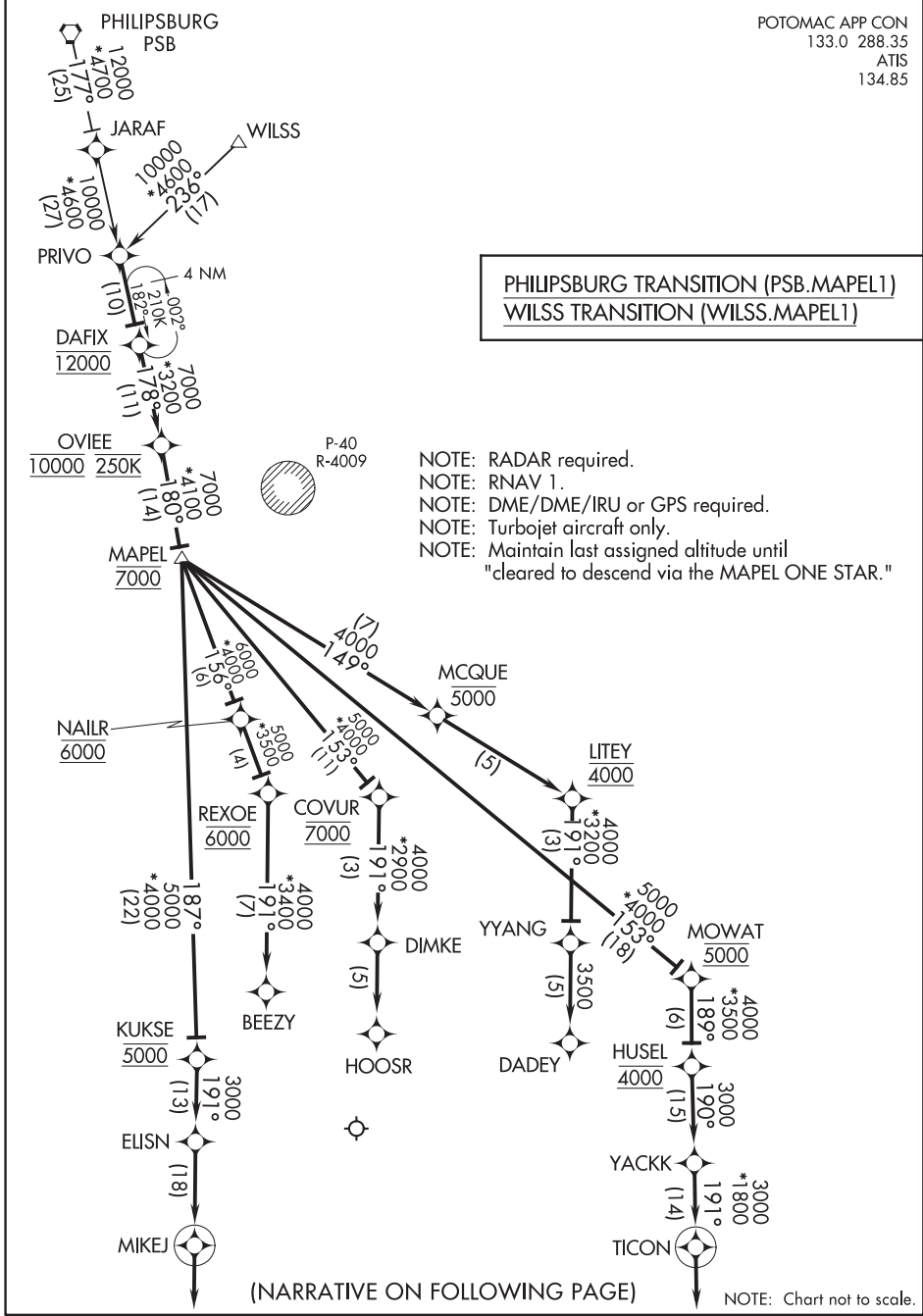
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# MAPEL ONE ARRIVAL (RNAV)

POTOMAC APP CON  
133.0 288.35  
ATIS  
134.85

PHILIPSBURG TRANSITION (PSB.MAPEL1)  
WILSS TRANSITION (WILSS.MAPEL1)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# MAPEL ONE ARRIVAL (RNAV)

# MAPEL ONE ARRIVAL (RNAV)

## ARRIVAL ROUTE DESCRIPTION

From PRIVO on track 177° to cross DAFIX at 12000, then on track 178° to cross OVIEE at 10000 and at 250K, then on track 180° to cross MAPEL at 7000.

LANDING RWYS 01R/C: From MAPEL on track 153° to cross MOWAT at 5000, then on track 189° to cross HUSEL at 4000, then on track 190° to YACKK, then on track 191° to TICON, then on track 191°.

Expect RADAR vectors to final approach course.

LANDING RWY 01L: From MAPEL on track 187° to cross KUKSE at 5000, then on track 191° to ELISN, then on track 191° to MIKEJ, then on track 191°.

Expect RADAR vectors to final approach course.

LANDING RWY 19C: From MAPEL on track 153° to cross COVUR at 7000, then on track 191° to DIMKE, then on track 191° to HOOSR.

Expect ILS or LOC to Rwy 19C.

LANDING RWY 19L: From MAPEL on track 149° to cross MCQUE at/below 5000, then on track 149° to cross LITEY at 4000, then on track 191° to YYANG, then on track 191° to DADEY.

Expect ILS or LOC to Rwy 19L.

LANDING RWY 19R: From MAPEL on track 156° to cross NAILR at 6000, then on track 156° to cross REXOΕ at 6000, then on track 191° to BEEZY.

Expect ILS or LOC to Rwy 19R.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# MIIDY TWO ARRIVAL (RNAV)

BALTIMORE, MARYLAND

NE-3, 10 NOV 2016 09:10 to 05 JAN 2017

POTOMAC APP CON  
133.75 254.35  
BALTIMORE WASHINGTON INTL ATIS  
115.1

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

MARTIN STATE

BALTIMORE/  
WASHINGTON INTL  
THURGOOD MARSHALL

HUNNIN  
Landing BWI: East:  
Rwys 10, 15L/R:  
Expect RADAR vectors.

JANNIS  
4000 210K  
Landing BWI:  
Rwy 33L:  
Expect assigned  
instrument approach  
or RADAR vectors.

DUDDS  
3000  
Landing BWI:  
Rwy 33R:  
Expect assigned  
instrument approach  
or RADAR vectors.

HURTZ  
3200  
Landing BWI:  
Rwy 28:  
Expect assigned  
instrument approach  
or RADAR vectors.

TROTZ  
3000  
Landing BWI:  
Rwy 28:  
Expect assigned  
instrument approach  
or RADAR vectors.

LANDING BWI RWY 28: From MIIDY on track 008° to cross TROTZ at 3000, then on track 314° to HURTZ. Expect assigned instrument approach or RADAR vectors.

LANDING BWI RWY 33L: From MIIDY on track 316° to cross SNUGI at or below 5000, then on track 323° to cross JANNIS at or above 4000 and at 210K. Expect assigned instrument approach or RADAR vectors.

LANDING BWI RWY 33R: From MIIDY on track 323° to cross DUDDS at or above 3000. Expect assigned instrument approach or RADAR vectors.

LANDING MTN: From MIIDY on track 022° to cross JUGMO at 3000, then on heading 315°. Expect RADAR vectors to final approach course.

## ARRIVAL ROUTE DESCRIPTION

### LAFIN TRANSITION (MIIDY.MIIDY2)

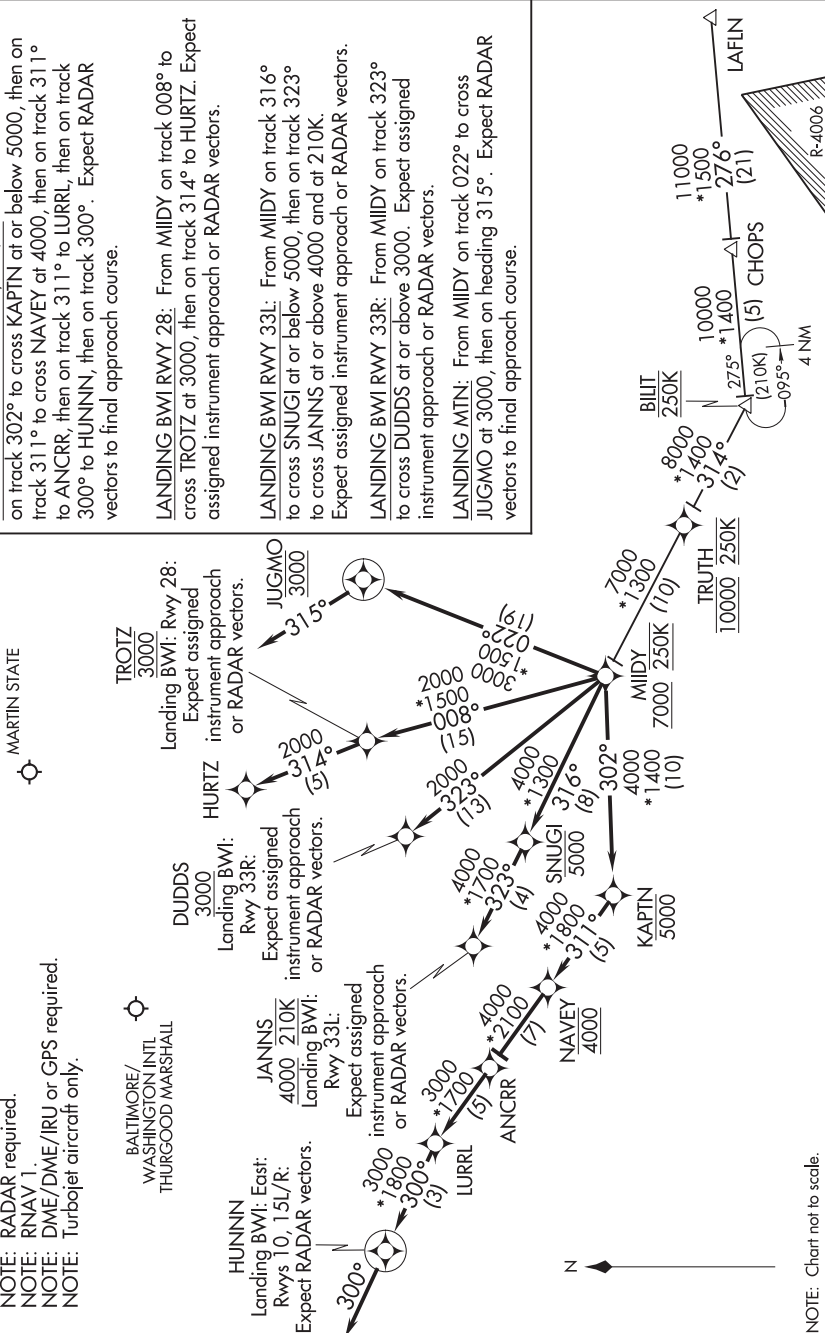
LANDING KBWI RWYS 10, 15L/R: From MIIDY on track 302° to cross KAPTIN at or below 5000, then on track 311° to cross NAVAY at 4000, then on track 311° to ANCR, then on track 311° to LURRL, then on track 300° to HUNNIN, then on track 300°. Expect RADAR vectors to final approach course.

# MIIDY TWO ARRIVAL (RNAV)

BALTIMORE, MARYLAND

NE-3, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.





# NUMMY TWO ARRIVAL

WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017

## ARRIVAL ROUTE DESCRIPTION

**BUCKO TRANSITION (BUCKO.NUMMY2):** From over BUCKO on ESL R-282 to ESL VOR/DME, then on ESL R-103 to DRUZZ, then on AML R-297 to AML VOR/DME.

**Landing DCA Rwy 1, 4, 33, ADW Rwy 1L, 1R, and DAA:** From over AML VOR/DME on AML R-130 to cross NUMMY/AML 17 DME at 6000, then on heading 187°, expect radar vectors to final approach course.

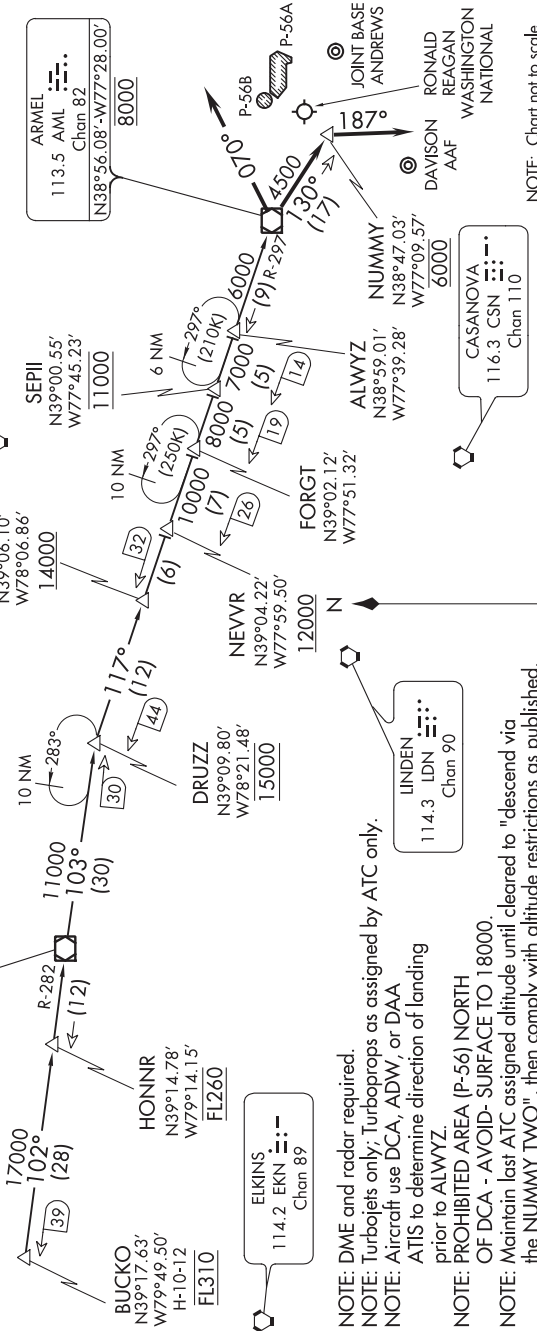
**Landing DCA Rwy 15, 19, 22 and ADW Rwy 19L, 19R:** Depart AML VOR/DME on heading 070°, expect radar vectors to final approach course.

POTOMAC APP CON  
118.675 323.175  
RONALD REAGAN  
WASHINGTON NATIONAL  
ATIS 132.65  
JOINT BASE ANDREWS ATIS  
113.1 251.05  
DAVISON AAF ATIS  
128.175

MORGANTOWN  
111.6 MGW  
Chan 53

KESSEL  
110.8 ESL  
Chan 45  
FL230  
N39°13.53'-W78°59.37'

MARTINSBURG  
112.1 MRB  
Chan 58



NOTE: Chart not to scale.

# NUMMY TWO ARRIVAL

WASHINGTON, DC

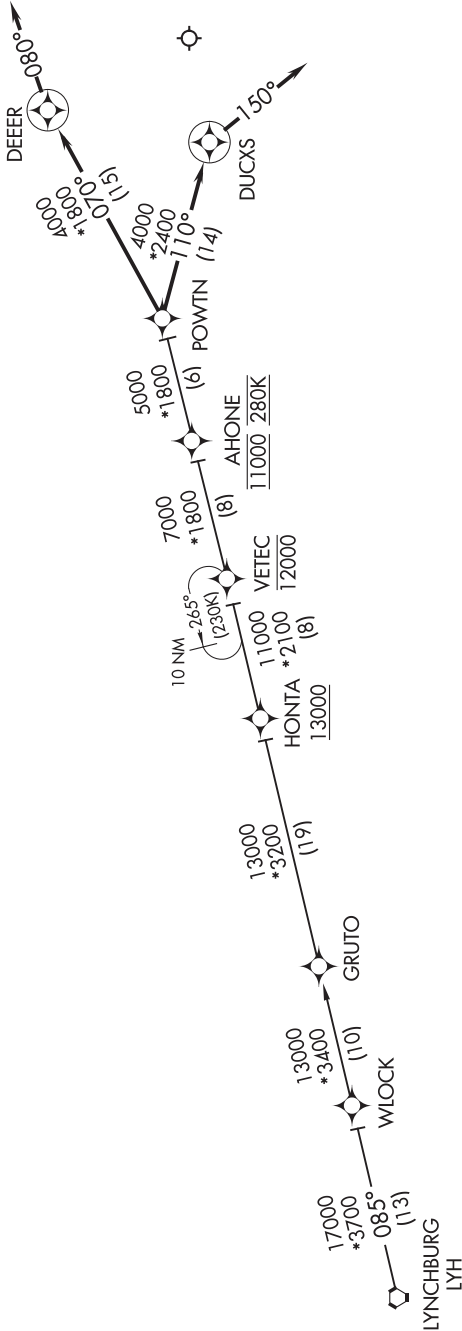
NE-3, 10 NOV 2016 to 05 JAN 2017

NOTE: DME and radar required.  
NOTE: Turboprops only; Turboprops as assigned by ATC only.  
NOTE: Aircraft use DCA, ADW, or DAA ATIS to determine direction of landing prior to ALWAYS.  
NOTE: PROHIBITED AREA (P-56) NORTH OF DCA - AVOID- SURFACE TO 18000.  
NOTE: Maintain last ATC assigned altitude until cleared to "descend via the NUMMY TWO", then comply with altitude restrictions as published.

# POWTN TWO ARRIVAL (RNAV)

NE-3, 10 NOV 2016 to 05 JAN 2017

POTOMAC APP CON  
126.75 307.2  
ATIS  
119.15



## ARRIVAL ROUTE DESCRIPTION

### LYNCHBURG TRANSITION (LYH.POWTN2)

LANDING NORTH RWYS 2, 7, 34: From POWTN on track 110° to DUCXS, then on heading 150° or as assigned by ATC. Expect RADAR vectors to final approach course.

LANDING SOUTH RWYS 16, 20, 25: From POWTN on track 070° to DEEER, then on heading 080° or as assigned by ATC. Expect RADAR vectors to final approach course.



NOTE: RADAR required.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: Turbojet aircraft only.

NOTE: Maintain last ATC assigned altitude until cleared to "descend via the POWTN STAR".  
ARTCC will issue landing direction assignment (north or south) and Potomac TRACON will issue runway assignments.

NOTE: Chart not to scale.

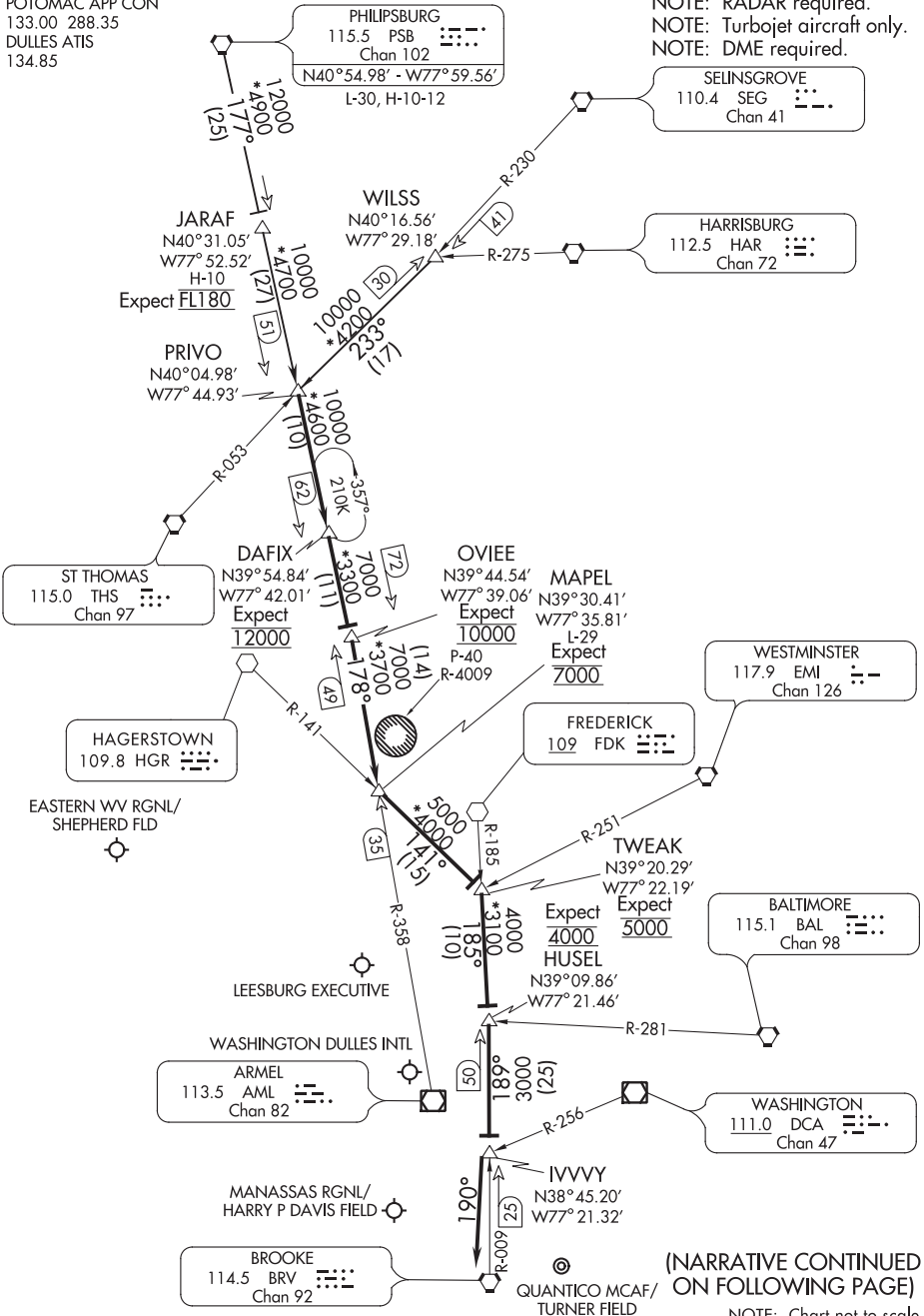
# POWTN TWO ARRIVAL (RNAV)

NE-3, 10 NOV 2016 to 05 JAN 2017

# PRIVO ONE ARRIVAL

POTOMAC APP CON  
133.00 288.35  
DULLES ATIS  
134.85

NOTE: RADAR required.  
NOTE: Turbojet aircraft only.  
NOTE: DME required.



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(NARRATIVE CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# PRIVO ONE ARRIVAL

ARRIVAL ROUTE DESCRIPTION

PHILIPSBURG TRANSITION (PSB.PRIVO1): From over PSB VORTAC on PSB R-177 to PRIVO. Thence...

WILSS TRANSITION (WILSS.PRIVO1): From over WILSS on THS R-053 to PRIVO. Thence...

...from PRIVO on PSB R-177 to DAFIX, then on PSB R-177 to OVIEE, then on AML R-358 to MAPEL, then on HGR R-141 to TWEAK, then on FDK R-185 to HUSEL, then on BRV R-009 to IVVVY, then on heading 190° or as assigned by ATC.

LANDING RWYS 01L/C/R, 30: Expect RADAR vectors to final approach course after IVVVY.  
LANDING RWYS 19L/C/R, 12: Expect RADAR vectors to final approach course after MAPEL.  
LANDING KHEF and KNYG: Expect RADAR vectors to destination airport course after IVVVY.  
LANDING KMRB and KJYO: Expect RADAR vectors to destination airport course after MAPEL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# RAVNN SIX ARRIVAL (RNAV) Transition Routes

BALTIMORE, MARYLAND

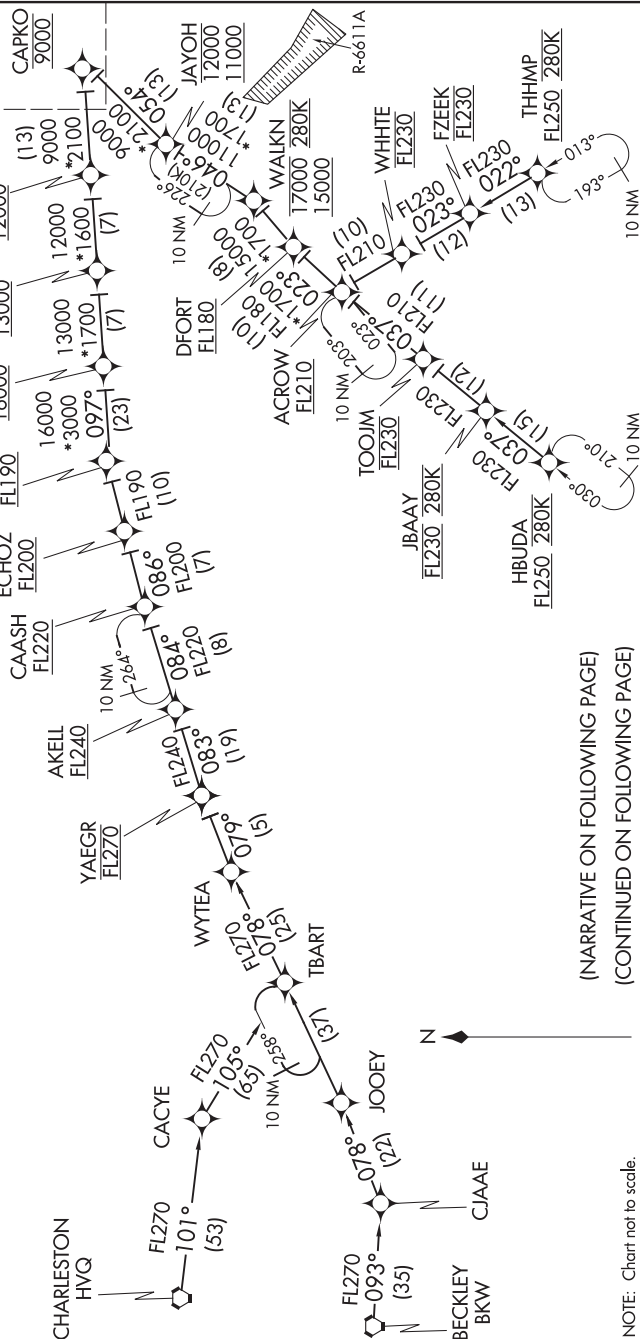
NE-3, 10 NOV 2016 to 05 JAN 2017

POTOMAC APP CON  
128.35 270.275  
BALTIMORE WASHINGTON INTL ATIS  
115.1 127.8

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Turbojet aircraft only.
- NOTE: All part 91, 101, 103, 105, 125, 133, 135, and 137 flight operations are prohibited on the HVQ/BKW/JOOEY transitions.

BECKLEY TRANSITION (BKW.RAVNN6)  
 CHARLESTON TRANSITION (HVQ.RAVNN6)  
 HBUDA TRANSITION (HBUDA.RAVNN6): (ATC assigned only).  
 JOOEY TRANSITION (JOOEY.RAVNN6): (ATC assigned only).  
 THHMP TRANSITION (THHMP.RAVNN6)

See following page for Arrival Routes.



(NARRATIVE ON FOLLOWING PAGE)  
(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

# RAVNN SIX ARRIVAL (RNAV) Transition Routes

BALTIMORE, MARYLAND

# RAVNN SIX ARRIVAL (RNAV) Arrival Routes

BALTIMORE, MARYLAND

POTOMAC APP CON

128.35 270.275

BALTIMORE WASHINGTON INTL ATIS

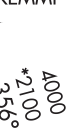
115.1 127.8

HUNNN

Landing BWI East:

Rwys 10, 15L/R:

Expect RADAR vectors to final approach course after HUNNN.



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

NOTE: Chart not to scale.

## ARRIVAL ROUTE DESCRIPTION

From CAPKO on track 072° to cross RAVNN at 6000.

**LANDING BWI RUNWAYS 10, 15L/R:** From RAVNN on track 352° to NAVEY, then on track 311° to ANCRR, then on track 311° to LURRL, then on track 300° to HUNNN, then on track 300°.

Expect RADAR vectors to final approach course.

**LANDING BWI RUNWAYS 28, 33L/R:** From RAVNN on track 014° to JETNA, then on track 014°.

Expect assigned instrument approach or RADAR vectors to final approach course.

**LANDING DMW:** From CAPKO on track 072° to cross RAVNN at 6000, then on track 359° to STRGL, then on track 356° to KEMMP, then on track 335° to SLOAF, then on heading 354°.

Expect RADAR vectors to final approach course.

**LANDING MTN:** From CAPKO on track 072° to cross RAVNN at 6000, then on track 072° to AMRTN, then on track 073°. Expect RADAR vectors to final approach course.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

POTOMAC APP CON  
128.35 270.275  
BALTIMORE WASHINGTON INTL ATIS  
115.1

CARROLL COUNTY RGNL/  
JACK B POAGE FIELD

WESTMINSTER  
117.9 EMI  
Chan 126  
N39°29.70'-W76°58.71'

MARTIN STATE

BALTIMORE  
115.1 BAL  
Chan 98  
N39°10.26'-W76°39.68'

WASHINGTON  
111.0 DCA  
Chan 47

BALTIMORE/WASHINGTON  
INTL THURGOOD MARSHALL  
RIPKN  
N38°55.90'  
W76°34.06'

SMYRNA  
111.4 ENO  
Chan 51

CASANOVA  
116.3 CSN  
Chan 110  
N38°38.47'-W77°51.93'  
L-29-34-36, H-10-12  
FL190

FIMBO  
N38°40.44'  
W77°19.13'  
16000

REXEE  
N38°41.45'  
W77°01.34'  
12000

BROOKE  
114.5 BRV  
Chan 92

UDUDE  
N38°40.92'  
W77°10.83'  
13000

BIRDZ  
N38°40.31'  
W76°49.36'  
9000

CAPKO  
N38°42.34'  
W76°44.71'  
9000

RAVNN  
N38°48.27'  
W76°31.08'  
6000

JAYOH  
N38°33.01'  
W76°55.90'  
12000  
11000

WALKN  
N38°21.95'  
W77°05.74'  
17000  
15000  
280K  
R-6611A

FLAT ROCK  
113.3 FAK  
Chan 80

DFORT  
N38°13.69'  
W77°07.91'  
FL180

ACROW  
N38°03.87'  
W77°10.48'  
FL210

GORDONSVILLE  
115.6 GVE  
Chan 103

WHHTE  
N37°54.19'  
W77°13.00'  
FL230 280K

RICHMOND  
114.1 RIC  
Chan 88  
N37°30.14'-W77°19.22'  
L-34-36, H-10-12  
FL250 280K

FZEEK  
N37°42.66'  
W77°15.99'  
FL230

- NOTE: RADAR required.
- NOTE: Turbojet aircraft only.
- NOTE: DME required.
- NOTE: All part 91, 101, 103, 105, 125, 133, 135 and 137 flight operations are prohibited on the CASANOVA TRANSITION.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

## ARRIVAL ROUTE DESCRIPTION

CASANOVA TRANSITION (CSN.RIPKN2): From over CSN VORTAC on CSN R-091 to CAPKO INT, thence . . . .

RICHMOND TRANSITION (RIC.RIPKN2): From over RIC VORTAC on RIC R-021 to WALKN INT, then on FAK R-040 to BIRDZ INT, then on ENO R-251 to CAPKO INT, thence . . . .

. . . . from CAPKO INT on ENO R-251 to cross RAVNN INT at 6000.

RWY 28, 33L/R: From RAVNN on BAL R-174 to RIPKN, then on heading 354°. Expect RADAR vectors to final approach course.

RWY 10, 15L/R: From RAVNN on BAL R-174 to RIPKN, then on heading 310°. Expect RADAR vectors to final approach course.

LANDING MTN: From RAVNN on BAL R-174 to RIPKIN, then on heading 050°. Expect RADAR vectors to final approach course.

LANDING DMW: From RAVNN on BAL R-174 to RIPKIN, then on BAL R-174 to BAL, then on BAL R-334 to EMI, then on heading 350°. Expect RADAR vectors to final approach course.



# SELINGSGROVE FOUR ARRIVAL

POTOMAC APP CON

133.0 288.35  
 DULLES ATIS  
 134.85  
 DULLES TOWER  
 120.1 317.8 (Rwy 1R/19L)  
 120.25 348.6 (Rwy 1C/19C)  
 134.425 348.6 (1L/19R, 12/30)

WILLIAMSPORT  
 114.4 FQM  
 Chan 91  
 N41°20.31'-W76°46.49'  
 L-30, H-10-12

MAA 17500  
 6000  
 \*4300  
 198° (18)  
 R-15

MILTON  
 109.2 MIP  
 Chan 29

DIANO  
 N41°00.03'  
 W76°13.56'  
 MAA 17500  
 6000  
 \*5000  
 246° (29)

WILKES-BARRE  
 111.6 LVZ  
 Chan 53  
 N41°16.37'-W75°41.37'  
 L-30-33-34, H-10-12

PHILIPSBURG  
 115.5 PSB  
 Chan 102

WATSO  
 N41°02.77'  
 W76°50.00'  
 6000  
 \*3800  
 197° (15)  
 R-289

BLESS  
 N40°56.35'  
 W76°25.21'

SELINGSGROVE  
 110.4 SEG  
 Chan 41  
 N40°47.45'-W76°53.04'

MARTINSBURG  
 112.1 MRB  
 Chan 58

PRTZL  
 N40°04.34'  
 W77°06.40'  
 6000  
 \*3800  
 201° (31)  
 R-075

LEGGO  
 N40°17.27'  
 W77°02.43'

LANCASTER  
 117.3 LRP  
 Chan 120

P-40  
 R-4009

R-151  
 6000  
 \*210K  
 201° (13)  
 R-296

WESTMINSTER  
 117.9 EMI  
 Chan 126

FREDERICK  
 109.0 (T) FDK  
 N39°24.73'  
 W77°22.51'

HYPER  
 N39°41.04'  
 W77°13.51'  
 Expect 8000  
 210K  
 065°  
 R-323

NOTE: RADAR required.  
 NOTE: For non-turbojet aircraft capable of 180K or greater.

HUSEL  
 N39°09.86'  
 W77°21.46'

TWEAK  
 N39°20.29'  
 W77°22.19'

BALTIMORE  
 115.1 BAL  
 Chan 98

IVVY  
 N38°45.20'  
 W77°21.32'

R-037  
 5000  
 \*2900  
 185° (10)  
 R-251

WASHINGTON  
 111.0 DCA  
 Chan 47

R-009  
 3000  
 189° (25)  
 R-256

BROOKE  
 114.5 BRV  
 Chan 92

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

# SELINGSGROVE FOUR ARRIVAL

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# SELINGSGROVE FOUR ARRIVAL

## ARRIVAL ROUTE DESCRIPTION

WILKES-BARRE TRANSITION (LVZ.SEG4):

From over LVZ VORTAC via LVZ R-246 and SEG R-075 to SEG VORTAC. Thence....

WILLIAMSPORT TRANSITION (FQM.SEG4):

From over FQM VOR/DME via FQM R-198 and SEG R-017 to SEG VORTAC. Thence....

....From SEG VORTAC on SEG R-201 to LEGGO, then on SEG R-201 to PRTZL, then on SEG R-201 to HYPER, then on FDK R-031 to FDK VOR, then on FDK R-185 to TWEAK, then on FDK R-185 to HUSEL, then on BRV R-009 to IVVVY, then on heading 190° or as assigned by ATC. Expect RADAR vectors to final approach course.

LANDING RWYS 01L/C/R and 30: Expect RADAR vectors to final approach course after IVVVY.

LANDING RWYS 19L/C/R and 12: Expect RADAR vectors to final approach course prior to FDK VOR.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

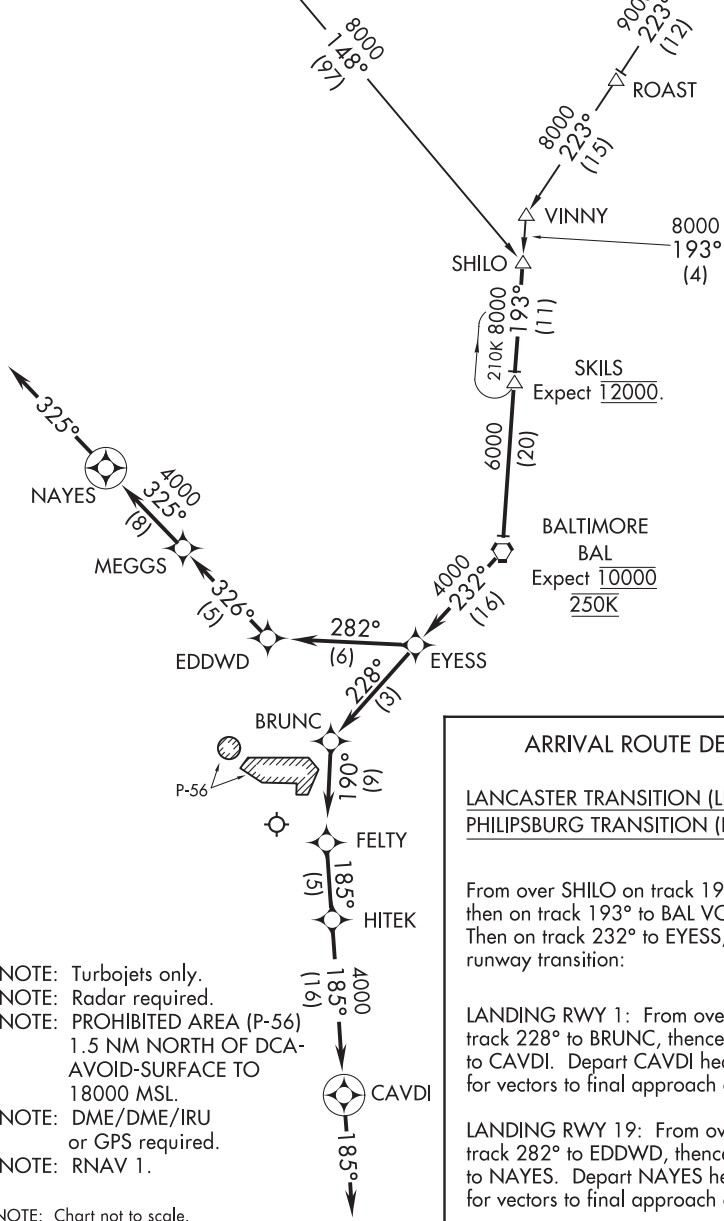
# SKILS THREE ARRIVAL (RNAV)

RONALD REAGAN WASHINGTON NATIONAL (DCA)

POTOMAC APP CON  
128.7 307.9  
WASHINGTON NATIONAL ATIS  
132.65

PHILIPSBURG  
PSB

LANCASTER  
LRP



SKILS  
Expect 12000.

BALTIMORE  
BAL  
Expect 10000  
250K

## ARRIVAL ROUTE DESCRIPTION

LANCASTER TRANSITION (LRP.SKILS3):  
PHILIPSBURG TRANSITION (PSB.SKILS3):

From over SHILO on track 193° to SKILS, then on track 193° to BAL VORTAC. Then on track 232° to EYESS, then via runway transition:

LANDING RWY 1: From over EYESS on track 228° to BRUNC, thence as depicted to CAVDI. Depart CAVDI heading 185° for vectors to final approach course.

LANDING RWY 19: From over EYESS on track 282° to EDDWD, thence as depicted to NAYES. Depart NAYES heading 325° for vectors to final approach course.

- NOTE: Turbojets only.
- NOTE: Radar required.
- NOTE: PROHIBITED AREA (P-56) 1.5 NM NORTH OF DCA-AVOID-SURFACE TO 18000 MSL.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: RNAV 1.

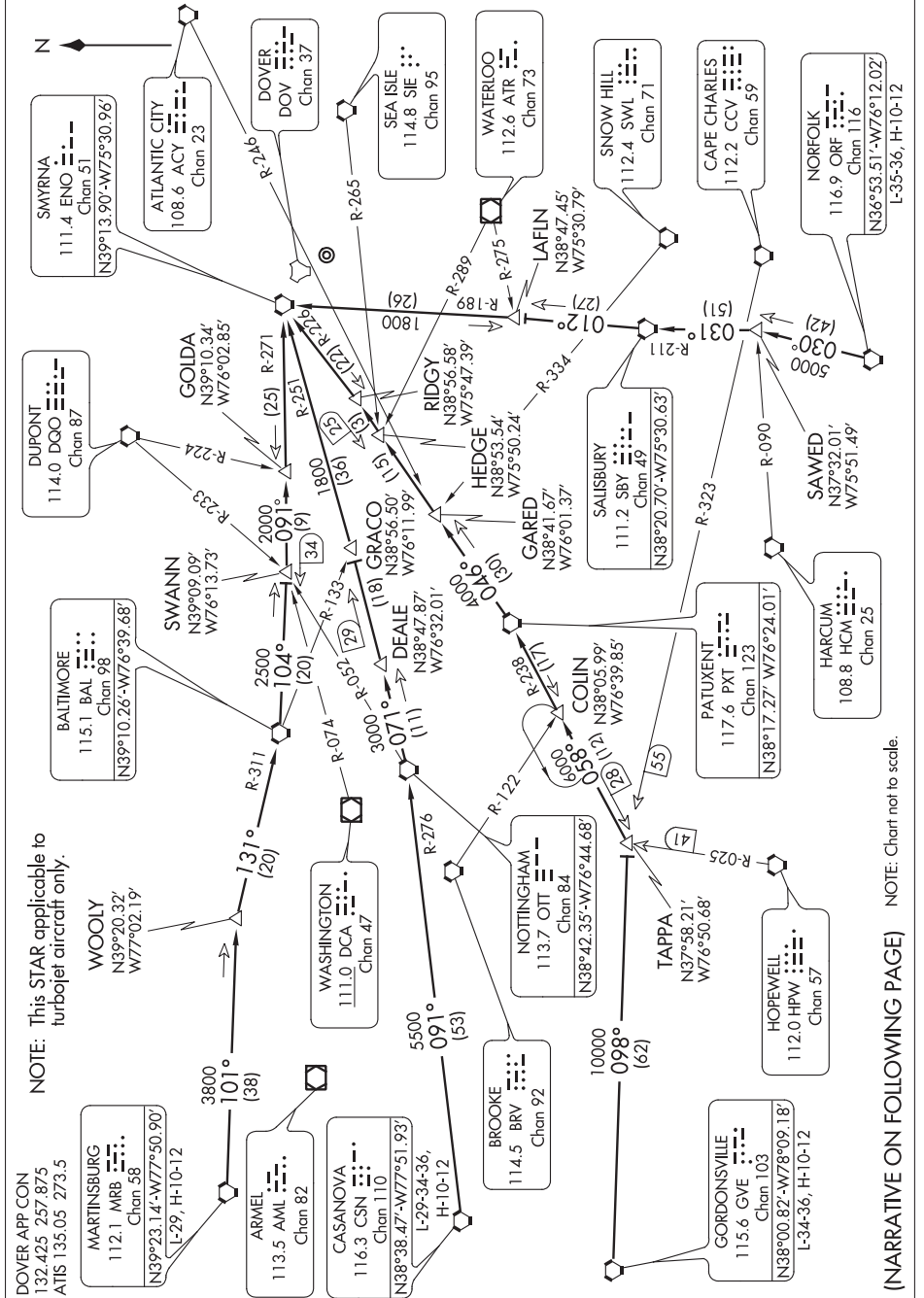
NOTE: Chart not to scale.

# SKILS THREE ARRIVAL (RNAV)

(SKILS.SKILS3) 15SEP16

# SMYRNA THREE ARRIVAL

NE-3, 10 NOV 2016 to 05 JAN 2017



NE-3, 10 NOV 2016 to 05 JAN 2017

# SMYRNA THREE ARRIVAL

(NARRATIVE ON FOLLOWING PAGE) NOTE: Chart not to scale.

# SMYRNA THREE ARRIVAL (ENO.ENO3)

## ARRIVAL DESCRIPTION

CASANOVA TRANSITION (CSN.ENO3): From over CSN VORTAC via CSN R-091 and OTT R-276 to OTT VORTAC. Then from OTT VORTAC via OTT R-071 and ENO R-251 to ENO VORTAC. Thence . . . .

GORDONSVILLE TRANSITION (GVE.ENO3): From over GVE VORTAC via GVE R-098 and PXT R-238 to PXT VORTAC. Then from PXT VORTAC via PXT R-046 and ENO R-226 to ENO VORTAC. Thence . . . .

MARTINSBURG TRANSITION (MRB.ENO3): From over MRB VORTAC via MRB R-101 and BAL R-311 to BAL VORTAC. Then from BAL VORTAC via BAL R-104 and ENO R-271 to ENO VORTAC. Thence. . . .

NORFOLK TRANSITION (ORF.ENO3): From over ORF VORTAC via ORF R-030 and SBY R-211 to SBY VORTAC. Then from SBY VORTAC via SBY R-012 and ENO R-189 to ENO VORTAC. Thence. . . .

. . . . Expect radar vectors to final approach course from ENO VORTAC.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

POTOMAC APP CON  
126.75 307.2  
ATIS  
119.15

MONTEBELLO  
MOL



ZUMAT



DXOON



10 NM



HEMME



SPIDR



DEEER



DUCKS



080°



ARRIVAL ROUTE DESCRIPTION

MONTEBELLO TRANSITION (MOL.SPIDR2)  
 LANDING NORTH RWYS 2, 7, 34: From SPIDR on track 148° to DUCKS, then on heading 150° or as assigned by ATC. Expect RADAR vectors to final approach course.  
 LANDING SOUTH RWYS 16, 20, 25: From SPIDR on track 104° to DEEER, then on heading 080° or as assigned by ATC. Expect RADAR vectors to final approach course.

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

# SPISY TWO ARRIVAL (RNAV)

CAMP SPRINGS, MARYLAND

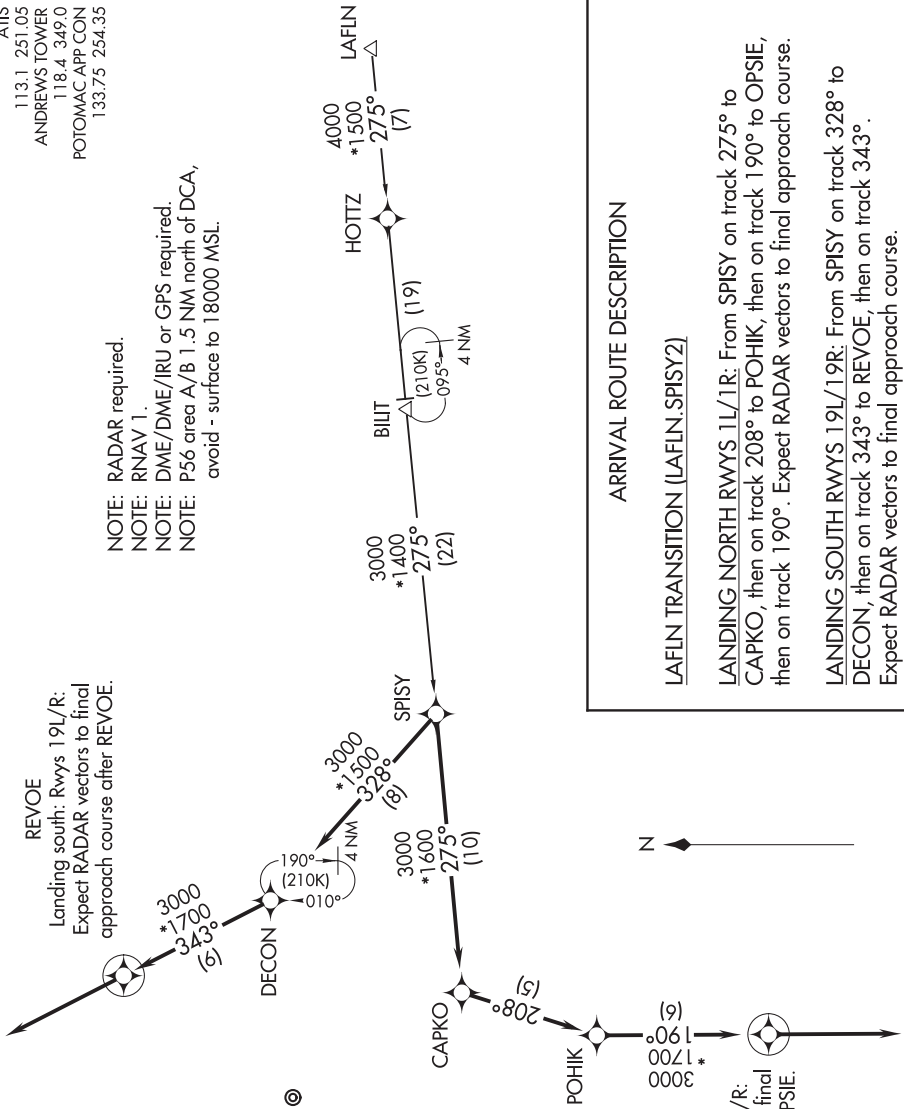
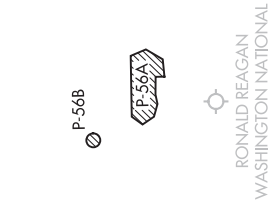
NE-3, 10 NOV 2016 to 05 JAN 2017

ATIS  
 113.1 251.05  
 ANDREWS TOWER  
 118.4 349.0  
 POTOMAC APP CON  
 133.75 254.35

NOTE: RADAR required.  
 NOTE: RNAV 1.  
 NOTE: DME/DME/IRU or GPS required.  
 NOTE: P56 area A/B 1.5 NM north of DCA,  
 avoid - surface to 18000 MSL.

REVOE  
 Landing south: Rwy 19L/R:  
 Expect RADAR vectors to final  
 approach course after REVOE.

OPSE  
 Landing north: Rwy 1L/R:  
 Expect RADAR vectors to final  
 approach course after OPSE.



## ARRIVAL ROUTE DESCRIPTION

### LAFIN TRANSITION (LAFIN.SPISY2)

LANDING NORTH RWYS 1L/1R: From SPISY on track 275° to CAPKO, then on track 208° to POHIK, then on track 190° to OPSE, then on track 190°. Expect RADAR vectors to final approach course.

LANDING SOUTH RWYS 19L/19R: From SPISY on track 328° to DECON, then on track 343° to REVOE, then on track 343°. Expect RADAR vectors to final approach course.

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

# SPISY TWO ARRIVAL (RNAV)

CAMP SPRINGS, MARYLAND

# TERKS TWO ARRIVAL

NORFOLK APP CON  
118.9 353.7  
NORFOLK INTL ATIS  
127.15  
NORFOLK NS ATIS  
118.425 342.0  
OCEANA NAS ATIS  
317.6

MONTEBELLO  
115.3 MOL Chan 100  
N37°54.03'-W79°06.41'  
L-26, H-10-12

HARCUM  
108.8 HCM Chan 25  
N37°26.92'-W76°42.68'

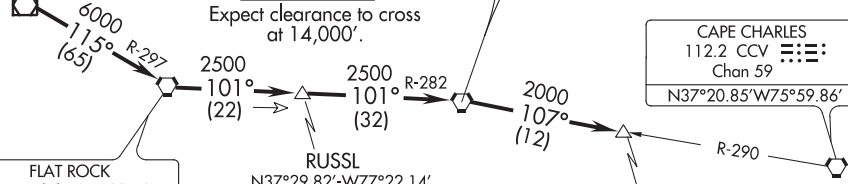
CAPE CHARLES  
112.2 CCV Chan 59  
N37°20.85'-W75°59.86'

FLAT ROCK  
113.3 FAK Chan 80  
N37°31.71'-W77°49.69'

**TURBOJET VERTICAL NAVIGATION PLANNING INFORMATION**  
Expect clearance to cross at 14,000'.

**TURBOJET VERTICAL NAVIGATION PLANNING INFORMATION**  
Expect clearance to cross at 16,000'.

**TURBOJET VERTICAL NAVIGATION PLANNING INFORMATION**  
Expect clearance to cross 20 NM west at FL 210.



NORFOLK NS (CHAMBERS FIELD)

NORFOLK INTL

HAMPTON ROADS

OCEANA NAS/APOLLO SOUCEK FIELD

SUFFOLK EXECUTIVE

CHESAPEAKE RGNL

NOTE: For aircraft at or above 14,000' only.

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

From over MOL VOR/DME via R-115 and FAK R-297 to FAK VORTAC, then via FAK R-101 and HCM R-282 to HCM VORTAC, then via HCM R-107 and CCV R-290 to TERKS INT. Expect radar vectors to the final approach course after the TERKS INT.

# TERKS TWO ARRIVAL



# TIKEE THREE ARRIVAL (RNAV)

WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017

## ARRIVAL ROUTE DESCRIPTION

BBONE TRANSITION (BBONE.TIKEE3):

KESSEL TRANSITION (ESL.TIKEE3):

SEALZ TRANSITION (SEALZ.TIKEE3):

All aircraft types landing HEF, 2VG2, NYG, RMN, HWY, CJR, EZF: From **TIKEE** on track 090° to JETIS, then on heading 090° or as assigned by ATC. Expect RADAR vectors to final approach course.

Props and Turboprop aircraft landing DAA, W00, VKX, ADW, 2W5, DCA, W32: From **TIKEE** on track 122° to GILFF, then on track 090° to HIGPO, then on heading 090° or as assigned by ATC. Expect RADAR vectors to final approach course.

POTOMAC APP CON  
120.45 306.925  
JOINT BASE ANDREWS ATIS  
113.1 251.05  
DAVISON AAF ATIS  
128.175  
RONALD REAGAN WASHINGTON  
NATIONAL ATIS 132.65

NOTE: RADAR required.

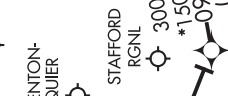
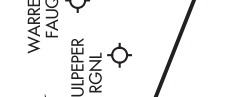
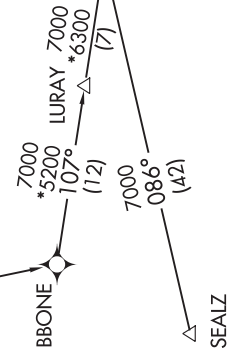
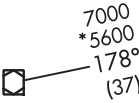
NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: Procedure available to all type aircraft landing the following airports: 2VG2, CJR, HWY, HEF, RMN, EZF, NYG.

NOTE: Props or Turboprop aircraft only landing the following airports: DAA, 2W5, VKX, W32, W00, DCA, ADW.

KESSEL  
ESL  
FL190



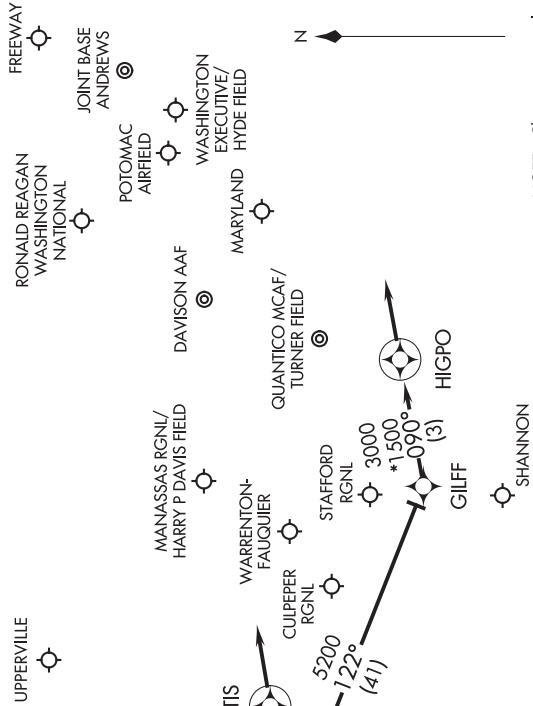
# TIKEE THREE ARRIVAL (RNAV)

(TIKEE.TIKEE3) 21JUL16

WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale

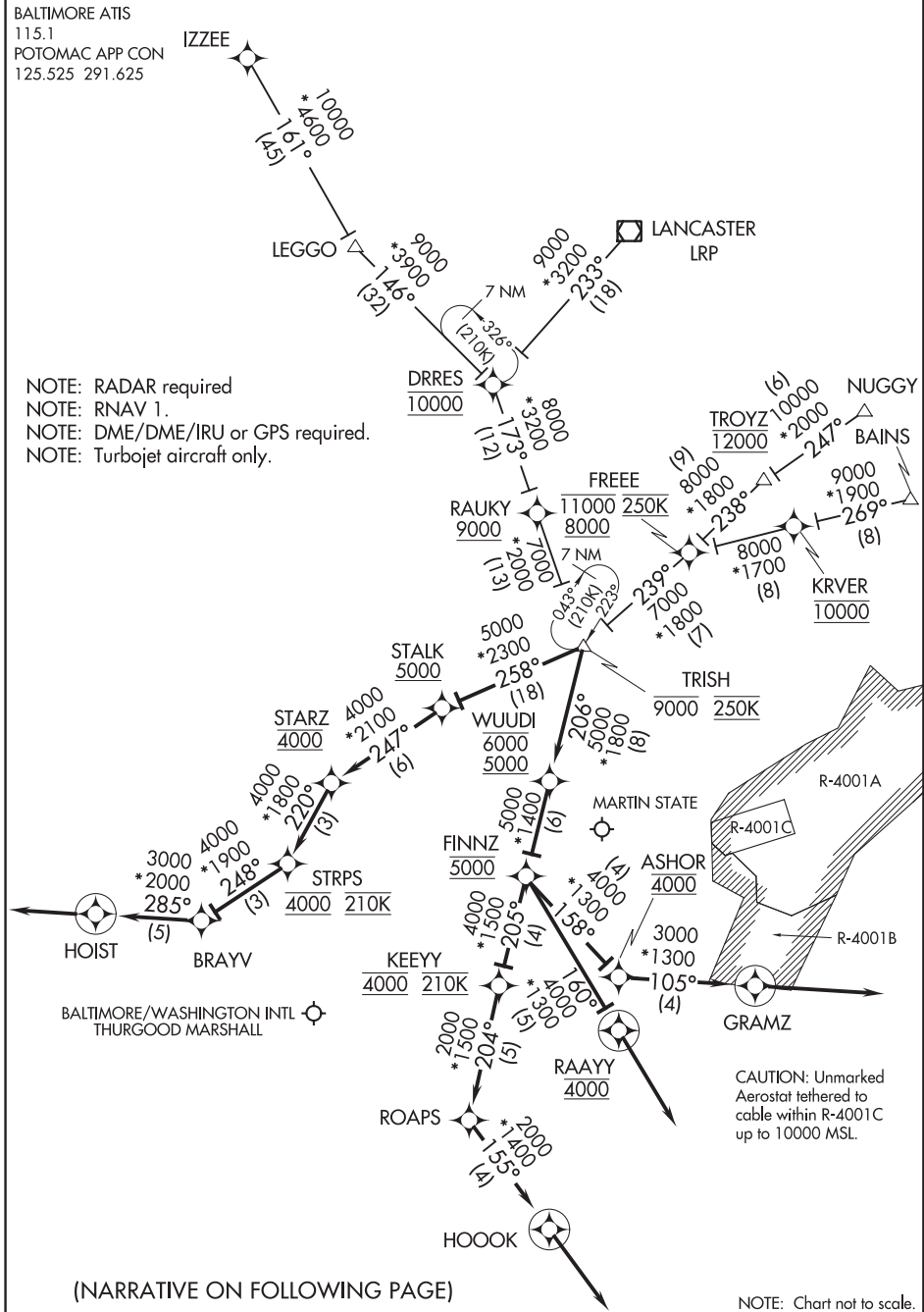


# TRISH THREE ARRIVAL (RNAV)

BALTIMORE, MARYLAND

BALTIMORE ATIS  
115.1  
POTOMAC APP CON  
125.525 291.625

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



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# TRISH THREE ARRIVAL (RNAV)

BALTIMORE, MARYLAND

ARRIVAL ROUTE DESCRIPTION

BAINS TRANSITION (BAINS.TRISH3):

IZZEE TRANSITION (IZZEE.TRISH3):

LANCASTER TRANSITION (LRP.TRISH3):

NUGGY TRANSITION (NUGGY.TRISH3):

LANDING BWI:

LANDING RWYS 10, 15L, 15R: From TRISH on track 258° to cross STALK at or above 5000, then on track 247° to cross STARZ at 4000, then on track 220° to cross STRPS at 4000 and at 210K, then on track 248° to BRAYV, then on track 285° to HOIST, then on heading 285° or as assigned by ATC. Expect RADAR vectors to final approach course.

LANDING RWY 28: From TRISH on track 206° to cross WUUDI between 5000 and 6000, then on track 206° to cross FINNZ at 5000, then on track 158° to cross ASHOR at 4000, then on track 105° to GRAMZ, then on heading 105° or as assigned by ATC. Expect RADAR vectors to final approach course.

LANDING RWYS 33L/R: From TRISH on track 206° to cross WUUDI between 5000 and 6000, then on track 206° to cross FINNZ at 5000, then on track 205° to cross KEEYY at 4000 and at 210K, then on track 204° to ROAPS, then on track 155° to HOOOK, then on track 155°. Expect RADAR vectors to final approach course.

LANDING MTN: From TRISH on track 206° to cross WUUDI between 5000 and 6000, then on track 206° to cross FINNZ at 5000, then on track 160° to cross RAAYY at 4000, then on heading 160° or as assigned by ATC. Expect RADAR vectors to final approach course.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(TRSTN.TRSTN3) 16035

# TRSTN THREE ARRIVAL (RNAV)

ST-5326

WASHINGTON, D.C.

POTOMAC APP CON  
126.75 307.2

HAGERSTOWN RGNL-  
RICHARD A HENSON FIELD

CARROLL COUNTY RGNL/  
JACK B POAGE FIELD

EASTERN WV RGNL/  
SHEPHERD FIELD

4000

\* 3000

090°

(23)

RUANE

FREDERICK MUNI

DAVIS

MONTGOMERY COUNTY AIRPARK

4300

\* 2400

080°

(22)

EZZZZ

LEESBURG EXECUTIVE

ASHLN

WINCHESTER RGNL

WARRENTON-  
FAUQUIER

MANASSAS RGNL/  
HARRY P. DAVIS FIELD

FRONT ROYAL-  
WARREN COUNTY

CULPEPER RGNL

\* 5200

\* 3200

350°

(14)

MOTIE

010°

(5)

\* 1800

000

TRSTN

**ARRIVAL ROUTE DESCRIPTION**

LORAA TRANSITION (LORAA.TRSTN3):  
THHMP TRANSITION (THHMP.TRSTN3):

Landing KHEF, KHUY, KCJR: From TRSTN on track 010° to MOTIE, then on heading 010° or as assigned by ATC. Expect radar vectors to final approach course.

Landing KOKV, KHGR, KMRB, KJYO, KFDK, KDMW, KW50, KGAI, KFRR: From TRSTN on track 350° to ASHLN, then on track 080° to EZZZZ, then on track 090° or as assigned by ATC. Expect radar vectors to final approach course.

JOHOF  
All aircraft: Expect 13000

6000

\* 1800

004°

(16)

214°

10 NM

10000

\* 1800

034°

(11)

PERKN

11000

\* 1800

034°

(8)

DORRN

13000

\* 1800

037°

(9)

LORAA

Turbojets: Expect FL190

Non-turbojets: Expect 15000

6000

\* 1800

339°

(42)

THHMP

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

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# TRSTN THREE ARRIVAL (RNAV)

(TRSTN.TRSTN3) 04FEB16

WASHINGTON, D.C.

# TRUPS THREE ARRIVAL (RNAV) Transition Routes

WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017

POTOMAC APP CON  
118.675 323.175  
RONALD REAGAN WASHINGTON  
NATIONAL ATIS  
132.65  
JOINT BASE ANDREWS ATIS  
113.1 251.05  
DAVISON AAF ATIS  
128.175

NOTE: Radar required.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: Turbojets only; turboprops as assigned by ATC only.

NOTE: Prohibited area (P-56) north DCA-avoid-surface to 18000.

NOTE: Maintain last assigned altitude until cleared to "descend via" the TRUPS3.

NOTE: ARTCC will issue landing direction assignment (north or south) and Potomac

TRACON will issue runway assignments.

See following  
page for  
arrival routes.

TRUPS

11000 250K

OOJRR  
13000 250K

05000  
5000  
33600  
(13)

057°

257°

(8)

6 NM

(210K)

SUPRT  
17000 280K  
14000

071°

(8)

10000

\*5100

WEEDU  
FL190  
16000

086°

14000

\*6300

(7)

USAAV  
FL210 280K  
17000

087°

15000

\*6300

(12)

PJAAE  
FL230  
FL210

088°

15000

\*5500

(9)

JARHD  
FL260  
FL220

086°

15000

\*5200

(9)

RANJR  
FL280 280K  
FL240

086°

15000

\*6600

(12)

SEALZ  
FL250K

255°

(23)

10 NM

FL1180

102°

(49)

DILNN  
(27)

DEBZZ

(30)

POMYK  
(15)

FL2000  
075°

(47)

FIMPA  
FL200

101°

(47)

CHARLESTON  
HVQ

BECKLEY  
BKW



(CONTINUED ON FOLLOWING PAGE)

BECKLEY TRANSITION (BKW.TRUPS3):

CHARLESTON TRANSITION (HVQ.TRUPS3):

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

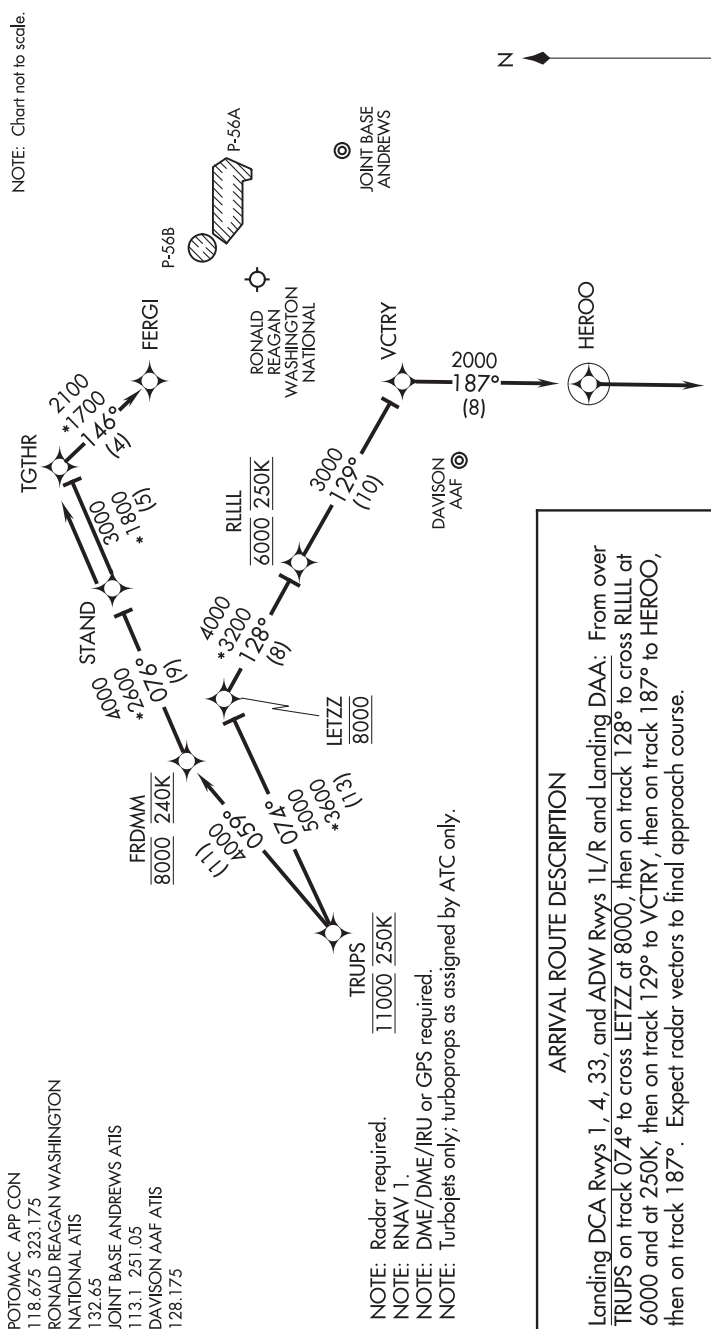
# TRUPS THREE ARRIVAL (RNAV) Transition Routes

WASHINGTON, DC

# TRUPS THREE ARRIVAL (RNAV) Arrival Routes

WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017



POTOMAC APP CON  
118.675 323.175  
RONALD REAGAN WASHINGTON  
NATIONAL ATIS  
132.65  
JOINT BASE ANDREWS ATIS  
113.1 251.05  
DAVISON AAF ATIS  
128.175

NOTE: Radar required.  
NOTE: RNAV 1.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Turbojets only; turboprops as assigned by ATC only.

### ARRIVAL ROUTE DESCRIPTION

Landing DCA Rwy 1, 4, 33, and ADW Rwy 1L/R and Landing DAA: From over TRUPS on track 074° to cross LETZ on track 128° to cross RLLLL at 6000 and at 250K, then on track 129° to VCTRY, then on track 187° to HEROO, then on track 187°. Expect radar vectors to final approach course.

Landing DCA Rwy 15, 19, 22: From over TRUPS on track 059° to cross FRDMM at 8000 and 240K, then on track 076° to STAND, then on track 076° to TGTGR, then on track 146° to FERG1. Expect LDA/DME Rwy 19, RNAV/RNP Rwy 19, RIVER VISUAL Rwy 19 or radar vectors to final approach course.

Landing ADW Rwy 19L/R: From over TRUPS on track 059° to cross FRDMM at 8000 and at 240K, then on track 076° to STAND, then on track 076° to TGTGR, then on track 076°. Expect radar vectors to final approach course.

NOTE: Prohibited area (P-56) north DCA-avoid-surface to 18000.  
NOTE: Maintain last assigned altitude until cleared to "descend via" the TRUPS3. ATRCC will issue landing direction assignment (north or south) and Potomac TRACON will issue runway assignments.

NE-3, 10 NOV 2016 to 05 JAN 2017

# VUDOO TWO ARRIVAL (RNAV) Transition Routes

POTOMAC APP CON  
126.4 282.375  
ATIS  
113.1 251.05  
TOWER  
118.4 349.0

See following page  
for arrival routes

VUDOO  
9000

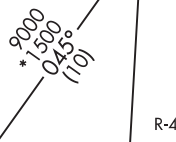
R-6611A & B

R-6613A

R-6601B & C

R-6601A

R-4006



TRUUK



BEEVR  
12000



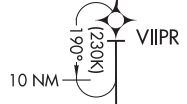
GOLOE  
13000



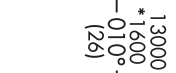
HANKC



THHMP



VIIPR



CIBAC

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: P56 area A/B 1.5 NM north of DCA, avoid surface to 18000 MSL.

(CONTINUED ON FOLLOWING PAGE)  
(NARRATIVE ON FOLLOWING PAGE)

BEEVR TRANSITION (BEEVR.VUDOO2): (ATC assigned only).  
 CIBAC TRANSITION (CIBAC.VUDOO2)  
 THHMP TRANSITION (THHMP.VUDOO2)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(VUDOO.VUDOO2) 15344

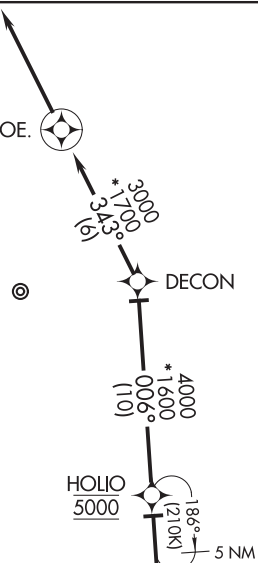
Z55  
ST-561

JOINT BASE ANDREWS (ADW)  
CAMP SPRINGS, MARYLAND

# VUDOO TWO ARRIVAL (RNAV) Arrival Routes

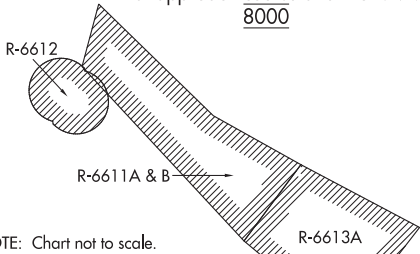
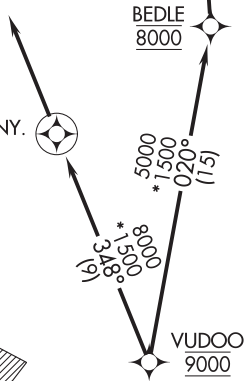
POTOMAC APP CON  
126.4 282.375  
ATIS  
113.1 251.05  
TOWER  
118.4 349.0

**REVOE**  
Landing south: Rwy 19L/R:  
Expect RADAR vectors to  
final approach course after REVOE.



- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: P56 area A/B 1.5 NM north of DCA, avoid surface to 18000 MSL.

**FUNNY**  
Landing north: Rwy 1L/R:  
Expect RADAR vectors to  
final approach course after FUNNY.  
8000



NOTE: Chart not to scale.

## ARRIVAL ROUTE DESCRIPTION

**LANDING NORTH RWYS 1L/R:** From VUDOO on track 348° to cross FUNNY at 8000, then on track 348°. Expect RADAR vectors to final approach course.

**LANDING SOUTH RWYS 19L/R:** From VUDOO on track 020° to cross BEDLE at 8000, then on track 006° to cross HOLIO at 5000, then on track 006° to DECON, then on track 343° to REVOE, then on track 343°. Expect RADAR vectors to final approach course.

VUDOO TWO ARRIVAL (RNAV) Arrival Routes  
(VUDOO.VUDOO2) 15344

CAMP SPRINGS, MARYLAND  
JOINT BASE ANDREWS (ADW)

NE-3, 10 NOV 2016 to 05 JAN 2017

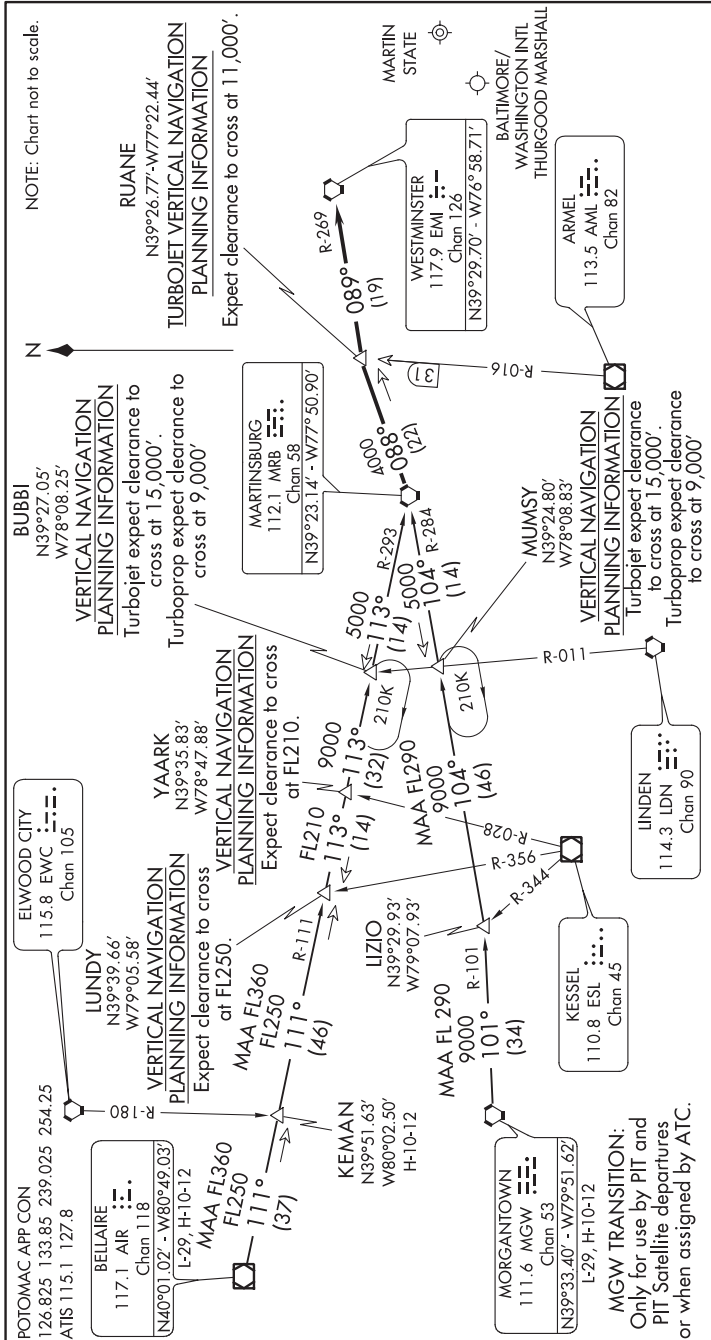
NE-3, 10 NOV 2016 to 05 JAN 2017



# WESTMINSTER FIVE ARRIVAL

BALTIMORE, MARYLAND

NE-3, 10 NOV 2016 to 05 JAN 2017



## ARRIVAL ROUTE DESCRIPTION

**BELLAIRE TRANSITION (AIR.EMI5):** From over AIR VOR/DME via AIR R-111 to LUNDY INT, then via MRB VORTAC R-293 to MRB. Thence . . .

**KEMAN TRANSITION (KEMAN.EMI5):** From over KEMAN INT via AIR R-111 to LUNDY INT, then via MRB VORTAC R-293 to MRB. Thence . . .

**MORGANTOWN TRANSITION (MGW.EMI5):** From over MGW VORTAC via the MGW R-101 to LIZIO INT, then via MRB VORTAC R-284 to MRB. Thence . . .

. . . From MRB via MRB R-088 to RUANE INT, then via EMI VORTAC R-269 to EMI. Expect vectors to final approach course after EMI.

NE-3, 10 NOV 2016 to 05 JAN 2017

# WESTMINSTER FIVE ARRIVAL

BALTIMORE, MARYLAND

(WIGOL.WIGOL1) 14093

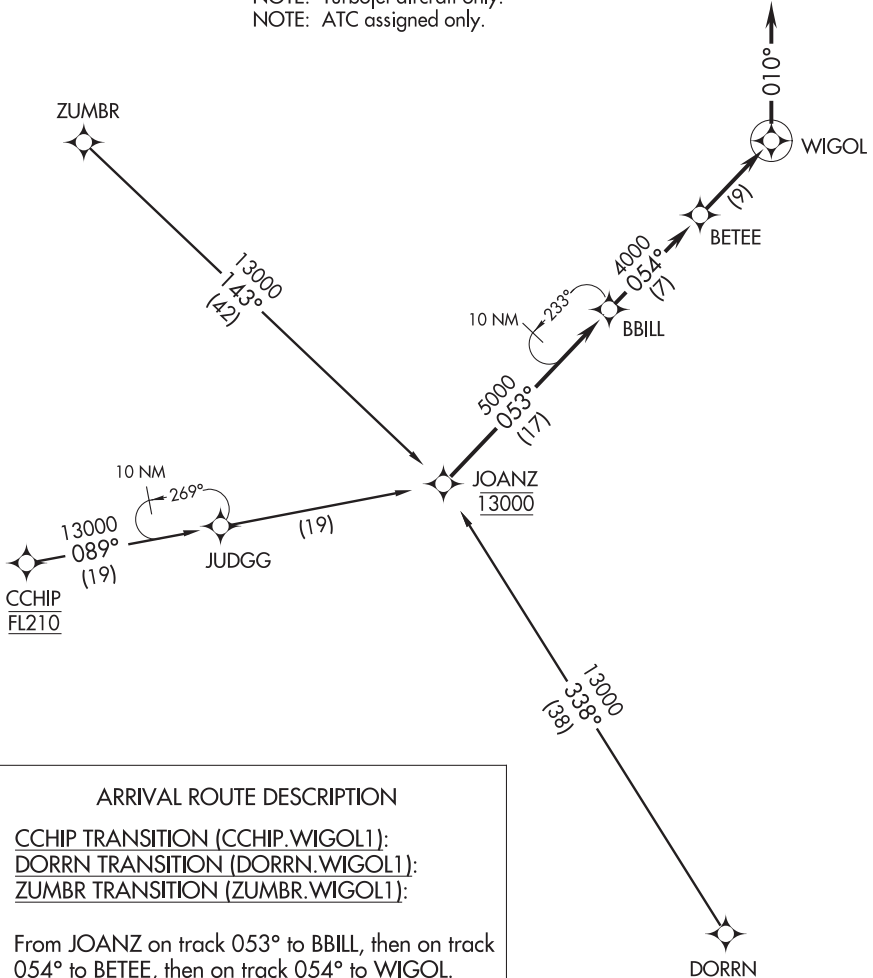
Z57  
ST-5100 (FAA)

WASHINGTON DULLES INTL (IAD)  
WASHINGTON, DC

# WIGOL ONE ARRIVAL (RNAV)

POTOMAC APP CON  
132.85 323.125  
ATIS  
134.85

NOTE: Radar required.  
NOTE: RNAV 1.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Turbojet aircraft only.  
NOTE: ATC assigned only.



## ARRIVAL ROUTE DESCRIPTION

CCHIP TRANSITION (CCHIP.WIGOL1):  
DORRN TRANSITION (DORRN.WIGOL1):  
ZUMBR TRANSITION (ZUMBR.WIGOL1):

From JOANZ on track 053° to BBILL, then on track 054° to BETEE, then on track 054° to WIGOL.

Landing Rwy's 19L, 19C, 19R, 30, 1L, 1C, 1R:  
From WIGOL on heading 010°. Expect radar vectors to final approach course.

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WIGOL ONE ARRIVAL (RNAV)  
(WIGOL.WIGOL1) 14093

WASHINGTON, DC  
WASHINGTON DULLES INTL (IAD)

WAAS CH <b>82411</b> <b>W06A</b>	APP CRS <b>061°</b>	Rwy Idg TDZE Apt Elev	<b>4471</b> <b>2068</b> <b>2087</b>
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# RNAV (GPS) RWY 6

VIRGINIA HIGHLANDS (VJI)

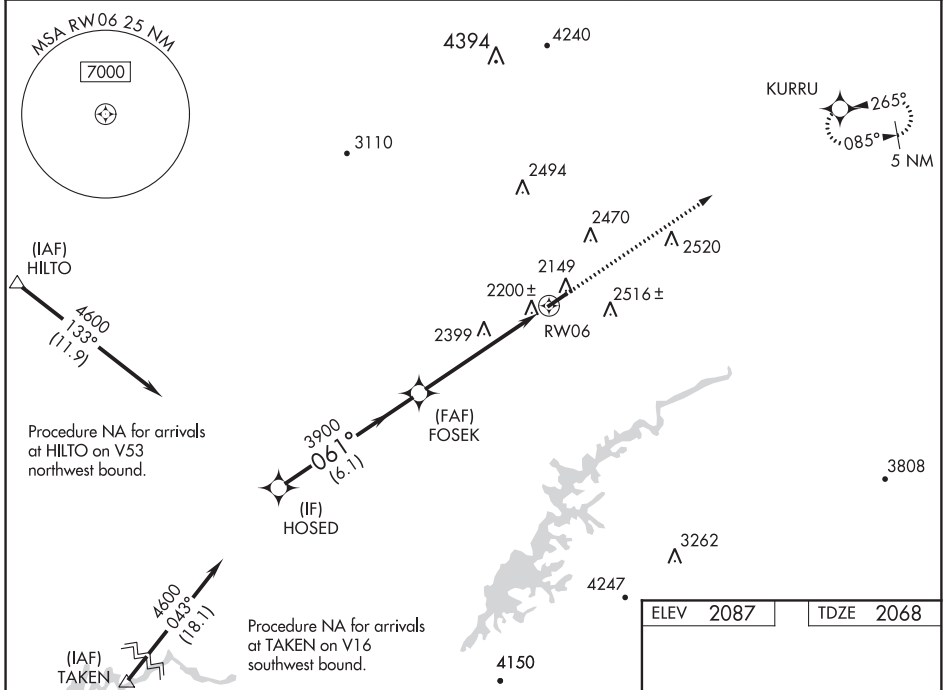
▼ Baro-VNAV NA when using Tri-Cities Rgnl TN/VA altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 30°C (86°F).  
 ▲ DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Tri-Cities Rgnl TN/VA altimeter setting and increase all DA 131 feet and all MDA 140 feet, and increase LPV and LNAV/VNAV all Cats, and Circling Cats C and D visibility ½ mile, increase LNAV Cat C and D and Circling Cat A and B visibility ¼ mile.

MISSED APPROACH:  
Climb to 6000 direct KURRU and hold, continue climb-in-hold to 6000.

AWOS-3  
**128.125**

TRI-CITY APP CON ★  
**125.25 349.0**

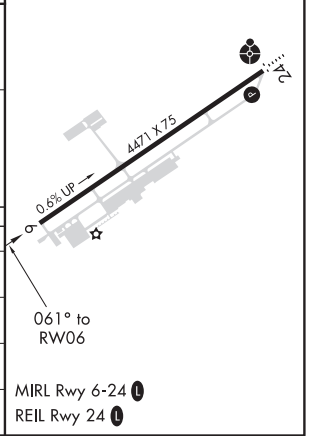
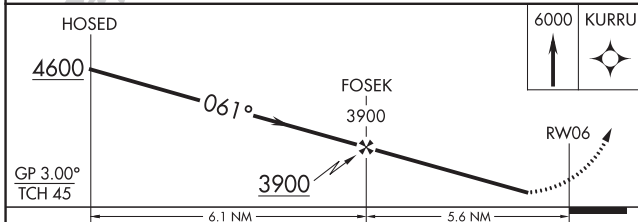
UNICOM  
**122.8** (CTAF)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 2087	TDZE 2068
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CATEGORY	A	B	C	D
LPV DA	2443-1¼		375 (400-1¼)	
LNAV/VNAV DA	2386-1		318 (300-1)	
LNAV MDA	2660-1	592 (600-1)	2660-1¾	592 (600-1¾)
CIRCLING	2860-1	773 (800-1)	2860-2¼	2860-2½
			773 (800-2¼)	773 (800-2½)

ABINGDON, VIRGINIA

AL-5719 (FAA)

16091

WAAS CH <b>77827</b> <b>W24A</b>	APP CRS <b>241°</b>	Rwy Idg TDZE Apt Elev	<b>4471</b> <b>2087</b> <b>2087</b>
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# RNAV (GPS) RWY 24

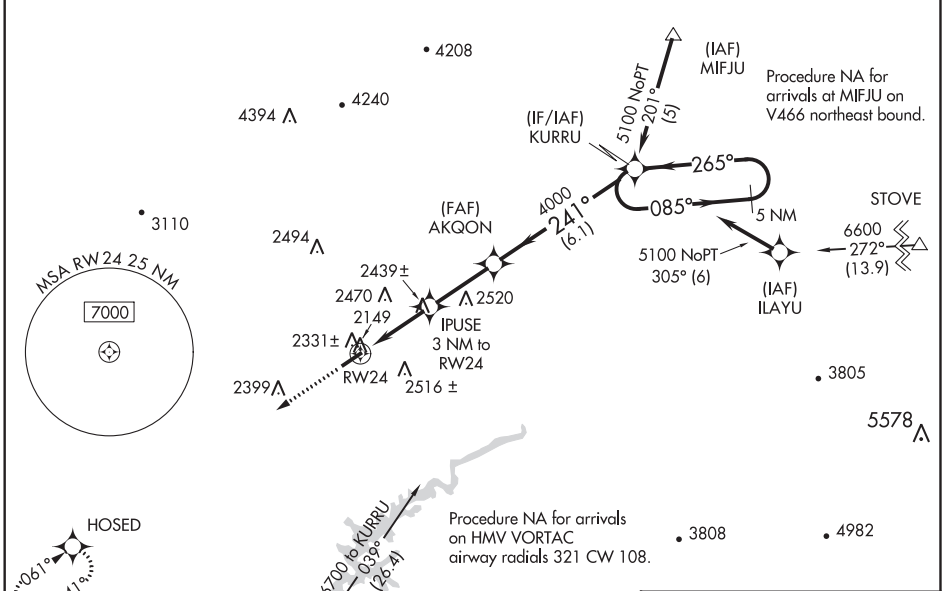
VIRGINIA HIGHLANDS (VJI)

**⚠** Inop table does not apply. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 30°C (86°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Tri-Cities Rgnl TN/VA altimeter setting and increase all MDA 140 feet and all DA 131 feet; increase LNAV Cat B, Circling Cat A and B, and LPV all Cats visibility ¼ mile, increase LNAV and Circling Cat C and D visibility ½ mile, and LNAV/VNAV all Cats visibility ⅓ mile. Baro-VNAV NA when using Tri-Cities Rgnl TN/VA altimeter setting.

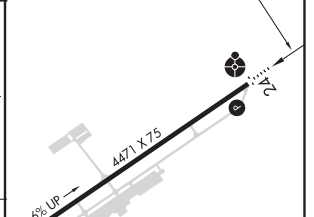
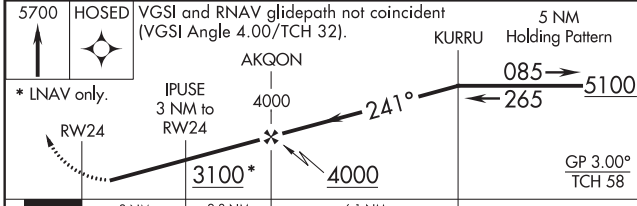


**MISSED APPROACH:**  
Climb to 5700 direct HOSED and hold, continue climb-in-hold 5700.

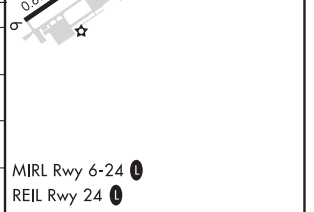
AWOS-3 <b>128.125</b>	TRI-CITY APP CON ★ <b>125.25 349.0</b>	UNICOM <b>122.8 (CTAF)</b>
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ELEV 2087	TDZE 2087
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CATEGORY	A	B	C	D
LPV DA		2472-1¼	385 (400-1¼)	
LNAV/VNAV DA		2512-1⅜	425 (500-1⅜)	
LNAV MDA	2700-1	613 (700-1)	2700-1¾	613 (700-1¾)
CIRCLING	2860-1	773 (800-1)	2860-2¼	2860-2½
			773 (800-2¼)	773 (800-2½)



ABINGDON, VIRGINIA  
 Amdt 1A 29MAY14

36°41'N-82°02'W

# RNAV (GPS) RWY 24

VIRGINIA HIGHLANDS (VJI)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-VJI <b>108.3</b> Chan 20	APP CRS <b>241°</b>	Rwy Idg <b>4471</b> TDZE <b>2087</b> Apt Elev <b>2087</b>
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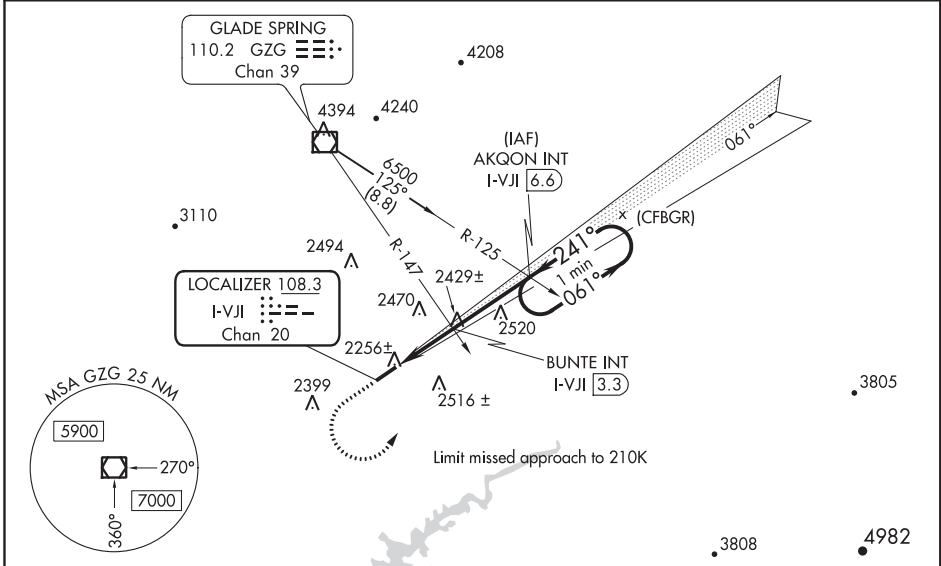
**LOC RWY 24**  
VIRGINIA HIGHLANDS (VJI)

**▼** Inop table does not apply. GPS required. Cat D Straight-in minima NA when using Tri-Cities Rgnl TN/VA altimeter setting. When local altimeter setting not received; use **▲** Tri-Cities Rgnl TN/VA altimeter setting and increase all MDA 140 feet; and increase S-24 Cat A and B and Circling Cat B visibility ¼ mile, and S-24 Cat C and Circling Cat C visibility ½ mile. Increase BUNTE fix minimums S-24 Cat C visibility ⅓ mile, Circling Cats A and B visibility ¼ mile, and Circling Cat C visibility ½ mile. Helicopter visibility reduction below 1 SM NA.



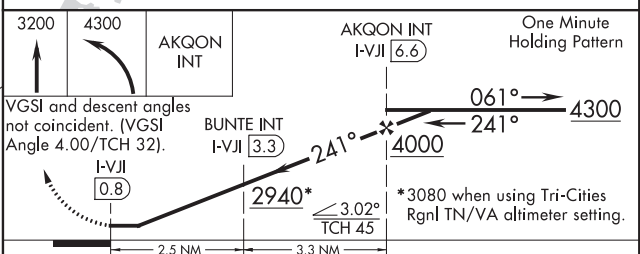
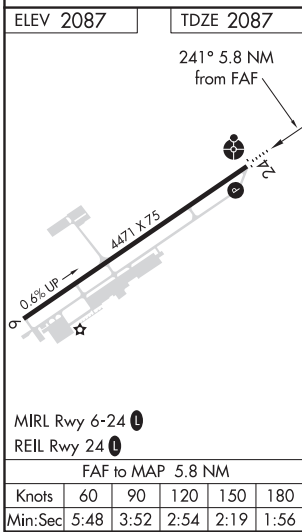
**MISSED APPROACH:** Climb to 3200 then climbing left turn to 4300 direct AKQON INT and hold.

AWOS-3 <b>128.125</b>	TRI-CITY APP CON ★ <b>125.25 349.0</b>	UNICOM <b>122.8(CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A		B		C		D	
	S-24	2940-1	853 (900-1)	2940-1¼	853 (900-1¼)	2940-2½	853 (900-2½)	853 (900-2½)
<b>C</b> CIRCLING	2940-1¼	853 (900-1¼)	2940-2½	853 (900-2½)	3080-3	993 (1000-3)		
<b>BUNTE FIX MINIMUMS</b>								
S-24	2520-1	433 (500-1)	2520-1¼	433 (500-1¼)				
<b>C</b> CIRCLING	2860-1	773 (800-1)	2900-2½	813 (900-2½)	3080-3	993 (1000-3)		



APP CRS <b>298°</b>	Rwy ldg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>34</b>
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# RNAV (GPS)-A

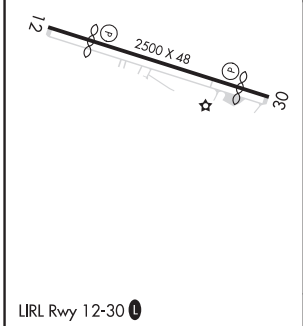
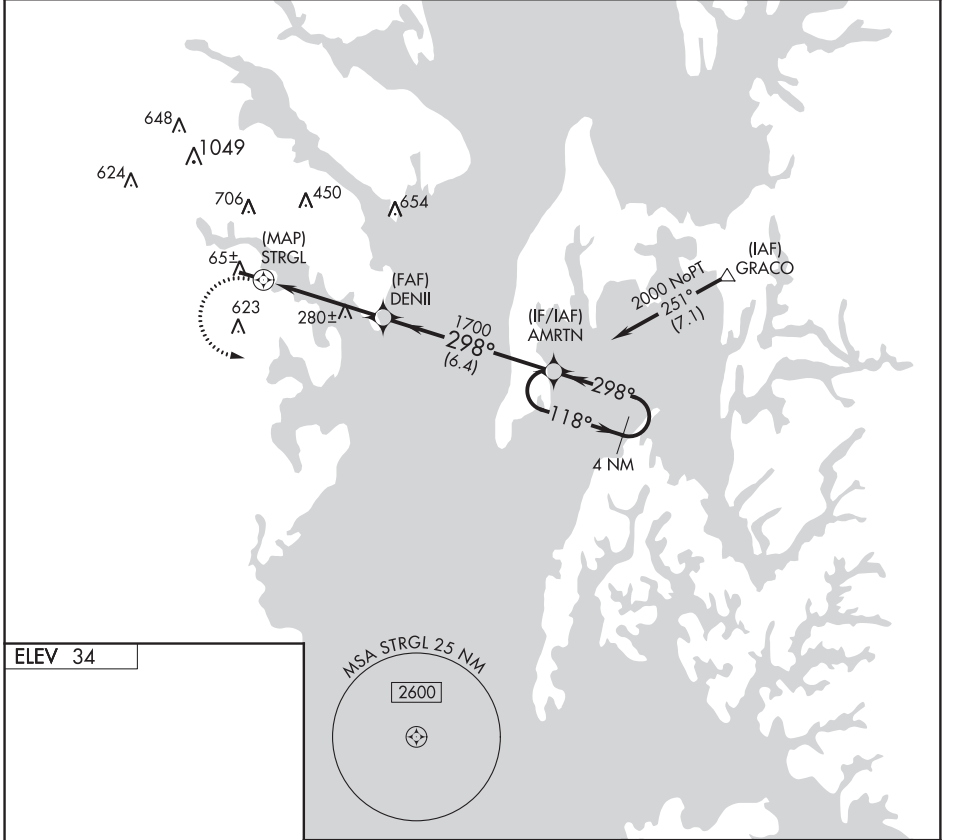
ANNAPOLIS / LEE (ANP)

**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Baltimore-Washington Intl altimeter setting and increase all MDA 60 feet.

**⚠** MISSED APPROACH: Climbing left turn to 2000 direct AMRTN and hold.

POTOMAC APP CON  
**119.7 290.475**

CTAF **122.9**



2000	AMRTN	VGSI and descent angles not coincident (VGSI Angle 4.25/TCH 25).	
		AMRTN	4 NM Holding Pattern
		STRGL	DENII
		1700	2000
		298°	118°
		4.5 NM	6.4 NM
CATEGORY	A	B	C
CIRCLING	660-1	626 (700-1)	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LOC I-BAL <b>109.7</b>	APP CRS <b>105°</b>	Rwy Idg <b>9952</b> TDZE <b>143</b> Apt Elev <b>146</b>
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BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI)  
**ILS or LOC RWY 10**

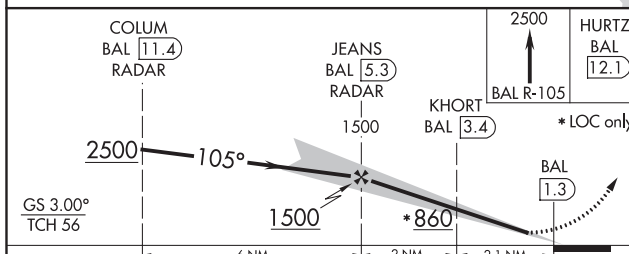
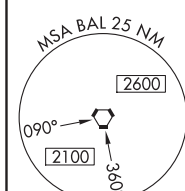
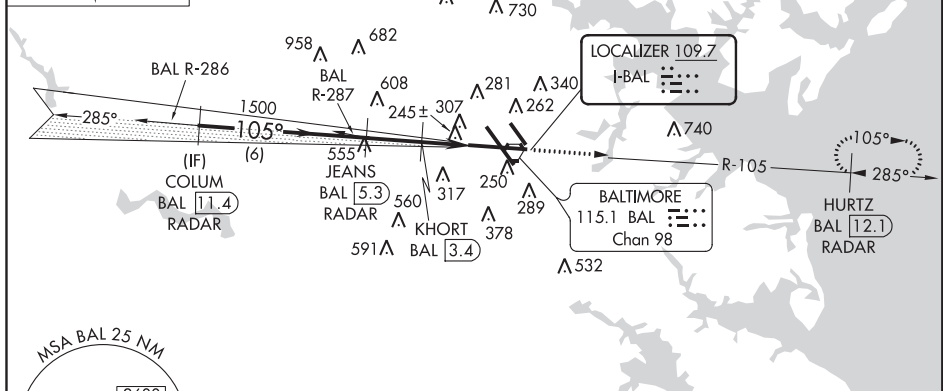
	ALSF-2 	MISSED APPROACH: Climb to 2500 on BAL R-105 to HURTZ/BAL 12.1 DME/RADAR and hold.

ATIS <b>115.1 127.8</b>	POTOMAC APP CON (020°-100°) <b>119.7 290.475</b> (131°-180°) (101°-130°) <b>128.7 307.9</b> (181°-019°)	BALTIMORE TOWER <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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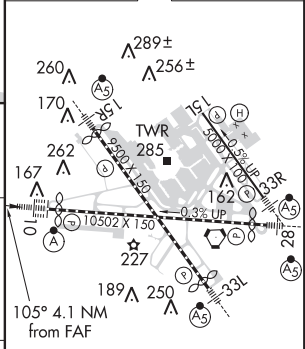
ALTERNATE MISSED APCH FIX

WESTMINSTER EMI  
117.9  
Chan 126

**RADAR REQUIRED**



ELEV 146	<b>D</b>	TDZE 143
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CATEGORY	A	B	C	D
S-ILS 10		343/18	200 (200-½)	
S-LOC 10	580/24	437 (500-½)	580/40	437 (500-¾)
CIRCLING	640-1	494 (500-1)	640-1½ 494 (500-1½)	740-2 594 (600-2)

FDZ/CL Rwys 10 and 33L					
REIL Rwys 15L and 33R					
HIRL all rwys					
FAF to MAP 4.1 NM					
Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



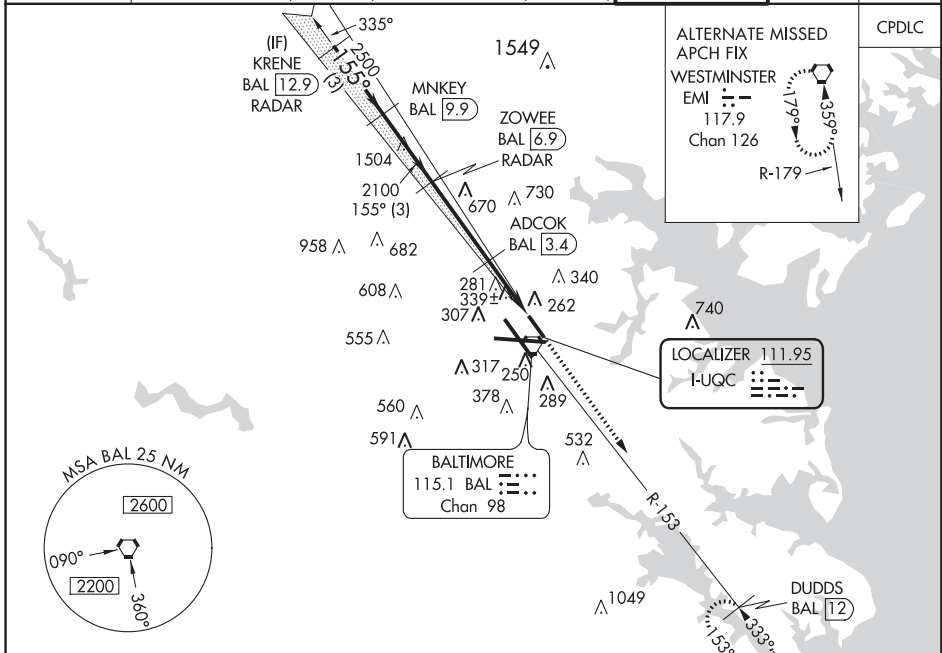
LOC I-UQC <b>111.95</b>	APP CRS <b>155°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>142</b> <b>143</b>
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BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI)  
**ILS or LOC RWY 15L**

**▼** DME from BAL VORTAC. Simultaneous reception of I-UQC and BAL DME required. DME required. Simultaneous approach authorized with Rwy 15R. Helicopter visibility reduction below RVR 4000 NA.

MISSED APPROACH: Climb to 2500 on heading 155° and BAL VORTAC R-153 to DUDDS/BAL 12 DME and hold.

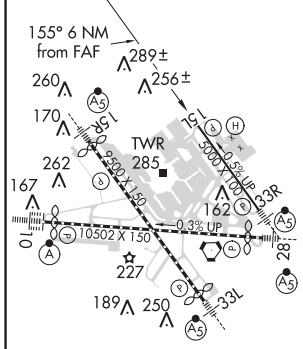
ATIS <b>115.1 127.8</b>	<b>119.0 282.275</b> <b>124.55 317.425</b>	POTOMAC APP CON (020°-100°) <b>119.7 290.475</b> (131°-180°) (101°-130°) <b>128.7 307.9</b> (181°-019°)	BALTIMORE TOWER <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 143	<b>D</b>	TDZE 142
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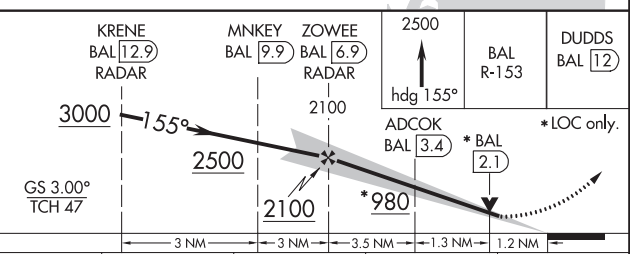


TDZ/CL Rwy 10 and 33L  
REIL Rwy 15L and 33R  
HIRL all Rwy

FAF to MAP 6 NM

Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

**RADAR REQUIRED**



CATEGORY	A	B	C	D
S-ILS 15L	544-1 $\frac{3}{8}$	402 (500-1 $\frac{1}{4}$ )		NA
S-LOC 15L	560/55	418 (500-1 $\frac{1}{4}$ )		NA
CIRCLING	640-1 497 (500-1)	660-1 517 (600-1)		NA

BALTIMORE, MARYLAND

AL-804 (FAA)


16259

LOC I-OEH	APP CRS	Rwy Idg	<b>9802</b>
<b>109.7</b>	<b>285°</b>	TDZE	<b>143</b>
		Apt Elev	<b>143</b>

BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI)

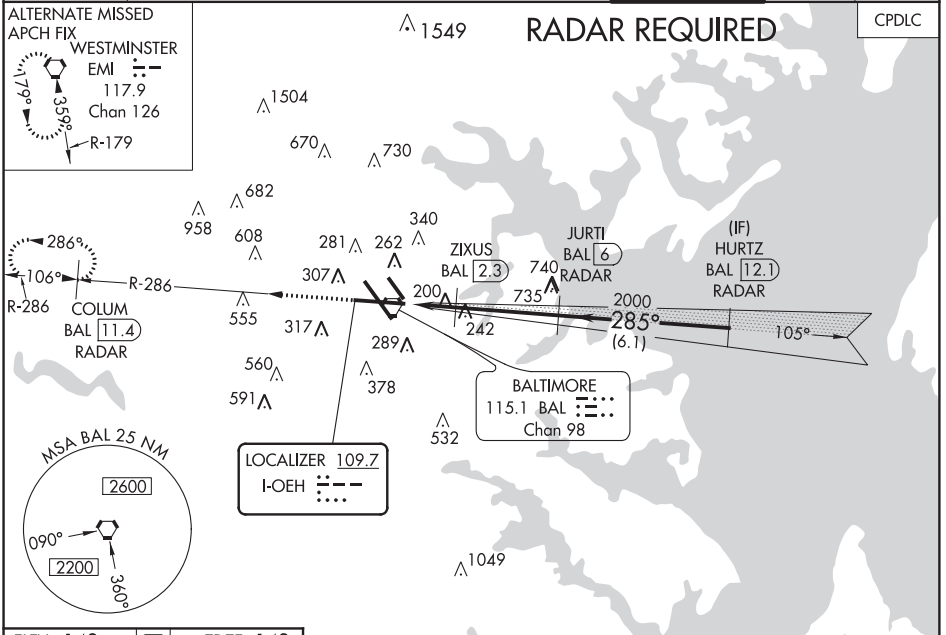
# ILS or LOC RWY 28

**▼** DME or radar required. For inoperative MALS, increase S-LOC 28 Cat C/D visibility to 1½ mile, and increase ZIXUS fix S-LOC 28 Cat C/D visibility to RVR 4500.  
**▲** \*\*RVR 1800 authorized with the use of FD or AP or HUD to DA.

MALS 

MISSED APPROACH: Climb to 2500 on BAL VORTAC R-286 to COLUM/BAL 11.4 DME/RADAR and hold.

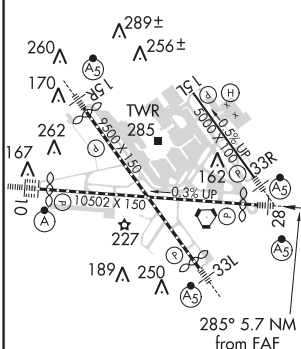
ATIS	POTOMAC APP CON	BALTIMORE TOWER	GND CON	CLNC DEL
<b>115.1 127.8</b>	(020°-100°) <b>119.0 282.275</b> (101°-130°) <b>124.55 317.425</b>	<b>119.4 257.8</b>	<b>121.9</b>	<b>118.05</b>
	(131°-180°) <b>119.7 290.475</b> (181°-019°) <b>128.7 307.9</b>			



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

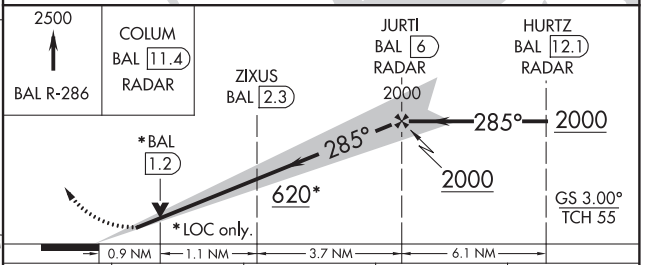
ELEV 143	<b>D</b>	TDZE 143
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TDZ/CL Rwy 10 and 33L  
REIL Rwy 15L and 33R  
HIRL all rwy

FAF to MAP 5.7 NM

Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54



CATEGORY	A	B	C	D
S-ILS 28	**343/24 200 (200-½)			
S-LOC 28	620/24	477 (500-½)	620/50	477 (500-1)
<b>C</b> CIRCLING	640-1 497 (500-1)	660-1 517 (600-1)	700-1½ 557 (600-1½)	860-2¼ 717 (800-2¼)
ZIXUS FIX MINIMUMS (DME REQUIRED)				
S-LOC 28	460/24 317 (400-½)			
<b>C</b> CIRCLING	640-1 497 (500-1)	660-1 517 (600-1)	700-1½ 557 (600-1½)	860-2¼ 717 (800-2¼)

BALTIMORE, MARYLAND  
Amdt 17 04FEB16

BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)  
39°11'N-76°40'W  
**ILS or LOC RWY 28**



BALTIMORE, MARYLAND

AL-804 (FAA)

16259

LOC I-BWI <b>111.95</b>	APP CRS <b>335°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>124</b> <b>143</b>
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BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI)  
**I LS or LOC RWY 33R**

**▼** DME required. DME from BAL VORTAC. Simultaneous reception of I-BWI and BAL DME required. Simultaneous approach authorized with Rwy 33L. Inoperative table does not apply to S-IL 33R. For inoperative MALSR, increase S-LOC 33R visibility to RVR 5000. Helicopter visibility reduction below RVR 4000 NA.

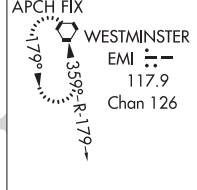


MISSED APPROACH: Climb to 3000 on heading 335° and BAL VORTAC R-337 to KRENE/BAL 12.9 DME and hold.

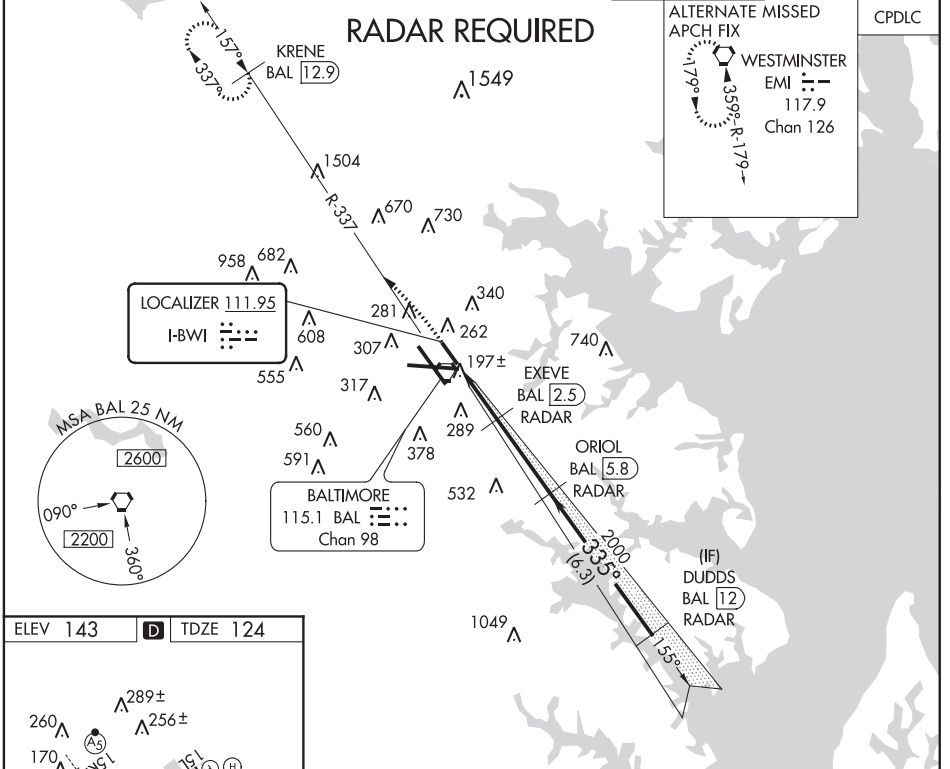
ATIS <b>115.1 127.8</b>	POTOMAC APP CON <b>119.0 282.275</b> (020°-100°) <b>124.55 317.425</b> (101°-130°)	<b>119.7 290.475</b> (131°-180°) <b>128.7 307.9</b> (181°-019°)	BALTIMORE TOWER <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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**RADAR REQUIRED**

ALTERNATE MISSED APCH FIX



CPDLC



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 143	<b>D</b>	TDZE 124
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TDZ/CL Rwy 10 and 33L  
REIL Rwy 15L and 33R  
HIRL all Rwy

FAF to MAP 5.8 NM

Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

3000 ↑ hdg 335°	BAL R-337	KRENE BAL 12.9	ORIOR BAL 5.8 RADAR	DUDDS BAL 12 RADAR
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\*LOC only. \*JST 1.3

GS 3.00°  
TCH 47

CATEGORY	A	B	C	D
S-ILS 33R	333/40	209 (200-¾)		NA
S-LOC 33R	540/40	416 (400-¾)		NA
<b>C</b> CIRCLING	640-1 497 (500-1)	660-1 517 (600-1)		NA

BALTIMORE, MARYLAND  
Amdt 3 04FEB16

BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)  
39°11'N-76°40'W  
**I LS or LOC RWY 33R**

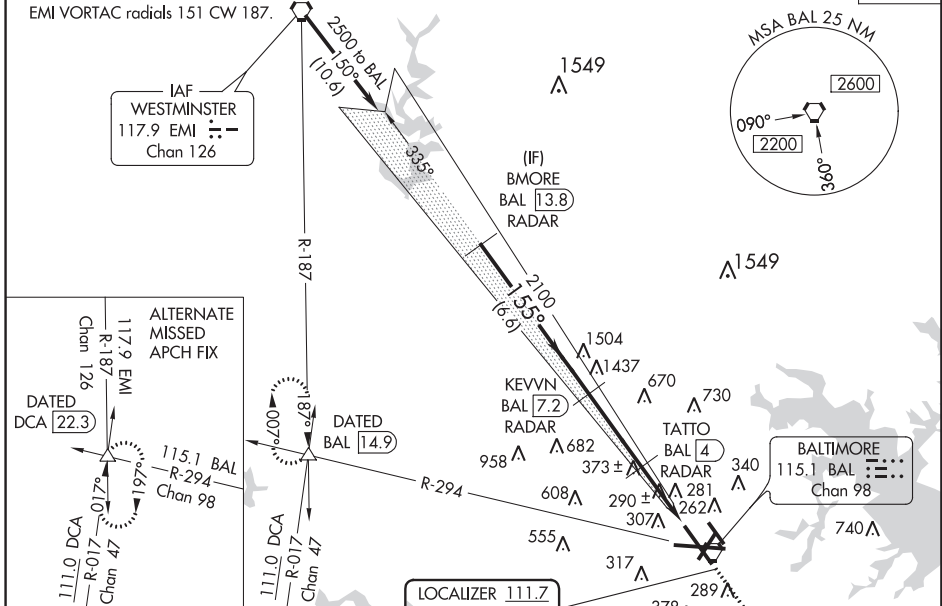
LOC I-FND <b>111.7</b>	APP CRS <b>155°</b>	Rwy Idg <b>8300</b>	TDZE <b>138</b>
		Apt Elev <b>146</b>	

BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI) **ILS or LOC RWY 15R**

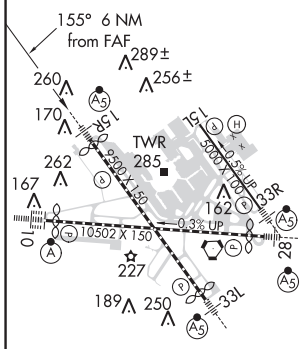
<p>Simultaneous approach authorized with Rwy 15L. DME or Radar required. DME from BAL VORTAC. # RVR 1800 authorized with use of FD or AP or HUD to DA.</p>	<p>MALS/R AS</p>	<p>MISSED APPROACH: Climb to 900 then climbing right turn to 2600 on BAL VORTAC R-294 to DATED INT/BAL 14.9 DME and hold.</p>
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ATIS <b>115.1 127.8</b>	POTOMAC APP CON (020°-100°) <b>119.7 290.475</b> (131°-180°) (101°-130°) <b>128.7 307.9</b> (181°-019°)	BALTIMORE TOWER <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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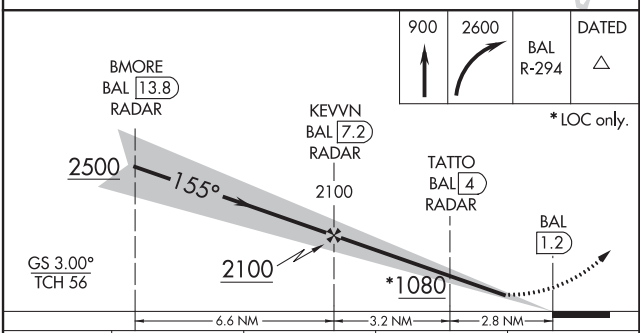
Procedure NA for arrival on EMI VORTAC radials 151 CW 187. CPDLC



ELEV 146	<b>D</b>	TDZE 138
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TDZ/CL Rwy 10 and 33L	REIL Rwy 15L and 33R	HIRL all rwy			
FAF to MAP 6 NM					
Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00



CATEGORY	A	B	C	D
S-ILS 15R	#338/24 200 (200-½)			
S-LOC 15R	540/24	402 (400-½)	540/40	402 (400-¾)
<b>C</b> CIRCLING	640-1 494 (500-1)	660-1 514 (600-1)	700-1½ 554 (600-1½)	880-2¼ 734 (800-2¼)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017





BALTIMORE, MARYLAND

AL-804 (FAA)

16259

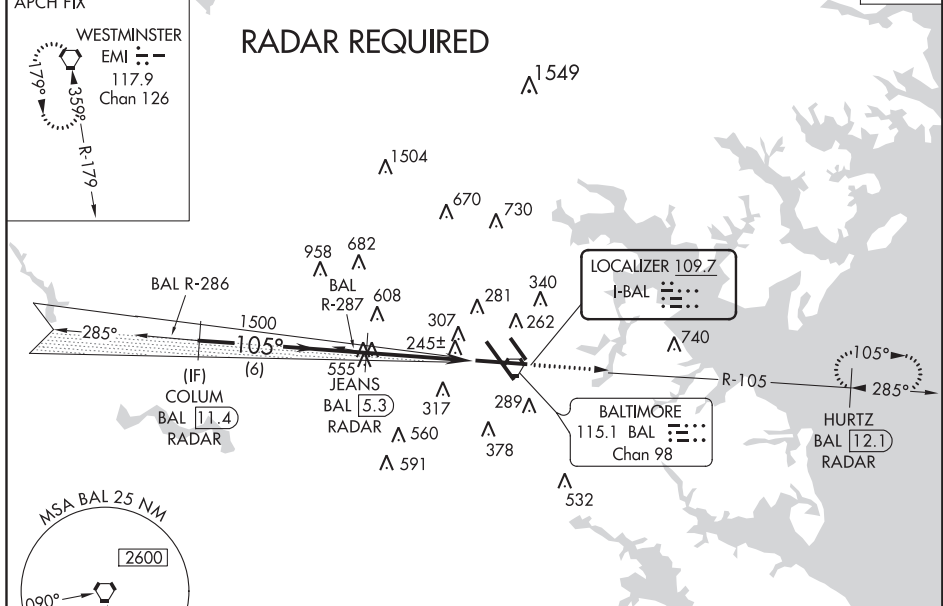
LOC I-BAL <b>109.7</b>	APP CRS <b>105°</b>	Rwy Idg <b>9952</b> TDZE <b>143</b> Apt Elev <b>146</b>
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BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI)  
**ILS RWY 10 (CAT II & III)**

	ALSF-2 	MISSED APPROACH: Climb to 2500 on BAL R-105 to HURTZ/BAL 12.1 DME/RADAR and hold.		
		DME required.		

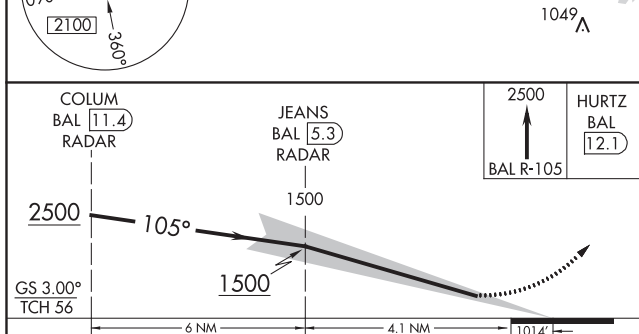
ATIS <b>115.1 127.8</b>	POTOMAC APP CON (020°-100°) <b>119.7 290.475</b> (131°-180°) (101°-130°) <b>128.7 307.9</b> (181°-019°)	BALTIMORE TOWER <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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ALTERNATE MISSED APCH FIX CPDLC

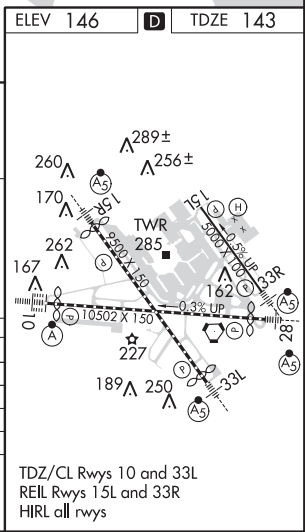


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NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-ILS 10	CAT II RA 102/12 100 DA 243			
S-ILS 10	CAT IIIa RVR 07			
S-ILS 10	CAT IIIb RVR 06			
S-ILS 10	CAT IIIc NA			



**CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

TDZ/CL Rwy 10 and 33L  
REIL Rwy 15L and 33R  
HIRL all rwy's

BALTIMORE, MARYLAND  
Amdt 21B 29MAY14

BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)  
39°11'N-76°40'W

**ILS RWY 10 (CAT II & III)**



APP CRS	Rwy Idg	<b>9952</b>
<b>105°</b>	TDZE	<b>143</b>
	Apt Elev	<b>146</b>

# RNAV (RNP) Z RWY 10

BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)

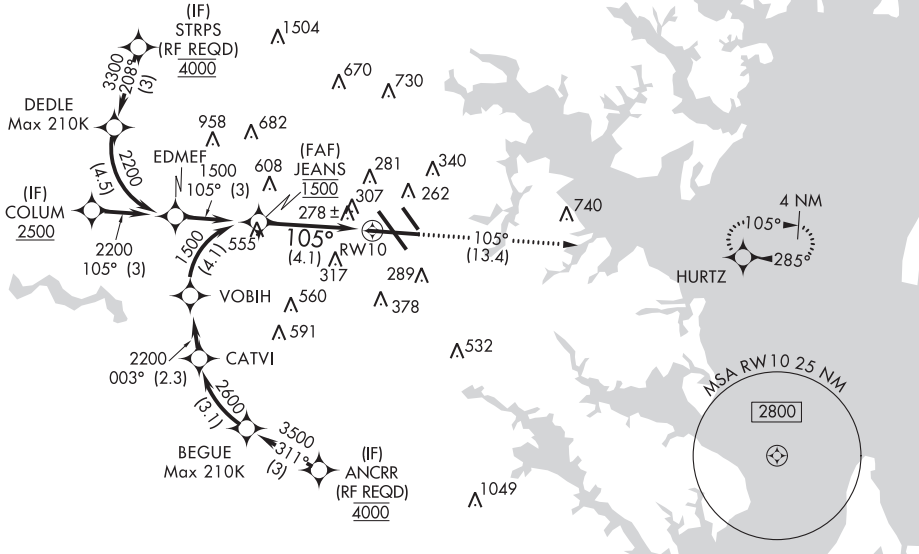
▼ For uncompensated Baro-VNAV systems, procedure NA below -15°C (5°F) or above 54°C (130°F). For inop ALSF-2, increase RNP 0.11 all Cats visibility to 1, increase RNP 0.30 all Cats visibility to 1½. GPS required.

ALSF-2 MISSED APPROACH: Climb to 2500 on track 105° to HURTZ and hold.

ATIS	POTOMAC APP CON	BALTIMORE TOWER	GND CON	CLNC DEL
<b>115.1 127.8</b>	(020°-100°) <b>119.7 290.475</b> (131°-180°) (101°-130°) <b>128.7 307.9</b> (181°-019°)	<b>119.4 257.8</b>	<b>121.9</b>	<b>118.05</b>

## RADAR REQUIRED

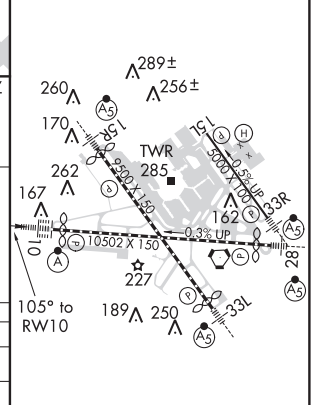
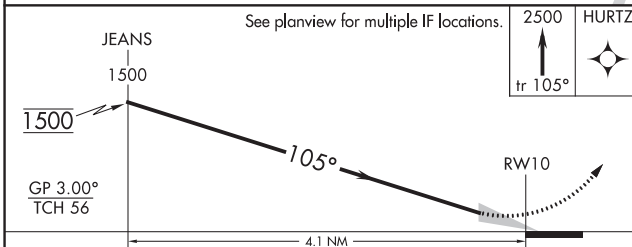
△1549



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 146	<b>D</b>	TDZE 143
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CATEGORY	A	B	C	D
RNP 0.11 DA		448/24	305 (300-½)	
RNP 0.30 DA		626/60	483 (500-1¼)	

## AUTHORIZATION REQUIRED

TDZ/CL Rwy 10 and 33L  
 REIL Rwy 15L and 33R  
 HIRL all Rwy

# RNAV (RNP) Z RWY 10

# RNAV (RNP) Z RWY 15R

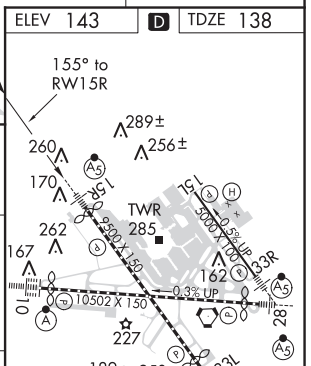
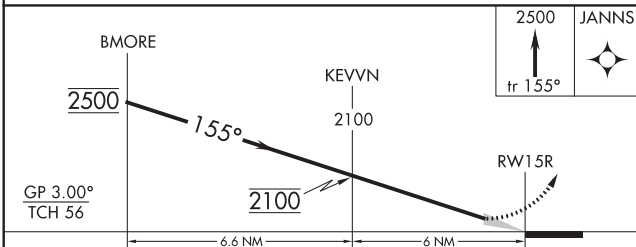
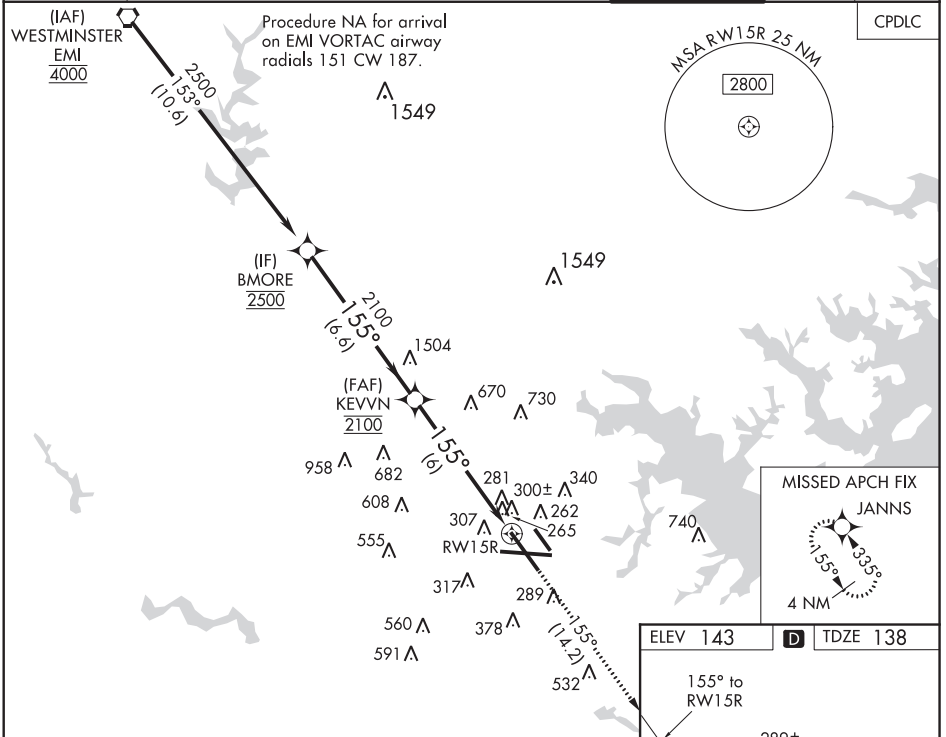
## BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)

APP CRS <b>155°</b>	Rwy Idg TDZE Apt Elev	<b>8300</b> <b>138</b> <b>143</b>
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▼ For uncompensated Baro-VNAV systems, procedure NA below -12°C (11°F) or above 54°C (130°F). For inop MALSR, increase RNP 0.11 DA all Cats visibility to 1¼ mile, and RNP 0.30 DA all Cats visibility to 1½ mile. GPS Required.

MALSR   
MISSED APPROACH: Climb to 2500 on track 155° to JANNS and hold.

ATIS <b>115.1 127.8</b>	POTOMAC APP CON (020°-100°) <b>119.7 290.475</b> (131°-180°) (101°-130°) <b>128.7 307.9</b> (181°-019°)	BALTIMORE TOWER <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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CATEGORY	A	B	C	D
RNP 0.11 DA		513/38	375 (400-¾)	
RNP 0.30 DA		588/52	450 (500-1¼)	

### AUTHORIZATION REQUIRED

TDZ/CL Rwy 10 and 33L  
REIL Rwy 15L and 33R  
HIRL all rwy

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NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS **285°**  
 Rwy ldg **9802**  
 TDZE **143**  
 Apt Elev **143**

# RNAV (RNP) Z RWY 28

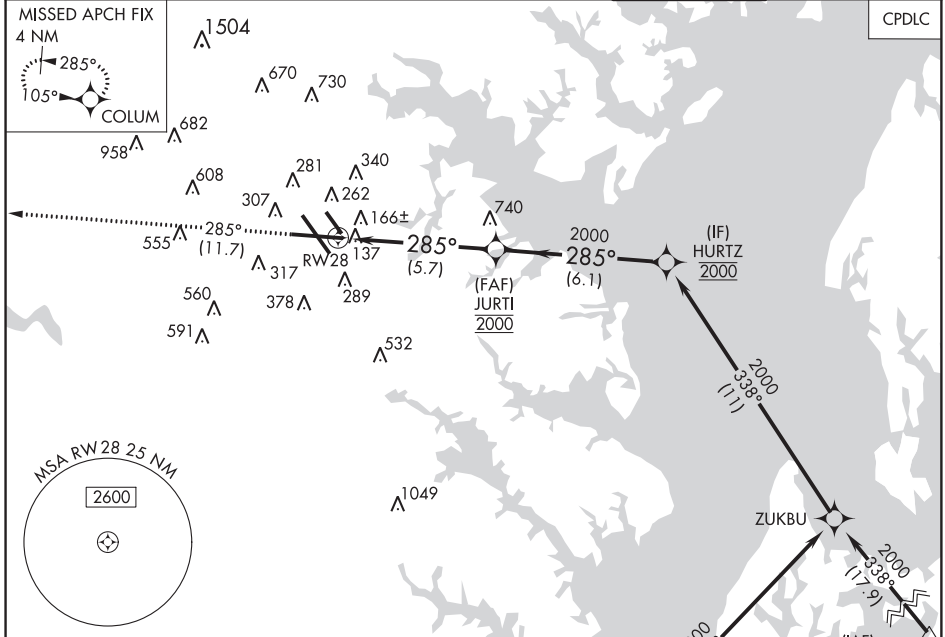
BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)

▼ For uncompensated Baro-VNAV systems, procedure NA below -12°C (11°F) or above 54°C (130°F). GPS Required. For inoperative MALSR, increase RNP 0.30 all Cats visibility to 1¼.



MISSED APPROACH: Climb to 2500 on track 285° to COLUM and hold.

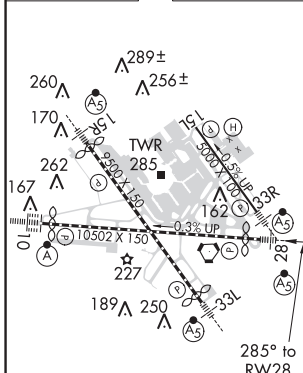
ATIS <b>115.1 127.8</b>	POTOMAC APP CON (020°-100°) <b>119.7 290.475</b> (131°-180°) (101°-130°) <b>128.7 307.9</b> (181°-019°)	BALTIMORE TOWER <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

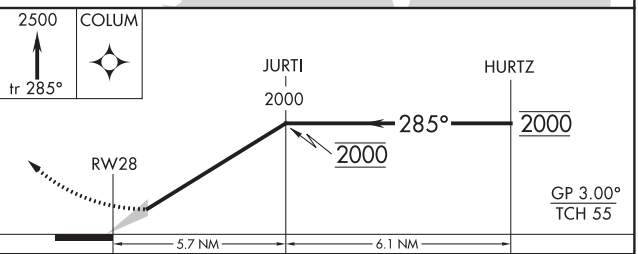
ELEV **143** **D** TDZE **143**



Procedure NA for arrivals at RAVNN on V379 westbound.



Procedure NA for arrivals at BILIT on V308 eastbound.



CATEGORY	A	B	C	D
RNP 0.30 DA	521/45 378 (400-7%)			

## AUTHORIZATION REQUIRED

TDZ/CL Rwy 10 and 33L  
 REIL Rwy 15L and 33R  
 HIRL all rwy

BALTIMORE, MARYLAND

AL-804 (FAA)

16259

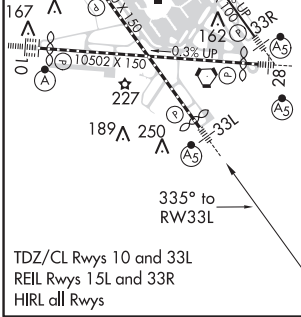
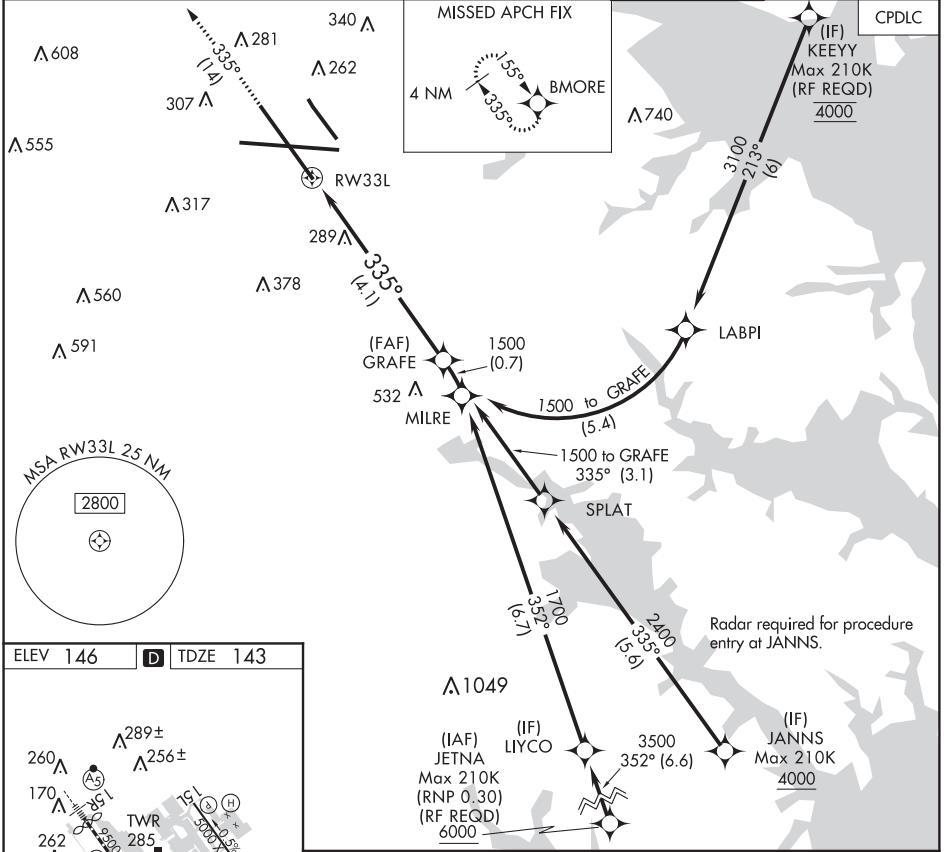
APP CRS	Rwy Idg	<b>8300</b>
<b>335°</b>	TDZE	<b>143</b>
	Apt Elev	<b>146</b>

# RNAV (RNP) Z RWY 33L

BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)

For uncompensated Baro-VNAV systems, procedure NA below -12°C (11°F) or above 54°C (130°F). For inop MALSRL, increase RNP 0.30 all Cats visibility to RVR 5700. GPS required.	MALSRL	MISSED APPROACH: Climb to 3000 on track 335° to BMORE and hold.

ATIS	POTOMAC APP CON	BALTIMORE TOWER	GND CON	CLNC DEL
<b>115.1 127.8</b>	(020°-100°) <b>119.7 290.475</b> (131°-180°) (101°-130°) <b>128.7 307.9</b> (181°-019°)	<b>119.4 257.8</b>	<b>121.9</b>	<b>118.05</b>



ELEV 146	<b>D</b>	TDZE 143		
TDZ/CL Rws 10 and 33L REIL Rws 15L and 33R HIRL all Rws				
3000	BMORE	GRAFE 1500		
tr 335°		See planview for multiple IF locations.		
RWY 33L		1500		
		GP 3.00° TCH 55		
4.1 NM				
CATEGORY	A	B	C	D
RNP 0.30 DA	496/34		353 (400-¾)	
<b>AUTHORIZATION REQUIRED</b>				

BALTIMORE, MARYLAND  
Amdt 3 11DEC14

BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)  
39°11'N-76°40'W  
**RNAV (RNP) Z RWY 33L**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>40108</b> <b>W15A</b>	APP CRS <b>155°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>142</b> <b>143</b>
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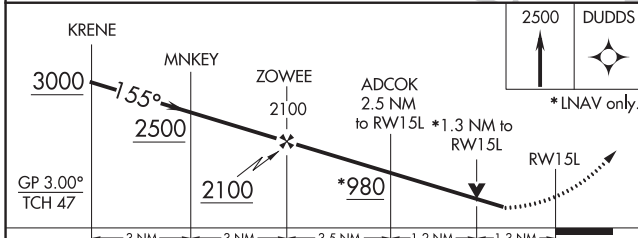
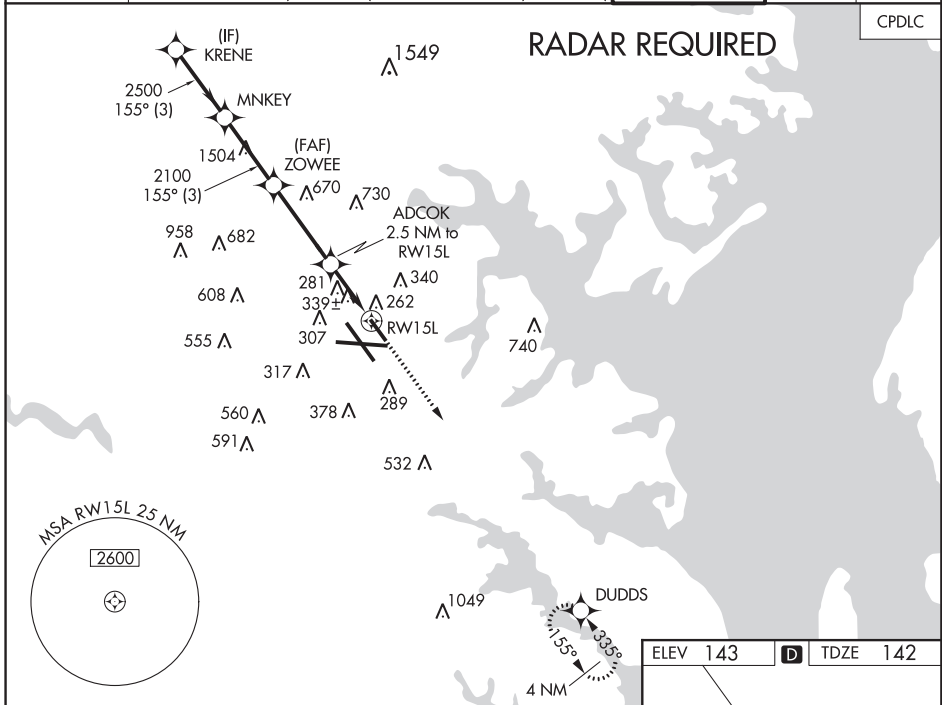
BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI)

# RNAV (GPS) RWY 15L

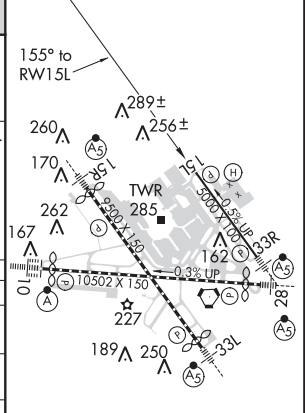
▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -13°C (9°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below RVR 4000 NA. Simultaneous approach authorized. Use of FD or AP providing RNAV track guidance required during simultaneous operations. LNAV procedure NA during simultaneous operations.

MISSED APPROACH:  
Climb to 2500 direct  
DUDDS and hold.

ATIS <b>115.1 127.8</b>	POTOMAC APP CON (020°-100°) <b>119.7 290.475</b> (131°-180°) (101°-130°) <b>128.7 307.9</b> (181°-019°)	BALTIMORE TOWER <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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ELEV 143	<b>D</b>	TDZE 142
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CATEGORY	A	B	C	D
LPV DA	544-1 $\frac{3}{8}$	402 (500-1 $\frac{1}{2}$ )		NA
LNAV/VNAV DA	656-1 $\frac{3}{4}$	514 (600-1 $\frac{1}{4}$ )		NA
LNAV MDA	600/55	458 (500-1 $\frac{1}{4}$ )		NA
<b>C</b> CIRCLING	640-1 497 (500-1)	660-1 517 (600-1)		NA

TDZ/CL Rwy 10 and 33L  
REIL Rwy 15L and 33R  
HIRL all Rwy


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WAAS CH <b>69208</b> <b>W33B</b>	APP CRS <b>335°</b>	Rwy Idg TDZE <b>124</b> Apt Elev <b>143</b>	<b>5000</b>
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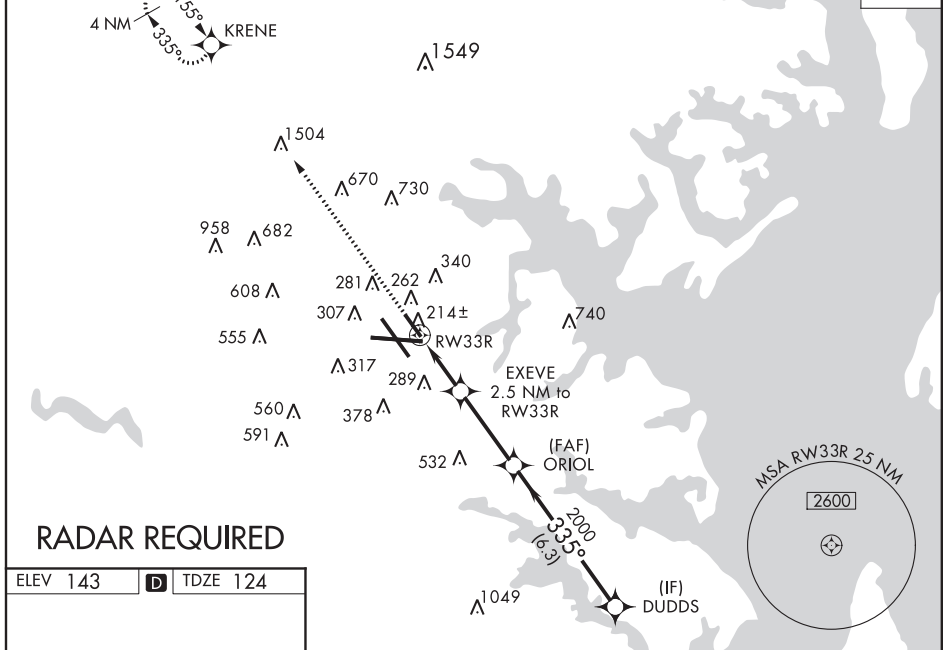
BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI) **RNAV (GPS) RWY 33R**

▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -13°C (-9°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inoperative MALS, increase LNAV/VNAV all Cats visibility to RVR 5000 and LNAV all Cats visibility to RVR 5500. Simultaneous approach authorized. Use of FD or AP providing RNAV track guidance required during simultaneous operations. LNAV procedure NA during simultaneous operations. Helicopter visibility reduction below RVR 4000 NA. Inoperative table does not apply to LPV, all Cats.

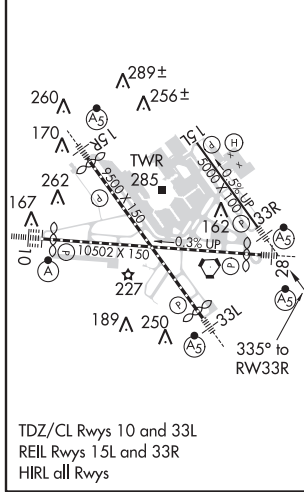
MALS  MISSED APPROACH: Climb to 3000 direct KRENE and hold.

ATIS <b>115.1 127.8</b>	POTOMAC APP CON (020°-100°) <b>119.0 282.275</b> (101°-130°) <b>124.55 317.425</b>	<b>119.7 290.475</b> (131°-180°) <b>128.7 307.9</b> (181°-019°)	<b>BALTIMORE TOWER</b> <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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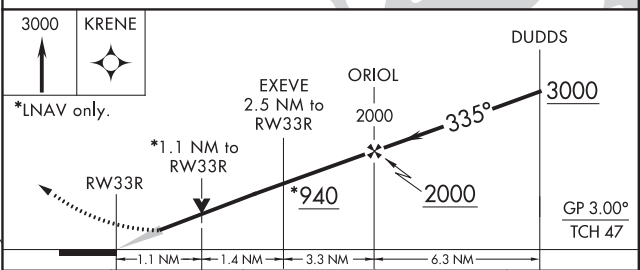
CPDLC



ELEV 143	<b>D</b>	TDZE 124
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TDZ/CL Rwy 10 and 33L  
REIL Rwy 15L and 33R  
HIRL all Rwy



CATEGORY	A	B	C	D
LPV DA	333/40	209 (200-¾)		NA
LNAV/VNAV DA	406/40	282 (300-¾)		NA
LNAV MDA	520/40	396 (400-¾)		NA
<b>C</b> CIRCLING	640-1 497 (500-1)	660-1 517 (600-1)		NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>53707</b> <b>W10A</b>	APP CRS <b>105°</b>	Rwy Idg TDZE <b>143</b> Apt Elev <b>146</b>	<b>9952</b>
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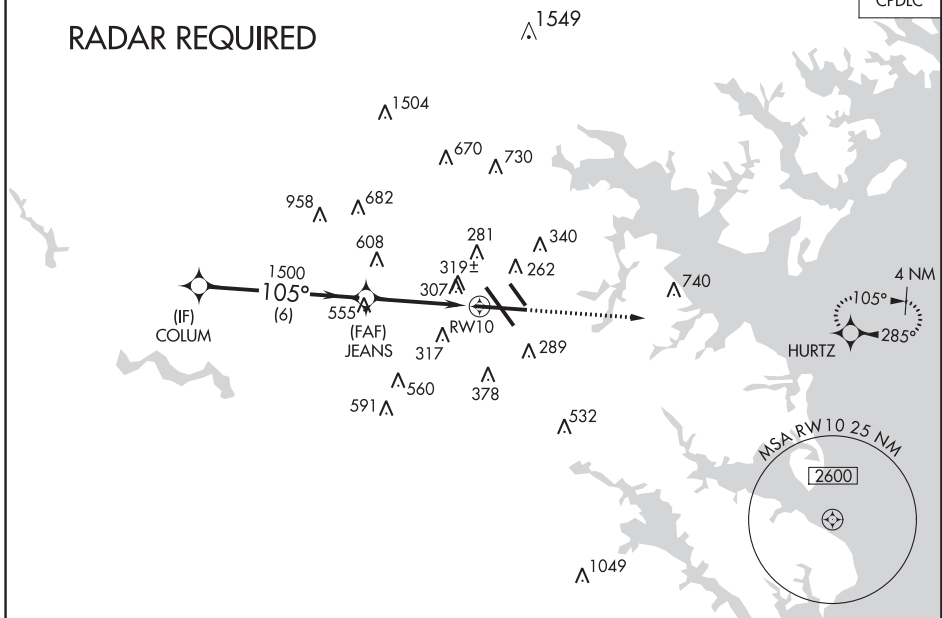
# RNAV (GPS) Y RWY 10

BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)

<p>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.</p>		MISSED APPROACH: Climb to 2500 direct HURTZ and hold.
		<p>CPDLC</p>

ATIS <b>115.1 127.8</b>	POTOMAC APP CON (020°-100°) <b>119.0 282.275</b> (101°-130°) <b>124.55 317.425</b>	(131°-180°) <b>119.7 290.475</b> (181°-019°) <b>128.7 307.9</b>	BALTIMORE TOWER <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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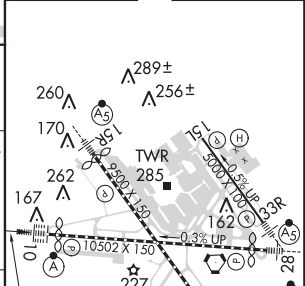
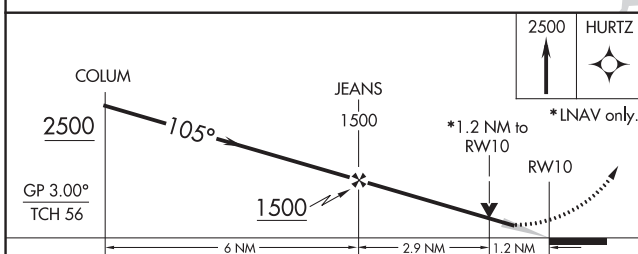
## RADAR REQUIRED



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 146	<b>D</b> TDZE 143
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CATEGORY	A	B	C	D
LPV DA		343/24	200 (200-½)	
LNAV/VNAV DA		580/50	437 (500-1)	
LNAV MDA	580/24	437 (500-½)	580/40	437 (500-¾)
CIRCLING	640-1	494 (500-1)	640-1½ 494 (500-1½)	740-2 594 (600-2)

TDZ/CL Rwy 10 and 33L  
REIL Rwy 15L and 33R  
HIRL all rwy

# RNAV (GPS) Y RWY 10

WAAS CH <b>66007</b> <b>W15B</b>	APP CRS <b>155°</b>	Rwy Idg TDZE <b>138</b> Apt Elev <b>143</b>	<b>8300</b>
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# RNAV (GPS) Y RWY 15R

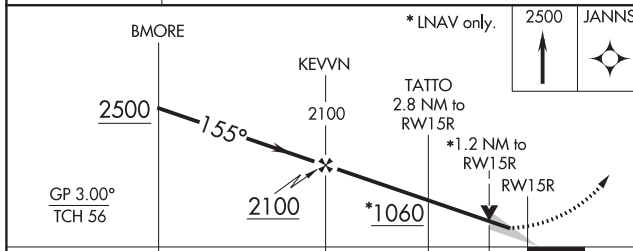
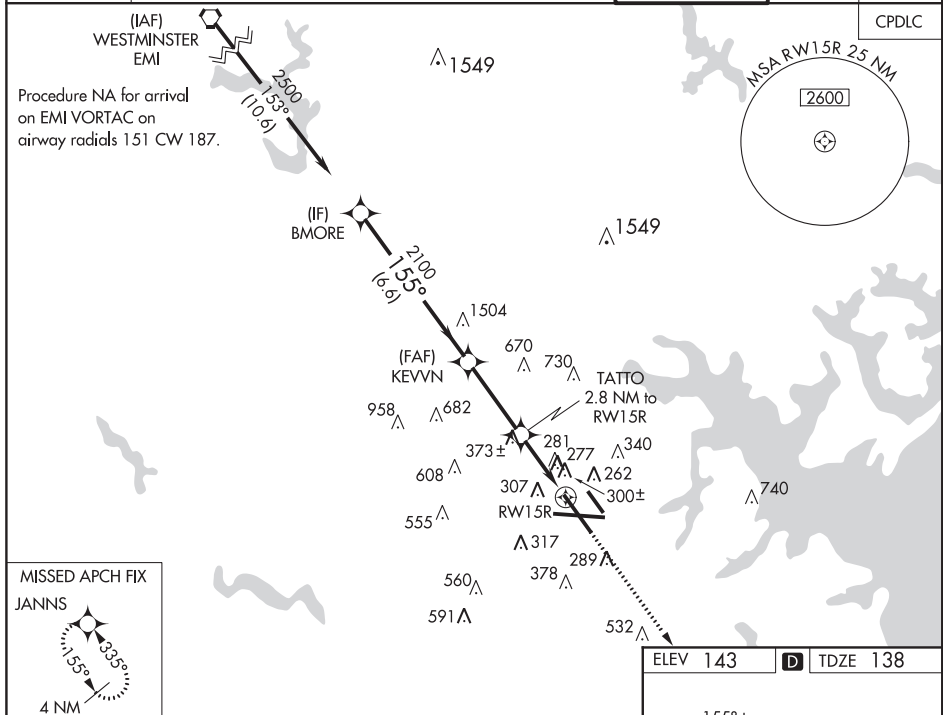
BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -12°C (11°F) or above 54°C (130°F). For inop MALSR, increase LNAV/VNAV all Cats visibility to 1%. DME/DME RNP-0.3 NA.

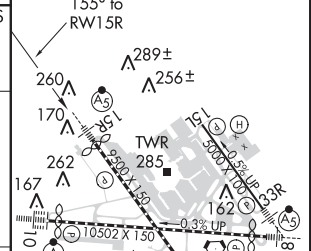


MISSED APPROACH: Climb to 2500 direct JANN5 and hold.

ATIS <b>115.1 127.8</b>	POTOMAC APP CON (020°-100°) <b>119.7 290.475</b> (131°-180°) (101°-130°) <b>128.7 307.9</b> (181°-019°)	BALTIMORE TOWER <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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ELEV 143	<b>D</b> TDZE 138
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CATEGORY	A	B	C	D
LPV DA		338/24	200 (200-½)	
LNAV/VNAV DA		557/46	419 (500-1)	
LNAV MDA	560/24	422 (500-½)	560/40	422 (500-¾)
<b>C</b> CIRCLING	640-1 497 (500-1)	660-1 517 (600-1)	700-1½ 557 (600-1½)	880-2¼ 737 (800-2¼)

TDZ/CL Rwy 10 and 33L  
REIL Rwy 15L and 33R  
HIRL all rwy

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>48808</b> <b>W28A</b>	APP CRS <b>285°</b>	Rwy Idg TDZE Apt Elev	<b>9802</b> <b>143</b> <b>143</b>
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BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI)

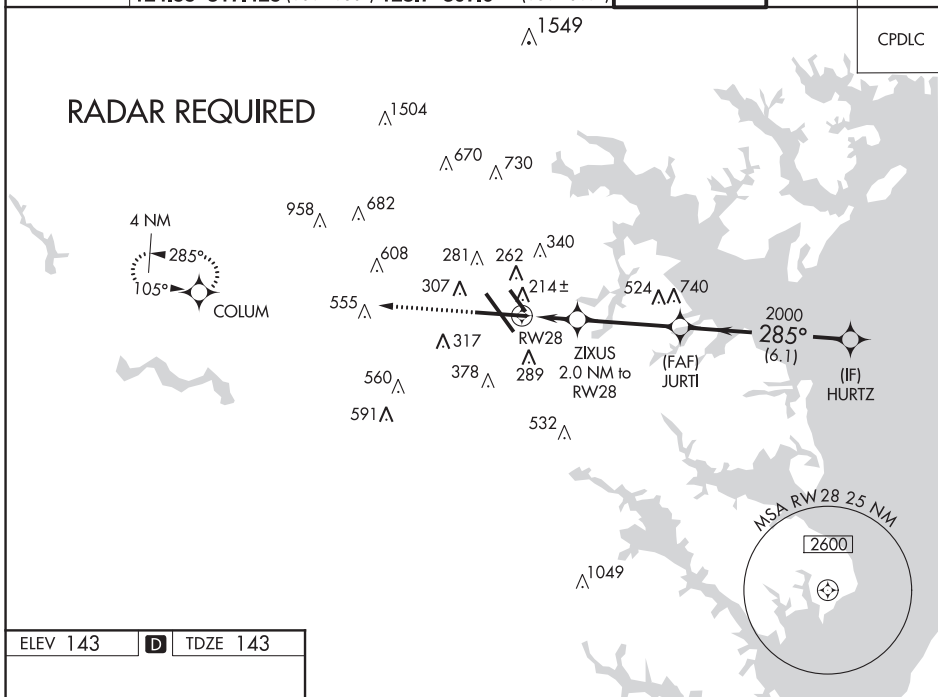
# RNAV (GPS) Y RWY 28

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -12°C (11°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.  
**⚠** For inoperative MALSR, increase LNAV/VNAV all Cats visibility to RVR 4500.

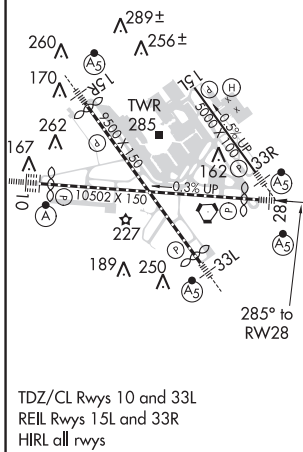


**MISSED APPROACH:**  
Climb to 2500 direct COLUM and hold.

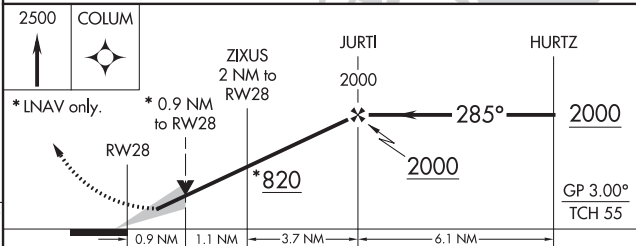
ATIS <b>115.1 127.8</b>	POTOMAC APP CON <b>119.0 282.275</b> <b>124.55 317.425</b>	(020°-100°) <b>119.7 290.475</b> (101°-130°) <b>128.7 307.9</b>	(131°-180°) (181°-019°)	BALTIMORE TOWER <b>119.4 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.05</b>
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ELEV 143	<b>D</b>	TDZE 143
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TDZ/CL Rwy 10 and 33L  
REIL Rwy 15L and 33R  
HIRL all rwy



CATEGORY	A	B	C	D
LPV DA		343/24	200 (200-½)	
LNAV/VNAV DA		393/24	250 (300-½)	
LNAV DA	480/24	337 (400-½)	480/26	337 (400-⅝)
<b>C</b> CIRCLING	640-1 497 (500-1)	660-1 517 (600-1)	700-1½ 557 (600-1½)	860-2¼ 717 (800-2¼)

NE-3, 10 NOV 2016 to 05 JAN 2017

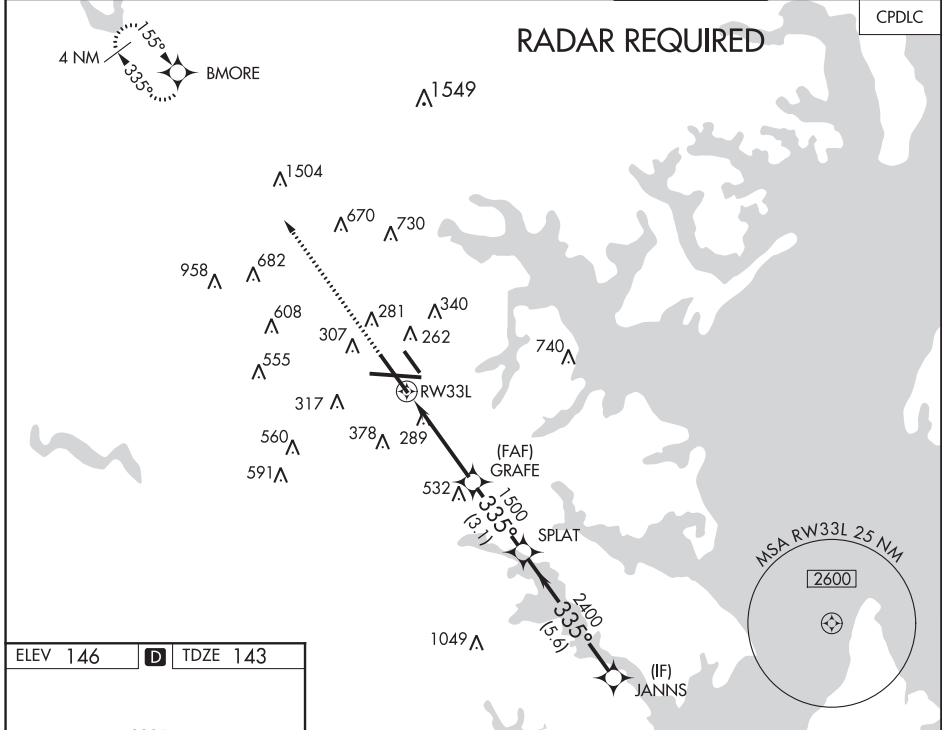
NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>82207</b> W <b>33A</b>	APP CRS <b>335°</b>	Rwy Idg TDZE <b>143</b> Apt Elev <b>146</b>	<b>8300</b>
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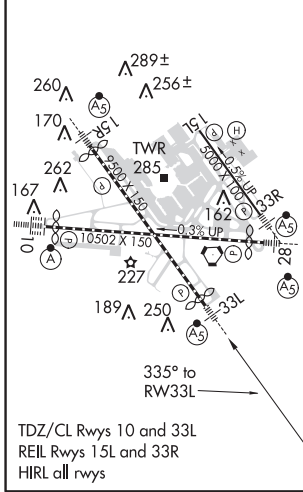
**RNAV (GPS) Y RWY 33L**  
BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -12°C (11°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.	MALS AS	MISSED APPROACH: Climb to 3000 direct BMORE and hold.		
		POTOMAC APP CON (020°-100°) <b>119.7 290.475</b> (131°-180°) (101°-130°) <b>128.7 307.9</b> (181°-019°)		

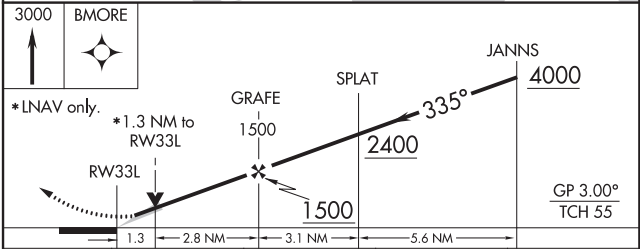
ATIS <b>115.1 127.8</b>	<b>119.0 282.275</b> <b>124.55 317.425</b>	<b>BALTIMORE TOWER</b> <b>119.4 257.8</b>	<b>GND CON</b> <b>121.9</b>	<b>CLNC DEL</b> <b>118.05</b>
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ELEV <b>146</b>	<b>D</b>	TDZE <b>143</b>
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TDZ/CL Rws 10 and 33L  
REIL Rws 15L and 33R  
HIRL all rws



CATEGORY	A	B	C	D
LPV DA		343/24	200 (200-½)	
LNAV/VNAV DA		432/24	289 (300-½)	
LNAV MDA	600/24	457 (500-½)	600/50	457 (500-1)
<b>C</b> CIRCLING	640-1 494 (500-1)	660-1 514 (600-1)	700-1½ 554 (600-1½)	880-2¼ 734 (800-2¼)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

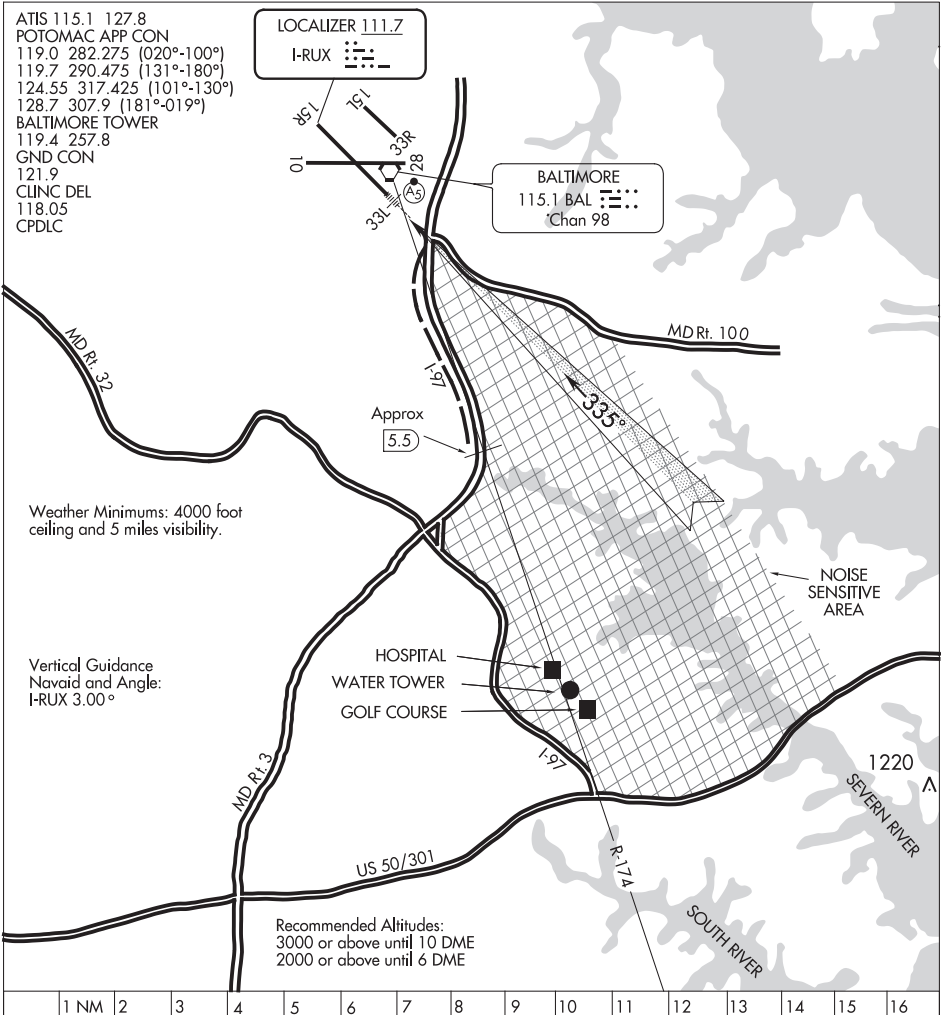
# INTERSTATE VISUAL RWY 33L

BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI)  
AL-804 (FAA) BALTIMORE, MARYLAND

ATIS 115.1 127.8  
 POTOMAC APP CON  
 119.0 282.275 (020°-100°)  
 119.7 290.475 (131°-180°)  
 124.55 317.425 (101°-130°)  
 128.7 307.9 (181°-019°)  
 BALTIMORE TOWER  
 119.4 257.8  
 GND CON  
 121.9  
 CLINC DEL  
 118.05  
 CPDLC

**LOCALIZER 111.7**  
 I-RUX

**BALTIMORE**  
 115.1 BAL  
 Chan 98



Weather Minimums: 4000 foot ceiling and 5 miles visibility.

Vertical Guidance  
Navaid and Angle:  
I-RUX 3.00°

HOSPITAL  
 WATER TOWER  
 GOLF COURSE

Recommended Altitudes:  
 3000 or above until 10 DME  
 2000 or above until 6 DME

1 NM	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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## INTERSTATE VISUAL RWY 33L

Radar vectors will be provided to the BAL 174 RADIAL. When cleared for the Interstate Visual Runway 33L Approach, aircraft will proceed via the BAL 174 radial until over I-97 (Approx. 5.5 DME). Then via I-97 to join Runway 33L final approach course. Runway 33L ILS with MALSRS will be on and available for use. Noise sensitive area east of I-97. This procedure applicable to turbo-jets arriving via OTT VORTAC.

**INTERSTATE VISUAL RWY 33L**  
 Amdt 1 05OCT00

BALTIMORE/ 39°11'N-76°40'W  
 BALTIMORE, MARYLAND  
 WASHINGTON INTL THURGOOD MARSHALL (BWI)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)  
AL-804 (FAA) BALTIMORE, MARYLAND

ATIS 115.1 127.8  
BALTIMORE TOWER 119.4 257.8  
GND CON 121.9  
CLNC DEL 118.05  
CPDLC



FIELD ELEV 324 Δ  
143

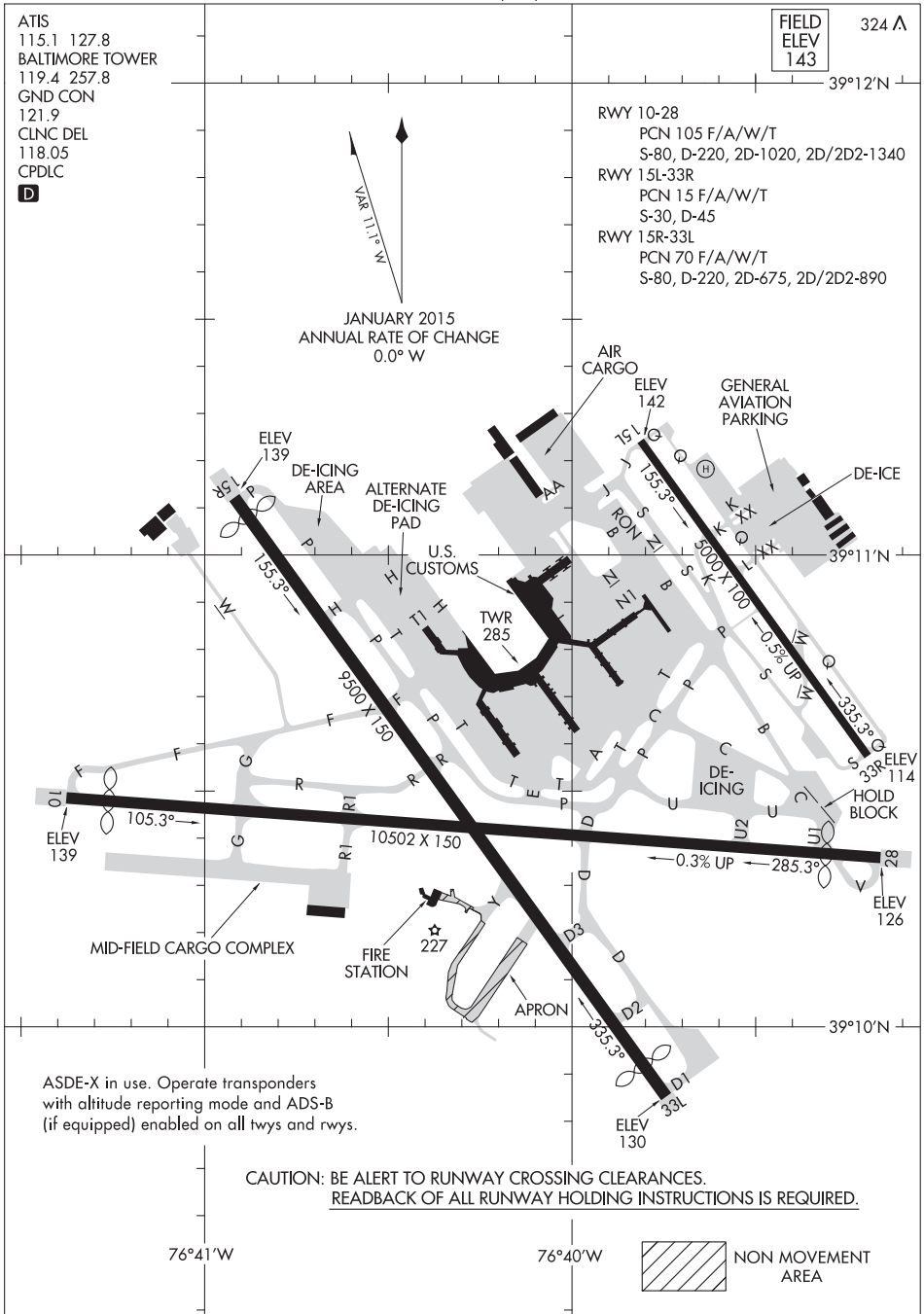
RWY 10-28  
PCN 105 F/A/W/T  
S-80, D-220, 2D-1020, 2D/2D2-1340  
RWY 15L-33R  
PCN 15 F/A/W/T  
S-30, D-45  
RWY 15R-33L  
PCN 70 F/A/W/T  
S-80, D-220, 2D-675, 2D/2D2-890

JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.0° W



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ASDE-X in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all twys and rwys.

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.



# AIRPORT DIAGRAM

16259

BALTIMORE, MARYLAND  
BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL (BWI)

(CONLE3.CONLE) 16259

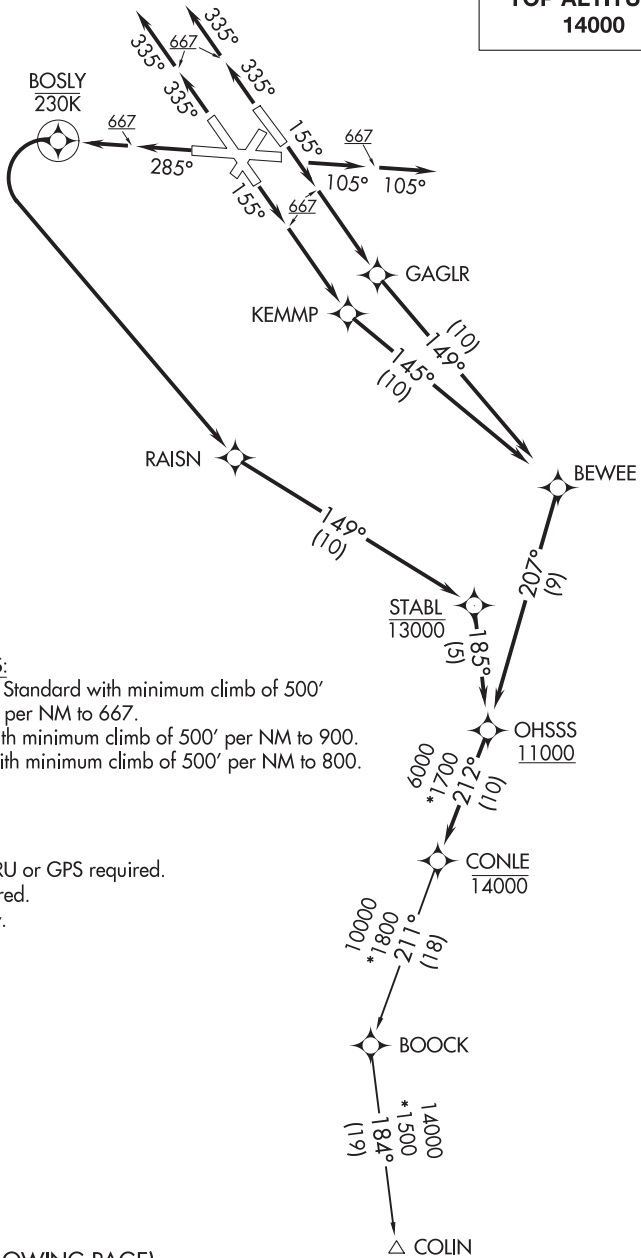
SL-804 (FAA)

BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI)  
BALTIMORE, MARYLAND

# CONLE THREE DEPARTURE (RNAV)

**TOP ALTITUDE:  
14000**

ATIS  
115.1 127.8  
CLNC DEL  
118.05  
CPDLC  
GND CON  
121.9  
BALTIMORE TOWER  
119.4 257.8  
POTOMAC DEP CON  
124.55 317.425



**TAKEOFF MINIMUMS:**

Rwys 10, 15L/R, 28: Standard with minimum climb of 500' per NM to 667.

Rwy 33L: Standard with minimum climb of 500' per NM to 900.

Rwy 33R: Standard with minimum climb of 500' per NM to 800.

NOTE: RNAV 1

NOTE: DME/DME/IRU or GPS required.

NOTE: RADAR required.

NOTE: Turbojets only.

(NARRATIVE ON FOLLOWING PAGE)

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# CONLE THREE DEPARTURE (RNAV)

BALTIMORE/  
WASHINGTON INTL THURGOOD MARSHALL (BWI)  
BALTIMORE, MARYLAND

(CONLE3.CONLE) 04FEB16

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 10: Climb heading 105° to 667, then on heading 105°, expect RADAR vectors to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000. Thence....

TAKEOFF RWY 15L: Climb heading 155° to 667, then direct GAGLR, then on track 149° to BEWEE, then on track 207° to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000. Thence....

TAKEOFF RWY 15R: Climb heading 155° to 667, then direct KEMMP, then on track 145° to BEWEE, then on track 207° to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000. Thence....

TAKEOFF RWY 28: Climb heading 285° to 667, then direct BOSLY, then left turn direct RAISN, then on track 149° to cross STABL at or below 13000, then on track 185° to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000. Thence....

TAKEOFF RWY 33L/R: Climb heading 335° to 667, then on heading 335°, expect RADAR vectors to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000. Thence....

...on COLIN transition. Maintain 14000. Expect clearance to filed altitude within 10 minutes after departure.

COLIN TRANSITION (CONLE3.COLIN)

TAKEOFF OBSTACLES:

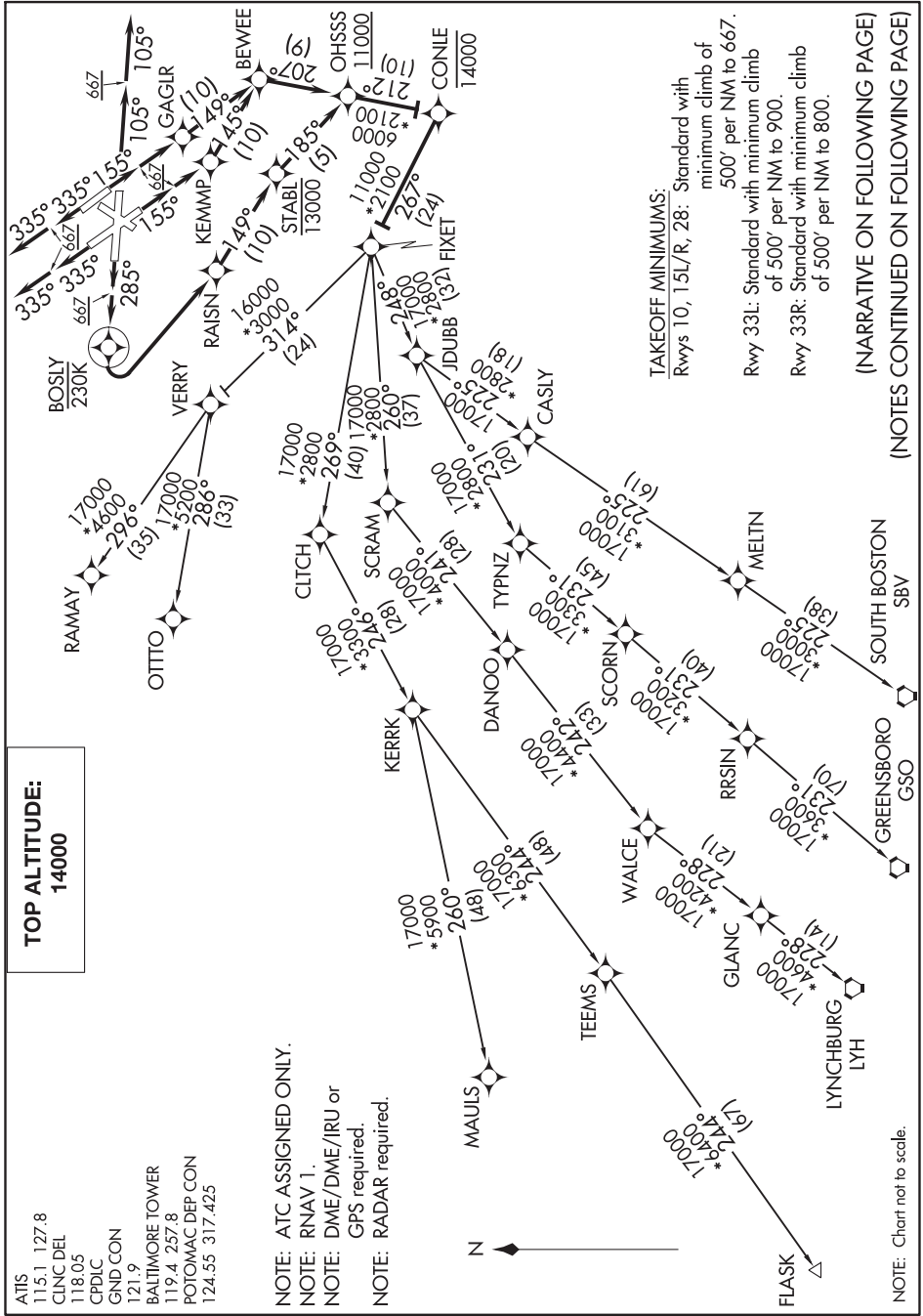
- Rwy 10: Buildings beginning 52' from DER, 319' left of centerline, up to 10' AGL/133' MSL.  
Trees beginning 1144' from DER, 383' left of centerline, up to 70' AGL/163' MSL.
- Rwy 15L: Poles and trees beginning 615' from DER, 547' left of centerline, up to 79' AGL/169' MSL.  
Pole and trees beginning 1762' from DER, 666' right of centerline, up to 82' AGL/205' MSL.
- Rwy 15R: REIL abeam DER, 85' right of centerline, 2' AGL/130' MSL.  
Trees beginning 1086' from DER, 737' right of centerline, up to 77' AGL/184' MSL.
- Rwy 28: Light pole 149' from DER, 40' right of centerline, 4' AGL/143' MSL.  
Trees beginning 1293' from DER, 259' left of centerline, up to 135' AGL/212' MSL.
- Rwy 33L: Pole and fences beginning 161' from DER, 520' right of centerline, up to 33' AGL/1156' MSL.  
Pole 910' from DER, 595' left of centerline, 82' AGL/165' MSL.  
Trees beginning 1662' from DER, 629' right of centerline, up to 73' AGL/214' MSL.  
Antenna and buildings beginning 4726' from DER, 877' right of centerline, up to 157' AGL/265' MSL.
- Rwy 33R: Sign, fences, vertical structures, poles, and buildings beginning 400' from DER, 600' left of centerline, up to 42' AGL/198' MSL.  
Trees beginning 974' from DER, 518' right of centerline, up to 54' AGL/188' MSL.  
Poles and trees beginning 1531' from DER, 584' right of centerline, up to 76' AGL/265' MSL.  
Trees beginning 2453' from DER, 685' left of centerline, up to 79' AGL/231' MSL.  
Pole and trees beginning 2949' from DER, 2' left of centerline, up to 116' AGL/291' MSL.  
Poles and trees beginning 2736' from DER, 2' right of centerline, up to 76' AGL/281' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# FIXET TWO DEPARTURE (RNAV)

NE-3, 10 NOV 2016 to 05 JAN 2017



ATIS 115.1 127.8  
 CLNC DEL 118.05  
 CPDLC  
 GND CON 121.9  
 BALTIMORE TOWER 119.4 257.8  
 POTOMAC DEP CON 124.55 317.425

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

TAKEOFF MINIMUMS:  
 Rwy 10, 15L/R, 28: Standard with minimum climb of 500' per NM to 667.  
 Rwy 33L: Standard with minimum climb of 500' per NM to 900.  
 Rwy 33R: Standard with minimum climb of 500' per NM to 800.

(NARRATIVE ON FOLLOWING PAGE)  
 (NOTES CONTINUED ON FOLLOWING PAGE)

NE-3, 10 NOV 2016 to 05 JAN 2017

DEPARTURE ROUTE DESCRIPTION



TAKEOFF RWY 10: Climb heading 105° to 667, then on heading 105°, expect RADAR vectors to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000, then on track 267° to FIXET, thence . . . .

TAKEOFF RWY 15L: Climb heading 155° to 667°, then direct to GAGLR, then on track 149° to BEWEE, then on track 207° to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000, then on track 267° to FIXET, thence . . . .

TAKEOFF RWY 15R: Climb heading 155° to 667, then direct to KEMMP, then on track 145° to BEWEE, then on track 207° to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000, then on track 267° to FIXET, thence . . . .

TAKEOFF RWY 28: Climb heading 285° to 667, then direct BOSLY, then left turn direct RAISN, then on track 149° to cross STABL at or below 13000, then on track 185° to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000, then on track 267° to FIXET, thence . . . .

TAKEOFF RWY 33L/R: Climb heading 335° to 667, then on heading 335°, expect RADAR vectors to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000, then on track 267° to FIXET, thence . . . .

. . . . on assigned transition. Maintain 14000. Expect clearance to filed altitude within 10 minutes after departure.

FLASK TRANSITION (FIXET2.FLASK)

GREENSBORO TRANSITION (FIXET2.GSO)

LYNCHBURG TRANSITION (FIXET2.LYH)

MAULS TRANSITION (FIXET2.MAULS)

OTTO TRANSITION (FIXET2.OTTO)

RAMAY TRANSITION (FIXET2.RAMAY)

SOUTH BOSTON TRANSITION (FIXET2.SBV)

TAKEOFF OBSTACLE NOTES:

- Rwy 10: Buildings beginning 52' from DER, 319' left of centerline, up to 10' AGL/133' MSL. Trees beginning 1144' from DER, 383' left of centerline, up to 70' AGL/163' MSL.
- Rwy 15L: Poles and trees beginning 615' from DER, 547' left of centerline, up to 79' AGL/169' MSL. Pole and trees beginning 1762' from DER, 666' right of centerline, up to 82' AGL/205' MSL.
- Rwy 15R: REIL abeam DER, 85' right of centerline, 2' AGL/130' MSL. Trees beginning 1086' from DER, 737' right of centerline, up to 77' AGL/184' MSL.
- Rwy 28: Light pole 149' from DER, 40' right of centerline, 4' AGL/143' MSL. Trees beginning 1293' from DER, 259' left of centerline, up to 135' AGL/212' MSL.
- Rwy 33L: Pole and fences beginning 161' from DER, 520' right of centerline, up to 33' AGL/1156' MSL. Pole 910' from DER, 595' left of centerline, 82' AGL/165' MSL. Trees beginning 1662' from DER, 629' right of centerline, up to 73' AGL/214' MSL. Antenna and buildings beginning 4726' from DER, 877' right of centerline, up to 157' AGL/265' MSL.
- Rwy 33R: Sign, fences, vertical structures, poles, and buildings beginning 400' from DER, 600' left of centerline, up to 42' AGL/198' MSL. Trees beginning 974' from DER, 518' right of centerline, up to 54' AGL/188' MSL. Poles and trees beginning 1531' from DER, 584' right of centerline, up to 76' AGL/265' MSL. Trees beginning 2453' from DER, 685' left of centerline, up to 79' AGL/231' MSL. Pole and trees beginning 2949' from DER, 2' left of centerline, up to 116' AGL/291' MSL. Poles and trees beginning 2736' from DER, 2' right of centerline, up to 76' AGL/281' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



# PALEO THREE DEPARTURE

ATIS 115.1 127.8  
CLNC DEL 118.05  
GND CON 121.9  
BALTIMORE TOWER  
119.4 257.8  
POTOMAC DEP CON  
124.55  
CPDLC

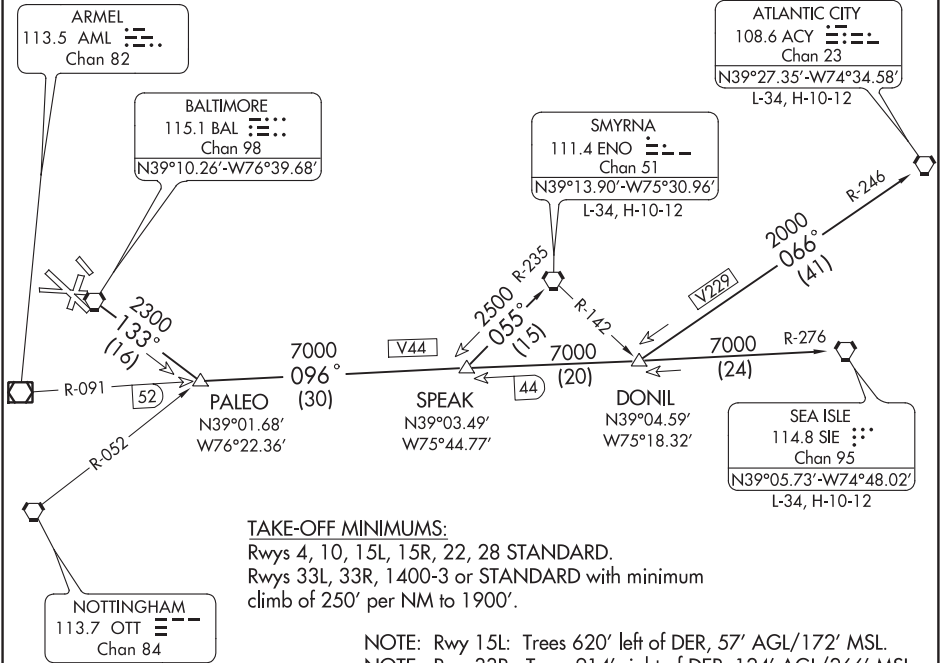
ARMEL  
113.5 AML   
Chan 82

BALTIMORE  
115.1 BAL   
Chan 98  
N39°10.26'-W76°39.68'

SMYRNA  
111.4 ENO   
Chan 51  
N39°13.90'-W75°30.96'  
L-34, H-10-12

ATLANTIC CITY  
108.6 ACY   
Chan 23  
N39°27.35'-W74°34.58'  
L-34, H-10-12

NE-3, 10 NOV 2016 to 05 JAN 2017



**TAKE-OFF MINIMUMS:**

Rwys 4, 10, 15L, 15R, 22, 28 STANDARD.  
Rwys 33L, 33R, 1400-3 or STANDARD with minimum  
climb of 250' per NM to 1900'.

NOTE: Rwy 15L: Trees 620' left of DER, 57' AGL/172' MSL.  
NOTE: Rwy 33R: Trees 914' right of DER, 124' AGL/266' MSL.  
Trees 648' left of DER, 106' AGL/248' MSL.  
NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017



## DEPARTURE ROUTE DESCRIPTION

**TAKE-OFF RWY 28:**

JETS: Fly runway heading until 3 DME, then turn left heading 150°. Thence . . .  
PROPS: Fly runway heading. Thence . . .

**TAKE-OFF ALL OTHER RUNWAYS:** Fly runway heading. Thence . . .

. . . . For vectors to transition or assigned route, expect clearance to filed altitude ten minutes after departure.

**ATLANTIC CITY TRANSITION (PALEO3.ACY):** From over BAL VORTAC via BAL R-133 to PALEO INT, then via SIE VORTAC R-276 to DONIL INT, then via ACY VORTAC R-246 to ACY VORTAC.

**SEA ISLE TRANSITION (PALEO3.SIE):** From over BAL VORTAC via BAL R-133 to PALEO INT, then via SIE VORTAC R-276 to SIE VORTAC.

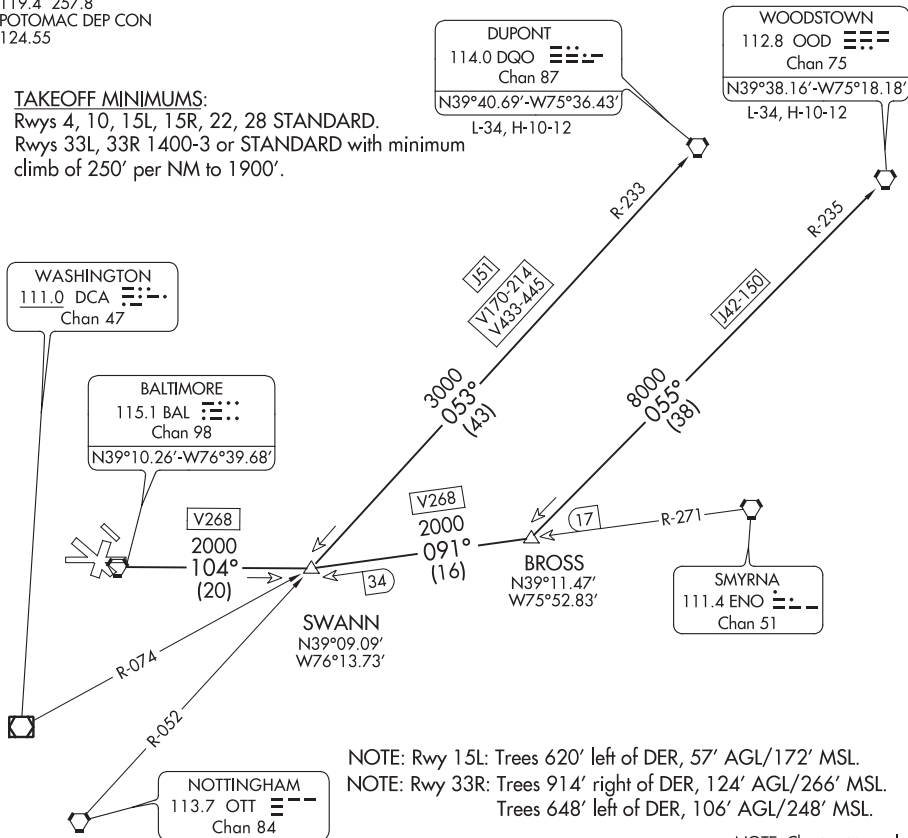
**SMYRNA TRANSITION (PALEO3.ENO):** From over BAL VORTAC via BAL R-133 to PALEO INT, then via SIE VORTAC R-276 to SPEAK INT, then via ENO VORTAC R-235 to ENO VORTAC.

(SWANN3.SWANN) 16259  
**SWANN THREE DEPARTURE**

32 BALTIMORE/  
 WASHINGTON INTL THURGOOD MARSHALL (BWI)  
 AL-804 (FAA) BALTIMORE, MARYLAND

ATIS 115.1 127.8  
 CLNC DEL 118.05  
 CPDLC  
 GND CON 121.9  
 BALTIMORE TOWER  
 119.4 257.8  
 POTOMAC DEP CON  
 124.55

**TAKEOFF MINIMUMS:**  
 Rwys 4, 10, 15L, 15R, 22, 28 STANDARD.  
 Rwys 33L, 33R 1400-3 or STANDARD with minimum  
 climb of 250' per NM to 1900'.



NOTE: Rwy 15L: Trees 620' left of DER, 57' AGL/172' MSL.  
 NOTE: Rwy 33R: Trees 914' right of DER, 124' AGL/266' MSL.  
 Trees 648' left of DER, 106' AGL/248' MSL.

NOTE: Chart not to scale.



**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RWY 28:**

**JETS:** Fly runway heading until 3 DME, then turn left heading 150° Thence....

**PROPS:** Fly runway heading. Thence....

**TAKEOFF ALL OTHER RUNWAYS:** Fly runway heading. Thence....

....For vectors to transition or assigned route, expect clearance to filed altitude ten minutes after departure.

**DUPONT TRANSITION (SWANN3.DQO):** From over BAL VORTAC via BAL R-104 to SWANN INT, then via DQO VORTAC R-233 to DQO VORTAC.

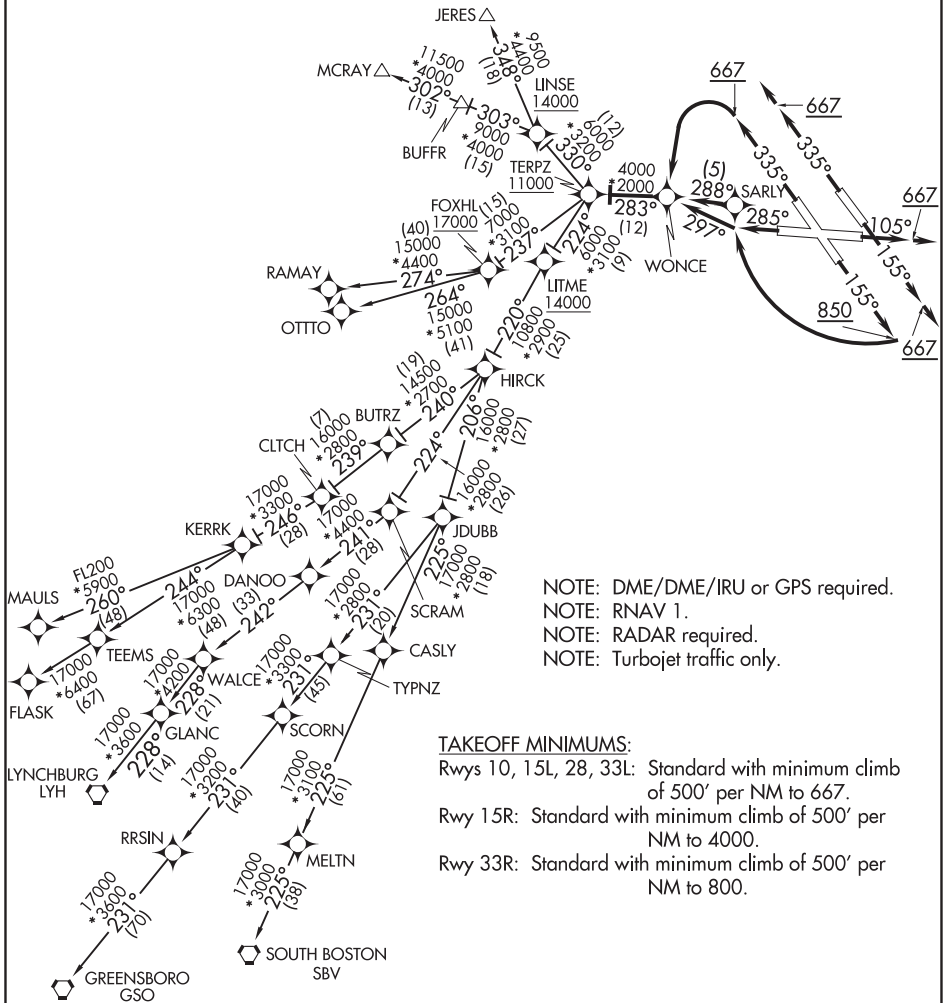
**WOODSTOWN TRANSITION (SWANN3.OOD):** From over BAL VORTAC via BAL R-104 to SWANN INT, then via ENO VORTAC R-271 to BROSS INT, then via OOD VORTAC R-235 to OOD VORTAC.

(TERPZ6.TERPZ) 16259  
**TERPZ SIX DEPARTURE (RNAV)**

BALTIMORE/  
 WASHINGTON INTL THURGOOD MARSHALL (BWI)  
 BALTIMORE, MARYLAND  
 SL-804

**TOP ALTITUDE:**  
**RAMAY, OTTTO, MAULS, FLASK,**  
**SBV, LYH, GSO TRANSITIONS:**  
**17000**  
**JERES, MCRAY TRANSITIONS:**  
**16000**

ATIS  
 115.1 127.8  
 CLNC DEL  
 118.05  
 CPDLC  
 GND CON  
 121.9  
 BALTIMORE TOWER  
 119.4 257.8  
 POTOMAC DEP CON  
 128.7



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

**TAKEOFF MINIMUMS:**  
 Rws 10, 15L, 28, 33L: Standard with minimum climb of 500' per NM to 667.  
 Rwy 15R: Standard with minimum climb of 500' per NM to 4000.  
 Rwy 33R: Standard with minimum climb of 500' per NM to 800.

(NARRATIVE ON FOLLOWING PAGE)  
 (NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.  
**TERPZ SIX DEPARTURE (RNAV)**  
 (TERPZ6.TERPZ) 04FEB16

BALTIMORE/  
 WASHINGTON INTL THURGOOD MARSHALL (BWI)  
 BALTIMORE, MARYLAND

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(TERPZ6.TERPZ) 16035

TERPZ SIX DEPARTURE (RNAV)

BALTIMORE/

WASHINGTON INTL THURGOOD MARSHALL (BWI)

SL-804

BALTIMORE, MARYLAND



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb heading 105° to 667, then on heading 105°, expect RADAR vectors to WONCE, then on track 283° to cross TERPZ at or above 11000, thence . . .

TAKEOFF RUNWAY 15L: Climb heading 155° to 667, then on heading 155°, expect RADAR vectors to WONCE, then on track 283° to cross TERPZ at or above 11000, thence . . .

TAKEOFF RUNWAY 15R: Climb heading 155° to 850, then right turn direct SARLY, then on track 288° to WONCE, then on track 283° to cross TERPZ at or above 11000, thence . . .

TAKEOFF RUNWAY 28: Climb heading 285° to intercept course 297° to WONCE, then on track 283° to cross TERPZ at or above 11000, thence . . .

TAKEOFF RUNWAY 33L: Climb heading 335° to 667, then left turn direct WONCE, then on track 283° to cross TERPZ at or above 11000, thence . . .

TAKEOFF RUNWAY 33R: Climb heading 335° to 667, then on heading 335°, expect RADAR vectors to WONCE, then on track 283° to cross TERPZ at or above 11000, thence . . .

. . . on assigned transition: Departures on JERES and MCRAV transitions maintain 16000.

Departures on RAMAY, OTTTO, MAULS, FLASK, LYH, GSO, SBV transitions maintain 17000, expect further clearance to filed altitude within 10 minutes after departure.

FLASK TRANSITION (TERPZ6.FLASK)

GREENSBORO TRANSITION (TERPZ6.GSO)

JERES TRANSITION (TERPZ6.JERES)

LYNCHBURG TRANSITION (TERPZ6.LYH)

MAULS TRANSITION (TERPZ6.MAULS)

MCRAV TRANSITION (TERPZ6.MCRAV)

OTTTO TRANSITION (TERPZ6.OTTTO)

RAMAY TRANSITION (TERPZ6.RAMAY)

SOUTH BOSTON TRANSITION (TERPZ6.SBV)

TAKEOFF OBSTACLES:

Rwy 10: Buildings beginning 52' from DER, 319' left of centerline, up to 10' AGL/133' MSL.

Trees beginning 1144' from DER, 383' left of centerline, up to 70' AGL/163' MSL.

Rwy 15L: Poles and trees beginning 615' from DER, 547' left of centerline, up to 79' AGL/169' MSL.

Pole and trees beginning 1762' from DER, 666' right of centerline, up to 82' AGL/205' MSL.

Rwy 15R: REIL abeam DER, 85' right of centerline, 2' AGL/130' MSL.

Trees beginning 1086' from DER, 737' right of centerline, up to 77' AGL/184' MSL.

Rwy 28: Light pole 149' from DER, 40' right of centerline, 4' AGL/143' MSL.

Trees beginning 1293' from DER, 259' left of centerline, up to 135' AGL/212' MSL.

Rwy 33L: Pole and fences beginning 161' from DER, 520' right of centerline, up to 33' AGL/1156' MSL.

Pole 910' from DER, 595' left of centerline, 82' AGL/165' MSL.

Trees beginning 1662' from DER, 629' right of centerline, up to 73' AGL/214' MSL.

Antenna and buildings beginning 4726' from DER, 877' right of centerline, up to 157' AGL/265' MSL.

Rwy 33R: Sign, fences, vertical structures, poles, and buildings beginning 400' from DER, 600' left of centerline, up to 42' AGL/198' MSL.

Trees beginning 974' from DER, 518' right of centerline, up to 54' AGL/188' MSL.

Poles and trees beginning 1531' from DER, 584' right of centerline, up to 76' AGL/265' MSL.

Trees beginning 2453' from DER, 685' left of centerline, up to 79' AGL/231' MSL.

Pole and trees beginning 2949' from DER, 2' left of centerline, up to 116' AGL/291' MSL.

Poles and trees beginning 2736' from DER, 2' right of centerline, up to 76' AGL/281' MSL.

TERPZ SIX DEPARTURE (RNAV)

(TERPZ6.TERPZ) 04FEB16

BALTIMORE/

WASHINGTON INTL THURGOOD MARSHALL (BWI)

BALTIMORE, MARYLAND

WAAS CH <b>45622</b> <b>W15A</b>	APP CRS <b>146°</b>	Rwy Idg TDZE <b>22</b> Apt Elev <b>21</b>	<b>6997</b>
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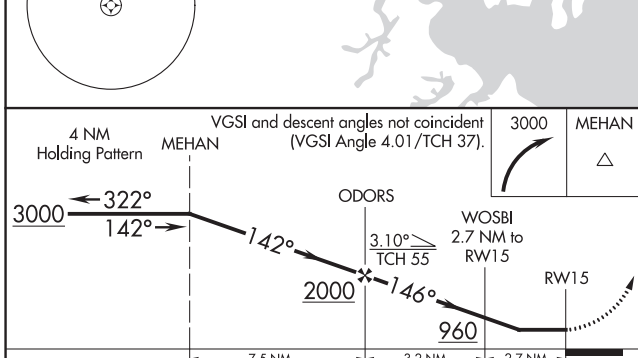
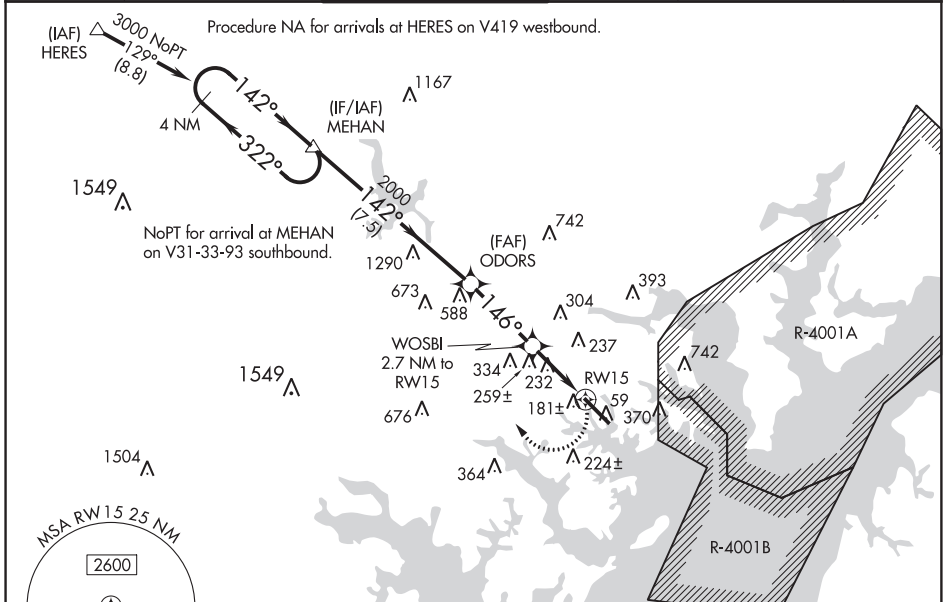
# RNAV (GPS) RWY 15

MARTIN STATE (MTN)

**⚠** When VGSI inop, Straight-in/Circling Rwy 15 procedure NA at night. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Baltimore/Washington Intl Thurgood Marshall altimeter setting and increase all MDA 60 feet and increase LP Cats C and D visibility 1/8 mile, LNAV Cats C and D visibility 1/4 mile, Circling Cat C visibility 1/8 mile and Cat D visibility 1/4 mile.

**⚠** MISSED APPROACH: Climbing right turn to 3000 direct MEHAN and hold.

ATIS <b>124.925</b>	POTOMAC APP CON <b>119.0 282.275</b>	MARTIN TOWER * <b>121.3</b> (CTAF) <b>0 254.425</b>	GND CON <b>121.8 253.4</b>	POTOMAC CLNC DEL <b>121.8</b> (when twr closed)	UNICOM <b>122.95</b>
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ELEV 21	TDZE 22
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HIRL Rwy 15-33  
 REIL Rwy 15 and 33

Rwy 33 Idg 8100'  
 (Military Operations Only)  
 Rwy 15 take-off 8100'  
 (Military Operations Only)

CATEGORY	A	B	C	D
LP MDA	500-1	478 (500-1)	500-1 <sup>3</sup> / <sub>8</sub>	478 (500-1 <sup>3</sup> / <sub>8</sub> )
LNAV MDA	520-1	498 (500-1)	520-1 <sup>3</sup> / <sub>8</sub>	498 (500-1 <sup>3</sup> / <sub>8</sub> )
CIRCLING	560-1	539 (600-1)	560-1 <sup>1</sup> / <sub>2</sub> 539 (600-1 <sup>1</sup> / <sub>2</sub> )	680-2 659 (700-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>40307</b> <b>W33A</b>	APP CRS <b>326°</b>	Rwy ldg <b>6997</b> TDZE <b>14</b> Apt Elev <b>21</b>
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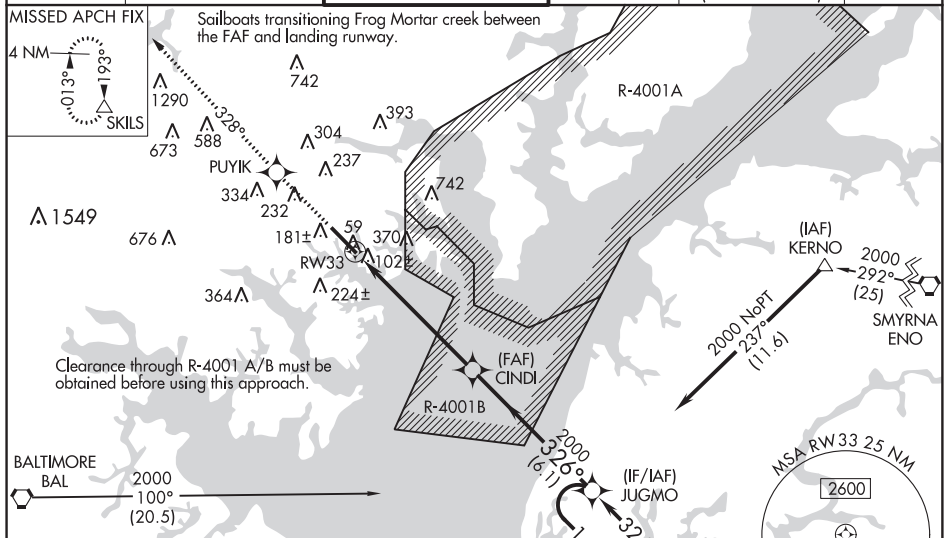
# RNAV (GPS) RWY 33

MARTIN STATE (MTN)

**▼** Baro-VNAV NA when using Baltimore/Washington Intl Thurgood Marshall 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. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Baltimore/Washington Intl Thurgood Marshall altimeter setting and increase all DA to 454 and all MDA 60 feet, and increase LPV and LNAV/VNAV all Cats visibility to 1½ and LNAV Cat C to 1¼ and Circling Cat D visibility to 2¼.

**MISSED APPROACH:** Climb to 3000 direct PUYIK and on track 328° to SKILS and hold.

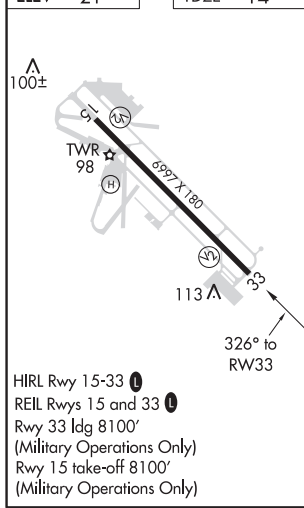
ATIS <b>124.925</b>	POTOMAC APP CON <b>119.0 282.275</b>	MARTIN TOWER ★ <b>121.3(CTAF) 0 254.425</b>	GND CON <b>121.8 253.4</b>	POTOMAC CLNC DEL <b>121.8</b> (when twr closed)	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

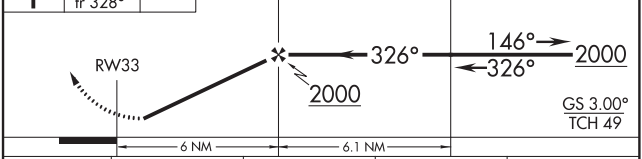
NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 21	TDZE 14
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3000 PUYIK SKILS VGSI and RNAV glidepath not coincident (VGSI Angle 2.91/TCH 44).

4 NM Holding Pattern



CATEGORY	A	B	C	D
LPV DA		402-1¼	388 (400-1¼)	
LNAV/VNAV DA		402-1¼	388 (400-1¼)	
LNAV MDA		380-1 366 (400-1)		380-1¼ 366 (400-1¼)
CIRCLING	540-1	519 (600-1)	540-1½ 519 (600-1½)	680-2 659 (700-2)

LOC/DME I-BQG <b>110.7</b> Chan <b>44</b>	APP CRS <b>144°</b>	Rwy Idg TDZE Apt Elev <b>6997</b> <b>22</b> <b>22</b>
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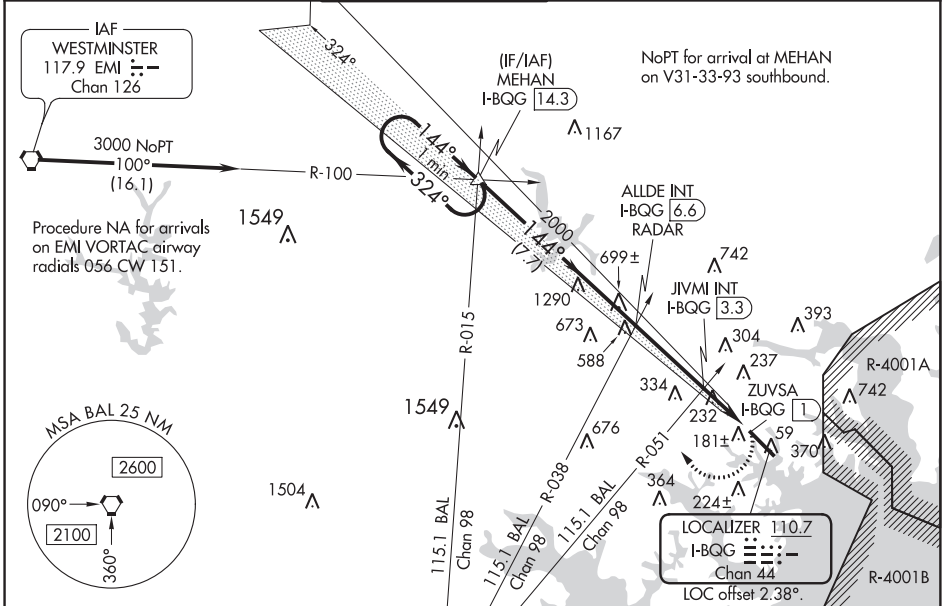
# LOC RWY 15

MARTIN STATE (MTN)

**▼** Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Baltimore/Washington Intl Thurgood Marshall altimeter setting and increase all MDA 60 feet and increase S-15 Cat A and Circling Cats C and D visibility 1/4 mile and increase JIVMI Fix Minimums S-15 Cats C and D visibility 1/8 mile and Circling Cat D visibility 1/4 mile.

**MISSED APPROACH:** Climbing right turn to 3000 on heading 312° and BAL VORTAC R-015 to MEHAN INT/I-BQG 14.3 DME and hold.

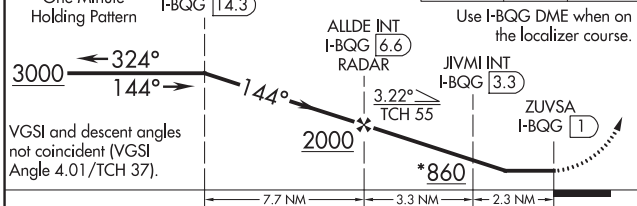
ATIS <b>124.925</b>	POTOMAC APP CON <b>119.0 282.275</b>	MARTIN TOWER * <b>121.3 (CTAF) 0 254.425</b>	GND CON <b>121.8 253.4</b>	POTOMAC CLNC DEL <b>121.8</b> (when twr closed)	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

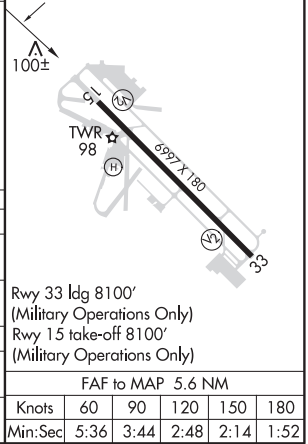
NE-3, 10 NOV 2016 to 05 JAN 2017

*920 when using Baltimore/Washington Intl Thurgood Marshall altimeter setting.	3000 hdg 312° BAL R-015	MEHAN △	ELEV 22	TDZE 22
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144° 5.6 NM from FAF  
HIRL Rwy 15-33  
REIL Rws 15 and 33

CATEGORY	A	B	C	D
S-15	860-1 838 (900-1)	860-1¼ 838 (900-1¼)	860-2½	838 (900-2½)
CIRCLING	860-1¼	838 (900-1¼)	860-2½ 838 (900-2½)	860-2¾ 838 (900-2¾)
<b>JIVMI FIX MINIMUMS (DUAL VOR RECEIVERS OR DME REQUIRED)</b>				
S-15	500-1	478 (500-1)	500-1⅜	478 (500-1⅜)
CIRCLING	560-1	538 (600-1)	560-1½ 538 (600-1½)	680-2 658 (700-2)



LOC/DME I-MTN <b>110.7</b> Chan <b>44</b>	APP CRS <b>326°</b>	Rwy Idg TDZE <b>14</b> Apt Elev <b>21</b>	<b>6997</b>
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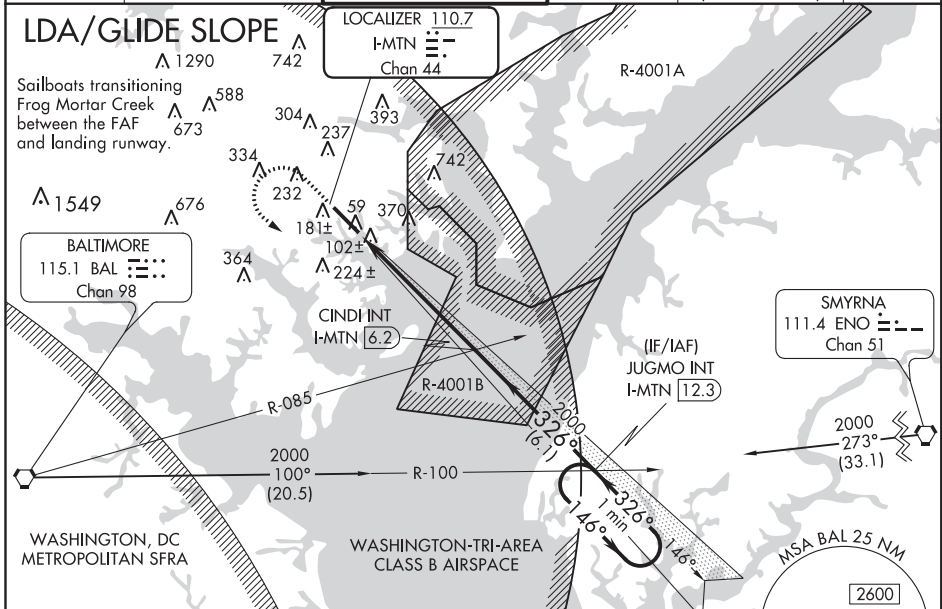
# LDA RWY 33

MARTIN STATE (MTN)

**▼** RADAR Required. Helicopter visibility reduction below 1 SM NA.  
**▲** When local altimeter setting not received, use Baltimore/Washington Intl Thurgood Marshall altimeter setting and raise all MDA 60 feet and raise S-LDA 33 Cat C and Circling Cat D visibility ¼ mile.

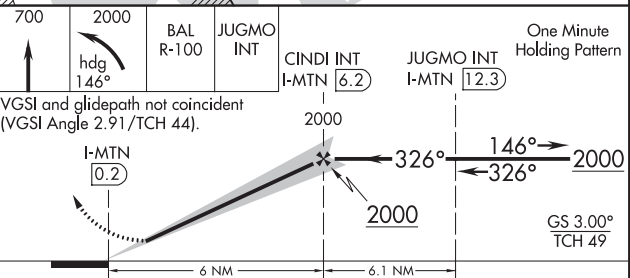
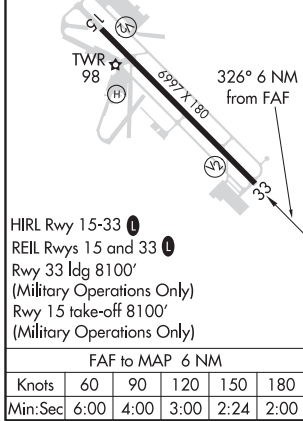
**MISSED APPROACH:** Climb to 700 then climbing left turn to 2000 on heading 146° and BAL VORTAC R-100 to JUGMO INT/12.3 DME and hold.

ATIS <b>124.925</b>	POTOMAC APP CON <b>119.0 282.275</b>	MARTIN TOWER ★ <b>121.3 (CTAF) 0 254.425</b>	GND CON <b>121.8 253.4</b>	POTOMAC CLNC DEL <b>121.8</b> (when twr closed)	UNICOM <b>122.95</b>
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ELEV <b>21</b>	TDZE <b>14</b>
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Note: Clearance through R-4001 A/B must be obtained before using this approach.



CATEGORY	A	B	C	D
S-LDA/GS 33	264-1 250 (300-1)			
S-LDA 33	380-1 366 (400-1)			380-1¼ 366 (400-1¼)
CIRCLING	540-1 519 (600-1)		540-1½ 519 (600-1½)	
				680-2 659 (700-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



VORTAC BAL <b>115.1</b> Chan <b>98</b>	BAL <b>14.7</b> Arc	Rwy Idg <b>6997</b> TDZE <b>22</b> Apt Elev <b>22</b>
----------------------------------------------	---------------------------	-------------------------------------------------------------

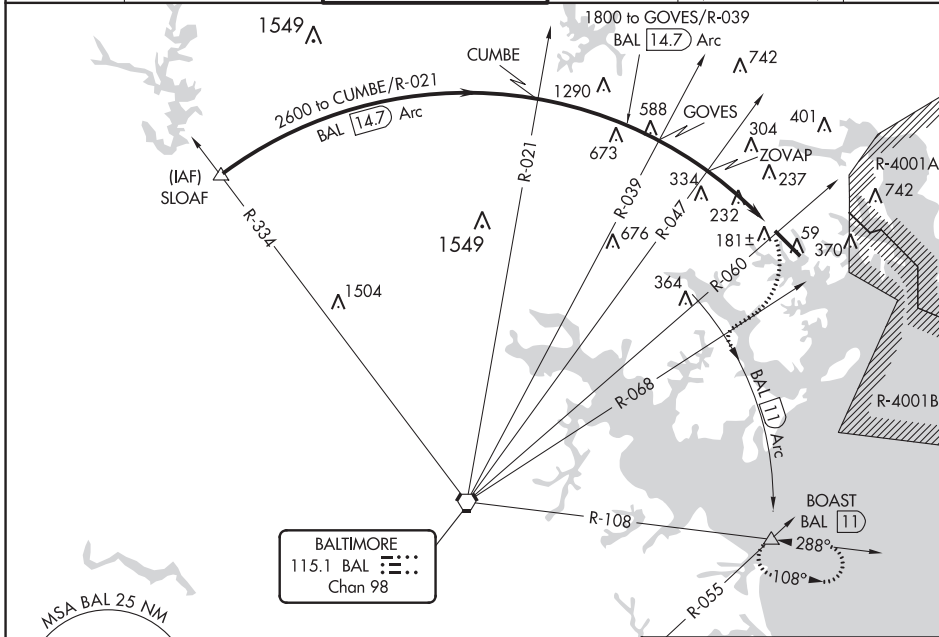
# VOR/DME or TACAN Z RWY 15

MARTIN STATE (MTN)

⚠ When local altimeter setting not received, use Baltimore/Washington Intl Thurgood altimeter setting and increase all MDA 60 feet and S-15 Cat B visibility ¼ mile, Cat C/D ½ mile; increase Circling Cat B/C visibility ¼ mile. Helicopter visibility reduction below ¾ SM NA.

⚠ MISSED APPROACH: Climbing right turn to 2500 via BAL R-068 and BAL 11 DME Arc clockwise to BOAST INT/BAL 11 DME and hold.

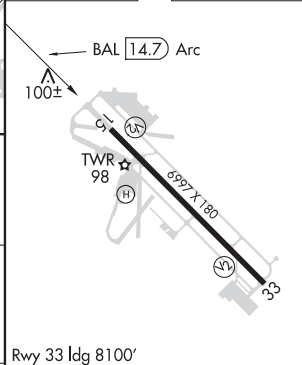
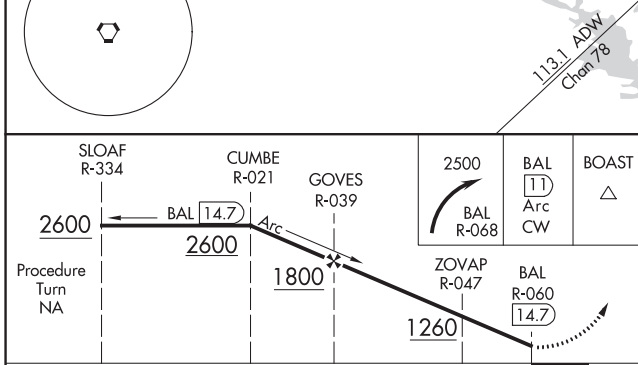
ATIS <b>124.925</b>	POTOMAC APP CON <b>119.0 282.275</b>	MARTIN TOWER ★ <b>121.3(CTAF) 0 254.425</b>	GND CON <b>121.8 253.4</b>	POTOMAC CLNC DEL <b>121.8</b> (when twr closed)	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV <b>22</b>	TDZE <b>22</b>
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CATEGORY	A	B	C	D
S-15	920-1¼ 898 (900-1¼)	920-2½ 898 (900-2½)		
CIRCLING	920-1¼ 898 (900-1¼)	920-2¾ 898 (900-2¾)	920-3 898 (900-3)	

HIRL Rwy 15-33 0  
REIL Rwy 15 and 33 0

# AIRPORT DIAGRAM

AL-5222 (FAA)

MARTIN STATE (MTN)  
BALTIMORE, MARYLAND

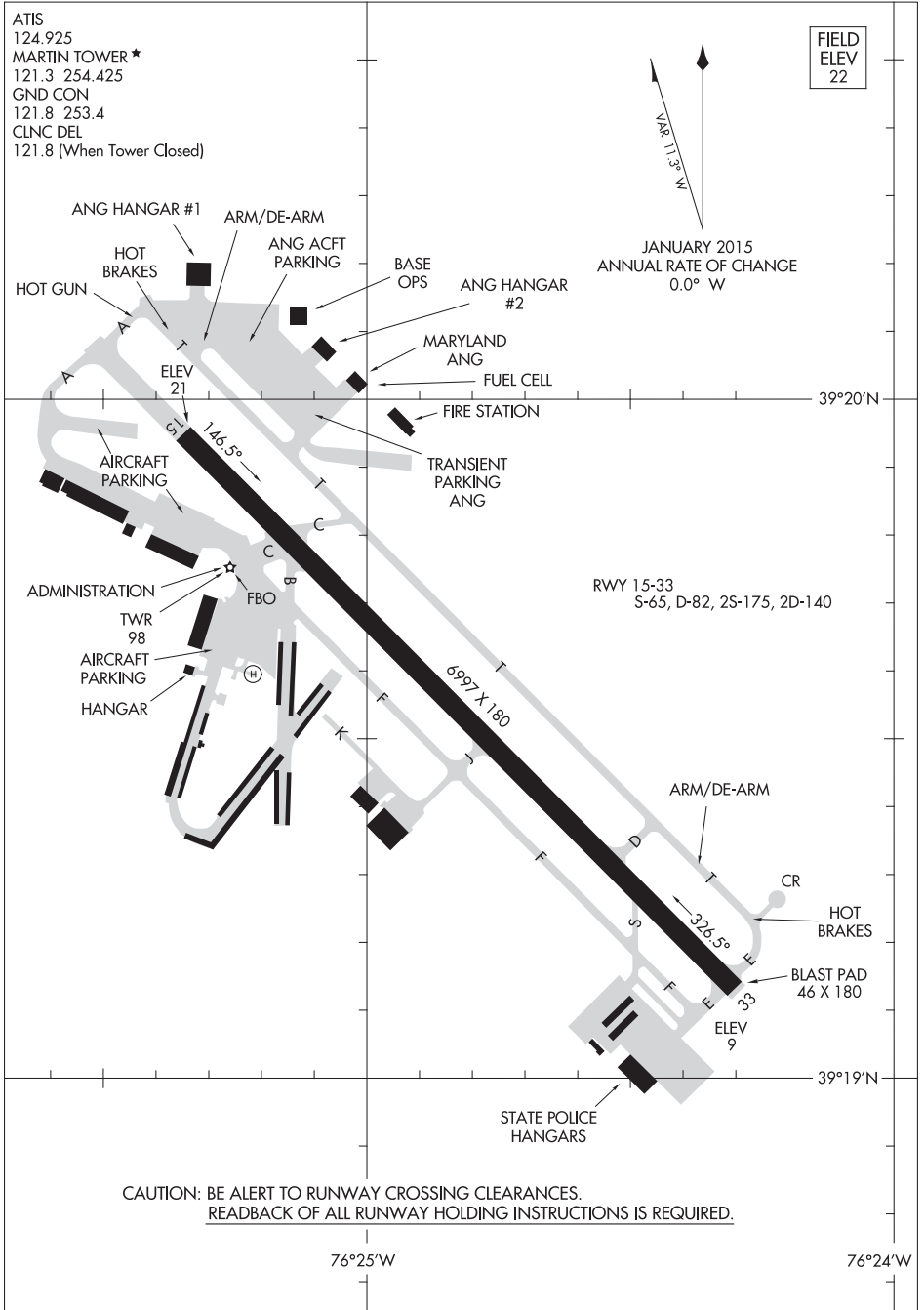
ATIS  
 124.925  
 MARTIN TOWER ★  
 121.3 254.425  
 GND CON  
 121.8 253.4  
 CLNC DEL  
 121.8 (When Tower Closed)

FIELD  
 ELEV  
 22

JANUARY 2015  
 ANNUAL RATE OF CHANGE  
 0.0° W

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

76°25'W

76°24'W

# AIRPORT DIAGRAM

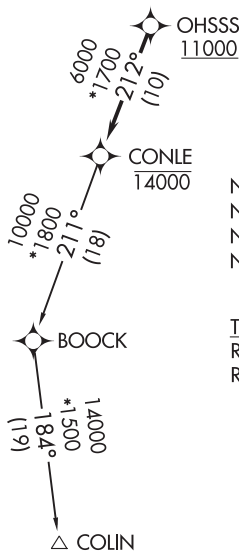
15120

BALTIMORE, MARYLAND  
MARTIN STATE (MTN)

# CONLE THREE DEPARTURE (RNAV)

ATIS  
 124.925  
 CLNC DEL  
 121.8 (when twr closed)  
 GND CON  
 121.8 253.4  
 MARTIN TOWER \*  
 121.3 (CTAF) 254.425  
 UNICOM  
 122.95  
 POTOMAC DEP CON  
 119.7 290.47

**TOP ALTITUDE:  
ASSIGNED BY ATC**



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

TAKEOFF MINIMUMS:

Rwy 15: Standard.  
 Rwy 33: Standard with minimum climb of  
 215' per NM to 1700.

TAKEOFF OBSTACLES:

- Rwy 15: Trees 625' from DER, 184' right of centerline, up to 20' AGL/29' MSL.  
 Pole and trees beginning 1689' from DER, 580' left of centerline, up to 89' AGL/97' MSL.  
 Trees beginning 2582' from DER, 68' right of centerline, up to 92' AGL/103' MSL.  
 Trees beginning 2906' from DER, 550' left of centerline, up to 100' AGL/109' MSL.
- Rwy 33: Terrain 91' from DER, 482' right of centerline, 0' AGL/25' MSL.  
 Poles and trees beginning 1170' from DER, 3' left of centerline, up to 84' AGL/133' MSL.  
 Poles and trees beginning 1175' from DER, 10' right of centerline, up to 79' AGL/128' MSL.  
 Trees beginning 3108' from DER, 8' left of centerline, up to 86' AGL/145' MSL.  
 Trees beginning 2843' from DER, 14' right of centerline, up to 96' AGL/175' MSL.

NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

Fly heading and maintain altitude assigned by ATC, expect RADAR vectors to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000, then on COLIN transition. Expect filed altitude within 10 minutes after departure.

COLIN TRANSITION (CONLE3.COLIN)

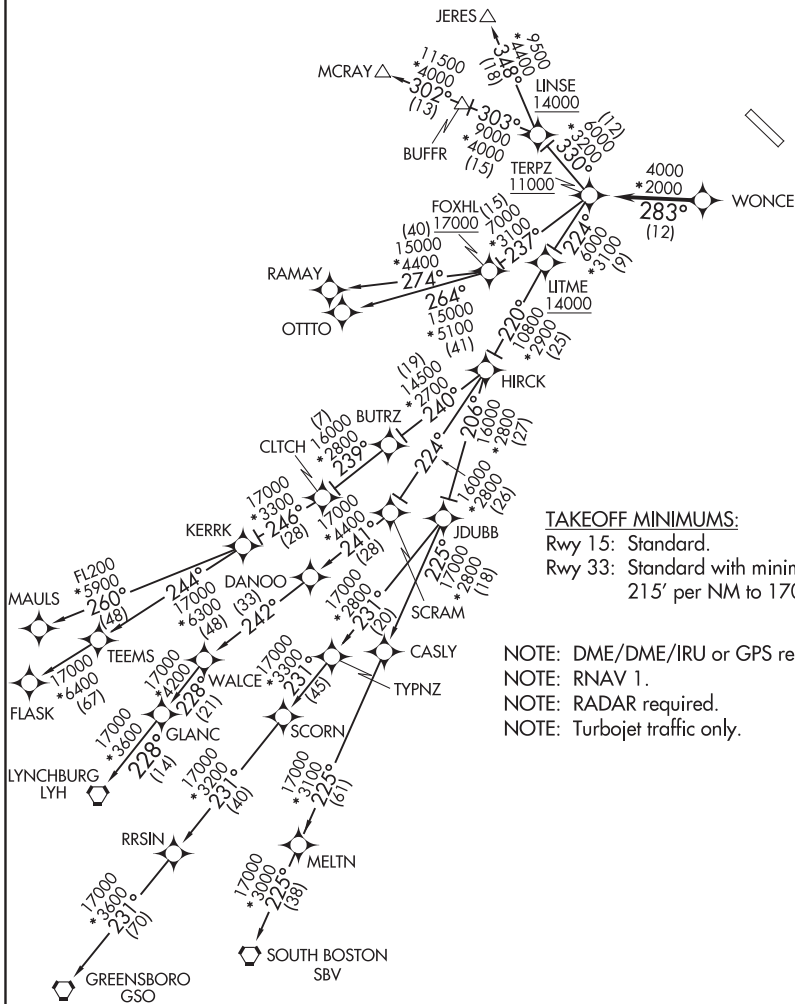
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# TERPZ SIX DEPARTURE (RNAV)

**TOP ALTITUDE:**  
**RAMAY, OTTTO, MAULS, FLASK,**  
**SBV, LYH, GSO TRANSITIONS:**  
**17000**  
**JERES, MCRAY TRANSITIONS:**  
**16000**

ATIS  
 124.925  
 CLNC DEL  
 121.8 (when twr closed)  
 GND CON  
 121.8 253.4  
 MARTIN TOWER \*  
 121.3 (CTAF) 254.425  
 UNICOM  
 122.95  
 POTOMAC DEP CON  
 119.7



**TAKEOFF MINIMUMS:**  
 Rwy 15: Standard.  
 Rwy 33: Standard with minimum climb of 215' per NM to 1700.

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

NOTE: Chart not to scale.

# TERPZ SIX DEPARTURE (RNAV)



DEPARTURE ROUTE DESCRIPTION

Fly heading and maintain altitude assigned by ATC, expect RADAR vectors to WONCE, then on track 283° to cross TERPZ at or above 11000, thence. . . .  
. . . on assigned transition: Departures on JERES and MCRA Y transitions maintain 16000. Departures on RAMAY, OTTTO, MAULS, FLASK, LYH, GSO, SBV transitions maintain 17000, expect further clearance to filed altitude within 10 minutes after departure.

- FLASK TRANSITION (TERPZ6.FLASK):
- GREENSBORO TRANSITION (TERPZ6.GSO):
- JERES TRANSITION (TERPZ6.JERES):
- LYNCHBURG TRANSITION (TERPZ6.LYH):
- MAULS TRANSITION (TERPZ6.MAULS):
- MCRA Y TRANSITION (TERPZ6.MCRA Y):
- OTTTO TRANSITION (TERPZ6.OTTTO):
- RAMAY TRANSITION (TERPZ6.RAMAY):
- SOUTH BOSTON TRANSITION (TERPZ6.SBV):

TAKEOFF OBSTACLES:

- Rwy 15: Trees 625' from DER, 184' right of centerline, up to 20' AGL/29' MSL.  
Pole and trees beginning 1689' from DER, 580' left of centerline, up to 89' AGL/97' MSL.  
Trees beginning 2568' from DER, 68' right of centerline, up to 92' AGL/103' MSL.  
Trees beginning 2906' from DER, 550' left of centerline, up to 100' AGL/109' MSL.
- Rwy 33: Terrain 91' from DER, 482' right of centerline, 0' AGL/25' MSL.  
Poles and trees beginning 1170' from DER, 3' left of centerline, up to 84' AGL/133' MSL.  
Poles and trees beginning 1175' from DER, 10' right of centerline, up to 79' AGL/128' MSL.  
Trees beginning 3108' from DER, 8' left of centerline, up to 86' AGL/145' MSL.  
Trees beginning 2843' from DER, 14' right of centerline, up to 96' AGL/175' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

BLACKSBURG, VIRGINIA

AL-5475 (FAA)

15176

WAAS CH <b>86712</b>	APP CRS <b>123°</b>	Rwy Idg TDZE Apt Elev	<b>4539</b> <b>2113</b> <b>2132</b>
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# RNAV (GPS) RWY 12

VIRGINIA TECH/MONTGOMERY EXECUTIVE (BCB)

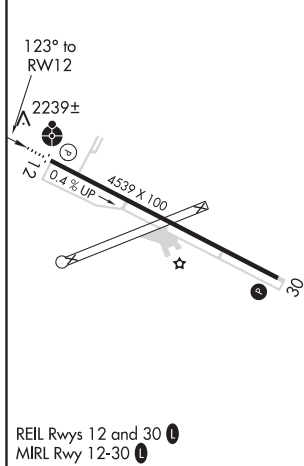
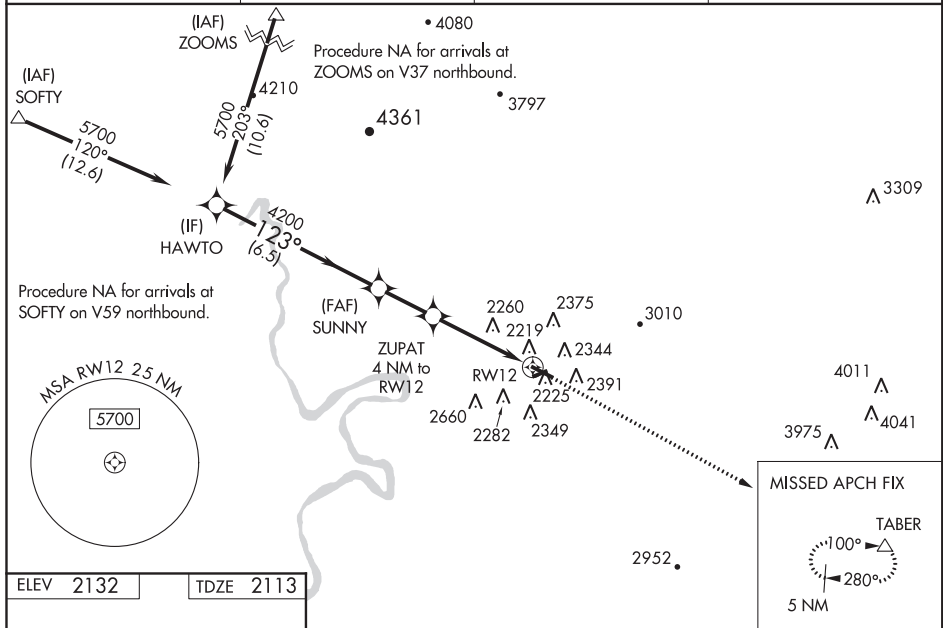
▼ Baro-VNAV NA when using New River Valley altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Dublin altimeter setting and increase all DA 36 feet and all MDA 40 feet; increase LNAV/VNAV Cats A, B and LNAV Cat C visibility 1/8 mile. For inop ODALS increase LNAV/VNAV Cat A/B visibility to 1 mile; increase LNAV Cat C visibility to 1 1/8 mile. Helicopter visibility reduction below 1 SM NA. Procedure NA at night for Cat C aircraft. Inoperative table does not apply.

ODALS



MISSED APPROACH: Climb to 5500 direct TABER and hold.

AWOS-3 <b>133.325</b>	ROANOKE APP CON <b>126.9 339.8</b>	ROANOKE CLNC DEL <b>124.85</b>	UNICOM <b>123.05 (CTAF)</b>
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VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 40).

5500 TABER

\* LNAV only

	HAWTO	SUNNY	ZUPAT	RW12
	5700	4200	4200	
	123°			
	GP 3.10° TCH 51		*3440	
	6.5 NM		2.2 NM	4 NM
CATEGORY	A	B	C	D
LPV DA		2363-1	250 (300-1)	NA
LNAV/VNAV DA		2428-1	315 (300-1)	NA
LNAV MDA	2520-1	407 (400-1)	2520-1 1/8 407 (400-1 1/8)	NA
CIRCLING	2760-1 628 (700-1)	2800-1 668 (700-1)	2960-2 1/2 828 (900-2 1/2)	NA

BLACKSBURG, VIRGINIA  
Amdt 2A 25JUN15

VIRGINIA TECH/MONTGOMERY EXECUTIVE (BCB)  
37°12'N-80°24'W  
**RNAV (GPS) RWY 12**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>4539</b>
<b>303°</b>	TDZE	<b>2132</b>
	Apt Elev	<b>2132</b>

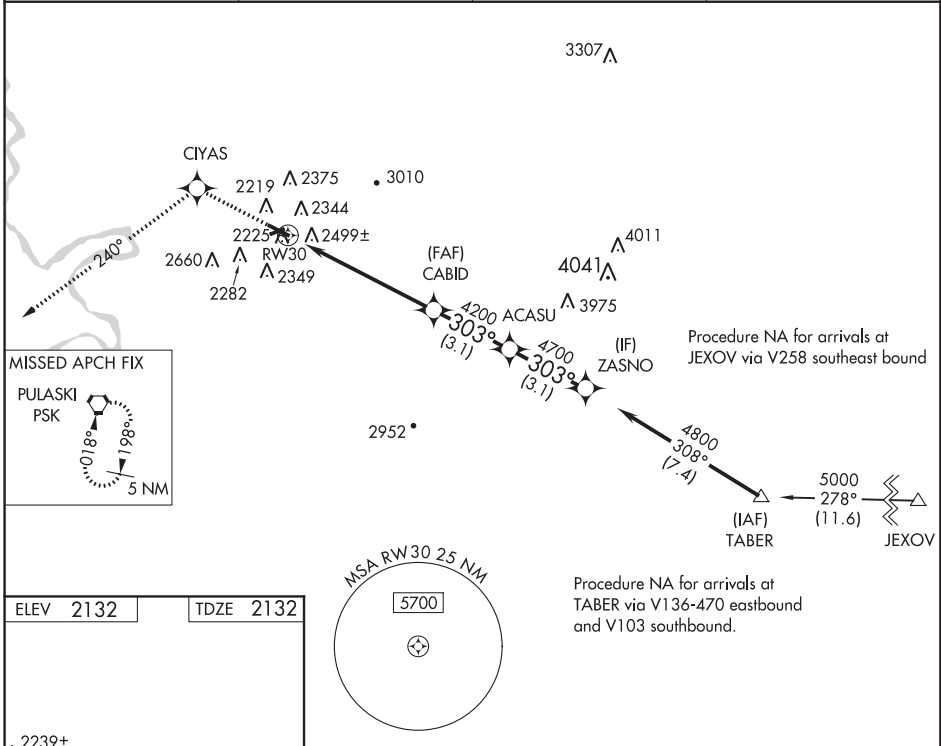
# RNAV (GPS) RWY 30

VIRGINIA TECH/MONTGOMERY EXECUTIVE (BCB)

**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Dublin altimeter setting and increase all MDA 40 feet and Circling Cat C visibility ¼ mile. VDP NA when using Dublin altimeter setting. Helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:** Climb to 5500 direct CIYAS and via 240° track to PSK VORTAC and hold.

AWOS-3 <b>133.325</b>	ROANOKE APP CON <b>126.9 339.8</b>	ROANOKE CLNC DEL <b>124.85</b>	UNICOM <b>123.05 (CTAF) 0</b>
--------------------------	---------------------------------------	-----------------------------------	----------------------------------



ELEV	2132	TDZE	2132
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REIL Rws 12 and 30  
MIRL Rwy 12-30

5500	CIYAS	tr 240°	PSK	VGSI and descent angles not coincident (VGSI Angle 3.75/TCH 45).	ZASNO
					ACASU
					4800
					4700
					4200
					303°
					Procedure Turn NA
					1.5 NM
					4.4 NM
					3.1 NM
					3.1 NM
CATEGORY	A	B	C	D	
LNAV MDA	2760-1	628 (700-1)	2760-1¾ 628 (700-1¾)	NA	
<b>C</b> CIRCLING	2760-1 628 (700-1)	2800-1 668 (700-1)	2960-2½ 828 (900-2½)	NA	

NE-3, 10 NOV 2016 to 05 JAN 2017

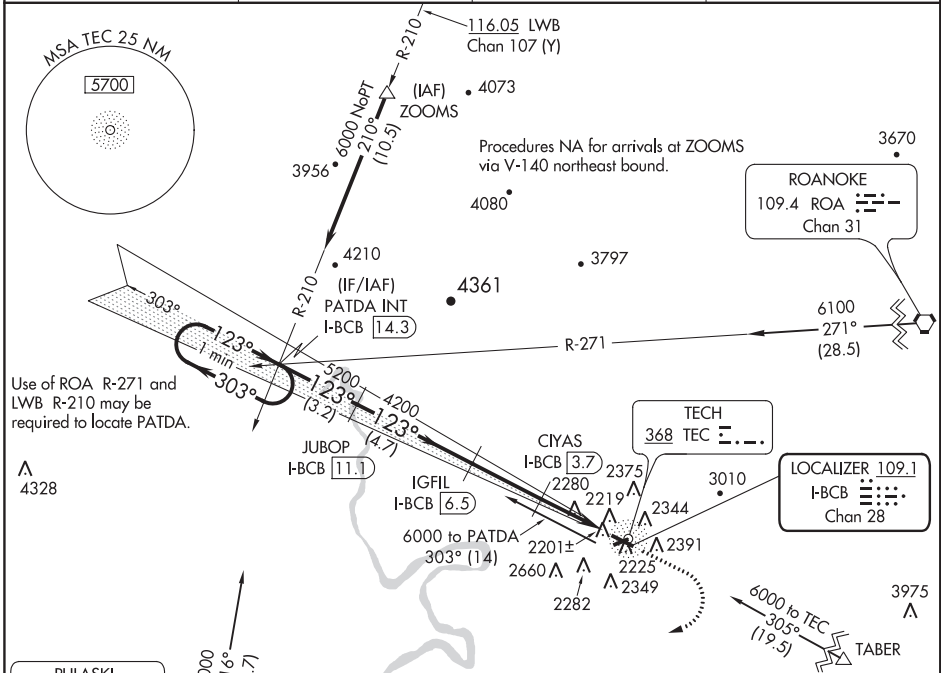
NE-3, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-BCB	APP CRS	Rwy Idg TDZE	4539
109.1	123°	2113	
Chan 28		Apt Elev	2132

# LOC/DME RWY 12

VIRGINIA TECH/MONTGOMERY EXECUTIVE (BCB)

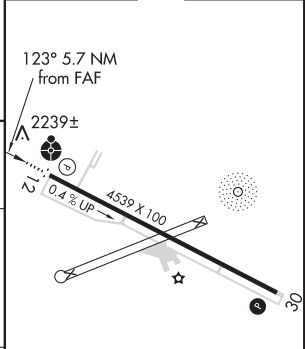
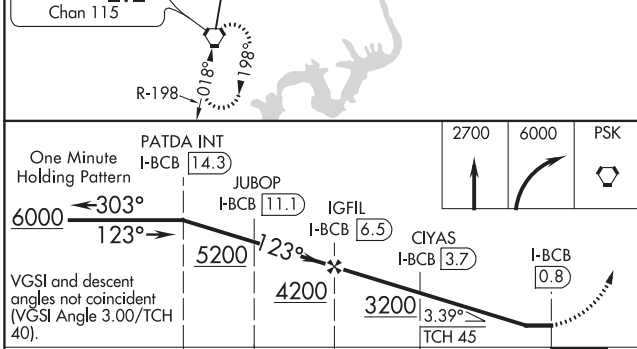
<p>▼ Inoperative table does not apply.</p> <p>▲ NA When VGSI inop, procedure NA at night. Helicopter visibility reduction below 1 SM NA.</p>	<p>ODALS</p>	<p>MISSED APPROACH: Climb to 2700 then climbing right turn to 6000 direct PSK VORTAC and hold.</p>	
AWOS-3	ROANOKE APP CON	ROANOKE CLNC DEL	UNICOM
133.325	126.9 339.8	124.85	123.05 (CTAF) ☺



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 2132	TDZE 2113
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CATEGORY	A	B	C	D
S-12	2540-1	427 (500-1)	2540-1¼ 427 (500-1¼)	NA
CIRCLING	2760-1 628 (700-1)	2800-1 668 (700-1)	2960-2½ 828 (900-2½)	NA

REIL Rwy 12 and 30 ☺

MIRL Rwy 12-30 ☺



NDB TEC <b>368</b>	APP CRS <b>069°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>2132</b>
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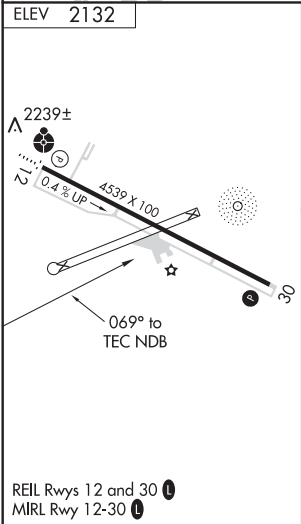
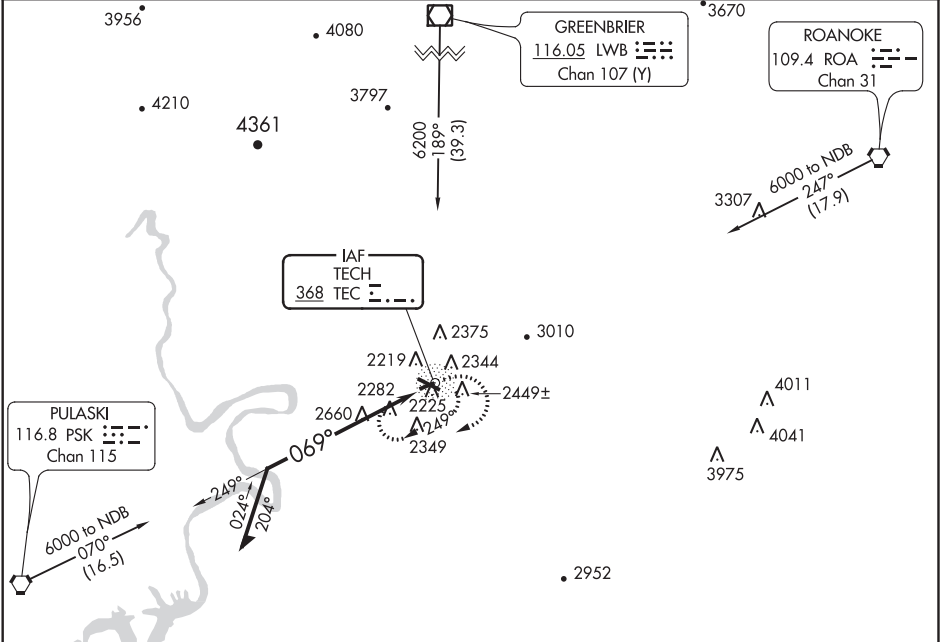
# NDB-A

VIRGINIA TECH/MONTGOMERY EXECUTIVE (BCB)

**NA** When local altimeter setting not received, use Dublin altimeter setting and increase all MDA 40 feet.

MISSED APPROACH: Climbing right turn to 6000 in TEC NDB holding pattern.

AWOS-3 <b>133.325</b>	ROANOKE APP CON <b>126.9 339.8</b>	ROANOKE CLNC DEL <b>124.85</b>	UNICOM <b>123.05 (CTAF)</b>
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6000	TEC

CATEGORY	A	B	C	D
<b>C</b> CIRCLING	3200-1¼ 1068 (1100-1¼)	3200-1½ 1068 (1100-1½)	3200-3 1068 (1100-3)	NA

# NDB-A

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(BEMAR2.BEMAR) 16315

VIRGINIA TECH/MONTGOMERY EXECUTIVE (BCB)

# BEMAR TWO DEPARTURE (RNAV)

BLACKSBURG, VIRGINIA

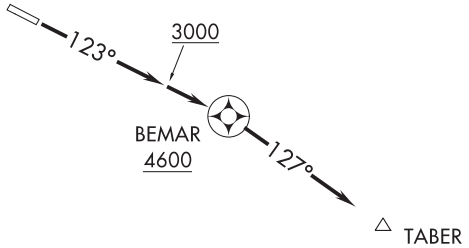
AWOS-3  
 133.325  
 CTAF  
 123.05  
 ROANOKE DEP CON  
 126.9 339.8  
 ROANOKE CLNC DEL  
 124.85

**TOP ALTITUDE:**  
**6000**

ROANOKE  
 ROA

WOODRUM  
 ODR

PULASKI  
 PSK



NOTE: GPS required.  
 NOTE: RNAV-1.  
 NOTE: Radar required.

### TAKEOFF OBSTACLE NOTES:

Rwy 12: Trees beginning 19' from DER, 418' left of centerline, up to 100' AGL/2453' MSL.  
 Trees beginning 242' from DER, 151' right of centerline, up to 100' AGL/2279' MSL.

### TAKEOFF MINIMUMS:

Rwy 30: NA-ATC.  
 Rwy 12: 400-1¼ with minimum climb of 250' per NM to 4600  
 or standard with minimum climb of 500' per NM to 3000.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 12: Climb heading 123° to 3000, then direct BEMAR, cross BEMAR at or above 4600, then fly heading 127°, maintain 6000, expect radar vectors and clearance to filed altitude/flight level 10 minutes after departure.

## BEMAR TWO DEPARTURE (RNAV)

(BEMAR2.BEMAR) 10NOV16

BLACKSBURG, VIRGINIA

VIRGINIA TECH/MONTGOMERY EXECUTIVE (BCB)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

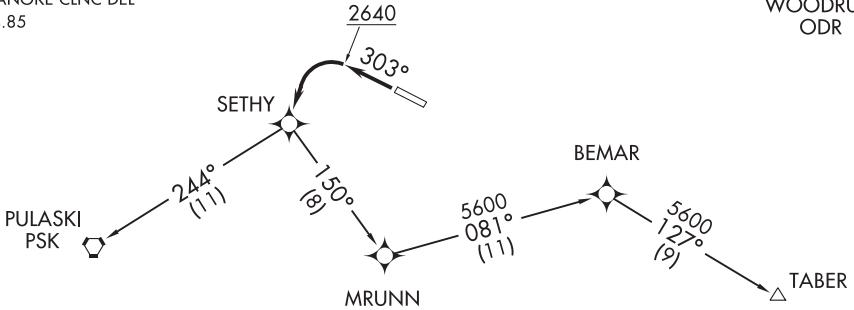
# SETHY FOUR DEPARTURE (RNAV)

AWOS-3  
133.325  
CTAF  
123.05  
ROANOKE DEP CON  
126.9 339.8  
ROANOKE CLNC DEL  
124.85

**TOP ALTITUDE:  
6000**

NOTE: Aircraft on TABER transition,  
do not exceed 220K until  
passing SETHY.

ROANOKE ROA  
WOODRUM ODR



- NOTE: GPS Required.
- NOTE: Radar Required.
- NOTE: RNAV-1.
- NOTE: When in Radar contact expect vectors to filed/assigned route.

**TAKEOFF MINIMUMS:**

Rwy 12: NA-ATC.  
Rwy 30: Standard with minimum climb of 300' per NM to 2640.

**TAKEOFF OBSTACLE NOTES:**

Rwy 30: Rising terrain, trees and poles beginning 3' from DER, 273' right of centerline, up to 45' AGL/2165' MSL. Rising terrain, trees, and poles beginning 90' from DER, 187' left of centerline, up to 100' AGL/ 2222' MSL. Vehicle on road beginning 567' from DER left and right of centerline up to 15' AGL/ 2146' MSL. Fence beginning 697' from DER, left and right of centerline, up to 10' AGL/ 2136' MSL.

NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 30: Climb heading 303° to 2640, then left turn direct SETHY, Thence . . . .

. . . .Via transition. Maintain 6000, expect clearance to filed altitude/flight level 10 minutes after departure.

PULASKI TRANSITION (SETHY4.PSK):  
TABER TRANSITION (SETHY4.TABER):

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>42934</b> <b>W04A</b>	APP CRS <b>044°</b>	Rwy Idg THRE <b>400</b> Apt Elev <b>437</b>	<b>5333</b>
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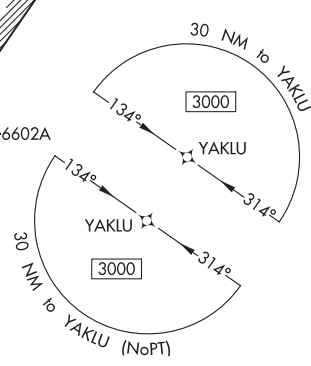
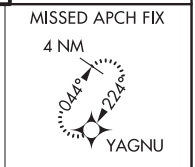
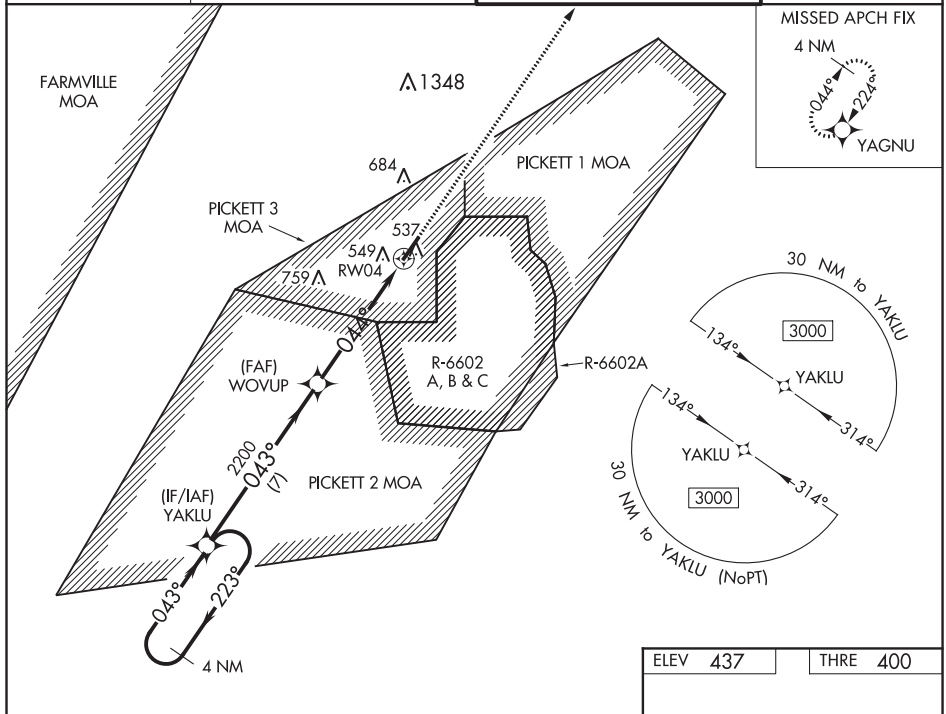
# RNAV (GPS) RWY 4

ALLEN C PERKINSON BLACKSTONE AAF (BKT)

Use South Hill altimeter setting. DME/DME RNP-0.3 NA. Baro-VNAV NA. Circling NA east of Rwy 4-22. Helicopter visibility reduction below 3/4 SM NA.

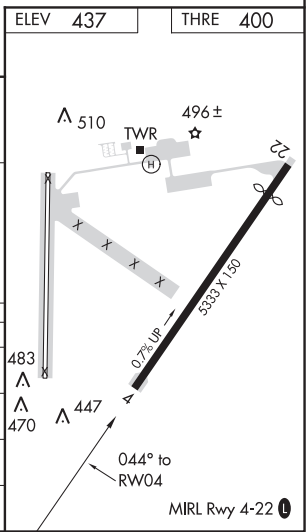
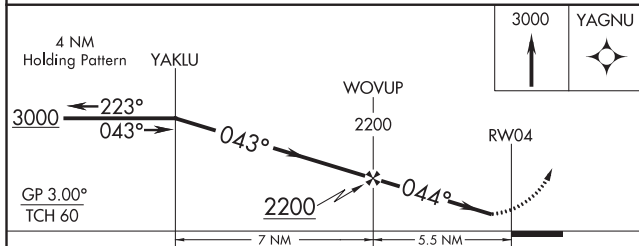
MISSED APPROACH: Climb to 3000 direct YAGNU and hold.

AWOS-3 <b>119.225</b>	WASHINGTON CENTER <b>118.75 377.1</b>	BLACKSTONE TOWER ★ <b>126.2 241.0</b>	CTAF <b>126.2</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA	717-1 317 (300-1)			NA
LNAV/VNAV DA	754-1 354 (400-1 3/8)			NA
LNAV MDA	860-1	460 (500-1)	860-1 3/8 460 (500-1 3/8)	NA
CIRCLING	920-1	483 (500-1)	1040-1 3/4 603 (700-1 3/4)	NA

WAAS CH <b>53734</b> <b>W22A</b>	APP CRS <b>224°</b>	Rwy Idg <b>4633</b> THRE <b>437</b> Apt Elev <b>437</b>
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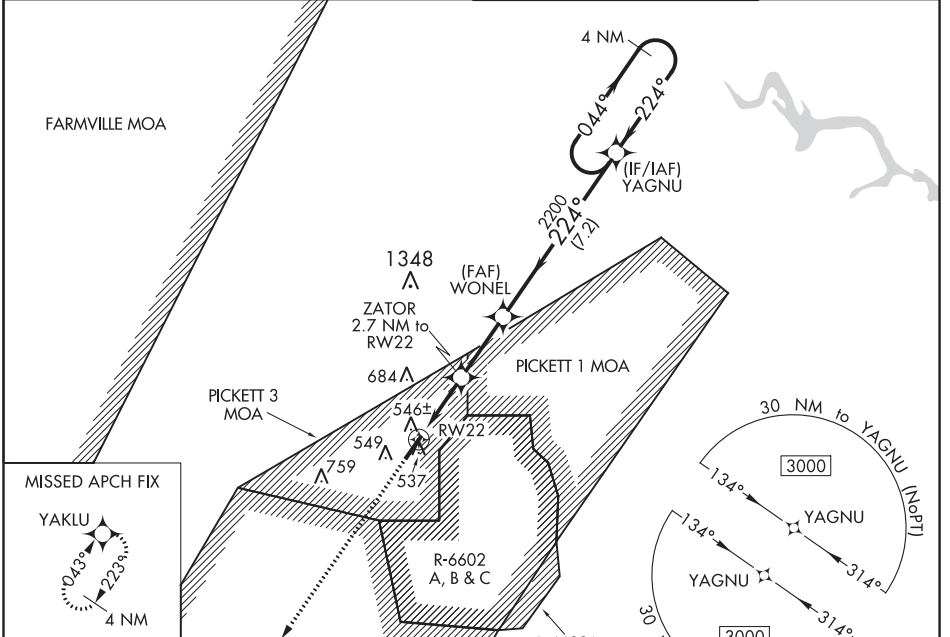
# RNAV (GPS) RWY 22

ALLEN C PERKINSON BLACKSTONE AAF (BK'T)

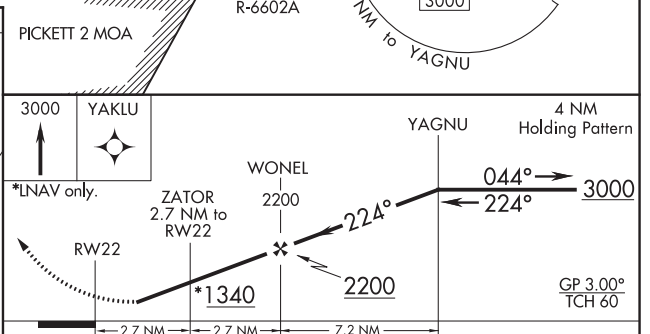
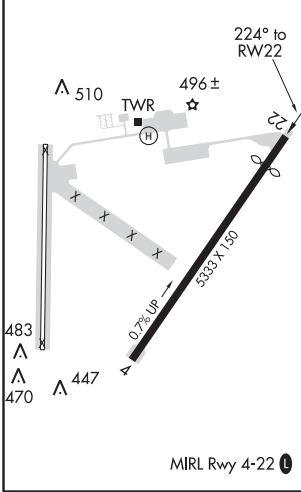
**W** Use South Hill alimeter setting. DME/DME RNP-0.3 NA.  
**NA** Baro-VNAV NA. Circling NA east of Rwy 4-22. Helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climb to 3000 direct YAKLU and hold.

AWOS-3 <b>119.225</b>	WASHINGTON CENTER <b>118.75 377.1</b>	BLACKSTONE TOWER ★ <b>126.2 241.0</b>	CTAF <b>126.2</b>
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ELEV 437	THRE 437
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CATEGORY	A	B	C	D
LPV DA		742-1	305 (400-1)	NA
LNAV/VNAV DA		751-1	314 (400-1)	NA
LNAV MDA	860-1	423 (500-1)	860-1¼ 423 (500-1¼)	NA
<b>C</b> CIRCLING	920-1	483 (500-1)	1040-1¾ 603 (700-1¾)	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

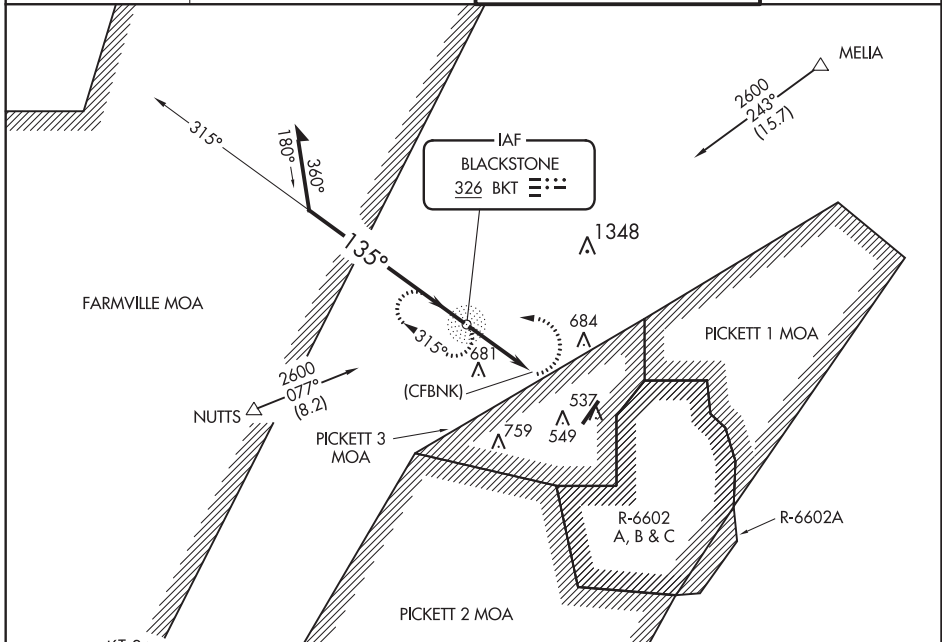
NDB BKT <b>326</b>	APP CRS <b>135°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>437</b>
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# NDB-A

ALLEN C PERKINSON BLACKSTONE AAF (BKT)

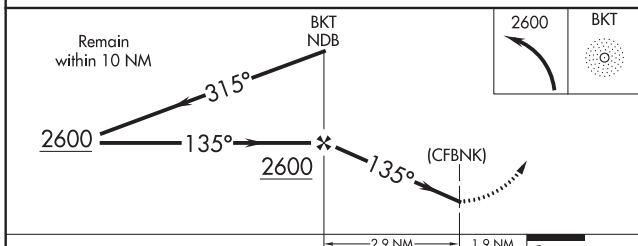
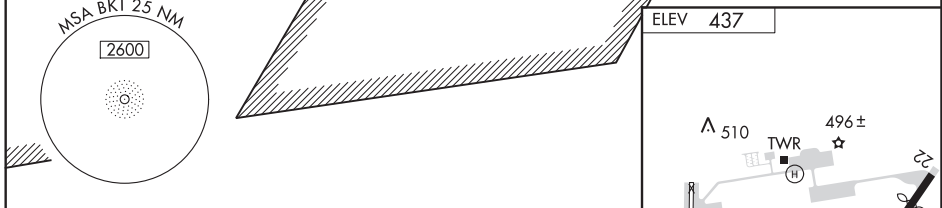
<b>▽</b> <b>▲</b> NA	Use South Hill altimeter setting. Circling NA east of Rwy 4-22.	MISSED APPROACH: Climbing left turn 2600 direct BKT NDB and hold. Continue climb-in-hold to 2600.
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AWOS-3 <b>119.225</b>	WASHINGTON CENTER <b>118.75 377.1</b>	BLACKSTONE TOWER ★ <b>126.2 241.0</b>	CTAF <b>126.2</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D	FAF to MAP 2.9 NM							
<b>☐</b> CIRCLING	1040-2¼		603 (700-2¼)		NA		Knots	60	90	120	150	180
							Min:Sec	2:54	1:56	1:27	1:10	0:58

# NDB-A

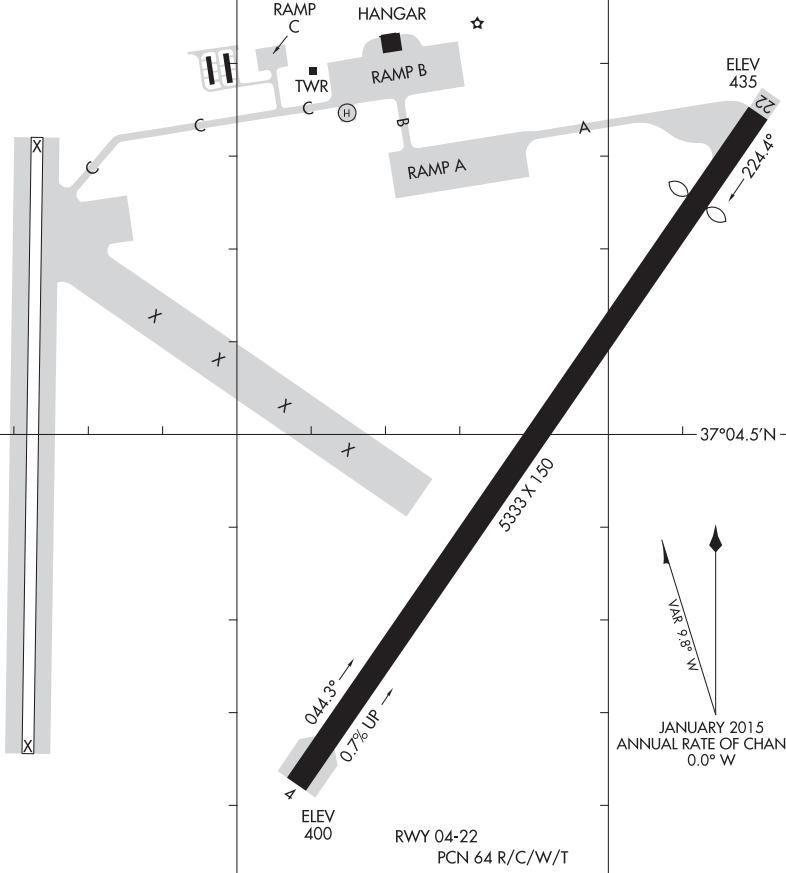
15120

# AIRPORT DIAGRAM

ALLEN C. PERKINSON BLACKSTONE AAF (BKT)  
AL-52 (FAA) BLACKSTONE, VIRGINIA

AWOS-3  
119.225  
BLACKSTONE TOWER \*  
126.2 241.0

FIELD  
ELEV  
437



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

77°57.5'W

77°57.0'W

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

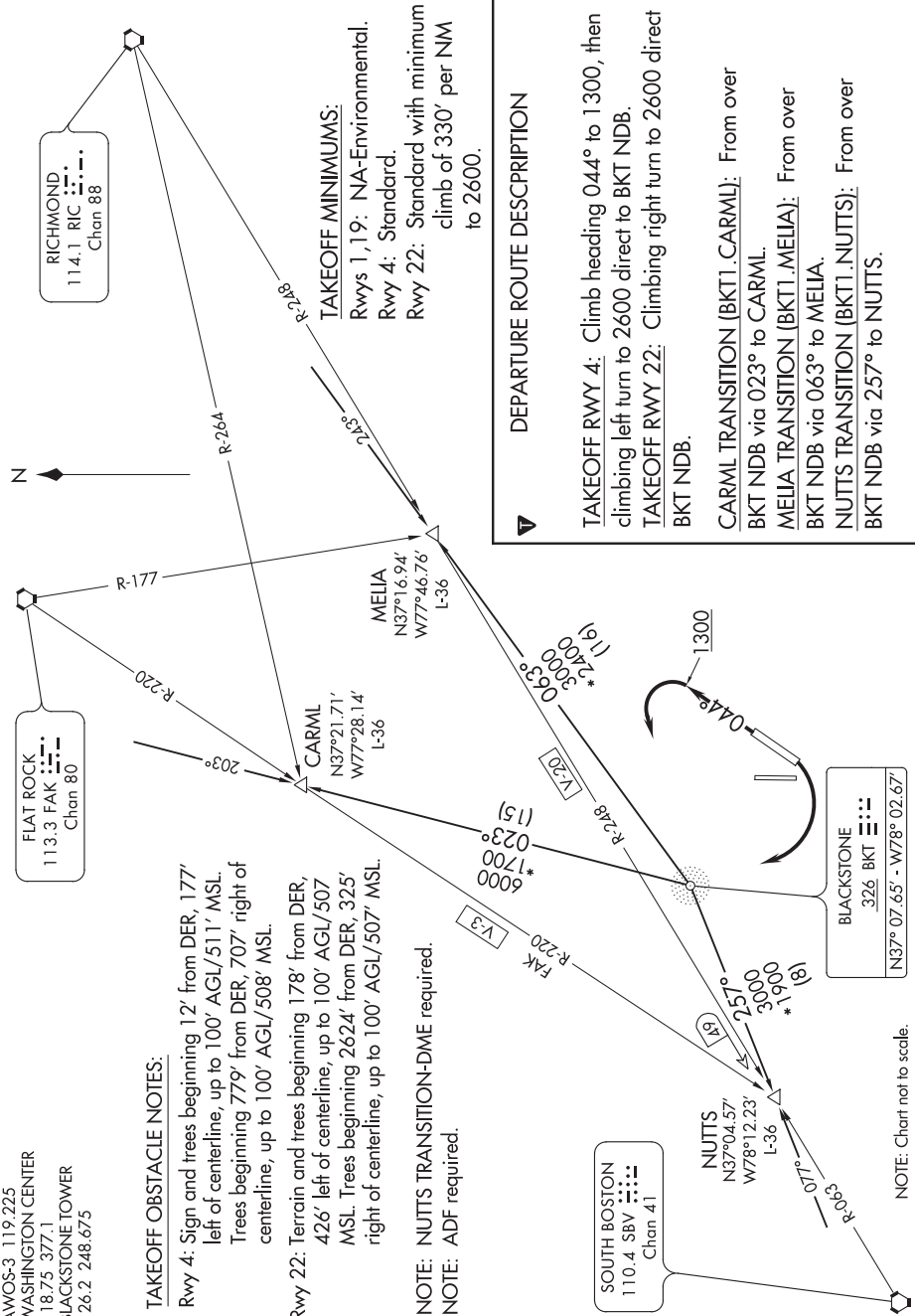
# AIRPORT DIAGRAM

15120

BLACKSTONE, VIRGINIA  
ALLEN C. PERKINSON BLACKSTONE AAF (BKT)

# BLACKSTONE ONE DEPARTURE

NE-3, 10 NOV 2016 to 05 JAN 2017



AWOS-3 119.225  
 WASHINGTON CENTER  
 118.75 377.1  
 BLACKSTONE TOWER  
 126.2 248.675

### TAKEOFF OBSTACLE NOTES:

Rwy 4: Sign and trees beginning 12' from DER, 177' left of centerline, up to 100' AGL/511' MSL. Trees beginning 779' from DER, 707' right of centerline, up to 100' AGL/508' MSL.

Rwy 22: Terrain and trees beginning 178' from DER, 426' left of centerline, up to 100' AGL/507 MSL. Trees beginning 2624' from DER, 325' right of centerline, up to 100' AGL/507' MSL.

NOTE: NUTTS TRANSITION+DME required.  
 NOTE: ADF required.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RWY 4:** Climb heading 044° to 1300, then climbing left turn to 2600 direct to BKT NDB.

**TAKEOFF RWY 22:** Climbing right turn to 2600 direct BKT NDB.

**CARML TRANSITION (BKT1.CARML):** From over BKT NDB via 023° to CARML.

**MELIA TRANSITION (BKT1.MELIA):** From over BKT NDB via 063° to MELIA.

**NUTTS TRANSITION (BKT1.NUTTS):** From over BKT NDB via 257° to NUTTS.

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

# BLACKSTONE ONE DEPARTURE



APP CRS	Rwy Idg	<b>2745</b>
<b>167°</b>	TDZE	<b>1165</b>
	Apt Elev	<b>1165</b>

# RNAV (GPS) RWY 15

BRIDGEWATER AIR PARK (VBW)

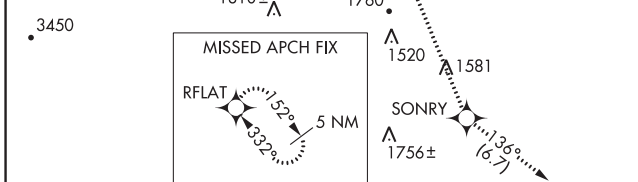
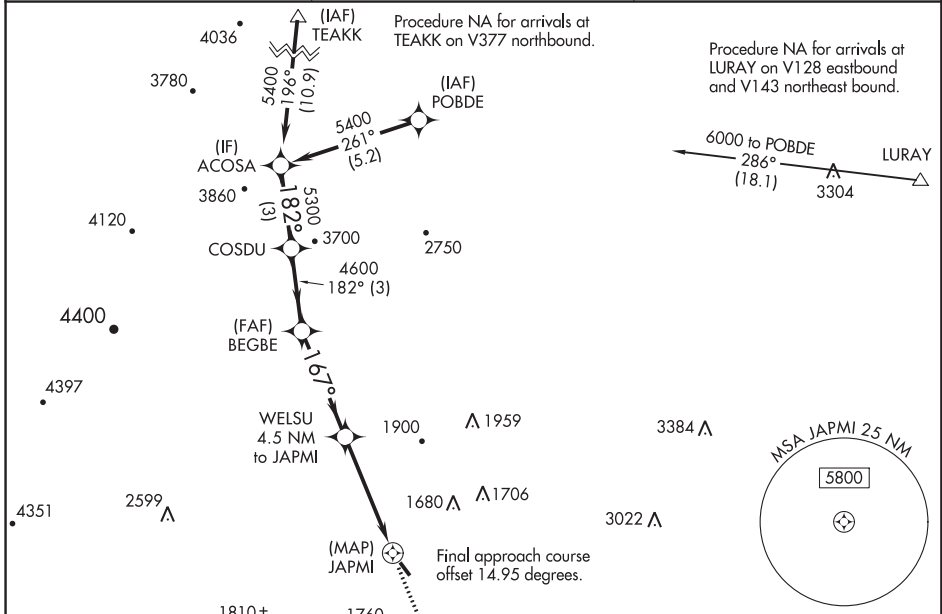
**▽** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Staunton/Waynesboro/Harrisonburg altimeter setting and increase all MDA 40 feet and visibility Cat B 1/4 mile.

**▲** NA

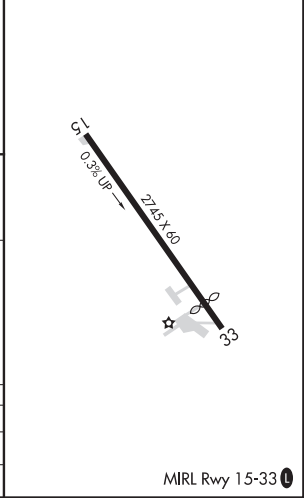
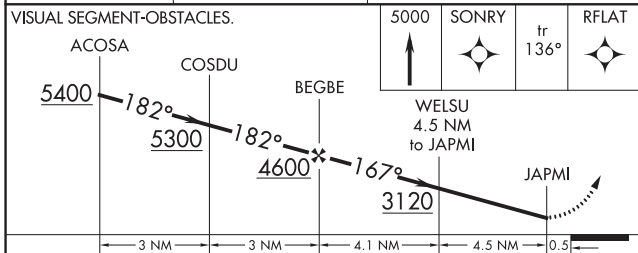
**❄** -15°C/5°F

**MISSED APPROACH:** Climb to 5000 direct SONRY and on track 136° to RFLAT and hold, continue climb-in-hold to 5000.

AWOS-3 <b>119.55</b>	POTOMAC APP CON <b>132.85 323.125</b>	UNICOM <b>122.7 (CTAF) 0</b>
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ELEV 1165	TDZE 1165
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CATEGORY	A	B	C	D
LNVA MDA	2080-1¼	915 (1000-1¼)		NA
CIRCLING	2080-1¼	915 (1000-1¼)		NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

BRIDGEWATER, VIRGINIA

AL-5637 (FAA)

16259

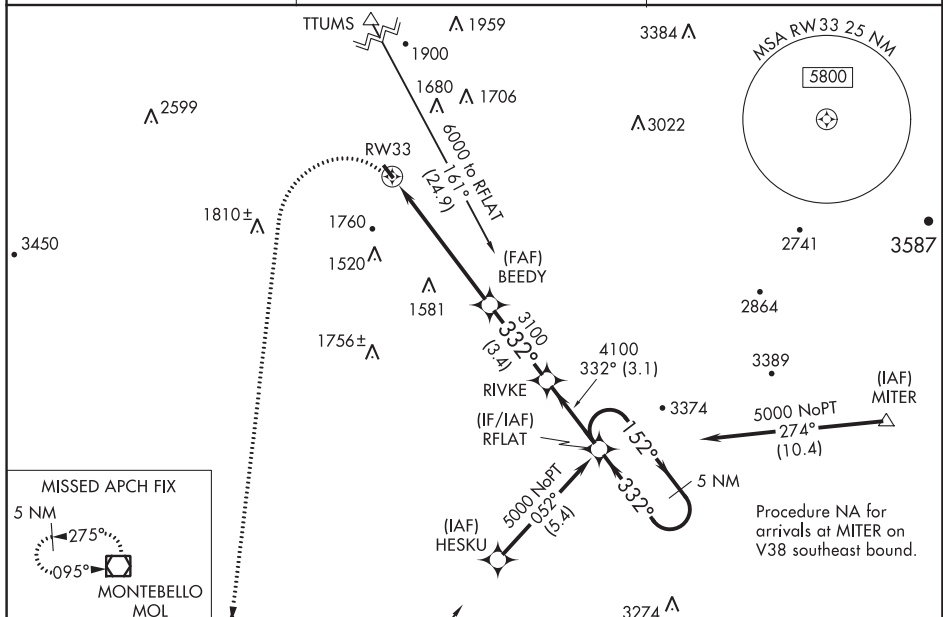
APP CRS <b>332°</b>	Rwy Idg <b>2377</b>
	TDZE <b>1165</b>
	Apt Elev <b>1165</b>

# RNAV (GPS) RWY 33

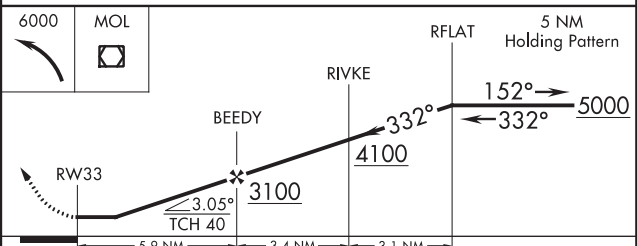
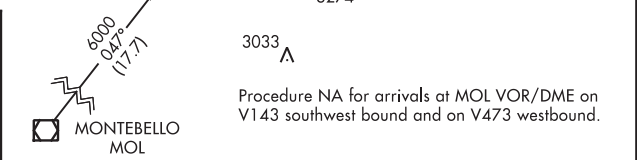
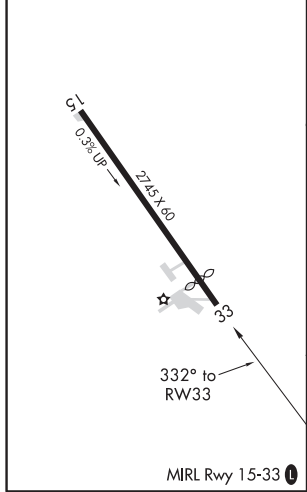
BRIDGEWATER AIR PARK (VBW)

<p><b>NA</b></p> <p>DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Staunton/Waynesboro/Harrisonburg altimeter setting and increase all MDA 40 feet.</p> <p><b>-15°C/5°F</b></p>	<p><b>MISSED APPROACH:</b> Climbing left turn to 6000 direct MOL VOR/DME and hold.</p>
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<p>AWOS-3 <b>119.55</b></p>	<p>POTOMAC APP CON <b>132.85 323.125</b></p>	<p>UNICOM <b>122.7 (CTAF)</b></p>
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ELEV 1165	TDZE 1165
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CATEGORY	A	B	C	D
RNAV MDA	1780-1	615 (700-1)	NA	
<b>CIRCLING</b>	1860-1 695 (700-1)	2020-1¼ 855 (900-1¼)	NA	

BRIDGEWATER, VIRGINIA  
Amdt 1 15SEP16

38°22'N-78°58'W

# BRIDGEWATER AIR PARK (VBW) RNAV (GPS) RWY 33

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>82333</b> <b>W06A</b>	APP CRS <b>062°</b>	Rwy Idg THRE <b>596</b> Apt Elev <b>597</b>	<b>3798</b>
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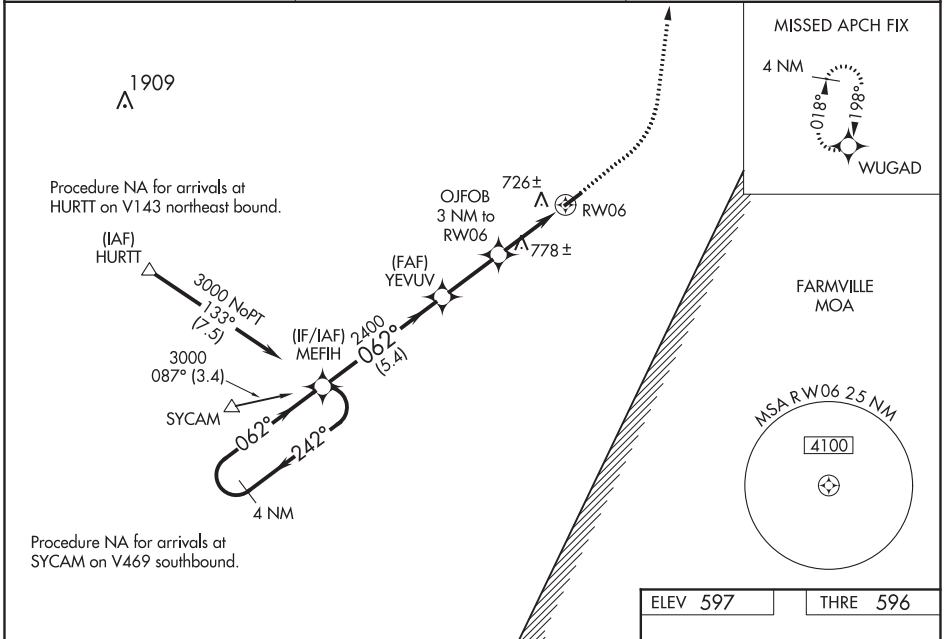
# RNAV (GPS) RWY 6

BROOKNEAL/CAMPBELL COUNTY (ØV4)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (3°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Lynchburg Rgnl/Preston Glenn Field altimeter setting and increase all DA 81 feet and all MDA 100 feet, increase LPV all Cats visibility ¼ mile, and increase LNAV/VNAV all Cats visibility ¼ mile. Helicopter visibility reduction below ¾ SM NA. Baro VNAV and VDP NA when using Lynchburg Rgnl/Preston Glenn Field altimeter setting.

**MISSED APPROACH:** Climb to 1100 then climbing left turn to 3000 direct WUGAD and hold.

AWOS-3 <b>120.575</b>	ROANOKE APP CON <b>135.0 254.32</b>	UNICOM <b>122.7 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

4 NM Holding Pattern		MEFIH	YEVUV	1100	3000	WUGAD
3000 ← 242°		← 062° →	062°	OJFOB 3 NM to RW06	*1.3 NM to RW06	*LNAV only
GP 3.00° TCH 45		2400	*1580	1.7 NM	1.3 NM	RW06
← 5.4 NM		← 2.5 NM	← 1.7 NM	← 1.3 NM	RW06	
CATEGORY	A	B	C	D		
LPV DA	868-1	272 (300-1)			NA	
LNAV/VNAV DA	1031-1½	435 (500-1½)			NA	
LNAV MDA	1040-1	444 (500-1)			NA	
CIRCLING	1120-1 523 (600-1)	1180-1 583 (600-1)			NA	

MIRL Rwy 6-24 0  
REIL Rws 6 and 24

BROOKNEAL, VIRGINIA

AL-6852 (FAA)

16147

WAAS CH <b>97334</b> <b>W24A</b>	APP CRS <b>227°</b>	Rwy Idg THRE <b>589</b> Apt Elev <b>597</b>	<b>3798</b>
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**RNAV (GPS) RWY 24**  
BROOKNEAL/CAMPBELL COUNTY (ØV4)

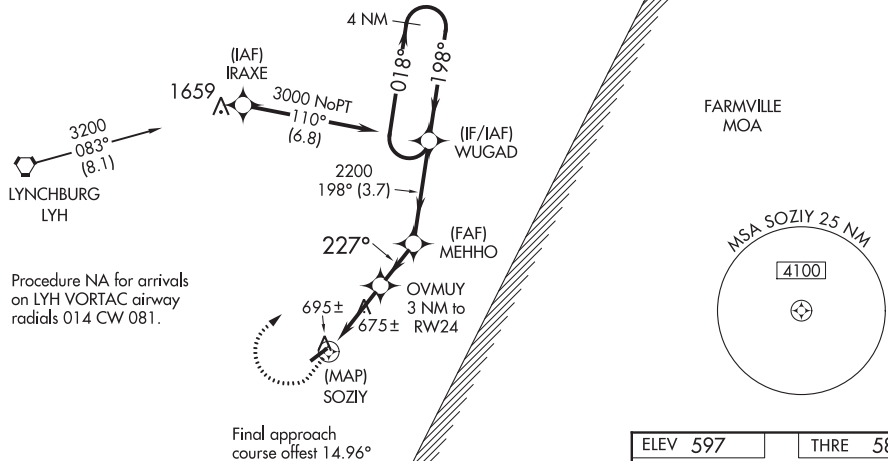
**▽** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Lynchburg Rgnl/  
**▲** Preston Glenn Field altimeter setting and increase all MDA 100 feet.

**MISSED APPROACH:** Climb to 1000 then climbing right turn to 3000 direct WUGAD and hold.

AWOS-3  
**120.575**

ROANOKE APP CON  
**135.0 254.32**

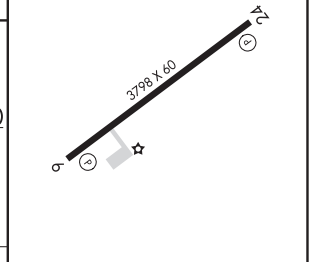
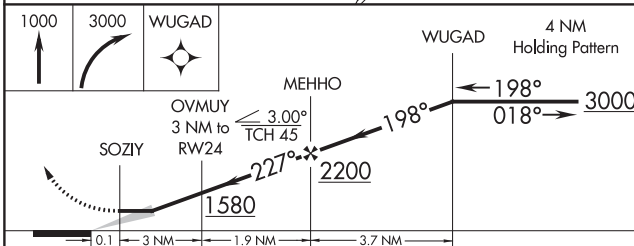
UNICOM  
**122.7 (CTAF) Ø**



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 597	THRE 589
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CATEGORY	A	B	C	D
LP MDA	940-1	351 (400-1)		NA
LNAV MDA	960-1	371 (400-1)		NA
<b>CIRCLING</b>	1120-1 523 (600-1)	1180-1 583 (600-1)		NA

MIRL Rwy 6-24 Ø  
REIL Rws 6 and 24

BROOKNEAL, VIRGINIA  
Amdt 1 05FEB15

37°09'N - 79°01'W

BROOKNEAL/CAMPBELL COUNTY (ØV4)  
**RNAV (GPS) RWY 24**

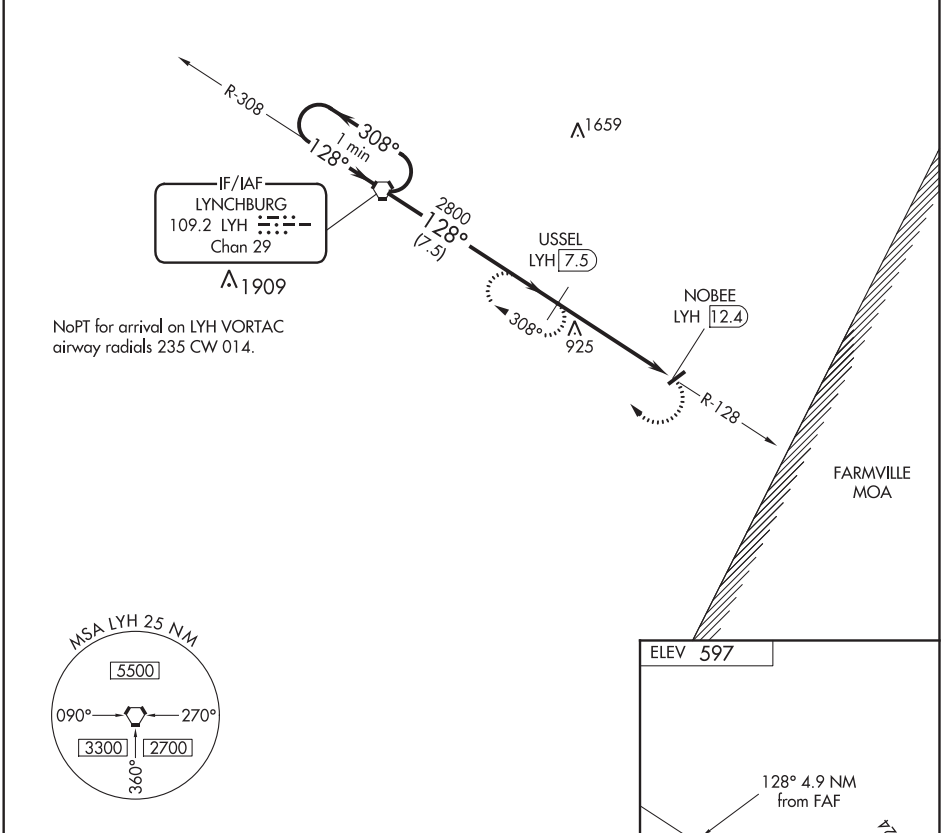
VORTAC LYH <b>109.2</b> Chan <b>29</b>	APP CRS <b>128°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>597</b>
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**VOR/DME-A**  
BROOKNEAL/CAMPBELL COUNTY (ØV4)

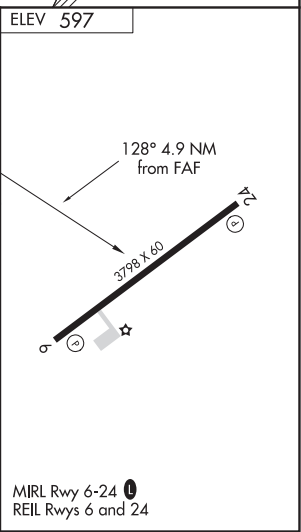
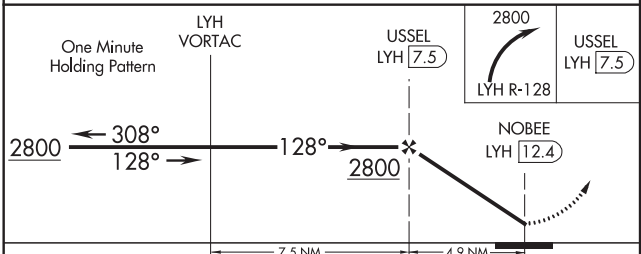
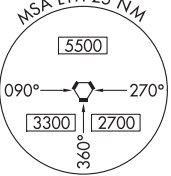
**⚠** When local altimeter setting not received, use Lynchburg Rgnl/Preston Glenn Fld altimeter setting and increase all MDA 100 feet.

**MISSED APPROACH:** Climbing right turn to 2800 on LYH VORTAC R-128 to USSEL/LYH 7.5 DME and hold.

AWOS-3 <b>120.575</b>	ROANOKE APP CON <b>135.0 254.32</b>	UNICOM <b>122.7 (CTAF) 0</b>
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NoPT for arrival on LYH VORTAC airway radials 235 CW 014.



CATEGORY	A	B	C	D
CIRCLING	1180-1	583 (600-1)	NA	NA

MIRL Rwy 6-24 0  
REIL Rwy 6 and 24

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

BUMPASS, VIRGINIA

AL-10652 (FAA)

15120

APP CRS	Rwy Idg	<b>2558</b>
<b>085°</b>	TDZE	<b>351</b>
	Apt Elev	<b>351</b>

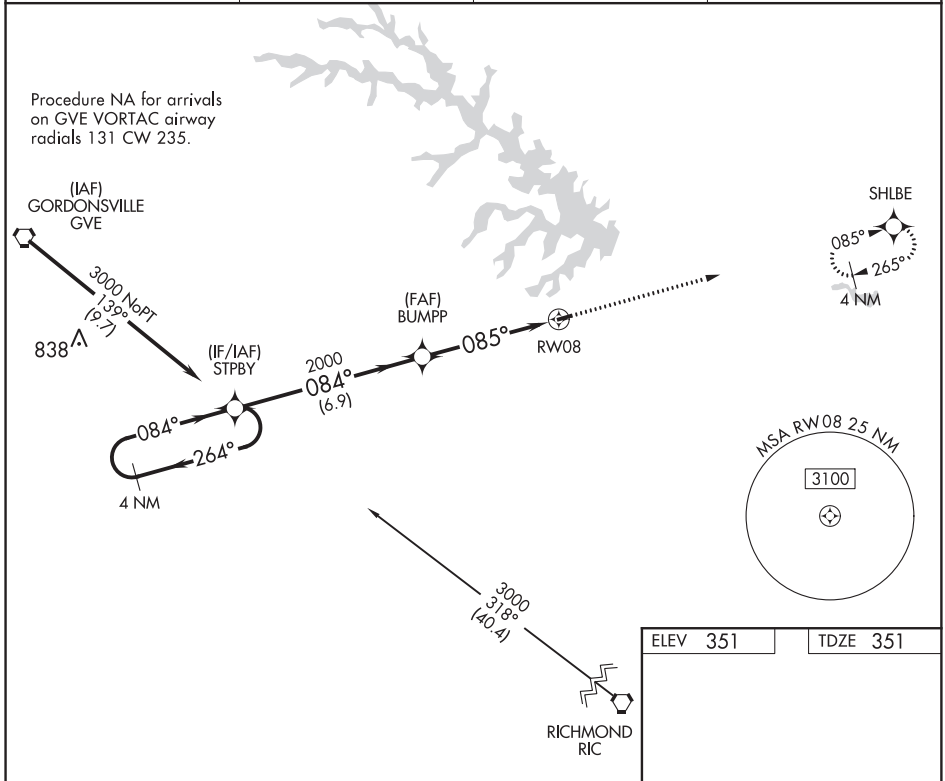
# RNAV (GPS) RWY 8

LAKE ANNA (7W4)

**⚠** DME/DME RNP-0.3 NA. Procedure NA at night. When local altimeter setting not received, use Louisa County/Freeman Field altimeter setting. Helicopter visibility reduction below 3 SM NA.

**⚠** MISSED APPROACH: Climb to 3000 direct SHLBE and hold.

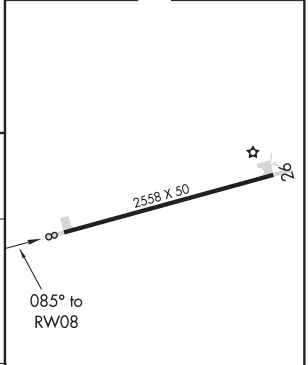
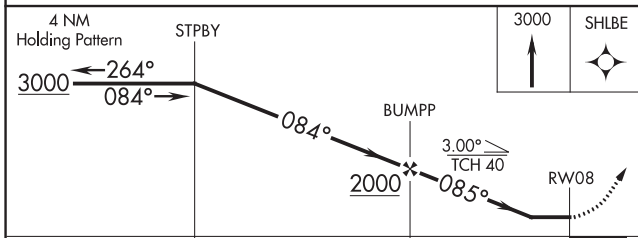
AWOS-3 <b>120.775</b>	LOUISA COUNTY/FREEMAN FIELD AWOS-3 <b>119.475</b>	POTOMAC APP CON <b>126.75 307.2</b>	CTAF <b>122.9</b> <b>Ⓛ</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 351	TDZE 351
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CATEGORY	A	B	C	D
LNVA MDA	1360-3	1009 (1100-3)	NA	
CIRCLING	1360-3	1009 (1100-3)	NA	

MIRL Rwy 8-26 **Ⓛ**

BUMPASS, VIRGINIA  
Orig-A 30APR15

37°58'N-77°45'W

# RNAV (GPS) RWY 8

LAKE ANNA (7W4)

APP CRS <b>265°</b>	Rwy Idg <b>2558</b>
	TDZE <b>351</b>
	Apt Elev <b>351</b>

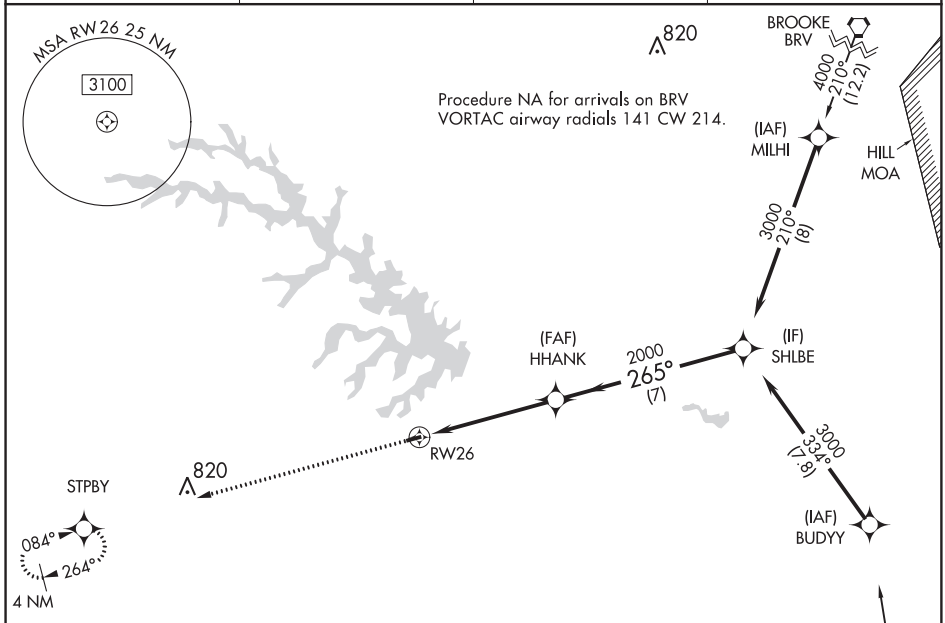
# RNAV (GPS) RWY 26

LAKE ANNA (7W4)

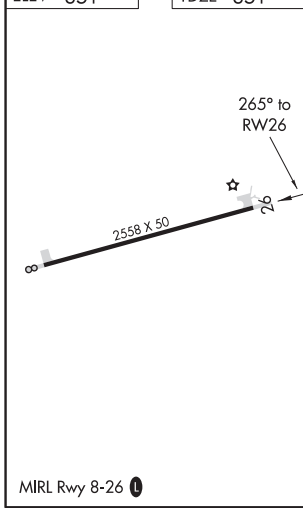
**Procedure NA at night. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Louisa County/Freeman Field altimeter setting. Helicopter visibility reduction below 3 SM NA.**

**MISSED APPROACH:** Climb to 3000 direct STPBY and hold.

AWOS-3 <b>120.775</b>	LOUISA COUNTY/FREEMAN FIELD AWOS-3 <b>119.475</b>	POTOMAC APP CON <b>126.75 307.2</b>	CTAF <b>122.9</b>
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ELEV 351	TDZE 351
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Procedure NA for arrivals on RIC VORTAC airway radials 283 CW 048.

**3000** STPBY

**SHLBE** **3000**

**HHANK** **2000**

**265°**

**3.00°**  
TCH 40

**5.1 NM** **7 NM**

CATEGORY	A	B	C	D
LNAV MDA	1360-3	1009 (1100-3)	NA	
CIRCLING	1360-3	1009 (1100-3)	NA	

MIRL Rwy 8-26

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

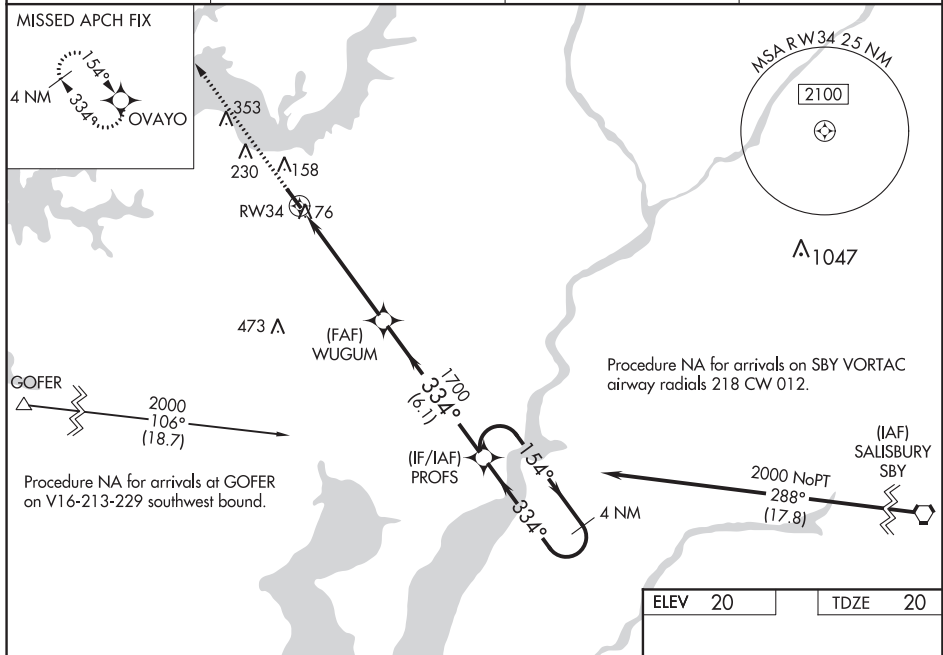
WAAS CH <b>45540</b> <b>W34A</b>	APP CRS <b>334°</b>	Rwy Idg <b>4477</b> TDZE <b>20</b> Apt Elev <b>20</b>
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**RNAV (GPS) RWY 34**  
CAMBRIDGE-DORCHESTER RGNL (CGE)

**⚠** Night landing: Rwy 16 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Salisbury altimeter setting and increase LPV DA to 350, LNAV/VNAV DA to 373 and all visibilities ¼ mile; increase all MDA 80 feet and LNAV Cat C and D visibility ⅓ mile and Circling Cat C and D visibility ¼ mile. VDP and Baro-VNAV NA when using Salisbury altimeter setting.

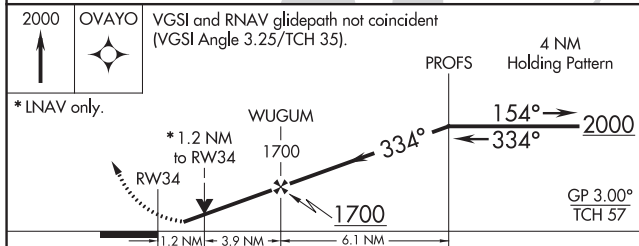
**MISSED APPROACH:**  
Climb to 2000 direct OVAYO and hold.

AWOS-3 <b>120.675</b>	PATUXENT APP CON * <b>121.0 250.3</b>	UNICOM <b>122.7 (CTAF)</b>	<b>121.9</b> <b>Ⓛ</b>
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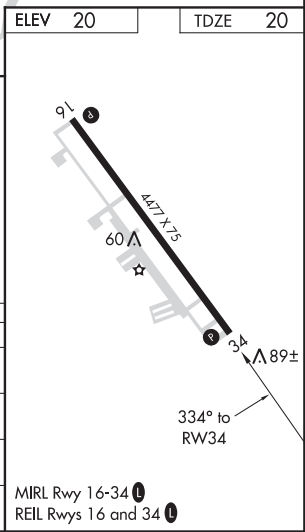


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA		282-7/8	262 (300-7/8)	
LNAV/VNAV DA		305-7/8	285 (300-7/8)	
LNAV MDA	460-1	440 (500-1)	460-1¼	440 (500-1¼)
CIRCLING	460-1 440 (500-1)	480-1 460 (500-1)	660-1¾ 640 (700-1¾)	780-2½ 760 (800-2½)





NDB CGE	APP CRS	Rwy ldg	4477
<b>355</b>	<b>328°</b>	TDZE	<b>20</b>
		Apt Elev	<b>20</b>

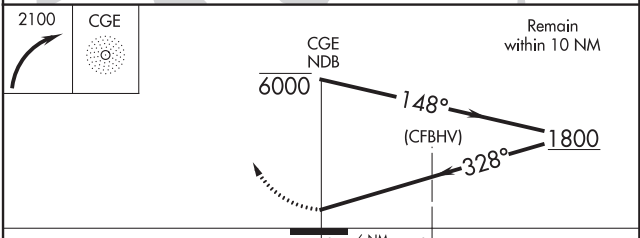
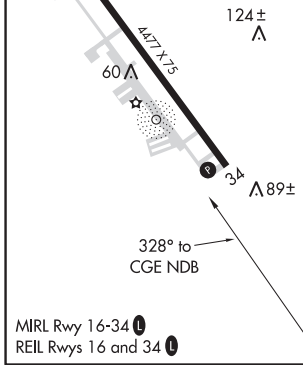
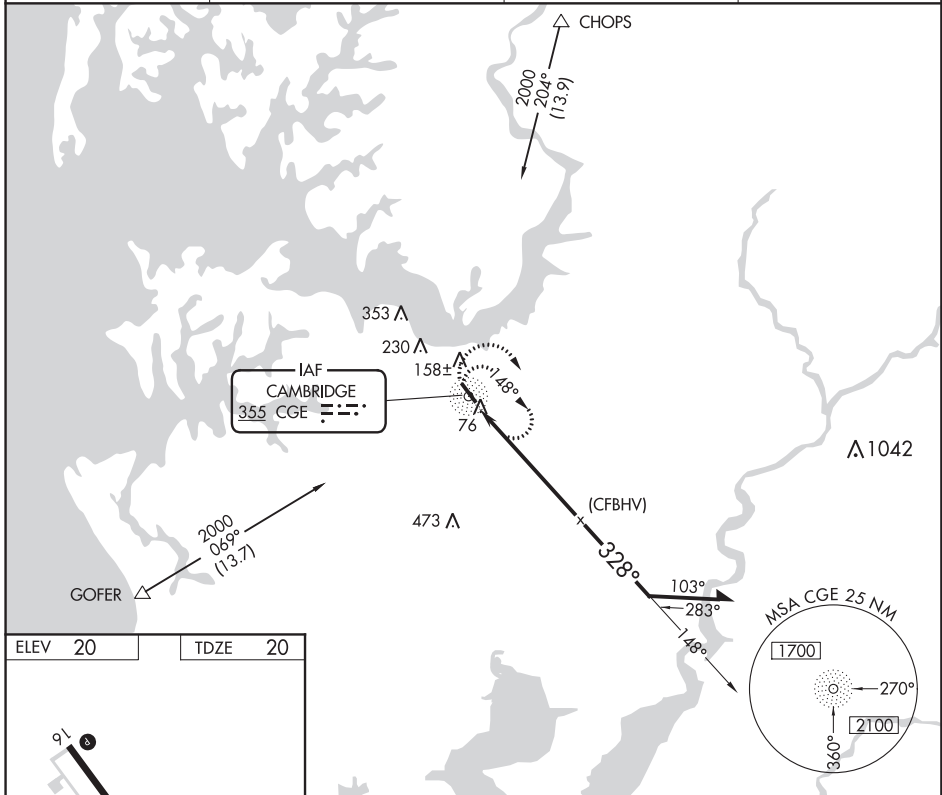
# NDB RWY 34

CAMBRIDGE-DORCHESTER RGNL (CGE)

**⚠** Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Salisbury altimeter setting and increase all MDA 80 feet and increase S-34 Cat C and D visibility 1/8 mile and Circling Cat C and D 1/4 mile. Night Landing: Rwy 16 NA.

**MISSED APPROACH:** Climbing right turn to 2100 in CGE NDB holding pattern.

AWOS-3 <b>120.675</b>	PATUXENT APP CON ★ <b>121.0 250.3</b>	UNICOM <b>122.7 (CTAF)</b>	<b>121.9</b> <b>⓪</b>
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CATEGORY	A	B	C	D
S-34	580-1	560 (600-1)	580-1 1/8	560 (600-1 1/8)
<b>⓪</b> CIRCLING	580-1	560 (600-1)	660-1 3/4 640 (700-1 3/4)	780-2 1/2 760 (800-2 1/2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WILLIAMSBURG, VIRGINIA

# RNAV (GPS) RWY 5

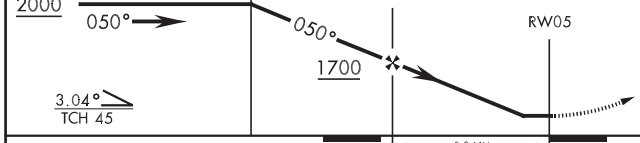
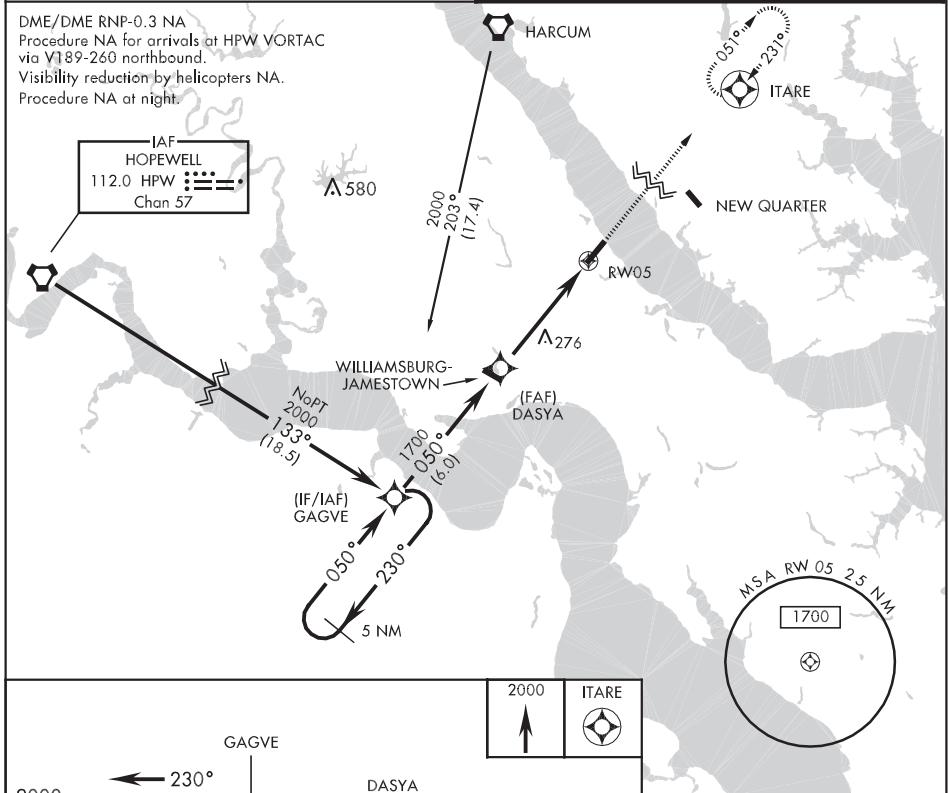
APCH CRS	Rwy Idg	5018
050°	TDZE	41
	Arpt Elev	41

AL-3214 [USA]

CAMP PEARY LNDG STRIP (KW94)

**Restricted airfield, PPR. Contact Camp Peary Ops prior to landing.** MISSED APPROACH: Climb to 2000 direct ITARE and hold.

WILLIAMSBURG-JAMESTOWN AWOS-3 <b>120.625</b>	NORFOLK APP CON <b>125.7 335.625</b>
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ELEV	41
TDZE	41
NEWPORT NEWS / WILLIAMSBURG INTL ALTIMETER SETTING	
LNVA MDA	580-1 539 (600-1) 580-1 539 (600-1 3/4) 580-2 539 (600-2)
CIRCLING	580-1 539 (600-1) 580-1 539 (600-1 1/2) 580-2 539 (600-2)
LRL Rwy 5-23 REL Rwy 5-23	

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WILLIAMSBURG, VIRGINIA  
Orig A 11153

37°18'N-76°38'W

CAMP PEARY LNDG STRIP (KW94)

# RNAV (GPS) RWY 5

WILLIAMSBURG, VIRGINIA

# RNAV (GPS) RWY 23

APCH CRS **230°**  
 Rwy Idg **5018**  
 TDZE **34**  
 Arpt Elev **41**

AL-3214 [USA]

CAMP PEARY LNDG STRIP (KW94)

Restricted airfield, PPR. Contact Camp Peary Ops prior to landing.

MISSED APPROACH: Climb to 2000 direct GAGVE and hold.

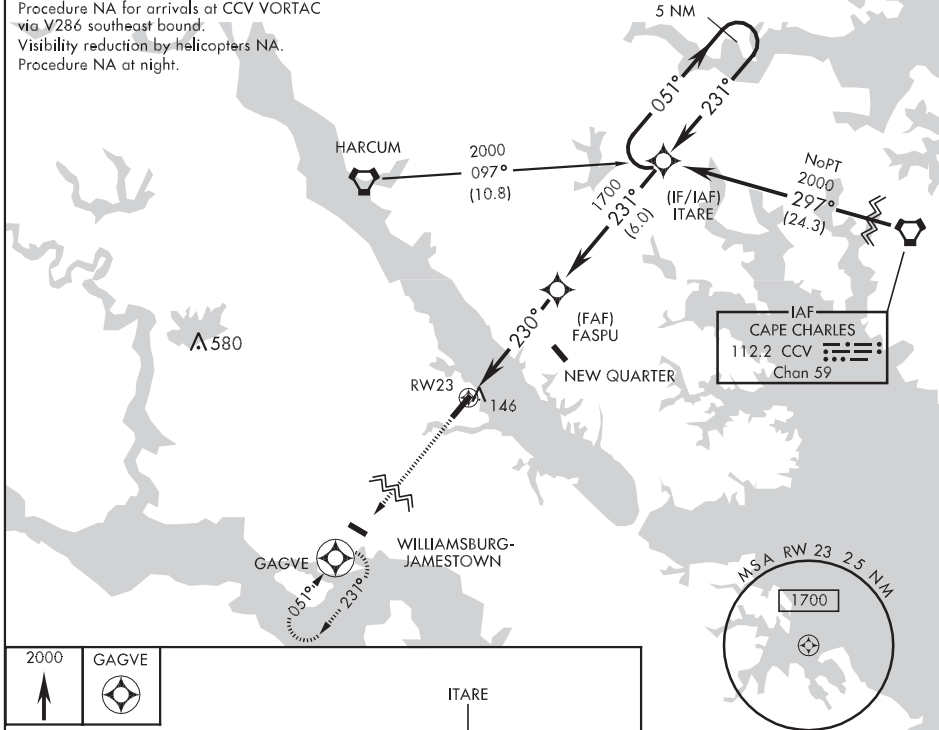
WILLIAMSBURG-JAMESTOWN AWOS-3

**120.625**

NORFOLK APP CON

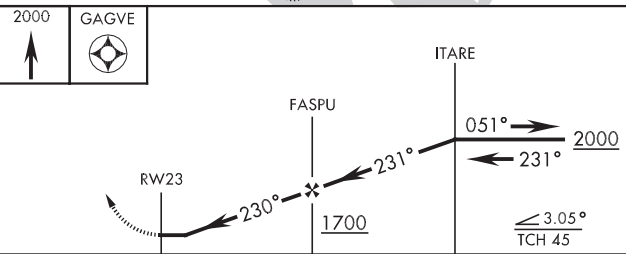
**125.7 335.625**

DME/DME RNP-0.3 NA  
 Procedure NA for arrivals at CCV VORTAC via V286 southeast bound.  
 Visibility reduction by helicopters NA.  
 Procedure NA at night.



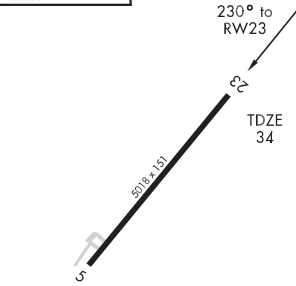
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 41

CATEGORY	A	B	C	D
RNAV MDA	420-1	386 (400-1)	420-1¼	386 (400-1¼)
CIRCLING	500-1	459 (500-1)	500-1½	459 (500-1½)
NEWPORT NEWS / WILLIAMSBURG INTL ALTIMETER SETTING				
RNAV MDA	440-1	404 (400-1)	440-1¼	404 (400-1¼)
CIRCLING	520-1	479 (500-1)	520-1½	479 (500-1½)



WILLIAMSBURG, VIRGINIA  
 Orig 11153

37°18'N-76°38'W

CAMP PEARY LNDG STRIP (KW94)

# RNAV (GPS) RWY 23

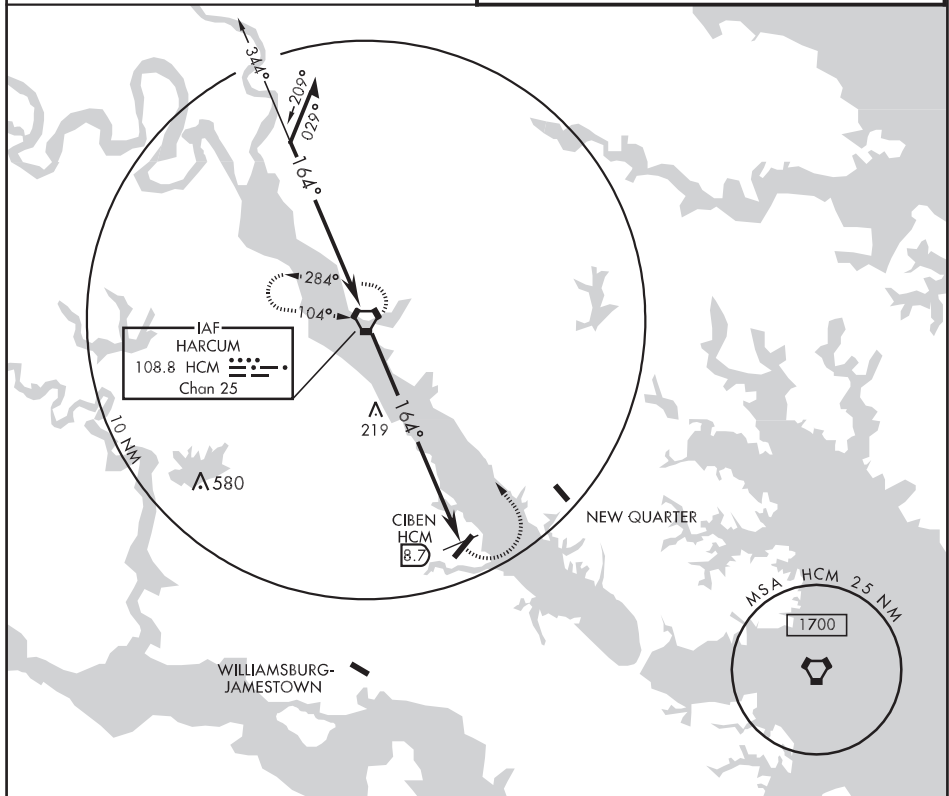
WILLIAMSBURG, VIRGINIA

VOR-A

VORTAC HCM <b>108.8</b> Chan <b>25</b>	APCH CRS <b>164°</b>	Rwy Idg TDZE Arpt Elev <b>NA</b> <b>NA</b> <b>41</b>	AL-3214 [USA]	CAMP PEARY LNDG STRIP (KW94)
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**▼** \* Circling to Rwy 23 NA at night. Restricted airfield, PPR. Contact Camp Peary Ops prior to landing. MISSED APPROACH: Climbing left turn to 2000 direct HCM VORTAC and hold.

WILLIAMSBURG-JAMESTOWN AWOS-3 <b>120.625</b>	NORFOLK APP CON <b>125.7 335.625</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

2000 HCM	VORTAC	Remain within 10 NM of HCM VORTAC	ELEV 41		
2000	344°	CIBEN 8.7	164° from VORTAC		
	164°		5918 A 151		
		8.7 NM	23		
CATEGORY	A	B	C	D	
CIRCLING *	620-1 579 (600-1)	620-1½ 579 (600-1½)	620-2 579 (600-2)		
NEWPORT NEWS / WILLIAMSBURG INTL ALTIMETER SETTING					
CIRCLING *	640-1 599 (600-1)	640-1½ 599 (600-1½)	640-2 599 (600-2)		
FAF to MAP 8.7 NM					
Knots	60	90	120	150	180
Min:Sec	8:42	5:48	4:21	3:29	2:54

WILLIAMSBURG, VIRGINIA 37° 18' N - 76° 38' W CAMP PEARY LNDG STRIP (KW94)

Orig 11153

VOR-A

LOC/DME I-CHO <b>111.7</b> Chan 54	APP CRS <b>030°</b>	Rwy Idg TDZE Apt Elev <b>6801</b> <b>640</b> <b>640</b>
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# ILS or LOC RWY 3

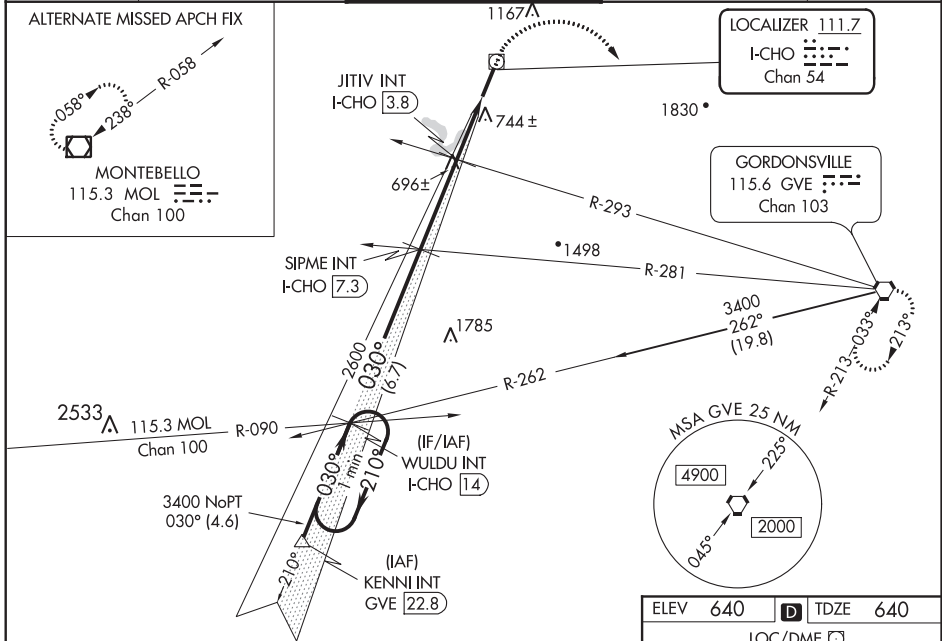
CHARLOTTESVILLE-ALBEMARLE (CHO)

**⚠** When local altimeter setting not received, use Orange altimeter setting and increase S-ILS 3 DA to 912 and all MDA 80 feet; increase S-LOC 3 Cats C/D, Circling Cats C/D, JITV fix minimums S-LOC 3 Cats C/D, and JITV fix minimums Circling Cats C/D visibility ¼ mile. VDP NA when using Orange altimeter setting. For Inop MALSRR when using Orange altimeter setting, increase S-ILS 3 all Cats visibility to ¾ mile, S-LOC 3 Cats C/D visibility to 2 miles, and S-LOC 3 JITV fix minimums Cats C/D visibility to 1½ mile.

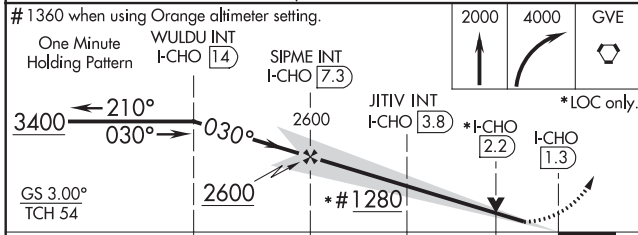


**MISSED APPROACH:**  
Climb to 2000 then climbing right turn to 4000 direct GVE VORTAC and hold.

ATIS <b>118.425</b>	POTOMAC APP CON <b>132.85 323.125</b>	CHARLOTTESVILLE TOWER ★ <b>124.5 (CTAF) 338.275</b>	GND CON <b>121.9 338.275</b>	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017




WAAS CH <b>61105</b> <b>W03A</b>	APP CRS <b>030°</b>	Rwy ldg <b>6801</b> TDZE <b>640</b> Apt Elev <b>640</b>
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# RNAV (GPS) RWY 3

CHARLOTTESVILLE-ALBEMARLE (CHO)

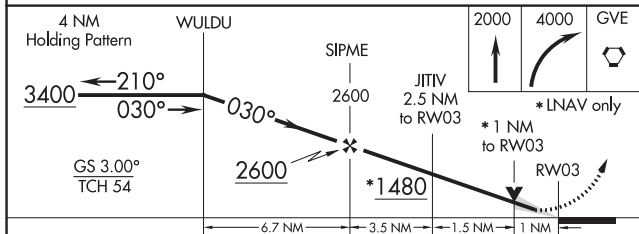
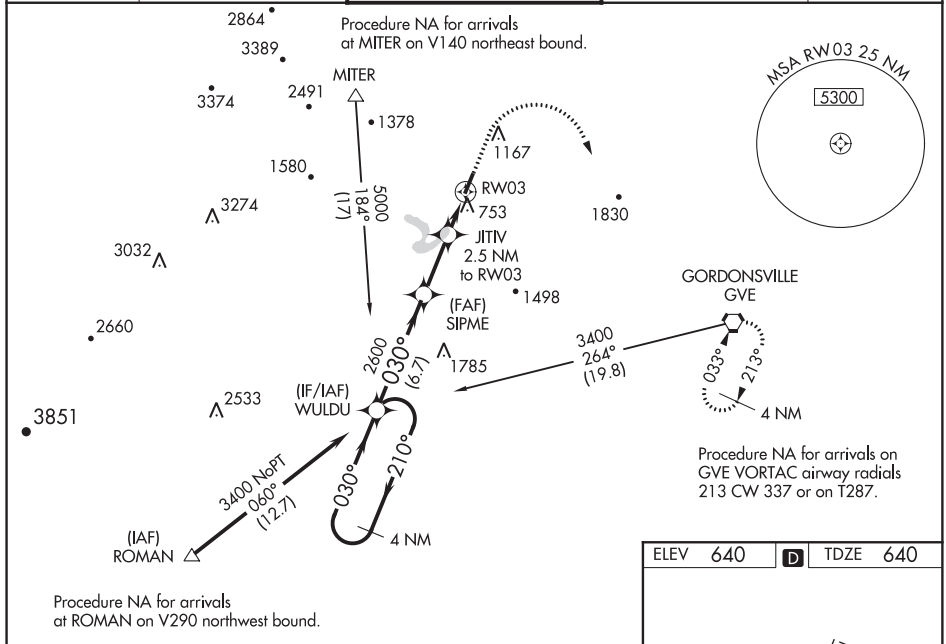
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -12°C (11°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Orange altimeter setting and increase LPV DA to 912, LNAV/VNAV DA to 986, and all MDA 80 feet; increase LNAV/VNAV all Cats visibility 1/8 mile, Circling Cats C/D visibility 1/4 mile, and LNAV Cats C/D visibility 3/8 mile. Baro-VNAV and VDP NA when using Orange altimeter setting. For inoperative MALS, increase LNAV/VNAV Cats C/D to 3/8 mile and LNAV Cats C/D visibility to 1 mile. For inoperative MALS when using Orange altimeter setting, increase LPV all Cats visibility to 3/8 mile, and LNAV Cats C/D visibility to 1 3/8 mile.

**MALS**

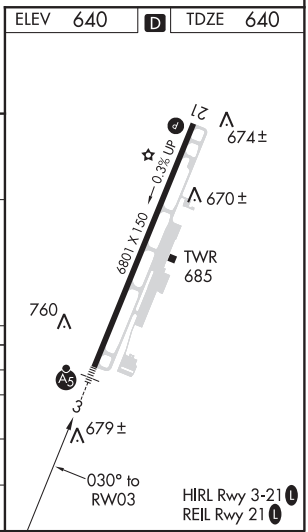


**MISSED APPROACH:**  
Climb to 2000 then climbing right turn to 4000 direct GVE VORTAC and hold.

ATIS <b>118.425</b>	POTOMAC APP CON <b>132.85 323.125</b>	<b>CHARLOTTESVILLE TOWER *</b> <b>124.5 (CTAF) 338.275</b>	GND CON <b>121.9 338.275</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA	840-1/2		200 (200-1/2)	
LNAV/VNAV DA	914-1/2		274 (300-1/2)	
LNAV MDA	1020-1/2 380 (400-1/2)		1020-5/8 380 (400-5/8)	
<b>C</b> CIRCLING	1060-1 420 (500-1)	1100-1 460 (500-1)	1500-2 1/2 860 (900-2 1/2)	1500-2 3/4 860 (900-2 3/4)



NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>62831</b> <b>W21A</b>	APP CRS <b>196°</b>	Rwy Idg TDZE <b>626</b> Apt Elev <b>640</b>	<b>6801</b>
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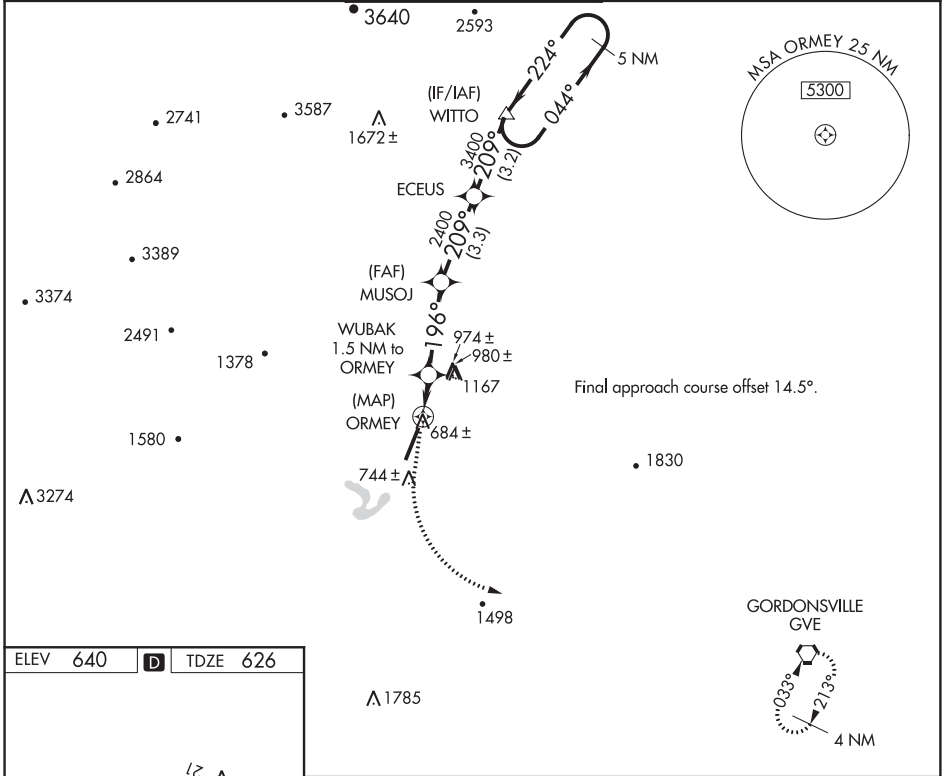
# RNAV (GPS) Y RWY 21

CHARLOTTESVILLE-ALBEMARLE (CHO)

⚠ When local altimeter setting not received, use Staunton/Waynesboro/Harrisonburg altimeter setting and increase all MDA 140, and increase LP Cats C/D visibility to 1 $\frac{3}{8}$  mile, LNAV Cats C/D to 1 $\frac{3}{4}$  mile, and Circling Cat D to 3 mile. DME/DME RNP-0.3 NA.

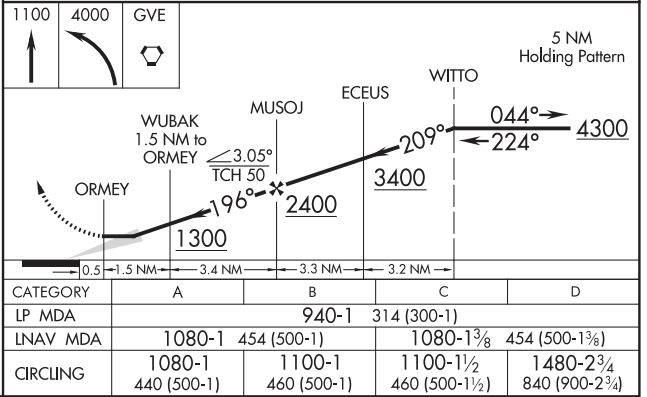
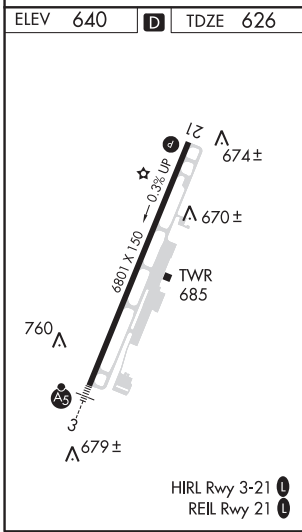
⚠ MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct GVE VORTAC and hold.

ATIS <b>118.425</b>	POTOMAC APP CON <b>132.85 323.125</b>	CHARLOTTESVILLE TOWER ★ <b>124.5 (CTAF) 0 338.275</b>	GND CON <b>121.9 338.275</b>	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CHARLOTTESVILLE, VIRGINIA

AL-765 (FAA)

15064

WAAS CH <b>45602</b> <b>W21B</b>	APP CRS <b>210°</b>	Rwy ldg TDZE Apt Elev	<b>6801</b> <b>626</b> <b>640</b>
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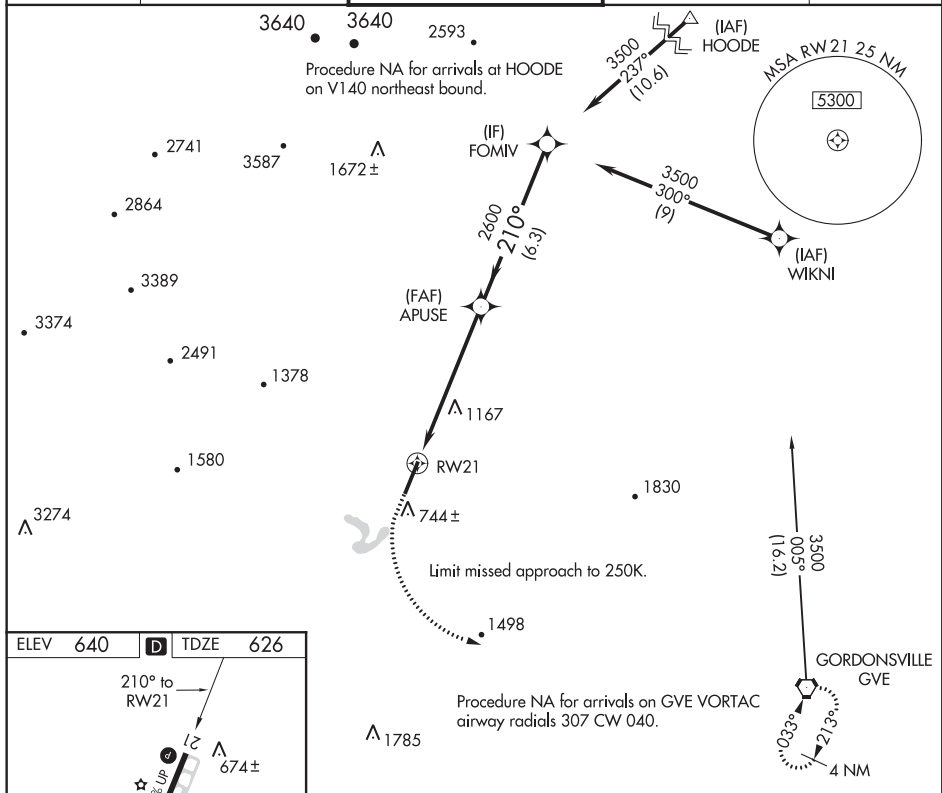
# RNAV (GPS) Z RWY 21

CHARLOTTESVILLE-ALBEMARLE (CHO)

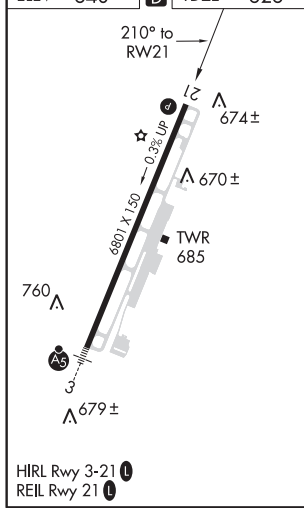
**V** Baro-VNAV NA when using Staunton/Waynesboro/Harrisonburg altimeter setting. For uncompensated Baro-VNAV systems, procedure NA below -16°C (3°F) or above 54°C (130°F).  
**A** When local altimeter setting not received, use Staunton/Waynesboro/Harrisonburg altimeter setting and increase all DA 130 feet and LPV visibility 1/8 mile. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 1100, then climbing left turn to 4000 direct GVE VORTAC and hold.

ATIS <b>118.425</b>	POTOMAC APP CON <b>132.85 323.125</b>	CHARLOTTESVILLE TOWER ★ <b>124.5 (CTAF) 338.275</b>	GND CON <b>121.9 338.275</b>	UNICOM <b>122.95</b>
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ELEV 640	<b>D</b>	TDZE 626
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1100	4000	GVE		
APUSE	2600	FOMIV		
RWY 21	2600	3500		
6.1 NM		6.3 NM		
GS 3.00°	TCH 50			
CATEGORY	A	B	C	D
LPV DA	826-1 200 (200-1)			
LNAV/VNAV DA	1584-4 958 (1000-4)			

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CHARLOTTESVILLE, VIRGINIA  
Amdt 1A 08JAN15

38°08'N-78°27'W

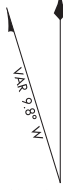
CHARLOTTESVILLE-ALBEMARLE (CHO)  
**RNAV (GPS) Z RWY 21**



ATIS  
118.425  
CHARLOTTEVILLE TOWER ★  
124.5 338.275  
GND CON  
121.9 338.275

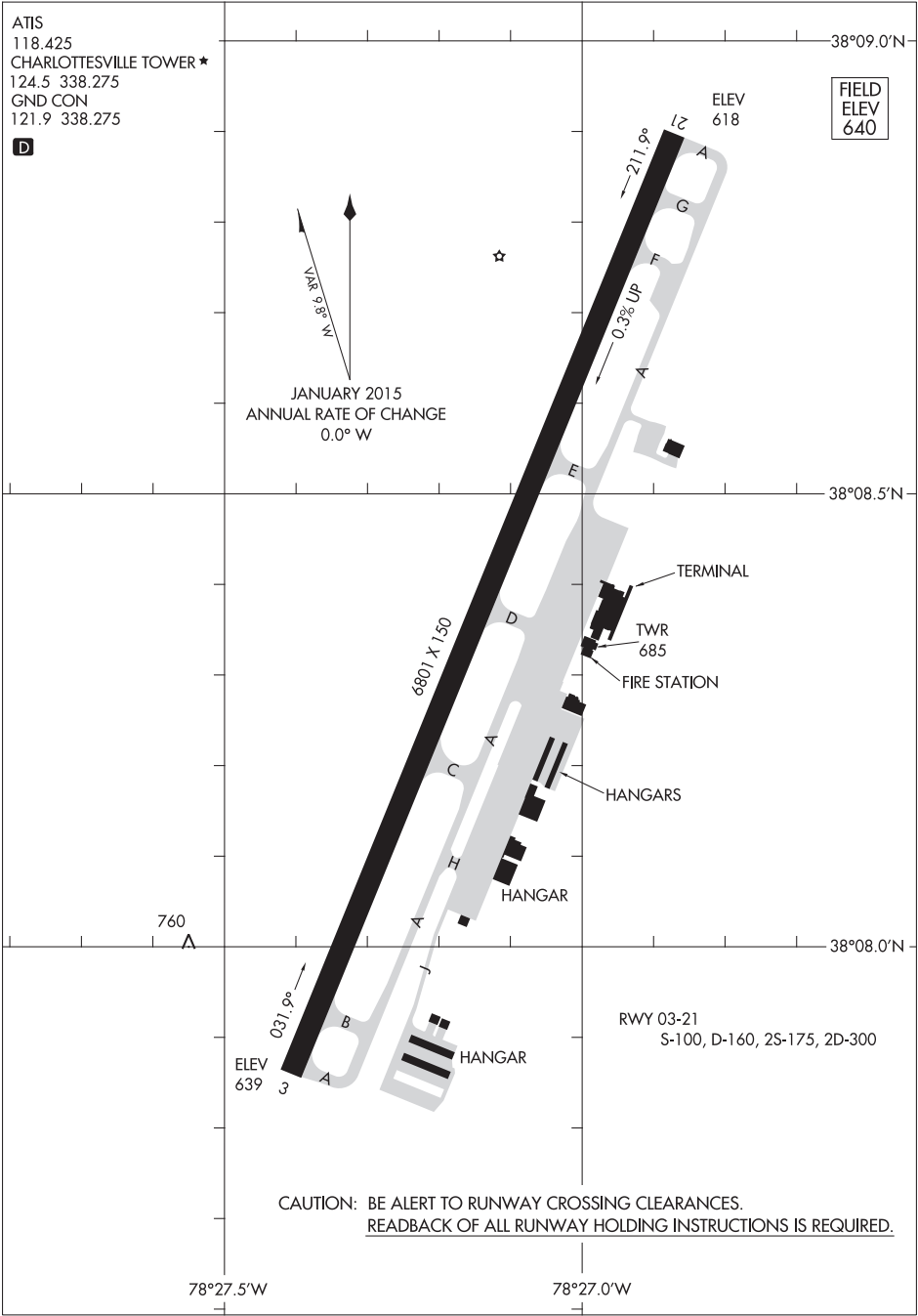
**D**

FIELD  
ELEV  
640


  
 JANUARY 2015  
 ANNUAL RATE OF CHANGE  
 0.0° W

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



**CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.**

CHASE CITY, VIRGINIA

AL-6263 (FAA)

14261

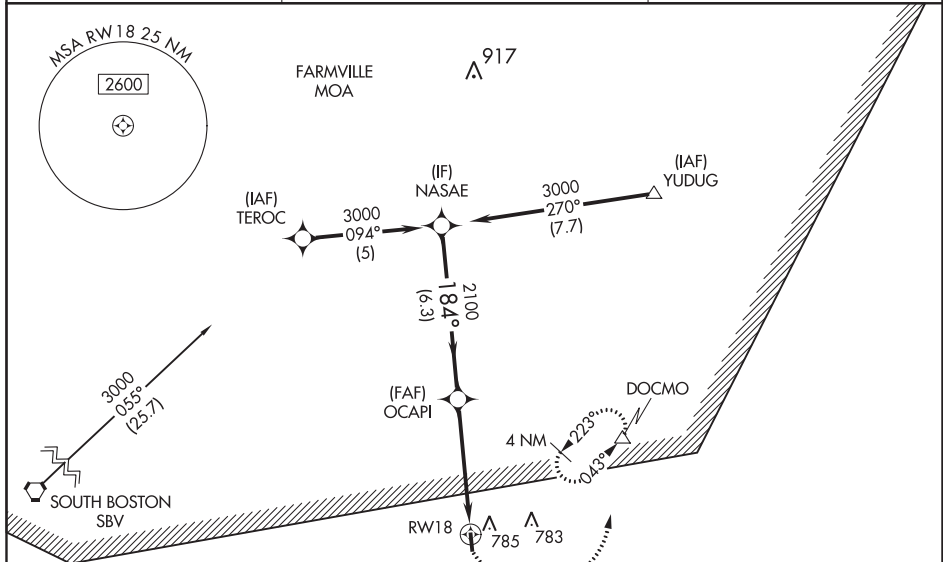
APP CRS	Rwy Idg	<b>3400</b>
<b>184°</b>	TDZE	<b>503</b>
	Apt Elev	<b>503</b>

# RNAV (GPS) RWY 18

CHASE CITY MUNI (CXE)

<p><b>▽</b> DME/DME RNP-0.3 NA. Use South Hill altimeter setting, when not received use Danville altimeter setting and increase all MDA 60 feet. Procedure NA at night. Visibility reduction by helicopters NA.</p>	<p><b>△</b> MISSED APPROACH: Climbing left turn to 3000 direct DOCMO and hold, continue climb-in-hold to 3000.</p>
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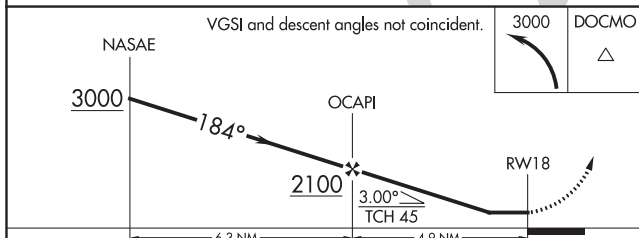
AWOS-3 <b>121.225</b>	WASHINGTON CENTER <b>118.75 353.9</b>	UNICOM <b>122.9 (CTAF)</b>
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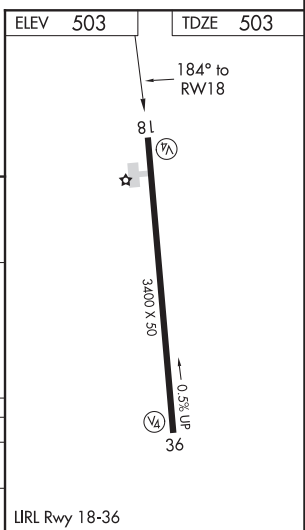
Procedure NA for arrivals at SBV VORTAC on airway radials 032 CW 086.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LNVA MDA	1520-3	1017 (1100-3)		NA
CIRCLING	1520-3	1017 (1100-3)		NA



CHASE CITY, VIRGINIA  
Amdt 1B 18SEP14

36°47'N-78°30'W

# RNAV (GPS) RWY 18

IIRL Rwy 18-36

APP CRS	Rwy Idg	<b>3400</b>
<b>004°</b>	TDZE	<b>503</b>
	Apt Elev	<b>503</b>

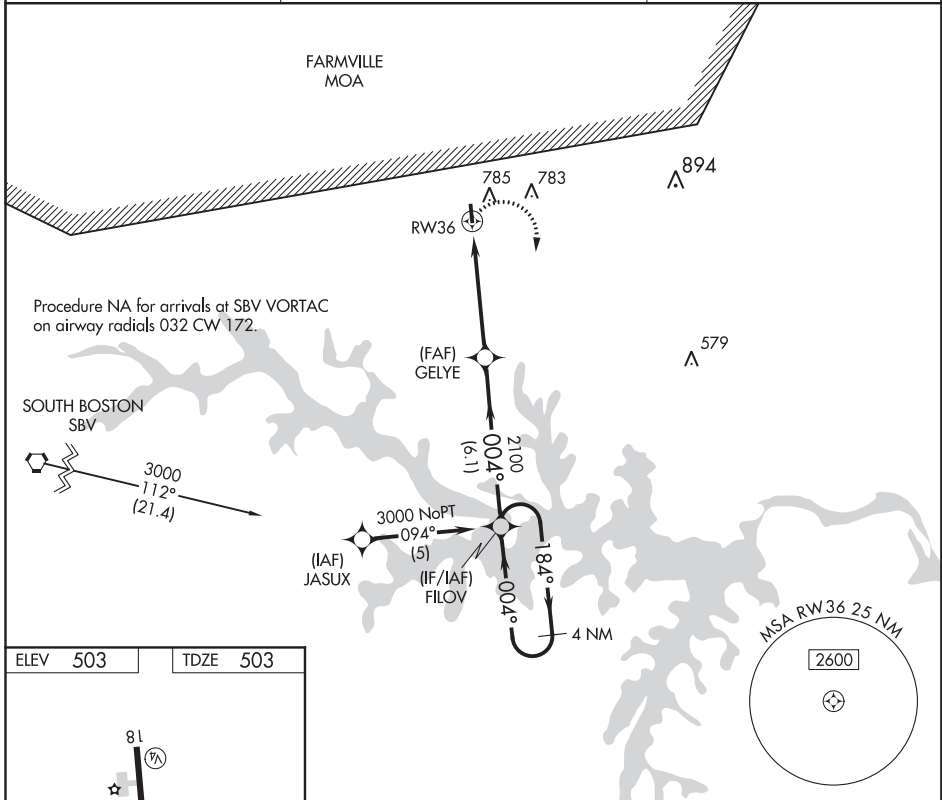
# RNAV (GPS) RWY 36

CHASE CITY MUNI (CXE)

**NA** DME/DME RNP-0.3 NA. Use South Hill altimeter setting, when not received use Danville altimeter setting and increase all MDA 60 feet. Procedure NA at night. Visibility reduction by helicopters NA.

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

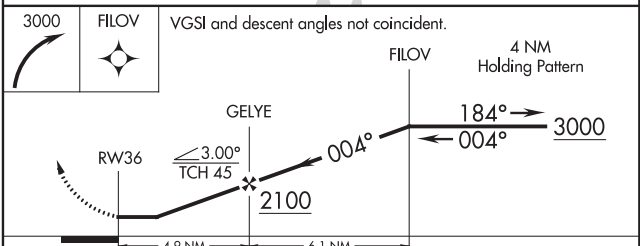
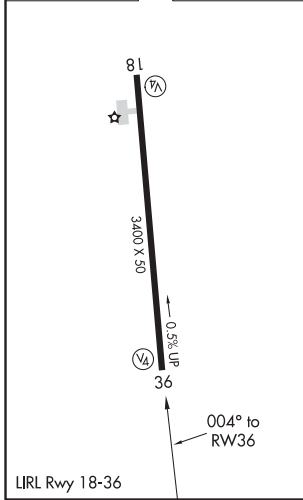
AWOS-3 <b>121.225</b>	WASHINGTON CENTER <b>118.75 353.9</b>	UNICOM <b>122.9</b> (CTAF)
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV	<b>503</b>	TDZE	<b>503</b>
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CATEGORY	A	B	C	D
LNAV MDA	1500-3	997 (1000-3)	NA	
CIRCLING	1520-3	1017 (1100-3)	NA	

CHURCHVILLE, MARYLAND

AL-9277 (FAA)

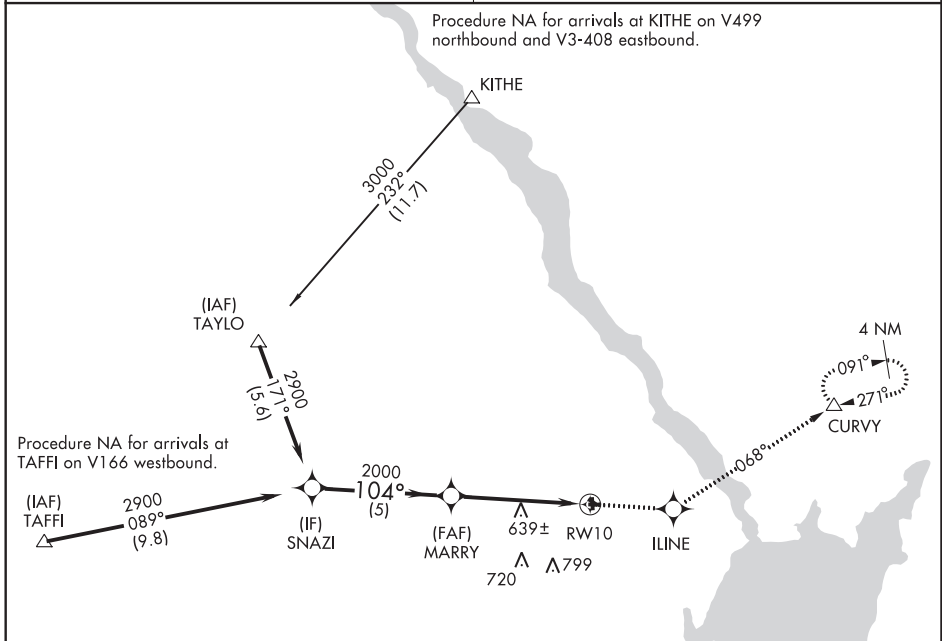
16035

APP CRS	Rwy Idg	N/A
104°	TDZE	N/A
	Apt Elev	409

**RNAV (GPS)-B**  
CHURCHVILLE/ HARBORD COUNTY (ØW3)

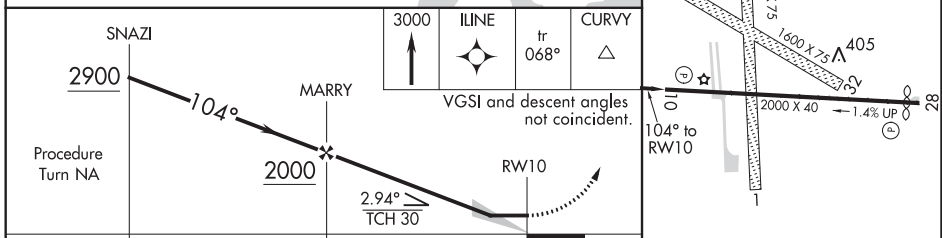
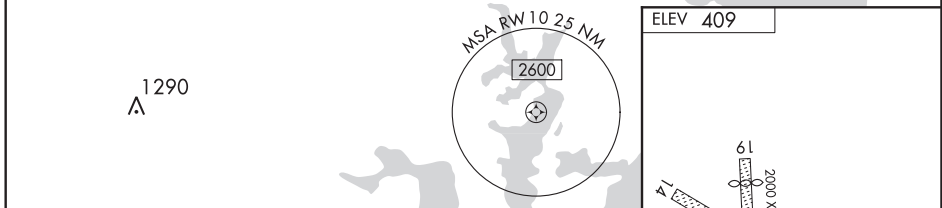
<p><b>NA</b> DME/DME RNP- 0.3 NA. Use Phillips AAF altimeter setting; when not received use Baltimore/Washington Intl Thurgood Marshall altimeter setting and increase MDA 60 feet.</p>	<p>MISSED APPROACH: Climb to 3000 direct ILINE and on track 068° to CURVY and hold, continue climb-in-hold to 3000.</p>
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<p>POTOMAC APP CON <b>125.525 291.625</b></p>	<p>UNICOM <b>122.8 (CTAF)</b></p>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
CIRCLING	960-1 551 (600-1)		NA	

LIRL Rwy 10-28  
REIL Rwys 10 and 28

CHURCHVILLE, MARYLAND  
Orig 29JUL10

39°34'N - 76°12'W

CHURCHVILLE/ HARBORD COUNTY (ØW3)  
**RNAV (GPS)-B**

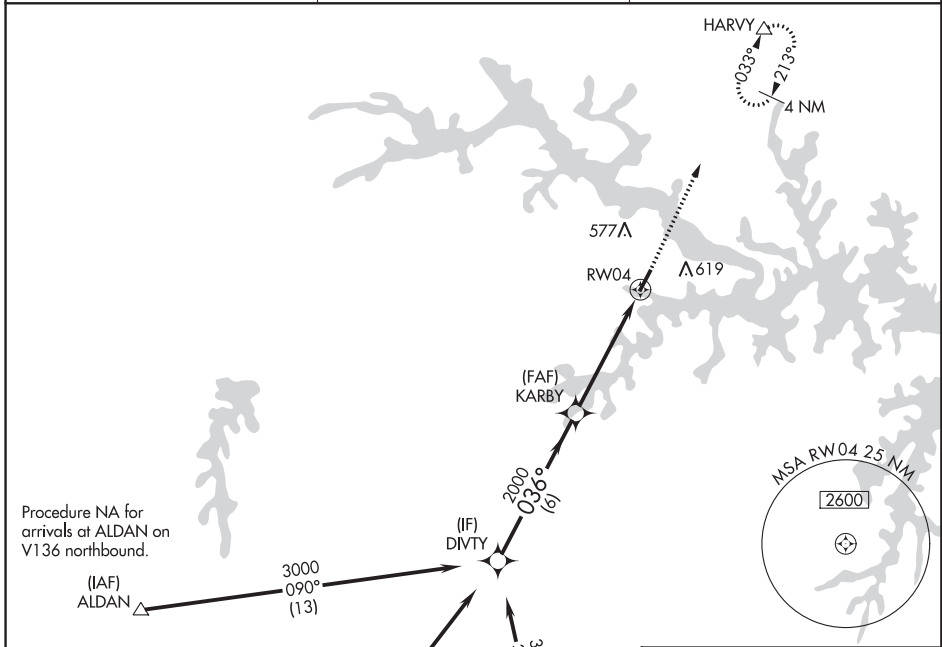
APP CRS <b>036°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>419</b>
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# RNAV (GPS)-A

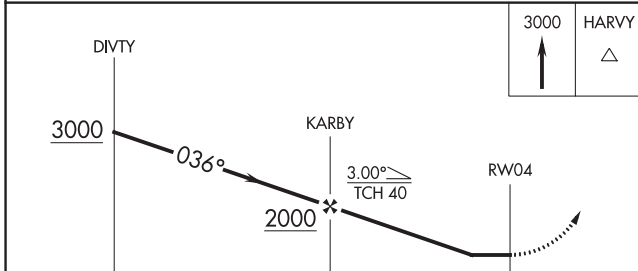
LAKE COUNTRY RGNL (W63)

<p><b>▽</b> DME/DME RNP-0.3 NA. When local altimeter setting not received, use Chase City altimeter setting and increase all MDA 40 feet. Night landing: Rwy 22 NA. Helicopter visibility reduction below 3/4 SM NA.</p>	<p><b>⚠</b> MISSED APPROACH: Climb to 3000 direct HARVY and hold.</p>
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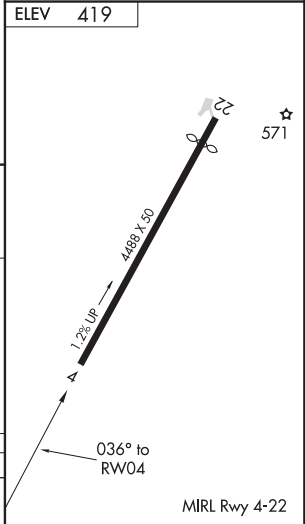
AWOS-3 <b>118.225</b>	WASHINGTON CENTER <b>118.75 377.1</b>	CTAF <b>122.9</b>
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ELEV 419	☆ 571
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CATEGORY	A	B	C	D
<b>C</b> CIRCLING	920-1 501 (600-1)	980-1 561 (600-1)	NA	



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CLARKSVILLE, VIRGINIA

AL-9200 (FAA)

15288

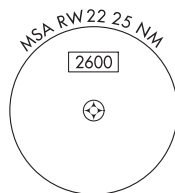
APP CRS	Rwy Idg	N/A
216°	TDZE	N/A
	Apt Elev	419

# RNAV (GPS)-B

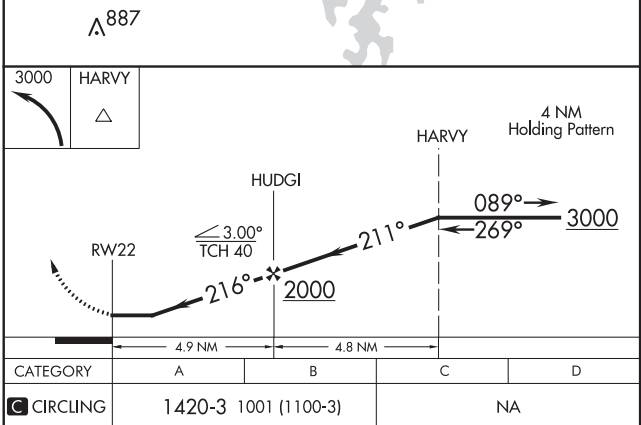
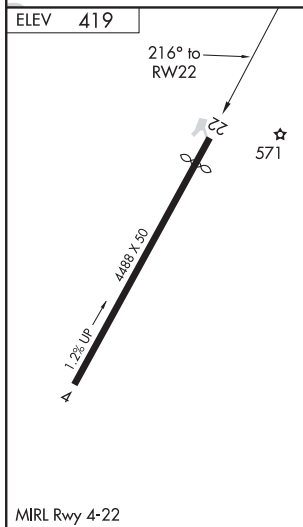
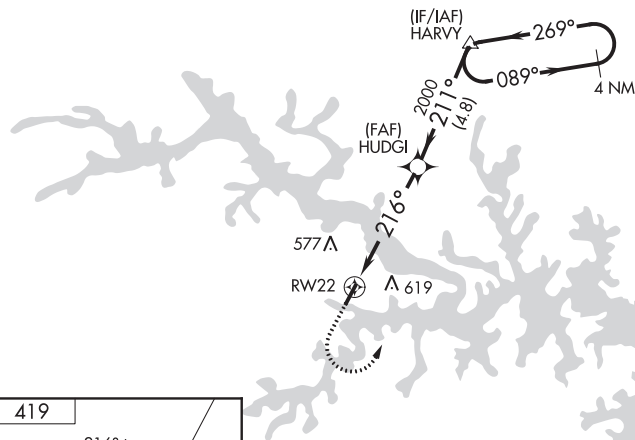
LAKE COUNTRY RGNL (W63)

<p><b>▼</b> DME/DME RNP-0.3 NA. Procedure NA at night. When local altimeter setting not received, use Chase City altimeter setting and increase all MDA 40 feet. Helicopter visibility reduction below 1 SM NA.</p>	<p><b>▲</b> MISSED APPROACH: Climbing left turn to 3000 direct HARVY and hold.</p>
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<p>AWOS-3 <b>118.225</b></p>	<p>WASHINGTON CENTER <b>118.75 377.1</b></p>	<p>CTAF <b>122.9</b></p>
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NoPT for arrival at HARVY on V3 southwest bound and on V266 westbound.



CATEGORY	A	B	C	D
<b>C</b> CIRCLING	1420-3	1001 (1100-3)	NA	

CLARKSVILLE, VIRGINIA  
Orig 15OCT15

36°36'N-78°34'W

# LAKE COUNTRY RGNL (W63)

## RNAV (GPS)-B

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

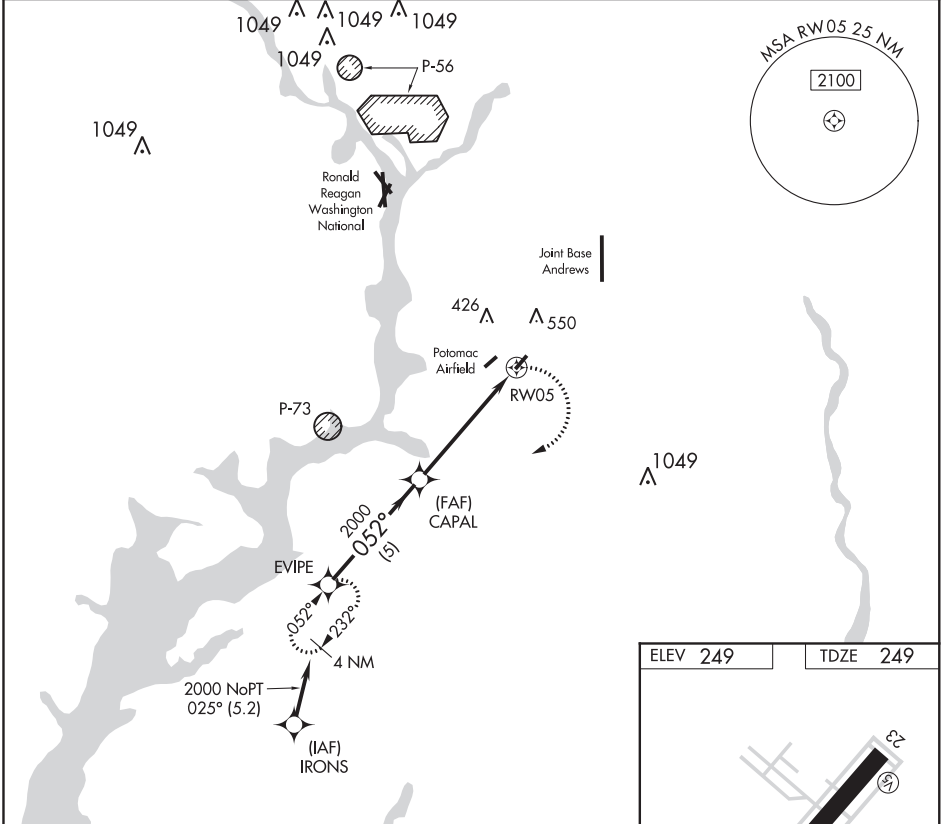
APP CRS	Rwy Idg	<b>3000</b>
<b>052°</b>	TDZE	<b>249</b>
	Apt Elev	<b>249</b>

# RNAV (GPS) RWY 5

CLINTON/ WASHINGTON EXECUTIVE/HYDE FIELD (W32)

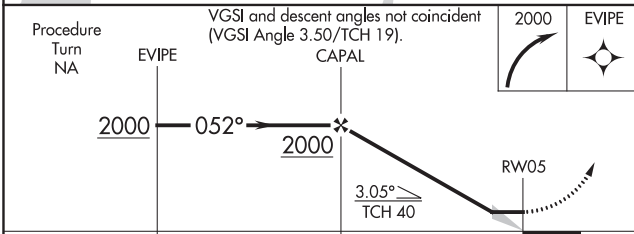
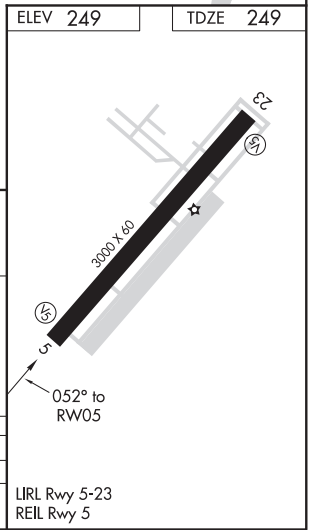
<p><b>▽</b> Use Joint Base Andrews altimeter setting.  <b>△</b> NA Circling NW Rwy 5-23 NA.          DME/DME RNP-0.3 NA.</p>	<p>MISSED APPROACH: Climbing right turn to 2000 direct EVIPE WP and hold.</p>
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<p>ANDREWS ATIS <b>113.1</b></p>	<p>POTOMAC APP CON <b>124.7 338.2</b></p>	<p>UNICOM <b>122.8 (CTAF)</b></p>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LNAV MDA	660-1	411 (500-1)		NA
CIRCLING	680-1 431 (500-1)	700-1 451 (500-1)		NA

# RNAV (GPS) RWY 5

COLLEGE PARK, MARYLAND

AL-6720 (FAA)

15344

APP CRS <b>136°</b>	Rwy Idg TDZE Apt Elev	<b>2191</b> <b>47</b> <b>48</b>
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# RNAV (GPS) RWY 15

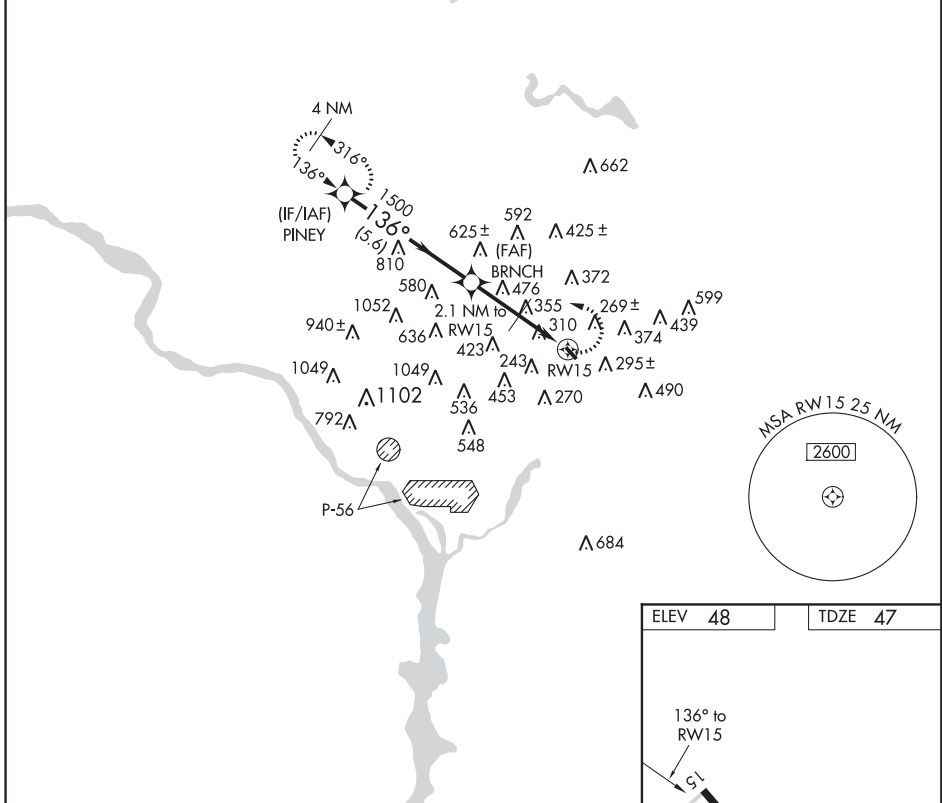
COLLEGE PARK (CGS)

**⚠** When local altimeter setting not received, use Ronald Reagan Washington National altimeter setting. DME/DME RNP-0.3 NA.

**⚠** MISSED APPROACH: Climbing left turn to 2100 direct PINEY WP and hold.

AWOS-3 <b>121.225</b>	POTOMAC APP CON <b>125.65 348.725</b>	UNICOM <b>122.975</b> (CTAF) <b>1</b>
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## RADAR REQUIRED



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 48	TDZE 47
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MIRL Rwy 15-33 **1**  
REIL Rwy 15 and 33 **1**

VGSI and descent angle not coincident (VGSI Angle 5.00/TCH 40).

Procedure Turn NA	2100	136°	BRNCH	1500	2.1 NM to RW15	RW15	2100	PINEY
				3.13° TCH 40	780			
	5.6 NM		2.2 NM		2.1 NM			
CATEGORY	A		B		C		D	
LNAV MDA	720-1	673 (700-1)			NA			
CIRCLING	760-1	712 (800-1)			NA			

COLLEGE PARK, MARYLAND  
Orig-D 30JUL09

38°59'N - 76°55'W

# COLLEGE PARK (CGS) RNAV (GPS) RWY 15



APP CRS	Rwy Idg	<b>3213</b>
<b>150°</b>	TDZE	<b>420</b>
	Apt Elev	<b>420</b>

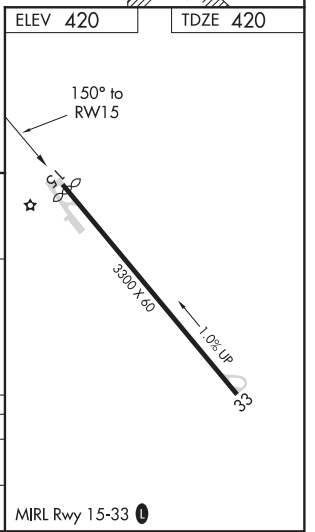
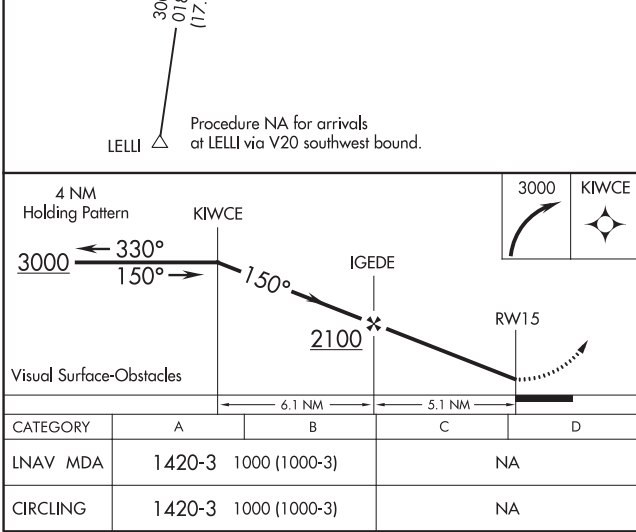
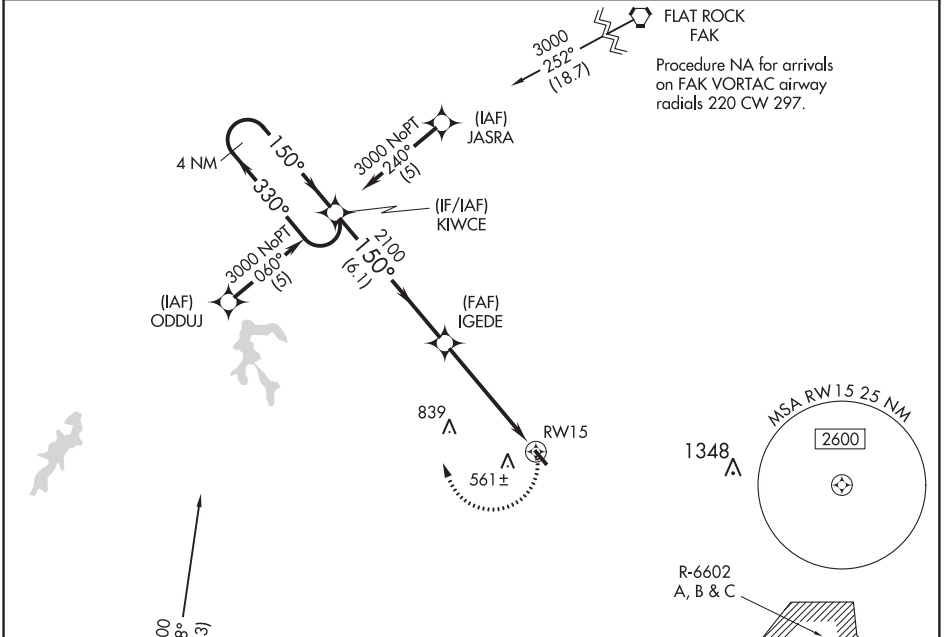
# RNAV (GPS) RWY 15

CREWE MUNI (W81)

**NA** DME/DME RNP-0.3 NA. Procedure NA at night. Visibility reduction by helicopters NA. When local altimeter setting not received, use Farmville altimeter setting.

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

<b>AWOS-3</b> <b>119.05</b>	<b>WASHINGTON CENTER</b> <b>118.75 377.1</b>	<b>UNICOM</b> <b>122.8 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CREWE, VIRGINIA

AL-10445 (FAA)

14205

APP CRS <b>315°</b>	Rwy Idg <b>3300</b>
	TDZE <b>415</b>
	Apt Elev <b>420</b>

# RNAV (GPS) RWY 33

CREWE MUNI (W81)

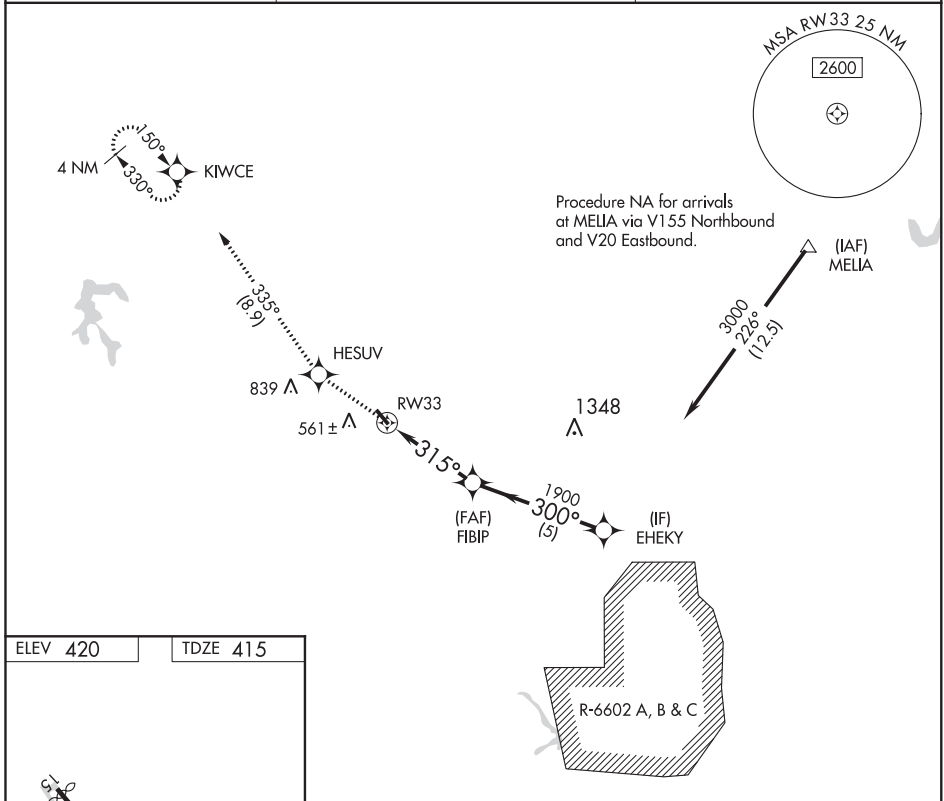
**NA** DME/DME RNP-0.3 NA. Procedure NA at night. Visibility reduction by helicopters NA. Use Farmville altimeter setting, when not received, use South Hill altimeter setting and increase all MDA 40 feet.

**MISSED APPROACH:** Climb to 3000 direct HESUV and on track 335° to KIWCE and hold.

AWOS-3  
**119.05**

WASHINGTON CENTER  
**118.75 377.1**

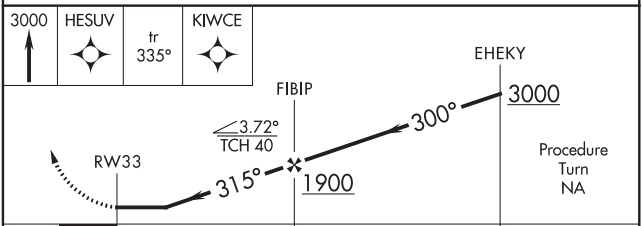
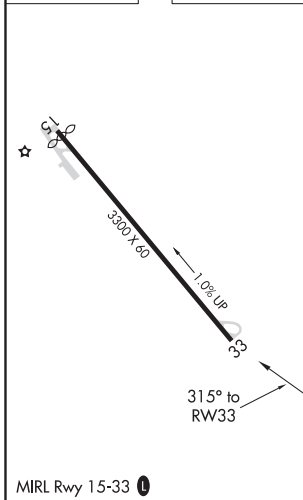
UNICOM  
**122.8 (CTAF) 0**



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 420	TDZE 415
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CATEGORY	A	B	C	D
LNAV MDA	920-1	505 (500-1)		NA
CIRCLING	980-1	560 (600-1)		NA

CREWE, VIRGINIA  
Orig 13JAN11

37°11'N-78°06'W

# RNAV (GPS) RWY 33

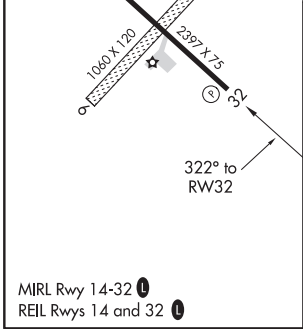
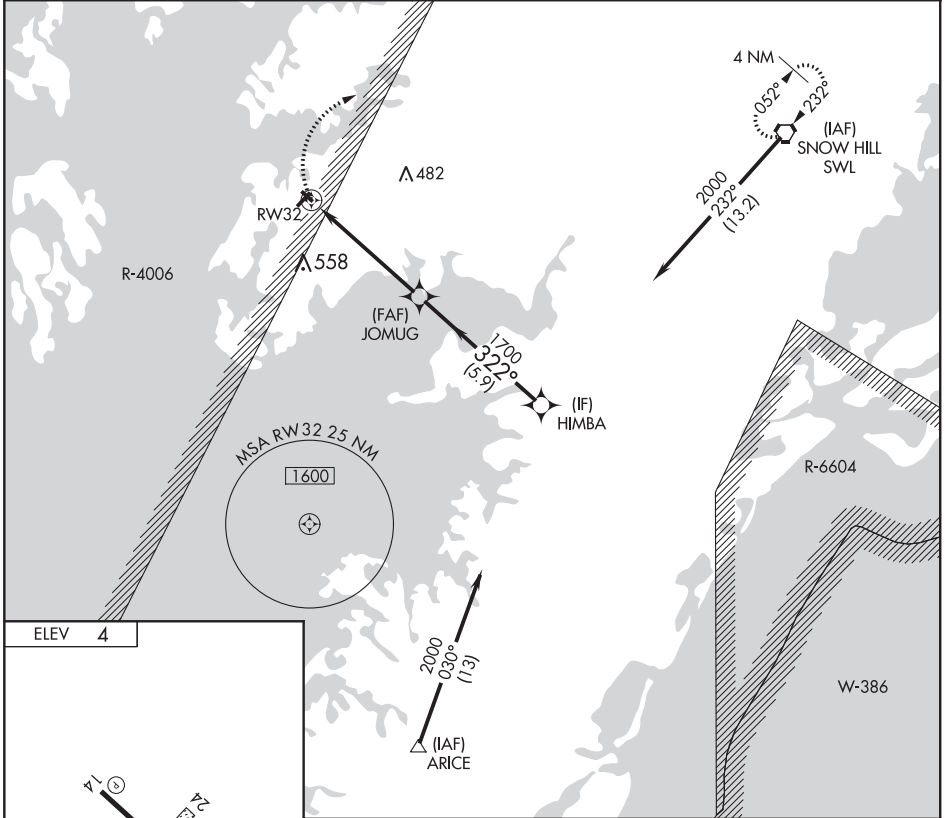
CREWE MUNI (W81)

APP CRS <b>322°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>4</b>
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# RNAV (GPS)-B

CRISFIELD-SOMERSET COUNTY (W41)

<p><b>▽</b> DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. Use Wallops Island altimeter setting; when not received, use Salisbury altimeter setting and increase all MDA 20 feet. Circling NA to Rwy 6 and 24. Procedure NA at night.</p> <p><b>△</b> NA</p>	<p>MISSED APPROACH: Climbing right turn to 2000 direct SWL VORTAC and hold.</p>	
<p>WALLOPS ASOS <b>119.175</b></p>	<p>PATUXENT APP CON ★ <b>127.95 314.0</b></p>	<p>UNICOM <b>122.8 (CTAF) 0</b></p>



2000	SWL	VGSi and descent angles not coincident (VGSi Angle 3.25/TCH 33).		
CATEGORY	A	B	C	D
CIRCLING	520-1	516 (600-1)	NA	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CULPEPER, VIRGINIA

AL-5877 (FAA)

15288

WAAS CH <b>77606</b> <b>W04A</b>	APP CRS <b>038°</b>	Rwy Idg TDZE <b>316</b> Apt Elev <b>316</b>	<b>5000</b> <b>316</b> <b>316</b>
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# RNAV (GPS) RWY 4

CULPEPER RGNL (CJR)

**⚠** When VCSI inoperative, procedure NA at night. Baro-VNAV NA when using Washington Dulles Intl 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 Washington Dulles Intl altimeter setting and increase all DAs 73 feet, all MDAs 80 feet, LPV and LNAV/VNAV Cats visibility ¼ mile, LNAV Cat D and Circling Cats C and D visibility ¼ mile.

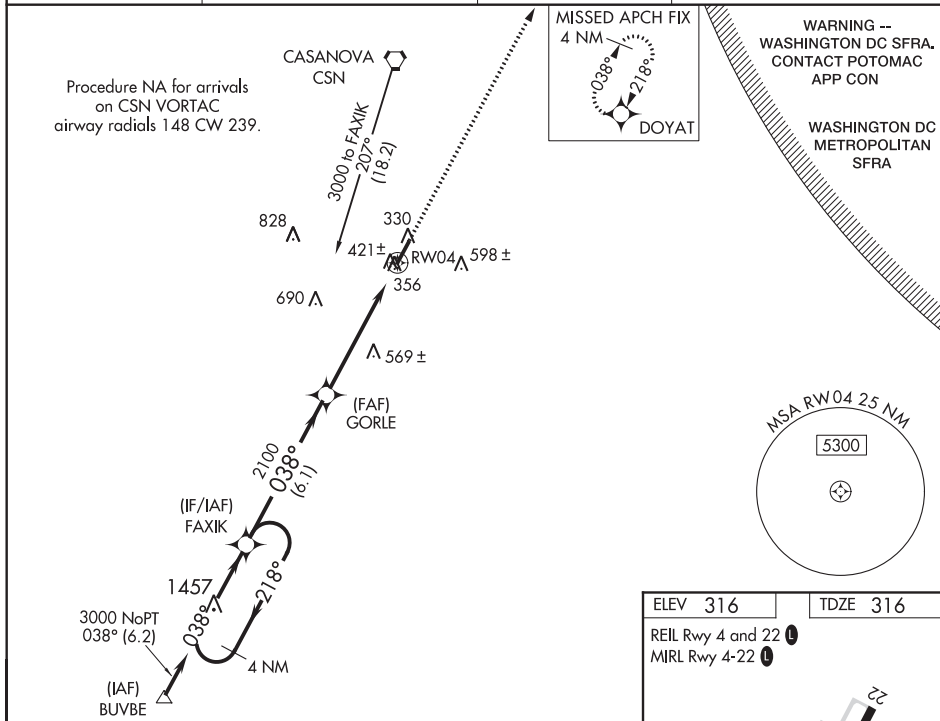
**MISSED APPROACH:**  
Climb to 3000 direct DOYAT and hold.

AWOS-3  
**119,325**

POTOMAC APP CON  
**128,525 306,925**

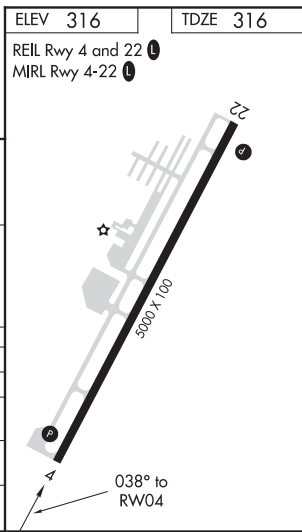
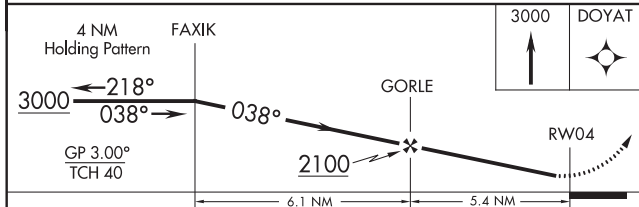
CLNC DEL  
**121.6**

UNICOM  
**123,075 (CTAF) 0**



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA	610-1		294 (300-1)	
LNAV/VNAV DA	833-1¾		517 (600-1¾)	
LNAV MDA	820-1 504 (600-1)		820-1½ 504 (600-1½)	
CIRCLING	900-1 584 (600-1)	960-1 644 (700-1)	960-1¾ 644 (700-1¾)	960-2 644 (700-2)

CULPEPER, VIRGINIA  
Orig 20DEC07

38°32'N-77°-52'W

# CULPEPER RGNL (CJR) RNAV (GPS) RWY 4

WAAS CH <b>56306</b> <b>W22A</b>	APP CRS <b>218°</b>	Rwy Idg <b>5000</b> TDZE <b>315</b> Apt Elev <b>316</b>
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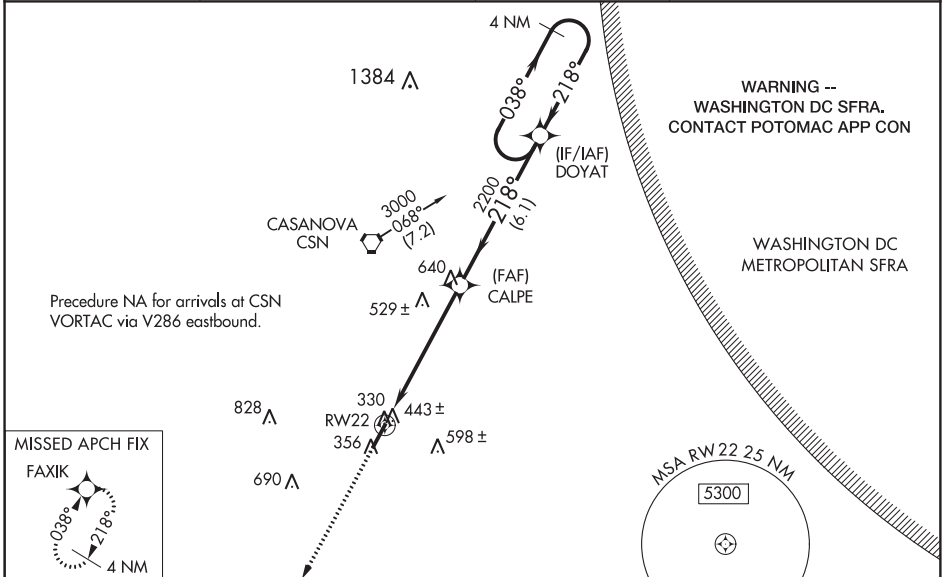
# RNAV (GPS) RWY 22

CULPEPER RGNL (CJR)

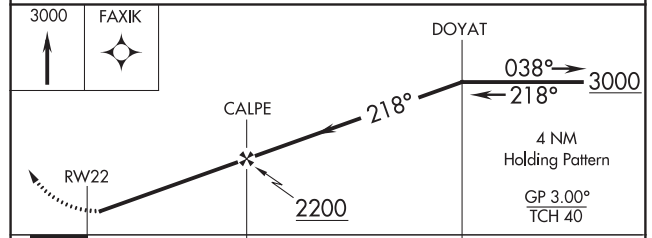
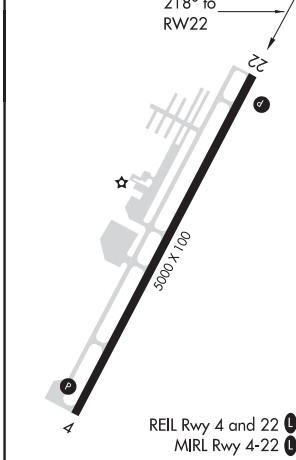
**⚠** When VGSI inoperative, procedure NA at night. Baro-VNAV NA when using Washington Dulles Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Washington Dulles Intl altimeter setting and increase all DAs/MDAs 80 feet, LPV and LNAV/VNAV all Cats visibility ¼ mile, LNAV and Circling Cats C and D visibility ¼ mile.

MISSED APPROACH: Climb to 3000 direct FAXIK and hold.

AWOS-3 <b>119.325</b>	POTOMAC APP CON <b>128.525 306.925</b>	CLNC DEL <b>121.6</b>	UNICOM <b>123.075 (CTAF)</b> <b>📞</b>
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ELEV 316	TDZE 315
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CATEGORY	A	B	C	D
LPV DA		657-1¼	342 (400-1¼)	
LNAV/VNAV DA		703-1½	388 (400-1½)	
LNAV MDA	800-1	485 (500-1)	800-1¼ 485 (500-1¼)	800-1½ 485 (500-1½)
CIRCLING	900-1 584 (600-1)	960-1 644 (700-1)	960-1¾ 644 (700-1¾)	960-2 644 (700-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CULPEPER, VIRGINIA

AL-5877 (FAA)

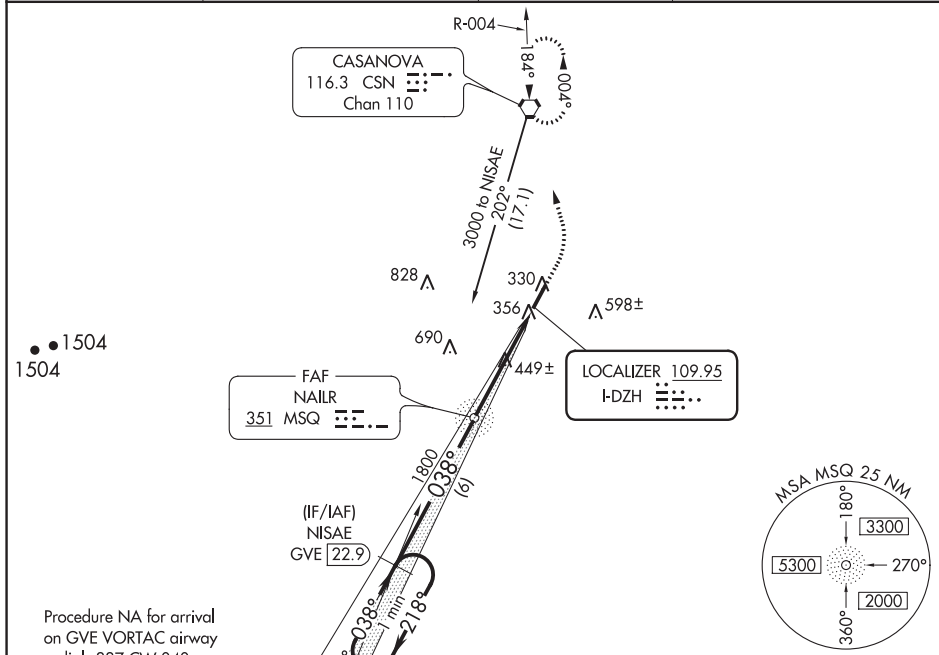
15288

LOC I-DZH <b>109.95</b>	APP CRS <b>038°</b>	Rwy Idg 5000	TDZE 316
		Apt Elev 316	

# LOC RWY 4

CULPEPER RGNL (CJR)

ADF required.		MISSED APPROACH: Climb to 800 then climbing left turn to 3000 direct CSN VORTAC and hold, continue climb-in-hold to 3000.	
AWOS-3 <b>119.325</b>	POTOMAC APP CON <b>128.525 306.925</b>	CLNC DEL <b>121.6</b>	UNICOM <b>123.075 (CTAF) 1</b>



Procedure NA for arrival on GVE VORTAC airway radials 337 CW 040.

IAF GORDONSVILLE 115.6 GVE Chan 103

ELEV 316		TDZE 316	
REIL Rwy 4 and 22		MIRL Rwy 4-22	

One Minute Holding Pattern	NISAE GVE 22.9	800	3000	CSN
2600 ← 218°	038° →	MSQ NDB	3.12° TCH 40	
6 NM		4.4 NM		

CATEGORY	A	B	C	D
S-4	700-1 384 (400-1)			NA
CIRCLING	820-1 504 (600-1)	920-1 604 (700-1)	920-1 ¾ 604 (700-1 ¾)	NA

038° 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

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

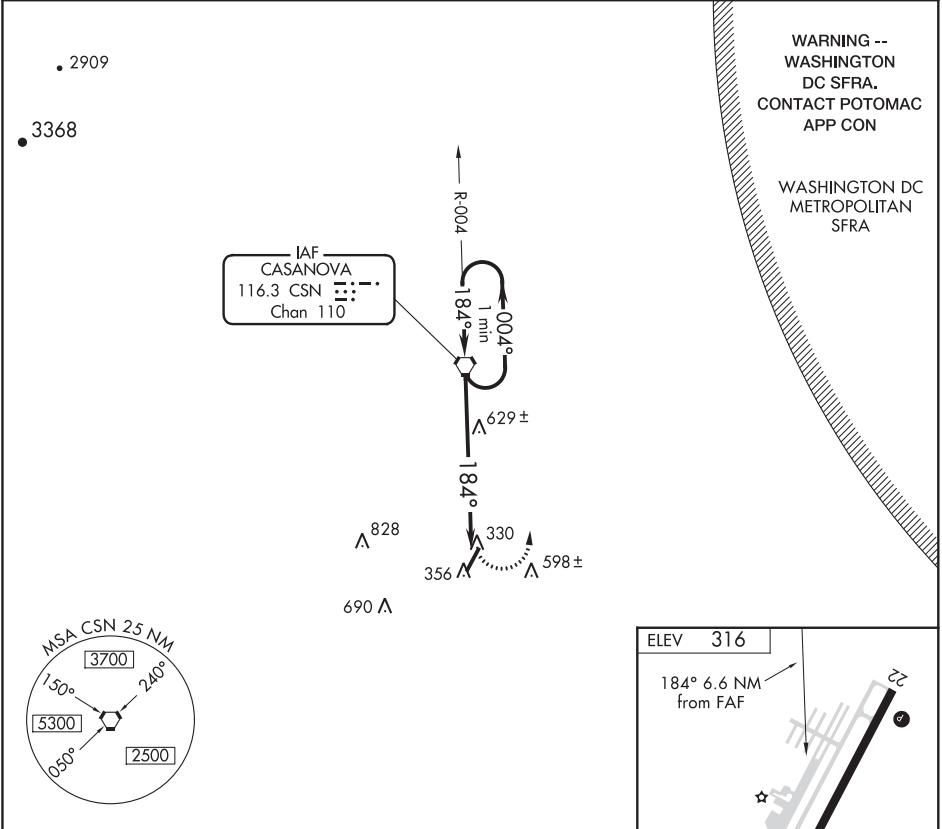
VORTAC CSN <b>116.3</b> Chan <b>110</b>	APP CRS <b>184°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>316</b>
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**VOR-A**  
CULPEPER RGNL (CJR)

**⚠** When VGSI inoperative, procedure NA at night. Visibility reduction by Helicopters NA. When local altimeter setting not received, use Washington Dulles Intl altimeter setting and increase all DAs/MDAs 80 feet, Circling Cats C and D visibility ¼ mile.

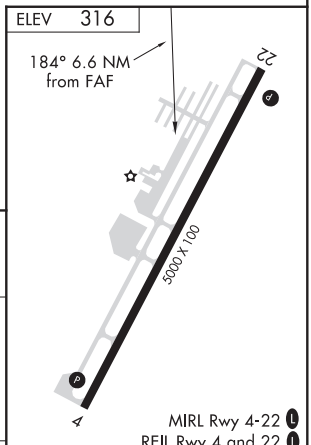
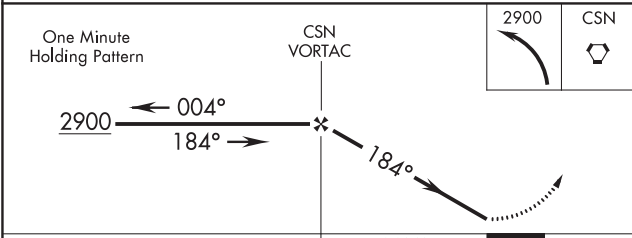
MISSED APPROACH: Climbing left turn to 2900 direct CSN VORTAC and hold.

AWOS-3 <b>119.325</b>	POTOMAC APP CON <b>128.525 306.925</b>	CLNC DEL <b>121.6</b>	UNICOM <b>123.075 (CTAF) 1</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	FAF to MAP 6.6 NM			
	A	B	C	D
CIRCLING	920-1 604 (700-1)	960-1 644 (700-1)	960-1 ¾ 644 (700-1 ¾)	960-2 644 (700-2)

CULPEPER, VIRGINIA

AL-5877 (FAA)

15288

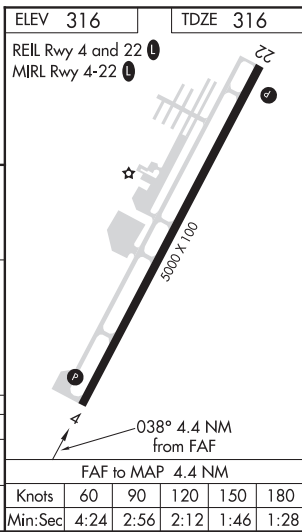
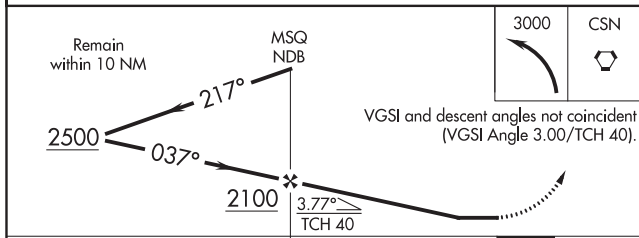
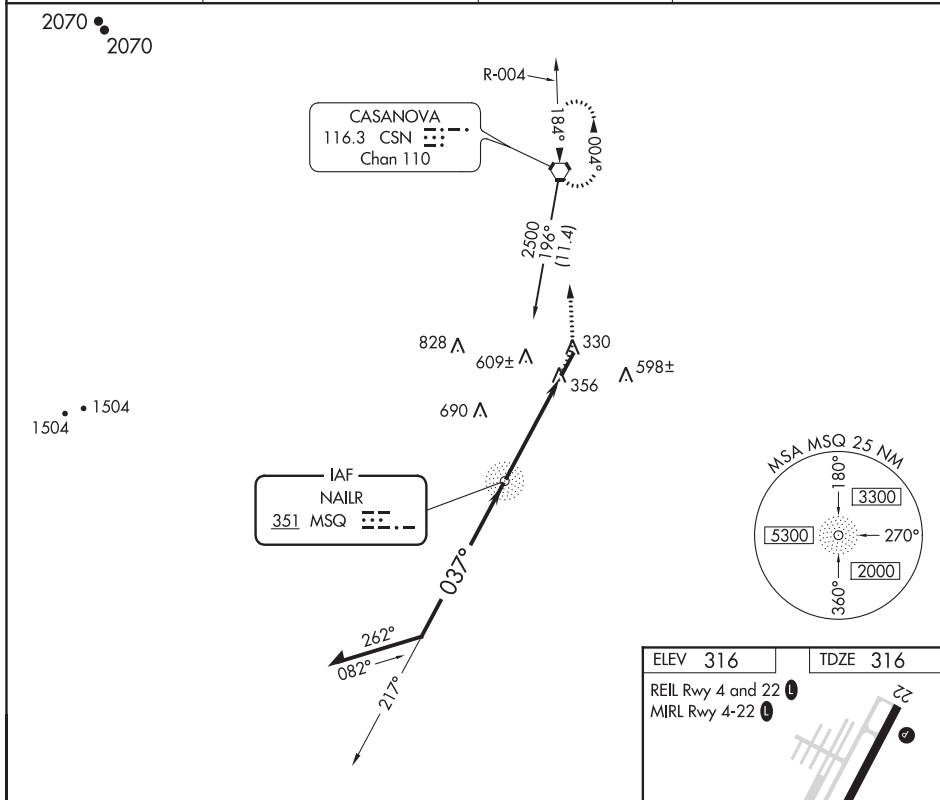
NDB MSQ	APP CRS	Rwy Idg	5000
<b>351</b>	<b>037°</b>	TDZE	<b>316</b>
		Apt Elev	<b>316</b>

# NDB RWY 4

CULPEPER RGNL (CJR)

**MISSED APPROACH:** Climbing left turn to 3000 direct CSN VORTAC and hold, continue climb-in-hold to 3000.

AWOS-3 <b>119.325</b>	POTOMAC APP CON <b>128.525 306.925</b>	CLNC DEL <b>121.6</b>	UNICOM <b>123.075 (CTAF) 1</b>
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CATEGORY	A	B	C	D
S-4	920-1 604 (700-1)		920-1 3/4 604 (700-1 3/4)	NA
CIRCLING	920-1 604 (700-1)		920-1 3/4 604 (700-1 3/4)	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CULPEPER, VIRGINIA  
Orig 03AUG06

38°32'N-77°-52'W

CULPEPER RGNL (CJR)  
**NDB RWY 4**



WAAS CH <b>99336</b> <b>W05A</b>	APP CRS <b>029°</b>	Rwy Idg TDZE Apt Elev	<b>5048</b> <b>746</b> <b>775</b>
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# RNAV (GPS) RWY 5

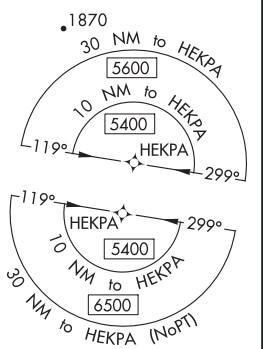
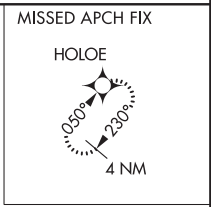
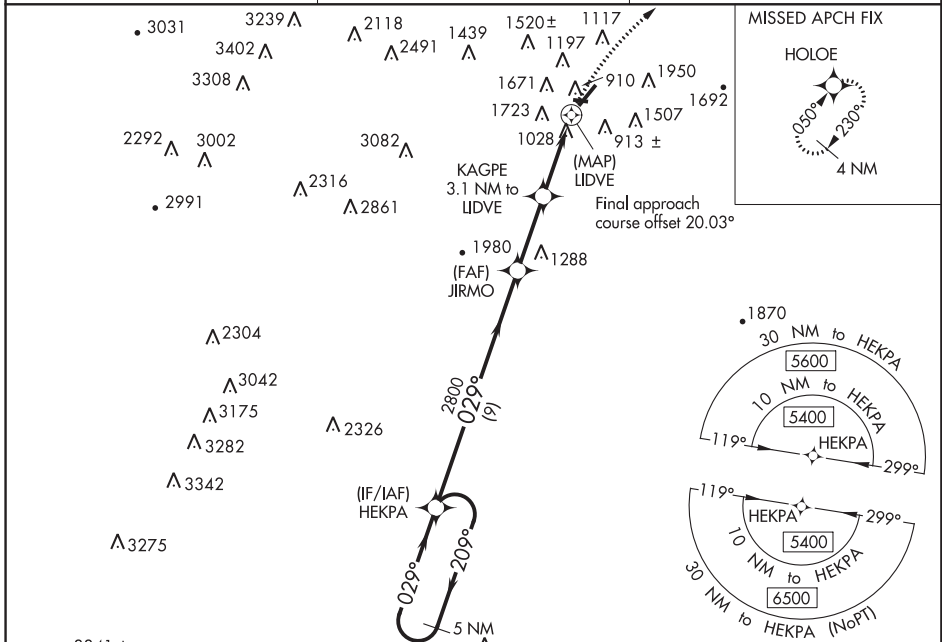
GREATER CUMBERLAND RGNL (CBE)

**⚠** Circling NA NW of Rwy 5-23. DME/DME RNP-0.3 NA. Night landing: Rwy 5, 11, 29 NA. When local altimeter setting not received, use Winchester altimeter setting and increase all MDA 100 feet and increase LP visibility Cat B ¼ mile, Cats C and D ½ mile. Helicopter visibility reduction below 1 SM NA.

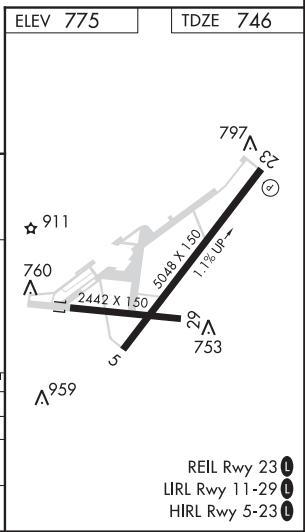
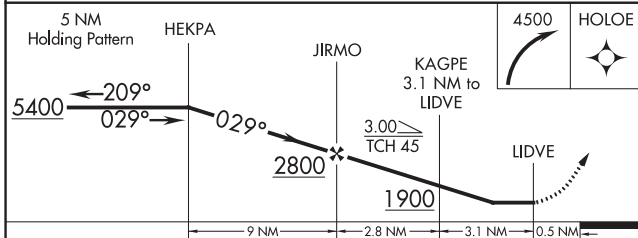
**❄** -13°C/9°F

**MISSED APPROACH:** Climbing right turn to 4500 direct HOLOE and hold, continue climb-in-hold to 4500.

AWOS-3 <b>128.625</b>	JOHNSTOWN APP CON ★ <b>121.2 299.2</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV 775	TDZE 746
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CATEGORY	A	B	C	D
LP MDA	1440-1	694 (700-1)	1440-2	694 (700-2)
LNNAV MDA	1840-1¼ 1094 (1100-1¼)	1840-1½ 1094 (1100-1½)	1840-3	1094 (1100-3)
<b>C</b> CIRCLING	1840-1¼ 1065 (1100-1¼)	2140-1½ 1365 (1400-1½)	2260-3 1485 (1500-3)	2360-3 1585 (1600-3)

- REIL Rwy 23 0
- LIRL Rwy 11-29 0
- HIRL Rwy 5-23 0

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



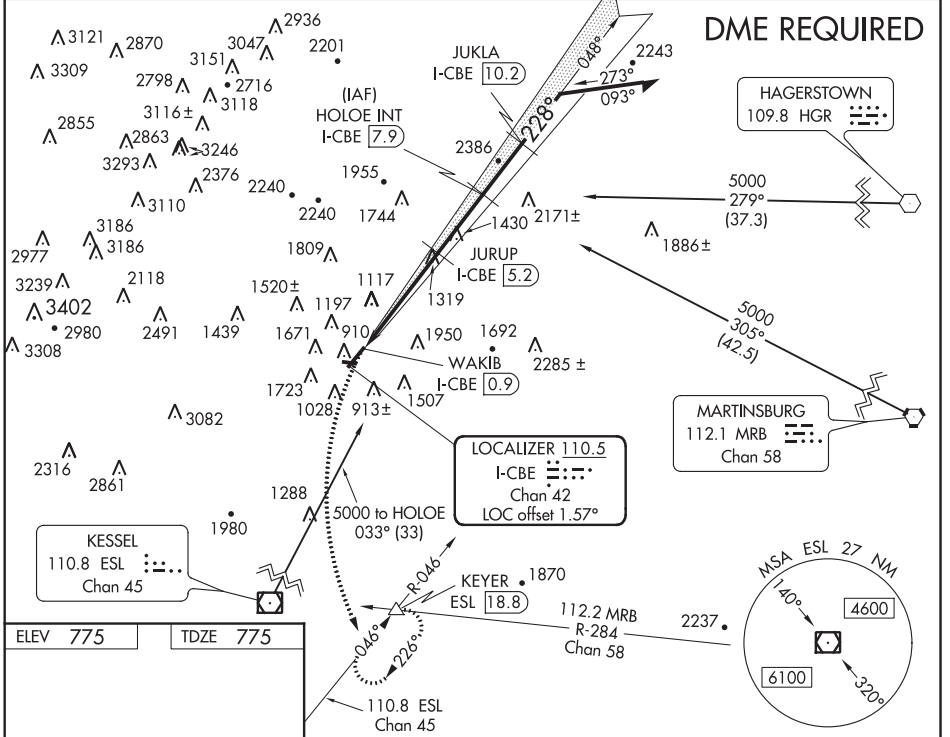
LOC/DME I-CBE <b>110.5</b> Chan 42	APP CRS <b>228°</b>	Rwy Idg TDZE Apt Elev	<b>5048</b> <b>775</b> <b>775</b>
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**LOC/DME RWY 23**  
GREATER CUMBERLAND RGNL (C'BE)

**⚠** When local altimeter setting not received, use Winchester altimeter setting and increase all MDA 100 feet, increase S-23 Cat B visibility ¼ mile, Cats C and D ½ mile. Night landing: Rwy 5, 11, 29 NA. Circling NA northwest of Rwy 5/23. Helicopter visibility reduction below ¾ SM NA.

**⚠** MISSED APPROACH: Climbing left turn to 5000 on heading 175° and on ESL VOR/DME R-046 to KEYER/ESL 18.8 DME and hold, continue climb-in-hold to 5000.

AWOS-3 <b>128.625</b>	JOHNSTOWN APP CON ★ <b>121.2 299.2</b>	UNICOM <b>122.8 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

DANVILLE, VIRGINIA

AL-599 (FAA)


15232

LOC I-DAN <b>110.7</b>	APP CRS <b>025°</b>	Rwy Idg TDZE Apt Elev	<b>5600</b> <b>558</b> <b>571</b>
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# ILS or LOC RWY 2

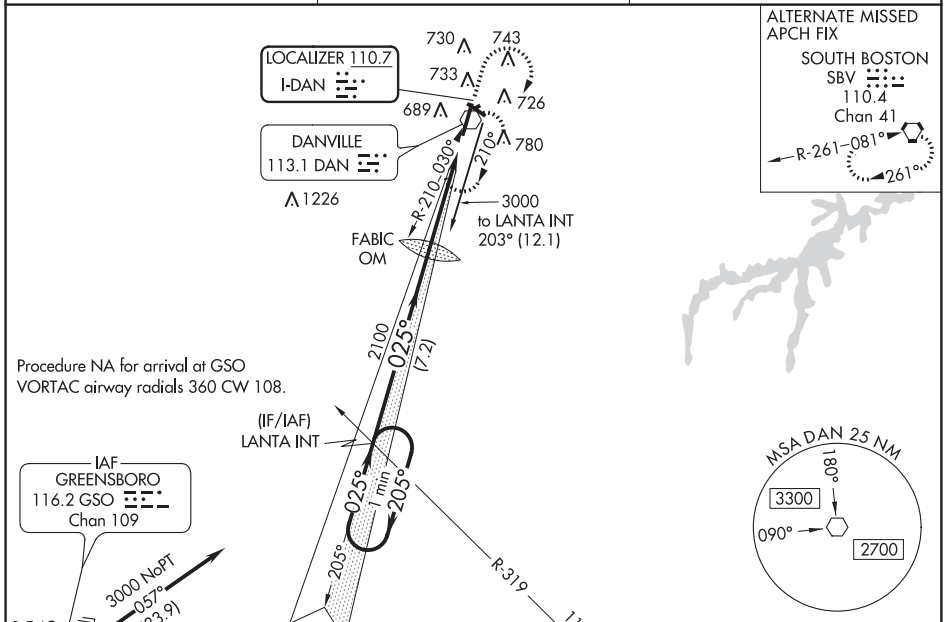
DANVILLE RGNL (DAN)

**⚠** When local altimeter setting not received, use Roxboro, NC altimeter setting and increase all DA 62 feet and all MDA 80 feet, increase S-LOC 2 visibility Cats C and D ¼ mile. For inoperative MALSRS when using Roxboro, NC altimeter setting, increase S-ILS 2 visibility all Cats to 1.

**MALSRS** 

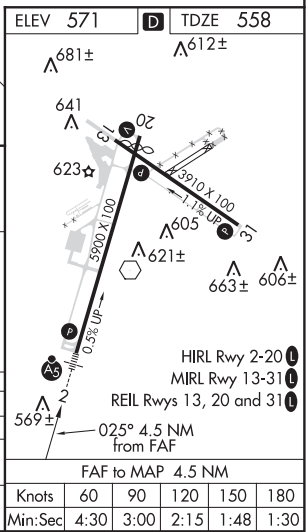
**MISSED APPROACH:** Climb to 2300 then climbing right turn to 3000 direct DAN VOR and hold.

ASOS <b>128.125</b>	WASHINGTON CENTER <b>124.05 307.0</b>	UNICOM <b>123.05 (CTAF) 1</b>
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	LANTA INT	FABIC OM	2300	3000	DAN
			↑	↷	⬡
			2035		

CATEGORY	A	B	C	D
S-ILS 2		758-½	200 (200-½)	
S-LOC 2	1040-½	482 (500-½)	1040-¾ 482 (500-¾)	1040-1 482 (500-1)
CIRCLING	1080-1	509 (500-1)	1080-1½ 509 (500-1½)	1140-2 569 (600-2)



DANVILLE, VIRGINIA  
Amdt 4B 16OCT14

36°34'N-79°20'W

# DANVILLE RGNL (DAN)

## ILS or LOC RWY 2

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



DANVILLE, VIRGINIA

AL-599 (FAA)

15232

WAAS CH <b>87116</b> <b>W20A</b>	APP CRS <b>205°</b>	Rwy Idg TDZE Apt Elev	<b>5600</b> <b>568</b> <b>571</b>
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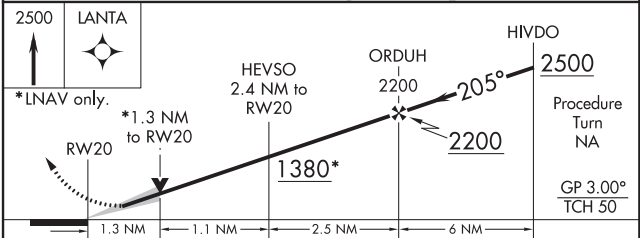
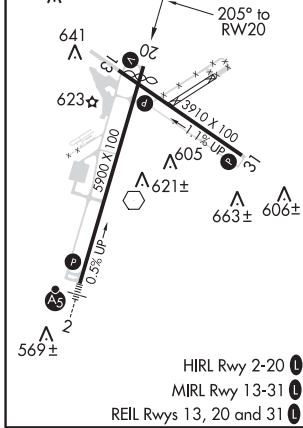
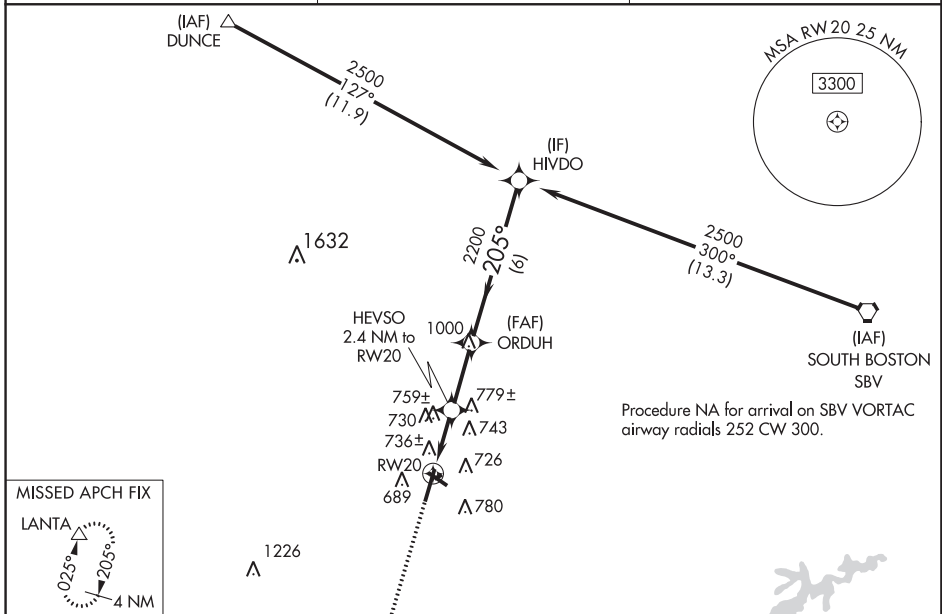
# RNAV (GPS) RWY 20

DANVILLE RGNL (DAN)

**⚠** Baro-VNAV NA when using Roxboro, NC altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Roxboro, NC altimeter setting and increase all DA 62 feet and all MDA 80 feet; increase LPV and LNAV/VNAV all Cats visibility ¼ mile and LNAV Cats C and D ½ mile. VDP NA with Roxboro, NC altimeter setting.

**MISSED APPROACH:** Climb to 2500 direct LANTA and hold.

ASOS <b>128.125</b>	WASHINGTON CENTER <b>124.05 307.0</b>	UNICOM <b>123.05 (CTAF)</b> <b>0</b>
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CATEGORY	A	B	C	D
LPV DA		768-1	200 (200-1)	
LNAV/VNAV DA		1026-1½	458 (500-1½)	
LNAV MDA	1020-1	452 (500-1)	1020-1¼ 452 (500-1¼)	1020-1½ 452 (500-1½)
CIRCLING	1080-1	509 (600-1)	1080-1½ 509 (600-1½)	1140-2 569 (600-2)

DANVILLE, VIRGINIA  
Orig-B 16OCT14

36°34'N-79°20'W

# RNAV (GPS) RWY 20

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>93631</b> <b>W31A</b>	APP CRS <b>314°</b>	Rwy Idg TDZE Apt Elev	<b>3910</b> <b>562</b> <b>571</b>
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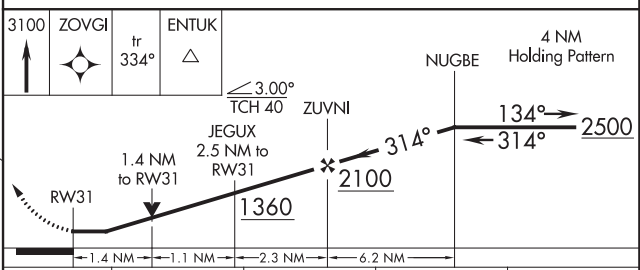
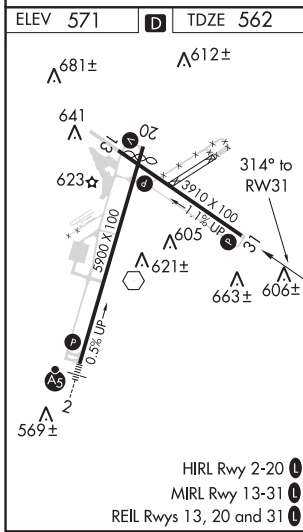
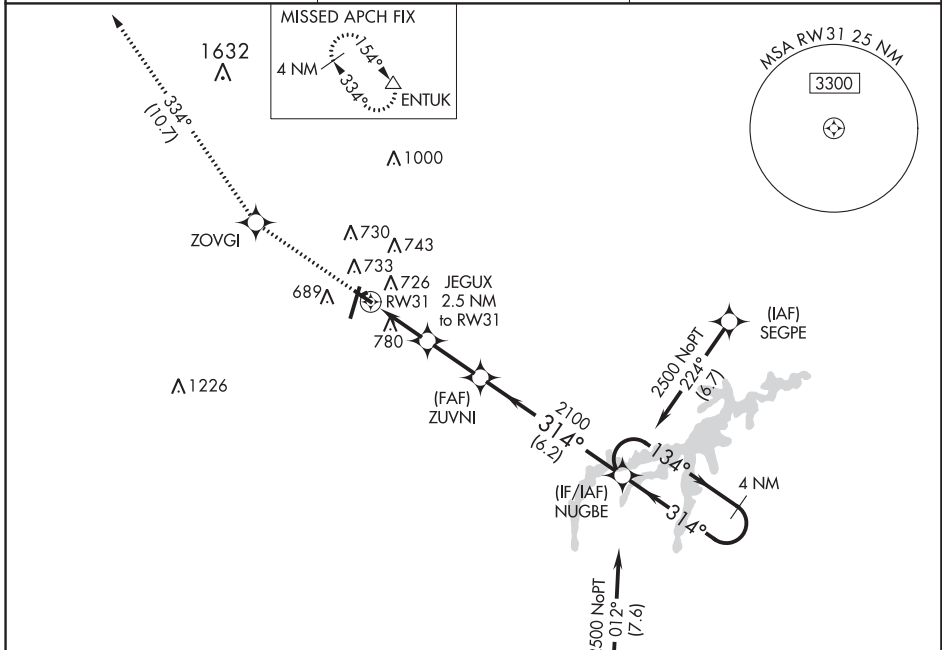
# RNAV (GPS) RWY 31

DANVILLE RGNL (DAN)

**⚠** When local altimeter setting not received, use Roxboro, NC altimeter setting and increase all MDA 80 feet. DME/DME RNP-0.3 NA. VDP NA with Roxboro, NC altimeter setting. Helicopter visibility reduction below 3/4 SM NA.

**MISSED APPROACH:** Climb to 3100 direct ZOVGI and on track 334° to ENTUK and hold.

ASOS <b>128.125</b>	WASHINGTON CENTER <b>124.05 307.0</b>	UNICOM <b>123.05 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LP MDA	980-1	418 (500-1)		NA
LNVA MDA	1040-1	478 (500-1)		NA
CIRCLING	1080-1	509 (600-1)		NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

DANVILLE, VIRGINIA

AL-599 (FAA)

15232

VOR DAN <b>113.1</b>	APP CRS <b>195°</b>	Rwy Idg TDZE Apt Elev	<b>5600</b> <b>568</b> <b>571</b>
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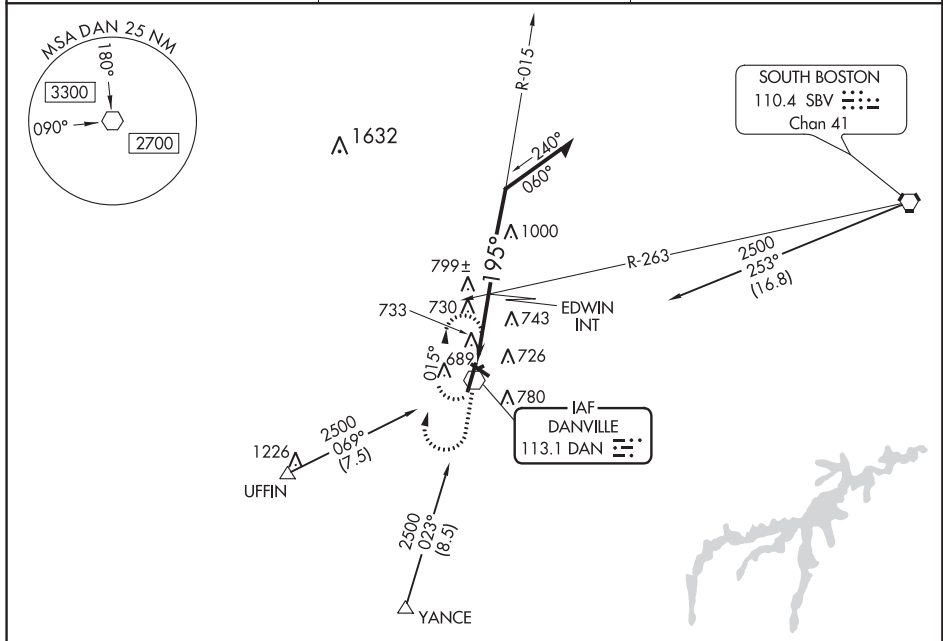
# VOR RWY 20

DANVILLE RGNL (DAN)

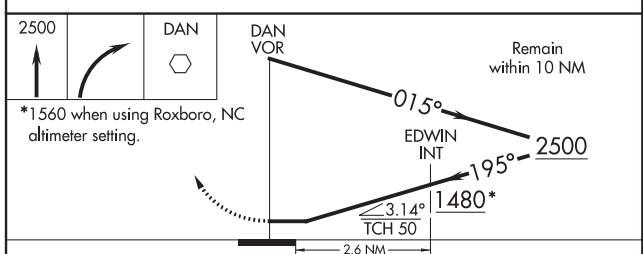
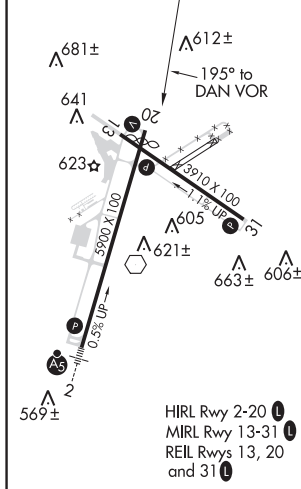
**⚠** When local altimeter setting not received, use Roxboro, NC altimeter setting and increase all MDA 80 feet, increase S-20 and Circling Cats B and C visibility ¼ mile, when using EDWIN fix minimums increase S-20 Cats C and D visibility ¼ mile.

**MISSO APPROACH:** Climb to 2500 then right turn direct DAN VOR and hold.

ASOS <b>128.125</b>	WASHINGTON CENTER <b>124.05 307.0</b>	UNICOM <b>123.05 (CTAF) 0</b>
------------------------	------------------------------------------	----------------------------------



ELEV 571	<b>D</b>	TDZE 568
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CATEGORY	A	B	C	D
S-20	1480-1¼	912 (1000-1¼)	1480-2¾ 912 (1000-2¾)	1480-3 912 (1000-3)
CIRCLING	1480-1¼	909 (1000-1¼)	1480-2¾ 909 (1000-2¾)	1480-3 909 (1000-3)
EDWIN FIX MINIMUMS (DUAL VOR RECEIVERS REQUIRED)				
S-20	1060-1	492 (500-1)	1060-1½ 492 (500-1½)	1060-1½ 492 (500-1½)
CIRCLING	1080-1	509 (600-1)	1080-1½ 509 (600-1½)	1140-2 569 (600-2)

DANVILLE, VIRGINIA  
Amdt 2A 16OCT14

36°34'N-79°20'W

# DANVILLE RGNL (DAN) VOR RWY 20

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

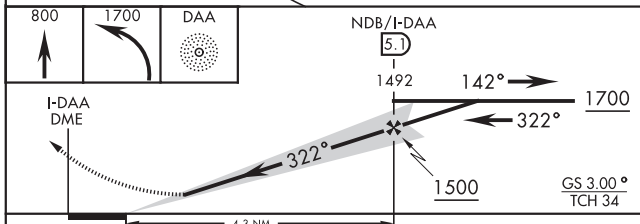
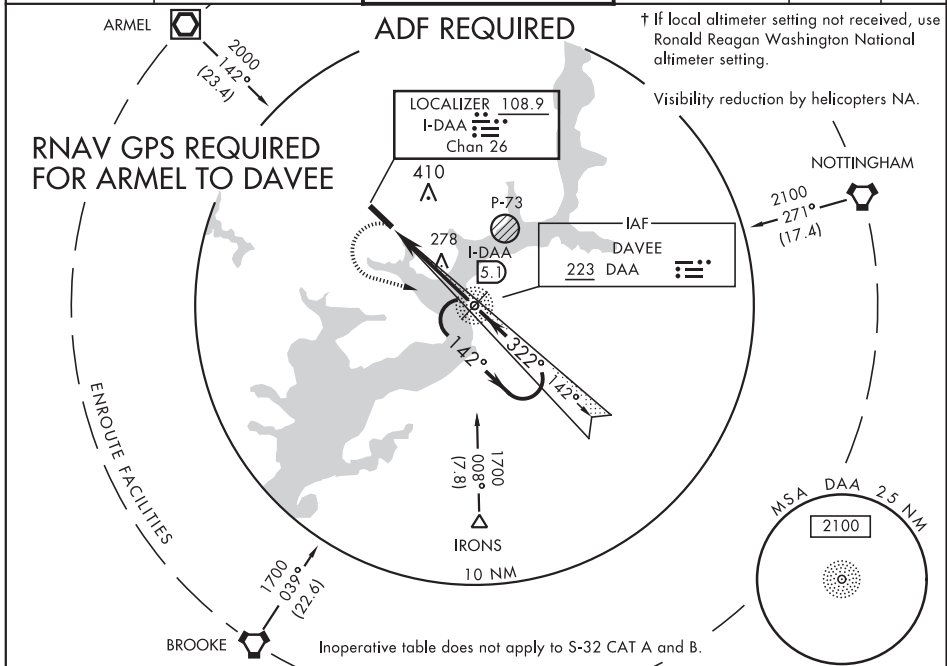


FORT BELVOIR, VIRGINIA

# ILS or LOC RWY 32

LOC/DME I-DAA <b>108.9</b> Chan <b>26</b>	APCH CRS <b>322°</b>	Rwy ldg <b>4519</b> TDZE <b>66</b> Arpt Elev <b>73</b>	AL-5504 [USA]	DAVISON AAF (KDA)
▼ * When ALS inop, increase CAT D vis to 1½ miles. ** When ALS inop, increase CAT C vis to 1½ miles, CAT D vis to 1¾ miles.			MALSF 	MISSED APPROACH: Climb to 800, then climbing left turn to 1700 direct DAA NDB and hold; or when directed by ATC, climb to 800, then climbing left turn to 2000 hdg 190° within 10 NM, expect radar vectors.

ATIS <b>128.175</b>	POTOMAC APP CON <b>118.95 319.1</b>	DAVISON TOWER ★ <b>126.3 (CTAF) 0229.4</b>	GND CON <b>121.9 245.2</b>	CLNC DEL <b>245.2</b>	PAR
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CATEGORY	A	B	C	D
S-ILS 32		346/50	280 (300-1)	
S-LOC 32*	540/50	474 (500-1)		540/60 474 (500-1½)
CIRCLING	740-1	667 (700-1)	740-1¾ 667 (700-1¾)	760-2¼ 687 (700-2¼)
† RONALD REAGAN WASHINGTON NATIONAL ALTIMETER SETTING MINIMUMS				
S-ILS 32		379/50	313 (400-1)	
S-LOC 32**	580/50	514 (600-1)	580/60 514 (600-1½)	580-1½ 514 (600-1½)
CIRCLING	780-1	707 (800-1)	780-2 707 (800-2)	800-2¼ 727 (800-2¼)

ELEV 73	TDZE 66
Rwy 14 ldg 4931' Rwy 32 ldg 4519'	

HIRL Rwy 14-32				
FAF to MAP 4.3 NM				
Knots	60	90	120	150
Min:Sec	4:18	2:52	2:09	1:43
			1:26	

FORT BELVOIR, VIRGINIA      38°43'N-77°11'W      DAVISON AAF (KDA)

Amdt 12A 10JAN13

# ILS or LOC RWY 32

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

FORT BELVOIR, VIRGINIA

# RNAV (GPS) RWY 14

APCH CRS <b>142°</b>	Rwy ldg TDZE Arprt Elev	<b>4931</b> <b>52</b> <b>73</b>
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AL-5504 [USA]

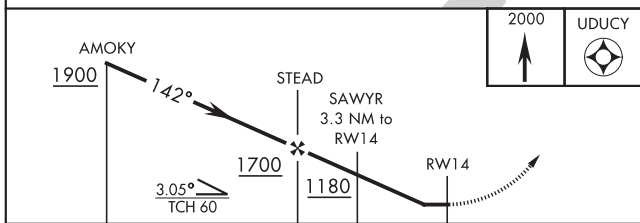
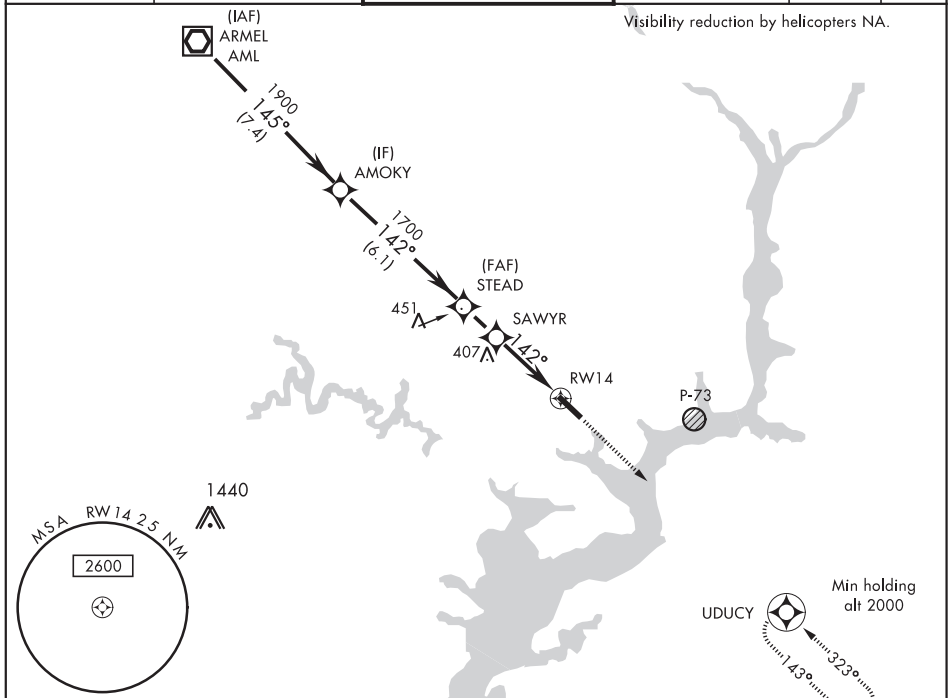
DAVISON AAF (KDAV)

**▼** \* If local altimeter setting not received, use Ronald Reagan Washington National altimeter setting.  
DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 2000 direct UDUY and hold.

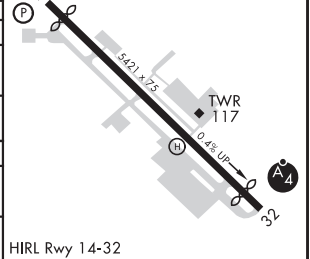
ATIS <b>128.175</b>	POTOMAC APP CON <b>118.95 319.1</b>	DAVISON TOWER ★ <b>126.3 (CTAF) 0 229.4</b>	GND CON <b>121.9 245.2</b>	CLNC DEL <b>245.2</b>	PAR
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Visibility reduction by helicopters NA.



ELEV	73	TDZE	52
142° to RWY 14		Rwy 14 ldg 4931' Rwy 32 ldg 4519'	

CATEGORY	A	B	C	D
RNAV MDA	660-1 608 (700-1)		660-1¾ 608 (700-1¾)	660-2 608 (700-2)
CIRCLING	740-1 667 (700-1)		740-1¾ 667 (700-1¾)	760-2¼ 687 (700-2¼)
* RONALD REAGAN WASHINGTON NATIONAL ALTIMETER SETTING MINIMUMS				
RNAV MDA	700-1 648 (700-1)		700-2 648 (700-2)	
CIRCLING	780-1 707 (800-1)		780-2 707 (800-2)	800-2¼ 727 (800-2¼)



FORT BELVOIR, VIRGINIA  
Amdt 2 16315

38°43'N-77°11'W

DAVISON AAF (KDAV)

# RNAV (GPS) RWY 14

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

FORT BELVOIR, VIRGINIA

# RNAV (GPS) RWY 32

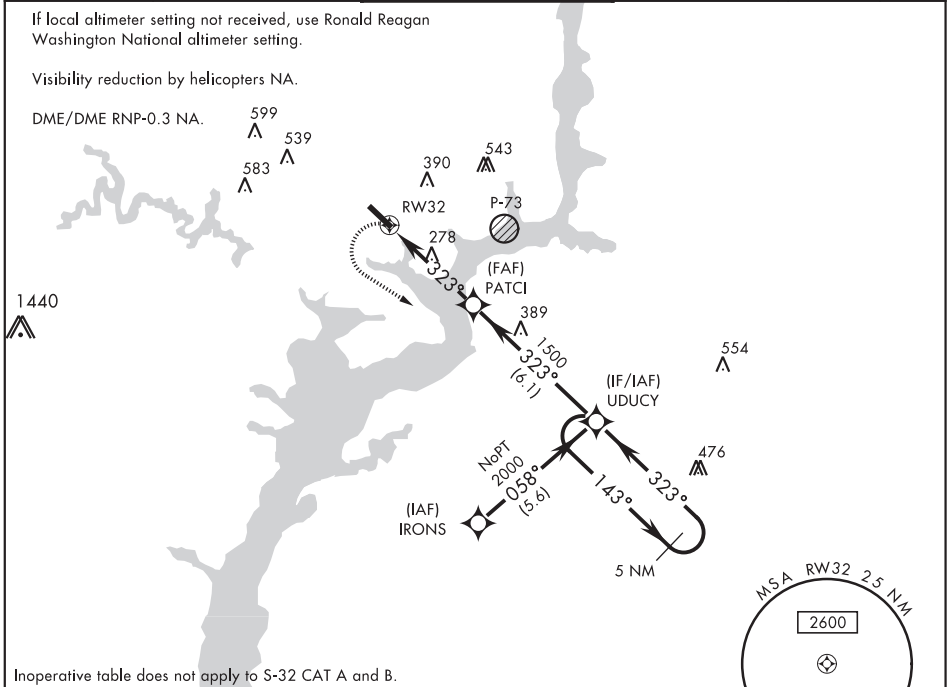
APCH CRS	Rwy Idg	4519
323°	TDZE	66
	Arpt Elev	73

AL-5504 [USA]

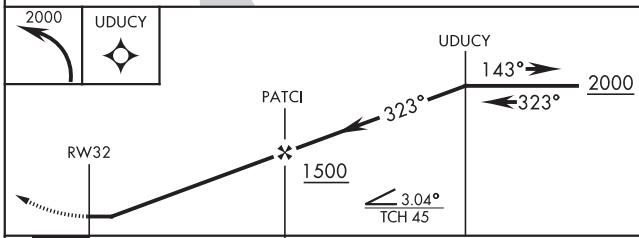
DAVISON AAF (KDA)

<p>▼</p> <p>* When ALS inop, increase CAT D vis to 1½ miles.                  ** When ALS inop, increase CAT C vis to 1½ miles, and CAT D to 1¾ miles.</p>	<p>MAISF</p>	<p>MISSED APPROACH: Climbing left turn to 2000 direct UDUY and hold.</p>

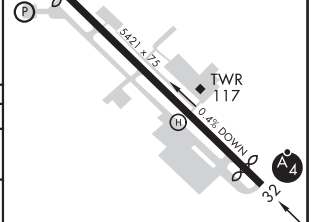
ATIS	POTOMAC APP CON	DAVISON TOWER ★	GND CON	CLNC DEL	PAR
128.175	118.95 319.1	126.3 (CTAF) 0 229.4	121.9 245.2	245.2	



Inoperative table does not apply to S-32 CAT A and B.



ELEV 73	TDZE 66
Rwy 14 Idg 4931'	
Rwy 32 Idg 4519'	



CATEGORY	A	B	C	D
LNAV MDA *	540/50 474 (500-1)			540/60 474 (500-1¼)
CIRCLING	740-1 667 (700-1)		740-1¾ 667 (700-1¾)	760-2¼ 687 (700-2¼)
RONALD REAGAN WASHINGTON NATIONAL ALTIMETER SETTING MINIMUMS				
LNAV MDA **	580/50 514 (600-1)		580/60 514 (600-1¼)	580-1½ 514 (600-1½)
CIRCLING	780-1 707 (800-1)		780-2 707 (800-2)	800-2¼ 727 (800-2¼)

HIRL Rwy 14-32

FORT BELVOIR, VIRGINIA

38° 43'N-77° 11'W

DAVISON AAF (KDA)

Amdt 1 16315

# RNAV (GPS) RWY 32

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

FORT BELVOIR, VIRGINIA

# NDB RWY 32

DAVISON AAF (KDAV)

NDB DAA <b>223</b>	APCH CRS <b>323°</b>	Rwy ldg TDZE Arprt Elev <b>4519</b> <b>66</b> <b>73</b>
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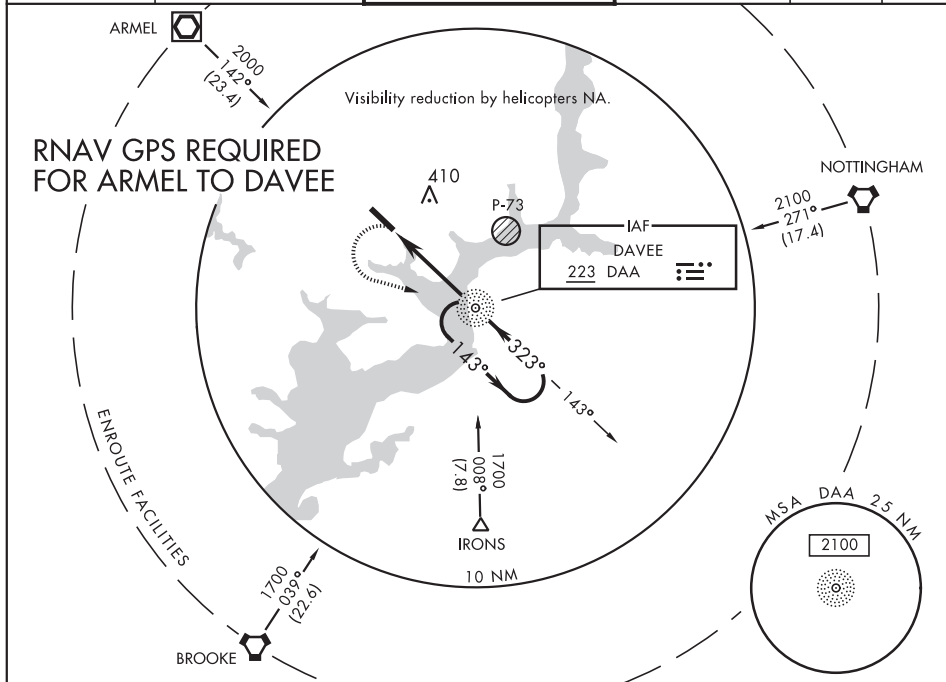
AL-5504 [USA]

▼ \* When ALS inop, increase CAT D vis to 2 1/4 miles.  
 \*\* If local altimeter setting not received, use Ronald Reagan Washington National altimeter setting.



MISSED APPROACH: Climb to 800 then climbing left turn to 1700 direct DAA NDB and hold.

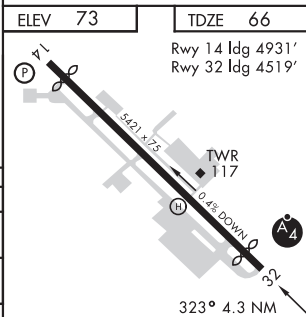
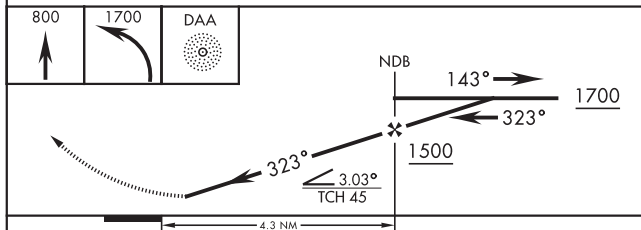
ATIS <b>128.175</b>	POTOMAC APP CON <b>118.95 319.1</b>	DAVISON TOWER ★ <b>126.3 (CTAF) 0 229.4</b>	GND CON <b>121.9 245.2</b>	CLNC DEL <b>245.2</b>	PAR
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

Inoperative table does not apply to S-32 CAT A and B.



CATEGORY	A		B		C		D	
	1	2	1	2	1	2	1	2
S-32 *	740	50	674	(700-1)	740-1 3/4	674 (700-1 3/4)	740-2	674 (700-2)
CIRCLING	740-1	667	(700-1)		740-1 3/4	667 (700-1 3/4)	760-2 1/4	687 (700-2 1/4)
** RONALD REAGAN WASHINGTON NATIONAL ALTIMETER SETTING MINIMUMS								
S-32 *	780	50	714	(800-1)	780-1 3/4	714 (800-1 3/4)	780-2	714 (800-2)
CIRCLING	780-1	707	(800-1)		780-1 3/4	707 (800-1 3/4)	800-2 1/4	727 (800-2 1/4)

ELEV	73	TDZE	66
Rwy 14 ldg 4931' Rwy 32 ldg 4519'			
HIRL Rwy 14-32			
FAF to MAP 4.3 NM			
Knots	60	90	120 150 180
Min:Sec	4:18	2:52	2:09 1:43 1:26

FORT BELVOIR, VIRGINIA  
Amdt 12A 10JAN13

38°43'N-77°11'W

DAVISON AAF (KDAV)

# NDB RWY 32

# CLTCH ONE DEPARTURE (RNAV)

**TOP ALTITUDE:**  
**3000**

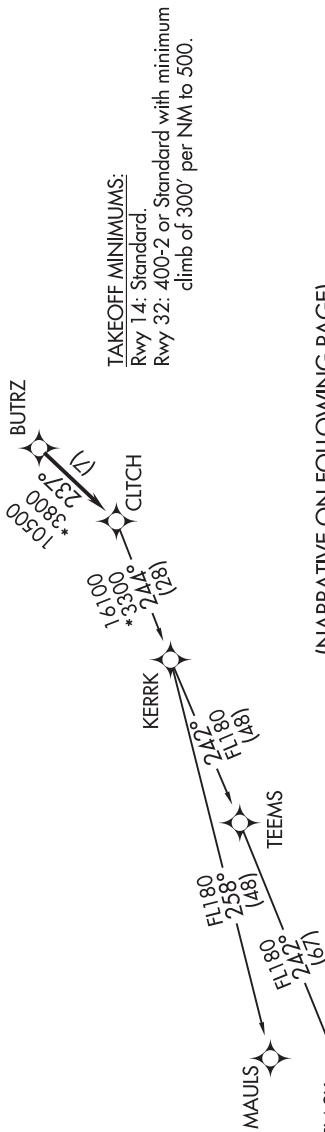
P-568

P-56A



ATIS 128.175  
CLNC DEL 245.2  
GND CON 121.9 245.2  
DAVISON TOWER★ 126.3 (CTAF) 229.4  
POTOMAC DEP CON 118.95 257.2

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



(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

## CLTCH ONE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

Climb on heading assigned by ATC, expect RADAR vectors to BUTRZ, then on track 237° to CLTCH, thence....

....on assigned transition. Maintain altitude assigned by ATC, Expect clearance to filed altitude within ten (10) minutes after departure.

FLASK TRANSITION (CLTCH1.FLASK)

MAULS TRANSITION (CLTCH1.MAULS)

TAKEOFF OBSTACLE NOTES

- Rwy 14: Trees 190' from DER, 492' left of centerline, 129' MSL.  
Trees 1126' from DER, 595' right of centerline, 157' MSL.  
Trees beginning 1318' from DER, 660' right of centerline, up to 181' MSL.  
Trees 3102' from DER, 846' right of centerline, 192' MSL.
- Rwy 32: General Utilities beginning 138' from DER, 519' right of centerline, up to 28' AGL/75' MSL.  
Trees 348' from DER, 455' right of centerline, 100' MSL.  
Trees 889' from DER 560' left of centerline, 141' MSL.  
Trees 941' from DER, 293' left of centerline, 142' MSL.  
Trees 1897' from DER, 600' left of centerline, 155' MSL.  
Pole 2090' from DER, 741' right of centerline, 35' AGL/132'MSL.  
Trees 2100' from DER, 650' left of centerline, 155' MSL.  
T-L towers beginning 1 NM from DER, 323' right of centerline, up to 108' AGL/243' MSL  
Trees 1.1 NM from DER, 1749' left of centerline, 307' MSL.  
Trees 1.2 NM from DER, 1692' left of centerline, 308' MSL.  
T-L towers beginning 1.2 NM from DER 265' left of centerline, up to 85' AGL/308'MSL.  
Tower 1.4 NM from DER, 1883' right of centerline, 83' AGL/319' MSL.  
Tower 1.5 NM from DER, 1328' right of centerline, 149' AGL/375' MSL.

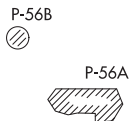
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# JDUBB ONE DEPARTURE (RNAV)

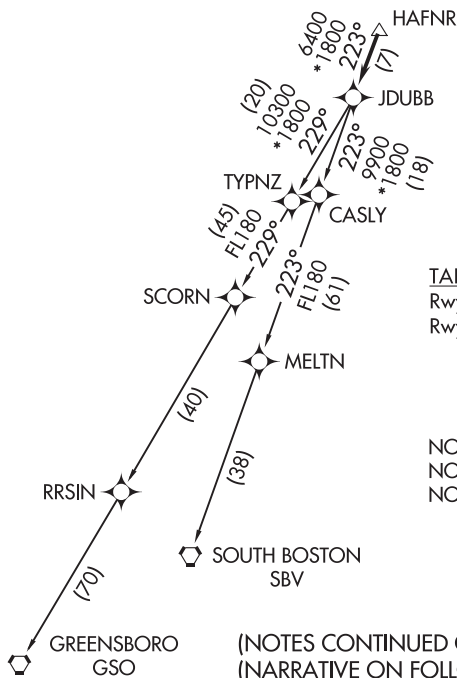
ATIS  
128.175  
CLNC DEL  
245.2  
GND CON  
121.9 245.2  
DAVISON TOWER ★  
126.3 (CTAF) 229.4  
POTOMAC DEP CON  
118.95 257.2

**TOP ALTITUDE:  
3000**



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



**TAKEOFF MINIMUMS:**

Rwy 14: Standard  
Rwy 32: 400-2 or standard with minimum climb of 300' per NM to 500.

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

(NOTES CONTINUED ON FOLLOWING PAGE)  
(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# JDUBB ONE DEPARTURE (RNAV)

(JDUBB1 .JDUBB) 31MAR16

FORT BELVOIR, VIRGINIA  
DAVISON AAF (DAA)

## JDUBB ONE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

Climb on heading assigned by ATC, expect RADAR vectors to HAFNR, then on track 223° to JDUBB, thence....

....on assigned transition, maintain altitude assigned by ATC, expect clearance to filed altitude within ten (10) minutes after departure.

GREENSBORO TRANSITION (JDUBB1.GSO)

SOUTH BOSTON TRANSITION (JDUBB1.SBV)

## TAKEOFF OBSTACLE NOTES

Rwy 14: Trees 190' from DER, 492' left of centerline, 129' MSL. Trees 1126' from DER, 595' right of centerline, 157' MSL. Trees beginning 1318' from DER, 660' right of centerline, up to 181' MSL. Trees 3102' from DER, 846' right of centerline, 192' MSL.

Rwy 32: Gen utilities beginning 138' from DER, 519' right of centerline, up to 28' AGL/75' MSL. Trees 348' from DER, 455' right of centerline, 100' MSL. Trees 889' from DER, 560' left of centerline, 141' MSL. Trees 941' from DER, 293' left of centerline, 142' MSL. Trees 1897' from DER, 600' left of centerline, 155' MSL. Pole 2090' from DER, 741' right of centerline, 35' AGL/132' MSL. Trees 2100' from DER, 650' left of centerline, 155' MSL. T-L towers beginning 1 NM from DER, 323' right of centerline, up to 108' AGL/243' MSL. Trees 1.1 NM from DER, 1749' left of centerline, 307' MSL. Trees 1.2 NM from DER, 1692' left of centerline, 308' MSL. T-L towers beginning 1.2 NM from DER, 265' left of centerline, up to 85' AGL/308' MSL. Tower 1.4 NM from DER, 1883' right of centerline, 83' AGL/319' MSL. Tower 1.5 NM from DER, 1328' right of centerline, 149' AGL/375' MSL.





## SCRAM THREE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

Climb on heading assigned by ATC, expect RADAR vectors to POOCH, then on track 238° to SCRAM, thence....

...on LYNCHBURG transition, maintain altitude assigned by ATC, expect clearance to filed altitude within ten (10) minutes after departure.

LYNCHBURG TRANSITION (SCRAM3.LYH):

## TAKEOFF OBSTACLE NOTES:

Rwy 14: Trees 190' from DER, 492' left of centerline, 129' MSL. Trees 1126' from DER, 595' right of centerline, 157' MSL. Trees beginning 1318' from DER, 660' right of centerline, up to 181' MSL. Trees 3102' from DER, 846' right of centerline, 192' MSL.

Rwy 32: Gen utilities beginning 138' from DER, 519' right of centerline, up to 28' AGL/75' MSL. Trees 348' from DER, 455' right of centerline, 100' MSL. Trees 889' from DER, 560' left of centerline, 141' MSL. Trees 941' from DER, 293' left of centerline, 142' MSL. Trees 1897' from DER, 600' left of centerline, 155' MSL. Pole 2090' from DER, 741' right of centerline, 35' AGL/132' MSL. Trees 2100' from DER, 650' left of centerline, 155' MSL. T-L towers beginning 1 NM from DER, 323' right of centerline, up to 108' AGL/243' MSL. Trees 1.1 NM from DER, 1749' left of centerline, 307' MSL. Trees 1.2 NM from DER, 1692' left of centerline, 308' MSL. T-L towers beginning 1.2 NM from DER, 265' left of centerline, up to 85' AGL/308' MSL. Tower 1.4 NM from DER, 1883' right of centerline, 83' AGL/391' MSL. Tower 1.5 NM from DER, 1328' right of centerline, 149' AGL/375' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



DOVER, DELAWARE

# ILS or LOC RWY 19

LOC I-LIR <b>111.9</b>	APCH CRS <b>195°</b>	Rwy ldg <b>9602</b> TDZE <b>23</b> Arprt Elev <b>29</b>
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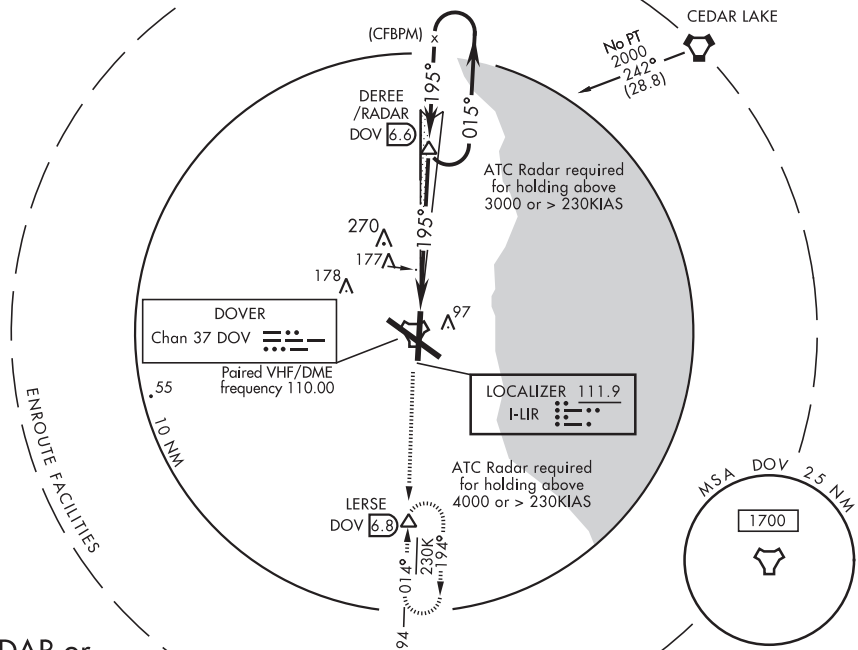
AL-562 [USAF]

DOVER AFB (KDOV)

ALSF-1 MISSED APPROACH: Climb to 2000 via DOV TACAN R-194 to LERSE/DOV 6.8 DME and hold.

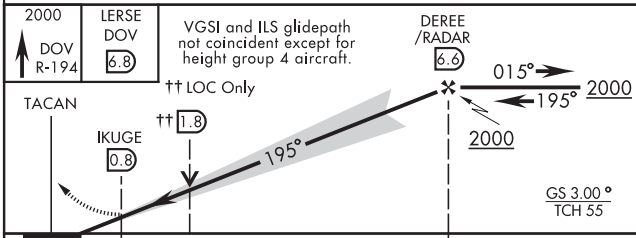
ATIS <b>135.05 273.5</b>	DOVER APP CON <b>132.425 257.875</b>	DOVER TOWER <b>126.35 279.625</b>	GND CON <b>118.875 225.4</b>	CLNC DEL <b>125.55 289.4</b>
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\*\*\* Circling not authorized SW rwy 1 and rwy 14.  
 † RVR of 18 authorized with use of FD or AP or HUD to DA.



## RADAR or DME REQUIRED

EMERG SAFE ALT 100 NM 4300



ELEV 29	TDZE 23
---------	---------

Rwy 14 ldg 8652'

195° 5.9 NM from FAF

61

12,903 x 150

051 (600)

TWR 138

198

32

TDZL/CL Rwy 1

REIL Rwy 32

HIRL all Rwys

FAF to MAP 5.8 NM

Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

CATEGORY	A	B	C	D	E
S-ILS 19 * †	223/24		200	(200-½)	
S-LOC 19 **	460/24	437 (500-½)	460/40 437 (500-¾)		
*** CIRCLING	480-1 452 (500-1)	520-1 492 (500-1)	520-1 ½ 492 (500-1 ½)	580-2 552 (600-2)	1000-3 972 (1000-3)

DOVER, DELAWARE  
Orig 13OCT16

39°08'N-75°28'W

DOVER AFB (KDOV)

# ILS or LOC RWY 19

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

DOVER, DELAWARE

# RNAV (GPS) RWY 32

DOVER AFB (KDOV)

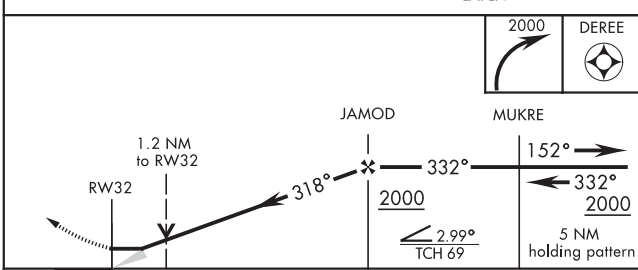
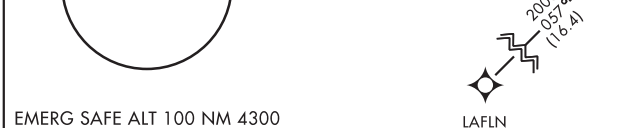
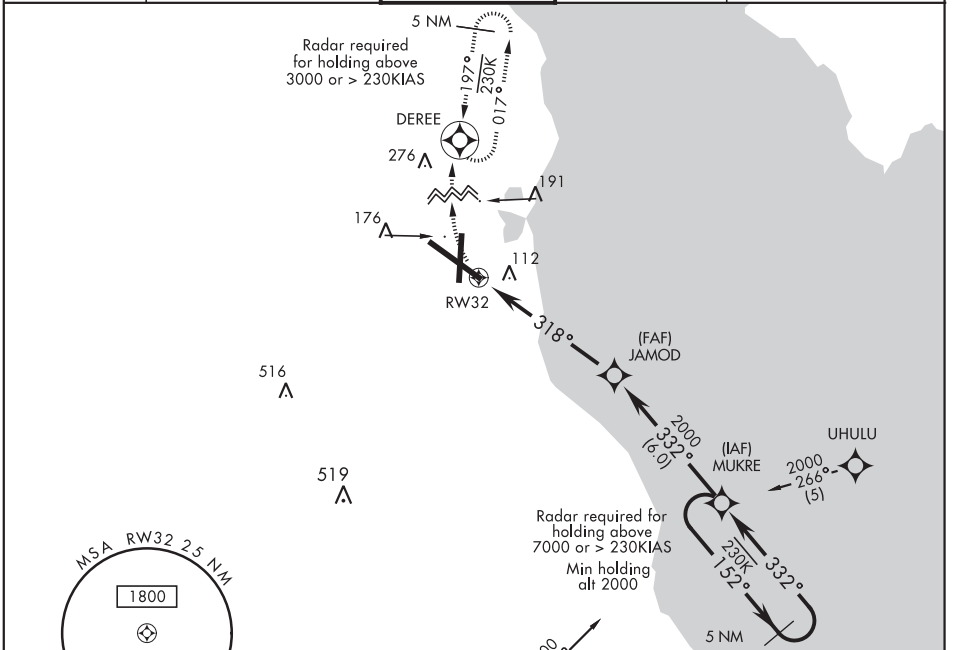
AL-562 [USAF]

APCH CRS <b>318°</b>	Rwy ldg <b>12,903</b> THRE <b>26</b> Arpt Elev <b>29</b>
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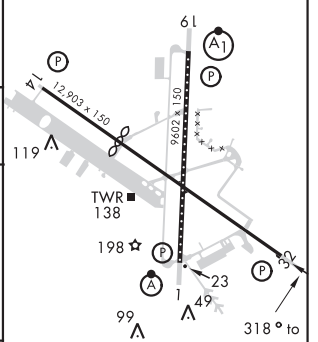
\* Circling not authorized SW of Rwy 1-14.  
DME/DME RNP-0.3 NA.

MISSED APPROACH: Climbing right turn to 2000 direct DEREÉ and hold.

ATIS <b>135.05 273.5</b>	DOVER APP CON <b>132.425 257.875</b>	DOVER TOWER <b>126.35 279.625</b>	GND CON <b>118.875 225.4</b>	CLNC DEL <b>125.55 289.4</b>
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ELEV 29	THRE 26
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CATEGORY	A	B	C	D	E
LNAV MDA	460-1	434 (500-1)	460-1 1/4	434 (500-1 1/4)	
CIRCLING*	480-1 452 (500-1)	520-1 492 (500-1)	520-1 1/2 492 (500-1 1/2)	580-2 552 (600-2)	1100-3 1072 (1100-3)

TDZL/CL Rwy 1  
REIL Rwy 32  
HIRL all Rwy

DOVER, DELAWARE

39°08'N-75°28'W

DOVER AFB (KDOV)

Amdt 2 04FEB16

# RNAV (GPS) RWY 32

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017









# AIRPORT DIAGRAM

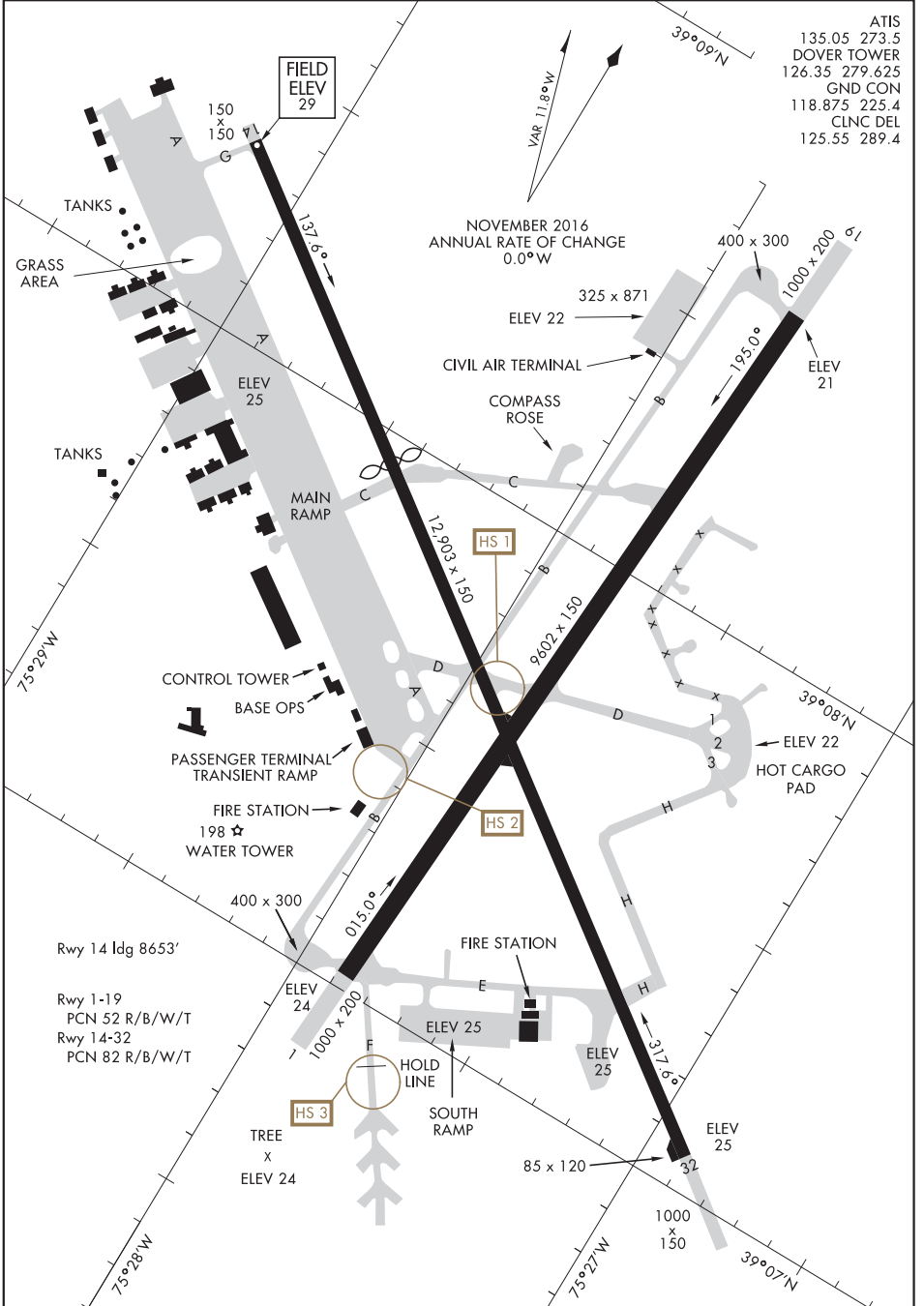
AFD-562 [USAF]

DOVER AFB (KDOV)

DOVER, DELAWARE

ATIS 135.05 273.5  
 DOVER TOWER 126.35 279.625  
 GND CON 118.875 225.4  
 CLNC DEL 125.55 289.4

NOVEMBER 2016  
 ANNUAL RATE OF CHANGE  
 0.0° W



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

DOVER, DELAWARE

DOVER AFB (KDOV)

14121

# SEA ISLE-FIVE DEPARTURE (SIE5•SIE)

SHL-562 [USAF]

DOVER AFB (KDOV)

DOVER, DELAWARE

ATIS 135.05 273.5  
 CLNC DEL  
 125.55 289.4  
 GND CON  
 118.875 225.4  
 DOVER TOWER  
 126.35 279.625  
 DOVER DEP CON  
 323.0  
 WASHINGTON CENTER  
 127.7 285.4  
 DOVER APP CON  
 132.425 257.875  
 DOVER RADAR  
 125.9 359.3

**HAMPTON**  
 113.6 HTO  
 Chan 83  
 L-33-34, H-10

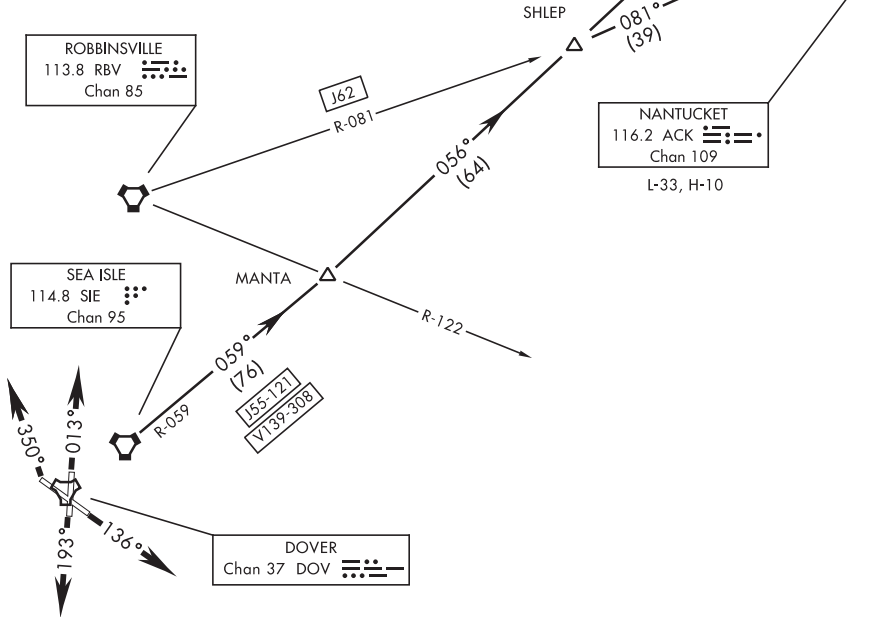
**ROBBINSVILLE**  
 113.8 RBV  
 Chan 85

**SEA ISLE**  
 114.8 SIE  
 Chan 95

**J62-79**  
 (83)

**NANTUCKET**  
 116.2 ACK  
 Chan 109  
 L-33, H-10

**DOVER**  
 Chan 37 DOV



RWY 32 TODA 10,070'

NOTE: Chart not to scale

**RADAR REQUIRED**

## DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 1: Climb on a track of 013° for radar vectors to SIE VORTAC. Thence...

TAKE-OFF RWY 14: Climb on a track of 136° for radar vectors to SIE VORTAC. Thence...

TAKE-OFF RWY 19: Climb on a track of 193° for radar vectors to SIE VORTAC. Thence...

TAKE-OFF RWY 32: Climb on a track of 350° for radar vectors to SIE VORTAC. Thence...

Via (Transition) or (Assigned Route).

HAMPTON TRANSITION: (SIE5•HTO) Via SIE R-059 and HTO VORTAC R-236 to HTO.

NANTUCKET TRANSITION: (HIGH ALT ONLY) (SIE5•ACK) Via SIE R-059, HTO VORTAC R-236 and J62 to ACK VOR/DME.

# SEA ISLE-FIVE DEPARTURE (SIE5•SIE)

DOVER, DELAWARE  
DOVER AFB (KDOV)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>3232</b>
<b>085°</b>	TDZE	<b>55</b>
	Apt Elev	<b>55</b>

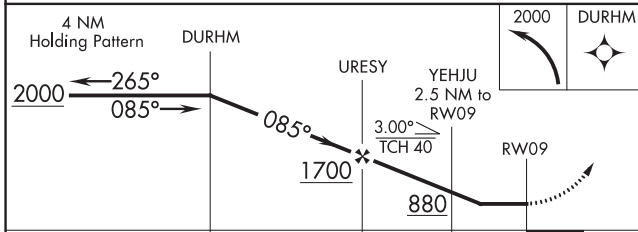
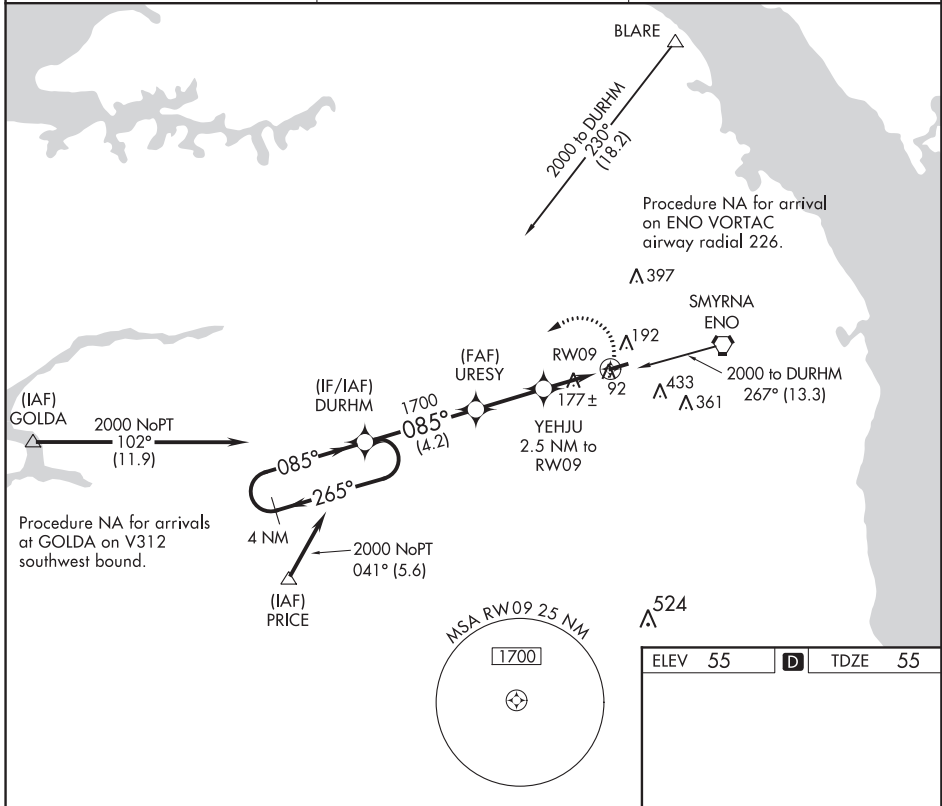
# RNAV (GPS) RWY 9

DOVER/ DELAWARE AIRPARK (33N)

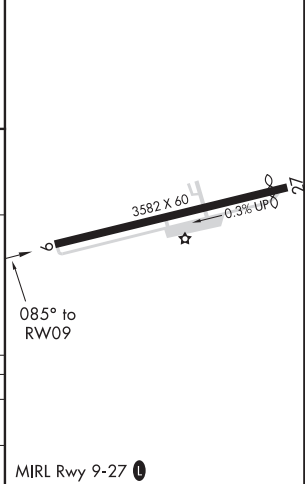
**▽** Use Dover AFB altimeter setting. DME/DME RNP-0.3 NA.  
**▲** NA Helicopter visibility reduction below 1 SM NA.  
 Procedure NA at night.

MISSED APPROACH: Climbing left turn to 2000 direct DURHM and hold.

DOVER APP CON <b>132.425 257.875</b>	CLNC DEL <b>125.55</b>	UNICOM <b>123.0 (CTAF)</b>
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ELEV 55	<b>D</b>	TDZE 55
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CATEGORY	A	B	C	D
LNVA MDA	460-1	405 (500-1)	460-1 1/8 405 (500-1 1/8)	NA
CIRCLING	580-1	525 (600-1)	820-2 1/4 765 (800-2 1/4)	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

DOVER/CHESWOLD, DELAWARE

AL-5365 (FAA)

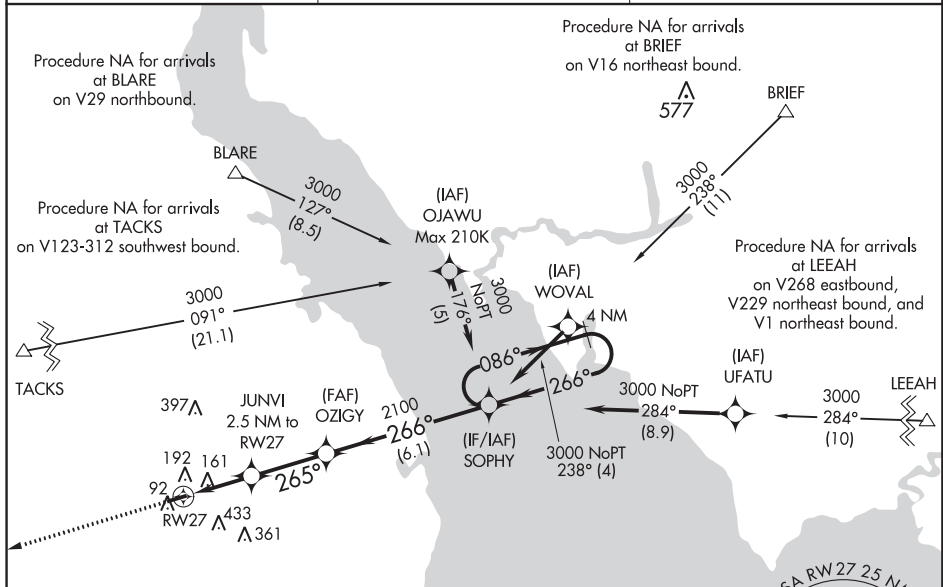
15148

WAAS CH <b>48829</b> <b>W27A</b>	APP CRS <b>265°</b>	Rwy Idg TDZE Apt Elev	<b>3232</b> <b>55</b> <b>55</b>
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**RNAV (GPS) RWY 27**  
DOVER/ DELAWARE AIRPARK (33N)

**▼** Use Dover AFB altimeter setting. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. Procedure NA at night.  
**▲** NA MISSED APPROACH: Climb to 2000 direct DURHM and hold.

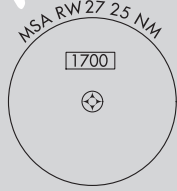
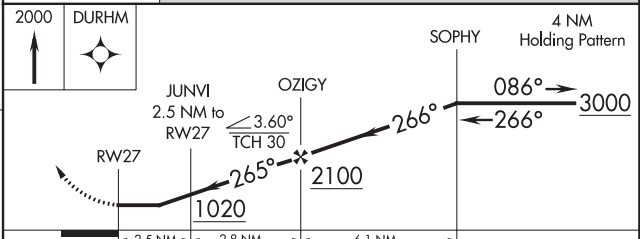
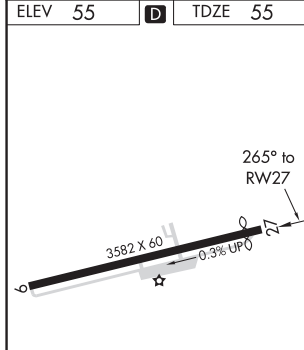
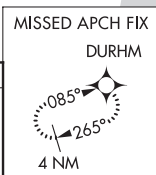
DOVER APP CON <b>132.425 257.875</b>	CLNC DEL <b>125.55</b>	UNICOM <b>123.0</b> (CTAF) <b>0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 55	<b>D</b>	TDZE 55
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CATEGORY	A	B	C	D
LP MDA	440-1	385 (400-1)	440-1 1/8 385 (400-1 1/8)	NA
LNAV MDA	480-1	425 (500-1)	480-1 1/4 425 (500-1 1/4)	NA
CIRCLING	580-1	525 (600-1)	820-2 1/4 765 (800-2 1/4)	NA

DOVER/CHESWOLD, DELAWARE  
Amdt 1B 28MAY15

39°13'N - 75°36'W

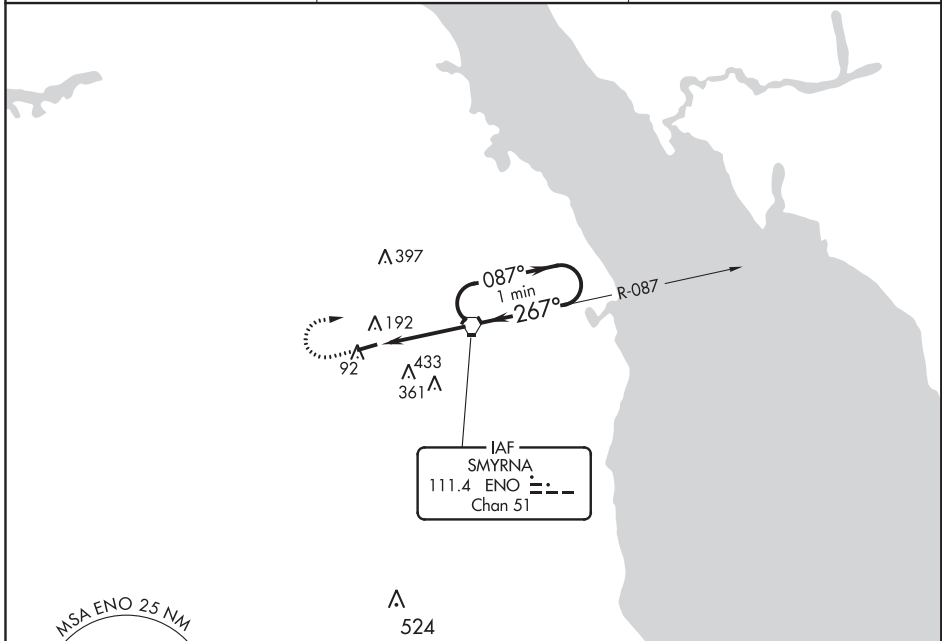
DOVER/ DELAWARE AIRPARK (33N)  
**RNAV (GPS) RWY 27**

VORTAC ENO <b>111.4</b> Chan <b>51</b>	APP CRS <b>267°</b>	Rwy Idg <b>3232</b> TDZE <b>55</b> Apt Elev <b>55</b>
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**VOR RWY 27**  
DOVER/DELAWARE AIRPARK (33N)

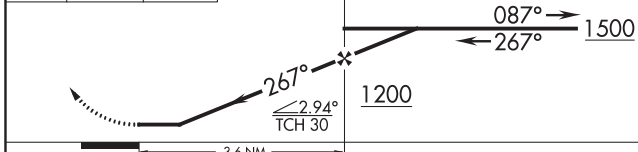
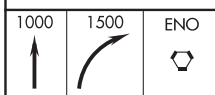
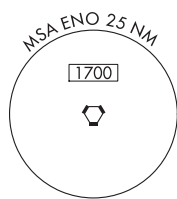
**▼** Use Dover AFB altimeter setting. Helicopter visibility reduction below 1 SM NA. Procedure NA at night.  
**▲** NA MISSED APPROACH: Climb to 1000 then climbing right turn to 1500 direct ENO VORTAC and hold.

DOVER APP CON <b>132.425 257.875</b>	CLNC DEL <b>125.55</b>	UNICOM <b>123.0</b> (CTAF) <b>📞</b>
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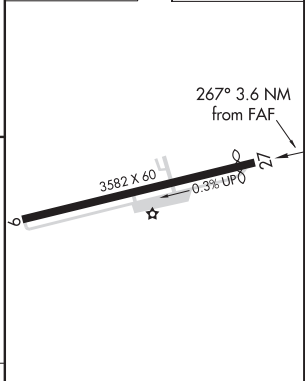


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 55	<b>D</b>	TDZE 55
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CATEGORY	A	B	C	D
S-27	520-1	465 (500-1)	520-1 $\frac{3}{8}$ 465 (500-1 $\frac{3}{8}$ )	NA
CIRCLING	580-1	525 (600-1)	820-2 $\frac{1}{4}$ 765 (800-2 $\frac{1}{4}$ )	NA

MIRL Rwy 9-27 <b>📞</b>	FAF to MAP 3.6 NM				
Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12



LOC I-PSK <b>110.9</b>	APP CRS <b>058°</b>	Rwy Idg TDZE Apt Elev	<b>6201</b> <b>2105</b> <b>2105</b>
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# ILS or LOC Z RWY 6

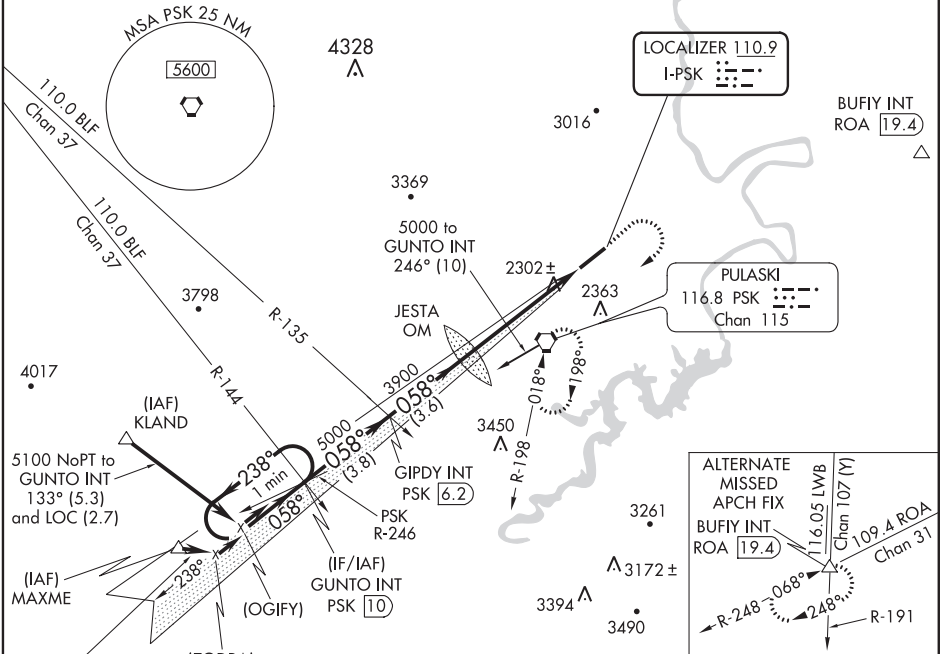
DUBLIN/ NEW RIVER VALLEY (PSK)

Visibility reduction by helicopters NA. When local altimeter setting not received, use Blacksburg altimeter setting and increase all DA 36 feet, and all MDA 40 feet. Inoperative table does not apply to S-ILS 6 all Cats. and S-LOC 6 Cats. A and B. For inoperative MALSR, increase S-LOC 6 Cat. C visibility to 1 1/4 mile.

**MALSR**  
A5

**MISSED APPROACH:** Climb to 3000 then climbing right turn to 5000 direct PSK VORTAC and hold.

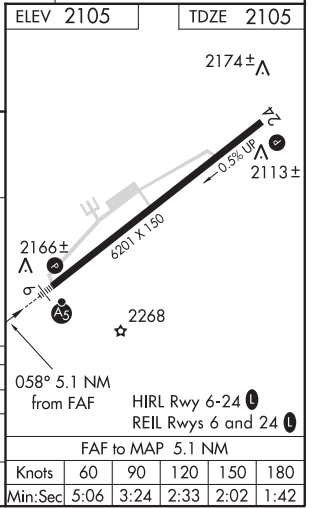
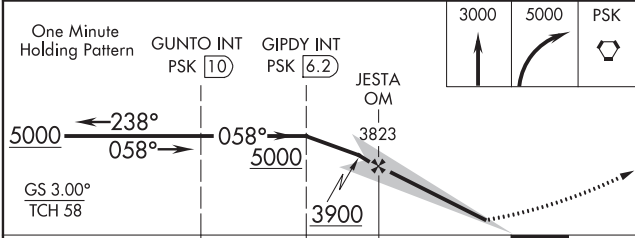
AWOS-3 <b>127.375</b>	ROANOKE APP CON <b>126.0 339.8</b>	ROANOKE CLNC DEL <b>121.7</b>	UNICOM <b>122.7 (CTAF)</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 2105	TDZE 2105
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CATEGORY	A	B	C	D
S-ILS 6		2305-1	200 (200-1)	
S-LOC 6		2560-1	455 (500-1)	
CIRCLING	2620-1	515 (600-1)	2620-1 1/2 515 (600-1 1/2)	2680-2 575 (600-2)

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

DUBLIN, VIRGINIA

AL-5084 (FAA)

11181

WAAS CH <b>87015</b> <b>W06A</b>	APP CRS <b>058°</b>	Rwy Idg <b>6201</b> TDZE <b>2105</b> Apt Elev <b>2105</b>
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# RNAV (GPS) RWY 6

DUBLIN/ NEW RIVER VALLEY (PSK)

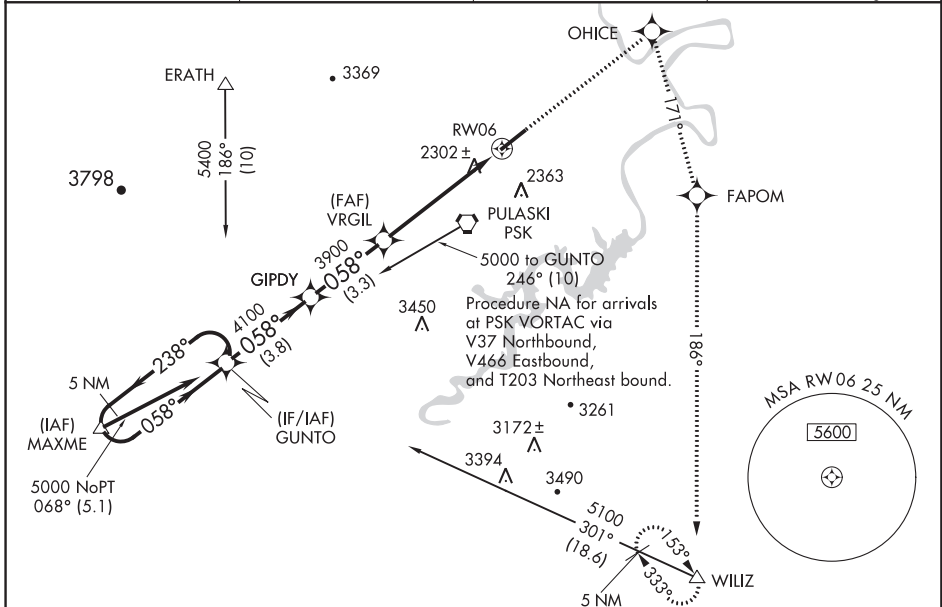
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

▼ When local altimeter setting not received, use Blacksburg altimeter setting and increase all DA 36 feet, and all MDA 40 feet. VDP and Baro-VNAV NA when using Blacksburg altimeter setting. Inoperative table does not apply to LPV all Cats and LNAV Cats. A and B. For inoperative MALSRS, increase LNAV Cat C visibility to 1 1/4 mile.

MALSRS **A5**

MISSED APPROACH: Climb to 6000 direct OHICE and right turn via track 171° to FAPOM and via track 186° to WILIZ and hold.

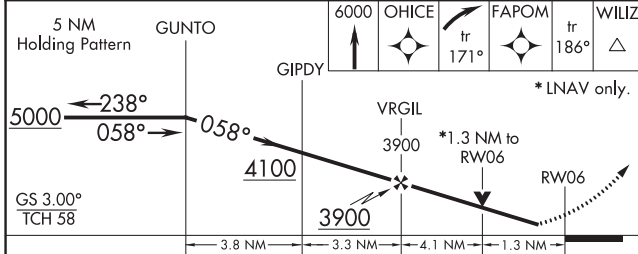
AWOS-3 <b>127.375</b>	ROANOKE APP CON <b>126.0 339.8</b>	ROANOKE CLNC DEL <b>121.7</b>	UNICOM <b>122.7 (CTAF)</b>
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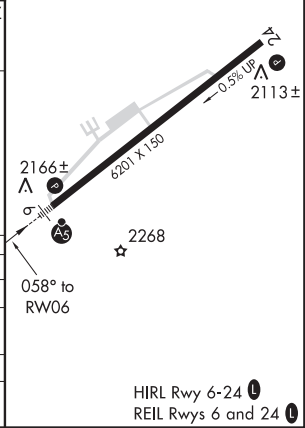
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 2105	TDZE 2105
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CATEGORY	A	B	C	D
LPV DA		2305-1	200 (200-1)	
LNAV/ VNAV DA		2597-1 1/4	492 (500-1 1/4)	
LNAV MDA		2560-1	455 (500-1)	
CIRCLING	2620-1	515 (600-1)	2620-1 1/2 515 (600-1 1/2)	2680-2 575 (600-2)



DUBLIN, VIRGINIA  
Orig 30JUN11

37°08'N - 80°41'W

DUBLIN/ NEW RIVER VALLEY (PSK)  
**RNAV (GPS) RWY 6**



WAAS CH <b>86227</b> <b>W24A</b>	APP CRS <b>238°</b>	Rwy Idg TDZE Apt Elev	<b>6201</b> <b>2087</b> <b>2105</b>
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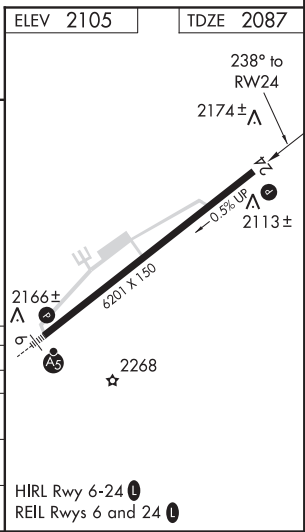
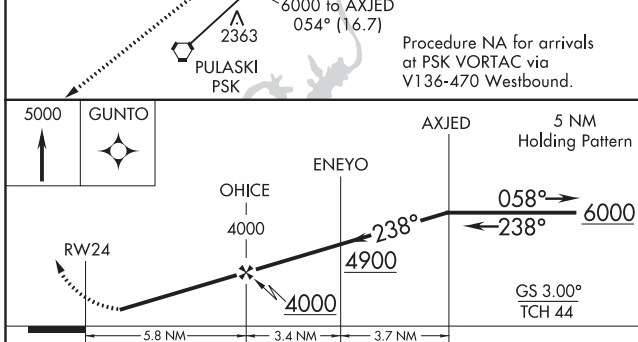
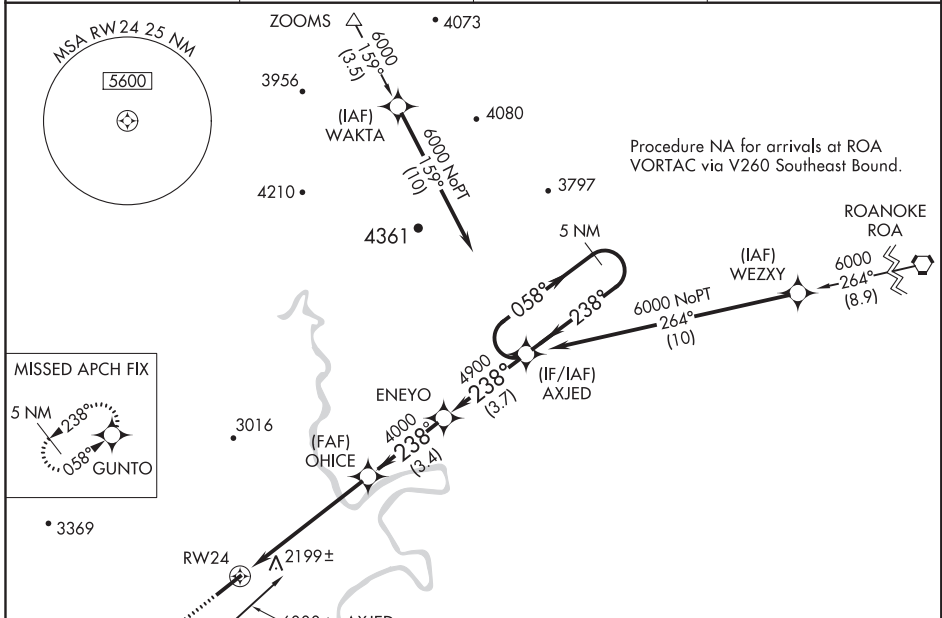
# RNAV (GPS) RWY 24

DUBLIN/ NEW RIVER VALLEY (PSK)

Baro-VNAV NA when using Blacksburg altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 45°C (113°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Blacksburg altimeter setting and increase all DA 36 feet, and all MDA 40 feet; increase LNAV/VNAV all Cats. and LNAV Cat. C visibility ¼ mile.

**MISSED APPROACH:**  
Climb to 5000 direct GUNTO and hold.

AWOS-3 <b>127.375</b>	ROANOKE APP CON <b>126.0 339.8</b>	ROANOKE CLNC DEL <b>121.7</b>	UNICOM <b>122.7 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LPV DA	2337-1 250 (300-1)			
LNAV/VNAV DA	2502-1½ 415 (400-1½)			
LNAV MDA	2460-1 373 (400-1)		2460-1¼ 373 (400-1¼)	
CIRCLING	2620-1 515 (600-1)		2620-1½ 515 (600-1½) 2680-2 575 (600-2)	

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

DUBLIN, VIRGINIA


AL-5084 (FAA)

11181

VORTAC PSK <b>116.8</b> Chan <b>115</b>	APP CRS <b>031°</b>	Rwy Idg <b>6201</b> TDZE <b>2105</b> Apt Elev <b>2105</b>
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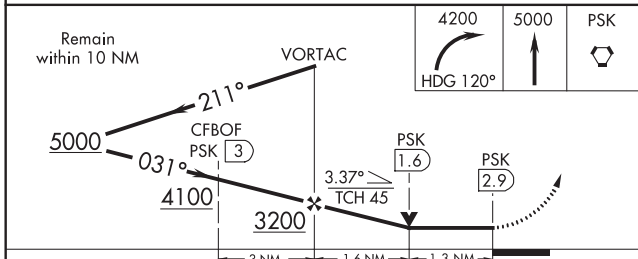
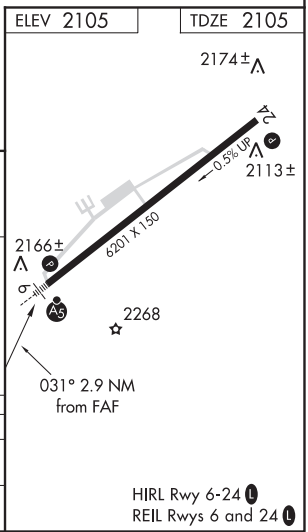
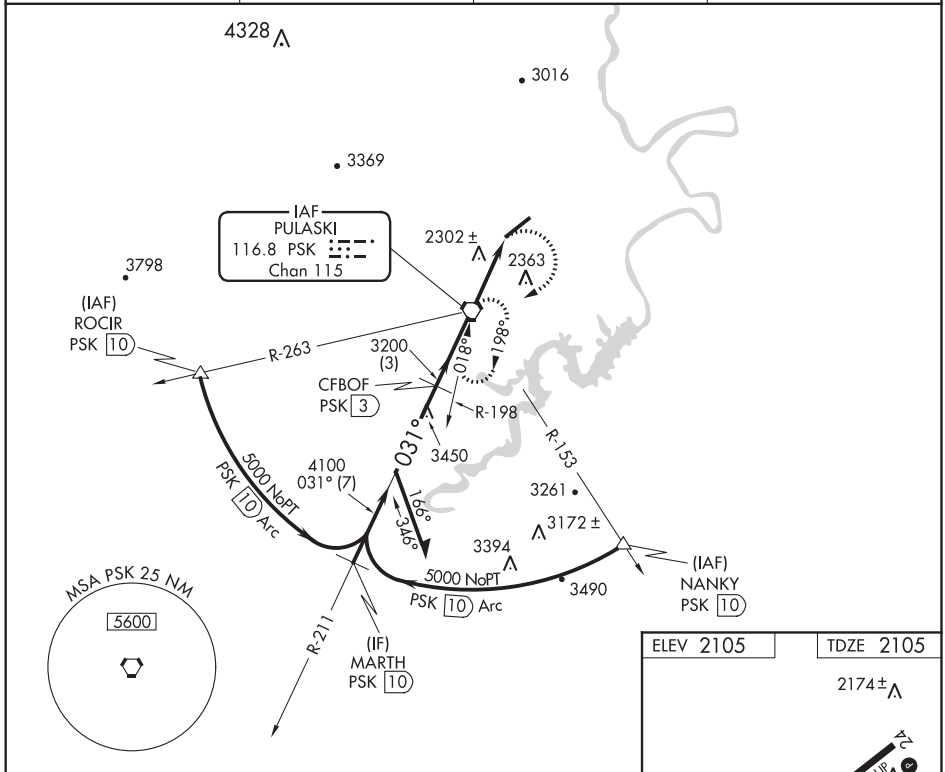
**VOR/DME RWY 6**  
DUBLIN/ NEW RIVER VALLEY (PSK)

**⚠** Inoperative table does not apply. Visibility reduction by helicopters NA. When local altimeter setting not received, use Blacksburg altimeter setting and increase all MDA 40 feet. VDP NA when using Blacksburg altimeter setting.

**MALSR** 

**MISSED APPROACH:** Climbing right turn to 4200 via heading 120° then climb to 5000 direct PSK VORTAC and hold.

AWOS-3 <b>127.375</b>	ROANOKE APP CON <b>126.0 339.8</b>	ROANOKE CLNC DEL <b>121.7</b>	UNICOM <b>122.7 (CTAF)</b>
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CATEGORY	A	B	C	D
S-6	2620-1 515 (600-1)		2620-1½ 515 (600-1½)	2620-1¾ 515 (600-1¾)
CIRCLING	2620-1 515 (600-1)		2620-1½ 515 (600-1½)	2680-2 575 (600-2)

DUBLIN, VIRGINIA  
Amdt 8 30JUN11

37°08'N - 80°41'W

DUBLIN/ NEW RIVER VALLEY (PSK)  
**VOR/DME RWY 6**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

HIRL Rwy 6-24  
REIL Rws 6 and 24

LOC/DME I-FGH <b>109.35</b> Chan <b>30 (Y)</b>	APP CRS <b>041°</b>	Rwy Idg <b>4775</b> TDZE <b>58</b> Apt Elev <b>72</b>
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# ILS or LOC/DME RWY 4

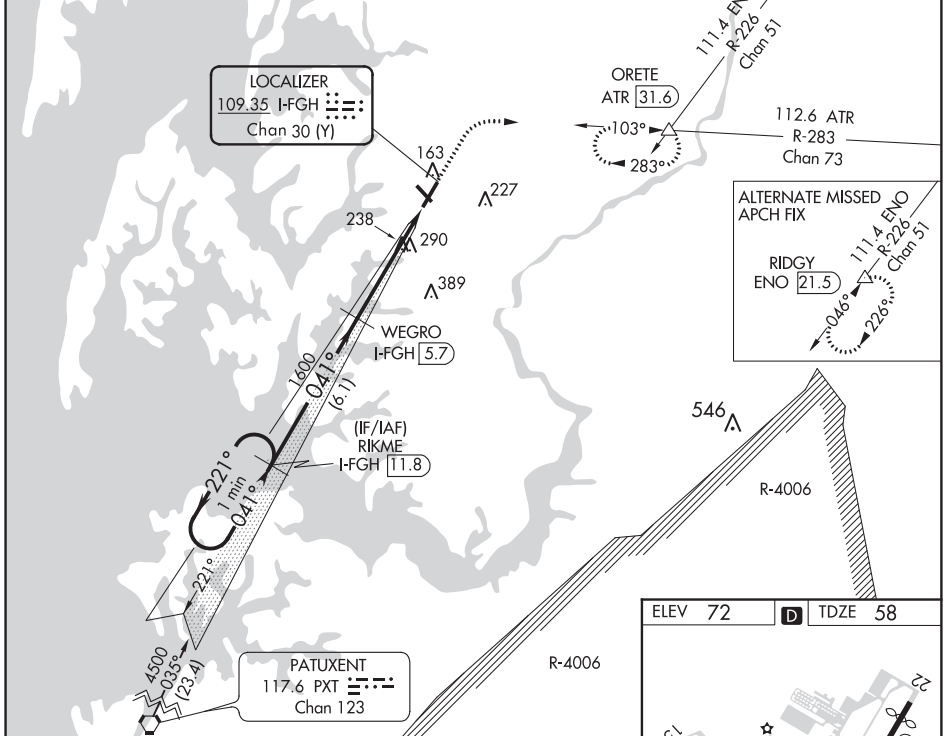
EASTON/NEWMAM FIELD (ESN)

**⚠** If local altimeter setting not received, use Baltimore-Washington Intl Thurgood Marshall altimeter setting and increase DA to 358 feet and all MDAs 100 feet.  
**⚠** VDP NA when using Baltimore-Washington Intl Thurgood Marshall altimeter setting.  
 Night landing: Rwy 15, 33 NA. AutoPilot coupled approach NA below 541.

MISSED APPROACH: Climb to 2000 via heading 041° and ATR VOR/DME R-283 to ORETE INT/ATR 31.6 DME and hold.

ATIS <b>124.475</b>	POTOMAC APP CON <b>133.75 254.35</b>	EASTON TOWER ★ <b>118.525 (CTAF) 0</b>	GND CON <b>119.075</b>	CLNC DEL <b>119.075</b> (Tower closed)	UNICOM <b>122.95</b>
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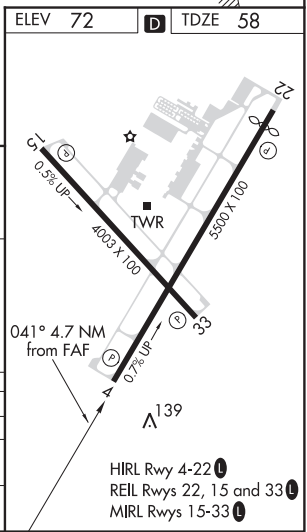
## DME REQUIRED



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

One Minute Holding Pattern	RIKME I-FGH <b>11.8</b>	2000	ATR 112.6 R-283	ORETE
GS 3.00° TCH 44	WEGRO I-FGH <b>5.7</b>	1600	hdg 041°	
	PATUXENT 117.6 PXT Chan 123	1600	I-FGH <b>2.5</b>	I-FGH <b>1</b>
		6.1 NM	3.2	1.5
CATEGORY	A	B	C	D
S-ILS 4		265- <sup>3</sup> / <sub>4</sub>	207 (200- <sup>3</sup> / <sub>4</sub> )	
S-LOC 4	540-1	482 (500-1)	540-1 <sup>1</sup> / <sub>4</sub> 482 (500-1 <sup>1</sup> / <sub>4</sub> )	540-1 <sup>1</sup> / <sub>2</sub> 482 (500-1 <sup>1</sup> / <sub>2</sub> )
CIRCLING	540-1	468 (500-1)	660-1 <sup>1</sup> / <sub>2</sub> 588 (600-1 <sup>1</sup> / <sub>2</sub> )	660-2 588 (600-2)



EASTON, MARYLAND

AL-5596 (FAA)

15232

WAAS CH <b>86905</b> <b>W04A</b>	APP CRS <b>040°</b>	Rwy Idg <b>4775</b> TDZE <b>58</b> Apt Elev <b>72</b>
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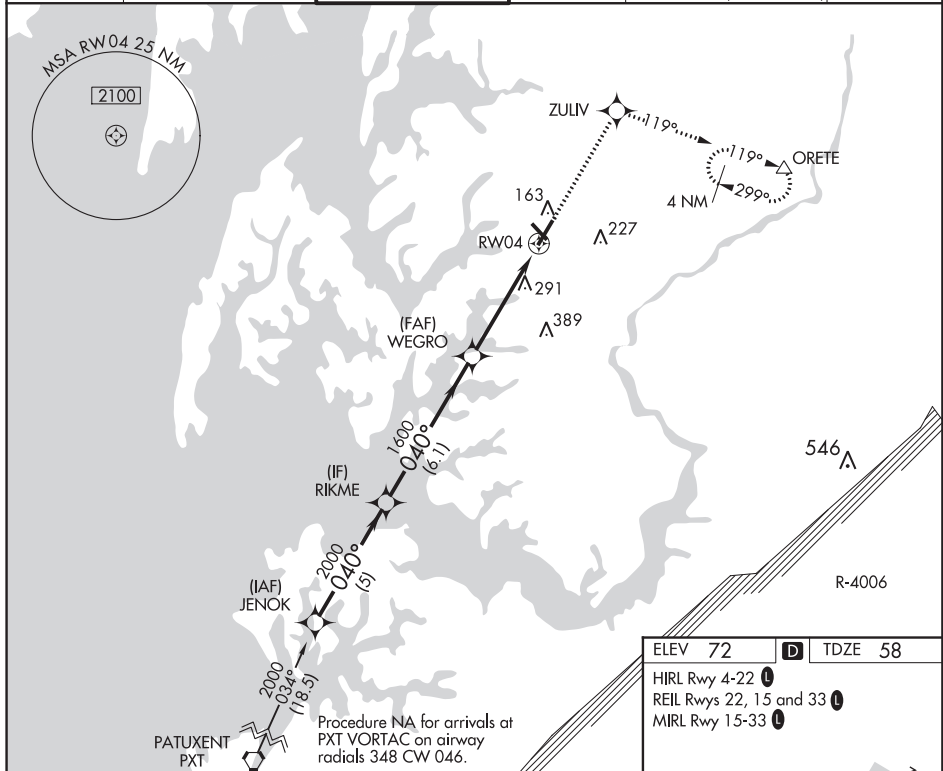
# RNAV (GPS) RWY 4

EASTON/NEWNAM FIELD (ESN)

**⚠** DME/DME RNP-0.3 NA. If local altimeter setting not received, use Baltimore-Washington Intl Thurgood Marshall altimeter setting and increase DA to 358 feet and all MDAs 100 feet. VDP NA when using Baltimore Washington Intl Thurgood Marshall altimeter setting. Night landing: Rwy 15, 33 NA.

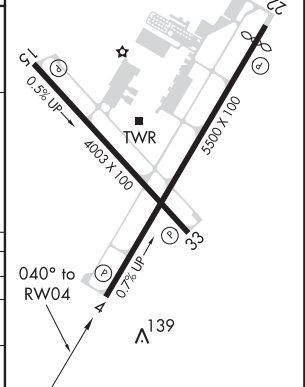
**MISSED APPROACH:** Climb to 2000 direct ZULIV and via 119° track to ORETE and hold.

ATIS <b>124.475</b>	POTOMAC APP CON <b>133.75 254.35</b>	EASTON TOWER ★ <b>118.525</b> (CTAF) <b>0</b>	GND CON <b>119.075</b>	CLNC DEL <b>119.075</b> <b>126.9</b> (Tower closed)	UNICOM <b>122.95</b>
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ELEV 72	<b>D</b>	TDZE 58
HIRL Rwy 4-22 <b>Ⓛ</b>		
REIL Rwys 22, 15 and 33 <b>Ⓛ</b>		
MIRL Rwy 15-33 <b>Ⓛ</b>		

Procedure Turn NA	JENOK	RIKME	ZULIV	ORETE
	2000	2000	119° tr	△
GP 3.00° TCH 44	040°	040°	*1.6 NM to RWY 4	
	5 NM	6.1 NM	3.1 NM	1.6 NM
CATEGORY	A	B	C	D
LPV DA	265-3/4		207 (200-3/4)	
RNAV MDA	600-1	542 (600-1)	600-1 1/2 542 (600-1 1/2)	600-1 3/4 542 (600-1 3/4)
CIRCLING	600-1	528 (600-1)	660-1 1/2 588 (600-1 1/2)	660-2 588 (600-2)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

EASTON, MARYLAND  
Orig-A 03APR14

38°48'N - 76°04'W

# EASTON/NEWNAM FIELD (ESN)

## RNAV (GPS) RWY 4

APP CRS <b>148°</b>	Rwy Idg <b>4003</b>
	TDZE <b>47</b>
	Apt Elev <b>72</b>

# RNAV (GPS) RWY 15

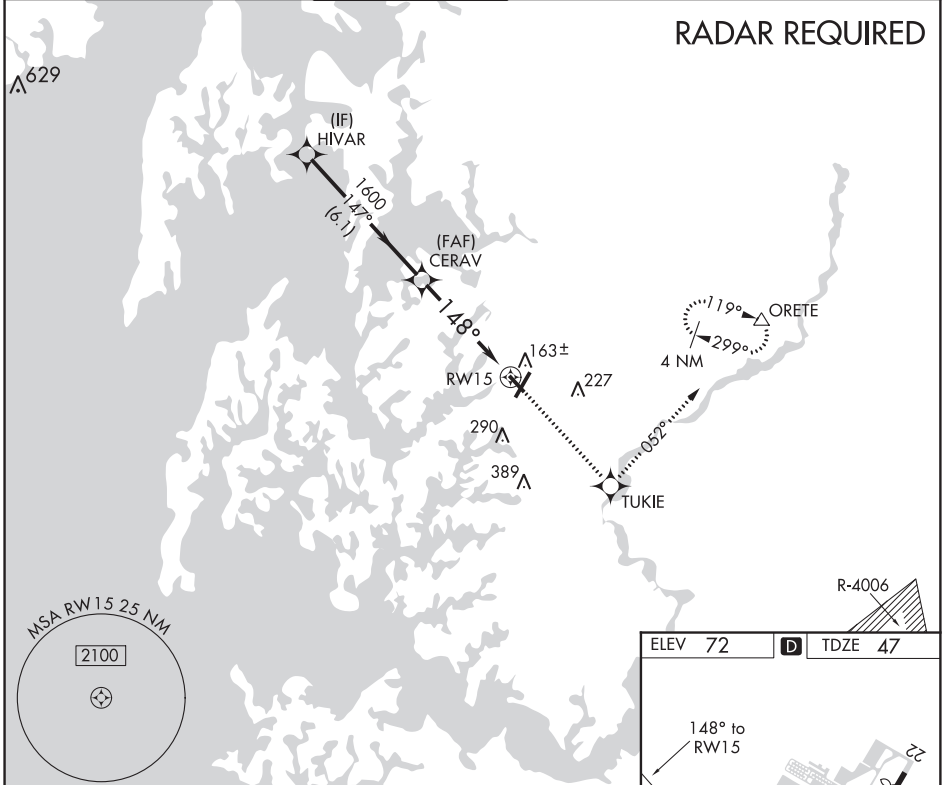
EASTON/NEWMAM FIELD (ESN)

**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Baltimore-Washington Intl Thurgood Marshall altimeter setting and increase all MDAs 100 feet, LNAV Cats C and D visibility ¼ mile, Circling Cat C visibility ½ mile and Cat D visibility ¼ mile. Night landing: Rwy 15, 33 NA.

**⚠** MISSED APPROACH: Climb to 2000 direct TUKIE and via 052° track to ORETE and hold.

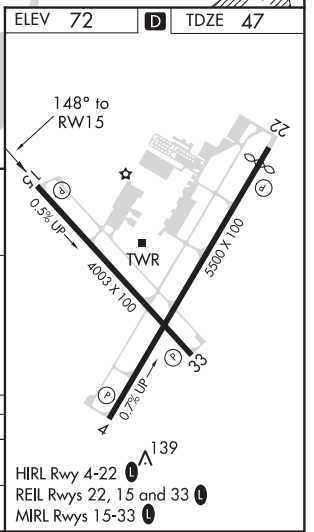
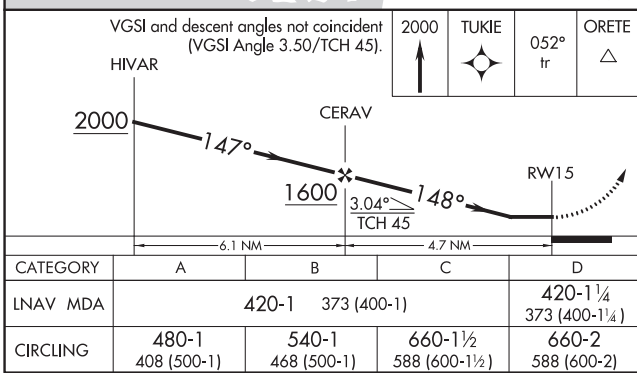
ATIS <b>124.475</b>	POTOMAC APP CON <b>133.75 254.35</b>	EASTON TOWER ★ <b>118.525</b> (CTAF) <b>0</b>	GND CON <b>119.075</b>	CLNC DEL <b>119.075</b> <b>126.9</b> (Tower closed)	UNICOM <b>122.95</b>
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## RADAR REQUIRED



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>40207</b> <b>W22A</b>	APP CRS <b>221°</b>	Rwy Idg TDZE <b>72</b> Apt Elev <b>72</b>
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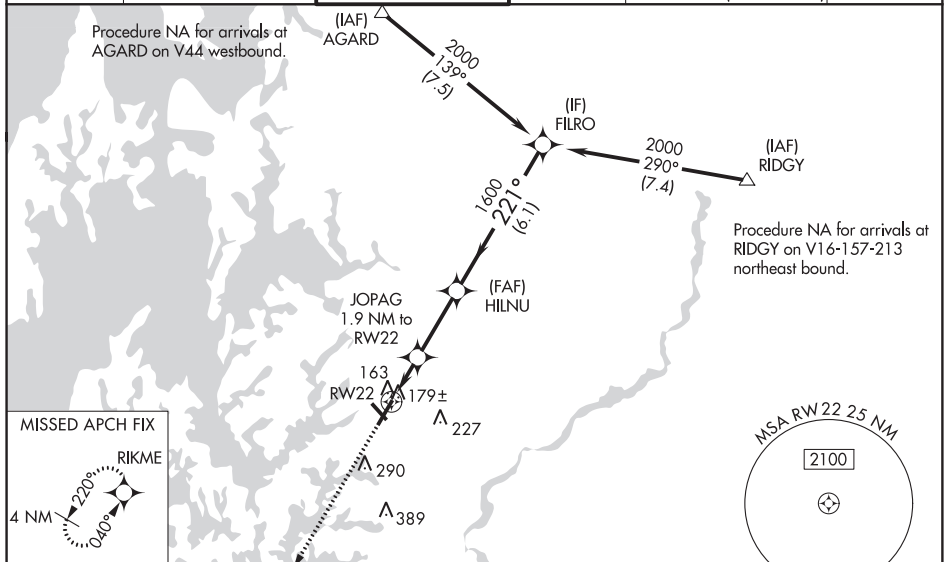
# RNAV (GPS) RWY 22

EASTON/NEWMAM FIELD (E/SN)

**⚠** Night landing: Rwy 15, 33 NA. Baro-VNAV NA when using Baltimore altimeter setting. 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. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Baltimore altimeter setting and increase all DA 93 feet and all MDA 100 feet; increase LPV all Cats visibility 1/8 mile, increase LNAV/VNAV all Cats visibility 1/4 mile, and increase LNAV Cats C and D / Circling Cat C visibility 1/4 mile.

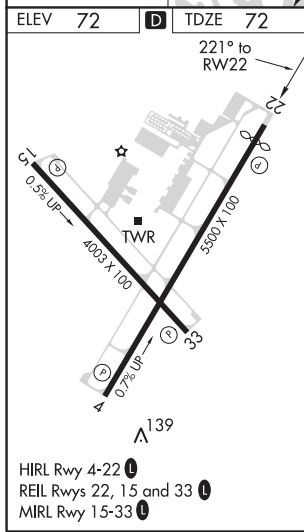
**MISSED APPROACH:**  
Climb to 2000 direct  
RIKME and hold.

ATIS <b>124.475</b>	POTOMAC APP CON <b>133.75 254.35</b>	<b>EASTON TOWER ★</b> <b>118.525</b> (CTAF) <b>0</b>	GND CON <b>119.075</b>	CLNC DEL <b>119.075</b> (Tower closed) <b>126.9</b>	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



APP CRS <b>328°</b>	Rwy Idg TDZE Apt Elev	<b>4003</b> <b>51</b> <b>72</b>
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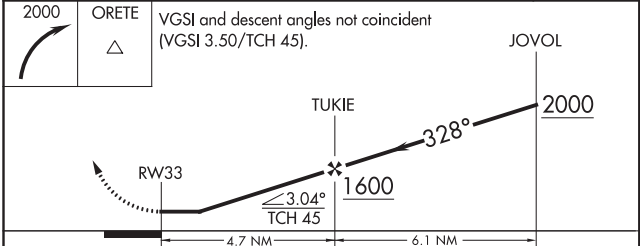
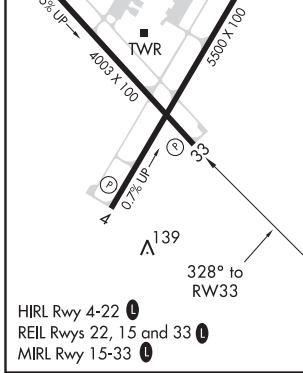
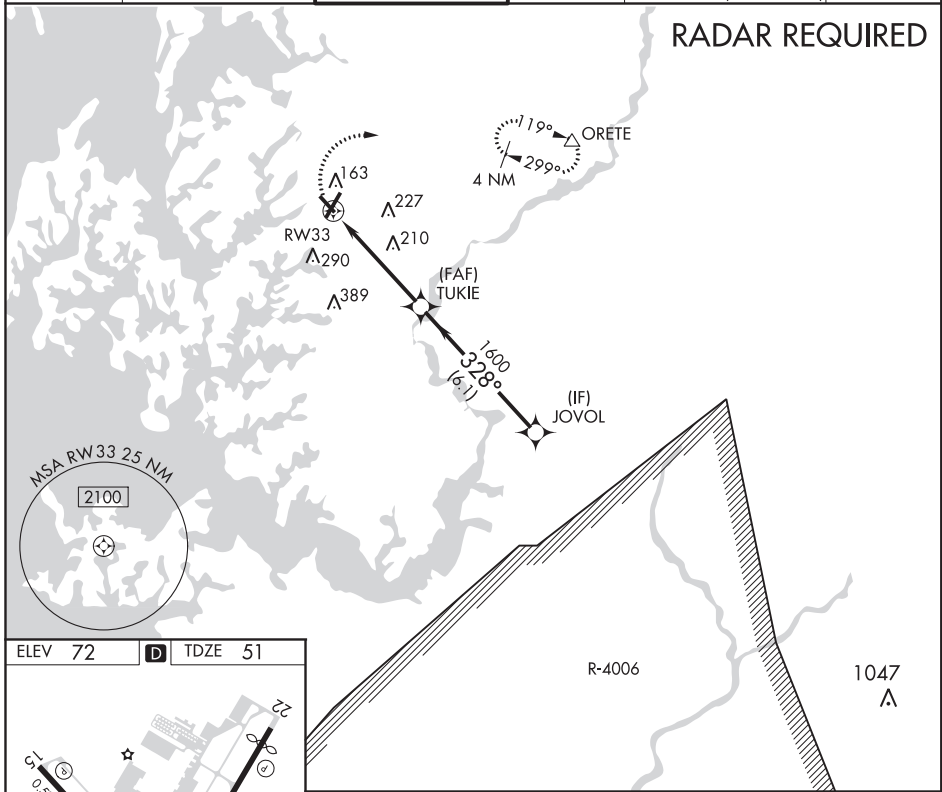
# RNAV (GPS) RWY 33

EASTON/NEWNAM FIELD (ESN)

**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Baltimore-Washington Intl Thurgood Marshall altimeter setting and increase all MDA 100 feet, LNAV Cat C and D visibility ¼ mile, Circling Cat C visibility ½ mile and Cat D visibility ¼ mile. Night landing: Rwy 15, 33 NA.

**⚠** MISSED APPROACH: Climbing right turn to 2000 direct ORETE and hold.

ATIS <b>124.475</b>	POTOMAC APP CON <b>133.75 254.35</b>	EASTON TOWER ★ <b>118.525</b> (CTAF) <b>0</b>	GND CON <b>119.075</b>	CLNC DEL <b>119.075</b> <b>126.9</b> (Tower closed)	UNICOM <b>122.95</b>
------------------------	-----------------------------------------	--------------------------------------------------	---------------------------	-----------------------------------------------------------	-------------------------



CATEGORY	A	B	C	D
LNAV MDA	520-1	469 (500-1)	520-1¼ 469 (500-1¼)	520-1½ 469 (500-1½)
CIRCLING	520-1 448 (500-1)	540-1 468 (500-1)	660-1½ 588 (600-1½)	660-2 588 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

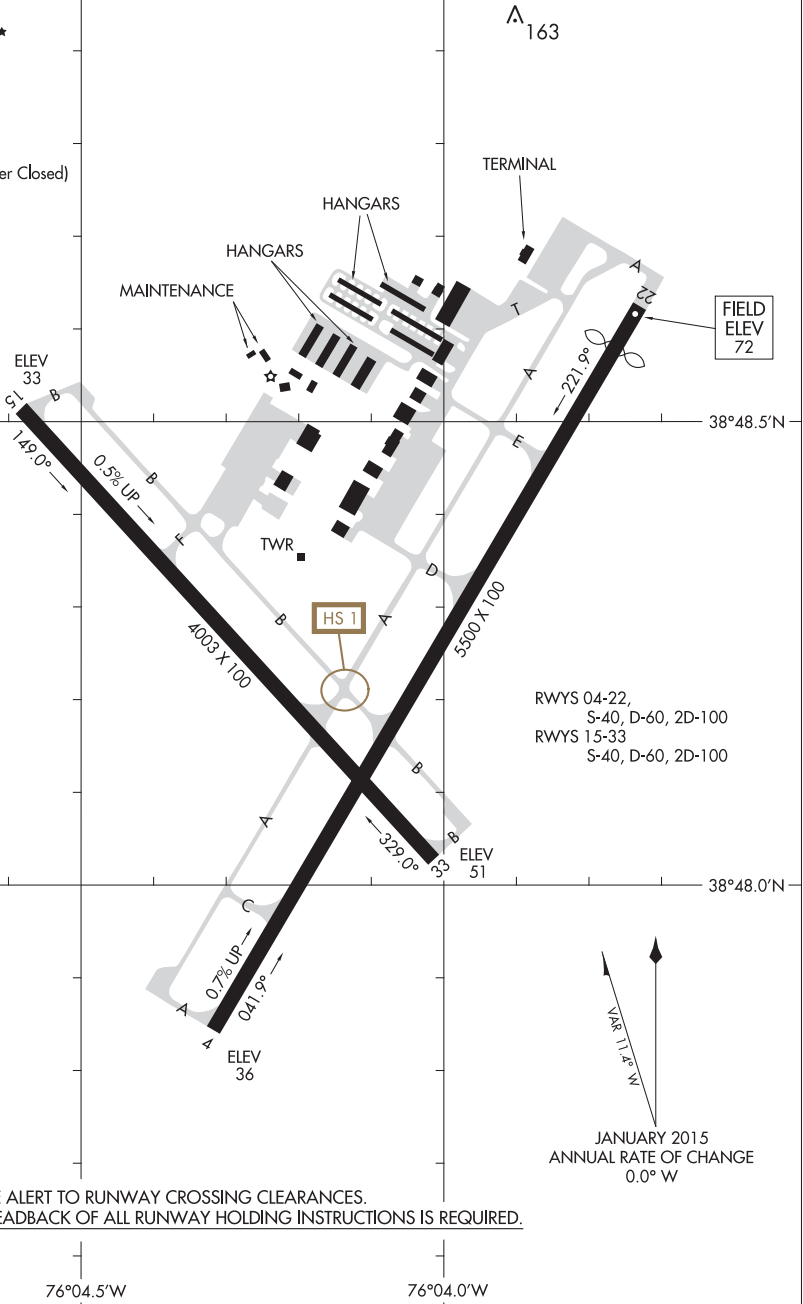
# AIRPORT DIAGRAM

AL-5596 (FAA)

EASTON/NEWNAM FIELD (E/SN)  
EASTON, MARYLAND

ATIS  
 124.475  
 EASTON TOWER ★  
 118.525  
 GND CON  
 119.075  
 CLNC DEL  
 119.075  
 CLNC DEL  
 126.9 (When Tower Closed)

D



RWYS 04-22,  
 S-40, D-60, 2D-100  
 RWYS 15-33  
 S-40, D-60, 2D-100

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

15064

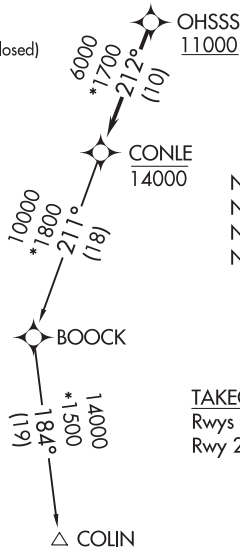
EASTON, MARYLAND  
EASTON/NEWNAM FIELD (E/SN)



# CONLE THREE DEPARTURE (RNAV)

ATIS  
 124.475  
 CLNC DEL  
 119.075 126.9 (when tower closed)  
 GND CON  
 119.075  
 EASTON TOWER \*  
 118.525 (CTAF)  
 UNICOM  
 122.95  
 POTOMAC DEP CON  
 124.55 317.425

**TOP ALTITUDE:  
ASSIGNED BY ATC**



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

### TAKEOFF MINIMUMS:

Rwy 4, 15, 33: Standard.  
 Rwy 22: 300-2 or standard with minimum climb  
 of 245' per NM to 500.

### TAKEOFF OBSTACLES:

- Rwy 4: Pole and vehicles on road beginning 199' from DER, 278' right of centerline, up to 21' AGL/91' MSL. Poles beginning 834' from DER, 27' right of centerline, up to 34' AGL/100 MSL. Trees beginning 1508' from DER, 38' left of centerline, up to 37' AGL/116' MSL. Trees beginning 1484' from DER, 45' right of centerline, up to 54' AGL/133' MSL.
- Rwy 15: Fence 2' from DER, 410' left of centerline, 8' AGL/57' MSL. Poles beginning 720' from DER, 331' left of centerline, up to 36' AGL/92' MSL. Trees beginning 861' from DER, 621' left of centerline, up to 89' AGL/148' MSL. Poles and trees beginning 827' from DER, 514' right of centerline, up to 57' AGL/116' MSL. Trees beginning 1924' from DER, 237' right of centerline, up to 94' AGL/153' MSL. Pole and trees beginning 2017' from DER, 182' left of centerline, up to 89' AGL/148' MSL.
- Rwy 22: Trees 1250' from DER, 785' right of centerline, up to 56' AGL/95' MSL. Trees beginning 1322' from DER, 759' left of centerline, up to 90' AGL/129' MSL. Tower 1.6 NM from DER, 2374' left of centerline, 276' AGL/290' MSL.
- Rwy 33: Vehicles on road and trees beginning 9' from DER, 405' right of centerline, up to 49' AGL/88' MSL. Pole 887' from DER, 409' left of centerline, 34' AGL/58' MSL. Trees 1497' from DER, 19' right of centerline, up to 48' AGL/87' MSL. Trees beginning 1884' from DER, 209' right of centerline, up to 99' AGL/158' MSL. Trees 2889' from DER, 682' left of centerline, up to 69' AGL/118' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

Fly heading and maintain altitude assigned by ATC, expect RADAR vectors to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000, then on COLIN transition. Expect filed altitude within 10 minutes after departure.

COLIN TRANSITION (CONLE3.COLIN)

(TERPZ6.TERPZ) 16035

SL-5596 (FAA)

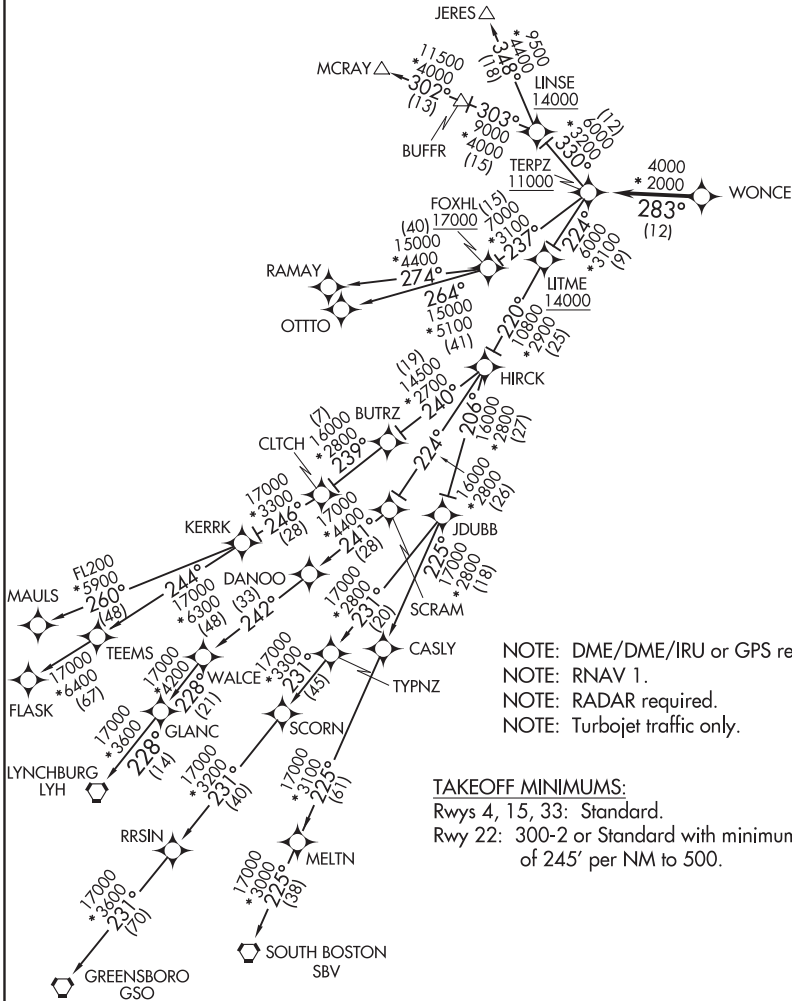
EASTON/NEWMAM FIELD (E<sub>S</sub>N)

# TERPZ SIX DEPARTURE (RNAV)

EASTON, MARYLAND

ATIS  
 124.475  
 CLNC DEL  
 119.075 126.9 (when tower closed)  
 GND CON  
 119.075  
 EASTON TOWER ★  
 118.525 (CTAF)  
 UNICOM  
 122.95  
 POTOMAC DEP CON  
 124.55

**TOP ALTITUDE:**  
**RAMAY, OTTTO, MAULS, FLASK,**  
**SBV, LYH, GSO TRANSITIONS:**  
**17000**  
**JERES, MCRAY TRANSITIONS:**  
**16000**



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

**TAKEOFF MINIMUMS:**

Rwys 4, 15, 33: Standard.  
 Rwy 22: 300-2 or Standard with minimum climb of 245' per NM to 500.

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# TERPZ SIX DEPARTURE (RNAV)

(TERPZ6.TERPZ) 04FEB16

EASTON, MARYLAND

EASTON/NEWMAM FIELD (E<sub>S</sub>N)



## DEPARTURE ROUTE DESCRIPTION

Fly heading and maintain altitude assigned by ATC, expect RADAR vectors to WONCE, then on track 283° to cross TERPZ at or above 11000, thence. . . .  
 . . . on assigned transition: Departures on JERES and MCRAY transitions maintain 16000. Departures on RAMAY, OTTTO, MAULS, FLASK, LYH, GSO, SBV transitions maintain 17000, expect further clearance to filed altitude within 10 minutes after departure.

FLASK TRANSITION (TERPZ6.FLASK):

GREENSBORO TRANSITION (TERPZ6.GSO):

JERES TRANSITION (TERPZ6.JERES):

LYNCHBURG TRANSITION (TERPZ6.LYH):

MAULS TRANSITION (TERPZ6.MAULS):

MCRAY TRANSITION (TERPZ6.MCRAY):

OTTTO TRANSITION (TERPZ6.OTTTO):

RAMAY TRANSITION (TERPZ6.RAMAY):

SOUTH BOSTON TRANSITION (TERPZ6.SBV):

TAKEOFF OBSTACLES:

- Rwy 4: Pole and vehicles on road beginning 199' from DER, 278' right of centerline, up to 21' AGL/91' MSL. Poles beginning 834' from DER, 27' right of centerline, up to 34' AGL/100 MSL. Trees beginning 1508' from DER, 38' left of centerline, up to 37' AGL/116' MSL. Trees beginning 1484' from DER, 45' right of centerline, up to 54' AGL/133' MSL.
- Rwy 15: Fence 2' from DER, 410' left of centerline, 8' AGL/57' MSL. Poles beginning 720' from DER, 331' left of centerline, up to 36' AGL/92' MSL. Trees beginning 861' from DER, 621' left of centerline, up to 89' AGL/148' MSL. Poles and trees beginning 827' from DER, 514' right of centerline, up to 57' AGL/116' MSL. Trees beginning 1924' from DER, 237' right of centerline, up to 94' AGL/153' MSL. Pole and trees beginning 2017' from DER, 182' left of centerline, up to 89' AGL/148' MSL.
- Rwy 22: Trees 1250' from DER, 785' right of centerline, up to 56' AGL/95' MSL. Trees beginning 1322' from DER, 759' left of centerline, up to 90' AGL/129' MSL. Tower 1.6 NM from DER, 2374' left of centerline, 276' AGL/290' MSL.
- Rwy 33: Vehicles on road and trees beginning 9' from DER, 405' right of centerline, up to 49' AGL/88' MSL. Pole 887' from DER, 409' left of centerline, 34' AGL/58' MSL. Trees 1497' from DER, 19' right of centerline, up to 48' AGL/87' MSL. Trees beginning 1884' from DER, 209' right of centerline, up to 99' AGL/158' MSL. Trees 2889' from DER, 682' left of centerline, up to 69' AGL/118' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELKTON, MARYLAND

AL-9807 (FAA)

16315

APP CRS <b>333°</b>	Rwy Idg TDZE Apt Elev	<b>NA</b> <b>NA</b> <b>106</b>
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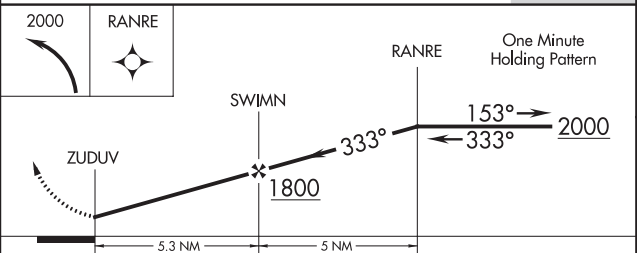
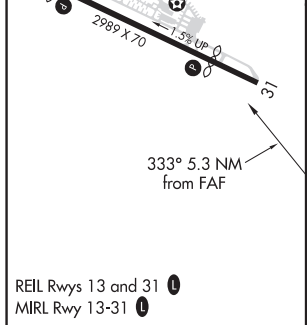
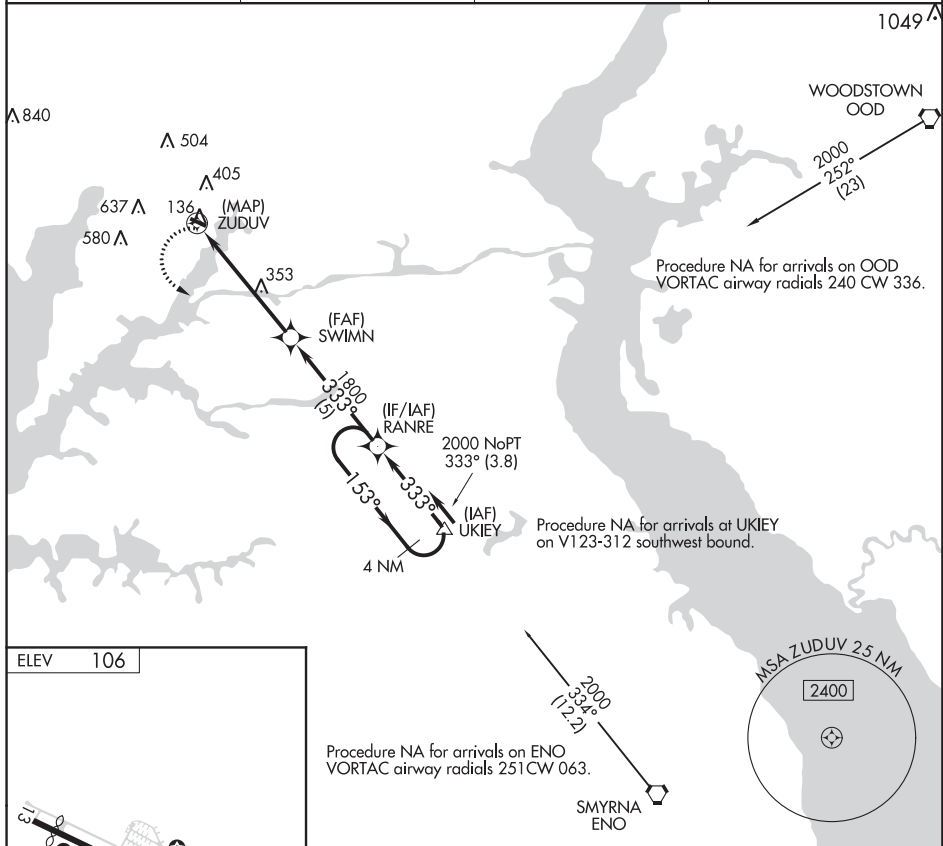
# RNAV (GPS)-B

CLAREMONT (58M)

**NA** DME/DME RNP-0.3 NA. Procedure NA at night. Helicopter visibility reduction below 1 SM NA. Use Middletown, DE altimeter setting; when not received use Wilmington, DE altimeter setting and increase all MDA 20 feet.

**MISSED APPROACH:** Climbing left turn to 2000 to RANRE and hold.

MIDDLETOWN AWOS-3 <b>132.325</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	UNICOM <b>122.8</b> (CTAF)	<b>123.0</b>
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CATEGORY	A	B	C	D
<b>CIRCLING</b>	760-1 654 (700-1)	800-1 694 (700-1)	NA	

ELKTON, MARYLAND  
Orig 10NOV16

39°34'N-75°52'W

# CLAREMONT (58M)

## RNAV (GPS)-B

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

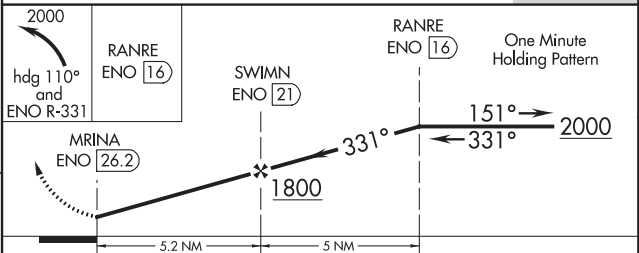
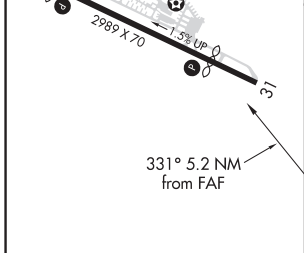
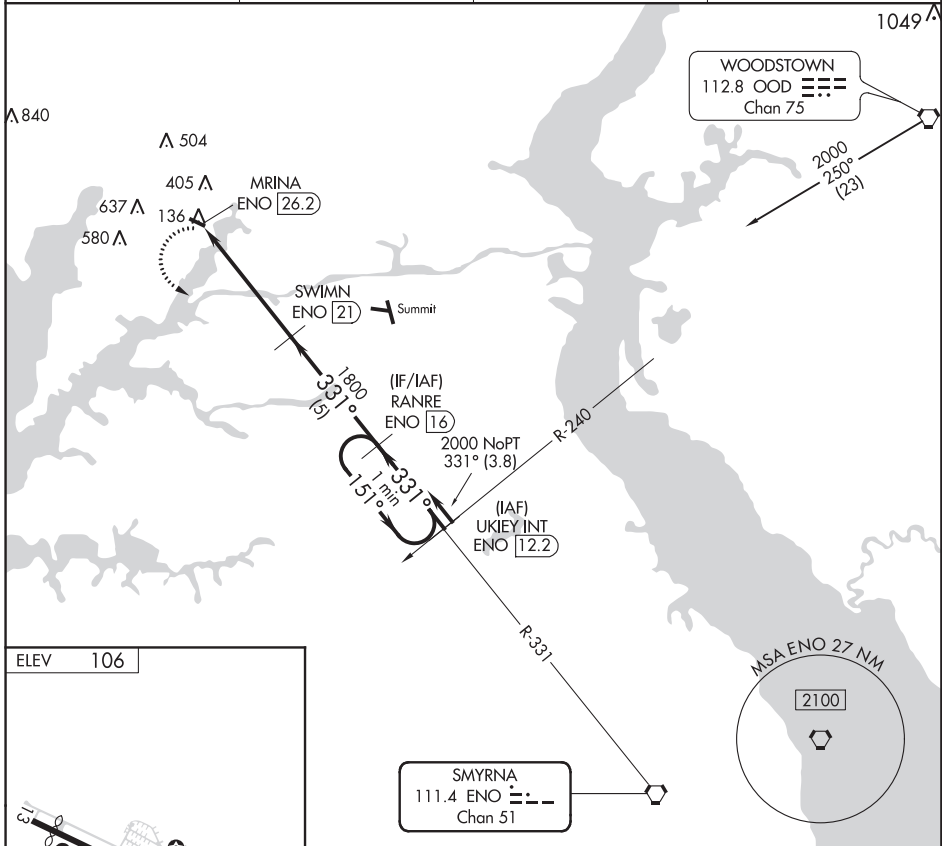
VORTAC ENO <b>111.4</b> Chan <b>51</b>	APP CRS <b>331°</b>	Rwy Idg TDZE Apt Elev	<b>NA</b> <b>NA</b> <b>106</b>
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# VOR/DME-A

CLAREMONT (58M)

<p><b>▼</b> Use Middletown, DE altimeter setting; when not received, use Wilmington, DE altimeter setting. Helicopter visibility reduction below 1 SM NA. Procedure NA at night.</p> <p><b>▲</b> NA</p>	<p><b>MISSED APPROACH:</b> Climbing left turn to 2000 on heading 110° and ENO R-331 to RANRE/ENO 16 DME and hold.</p>
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MIDDLETOWN AWOS-3 <b>132.325</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	UNICOM <b>122.8</b> (CTAF)	<b>123.0</b>
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REIL Rwys 13 and 31	<b>1</b>
MIRL Rwy 13-31	<b>1</b>
CATEGORY	A B C D
<b>C</b> CIRCLING	940-1¼ 834 (900-1¼) NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

EMPORIA, VIRGINIA

AL-5534 (FAA)

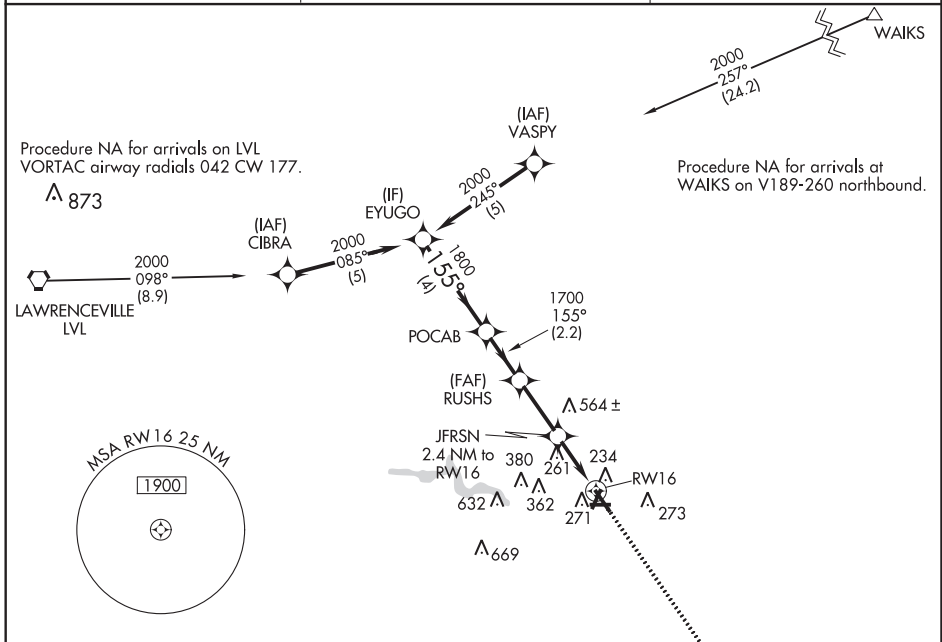
14093

APP CRS <b>155°</b>	Rwy Idg <b>5010</b>
	TDZE <b>126</b>
	Apt Elev <b>126</b>

# RNAV (GPS) RWY 16

EMPORIA-GREENSVILLE RGNL (EMV)

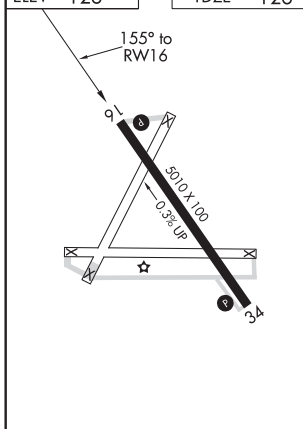
<p><b>▼</b> DME/DME RNP-0.3 NA. When local altimeter setting not received, use Ashokise altimeter setting and increase all MDA 80 feet. Helicopter visibility reduction below 3/4 SM NA.</p>	<p><b>⚠</b> MISSED APPROACH: Climb to 3000 direct XETIY and hold, continue climb-in-hold to 3000.</p>	
<p>AWOS-3 <b>124.175</b></p>	<p>WASHINGTON CENTER <b>132.025 269.4</b></p>	<p>UNICOM <b>123.0 (CTAF) 0</b></p>



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 126	TDZE 126
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REIL Rwy 16 and 34 **0**  
MIRL Rwy 16-34 **0**

	2000	1800	1700	920	3000	XETIY
	4 NM	2.2 NM	2.4 NM	2.4 NM		
CATEGORY	A	B	C	D		
LNAV MDA	520-1	394 (400-1)				NA
CIRCLING	580-1	454 (500-1)				NA

EMPORIA, VIRGINIA  
Amdt 1A 03APR14

36°41'N - 77°29'W

# EMPORIA-GREENSVILLE RGNL (EMV) RNAV (GPS) RWY 16

WAAS CH <b>63226</b> <b>W34A</b>	APP CRS <b>335°</b>	Rwy Idg TDZE Apt Elev	<b>5010</b> <b>122</b> <b>126</b>
----------------------------------------	------------------------	-----------------------------	-----------------------------------------

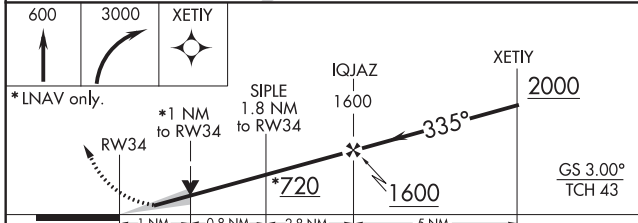
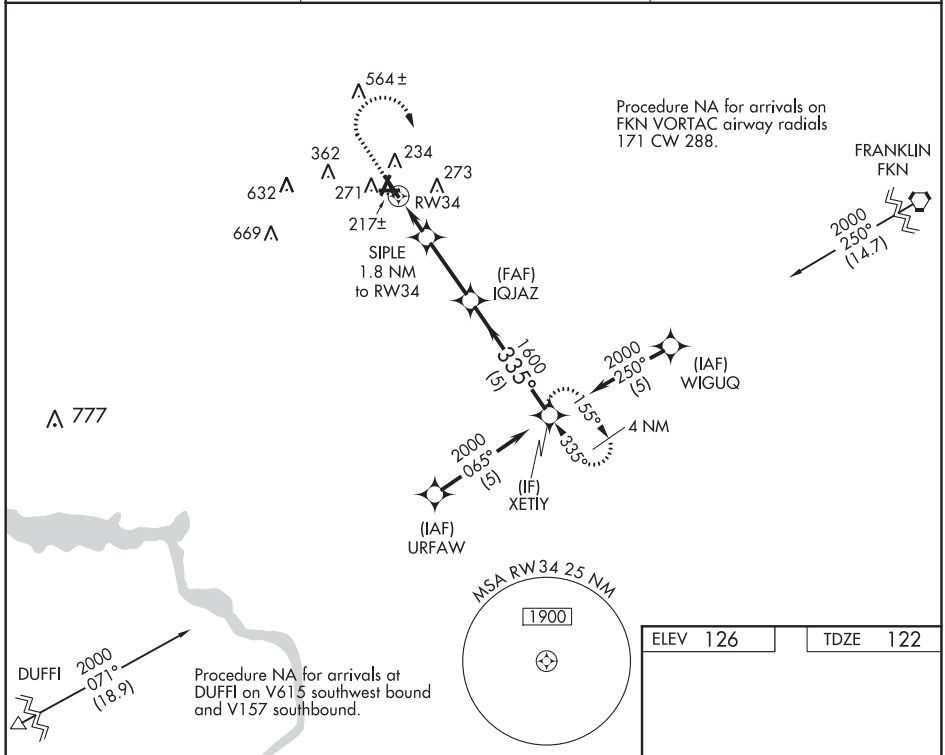
# RNAV (GPS) RWY 34

EMPORIA-GREENSVILLE RGNL (EMV)

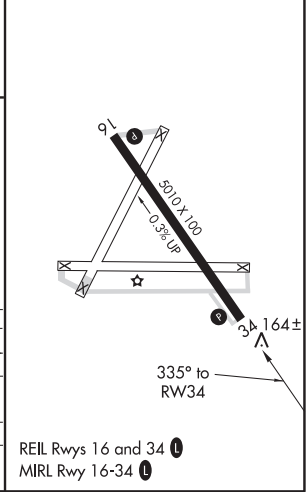
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA when using Aohskie altimeter setting. When local altimeter setting not received, use Aohskie altimeter setting and increase all DA 73 feet and all MDA 80 feet; increase LNAV/VNAV visibility all Cats 1/8 mile.

**MISSED APPROACH:**  
Climb to 600 then climbing right turn to 3000 direct XETIY and hold, continue climb-in-hold to 3000.

AWOS-3 <b>124.175</b>	WASHINGTON CENTER <b>132.025 269.4</b>	UNICOM <b>123.0 (CTAF) 0</b>
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ELEV 126	TDZE 122
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CATEGORY	A	B	C	D
LPV DA	322-1	200 (200-1)		NA
LNAV/VNAV DA	440-1	318 (400-1)		NA
LNAV MDA	480-1	358 (400-1)		NA
CIRCLING	580-1	454 (500-1)		NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

EMPORIA, VIRGINIA

AL-5534 (FAA)

14093

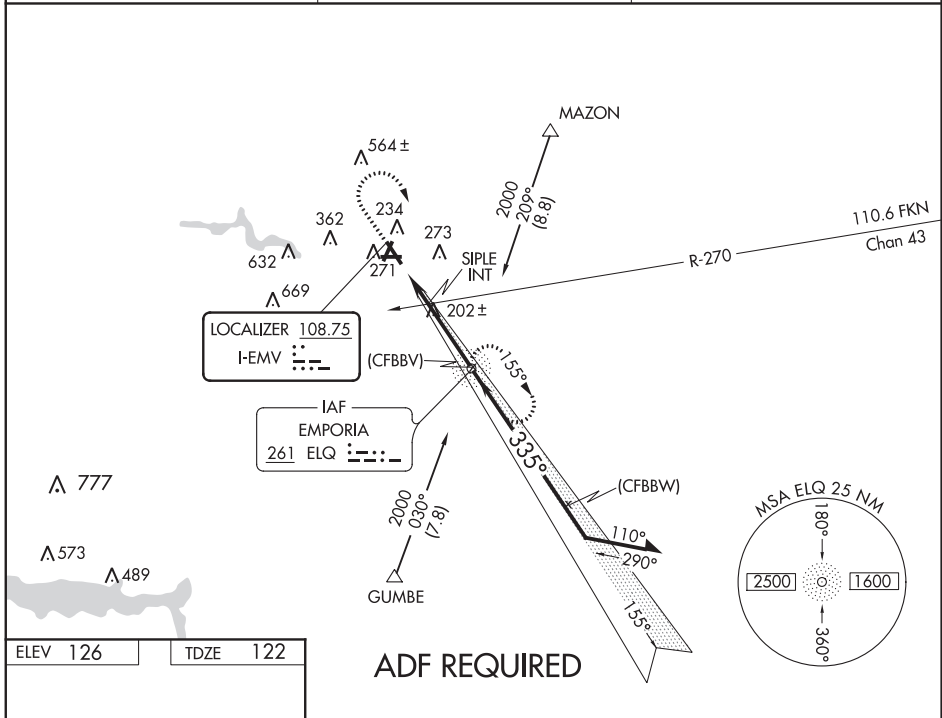
LOC I-EMV <b>108.75</b>	APP CRS <b>335°</b>	Rwy Idg TDZE Apt Elev	<b>5010</b> <b>122</b> <b>126</b>
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**LOC RWY 34**  
EMPORIA-GREENSVILLE RGNL (EMV)

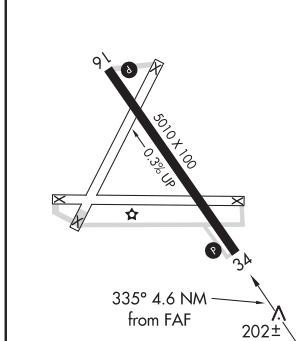
**NA** When local altimeter setting not received, use Ahoskie altimeter setting and increase all MDA 80 feet.

**MISSED APPROACH:** Climb to 600 then climbing right turn to 3000 direct ELQ NDB and hold, continue climb-in-hold to 3000.

AWOS-3 <b>124.175</b>	WASHINGTON CENTER <b>132.025 269.4</b>	UNICOM <b>123.0 (CTAF) 1</b>
--------------------------	-------------------------------------------	---------------------------------



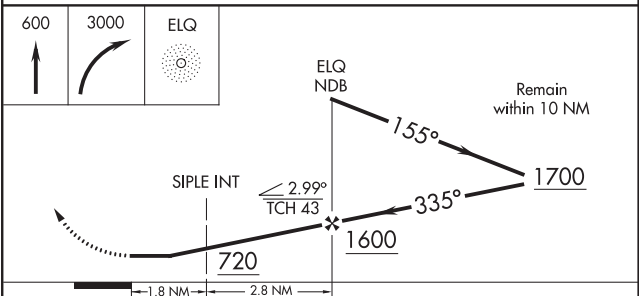
ELEV 126	TDZE 122
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REIL Rwy 16 and 34 1  
MRL Rwy 16-34 1

FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32



CATEGORY	A	B	C	D
S-34	720-1 598 (600-1)			NA
CIRCLING	720-1 594 (600-1)			NA
SIPLE FIX MINIMUMS (DUAL VOR RECEIVERS REQUIRED)				
S-34	460-1 338 (400-1)			NA
CIRCLING	580-1 454 (500-1)			NA

EMPORIA, VIRGINIA  
Amdt 1A 03APR14

36°41'N - 77°29'W

EMPORIA-GREENSVILLE RGNL (EMV)  
**LOC RWY 34**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>49017</b> <b>W03A</b>	APP CRS <b>029°</b>	Rwy Idg <b>4400</b> TDZE <b>410</b> Apt Elev <b>416</b>
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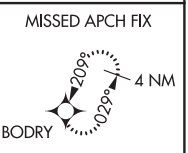
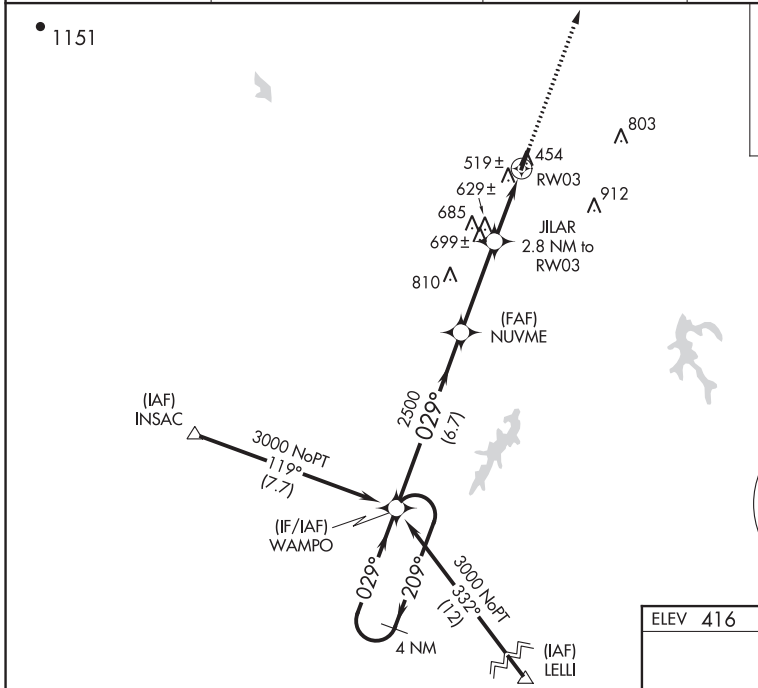
# RNAV (GPS) RWY 3

FARMVILLE RGNL (FVX)

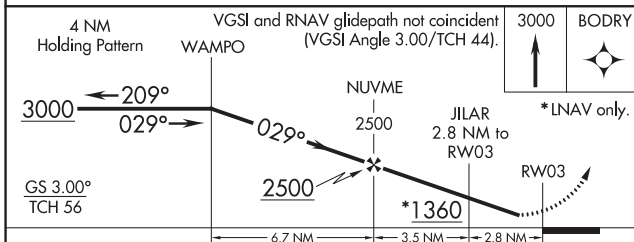
**⚠** Baro-VNAV NA when using Lynchburg altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). Straight-in/Circling Rwy 03 procedure NA at night. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Lynchburg altimeter setting and increase all DA 158 feet and all MDA 160 feet. Increase LPV and LNAV/VNAV visibility ½ mile all Cats; LNAV Cat C visibility ¾ mile and Circling Cat C visibility ¾ mile. Helicopter visibility reduction below 1 SM NA.

**MISSED APPROACH:**  
Climb to 3000 direct BODRY and hold.

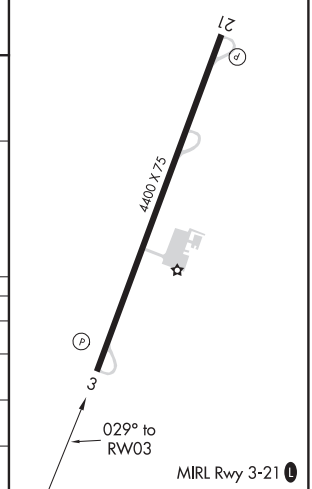
AWOS-3 <b>132.725</b>	ROANOKE TOWER <b>135.0 254.32</b>	GCO <b>135.075</b>	UNICOM <b>122.8 (CTAF)</b>
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ELEV 416	TDZE 410
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CATEGORY	A	B	C	D
LPV DA	720-1 310 (400-1)			NA
LNAV/VNAV DA	812-1 ¾ 402 (400-1 ¾)			NA
LNAV MDA	880-1 470 (500-1)		880-1 ¾ 470 (500-1 ¾)	NA
CIRCLING	900-1 484 (500-1)		1000-1 ½ 584 (600-1 ½)	NA



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

FARMVILLE, VIRGINIA

AL-5805 (FAA)

15064

WAAS CH <b>70517</b> <b>W21A</b>	APP CRS <b>209°</b>	Rwy Idg TDZE <b>416</b> Apr Elev <b>416</b>
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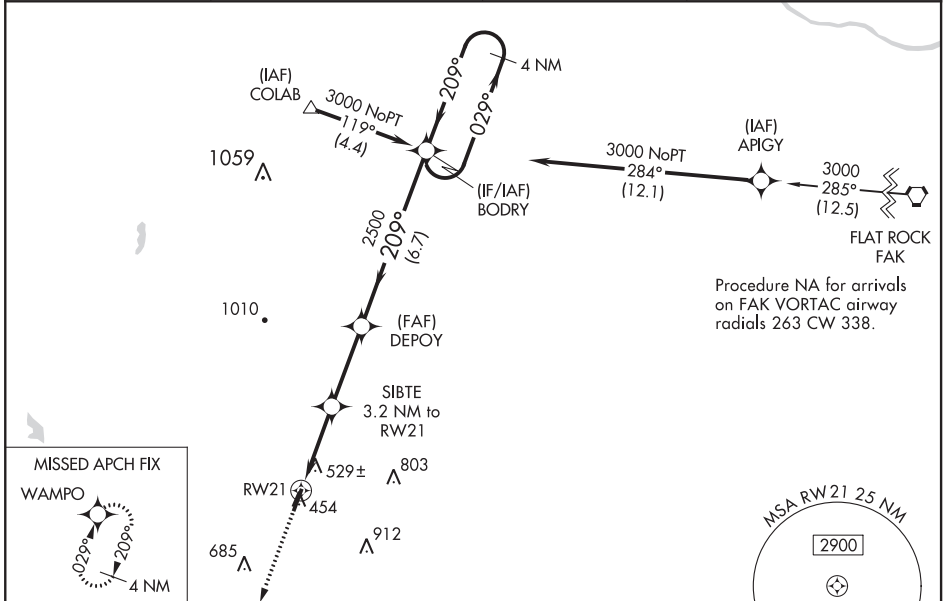
# RNAV (GPS) RWY 21

FARMVILLE RGNL (FVX)

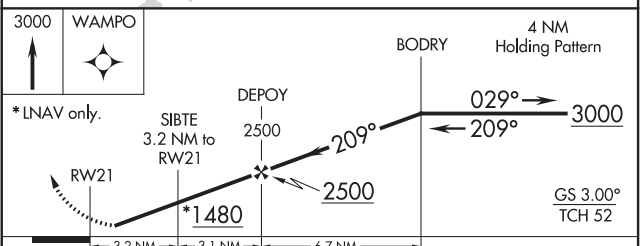
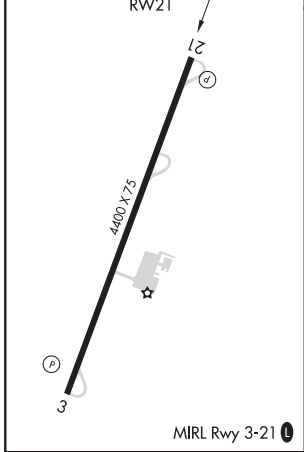
**⚠** Baro-VNAV NA when using Lynchburg altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Lynchburg altimeter setting and increase all DA 158 feet and all MDA 160 feet. Increase LPV all Cats ½ mile; increase LNAV/VNAV visibility all Cats and Circling Cat C visibility ⅓ mile, increase LNAV Cat C visibility ⅓ mile. Helicopter visibility reduction below 1 SM NA.

**⚠** MISSED APPROACH: Climb to 3000 direct WAMPO and hold.

AWOS-3 <b>132.725</b>	ROANOKE TOWER <b>135.0 254.32</b>	GCO <b>135.075</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV 416	TDZE 416
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CATEGORY	A	B	C	D
LPV DA	696-1 280 (300-1)			NA
LNAV/VNAV DA	866-1½ 450 (500-1½)			NA
LNAV MDA	860-1	444 (500-1)	860-1½ 444 (500-1½)	NA
CIRCLING	900-1	484 (500-1)	1000-1½ 584 (600-1½)	NA

FARMVILLE, VIRGINIA  
Orig-B 14NOV13

37°21'N-78°26'W

# RNAV (GPS) RWY 21

NE-3, 10 NOV 2016 to 05 JAN 2017

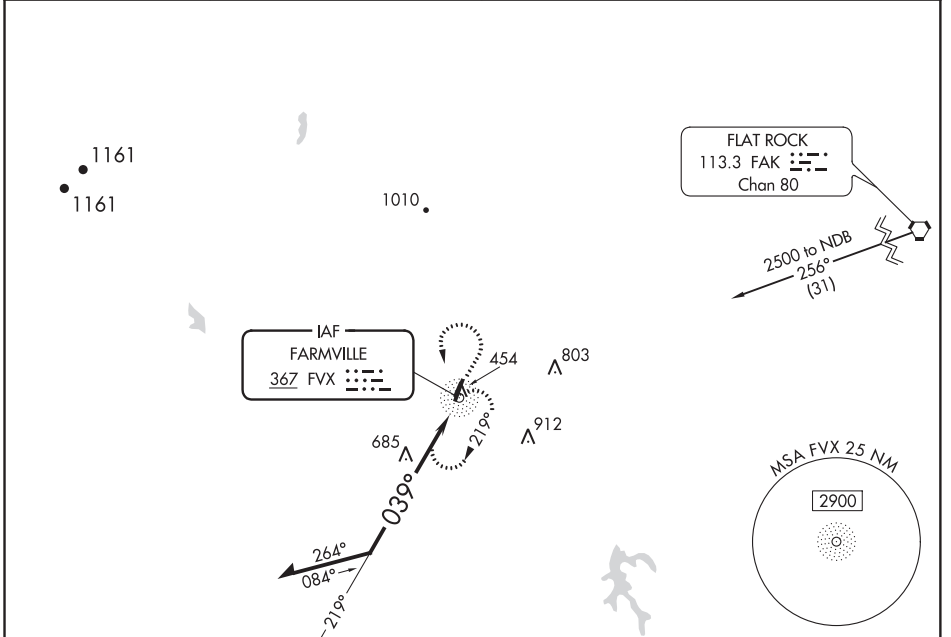
NE-3, 10 NOV 2016 to 05 JAN 2017

NDB FVX <b>367</b>	APP CRS <b>039°</b>	Rwy Idg <b>4400</b>
		TDZE <b>410</b>
		Apt Elev <b>416</b>

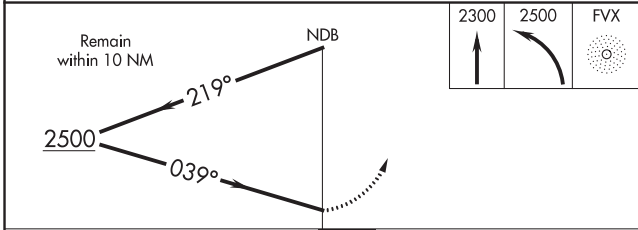
# NDB RWY 3

FARMVILLE RGNL (FVX)

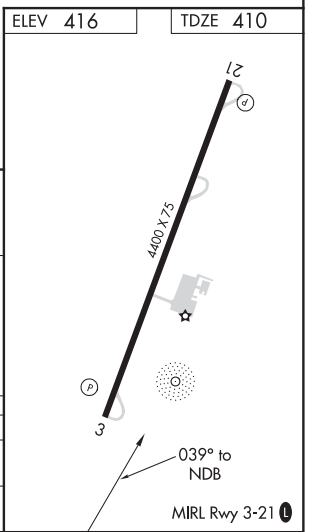
<p><b>⚠</b> When local altimeter setting not received, use Lynchburg altimeter setting and increase all MDAs 160 feet increase Cats A/B and Circling Cat A/B visibility ¼ mile, increase Cat C and Circling Cat C visibility ½ mile. Straight-in/Circling Rwy 03 procedure NA at night.</p>			<p><b>MISSED APPROACH:</b> Climb to 2300 then climbing left turn to 2500 direct FVX NDB and hold.</p>
AWOS-3 <b>132.725</b>	ROANOKE TOWER <b>135.0 254.32</b>	GCO <b>135.075</b>	UNICOM <b>122.8 (CTAF) 0</b>



ELEV 416	TDZE 410
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CATEGORY	A	B	C	D
S-3	1220-1 810 (900-1)	1220-1¼ 810 (900-1¼)	1220-2½ 810 (900-2½)	NA
CIRCLING	1220-1 804 (900-1)	1220-1¼ 804 (900-1¼)	1220-2½ 804 (900-2½)	NA



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

FORT EUSTIS, VIRGINIA

# RNAV (GPS) RWY 14

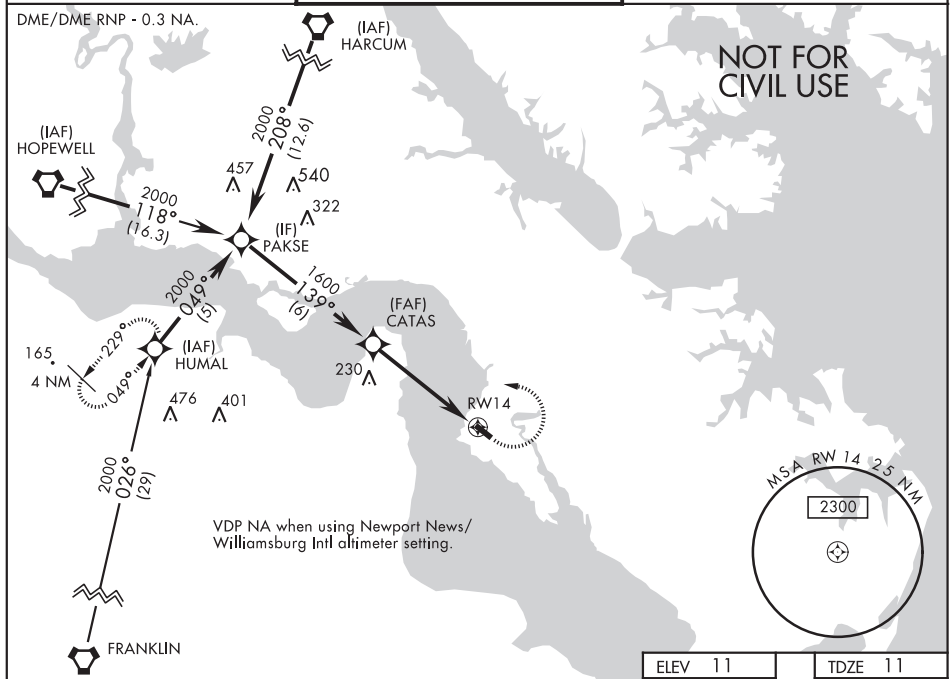
APCH CRS	Rwy Idg	<b>3025</b>
<b>139°</b>	TDZE	<b>11</b>
	Arpt Elev	<b>11</b>

AL-5211 [USA]

FELKER AAF (KFAF)

<p><b>▽</b> When local altimeter setting not received, use Newport News/Williamsburg  <b>▲</b> Intl altimeter setting. Visibility reduction by helicopters NA.</p>	<p>ODALS</p>	<p>MISSED APPROACH: Climbing left turn to 2000 direct HUMAL and hold.</p>
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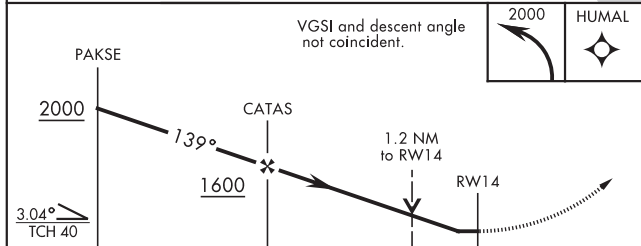
<p>NORFOLK APP CON</p> <p><b>125.7 335.625</b></p>	<p>FELKER TOWER ★</p> <p><b>126.3 (CTAF) 0 269.25</b></p>	<p>GND CON</p> <p><b>121.35 229.4</b></p>
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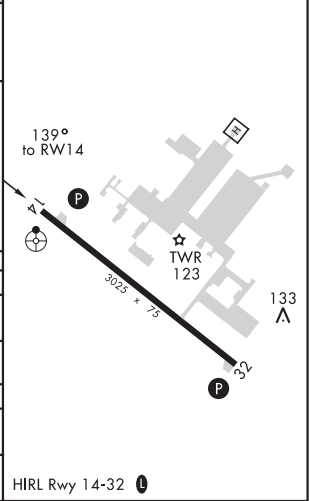
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 11	TDZE 11
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CATEGORY	A	B	C	D
RNAV MDA	420-¾	409 (500-¾)		NA
CIRCLING	440-1 429 (500-1)	480-1 469 (500-1)		NA
NEWPORT NEWS/WILLIAMSBURG INTL ALTIMETER				
RNAV MDA	440-¾	429 (500-¾)		NA
CIRCLING	460-1 449 (500-1)	500-1 489 (500-1)		NA



FORT EUSTIS, VIRGINIA  
Amdt 2 15SEP16

37°08'N-76°37'W

FELKER AAF (KFAF)

# RNAV (GPS) RWY 14



# AIRPORT DIAGRAM

AFD-5211 [USA]

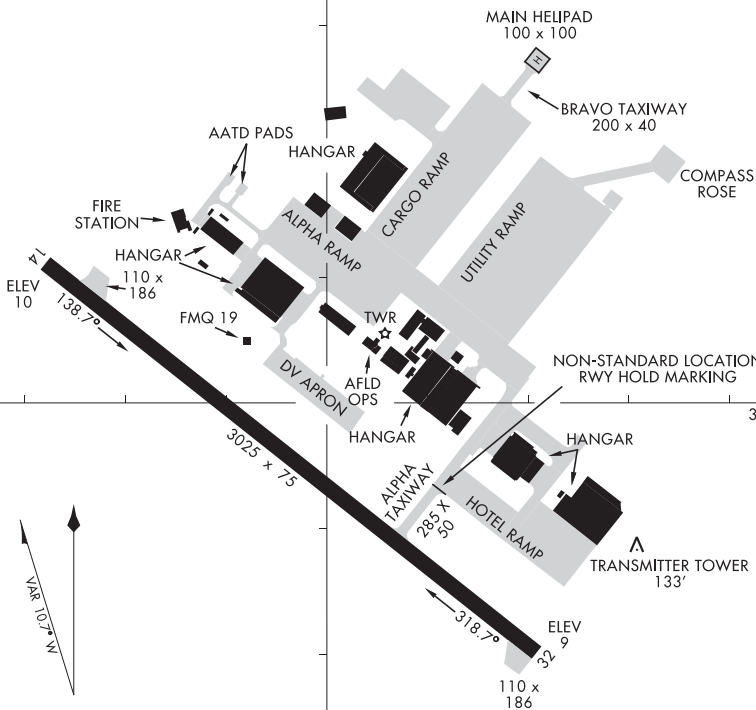
FELKER AAF (KFAF)

FORT EUSTIS, VIRGINIA

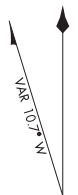
FELKER TOWER ★  
 126.3 269.25  
 GND CON  
 121.35 229.4  
 CLNC DEL  
 121.35  
 124.9 (When Tower is Closed)

37°08' 30"N

FIELD  
 ELEV  
 11



37°08'N



JUNE 2015  
 ANNUAL RATE OF CHANGE  
 0.0° W

Rwy 14-32  
 PCN 13 F/B/Y/T

76°36' 30"W

76°36' W

37°07' 30"N

# AIRPORT DIAGRAM

FORT EUSTIS, VIRGINIA  
 FELKER AAF (KFAF)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>3049</b>
<b>176°</b>	TDZE	<b>842</b>
	Apt Elev	<b>842</b>

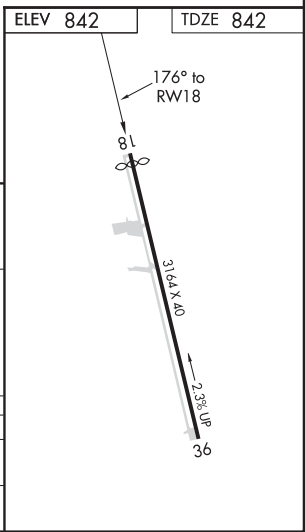
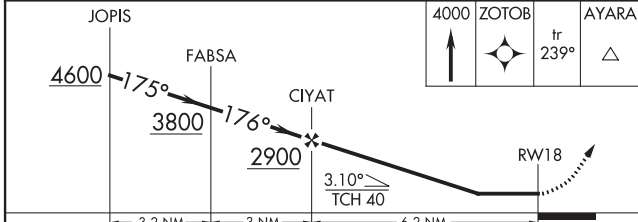
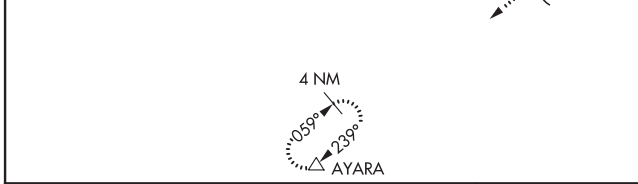
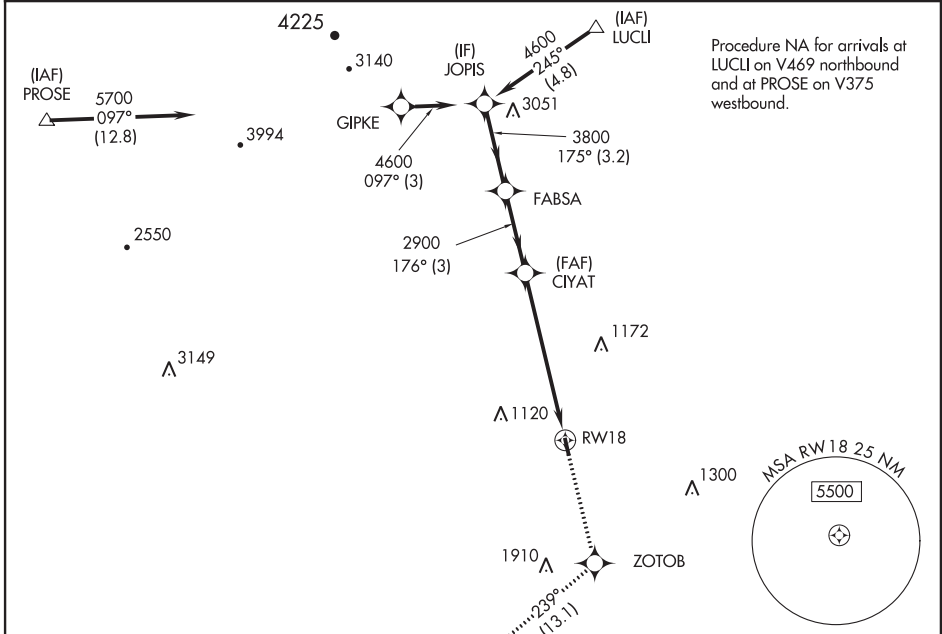
# RNAV (GPS) RWY 18

NEW LONDON (W90)

**NA** Use Lynchburg Rgnl/Preston Glenn Field altimeter setting.  
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.  
Procedure NA at night.

**MISSED APPROACH:** Climb to 4000 direct ZOTOB then on track 239° to AYARA and hold.

LYNCHBURG ATIS <b>119.8</b>	ROANOKE APP CON <b>135.0 254.32</b>	UNICOM <b>122.8 (CTAF)</b>
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CATEGORY	A	B	C	D
LNAV MDA	1840-3	998 (1000-3)		NA
CIRCLING	1840-3	998 (1000-3)		NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

FOREST, VIRGINIA

AL-10610 (FAA)

15176

APP CRS	Rwy Idg	<b>3164</b>
<b>356°</b>	TDZE	<b>831</b>
	Apt Elev	<b>842</b>

# RNAV (GPS) RWY 36

NEW LONDON (W90)

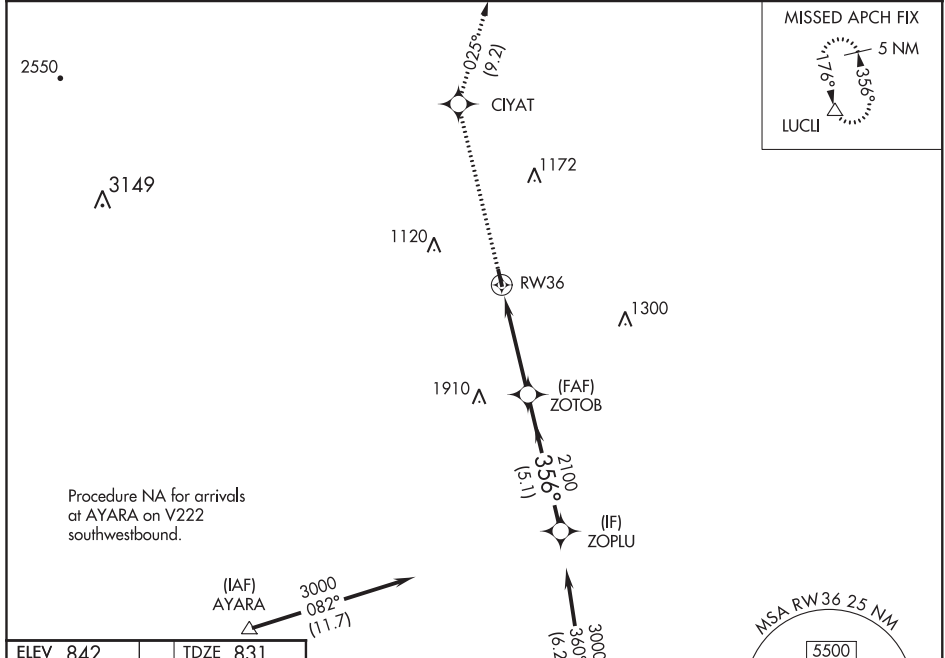
**NA** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Use Lynchburg Rgnl/Preston Glenn Field altimeter setting. Procedure NA at night.

MISSED APPROACH: Climb to 4700 direct CIYAT and on track 025° to LUCLI and hold.

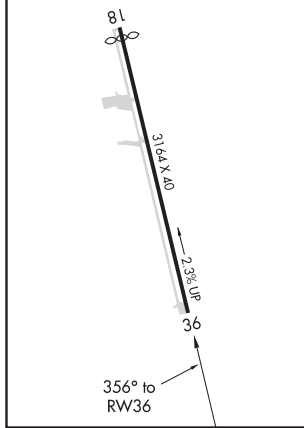
LYNCHBURG ATIS  
**119.8**

ROANOKE APP CON  
**135.0 254.32**

UNICOM  
**122.8 (CTAF)**

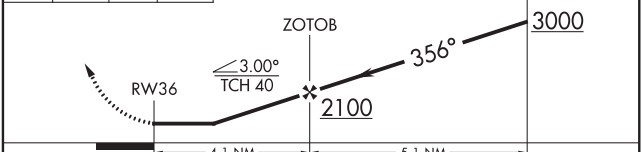


ELEV 842	TDZE 831
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Procedure NA for arrivals at SYCAM on V469 southbound.

4700	CIYAT	LUCLI
↑	$\diamond$ tr 025°	$\Delta$



CATEGORY	A	B	C	D
LNAV MDA	1780-3	949 (1000-3)	NA	
CIRCLING	1780-3	938 (1000-3)	NA	

FOREST, VIRGINIA  
Orig-A 25JUN15

37°16'N-79°20'W

# RNAV (GPS) RWY 36

NEW LONDON (W90)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



APP CRS	Rwy Idg	<b>3000</b>
<b>114°</b>	TDZE	<b>150</b>
	Apt Elev	<b>150</b>

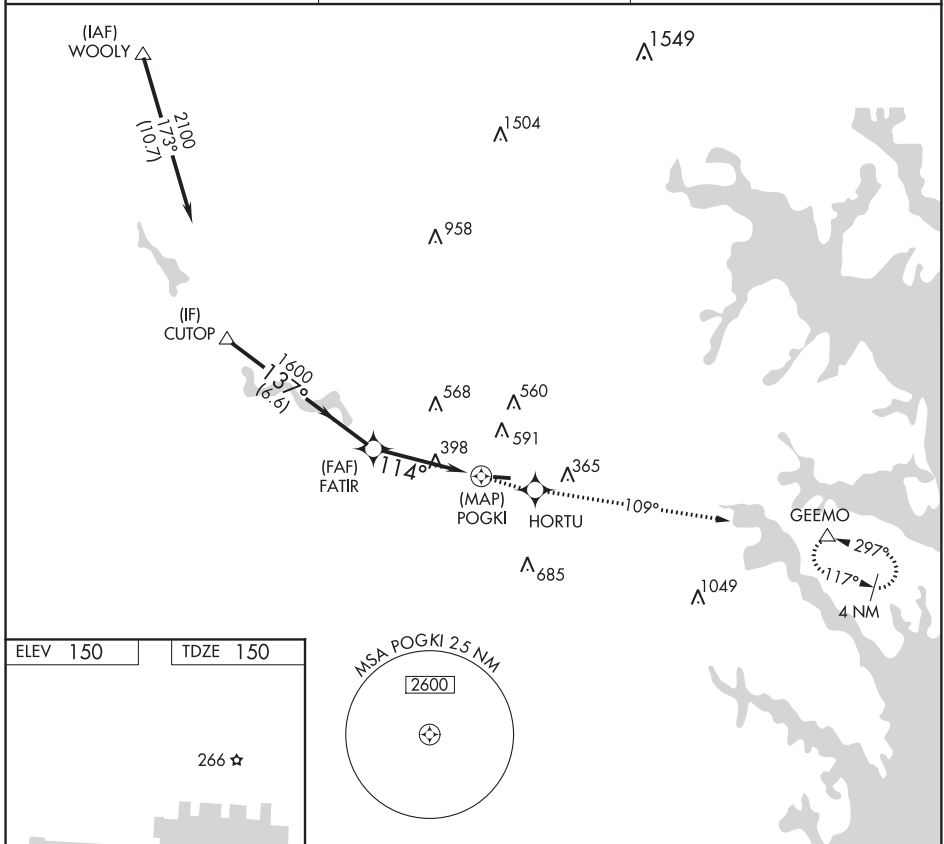
# RNAV (GPS) RWY 10

TIPTON (FME)

**T** DME/DME RNP-0.3 NA. Night landing: Rwy 10 NA. When local altimeter setting not received, use Baltimore-Washington Intl Thurgood Marshall altimeter setting and increase all MDA 20 feet. Helicopter visibility reduction below 1 SM NA.

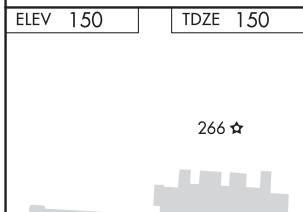
**MISSED APPROACH:** Climb to 2200 direct HORTU and via 109° track to GEEMO and hold.

AWOS-3 <b>123.925</b>	POTOMAC APP CON <b>119.7 290.475</b>	UNICOM <b>123.05 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



	CUTOP		2200	HORTU	tr 109°	GEEMO
	2100		↑	✧		△
		FATIR	VGSIs and descent angles not coincident (VGSi Angle 4.00/TCH 51).			
		1600		POGKI		
			3.03°			
			TCH 40			
			6.6 NM	4 NM	0.5	
CATEGORY	A	B	C	D		
LNAV MDA	800-1	650 (700-1)			NA	
CIRCLING	840-1	690 (700-1)			NA	

APP CRS <b>284°</b>	Rwy Idg TDZE Apt Elev	<b>3000</b> <b>150</b> <b>150</b>
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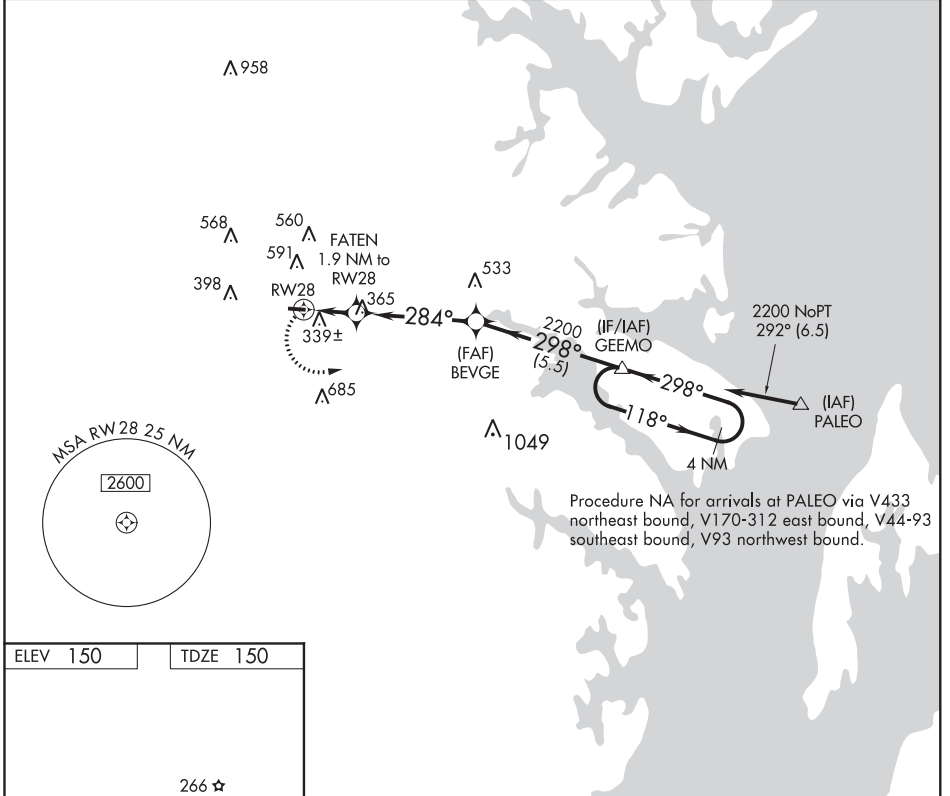
# RNAV (GPS) RWY 28

TIPTON (FME)

**⚠** DME/DME RNP-0.3 NA. Night landing: Rwy 10 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Baltimore-Washington Intl Thurgood Marshall altimeter setting and increase all MDA 20 feet.

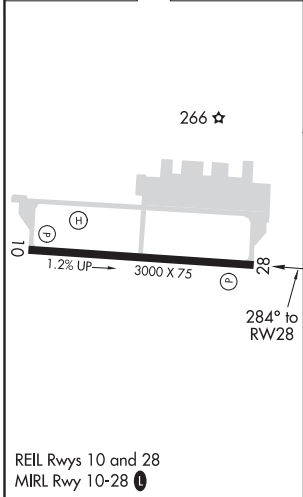
**⚠** MISSED APPROACH: Climbing left turn to 2200 direct GEEMO and hold.

AWOS-3 <b>123.925</b>	POTOMAC APP CON <b>119.7 290.475</b>	UNICOM <b>123.05 (CTAF) 0</b>
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Procedure NA for arrivals at PALEO via V433 northeast bound, V170-312 east bound, V44-93 southeast bound, V93 northwest bound.

ELEV 150	TDZE 150
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2200	GEEMO	VGSI and descent angles not coincident (VGSI Angle 4.00/TCH 57).		
4 NM Holding Pattern				
CATEGORY	A	B	C	D
LNAV MDA	600-1	450 (500-1)		NA
CIRCLING	820-1	670 (700-1)		NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>86327</b> <b>W09A</b>	APP CRS <b>090°</b>	Rwy Idg <b>4976</b> TDZE <b>35</b> Apt Elev <b>40</b>
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# RNAV (GPS) RWY 9

FRANKLIN MUNI-JOHN BEVERLY ROSE (F'KN)

**⚠** Baro-VNAV NA when using Suffolk 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.  
**⚠** Straight-in Rwy 9 and Circling Rwy 9 NA at night, operational VGSI required, remain on or above VGSI glidepath until threshold. When local altimeter setting not received, use Suffolk altimeter setting: increase LPV DA to 358 feet and visibility all Cats 1/8 SM; increase LNAV/VNAV DA to 357 feet and visibility all Cats 1/8 SM; increase all MDA 40 feet and LNAV Cats C/D visibility 1/8 SM. Rwy 9 helicopter visibility reduction below 1 SM NA.

**MISSED APPROACH:**  
Climb to 2600 direct JADIM and hold.

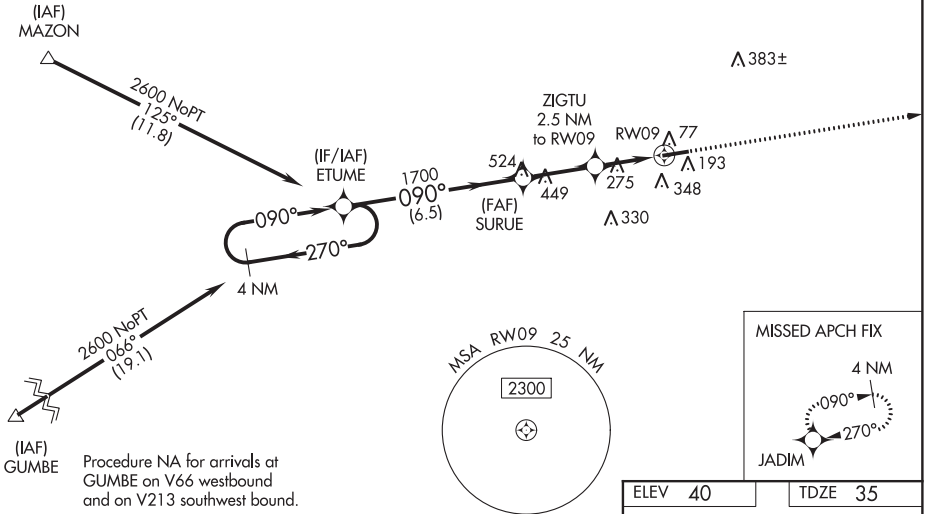
AWOS-3  
**124.675**

NORFOLK APP CON  
**127.9 269.42**

UNICOM  
**122.8 (CTAF) 0**

Procedure NA for arrivals at MAZON on V266 westbound.

1096 **△**

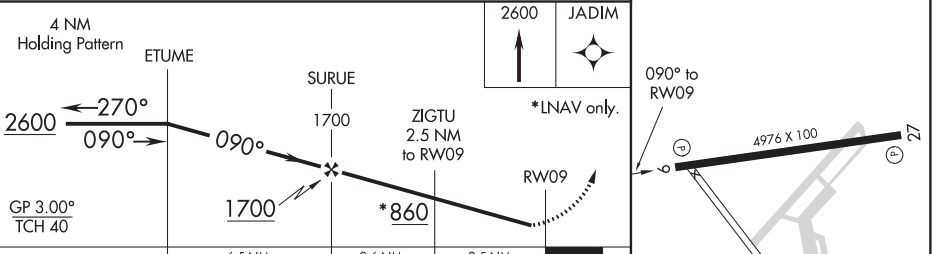


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

Procedure NA for arrivals at GUMBE on V66 westbound and on V213 southwest bound.

ELEV 40	TDZE 35
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CATEGORY	A	B	C	D
LPV DA	320-1		285 (300-1)	
LNAV/VNAV DA	319-1		284 (300-1)	
LNAV MDA	580-1	545 (600-1)	580-1 1/8	545 (600-1 1/8)
CIRCLING	660-1	620 (700-1)	660-1 1/4 620 (700-1 1/4)	660-2 620 (700-2)

MIRL Rwy 9-27 **0**

FRANKLIN, VIRGINIA

AL-5025 (FAA)

16259

WAAS CH <b>90227</b> <b>W27A</b>	APP CRS <b>270°</b>	Rwy Idg TDZE <b>40</b> Apt Elev <b>40</b>	<b>4976</b>
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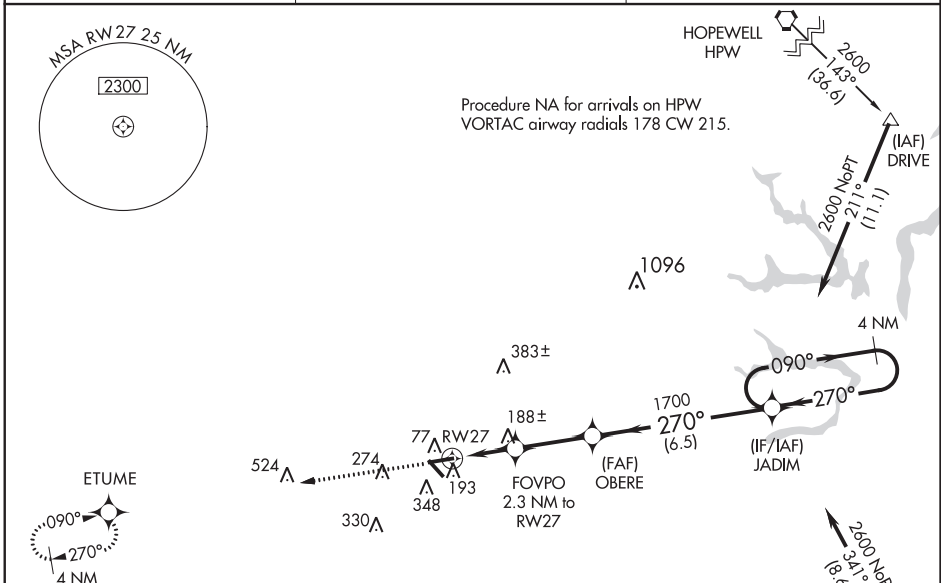
# RNAV (GPS) RWY 27

FRANKLIN MUNI-JOHN BEVERLY ROSE (F'KN)

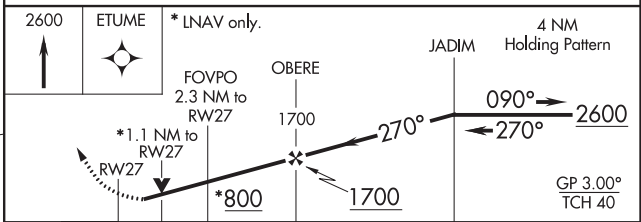
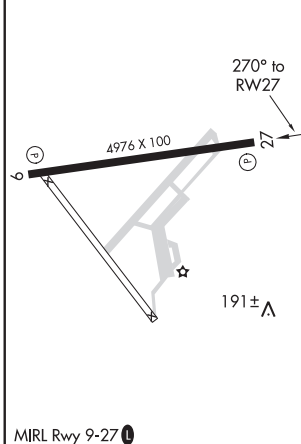
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). Baro-VNAV and VDP NA when using Suffolk altimeter setting. DME/DME RNP-0.3 NA. Circling Rwy 9 at night, operational VGSI required, remain on or above VGSI glidepath until threshold. When local altimeter setting not received, use Suffolk altimeter setting: increase LPV DA to 404 feet and visibility all Cats ¼ SM; increase LNAV/VNAV DA to 392 feet and visibility all Cats ¼ SM; increase all MDA 40 feet and LNAV Cats C/D visibility ½ SM. Rwy 27 helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:** Climb to 2600 direct ETUME and hold.

AWOS-3 <b>124.675</b>	NORFOLK APP CON <b>127.9 269.42</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV <b>40</b>	TDZE <b>40</b>
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CATEGORY	A	B	C	D
LPV DA	366-1 3/8		326 (400-1 1/8)	
LNAV/VNAV DA	354-1		314 (400-1)	
LNAV MDA	440-1 400 (400-1)		440-1 1/8 400 (400-1 1/8)	
CIRCLING	660-1 620 (700-1)		660-1 3/4 620 (700-1 3/4) 660-2 620 (700-2)	

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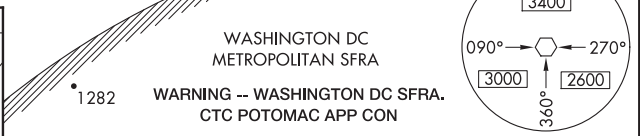
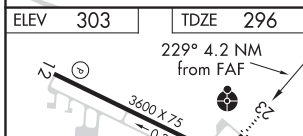
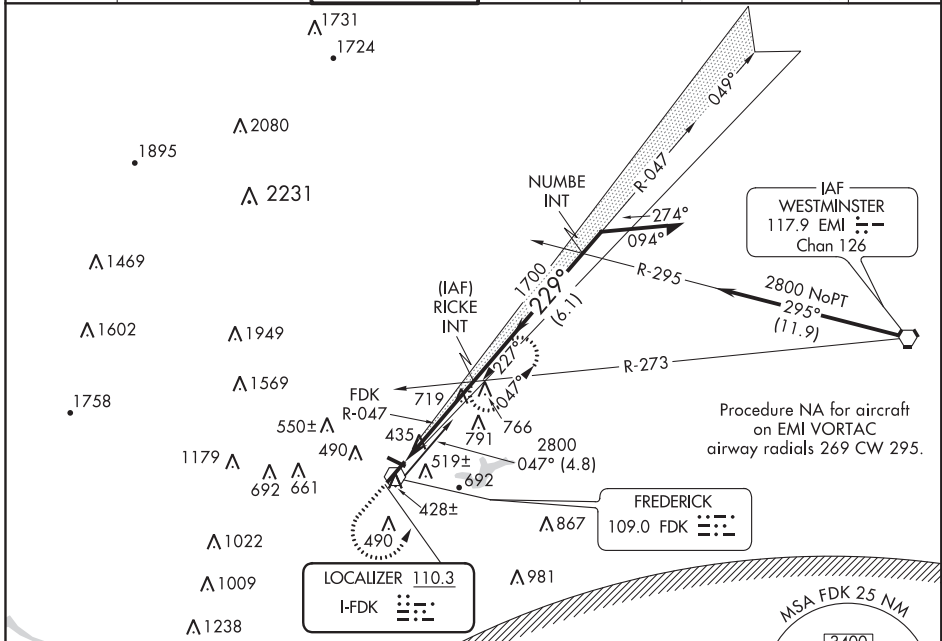
LOC I- <b>FDK</b> <b>110.3</b>	APP CRS <b>229°</b>	Rwy ldg TDZE <b>5219</b> <b>296</b>	Apt Elev <b>303</b>
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# ILS or LOC RWY 23

FREDERICK MUNI (F'DK)

<p><b>▼</b> Inoperative table does not apply to S-LOC Cat C.</p> <p><b>▲</b> NA Night Landing: Rwy 30 NA.</p>	<p><b>ODALS</b></p>	<p><b>MISSED APPROACH:</b> Climb to 1300, then climbing left turn to 2800 via FDK R-047 to RICKE INT and hold.</p>
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<p>ATIS <b>124.875</b></p>	<p>POTOMAC APP CON <b>125.525 291.625</b></p>	<p>FREDERICK TOWER ★ <b>132.4 (CTAF)</b> <b>0</b></p>	<p>GND CON <b>121.975</b></p>	<p>CLNC DEL <b>121.975</b></p>	<p>POTOMAC CLNC DEL <b>126.9</b> (when tower closed)</p>	<p>UNICOM <b>122.95</b></p>
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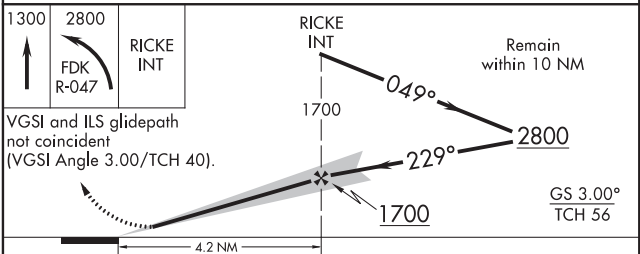
REIL Rwy 5, 12, 23 and 30 **0**

HIRL Rwy 5-23 **0**

MIRL Rwy 12-30 **0**

FAF to MAP 4.2 NM

Knots	60	90	120	150	180
Min:Sec	4:12	2:48	2:06	1:41	1:24



CATEGORY	A	B	C	D
S-ILS 23		684-1½	388 (400-1½)	
S-LOC 23	1020-¾	724 (800-¾)	1020-2 724 (800-2)	1020-2¼ 724 (800-2¼)
CIRCLING	1020-1½	717 (800-1½)	1080-2¼ 777 (800-2¼)	1160-2¾ 857 (900-2¾)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

FREDERICK, MARYLAND

AL-5089 (FAA)

16035

APP CRS	Rwy Idg	<b>5219</b>
<b>048°</b>	TDZE	<b>303</b>
	Apt Elev	<b>303</b>

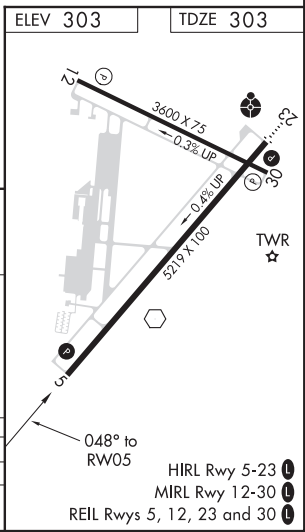
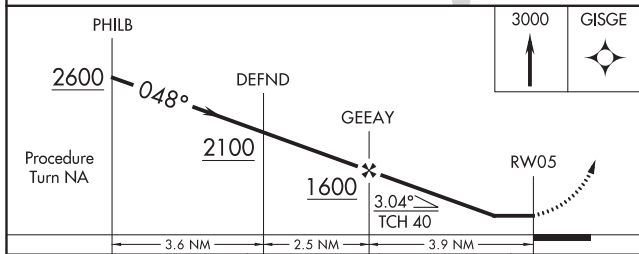
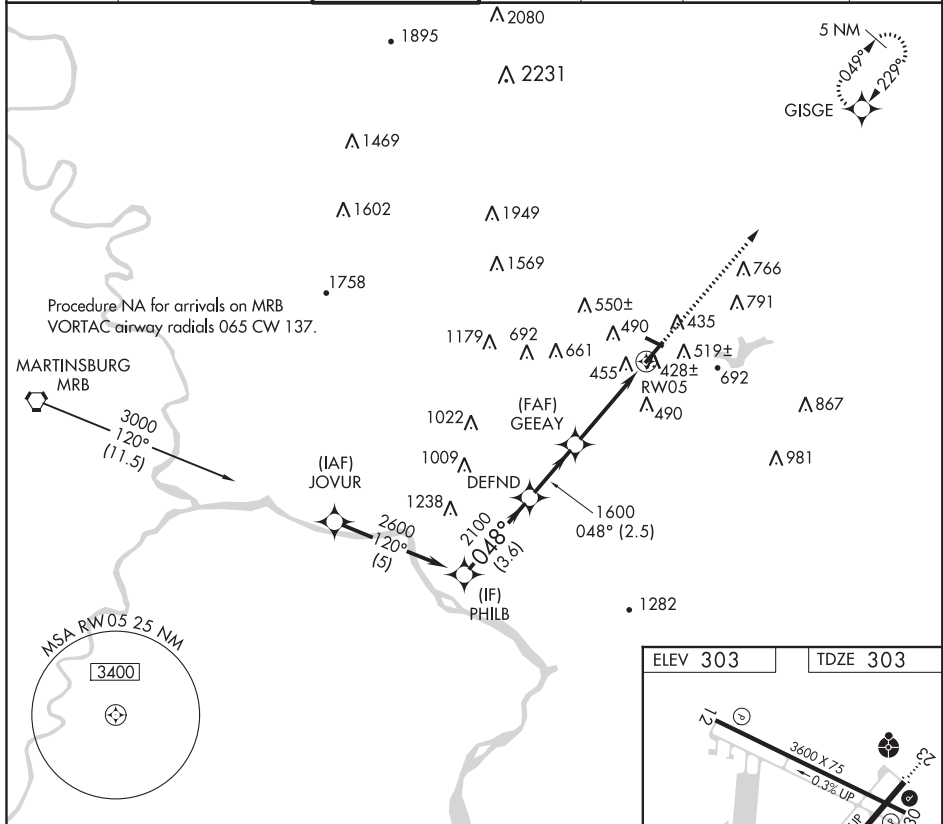
# RNAV (GPS) RWY 5

FREDERICK MUNI (F'DK)

**▼** DME/DME RNP -0.3 NA. When local altimeter setting not received, use Leesburg altimeter setting and increase all MDA 80 feet; increase LNAV Cat D and Circling Cats C/D visibility ¼ mile. Night Landing: Rwy 30 NA. Helicopter visibility reduction below ¼ SM NA.

**▲** MISSED APPROACH: Climb to 3000 direct GISGE and hold.

ATIS <b>124.875</b>	POTOMAC APP CON <b>125.525 291.625</b>	FREDERICK TOWER ★ <b>132.4</b> (CTAF) <b>0</b>	GND CON <b>121.975</b>	CLNC DEL <b>121.975</b>	POTOMAC CLNC DEL <b>126.9</b> (when tower closed)	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LNAV MDA	720-1 417 (500-1)		720-1¼ 417 (500-1¼)	
CIRCLING	900-1 597 (600-1)		900-1½ 597 (600-1½)	1080-2½ 777 (800-2½)

FREDERICK, MARYLAND  
Orig-C 28MAY15

39°25'N-77°22'W

FREDERICK MUNI (F'DK)  
**RNAV (GPS) RWY 5**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

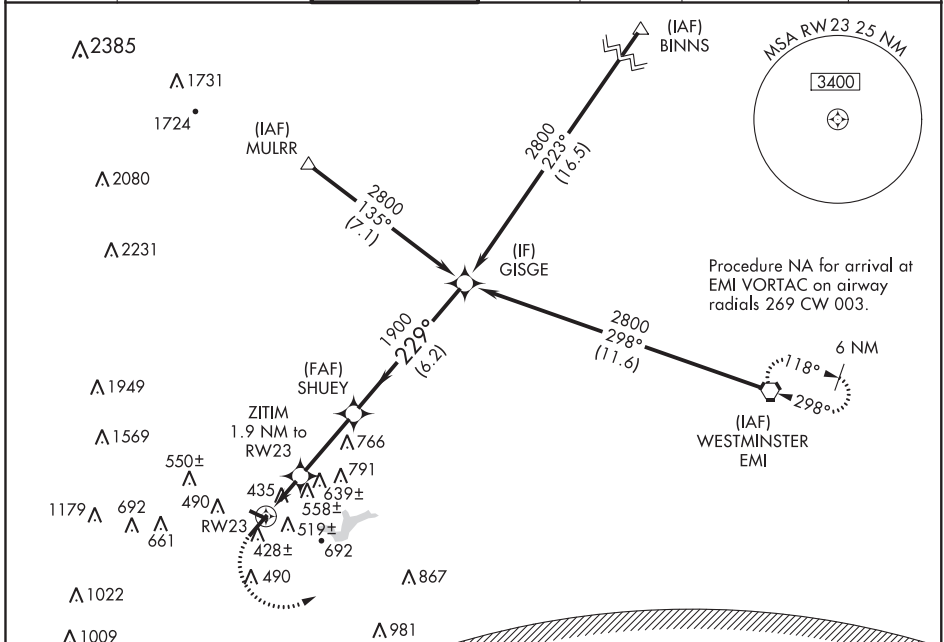
APP CRS	Rwy Idg	<b>5219</b>
<b>229°</b>	TDZE	<b>296</b>
	Apt Elev	<b>303</b>

# RNAV (GPS) Y RWY 23

FREDERICK MUNI (F'DK)

<p><b>▼</b> DME/DME RNP-0.3 NA. Inoperative table does not apply to Cat C. <b>▲</b> Night Landing: Rwy 30 NA.</p>	<p><b>ODALS</b></p>	<p>MISSED APPROACH: Climbing left turn to 3000 direct EMI VORTAC and hold.</p>
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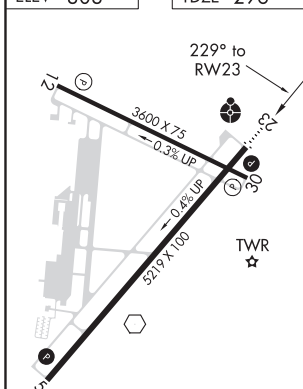
ATIS <b>124.875</b>	POTOMAC APP CON <b>125.525 291.625</b>	FREDERICK TOWER ★ <b>132.4 (CTAF) 0</b>	GND CON <b>121.975</b>	CLNC DEL <b>121.975</b>	POTOMAC CLNC DEL <b>126.9</b> (when tower closed)	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

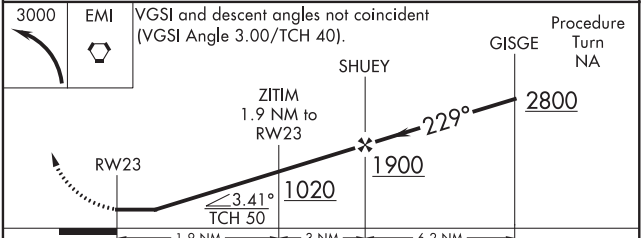
NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 303	TDZE 296
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REIL Rws 5, 12, 23 and 30  
HIRL Rwy 5-23  
MIRL Rwy 12-30

WASHINGTON DC METROPOLITAN SFRA  
**WARNING -- WASHINGTON DC SFRA. CTC POTOMAC APP CON**



CATEGORY	A	B	C	D
LNAV MDA	820-3/4 524 (600-3/4)		820-1 1/2 524 (600-1 1/2)	820-1 3/4 524 (600-1 3/4)
CIRCLING	900-1 597 (600-1)		1080-2 1/4 777 (800-2 1/4)	1160-2 3/4 857 (900-2 3/4)

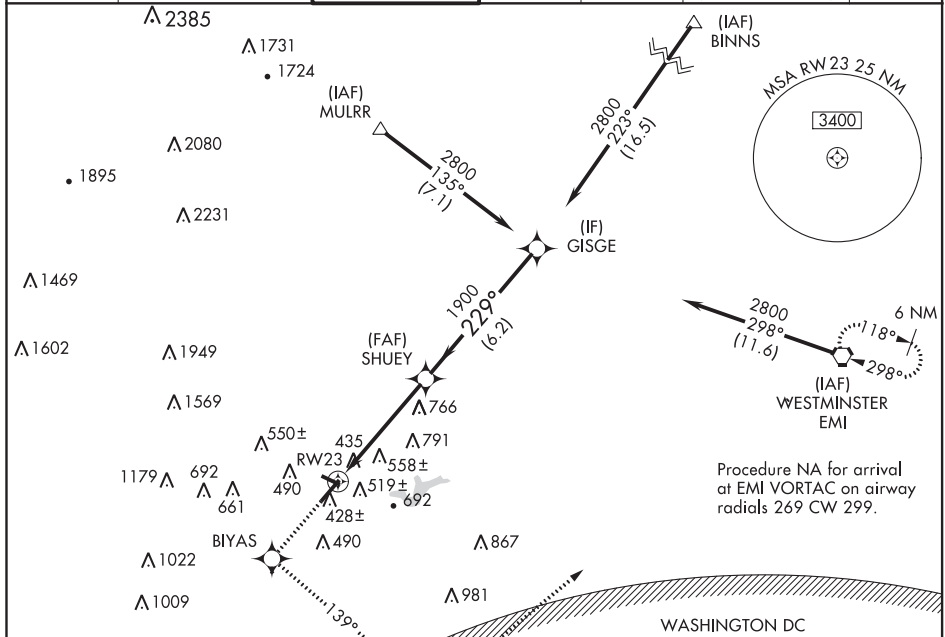
WAAS CH <b>81802</b> <b>W23A</b>	APP CRS <b>229°</b>	Rwy Idg <b>5219</b> TDZE <b>296</b> Apt Elev <b>303</b>
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# RNAV (GPS) Z RWY 23

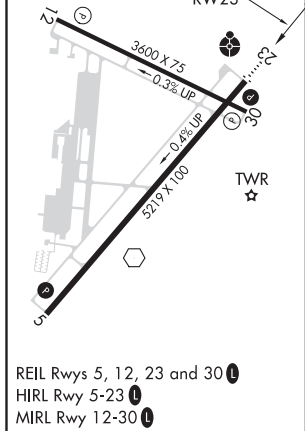
FREDERICK MUNI (F'DK)

<p><b>▼</b> DME/DME RNP-0.3 NA. Baro-VNAV NA below -15°C (5°F) or above 54°C (130°F). Night Landing: Rwy 30 NA. Inop table does not apply to LPV, LNAV/VNAV all Cats, and LNAV Cat C.</p>	<p>ODALS</p>	<p>MISSED APPROACH: Climb to 3000 direct BIYAS WP and via 139° track to FEDIT WP and via 059° track to EMI VORTAC and hold.</p>
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ATIS <b>124.875</b>	POTOMAC APP CON <b>125.525 291.625</b>	FREDERICK TOWER ★ <b>132.4</b> (CTAF) <b>0</b>	GND CON <b>121.975</b>	CLNC DEL <b>121.975</b>	POTOMAC CLNC DEL <b>126.9</b> (when tower closed)	UNICOM <b>122.95</b>
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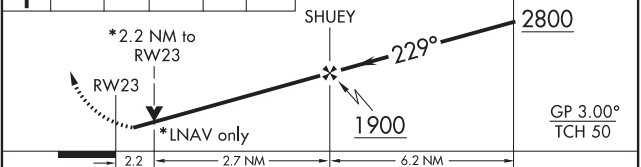


ELEV 303	TDZE 296
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**WARNING -- WASHINGTON DC SFRA.**  
CTC POTOMAC APP CON

3000	BIYAS	FEDIT	EMI	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 40).	Procedure Turn NA
↑	tr 139°	tr 059°			



CATEGORY	A	B	C	D
LPV DA	690-1½ 394 (400-1½)			
LNAV/VNAV DA	1020-2½ 724 (800-2½)			
LNAV MDA	1020-¾ 724 (800-¾)	1020-2 724 (800-2)	1020-2¼ 724 (800-2¼)	1020-2½ 724 (800-2½)
<b>C</b> CIRCLING	1020-1 717 (800-1)	1080-2¼ 777 (800-2¼)	1160-2¾ 857 (900-2¾)	

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



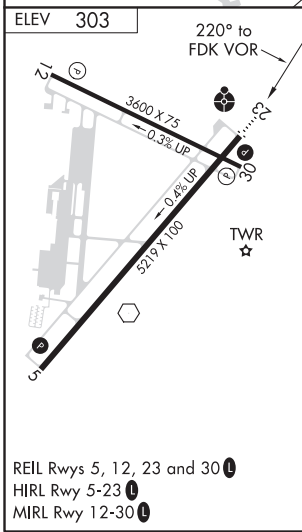
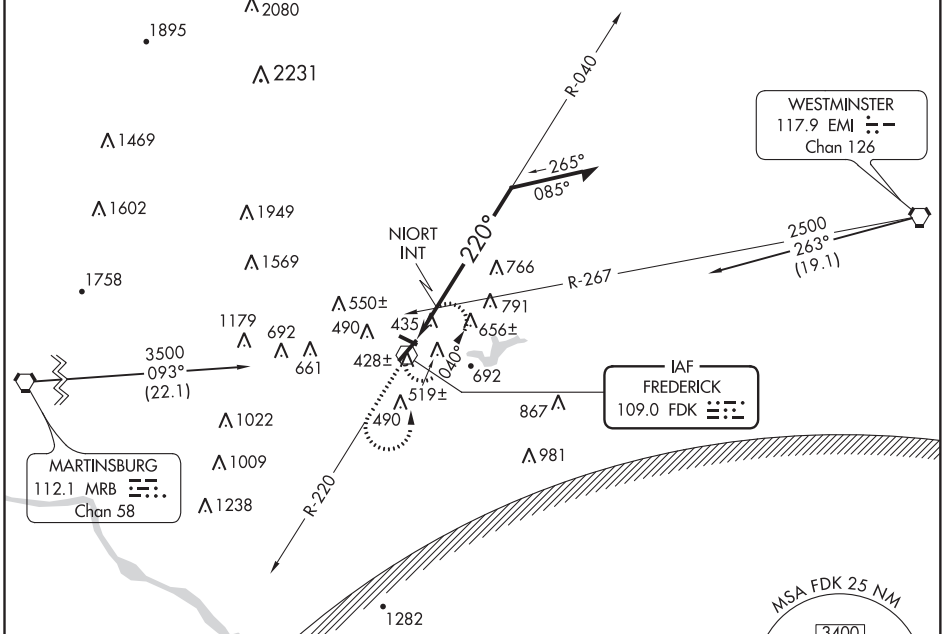
VOR FDK <b>109.0</b>	APP CRS <b>220°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>303</b>
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**VOR-A**  
FREDERICK MUNI (FDK)

**NA** Night Landing: Rwy 30 NA.  
Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 2300 via FDK R-220 then left turn direct FDK VOR and hold.

ATIS <b>124.875</b>	POTOMAC APP CON <b>125.525 291.625</b>	FREDERICK TOWER ★ <b>132.4 (CTAF)</b>	GND CON <b>121.975</b>	CLNC DEL <b>121.975</b>	POTOMAC CLNC DEL <b>126.9</b> (when tower closed)	UNICOM <b>122.95</b>
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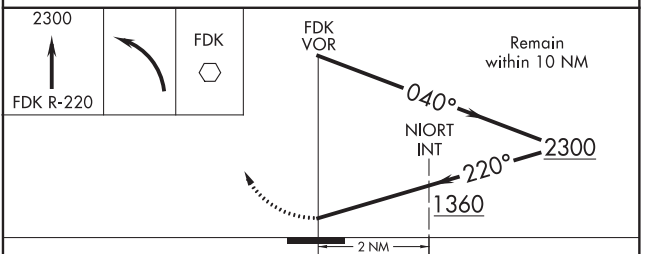


ELEV 303

220° to FDK VOR

WASHINGTON DC METROPOLITAN SFRA

WARNING -- WASHINGTON DC SFRA.  
CTC POTOMAC APP CON



CATEGORY	A	B	C	D
CIRCLING	1360-1¼ 1057 (1100-1¼)	1360-1½ 1057 (1100-1½)	1360-3	1057 (1100-3)
NIORT INT MINIMUMS				
CIRCLING	920-1	617 (700-1)	920-1¾ 617 (700-1¾)	1080-2½ 777 (800-2½)

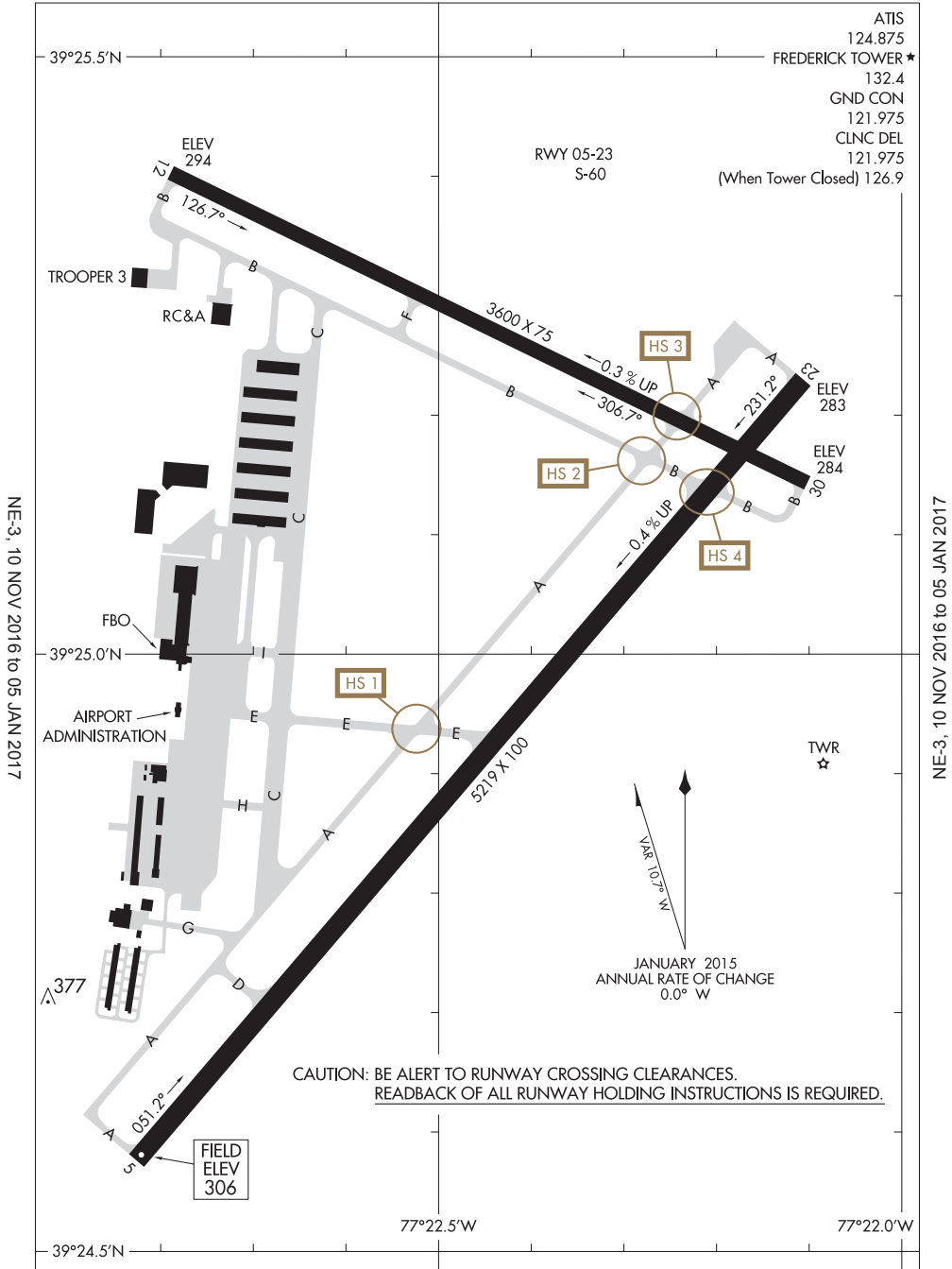
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

AL-5089 (FAA)

FREDERICK MUNI (F'DK)  
FREDERICK, MARYLAND



ATIS  
 124.875  
 FREDERICK TOWER ★  
 132.4  
 GND CON  
 121.975  
 CLNC DEL  
 121.975  
 (When Tower Closed) 126.9

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

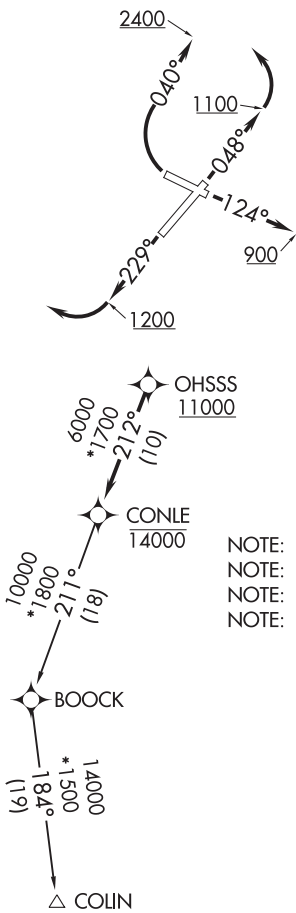
16147

FREDERICK, MARYLAND  
FREDERICK MUNI (F'DK)

# CONLE THREE DEPARTURE (RNAV)

ATIS  
 124.875  
 CLNC DEL  
 121.975  
 GND CON  
 121.975  
 FREDERICK TOWER\*  
 132.4 (CTAF)  
 UNICOM  
 122.95  
 POTOMAC DEP CON  
 125.52 291.62

**TOP ALTITUDE:  
ASSIGNED BY ATC**



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

**TAKEOFF MINIMUMS:**

- Rwy 5: Standard with minimum climb of 260' per NM to 1100.
- Rwy 12: 500-2<sup>3</sup>/<sub>4</sub> or standard with minimum climb of 395' per NM to 1000.
- Rwy 23: Standard.
- Rwy 30: Standard with minimum climb of 285' per NM to 900.

(NARRATIVE ON FOLLOWING PAGE)  
 (NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

## CONLE THREE DEPARTURE (RNAV)

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 5: Climb heading 048° to 1100 before turning left.

TAKEOFF RWY 12: Climb heading 124° to 900 before proceeding westbound.

TAKEOFF RWY 23: Climb heading 229° to 1200 before turning right.

TAKEOFF RWY 30: Climbing right turn heading 040° to 2400 before proceeding on course.

Fly heading and maintain altitude assigned by ATC, expect RADAR vectors to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000, then on COLIN transition. Expect filed altitude within 10 minutes after departure.

COLIN TRANSITION (CONLE3.COLIN)

## TAKEOFF OBSTACLES:

- Rwy 5: Light and sign beginning 44' from DER, 123' left of centerline, up to 3' AGL/286' MSL.  
Trees beginning 1467' from DER, 630' right of centerline, up to 90' AGL/389' MSL.  
Trees beginning 2645' from DER, 610' left of centerline, up to 75' AGL/394' MSL.  
Trees beginning 4525' from DER, 597' left of centerline, up to 75' AGL/434' MSL.  
Elevator and trees beginning 4824' from DER, 341' right of centerline, up to 76' AGL/435' MSL.  
Trees 1.2 NM from DER, 1562' right of centerline, up to 95' AGL/514' MSL.  
Trees 1.4 NM from DER, 936' right of centerline, up to 89' AGL/508' MSL.
- Rwy 12: Wall and trees beginning 45' from DER, 283' right of centerline, up to 14' AGL/308' MSL.  
Trees beginning 1312' from DER, 228' left of centerline, up to 82' AGL/391' MSL.  
Trees beginning 1667' from DER, 75' right of centerline, up to 83' AGL/362' MSL.  
Building and trees beginning 3292' from DER, 45' left of centerline, up to 113' AGL/552' MSL.  
Tower, pole, grain silos, and trees beginning 3365' from DER, 41' from DER, up to 101' AGL/520' MSL.  
Trees 2.1 NM from DER, 1377' left of centerline, up to 90' AGL/779' MSL.  
Trees 2.3 NM from DER, 2711' left of centerline, up to 107' AGL/636' MSL.
- Rwy 23: Vehicles on road and trees beginning 134' from DER, 376' right of centerline, up to 21' AGL/327' MSL.  
Pole, buildings, and trees beginning 737' from DER, 286' right of centerline, up to 47' AGL/362' MSL.  
Poles and trees beginning 1477' from DER, 41' left of centerline, up to 72' AGL/411' MSL.  
Trees beginning 1701' from DER, 55' right of centerline, up to 78' AGL/397' MSL.
- Rwy 30: Poles and trees beginning 4' from DER, 320' right of centerline, up to 22' AGL/316' MSL.  
Antenna on building and trees beginning 1255' from DER, 750' left of centerline, up to 56' AGL/335' MSL.  
Trees beginning 1096' from DER, 351' right of centerline, up to 77' AGL/336' MSL.  
Trees 1962' from DER, 105' right of centerline, up to 77' AGL/356' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

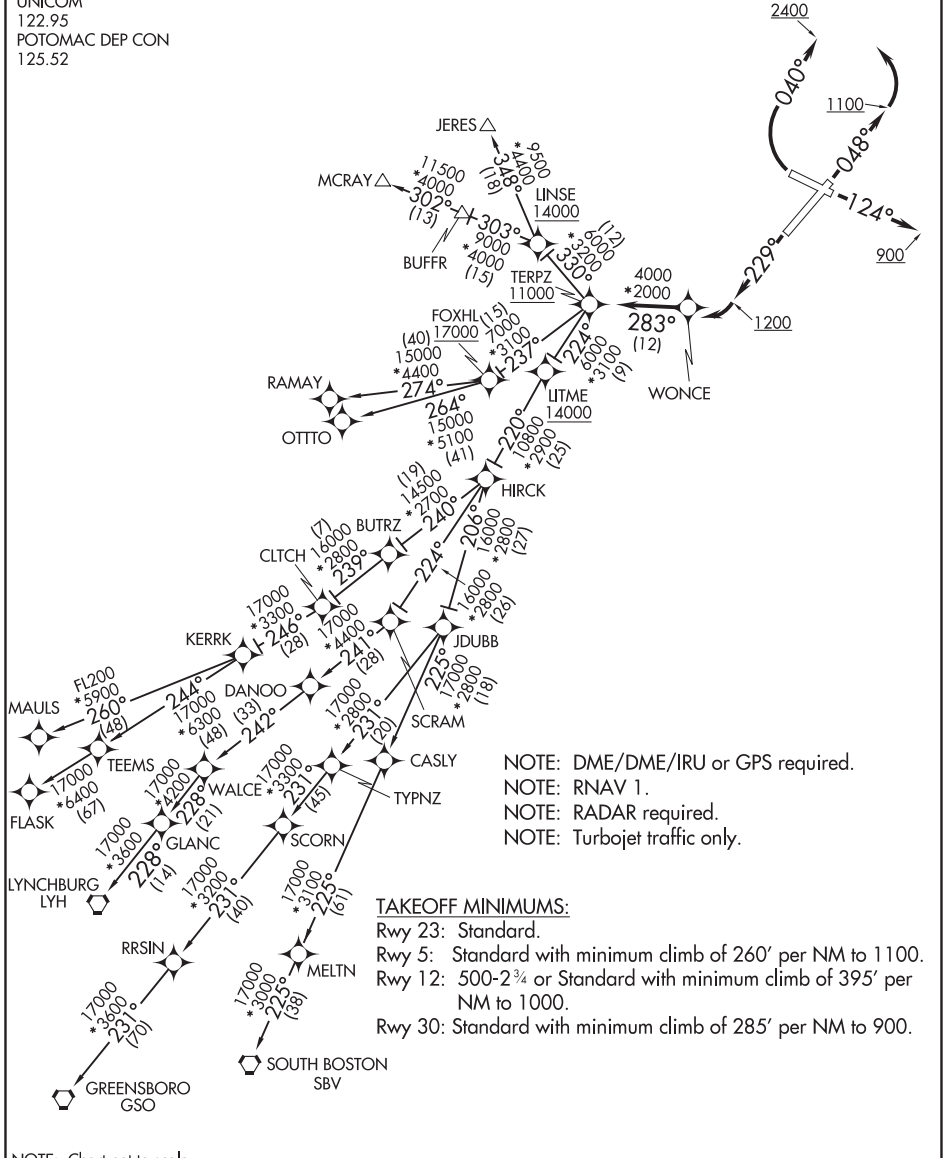
NE-3, 10 NOV 2016 to 05 JAN 2017

# TERPZ SIX DEPARTURE (RNAV)

FREDERICK, MARYLAND

- ATIS 124.875
- CLNC DEL 121.975
- GND CON 121.975
- FREDERICK TOWER\* 132.4 (CTAF)
- UNICOM 122.95
- POTOMAC DEP CON 125.52

**TOP ALTITUDE:**  
**RAMAY, OTTTO, MAULS, FLASK,**  
**SBV, LYH, GSO TRANSITIONS:**  
**17000**  
**JERES, MCRAY TRANSITIONS:**  
**16000**



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

# TERPZ SIX DEPARTURE (RNAV)

FREDERICK, MARYLAND

## TERPZ SIX DEPARTURE (RNAV)

FREDERICK, MARYLAND



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 5: Climb heading 048° to 1100 before turning left.

TAKEOFF RWY 12: Climb heading 124° to 900 before proceeding westbound.

TAKEOFF RWY 23: Climb heading 229° to 1200 before turning right.

TAKEOFF RWY 30: Climbing right turn heading 040° to 2400 before proceeding on course.

Fly heading and maintain altitude assigned by ATC, expect RADAR vectors to WONCE, then on track 283° to cross TERPZ at or above 11000, thence. . . .

. . . on assigned transition: Departures on JERES and MCRAV transitions maintain 16000.

Departures on RAMAY, OTTTO, MAULS, FLASK, LYH, GSO, SBV transitions maintain 17000, expect further clearance to filed altitude within 10 minutes after departure.

FLASK TRANSITION (TERPZ6.FLASK):

GREENSBORO TRANSITION (TERPZ6.GSO):

JERES TRANSITION (TERPZ6.JERES):

LYNCHBURG TRANSITION (TERPZ6.LYH):

MAULS TRANSITION (TERPZ6.MAULS):

MCRAV TRANSITION (TERPZ6.MCRAV):

OTTTO TRANSITION (TERPZ6.OTTTO):

RAMAY TRANSITION (TERPZ6.RAMAY):

SOUTH BOSTON TRANSITION (TERPZ6.SBV):

## TAKEOFF OBSTACLES:

Rwy 5: Light and sign beginning 44' from DER, 123' left of centerline, up to 3' AGL/286' MSL.

Trees beginning 1467' from DER, 630' right of centerline, up to 90' AGL/389' MSL.

Trees beginning 2645' from DER, 610' left of centerline, up to 75' AGL/394' MSL.

Trees beginning 4525' from DER, 597' left of centerline, up to 75' AGL/434' MSL.

Elevator and trees beginning 4824' from DER, 341' right of centerline, up to 76' AGL/435' MSL.

Trees 1.2 NM from DER, 1562' right of centerline, up to 95' AGL/514' MSL.

Trees 1.4 NM from DER, 936' right of centerline, up to 89' AGL/508' MSL.

Rwy 12: Wall and trees beginning 45' from DER, 283' right of centerline, up to 14' AGL/308' MSL.

Trees beginning 1312' from DER, 228' left of centerline, up to 82' AGL/391' MSL.

Trees beginning 1667' from DER, 75' right of centerline, up to 83' AGL/362' MSL.

Building and trees beginning 3292' from DER, 45' left of centerline, up to

113' AGL/552' MSL.

Tower, pole, grain silos, and trees beginning 3365' from DER, 41' from DER, up to 101' AGL/520' MSL.

Trees 2.1 NM from DER, 1377' left of centerline, up to 90' AGL/779' MSL.

Trees 2.3 NM from DER, 2711' left of centerline, up to 107' AGL/636' MSL.

Rwy 23: Vehicles on road and trees beginning 134' from DER, 376' right of centerline, up to 21' AGL/327' MSL.

Pole, buildings, and trees beginning 737' from DER, 286' right of centerline, up to 47' AGL/362' MSL.

Poles and trees beginning 1477' from DER, 41' left of centerline, up to 72' AGL/411' MSL.

Trees beginning 1701' from DER, 55' right of centerline, up to 78' AGL/397' MSL.

Rwy 30: Poles and trees beginning 4' from DER, 320' right of centerline, up to 22' AGL/316' MSL.

Antenna on building and trees beginning 1255' from DER, 750' left of centerline, up to 56' AGL/335' MSL.

Trees beginning 1096' from DER, 351' right of centerline, up to 77' AGL/336' MSL.

Trees 1962' from DER, 105' right of centerline, up to 77' AGL/356' MSL.

## TERPZ SIX DEPARTURE (RNAV)

(TERPZ6.TERPZ) 04FEB16

FREDERICK, MARYLAND  
FREDERICK MUNI (F'DK)

APP CRS	Rwy Idg	<b>2964</b>
<b>235°</b>	TDZE	<b>85</b>
	Apt Elev	<b>85</b>

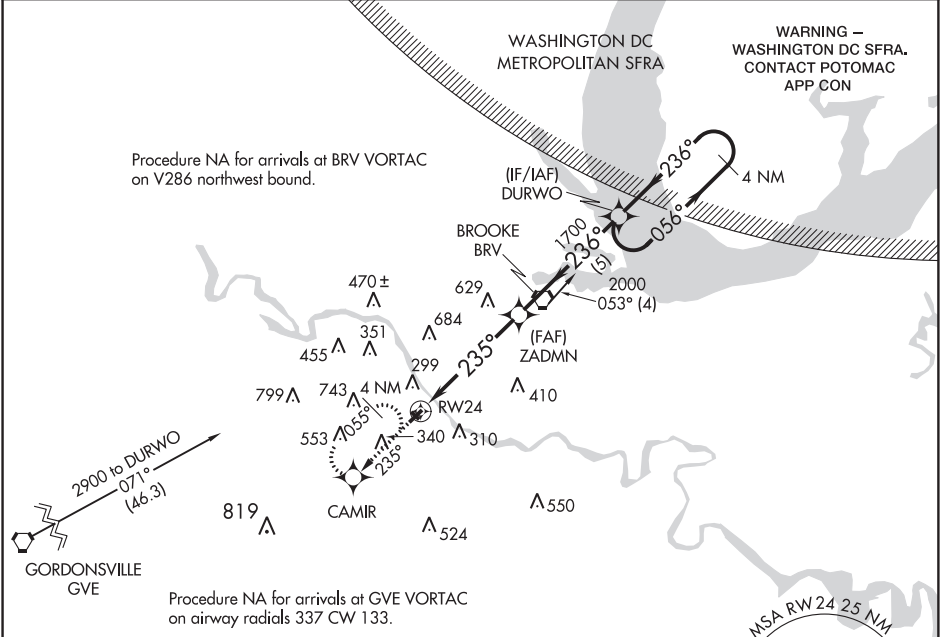
# RNAV (GPS) RWY 24

SHANNON (EZF)

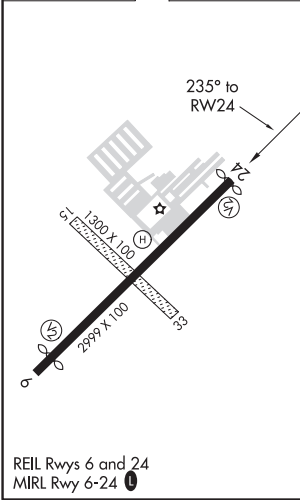
**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received use Stafford altimeter setting and increase all MDA 40 feet. Procedure NA at night. Circling NA to Rwy 15-33.

**⚠** MISSED APPROACH: Climb to 2000 direct CAMIR and hold.

AWOS-3 <b>128.125</b>	GCO <b>135.075</b>	UNICOM <b>122.8</b> (CTAF) <b>①</b>
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ELEV 85	TDZE 85
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2000 CAMIR VGS1 and descent angles not coincident. DURWO 4 NM Holding Pattern	RWY 24 ZADMN 3.00° TCH 40 1700 235° 236° 056° 2000			
	5 NM		5 NM	
CATEGORY LNAV MDA CIRCLING	A	B	C	D
	1100-3	1015 (1100-3)		NA
	1100-3	1015 (1100-3)		NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

FREDERICKSBURG, VIRGINIA

AL-5172 (FAA)

16203

NDB EZF <b>237</b>	APP CRS <b>237°</b>	Rwy ldg TDZE Apt Elev	<b>2964</b> <b>85</b> <b>85</b>
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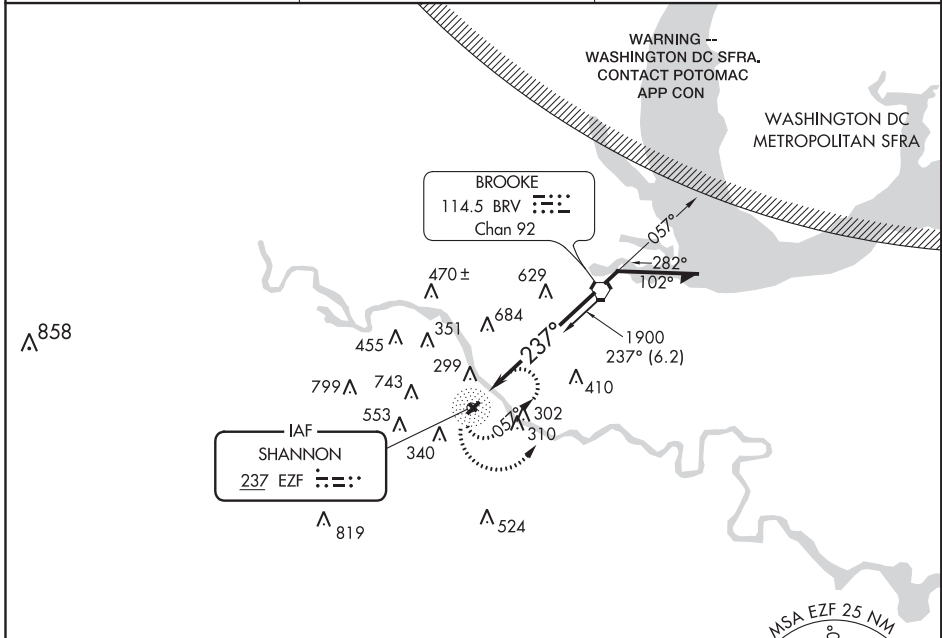
# NDB RWY 24

SHANNON (EZF)

**⚠** Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received use Stafford altimeter setting and increase all MDA 40 feet. Procedure NA at night. Circling NA to Rwy 15-33.

MISSED APPROACH: Climbing left turn to 1900 in EZF NDB holding pattern.

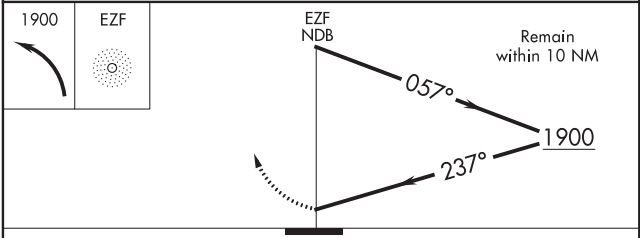
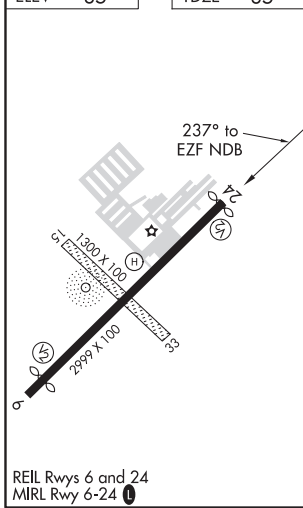
AWOS-3 <b>128.125</b>	GCO <b>135.075</b>	UNICOM <b>122.8 (CTAF) ①</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 85	TDZE 85
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CATEGORY	A	B	C	D
S-24	1100-3	1015 (1100-3)		NA
CIRCLING	1100-3	1015 (1100-3)		NA

FREDERICKSBURG, VIRGINIA  
Amdt 3A 11DEC14

38°16'N-77°27'W

# SHANNON (EZF) NDB RWY 24



APP CRS	Rwy Idg	<b>2289</b>
<b>059°</b>	TDZE	<b>118</b>
	Apt Elev	<b>118</b>

# RNAV (GPS) RWY 6

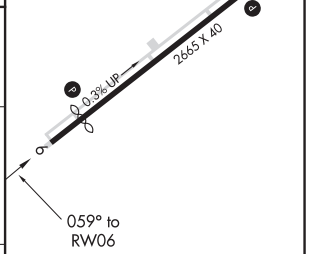
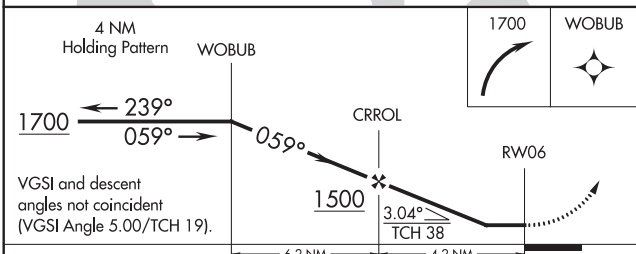
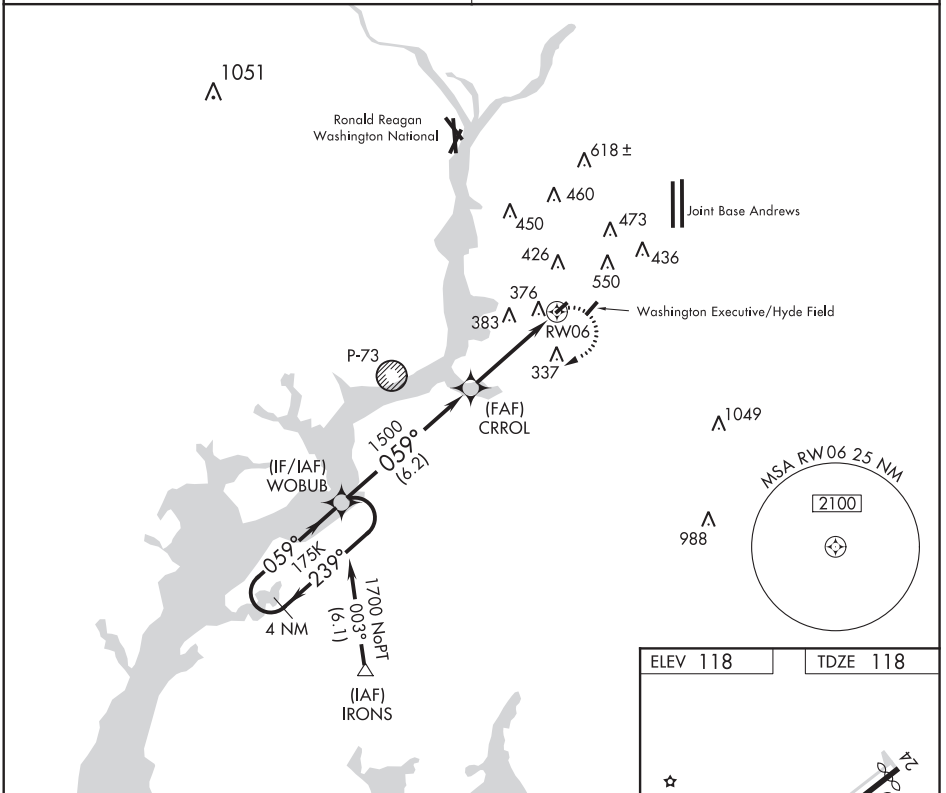
POTOMAC AIRFIELD (VKX)

**⚠** Circling NA SE of Rwy 6 and 24. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. If local altimeter setting not received, use Joint Base Andrews altimeter setting and increase all MDAs 40 feet.

**MISSED APPROACH:** Climbing right turn to 1700 direct WOBUB and hold.

POTOMAC APP CON  
**124.7 338.2**

UNICOM  
**122.8 (CTAF)**



CATEGORY	A	B	C	D
LNAV MDA	680-1 562 (600-1)		NA	
CIRCLING	740-1 622 (700-1)		NA	

ELEV 118	TDZE 118
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REIL Rwy 6-24  
MIRL Rwy 6-24

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

FRONT ROYAL, VIRGINIA

AL-10327 (FAA)

16315

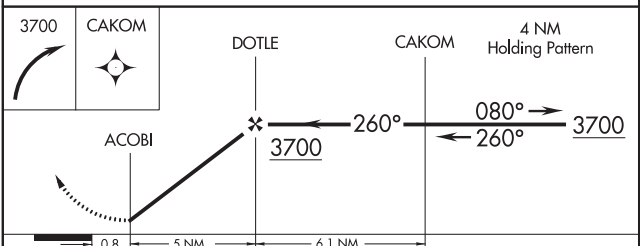
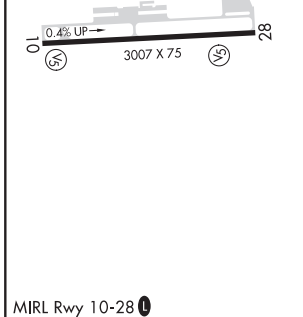
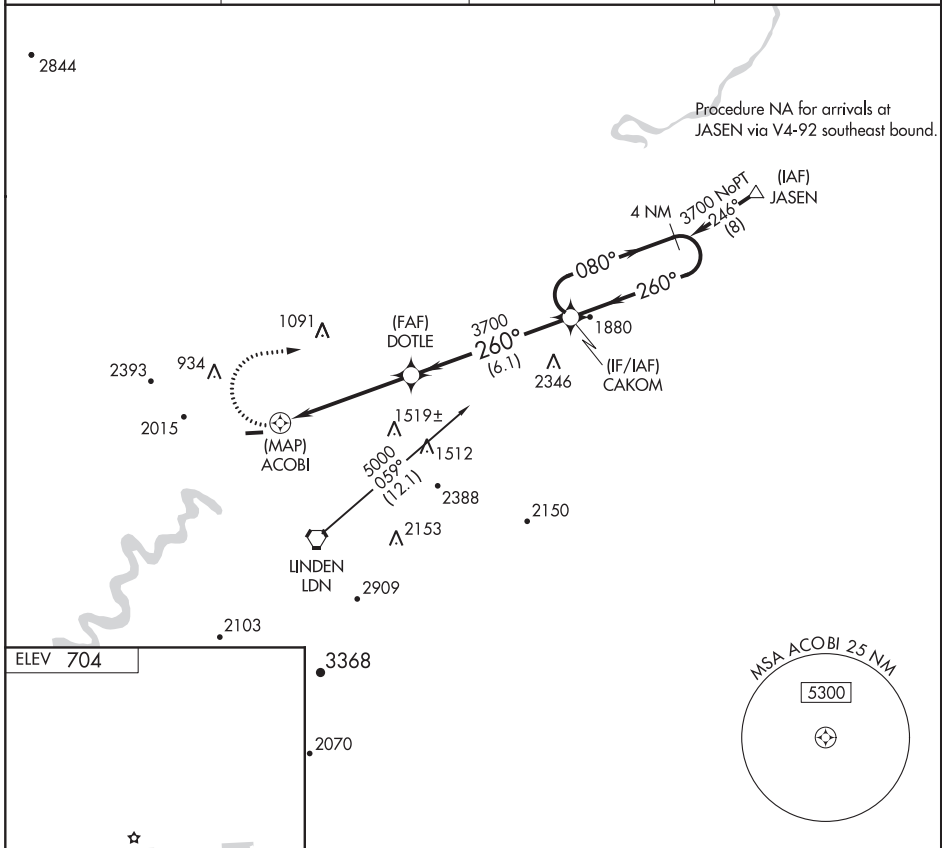
APP CRS <b>260°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>704</b>
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# RNAV (GPS) -A

FRONT ROYAL-WARREN COUNTY (F.R.R.)

NA -10°C/14°F	DME/DME RNP-0.3 NA. Procedure NA at night. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Winchester altimeter setting and increase all MDA 40 feet.	MISSED APPROACH: Climbing right turn to 3700 direct CAKOM and hold.
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AWOS-3 <b>121.85</b>	WINCHESTER RGNL AWOS-3 <b>124.85</b>	POTOMAC APP CON <b>120.45</b>	UNICOM <b>123.0</b> (CTAF)
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CATEGORY	A	B	C	D
CIRCLING	1820-1¼ 1116 (1200-1¼)	1820-1½ 1116 (1200-1½)	NA	

FRONT ROYAL, VIRGINIA  
Orig-B 18AUG16

38°55'N - 78°15'W

FRONT ROYAL-WARREN COUNTY (F.R.R.)

# RNAV (GPS) -A

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

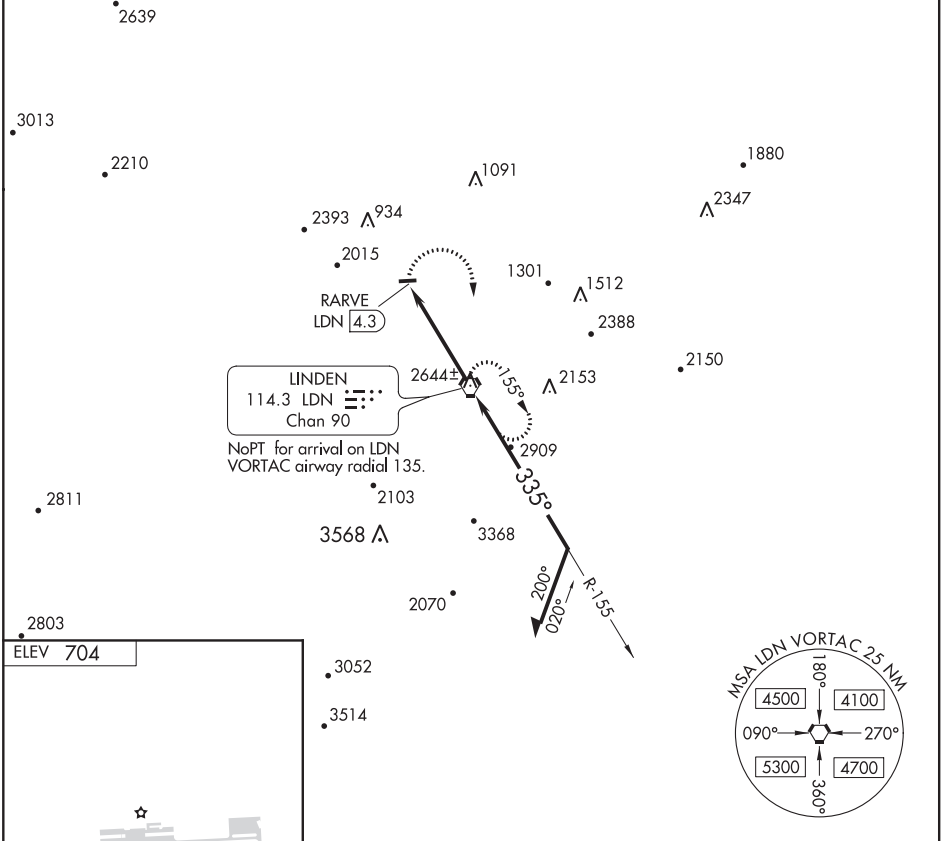
VORTAC LDN <b>114.3</b> Chan <b>90</b>	APP CRS <b>335°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>704</b>
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**VOR-B**

FRONT ROYAL-WARREN COUNTY (F.R.R.)

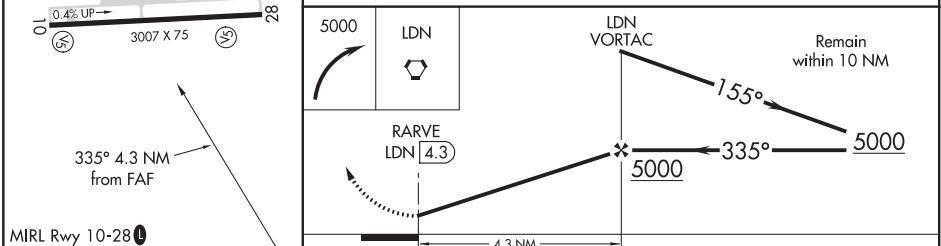
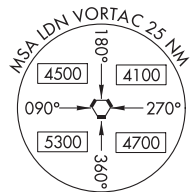
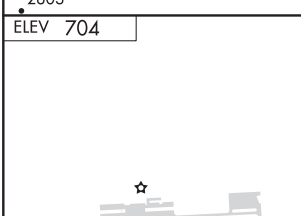
<p><b>NA</b></p> <p>Procedure NA at night. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Winchester altimeter setting and increase all MDA 40 feet.</p>	<p>MISSED APPROACH: Climbing right turn to 5000 direct LDN VORTAC and hold, continue climb-in-hold to 5000.</p>
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AWOS-3 <b>121.85</b>	WINCHESTER RGNL AWOS-3 <b>124.85</b>	POTOMAC APP CON <b>120.45</b>	UNICOM <b>123.0</b> (CTAF) <b>0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



FAF to MAP 4.3 NM						
Knots	60	90	120	150	180	
Min:Sec	4:18	2:52	2:09	1:43	1:26	
CATEGORY	A		B		C	D
CIRCLING	3300-1¼ 2596 (2600-1¼)		3300-1½ 2596 (2600-1½)		NA	

**VOR-B**

WAAS CH <b>77502</b> <b>W14A</b>	APP CRS <b>136°</b>	Rwy Idg TDZE Apt Elev	<b>4202</b> <b>520</b> <b>539</b>
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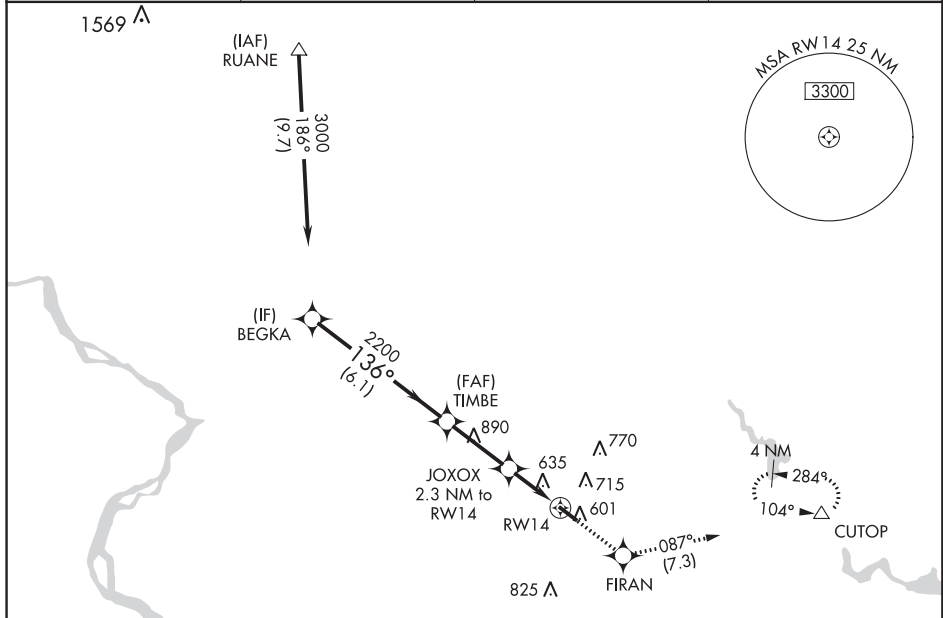
# RNAV (GPS) RWY 14

MONTGOMERY COUNTY AIRPARK (GAI)

**⚠** Baro-VNAV NA when using Washington Dulles Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 36°C (96°F).  
**⚠** When local altimeter setting not received, use Washington Dulles Intl altimeter setting and increase all DA/MDAs 80 feet and all visibilities ¼ mile.  
 DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA.

**MISSED APPROACH:**  
 Climb to 2100 direct  
 FIRAN and on track  
 087° to CUTOP and hold.

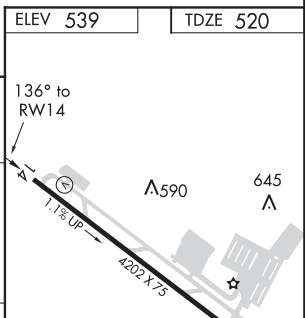
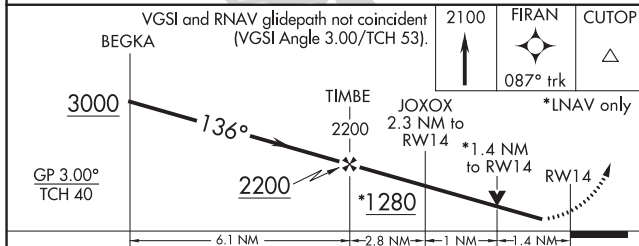
AWOS-3 <b>128.275</b>	POTOMAC APP CON <b>128.7 307.9</b>	CLNC DEL <b>121.6</b>	UNICOM <b>123.075 (CTAF)</b> <b>📞</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 539	TDZE 520
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CATEGORY	A	B	C	D
LPV DA	789-1 269 (300-1)			
LNAV/ VNAV DA	919-1½ 399 (400-1½)			
LNAV MDA	980-1 460 (500-1)	980-1¼ 460 (500-1¼)		980-1½ 460 (500-1½)
CIRCLING	1020-1 481 (500-1)	1020-1½ 481 (500-1½)		1100-2 561 (600-2)

REIL Rwy 14 and 32 **📞**  
 MRL Rwy 14-32 **📞**

APP CRS <b>220°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>539</b>
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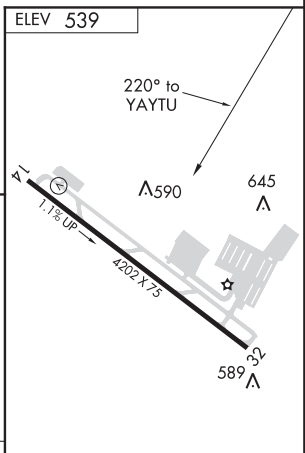
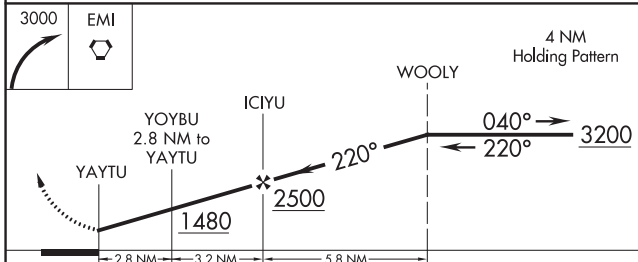
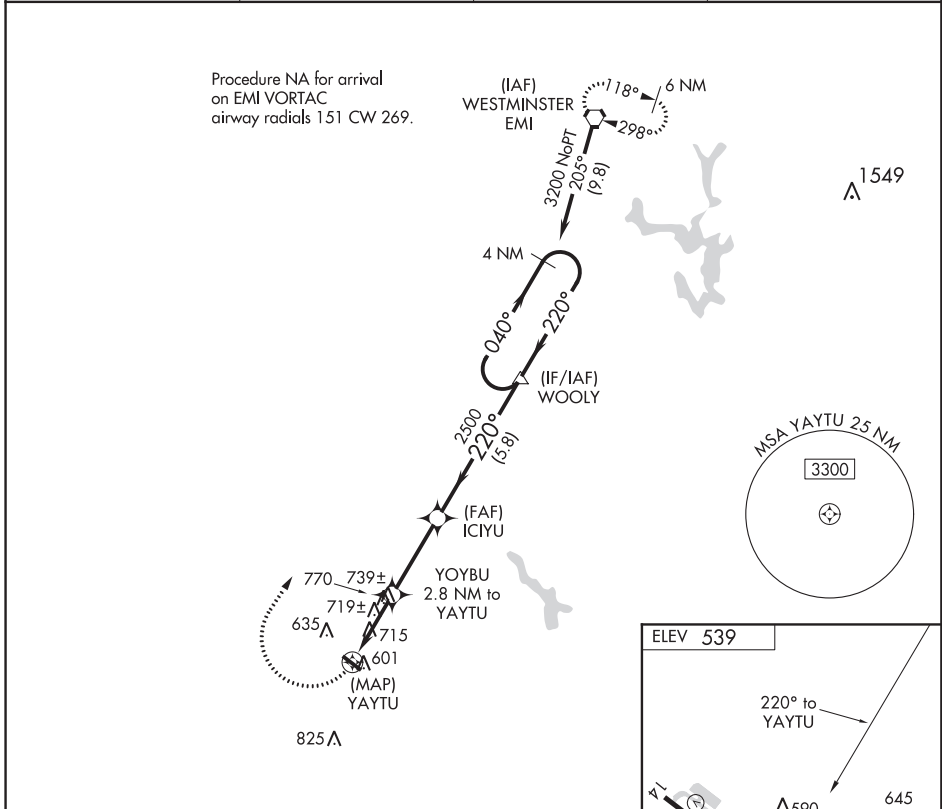
# RNAV (GPS)-A

MONTGOMERY COUNTY AIRPARK (GAI)

**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting is not received use Washington Dulles Intl altimeter setting: increase all MDA 80 feet.

**⚠** MISSED APPROACH: Climbing right turn to 3000 direct EMI VORTAC and hold.

AWOS-3 <b>128,275</b>	POTOMAC APP CON <b>128.7 307.9</b>	CLNC DEL <b>121.6</b>	UNICOM <b>123,075 (CTAF) 0</b>
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CATEGORY	A	B	C	D
CIRCLING	1020-1	481 (500-1)	1020-1½ 481 (500-1½)	1100-2 561 (600-2)

REIL Rwy 14 and 32 0  
MIRL Rwy 14-32 0

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

VOR FDK <b>109.0</b>	APP CRS <b>155°</b>	Rwy Idg <b>4202</b> TDZE <b>523</b> Apt Elev <b>538</b>
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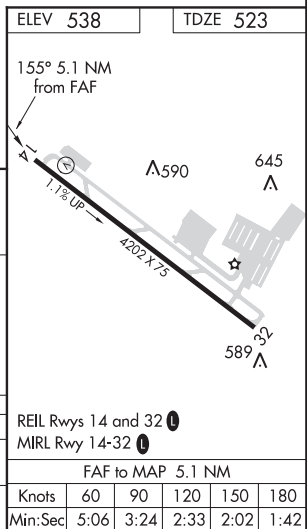
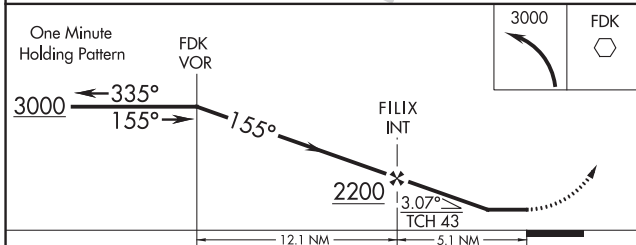
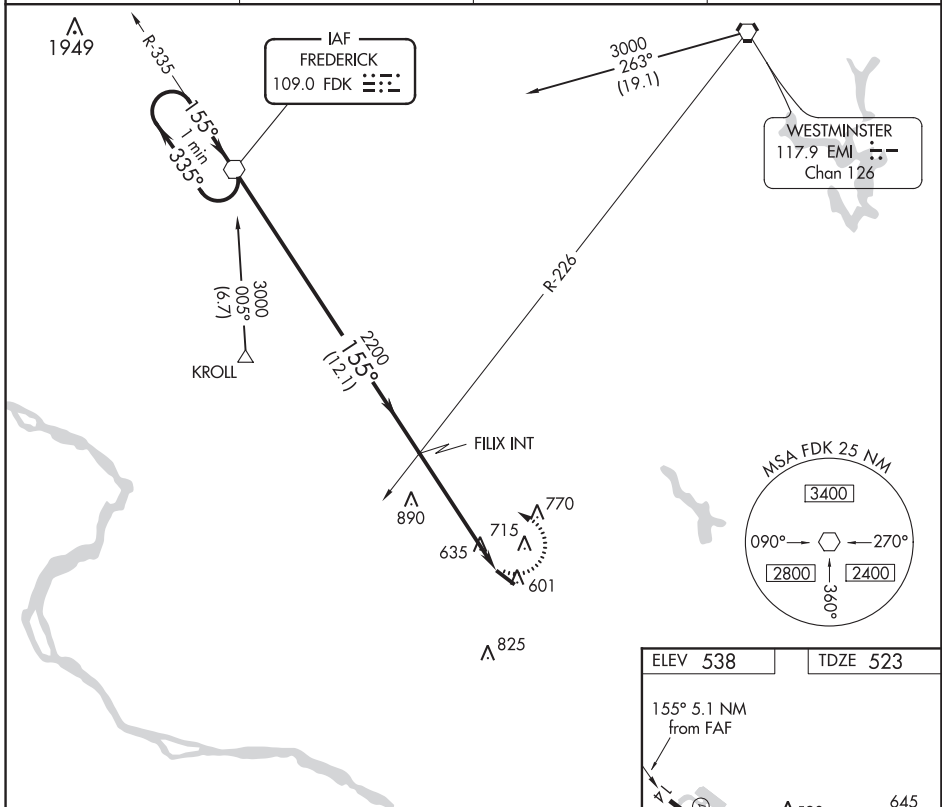
# VOR RWY 14

MONTGOMERY COUNTY AIRPARK (GAI)

**⚠** Circling to Rwy 32 NA at night.  
If local altimeter not received, use Washington Dulles  
Intl altimeter setting and increase all MDAs 80 feet.

**⚠** NA MISSED APPROACH: Climbing left turn to 3000  
direct FDK VOR and hold.

AWOS-3 <b>128.275</b>	POTOMAC APP CON <b>128.7 307.9</b>	CLNC DEL <b>121.6</b>	UNICOM <b>123.075 (CTAF)</b> <b>📞</b>
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CATEGORY	A	B	C	D
S-14	1200-1 677 (700-1)	677 (700-1)	1200-2 677 (700-2)	1200-2 1/4 677 (700-2 1/4)
CIRCLING	1200-1 662 (700-1)	662 (700-1)	1200-2 662 (700-2)	1200-2 1/4 662 (700-2 1/4)

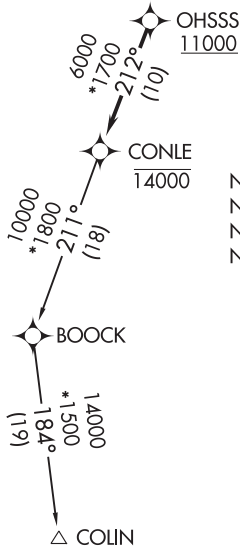
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# CONLE THREE DEPARTURE (RNAV)

AWOS-3  
128.275  
CLNC DEL  
121.6  
UNICOM  
123.075 (CTAF)  
POTOMAC DEP CON  
128.7 307.9

**TOP ALTITUDE:  
ASSIGNED BY ATC**



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

TAKEOFF MINIMUMS:  
Rwy 14, 32: Standard.

TAKEOFF OBSTACLES:

- Rwy 14: Building, pole, and trees beginning 217' from DER, 81' right of centerline, up to 52' AGL/601' MSL.  
Building, poles, and trees beginning 244' from DER, 196' left of centerline, up to 51' AGL/610' MSL.  
Trees 1323' from DER, 841' right of centerline, up to 117' AGL/656' MSL.  
Trees beginning 1965' from DER, 628' left of centerline, up to 104' AGL/663' MSL.
- Rwy 32: Trees beginning 26' from DER, 181' left of centerline, up to 77' AGL/556' MSL.  
Trees beginning 72' from DER, 202' right of centerline, up to 53' AGL/532' MSL.  
Trees beginning 3350' from DER, 903' right of centerline, up to 93' AGL/592' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

Fly heading and maintain altitude assigned by ATC, expect RADAR vectors to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000, then on COLIN transition. Expect filed altitude within 10 minutes after departure.

COLIN TRANSITION (CONLE3.COLIN)

(TERPZ6.TERPZ) 16035

SL-5212 (FAA)

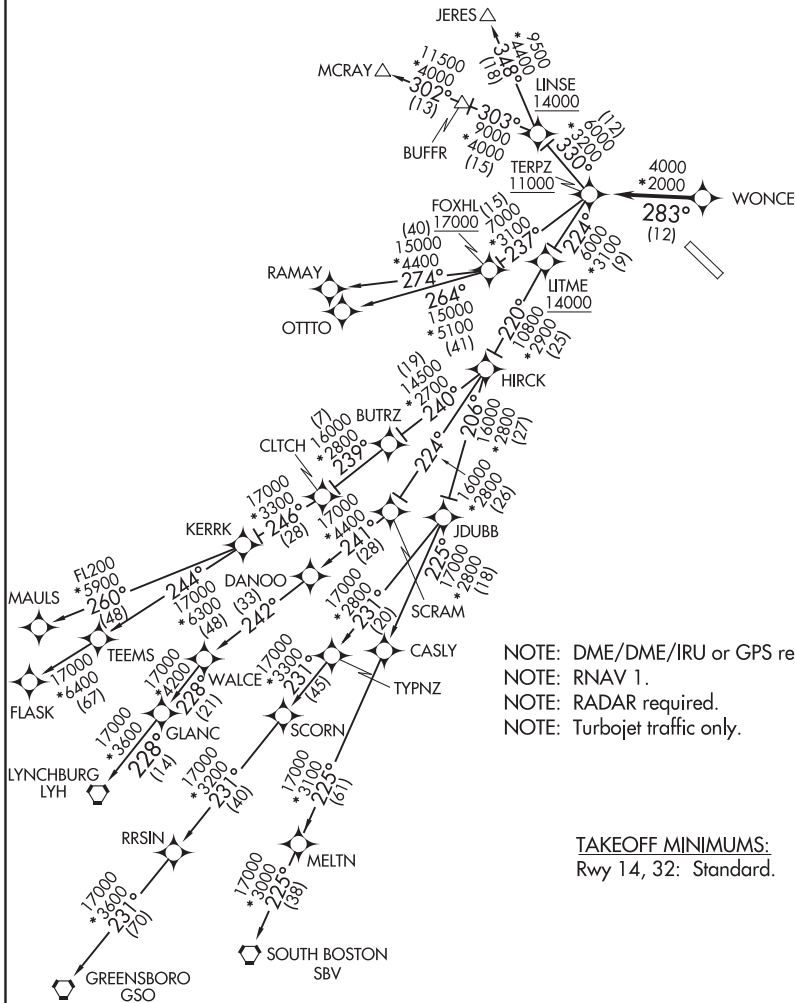
MONTGOMERY COUNTY AIRPARK (GAI)

GAITHERSBURG, MARYLAND

# TERPZ SIX DEPARTURE (RNAV)

AWOS-3  
 128.275  
 CLNC DEL  
 121.6  
 UNICOM  
 123.075 (CTAF)  
 POTOMAC DEP CON  
 128.7

**TOP ALTITUDE:**  
**RAMAY, OTTTO, MAULS, FLASK,**  
**SBV, LYH, GSO TRANSITIONS:**  
**17000**  
**JERES, MCRAY TRANSITIONS:**  
**16000**



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

TAKEOFF MINIMUMS:  
 Rwy 14, 32: Standard.

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# TERPZ SIX DEPARTURE (RNAV)

GAITHERSBURG, MARYLAND

MONTGOMERY COUNTY AIRPARK (GAI)

(TERPZ6.TERPZ) 04FEB16





DEPARTURE ROUTE DESCRIPTION

Fly heading and maintain altitude assigned by ATC, expect RADAR vectors to WONCE, then on track 283° to cross TERPZ at or above 11000, thence. . . .

. . . on assigned transition: Departures on JERES and MCRAY transitions maintain 16000. Departures on RAMAY, OTTTO, MAULS, FLASK, LYH, GSO, SBV transitions maintain 17000, expect further clearance to filed altitude within 10 minutes after departure.

- FLASK TRANSITION (TERPZ6.FLASK):
- GREENSBORO TRANSITION (TERPZ6.GSO):
- JERES TRANSITION (TERPZ6.JERES):
- LYNCHBURG TRANSITION (TERPZ6.LYH):
- MAULS TRANSITION (TERPZ6.MAULS):
- MCRAY TRANSITION (TERPZ6.MCRAY):
- OTTTO TRANSITION (TERPZ6.OTTTO):
- RAMAY TRANSITION (TERPZ6.RAMAY):
- SOUTH BOSTON TRANSITION (TERPZ6.SBV):

TAKEOFF OBSTACLES:

- Rwy 14: Building, pole, and trees beginning 217' from DER, 81' right of centerline, up to 52' AGL/601' MSL.  
 Building, poles, and trees beginning 244' from DER, 196' left of centerline, up to 51' AGL/610' MSL.  
 Trees 1323' from DER, 841' right of centerline, up to 117' AGL/656' MSL.  
 Trees beginning 1965' from DER, 628' left of centerline, up to 104' AGL/663' MSL.
- Rwy 32: Trees beginning 26' from DER, 181' left of centerline, up to 77' AGL/556' MSL.  
 Trees beginning 72' from DER, 202' right of centerline, up to 53' AGL/532' MSL.  
 Trees beginning 3350' from DER, 903' right of centerline, up to 93' AGL/592 MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>69527</b> <b>W01A</b>	APP CRS <b>007°</b>	Rwy Idg TDZE Apt Elev	<b>4204</b> <b>2694</b> <b>2694</b>
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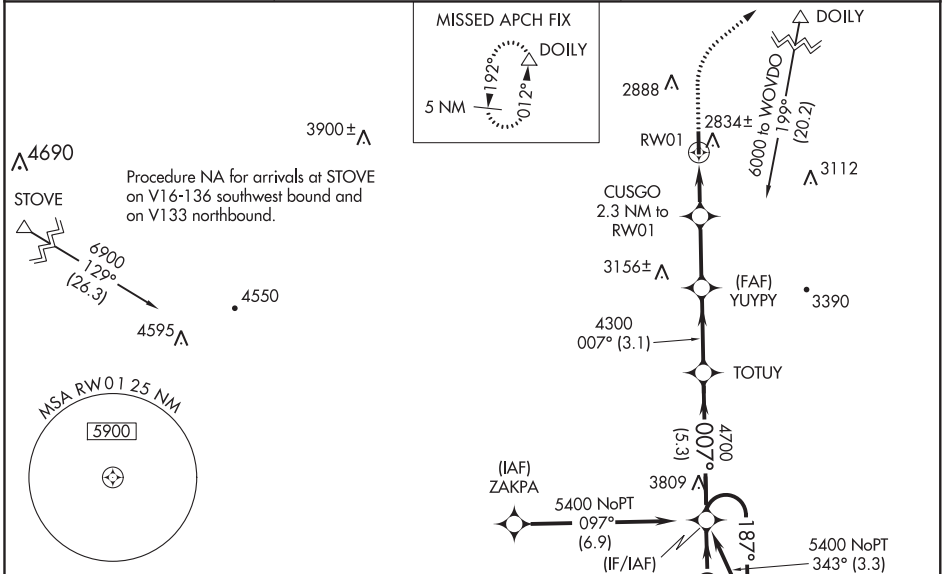
# RNAV (GPS) RWY 1

TWIN COUNTY (HLX)

**⚠** Baro-VNAV NA when using Dublin altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. VDP NA with Dublin altimeter setting. When local altimeter setting not received, use Dublin altimeter setting and increase all DA 137 feet and all MDA 140 feet, increase LPV all Cats visibility, LNAV/VNAV all Cats visibility and LNAV Cats C/D visibility ½ mile, and increase Circling Cats C/D visibility ¼ mile.

**MISSED APPROACH:** Climb to 3200 then climbing right turn to 5100 direct DOILY and hold, continue climb-in-hold to 5100.

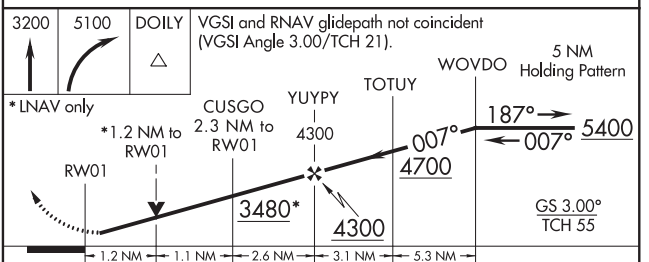
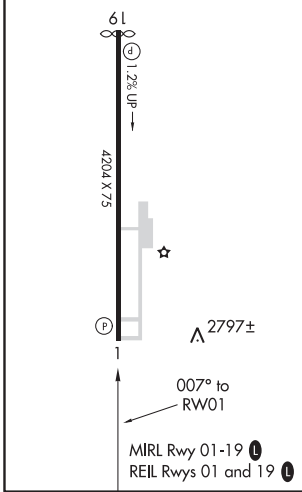
AWOS-3 <b>118.375</b>	ROANOKE APP CON <b>126.0 339.8</b>	UNICOM <b>122.8 (CTAF)</b> <b>⓪</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 2694	TDZE 2694
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CATEGORY	A	B	C	D
LPV DA		2965-1	271 (300-1)	
LNAV/VNAV DA		3016-1	322 (400-1)	
LNAV MDA	3100-1	406 (500-1)	3100-1½	406 (500-1½)
CIRCLING	3200-1	506 (600-1)	3200-1½ 506 (600-1½)	3260-2 566 (600-2)

WAAS CH <b>58027</b> <b>W19A</b>	APP CRS <b>187°</b>	Rwy Idg TDZE Apt Elev	<b>4154</b> <b>2687</b> <b>2694</b>
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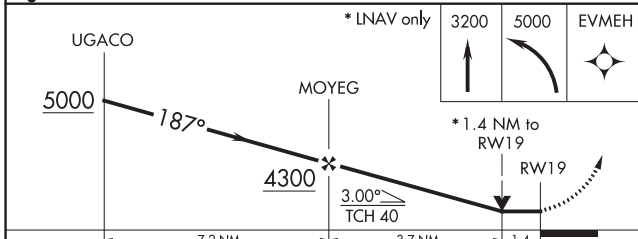
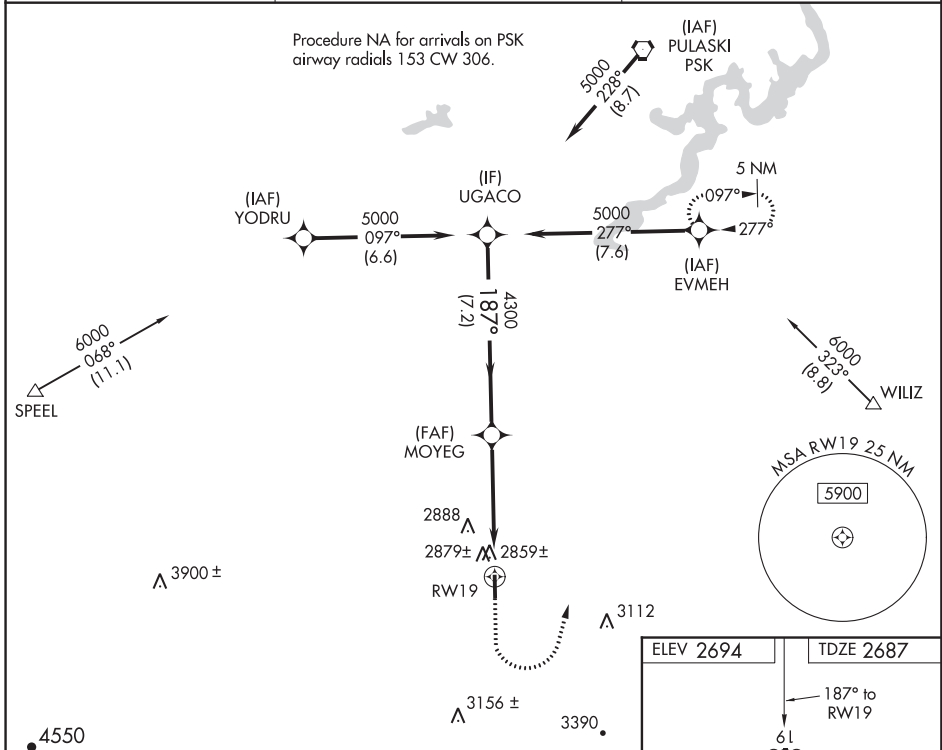
# RNAV (GPS) RWY 19

TWIN COUNTY (HLX)

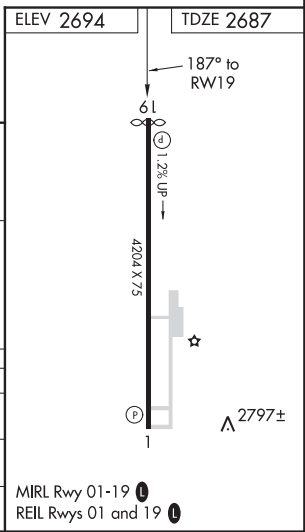
**⚠** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. VDP NA with Dublin altimeter setting. When local altimeter setting not received, use Dublin altimeter setting and increase all MDA 140 feet, increase LP Cats C/D visibility and LNAV Cats C/D visibility 3/8 mile, increase Circling Cats C/D visibility 1/4 mile.

**MISSED APPROACH:** Climb to 3200 then climbing left turn to 5000 direct EVMEH and hold.

AWOS-3 <b>118.375</b>	ROANOKE APP CON <b>126.0 339.8</b>	UNICOM <b>122.8 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LP MDA	3120-1	433 (500-1)	3120-1 3/8	433 (500-1 3/8)
LNAV MDA	3140-1	453 (500-1)	3140-1 3/8	453 (500-1 3/8)
CIRCLING	3200-1	506 (600-1)	3200-1 1/2	3260-2 566 (600-2)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>65621</b> <b>W04A</b>	APP CRS <b>045°</b>	Rwy Idg <b>5130</b> TDZE <b>51</b> Apt Elev <b>53</b>
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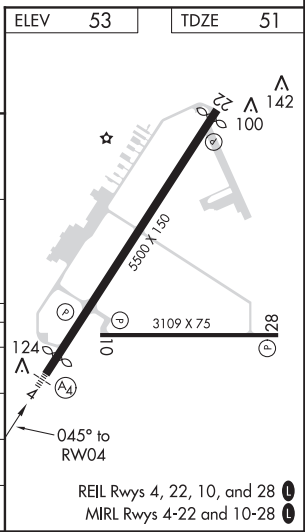
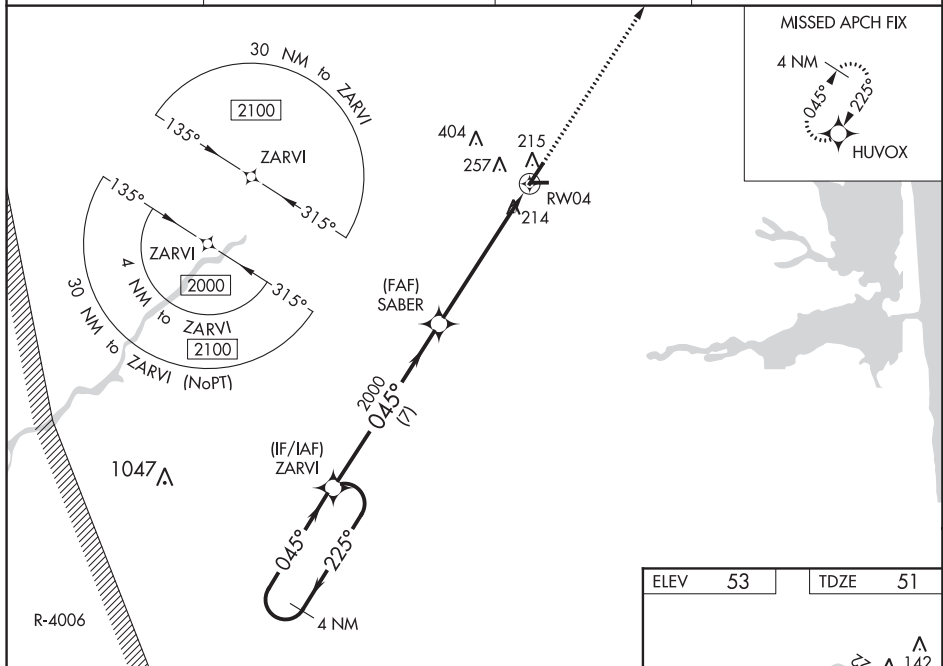
# RNAV (GPS) RWY 4

DELAWARE COASTAL (GED)

**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Salisbury altimeter setting and increase LPV DA to 353 feet, LNAV/VNAV DA to 555 feet, increase all MDA 60 feet.  
**⚠** Increase LNAV/VNAV all Cats visibility to 1 1/2 mile, LNAV Cats C/D visibility to 1 1/4 mile and increase Circling Cat C visibility to 2 miles and Cat D visibility to 2 1/4 miles. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -13°C (9°F) or above 54°C (130°F). Baro-VNAV and VDP NA when using Salisbury altimeter setting. For inoperative MALS increase LNAV/VNAV all Cats and LNAV Cats C/D visibility 1/4 mile. For inoperative MALS when using Salisbury altimeter increase LPV visibility all Cats, LNAV/VNAV and LNAV Cat D 1/4 mile. Night Landing: Rwy 10, 28 NA.

MALS <b>(A)</b>	MISSED APPROACH: Climb to 2000 direct HUVOX and hold.
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ASOS <b>118.375</b>	DOVER APP CON <b>132.425 257.875</b>	CLNC DEL <b>125.55</b>	UNICOM <b>123.0 (CTAF) 1</b>
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4 NM Holding Pattern	ZARVI	SABER	2000	HUVOX
2000 ← 225°	045° →	045° →	2000	*1.3 NM to RWY4
GP 3.00° TCH 45	7 NM	4.7 NM	1.3 NM	*LNAV only.

CATEGORY	A	B	C	D
LPV DA		301-3/4	250 (300-3/4)	
LNAV/VNAV DA		503-1 1/4	452 (500-1 1/4)	
LNAV MDA	520-3/4	469 (500-3/4)	520-1 1/8	469 (500-1 1/8)
<b>C</b> CIRCLING	560-1 507 (600-1)	580-1 527 (600-1)	720-1 3/4 667 (700-1 3/4)	720-2 667 (700-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>60921</b> <b>W22A</b>	APP CRS <b>225°</b>	Rwy Idg <b>5330</b> TDZE <b>51</b> Apt Elev <b>50</b>
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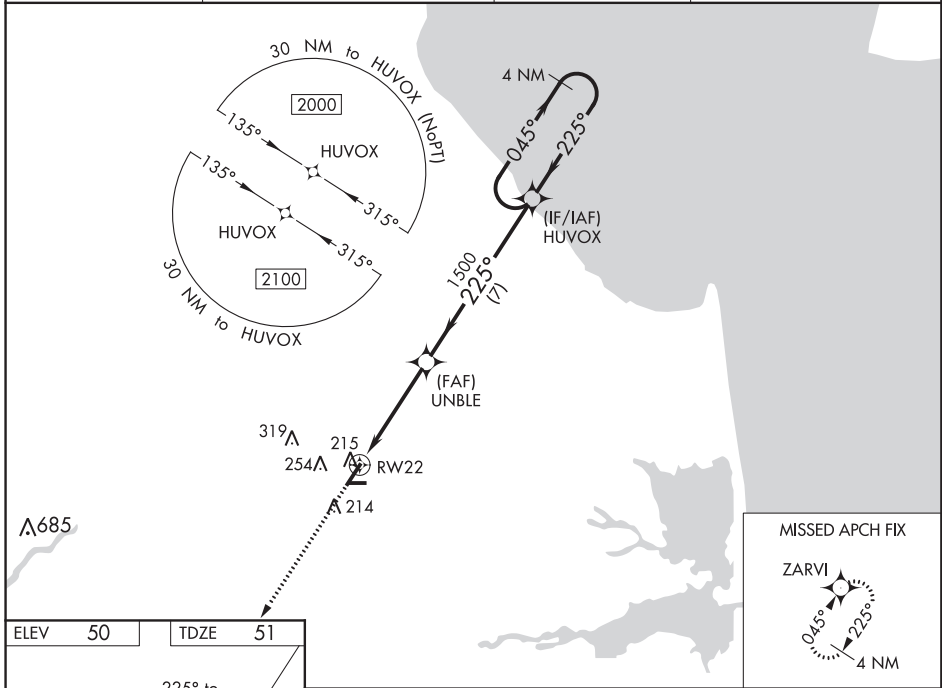
# RNAV (GPS) RWY 22

DELAWARE COASTAL (GED)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Salisbury altimeter setting and increase all DA 52 feet and all MDA 60 feet; increase LNAV/VNAV all Cats, and Circling Cats C/D visibility ¼ mile. Baro-VNAV and VDP NA when using Salisbury altimeter setting. Circling Rwy 10, 28 NA at night.

**MISSED APPROACH:** Climb to 2000 direct ZARVI and hold.

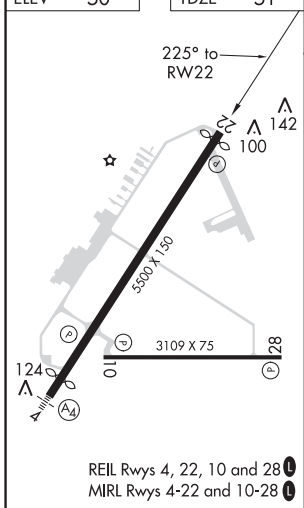
ASOS <b>118.375</b>	DOVER APP CON <b>132.425 257.875</b>	CLNC DEL <b>125.55</b>	UNICOM <b>123.0 (CTAF) <b>L</b></b>
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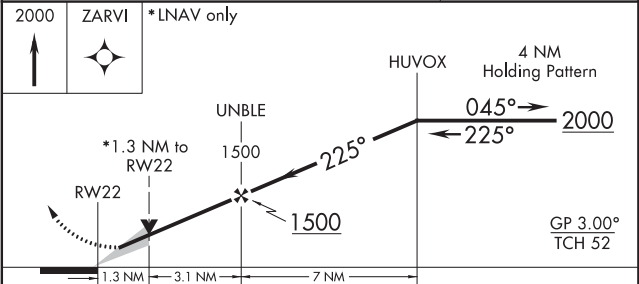
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 50	TDZE 51
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REIL Rwy 4, 22, 10 and 28 **L**  
MIRL Rwy 4-22 and 10-28 **L**



CATEGORY	A	B	C	D
LPV DA		301-1	250 (300-1)	
LNAV/VNAV DA		446-1¼	395 (400-1¼)	
LNAV MDA	500-1	449 (500-1)	500-1½	449 (500-1½)
<b>CIRCLING</b>	560-1 510 (600-1)	580-1 530 (600-1)	720-1¾ 670 (700-1¾)	720-2 670 (700-2)

VOR/DME ATR	APP CRS	Rwy Idg	<b>5330</b>
<b>112.6</b>	<b>234°</b>	TDZE	<b>51</b>
Chan <b>73</b>		Apt Elev	<b>50</b>

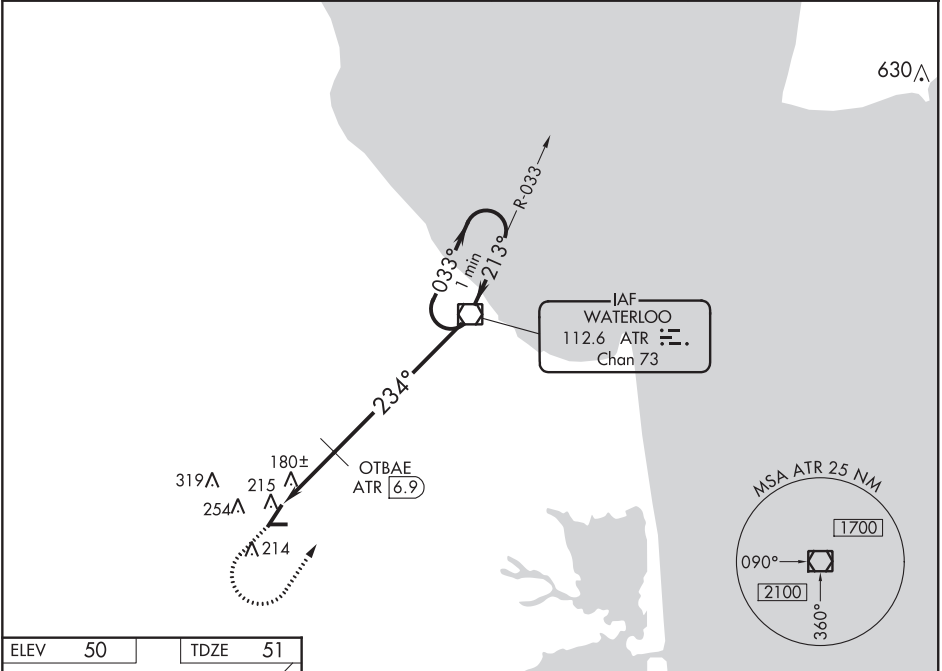
# VOR RWY 22

DELAWARE COASTAL (GED)

**▼** When local altimeter setting not received, use Salisbury altimeter setting and increase all MDA 60 feet; increase S-22 and Circling Cats C/D visibility ¼ mile;  
**▲** OTBAE fix minimums increase S-22 and Circling Cats C/D visibility ¼ mile. Circling Rwy 10, 28 NA at night.

**MISSED APPROACH:** Climb to 800 then climbing left turn to 3000 direct ATR VOR/DME and hold.

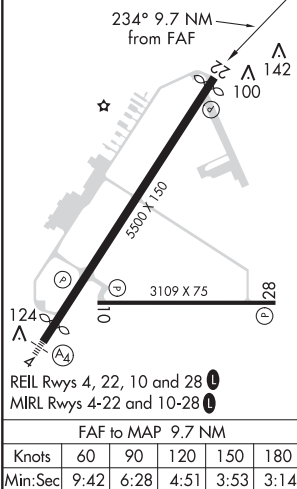
ASOS <b>118.375</b>	DOVER APP CON <b>132.425 257.875</b>	CLNC DEL <b>125.55</b>	UNICOM <b>123.0 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 50	TDZE 51
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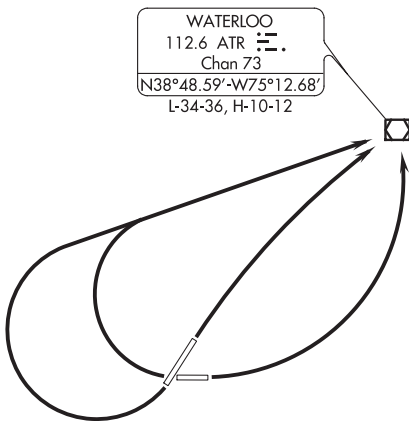


800	3000	ATR		
↑	↶	◻		
		ATR VOR/DME	One Minute Holding Pattern	
		3000	033° → ← 213°	
* 740 when using Salisbury altimeter setting.				
CATEGORY	A	B	C	D
S-22	680-1	629 (700-1)	680-1¾	629 (700-1¾)
<b>C</b> CIRCLING	680-1	630 (700-1)	720-1¾ 670 (700-1¾)	720-2 670 (700-2)
OTBAE FIX MINIMUMS				
S-22	440-1	389 (400-1)	440-1⅛	389 (400-1⅛)
<b>C</b> CIRCLING	560-1 510 (600-1)	580-1 530 (600-1)	720-1¾ 670 (700-1¾)	720-2 670 (700-2)

# GEORGETOWN ONE DEPARTURE

DOVER APP CON  
132.425 257.875  
DOVER CLNC DEL  
125.55  
ASOS  
118.375  
UNICOM  
123.0

**TOP ALTITUDE:  
2000**



### TAKEOFF MINIMUMS:

Rwys 4, 10, 28: Standard.

Rwy 22: 200-1/4 or standard with a minimum climb of 201' per NM to 300, or alternatively with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1100' prior to DER.

### TAKEOFF OBSTACLES:

Rwy 4: Trees beginning 7' from DER, 459' left of centerline, up to 74' AGL/118' MSL.

Tree 2322' from DER, 428' right of centerline, 61' AGL/109' MSL.

Tree 5161' from DER, 710' left of centerline, 180' MSL.

Rwy 10: Vehicle on road 94' from DER, 446' left of centerline, 15' AGL/59' MSL.

Trees and pole beginning 443' from DER, 87' left of centerline, up to 100' AGL/144' MSL.

Trees beginning 641' from DER, 109' right of centerline, up to 100' AGL/144' MSL.

Tree 3732' from DER, 37' left of centerline, 100' AGL/149' MSL.

Rwy 22: Tree 2035' from DER, 781' left of centerline, 172' MSL.

Tower 1 NM from DER, 465' left of centerline, 215' MSL.

Rwy 28: Trees beginning 358' from DER, 567' left of centerline, up to 100' AGL/149' MSL.

Trees beginning 1299' from DER, 686' right of centerline, up to 100' AGL/149' MSL.

Trees beginning 1595' from DER, 647' right of centerline, up to 100' AGL/154' MSL.

Trees beginning 1892' from DER, crossing centerline, up to 100' AGL/154' MSL.

Tank 4498' from DER, 219' right of centerline, 180' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Turn right direct ATR VOR/DME, thence . . .

TAKEOFF RUNWAY 10: Turn left direct ATR VOR/DME, thence . . .

TAKEOFF RUNWAY 22: Turn right direct ATR VOR/DME, thence . . .

TAKEOFF RUNWAY 28: Turn right direct ATR VOR/DME, thence . . .

. . . maintain 2000. Expect clearance to filed altitude three (3) minutes after departure.

# GEORGETOWN ONE DEPARTURE

(GED1.ATR) 10NOV16

GEORGETOWN, DELAWARE  
DELAWARE COASTAL (GED)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

GORDONSVILLE, VIRGINIA

AL-10643 (FAA)

16091

APP CRS <b>048°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>454</b>
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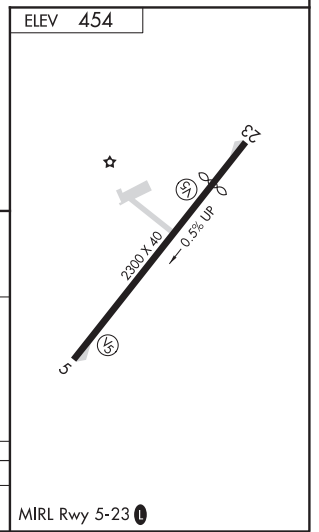
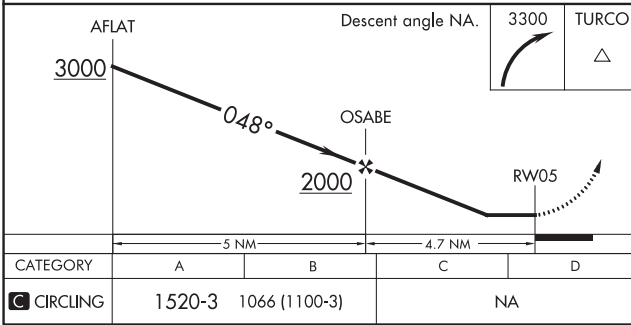
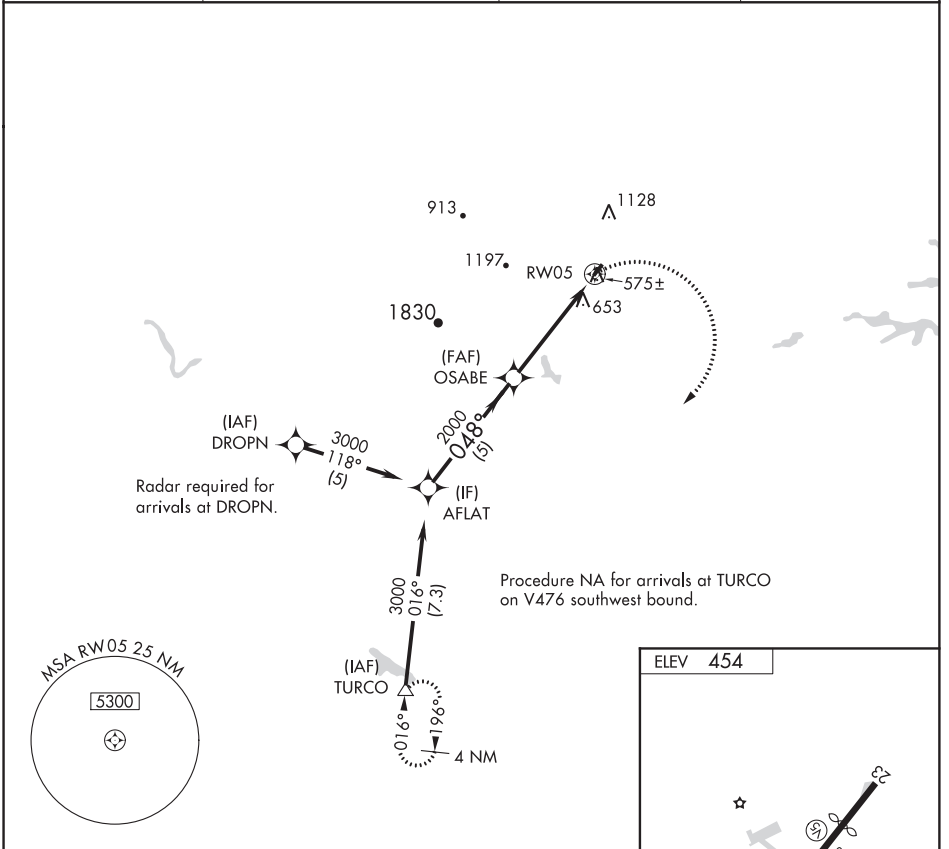
# RNAV (GPS)-A

GORDONSVILLE MUNI (GVE)

**▼** When local altimeter setting not received, use Orange County altimeter setting and increase all MDA 20 ft. DME/DME RNP-0.3 NA. Procedure NA at night.  
**▲ NA** Helicopter visibility reduction below 1 SM NA.

**MISSED APPROACH:** Climbing right turn to 3300 direct TURCO and hold.

AWOS-3 <b>120.225</b>	POTOMAC APP CON <b>132.85 323.125</b>	ORANGE <b>122.8</b> (CTAF)	UNICOM <b>123.0</b> (CTAF) <b>0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



APP CRS <b>228°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>454</b>
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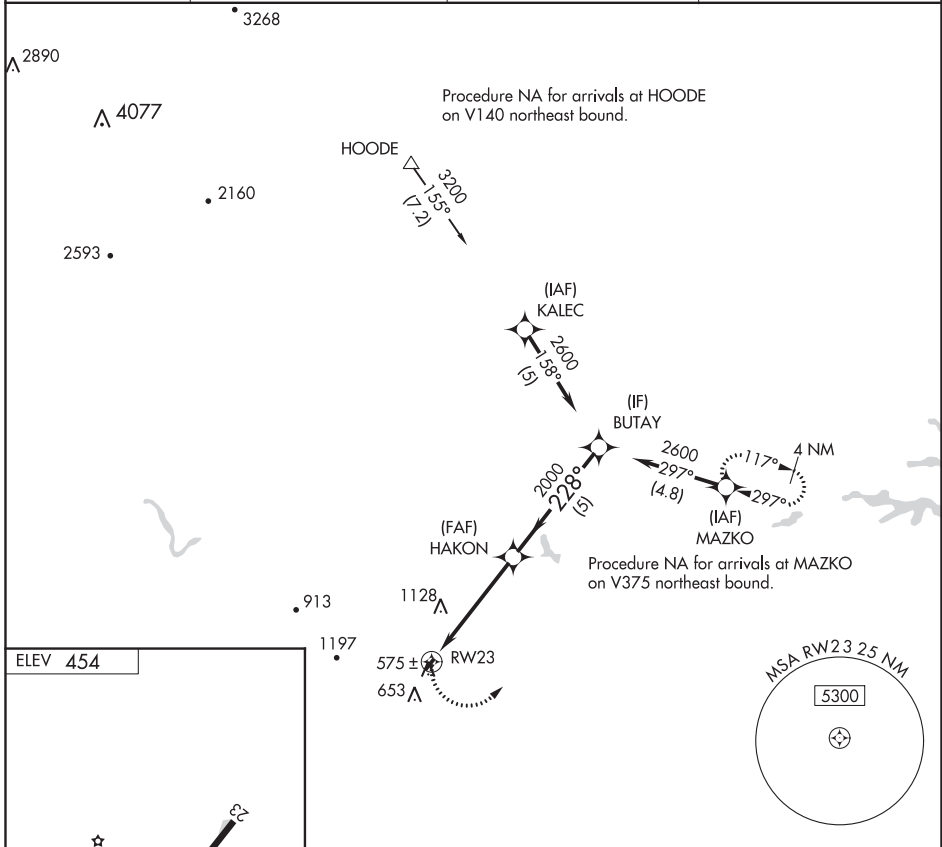
# RNAV (GPS)-B

GORDONSVILLE MUNI (GVE)

**▽** When local altimeter setting not received, use Orange County altimeter setting and increase all MDA 20 ft. DME/DME RNP-0.3 NA. Procedure NA at night.  
**△ NA** Helicopter visibility reduction below 1 SM NA.

**MISSED APPROACH:** Climbing left turn to 3000 direct MAZKO and hold.

AWOS-3 <b>120.225</b>	POTOMAC APP CON <b>132.85 323.125</b>	ORANGE <b>122.8 (CTAF)</b>	UNICOM <b>123.0 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

3000	MAZKO	Descent angle NA.		
CATEGORY	A	B	C	D
<b>C</b> CIRCLING	1520-3	1066 (1100-3)	NA	

HAGERSTOWN, MARYLAND

AL-5114 (FAA)

13346

LOC/DME I-UYK <b>111.9</b> Chan <b>56</b>	APP CRS <b>092°</b>	Rwy Idg <b>7000</b> THRE <b>664</b> Apt Elev <b>703</b>
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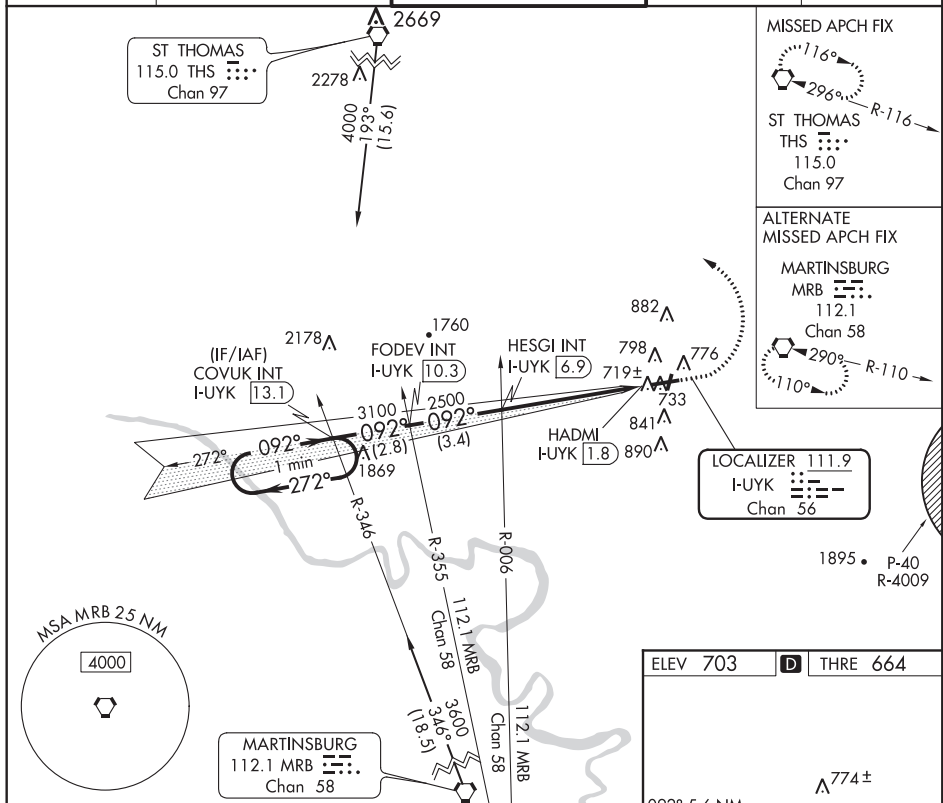
# ILS or LOC RWY 9

HAGERSTOWN RGNL-RICHARD A. HENSON FIELD (HGR)

**⚠** Circling to Rwy 20 NA at night. When local altimeter setting not received, use Martinsburg altimeter setting and increase DA to 934 and all MDA 80 feet; increase S-ILS all Cats and S-LOC Cats C/D visibility 1/2 and Circling Cat D 1/4 mile.

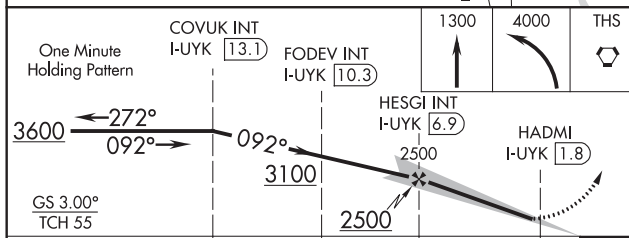
**⚠** MISSED APPROACH: Climb to 1300 then climbing left turn to 4000 direct THS VORTAC and hold.

ASOS <b>126.375</b>	POTOMAC APP CON <b>126.825 239.025</b>	HAGERSTOWN TOWER ★ <b>120.3 (CTAF) 225.4</b>	GND CON <b>120.8</b>	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 703	THRE 664
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REIL Rws 2, 9, and 20  
MIRL Rwy 2-20  
HIRL Rwy 9-27

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

CATEGORY	A	B	C	D
S-ILS 9	864-3/4 200 (200-3/4)			
S-LOC 9	980-1	316 (300-1)	980-7/8	316 (300-7/8)
CIRCLING	1160-1	457 (500-1)	1200-1 1/2	1320-2
			497 (500-1 1/2)	617 (700-2)

HAGERSTOWN, MARYLAND  
Amdt 1 22AUG13

HAGERSTOWN RGNL-RICHARD A. HENSON FIELD (HGR)  
39°43'N-77°44'W

# ILS or LOC RWY 9

LOC/DME I-HGR <b>111.9</b> Chan <b>56</b>	APP CRS <b>272°</b>	Rwy Idg <b>7000</b> THRE <b>686</b> Apt Elev <b>703</b>
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# ILS or LOC RWY 27

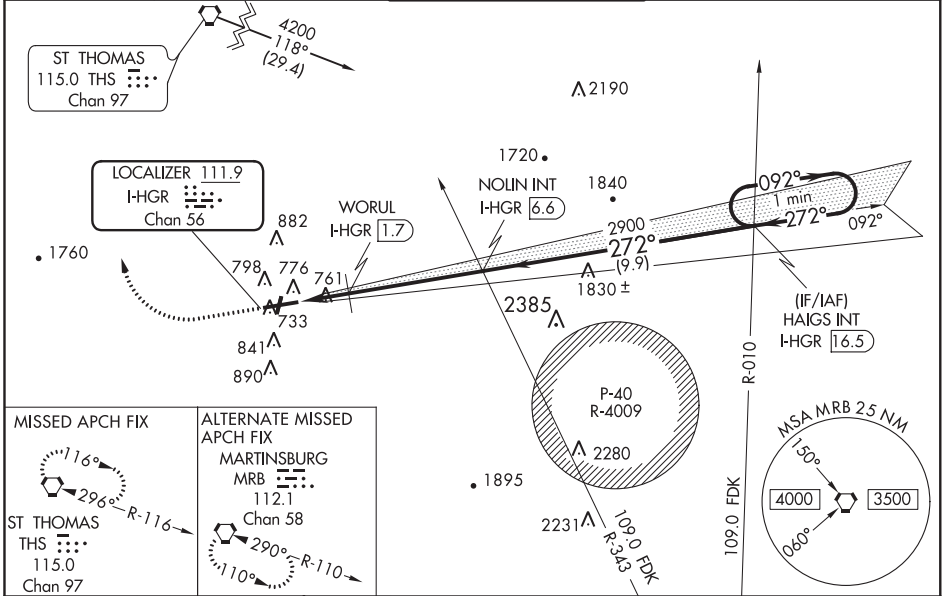
HAGERSTOWN RGNL-RICHARD A. HENSON FIELD (HGR)

**⚠** Circling to Rwy 20 NA at night. When local altimeter setting not received, use Martinsburg altimeter setting and increase DA to 956 and all MDA 80 feet; increase S-LOC 27 and Circling Cats C/D visibility ¼ mile, WORUL Fix minimums increase S-LOC 27 Cat C/D visibility ½ mile and Circling Cat D visibility ¼ mile. For inop MALSRL when using Martinsburg altimeter setting, increase S-ILS 27 all Cats visibility ¾ mile. VDP NA when using Martinsburg altimeter setting.

**MALSRL**

**MISSED APPROACH:**  
Climb to 1200 then climbing right turn to 4200 direct THS VORTAC and hold.

ASOS <b>126.375</b>	POTOMAC APP CON <b>126.825 239.025</b>	HAGERSTOWN TOWER ★ <b>120.3 (CTAF) 0 225.4</b>	GND CON <b>120.8</b>	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

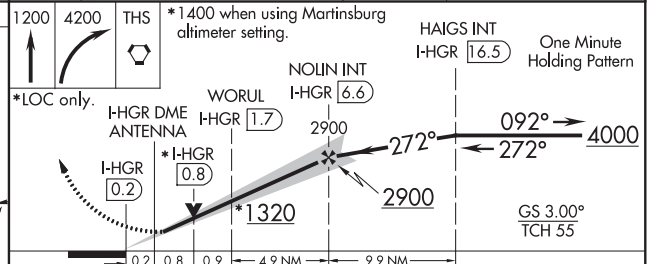
NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV <b>703</b>	<b>D</b> THRE <b>686</b>
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REIL Rwy 2, 9, and 20  
MIRL Rwy 2-20  
HIRL Rwy 9-27

FAF to MAP 6.8 NM

Knots	60	90	120	150	180
Min:Sec	6:48	4:32	3:24	2:43	2:16



CATEGORY	A	B	C	D
S-ILS 27	886-½ 200 (200-½)			
S-LOC 27	1320-½	634 (700-½)	1320-1⅓	634 (700-1⅓)
<b>C</b> CIRCLING	1320-1	617 (700-1)	1320-1¾	617 (700-1¾)
WORUL FIX MINIMUMS				
S-LOC 27	1040-½	354 (400-½)	1040-⅝	354 (400-⅝)
<b>C</b> CIRCLING	1160-1	457 (500-1)	1200-1½	617 (700-2)

WAAS CH <b>49011</b> <b>W09A</b>	APP CRS <b>091°</b>	Rwy Idg THRE <b>664</b> Apt Elev <b>703</b>	<b>7000</b>
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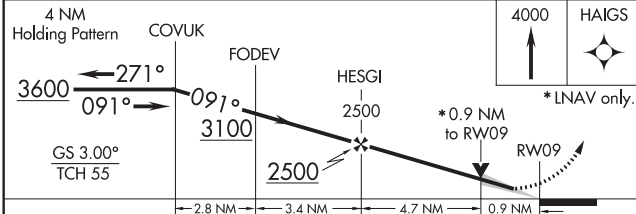
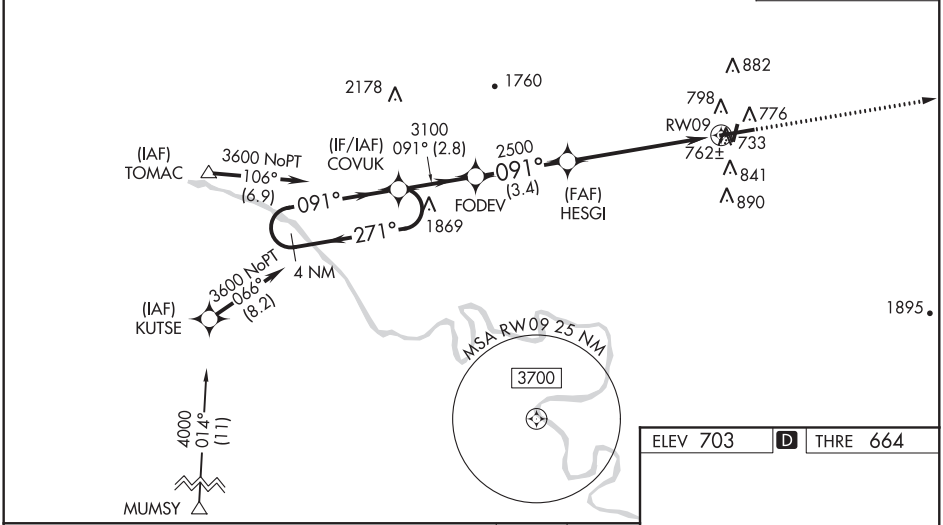
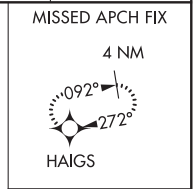
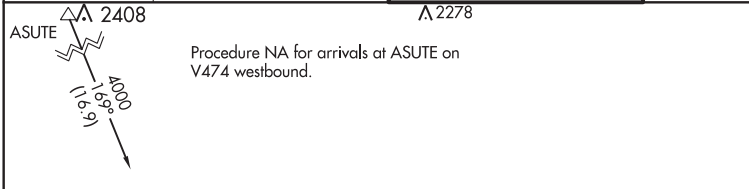
# RNAV (GPS) RWY 9

HAGERSTOWN RGNL-RICHARD A. HENSON FIELD (HGR)

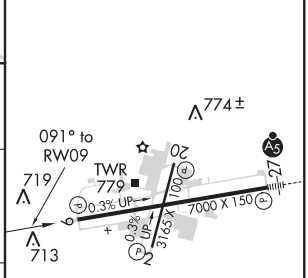
**⚠** Circling to Rwy 20 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.4°C (7°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Martinsburg altimeter setting and increase all DA 70 feet and all MDA 80 feet; increase LPV all Cats visibility 1/8 mile, LNAV/VNAV all Cats and LNAV Cats C-D and Circling Cat D visibility 1/4 mile. Baro-VNAV and VDP NA with Martinsburg altimeter setting.

**MISSED APPROACH:**  
Climb to 4000 direct HAIGS and hold.

ASOS <b>126.375</b>	POTOMAC APP CON <b>126.825 239.025</b>	HAGERSTOWN TOWER * <b>120.3 (CTAF) 125.4</b>	GND CON <b>120.8</b>	UNICOM <b>122.95</b>
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ELEV 703	<b>D</b> THRE 664
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CATEGORY	A	B	C	D
LPV DA		864-3/4	200 (200-3/4)	
LNAV/VNAV DA		923-3/4	259 (300-3/4)	
LNAV MDA		1020-1	356 (400-1)	
<b>C</b> CIRCLING	1160-1	457 (500-1)	1200-1 1/2 497 (500-1 1/2)	1320-2 617 (700-2)

REIL Rwy 2, 9, and 20 **Ⓛ**  
MIRL Rwy 2-20 **Ⓛ**  
HIRL Rwy 9-27 **Ⓛ**

# RNAV (GPS) RWY 9

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

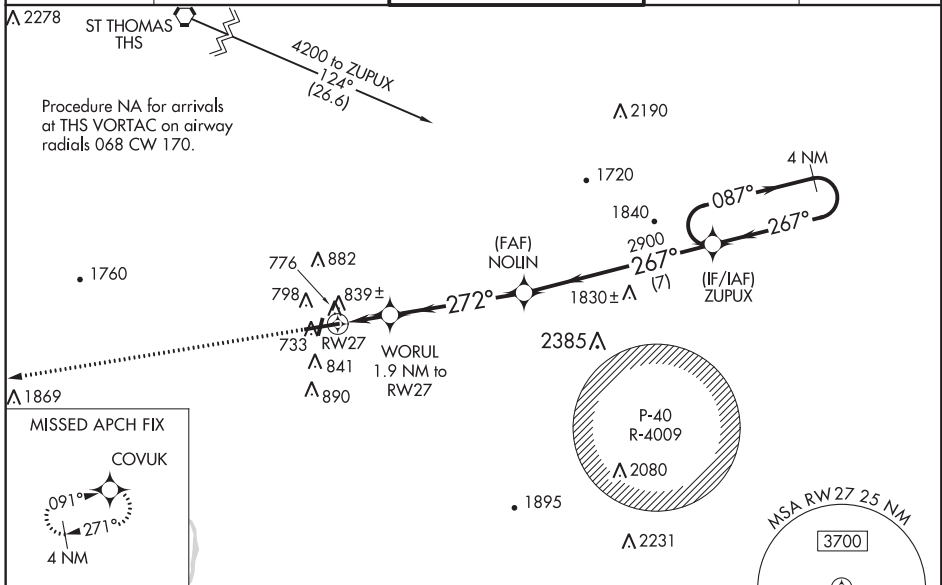
WAAS CH <b>86911</b> <b>W27A</b>	APP CRS <b>272°</b>	Rwy Idg THRE <b>686</b> Apt Elev <b>703</b>	<b>7000</b>
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# RNAV (GPS) RWY 27

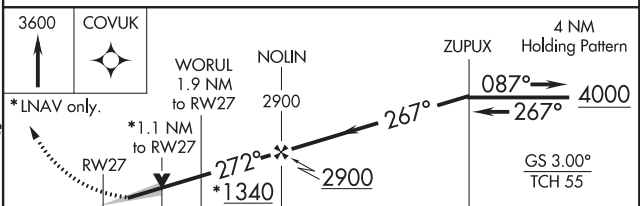
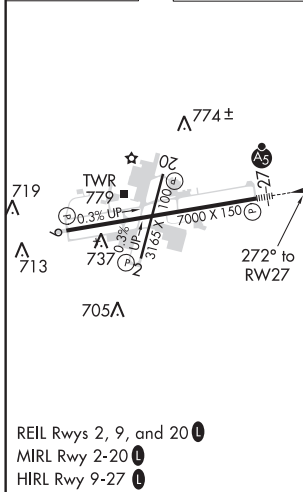
HAGERSTOWN RGNL-RICHARD A. HENSON FIELD (HGR)

<p><b>⚠</b> Circling to Rwy 20 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.4°C (7°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Martinsburg altimeter setting and increase all DA 70 feet and all MDA 80 feet; increase LNAV/VNAV all Cats, LNAV Cats C-D and Circling Cat D visibility ¼ mile. VDP and Baro-VNAV NA with Martinsburg altimeter setting.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climb to 3600 direct COVUK and hold.</p>
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ASOS <b>126,375</b>	POTOMAC APP CON <b>126.825 239.025</b>	HAGERSTOWN TOWER * <b>120.3 (CTAF) 0 225.4</b>	GND CON <b>120.8</b>	UNICOM <b>122.95</b>
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ELEV 703	<b>D</b> THRE 686
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CATEGORY	A	B	C	D
LPV DA		886-½ 200 (200-½)		
LNAV/VNAV DA		1020-5/8 334 (400-5/8)		
LNAV MDA	1100-½ 414 (400-½)		1100-3/4 414 (400-3/4)	
<b>C</b> CIRCLING	1160-1 457 (500-1)		1200-1½ 497 (500-1½)	1320-2 617 (700-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



APP CRS	Rwy Idg	<b>7000</b>
<b>091°</b>	THRE	<b>664</b>
	Apt Elev	<b>703</b>

# COPTER RNAV (GPS) RWY 9

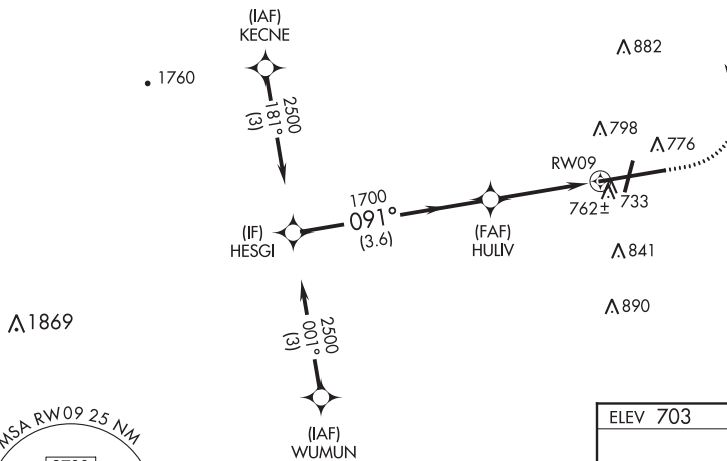
HAGERSTOWN RGNL-RICHARD A. HENSON FIELD (HGR)

DME/DME RNP-0.3 NA. VDP NA with Martinsburg altimeter setting. When local altimeter setting not received, use Martinsburg altimeter setting and increase MDA 80 feet.

MISSED APPROACH: Climb to 1200 then climbing left turn to 2500 direct YIYUN and hold.

ASOS <b>126.375</b>	POTOMAC APP CON <b>126.825 239.025</b>	HAGERSTOWN TOWER * <b>120.3 (CTAF) 225.4</b>	GND CON <b>120.8</b>	UNICOM <b>122.95</b>
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Limit initial and intermediate approach to 90K.  
Limit final and missed approach to 70K.  
Increase to 90K upon reaching the missed approach altitude.



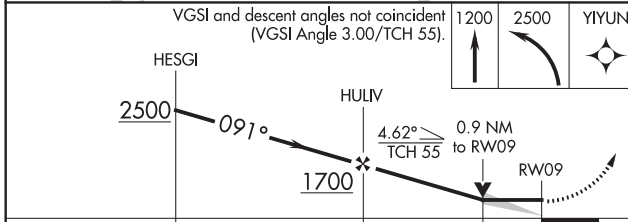
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 703	<b>D</b>	THRE 664
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REIL Rwy 2, 9, and 20 **Ⓛ**  
MIRL Rwy 2-20 **Ⓛ**  
HIRL Rwy 9-27 **Ⓛ**



CATEGORY	COPTER
LNAV MDA	1020-1/2 356 (400-1/2)

HAGERSTOWN, MARYLAND

AL-5114 (FAA)

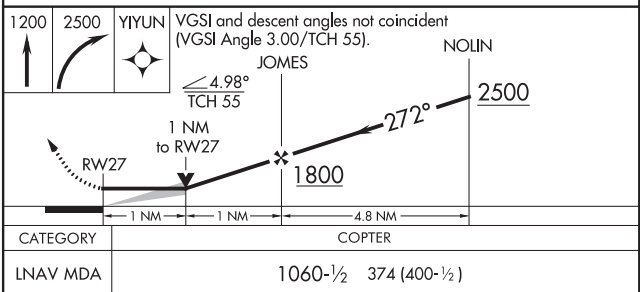
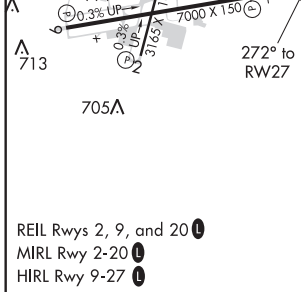
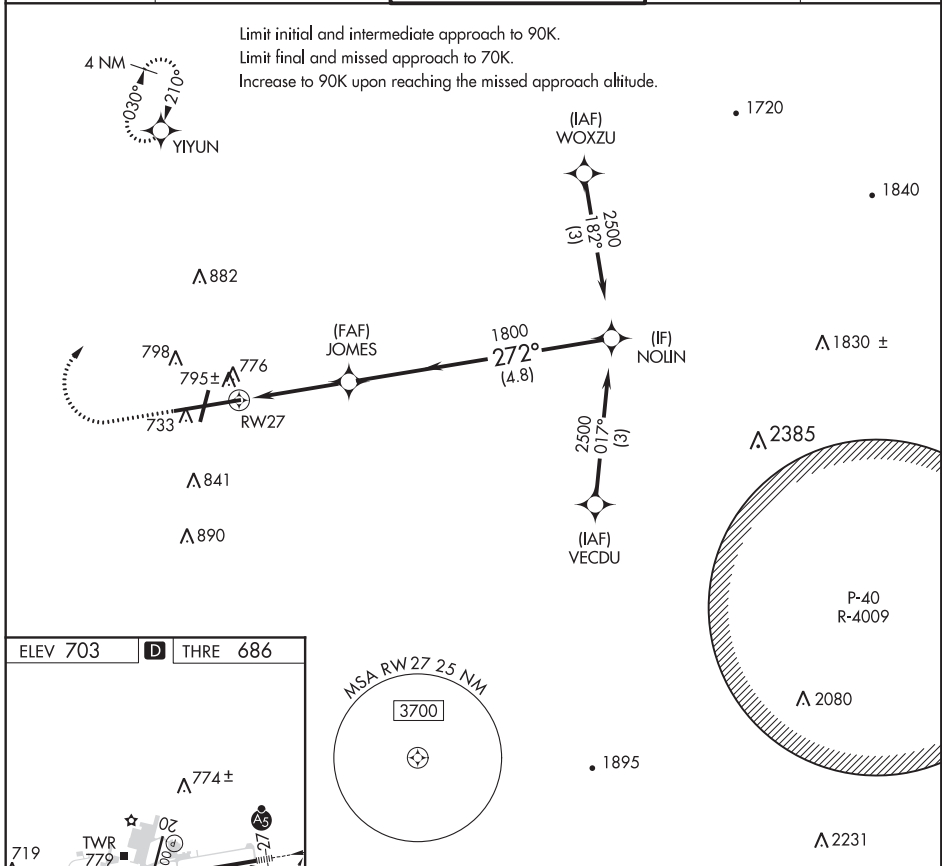
15008

APP CRS	Rwy Idg	<b>7000</b>
<b>272°</b>	THRE	<b>686</b>
	Apt Elev	<b>703</b>

# COPTER RNAV (GPS) RWY 27

HAGERSTOWN RGNL-RICHARD A. HENSON FIELD (HGR)

Inop table does not apply. DME/DME RNP-0.3 NA. VDP NA with Martinsburg altimeter setting. When local altimeter setting not received, use Martinsburg altimeter setting and increase MDA 80 feet.		MALSR 	MISSED APPROACH: Climb to 1200 then climbing right turn to 2500 direct YIYUN and hold.	
ASOS <b>126.375</b>	POTOMAC APP CON <b>126.825 239.025</b>	HAGERSTOWN TOWER * <b>120.3 (CTAF) 0 225.4</b>	GND CON <b>120.8</b>	UNICOM <b>122.95</b>



HAGERSTOWN, MARYLAND  
 Orig 22AUG13

HAGERSTOWN RGNL-RICHARD A. HENSON FIELD (HGR)  
 39°43'N-77°44'W **COPTER RNAV (GPS) RWY 27**

NE-3, 10 NOV 2016 to 05 JAN 2017

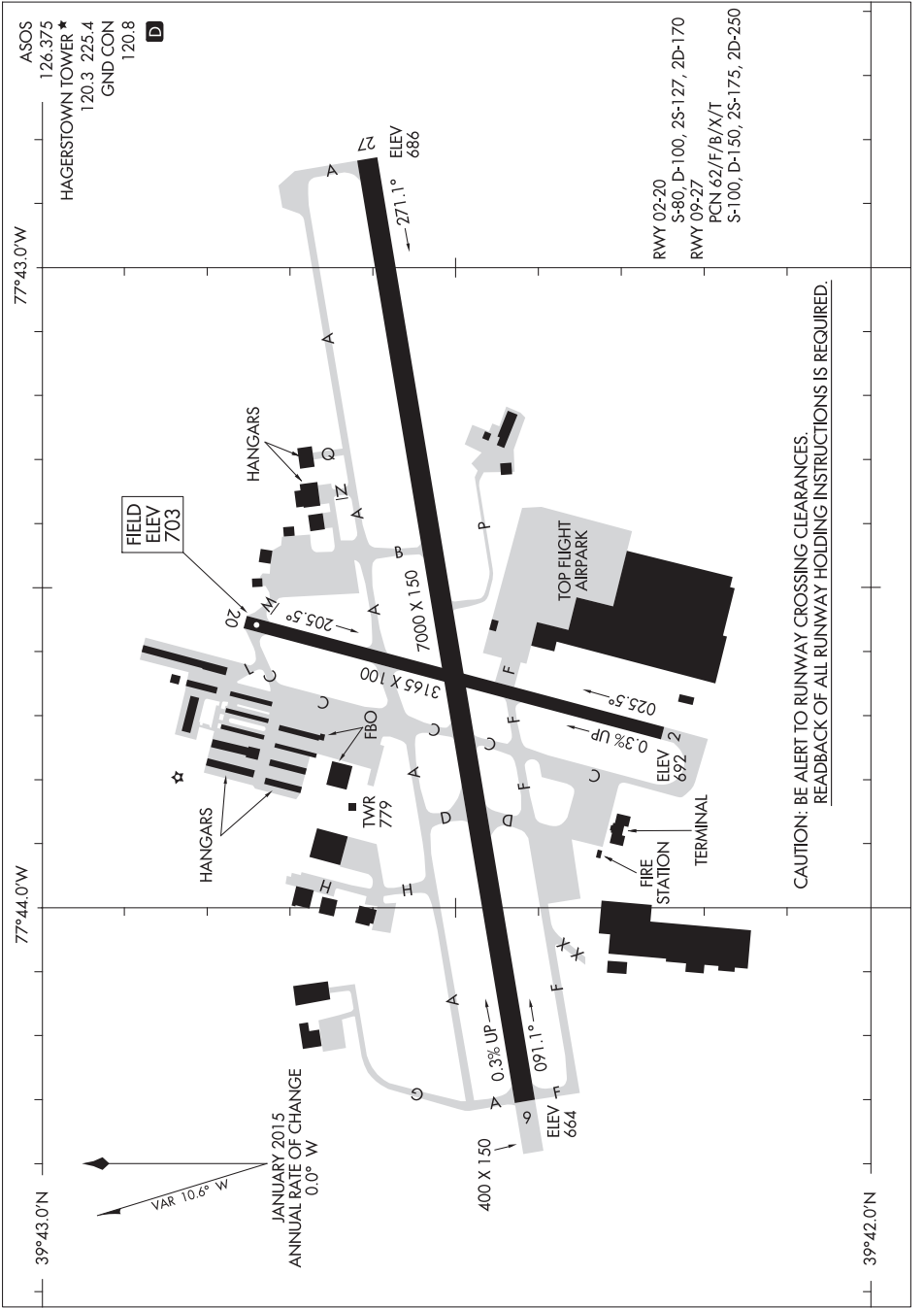
NE-3, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

HAGERSTOWN RGNL-RICHARD A HENSON FLD (HGR)  
AL-5114 (FAA) HAGERSTOWN, MARYLAND

NE-3, 10 NOV 2016 to 05 JAN 2017



RWY 02-20  
S-80, D-100, 2S-127, 2D-170  
RWY 09-27  
PCN 62/F/B/X/T  
S-100, D-150, 2S-175, 2D-250

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

HAGERSTOWN, MARYLAND  
HAGERSTOWN RGNL-RICHARD A HENSON FLD (HGR)



# RNAV (GPS) RWY 7

INGALLS FIELD (HSP)

WAAS CH <b>86813</b> <b>W07A</b>	APP CRS <b>067°</b>	Rwy Idg TDZE Apt Elev	<b>5600</b> <b>3793</b> <b>3793</b>
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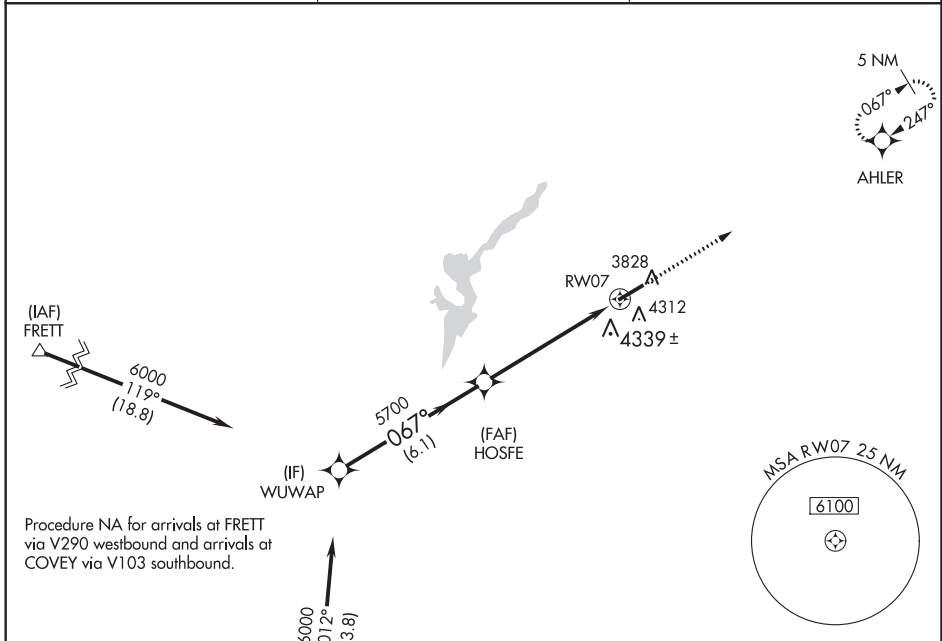
**⚠** Circling NA southeast of Rwy 7-25. Baro-VNAV NA.  
**⚠** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.  
 When local altimeter setting not received, procedure NA.

MISSED APPROACH: Climb to 6000 direct AHLER and hold.

AWOS-3  
**118.8**

WASHINGTON CENTER  
**134.4 353.9**

UNICOM  
**123.0 (CTAF) 0**

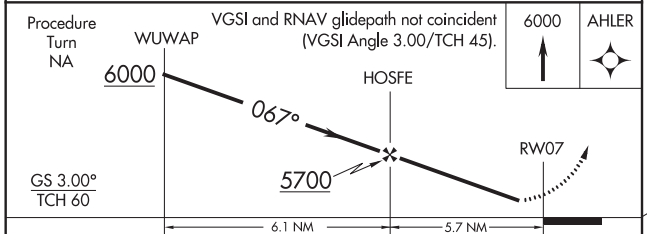


NE-3, 10 NOV 2016 to 05 JAN 2017

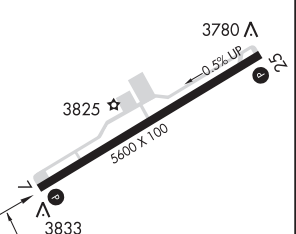
NE-3, 10 NOV 2016 to 05 JAN 2017

Procedure NA for arrivals at FRET via V290 westbound and arrivals at COVEY via V103 southbound.

(IAF) COVEY at 6000 ft, 13.8 NM from WUWAP.



ELEV 3793	TDZE 3793
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CATEGORY	A	B	C	D
LPV DA	4143-1¼		350 (400-1¼)	
LNNAV/VNAV DA	4619-3		826 (900-3)	
LNNAV MDA	4700-1¼ 907 (1000-1¼)		4700-3 907 (1000-2¾) 4700-3 907 (1000-3)	
CIRCLING	4700-1¼ 907 (1000-1¼)		4700-2¾ 907 (1000-2¾) 4700-3 907 (1000-3)	

REIL Rwy 25 0  
 HIRL Rwy 7-25 0

HOT SPRINGS, VIRGINIA

AL-5246 (FAA)

14037

WAAS CH <b>53713</b> <b>W25A</b>	APP CRS <b>247°</b>	Rwy Idg TDZE Apt Elev	<b>5600</b> <b>3773</b> <b>3793</b>
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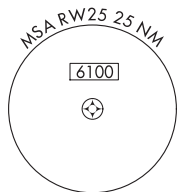
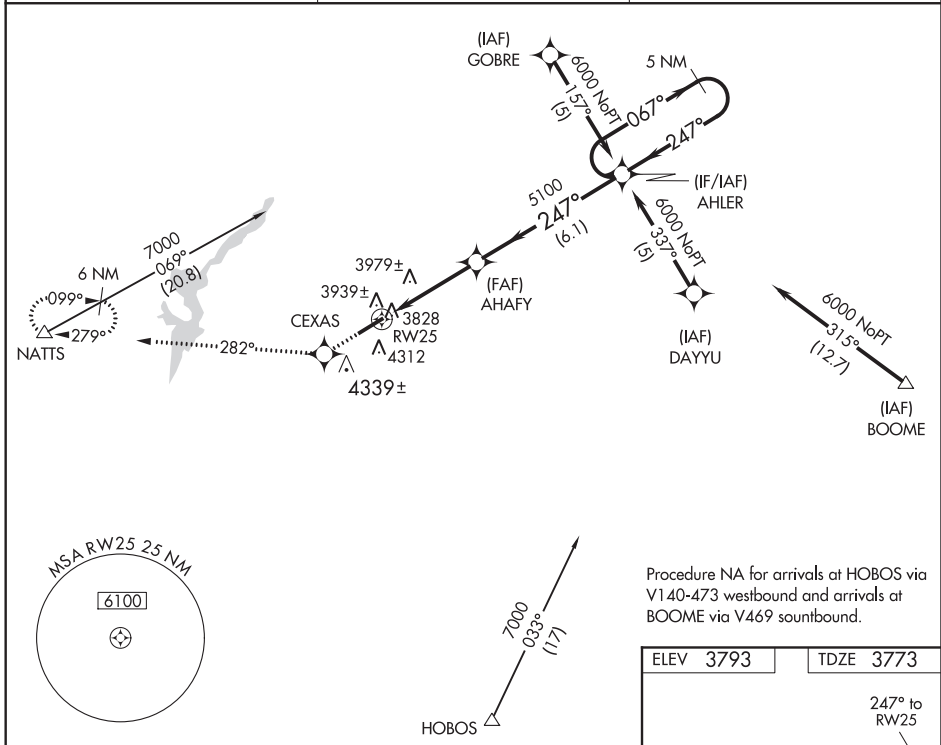
# RNAV (GPS) RWY 25

INGALLS FIELD (HSP)

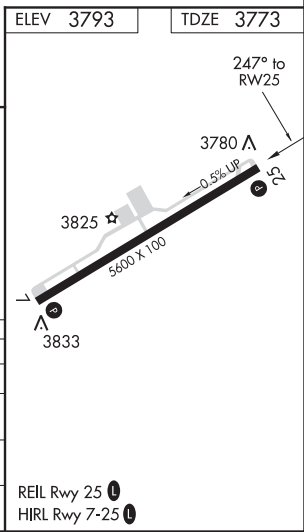
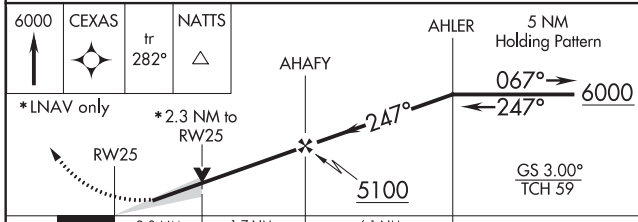
**▼** Circling NA SE of Rwy 7-25. Baro-VNAV NA.  
**▲** DME/DME RNP-0.3 NA.  
 When local altimeter setting not received, procedure NA.

MISSED APPROACH: Climb to 6000 direct CEXAS and via track 282° to NATTS and hold.

AWOS-3 <b>118.8</b>	WASHINGTON CENTER <b>134.4 353.9</b>	UNICOM <b>123.0 (CTAF)</b>
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Procedure NA for arrivals at HOBOS via V140-473 westbound and arrivals at BOOME via V469 southbound.



CATEGORY	A	B	C	D
LPV DA		4164-1¼	391 (400-1¼)	
LNAV/VNAV DA		4309-2	536 (600-2)	
LNAV MDA	4560-1 787 (800-1)	4560-1¼ 787 (800-1¼)	4560-2¼ 787 (800-2¼)	4560-2½ 787 (800-2½)
CIRCLING	4560-1 767 (800-1)	4560-1¼ 767 (800-1¼)	4560-2¼ 767 (800-2¼)	4560-2½ 767 (800-2½)

HOT SPRINGS, VIRGINIA  
Orig 06JUN10

37°57'N - 79°50'W

# RNAV (GPS) RWY 25

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>78036</b> <b>W02A</b>	APP CRS <b>014°</b>	Rwy Idg TDZE Apt Elev	<b>3740</b> <b>163</b> <b>175</b>
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# RNAV (GPS) RWY 2

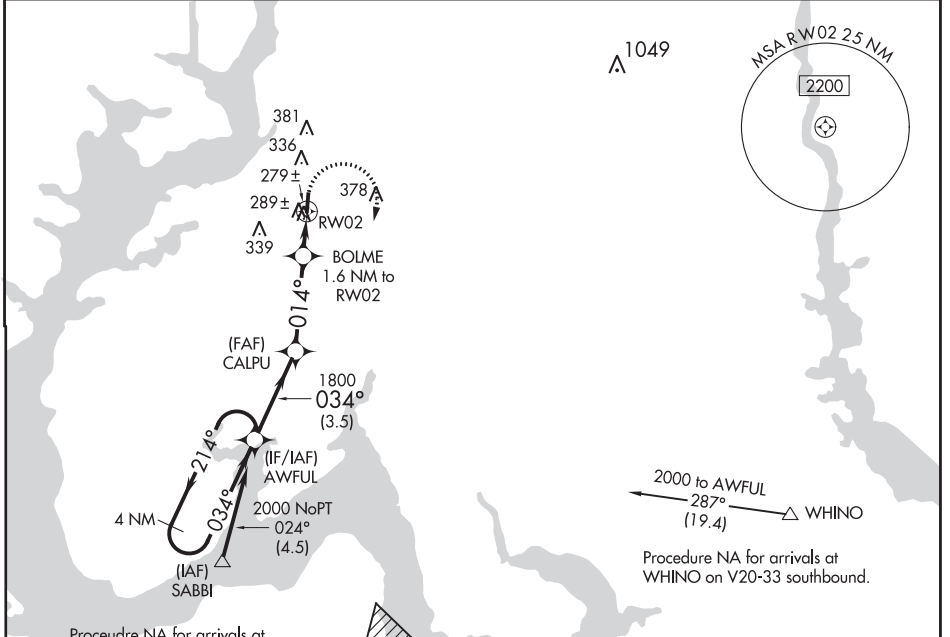
MARYLAND (2W5)

**NA** DME/DME RNP-0.3 NA. Night landing: Rwy 20 NA. Helicopter visibility reduction below  $\frac{3}{4}$  SM NA. Use Ronald Reagan Washington National altimeter setting; when not received, use Stafford Rgnl.

MISSED APPROACH: Climbing right turn to 2000 direct AWFUL and hold.

POTOMAC APP CON **124.7 338.2**

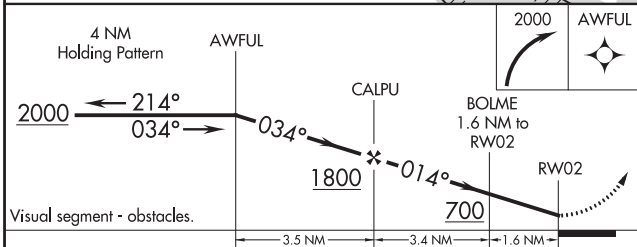
UNICOM **122.7** (CTAF) **0**



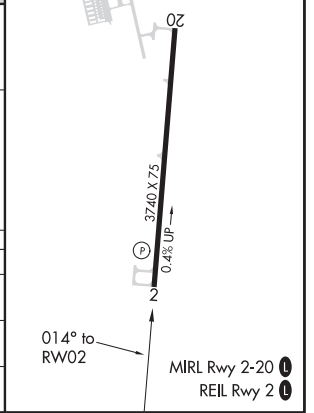
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 175	TDZE 163
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CATEGORY	A	B	C	D
LP MDA	600-1	437 (500-1)		NA
LNAV MDA	620-1	457 (500-1)		NA
<b>C</b> CIRCLING	700-1	525 (600-1)		NA



CAMP SPRINGS, MARYLAND

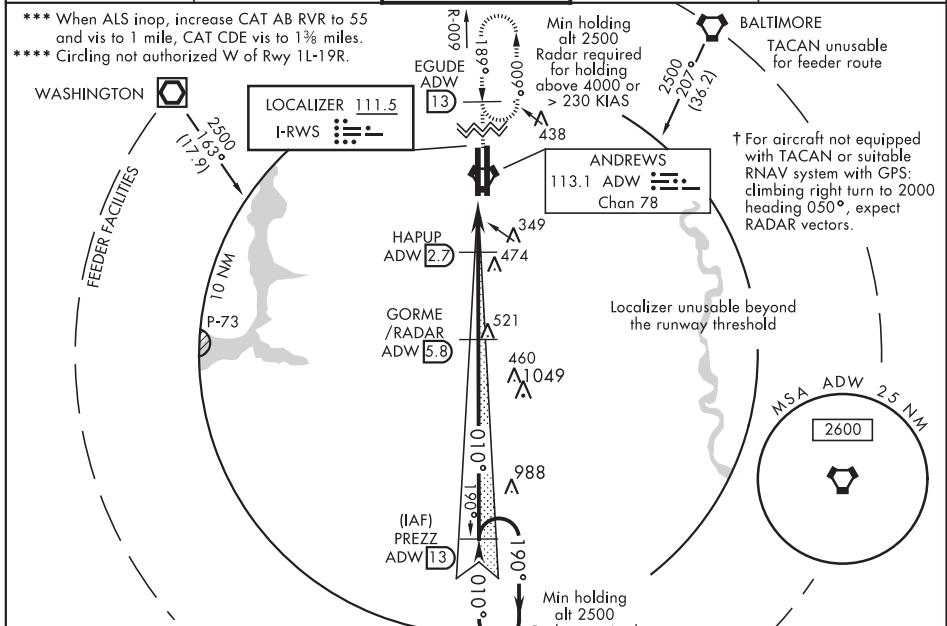
# ILS or LOC RWY 1L

LOC I-RWS <b>111.5</b>	APCH CRS <b>010°</b>	Rwy ldg THRE <b>255</b> Arpt Elev <b>280</b>	AL-561 [USAF]	JOINT BASE ANDREWS (KADW)
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▼ \* When TDZL/CL inop, increase RVR to 24 and vis to ½ mile.  
 \*\* When ALS inop, increase 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.

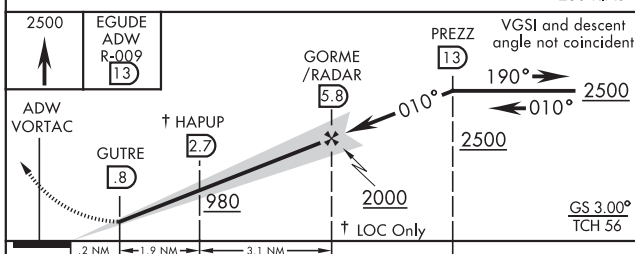
† MISSED APPROACH: Climbing to 2500, intercept ADW VORTAC R-009 to EGUDE and hold

ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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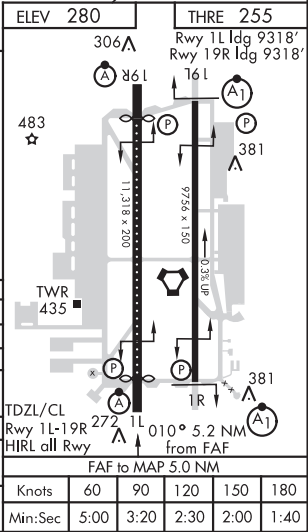


## ATC RADAR or DME REQUIRED

EMERG SAFE ALT 100 NM 6300 FROM "ADW" VORTAC



CATEGORY	A	B	C	D	E
S-ILS 1L*	455/18		200	(200-¾)	
S-LOC 1L**	640/24	385 (400-½)	640/35	385	(400-¾)
CIRCLING****	720-1	740-1	740-1½	840-2	880-2
	440 (500-1)	460 (500-1)	460 (500-1½)	560 (600-2)	600 (600-2)
NON-DME					
S-LOC 1L***	760/24	505 (500-½)	760/55	505	(500-1)
CIRCLING****	760-1	480 (500-1)	760-1½	840-2	880-2
			480 (500-1½)	560 (600-2)	600 (600-2)



CAMP SPRINGS, MARYLAND  
Adm 2 13OCT16

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

# ILS or LOC RWY 1L

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CAMP SPRINGS, MARYLAND

# ILS or LOC RWY 1R

LOC I-VJM <b>110.5</b>	APCH CRS <b>010°</b>	Rwy ldg THRE Arpt Elev <b>9756</b> <b>252</b> <b>280</b>
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AL-561 [USAF]

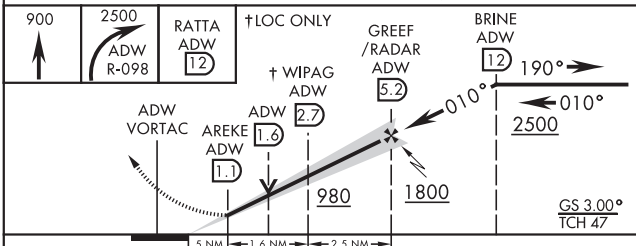
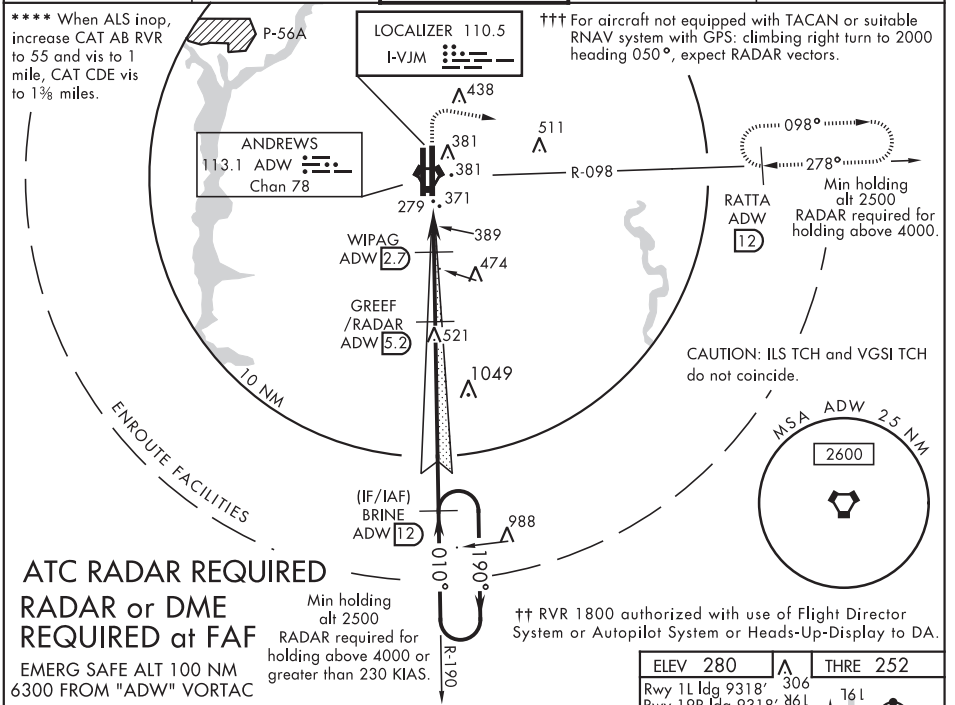
JOINT BASE ANDREWS (KADW)

▼ \*\* When ALS inop, increase RVR to 40, vis to 3/4 mile.  
 \*\*\* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE RVR to 60 and vis to 1 1/2 miles.  
 \*\*\*\* Circling not authorized W of Rwy 1L-19R.

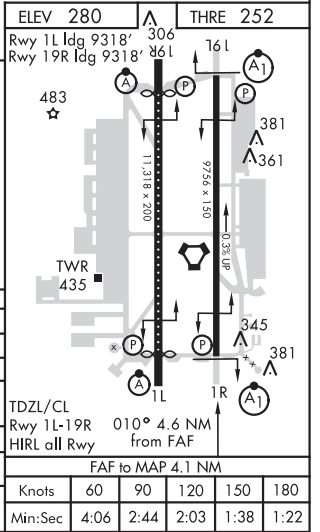
⊙ ALSF-1

††† MISSED APPROACH: Climb to 900, then climbing right turn to 2500 to intercept ADW VORTAC R-098 and hold.

ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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CATEGORY	A	B	C	D	E
S-ILS 1R *††	452/24		200	(200-1/2)	
S-LOC 1R **	640/24	388 (400-1/2)	640/35	388 (400-3/8)	
CIRCLING ***	720-1	740-1	740-1 1/2	840-2	880-2
	440 (500-1)	460 (500-1)	460 (500-1 1/2)	560 (600-2)	600 (600-2)
NON-DME					
S-LOC 1R ****	760/24 508 (500-1/2)		760/55 508 (500-1)		
CIRCLING ***	760-1	480 (500-1)	760-1 1/2	840-2	880-2
			480 (500-1 1/2)	560 (600-2)	600 (600-2)



CAMP SPRINGS, MARYLAND  
 Amdt 6 15SEP16

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

# ILS or LOC RWY 1R

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CAMP SPRINGS, MARYLAND

# ILS or LOC RWY 19L

LOC I-GQZ <b>110.5</b>	APCH CRS <b>190°</b>	Rwy Idg THRE <b>277</b> Arpt Elev <b>280</b>
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AL-561 [USAF]

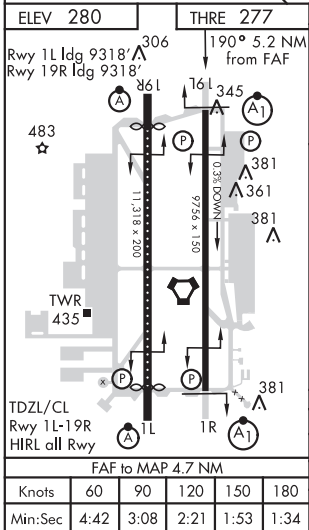
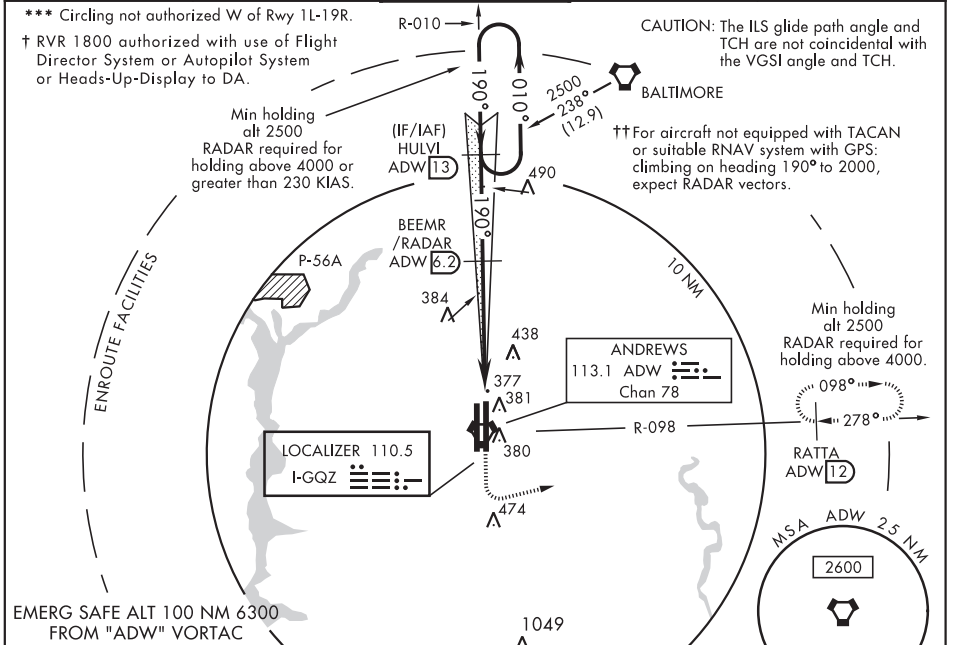
JOINT BASE ANDREWS (KADW)

▼ \* When ALS inop, increase 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.

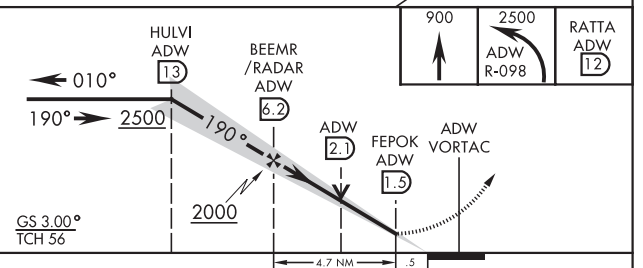
ⓐ ALSF-1

†† MISSED APPROACH: Climb to 900, then climbing left turn to 2500 intercept ADW VORTAC R-098 to RATTA and hold.

ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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**RADAR or DME REQUIRED at FAF**



CATEGORY	A	B	C	D	E
S-ILS 19L * †	477/24 200 (200-½)				
S-LOC 19L **	660/24	383 (400-½)	660/35	383 (400-½)	
CIRCLING ***	720-1 440 (500-1)	740-1 460 (500-1)	740-1½ 460 (500-1½)	840-2 560 (600-2)	880-2 600 (600-2)

CAMP SPRINGS, MARYLAND  
Amdt 5 15SEP16

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

# ILS or LOC RWY 19L

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CAMP SPRINGS, MARYLAND

# ILS or LOC RWY 19R

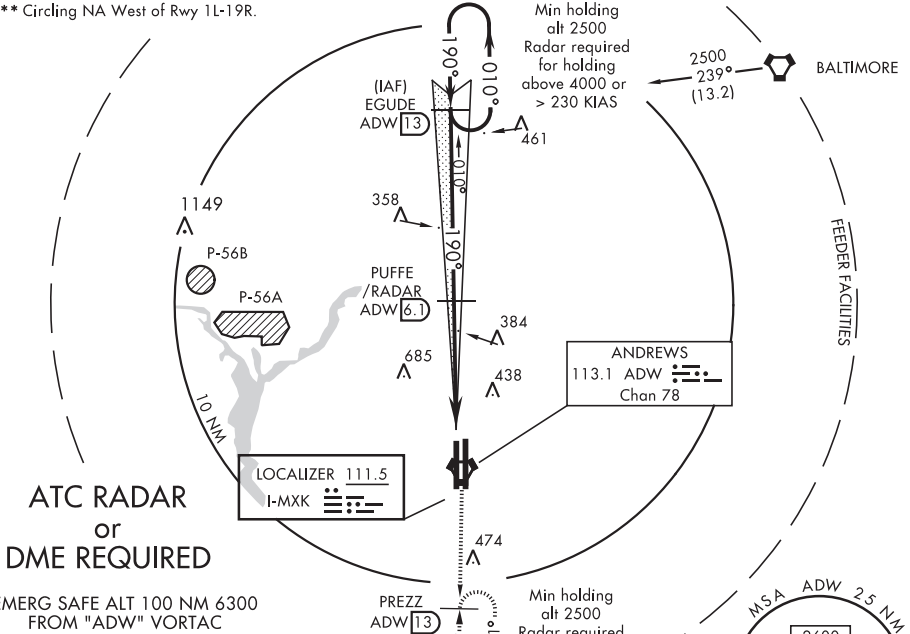
LOC I-MXK <b>111.5</b>	APCH CRS <b>190°</b>	Rwy Idg THRE <b>274</b> Arpt Elev <b>280</b>	AL-561 [USAF]	JOINT BASE ANDREWS (KADW)
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▼ \* When TDZL/CL inop, increase RVR to 24 and vis to ½ mile.  
 \* When ALS inop, increase RVR to 40 and vis to ¾ mile.  
 \*\* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE RVR to 60 and vis to 1½ miles.

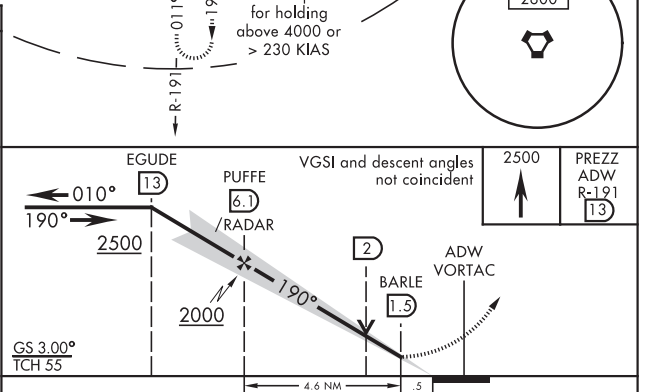
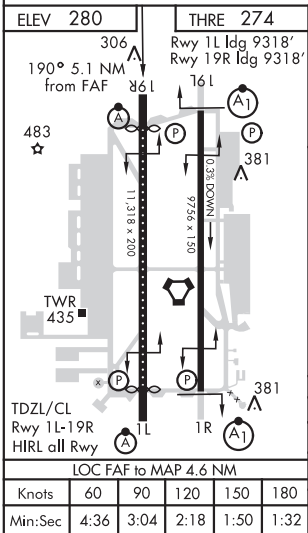
ALSF-2  
 MISSED APPROACH: Climbing to 2500, intercept ADW VORTAC R-191 to PREZZ and hold.

ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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\*\*\* Circling NA West of Rwy 1L-19R.



EMERG SAFE ALT 100 NM 6300 FROM "ADW" VORTAC



CATEGORY	A	B	C	D	E
S-ILS 19R*	474/18		200	(200-¾)	
S-LOC 19R**	660/24 386 (400-½)		660/35 386 (400-¾)		
CIRCLING***	720-1 440 (500-1)	740-1 460 (500-1)	740-1½ 460 (500-1½)	840-2 560 (600-2)	880-2 600 (600-2)

CAMP SPRINGS, MARYLAND

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

Orig 02MAY13

# ILS or LOC RWY 19R

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CAMP SPRINGS, MARYLAND

# ILS RWY 19R (CAT II)

LOC I-MXK <b>111.5</b>	APCH CRS <b>190°</b>	Rwy Idg THRE <b>274</b> Arpt Elev <b>280</b>
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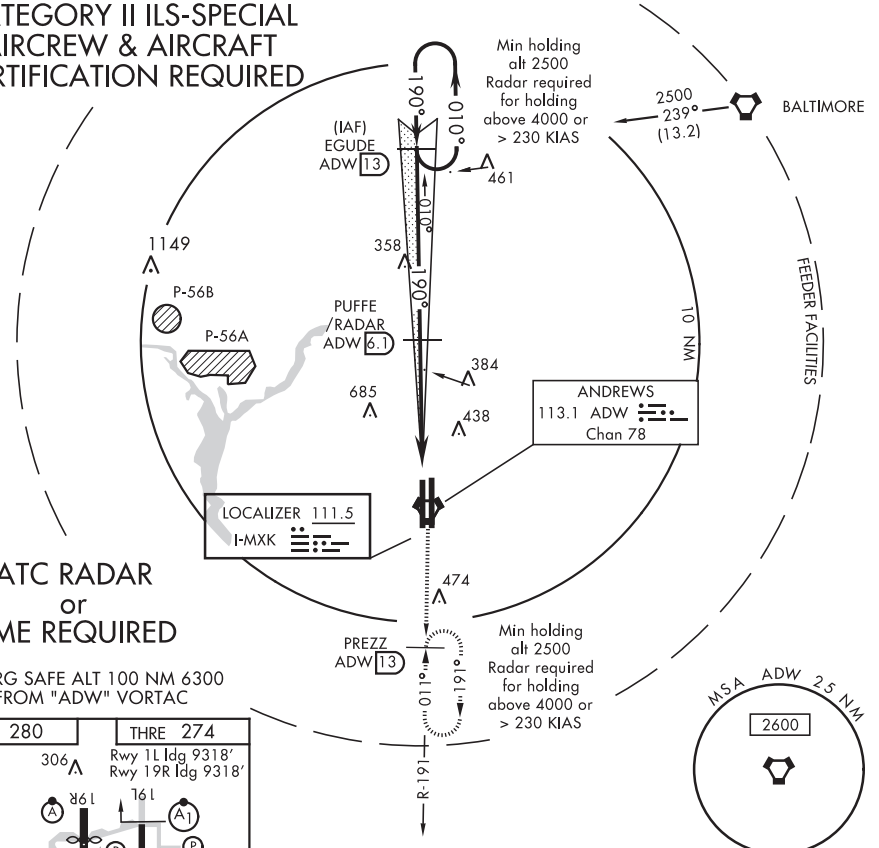
AL-561 [USAF]

JOINT BASE ANDREWS (KADW)

		MISSED APPROACH: Climbing to 2500, intercept ADW VORTAC R-191 to PREZZ and hold.		
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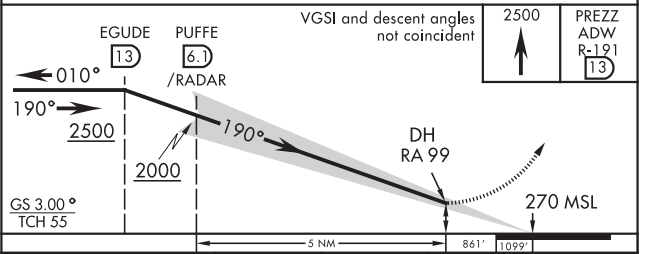
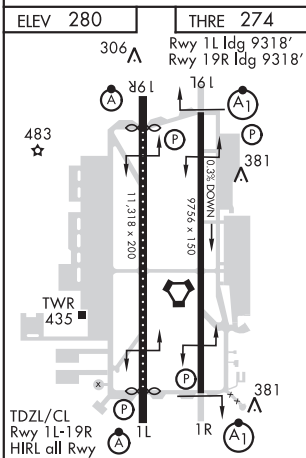
ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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## CATEGORY II ILS-SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



ATC RADAR or DME REQUIRED

EMERG SAFE ALT 100 NM 6300 FROM "ADW" VORTAC



CATEGORY	A	B	C	D	E
S-ILS 19R	RA 99/12		100	DA 374	

CAMP SPRINGS, MARYLAND

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

Orig 02MAY13

# ILS RWY 19R (CAT II)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CAMP SPRINGS, MARYLAND

# ILS RWY 19R (CAT III)

LOC I-MXK <b>111.5</b>	APCH CRS <b>190°</b>	Rwy ldg THRE <b>274</b> Arpt Elev <b>280</b>
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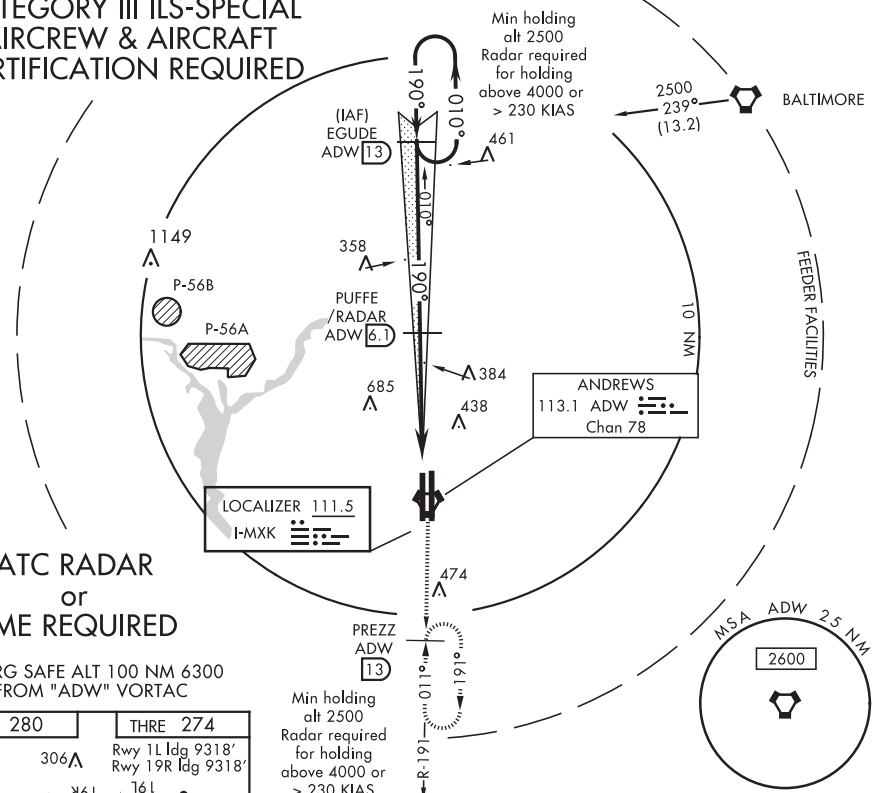
AL-561 [USAF]

JOINT BASE ANDREWS (KADW)

		MISSED APPROACH: Climbing to 2500, intercept ADW VORTAC R-191 to PREZZ and hold.		
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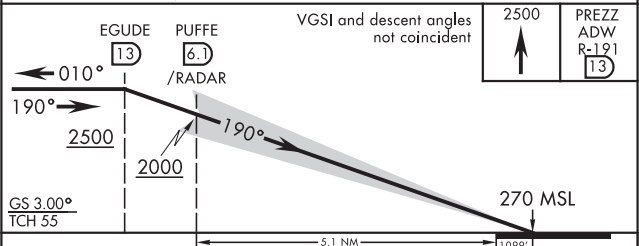
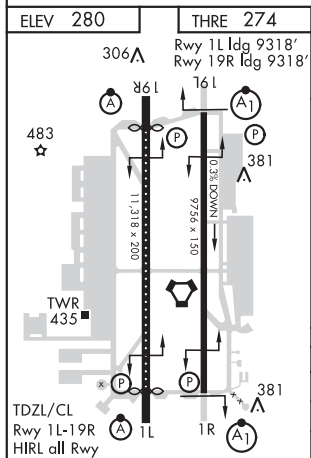
ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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## CATEGORY III ILS-SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



ATC RADAR or DME REQUIRED

EMERG SAFE ALT 100 NM 6300 FROM "ADW" VORTAC



CATEGORY	A	B	C	D	E
S-ILS 19R		CAT IIIa	RVR 07		
S-ILS 19R		CAT IIIb	N/A		
S-ILS 19R		CAT IIIc	N/A		

CAMP SPRINGS, MARYLAND

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

Orig 02MAY13

# ILS RWY 19R (CAT III)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CAMP SPRINGS, MARYLAND

# RNAV (GPS) RWY 1L

JOINT BASE ANDREWS (KADW)

APCH CRS <b>010°</b>	Rwy Idg <b>9318</b>
	THRE <b>255</b>
	Arpt Elev <b>280</b>

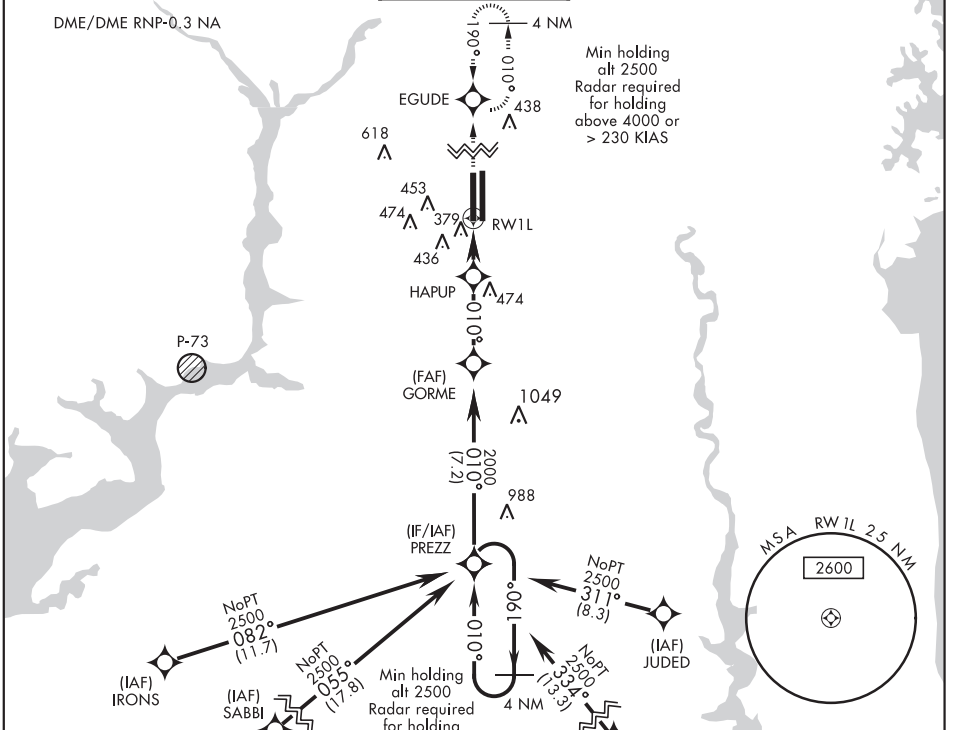
AL-561 [USAF]



MISSED APPROACH: Climb to 2500 direct EGUDE and hold.

▼ \* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1¼ miles.  
\*\* Circling not authorized W of Rwy 1L-19R.

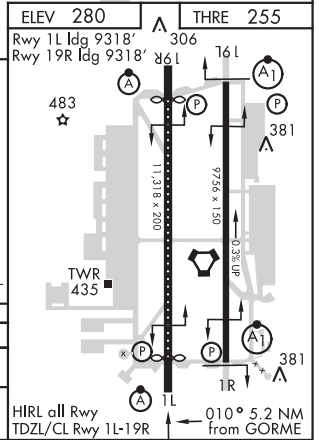
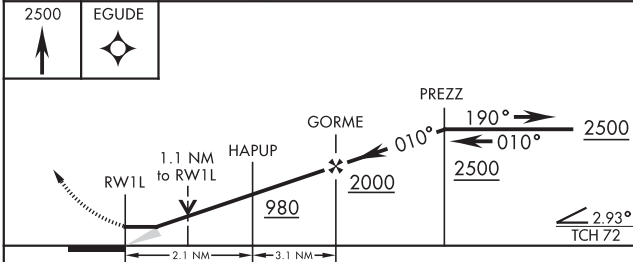
ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 6300



CATEGORY	A	B	C	D	E
RNAV MDA*	680/24	425 (400-½)	680/40	425 (400-¾)	
CIRCLING **	720-1 440 (500-1)	740-1 460 (500-1)	740-1½ 460 (500-1½)	840-2 560 (600-2)	880-2 600 (600-2)

CAMP SPRINGS, MARYLAND

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

Orig 28JUN12

# RNAV (GPS) RWY 1L

CAMP SPRINGS, MARYLAND

# RNAV (GPS) RWY 1R

APCH CRS	Rwy Idg	<b>9756</b>
<b>010°</b>	TDZE	<b>265</b>
	Arpt Elev	<b>280</b>

AL-561 [USAF]

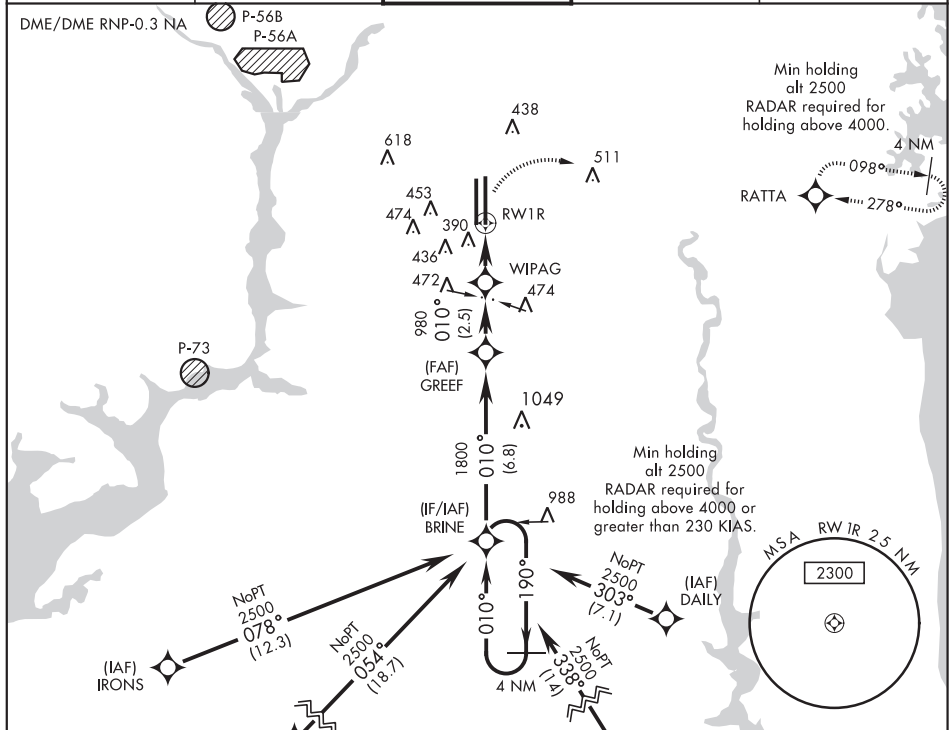
JOINT BASE ANDREWS (KADW)

▼ \* 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 W of Rwy 1L-19R.



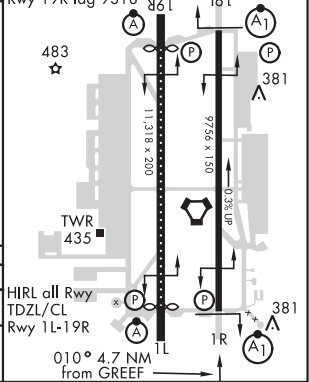
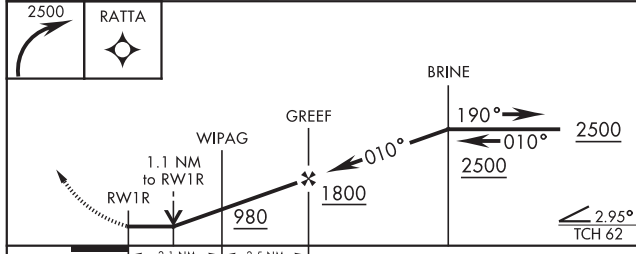
MISSED APPROACH: Climbing right turn to 2500 direct RATTA and hold.

ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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EMERG SAFE ALT 100 NM 6300

ELEV 280	306	TDZE 265
Rwy 1L Idg 9318'		
Rwy 19R Idg 9318'		



CATEGORY	A	B	C	D	E
RNAV MDA*	660/24 408 (400-½)		660/40 408 (400-¾)		
CIRCLING **	760-1 480 (500-1)		760-1½ 480 (500-1½)	840-2 560 (600-2)	880-2 600 (600-2)

CAMP SPRINGS, MARYLAND  
Orig 05APR12

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

# RNAV (GPS) RWY 1R

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# RNAV (GPS) RWY 19L

AL-561 [USAF]

JOINT BASE ANDREWS (KADW)

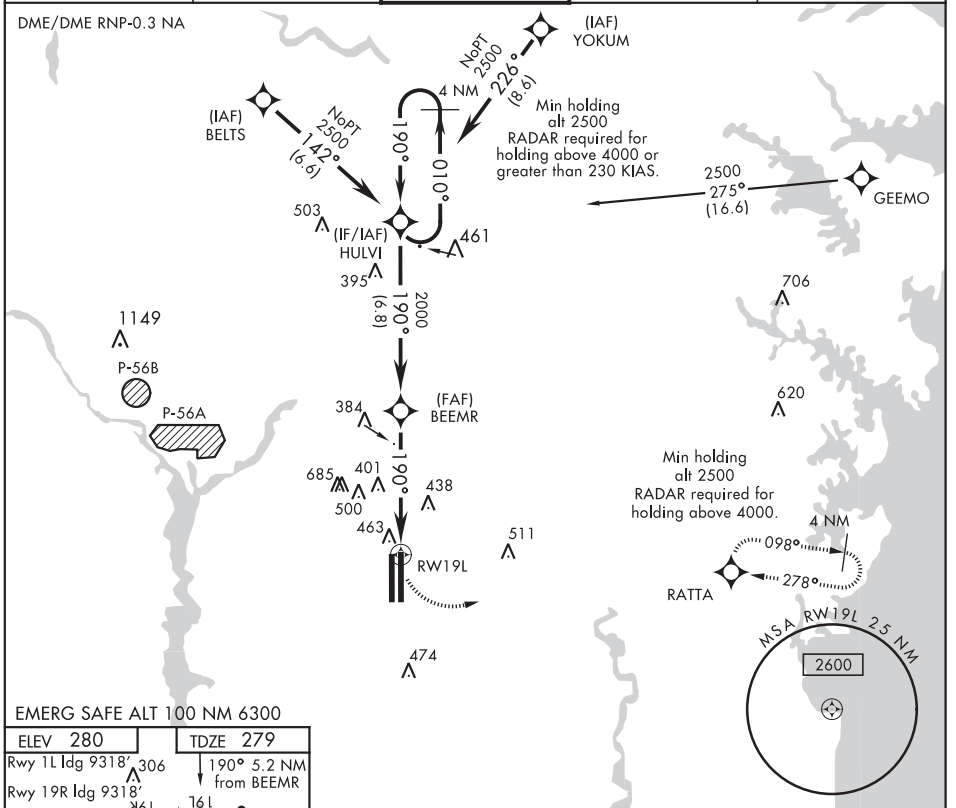
APCH CRS	Rwy Idg	<b>9756</b>
<b>190°</b>	TDZE	<b>279</b>
	Arpt Elev	<b>280</b>

▼ \* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1 3/8 miles.  
 \*\* Circling not authorized W of Rwy 11-19R.

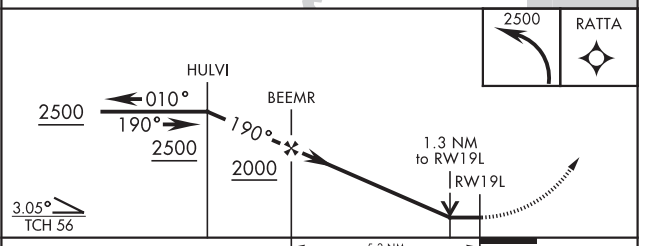
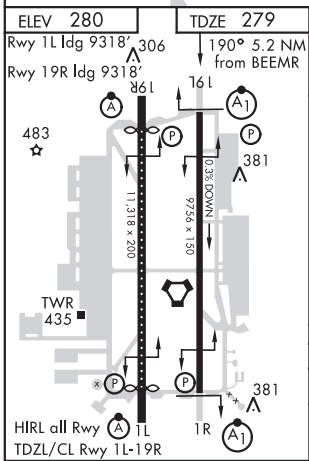


MISSED APPROACH: Climbing left turn to 2500 direct RATTA and hold.

ATIS	POTOMAC APP CON	ANDREWS TOWER	GND CON	CLNC DEL
<b>132.35 251.05</b>	<b>128.0 335.5</b>	<b>118.4 349.0</b>	<b>121.8 275.8</b>	<b>127.55 285.475</b>



EMERG SAFE ALT 100 NM 6300



CATEGORY	A	B	C	D	E
LNAV MDA *	740/24	463 (500-1/2)	740/50	463 (500-1)	
CIRCLING **	740-1	460 (500-1)	740-1 1/2 460 (500-1 1/2)	840-2 560 (600-2)	880-2 600 (600-2)

# RNAV (GPS) RWY 19L

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CAMP SPRINGS, MARYLAND

# RNAV (GPS) RWY 19R

JOINT BASE ANDREWS (KADW)

APCH CRS <b>190°</b>	Rwy Idg <b>9318</b>
	THRE <b>274</b>
	Arpt Elev <b>280</b>

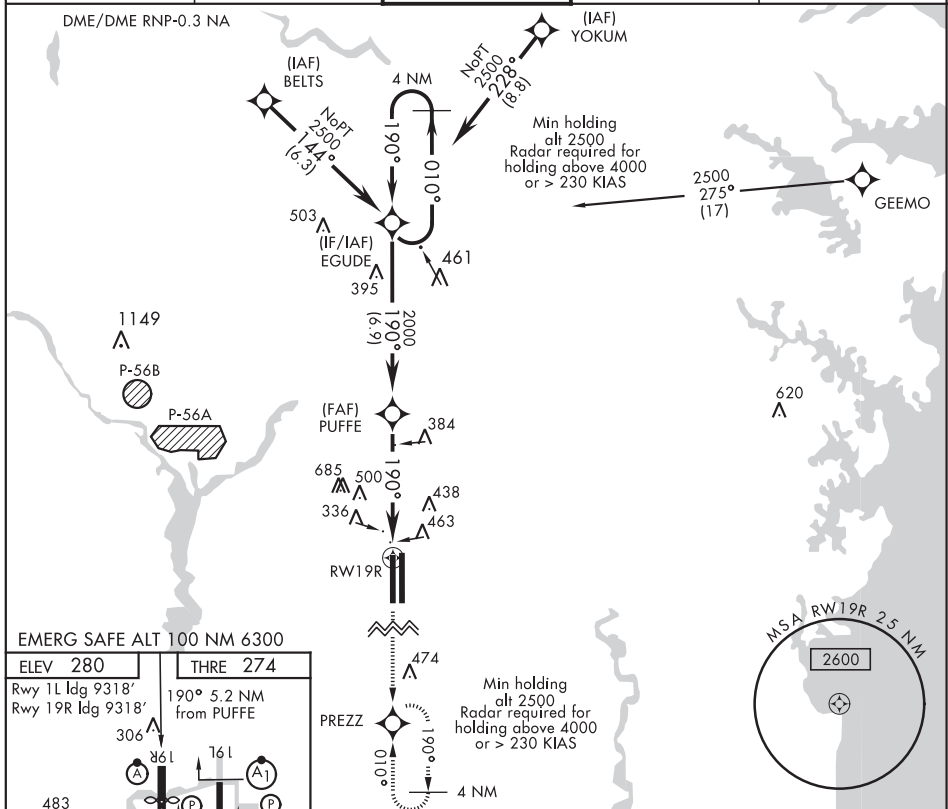
AL-561 [USAF]

▼ \* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1½ miles.  
\*\* Circling not authorized W of Rwy 1L-19R.

ALSF-2

MISSED APPROACH: Climb to 2500 direct PREZZ and hold.

ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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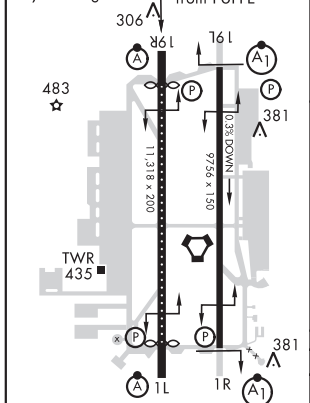


EMERG SAFE ALT 100 NM 6300

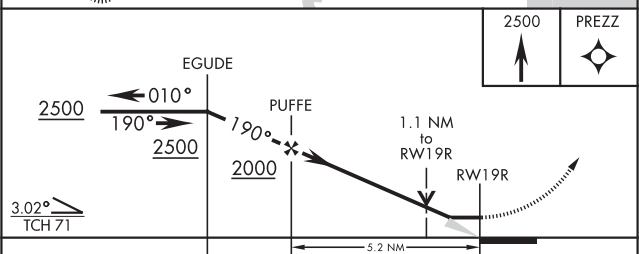
ELEV 280	THRE 274
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Rwy 1L Idg 9318'

Rwy 19R Idg 9318'



HIRL all Rwy  
TDZL/CL Rwy 1L-19R



CATEGORY	A	B	C	D	E
LNAV MDA *	740/24	466 (500-½)	740/50	466 (500-1)	
CIRCLING **	740-1	460 (500-1)	740-1½ 460 (500-1½)	840-2 560 (600-2)	880-2 600 (600-2)

CAMP SPRINGS, MARYLAND

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

Orig 28JUN12

# RNAV (GPS) RWY 19R

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CAMP SPRINGS, MARYLAND

# TACAN RWY 1L

VORTAC ADW <b>113.1</b> Chan <b>78</b>	APCH CRS <b>021°</b>	Rwy Idg <b>9318</b> TDZE <b>260</b> Arprt Elev <b>280</b>
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AL-561 [USAF]

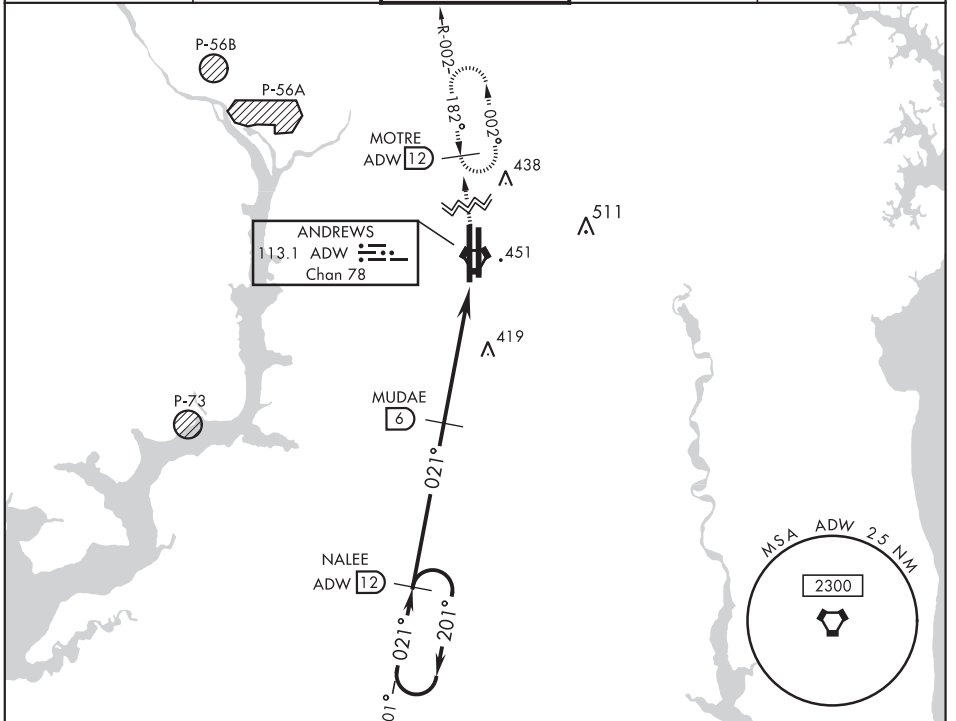
JOINT BASE ANDREWS (KADW)

▼ \* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CDE vis to 1½ miles.  
\*\* Circling not authorized W of Rwy 1L-19R.

ALSF-2

MISSED APPROACH: Climb to 2500 via ADW  
VORTAC R-002 to MOTRE/ADW 12 DME and hold.

ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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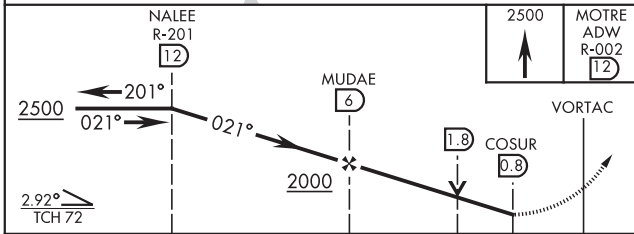


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

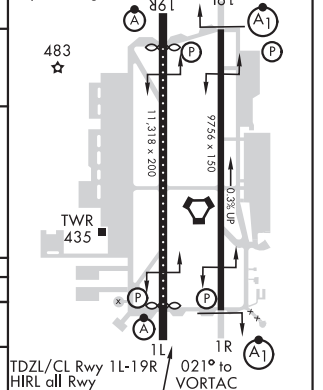
## ATC RADAR REQUIRED

EMERG SAFE ALT 100 NM 6100



ELEV 280	TDZE 260
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Rwy 1L Idg 9318'  
Rwy 19R Idg 9318'



CATEGORY	A	B	C	D	E
S-1L*	720/24 459 (500-½)		720/45 459 (500-¾)		
CIRCLING**	780-1 501 (600-1)		780-1½ 501 (600-1½)	840-2 561 (600-2)	

CAMP SPRINGS, MARYLAND  
Amdt 1 13OCT16

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

# TACAN RWY 1L

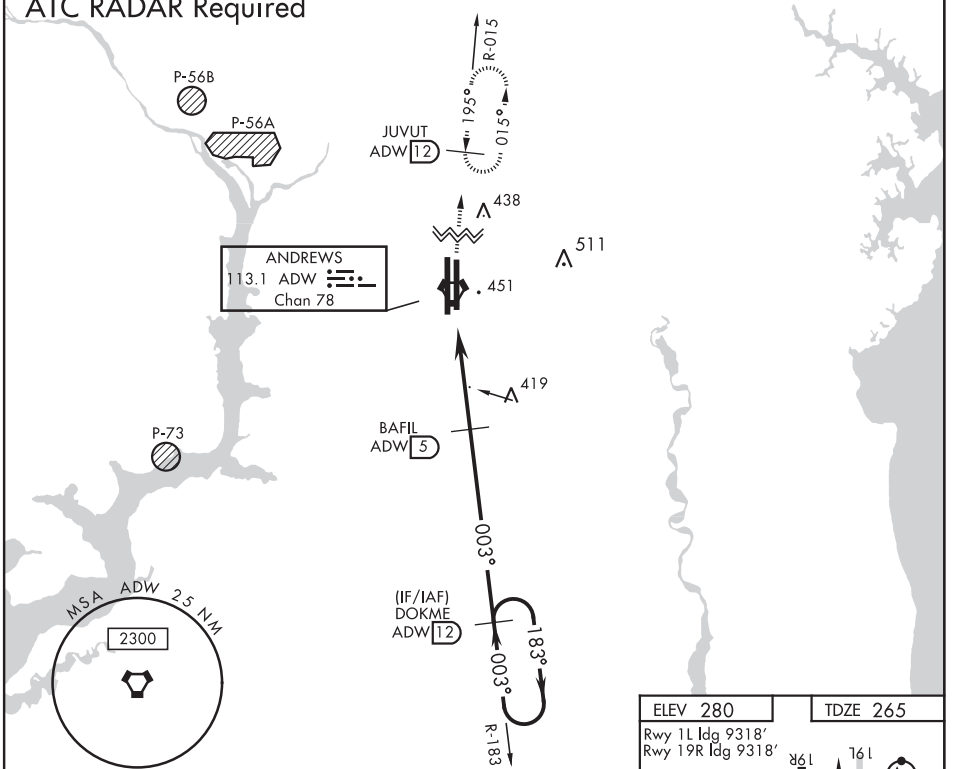
CAMP SPRINGS, MARYLAND

# TACAN RWY 1R

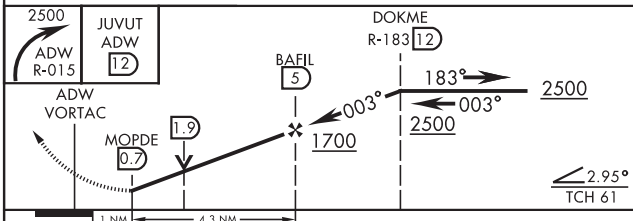
JOINT BASE ANDREWS (KADW)

VORTAC ADW <b>113.1</b> Chan <b>78</b>	APCH CRS <b>003°</b>	Rwy Idg <b>9756</b> TDZE <b>265</b> Arprt Elev <b>280</b>	AL-561 [USAF]	MISSED APPROACH: Climb to 2500 via ADW VORTAC R-015 to JUVUT and hold.	
▼ * When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1½ miles. ** Circling not authorized W of Rwy 1L-19R.					
ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>	

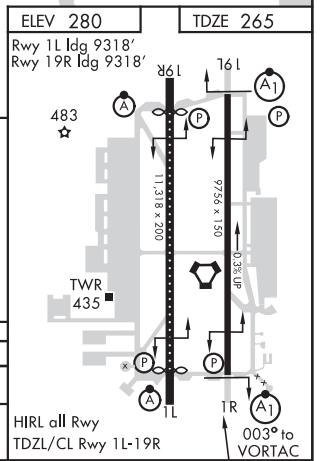
## ATC RADAR Required



### EMERG SAFE ALT 100 NM 6100



CATEGORY	A	B	C	D	E
S-1R*	720/24 455 (500-½)		720/45 455 (500-¾)		
CIRCLING**	780-1 501 (600-1)		780-1½ 501 (600-1½)	840-2 561 (600-2)	



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CAMP SPRINGS, MARYLAND  
Amdt 2 10NOV16

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

# TACAN RWY 1R

CAMP SPRINGS, MARYLAND

# TACAN RWY 19L

JOINT BASE ANDREWS (KADW)

VORTAC ADW <b>113.1</b> Chan <b>78</b>	APCH CRS <b>195°</b>	Rwy Idg TDZE <b>279</b> Arpt Elev <b>280</b>
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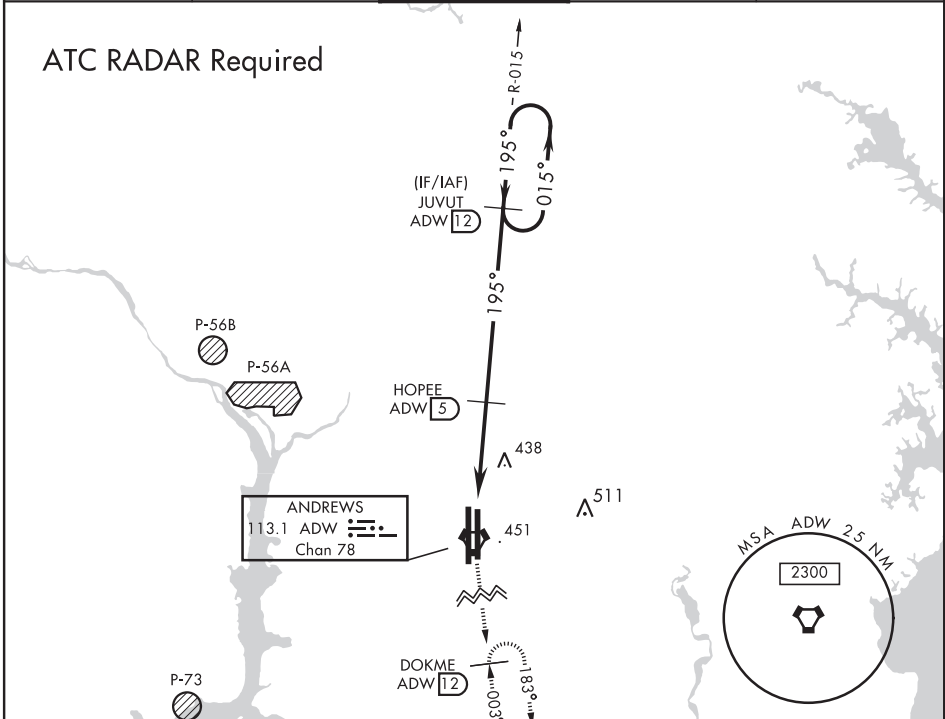
AL-561 [USAF]

▼ \* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1 3/8 miles.  
 \*\* Circling not authorized W of Rwy 1L-19R.



MISSED APPROACH: Climbing to 2500 via ADW VORTAC R-183 to DOKME and hold.

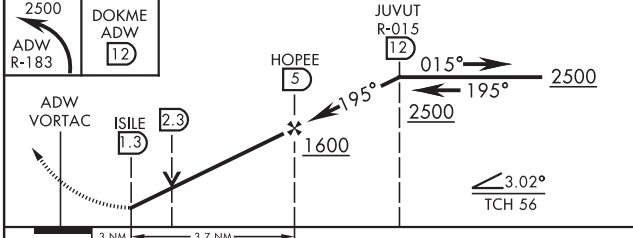
ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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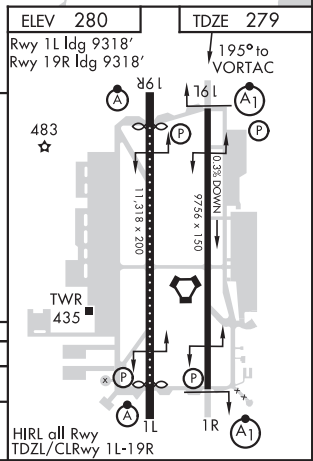
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 6100



CATEGORY	A	B	C	D	E
S-19L*	740/24 461 (500-1/2)		740/50 461 (500-1)		
** CIRCLING	780-1 501 (600-1)		780-1 1/2 501 (600-1 1/2)	840-2 561 (600-2)	



CAMP SPRINGS, MARYLAND  
Amdt 2 10NOV16

38°49'N-76°52'W

JOINT BASE ANDREWS (KADW)

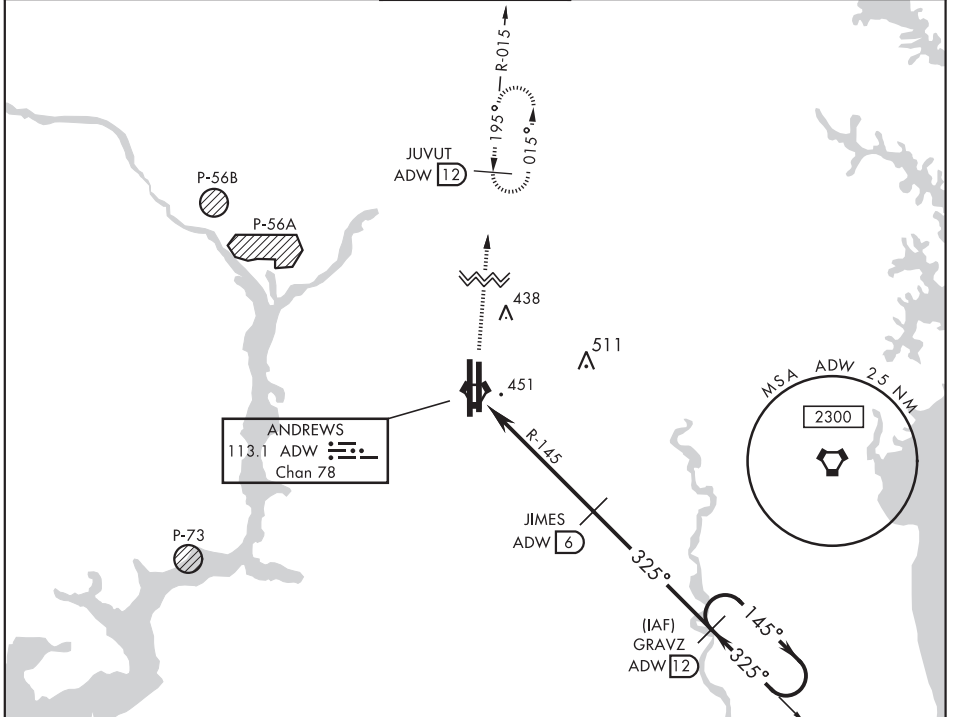
# TACAN RWY 19L



VORTAC ADW <b>113.1</b> Chan <b>78</b>	APCH CRS <b>325°</b>	Rwy ldg TDZE N/A Arpt Elev <b>280</b>	AL-561 [USAF]	JOINT BASE ANDREWS (KADW)
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\* Circling not authorized W of Rwy 1L-19R. MISSED APPROACH: Climbing right turn to 2500 via ADW R-015 to JUVUT and hold.

ATIS <b>132.35 251.05</b>	POTOMAC APP CON <b>128.0 335.5</b>	ANDREWS TOWER <b>118.4 349.0</b>	GND CON <b>121.8 275.8</b>	CLNC DEL <b>127.55 285.475</b>
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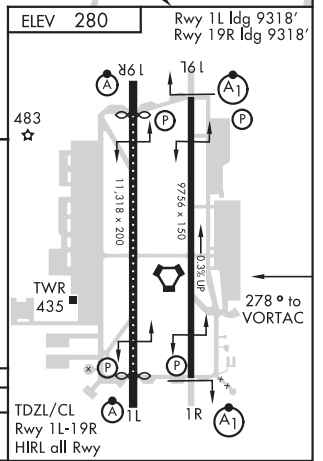
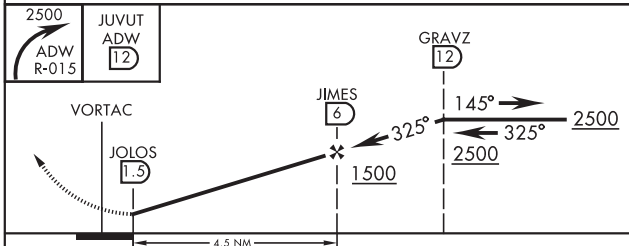


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ATC RADAR REQUIRED

EMERG SAFE ALT 100 NM 6100



CATEGORY	A	B	C	D	E
CIRCLING*	780-1¼ 501 (600-1¼)		780-1½ 501 (600-1½)	840-2 561 (600-2)	

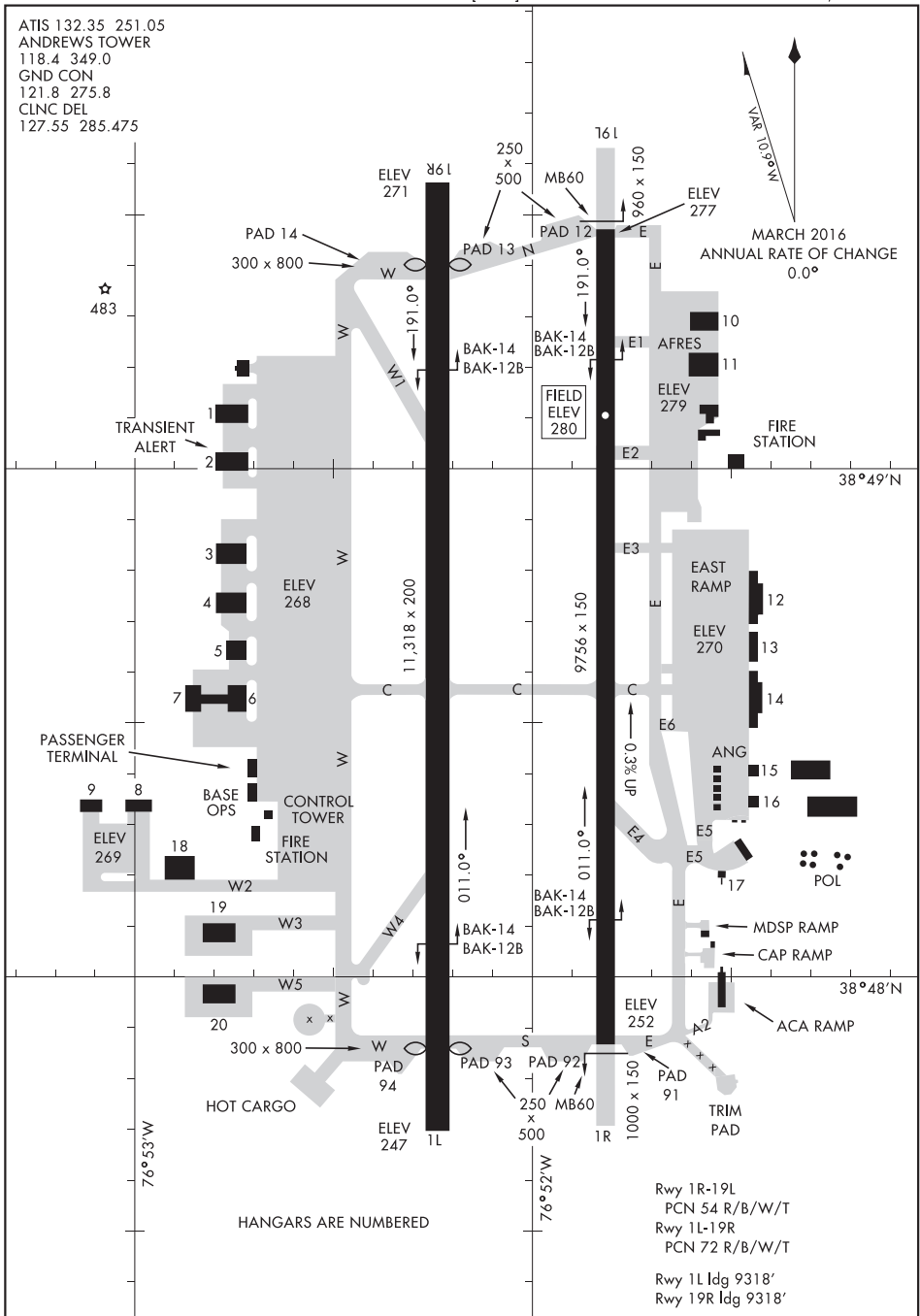
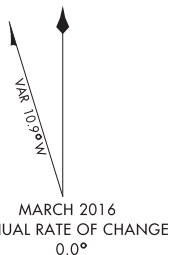
# AIRPORT DIAGRAM

AFD-561 [USAF]

JOINT BASE ANDREWS (KADW)

CAMP SPRINGS, MARYLAND

ATIS 132.35 251.05  
 ANDREWS TOWER  
 118.4 349.0  
 GND CON  
 121.8 275.8  
 CLNC DEL  
 127.55 285.475



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

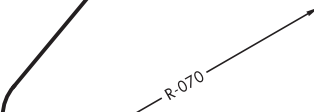
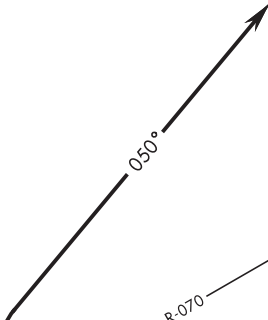
CAMP SPRINGS, MARYLAND

JOINT BASE ANDREWS (KADW)

ATIS 132.35 251.05  
 GND CON  
 121.8 275.8  
 ANDREWS TOWER  
 118.4 349.0  
 POTOMAC TRACON DEP CON  
 125.65 348.725

1149  
 ▲

ANDREWS  
 113.1 ADW   
 Chan 78



**RADAR VECTORS REQUIRED  
 WITHIN 10 NM  
 FROM DEPARTURE**

**RADAR REQUIRED**



**DEPARTURE ROUTE DESCRIPTION**

TAKE-OFF RWY 1L/1R: Climbing right turn to 3000 heading 050°. Expect radar vectors to intercept ADW VORTAC R-070.

# CAMP SPRINGS ONE DEPARTURE

SL-561 [USAF]

JOINT BASE ANDREWS (KADW)

CAMP SPRINGS, MARYLAND

Rwy	Knots	60	120	180	240
1L/1R	V/V(fpm)	380	760	1140	1520

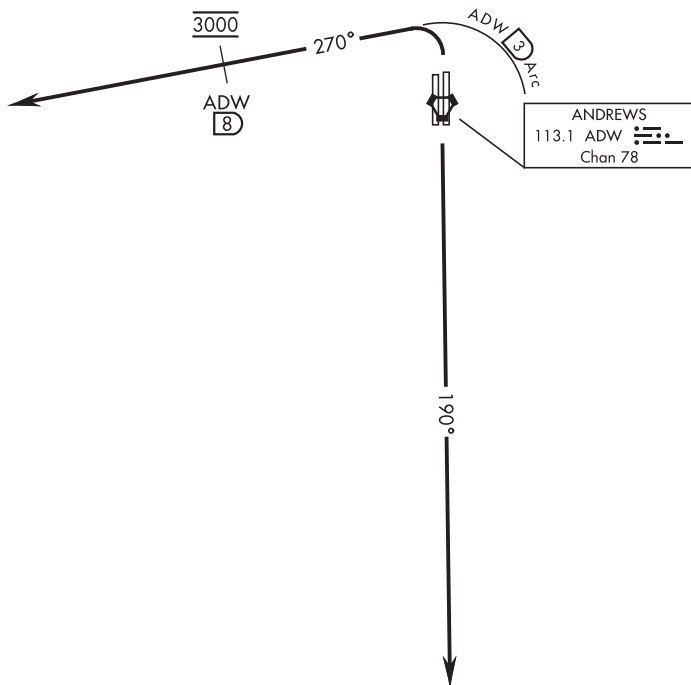
ATC Climb Rate to 3000

If unable to make published climb gradient advise ATC prior to departure.

ATIS 132.35 251.05  
 GND CON  
 121.8 275.8  
 ANDREWS TOWER  
 118.4 349.0  
 POTOMAC TRACON DEP CON  
 118.95 257.2

1149  
 ▲

**RADAR VECTORS REQUIRED  
 WITHIN 10 NM  
 FROM DEPARTURE**



**RADAR REQUIRED**

### ▼ DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 1L/1R: Turn left climb on heading 270° within 3 DME of ADW VORTAC, cross ADW 8 DME at 3000. Expect radar vectors.

TAKE-OFF RWY 19R/19L: Climb on heading 190° to 3000. Expect radar vectors to the west.

# CAMP SPRINGS ONE DEPARTURE

CAMP SPRINGS, MARYLAND  
 JOINT BASE ANDREWS (KADW)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



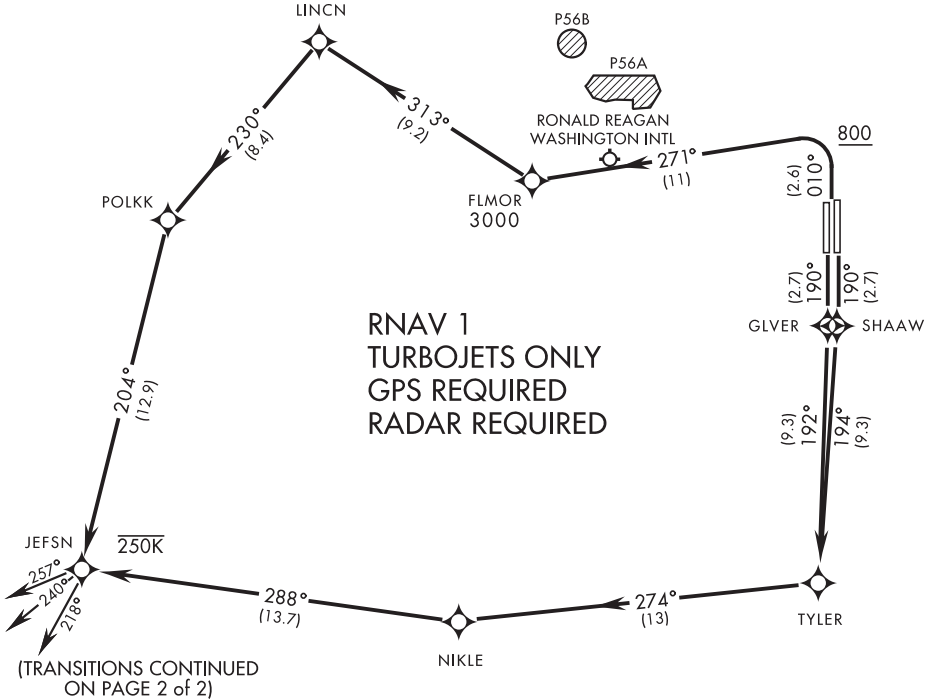
# JEFSN ONE DEPARTURE (RNAV) (JEFSN1•JEFSN)

JOINT BASE ANDREWS (KADW)  
CAMP SPRINGS, MARYLAND

ATIS 132.35 251.05  
GND CON  
121.8 275.8  
ANDREWS TOWER  
118.4 349.0  
POTOMAC TRACON DEP CON  
118.95 257.2

SL-561 [USAF]  
(PAGE 1 of 2)

Max speed 250KIAS until JEFSN.  
Prohibited (P56) 1.5NM north  
of DCA avoid surface to FL180.



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

## DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 1L/1R: Climb on heading 010° to 800, then climbing left turn to 3000 direct FLMOR. Then via depicted route to JEFSN, thence...

TAKE-OFF RWY 19L: Climb on heading 190° direct SHAAW then via depicted route to JEFSN, thence...

TAKE-OFF RWY 19R: Climb on heading 190° direct GLVER then via depicted route to JEFSN, thence...

... on assigned transition. Maintain 3000, expect further clearance to filed alt within ten (10) minutes after departure.

- FLASK TRANSITION (JEFSN1 • FLASK)
- GREENSBORO TRANSITION (JEFSN1 • GSO)
- LYNCHBURG TRANSITION (JEFSN1 • LYH)
- MAULS TRANSITION (JEFSN1 • MAULS)
- SOUTH BOSTON TRANSITION (JEFSN1 • SBV)

# JEFSN ONE DEPARTURE (RNAV) (JEFSN1•JEFSN)

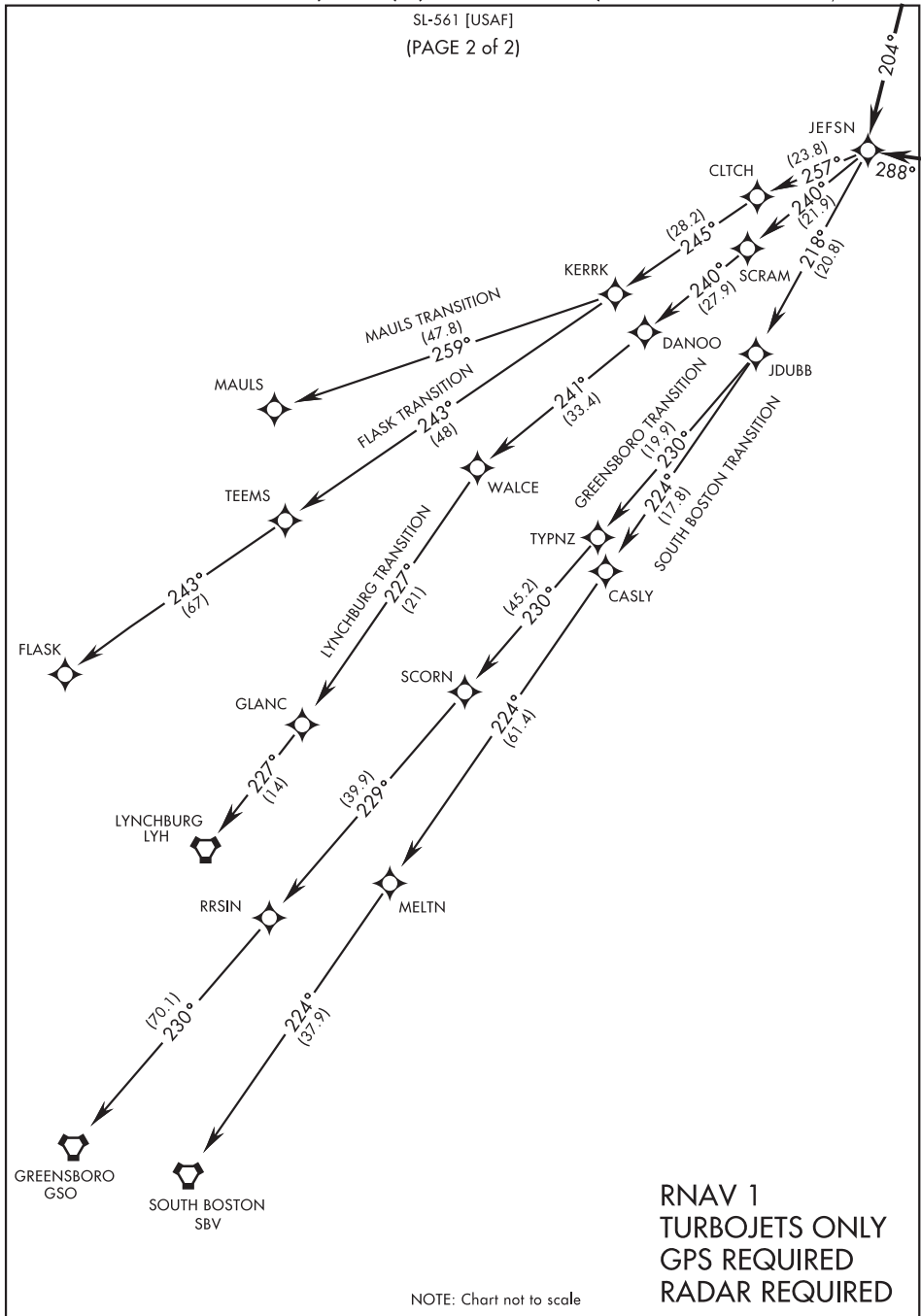
CAMP SPRINGS, MARYLAND  
JOINT BASE ANDREWS (KADW)

# JEFNSN ONE DEPARTURE (RNAV) (JEFNSN1•JEFNSN)

JOINT BASE ANDREWS (KADW)

CAMP SPRINGS, MARYLAND

SL-561 [USAF]  
(PAGE 2 of 2)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

**RNAV 1  
TURBOJETTS ONLY  
GPS REQUIRED  
RADAR REQUIRED**

NOTE: Chart not to scale

# JEFNSN ONE DEPARTURE (RNAV) (JEFNSN1•JEFNSN)

JOINT BASE ANDREWS (KADW)

CAMP SPRINGS, MARYLAND

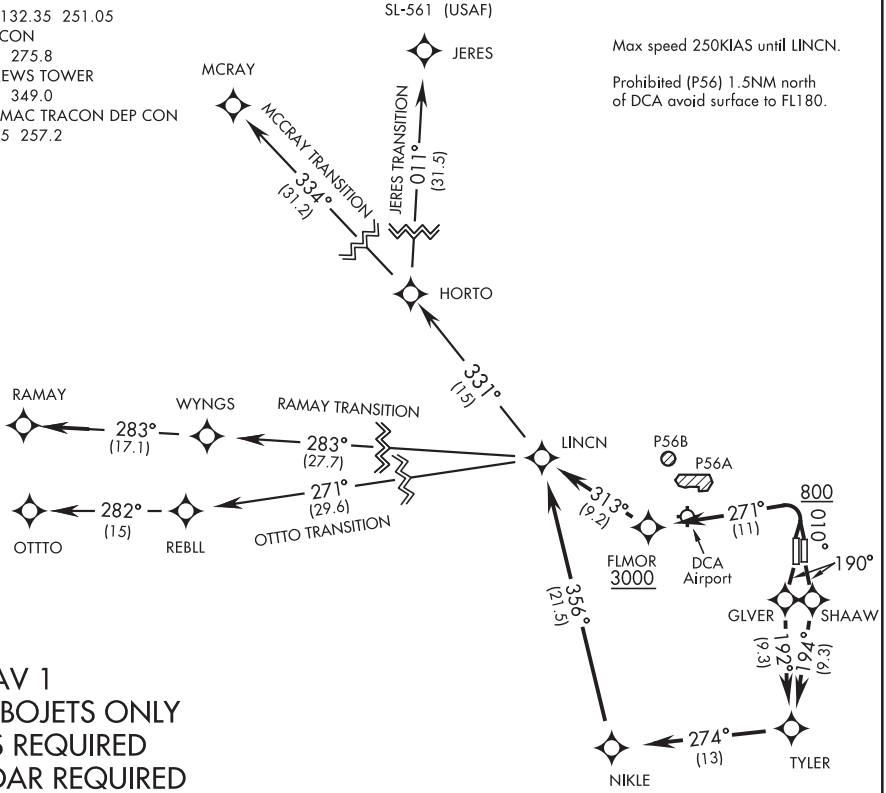
# LINCN ONE DEPARTURE (RNAV) (LINCN1•LINCN)

ATIS 132.35 251.05  
GND CON  
121.8 275.8  
ANDREWS TOWER  
118.4 349.0  
POTOMAC TRACON DEP CON  
118.95 257.2

SL-561 (USAF)

Max speed 250KIAS until LINCN.

Prohibited (P56) 1.5NM north of DCA avoid surface to FL180.



**RNAV 1  
TURBOJETTS ONLY  
GPS REQUIRED  
RADAR REQUIRED**

## DEPARTURE ROUTE DESCRIPTION

RWY 01L/R: Climb heading 010° to 800, then climbing left turn to 3000 direct FLMOR. Then via depicted route to LINCN, thence...

RWY 19L: Climb heading 190° direct SHAAW then via depicted route to LINCN, thence...

RWY 19R: Climb heading 190° direct GLVER then via depicted route to LINCN, thence...

...on assigned transition. Maintain 3000, expect further clearance to filed alt within ten (10) minutes after departure.

JERES TRANSITION (LINCN1.JERES)

MCCRAY TRANSITION (LINCN1.MCCRAY)

OTTO TRANSITION (LINCN1.OTTO)

RAMAY TRANSITION (LINCN1.RAMAY)

# LINCN ONE DEPARTURE (RNAV) (LINCN1•LINCN)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017


# MORNINGSIDE ONE DEPARTURE

SL-561 [USAF]

CAMP SPRINGS, MARYLAND

ATIS 132.35 251.05  
 GND CON  
 121.8 275.8  
 ANDREWS TOWER  
 118.4 349.0  
 POTOMAC TRACON DEP CON  
 125.65 348.725

1149  
 ▲

ANDREWS  
 113.1 ADW   
 Chan 78



**RADAR VECTORS REQUIRED  
 WITHIN 10 NM  
 FROM DEPARTURE**

**RADAR REQUIRED**



### DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 1L/1R: Climb on heading 010° to 3000. Expect radar vectors.

TAKE-OFF RWY 19R/19L: Climb on heading 190° to 3000. Expect radar vectors to the South or East.

# MORNINGSIDE ONE DEPARTURE

WAAS CH <b>78430</b> <b>W07A</b>	APP CRS <b>066°</b>	Rwy Idg TDZE Apt Elev	<b>5003</b> <b>1393</b> <b>1411</b>
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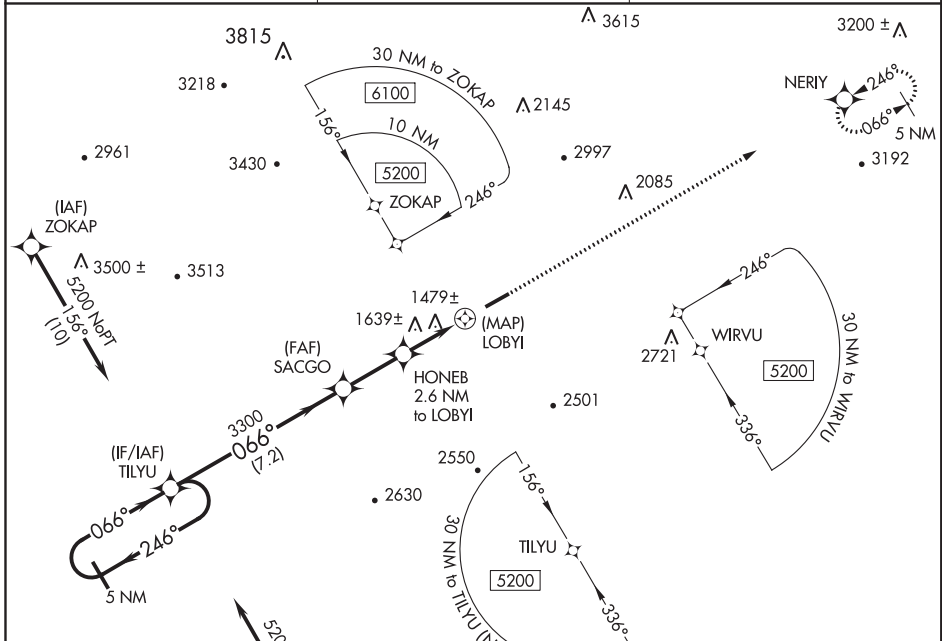
# RNAV (GPS) RWY 7

LEE COUNTY (ØVG)

**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Middlesboro, KY altimeter setting and increase all MDA 100 feet, increase Straight-in/Circling Cat C visibility ¼ mile.

**⚠** MISSED APPROACH: Climb to 5600 direct NERIY and hold, continue climb-in-hold to 5600.

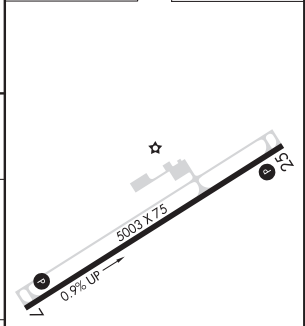
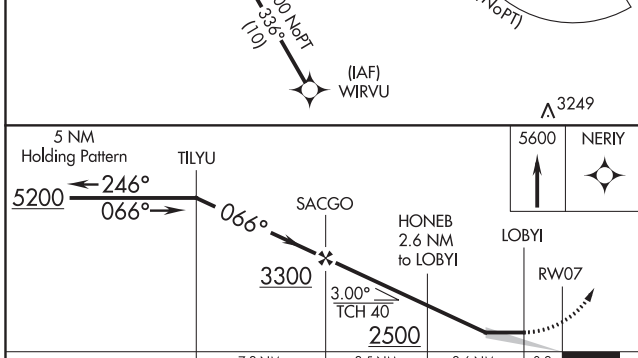
AWOS-3 <b>120.125</b>	ATLANTA CENTER <b>127.55 269.50</b>	CTAF <b>122.9</b> <b>⓪</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 1411	TDZE 1393
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CATEGORY	A	B	C	D
LP MDA	1740-1½		347 (400-1½)	NA
LNAV MDA	1940-1½	547 (600-1½)	1940-1½ 547 (600-1½)	NA
CIRCLING	2100-1½	689 (700-1½)	2100-2 689 (700-2)	NA

MIRL Rwy 7-25 **⓪**  
REIL Rwy 7 and 25 **⓪**

WAAS CH <b>82717</b> <b>W25A</b>	APP CRS <b>246°</b>	Rwy Idg <b>5003</b> TDZE <b>1411</b> Apt Elev <b>1411</b>
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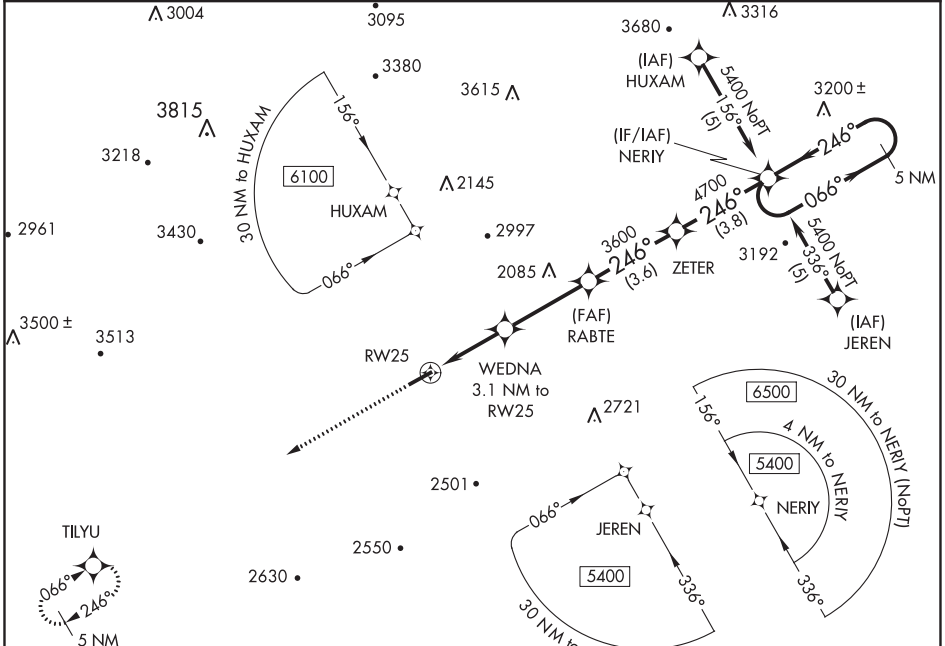
# RNAV (GPS) RWY 25

LEE COUNTY (ØVG)

**⚠** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Middlesboro, KY altimeter setting and increase all DA 95 feet and LPV visibility all Cats ¼ mile; increase all MDA 100 feet and increase LNAV and Circling visibility Cats B and C ¼ mile.

**MISSED APPROACH:** Climb to 5000 direct TILYU and hold, continue climb-in-hold to 5000.

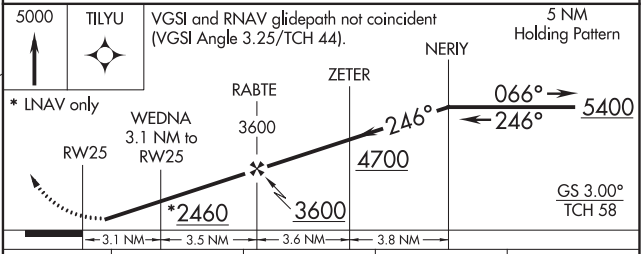
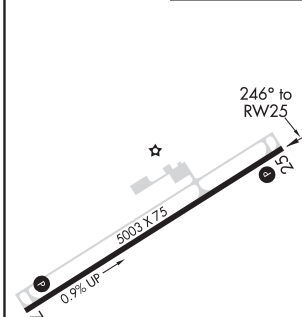
AWOS-3 <b>120.125</b>	ATLANTA CENTER <b>127.55 269.50</b>	CTAF <b>122.90</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV <b>1411</b>	TDZE <b>1411</b>
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CATEGORY	A	B	C	D
LPV DA	1711-1		300 (300-1)	
LNAV MDA	2320-1¼	909 (1000-1¼)	2320-2¾ 909 (1000-2¾)	2320-3 909 (1000-3)
CIRCLING	2320-1¼	909 (1000-1¼)	2320-2¾ 909 (1000-2¾)	2320-3 909 (1000-3)

MIRL Rwy 7-25  
REIL Rws 7 and 25

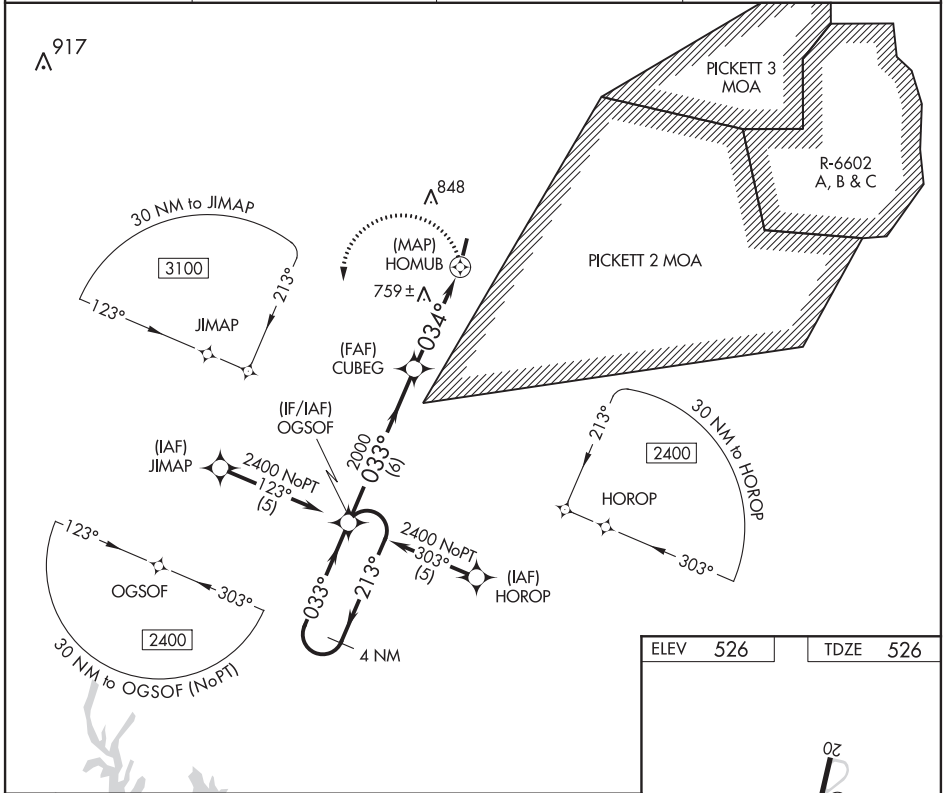
APP CRS	Rwy Idg	<b>3000</b>
<b>034°</b>	TDZE	<b>526</b>
	Apt Elev	<b>526</b>

# RNAV (GPS) RWY 2

LUNENBURG COUNTY (W31)

<p><b>▽</b> NA DME/DME RNP-0.3 NA. Procedure NA at night. Visibility reduction by helicopters NA. Use South Hill altimeter setting, when not received, use Farmville altimeter setting and increase all MDA 40 feet.</p>	<p><b>⚠</b> NA MISSED APPROACH: Climbing left turn to 2400 direct OGSOF and hold.</p>
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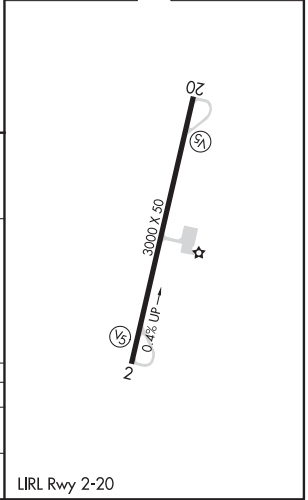
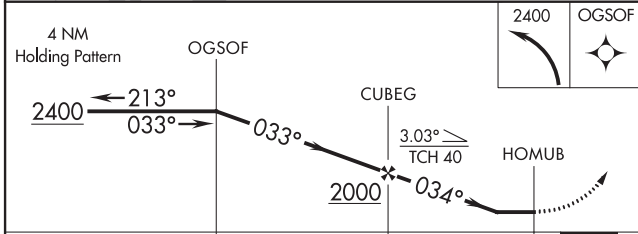
AWOS-3 <b>123.875</b>	SOUTH HILL AWOS-3 <b>127.525</b>	WASHINGTON CENTER <b>118.75 377.1</b>	UNICOM <b>122.7</b> (CTAF)
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV	<b>526</b>	TDZE	<b>526</b>
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CATEGORY	A	B	C	D
LNVA MDA	1080-1	554 (600-1)		NA
CIRCLING	1080-1	554 (600-1)		NA

KENBRIDGE, VIRGINIA

AL-10440 (FAA)

16315

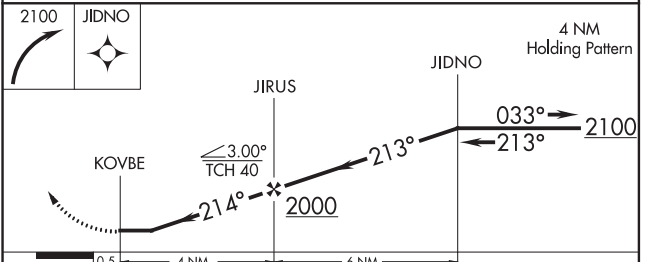
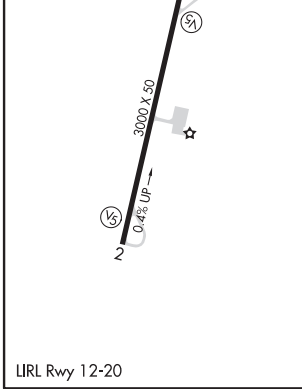
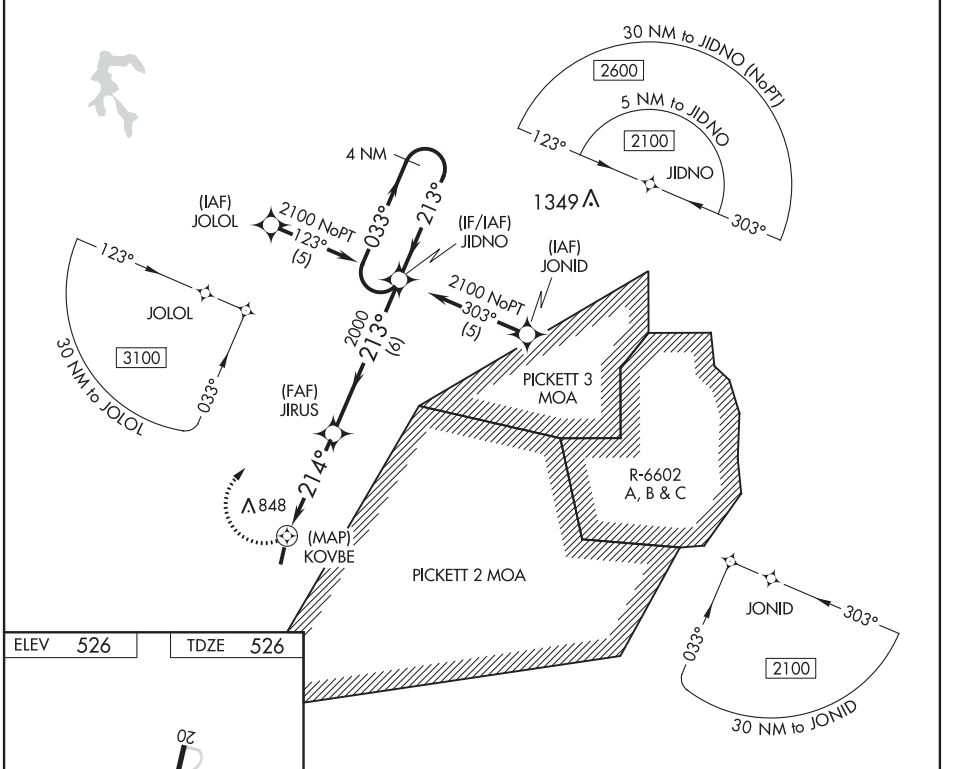
APP CRS	Rwy Idg	<b>3000</b>
<b>214°</b>	TDZE	<b>526</b>
	Apt Elev	<b>526</b>

# RNAV (GPS) RWY 20

LUNENBURG COUNTY (W31)

<b>▼</b> NA	DME/DME RNP-0.3 NA. Procedure NA at night. Visibility reduction by helicopters NA. Use South Hill altimeter setting, when not received, use Farmville altimeter setting and increase all MDA 40 feet.	MISSED APPROACH: Climbing right turn to 2100 direct JIDNO and hold.
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AWOS-3 <b>123.875</b>	SOUTH HILL AWOS-3 <b>127.525</b>	WASHINGTON CENTER <b>118.75 377.1</b>	UNICOM <b>122.7</b> (CTAF)
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CATEGORY	A	B	C	D
LNAV MDA	1540-3	1014 (1100-3)	NA	
CIRCLING	1540-3	1014 (1100-3)	NA	

KENBRIDGE, VIRGINIA  
Orig 13JAN11

36°58'N-78°11'W

# RNAV (GPS) RWY 20

LUNENBURG COUNTY (W31)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



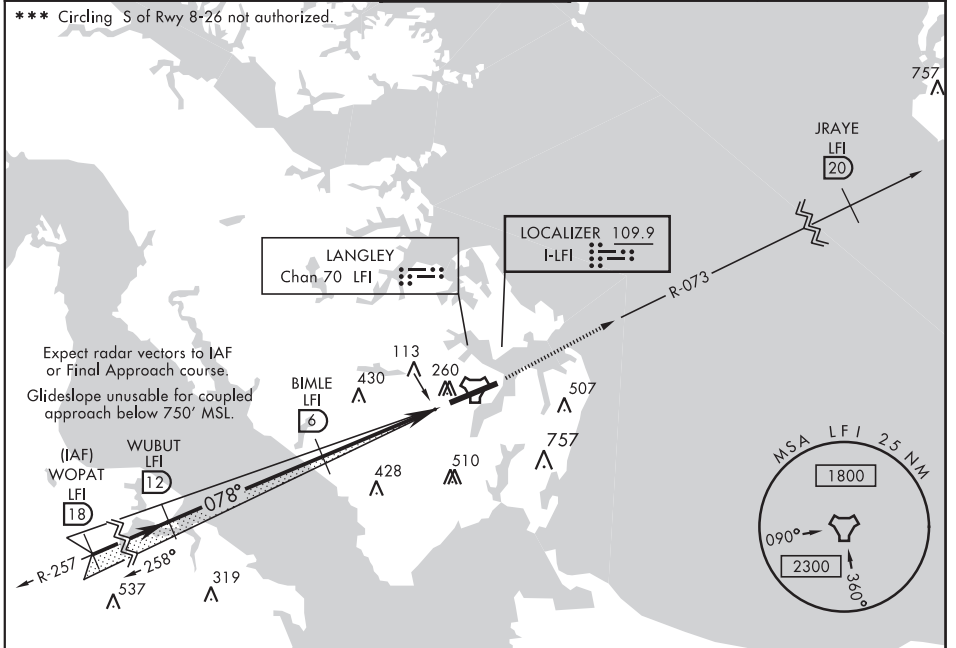
HAMPTON, VIRGINIA

# ILS or LOC/DME RWY 8

LOC I-LFI <b>109.9</b>	APCH CRS <b>078°</b>	Rwy Idg <b>10,002</b> THRE Arprt Elev <b>8</b>	AL-185 [USAF]	LANGLEY AFB (KLFJ)
▼ ** 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 1¾ miles.			ALSF-1 	MISSED APPROACH: Climb to 3000 via LFI R-073 to 20 DME (JRAYE), then as instructed by ATC.

ATIS ★ <b>270.1</b>	NORFOLK APP CON <b>125.7 335.625</b>	LANGLEY TOWER <b>125.0 253.5</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>118.85 257.625</b>
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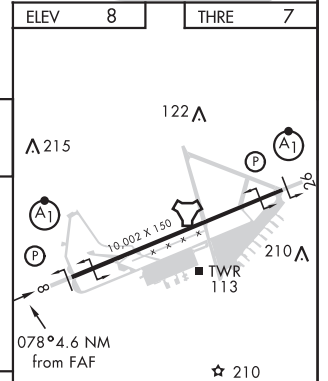
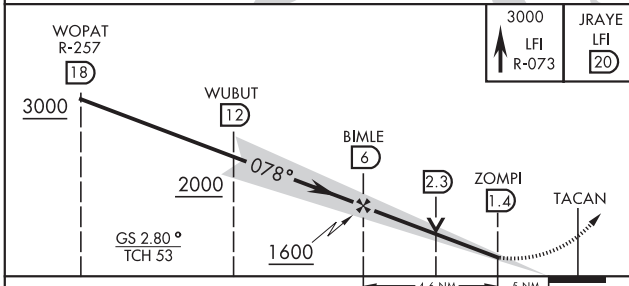
\*\*\* Circling S of Rwy 8+26 not authorized.



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

**▲ RADAR or DME REQUIRED**  
EMERG SAFE ALT 100 NM 4100



CATEGORY	A	B	C	D	E
S-ILS 8 *		207/24	200	(200-½)	
S-LOC 8 **	480/24	473 (500-½)	480/50	473	(500-1)
CIRCLING ***	540-1 532 (600-1)	580-1 572 (600-1)	660-1¾ 652 (700-1¾)	760-2½ 752 (800-2½)	760-2¾ 752 (800-2¾)

HRL RWY 8-26					
FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

HAMPTON, VIRGINIA      37°05'N-76°21'W      LANGLEY AFB (KLFJ)

Amtd 4 22AUG13

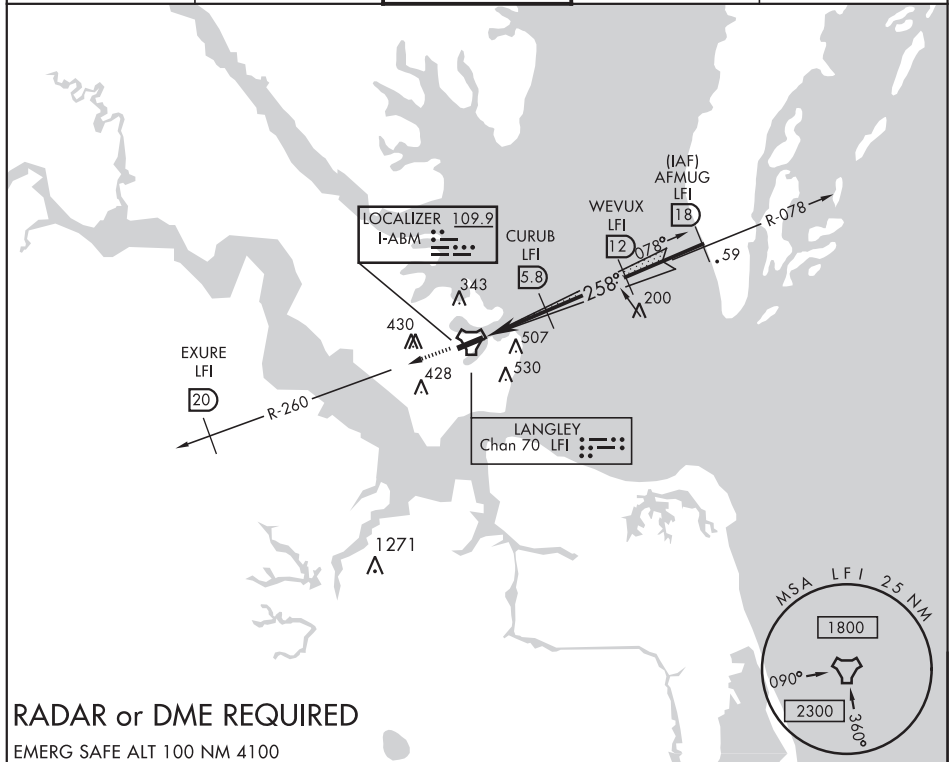
# ILS or LOC/DME RWY 8

HAMPTON, VIRGINIA

# ILS or LOC/DME RWY 26

LOC I-ABM <b>109.9</b>	APCH CRS <b>258°</b>	Rwy Idg THRE <b>10,002</b> Arpt Elev <b>6</b> <b>8</b>	JAL-185 [USAF]	LANGLEY AFB (KLF1)
* 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 S of Rwy 8-26 not authorized.			ALSF-1 	MISSED APPROACH: Climb to 3000 via LFI R-260 to 20 DME (EXURE), then as instructed by ATC.

ATIS * <b>270.1</b>	NORFOLK APP CON <b>125.7 335.625</b>	LANGLEY TOWER <b>125.0 253.5</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>118.85 257.625</b>
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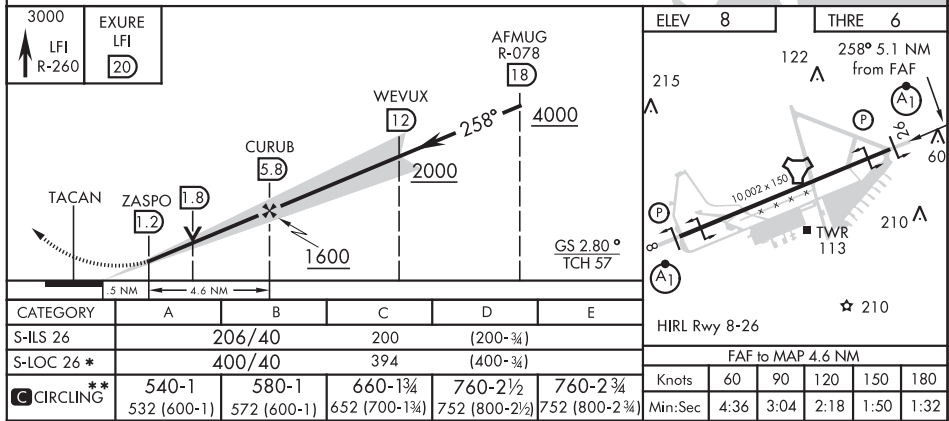


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

## RADAR or DME REQUIRED

EMERG SAFE ALT 100 NM 4100



HAMPTON, VIRGINIA

37°05'N-76°21'W

LANGLEY AFB (KLF1)

Amtd 4 22AUG13

# ILS or LOC/DME RWY 26

# RNAV (GPS) RWY 26

APCH CRS <b>258°</b>	Rwy Idg THRE Arpt Elev	<b>10,002</b> <b>6</b> <b>8</b>
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AL-185 [USAF]

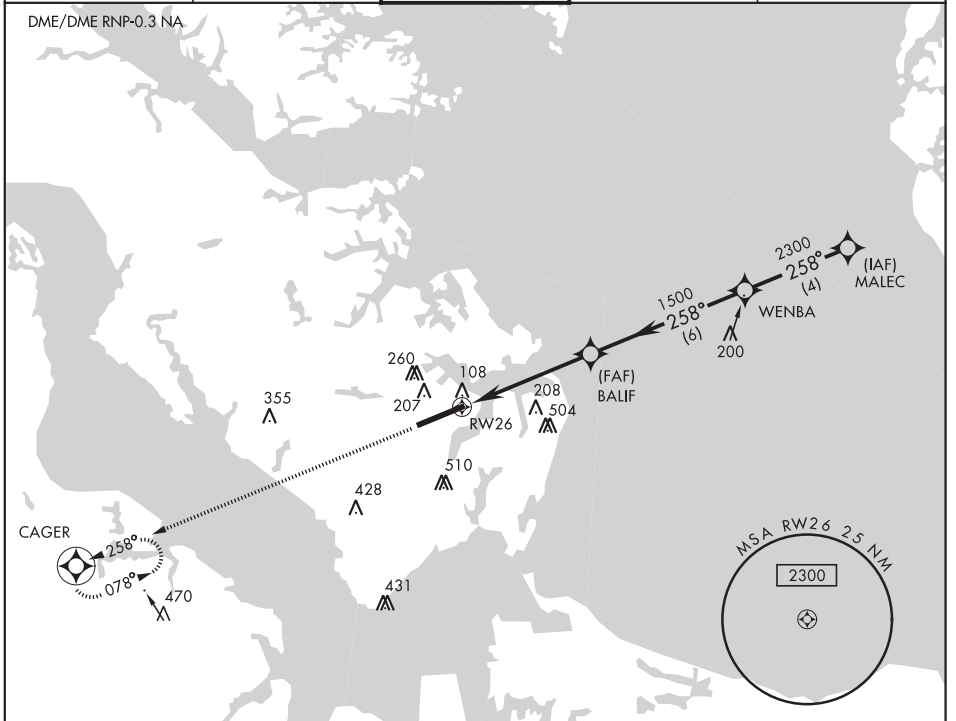
LANGLEY AFB (KLF1)

▼ \* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1 3/8 miles.  
 \*\* Circling S of Rwy 8-26 not authorized for CAT E acft.

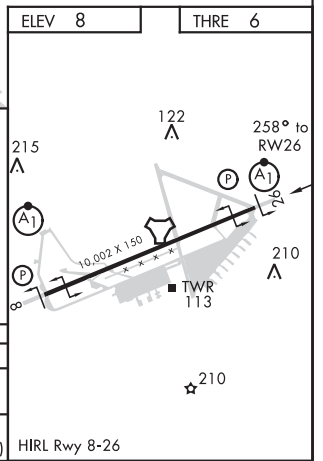
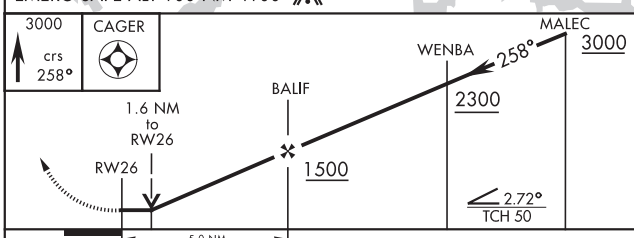


MISSED APPROACH: Climb to 3000 on course 258° to CAGER WPT and hold.

ATIS ★ <b>270.1</b>	NORFOLK APP CON <b>125.7 335.625</b>	LANGLEY TOWER <b>125.0 253.5</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>118.85 257.625</b>
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EMERG SAFE ALT 100 NM 4100 1049



CATEGORY	A	B	C	D	E
RNAV MDA *	520/40	514 (600-3/4)	520/55	514 (600-1)	
CIRCLING **	540-1 532 (600-1)	580-1 572 (600-1)	660-1 3/4 652 (700-1 3/4)	760-2 1/2 752 (800-2 1/2)	760-2 3/4 752 (800-2 3/4)

# RNAV (GPS) RWY 26

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

HAMPTON, VIRGINIA

# TACAN RWY 8

TACAN LFI Chan <b>70</b>	APCH CRS <b>073°</b>	Rwy Idg <b>10,002</b> THRE <b>7</b> Arpt Elev <b>8</b>
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AL-185 [USAF]

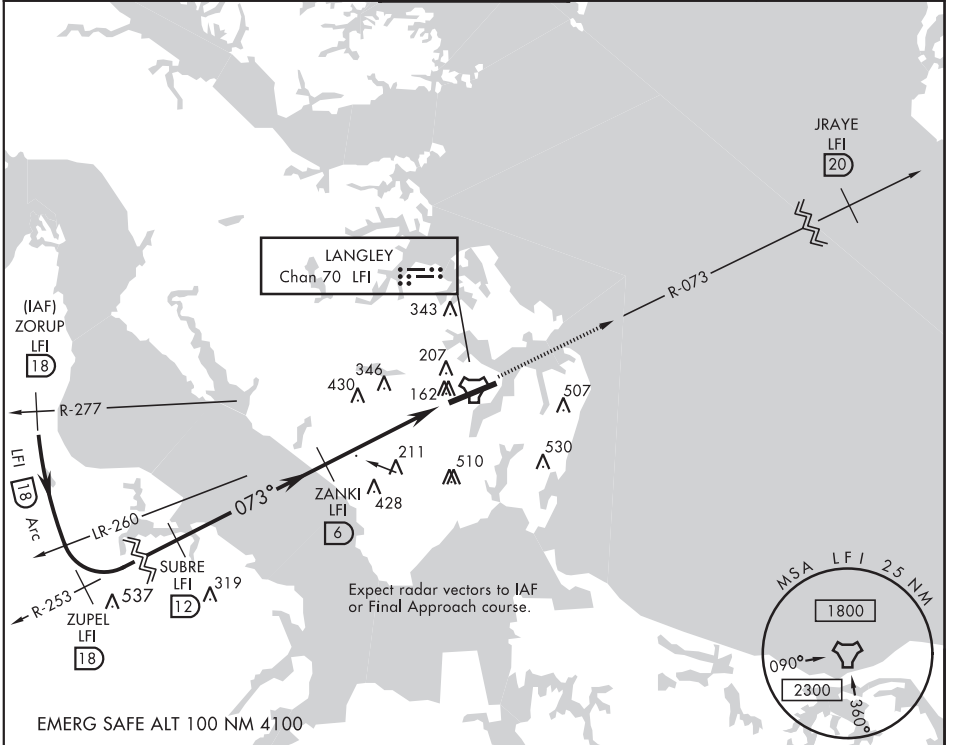
LANGLEY AFB (KLFJ)

▼ \*When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1 3/8 miles.  
\*\*Circling S of Rwy 8-26 not authorized.



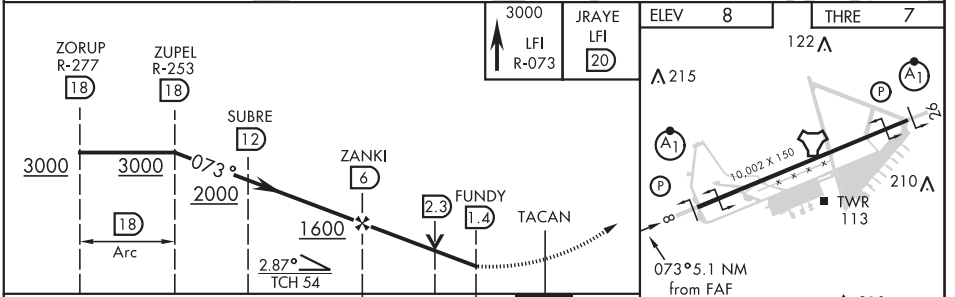
MISSED APPROACH: Climb to 3000 via LFI R-073 to 20 DME (JRAYE), then as instructed by ATC.

ATIS ★ <b>270.1</b>	NORFOLK APP CON <b>125.7 335.625</b>	LANGLEY TOWER <b>125.0 253.5</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>118.85 257.625</b>
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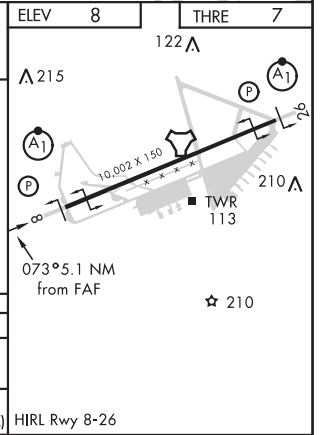


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D	E
S-8*	480/24	473 (500-1/2)	480/50	473	(500-1)
CIRCLING**	540-1 532 (600-1)	580-1 572 (600-1)	660-1 3/4 652 (700-1 3/4)	760-2 1/2 752 (800-2 1/2)	760-2 3/4 752 (800-2 3/4)



HAMPTON, VIRGINIA  
Amdt 4 22AUG13

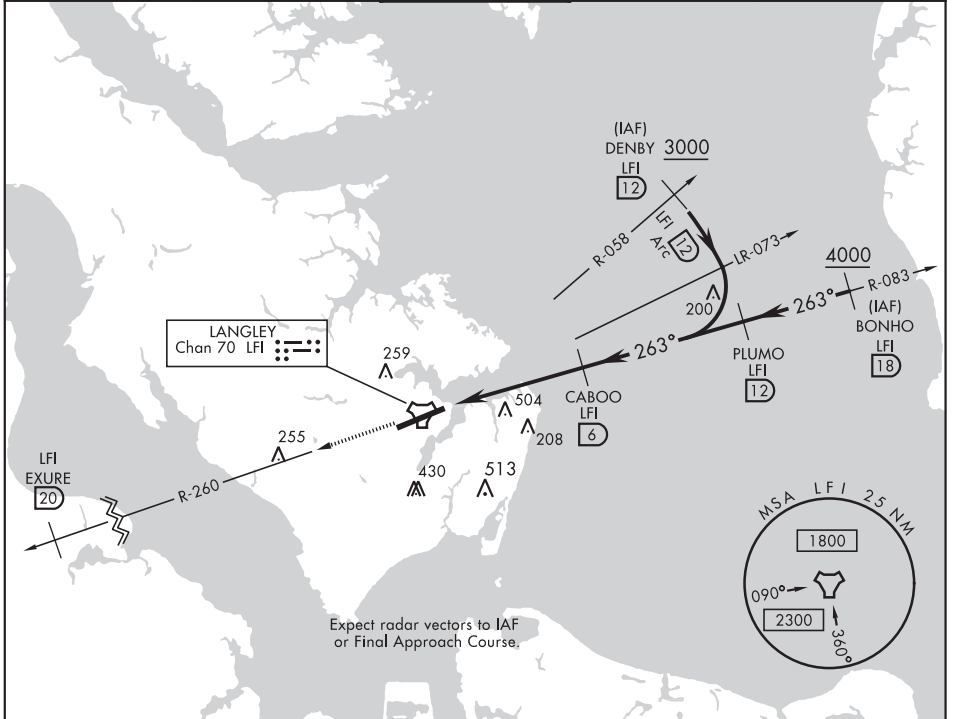
37°05'N-76°21'W

LANGLEY AFB (KLFJ)

# TACAN RWY 8

# TACAN RWY 26

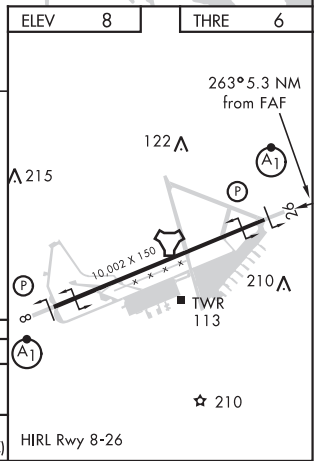
TACAN LFI Chan <b>70</b>	APCH CRS <b>263°</b>	Rwy ldg THRE <b>6</b> Arpt Elev <b>8</b>	AL-185 [USAF]	LANGLEY AFB (KLF1)
▼ *When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1½ miles. **Circling S of Rwy 8-26 not authorized.			ALSF-1 	MISSED APPROACH: Climb to 3000 via LFI R-260 to 20 DME (EXURE), then as instructed by ATC.
ATIS ★ <b>270.1</b>	NORFOLK APP CON <b>125.7 335.625</b>	LANGLEY TOWER <b>125.0 253.5</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>118.85 257.625</b>



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 4100		ELEV 8		THRE 6	
3000 LFI R-260	EXURE LFI 20	PLUMO R-083 12		CABOO 6	
TACAN		JAWAN 2.0		CABOO 6	
1600		263°		2000	
1.5 NM		4.8 NM		2.74° TCH 58	
CATEGORY	A	B	C	D	E
S-26*	440/40		434	(500-¾)	
CIRCLING**	540-1 532 (600-1)	580-1 572 (600-1)	660-1½ 652 (700-1¾)	760-2½ 752 (800-2½)	760-2¾ 752 (800-2¾)
HAMPTON, VIRGINIA 37°05'N-76°21'W					LANGLEY AFB (KLF1)
Andt 4 22AUG13					★ 210
HIRL Rwy 8-26					



# TACAN RWY 26

# AIRPORT DIAGRAM

ATIS ★ 270.1  
 LANGLEY TOWER  
 125.0 253.5  
 GND CON  
 121.7 275.8  
 CLNC DEL  
 118.85 257.625

ILS GENERATOR/TRANSMITTER ■

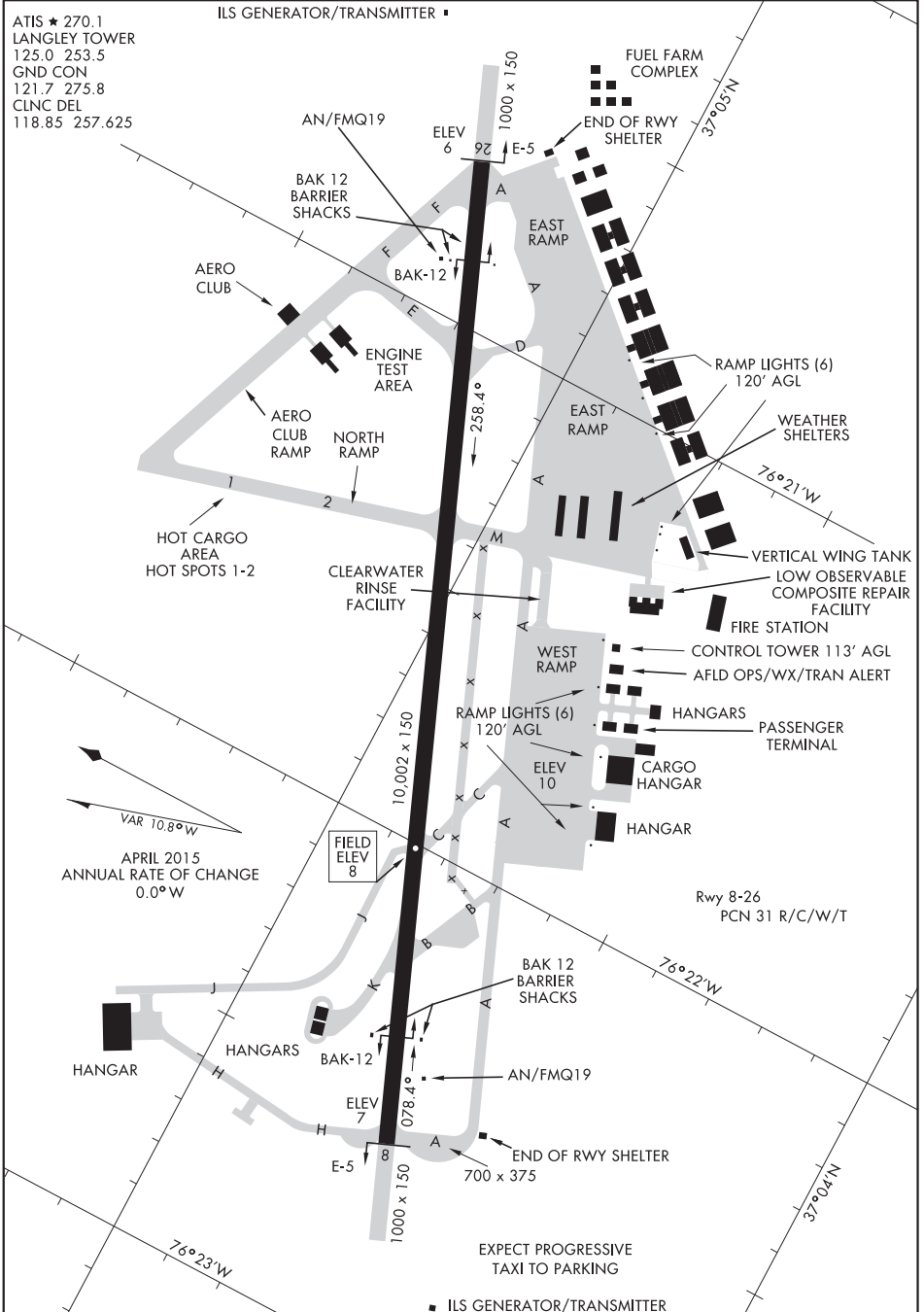
AFD-185 [USAF]

LANGLEY AFB (KLFJ)

HAMPTON, VIRGINIA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

HAMPTON, VIRGINIA  
 LANGLEY AFB (KLFJ)

APP CRS <b>328°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>30</b>
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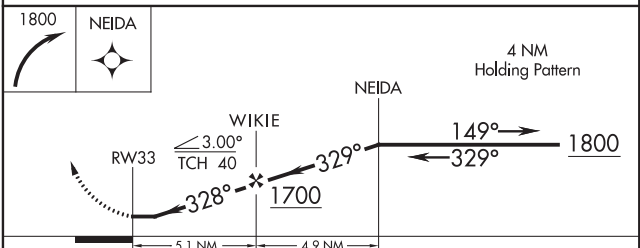
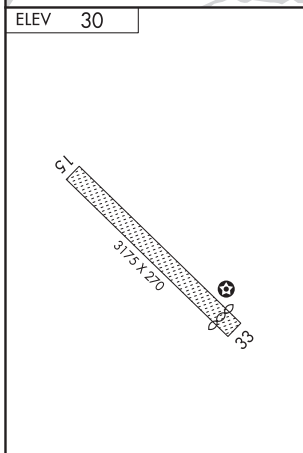
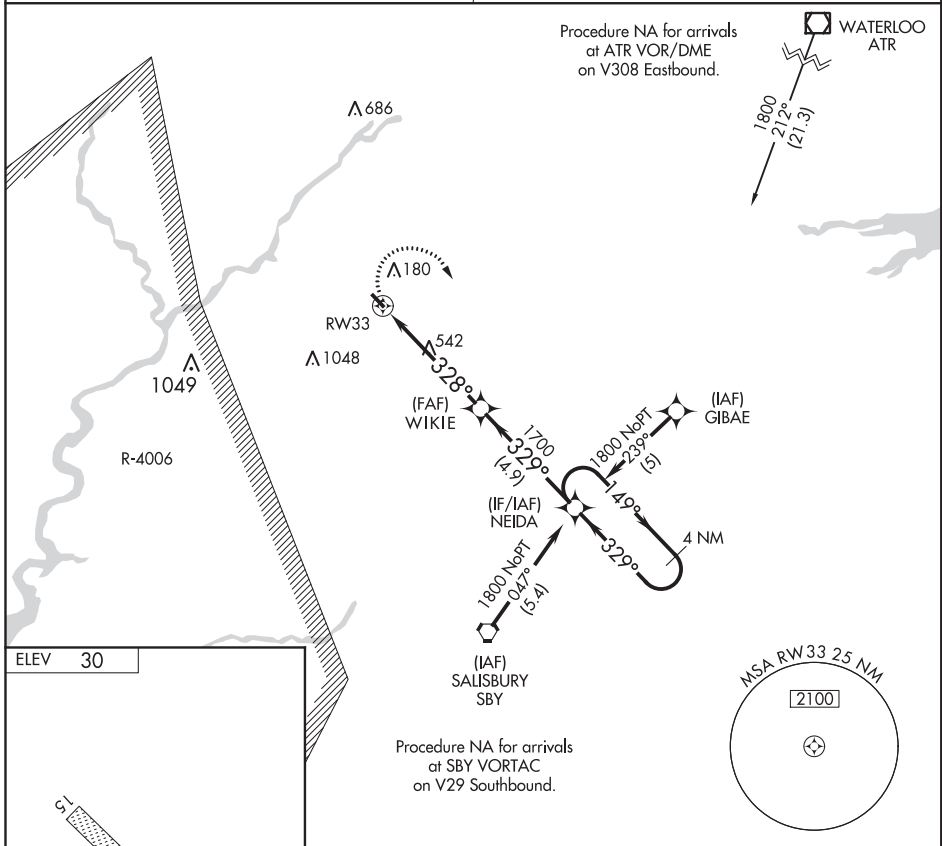
# RNAV (GPS)-A

LAUREL (NØ6)

**⚠** Use Salisbury altimeter setting; when not received, use Georgetown altimeter setting. Procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

MISSED APPROACH: Climbing right turn to 1800 direct NEIDA and hold.

PATUXENT APP CON* <b>127.95 314.0</b>	UNICOM <b>122.8 (CTAF)</b>
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LRL Rwy 15-33	REIL Rwy 15	REIL Rwy 33		
CATEGORY	A	B	C	D
CIRCLING	880-1¼	850 (900-1¼)	NA	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>180°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>329</b>
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# RNAV (GPS)-A

LAWRENCEVILLE/BRUNSWICK MUNI (LVL)

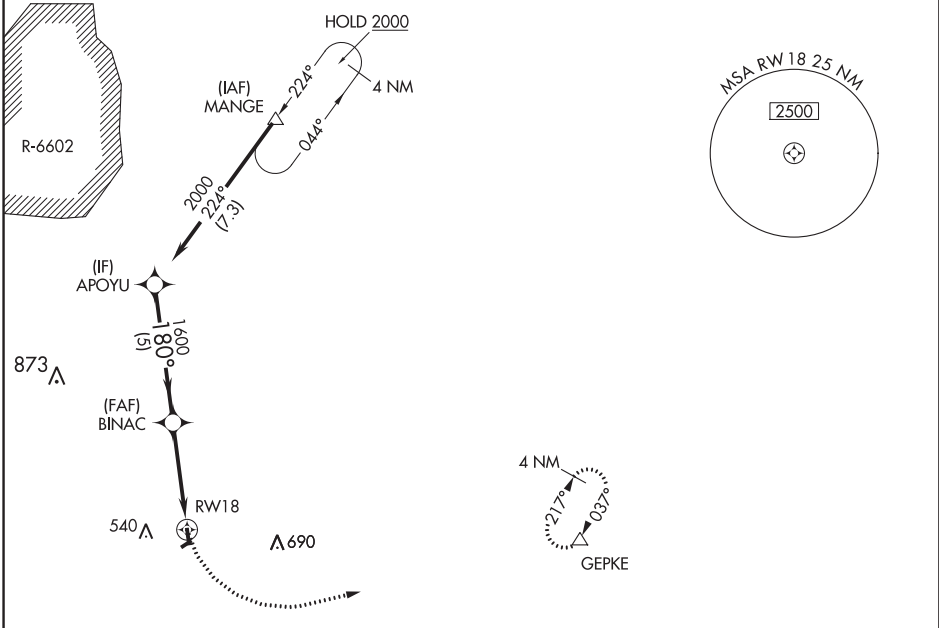
**▼** Circling NA to Rws 6 and 24. DME/DME RNP-0.3 NA. Procedure NA at night.  
**▲** Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use South Hill altimeter setting and increase all MDA 60 feet.

**MISSED APPROACH:** Climbing left turn to 4000 direct GEPKE and hold, continue climb-in-hold to 4000.

AWOS-3  
**119.625**

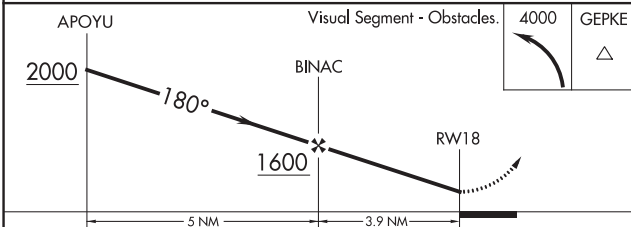
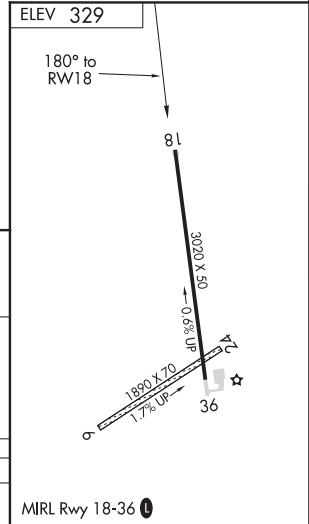
WASHINGTON APP CON  
**118.75 377.1**

UNICOM  
**122.8** (CTAF) **①**



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
<b>①</b> CIRCLING	1340-3	1011 (1100-3)	NA	

MIRL Rwy 18-36 **①**



APP CRS	Rwy Idg	N/A
001°	THRE	N/A
	Apt Elev	329

# RNAV (GPS)-B

LAWRENCEVILLE/BRUNSWICK MUNI (LVL)



Circling NA to Rws 6 and 24. DME/DME RNP-0.3 NA. Procedure NA at night. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use South Hill altimeter setting and increase all MDA 60 feet.

MISSED APPROACH:  
Climbing left turn to 3000 direct FITIK and hold.

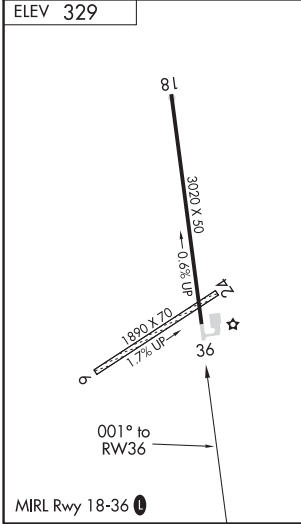
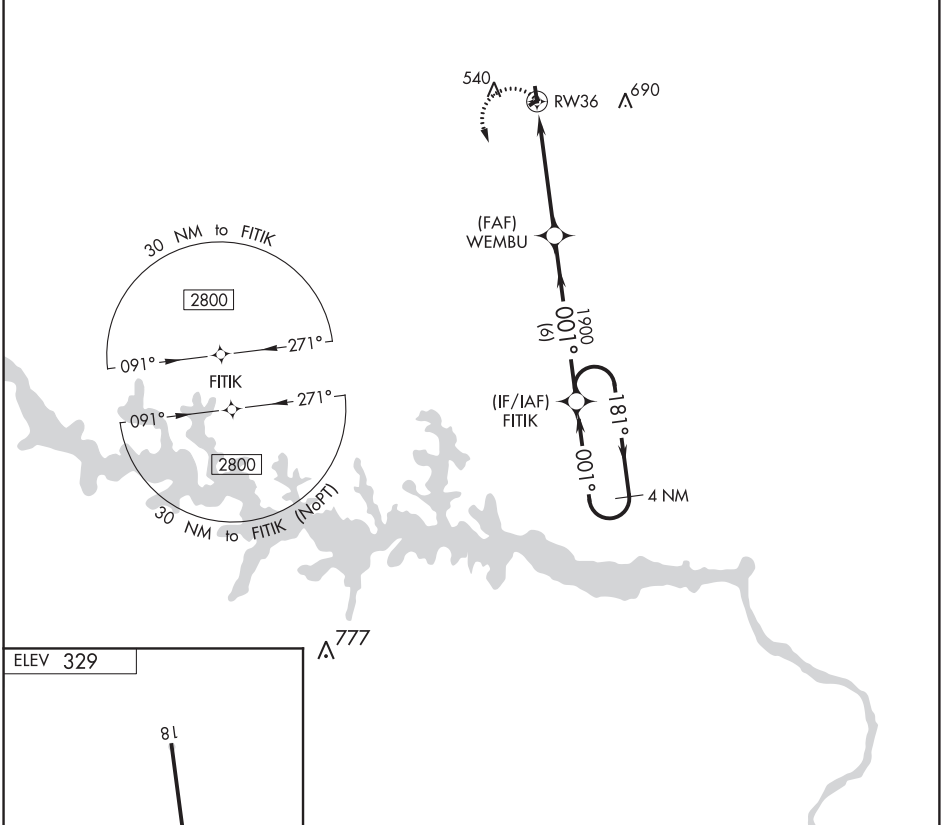
AWOS-3  
**119.625**

WASHINGTON APP CON  
**118.75 377.1**

UNICOM  
**122.8 (CTAF) 0**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



3000	FITIK	Visual Segment - Obstacles.	4 NM Holding Pattern
CATEGORY	A	B	C D
<input checked="" type="checkbox"/> CIRCLING	1340-3	1011 (1100-3)	NA

# RNAV (GPS)-B

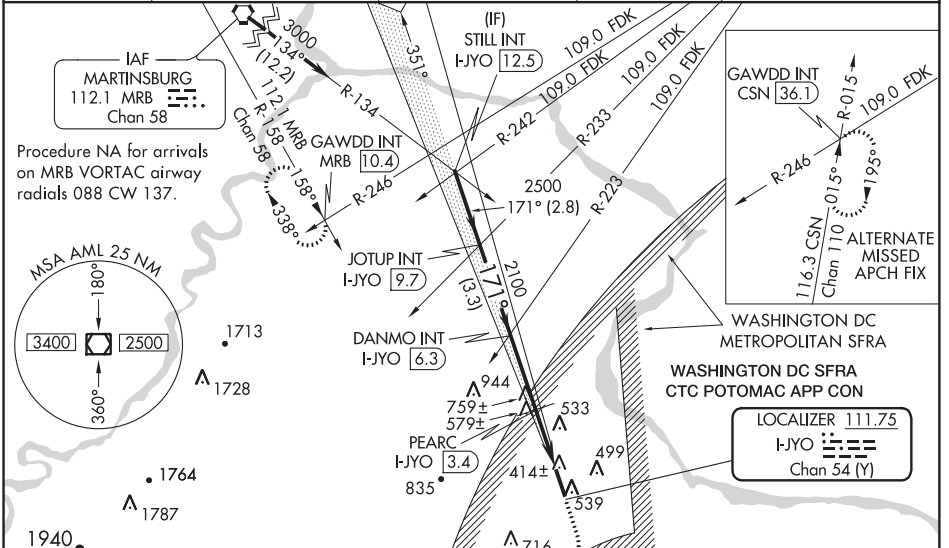
LOC/DME I-JYO <b>111.75</b> Chan <b>54</b> (Y)	APP CRS <b>171°</b>	Rwy Idg <b>5500</b> TDZE <b>383</b> Apt Elev <b>389</b>
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**ILS or LOC RWY 17**  
LEESBURG EXECUTIVE (JYO)

**NA** When VGSI inop, Straight-in/Circling Rwy 17 procedure NA at night.  
Inoperative table does not apply to S-LOC 17 Cats A/C and PEARC Fix minimums S-LOC 17 Cats A/B. For inoperative ODALS, increase PEARC Fix minimums S-LOC 17 Cats C/D visibility to 1½. Visibility reduction by helicopters NA. When local altimeter setting not received, use Washington Dulles Intl altimeter setting; increase all DA 32 feet; increase all MDA 40 feet and PEARC Fix minimums S-LOC 17 Cats C/D visibility ½ mile and Circling Cats C/D and PEARC Fix minimums Circling Cat D visibility ¼ mile; inoperative table does not apply to S-LOC 17 Cat C and PEARC Fix minimums S-LOC 17 Cats A/B/C.

**ODALS**  
MISSED APPROACH: Climb to 1200 then dimbing right turn to 4000 on heading 340° and MRB VORTAC R-158 to GAWDD INT/MRB 10.4 DME and hold, continue climb-in hold to 4000.

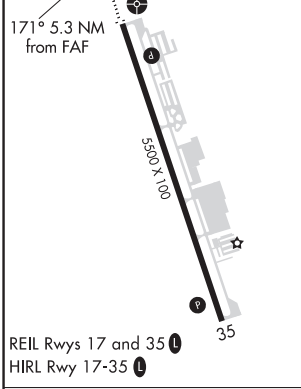
AWOS-3 <b>125.225</b>	POTOMAC APP CON <b>126.1 338.25</b>	LEESBURG RADIO <b>122.6</b>	CLNC DEL <b>118.55</b>	UNICOM <b>122.975</b> (CTAF) <b>0</b>
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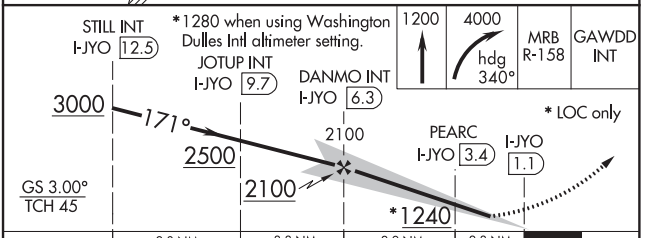
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV <b>389</b>	TDZE <b>383</b>
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FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46



CATEGORY	A	B	C	D
S-ILS 17	633-1 250 (300-1)			
S-LOC 17	1240-1	857 (900-1)	1240-2½	857 (900-2½)
CIRCLING	1240-1¼	851 (900-1¼)	1240-2½	851 (900-2¾)
PEARC FIX MINIMUMS				
S-LOC 17	840-1	457 (500-1)	840-1¼	457 (500-1¼)
CIRCLING	840-1	451 (500-1)	860-1½	1040-2
			471 (500-1½)	651 (700-2)

WAAS CH <b>60902</b> <b>W17A</b>	APP CRS <b>171°</b>	Rwy Idg TDZE Apt Elev	<b>5500</b> <b>383</b> <b>389</b>
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# RNAV (GPS) RWY 17

LEESBURG EXECUTIVE (JYO)

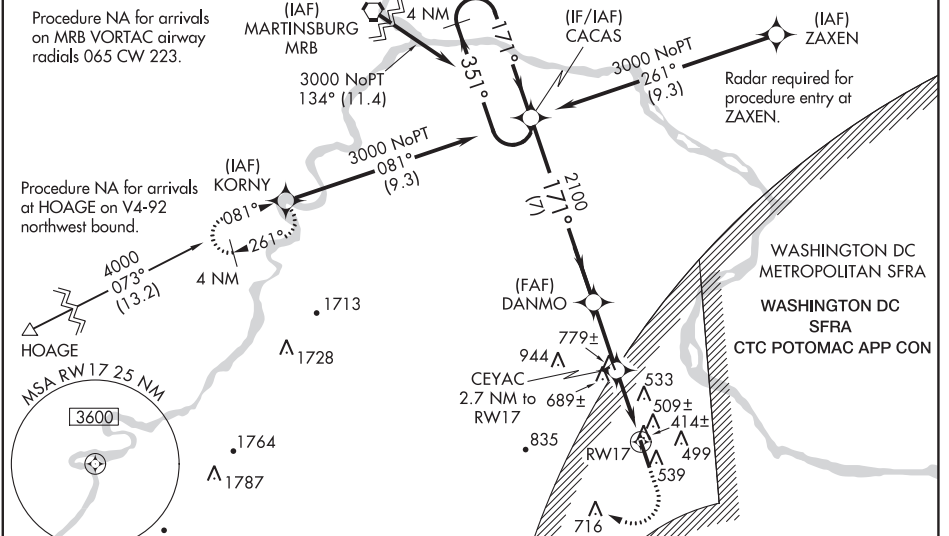
When VGSi inop, Straight-in/Circling Rwy 17 procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 41°C (105°F). Inoperative table does not apply to LNAV Cats A/B.

**V** For inoperative ODALS, increase LNAV/VNAV all Cats visibility to 1½ and LNAV Cats C/D visibility to 1¾. When local altimeter setting not received, use Washington Dulles Intl altimeter setting; increase all DA 32 feet and LNAV/VNAV all Cats visibility ½ mile; increase all MDA 40 feet and LNAV Cats C/D and Circling Cat C visibility ½ mile and Circling Cat D visibility ¼ mile. When using Washington Dulles Intl altimeter setting, inoperative table does not apply to LNAV Cats A/B. For inoperative ODALS when using Washington Dulles Intl altimeter setting: increase LNAV/VNAV all Cats visibility to 1¼ and LNAV Cats C/D visibility to 1¾. Baro-VNAV NA when using Washington Dulles Intl altimeter setting.

**ODALS**

**MISSED APPROACH:** Climb to 1100 then climbing right turn to 4000 direct KORN Y and hold.

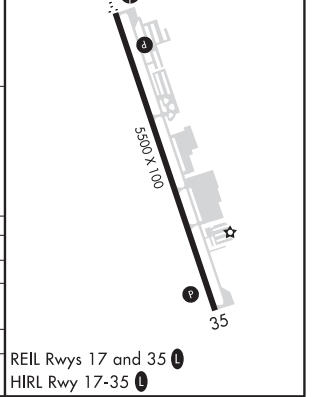
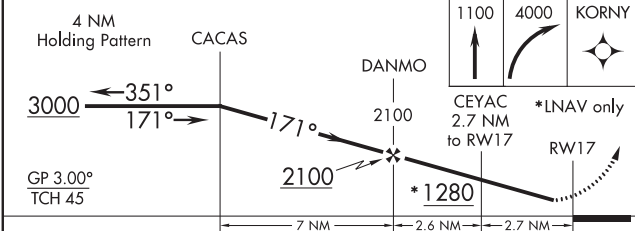
AWOS-3 <b>125.225</b>	POTOMAC APP CON <b>126.1 338.25</b>	LEESBURG RADIO <b>122.6</b>	CLNC DEL <b>118.55</b>	UNICOM <b>122.975 (CTAF)</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 389	TDZE 383
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CATEGORY	A	B	C	D
LPV DA	633-1 250 (300-1)			
LNAV/VNAV DA	725-1 342 (400-1)			
LNAV MDA	940-1	557 (600-1)	940-1½	557 (600-1½)
CIRCLING	940-1	551 (600-1)	940-1½	551 (600-1½)
			1040-2	651 (700-2)

(CLTCH1.CLTCH) 16091

# CLTCH ONE DEPARTURE (RNAV)

226

SL-5288 (FAA)

LEESBURG EXECUTIVE (JYO)  
LEESBURG, VIRGINIA

**TOP ALTITUDE:**  
**3000**



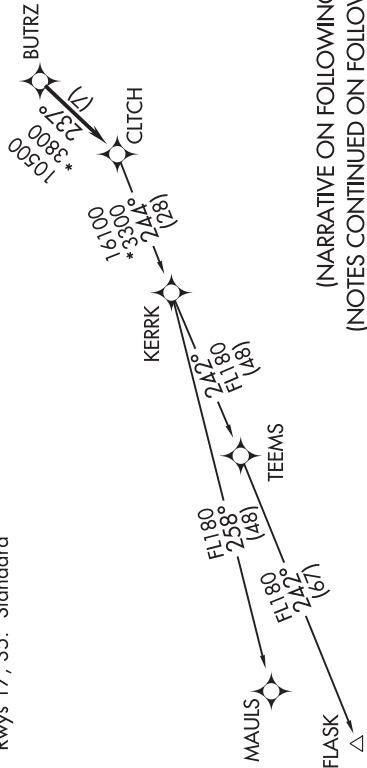
P-56A



AWOS-3  
125.225  
CINC DEL  
118.55  
UNICOM (CTAF)  
122.975  
DEP COIN  
125.05 350.2

NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Takeoff Rwy 35 requires a climb to 1200 on heading 351° before proceeding on the ATC assigned heading for obstacle avoidance.

TAKEOFF MINIMUMS:  
Rwys 17, 35: Standard



(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CLTCH ONE DEPARTURE (RNAV)  
(CLTCH1.CLTCH) 31MAR16

LEESBURG, VIRGINIA  
LEESBURG EXECUTIVE (JYO)

# CLTCH ONE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

Climb on heading assigned by ATC, expect RADAR vectors to BUTRZ, then on track 237° to CLTCH, thence. . . .

. . . . on assigned transition, maintain altitude assigned by ATC, expect clearance to filed altitude within ten (10) minutes after departure.

FLASK TRANSITION (CLTCH1.FLASK)

MAULS TRANSITION (CLTCH1.MAULS)

### TAKEOFF OBSTACLE NOTES

Rwy 17: Vehicle on roadway, 320' from DER, 565' left of centerline, up to 15' AGL/414' MSL. Building 167' from DER, 360' left of centerline, 22' AGL/401' MSL. Pole 958' from DER, 373' left of centerline, 32' AGL/421' MSL. Trees beginning 138' from DER, left and right of centerline, up to 100' AGL/464' MSL.

Rwy 35: Terrain 96' from DER, 453' left of centerline, 381' MSL. Tree 1078' from DER, 525' left of centerline, up to 100' AGL/413' MSL. Pole 638' from DER, 642' right of centerline, 49' AGL/428' MSL.

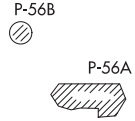
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# JDUBB ONE DEPARTURE (RNAV)

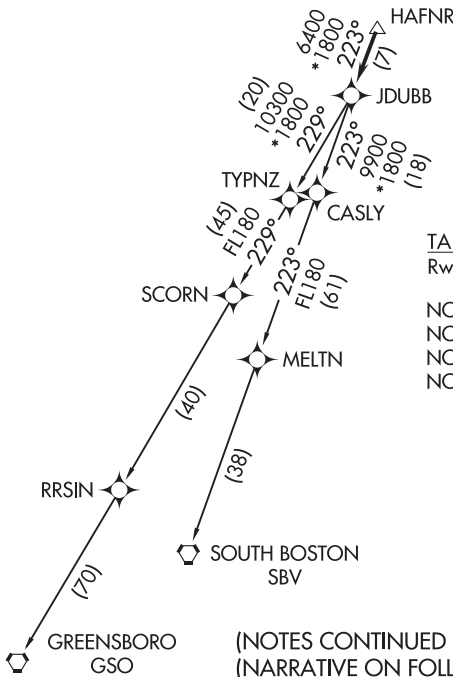
AWOS-3  
125.225  
CLNC DEL  
118.55  
UNICOM (CTAF)  
122.975  
DEP CON  
125.05 350.2

**TOP ALTITUDE:  
3000**



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



TAKEOFF MINIMUMS:  
Rwys 17, 35: Standard

- NOTE: RNAV 1.
- NOTE: RADAR required.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Takeoff Rwy 35 requires a climb to 1200 on heading 351° before proceeding on the ATC assigned heading for obstacle avoidance.

(NOTES CONTINUED ON FOLLOWING PAGE)  
(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# JDUBB ONE DEPARTURE (RNAV)

(JDUBB1 .JDUBB) 31MAR16

# JDUBB ONE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

Climb on heading assigned by ATC, expect RADAR vectors to HAFNR, then on track 223° to JDUBB, thence. . . .

. . . . on assigned transition, maintain altitude assigned by ATC, expect clearance to filed altitude within ten (10) minutes after departure.

GREENSBORO TRANSITION (JDUBB1.GSO)

SOUTH BOSTON TRANSITION (JDUBB1.SBV)

### TAKEOFF OBSTACLE NOTES

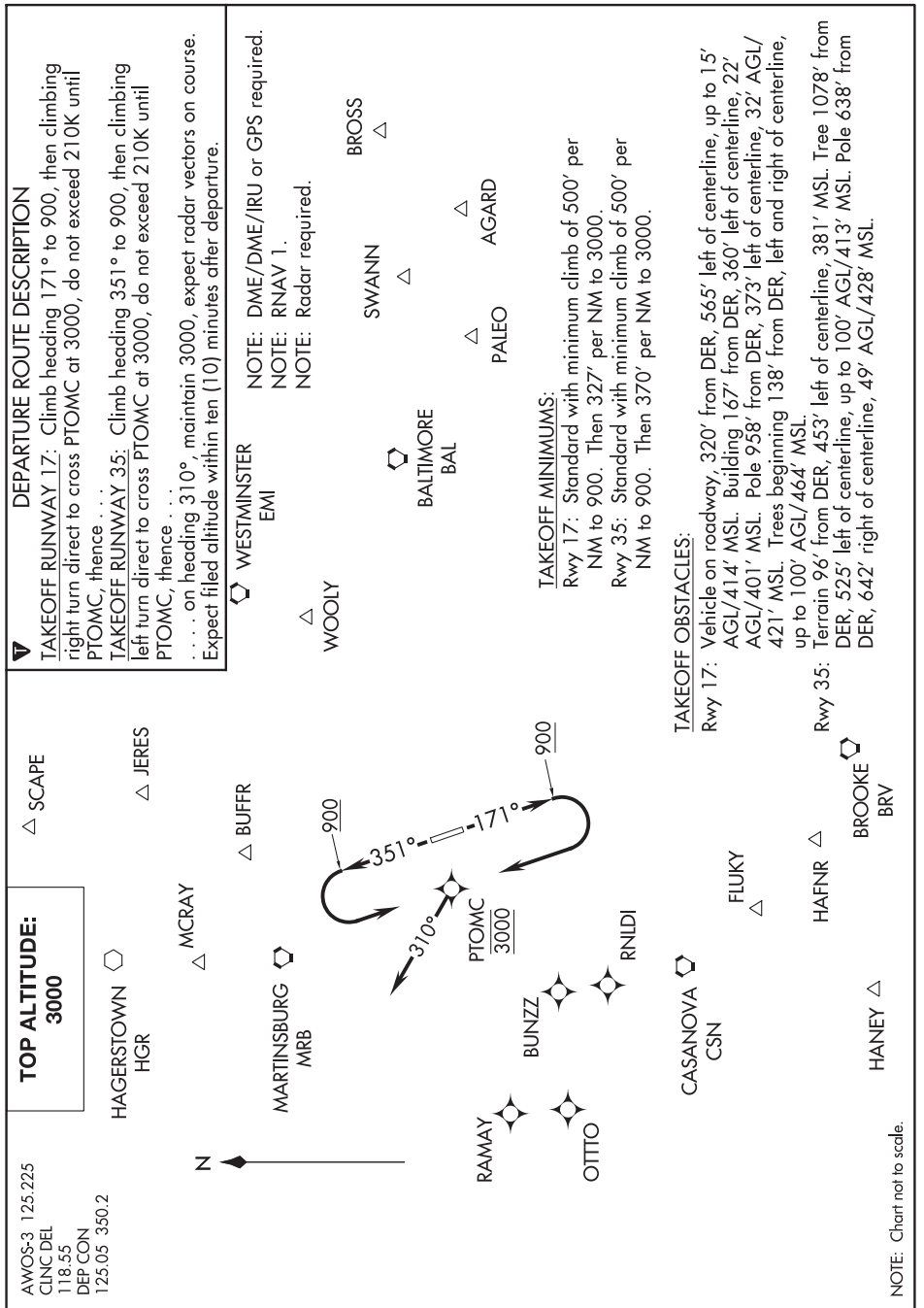
Rwy 17: Vehicle on roadway, 320' from DER, 565' left of centerline, up to 15' AGL/414' MSL. Building 167' from DER, 360' left of centerline, 22' AGL/401' MSL. Pole 958' from DER, 373' left of centerline, 32' AGL/421' MSL. Trees beginning 138' from DER, left and right of centerline, up to 100' AGL/464' MSL.

Rwy 35: Terrain 96' from DER, 453' left of centerline, 381' MSL. Tree 1078' from DER, 525' left of centerline, up to 100' AGL/413' MSL. Pole 638' from DER, 642' right of centerline, 49' AGL/428' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# PTOMC TWO DEPARTURE (RNAV)

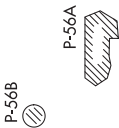


# PTOMC TWO DEPARTURE (RNAV)



# SCRAM THREE DEPARTURE (RNAV)

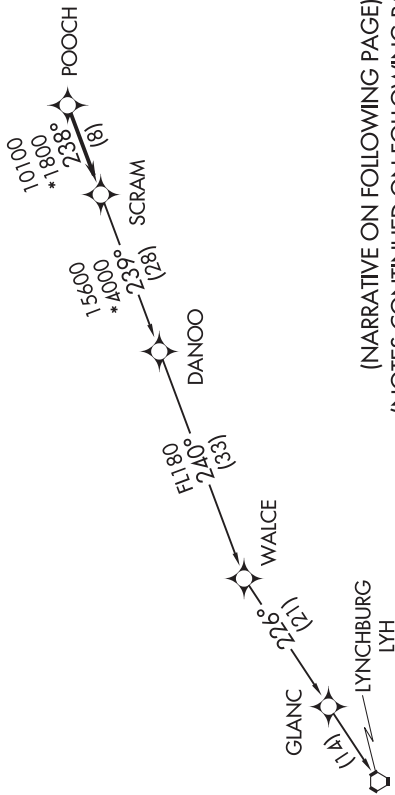
**TOP ALTITUDE:**  
3000



AWOS-3  
125.225  
CLNC DEL  
118.55  
UNICOM (CTAF)  
122.975  
DEP CON  
125.05 350.2

**TAKEOFF MINIMUMS:**  
Rwys 17, 35: Standard

NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Takeoff Rwy 35 requires a climb to 1200 on heading 351° before proceeding on the ATC assigned heading for obstacle avoidance.



(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

## SCRAM THREE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

Climb on heading assigned by ATC, expect RADAR vectors to POOCH, then on track 238° to SCRAM, thence. . . .

. . . . on LYNCHBURG transition, maintain altitude assigned by ATC, expect clearance to filed altitude within ten (10) minutes after departure.

LYNCHBURG TRANSITION (SCRAM3.LYH):

TAKEOFF OBSTACLE NOTES

Rwy 17: Vehicle on roadway, 320' from DER, 565' left of centerline, up to 15' AGL/414' MSL. Building 167' from DER, 360' left of centerline, 22' AGL/401' MSL. Pole 958' from DER, 373' left of centerline, 32' AGL/421' MSL. Trees beginning 138' from DER, left and right of centerline, up to 100' AGL/464' MSL.

Rwy 35: Terrain 96' from DER, 453' left of centerline, 381' MSL. Tree 1078' from DER, 525' left of centerline, up to 100' AGL/413' MSL. Pole 638' from DER, 642' right of centerline, 49' AGL/428' MSL.

WAAS CH <b>70502</b> <b>W11A</b>	APP CRS <b>112°</b>	Rwy Idg TDZE <b>142</b> Apt Elev <b>142</b>	<b>4150</b>
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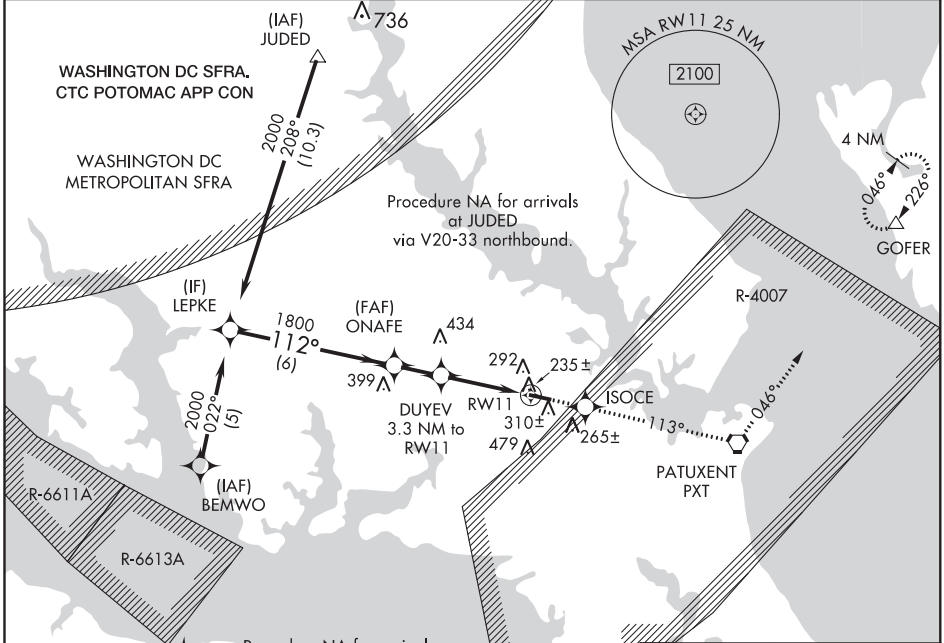
# RNAV (GPS) RWY 11

ST MARY'S COUNTY RGNL (2W6)

**⚠** Circling to Rwy 29 NA at night. If local altimeter setting not received, use Patuxent River altimeter setting and increase all DAs/MDAs 40 feet. DME/DME RNP-0.3 NA. VDP NA with Patuxent River altimeter setting. Visibility reduction by helicopters NA.

**MISSED APPROACH:** Climb to 2000 direct ISOCE and via 113° track to PXT VORTAC and 046° track to GOFER and hold.

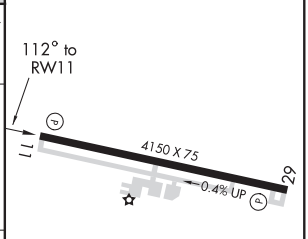
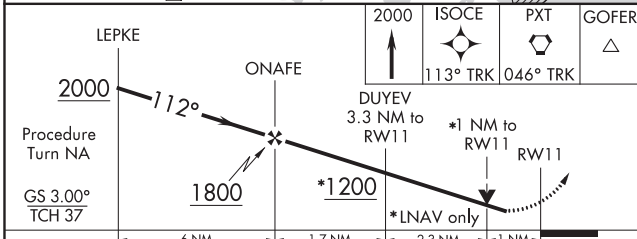
AWOS-3 <b>119.575</b>	PATUXENT APP CON ★ <b>121.0 250.3</b>	UNICOM <b>123.0 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 142	TDZE 142
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CATEGORY	A	B	C	D
LPV DA	440-1	298 (300-1)		NA
LNAV MDA	500-1	358 (400-1)		NA
CIRCLING	660-1	518 (600-1)		NA

REIL Rwy 11 and 29 0  
MIRL Rwy 11-29 0

LEONARDTOWN, MARYLAND

AL-6344 (FAA)

15064

WAAS CH <b>61313</b> <b>W29A</b>	APP CRS <b>292°</b>	Rwy Idg <b>4150</b> TDZE <b>137</b> Apt Elev <b>142</b>
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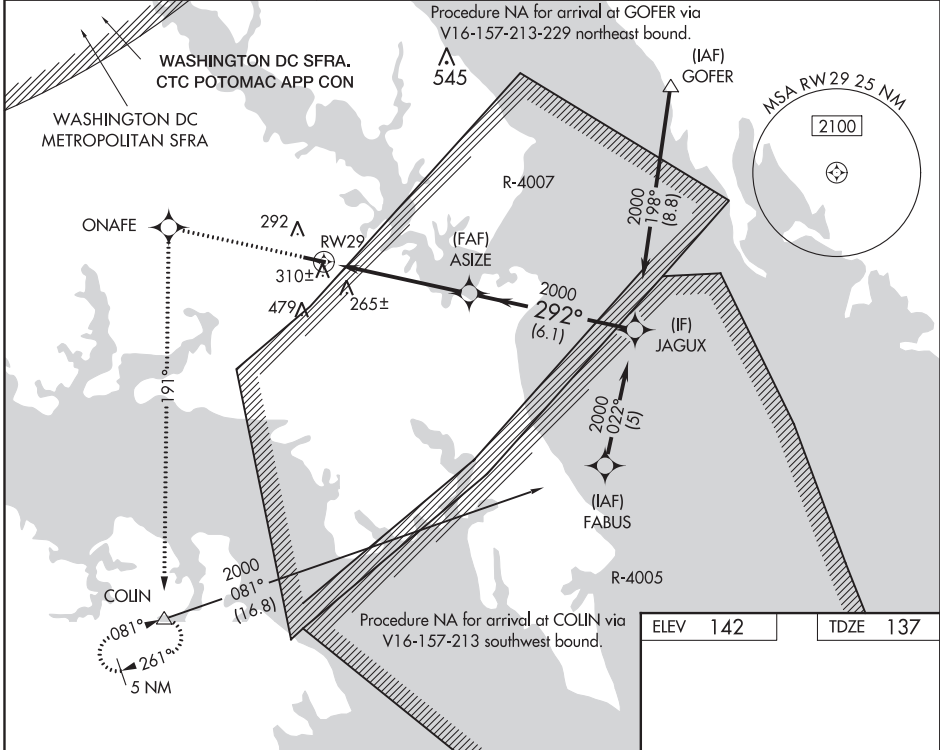
# RNAV (GPS) RWY 29

ST MARY'S COUNTY RGNL (2W6)

**⚠** 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. Visibility reduction by helicopters NA. When local altimeter setting note received, use Patuxent River altimeter setting and increase all DA 31 feet and all MDA 40 feet. Baro-VNAV and VDP NA when using Patuxent River altimeter setting.

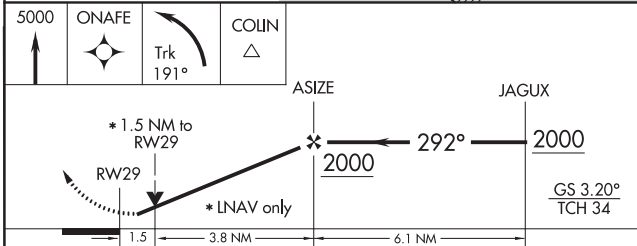
**MISSED APPROACH:** Climb to 5000 direct ONAFE and left turn via track 191° to COLIN and hold, continue climb-in-hold to 5000.

AWOS-3 <b>119.575</b>	PATUXENT APP CON * <b>121.0 250.3</b>	UNICOM <b>123.0 (CTAF)</b> <b>📻</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 142	TDZE 137
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CATEGORY	A	B	C	D
LPV DA	480-1 1/4	343 (400-1 1/4)		NA
LNAV/VNAV DA	610-1 3/4	473 (500-1 3/4)		NA
LNAV MDA	620-1	483 (500-1)		NA
CIRCLING	660-1	518 (600-1)		NA

REIL Rwy 11 and 29 **📻**  
MIRL Rwy 11-29 **📻**

LEONARDTOWN, MARYLAND  
Orig 12DEC13

38°19'N - 76°33'W

# ST MARY'S COUNTY RGNL (2W6) RNAV (GPS) RWY 29

**RNAV (GPS) RWY 9**  
LOUISA COUNTY/FREEMAN FIELD (LKU)

APP CRS <b>092°</b>	Rwy Idg <b>4300</b>
	TDZE <b>488</b>
	Apt Elev <b>493</b>

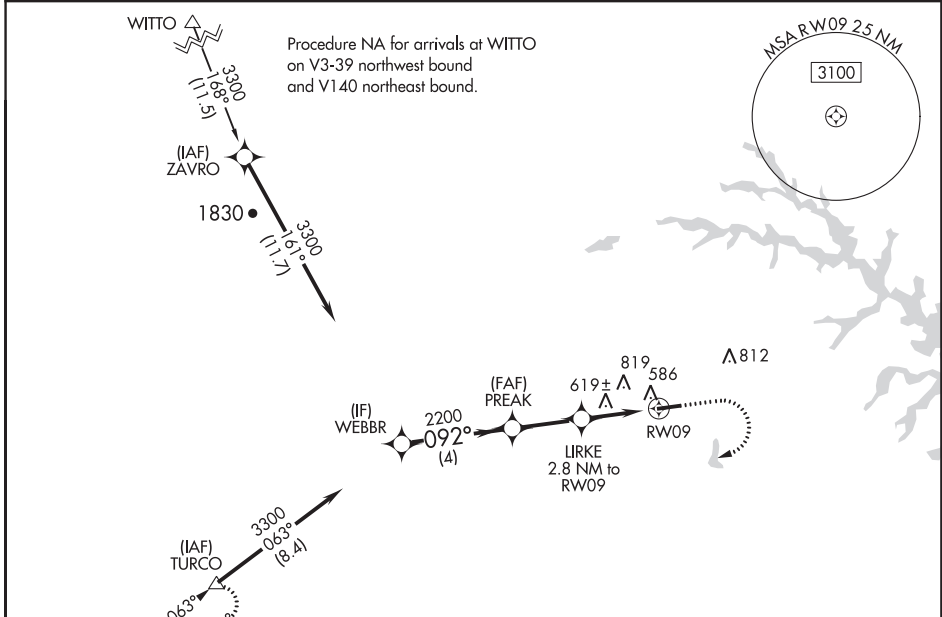
**⚠** When local altimeter setting not received, use Orange altimeter setting and increase all MDA 40 feet. Circling NA north of Rwy 9-27. DME/DME RNP-0.3 NA. VDP NA when using Orange altimeter setting.

**MISSED APPROACH:** Climb to 900 then climbing right turn to 3300 direct TURCO and hold.

AWOS-3  
**119.475**

POTOMAC APP CON  
**132.85 323.125**

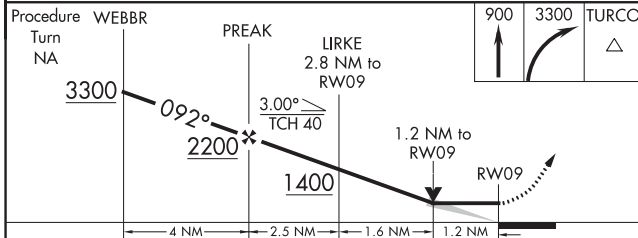
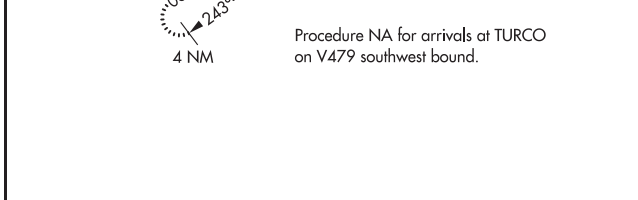
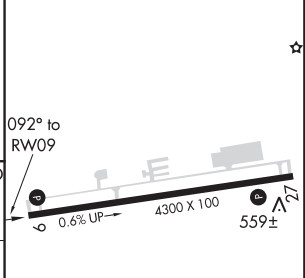
UNICOM  
**122.725 (CTAF)** **📻**



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 493	TDZE 488
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CATEGORY	A	B	C	D
LNAV MDA	880-1	392 (400-1)		NA
CIRCLING	920-1 427 (500-1)	960-1 467 (500-1)		NA

REIL Rwy 9 and 27 **📻**

MIRL Rwy 9-27 **📻**

LOUISA, VIRGINIA

AL-6909 (FAA)

16091

WAAS CH <b>58318</b> <b>W27A</b>	APP CRS <b>272°</b>	Rwy Idg TDZE <b>493</b> Apt Elev <b>493</b>	<b>4300</b>
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# RNAV (GPS) RWY 27

LOUISA COUNTY/FREEMAN FIELD (LKU)

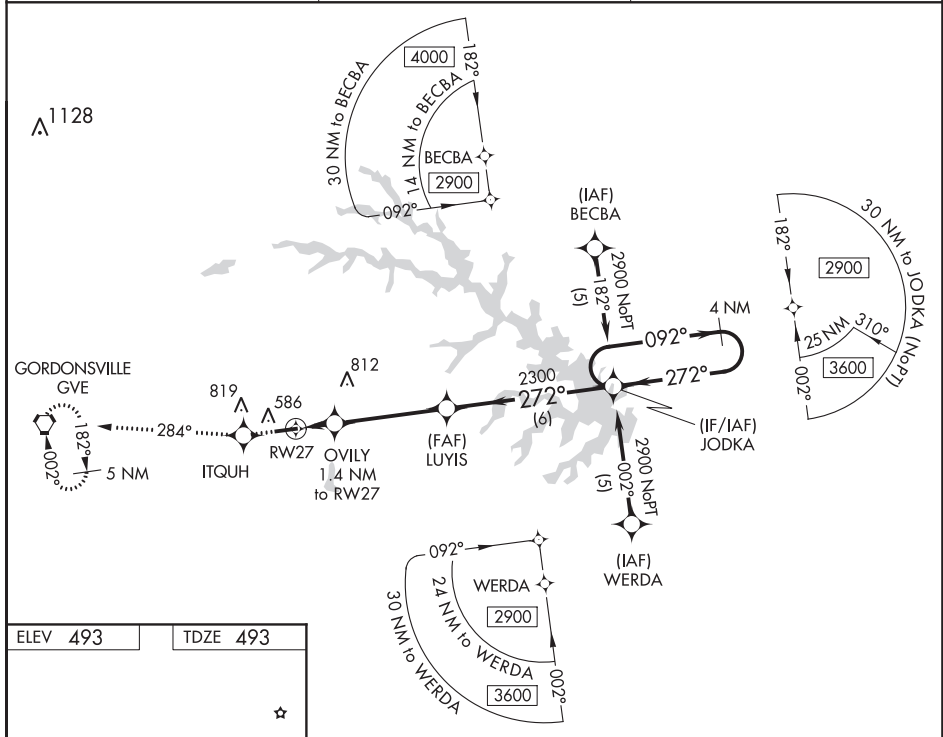
**⚠** Circling NA north of Rwy 9-27. Baro-VNAV NA when using Orange altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Orange altimeter setting and increase all DA 38 feet and all MDA 40 feet and increase LNAV/VNAV visibility ¼ mile.

**MISSED APPROACH:** Climb to 2900 direct ITQUH and on track 284° to GVE VORTAC and hold, continue climb-in-hold to 2900.

AWOS-3  
**119.475**

POTOMAC APP CON  
**132.85 323.125**

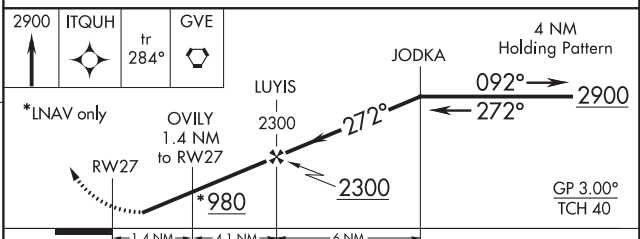
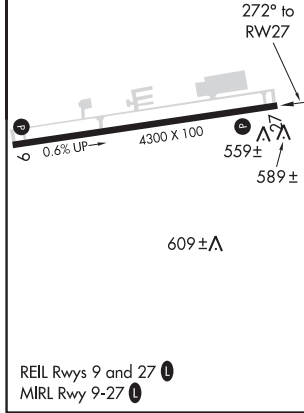
UNICOM  
**122.725 (CTAF) ①**



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV <b>493</b>	TDZE <b>493</b>
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CATEGORY	A	B	C	D
LPV DA	743-1	250 (300-1)		NA
LNAV/VNAV DA	859-1¼	366 (400-1¼)		NA
LNAV MDA	860-1	367 (400-1)		NA
CIRCLING	920-1 427 (500-1)	960-1 467 (500-1)		NA

LOUISA, VIRGINIA  
Amdt 1 29JUL10

# LOUISA COUNTY/FREEMAN FIELD (LKU) RNAV (GPS) RWY 27

38°01'N - 77°58'W

LOC I-LKU <b>108.55</b>	APP CRS <b>272°</b>	Rwy Idg <b>4300</b> TDZE <b>493</b> Apt Elev <b>493</b>
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# LOC/DME RWY 27

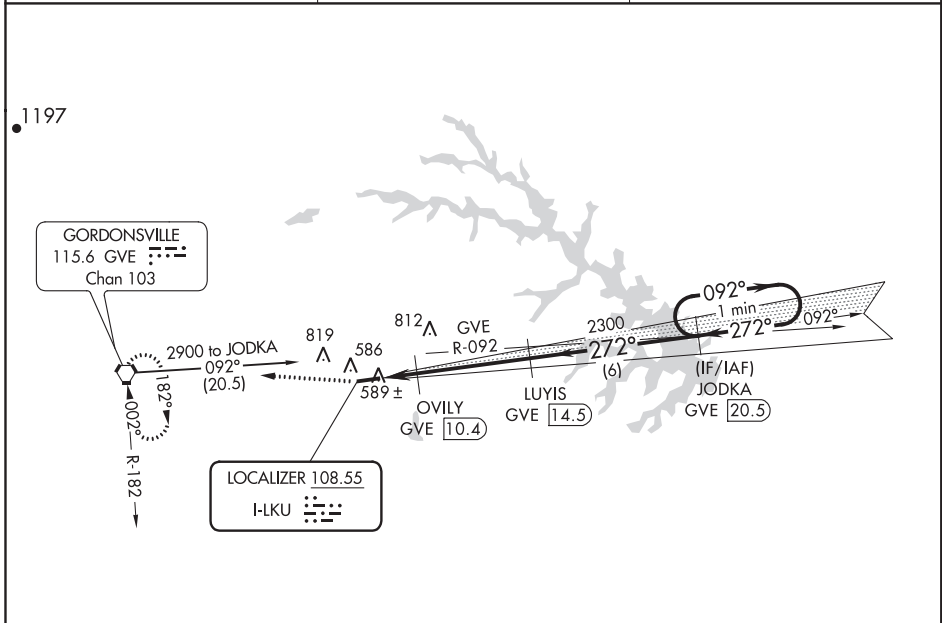
LOUISA COUNTY/FREEMAN FIELD (LKU)

**T** Circling NA north of Rwy 9-27. DME from GVE VORTAC. Simultaneous reception of I-LKU and GVE DME required. Visibility reduction by helicopters NA. When local altimeter setting not received, use Orange altimeter setting and increase all MDA 40 feet.

**A** NA

**MISSED APPROACH:**  
Climb to 2900 direct GVE VORTAC and hold.

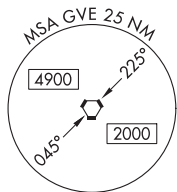
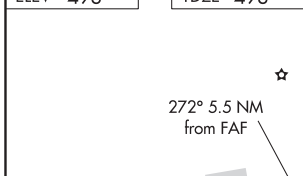
AWOS-3 <b>119.475</b>	POTOMAC APP CON <b>132.85 323.125</b>	UNICOM <b>122.725 (CTAF)</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV <b>493</b>	TDZE <b>493</b>
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2900 GVE 4300 X 100 0.6% UP 559±	OVILY GVE [10.4] 980 TCH 40 3.05°	LUYIS GVE [14.5] 2300	JODKA GVE [20.5]	One Minute Holding Pattern 2900
CATEGORY	A	B	C	D
S-27	840-1	347 (400-1)		NA
CIRCLING	920-1 427 (500-1)	960-1 467 (500-1)		NA

LURAY, VIRGINIA

AL-6229 (FAA)

16259

WAAS CH <b>65727</b> <b>W04A</b>	APP CRS <b>044°</b>	Rwy Idg TDZE Apt Elev	<b>3125</b> <b>903</b> <b>903</b>
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# RNAV (GPS) RWY 4

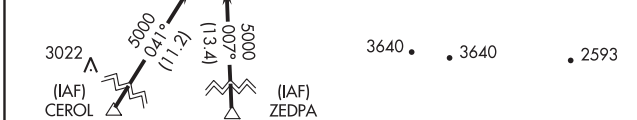
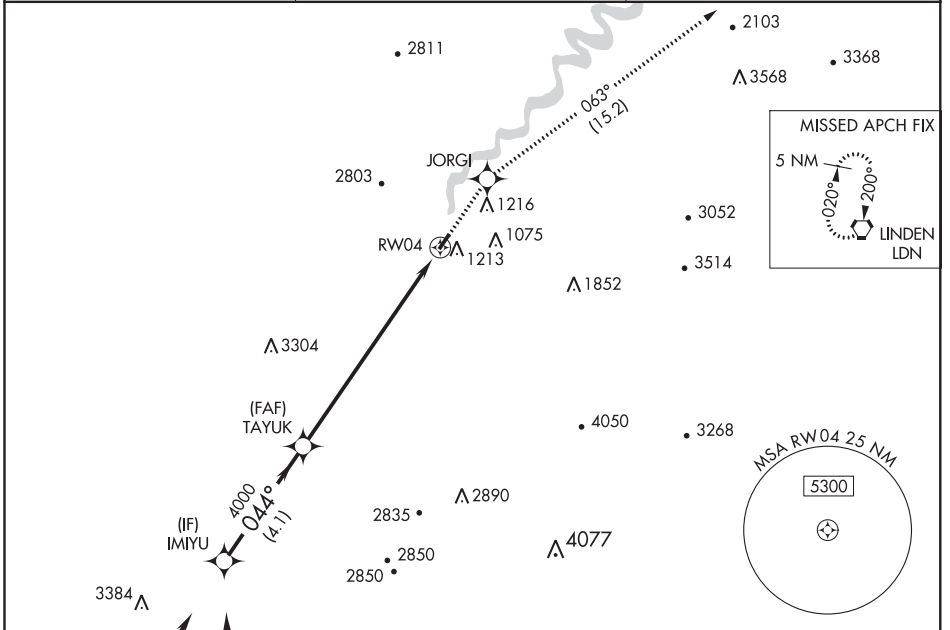
LURAY CAVERNS (LUA)

**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Staunton/Waynesboro/Harrisonburg altimeter setting and increase all MDA 120 feet.

**❄** -16°C/3°F

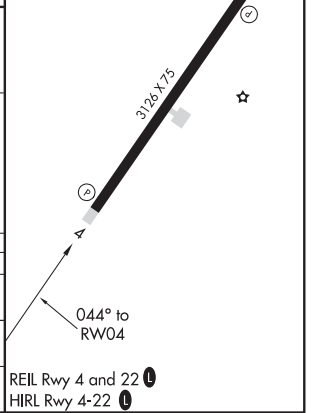
MISSED APPROACH: Climb to 5000 direct JORGI and on track 063° to LDN VORTAC and hold.

AWOS-3 <b>118.275</b>	WASHINGTON CENTER <b>133.2 282.2</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV 903	TDZE 903
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IMIYU	5000	044°	TAYUK	4000	RW04
				3.00°	TCH 40
					4.1 NM
					9.6 NM



CATEGORY	A	B	C	D
LP MDA	2180-1 1/4 1277 (1300-1 1/4)	2180-1 1/2 1277 (1300-1 1/2)	NA	NA
LNAV MDA	2240-1 1/4 1337 (1400-1 1/4)	2240-1 1/2 1337 (1400-1 1/2)	NA	NA
CIRCLING	2240-1 1/4 1337 (1400-1 1/4)	2240-1 1/2 1337 (1400-1 1/2)	NA	NA

LURAY, VIRGINIA  
Orig-B 29MAY14

38°40'N-78°30'W

# RNAV (GPS) RWY 4

LURAY CAVERNS (LUA)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

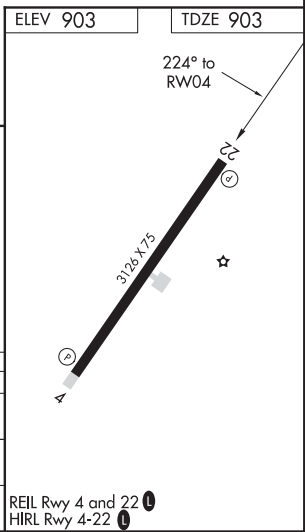
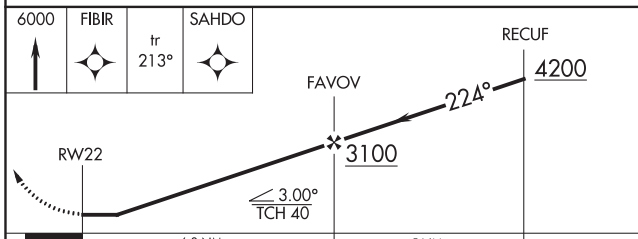
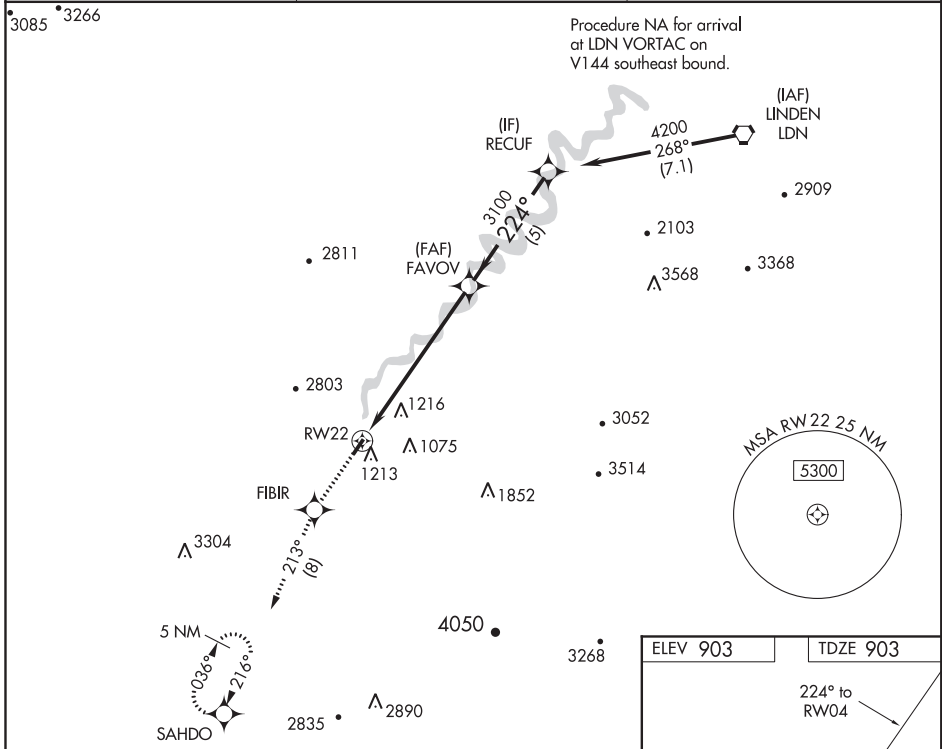


WAAS CH <b>77627</b> <b>W22A</b>	APP CRS <b>224°</b>	Rwy Idg TDZE Apt Elev	<b>3125</b> <b>903</b> <b>903</b>
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# RNAV (GPS) RWY 22

LURAY CAVERNS (LUA)

<p><b>▽</b> DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Staunton/Waynesboro/Harrisonburg altimeter setting and increase all MDA 120 feet; increase LNAV Cat B and Circling Cat B visibility 1/4 mile.</p> <p><b>▲</b> -16°C/3°F</p>	<p>MISSED APPROACH: Climb to 6000 direct FIBIR and on track 213° to SAHDO and hold, continue climb-in-hold to 6000.</p>	
<p>AWOS-3 <b>118.275</b></p>	<p>WASHINGTON CENTER <b>133.2 282.2</b></p>	<p>UNICOM <b>122.8 (CTAF) 0</b></p>



CATEGORY	A	B	C	D
LP MDA	1460-1	557 (600-1)	NA	NA
LNAV MDA	1820-1 1/4	917 (1000-1 1/4)	NA	NA
CIRCLING	1820-1 1/4	917 (1000-1 1/4)	NA	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LURAY, VIRGINIA

AL-6229 (FAA)

16259

VORTAC LDN <b>114.3</b> Chan <b>90</b>	APP CRS <b>237°</b>	Rwy Idg TDZE Apt Elev <b>903</b>	<b>N/A</b> <b>N/A</b> <b>903</b>
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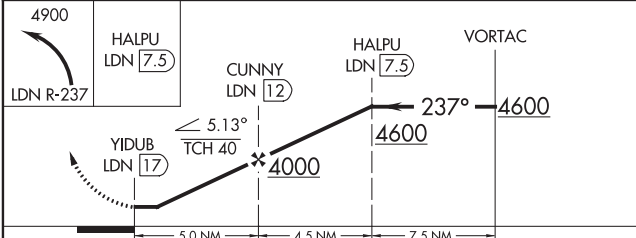
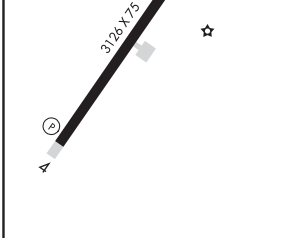
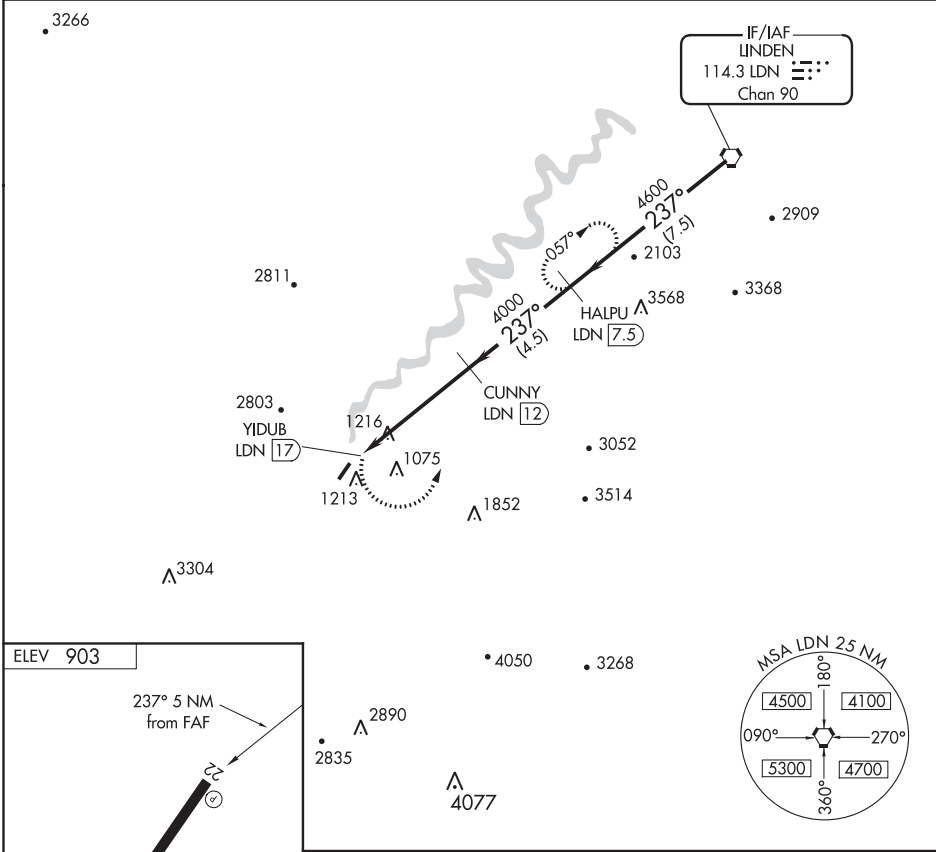
**VOR/DME-B**  
LURAY CAVERNS (LUA)

**⚠** Visibility reduction by helicopters NA. When local altimeter setting not received, use Staunton/Waynesboro/Harrisburg altimeter setting and increase all MDA 120 feet.

**❄** -16°C/3°F

**MISSED APPROACH:** Climbing left turn to 4900 on LDN VORTAC R-237 to HALPU/LDN 7.5 DME and hold, continue climb-in-hold to 4900.

AWOS-3 <b>118.275</b>	WASHINGTON CENTER <b>133.2 282.2</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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CATEGORY	A	B	C	D
CIRCLING	2200-1¼ 1297 (1300-1¼)	2200-1½ 1297 (1300-1½)	NA	NA

REIL Rwy 4 and 22 **0**  
HIRL Rwy 4-22 **0**

LURAY, VIRGINIA  
Amdt 3A 31MAY12

38°40'N-78°30'W

LURAY CAVERNS (LUA)  
**VOR/DME-B**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

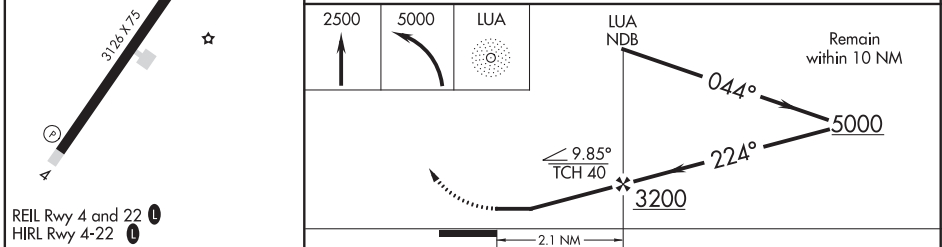
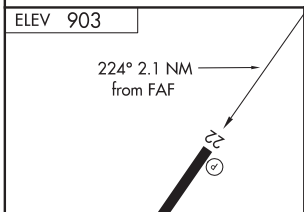
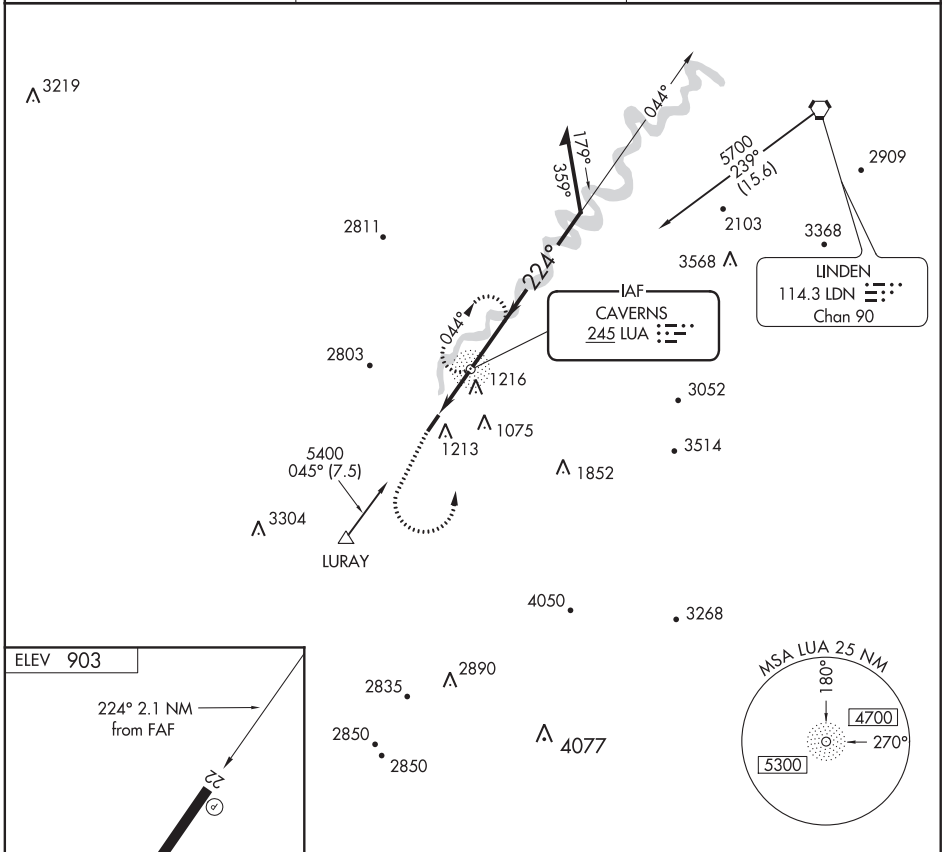
NDB LUA <b>245</b>	APP CRS <b>224°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>903</b>
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**NDB-A**  
LURAY CAVERNS (LUA)

When local altimeter setting not received, use Staunton/Waynesboro/Harrisburg altimeter setting.

MISSED APPROACH: Climb to 2500 then climbing left turn to 5000 direct LUA NDB and hold, continue climb-in-hold to 5000.

AWOS-3 <b>118.275</b>	WASHINGTON CENTER <b>133.2 282.2</b>	UNICOM <b>122.8</b> (CTAF) <b>①</b>
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FAF to MAP 2.1 NM						
Knots	60	90	120	150	180	
Min:Sec	2:06	1:24	1:03	0:50	0:42	
CATEGORY	A		B		C	D
CIRCLING	2360-1¼ 1457 (1500-1¼)		2360-1½ 1457 (1500-1½)		NA	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>2932</b>
<b>283°</b>	TDZE	<b>939</b>
	Apt Elev	<b>939</b>

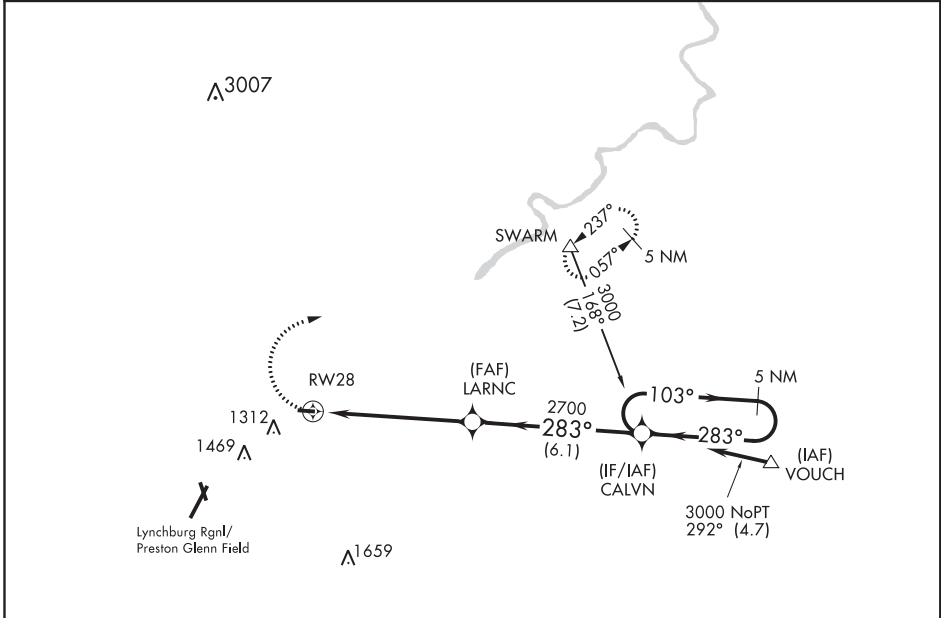
# RNAV (GPS) RWY 28

FALWELL (W24)

**▽** DME/DME RNP-0.3 NA. Use Lynchburg Regional/Preston Glenn Field altimeter setting, when not received use Farmville altimeter setting and increase all MDA 160 feet. Procedure NA at night.

**MISSED APPROACH:** Climbing right turn to 3500 direct SWARM and hold.

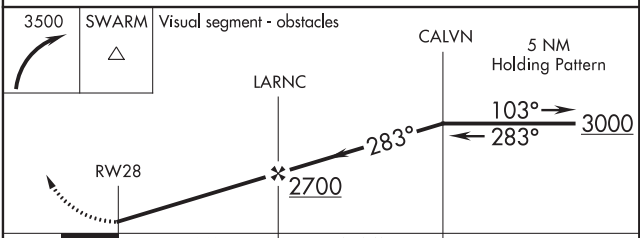
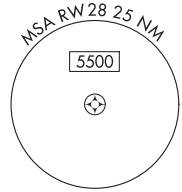
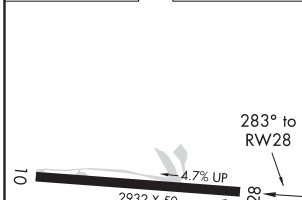
LYNCHBURG RGNL/PRESTON GLENN FIELD ASOS/ATIS <b>119.8</b>	ROANOKE APP CON <b>135.0 254.32</b>	UNICOM <b>123.0</b> (CTAF)
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 939	TDZE 939
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MIRL Rwy 10-28


CATEGORY	A	B	C	D
LNAV MDA	1460-1	521 (600-1)		NA

# ILS or LOC RWY 4

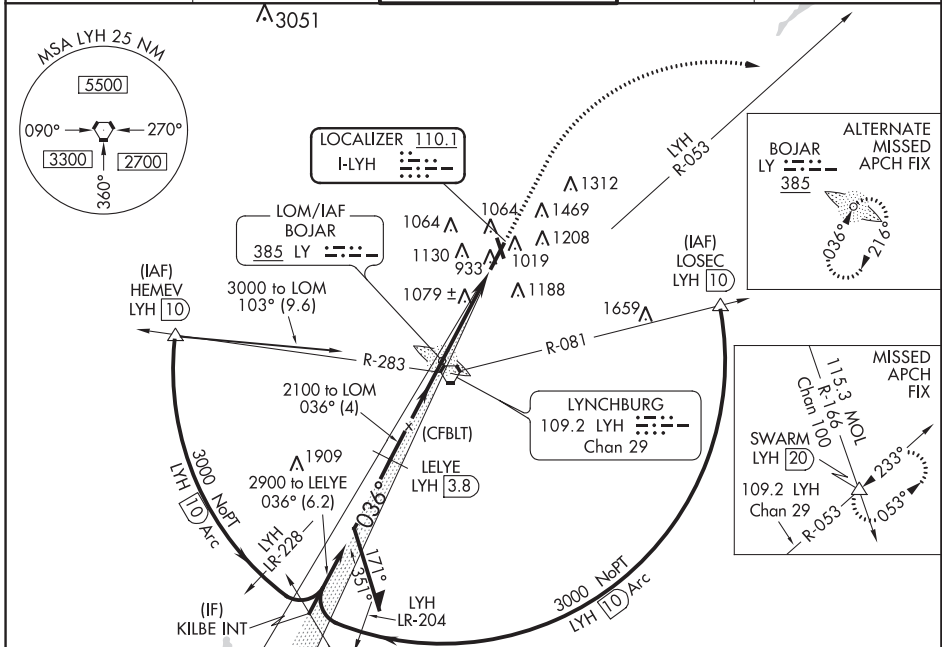
LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)

LOC I-LYH <b>110.1</b>	APP CRS <b>036°</b>	Rwy Idg <b>6800</b> TDZE <b>905</b> Apt Elev <b>938</b>
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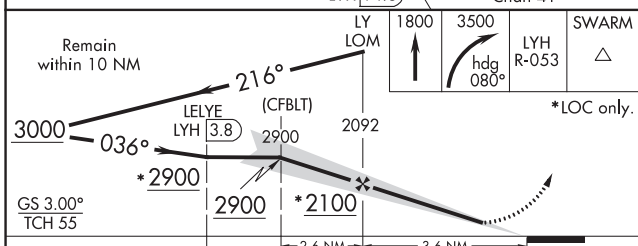
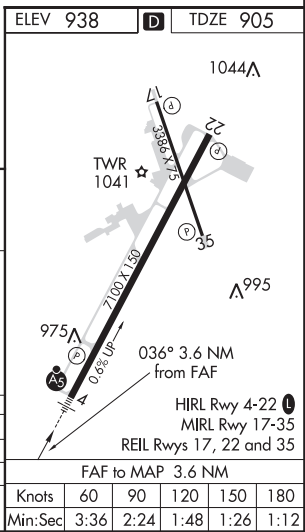
**⚠** \*\*RVR 1800 authorized with the use of FD or AP or HUD to DA.  
\*DME required.

**MALSR**  
 MISSED APPROACH: Climb to 1800 then climbing right turn to 3500 on heading 080° and LYH VORTAC R-053 to SWARM INT/LYH 20 DME and hold.

ATIS <b>119.8</b>	ROANOKE APP CON <b>135.0 254.32</b>	LYNCHBURG TOWER ★ <b>127.65</b> (CTAF) <b>257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 938	<b>D</b>	TDZE 905
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CATEGORY	A	B	C	D
S-ILS 4	**1105/24 200 (200-½)			
S-LOC 4	1320/24	415 (400-½)	1320/40	415 (400-¾)
<b>C</b> CIRCLING	1660-1 722 (800-1)	1780-1¼ 842 (900-1¼)	1800-2½ 862 (900-2½)	1800-2¾ 862 (900-2¾)

Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

# ILS or LOC RWY 4

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LYNCHBURG, VIRGINIA

AL-499 (FAA)

16007

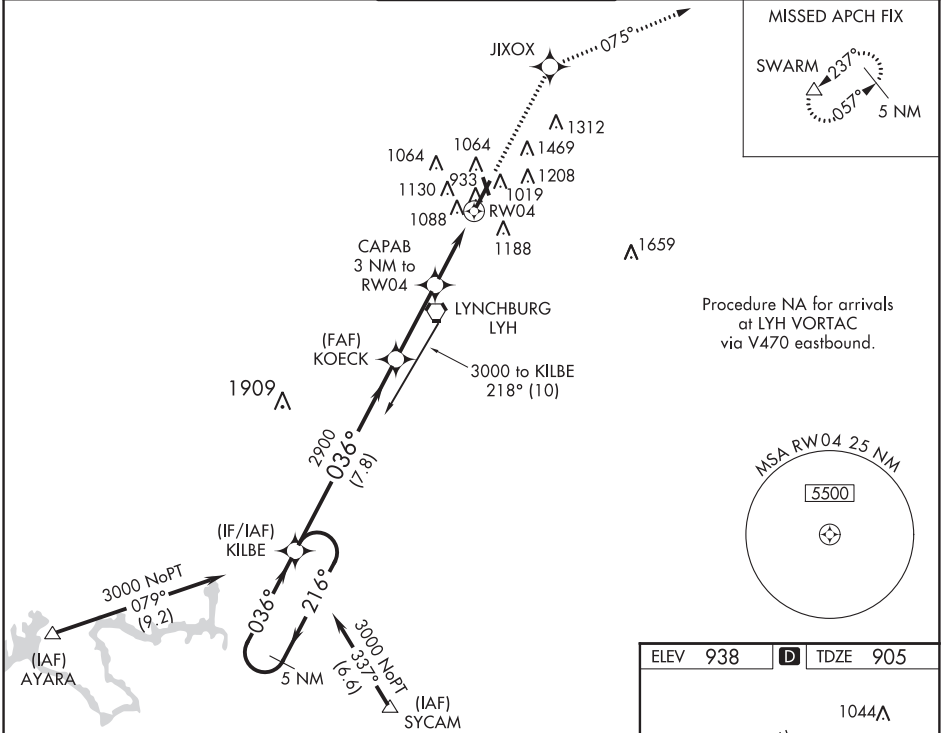
WAAS CH <b>58205</b> <b>W04A</b>	APP CRS <b>036°</b>	Rwy Idg TDZE Apt Elev	<b>6800</b> <b>905</b> <b>938</b>
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# RNAV (GPS) RWY 4

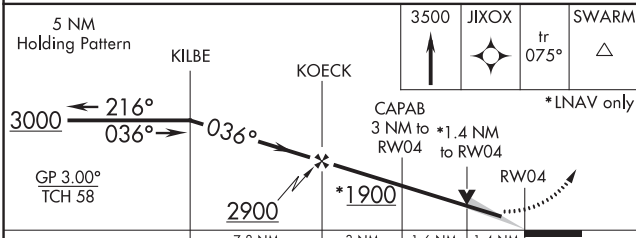
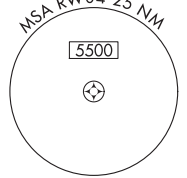
LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)

<b>▽</b> For inoperative MALS, increase LNAV Cat A and B visibility to RVR 5000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP-0.3 NA.	<b>MALS</b> 	<b>MISSED APPROACH:</b> Climb to 3500 direct JIXOX and via 075° track to SWARM and hold.
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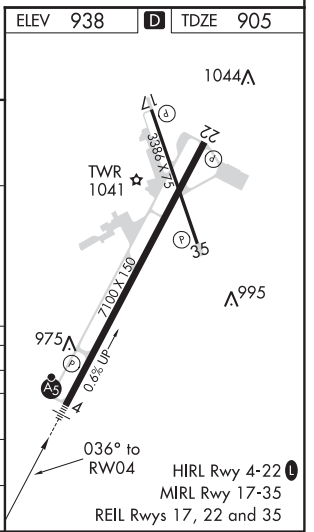
ATIS <b>119.8</b>	ROANOKE APP CON <b>135.0 254.32</b>	<b>LYNCHBURG TOWER ★</b> <b>127.65 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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Procedure NA for arrivals at LYH VORTAC via V470 eastbound.



CATEGORY	A	B	C	D
LPV DA		1175/40	270 (300-¾)	
LNAV/VNAV DA		1394/60	489 (500-1¼)	
LNAV MDA	1400/40	495 (500-¾)	1400/50	495 (500-1)
<b>□</b> CIRCLING	1660-1 722 (800-1)	1780-1¼ 842 (900-1¼)	1800-2½ 862 (900-2½)	1800-2¾ 862 (900-2¾)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LYNCHBURG, VIRGINIA  
Orig-A 07JAN16

LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)  
37°20'N-79°12'W

# RNAV (GPS) RWY 4

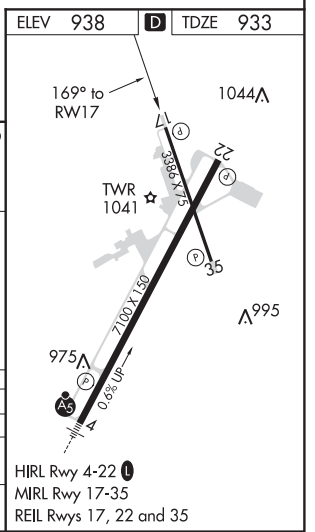
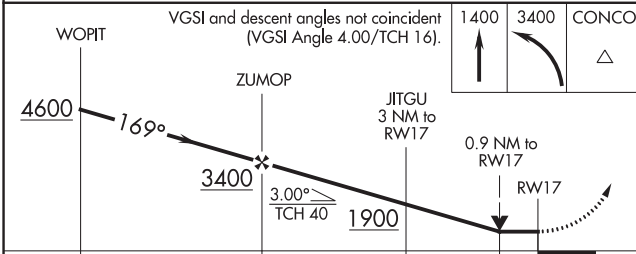
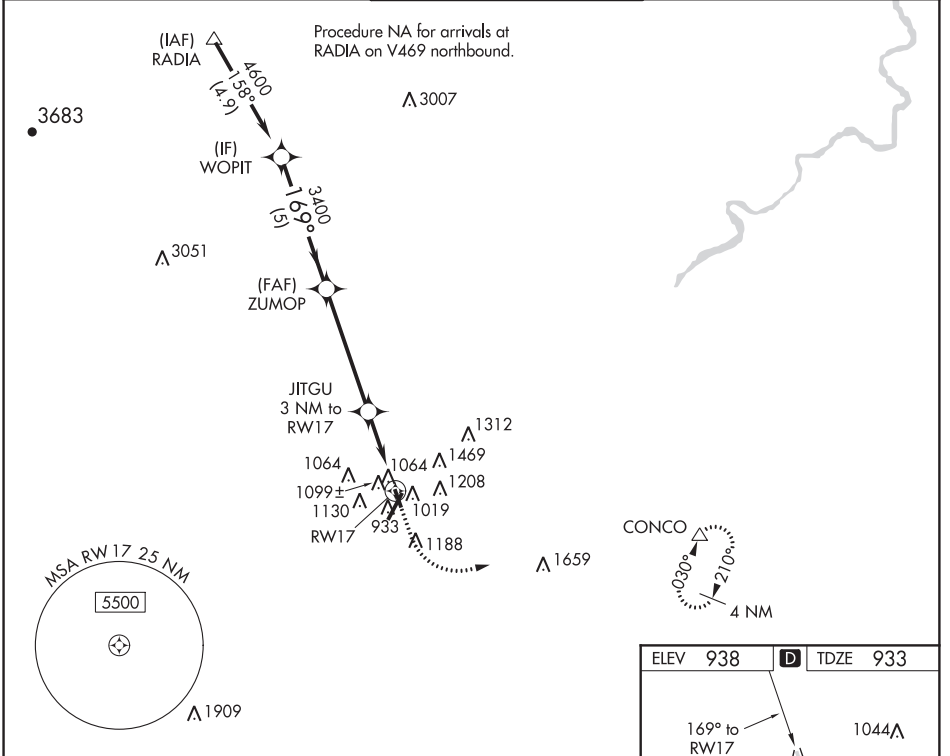
WAAS CH <b>48934</b> <b>W17A</b>	APP CRS <b>169°</b>	Rwy Idg TDZE Apt Elev	<b>3386</b> <b>933</b> <b>938</b>
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# RNAV (GPS) RWY 17

LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)

<b>▽</b> <b>▲</b>	DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA.	MISSED APPROACH: Climb to 1400 then climbing left turn to 3400 direct CONCO and hold.
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ATIS <b>119.8</b>	ROANOKE APP CON <b>135.0 254.32</b>	LYNCHBURG TOWER * <b>127.65 (CTAF) 0 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LP MDA	1320-1	387 (400-1)		NA
LNVA MDA	1360-1	427 (500-1)		NA
<b>C</b> CIRCLING	1660-1 722 (800-1)	1780-1¼ 842 (900-1¼)		NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>97705</b> <b>W22A</b>	APP CRS <b>216°</b>	Rwy Idg <b>7100</b> TDZE <b>938</b> Apt Elev <b>938</b>
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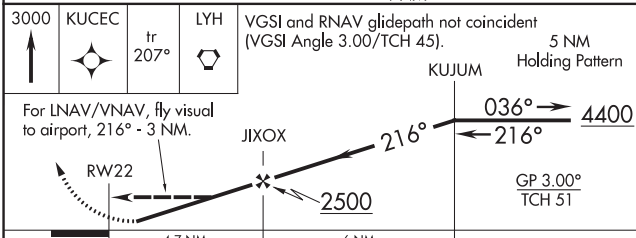
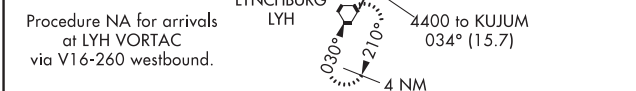
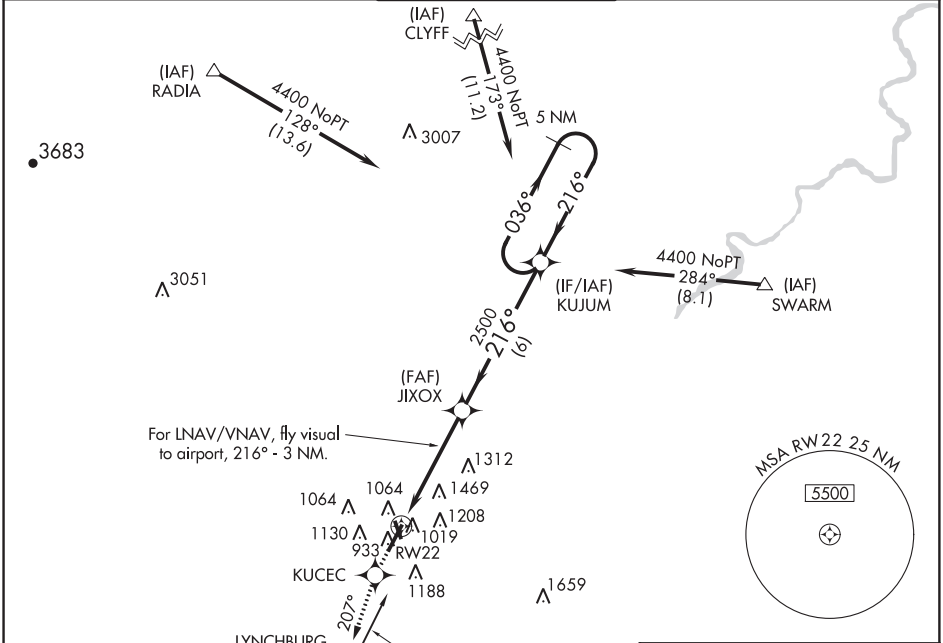
# RNAV (GPS) RWY 22

LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)

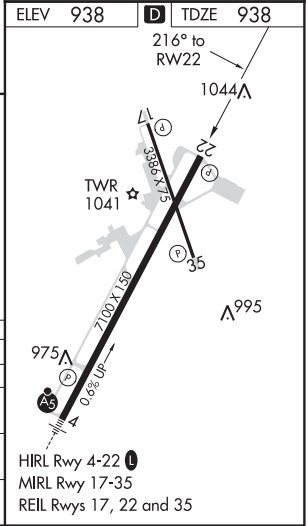
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¼ SM NA.

**MISSED APPROACH:** Climb to 3000 direct KUCEC and via 207° track to LYH VORTAC and hold, continue climb-in hold to 3000.

ATIS <b>119.8</b>	ROANOKE APP CON <b>135.0 254.32</b>	LYNCHBURG TOWER ★ <b>127.65 (CTAF) 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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3000	KUCEC	tr 207°	LYH	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 45).	5 NM Holding Pattern
CATEGORY	A	B	C	D	
LPV DA		1250-1	312 (400-1)		
LNAV/VNAV DA	1939-2	1001 (1100-2)	1939-3	1001 (1100-3)	
LNAV MDA	1720-1 782 (800-1)	1720-1 ¼ 782 (800-1 ¼)	1720-2 ¼ 782 (800-2 ¼)	1720-2 ½ 782 (800-2 ½)	
CIRCLING	1720-1 782 (800-1)	1780-1 ¼ 842 (900-1 ¼)	1800-2 ½ 862 (900-2 ½)	1800-2 ¾ 862 (900-2 ¾)	



HIRL Rwy 4-22  
MIRL Rwy 17-35  
REIL Rwy 17, 22 and 35

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



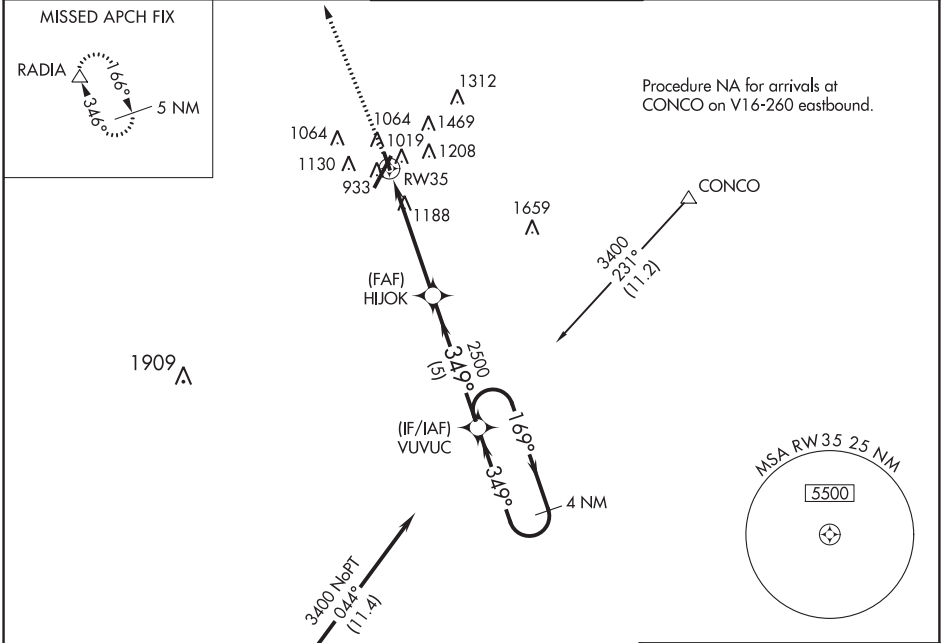
WAAS CH <b>93634</b> <b>W35A</b>	APP CRS <b>349°</b>	Rwy Idg <b>3386</b> TDZE <b>933</b> Apt Elev <b>938</b>
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# RNAV (GPS) RWY 35

LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)

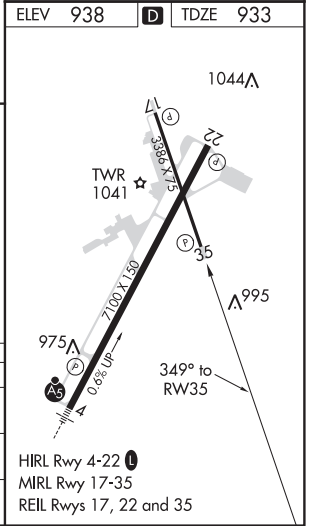
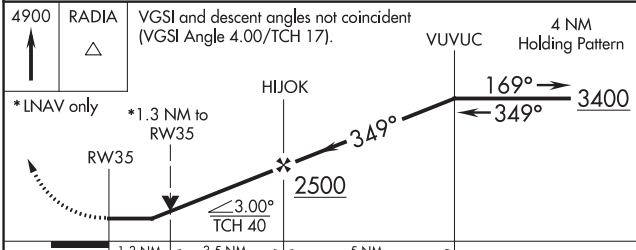
<b>▽</b> <b>▲</b>	DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA.	MISSED APPROACH: Climb to 4900 direct RADIA and hold.
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ATIS <b>119.8</b>	ROANOKE APP CON <b>135.0 254.32</b>	LYNCHBURG TOWER * <b>127.65 (CTAF) 257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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ELEV 938	<b>D</b>	TDZE 933
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Procedure NA for arrivals at SYCAM on V469 southbound.



CATEGORY	A	B	C	D
LP MDA	1480-1	547 (600-1)		NA
LNAV MDA	1500-1	567 (600-1)		NA
<b>C</b> CIRCLING	1660-1 722 (800-1)	1780-1 ¼ 842 (900-1 ¼)		NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LYNCHBURG, VIRGINIA

AL-499 (FAA)

16007

VORTAC LYH	APP CRS	Rwy Idg	<b>7100</b>
<b>109.2</b>	<b>207°</b>	TDZE	<b>938</b>
Chan <b>29</b>		Apt Elev	<b>938</b>

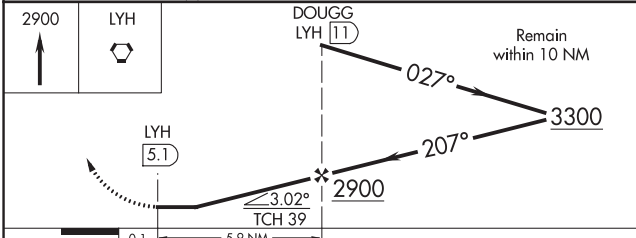
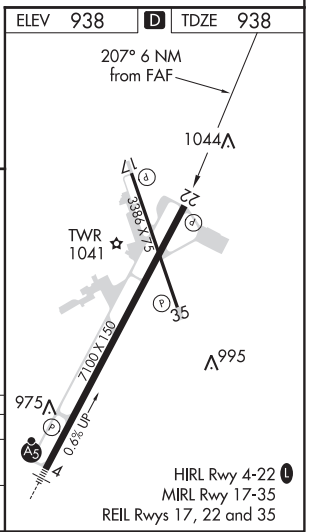
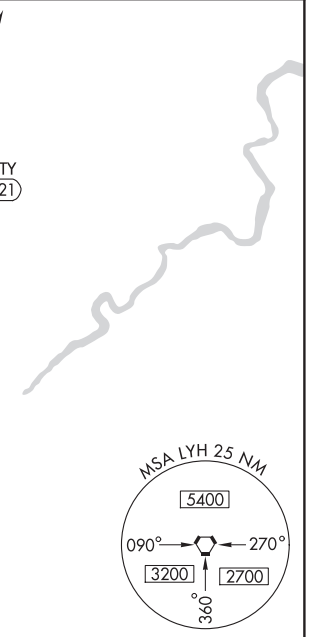
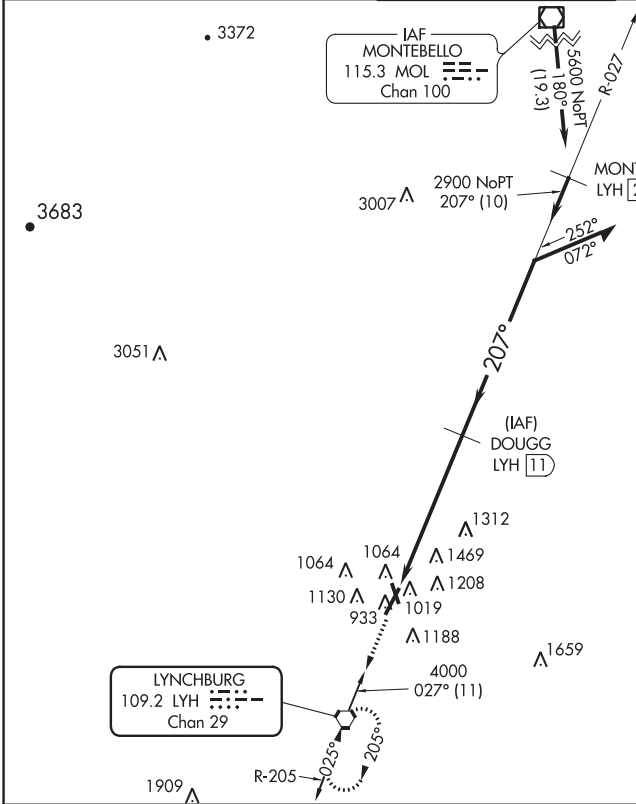
# VOR/DME RWY 22

LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)

**▼** Helicopter visibility reduction below 3/4 SM NA.

**▲** MISSED APPROACH: Climb to 2900 direct LYH VORTAC and hold.

ATIS <b>119.8</b>	ROANOKE APP CON <b>135.0 254.32</b>	LYNCHBURG TOWER ★ <b>127.65</b> (CTAF) <b>257.8</b>	GND CON <b>121.9</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
S-22	1740-1 802 (900-1)	1740-1 1/4 802 (900-1 1/4)	1740-2 1/4 802 (900-2 1/4)	1740-2 1/2 802 (900-2 1/2)
CIRCLING	1740-1 802 (900-1)	1780-1 1/4 842 (900-1 1/4)	1800-2 1/2 862 (900-2 1/2)	1800-2 3/4 862 (900-2 3/4)

LYNCHBURG, VIRGINIA  
Amdt 8C 07JAN16

LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)  
37°20'N-79°12'W

# VOR/DME RWY 22

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

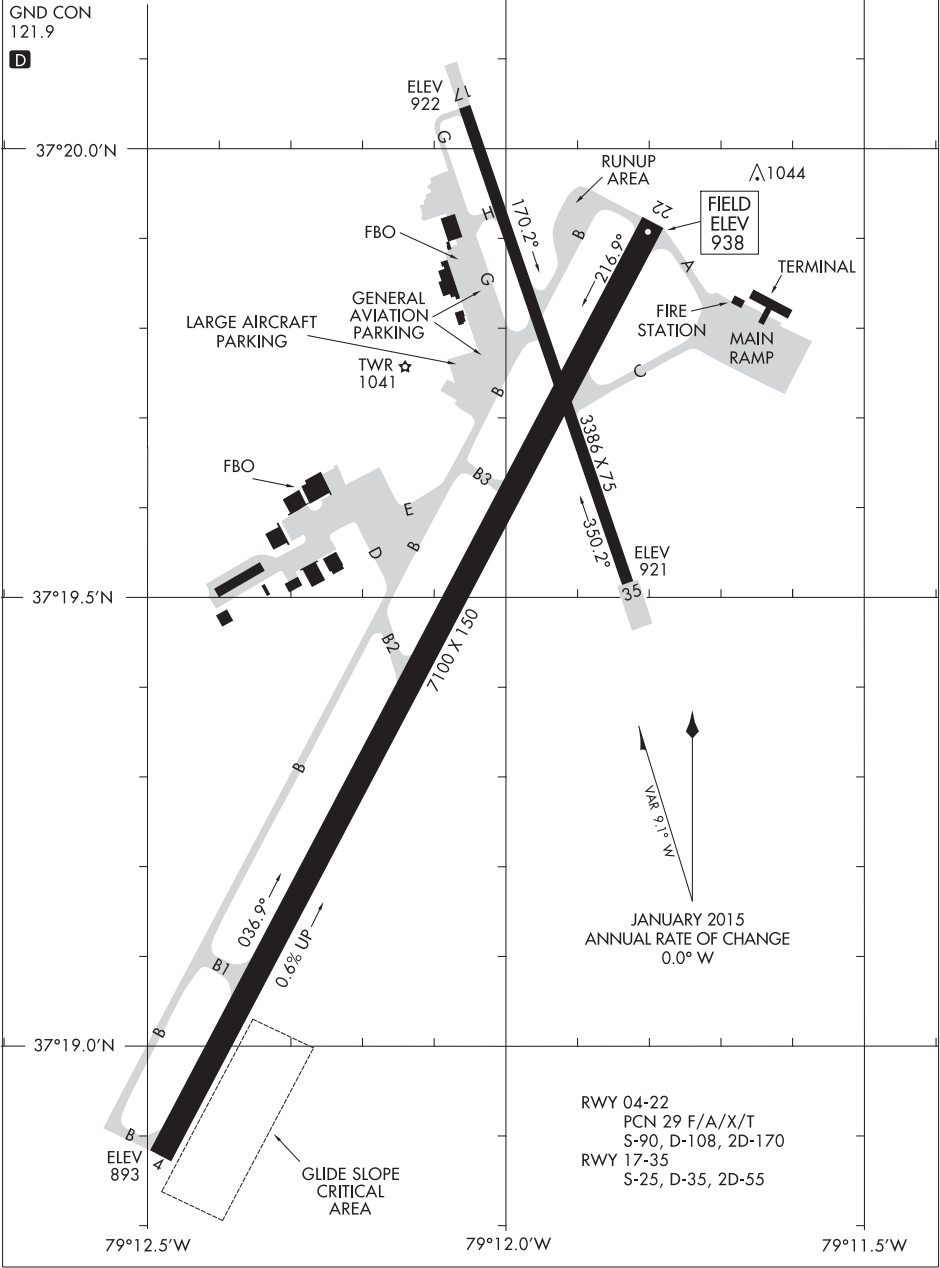
15288 **AIRPORT DIAGRAM** LYNCHBURG RGNL/PRESTON GLENN FLD (LYH)  
 AL-499 (FAA) LYNCHBURG, VIRGINIA

ATIS  
 119.8  
 LYNCHBURG TOWER\*  
 127.65 257.8  
 GND CON  
 121.9

**CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



RWY 04-22  
 PCN 29 F/A/X/T  
 S-90, D-108, 2D-170  
 RWY 17-35  
 S-25, D-35, 2D-55

**AIRPORT DIAGRAM** LYNCHBURG, VIRGINIA  
 15288 LYNCHBURG RGNL/PRESTON GLENN FLD (LYH)

(HURTT2.HURTT) 16203

SL-499 (FAA)

LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)  
LYNCHBURG, VA

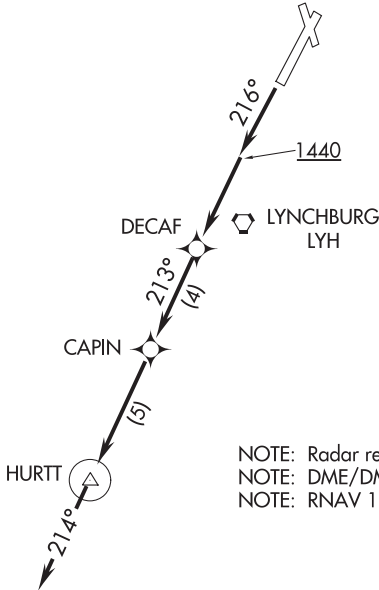
# HURTT TWO DEPARTURE (RNAV)

ATIS 119.8  
GND CON  
121.9  
LYNCHBURG TOWER ★  
127.65 (CTAF) 257.8  
ROANOKE DEP CON  
135.0 254.32

**TAKEOFF MINIMUMS:**  
Rwys 4, 17, 35: NA-ATC.  
Rwy 22: Standard with minimum  
climb of 500' per NM to 1440.

**TOP ALTITUDE:  
4000**

ROANOKE  
ROA



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

**TAKEOFF OBSTACLE NOTES:**

Rwy 22: Trees beginning 274' from DER, 245' right of centerline up to 41' AGL/979' MSL.  
Trees beginning 2616' from DER, 206' left of centerline up to 41' AGL/979' MSL.  
Poles beginning 2872' from DER, 603' right of centerline up to 44' AGL/982' MSL.

NOTE: Chart not to scale.



## DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 22:** Climb heading 216° to 1440, then direct DECAF, then on depicted route to HURTT, then on heading 214°, expect vectors on course. Maintain 4000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

**HURTT TWO DEPARTURE (RNAV)**  
(HURTT2.HURTT) 21JUL16

LYNCHBURG, VA  
LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(LIBRT2.LIBRT) 16203

SL-499 (FAA)

LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)

# LIBRT TWO DEPARTURE (RNAV)

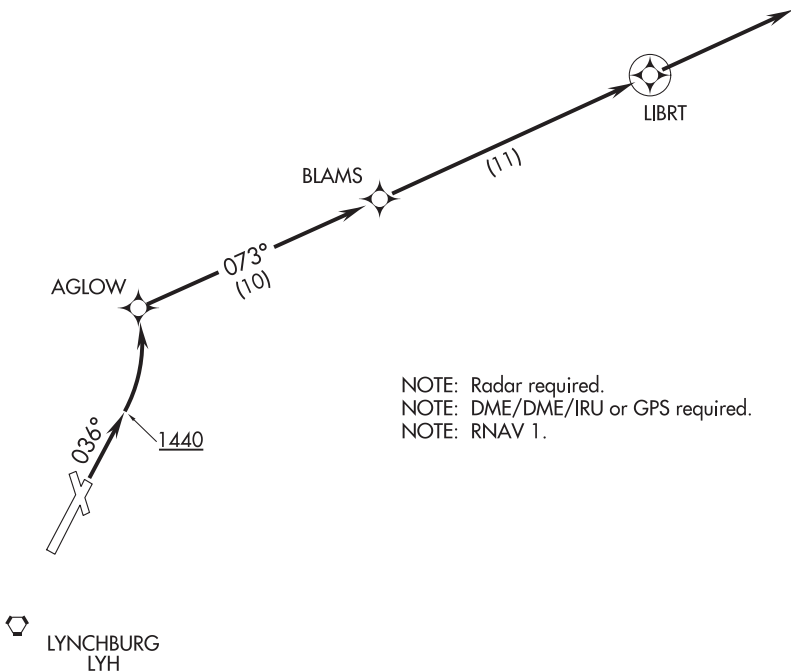
LYNCHBURG, VA

ATIS 119.8  
GND CON  
121.9  
LYNCHBURG TOWER ★  
127.65 (CTAF) 257.8  
ROANOKE DEP CON  
135.0 254.32

### TAKEOFF MINIMUMS:

Rwys 17, 22, 35: NA-ATC.  
Rwy 4: Standard with minimum  
climb of 500' per NM to 4000.

**TOP ALTITUDE:  
4000**



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

### TAKEOFF OBSTACLE NOTES:

Rwy 4: Trees beginning 2029' from DER, 62' right of centerline up to 81' AGL/999' MSL.  
Trees beginning 1422' from DER, 3' left of centerline up to 76' AGL/995' MSL.  
Poles beginning 427' from DER, 483' right of centerline up to 44' AGL/1044' MSL.  
Obstruction lights on fence beginning 2' from DER, 500' right of centerline, up to 30' AGL/948' MSL. Antenna on building 395' from DER, 277' right of centerline 15' AGL/954' MSL. Light 606' from DER, 599' right of centerline, 18' AGL/982' MSL.  
Building 400' from DER, 345' right of centerline, 12' AGL/951' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb heading 036° to 1440, then left turn direct AGLOW, then on depicted route to LIBRT, then on heading 073°, expect vectors on course. Maintain 4000 or as assigned by ATC. Expect filed altitude 10 minutes after departure.

# LIBRT TWO DEPARTURE (RNAV)

(LIBRT2.LIBRT) 21JUL16

LYNCHBURG, VA

LYNCHBURG RGNL/PRESTON GLENN FIELD (LYH)

MARION/WYTHEVILLE, VIRGINIA

AL-6416 (FAA)

16091

WAAS CH <b>72802</b> <b>W26A</b>	APP CRS <b>259°</b>	Rwy Idg TDZE Apt Elev	<b>5252</b> <b>2519</b> <b>2558</b>
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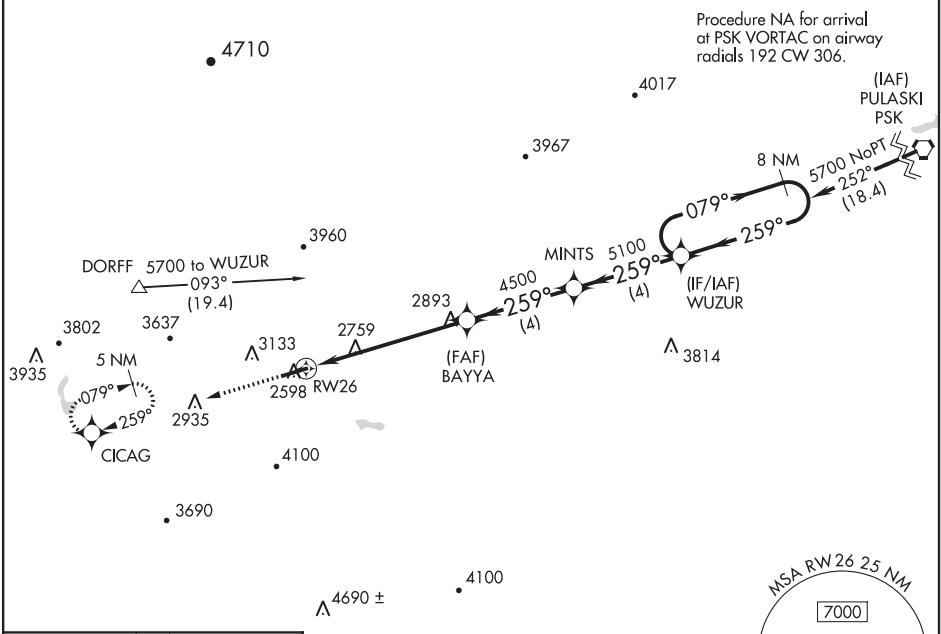
# RNAV (GPS) RWY 26

MOUNTAIN EMPIRE (MKJ)

**⚠** Circling NA north of Rwy 8-26. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. If local altimeter setting not received, use Twin County altimeter setting and increase DA and all MDAs 80 feet. Night landing: Rwy 26 NA.

**MISSED APPROACH:** Climb to 6000 direct CICAG and hold, continue climb-in-hold to 6000.

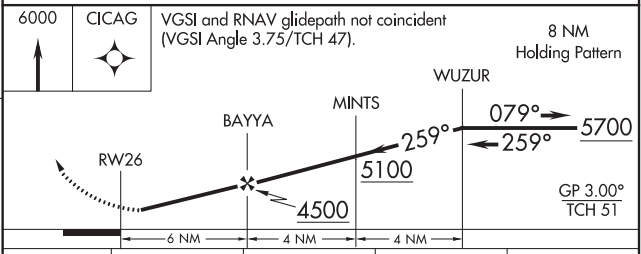
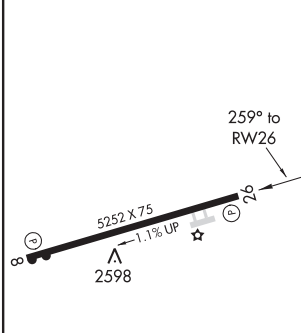
AWOS-3 <b>123.875</b>	ATLANTA CENTER <b>127.85 269.3</b>	UNICOM <b>122.7 (CTAF)</b> <b>0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 2558	TDZE 2519
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CATEGORY	A	B	C	D	
LPV DA	3048-2			529 (500-2)	NA
LNAV MDA	3280-1 761 (800-1)	3280-1¼ 761 (800-1¼)	3280-2¼ 761 (800-2¼)	NA	
CIRCLING	3280-2	722 (800-2)	3280-2¼ 722 (800-2¼)	NA	

REIL Rws 8 and 26  
MIRL Rwy 8-26 **0**

MARION/WYTHEVILLE, VIRGINIA  
Orig-B 31MAR16

36°54'N - 81°21'W

# MOUNTAIN EMPIRE (MKJ)

## RNAV (GPS) RWY 26

LOC I-MKJ <b>110.5</b>	APP CRS <b>259°</b>	Rwy Idg TDZE Apt Elev	<b>5252</b> <b>2519</b> <b>2558</b>
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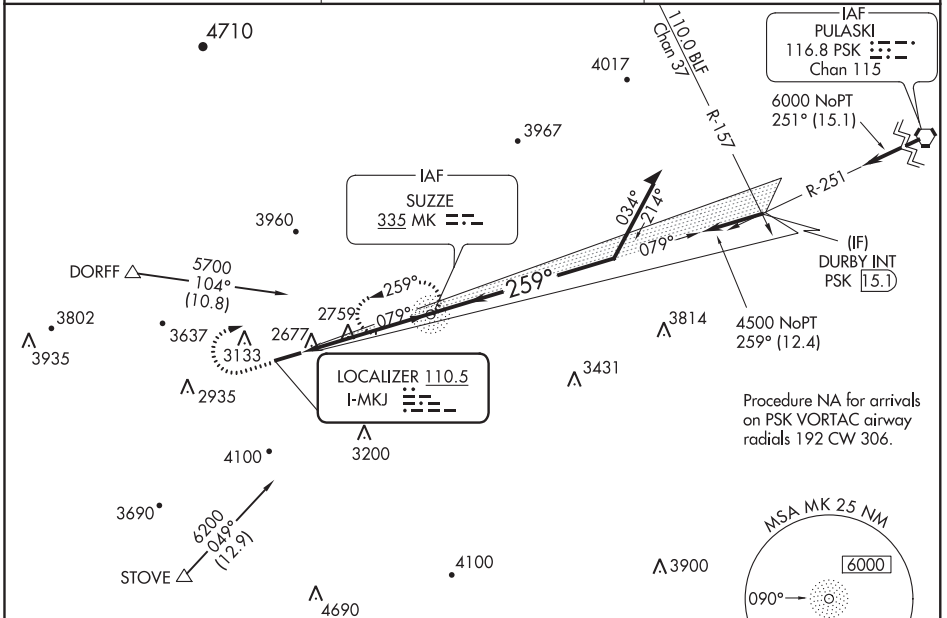
# LOC RWY 26

MOUNTAIN EMPIRE (MKJ)

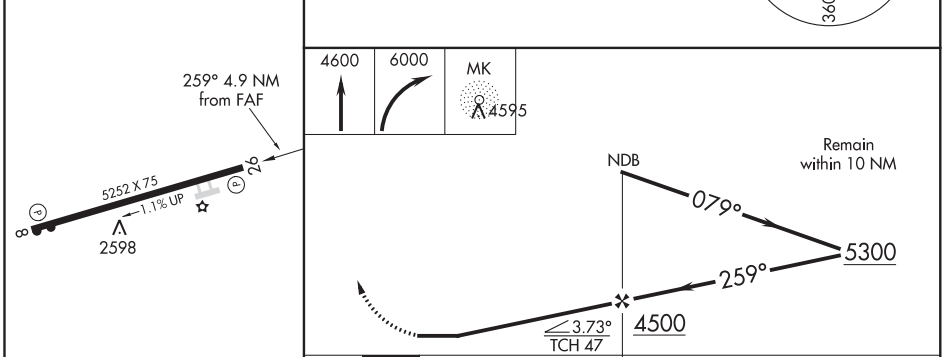
**NA** When local altimeter setting not received, use Galax-Hillsville altimeter setting and increase all MDA 80 feet, S-26 and Circling Cat C visibility ¼ mile. Circling NA North of Rwy 8-26. ADF Required. Helicopter visibility reduction below 1 SM NA. Night landing: Rwy 26 NA.

MISSED APPROACH: Climb to 4600 then climbing right turn to 6000 direct MK NDB and hold.

AWOS-3 <b>123.875</b>	ATLANTA CENTER <b>127.85 269.3</b>	UNICOM <b>122.7 (CTAF)</b>
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ELEV 2558	TDZE 2519
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REIL Rwys 8 and 26  
MIRL Rwy 8-26

FAF to MAP 4.9 NM

Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

CATEGORY	A	B	C	D
S-26	3120-1	601 (700-1)	3120-1¾ 601 (700-1¾)	NA
CIRCLING	3260-1	702 (800-1)	3260-2 702 (800-2)	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

MARTINSVILLE, VIRGINIA

AL-5648 (FAA)

16315

WAAS CH <b>50218</b> W12A	APP CRS <b>125°</b>	Rwy ldg TDZE Apt Elev	<b>5002</b> <b>941</b> <b>941</b>
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# RNAV (GPS) RWY 12

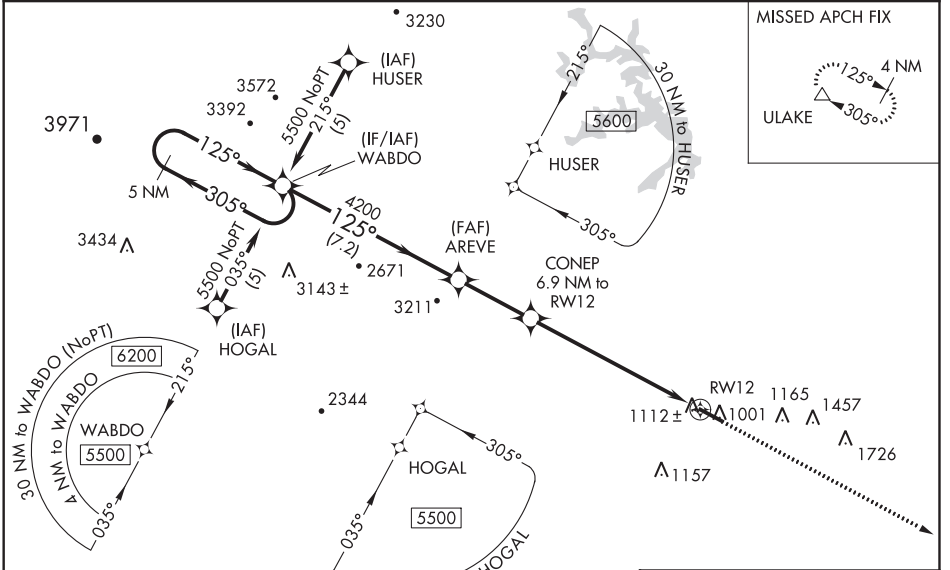
BLUE RIDGE (MTV)

Straight-in minima NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Reidsville, NC altimeter setting and increase LPV DA to 1468, LNAV/VNAV DA to 1585 and all MDA 180 feet; increase LPV visibility all Cats 3/4 mile, LNAV/VNAV visibility all Cats, and Circling Cat D 1/2 mile, increase Circling Cat C visibility 1/2 mile. Baro-VNAV, VDP, and LNAV MDA NA when using Reidsville, NC altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F).

MISSED APPROACH: Climb to 3000 direct ULAKE and hold.

-18°C

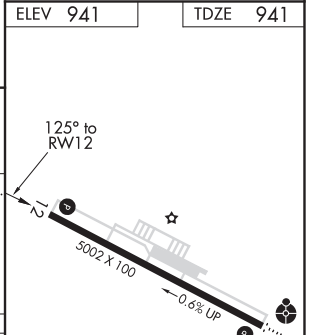
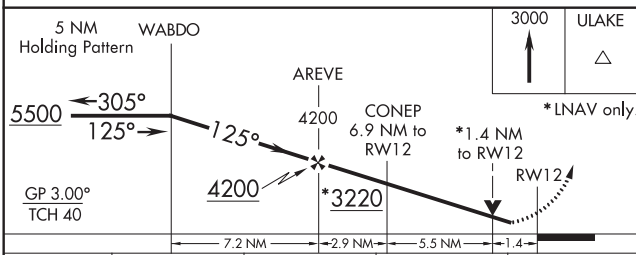
AWOS-3 <b>118.45</b>	GREENSBORO APP CON <b>124.35 269.225</b>	CLNC DEL <b>124.85</b>	UNICOM <b>122.7 (CTAF)</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 941	TDZE 941
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CATEGORY	A	B	C	D
LPV DA		1292-1¼	351 (400-1¼)	
LNAV/VNAV DA		1409-1¾	468 (500-1¾)	
LNAV MDA	1420-1	479 (500-1)	1420-1¼ 479 (500-1¼)	1420-1½ 479 (500-1½)
CIRCLING	1420-1	479 (500-1)	1420-1½ 479 (500-1½)	1520-2 579 (600-2)

REIL Rwy 12 and 30

MIRL Rwy 12-30

MARTINSVILLE, VIRGINIA

Amtd 1 23SEP10

36°38'N-80°01'W

# BLUE RIDGE (MTV)

## RNAV (GPS) RWY 12



WAAS CH <b>65802</b> <b>W30A</b>	APP CRS <b>305°</b>	Rwy Idg <b>5002</b> TDZE <b>925</b> Apt Elev <b>941</b>
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# RNAV (GPS) RWY 30

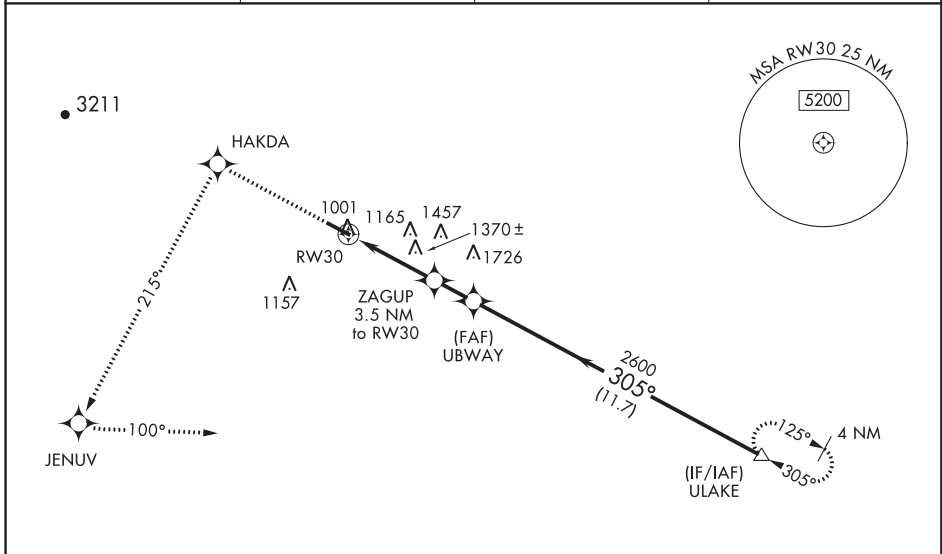
BLUE RIDGE (MTV)

**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Reidsville, NC altimeter setting and increase LPV DA to 1351, LNAV/VNAV DA to 2043 and all MDA 180 feet; increase LPV all Cats and LNAV Cats A/B visibility 1/2 mile, increase LNAV Cats C/D and Circling Cats C/D visibility 3/4 mile, increase Circling Cats A/B visibility 1/4 mile. Baro-VNAV and VDP NA when using Reidsville, NC altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). Inoperative table does not apply.

**ODALS** MISSED APPROACH: Climb to 3200 direct HAKDA and left turn on track 215° to JENUV and left turn on track 100° to ULAKE and Hold.

**⚠** -18°C

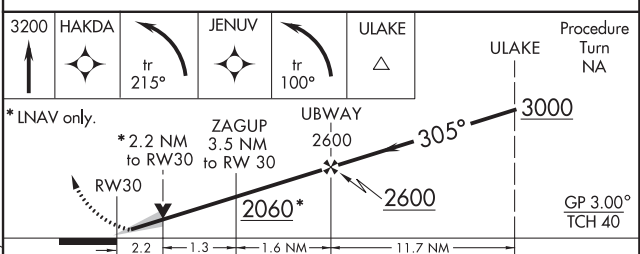
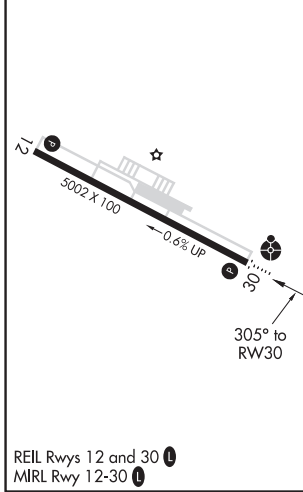
AWOS-3 <b>118.45</b>	GREENSBORO APP CON <b>124.35 269.225</b>	CLNC DEL <b>124.85</b>	UNICOM <b>122.7 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV <b>941</b>	TDZE <b>925</b>
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CATEGORY	A	B	C	D
LPV DA		1175-1	250 (300-1)	
LNAV/VNAV DA		1815-4	890 (900-4)	
LNAV MDA	1640-1	715 (700-1)	1640-2 715 (700-2)	1640-2 1/4 715 (700-2 1/4)
CIRCLING	1640-1	699 (700-1)	1640-2 699 (700-2)	1640-2 1/4 699 (700-2 1/4)

MARTINSVILLE, VIRGINIA

AL-5648 (FAA)

16315

LOC/DME I-UVM <b>111.3</b> Chan <b>50</b>	APP CRS <b>305°</b>	Rwy Idg <b>5002</b> TDZE <b>925</b> Apt Elev <b>941</b>
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# LOC RWY 30

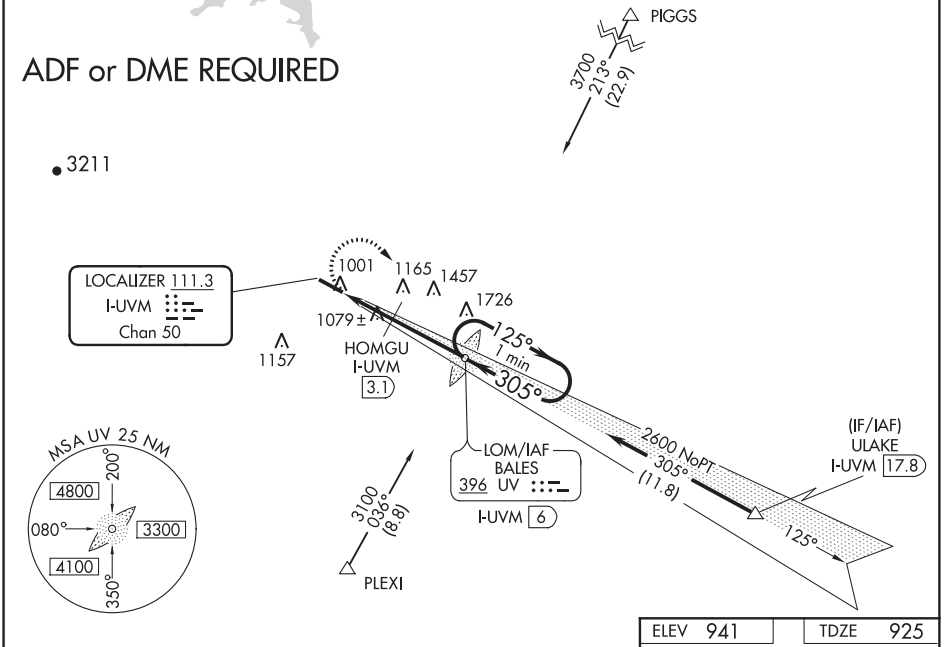
BLUE RIDGE (MTV)

**⚠** Inoperative table does not apply. ADF required. When local altimeter setting not received, use Reidsville, NC altimeter setting and increase all MDA 180 feet; increase S-30 Cats A/B visibility ½ mile. Cats C/D and Circling Cats C/D ¾ mile and Circling Cats A/B ½ mile. HOMGU Fix minimums NA when using Reidsville, NC altimeter setting. When using Reidsville, NC altimeter setting, inop table does not apply.

**ODALS** MISSED APPROACH: Climbing right turn to 2800 direct BALES LOM/I-UVM 6.02 DME and hold.

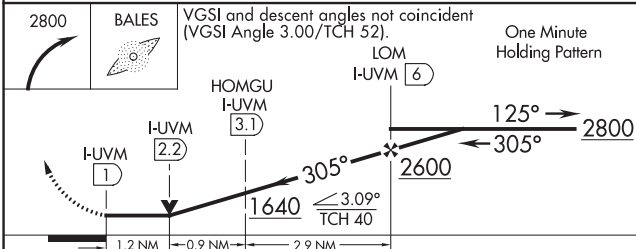
**⚠** -18°C

AWOS-3 <b>118.45</b>	GREENSBORO APP CON <b>124.35 269.225</b>	CLNC DEL <b>124.85</b>	UNICOM <b>122.7 (CTAF) 0</b>
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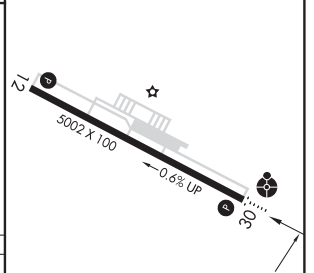


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 941	TDZE 925
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CATEGORY	A	B	C	D
S-30	1640-1 715 (700-1)		1640-2 715 (700-2)	1640-2¼ 715 (700-2¼)
CIRCLING	1640-1 699 (700-1)		1640-2 699 (700-2)	1640-2¼ 699 (700-2¼)
<b>HOMGU FIX MINIMUMS</b>				
S-30	1340-1 415 (400-1)		1340-1¼ 415 (400-1¼)	
CIRCLING	1420-1 479 (500-1)		1420-1½ 479 (500-1½)	1520-2 579 (600-2)

REIL Rwys 12 and 30 0		MIRL Rwy 12-30 0	
FAF to MAP 5 NM			
Knots	60	90	120 150 180
Min:Sec	5:00	3:20	2:30 2:00 1:40

MARTINSVILLE, VIRGINIA

Amtd 1C 14NOV13

36°38'N-80°01'W

BLUE RIDGE (MTV)

# LOC RWY 30

WAAS CH <b>42905</b> <b>W03A</b>	APP CRS <b>034°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>47</b> <b>47</b>
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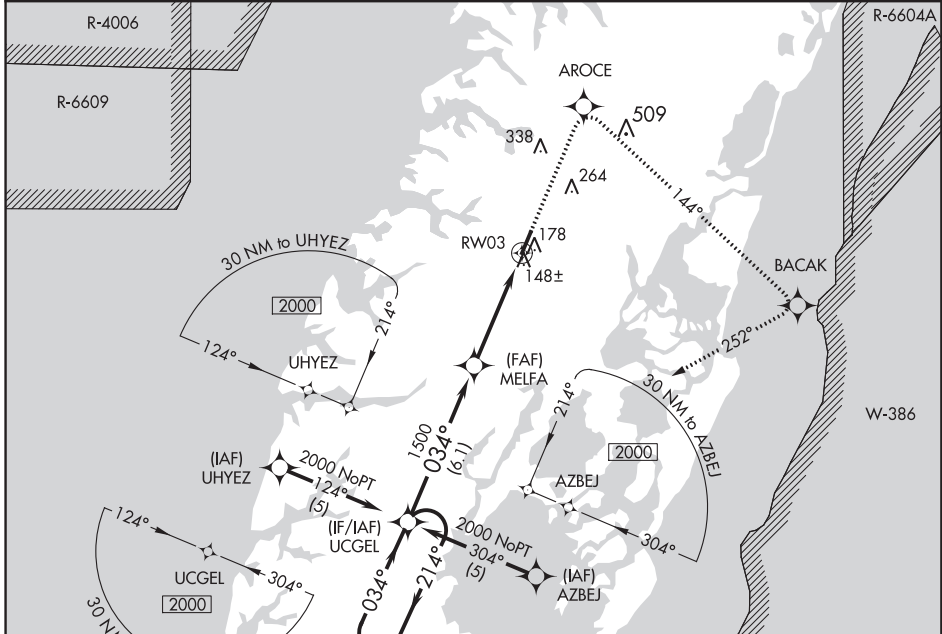
# RNAV (GPS) RWY 3

ACCOMACK COUNTY (MFV)

**T** If local altimeter setting not received, use Wallops Island altimeter setting and increase all DAs/MDAs 60 feet. Baro-VNAV NA when using Wallops Island altimeter setting.  
**A** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). Visibility reduction by helicopters NA. DME/DME RNP-0.3 NA.

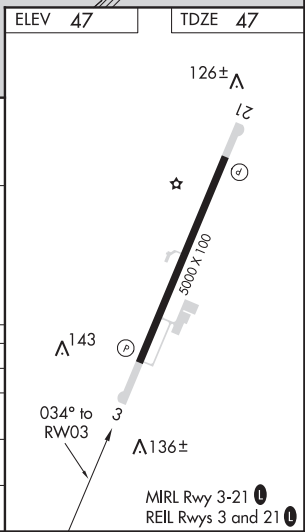
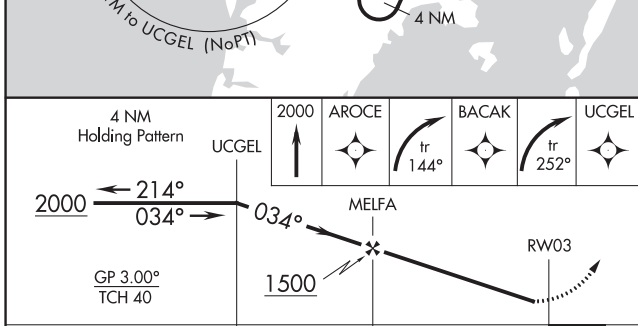
**MISSED APPROACH:** Climb to 2000 direct AROCE and right turn via 144° track to BACAK and right turn via 252° track to UCGEL and hold.

AWOS-3 <b>118.175</b>	PATUXENT APP CON * <b>127.95 314.0</b>	GCO <b>135.075</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA		346-1	299 (300-1)	
LNAV/VNAV DA		408-1¼	361 (400-1¼)	
LNAV MDA	440-1	393 (400-1)		440-1¼ 393 (400-1¼)
CIRCLING	480-1 433 (500-1)	560-1 513 (600-1)	560-1½ 513 (600-1½)	620-2 573 (600-2)

MELFA, VIRGINIA

AL-5598 (FAA)

16091

WAAS CH <b>69505</b> <b>W21A</b>	APP CRS <b>214°</b>	Rwy Idg TDZE <b>47</b> Apt Elev <b>47</b>	<b>5000</b>
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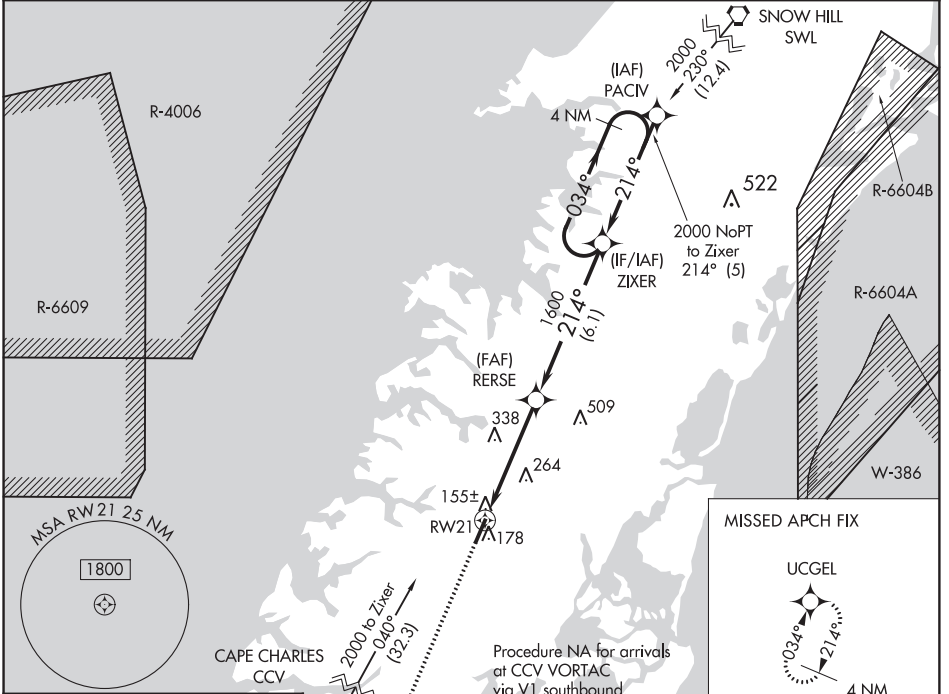
# RNAV (GPS) RWY 21

ACCOMACK COUNTY (MFV)

**⚠** If local altimeter setting not received, use Wallops Island altimeter setting and increase all DAs/MDAs 60 feet. Baro-VNAV NA when using Wallops Island altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). Visibility reduction by helicopters NA. DME/DME RNP-0.3 NA.

**MISSED APPROACH:** Climb to 2000 direct UCGEL and hold.

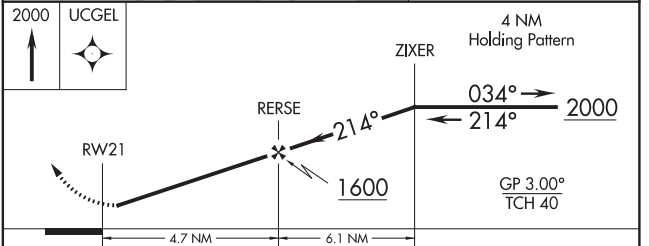
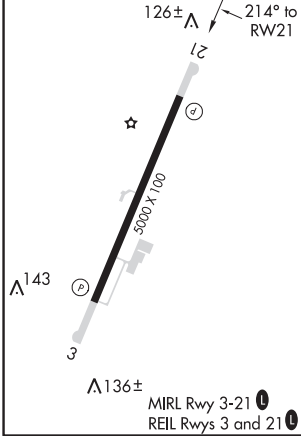
AWOS-3 <b>118.175</b>	PATUXENT APP CON* <b>127.95 314.0</b>	GCO <b>135.075</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV <b>47</b>	TDZE <b>47</b>
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CATEGORY	A	B	C	D
LPV DA		362-1	315 (400-1)	
LNAV/ VNAV DA		545-1¾	498 (500-1¾)	
LNAV MDA	600-1	553 (600-1)	600-1½ 553 (600-1½)	600-1¾ 553 (600-1¾)
CIRCLING	600-1	553 (600-1)	600-1½ 553 (600-1½)	620-2 573 (600-2)

MELFA, VIRGINIA  
Orig 25OCT07

37°39'N-75°46'W

# ACCOMACK COUNTY (MFV)

## RNAV (GPS) RWY 21

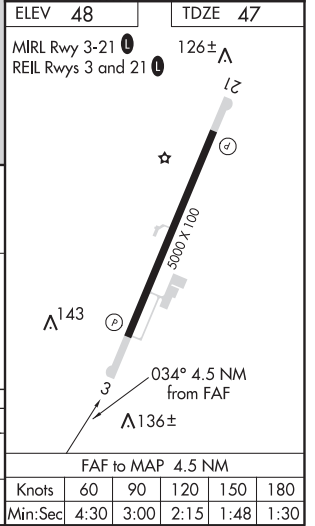
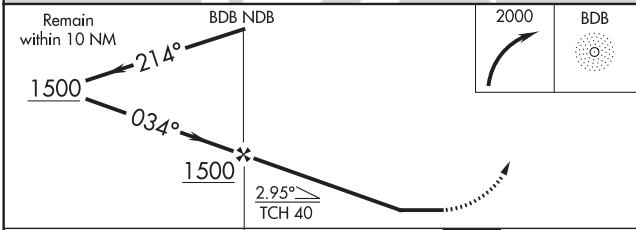
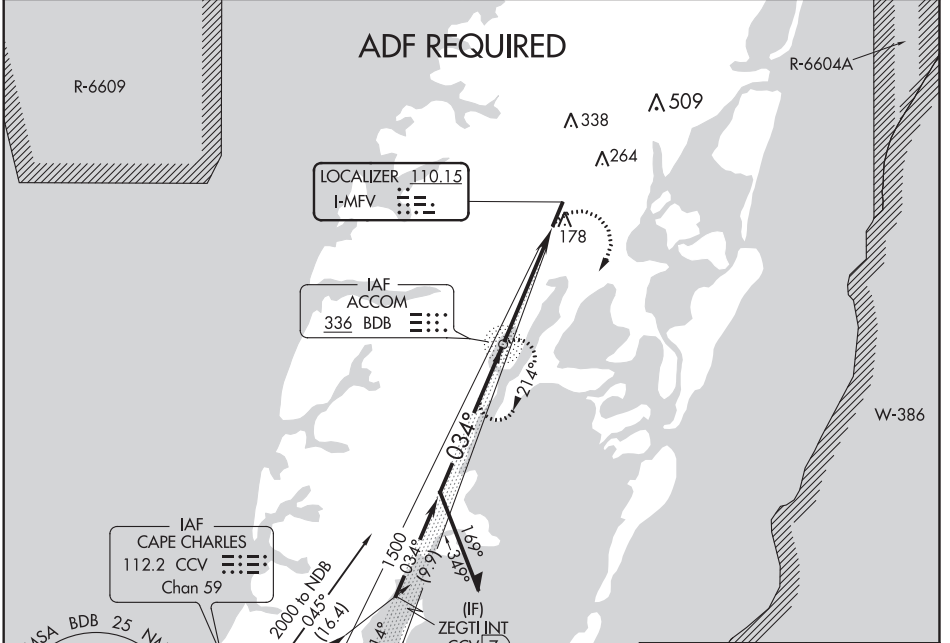
I-MFV <b>110.15</b>	APP CRS <b>034°</b>	Rwy ldg TDZE Apt Elev	<b>5000</b> <b>47</b> <b>48</b>
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**LOC RWY 3**  
ACCOMACK COUNTY (MFV)

**ADF Required.** When local altimeter setting not received, use Wallops Island altimeter setting and increase all MDA 60 feet; increase Circling Cats C/D visibility ¼ mile.

MISSED APPROACH: Climbing right turn to 2000 direct ACCOM NDB and hold.

AWOS-3 <b>118.175</b>	PATUXENT APP CON* <b>127.95 314.0</b>	GCO <b>135.075</b>	UNICOM <b>122.8 (CTAF) 0</b>
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CATEGORY	A	B	C	D
S-3	500-1	453 (500-1)	500-1 <sup>3</sup> / <sub>8</sub>	453 (500-1 <sup>3</sup> / <sub>8</sub> )
<b>CIRCLING</b>	500-1 452 (500-1)	560-1 512 (600-1)	700-1 <sup>3</sup> / <sub>4</sub> 652 (700-1 <sup>3</sup> / <sub>4</sub> )	700-2 652 (700-2)

FAF to MAP 4.5 NM					
Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

MELFA, VIRGINIA

AL-5598 (FAA)

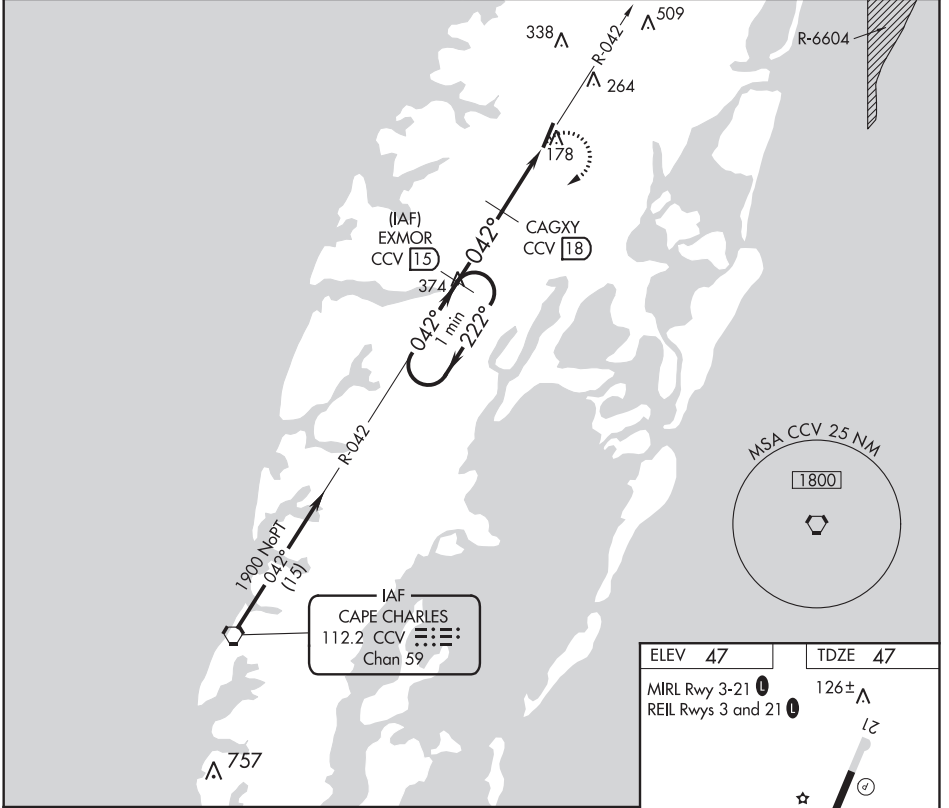
16091

VORTAC CCV <b>112.2</b> Chan <b>59</b>	APP CRS <b>042°</b>	Rwy ldg <b>5000</b> TDZE <b>47</b> Apt Elev <b>47</b>
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**VOR/DME RWY 3**  
ACCOMACK COUNTY (MFV)

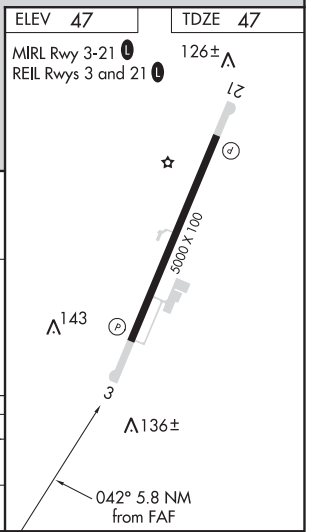
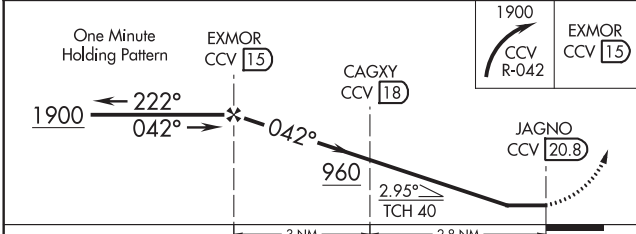
<p>▼ ▲ NA</p>		<p>MISSED APPROACH: Climbing right turn to 1900 via CCV VORTAC R-042 to EXMOR/CCV 1.5 DME and hold.</p>	
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AWOS-3 <b>118.175</b>	PATUXENT APP CON* <b>127.95 314.0</b>	GCO <b>135.075</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-3	440-1 393 (400-1)	440-1¼ 393 (400-1¼)	440-1½ 393 (400-1½)	440-1¾ 393 (400-1¾)
CIRCLING	480-1 453 (500-1)	560-1¼ 513 (600-1¼)	560-1½ 513 (600-1½)	620-2 573 (600-2)

MELFA, VIRGINIA  
Amdt 1 18APR02

37°39'N-75°46'W

ACCOMACK COUNTY (MFV)  
**VOR/DME RWY 3**

WAAS CH <b>49002</b> <b>W17A</b>	APP CRS <b>175°</b>	Rwy Idg TDZE Apt Elev	<b>4488</b> <b>70</b> <b>70</b>
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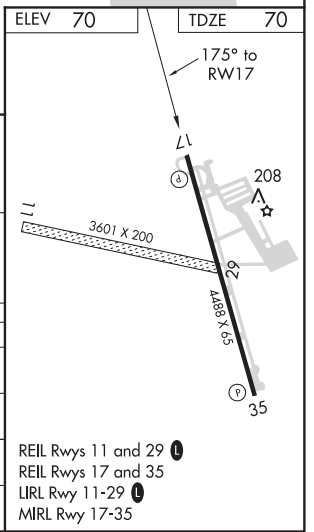
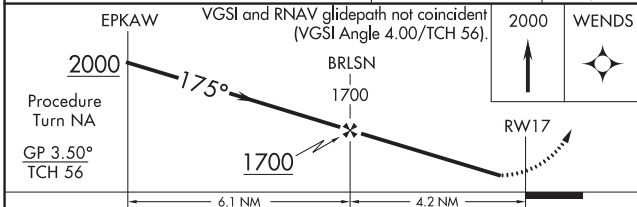
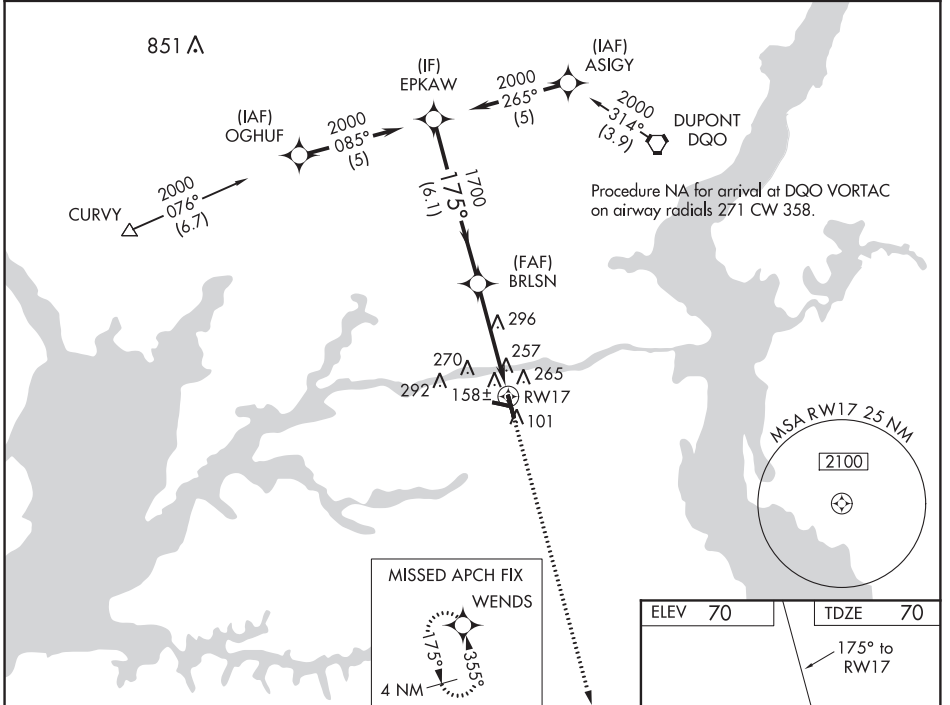
# RNAV (GPS) RWY 17

SUMMIT (E.V.Y)

**NA** Baro-VNAV NA when using Wilmington altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 47°C (116°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Wilmington altimeter setting and increase all DA 27 feet, all MDA 40 feet, and increase LNAV and Circling Cat C visibility 1/4 mile. Night Landing: Rwy 11, 17, 29 NA.

MISSED APPROACH: Climb to 2000 direct WENDS and hold.

AWOS-3 <b>132.325</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	CLNC DEL <b>125.3</b>	UNICOM <b>122.725</b> (CTAF)	<b>123.5</b> <b>0</b>
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CATEGORY	A	B	C	D
LPV DA	541-1½ 471 (500-1½)			NA
LNAV/VNAV DA	619-1¾ 549 (600-1¾)			NA
LNAV MDA	560-1	490 (500-1)	560-1¼ 490 (500-1¼)	NA
CIRCLING	660-1	590 (600-1)	660-1½ 590 (600-1½)	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

MIDDLETOWN, DELAWARE

AL-5392 (FAA)

15176

WAAS CH <b>40302</b> <b>W35A</b>	APP CRS <b>355°</b>	Rwy Idg TDZE Apt Elev	<b>4488</b> <b>70</b> <b>70</b>
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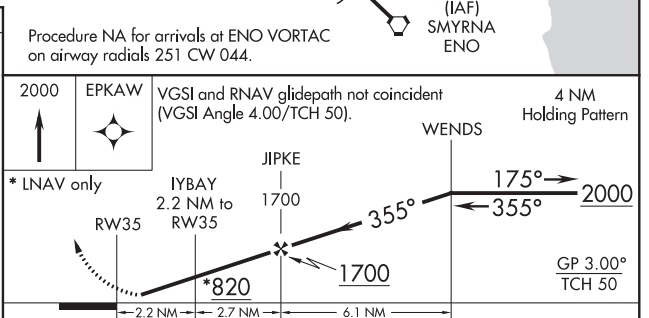
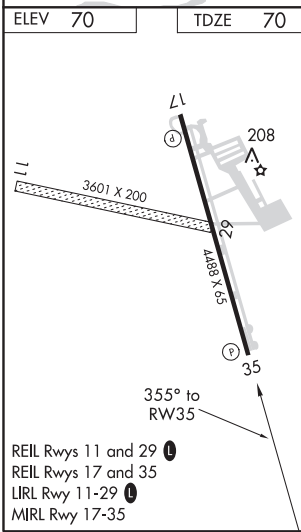
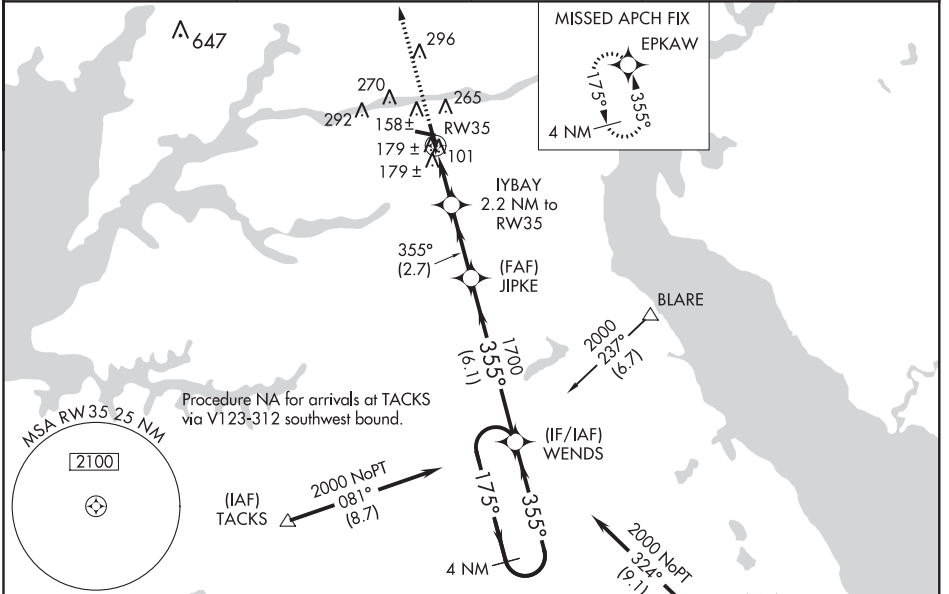
# RNAV (GPS) RWY 35

SUMMIT (E VY)

**V** Baro-VNAV NA when using Wilmington altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. Night Landing: Rwys 11, 17, 29 NA. When local altimeter setting not received, use Wilmington altimeter setting and increase all DA 27 feet and all MDA 40 feet; increase LNAV and Circling Cat C visibility 1/2 mile.

**NA** MISSED APPROACH: Climb to 2000 direct EPKAW and hold.

AWOS-3 <b>132.325</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	CLNC DEL <b>125.3</b>	UNICOM <b>122.725</b> (CTAF)	<b>123.5</b> <b>0</b>
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CATEGORY	A	B	C	D
LPV DA	320-1 250 (300-1)			
LNAV/VNAV DA	480-1½ 410 (500-1½)			
LNAV MDA	440-1 370 (400-1)			440-1¼ 370 (400-1¼)
CIRCLING	660-1 590 (600-1)		660-1½ 590 (600-1½)	

MIDDLETOWN, DELAWARE  
Amdt 1A 25JUN15

39° 31' N - 75° 43' W

# RNAV (GPS) RWY 35

SUMMIT (E VY)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



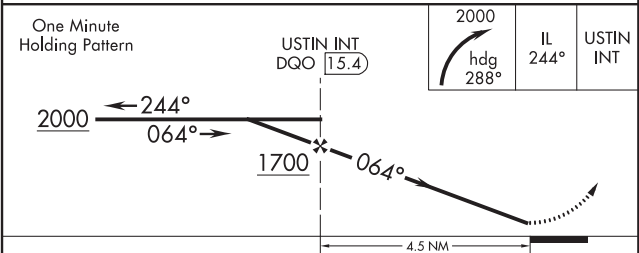
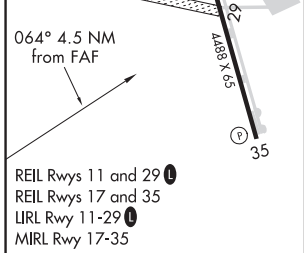
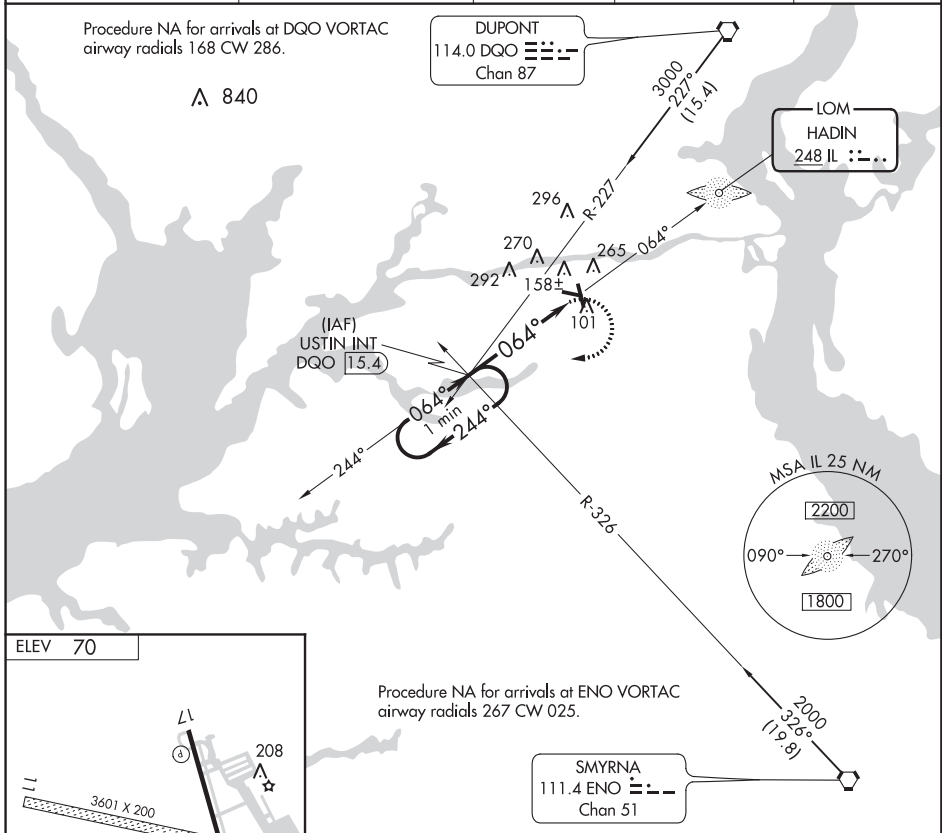
LOM IL <b>248</b>	APP CRS <b>064°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>70</b>
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**NDB-A**  
SUMMIT (E.V.Y)

**▼** Helicopter visibility reduction below 1 SM NA. Night Landing: Rwy 11, 17,  
**▲ NA** 29 NA. When local altimeter setting not received, use Wilmington altimeter setting and increase all MDA 40 feet and Circling Cat C visibility 1/4 mile.

**MISSED APPROACH:** Climbing right turn to 2000 on heading 288° and 244° bearing from HADIN LOM to USTIN INT/DGO 15.4 DME and hold, continue climb-in-hold to 2000.

AWOS-3 <b>132.325</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	CLNC DEL <b>125.3</b>	UNICOM <b>122.725</b> (CTAF)	<b>123.5</b> <b>①</b>
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FAF to MAP 4.5 NM						
Knots	60	90	120	150	180	
Min:Sec	4:30	3:00	2:15	1:48	1:30	
CATEGORY	A		B		C	D
CIRCLING	660-1		590 (600-1)		660-1½ 590 (600-1½)	660-2 590 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

MITCHELLVILLE, MARYLAND

AL-6997 (FAA)

13346

APP CRS <b>190°</b>	Rwy Idg <b>2420</b>
	THRE <b>168</b>
	Apt Elev <b>168</b>

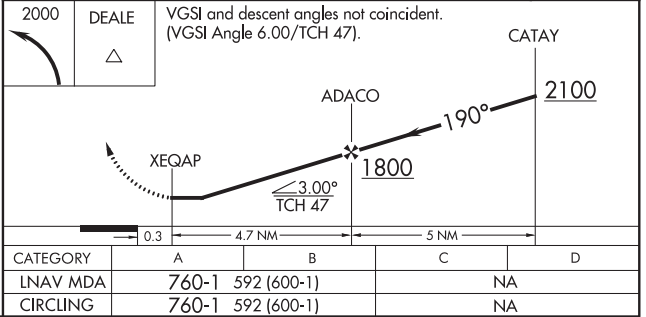
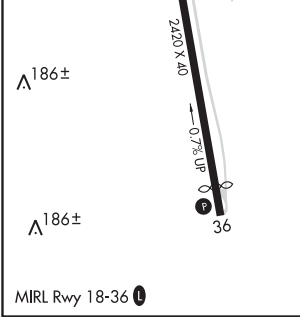
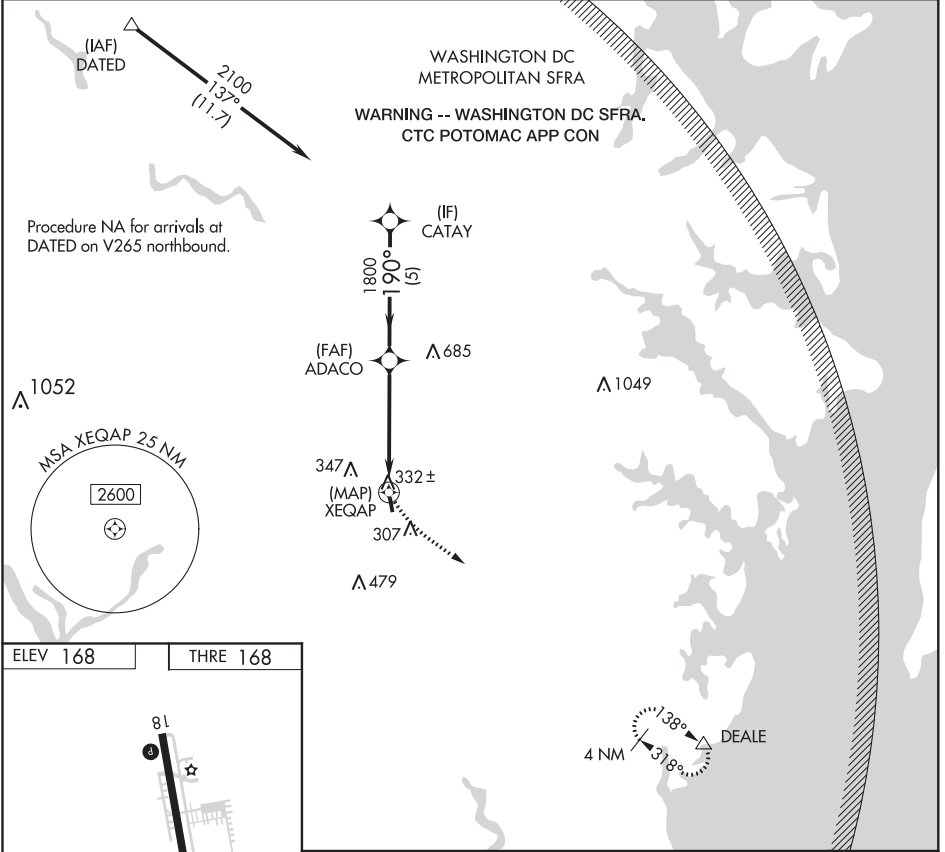
# RNAV (GPS) RWY 18

FREEWAY (W00)

**▼** Use Fort Meade (Odenton) altimeter setting; when not received, use College Park altimeter setting and increase all MDA 20 feet. Procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

**▲ NA** MISSED APPROACH: Climbing left turn to 2000 direct DEALE and hold.

TIPTON AWOS-3 <b>123,925</b>	POTOMAC APP CON <b>128.0 335.5</b>	UNICOM <b>123.075 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

MITCHELLVILLE, MARYLAND  
Amdt 1 15NOV12

38°56'N - 76°46'W

# RNAV (GPS) RWY 18

FREEWAY (W00)

APP CRS	Rwy Idg	<b>2190</b>
<b>344°</b>	THRE	<b>168</b>
	Apt Elev	<b>168</b>

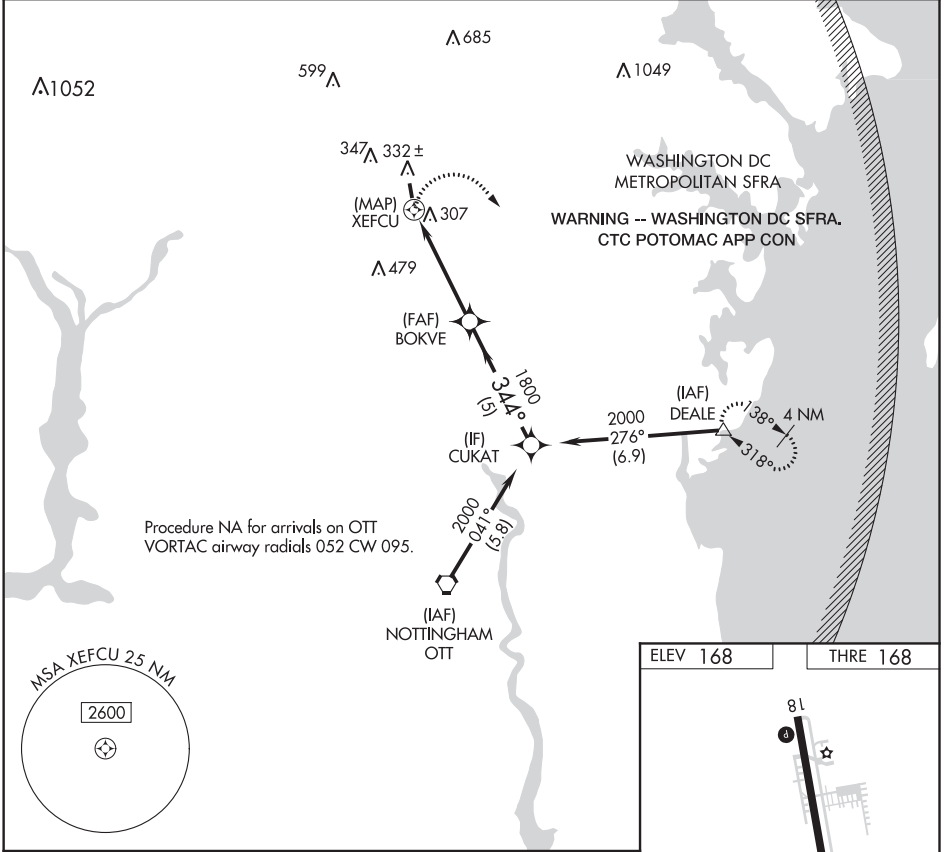
# RNAV (GPS) RWY 36

FREEWAY (W00)

**▼** Use Fort Meade (Odenton) altimeter setting; when not received, use College Park altimeter setting and increase all MDA 20 feet. DME/DME RNP-0.3 NA.  
**▲ NA** Procedure NA at night. Visibility reduction by helicopters NA.

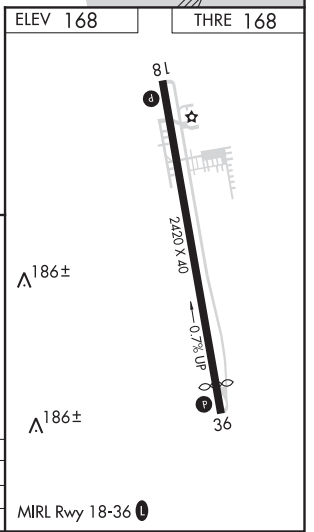
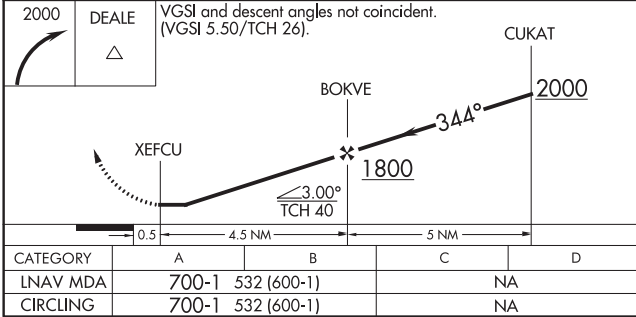
MISSED APPROACH: Climbing right turn to 2000 direct DEALE and hold.

TIPTON AWOS-3 <b>123,925</b>	POTOMAC APP CON <b>128.0 335.5</b>	UNICOM <b>123.075 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



MONETA, VIRGINIA

AL-6865 (FAA)

15232

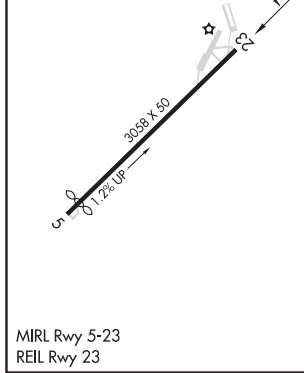
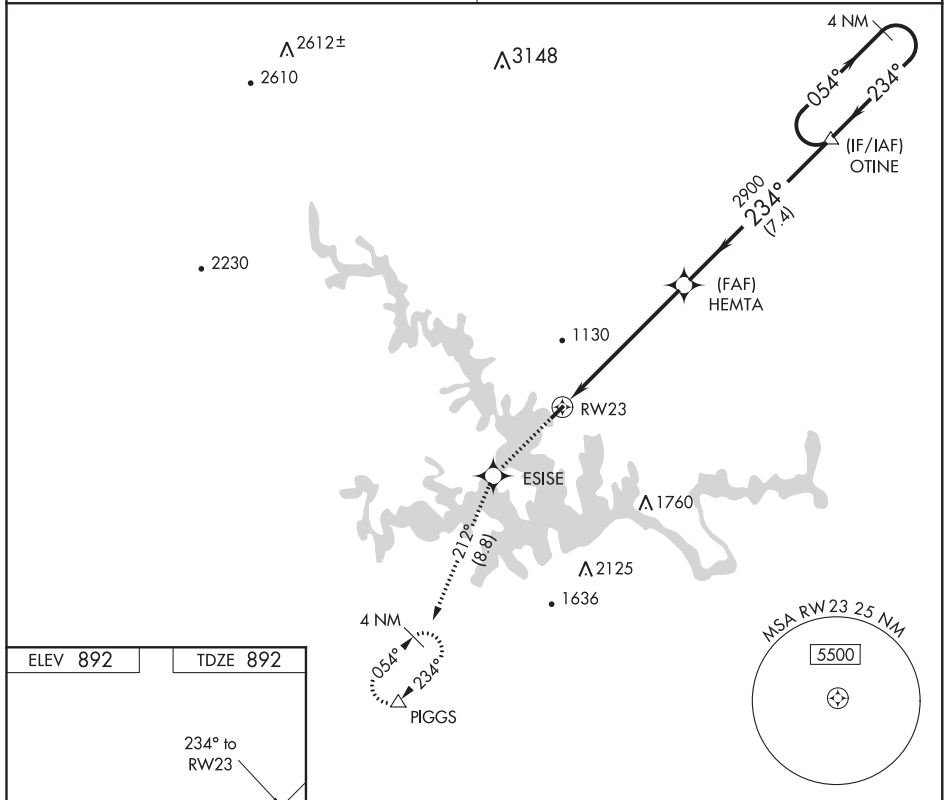
APP CRS <b>234°</b>	Rwy Idg <b>3058</b>
	TDZE <b>892</b>
	Apt Elev <b>892</b>

# RNAV (GPS) RWY 23

SMITH MOUNTAIN LAKE (W91)

<p><b>NA</b></p> <p>DME/DME RNP-0.3 NA. Use Lynchburg altimeter setting; when not received, use Roanoke altimeter setting and increase all MDA 40 feet. Procedure NA at night. Helicopter visibility reduction below 1 SM NA.</p>	<p>MISSED APPROACH: Climb to 4000 direct ESISE and on track 212° to PIGGS and hold.</p>
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<p>ROANOKE APP CON</p> <p><b>135.0 254.32</b></p>	<p>UNICOM</p> <p><b>122.975 (CTAF)</b></p>
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4000	ESISE	PIGGS	Descent angle NA.	4 NM Holding Pattern
↑	✧	tr 212°		
		△		
RWY 23		HEMTA	OTINE	3000
6.2 NM		7.4 NM	054°	← 234°
CATEGORY	A	B	C	D
LNAV MDA	1900-3	1008 (1100-3)	NA	
CIRCLING	1900-3	1008 (1100-3)	NA	

MONETA, VIRGINIA  
Orig-B 20AUG15

37°06'N-79°36'W

# SMITH MOUNTAIN LAKE (W91)

## RNAV (GPS) RWY 23

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>063°</b>	Rwy Idg TDZE Apt Elev	<b>NA</b> <b>NA</b> <b>963</b>
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# RNAV (GPS)-A

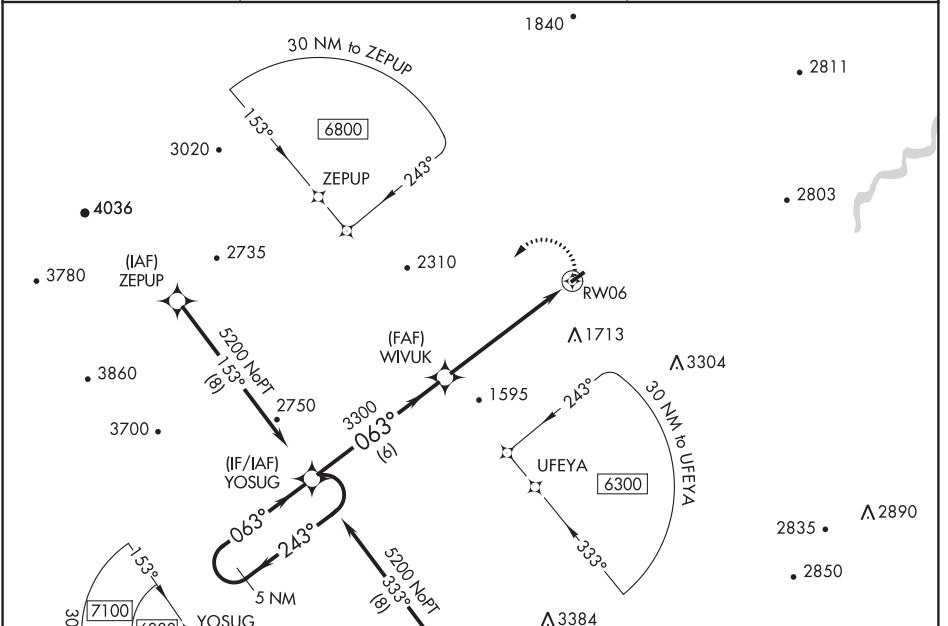
NEW MARKET (8W2)

**⚠** DME/DME RNP-0.3 NA. Procedure NA at night. Visibility reduction by helicopters NA. When local altimeter setting not received, Use Staunton/Waynesboro/Harrisonburg altimeter setting and increase all MDA 100 feet.

**❄** -24°C/-11°F

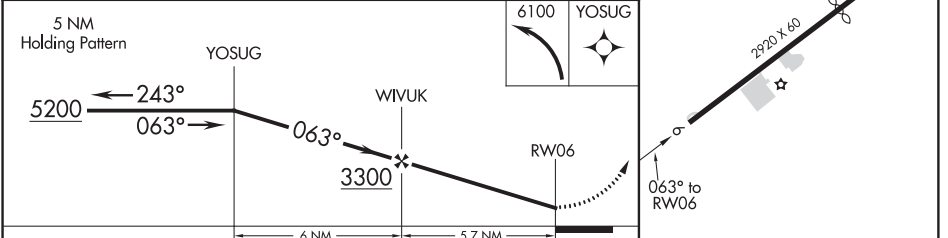
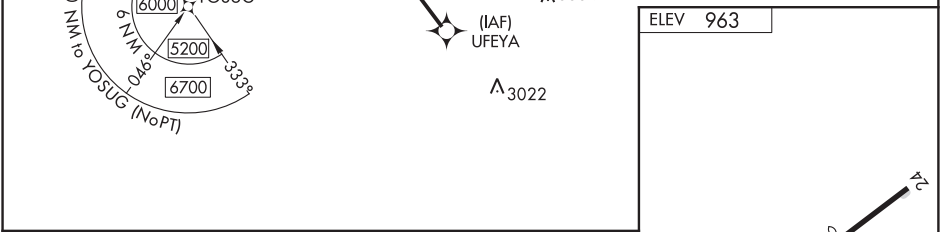
**MISSED APPROACH:** Climbing left turn to 6100 direct YOSUG and hold, continue climb-in-hold to 6100.

AWOS-3 <b>118.175</b>	WASHINGTON CENTER <b>133.2 282.2</b>	UNICOM <b>122.8</b> (CTAF)
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	NA	D
<b>C</b> CIRCLING	1980-3	1017 (1100-3)		NA	

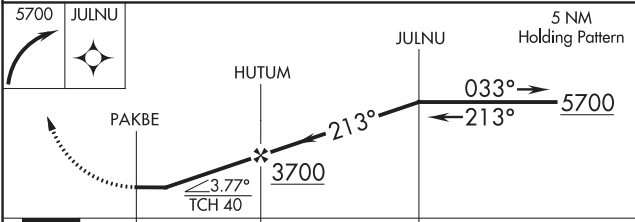
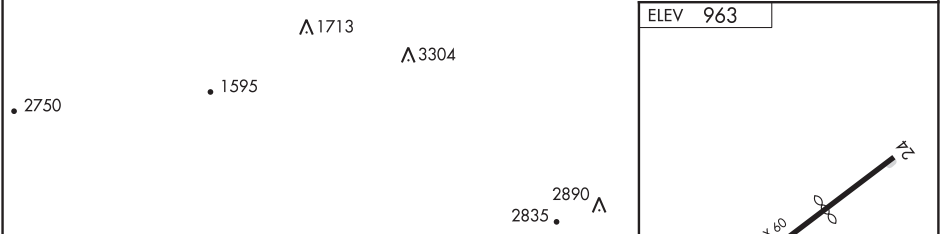
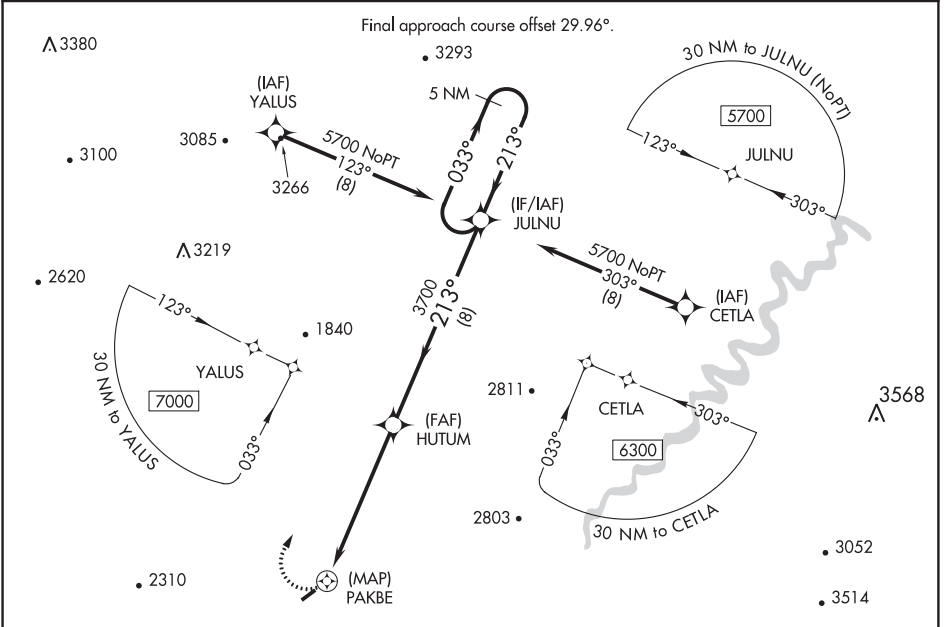
LIRL Rwy 6-24

APP CRS <b>213°</b>	Rwy Idg TDZE Apt Elev	<b>NA</b> <b>NA</b> <b>963</b>
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**RNAV (GPS)-B**  
NEW MARKET (8W2)

<p><b>▼</b> DME/DME RNP-0.3 NA. Procedure NA at night. Visibility reduction by helicopters NA. When local altimeter setting not received, use Staunton/Waynesboro/Harrisonburg altimeter setting and increase all MDA 100 feet.</p>	<p><b>▲</b> MISSED APPROACH: Climbing right turn to 5700 direct JULNU and hold, continue climb-in-hold to 5700.</p>
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AWOS-3 <b>118.175</b>	WASHINGTON CENTER <b>133.2 282.2</b>	UNICOM <b>122.8</b> (CTAF)
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CATEGORY	A	B	C	D
<b>☉</b> CIRCLING	1980-3	1017 (1100-3)	NA	

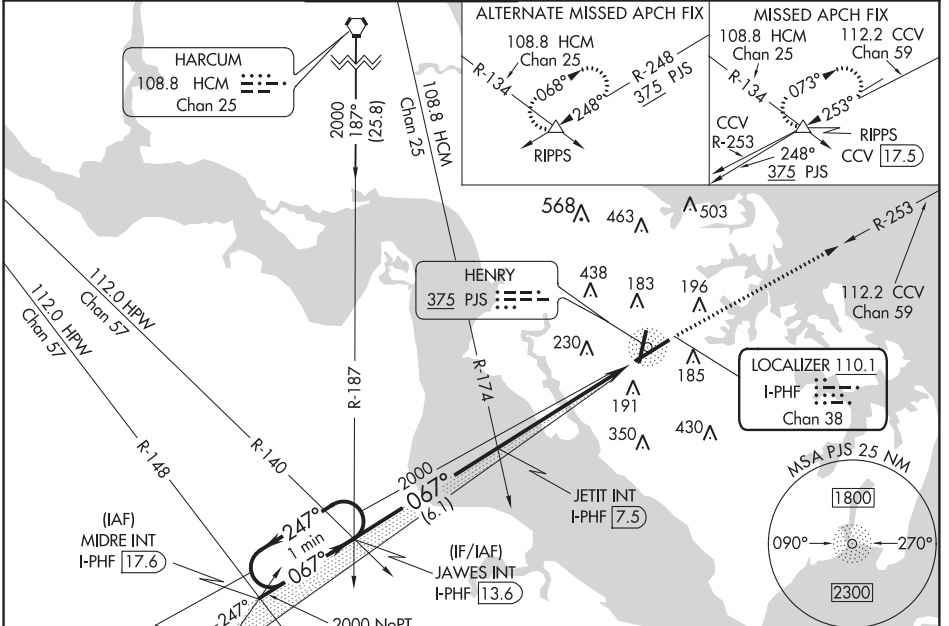
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

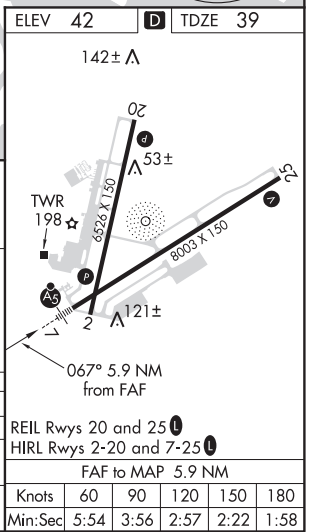
LOC/DME I-PHF <b>110.1</b> Chan 38	APP CRS <b>067°</b>	Rwy Idg <b>8003</b> TDZE <b>39</b> Apt Elev <b>42</b>
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**ILS or LOC RWY 7**  
NEWPORT NEWS/WILLIAMSBURG INTL (PHF)

<b>V</b> VDP NA with Norfolk Intl altimeter setting. When Local altimeter not received, use Norfolk Intl altimeter setting and increase all DA 49 feet and all MDA 60 feet; increase S-LOC 7 Cat C visibility to RVR 5000. When VGSI inop Circling to Rwy 20 NA at night.	<b>MALSR</b> 	<b>MISSED APPROACH:</b> Climb to 2500 on heading 067° and on CCV VORTAC R-253 to RIPPS INT/CCV 17.5 DME and hold.			
ATIS <b>128.65</b>	NORFOLK APP CON <b>125.7</b>	<b>NEWPORT NEWS TOWER*</b> <b>118.7 (CTAF) 257.9</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.65 225.4</b>	UNICOM <b>122.95</b>



One Minute Holding Pattern	JAWES INT I-PHF 13.6	JETIT INT I-PHF 7.5	2500 hdg 067°	CCV R-253	RIPPS △
2000 ← 247°	2000 → 067°	2000 ↘ 247°	*I-PHF 2.8	I-PHF 1.6	
GS 3.00° TCH 51	6.1 NM	4.7 NM	1.2 NM		
CATEGORY	A	B	C	D	
S-ILS 7	290/40 251 (300-¾)				
S-LOC 7	480/24	441 (500-½)	480/40 441 (500-¾)	480/50 441 (500-1)	
CIRCLING	520-1	478 (500-1)	520-1½ 478 (500-1½)	600-2 558 (600-2)	



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

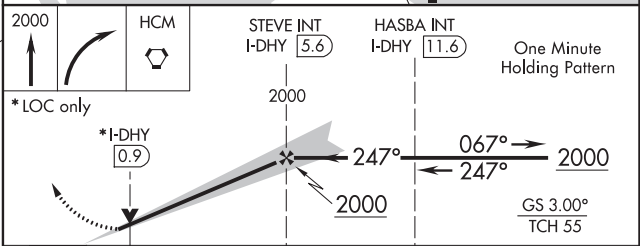
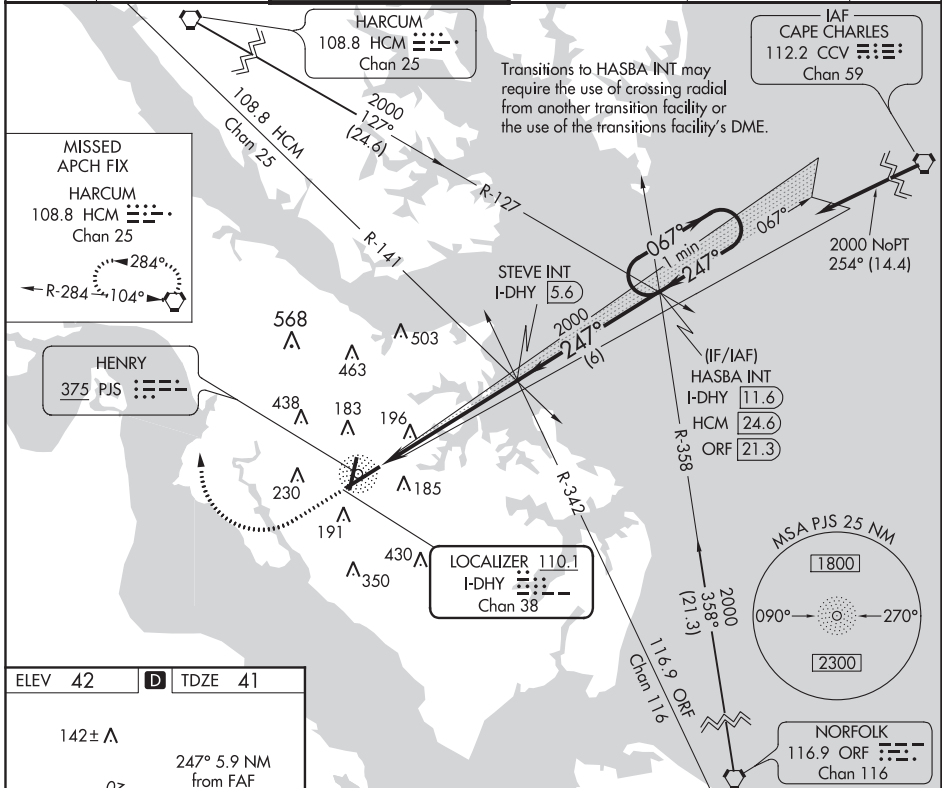
LOC/DME I-DHY <b>110.1</b> Chan <b>38</b>	APP CRS <b>247°</b>	Rwy Idg TDZE Apt Elev	<b>8003</b> <b>41</b> <b>42</b>
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**ILS or LOC RWY 25**  
NEWPORT NEWS/WILLIAMSBURG INTL (PHF)

**⚠** VDP NA with Norfolk Intl altimeter setting. When local altimeter setting not received, use Norfolk Intl altimeter setting: increase all DA 49 feet, increase all MDA 60 feet.  
**⚠** When VGSi inop Circling to Rwy 20 NA at night.

MISSED APPROACH: Climb to 2000 then first turn direct HCM VORTAC and hold.

ATIS <b>128.65</b>	NORFOLK APP CON <b>125.7</b>	NEWPORT NEWS TOWER ★ <b>118.7</b> (CTAF) <b>257.9</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.65 225.4</b>	UNICOM <b>122.95</b>
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REIL Rws 20 and 25  
HIRL Rws 2-20 and 7-25  
FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

CATEGORY	A	B	C	D
S-ILS 25	241- <sup>3</sup> / <sub>4</sub> 200 (200- <sup>3</sup> / <sub>4</sub> )			
S-LOC 25	480-1	439 (500-1)	480-1 <sup>1</sup> / <sub>2</sub> 439 (500-1 <sup>1</sup> / <sub>2</sub> )	480-1 <sup>1</sup> / <sub>2</sub> 439 (500-1 <sup>1</sup> / <sub>2</sub> )
CIRCLING	520-1	478 (500-1)	520-1 <sup>1</sup> / <sub>2</sub> 478 (500-1 <sup>1</sup> / <sub>2</sub> )	600-2 558 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>61020</b> <b>W02A</b>	APP CRS <b>022°</b>	Rwy Idg TDZE Apt Elev	<b>6526</b> <b>38</b> <b>42</b>
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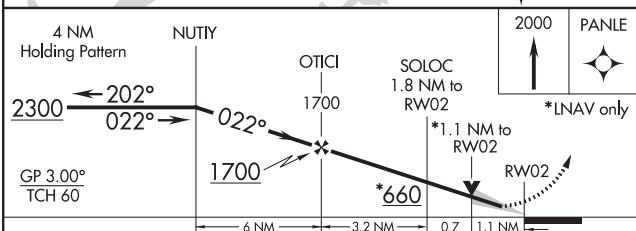
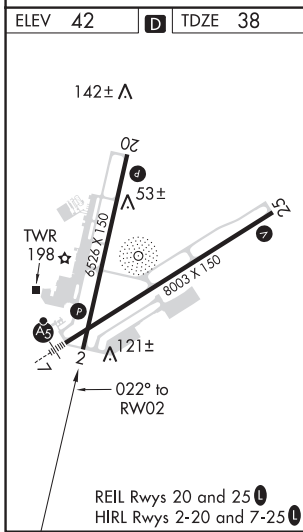
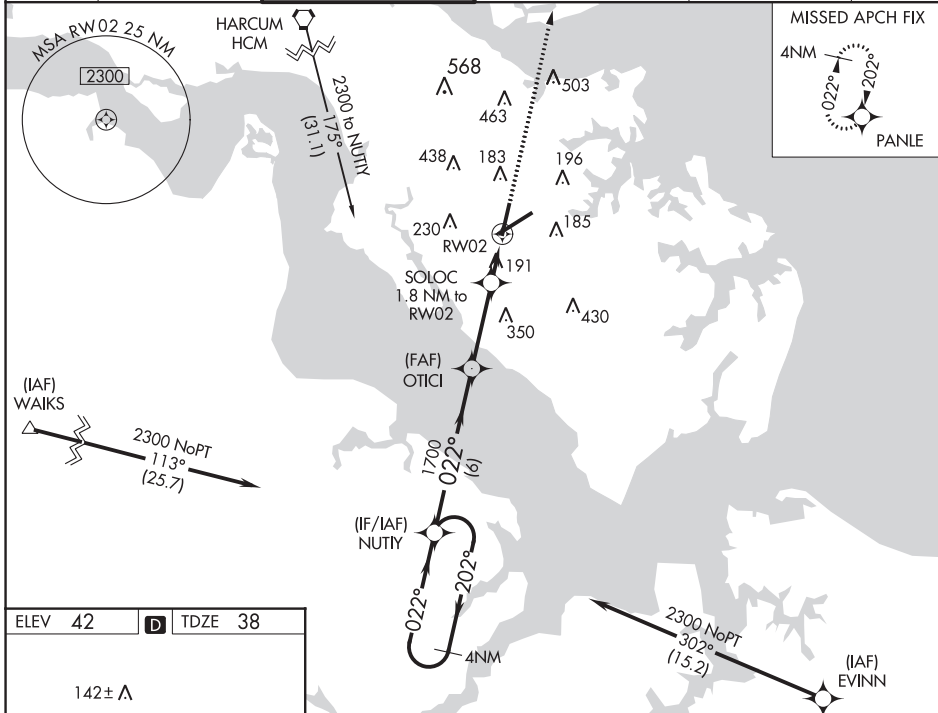
# RNAV (GPS) RWY 2

NEWPORT NEWS/WILLIAMSBURG INTL (PHF)

▼ Baro-VNAV NA when using Norfolk Intl 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 with Norfolk Intl altimeter setting. When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all DA 49 feet and all MDA 60 feet and increase LNAV/VNAV all Cats and LNAV Cat D visibility ¼ mile. When VGSi inop, Circling to Rwy 20 is NA at night.

MISSED APPROACH: Climb to 2000 direct PANLE and hold.

ATIS <b>128.65</b>	NORFOLK APP CON <b>125.7</b>	NEWPORT NEWS TOWER★ <b>118.7</b> (CTAF) <b>0 257.9</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.65 225.4</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA	241-1 203 (200-1)			
LNAV/DA VNAV	476-1½ 438 (500-1½)			
LNAV MDA	460-1	422 (500-1)	460-1¼	422 (500-1¼)
CIRCLING	520-1	478 (500-1)	520-1½ 478 (500-1½)	600-2 558 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

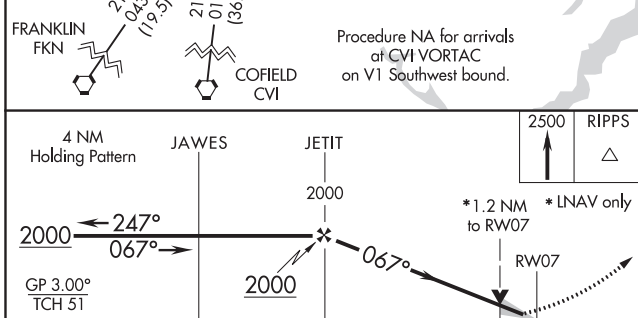
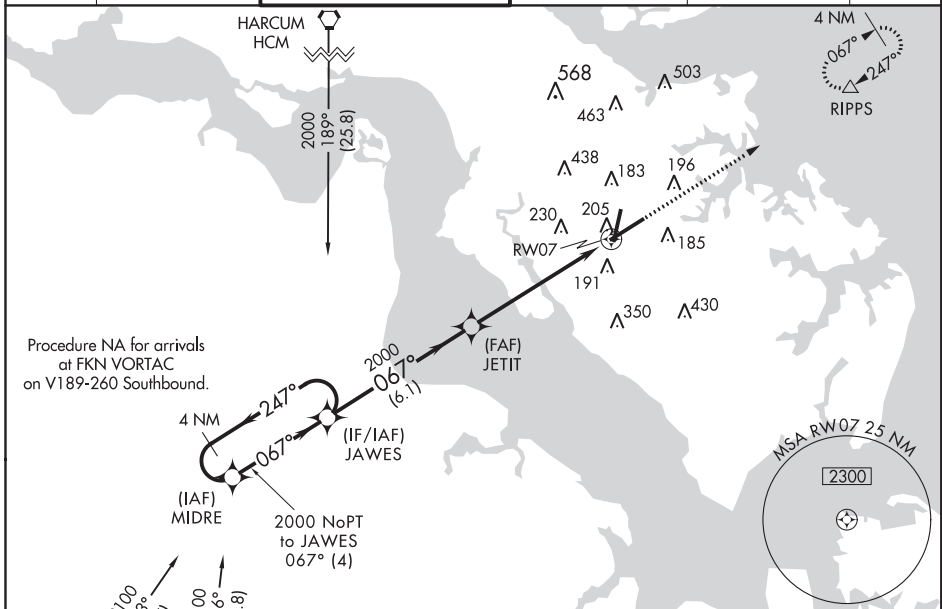
WAAS CH <b>45607</b> <b>W07A</b>	APP CRS <b>067°</b>	Rwy Idg <b>8003</b> TDZE <b>39</b> Apt Elev <b>42</b>
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# RNAV (GPS) RWY 7

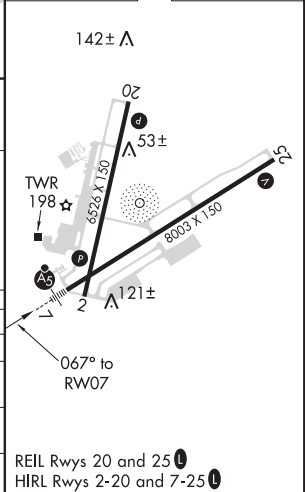
NEWPORT NEWS / WILLIAMSBURG INTL (PHF)

<p><b>▼</b> DME/DME RNP -0.3 NA. When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all DA 49 feet and all MDA 60 feet; Increase LNAV/VNAV all Cais visibility to RVR 6000, increase LNAV Cat C visibility to RVR 5000. VDP and Baro-VNAV NA with Norfolk altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F).</p>	<p>MALSRS </p>	<p><b>MISSED APPROACH:</b> Climb to 2500 direct RIPPSS and hold.</p>
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<p>ATIS <b>128.65</b></p>	<p>NORFOLK APP CON <b>125.7</b></p>	<p>NEWPORT NEWS TOWER ★ <b>118.7</b> (CTAF) <b>257.9</b></p>	<p>GND CON <b>121.9 348.6</b></p>	<p>CLNC DEL <b>121.65 225.4</b></p>	<p>UNICOM <b>122.95</b></p>
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ELEV 42	<b>D</b> TDZE 39
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CATEGORY	A	B	C	D
LPV DA		239/24	200 (200-½)	
LNAV/VNAV DA		474/50	435 (500-1)	
LNAV MDA	480/24	441 (500-½)	480/40 441 (500-¾)	480/50 441 (500-1)
CIRCLING	520-1	478 (500-1)	520-1½ 478 (500-1½)	600-2 558 (600-2)

# RNAV (GPS) RWY 7

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NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH 97420 <b>W20A</b>	APP CRS <b>202°</b>	Rwy Idg TDZE Apt Elev	<b>6526</b> <b>42</b> <b>42</b>
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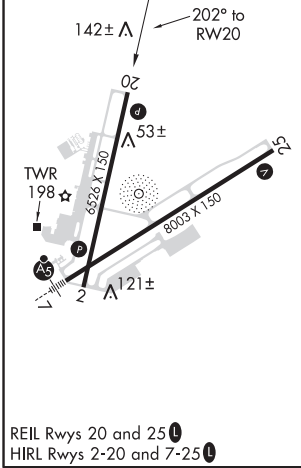
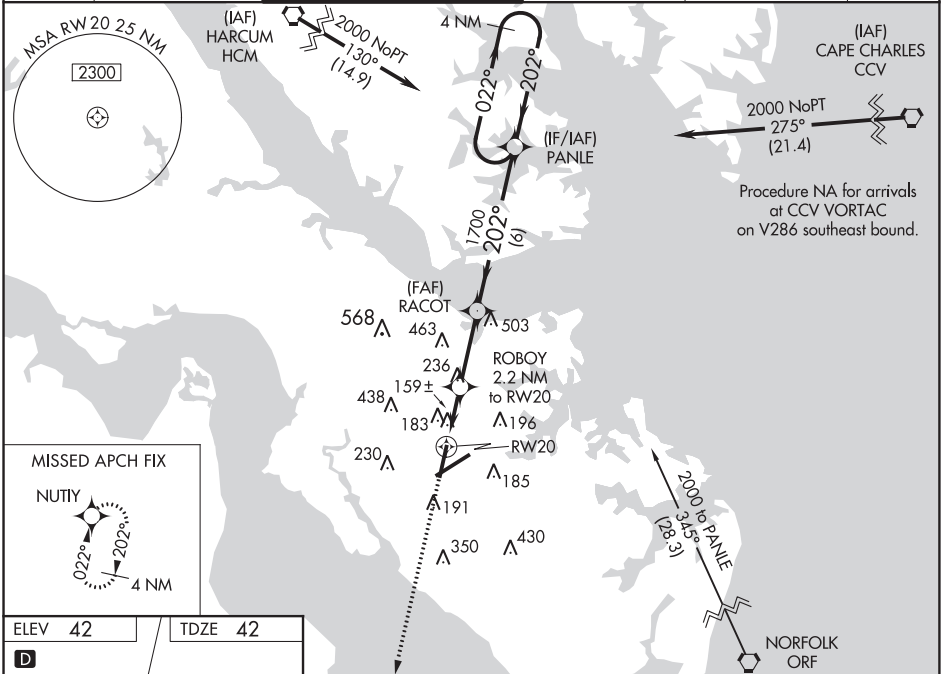
# RNAV (GPS) RWY 20

NEWPORT NEWS/WILLIAMSBURG INTL (PHF)

**⚠** Baro-VNAV NA when using Norfolk Intl 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. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all DA 49 feet and all MDA 60 feet and increase LNAV/VNAV all Cats and LNAV Cats C/D visibility ¼ mile. When Rwy 20 VGSI inop, Straight-in and Circling minimums NA at night.

**MISSED APPROACH:**  
Climb to 2300 direct NUTTY and hold.

ATIS <b>128.65</b>	NORFOLK APP CON <b>125.7</b>	NEWPORT NEWS TOWER ★ <b>118.7(CTAF) 0 257.9</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.65 225.4</b>	UNICOM <b>122.95</b>
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ELEV 42	TDZE 42			
2300 NUTTY	PANLE 4 NM Holding Pattern			
* LNAV only	ROBOY to 2.2 NM to RWY 20			
RWY 20	RACOT 1700			
780*	1700			
2.2 NM	2.8 NM			
6 NM	2000			
GP 3.00° TCH 42				
CATEGORY	A	B	C	D
LPV DA	379-1¼ 337 (400-1¼)			
LNAV/VNAV DA	474-1½ 432 (500-1½)			
LNAV MDA	440-1 398 (400-1)			440-1¼ 398 (400-1¼)
CIRCLING	520-1 478 (500-1)	520-1½ 478 (500-1½)		600-2 558 (600-2)

NEWPORT NEWS, VIRGINIA  
Amdt 2A 17OCT13

NEWPORT NEWS/WILLIAMSBURG INTL (PHF)  
37°08'N-76°30'W  
**RNAV (GPS) RWY 20**  
273

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NE-3, 10 NOV 2016 to 05 JAN 2017

NEWPORT NEWS, VIRGINIA

AL-957 (FAA)

16119

WAAS CH <b>45510</b> <b>W25A</b>	APP CRS <b>247°</b>	Rwy Idg <b>8003</b> TDZE <b>41</b> Apt Elev <b>42</b>
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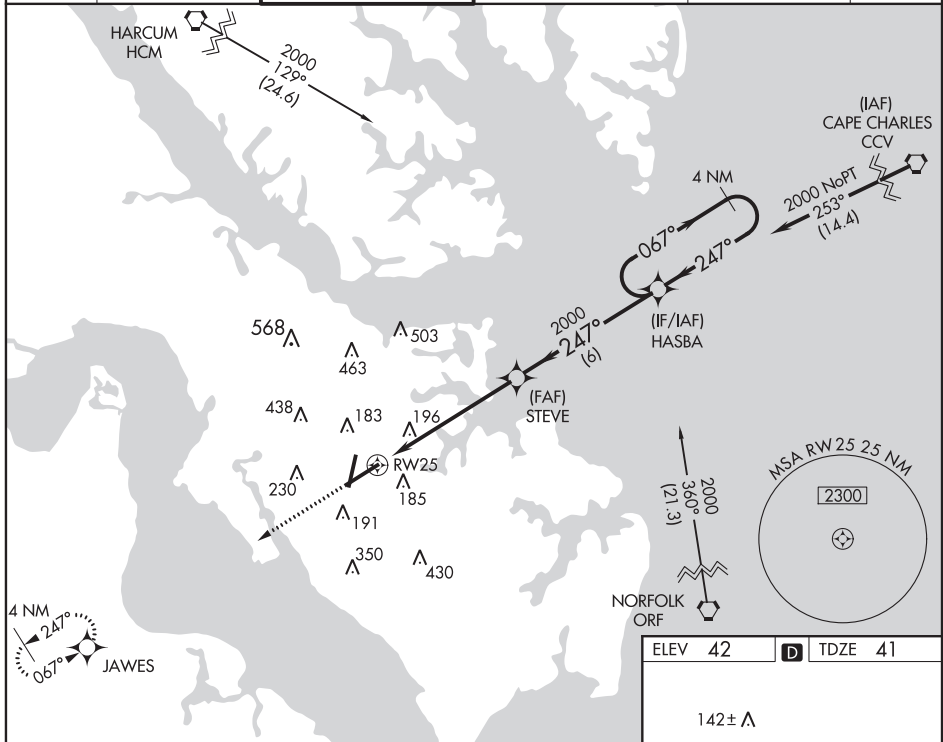
# RNAV (GPS) RWY 25

NEWPORT NEWS/WILLIAMSBURG INTL (PHF')

**▼** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all DA 49 feet and all MDA 60 feet; increase LNAV/VNAV all Cats visibility ¼ mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 49°C (120°F). Baro-VNAV and VDP NA with Norfolk Intl altimeter setting. When VGSI inop, Circling to Rwy 20 NA at night.

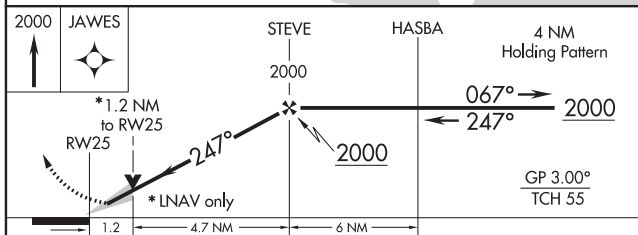
**▲** MISSED APPROACH: Climb to 2000 direct JAWES and hold.

ATIS <b>128.65</b>	NORFOLK APP CON <b>125.7</b>	<b>NEWPORT NEWS TOWER*</b> <b>118.7(CTAF) 0 257.9</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.65 225.4</b>	UNICOM <b>122.95</b>
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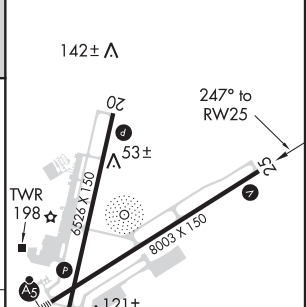


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 42	D	TDZE 41
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CATEGORY	A	B	C	D
LPV DA	241 - 3/4 200 (200 - 3/4)			
LNAV/VNAV DA	487 - 1 1/2 446 (500 - 1 1/2)			
LNAV MDA	480-1 439 (500-1)	480-1 1/4 439 (500-1 1/4)		480-1 1/2 439 (500-1 1/2)
CIRCLING	520-1 478 (500-1)	520-1 1/2 478 (500-1 1/2)		600-2 558 (600-2)

REIL Rwy 20 and 25  
HIRL Rwy 2-20 and 7-25

NEWPORT NEWS, VIRGINIA  
Amdt 2B 28APR16

NEWPORT NEWS/WILLIAMSBURG INTL (PHF')  
37°08'N-76°30'W

# RNAV (GPS) RWY 25

LOC/DME I-FJQ <b>109.3</b> Chan <b>30</b>	APP CRS <b>202°</b>	Rwy Idg <b>6526</b> TDZE <b>42</b> Apt Elev <b>42</b>
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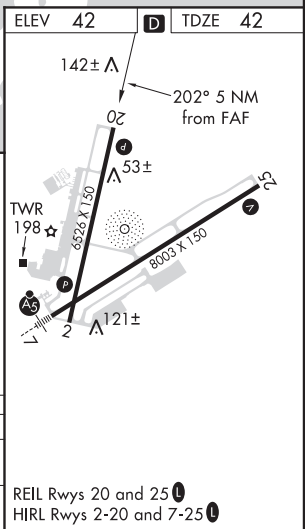
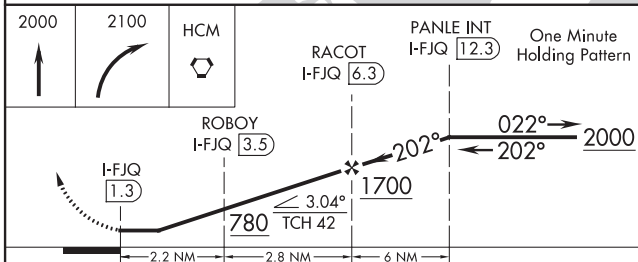
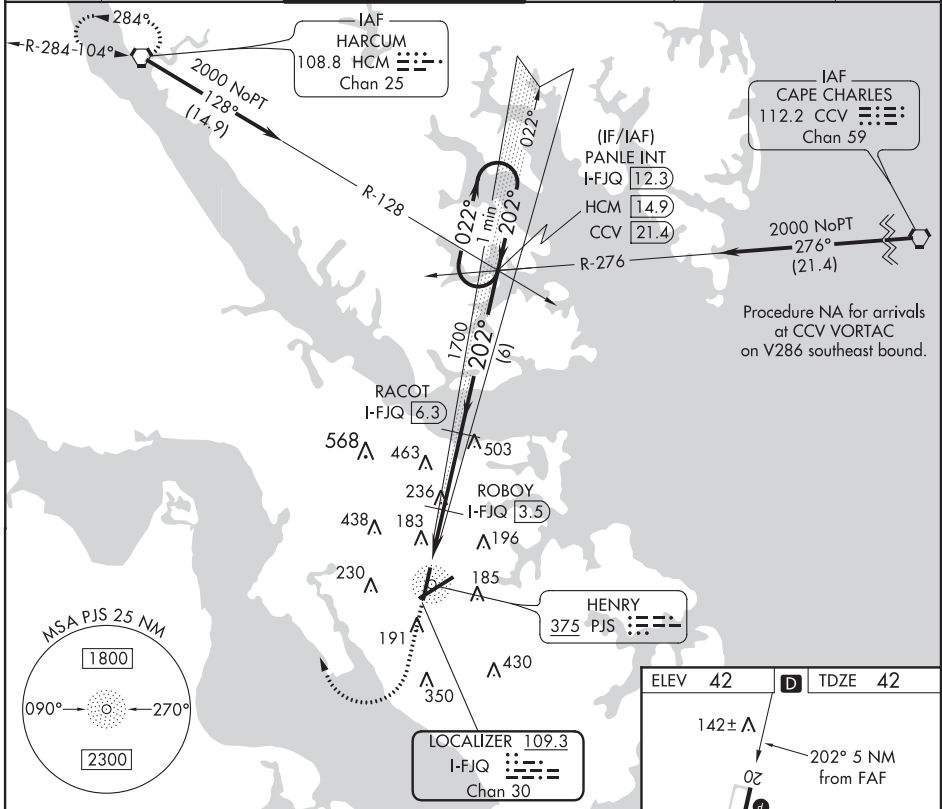
# LOC/DME RWY 20

NEWPORT NEWS/WILLIAMSBURG INTL (PHF)

▼ Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Norfolk Intl altimeter setting: increase all MDA 60 feet and  
 ▲ S-20 visibility Cat C/D 1/4 mile. When Rwy 20 VGSI inop, Circling to Rwy 20 NA at night.

MISSED APPROACH: Climb to 2000 then right turn direct HCM VORTAC and hold.

ATIS <b>128.65</b>	NORFOLK APP CON <b>125.7</b>	NEWPORT NEWS TOWER* <b>118.7</b> (CTAF) <b>0 257.9</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.65 225.4</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
S-20	420-1 378 (400-1)			420-1 1/4 378 (400-1 1/4)
CIRCLING	520-1	478 (500-1)	520-1 1/2 478 (500-1 1/2)	600-2 558 (600-2)

REIL Rwy 20 and 25  
 HIRL Rwy 2-20 and 7-25

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

## NEWPORT NEWS/WILLIAMSBURG INTL (PHF)

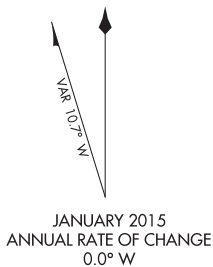
AL-957 (FAA)

NEWPORT NEWS, VIRGINIA

ATIS  
128.65  
NEWPORT NEWS TOWER \*  
118.7 257.9  
GND CON  
121.9 348.6  
CLNC DEL  
121.65 225.4

D

37°09'N



FIELD  
ELEV  
42

RWY 02-20  
PCN 68 R/C/W/T  
S-100, D-200, 2S-175, 2D-350

RWY 07-25  
PCN 73 R/B/W/T  
S-100, D-200, 2S-175, 2D-350

ELEV  
39

GENERAL AVIATION  
PARKING

37°08'N

TWR  
198

LAHSO

LAHSO

HOLD LINE  
RWY 7

ELEV  
37

ELEV  
37

SOUTH  
CORPORATE  
RAMP

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

76°30'W

76°29'W

37°07'N

# AIRPORT DIAGRAM

## NEWPORT NEWS, VIRGINIA NEWPORT NEWS/WILLIAMSBURG INTL (PHF)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(HENRY3.PHF) 16147

# HENRY THREE DEPARTURE

NEWPORT NEWS/WILLIAMSBURG INTL (PHF)  
NEWPORT NEWS, VIRGINIA

SL-957 (FAA)

ATIS  
128.65  
CLNC DEL  
121.65 225.4  
GND CON  
121.9 348.6  
NEWPORT NEWS TOWER ★  
118.7 257.9 348.6  
NORFOLK DEP CON  
124.9 335.625

SALISBURY  
111.2 SBY   
Chan 49  
N38°20.70'-W75°30.64'  
L-34-36, H-10-12

SNOW HILL  
112.4 SWL   
Chan 71  
N38°03.40'-W75°27.83'  
L-36, H-10-12

FLAT ROCK  
113.3 FAK   
Chan 80  
N37°31.71'-W77°49.69'  
L-36, H-10-12

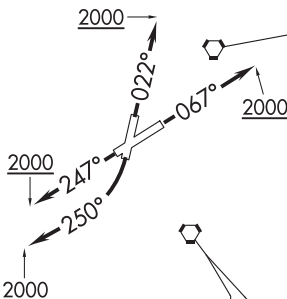
HARCUM  
108.8 HCM   
Chan 25  
N37°26.92'-W76°42.68'  
L-34-36, H-10-12

JAMIE  
N37°36.34'  
W75°57.81'  
L-36

HOPEWELL  
112.0 HPW   
Chan 57  
N37°19.73'-W77°06.96'  
L-34-36, H-10-12

CAPE CHARLES  
112.2 CCV   
Chan 59  
N37°20.85'-W75°59.86'  
L-35-36, H-10-12

WAKS  
N37°03.03'  
W77°04.13'  
L-36, H-10-12



NORFOLK  
116.9 ORF   
Chan 116  
N36°53.51'-W76°12.02'  
L-35-36, H-10-12

## TAKEOFF MINIMUMS

Rwys 2, 7, 20, 25: Standard.

NOTE: RADAR required.

NOTE: Chart not to scale.

(NOTES CONTINUED ON FOLLOWING PAGE)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb heading 022° to 2000, thence . . .

TAKEOFF RUNWAY 7: Climb heading 067° to 2000, thence . . .

TAKEOFF RUNWAY 20: Climbing right turn to 2000 on heading 250°, thence . . .

TAKEOFF RUNWAY 25: Climb heading 247° to 2000, thence . . .

. . . on vectors to assigned route/fix. Expect clearance to requested altitude 10 minutes after departure.

# HENRY THREE DEPARTURE

(HENRY3.PHF) 26MAY16

NEWPORT NEWS, VIRGINIA  
NEWPORT NEWS/WILLIAMSBURG INTL (PHF)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(HENRY3.PHF) 16147

## HENRY THREE DEPARTURE

NEWPORT NEWS/WILLIAMSBURG INTL (PHF)

SL-957 (FAA)

NEWPORT NEWS, VIRGINIA

## TAKEOFF OBSTACLE NOTES:

- Rwy 2: REIL 15' from DER, 150' left of centerline, 43' MSL.  
 Tree and airport sign beginning 21' from DER, 259' left of centerline, up to 50' MSL.  
 Trees beginning 45' from DER, 386' right of centerline, up to 51' MSL.  
 Trees beginning 212' from DER, 375' right of centerline, up to 53' MSL.  
 Tree 366' from DER, 597' right of centerline, 55' MSL.  
 Tree 439' from DER, 487' right of centerline, 56' MSL.  
 Tree 689' from DER, 652' right of centerline, 60' MSL.  
 Pole 840' from DER, 625' left of centerline, 78' MSL.  
 Poles beginning 840' from DER, 522' left of centerline, up to 37' AGL/80' MSL.  
 Trees beginning 898' from DER, 723' right of centerline, up to 124' MSL.  
 Tree and pole beginning 935' from DER, 427' left of centerline, up to 131' MSL.  
 Trees beginning 1067' from DER, 253' right of centerline, up to 135' MSL.  
 Tree and pole beginning 1183' from DER, 498' right of centerline, up to 140' MSL.  
 Trees beginning 1399' from DER, 428' left of centerline, up to 150' MSL.  
 Trees beginning 1629' from DER, 413' right of centerline, up to 151' MSL.  
 Tree and T-L tower beginning 1704' from DER, 47' left of centerline, up to 156' MSL.  
 T-L towers and trees beginning 3347' from DER, 5' left of centerline, up to 163' MSL.
- Rwy 7: Signs beginning 55' from DER, 282' left of centerline, up to 8' AGL/42' MSL.  
 Tree 368' from DER, 588' left of centerline, 73' MSL.  
 Tree 1557' from DER, 906' right of centerline, 95' MSL.  
 Trees beginning 1557' from DER, 904' right of centerline, up to 96' MSL.  
 Tree 2279' from DER, 932' right of centerline, 99' MSL.  
 Trees beginning 2477' from DER, 909' right of centerline, up to 110' MSL.  
 Tree 3535' from DER, 1395' left of centerline, 140' MSL.  
 Trees beginning 3535' from DER, 1291' left of centerline, up to 141' MSL.  
 Trees beginning 3884' from DER, 965' left of centerline, up to 144' MSL.  
 Trees beginning 3927' from DER, 315' left of centerline, up to 147' MSL.  
 Trees beginning 3958' from DER, 235' left of centerline, up to 153' MSL.  
 Tree 4288' from DER, 454' right of centerline, 154' MSL.  
 T-L towers beginning 5621' from DER, 1337' left of centerline, up to 189' MSL.
- Rwy 20: Airport sign 41' from DER, 310' right of centerline, 39' MSL.  
 Bush 96' from DER, 290' left of centerline, 52' MSL.  
 Trees beginning 1038' from DER, 489' left of centerline, up to 90' MSL.  
 Trees beginning 2779' from DER, 1002' right of centerline, up to 111' MSL.
- Rwy 25: Tree 357' from DER, 563' right of centerline, 48' MSL.  
 Tree 539' from DER, 594' right of centerline, 59' MSL.  
 Trees beginning 623' from DER, 550' right of centerline, up to 71' MSL.  
 Tree 719' from DER, 580' right of centerline, 79' MSL.  
 Trees beginning 776' from DER, 581' right of centerline, up to 86' MSL.  
 Trees beginning 853' from DER, 600' right of centerline, up to 91' MSL.  
 Trees beginning 1021' from DER, 587' right of centerline, up to 97' MSL.  
 Tree 1046' from DER, 672' right of centerline, 112' MSL.  
 Tree 1121' from DER, 726' right of centerline, 115' MSL.  
 Tree 1121' from DER, 745' right of centerline, 119' MSL.  
 Trees beginning 1125' from DER, 335' right of centerline, up to 123' MSL.  
 Tree 3437' from DER, 1126' right of centerline, 139' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

## HENRY THREE DEPARTURE

(HENRY3.PHF) 26MAY16

NEWPORT NEWS, VIRGINIA  
 NEWPORT NEWS/WILLIAMSBURG INTL (PHF)




LOC/DME I-EYK <b>111.7</b> Chan <b>54</b>	APP CRS <b>048°</b>	Rwy Idg <b>5500</b> TDZE <b>18</b> Apt Elev <b>19</b>
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# ILS or LOC RWY 5

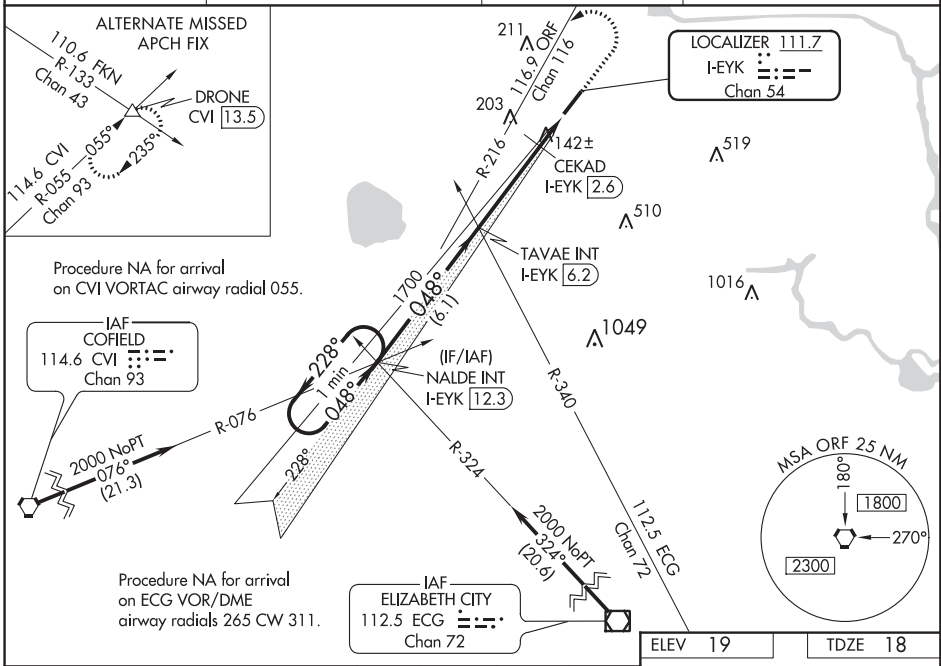
CHESAPEAKE RGNL (CPK)

**⚠** When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all DA 36 feet and all MDA 40 feet; increase CEKAD Fix Minimums S-LOC 5 Cats C and D visibility 1/8 mile. For inoperative MALSR, increase S-LOC 5 Cats C and D visibility to 1/8 mile.

**MALSR** 

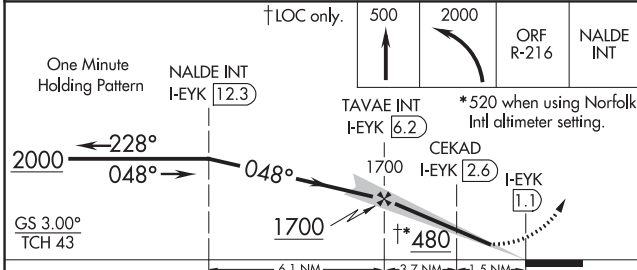
**MISSED APPROACH:** Climb to 500 then climbing left turn to 2000 on ORF VORTAC R-216 to NALDE INT/I-EYK 12.3 DME and hold.

AWOS-3 <b>123.675</b>	NORFOLK APP CON <b>118.9 353.7</b>	GCO <b>135.075</b>	UNICOM <b>123.075 (CTAF) 0</b>
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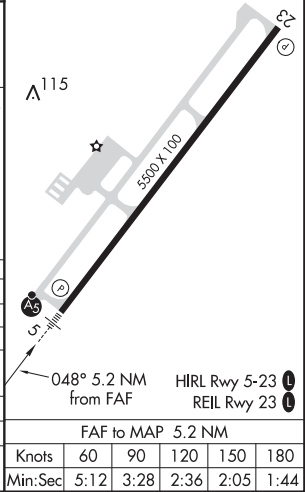


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-ILS 5	218-1/2 200 (200-1/2)			
S-LOC 5	480-1/2	462 (500-1/2)	480-1	462 (500-1)
CIRCLING	480-1	461 (500-1)	480-1/2 461 (500-1/2)	580-2 561 (600-2)
CEKAD FIX MINIMUMS				
S-LOC 5	400-1/2	382 (400-1/2)	400-5/8	382 (400-5/8)
CIRCLING	460-1 441 (500-1)	480-1 461 (500-1)	480-1/2 461 (500-1/2)	580-2 561 (600-2)



FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

WAAS CH <b>78222</b> <b>W05A</b>	APP CRS <b>048°</b>	Rwy Idg TDZE Apt Elev	<b>5500</b> <b>18</b> <b>19</b>
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# RNAV (GPS) RWY 5

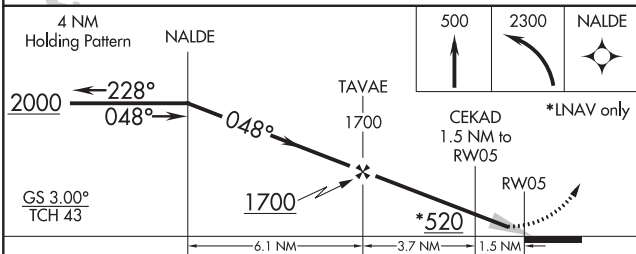
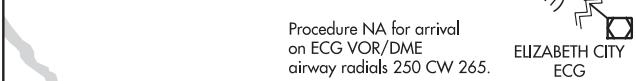
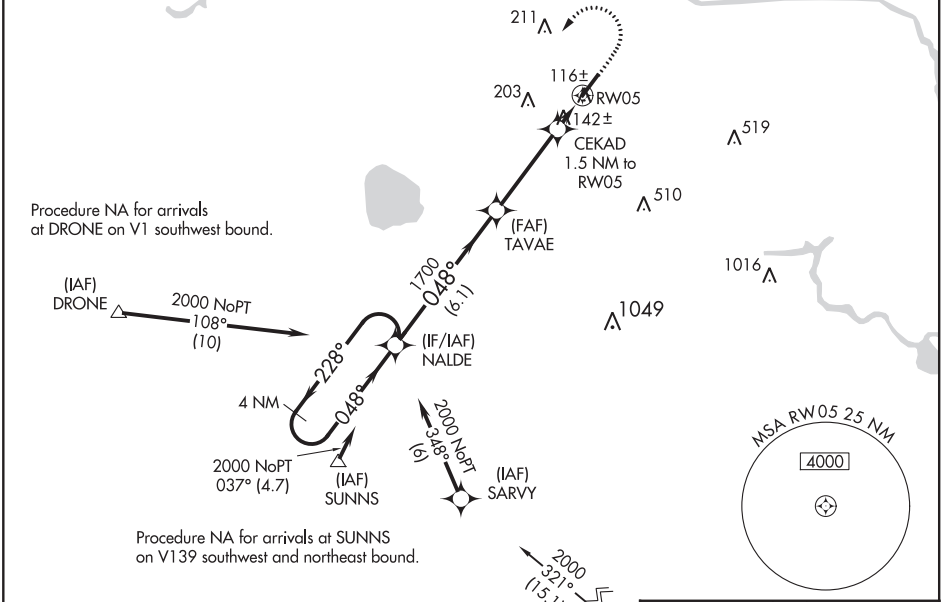
CHESAPEAKE RGNL (CPK)

**⚠ DME/DME RNP-0.3 NA.** When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all DA 36 feet and all MDA 40 feet; increase LNAV Cats C and D visibility 1/8 mile. Baro-VNAV NA when using Norfolk Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 43°C (109°F). For inoperative MALS, increase LNAV/VNAV all Cats visibility to 1/8 mile.

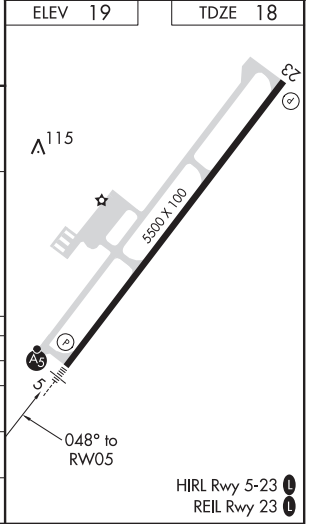


**MISSED APPROACH:**  
Climb to 500 then climbing left turn to 2300 direct NALDE and hold.

AWOS-3 <b>123.675</b>	NORFOLK APP CON <b>118.9 353.7</b>	GCO <b>135.075</b>	UNICOM <b>123.075 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LPV DA		218-1/2	200 (200-1/2)	
LNAV/VNAV DA		278-1/2	260 (300-1/2)	
LNAV MDA	400-1/2	382 (400-1/2)	400-5/8	382 (400-5/8)
CIRCLING	460-1	480-1	480-1 1/2	580-2
	441 (500-1)	461 (500-1)	461 (500-1 1/2)	561 (600-2)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>65922</b> <b>W23A</b>	APP CRS <b>228°</b>	Rwy Idg TDZE Apt Elev	<b>5500</b> <b>19</b> <b>19</b>
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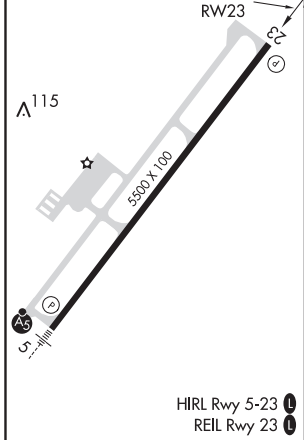
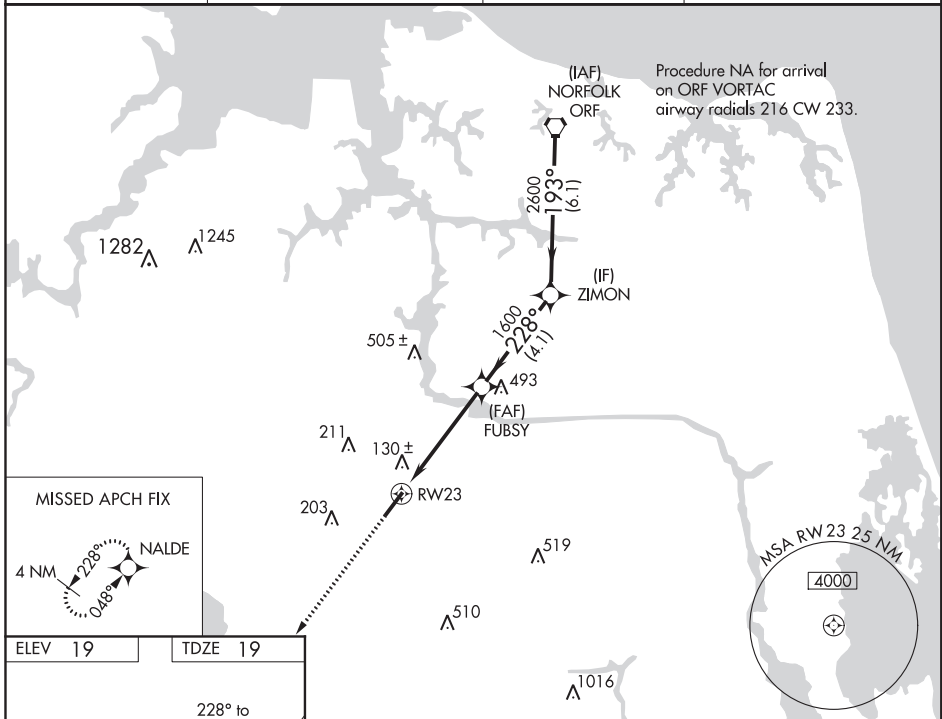
# RNAV (GPS) RWY 23

CHESAPEAKE RGNL (CPK)

**⚠** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all DA 36 feet and all MDA 40 feet. Baro-VNAV and VDP NA with Norfolk Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 43°C (109°F).

**⚠** MISSED APPROACH: Climb to 2000 direct NALDE and hold.

AWOS-3 <b>123.675</b>	NORFOLK APP CON <b>118.9 353.7</b>	GCO <b>135.075</b>	UNICOM <b>123.075 (CTAF) 0</b>
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ELEV 19	TDZE 19	2000 NALDE		VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 42).		ORF VORTAC
228° to RWY 23		*LNAV only		FUBSY		ZIMON
A 115		*1.3 NM to RWY 23		1600		2600
5500 X 100		RWY 23		1600		3000
5		-1.3		3.5 NM		4.1 NM
HIRL Rwy 5-23 0		REIL Rwy 23 0		6.1 NM		GS 3.00° TCH 56
CATEGORY	A	B	C	D		
LPV DA	311-1		292 (300-1)			
LNAV/VNAV DA	312-1		293 (300-1)			
LNAV MDA	480-1	461 (500-1)		480-1 3/8		461 (500-1 3/8)
CIRCLING	480-1	461 (500-1)		480-1 1/2		580-2
				461 (500-1 1/2)		561 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

NORFOLK, VIRGINIA

AL-6488 (FAA)

14261

VORTAC ORF <b>116.9</b> Chan <b>116</b>	APP CRS <b>210°</b>	Rwy Idg <b>5500</b> TDZE <b>19</b> Apt Elev <b>19</b>
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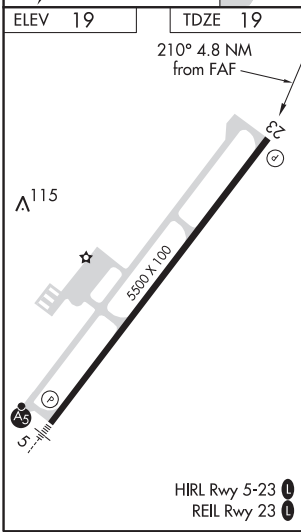
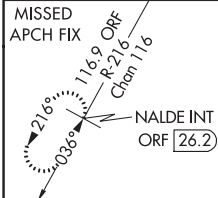
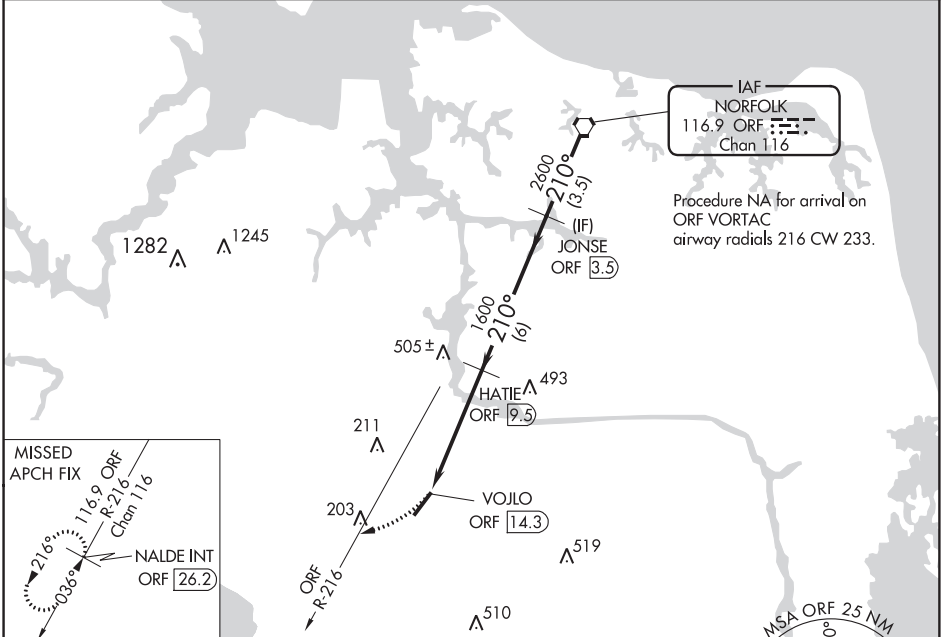
# VOR/DME RWY 23

CHESAPEAKE RGNL (CPK)

**⚠** Visibility reduction by helicopters NA. When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all MDA 40 feet.

MISSED APPROACH: Climbing right turn to 2000 on heading 230° and ORF VORTAC R-216 to NALDE INT/ORF 26.2 DME and hold.

AWOS-3 <b>123.675</b>	NORFOLK APP CON <b>118.9 353.7</b>	GCO <b>135.075</b>	UNICOM <b>123.075 (CTAF) 0</b>
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ELEV 19	TDZE 19	210° 4.8 NM from FAF			
2000 hdg 230°	ORF R-216	NALDE INT	HATIE ORF [9.5]	JONSE ORF [3.5]	ORF VORTAC
	VOJLO ORF [14.3]		210°	3000	
		3.02° TCH 42	2600		
	1.3	3.5 NM	6 NM	3.5 NM	
CATEGORY	A	B	C	D	
S-23	480-1	461 (500-1)	480-1½	461 (500-1½)	
CIRCLING	480-1	461 (500-1)	480-1½	580-2	561 (600-2)

NORFOLK, VIRGINIA  
Amdt 1A 18SEP14

36°40'N - 76°19'W

# CHESAPEAKE RGNL (CPK) VOR/DME RWY 23

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>58236</b> <b>W10A</b>	APP CRS <b>102°</b>	Rwy Idg TDZE <b>28</b> Apt Elev <b>28</b>	<b>5350</b>
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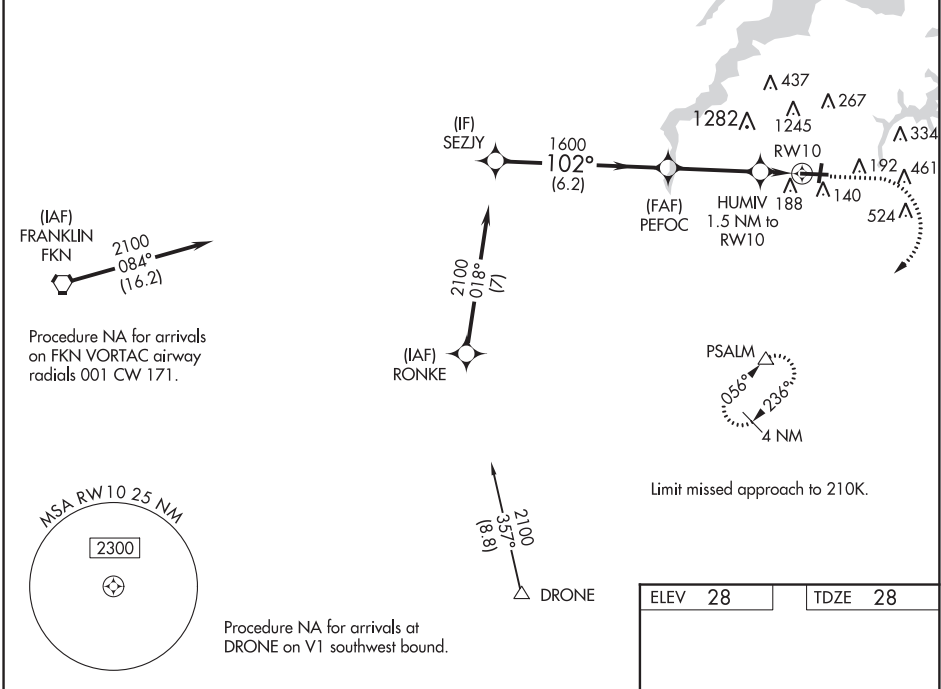
# RNAV (GPS) RWY 10

HAMPTON ROADS EXECUTIVE (PVG)

**⚠** Baro-VNAV NA when using Norfolk 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 Norfolk Intl altimeter setting and increase all DA 33 feet and all MDA 40 feet; increase LNAV/VNAV all Cats visibility and LNAV Cat C visibility 1/8 mile. Circling NA for Cat C N of Rwy 10-28. Circling NA to Rwy 2 and 20. Helicopter visibility reduction below 1 SM NA.

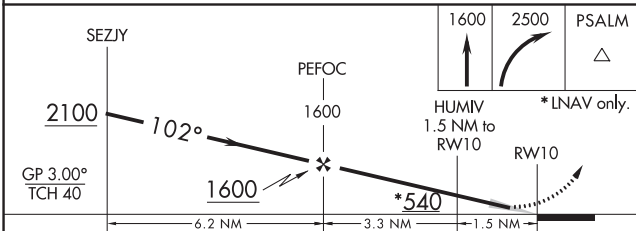
**MISSED APPROACH:**  
Climb to 1600 then climbing right turn to 2500 direct PSALM and hold.

AWOS-3 <b>118.375</b>	NORFOLK APP CON <b>118.9 353.7</b>	UNICOM <b>122.725 (CTAF) ①</b>
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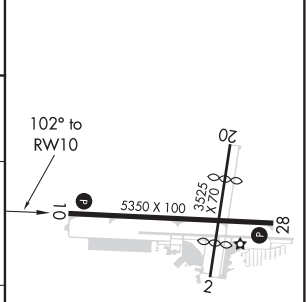


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV <b>28</b>	TDZE <b>28</b>
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CATEGORY	A	B	C	D
LPV DA	228-1	200 (200-1)		NA
LNAV/VNAV DA	432-1 3/8	404 (500-1 3/8)		NA
LNAV MDA	420-1	392 (400-1)	420-1 1/8 392 (400-1 1/8)	NA
CIRCLING	500-1	472 (500-1)	780-2 1/4 752 (800-2 1/4)	NA

HIRL Rwy 10-28 ①  
REIL Rwy 10 and 28 ①  
MIRL Rwy 2-20 ①

NORFOLK, VIRGINIA

AL-291 (FAA)

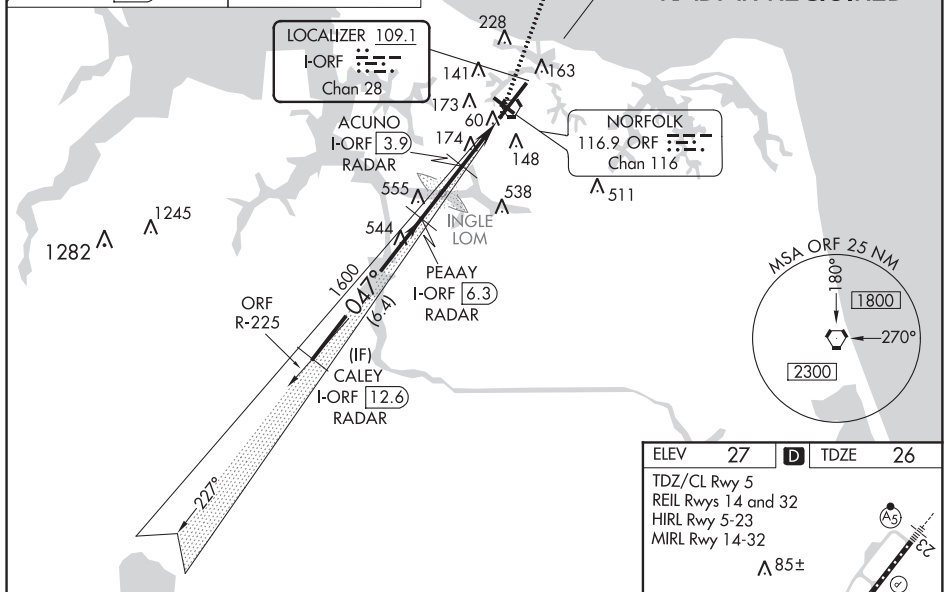
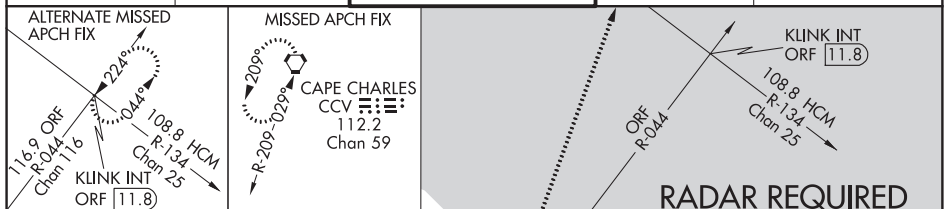
15232

LOC/DME I-ORF <b>109.1</b> Chan 28	APP CRS <b>047°</b>	Rwy Idg TDZE Apt Elev	<b>8001</b> <b>26</b> <b>27</b>
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**ILS or LOC RWY 5**  
NORFOLK INTL (ORF)

<p>▼ DME or Radar required. Autopilot coupled approach NA below 744.</p>		<p>MALSR AS</p>	<p>MISSED APPROACH: Climb to 2000 direct CCV VORTAC and hold.</p>	
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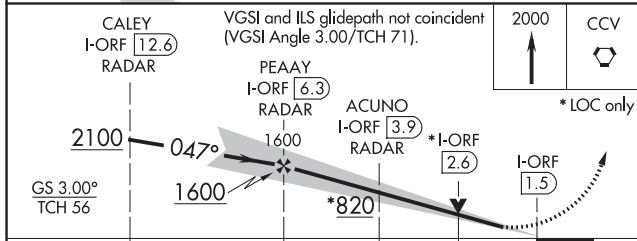
ATIS <b>127.15</b>	NORFOLK APP CON <b>118.9 353.7</b>	NORFOLK TOWER <b>120.8 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.5</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 27	TDZE 26
<p>TDZ/CL Rwy 5 REIL Rws 14 and 32 HIRL Rwy 5-23 MIRL Rwy 14-32</p>	
<p>Knots: 60 90 120 150 180 Min:Sec: 4:48 3:12 2:24 1:55 1:36</p>	



CATEGORY	A	B	C	D
S-ILS 5	226/18 200 (200-½)			
S-LOC 5	440/24	414 (500-½)	440/40	414 (500-¾)
CIRCLING	480-1	453 (500-1)	540-1½ 513 (600-1½)	580-2 553 (600-2)

NORFOLK, VIRGINIA  
Amdt 26B 25JUN15

36°54'N-76°12'W

NORFOLK INTL (ORF)  
**ILS or LOC RWY 5**

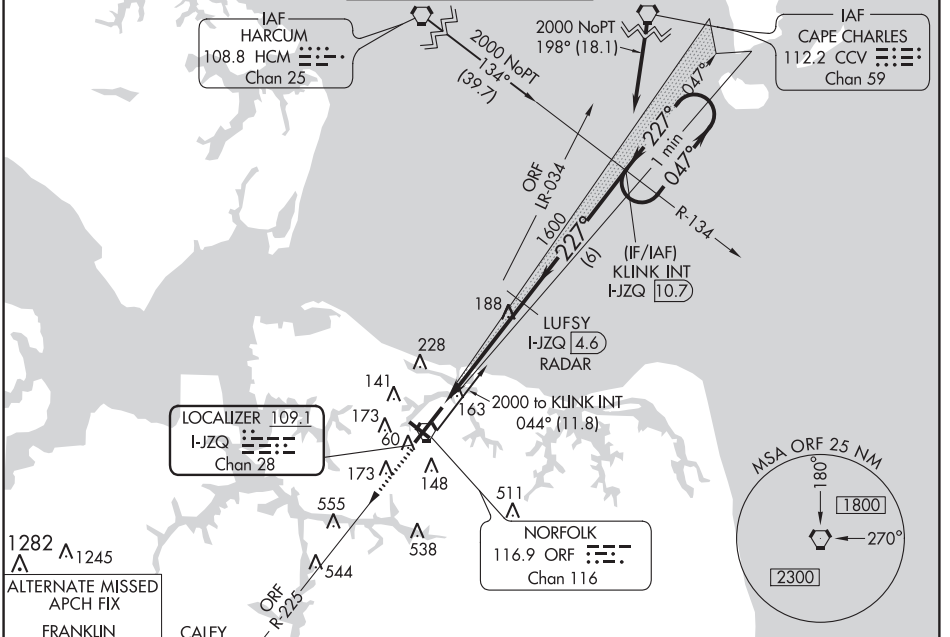
LOC/DME I-JZQ <b>109.1</b> Chan 28	APP CRS <b>227°</b>	Rwy Idg TDZE Apt Elev <b>9001</b> <b>26</b> <b>27</b>
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# ILS or LOC RWY 23

NORFOLK INTL (ORF)

Visibility reduction by helicopters NA. For inoperative MALSR increase S-LOC 23 Cat A and B visibility to 1 mile.	MALSR 	MISSED APPROACH: Climb to 2000 on ORF VORTAC R-225 to CALEY/ORF 11.5 DME/RADAR and hold.
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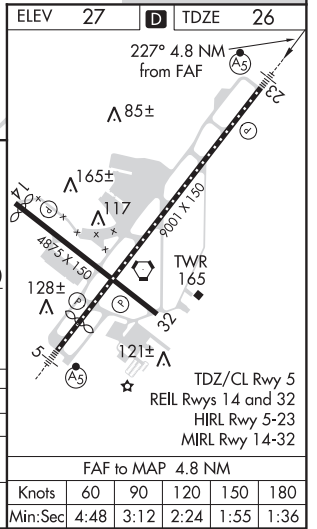
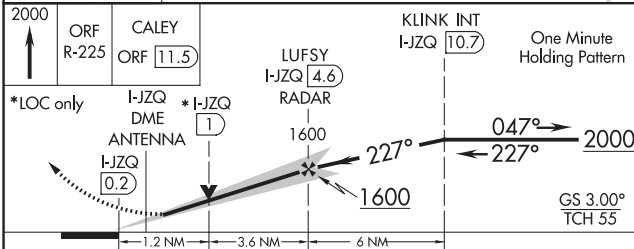
ATIS <b>127.15</b>	NORFOLK APP CON <b>118.9 353.7</b>	NORFOLK TOWER <b>120.8 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.5</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

## DME or RADAR REQUIRED



CATEGORY	A	B	C	D
S-ILS 23		226-1/2	200 (200-1/2)	
S-LOC 23		440-3/4	414 (500-3/4)	
CIRCLING	480-1	453 (500-1)	540-1 1/2 513 (600-1 1/2)	580-2 553 (600-2)

NORFOLK, VIRGINIA

AL-291 (FAA)

15232

APP CRS	Rwy Idg	<b>8001</b>
<b>047°</b>	TDZE	<b>26</b>
	Apt Elev	<b>27</b>

# RNAV (RNP) Y RWY 5

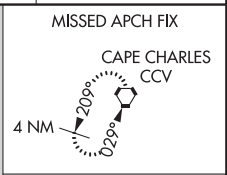
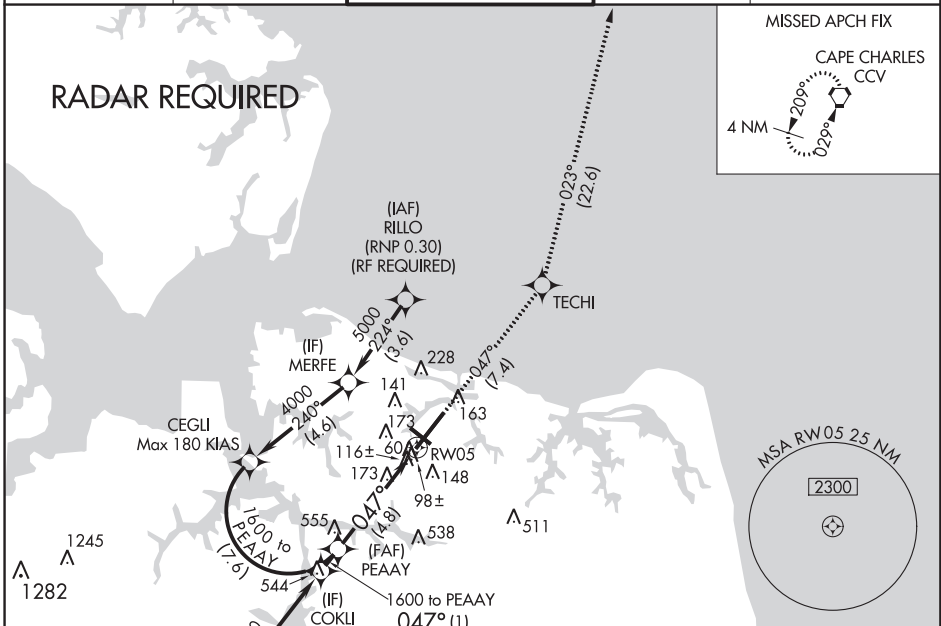
NORFOLK INTL (ORF)

**▽** For uncompensated Baro-VNAV systems, procedure NA below -8°C (17°F) or above 48°C (119°F). For inoperative MALS R increase RNP 0.10 DA visibility all Cats to 1 mile, increase RNP 0.30 DA all Cats visibility to 1¼. GPS required.



**MISSED APPROACH:** Climb to 2000 on track 047° to TECHI and on track 023° to CCV VORTAC and hold.

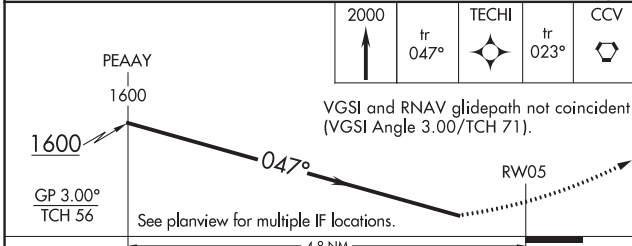
ATIS <b>127.15</b>	NORFOLK APP CON <b>118.9 353.7</b>	NORFOLK TOWER <b>120.8 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.5</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

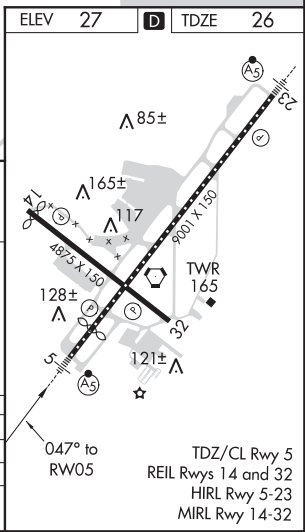
NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV	27	D	TDZE	26
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CATEGORY	A	B	C	D
RNP 0.10 DA		341 / 40	315 (400-¾)	
RNP 0.30 DA		422 / 45	396 (400-⅞)	

## AUTHORIZATION REQUIRED



NORFOLK, VIRGINIA  
Orig-B 25JUN15

36°54'N - 76°12'W

# RNAV (RNP) Y RWY 5

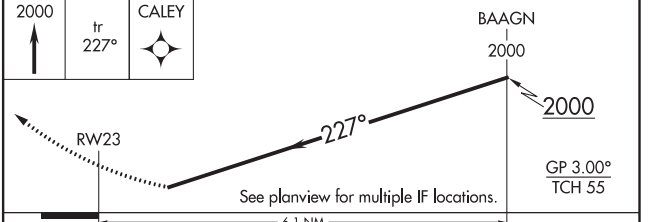
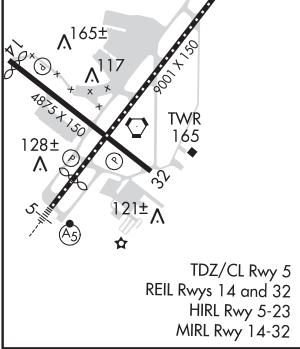
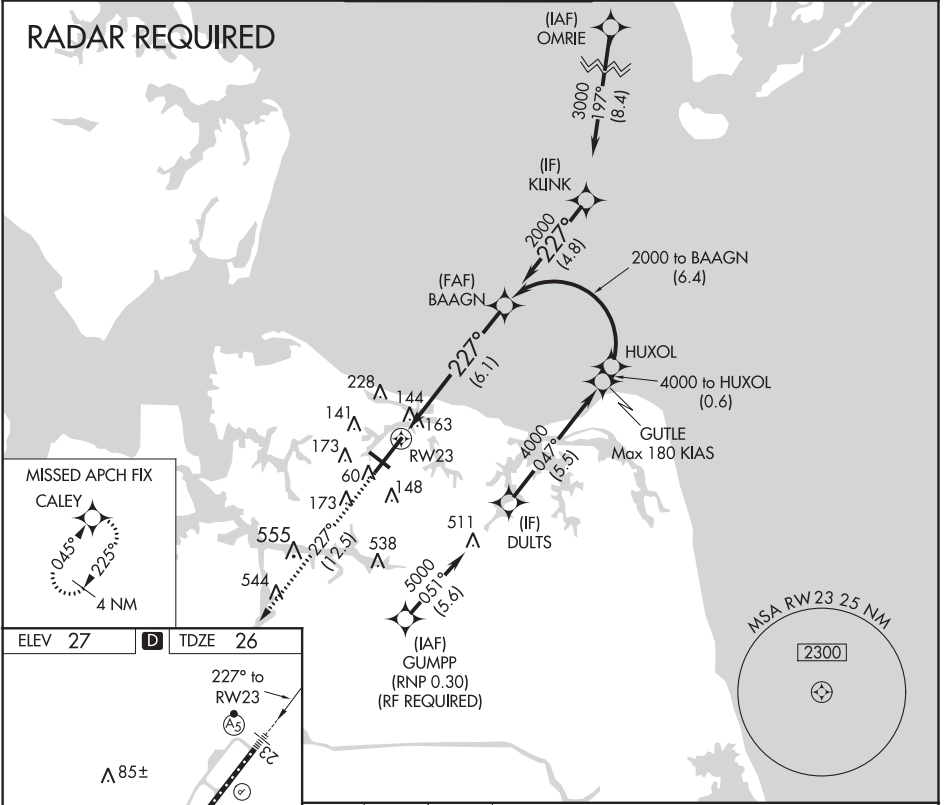


APP CRS	Rwy Idg	<b>9001</b>
<b>227°</b>	TDZE	<b>26</b>
	Apt Elev	<b>27</b>

# RNAV (RNP) Y RWY 23

NORFOLK INTL (ORF)

<p><b>GPS required.</b> For inoperative MALSR increase RNP 0.10 DA visibility all Cats to 1½ mile, increase RNP 0.30 DA visibility all Cats to 1½ mile. For uncompensated Baro-VNAV systems, procedure NA below -8°C (17°F) or above 49°C (120°F).</p>		<p>MALSR</p>	<p>MISSED APPROACH: Climb to 2000 on track 227° to CALEY and hold.</p>	
ATIS	NORFOLK APP CON	NORFOLK TOWER	GND CON	CLNC DEL
<b>127.15</b>	<b>118.9 353.7</b>	<b>120.8 257.8</b>	<b>121.9</b>	<b>118.5</b>



CATEGORY	A	B	C	D
RNP 0.10 DA		427-7/8	401 (400-7/8)	
RNP 0.30 DA		477-1	451 (500-1)	

## AUTHORIZATION REQUIRED

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

NORFOLK, VIRGINIA

AL-291 (FAA)

15288

# RNAV (GPS) RWY 14

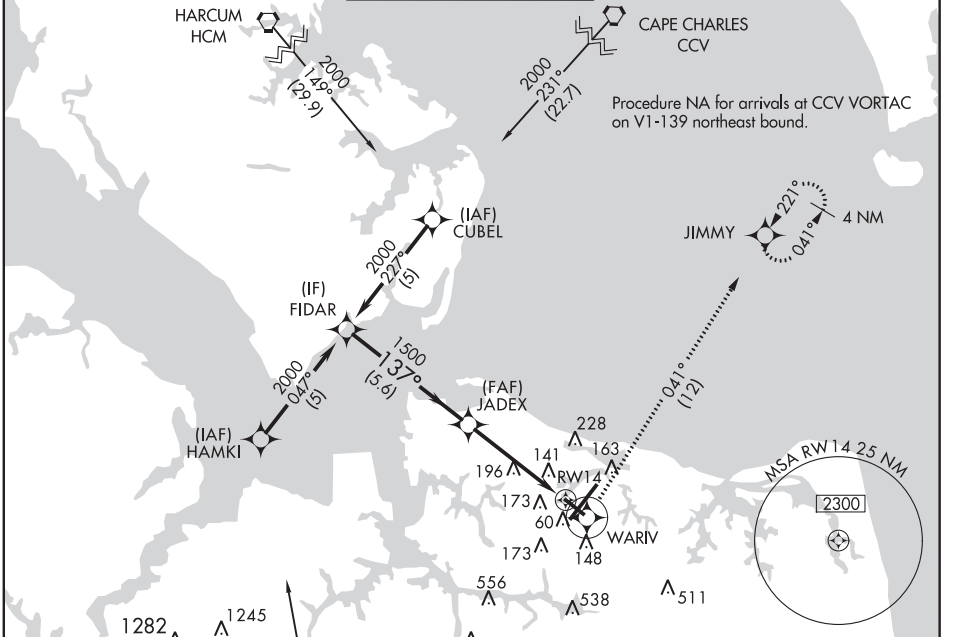
NORFOLK INTL (ORF)

APP CRS <b>137°</b>	Rwy Idg TDZE Apt Elev	<b>4662</b> <b>25</b> <b>27</b>
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**▼** DME/DME RNP-0.3 NA.  
Helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 2000 direct WARIV and left turn on track 041° to JIMMY and hold.

ATIS <b>127.15</b>	NORFOLK APP CON <b>118.9 353.7</b>	NORFOLK TOWER <b>120.8 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.5</b>
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Procedure NA for arrivals at DEEMS on V1 southwest bound.

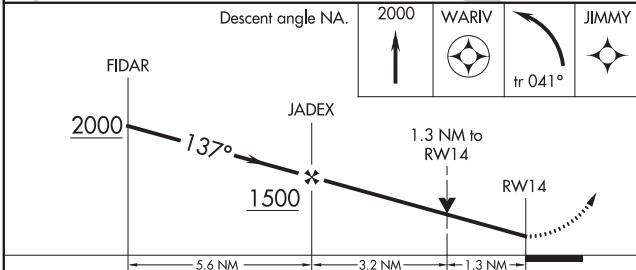
DEEMS ORF 13 RADAR

Descent angle NA.

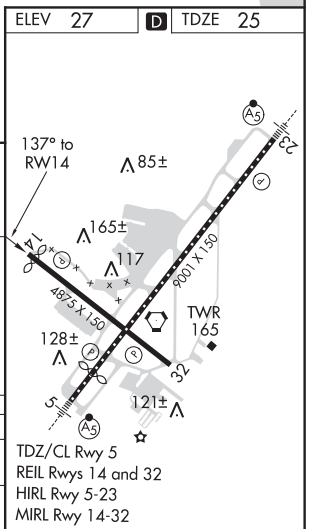
2000 WARIV JIMMY

↑ (2000) ↻ (WARIV) ↻ (JIMMY)

fr 041°



CATEGORY	A	B	C	D
LNVA MDA	460-1	435 (500-1)	460-1½ 435 (500-1½)	460-1½ 435 (500-1½)
CIRCLING	520-1	493 (500-1)	540-1½ 513 (600-1½)	580-2 553 (600-2)



NORFOLK, VIRGINIA  
Orig-E 15OCT15

36°54'N - 76°12'W

# RNAV (GPS) RWY 14

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>317°</b>	Rwy Idg TDZE Apt Elev	<b>4875</b> <b>25</b> <b>27</b>
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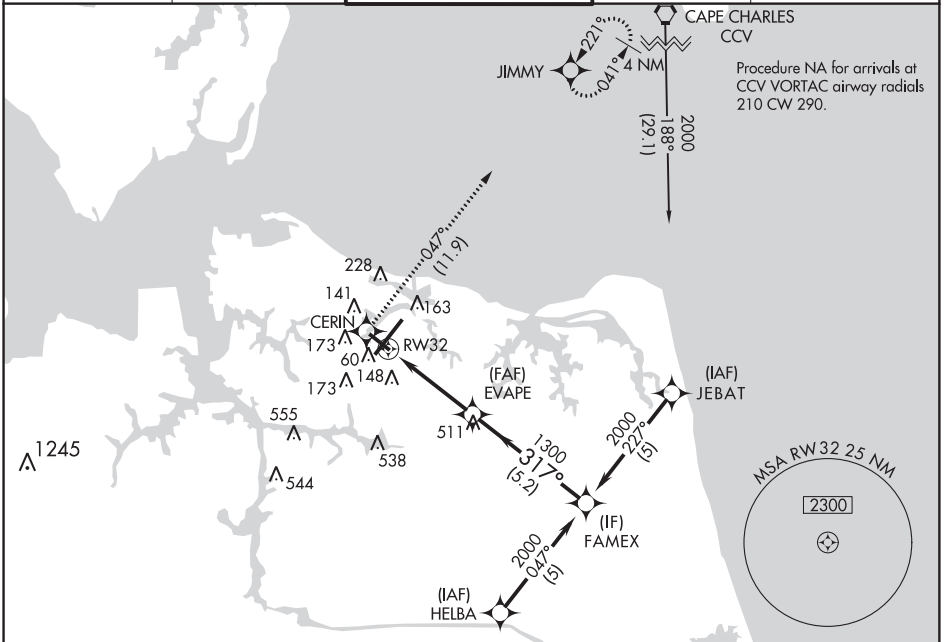
# RNAV (GPS) RWY 32

NORFOLK INTL (ORF)

**▼** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA.

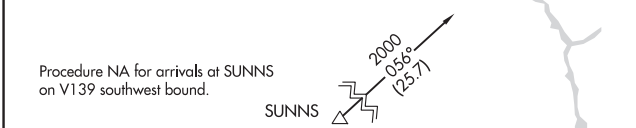
MISSED APPROACH: Climb to 2000 direct CERIN and on track 047° to JIMMY and hold.

ATIS <b>127.15</b>	NORFOLK APP CON <b>118.9 353.7</b>	NORFOLK TOWER <b>120.8 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.5</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

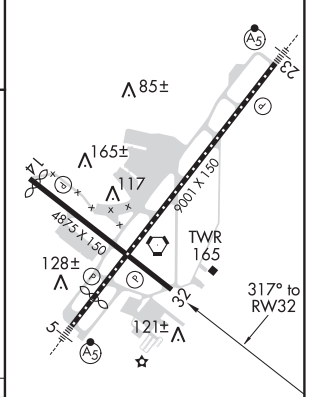
NE-3, 10 NOV 2016 to 05 JAN 2017



2000	CERIN	tr 047°	JIMMY	Descent angle NA.
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	EVAPE		FAMEX	
	1.2 NM to RWY 32		2000	
	1300		317°	
	1.2 NM	2.6 NM	5.2 NM	

ELEV 27	<b>D</b> TDZE 25
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CATEGORY	A	B	C	D
LNAV MDA	440-1	415 (500-1)	440-1½	415 (500-1½)
CIRCLING	520-1	493 (500-1)	540-1½	580-2
			513 (600-1½)	553 (600-2)


TDZ/CL Rwy 5  
REIL Rwy 14 and 32  
HIRL Rwy 5-23  
MIRL Rwy 14-32

WAAS CH <b>50222</b> <b>W05A</b>	APP CRS <b>047°</b>	Rwy Idg TDZE Apt Elev	<b>8001</b> <b>26</b> <b>27</b>
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# RNAV (GPS) Z RWY 5

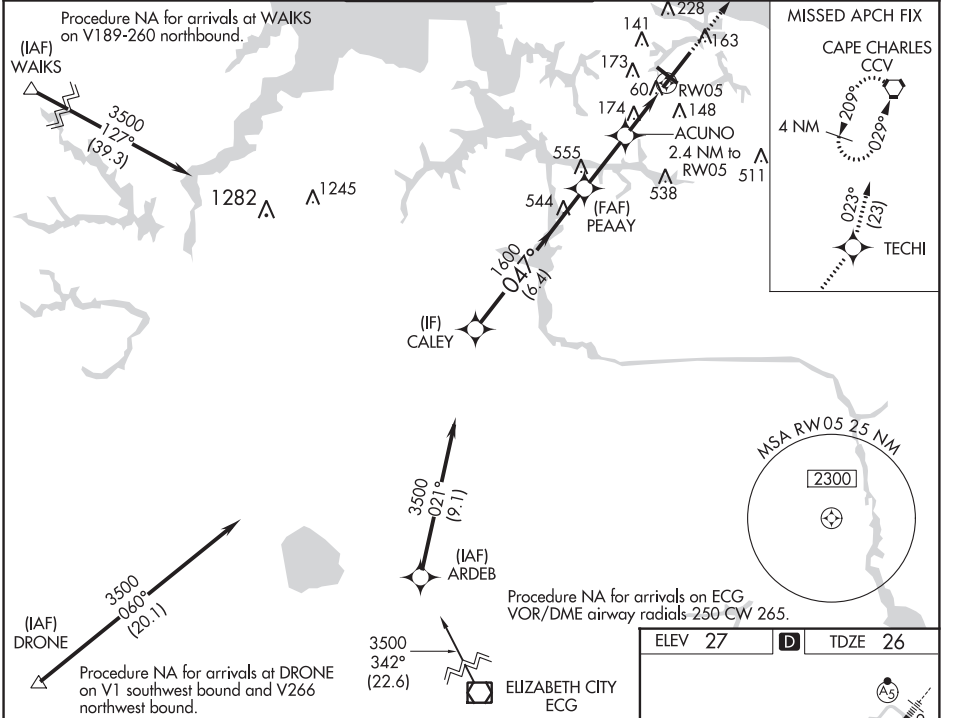
NORFOLK INTL (ORF)

⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -8°C (18°F) or above 43°C (109°F). For inoperative MALSR, increase LNAV/VNAV all Cats visibility to RVR 4500 and LNAV Cats C and D to RVR 6000. DME/DME RNP-0.3 NA.

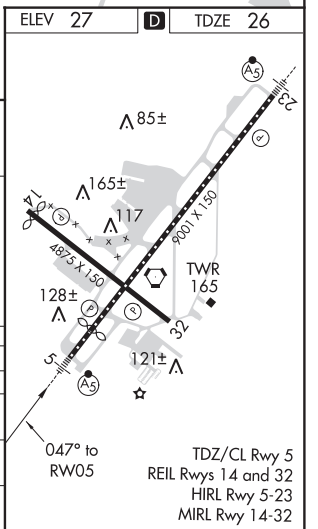
MALSR 

MISSED APPROACH: Climb to 2000 direct TECHI and on track 023° to CCV VORTAC and hold.

ATIS <b>127.15</b>	NORFOLK APP CON <b>118.9 353.7</b>	NORFOLK TOWER <b>120.8 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.5</b>
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CALEY 3500 GP 3.00° TCH 56 6.4 NM 2.4 NM 1.3 NM 1.1 NM	VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 71).			
	PEAAAY 1600 ACUNO 2.4 NM to RW05 *1.1 NM to RW05 *820 TECHI tr 023° CCV			
	*LNAV only			
	CATEGORY A B C D			
	LPV DA 231/24 205 (300-½) LNAV/VNAV DA 311/24 285 (300-½) LNAV MDA 440/24 414 (500-½) 440/40 414 (500-¾) CIRCLING 480-1 453 (500-1) 540-1½ 513 (600-1½) 580-2 553 (600-2)			



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>56322</b> <b>W23A</b>	APP CRS <b>227°</b>	Rwy Idg TDZE Apt Elev	<b>9001</b> <b>26</b> <b>27</b>
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# RNAV (GPS) Z RWY 23

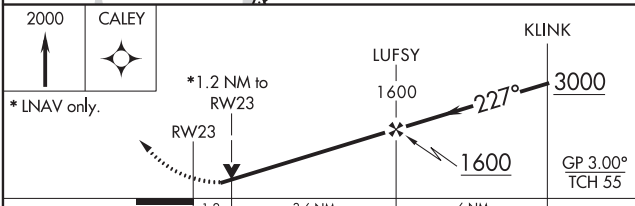
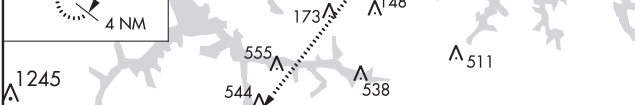
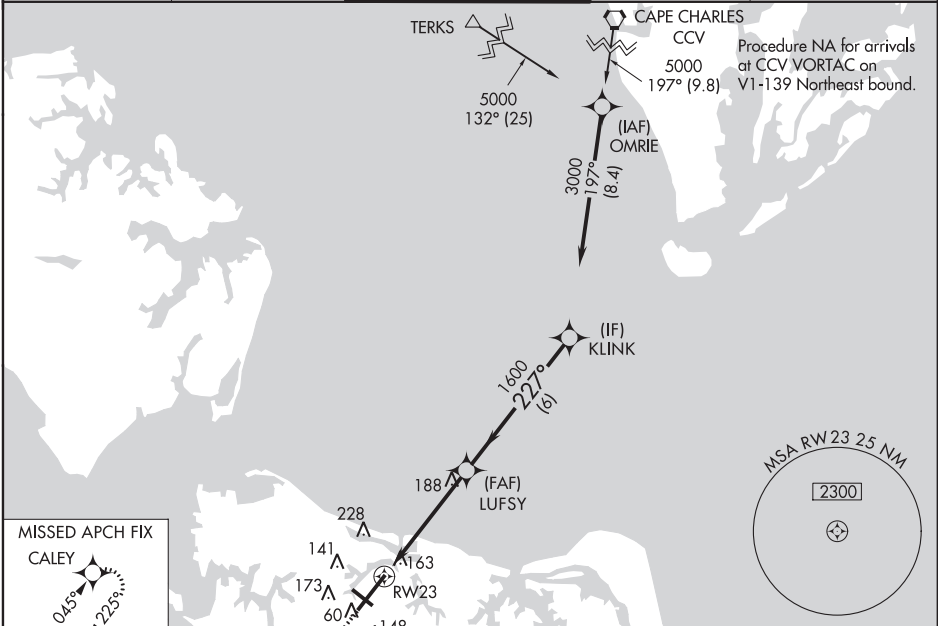
NORFOLK INTL (ORF)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 43°C (109°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. For inoperative MALSR increase LNAV Cat A and B visibility to 1 mile.

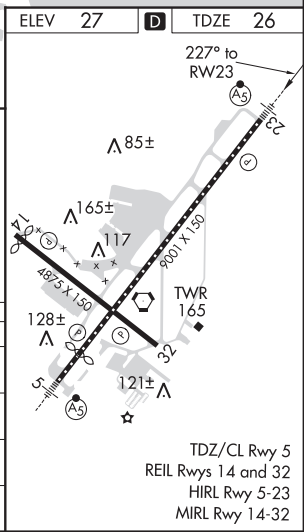


MISSED APPROACH: Climb to 2000 direct CALEY and hold.

ATIS <b>127.15</b>	NORFOLK APP CON <b>118.9 353.7</b>	NORFOLK TOWER <b>120.8 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.5</b>
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CATEGORY	A	B	C	D
LPV DA		226-1/2	200 (200-1/2)	
LNAV/VNAV DA		384-3/4	358 (400-3/4)	
LNAV MDA		440-3/4	414 (500-3/4)	
CIRCLING	480-1	453 (500-1)	540-1 1/2 513 (600-1 1/2)	580-2 553 (600-2)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

TDZ/CL Rwy 5  
REIL Rwy 14 and 32  
HIRL Rwy 5-23  
MIRL Rwy 14-32

NORFOLK, VIRGINIA

AL-291 (FAA)

15232

VORTAC ORF <b>116.9</b> Chan <b>116</b>	APP CRS <b>129°</b>	Rwy Idg <b>4662</b> TDZE <b>25</b> Apt Elev <b>26</b>
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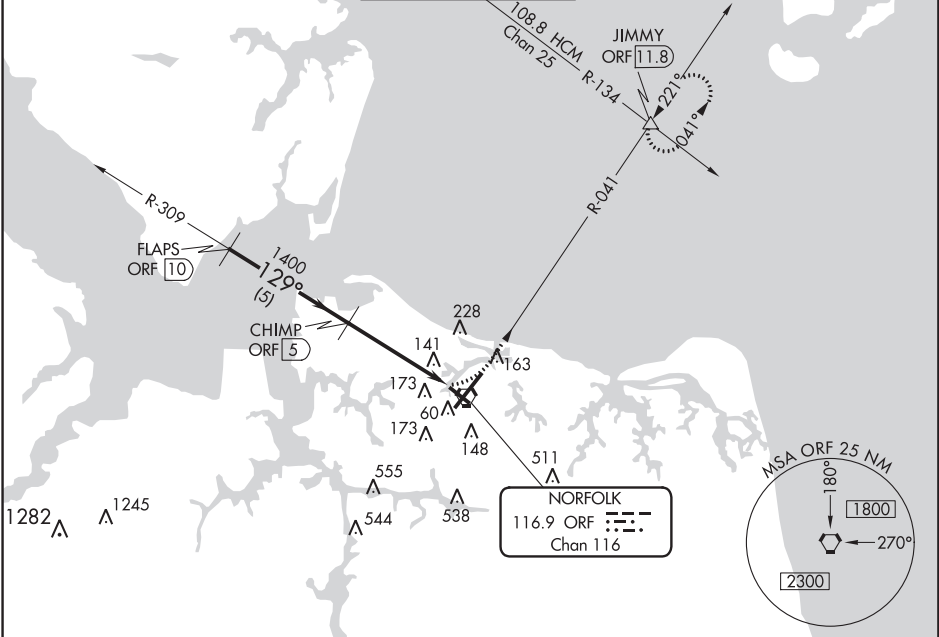
# VOR/DME RWY 14

NORFOLK INTL (ORF)

Helicopter visibility reduction below 3/4 SM NA.

MISSED APPROACH: Climbing left turn to 2000 via ORF R-041 to JIMMY Int/11.8 DME and hold.

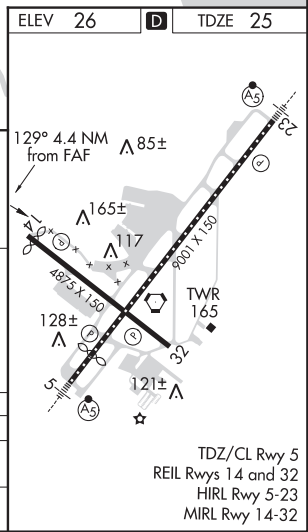
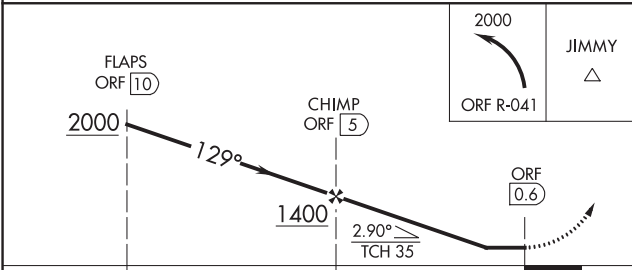
ATIS <b>127.15</b>	NORFOLK APP CON <b>118.9 353.7</b>	NORFOLK TOWER <b>120.8 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.5</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

**RADAR REQUIRED**



CATEGORY	A	B	C	D
S-14	460-1 435 (500-1)		460-1 1/4 435 (500-1 1/4)	460-1 1/2 435 (500-1 1/2)
CIRCLING	520-1 494 (500-1)		540-1 1/2 514 (600-1 1/2)	580-2 554 (600-2)

NORFOLK, VIRGINIA  
Amdt 2f 22AUG13

36°54' N - 76°12' W

# NORFOLK INTL (ORF) VOR/DME RWY 14

NORFOLK, VIRGINIA

AL-291 (FAA)

15232

VORTAC ORF <b>116.9</b> Chan 116	APP CRS <b>326°</b>	Rwy Idg TDZE <b>25</b> Apt Elev <b>26</b>	<b>4875</b>
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# VOR/DME RWY 32

NORFOLK INTL (ORF)

Visibility reduction by helicopters NA.		MISSED APPROACH: Climbing right turn to 2000 via ORF R-041 to JIMMY Int/11.8 DME and hold.		
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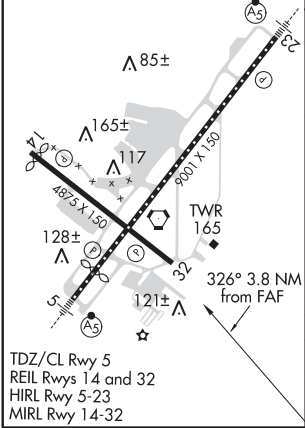
ATIS <b>127.15</b>	NORFOLK APP CON <b>118.9 353.7</b>	NORFOLK TOWER <b>120.8 257.8</b>	GND CON <b>121.9</b>	CLNC DEL <b>118.5</b>
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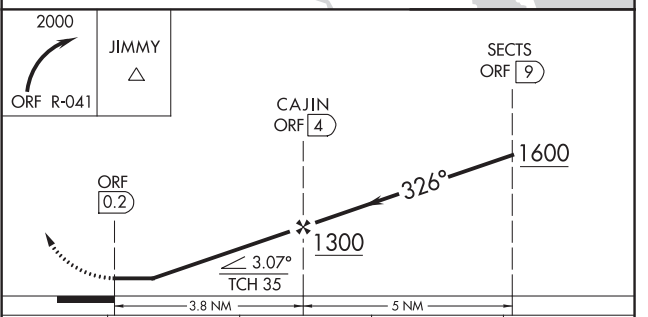
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 26	<b>D</b>	TDZE 25
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TDZ/CL Rwy 5  
REIL Rws 14 and 32  
HIRL Rwy 5-23  
MIRL Rwy 14-32



CATEGORY	A	B	C	D
S-32	460-1	435 (500-1)	460-1¼ 435 (500-1¼)	460-1½ 435 (500-1½)
CIRCLING	520-1	494 (500-1)	540-1½ 514 (600-1½)	580-2 554 (600-2)

NORFOLK, VIRGINIA  
Amdt 4E 18NOV10

36°54'N - 76°12'W  
293

# NORFOLK INTL (ORF) VOR/DME RWY 32

Orig 09015

# RIVER VISUAL RWY 5

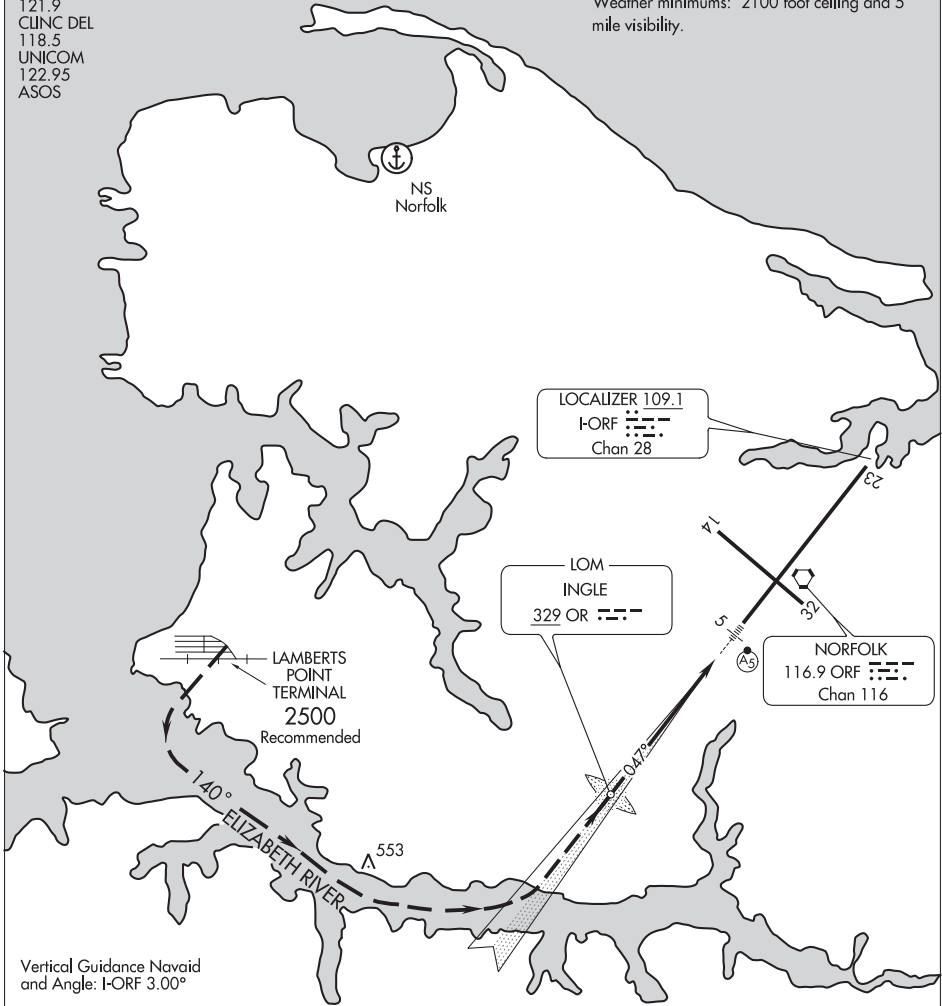
AL-291 (FAA)

NORFOLK INTL (ORF)  
NORFOLK, VIRGINIA

ATIS 127.15  
 NORFOLK APP CON  
 118.9 353.7  
 NORFOLK TOWER  
 120.8 257.8  
 GND CON  
 121.9  
 CLINC DEL  
 118.5  
 UNICOM  
 122.95  
 ASOS

## RADAR REQUIRED

Weather minimums: 2100 foot ceiling and 5 mile visibility.



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

Vertical Guidance Navaid  
and Angle: I-ORF 3.00°

1 NM	2	3	4	5	6
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**RIVER VISUAL RWY 5**  
PROCEDURE NOT AUTHORIZED AT NIGHT

# RIVER VISUAL RWY 5

Orig 09015

36°54'N-76°12'W

NORFOLK, VIRGINIA  
NORFOLK INTL (ORF)



# AIRPORT DIAGRAM

AL-291 (FAA)

NORFOLK INTL (O.R.F)  
NORFOLK, VIRGINIA

ATIS  
127.15  
NORFOLK TOWER  
120.8 257.8  
GND CON  
121.9  
CLNC DEL  
118.5

**D**



JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.0° W

FIELD  
ELEV  
27

ELEV 16

BLAST PAD  
200 X 150

ILS HOLD

ILS  
CRITICAL  
AREA

ARRIVAL TERMINAL

INTERNATIONAL GATE

FUEL DISPENSING

FIRE STATION

DEPARTURE TERMINAL

ELEV 18

138.9°

487.5 X 150

AIR CARGO

LAHSO

LAHSO

FUEL FARM

U.S. CUSTOMS

ILS HOLD

ILS HOLD

TWR 165

GRE

BLAST PAD  
200 X 150

ELEV 18

ILS  
CRITICAL  
AREA

ELEV 22

GENERAL AVIATION AREA

RWY 05-23  
PCN 54 R/B/X/T  
S-150, D-200, 2S-175,  
2D-350, 2D/2D2-475  
RWY 14-32  
PCN 19 F/C/X/T  
S-75, D-100, 2S-127

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

76°12.5'W

76°12.0'W

76°11.5'W

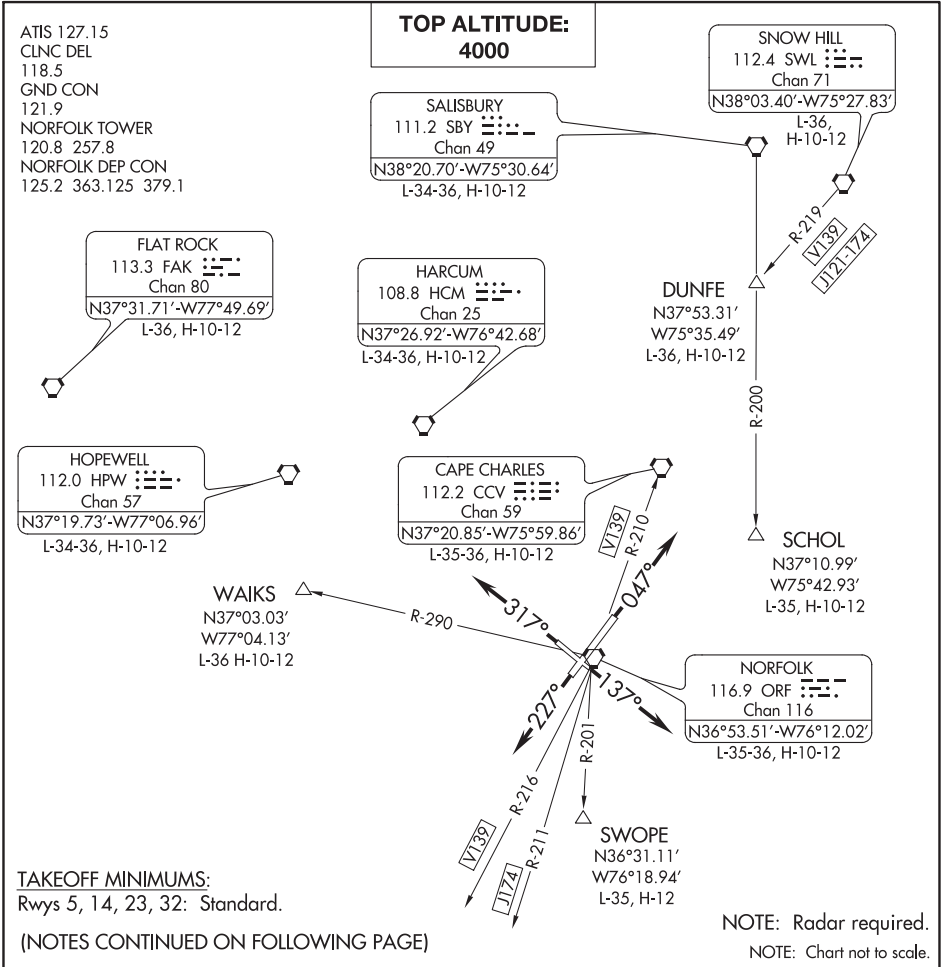
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

NORFOLK, VIRGINIA  
NORFOLK INTL (O.R.F)

# KISRR THREE DEPARTURE



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RWY 5:** Climb heading 047°. Expect radar vectors to assigned departure route/fix. Thence . . . .

**TAKEOFF RWY 14:** Climb heading 137°. Expect radar vectors to assigned departure route/fix. Thence . . . .

**TAKEOFF RWY 23:** Climb heading 227°. Expect radar vectors to assigned departure route/fix. Thence . . . .

**TAKEOFF RWY 32:** Climb heading 317°. Expect radar vectors to assigned departure route/fix. Thence . . . .

. . . . maintain 4000 feet, expect clearance to requested altitude 10 minutes after departure.

# KISRR THREE DEPARTURE

# KISRR THREE DEPARTURE

## TAKEOFF OBSTACLES:

- Rwy 5: Multiple trees beginning 1521' from DER, 628' right of centerline, up to 85' AGL/95' MSL. Towers beginning 2974' from DER, 773' right of centerline, up to 127' AGL/131' MSL. Mobile crane 4334' from DER, 1106' right of centerline, 162' AGL/163' MSL. Sign 82' from DER, 301' left of centerline, 11' AGL/19' MSL. Pole 2696' from DER, 1063' left of centerline, 87' AGL/91' MSL. Multiple Towers beginning 2938' from DER, 927' left of centerline, up to 145' AGL/146' MSL.
- Rwy 14: Vehicle on road 2' from DER, 450' right of centerline, up to 10' AGL/36' MSL. Multiple trees beginning 1193' from DER, 117' right of centerline, up to 82' AGL/97' MSL. Multiple trees beginning 1755' from DER, 413' right of centerline, up to 85' AGL/100' MSL. Numerous trees beginning 2109' from DER, 150' right of centerline, up to 121' AGL/136' MSL. Tree 3323' from DER, 308' right of centerline, 101' AGL/121' MSL. Poles beginning 1307' from DER, 255' right of centerline, up to 43' AGL/62' MSL. Numerous trees beginning 1230' from DER, 40' left of centerline, up to 84' AGL/104' MSL. Pole 1567' from DER, 95' left of centerline, 42' AGL/62' MSL. Multiple trees beginning 2347' from DER, 57' left of centerline, up to 83' AGL/103' MSL. Multiple trees beginning 3086' from DER, 235' left of centerline, up to 101' AGL/121' MSL.
- Rwy 23: Trees beginning 324' from DER, 484' right of centerline, up to 28' AGL/43' MSL. Trees beginning 1989' from DER, 26' right of centerline, up to 61' AGL/76' MSL. Pole 1012' from DER, 650' right of centerline, 62' AGL/73' MSL. Pole 2166' from DER, 840' right of centerline, 41' AGL/74' MSL. Vehicle on road 128' from DER, 508' left of centerline, 10' AGL/31' MSL. Multiple trees beginning 619' from DER, 560' left of centerline, up to 66' AGL/76' MSL. Pole 1434' from DER, 739' left of centerline, 57' AGL/71' MSL. Multiple trees beginning 1801' from DER, 46' left of centerline, up to 65' AGL/85' MSL. Trees beginning 2797' from DER, 448' left of centerline, up to 103' AGL/113' MSL.
- Rwy 32: Multiple Trees beginning 17' from DER, 459' right of centerline, up to 92' AGL/112' MSL. Vehicles on road beginning 207' from DER, 231' right of centerline, up to 15' AGL/29' MSL. Tree 317' from DER, 183' right of centerline, 24' AGL/31' MSL. Trees 775' from DER, 54' right of centerline, up to 61' AGL/71' MSL. Multiple trees beginning 1085' from DER, 698' right of centerline, up to 88' AGL/98' MSL. Multiple trees beginning 1696' from DER, 1' right of centerline, up to 85' AGL/95' MSL. Numerous trees beginning 2128' from DER, 1' right of centerline, up to 103' AGL/113' MSL. Multiple trees beginning 3955' from DER, 936' right of centerline, up to 124' AGL/134' MSL. Vehicles on road beginning 265' from DER, on centerline, up to 15' AGL/26' MSL. Tree 9' from DER, 414' left of centerline, 25' AGL/35' MSL. Tree 166' from DER, 264' left of centerline, 17' AGL/27' MSL. Towers beginning 201' from DER, 86' left of centerline, 12' AGL/27' MSL. Vehicle on road 217' from DER, 81' left of centerline, 10' AGL/27' MSL. Trees beginning 677' from DER, 568' left of centerline, up to 60' AGL/70' MSL. Trees beginning 764' from DER, 109' left of centerline, up to 40' AGL/47' MSL. Poles beginning 846' from DER, 223' left of centerline, up to 41' AGL/51' MSL. Multiple trees beginning 1110' from DER, 181' left of centerline, up to 49' AGL/59' MSL. Tree 1359' from DER, 817' left of centerline, 93' AGL/103' MSL. Multiple trees located 1566' from DER, 7' left of centerline, up to 85' AGL/95' MSL. Trees beginning 3528' from DER, 186' left of centerline, up to 106' AGL/113' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# KISRR THREE DEPARTURE

NORFOLK, VIRGINIA

# ILS or LOC/DME RWY 10

LOC I-NGU <b>108.95</b>	APCH CRS <b>100°</b>	Rwy ldg THRE Arpt Elev <b>8072</b> <b>13</b> <b>15</b>
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AL-290 [USN]

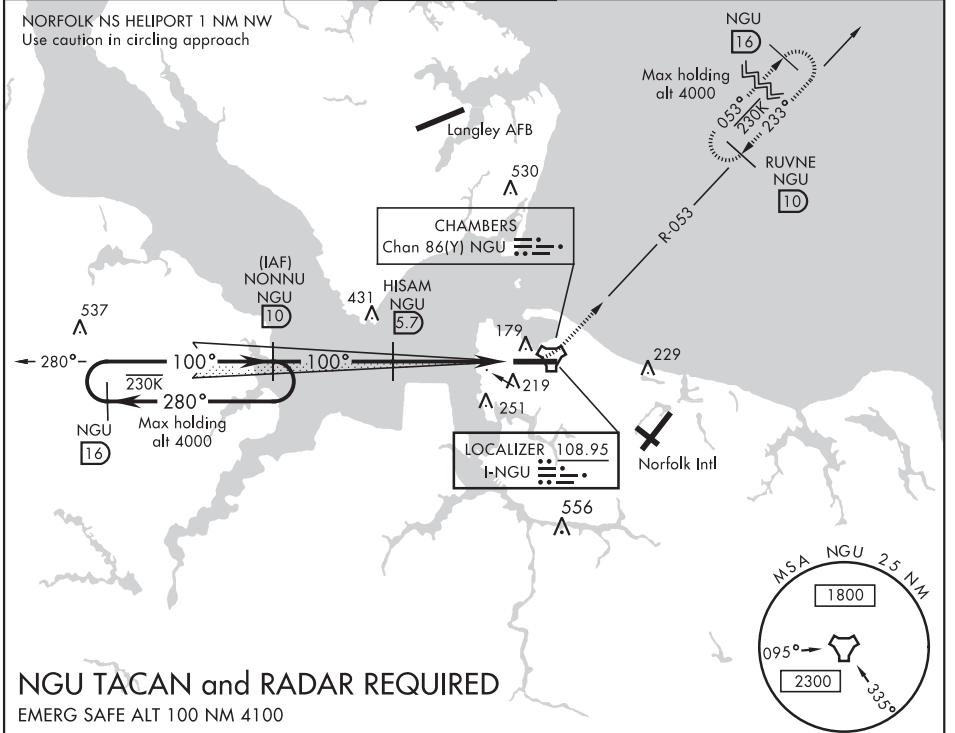
NORFOLK NS (CHAMBERS FIELD) (KNGU)

▼ \* When ALS inop, increase vis to ¾ mile.  
 \*\* When ALS inop, increase vis CAT AB to 1 mile, CAT CDE to 1½ miles.  
 \*\*\* Circling not authorized S of Rwy 10-28.



MISSED APPROACH: Climbing left turn to 2100 via NGU TACAN R-053 to RUVNE and hold.

ATIS <b>118.425 342.0</b>	NORFOLK APP CON <b>118.9 353.7</b>	CHAMBERS TOWER <b>124.3 379.15</b>	GND CON <b>121.8 370.85</b>	CLNC DEL <b>120.7 339.8</b>	ASR/PAR
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## NGU TACAN and RADAR REQUIRED

EMERG SAFE ALT 100 NM 4100

CAUTION: VGSI runway reference point (RRP) not coincident with procedure RPI

	ELEV 15		THRE 13	
	Rwy 10 ldg 8072'		Rwy 28 ldg 7376'	

CATEGORY	A	B	C	D	E
S-ILS 10 *	213-½		200	(200-½)	
S-LOC 10 **	440-½	427 (500-½)	440-¾	427	(500-¾)
<b>C</b> CIRCLING ***	500-1 485 (500-1)	540-1 525 (600-1)	540-1½ 525 (600-1½)	580-2	565 (600-2)

TDZL/CL Rwy 10-28  
REIL Rwy 10-28  
HIRL Rwy 10-28

NORFOLK, VIRGINIA

36°56'N-76°17'W

NORFOLK NS (CHAMBERS FIELD) (KNGU)

Amtd 4 24JUL14

# ILS or LOC/DME RWY 10

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

NORFOLK, VIRGINIA

# RNAV (GPS) RWY 10

APCH CRS	Rwy ldg	<b>8072</b>
<b>100°</b>	THRE	<b>13</b>
	Arpt Elev	<b>15</b>

AL-290 [UN]

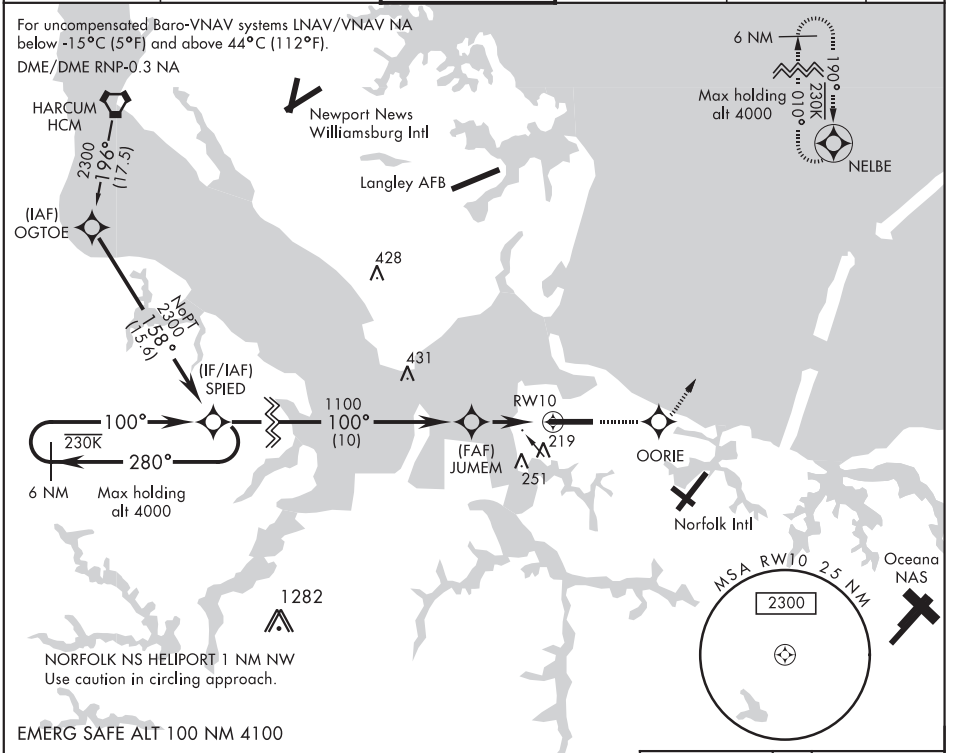
NORFOLK NS (CHAMBERS FIELD) (KNGU)

▼ \* When ALS inop, increase vis CAT ABCDE to 1 7/8 miles.  
 \*\* When ALS inop, increase vis CAT AB to 1 mile, CAT CDE to 1 3/8 miles.  
 \*\*\* Circling not authorized S of Rwy 10-28.



MISSED APPROACH: Climb direct OORIE, then climbing left turn to 3000 direct NELBE and hold.

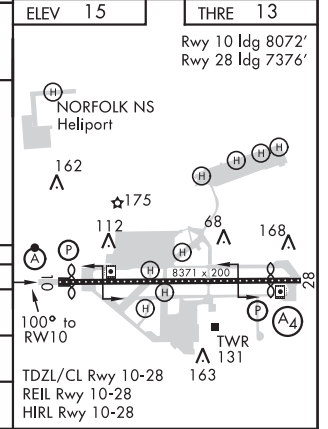
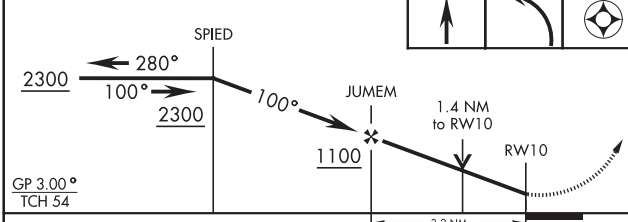
ATIS	NORFOLK APP CON	CHAMBERS TOWER	GND CON	CLNC DEL	ASR/PAR
<b>118.425 342.0</b>	<b>118.9 353.7</b>	<b>124.3 379.15</b>	<b>121.8 370.85</b>	<b>120.7 339.8</b>	



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

VGSI and RNAV TCH not coincident.



CATEGORY	A	B	C	D	E
LNVA/ VNAV DA *	580-1 1/2		567	(600-1 1/2)	
LNVA MDA **	500-1/2 487 (500-1/2)		500-1 487 (500-1)		
CIRCLING ***	500-1 485 (500-1)	540-1 525 (600-1)	540-1 1/2 525 (600-1 1/2)	580-2 565 (600-2)	

NORFOLK, VIRGINIA  
Amdt 3 29MAY13

36° 56' N-76° 17' W

NORFOLK NS (CHAMBERS FIELD) (KNGU)

# RNAV (GPS) RWY 10

NORFOLK, VIRGINIA

# RNAV (GPS) RWY 28

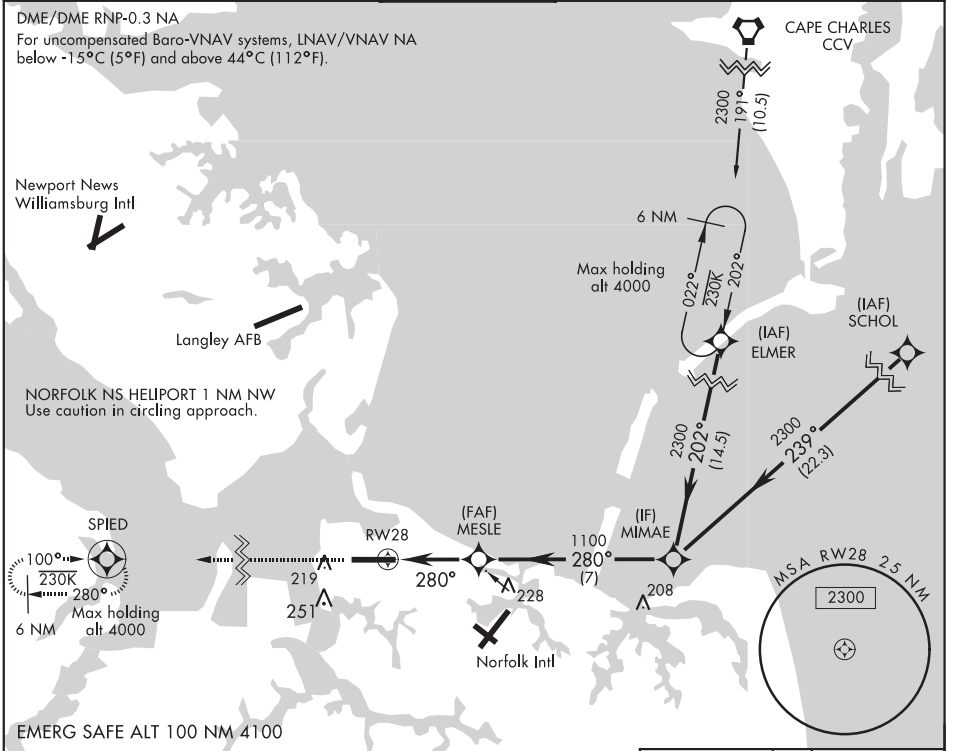
APCH CRS <b>280°</b>	Rwy ldg THRE <b>12</b> Arpt Elev <b>15</b>
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AL-290 [USN]

NORFOLK NS (CHAMBERS FIELD) (KNGU)

<p>▼ * When ALS inop, increase vis CAT ABCDE to 1¾ miles.                  ** When ALS inop, increase vis CAT AB to 1 mile, CAT CDE to 1¾ miles.                  *** Circling not authorized S of Rwy 10-28.</p>	<p>SSALS  </p>	<p>MISSED APPROACH: Climb to 3000 direct SPIED and hold.</p>
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<p>ATIS <b>118.425 342.0</b></p>	<p>NORFOLK APP CON <b>118.9 353.7</b></p>	<p>CHAMBERS TOWER <b>124.3 379.15</b></p>	<p>GND CON <b>121.8 370.85</b></p>	<p>CLNC DEL <b>120.7 339.8</b></p>	<p>ASR/PAR</p>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

<p>3000 ↑ SPIED</p>	<p>MIMAE 2300</p>																												
<p>MESLE 1100</p>	<p>RWY 28</p>																												
<p>1.3 NM to RWY 28</p>	<p>GP 3.00° TCH 37</p>																												
<p>3.3 NM</p>	<p>280°</p>																												
<table border="1"> <tr> <th>CATEGORY</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> </tr> <tr> <td>LNAV/VNAV DA *</td> <td colspan="2">500-1¾</td> <td>488</td> <td colspan="2">(500-1¾)</td> </tr> <tr> <td>LNAV MDA **</td> <td>460-¾</td> <td>448 (500-¾)</td> <td>460-1</td> <td>448</td> <td>(500-1)</td> </tr> <tr> <td>CIRCLING ***</td> <td>500-1 485 (500-1)</td> <td>540-1 525 (600-1)</td> <td>540-1½ 525 (600-1½)</td> <td>580-2</td> <td>565 (600-2)</td> </tr> </table>	CATEGORY	A	B	C	D	E	LNAV/VNAV DA *	500-1¾		488	(500-1¾)		LNAV MDA **	460-¾	448 (500-¾)	460-1	448	(500-1)	CIRCLING ***	500-1 485 (500-1)	540-1 525 (600-1)	540-1½ 525 (600-1½)	580-2	565 (600-2)	<table border="1"> <tr> <td>ELEV</td> <td>15</td> <td>THRE</td> <td>12</td> </tr> </table> <p>Rwy 10 ldg 8072' Rwy 28 ldg 7376'</p> <p>TDZL/CL Rwy 10-28 REIL Rwy 10-28 HIRL Rwy 10-28</p>	ELEV	15	THRE	12
CATEGORY	A	B	C	D	E																								
LNAV/VNAV DA *	500-1¾		488	(500-1¾)																									
LNAV MDA **	460-¾	448 (500-¾)	460-1	448	(500-1)																								
CIRCLING ***	500-1 485 (500-1)	540-1 525 (600-1)	540-1½ 525 (600-1½)	580-2	565 (600-2)																								
ELEV	15	THRE	12																										

NORFOLK, VIRGINIA  
Amdt 3 29MAY14

36° 56' N-76° 17' W

NORFOLK NS (CHAMBERS FIELD) (KNGU)

# RNAV (GPS) RWY 28

NORFOLK, VIRGINIA

# TACAN RWY 10

TACAN NGU Chan <b>86(Y)</b>	APCH CRS <b>097°</b>	Rwy ldg THRE Arprt Elev <b>8072</b> <b>13</b> <b>15</b>
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AL-290 [USN]

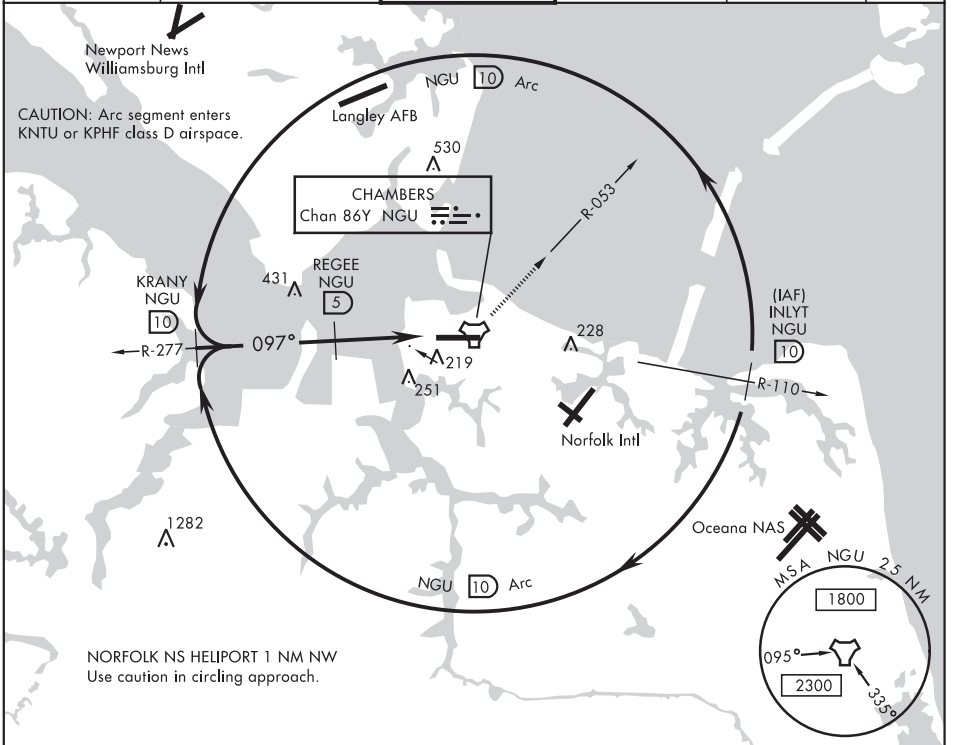
NORFOLK NS (CHAMBERS FIELD) (KNGU)

▼ \* When ALS inop, increase CAT AB vis to 1 mile, CAT CD to 1 3/8 miles.  
\*\* Circling not authorized south of Rwy 10/28.



MISSED APPROACH: Climbing left turn to 2300 via NGU TACAN R-053 then as directed by ATC.

ATIS <b>118.425 342.0</b>	NORFOLK APP CON <b>118.9 353.7</b>	CHAMBERS TOWER <b>124.3 379.15</b>	GND CON <b>121.8 370.85</b>	CLNC DEL <b>120.7 339.8</b>	ASR/PAR
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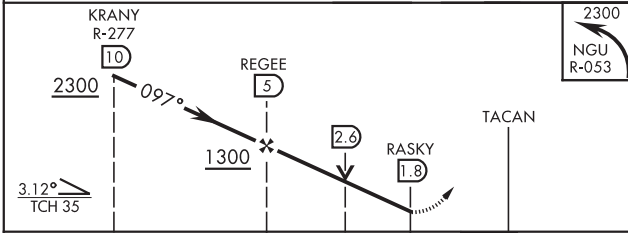


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

## RADAR REQUIRED

EMERG SAFE ALT 100 NM 4100



ELEV 15	THRE 13
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Rwy 10 ldg 8072'  
Rwy 28 ldg 7376'

TDZL/CL Rwy 10-28  
REIL Rwy 10-28  
HIRL Rwy 10-28

NORFOLK, VIRGINIA

36°56'N-76°17'W

NORFOLK NS (CHAMBERS FIELD) (KNGU)

Amdt 2 29MAY14

# TACAN RWY 10

NORFOLK, VIRGINIA

# TACAN RWY 28

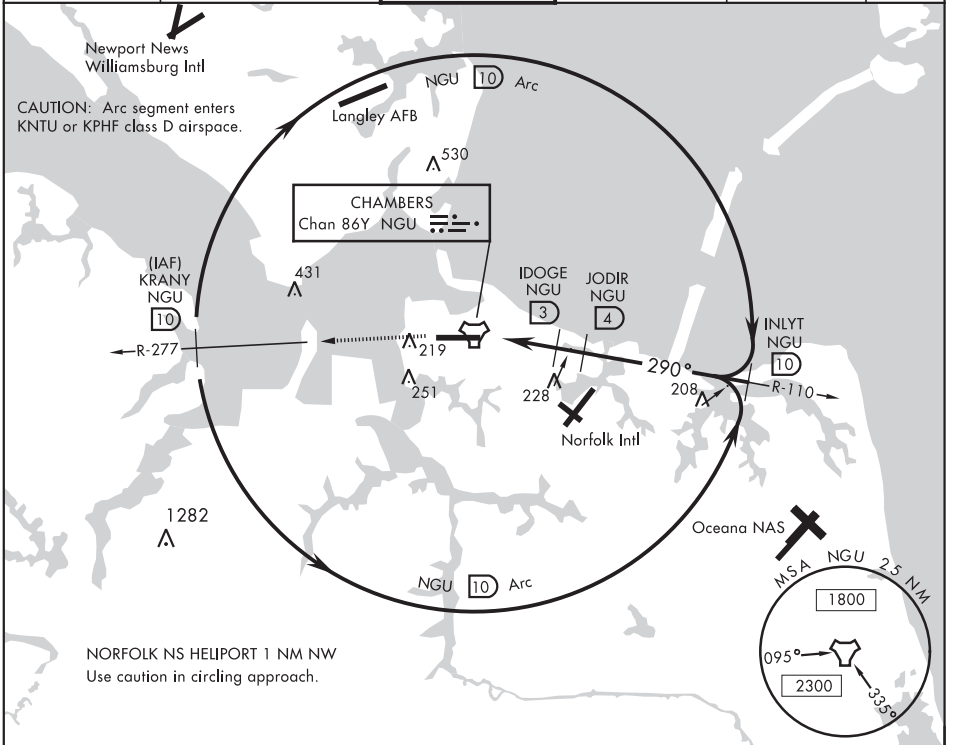
TACAN NGU Chan <b>86Y</b>	APCH CRS <b>290°</b>	Rwy ldg <b>7376'</b> THRE <b>12</b> Arpt Elev <b>15</b>
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AL-290 [USN]

NORFOLK NS (CHAMBERS FIELD) (KNGU)

<p>▼ * When ALS inop, increase vis CAT AB to 1 mile, CAT CD to 1½ miles. ** Circling not authorized south of Rwy 10/28.</p>	SSALS <b>(A4)</b>	MISSED APPROACH: Climb to 2300 via NGU TACAN R-277 then as directed by ATC.
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ATIS <b>118.425 342.0</b>	NORFOLK APP CON <b>118.9 353.7</b>	CHAMBERS TOWER <b>124.3 379.15</b>	GND CON <b>121.8 370.85</b>	CLNC DEL <b>120.7 339.8</b>	ASR/PAR
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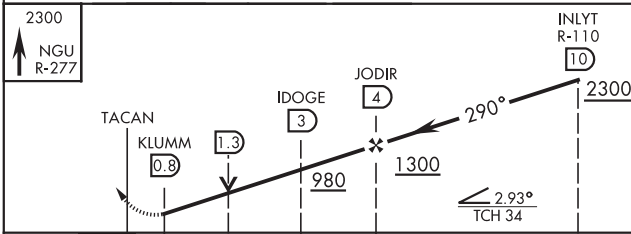


NE-3, 10 NOV 2016 to 05 JAN 2017

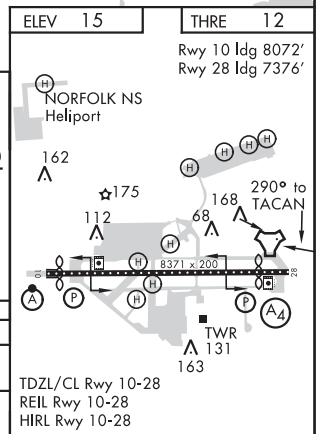
NE-3, 10 NOV 2016 to 05 JAN 2017

## RADAR REQUIRED

EMERG SAFE ALT 100 NM 4100



CATEGORY	A	B	C	D
S-28 *	460-¾	448 (500-¾)	460-1	448 (500-1)
CIRCLING**	500-1 485 (500-1)	540-1 525 (600-1)	540-1½ 525 (600-1½)	580-2 565 (600-2)



NORFOLK, VIRGINIA

36° 56' N-76° 17' W

NORFOLK NS (CHAMBERS FIELD) (KNGU)

Amtd 4 29MAY14

# TACAN RWY 28



# AIRPORT DIAGRAM

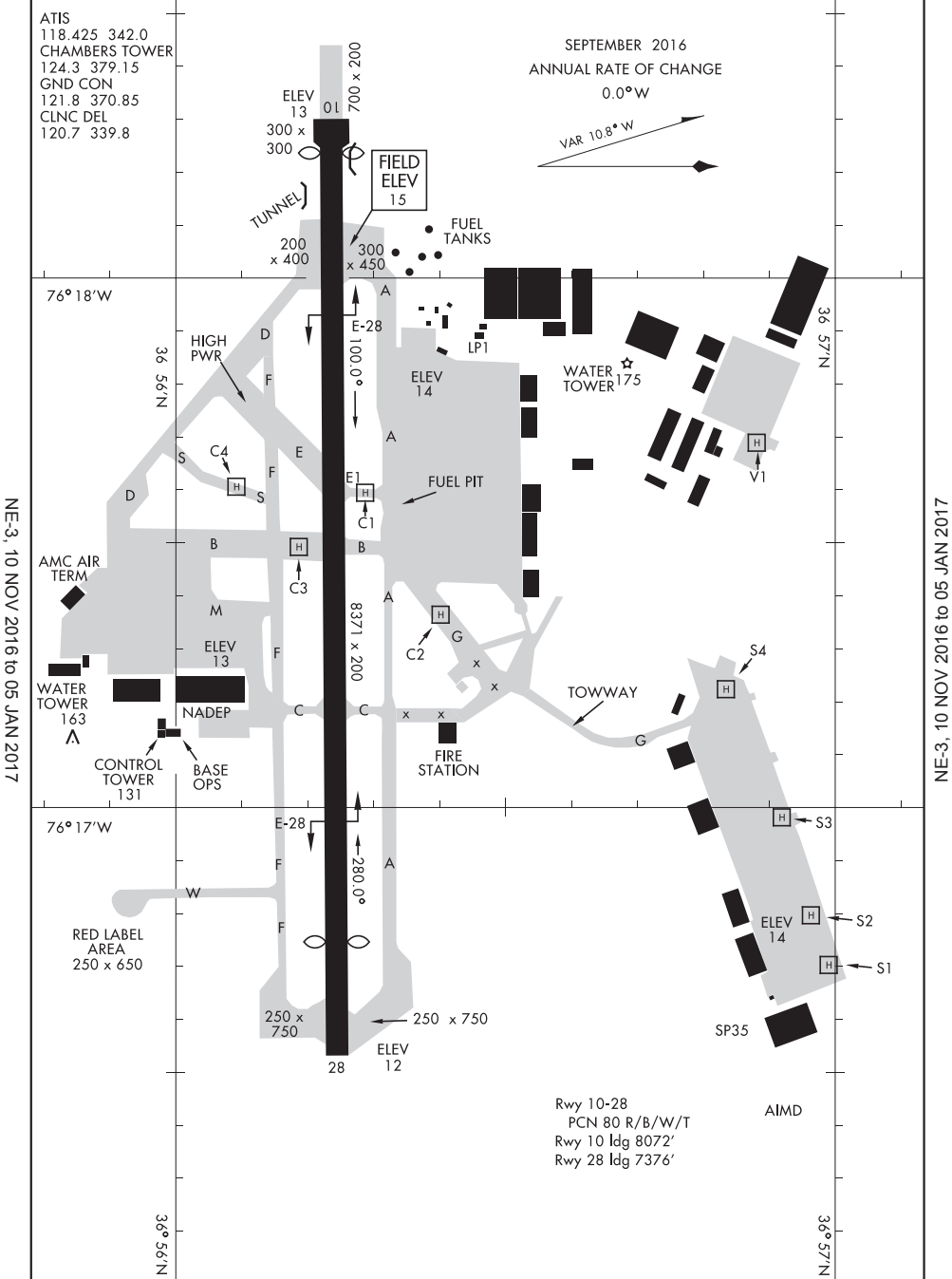
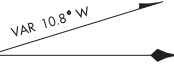
AFD-290 [USN]

NORFOLK NS (CHAMBERS FIELD) (KNGU)

NORFOLK, VIRGINIA

ATIS  
 118.425 342.0  
 CHAMBERS TOWER  
 124.3 379.15  
 GND CON  
 121.8 370.85  
 CLNC DEL  
 120.7 339.8

SEPTEMBER 2016  
 ANNUAL RATE OF CHANGE  
 0.0°W

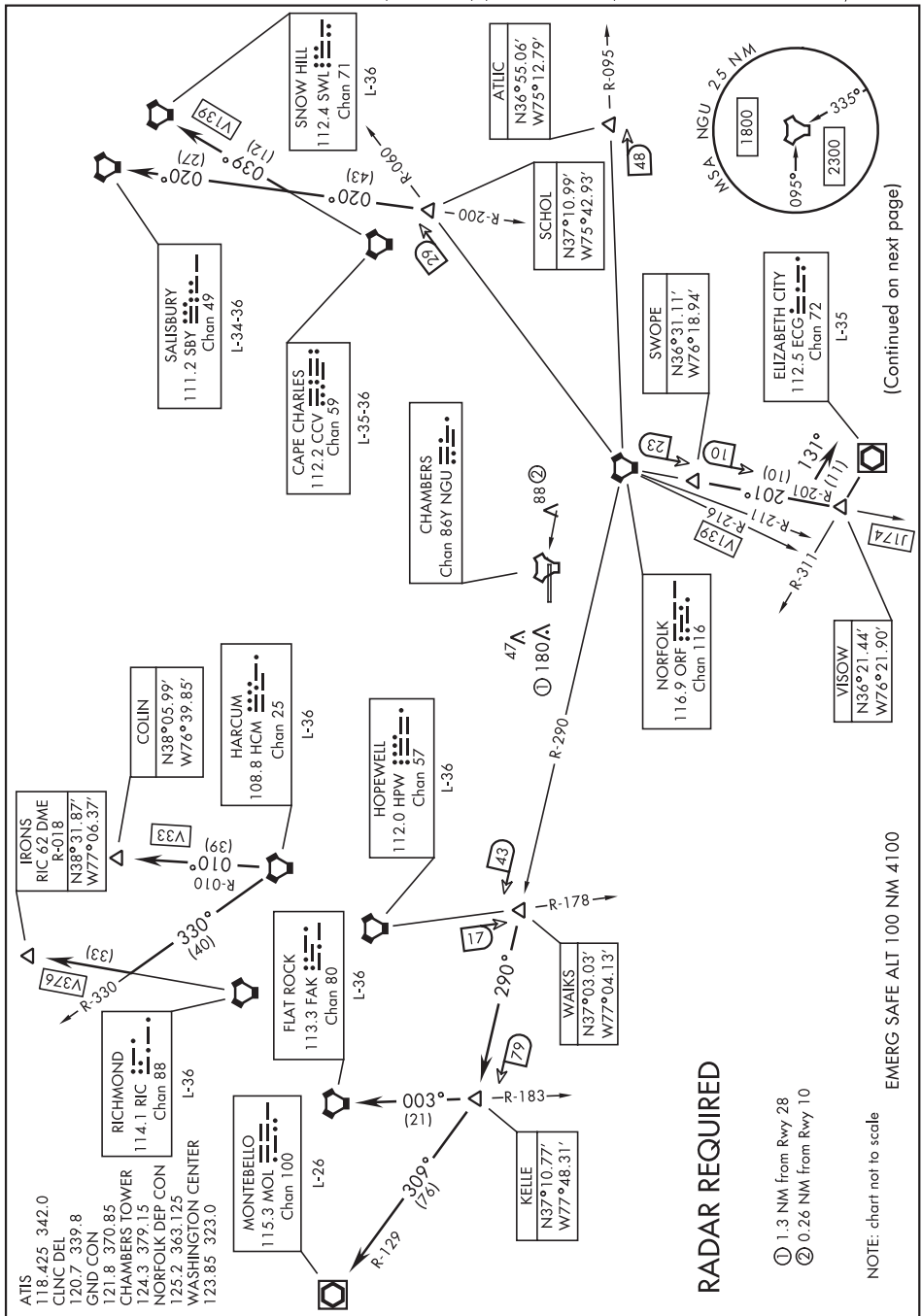


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

NORFOLK, VIRGINIA  
NORFOLK NS (CHAMBERS FIELD) (KNGU)



(Continued on next page)

EMERG SAFE ALT 100 NM 4100

**RADAR REQUIRED**

- ① 1.3 NM from Rwy 28
- ② 0.26 NM from Rwy 10

NOTE: chart not to scale

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



## DEPARTURE ROUTE DESCRIPTION

(Continued)

TAKE-OFF RWY 10: Climbing left turn heading 050°, cross DER at or above 35' AGL/48' MSL, thence...

TAKE-OFF RWY 28: Climb via heading 280°, thence...

...via radar vectors to assigned transition. Maintain 2000 or assigned altitude. Expect clearance to requested altitude/flight level 10 minutes after departure.

ATLIC TRANSITION (NGU8•ATLIC): Via vectors to ATLIC.

CAPE CHARLES TRANSITION (NGU8•CCV): Via vectors to CCV VORTAC. (NOTE: For altitudes 5000 and below).

ELIZABETH CITY TRANSITION (NGU8•ECG): Via vectors to SWOPE, then via ORF R-201 to VISOW (ORF R-201/33 DME), then direct ECG VOR/DME.

FLAT ROCK TRANSITION (NGU8•FAK): Via vectors to WAIKS, then via ORF R-290 to KELLE, then direct FAK VORTAC.

HARCUM TRANSITION (NGU8•HCM): Via vectors to HCM VORTAC \*.

HOPEWELL TRANSITION (NGU8•HPW): Via vectors to HPW VORTAC.

J174 TRANSITION (NGU8•ORF): Via vectors to J174.

MONTEBELLO TRANSITION (NGU8•MOL): Via vectors to WAIKS, then via ORF R-290 to KELLE, then intercept MOL R-129 to MOL VOR/DME.

SALISBURY TRANSITION (NGU8•SBY): Via vectors to SCHOL, then SBY R-200 to SBY VORTAC.

SNOW HILL TRANSITION (NGU8•SWL): Via vectors to SCHOL, thence SBY R-200 to V139 to SWL VORTAC.

V139 TRANSITION (NGU8•ORF): Via vectors to V139.

\* For routing to NHK/BWI/MTN/DCA METRO AREA via the following:

NHK-V33 COLIN V213 PXT. (NOTE For altitudes 7000 or 9000 only.)

BWI/MTN-V33 COLIN V213 PXT V93 GRACO. (NOTE: For altitudes 7000 or 9000 only.)

DCA/ADW/DAA-HCM R-330 V376 IRONS. (NOTE: For altitude 8000 only.)

NOTE: Transitions are part of the Preferred Departure Route (PDR) system and established as an Air Traffic flow procedure from the Norfolk Terminal Area. These fixes are to be used as the initial filing point out of NS Norfolk.

WAAS CH <b>69624</b> <b>W09A</b>	APP CRS <b>088°</b>	Rwy Idg <b>5000</b> TDZE <b>2933</b> Apt Elev <b>2933</b>
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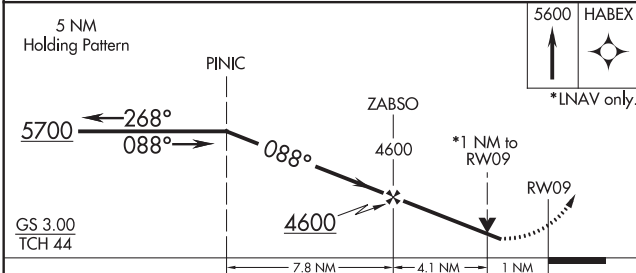
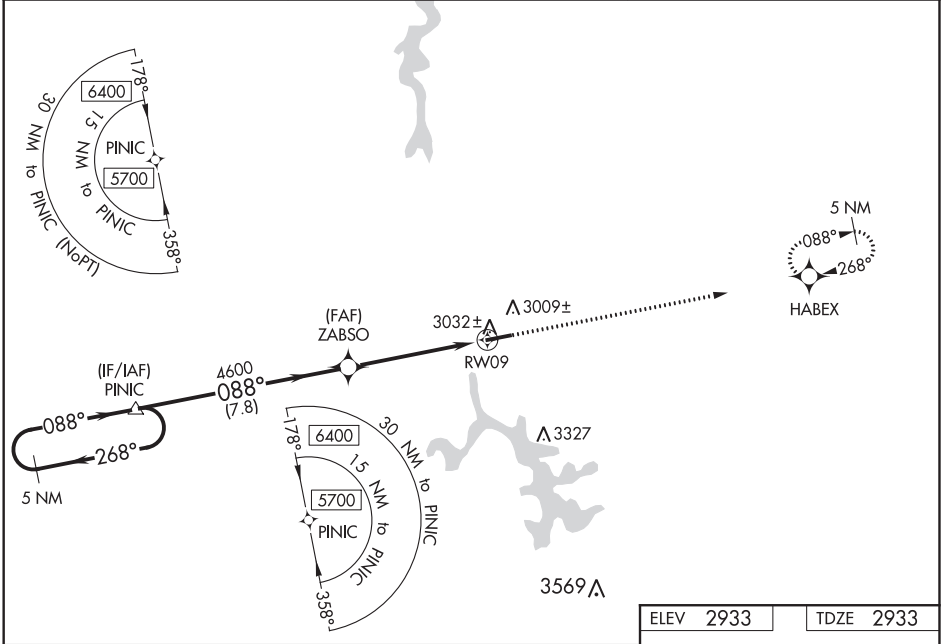
# RNAV (GPS) RWY 9

GARRETT COUNTY (2G4)

**▼** Baro-VNAV and VDP NA when using Morgantown altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20° (-4°F) or above 54°C (130°F). Helicopter visibility reduction below 3/4 SM NA. DME/DME RNP -0.3 NA. When local altimeter setting not received, use Morgantown altimeter setting and increase all DA and MDA 300 feet.  
**▲ NA** Increase LPV and LNAV/VNAV all Cats visibility 1 1/8 mile, LNAV Cat C visibility 7/8 mile and Circling Cat C visibility 1 mile.

**MISSED APPROACH:**  
Climb to 5600 direct HABEX and hold.

AWOS-3 <b>120.125</b>	CLARKSBURG APP CON ★ <b>121.15</b>	UNICOM <b>123.0 (CTAF)</b>
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ELEV 2933	TDZE 2933
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REIL Rwy 9 and 27  
MRL Rwy 9-27

CATEGORY	A	B	C	D
LPV DA	3183-3/4	250 (300-3/4)		NA
LNAV/VNAV DA	3183-3/4	250 (300-3/4)		NA
LNAV MDA	3300-1	367 (400-1)		NA
<b>C</b> CIRCLING	3340-1 407 (500-1)	3400-1 467 (500-1)	3500-1 1/2 567 (600-1 1/2)	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>86524</b> <b>W27A</b>	APP CRS <b>268°</b>	Rwy Idg <b>5000</b> TDZE <b>2925</b> Apt Elev <b>2933</b>
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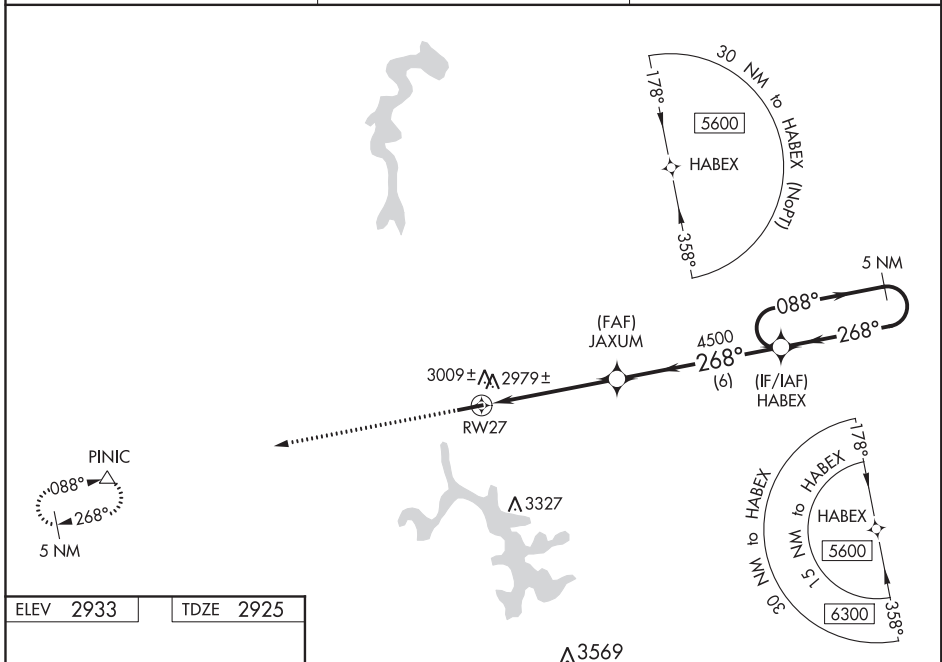
# RNAV (GPS) RWY 27

GARRETT COUNTY (2G4)

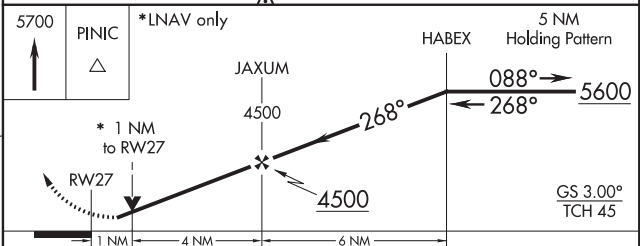
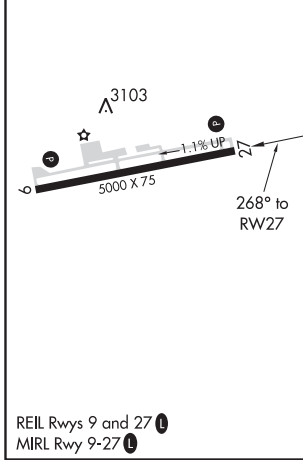
**⚠** Baro-VNAV and VDP NA when using Morgantown altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 54°C (130°F). Helicopter visibility reduction below 3/4 SM NA. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Morgantown altimeter setting and increase all DA and all MDA 300 feet. Increase LPV and LNAV/VNAV all Cats visibility 1 1/2 mile, LNAV Cat C visibility 7/8 mile and Circling Cat C visibility 1 mile.

**⚠ NA** MISSED APPROACH: Climb 5700 direct PINIC and hold.

AWOS-3 <b>120.125</b>	CLARKSBURG APP CON ★ <b>121.15</b>	UNICOM <b>123.0</b> (CTAF) <b>📻</b>
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ELEV 2933	TDZE 2925
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CATEGORY	A	B	C	D
LPV DA	3175-1	250 (300-1)		NA
LNAV/VNAV DA	3197-1	272 (300-1)		NA
LNAV MDA	3240-1	315 (400-1)		NA
<b>📻</b> CIRCLING	3340-1 407 (500-1)	3400-1 467 (500-1)	3500-1 1/2 567 (600-1 1/2)	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

OAKLAND, MARYLAND

AL-5876 (FAA)

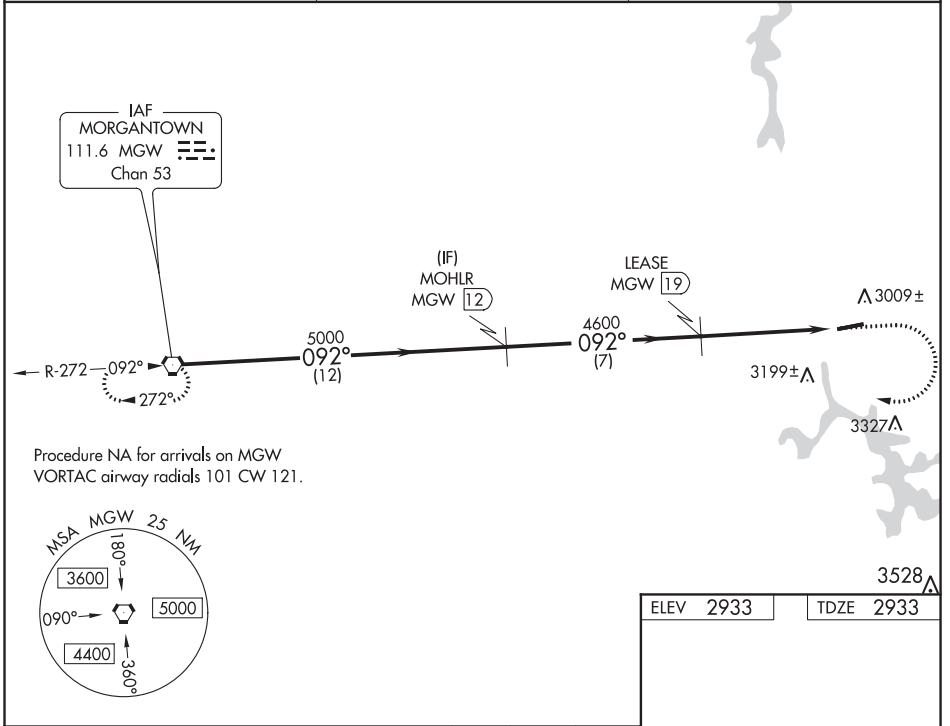
16203

VORTAC MGW <b>111.6</b> Chan <b>53</b>	APP CRS <b>092°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>2933</b> <b>2933</b>
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# VOR/DME RWY 9

GARRETT COUNTY (2G4)

<p><b>▽</b> Helicopter visibility reduction below <math>\frac{3}{4}</math> SM NA. <b>△</b> NA When local altimeter setting not received, use Morgantown altimeter setting and increase all MDA 300 feet. Increase S-09 Cat B and Circling Cat B visibility to <math>1\frac{1}{4}</math> mile and S-09 Cat C and Circling Cat C visibility to <math>2\frac{1}{2}</math> mile.</p>	MISSED APPROACH: Climb to 3500 then climbing right turn to 5000 direct MGW VORTAC and hold.	
AWOS-3 <b>120.125</b>	CLARKSBURG APP CON ★ <b>121.15</b>	UNICOM <b>123.0</b> (CTAF) <b>📻</b>



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

	ELEV 2933	TDZE 2933		
	3500	5000	MGW	
	↑	↷	📻	
	MGW VORTAC	MOHLR MGW 12	LEASE MGW 19	MGW 24
	5000	5000	4600	
	12 NM	7 NM	5 NM	
	3.08° TCH 44			
	092° 5 NM from FAF			
	3103 $\Delta$			
	5000 X 75			
	1-1% UP			
	REIL Rwy 9 and 27 <b>📻</b>			
	MIRL Rwy 9-27 <b>📻</b>			

OAKLAND, MARYLAND  
Orig-A 21JUL16

39°35'N-79°20'W

# VOR/DME RWY 9

GARRETT COUNTY (2G4)

APP CRS	Rwy Idg	<b>3204</b>
<b>032°</b>	TDZE	<b>11</b>
	Apt Elev	<b>11</b>

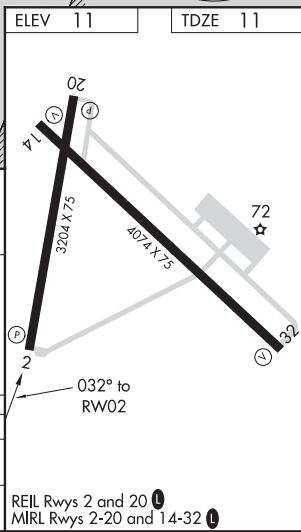
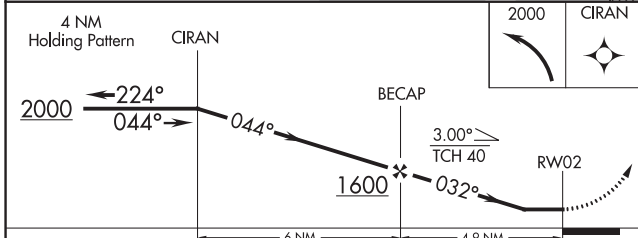
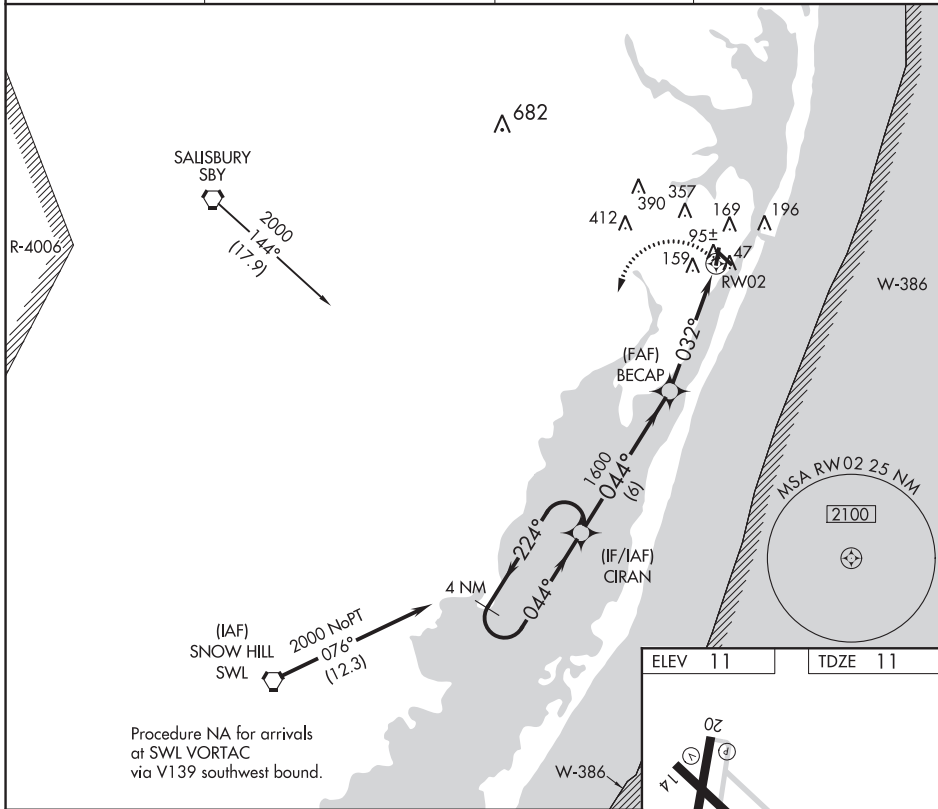
# RNAV (GPS) RWY 2

OCEAN CITY MUNI (OXB)

**⚠** If local altimeter setting not received, use Salisbury altimeter setting and increase all MDAs 60 feet. DME/DME RNP-0.3 NA. Night landing: Rwy 14, 20 NA. Helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

**⚠** MISSED APPROACH: Climbing left turn to 2000 direct CIRAN and hold.

ASOS	PATUXENT APP CON *	CLNC DEL	UNICOM
<b>119.025</b>	<b>127.95 314.0</b>	<b>121.75</b>	<b>123.05 (CTAF) 0</b>



CATEGORY	A	B	C	D
LNVA MDA	420 - 1	409 (500-1)	420 - 1 1/4 409 (500-1 1/4)	NA
CIRCLING	480 - 1	469 (500-1)	660 - 1 3/4 649 (700-1 3/4)	NA

REIL Rws 2 and 20 0  
MIRL Rws 2-20 and 14-32 0

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>4074</b>
<b>145°</b>	TDZE	<b>11</b>
	Apt Elev	<b>11</b>

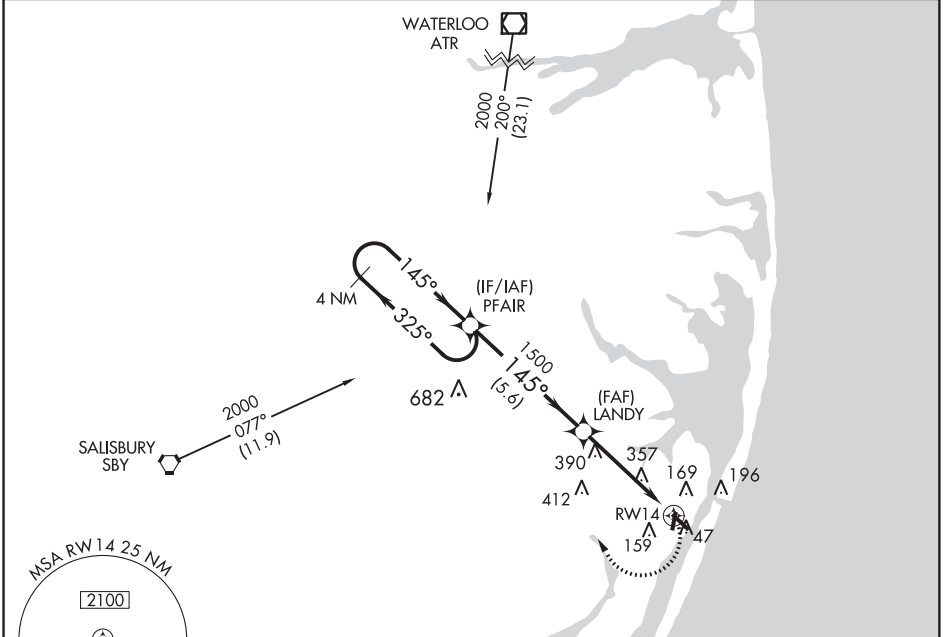
# RNAV (GPS) RWY 14

OCEAN CITY MUNI (OXB)

**▼** Night landing: Rwy 14, 20 NA. When local altimeter setting not received, use Salisbury altimeter setting and increase all MDA 60 feet; increase S-1-4 Cat B visibility and Circling Cats B/C/D visibility ½ mile. Helicopter visibility reduction below 1 SM NA. DME/DME RNP -0.3 NA.

**▲ NA** MISSED APPROACH: Climbing right turn to 2000 via 325° course to PFAIR and hold.

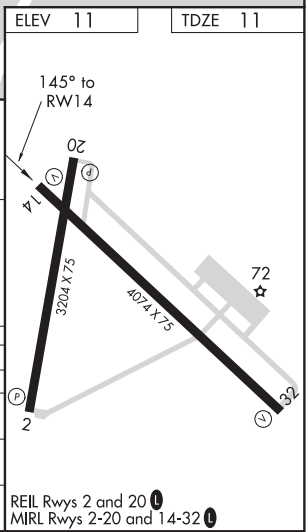
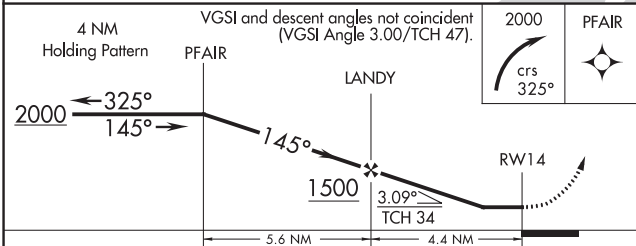
ASOS	PATUXENT APP CON *	CLNC DEL	UNICOM
<b>119.025</b>	<b>127.95 314.0</b>	<b>121.75</b>	<b>123.05 (CTAF) 0</b>



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 11	TDZE 11
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CATEGORY	A	B	C	D
LPV DA			NA	
LNAV/VNAV DA			NA	
LNAV MDA	700-1	689 (700-1)	700-2 689 (700-2)	700-2¼ 689 (700-2¼)
CIRCLING	700-1	689 (700-1)	700-2 689 (700-2)	720-2¼ 709 (800-2¼)

REIL Rwy 2 and 20 0  
MRL Rwy 2-20 and 14-32 0



WAAS CH <b>40413</b> <b>W32A</b>	APP CRS <b>325°</b>	Rwy ldg <b>4074</b> TDZE <b>11</b> Apt Elev <b>11</b>
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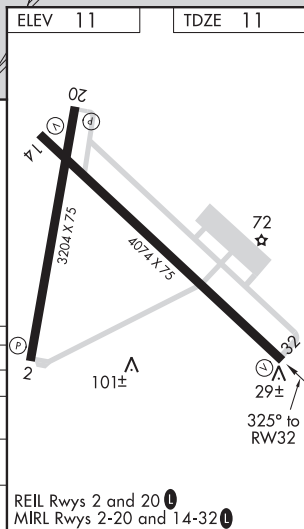
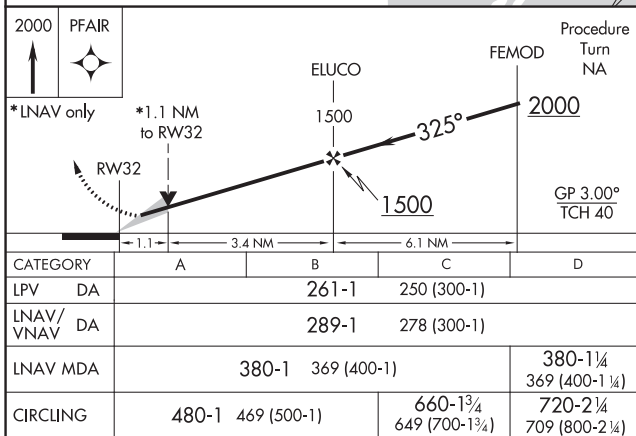
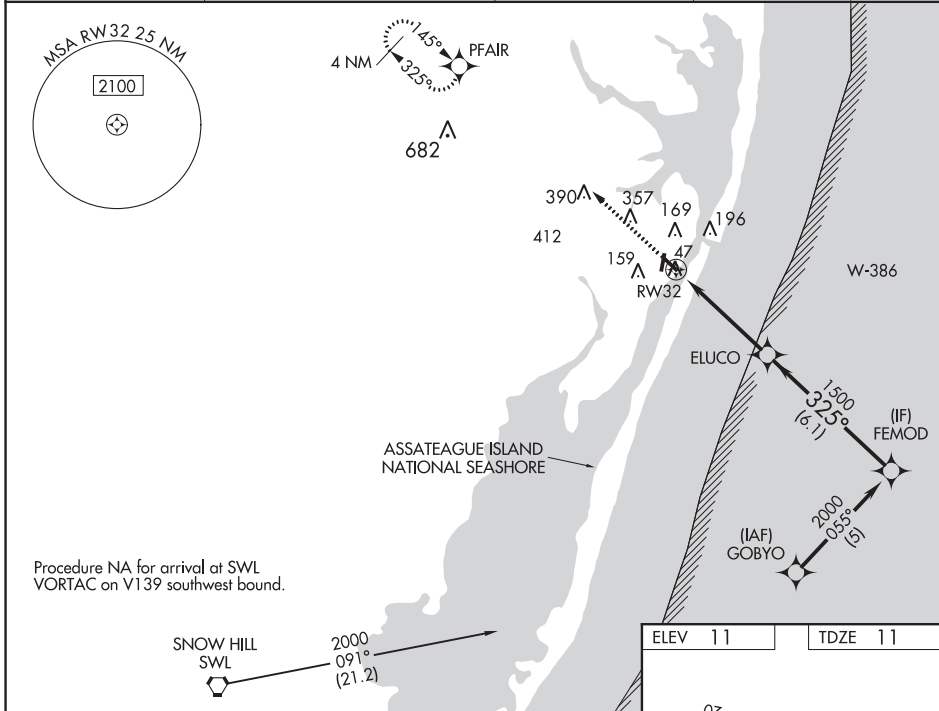
# RNAV (GPS) RWY 32

OCEAN CITY MUNI (OXB)

**⚠** 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. Baro-VNAV and VDP NA when using Salisbury altimeter setting. When local altimeter setting not received, use Salisbury altimeter setting and increase all DA 48 feet and all MDA 60 feet, increase LNAV/VNAV all Cats, LNAV Cats C/D and Circling Cats C/D visibilities ¼ mile. Night landing: Rwy 14, 20 NA.

**⚠** MISSED APPROACH: Climb to 2000 direct PFAIR and hold.

ASOS <b>119.025</b>	PATUXENT APP CON * <b>127.95 314.0</b>	CLNC DEL <b>121.75</b>	UNICOM <b>123.05 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LOC I-ORB	APP CRS	Rwy Idg	<b>4074</b>
<b>109.15</b>	<b>145°</b>	TDZE	<b>11</b>
		Apt Elev	<b>11</b>

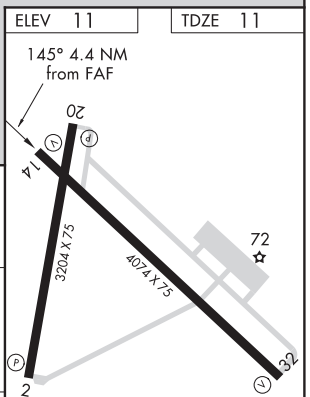
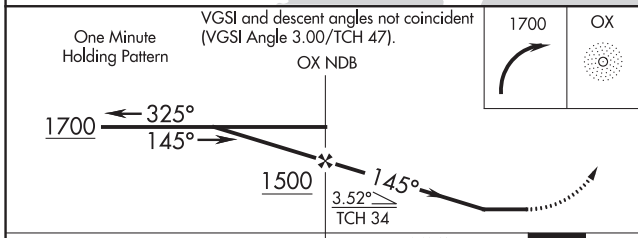
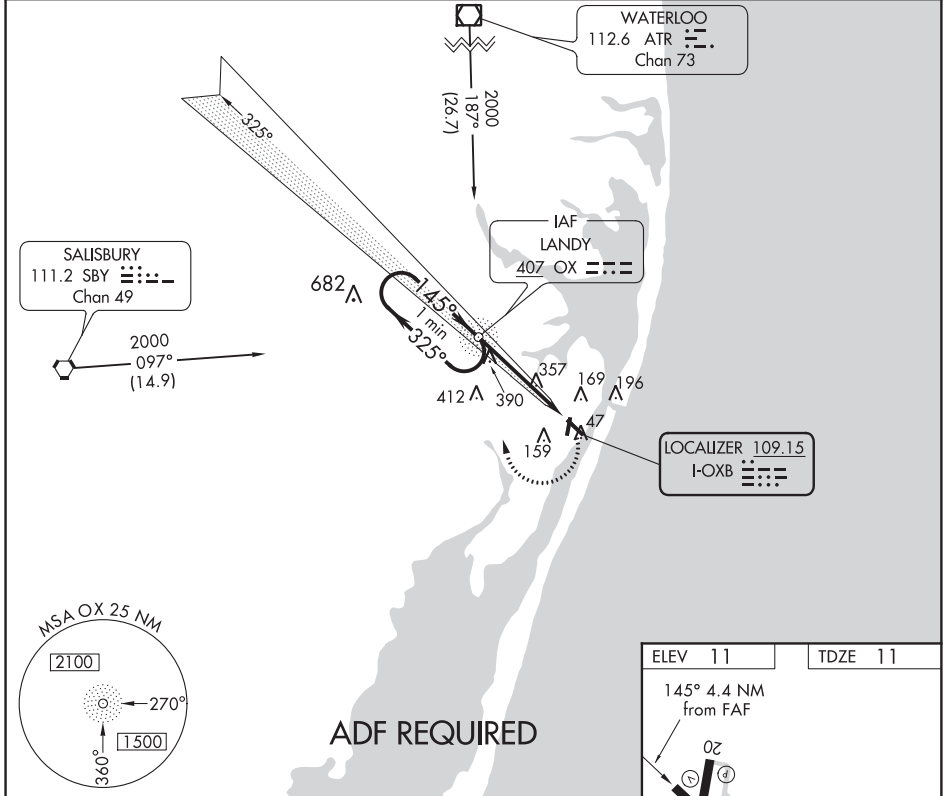
# LOC RWY 14

OCEAN CITY MUNI (OXB)

**▼** Night landing: Rwy 2, 14, 20 NA. When local altimeter setting not received, use Salisbury altimeter setting and increase all MDA 60 feet, increase S-14 Cat B visibility and Circling Cats B/C/D visibility ¼ mile. Helicopter visibility reduction below 1 SM NA.

**▲** NA MISSED APPROACH: Climbing right turn to 1700 direct OX NDB and hold.

ASOS <b>119.025</b>	PATXENT APP CON * <b>127.95 314.0</b>	CLNC DEL <b>121.75</b>	UNICOM <b>123.05 (CTAF) ①</b>
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CATEGORY	A	B	C	D	REIL Rws 2 and 20 ①
S-14	700-1 689 (700-1)		700-2 689 (700-2)	700-2 1/4 689 (700-2 1/4)	MIRL Rws 2-20 and 14-32 ①
CIRCLING	700-1 689 (700-1)		700-2 689 (700-2)	720-2 1/4 709 (800-2 1/4)	FAF to MAP 4.4 NM
					Knots 60 90 120 150 180
					Min:Sec 4:24 2:56 2:12 1:46 1:28

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

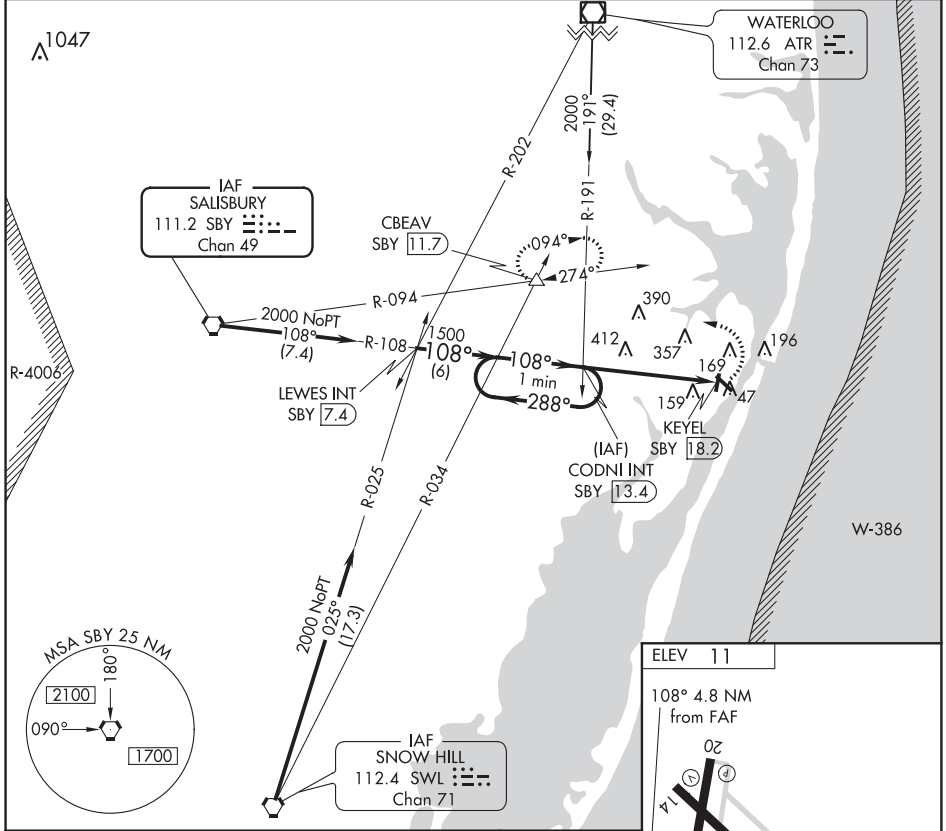
VORTAC SBY <b>111.2</b> Chan 49	APP CRS <b>108°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>11</b>
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**VOR-A**  
OCEAN CITY MUNI (OXB)

**⚠** When local altimeter setting not received, use Salisbury altimeter setting and increase all MDA 60 feet and increase Circling Cats A/C/D visibility ¼ mile.  
**⚠** Night landing: Rwy 2, 14, 20 NA. Helicopter visibility reduction below 1 SM NA.

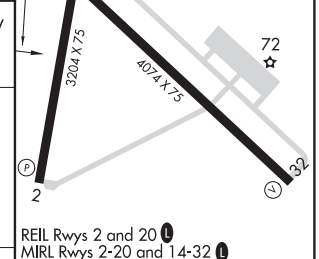
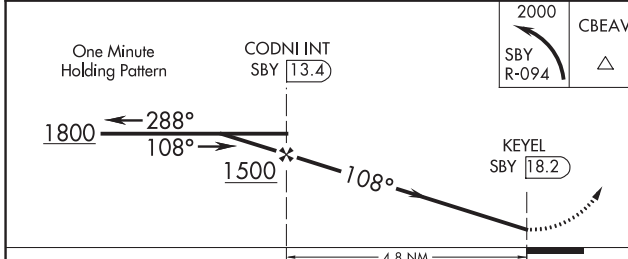
MISSED APPROACH: Climbing left turn to 2000 via SBY R-094 to CBEAV Int/11.7 DME and hold.

ASOS <b>119.025</b>	PATUXENT APP CON * <b>127.95 314.0</b>	CLNC DEL <b>121.75</b>	UNICOM <b>123.05 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D	FAF to MAP 4.8 NM					
CIRCLING	860-1 849 (900-1)	860-1¼ 849 (900-1¼)	860-2½ 849 (900-2½)	860-2¾ 849 (900-2¾)	Knots	60	90	120	150	180
					Min:Sec	4:48	3:12	2:24	1:55	1:36

VIRGINIA BEACH, VIRGINIA

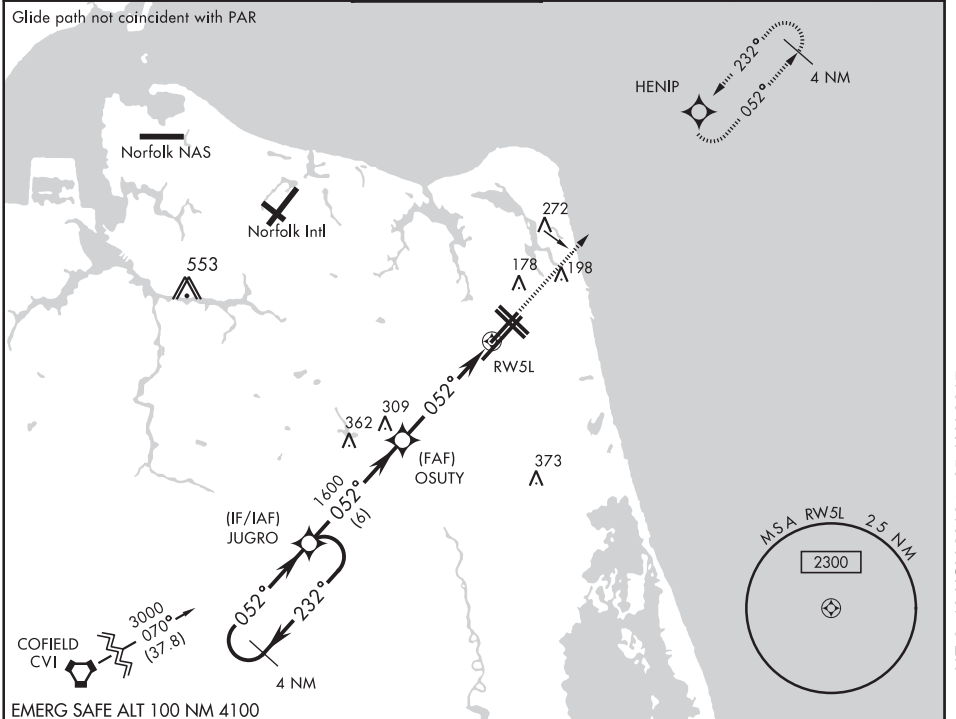
# RNAV (GPS) RWY 5L

WAAS Chan <b>63997</b> <b>W05A</b>	APCH CRS <b>052°</b>	Rwy Idg THRE <b>20</b> Arprt Elev <b>22</b>	<b>8000</b>
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AL-934 [USN] OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

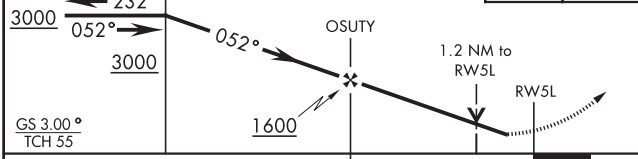
<p><b>▼</b> For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 42°C (107°F) DME/DME RNP-0.3 NA.</p>	<p>MISSED APPROACH: Climb to 3000 direct HENIP and hold. Continue climb in hold to 3000.</p>
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ATIS <b>317.6</b>	APP CON <b>123.9 266.8</b>	OCEANA TOWER <b>127.075 360.2</b>	GND CON <b>336.4</b>	CLNC DEL <b>254.4</b>	ASR/ PAR
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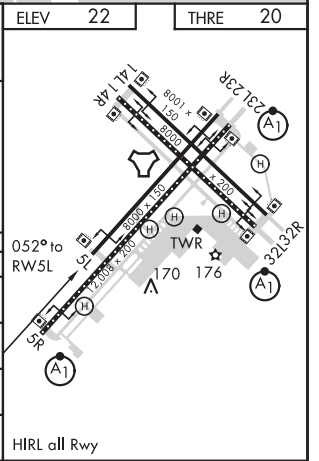


EMERG SAFE ALT 100 NM 4100

<p>JUGRO</p> <p>3000 ← 232°</p> <p>3000 → 052°</p> <p>3000</p> <p>GS 3.00°</p> <p>TCH 55</p>	<p>3000</p> <p>HENIP</p> <p>ELEV 22</p> <p>THRE 20</p>
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CATEGORY	A	B	C	D
LPV DA		220-¾	200	(200-¾)
LNAV/VNAV DA		478-1½	458	(500-1½)
LNAV MDA	460-1	440 (500-1)	440-1¼	440 (500-1¼)
CIRCLING	500-1	478 (500-1)	640-1¾ 618 (700-1¾)	640-2 618 (700-2)



VIRGINIA BEACH, VIRGINIA

36°49'N-76°02'W OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

Amdt 2 08JAN15

# RNAV (GPS) RWY 5L

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

VIRGINIA BEACH, VIRGINIA

# RNAV (GPS) RWY 5R

WAAS Chan <b>69870</b> <b>W05B</b>	APCH CRS <b>052°</b>	Rwy Idg <b>12,008</b> THRE <b>18</b> Arpt Elev <b>22</b>
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AL-934 [USN] OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

▼ \*When ALS inop, increase CAT ABCD vis to ¾ mile.  
 \*\*When ALS inop, increase CAT ABCD vis to 1½ mile.  
 \*\*\*When ALS inop increase CAT AB vis to 1 mile, CAT CD vis to 1¾.

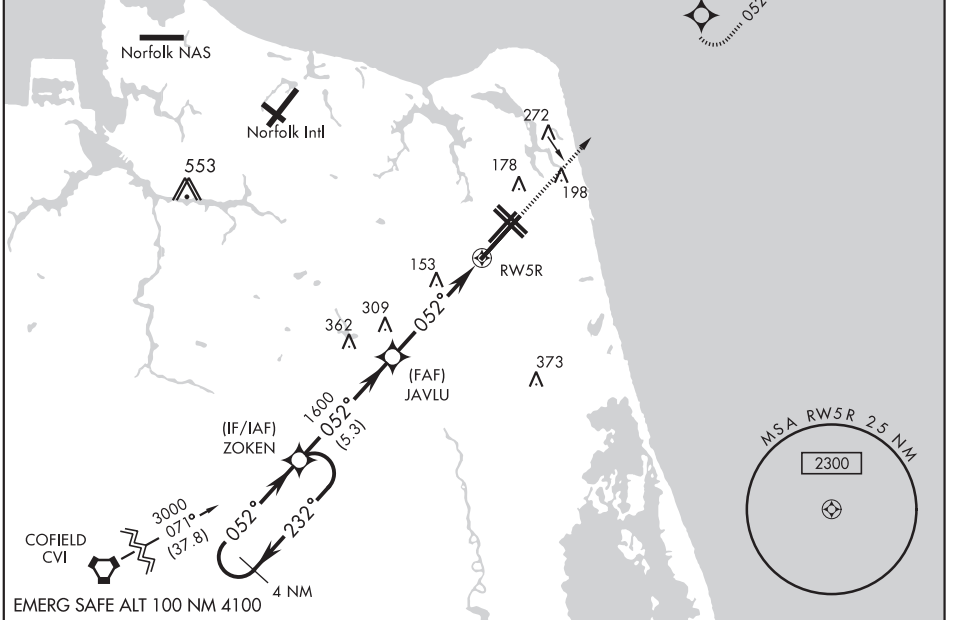


MISSED APPROACH: Climb to 3000 direct JAGNI and hold.  
 Continue climb in hold to 3000.

ATIS <b>317.6</b>	APP CON <b>123.9 266.8</b>	OCEANA TOWER <b>127.075 360.2</b>	GND CON <b>336.4</b>	CLNC DEL <b>254.4</b>	ASR/ PAR
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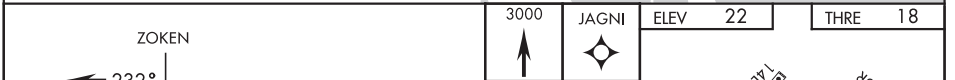
For uncompensated Baro-VNAV systems, LNAV/VNAV NA  
 below -15°C (5°F) or above 42°C (108°F)  
 DME/DME RNP-0.3 NA.

Glide path not coincident with PAR.

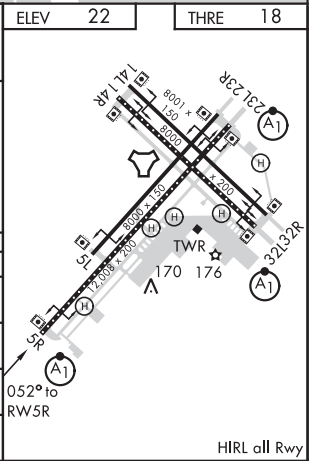


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA *		218-½	200 (200-½)	
LNAV/ ** VNAV DA		418-1½	462 (500-1½)	
LNAV MDA ***	460-½	442 (500-½)	460-7/8 442 (500-7/8)	
CIRCLING	500-1	478 (500-1)	640-1¾ 618 (700-¾)	640-2 618 (700-2)



HIRL all Rwy

VIRGINIA BEACH, VIRGINIA

36°49'N-76°02'W

OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

Amdt 2 08JAN15

# RNAV (GPS) RWY 5R

VIRGINIA BEACH, VIRGINIA

# RNAV (GPS) RWY 23L

WAAS Chan <b>67300</b> <b>W23A</b>	APCH CRS <b>232°</b>	Rwy Idg <b>12,008</b> THRE <b>21</b> Arpt Elev <b>22</b>
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AL-934 [USN] OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

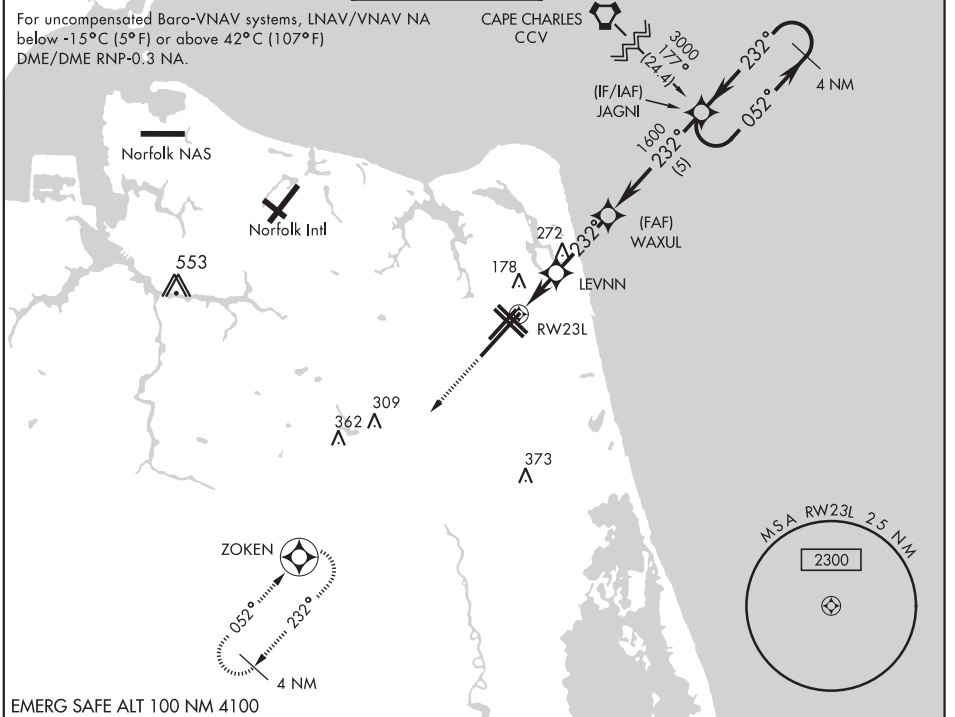
▼ \*When ALS inop, increase CAT ABCD vis to ¾ mile  
 \*\*When ALS inop, increase CAT ABCD vis to 1½ miles  
 \*\*\*When ALS inop, increase CAT AB vis to 1 mile,  
 CAT CD vis to 1¼ miles



MISSED APPROACH: Climb to 3000 direct ZOKEN and hold, Continue climb in hold to 3000.

ATIS <b>317.6</b>	APP CON <b>123.9 266.8</b>	OCEANA TOWER <b>127.075 360.2</b>	GND CON <b>336.4</b>	CLNC DEL <b>254.4</b>	ASR/ PAR
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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.



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

3000	ZOKEN	Glide path not coincident with PAR	JAGNI	052° →	3000	ELEV 22	THRE 21
↑			← 232°	← 232°	3000		
RW23L		1.2 NM to LEVNN	WAXUL	232° →	3000		
RW23L		2.7 NM	700	← 232°	1600		
RW23L		2 NM	700	← 232°	1600		
RW23L		2.7 NM	700	← 232°	1600		
RW23L		2.7 NM	700	← 232°	1600	GS 3.00°	TCH 55
CATEGORY	A	B	C	D			
LPV DA *		221-½	200	(200-½)			
LNAV/VNAV DA **		480-1⅞	459	(500-1⅞)			
LNAV MDA ***	460-½	439	(500-½)	460-¾	439	(500-¾)	
CIRCLING	500-1	478	(500-1)	640-1¾	618	(700-1¾)	640-2
				618	(700-2)		

VIRGINIA BEACH, VIRGINIA 36°49'N-76°02'W OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

Amdt 2 08JAN15

# RNAV (GPS) RWY 23L

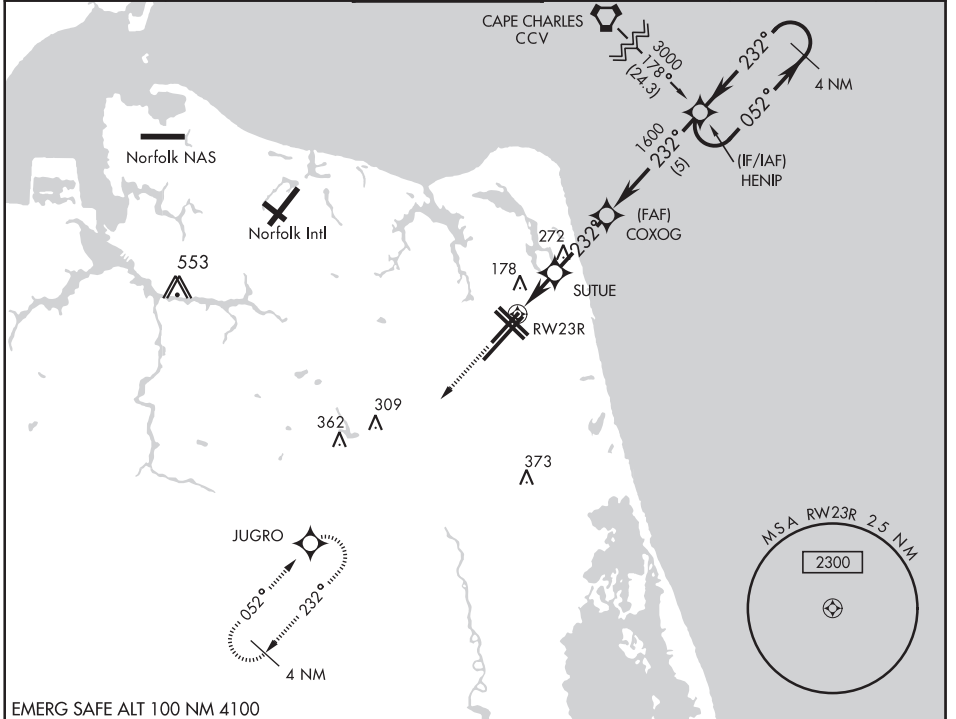
# RNAV (GPS) RWY 23R

WAAS Chan <b>71079</b> <b>W23B</b>	APCH CRS <b>232°</b>	Rwy ldg THRE <b>20</b> Arpt Elev <b>22</b>	<b>8000</b>
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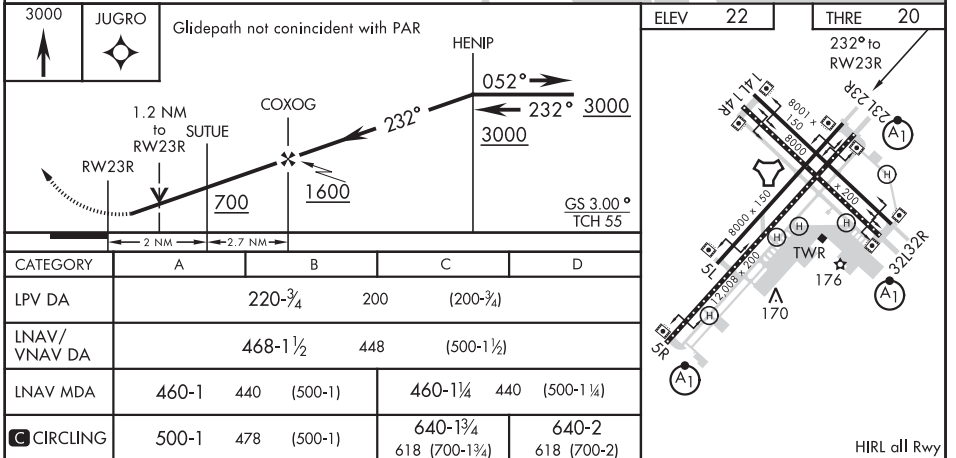
AL-934 [USN] OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

<p><b>▼</b> 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.</p>	<p>MISSED APPROACH: Climb to 3000 direct JUGRO and hold. Continue climb in hold to 3000.</p>
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ATIS <b>317.6</b>	APP CON <b>123.9 266.8</b>	OCEANA TOWER <b>127.075 360.2</b>	GND CON <b>336.4</b>	CLNC DEL <b>254.4</b>	ASR/ PAR
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EMERG SAFE ALT 100 NM 4100



# RNAV (GPS) RWY 23R

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

VIRGINIA BEACH, VIRGINIA

# RNAV (GPS) RWY 32L/R

APCH CRS <b>325°</b>	Rwy Idg THRE Arpt Elev	32L <b>8000</b>	32R <b>8001</b>
		21	20
		22	

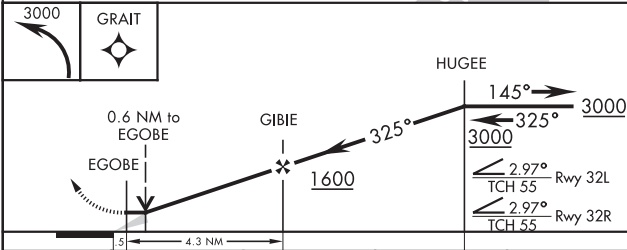
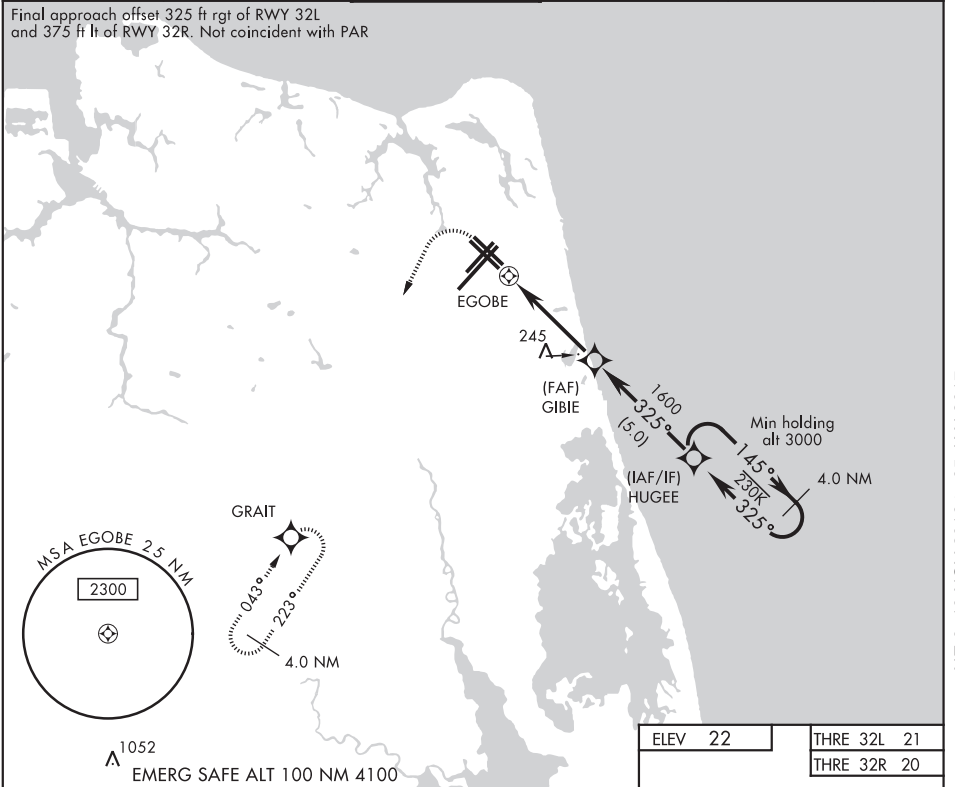
AL-934 [UN] OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

▼ \*When ALS inop increase CAT AB vis to 1mile, CAT CD vis to 1½ miles.



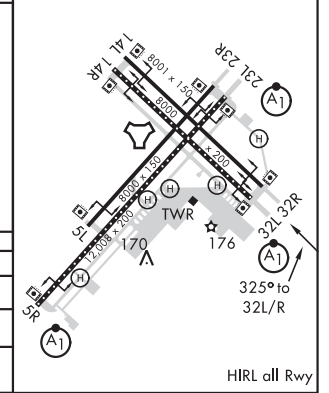
MISSED APPROACH: Climbing left turn to 3000 direct GRAIT. Continue climb in hold to 3000.

ATIS <b>317.6</b>	APP CON <b>123.9 266.8</b>	OCEANA TOWER <b>127.075 360.2</b>	GND CON <b>336.4</b>	CLNC DEL <b>254.4</b>	ASR/ PAR
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ELEV 22	THRE 32L 21
	THRE 32R 20

CATEGORY	A	B	C	D
LNAV 32L *	440-½	419 (500-½)	440-¾	419 (500-¾)
LNAV 32R	440-1	420 (500-1)	440-1 ⅛	420 (500-1 ⅛)
CIRCLING	500-1	478 (500-1)	640-1 ¾ 618 (700-1 ¾)	640-2 618 (700-2)



VIRGINIA BEACH, VIRGINIA 36°49'N-76°02'W OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

Amtd 1 05MAR15

# RNAV (GPS) RWY 32L/R

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

HIRL all Rwy



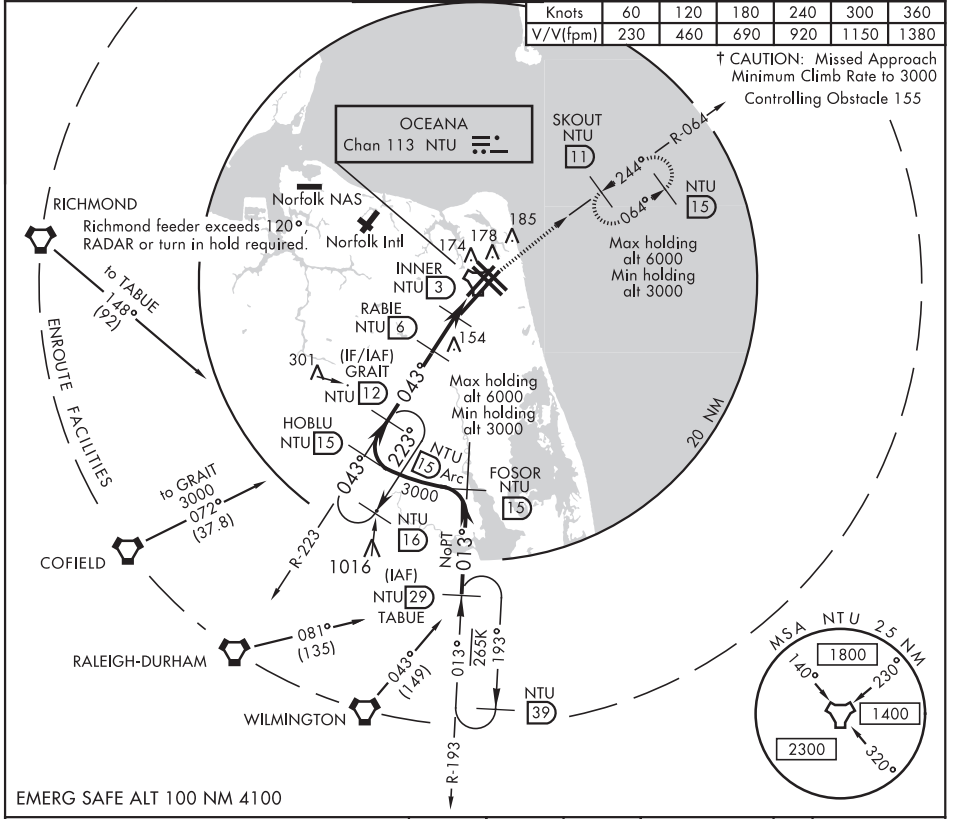
VIRGINIA BEACH, VIRGINIA

# TACAN RWY 5L

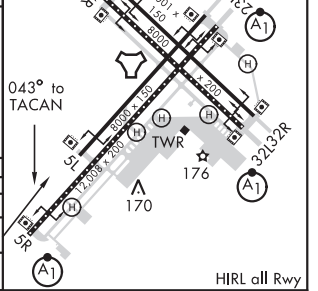
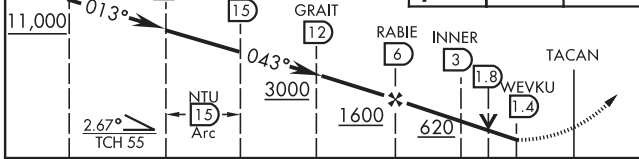
TACAN NTU Chan 113	APCH CRS 043°	Rwy Idg 8000 THRE 20 Arprt Elev 22	AL-934 [USN]	OCEANA NAS (APOLLO SOUCEK FIELD)	(KNTU)
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† MISSED APPROACH: Climb to 3000 via R-223 to NTU TACAN, then via R-064 to SKOUT and hold.

ATIS 317.6	APP CON 123.9 266.8	OCEANA TOWER 127.075 360.2	GND CON 336.4	CLNC DEL 254.4	ASR/ PAR
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TABUE R-193 (29)	FOSOR R-193 (13)	HOBLU R-223 (15)	GRAIT (12)	3000 NTU R-223	NTU	NTU R-064	ELEV 22	THRE 20
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CATEGORY	A	B	C	D
S-5L	440-1	420 (500-1)	440-1 1/8 420 (500-1 1/8)	
◻ CIRCLING	500-1	478 (500-1)	640-1 3/4 618 (700-1 3/4)	640-2 618 (700-2)

VIRGINIA BEACH, VIRGINIA 36° 49' N-76° 02' W OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

# TACAN RWY 5L

Amcl 3 15OCT15

NE-3, 10 NOV 2016 to 05 JAN 2017

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VIRGINIA BEACH, VIRGINIA

# TACAN RWY 5R

TACAN NTU Chan 113	APCH CRS 043°	Rwy Idg THRE Arprt Elev 12,008 18 22
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AL-934 [USN]

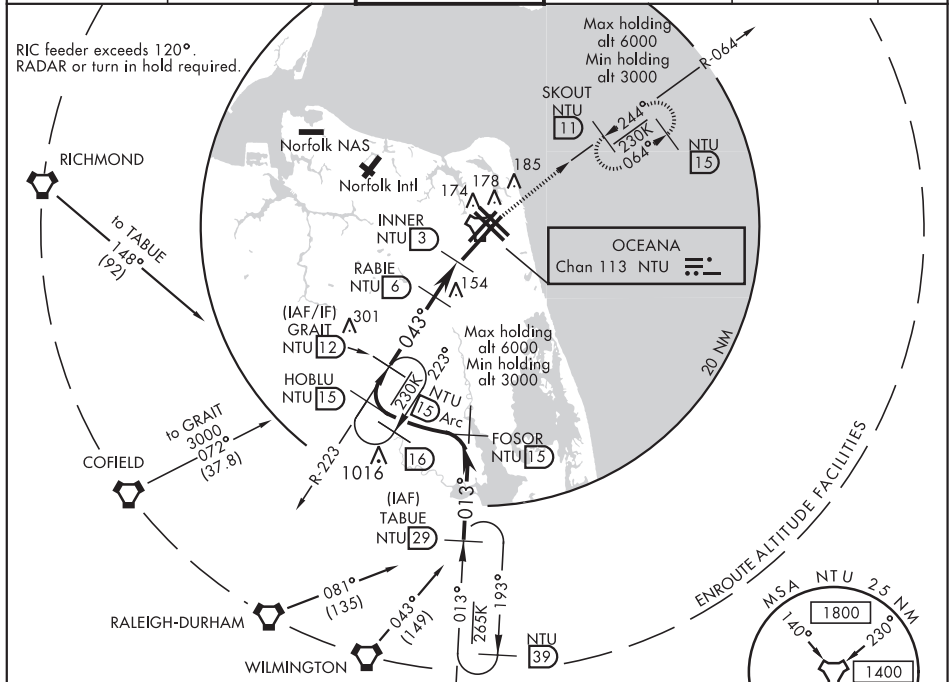
OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

▼ \* When ALS inop, increase CAT AB vis to 1 mile, CAT CD vis to 1¼ miles.



† MISSED APPROACH: Climb to 3000 via R-223 to NTU TACAN, then via R-064 to SKOUT and hold.

ATIS 317.6	APP CON 123.9 266.8	OCEANA TOWER 127.075 360.2	GND CON 336.4	CLNC DEL 254.4	ASR/ PAR
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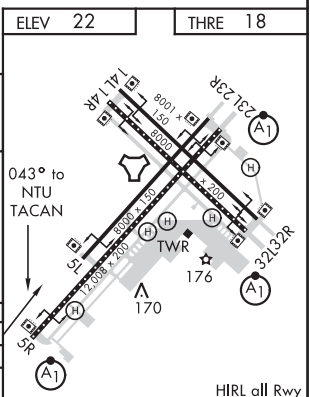
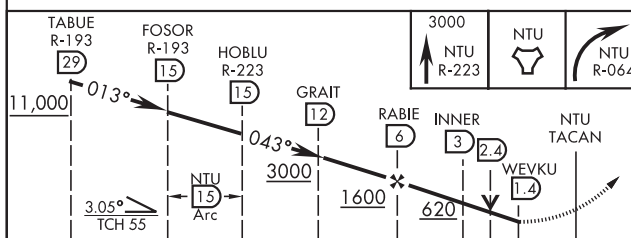


† CAUTION: Missed Approach Minimum Climb Rate to 3000

Knots	60	120	180	240	300	360
V/V(fpm)	230	460	690	920	1150	1380

Controlling Obstacle 155

EMERG SAFE ALT 100 NM 4100



CATEGORY	A	B	C	D
S-5R *	440-½	422 (500-½)	440-¾ 422 (500-¾)	
CIRCLING	500-1	478 (500-1)	640-1¾ 618 (700-1¾)	640-2 618 (700-2)

VIRGINIA BEACH, VIRGINIA

36°49'N-76°02'W

OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

Amcl 3 05MAR15

# TACAN RWY 5R

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

VIRGINIA BEACH, VIRGINIA

# TACAN RWY 23L/R

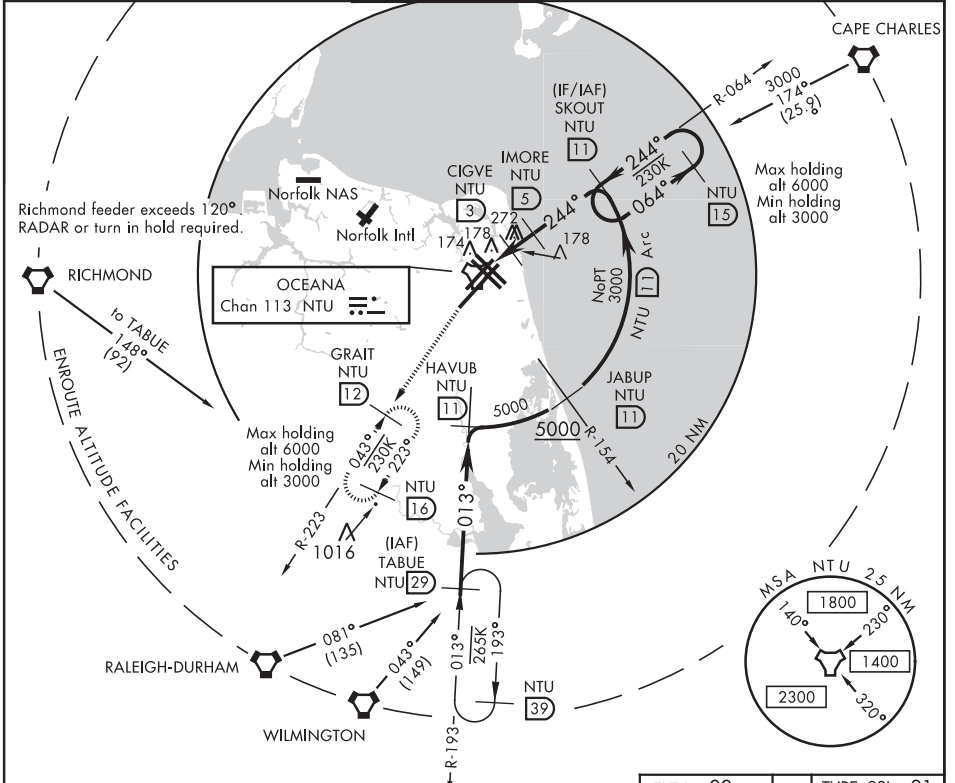
TACAN NTU Chan 113	APCH CRS 244°	Rwy ldg 23L <b>12,008</b> THRE 23L <b>21</b> Arpt Elev 23R <b>20</b>	23R <b>8000</b>
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AL-934 [USN]  
OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

ALSF-1  
\* When ALS inop, increase CAT AB vis to 1 mile, CAT CD vis to 1 1/4 miles.

MISSED APPROACH: Climb to 3000 via R-064 to NTU TACAN, then via R-223 to GRAIT and hold.

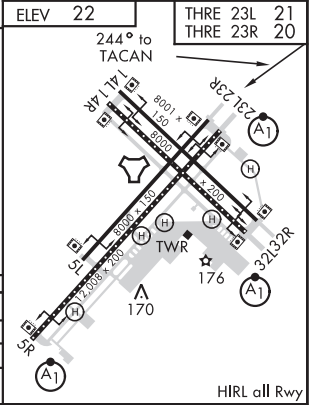
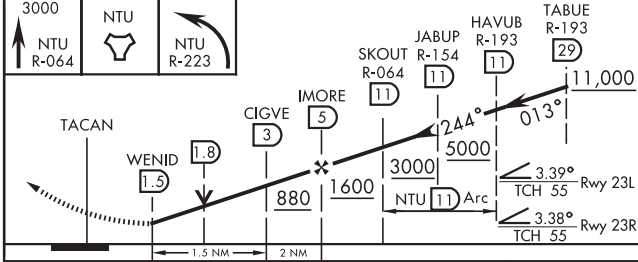
ATIS <b>317.6</b>	APP CON <b>123.9 266.8</b>	OCEANA TOWER <b>127.075 360.2</b>	GND CON <b>336.4</b>	CLNC DEL <b>254.4</b>	ASR/PAR
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 4100



CATEGORY	A	B	C	D
S-23L *		460-3/4	439 (500-3/4)	
S-23R	460-1	440 (500-1)	460-1 1/4	440 (500-1 1/4)
CIRCLING	500-1	478 (500-1)	640-1 1/4 618 (700-1 1/4)	640-2 618 (700-2)

VIRGINIA BEACH, VIRGINIA 36°49'N-76°02'W OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

Amdt 3 15OCT15

# TACAN RWY 23L/R

VIRGINIA BEACH, VIRGINIA

# TACAN RWY 32L/R

TACAN NTU Chan <b>113</b>	APCH CRS <b>309°</b>	Rwy Idg THRE 32L <b>21</b> Arpt Elev 32R <b>20</b>	32L <b>8000</b> 32R <b>8001</b>
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AL-934 [USN]  
OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

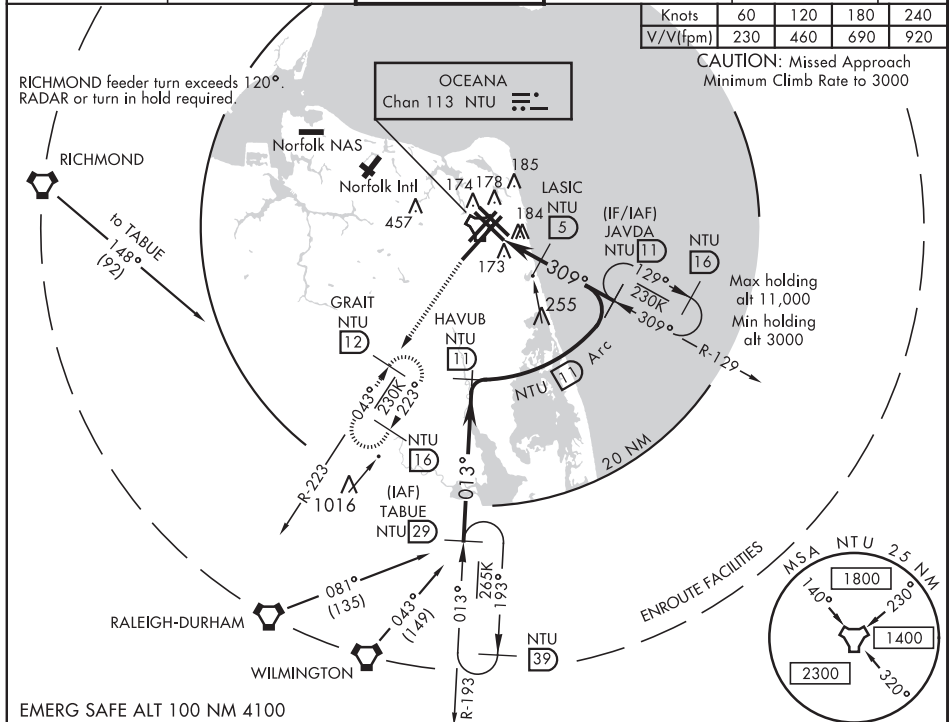
**ALSF-1**  
A1

\* When ALS inop, increase CAT AB vis to 1 mile, CAT CDE vis to 1 1/8 miles.

MISSED APPROACH: Climbing left turn to 3000, intercept NTU TACAN R-223 to GRAIT and hold.

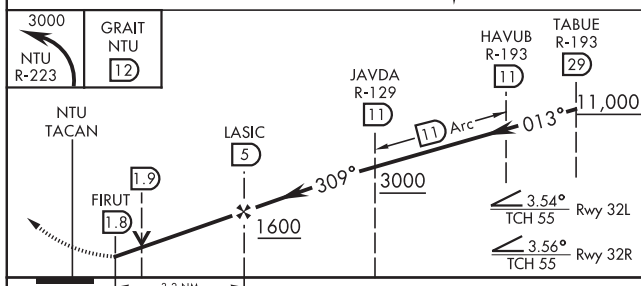
ATIS <b>317.6</b>	APP CON <b>123.9 266.8</b>	OCEANA TOWER <b>127.075 360.2</b>	GND CON <b>336.4</b>	CLNC DEL <b>254.4</b>	ASR/PAR
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Knots	60	120	180	240
V/V(fpm)	230	460	690	920

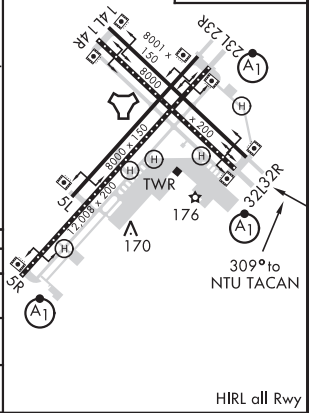


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 22	THRE 32L 21	THRE 32R 20
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CATEGORY	A	B	C	D	E
S-32L *	440-5/8	419 (500-5/8)	440-3/4	419 (500-3/4)	
S-32R	440-1	420 (500-1)	440-1 1/8	420 (500-1 1/8)	
CIRCLING	500-1	478 (500-1)	640-1 1/4 618 (700-1 1/4)	640-2 618 (700-2)	900-3 878 (900-3)

HIRL all Rwy

VIRGINIA BEACH, VIRGINIA  
Amdt 3 08JAN15

36°49'N-76°02'W

OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

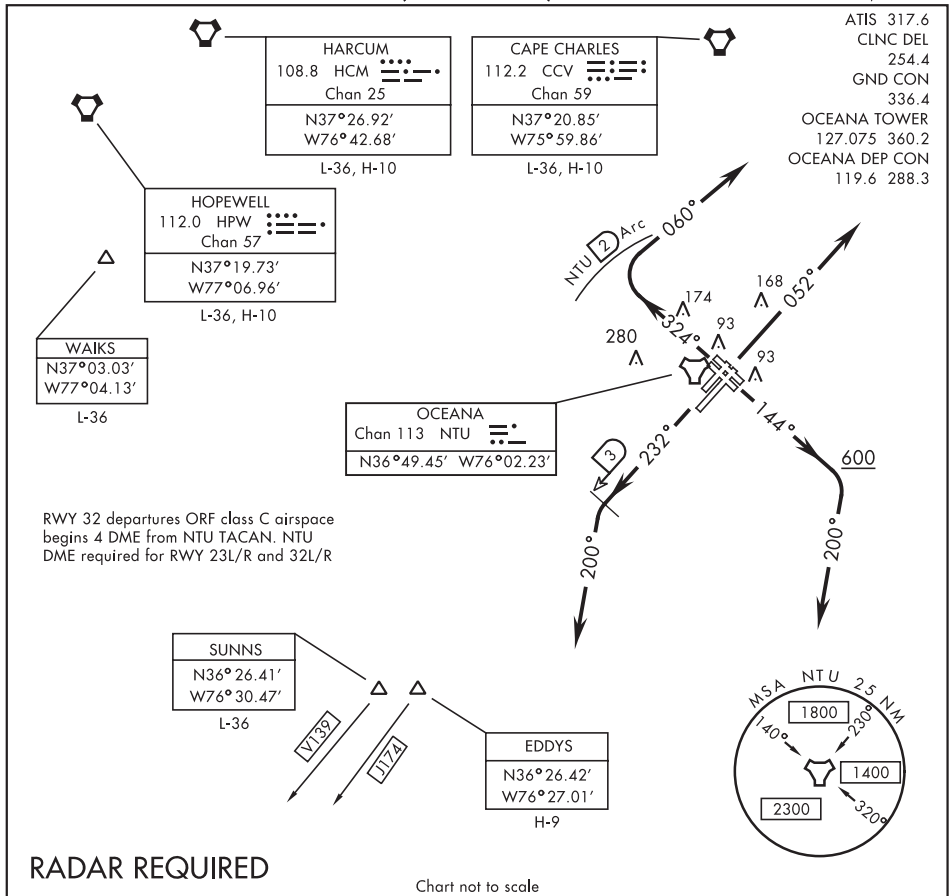
# TACAN RWY 32L/R



# OCEANA-THREE DEPARTURE (NTU3•NTU)

SHL-934 [USN]

VIRGINIA BEACH, VIRGINIA



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

## RADAR REQUIRED

Chart not to scale

### DEPARTURE ROUTE DESCRIPTION

- TAKE-OFF RWY 5L/R: Climb via heading 052°. Thence...
- TAKE-OFF RWY 14L/R: Climb via heading 144°, leaving 600, turn right heading 200°. Thence...
- TAKE-OFF RWY 23L/R: Climb via heading 232°, crossing 3 DME, turn left heading 200°. Thence...
- TAKE-OFF RWY 32L/R: Climb via heading 324°, to assigned altitude, turn right heading 060° within 2 DME. Thence...  
...Maintain 4000 or assigned lower altitude.
- CAPE CHARLES TRANSITION (NTU3.CCV): Via radar vectors to CCV VORTAC.
- EDDYS TRANSITION (NTU3.EDDYS): Via radar vectors to EDDYS.
- HARCUM TRANSITION (NTU3.HCM): Via radar vectors to HCM VORTAC.
- HOPEWELL TRANSITION (NTU3.HPW): Via radar vectors to HPW VORTAC.  
(At or below 17,000 only).
- SUNNS TRANSITION (NTU3.SUNNS): Via radar vectors to SUNNS.  
(At or below 17,000 only).
- WAIKS TRANSITION (NTU3.WAIKS): Via radar vectors to WAIKS.

# OCEANA-THREE DEPARTURE (NTU3•NTU)

VIRGINIA BEACH, VIRGINIA

OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

# RNAV (GPS) RWY 8

ORANGE COUNTY (OMH)

APP CRS	Rwy Idg	<b>3200</b>
<b>075°</b>	THRE	<b>445</b>
	Apt Elev	<b>464</b>

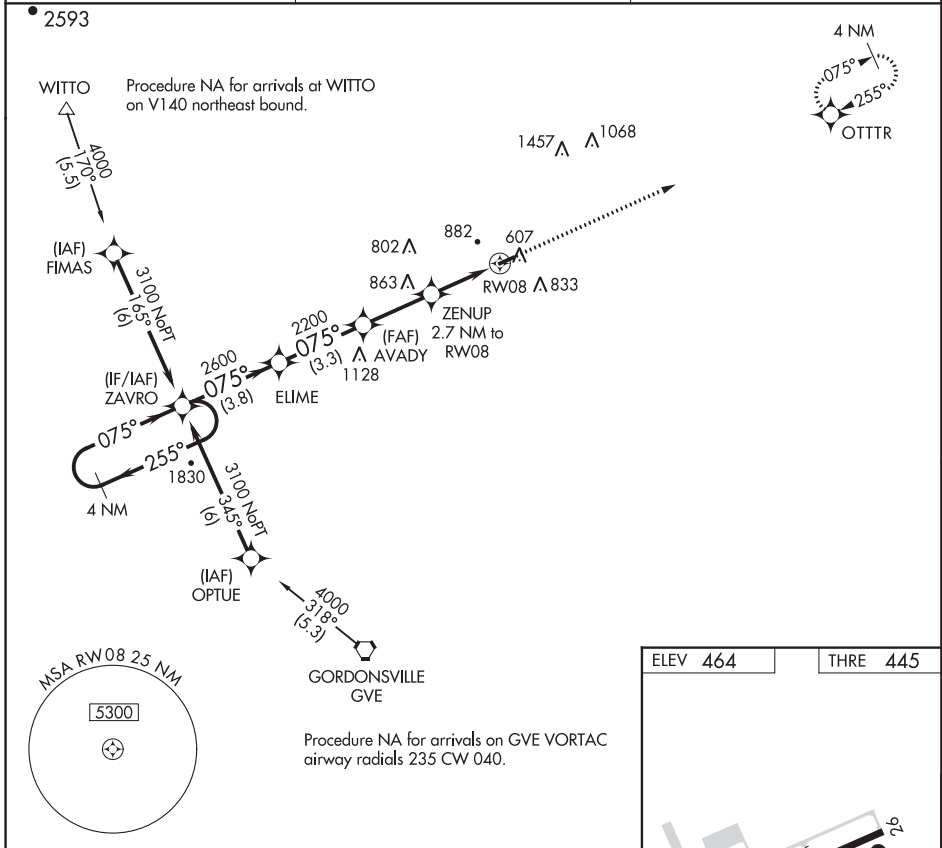
**⚠** Circling to Rwy 26 NA at night. DME/DME RNP-0.3 NA. VDP NA with Charlottesville altimeter setting. When local altimeter setting not received, use Charlottesville altimeter setting and increase all MDA 80 feet. Helicopter visibility reduction below 3/4 SM NA.

**MISSED APPROACH:**  
Climb to 3000 direct OTTR and hold.

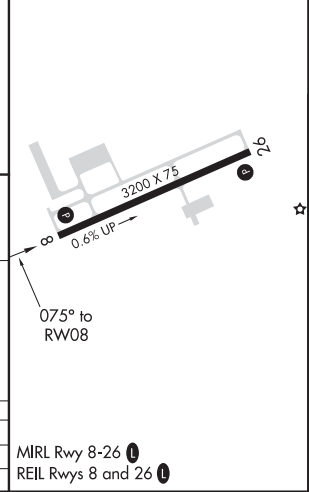
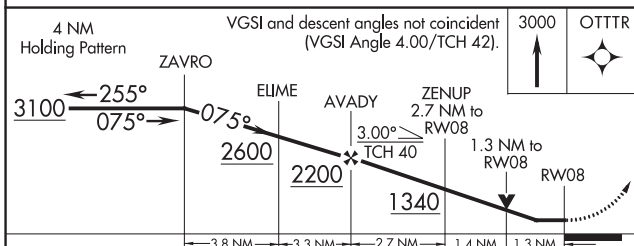
AWOS-3  
**118.075**

POTOMAC APP CON  
**132.85 323.125**

UNICOM  
**122.8** (CTAF) **0**



ELEV 464	THRE 445
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CATEGORY	A	B	C	D
LNAV MDA	1040-1	595 (600-1)		NA
<b>C</b> CIRCLING	1300-1 1/4	836 (900-1 1/4)		NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# RNAV (GPS) RWY 26

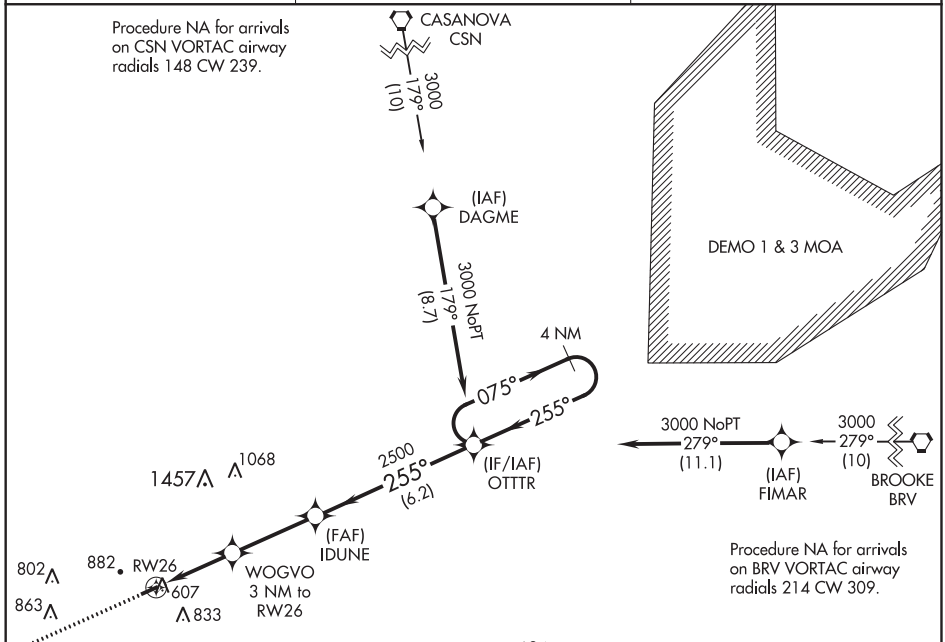
ORANGE COUNTY (OMH)

APP CRS	Rwy Idg	<b>3200</b>
<b>255°</b>	THRE	<b>464</b>
	Apt Elev	<b>464</b>

**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Charlottesville altimeter setting and increase all MDA 80 feet. Helicopter visibility reduction below 1 SM NA. Rwy 26 Straight-in and Circling minimums NA at night.

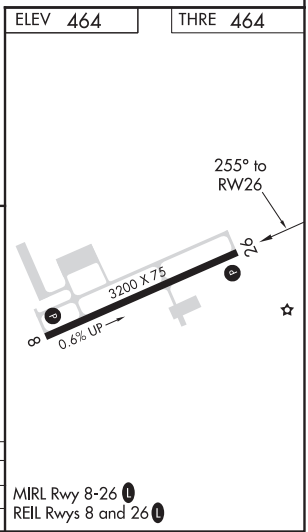
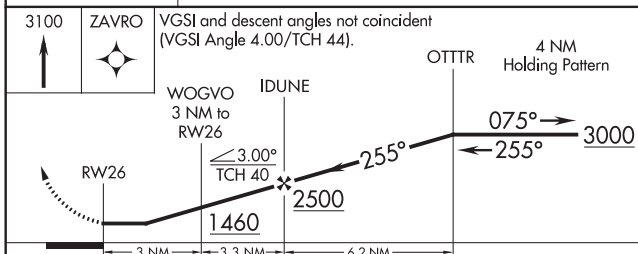
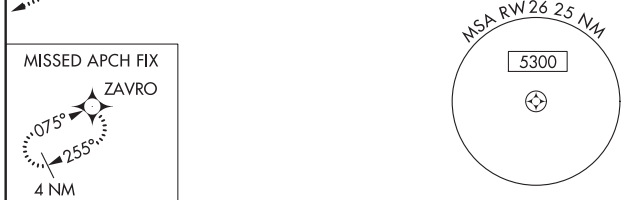
**MISSED APPROACH:**  
Climb to 3100 direct ZAVRO and hold.

<b>AWOS-3</b> <b>118.075</b>	<b>POTOMAC APP CON</b> <b>132.85 323.125</b>	<b>UNICOM</b> <b>122.8 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LNAV MDA	980-1	516 (600-1)		NA
<b>CIRCLING</b>	1300-1¼	836 (900-1¼)		NA



VORTAC GVE <b>115.6</b> Chan <b>103</b>	APP CRS <b>026°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>464</b>
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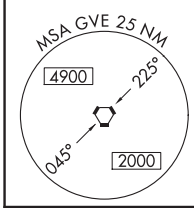
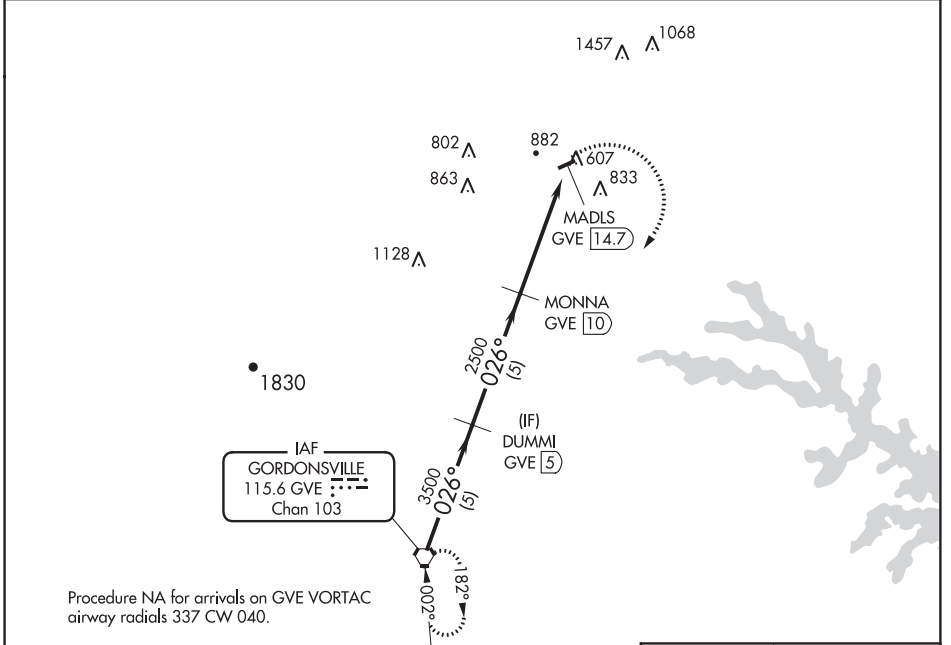
# VOR/DME-A

ORANGE COUNTY (OMH)

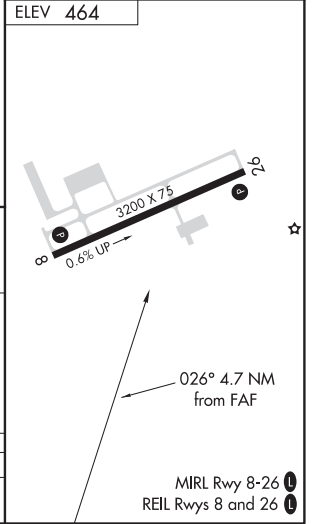
**⚠** Circling to Rwy 26 NA at night. When local altimeter setting not received, use Charlottesville altimeter setting and increase all MDA 80 feet.  
**⚠** Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climbing right turn to 3500 direct GVE VORTAC and hold.

AWOS-3 <b>118.075</b>	POTOMAC APP CON <b>132.85 323.125</b>	UNICOM <b>122.8</b> (CTAF) <b>①</b>
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	GVE VORTAC	DUMMI GVE ⑤	MONNA GVE ⑩	MADLS GVE ⑭.⑦
	3500	3500	2500	
	026°	026°		
	5 NM	5 NM	4.7 NM	
CATEGORY	A	B	C	D
<b>ⓐ</b> CIRCLING	2000-1¼ 1536 (1600-1¼)	2000-1½ 1536 (1600-1½)	NA	



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

PATUXENT RIVER, MARYLAND

# RNAV (GPS) RWY 6

APCH CRS <b>059°</b>	Rwy Idg <b>11,799</b>
	THRE <b>39</b>
	Arpt Elev <b>39</b>

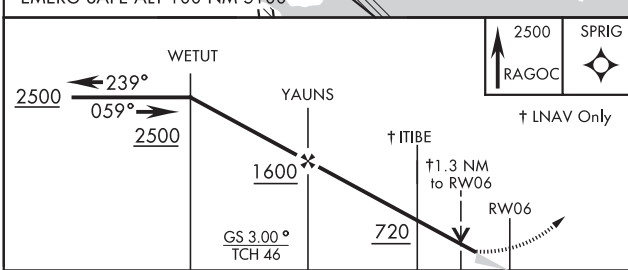
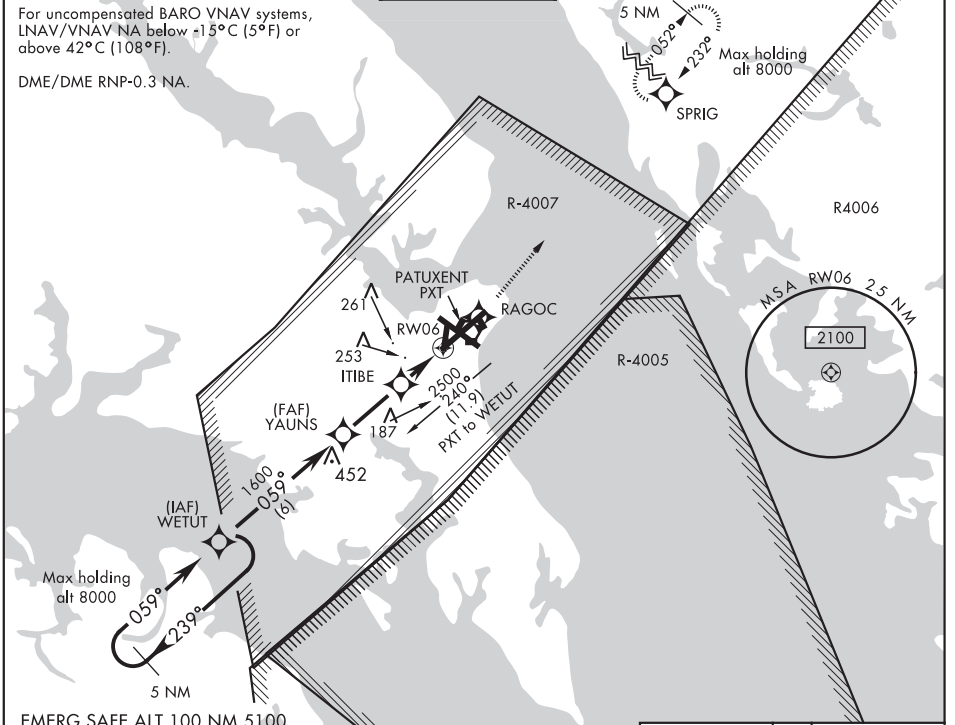
AL-314 [USN] PATUXENT RIVER NAS (TRAPNELL FIELD)(KNHK)

ALS-1  

 A1
 

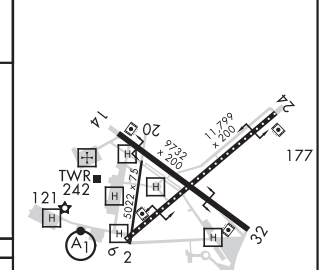
 MISSED APPROACH: Climb to 2500 direct RAGOC, then left turn to SPRIG and hold.

ATIS ★ <b>322.425</b>	PATUXENT APP/DEP CON <b>121.0 250.3</b>	PATUXENT TOWER ★ <b>123.7 343.65</b>	GND CON <b>120.6 336.4</b>	CLNC DEL <b>135.2 316.125</b>	ASR/PAR
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ELEV 39	THRE 39
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CATEGORY	A	B	C	D
LNAV MDA*	520-1/2	481 (500-1/2)	520-1	481 (500-1)
LNAV/** VNAV DA	620-1 1/2		581 (600-1 1/2)	
CIRCLING	560-1	600-1	620-1 1/2	660-2
	521 (600-1)	561 (600-1)	581 (600-1 1/2)	621 (700-2)



HIRL Rwy 14-32, 6-24

PATUXENT RIVER, MARYLAND  
Orig 15OCT15

38° 17' N-76° 25' W PATUXENT RIVER NAS (TRAPNELL FIELD)(KNHK)

# RNAV (GPS) RWY 6

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

PATUXENT RIVER, MARYLAND

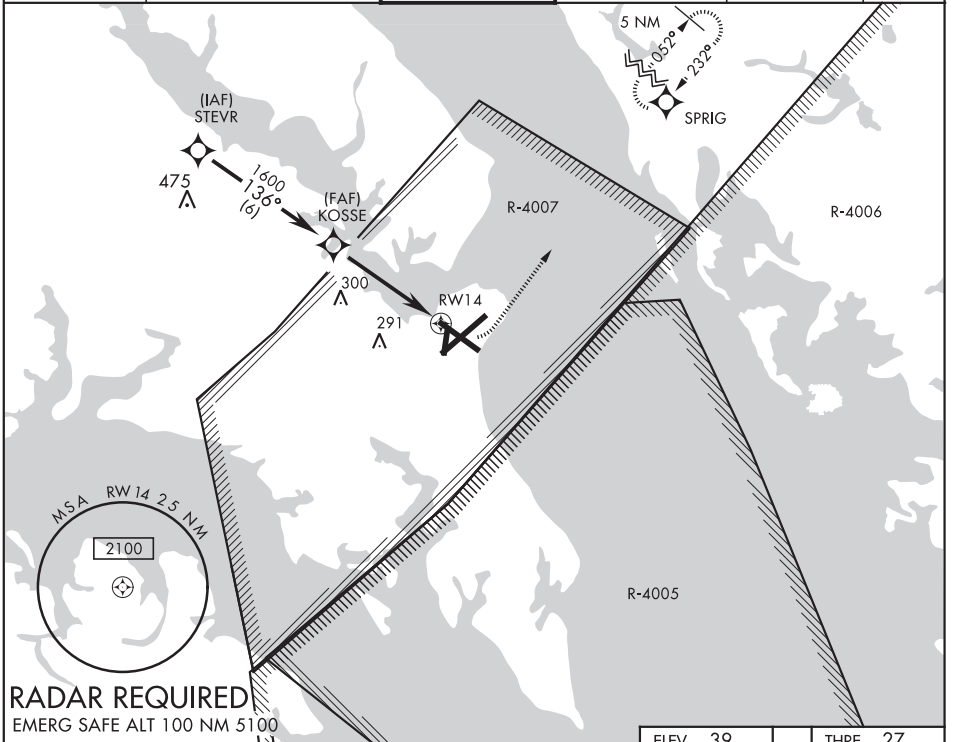
# RNAV (GPS) RWY 14

AL-314 [USN] PATUXENT RIVER NAS (TRAPNELL FIELD)(KNHK)

APCH CRS <b>136°</b>	Rwy Idg <b>9732</b>
	THRE <b>27</b>
	Arpt Elev <b>39</b>

DME/DME RNP-0.3 NA.		MISSED APPROACH: Climbing left turn to 2500 direct SPRIG and hold.			
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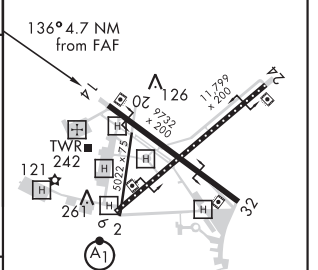
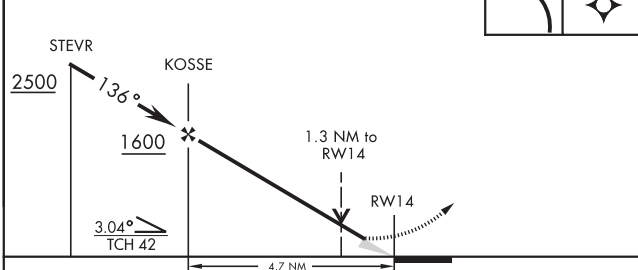
ATIS ★ <b>322.425</b>	PATUXENT APP/DEP CON <b>121.0 250.3</b>	PATUXENT TOWER ★ <b>123.7 343.65</b>	GND CON <b>120.6 336.4</b>	CLNC DEL <b>135.2 316.125</b>	ASR/PAR
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 39	THRE 27
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CATEGORY	A	B	C	D
LNAV MDA	500-1	473 (500-1)	500-1 $\frac{3}{8}$ 473 (500-1 $\frac{3}{8}$ )	
CIRCLING	560-1 521 (600-1)	600-1 561 (600-1)	620-1 $\frac{1}{2}$ 581 (600-1 $\frac{1}{2}$ )	660-2 621 (700-2)

HIRL Rwy 14-32, 6-24

PATUXENT RIVER, MARYLAND

38°17'N-76°25'W

PATUXENT RIVER NAS (TRAPNELL FIELD)(KNHK)

Orig 15OCT15

# RNAV (GPS) RWY 14

PATUXENT RIVER, MARYLAND

# RNAV (GPS) RWY 24

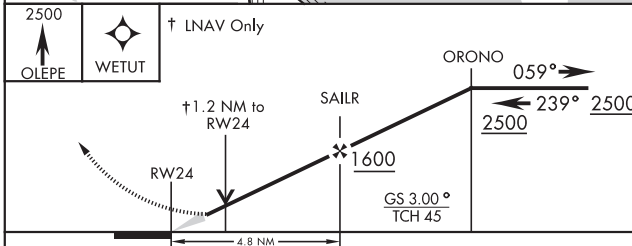
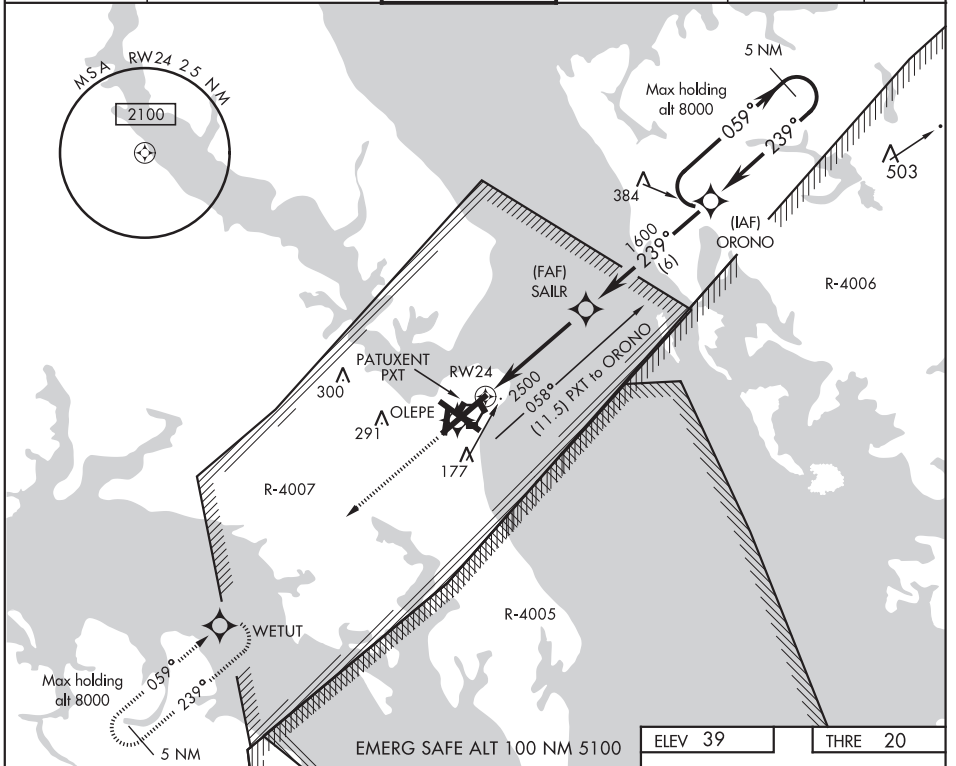
AL-314 [USN] PATUXENT RIVER NAS (TRAPNELL FIELD) (KNHX)

APCH CRS <b>239°</b>	Rwy Idg <b>11,799</b> THRE <b>20</b> Arpt Elev <b>39</b>
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▼ For uncompensated BARO VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 42°C (108°F). DME/DME RNP-0.3 NA.

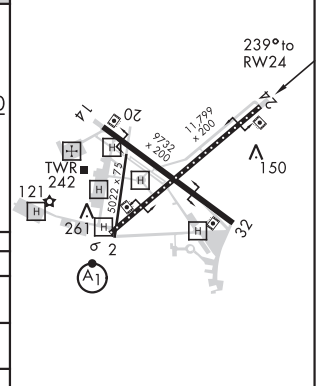
MISSED APPROACH: Climb to 2500 direct OLEPE, then direct WETUT and hold.

ATIS ★ <b>322.425</b>	PATUXENT APP/DEP CON <b>121.0 250.3</b>	PATUXENT TOWER ★ <b>123.7 343.65</b>	GND CON <b>120.6 336.4</b>	CLNC DEL <b>135.2 316.125</b>	ASR/PAR
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ELEV 39	THRE 20
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CATEGORY	A	B	C	D
LNAV/VNAV DA	428-1 <sup>3</sup> / <sub>8</sub>		408 (400-1 <sup>3</sup> / <sub>8</sub> )	
LNAV MDA	440-1	420 (500-1)	440-1 <sup>1</sup> / <sub>8</sub>	420 (500-1 <sup>1</sup> / <sub>8</sub> )
CIRCLING	560-1 521 (600-1)	600-1 561 (600-1)	620-1 <sup>1</sup> / <sub>2</sub> 581 (600-1 <sup>1</sup> / <sub>2</sub> )	660-2 621 (700-2)



PATUXENT RIVER, MARYLAND  
Orig 15OCT15

38° 17' N-76° 25' W

PATUXENT RIVER NAS (TRAPNELL FIELD) (KNHX)

# RNAV (GPS) RWY 24

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



PATUXENT RIVER, MARYLAND

# VOR/DME or TACAN RWY 24

AL-314 [USN] PATUXENT RIVER NAS (TRAPNELL FIELD)(KNKH)

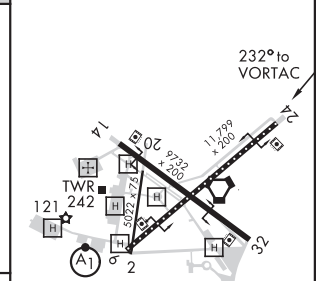
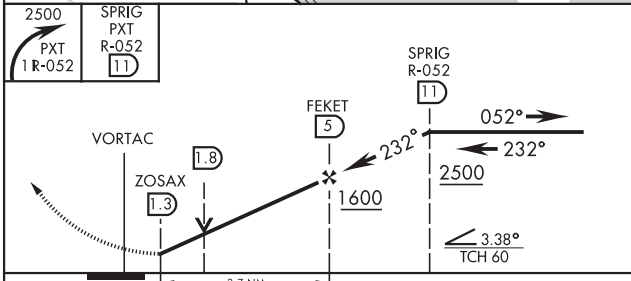
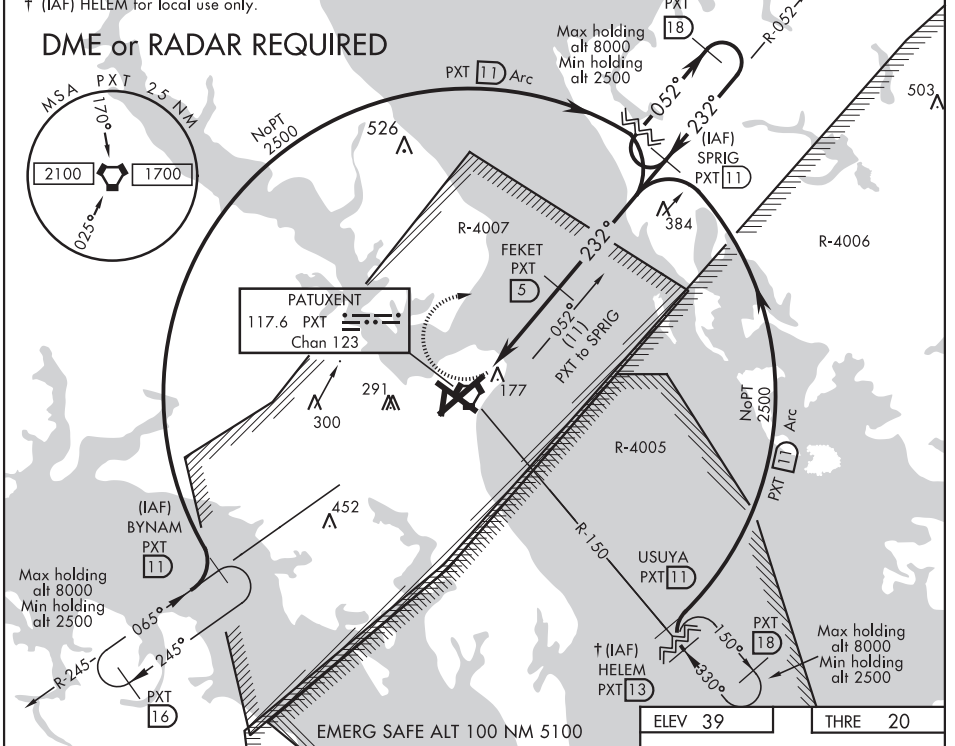
VORTAC PXT 117.6 Chan 123	APCH CRS 232°	Rwy Idg 11,799 THRE 20 Arpt Elev 39
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▽ MISSED APPROACH: Climbing right turn to 2500, Intercept the PXT VORTAC R-052 to SPRIG and hold. Continue climb-in-hold to 2500.

ATIS ★ 322.425	PATUXENT APP/DEP CON 121.0 250.3	PATUXENT TOWER ★ 123.7 343.65	GND CON 120.6 336.4	CLNC DEL 135.2 316.125	ASR/PAR
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† (IAF) HELEM for local use only.

## DME or RADAR REQUIRED



CATEGORY	A	B	C	D
S-24	440-1 420 (500-1)		440-1½ 420 (500-1½)	
CIRCLING	560-1 521 (600-1)	600-1 561 (600-1)	620-1½ 581 (600-1½)	660-2 621 (700-2)

HIRL Rwy 14-32, 6-24

PATUXENT RIVER, MARYLAND

38° 17' N - 76° 25' W PATUXENT RIVER NAS (TRAPNELL FIELD)(KNKH)

Orig 15OCT15

# VOR/DME or TACAN RWY 24

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

PATUXENT RIVER, MARYLAND

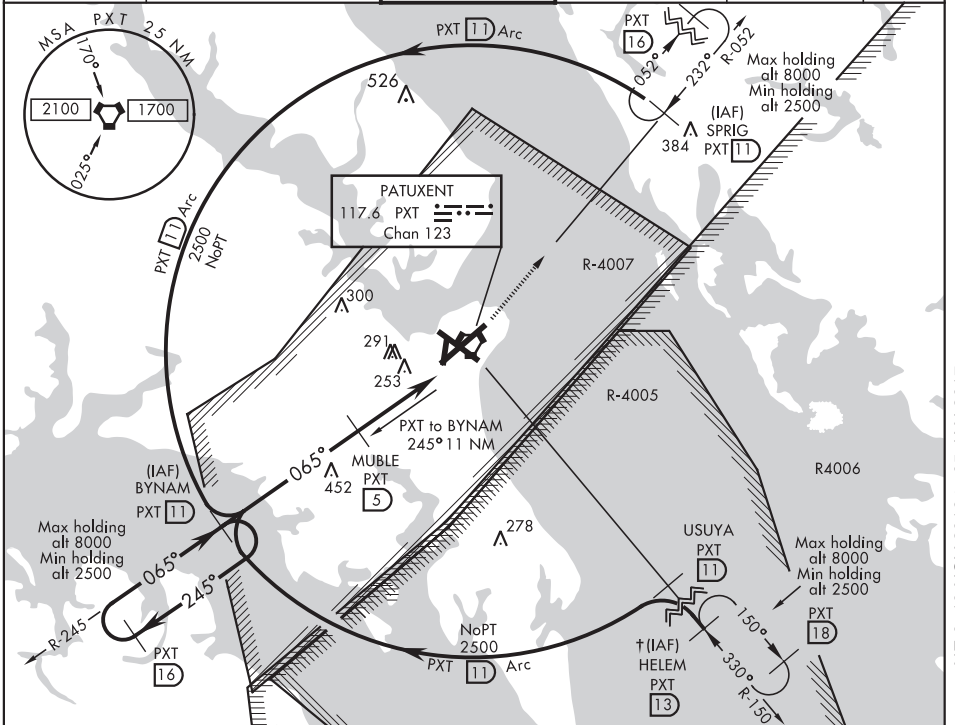
# TACAN RWY 6

VORTAC PXT <b>117.6</b> Chan <b>123</b>	APCH CRS <b>065°</b>	Rwy ldg <b>11,799</b> THRE <b>39</b> Arprt Elev <b>39</b>
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AL-314 [USN] PATUXENT RIVER NAS (TRAPNELL FIELD) (KNHK)

<p>▼ * When ALS inop increase vis CAT AB to 1 mile, CAT CD to 1 3/8 miles.</p>	<p>ALSF-1 A1</p>	<p>MISSED APPROACH: Climb to 2500 direct PXT VORTAC, then via R-052 to SPRIG and hold.</p>
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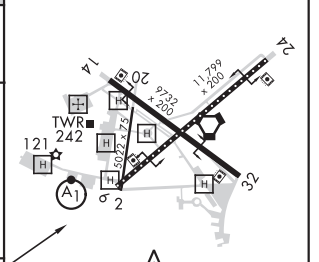
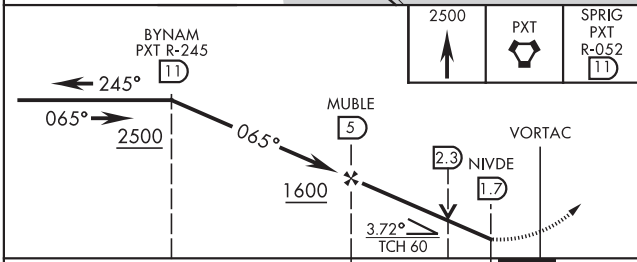
<p>ATIS ★ <b>322.425</b></p>	<p>PATUXENT APP/DEP CON <b>121.0 250.3</b></p>	<p>PATUXENT TOWER ★ <b>123.7 343.65</b></p>	<p>GND CON <b>120.6 336.4</b></p>	<p>CLNC DEL <b>135.2 316.125</b></p>	<p>ASR/PAR</p>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 5100	† (IAF) HELEM for local use only.	ELEV 39	THRE 39
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CATEGORY	A	B	C	D
S-6 *	520-1/2 481 (500-1/2)		520-1 481 (500-1)	
CIRCLING	560-1 521 (600-1)	600-1 561 (600-1)	620-1 581 (600-1 1/2)	660-2 621 (700-2)

065° to VORTAC  
HIRL Rwy 14-32, 6-24

PATUXENT RIVER, MARYLAND 38° 17' N-76° 25' W PATUXENT RIVER NAS (TRAPNELL FIELD) (KNHK)

# TACAN RWY 6

PATUXENT RIVER, MARYLAND

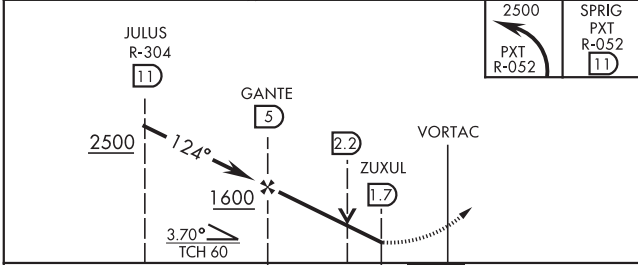
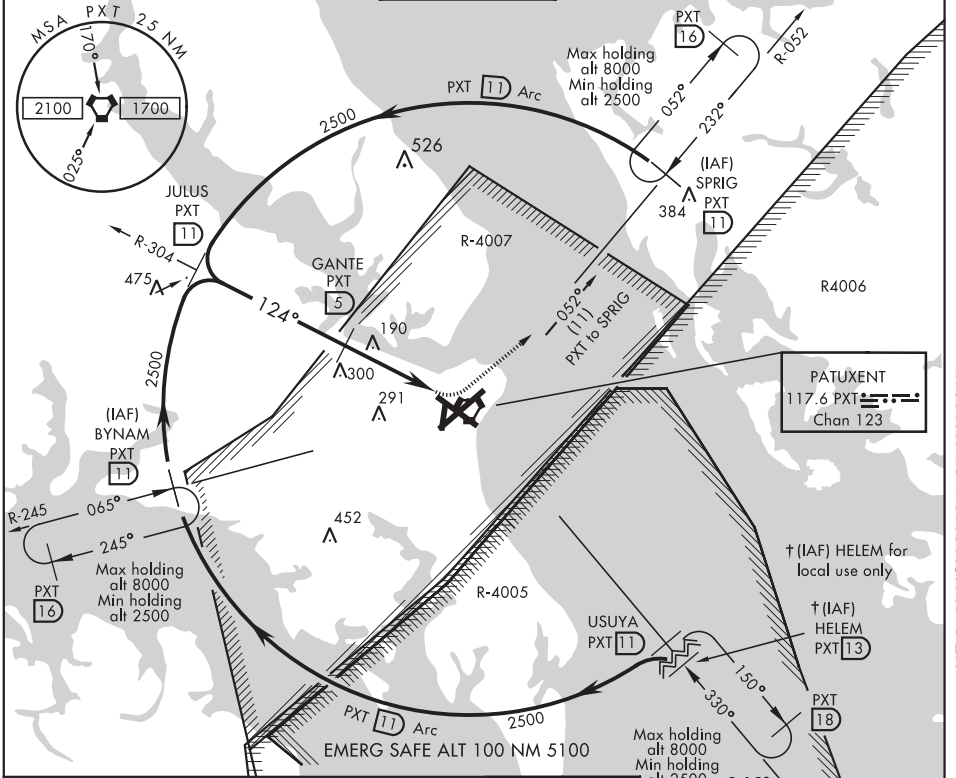
# TACAN RWY 14

VORTAC PXT <b>117.6</b> Chan <b>123</b>	APCH CRS <b>124°</b>	Rwy Idg THRE <b>27</b> Arpt Elev <b>39</b>	<b>9732</b>
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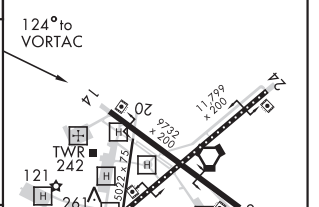
AL-314 [USN] PATUXENT RIVER NAS (TRAPNELL FIELD) (KNKH)

**▽** MISSED APPROACH: Climbing left turn to 2500 via PXT VORTAC R-052 to SPRIG and hold.

ATIS ★ <b>322.425</b>	PATUXENT APP/DEP CON <b>121.0 250.3</b>	PATUXENT TOWER ★ <b>123.7 343.65</b>	GND CON <b>120.6 336.4</b>	CLNC DEL <b>135.2 316.125</b>	ASR/PAR
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2500 PXT R-052	SPRIG PXT R-052	ELEV 39	THRE 27
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CATEGORY	A	B	C	D
S-14	500-1 473	(500-1)	500-1 <sup>3</sup> / <sub>8</sub> 473	(500-1 <sup>3</sup> / <sub>8</sub> )
CIRCLING	560-1 521 (600-1)	600-1 561 (600-1)	620-1 <sup>1</sup> / <sub>2</sub> 581 (600-1 <sup>1</sup> / <sub>2</sub> )	660-2 621 (700-2)

HIRL Rwy 14-32, 6-24

PATUXENT RIVER, MARYLAND 38° 17' N-76° 25' W PATUXENT RIVER NAS (TRAPNELL FIELD) (KNKH)

Orig 15OCT15

# TACAN RWY 14

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



PATUXENT RIVER, MARYLAND

# NDB/DME RWY 6

NDB NHK <b>400</b>	APCH CRS <b>065°</b>	Rwy ldg <b>11,799</b> THRE <b>39</b> Arpt Elev <b>39</b>
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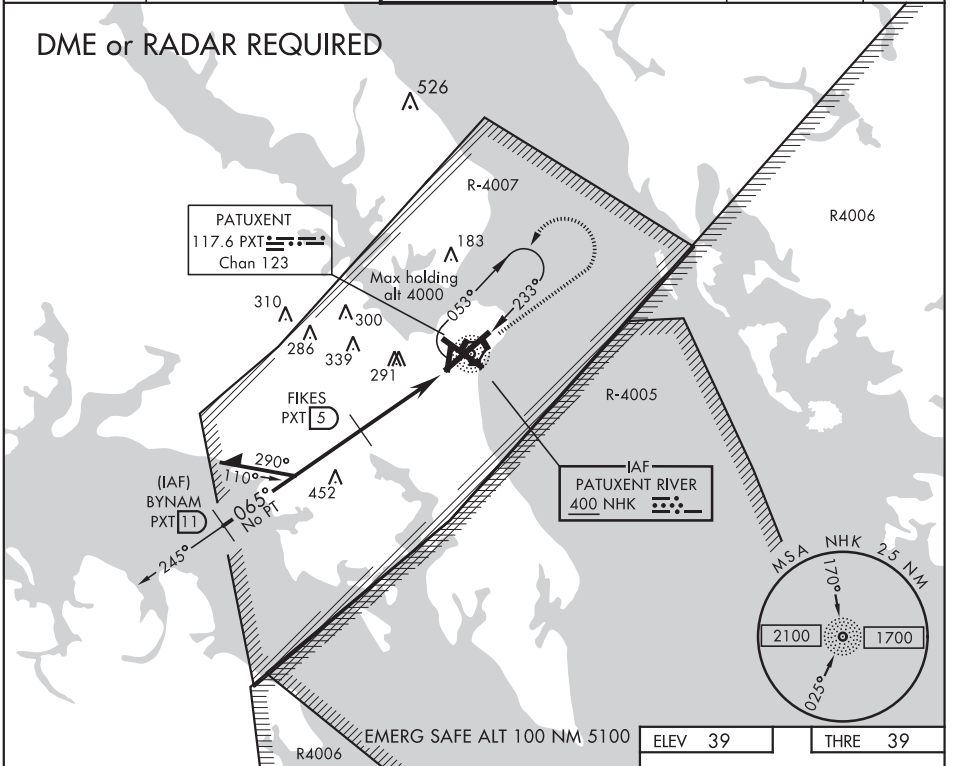
AL-314 [USN] PATUXENT RIVER NAS (TRAPNELL FIELD) (KNHK)

▼ \*When ALS inop, increase vis CAT AB to 1 mile, CAT CD to 1½ miles.

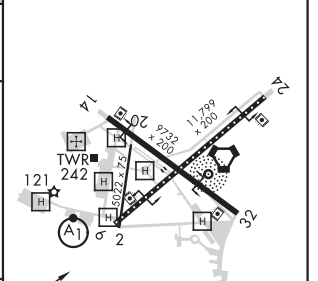
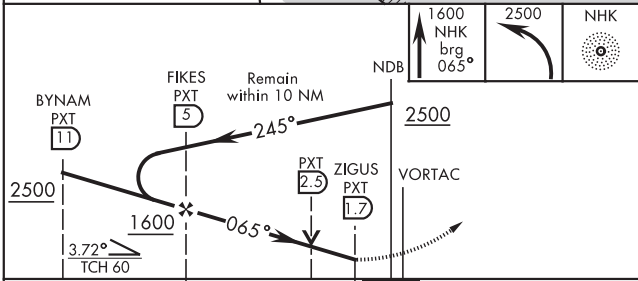
ALS-F-1  MISSED APPROACH: Climb to 1600 via NHK NDB 065° bearing, then climbing left turn to 2500 direct NHK NDB and hold. Continue climb-in-hold to 2500.


ATIS * <b>322.425</b>	PATUXENT APP/DEP CON <b>121.0 250.3</b>	PATUXENT TOWER * <b>123.7 343.65</b>	GND CON <b>120.6 336.4</b>	CLNC DEL <b>135.2 316.125</b>	ASR/PAR
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## DME or RADAR REQUIRED



ELEV 39	THRE 39
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CATEGORY	A	B	C	D
s-6 *	600-¾ 561 (600-¾)		600-1¼ 561 (600-1¼)	
 CIRCLING	600-1 561 (600-1)		620-1½ 581 (600-1½)	660-2 621 (700-2)

HIRL Rwy 14-32, 6-24

PATUXENT RIVER, MARYLAND  
Orig 15OCT15

38°17'N-76°25'W

PATUXENT RIVER NAS (TRAPNELL FIELD) (KNHK)

# NDB/DME RWY 6

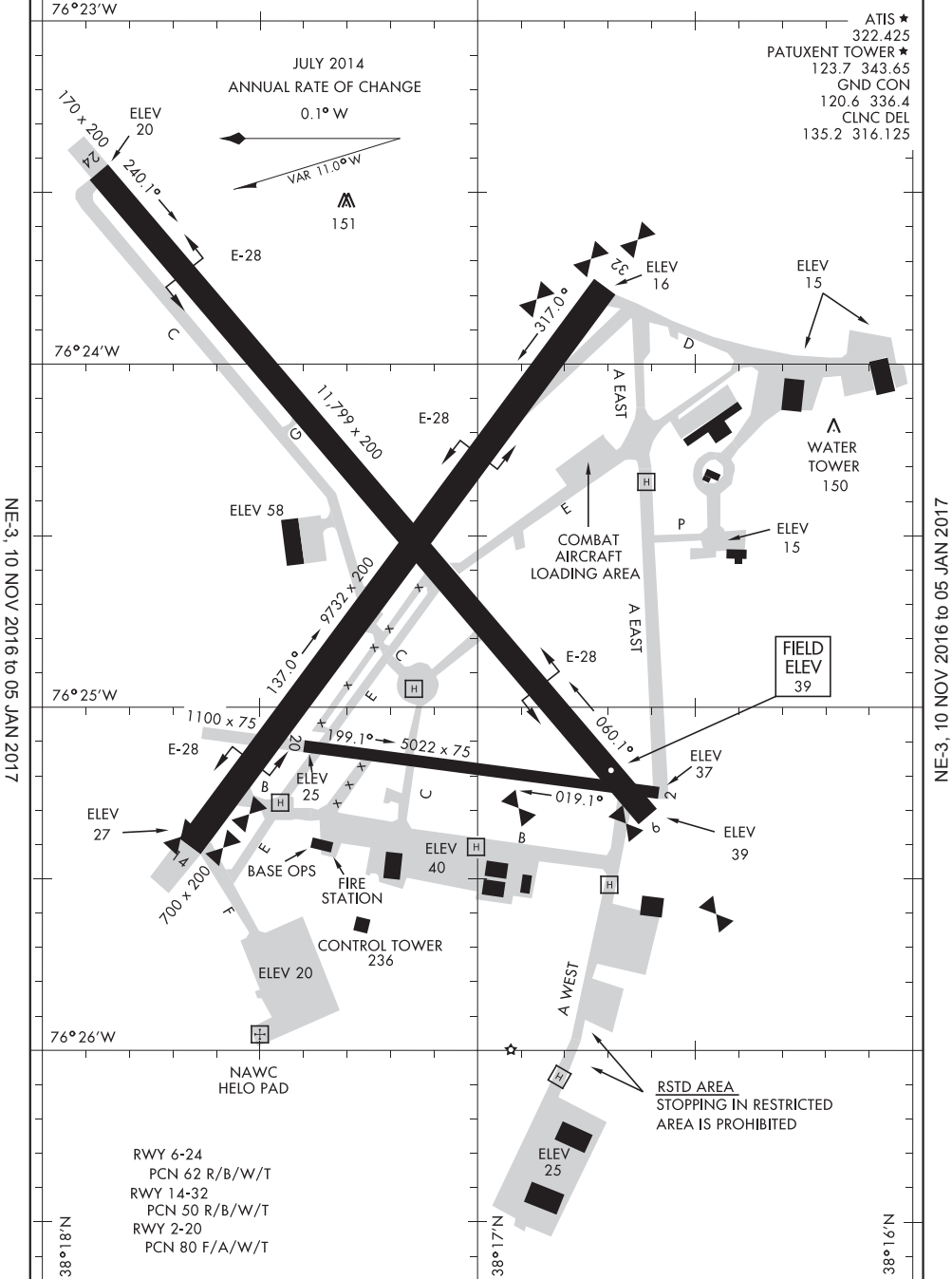
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

AFD-314 [USN]

PATUXENT RIVER, MARYLAND



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

PATUXENT RIVER, MARYLAND

PATUXENT RIVER NAS (TRAPNELL FIELD) (KNHK)

# SALISBURY-FIVE DEPARTURE (SBY5.SBY)

PATUXENT RIVER, MARYLAND

SHL-314 [USN]

ATIS ★ 322.425  
 CLNC DEL  
 135.2 316.125  
 GND CON  
 120.6 336.4  
 PATUXENT TOWER★  
 123.7 343.65  
 PATUXENT APP/DEP CON  
 121.0 250.3

PATUXENT  
 117.6 PXT  
 Chan 123  
 N38°17.27'  
 W76°24.01'

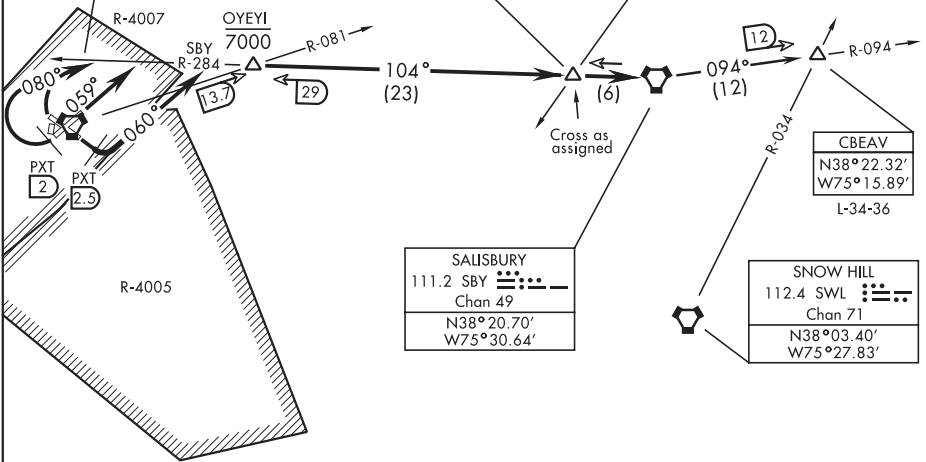
WATERLOO  
 112.6 ATR  
 Chan 73  
 N38°48.59'  
 W75°12.68'

FRAND  
 N38°20.91'  
 W75°38.26'

SALISBURY  
 111.2 SBY  
 Chan 49  
 N38°20.70'  
 W75°30.64'

CBEAV  
 N38°22.32'  
 W75°15.89'  
 L-34-36

SNOW HILL  
 112.4 SWL  
 Chan 71  
 N38°03.40'  
 W75°27.83'



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

Departure Rwy 2-20 not authorized.

## DEPARTURE ROUTE DESCRIPTION

- TAKE-OFF RWY 6: Climb to 6000 via heading 059°, thence...
  - TAKE-OFF RWY 14: Climbing left turn to 6000 via heading 060° within PXT VORTAC 2.5 DME, thence...
  - TAKE-OFF RWY 24: Climb on heading 239° to PXT 2 DME, then climbing right turn to 6000 via heading 080°, thence...
  - TAKE-OFF RWY 32: Climbing right turn to 6000 via heading 080°, thence...
- Intercept SBY VORTAC R-284, then via SBY R-284 to SBY. Cross FRAND as assigned. Then via assigned route or transition..
- CBEAV TRANSITION (SBY5.CBEAV): Via SBY R-094 to CBEAV.

# SALISBURY-FIVE DEPARTURE (SBY5.SBY)

PATUXENT RIVER, MARYLAND  
PATUXENT RIVER NAS (TRAPNELL FIELD) (KNHK)


SWABY-SEVEN DEPARTURE (SWABY7.SWABY)

SHL-314 [USN]


PATUXENT RIVER, MARYLAND


Rwy	Knots	60	120	180	240	300	360
⊙	V/V(fpm)	616	1232	1848	2464	3080	3696


ATIS ★ 322.425  
 CLNC DEL  
 135.2 316.125  
 GND CON  
 120.6 336.4  
 PATUXENT TOWER ★  
 123.7 343.65  
 PATUXENT APP/DEP CON  
 121.0 250.3


NOTTINGHAM  
 113.7 OTT   
 Chan 84  
 N38°42.35'  
 W76°44.68'


ATC Climb Rate to 15,000.  
 ⊙ EDDYS trns only  
 Departure Rwy 2-20 not authorized.  
 Minimum filing alt 10,000'.

CASANOVA  
 116.3 CSN   
 Chan 110  
 N38°38.47'  
 W77°51.93'


PATUXENT  
 117.6 PXT   
 Chan 123  
 N38°17.27'  
 W76°24.01'


GORDONSVILLE  
 115.6 GVE   
 Chan 103  
 N38°00.82'  
 W78°09.18'

HOPEWELL  
 112.0 HPW   
 Chan 57  
 N37°19.73'  
 W77°06.96'

HARCUM  
 108.8 HCM   
 Chan 25  
 N37°26.92'  
 W76°42.68'

SWABY  
 N37°52.88'  
 W76°31.12'

CAPE CHARLES  
 112.2 CCV   
 Chan 59  
 N37°20.85'  
 W75°59.86'

NORFOLK  
 116.9 ORF   
 Chan 116  
 N36°53.51'  
 W76°12.02'

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ATC BRIEF  
 REQUIRED  
 135.2 316.125

TACAN REQUIRED

Note: Chart not to scale

SWABY-SEVEN DEPARTURE (SWABY7.SWABY)

PATUXENT RIVER, MARYLAND

PATUXENT RIVER NAS (TRAPNELL FIELD) (KNHK)





## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 6: Climb to 3000 via heading 059°, at PXT VORTAC 3 DME turn left direct PXT, thence...

TAKE-OFF RWY 14: Climbing right turn to 3000 via heading 250° within PXT VORTAC 2.5 DME, intercept PXT R-223, thence...

TAKE-OFF RWY 24: Climbing left turn to 3000 via heading 210°, intercept PXT VORTAC R-223, thence...

TAKE-OFF RWY 32: Climbing left turn to 3000 via heading 180°, intercept PXT VORTAC R-223, thence...

...Via R-223 to JUMIX, PXT R-223/13 DME, then arc CCW SW of PXT via 13 mile arc to ZIRAT, PXT R-203/13 DME, then via PXT R-203 to SWABY, PXT R-203/25 DME, then via assigned transition or expect radar vectors to join assigned route. Cross ZIRAT at or below 7000.

CASANOVA TRANSITION (SWABY7.CSN): Via CSN VORTAC R-131 to CSN.

EDDYS TRANSITION (SWABY7.EDDYS): Via PXT R-203 to UCINE, then via OTT R-184 to EDDYS. Cross SWABY at or above 15,000.

GORDONSVILLE TRANSITION (SWABY7.GVE): Via GVE VORTAC R-101 to GVE.

HARCUM TRANSITION (SWABY7.HCM): Via HCM VORTAC R-026 to HCM.

HOPEWELL TRANSITION (SWABY7.HPW): Via HPW VORTAC R-047 to HPW.

STEIN TRANSITION (SWABY7.STEIN): Via PXT R-203 to UNNAC, then via CCV VORTAC R-323 to STEIN.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>70705</b> <b>W05A</b>	APP CRS <b>051°</b>	Rwy Idg TDZE Apt Elev	<b>5002</b> <b>193</b> <b>193</b>
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# RNAV (GPS) RWY 5

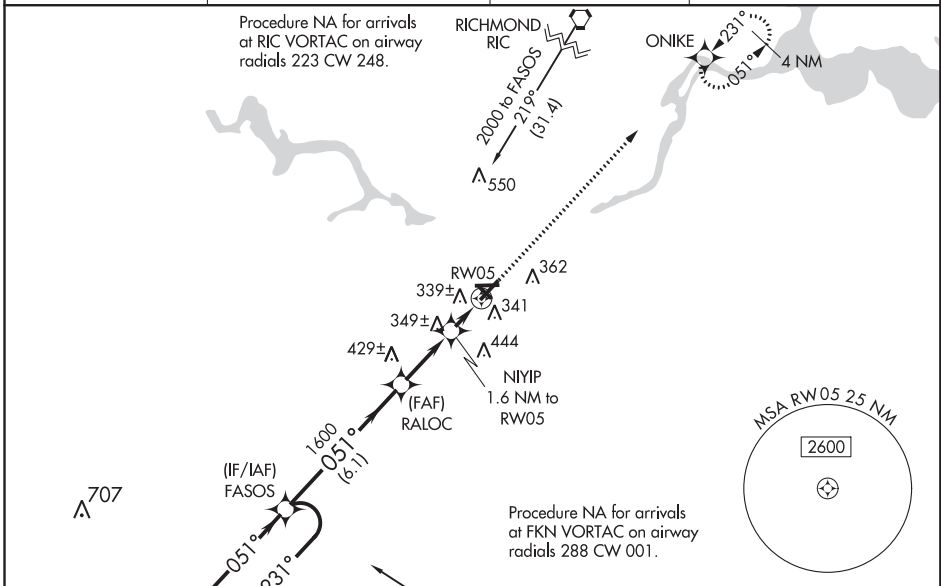
DINWIDDIE COUNTY (PTB)

**⚠** Inoperative table does not apply. Baro-VNAV NA when using Chesterfield County altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¼ SM NA. When local altimeter setting not received, use Chesterfield County altimeter setting and increase all DAs/MDAs 40 feet, and LNAV/VNAV all Cats visibility ¼ mile. Circling to Rwy 14/32 NA at night.



MISSED APPROACH: Climb to 2000 direct ONIKE and hold.

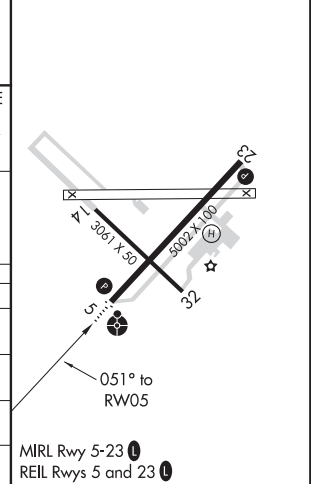
AWOS-3 <b>133.325</b>	POTOMAC APP CON <b>126.75 307.2</b>	GCO <b>135.075</b>	UNICOM <b>122.7 (CTAF)</b> <b>📻</b>
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ELEV 193	TDZE 193
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GS 3.00 TCH 42	2000	231°	051°	1600	*700	RW05
	6.1 NM			2.6 NM	1.6 NM	



CATEGORY	A	B	C	D
LPV DA	529-1¼	336 (400-1¼)		NA
LNAV/VNAV DA	620-1½	427 (500-1½)		NA
LNAV MDA	600-1	407 (500-1)	600-1¼ 407 (500-1¼)	NA
CIRCLING	680-1	487 (500-1)	680-1½ 487 (500-1½)	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>86706</b> <b>W23A</b>	APP CRS <b>231°</b>	Rwy Idg TDZE Apt Elev	<b>5002</b> <b>191</b> <b>193</b>
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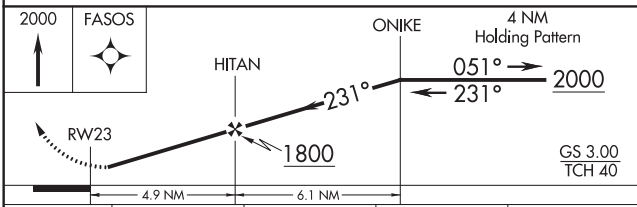
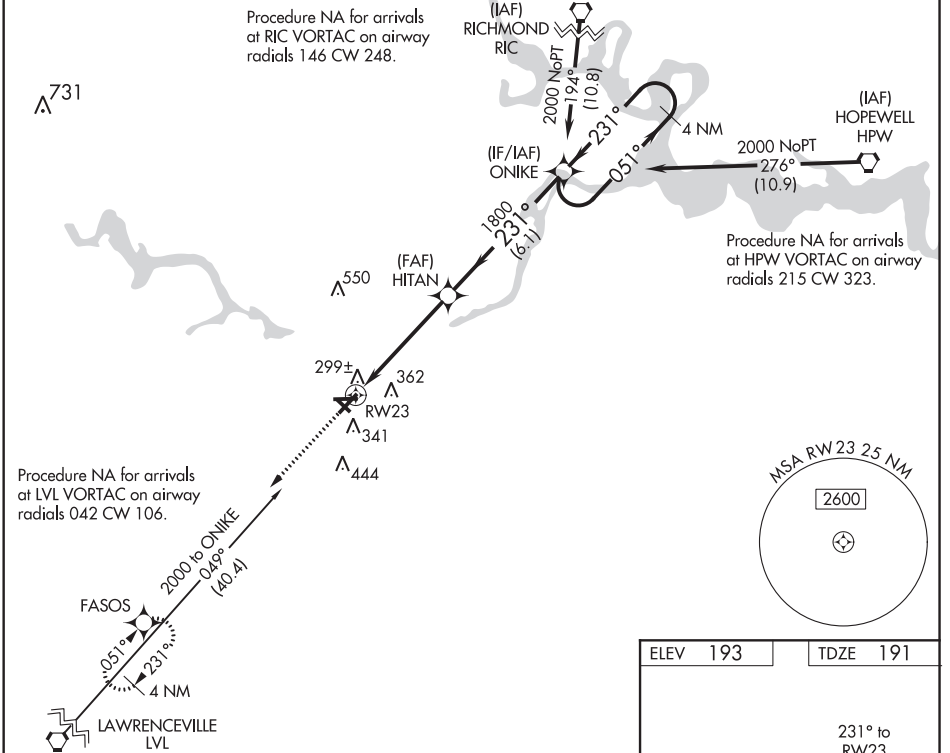
# RNAV (GPS) RWY 23

DINWIDDIE COUNTY (PTB)

**⚠** 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. When local altimeter setting not received, use Chesterfield County altimeter setting and increase all DAs/MDAs 40 feet, LPV and LNAV/VNAV all Cats visibility 1/4 mile and LNAV Cat C 1/2 mile. Circling to Rwy 14/32 NA at night. Baro-VNAV NA when using Chesterfield County altimeter setting.

MISSED APPROACH: Climb to 2000 direct FASOS and hold.

AWOS-3 <b>133.325</b>	POTOMAC APP CON <b>126.75 307.2</b>	GCO <b>135.075</b>	UNICOM <b>122.7 (CTAF) 0</b>
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ELEV 193	TDZE 191
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231° to RWY 23

309±A

3051 X 30

3002 X 00

MIRL Rwy 5-23 0

REIL Rws 5 and 23 0

CATEGORY	A	B	C	D
LPV DA	499-1	308 (400-1)		NA
LNAV/VNAV DA	644-1½	453 (500-1½)		NA
LNAV MDA	560-1	369 (400-1)		NA
CIRCLING	680-1	487 (500-1)	680-1½ 487 (500-1½)	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

PETERSBURG, VIRGINIA

AL-5664 (FAA)

15176

# LOC RWY 5

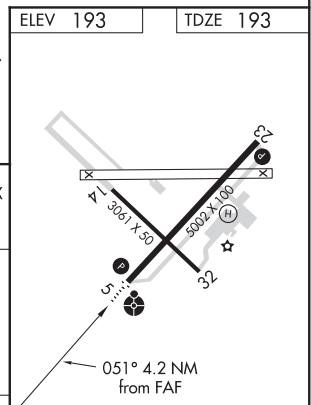
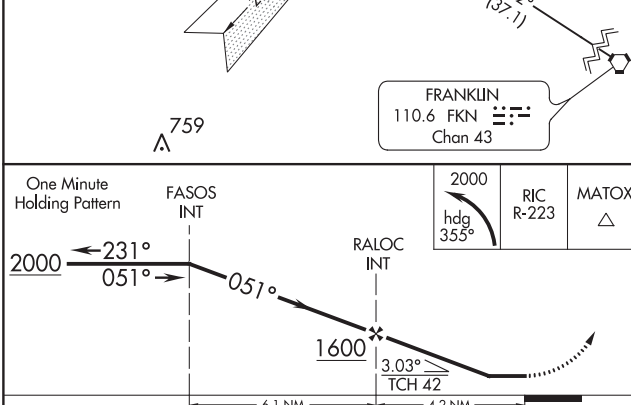
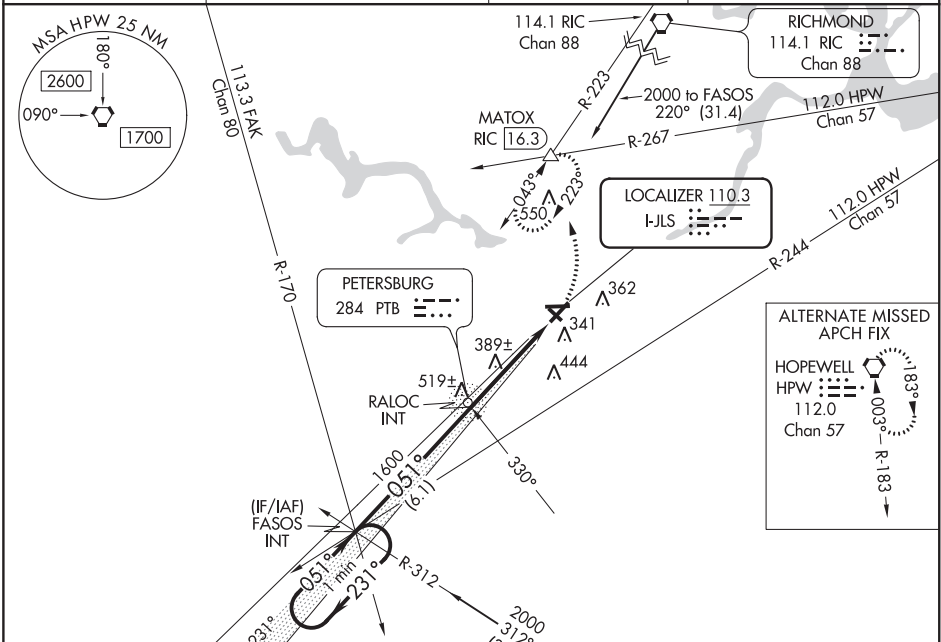
DINWIDDIE COUNTY (PTB)

LOC I-JLS <b>110.3</b>	APP CRS <b>051°</b>	Rwy Idg <b>5002</b>
		TDZE <b>193</b>
		Apt Elev <b>193</b>

**NA** ADF required. Night landing: Rwy 14, 32 NA. Inoperative table does not apply. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Chesterfield County altimeter setting and increase all MDA 40 feet.

**ODALS** MISSED APPROACH: Climbing left turn to 2000 via heading 355° and RIC R-223 to MATOX INT/RIC 16.3 DME and hold.

AWOS-3 <b>133.325</b>	POTOMAC APP CON <b>126.75 307.2</b>	GCO <b>135.075</b>	UNICOM <b>122.7 (CTAF) 0</b>
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CATEGORY	A	B	C	D
S-5	640-1	447 (500-1)	640-1½ 447 (500-1½)	NA
CIRCLING	680-1	487 (500-1)	680-1½ 487 (500-1½)	NA

MIRL Rwy 5-23  
REIL Rwys 5 and 23  
FAF to MAP 4.2 NM

Knots	60	90	120	150	180
Min:Sec	4:12	2:48	2:06	1:41	1:24

PETERSBURG, VIRGINIA  
Orig-B 25JUN15

37°11'N - 77°30'W

# LOC RWY 5

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



VORTAC HPW <b>112.0</b> Chan <b>57</b>	APP CRS <b>252°</b>	Rwy Idg TDZE Apt Elev	<b>5002</b> <b>192</b> <b>193</b>
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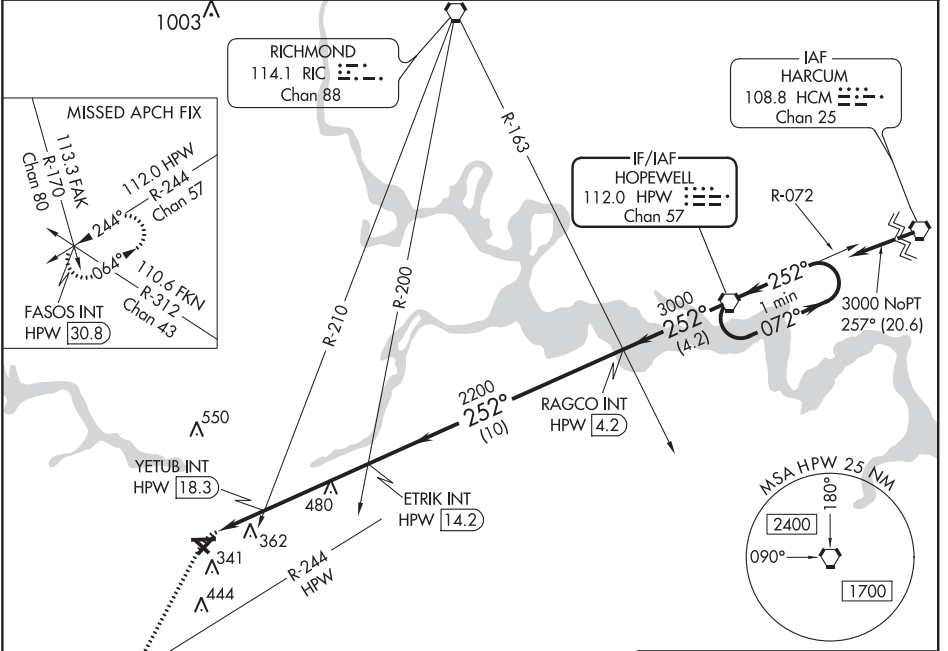
# VOR RWY 23

DINWIDDIE COUNTY (PTB)

**⚠** Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Chesterfield County altimeter setting and increase all MDAs 40 feet. Circling to Rwy 14/32 NA at night.

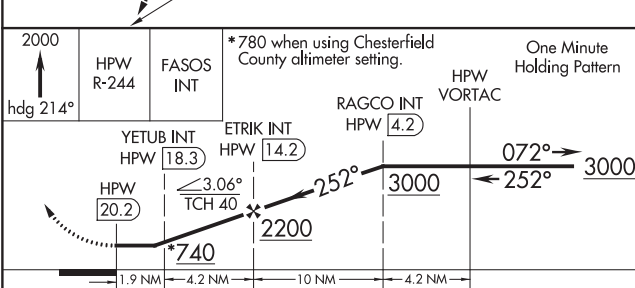
MISSED APPROACH: Climb to 2000 via heading 214° and HPW R-244 to FASOS INT/HPW 30.8 DME and hold.

AWOS-3 <b>133.325</b>	POTOMAC APP CON <b>126.75 307.2</b>	GCO <b>135.075</b>	UNICOM <b>122.7</b> (CTAF) <b>0</b>
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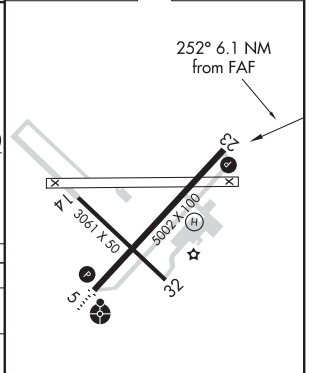
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 193	TDZE 192
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CATEGORY	A	B	C	D
S-23	740-1 548 (600-1)	740-1¼ 548 (600-1¼)	740-1½ 548 (600-1½)	NA
CIRCLING	740-1 547 (600-1)	740-1¼ 547 (600-1¼)	740-1½ 547 (600-1½)	NA
YETUB FIX MINIMUMS (DUAL VOR RECEIVERS OR DME REQUIRED)				
S-23	620-1 428 (500-1)	620-1¼ 428 (500-1¼)	620-1½ 428 (500-1½)	NA
CIRCLING	680-1 487 (500-1)	680-1¼ 487 (500-1¼)	680-1½ 487 (500-1½)	NA



MIRL Rwy 5-23 <b>0</b>					
REIL Rwys 5 and 23 <b>0</b>					
FAF to MAP 6.1 NM					
Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02

ABERDEEN PROVING GROUND, MARYLAND

# RNAV (GPS) RWY 22

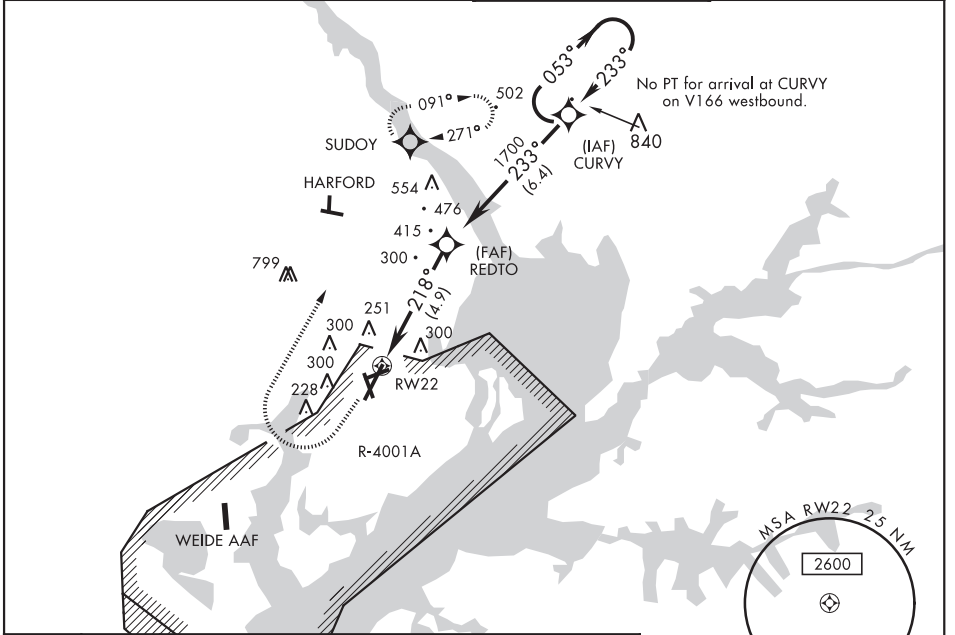
APCH CRS	Rwy Idg	<b>7997</b>
<b>218°</b>	TDZE	<b>45</b>
	Arprt Elev	<b>57</b>

AL-555 [USA]

PHILLIPS AAF (KAPG)

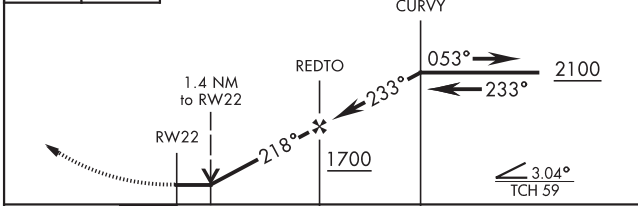
<p>▼ * When ALS inop, increase all CATS visibility ¼ mile.                  ** When local altimeter setting not received, use Baltimore altimeter setting.                  ▲ VDP NA with Baltimore altimeter setting.                  DME/DME RNP-.3 NA</p>	<p>ODALS  </p>	<p>MISSED APPROACH: Climbing right turn to 2000 direct SUDOY and hold.</p>
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<p>ATIS *  <b>108.4 124.425</b></p>	<p>POTOMAC APP CON  <b>125.525 291.625</b></p>	<p>PHILLIPS TOWER *  <b>126.15 229.6</b></p>	<p>GND CON  <b>121.9</b></p>
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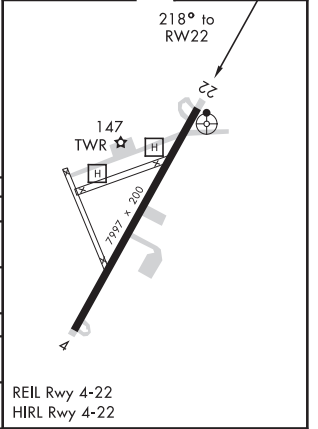


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 57	TDZE 45
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CATEGORY	A	B	C	D
LNAV MDA*	560-¾ 515 (600-¾)		560-1¼ 515 (600-1¼)	560-1½ 515 (600-1½)
CIRCLING	560-1 503 (600-1)		560-1½ 503 (600-1½)	620-2 563 (600-2)
<b>** BALTIMORE ALTIMETER SETTING MINIMUMS</b>				
LNAV MDA*	640-¾ 595 (600-¾)		640-1¼ 595 (600-1¼)	640-1½ 595 (600-1½)
CIRCLING	640-1 583 (600-1)		640-1½ 583 (600-1½)	640-2 583 (600-2)

ABERDEEN PROVING GROUND, MARYLAND  
 Amdt 1A 07MAR13

39°28'N-76°10'W

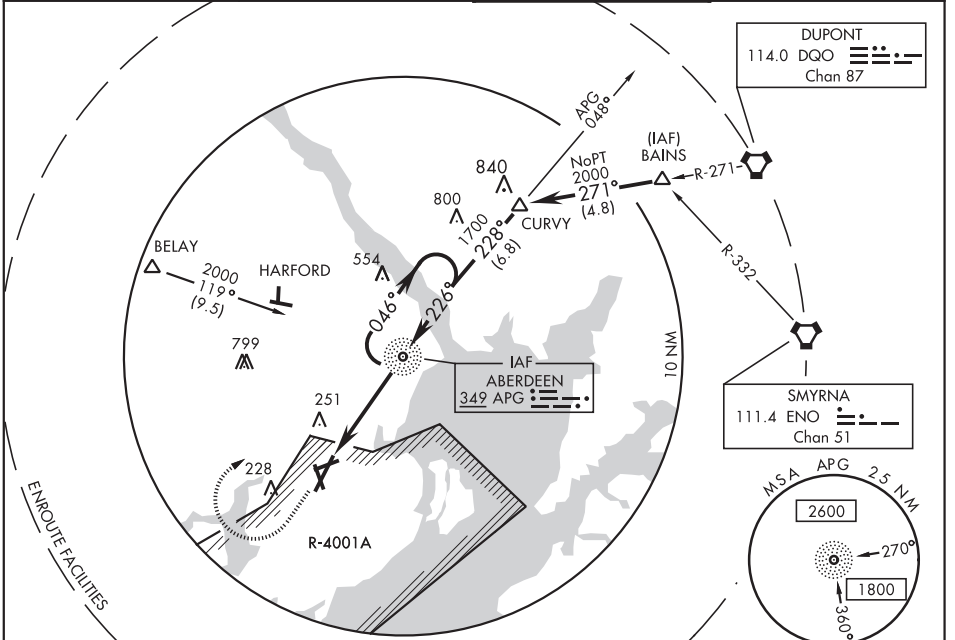
PHILLIPS AAF (KAPG)

# RNAV (GPS) RWY 22

NDB APG <b>349</b>	APCH CRS <b>226°</b>	Rwy Idg TDZE Arpt Elev <b>7997</b> <b>45</b> <b>57</b>	AL-555 [USA]	PHILLIPS AAF (KAPG)
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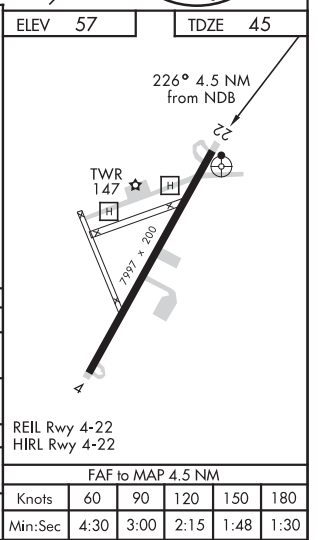
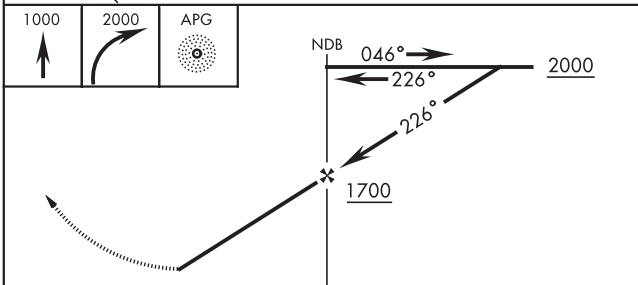
**▼** \* When local altimeter setting not received, use BALTIMORE altimeter setting. **▲** MISSED APPROACH: Climb to 1000, then climbing right turn to 2000 direct to APG NDB and hold.

ATIS ★ <b>108.4 124.425</b>	POTOMAC APP CON <b>125.525 291.625</b>	PHILLIPS TOWER ★ <b>126.15 229.6</b>	GND CON <b>121.9</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-22	560-¾ 515 (600-¾)		560-1¼ 515 (600-1¼)	560-1½ 515 (600-1½)
CIRCLING	560-1 503 (600-1)		600-1½ 543 (600-1½)	680-2 623 (700-2)
* BALTIMORE ALTIMETER SETTING MINIMUMS				
S-22	640-¾ 595 (600-¾)		640-1¼ 595 (600-1¼)	640-1½ 595 (600-1½)
CIRCLING	640-1 583 (600-1)		680-1¾ 623 (700-1¾)	760-2¼ 703 (800-2¼)

QUANTICO, VIRGINIA

# RNAV (GPS) RWY 2

APCH CRS	Rwy Idg	<b>4250</b>
<b>022°</b>	TDZE	<b>10</b>
	Arpt Elev	<b>11</b>

AL-339 [USN] QUANTICO MCAF (TURNER FIELD) (KNYG)

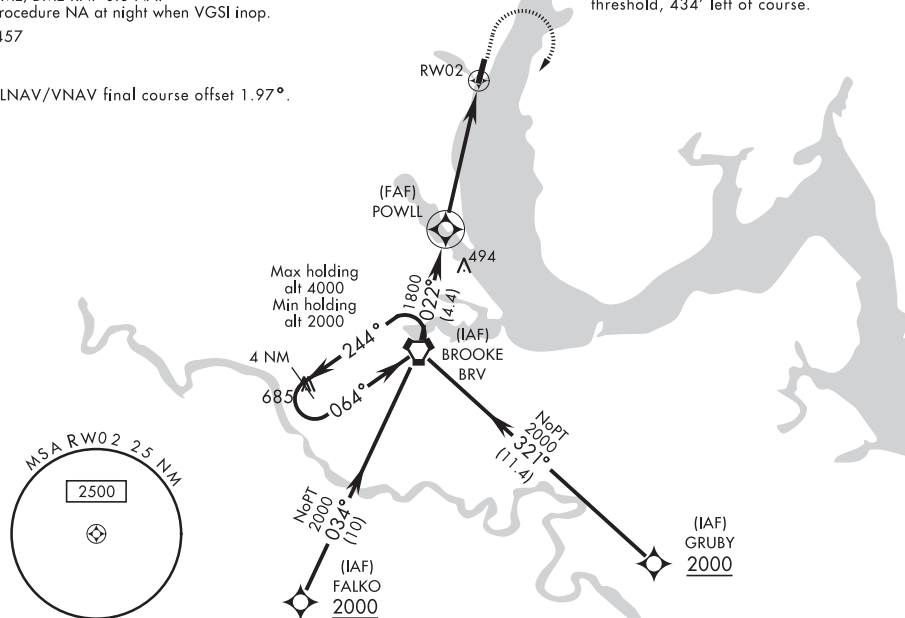
**▼** \* Circling not authorized W of Rwy 2-20.  
 Wheel crossing height group 3: 15', group 4: 10' (is less than the minimum height).  
 MISSED APPROACH: Climb to 1300, then climbing right turn to 2000 direct BRV and hold.

ATIS ★ <b>263.15</b>	POTOMAC APP CON <b>128.525 306.925</b>	QUANTICO TOWER ★ <b>118.6 360.2</b>	GND CON <b>121.75 340.2</b>	ASR/PAR
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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.  
 Procedure NA at night when VGSI inop.  
 .457

CAUTION: 20:1 visual surface penetrated by terrain. 27' MSL, 393' from threshold, 273' left of course. 32' MSL, 500' from threshold, 434' left of course.

LNAV/VNAV final course offset 1.97°.

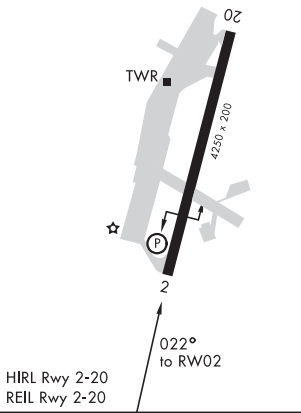
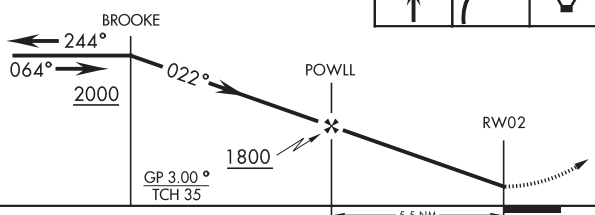


EMERG SAFE ALT 100 NM 6600

Procedure TCH not coincident with PAPIs



ELEV 11	TDZE 10
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CATEGORY	A		B		C		D	
LNAV/VNAV DA	432-1½	422 (500-1½)	443-1½	433 (500-1½)	451-1½	441 (500-1½)	462-1½	452 (500-1½)
LNAV MDA	560-1	550 (600-1)	560-1½	550 (600-1½)	560-1½	550 (600-1½)	560-1½	550 (600-1½)
CIRCLING *	560-1	549 (600-1)	720-2	709 (800-2)	760-2½	749 (800-2½)		

HIRL Rwy 2-20  
 REIL Rwy 2-20

QUANTICO, VIRGINIA  
 Amdt 1 15SEP16

38°30'N-77°18'W QUANTICO MCAF (TURNER FIELD) (KNYG)

# RNAV (GPS) RWY 2

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

QUANTICO, VIRGINIA

# TACAN RWY 2

BRV VORTAC <b>114.5</b> Chan <b>92</b>	APCH CRS <b>022°</b>	Rwy ldg <b>4250</b> TDZE Arpt Elev <b>11</b>
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AL-339 [USN] QUANTICO MCAF (TURNER FIELD) (KNYG)

▼ \* Circling not authorized W of Rwy 2-20.  
Procedure NA at night when VGSi inop.

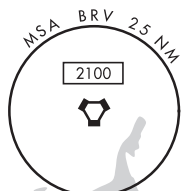
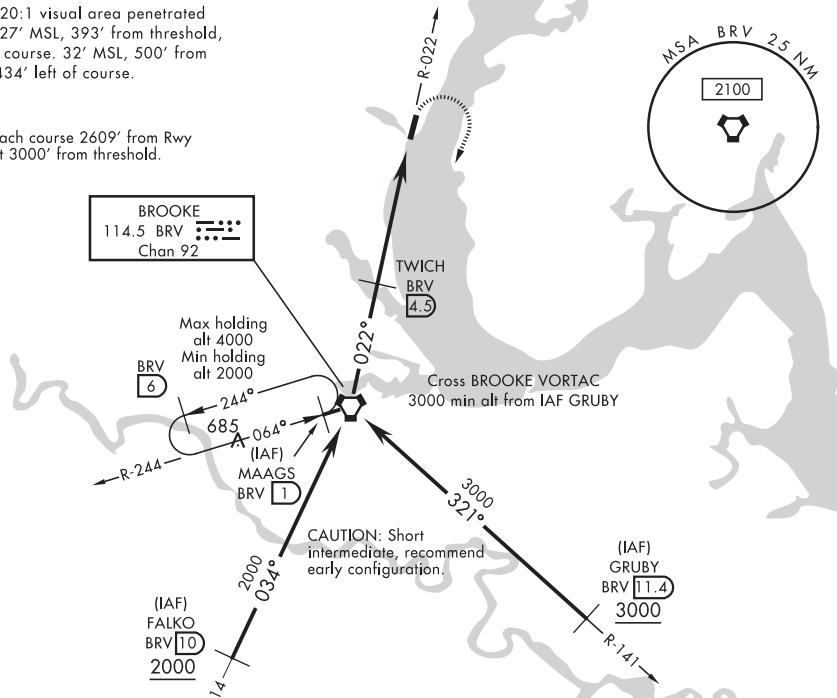
MISSED APPROACH: Climbing right turn to 2000 direct BRV VORTAC, then via BRV R-244 to MAAGS and hold.

ATIS ★ <b>263.15</b>	POTOMAC APP CON <b>128.525 306.925</b>	QUANTICO TOWER ★ <b>118.6 360.2</b>	GND CON <b>121.75 340.2</b>	ASR/PAR
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CAUTION: 20:1 visual area penetrated by terrain. 27' MSL, 393' from threshold, 273' left of course. 32' MSL, 500' from threshold, 434' left of course.

• 457

Final approach course 2609' from Rwy centerline at 3000' from threshold.

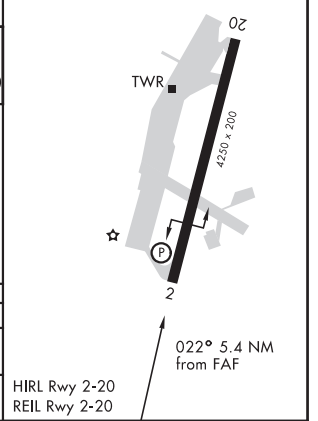
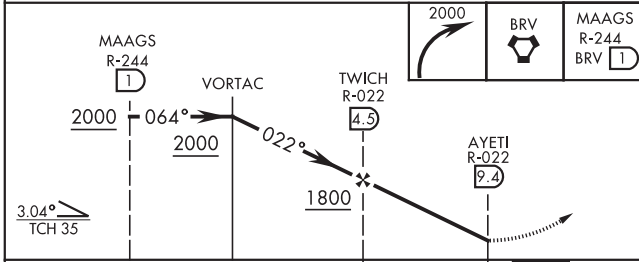


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

EMERG SAFE ALT 100 NM 6600

ELEV 11	TDZE 10
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CATEGORY	A	B	C	D
S-2	560-1	550 (600-1)	560-1 5/8	550 (600-1 1/2)
CIRCLING *	560-1	549 (600-1)	560-1 5/8 549 (600-1 1/2)	700-2 1/4 689 (700-2 1/4)

HIRL Rwy 2-20  
REIL Rwy 2-20

QUANTICO, VIRGINIA

38°30'N-77°18'W

QUANTICO MCAF (TURNER FIELD) (KNYG)

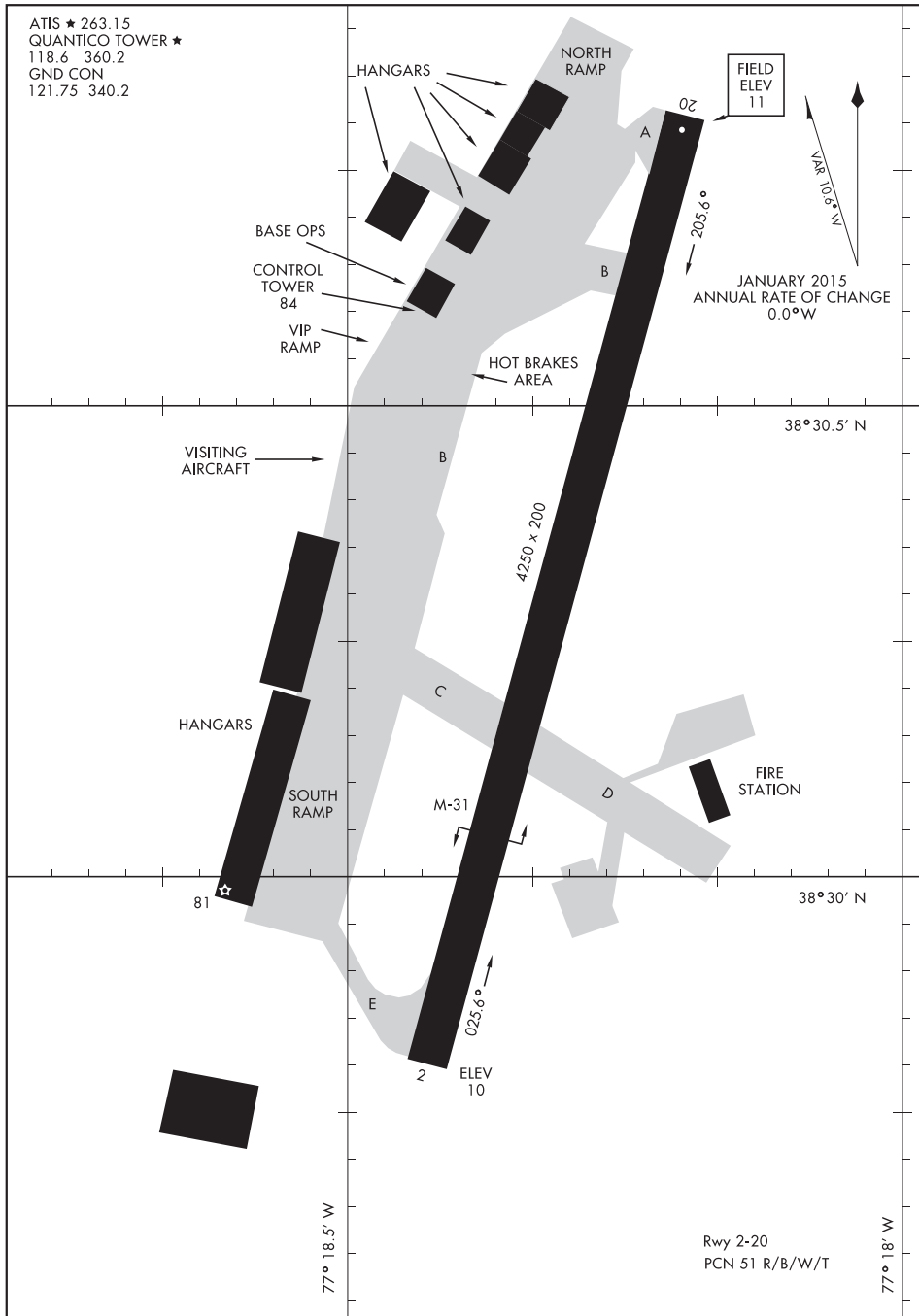
Amtd 1 15SEP16

# TACAN RWY 2

# AIRPORT DIAGRAM

AFD-339 [USN]

QUANTICO, VIRGINIA



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

QUANTICO, VIRGINIA  
 QUANTICO MCAF (TURNER FIELD) (KNYG)

WAAS CH <b>45932</b> <b>W11A</b>	APP CRS <b>106°</b>	Rwy Idg TDZE Apt Elev	<b>3600</b> <b>121</b> <b>121</b>
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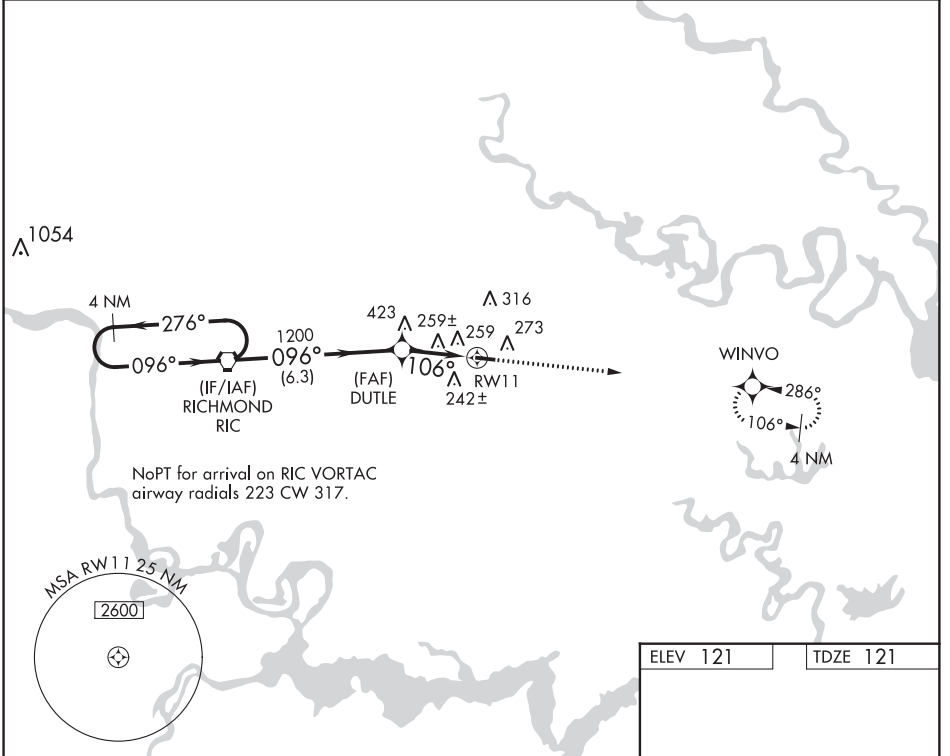
AL-6855 (FAA)

# RNAV (GPS) RWY 11

NEW KENT COUNTY (W96)

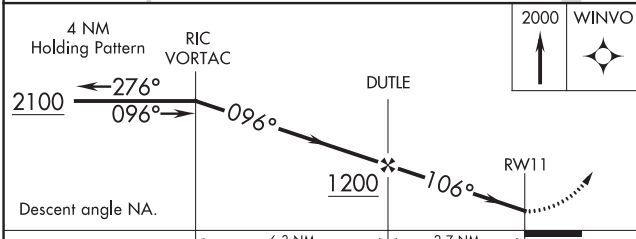
NA	Use Richmond Intl altimeter setting. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. Procedure NA at night.	MISSED APPROACH: Climb to 2000 direct WINVO and hold.
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AWOS-3 <b>119.875</b>	RICHMOND INTL ASOS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b>	UNICOM <b>122.8 (CTAF)</b>
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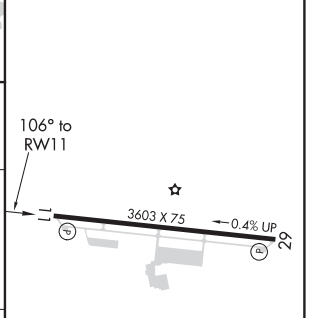


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 121	TDZE 121
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CATEGORY	A	B	C	D
LP MDA	540-1	419 (500-1)	540-1 1/8 419 (500-1 1/8)	NA
LNAV MDA	560-1	439 (500-1)	560-1 1/4 439 (500-1 1/4)	NA
CIRCLING	620-1	499 (500-1)	760-1 3/4 639 (700-1 3/4)	NA

MIRL Rwy 11-29

REIL Rwy 11 and 29

QUINTON, VIRGINIA

15148

WAAS CH <b>90532</b> <b>W29A</b>	APP CRS <b>286°</b>	Rwy Idg TDZE Apt Elev	<b>3600</b> <b>120</b> <b>121</b>
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AL-6855 (FAA)

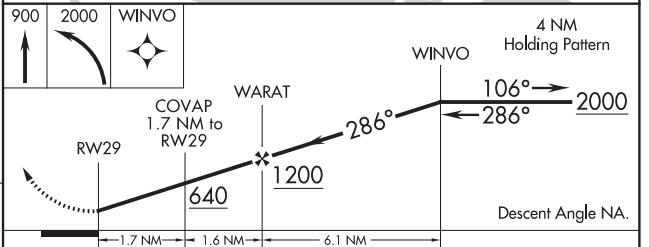
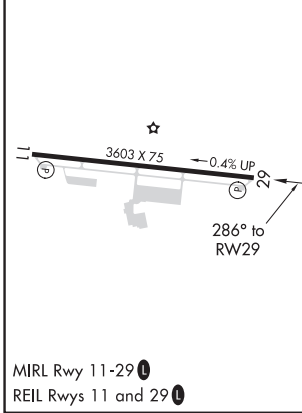
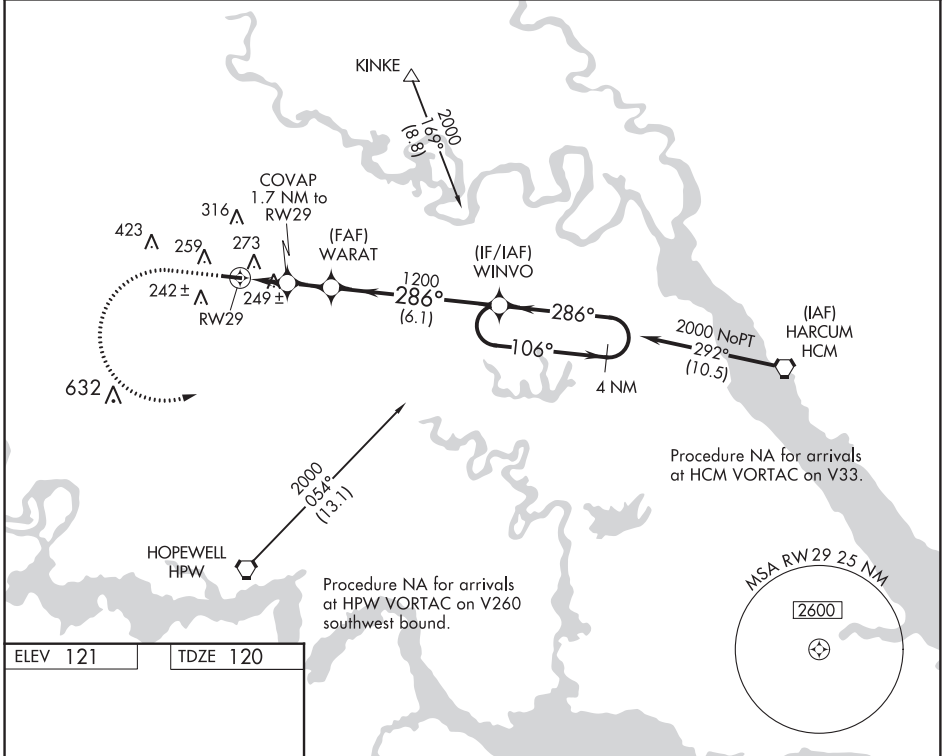
# RNAV (GPS) RWY 29

NEW KENT COUNTY (W96)

**NA** Use Richmond Intl altimeter setting. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. Procedure NA at night.

MISSED APPROACH: Climb to 900 then climbing left turn to 2000 direct WINVO and hold.

AWOS-3 <b>119.875</b>	RICHMOND INTL ASOS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b>	UNICOM <b>122.8 (CTAF)</b> <b>0</b>
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CATEGORY	A	B	C	D
LP MDA	540-1	420 (500-1)	540-1 1/4 420 (500-1 1/4)	NA
LNAV MDA	560-1	440 (500-1)	560-1 3/8 440 (500-1 3/8)	NA
<b>C</b> CIRCLING	620-1	499 (500-1)	760-1 3/4 639 (700-1 3/4)	NA

QUINTON, VIRGINIA  
Amdt 2A 28MAY15

37°30'N-77°08'W

# NEW KENT COUNTY (W96)

## RNAV (GPS) RWY 29

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



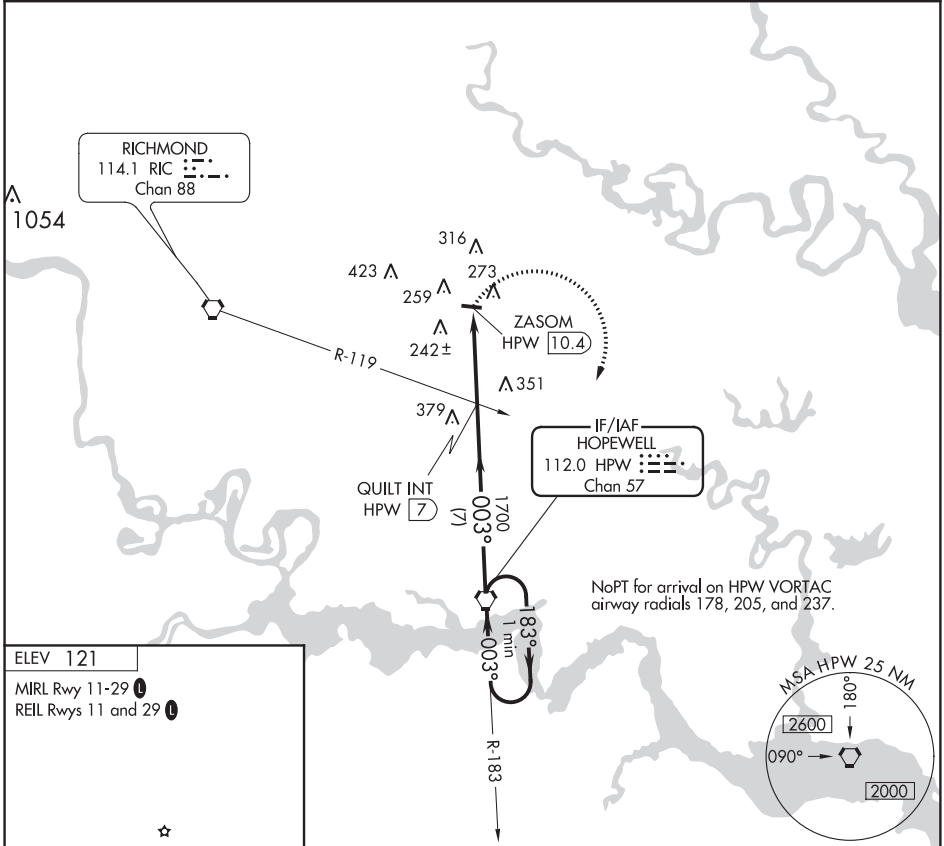
VORTAC HPW <b>112.0</b> Chan <b>57</b>	APP CRS <b>003°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>121</b>
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AL-6855 (FAA)

**VOR-A**  
NEW KENT COUNTY (W96)

<b>NA</b>	Use Richmond Intl altimeter setting. Procedure NA at night. Helicopter visibility reduction below 1 SM NA.	MISSED APPROACH: Climbing right turn to 2000 direct HPW VORTAC and hold.
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AWOS-3 <b>119.875</b>	RICHMOND INTL ASOS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

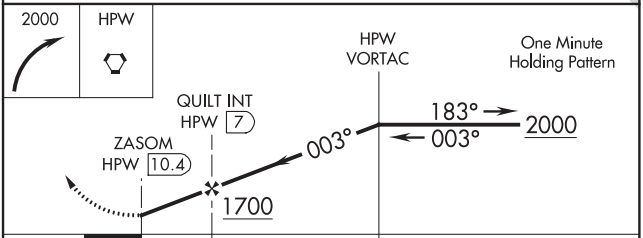
NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV **121**

MIRL Rwy 11-29 **0**

REIL Rwy 11 and 29 **0**

003° 3.4 NM from FAF



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	
<b>CIRCLING</b>	660-1	539 (600-1)	760-1 <sup>3</sup> / <sub>4</sub> 639 (700-1 <sup>3</sup> / <sub>4</sub> )	NA	

RICHLANDS, VIRGINIA

AL-9221 (FAA)

14317

WAAS CH <b>63224</b> <b>W07A</b>	APP CRS <b>072°</b>	Rwy Idg TDZE Apt Elev	<b>4299</b> <b>2653</b> <b>2653</b>
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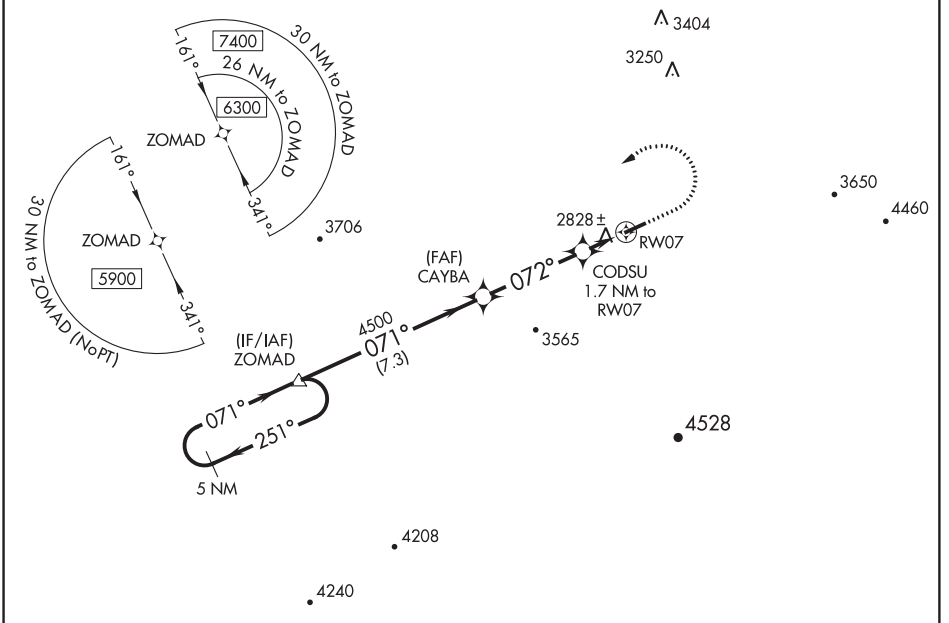
# RNAV (GPS) RWY 7

TAZEWELL COUNTY (JFZ)

**▼** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Wise altimeter setting and increase all MDA 100 feet, increase LP and LNAV Cat C visibility ¼ mile and Circling Cat C visibility ½ mile. Procedure NA at night.

**MISSED APPROACH:** Climb to 3200 then climbing left turn to 5900 direct ZOMAD and hold, continue climb-in-hold to 5900.

AWOS-3 <b>118.075</b>	INDIANAPOLIS CENTER <b>126.575 257.85</b>	GCO <b>135.075</b>	UNICOM <b>123.05 (CTAF) ①</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

	ELEV 2653	TDZE 2653
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5 NM Holding Pattern

5900 ← 251° / 071° →

4500

CAYBA

3.00 NM TCH 54

3200

CODSU 1.7 NM to RW07

3240

RW07

7.3 NM | 3.9 NM | 1.7 NM

3200

5900

ZOMAD

CATEGORY	A	B	C	D
LP MDA	3080-1	427 (500-1)	3080-1¼ 427 (500-1¼)	NA
LNAV MDA	3080-1	427 (500-1)	3080-1¼ 427 (500-1¼)	NA
CIRCLING	3240-1	587 (600-1)	3240-1½ 587 (600-1½)	NA

MIRL Rwy 7-25 ①

REIL Rwy 7 and 25 ①

RICHLANDS, VIRGINIA  
Orig-B 13NOV14

37°04'N-81°48'W

TAZEWELL COUNTY (JFZ)  
**RNAV (GPS) RWY 7**

WAAS CH <b>53524</b> <b>W25A</b>	APP CRS <b>252°</b>	Rwy Idg TDZE Apt Elev	<b>4299</b> <b>2653</b> <b>2653</b>
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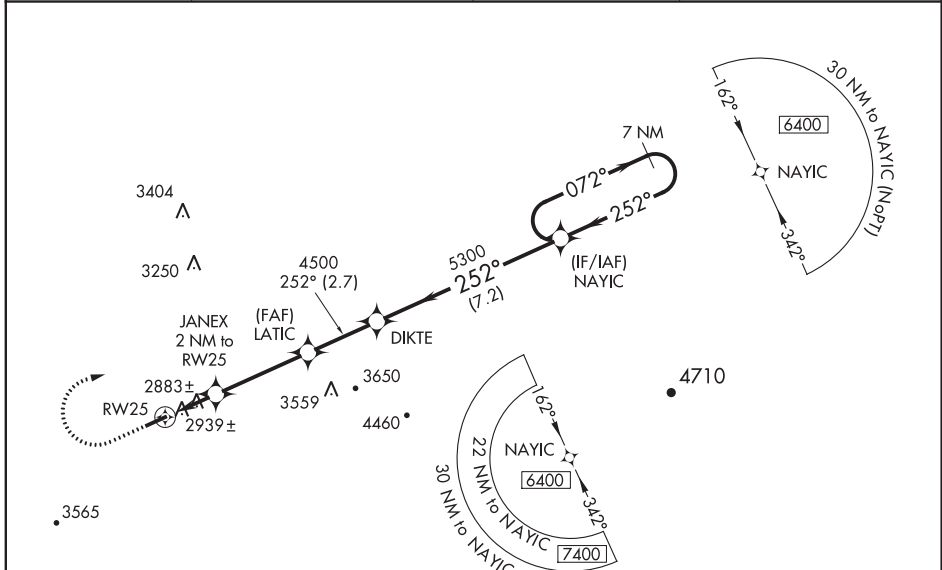
# RNAV (GPS) RWY 25

TAZEWELL COUNTY (JF'Z)

Baro-VNAV NA when using Wise altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Wise altimeter setting and increase all DA 86 feet and all MDA 100 feet, increase LPV and LNAV/VNAV all Cats and Circling Cat C visibility 3/8 mile, increase LNAV Cat C visibility 1/4 mile. When VGSI inop, Straight-in/Circling Rwy 25 procedure NA at night. When VGSI inop, Circling Rwy 7 NA at night.

**MISSED APPROACH:**  
Climb to 3800 then climbing right turn to 6400 direct NAYIC and hold, continue climb-in-hold to 6400.

AWOS-3 <b>118.075</b>	INDIANAPOLIS CENTER <b>126.575 257.85</b>	GCO <b>135.075</b>	UNICOM <b>123.05 (CTAF)</b>
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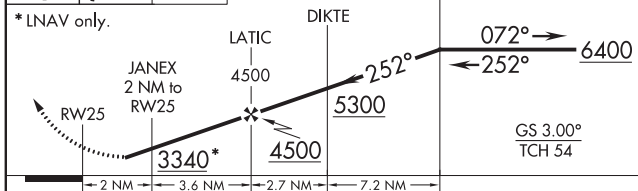


NE-3, 10 NOV 2016 to 05 JAN 2017

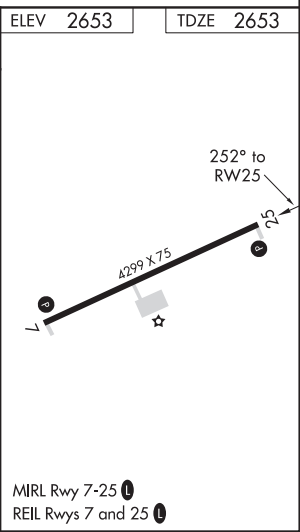
NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV <b>2653</b>	TDZE <b>2653</b>
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3800 | 6400 | NAYIC  
 ↑ | ↘ | ✦  
 VGSI and RNAV glidepath not coincident (VGSI Angle 4.00/TCH 54).  
 7 NM Holding Pattern



CATEGORY	A	B	C	D
LPV DA	3201-1 7/8	548 (600-1 7/8)		NA
LNAV/VNAV DA	3210-1 7/8	557 (600-1 7/8)		NA
LNAV MDA	3200-1 547 (600-1)		3200-1 5/8 547 (600-1 5/8)	NA
CIRCLING	3240-1 587 (600-1)		3240-1 5/8 587 (600-1 5/8)	NA



MIRL Rwy 7-25  
 REIL Rwy 7 and 25

RICHLANDS, VIRGINIA

AL-9221 (FAA)

14317

LOC/DME I-JFZ <b>109.75</b> Chan 34 (Y)	APP CRS <b>252°</b>	Rwy Idg TDZE Apt Elev	<b>4299</b> <b>2653</b> <b>2653</b>
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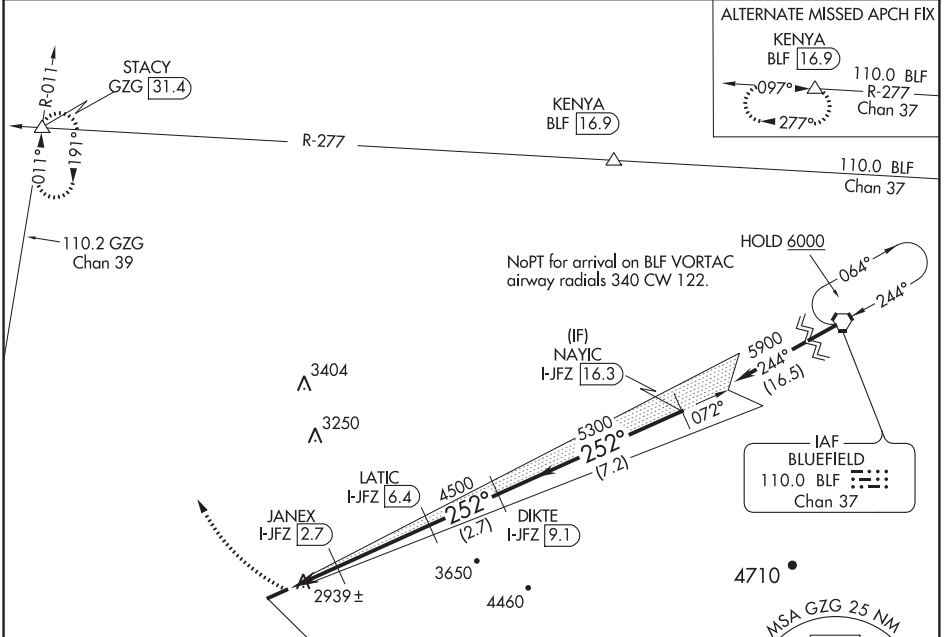
# LOC/DME RWY 25

TAZEWELL COUNTY (JFZ)

**⚠** Visibility reduction by helicopters NA. When local altimeter setting not received use Wise altimeter setting and increase all MDA 100 feet, increase S-25 Cat C visibility ¼ mile and Circling Cat C visibility ⅓ mile. When VGSI inop, Straight-in/Circling Rwy 25 procedure NA at night. When VGSI inop, Circling Rwy 7 NA at night.

**MISSED APPROACH:** Climbing right turn to 6000 on heading 324° and GZG R-011 to STACY INT/GZG 31.4 DME and hold.

AWOS-3 <b>118.075</b>	INDIANAPOLIS CENTER <b>126.575 257.85</b>	GCO <b>135.075</b>	UNICOM <b>123.05 (CTAF) 0</b>
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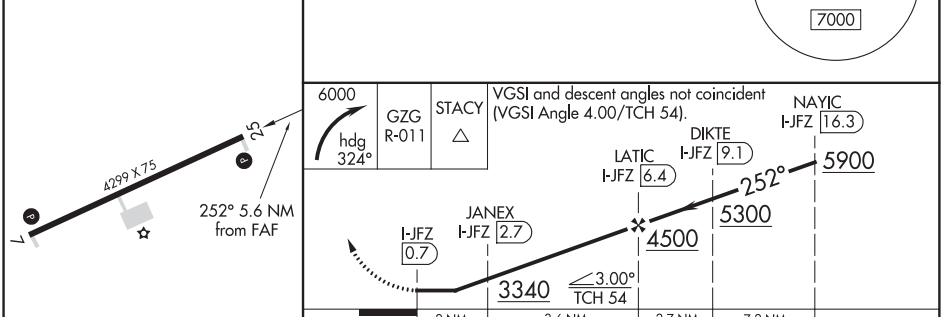


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 2653	TDZE 2653
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**LOCALIZER 109.75**  
I-JFZ [Morse code]  
Chan 34 (Y)



	A	B	C	D
S-25	3200-1	547 (600-1)	3200-1½ 547 (600-1½)	NA
CIRCLING	3240-1	587 (600-1)	3240-1½ 587 (600-1½)	NA

RICHLANDS, VIRGINIA  
Amdt 1A 13NOV14

37°04'N-81°48'W

# TAZEWELL COUNTY (JFZ) LOC/DME RWY 25



WAAS CH <b>63216</b> <b>W15A</b>	APP CRS <b>151°</b>	Rwy Idg TDZE Apt Elev	<b>5500</b> <b>236</b> <b>236</b>
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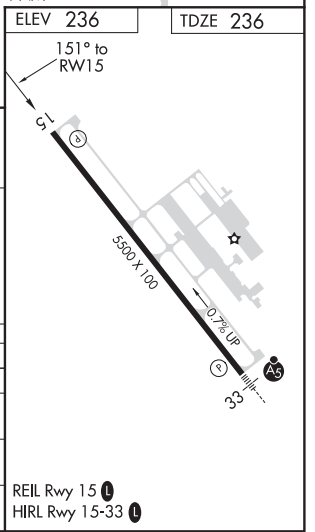
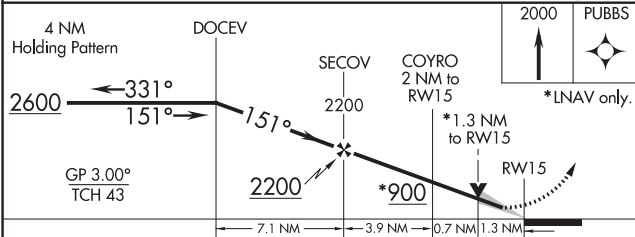
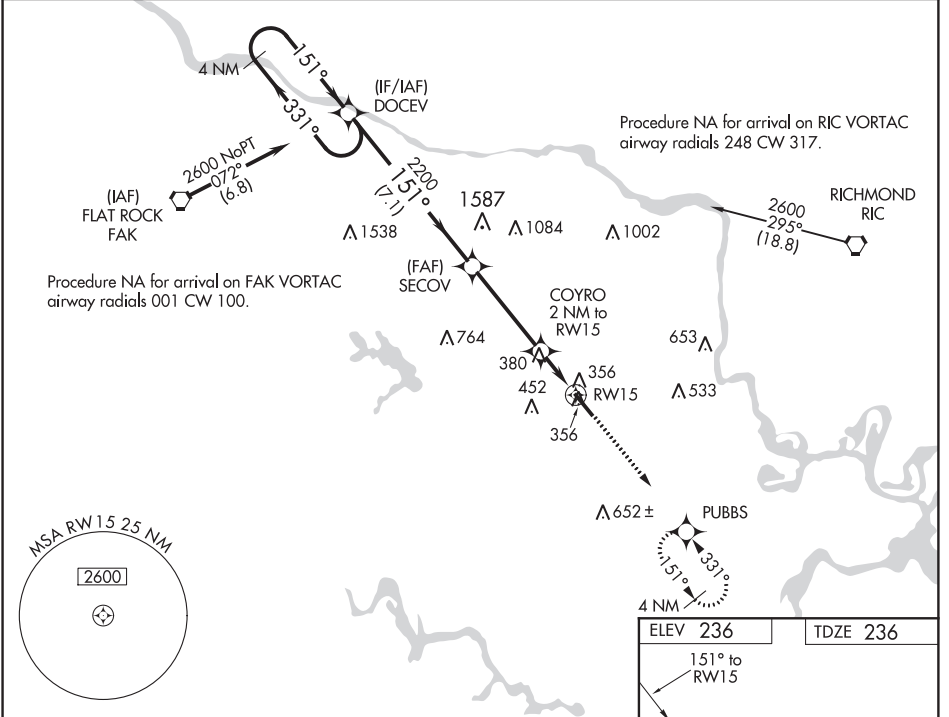
# RNAV (GPS) RWY 15

RICHMOND EXECUTIVE-CHESTERFIELD COUNTY (F'CI)

**⚠** 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 Richmond Intl altimeter setting and increase all DA 36 feet, and all MDA 40 feet, increase LNAV/VNAV all Cats visibility 1/4 mile. VDP and Baro-VNAV NA when using Richmond Intl altimeter setting.

**⚠** MISSED APPROACH: Climb to 2000 direct PUBBS and hold.

AWOS-3 <b>128.625</b>	POTOMAC APP CON <b>126.75 307.2</b>	CLNC DEL <b>124.6</b>	UNICOM <b>123.05 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LPV DA		486-1	250 (300-1)	
LNAV/VNAV DA		692-1 1/2	456 (500-1 1/2)	
LNAV MDA	680-1	444 (500-1)	680-1 3/8 444 (500-1 3/8)	680-1 1/2 444 (500-1 1/2)
CIRCLING	720-1	484 (500-1)	760-1 1/2 524 (600-1 1/2)	800-2 564 (600-2)

# RNAV (GPS) RWY 15

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>56221</b> <b>W33A</b>	APP CRS <b>331°</b>	Rwy ldg TDZE Apt Elev	<b>5500</b> <b>217</b> <b>236</b>
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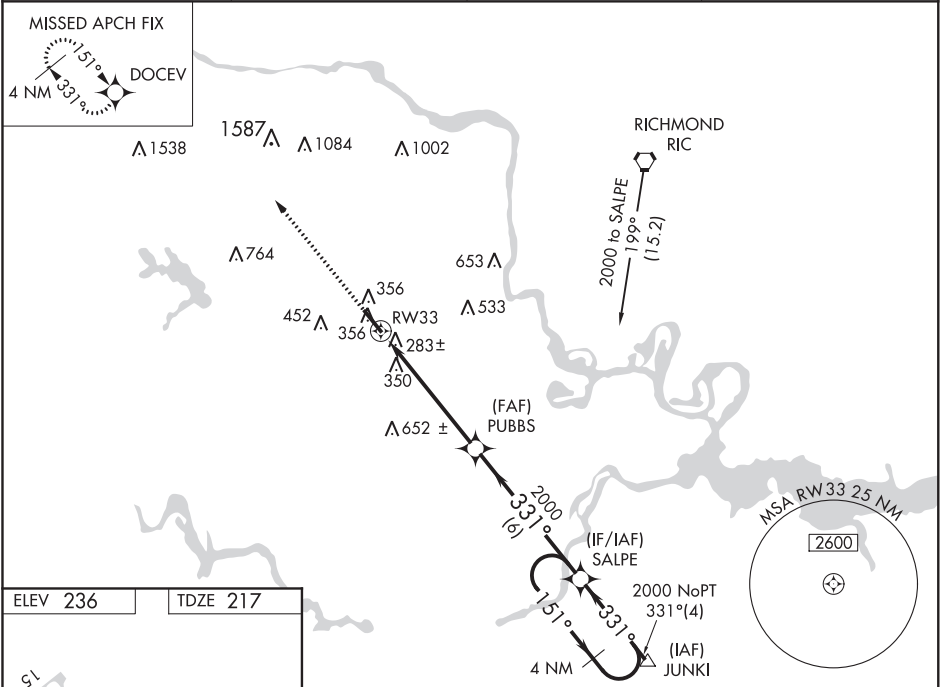
# RNAV (GPS) RWY 33

RICHMOND EXECUTIVE-CHESTERFIELD COUNTY (F'CI)

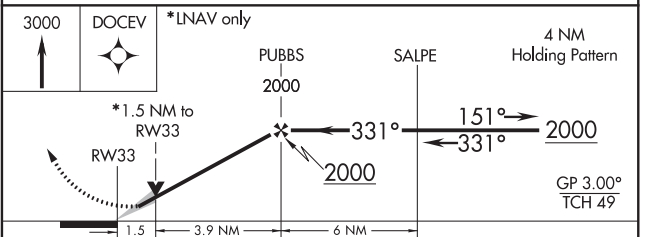
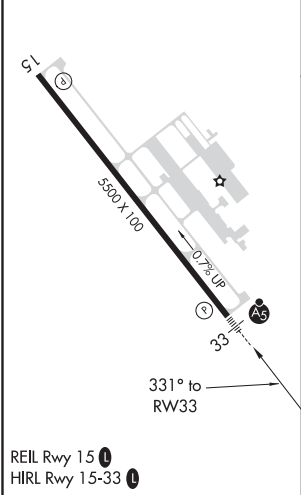
**▽** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). When local altimeter setting not received, use Richmond Intl altimeter setting and increase all DA 36 feet and all MDA 40 feet; increase LPV and LNAV/VNAV all Cats and LNAV Cats C/D and Circling Cat C visibility 1/8 mile, DME/DME RNP-0.3 NA. For inop MALSRS, increase LPV all Cats visibility to 1 mile and LNAV Cat C/D to 1 1/8 mile. For inop MALSRS when using Richmond Intl altimeter setting, increase LPV all Cats visibility to 1 1/8 mile. Baro-VNAV and VDP NA when using Richmond Intl altimeter setting.

**MALSRS**  
**MISSSED APPROACH:**  
Climb to 3000 direct DOCEV and hold.

AWOS-3 <b>128.625</b>	POTOMAC APP CON <b>126.75 307.2</b>	CLNC DEL <b>124.6</b>	UNICOM <b>123.05 (CTAF)</b>
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ELEV 236	TDZE 217
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CATEGORY	A	B	C	D
LPV DA	510-1/2 293 (300-1/2)			
LNAV/VNAV DA	598-7/8 381 (400-7/8)			
LNAV MDA	720-1/2	503 (500-1/2)	720-1	503 (500-1)
CIRCLING	720-1	484 (500-1)	760-1 1/2 524 (600-1 1/2)	800-2 564 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017






LOC I-RGJ <b>110.7</b>	APP CRS <b>156°</b>	Rwy Idg TDZE Apt Elev	<b>9003</b> <b>167</b> <b>167</b>
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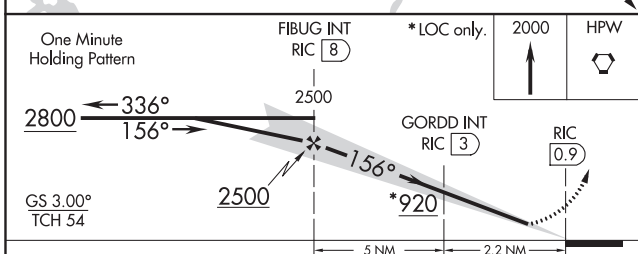
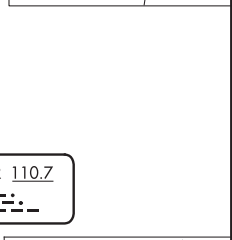
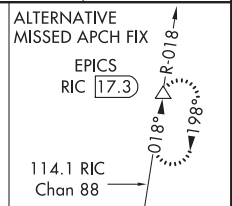
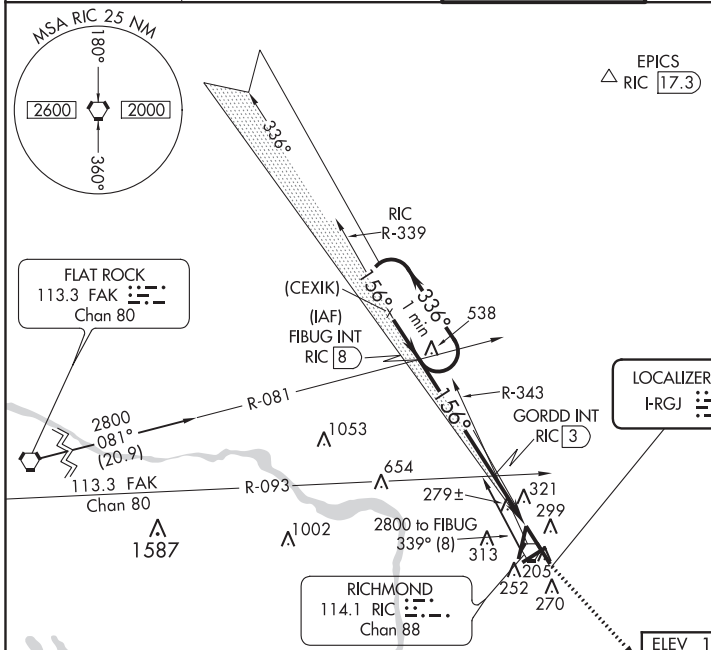
# ILS or LOC RWY 16

RICHMOND INTL (RIC)

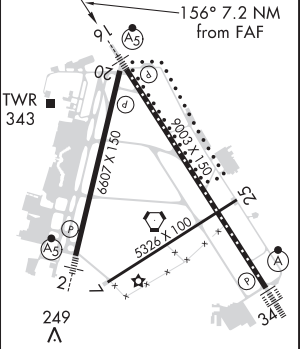
**▽** For inoperative MALS, increase S-LOC 16 Cats C and D visibility to 2 miles.  
**▲** GORDD fix minimums: For inoperative MALS, increase S-LOC Cats C and D visibility to 1½ mile. \*\*RVR 1800 authorized with use of FD or AP or HUD to DA.  
 † DME from RIC VORTAC

**MALS**  
  
**MISSED APPROACH:**  
 Climb to 2000 direct  
 HPW VORTAC and hold.

ATIS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	RICHMOND TOWER <b>121.1 257.8</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55 348.6</b>
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ELEV 167	<b>D</b> TDZE 167
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CATEGORY	A	B	C	D
S-ILS 16		** 367/24	200 (200-½)	
S-LOC 16	920/24 753 (800-½)	920/40 753 (800-¾)	920-1¾	753 (800-1¾)
CIRCLING	920-1 753 (800-1)	920-1¼ 753 (800-1¼)	920-2¼ 753 (800-2¼)	920-2½ 753 (800-2½)
† GORDD FIX MINIMUMS				
S-LOC 16	580/24	413 (500-½)	580/40	413 (500-¾)
CIRCLING	660-1	493 (500-1)	660-1½ 493 (500-1½)	720-2 553 (600-2)

TWR 343	249	227			
TDZ/CL Rwy 34					
HIRL Rwys 2-20, 7-25 and 16-34					
REIL Rwys 2 and 20					
FAF to MAP 7.2 NM					
Knots	60	90	120	150	180
Min:Sec	7:12	4:48	3:36	2:53	2:24

NE-3, 10 NOV 2016 to 05 JAN 2017

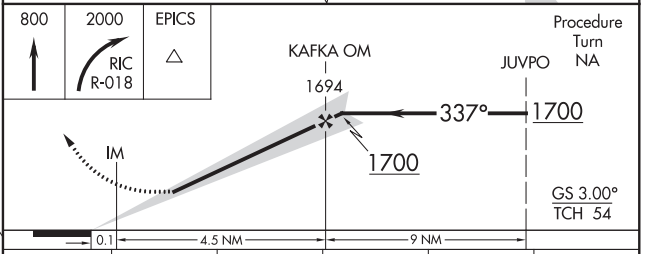
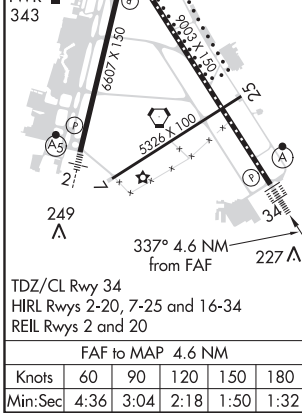
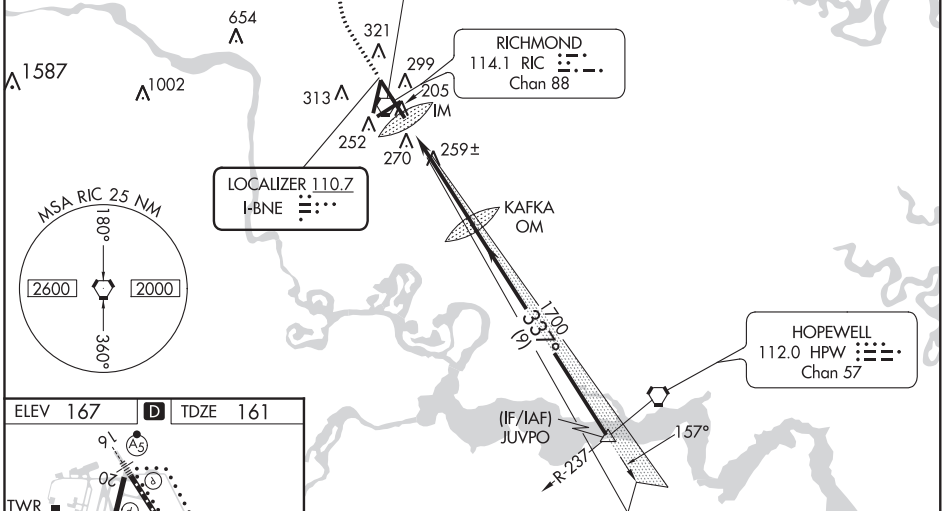
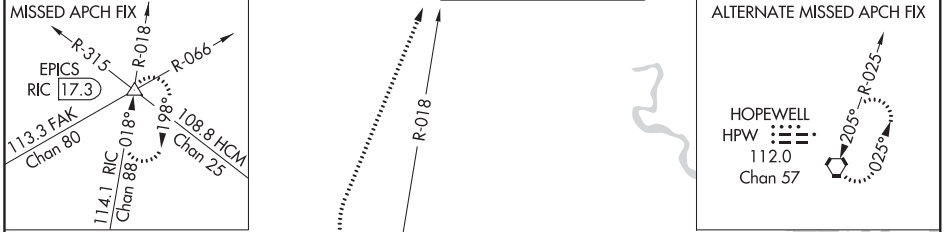
NE-3, 10 NOV 2016 to 05 JAN 2017

LOC I-BNE <b>110.7</b>	APP CRS <b>337°</b>	Rwy Idg TDZE <b>9003</b> 161 Apt Elev <b>167</b>
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# ILS or LOC RWY 34

RICHMOND INTL (RIC)

For inoperative ALSF-2, increase S-ILS 34 Cat E visibility to RVR 4000 and S-LOC 34 Cats C, D, and E visibility to RVR 5500.		ALSF-2 	MISSED APPROACH: Climb to 800 then climbing right turn to 2000 via RIC VORTAC R-018 to EPICS INT/RIC 17.3 DME and hold.	
ATIS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	RICHMOND TOWER <b>121.1 257.8</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55 348.6</b>



CATEGORY	A	B	C	D	E
S-ILS 34	361/18		200 (200-½)		361/24 200 (200-½)
S-LOC 34	520/24	359 (400-½)	520/30 359 (400-¾)		
CIRCLING	660-1 493 (500-1)		660-1½ 493 (500-1½)	720-2 553 (600-2)	740-2 573 (600-2)

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NE-3, 10 NOV 2016 to 05 JAN 2017

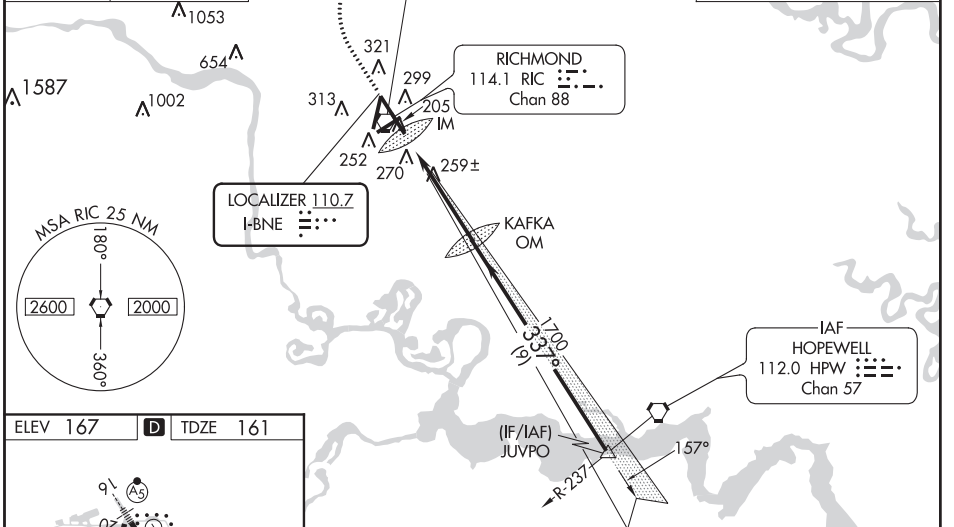
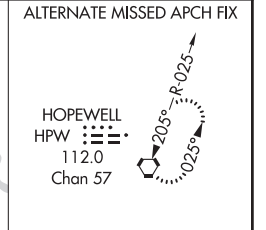
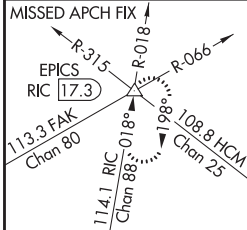
LOC I-BNE <b>110.7</b>	APP CRS <b>337°</b>	Rwy Idg TDZE Apt Elev	<b>9003</b> <b>161</b> <b>167</b>
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# ILS RWY 34 (SA CAT I)

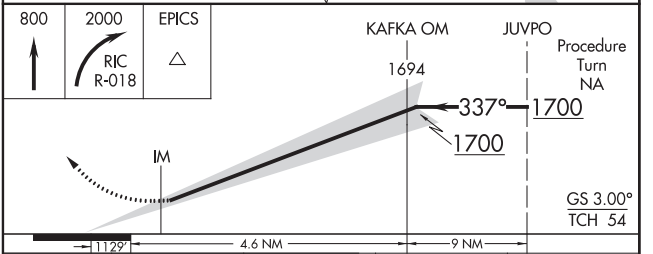
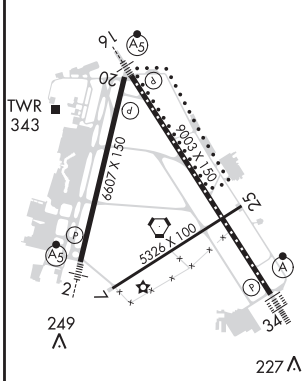
RICHMOND INTL (RIC)

Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.	ALSF-2 	MISSED APPROACH: Climb to 800 then climbing right turn to 2000 via RIC VORTAC R-018 to EPICS INT/RIC 17.3 DME and hold.
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ATIS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	RICHMOND TOWER <b>121.1 257.8</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55 348.6</b>
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ELEV 167	<b>D</b>	TDZE 161
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CATEGORY	A	B	C	D
S-ILS 34	RA 156/14		150	DA 311

**SA CATEGORY I ILS-SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

NE-3, 10 NOV 2016 to 05 JAN 2017

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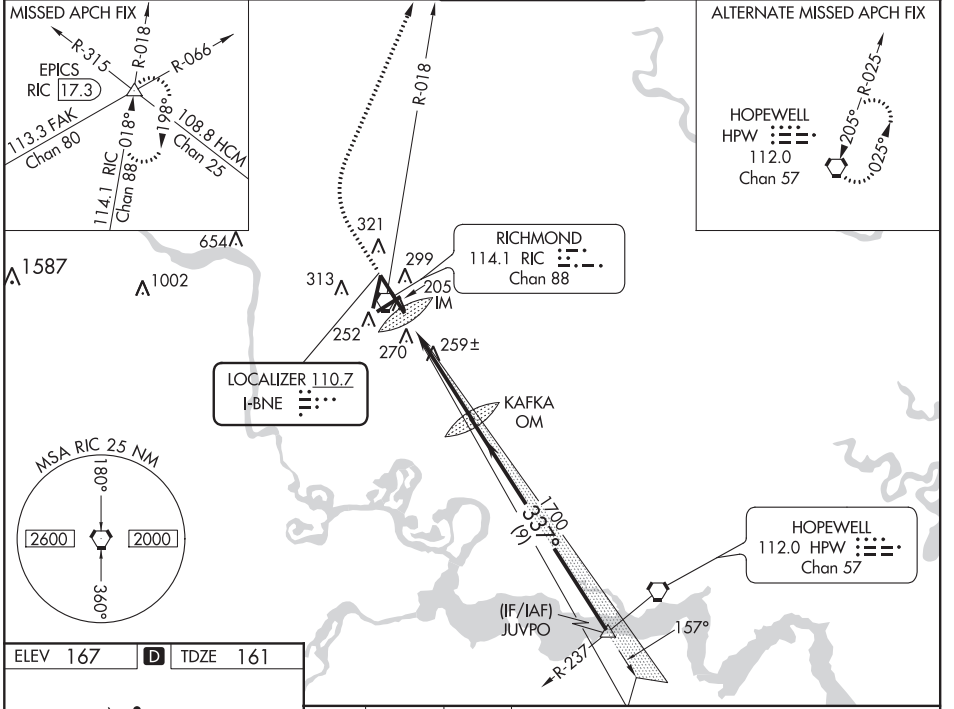
LOC I-BNE <b>110.7</b>	APP CRS <b>337°</b>	Rwy Idg TDZE <b>161</b> Apt Elev <b>167</b>	<b>9003</b>
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# ILS RWY 34 (CAT II & III)

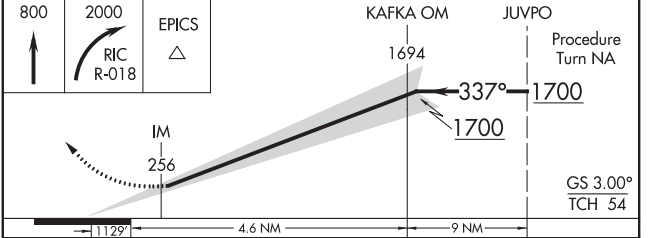
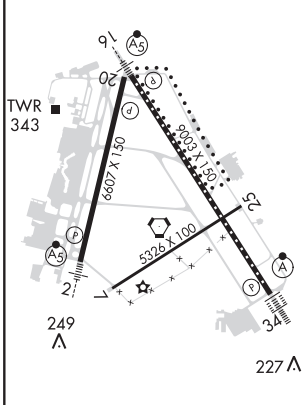
RICHMOND INTL (RIC)

<p><b>▽</b> CAT II: RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of Autoland or HUD to touchdown.</p>	<p>ALSF-2</p>	<p>MISSED APPROACH: Climb to 800 then climbing right turn to 2000 via RIC VORTAC R-018 to EPICS INT/ RIC 17.3 DME and hold.</p>
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<p>ATIS <b>119.15 263.025</b></p>	<p>POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)</p>	<p>RICHMOND TOWER <b>121.1 257.8</b></p>	<p>GND CON <b>121.9 348.6</b></p>	<p>CLNC DEL <b>127.55 348.6</b></p>
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ELEV 167	<b>D</b>	TDZE 161
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CATEGORY	A	B	C	D
S-ILS 34	CAT II RA 101/12 100 DA 261			
S-ILS 34	CAT IIIa RVR 07			
S-ILS 34	CAT IIIb RVR 06			
S-ILS 34	CAT IIIc NA			

**CATEGORY II & III ILS-SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

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APP CRS	Rwy Idg	<b>6607</b>
<b>022°</b>	TDZE	<b>162</b>
	Apt Elev	<b>167</b>

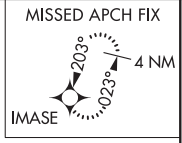
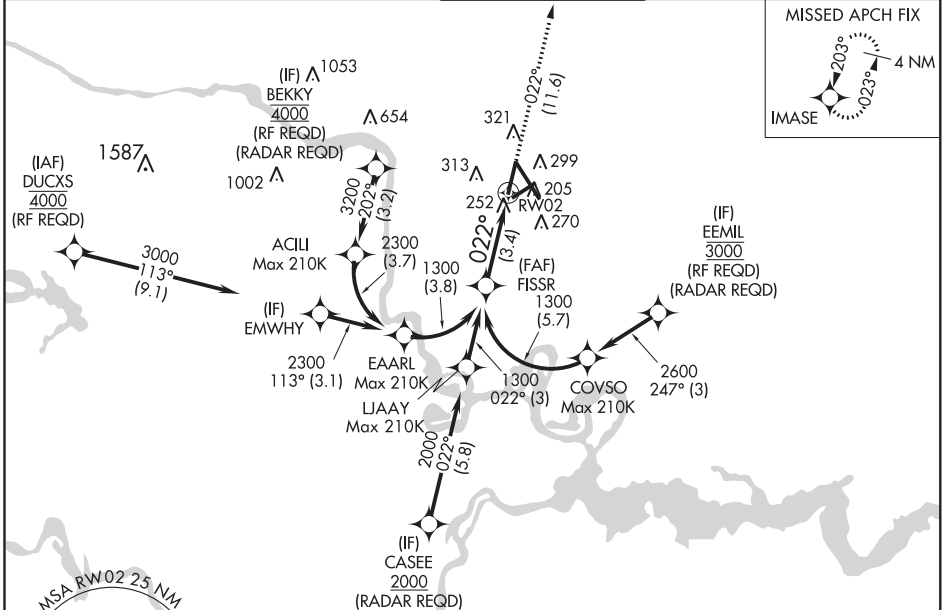
# RNAV (RNP) Y RWY 2

RICHMOND INTL (RIC)

**GPS required.** For uncompensated Baro-VNAV systems, procedure NA below -11°C (13°F) or above 54°C (130°F). For inoperative MALSR, increase RNP 0.11 all Cats visibility to 1½ and RNP 0.30 all Cats visibility to 1½.

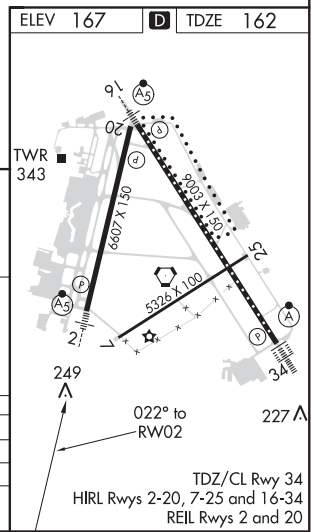
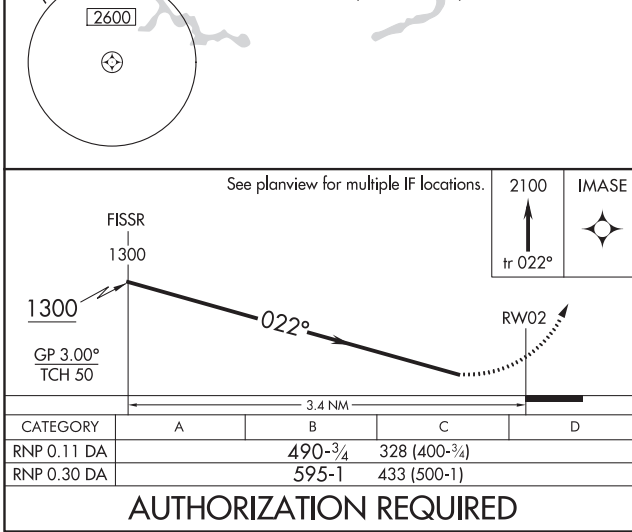
**MALSR**  
  
**MISSED APPROACH:**  
 Climb to 2100 on track 022° IMASE and hold.

ATIS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	RICHMOND TOWER <b>121.1 257.8</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55 348.6</b>
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APP CRS	Rwy Idg	<b>9003</b>
<b>156°</b>	TDZE	<b>167</b>
	Apt Elev	<b>167</b>

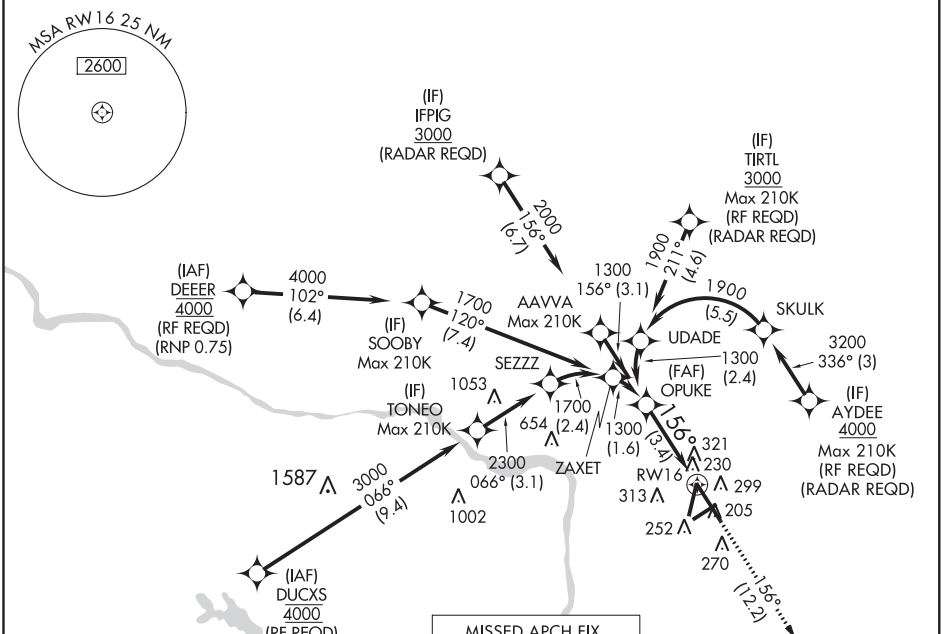
# RNAV (RNP) Y RWY 16

RICHMOND INTL (RIC)

**⚠** For uncompensated Baro-VNAV systems, procedure NA below -11°C (13°F) or above 54°C (130°F). GPS required. For inoperative MALS/R, increase RNP 0.11 all Cats visibility to RVR 5500 and RNP 0.30 all Cats visibility to 1½ miles.

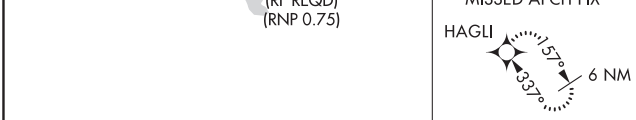
**MALS/R**  **MISSED APPROACH:**  
Climb to 2500 on track 156° to HAGLI and hold.

ATIS	POTOMAC APP CON	RICHMOND TOWER	GND CON	CLNC DEL
<b>119.15 263.025</b>	<b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	<b>121.1 257.8</b>	<b>121.9 348.6</b>	<b>127.55 348.6</b>

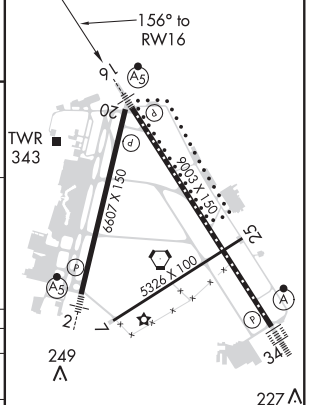
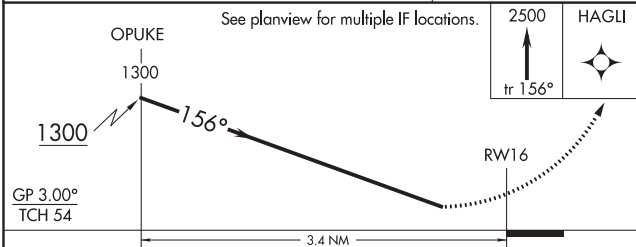


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV	167	<b>D</b>	TDZE	167
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CATEGORY	A	B	C	D
RNP 0.11 DA		506/40	339 (400-¾)	
RNP 0.30 DA		606/50	439 (500-1)	

TDZ/CL Rwy 34  
HIRL Rws 2-20, 7-25 and 16-34  
REIL Rws 2 and 20

## AUTHORIZATION REQUIRED



APP CRS <b>336°</b>	Rwy Idg <b>9003</b>
	TDZE <b>161</b>
	Apt Elev <b>167</b>

# RNAV (RNP) Y RWY 34

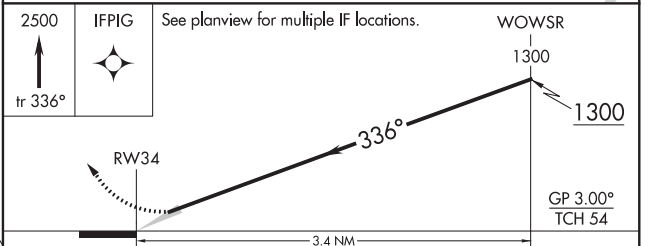
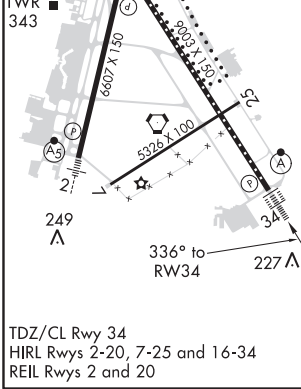
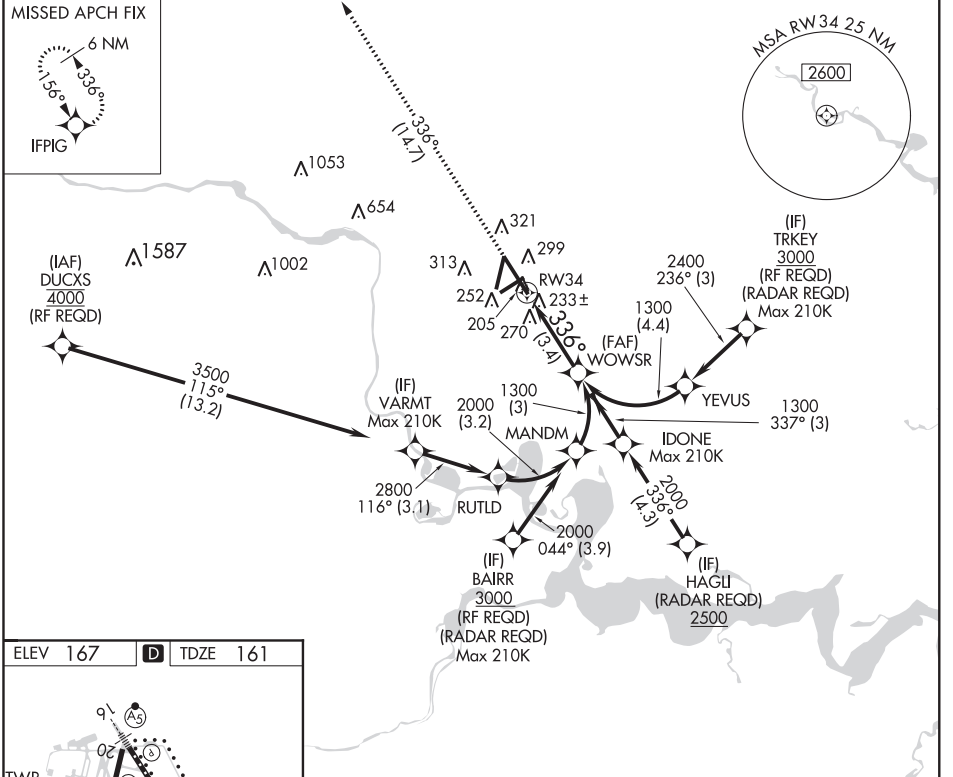
RICHMOND INTL (RIC)

**⚠** For uncompensated Baro-VNAV systems, procedure NA below -11°C (13°F) or above 54°C (130°F). GPS required. For inoperative ALSF-2, increase RNP 0.11 all Cats visibility to RVR 5000 and RNP 0.30 all Cats visibility to 1 3/4 miles.

ALSF-2

**MISSED APPROACH:** Climb to 2500 on track 336° direct IFPIG and hold.

ATIS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	RICHMOND TOWER <b>121.1 257.8</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55 348.6</b>
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CATEGORY	A	B	C	D
RNP 0.11 DA		474/26	313 (400-%)	
RNP 0.30 DA		592/49	431 (500-1)	

**AUTHORIZATION REQUIRED**

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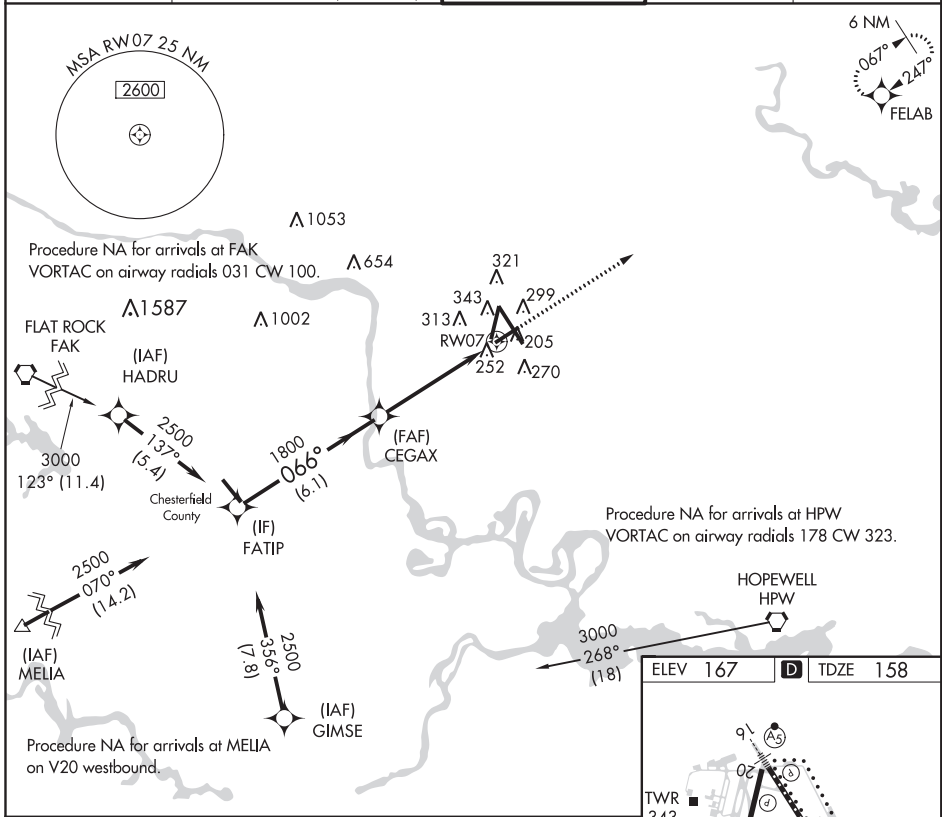
APP CRS	Rwy Idg	<b>5326</b>
<b>066°</b>	TDZE	<b>158</b>
	Apt Elev	<b>167</b>

# RNAV (GPS) RWY 7

RICHMOND INTL (RIC)

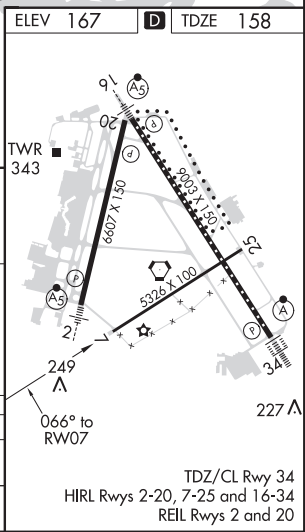
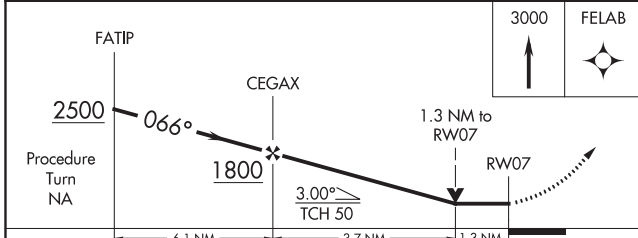
<b>▽</b> DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. Night landing: Rwy 7 NA.	MISSED APPROACH: Climb to 3000 direct FELAB and hold.
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ATIS	POTOMAC APP CON	RICHMOND TOWER	GND CON	CLNC DEL
<b>119.15 263.025</b>	<b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	<b>121.1 257.8</b>	<b>121.9 348.6</b>	<b>127.55 348.6</b>



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	6.1 NM		3.7 NM		1.3 NM	
CATEGORY	A	B	C	D		
RNAV MDA	620-1	462 (500-1)	620-1 $\frac{3}{8}$	462 (500-1 $\frac{3}{8}$ )		
CIRCLING	660-1	493 (500-1)	660-1 $\frac{1}{2}$ 493 (500-1 $\frac{1}{2}$ )	720-2 553 (600-2)		

# RNAV (GPS) RWY 25

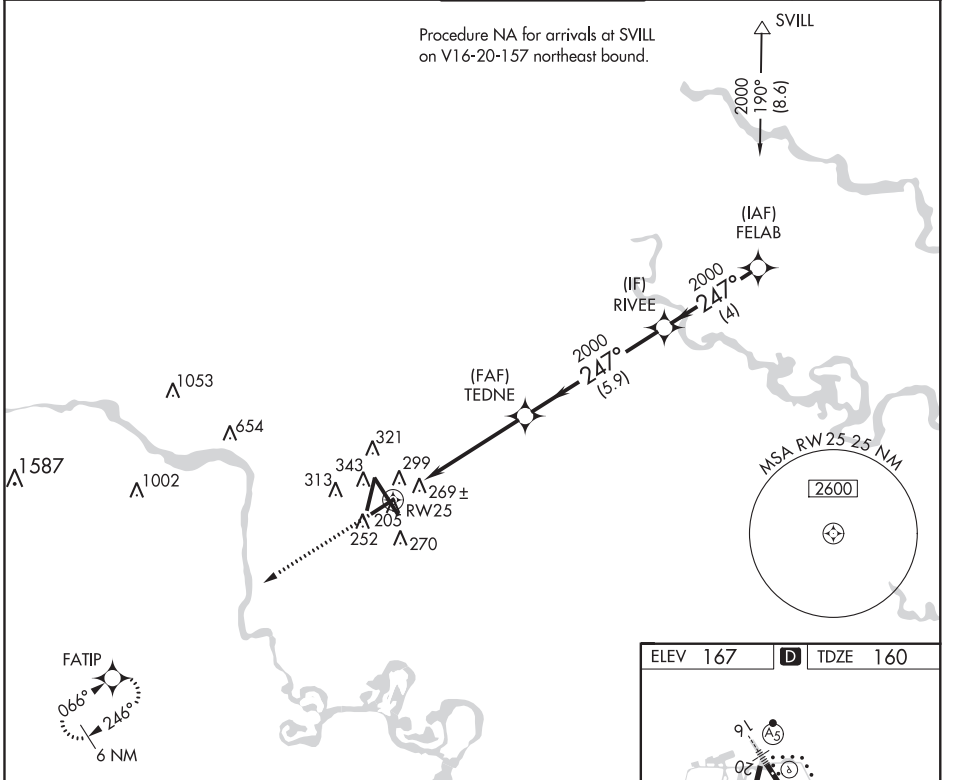
RICHMOND INTL (RIC)

APP CRS <b>247°</b>	Rwy Idg <b>5326</b>
	TDZE <b>160</b>
	Apt Elev <b>167</b>

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. Helicopter visibility reduction below ¾ SM NA.

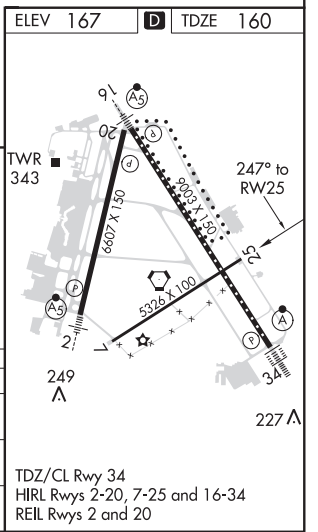
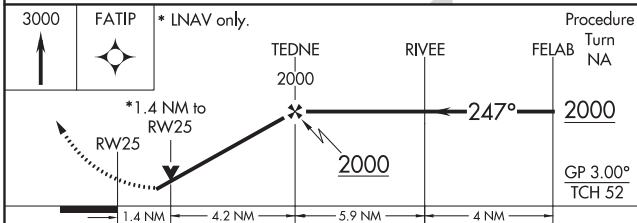
MISSED APPROACH: Climb to 3000 direct FATIP and hold.

ATIS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	RICHMOND TOWER <b>121.1 257.8</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55 348.6</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LNAV/DA VNAV	570-1 $\frac{3}{8}$		410 (500-1 $\frac{3}{8}$ )	
LNAV MDA	640/55	480 (500-1 $\frac{1}{4}$ )	640-1 $\frac{3}{8}$	480 (500-1 $\frac{3}{8}$ )
CIRCLING	660-1	493 (500-1)	660-1 $\frac{1}{2}$ 493 (500-1 $\frac{1}{2}$ )	720-2 553 (600-2)

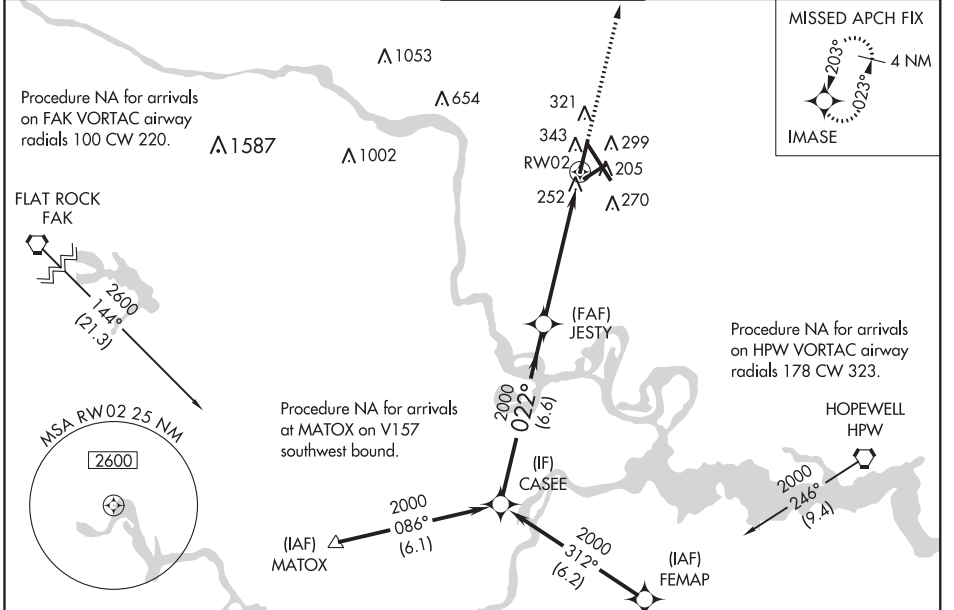
WAAS CH <b>72716</b> <b>W02A</b>	APP CRS <b>022°</b>	Rwy Idg TDZE <b>162</b> Apt Elev <b>167</b>	<b>6607</b>
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# RNAV (GPS) Z RWY 2

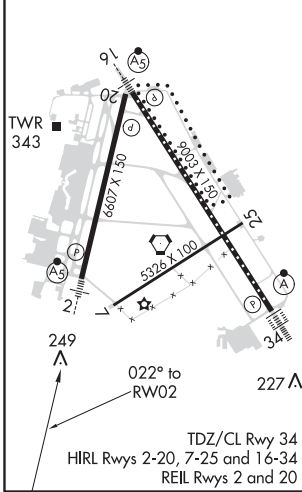
RICHMOND INTL (RIC)

<p>For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ mile NA.</p>	MALSR 	MISSED APPROACH: Climb to 2000 direct IMASE and hold.

ATIS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	RICHMOND TOWER <b>121.1 257.8</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55 348.6</b>
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ELEV <b>167</b>	<b>D</b>	TDZE <b>162</b>
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	CASEE	JESTY	2000 IMASE 	
	2000	2000	*1.3 NM to RW02 *LNAV only.	
	GP 3.00° TCH 50		6.6 NM      4.3 NM      1.3 NM	
CATEGORY	A	B	C	D
LPV DA		458-¾	296 (300-¾)	
LNAV/VNAV DA		569-7/8	407 (400-7/8)	
LNAV MDA	620-¾	458 (500-¾)	620-1	458 (500-1)
CIRCLING	660-1	493 (500-1)	740-1½ 573 (600-1½)	740-2 573 (600-2)

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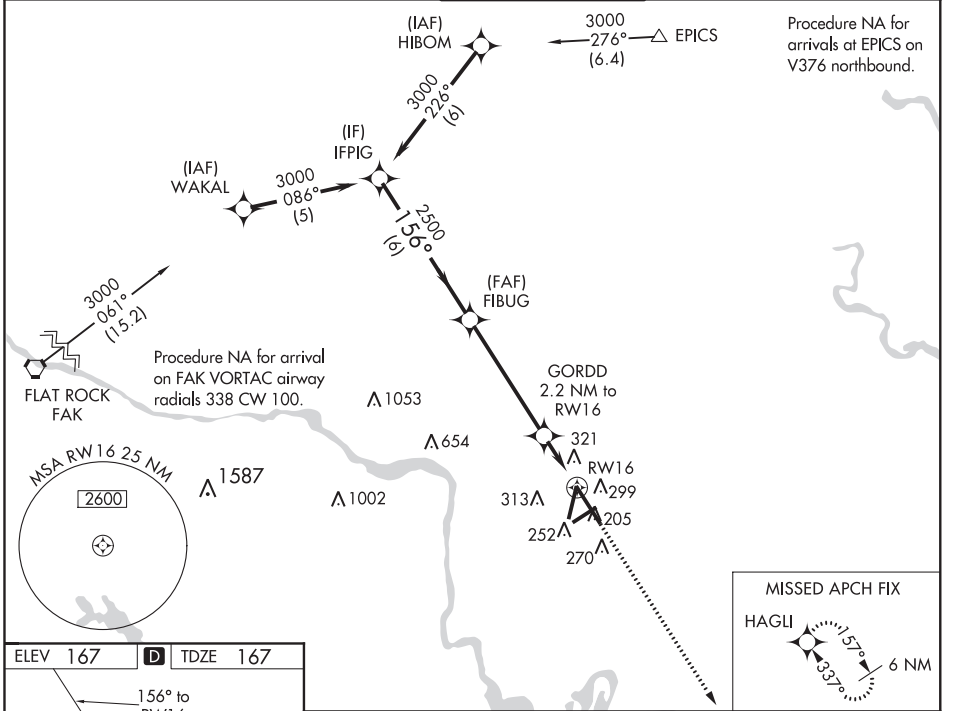
WAAS CH <b>72720</b> <b>W16A</b>	APP CRS <b>156°</b>	Rwy Idg TDZE Apt Elev	<b>9003</b> <b>167</b> <b>167</b>
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# RNAV (GPS) Z RWY 16

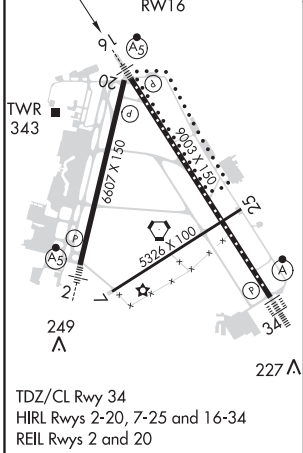
RICHMOND INTL (RIC)

<p><b>⚠</b> For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inoperative MALSR increase LNAV/VNAV all Cats visibility to RVR 5400.</p>	<p>MALSR </p>	<p>MISSED APPROACH: Climb to 2500 direct HAGLI and hold.</p>
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<p>ATIS <b>119.15 263.025</b></p>	<p>POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)</p>	<p>RICHMOND TOWER <b>121.1 257.8</b></p>	<p>GND CON <b>121.9 348.6</b></p>	<p>CLNC DEL <b>127.55 348.6</b></p>
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ELEV 167	<b>D</b> TDZE 167
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	IFPIG	FIBUG	GORDD 2.2 NM to RW16	HAGLI
	3000	2500	2500	
	GP 3.00° TCH 54	156°	920*	*LNAV only.
	6 NM	5 NM	1 NM	1.2 NM
CATEGORY	A	B	C	D
LPV DA		367/24	200 (200-½)	
LNAV/VNAV DA		504/31	337 (400-¾)	
LNAV MDA	600/24	433 (500-½)	600/40	433 (500-¾)
<b>C</b> CIRCLING	660-1	493 (500-1)	740-1½ 573 (600-1½)	740-2 573 (600-2)

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WAAS CH <b>69320</b> <b>W20A</b>	APP CRS <b>202°</b>	Rwy Idg TDZE <b>167</b> Apt Elev <b>167</b>	<b>6607</b>
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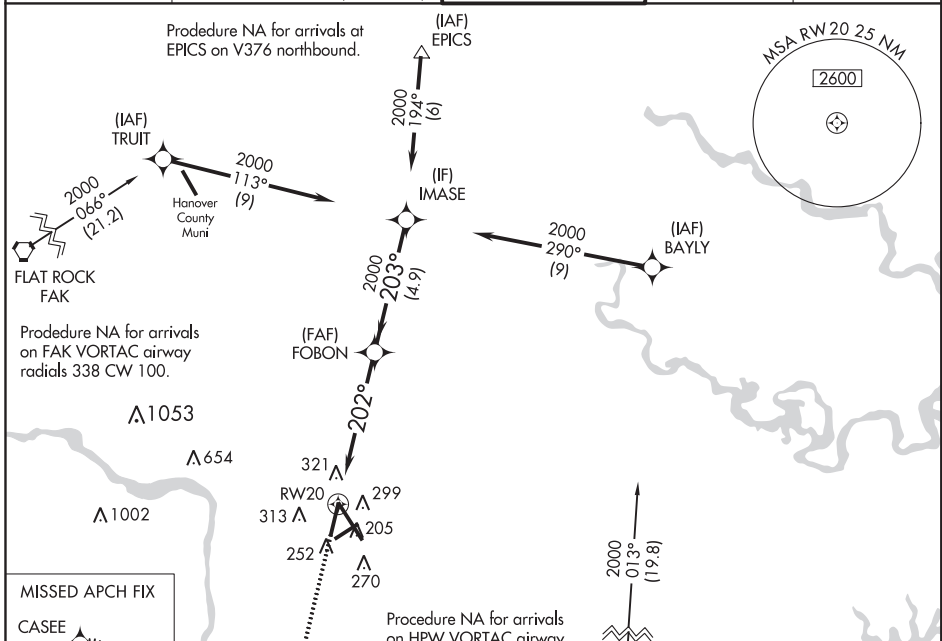
# RNAV (GPS) Z RWY 20

RICHMOND INTL (RIC)

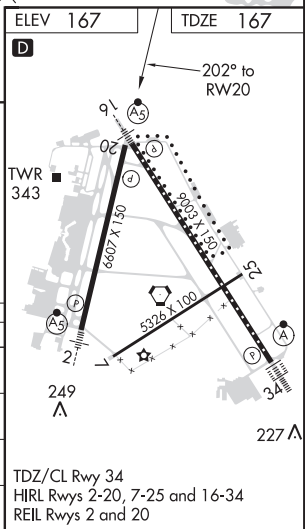
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¼ SM NA.

MISSED APPROACH: Climb to 2000 direct CASEE and hold.

ATIS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	RICHMOND TOWER <b>121.1 257.8</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55 348.6</b>
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2000	CASEE	*LNAV only.	FOBOB	IMASE
↑	✦	*1.5 NM to RWY20	2000	2000
			203°	2000
			202°	2000
			1.5 NM	4.1 NM
			4.9 NM	
CATEGORY	A	B	C	D
LPV DA		447-7/8	280 (300-7/8)	
LNAV/VNAV DA		605-1 1/2	438 (500-1 1/2)	
LNAV MDA	680-1	513 (600-1)	680-1 3/8	513 (600-1 3/8)
CIRCLING	680-1	513 (600-1)	740-1 1/2 573 (600-1 1/2)	740-2 573 (600-2)



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WAAS CH <b>97520</b> <b>W34A</b>	APP CRS <b>337°</b>	Rwy Idg TDZE <b>161</b> Apt Elev <b>167</b>	<b>9003</b>
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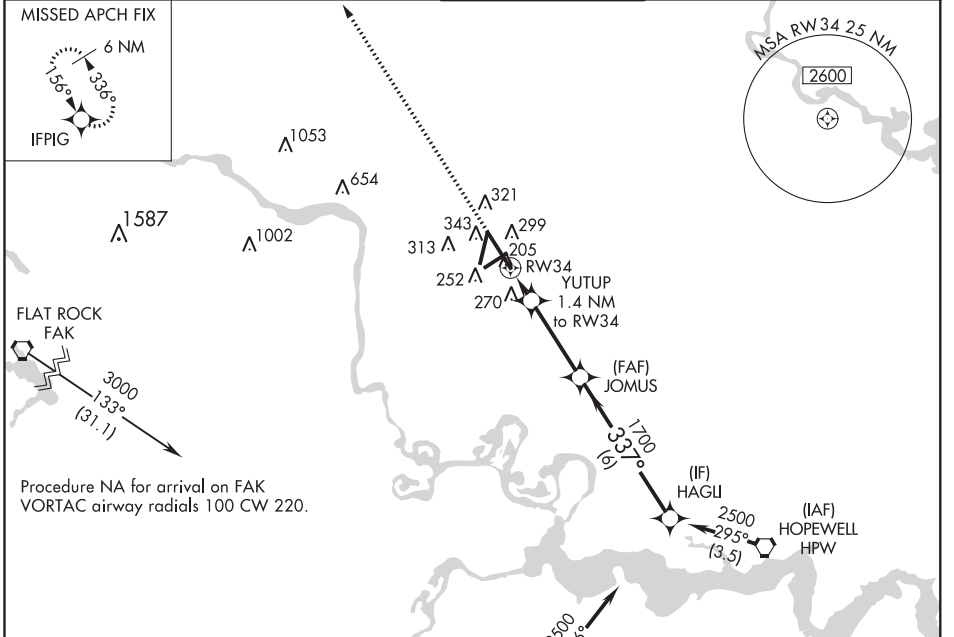
# RNAV (GPS) Z RWY 34

RICHMOND INTL (RIC)

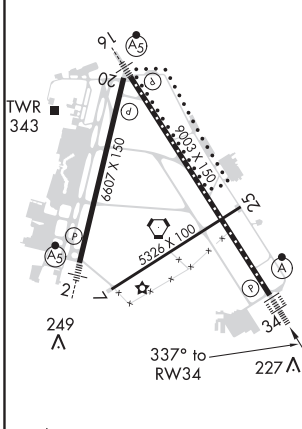
⚠ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inoperative ALSF-2, increase LNAV/VNAV all Cats visibility to 1¼ mile and LNAV Cats C and D visibility to RVR 5500.

ALSF-2 MISSED APPROACH: Climb to 2500 direct IFPIG and hold.

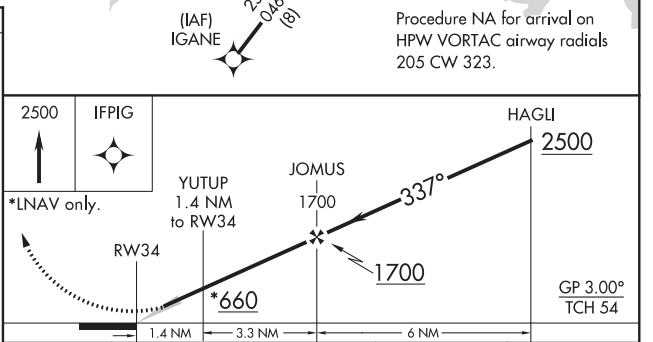
ATIS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	RICHMOND TOWER <b>121.1 257.8</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55 348.6</b>
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ELEV 167 **D** TDZE 161



TDZ/CL Rwy 34  
HIRL Rwy 2-20, 7-25 and 16-34  
REIL Rwy 2 and 20



CATEGORY	A	B	C	D
LPV DA	361/24		200 (200-½)	
LNAV/VNAV DA	530/37		369 (400-¾)	
LNAV MDA	520/24	359 (400-½)	520/30	359 (400-¾)
<b>C</b> CIRCLING	660-1	493 (500-1)	740-1½ 573 (600-1½)	740-2 573 (600-2)

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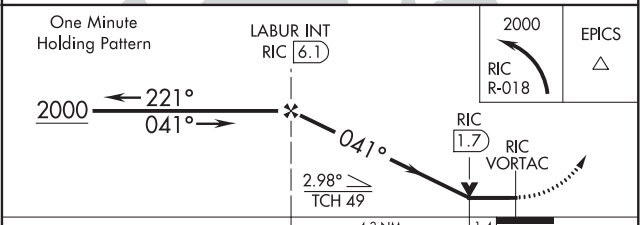
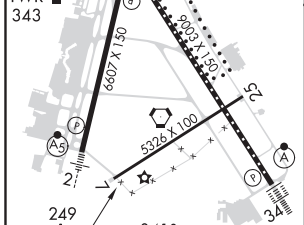
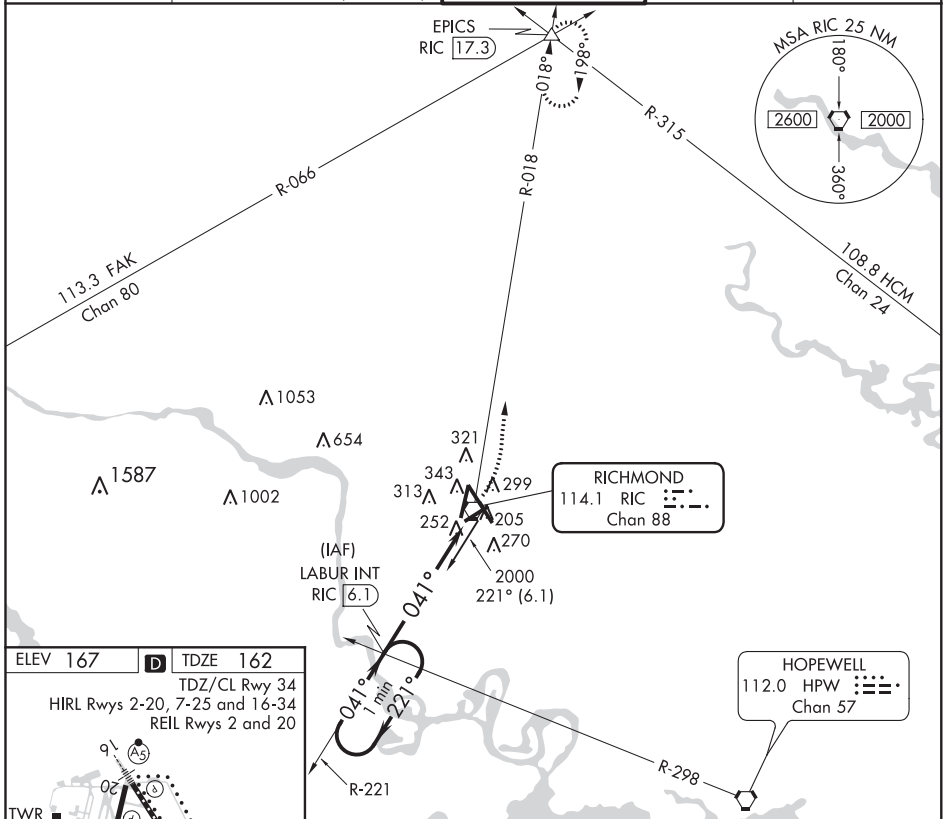
VORTAC RIC <b>114.1</b> Chan <b>88</b>	APP CRS <b>041°</b>	Rwy Idg TDZE <b>162</b> Apt Elev <b>167</b>	<b>6607</b>
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# VOR RWY 2

RICHMOND INTL (RIC)

<p>For inoperative MALSR, increase S-2 Cats A and B visibility to 1 mile, and Cats C and D visibility to 1½ mile. Helicopter visibility reduction below ¾ SM NA.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climbing left turn to 2000 on RIC VORTAC R-018 to EPICS INT/ RIC 17.3 DME and hold.</p>
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<p>ATIS <b>119.15 263.025</b></p>	<p>POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)</p>	<p>RICHMOND TOWER <b>121.1 257.8</b></p>	<p>GND CON <b>121.9 348.6</b></p>	<p>CLNC DEL <b>127.55 348.6</b></p>
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CATEGORY	A	B	C	D
S-2	640-¾ 478 (500-¾)		640-1 478 (500-1)	
CIRCLING	660-1 493 (500-1)		660-1½ 493 (500-1½)	720-2 553 (600-2)

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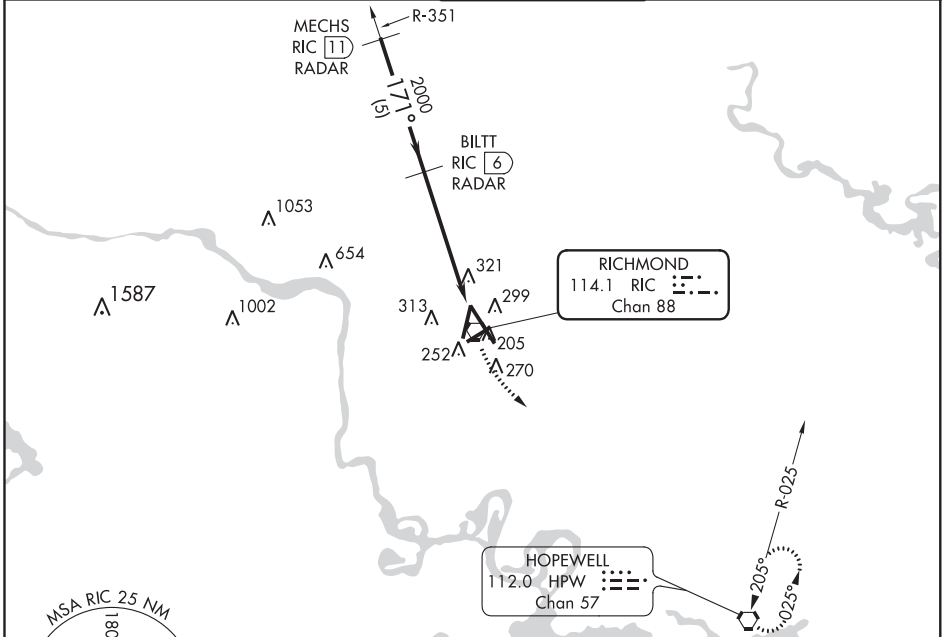
VORTAC RIC <b>114.1</b> Chan <b>88</b>	APP CRS <b>171°</b>	Rwy Idg TDZE <b>167</b> Apt Elev <b>167</b>	<b>9003</b>
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# VOR RWY 16

RICHMOND INTL (RIC)

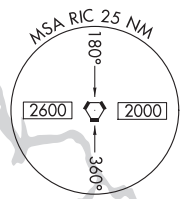
<p><b>▼</b> DME or RADAR REQUIRED. Visibility reduction by helicopters NA. For inoperative MALSR, increase S-16 Cat A/B visibility to RVR 5000.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climbing left turn to 2000 direct HPW VORTAC and hold.</p>
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<p>ATIS <b>119.15 263.025</b></p>	<p>POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)</p>	<p>RICHMOND TOWER <b>121.1 257.8</b></p>	<p>GND CON <b>121.9 348.6</b></p>	<p>CLNC DEL <b>127.55 348.6</b></p>
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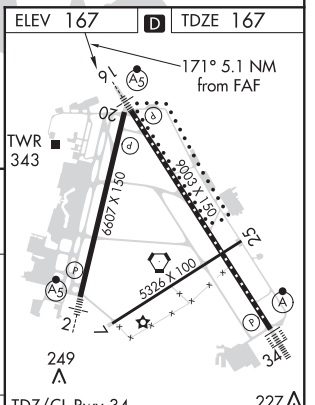
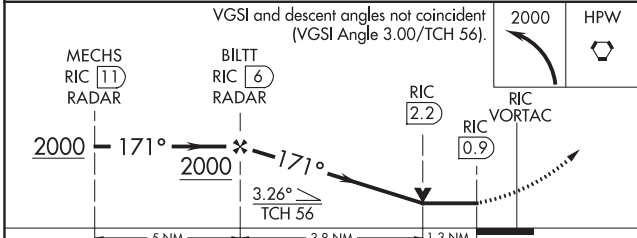
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



## RADAR REQUIRED

ELEV 167	<b>D</b> TDZE 167
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CATEGORY	A	B	C	D
S-16	640/40 473 (500-¾)			640/50 473 (500-1)
CIRCLING	660-1 493 (500-1)	660-1½ 493 (500-1½)		720-2 553 (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



VORTAC RIC <b>114.1</b> Chan <b>88</b>	APP CRS <b>188°</b>	Rwy Idg TDZE Apt Elev	<b>6607</b> <b>167</b> <b>167</b>
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# VOR RWY 20

RICHMOND INTL (RIC)

<p><b>▼</b> DME or RADAR REQUIRED. Visibility reduction by helicopters NA.</p>		<p>MISSED APPROACH: Climbing right turn to 2000 via RIC R-223 to MATOX INT/ RIC 16.3 DME and hold.</p>		
<p>ATIS <b>119.15 263.025</b></p>	<p>POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)</p>	<p>RICHMOND TOWER <b>121.1 257.8</b></p>	<p>GND CON <b>121.9 348.6</b></p>	<p>CLNC DEL <b>127.55 348.6</b></p>

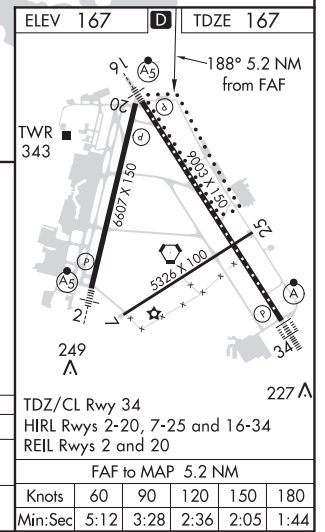
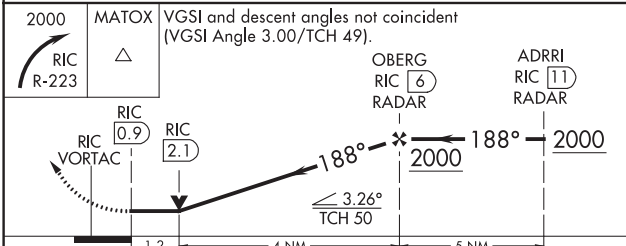


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

## RADAR REQUIRED

ELEV 167	<b>D</b>	TDZE 167
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CATEGORY	A	B	C	D
S-20	640-1 473 (500-1)		640-1½ 473 (500-1½)	640-1½ 473 (500-1½)
CIRCLING	660-1 493 (500-1)		660-1½ 493 (500-1½)	720-2 553 (600-2)

TDZ/CL Rwy 34	HIRL Rwys 2-20, 7-25 and 16-34				
	REIL Rwys 2 and 20				
	FAF to MAP 5.2 NM				
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

VORTAC RIC <b>114.1</b> Chan <b>88</b>	APP CRS <b>254°</b>	Rwy Idg TDZE Apt Elev	<b>5326</b> <b>160</b> <b>167</b>
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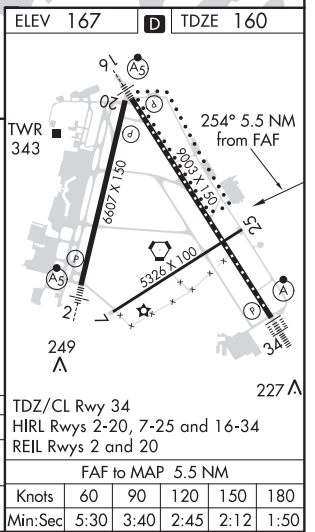
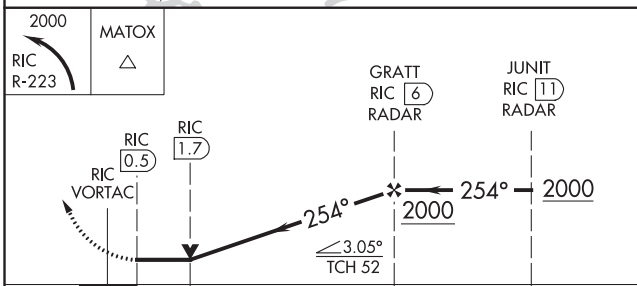
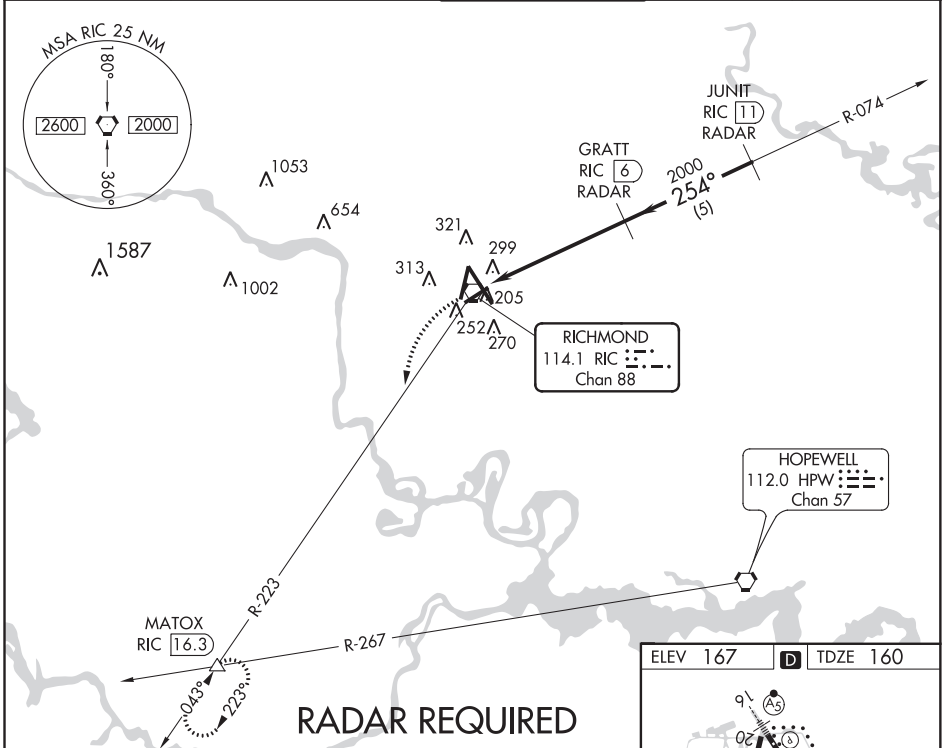
# VOR RWY 25

RICHMOND INTL (RIC)

**DME or RADAR REQUIRED.**  
Visibility reduction by helicopters NA.

MISSED APPROACH: Climbing left turn to 2000 via RIC R-223 to MATOX INT and hold.

ATIS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	RICHMOND TOWER <b>121.1 257.8</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55 348.6</b>
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CATEGORY	A	B	C	D
S-25	600-1 440 (500-1)		600-1¼ 440 (500-1¼)	600-1½ 440 (500-1½)
CIRCLING	660-1 493 (500-1)		660-1½ 493 (500-1½)	720-2 553 (600-2)

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NE-3, 10 NOV 2016 to 05 JAN 2017

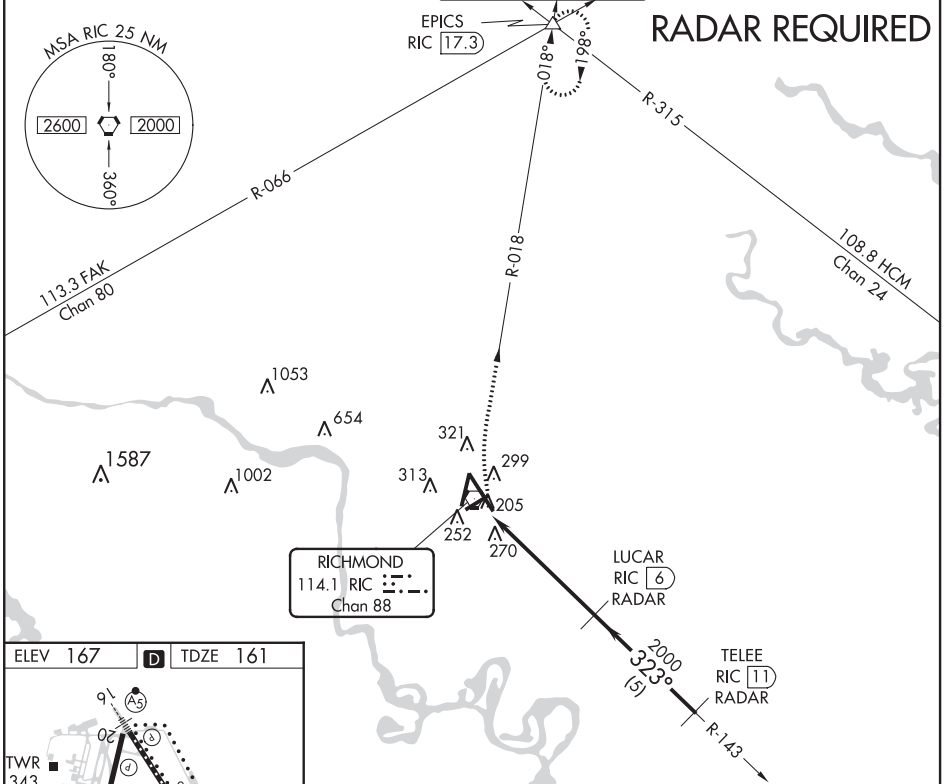
VORTAC RIC <b>114.1</b> Chan <b>88</b>	APP CRS <b>323°</b>	Rwy Idg TDZE <b>161</b> Apt Elev <b>167</b>	<b>9003</b>
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# VOR RWY 34

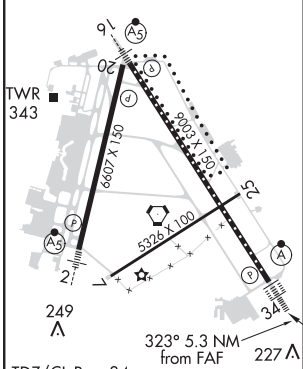
## RICHMOND INTL (RIC)

	For inoperative ALSF, increase S-34 Cat D visibility to RVR 6000. DME or Radar required.	MISSED APPROACH: Climbing right turn to 2000 via RIC R-018 to EPICS INT and hold.
	ALSF-2 	

ATIS <b>119.15 263.025</b>	POTOMAC APP CON <b>126.4 282.375</b> (001°-185°) <b>126.75 307.2</b> (186°-360°)	RICHMOND TOWER <b>121.1 257.8</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>127.55 348.6</b>
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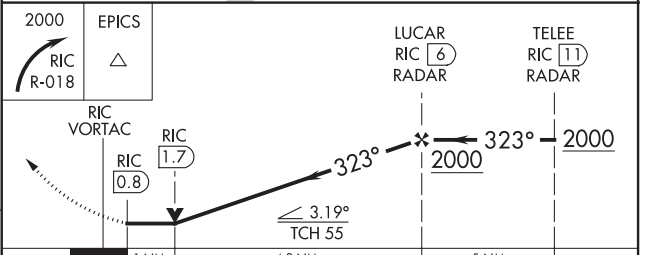
ELEV 167	D	TDZE 161
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TDZ/CL Rwy 34  
 HIRL Rws 2-20, 7-25 and 16-34  
 REIL Rws 2 and 20

FAF to MAP 5.3 NM

Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46



CATEGORY	A	B	C	D
S-34	540/24 379 (400-½)			540/50 379 (400-1)
CIRCLING	660-1 493 (500-1)	660-1½ 493 (500-1½)		720-2 553 (600-2)

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# AIRPORT DIAGRAM

RICHMOND INTL (RIC)  
RICHMOND, VIRGINIA

AL-347 (FAA)

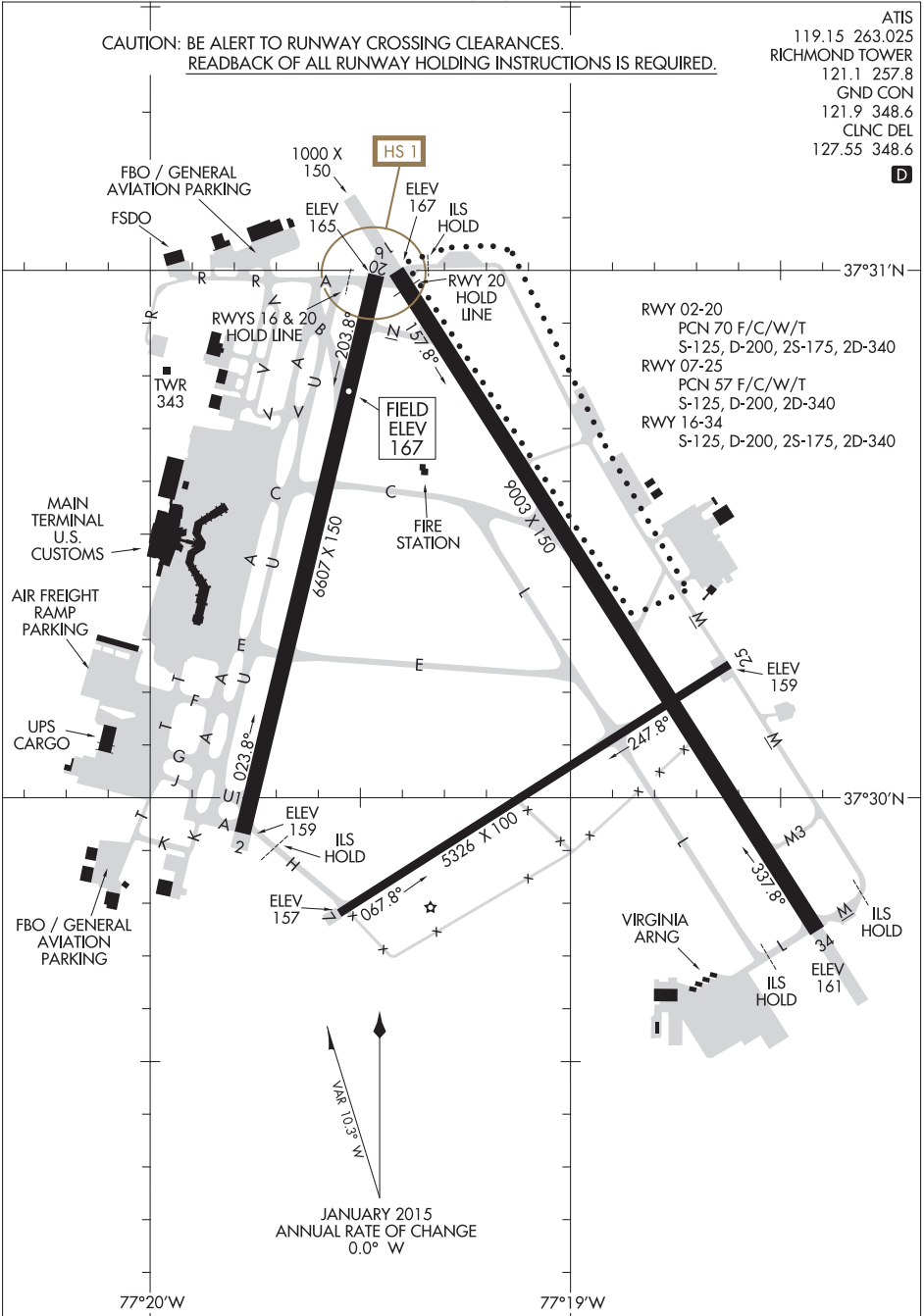
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

ATIS  
119.15 263.025  
RICHMOND TOWER  
121.1 257.8  
GND CON  
121.9 348.6  
CLNC DEL  
127.55 348.6



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JANUARY 2015  
ANNUAL RATE OF CHANGE  
0.0° W

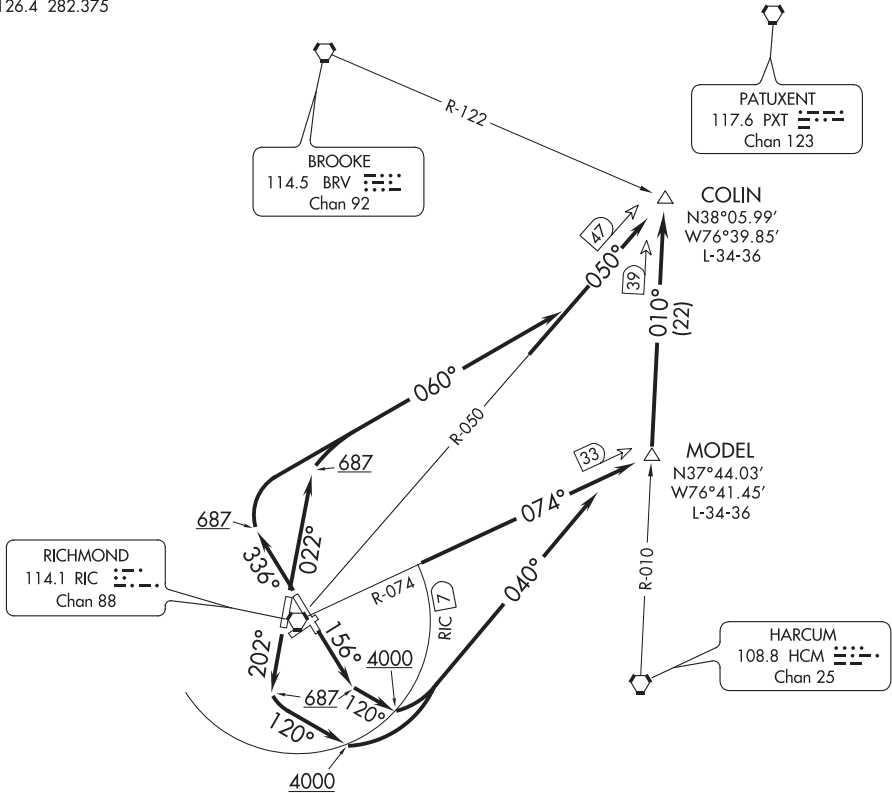
# AIRPORT DIAGRAM

RICHMOND, VIRGINIA  
RICHMOND INTL (RIC)

# COLIN SIX DEPARTURE

ATIS 119.15 263.025  
CLNC DEL  
127.55 348.6  
GND CON  
121.9 348.6  
RICHMOND TOWER  
121.1 257.8  
POTOMAC DEP CON  
126.4 282.375

**TOP ALTITUDE:  
5000**



**TAKEOFF MINIMUMS:**

Rwys 2, 16, 20, 34: Standard with minimum climb of 500' per NM to 687.

NOTE: DME required.  
NOTE: RADAR required.

NOTE: Chart note to scale.

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# COLIN SIX DEPARTURE



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 2: Climb heading 022° to 687, then climbing right turn heading 060° to intercept RIC VORTAC R-050 to COLIN INT/RIC 47 DME, thence. . . .

TAKEOFF RWY 16: Climb heading 156° to 687, then climbing left turn heading 120° to cross RIC VORTAC 7 DME at or above 4000, then climbing left turn heading 040° to intercept RIC VORTAC R-074 to MODEL INT/RIC 33 DME, then on HCM VORTAC R-010 to COLIN INT/HCM 39 DME, thence. . . .

TAKEOFF RWY 20: Climb heading 202° to 687, then climbing left turn heading 120° to cross RIC VORTAC 7 DME at or above 4000, then climbing left turn heading 040° to intercept RIC VORTAC R-074 to MODEL INT/RIC 33 DME, then on HCM VORTAC R-010 to COLIN INT/HCM 39 DME, thence. . . .

TAKEOFF RWY 34: Climb heading 336° to 687, then climbing right turn heading 060° to intercept RIC VORTAC R-050 to COLIN INT/RIC 47 DME, thence. . . .

. . . .maintain 5000 or assigned altitude. Expect filed altitude within ten minutes after departure.

### TAKEOFF OBSTACLE NOTES:

- Rwy 2: Bushes 104' from DER, 223' left of centerline, up to 4' AGL/169' MSL.  
Trees beginning 2363' from DER, 235' left of centerline, up to 82' AGL/251' MSL.  
Trees beginning 2918' from DER, 367' right of centerline, up to 91' AGL/260' MSL.  
Tower 5423' from DER, 1709' left of centerline, 157' AGL/321' MSL.
- Rwy 20: Building 817' from DER, 665' right of centerline, 53' AGL/212' MSL.  
Trees 2307' from DER, 1065' left of centerline, up to 76' AGL/235' MSL.  
Pole and trees beginning 2645' from DER, 424' right of centerline, up to 86' AGL/255' MSL.
- Rwy 34: Pole 1262' from DER, 732' left of centerline, 41' AGL/200' MSL.  
Trees beginning 2202' from DER, 1052' right of centerline, up to 63' AGL/232' MSL.  
Trees beginning 2689' from DER, 998' left of centerline, up to 78' AGL/237' MSL.

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# KALLI THREE DEPARTURE (RNAV)

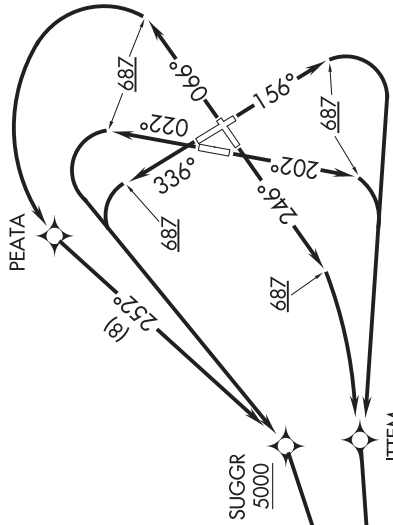
**TOP ALTITUDE:**  
5000

ATIS  
119.15 263.025  
CLNCDEL  
127.55 348.6  
GND CON  
121.9 348.6  
RICHMOND TOWER  
121.1 257.8  
POTOMAC DEP CON  
126.75 307.2

**TAKEOFF MINIMUMS**

Rwys 2, 7, 16, 20, 25, 34:  
Standard with minimum climb  
of 500' per NM to 687.

MONTEBELLO  
MOL



## KALLI THREE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 2: Climb heading 022° to 687, then left turn direct SUGGR, cross SUGGR at or above 5000, then on track 262° to KALLI, thence . . . .

TAKEOFF RWY 7: Climb heading 066° to 687, then left turn direct PEATA, then on track 252° to cross SUGGR at or above 5000, then on track 262° to KALLI, thence . . . .

TAKEOFF RWY 16: Climb heading 156° to 687, then right turn direct ITEM, cross ITEM at or above 5000, then on track 274° to KALLI, thence . . . .

TAKEOFF RWY 20: Climb heading 202° to 687, then right turn direct ITEM, cross ITEM at or above 5000, then on track 274° to KALLI, thence . . . .

TAKEOFF RWY 25: Climb heading 246° to 687, then right turn direct ITEM, cross ITEM at or above 5000, then on track 274° to KALLI, thence . . . .

TAKEOFF RWY 34: Climb heading 336° to 687, then left turn direct SUGGR, cross SUGGR at or above 5000, then on track 262° to KALLI, thence . . . .

. . . . on assigned transition. Maintain 5000, expect filed altitude within ten minutes after departure.

LYNCHBURG TRANSITION (KALLI3.LYH)

MONTEBELLO TRANSITION (KALLI3.MOL)

SANNY TRANSITION (KALLI3.SANNY)

TAKEOFF OBSTACLE NOTES

Rwy 2: Bushes 104' from DER, 223' left of centerline, up to 4' AGL/169' MSL.

Trees beginning 2363' from DER, 235' left of centerline, up to 82' AGL/251' MSL.

Trees beginning 2918' from DER, 367' right of centerline, up to 91' AGL/260' MSL.

Tower 5423' from DER, 1709' left of centerline, 157' AGL/321' MSL.

Rwy 7: Trees beginning 1892' from DER, 283' left of centerline, up to 67' AGL/226' MSL.

Trees 2346' from DER, 190' right of centerline, up to 69' AGL/218' MSL.

Rwy 20: Building 817' from DER, 665' right of centerline, 53' AGL/212' MSL.

Trees 2307' from DER, 1065' left of centerline, up to 76' AGL/235' MSL.

Pole and trees beginning 2645' from DER, 424' right of centerline, up to 86' AGL/255' MSL.

Rwy 25: Railroad and tower beginning 779' from DER, 1' left of centerline, up to 26' AGL/187' MSL.

Trees beginning 2414' from DER, 285' right of centerline, up to 86' AGL/255' MSL.

Pole and trees beginning 3056' from DER, 357' left of centerline, up to 90' AGL/252' MSL.

Rwy 34: Pole 1262' from DER, 732' left of centerline, 41' AGL/200' MSL.

Trees beginning 2202' from DER, 1052' right of centerline, up to 63' AGL/232' MSL.

Trees beginning 2689' from DER, 998' left of centerline, up to 78' AGL/237' MSL.



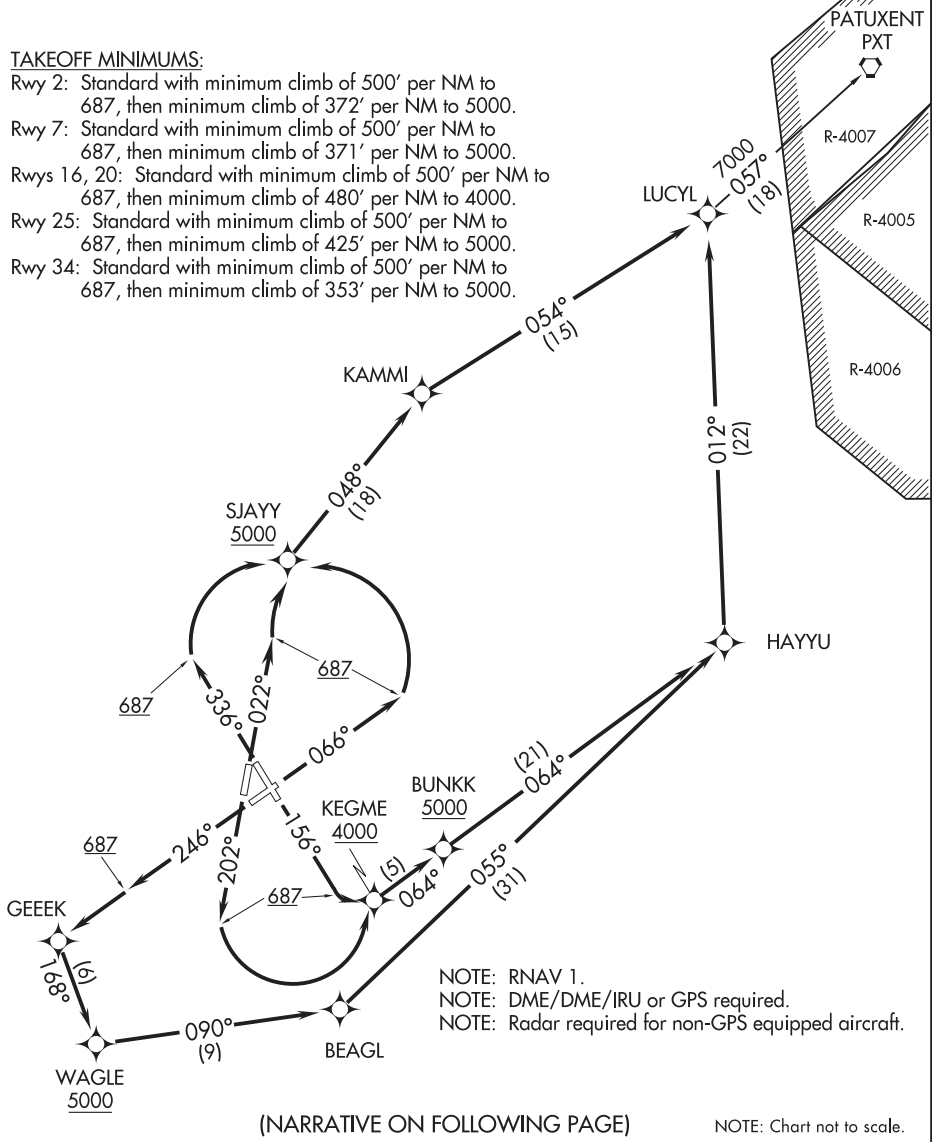
# LUCYL THREE DEPARTURE (RNAV)

**TOP ALTITUDE:  
5000**

ATIS 119.15 263.025  
CLNC DEL  
127.55 348.6  
GND CON  
121.9 348.6  
RICHMOND TOWER  
121.1 257.8  
POTOMAC DEP CON  
126.4 282.375

### TAKEOFF MINIMUMS:

- Rwy 2: Standard with minimum climb of 500' per NM to 687, then minimum climb of 372' per NM to 5000.
- Rwy 7: Standard with minimum climb of 500' per NM to 687, then minimum climb of 371' per NM to 5000.
- Rwys 16, 20: Standard with minimum climb of 500' per NM to 687, then minimum climb of 480' per NM to 4000.
- Rwy 25: Standard with minimum climb of 500' per NM to 687, then minimum climb of 425' per NM to 5000.
- Rwy 34: Standard with minimum climb of 500' per NM to 687, then minimum climb of 353' per NM to 5000.



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# LUCYL THREE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 2: Climb on heading 022° to 687 MSL, then climbing right turn direct to cross SJAYY at or above 5000, then on depicted route to LUCYL, thence. . . .

TAKEOFF RWY 7: Climb on heading 066° to 687 MSL, then climbing left turn direct to cross SJAYY at or above 5000, then on depicted route to LUCYL, thence. . . .

TAKEOFF RWY 16: Climb on heading 156° to 687 MSL, then climbing left turn direct to cross KEGME at or above 4000, then on track 064° to cross BUNKK at or above 5000, then on depicted route to LUCYL, thence. . . .

TAKEOFF RWY 20: Climb on heading 202° to 687 MSL, then climbing left turn direct to cross KEGME at or above 4000, then on track 063° to cross BUNKK at or above 5000, then on depicted route to LUCYL, thence. . . .

TAKEOFF RWY 25: Climb on heading 246° to 687 MSL, then climb direct GEEEK, then climbing left turn on track 168° to cross WAGLE at or above 5000, then on depicted route to LUCYL, thence. . . .

TAKEOFF RWY 34: Climb on heading 336° to 687 MSL, then climbing right turn direct to cross SJAYY at or above 5000, then on depicted route to LUCYL, thence. . . .

. . . .Maintain 5000, expect filed altitude within ten (10) minutes after departure.

PATUXENT TRANSITION (LUCYL3.PXT):TAKEOFF OBSTACLE NOTES:

Rwy 2: Aircraft on surface beginning 3' from DER, 202' right of centerline, up to 65' AGL/ 232' MSL. Trees and bushes beginning 104' from DER, 223' left of centerline, up to 100' AGL/251' MSL. Trees beginning 2918' from DER, 367' right of centerline, up to 100' AGL/260' MSL.

Rwy 7: Trees beginning 1208' from DER, 798' right of centerline, up to 100' AGL/259' MSL. Trees beginning 1347' from DER, 283' left of centerline, up to 100' AGL/259' MSL.

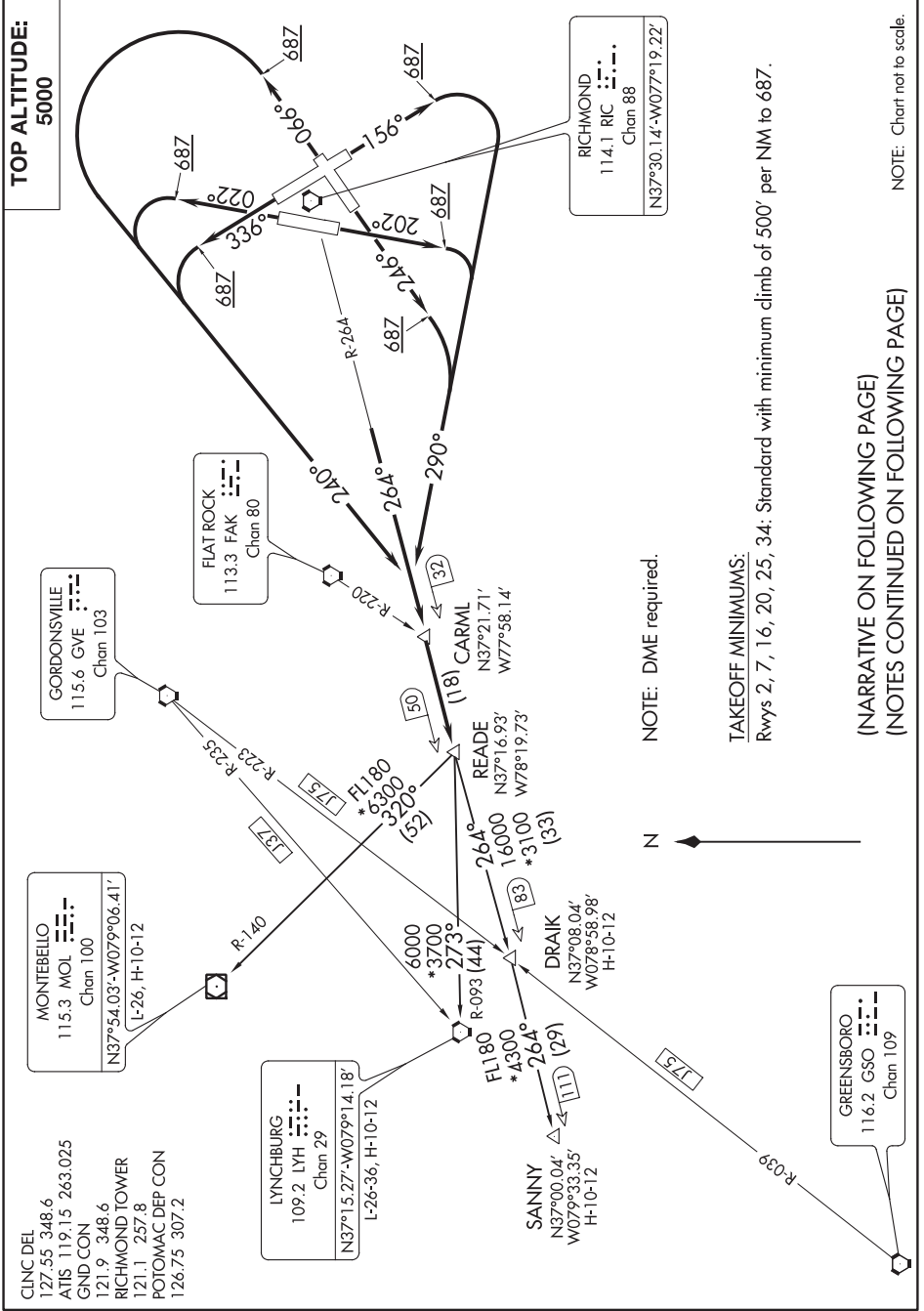
Rwy 20: Hanger 817' from DER, 665' right of centerline, 43' AGL/212' MSL. Trees beginning 2307' from DER, 1065' left of centerline, up to 100' AGL/235' MSL. Trees beginning 2645' from DER, 759' right of centerline, up to 100' AGL/255' MSL. Pole 3226' from DER, 424' right of centerline, 79' AGL/248' MSL.

Rwy 25: Vehicles on road beginning 390' from DER, on centerline, up to 15' AGL/184' MSL. Train on railroad beginning 545' from DER, on centerline, up to 23' AGL/192' MSL. Tower 799' from DER, 562' left of centerline, 16' AGL/185' MSL. Trees beginning 2414' from DER, 285' right of centerline, up to 100' AGL/279' MSL. Poles beginning 3056' from DER, 565' left of centerline, up to 83' AGL/252' MSL. Trees beginning 3176' from DER, 357' left of centerline, up to 100' AGL/269' MSL.

Rwy 34: Aircraft on surface beginning 12' from DER, 192' left of centerline, up to 65' AGL/ 230' MSL. Hanger and light pole beginning 1103' from DER, 732' left of centerline, up to 41' AGL/200' MSL. Trees beginning 2202' from DER, 1052' right of centerline, up to 100' AGL/ 232' MSL. Trees beginning 2689' from DER, 998' left of centerline, up to 100' MSL/237' MSL.

# READE FOUR DEPARTURE

NE-3, 10 NOV 2016 to 05 JAN 2017



# READE FOUR DEPARTURE

NE-3, 10 NOV 2016 to 05 JAN 2017

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

# RADE FOUR DEPARTURE



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 2: Climb heading 022° to 687, then climbing left turn heading 240°, thence. . . .

TAKEOFF RWY 7: Climb heading 066° to 687, then climbing left turn heading 240°, thence. . . .

TAKEOFF RWY 16: Climb heading 156° to 687, then climbing right turn heading 290°, thence. . . .

TAKEOFF RWY 20: Climb heading 202° to 687, then climbing right turn heading 290°, thence. . . .

TAKEOFF RWY 25: Climb heading 246° to 687, then climbing right turn heading 290°, thence. . . .

TAKEOFF RWY 34: Climb heading 336° to 687, then climbing left turn heading 240°, thence. . . .

. . . . Intercept RIC VORTAC R-264 to CARML INT/RIC 32 DME, then on RIC VORTAC R-264 to READE INT/RIC 50 DME, then on assigned transition, maintain 5000 or assigned altitude. Expect filed altitude within ten minutes after departure.

DRAIK TRANSITION (RADE4.DRAIK): From over READE INT/RIC 50 DME via RIC R-264 to DRAIK.

LYNCHBURG TRANSITION (RADE4.LYH): From over READE INT/RIC 50 DME via LYH R-093 to LYH VORTAC.

MONTEBELLO TRANSITION (RADE4.MOL): From over READE INT/RIC 50 DME via MOL R-140 to MOL VOR/DME.

SANNY TRANSITION (RADE4.SANNY): From over READE INT/RIC 50 DME via RIC R-264 to SANNY.

### TAKEOFF OBSTACLE NOTES:

Rwy 2: Bushes 104' from DER, 223' left of centerline, up to 4' AGL/169' MSL. Trees beginning 2363' from DER, 235' left of centerline, up to 82' AGL/251' MSL. Trees beginning 2918' from DER, 367' right of centerline, up to 91' AGL/260' MSL. Tower 5423' from DER, 1709' left of centerline, 157' AGL/321' MSL.

Rwy 7: Trees beginning 1892' from DER, 283' left of centerline, up to 67' AGL/226' MSL. Trees 2346' from DER, 190' right of centerline, up to 69' AGL/218' MSL.

Rwy 20: Building 817' from DER, 665' right of centerline, 53' AGL/212' MSL. Trees 2307' from DER, 1065' left of centerline, up to 76' AGL/235' MSL. Pole and trees beginning 2645' from DER, 424' right of centerline, up to 86' AGL/255' MSL.

Rwy 25: Railroad and tower beginning 779' from DER, 1' left of centerline, up to 26' AGL/187' MSL. Trees beginning 2414' from DER, 285' right of centerline, up to 86' AGL/255' MSL. Pole and trees beginning 3056' from DER, 357' left of centerline, up to 90' AGL/252' MSL.

Rwy 34: Pole 1262' from DER, 732' left of centerline, 41' AGL/200' MSL. Trees beginning 2202' from DER, 1052' right of centerline, up to 63' AGL/232' MSL. Trees beginning 2689' from DER, 998' left of centerline, up to 78' AGL/237' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# RADE FOUR DEPARTURE

WAAS CH <b>42904</b> <b>W16A</b>	APP CRS <b>159°</b>	Rwy Idg <b>5402</b> TDZE <b>207</b> Apt Elev <b>207</b>
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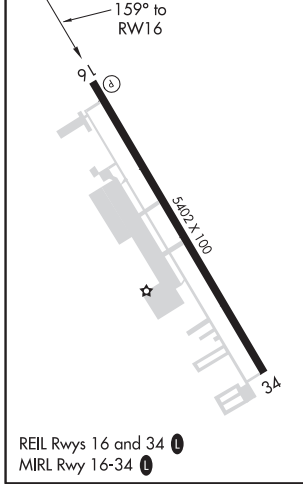
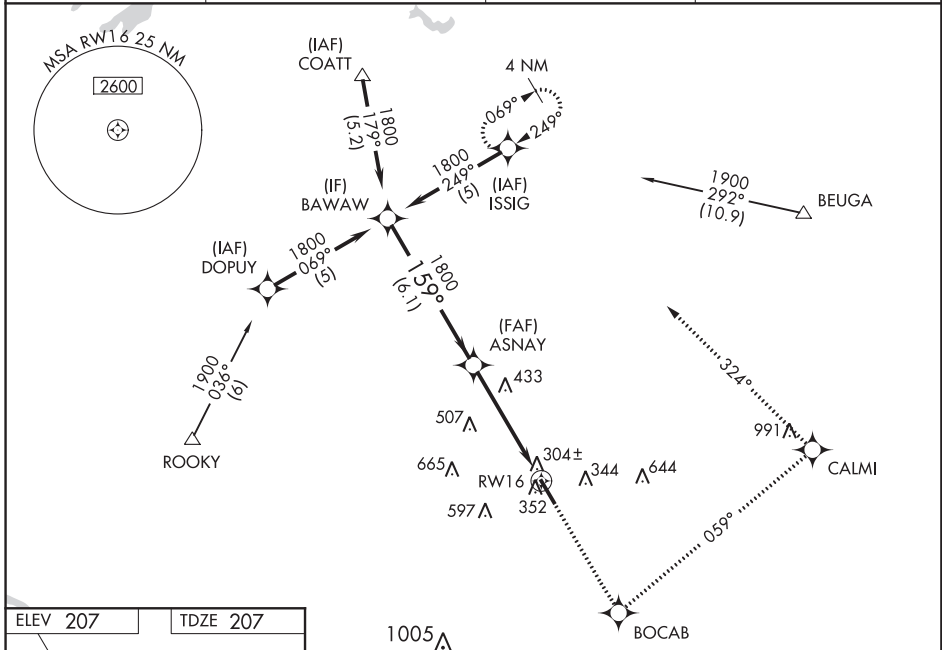
# RNAV (GPS) RWY 16

HANOVER COUNTY MUNI (OFP)

**⚠** When local altimeter setting not received, use Richmond Intl altimeter setting and increase all DA 37 feet and all MDA 40 feet; increase LNAV/VNAV all Cats and LNAV Cats C/D visibility ¼ mile. Baro-VNAV NA when using Richmond 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. Helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:** Climb to 2000 direct BOACB and left turn via 059° track to CALMI and left turn via 324° track to ISSIG and hold.

ASOS <b>119.025</b>	POTOMAC APP CON <b>126.75 307.2</b>	CLNC DEL <b>125.4</b>	UNICOM <b>122.7 (CTAF) ①</b>
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BAWAW	2000	BOACB	CALMI	ISSIG
	↑	✧	↖ tr 059°	↖ tr 324°
Procedure Turn NA	ASNAY			
1800	159°		RWY 16	
GS 3.00° TCH 40	1800			
	6.1 NM		4.8 NM	
CATEGORY	A	B	C	D
LPV DA	535-1 ¼		328 (400-1 ¼)	
LNAV/VNAV DA	564-1 ¼		357 (400-1 ¼)	
LNAV MDA	700-1	493 (500-1)	700-1 ¼ 493 (500-1 ¼)	700-1 ½ 493 (500-1 ½)
CIRCLING	700-1	493 (500-1)	700-1 ½ 493 (500-1 ½)	760-2 553 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>72937</b> <b>W34A</b>	APP CRS <b>339°</b>	Rwy Idg TDZE Apt Elev	<b>5402</b> <b>204</b> <b>207</b>
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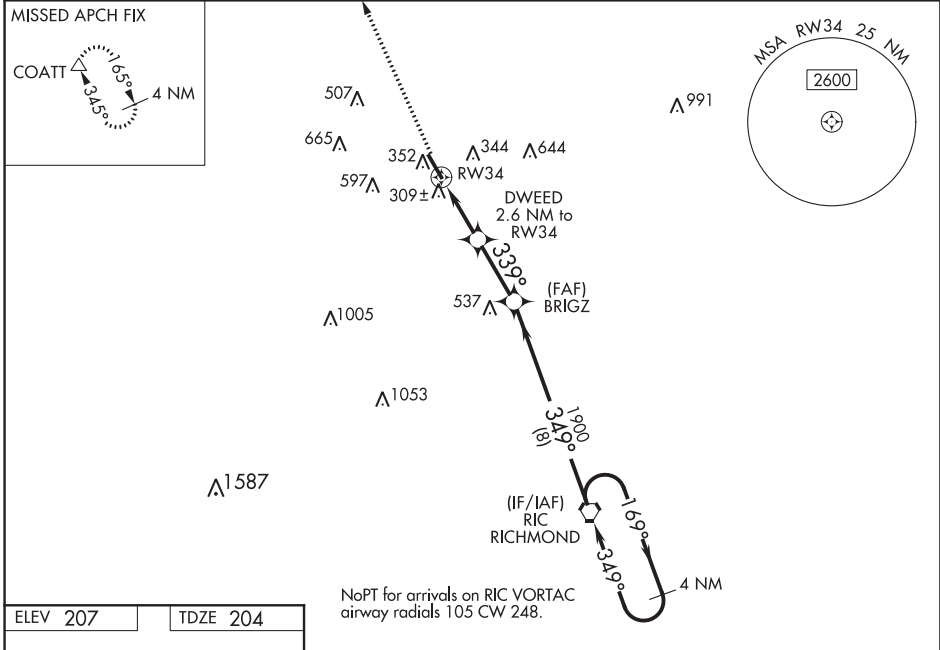
# RNAV (GPS) RWY 34

HANOVER COUNTY MUNI (OFP)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Richmond Intl altimeter setting and increase all DA 37 feet and all MDA 40 feet; increase LNAV/VNAV all Cats and LNAV Cats C/D visibility 1/8 mile. Baro-VNAV and VDP NA when using Richmond Intl altimeter setting.

**MISSED APPROACH:** Climb to 700 then climb to 2000 direct COATT and hold.

ASOS <b>119.025</b>	POTOMAC APP CON <b>126.75 307.2</b>	CLNC DEL <b>125.4</b>	UNICOM <b>122.7 (CTAF) ①</b>
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ELEV 207	TDZE 204
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REIL Rwy 16 and 34 ① 339° to RW34  
MIRL Rwy 16-34 ①

700	2000	COATT	4 NM Holding Pattern
↑	↑	△	

\*LNAV only.

RW34, 1 NM to RW34, DWEEED 2.6 NM to RW34, 339°, 1060, BRIGZ 1900, 349°, 1900, 169°, 2000, GP 3.00° TCH 50

CATEGORY	A	B	C	D
LPV DA		454-1	250 (300-1)	
LNAV/VNAV DA		493-1	289 (300-1)	
LNAV MDA		560-1	356 (400-1)	
<b>C</b> CIRCLING	660-1	453 (500-1)	900-2 693 (700-2)	1020-2¾ 813 (900-2¾)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-OPP <b>109.7</b> Chan <b>34</b>	APP CRS <b>159°</b>	Rwy Idg TDZE <b>207</b> Apt Elev <b>207</b>	<b>5402</b>
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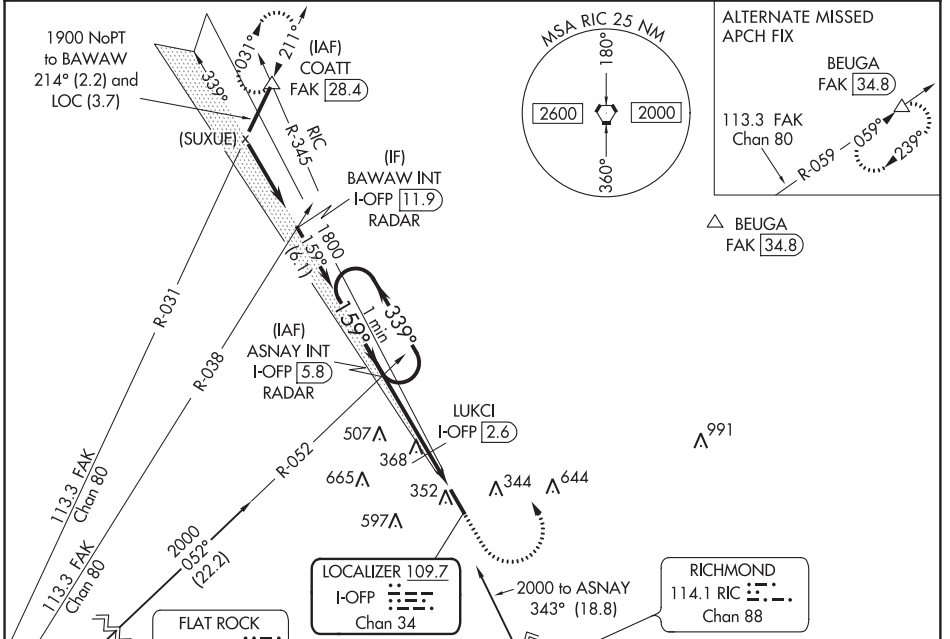
# LOC RWY 16

HANOVER COUNTY MUNI (OFP)

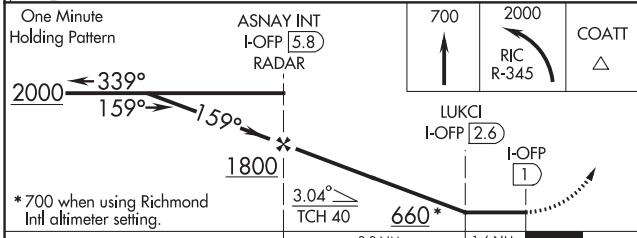
**NA** Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Richmond Intl altimeter setting and increase all MDAs 40 feet.

MISSED APPROACH: Climb to 700 then climbing left turn to 2000 via RIC VORTAC R-345 to COATT INT and hold.

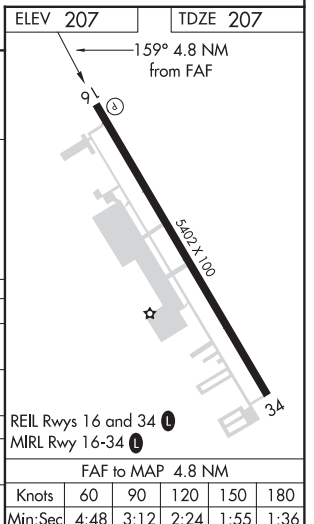
ASOS <b>119.025</b>	POTOMAC APP CON <b>126.75 307.2</b>	CLNC DEL <b>125.4</b>	UNICOM <b>122.7 (CTAF)</b>
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ELEV <b>207</b>	TDZE <b>207</b>
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CATEGORY	A	B	C	D
S-16	660-1	453 (500-1)	660 - 1 1/4 453 (500-1 1/4)	660 - 1 1/2 453 (500-1 1/2)
CIRCLING	660-1	453 (500-1)	660 - 1 1/2 453 (500-1 1/2)	760 - 2 553 (600-2)
LUKCI FIX MINIMUMS				
S-16	560-1 353 (400-1)		560 - 1 1/4 353 (400-1 1/4)	
CIRCLING	660-1	453 (500-1)	660 - 1 1/2 453 (500-1 1/2)	760 - 2 553 (600-2)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

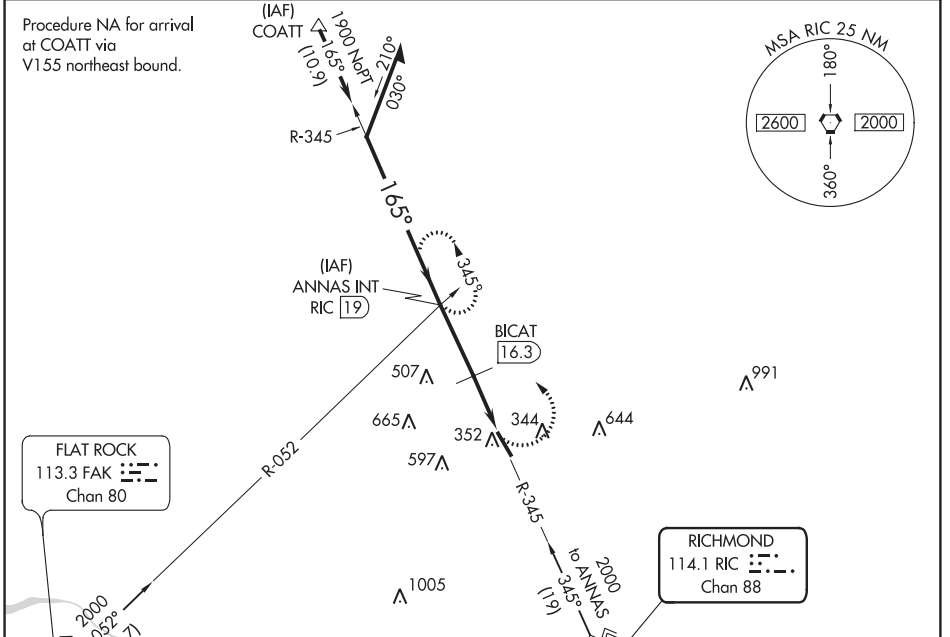
VORTAC RIC <b>114.1</b> Chan <b>88</b>	APP CRS <b>165°</b>	Rwy Idg TDZE <b>207</b> Apt Elev <b>207</b>	<b>5402</b>
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**VOR RWY 16**  
HANOVER COUNTY MUNI (OFP)

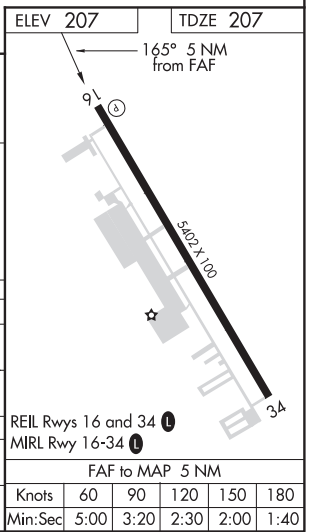
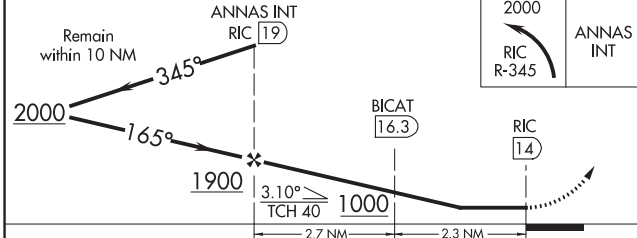
**⚠** When local altimeter setting not received, use Richmond Intl altimeter setting and increase all MDA 40 feet. Helicopter visibility reduction below ¼ SM NA. Rwy 16, operational VGSI required, remain on or above VGSI glidepath until threshold.

**⚠** MISSED APPROACH: Climbing left turn to 2000 via RIC R-345 to ANNAS INT/19 DME and hold.

ASOS <b>119.025</b>	POTOMAC APP CON <b>126.75 307.2</b>	CLNC DEL <b>125.4</b>	UNICOM <b>122.7 (CTAF)</b>
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ELEV 207	TDZE 207
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CATEGORY	A	B	C	D
S-16	1000 - 1 795 (800-1)	1000 - 1¼ 795 (800-1¼)	1000 - 2¼ 795 (800-2¼)	1000 - 2½ 795 (800-2½)
CIRCLING	1000 - 1 795 (800-1)	1000 - 1¼ 795 (800-1¼)	1000 - 2¼ 795 (800-2¼)	1000 - 2½ 795 (800-2½)
BICAT FIX MINIMUMS				
S-16	680 - 1	475 (500-1)	680 - 1¼ 475 (500-1¼)	680 - 1½ 475 (500-1½)
CIRCLING	680 - 1	475 (500-1)	680 - 1½ 475 (500-1½)	760 - 2 555 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



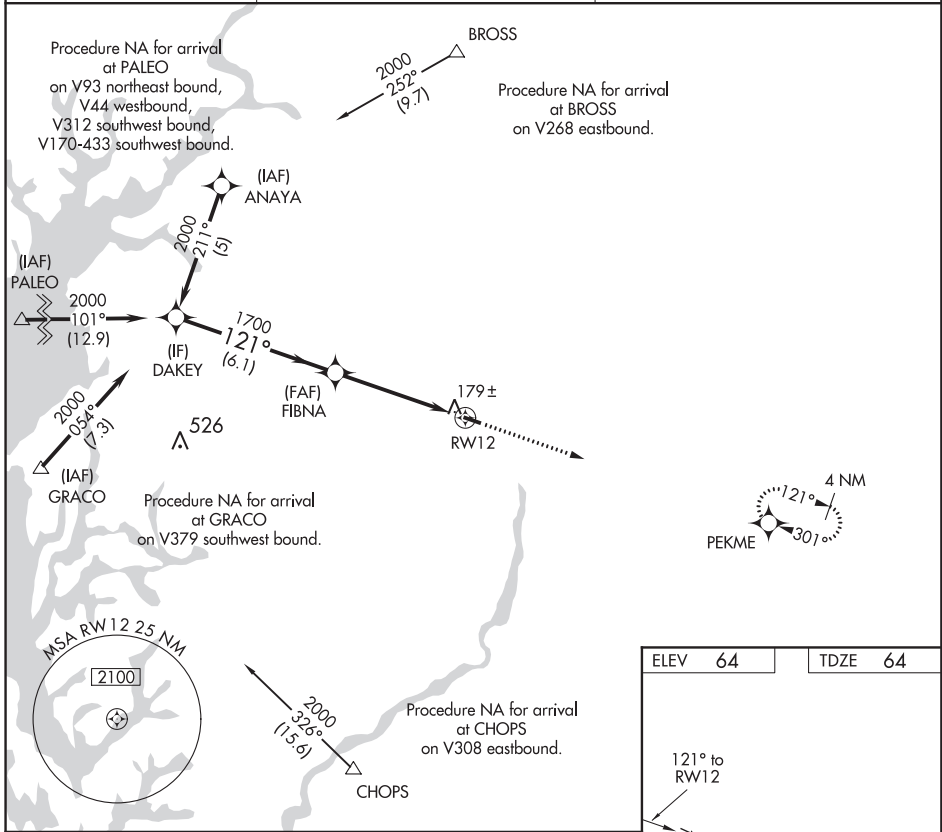
APP CRS	Rwy Idg	<b>3214</b>
<b>121°</b>	TDZE	<b>64</b>
	Apt Elev	<b>64</b>

# RNAV (GPS) RWY 12

RIDGELY AIRPARK (RJD)

<b>▽</b>	DME/DME RNP-0.3 NA. Procedure NA at night. Use Easton altimeter source. When not received, procedure NA.	MISSED APPROACH: Climb to 2000 direct PEKME and hold.
<b>△</b> NA		

EASTON AWOS-3 <b>124.475</b>	POTOMAC APP CON <b>124.55 317.425</b>	UNICOM <b>122.8 (CTAF)</b>
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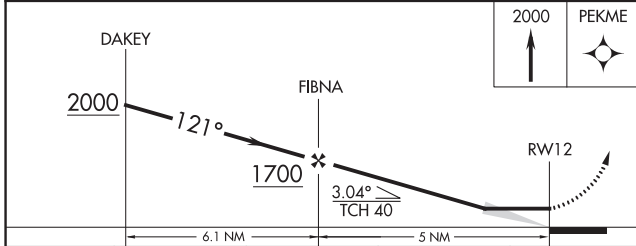
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 64	TDZE 64
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121° to RW12

LIRL Rwy 12-30  
REIL Rwy 12 and 30



CATEGORY	A	B	C	D
LNAV MDA	480-1	416 (500-1)		NA
CIRCLING	520-1	456 (500-1)		NA

RIDGELY, MARYLAND

AL-10248 (FAA)

15092

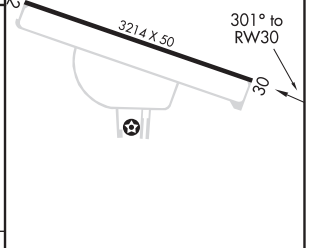
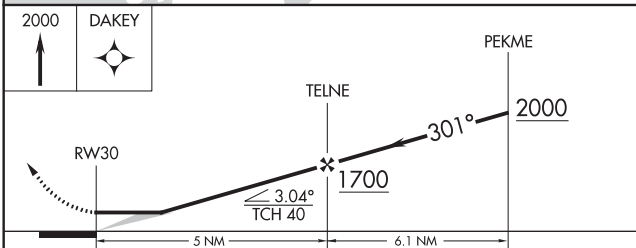
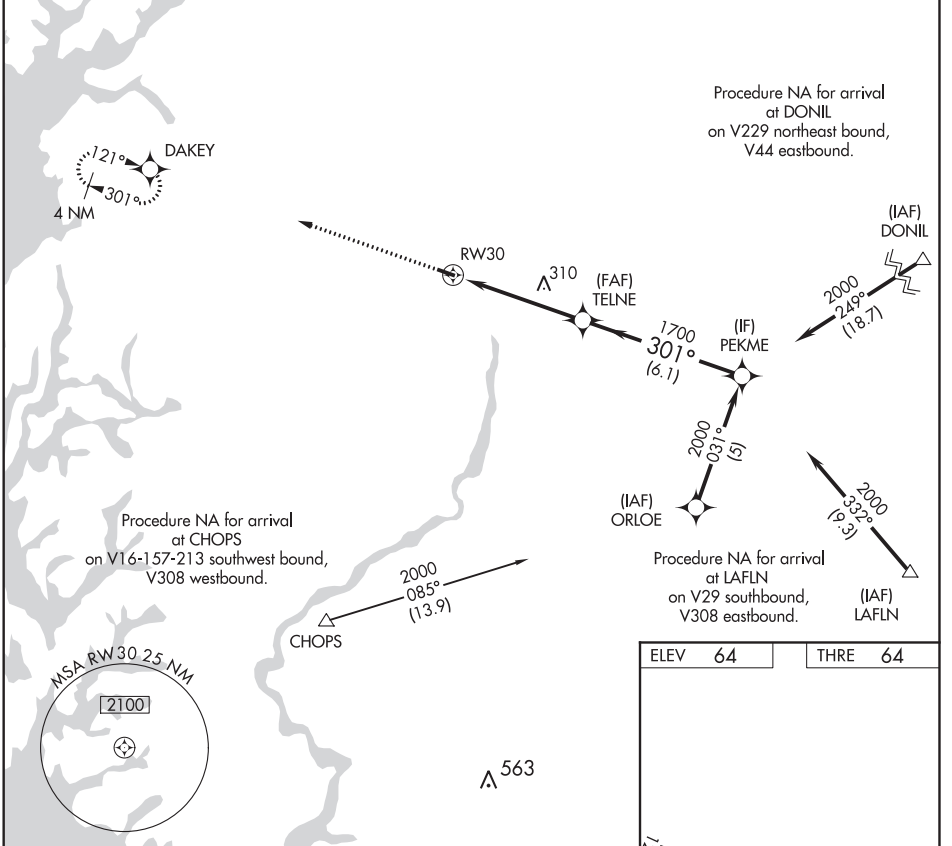
APP CRS <b>301°</b>	Rwy Idg <b>3214</b>
	THRE <b>64</b>
	Apt Elev <b>64</b>

# RNAV (GPS) RWY 30

RIDGELY AIRPARK (RJD)

<p><b>▽</b> DME/DME RNP-0.3 NA. Procedure NA at night. Use Easton altimeter source. When not received, procedure NA.</p> <p><b>⚠</b> NA</p>	<p>MISSED APPROACH: Climb to 2000 direct DAKEY and hold.</p>
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EASTON AWOS-3 <b>124.475</b>	DOVER APP CON <b>132.425 257.875</b>	UNICOM <b>122.8</b> (CTAF) <b>📞</b>
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CATEGORY	A	B	C	D
LNAV MDA	660-1	596 (600-1)		NA
CIRCLING	660-1	596 (600-1)		NA

LIRL Rwy 12-30 **📞**

REIL Rwy 12 and 30 **📞**

RIDGELY, MARYLAND  
Orig-A 31MAY12

38°58'N-75°52'W

# RNAV (GPS) RWY 30

RIDGELY AIRPARK (RJD)

NE-3, 10 NOV 2016 to 05 JAN 2017

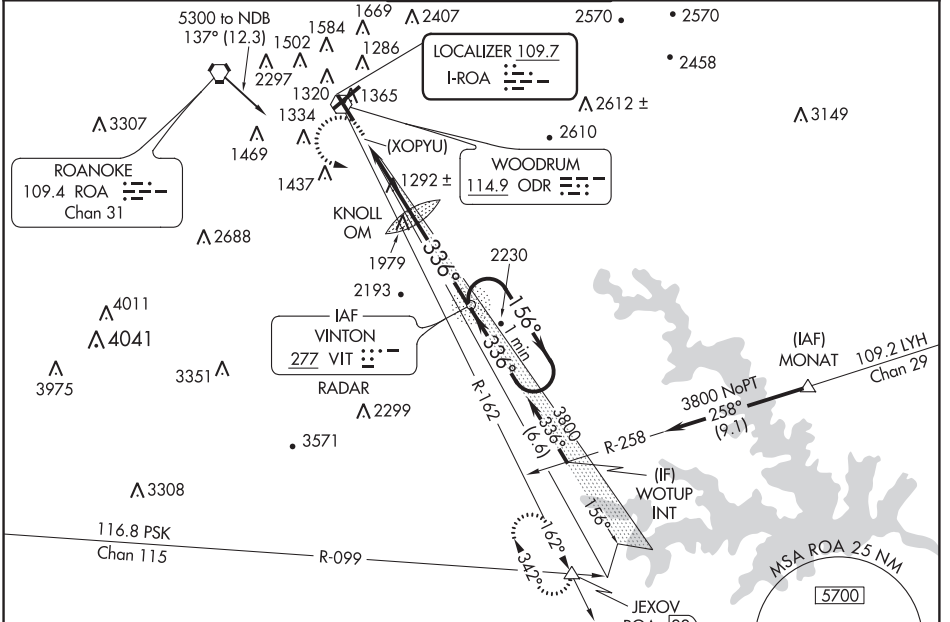
NE-3, 10 NOV 2016 to 05 JAN 2017

LOC I-ROA <b>109.7</b>	APP CRS <b>336°</b>	Rwy ldg <b>5810</b> TDZE <b>1160</b> Apt Elev <b>1175</b>
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# ILS or LOC RWY 34

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A)

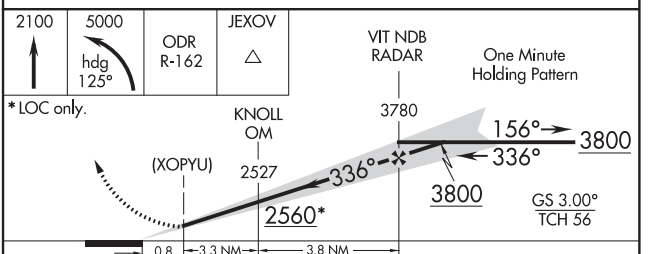
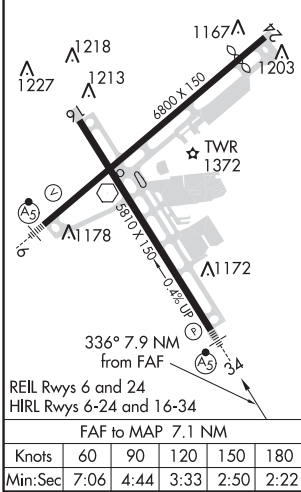
<p>Circling NA northwest of Rwy 6-24. ADF or RADAR required. For inop MALSR, increase S-ILS 34 all Cats visibility ½ mile and S-LOC 34 Cat B ¼ mile, Cats C/D ⅝ mile. Inop table does not apply to S-LOC 34 Cat A.</p>	<p>MALSR</p>	MISSED APPROACH: Climb to 2100 then climbing left turn to 5000 on heading 125° and ODR R-162 to JEXOV INT/ROA 22 DME and hold.		
		ATIS <b>132.375</b>	ROANOKE APP CON <b>126.9 339.8</b>	ROANOKE TOWER <b>118.3 257.8</b>



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 1175	<b>D</b>	TDZE 1160
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CATEGORY	A	B	C	D
S-ILS 34	1810-1¾	650 (700-1¾)		1913-2¼ 753 (700-2¼)
S-LOC 34	1980-1	820 (900-1)	1980-1⅞	820 (900-1⅞)
<b>C</b> CIRCLING	1980-1 805 (900-1)	1980-1¼ 805 (900-1¼)	2420-3 1245 (1300-3)	2800-3 1625 (1700-3)

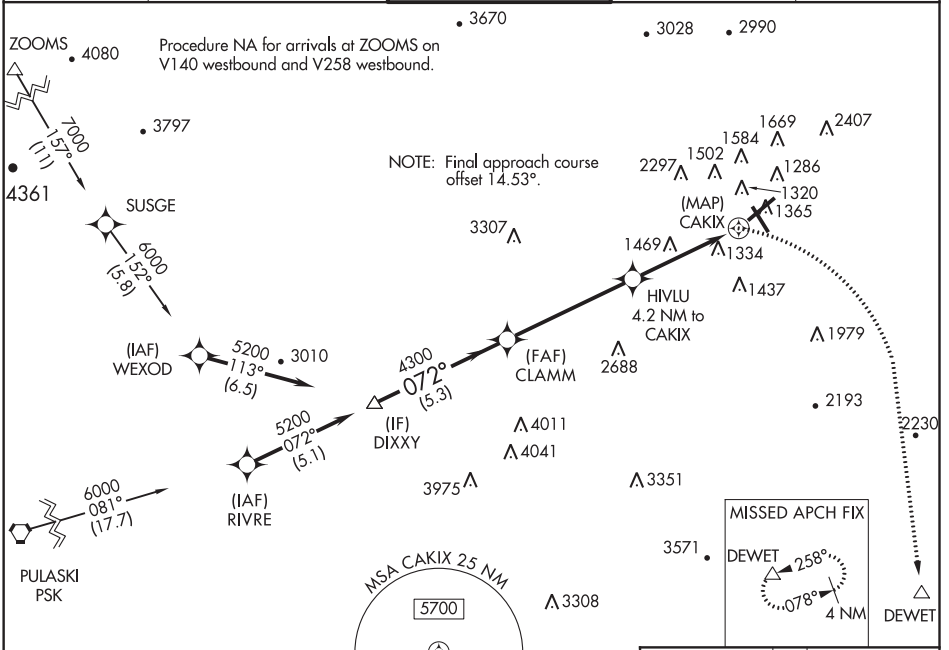
# ILS or LOC RWY 34

APP CRS	Rwy Idg	<b>6800</b>
<b>072°</b>	TDZE	<b>1175</b>
	Apt Elev	<b>1175</b>

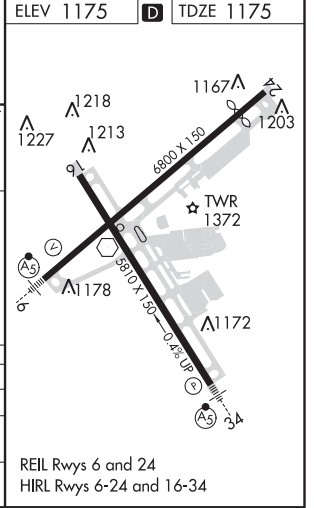
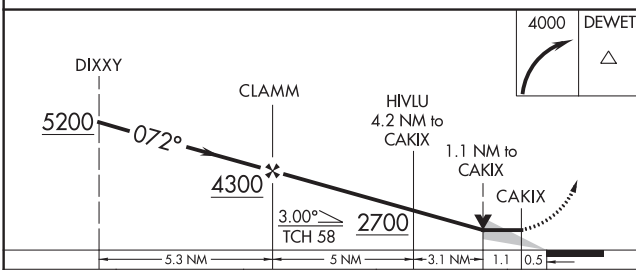
# RNAV (GPS) RWY 6

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (ROA)

<b>⚠</b>	Circling NA northwest of Rwy 6-24. DME/DME RNP-0.3 NA. **Missed approach requires minimum climb of 276 feet per NM to 2700. For inop MALSRR, increase LNAV** Cat A and B visibility to 1 and LNAV Cat A visibility to 1, Cat C and D visibility to 2½ mile.	MALSRR 	MISSED APPROACH: Climbing right turn to 4000 direct DEWET and hold.	
ATIS	ROANOKE APP CON	ROANOKE TOWER	GND CON	CLNC DEL
<b>132.375</b>	<b>126.9 339.8</b>	<b>118.3 257.8</b>	<b>121.9 257.8</b>	<b>119.7</b>



Procedure NA for arrivals at PSK VORTAC on airway radials 069 CW 153.



CATEGORY	A	B	C	D
LNAV MDA**	1720-¾	545 (600-¾)	1720-1⅞	545 (600-1⅞)
LNAV MDA	1980-¾	805 (900-¾)	1980-1⅞	805 (900-1⅞)
<b>C</b> CIRCLING	1980-1 805 (900-1)	1980-1¼ 805 (900-1¼)	2420-3 1245 (1300-3)	2800-3 1625 (1700-3)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

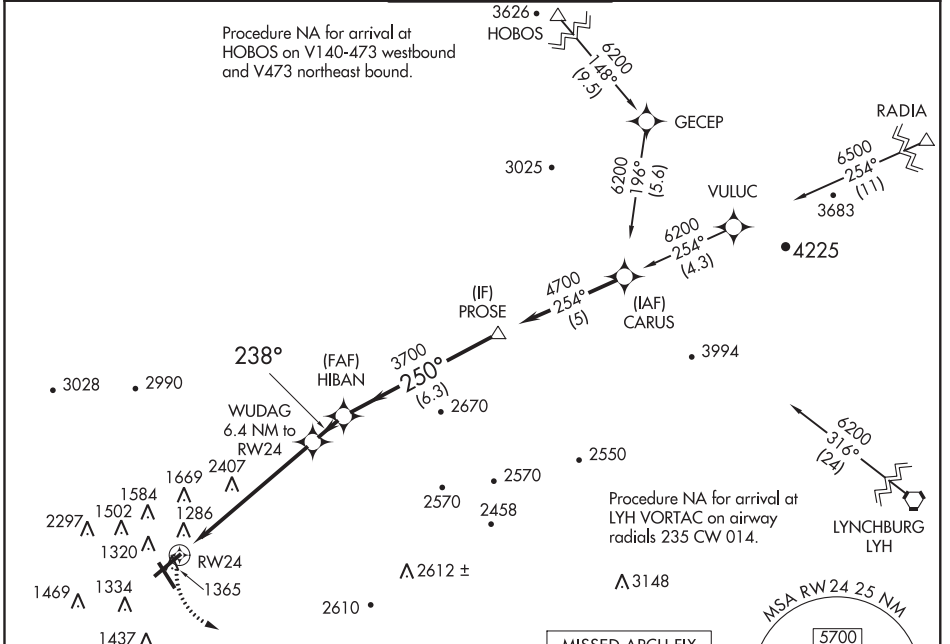
WAAS CH <b>99522</b> <b>W24A</b>	APP CRS <b>238°</b>	Rwy Idg TDZE Apt Elev	<b>6010</b> <b>1170</b> <b>1175</b>
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# RNAV (GPS) RWY 24

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A)

	Circling NA NW of Rwy 6-24. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA.	MISSED APPROACH: Climbing left turn to 4000 direct MONAT and hold.
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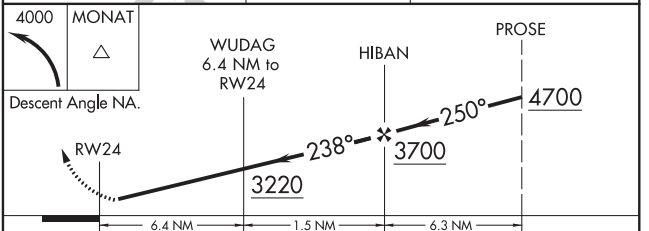
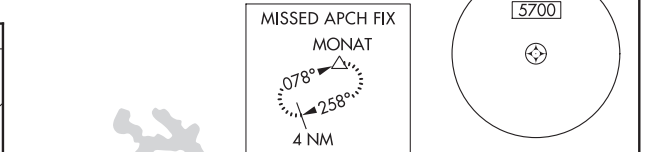
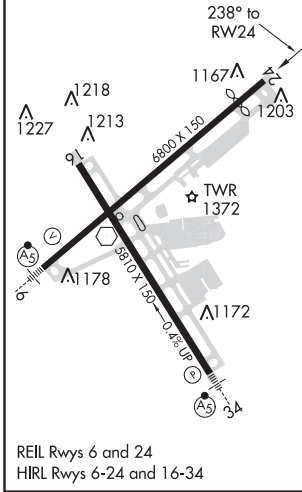
ATIS <b>132.375</b>	ROANOKE APP CON <b>126.9 339.8</b>	ROANOKE TOWER <b>118.3 257.8</b>	GND CON <b>121.9 257.8</b>	CLNC DEL <b>119.7</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 1175	<b>D</b>	TDZE 1170
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CATEGORY	A	B	C	D
LP MDA	2500-1 1/4 1330 (1400-1 1/4)	2500-1 1/2 1330 (1400-1 1/2)	2500-3	1330 (1400-3)
LNAV MDA	3000-1 1/4 1830 (1900-1 1/4)	3000-1 1/2 1830 (1900-1 1/2)	3000-3	1830 (1900-3)
<b>C</b> CIRCLING	3000-1 1/4 1825 (1900-1 1/4)	3000-1 1/2 1825 (1900-1 1/2)	3000-3	1825 (1900-3)

ROANOKE, VIRGINIA

AL-349 (FAA)


16203

WAAS CH <b>70722</b> <b>W34A</b>	APP CRS <b>336°</b>	Rwy Idg TDZE Apt Elev	<b>5810</b> <b>1160</b> <b>1175</b>
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# RNAV (GPS) RWY 34

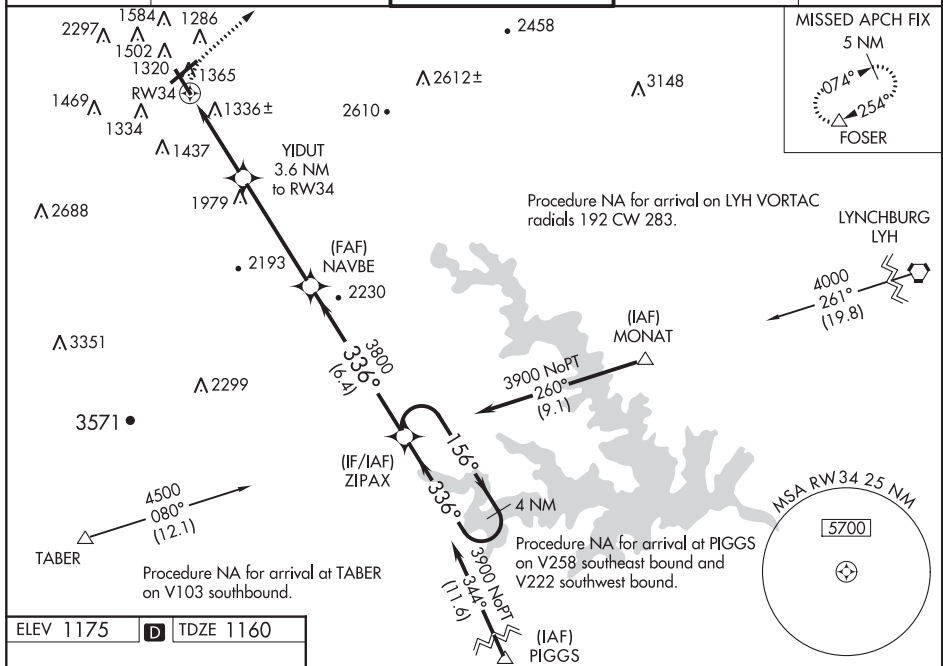
ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 36°C (96°F). Circling NA NW of Rwy 6-24. DME/DME RNP-0.3 NA. Inop table does not apply to LPV, LNAV/VNAV or LNAV Cat C/D. For inop MALSR, increase LNAV Cat A visibility to 1 1/4 mile. # Missed approach requires climb of 400 feet per NM to 2800.

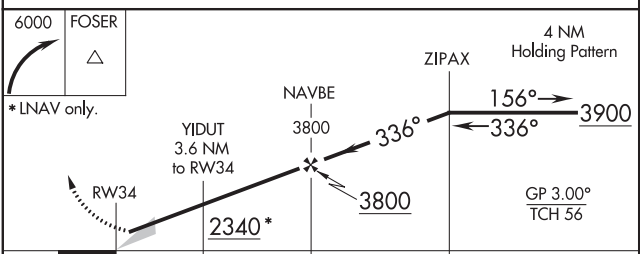
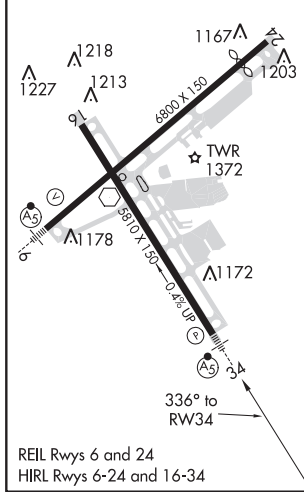
**MALSR** 

**MISSED APPROACH:** Climbing right turn to 6000 direct FOSEK and hold.

ATIS <b>132.375</b>	ROANOKE APP CON <b>126.9 339.8</b>	ROANOKE TOWER <b>118.3 257.8</b>	GND CON <b>121.9 257.8</b>	CLNC DEL <b>119.7</b>
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ELEV 1175	<b>D</b>	TDZE 1160
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CATEGORY	A	B	C	D
LPV DA		2155-4	995 (1000-4)	
LPV DA		#1560-1	400 (400-1)	
LNAV/VNAV DA		2146-4	986 (1000-4)	
LNAV MDA	2280-1	1120 (1200-1)	2280-3	1120 (1200-3)
<b>C</b> CIRCLING	2280-1 1/4 1105 (1200-1 1/4)	2280-1 1/2 1105 (1200-1 1/2)	2420-3 1245 (1300-3)	2800-3 1625 (1700-3)

ROANOKE, VIRGINIA  
Amdt 1C 28APR16

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A)  
37°20'N-79°59'W

# RNAV (GPS) RWY 34

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-SZK <b>111.1</b> Chan <b>48</b>	APP CRS <b>072°</b>	Rwy Idg TDZE <b>6800</b> <b>1175</b> Apt Elev <b>1175</b>
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# LDA Y RWY 6

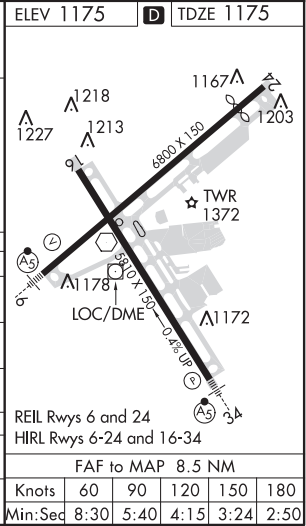
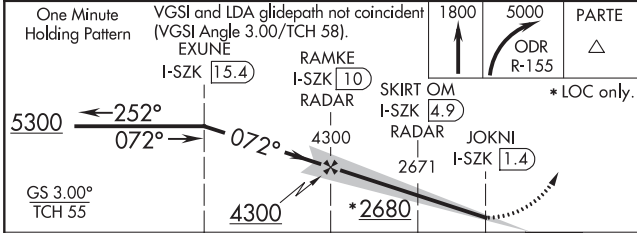
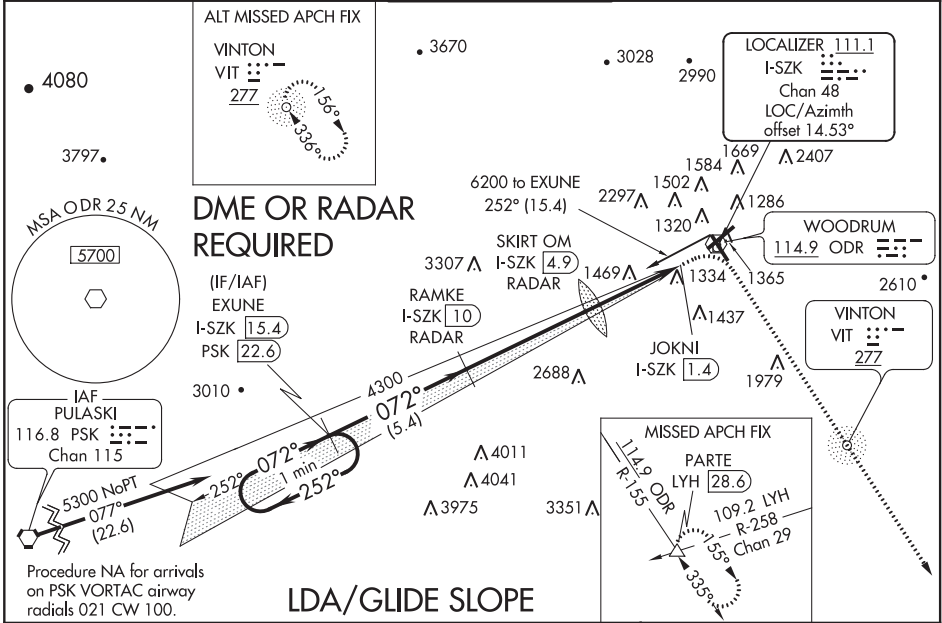
ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A)

**⚠** Inop table does not apply to S-LDA 6 Cats C and D. Circling NA NW of Rwy 6-24. For inop MALSR, increase S-LDA/GS 6 all Cats visibility to 1½.

**MALSR**

**MISSED APPROACH:** Climb to 1800 then climbing right turn to 5000 on ODR VOR R-155 to PARTE INT/LYH 28.6 DME and hold, continue climb-in-hold to 5000.

ATIS <b>132.375</b>	ROANOKE APP CON <b>126.9 339.8</b>	ROANOKE TOWER <b>118.3 257.8</b>	GND CON <b>121.9 257.8</b>	CLNC DEL <b>119.7</b>
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CATEGORY	A	B	C	D
S-LDA/GS 6	1615-1½ 440 (500-1½)			
S-LDA 6	2680-1	1505 (1600-1)	2680-3	1505 (1600-3)
<b>C</b> CIRCLING	2680-1½ 1505 (1600-1½)	2680-1½ 1505 (1600-1½)	2680-3 1505 (1600-3)	2800-3 1625 (1700-3)
SKIRT OM/DME/RADAR				
S-LDA 6	1720-1	545 (600-1)	1720-1½	545 (600-1½)
<b>C</b> CIRCLING	1720-1½	545 (600-1½)	2420-3 1245 (1300-3)	2800-3 1625 (1700-3)

Knots	60	90	120	150	180
Min:Sec	8:30	5:40	4:15	3:24	2:50

# LDA Y RWY 6

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-SZK <b>111.1</b> Chan <b>48</b>	APP CRS <b>072°</b>	Rwy Idg <b>6800</b> TDZE <b>1175</b> Apt Elev <b>1175</b>
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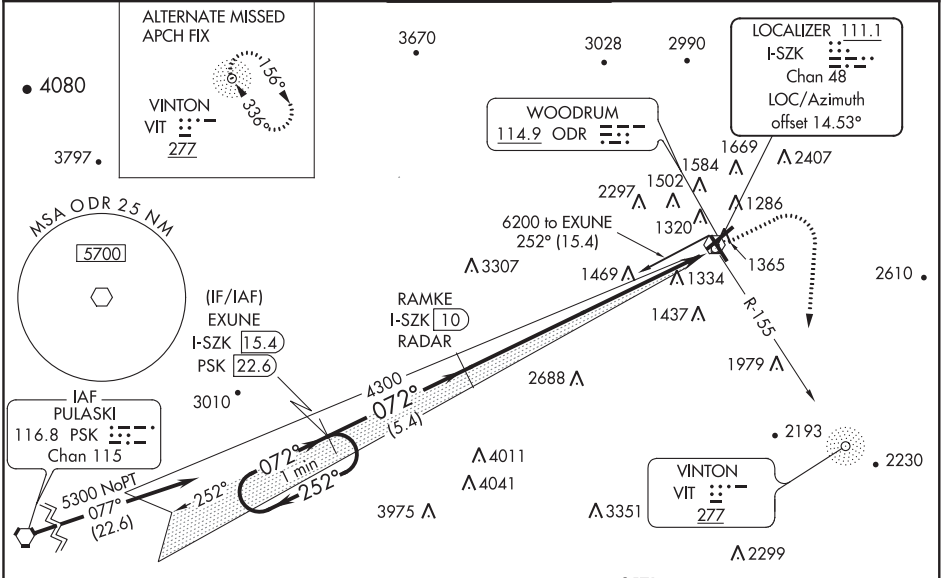
# LDA Z RWY 6

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A)

**▽** For inop MALSRS, increase S-LDA/GS 6 all Cats visibility to 7/8 mile. Missed approach requires a minimum climb of 350 feet per NM to 3600, if unable to meet climb gradient, see LDA Y Rwy 6.

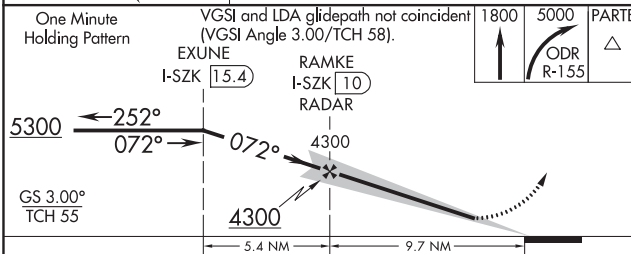
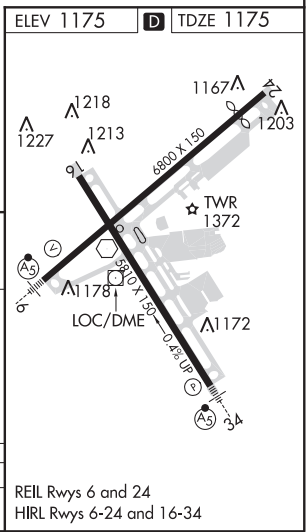
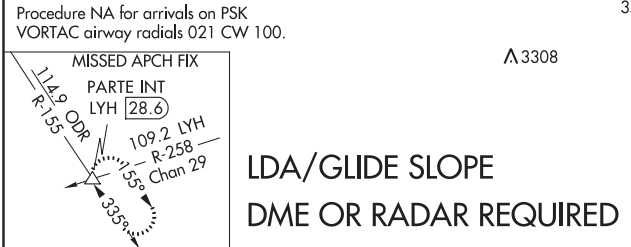
**MALSRS**  
  
**MISSED APPROACH:** Climb to 1800 then climbing right turn to 5000 on ODR VOR R-155 to PARTE INT/LYH 28.6 DME and hold, continue climb-in-hold to 5000.

ATIS <b>132.375</b>	ROANOKE APP CON <b>126.9 339.8</b>	ROANOKE TOWER <b>118.3 257.8</b>	GND CON <b>121.9 257.8</b>	CLNC DEL <b>119.7</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
S-LDA/GS 6		1425-3/4	250 (300-3/4)	



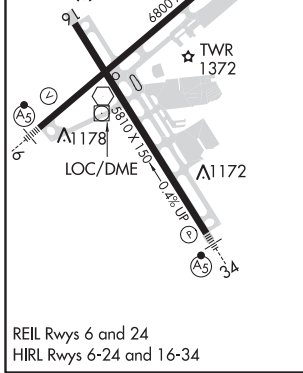
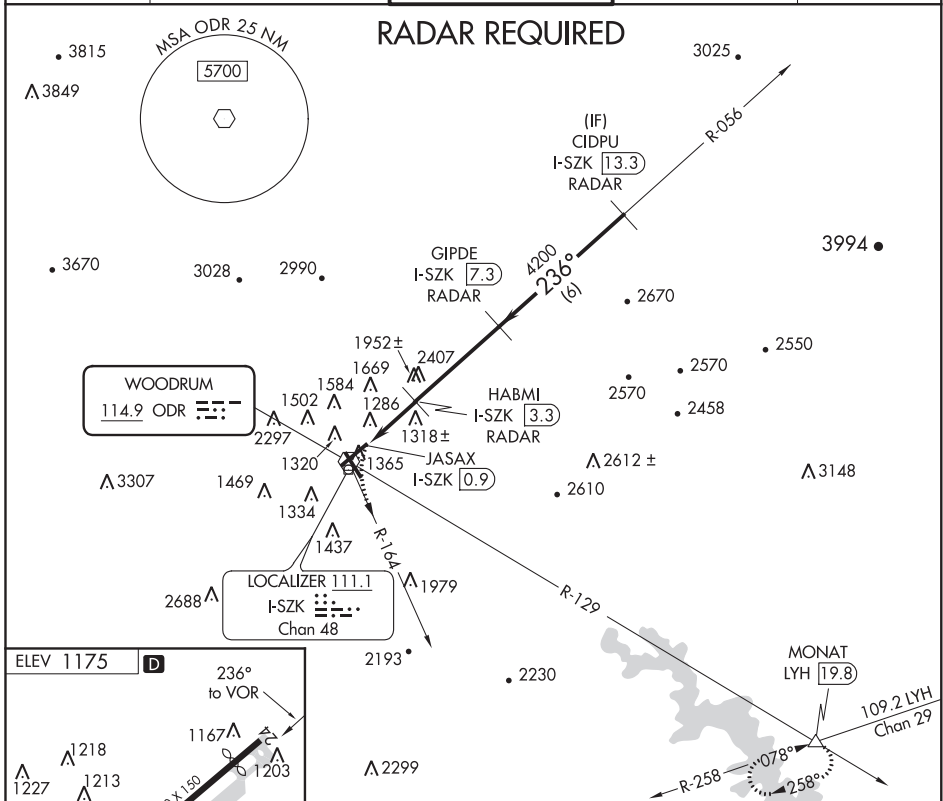
VOR ODR <b>114.9</b>	APP CRS <b>236°</b>	Rwy ldg TDZE Apt Elev <b>N/A</b> <b>1175</b>
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# VOR/DME-A

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A)

**⚠** Circling NA NW of Rwy 6-24. DME from I-SZK LDA.  
**⚠** Simultaneous reception of ODR VOR and I-SZK DME required.  
**⚠** MISSED APPROACH: Climbing left turn to 4000 on ODR VOR R-164 and LYH VORTAC R-258 to MONAT/LYH 19.8 DME and hold.

ATIS <b>132.375</b>	ROANOKE APP CON <b>126.9 339.8</b>	ROANOKE TOWER <b>118.3 257.8</b>	GND CON <b>121.9 257.8</b>	CLNC DEL <b>119.7</b>
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4000 ODR R-164	LYH R-258	MONAT	GIPDE I-SZK 7.3 RADAR	CIDPU I-SZK 13.3 RADAR
JASAX I-SZK 0.9		HABMI I-SZK 3.3 RADAR		
2720		236°		4200
2.4 NM		4 NM		6 NM
CATEGORY	A	B	C	D
<b>C</b> CIRCLING	1740-1	565 (600-1)	2420-3 1245 (1300-3)	2800-3 1625 (1700-3)

NE-3, 10 NOV 2016 to 05 JAN 2017

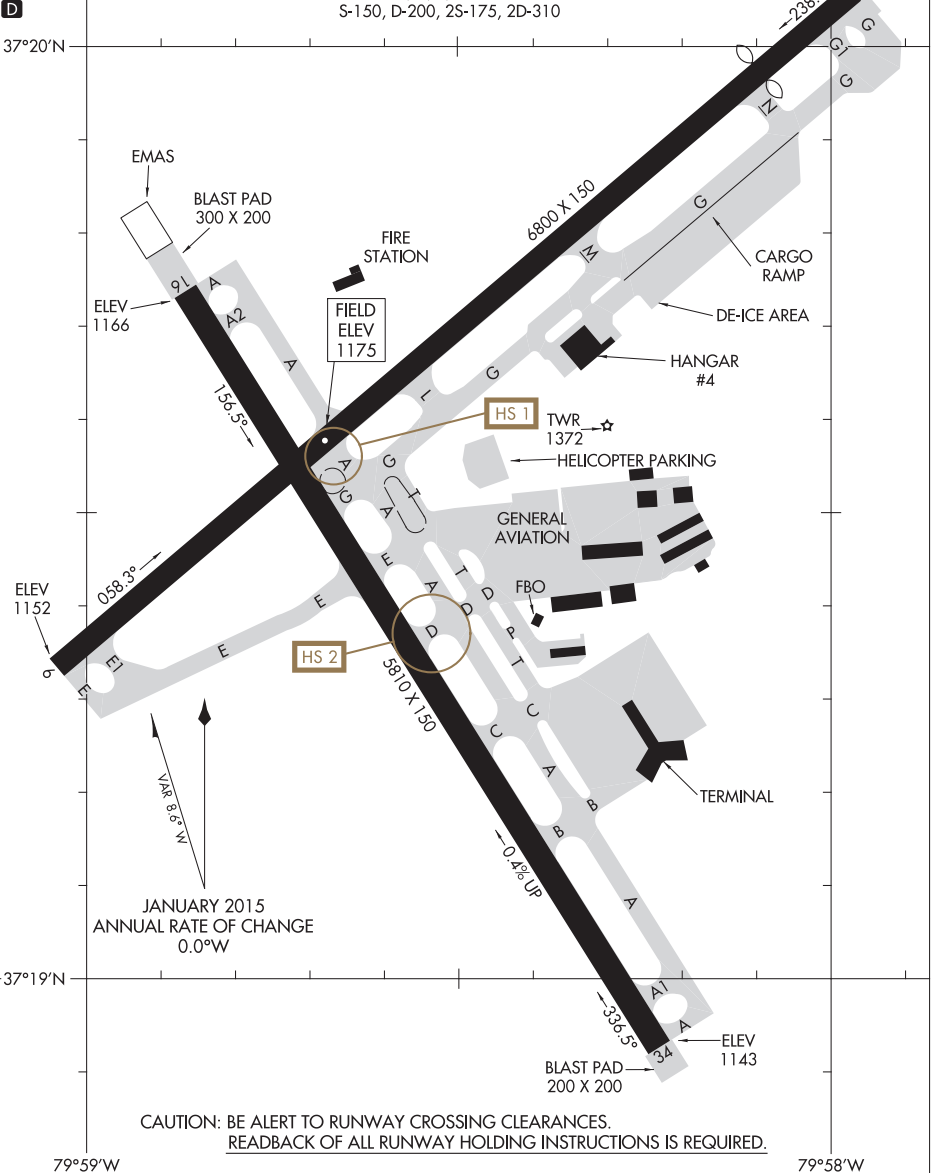
NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A.)  
AL-349 (FAA) ROANOKE, VIRGINIA

ATIS  
132.375  
ROANOKE TOWER  
118.3 257.8  
GND CON  
121.9 257.8  
CLNC DEL  
119.7

RWY 06-24  
PCN 76 F/B/X/T  
S-150, D-200, 2S-175, 2D-310  
RWY 16-34  
PCN 54 F/A/X/T  
S-150, D-200, 2S-175, 2D-310



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

79°59'W

79°58'W

# AIRPORT DIAGRAM

ROANOKE, VIRGINIA  
ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A.)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(BUFIY2.BUFIY) 15344

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A.)

# BUFIY TWO DEPARTURE (RNAV)

SL-349 (FAA)

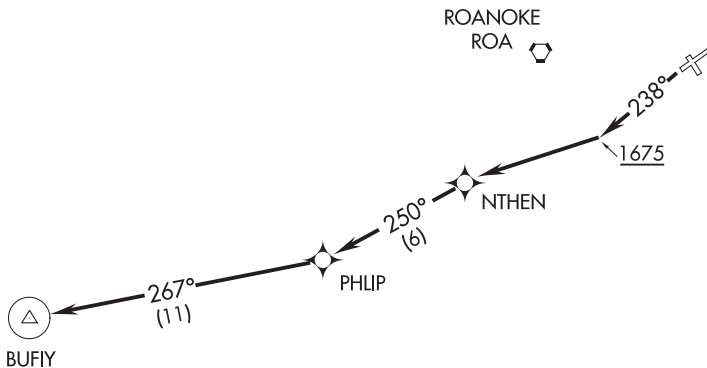
ROANOKE, VIRGINIA

ATIS 132.375  
 GND CON  
 121.9 257.8  
 CLNC DEL  
 119.7  
 ROANOKE DEP CON  
 126.9 339.8  
 ROANOKE TOWER  
 118.3 257.8

**TOP ALTITUDE:  
5000**

### TAKEOFF OBSTACLE NOTES:

Rwy 24: Sign 42' from DER, 249' left of centerline, 13' AGL/1154' MSL.  
 Tree 2872' from DER, 1246' left of centerline, 92' AGL/1232' MSL.



NOTE: GPS required.  
 NOTE: RADAR required.  
 NOTE: RNAV 1.

### TAKEOFF MINIMUMS:

Rwy 6, 16, 34: NA-Air Traffic.  
 Rwy 24: Standard with minimum  
 climb of 500' per NM to 1675.

NOTE: Chart not to scale



## DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 24:** Climb heading 238° to 1675, then direct NTHEN, then on depicted route to BUFIY.

... Maintain 5000 or assigned altitude by ATC, expect clearance to filed altitude within 10 minutes after departure.

# BUFIY TWO DEPARTURE (RNAV)

(BUFIY2.BUFIY) 15344

ROANOKE, VIRGINIA

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A.)

(DIXXY7.DIXXY) 15344

# DIXXY SEVEN DEPARTURE

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A.)

SL-349 (FAA)

ROANOKE, VIRGINIA

ATIS  
 132.375  
 CLNC DEL  
 119.7  
 GND CON  
 121.9 257.8  
 ROANOKE TOWER  
 118.3 257.8  
 ROANOKE DEP CON  
 126.9 339.8

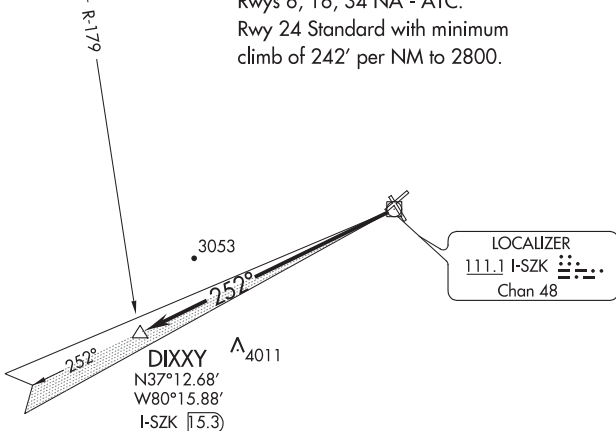
**TOP ALTITUDE:**  
**4200**



NOTE: RADAR Required.

TAKEOFF MINIMUMS:

Rwys 6, 16, 34 NA - ATC.  
 Rwy 24 Standard with minimum  
 climb of 242' per NM to 2800.



TAKEOFF OBSTACLE NOTES:

Rwy 24: Sign 42' from DER, 249' left of centerline, 13' AGL/1154' MSL.  
 Tree 2872' from DER, 1246' left of centerline, 92' AGL/1232' MSL.

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 24: Climb on I-SZK LDA Localizer west course to 4200 to DIXXY INT/I-SZK 15.3 DME. Expect RADAR vectors to filed/assigned route.

# DIXXY SEVEN DEPARTURE

(DIXXY7.DIXXY) 15344

ROANOKE, VIRGINIA

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A.)

# HOKEE THREE DEPARTURE

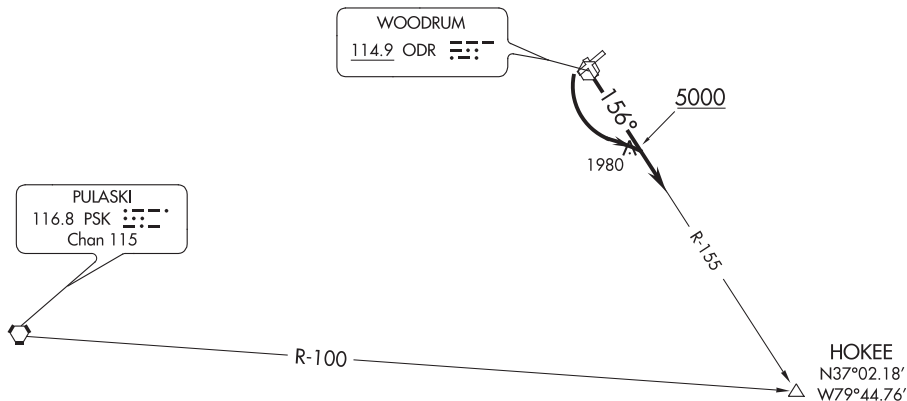
ATIS  
 132.375  
 CLNC DEL  
 119.7  
 GND CON  
 121.9 257.8  
 ROANOKE TOWER  
 118.3 257.8  
 ROANOKE DEP CON  
 126.9 339.8

NOTE: RADAR Required.

**TOP ALTITUDE:  
5000**

TAKEOFF MINIMUMS:

Rwy 6, 34 NA - Obstacles  
 Rwy 16, Standard with minimum climb of 260' per NM to 2300  
 Rwy 24, Standard with minimum climb of 205' per NM to 2800



TAKEOFF OBSTACLE NOTES:

- Rwy 16: Sign 40' from DER, 252' left of centerline, 18' AGL/1144' MSL. Trees on hilltop 1.1 NM from DER, 2211' left of centerline, up to 56' AGL/1336' MSL.
- Rwy 24: Sign 42' from DER, 249' left of centerline, 13' AGL/1154' MSL. Tree 2872' from DER, 1246' left of centerline, 92' AGL/1232' MSL

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 16:** Climb to 5000 on heading 156° to intercept ODR R-155 to HOKEE INT. Expect RADAR vectors to filed/assigned route.

**TAKEOFF RUNWAY 24:** Climbing left turn to 5000 to intercept ODR R-155 to HOKEE INT. Expect RADAR vectors to filed/assigned route.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(MONAT2.MONAT) 15344

404  
SL-349 (FAA)

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A.)

# MONAT TWO DEPARTURE (RNAV)

ROANOKE, VIRGINIA

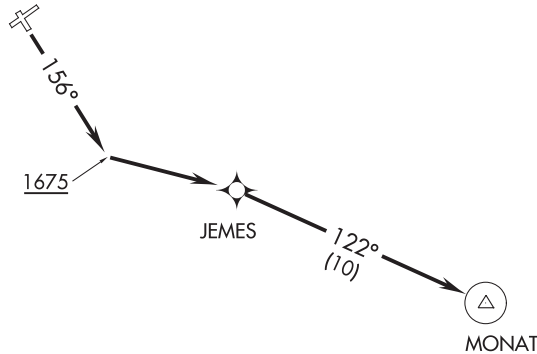
ATIS 132.375  
GND CON  
121.9 257.8  
CLNC DEL  
119.7  
ROANOKE DEP CON  
126.9 339.8  
ROANOKE TOWER  
118.3 257.8

**TOP ALTITUDE:  
5000**

TAKEOFF OBSTACLE NOTES:

Rwy 16: Sign 40' from DER, 252' left of centerline, 18' AGL/1144' MSL. Trees on hilltop 1.1 NM from DER, 2211' left of centerline, up to 56' AGL/1336' MSL.

ROANOKE  
ROA



TAKEOFF MINIMUMS:

Rwys 6, 24, 34: NA-Air Traffic.  
Rwy 16: Standard with minimum climb of 500' per NM to 1675.

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

NOTE: Chart not to scale



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 16: Climb heading 156° to 1675, then direct JEMES, and on track 122° to MONAT.

. . . Maintain 5000 or assigned altitude by ATC, expect clearance to filed altitude within 10 minutes after departure.

MONAT TWO DEPARTURE (RNAV)

(MONAT2.MONAT) 15344

ROANOKE, VIRGINIA

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A.)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(SCUTA2.SCUTA) 15344

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A.)

# SCUTA TWO DEPARTURE (RNAV)

SL-349 (FAA)

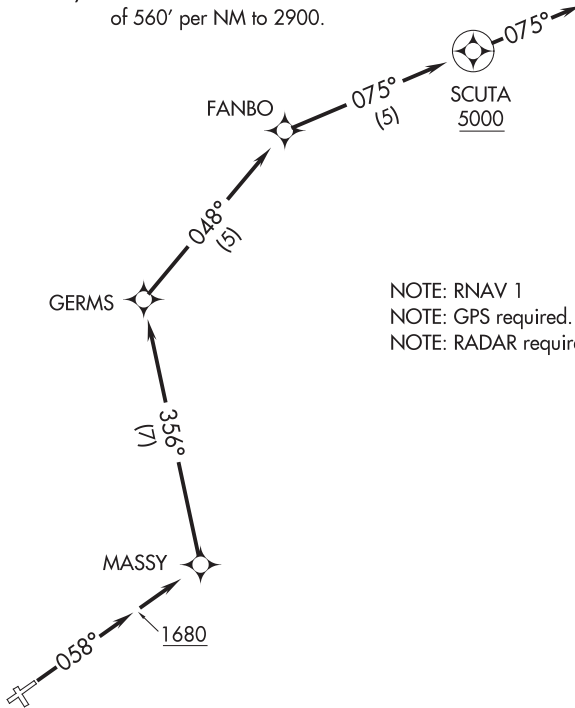
ROANOKE, VIRGINIA

ATIS  
 132.375  
 CLNC DEL  
 119.7  
 GND CON  
 121.9 257.8  
 ROANOKE TOWER  
 118.3 257.8  
 ROANOKE DEP CON  
 126.9 339.8

### TAKEOFF MINIMUMS

Rwys 16, 24, 34: NA - Air Traffic.  
 Rwy 6: Standard with minimum climb  
 of 560' per NM to 2900.

**TOP ALTITUDE:  
6000**



NOTE: RNAV 1  
 NOTE: GPS required.  
 NOTE: RADAR required.

### TAKEOFF OBSTACLE NOTES

Rwy 6: Trees and bushes beginning 88' from DER, 340' right of centerline, up to 59' AGL/1159' MSL.  
 Trees 238' from DER, 540' right of centerline, up to 71' AGL/1171' MSL.  
 Trees beginning 1536' from DER, 298' right of centerline, up to 100' AGL/1219' MSL.  
 Trees beginning 2.7 NM from DER, 2645' left of centerline, up to 100' AGL/1864' MSL.  
 Trees beginning 2.8 NM from DER, 2912' left of centerline, up to 51' AGL/2271' MSL.  
 Towers beginning 2.9 NM from DER, 3455' left of centerline, up to 216' AGL/2407' MSL.

NOTE: Chart not to scale.



### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb heading 058° to 1680, then direct MASSY.  
 Then on depicted route to cross SCUTA at or above 5000 on heading 075° for  
 RADAR vectors. Maintain 5000 or assigned altitude, expect clearance to filed  
 altitude 10 minutes after departure.

# SCUTA TWO DEPARTURE (RNAV)

(SCUTA2.SCUTA) 15344

ROANOKE, VIRGINIA

ROANOKE-BLACKSBURG RGNL/WOODRUM FIELD (R.O.A.)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

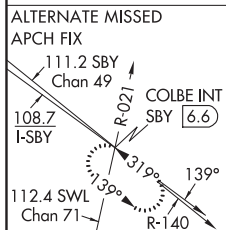
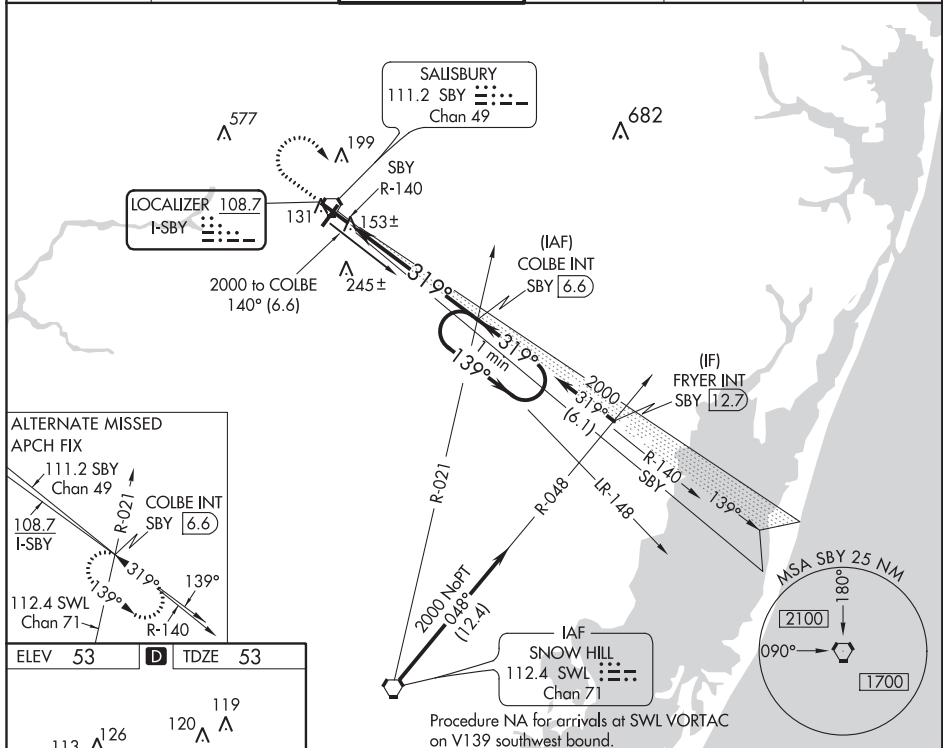
LOC I-SBY <b>108.7</b>	APP CRS <b>319°</b>	Rwy Idg TDZE Apt Elev	<b>6400</b> <b>53</b> <b>53</b>
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**ILS or LOC RWY 32**  
SALISBURY-OCEAN CITY WICOMICO RGNL (SBY)

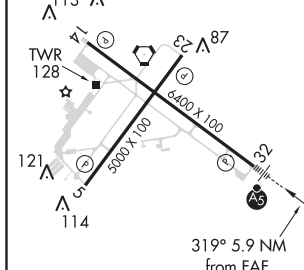
**⚠** When local altimeter setting not received, use Georgetown altimeter setting and increase DA 52 feet and all MDA 60 feet, and increase S-LOC 32 Cat C visibility ¼ mile.

**MALSR** MISSED APPROACH: Climb to 700 then climbing right turn to 2000 on heading 170° and on SBY VORTAC R-140 to COLBE INT/SBY VORTAC 6.6 DME and hold.

ASOS <b>118.325</b>	PATUXENT APP CON ★ <b>127.95 314.0</b>	SALISBURY TOWER ★ <b>119.425</b> (CTAF)	GND CON <b>123.775</b>	CLNL DEL ★ <b>123.775</b>	UNICOM <b>122.95</b>
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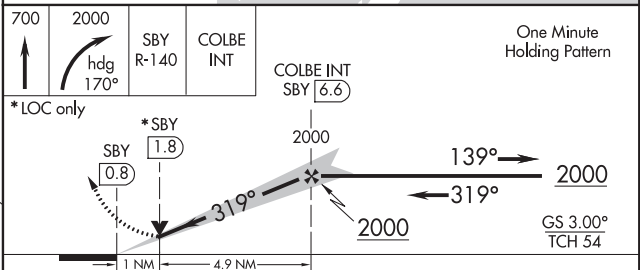


ELEV 53	<b>D</b>	TDZE 53
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REIL Rws 5, 14 and 23   
MIRL Rwy 5-23   
HIRL Rwy 14-32   
FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58



CATEGORY	A	B	C	D
S-ILS 32	253-½ 200 (200-½)			
S-LOC 32	420-½ 367 (400-½)			420-¾ 367 (400-¾)
CIRCLING	480-1 427 (500-1)	520-1 467 (500-1)	520-1½ 467 (500-1½)	620-2 567 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>62820</b> <b>W05A</b>	APP CRS <b>049°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>48</b> <b>53</b>
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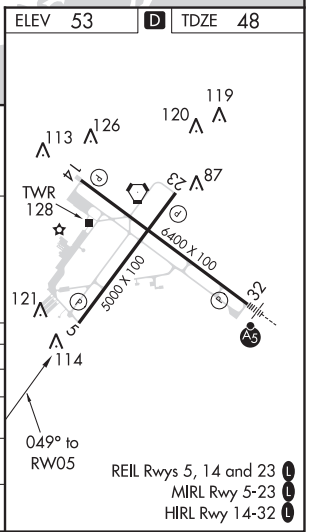
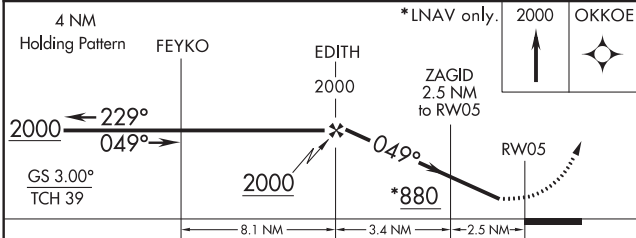
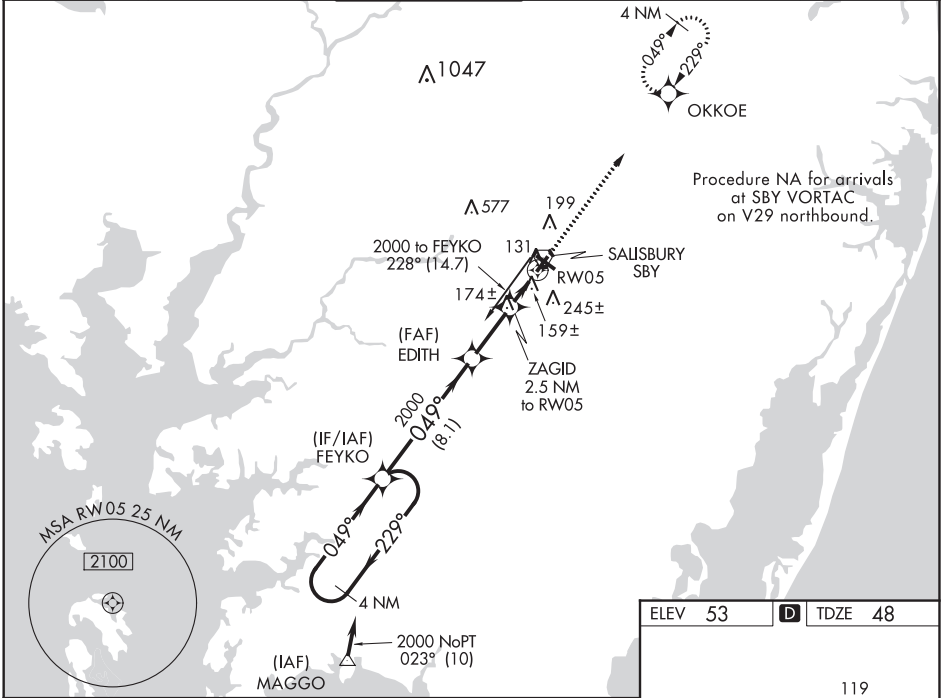
# RNAV (GPS) RWY 5

SALISBURY-OCEAN CITY WICOMICO RGNL (SBY)

**⚠** Baro-VNAV NA when using Georgetown 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 Georgetown altimeter setting and increase all DA 52 feet and all MDA 60 feet; increase LPV all Cats, LNAV/VNAV all Cats, and LNAV Cats C/D visibility ¼ mile.

MISSED APPROACH: Climb to 2000 direct OKKOE and hold.

ASOS <b>118.325</b>	PATUXENT APP CON * <b>127.95 314.0</b>	SALISBURY TOWER * <b>119.425</b> (CTAF) <b>0</b>	GND CON <b>123.775</b>	CLNL DEL * <b>123.775</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA	342-1 294 (300-1)			
LNAV/VNAV DA	460-1½ 412 (500-1½)			
LNAV MDA	440-1 392 (400-1)			440-1¼ 392 (400-1¼)
CIRCLING	480-1 427 (500-1)	520-1 467 (500-1)	520-1½ 467 (500-1½)	620-2 567 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>56320</b> <b>W14A</b>	APP CRS <b>139°</b>	Rwy Idg TDZE Apt Elev	<b>6400</b> <b>49</b> <b>53</b>
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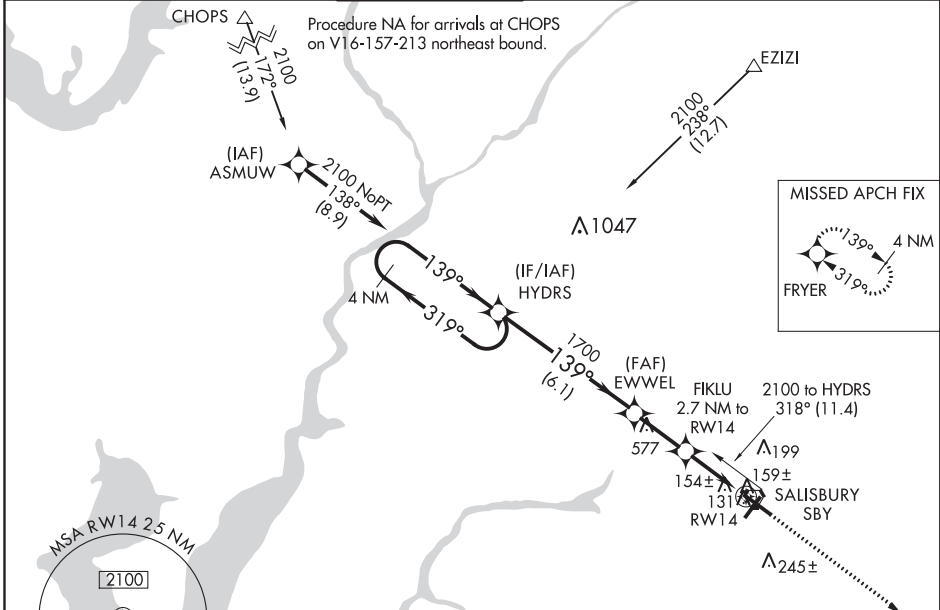
# RNAV (GPS) RWY 14

SALISBURY-OCEAN CITY WICOMICO RGNL (SBY)

**⚠** Baro-VNAV NA when using Georgetown 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 Georgetown altimeter setting, increase all DA 52 feet and all MDA 60 feet; increase LPV all Cats and LNAV Cats C/D visibility ¼ mile.

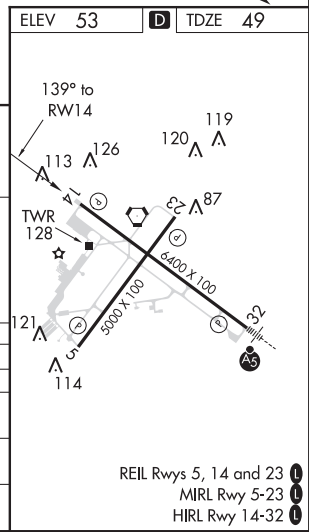
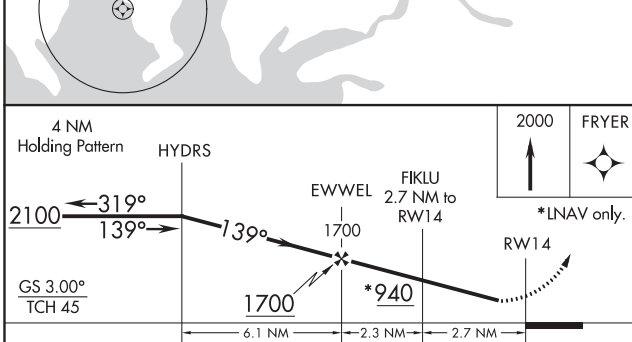
**MISSED APPROACH:**  
Climb to 2000 direct FRYER and hold.

ASOS <b>118.325</b>	PATUXENT APP CON ★ <b>127.95 314.0</b>	SALISBURY TOWER ★ <b>119.425</b> (CTAF) <b>0</b>	GND CON <b>123.775</b>	CLNL DEL ★ <b>123.775</b>	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA		355-1	306 (400-1)	
LNAV/VNAV DA		453-1½	404 (400-1½)	
LNAV MDA		420-1	371 (400-1)	420-1¼ 371 (400-1¼)
CIRCLING	480-1 427 (500-1)	520-1 467 (500-1)	520-1½ 467 (500-1½)	620-2 567 (600-2)

REIL Rwy 5, 14 and 23 **0**  
MIRL Rwy 5-23 **0**  
HIRL Rwy 14-32 **0**

WAAS CH <b>78018</b> <b>W23A</b>	APP CRS <b>229°</b>	Rwy Idg <b>5000</b> TDZE <b>49</b> Apt Elev <b>53</b>
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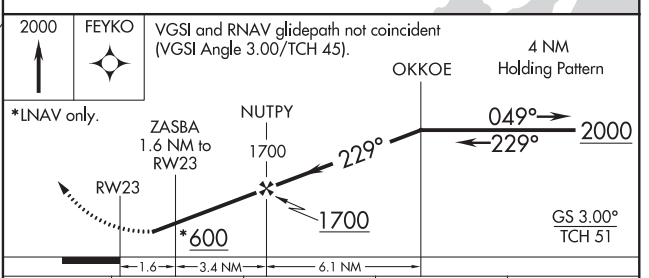
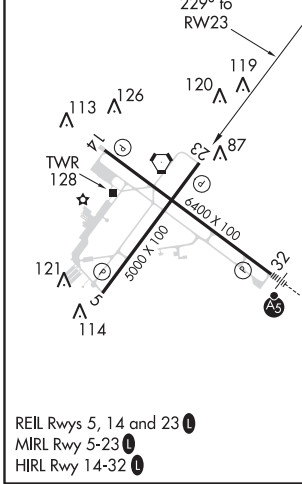
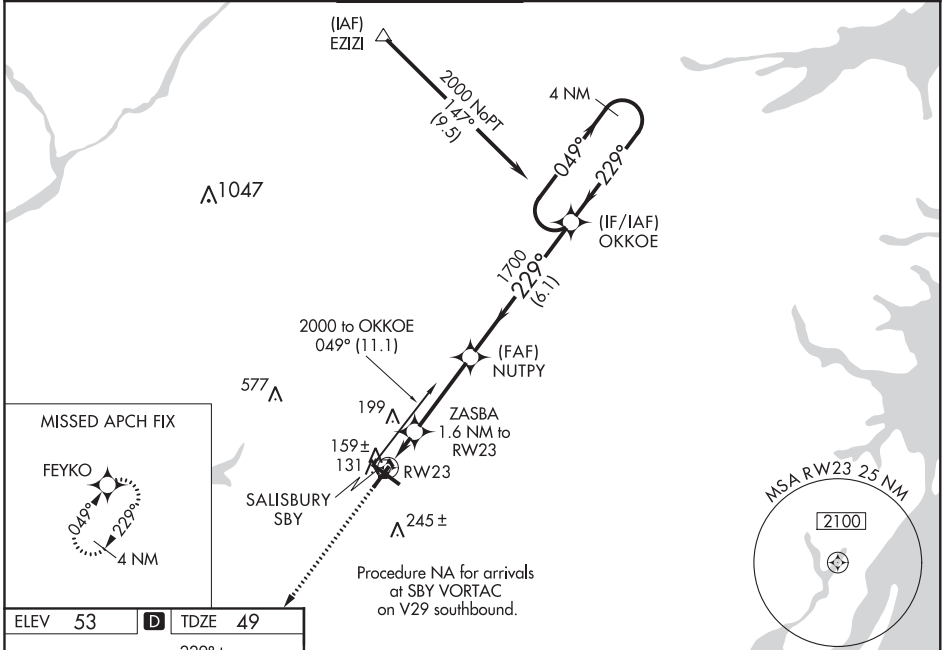
# RNAV (GPS) RWY 23

SALISBURY-OCEAN CITY WICOMICO RGNL (SBY)

**⚠** Baro-VNAV NA when using Georgetown altimeter setting. 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. Visibility reduction by helicopters NA. When local altimeter setting not received use Georgetown altimeter setting and increase all DA 52 feet and all MDA 60 feet; increase LPV all Cats and LNAV Cats C/D visibility 1/4 mile.

**MISSED APPROACH:** Climb to 2000 direct FEYKO and hold.

ASOS <b>118.325</b>	PATUXENT APP CON* <b>127.95 314.0</b>	SALISBURY TOWER* <b>119.425</b> (CTAF) <b>0</b>	GND CON <b>123.775</b>	CLNL DEL* <b>123.775</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
LPV DA	371-1		322 (400-1)	
LNAV/VNAV DA	451-1½		402 (400-1½)	
LNAV MDA	420-1		371(400-1)	
CIRCLING	480-1	520-1	520-1½	620-2
	427 (500-1)	467 (500-1)	467 (500-1½)	567 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

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WAAS CH <b>48912</b> <b>W32A</b>	APP CRS <b>319°</b>	Rwy Idg <b>6400</b> TDZE <b>53</b> Apt Elev <b>53</b>
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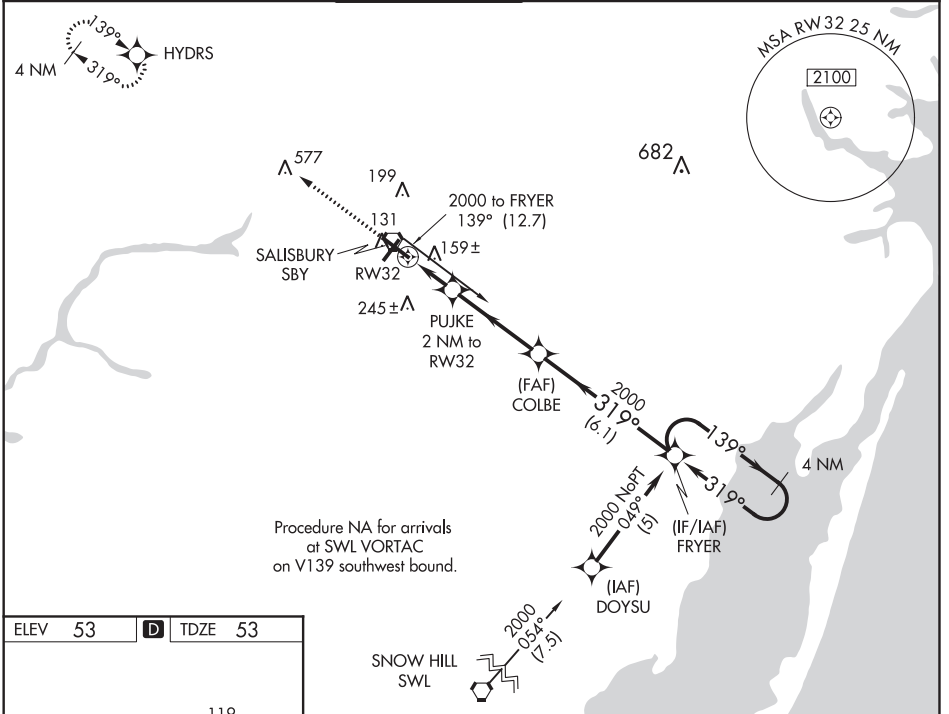
# RNAV (GPS) RWY 32

SALISBURY-OCEAN CITY WICOMICO RGNL (SBY)

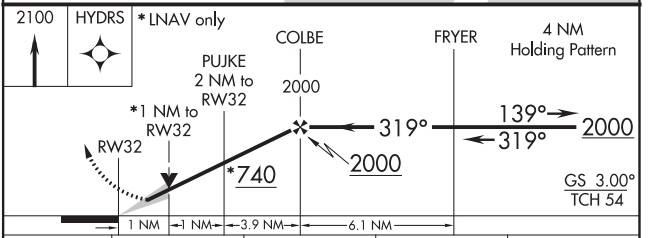
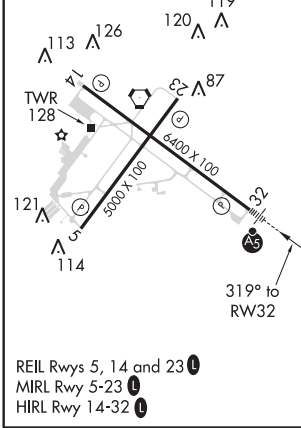
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Georgetown altimeter setting and increase all DA 52 feet and all MDA 60 feet, increase LNAV Cat C visibility ¼ mile. For inoperative MALSR, increase LNAV Cat D visibility to 1¼. VDP and Baro-VNAV NA when using Georgetown altimeter setting.

**MALSR**  
 MISSED APPROACH: Climb to 2100 direct HYDRS and hold.

ASOS <b>118.325</b>	PATUXENT APP CON * <b>127.95 314.0</b>	SALISBURY TOWER * <b>119.425</b> (CTAF)	GND CON <b>123.775</b>	CLNL DEL * <b>123.775</b>	UNICOM <b>122.95</b>
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ELEV 53	<b>D</b>	TDZE 53
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CATEGORY	A	B	C	D
LPV DA		253-½	200 (200-½)	
LNAV/ VNAV DA		458-1	405 (500-1)	
LNAV MDA		420-½	367 (400-½)	420-1 367 (400-1)
CIRCLING	480-1 427 (500-1)	520-1 467 (500-1)	520-1½ 467 (500-1½)	620-2 567 (600-2)

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NE-3, 10 NOV 2016 to 05 JAN 2017

VORTAC SBY <b>111.2</b> Chan <b>49</b>	APP CRS <b>041°</b>	Rwy Idg <b>5000</b> TDZE <b>48</b> Apt Elev <b>53</b>
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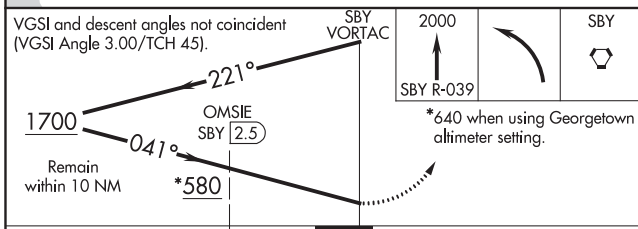
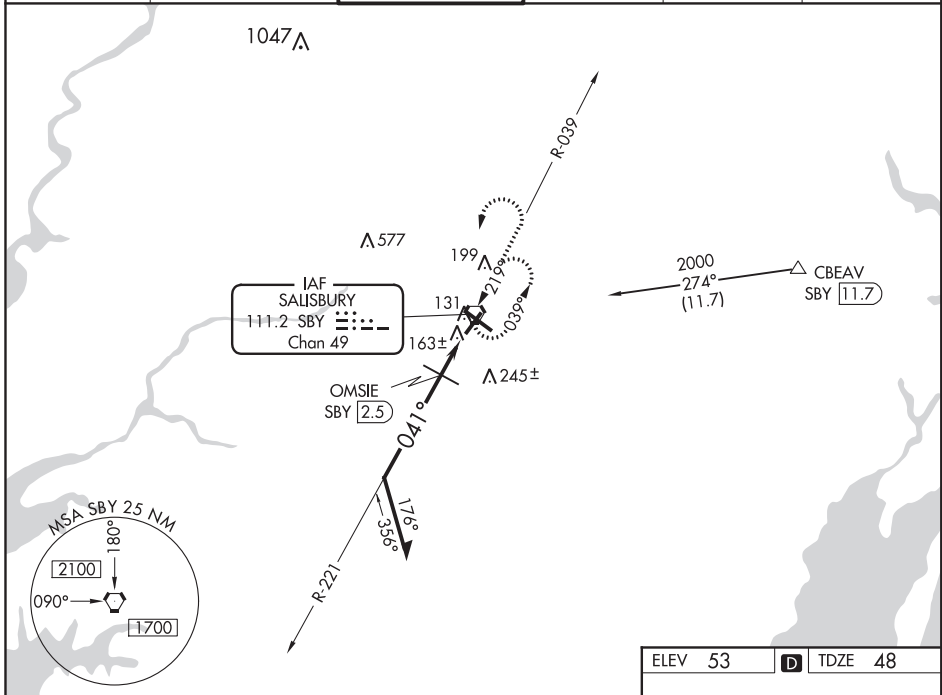
# VOR RWY 5

SALISBURY-OCEAN CITY WICOMICO RGNL (SBY)

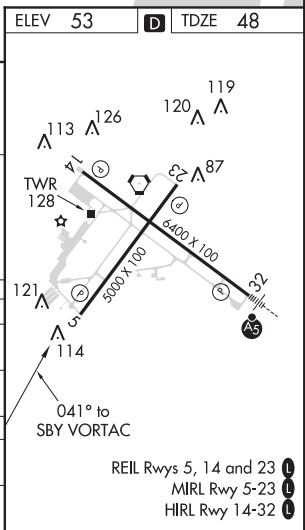
**⚠** Visibility reduction by helicopters NA. When local altimeter setting not received, use Georgetown altimeter setting and increase all MDA 60 feet: increase OMSIE Fix Minimums Cat C/D visibility 1/4 mile.

**MISSED APPROACH:** Climb to 2000 on SBY VORTAC R-039 then left turn direct SBY VORTAC and hold.

ASOS <b>118.325</b>	PATUXENT APP CON* <b>127.95 314.0</b>	SALISBURY TOWER* <b>119.425</b> (CTAF) <b>1</b>	GND CON <b>123.775</b>	CLNL DEL* <b>123.775</b>	UNICOM <b>122.95</b>
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CATEGORY	A	B	C	D
S-5	580-1	532 (600-1)	580-1½ 532 (600-1½)	580-1¾ 532 (600-1¾)
CIRCLING	580-1	527 (600-1)	580-1½ 527 (600-1½)	620-2 567 (600-2)
OMSIE FIX MINIMUMS				
S-5	420-1 372 (400-1)			420-1¼ 372 (400-1¼)
CIRCLING	480-1 427 (500-1)	520-1 467 (500-1)	520-1½ 467 (500-1½)	620-2 567 (600-2)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

SALISBURY-OCEAN CITY WICOMICO RGNL (SBY)  
AL-977 (FAA) SALISBURY, MARYLAND

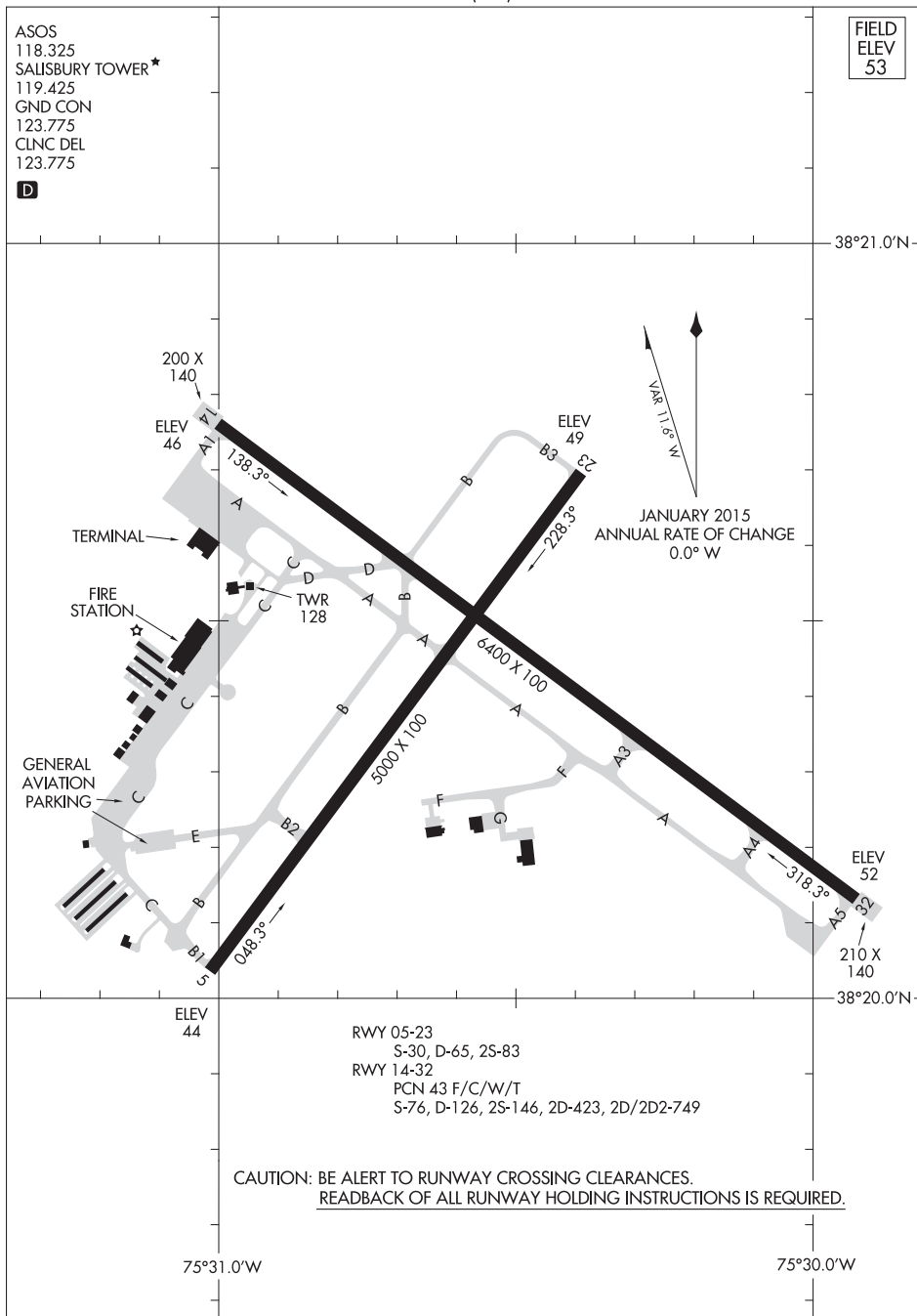
ASOS  
118.325  
SALISBURY TOWER★  
119.425  
GND CON  
123.775  
CLNC DEL  
123.775

D

FIELD  
ELEV  
53

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



# AIRPORT DIAGRAM

SALISBURY, MARYLAND  
SALISBURY-OCEAN CITY WICOMICO RGNL (SBY)

APP CRS	Rwy Idg	<b>2135</b>
<b>006°</b>	TDZE	<b>30</b>
	Apt Elev	<b>30</b>

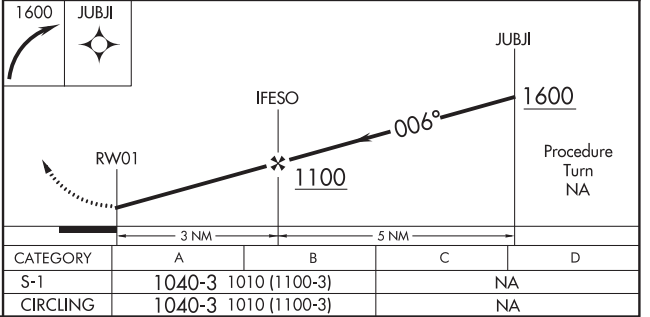
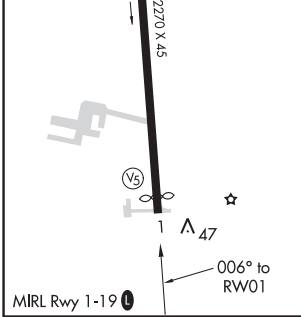
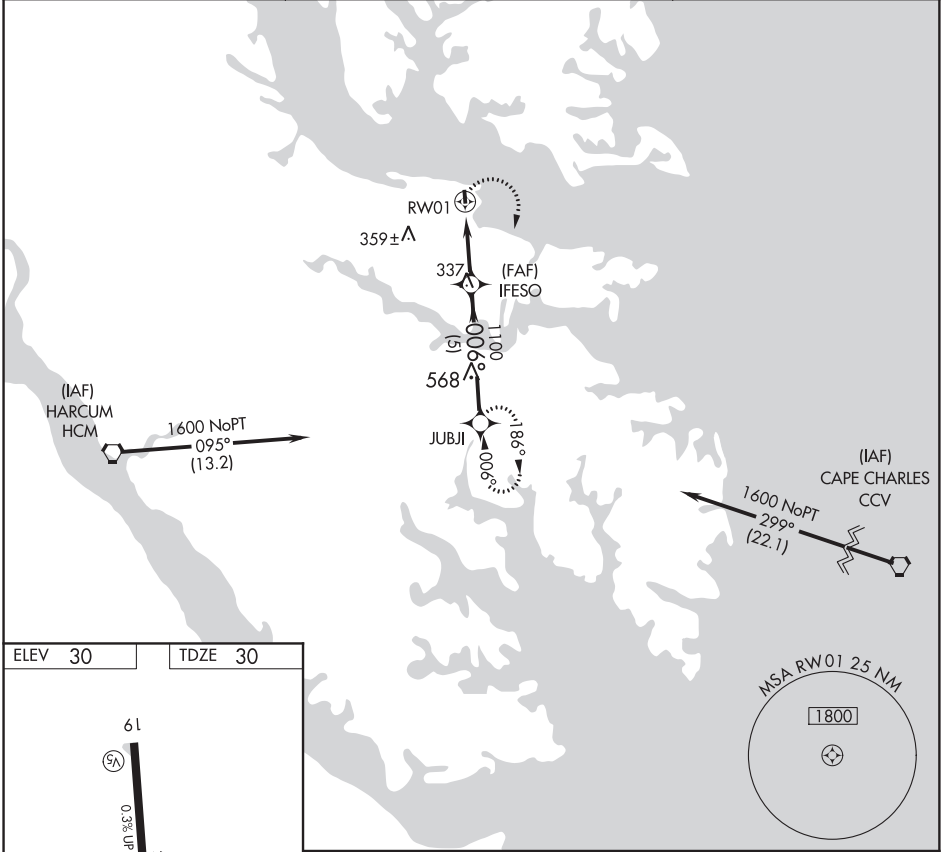
# GPS RWY 1

HUMMEL FIELD (W75)

**V** Use Newport News/Williamsburg Intl altimeter setting.  
**Δ NA** Procedure NA at night.

MISSED APPROACH: Climbing right turn to 1600 direct JUBJI WP and hold.

AWOS-3 <b>118.45</b>	NORFOLK APP CON <b>126.05 370.925</b>	UNICOM <b>123.0 (CTAF)</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

SOUTH BOSTON, VIRGINIA

AL-5112 (FAA)

14093

WAAS CH <b>77614</b> <b>W01A</b>	APP CRS <b>005°</b>	Rwy Idg TDZE Apt Elev	<b>4003</b> <b>410</b> <b>420</b>
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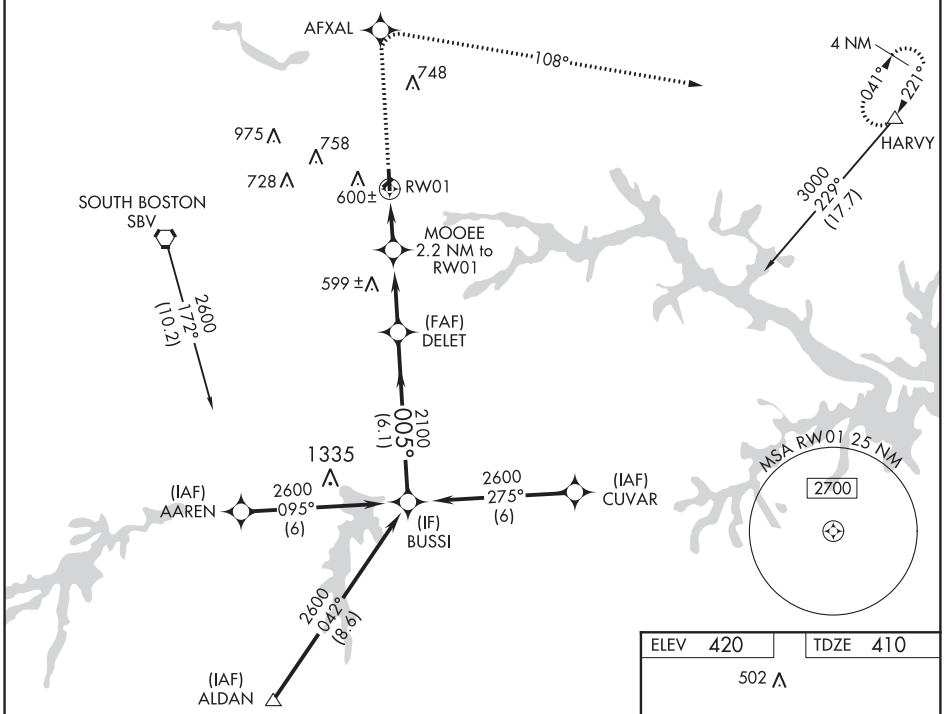
# RNAV (GPS) RWY 1

WILLIAM M. TUCK (W78)

**NA** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Use Danville Regional altimeter setting; when not received, use Lynchburg Rgnl/Preston Glenn Field altimeter setting and increase all DA 87 feet, all MDA 100 feet, increase LPV all Cats and LNAV Cat C and Circling Cat C visibilities ¼ mile, increase LNAV/VNAV all Cats visibility ½ mile. Baro-VNAV NA. Circling NA to Rwys 6 and 24.

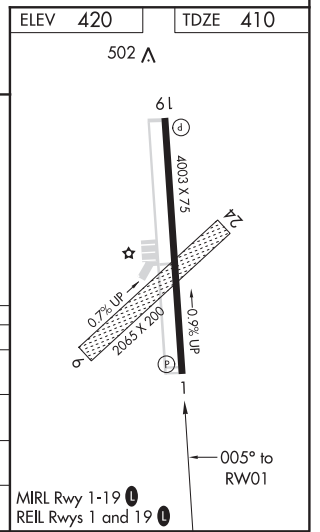
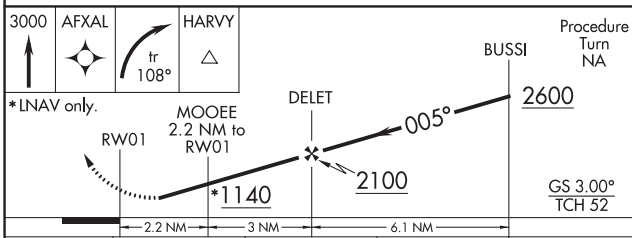
**MISSED APPROACH:** Climb to 3000 direct AFXAL and right turn via track 108° to HARVY and hold.

AWOS-3 <b>119.425</b>	WASHINGTON CENTER <b>124.05 307.0</b>	UNICOM <b>122.8 (CTAF)</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA	739-1¼	329 (400- 1¼)		NA
LNAV/VNAV DA	772-1¼	362 (400- 1¼)		NA
LNAV MDA	800-1	390 (400- 1)		NA
CIRCLING	980-1	560 (600- 1)		NA

SOUTH BOSTON, VIRGINIA  
Orig-A 07APR11

36°43'N-78°51'W

# RNAV (GPS) RWY 1

WILLIAM M. TUCK (W78)



APP CRS	Rwy Idg	<b>4003</b>
<b>185°</b>	TDZE	<b>420</b>
	Apt Elev	<b>420</b>

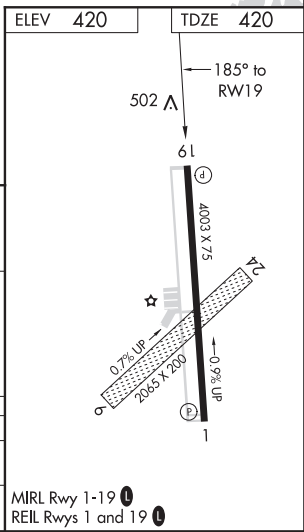
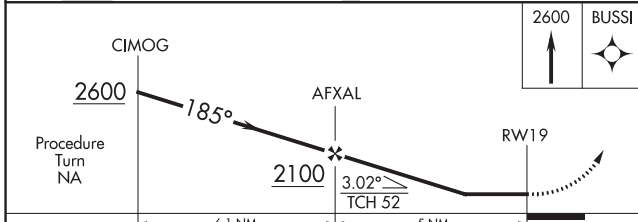
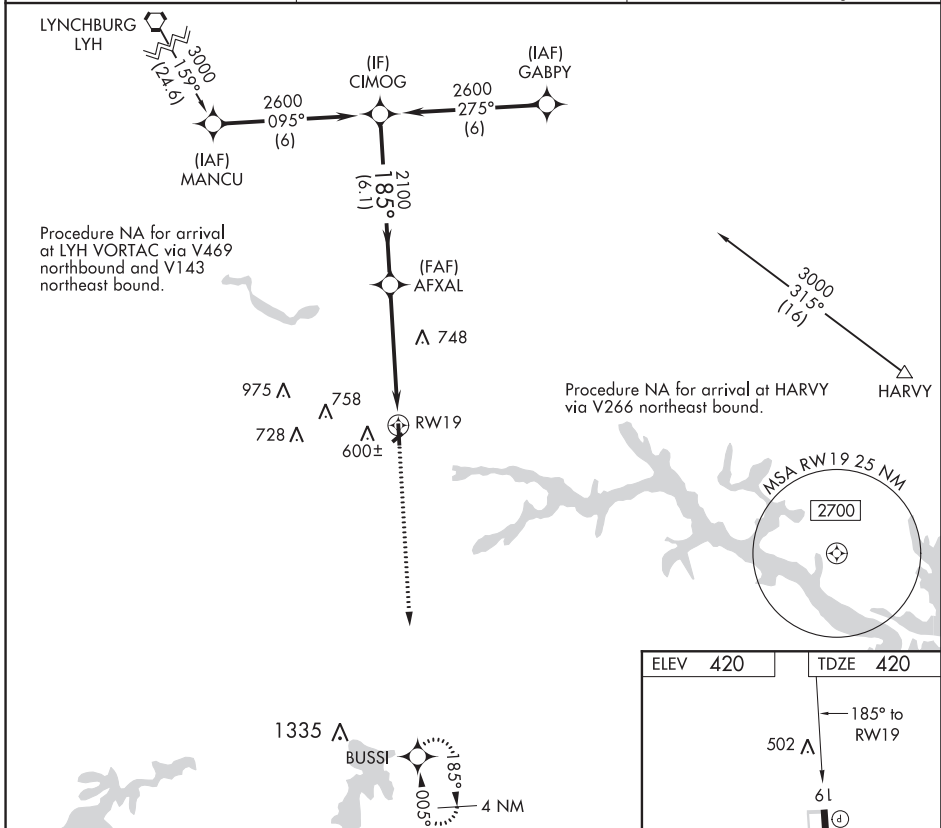
# RNAV (GPS) RWY 19

WILLIAM M. TUCK (W78)

**⚠** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Use Danville Regional altimeter setting; when not received, use Lynchburg Rgnl/Preston Glenn Field altimeter setting and increase all MDA 100 feet, increase LNAV and Circling Cat C visibility ½ mile. Circling NA to Rwy 6 and 24.

**⚠ NA** MISSED APPROACH: Climb to 2600 direct BUSSI and hold.

AWOS-3 <b>119.425</b>	WASHINGTON CENTER <b>124.05 307.0</b>	UNICOM <b>122.8 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LNAV MDA	1020-1	600 (600-1)	1020-1½ 600 (600-1½)	NA
CIRCLING	1020-1	600 (600-1)	1020-1½ 600 (600-1½)	NA

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SOUTH BOSTON, VIRGINIA

AL-5112 (FAA)

14233

VORTAC SBV <b>110.4</b> Chan 41	APP CRS <b>081°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>420</b>
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**VOR-A**

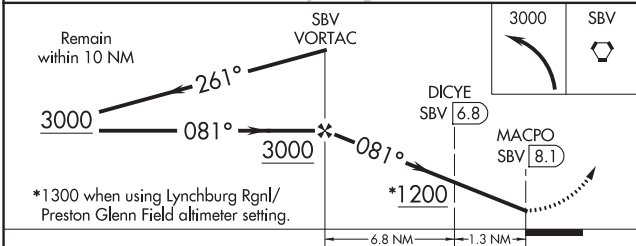
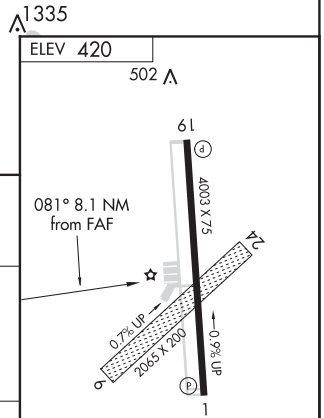
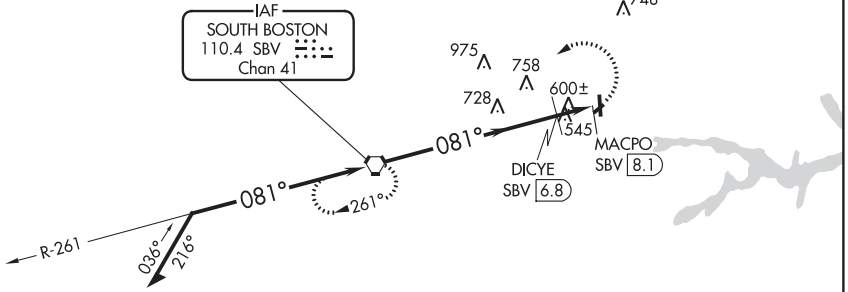
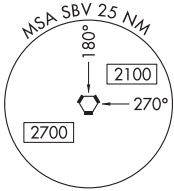
WILLIAM M. TUCK (W78)

**NA** Use Danville Rgnl altimeter setting, when not received, use Lynchburg Rgnl/Preston Glenn Field altimeter setting and increase all MDA 100 feet, and increase all Cat C visibility ¼ mile. Circling Rwys 6, 19, and 24 NA at night. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climbing left turn to 3000 direct SBV VORTAC and hold.

AWOS-3 <b>119.425</b>	WASHINGTON CENTER <b>124.05 307.0</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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NoPT for arrival on SBV VORTAC  
airway radials 236 CW 252.



CATEGORY	A	B	C	D	
CIRCLING	1200-1 780 (800-1)	1200-1¼ 780 (800-1¼)	1200-2¼ 780 (800-2¼)	NA	
DICYE FIX MINIMUMS					
CIRCLING	980-1	560 (600-1)	980-1½ 560 (600-1½)	NA	
FAF to MAP 8.1 NM					
Knots	60	90	120	150	180
Min:Sec	8:06	5:24	4:03	3:14	2:42

SOUTH BOSTON, VIRGINIA  
Amdt 8B 21AUG14

36°43'N-78°51'W

WILLIAM M. TUCK (W78)

**VOR-A**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>63118</b> <b>W01A</b>	APP CRS <b>007°</b>	Rwy Idg TDZE <b>5002</b> <b>417</b> Apt Elev <b>441</b>
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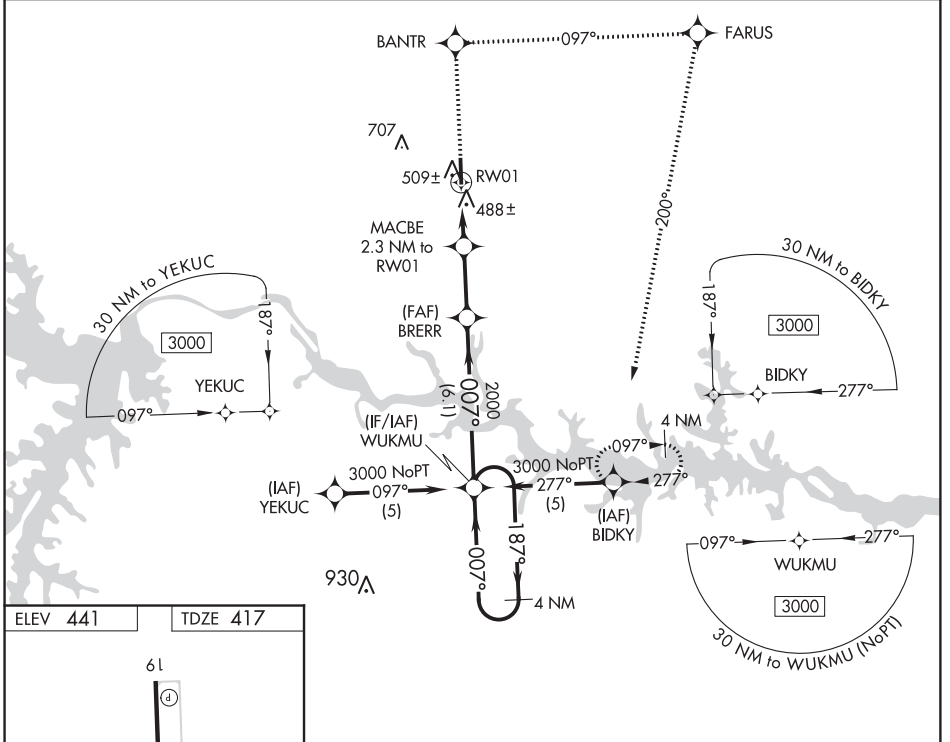
# RNAV (GPS) RWY 1

MECKLENBURG-BRUNSWICK RGNL (A/C)

**⚠** When local altimeter setting not received, use Oxford altimeter setting and increase all MDA 100 feet; increase LNAV Cats C and D and Circling Cat D visibility ¼ mile. DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:** Climb to 3000 direct BANTR and on track 097° to FARUS and right turn on track 200° to BIDKY and hold.

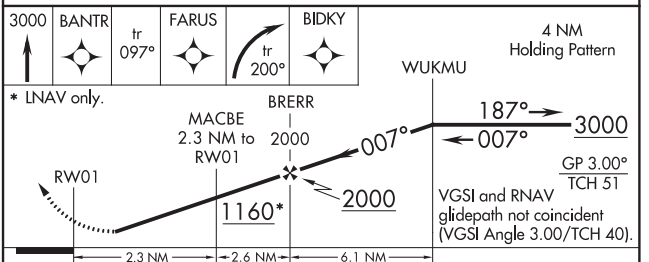
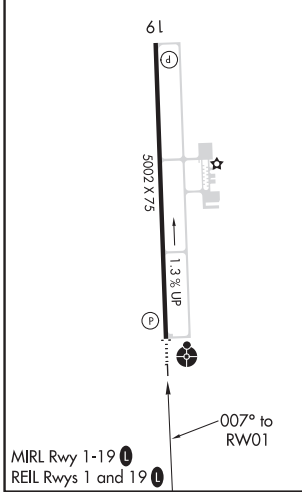
AWOS-3 <b>127.525</b>	WASHINGTON CENTER <b>118.75 377.1</b>	GCO <b>135.075</b>	UNICOM <b>122.8</b> (CTAF) <b>📞</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV <b>441</b>	TDZE <b>417</b>
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CATEGORY	A	B	C	D
LNAV MDA	760-1 343 (400-1)			760-1¼ 343 (400-1¼)
CIRCLING	860-1 419 (500-1)	900-1 459 (500-1)	900-1½ 459 (500-1½)	1060-2 619 (700-2)

WAAS CH <b>93718</b> <b>W19A</b>	APP CRS <b>187°</b>	Rwy Idg <b>5002</b> TDZE <b>441</b> Apt Elev <b>441</b>
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# RNAV (GPS) RWY 19

MECKLENBURG-BRUNSWICK RGNL (AVC)

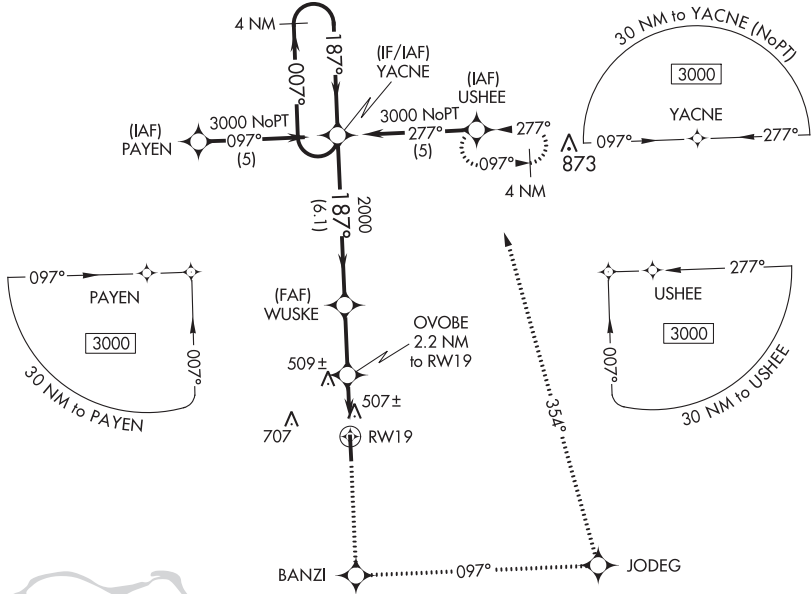
**⚠** Baro-VNAV NA when using Oxford altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. When local altimeter setting not received use Oxford altimeter setting and increase all DA 82 feet and all MDA 100 feet, increase LPV all Cats, LNAV Cat C, and Circling Cat D visibility ¼ mile, increase LNAV-VNAV all Cats and LNAV Cat D visibility ½ mile. Helicopter visibility reduction below 1 SM NA.

**MISSED APPROACH:** Climb to 3000 direct BANZI and left turn on track 097° to JODEG and left turn on track 354° to USHEE and hold.

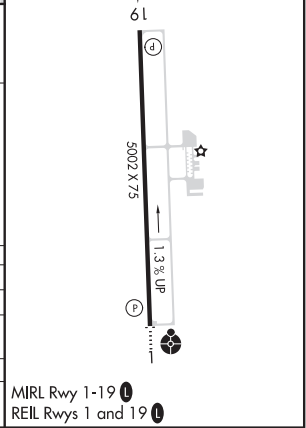
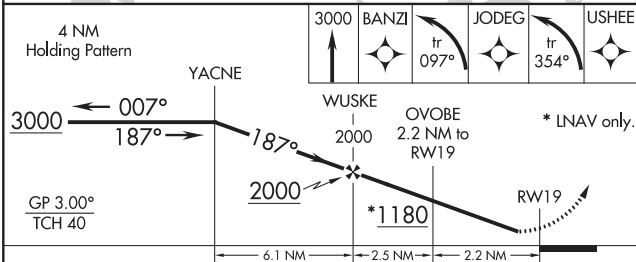
AWOS-3 <b>127.525</b>	WASHINGTON CENTER <b>118.75 377.1</b>	GCO <b>135.075</b>	UNICOM <b>122.8</b> (CTAF) <b>📶</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 441	TDZE 441
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CATEGORY	A	B	C	D
LPV DA		691-1	250 (300-1)	
LNAV/VNAV DA		820-1¼	379 (400-1¼)	
LNAV MDA		780-1	339 (400-1)	
CIRCLING	860-1 419 (500-1)	900-1 459 (500-1)	900-1½ 459 (500-1½)	1060-2 619 (700-2)

MRL Rwy 1-19 **📶**  
REIL Rws 1 and 19 **📶**

LOC I-AVC <b>110.5</b>	APP CRS <b>007°</b>	Rwy Idg <b>5002</b>
		TDZE <b>417</b>
		Apt Elev <b>441</b>

# LOC RWY 1

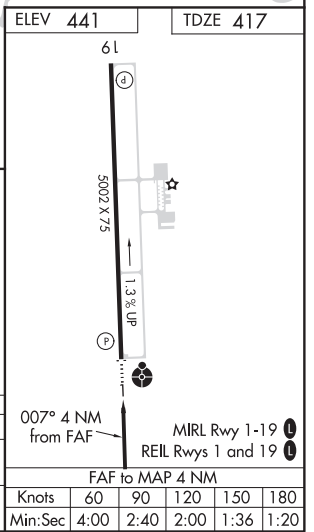
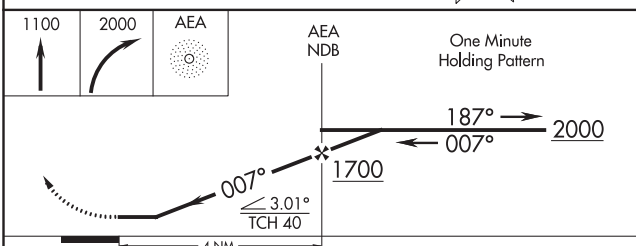
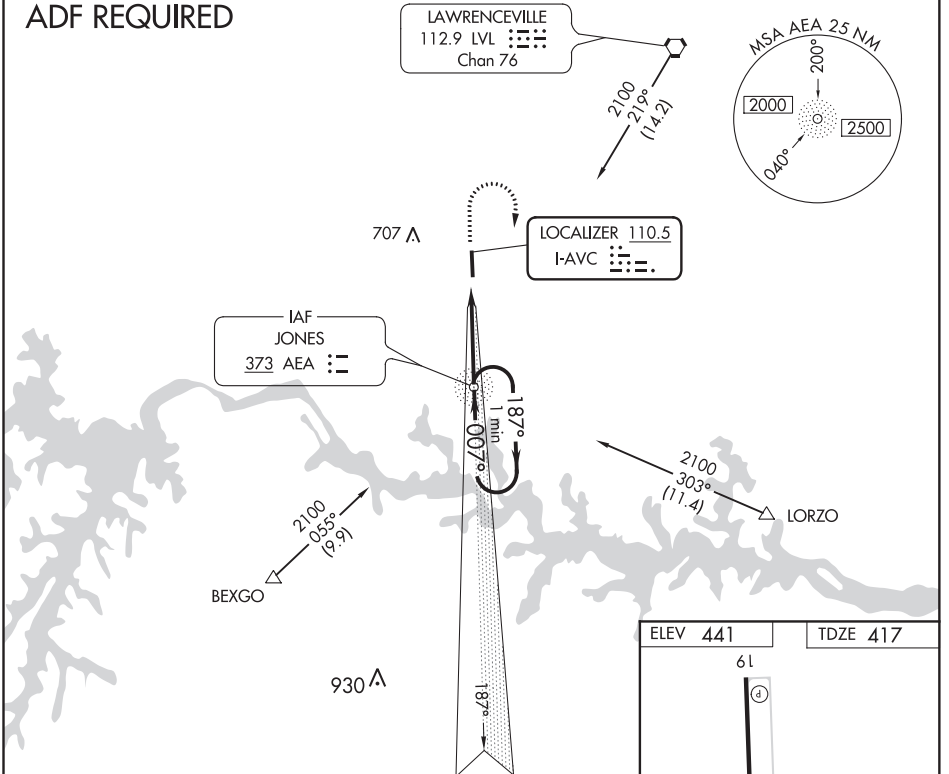
MECKLENBURG-BRUNSWICK RGNL (A VC)

⚠ When local altimeter setting not received, use Oxford altimeter setting and increase all MDA 100, increase S-1 Cat C and Cat D and Circling Cat D visibility ¼ mile. Helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 1100 then climbing right turn to 2000 direct AEA NDB and hold.

AWOS-3 <b>127.525</b>	WASHINGTON CENTER <b>118.75 377.1</b>	GCO <b>135.075</b>	UNICOM <b>122.8</b> (CTAF) <b>0</b>
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## ADF REQUIRED



CATEGORY	A	B	C	D
S-1	800-1	383 (400-1)		800-1 ¼ 383 (400-1 ¼)
CIRCLING	860-1 419 (500-1)	900-1 459 (500-1)	900-1 ½ 459 (500-1 ½)	1060-2 619 (700-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

STAFFORD, VIRGINIA

AL-9743 (FAA)


16315

LOC/DME I-RMN <b>108.75</b> Chan 24 (Y)	APP CRS <b>329°</b>	Rwy Idg <b>5000</b> TDZE <b>196</b> Apt Elev <b>212</b>
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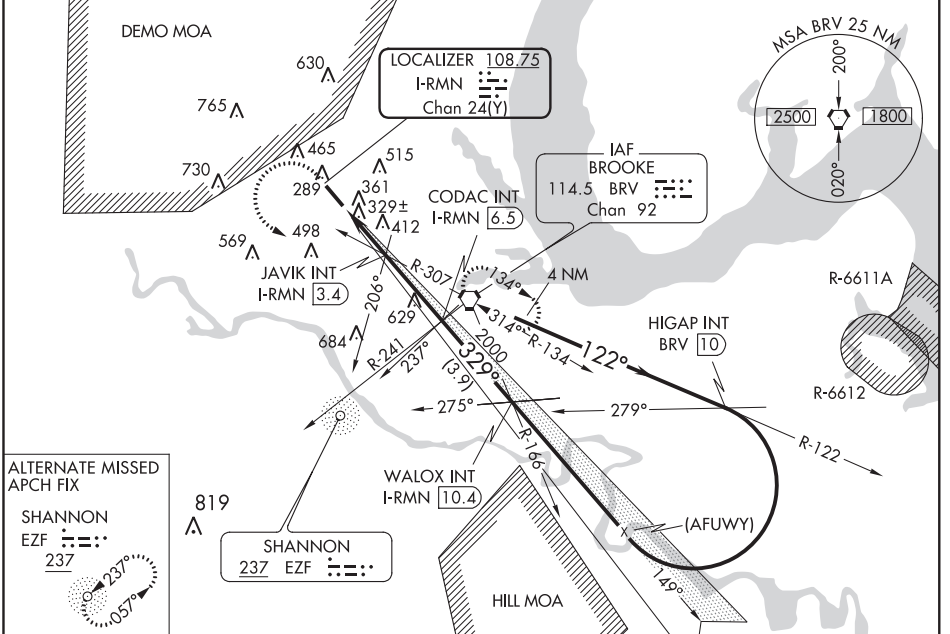
# ILS or LOC RWY 33

STAFFORD RGNL (RMN)

**▽** If local altimeter setting not received, use Shannon, Fredericksburg, VA altimeter setting and increase all DH/MDAs 40 feet.  
**△NA** Inoperative table does not apply to S-ILS 33 and to S-LOC Cats B and C. DME or ADF required.

MALS  MISSED APPROACH: Climb to 600 then climbing left turn to 2000 direct BRV VORTAC and hold.

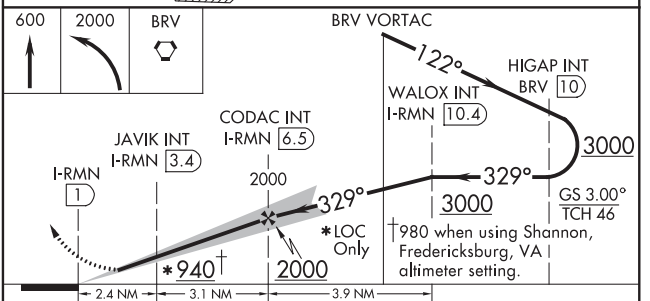
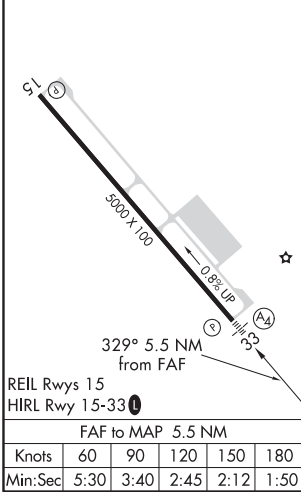
AWOS-3 <b>126.325</b>	POTOMAC APP CON <b>128.525 306.925</b>	GCO <b>135.075</b>	UNICOM <b>122.725 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 212	TDZE 196
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	2.4 NM	3.1 NM	3.9 NM	
CATEGORY	A	B	C	D
S-ILS 33		396- <sup>3</sup> / <sub>4</sub>	200 (200- <sup>3</sup> / <sub>4</sub> )	
S-LOC 33		580- <sup>3</sup> / <sub>4</sub>	384 (400- <sup>3</sup> / <sub>4</sub> )	580-1 <sup>1</sup> / <sub>4</sub> 384 (400-1 <sup>1</sup> / <sub>4</sub> )
CIRCLING	720-1 508 (600-1)	740-1 528 (600-1)	840-1 <sup>3</sup> / <sub>4</sub> 628 (700-1 <sup>3</sup> / <sub>4</sub> )	860-2 648 (700-2)

STAFFORD, VIRGINIA  
Orig-A 03APR14

38°24'N - 77°27'W

# STAFFORD RGNL (RMN) ILS or LOC RWY 33

WAAS CH <b>81805</b> <b>W33A</b>	APP CRS <b>329°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>196</b> <b>212</b>
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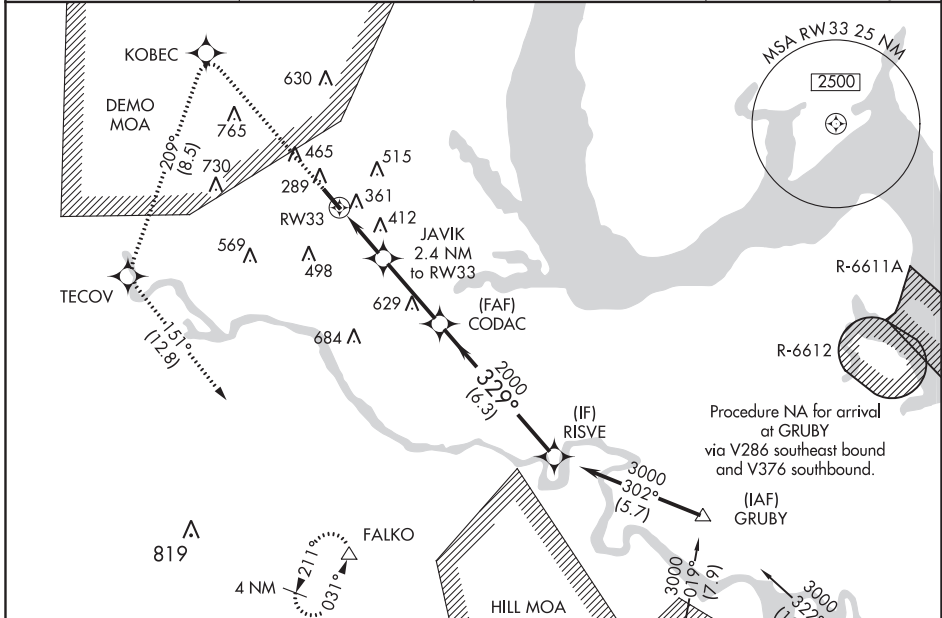
# RNAV (GPS) RWY 33

STAFFORD RGNL (RMN)

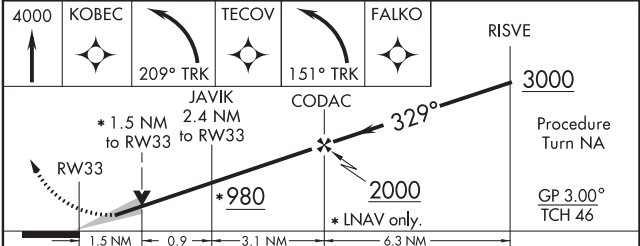
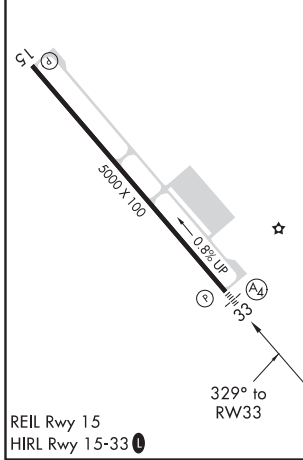
**NA** If local altimeter setting not received, use Shannon, Fredericksburg, VA altimeter setting and increase all DAs/MDAs 40 feet. Baro/VNAV NA below -15°C (5°F). VDP and Baro-VNAV NA when using Shannon, Fredericksburg, VA altimeter setting. Inoperative table does not apply to LNAV Cat C. DME/DME RNP-0.3 NA.

**MALS** MISSED APPROACH: Climb to 4000 direct KOBEC and left turn via 209° track to TECOV and left turn via 151° track to FALCO and hold.

AWOS-3 <b>126.325</b>	POTOMAC APP CON <b>128.525 306.925</b>	GCO <b>135.075</b>	UNICOM <b>122.725 (CTAF)</b>
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ELEV 212	TDZE 196
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CATEGORY	A	B	C	D
LPV DA	450-¾	254 (300-¾)		450-1 254 (300-1)
LNAV/ VNAV DA	460-¾	264 (300-¾)		460-1 264 (300-1)
LNAV MDA	700-¾	504 (500-¾)	700-1½	504 (500-1½)
CIRCLING	720-1 508 (600-1)	740-1 528 (600-1)	840-1¾ 628 (700-1¾)	880-2 668 (700-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

STAFFORD, VIRGINIA

AL-9743 (FAA)

16315

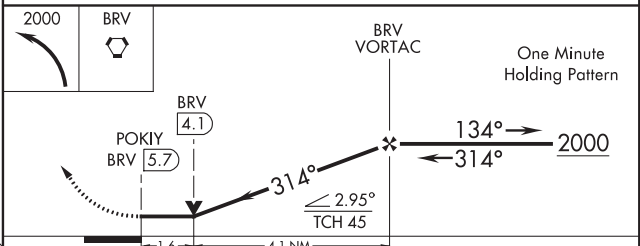
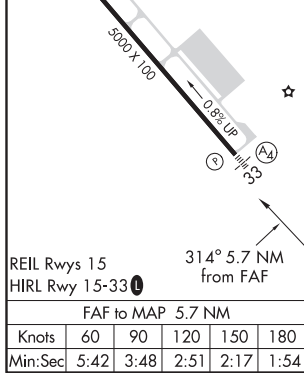
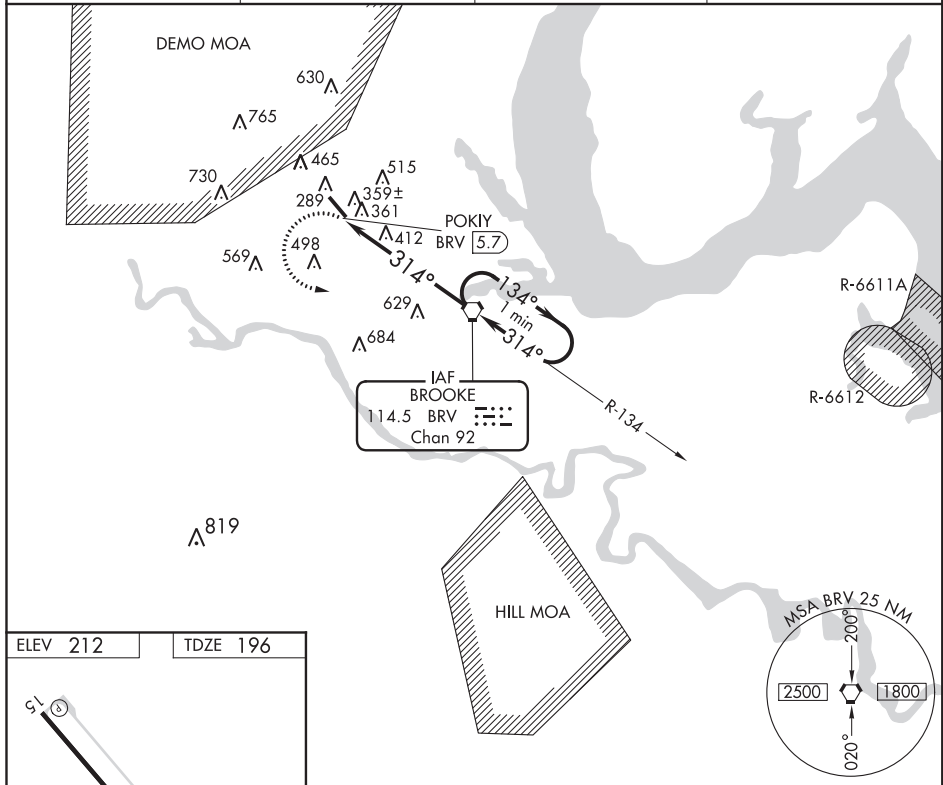
VORTAC BRV <b>114.5</b> Chan <b>92</b>	APP CRS <b>314°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>196</b> <b>212</b>
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**VOR RWY 33**  
STAFFORD RGNL (RMN)

▼ If local altimeter setting not received, use Shannon, Fredericksburg, VA altimeter setting and increase all MDAs 40 feet. VDP NA with Shannon, Fredericksburg, VA altimeter setting. Inoperative table does not apply to Cat C.

MALS  $(A_4) \equiv$  MISSED APPROACH: Climbing left turn to 2000 direct BRV VORTAC and hold.

AWOS-3 <b>126.325</b>	POTOMAC APP CON <b>128.525 306.925</b>	GCO <b>135.075</b>	UNICOM <b>122.725 (CTAF)</b>
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CATEGORY	A	B	C	D
S-33	740-¾ 544 (600-¾)		740-1½ 544 (600-1½)	740-1¾ 544 (600-1¾)
CIRCLING	740-1 528 (600-1)		840-1¾ 628 (700-1¾)	860-2 648 (700-2)

STAFFORD, VIRGINIA  
Amdt 1 22DEC05

38°24'N - 77°27'W

STAFFORD RGNL (RMN)  
**VOR RWY 33**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017





WAAS CH <b>81913</b> <b>W05A</b>	APP CRS <b>047°</b>	Rwy Idg TDZE Apt Elev	<b>6002</b> <b>1184</b> <b>1201</b>
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AL-5369 (FAA)

# RNAV (GPS) RWY 5

SHENANDOAH VALLEY RGNL (SHD)

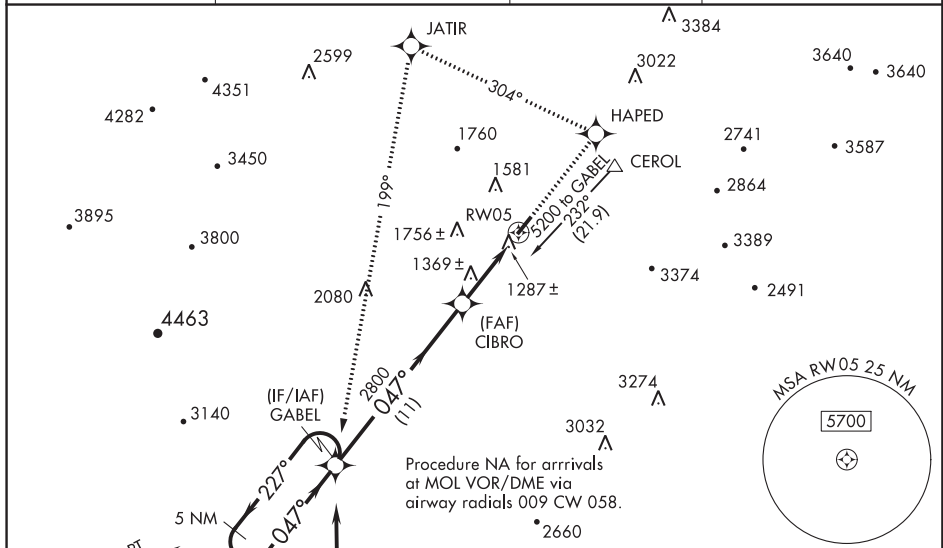
**⚠** For inoperative MALSR when using Charlottesville altimeter setting, increase LPV visibility to 1/2 mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Charlottesville altimeter setting. When local altimeter setting not received, use Charlottesville altimeter setting and increase all DA 130 feet, all MDA 140 feet. Increase LPV all Cats visibility 1/2 mile, LNAV/VNAV all Cats 1/2 mile, LNAV Cat C/D 1/4 mile and Circling Cat D 1/2 mile.

**MALSR**  
AS

**MISSED APPROACH:** Climb to 5200 direct HAPED and left turn via track 304° to JATIR and left turn via track 199° to GABEL and hold.

23°C/-9°F

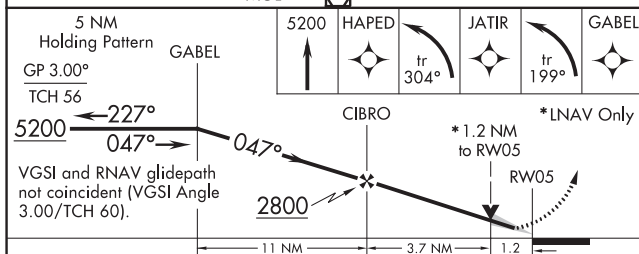
AWOS-3 <b>124.925</b>	POTOMAC APP CON <b>132.85 323.125</b>	CLNC DEL <b>118.35</b>	UNICOM <b>123.0 (CTAF)</b>
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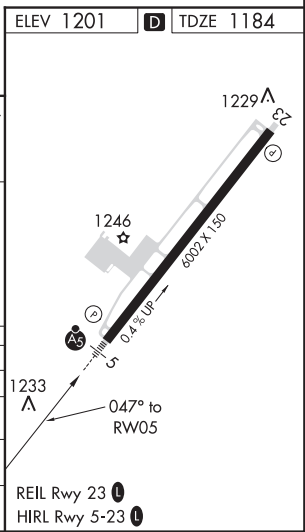
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 1201	TDZE 1184
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CATEGORY	A	B	C	D
LPV DA	1384-1/2 200 (200-1/2)			
LNAV/VNAV DA	1563-3/4 379 (400-3/4)			
LNAV MDA	1620-1/2 436 (500-1/2)	1620-3/4 436 (500-3/4)		1620-1 436 (500-1)
CIRCLING	1620-1 419 (500-1)	1660-1 459 (500-1)	1660-1/2 459 (500-1/2)	1820-2 619 (700-2)



AL-5369 (FAA)

# RNAV (GPS) RWY 23

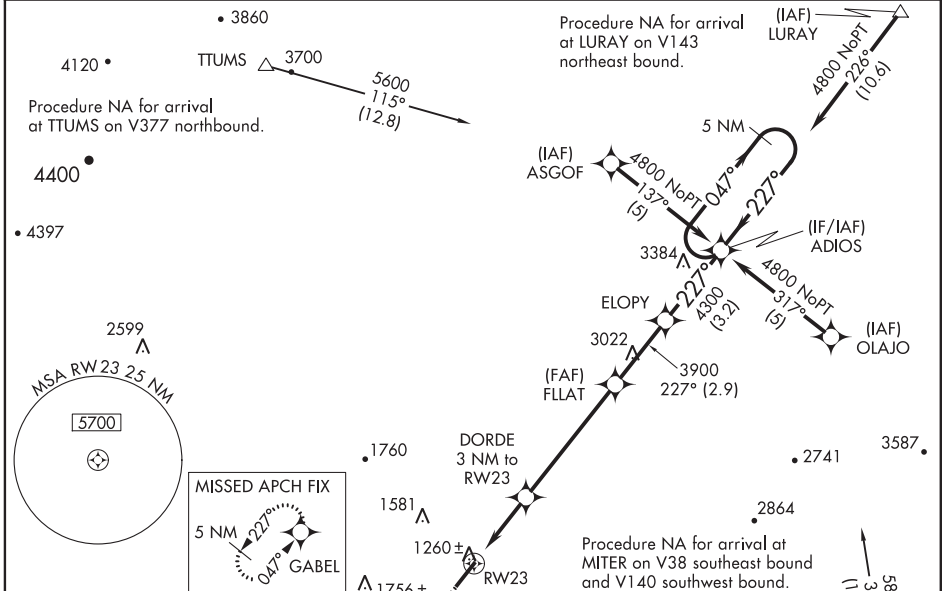
SHENANDOAH VALLEY RGNL (SHD)

WAAS CH <b>78113</b> <b>W23A</b>	APP CRS <b>227°</b>	Rwy Idg TDZE Apt Elev	<b>6002</b> <b>1201</b> <b>1201</b>
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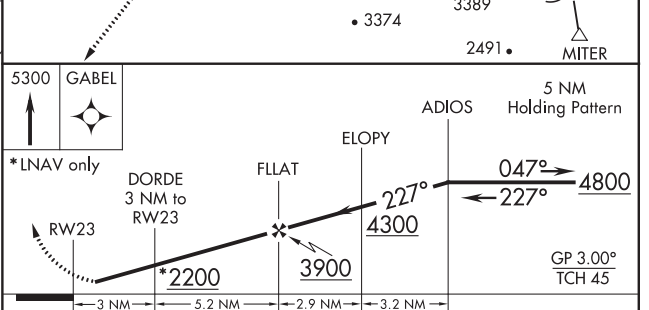
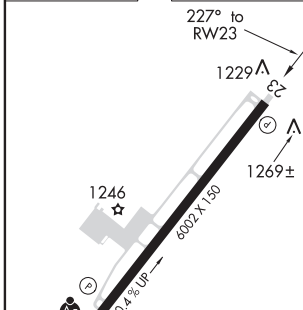
**Baro-VNAV NA** when using Charlottesville altimeter setting.  
 For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 47°C (116°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Charlottesville altimeter setting and increase all DA 130 feet, all MDA 140 feet. Increase LPV and LNAV/VNAV all Cats visibility ¼ mile, LNAV Cat C visibility ¼ mile and LNAV Cat D and MISSED APPROACH: Climb to 5300 direct GABEL and hold, continue climb-in-hold to 5300.

**23** -23°C/-9°F Circling Cat D visibility ½ mile.

AWOS-3 <b>124.925</b>	POTOMAC APP CON <b>132.85 323.125</b>	CLNC DEL <b>118.35</b>	UNICOM <b>123.0 (CTAF) 0</b>
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ELEV 1201	<b>D</b>	TDZE 1201
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CATEGORY	A	B	C	D
LPV DA		1451-1	250 (300-1)	
LNAV/VNAV DA		1530-1¼	329 (400-1¼)	
LNAV MDA		1520-1	319 (400-1)	
CIRCLING	1600-1	1660-1	1660-1½	1820-2
	399 (400-1)	459 (500-1)	459 (500-1½)	619 (700-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

STAUNTON-WAYNESBORO-HARRISONBURG, VIRGINIA

15344

LOM SH <b>375</b>	APP CRS <b>047°</b>	Rwy Idg 6002
		TDZE 1184
		Apt Elev 1201

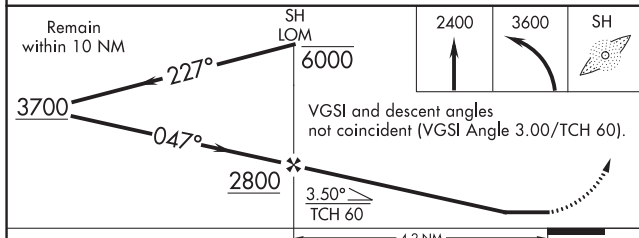
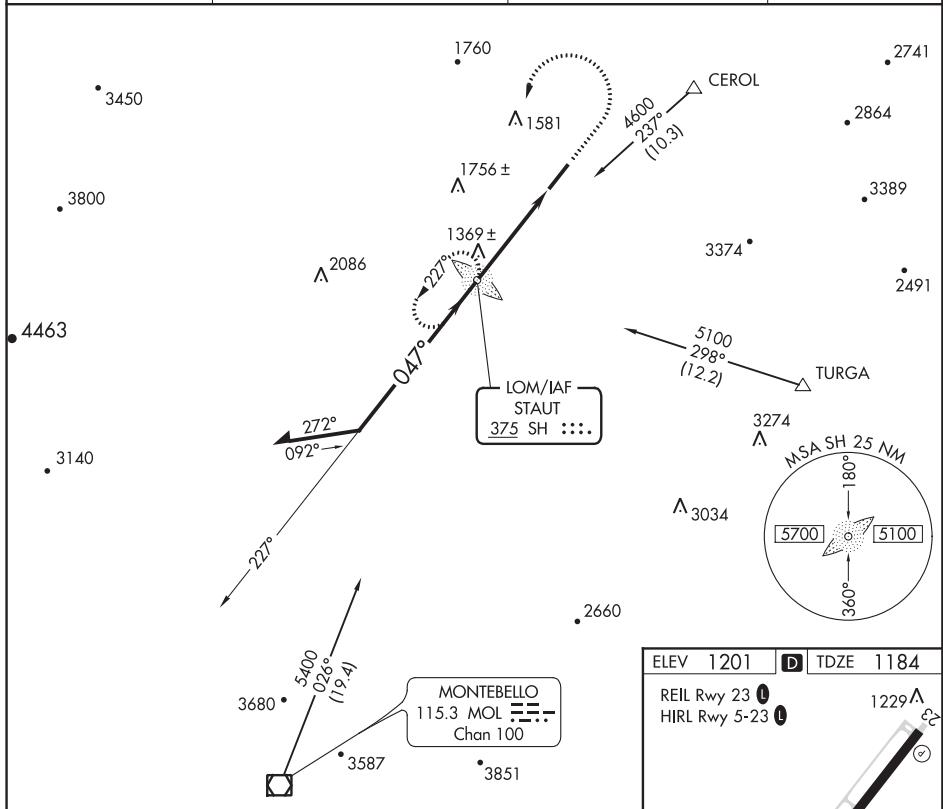
AL-5369 (FAA)

# NDB RWY 5

SHENANDOAH VALLEY RGNL (SHD)

	When local altimeter setting not received, use Charlottesville altimeter setting: increase all MDAs 140 feet and visibility S-5 and Circling Cat C/D ½ mile.	MALSR 	MISSED APPROACH: Climb to 2400 then climbing left turn to 3600 direct SH LOM and hold.
	-23°C/-9°F		

AWOS-3 <b>124.925</b>	POTOMAC APP CON <b>132.85 323.125</b>	CLNC DEL <b>118.35</b>	UNICOM <b>123.0 (CTAF) 0</b>
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ELEV 1201	TDZE 1184
REIL Rwy 23	1229
HIRL Rwy 5-23	

FAF to MAP 4.2 NM					
Knots	60	90	120	150	180
Min:Sec	4:12	2:48	2:06	1:41	1:24

CATEGORY	A	B	C	D
S-5	1760-¾ 576 (600-¾)		1760-1 576 (600-1)	1760-1½ 576 (600-1½)
CIRCLING	1760-1 559 (600-1)		1760-1½ 559 (600-1½)	1820-2 619 (700-2)

STAUNTON-WAYNESBORO-HARRISONBURG, VIRGINIA  
Amdt 10 27AUG09

SHENANDOAH VALLEY RGNL (SHD)  
**NDB RWY 5**

38°16'N-78°54'W

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(SNDOA3.SNDOA) 16315

SL-5369 (FAA)

SHENANDOAH VALLEY RGNL (SHD)

# SHENANDOAH THREE DEPARTURE

STAUNTON/WAYNESBORO/HARRISONBURG, VIRGINIA

AWOS-3  
124.925  
CTAF  
123.0  
CLNC  
118.35  
POTOMAC DEP CON  
132.85 323.125

**TOP ALTITUDE:  
6000**

**TAKEOFF MINIMUMS:**

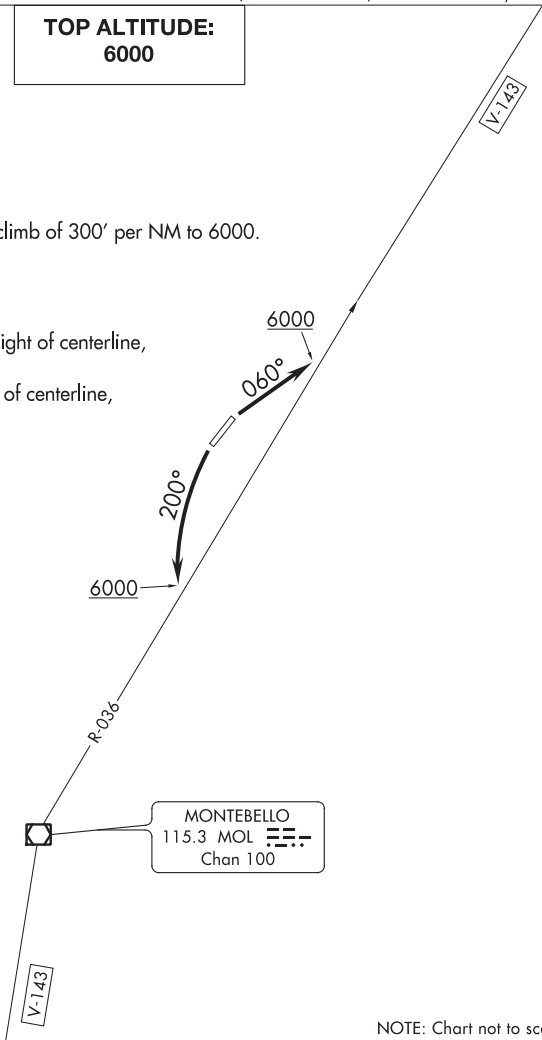
Rwys 5, 23: Standard with minimum climb of 300' per NM to 6000.

**TAKEOFF OBSTACLE NOTES:**

Rwy 5: Trees 1720' from DER, 635' right of centerline, up to 100' AGL/1279' MSL.

Rwy 23: Tree 679' from DER, 616' left of centerline, 35' AGL/1194' MSL.

NOTE: RADAR required.



NOTE: Chart not to scale.



## DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 5:** Climb heading 060° to 6000 to intercept MOL VOR/DME R-036 outbound, thence....

**TAKEOFF RUNWAY 23:** Climbing left turn to 6000 heading 200° to intercept MOL VOR/DME R-036 inbound, thence....

....expect radar vectors to filed/assigned route. Expect clearance to filed altitude/flight level 10 minutes after departure.

# SHENANDOAH THREE DEPARTURE

(SNDOA3.SNDOA) 10NOV16

SHENANDOAH VALLEY RGNL (SHD)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>2713</b>
<b>129°</b>	TDZE	<b>15</b>
	Apt Elev	<b>15</b>

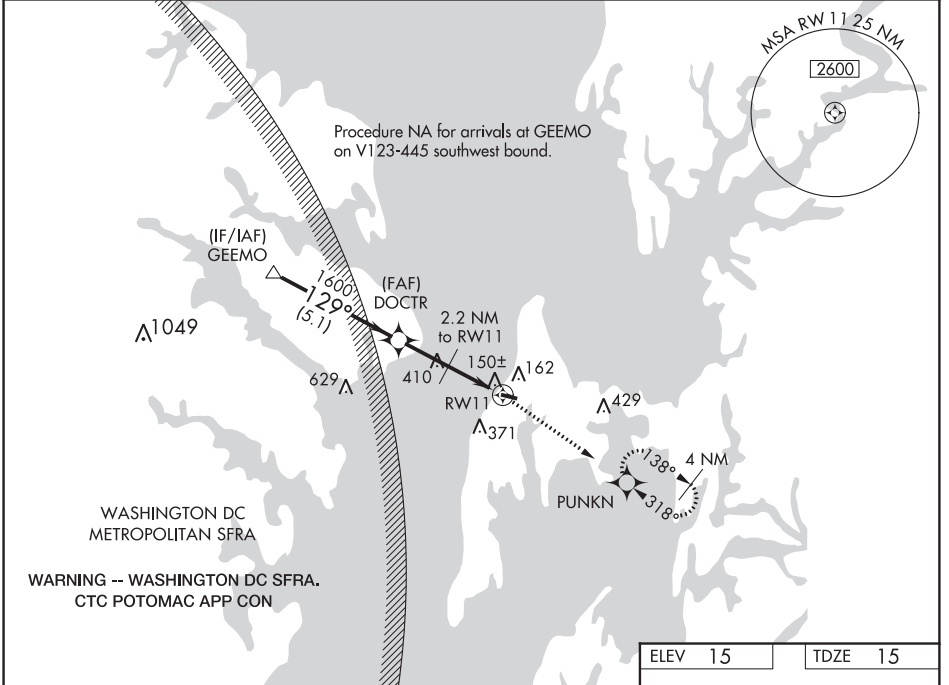
# RNAV (GPS) RWY 11

BAY BRIDGE (W29)

**▼** When local altimeter setting not received, use Easton/Newnam Field altimeter setting. DME/DME RNP-0.3 NA.

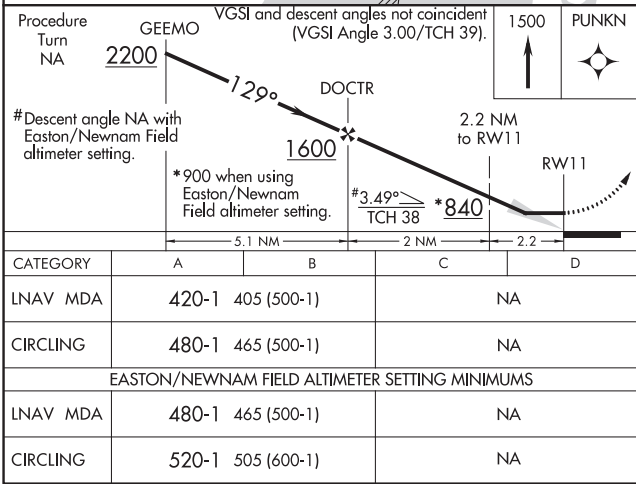
**▲** NA MISSED APPROACH: Climb to 1500 direct PUNKN WP and hold.

AWOS-3 <b>120.575</b>	POTOMAC APP CON <b>119.0 282.275</b>	UNICOM <b>122.725</b> (CTAF) <b>0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV	15	TDZE	15
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129° to RWY 11

40±

0.3% UP

2713 X 60

31±

REIL Rwy 11 and 29 **0**  
MIRL Rwy 11-29 **0**

APP CRS <b>294°</b>	Rwy Idg <b>2713</b>
	TDZE <b>15</b>
	Apt Elev <b>15</b>

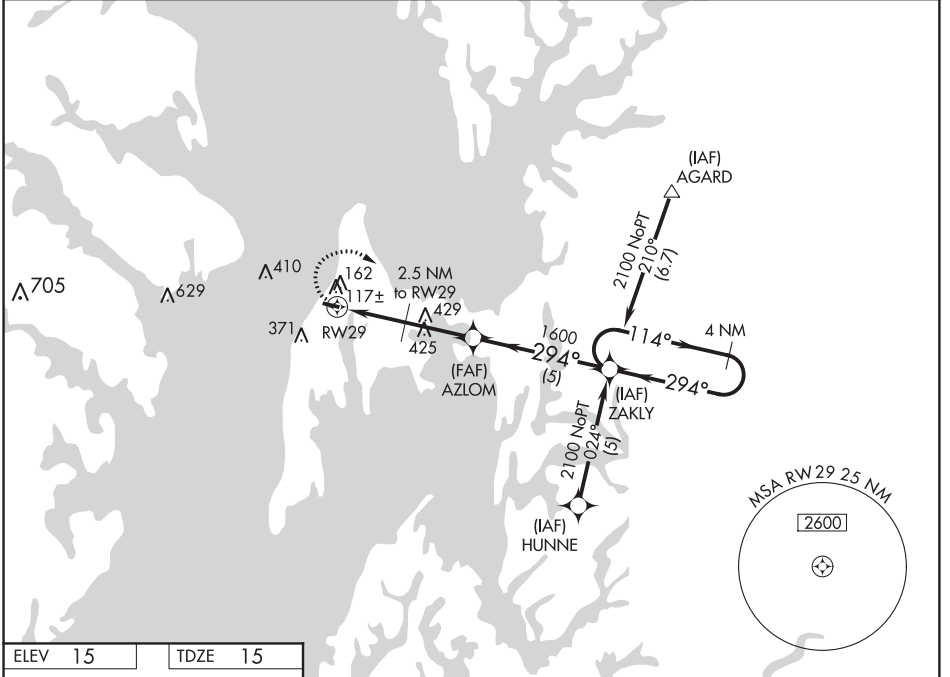
# RNAV (GPS) RWY 29

BAY BRIDGE (W29)

**▽** When local altimeter setting not received, use Easton/Newnam Field altimeter setting. DME/DME RNP-0.3 NA.

**△** NA MISSED APPROACH: Climbing right turn to 2100 direct ZAKLY WP and hold.

AWOS-3 <b>120.575</b>	POTOMAC APP CON <b>119.0 282.275</b>	UNICOM <b>122.725 (CTAF) 0</b>
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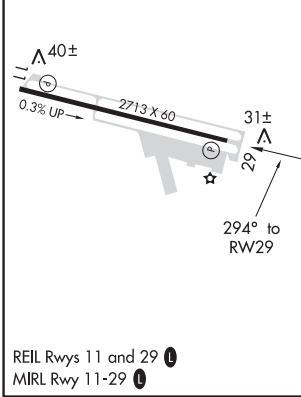
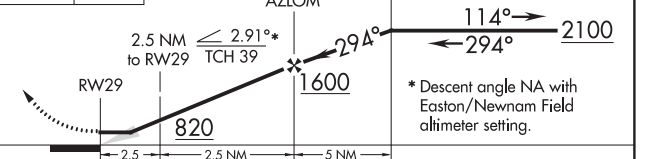


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 15	TDZE 15
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**2100** **ZAKLY** VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 30). **4 NM Holding Pattern**



CATEGORY	A	B	C	D
LNAV MDA	380-1	365 (400-1)		NA
CIRCLING	480-1	465 (500-1)		NA
EASTON/NEWMAM FIELD ALTIMETER SETTING MINIMUMS				
LNAV MDA	420-1	405 (500-1)		NA
CIRCLING	520-1	505 (600-1)		NA

WAAS CH <b>65824</b> <b>W04A</b>	APP CRS <b>040°</b>	Rwy Idg TDZE Apt Elev	<b>5007</b> <b>66</b> <b>70</b>
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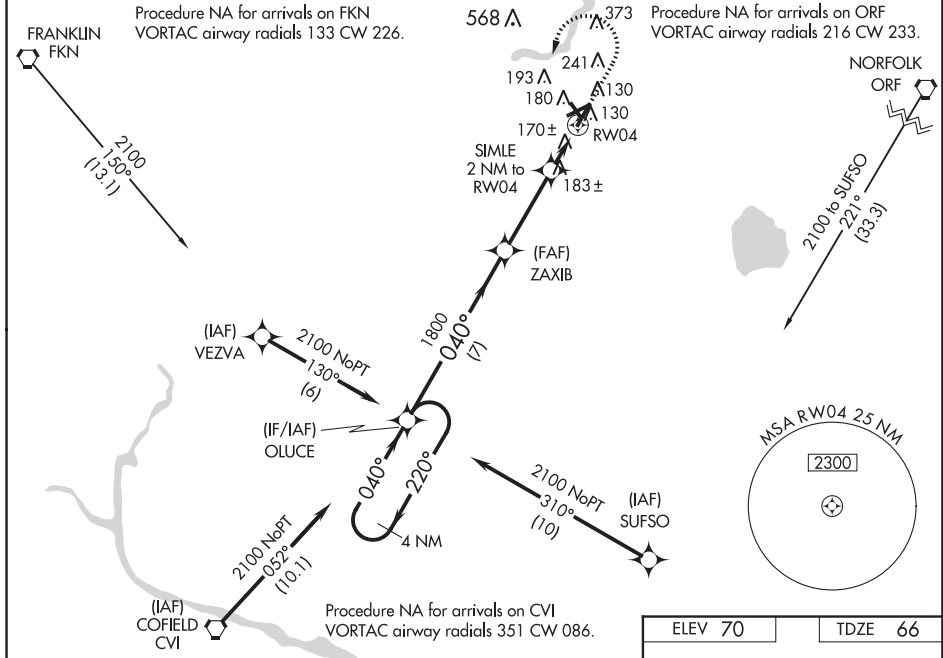
# RNAV (GPS) RWY 4

SUFFOLK EXECUTIVE (SFQ)

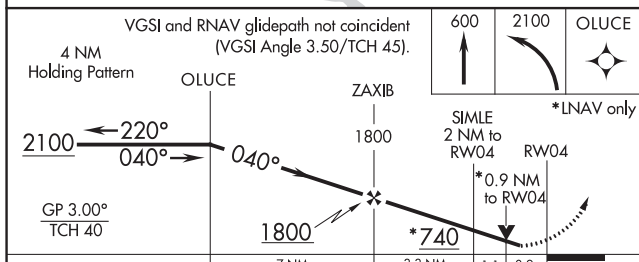
**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all DA and MDA 60 feet; increase LNAV/VNAV all Cats and LNAV Cat C visibility 1/4 mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). Night landing: Rwy 25 NA. VDP NA when using Norfolk Intl altimeter setting.

**MISSED APPROACH:** Climb to 600 then climbing left turn to 2100 direct OLUCE and hold.

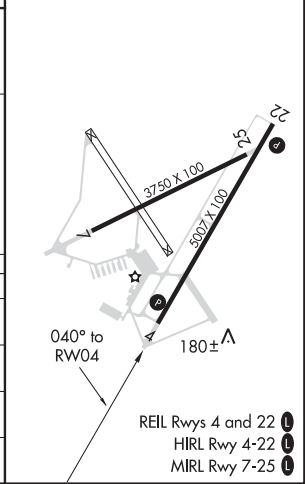
AWOS-3 <b>119.375</b>	NORFOLK APP CON <b>127.9 269.42</b>	GCO <b>135.075</b>	UNICOM <b>122.7 (CTAF)</b>
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ELEV 70	TDZE 66
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CATEGORY	A	B	C	D
LPV DA	319-1	253 (300-1)		NA
LNAV/VNAV DA	444-1 1/4	378 (400-1 1/4)		NA
LNAV MDA	440-1	374 (400-1)		NA
CIRCLING	500-1 430 (500-1)	560-1 490 (500-1)	560-1 1/2 490 (500-1 1/2)	NA



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>78424</b> <b>W07A</b>	APP CRS <b>074°</b>	Rwy Idg <b>3750</b> TDZE <b>68</b> Apt Elev <b>70</b>
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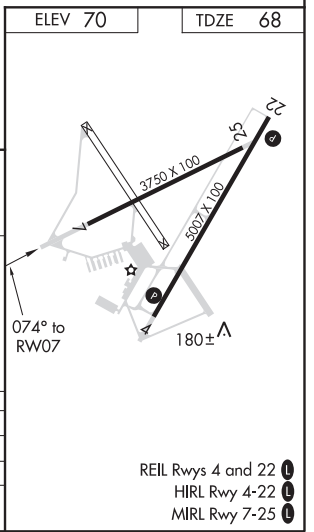
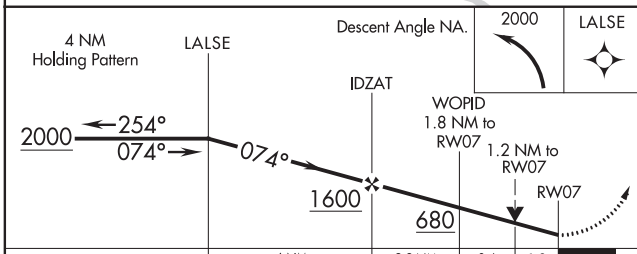
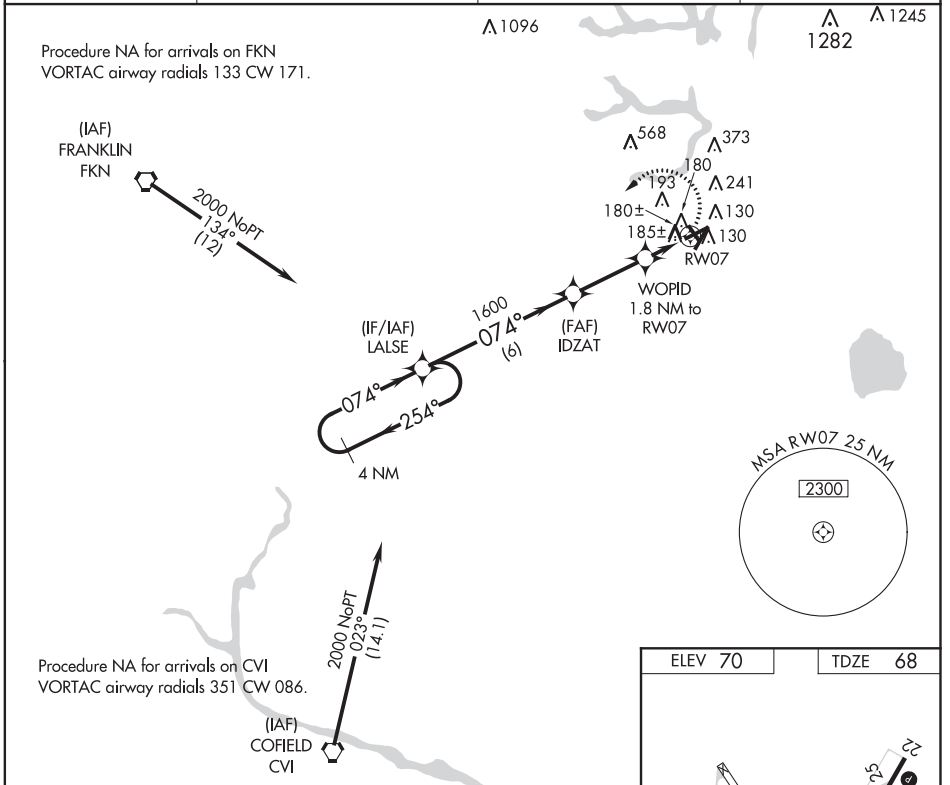
# RNAV (GPS) RWY 7

SUFFOLK EXECUTIVE (SFQ)

**⚠** DME/DME RNP-0.3 NA, VDP NA with Norfolk Intl altimeter setting. When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all MDA 60 feet. Helicopter visibility reduction below 3/4 SM NA. Night landing: Rwy 25 NA.

**⚠** MISSED APPROACH: Climbing left turn to 2000 direct LALSE and hold.

AWOS-3 <b>119.375</b>	NORFOLK APP CON <b>127.9 269.42</b>	GCO <b>135.075</b>	UNICOM <b>122.7 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LP MDA	480-1	412 (500-1)		NA
LNAY MDA	480-1	412 (500-1)		NA
CIRCLING	500-1 430 (500-1)	560-1 490 (500-1)		NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

SUFFOLK, VIRGINIA

AL-6498 (FAA)

16315

WAAS CH <b>99325</b> <b>W22A</b>	APP CRS <b>220°</b>	Rwy Idg <b>5007</b> TDZE <b>69</b> Apt Elev <b>70</b>
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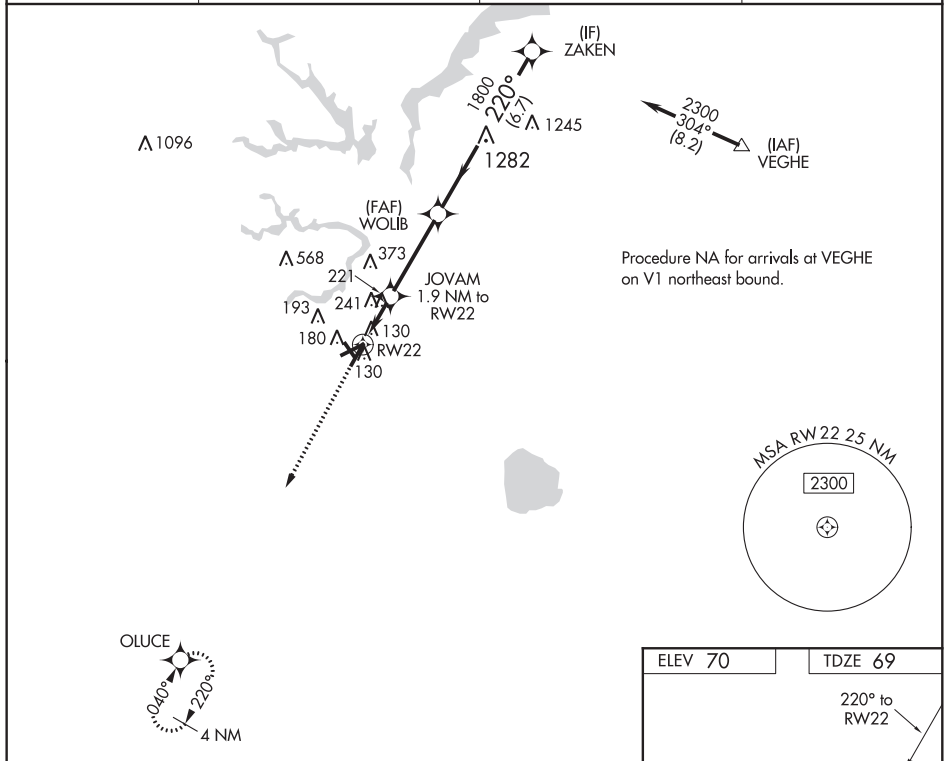
# RNAV (GPS) RWY 22

SUFFOLK EXECUTIVE (SFQ)

**▼** DME/DME RNP-0.3 NA. Helicopter visibility reduction below  $\frac{3}{4}$  SM NA. When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all MDA 60 feet, and increase LP Cat C visibility  $\frac{1}{4}$  mile and LNAV Cat C visibility  $\frac{1}{8}$  mile. Night landing: Rwy 25 NA.

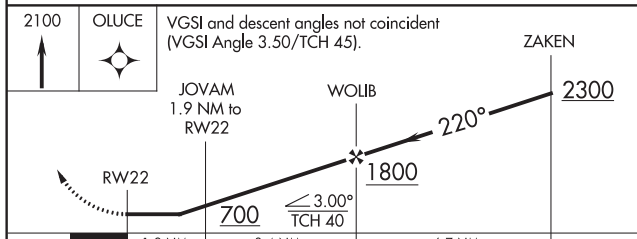
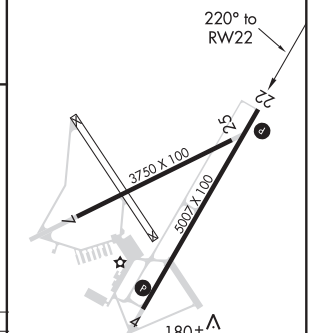
**MISSED APPROACH:**  
Climb to 2100 direct OLUCE and hold.

AWOS-3 <b>119.375</b>	NORFOLK APP CON <b>127.9 269.42</b>	GCO <b>135.075</b>	UNICOM <b>122.7 (CTAF) 0</b>
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Procedure NA for arrivals at VEGHE on V1 northeast bound.

ELEV 70	TDZE 69
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CATEGORY	A	B	C	D
LP MDA	480-1	411 (500-1)	480-1 $\frac{1}{8}$ 411 (500-1 $\frac{1}{8}$ )	NA
LNAV MDA	500-1	431 (500-1)	500-1 $\frac{1}{4}$ 431 (500-1 $\frac{1}{4}$ )	NA
CIRCLING	500-1 430 (500-1)	560-1 490 (500-1)	560-1 $\frac{1}{2}$ 490 (500-1 $\frac{1}{2}$ )	NA

REIL Rwy 4 and 22 0  
HIRL Rwy 4-22 0  
MRL Rwy 7-25 0

SUFFOLK, VIRGINIA  
Amdt 1A 20AUG15

36°41'N - 76°36'W

# RNAV (GPS) RWY 22

SUFFOLK EXECUTIVE (SFQ)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>254°</b>	Rwy Idg TDZE Apt Elev	<b>3750</b> <b>67</b> <b>70</b>
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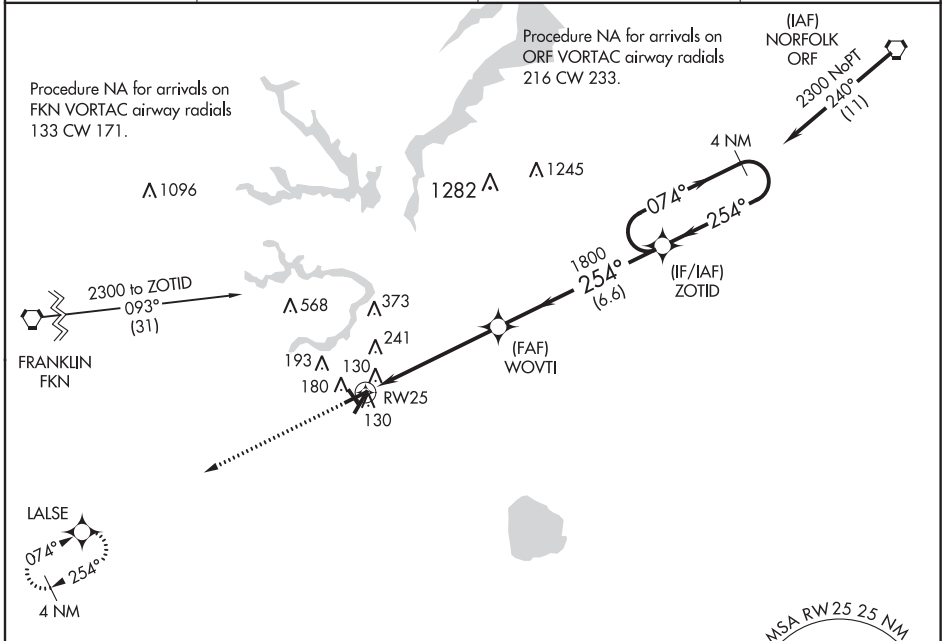
# RNAV (GPS) RWY 25

SUFFOLK EXECUTIVE (SFQ)

**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all MDA 60 feet.  
**⚠** Night landing: Rwy 25 NA.

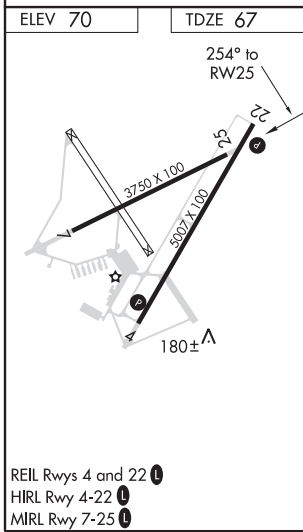
MISSED APPROACH: Climb to 2000 direct LALSE and hold.

AWOS-3 <b>119.375</b>	NORFOLK APP CON <b>127.9 269.42</b>	GCO <b>135.075</b>	UNICOM <b>122.7 (CTAF)</b> <b>📻</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



2000	LALSE	4 NM Holding Pattern			
		ZOTID			
RW25		WOVTI 1800		2300	
5.3 NM		6.6 NM		074° 254°	
3.00° TCH 40					
CATEGORY	A	B	C	D	
LNAV MDA	480-1	413 (500-1)	NA		
CIRCLING	500-1 430 (500-1)	560-1 490 (500-1)	NA		

SUFFOLK, VIRGINIA  
Amdt 1A 20AUG15

36°41'N - 76°36'W  
433

# RNAV (GPS) RWY 25

SUFFOLK EXECUTIVE (SFQ)

SUFFOLK, VIRGINIA

AL-6498 (FAA)

16315

LOC I-RKH <b>111.5</b>	APP CRS <b>037°</b>	Rwy Idg <b>5007</b> TDZE <b>66</b> Apt Elev <b>70</b>
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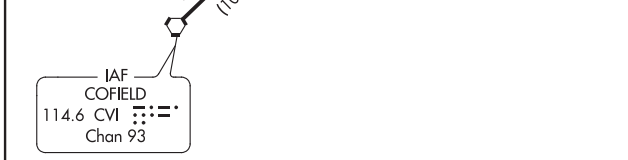
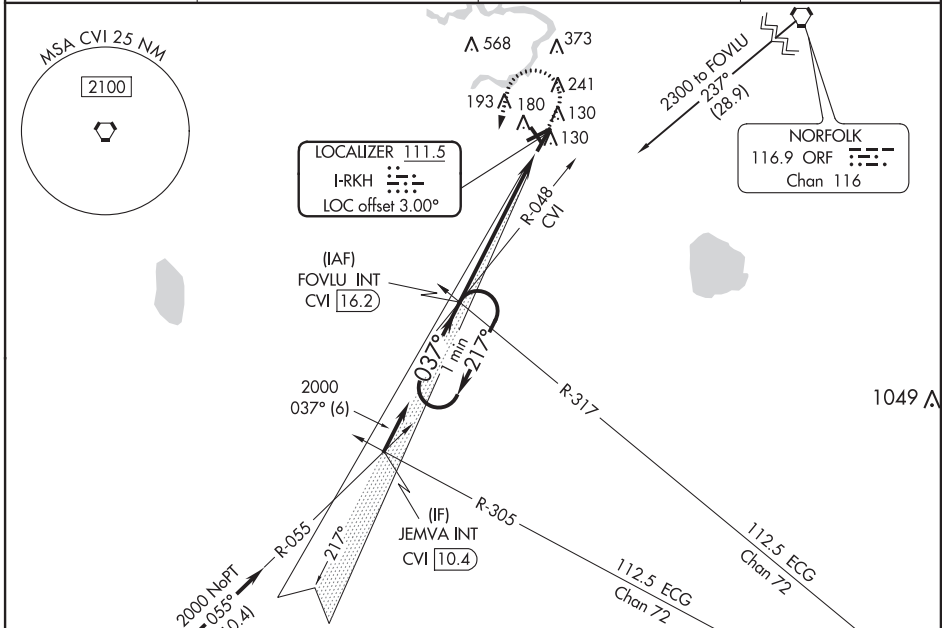
# LOC RWY 4

SUFFOLK EXECUTIVE (SFQ)

**NA** Helicopter visibility reduction below  $\frac{3}{4}$  SM NA. When local altimeter setting not received, use Norfolk Intl altimeter setting and increase all MDA 60 feet; increase S-4 Cat C visibility  $\frac{1}{4}$  mile and Circling Cat C visibility  $\frac{1}{8}$  mile. Night landing: Rwy 25 NA.

**MISSED APPROACH:** Climb to 600 then climbing left turn to 2000 on CVI VORTAC R-048 to FOVLU INT/CVI 16.2 DME and hold.

AWOS-3 <b>119.375</b>	NORFOLK APP CON <b>127.9 269.42</b>	GCO <b>135.075</b>	UNICOM <b>122.7 (CTAF)</b>
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One Minute Holding Pattern

FOVLU INT CVI 16.2

600 2000  
CVI R-048

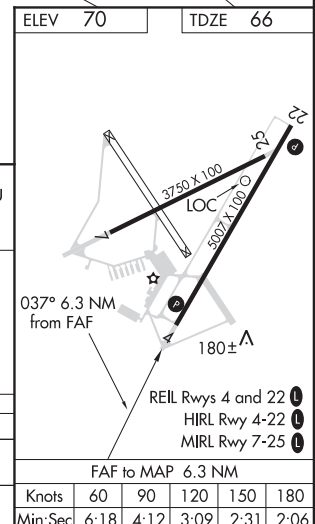
FOVLU INT

2000 ← 217°  
037° →

2.85° TCH 40

6.3 NM

VGSI and descent angles not coincident (VGSI Angle 3.50/TCH 45).



CATEGORY	A	B	C	D
S-4	560-1 494 (500-1)		560-1 $\frac{3}{8}$ 494 (500-1 $\frac{3}{8}$ )	NA
CIRCLING	560-1 490 (500-1)		560-1 $\frac{1}{2}$ 490 (500-1 $\frac{1}{2}$ )	NA

FAF to MAP 6.3 NM

Knots	60	90	120	150	180
Min:Sec	6:18	4:12	3:09	2:31	2:06

SUFFOLK, VIRGINIA  
Amdt 4A 20AUG15

36°41'N - 76°36'W

# SUFFOLK EXECUTIVE (SFQ) LOC RWY 4

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>011°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>5</b>
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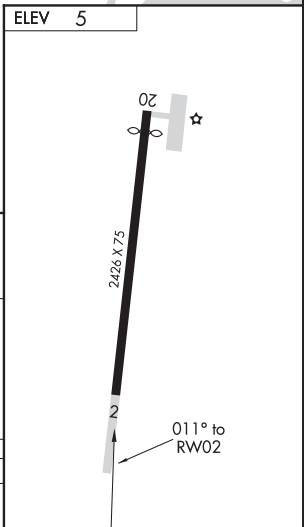
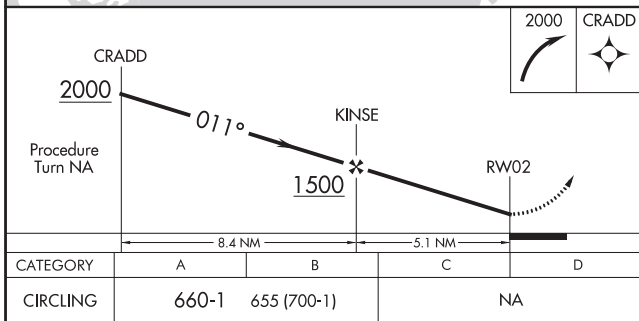
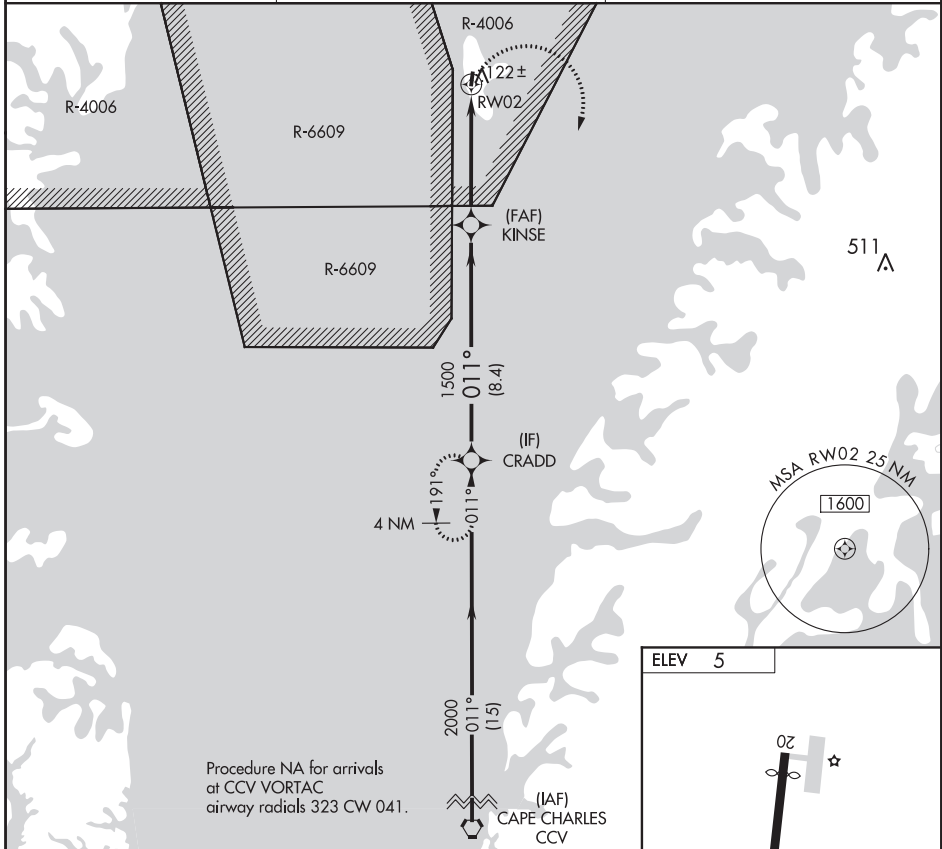
# RNAV (GPS)-B

TANGIER ISLAND (TGI)

**NA** DME/DME RNP-0.3 NA. Procedure NA at night. Use Patuxent River NAS altimeter setting. Specific clearance from Patuxent App Con required before proceeding Northbound from CRADD. Approach is within R-6609 and underlies R-4006.

**MISSED APPROACH:** Climbing right turn to 2000 direct CRADD and hold.

AWOS-3 <b>119.8</b>	PATUXENT APP CON* <b>121.0 250.3</b>	UNICOM <b>122.8 (CTAF)</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

TANGIER, VIRGINIA

AL-5751 (FAA)

14317

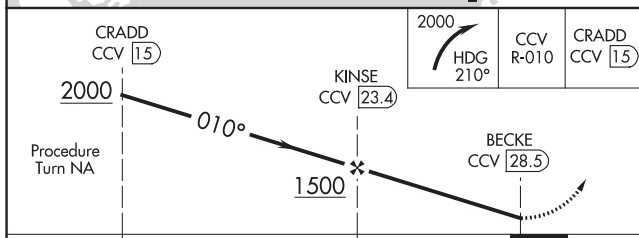
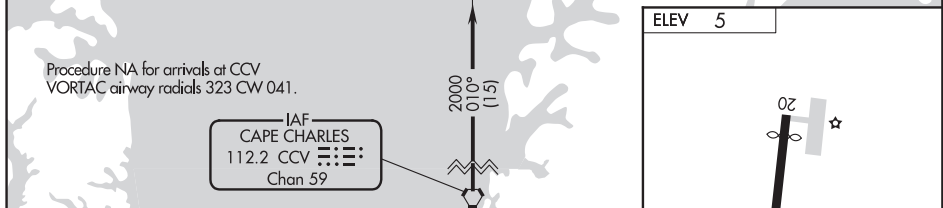
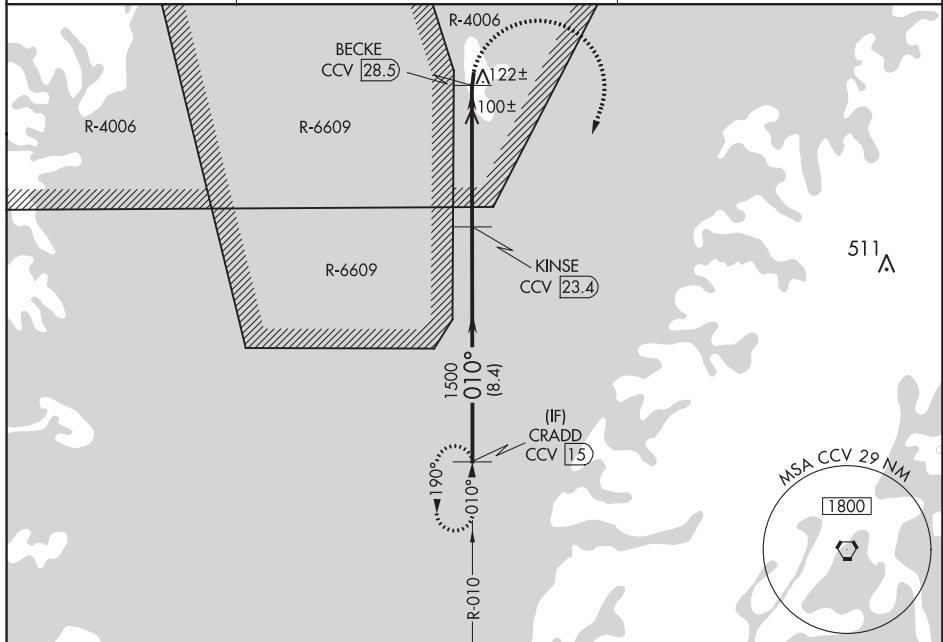
VORTAC CCV <b>112.2</b> Chan <b>59</b>	APP CRS <b>010°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>5</b>
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**VOR/DME-A**  
TANGIER ISLAND (TGI)

**NA** Procedure NA at night. Use Patuxent River NAS altimeter setting. Specific clearance from Patuxent App Con required before proceeding Northbound from CRADD. Approach is within R-6609 and underlies R-4006.

MISSED APPROACH: Climbing right turn to 2000 via heading 210° and CCV VORTAC R-010 to CRADD/CCV 15 DME and hold.

AWOS-3 <b>119.8</b>	PATUXENT APP CON* <b>121.0 250.3</b>	UNICOM <b>122.8 (CTAF)</b>
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CATEGORY	A	B	C	D
CIRCLING	660-1 655 (700-1)	660-1¼ 655 (700-1¼)	NA	

TANGIER, VIRGINIA  
Orig 15JAN09

37°50'N-76° 00'W

TANGIER ISLAND (TGI)  
**VOR/DME-A**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

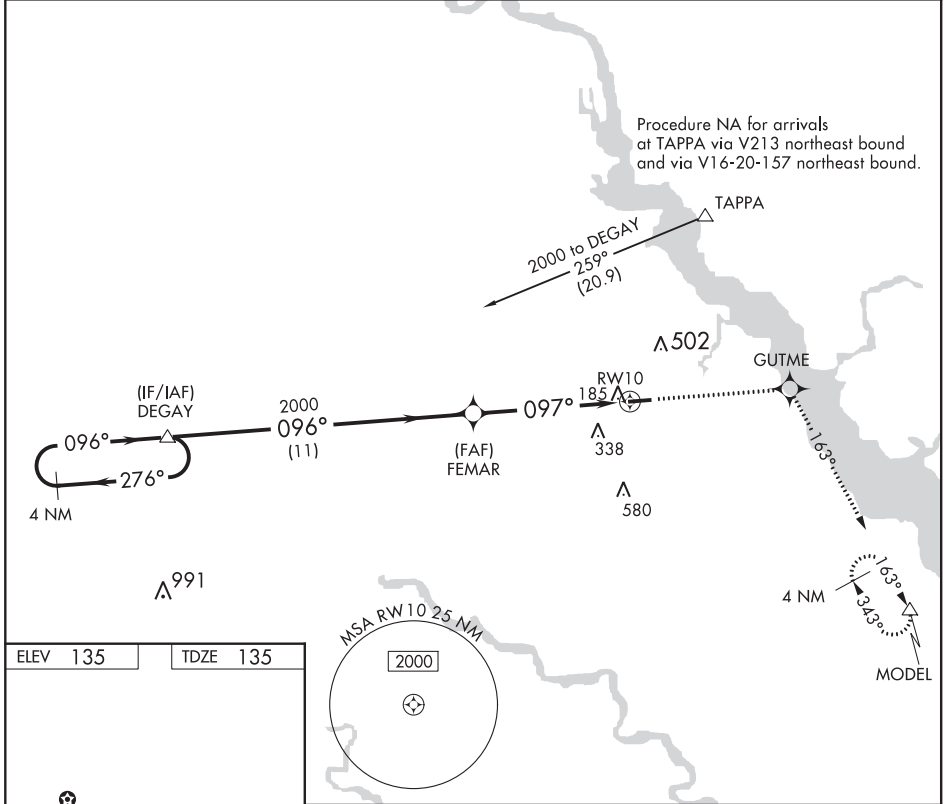
APP CRS <b>097°</b>	Rwy Idg <b>4300</b>
	TDZE <b>135</b>
	Apt Elev <b>135</b>

# RNAV (GPS) RWY 10

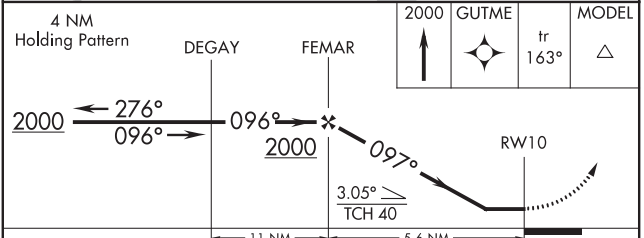
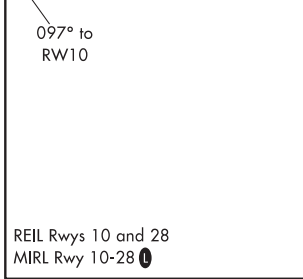
TAPPAHANNOCK-ESSEX COUNTY (XSA)

**⚠ NA** When local altimeter setting not received, use West Point altimeter setting and increase all MDA 80 feet. Visibility reduction by helicopters NA.  
**MISSED APPROACH:** Climb to 2000 direct GUTME and via 163° track to MODEL and hold.

AWOS-3 <b>125.775</b>	POTOMAC APP CON <b>126.4 282.375</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV 135	TDZE 135
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CATEGORY	A	B	C	D
LNAV MDA	640-1	505 (600-1)	NA	
CIRCLING	640-1	505 (600-1)	640-1½ 505 (600-1½)	NA

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

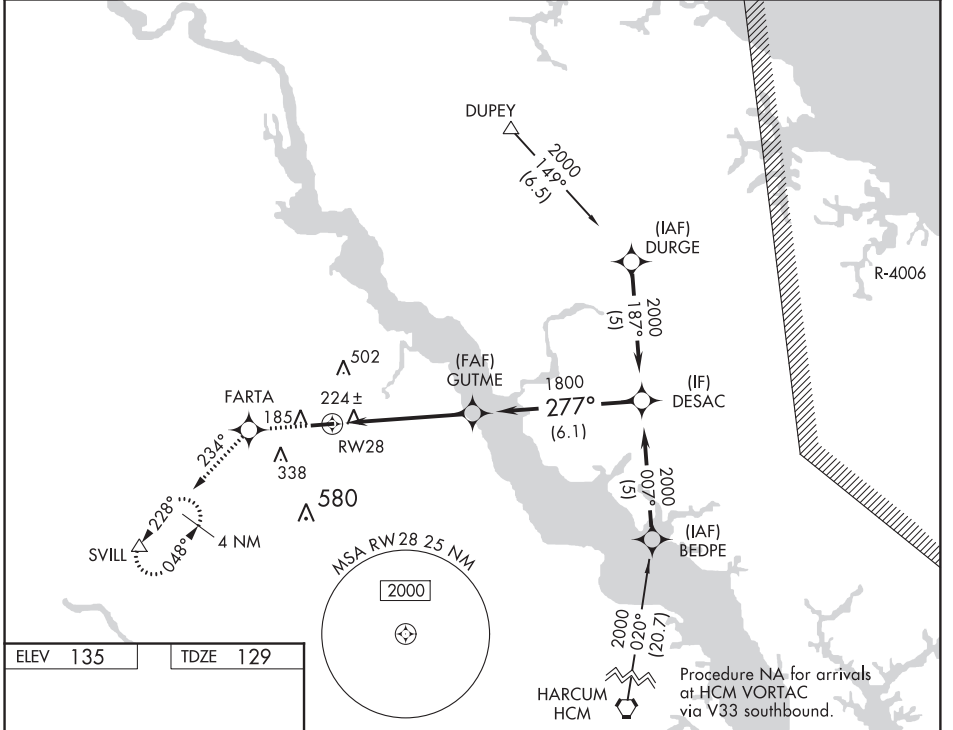
WAAS CH <b>99409</b> <b>W28A</b>	APP CRS <b>277°</b>	Rwy Idg <b>4300</b> TDZE <b>129</b> Apt Elev <b>135</b>
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**RNAV (GPS) RWY 28**  
TAPPAHANNOCK-ESSEX COUNTY (XSA)

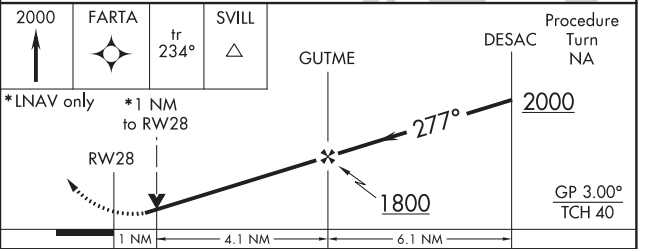
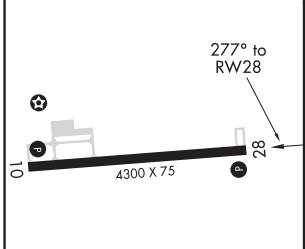
**T** Baro-VNAV and VDP NA when using West Point altimeter setting. When local altimeter setting not received, use West Point altimeter setting and increase all DA 65 feet and all MDA 80 feet, increase LPV and LNAV/VNAV visibilities ¼ mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C(5°F) or above 54°C(130°F). Visibility reduction by helicopters NA. DME/DME RNP-0.3 NA.

**▲NA** MISSED APPROACH: Climb to 2000 direct FARTA and via 234° track to SVILL and hold.

AWOS-3 <b>125.775</b>	POTOMAC APP CON <b>126.4 282.375</b>	UNICOM <b>122.8 (CTAF) 0</b>
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ELEV <b>135</b>	TDZE <b>129</b>
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CATEGORY	A	B	C	D
LPV DA	478-1¼	349 (400-1¼)		NA
LNAV/VNAV DA	521-1½	392 (400-1½)		NA
LNAV MDA	480-1	351 (400-1)		NA
CIRCLING	580-1 445 (600-1)	600-1 465 (600-1)	640-1½ 505 (600-1½)	NA

REIL Rwy 10 and 28  
MIRL Rwy 10-28 0

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



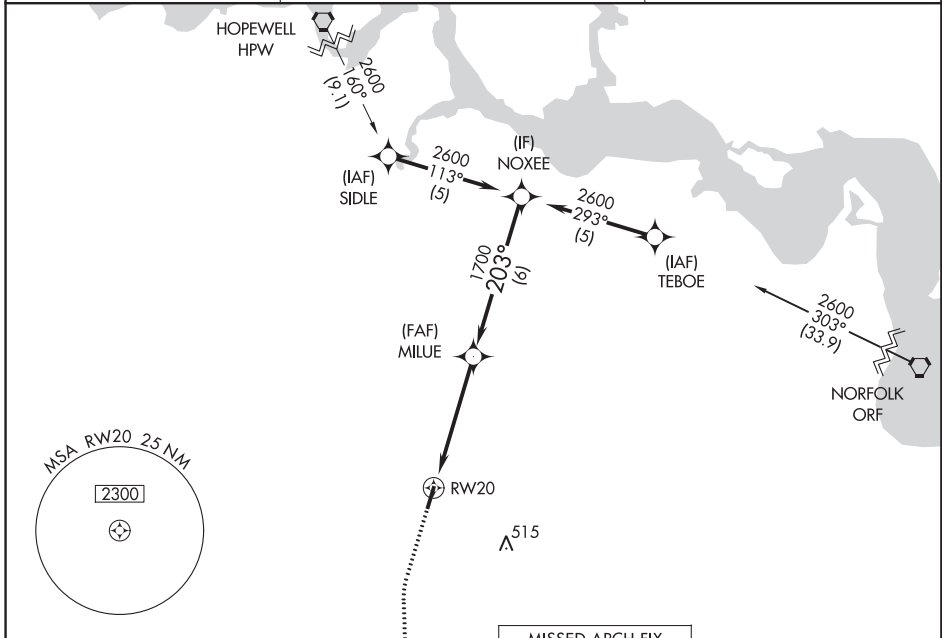
APP CRS <b>203°</b>	Rwy Idg <b>3867</b>
	TDZE <b>113</b>
	Apt Elev <b>113</b>

# RNAV (GPS) RWY 20

WAKEFIELD MUNI (AKQ)

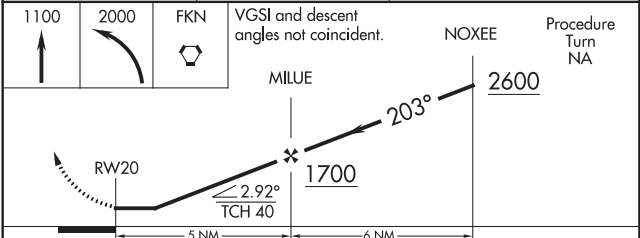
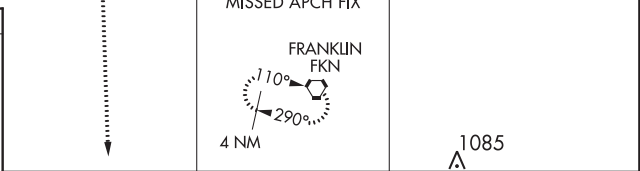
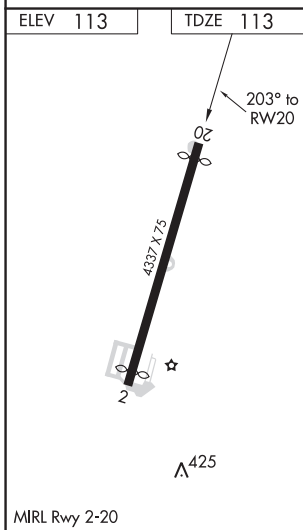
<p><b>▼</b> DME/DME RNP-0.3 NA. <b>▲</b> NA Procedure NA at night.</p>	<p>MISSED APPROACH: Climb to 1100 then climbing left turn to 2000 direct FKN VORTAC and hold.</p>
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ASOS <b>128.325</b>	NORFOLK APP CON <b>127.9 269.42</b>	UNICOM <b>122.8 (CTAF)</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LNAV MDA		1120-3	1007 (1100-3)	
CIRCLING		1120-3	1007 (1100-3)	



WAAS CH <b>56331</b> <b>W04A</b>	APP CRS <b>043°</b>	Rwy Idg TDZE Apt Elev	<b>8748</b> <b>37</b> <b>40</b>
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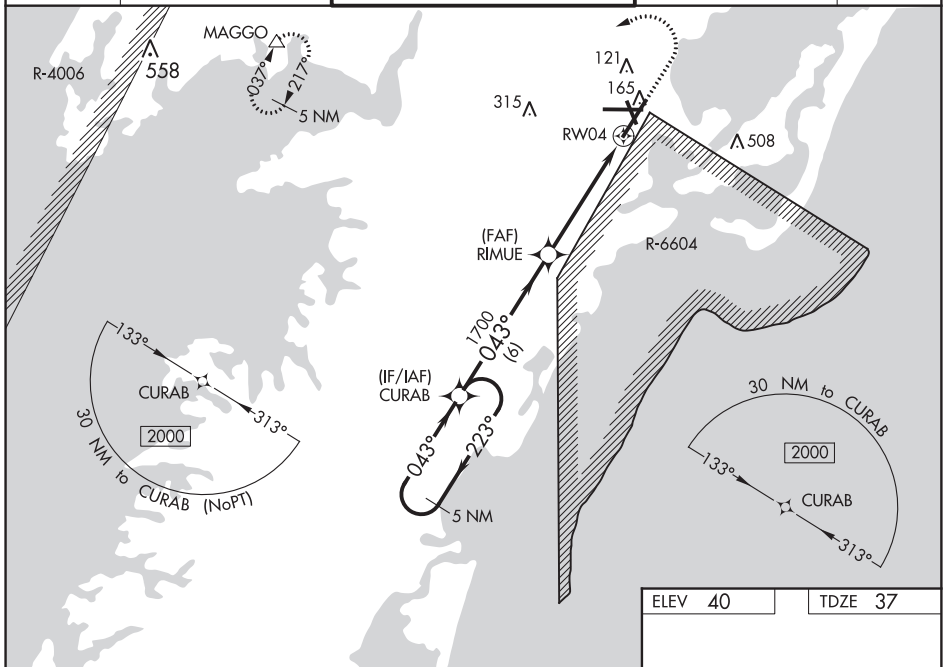
# RNAV (GPS) RWY 4

WALLOPS FLIGHT FACILITY (WAL)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Salisbury altimeter setting: increase LPV DA to 342 and all Cats visibility ¼ mile; increase LNAV/VNAV DA to 510 and all Cats visibility ¼ mile; increase all MDA 60 feet and LNAV Cats C/D and Circling Cat C visibility ¼ mile. Baro-VNAV and VDP NA when using Salisbury altimeter setting.

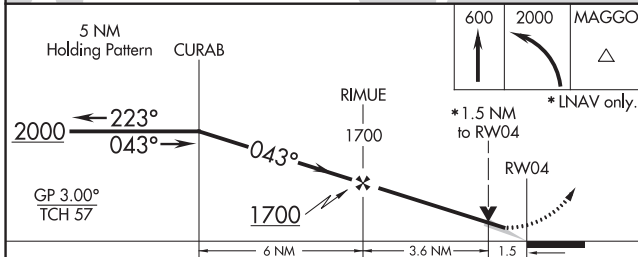
**MISSED APPROACH:** Climb to 600 then climbing left turn to 2000 direct MAGGO and hold.

ASOS <b>119.175</b>	PATUXENT APP CON * <b>127.95 314.0</b>	WALLOPS TOWER * <b>126.5 (CTAF) 0 306.975 (CTAF) 0</b>	GND CON <b>127.875 269.325</b>	CLNC DEL <b>121.7</b>
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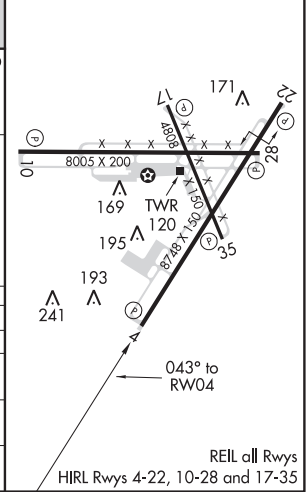


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 40	TDZE 37
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CATEGORY	A	B	C	D
LPV DA		287-¾	250 (300-¾)	
LNAV/VNAV DA		455-1⅞	418 (500-1⅞)	
LNAV MDA	560-1	523 (600-1)	560-1½	523 (600-1½)
<b>C</b> CIRCLING	600-1	560 (600-1)	620-1½ 580 (600-1½)	860-2¾ 820 (900-2¾)

WAAS CH <b>99732</b> <b>W10A</b>	APP CRS <b>101°</b>	Rwy Idg <b>8005</b> TDZE <b>38</b> Apt Elev <b>40</b>
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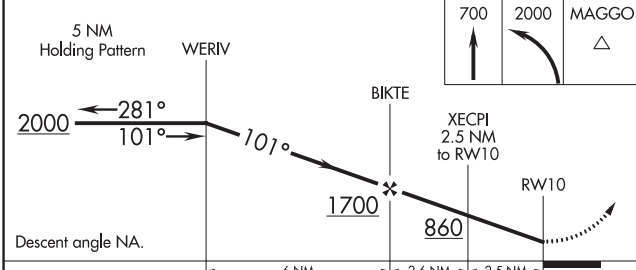
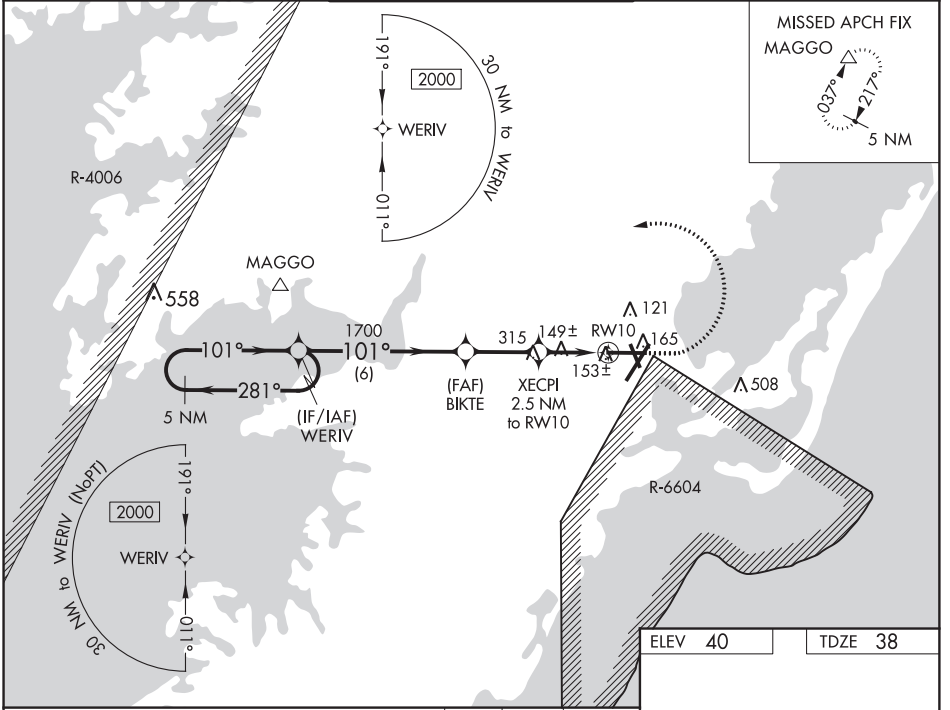
# RNAV (GPS) RWY 10

WALLOPS FLIGHT FACILITY (W.A.L.)

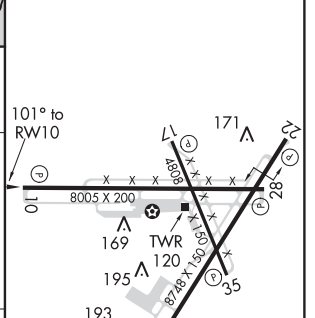
**⚠** DME/DME RNP -0.3 NA. When Rwy 10 VGSi inop, Straight-in and Circling minimums NA at night. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Salisbury altimeter setting and increase all MDA 60 feet and LP Cats C/D, LNAV Cats C/D and Circling Cat C visibility ¼ mile.

**⚠** MISSED APPROACH: Climb to 700 then climbing left turn to 2000 direct MAGGO and hold.

ASOS <b>119.175</b>	PATUXENT APP CON ★ <b>127.95 314.0</b>	WALLOPS TOWER ★ <b>126.5 (CTAF) 306.975 (CTAF) 0</b>	GND CON <b>127.875 269.325</b>	CLNC DEL <b>121.7</b>
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ELEV 40	TDZE 38
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CATEGORY	A	B	C	D
LP MDA	400-1	362 (400-1)	400-1½	362 (400-1½)
LNAV MDA	420-1	382 (400-1)	420-1½	382 (400-1½)
<b>C</b> CIRCLING	600-1	560 (600-1)	620-1½ 580 (600-1½)	860-2¾ 820 (900-2¾)

REIL all Rwys  
HIRL Rwys 4-22, 10-28 and 17-35

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>69632</b> <b>W17A</b>	APP CRS <b>169°</b>	Rwy Idg TDZE Apt Elev	<b>4808</b> <b>39</b> <b>40</b>
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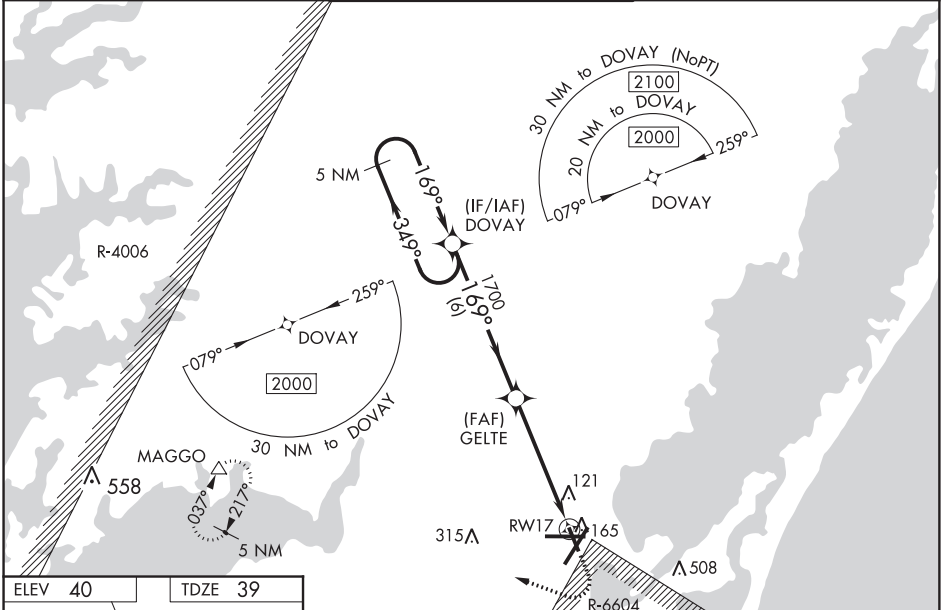
# RNAV (GPS) RWY 17

WALLOPS FLIGHT FACILITY (WAL)

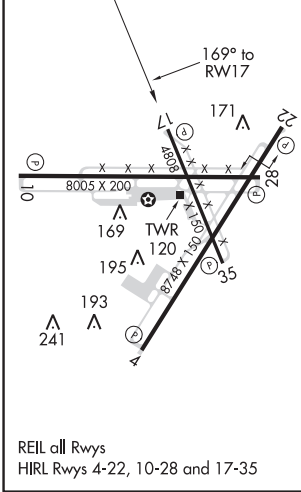
**▽** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Salisbury altimeter setting; increase LPV DA to 372 and all Cats visibility ½ mile, increase LNAV/VNAV DA to 437 and all Cats visibility ¼ mile, increase all MDA 60 feet and LNAV Cats C/D visibility ½ mile and Circling Cat C visibility ¼ mile. Baro-VNAV and VDP NA when using Salisbury altimeter setting.

**MISSED APPROACH:** Climb to 600 then climbing right turn to 2000 direct MAGGO and hold.

ASOS <b>119.175</b>	PATUXENT APP CON * <b>127.95 314.0</b>	WALLOPS TOWER * <b>126.5 (CTAF) 0 306.975 (CTAF) 0</b>	GND CON <b>127.875 269.325</b>	CLNC DEL <b>121.7</b>
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ELEV 40	TDZE 39
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VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 63).

5 NM Holding Pattern	DOVAY	600	2000	MAGGO
*LNAV only.				
GP 3.00°	TCH 55			
CATEGORY	A	B	C	D
LPV DA		322-1	283 (300-1)	
LNAV/VNAV DA		387-1½ 348 (400-1½)		
LNAV MDA	500-1	461 (500-1)	500-1¾	461 (500-1½)
<b>☐</b> CIRCLING	600-1	560 (600-1)	620-1½ 580 (600-1½)	860-2¾ 820 (900-2¾)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>86234</b> <b>W22A</b>	APP CRS <b>223°</b>	Rwy Idg <b>8748</b> TDZE <b>36</b> Apt Elev <b>40</b>
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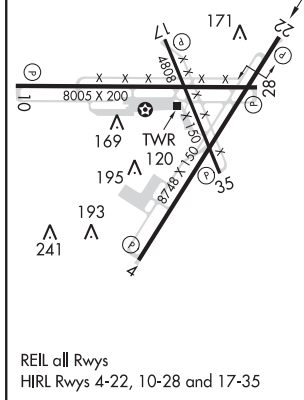
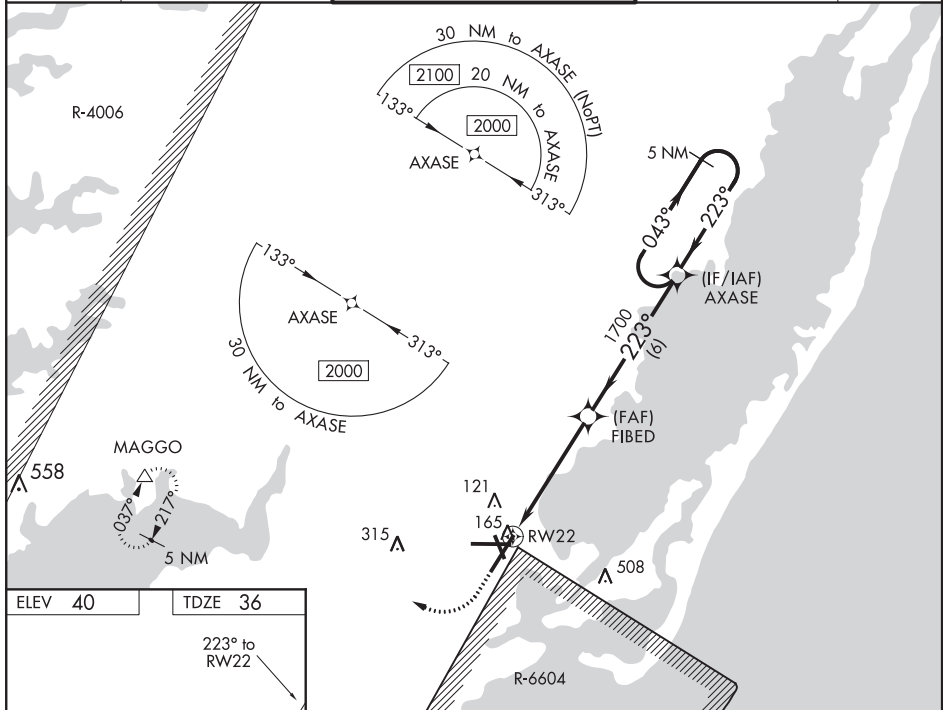
# RNAV (GPS) RWY 22

WALLOPS FLIGHT FACILITY (WAL)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME-RNP 0.3 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Salisbury altimeter setting; increase LPV DA to 367 and all Cats visibility 1/4 mile; increase LNAV/VNAV DA to 489 and all Cats visibility 1/8 mile; increase all MDA 60 feet and LNAV Cats C/D visibility 1/8 mile and Circling Cat C visibility 1/4 mile. Baro-VNAV and VDP NA when using Salisbury altimeter setting.

**MISSED APPROACH:**  
Climb to 600 then climbing right turn to 2000 direct MAGGO and hold.

ASOS <b>119.175</b>	PATUXENT APP CON ★ <b>127.95 314.0</b>	WALLOPS TOWER ★ <b>126.5 (CTAF) 306.975 (CTAF)</b>	GND CON <b>127.875 269.325</b>	CLNC DEL <b>121.7</b>
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600	2000	MAGGO	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 60).	5 NM Holding Pattern
* LNAV only.		* 1.3 NM to RWY22	FIBED 1700	AXASE 2000
RWY22		1.3 NM	3.8 NM	6 NM
		1700	223°	043°
			223°	2000
			GP 3.00°	TCH 50

CATEGORY	A	B	C	D
LPV DA		314-7/8	278 (300-7/8)	
LNAV/VNAV DA		436-1 1/8	400 (400-1 1/8)	
LNAV MDA	500-1	464 (500-1)	500-1 3/8	464 (500-1 3/8)
<b>C</b> CIRCLING	600-1	560 (600-1)	620-1 1/2 580 (600-1 1/2)	860-2 3/4 820 (900-2 3/4)

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WAAS CH <b>45534</b> <b>W28A</b>	APP CRS <b>281°</b>	Rwy Idg TDZE Apt Elev	<b>8005</b> <b>40</b> <b>40</b>
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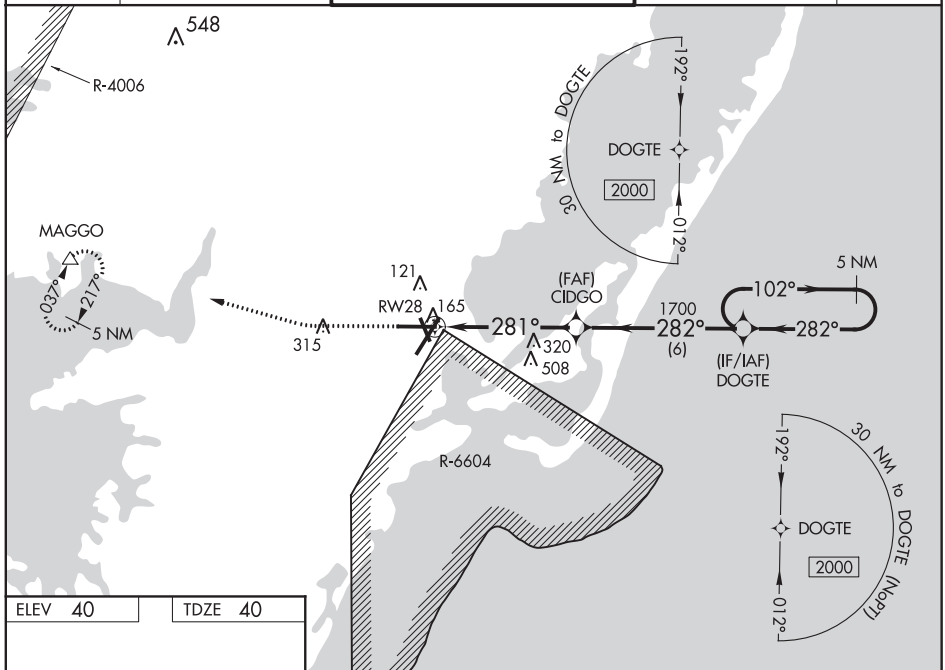
# RNAV (GPS) RWY 28

WALLOPS FLIGHT FACILITY (WAL)

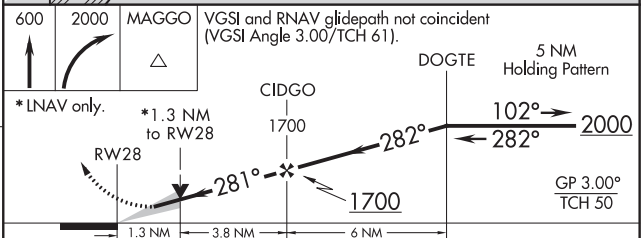
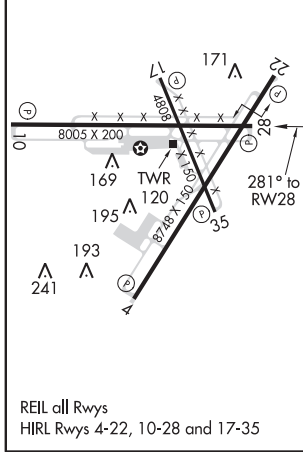
**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Salisbury altimeter setting: increase LPV DA to 343 and all Cats visibility ¼ mile; increase LNAV/VNAV DA to 453 and all Cats visibility ¼ mile; increase all MDA 60 feet and LNAV Cats C/D and Circling Cat C visibility ¼ mile. Baro-VNAV and YDP NA when using Salisbury altimeter setting.

**MISSED APPROACH:** Climb to 600 then climbing right turn to 2000 direct MAGGO and hold.

ASOS <b>119.175</b>	PATUXENT APP CON ★ <b>127.95 314.0</b>	WALLOPS TOWER ★ <b>126.5 (CTAF) 306.975 (CTAF)</b>	GND CON <b>127.875 269.325</b>	CLNC DEL <b>121.7</b>
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ELEV 40	TDZE 40
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CATEGORY	A	B	C	D
LPV DA		290-¾	250 (300-¾)	
LNAV/VNAV DA		400-1½	360 (400-1½)	
LNAV MDA	520-1	480 (500-1)	520-1¾	480 (500-1¾)
<b>C</b> CIRCLING	600-1	560 (600-1)	620-1½ 580 (600-1½)	860-2¾ 820 (900-2¾)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>53732</b> <b>W35A</b>	APP CRS <b>349°</b>	Rwy Idg TDZE Apt Elev	<b>4808</b> <b>39</b> <b>40</b>
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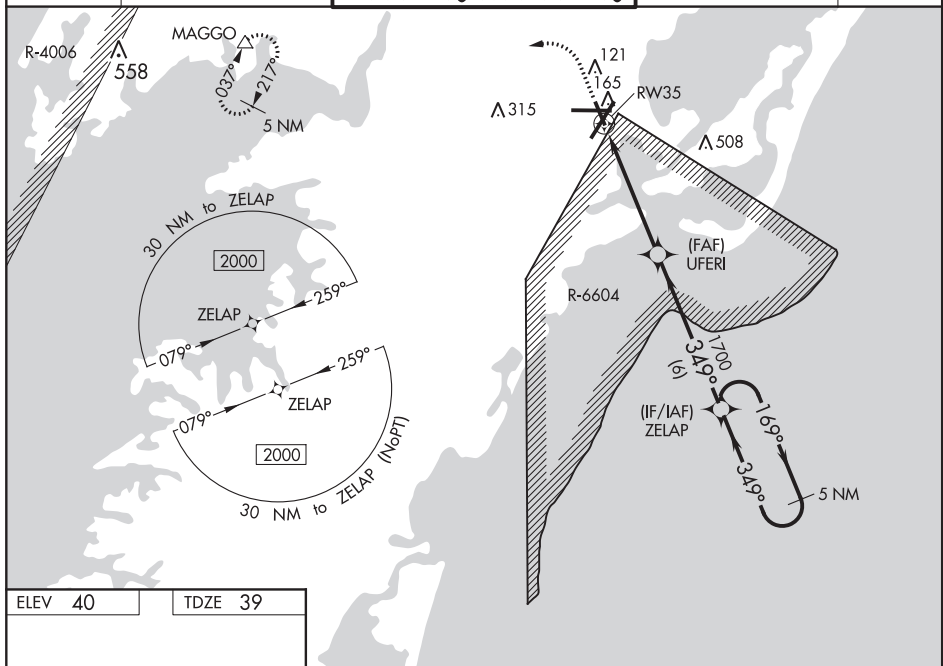
# RNAV (GPS) RWY 35

WALLOPS FLIGHT FACILITY (WAL)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Salisbury altimeter setting: increase LPV DA to 343; increase LNAV/VNAV DA to 464 and all Cats visibility ¼ mile; increase all MDA 60 feet and LNAV Cats C/D visibility ½ mile and Circling Cat C visibility ¼ mile. Baro-VNAV and VDP NA when using Salisbury altimeter setting. Helicopter visibility reduction below ¾ SM NA. Procedure NA when R-6604 active.

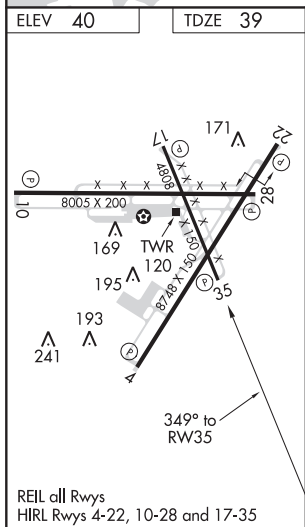
**MISSED APPROACH:** Climb to 600 then climbing left turn to 2000 direct MAGGO and hold.

ASOS <b>119.175</b>	PATUXENT APP CON * <b>127.95 314.0</b>	WALLOPS TOWER * <b>126.5 (CTAF) 0 306.975 (CTAF) 0</b>	GND CON <b>127.875 269.325</b>	CLNC DEL <b>121.7</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 40	TDZE 39	600	2000	MAGGO	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 59).	5 NM Holding Pattern
		* LNAV only.	* 1.2 NM to RW35			ZELAP
		RW35		UFERI 1700	349°	169° → 2000
		1.2		3.9 NM		← 349°
		6 NM				GP 3.00° TCH 45
CATEGORY	A	B	C	D		
LPV DA	289-1		250 (300-1)			
LNAV/VNAV DA	410-1¼		371 (400-1¼)			
LNAV MDA	460-1	421 (500-1)	460-1¼	421 (500-1¼)		
<b>C</b> CIRCLING	600-1	560 (600-1)	620-1½	860-2¾	580 (600-1½)	820 (900-2¾)



VORTAC SBY <b>111.2</b> Chan <b>49</b>	APP CRS SBY <b>24.1</b> Arc	Rwy Idg TDZE Apt Elev	<b>8005</b> <b>38</b> <b>40</b>
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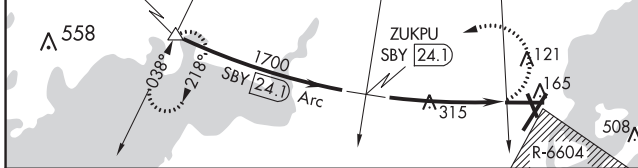
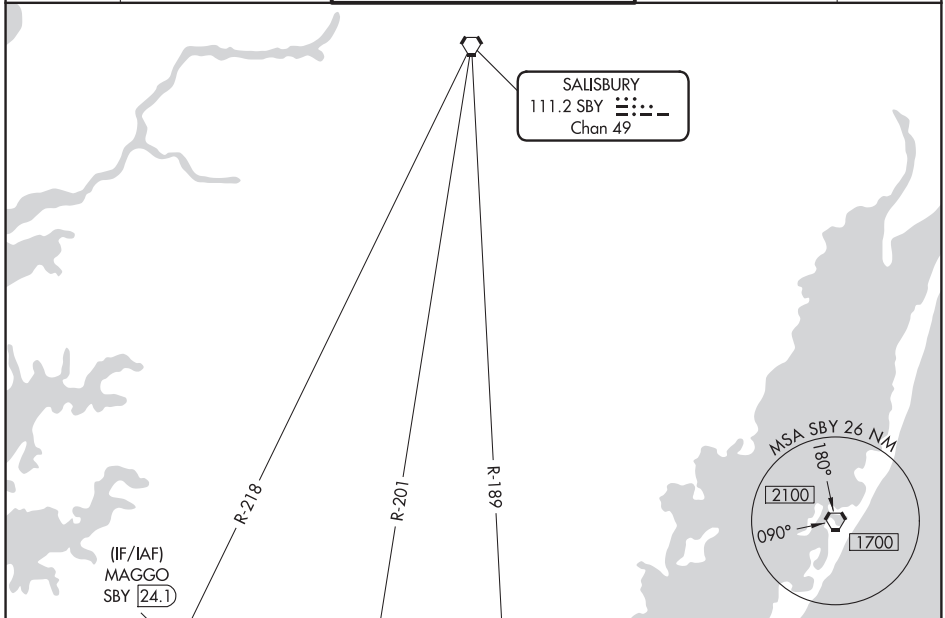
# VOR/DME or TACAN RWY 10

WALLOPS FLIGHT FACILITY (WAL)

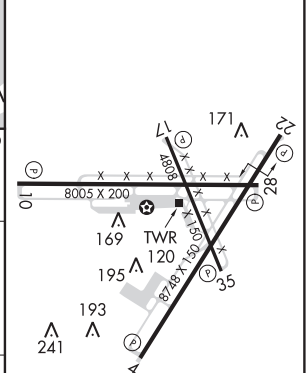
**⚠** When local altimeter setting not received, use Salisbury altimeter setting and increase all MDA 60 feet and Circling Cts C/D visibility ¼ mile. Helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:** Climbing left turn to 2000 on heading 240° and SBY VORTAC 24.1 DME Arc clockwise to MAGGO/SBY 24.1 DME and hold.

ASOS <b>119.175</b>	PATUXENT APP CON ★ <b>127.95 314.0</b>	WALLOPS TOWER ★ <b>126.5 (CTAF) 0 306.975 (CTAF) 0</b>	GND CON <b>127.875 269.325</b>	CLNC DEL <b>121.7</b>
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ELEV <b>40</b>	TDZE <b>38</b>
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MAGGO SBY 24.1	2000	SBY 24.1 Arc	ZUKPU SBY 24.1	1700	R-189 SBY 24.1	MAGGO
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CATEGORY	A	B	C	D
S-10	900-1¼	862 (900-1¼)	900-2½	862 (900-2½)
<b>C</b> CIRCLING	900-1¼	860 (900-1¼)	900-2½	900-2¾
			860 (900-2½)	860 (900-2¾)

REIL all Rwys  
HIRL Rwy 4-22, 10-28 and 17-35

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

VORTAC SWL <b>112.4</b> Chan <b>71</b>	APP CRS <b>190°</b>	Rwy Idg <b>4808</b> TDZE <b>39</b> Apt Elev <b>40</b>
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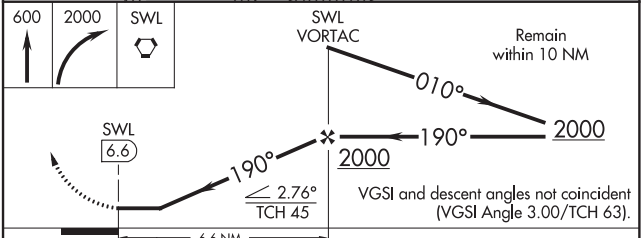
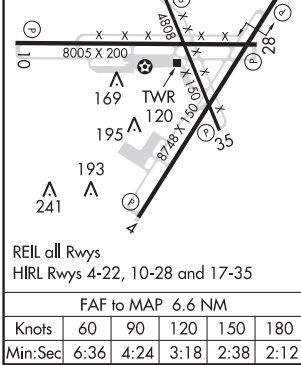
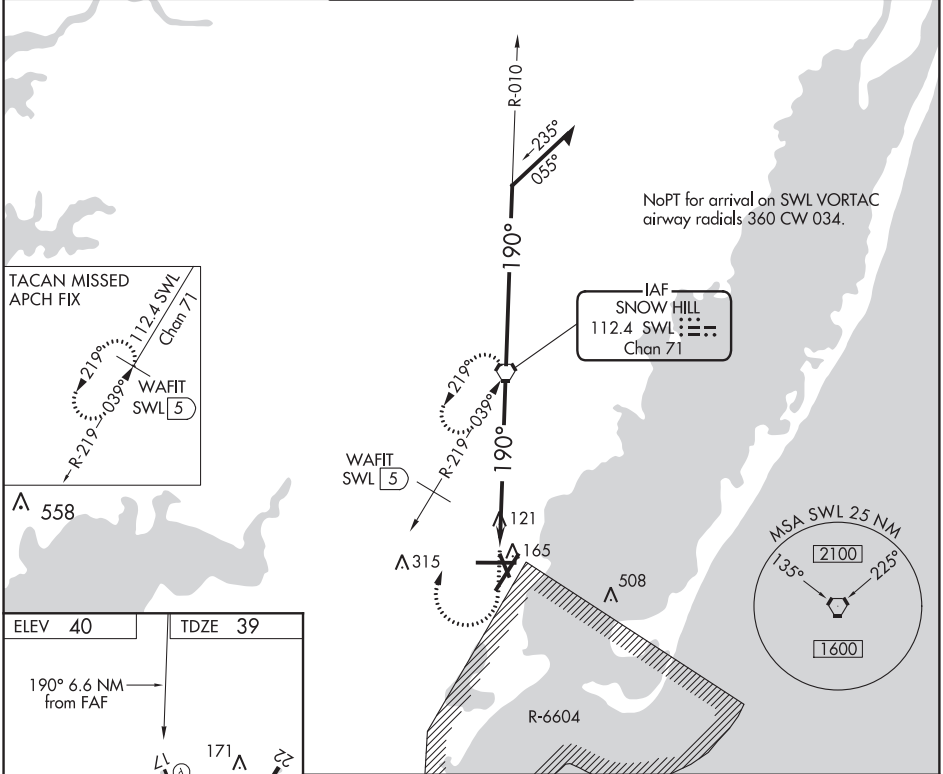
# VOR or TACAN RWY 17

WALLOPS FLIGHT FACILITY (WAL)

**⚠** When local altimeter setting not received, use Salisbury altimeter setting and increase all MDA 60 feet and S-17 Cats C/D and Circling Cat C visibility ¼ mile. Helicopter visibility reduction below ¼ SM NA.

**MISSED APPROACH:** Climb to 600 then climbing right turn to 2000 direct SWL VORTAC and hold. (TACAN aircraft climb to 600 then climbing right turn to 2000 on heading 300° and SWL VORTAC R-219 to WAFIT/SWL 5 DME and hold SW, LT 039° inbound.)

ASOS <b>119.175</b>	PATUXENT APP CON * <b>127.95 314.0</b>	WALLOPS TOWER * <b>126.5 (CTAF) 0 306.975 (CTAF) 0</b>	GND CON <b>127.875 269.325</b>	CLNC DEL <b>121.7</b>
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FAF to MAP 6.6 NM		Knots		60	90	120	150	180
Min:Sec		6:36	4:24	3:18	2:38	2:12		
CIRCLING	600-1	560 (600-1)	620-1½	580 (600-1½)	860-2¾	820 (900-2¾)		

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

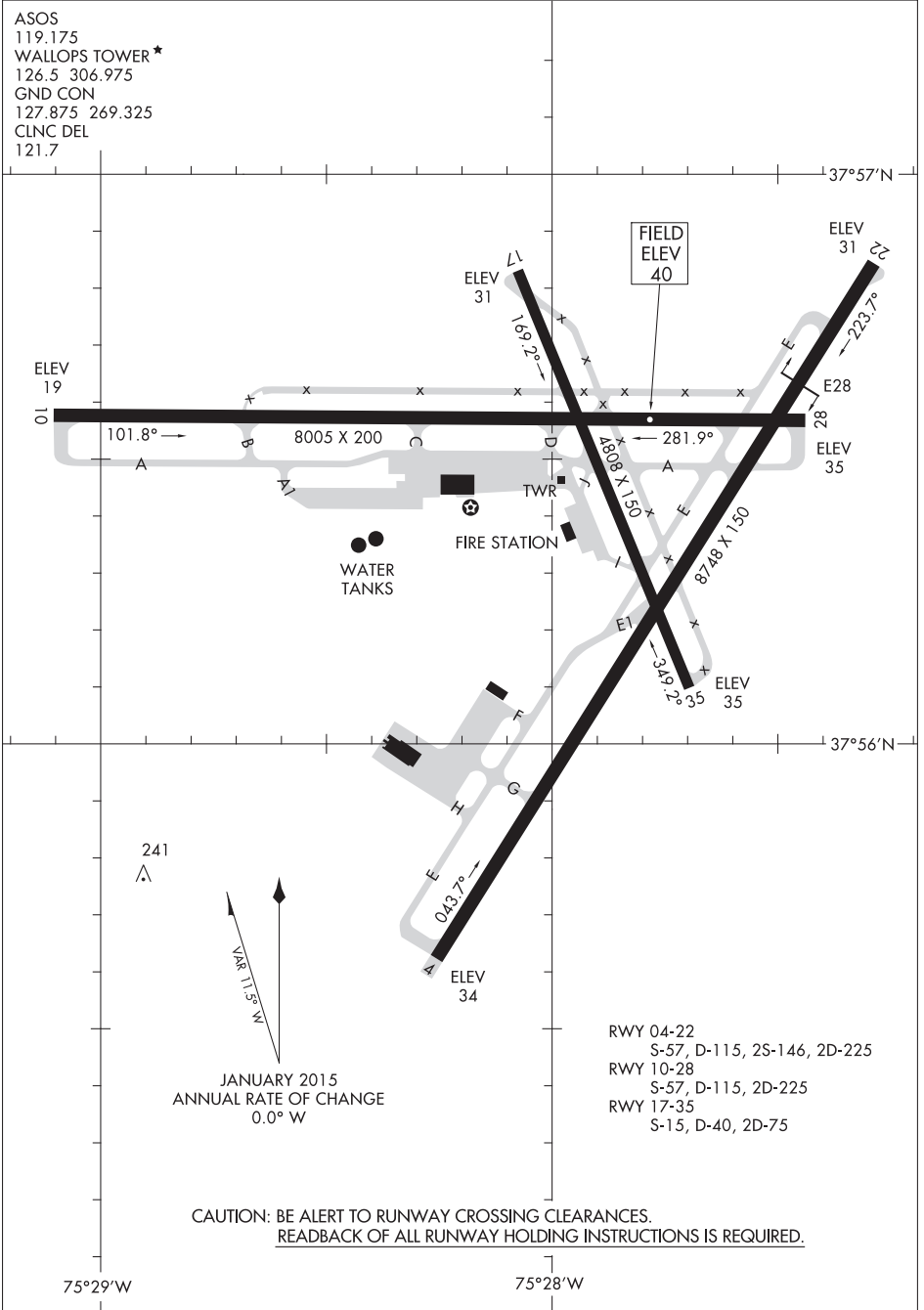
AL-639 (FAA)

WALLOPS FLIGHT FACILITY (W.A.I.)  
WALLOPS ISLAND, VIRGINIA

ASOS  
119.175  
WALLOPS TOWER \*  
126.5 306.975  
GND CON  
127.875 269.325  
CLNC DEL  
121.7

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

# AIRPORT DIAGRAM

WALLOPS ISLAND, VIRGINIA  
WALLOPS FLIGHT FACILITY (W.A.I.)

LOC/DME I-HWY	APP CRS	Rwy Idg	<b>5000</b>
<b>109.75</b>	<b>149°</b>	TDZE	<b>327</b>
Chan <b>34 (Y)</b>		Apt Elev	<b>336</b>

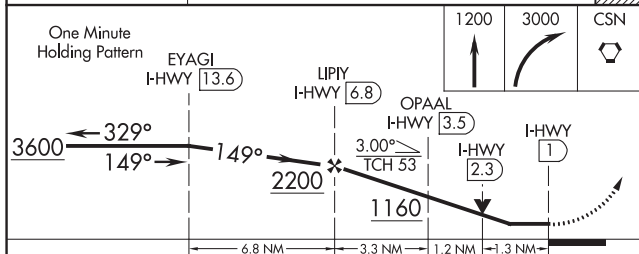
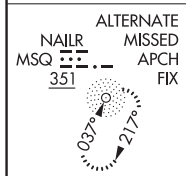
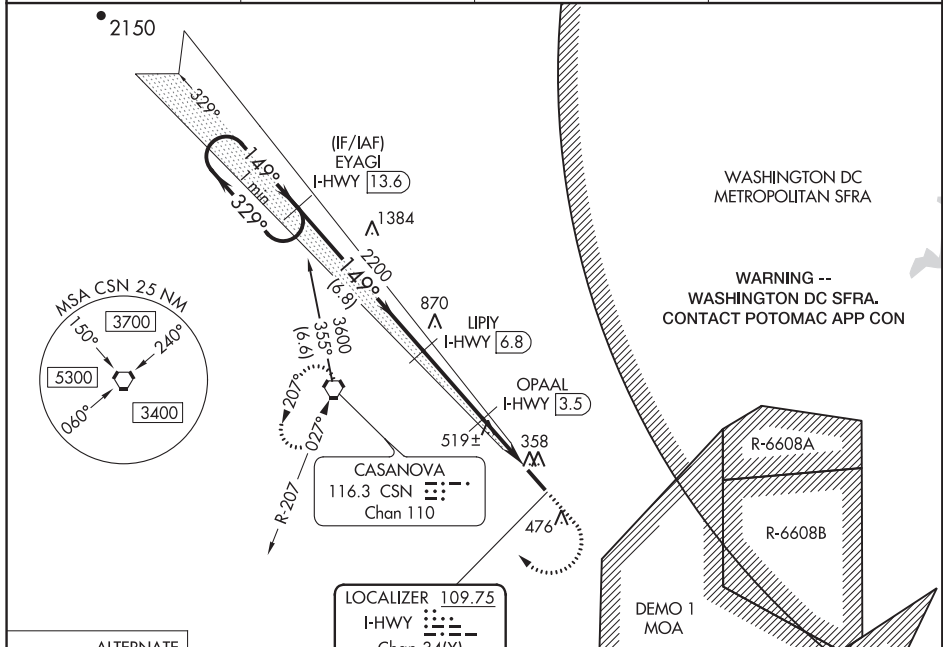
# LOC/DME RWY 15

WARRENTON-FAUQUIER (HWY)

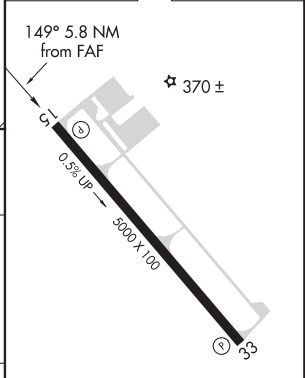
**⚠** Helicopter visibility reduction below 3/4 SM NA. VDP NA with Culpeper altimeter setting. When local altimeter setting not received, use Culpeper altimeter setting and increase all MDA 40 feet.

**⚠ NA** MISSED APPROACH: Climb to 1200 then climbing right turn to 3000 direct CSN VORTAC and hold.

AWOS-3 <b>120.35</b>	CULPEPER AWOS-3 <b>119.325</b>	POTOMAC APP CON <b>128.525 306.925</b>	UNICOM <b>122.7 (CTAF) 0</b>
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ELEV 336	TDZE 327
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CATEGORY	A	B	C	D
S-15	780-1	453 (500-1)	780-1 3/8	453 (500-1 3/8)
CIRCLING	780-1 444 (500-1)	800-1 464 (500-1)	800-1 1/2 464 (500-1 1/2)	900-2 564 (600-2)

REIL Rws 15 and 33  
HIRL Rwy 15-33 0

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>81926</b> <b>W15A</b>	APP CRS <b>149°</b>	Rwy ldg TDZE Apt Elev	<b>5000</b> <b>327</b> <b>336</b>
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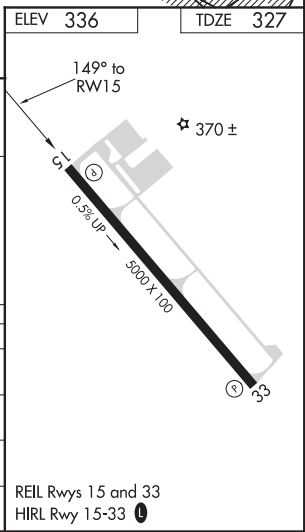
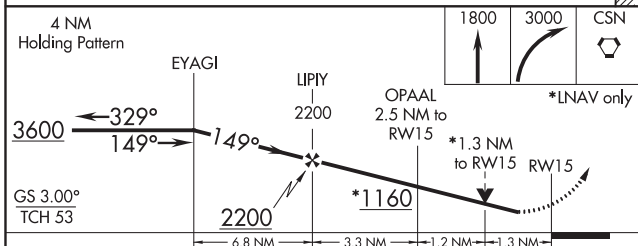
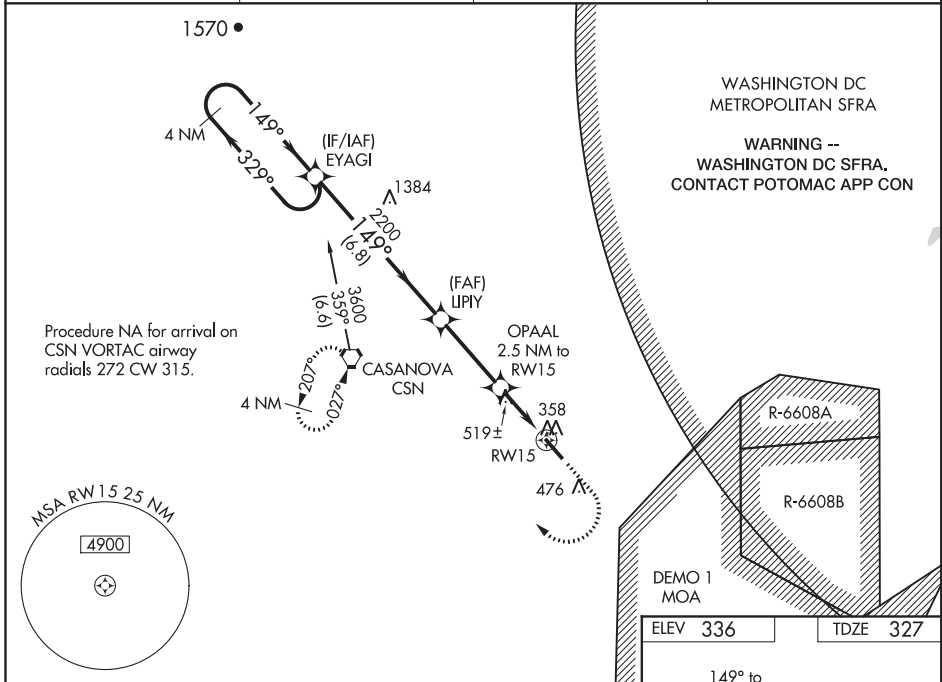
# RNAV (GPS) RWY 15

WARRENTON-FAUQUIER (HWY)

**⚠** Baro-VNAV NA when using Culpoper altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -11°C (13°F) or above 41°C (105°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Culpoper altimeter setting and increase all DA 22 feet, and all MDA 40 feet; increase LNAV/VNAV all Cnts visibility 1/8 mile.

**MISSED APPROACH:**  
Climb to 1800 then climbing right turn to 3000 direct CSN VORTAC and hold.

AWOS-3 <b>120.35</b>	CULPEPER AWOS-3 <b>119.325</b>	POTOMAC APP CON <b>128.525 306.925</b>	UNICOM <b>122.7 (CTAF)</b>
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CATEGORY	A	B	C	D
LPV DA		527-3/4	200 (200-3/4)	
LNAV/VNAV DA		585-3/4	258 (300-3/4)	
LNAV MDA	780-1	453 (500-1)	780-1 3/8	453 (500-1 3/8)
CIRCLING	780-1 444 (500-1)	800-1 464 (500-1)	800-1 1/2 464 (500-1 1/2)	900-2 564 (600-2)

REIL Rwy 15 and 33  
HIRL Rwy 15-33

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WARRENTON, VIRGINIA

AL-5747 (FAA)

14289

WAAS CH <b>70426</b> <b>W33A</b>	APP CRS <b>329°</b>	Rwy Idg TDZE Apt Elev	<b>5000</b> <b>336</b> <b>336</b>
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# RNAV (GPS) RWY 33

WARRENTON-FAUQUIER (HWY)

**▼** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Culpeper altimeter setting; increase all MDA 40 feet, increase LP Cat C/D visibility 1/8 mile, increase LNAV Cat C/D visibility 1/4 mile.

**▲** MISSED APPROACH: Climb to 800 then climbing left turn to 3000 direct CSN VORTAC and hold, continue climb in hold to 3000.

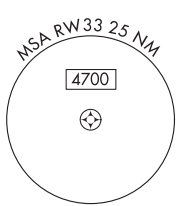
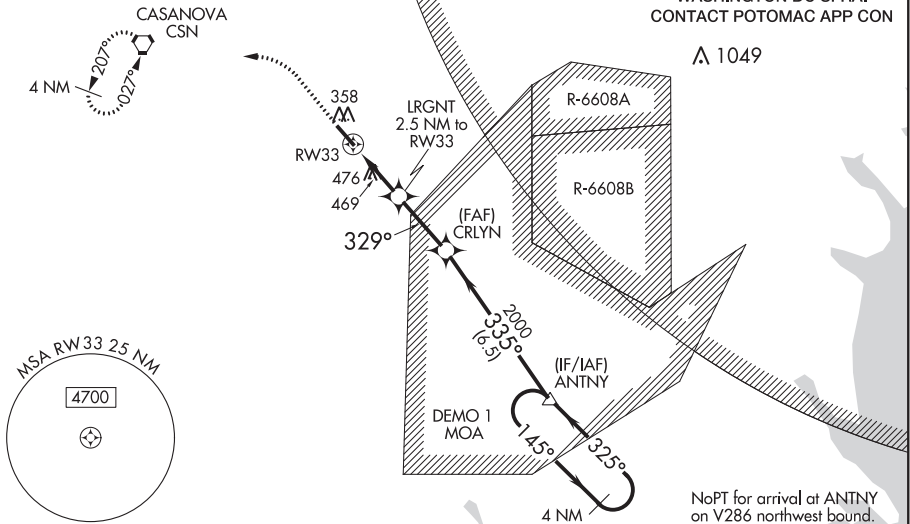
AWOS-3  
**120.35**

CULPEPER AWOS-3  
**119.325**

POTOMAC APP CON  
**128.525 306.925**

UNICOM  
**122.7 (CTAF) 0**

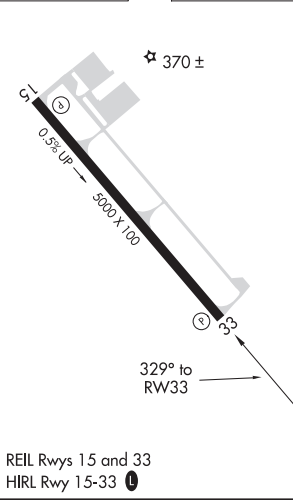
## RADAR REQUIRED



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 336      TDZE 336



REIL Rwy 15 and 33  
HIRL Rwy 15-33 0

Procedure NA when DEMO 1 MOA active.

800	3000	CSN	4 NM Holding Pattern			
↑	↻	⬡	CRLYN	ANTNY		
LRGNT 2.5 NM to RW33 RW33 1.1 NM to RW33 1160 ≤ 3.00° TCH 45			2000	335°	145°	2000
1.1 NM    1.4 NM    2.6 NM    6.5 NM						
CATEGORY	A	B	C	D		
LP MDA	720-1	384 (400-1)	720-1½	384 (400-1½)		
LNAV MDA	740-1	404 (500-1)	740-1½	404 (500-1½)		
CIRCLING	760-1 424 (500-1)	800-1 464 (500-1)	800-1½ 464 (500-1½)	900-2 564 (600-2)		

WARRENTON, VIRGINIA  
Orig-A 16OCT14

38°35'N-77°43'W

# WARRENTON-FAUQUIER (HWY)

## RNAV (GPS) RWY 33

VORTAC CSN <b>116.3</b> Chan <b>110</b>	APP CRS <b>119°</b>	Rwy Idg TDZE <b>327</b> Apt Elev <b>336</b>	<b>5000</b>
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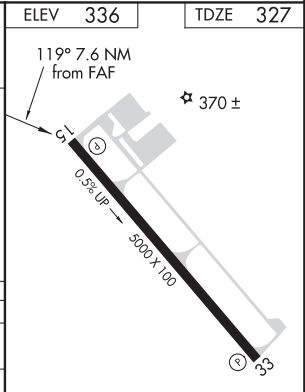
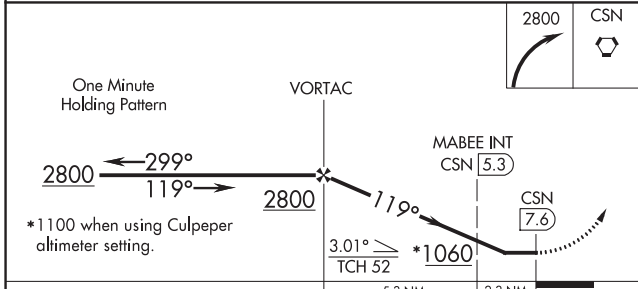
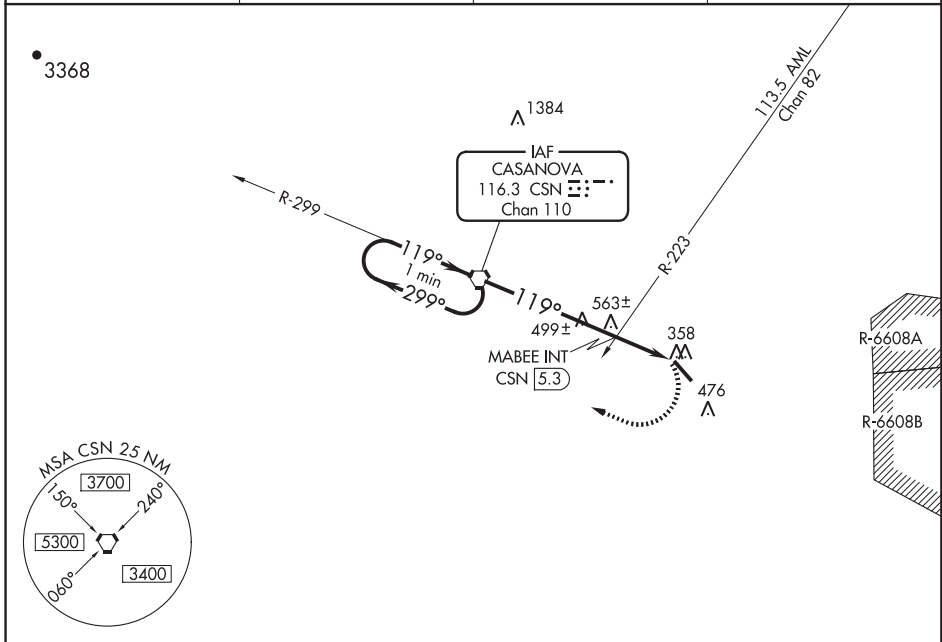
# VOR RWY 15

WARRENTON-FAUQUIER (HWY)

**⚠** When local altimeter setting not received, use Culpeper altimeter setting and increase all MDA 40 feet; increase S-15 Cats C/D and Circling Cats C/D visibility ½ mile; increase MABEE fix minimums S-15 Cats C/D and Circling Cat C visibility ¼ mile. Helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climbing right turn to 2800 direct to CSN VORTAC and hold.

AWOS-3 <b>120.350</b>	CULPEPER AWOS-3 <b>119.325</b>	POTOMAC APP CON <b>124.65 306.925</b>	UNICOM <b>122.7 (CTAF) ①</b>
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CATEGORY	A	B	C	D
S-15	1060-1 733 (800-1)	1060-1¼ 733 (800-1¼)	1060-2 733 (800-2)	1060-2¼ 733 (800-2¼)
CIRCLING	1060-1	724 (800-1)	1060-2 724 (800-2)	1060-2¼ 724 (800-2¼)
MABEE FIX MINIMUMS (DUAL VOR RECEIVERS OR DME REQUIRED)				
S-15	820-1	493 (500-1)	820-1¾	493 (500-1¾)
CIRCLING	820-1	484 (500-1)	820-1½ 484 (500-1½)	900-2 564 (600-2)

REIL Rwy 15 and 33 HIRL Rwy 15-33 ①	FAF to MAP 7.6 NM				
Knots	60	90	120	150	180
Min:Sec	7:36	5:04	3:48	3:02	2:32

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

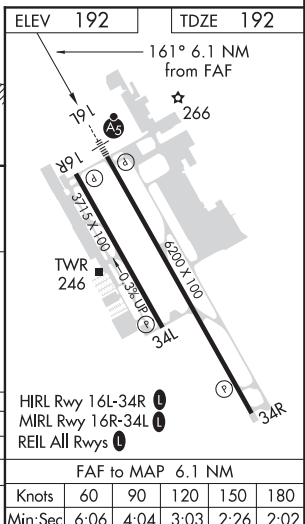
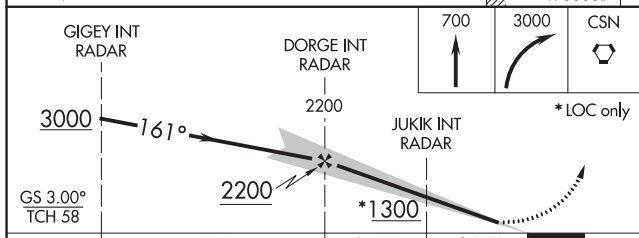
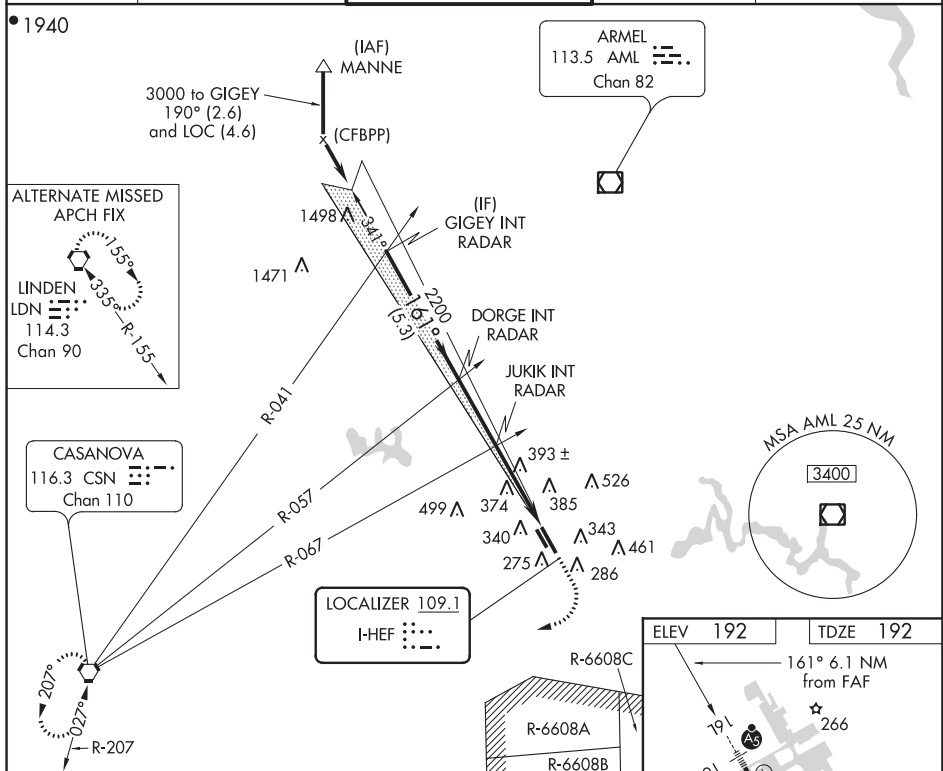
LOC I-HEF <b>109.1</b>	APP CRS <b>161°</b>	Rwy Idg <b>6200</b>
		TDZE <b>192</b>
		Apt Elev <b>192</b>

# ILS or LOC RWY 16L

MANASSAS RGNL / HARRY P DAVIS FIELD (HEF)

<p>When local altimeter setting not received, use Dulles altimeter setting and increase DA 49 feet, all MDA 60 feet, and increase Cat C/D Circling visibility 1/4 mile.</p>	<p>MALS R</p>	<p>MISSED APPROACH: Climb to 700, then climbing right turn to 3000 direct CSN VORTAC and hold.</p>

ATIS <b>125.175</b>	POTOMAC APP CON <b>128.525 306.925</b>	MANASSAS TOWER ★ <b>133.1 (CTAF) 360.75</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.2</b>
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CATEGORY	A	B	C	D
S-ILS 16L	392-1/2 200 (200-1/2)			
S-LOC 16L	660-1/2	468 (500-1/2)	660-1	468 (500-1)
CIRCLING	720-1	740-1	840-1 3/4	880-2 1/4
	528 (600-1)	548 (600-1)	648 (700-1 3/4)	688 (700-2 1/4)

FAF to MAP 6.1 NM

Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02

NE-3, 10 NOV 2016 to 05 JAN 2017

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WAAS CH <b>70302</b> <b>W16A</b>	APP CRS <b>161°</b>	Rwy ldg TDZE Apt Elev	<b>6200</b> <b>192</b> <b>192</b>
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# RNAV (GPS) RWY 16L

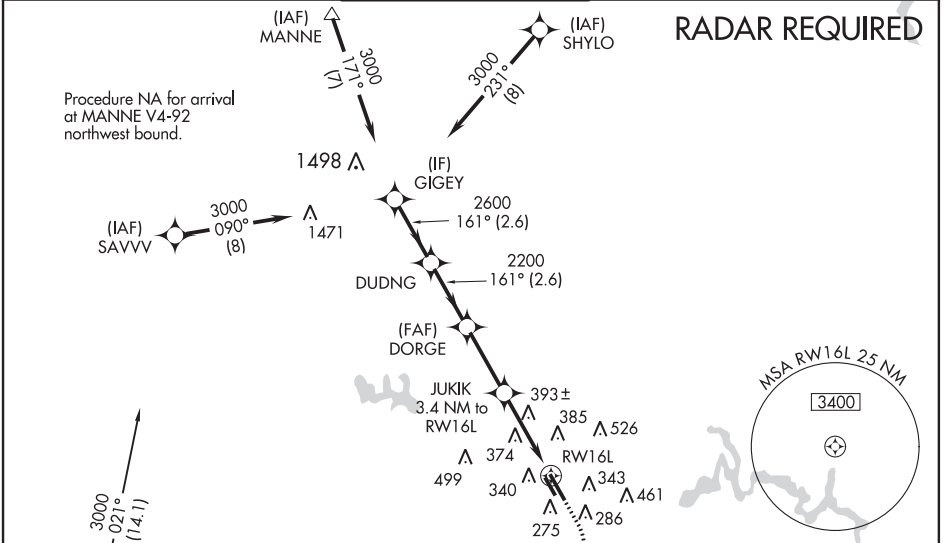
MANASSAS RGNL/HARRY P DAVIS FIELD (HEF)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting is not received, use Washington Dulles Intl altimeter setting and increase all DA 59 feet and LNAV/VNAV all Cats visibility ½ mile; increase all MDA 60 feet, increase Circling Cat C/D visibility ¼ mile. For inoperative MALSR, increase LNAV Cat C/D visibility to 1 ¾ mile. For inoperative MALSR when using Washington Dulles Intl altimeter setting, increase LPV all Cats to ¾ mile.

**MALSR**

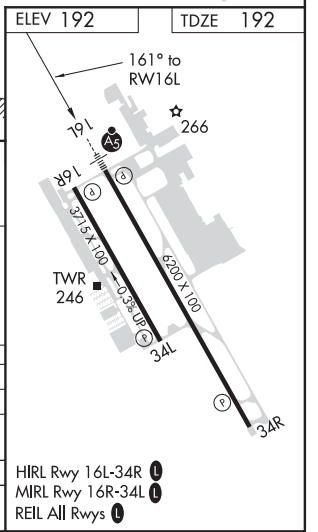
**MISSED APPROACH:**  
Climb to 700 then climbing right turn to 3000 direct CSN VORTAC and hold.

ATIS <b>125.175</b>	POTOMAC APP CON <b>128.525 306.925</b>	MANASSAS TOWER ★ <b>133.1 (CTAF) 0 360.75</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.2</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

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	ELEV 192		TDZE 192	
	GIGEY		DUDNG	
	3000		2200	
	161°		2600	
	DUDNG		DORGE	
	2600		2200	
	GP 3.00°		TCH 58	
	2.6 NM		2.6 NM	
	2.7 NM		2.1 NM	
	1.3 NM			
CATEGORY	A		B	
LPV DA	442-½		250 (300-½)	
LNAV/VNAV DA	635-1		443 (500-1)	
LNAV MDA	660-½		468 (500-½)	
	720-1		740-1	
Ⓢ CIRCLING	528 (600-1)		548 (600-1)	
	840-1¾		880-2¼	
	648 (700-1¾)		688 (700-2¼)	

WAAS CH <b>78035</b> <b>W16B</b>	APP CRS <b>161°</b>	Rwy Idg <b>3715</b> TDZE <b>186</b> Apt Elev <b>192</b>
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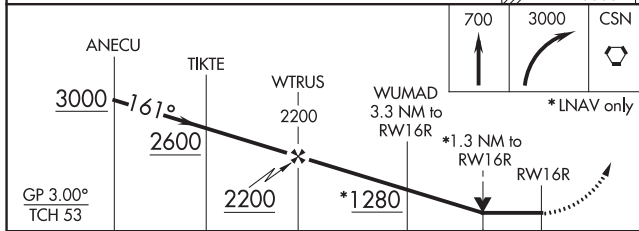
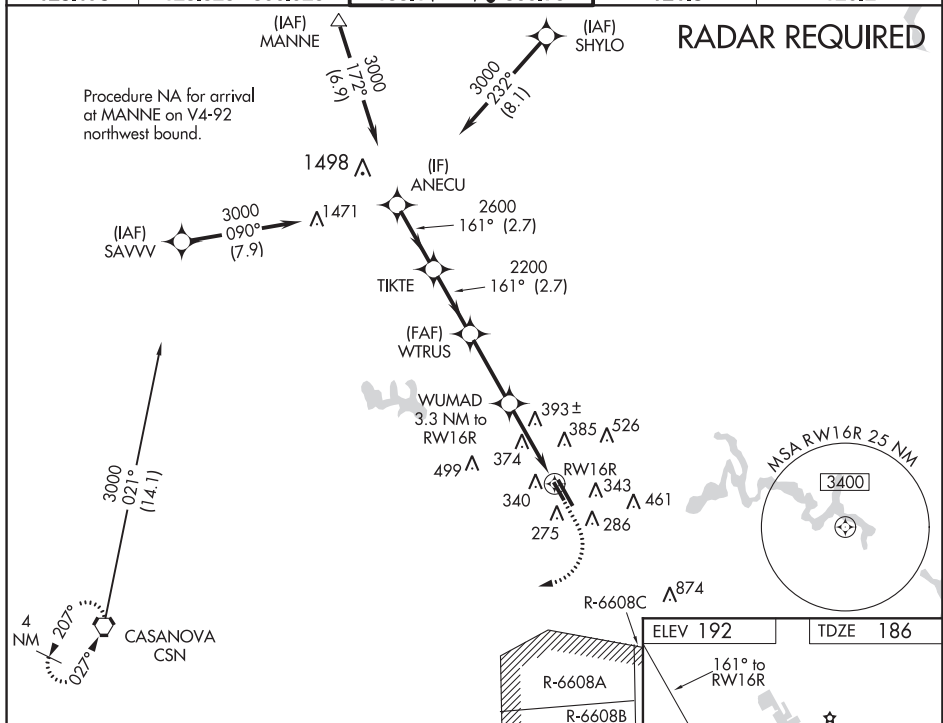
# RNAV (GPS) RWY 16R

MANASSAS RGNL/HARRY P DAVIS FIELD (HEF)

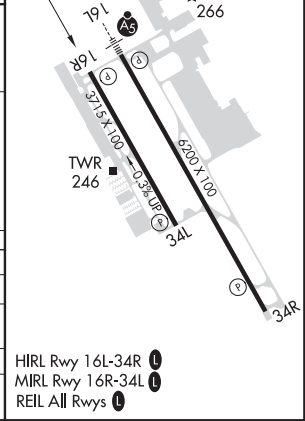
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting is not received use Washington Dulles Intl altimeter setting and increase all DA 49 feet and all MDA 60 feet, increase LPV all Cats visibility 1/8 mile, LNAV/VNAV all Cats 1/4 mile, LNAV Cat C/D visibility 1/8 mile, and Circling Cat C/D 1/4 mile. VDP and Baro-VNAV NA when using Washington Dulles Intl altimeter setting.

**MISSED APPROACH:** Climb to 700 then climbing right turn to 3000 direct CSN VORTAC and hold.

ATIS <b>125.175</b>	POTOMAC APP CON <b>128.525 306.925</b>	MANASSAS TOWER ★ <b>133.1 (CTAF) 360.75</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.2</b>
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GP 3.00° TCH 53	ANECU	TIKTE	WTRUS	WUMAD	RWY 16R
	3000	2600	2200	2280	
	2.7 NM	2.7 NM	2.9 NM	2 NM	1.3 NM
CATEGORY	A	B	C	D	
LPV DA	494-1		308 (400-1)		
LNAV/VNAV DA	675-1 3/8		489 (500-1 3/8)		
LNAV MDA	660-1	474 (500-1)	660-1 3/8	474 (500-1 3/8)	
CIRCLING	720-1 528 (600-1)	740-1 548 (600-1)	840-1 3/4 648 (700-1 3/4)	880-2 1/4 688 (700-2 1/4)	



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HIRL Rwy 16L-34R  
MIRL Rwy 16R-34L  
REIL All Rws



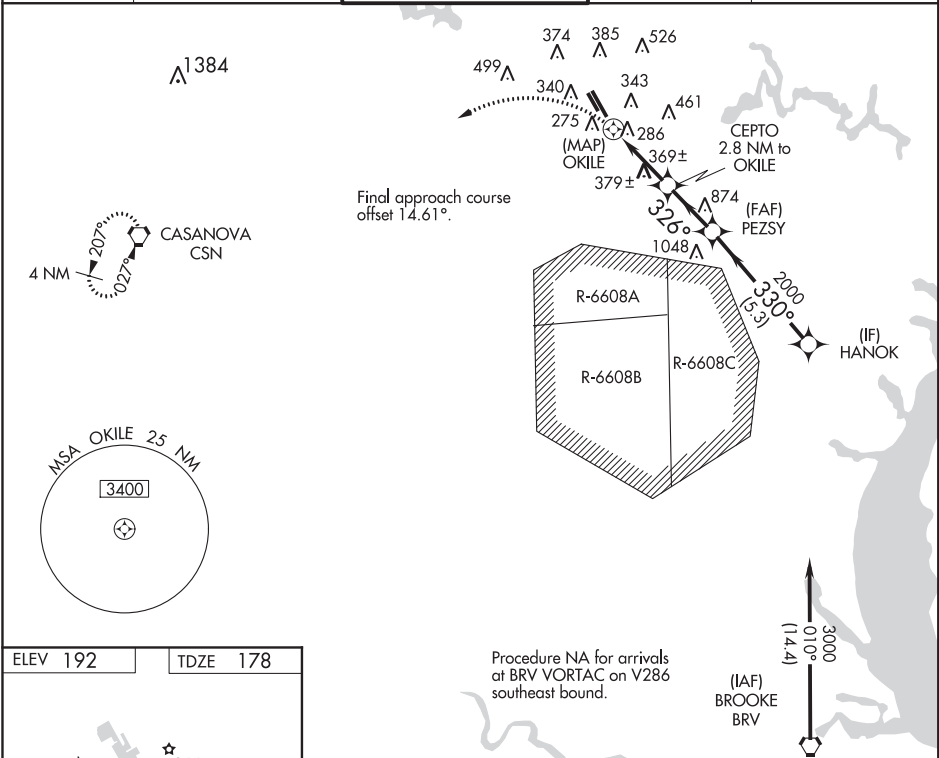
WAAS CH <b>63130</b> <b>W34A</b>	APP CRS <b>326°</b>	Rwy Idg TDZE Apt Elev	<b>6200</b> <b>178</b> <b>192</b>
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# RNAV (GPS) RWY 34R

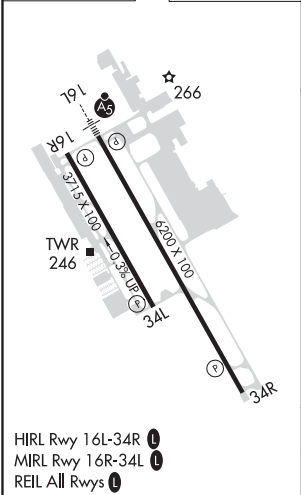
MANASSAS RGNL/HARRY P DAVIS FIELD (HEF)

<b>▽</b> DME/DME RNP-0.3 NA.	MISSED APPROACH: Climbing left turn to 3000 direct CSN VORTAC and hold.
<b>▲</b> Helicopter visibility reduction below ¾ SM NA.	

ATIS <b>125.175</b>	POTOMAC APP CON <b>128.525 306.925</b>	<b>MANASSAS TOWER ★</b> <b>133.1 (CTAF) 360.75</b>	GND CON <b>121.8</b>	CLNC DEL <b>120.2</b>
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ELEV <b>192</b>	TDZE <b>178</b>
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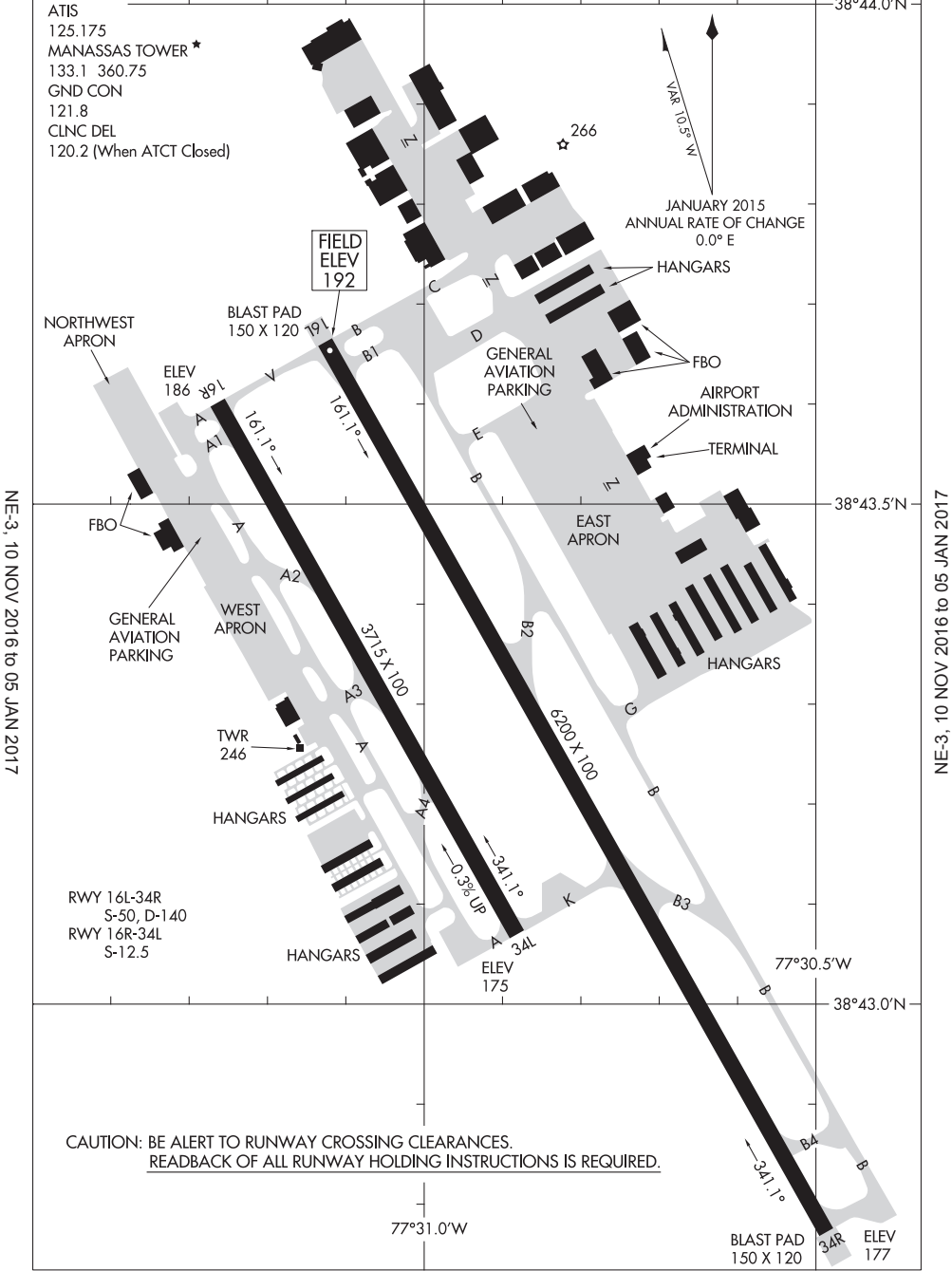


HIRL Rwy 16L-34R **Ⓛ**  
MIRL Rwy 16R-34L **Ⓛ**  
REL All Rwy's **Ⓛ**

	3000 CSN	HANOK		
	OKILE	PEZSY	HANOK	
	0.8 NM to OKILE	2.8 NM to OKILE	3000	
	1260	2000	330°	
	0.5 NM	0.8 NM	2 NM	2.3 NM
CATEGORY	A	B	C	D
LP MDA	620-1	442 (500-1)	620-1¾	442 (500-1½)
LNAV MDA	640-1	462 (500-1)	640-1¾	462 (500-1½)
<b>ⓐ</b> CIRCLING	720-1	740-1	840-1¾	880-2¼
	528 (600-1)	548 (600-1)	648 (700-1¼)	688 (700-2¼)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017





DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 34L/R: Climb heading 341° to 800, then climbing left turn on CSN VORTAC R-056. Cross SHRLI INT/CSN 10 DME at 2000, cross CSN VORTAC at 3000. Thence....

TAKEOFF RWY 16L/R: Climb heading 161° to 800, then climbing right turn on CSN VORTAC R-087, cross GADZI/CSN 10 DME at 2000, cross CSN VORTAC at 3000. Thence....

...via assigned transition.

FLUKY TRANSITION (ARSNL5.FLUKY): From over CSN VORTAC on CSN R-148 to FLUKY INT.

GORDONSVILLE TRANSITION (ARSNL5.GVE): From over CSN VORTAC on CSN R-206 to GVE VORTAC.

LINDEN TRANSITION (ARSNL5.LDN): From over CSN VORTAC on CSN R-315 to LDN VORTAC.

MARTINSBURG TRANSITION (ARSNL5.MRB): From over CSN VORTAC on CSN R-010 to DAWNZ INT, then on MRB R-180 to MRB VORTAC.

MONTEBELLO TRANSITION (ARSNL5.MOL): From over CSN VORTAC on CSN R-239 and MOL R-058 to MOL VOR/DME.

WITTO TRANSITION (ARSNL5.WITTO): From over CSN VORTAC on CSN R-239 to WITTO INT.

WOOLY TRANSITION (ARSNL5.WOOLY): From over CSN VORTAC on CSN R-010 to DAWNZ INT, then on MRB R-180 to MRB VORTAC, then on MRB R-101 to WOOLY INT.

TAKEOFF OBSTACLES NOTES:

Rwy 16L: Trees beginning 1247' from DER, 178' left of centerline, up to 99' AGL/268' MSL. Trees beginning 1810' from DER, 88' right of centerline, up to 73' AGL/272' MSL. Trees beginning 2618' from DER, 4' left of centerline, up to 84' AGL/293' MSL. Trees beginning 3414' from DER, 14' right of centerline, up to 75' AGL/284' MSL. Trees beginning 3703' from DER, 145' left of centerline, up to 100' AGL/299' MSL. Trees beginning 4193' from DER, 1343' left of centerline, up to 82' AGL/311' MSL. Trees beginning 4677' from DER, 313' right of centerline, up to 89' AGL/303' MSL.

Rwy 16R: Trees beginning 119' from DER, 473' right of centerline, up to 32' AGL/221' MSL. Trees beginning 749' from DER, on centerline, up to 29' AGL/197' MSL. Trees beginning 745' from DER, 85' right of centerline, up to 33' AGL/212' MSL. Trees beginning 588' from DER, 536' right of centerline, up to 37' AGL/236' MSL.

Rwy 34L: Terrain and sign beginning 1' from DER, 392' right of centerline, up to 5' AGL/192' MSL. Trees and poles beginning 877' from DER, 616' left of centerline, up to 54' AGL/247' MSL. Building and trees beginning 1573' from DER, 249' left of centerline, up to 39' AGL/252' MSL. Trees beginning 1752' from DER, 187' right of centerline, up to 39' AGL/238' MSL. Tower and trees beginning 2563' from DER, 182' left of centerline, up to 64' AGL/283' MSL. Trees beginning 2563' from DER, 250' right of centerline, up to 56' AGL/279' MSL.

Rwy 34R: Terrain, airfield light, and sign beginning 25' from DER, 92' right of centerline, up to 7' AGL/196' MSL. Airfield light and vegetation beginning 26' from DER, 78' left of centerline, up to 9' AGL/197' MSL. Vehicles on road and poles beginning 518' from DER, 595' right of centerline, up to 24' AGL/215' MSL. Trees beginning 1759' from DER, 448' left of centerline, up to 39' AGL/238' MSL. Trees 1859' from DER, 828' right of centerline, up to 39' AGL/248' MSL. Trees beginning 2548' from DER, 828' left of centerline, up to 54' AGL/283' MSL. Trees beginning 2653' from DER, 1082' right of centerline, up to 57' AGL/280' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(GABBE1.GABBE) 15232

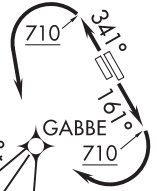
MANASSAS RGNL/HARRY P DAVIS FIELD (HEF)

GABBE ONE DEPARTURE (RNAV) SL-5326 (FAA)

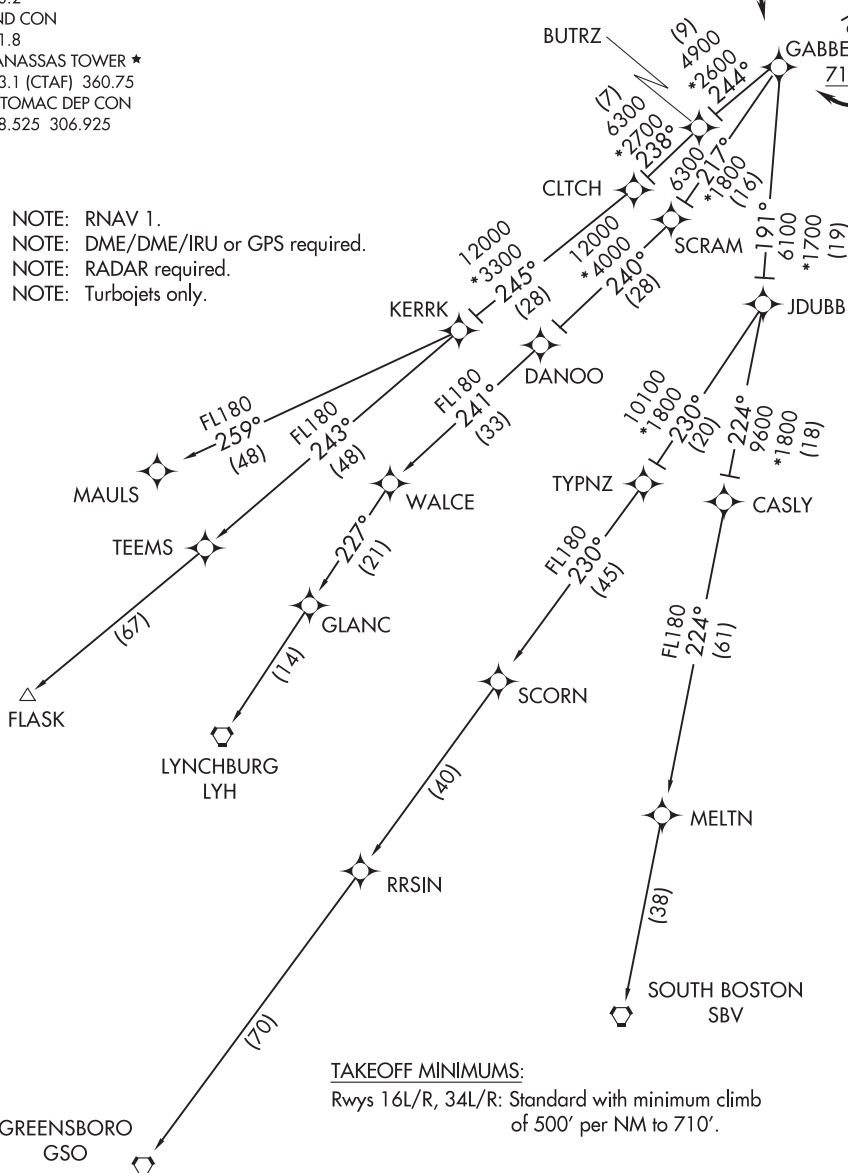
WASHINGTON, DC

ATIS  
 125.175  
 CLNC DEL  
 120.2  
 GND CON  
 121.8  
 MANASSAS TOWER ★  
 133.1 (CTAF) 360.75  
 POTOMAC DEP CON  
 128.525 306.925

**TOP ALTITUDE:  
 3000**



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



TAKEOFF MINIMUMS:

Rwys 16L/R, 34L/R: Standard with minimum climb of 500' per NM to 710'.

(NARRATIVE ON FOLLOWING PAGE)

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

GABBE ONE DEPARTURE (RNAV)

(GABBE1.GABBE) 15232

WASHINGTON, DC

MANASSAS RGNL/HARRY P DAVIS FIELD (HEF)





DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 16L/R: Climb heading 161° to 710, then right turn direct GABBE, thence . . . .

TAKEOFF RWY 34L/R: Climb heading 341° to 710, then left turn direct GABBE, thence . . . .

. . . . on assigned transition. Maintain 3000. Expect clearance to filed altitude within 10 minutes after departure.

FLASK TRANSITION (GABBE1.FLASK)

GREENSBORO TRANSITION (GABBE1.GSO)

LYNCHBURG TRANSITION (GABBE1.LYH)

MAULS TRANSITION (GABBE1.MAULS)

SBV TRANSITION (GABBE1.SBV)

TAKEOFF OBSTACLE NOTES:

- Rwy 16L: Trees beginning 1247' from DER, 178' left of centerline, up to 99' AGL/268' MSL.  
Trees beginning 1810' from DER, 88' right of centerline, up to 73' AGL/272' MSL.  
Trees beginning 2618' from DER, 4' left of centerline, up to 84' AGL/293' MSL.  
Trees beginning 3414' from DER, 14' right of centerline, up to 75' AGL/284' MSL.  
Trees beginning 3703' from DER, 145' left of centerline, up to 100' AGL/299' MSL.  
Trees beginning 4193' from DER, 1343' left of centerline, up to 82' AGL/311' MSL.  
Trees beginning 4677' from DER, 313' right of centerline, up to 89' AGL/303' MSL.
- Rwy 16R: Trees beginning 119' from DER, 473' right of centerline, up to 32' AGL/221' MSL.  
Trees beginning 749' from DER, on centerline, up to 29' AGL/197' MSL.  
Trees beginning 745' from DER, 85' right of centerline, up to 33' AGL/212' MSL.  
Trees beginning 588' from DER, 536' right of centerline, up to 37' AGL/236' MSL.
- Rwy 34L: Terrain and sign beginning 1' from DER, 392' right of centerline, up to 5' AGL/192' MSL.  
Trees and poles beginning 877' from DER, 616' left of centerline, up to 54' AGL/247' MSL.  
Building and trees beginning 1573' from DER, 249' left of centerline, up to 39' AGL/252' MSL.  
Trees beginning 1752' from DER, 187' right of centerline, up to 39' AGL/238' MSL.  
Tower and trees beginning 2563' from DER, 182' left of centerline, up to 64' AGL/283' MSL.  
Trees beginning 2563' from DER, 250' right of centerline, up to 56' AGL/279' MSL.
- Rwy 34R: Terrain, airfield light, and sign beginning 25' from DER, 92' right of centerline, up to 7' AGL/196' MSL. Airfield light and vegetation beginning 26' from DER, 78' left of centerline, up to 9' AGL/197' MSL. Vehicles on road and poles beginning 518' from DER, 595' right of centerline, up to 24' AGL/215' MSL.  
Trees beginning 1759' from DER, 448' left of centerline, up to 39' AGL/238' MSL.  
Trees 1859' from DER, 828' right of centerline, up to 39' AGL/248' MSL.  
Trees beginning 2548' from DER, 828' left of centerline, up to 54' AGL/283' MSL.  
Trees beginning 2653' from DER, 1082' right of centerline, up to 57' AGL/280' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(HIICH2.HIICH) 16091

# HIICH TWO DEPARTURE (RNAV)

MANASSAS RGNL/HARRY P DAVIS FIELD (HEF)  
WASHINGTON, DC

SL-5326

ATIS  
125.175  
CLNC DEL  
120.2  
GND CON  
121.8  
MANASSAS TOWER ★  
133.1 (CTAF) 360.75  
POTOMAC DEP CON  
128.525 306.925

**TOP ALTITUDE:  
3000**

JERES

MCRAY

14300  
\*3800  
345°  
(16)

15000  
\*4400  
041°  
(24)

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

STRKY

11100  
\*3600  
017°  
(15)

STRMN

14000  
\*3500  
084°  
(26)

WOOLY

### TAKEOFF MINIMUMS:

Rwys 16L/R: Standard with minimum  
climb of 500' per NM to 710.  
Rwys 34L/R: Standard with minimum  
climb of 500' per NM to 710, then  
minimum climb of 335' per NM to 3800.

HEFLN

9000  
\*3100  
051°  
(13)

RAMAY

9400  
\*4600  
301°  
(15)

BUNZZ

8200  
\*3000  
028°  
(10)

PUGLE

BUNZZ

6500  
\*3800  
326°  
(14)

PUGLE

OTTO

8600  
\*5100  
298°  
(14)

RNLDI

5700  
\*3600  
306°  
(10)

HIICH

6100  
\*3400  
348°  
(12)

RNLDI

HIICH

6100  
\*3400  
348°  
(12)

269°

336°  
(17)

GABBE

341°  
161°

710

(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# HIICH TWO DEPARTURE (RNAV)

(HIICH2.HIICH) 31MAR16

MANASSAS RGNL/HARRY P DAVIS FIELD (HEF)  
WASHINGTON, DC



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 16L/R: Climb heading 161° to 710, then right turn direct GABBE, then on track 336° to HIICH, thence . . . .

TAKEOFF RUNWAYS 34L/R: Climb heading 341° to intercept course 269° to HIICH, thence . . . .

. . . . on assigned transition. Maintain 3000. Expect clearance to filed altitude within 10 minutes after departure.

JERES TRANSITION (HIICH2.JERES)

MCRAY TRANSITION (HIICH2.MCRAY)

OTTTO TRANSITION (HIICH2.OTTTO)

RAMAY TRANSITION (HIICH2.RAMAY)

WOOLY TRANSITION (HIICH2.WOOLY)

TAKEOFF OBSTACLE NOTES:

- Rwy 16L: Trees beginning 1247' from DER, 178' left of centerline, up to 99' AGL/268' MSL.  
Trees beginning 1810' from DER, 88' right of centerline, up to 73' AGL/272' MSL.  
Trees beginning 2618' from DER, 4' left of centerline, up to 84' AGL/293' MSL.  
Trees beginning 3414' from DER, 14' right of centerline, up to 75' AGL/284' MSL.  
Trees beginning 3703' from DER, 145' left of centerline, up to 100' AGL/299' MSL.  
Trees beginning 4193' from DER, 1343' left of centerline, up to 82' AGL/311' MSL.  
Trees beginning 4677' from DER, 313' right of centerline, up to 89' AGL/303' MSL.
- Rwy 16R: Trees beginning 119' from DER, 473' right of centerline, up to 32' AGL/221' MSL.  
Trees beginning 749' from DER, on centerline, up to 29' AGL/197' MSL.  
Trees beginning 745' from DER, 85' right of centerline, up to 33' AGL/212' MSL.  
Trees beginning 588' from DER, 536' right of centerline, up to 37' AGL/236' MSL.
- Rwy 34L: Terrain and sign beginning 1' from DER, 392' right of centerline, up to 5' AGL/192' MSL.  
Trees and poles beginning 877' from DER, 616' left of centerline, up to 54' AGL/247' MSL.  
Building and trees beginning 1573' from DER, 249' left of centerline, up to 39' AGL/252' MSL.  
Trees beginning 1752' from DER, 187' right of centerline, up to 39' AGL/238' MSL.  
Tower and trees beginning 2563' from DER, 182' left of centerline, up to 64' AGL/283' MSL.  
Trees beginning 2563' from DER, 250' right of centerline, up to 56' AGL/279' MSL.
- Rwy 34R: Terrain, airfield light, and sign beginning 25' from DER, 92' right of centerline, up to 7' AGL/196' MSL.  
Airfield light and vegetation beginning 26' from DER, 78' left of centerline, up to 9' AGL/197' MSL.  
Vehicles on road and poles beginning 518' from DER, 595' right of centerline, up to 24' AGL/215' MSL.  
Trees beginning 1759' from DER, 448' left of centerline, up to 39' AGL/238' MSL.  
Trees 1859' from DER, 828' right of centerline, up to 39' AGL/248' MSL.  
Trees beginning 2548' from DER, 828' left of centerline, up to 54' AGL/283' MSL.  
Trees beginning 2653' from DER, 1082' right of centerline, up to 57' AGL/280' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-DCA	APP CRS	Rwy Idg	<b>6869</b>
<b>109.9</b>	<b>006°</b>	TDZE	<b>14</b>
Chan <b>36</b>		Apt Elev	<b>15</b>

# ILS or LOC/DME RWY 1

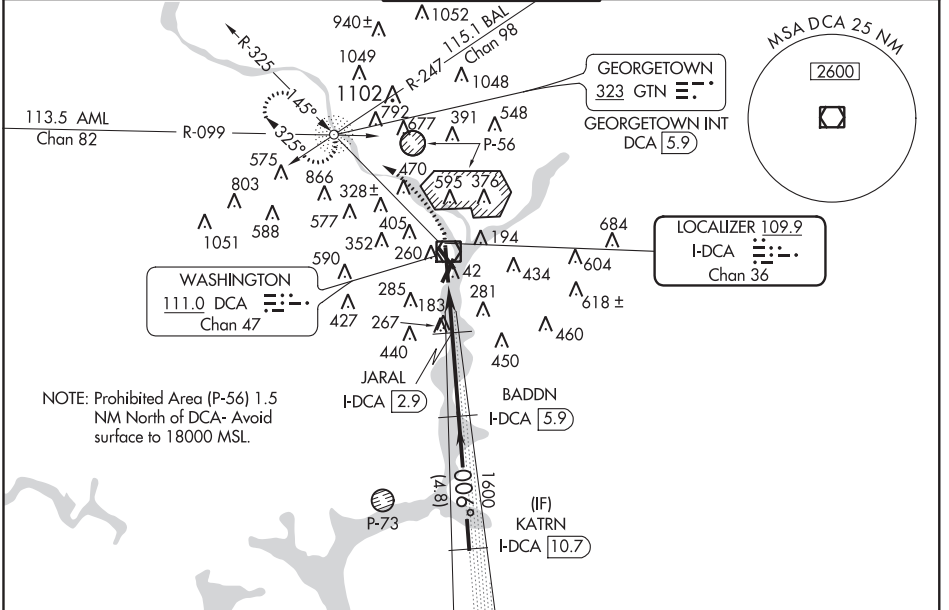
RONALD REAGAN WASHINGTON NATIONAL (DCA)

**⚠** Circling NA NE of Rwy 15-33.  
 Night landing Rwy 4, 15 NA.  
 For inoperative ALSF-2, increase S-LOC 1 Cats C and D visibility to 1 3/8 mile.

ALSF-2

MISSED APPROACH: Climb to 420 then climbing left turn to 2100 on DCA VOR/DME R-325 to GTN NDB/INT/DCA 5.9 DME and hold.

ATIS	POTOMAC APP CON	WASHINGTON TOWER	GND CON	CLNC DEL	CPDLC
<b>132.65</b>	<b>119.85 319.1</b> (WEST/SOUTH) <b>124.2 269.0</b> (EAST)	<b>119.1 257.6</b>	<b>121.7 257.6</b>	<b>128.25</b>	



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 15	<b>D</b>	TDZE 14			
HIRL Rwys 1-19 and 15-33 MIRL Rwy 4-22 54  REIL Rwys 15 and 33 TDZ/CL Rwy 1					
006° 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

## RADAR REQUIRED

420	2100	GTN	Use I-DCA DME when on the LOC course.	
DCA R-325	BADDN I-DCA [5.9]	KATR N I-DCA [10.7]		
* LOC only.				
I-DCA [1.1]	* I-DCA [2.4]	JARAL I-DCA [2.9]	1600	
			2500	
-1.3 NM -0.5 NM -3 NM -4.8 NM			GS 3.00° TCH 54	
CATEGORY	A	B	C	D
S-ILS 1	214/18 200 (200-1/2)			
S-LOC 1	480/24	466 (500-1/2)	480/50	466 (500-1)
CIRCLING	720-1	705 (800-1)	720-2 705 (800-2)	760-2 1/2 745 (800-2 1/2)

LOC/DME I-DCA	APP CRS	Rwy Idg	<b>6869</b>
<b>109.9</b>	<b>006°</b>	TDZE	<b>14</b>
Chan <b>36</b>		Apt Elev	<b>15</b>

# ILS RWY 1 (SA CAT I)

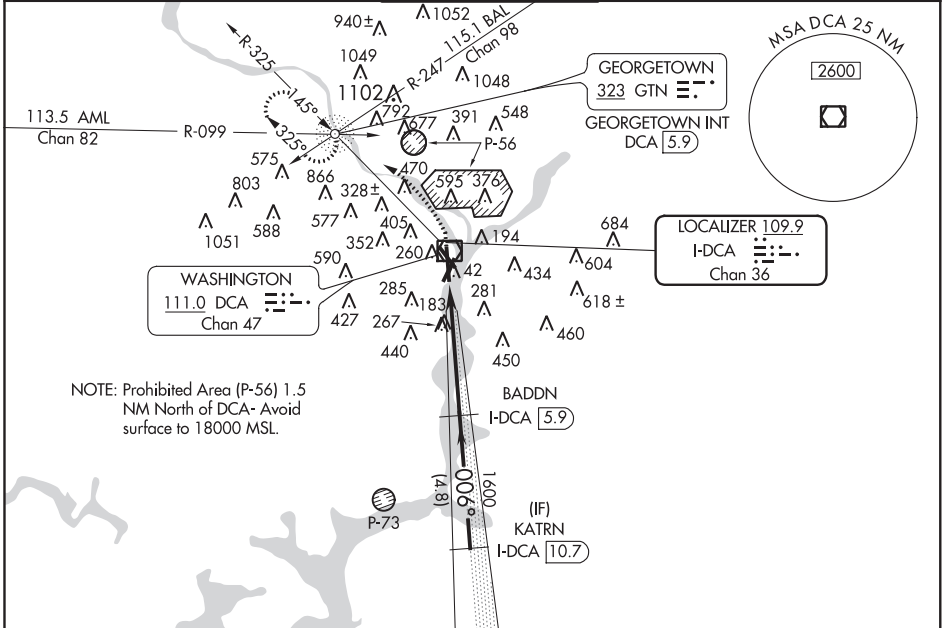
## RONALD REAGAN WASHINGTON NATIONAL (DCA)

**⚠** Requires specific OPSPEC, MSPEC or LOA approval and use of HUD to DH. Night landing Rwy 4, 15 NA.



**MISSED APPROACH:** Climb to 420 then climbing left turn to 2100 on DCA VOR/DME R-325 to GTN NDB/INT/DCA 5.9 DME and hold.

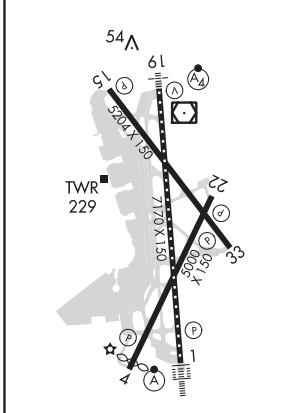
ATIS <b>132.65</b>	POTOMAC APP CON <b>119.85 319.1</b> <b>124.2 269.0</b>	(WEST/SOUTH) (EAST)	WASHINGTON TOWER <b>119.1 257.6</b>	GND CON <b>121.7 257.6</b>	CLNC DEL <b>128.25</b>	CPDLC
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NE-3, 10 NOV 2016 to 05 JAN 2017

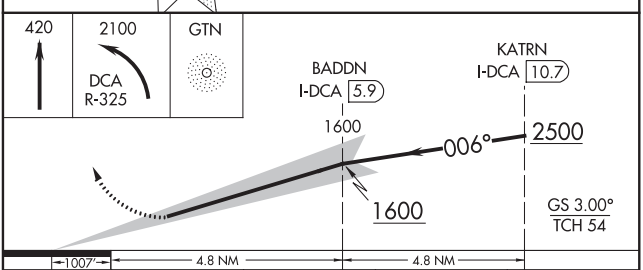
NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 15	<b>D</b>	TDZE 14
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TDZ/CL Rwy 1  
REIL Rws 15 and 33  
HIRL Rws 1-19 and 15-33  
MIRL Rwy 4-22

### RADAR REQUIRED



CATEGORY	A	B	C	D
S-ILS 1		RA 156/14	150 DA 164	

### SA CATEGORY I ILS- SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

WASHINGTON, DC

AL-443 (FAA)

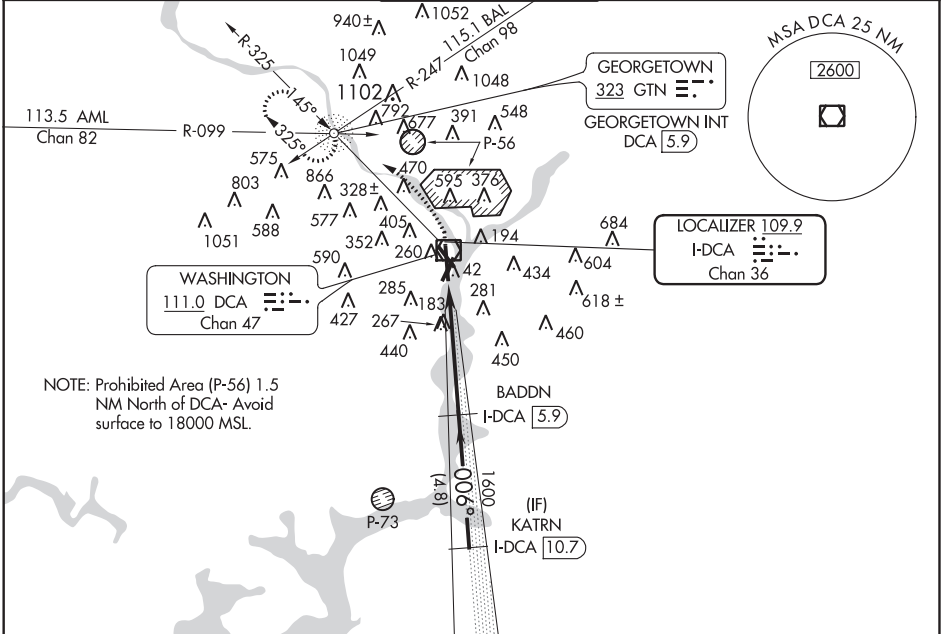
16315

LOC/DME F-DCA	APP CRS	Rwy Idg	<b>6869</b>
<b>109.9</b>	<b>006°</b>	TDZE	<b>14</b>
Chan <b>36</b>		Apt Elev	<b>15</b>

**ILS RWY 1 (CAT II)**

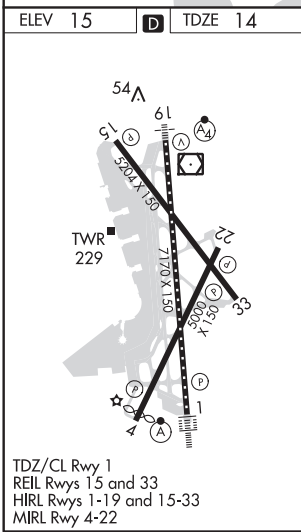
RONALD REAGAN WASHINGTON NATIONAL (DCA)

	Night landing Rwy 4, 15 NA.					MISSED APPROACH: Climb to 420 then climbing left turn to 2100 on DCA VOR/DME R-325 to GTN NDB/INT/DCA 5.9 DME and hold.		
	ATIS <b>132.65</b>	POTOMAC APP CON <b>119.85 319.1</b> (WEST/SOUTH) <b>124.2 269.0</b> (EAST)		WASHINGTON TOWER <b>119.1 257.6</b>	GND CON <b>121.7 257.6</b>	CLNC DEL <b>128.25</b>	CPDLC	



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



RADAR REQUIRED

420	2100	GTN		
↑	DCA R-325		BADDN I-DCA 5.9	KATRN I-DCA 10.7

100°	4.8 NM	4.8 NM		
CATEGORY	A	B	C	D
S-ILS 1	RA 106/12 100 DA 114			

CATEGORY II ILS- SPECIAL AIRCREW  
& AIRCRAFT CERTIFICATION REQUIRED

WASHINGTON, DC  
 Amdt 41B 02APR15

RONALD REAGAN WASHINGTON NATIONAL (DCA)  
 38°51'N-77°02'W  
**ILS RWY 1 (CAT II)**

APP CRS	Rwy Idg	<b>6869</b>
<b>005°</b>	TDZE	<b>14</b>
	Apt Elev	<b>15</b>

# RNAV (RNP) RWY 1

## RONALD REAGAN WASHINGTON NATIONAL (DCA)

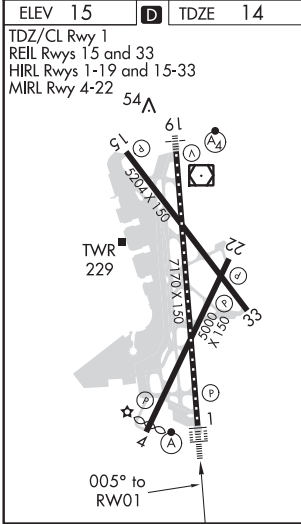
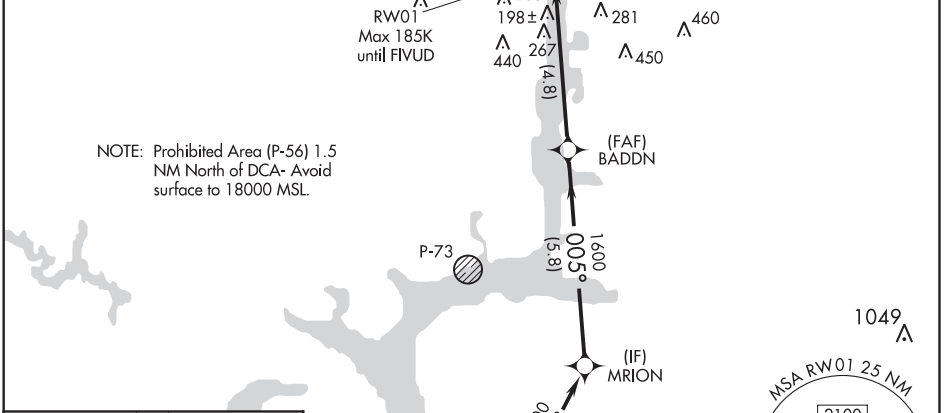
▼ For uncompensated Baro-VNAV systems, procedure NA below -10°C (14°F) or above 48°C (120°F). For inop ALSF-2, increase RNP 0.30 all Cats visibility to 1¼ mile. RF required. GPS Required. Missed approach requires RNP less than 1.0.

ALSF-2 MISSED APPROACH: Climb to 2100 left turn to FIVUD and on track 325° to HESLO and on track 325° to GTN NDB and hold.

ATIS <b>132.65</b>	POTOMAC APP CON <b>119.85 319.1</b> <b>124.2 269.0</b> (WEST/SOUTH) (EAST)	WASHINGTON TOWER <b>119.1 257.6</b>	GND CON <b>121.7 257.6</b>	CLNC DEL <b>128.25</b>	CPDLC
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### RADAR REQUIRED



2100	FIVUD	HESLO	GTN	MRION
↑	tr 325°	tr 325°		2500
RWY 1		BADDN	1600	
4.8 NM		5.8 NM		
GP 3.00°	TCH 54			
CATEGORY	A	B	C	D
RNP 0.30 DA	539/60 525 (600-1¼)			
<b>AUTHORIZATION REQUIRED</b>				

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

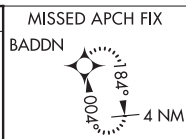
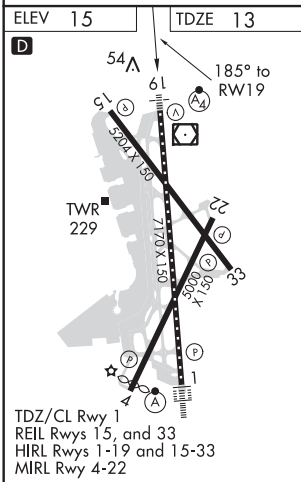
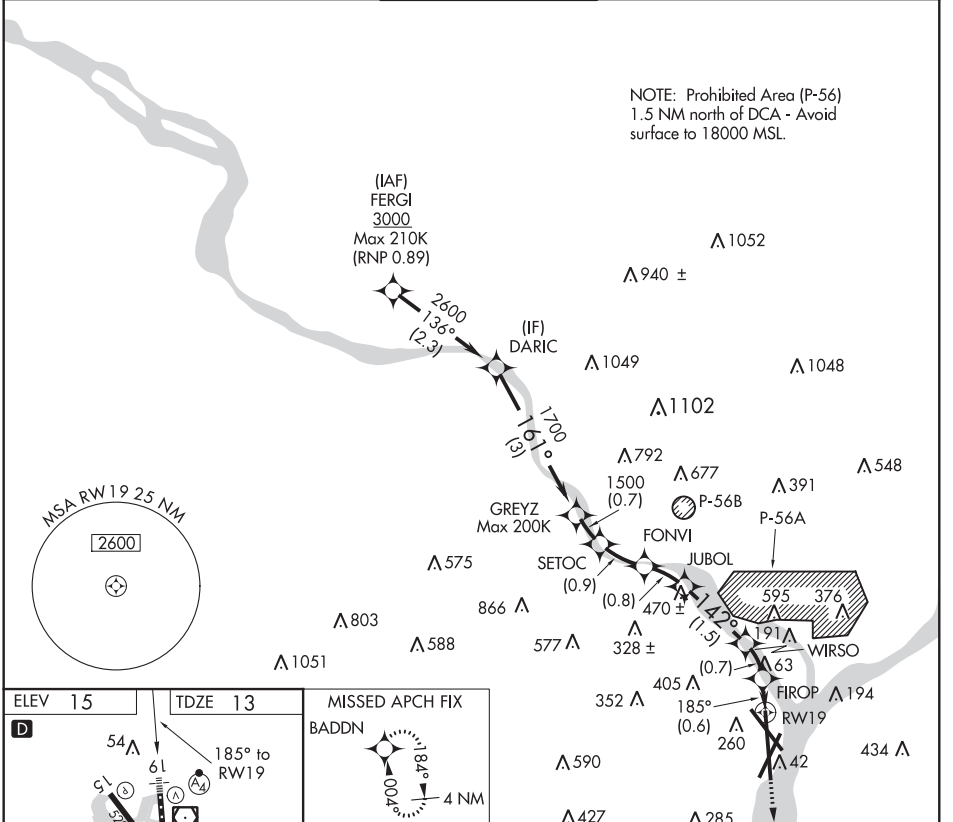
APP CRS	Rwy Idg	<b>6869</b>
<b>185°</b>	TDZE	<b>13</b>
	Apt Elev	<b>15</b>

# RNAV (RNP) RWY 19

## RONALD REAGAN WASHINGTON NATIONAL (DCA)

For uncompensated Baro-VNAV systems, procedure NA below -9°C (16°F) or above 54°C (130°F). Inoperative table does not apply. RF and GPS required.		MISSED APPROACH: Climb to 3000 on the final approach track to RWY19 then direct BADDN and hold, continue climb-in-hold to 3000.			

ATIS	POTOMAC APP CON	WASHINGTON TOWER	GND CON	CLNC DEL	CPDLC
<b>132.65</b>	<b>119.85 319.1</b> <b>124.2 269.0</b> (WEST/SOUTH) (EAST)	<b>119.1 257.6</b>	<b>121.7 257.6</b>	<b>128.25</b>	



DARIC	GREYZ	SETOC	FONVI	JUBOL	WIRSO	FIROP	Final App Tr to RWY19	BADDN	
2600	1700	1500	1214	955	480	253			
GP 3.00° TCH 50		1700		142°		185°			
3 NM		0.7 NM		0.9 NM		0.8 NM		1.5 NM	
0.7		0.6		0.7		0.6		0.6 NM	
CATEGORY	A	B	C	D					
RNP 0.11 DA		491-1½	478 (500-1½)						
RNP 0.30 DA		550-1¾	537 (600-1¾)						

### AUTHORIZATION REQUIRED

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



WAAS CH <b>70737</b> <b>W15A</b>	APP CRS <b>149°</b>	Rwy Idg <b>5204</b> TDZE <b>14</b> Apt Elev <b>14</b>
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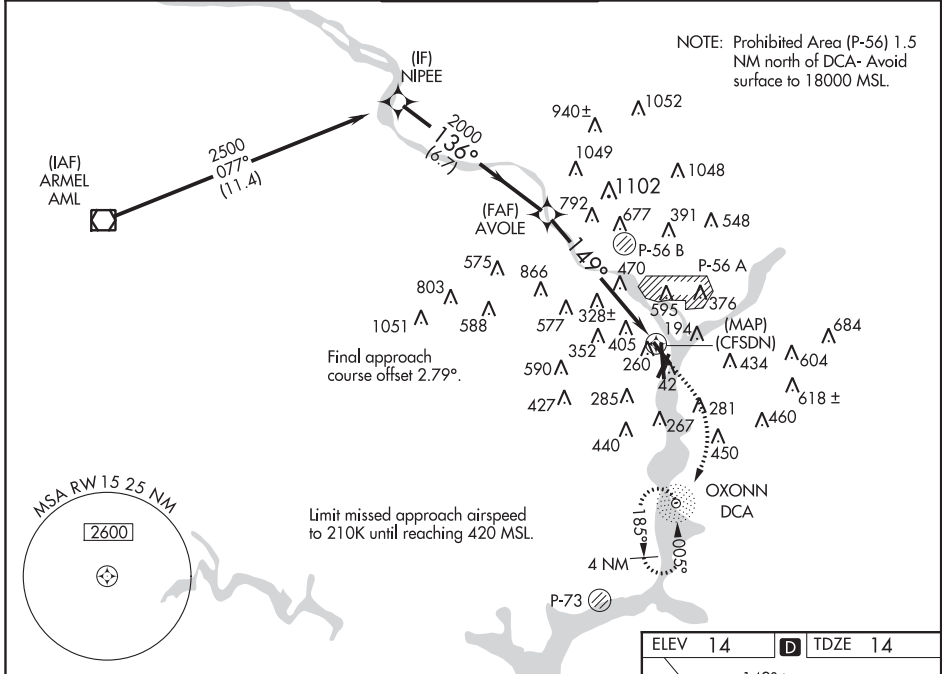
# RNAV (GPS) RWY 15

RONALD REAGAN WASHINGTON NATIONAL (DCA)

**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -9°C (16°F) or above 54°C (130°F). Circling NA northeast of Rwy 15-33. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA.

**⚠** MISSED APPROACH: Climb to 420 then climbing right turn to 1800 direct DCA NDB and hold.

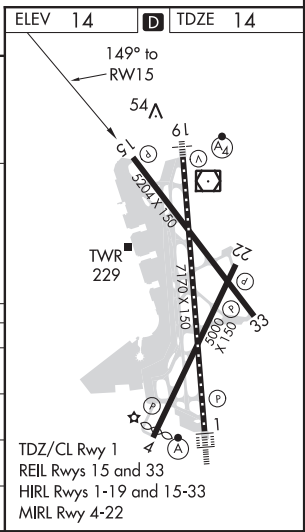
ATIS <b>132.65</b>	POTOMAC APP CON <b>119.85 319.1</b> <b>124.2 269.0</b>	(WEST/SOUTH) (EAST)	WASHINGTON TOWER <b>119.1 257.6</b>	GND CON <b>121.7 257.6</b>	CLNC DEL <b>128.25</b>	CPDLC
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 36).				
CATEGORY	A	B	C	D
LPV DA		394-1¼	380 (400-1¼)	
LNAV/VNAV DA		745-2½	731 (800-2½)	
LNAV MDA	800-1 786 (800-1)	800-1¼ 786 (800-1¼)	800-2½	786 (800-2½)
<b>C</b> CIRCLING	800-1 786 (800-1)	800-1¼ 786 (800-1¼)	840-2½ 826 (900-2½)	900-3 886 (900-3)



WASHINGTON, DC

AL-443 (FAA)

16315

WAAS CH <b>90123</b> <b>W33A</b>	APP CRS <b>332°</b>	Rwy Idg <b>5204</b> TDZE <b>13</b> Apt Elev <b>14</b>
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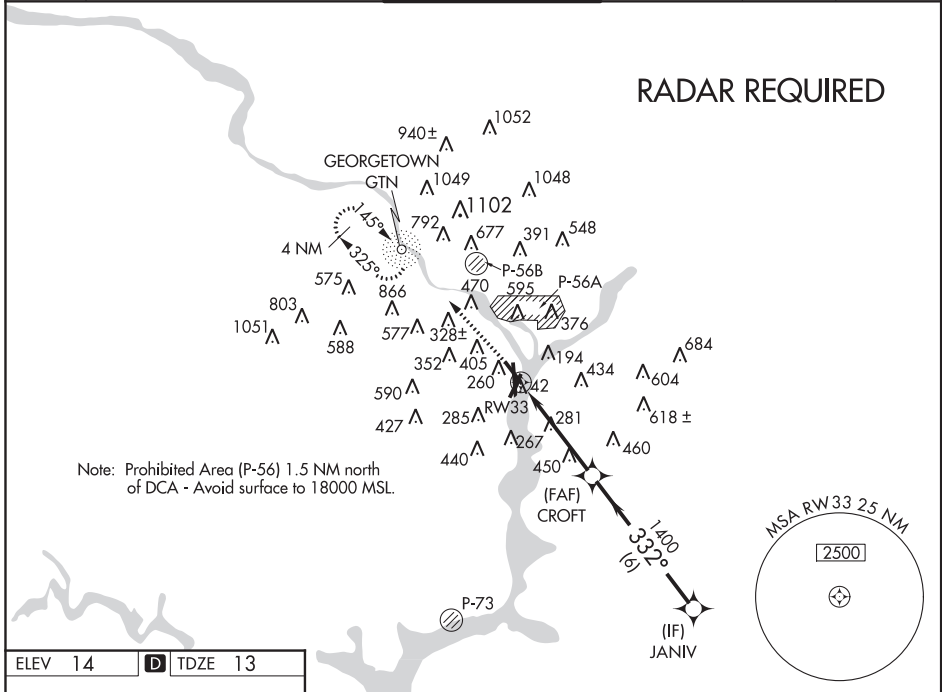
# RNAV (GPS) RWY 33

RONALD REAGAN WASHINGTON NATIONAL (DCA)

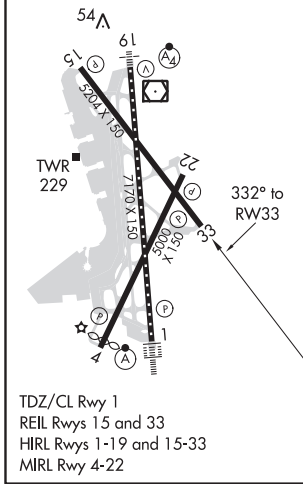
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -9°C (16°F) or above 54°C (130°F). Circling NA northeast of Rwy 15-33.  
**⚠** DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 2200 direct GTN NDB and hold, continue climb-in-hold to 2200.

ATIS <b>132.65</b>	POTOMAC APP CON <b>119.85 319.1</b> (WEST/SOUTH) <b>124.2 269.0</b> (EAST)	WASHINGTON TOWER <b>119.1 257.6</b>	GND CON <b>121.7 257.6</b>	CLNC DEL <b>128.25</b>	CPDLC
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ELEV 14	<b>D</b>	TDZE 13
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2200	GTN	VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 37).			
↑					
* LNAV only		JANIV			
RW33		CROFT	1400		2100
* 2.1 NM to RW33		1400	332°		2100
		1400	1400		GP 3.00° TCH 55
CATEGORY	A	B	C	D	
LPV DA	263-¾		250 (300-¾)		
LNAV/VNAV DA	609-2		596 (600-2)		
LNAV MDA	720-1	707 (800-1)	720-2	707 (800-2)	
<b>C</b> CIRCLING	720-1	706 (800-1)	840-2½ 826 (900-2½)	900-3 886 (900-3)	

WASHINGTON, DC  
Amdt 1 20AUG15

RONALD REAGAN WASHINGTON NATIONAL (DCA)  
38°51'N-77°02'W  
**RNAV (GPS) RWY 33**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

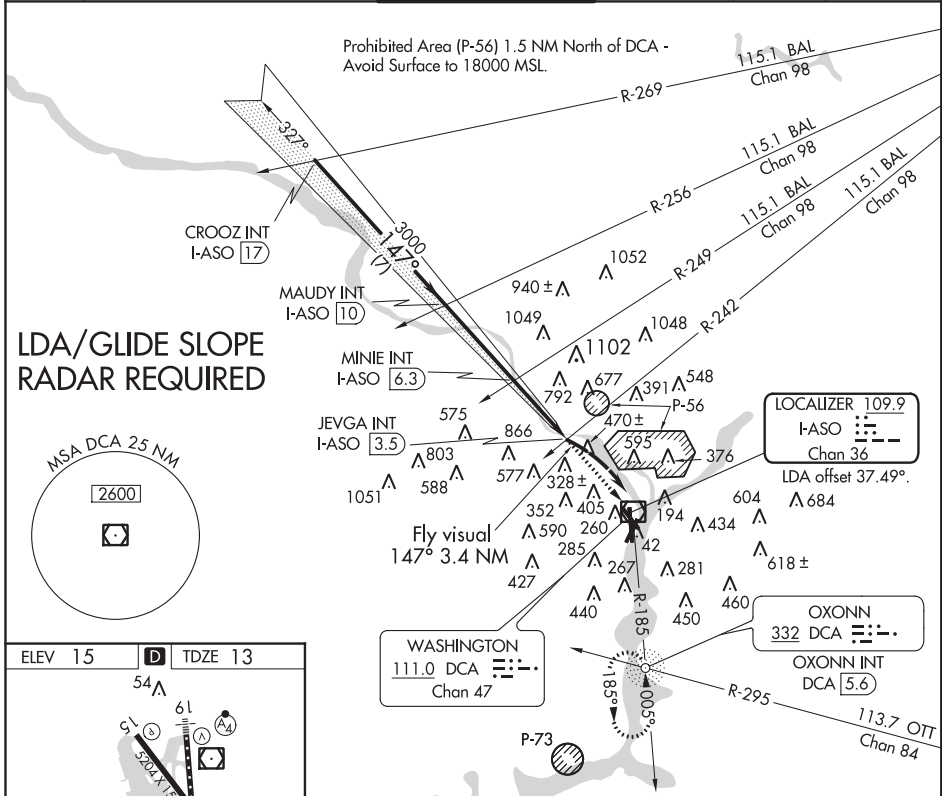
LOC/DME I-ASO <b>109.9</b> Chan <b>36</b>	APP CRS <b>147°</b>	Rwy Idg TDZE Apt Elev	<b>6869</b> <b>13</b> <b>15</b>
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# LDA Y RWY 19

RONALD REAGAN WASHINGTON NATIONAL (DCA)

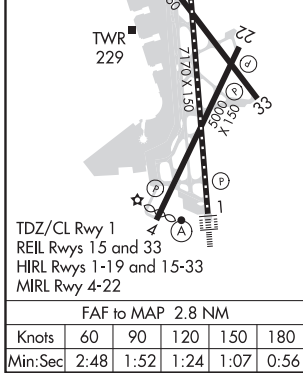
Inop table does not apply. Circling NA northeast of Rwy 15-33. Night landing: Rws 4, 15 NA. Helicopter visibility reduction below 1 SM NA.	MALSF 	MISSED APPROACH: Climb to 1800 direct DCA VOR/DME and on DCA VOR/ DME R-185 to OXONN NDB/INT/DCA 5.6 DME and hold.
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ATIS <b>132.65</b>	POTOMAC APP CON (WEST/SOUTH) (EAST) <b>119.85 319.1</b> <b>124.2 269.0</b>	WASHINGTON TOWER <b>119.1 257.6</b>	GND CON <b>121.7 257.6</b>	CLNC DEL <b>128.25</b>	CPDLC
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



Glide slope unusable below 1100'.		1800 DCA	DCA
CROOZ INT I-ASO 17	MAUDY INT I-ASO 10		
		Fly visual	
GS 3.00°			
CATEGORY	A	B	C
S-LDA/GS 19		1100-3	1087 (1100-3)
S-LDA 19		1100-3	1087 (1100-3)
CIRCLING		1100-3	1085 (1100-3)

LOC/DME I-VVWH	APP CRS	Rwy Idg	<b>6869</b>
<b>108.5</b>	<b>145°</b>	TDZE	<b>13</b>
Chan <b>22</b>		Apt Elev	<b>15</b>

# LDA Z RWY 19

## RONALD REAGAN WASHINGTON NATIONAL (DCA)

**⚠** Inoperative table does not apply. Circling NA northeast of Rwy 15-33. Helicopter visibility reduction below 1 SM NA. Night landing: Rwy 4, 1.5 NA. DME required.

**MALSF**  
**MISSED APPROACH:** Climbing right turn to 3000 on DCA VOR/DME R-185 to BADDN/DCA VOR/DME 5.9 DME and hold, continue climb-in-hold to 3000.

ATIS	POTOMAC APP CON	WASHINGTON TOWER	GND CON	CLNC DEL	CPDLC
<b>132.65</b>	<b>119.85 319.1</b> (WEST/SOUTH) <b>124.2 269.0</b> (EAST)	<b>119.1 257.6</b>	<b>121.7 257.6</b>	<b>128.25</b>	

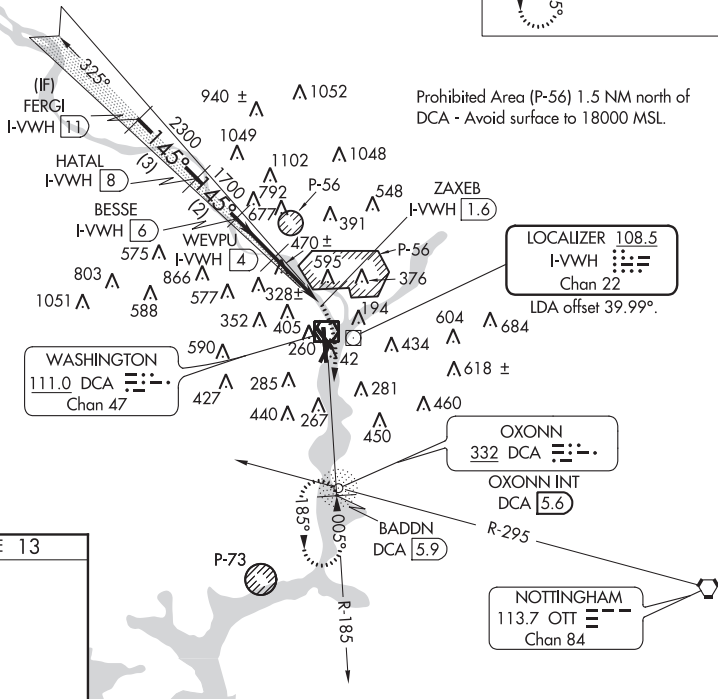
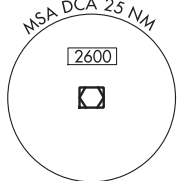
### RADAR REQUIRED

ALTERNATE MISSED APCH FIX



OXONN  
 DCA **332**

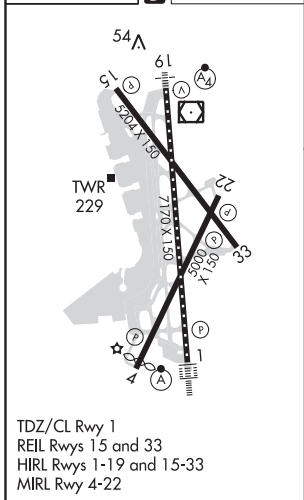
Prohibited Area (P-56) 1.5 NM north of DCA - Avoid surface to 18000 MSL.



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 15	<b>D</b>	TDZE 13
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TDZ/CL Rwy 1  
 REIL Rws 15 and 33  
 HIRL Rws 1-19 and 15-33  
 MIRL Rwy 4-22

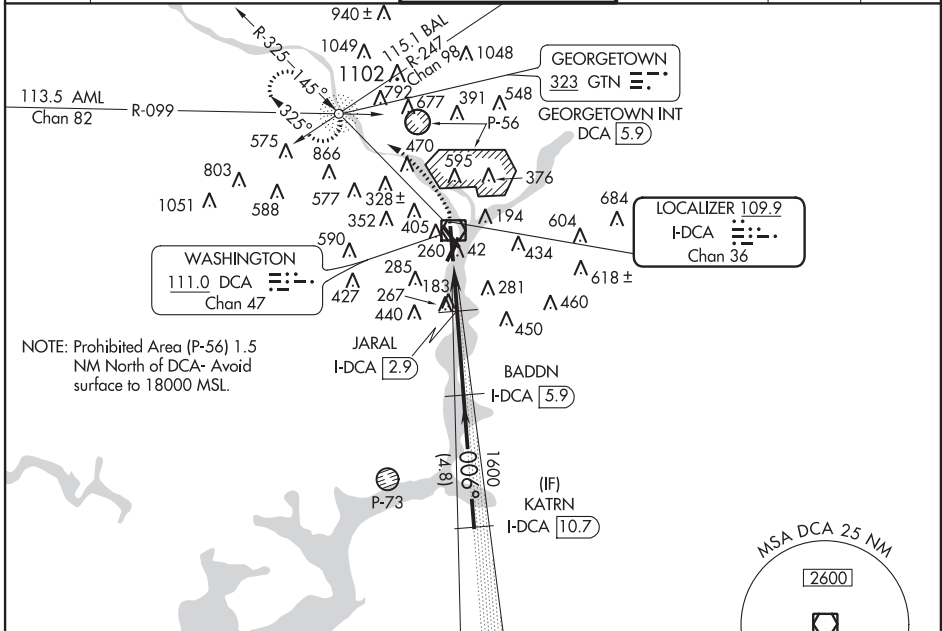
	FERGI I-VVWH <b>11</b>	HATAL I-VVWH <b>8</b>	BESSE I-VVWH <b>6</b>	WEVPU I-VVWH <b>4</b>	ZAXEB I-VVWH <b>1.6</b>	3000 DCA R-185	BADDN DCA <b>5.9</b>
	3000	2300	1700	1100	3.04° TCH 50		
	3 NM	2 NM	2 NM	2.4 NM	0.8		
CATEGORY	A		B		C		D
S-LDA 19	720/55	707 (800-1¼)		720-2	707 (800-2)		
<b>C</b> CIRCLING	720-1	705 (800-1)		840-2½ 825 (900-2½)	900-3 885 (900-3)		

LOC/DME I-DCA <b>109.9</b> Chan <b>36</b>	APP CRS <b>006°</b>	Rwy Idg <b>6869</b> TDZE <b>14</b> Apt Elev <b>15</b>
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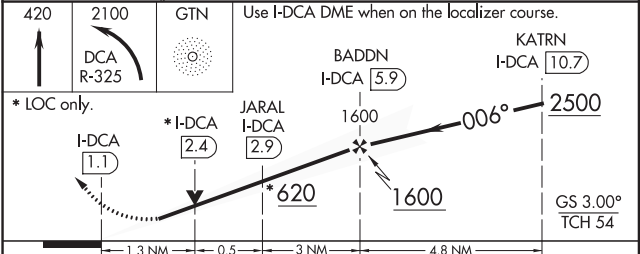
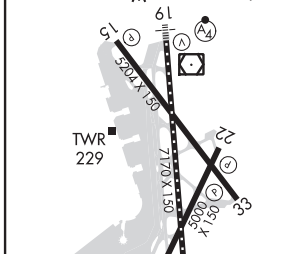
# COPTER ILS or LOC/DME RWY 1

## RONALD REAGAN WASHINGTON NATIONAL (DCA)

<b>NA</b>		<b>ALSf-2</b> 	<b>MISSED APPROACH:</b> Climb to 420 then climbing left turn to 2100 on DCA VOR/DME R-325 to GTN NDB/INT/DCA 5.9 DME and hold.		
<b>ATIS</b> <b>132.65</b>	<b>POTOMAC APP CON</b> <b>119.85 319.1</b> (WEST/SOUTH) <b>124.2 269.0</b> (EAST)	<b>WASHINGTON TOWER</b> <b>119.1 257.6</b>	<b>GND CON</b> <b>121.7 257.6</b>	<b>CLNC DEL</b> <b>128.25</b>	<b>CPDLC</b>



ELEV 15	<b>D</b>	TDZE 14
TDZ/CL Rwy 1 REIL Rws 15 and 33 HIRL Rws 1-19 and 15-33 MIRL Rwy 4-22		



CATEGORY	COPTER	
H-ILS 1	114/12	100 (100-1/8)
H-LOC 1	480/24	466 (500-1/2)
H-ILS 1	CAT II RA 106	

### COPTER ILS CATEGORY II - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

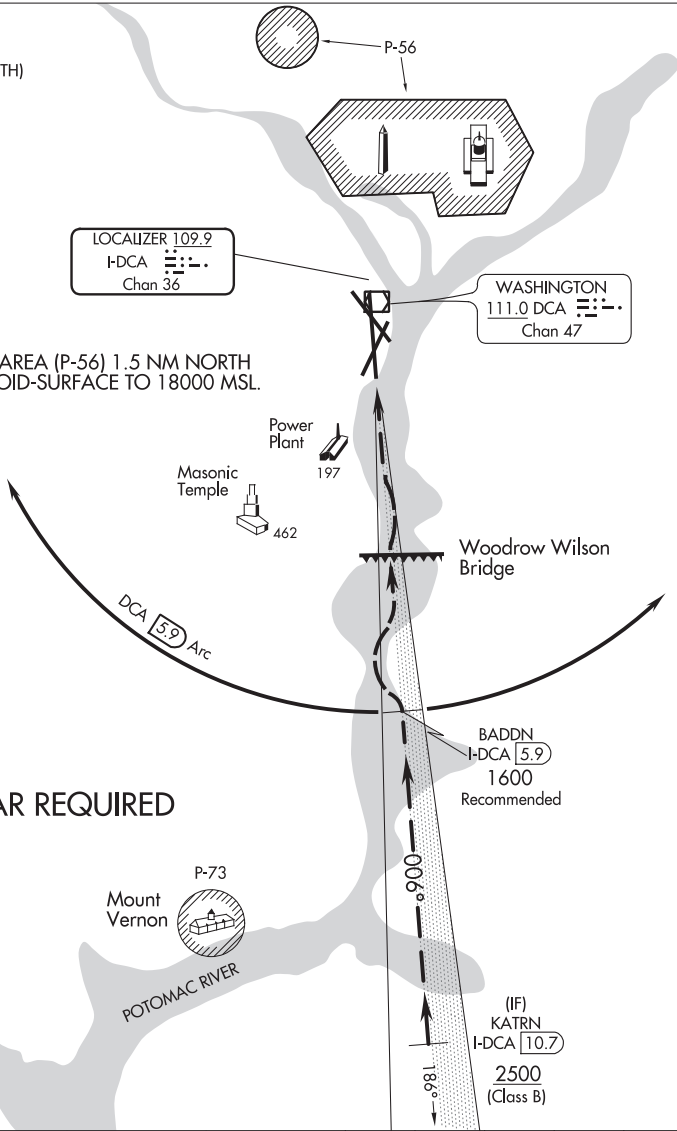
# MOUNT VERNON VISUAL RUNWAY 1

ATIS 132.65  
 POTOMAC APP CON  
 119.85 319.1 (WEST/SOUTH)  
 124.2 269.0 (EAST)  
 WASHINGTON TOWER  
 119.1 257.6  
 GND CON  
 121.7 257.6  
 CLNC DEL  
 128.25  
 CPDLC

LOCALIZER 109.9  
 I-DCA  
 Chan 36

WASHINGTON  
 111.0 DCA  
 Chan 47

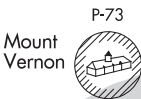
NOTE: PROHIBITED AREA (P-56) 1.5 NM NORTH OF DCA-AVOID-SURFACE TO 18000 MSL.



**RADAR REQUIRED**

Vertical Guidance  
 Navaid and Angle:  
 I-DCA 3.00°

Weather Minimums: 3000  
 feet ceiling and 4 mile  
 visibility.



1	2	3	4	5	6	7	8	9	10	11	12	13
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Aircraft may proceed via DCA VOR/DME R-185 (inbound 005°), or via the ILS or LOC/DME RWY 1 approach to 5.9 DME, then follow the Potomac River to the airport.

# MOUNT VERNON VISUAL RUNWAY 1

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# RIVER VISUAL RWY 19

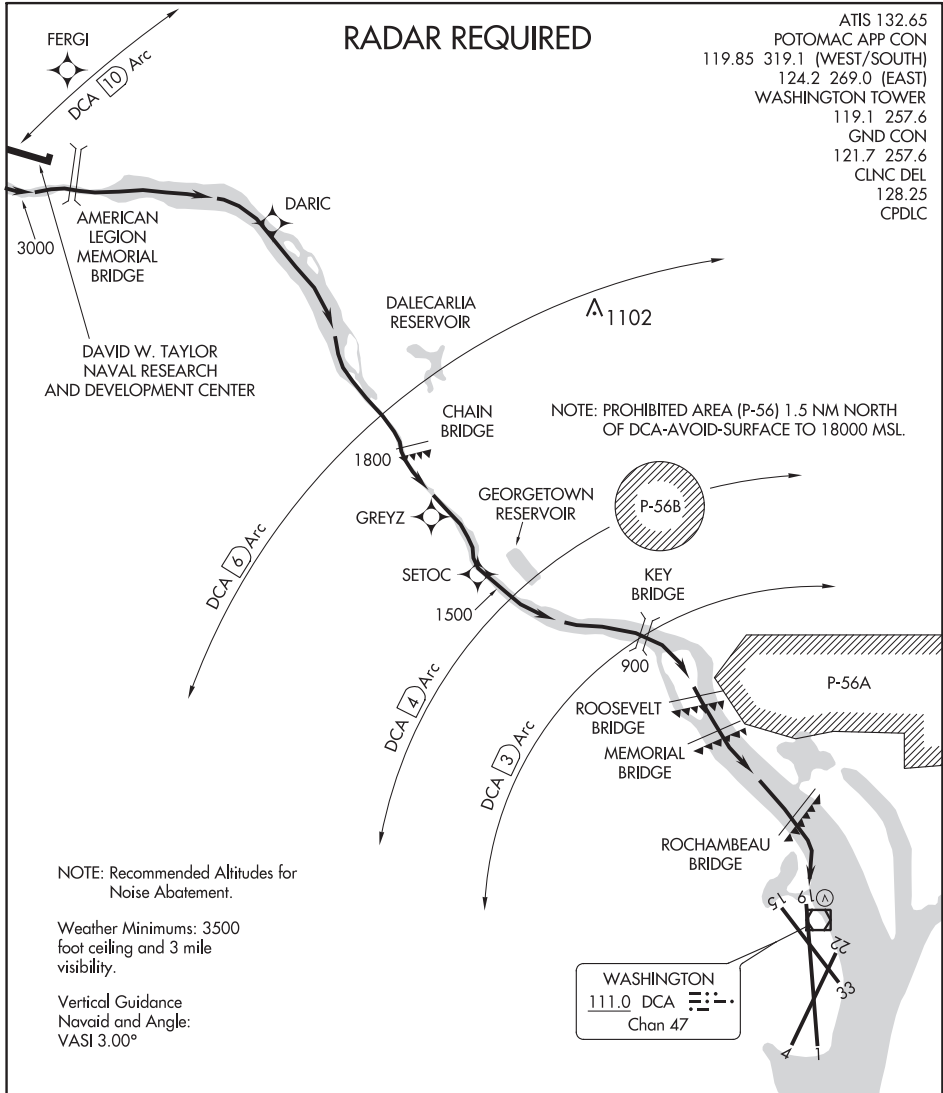
RONALD REAGAN WASHINGTON NATIONAL (DCA)

AL-443 (FAA)

WASHINGTON, DC

## RADAR REQUIRED

ATIS 132.65  
 POTOMAC APP CON  
 119.85 319.1 (WEST/SOUTH)  
 124.2 269.0 (EAST)  
 WASHINGTON TOWER  
 119.1 257.6  
 GND CON  
 121.7 257.6  
 CLNC DEL  
 128.25  
 CPDLC



NOTE: Recommended Altitudes for Noise Abatement.

Weather Minimums: 3500 foot ceiling and 3 mile visibility.

Vertical Guidance  
Navaid and Angle:  
VASI 3.00°

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

1 NM	2	3	4	5	6	7	8
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### RIVER VISUAL RWY 19

Aircraft may visually follow the river to the airport, or may proceed via the RNAV (RNP) RWY 19 Approach to SETOC waypoint, then follow the river to the airport.

NOTE: Clearance for visual approach does not authorize penetration of P-56.

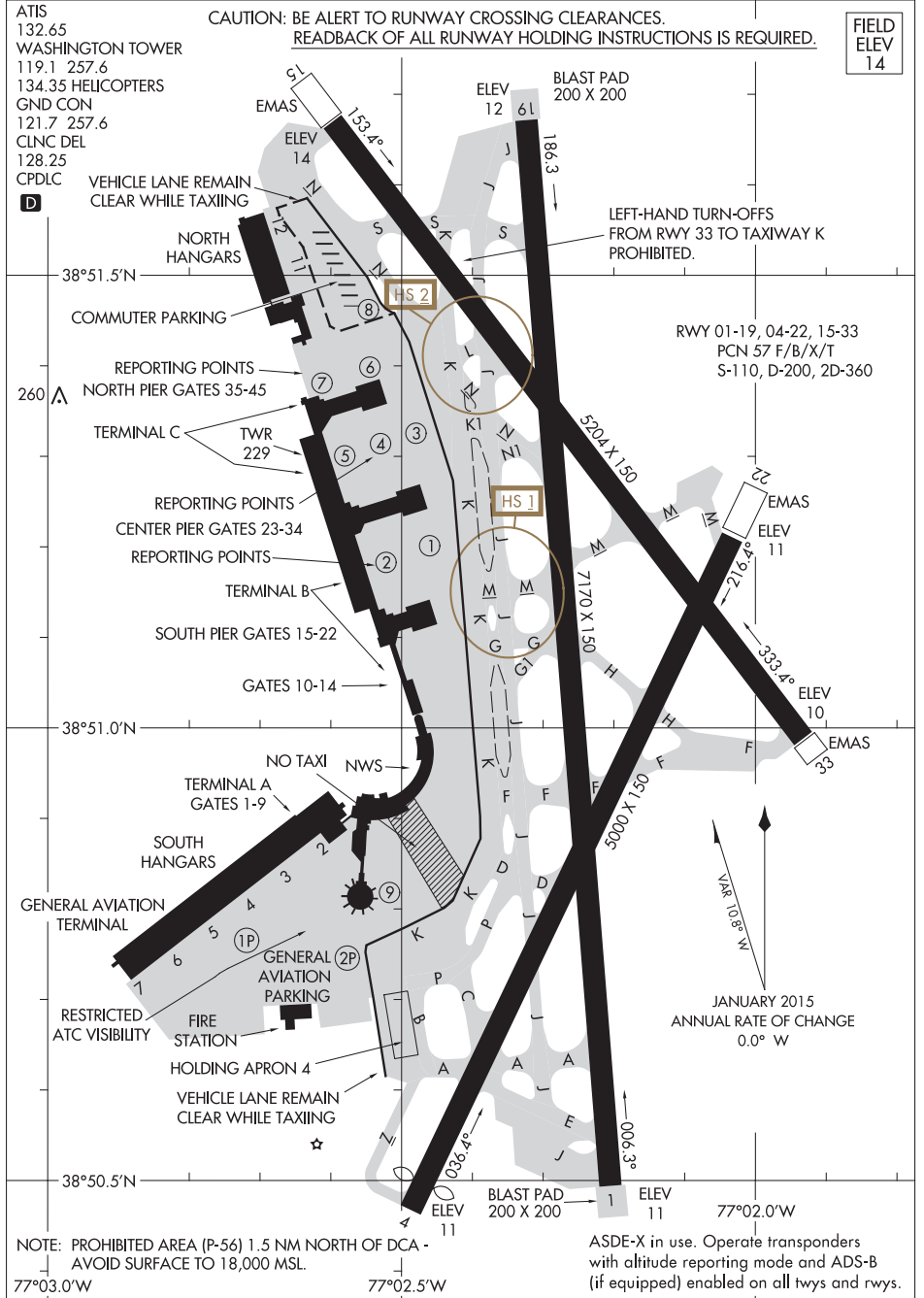
# RIVER VISUAL RWY 19

# AIRPORT DIAGRAM

## RONALD REAGAN WASHINGTON NATIONAL (DCA)

AL-443 (FAA)

WASHINGTON, D.C.



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# AIRPORT DIAGRAM

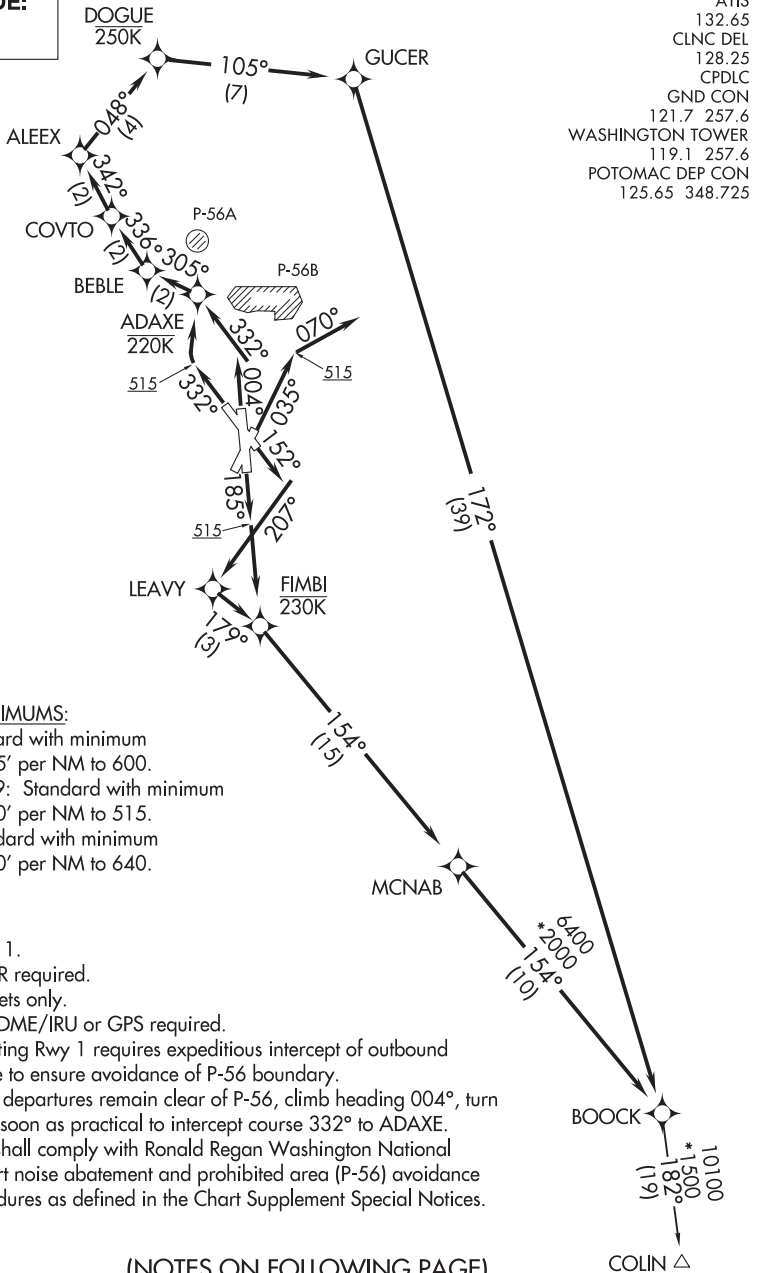
16315

## RONALD REAGAN WASHINGTON NATIONAL (DCA)

WASHINGTON, D.C.



TOP ALTITUDE:  
5000



TAKEOFF MINIMUMS:

- Rwy 1: Standard with minimum climb of 825' per NM to 600.
- Rwys 4, 15, 19: Standard with minimum climb of 500' per NM to 515.
- Rwy 33: Standard with minimum climb of 540' per NM to 640.

- NOTE: RNAV 1.
- NOTE: RADAR required.
- NOTE: Turbojets only.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Departing Rwy 1 requires expeditious intercept of outbound course to ensure avoidance of P-56 boundary.
- NOTE: Rwy 1 departures remain clear of P-56, climb heading 004°, turn left as soon as practical to intercept course 332° to ADAXE.
- NOTE: Pilots shall comply with Ronald Regan Washington National Airport noise abatement and prohibited area (P-56) avoidance procedures as defined in the Chart Supplement Special Notices.

(NOTES ON FOLLOWING PAGE)  
(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 1: Climb heading 004° to intercept course 332° to ADAXE, then on depicted route to BOOCK, thence . . . .

TAKEOFF RWY 4: Climb heading 035° to 515, then right turn on heading 070° or as assigned by ATC, expect vectors to MCNAB, then on track 154° to BOOCK, thence . . . .

TAKEOFF RWY 15: Climb heading 152° to intercept course 207° to LEAVY, then on depicted route to BOOCK, thence . . . .

TAKEOFF RWY 19: Climb heading 185° to 515, then direct FIMBI, then on depicted route to BOOCK, thence . . . .

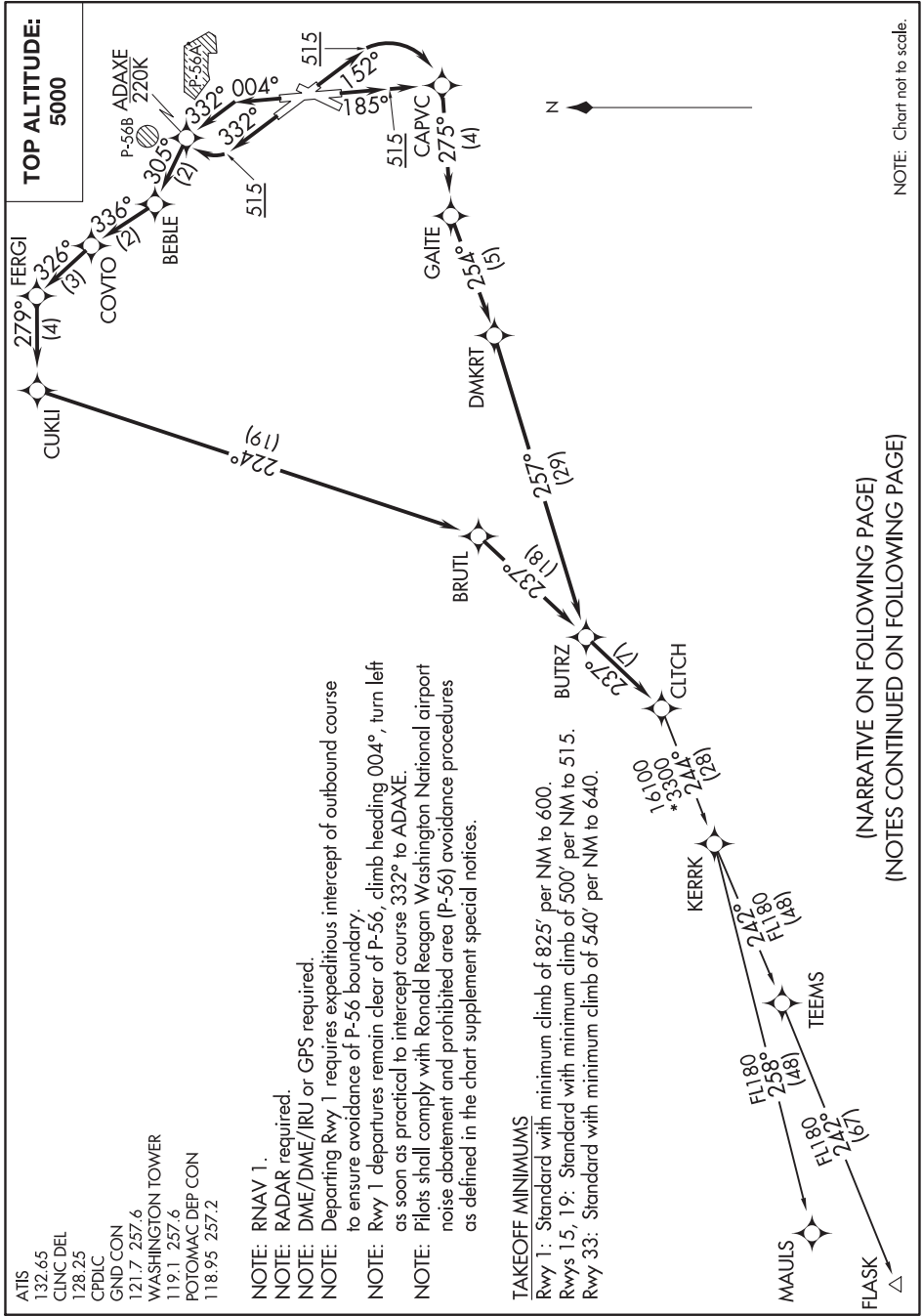
TAKEOFF RWY 33: Climb heading 332° to 515, then right turn direct ADAXE, then on depicted route to BOOCK, thence . . . .

. . . . on COLIN transition. Maintain 5000. Expect clearance to filed altitude within ten (10) minutes after departure.

COLIN TRANSITION (BOOCK2.COLIN)TAKEOFF OBSTACLE NOTES

- Rwy 1: Buildings beginning 118' from DER, 332' right of centerline, up to 10' AGL/22' MSL.  
Fence 261' from DER, 514' left of centerline, 9' AGL/19' MSL.  
Light pole and trees beginning 995' from DER, 210' left of centerline, up to 47' AGL/49' MSL.  
Trees beginning 1008' from DER, 499' left of centerline, up to 71' AGL/72' MSL.  
Trees 1365' from DER, 333' right of centerline, up to 50' AGL/51' MSL.  
Trees beginning 1744' from DER, 152' left of centerline, up to 70' AGL/71' MSL.  
Monument 1.7 NM from DER, 1787' right of centerline, 556' AGL/595' MSL.
- Rwy 4: Terrain and microwave sensors beginning 3' from DER, 260' right of centerline, up to 7' AGL/18' MSL. Sign and tower beginning 857' from DER, 677' left of centerline, up to 72' AGL/84' MSL. Spire 1.6 NM from DER, 208' right of centerline, 236' AGL/265' MSL.
- Rwy 15: Electrical systems beginning 178' from DER, 288' right of centerline, up to 10' AGL/19' MSL.  
Trees 1.4 NM from DER, 13' right of centerline, up to 94' AGL/245' MSL.  
Trees 1.5 NM from DER, 520' right of centerline, up to 80' AGL/235' MSL.
- Rwy 19: Trees 3434' from DER, 1135' right of centerline, up to 96' AGL/105' MSL.  
Building 1.1 NM from DER, 1891' right of centerline, 171' AGL/189' MSL.
- Rwy 33: Sign 18' from DER, 191' left of centerline, 3' AGL/15' MSL.  
Fence and Pole beginning 27' from DER, 332' right of centerline, up to 18' AGL/28' MSL.  
Vehicles on road and trees beginning 365' from DER, 344' left of centerline, up to 51' AGL/70' MSL.  
Trees beginning 533' from DER, 101' left of centerline, up to 37' AGL/39' MSL.  
Poles and trees beginning 641' from DER, 165' right of centerline, up to 56' AGL/60' MSL.  
Cranes and trees beginning 882' from DER, 289' left of centerline, up to 82' AGL/95' MSL.  
Trees beginning 1603' from DER, 78' right of centerline, up to 79' MSL/83' MSL.  
Poles and buildings beginning 1777' from DER, 868' left of centerline, up to 124' AGL/145' MSL.  
Poles beginning 2917' from DER, 511' right of centerline, up to 78' AGL/105' MSL.  
Buildings and antennas beginning 4379' from DER, 246' left of centerline, up to 115' AGL/151' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017



(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NE-3, 10 NOV 2016 to 05 JAN 2017

(CLTCH1.CLTCH) 16091

CLTCH ONE DEPARTURE (RNAV)

RONALD REAGAN WASHINGTON NATIONAL (DCA)  
SL-443 WASHINGTON, DC

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb heading 004° to intercept course 332° to ADAXE, then on depicted route to CLTCH, thence . . . .

TAKEOFF RUNWAY 15: Climb heading 152° to 515, then right turn direct CAPVC, then on depicted route to CLTCH, thence . . . .

TAKEOFF RUNWAY 19: Climb heading 185° to 515, then direct CAPVC, then on depicted route to CLTCH, thence . . . .

TAKEOFF RUNWAY 33: Climb heading 332° to 515, then right turn direct ADAXE, then on depicted route to CLTCH, thence . . . .

. . . . on assigned transition. Maintain 5000. Expect clearance to filed altitude within ten (10) minutes after departure.

FLASK TRANSITION (CLTCH1.FLASK)

MAULS TRANSITION (CLTCH1.MAULS)

## TAKEOFF OBSTACLE NOTES

- Rwy 1: Buildings beginning 118' from DER, 332' right of centerline, up to 10' AGL/22' MSL.  
Fence 261' from DER, 514' left of centerline, 9' AGL/19' MSL.  
Light pole and trees beginning 995' from DER, 210' left of centerline, up to 47' AGL/49' MSL.  
Trees beginning 1008' from DER, 499' left of centerline, up to 71' AGL/72' MSL.  
Trees 1365' from DER, 333' right of centerline, up to 50' AGL/51' MSL.  
Trees beginning 1744' from DER, 152' left of centerline, up to 70' AGL/71' MSL.  
Monument 1.7 NM from DER, 1787' right of centerline, 556' AGL/595' MSL.
- Rwy 15: Electrical systems beginning 178' from DER, 288' right of centerline, up to 10' AGL/19' MSL.  
Trees 1.4 NM from DER, 13' right of centerline, up to 94' AGL/245' MSL.  
Trees 1.5 NM from DER, 520' right of centerline, up to 80' AGL/235' MSL.
- Rwy 19: Trees 3434' from DER, 1135' right of centerline, up to 96' AGL/105' MSL.  
Building 1.1 NM from DER, 1891' right of centerline, 171' AGL/189' MSL.
- Rwy 33: Sign 18' from DER, 191' left of centerline, 3' AGL/15' MSL.  
Fence and pole beginning 27' from DER, 332' right of centerline, up to 18' AGL/28' MSL.  
Vehicles on road and trees beginning 365' from DER, 344' left of centerline, up to 51' AGL/70' MSL.  
Trees beginning 533' from DER, 101' left of centerline, up to 37' AGL/39' MSL.  
Poles and trees beginning 641' from DER, 165' right of centerline, up to 56' AGL/60' MSL.  
Cranes and trees beginning 882' from DER, 289' left of centerline, up to 82' AGL/95' MSL.  
Trees beginning 1603' from DER, 78' right of centerline, up to 79' AGL/83' MSL.  
Poles and buildings beginning 1777' from DER, 868' left of centerline, up to 124' AGL/145' MSL.  
Poles beginning 2917' from DER, 511' right of centerline, up to 78' AGL/105' MSL.  
Buildings and antennas beginning 4379' from DER, 246' left of centerline, up to 115' AGL/151' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

CLTCH ONE DEPARTURE (RNAV)

(CLTCH1.CLTCH) 31MAR16

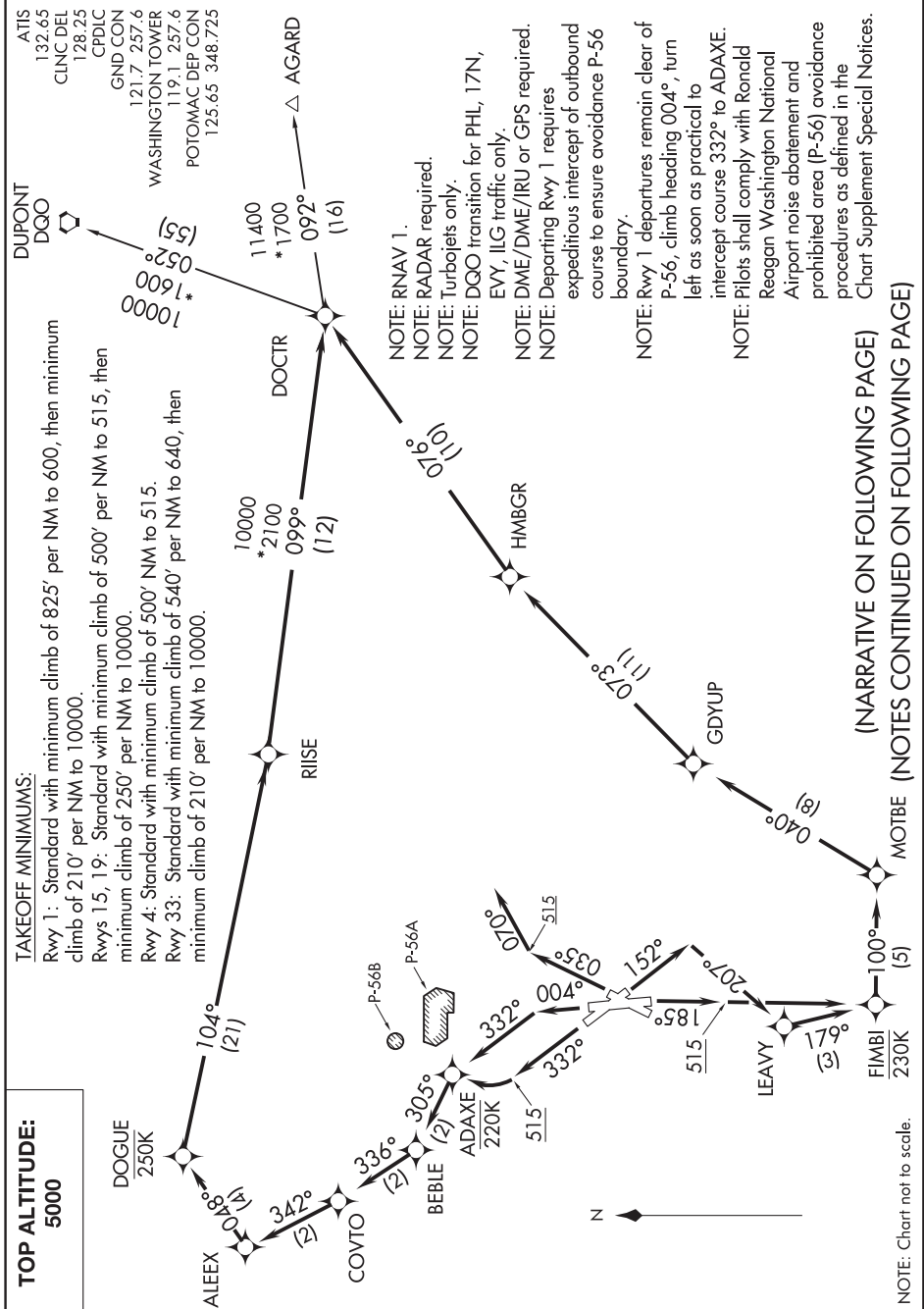
WASHINGTON, DC  
RONALD REAGAN WASHINGTON NATIONAL (DCA)

NE-3, 10 NOV 2016 to 05 JAN 2017

TOP ALTITUDE:  
5000

TAKEOFF MINIMUMS:

- Rwy 1: Standard with minimum climb of 825' per NM to 600, then minimum climb of 210' per NM to 10000.
- Rwys 15, 19: Standard with minimum climb of 500' per NM to 515, then minimum climb of 250' per NM to 10000.
- Rwy 4: Standard with minimum climb of 500' NM to 515.
- Rwy 33: Standard with minimum climb of 540' per NM to 640, then minimum climb of 210' per NM to 10000.



(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 1: Climb heading 004° to intercept course 332° to ADAXE, then on depicted route to DOCTR, thence . . . .

TAKEOFF RWY 4: Climb heading 035° to 515, then climbing right turn on heading 070° or as assigned by ATC, expect vectors to RIISE, then on track 099° to DOCTR, thence . . . .

TAKEOFF RWY 15: Climb heading 152° to intercept course 207° to LEAVY, then on depicted route to DOCTR, thence . . . .

TAKEOFF RWY 19: Climb heading 185° to 515, then direct FIMBI, then on depicted route to DOCTR, thence . . . .

TAKEOFF RWY 33: Climb heading 332° to 515, then right turn direct ADAXE, then on depicted route to DOCTR, thence . . . .

. . . . on assigned transition. Maintain 5000. Expect clearance to filed altitude within ten (10) minutes after departure.

AGARD TRANSITION (DOCTR3.AGARD)

DUPONT TRANSITION (DOCTR3.DQO)

TAKEOFF OBSTACLES NOTES:

Rwy 1: Buildings beginning 118' from DER, 332' right of centerline, up to 10' AGL/22' MSL. Fence 261' from DER, 514' left of centerline, 9' AGL/19' MSL. Light pole and trees beginning 995' from DER, 210' left of centerline, up to 47' AGL/49' MSL. Trees beginning 1008' from DER, 499' left of centerline, up to 71' AGL/72' MSL. Trees 1365' from DER, 333' right of centerline, up to 50' AGL/51' MSL. Trees beginning 1744' from DER, 152' left of centerline, up to 70' AGL/71' MSL. Monument 1.7 NM from DER, 1787' right of centerline, 556' AGL/595' MSL.

Rwy 4: Terrain and microwave sensors beginning 3' from DER, 260' right of centerline, up to 7' AGL/18' MSL. Sign and tower beginning 857' from DER, 677' left of centerline, up to 72' AGL/84' MSL. Spire 1.6 NM from DER, 208' right of centerline, 236' AGL/265' MSL.

Rwy 15: Electrical systems beginning 178' from DER, 288' right of centerline, up to 10' AGL/19' MSL. Trees 1.4 NM from DER, 13' right of centerline, up to 94' AGL/245' MSL. Trees 1.5 NM from DER, 520' right of centerline, up to 80' AGL/235' MSL.

Rwy 19: Trees 3434' from DER, 1135' right of centerline, up to 96' AGL/105' MSL. Building 1.1 NM from DER, 1891' right of centerline, 171' AGL/189' MSL.

Rwy 33: Sign 18' from DER, 191' left of centerline, 3' AGL/15' MSL. Fence and pole beginning 27' from DER, 332' right of centerline, up to 18' AGL/28' MSL. Vehicles on road and trees beginning 365' from DER, 344' left of centerline, up to 51' AGL/70' MSL. Trees beginning 533' from DER, 101' left of centerline, up to 37' AGL/39' MSL. Poles and trees beginning 641' from DER, 165' right of centerline, up to 56' AGL/60' MSL. Cranes and trees beginning 882' from DER, 289' left of centerline, up to 82' AGL/95' MSL. Trees beginning 1603' from DER, 78' right of centerline, up to 79' AGL/83' MSL. Poles and buildings beginning 1777' from DER, 868' left of centerline, up to 124' AGL/145' MSL. Poles beginning 2917' from DER, 511' right of centerline, up to 78' AGL/105' MSL. Buildings and antennas beginning 4379' from DER, 246' left of centerline, up to 115' AGL/151' MSL.

# HORTO TWO DEPARTURE (RNAV)

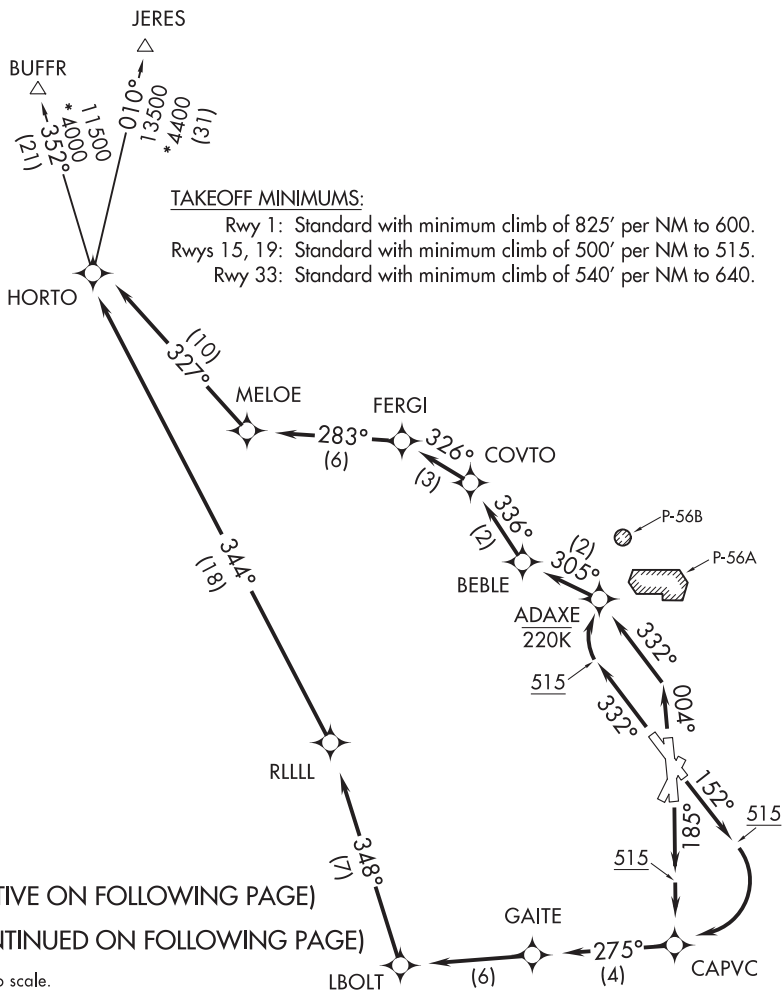
**TOP ALTITUDE:  
5000**

ATIS  
132.65  
CLNC DEL  
128.25  
CPDLC  
GND CON  
121.7 257.6  
WASHINGTON TOWER  
119.1 257.6  
POTOMAC DEP CON  
118.95 257.2

- NOTE: RNAV 1.
- NOTE: RADAR required.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Departing Rwy 1 requires expeditious intercept of outbound course to ensure avoidance of P-56 boundary.
- NOTE: Rwy 1 departures remain clear of P-56, climb heading 004°, turn left as soon as practical to intercept course 332° to ADAXE.
- NOTE: Pilots shall comply with Ronald Reagan Washington National Airport noise abatement and prohibited area (P-56) avoidance procedures as defined in Airport/Facility Directory special notices.

TAKEOFF MINIMUMS:

- Rwy 1: Standard with minimum climb of 825' per NM to 600.
- Rwys 15, 19: Standard with minimum climb of 500' per NM to 515.
- Rwy 33: Standard with minimum climb of 540' per NM to 640.



(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# HORTO TWO DEPARTURE (RNAV)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 1: Climb heading 004° to intercept course 332° to ADAXE, then on depicted route to HORTO, thence . . . .

TAKEOFF RWY 15: Climb heading 152° to 515, then right turn direct CAPVC, then on depicted route to HORTO, thence . . . .

TAKEOFF RWY 19: Climb heading 185° to 515, then direct CAPVC, then on depicted route to HORTO, thence . . . .

TAKEOFF RWY 33: Climb heading 332° to 515, then right turn direct ADAXE, then on depicted route to HORTO, thence . . . .

. . . . on assigned transition. Maintain 5000. Expect clearance to filed altitude within ten (10) minutes after departure.

BUFFR TRANSITION (HORTO2.BUFFR):

JERES TRANSITION (HORTO2.JERES):

TAKEOFF OBSTACLE NOTES:

- Rwy 1: Buildings beginning 118' from DER, 332' right of centerline, up to 10' AGL/22' MSL.  
Fence 261' from DER, 514' left of centerline, 9' AGL/19' MSL.  
Light pole and trees beginning 995' from DER, 210' left of centerline, up to 47' AGL/49' MSL.  
Trees beginning 1008' from DER, 499' left of centerline, up to 71' AGL/72' MSL.  
Trees 1365' from DER, 333' right of centerline, up to 50' AGL/51' MSL.  
Trees beginning 1744' from DER, 152' left of centerline, up to 70' AGL/71' MSL.  
Monument 1.7 NM from DER, 1787' right of centerline, 556' AGL/595' MSL.
- Rwy 15: Electrical systems beginning 178' from DER, 288' right of centerline, up to 10' AGL/19' MSL.  
Trees 1.4 NM from DER, 13' right of centerline, up to 94' AGL/245' MSL.  
Trees 1.5 NM from DER, 520' right of centerline, up to 80' AGL/235' MSL.
- Rwy 19: Trees 3434' from DER, 1135' right of centerline, up to 96' AGL/105' MSL.  
Building 1.1 NM from DER, 1891' right of centerline, 171' AGL/189' MSL.
- Rwy 33: Sign 18' from DER, 191' left of centerline, 3' AGL/15' MSL.  
Fence and pole beginning 27' from DER, 332' right of centerline, up to 18' AGL/28' MSL.  
Vehicles on road and trees beginning 365' from DER, 344' left of centerline, up to 51' AGL/70' MSL.  
Trees beginning 533' from DER, 101' left of centerline, up to 37' AGL/39' MSL.  
Poles and trees beginning 641' from DER, 165' right of centerline, up to 56' AGL/60' MSL.  
Cranes and trees beginning 882' from DER, 289' left of centerline, up to 82' AGL/95' MSL.  
Trees beginning 1603' from DER, 78' right of centerline, up to 79' AGL/83' MSL.  
Poles and buildings beginning 1777' from DER, 868' left of centerline, up to 124' AGL/145' MSL.  
Poles beginning 2917' from DER, 511' right of centerline, up to 78' AGL/105' MSL.  
Buildings and antennas beginning 4379' from DER, 246' left of centerline, up to 115' AGL/151' MSL.



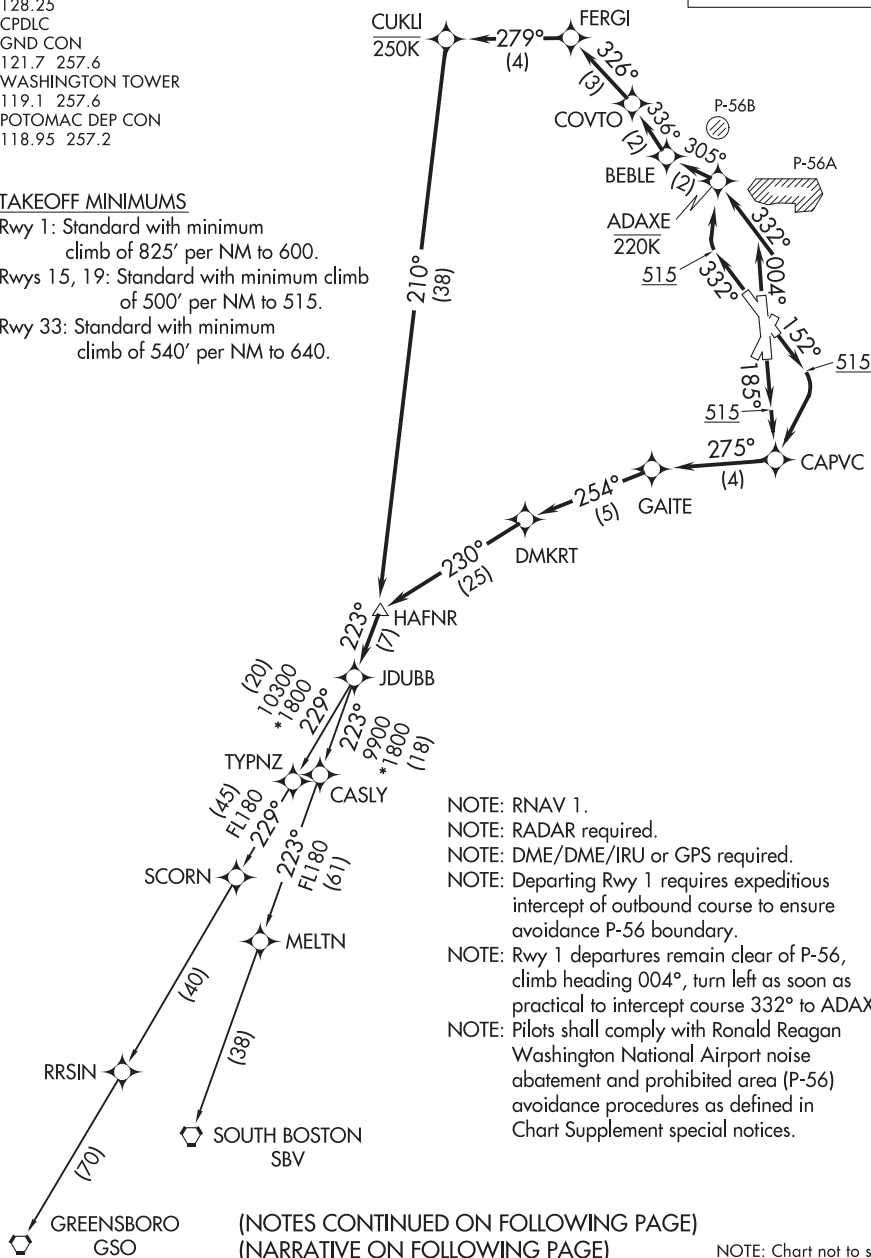
ATIS  
132.65  
CLNC DEL  
128.25  
CPDLC  
GND CON  
121.7 257.6  
WASHINGTON TOWER  
119.1 257.6  
POTOMAC DEP CON  
118.95 257.2

**TOP ALTITUDE:  
5000**

TAKEOFF MINIMUMS

Rwy 1: Standard with minimum  
climb of 825' per NM to 600.  
Rwys 15, 19: Standard with minimum climb  
of 500' per NM to 515.  
Rwy 33: Standard with minimum  
climb of 540' per NM to 640.

NE-3, 10 NOV 2016 to 05 JAN 2017



- NOTE: RNAV 1.
- NOTE: RADAR required.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Departing Rwy 1 requires expeditious intercept of outbound course to ensure avoidance P-56 boundary.
- NOTE: Rwy 1 departures remain clear of P-56, climb heading 004°, turn left as soon as practical to intercept course 332° to ADAXE.
- NOTE: Pilots shall comply with Ronald Reagan Washington National Airport noise abatement and prohibited area (P-56) avoidance procedures as defined in Chart Supplement special notices.

(NOTES CONTINUED ON FOLLOWING PAGE)  
(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb heading 004° to intercept course 332° to ADAXE, then on depicted route to JDUBB, thence . . . .

TAKEOFF RUNWAY 15: Climb heading 152° to 515, then right turn direct CAPVC, then on depicted route to JDUBB, thence . . . .

TAKEOFF RUNWAY 19: Climb heading 185° to 515, then direct CAPVC, then on depicted route to JDUBB, thence . . . .

TAKEOFF RUNWAY 33: Climb heading 332° to 515, then right turn direct ADAXE, then on depicted route to JDUBB, thence . . . .

. . . . on assigned transition. Maintain 5000. Expect clearance to filed altitude within ten (10) minutes after departure.

GREENSBORO TRANSITION (JDUBB1.GSO)

SOUTH BOSTON TRANSITION (JDUBB1.SBV)

## TAKEOFF OBSTACLE NOTES

- Rwy 1: Buildings beginning 118' from DER, 332' right of centerline, up to 10' AGL/22' MSL.  
Fence 261' from DER, 514' left of centerline, 9' AGL/19' MSL.  
Light pole and trees beginning 995' from DER, 210' left of centerline, up to 47' AGL/49' MSL.  
Trees beginning 1008' from DER, 499' left of centerline, up to 71' AGL/72' MSL.  
Trees 1365' from DER, 333' right of centerline, up to 50' AGL/51' MSL.  
Trees beginning 1744' from DER, 152' left of centerline, up to 70' AGL/71' MSL.  
Monument 1.7 NM from DER, 1787' right of centerline, 556' AGL/595' MSL.
- Rwy 15: Electrical systems beginning 178' from DER, 288' right of centerline, up to 10' AGL/19' MSL.  
Trees 1.4 NM from DER, 13' right of centerline, up to 94' AGL/245' MSL.  
Trees 1.5 NM from DER, 520' right of centerline, up to 80' AGL/235' MSL.
- Rwy 19: Trees 3434' from DER, 1135' right of centerline, up to 96' AGL/105' MSL.  
Building 1.1 NM from DER, 1891' right of centerline, 171' AGL/189' MSL.
- Rwy 33: Sign 18' from DER, 191' left of centerline, 3' AGL/15' MSL.  
Fence and pole beginning 27' from DER, 332' right of centerline, up to 18' AGL/28' MSL.  
Vehicles on road and trees beginning 365' from DER, 344' left of centerline, up to 51' AGL/70' MSL.  
Trees beginning 533' from DER, 101' left of centerline, up to 37' AGL/39' MSL.  
Poles and trees beginning 641' from DER, 165' right of centerline, up to 56' AGL/60' MSL.  
Cranes and trees beginning 882' from DER, 289' left of centerline, up to 82' AGL/95' MSL.  
Trees beginning 1603' from DER, 78' right of centerline, up to 79' AGL/83' MSL.  
Poles and buildings beginning 1777' from DER, 868' left of centerline, up to 124' AGL/145' MSL.  
Poles beginning 2917' from DER, 511' right of centerline, up to 78' AGL/105' MSL.  
Buildings and antennas beginning 4379' from DER, 246' left of centerline, up to 115' AGL/151' MSL.





## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 1: Climbing left turn as soon as practical to intercept DCA VOR/DME R-328 to 5000 or as assigned, thence . . . .

TAKEOFF RWY 4: Climbing right turn as soon as practical to intercept DCA VOR/DME R-070 to 2000 or as assigned, thence . . . .

TAKEOFF RWY 15: Climbing right turn as soon as practical to intercept DCA VOR/DME R-185 to 5000 or as assigned, thence . . . .

TAKEOFF RWY 19: Climb on DCA VOR/DME R-185 to 5000 or as assigned, thence . . . .

TAKEOFF RWY 22: Climbing left turn as soon as practical to intercept DCA VOR/DME R-185 to 5000 or as assigned, thence . . . .

TAKEOFF RWY 33: Climb on DCA VOR/DME R-328 to 5000 or as assigned, thence . . . .

. . . . expect RADAR vectors to filed/assigned fix. Expect clearance to filed altitude ten (10) minutes after departure.

TAKEOFF OBSTACLE NOTES

- Rwy 1: Buildings beginning 118' from DER, 332' right of centerline, up to 10' AGL/22' MSL. Fence 261' from DER, 514' left of centerline, 9' AGL/19' MSL. Light pole and trees beginning 995' from DER, 210' left of centerline, up to 47' AGL/49' MSL. Trees beginning 1008' from DER, 499' left of centerline, up to 71' AGL/72' MSL. Trees 1365' from DER, 333' right of centerline, up to 50' AGL/51' MSL. Trees beginning 1744' from DER, 152' left of centerline, up to 70' AGL/71' MSL. Monument 1.7 NM from DER, 1787' right of centerline, 556' AGL/595' MSL.
- Rwy 4: Terrain and microwave sensors beginning 3' from DER, 260' right of centerline, up to 7' AGL/18' MSL. Sign and tower beginning 857' from DER, 677' left of centerline, up to 72' AGL/84' MSL. Spire 1.6 NM from DER, 208' right of centerline, 236' AGL/265' MSL.
- Rwy 15: Electrical systems beginning 178' from DER, 288' right of centerline, up to 10' AGL/19' MSL. Trees 1.4 NM from DER, 13' right of centerline, up to 94' AGL/245' MSL. Trees 1.5 NM from DER, 520' right of centerline, up to 80' AGL/235' MSL.
- Rwy 19: Trees 3434' from DER, 1135' right of centerline, up to 96' AGL/105' MSL. Building 1.1 NM from DER, 1891' right of centerline, 171' AGL/189' MSL.
- Rwy 22: Light pole 216' from DER, 478' left of centerline, 15' AGL/23' MSL. Trees beginning 550' from DER, 498' right of centerline, up to 56' AGL/57' MSL. Trees, buildings, and poles beginning 1324' from DER, 205' right of centerline, up to 82' AGL/110' MSL. Trees 3098' from DER, 18' right of centerline, up to 82' AGL/91' MSL. Trees 2898' from DER, 605' left of centerline, up to 98' AGL/102' MSL. Building and pole beginning 4270' from DER, 651' right of centerline, up to 110' AGL/148' MSL. Building 1.7 NM from DER, 2473' right of centerline, 200' AGL/420' MSL. Building 2.3 NM from DER, 1008' right of centerline, 324' AGL/443' MSL.
- Rwy 33: Sign 18' from DER, 191' left of centerline, 3' AGL/15' MSL. Fence and pole beginning 27' from DER, 332' right of centerline, up to 18' AGL/28' MSL. Vehicles on road and trees beginning 365' from DER, 344' left of centerline, up to 51' AGL/70' MSL. Trees beginning 533' from DER, 101' left of centerline, up to 37' AGL/39' MSL. Poles and trees beginning 641' from DER, 165' right of centerline, up to 56' AGL/60' MSL. Cranes and trees beginning 882' from DER, 289' left of centerline, up to 82' AGL/95' MSL. Trees beginning 1603' from DER, 78' right of centerline, up to 79' AGL/83' MSL. Poles and buildings beginning 1777' from DER, 868' left of centerline, up to 124' AGL/145' MSL. Poles beginning 2917' from DER, 511' right of centerline, up to 78' AGL/105' MSL. Buildings and antennas beginning 4379' from DER, 246' left of centerline, up to 115' AGL/151' MSL.

REBLL THREE DEPARTURE (RNAV)

NE-3, 10 NOV 2016 to 05 JAN 2017

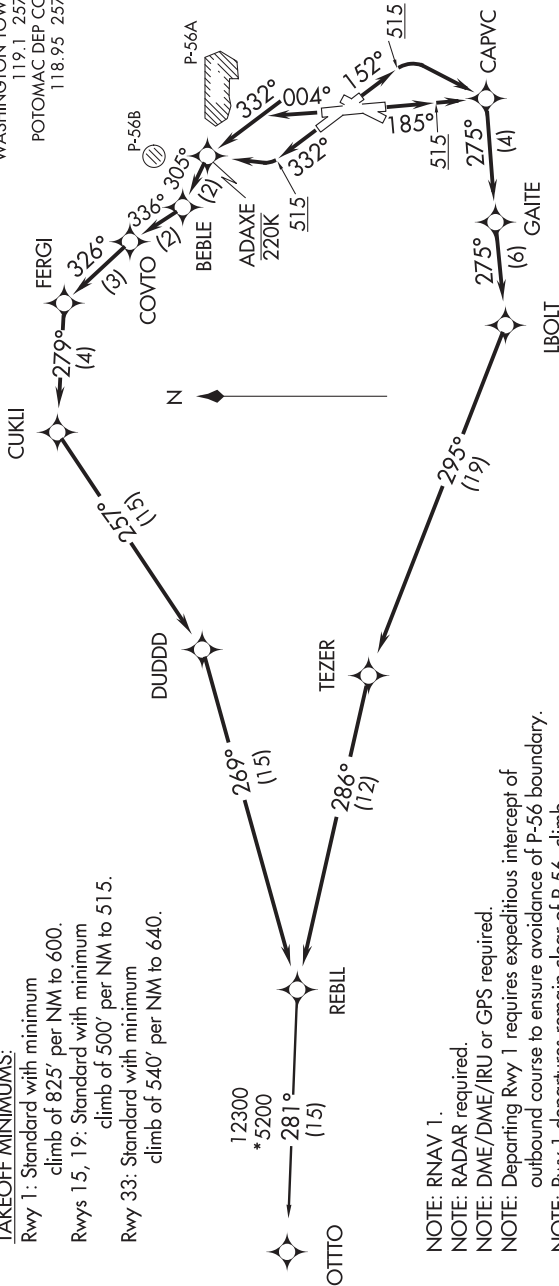
TOP ALTITUDE:  
5000

TAKEOFF MINIMUMS:

- Rwy 1: Standard with minimum climb of 825' per NM to 600.
- Rwys 15, 19: Standard with minimum climb of 500' per NM to 515.
- Rwy 33: Standard with minimum climb of 540' per NM to 640.

12300  
\*5200  
281°  
(15)

OTTO



- NOTE: RNAV 1.
- NOTE: RADAR required.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Departing Rwy 1 requires expeditious intercept of outbound course to ensure avoidance of P-56 boundary.
- NOTE: Rwy 1 departures remain clear of P-56, climb heading 004°, turn left as soon as practical to intercept course 332° to ADAXE.
- NOTE: Pilots shall comply with Ronald Reagan Washington National Airport noise abatement and prohibited area (P-56) avoidance procedures as defined in the Chart Supplement Special Notices.

(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

(REBLL3.REBLL) 16091

RONALD REAGAN WASHINGTON NATIONAL (DCA)

REBLL THREE DEPARTURE (RNAV)

SL-443 (FAA)

WASHINGTON, DC



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 1: Climb heading 004° to intercept course 332° to ADAXE, then on depicted route to REBLL, thence. . . .

TAKEOFF RWY 15: Climb heading 152° to 515, then right turn direct CAPVC, then on depicted route to REBLL, thence. . . .

TAKEOFF RWY 19: Climb heading 185° to 515, then direct CAPVC, then on depicted route to REBLL, thence. . . .

TAKEOFF RWY 33: Climb heading 332° to 515, then right turn direct ADAXE, then on depicted route to REBLL, thence. . . .

. . . . on OTTO transition. Maintain 5000. Expect clearance to filed altitude within ten (10) minutes after departure.

OTTO TRANSITION (REBLL3.OTTO)TAKEOFF OBSTACLE NOTES:

- Rwy 1: Buildings beginning 118' from DER, 332' right of centerline, up to 10' AGL/22' MSL.  
 Fence 261' from DER, 514' left of centerline, 9' AGL/19' MSL.  
 Light pole and trees beginning 995' from DER, 210' left of centerline, up to 47' AGL/49' MSL.  
 Trees beginning 1008' from DER, 499' left of centerline, up to 71' AGL/72' MSL.  
 Trees 1365' from DER, 333' right of centerline, up to 50' AGL/51' MSL.  
 Trees beginning 1744' from DER, 152' left of centerline, up to 70' AGL/71' MSL.  
 Monument 1.7 NM from DER, 1787' right of centerline, 556' AGL/595' MSL.
- Rwy 15: Electrical systems beginning 178' from DER, 288' right of centerline, up to 10' AGL/19' MSL.  
 Trees 1.4 NM from DER, 13' right of centerline, up to 94' AGL/245' MSL.  
 Trees 1.5 NM from DER, 520' right of centerline, up to 80' AGL/235' MSL.
- Rwy 19: Trees 3434' from DER, 1135' right of centerline, up to 96' AGL/105' MSL.  
 Building 1.1 NM from DER, 1891' right of centerline, 171' AGL/189' MSL.
- Rwy 33: Sign 18' from DER, 191' left of centerline, 3' AGL/15' MSL.  
 Fence and pole beginning 27' from DER, 332' right of centerline, up to 18' AGL/28' MSL.  
 Vehicles on road and trees beginning 365' from DER, 344' left of centerline, up to 51' AGL/70' MSL.  
 Trees beginning 533' from DER, 101' left of centerline, up to 37' AGL/39' MSL.  
 Poles and trees beginning 641' from DER, 165' right of centerline, up to 56' AGL/60' MSL.  
 Cranes and trees beginning 882' from DER, 289' left of centerline, up to 82' AGL/95' MSL.  
 Trees beginning 1603' from DER, 78' right of centerline, up to 79' AGL/83' MSL.  
 Poles and buildings beginning 1777' from DER, 868' left of centerline, up to 124' AGL/145' MSL.  
 Poles beginning 2917' from DER, 511' right of centerline, up to 78' AGL/105' MSL.  
 Buildings and antennas beginning 4379' from DER, 246' left of centerline, up to 115' AGL/151' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

REBLL THREE DEPARTURE (RNAV)

(REBLL3.REBLL) 31MAR16

WASHINGTON, DC

RONALD REAGAN WASHINGTON NATIONAL (DCA)



(SCRAM3.SCRAM) 16091

RONALD REAGAN WASHINGTON NATIONAL (DCA)

SCRAM THREE DEPARTURE (RNAV)

SL-443

WASHINGTON, DC



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb heading 004° to intercept course 332° to ADAXE, then on depicted route to SCRAM, thence . . . .

TAKEOFF RUNWAY 15: Climb heading 152° to 515, then right turn direct CAPVC, then on depicted route to SCRAM, thence . . . .

TAKEOFF RUNWAY 19: Climb heading 185° to 515, then direct CAPVC, then on depicted route to SCRAM, thence . . . .

TAKEOFF RUNWAY 33: Climb heading 332° to 515, then right turn direct ADAXE, then on depicted route to SCRAM, thence . . . .

. . . . on Lynchburg transition. Maintain 5000. Expect clearance to filed altitude within ten (10) minutes after departure.

LYNCHBURG TRANSITION (SCRAM3.LYH):TAKEOFF OBSTACLE NOTES

Rwy 1: Buildings beginning 118' from DER, 332' right of centerline, up to 10' AGL/22' MSL.

Fence 261' from DER, 514' left of centerline, 9' AGL/19' MSL.

Light pole and trees beginning 995' from DER, 210' left of centerline, up to 47' AGL/49' MSL.

Trees beginning 1008' from DER, 499' left of centerline, up to 71' AGL/72' MSL.

Trees 1365' from DER, 333' right of centerline, up to 50' AGL/51' MSL.

Trees beginning 1744' from DER, 152' left of centerline, up to 70' AGL/71' MSL.

Monument 1.7 NM from DER, 1787' right of centerline, 556' AGL/595' MSL.

Rwy 15: Electrical systems beginning 178' from DER, 288' right of centerline, up to 10' AGL/19' MSL.

Trees 1.4 NM from DER, 13' right of centerline, up to 94' AGL/245' MSL.

Trees 1.5 NM from DER, 520' right of centerline, up to 80' AGL/235' MSL.

Rwy 19: Trees 3434' from DER, 1135' right of centerline, up to 96' AGL/105' MSL.

Building 1.1 NM from DER, 1891' right of centerline, 171' AGL/189' MSL.

Rwy 33: Sign 18' from DER, 191' left of centerline, 3' AGL/15' MSL.

Fence and pole beginning 27' from DER, 332' right of centerline, up to 18' AGL/28' MSL.

Vehicles on road and trees beginning 365' from DER, 344' left of centerline, up to 51' AGL/70' MSL.

Trees beginning 533' from DER, 101' left of centerline, up to 37' AGL/39' MSL.

Poles and trees beginning 641' from DER, 165' right of centerline, up to 56' AGL/60' MSL.

Cranes and trees beginning 882' from DER, 289' left of centerline, up to 82' AGL/95' MSL.

Trees beginning 1603' from DER, 78' right of centerline, up to 79' AGL/83' MSL.

Poles and buildings beginning 1777' from DER, 868' left of centerline, up to 124' AGL/145' MSL.

Poles beginning 2917' from DER, 511' right of centerline, up to 78' AGL/105' MSL.

Buildings and antennas beginning 4379' from DER, 246' left of centerline, up to 115' AGL/151' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

SCRAM THREE DEPARTURE (RNAV)

WASHINGTON, DC

(SCRAM3.SCRAM) 31MAR16

RONALD REAGAN WASHINGTON NATIONAL (DCA)





(SOOKI3.SOOKI) 16091

RONALD REAGAN WASHINGTON NATIONAL (DCA)

SOOKI THREE DEPARTURE (RNAV) SL-443 (FAA)

WASHINGTON, DC



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 1: Climb heading 004° to intercept course 332° to ADAXE, then on depicted route to SOOKI, thence . . . .

TAKEOFF RWY 4: Climb heading 035° to 515, then on heading 070° or as assigned by ATC, expect vectors to PHERB, then on track 089° to SOOKI, thence . . . .

TAKEOFF RWY 15: Climb heading 152° to intercept course 207° to LEAVY, then on depicted route to SOOKI, thence . . . .

TAKEOFF RWY 19: Climb heading 185° to 515, then direct FIMBI, then on depicted route to SOOKI, thence . . . .

TAKEOFF RWY 33: Climb heading 332° to 515, then right turn direct ADAXE, then on depicted route to SOOKI, thence . . . .

. . . . on SWANN transition. Maintain 5000. Expect clearance to filed altitude within ten (10) minutes after departure.

SWANN TRANSITION (SOOKI3.SWANN)TAKEOFF OBSTACLE NOTES:

- Rwy 1: Buildings beginning 118' from DER, 332' right of centerline, up to 10' AGL/22' MSL.  
Fence 261' from DER, 514' left of centerline, 9' AGL/19' MSL.  
Light pole and trees beginning 995' from DER, 210' left of centerline, up to 47' AGL/49' MSL.  
Trees beginning 1008' from DER, 499' left of centerline, up to 71' AGL/72' MSL.  
Trees 1365' from DER, 333' right of centerline, up to 50' AGL/51' MSL.  
Trees beginning 1744' from DER, 152' left of centerline, up to 70' AGL/71' MSL.  
Monument 1.7 NM from DER, 1787' right of centerline, 556' AGL/595' MSL.
- Rwy 4: Terrain and microwave sensors beginning 3' from DER, 260' right of centerline, up to 7' AGL/18' MSL.  
Sign and tower beginning 857' from DER, 677' left of centerline, up to 72' AGL/84' MSL.  
Spire 1.6 NM from DER, 208' right of centerline, 236' AGL/265' MSL.
- Rwy 15: Electrical systems beginning 178' from DER, 288' right of centerline, up to 10' AGL/19' MSL. Trees 1.4 NM from DER, 13' right of centerline, up to 94' AGL/245' MSL.  
Trees 1.5 NM from DER, 520' right of centerline, up to 80' AGL/235' MSL.
- Rwy 19: Trees 3434' from DER, 1135' right of centerline, up to 96' AGL/105' MSL.  
Building 1.1 NM from DER, 1891' right of centerline, 171' AGL/189' MSL.
- Rwy 33: Sign 18' from DER, 191' left of centerline, 3' AGL/15' MSL.  
Fence and pole beginning 27' from DER, 332' right of centerline, up to 18' AGL/28' MSL.  
Vehicles on road and trees beginning 365' from DER, 344' left of centerline, up to 51' AGL/70' MSL.  
Trees beginning 533' from DER, 101' left of centerline, up to 37' AGL/39' MSL.  
Poles and trees beginning 641' from DER, 165' right of centerline, up to 56' AGL/60' MSL.  
Cranes and trees beginning 882' from DER, 289' left of centerline, up to 82' AGL/95' MSL.  
Trees beginning 1603' from DER, 78' right of centerline, up to 79' AGL/83' MSL.  
Poles and buildings beginning 1777' from DER, 868' left of centerline, up to 124' AGL/145' MSL.  
Poles beginning 2917' from DER, 511' right of centerline, up to 78' AGL/105' MSL.  
Buildings and antennas beginning 4379' from DER, 246' left of centerline, up to 115' AGL/151' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

SOOKI THREE DEPARTURE (RNAV)

WASHINGTON, DC

(SOOKI3.SOOKI) 31MARI16

RONALD REAGAN WASHINGTON NATIONAL (DCA)





## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 1: Climb heading 004° to intercept course 332° to ADAXE, then on depicted route to WYNGS, thence . . . .

TAKEOFF RWY 15: Climb heading 152° to 515, then right turn direct CAPVC, then on depicted route to WYNGS, thence . . . .

TAKEOFF RWY 19: Climb heading 185° to 515, then direct CAPVC, then on depicted route to WYNGS, thence . . . .

TAKEOFF RWY 33: Climb heading 332° to 515, then right turn direct ADAXE, then on depicted route to WYNGS, thence . . . .

. . . . on RAMAY transition. Maintain 5000. Expect clearance to filed altitude within ten (10) minutes after departure.

RAMAY TRANSITION (WYNGS3.RAMAY)TAKEOFF OBSTACLE NOTES:

- Rwy 1: Buildings beginning 118' from DER, 332' right of centerline, up to 10' AGL/22' MSL.  
 Fence 261' from DER, 514' left of centerline, 9' AGL/19' MSL. Light pole and trees beginning 995' from DER, 210' left of centerline, up to 47' AGL/49' MSL.  
 Trees beginning 1008' from DER, 499' left of centerline, up to 71' AGL/72' MSL.  
 Trees 1365' from DER, 333' right of centerline, up to 50' AGL/51' MSL.  
 Trees beginning 1744' from DER, 152' left of centerline, up to 70' AGL/71' MSL.  
 Monument 1.7 NM from DER, 1787' right of centerline, 556' AGL/595' MSL.
- Rwy 15: Electrical systems beginning 178' from DER, 288' right of centerline, up to 10' AGL/19' MSL.  
 Trees 1.4 NM from DER, 13' right of centerline, up to 94' AGL/245' MSL.  
 Trees 1.5 NM from DER, 520' right of centerline, up to 80' AGL/235' MSL.
- Rwy 19: Trees 3434' from DER, 1135' right of centerline, up to 96' AGL/105' MSL.  
 Building 1.1 NM from DER, 1891' right of centerline, 171' AGL/189' MSL.
- Rwy 33: Sign 18' from DER, 191' left of centerline, 3' AGL/15' MSL.  
 Fence and pole beginning 27' from DER, 332' right of centerline, up to 18' AGL/28' MSL.  
 Vehicles on road and trees beginning 365' from DER, 344' left of centerline, up to 51' AGL/70' MSL.  
 Trees beginning 533' from DER, 101' left of centerline, up to 37' AGL/39' MSL.  
 Poles and trees beginning 641' from DER, 165' right of centerline, up to 56' AGL/60' MSL.  
 Cranes and trees beginning 882' from DER, 289' left of centerline, up to 82' AGL/95' MSL.  
 Trees beginning 1603' from DER, 78' right of centerline, up to 79' AGL/83' MSL.  
 Poles and buildings beginning 1777' from DER, 868' left of centerline, up to 124' AGL/145' MSL.  
 Poles beginning 2917' from DER, 511' right of centerline, up to 78' AGL/105' MSL.  
 Buildings and antennas beginning 4379' from DER, 246' left of centerline, up to 115' AGL/151' MSL.

LOC/DME I-HAD <b>110.1</b> Chan 38	APP CRS <b>011°</b>	Rwy Idg <b>11500</b> TDZE <b>312</b> Apt Elev <b>312</b>
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# ILS or LOC RWY 1R

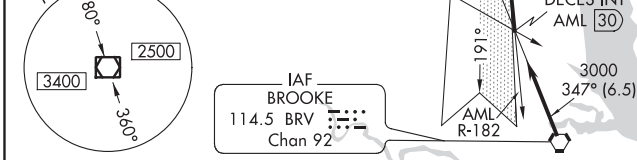
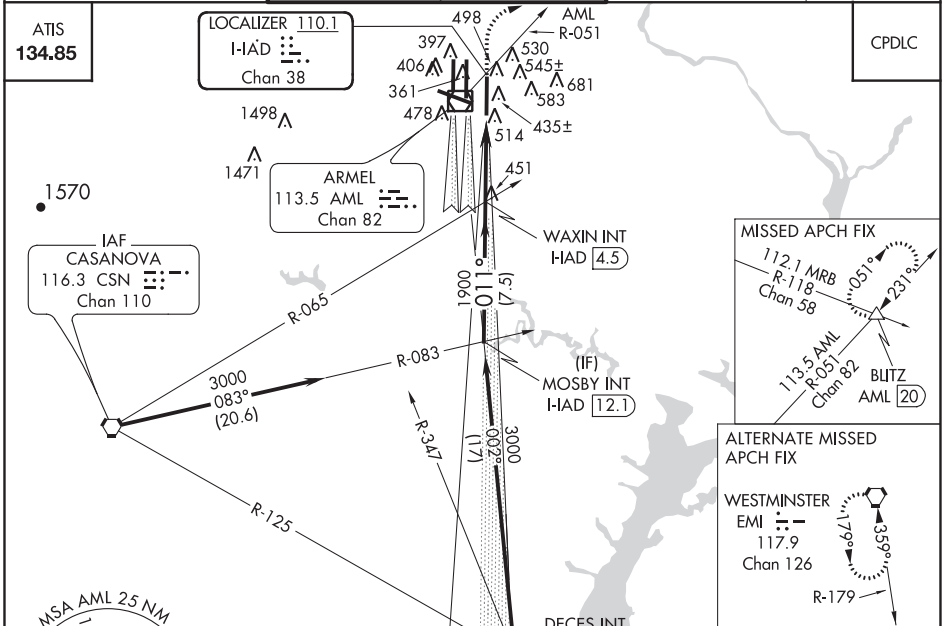
WASHINGTON DULLES INTL (IAD)

**Simultaneous approach authorized with Rwy 1C or 1L.**

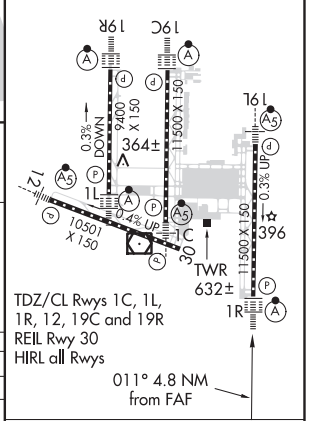
ALSIF-2

MISSED APPROACH: Climb to 800 then climbing right turn to 3000 via heading 060° and AML VOR/DME R-051 to BLITZ INT/AML 20 DME and hold.

POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)	CLNC DEL <b>135.7 317.8</b>
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ELEV 312	TDZE 312
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GS 3.00° TCH 53	7.5 NM	3.6 NM	1 NM	0.2
CATEGORY	A	B	C	D
S-ILS 1R	512/18 200 (200-½)			
S-LOC 1R	760/24 448 (500-½)	760/40 448 (500-¾)	760/50 448 (500-1)	
CIRCLING	940-1 628 (700-1)	940-1¾ 628 (700-1¾)	940-2 628 (700-2)	

Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36




LOC I-OSZ <b>111.3</b>	APP CRS <b>011°</b>	Rwy ldg <b>11500</b>
		TDZE <b>286</b>
		Apt Elev <b>313</b>

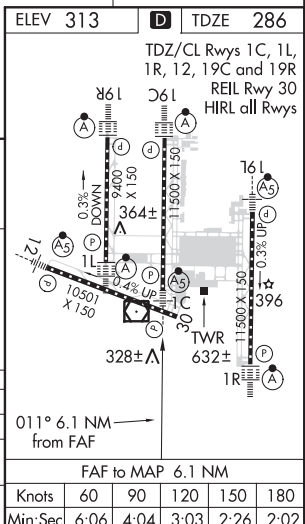
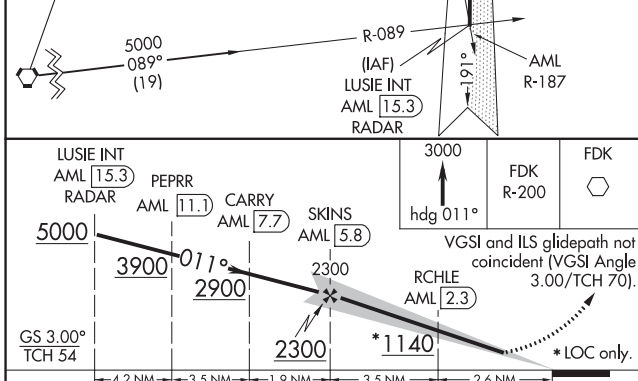
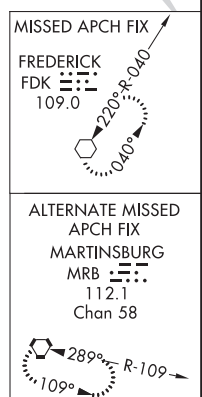
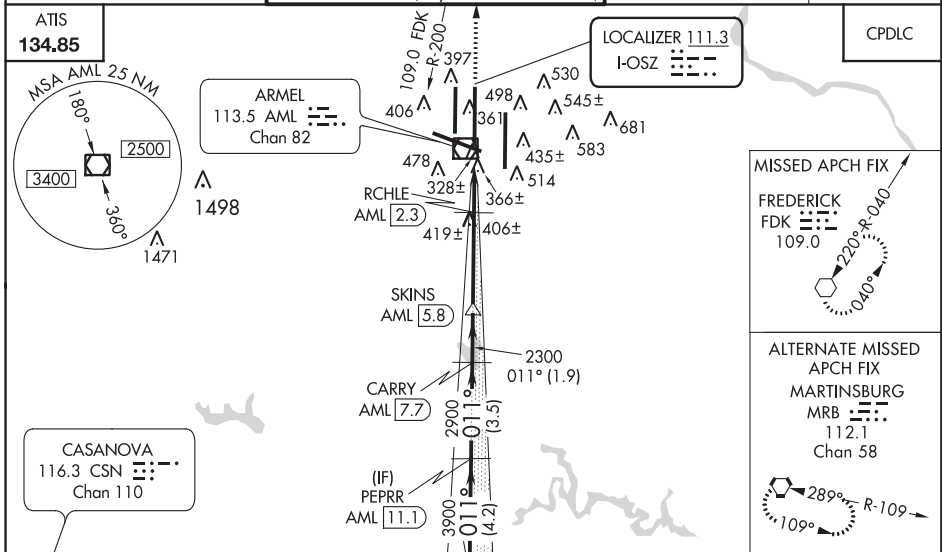
# ILS or LOC/DME RWY 1C

WASHINGTON DULLES INTL (IAD)

**⚠** DME from AML VOR/DME. Simultaneous reception of I-OSZ and AML DME required. Simultaneous approach authorized with ILS or LOC/DME Rwy 1L, ILS Rwy 1L (Cat II), ILS Rwy 1L (Cat III), ILS or LOC Rwy 1R, ILS Rwy 1R (Cat II), ILS Rwy 1R (Cat III). DME required. For Inoperative MALSR, increase S-LOC Cats C/D visibility to RVR 5000. \*\*1800 RVR authorized with the use of FD or AP or HUD to DA.

**MALSR**  
  
**MISSED APPROACH:**  
 Climb to 3000 on heading 011° and FDK VOR R-200 to FDK VOR and hold.

POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)	CLNC DEL <b>135.7 317.8</b>
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CATEGORY	A	B	C	D
S-ILS 1C		** 486/24	200 (200-½)	
S-LOC 1C		620/24	334 (400-½)	620/40 334 (400-¾)
CIRCLING	940-1	627 (700-1)	940-1¾ 627 (700-1¾)	940-2 627 (700-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

LOC/DME I-OIU <b>110.75</b> Chan 44 (Y)	APP CRS <b>011°</b>	Rwy Idg <b>9400</b> TDZE <b>296</b> Apt Elev <b>312</b>
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# ILS or LOC/DME RWY 1L

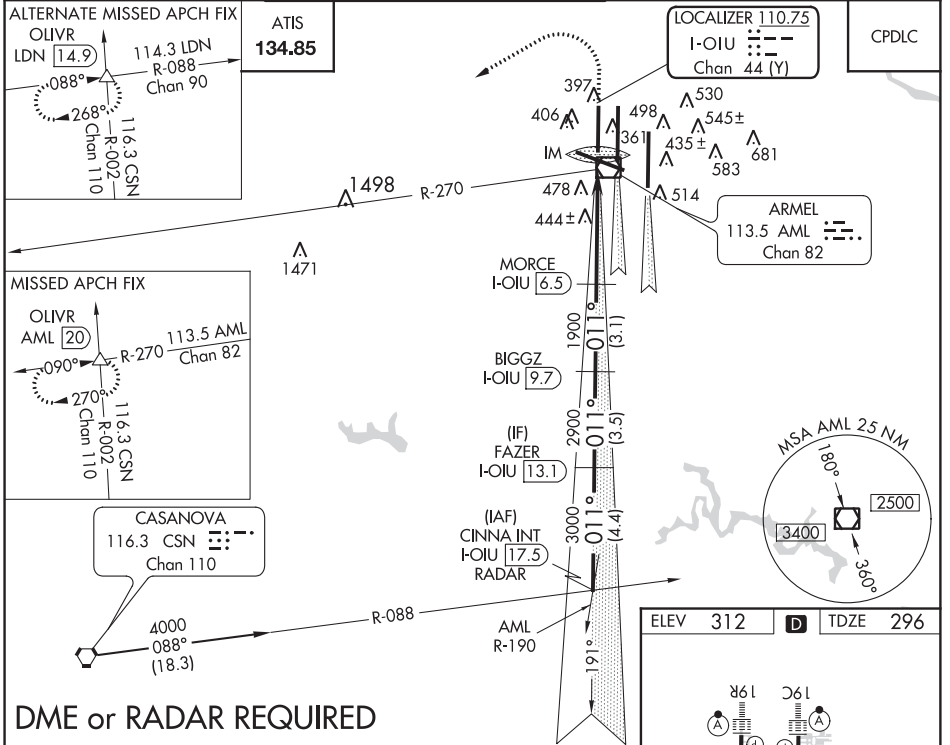
WASHINGTON DULLES INTL (IAD)

Simultaneous approach authorized with ILS or LOC/DME Rwy 1C, ILS Rwy 1C (Cat II), RNAV (GPS) Y Rwy 1C, ILS or LOC Rwy 1R, ILS Rwy 1R (Cat II), ILS Rwy 1R (Cat III), RNAV (GPS) Y Rwy 1R.

ALSF-2

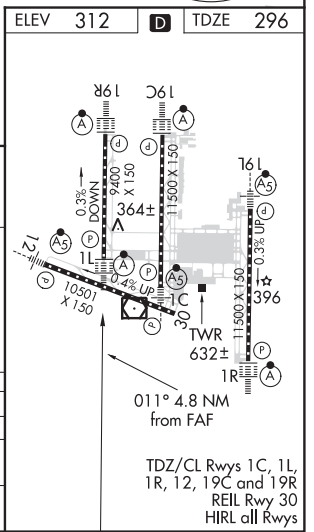
MISSED APPROACH: Climb to 800 then climbing left turn to 5000 via heading 240° and AML VOR/DME R-270 to OLVR INT/AML 20 DME and hold, continue climb-in-hold to 5000.

POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.525 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)	CLNC DEL <b>135.7 317.8</b>
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**DME or RADAR REQUIRED**

CINNA INT I-OIU (17.5) RADAR	VGSI and ILS glidepath not coincident (VGSI Angle FAZER 3.00/TCH 70). I-OIU (13.1)	800	5000	AML R-270	OLVR
4000	3000	2900	1900	1700	1500
GS 3.00° TCH 55	4.4 NM	3.5 NM	3.1 NM	3.9 NM	0.8 NM
CATEGORY	A	B	C	D	
S-ILS 1L	496/18 200 (200-½)				
S-LOC 1L	660/24 364 (400-½)		660/40 364 (400-¾)		
CIRCLING	940-1 628 (700-1)		940-1¾ 628 (700-1¾)		940-2 628 (700-2)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017













LOC I-DLX <b>111.3</b>	APP CRS <b>191°</b>	Rwy Idg <b>11500</b> TDZE <b>272</b> Apt Elev <b>312</b>
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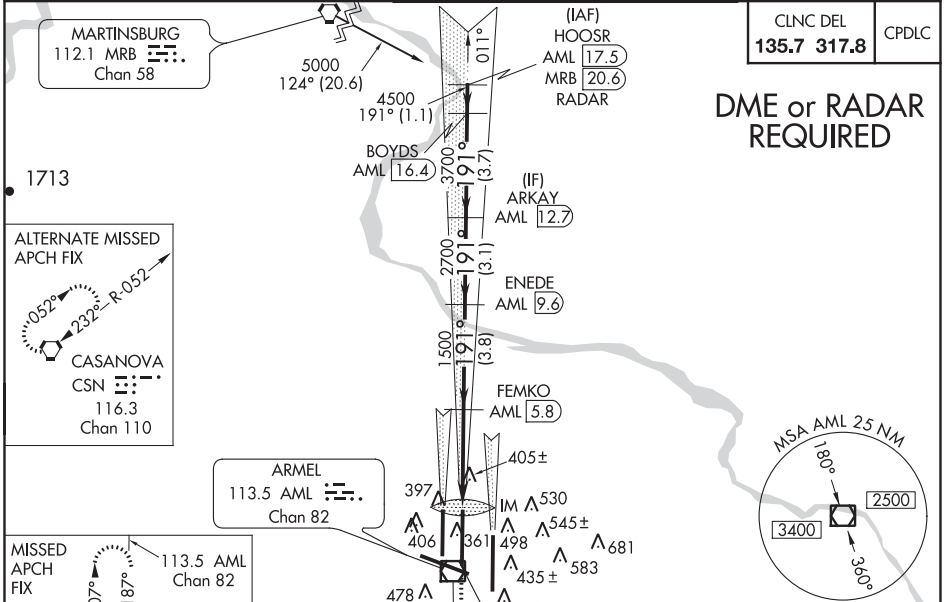
# ILS RWY 19C (CAT II & III)

WASHINGTON DULLES INTL (IAD)

**▼** DME from AML VOR/DME. Simultaneous reception of I-DLX and AML DME required. Simultaneous approach authorized with ILS or LOC Rwy 19L, ILS Rwy 19L (Cat II), ILS or LOC/DME Rwy 19R, ILS Rwy 19R (Cat II), ILS Rwy 19R (Cat III).

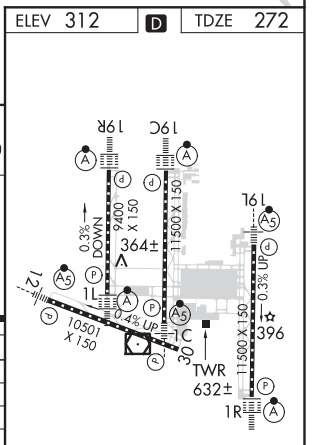
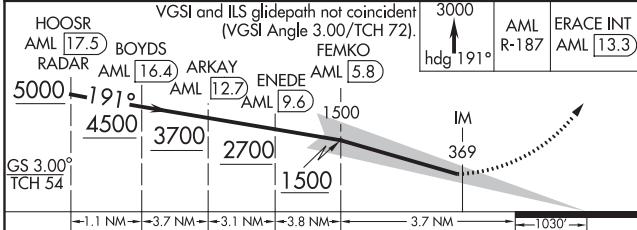
**▲** MISSED APPROACH: Climb to 3000 via heading 191° and AML VOR/DME R-187 to ERACE INT/AML 13.3 DME and hold.

ATIS <b>134.85</b>	POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)
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**DME or RADAR REQUIRED**

ELEV 312	TDZE 272
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CATEGORY	A	B	C	D
S-ILS 19C		CAT II RA 108/12	100 DA 372	
S-ILS 19C		CAT IIIa	RVR 07	
S-ILS 19C		CAT IIIb	RVR 06	
S-ILS 19C		CAT IIIc	NA	

**CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED**

TDZ/CL 1C, 1L, 1R, 12, 19C and 19R  
REIL Rwy 30  
HIRL all Rwys

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LOC/DME I-HSU <b>110.75</b> Chan <b>44</b> (Y)	APP CRS <b>191°</b>	Rwy Idg TDZE Apt Elev	<b>9400</b> <b>278</b> <b>312</b>
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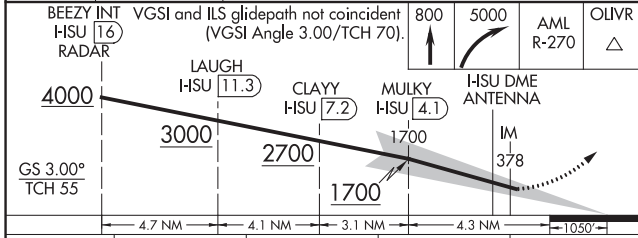
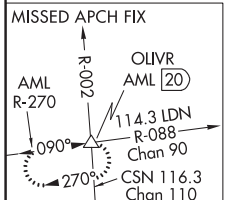
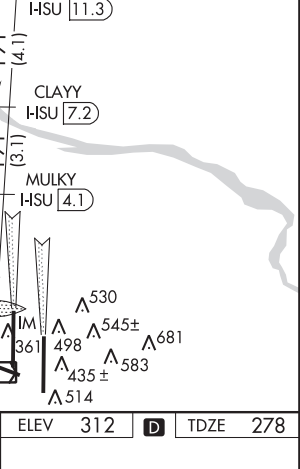
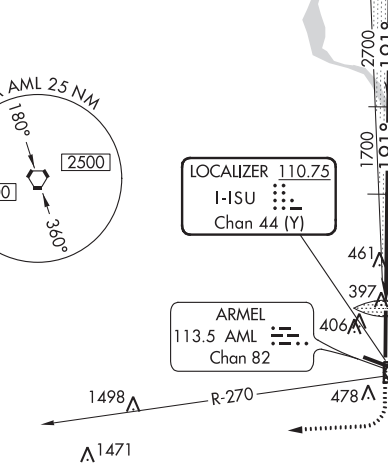
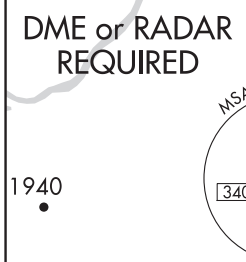
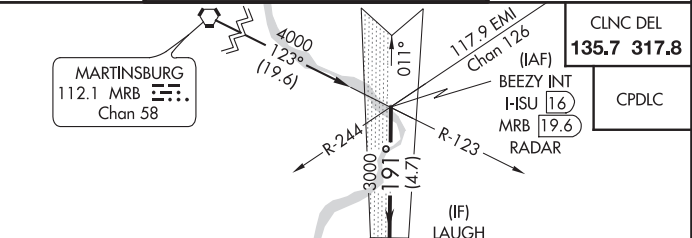
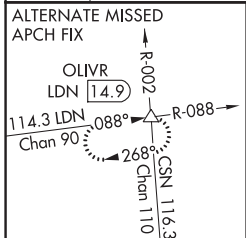
# ILS RWY 19R (CAT II & III)

WASHINGTON DULLES INTL (IAD)

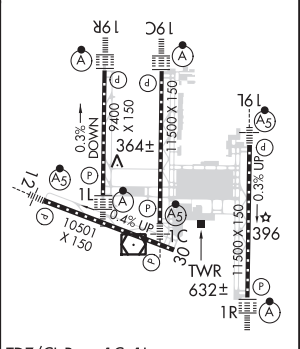
**Simultaneous approach authorized with ILS or LOC/DME**  
**Rwy 19C, ILS Rwy 19C (Cat II), ILS Rwy 19C (Cat III), Rwy 19L.**

**MISSED APPROACH:** Climb to 800 then climbing right turn to 5000 via AML VOR/DME R-270 to OLIVR INT/AML 20 DME and hold, continue climb-in-hold to 5000.

ATIS <b>134.85</b>	POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)
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CATEGORY	A	B	C	D
S-ILS 19R	CAT II RA 103/12 100 DA 378			
S-ILS 19R	CAT IIIa RVR 07			
S-ILS 19R	CAT IIIb RVR 06			
S-ILS 19R	CAT IIIc NA			



## CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

TDZ/CL Rwys 1C, 1L, 1R, 12, 19C and 19R  
 REIL Rwy 30  
 HIRL all Rwys

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LOC I-OSZ <b>111.3</b>	APP CRS <b>011°</b>	Rwy Idg TDZE <b>286</b> Apt Elev <b>313</b>
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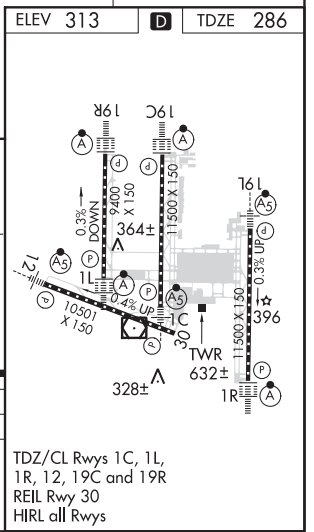
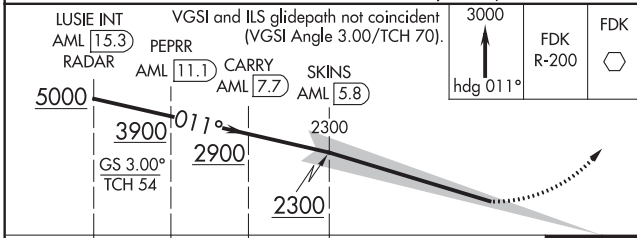
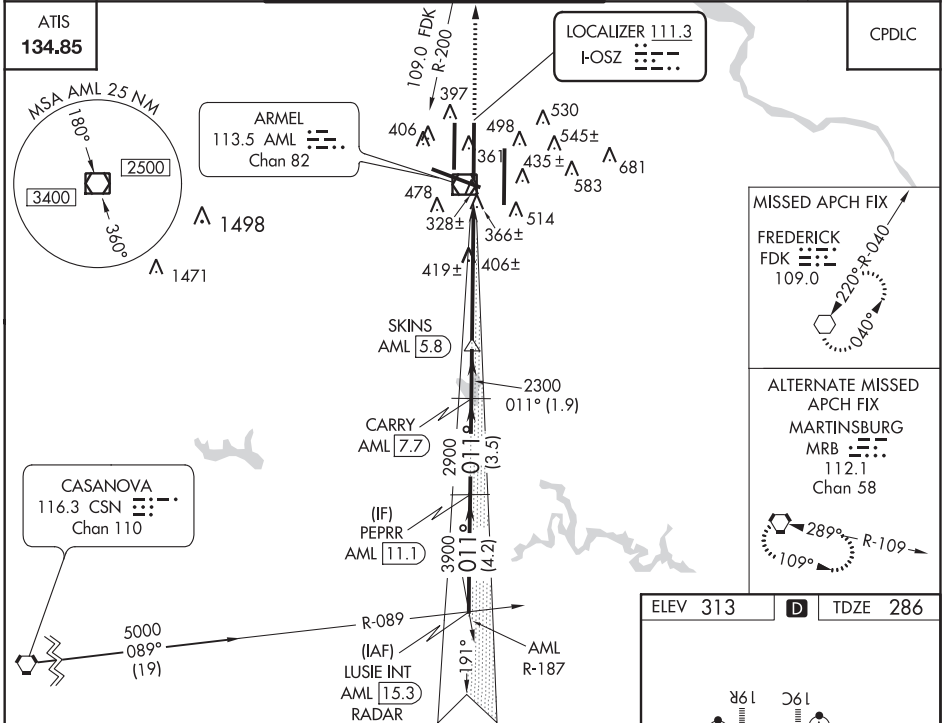
# ILS RWY 1C (SA CAT II)

## WASHINGTON DULLES INTL (IAD)

**DME from AML VOR/DME. Simultaneous reception of I-OSZ and AML DME required.**  
**Simultaneous approach authorized with ILS or LOC/DME Rwy 1L, ILS Rwy 1L (Cat II), ILS Rwy 1L (Cat III), ILS or LOC Rwy 1R, ILS Rwy 1R (Cat II), ILS Rwy 1R (Cat III).**  
 Reduced lighting: Requires specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown. DME required.

**MALSR**  
  
**MISSED APPROACH: Climb to 3000 on heading 011° and FDK VOR R-200 to FDK VOR and hold.**

POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)	CLNC DEL <b>135.7 317.8</b>
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CATEGORY	A	B	C	D
S-ILS 1C	RA 104/12 100 DA 386			
<b>CATEGORY II ILS - SPECIAL AIRCREW &amp; AIRCRAFT CERTIFICATION REQUIRED</b>				

TDZ/CL Rwys 1C, 1L, 1R, 12, 19C and 19R  
 REIL Rwy 30  
 HIRL all Rwys

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



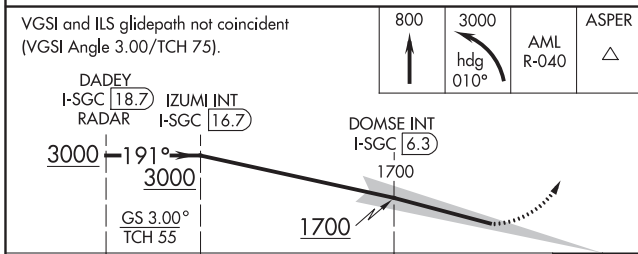
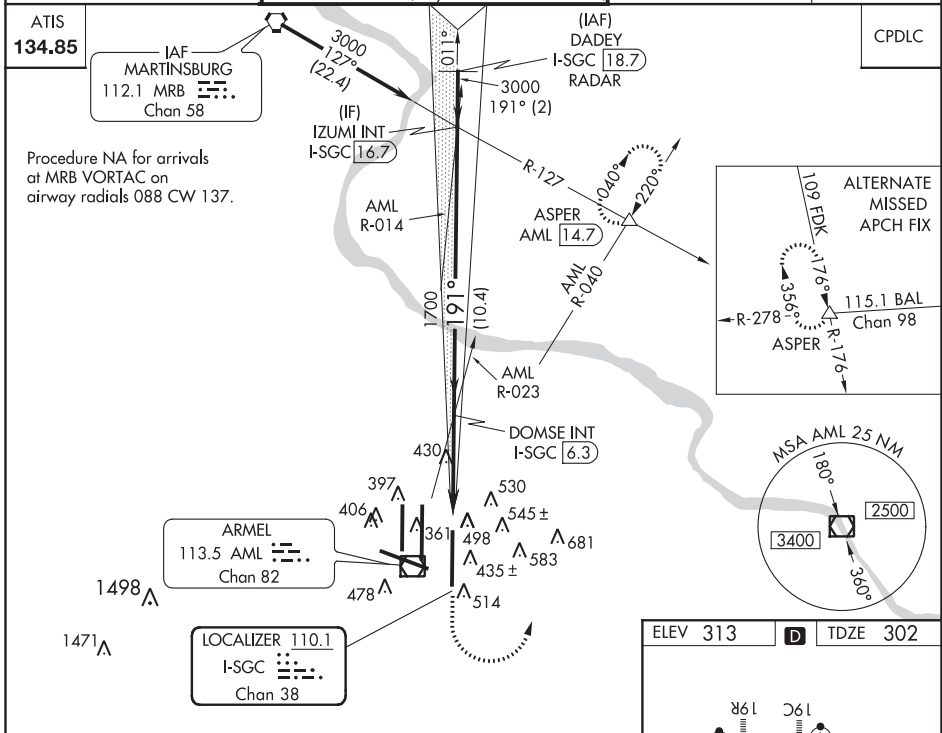
LOC/DME I-SGC <b>110.1</b> Chan <b>38</b>	APP CRS <b>191°</b>	Rwy Idg <b>11500</b> TDZE <b>302</b> Apt Elev <b>313</b>
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# ILS RWY 19L (SA CAT II)

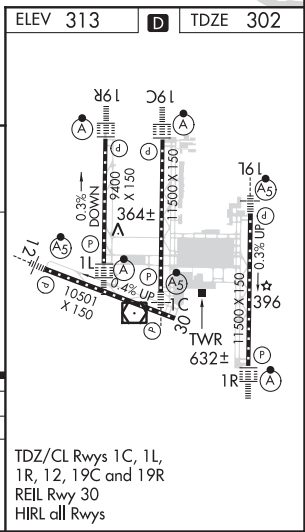
## WASHINGTON DULLES INTL (IAD)

		MISSED APPROACH: Climb to 800 then climbing left turn to 3000 on heading 010° and AML VOR/DME R-040 to ASPER INT/AML 14.7 DME and hold.

POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)	CLNC DEL <b>135.7 317.8</b>
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CATEGORY	A	B	C	D
S-ILS 19L		RA 102/12	100 DA 402	



NE-3, 10 NOV 2016 to 05 JAN 2017


NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS	Rwy Idg	<b>11500</b>
<b>011°</b>	TDZE	<b>286</b>
	Apt Elev	<b>312</b>

# RNAV (RNP) Z RWY 1C

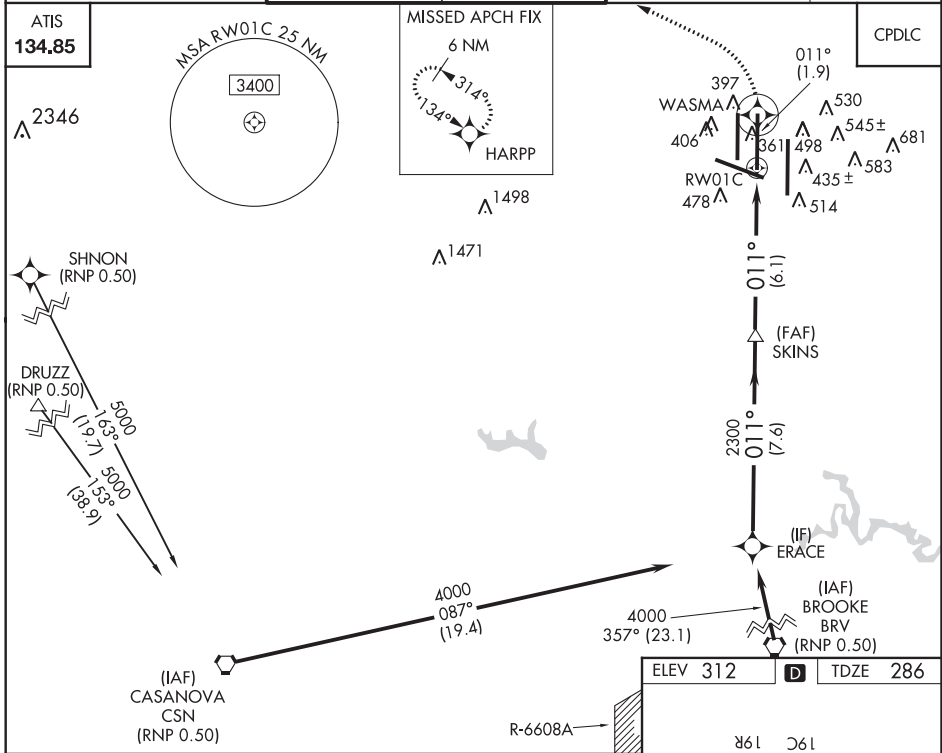
WASHINGTON DULLES INTL (IAD)

▼ For uncompensated Baro-VNAV systems, procedure NA below -1.4°C (6°F) or above 48°C (119°F). For inoperative ALSF-2, increase RNP 0.30 visibility to 1¾. GPS required. Simultaneous approach authorized with ILS or LOC Rwy 1R, ILS Rwy 1R (Cat II), ILS Rwy 1R (Cat III). Use of FD or AP providing RNAV track guidance required during simultaneous operations.

MALSR 

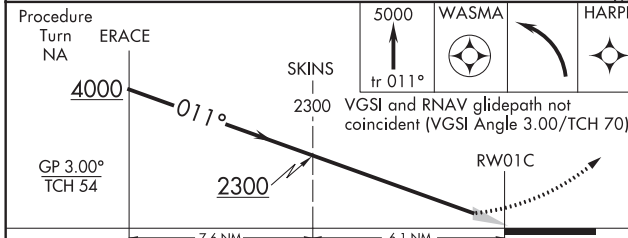
MISSED APPROACH: Climb to 5000 on track 011° to WASMA and left turn direct HARPP and hold.

POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)	CLNC DEL <b>135.7 317.8</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 312	<b>D</b>	TDZE 286
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TDZ/CL 1C, 1L, 1R, 12, 19C and 19R  
REIL Rwy 30  
HIRL all Rwys

011° to RW01C

CATEGORY	A	B	C	D
RNP 0.30 DA	817-1½ 531 (600-1½)			

**AUTHORIZATION REQUIRED**

APP CRS	Rwy Idg	<b>11500</b>
<b>011°</b>	TDZE	<b>312</b>
	Apt Elev	<b>312</b>

# RNAV (RNP) Z RWY 1R

WASHINGTON DULLES INTL (IAD)

▼ GPS required. For uncompensated Baro-VNAV systems, procedure NA below -14°C (6°F) or above 48°C (119°F). For inoperative ALSF-2, increase RNP 0.30 visibility to 1 3/4. Simultaneous approach authorized with ILS or LOC/DME Rwy 1L, ILS Rwy 1L (Cat III), ILS Rwy 1L (Cat III). Use of FD or AP providing RNAV track guidance required during simultaneous operations.

ALSF-2



MISSED APPROACH: Climb to 5000 via track 011° to FUREE and left turn direct HARPP and hold.

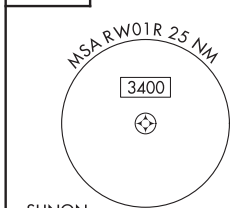
POTOMAC APP CON		
<b>120.45</b>	<b>306.925</b>	(241°-330°)
<b>128.525</b>	<b>306.925</b>	(091°-240°)
<b>126.1</b>	<b>338.25</b>	(331°-090°)

DULLES TOWER		
<b>120.1</b>	<b>317.8</b>	(Rwys 1R/19L)
<b>120.25</b>	<b>348.6</b>	(Rwys 1C/19C)
<b>134.425</b>	<b>348.6</b>	(Rwys 1L/19R and 12/30)

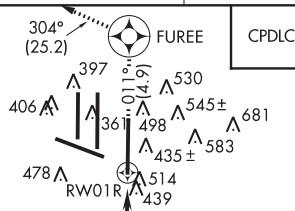
GND CON	
<b>121.9</b>	<b>317.8</b> (EAST)
<b>121.625</b>	<b>348.6</b> (WEST)

CLNC DEL	
<b>135.7</b>	<b>317.8</b>

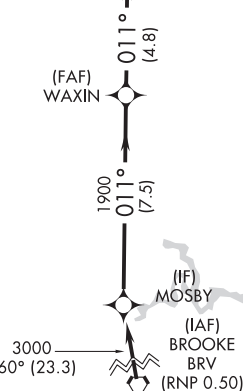
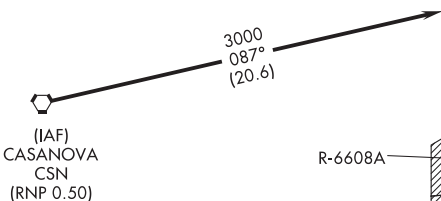
ATIS
<b>134.85</b>



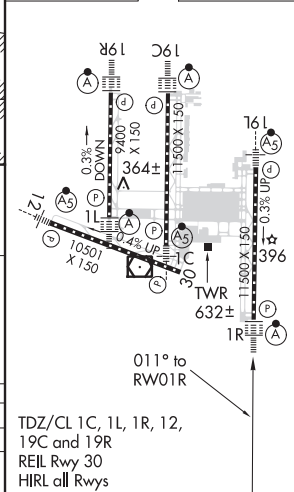
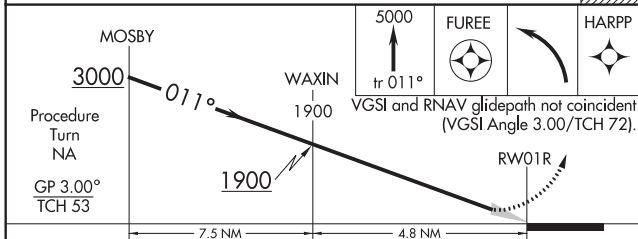
△ 1471



CPDLC



ELEV 312	D	TDZE 312
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CATEGORY	A	B	C	D
RNP 0.30 DA	819/60 507 (600-1 1/4)			

## AUTHORIZATION REQUIRED

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# RNAV (RNP) Z RWY 19C

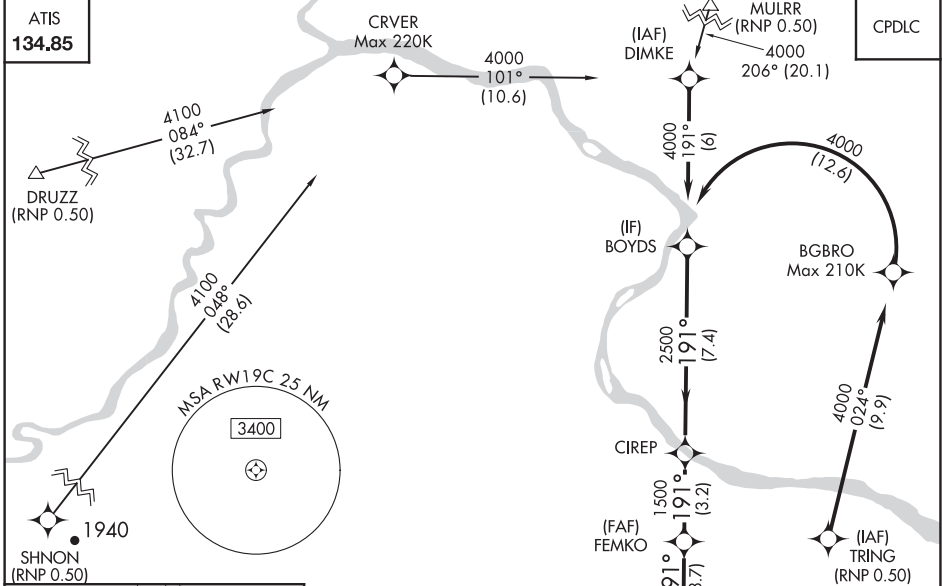
WASHINGTON DULLES INTL (IAD)

APP CRS	Rwy Idg	<b>11500</b>
<b>191°</b>	TDZE	<b>272</b>
	Apt Elev	<b>312</b>

GPS required. For uncompensated Baro-VNAV systems, procedure NA below -14°C (6°F) or above 47°C (117°F). For inoperative ALSF, increase RNP 0.30 visibility to 1 3/4. Simultaneous approach authorized with ILS or LOC Rwy 19L, ILS Rwy 19L (Cat II). Use of FD or AP providing RNAV track guidance required during simultaneous operations.

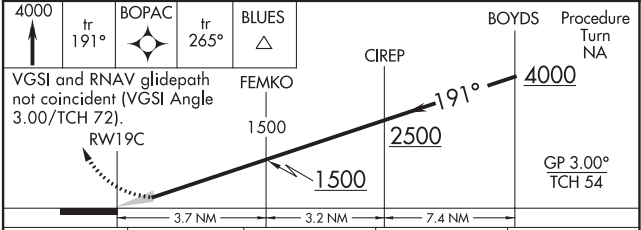
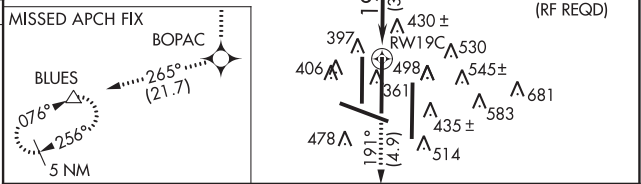
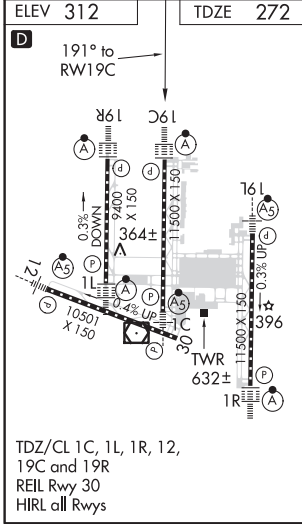
ALSF-2	MISSED APPROACH: Climb to 4000 via track 191° to BOPAC and via track 265° to BLUES and hold.
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POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwys 1R/19L) <b>120.25 348.6</b> (Rwys 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)	CLNC DEL <b>135.7 317.8</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
RNP 0.30 DA	740/60 468 (500-1 1/4)			

## AUTHORIZATION REQUIRED

# RNAV (RNP) Z RWY 19L

WASHINGTON DULLES INTL (IAD)

APP CRS	Rwy Idg	<b>11500</b>
<b>191°</b>	TDZE	<b>302</b>
	Apt Elev	<b>312</b>

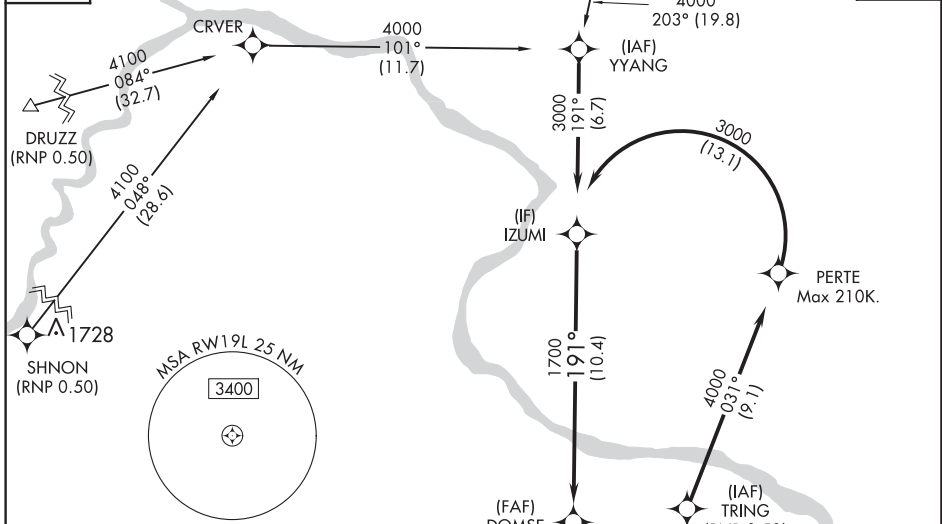
GPS required. For uncompensated Baro-VNAV systems, procedure NA below -14°C (6°F) or above 47°C (118°F). For inoperative MALSR, increase RNP 0.30 visibility to 1½. Simultaneous approach authorized with ILS or LOC/DME Rwy 19R, ILS Rwy 19R (Cat II), ILS Rwy 19R (Cat III). Use of FD or AP providing RNAV track guidance required during simultaneous operations.



MISSED APPROACH: Climb to 2000 via track 191° to WAXIN and hold.

POTOMAC APP CON	DULLES TOWER	GND CON	CLNC DEL
<b>120.45 306.925</b> (241°-330°)	<b>120.1 317.8</b> (Rwy 1R/19L)	<b>121.9 317.8</b> (EAST)	<b>135.7 317.8</b>
<b>128.525 306.925</b> (091°-240°)	<b>120.25 348.6</b> (Rwy 1C/19C)	<b>121.625 348.6</b> (WEST)	
<b>126.1 338.25</b> (331°-090°)	<b>134.425 348.6</b> (Rwys 1L/19R and 12/30)		

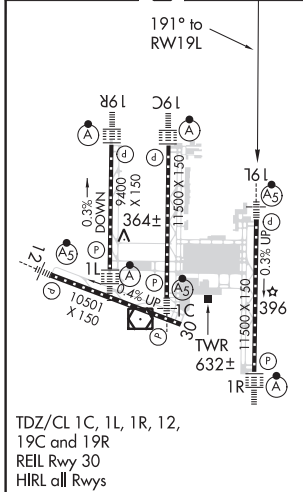
ATIS	MULRR (RNP 0.50)	CPDLC
<b>134.85</b>	4000 203° (19.8)	



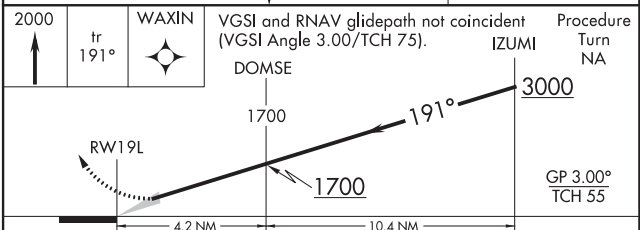
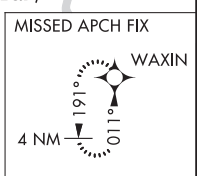
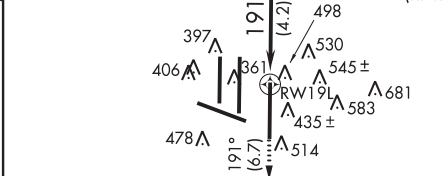
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 312	D	TDZE 302
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TDZ/CL 1C, 1L, 1R, 12, 19C and 19R  
REIL Rwy 30  
HIRL all Rwys



CATEGORY	A	B	C	D
RNP 0.30 DA	743/50 441 (500-1)			

## AUTHORIZATION REQUIRED

WAAS CH <b>99309</b> <b>W01D</b>	APP CRS <b>011°</b>	Rwy Idg <b>9400</b> TDZE <b>296</b> Apt Elev <b>312</b>
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# RNAV (GPS) RWY 1L

WASHINGTON DULLES INTL (IAD)

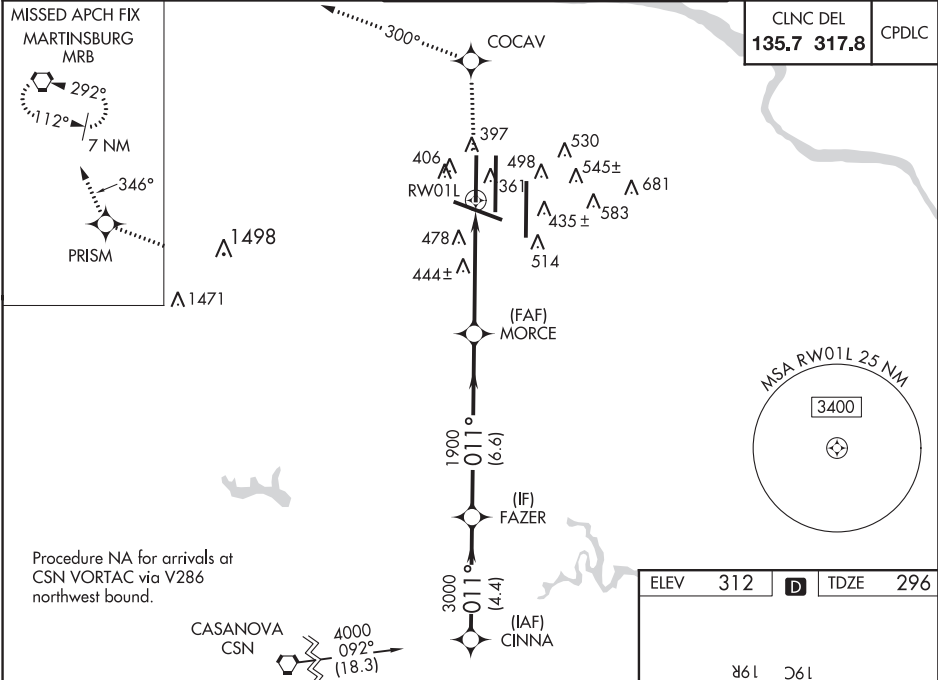
**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. Simultaneous approach authorized with ILS or LOC Rwy 1R, ILS Rwy 1R (Cat II), ILS Rwy 1R (Cat III). LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

ALSF-2

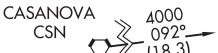


MISSED APPROACH: Climb to 4000 direct COCAV and via 300° track to PRISM and via 346° track to MRB VORTAC and hold.

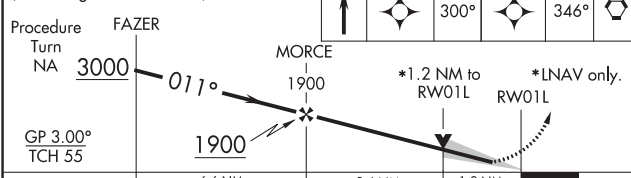
ATIS <b>134.85</b>	POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)
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Procedure NA for arrivals at CSN VORTAC via V286 northwest bound.

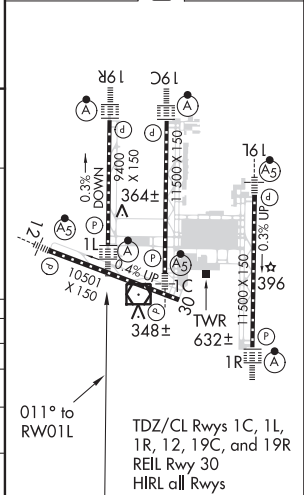


VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 72).



CATEGORY	A	B	C	D
LPV DA		496/24	200 (200-½)	
LNAV/VNAV DA		828/60	532 (600-1¼)	
LNAV MDA	740/24	444 (500-½)	740/40 444 (500-1)	740/50 444 (500-1)
CIRCLING	940-1	628 (700-1)	940-1¾ 628 (700-1¾)	940-2 628 (700-2)

ELEV 312	<b>D</b>	TDZE 296
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NE-3, 10 NOV 2016 to 05 JAN 2017

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WAAS CH <b>86709</b> <b>W19D</b>	APP CRS <b>191°</b>	Rwy Idg TDZE <b>278</b> Apt Elev <b>312</b>	<b>9400</b>
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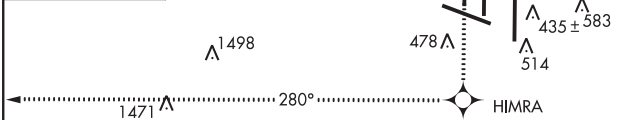
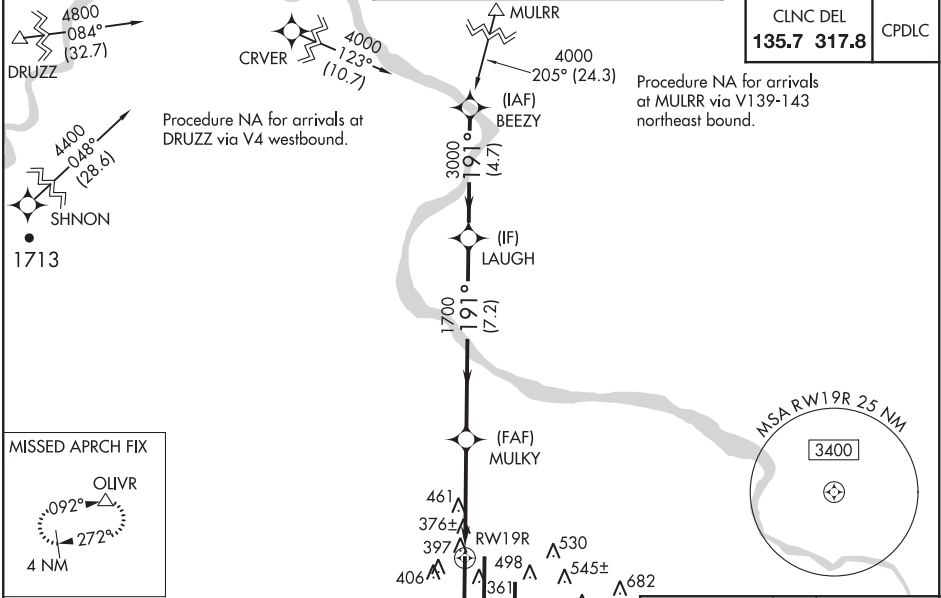
# RNAV (GPS) RWY 19R

WASHINGTON DULLES INTL (IAD)

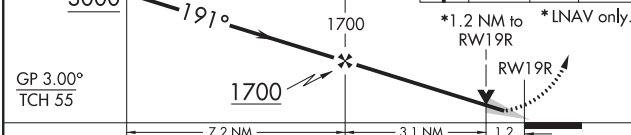
**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP -0.3 NA. Simultaneous approach authorized with ILS or LOC Rwy 19L, ILS Rwy 19L (Cat II). LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

**ALSf-2**  
**MISSED APPROACH:** Climb to 5000 direct HIMRA and via 280° track to OLIVR and hold, continue climb-in-hold to 5000.

ATIS <b>134.85</b>	POTOMAC APP CON		DULLES TOWER		GND CON	
	<b>120.45</b>	<b>306.925</b> (241°-330°)	<b>120.1</b>	<b>317.8</b> (Rwy 1R/19L)	<b>121.9</b>	<b>317.8</b> (EAST)
	<b>128.525</b>	<b>306.925</b> (091°-240°)	<b>120.25</b>	<b>348.6</b> (Rwy 1C/19C)	<b>121.625</b>	<b>348.6</b> (WEST)
	<b>126.1</b>	<b>338.25</b> (331°-090°)	<b>134.425</b>	<b>348.6</b> (Rwy 1L/19R and 12/30)		

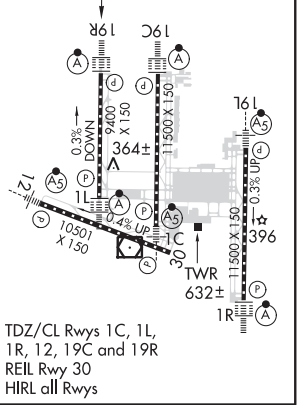


Procedure Turn NA  
VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 70).  
5000 HIMRA tr 280° OLIVR  
\*1.2 NM to RW19R \*LNAV only.



CATEGORY	A	B	C	D
LPV DA		478/24	200 (200-½)	
LNAV/VNAV DA		714/50	436 (500-1)	
LNAV MDA	720/24	442 (500-½)	720/40 442 (500-¾)	720/50 442 (500-1)
CIRCLING	940-1	628 (700-1)	940-1¾ 628 (700-1¾)	940-2 628 (700-2)

ELEV	312	TDZE	278
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WAAS CH <b>97509</b> <b>W01B</b>	APP CRS <b>011°</b>	Rwy Idg <b>11500</b> TDZE <b>286</b> Apt Elev <b>312</b>
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# RNAV (GPS) Y RWY 1C

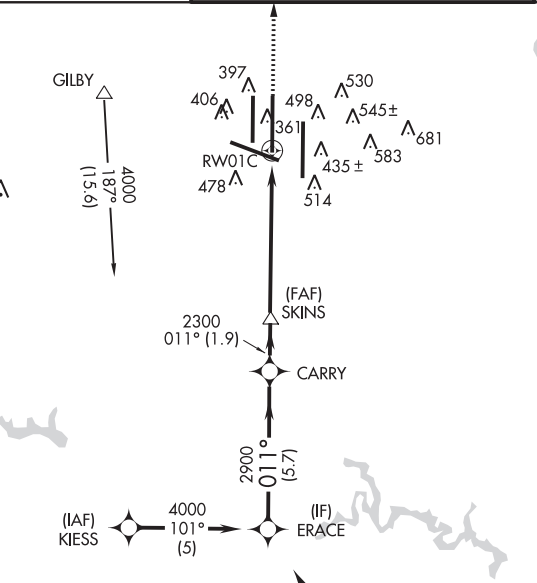
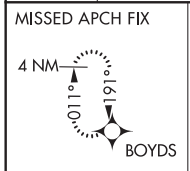
WASHINGTON DULLES INTL (IAD)

▼ 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. Simultaneous approach authorized with ILS or LOC/DME Rwy 1L, ILS Rwy 1L (Cat II), ILS Rwy 1L (Cat III), ILS or LOC Rwy 1R, ILS Rwy 1R (Cat II), ILS Rwy 1R (Cat III). LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.



MISSED APPROACH:  
Climb to 3000 direct  
BOYDS and hold.

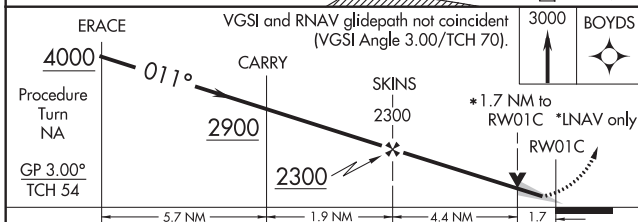
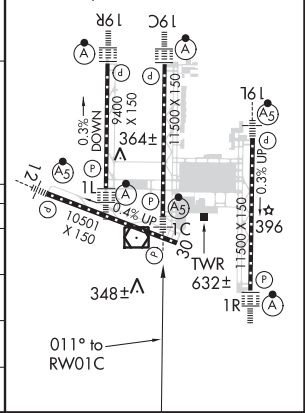
ATIS <b>134.85</b>	POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)
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CLNC DEL <b>135.7 317.8</b>	CPDLC
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ELEV 312	D	TDZE 286
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TDZ/CL Rwys 1C, 1L, 1R, 12, 19C, and 19R  
REIL Rwy 30  
HIRL all Rwys



CATEGORY	A	B	C	D
LPV DA		486/24	200 (200-½)	
LNAV/VNAV DA		801/60	515 (600-1½)	
LNAV MDA	900/24	614 (600-½)	900/60 614 (600-1½)	900-1½ 614 (600-1½)
CIRCLING	940-1	628 (700-1)	940-1¾ 628 (700-1¾)	940-2 628 (700-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

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WAAS CH <b>56409</b> W01A	APP CRS <b>011°</b>	Rwy ldg <b>11500</b> TDZE <b>312</b> Apt Elev <b>312</b>
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# RNAV (GPS) Y RWY 1R

WASHINGTON DULLES INTL (IAD)

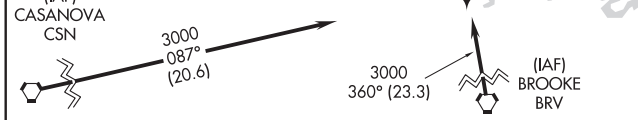
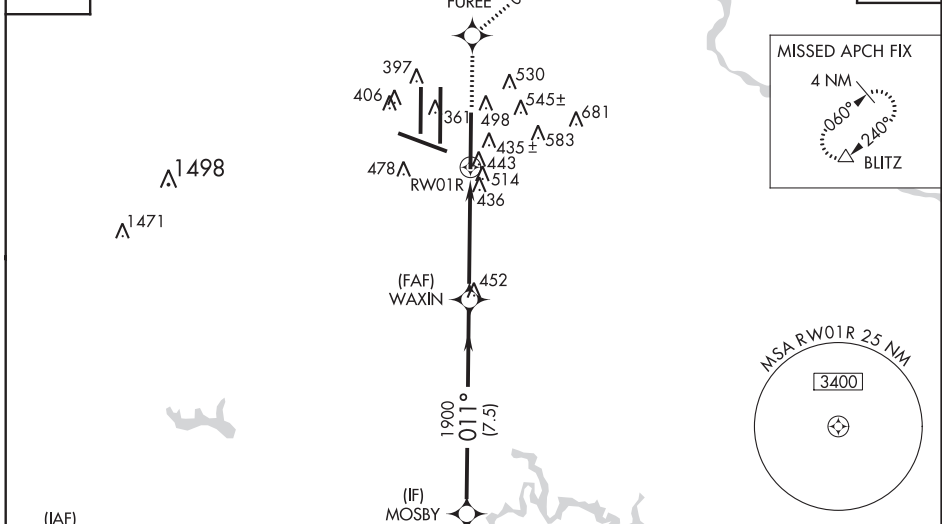
**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. Simultaneous approach authorized with ILS or LOC/DME Rwy 1L, ILS Rwy 1L (Cat II), ILS Rwy 1L (Cat III). LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.



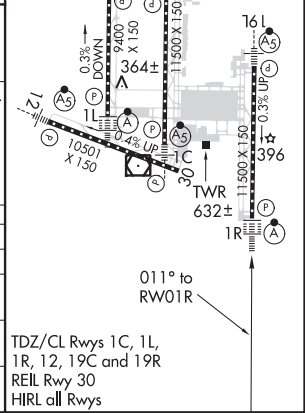
**MISSED APPROACH:**  
Climb to 3000 direct FUREE and via 060° track to BLITZ and hold.

POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)	CLNC DEL <b>135.7 317.8</b>
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ATIS <b>134.85</b>	CPDLC
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ELEV 312	<b>D</b>	TDZE 312
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MOSBY	3000	Procedure Turn NA	GP 3.00° TCH 53	7.5 NM	1900	3.5 NM	1.3	
CATEGORY	A	B	C	D				
LPV DA	512/24		200 (200-1/2)					
LNAV/VNAV DA	764/50		452 (500-1)					
LNAV MDA	800/24	488 (500-1/2)	800/40	488 (500-3/4)	800/50	488 (500-1)		
CIRCLING	940-1	628 (700-1)	940-1 3/4	628 (700-1 3/4)	940-2	628 (700-2)		

TDZ/CL Rwys 1C, 1L, 1R, 12, 19C and 19R  
REIL Rwy 30  
HIRL all Rwys

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NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>40305</b> <b>W19B</b>	APP CRS <b>191°</b>	Rwy Idg <b>11500</b> TDZE <b>272</b> Apt Elev <b>312</b>
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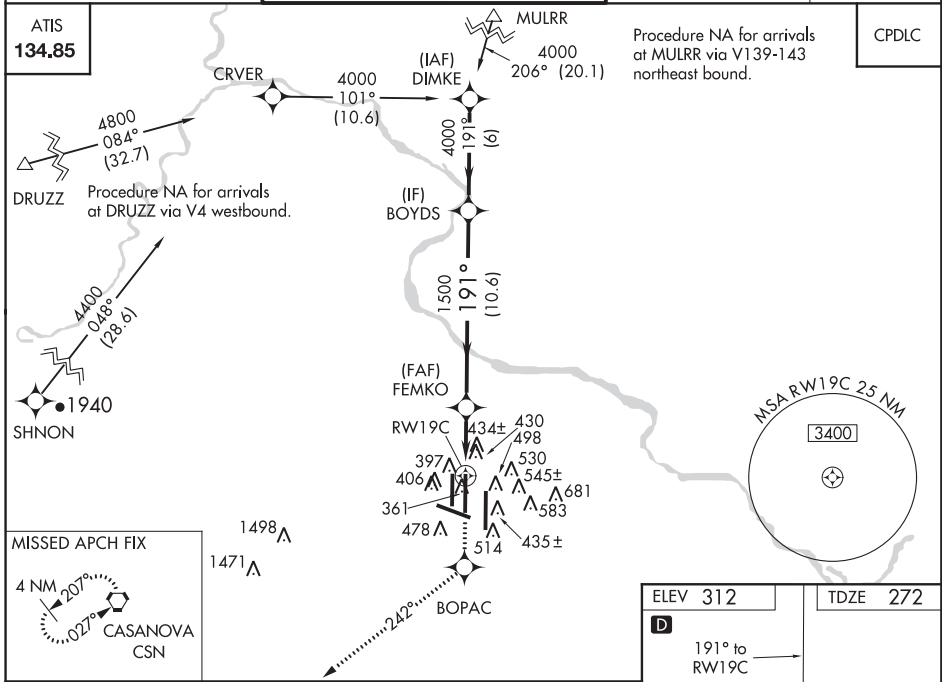
# RNAV (GPS) Y RWY 19C

WASHINGTON DULLES INTL (IAD)

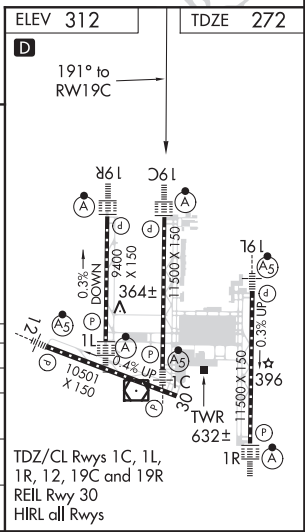
**ALSF-2** For inoperative ALSF-2, increase LNAV Cat D visibility to RVR 6000. For uncompenated Baro-VNAV systems, LNAV/VNAV NA below -1.5°C (5°F) or above 47°C (116°F). DME/DME RNP-0.3 NA. Simultaneous approach authorized with ILS or LOC Rwy 19L, ILS Rwy 19L (Cat II). LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

**MISSED APPROACH:** Climb to 4000 direct BOPAC and on 242° track to CSN VORTAC and hold.

POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)	CLNC DEL <b>135.7 317.8</b>
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4000	BOPAC	CSN	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00°/TCH 72).		BOYDS
↑	✧	tr 242°			4000
*LNAV only. *1.1 NM to RWY 19C					
RWY 19C		FEMKO	1500	191°	4000
1.1		2.6 NM		10.6 NM	
CATEGORY	A	B	C	D	
LPV DA		472/24	200 (200-½)		
LNAV/VNAV DA		717/50	445 (500-1)		
LNAV MDA	700/24	428 (400-½)	700/40 428 (400-¾)	700/50 428 (400-1)	
CIRCLING	940-1	628 (700-1)	940-1¾ 628 (700-1¾)	940-2 628 (700-2)	



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NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>58105</b> <b>W19A</b>	APP CRS <b>191°</b>	Rwy Idg <b>11500</b> TDZE <b>302</b> Apt Elev <b>312</b>
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# RNAV (GPS) Y RWY 19L

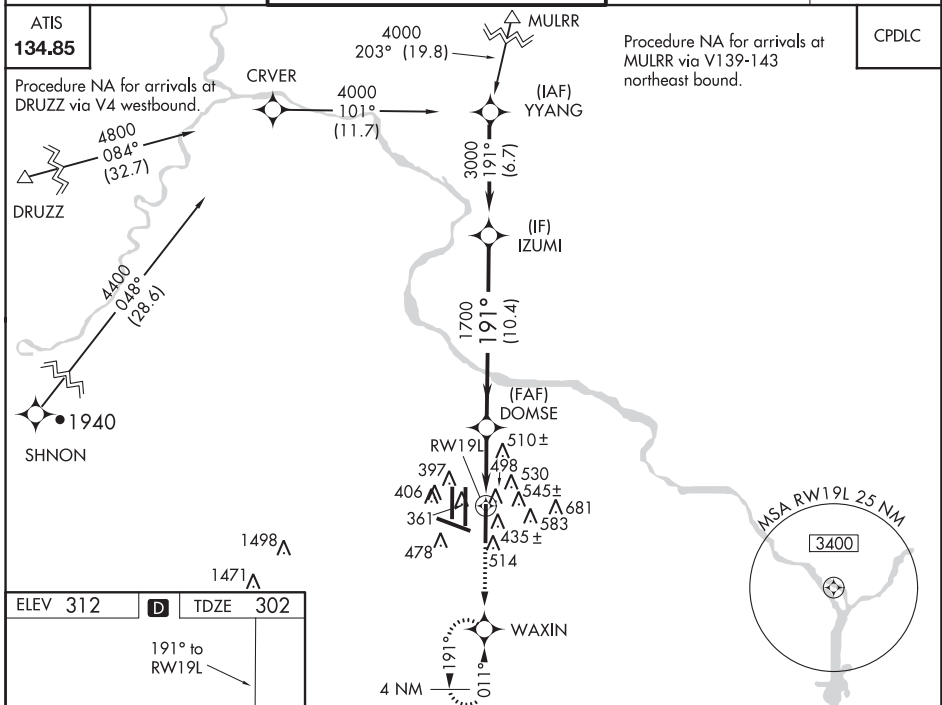
WASHINGTON DULLES INTL (IAD)

**▼** 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. Simultaneous approach authorized with ILS or LOC/DME Rwy 19R, ILS Rwy 19R (Cat II), ILS Rwy 19R (Cat III). LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

**MALSR**

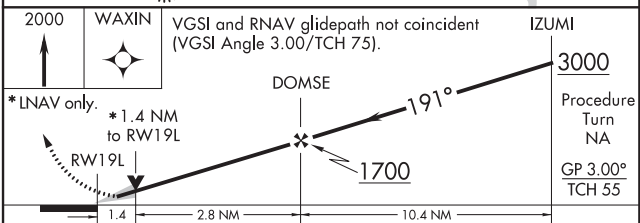
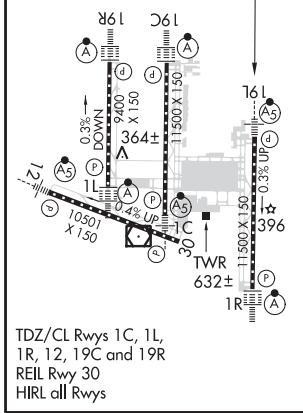
**MISSED APPROACH:**  
Climb to 2000 direct WAXIN and hold.

POTOMAC APP CON <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)	DULLES TOWER <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)	GND CON <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)	CLNC DEL <b>135.7 317.8</b>
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CATEGORY	A	B	C	D
LPV DA	502/24 200 (200-½)			
LNAV/VNAV DA	829/60 527 (600-1¼)			
LNAV MDA	820/24 518 (600-½)	820/50 518 (600-1)		820/60 518 (600-1¼)
CIRCLING	940-1 628 (700-1)	940-1¾ 628 (700-1¾)		940-2 628 (700-2)

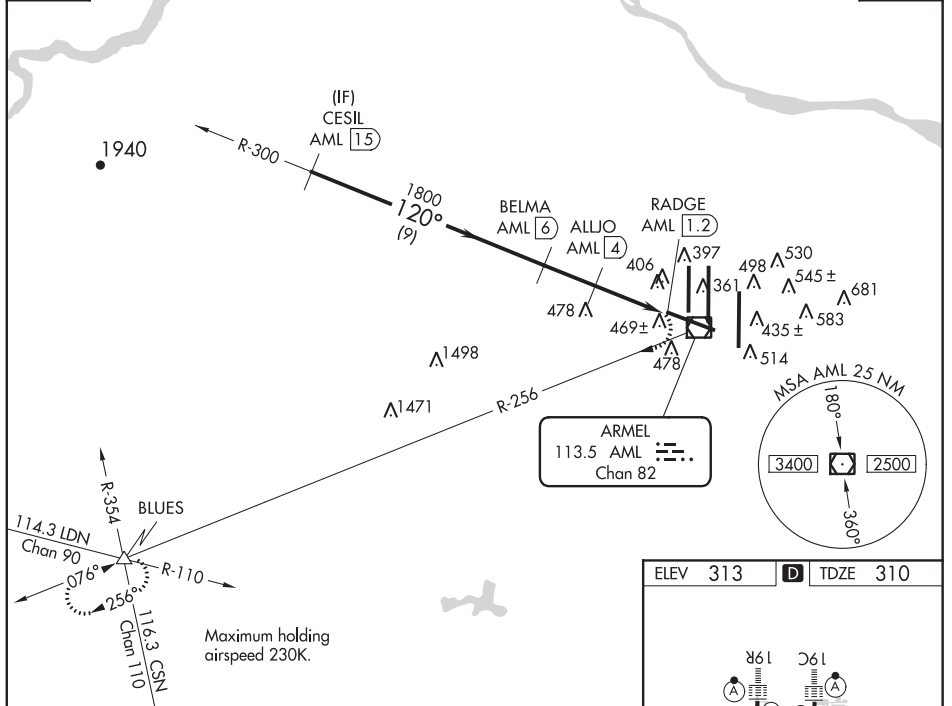
VOR/DME AML <b>113.5</b> Chan <b>82</b>	APP CRS <b>120°</b>	Rwy Idg TDZE Apt Elev	<b>10501</b> <b>310</b> <b>313</b>
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# VOR/DME RWY 12

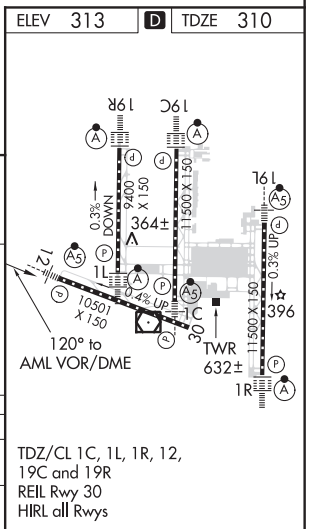
WASHINGTON DULLES INTL (IAD)

<b>POTOMAC APP CON</b> <b>120.45 306.925</b> (241°-330°) <b>128.525 306.925</b> (091°-240°) <b>126.1 338.25</b> (331°-090°)		<b>DULLES TOWER</b> <b>120.1 317.8</b> (Rwy 1R/19L) <b>120.25 348.6</b> (Rwy 1C/19C) <b>134.425 348.6</b> (Rwys 1L/19R and 12/30)		<b>GND CON</b> <b>121.9 317.8</b> (EAST) <b>121.625 348.6</b> (WEST)	<b>CLNC DEL</b> <b>135.7 317.8</b>
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ATIS <b>134.85</b>	<b>RADAR REQUIRED</b>	CPDLC
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	CESIL AML 15	BELMA AML 6	ALLJO AML 4	RADGE AML 1.2	BLUES
	4000	1800	1200	4000	AML R-256
	9 NM	2 NM	1.7 NM	1.2	
CATEGORY	A	B	C	D	
S-12	740/24	430 (500-½)	740/40	430 (500-¾)	
CIRCLING	940-1	627 (700-1)	940-1¾ 627 (700-1¾)	940-2 627 (700-2)	



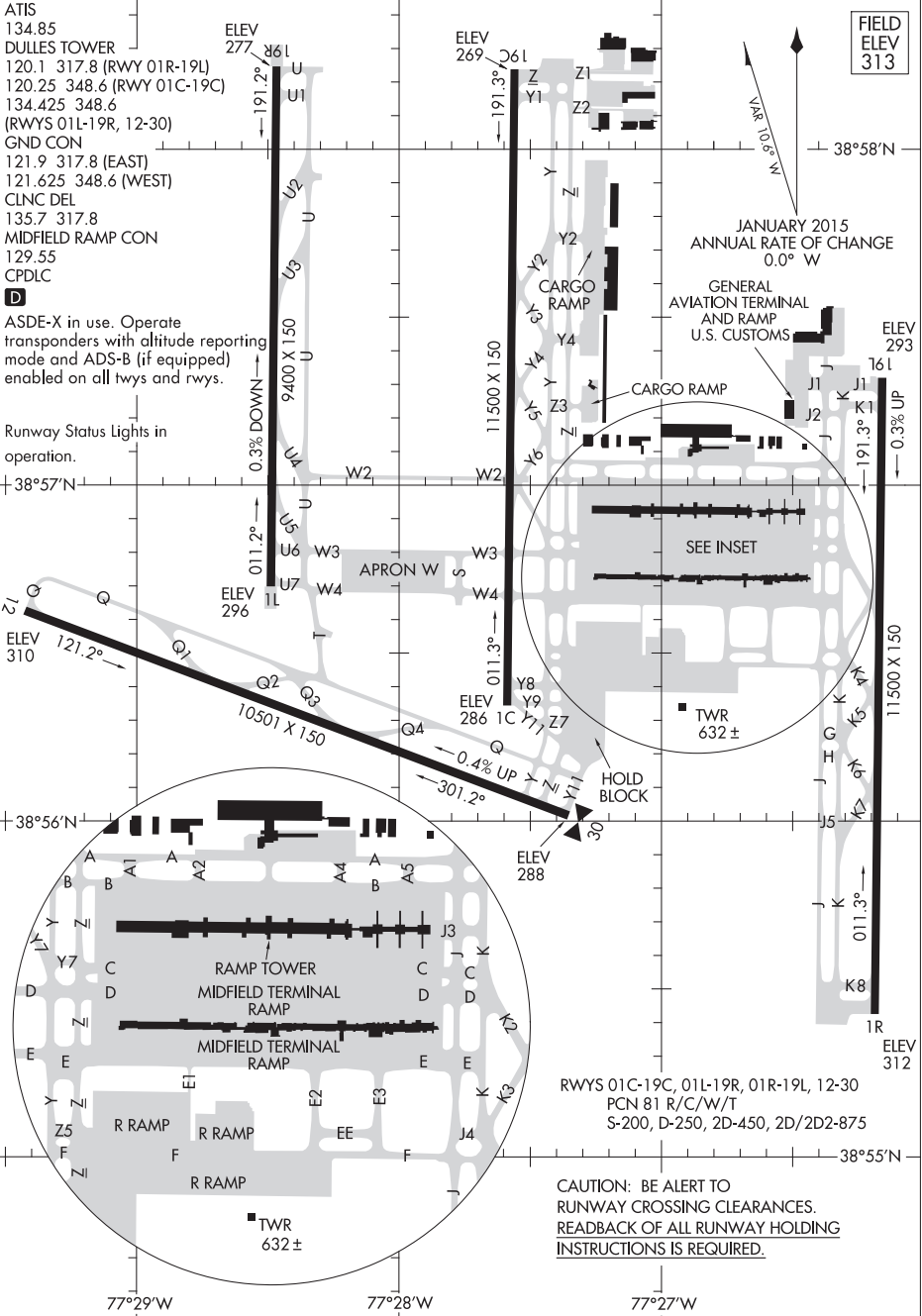
NE-3, 10 NOV 2016 to 05 JAN 2017

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# AIRPORT DIAGRAM

AL-5100 (FAA)

WASHINGTON DULLES INTL (IAD)  
WASHINGTON, DC



# AIRPORT DIAGRAM

WASHINGTON, DC  
WASHINGTON DULLES INTL (IAD)

# BUNZZ THREE DEPARTURE (RNAV)

NE-3, 10 NOV 2016 to 05 JAN 2017

**TOP ALTITUDE:  
3000**

ATIS 134.85  
CINC DEL 135.7 317.8  
CPDLC  
GND CON  
121.9 317.8 (EAST)  
121.625 348.6 (WEST)  
DULLES TOWER  
120.1 317.8 (Rwy 1R/19L)  
134.425 348.6 (Rwy 1C/19C)  
POTOMAC DEP CON  
126.65

NOTE: DME/DME/IRU or GPS required.  
NOTE: RNAV 1.  
NOTE: Turbojets only.  
NOTE: Radar required.  
NOTE: Aircraft may be Radar vectored to LOULU, THICE, WHYUU, BUNZZ, or RAMAY.

RAMAY  
\*8400  
4600

301°  
(1/5)

BUNZZ

272°  
(1/0)

LOULU

WHYUU

257°  
(6)

THICE

191°

011°

820

307°

011°

820



### TAKEOFF OBSTACLE NOTES:

Rwy 1C: Trees 2815' from DER, 1031' left of centerline, up to 80' AGL/345' MSL. Sign 64' from DER, 303' right of centerline, 13' AGL/272' MSL.  
Rwy 1L: Tower 1917' from DER, 680' left of centerline, 51' AGL/330' MSL.  
Rwy 19C: Sign 100' from DER, 472' left of centerline, 4' AGL/289' MSL. Vehicles on road 24' from DER, 274' right of centerline, up to 15' AGL/293' MSL.  
Rwy 30: Trees 2264' from DER, 1033' right of centerline, up to 72' AGL/383' MSL.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAYS 1C/1L/1R:** Climb heading 011° to 820, then left turn direct LOULU (or heading assigned by ATC), then on depicted course to BUNZZ, thence...  
**TAKEOFF RUNWAYS 19C/19R/19L:** Climb heading 191° to 820, then right turn direct THICE (or heading assigned by ATC), then on depicted course to BUNZZ, thence...  
**TAKEOFF RUNWAY 30:** Climb heading 301° to 820, then left turn direct LOULU (or heading assigned by ATC), then on depicted course to BUNZZ, thence...  
... Maintain 3000. Expect clearance to filed altitude within ten (10) minutes after departure.

**RAMAY TRANSITION (BUNZZ3.RAMAY)**

### TAKEOFF MINIMUMS:

Rwy 12: NA-ATC.  
Rwy 1C, 1L, 1R, 19C, 19L, 19R, 30:  
Standard with minimum climb of 500' per NIM to 820.

NOTE: Chart not to scale.

# BUNZZ THREE DEPARTURE (RNAV)

NE-3, 10 NOV 2016 to 05 JAN 2017

# CAPITAL NINE DEPARTURE

ATIS 134.85  
 CLNC DEL 135.7 317.8  
 CPDLC  
 GND CON  
 121.9 317.8 (EAST)  
 121.625 348.6 (WEST)  
 DULLES TOWER  
 120.1 317.8 (Rwy 1R/19L)  
 120.25 348.6 (Rwy 1C/19C)  
 134.425 348.6 (Rwys 1L/19R, 12/30)

POTOMAC DEP CON  
 NORTH  
 125.05 350.2

WESTMINSTER  
 117.9 EMI  
 Chan 126  
 N39°29.70'-W76°58.71'  
 L-29-34-36, H-10-12

**TOP ALTITUDE:  
3000**

△ JERES  
 N39°38.57'  
 W77°27.30'  
 L-29-34, H-10-12

BALTIMORE  
 115.1 BAL  
 Chan 98  
 N39°10.26'-W76°39.68'  
 L-29-34-36, H-10-12

SWANN  
 N39°09.09'  
 W76°13.73'  
 L-34-36, H-10-12

△ BUFFR  
 N39°27.56'  
 W77°35.90'  
 L-29-34, H-10-12

△ WOOLY  
 N39°20.32'  
 W77°02.19'  
 L-29-34-36

MARTINSBURG  
 112.1 MRB  
 Chan 58  
 N39°23.13'-W77°50.90'  
 L-29, H-10-12

ANNGE  
 N39°02.17'  
 W77°11.36'  
 L-29-34-36

PALEO  
 N39°01.68'  
 W76°22.36'  
 L-29-34-36, H-10-12

V268

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ARMEL  
 113.5 AML  
 Chan 82  
 N38°56.08'  
 W77°28.00'  
 L-29-34-36, H-10-12

BLUES △  
 N38°47.75'  
 W77°54.45'  
 L-29-34, H-10-12

CASANOVA  
 116.3 CSN  
 Chan 110  
 N38°38.47'  
 W77°51.93'  
 L-29-34-36, H-10-12

FLUKY △  
 N38°30.39'  
 W77°43.75'  
 L-29-34-36, H-10-12

LINDEN  
 114.3 LDN  
 Chan 90  
 N38°51.26'-W78°12.33'  
 L-29-34, H-10-12

△ HAFNR  
 N38°23.84'  
 W77°33.98'  
 L-29-34-36, H-10-12

WASHINGTON  
 111.0 DCA  
 Chan 47  
 N38°51.57'-W77°02.19'  
 L-29-34-36, H-10-12

NOTTINGHAM  
 113.7 OTT  
 Chan 84  
 N38°42.35'-W76°44.68'  
 L-29-34-36, H-10-12

SMYRNA  
 111.4 ENO  
 Chan 51  
 N39°13.90'-W75°30.96'  
 L-34, H-10-12

DAILY  
 N38°33.63'  
 W76°43.52'  
 L-29-34-36  
 H-10-12

△ HANEY  
 N38°17.29'  
 W77°55.07'  
 L-34-36

GORDONSVILLE  
 115.6 GVE  
 Chan 103  
 N38°00.82'-W78°09.18'  
 L-34-36, H-10-12

POTOMAC DEP CON  
 SOUTH  
 126.65 350.2

**TAKEOFF MINIMUMS:**  
 Rwys 1C, 1R, 1L, 12, 19C,  
 19R, 19L, 30: Standard.

NOTE: Radar required.  
 NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

# CAPITAL NINE DEPARTURE



# CAPITAL NINE DEPARTURE



## DEPARTURE ROUTE DESCRIPTION

TAKE OFF RUNWAYS 1C, 1L, 1R: Climb heading 011° or as assigned, Thence. . . .

TAKE OFF RUNWAY 12: Climb heading 121° or as assigned, Thence. . . .

TAKE OFF RUNWAYS 19C, 19L, 19R: Climb heading 191° or as assigned, Thence. . . .

TAKE OFF RUNWAY 30: Climb heading 301° or as assigned, Thence. . . .

. . . .Expect radar vectors to filed/assigned route or depicted fix. Maintain 3000, expect clearance to filed altitude/flight level 10 minutes after departure.

**SPECIAL INSTRUCTIONS:** For appropriate departure control frequency, see graphic. Use frequency depicted within sector where your first Navaid/Fix/Route is located, or as assigned.

### TAKE-OFF OBSTACLES NOTES:

Rwy 1C: Tree 2814' from DER, 1030' left of centerline, 86' AGL/345' MSL.

Rwy 1R: Post 12' from DER, 223' right of centerline, 8' AGL/294' MSL.

Rwy 1L: Tower 1918' from DER, 680' left of centerline, 56' AGL/330' MSL.

Rwy 12: Tree 520' from DER, 604' left of centerline, 28' AGL/307' MSL.

Rwy 30: Trees beginning 161' from DER, 520' left of centerline, up to 57' AGL/396' MSL.

Trees beginning 532' from DER, 600' right of centerline, up to 64' AGL/383' MSL.

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# CAPITAL NINE DEPARTURE



# CLTCH ONE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 1L, 1C, 1R, 19C, 19L, 19R, 30: Climb on heading assigned by ATC, expect RADAR vectors to BUTRZ, then on track 237° to CLTCH, thence. . . .

. . . .on assigned transition. Maintain 3000. Expect clearance to filed altitude within ten (10) minutes after departure.

FLASK TRANSITION (CLTCH1.FLASK)  
MAULS TRANSITION (CLTCH1.MAULS)

### TAKEOFF OBSTACLE NOTES

Rwy 1C: Trees 2815' from DER, 1031' left of centerline, up to 80' AGL/345' MSL.  
Sign 64' from DER, 303' right of centerline, 13' AGL/272' MSL.

Rwy 1L: Tower 1917' from DER, 680' left of centerline, 51' AGL/330' MSL.

Rwy 19C: Sign 100' from DER, 472' left of centerline, 4' AGL/289' MSL.

Vehicles on road 24' from DER, 274' right of centerline, up to 15' AGL/293' MSL.

Rwy 30: Trees 2264' from DER, 1033' right of centerline, up to 72' AGL/383' MSL.

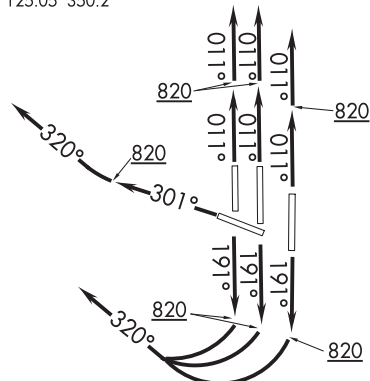
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# JCOBY THREE DEPARTURE (RNAV)

**TOP ALTITUDE:  
3000**

ATIS 134.85  
 CLNC DEL  
 135.7 317.8  
 CPDLC  
 GND CON  
 121.9 317.8 (EAST)  
 121.625 348.6 (WEST)  
 DULLES TOWER  
 120.1 317.8 (Rwy 1R/19L)  
 120.25 348.6 (Rwys 1C/19C)  
 134.425 348.6 (Rwys 1L/19R, 12/30)  
 POTOMAC DEP CON  
 125.05 350.2



**TAKEOFF MINIMUMS**  
 Rwys 1L/C/R, 19L/C/R, 30:  
 Standard with minimum climb of 500' per NM to 820.

**DEPARTURE ROUTE DESCRIPTION**

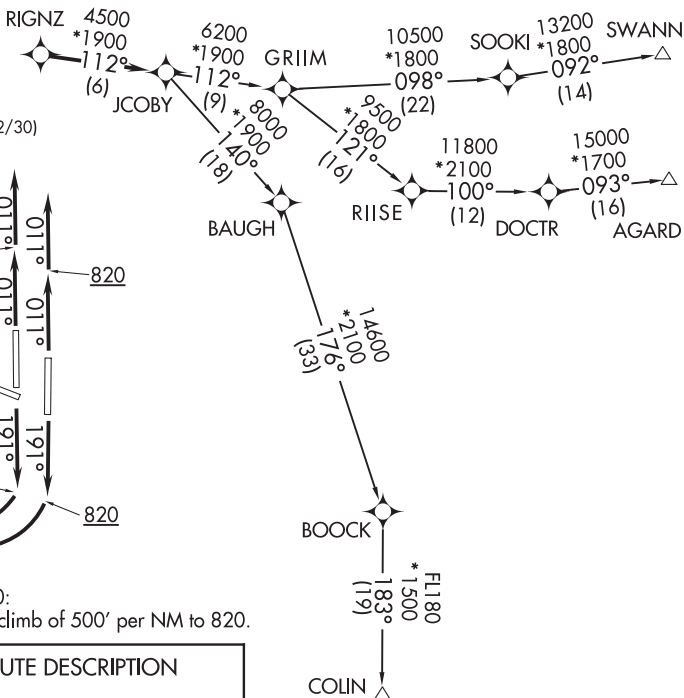
**TAKEOFF RUNWAYS 1L/C/R:** Climb heading 011° to 820, then on heading 011° or as assigned by ATC, expect RADAR vectors to RIGNZ, thence....

**TAKEOFF RUNWAYS 19L/C/R:** Climb heading 191° to 820, then turn right heading 320° or as assigned by ATC, expect RADAR vectors to RIGNZ, thence....

**TAKEOFF RUNWAY 30:** Climb heading 301° to 820, then turn right heading 320° or as assigned by ATC, expect RADAR vectors to RIGNZ, thence....

....on track 112° to JCOBY. Then on assigned transition. Maintain 3000. Expect clearance to filed altitude within ten (10) minutes after departure.

**AGARD TRANSITION (JCOBY3.AGARD):**  
**COLIN TRANSITION (JCOBY3.COLIN):**  
**SWANN TRANSITION (JCOBY3.SWANN):**



- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: RADAR required.
- NOTE: Turbojets only.
- NOTE: COLIN Transition - Part 121 aircraft only.
- NOTE: SWANN/AGARD Transitions - Part 121 and Part 129 aircraft only.

- TAKEOFF OBSTACLE NOTES**
- Rwy 1C: Trees 2815' from DER, 1031' left of centerline, up to 80' AGL/345' MSL. Sign 64' from DER, 303' right of centerline, 13' AGL/272' MSL.
  - Rwy 1L: Tower 1917' from DER, 680' left of centerline, 51' AGL/330' MSL.
  - Rwy 19C: Sign 100' from DER, 472' left of centerline, 4' AGL/289' MSL. Vehicles on road 24' from DER, 274' right of centerline, up to 15' AGL/293' MSL.
  - Rwy 30: Trees 2264' from DER, 1033' right of centerline, up to 72' AGL/383' MSL.

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

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# JDUBB ONE DEPARTURE (RNAV)

ATIS  
 134.85  
 CLNC DEL  
 135.7 317.8  
 CPDLC  
 GND CON  
 121.9 317.8 (EAST)  
 121.625 348.6 (WEST)  
 DULLES TOWER  
 120.1 317.8 (Rwy 1R/19L)  
 120.25 348.6 (Rwy 1C/19C)  
 134.425 348.6 (Rwys 1L/19R, 12/30)  
 POTOMAC DEP CON  
 126.65 350.2

**TOP ALTITUDE:  
3000**



P-56B



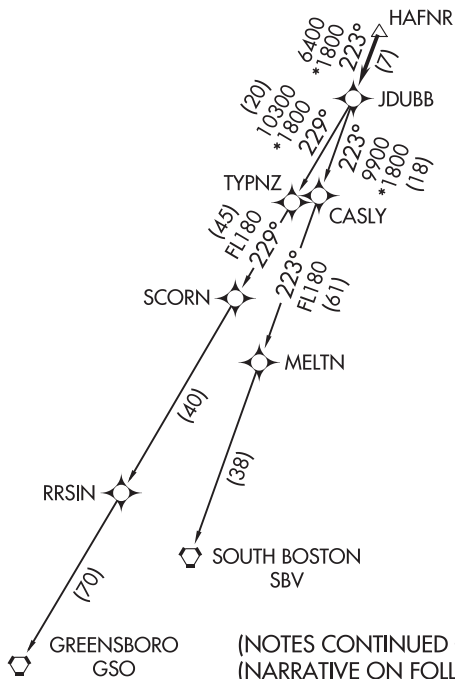
P-56A

### TAKEOFF MINIMUMS:

Rwys 1L/C/R, 19L/C/R, 30:  
 Standard with minimum climb  
 of 500' per NM to 820.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



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

(NOTES CONTINUED ON FOLLOWING PAGE)  
 (NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# JDUBB ONE DEPARTURE (RNAV)

(JDUBB1 .JDUBB) 31MAR16

# JDUBB ONE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 1L, 1C, 1R, 19C, 19L, 19R, 30: Climb on heading assigned by ATC, expect RADAR vectors to HAFNR, then on track 223° to JDUBB, thence. . . .

. . . .on assigned transition. Maintain 3000. Expect clearance to filed altitude within ten (10) minutes after departure.

GREENSBORO TRANSITION (JDUBB1.GSO)  
SOUTH BOSTON TRANSITION (JDUBB1.SBV)

### TAKEOFF OBSTACLE NOTES

- Rwy 1C: Trees 2815' from DER, 1031' left of centerline, up to 80' AGL/345' MSL.  
Sign 64' from DER, 303' right of centerline, 13' AGL/272' MSL.
- Rwy 1L: Tower 1917' from DER, 680' left of centerline, 51' AGL/330' MSL.
- Rwy 19C: Sign 100' from DER, 472' left of centerline, 4' AGL/289' MSL.  
Vehicles on road 24' from DER, 274' right of centerline, up to 15' AGL/293' MSL.
- Rwy 30: Trees 2264' from DER, 1033' right of centerline, up to 72' AGL/383' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# JERES TWO DEPARTURE (RNAV)

ATIS 134.85  
 CLNC DEL 135.7 317.8  
 CPDLC  
 GND CON  
 121.9 317.8 (EAST)  
 121.625 348.6 (WEST)  
 DULLES TOWER  
 120.1 317.8 (Rwy 1R/19L)  
 120.25 348.6 (Rwy 1C/19C)  
 134.425 348.6 (Rwys 1L/19R, 12/30)  
 POTOMAC DEP CON  
 125.05 350.2

**TOP ALTITUDE:  
3000**

**DEPARTURE ROUTE DESCRIPTION**

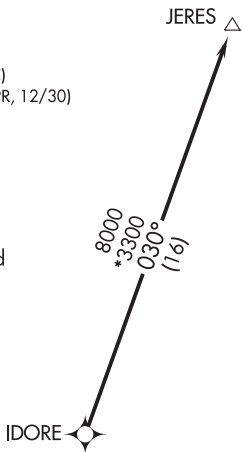
**TAKEOFF RUNWAYS 1C/1L/1R:** Climb heading 011° to 820, then on heading 011° or as assigned by ATC, expect RADAR vectors to IDORE, thence....

**TAKEOFF RUNWAY 19L/19C/19R:** Climb heading 191° to 820, then right turn heading 320° or as assigned by ATC, expect RADAR vectors to IDORE, thence....

**TAKEOFF RUNWAY 30:** Climb heading 301° to 820, then on heading 320° or as assigned by ATC, expect RADAR vectors to IDORE, thence....

.... on track 030° to JERES, maintain 3000 or as directed by ATC. Expect clearance to filed altitude within ten (10) minutes after departure.

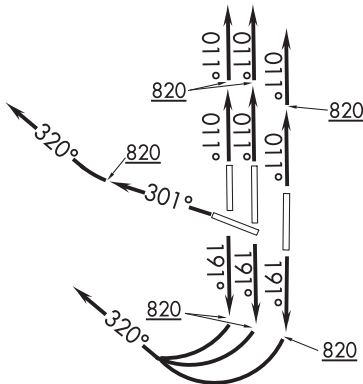
**TAKEOFF MINIMUMS:**  
 Rwys 1C, 1L, 1R, 19L, 19C, 19R, 30: Standard with minimum climb of 500' per NM to 820.



- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Radar required.
- NOTE: Turbojets only.

**TAKEOFF OBSTACLE NOTES:**

- Rwy 1C: Trees 2815' from DER, 1031' left of centerline, up to 80' AGL/345' MSL. Sign 64' from DER, 303' right of centerline, 13' AGL/272' MSL.
- Rwy 1L: Tower 1917' from DER, 680' left of centerline, 51' AGL/330' MSL.
- Rwy 19C: Sign 100' from DER, 472' left of centerline, 4' AGL/289' MSL. Vehicles on road 24' from DER, 274' right of centerline, up to 15' AGL/293' MSL.
- Rwy 30: Trees 2264' from DER, 1033' right of centerline, up to 72' AGL/383' MSL.



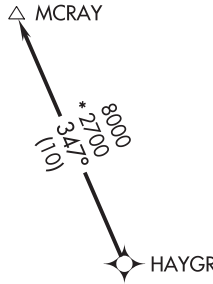
NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

# MCRAY TWO DEPARTURE (RNAV)

ATIS  
 134.85  
 CLNC DEL  
 135.7 317.8  
 CPDLC  
 GND CON  
 121.9 317.8 (EAST)  
 121.625 348.6 (WEST)  
 DULLES TOWER  
 120.1 317.8 (Rwy 1R/19L)  
 120.25 348.6 (Rwy 1C/19C)  
 134.425 348.6 (Rwys 1L/19R, 12/30)  
 POTOMAC DEP CON  
 125.05 350.2

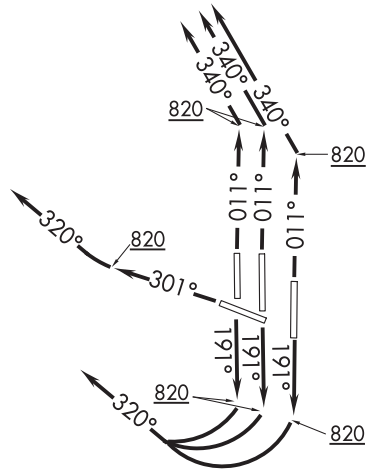


**TOP ALTITUDE:  
3000**

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

**TAKEOFF MINIMUMS:**  
 Rwys 1L/C/R, 19L/C/R, 30:  
 Standard with minimum climb  
 of 500' per NM to 820.

**TAKEOFF OBSTACLE NOTES:**  
 Rwy 1C: Trees 2815' from DER, 1031' left of centerline,  
 up to 80' AGL/345' MSL.  
 Sign 64' from DER, 303' right of centerline,  
 13' AGL/272' MSL.  
 Rwy 1L: Tower 1917' from DER, 680' left of centerline,  
 51' AGL/330' MSL.  
 Rwy 19C: Sign 100' from DER, 472' left of centerline,  
 4' AGL/289' MSL.  
 Vehicles on road 24' from DER, 274' right of centerline,  
 up to 15' AGL/293' MSL.  
 Rwy 30: Trees 2264' from DER, 1033' right of centerline,  
 up to 72' AGL/383' MSL.



NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAY 1L/C/R:** Climb heading 011° to 820, then on heading 340° or as assigned by ATC, expect RADAR vectors to HAYGR, thence . . . .

**TAKEOFF RUNWAYS 19L/C/R:** Climb heading 191° to 820, then right turn heading 320° or as assigned by ATC, expect RADAR vectors to HAYGR, thence . . . .

**TAKEOFF RUNWAY 30:** Climb heading 301° to 820, then on heading 320° or as assigned by ATC, expect RADAR vectors to HAYGR, thence . . . .

. . . . on track 347° to MCRAY, maintain 3000 or as directed by ATC. Expect clearance to filed altitude within ten (10) minutes after departure.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



# RNLDI FOUR DEPARTURE (RNAV)

WASHINGTON DULLES INTL (IAD)  
WASHINGTON, DC

NE-3, 10 NOV 2016 to 05 JAN 2017

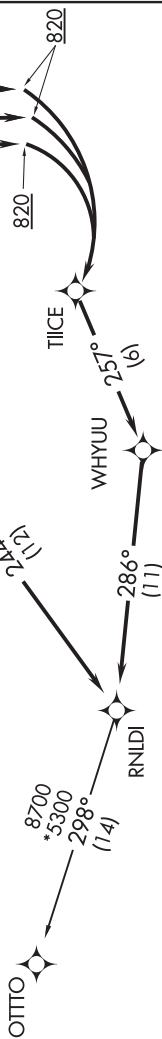
**TOP ALTITUDE:**  
3000

### TAKEOFF OBSTACLE NOTES:

- Rwy 1C: Trees 281.5' from DER, 1031' left of centerline, up to 80' AGL/345' MSL. Sign 64' from DER, 303' right of centerline, 13' AGL/272' MSL.
- Rwy 1L: Tower 1917' from DER, 680' left of centerline, 51' AGL/330' MSL.
- Rwy 19C: Sign 100' from DER, 472' left of centerline, 4' AGL/289' MSL. Vehicles on road 24' from DER, 274' right of centerline, up to 15' AGL/293' MSL.
- Rwy 30: Trees 2264' from DER, 1033' right of centerline, up to 72' AGL/383' MSL.

ATIS 134.85  
CLNC DEL  
135.7 317.8  
CPDIC

GND CON  
121.9 317.8 (EAST)  
121.625 348.6 (WEST)  
DULLES TOWER  
120.1 317.8 (Rwy 1R/19U)  
120.25 348.6 (Rwy 1C/19C)  
134.425 348.6 (Rwys 1L/19R, 12/30)  
POTOMAC DEP CON  
126.65 350.2



NOTE: Chart not to scale.

### DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RWYS 1C/1L/1R:** Climb heading 011° to 820, then climbing left turn direct LOULU (or assigned ATC heading), then on track 244° to RNLDI, thence...

**TAKEOFF RWYS 19C/19R/19L:** Climb heading 191° to 820, then climbing right turn direct THICE (or assigned ATC heading), then on depicted route to RNLDI, thence...

**TAKEOFF Rwy 30:** Climb heading 301° to 820, then climbing left turn direct LOULU (or assigned ATC heading), then on track 244° to RNLDI, thence...  
... maintain 3000. Expect clearance to filed altitude within ten (10) minutes after departure.

**OTTO TRANSITION (RNLDI4.OTTO):**

- NOTE: DME/DME/IRU or GPS required.
- NOTE: RNAV 1.
- NOTE: Turbojets only.
- NOTE: Radar required.
- NOTE: Aircraft may be Radar vectored to LOULU, THICE, WHYUU, RNLDI or OTTO.

### TAKEOFF MINIMUMS:

Rwy 12: NA-ATC.  
Rwys 1C, 1L, 1R, 19C, 19L, 19R, 30:  
Standard with minimum climb of 500' per NM to 820.

# RNLDI FOUR DEPARTURE (RNAV)

(RNLDI4.RNLDI) 25JUN15

WASHINGTON, DC  
WASHINGTON DULLES INTL (IAD)

NE-3, 10 NOV 2016 to 05 JAN 2017

# SCRAM THREE DEPARTURE (RNAV)

NE-3, 10 NOV 2016 to 05 JAN 2017

**TOP ALTITUDE:**  
**3000**



**TAKEOFF MINIMUMS:**

Rwys 1L/C/R, 19L/C/R, 30:  
Standard with minimum climb  
of 500' per NM to 820.

NOTE: RNAV 1.

NOTE: RADAR required.

NOTE: DME/DME/IRU or GPS required.

ATIS

134.85

CINCL DEL

135.7 317.8

CPDLC

GND CON

121.9 317.8 (EAST)

121.625 348.6 (WEST)

DULLES TOWER

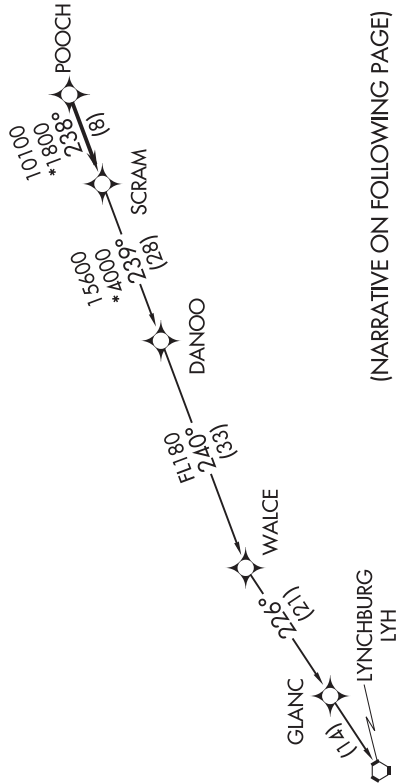
120.1 317.8 (Rwy 1R/19L)

120.25 348.6 (Rwy 1C/19C)

134.425 348.6 (Rwys 1L/19R, 12/30)

POTOMAC DEP CON

129.65 350.2



(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

# SCRAM THREE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 1L, 1C, 1R, 19C, 19L, 19R, 30: Climb on heading assigned by ATC, expect RADAR vectors to POOCH, then on track 238° to SCRAM, thence. . . .

. . . . on LYNCHBURG transition. Maintain 3000. Expect clearance to filed altitude within ten (10) minutes after departure.

### LYNCHBURG TRANSITION (SCRAM3.LYH):

#### TAKEOFF OBSTACLE NOTES

Rwy 1C: Trees 2815' from DER, 1031' left of centerline, up to 80' AGL/345' MSL.

Sign 64' from DER, 303' right of centerline, 13' AGL/272' MSL.

Rwy 1L: Tower 1917' from DER, 680' left of centerline, 51' AGL/330' MSL.

Rwy 19C: Sign 100' from DER, 472' left of centerline, 4' AGL/289' MSL.

Vehicles on road 24' from DER, 274' right of centerline, up to 15' AGL/293' MSL.

Rwy 30: Trees 2264' from DER, 1033' right of centerline, up to 72' AGL/383' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

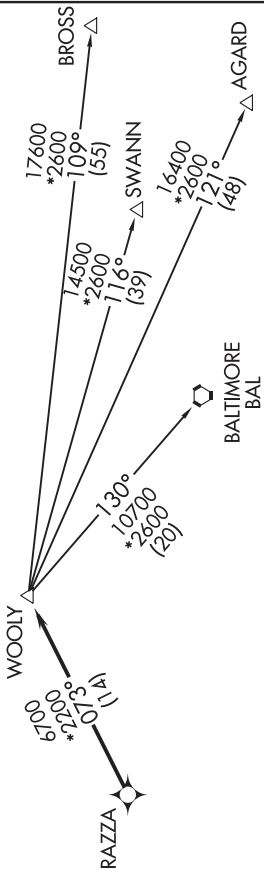
NE-3, 10 NOV 2016 to 05 JAN 2017

# WOOLY ONE DEPARTURE (RNAV)

NE-3, 10 NOV 2016 to 05 JAN 2017

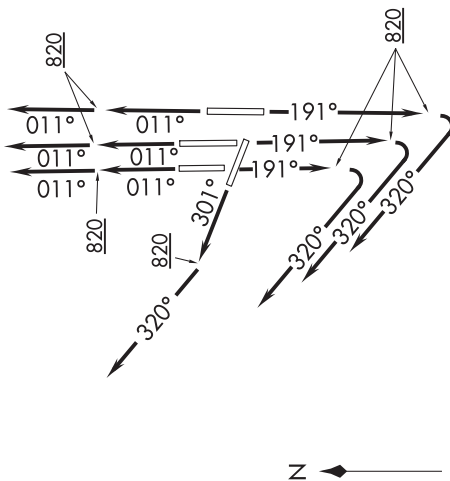
- ATIS 134.85
- CLNC DEL 135.7 317.8
- CPDLC 121.9 317.8 (EAST)
- GND CON 121.625 348.6 (WEST)
- DULLES TOWER 120.1 317.8 (Rwy 1R/19L)
- 120.25 348.6 (Rwy 1C/19C)
- 134.425 348.6 (Rwys 1L/19R, 12/30)
- POTOMAC DEP CON 125.05 350.2

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



TOP ALTITUDE:  
3000

**TAKEOFF MINIMUMS:**  
Rwys 1L/C/R, 19L/C/R, 30:  
Standard with minimum climb  
of 500' per NM to 820.



(NOTES CONTINUED ON FOLLOWING PAGE)  
(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

# WOOLY ONE DEPARTURE (RNAV)



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 1L/C/R: Climb heading 011° to 820, then on heading 011° or as assigned by ATC, expect RADAR vectors to RAZZA, thence . . . .

TAKEOFF RUNWAYS 19L/C/R: Climb heading 191° to 820, then on heading 320° or as assigned by ATC, expect RADAR vectors to RAZZA, thence . . . .

TAKEOFF RUNWAY 30: Climb heading 301° to 820, then on heading 320° or as assigned by ATC, expect RADAR vectors to RAZZA, thence . . . .

. . . . on track 073° to WOOLY, then on assigned transition. Maintain 3000.  
Expect clearance to filed altitude within ten (10) minutes after departure.

- AGARD TRANSITION (WOOLY1.AGARD)
- BALTIMORE TRANSITION (WOOLY1.BAL)
- BROSS TRANSITION (WOOLY1.BROSS)
- SWANN TRANSITION (WOOLY1.SWANN)

### TAKEOFF OBSTACLE NOTES

- Rwy 1C: Trees 2815' from DER, 1031' left of centerline, up to 80' AGL/345' MSL.  
Sign 64' from DER, 303' right of centerline, 13' AGL/272' MSL.
- Rwy 1L: Tower 1917' from DER, 680' left of centerline, 51' AGL/330' MSL.
- Rwy 19C: Sign 100' from DER, 472' left of centerline, 4' AGL/289' MSL.  
Vehicles on road 24' from DER, 274' right of centerline, up to 15' AGL/293' MSL.
- Rwy 30: Trees 2264' from DER, 1033' right of centerline, up to 72' AGL/383' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAYNESBORO, VIRGINIA

AL-10584 (FAA)

16315

APP CRS	Rwy Idg	<b>2004</b>
<b>061°</b>	TDZE	<b>1436</b>
	Apt Elev	<b>1436</b>

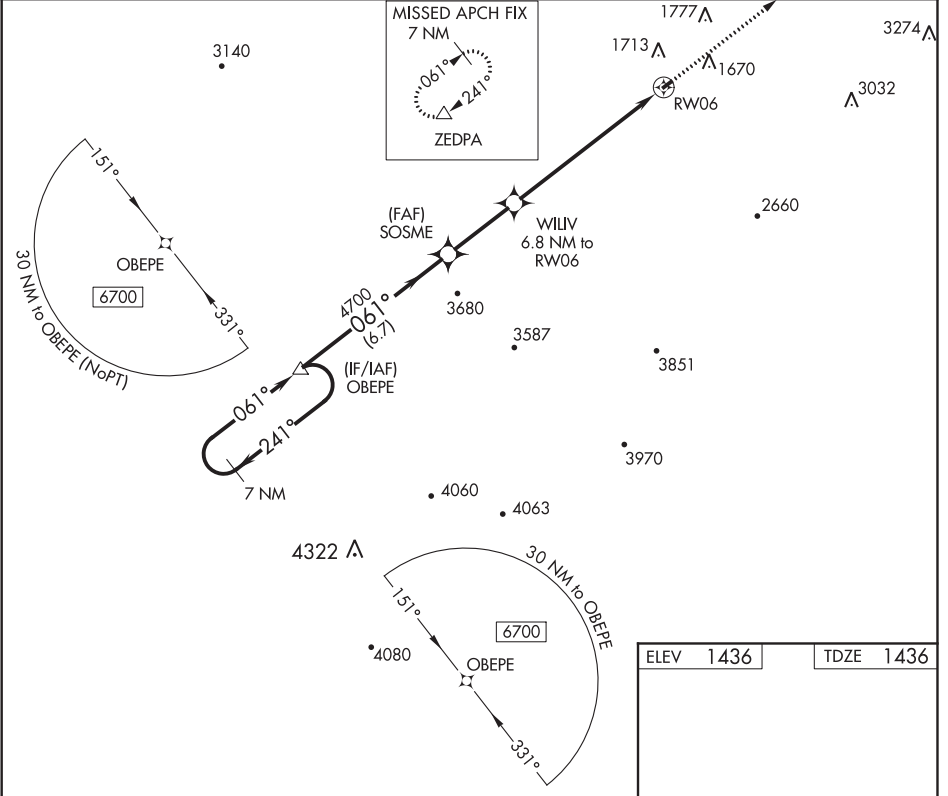
# RNAV (GPS) RWY 6

EAGLE'S NEST (W13)

**NA** DME/DME RNP-0.3 NA. When local altimeter not received, use Shenandoah Valley Rgnl altimeter setting, and increase all MDA 60 feet. Helicopter visibility reduction NA. Procedure NA at night.

**MISSED APPROACH:** Climb to 6300 direct ZEDPA and hold, continue climb-in-hold to 6300.

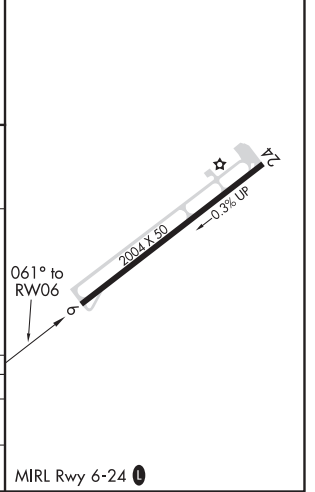
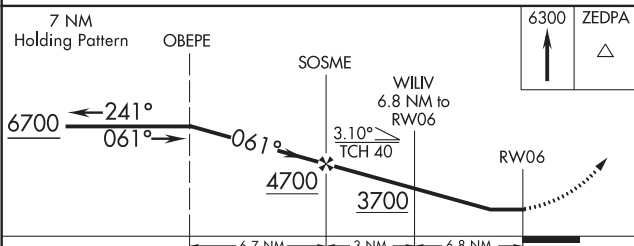
AWOS-3PT <b>118.625</b>	POTOMAC APP CON <b>132.85 323.125</b>	UNICOM <b>123.05 (CTAF)</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV	1436	TDZE	1436
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CATEGORY	A	B	C	D
LNVA MDA	2440-3	1004 (1100-3)		NA
<b>C</b> CIRCLING	2440-3	1004 (1100-3)		NA

WAYNESBORO, VIRGINIA  
Amdt 1 10NOV16

38°05'N-78°57'W

# RNAV (GPS) RWY 6

EAGLE'S NEST (W13)

MIRL Rwy 6-24

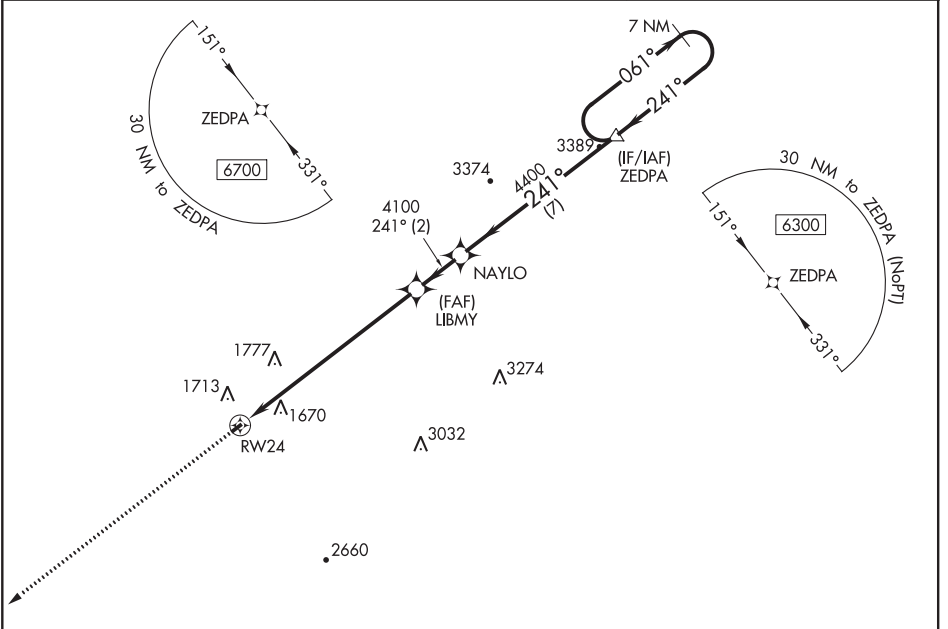
APP CRS	Rwy Idg	<b>2004</b>
<b>241°</b>	TDZE	<b>1436</b>
	Apt Elev	<b>1436</b>

# RNAV (GPS) RWY 24

EAGLE'S NEST (W13)

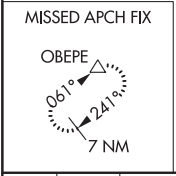
**⚠** DME/DME RNP-0.3 NA. When local altimeter setting not received, use Shenandoah Valley Rgnl altimeter setting and increase all MDA 60 feet.  
**⚠** NA Procedure NA at night. Helicopter visibility reduction NA.  
**⚠** -18°C/0°F MISSED APPROACH: Climb to 6700 direct OBEPE and hold, continue climb-in-hold to 6700.

AWOS-3PT <b>118.625</b>	POTOMAC APP CON <b>132.85 323.125</b>	UNICOM <b>123.05 (CTAF) 0</b>
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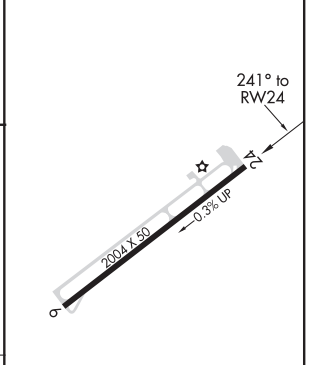
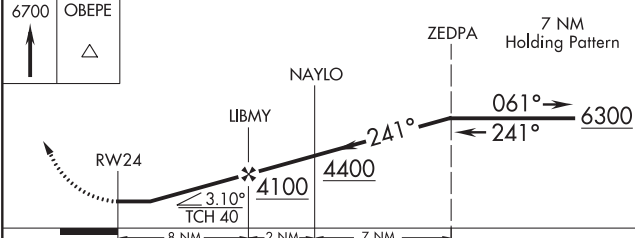


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 1436	TDZE 1436
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CATEGORY	A	B	C	D
LNNAV MDA	2640-3	1204 (1300-3)		NA
<b>C</b> CIRCLING	2640-3	1204 (1300-3)		NA

MRL Rwy 6-24 0

WAAS Ch <b>40317</b> <b>W10A</b>	APP CRS <b>097°</b>	Rwy Idg TDZE Apt Elev	<b>5007</b> <b>14</b> <b>20</b>
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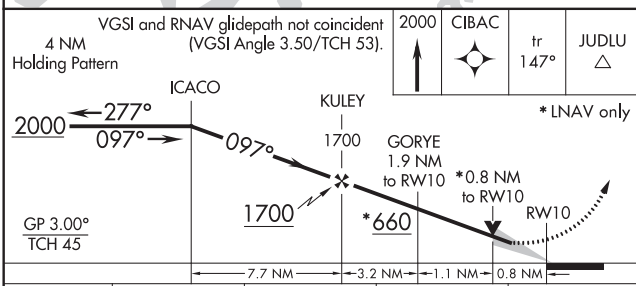
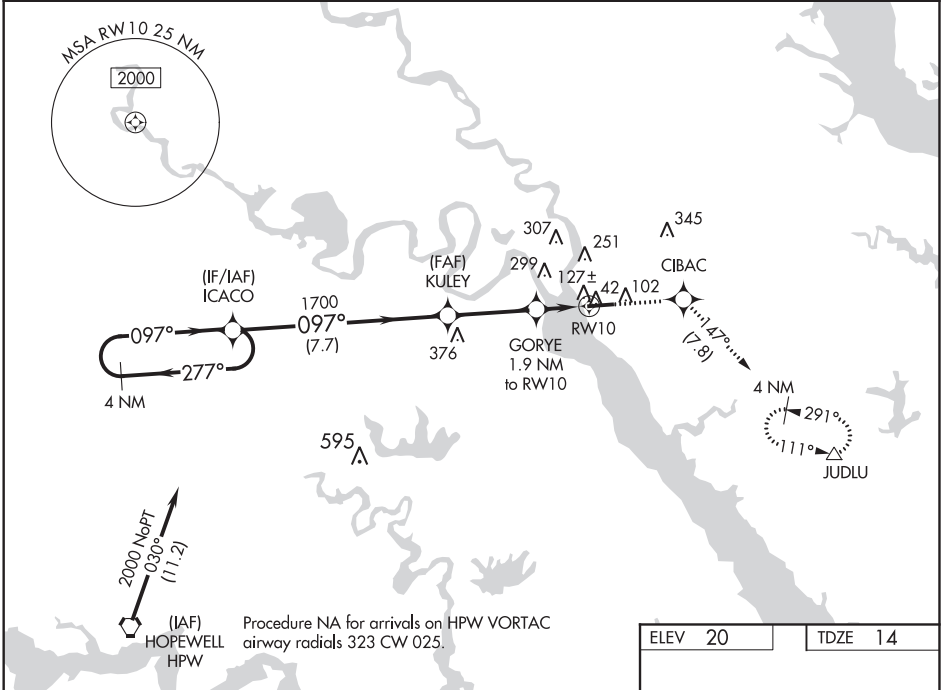
# RNAV (GPS) RWY 10

MIDDLE PENINSULA RGNL (F'YJ)

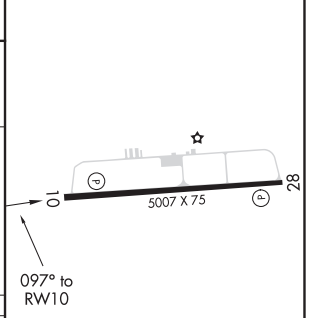
**⚠** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 54°C (130°F). Baro-VNAV and VDP NA when using Newport News altimeter setting. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Newport News altimeter setting: increase LPV DA to 329 feet; increase LNAV/VNAV DA to 420 feet and Cats A/B visibility ¼ SM; increase all MDA 80 feet.

**MISSED APPROACH:** Climb to 2000 direct CIBAC and on track 147° to JUDLU and hold.

AWOS-3 <b>132.825</b>	POTOMAC APP CON <b>126.4 282.375</b>	UNICOM <b>123.0 (CTAF) 0</b>
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ELEV 20	TDZE 14
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CATEGORY	A	B	C	D
LPV DA	264-1	250 (300-1)		NA
LNAV/VNAV DA	355-1¼	341 (400-1¼)		NA
LNAV MDA	380-1	366 (400-1)		NA
CIRCLING	480-1 460 (500-1)	620-1 600 (600-1)		NA

MIRL Rwy 10-28 0

REIL Rwy 10 and 28 0

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

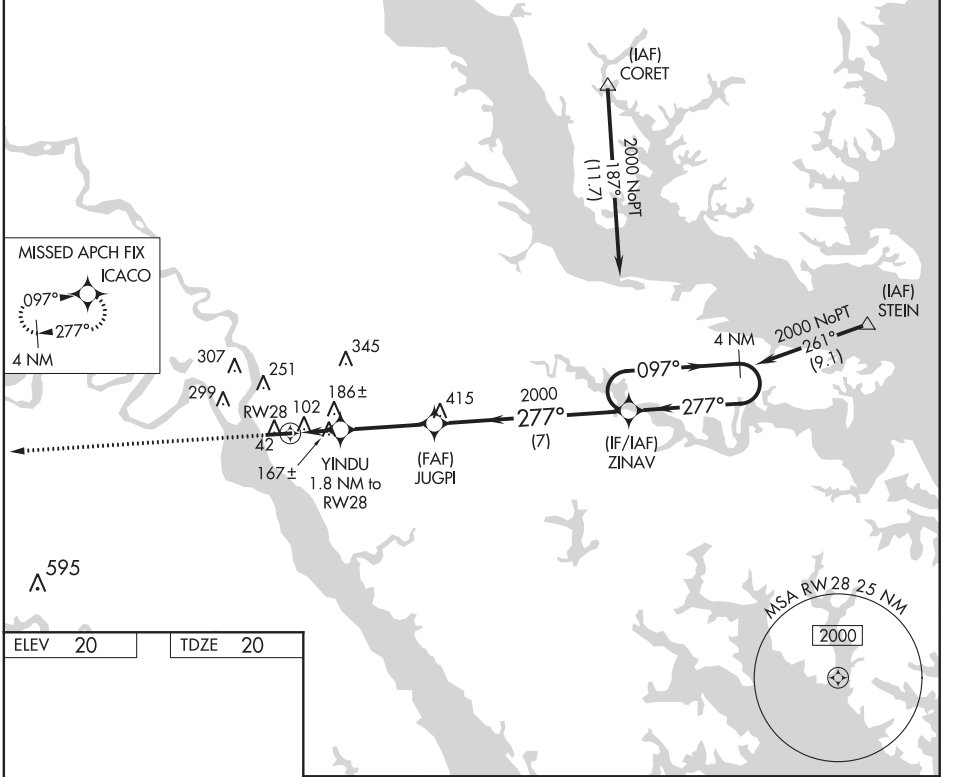


WAAS CH <b>50323</b> <b>W28A</b>	APP CRS <b>277°</b>	Rwy Idg TDZE <b>20</b> Apt Elev <b>20</b>	<b>5007</b>
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# RNAV (GPS) RWY 28

MIDDLE PENINSULA RGNL (F'YJ)

<p><b>⚠</b> DME/DME RNP-0.3 NA. VDP NA when using Newport News altimeter setting. Rwy 28 helicopter visibility reduction below ¼ SM NA. When local altimeter setting not received, use Newport News altimeter setting and increase all MDA 80 feet.</p>	<p>MISSED APPROACH: Climb to 2000 direct ICACO and hold.</p>	
<p>AWOS-3 <b>132.825</b></p>	<p>POTOMAC APP CON <b>126.4 282.375</b></p>	<p>UNICOM <b>123.0 (CTAF) 0</b></p>



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 20	TDZE 20
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<p>MIRL Rwy 10-28 0</p> <p>REIL Rws 10 and 28 0</p>	<p>2000 ICACO</p>	<p>4 NM Holding Pattern</p>	
	<p>YINDU 1.8 NM to RW28</p> <p>JUGPI</p> <p>ZINAV</p>	<p>2000</p>	
	<p>0.9 NM to RW28</p> <p>0.9 NM</p> <p>3.4 NM</p> <p>7 NM</p>	<p>740</p> <p>3.50° TCH 53</p>	
	<p>CATEGORY</p>	<p>A</p>	<p>B</p>
<p>LP MDA</p>	<p>420-1</p>	<p>400 (400-1)</p>	<p>NA</p>
<p>LNAV MDA</p>	<p>440-1</p>	<p>420 (500-1)</p>	<p>NA</p>
<p><b>C</b> CIRCLING</p>	<p>480-1</p> <p>460 (500-1)</p>	<p>620-1</p> <p>600 (600-1)</p>	<p>NA</p>

LOC I-FYJ <b>108.35</b> Chan 20(Y)	APP CRS <b>094°</b>	Rwy Idg TDZE Apt Elev	<b>5007</b> <b>14</b> <b>20</b>
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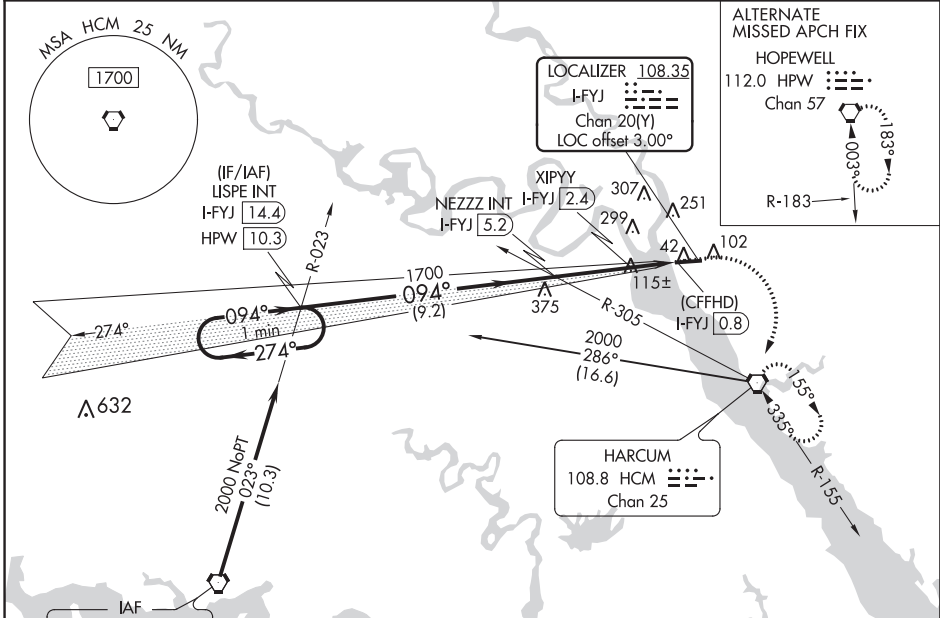
# LOC RWY 10

MIDDLE PENINSULA RGNL (F'YJ)

**NA** When local altimeter setting not received, use Newport News altimeter setting and increase all MDA 80 feet and increase S-10 Cat B and Circling Cat B visibility ¼ SM. VDP NA when using Newport News altimeter setting.

**MISSED APPROACH:** Climb to 500 then climbing right turn to 2000 direct HCM VORTAC and hold, continue climb-in-hold to 2000.

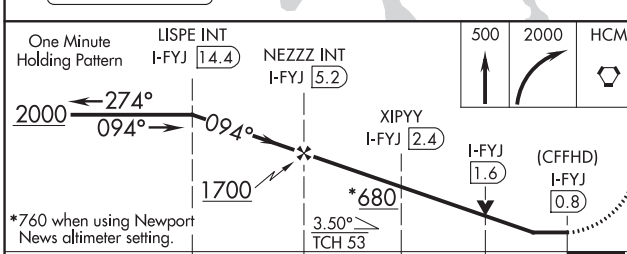
AWOS-3 <b>132.825</b>	POTOMAC APP CON <b>126.4 282.375</b>	UNICOM <b>123.0 (CTAF)</b>
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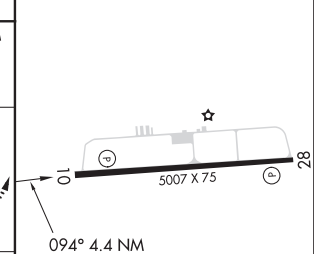
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

Procedure NA for arrivals on HPW VORTAC airway radials 323 CW 025.



ELEV 20	TDZE 14
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One Minute Holding Pattern	LISPE INT I-FYJ 14.4	NEZZZ INT I-FYJ 5.2	XIPYY I-FYJ 2.4	I-FYJ 1.6	(CFFHD) I-FYJ 0.8
2000	1700	*680			
*760 when using Newport News altimeter setting.					
TCH 53					
← 9.2 NM		← 2.7 NM		← 0.9 NM	
				← 0.8 NM	
CATEGORY	A	B	C	D	
S-10	680-1	666 (700-1)		NA	
<b>C</b> CIRCLING	680-1	660 (700-1)		NA	
XIPYY FIX MINIMUMS					
S-10	380-1	366 (400-1)		NA	
<b>C</b> CIRCLING	480-1 460 (500-1)	620-1 600 (600-1)		NA	

MIRL Rwy 10-28					
REIL Rws 10 and 28					
FAF to MAP 4.4 NM					
Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

VORTAC HCM <b>108.8</b> Chan <b>25</b>	APP CRS <b>337°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>20</b>
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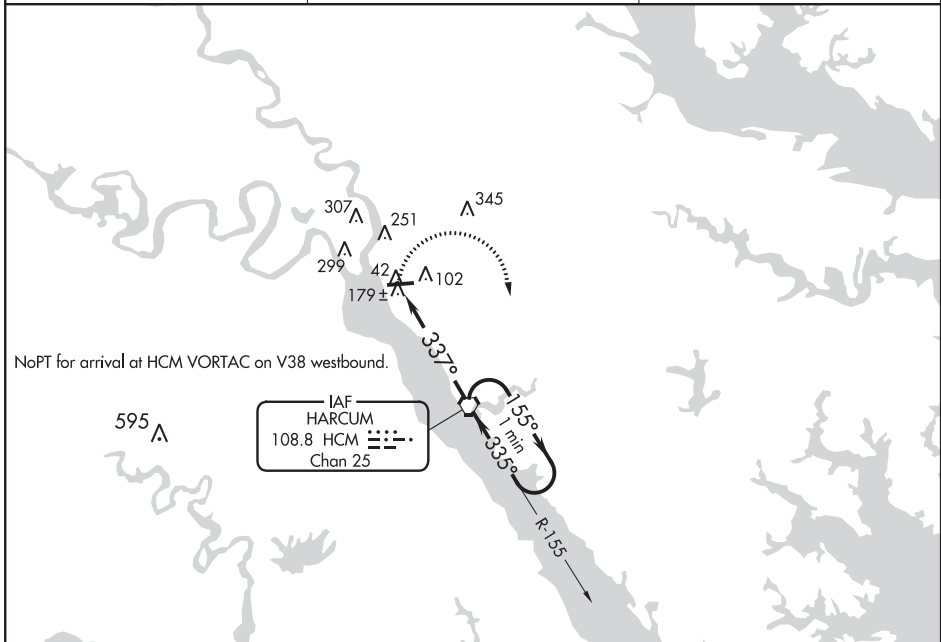
# VOR-A

MIDDLE PENINSULA RGNL (F'YJ)

**⚠** When local altimeter setting not received, use Newport News altimeter setting and increase all MDA 80 feet.

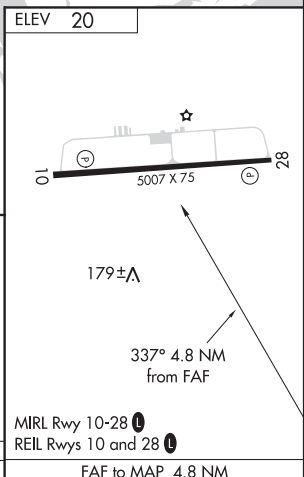
**⚠** MISSED APPROACH: Climbing right turn to 1700 direct HCM VORTAC and hold.

AWOS-3 <b>132.825</b>	POTOMAC APP CON <b>126.4 282.375</b>	UNICOM <b>123.0 (CTAF)</b> <b>📻</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



1700 HCM	HCM VORTAC	One Minute Holding Pattern
	1400	155° → 1700
		← 335°
		← 337°
	4.8 NM	

CATEGORY	A	B	C	D	FAF to MAP 4.8 NM					
	480-1 460 (500-1)	620-1 600 (600-1)	NA			Knots	60	90	120	150
<b>📻</b> CIRCLING					Min:Sec	4:48	3:12	2:24	1:55	1:36

WAAS CH <b>65607</b> <b>W16A</b>	APP CRS <b>159°</b>	Rwy Idg TDZE <b>789</b> Apt Elev <b>789</b>	<b>5100</b>
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# RNAV (GPS) RWY 16

CARROLL COUNTY RGNL/JACK B. POAGE FIELD (DMW)

**Baro-VNAV NA** when using Frederick altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). When local altimeter setting not received, use Frederick altimeter setting and increase all DA 116 feet and all MDA 120 feet; increase LPV all Cats and LNAV Cat C visibility 3/8 mile, and LNAV/VNAV all Cats visibility to 1 3/4 mile and Circling Cat C visibility 1/4 mile. When VGSI inop, Straight-in/Circling Rwy 16 procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

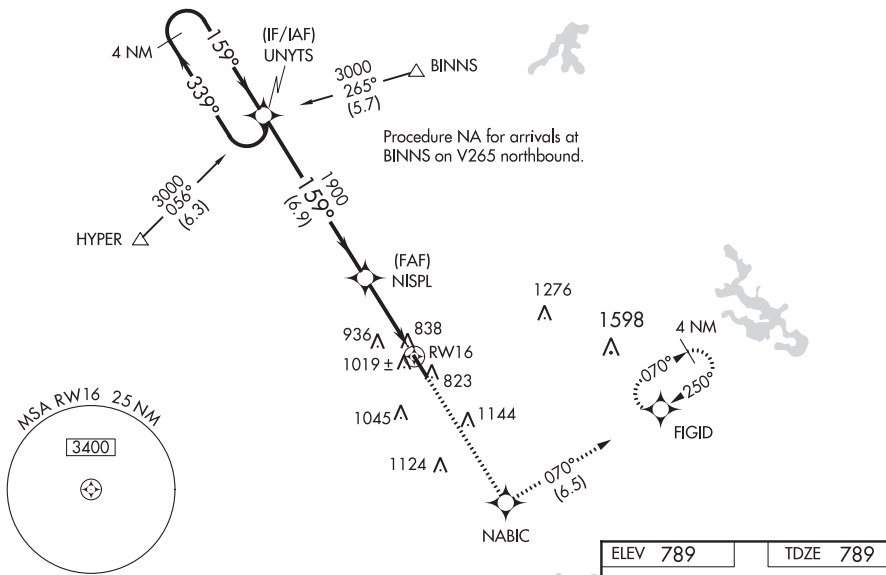
**MISSED APPROACH:** Climb to 2200 direct NABIC then climbing left turn to 3000 on track 070° to FIGID and hold.

AWOS-3  
**121.25**

POTOMAC APP CON  
**125.525 291.625**

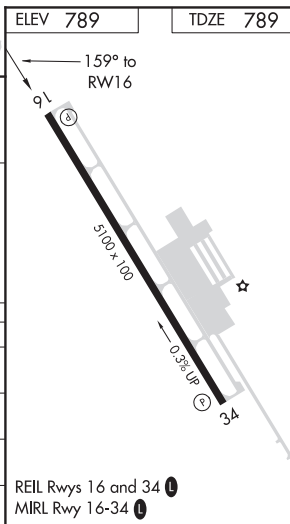
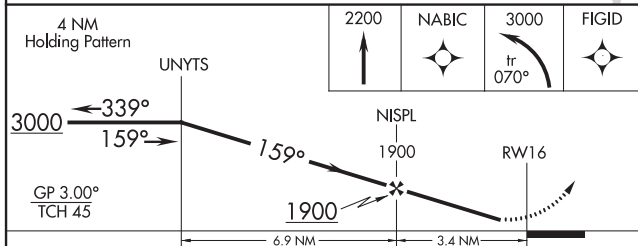
GCO  
**121.725**

UNICOM  
**122.7 (CTAF) 0**



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



CATEGORY	A	B	C	D
LPV DA	1081-1	292 (300-1)		NA
LNAV/ VNAV DA	1189-1 3/8	400 (400-1 3/8)		NA
LNAV MDA	1280-1	491 (500-1)	1280-1 3/8 491 (500-1 3/8)	NA
CIRCLING	1320-1	531 (600-1)	1320-1 1/2 531 (600-1 1/2)	NA

REIL Rws 16 and 34 0  
MIRL Rwy 16-34 0

# RNAV (GPS) RWY 16

WESTMINSTER, MARYLAND

AL-5533 (FAA)

15232

WAAS CH <b>82117</b> <b>W34A</b>	APP CRS <b>339°</b>	Rwy Idg <b>5100</b> TDZE <b>788</b> Apt Elev <b>789</b>
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# RNAV (GPS) RWY 34

CARROLL COUNTY RGNL/JACK B. POAGE FIELD (DMW)

**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F).  
**▲** DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3000 direct UNYTS and hold

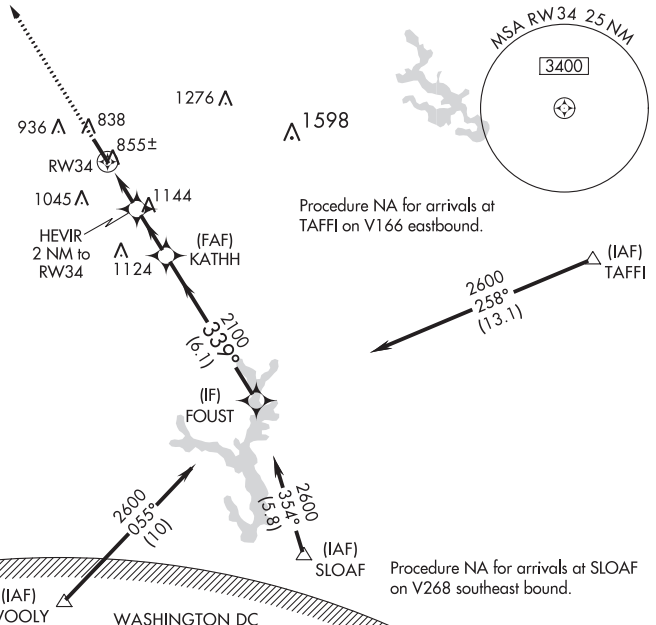
AWOS-3  
**121.25**

POTOMAC APP CON  
**125.525 291.625**

GCO  
**121.725**

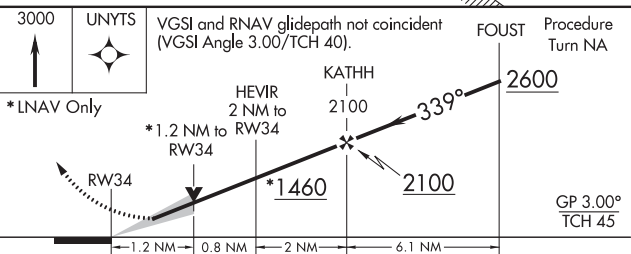
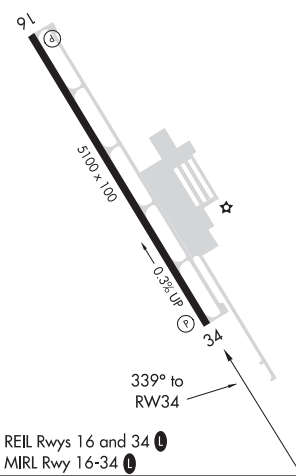
UNICOM  
**122.7 (CTAF) ①**

MISSED APCH FIX



ELEV 789 TDZE 788

WARNING -- WASHINGTON DC SFRA.  
CTC POTOMAC APP CON



CATEGORY	A	B	C	D
LPV DA	988-1 200 (200-1)			NA
LNAV/VNAV DA	1105-1½ 317 (400-1½)			NA
LNAV MDA	1180-1 392 (400-1)			NA
CIRCLING	1300-1 511 (600-1)		1300-1½ 511 (600-1½)	NA

WESTMINSTER, MARYLAND  
Amdt 1A 02MAY13

CARROLL COUNTY RGNL/JACK B. POAGE FIELD (DMW)  
39°36'N-77°00'W

# RNAV (GPS) RWY 34

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WESTMINSTER, MARYLAND

AL-5533 (FAA)

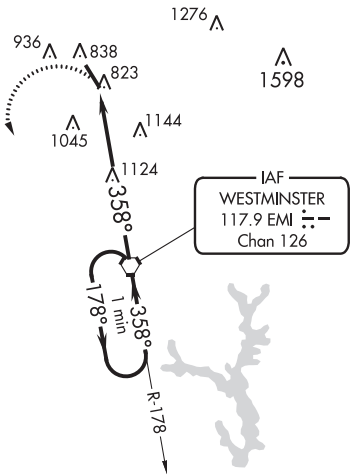
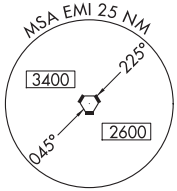
15232

VORTAC EMI <b>117.9</b> Chan <b>126</b>	APP CRS <b>358°</b>	Rwy Idg TDZE Apt Elev	<b>5100</b> <b>788</b> <b>789</b>
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# VOR RWY 34

CARROLL COUNTY RGNL/JACK B. POAGE FIELD (DMW)

<b>NA</b>		MISSED APPROACH: Climbing left turn to 2900 direct EMI VORTAC and hold.	
AWOS-3 <b>121.25</b>	POTOMAC APP CON <b>125.525 291.625</b>	GCO <b>121.725</b>	UNICOM <b>122.7 (CTAF) 0</b>



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

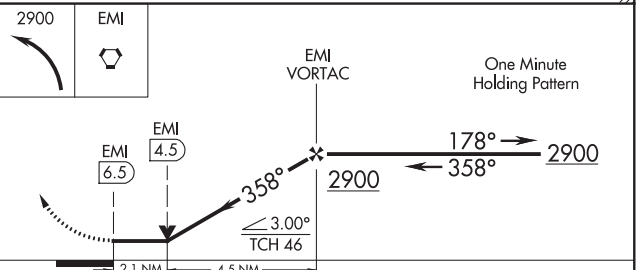
ELEV 789	TDZE 788
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REIL Rwys 16 and 34  
MIRL Rwy 16-34

FAF to MAP 6.5 NM

Knots	60	90	120	150	180
Min:Sec	6:30	4:20	3:15	2:36	2:10

WASHINGTON DC METROPOLITAN SFRA  
 WARNING -- WASHINGTON DC SFRA.  
 CTC POTOMAC APP CON



CATEGORY	A	B	C	D
S-34	1480-1	692 (700-1)	1480-2 692 (700-2)	NA
CIRCLING	1480-1	691 (700-1)	1480-2 691 (700-2)	NA

WESTMINSTER, MARYLAND  
 Amdt 4B 31AUG06

CARROLL COUNTY RGNL/JACK B. POAGE FIELD (DMW)  
 39°36'N - 77°00'W

# VOR RWY 34

(CONLE3.CONLE) 16035

SI-5533 (FAA)

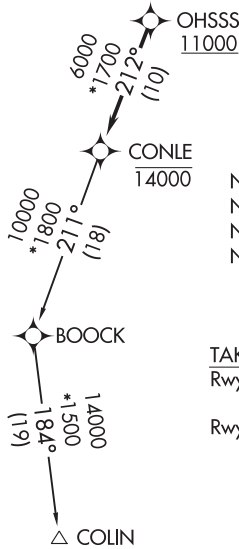
CARROLL COUNTY RGNL/JACK B POAGE FIELD(DMW)

# CONLE THREE DEPARTURE (RNAV)

WESTMINSTER, MARYLAND

AWOS-3  
121.25  
CLNC DEL  
129.525  
UNICOM  
122.7 (CTAF)  
POTOMAC DEP CON  
125.52 291.62

**TOP ALTITUDE:  
ASSIGNED BY ATC**



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

**TAKEOFF MINIMUMS:**

Rwy 16: 400-2<sup>3</sup>/<sub>4</sub> or Standard with minimum climb of 225' per NM to 1300.  
Rwy 34: Standard.

**TAKEOFF OBSTACLES:**

- Rwy 16: Trees 1995' from DER, 657' left of centerline, up to 59' AGL/838' MSL.  
Tower 2.3 NM from DER, 2042' left of centerline, 195' AGL/1144' MSL.
- Rwy 34: Trees beginning 105' from DER, 423' left of centerline, up to 87' AGL/886' MSL.  
Trees beginning 967' from DER, 395' right of centerline, up to 85' AGL/864' MSL.  
Terrain and trees beginning 1851' from DER, 123' left of centerline, up to 63' AGL/902' MSL.  
Trees beginning 2603' from DER, 470' right of centerline, up to 69' AGL/868' MSL.

NOTE: Chart not to scale.

**DEPARTURE ROUTE DESCRIPTION**

Fly heading and maintain altitude assigned by ATC, expect RADAR vectors to cross OHSSS at or above 11000, then on track 212° to cross CONLE at or below 14000, then on COLIN transition. Expect filed altitude within 10 minutes after departure.

COLIN TRANSITION (CONLE3.COLIN)

CONLE THREE DEPARTURE (RNAV)

WESTMINSTER, MARYLAND

(CONLE3.CONLE) 04FEB16

CARROLL COUNTY RGNL/JACK B POAGE FIELD (DMW)

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NE-3, 10 NOV 2016 to 05 JAN 2017

(TERPZ6.TERPZ) 16035

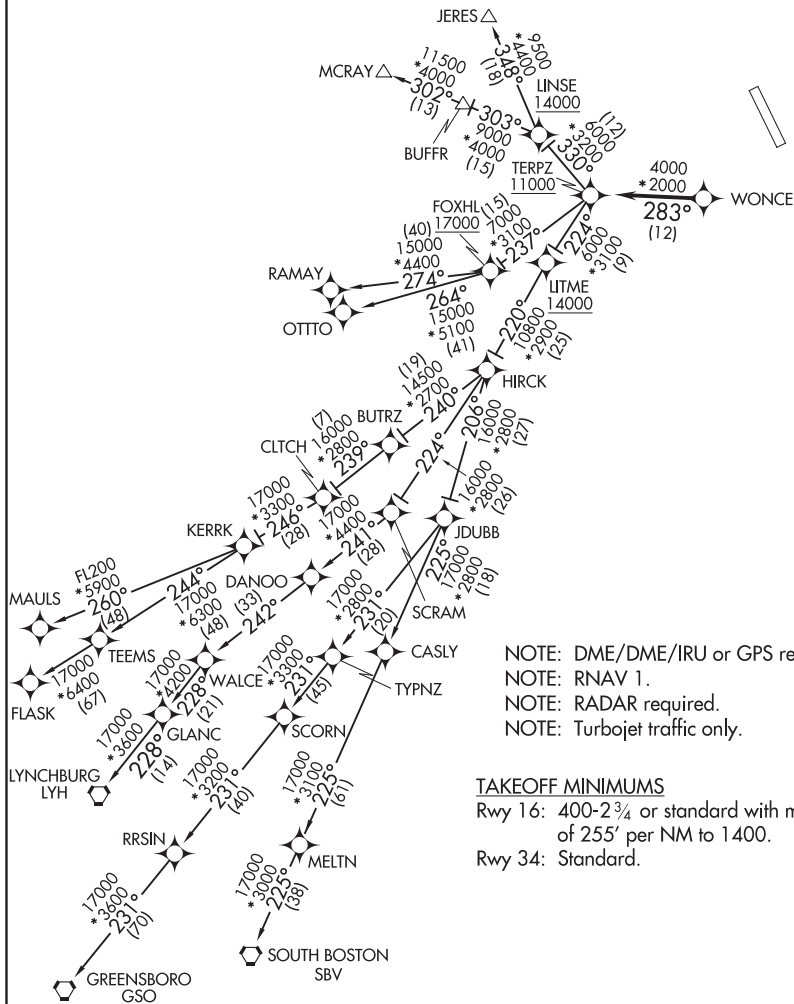
SL-5533 (FAA)

CARROLL COUNTY RGNL/JACK B POAGE FIELD(DMW)  
WESTMINSTER, MARYLAND

# TERPZ SIX DEPARTURE (RNAV)

AWOS-3  
121.25  
CLNC DEL  
129.525  
UNICOM  
122.7 (CTAF)  
POTOMAC DEP CON  
125.52

**TOP ALTITUDE:**  
**RAMAY, OTTTO, MAULS, FLASK,**  
**SBV, LYH, GSO TRANSITIONS:**  
**17000**  
**JERES, MCRAY TRANSITIONS:**  
**16000**



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

### TAKEOFF MINIMUMS

Rwy 16: 400-2<sup>3</sup>/<sub>4</sub> or standard with minimum climb of 255' per NM to 1400.  
Rwy 34: Standard.

NOTE: Chart not to scale.

TERPZ SIX DEPARTURE (RNAV)

(TERPZ6.TERPZ) 04FEB16

CARROLL COUNTY RGNL/JACK B POAGE FIELD(DMW)  
WESTMINSTER, MARYLAND

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017





DEPARTURE ROUTE DESCRIPTION

Fly heading and maintain altitude assigned by ATC, expect RADAR vectors to WONCE, then on track 283° to cross TERPZ at or above 11000, thence. . . .  
. . . on assigned transition: Departures on JERES and MCRAY transitions maintain 16000. Departures on RAMAY, OTTO, MAULS, FLASK, LYH, GSO, SBV transitions maintain 17000, expect further clearance to filed altitude within 10 minutes after departure.

- FLASK TRANSITION (TERPZ6.FLASK):
- GREENSBORO TRANSITION (TERPZ6.GSO):
- JERES TRANSITION (TERPZ6.JERES):
- LYNCHBURG TRANSITION (TERPZ6.LYH):
- MAULS TRANSITION (TERPZ6.MAULS):
- MCRAY TRANSITION (TERPZ6.MCRAY):
- OTTO TRANSITION (TERPZ6.OTTO):
- RAMAY TRANSITION (TERPZ6.RAMAY):
- SOUTH BOSTON TRANSITION (TERPZ6.SBV):

TAKEOFF OBSTACLES:

- Rwy 16: Trees 1995' from DER, 657' left of centerline, up to 59' AGL/838' MSL.  
Tower 2.3 NM from DER, 2042' left of centerline, 195' AGL/1144' MSL.
- Rwy 34: Trees beginning 105' from DER, 423' left of centerline, up to 87' AGL/886' MSL.  
Trees beginning 967' from DER, 395' right of centerline, up to 85' AGL/864' MSL.  
Terrain and trees beginning 1851' from DER, 123' left of centerline, up to 63' AGL/902' MSL.  
Trees beginning 2603' from DER, 470' right of centerline, up to 69' AGL/868' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

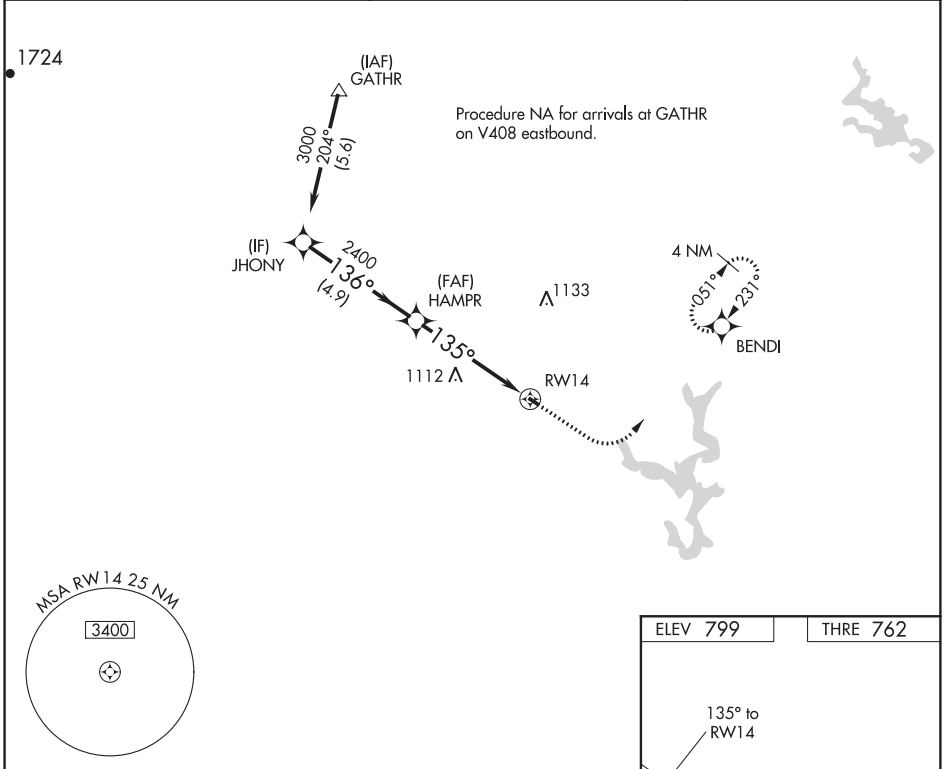
NE-3, 10 NOV 2016 to 05 JAN 2017

APP CRS <b>135°</b>	Rwy Idg THRE Apt Elev	<b>1510</b> <b>762</b> <b>799</b>
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# RNAV (GPS) RWY 14

CLEARVIEW AIRPARK (2W2)

<p><b>NA</b></p> <p>DME/DME RNP-0.3 NA. Procedure NA at night. Visibility reduction by helicopters NA. Use Carroll County Rgnl/Jack B. Poage Field altimeter setting, when not received, use Gaithersburg altimeter setting and increase all MDA 60 feet.</p>	<p>MISSED APPROACH: Climb to 1500 then climbing left turn to 3000 direct BENDI and hold.</p>	
	<p>CARROLL COUNTY RGNL/ JACK B. POAGE FIELD AWOS-3 <b>121.25</b></p>	<p>POTOMAC APP CON <b>125.525 291.625</b></p>

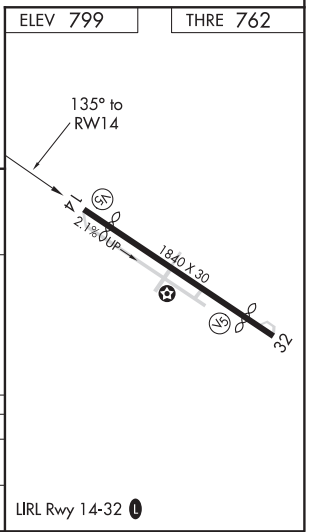


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

VGSI and descent angles not coincident (VGSI Angle 4.00/TCH 20).

JHONY	HAMPR	RWY 14		
3000	2400			
136°	135°			
4.9 NM	5 NM			
<p>1500 3000 BENDI</p> <p>↑ ↶ ✧</p>				
<p>3.00° TCH 40</p>				
CATEGORY	A	B	C	D
LNAV MDA	1360-1 598 (600-1)		NA	
CIRCLING	1360-1 561 (600-1)		NA	



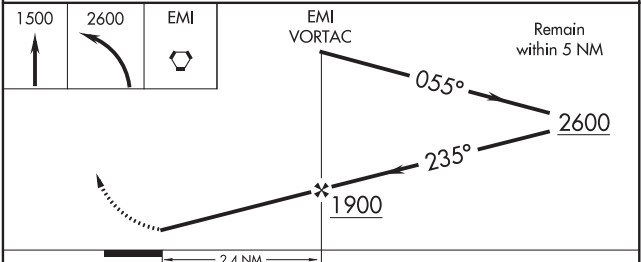
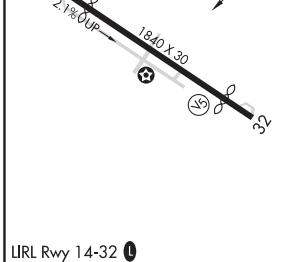
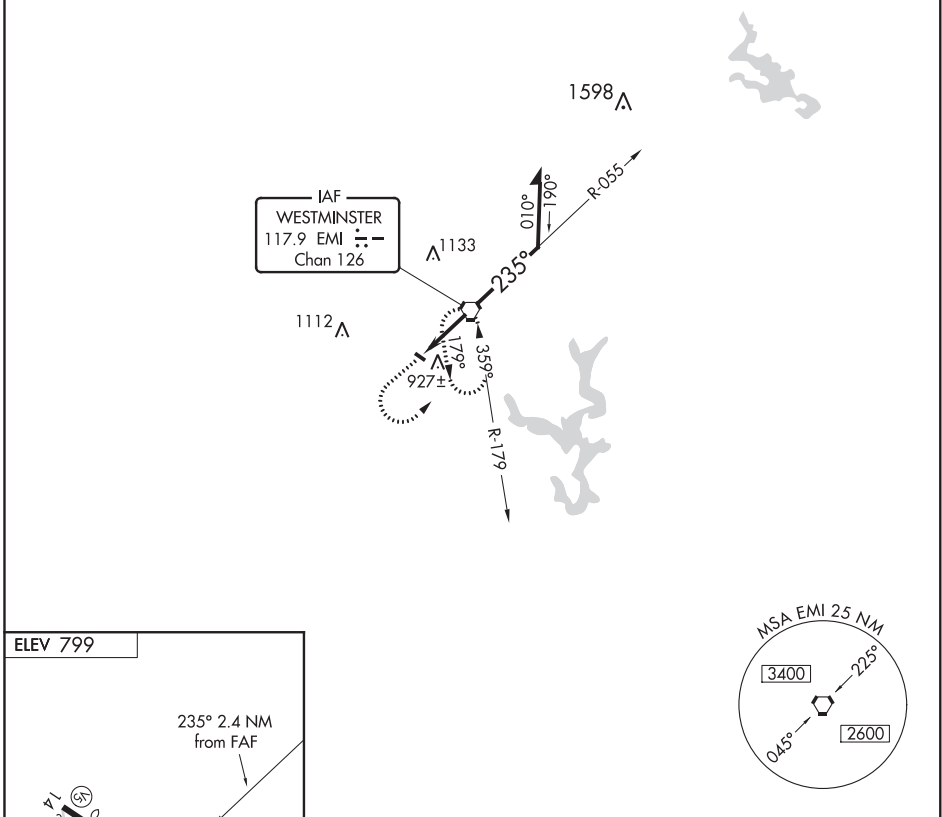
VORTAC EMI <b>117.9</b> Chan <b>126</b>	APP CRS <b>235°</b>	Rwy Idg TDZE Apt Elev <b>N/A</b> <b>N/A</b> <b>799</b>
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# VOR-A

CLEARVIEW AIRPARK (2W2)

<p><b>NA</b> Use Carroll County Rgnl/Jack B Poage Field altimeter setting. Procedure NA at night. Helicopter visibility reduction below 1 SM NA.</p>	<p>MISSED APPROACH: Climb to 1500, then climbing left turn to 2600 direct EMI VORTAC and hold.</p>
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CARROLL COUNTY RGNL/ JACK B. POAGE FIELD AWOS-3 <b>121.25</b>	POTOMAC APP CON <b>125.525 291.625</b>	UNICOM <b>122.8 (CTAF) 0</b>
---------------------------------------------------------------------	-------------------------------------------	---------------------------------



FAF to MAP 2.4 NM					
Knots	60	90	120	150	180
Min:Sec	2:24	1:36	1:12	0:58	0:48
CATEGORY	A		B		
CIRCLING	1280-1 481 (500-1)		NA		

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WILLIAMSBURG, VIRGINIA

AL-6425 (FAA)

11125

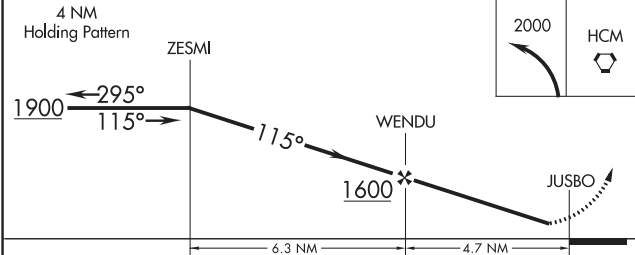
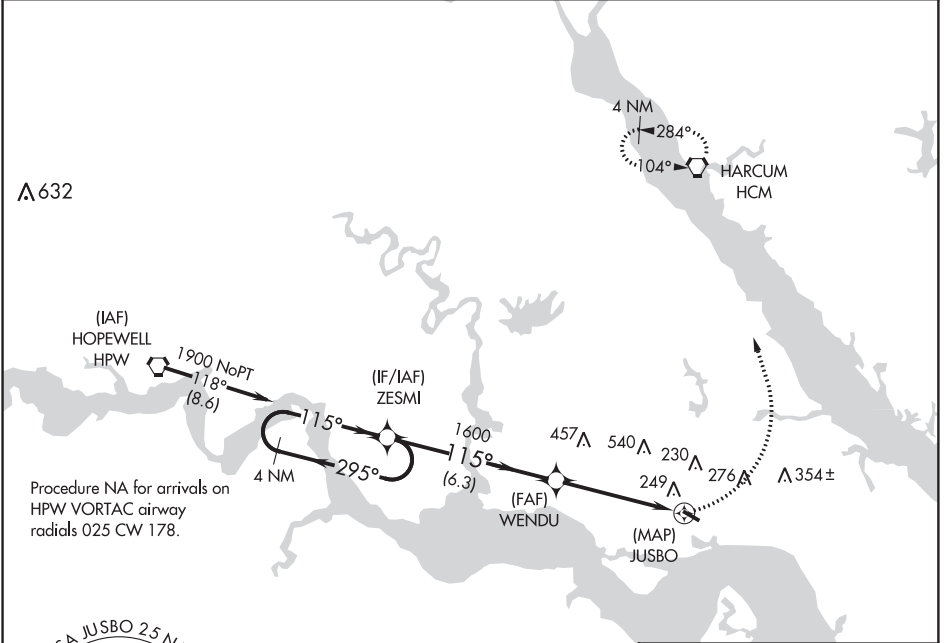
APP CRS <b>115°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>49</b>
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**RNAV (GPS)-C**  
WILLIAMSBURG-JAMESTOWN (JGG)

**⚠** DME/DME RNP-0.3 NA. Procedure NA at night. Visibility reduction by helicopters NA. When local altimeter setting not received use Newport News altimeter setting and increase all MDA 40 feet.

**⚠** MISSED APPROACH: Climbing left turn to 2000 direct HCM VORTAC and hold.

AWOS-3 <b>120.625</b>	NORFOLK APP CON <b>119.45 360.6</b>	GCO <b>135.075</b>	UNICOM <b>122.8 (CTAF) 0</b>
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CATEGORY	A	B	C	D
CIRCLING	1060-3 1011 (1100-3)			NA

REIL Rwy 13 and 31 **0**

MIRL Rwy 13-31 **0**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WILLIAMSBURG, VIRGINIA  
Orig 13JAN11

37°14'N - 76°43'W

WILLIAMSBURG-JAMESTOWN (JGG)  
**RNAV (GPS)-C**

VORTAC HCM <b>108.8</b> Chan 25	APP CRS <b>188°</b>	Rwy Idg TDZE Apt Elev	<b>N/A</b> <b>N/A</b> <b>49</b>
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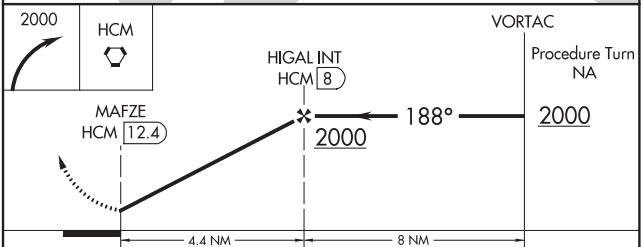
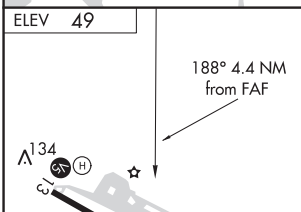
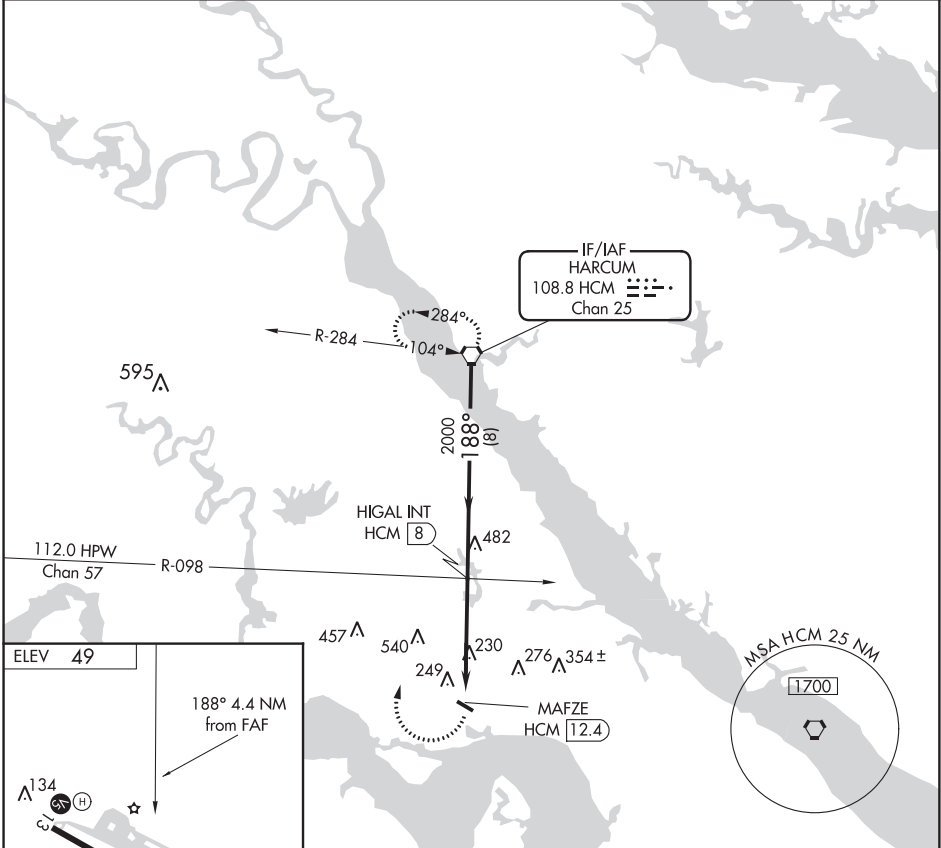
**VOR-B**

WILLIAMSBURG-JAMESTOWN (JGG)

**Procedure NA at night. Visibility reduction by helicopters NA. When local altimeter setting not received use Newport News altimeter setting and increase all MDA 40 feet.**

**MISSED APPROACH: Climbing right turn to 2000 direct HCM VORTAC and hold.**

AWOS-3 <b>120.625</b>	NORFOLK APP CON <b>119.45 360.6</b>	GCO <b>135.075</b>	UNICOM <b>122.8 (CTAF)</b>
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REIL Rwy 13 and 31  
MIRL Rwy 13-31

FAF to MAP 4.4 NM	
Knots	60 90 120 150 180
Min:Sec	4:24 2:56 2:12 1:46 1:28

CATEGORY	A	B	C	D
CIRCLING	1060-3 1011 (1100-3)			NA

NE-3, 10 NOV 2016 to 05 JAN 2017


NE-3, 10 NOV 2016 to 05 JAN 2017

LOC I-LG <b>110.3</b>	APP CRS <b>015°</b>	Rwy Idg <b>7012</b>
		TDZE <b>76</b>
		Apr Elev <b>80</b>

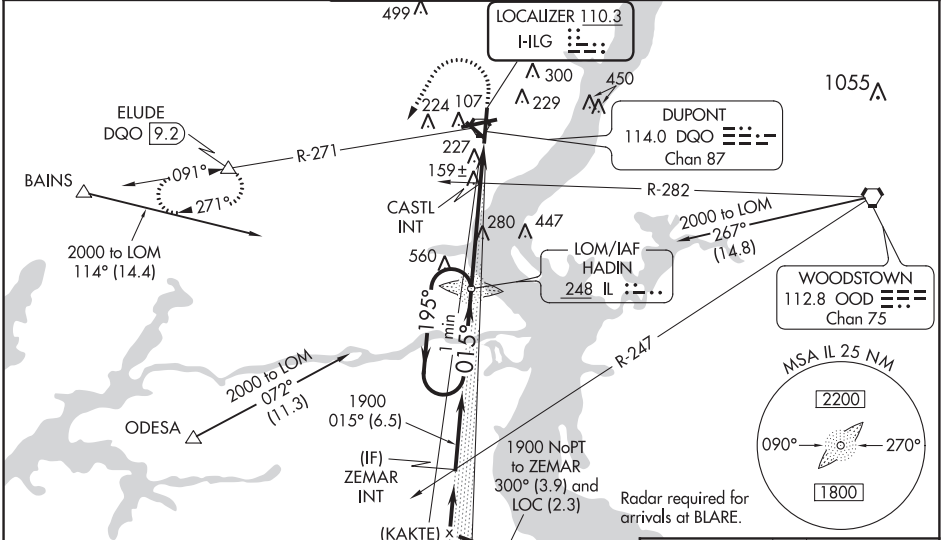
# ILS or LOC RWY 1

## NEW CASTLE (ILG)

**⚠** ADF or DME Required. When local altimeter setting not received, use Philadelphia Intl altimeter setting and increase all DA 54 feet and all MDA 60 feet, and increase S-LOC 1 Cats C and D visibility to RVR 6000; increase Circling Cat C visibility 1/2 mile; increase CASTL fix minimums S-LOC 1 Cats C and D visibility to RVR 4000. For inop MALSR, increase S-LOC 1 Cats C and D visibility to 1 1/2 mile. For inop MALSR when using CASTL fix minimums, increase S-LOC 1 all Cats visibility to RVR 5000. For inop MALSR when using Philadelphia Intl altimeter setting, increase S-LOC 1 Cats C and D visibility to 1 1/2 mile. For CASTL fix minimums, for inop MALSR when using Philadelphia Intl altimeter setting, increase S-LOC 1 Cats C and D visibility to 1 1/2 mile.

**MALSR**  
  
**MISSED APPROACH:**  
 Climb to 900 then climbing left turn to 2000 on heading 220° and DGO R-271 to ELUDE/DGO 9.2 DME and hold.

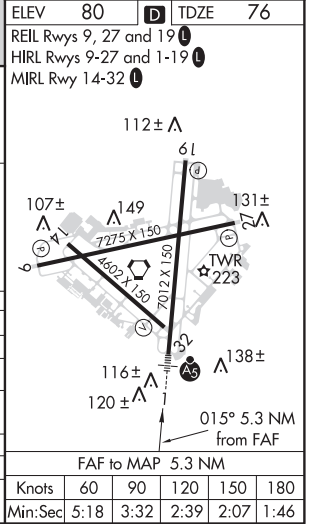
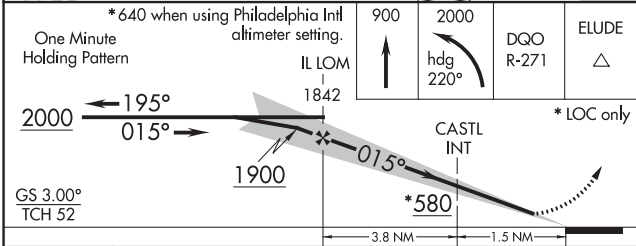
ATIS <b>123.95</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	WILMINGTON TOWER ★ <b>126.0 (CTAF) 305.4</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>119.95</b>	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 80	<b>D</b> TDZE 76
REIL Rwy 9, 27 and 19	
HIRL Rwy 9-27 and 1-19	
MIRL Rwy 14-32	



CATEGORY	A	B	C	D
S-ILS 1	276/24 200 (200-1/2)			
S-LOC 1	580/24	504 (500-1/2)	580/55	504 (500-1/4)
CIRCLING	580-1	500 (500-1)	600-1 1/2	640-2
			520 (600-1 1/2)	560 (600-2)
CASTL FIX MINIMUMS				
S-LOC 1	420/24	344 (400-1/2)	420/30	344 (400-3/4)
CIRCLING	540-1	460 (500-1)	600-1 1/2	640-2
			520 (600-1 1/2)	560 (600-2)

FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46


WAAS CH <b>65815</b> <b>W01A</b>	APP CRS <b>015°</b>	Rwy Idg <b>7012</b> TDZE <b>76</b> Apt Elev <b>80</b>
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# RNAV (GPS) RWY 1

NEW CASTLE (ILG)

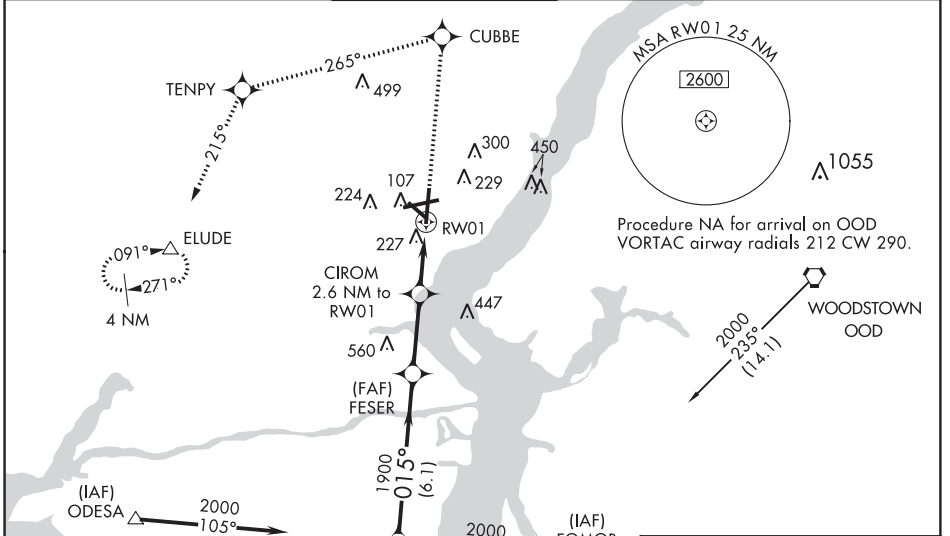
**⚠** Inoperative table does not apply to LPV all Cats and LNAV Cats A and B. Baro-VNAV NA when using Philadelphia Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Philadelphia Intl altimeter setting: increase LPV DA to 380, LNAV/VNAV DA to 579, and all MDA 60 feet; increase LNAV/VNAV all Cats visibility to RVR 6000. For inoperative MALSR, increase LNAV Cats C and D visibility 1/4 mile. For inoperative MALSR, when using Philadelphia Intl altimeter setting, increase LNAV visibility Cat C 1/4 mile.

**MALSR**

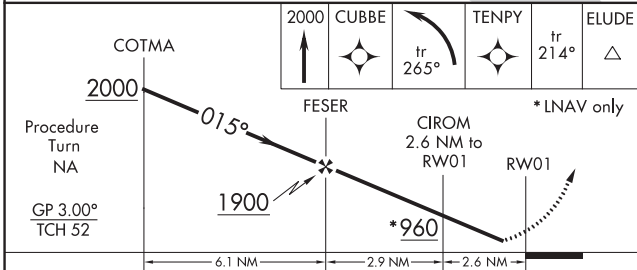


**MISSED APPROACH:** Climb to 2000 direct CUBBE and left turn via track 265° to TENPY and via track 214° to ELUDE and hold.

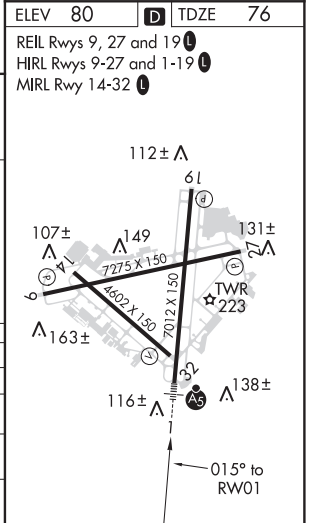
ATIS <b>123.95</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	WILMINGTON TOWER* <b>126.0</b> (CTAF) <b>305.4</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>119.95</b>	UNICOM <b>122.95</b>
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ELEV <b>80</b>	<b>D</b> TDZE <b>76</b>
REIL Rwy 9, 27 and 19	
HIRL Rwy 9-27 and 1-19	
MIRL Rwy 14-32	



CATEGORY	A	B	C	D
LPV DA		326/50	250 (300-1)	
LNAV/VNAV DA		525/50	449 (500-1)	
LNAV MDA		480/50	404 (400-1)	
CIRCLING	540-1	460 (500-1)	600-1½ 520 (600-1½)	640-2 560 (600-2)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>49015</b> <b>W09A</b>	APP CRS <b>088°</b>	Rwy Idg <b>7000</b> TDZE <b>80</b> Apt Elev <b>80</b>
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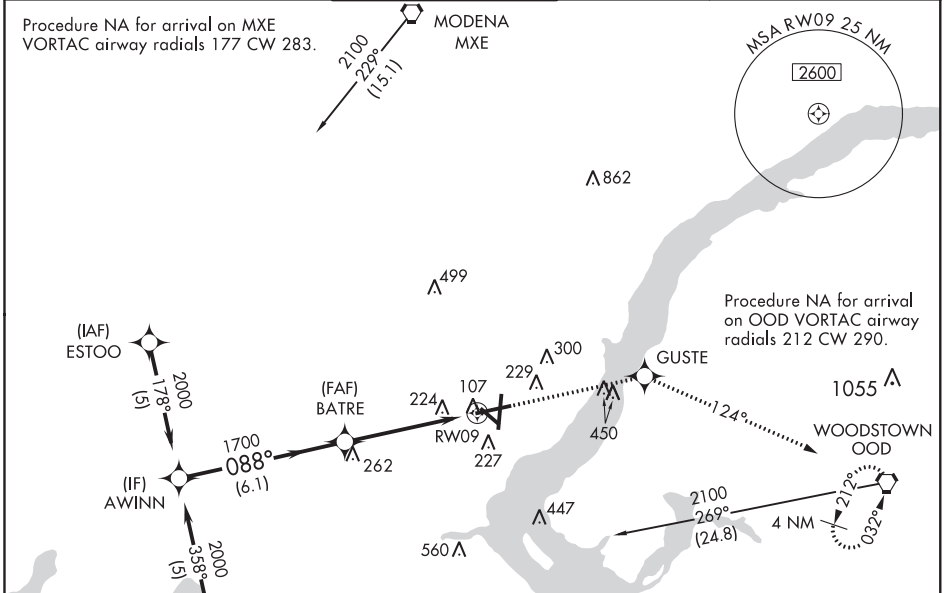
# RNAV (GPS) RWY 9

NEW CASTLE (ILG)

**⚠** 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. Helicopter visibility reduction below 3/4 mile NA. **⚠** VDP and Baro-VNAV NA when using Philadelphia Intl altimeter setting. When local altimeter setting not received, use Philadelphia Intl altimeter setting; increase LPV DA to 448, LNAV/VNAV DA to 568 and all MDA 60 feet; increase LPV all Cats visibility 1/4 mile and LNAV/VNAV all Cats visibility 1/2 mile.

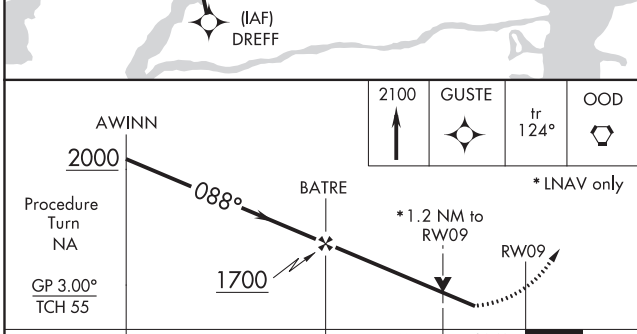
MISSED APPROACH: Climb to 2100 direct GUSTE and via track 124° to OOD VORTAC and hold.

ATIS <b>123.95</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	WILMINGTON TOWER * <b>126.0</b> (CTAF) <b>305.4</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>119.95</b>	UNICOM <b>122.95</b>
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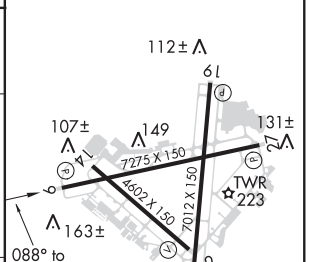


NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



ELEV 80	TDZE 80
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CATEGORY	A	B	C	D
LPV DA	394-1 314 (400-1)			
LNAV/VNAV DA	521-1½ 441 (500-1½)			
LNAV MDA	520-1 440 (500-1)	520-1¼ 440 (500-1¼)	520-1½ 440 (500-1½)	
CIRCLING	540-1 460 (500-1)	600-1½ 520 (600-1½)	640-2 560 (600-2)	

REIL Rwy 9, 27 and 19  
 HIRL Rwy 9-27 and 1-19  
 MIRL Rwy 14-32



WAAS CH <b>82115</b> <b>W19A</b>	APP CRS <b>195°</b>	Rwy Idg <b>7012</b> TDZE <b>71</b> Apt Elev <b>80</b>
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# RNAV (GPS) RWY 19

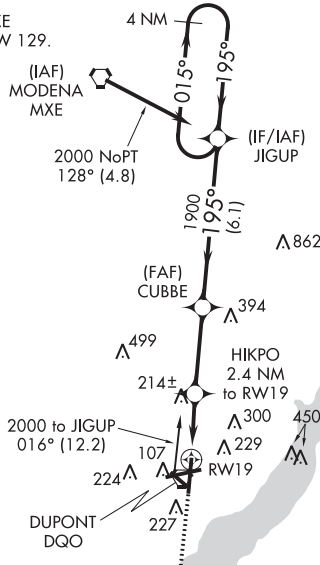
NEW CASTLE (ILG)

**⚠** Baro-VNAV NA when using Philadelphia Intl 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 Philadelphia Intl altimeter setting: increase LPV DA to 425, LNAV/VNAV DA to 592, and all MDA 60 feet; increase LPV all Cats and LNAV Cat D visibility ¼ mile.

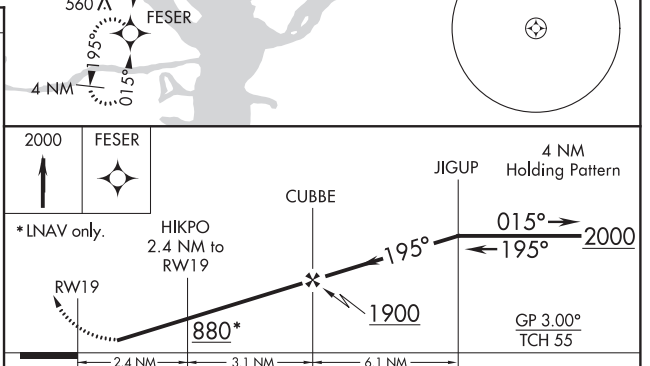
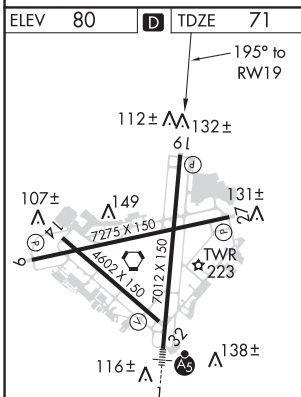
MISSED APPROACH:  
Climb to 2000 direct FESER and hold.

ATIS <b>123.95</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	WILMINGTON TOWER* <b>126.0 (CTAF) 305.4</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>119.95</b>	UNICOM <b>122.95</b>
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Procedure NA for arrival on MXE  
VORTAC airway radials 056 CW 129.



Procedure NA for arrival on DQO VORTAC  
airway radials 053 CW 068.



CATEGORY	A	B	C	D
LPV DA	371-1 300 (300-1)			
LNAV/VNAV DA	538-1¾ 467 (500-1¾)			
LNAV MDA	480-1	409 (400-1)	480-1¼	409 (400-1¼)
CIRCLING	540-1	460 (500-1)	600-1½	640-2
			520 (600-1½)	560 (600-2)

REIL Rwy 9, 27 and 19  
 HIRL Rwy 9-27 and 1-19  
 MIRL Rwy 14-32

WILMINGTON, DELAWARE  
 Orig 05APR12

39°41'N-75°36'W  
 559

# NEW CASTLE (ILG) RNAV (GPS) RWY 19

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WAAS CH <b>53515</b> <b>W27A</b>	APP CRS <b>268°</b>	Rwy Idg <b>7000</b> TDZE <b>72</b> Apt Elev <b>80</b>
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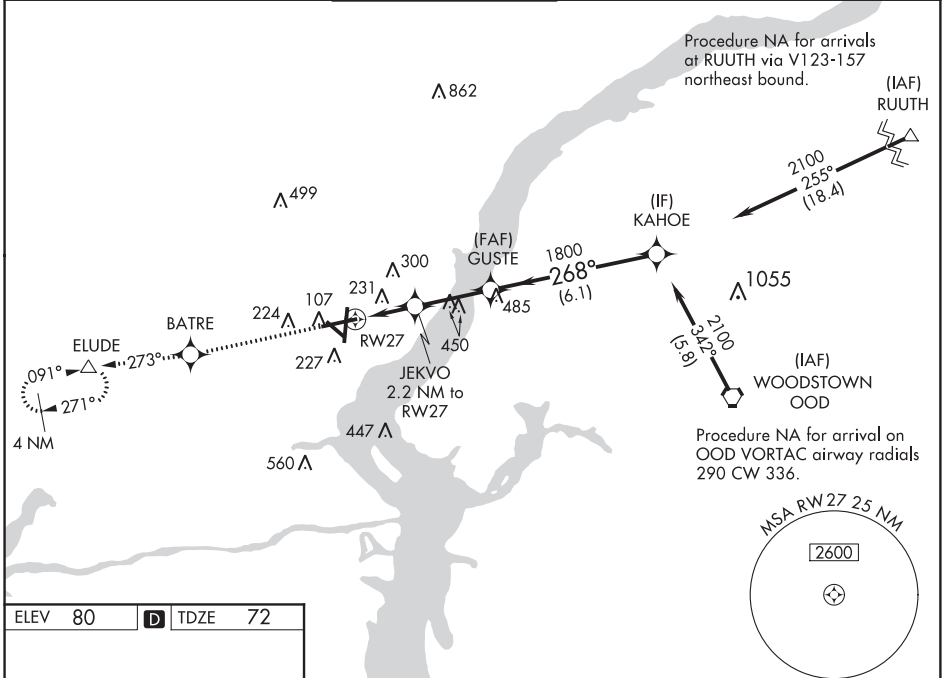
# RNAV (GPS) RWY 27

NEW CASTLE (ILG)

**⚠** Baro-VNAV NA when using Philadelphia Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV DA NA below -15°C (5°F) or above 39°C (102°F).  
**⚠** DME/DME RNP-0.3 NA. Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Philadelphia Intl altimeter setting: increase LPV DA to 480, LNAV/VNAV to 584, and all MDA 60 feet; increase LPV all Cats and LNAV Cats C and D visibility 1/8 mile and LNAV/VNAV all Cats visibility 1/4 mile.

MISSED APPROACH: Climb to 2000 direct BATRE and via track 273° to ELUDE and hold.

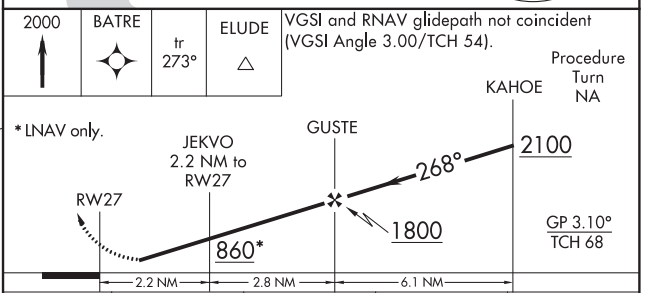
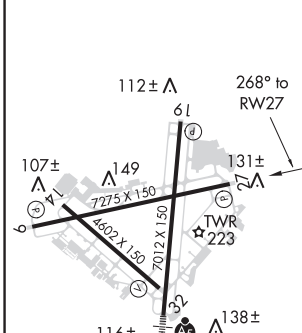
ATIS <b>123.95</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	WILMINGTON TOWER* <b>126.0</b> (CTAF) <b>305.4</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>119.95</b>	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 80	<b>D</b>	TDZE 72
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CATEGORY	A	B	C	D
LPV DA		426-1 1/8	354 (400-1 1/8)	
LNAV/VNAV DA		530-1 3/8	458 (500-1 3/8)	
LNAV MDA	500-1	428 (500-1)	500-1 1/4	428 (500-1 1/4)
CIRCLING	540-1	460 (500-1)	600-1 1/2	640-2
			520 (600-1 1/2)	560 (600-2)

REIL Rwy 9, 27 and 19  
 HIRL Rwy 9-27 and 1-19  
 MIRL Rwy 14-32

WILMINGTON, DELAWARE  
 Orig-B 31MAR16

39°41'N-75°36'W

# NEW CASTLE (ILG) RNAV (GPS) RWY 27

VORTAC DQO <b>114.0</b> Chan <b>87</b>	APP CRS <b>094°</b>	Rwy Idg <b>7000</b> TDZE <b>80</b> Apt Elev <b>80</b>
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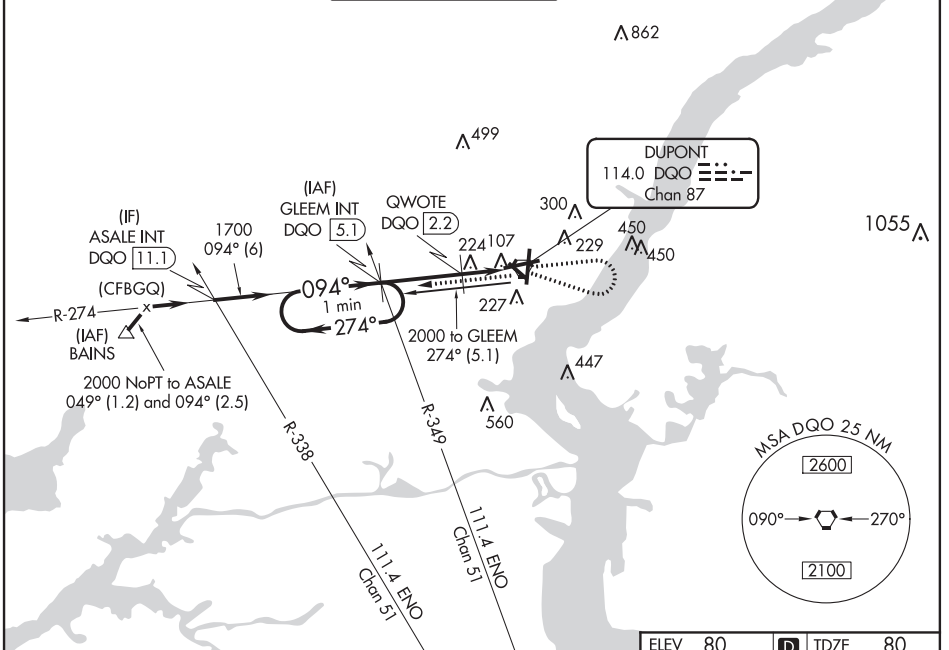
# VOR RWY 9

NEW CASTLE (ILG)

**▼** Visibility reduction by helicopters NA. When local altimeter setting not received, use Philadelphia Intl altimeter setting and increase all MDA 60 feet, and increase S-9 Cats C and D visibility and Circling Cat C visibility ¼ mile.

**▲** MISSED APPROACH: Climb to 1200 then climbing right turn to 2000 direct DQO VORTAC then on DQO VORTAC R-274 to GLEEM INT/DQO 5.1 DME and hold.

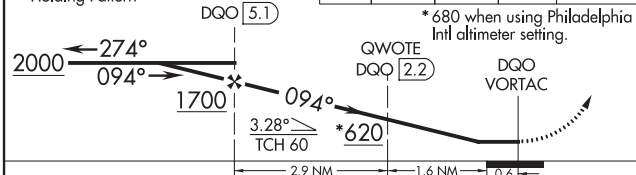
ATIS <b>123.95</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	WILMINGTON TOWER * <b>126.0</b> (CTAF) <b>305.4</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>119.95</b>	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 60).  
One Minute Holding Pattern



	A	B	C	D
S-9	620-1	540 (600-1)	620-1½	540 (600-1½)
CIRCLING	620-1	540 (600-1)	620-1½ 540 (600-1½)	640-2 560 (600-2)
QWOTE FIX MINIMUMS				
S-9	540-1	460 (500-1)	540-1¾	460 (500-1¾)
CIRCLING	540-1	460 (500-1)	600-1½ 520 (600-1½)	640-2 560 (600-2)

ELEV 80	TDZE 80
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REIL Rwy 9, 27 and 19  
HIRL Rwy 9-27 and 1-19  
MIRL Rwy 14-32

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

VORTAC DQO <b>114.0</b> Chan <b>87</b>	APP CRS <b>261°</b>	Rwy Idg <b>7000</b> TDZE <b>72</b> Apt Elev <b>80</b>
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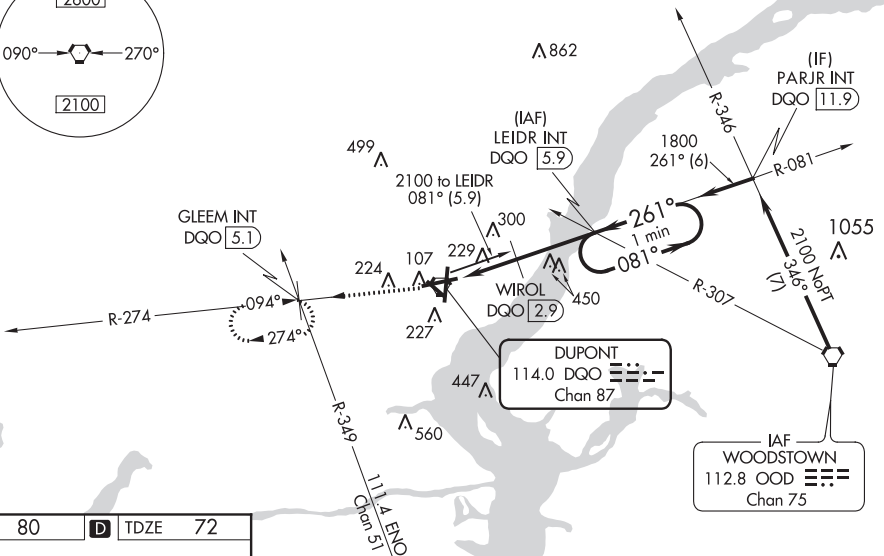
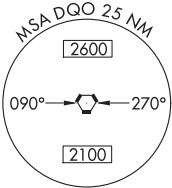
# VOR RWY 27

NEW CASTLE (ILG)

**⚠** Helicopter visibility reduction below 3/4 SM NA. When local altimeter setting not received, use Philadelphia Intl altimeter setting and increase all MDA 60 feet; increase S-27 Cat B visibility 1/4 mile and increase S-9 Cats C and D visibility 1/2 mile; increase Circling Cats B and D visibility 1/4 mile and increase Circling Cat C 1/2 mile; WIROL FIX minimums S-27 increase Cats C and D visibility 1/4 mile, and increase Circling Cat C 1/2 mile.

**MISSED APPROACH:** Climb to 2000 on DQO VORTAC R-274 to GLEEM INT/DQO 5.1 DME and hold.

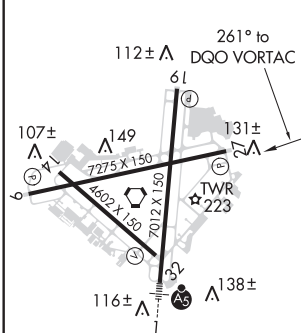
ATIS <b>123.95</b>	PHILADELPHIA APP CON <b>118.35 323.1</b>	WILMINGTON TOWER * <b>126.0</b> (CTAF) <b>305.4</b>	GND CON <b>121.7 275.8</b>	CLNC DEL <b>119.95</b>	UNICOM <b>122.95</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

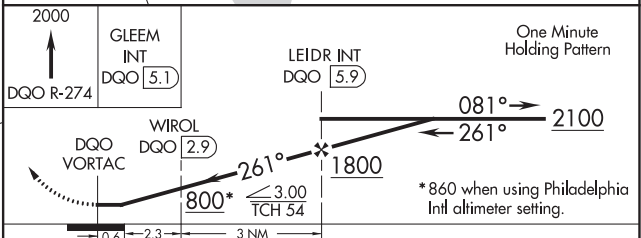
ELEV 80	<b>D</b>	TDZE 72
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REIL Rwy 9, 27 and 19 **Ⓛ**  
 HIRL Rwy 9-27 and 1-19 **Ⓛ**  
 MIRL Rwy 14-32 **Ⓛ**

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58



CATEGORY	A	B	C	D
S-27	800-1 728 (800-1)		800-2 728 (800-2)	
CIRCLING	800-1 720 (800-1)		800-2 720 (800-2)	800-2 1/4 720 (800-2 1/4)
<b>WIROL FIX MINIMUMS (DME REQUIRED)</b>				
S-27	560-1 488 (500-1)		560-1 3/8 488 (500-1 3/8)	
CIRCLING	560-1 480 (500-1)		600-1 1/2 520 (600-1 1/2)	640-2 560 (600-2)





# RNAV (GPS) RWY 14

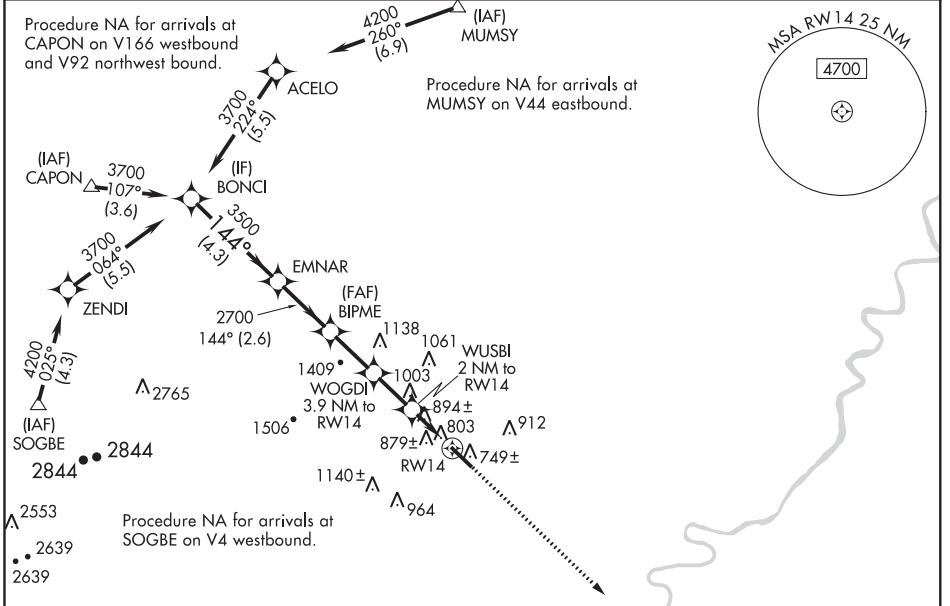
WINCHESTER RGNL (OKV)

WAAS CH <b>70712</b> <b>W14A</b>	APP CRS <b>144°</b>	Rwy Idg <b>5498</b>
		TDZE <b>726</b>
		Apt Elev <b>726</b>

**▼** For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Martinsburg altimeter setting and increase all DA 63 feet and all MDA 80 feet; increase LPV all Cats, LNAV/VNAV Cats A/B/D, LNAV Cats C/D, and Circling Cat D visibility ¼ mile, increase LNAV/VNAV Apt Cat C ½ mile, and increase Circling Cat C visibility ½ mile. VDP and Baro-VNAV NA when using Martinsburg altimeter setting. Helicopter visibility reduction below ¾ SM NA.

**MISSED APPROACH:**  
Climb to 3700 direct CLADD and hold.

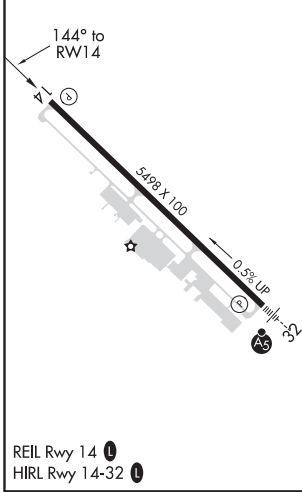
AWOS-3 <b>124.85</b>	POTOMAC APP CON <b>120.45 306.925</b>	CLNC DEL <b>126.15</b>	UNICOM <b>122.7 (CTAF) 0</b>
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NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 726	TDZE 726
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	BONCI	EMNAR	BIPME	WOGDI	WUSBI	CLADD
	3700	3500	2700	2000	1400	3700
		144°				
	GP 3.00°					
	TCH 45					
	4.3 NM	2.6 NM	2.2 NM	1.9 NM	0.8 NM	1.2 NM
CATEGORY	A	B	C	D		
LPV DA		976-3/4	250 (300-3/4)			
LNAV/VNAV DA	1060-1	334 (400-1)	1060-1 1/8	334 (400-1 1/8)		
LNAV MDA	1140-1	414 (500-1)	1140-1 1/8	414 (500-1 1/8)		
CIRCLING	1180-1 454 (500-1)	1220-1 494 (500-1)	1320-1 1/2 594 (600-1 1/2)	1480-2 1/2 754 (800-2 1/2)		

WAAS CH <b>97512</b> <b>W32A</b>	APP CRS <b>324°</b>	Rwy Idg TDZE <b>715</b> Apt Elev <b>726</b>	<b>5498</b> <b>715</b> <b>726</b>
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# RNAV (GPS) RWY 32

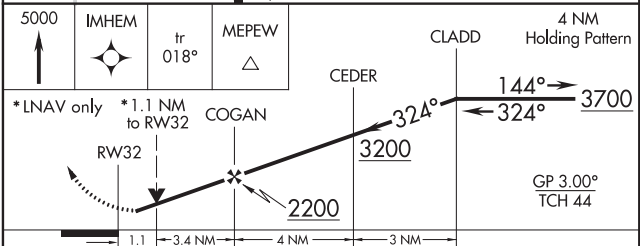
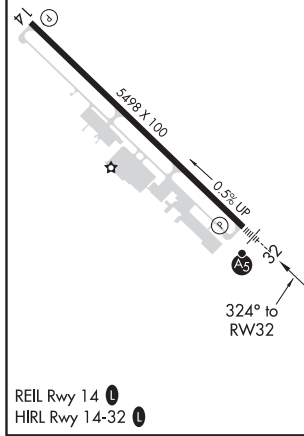
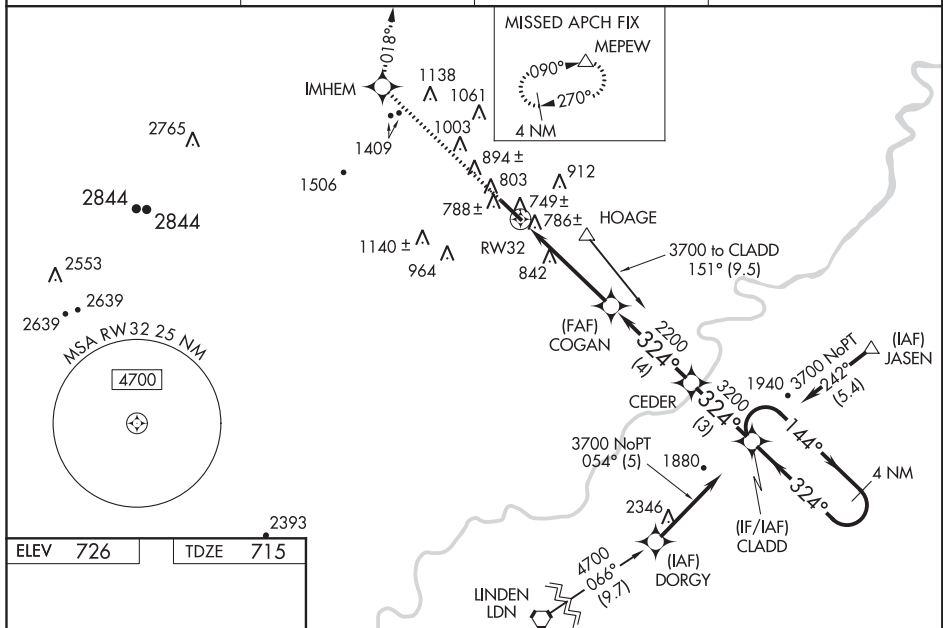
WINCHESTER RGNL (OKV)

**⚠** Baro-VNAV NA when using Martinsburg altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Martinsburg altimeter setting and increase all DA 63 feet and all MDA 80 feet, and LNAV/VNAV all Cats and Circling Cat C visibility ¼ mile. For inoperative MALSR, increase LNAV Cats A, B and C visibility to 1 mile and LNAV Cat D visibility to 1½ mile. Inoperative table does not apply to LPV. For inoperative MALSR when using Martinsburg altimeter setting, increase LPV all Cats and LNAV Cats A and B visibility to 1 mile. VDP NA when using Martinsburg altimeter setting.



**MISSED APPROACH:**  
Climb to 5000 direct IMHEM and via track 018° to MEPEW and hold, continue climb-in-hold to 5000.

AWOS-3 <b>124.85</b>	POTOMAC APP CON <b>120.45 306.925</b>	CLNC DEL <b>126.15</b>	UNICOM <b>122.7 (CTAF) 0</b>
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CATEGORY	A	B	C	D
LPV DA		915-¾	200 (200-¾)	
LNAV/VNAV DA		1056-¾	341 (400-¾)	
LNAV MDA		1100-¾	385 (400-¾)	1100-1 385 (400-1)
CIRCLING	1120-1 394 (400-1)	1260-1 534 (600-1)	1260-1½ 534 (600-1½)	1280-2 554 (600-2)

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



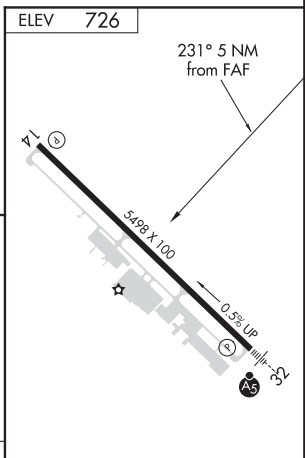
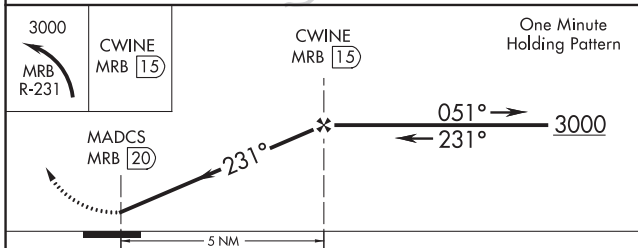
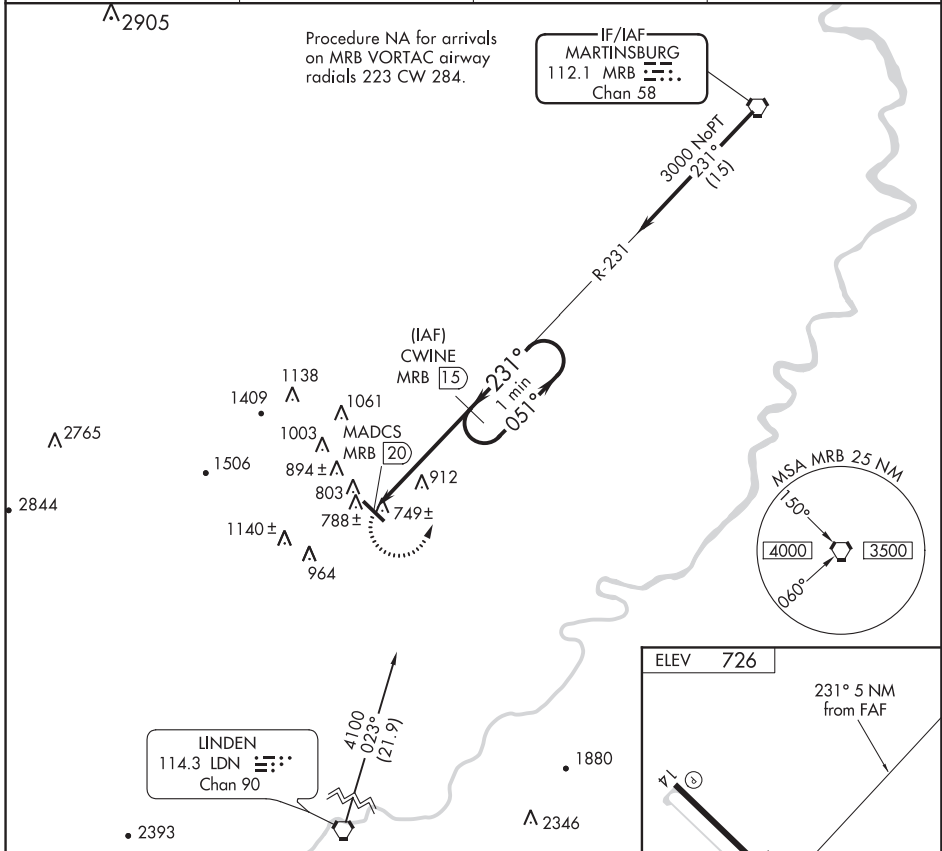
VORTAC MRB <b>112.1</b> Chan <b>58</b>	APP CRS <b>231°</b>	Rwy Idg TDZE Apt Elev <b>726</b>	<b>N/A</b> <b>N/A</b>
----------------------------------------------	------------------------	-------------------------------------------	--------------------------

# VOR/DME-A

WINCHESTER RGNL (OKV)

<p><b>⚠</b> When local altimeter setting not received, use Martinsburg altimeter setting and increase all MDA 80 feet and Cat C visibility 1/4 mile.</p>	<p><b>⚠</b> MISSED APPROACH: Climbing left turn to 3000 via MRB R-231 to CWINE/MRB 15 DME and hold, continue climb-in-hold to 3000.</p>
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AWOS-3 <b>124.85</b>	POTOMAC APP CON <b>120.45 306.925</b>	CLNC DEL <b>126.15</b>	UNICOM <b>122.7 (CTAF)</b>
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CATEGORY	A	B	C	D
CIRCLING	1180-1 454 (500-1)	1260-1¼ 534 (600-1¼)	1260-1½ 534 (600-1½)	1280-2 554 (600-2)

REIL Rwy 14 **Ⓛ**  
HIRL Rwy 14-32 **Ⓛ**

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(CLTCH1.CLTCH) 16091

# CLTCH ONE DEPARTURE (RNAV) SL-5251

WINCHESTER RGNL (OKV)  
WINCHESTER, VIRGINIA

**TOP ALTITUDE:**  
3000



NE-3, 10 NOV 2016 to 05 JAN 2017

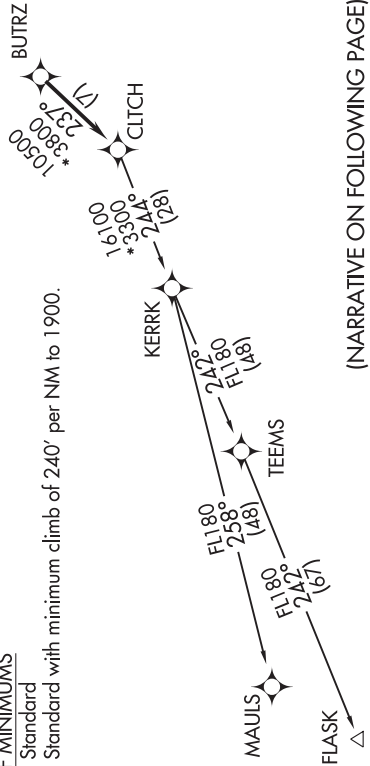


AWOS-3  
124.85  
CLNC DEL  
126.15  
UNICOM  
122.7 (CTAF)  
POTOMAC DEP CON  
120.45 306.925

NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Takeoff Rwy 32 requires a climb to 2500 on heading 339° before proceeding on the ATC assigned heading for obstacle avoidance.

### TAKEOFF MINIMUMS

Rwy 14: Standard  
Rwy 32: Standard with minimum climb of 240' per NM to 1900.



(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

# CLTCH ONE DEPARTURE (RNAV) (CLTCH1.CLTCH) 31MAR16

WINCHESTER, VIRGINIA  
WINCHESTER RGNL (OKV)



DEPARTURE ROUTE DESCRIPTION

Climb on heading assigned by ATC, expect RADAR vectors to BUTRZ, then on track 237° to CLTCH, thence. . . .

. . . . on assigned transition. Maintain altitude assigned by ATC. Expect clearance to filed altitude within ten (10) minutes after departure.

FLASK TRANSITION (CLTCH1.FLASK)

MAULS TRANSITION (CLTCH1.MAULS)

TAKEOFF OBSTACLE NOTES

Rwy 14: Tree 496' from DER, 587' right of centerline, 720' MSL.  
Tree 591' from DER, 561' left of centerline, 729' MSL.  
Tree 594' from DER, 566' left of centerline, 730' MSL.  
Tree 1490' from DER, 652' right of centerline, 739' MSL.  
Tree 1491' from DER, 666' right of centerline, 743' MSL.  
Tree 1971' from DER, 778' right of centerline, 753' MSL.  
Tree 2048' from DER, 882' right of centerline, 761' MSL.  
Trees beginning 2059' from DER, 876' right of centerline, up to 765' MSL.

Rwy 32: Terrain beginning 2' from DER, 428' left of centerline, up to 729' MSL.  
Tree 86' from DER, 508' left of centerline, 762' MSL.  
Tree 94' from DER, 474' left of centerline, 763' MSL.  
Tree 102' from DER, 478' left of centerline, 764' MSL.  
Trees beginning 118' from DER, 209' left of centerline, up to 772' MSL.  
Tree 374' from DER, 596' right of centerline, 774' MSL.  
Trees beginning 452' from DER, 482' right of centerline, up to 776' MSL.  
Tree 1589' from DER, 243' left of centerline, 774' MSL.  
Trees beginning 1610' from DER, 248' left of centerline, up to 777' MSL.  
Trees beginning 1718' from DER, 269' left of centerline, up to 782' MSL.  
Tree 1754' from DER, 291' left of centerline, 786' MSL.  
Tree 1760' from DER, 754' left of centerline, 791' MSL.  
Trees beginning 1774' from DER, 27' left of centerline, up to 794' MSL.  
Trees beginning 1974' from DER, 9' right of centerline, up to 787' MSL.  
Trees beginning 2169' from DER, 625' right of centerline, up to 799' MSL.  
Trees beginning 2255' from DER, 742' right of centerline, up to 805' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

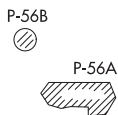
(JDUBB1 .JDUBB) 16091

# JDUBB ONE DEPARTURE (RNAV) SL-5251

WINCHESTER RGNL (OKV)  
WINCHESTER, VIRGINIA

**TOP ALTITUDE:  
3000**

AWOS-3  
124.85  
CLNC DEL  
126.15  
UNICOM  
122.7 (CTAF)  
POTOMAC DEP CON  
120.45 306.925

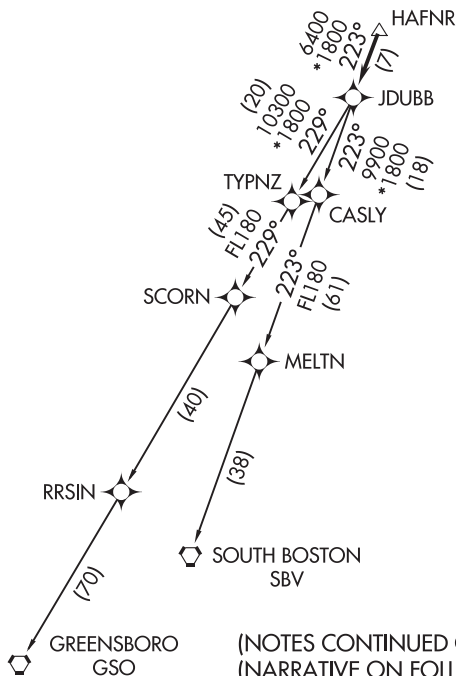


### TAKEOFF MINIMUMS

Rwy 14: Standard  
Rwy 32: Standard with minimum climb  
of 240' per NM to 1900.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017



NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Takeoff Rwy 32 requires a climb to 2500 on heading 339° before proceeding on the ATC assigned heading for obstacle avoidance.

(NOTES CONTINUED ON FOLLOWING PAGE)  
(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

# JDUBB ONE DEPARTURE (RNAV)

(JDUBB1 .JDUBB) 31MAR16

WINCHESTER, VIRGINIA  
WINCHESTER RGNL (OKV)



## DEPARTURE ROUTE DESCRIPTION

Climb on heading assigned by ATC, expect RADAR vectors to HAFNR, then on track 223° to JDUBB, thence. . . .

. . . . on assigned transition. Maintain altitude assigned by ATC. Expect clearance to filed altitude within ten (10) minutes after departure.

GREENSBORO TRANSITION (JDUBB1.GSO)

SOUTH BOSTON TRANSITION (JDUBB1.SBV)

TAKEOFF OBSTACLE NOTES

Rwy 14: Tree 496' from DER, 587' right of centerline, 720' MSL.  
Tree 591' from DER, 561' left of centerline, 729' MSL.  
Tree 594' from DER, 566' left of centerline, 730' MSL.  
Tree 1490' from DER, 652' right of centerline, 739' MSL.  
Tree 1491' from DER, 666' right of centerline, 743' MSL.  
Tree 1971' from DER, 778' right of centerline, 753' MSL.  
Tree 2048' from DER, 882' right of centerline, 761' MSL.  
Trees beginning 2059' from DER, 876' right of centerline, up to 765' MSL.

Rwy 32: Terrain beginning 2' from DER, 428' left of centerline, up to 729' MSL.  
Tree 86' from DER, 508' left of centerline, 762' MSL.  
Tree 94' from DER, 474' left of centerline, 763' MSL.  
Tree 102' from DER, 478' left of centerline, 764' MSL.  
Trees beginning 118' from DER, 209' left of centerline, up to 772' MSL.  
Tree 374' from DER, 596' right of centerline, 774' MSL.  
Trees beginning 452' from DER, 482' right of centerline, up to 776' MSL.  
Tree 1589' from DER, 243' left of centerline, 774' MSL.  
Trees beginning 1610' from DER, 248' left of centerline, up to 777' MSL.  
Trees beginning 1718' from DER, 269' left of centerline, up to 782' MSL.  
Tree 1754' from DER, 291' left of centerline, 786' MSL.  
Tree 1760' from DER, 754' left of centerline, 791' MSL.  
Trees beginning 1774' from DER, 27' left of centerline, up to 794' MSL.  
Trees beginning 1974' from DER, 9' right of centerline, up to 787' MSL.  
Trees beginning 2169' from DER, 625' right of centerline, up to 799' MSL.  
Trees beginning 2255' from DER, 742' right of centerline, up to 805' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

(SCRAM3.SCRAM) 16091

# SCRAM THREE DEPARTURE (RNAV) SL-5251

WINCHESTER RGNL (OKV)  
WINCHESTER, VIRGINIA

**TOP ALTITUDE:**  
3000



NE-3, 10 NOV 2016 to 05 JAN 2017

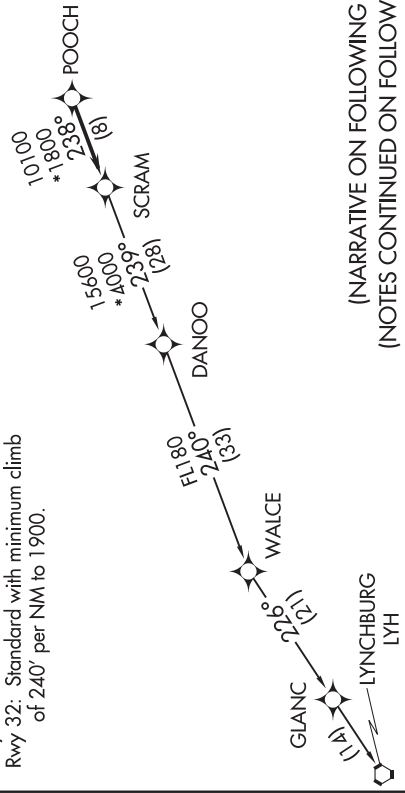


AWOS-3  
124.85  
CLNC DEL  
126.15  
UNICOM  
122.7 (CTAF)  
POTOMAC DEP CON  
120.45 306.925

NOTE: RNAV 1.  
NOTE: RADAR required.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Takeoff Rwy 32 requires a climb to 2500 on heading 339° before proceeding on the ATC assigned heading for obstacle avoidance.

### TAKEOFF MINIMUMS

Rwy 14: Standard  
Rwy 32: Standard with minimum climb of 240' per NM to 1900.



(NARRATIVE ON FOLLOWING PAGE)  
(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NE-3, 10 NOV 2016 to 05 JAN 2017

# SCRAM THREE DEPARTURE (RNAV) (SCRAM3.SCRAM) 31MAR16

WINCHESTER, VIRGINIA  
WINCHESTER RGNL (OKV)



DEPARTURE ROUTE DESCRIPTION

Climb on heading assigned by ATC, expect RADAR vectors to POOCH, then on track 238° to SCRAM, thence. . . .

. . . . on LYNCHBURG transition, maintain altitude assigned by ATC, expect clearance to filed altitude within ten (10) minutes after departure.

LYNCHBURG TRANSITION (SCRAM3.LYH):

TAKEOFF OBSTACLE NOTES

Rwy 14: Tree 496' from DER, 587' right of centerline, 720' MSL.  
 Tree 591' from DER, 561' left of centerline, 729' MSL.  
 Tree 594' from DER, 566' left of centerline, 730' MSL.  
 Tree 1490' from DER, 652' right of centerline, 739' MSL.  
 Tree 1491' from DER, 666' right of centerline, 743' MSL.  
 Tree 1971' from DER, 778' right of centerline, 753' MSL.  
 Tree 2048' from DER, 882' right of centerline, 761' MSL.  
 Trees beginning 2059' from DER, 876' right of centerline, up to 765' MSL.

Rwy 32: Terrain beginning 2' from DER, 428' left of centerline, up to 729' MSL.  
 Tree 86' from DER, 508' left of centerline, 762' MSL.  
 Tree 94' from DER, 474' left of centerline, 763' MSL.  
 Tree 102' from DER, 478' left of centerline, 764' MSL.  
 Trees beginning 118' from DER, 209' left of centerline, up to 772' MSL.  
 Tree 374' from DER, 596' right of centerline, 774' MSL.  
 Trees beginning 452' from DER, 482' right of centerline, up to 776' MSL.  
 Tree 1589' from DER, 243' left of centerline, 774' MSL.  
 Trees beginning 1610' from DER, 248' left of centerline, up to 777' MSL.  
 Trees beginning 1718' from DER, 269' left of centerline, up to 782' MSL.  
 Tree 1754' from DER, 291' left of centerline, 786' MSL.  
 Tree 1760' from DER, 754' left of centerline, 791' MSL.  
 Trees beginning 1774' from DER, 27' left of centerline, up to 794' MSL.  
 Trees beginning 1974' from DER, 9' right of centerline, up to 787' MSL.  
 Trees beginning 2169' from DER, 625' right of centerline, up to 799' MSL.  
 Trees beginning 2255' from DER, 742' right of centerline, up to 805' MSL.

NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WISE, VIRGINIA

AL-5973 (FAA)

# RNAV (GPS) RWY 6

WISE/LONESOME PINE (LNP)

APP CRS <b>066°</b>	Rwy Idg <b>5280</b>
	TDZE <b>2671</b>
	Apt Elev <b>2684</b>

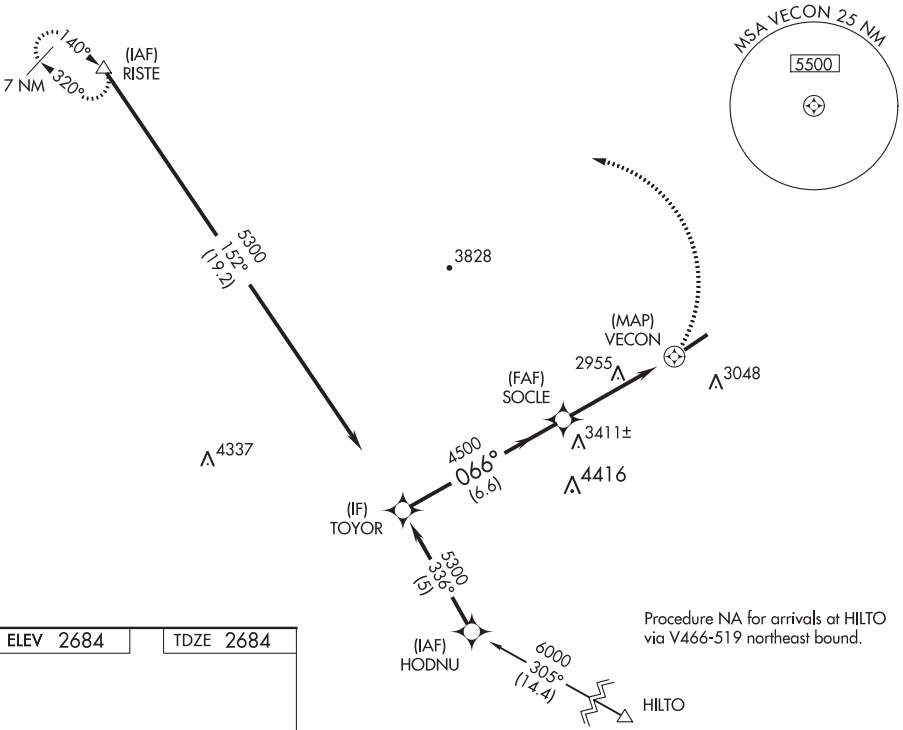
**⚠** If local altimeter setting not received, use Virginia Highlands altimeter setting and increase all MDAs 160 feet. Visibility reduction by helicopters NA. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climbing left turn to 6400 direct RISTE and hold.

AWOS-3 <b>118.6</b>	INDIANAPOLIS CENTER <b>126.57 253.5</b>	UNICOM <b>123.0 (CTAF)</b> <b>📻</b>
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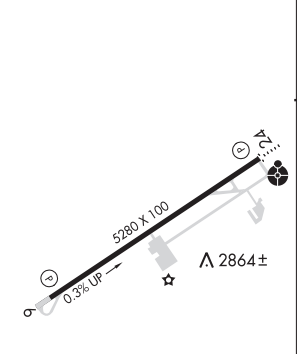
NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

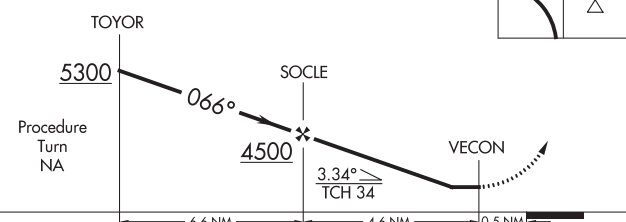


Procedure NA for arrivals at HILTO via V466-519 northeast bound.

ELEV 2684	TDZE 2684
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VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 34).



CATEGORY	A	B	C	D
LNAV MDA	3260 - 1	589 (600-1)	3260 - 1½ 589 (600-1½)	3260 - 1¾ 589 (600-1¾)
CIRCLING	3260 - 1	576 (600-1)	3260 - 1½ 576 (600-1½)	3360 - 2¼ 676 (700-2¼)

WISE, VIRGINIA  
Orig 13066

36°59'N - 82°32'W

# RNAV (GPS) RWY 6



WISE, VIRGINIA

AL-5973 (FAA)

# RNAV (GPS) RWY 24

WISE / LONESOME PINE (LNP)

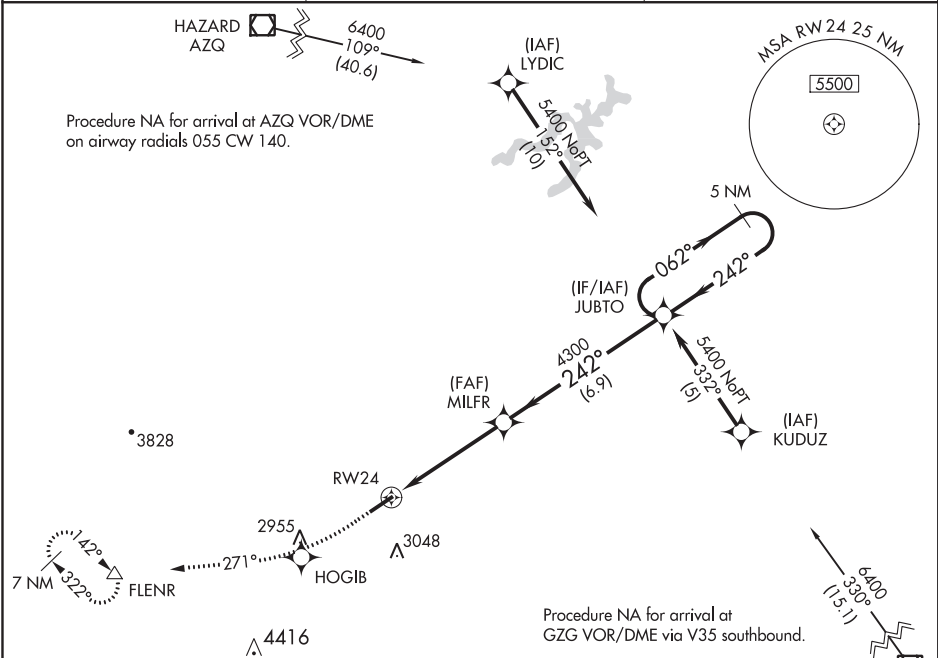
WAAS CH <b>77602</b> <b>W24A</b>	APP CRS <b>242°</b>	Rwy ldg TDZE Apt Elev	<b>5280</b> <b>2684</b> <b>2684</b>
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**⚠** Inoperative table does not apply. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 43°C (110°F).  
**⚠** DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

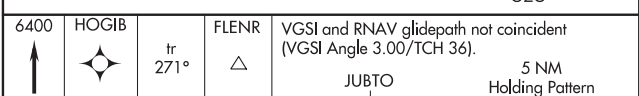


**MISSED APPROACH:** Climb to 6400 direct HOGIB and via 271° track to FLENR and hold, continue climb-in-hold to 6400.

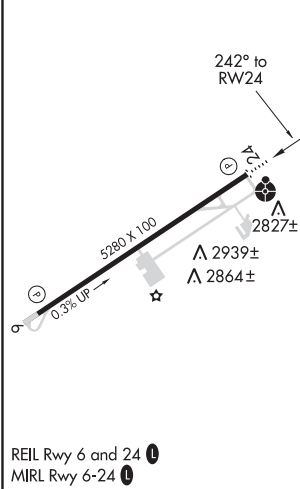
AWOS-3 <b>118.6</b>	INDIANAPOLIS CENTER <b>126.57 253.5</b>	UNICOM <b>123.0</b> (CTAF) <b>⓪</b>
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ELEV 2684	TDZE 2684
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	4.8 NM		6.9 NM	
CATEGORY	A	B	C	D
LPV DA	3021 - 1¼ 337 (400-1¼)			
LNAV/VNAV DA	3126 - 1½ 442 (500-1½)			
LNAV MDA	3400 - 1	716 (800-1)	3400 - 2 716 (800-2¼)	3400 - 2¼ 716 (800-2¼)
CIRCLING	3440 - 1½	756 (800-1½)	3460 - 2¼ 776 (800-2¼)	3560 - 2¾ 876 (900-2¾)



NE-3, 10 NOV 2016 to 05 JAN 2017

NE-3, 10 NOV 2016 to 05 JAN 2017

WISE, VIRGINIA  
Orig 13066

36°59'N - 82°32'W

# WISE / LONESOME PINE (LNP)

## RNAV (GPS) RWY 24

WISE, VIRGINIA

AL-5973 (FAA)


13066


LOC/DME I-OWN <b>110.7</b> Chan 44	APP CRS <b>242°</b>	Rwy Idg 5280 TDZE 2684 Apt Elev 2684
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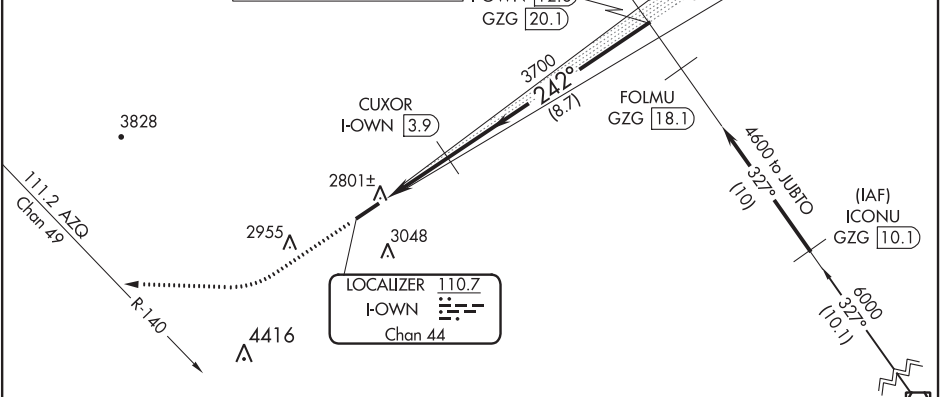
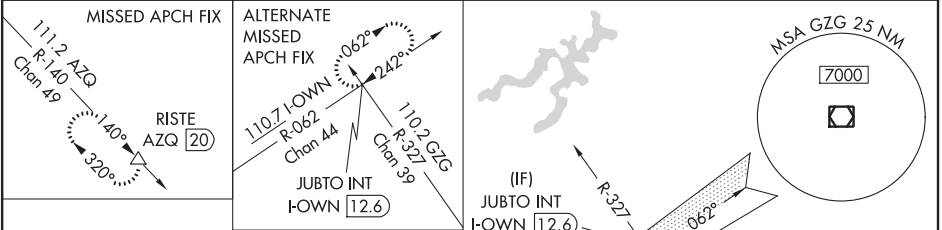
# LOC/DME RWY 24

WISE/LONESOME PINE (LNP)

**Visibility reduction by helicopters NA. When local altimeter setting not received, use Virginia Highlands altimeter setting and increase all MDA 160 feet and increase S-LOC and Circling Cats C/D visibility ½ mile.**

**ODALS**  **MISSED APPROACH:** Climb to 3300 then climbing right turn to 6400 via heading 272° and AZQ VOR/DME R-140 to RISTE/AZQ 20 DME and hold.

AWOS-3 <b>118.6</b>	INDIANAPOLIS CENTER <b>126.57 253.5</b>	UNICOM <b>123.0</b> (CTAF) 
------------------------	--------------------------------------------	-----------------------------------------------------------------------------------------------------------------



NE-3, 10 NOV 2016 to 05 JAN 2017

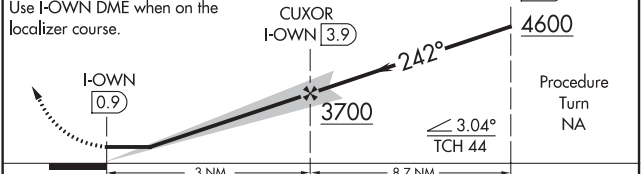
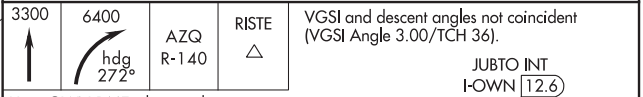
NE-3, 10 NOV 2016 to 05 JAN 2017

ELEV 2684	TDZE 2684
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242° 3 NM from FAF

5280 x 100  
0.3% UP

2864±



CATEGORY	A	B	C	D
S-24		3060-1 376 (400-1)		3060-1½ 376 (400-1½)
CIRCLING	3140-1	456 (500-1)	3240-1½ 556 (600-1½)	3360-2¼ 676 (700-2¼)

WISE, VIRGINIA  
Orig-A 03JUN10

36°59'N - 82°32'W

# WISE/LONESOME PINE (LNP) LOC/DME RWY 24

# CLIMB/DESCENT TABLE <sup>10042</sup>

## INSTRUMENT TAKEOFF OR APPROACH PROCEDURE CHARTS RATE OF CLIMB/DESCENT TABLE

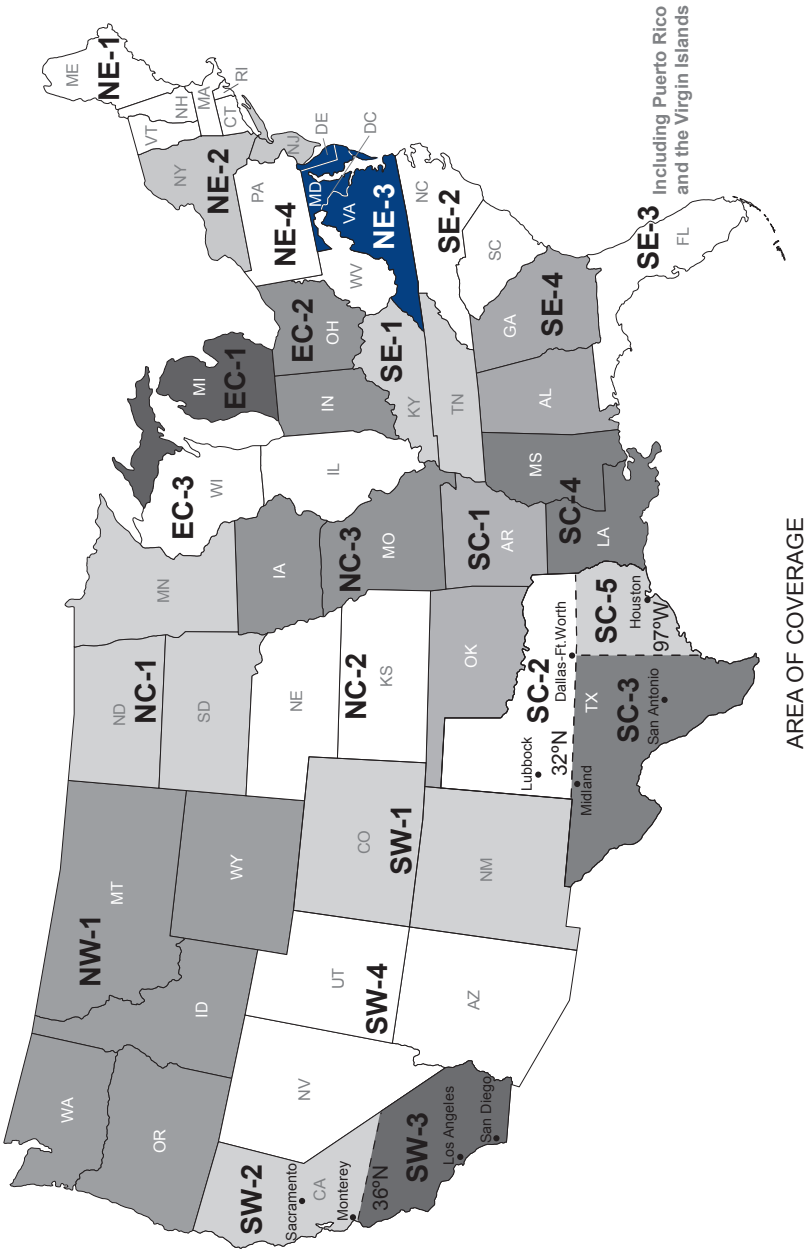
(ft. per min)

A rate of climb/descent table is provided for use in planning and executing climbs or descents under known or approximate ground speed conditions. It will be especially useful for approaches when the localizer only is used for course guidance. A best speed, power, altitude combination can be programmed which will result in a stable glide rate and altitude favorable for executing a landing if minimums exist upon breakout. Care should always be exercised so that minimum descent altitude and missed approach point are not exceeded.

CLIMB/ DESCENT ANGLE (degrees and tenths)	ft/NM	GROUND SPEED (knots)											
		60	90	120	150	180	210	240	270	300	330	360	
2.0	210	210	320	425	530	635	743	850	955	1060	1165	1275	
2.5	265	265	400	530	665	795	930	1060	1195	1325	1460	1590	
VERTICAL PATH ANGLE	2.7	287	287	430	574	717	860	1003	1147	1290	1433	1576	1720
	2.8	297	297	446	595	743	892	1041	1189	1338	1486	1635	1783
	2.9	308	308	462	616	770	924	1078	1232	1386	1539	1693	1847
	3.0	318	318	478	637	797	956	1115	1274	1433	1593	1752	1911
	3.1	329	329	494	659	823	988	1152	1317	1481	1646	1810	1975
	3.2	340	340	510	680	850	1020	1189	1359	1529	1699	1869	2039
	3.3	350	350	526	701	876	1052	1227	1402	1577	1752	1927	2103
	3.4	361	361	542	722	903	1083	1264	1444	1625	1805	1986	2166
3.5	370	370	555	745	930	1115	1300	1485	1670	1860	2045	2230	
4.0	425	425	640	850	1065	1275	1490	1700	1915	2125	2340	2550	
4.5	480	480	715	955	1195	1435	1675	1915	2150	2390	2630	2870	
5.0	530	530	795	1065	1330	1595	1860	2125	2390	2660	2925	3190	
5.5	585	585	880	1170	1465	1755	2050	2340	2635	2925	3220	3510	
6.0	640	640	960	1275	1595	1915	2235	2555	2875	3195	3510	3830	
6.5	690	690	1040	1385	1730	2075	2425	2770	3115	3460	3805	4155	
7.0	745	745	1120	1490	1865	2240	2610	2985	3355	3730	4105	4475	
7.5	800	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800	
8.0	855	855	1280	1710	2135	2560	2990	3415	3845	4270	4695	5125	
8.5	910	910	1360	1815	2270	2725	3180	3630	4085	4540	4995	5450	
9.0	960	960	1445	1925	2405	2885	3370	3850	4330	4810	5295	5775	
9.5	1015	1015	1525	2035	2540	3050	3560	4065	4575	5085	5590	6100	
10.0	1070	1070	1605	2145	2680	3215	3750	4285	4820	5355	5890	6430	

# CLIMB/DESCENT TABLE <sup>10042</sup>

# U.S. TERMINAL PUBLICATION VOLUMES



FAA Product ID: BTPPNE3



NSN 7641015059584

NGA REF. NO. OK-10-2859 **TERMXFAABTPPNE3**



EFF. DATE 16315