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Revision Letter For Cycle 04-2012

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## General Information

Location: Camp Springs MD USA  
IATA Code: ADW  
Lat/Long: N38° 48.6' W076° 52.0'  
Elevation: 280 ft

Airport Use: Military  
Magnetic Variation: 10.9°W  
Sectional Chart: Washington

Fuel Types: 100 Octane (LL), Jet 4, Jet 5  
Oxygen Types: Low Pressure  
Repair Types: Major Engine  
Customs: Yes  
Airport Type: IFR  
Landing Fee: No  
Control Tower: Yes  
Jet Start Unit: Yes  
LLWS Alert: No  
Beacon: Yes

Sunrise: 1143 Z  
Sunset: 2257 Z,

## Runway Information

Runway: 01L  
Length x Width: 9300 ft x 200 ft  
Surface Type: concrete  
TDZ-Elev: 260 ft  
Stopway: 999 ft

Runway: 01R  
Length x Width: 9756 ft x 150 ft  
Surface Type: asphalt  
TDZ-Elev: 265 ft  
Lighting: Edge, ALS  
Stopway: 960 ft

Runway: 19L  
Length x Width: 9756 ft x 150 ft  
Surface Type: asphalt  
TDZ-Elev: 279 ft  
Lighting: Edge, ALS  
Stopway: 1000 ft

Runway: 19R  
Length x Width: 9300 ft x 200 ft  
Surface Type: concrete  
TDZ-Elev: 273 ft  
Stopway: 1000 ft

**Communication Information**

ATIS 113.1  
Andrews Tower 118.4  
Andrews Ground Control 121.8  
Andrews AFB/Naf Clearance Delivery 127.55  
Potomac Approach Control 119.3  
Potomac Departure Control 125.65  
Potomac Departure Control 118.95  
Andrews Radar 128.35

- 1 WASHINGTON TRI - AREA CLASS B AIRSPACE
- 2 WASHINGTON D.C. FLIGHT RESTRICTED ZONE (DC FRZ)
- 3 WASHINGTON D.C. SPECIAL FLIGHT RULES AREA

FOR OPERATING RULES AND PILOT AND EQUIPMENT REQUIREMENTS  
SEE FAR 91.131, 91.117, AND 91.215

1 CLASS B FLIGHT PROCEDURES

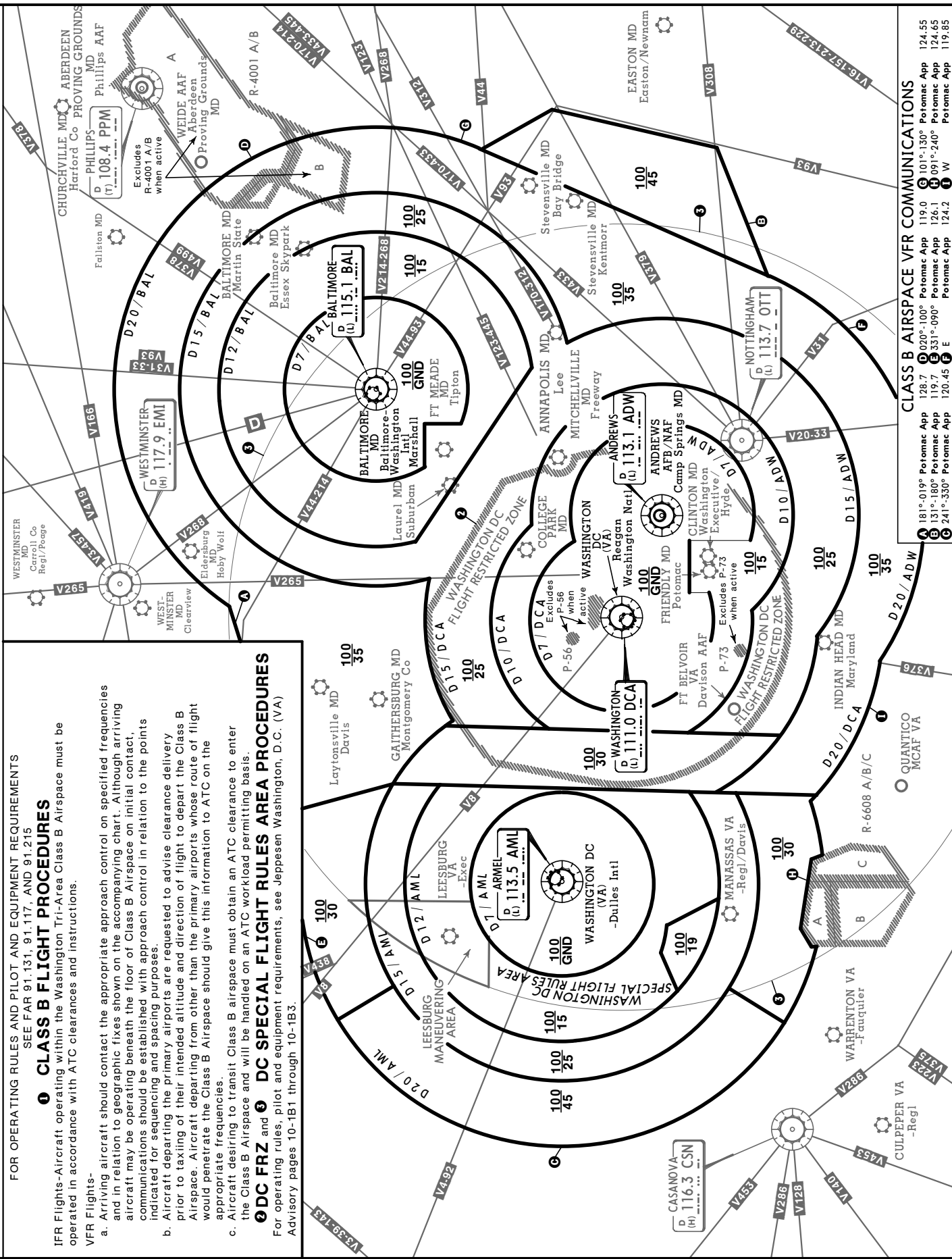
IFR Flights-Aircraft operating within the Washington Tri-Area Class B Airspace must be operated in accordance with ATC clearances and instructions.

VFR Flights-

- a. Arriving aircraft should contact the appropriate approach control on specified frequencies and in relation to geographic fixes shown on the accompanying chart. Although arriving aircraft may be operating beneath the floor of Class B Airspace on initial contact, communications should be established with approach control in relation to the points indicated for sequencing and spacing purposes.
- b. Aircraft departing the primary airports are requested to advise clearance delivery prior to taxiing of their intended altitude and direction of flight to depart the Class B Airspace. Aircraft departing from other than the primary airports whose route of flight would penetrate the Class B Airspace should give this information to ATC on the appropriate frequencies.
- c. Aircraft desiring to transit Class B Airspace must obtain an ATC clearance to enter the Class B Airspace and will be handled on an ATC workload permitting basis.

2 DC FRZ and 3 DC SPECIAL FLIGHT RULES AREA PROCEDURES

For operating rules, pilot and equipment requirements, see Jeppesen Washington, D.C. (VA) Advisory pages 10-1B1 through 10-1B3.



CLASS B AIRSPACE VFR COMMUNICATIONS

|   |                       |        |                         |       |                         |        |
|---|-----------------------|--------|-------------------------|-------|-------------------------|--------|
| A | 181°-019° Potomac App | 128.7  | D 020°-100° Potomac App | 119.0 | G 101°-130° Potomac App | 124.55 |
| B | 131°-180° Potomac App | 119.7  | E 331°-090° Potomac App | 126.1 | F 091°-240° Potomac App | 124.65 |
| C | 241°-330° Potomac App | 120.45 | F 331°-090° Potomac App | 126.1 | G 101°-130° Potomac App | 124.55 |
| D | 020°-100° Potomac App | 119.0  | E 331°-090° Potomac App | 126.1 | F 091°-240° Potomac App | 124.65 |
| E | 331°-090° Potomac App | 126.1  | F 091°-240° Potomac App | 124.2 | G 101°-130° Potomac App | 119.85 |
| F | 091°-240° Potomac App | 124.2  | G 101°-130° Potomac App | 124.2 | H 101°-130° Potomac App | 119.85 |

## ADVISORY

## Washington D.C. SFRA Special Flight Rules Area

## WARNING

This document only contains an overview of the rules for the Washington, D.C. Metropolitan Area Special Flight Rules Area (DC SFRA) and the Washington, D.C. Metropolitan Flight Restricted Zone (DC FRZ). Pilots must review 14 CFR Parts 1 and 93 and published NOTAMS for exact procedures and other details.

Pursuant to 49 U.S.C 40103(b), the Federal Aviation Administration (FAA) classifies the Washington, D.C. Metropolitan Area Special Flight Rules Area (DC SFRA) and the Washington, D.C. Metropolitan Flight Restricted Zone (DC FRZ) as "National Defense Airspace". Any person who knowingly or willfully violates the rules concerning operations in this airspace is subject to certain criminal penalties under 49 USC 46307. Pilots who do not adhere to the following procedures may be intercepted, detained and interviewed by federal law enforcement/security personnel and/or DOD.

It is strongly recommended that all pilots flying under Visual Flight Rules (VFR) within 100 NM of the DCA VOR/DME complete special awareness training for the Washington DC Metropolitan Area. This training is mandatory for all pilots that fly under VFR within 60 NM of the DCA VOR/DME (14 CFR Parts 61 and 91). This training is available in the Aviation Learning Center at <http://www.faasafety.gov>.

Because identification and control of aircraft is required for reasons of national security, the areas described here constitute National Defense Airspace. The purpose of establishing this area is to facilitate the tracking of, and communication with, aircraft to deter persons who would use an aircraft as a weapon, or as a means of delivering weapons, to conduct an attack on persons, property, or buildings in the area. This applies to pilots conducting any type of flight operations in the airspace designated as the Washington, D.C. Metropolitan Area Special Flight Rules Area (DC SFRA), which includes the airspace designated as the Washington, D.C. Metropolitan Area Flight Restricted Zone (DC FRZ).

## DEFINITIONS

*Washington, D.C. Metropolitan Area Special Flight Rules Area (DC SFRA)* is an area of airspace over the surface of the earth where the ready identification, location, and control of aircraft is required in the interest of national security. Specifically, the DC SFRA is that airspace, from the surface to, but not including, FL 180, within a 30-mile radius of Lat. 38°51'34" N., Long. 077°02'11" W., or the DCA VOR/DME. The DC SFRA includes the DC FRZ.

*DC SFRA flight plan* is a flight plan filed for the sole purpose of complying with the requirements for VFR operations into, out of, and through the DC SFRA. This flight plan is separate and distinct from a standard VFR flight plan, and does not include search and rescue services.

*Washington, D.C. Metropolitan Area Flight Restricted Zone (DC FRZ)* is a special use airspace, within which the flight of aircraft, while not wholly prohibited, is subject to restriction. This area, excluding the airspace within a one nautical mile radius of the Freeway Airport, W00, Mitchellville, MD from the surface up to but not including flight level (FL) 180. The DC FRZ is within and part of the Washington, D.C. Metropolitan Area SFRA.

*DC FRZ flight plan* is a flight plan filed for the sole purpose of complying with the requirements for VFR operations into, out of, and through the DC FRZ. This flight plan is separate and distinct from a standard VFR flight plan, and does not include search and rescue services.

**ADVISORY****FAILURE TO COMPLY**

- (a) *Any violation:* The FAA may take civil enforcement action against a pilot for violations, weather inadvertent or intentional, including imposition of civil penalties and suspension or revocation of airmans's certificates.
- (b) *Knowing or willful violations:* The DC FRZ and DC SFRA were established for reasons of national security under the provisions of 49 U.S.C. 40103(b)(3). Areas established by the FAA under that authority constitute "National Defense Airspace" as that term is used in 49 U.S.C. 46307. In addition to being subject to the provisions of paragraph (a) of this section, persons who knowingly or willfully violate national defense airspace established pursuant to 49 U.S.C. 40103(b)(3) may be subject to criminal prosecution.

**REQUIREMENTS FOR OPERATING IN THE DC SFRA, INCLUDING THE DC FRZ**

- (a) Except as provided in paragraphs (b) and (c) of this section, or unless authorized by Air Traffic Control, no pilot may operate an aircraft, including an ultralight vehicle or any civil aircraft or public aircraft, in the DC SFRA, including the DC FRZ, unless-
  - (1) The aircraft is equipped with an operable two-way radio capable of communicating with Air Traffic Control on appropriate radio frequencies;
  - (2) Before operating an aircraft in the DC SFRA, including the DC FRZ, the pilot establishes two-way radio communications with the appropriate Air Traffic Control facility and maintains such communications while operating the aircraft in the DC SFRA, including the DC FRZ;
  - (3) The aircraft is equipped with an operating automatic altitude reporting transponder;
  - (4) Before operating an aircraft in the DC SFRA, including the DC FRZ, the pilot obtains and transmits a discrete transponder code from Air Traffic Control, and the aircraft's transponder continues to transmit the assigned code while operating within the DC SFRA;
  - (5) For VFR operations, the pilot must file and activate a DC FRZ or DC SFRA flight plan by obtaining a discrete transponder code. The flight plan is closed upon landing at an airport within the DC SFRA or when the aircraft exits the DC SFRA;
  - (6) Before operating the aircraft into, out of, or through the Washington, D.C. Tri-Area Class B Airspace Area, the pilot receives a specific Air Traffic Control clearance to operate in the Class B Airspace Area; and
  - (7) Before operating the aircraft into, out of, or through Class D airspace area that is within the DC SFRA, the pilot complies with FAR 91.129.
- (b) Paragraph (a)(5) of this section does not apply to operators of Department of Defense aircraft, law enforcement operations, or lifeguard or air ambulance operations under an FAA/TSA airspace authorization, if the flight crew is in contact with Air Traffic Control and is transmitting an Air Traffic Control - assigned discrete transponder code.
- (c) Pilots must transmit the assigned transponder code. No pilot may use transponder code 1200 while in the DC SFRA.

**ADVISORY****AIRCRAFT OPERATING IN THE DC FRZ**

- (a) Except as provided in paragraph (b) of this section, no pilot may conduct any flight operation under part 91, 101, 103, 105, 125, 133, 135, or 137 of this chapter in the DC FRZ, unless the specific flight is operating under an FAA/TSA authorization.
- (b) Department of Defense (DOD) operations, law enforcement operations, and lifeguard or air ambulance operations under an FAA/TSA airspace authorization are excepted from the prohibition in paragraph (a) of this section if the pilot is in contact with Air Traffic Control and operates the aircraft transponder on an Air Traffic Control-assigned beacon code.
- (c) The following aircraft operations are permitted in the DC FRZ:
  - (1) Aircraft operations under the DCA Access Standard Security Program (DASSP) (49 CFR part 1562) with a Transportation Security Administration (TSA) flight authorization.
  - (2) Law enforcement and other U.S. Federal aircraft operations with prior FAA approval.
  - (3) Foreign-operated military and state aircraft operations with a State Department-authorized diplomatic clearance, with State Department notification to the FAA and TSA.
  - (4) Federal, State, Federal DOD contract, local government agency aircraft operations and part 121, 129 or 135 air carrier flights with TSA-approved full aircraft operator standard security programs/procedures, if operating with DOD permission and notification to the FAA and the National Capital Regional Coordination Center (NCRCC). These flights may land and depart Andrews Air Force Base, MD, with prior permission, if required.
  - (5) Aircraft operations maintaining radio contact with Air Traffic Control and continuously transmitting an Air Traffic Control-assigned discrete transponder code. The pilot must monitor VHF frequency 121.5 or UHF frequency 243.0.
- (d) Before departing from an airport within the DC FRZ, or before entering the DC FRZ, all aircraft, except DOD, law enforcement, and lifeguard or air ambulance aircraft operating under an FAA/TSA airspace authorization must file and activate an IFR or a DC FRZ or a DC SFRA flight plan and transmit a discrete transponder code assigned by an Air Traffic Control Facility. Aircraft must transmit the discrete transponder code at all times while in the DC FRZ or DC SFRA.

**RESOURCES**

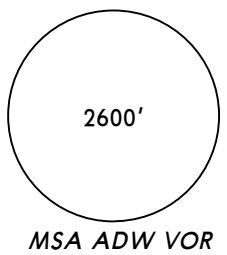
Direct any questions about the DC SFRA/FRZ or JYO Maneuvering Area to the FAA Representative at the National Capitol Region Coordination Center (NCRCC), telephone 866-598-9522. Information about waiver applications and TSA security authorization is at [http://www.tsa.gov/what\\_we\\_do/tsnm/general\\_aviation/airspace\\_waivers.shtm](http://www.tsa.gov/what_we_do/tsnm/general_aviation/airspace_waivers.shtm) or by calling the TSA at 571-227-2071.



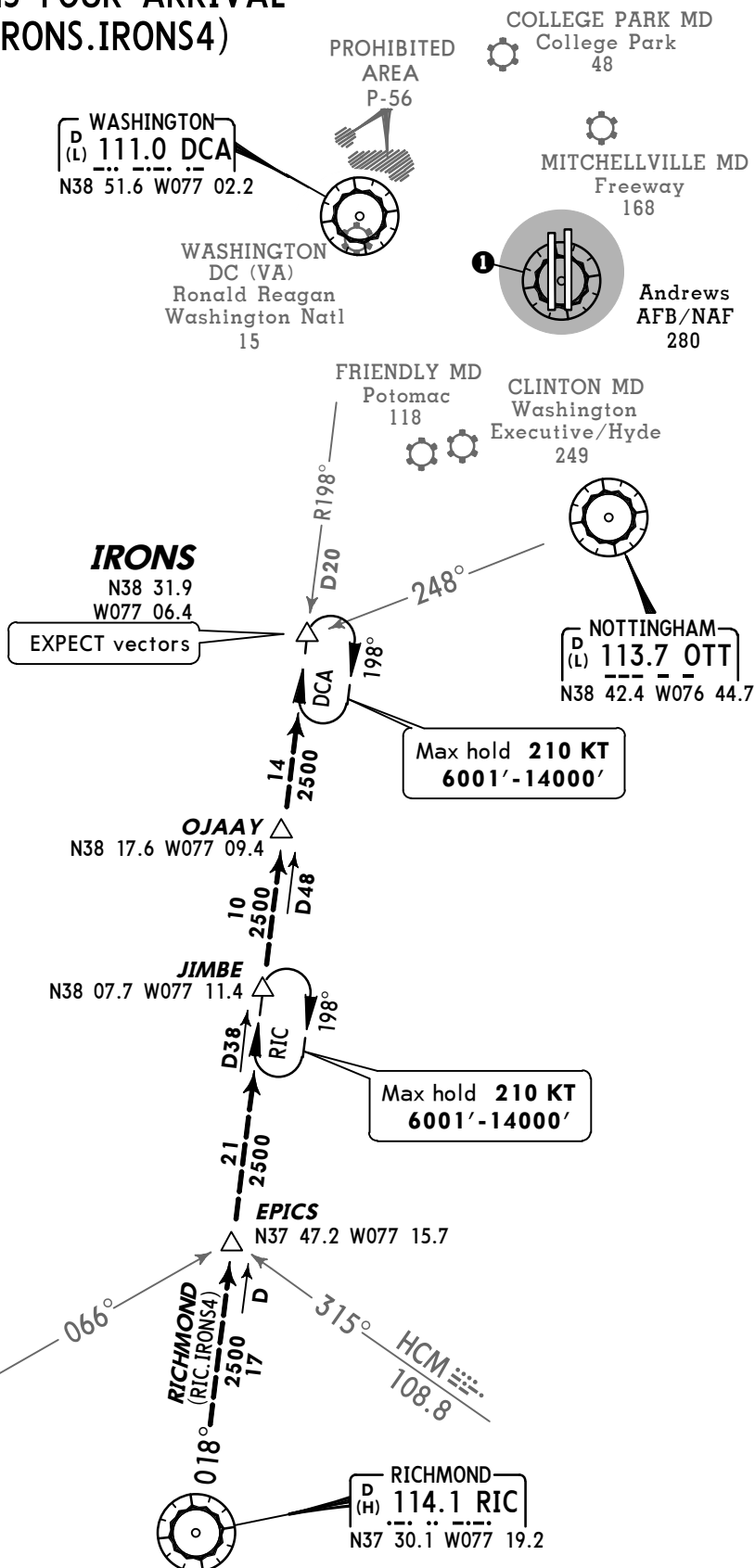
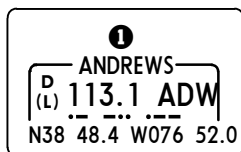
D-ATIS  
113.1

Apt Elev  
See graphic

Alt Set: INCHES Trans level: FL180 Trans alt: 18000'  
Prohibited Area (P-56) 1.5 NM NORTH of Ronald Reagan Washington Natl, avoid from surface to 18000' MSL.



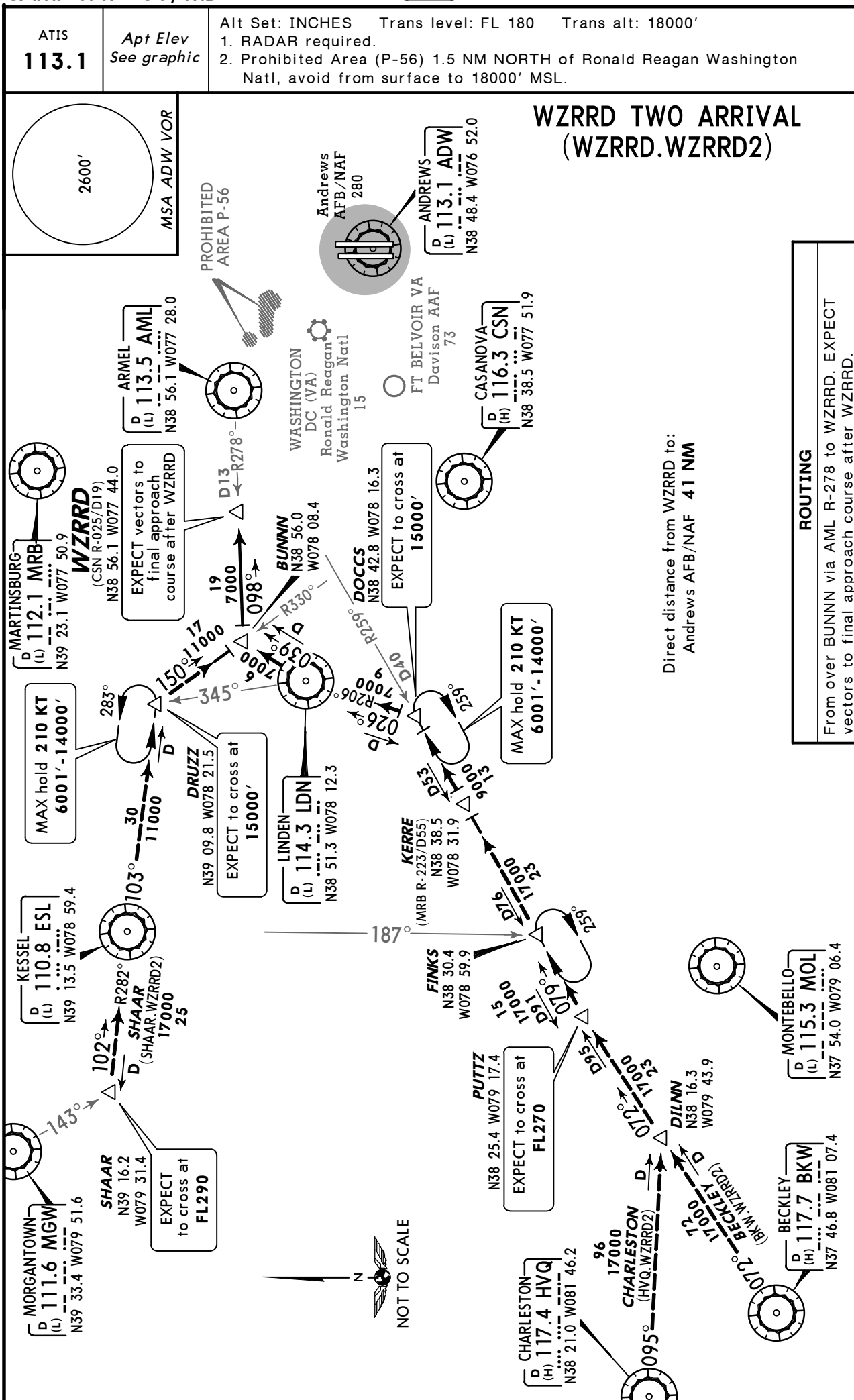
## IRONS FOUR ARRIVAL (IRONS.IRONS4)



Direct distance from IRONS to:  
Andrews AFB/NAF **20 NM**

### ROUTING

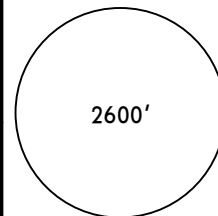
From over IRONS, EXPECT vectors.



POTOMAC  
Departure (R)  
125.65

*Apt Elev*  
280'

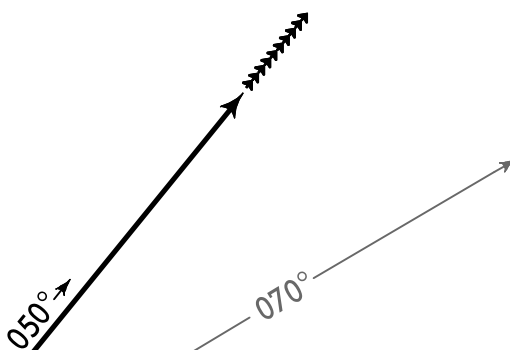
Trans level: FL180    Trans alt: 18000'  
1. RADAR required.  
2. RADAR vectors required within 10 NM  
from departure.



MSA ADW VOR

## ANDREWS ONE DEPARTURE (RWYS 1L/R)

ANDREWS  
D  
(L) 113.1 ADW  
N38 48.4 W076 52.0



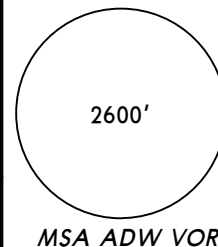
### INITIAL CLIMB

Turn RIGHT climb on track 050° to **3000'**. EXPECT RADAR vectors to intercept ADW R-070.

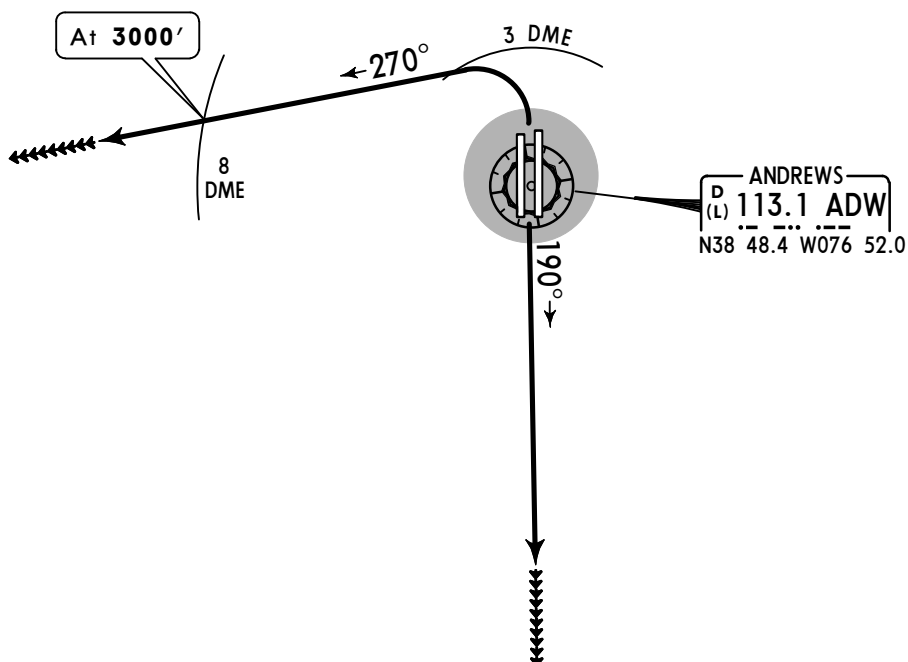
POTOMAC  
Departure (R)  
118.95

*Apt Elev*  
280'

Trans level: FL180 Trans alt: 18000'  
1. RADAR required.  
2. RADAR vectors required within 10 NM from departure.  
3. If unable to make published climb gradient advise ATC prior to departure.



## CAMP SPRINGS ONE DEPARTURE



Minimum Climb Rate to 3000'

| Rwy  | Gnd speed-KT | 75  | 100 | 150 | 200  | 250  | 300  |
|------|--------------|-----|-----|-----|------|------|------|
| 1L/R | V/V(fpm)     | 475 | 633 | 950 | 1267 | 1583 | 1900 |

RWY

INITIAL CLIMB

1L/R

Turn LEFT climb on track 270° within ADW 3 DME. EXPECT RADAR vectors.

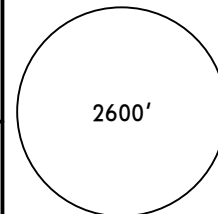
19L/R

Climb on track 190° to 3000'. EXPECT RADAR vectors to the WEST.

POTOMAC  
Departure (R)  
**125.65**

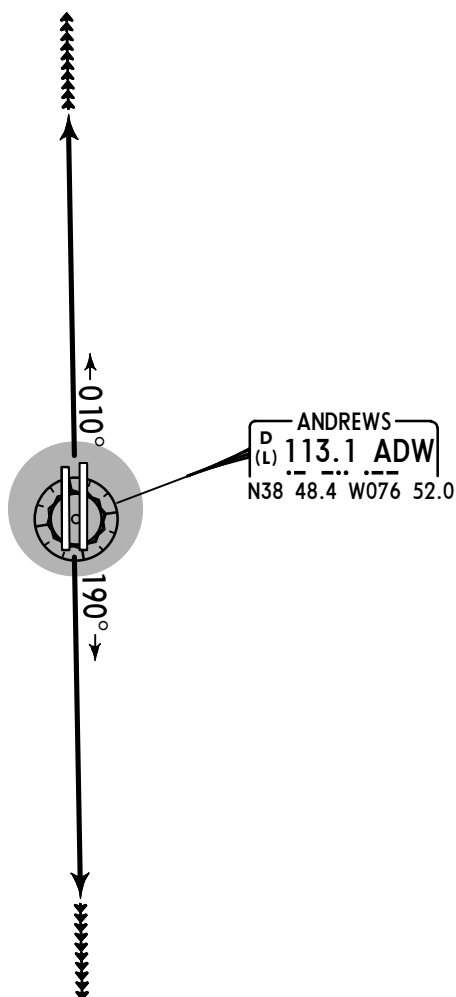
*Apt Elev*  
**280'**

Trans level: FL180    Trans alt: 18000'  
1. RADAR required.  
2. RADAR vectors required within 10 NM  
from departure.



MSA ADW VOR

## MORNINGSIDE ONE DEPARTURE



**RWY**

**INITIAL CLIMB**

**1L/R**

Climb on track 010° to **3000'**. EXPECT RADAR vectors.

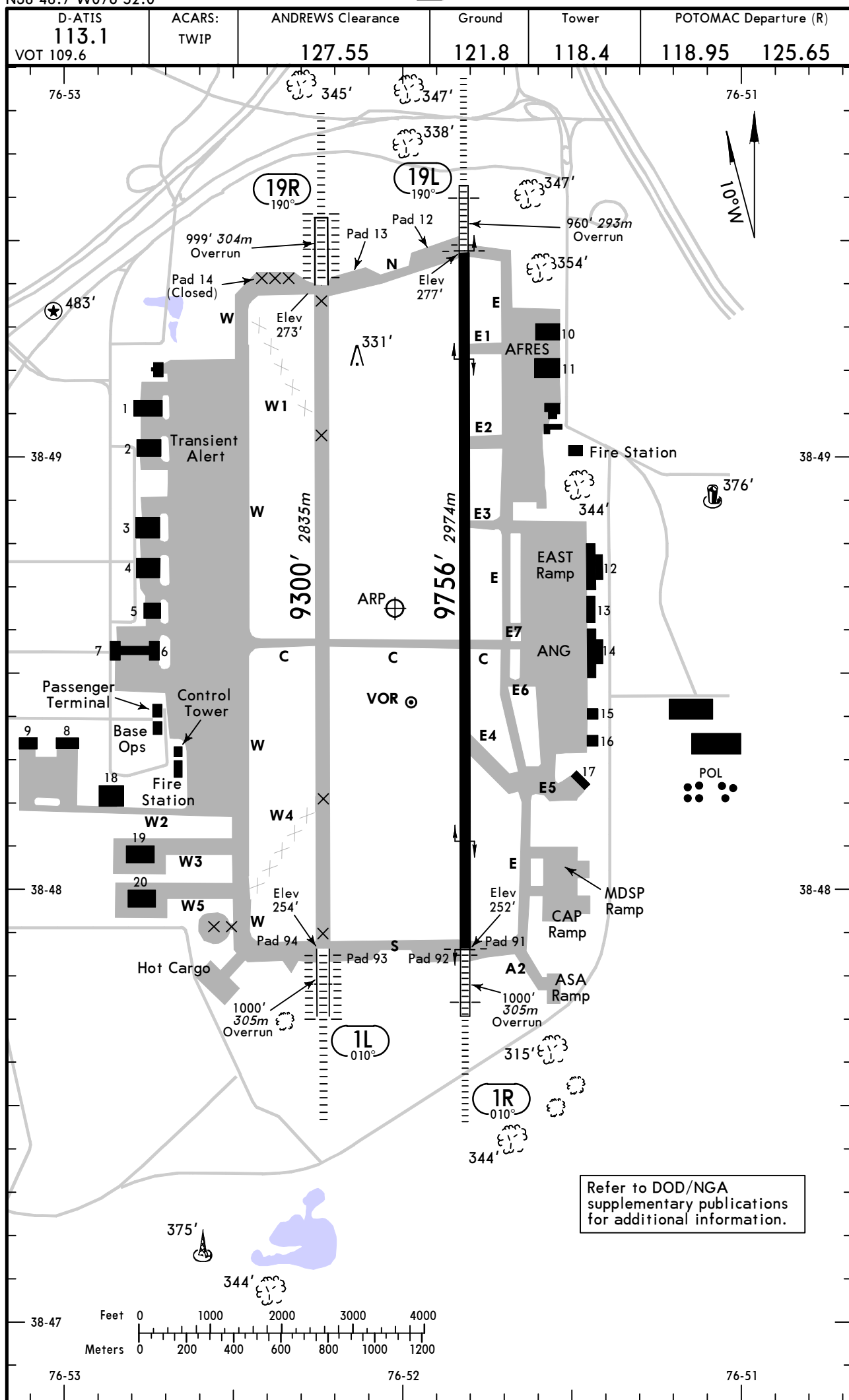
**19L/R**

Climb on track 190° to **3000'**. EXPECT RADAR vectors to the SOUTH or EAST.

KADW/ADW  
Apt Elev 280'  
N38 48.7 W076 52.0

JEPPESSEN  
3 FEB 12 (30-9) Eff 9 Feb

ANDREWS AFB/NAF  
CAMP SPRINGS, MD



CHANGES: Taxiway C opened.

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**GENERAL**

Refer to DOD/NGA supplementary publications for additional information.

**ADDITIONAL RUNWAY INFORMATION**

| RWY            |                    | LANDING | USABLE LENGTHS BEYOND |             | TAKE-OFF | WIDTH       |
|----------------|--------------------|---------|-----------------------|-------------|----------|-------------|
|                |                    |         | Threshold             | Glide Slope |          |             |
| 1R<br>①<br>19L | HIRL ALSF-I PAPI-L | RVR     |                       | 8787' 2678m |          | 150'<br>46m |
|                |                    |         |                       | 8689' 2648m |          |             |

① B747/AN124 operations prohibited, except 89 AW aircraft, due to foreign object damage potential.

|                |                            |     |  |             |  |             |
|----------------|----------------------------|-----|--|-------------|--|-------------|
| 1L<br>②<br>19R | HIRL CL ALSF-II TDZ PAPI-R | RVR |  | 8061' 2457m |  | 200'<br>61m |
|                | HIRL CL ALSF-II TDZ PAPI-L | RVR |  | 7980' 2432m |  |             |

② Closed for long-term construction. Instrument approaches not available. See NOTAMS.

**TAKE-OFF**

|              | All Rwys         |               |
|--------------|------------------|---------------|
|              | Adequate Vis Ref | STD           |
| 1 & 2<br>Eng | RVR 16 or 1/4    | RVR 50 or 1   |
| 3 & 4<br>Eng |                  | RVR 24 or 1/2 |

**TAKE-OFF OBSTACLES**

Rwy 1L: trees 2972' to 3085' from departure end of runway, 765' to 906' right of centerline, 93' AGL/355' MSL.

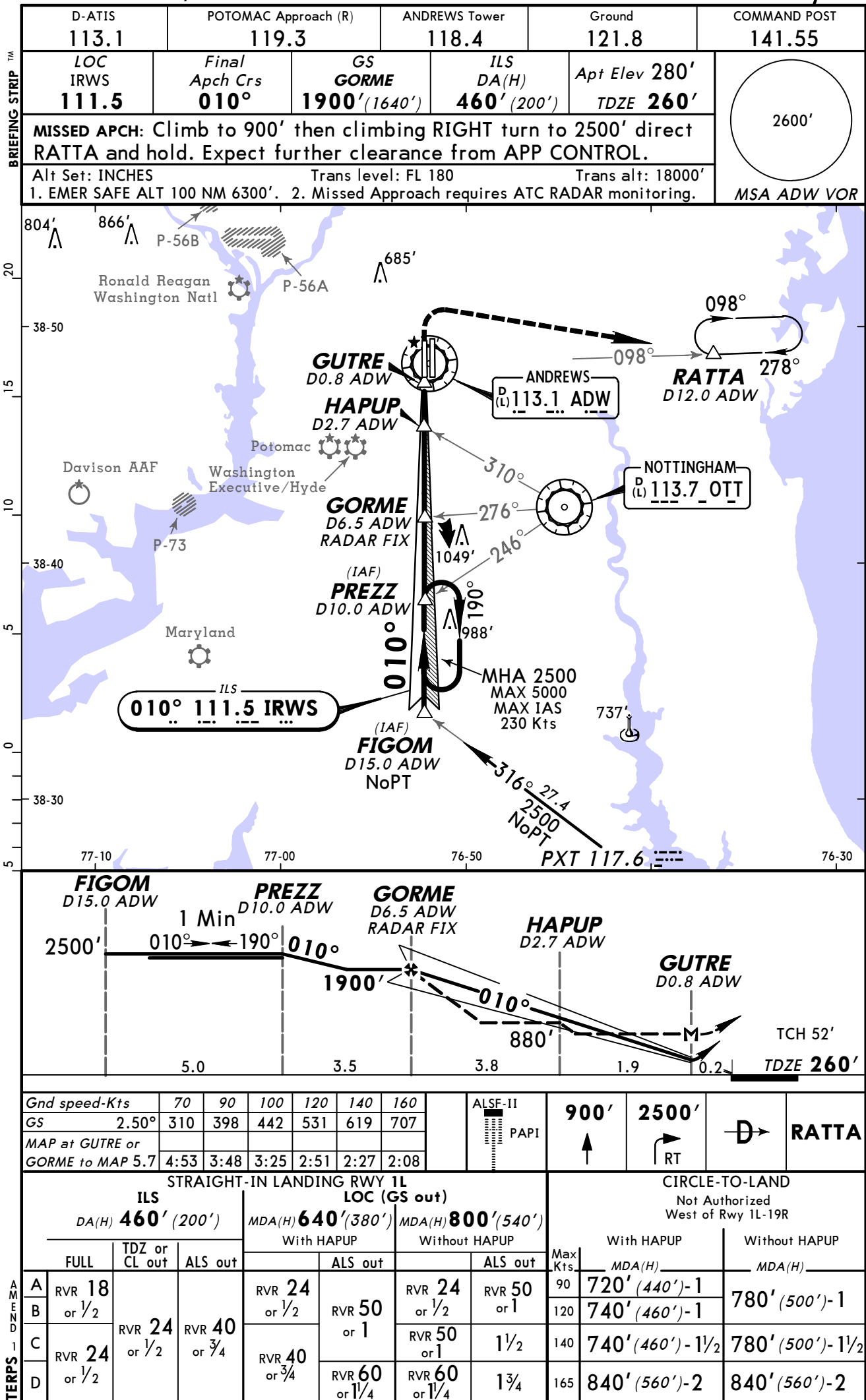
Rwy 1R: trees 1512' from departure end of runway, 856' right of centerline, 74' AGL/336' MSL; trees 2254' from departure end of runway, 645' left of centerline, 93' AGL/355' MSL; trees 2629' from departure end of runway, 1095' left of centerline, 93' AGL/355' MSL; trees 2882' from departure end of runway, 364' left of centerline, 104' AGL/362' MSL.

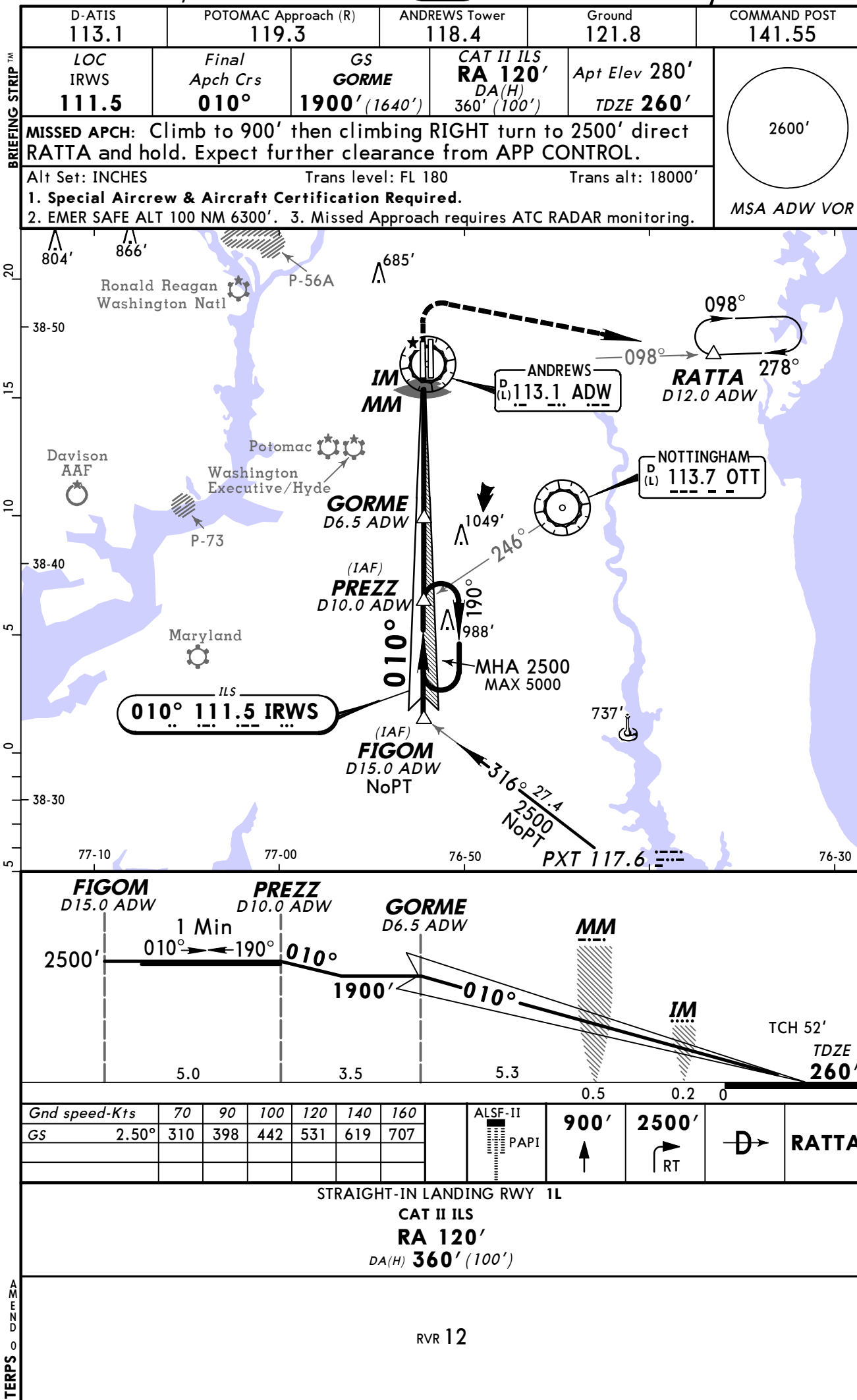
Rwy 19L: terrain 267' from departure end of runway, 580' left of centerline, 261' MSL; trees 2650' to 2874' from departure end of runway, 946' to 1113' right of centerline, 91' AGL/334' MSL.

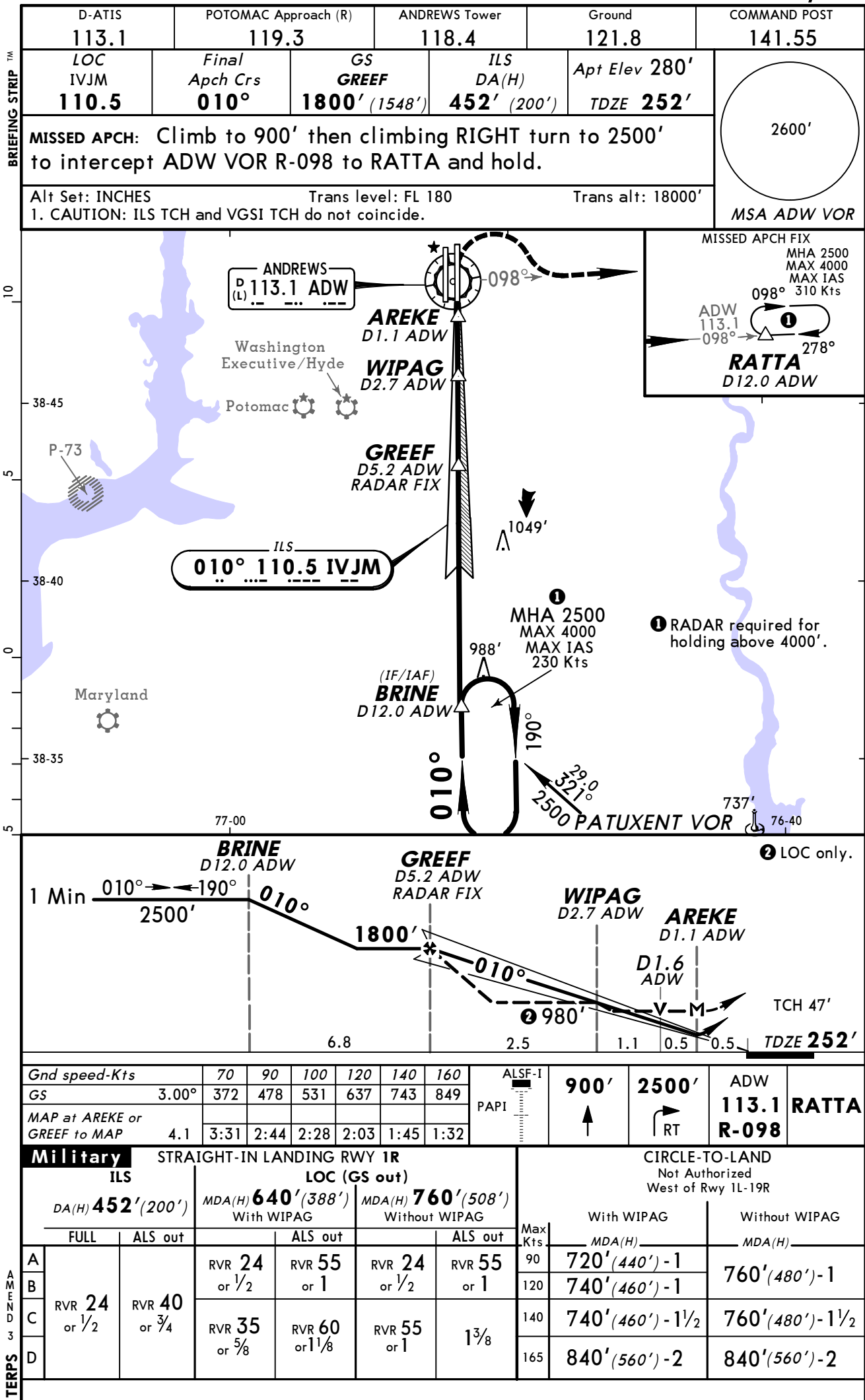
Rwy 19R: trees 2650' to 2873' from departure end of runway, 887' to 1054' left of centerline, 91' AGL/334' MSL; tower 4630' from departure end of runway, 1664' right of centerline, 108' AGL/377' MSL.

**FOR FILING AS ALTERNATE**

|   | Precision | Non-Precision |
|---|-----------|---------------|
| A | 600-2     | 800-2         |
| B |           |               |
| C |           |               |
| D |           |               |



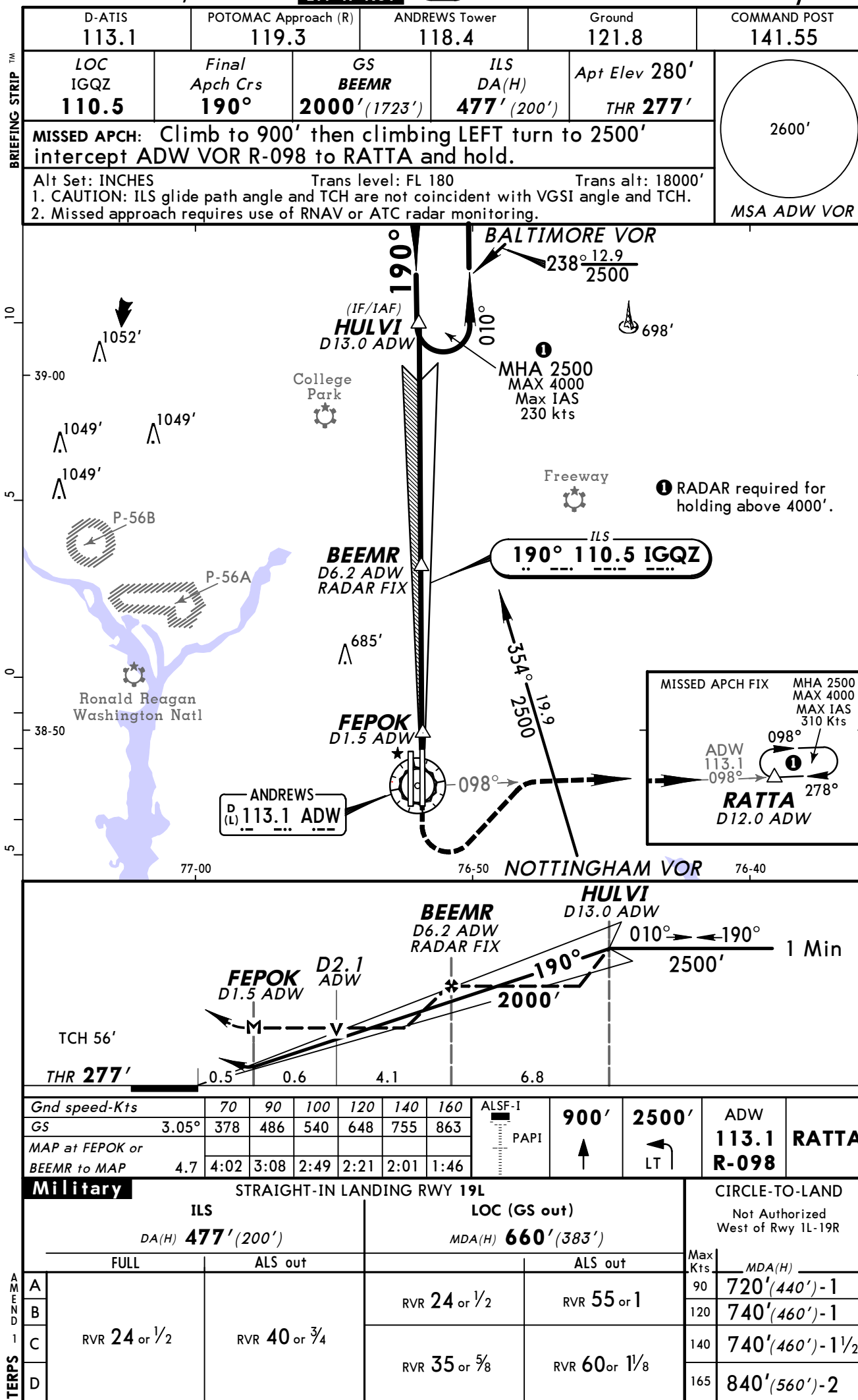




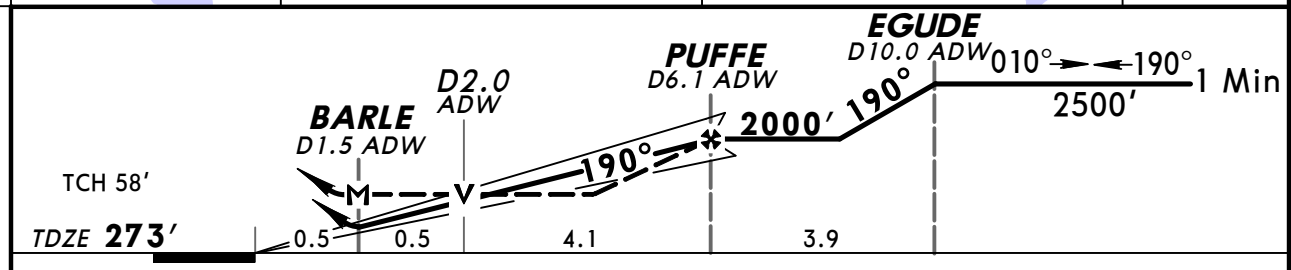
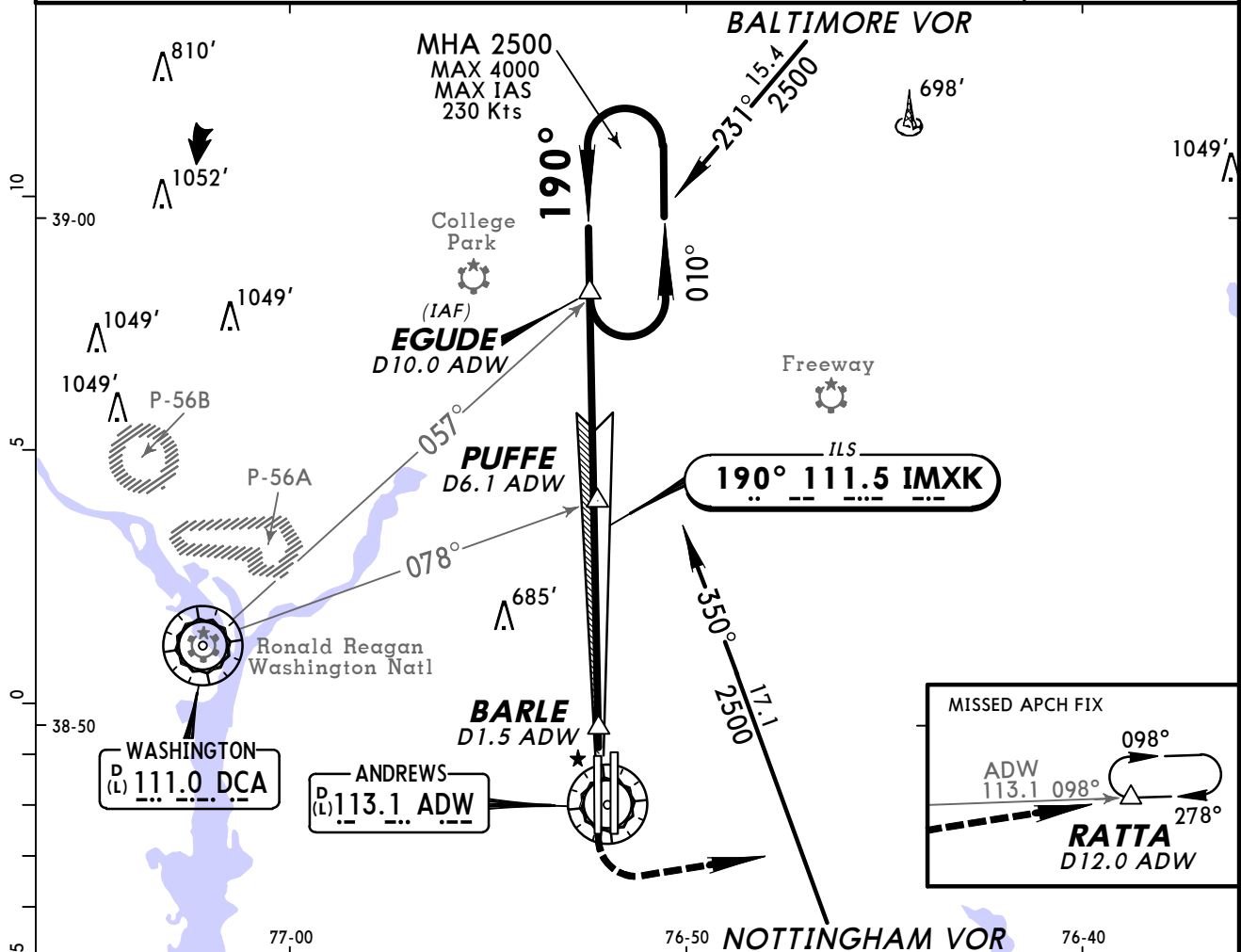
KADW/ADW  
CAMP SPRINGS, MD

JEPPesen  
11 NOV 11  
Eff 17 Nov 31-3

ANDREWS AFB/NAF  
ILS or LOC Rwy 19L



|                                                                                                                                                          |                               |                              |                             |                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------------|-----------------------------|----------------------------|
| D-ATIS<br>113.1                                                                                                                                          | POTOMAC Approach (R)<br>119.3 | ANDREWS Tower<br>118.4       | Ground<br>121.8             | COMMAND POST<br>141.55     |
| LOC<br>IMXK<br>111.5                                                                                                                                     | Final<br>Apch Crs<br>190°     | GS<br>PUFFE<br>2000' (1727') | ILS<br>DA(H)<br>473' (200') | Apt Elev 280'<br>TDZE 273' |
| <b>MISSED APCH:</b> Climb to 900' then climbing LEFT turn to 2500' direct RATTA and hold.                                                                |                               |                              |                             |                            |
| Alt Set: INCHES      Trans level: FL 180      Trans alt: 18000'                                                                                          |                               |                              |                             |                            |
| 1. EMER SAFE ALT 100 NM 6300'. 2. VGSI angle and TCH not coincident with ILS glideslope angle and TCH. 3. Missed Approach requires ATC RADAR monitoring. |                               |                              |                             |                            |
|                                                                                                                                                          |                               |                              |                             | 2600'<br><br>MSA ADW VOR   |



|                              |       |      |      |      |      |      |                                                     |  |  |
|------------------------------|-------|------|------|------|------|------|-----------------------------------------------------|--|--|
| Gnd speed-Kts                | 70    | 90   | 100  | 120  | 140  | 160  | ALSF-II<br>PAPI<br>900' ↑<br>2500' ↩<br>LT<br>RATTA |  |  |
| GS                           | 3.00° | 372  | 478  | 531  | 637  | 743  |                                                     |  |  |
| MAP at BARLE or PUFFE to MAP | 4.6   | 3:57 | 3:04 | 2:46 | 2:18 | 1:58 |                                                     |  |  |

| STRAIGHT-IN LANDING RWY 19R |               |               |                    |  | CIRCLE-TO-LAND     |                  |
|-----------------------------|---------------|---------------|--------------------|--|--------------------|------------------|
| ILS                         |               |               | LOC (GS out)       |  | Not Authorized     |                  |
| DA(H) 473' (200')           |               |               | MDA(H) 680' (407') |  | West of Rwy 1L-19R |                  |
| FULL                        | TDZ or CL out | ALS out       | ALS out            |  | Max Kts            | MDA(H)           |
| A RVR 18 or 1/2             | RVR 24 or 1/2 | RVR 40 or 3/4 | RVR 24 or 1/2      |  | 90                 | 720'(440')-1     |
| B RVR 24 or 1/2             |               |               | RVR 50 or 1        |  | 120                | 740'(460')-1     |
| C RVR 24 or 1/2             | RVR 24 or 1/2 | RVR 40 or 3/4 | RVR 40 or 3/4      |  | 140                | 740'(460')-1 1/2 |
| D RVR 24 or 1/2             |               |               | RVR 60 or 1 1/4    |  | 165                | 840'(560')-2     |

KADW/ADW

CAMP SPRINGS, MD

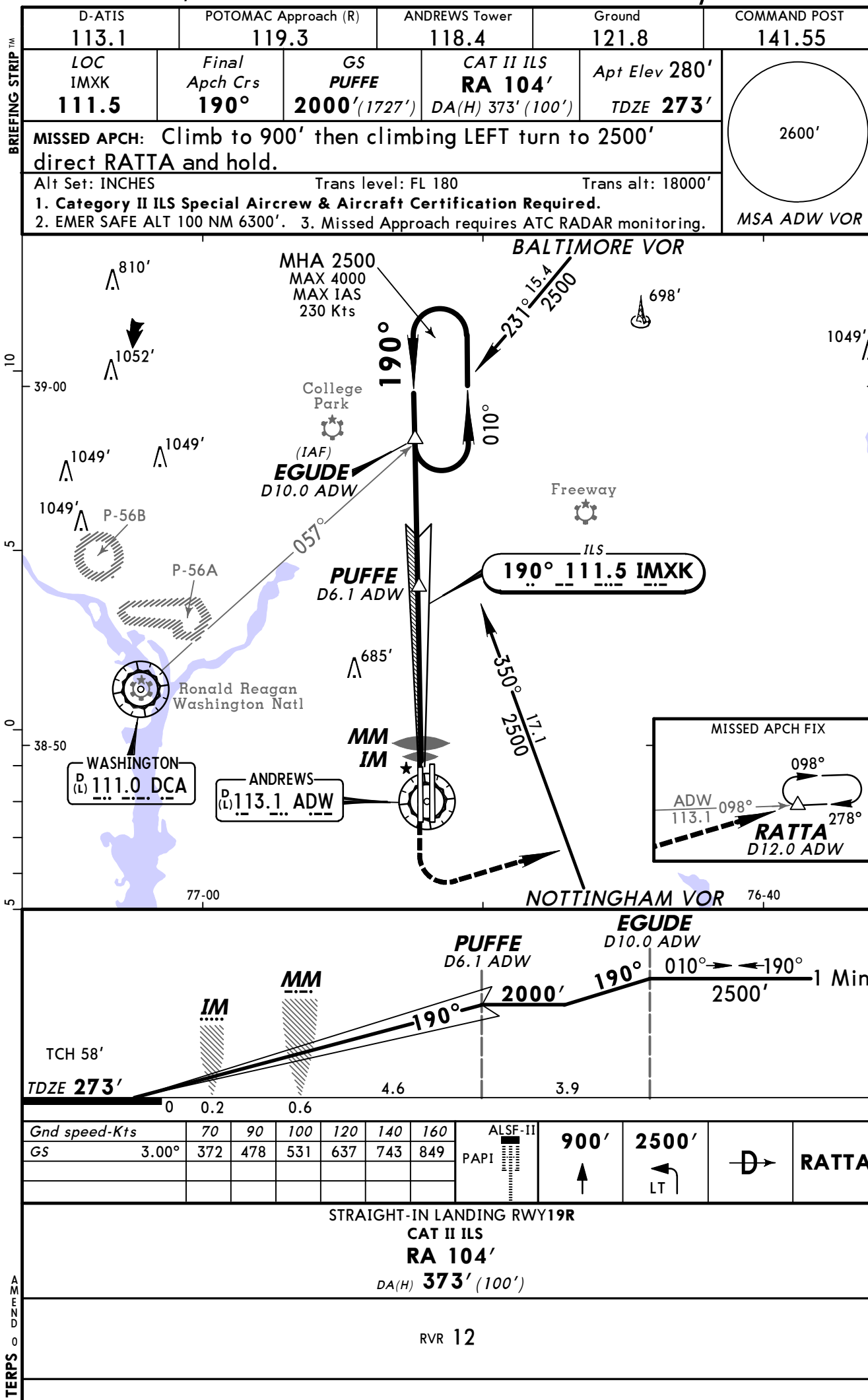
3 FEB 12

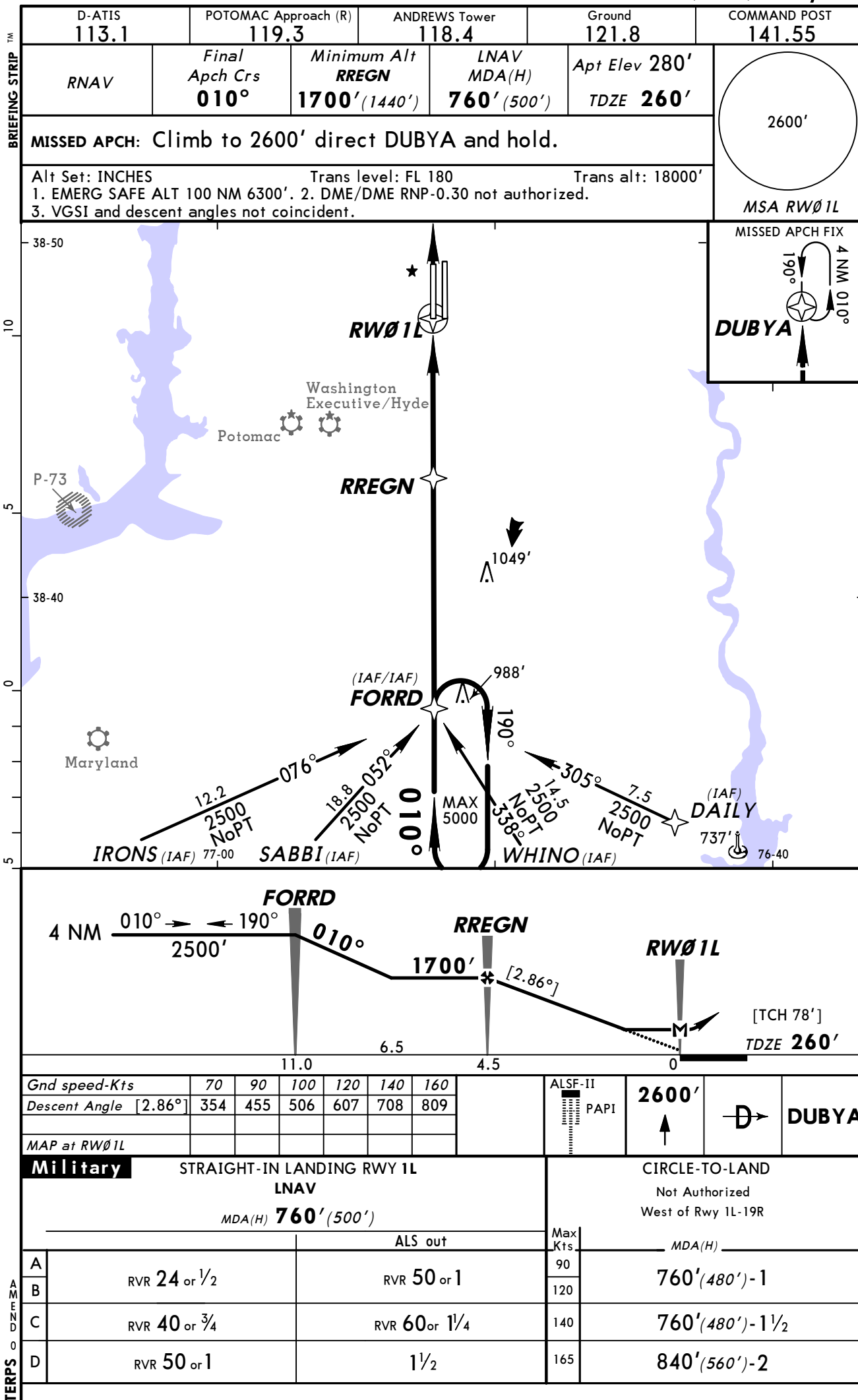
31-4A

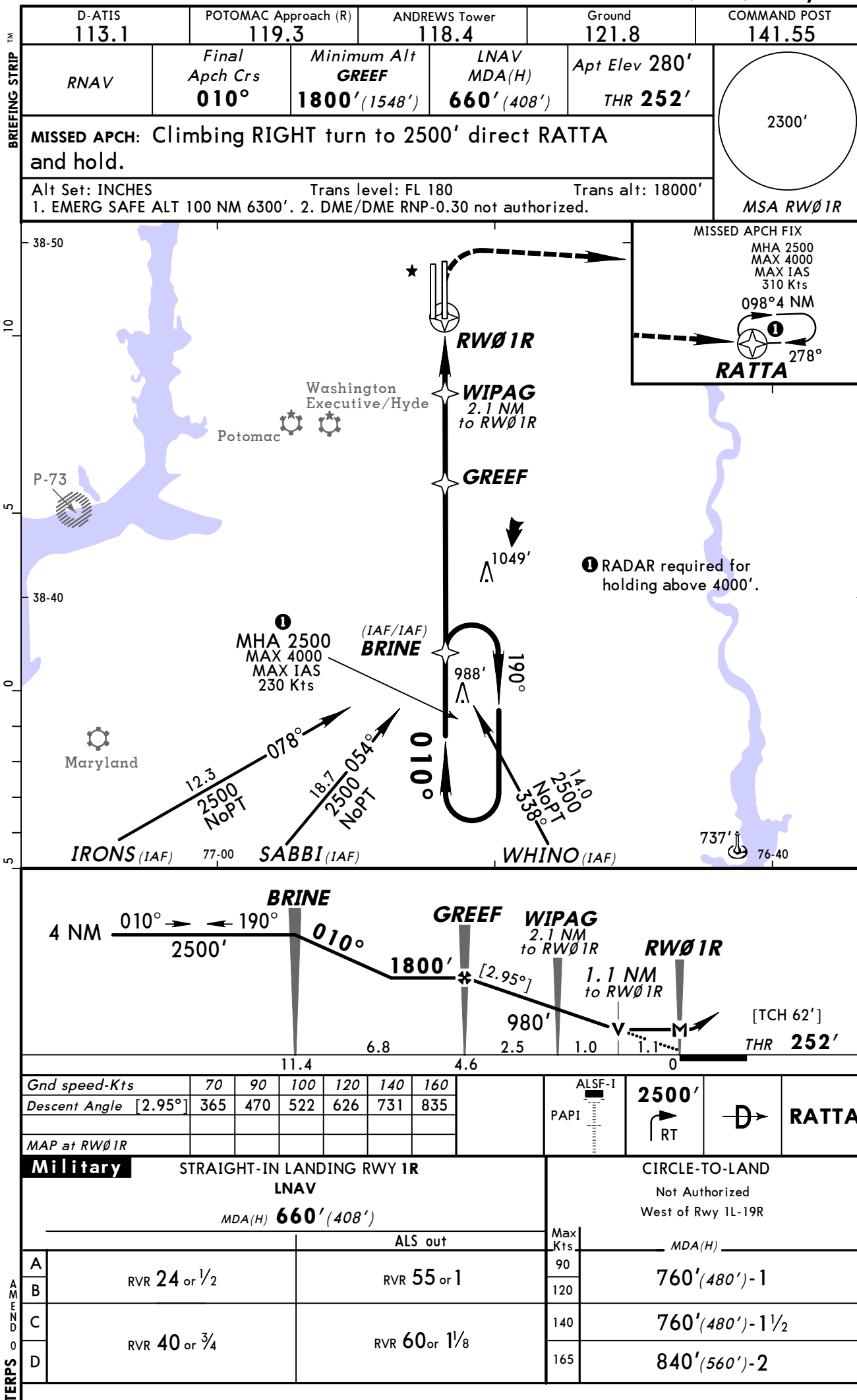
Eff 9 Feb

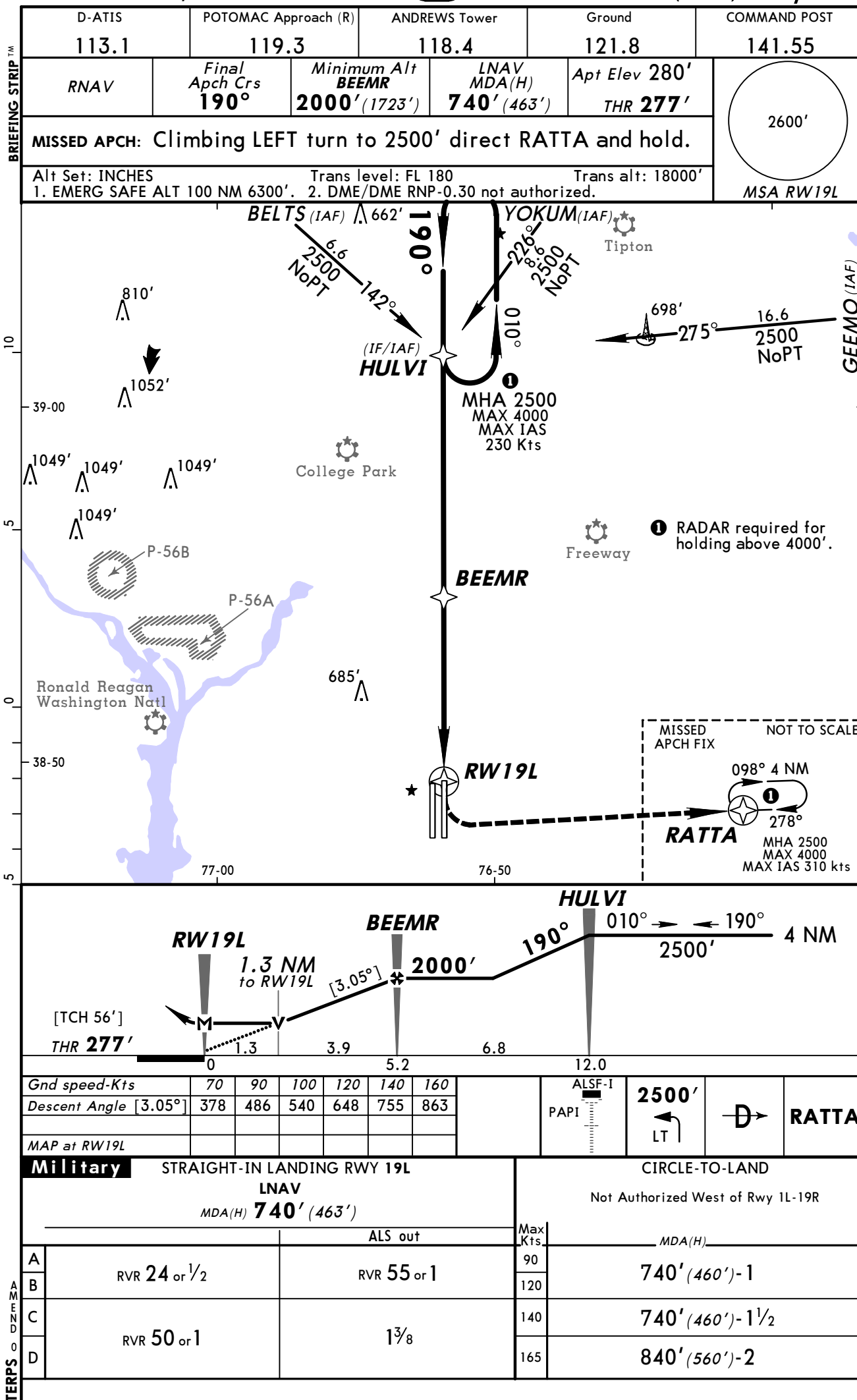
ANDREWS AFB/NAF

ILS Rwy 19R CAT II

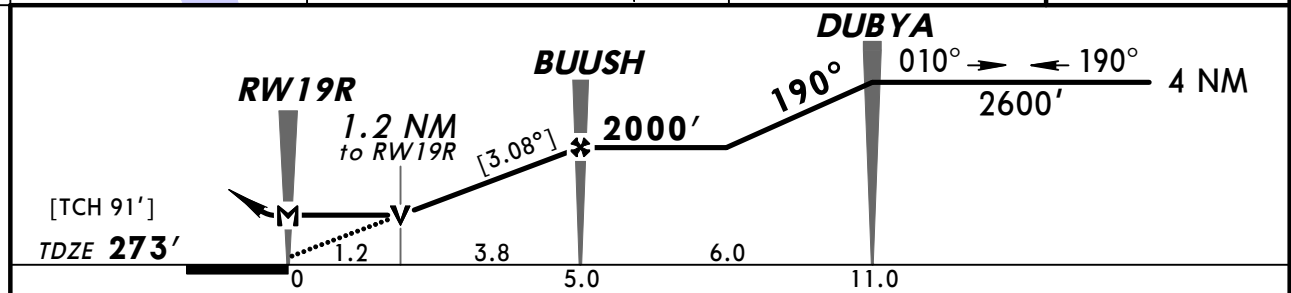
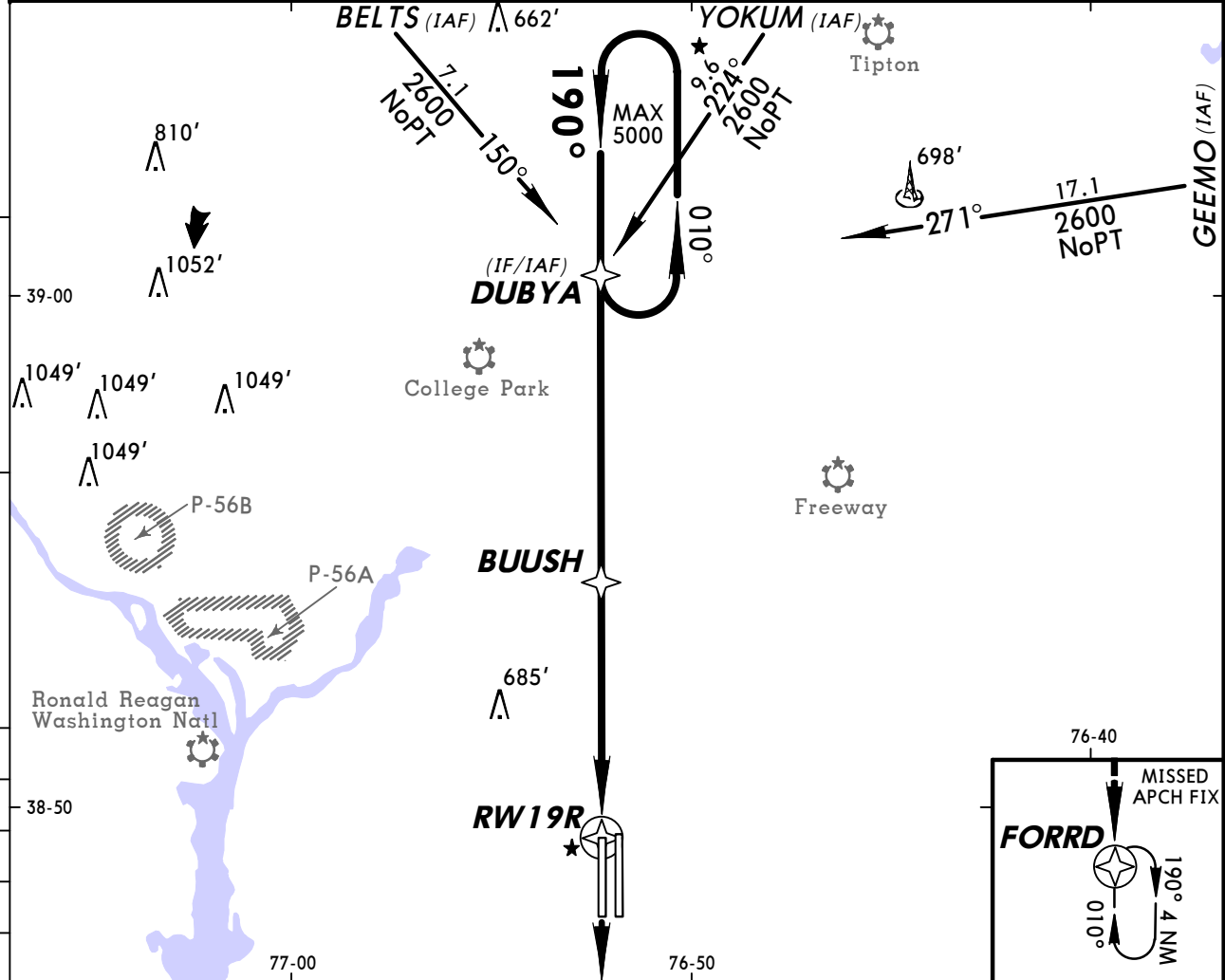








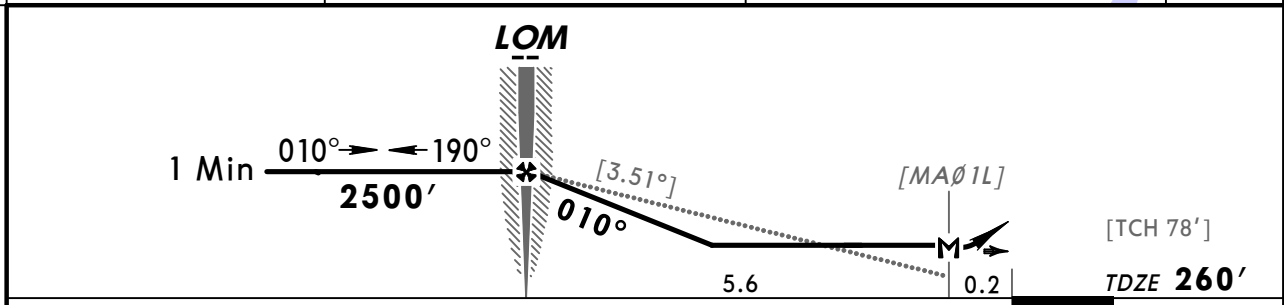
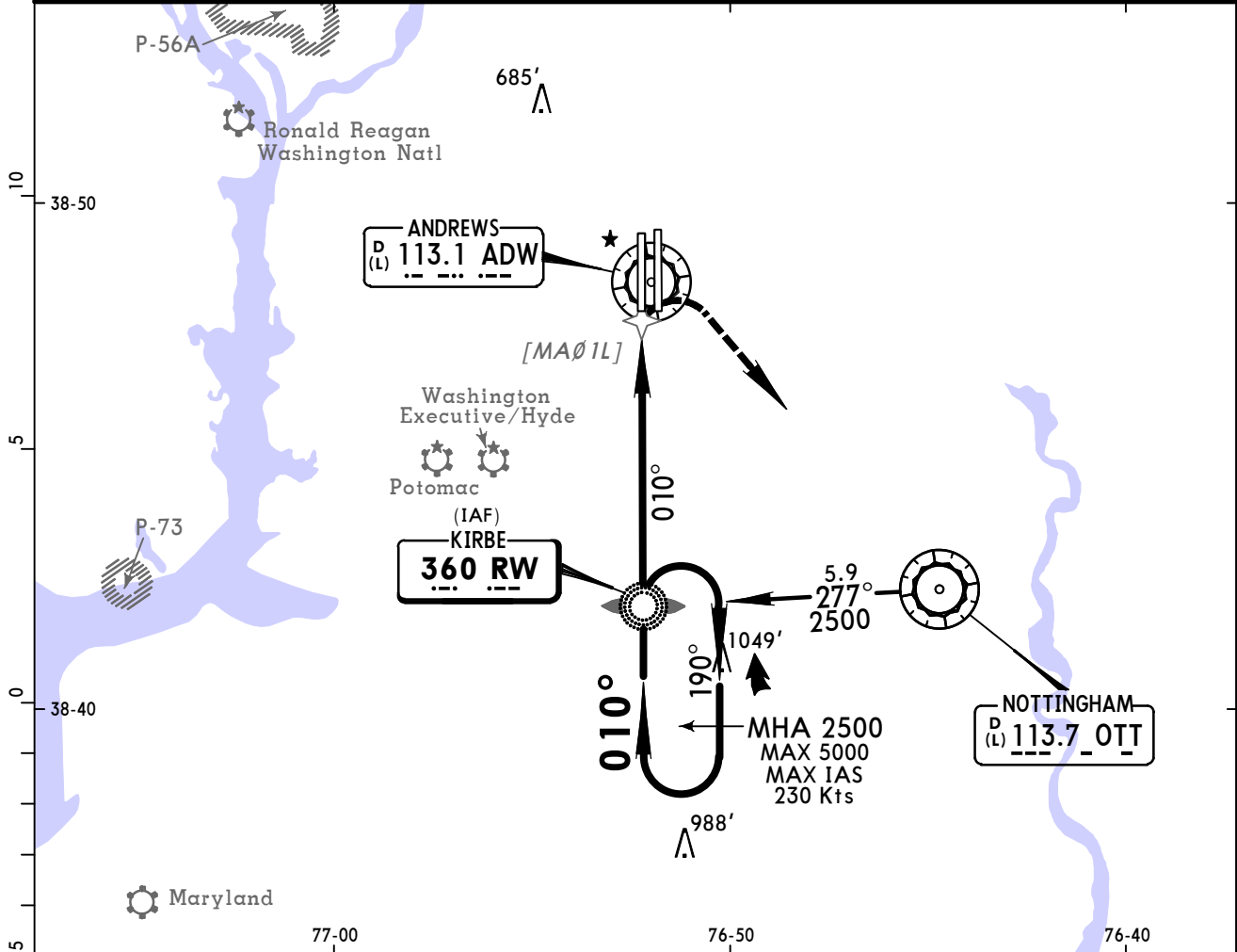
|                                                                                        |                               |                                              |                               |                            |
|----------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------|-------------------------------|----------------------------|
| D-ATIS<br>113.1                                                                        | POTOMAC Approach (R)<br>119.3 | ANDREWS Tower<br>118.4                       | Ground<br>121.8               | COMMAND POST<br>141.55     |
| RNAV                                                                                   | Final<br>Apch Crs<br>190°     | Minimum Alt<br><b>BUUSH</b><br>2000' (1727') | LNAV<br>MDA(H)<br>740' (467') | Apt Elev 280'<br>TDZE 273' |
| <b>MISSED APCH:</b> Climb to 2600' direct FORRD and hold.                              |                               |                                              |                               |                            |
| Alt Set: INCHES<br>1. EMERG SAFE ALT 100 NM 6300'. 2. DME/DME RNP-0.30 not authorized. |                               |                                              |                               | 2600'<br><br>MSA RW19R     |



|                       |     |     |     |     |     |     |         |       |       |
|-----------------------|-----|-----|-----|-----|-----|-----|---------|-------|-------|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 | ALSF-II | 2600' | FORRD |
| Descent Angle [3.08°] | 381 | 490 | 545 | 654 | 763 | 872 | PAPI    |       |       |
| MAP at RW19R          |     |     |     |     |     |     |         |       |       |

| Military STRAIGHT-IN LANDING RWY 19R |               |                 |  | CIRCLE-TO-LAND                    |                   |  |  |
|--------------------------------------|---------------|-----------------|--|-----------------------------------|-------------------|--|--|
| LNAV                                 |               |                 |  | Not Authorized West of Rwy 1L-19R |                   |  |  |
| MDA(H) 740' (467')                   |               |                 |  | MDA(H)                            |                   |  |  |
| ALS out                              |               |                 |  | Max Kts                           |                   |  |  |
| A                                    | RVR 24 or 1/2 | RVR 50 or 1     |  | 90                                | 740' (460')-1     |  |  |
| B                                    | RVR 40 or 3/4 | RVR 60 or 1 1/4 |  | 120                               | 740' (460')-1 1/2 |  |  |
| C                                    | RVR 50 or 1   | 1 1/2           |  | 140                               | 840' (560')-2     |  |  |
| D                                    |               |                 |  | 165                               |                   |  |  |

|                                                                                                                                    |                               |                                     |                       |                            |
|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------|-----------------------|----------------------------|
| D-ATIS<br>113.1                                                                                                                    | POTOMAC Approach (R)<br>119.3 | ANDREWS Tower<br>118.4              | Ground<br>121.8       | COMMAND POST<br>141.55     |
| LOM<br>RW<br>360                                                                                                                   | Final<br>Apch Crs<br>010°     | Minimum Alt<br>LOM<br>2500' (2240') | MDA(H)<br>800' (540') | Apt Elev 280'<br>TDZE 260' |
| <b>MISSED APCH:</b> Climbing RIGHT turn to 2100' direct OTT VOR. Expect further clearance from APPROACH CONTROL.                   |                               |                                     |                       |                            |
| Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'<br>1. EMER SAFE ALT 100 NM 6300'. 2. VGSI and descent angles not coincident. |                               |                                     |                       |                            |
|                                                                                                                                    |                               |                                     |                       | 2600'<br>MSA ADW VOR       |



|                       |     |      |      |      |      |      |                 |       |    |              |
|-----------------------|-----|------|------|------|------|------|-----------------|-------|----|--------------|
| Gnd speed-Kts         | 70  | 90   | 100  | 120  | 140  | 160  | ALSF-II<br>PAPI | 2100' | RT | OTT<br>113.7 |
| Descent Angle [3.51°] | 435 | 559  | 621  | 745  | 870  | 994  |                 |       |    |              |
| LOM to MAP            | 5.6 | 4:48 | 3:44 | 3:22 | 2:48 | 2:24 | 2:06            |       |    |              |

| STRAIGHT-IN LANDING RWY 1L |                 |             |  | CIRCLE-TO-LAND                    |                     |  |  |
|----------------------------|-----------------|-------------|--|-----------------------------------|---------------------|--|--|
| MDA(H) 800' (540')         |                 |             |  | Not Authorized West of Rwy 1L-19R |                     |  |  |
|                            |                 | ALS out     |  | Max Kts                           | MDA(H)              |  |  |
| A                          | RVR 24 or 1/2   | RVR 50 or 1 |  | 90                                | 800' (520') - 1     |  |  |
| B                          | RVR 50 or 1     | 1 1/2       |  | 120                               | 800' (520') - 1 1/2 |  |  |
| C                          | RVR 60 or 1 1/4 | 1 3/4       |  | 140                               | 840' (560') - 2     |  |  |
| D                          |                 |             |  | 165                               |                     |  |  |

## **General Information**

Location: Aberdeen Proving Grounds MD USA

IATA Code: APG

Lat/Long: N39° 28.0' W076° 10.1'

Elevation: 57 ft

Airport Use: Military

Magnetic Variation: 11.5°W

Sectional Chart: Washington

Fuel Types: Jet 4

Repair Types: Major Airframe, Major Engine

Customs: No

Airport Type: IFR

Landing Fee: No

Control Tower: Yes

Jet Start Unit: No

LLWS Alert: No

Beacon: Yes

Sunrise: 1141 Z

Sunset: 2254 Z,

## **Runway Information**

Runway: 04

Length x Width: 7997 ft x 200 ft

Surface Type: asphalt

TDZ-Elev: 35 ft

Lighting: Edge, REIL, Part time

Runway: 22

Length x Width: 7997 ft x 200 ft

Surface Type: asphalt

TDZ-Elev: 45 ft

Lighting: Edge, ALS, REIL, Part time

## **Communication Information**

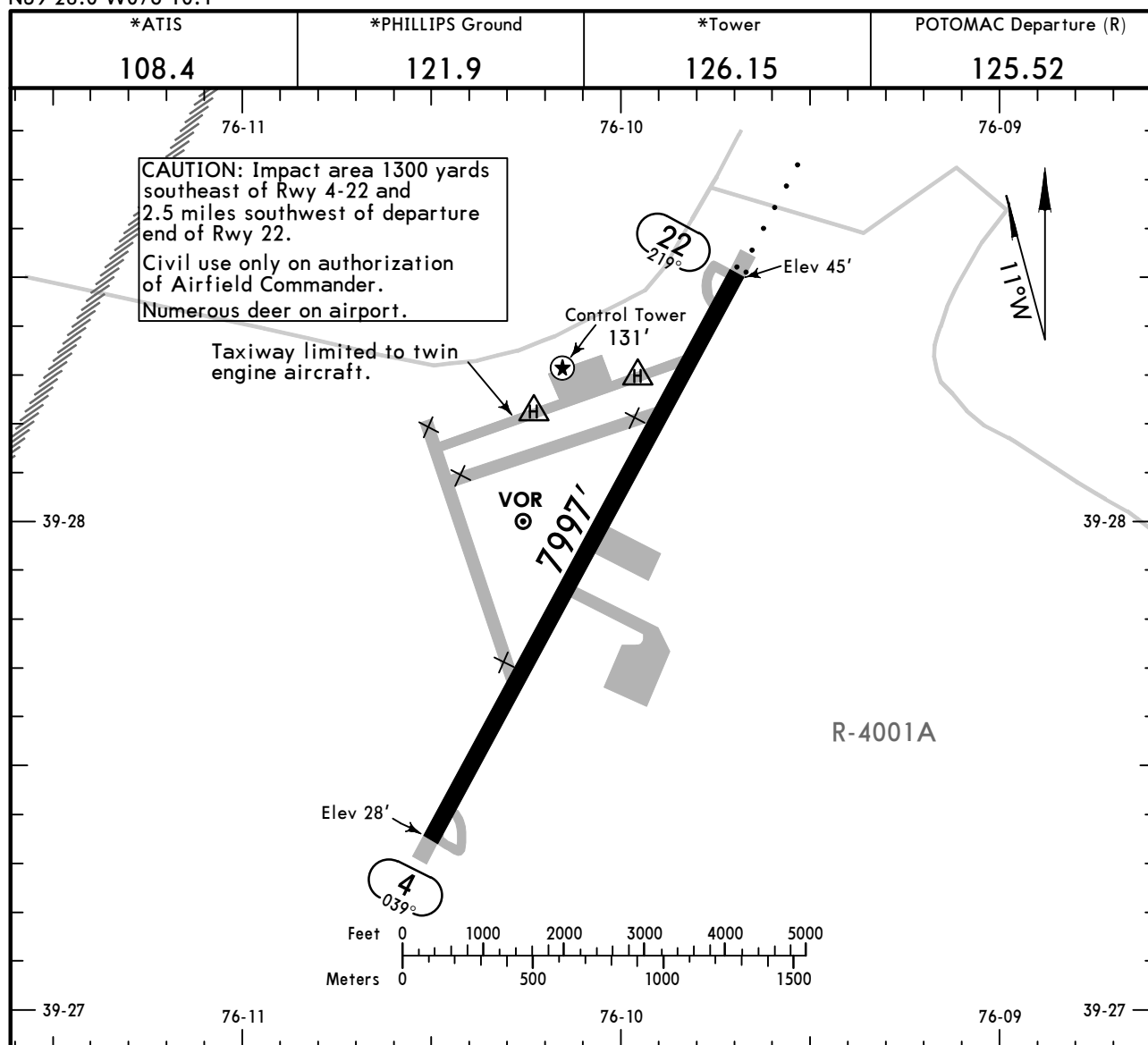
ATIS 108.4

Phillips AAF Tower 126.15

Phillips AAF Ground Control 121.9

Potomac Approach Control 125.525

Potomac Departure Control 125.525



ADDITIONAL RUNWAY INFORMATION

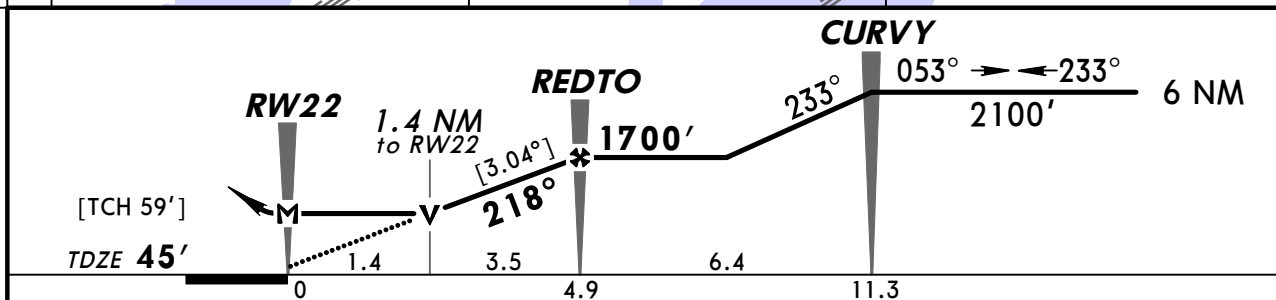
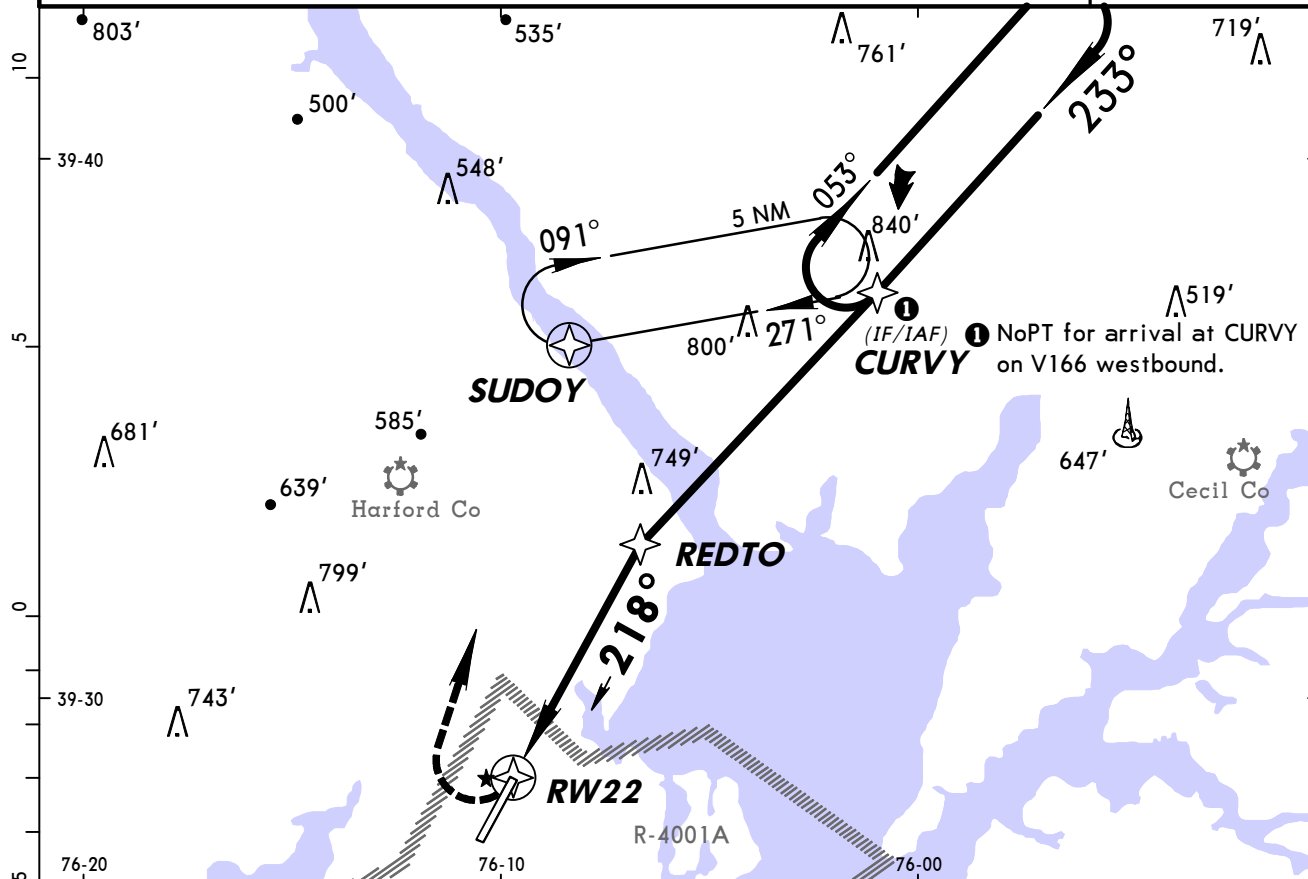
| RWY |                         | USABLE LENGTHS           |             |          |       |
|-----|-------------------------|--------------------------|-------------|----------|-------|
|     |                         | LANDING BEYOND Threshold | Glide Slope | TAKE-OFF | WIDTH |
| 4   | ① HIRL REIL             |                          |             |          | 200'  |
| 22  | ① HIRL REIL ODALS PLASI |                          |             |          |       |
|     |                         |                          |             |          |       |
|     |                         |                          |             |          |       |
|     |                         |                          |             |          |       |

① Prior permission required.

| TAKE-OFF         |     |     | FOR FILING AS ALTERNATE<br><br>Authorized Only When<br>Tower Operating |       |
|------------------|-----|-----|------------------------------------------------------------------------|-------|
| All Rwys         |     |     |                                                                        |       |
| Adequate Vis Ref |     | STD |                                                                        |       |
| 1 & 2<br>Eng     | 1/4 | 1   | A                                                                      | 800-2 |
| 3 & 4<br>Eng     |     | 1/2 | B                                                                      |       |
|                  |     |     | C                                                                      |       |
|                  |     |     | D                                                                      |       |

TAKE-OFF OBSTACLES: Rwy 4, vehicle on road 1,059' from DER, on centerline, 10' AGL/86' MSL. Tree 1,128' 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.

|                                                                                                                                                                                                                                                                                                                                |                                  |                                                     |                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------|--------------------------------------------------------|
| *ATIS<br>108.4                                                                                                                                                                                                                                                                                                                 | POTOMAC Approach (R)<br>125.52   | *PHILLIPS Tower<br>126.15                           | *Ground<br>121.9                                       |
| RNAV                                                                                                                                                                                                                                                                                                                           | Final<br>Apch Crs<br><b>218°</b> | Minimum Alt<br><b>REDTO</b><br><b>1700'</b> (1655') | LNNAV<br>MDA(H)<br>(CONDITIONAL)<br><b>560'</b> (515') |
| Apt Elev 57'<br>TDZE 45'                                                                                                                                                                                                                                                                                                       |                                  |                                                     |                                                        |
| <b>MISSED APCH:</b> Climbing RIGHT turn to 2000' direct SUDOY and hold.                                                                                                                                                                                                                                                        |                                  |                                                     |                                                        |
| Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'<br>1. Use local altimeter setting; if not received, use Baltimore-Washington Intl/Marshall altimeter setting. 2. DME/DME RNP-0.30 not authorized. 3. VDP not authorized with Baltimore-Washington Intl/Marshall altimeter setting. 4. Procedure not authorized at night. |                                  |                                                     |                                                        |
| <div>2600'</div> <div>MSA RW22</div>                                                                                                                                                                                                                                                                                           |                                  |                                                     |                                                        |



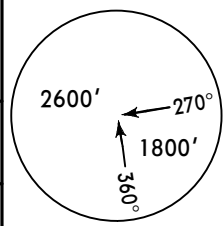
|                       |     |     |     |     |     |     |       |       |       |       |
|-----------------------|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 | ODALS |       | 2000' | SUDOY |
| Descent Angle [3.04°] | 376 | 484 | 538 | 645 | 753 | 861 | REIL  | PLASI | RT    |       |
| MAP at RW22           |     |     |     |     |     |     |       |       |       |       |

| 1 STRAIGHT-IN LANDING RWY 22 |       |                                                           |       | 1 CIRCLE-TO-LAND             |                     |                                                           |  |
|------------------------------|-------|-----------------------------------------------------------|-------|------------------------------|---------------------|-----------------------------------------------------------|--|
| LNNAV                        |       | LNNAV                                                     |       | With Local Altimeter Setting |                     | With Baltimore-Washington Intl/Marshall Altimeter Setting |  |
| MDA(H) 560' (515')           |       | MDA(H) 640' (595')                                        |       | MDA(H)                       |                     | MDA(H)                                                    |  |
| With Local Altimeter Setting |       | With Baltimore-Washington Intl/Marshall Altimeter Setting |       | With Local Altimeter Setting |                     | With Baltimore-Washington Intl/Marshall Altimeter Setting |  |
| ODALS out                    |       | ODALS out                                                 |       | ODALS out                    |                     | ODALS out                                                 |  |
| A                            | 3/4   | 1                                                         | 3/4   | 1                            | 560' (503') - 1     | 640' (583') - 1                                           |  |
| B                            | 1 1/4 | 1 1/2                                                     | 1 1/4 | 1 1/2                        | 560' (503') - 1 1/2 | 640' (583') - 1 1/2                                       |  |
| C                            | 1 1/2 | 1 3/4                                                     | 1 1/2 | 1 3/4                        | 620' (563') - 2     | 640' (583') - 2                                           |  |

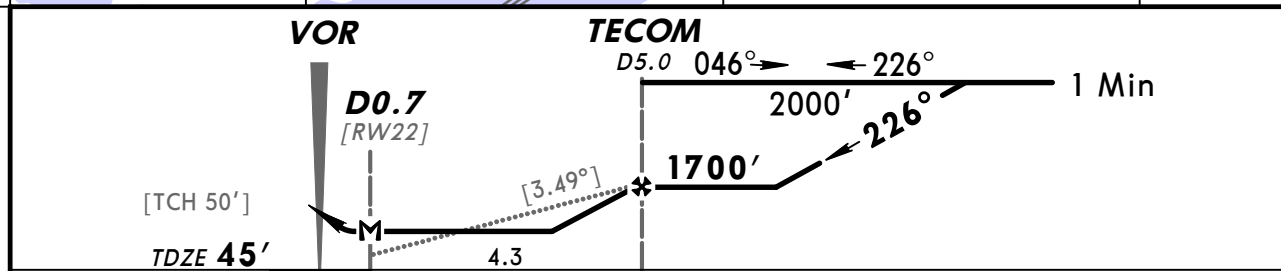
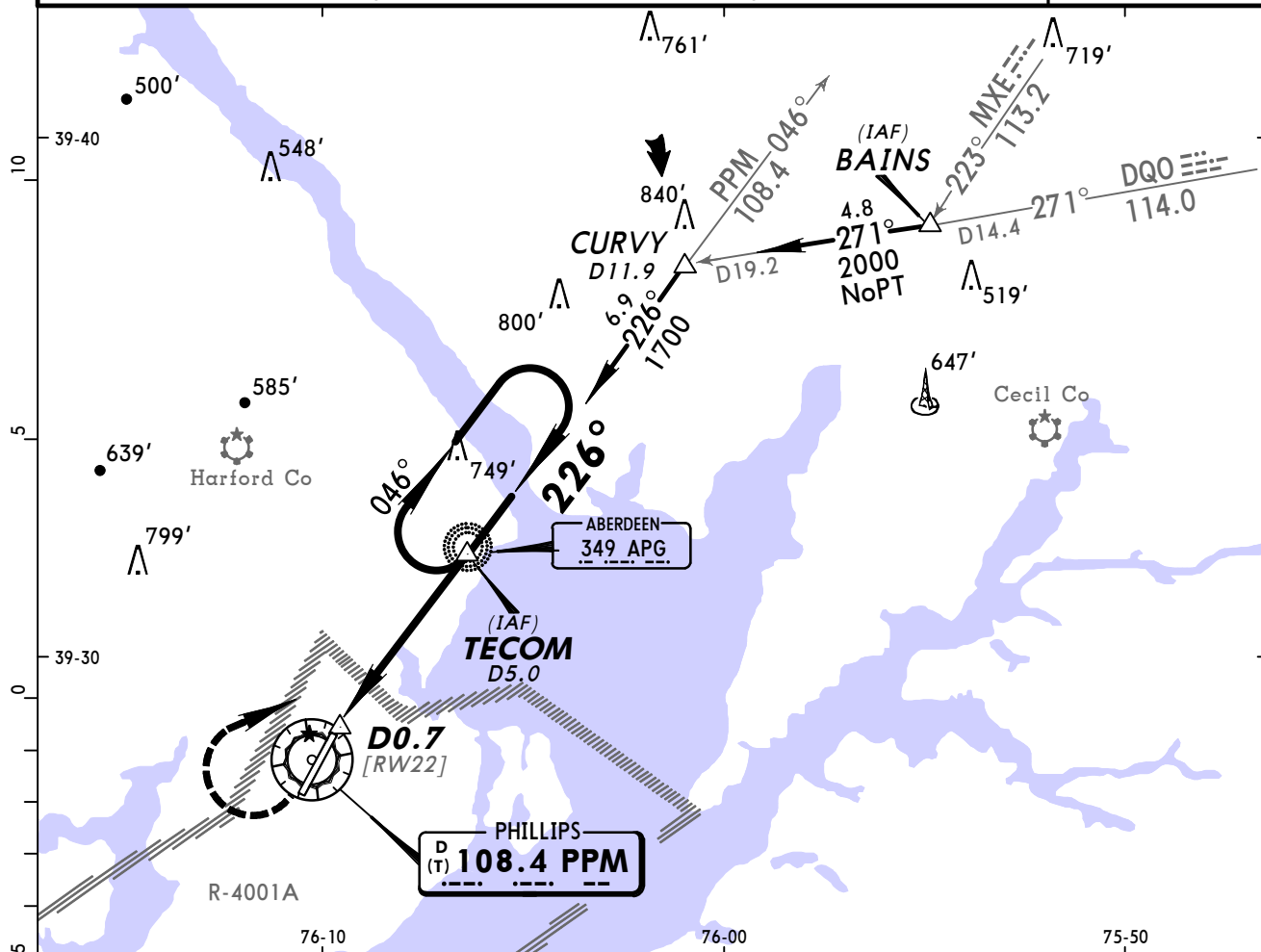
1 Procedure not authorized at night.

BRIEFING STRIP

|                                                                                                                                                                                                                                                                                                          |                                |                                       |                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------------------------|----------------------------------------|
| *ATIS<br>108.4                                                                                                                                                                                                                                                                                           | POTOMAC Approach (R)<br>125.52 | *PHILLIPS Tower<br>126.15             | *Ground<br>121.9                       |
| VOR<br>PPM<br>108.4                                                                                                                                                                                                                                                                                      | Final<br>Apch Crs<br>226°      | Minimum Alt<br>TECOM<br>1700' (1655') | MDA(H)<br>(CONDITIONAL)<br>500' (455') |
| Apt Elev 57'<br>TDZE 45'                                                                                                                                                                                                                                                                                 |                                |                                       |                                        |
| <b>MISSED APCH:</b> Climb to 800', then climbing RIGHT turn to 2000'<br>outbound via PPM VOR R-046 to TECOM/D5.0 and hold.                                                                                                                                                                               |                                |                                       |                                        |
| Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'<br>1. Use local altimeter setting; if not received, use Baltimore-Washington Intl/<br>Marshall altimeter setting. 2. VNAV not applicable when using Baltimore-Washington<br>Intl/Marshall altimeter setting. 3. Procedure not authorized at night. |                                |                                       |                                        |



MSA PPM VOR



|                       |     |     |     |     |     |     |               |       |      |       |                    |
|-----------------------|-----|-----|-----|-----|-----|-----|---------------|-------|------|-------|--------------------|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 | ODALS         |       | 800' | 2000' | PPM                |
| Descent Angle [3.49°] | 432 | 556 | 618 | 741 | 865 | 988 | REIL<br>PLASI | PLASI | ↑    | RT    | via 108.4<br>R-046 |
| MAP at D0.7           |     |     |     |     |     |     |               |       |      |       |                    |

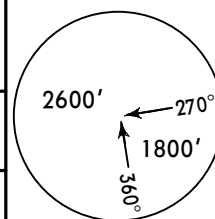
| 1 STRAIGHT-IN LANDING RWY 22                          |       |                                                                                    |       | 1 CIRCLE-TO-LAND                |                     |                                                                    |                     |
|-------------------------------------------------------|-------|------------------------------------------------------------------------------------|-------|---------------------------------|---------------------|--------------------------------------------------------------------|---------------------|
| MDA(H) 500' (455')<br>With Local<br>Altimeter Setting |       | MDA(H) 580' (535')<br>With Baltimore-Washington<br>Intl/Marshall Altimeter Setting |       | With Local<br>Altimeter Setting |                     | With<br>Baltimore-Washington<br>Intl/Marshall<br>Altimeter Setting |                     |
| ODALS out                                             |       | ODALS out                                                                          |       | MDA(H)                          |                     | MDA(H)                                                             |                     |
| A                                                     | 1     |                                                                                    | 1     | 90                              | 520' (463') - 1     |                                                                    | 580' (523') - 1     |
| B                                                     |       |                                                                                    |       | 120                             | 560' (503') - 1     |                                                                    | 640' (583') - 1     |
| C                                                     | 1 1/4 |                                                                                    | 1 1/2 | 140                             | 600' (543') - 1 1/2 |                                                                    | 680' (623') - 1 3/4 |
| D                                                     | 1 1/2 |                                                                                    | 1 3/4 | 165                             | 680' (623') - 2     |                                                                    | 760' (703') - 2 1/4 |

1 Procedure not authorized at night.

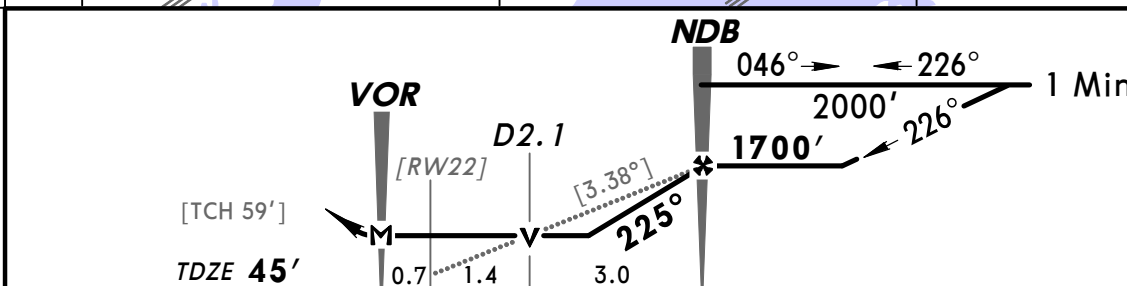
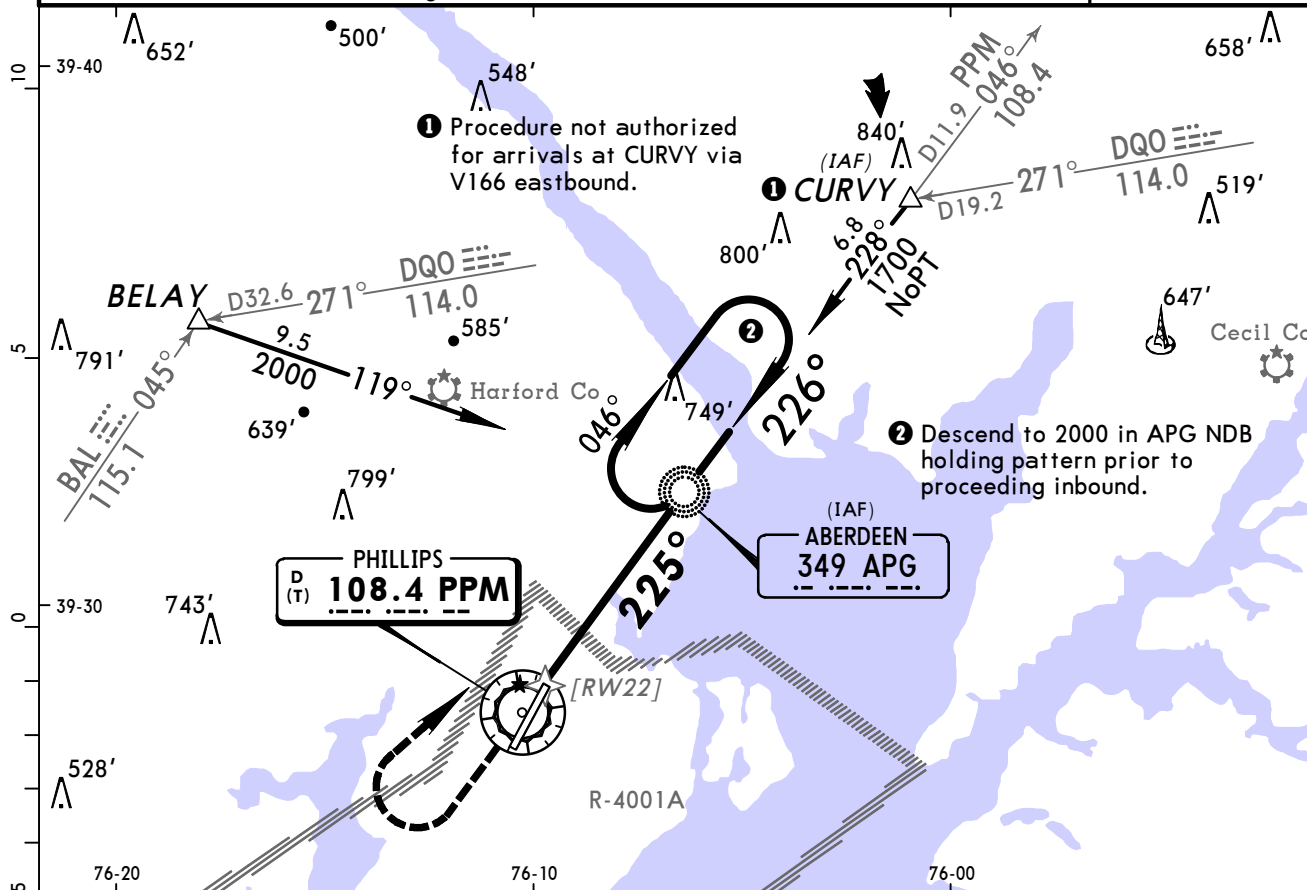
CHANGES: Notes added.

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|                                                                                                                                                                                                                                                                                                                                                        |                                |                                     |                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------|----------------------------------------|
| *ATIS<br>108.4                                                                                                                                                                                                                                                                                                                                         | POTOMAC Approach (R)<br>125.52 | *PHILLIPS Tower<br>126.15           | *Ground<br>121.9                       |
| VOR<br>PPM<br>108.4                                                                                                                                                                                                                                                                                                                                    | Final<br>Apch Crs<br>225°      | Minimum Alt<br>NDB<br>1700' (1655') | MDA(H)<br>(CONDITIONAL)<br>560' (515') |
| Apt Elev 57'                                                                                                                                                                                                                                                                                                                                           |                                |                                     |                                        |
| TDZE 45'                                                                                                                                                                                                                                                                                                                                               |                                |                                     |                                        |
| <b>MISSED APCH:</b> Climb to 1000', then climbing RIGHT turn to 2000' direct APG NDB and hold.                                                                                                                                                                                                                                                         |                                |                                     |                                        |
| Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'<br>1. ADF required. 2. Use local altimeter setting; if not received, use Baltimore-Washington Intl/Marshall altimeter setting. 3. VDP not authorized with Baltimore-Washington Intl/Marshall altimeter setting. 4. VGSI and descent angles not coincident. 5. Procedure not authorized at night. |                                |                                     |                                        |



MSA PPM VOR



| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 | ODALS |       | 1000' | 2000' | APG 349 |
|-----------------------|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|---------|
| Descent Angle [3.38°] | 419 | 538 | 598 | 718 | 837 | 957 | REIL  | PLASI | ↑     | RT    | →       |
| MAP at VOR            |     |     |     |     |     |     |       |       |       |       |         |

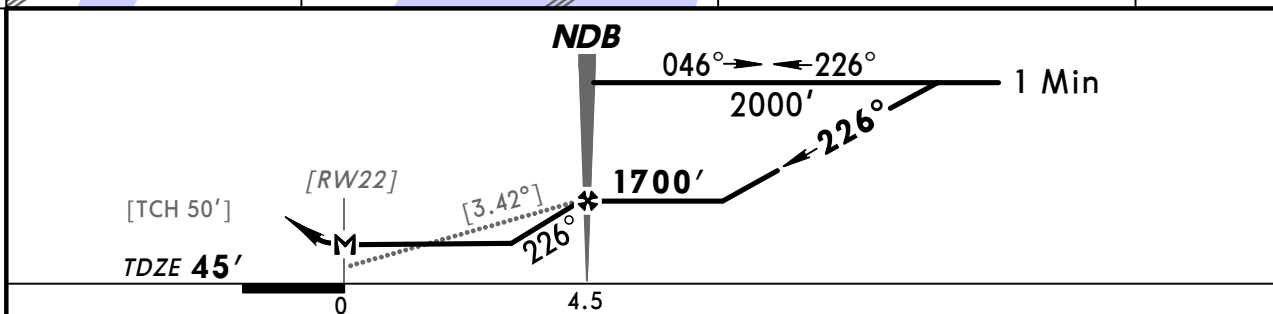
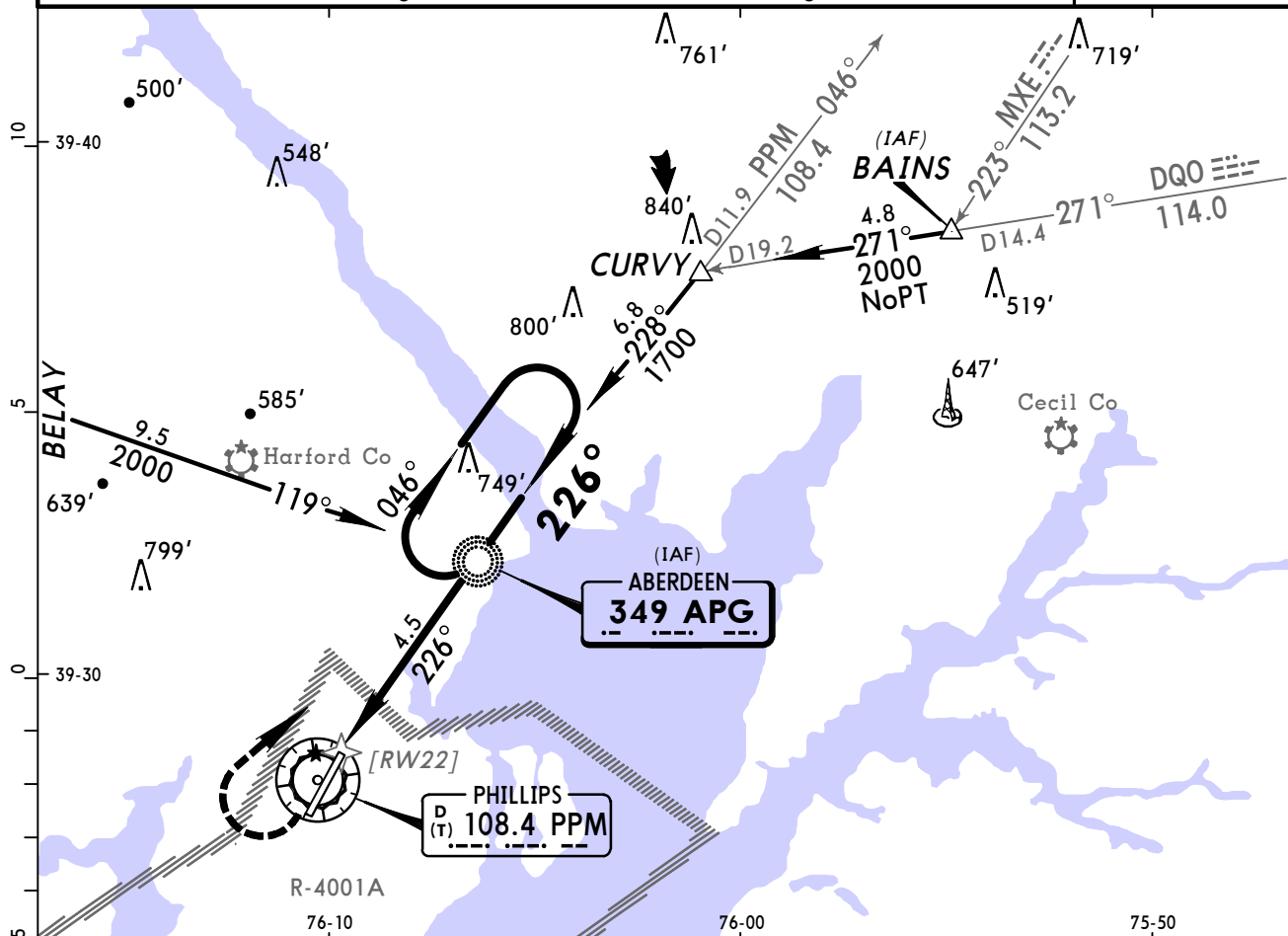
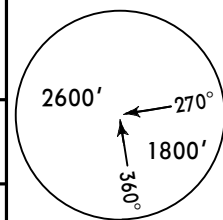
| 1 STRAIGHT-IN LANDING RWY 22 |       |                                                           |       |         | 1 CIRCLE-TO-LAND             |                     |                                                           |  |  |
|------------------------------|-------|-----------------------------------------------------------|-------|---------|------------------------------|---------------------|-----------------------------------------------------------|--|--|
| MDA(H) 560' (515')           |       | MDA(H) 640' (595')                                        |       |         | With Local Altimeter Setting |                     | With Baltimore-Washington Intl/Marshall Altimeter Setting |  |  |
| With Local Altimeter Setting |       | With Baltimore-Washington Intl/Marshall Altimeter Setting |       |         | With Local Altimeter Setting |                     | With Baltimore-Washington Intl/Marshall Altimeter Setting |  |  |
| ODALS out                    |       | ODALS out                                                 |       | Max Kts | MDA(H)                       |                     | MDA(H)                                                    |  |  |
| A                            | 3/4   | 1                                                         | 3/4   | 1       | 90                           | 560' (503') - 1     | 640' (583') - 1                                           |  |  |
| B                            | 1 1/4 | 1 1/2                                                     | 1 1/4 | 1 1/2   | 120                          | 560' (503') - 1 1/2 | 640' (583') - 1 1/2                                       |  |  |
| C                            | 1 1/2 | 1 3/4                                                     | 1 1/2 | 1 3/4   | 140                          | 620' (563') - 2     | 640' (583') - 2                                           |  |  |
| D                            |       |                                                           |       |         | 165                          |                     |                                                           |  |  |

1 Procedure not authorized at night.

CHANGES: Notes added.

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|                                                                                                                                                                                                                                                                                                          |                                       |                                            |                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------------|-----------------------------------------------|
| *ATIS<br><b>108.4</b>                                                                                                                                                                                                                                                                                    | POTOMAC Approach (R)<br><b>125.52</b> | *PHILLIPS Tower<br><b>126.15</b>           | *Ground<br><b>121.9</b>                       |
| NDB<br>APG<br><b>349</b>                                                                                                                                                                                                                                                                                 | Final<br>Apch Crs<br><b>226°</b>      | Minimum Alt<br>NDB<br><b>1700'</b> (1655') | MDA(H)<br>(CONDITIONAL)<br><b>560'</b> (515') |
| Apt Elev 57'<br>TDZE 45'                                                                                                                                                                                                                                                                                 |                                       |                                            |                                               |
| <b>MISSED APCH:</b> Climb to 1000', then climbing RIGHT turn to 2000' direct APG NDB and hold.                                                                                                                                                                                                           |                                       |                                            |                                               |
| Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'<br>1. Use local altimeter setting; if not received, use Baltimore-Washington Intl/<br>Marshall altimeter setting. 2. VNAV not applicable when using Baltimore-Washington<br>Intl/Marshall altimeter setting. 3. Procedure not authorized at night. |                                       |                                            |                                               |



|                       |     |      |      |      |      |      |            |       |       |     |
|-----------------------|-----|------|------|------|------|------|------------|-------|-------|-----|
| Gnd speed-Kts         | 70  | 90   | 100  | 120  | 140  | 160  | ODALS      | 1000' | 2000' | APG |
| Descent Angle [3.42°] | 424 | 545  | 605  | 726  | 847  | 968  | REIL PLASI | ↑     | RT    | 349 |
| NDB to MAP            | 4.5 | 3:51 | 3:00 | 2:42 | 2:15 | 1:56 | 1:41       |       |       |     |

| 1 STRAIGHT-IN LANDING RWY 22 |       |                                                           |       | 1 CIRCLE-TO-LAND             |                     |                                                           |  |
|------------------------------|-------|-----------------------------------------------------------|-------|------------------------------|---------------------|-----------------------------------------------------------|--|
| MDA(H) 560' (515')           |       | MDA(H) 640' (595')                                        |       | With Local Altimeter Setting |                     | With Baltimore-Washington Intl/Marshall Altimeter Setting |  |
| With Local Altimeter Setting |       | With Baltimore-Washington Intl/Marshall Altimeter Setting |       | With Local Altimeter Setting |                     | With Baltimore-Washington Intl/Marshall Altimeter Setting |  |
| ODALS out                    |       | ODALS out                                                 |       | MDA(H)                       |                     | MDA(H)                                                    |  |
| A                            | 3/4   | 1                                                         | 3/4   | 1                            | 560' (503') - 1     | 640' (583') - 1                                           |  |
| B                            | 1 1/4 | 1 1/2                                                     | 1 1/4 | 1 1/2                        | 600' (543') - 1 1/2 | 680' (623') - 1 3/4                                       |  |
| C                            | 1 1/2 | 1 3/4                                                     | 1 1/2 | 1 3/4                        | 680' (623') - 2     | 760' (703') - 2 1/4                                       |  |

1 Procedure not authorized at night.

## **General Information**

Location: Baltimore MD USA  
IATA Code: BWI  
Lat/Long: N39° 10.5' W076° 40.1'  
Elevation: 146 ft

Airport Use: Public  
Magnetic Variation: 11.1 °W  
Sectional Chart: Washington

Fuel Types: 100 Octane (LL), Jet A  
Oxygen Types: High Pressure, Low Pressure, HP Bottle, LP Bottle  
Repair Types: Major Airframe, Major Engine  
Customs: Upon Prior Request  
Airport Type: IFR  
Landing Fee: Yes  
Control Tower: Yes  
Jet Start Unit: Yes  
LLWS Alert: No  
Beacon: Yes

Sunrise: 1143 Z  
Sunset: 2256 Z,

## **Runway Information**

Runway: 04  
Length x Width: 6000 ft x 150 ft  
Surface Type: asphalt  
TDZ-Elev: 146 ft  
Lighting: Edge, REIL

Runway: 10  
Length x Width: 10502 ft x 200 ft  
Surface Type: asphalt  
TDZ-Elev: 143 ft  
Lighting: Edge, ALS, Centerline, TDZ  
Displaced Threshold: 550 ft

Runway: 15L  
Length x Width: 5000 ft x 100 ft  
Surface Type: asphalt  
TDZ-Elev: 142 ft  
Lighting: Edge, REIL

Runway: 15R  
Length x Width: 9501 ft x 150 ft  
Surface Type: asphalt  
TDZ-Elev: 139 ft  
Lighting: Edge, ALS, Centerline

Runway: 22  
Length x Width: 6000 ft x 150 ft  
Surface Type: asphalt  
TDZ-Elev: 143 ft  
Lighting: Edge

Runway: 28  
Length x Width: 10502 ft x 200 ft  
Surface Type: asphalt  
TDZ-Elev: 142 ft  
Lighting: Edge, ALS, Centerline  
Displaced Threshold: 500 ft

Runway: 33L  
Length x Width: 9501 ft x 150 ft  
Surface Type: asphalt  
TDZ-Elev: 142 ft  
Lighting: Edge, ALS, Centerline, TDZ

Runway: 33R  
Length x Width: 5000 ft x 100 ft  
Surface Type: asphalt  
TDZ-Elev: 124 ft  
Lighting: Edge, ALS, REIL

## **Communication Information**

ATIS 127.8  
ATIS 115.1  
Baltimore Tower 119.4  
Baltimore Ground Control 121.9  
Baltimore Clearance Delivery 118.05  
Potomac Approach Control 124.55 (101°-130°)  
Potomac Approach Control 128.7 (181°-19°)  
Potomac Approach Control 119.7 (131°-180°) Initial Contact  
Potomac Approach Control 119.0 (20°-100°)  
Potomac App TCA 124.55 (101°-130°)  
Potomac App TCA 128.7 (181°-19°)  
Potomac App TCA 119.7 (131°-180°)  
Potomac App TCA 119.0 (20°-100°)  
Potomac Departure Control 124.55 (101°-130°)  
Potomac Departure Control 128.7 (181°-360°)  
Baltimore/Washington Intl Unicom 122.95  
Leesburg Flight Service Station 122.2 RCO  
Leesburg Flight Service Station 122.1 RCO  
Leesburg Flight Service Station 115.1 RCO

- 1 WASHINGTON TRI - AREA CLASS B AIRSPACE
- 2 WASHINGTON D.C. FLIGHT RESTRICTED ZONE (DC FRZ)
- 3 WASHINGTON D.C. SPECIAL FLIGHT RULES AREA

FOR OPERATING RULES AND PILOT AND EQUIPMENT REQUIREMENTS  
SEE FAR 91.131, 91.117, AND 91.215

1 CLASS B FLIGHT PROCEDURES

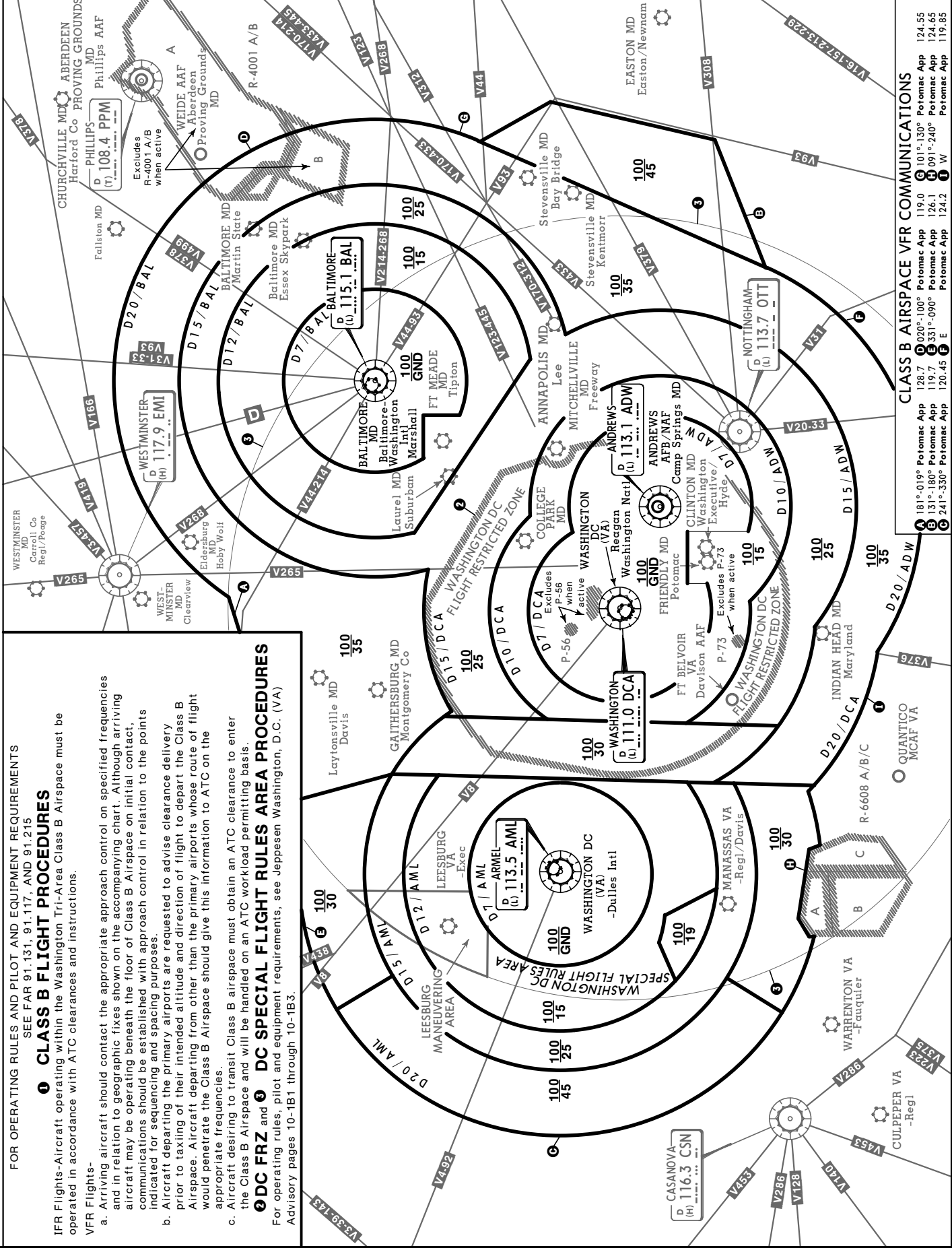
IFR Flights-Aircraft operating within the Washington Tri-Area Class B Airspace must be operated in accordance with ATC clearances and instructions.

VFR Flights-

- a. Arriving aircraft should contact the appropriate approach control on specified frequencies and in relation to geographic fixes shown on the accompanying chart. Although arriving aircraft may be operating beneath the floor of Class B Airspace on initial contact, communications should be established with approach control in relation to the points indicated for sequencing and spacing purposes.
- b. Aircraft departing the primary airports are requested to advise clearance delivery prior to taxiing of their intended altitude and direction of flight to depart the Class B Airspace. Aircraft departing from other than the primary airports whose route of flight would penetrate the Class B Airspace should give this information to ATC on the appropriate frequencies.
- c. Aircraft desiring to transit Class B Airspace must obtain an ATC clearance to enter the Class B Airspace and will be handled on an ATC workload permitting basis.

2 DC FRZ and 3 DC SPECIAL FLIGHT RULES AREA PROCEDURES

For operating rules, pilot and equipment requirements, see Jeppesen Washington, D.C. (VA) Advisory pages 10-1B1 through 10-1B3.



CLASS B AIRSPACE VFR COMMUNICATIONS

|   |                       |        |                         |                         |                         |          |
|---|-----------------------|--------|-------------------------|-------------------------|-------------------------|----------|
| A | 181°-019° Potomac App | 128.7  | D 020°-100° Potomac App | 119.0                   | G 101°-130° Potomac App | 124.55   |
| B | 131°-180° Potomac App | 119.7  | E 331°-090° Potomac App | 126.1                   | F 091°-240° Potomac App | 124.65   |
| C | 241°-330° Potomac App | 120.45 | F 119.7                 | G 101°-130° Potomac App | 124.2                   | H 119.85 |

## ADVISORY

## Washington D.C. SFRA Special Flight Rules Area

## WARNING

This document only contains an overview of the rules for the Washington, D.C. Metropolitan Area Special Flight Rules Area (DC SFRA) and the Washington, D.C. Metropolitan Flight Restricted Zone (DC FRZ). Pilots must review 14 CFR Parts 1 and 93 and published NOTAMS for exact procedures and other details.

Pursuant to 49 U.S.C 40103(b), the Federal Aviation Administration (FAA) classifies the Washington, D.C. Metropolitan Area Special Flight Rules Area (DC SFRA) and the Washington, D.C. Metropolitan Flight Restricted Zone (DC FRZ) as "National Defense Airspace". Any person who knowingly or willfully violates the rules concerning operations in this airspace is subject to certain criminal penalties under 49 USC 46307. Pilots who do not adhere to the following procedures may be intercepted, detained and interviewed by federal law enforcement/security personnel and/or DOD.

It is strongly recommended that all pilots flying under Visual Flight Rules (VFR) within 100 NM of the DCA VOR/DME complete special awareness training for the Washington DC Metropolitan Area. This training is mandatory for all pilots that fly under VFR within 60 NM of the DCA VOR/DME (14 CFR Parts 61 and 91). This training is available in the Aviation Learning Center at <http://www.faasafety.gov>.

Because identification and control of aircraft is required for reasons of national security, the areas described here constitute National Defense Airspace. The purpose of establishing this area is to facilitate the tracking of, and communication with, aircraft to deter persons who would use an aircraft as a weapon, or as a means of delivering weapons, to conduct an attack on persons, property, or buildings in the area. This applies to pilots conducting any type of flight operations in the airspace designated as the Washington, D.C. Metropolitan Area Special Flight Rules Area (DC SFRA), which includes the airspace designated as the Washington, D.C. Metropolitan Area Flight Restricted Zone (DC FRZ).

## DEFINITIONS

*Washington, D.C. Metropolitan Area Special Flight Rules Area (DC SFRA)* is an area of airspace over the surface of the earth where the ready identification, location, and control of aircraft is required in the interest of national security. Specifically, the DC SFRA is that airspace, from the surface to, but not including, FL 180, within a 30-mile radius of Lat. 38°51'34" N., Long. 077°02'11" W., or the DCA VOR/DME. The DC SFRA includes the DC FRZ.

*DC SFRA flight plan* is a flight plan filed for the sole purpose of complying with the requirements for VFR operations into, out of, and through the DC SFRA. This flight plan is separate and distinct from a standard VFR flight plan, and does not include search and rescue services.

*Washington, D.C. Metropolitan Area Flight Restricted Zone (DC FRZ)* is a special use airspace, within which the flight of aircraft, while not wholly prohibited, is subject to restriction. This area, excluding the airspace within a one nautical mile radius of the Freeway Airport, W00, Mitchellville, MD from the surface up to but not including flight level (FL) 180. The DC FRZ is within and part of the Washington, D.C. Metropolitan Area SFRA.

*DC FRZ flight plan* is a flight plan filed for the sole purpose of complying with the requirements for VFR operations into, out of, and through the DC FRZ. This flight plan is separate and distinct from a standard VFR flight plan, and does not include search and rescue services.

**ADVISORY****FAILURE TO COMPLY**

- (a) *Any violation:* The FAA may take civil enforcement action against a pilot for violations, weather inadvertent or intentional, including imposition of civil penalties and suspension or revocation of airmans's certificates.
- (b) *Knowing or willful violations:* The DC FRZ and DC SFRA were established for reasons of national security under the provisions of 49 U.S.C. 40103(b)(3). Areas established by the FAA under that authority constitute "National Defense Airspace" as that term is used in 49 U.S.C. 46307. In addition to being subject to the provisions of paragraph (a) of this section, persons who knowingly or willfully violate national defense airspace established pursuant to 49 U.S.C. 40103(b)(3) may be subject to criminal prosecution.

**REQUIREMENTS FOR OPERATING IN THE DC SFRA, INCLUDING THE DC FRZ**

- (a) Except as provided in paragraphs (b) and (c) of this section, or unless authorized by Air Traffic Control, no pilot may operate an aircraft, including an ultralight vehicle or any civil aircraft or public aircraft, in the DC SFRA, including the DC FRZ, unless-
  - (1) The aircraft is equipped with an operable two-way radio capable of communicating with Air Traffic Control on appropriate radio frequencies;
  - (2) Before operating an aircraft in the DC SFRA, including the DC FRZ, the pilot establishes two-way radio communications with the appropriate Air Traffic Control facility and maintains such communications while operating the aircraft in the DC SFRA, including the DC FRZ;
  - (3) The aircraft is equipped with an operating automatic altitude reporting transponder;
  - (4) Before operating an aircraft in the DC SFRA, including the DC FRZ, the pilot obtains and transmits a discrete transponder code from Air Traffic Control, and the aircraft's transponder continues to transmit the assigned code while operating within the DC SFRA;
  - (5) For VFR operations, the pilot must file and activate a DC FRZ or DC SFRA flight plan by obtaining a discrete transponder code. The flight plan is closed upon landing at an airport within the DC SFRA or when the aircraft exits the DC SFRA;
  - (6) Before operating the aircraft into, out of, or through the Washington, D.C. Tri-Area Class B Airspace Area, the pilot receives a specific Air Traffic Control clearance to operate in the Class B Airspace Area; and
  - (7) Before operating the aircraft into, out of, or through Class D airspace area that is within the DC SFRA, the pilot complies with FAR 91.129.
- (b) Paragraph (a)(5) of this section does not apply to operators of Department of Defense aircraft, law enforcement operations, or lifeguard or air ambulance operations under an FAA/TSA airspace authorization, if the flight crew is in contact with Air Traffic Control and is transmitting an Air Traffic Control - assigned discrete transponder code.
- (c) Pilots must transmit the assigned transponder code. No pilot may use transponder code 1200 while in the DC SFRA.

**ADVISORY****AIRCRAFT OPERATING IN THE DC FRZ**

- (a) Except as provided in paragraph (b) of this section, no pilot may conduct any flight operation under part 91, 101, 103, 105, 125, 133, 135, or 137 of this chapter in the DC FRZ, unless the specific flight is operating under an FAA/TSA authorization.
- (b) Department of Defense (DOD) operations, law enforcement operations, and lifeguard or air ambulance operations under an FAA/TSA airspace authorization are excepted from the prohibition in paragraph (a) of this section if the pilot is in contact with Air Traffic Control and operates the aircraft transponder on an Air Traffic Control-assigned beacon code.
- (c) The following aircraft operations are permitted in the DC FRZ:
  - (1) Aircraft operations under the DCA Access Standard Security Program (DASSP) (49 CFR part 1562) with a Transportation Security Administration (TSA) flight authorization.
  - (2) Law enforcement and other U.S. Federal aircraft operations with prior FAA approval.
  - (3) Foreign-operated military and state aircraft operations with a State Department-authorized diplomatic clearance, with State Department notification to the FAA and TSA.
  - (4) Federal, State, Federal DOD contract, local government agency aircraft operations and part 121, 129 or 135 air carrier flights with TSA-approved full aircraft operator standard security programs/procedures, if operating with DOD permission and notification to the FAA and the National Capital Regional Coordination Center (NCRCC). These flights may land and depart Andrews Air Force Base, MD, with prior permission, if required.
  - (5) Aircraft operations maintaining radio contact with Air Traffic Control and continuously transmitting an Air Traffic Control-assigned discrete transponder code. The pilot must monitor VHF frequency 121.5 or UHF frequency 243.0.
- (d) Before departing from an airport within the DC FRZ, or before entering the DC FRZ, all aircraft, except DOD, law enforcement, and lifeguard or air ambulance aircraft operating under an FAA/TSA airspace authorization must file and activate an IFR or a DC FRZ or a DC SFRA flight plan and transmit a discrete transponder code assigned by an Air Traffic Control Facility. Aircraft must transmit the discrete transponder code at all times while in the DC FRZ or DC SFRA.

**RESOURCES**

Direct any questions about the DC SFRA/FRZ or JYO Maneuvering Area to the FAA Representative at the National Capitol Region Coordination Center (NCRCC), telephone 866-598-9522. Information about waiver applications and TSA security authorization is at [http://www.tsa.gov/what\\_we\\_do/tsnm/general\\_aviation/airspace\\_waivers.shtm](http://www.tsa.gov/what_we_do/tsnm/general_aviation/airspace_waivers.shtm) or by calling the TSA at 571-227-2071.

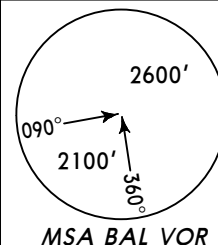
D-ATIS

**115.1**  
**127.8**Apt Elev  
See graphic

Alt set: INCHES

Trans level: FL180 Trans alt: 18000'

1. Authorized for turbojet aircraft only.
2. All Part 91, 101, 103, 105, 125, 133, 135 and 137 flight operations are prohibited on the CASANOVA Transition.

**NOTTINGHAM SIX ARRIVAL (OTT.OTT6)**WESTMINSTER MD  
Carroll Co Regl/Poage  
789BALTIMORE  
D (L) 115.1 BAL  
N39 10.3 W076 39.7BALTIMORE MD  
Martin State  
22-Washington Intl/  
Marshall  
146**RIPKN**

N38 55.9 W076 34.1

EXPECT RADAR  
vectors to final  
approach course**DEALE**

N38 47.9 W076 32.0

EXPECT to cross  
at 6000'EXPECT to cross at  
or below 9000'**RAVNN**N38 48.3  
W076 31.1CASANOVA  
D (H) 116.3 CSN  
N38 38.5 W077 51.9CASANOVA  
(CSN.OTT6)**SACCO**  
N38 40.2  
W077 22.9EXPECT to cross  
at 16000'EXPECT to  
cross at  
FL190BROOKE  
D (L) 114.5 BRV  
N38 20.2 W077 21.2EXPECT to cross  
at 280 KT  
and 15000'**SABBI**N38 22.9  
W077 08.3EXPECT to cross  
at 15000'**PEGBY**

N38 04.7 W077 12.1

**OGATE**N38 03.5  
W077 31.1FLAT ROCK  
(FAK.OTT6)FLAT ROCK  
D (H) 113.3 FAK  
N37 31.7 W077 49.7RICHMOND  
(RIC.OTT6)RICHMOND  
D (H) 114.1 RIC  
N37 30.1 W077 19.2**ROUTING**

From over OTT via OTT R-071 to RAVNN, then via BAL R-174 to RIPKN. EXPECT RADAR vectors to final approach course after passing RIPKN.

MSA BAL VOR

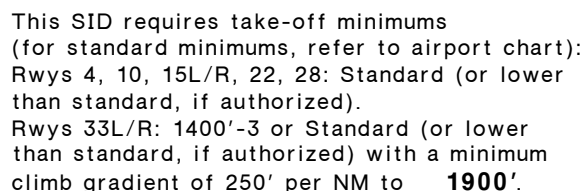
BALTIMORE MD  
Martin State  
22



**MAINTAIN** last ATC assigned altitude until cleared to "DESCEND VIA THE RAVNN THREE ARRIVAL".

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Trans level: FL180      Trans alt: 18000'



## OBSTACLES

Rwy 15L: Trees 620' LEFT of DER, 57' AGL/172' MSL.

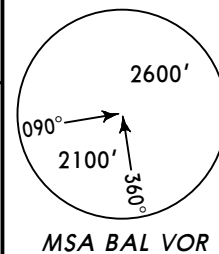
Rwy 33R: Trees 914' RIGHT of DER, 124' AGL/266' MSL. Trees 648' LEFT of DER, 106' AGL/248' MSL.

**CHANGES:** Departure frequency, obstacles.

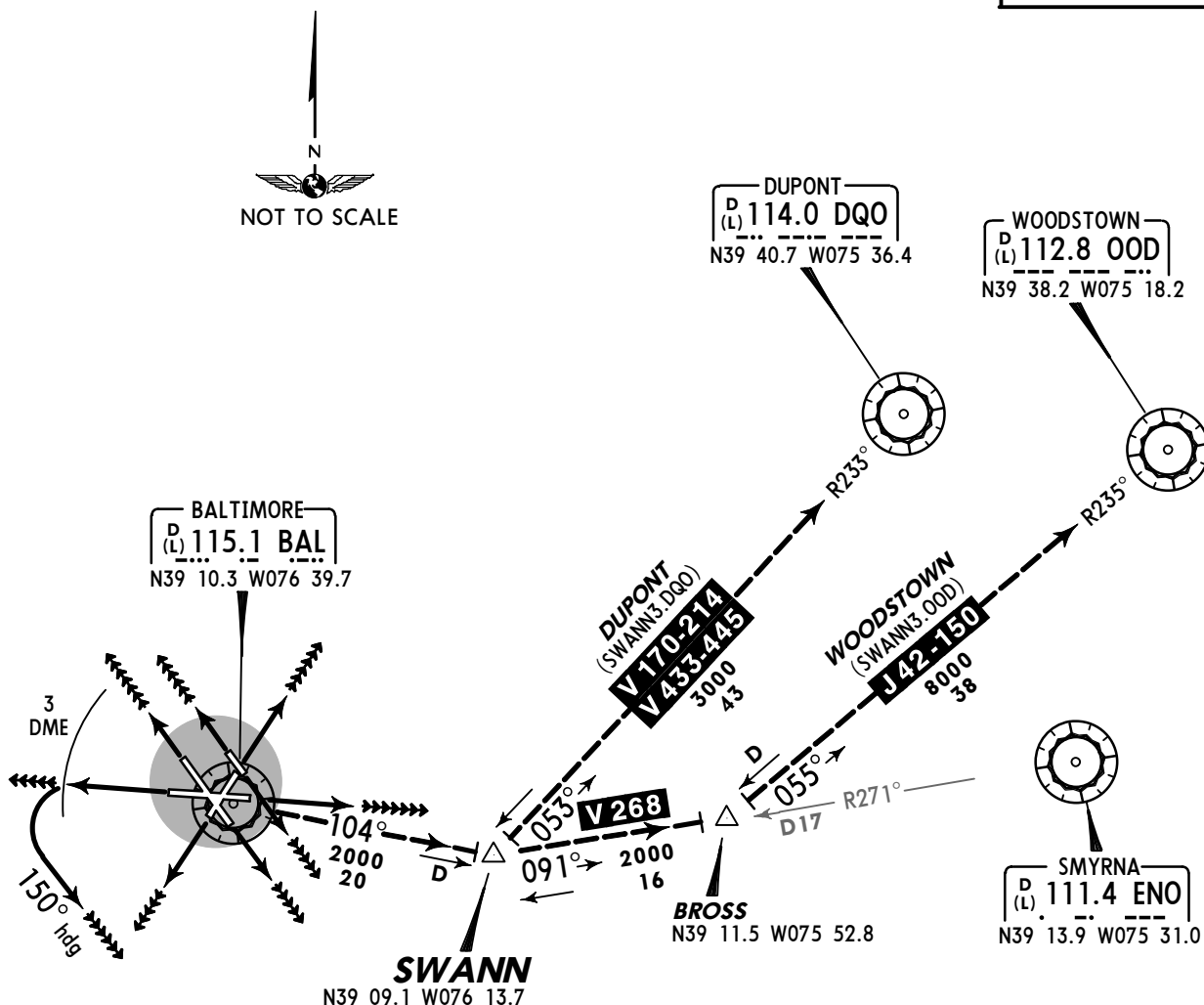
POTOMAC Departure (R)  
**124.55**

Apt Elev  
**146'**

Trans level: FL180 Trans alt: 18000'



## SWANN THREE DEPARTURE (SWANN3.SWANN)



This SID requires take-off minimums  
(for standard minimums, refer to airport chart):  
Rwys 4, 10, 15L/R, 22, 28: Standard (or lower  
than standard, if authorized).  
Rwys 33L/R: 1400'-3 or Standard (or lower  
than standard, if authorized) with a minimum  
climb gradient of 250' per NM to **1900'**.

| Gnd speed-KT | 75  | 100 | 150 | 200 | 250  | 300  |
|--------------|-----|-----|-----|-----|------|------|
| 250' per NM  | 313 | 417 | 625 | 833 | 1042 | 1250 |

### OBSTACLES

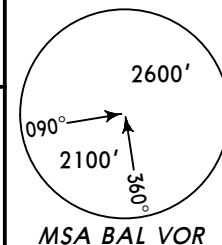
Rwy 15L: Trees 620' LEFT of DER, 57'  
AGL/172' MSL.  
Rwy 33R: Trees 914' RIGHT of DER, 124'  
AGL/266' MSL. Trees 648' LEFT of DER,  
106' AGL/248' MSL.

| RWY                                                            | INITIAL CLIMB                                                                                                                                                                                                   |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28                                                             | <b>Jets:</b> Fly runway heading until BAL 3 DME, then turn LEFT to a 150° heading for vectors to transition or assigned route.<br><b>Props:</b> Fly runway heading for vectors to transition or assigned route. |
| ALL OTHERS                                                     | Fly runway heading for vectors to transition or assigned route.                                                                                                                                                 |
| ROUTING                                                        |                                                                                                                                                                                                                 |
| EXPECT clearance to filed altitude 10 minutes after departure. |                                                                                                                                                                                                                 |

POTOMAC  
Departure (R)  
128.7

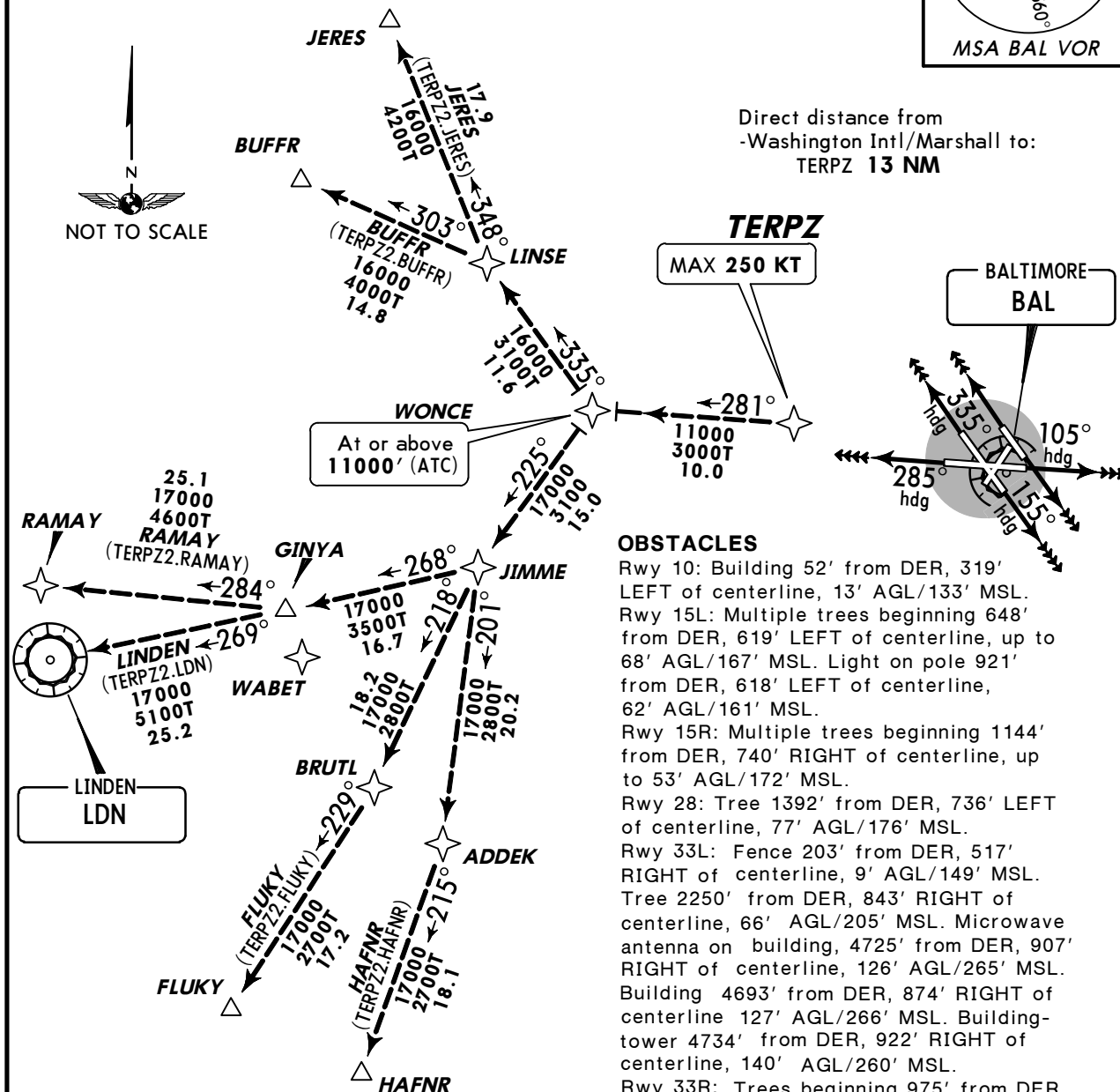
Apt Elev  
146'

Trans level: FL180 Trans alt: 18000'  
1. RADAR required. 2. RNAV 1.  
3. DME/DME/IRU or GPS required.



# TERPZ TWO RNAV DEPARTURE (TERPZ2.TERPZ)

***SPEED: DO NOT EXCEED 250 KT UNTIL TERPZ***



This SID requires take-off minimums (for standard minimums, refer to airport chart):  
Rwys 4, 22: Not authorized - Air Traffic.  
Rwys 10, 15L/15R, 28, 33L/33R:  
Standard (or lower than standard, if authorized),  
with minimum climb of 500' per NM to **2500'**.  
ATC climb of 500' per NM to **11000'**.

| Gnd speed-KT | 75  | 100 | 150  | 200  | 250  | 300  |
|--------------|-----|-----|------|------|------|------|
| 500' per NM  | 625 | 833 | 1250 | 1667 | 2083 | 2500 |

## RWY

## INITIAL CLIMB

|              |                                                                 |
|--------------|-----------------------------------------------------------------|
| <b>10</b>    | Climb heading 105°, or as assigned, for RADAR vectors to TERPZ. |
| <b>15L/R</b> | Climb heading 155°, or as assigned, for RADAR vectors to TERPZ. |
| <b>28</b>    | Climb heading 285°, or as assigned, for RADAR vectors to TERPZ. |
| <b>33L/R</b> | Climb heading 335°, or as assigned, for RADAR vectors to TERPZ. |

## ROUTING

At TERPZ, via assigned transition. EXPECT further clearance to filed altitude within 10 minutes after departure.

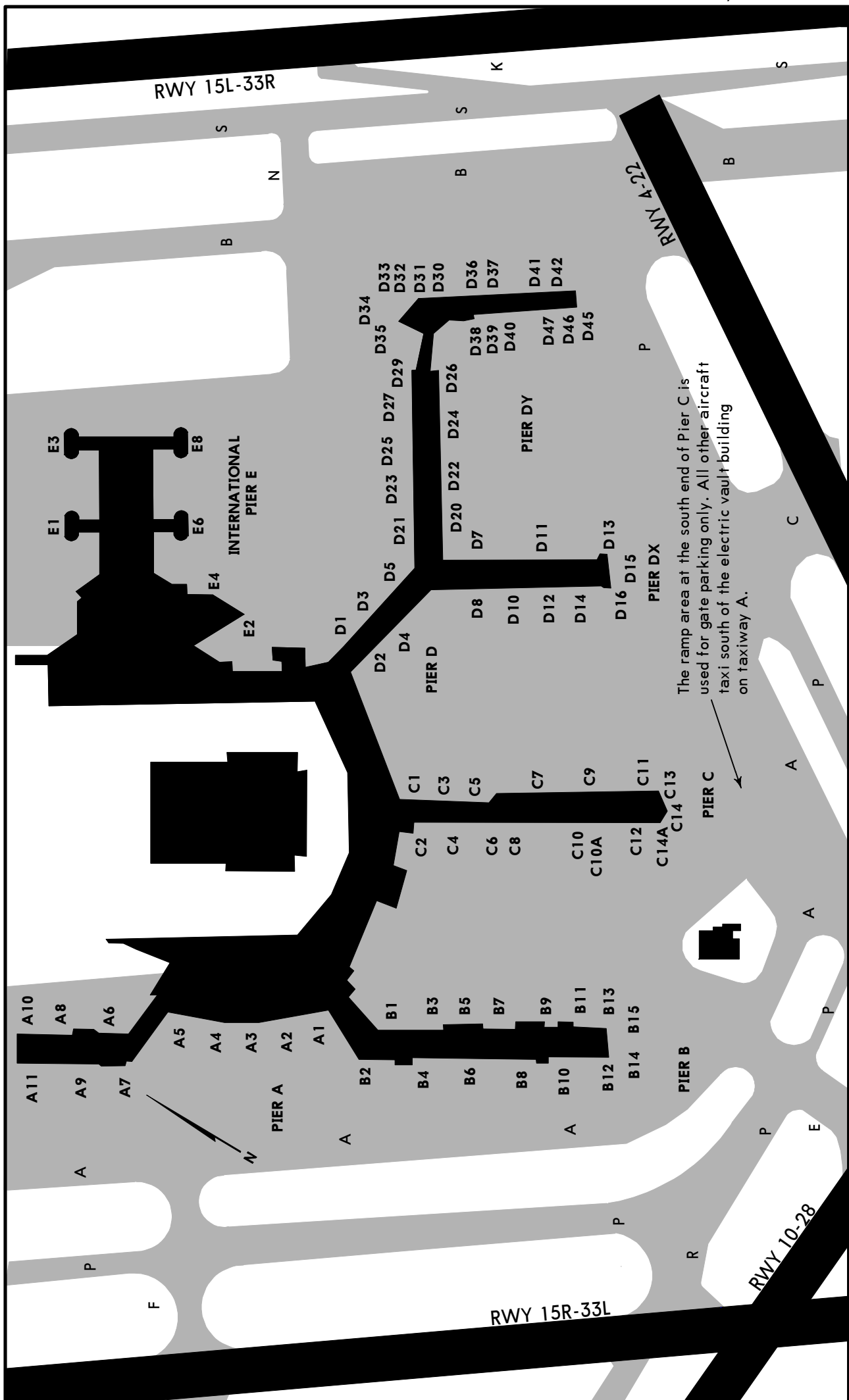
**STANDARD TAXI ROUTES**

Baltimore Tower has instituted Standard Taxi Routes to Runway 28 for departure aircraft located at Pier A, B, C and the southern portion of Pier D. Ground Control will issue the Standard Taxi Route. Pilots who are unable to comply with standardized routes should advise Ground Control on initial contact. **Read back all hold short instructions.** Aircraft operators are required to have a letter of agreement with Baltimore Tower to use the Standard Taxi Routes.

| To Runway 28                                                                                          |          |                   |
|-------------------------------------------------------------------------------------------------------|----------|-------------------|
| Start Point                                                                                           | Route ID | Route             |
| Pier A, Pier B<br>Pier C Gates 2, 4, 6, 8, 12 & 16                                                    | Perrys 1 | Taxiways A, P1, U |
| Pier C Gates 1, 3, 5, 7, 9, 11,<br>13 & 15<br>Pier D Gates 2, 4, 7, 8, 10, 11, 12,<br>13, 14, 15 & 16 | Perrys 2 | Taxiways A, C     |







**PARKING GATE COORDINATES**

| <b>GATE NO.</b> | <b>COORDINATES</b> | <b>GATE NO.</b>             | <b>COORDINATES</b> |
|-----------------|--------------------|-----------------------------|--------------------|
| <b>PIER A</b>   |                    | <b>PIER D</b>               |                    |
| A1 thru A3      | N39 10.7 W076 40.3 | D1 thru D5                  | N39 10.8 W076 40.0 |
| A4, A5          | N39 10.8 W076 40.3 | D7                          | N39 10.8 W076 39.9 |
| A6 thru A11     | N39 10.8 W076 40.4 | D8                          | N39 10.8 W076 40.0 |
|                 |                    | D10 thru D12                | N39 10.8 W076 39.9 |
|                 |                    | D13 thru D16                | N39 10.7 W076 39.9 |
| <b>PIER B</b>   |                    |                             |                    |
| B1              | N39 10.7 W076 40.2 | D20                         | N39 10.8 W076 39.9 |
| B2              | N39 10.7 W076 40.3 | D21                         | N39 10.9 W076 40.0 |
| B3              | N39 10.7 W076 40.2 | D22 thru D27                | N39 10.9 W076 39.9 |
| B4              | N39 10.7 W076 40.3 | D29                         | N39 10.9 W076 39.9 |
| B5              | N39 10.7 W076 40.2 | D30 thru D41                | N39 10.9 W076 39.8 |
|                 |                    |                             |                    |
| B6 thru B12     | N39 10.6 W076 40.2 | D42                         | N39 10.9 W076 39.7 |
| B13             | N39 10.6 W076 40.1 | D45                         | N39 10.8 W076 39.7 |
| B14             | N39 10.6 W076 40.2 | D46, D47                    | N39 10.9 W076 39.8 |
| B15             | N39 10.6 W076 40.1 |                             |                    |
| <b>PIER C</b>   |                    | <b>INTERNATIONAL PIER E</b> |                    |
| C1              | N39 10.8 W076 40.1 | E1                          | N39 11.0 W076 40.1 |
| C2 thru C6      | N39 10.7 W076 40.1 | E2                          | N39 10.9 W076 40.1 |
| C7              | N39 10.7 W076 40.0 | E3                          | N39 11.0 W076 40.1 |
| C8              | N39 10.7 W076 40.1 | E4                          | N39 10.9 W076 40.1 |
| C9              | N39 10.7 W076 40.0 | E6                          | N39 11.0 W076 40.1 |
|                 |                    |                             |                    |
| C10 thru C11    | N39 10.7 W076 40.0 | E8                          | N39 11.0 W076 40.0 |
| C12 thru C14A   | N39 10.6 W076 40.0 |                             |                    |

KBWI/BWI

19 AUG 11

JEPPESEN

10-9D

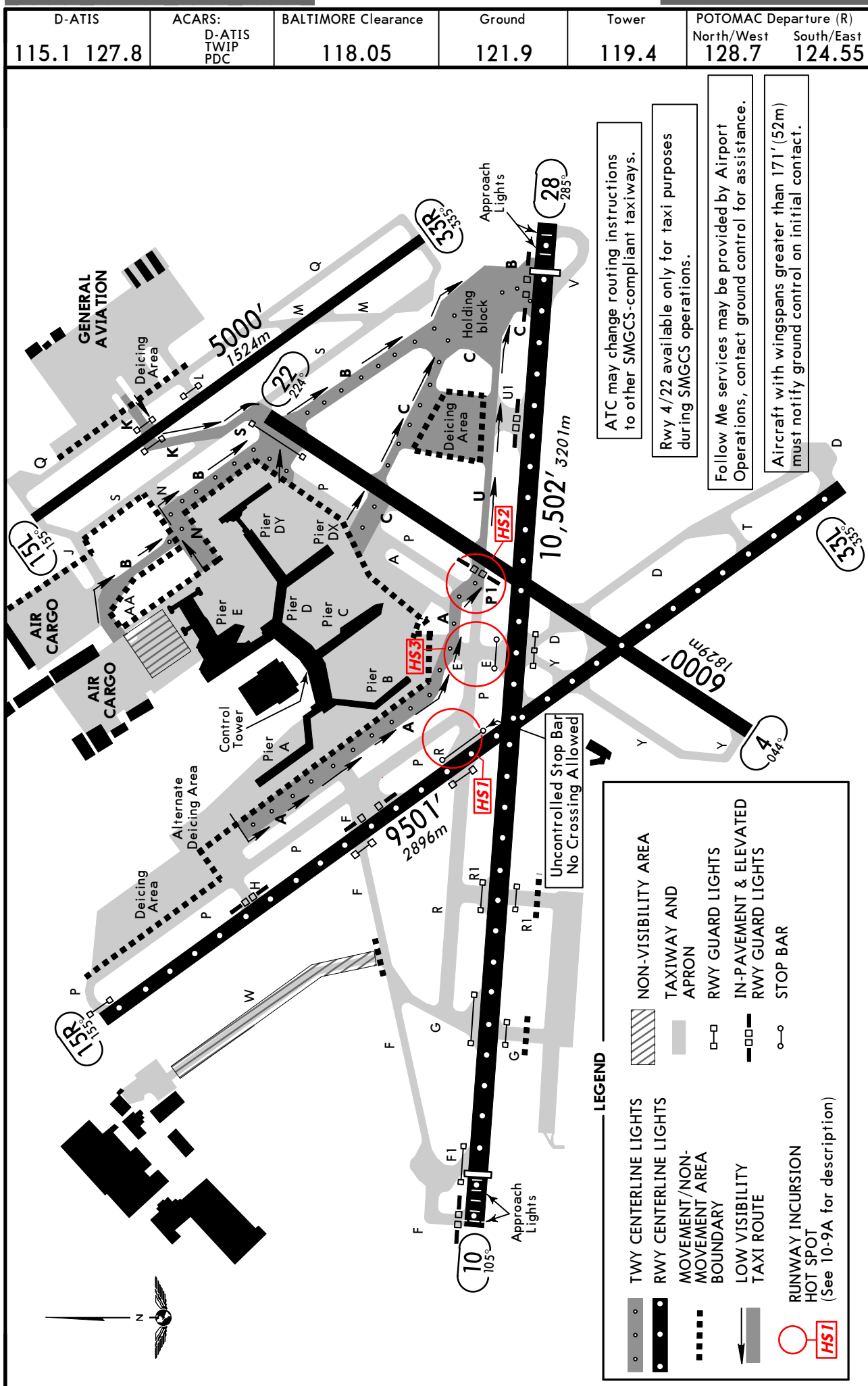
SMGCS

-WASHINGTON INTL/MARSHALL

BALTIMORE, MD  
LOW VISIBILITY TAXI ROUTES

LESS THAN RVR 1200

RWY 28 DEPARTURE



CHANGES: Twy E re-opened.

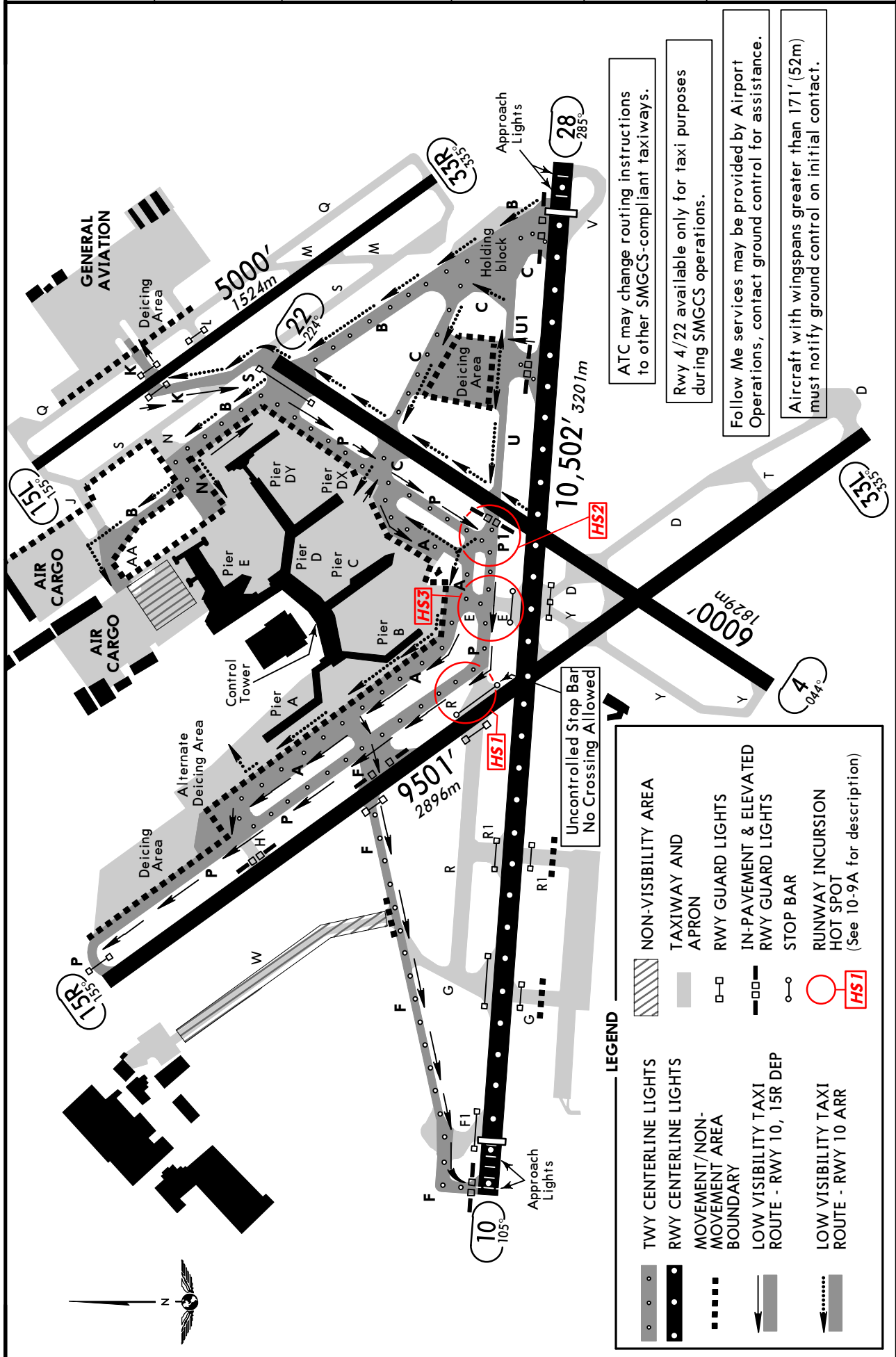
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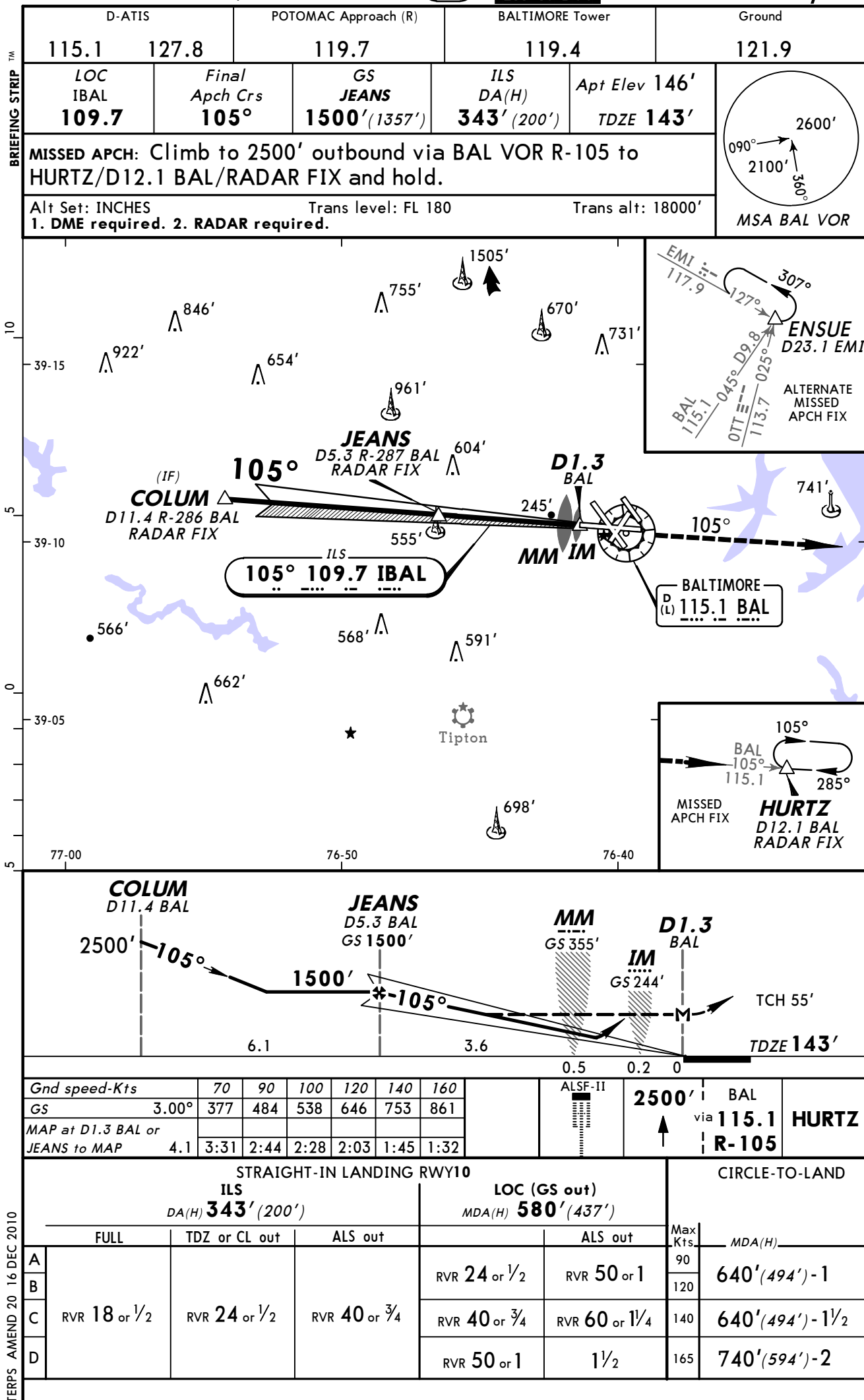
## LOW VISIBILITY TAXI ROUTES

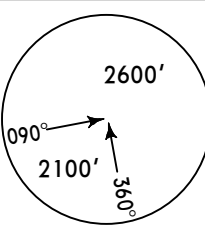
## LESS THAN RVR 1200

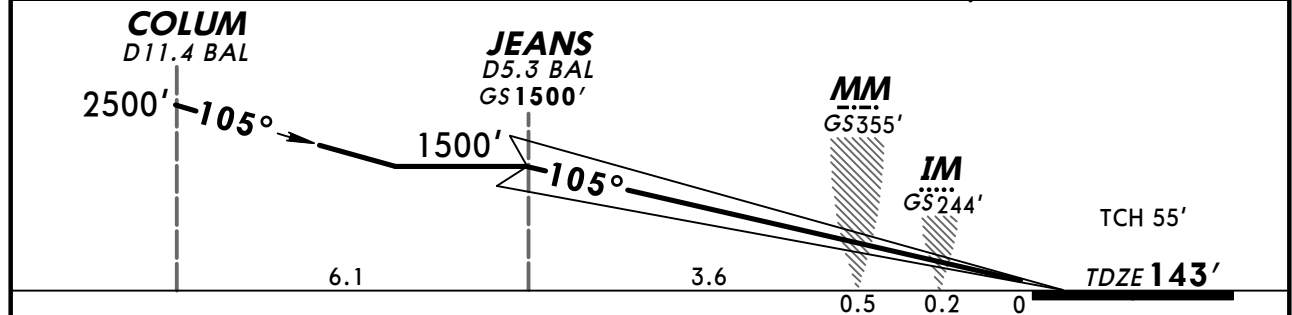
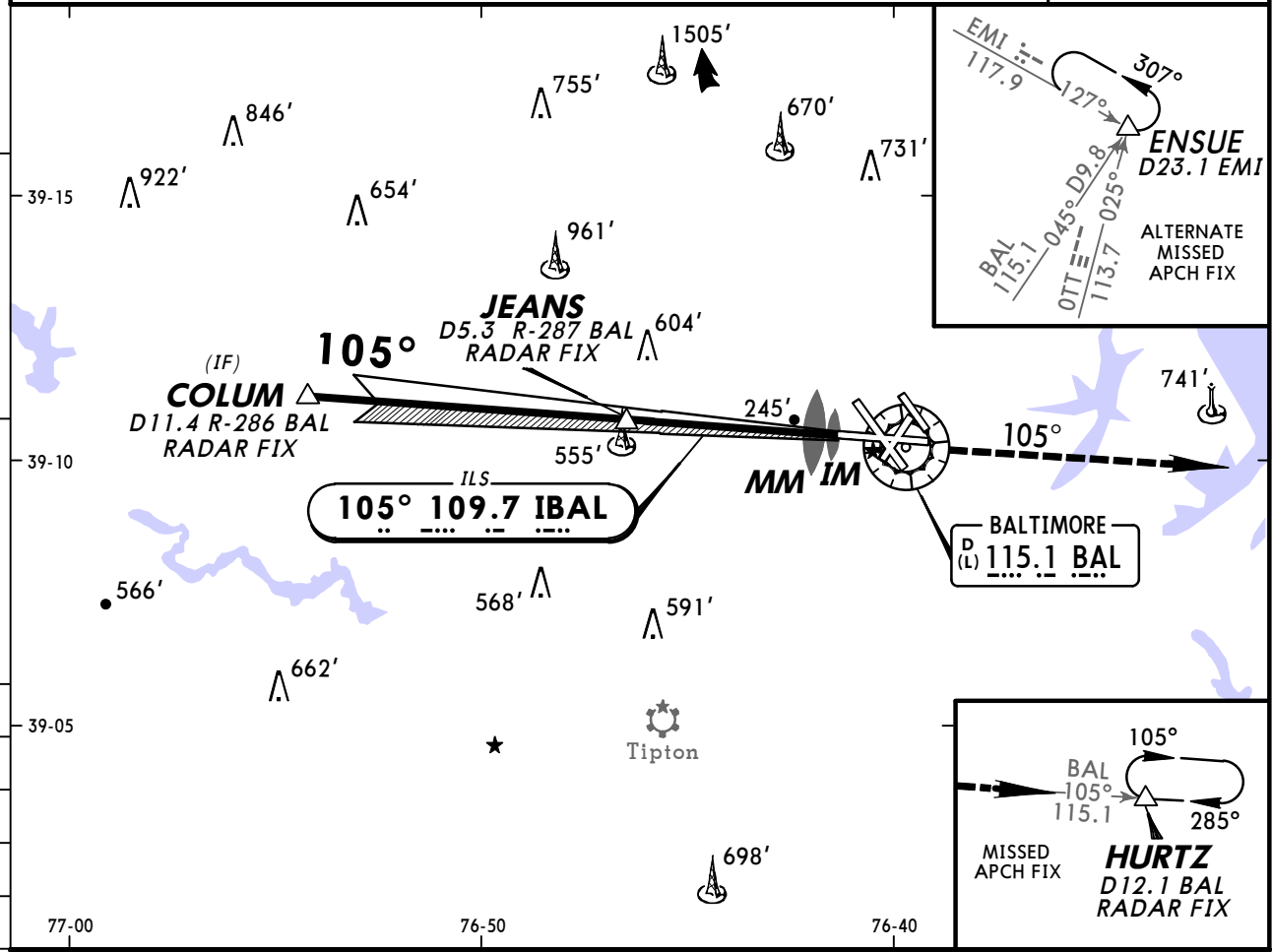
RWY 10 ARRIVAL &amp; RWYS 10 &amp; 15R DEPARTURE

|             |                                 |                     |        |       |                       |                      |
|-------------|---------------------------------|---------------------|--------|-------|-----------------------|----------------------|
| D-ATIS      | ACARS:<br>D-ATIS<br>TWIP<br>PDC | BALTIMORE Clearance | Ground | Tower | POTOMAC Departure (R) |                      |
| 115.1 127.8 |                                 | 118.05              | 121.9  | 119.4 | North/West<br>128.7   | South/East<br>124.55 |





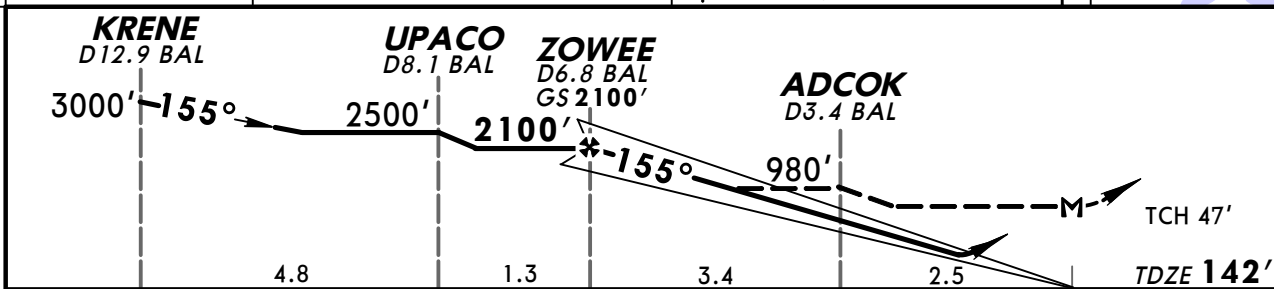
|                                                                                               |          |         |                      |          |          |                   |          |                                                                                     |  |
|-----------------------------------------------------------------------------------------------|----------|---------|----------------------|----------|----------|-------------------|----------|-------------------------------------------------------------------------------------|--|
| D-ATIS                                                                                        |          |         | POTOMAC Approach (R) |          |          | BALTIMORE Tower   |          | Ground                                                                              |  |
| 115.1                                                                                         |          | 127.8   |                      | 119.7    |          | 119.4             |          | 121.9                                                                               |  |
| LOC                                                                                           | Final    | GS      | CAT IIIC             | CAT IIIB | CAT IIIA | CAT II ILS        | Apt Elev |  |  |
| IBAL                                                                                          | Apch Crs | JEANS   | NA                   | Refer to |          | RA 104'           | 146'     |                                                                                     |  |
| 109.7                                                                                         | 105°     | 1500'   |                      | Minimums |          | DA(H)             | TDZE     |                                                                                     |  |
|                                                                                               |          | (1357') |                      |          |          | 243' (100')       | 143'     |                                                                                     |  |
| MISSED APCH: Climb to 2500' outbound via BAL VOR R-105 to HURTZ/D12.1 BAL/RADAR FIX and hold. |          |         |                      |          |          |                   |          |                                                                                     |  |
| Alt Set: INCHES                                                                               |          |         | Trans level: FL 180  |          |          | Trans alt: 18000' |          |                                                                                     |  |
| 1. Special Aircrew & Acft Certification Required.                                             |          |         |                      |          |          |                   |          |                                                                                     |  |
| 2. DME required. 3. RADAR required.                                                           |          |         |                      |          |          |                   |          |                                                                                     |  |
| MSA BAL VOR                                                                                   |          |         |                      |          |          |                   |          |                                                                                     |  |



|               |    |    |     |     |     |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | 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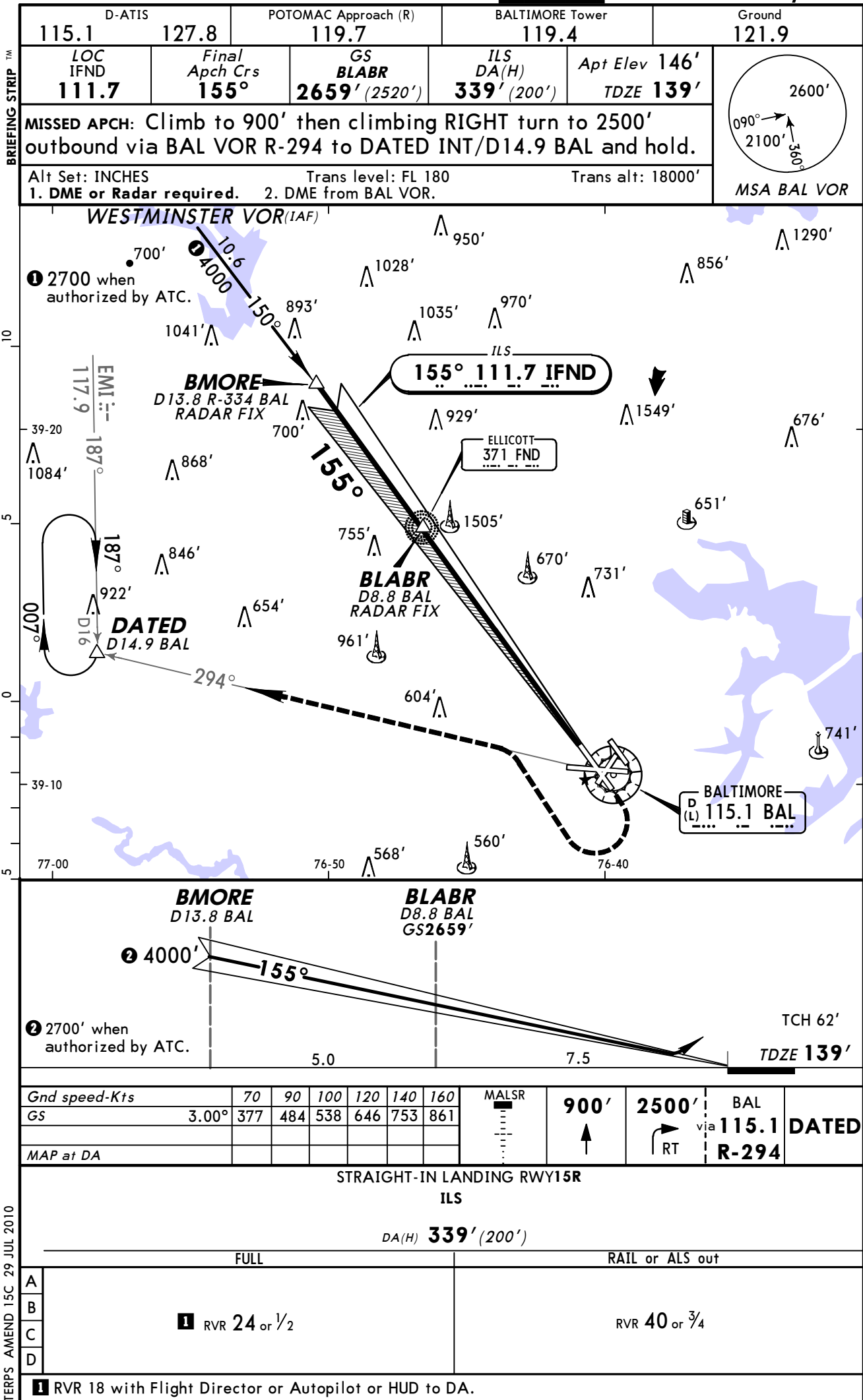
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|---------------------------|--------------|--------------|--|-------------------|--|
| STRAIGHT-IN LANDING RWY10 |              |              |  | CAT II ILS        |  |
| CAT IIIC ILS              | CAT IIIB ILS | CAT IIIA ILS |  | RA 104'           |  |
|                           |              |              |  | DA(H) 243' (100') |  |
| NA                        | RVR 6        | RVR 7        |  | RVR 12            |  |

|                                                                                                                                                     |                           |                               |                             |                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------|-----------------------------|----------------------------|
| D-ATIS<br>115.1                                                                                                                                     | 127.8                     | POTOMAC Approach (R)<br>119.7 | BALTIMORE Tower<br>119.4    | Ground<br>121.9            |
| LOC<br>IUQC<br>111.95                                                                                                                               | Final<br>Apch Crs<br>155° | GS<br>ZOWEE<br>2100' (1958')  | ILS<br>DA(H)<br>471' (329') | Apt Elev 146'<br>TDZE 142' |
| <b>MISSED APCH: Climb to 2500' via heading 155° and outbound<br/>BAL VOR R-153 to DUDDS/D12.0 BAL/RADAR FIX and hold.</b>                           |                           |                               |                             |                            |
| Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'<br>1. DME required. 2. Radar required. 3. Visibility reduction by helicopters not authorized. |                           |                               |                             |                            |
|                                                                                                                                                     |                           |                               |                             |                            |



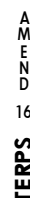
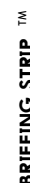
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|----------------------|------|------|------|------|------|------|----------------|------------|-----|-------------|-----|-----------------------|-------|
| <i>Gnd speed-Kts</i> | 70   | 90   | 100  | 120  | 140  | 160  | REIL<br>PAPI-L | 2500'<br>↑ | via | 155°<br>hdg | and | BAL<br>115.1<br>R-153 | DUDDS |
| GS 3.00°             | 377  | 484  | 538  | 646  | 753  | 861  |                |            |     |             |     |                       |       |
|                      |      |      |      |      |      |      |                |            |     |             |     |                       |       |
| ZOWEE to MAP 5.9     | 5:03 | 3:56 | 3:32 | 2:57 | 2:32 | 2:13 |                |            |     |             |     |                       |       |

| STRAIGHT-IN LANDING RWY 15L |  |                    |  | CIRCLE-TO-LAND |  |                   |  |
|-----------------------------|--|--------------------|--|----------------|--|-------------------|--|
| ILS                         |  | LOC (GS out)       |  | With ADCOK     |  | Without ADCOK     |  |
| DA(H) 471' (329')           |  | MDA(H) 560' (418') |  | Max Kts        |  | MDA(H)            |  |
|                             |  | With ADCOK         |  |                |  | Without ADCOK     |  |
|                             |  | MDA(H) 980' (838') |  | 90             |  | 640' (494')-1     |  |
|                             |  | Without ADCOK      |  | 120            |  | 980' (834')-1 1/4 |  |
|                             |  |                    |  | 140            |  | 980' (834')-2 1/2 |  |
|                             |  |                    |  | 165            |  | 980' (834')-2 3/4 |  |



TERPS AMEND 15C 29 JUL 2010

**BALTIMORE, MD**  
**ILS or LOC Rwy 28**

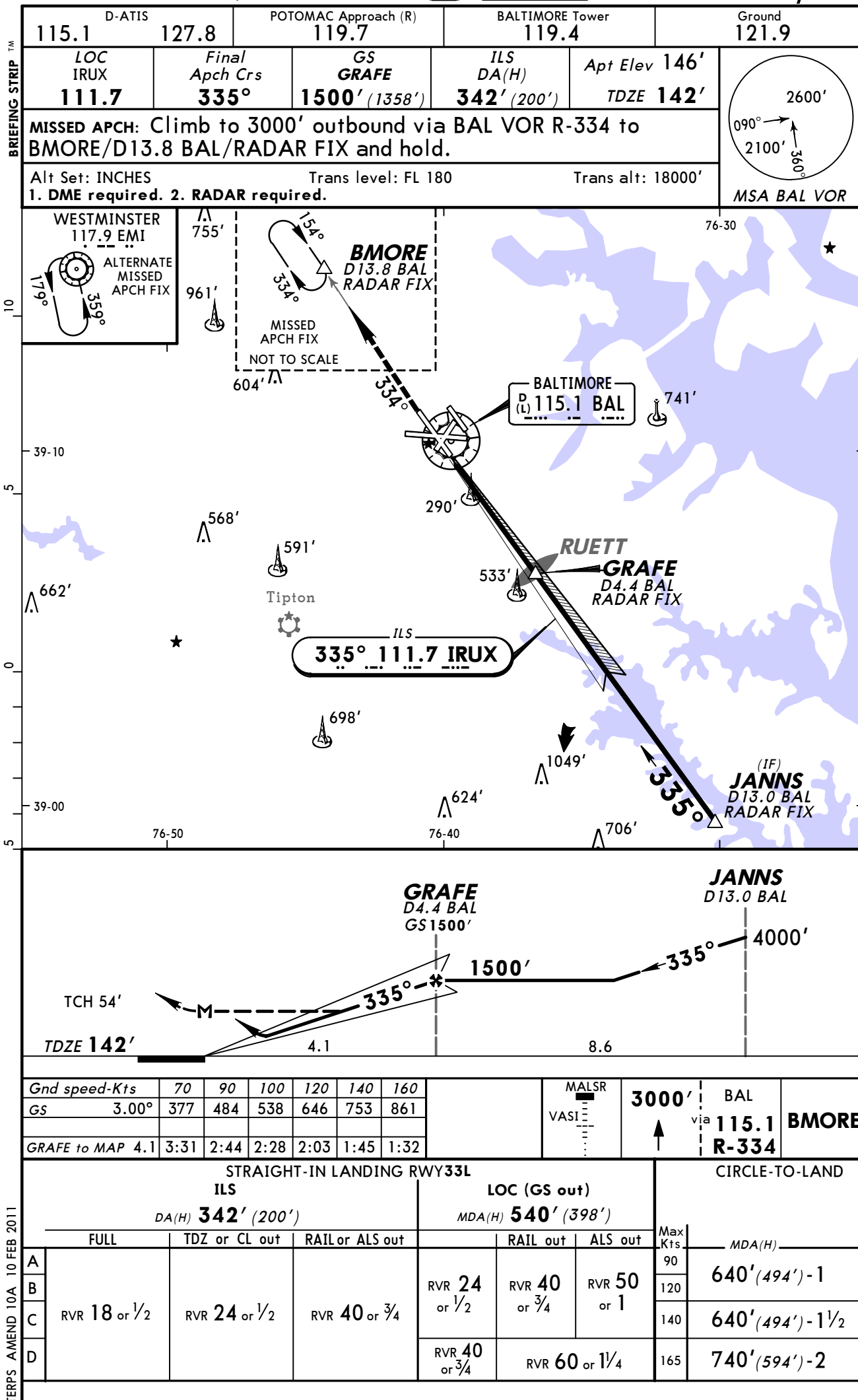


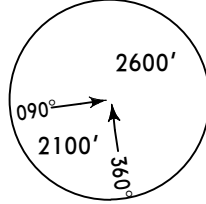
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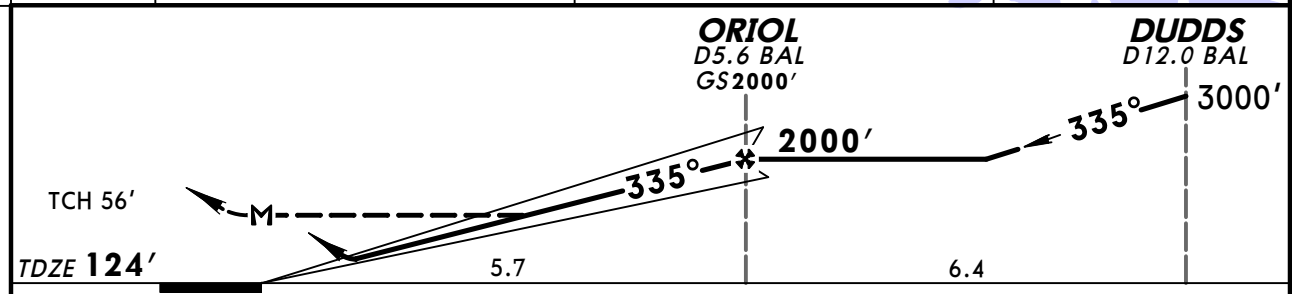
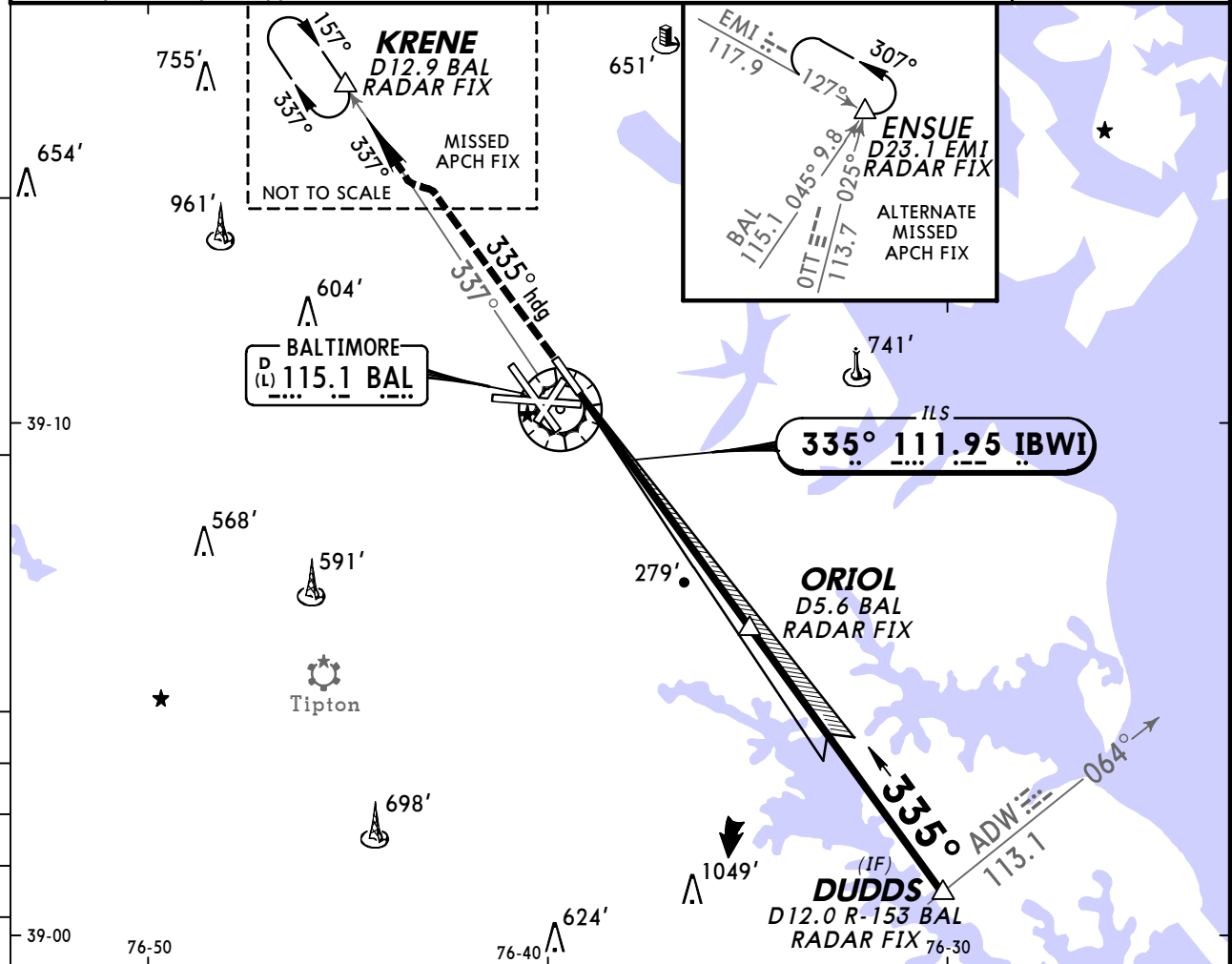
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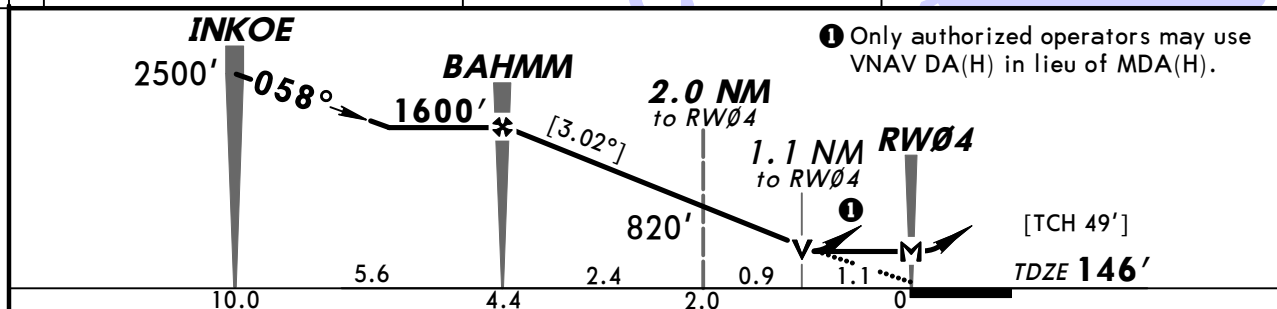
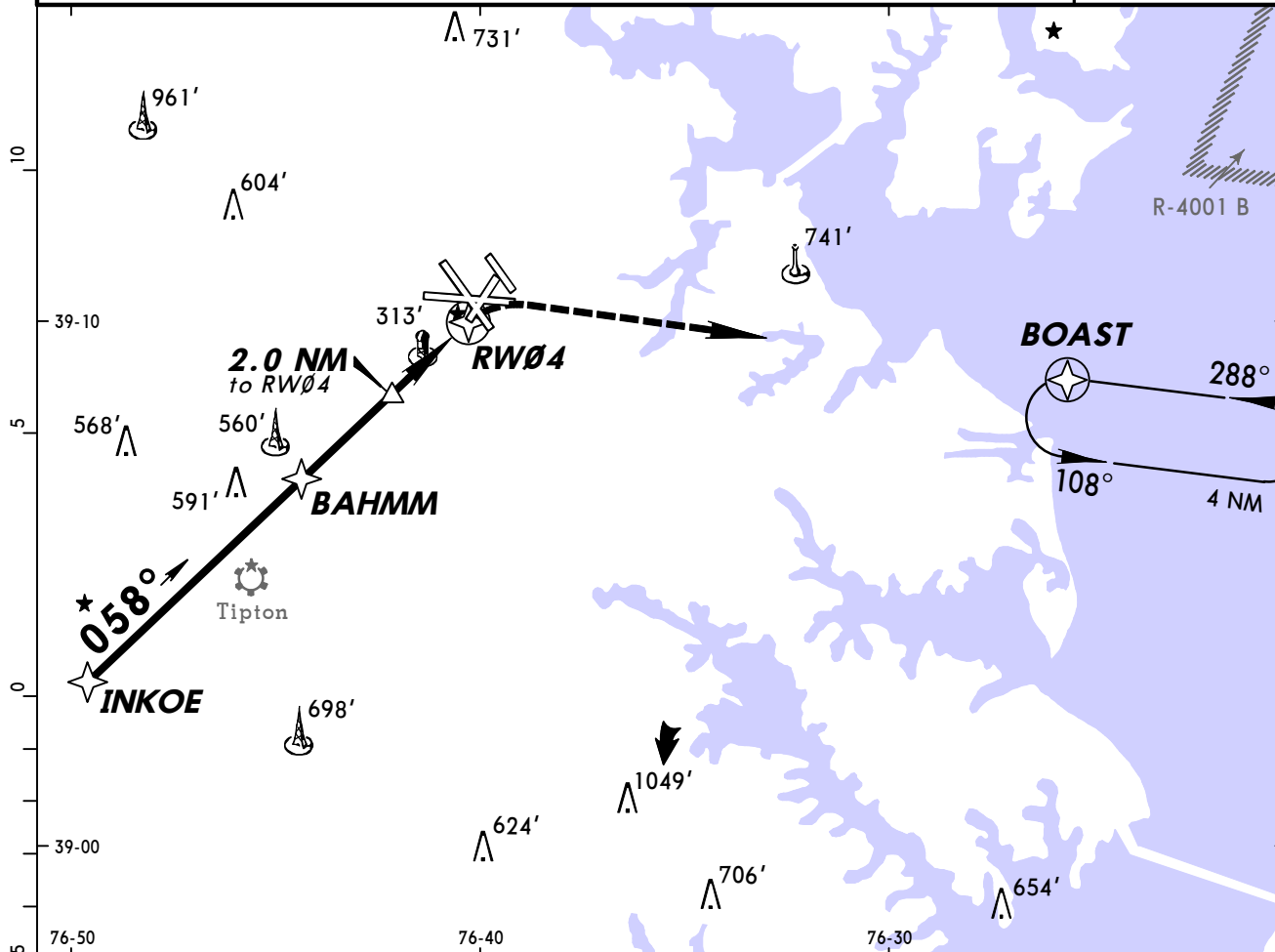
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|---------------------------------------------------------------------------------------------------------------------|-------------------|----------------------|--------------|-------------------|--|------------------------------------------------------------------------------------------------|--|
| D-ATIS                                                                                                              |                   | POTOMAC Approach (R) |              | BALTIMORE Tower   |  | Ground                                                                                         |  |
| 115.1 127.8                                                                                                         |                   | 119.7                |              | 119.4             |  | 121.9                                                                                          |  |
| LOC<br>IBWI                                                                                                         | Final<br>Apch Crs | GS<br>ORIOL          | ILS<br>DA(H) | Apt Elev 146'     |  | <div></div> |  |
| 111.95                                                                                                              | 335°              | 2000' (1876')        | 331' (207')  | TDZE 124'         |  |                                                                                                |  |
| MISSED APCH: Climb to 3000' on heading 335° and outbound via<br>BAL VOR R-337 to KRENE/12.9 BAL/RADAR FIX and hold. |                   |                      |              |                   |  |                                                                                                |  |
| Alt Set: INCHES                                                                                                     |                   | Trans level: FL 180  |              | Trans alt: 18000' |  | <div>MSA BAL VOR</div>                                                                         |  |
| 1. DME required. 2. RADAR required.                                                                                 |                   |                      |              |                   |  |                                                                                                |  |
| 3. Autopilot coupled approach not authorized below 700'.                                                            |                   |                      |              |                   |  |                                                                                                |  |



|               |       |      |      |      |      |      |                                                              |                                            |                                             |                                              |                               |
|---------------|-------|------|------|------|------|------|--------------------------------------------------------------|--------------------------------------------|---------------------------------------------|----------------------------------------------|-------------------------------|
| Gnd speed-Kts | 70    | 90   | 100  | 120  | 140  | 160  | <div> <div>MALS</div> <div>REIL</div> <div>PAPI</div> </div> | <div> <div>3000'</div> <div>↑</div> </div> | <div> <div>335°</div> <div>hdg</div> </div> | <div> <div>BAL</div> <div>R-337</div> </div> | <div> <div>KRENE</div> </div> |
| GS            | 3.00° | 377  | 484  | 538  | 646  | 753  |                                                              |                                            |                                             |                                              |                               |
| ORIOL to MAP  | 5.7   | 4:53 | 3:48 | 3:25 | 2:51 | 2:27 |                                                              |                                            |                                             |                                              |                               |

| STRAIGHT-IN LANDING RWY 33R |               |                 |                                    |               |               | CIRCLE-TO-LAND  |               |     |                   |
|-----------------------------|---------------|-----------------|------------------------------------|---------------|---------------|-----------------|---------------|-----|-------------------|
| ILS<br>DA(H) 331' (207')    |               |                 | LOC (GS out)<br>MDA(H) 540' (416') |               |               | Max<br>Kts      | MDA(H)        |     |                   |
| FULL                        |               | RAIL or ALS out |                                    | RAIL out      | ALS out       |                 |               |     |                   |
| A                           | RVR 24 or 1/2 | RVR 40 or 3/4   | RVR 24 or 1/2                      | RVR 40 or 3/4 | RVR 50 or 1   | 90              | 640' (494')-1 |     |                   |
| B                           |               |                 |                                    |               |               | 120             |               |     |                   |
| C                           |               |                 |                                    |               | RVR 40 or 3/4 | RVR 60 or 1 1/4 |               | 140 | 640' (494')-1 1/2 |
| D                           |               |                 |                                    |               |               |                 |               | 165 | 740' (594')-2     |

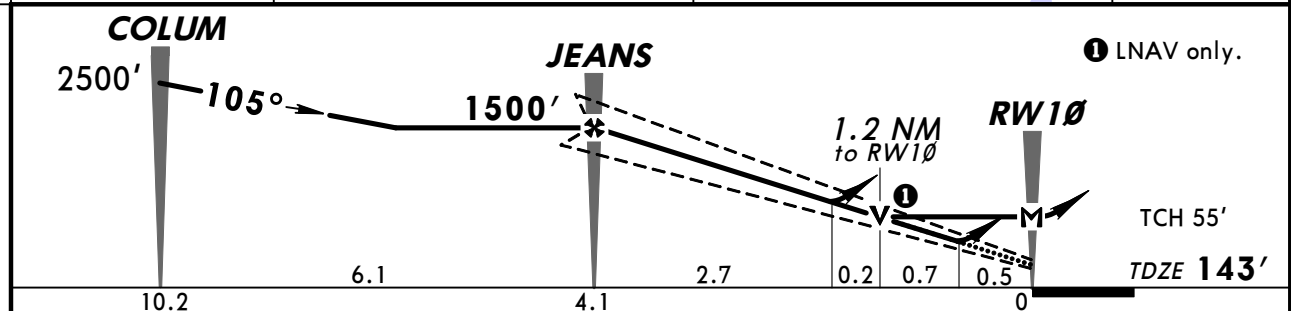
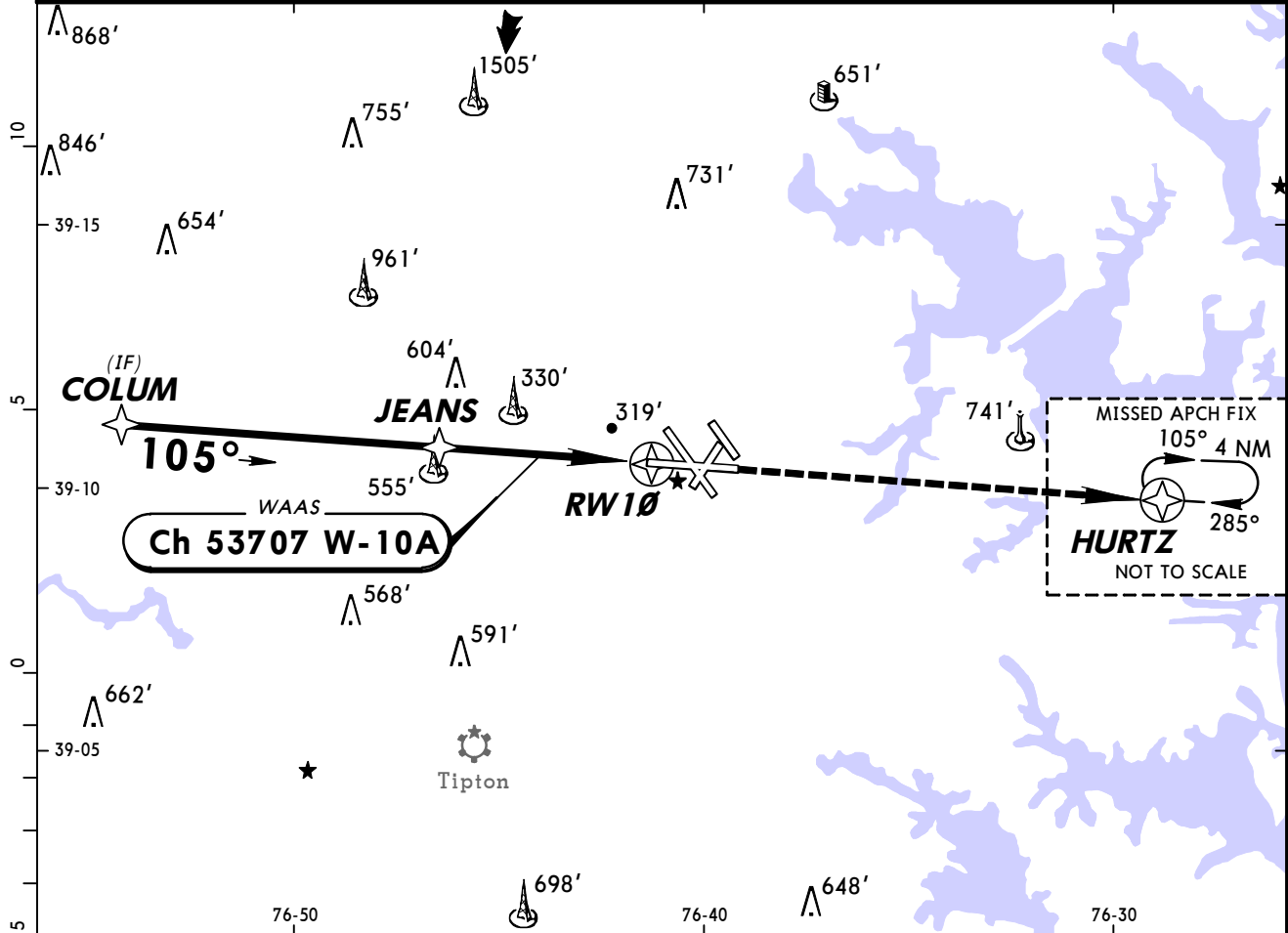
|                      |                                                                                                                                                                             |                                  |                                                     |                                      |                                              |  |                                                |  |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------|--------------------------------------|----------------------------------------------|--|------------------------------------------------|--|
| BRIEFING STRIP<br>TM | D-ATIS                                                                                                                                                                      |                                  | POTOMAC Approach (R)                                |                                      | BALTIMORE Tower                              |  | Ground                                         |  |
|                      | 115.1      127.8                                                                                                                                                            |                                  | 119.7                                               |                                      | 119.4                                        |  | 121.9                                          |  |
|                      | RNAV                                                                                                                                                                        | Final<br>Apch Crs<br><b>058°</b> | Minimum Alt<br><b>BAHMM</b><br><b>1600'</b> (1454') | LNAV<br>MDA(H)<br><b>540'</b> (394') | Apt Elev <b>146'</b><br><br><b>TDZE 146'</b> |  | <div><div>2600'</div><div>MSA RW04</div></div> |  |
|                      | <b>MISSED APCH:</b> Climbing RIGHT turn to 2500' direct BOAST and hold.                                                                                                     |                                  |                                                     |                                      |                                              |  |                                                |  |
|                      | Alt Set: INCHES      Trans level: FL 180      Trans alt: 18000'<br><b>1. RADAR required.</b> 2. DME/DME RNP-0.30 not authorized. 3. VGSI and descent angles not coincident. |                                  |                                                     |                                      |                                              |  |                                                |  |



|             |  |  |  |  |  |  |        |       |    |       |
|-------------|--|--|--|--|--|--|--------|-------|----|-------|
| MAP at RW04 |  |  |  |  |  |  | VASI-L | 2500' | RT | BOAST |
|-------------|--|--|--|--|--|--|--------|-------|----|-------|

| STRAIGHT-IN LANDING RWY 4 |       |  |  |  |  | CIRCLE-TO-LAND |                     |  |
|---------------------------|-------|--|--|--|--|----------------|---------------------|--|
| LNAV                      |       |  |  |  |  | Max Kts        | MDA(H)              |  |
| A                         | 1     |  |  |  |  | 90             | 640' (494') - 1     |  |
| B                         |       |  |  |  |  | 120            | 640' (494') - 1 1/2 |  |
| C                         |       |  |  |  |  | 140            | 640' (494') - 1 1/2 |  |
| D                         | 1 1/4 |  |  |  |  | 165            | 740' (594') - 2     |  |

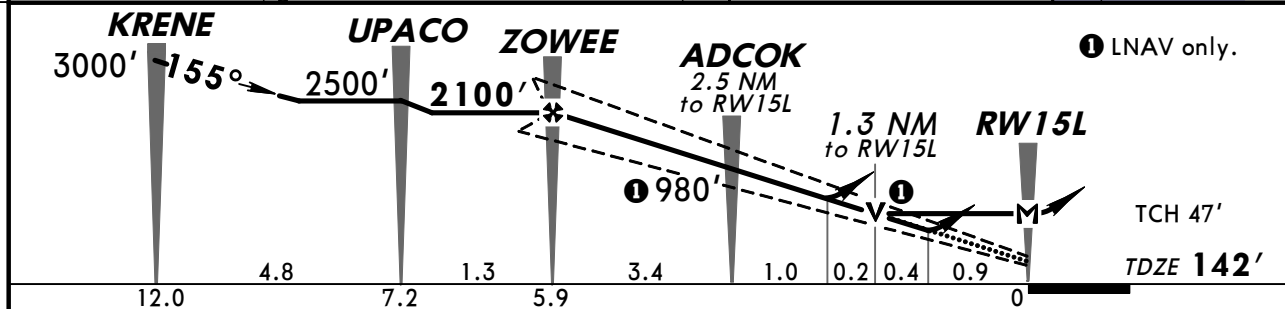
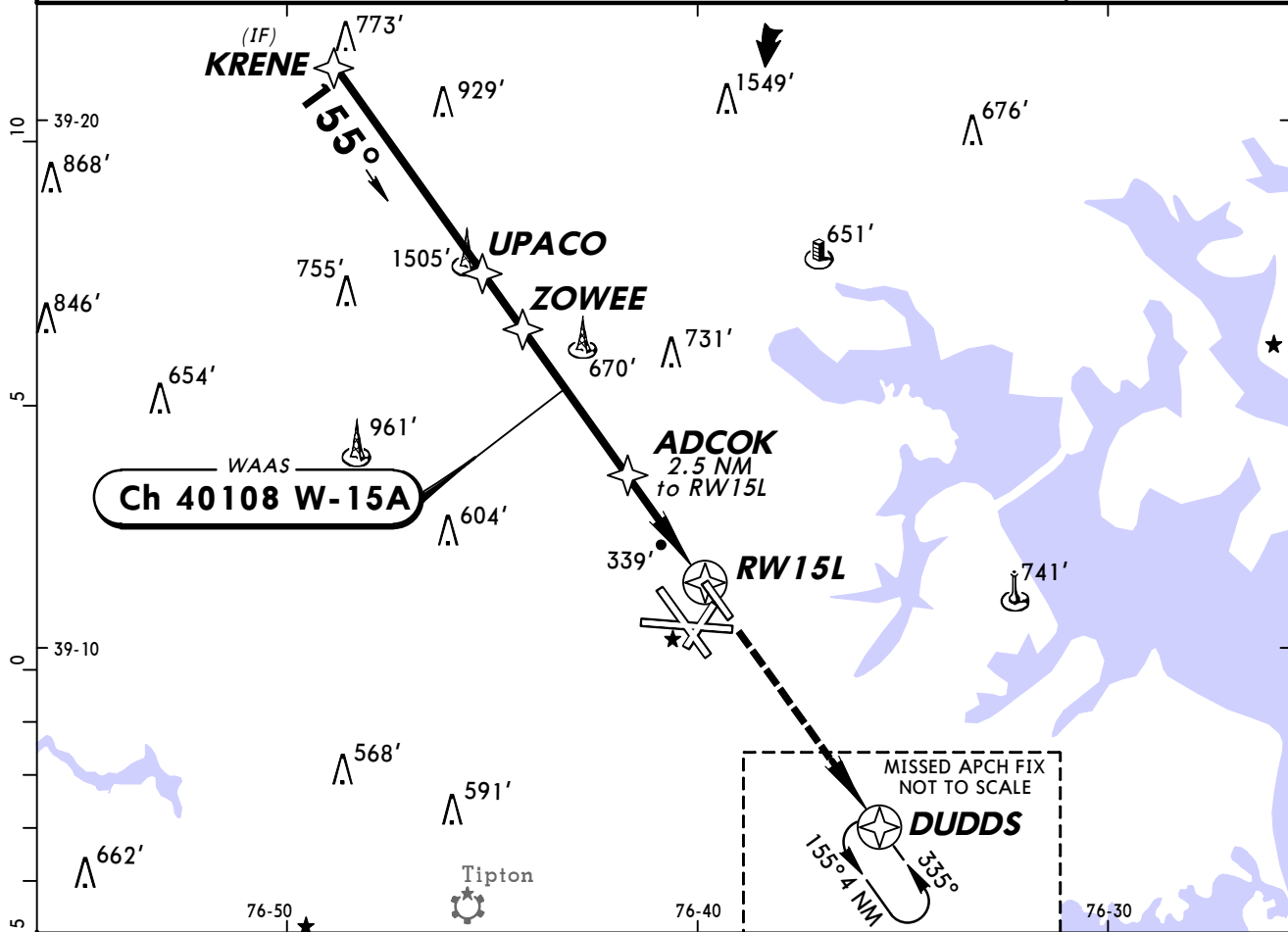
|                                                                                                                                                                  |  |                           |  |                                       |  |                             |  |                            |  |                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------|--|---------------------------------------|--|-----------------------------|--|----------------------------|--|--------------------------------------|
| D-ATIS                                                                                                                                                           |  | POTOMAC Approach (R)      |  | BALTIMORE Tower                       |  | Ground                      |  |                            |  |                                      |
| 115.1                                                                                                                                                            |  | 127.8                     |  | 119.7                                 |  | 119.4                       |  | 121.9                      |  |                                      |
| WAAS<br>Ch 53707<br>W-10A                                                                                                                                        |  | Final<br>Apch Crs<br>105° |  | Minimum Alt<br>JEANS<br>1500' (1357') |  | LPV<br>DA(H)<br>343' (200') |  | Apt Elev 146'<br>TDZE 143' |  | <div>2600'</div> <div>MSA RW10</div> |
| MISSED APCH: Climb to 2500' direct HURTZ and hold.                                                                                                               |  |                           |  |                                       |  |                             |  |                            |  |                                      |
| Alt Set: INCHES                      Trans level: FL 180                      Trans alt: 18000'                                                                  |  |                           |  |                                       |  |                             |  |                            |  |                                      |
| 1. RADAR required. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -15°C (5°F) or above 48°C (118°F). 3. DME/DME RNP-0.30 not authorized. |  |                           |  |                                       |  |                             |  |                            |  |                                      |



|                        |     |     |     |     |     |     |             |           |  |       |
|------------------------|-----|-----|-----|-----|-----|-----|-------------|-----------|--|-------|
| Gnd speed-Kts          | 70  | 90  | 100 | 120 | 140 | 160 | ALSF-II<br> | 2500'<br> |  | HURTZ |
| Glide Path Angle 3.00° | 372 | 478 | 531 | 637 | 743 | 849 |             |           |  |       |
| MAP at RW10            |     |     |     |     |     |     |             |           |  |       |

| STRAIGHT-IN LANDING RWY 10             |               |               |                                              |         |                                          |             | CIRCLE-TO-LAND |               |     |                  |
|----------------------------------------|---------------|---------------|----------------------------------------------|---------|------------------------------------------|-------------|----------------|---------------|-----|------------------|
| LPV<br><i>DA(H)</i> <b>343'</b> (200') |               |               | LNAV/VNAV<br><i>DA(H)</i> <b>634'</b> (491') |         | LNAV<br><i>MDA(H)</i> <b>580'</b> (437') |             | Max<br>Kts     | <i>MDA(H)</i> |     |                  |
|                                        |               | ALS out       |                                              | ALS out |                                          |             |                |               |     |                  |
| A                                      | RVR 24 or 1/2 | RVR 40 or 3/4 | RVR 60 or 1 1/4                              | 1 3/4   | RVR 24 or 1/2                            | RVR 50 or 1 | 90             | 640'(494')-1  |     |                  |
| B                                      |               |               |                                              |         |                                          |             | 120            |               |     |                  |
| C                                      |               |               |                                              |         |                                          |             | RVR 40 or 3/4  | 1 1/4         | 140 | 640'(494')-1 1/2 |
| D                                      |               |               |                                              |         |                                          |             | RVR 50 or 1    | 1 1/2         | 165 | 740'(594')-2     |

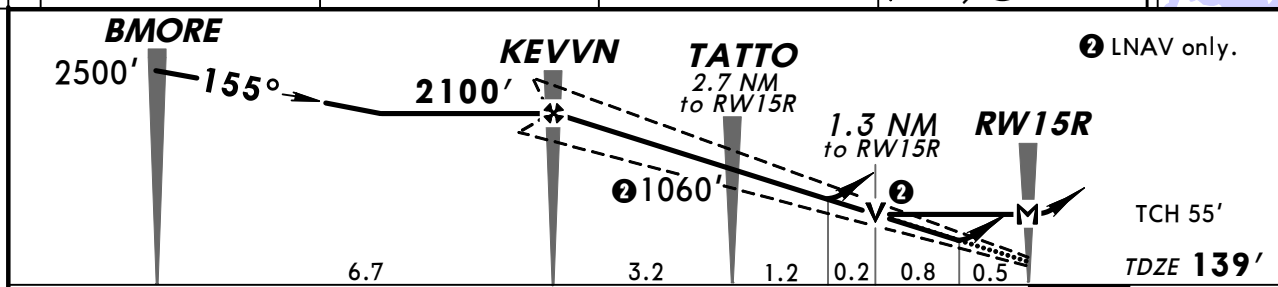
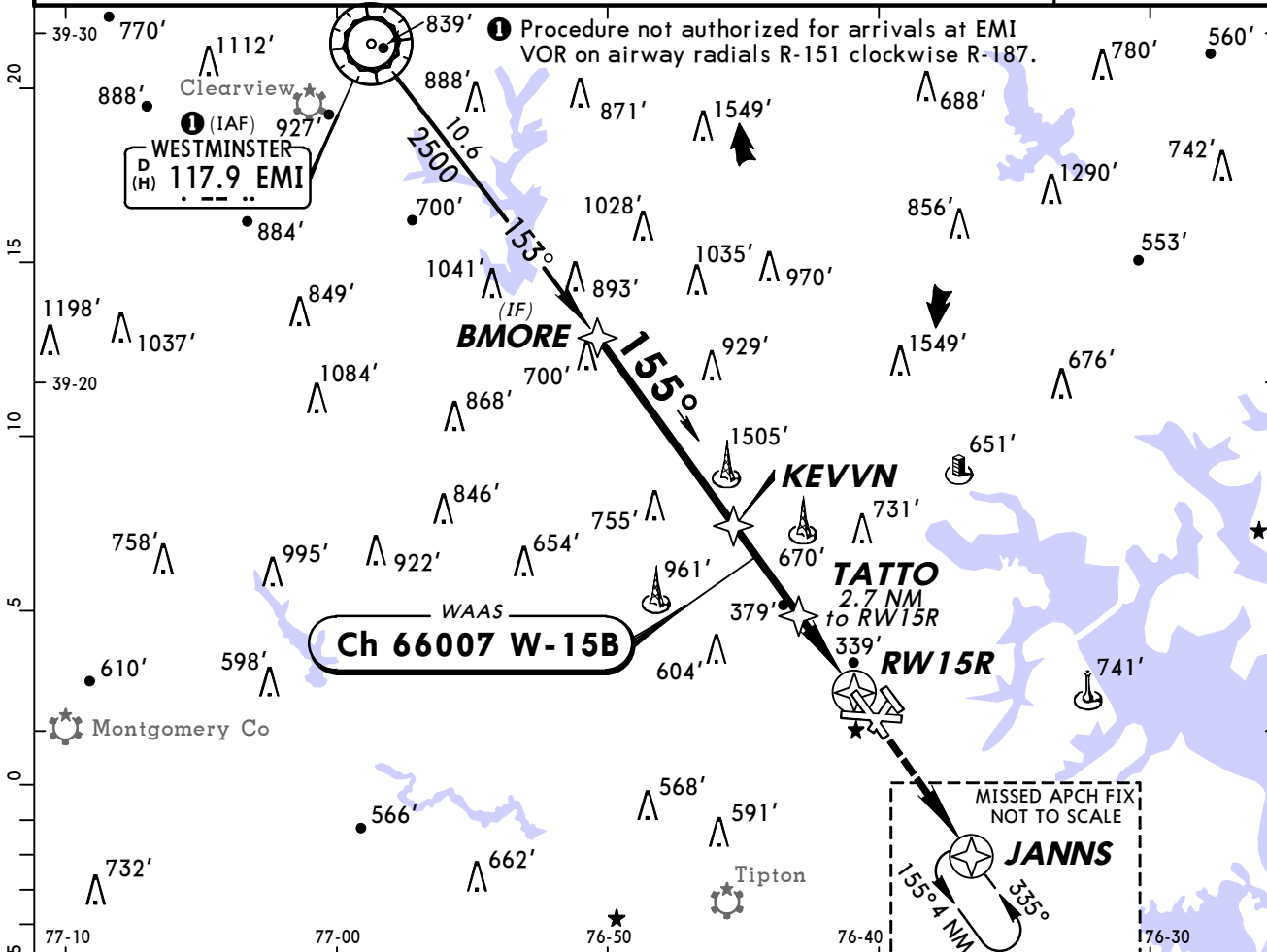
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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------|--|---------------------------------------|--|-----------------------------|--|---------------------------------------|--|
| D-ATIS                                                                                                                                                                                                                  |  | POTOMAC Approach (R)      |  | BALTIMORE Tower                       |  | Ground                      |  |                                       |  |
| 115.1                                                                                                                                                                                                                   |  | 127.8                     |  | 119.7                                 |  | 119.4                       |  | 121.9                                 |  |
| WAAS<br>Ch 40108<br>W-15A                                                                                                                                                                                               |  | Final<br>Apch Crs<br>155° |  | Minimum Alt<br>ZOWEE<br>2100' (1958') |  | LPV<br>DA(H)<br>471' (329') |  | Apt Elev 146'<br>TDZE 142'            |  |
| MISSED APCH: Climb to 2500' direct DUDDS and hold.                                                                                                                                                                      |  |                           |  |                                       |  |                             |  | <div>2600'</div> <div>MSA RW15L</div> |  |
| Alt Set: INCHES                      Trans level: FL 180                      Trans alt: 18000'                                                                                                                         |  |                           |  |                                       |  |                             |  |                                       |  |
| 1. RADAR required. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -15°C (5°F) or above 48°C (118°F). 3. DME/DME RNP-0.30 not authorized. 4. Visibility reduction by helicopters not authorized. |  |                           |  |                                       |  |                             |  |                                       |  |



|                  |       |     |     |     |     |     |     |  |      |        |   |       |
|------------------|-------|-----|-----|-----|-----|-----|-----|--|------|--------|---|-------|
| Gnd speed-Kts    | 70    | 90  | 100 | 120 | 140 | 160 |     |  | REIL | 2500'  | ➔ | DUDDS |
| Glide Path Angle | 3.00° | 372 | 478 | 531 | 637 | 743 | 849 |  |      | PAPI-L |   |       |
| MAP at RW15L     |       |     |     |     |     |     |     |  |      |        |   |       |

| STRAIGHT-IN LANDING RWY 15L     |    |                                       |  |                                   | CIRCLE-TO-LAND |                |  |
|---------------------------------|----|---------------------------------------|--|-----------------------------------|----------------|----------------|--|
| LPV<br>DA(H) <b>471'</b> (329') |    | LNAV/VNAV<br>DA(H) <b>659'</b> (517') |  | LNAV<br>MDA(H) <b>600'</b> (458') | Max Kts        | MDA(H)         |  |
| RVR <b>60</b> or 1¼             | 1¾ |                                       |  | RVR <b>50</b> or 1                | 90             | 640' (494')-1  |  |
|                                 |    |                                       |  | RVR <b>60</b> or 1¼               | 120            | 640' (494')-1½ |  |
|                                 |    |                                       |  | 1½                                | 140            | 640' (494')-1½ |  |
|                                 |    |                                       |  |                                   | 165            | 740' (594')-2  |  |

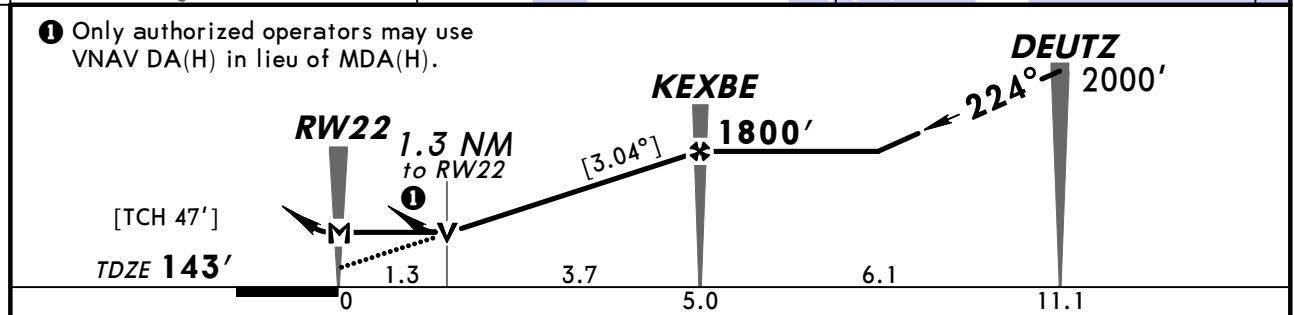
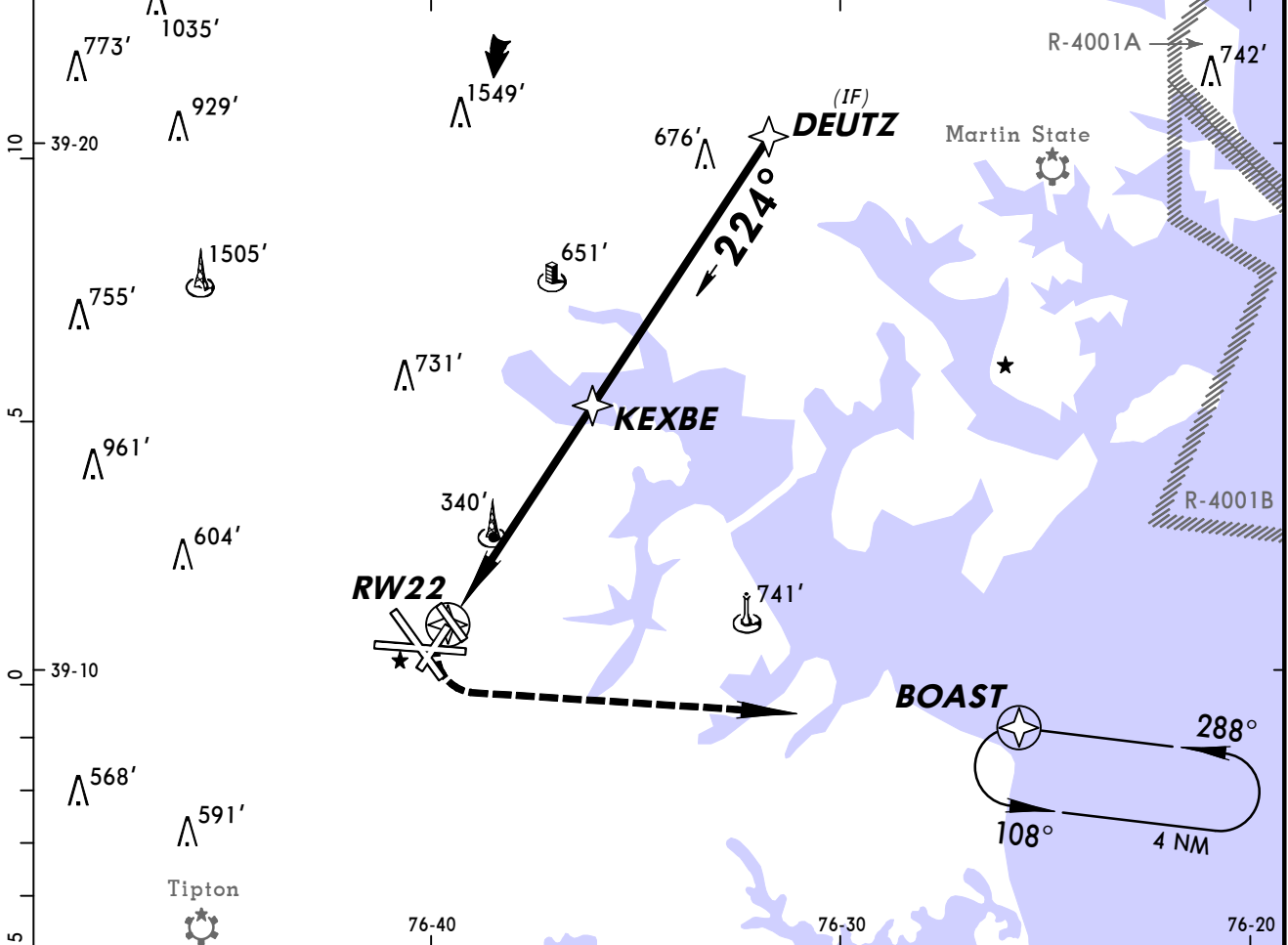
|                                                                                                                                              |                                  |                                                     |                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------|------------------------------------|
| D-ATIS                                                                                                                                       | POTOMAC Approach (R)             | BALTIMORE Tower                                     | Ground                             |
| 115.1                                                                                                                                        | 127.8                            | 119.7                                               | 121.9                              |
| WAAS<br><b>Ch 66007</b><br>W-15B                                                                                                             | Final<br>Apch Crs<br><b>155°</b> | Minimum Alt<br><b>KEVVN</b><br><b>2100'</b> (1961') | LPV<br>DA(H)<br><b>339'</b> (200') |
| Apt Elev <b>146'</b><br>TDZE <b>139'</b>                                                                                                     |                                  |                                                     | 2600'                              |
| <b>MISSED APCH: Climb to 2500' direct JANNIS and hold.</b>                                                                                   |                                  |                                                     |                                    |
| Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'                                                                                        |                                  |                                                     |                                    |
| 1. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -15°C (5°F) or above 48°C (118°). 2. DME/DME RNP-0.30 not authorized. |                                  |                                                     |                                    |
|                                                                                                                                              |                                  |                                                     | MSA RW15R                          |



|                  |       |     |     |     |     |     |       |       |   |        |
|------------------|-------|-----|-----|-----|-----|-----|-------|-------|---|--------|
| Gnd speed-Kts    | 70    | 90  | 100 | 120 | 140 | 160 | MALSR | 2500' | D | JANNIS |
| Glide Path Angle | 3.00° | 372 | 478 | 531 | 637 | 849 |       |       |   |        |
| MAP at RW15R     |       |     |     |     |     |     |       |       |   |        |

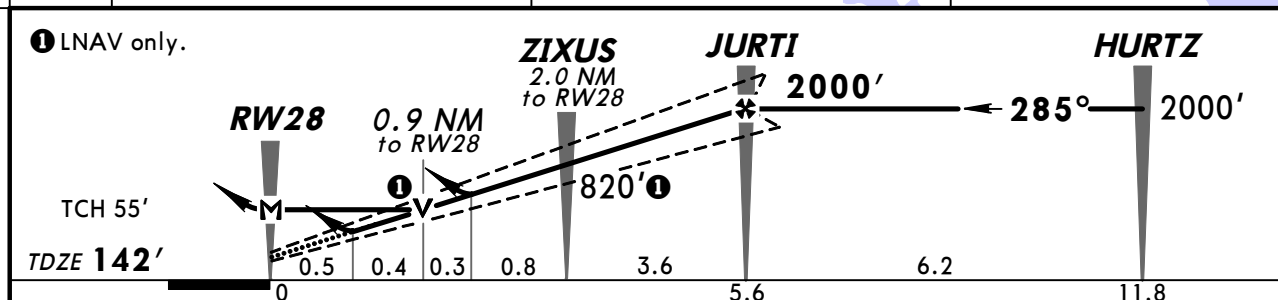
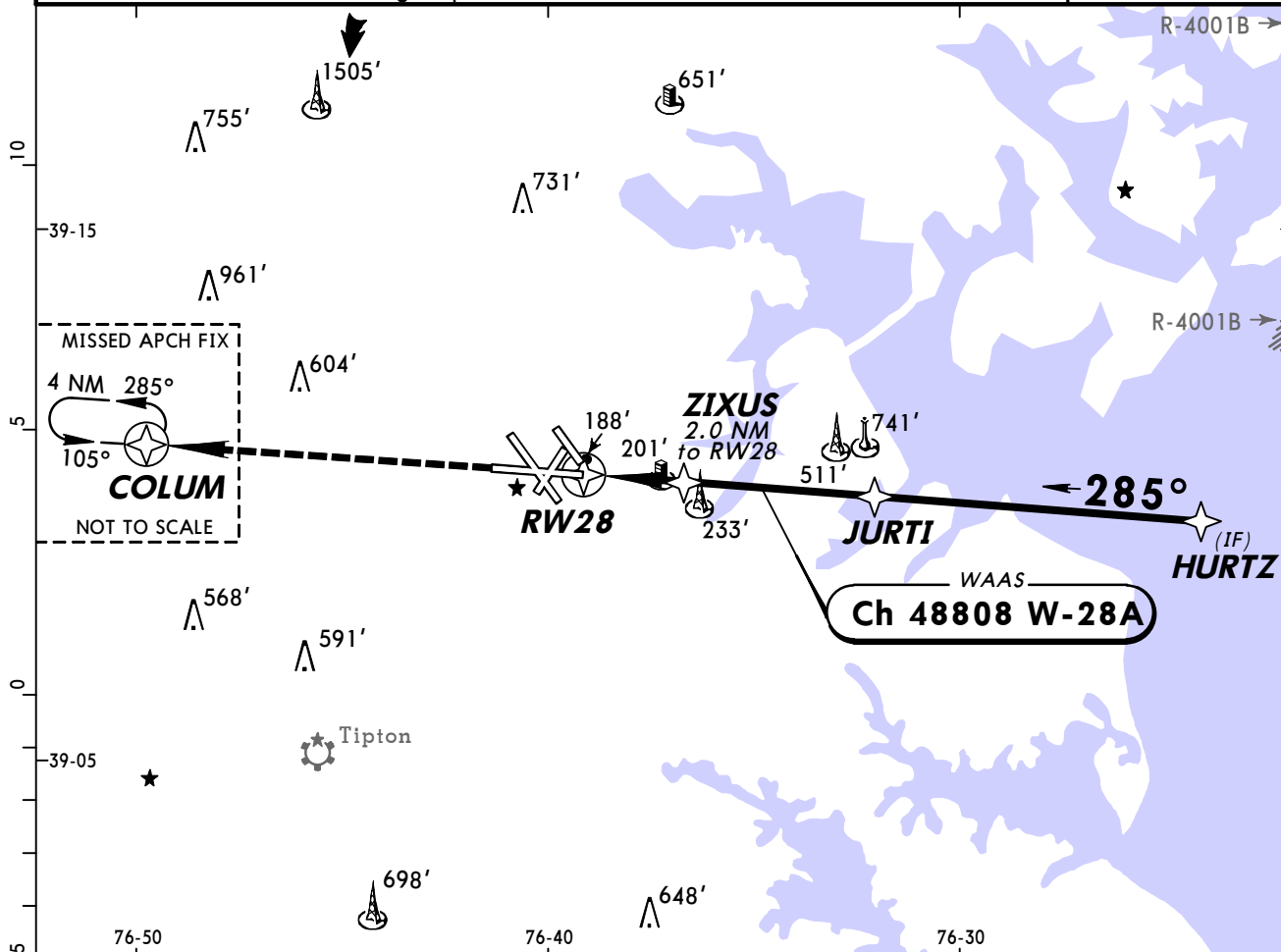
| STRAIGHT-IN LANDING RWY 15R     |  |                                       |         |                                   |               | CIRCLE-TO-LAND |                     |  |
|---------------------------------|--|---------------------------------------|---------|-----------------------------------|---------------|----------------|---------------------|--|
| LPV<br>DA(H) <b>339'</b> (200') |  | LNAV/VNAV<br>DA(H) <b>659'</b> (520') |         | LNAV<br>MDA(H) <b>600'</b> (461') |               | Max Kts        | MDA(H)              |  |
| RAIL or ALS out                 |  | RAIL out                              | ALS out | RAIL out                          | ALS out       |                |                     |  |
| A                               |  |                                       |         | RVR 24 or 1/2                     | RVR 40 or 3/4 | 90             | 640' (494') - 1     |  |
| B                               |  |                                       |         | RVR 40 or 1/2                     | RVR 60 or 1/4 | 120            | 640' (494') - 1 1/2 |  |
| C                               |  |                                       |         | RVR 50 or 1                       |               | 140            | 740' (594') - 2     |  |
| D                               |  |                                       |         |                                   |               | 165            |                     |  |

|                                                                                                                                                               |                           |                                       |                               |                            |  |                                      |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------|-------------------------------|----------------------------|--|--------------------------------------|--|
| D-ATIS                                                                                                                                                        |                           | POTOMAC Approach (R)                  |                               | BALTIMORE Tower            |  | Ground                               |  |
| 115.1                                                                                                                                                         |                           | 127.8                                 |                               | 119.7                      |  | 121.9                                |  |
| RNAV                                                                                                                                                          | Final<br>Apch Crs<br>224° | Minimum Alt<br>KEXBE<br>1800' (1657') | LNAV<br>MDA(H)<br>600' (457') | Apt Elev 146'<br>TDZE 143' |  | <div>2600'</div> <div>MSA RW22</div> |  |
| MISSED APCH: Climbing LEFT turn to 2500' direct BOAST and hold.                                                                                               |                           |                                       |                               |                            |  |                                      |  |
| Alt Set: INCHES                      Trans level: FL 180                      Trans alt: 18000'                                                               |                           |                                       |                               |                            |  |                                      |  |
| 1. RADAR required.   2. DME/DME RNP-0.3 not authorized.   3. Visibility reduction by helicopters not authorized.   4. VGSI and descent angles not coincident. |                           |                                       |                               |                            |  |                                      |  |



|                                                          |    |     |     |     |     |     |     |                |                           |                                                                                                |                                                                                       |       |
|----------------------------------------------------------|----|-----|-----|-----|-----|-----|-----|----------------|---------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|
| Gnd Speed-Kts                                            |    | 70  | 90  | 100 | 120 | 140 | 160 |                | REIL<br>VASI-L            | 2500'<br> |  | BOAST |
| Descent angle [3.04°]                                    |    | 376 | 484 | 538 | 645 | 753 | 861 |                |                           |                                                                                                |                                                                                       |       |
|                                                          |    |     |     |     |     |     |     |                |                           |                                                                                                |                                                                                       |       |
| MAP at RW22                                              |    |     |     |     |     |     |     |                |                           |                                                                                                |                                                                                       |       |
| STRAIGHT-IN LANDING RWY 22<br>LNAV<br>MDA(H) 600' (457') |    |     |     |     |     |     |     | CIRCLE-TO-LAND |                           |                                                                                                |                                                                                       |       |
| A                                                        | 1  |     |     |     |     |     |     | Max<br>Kts     | MDA(H)<br>640' (494') - 1 |                                                                                                |                                                                                       |       |
| B                                                        |    |     |     |     |     |     |     | 90             |                           |                                                                                                |                                                                                       |       |
| C                                                        |    |     |     |     |     |     |     | 120            |                           |                                                                                                |                                                                                       |       |
| C                                                        | 1¼ |     |     |     |     |     |     | 140            | 640' (494') - 1½          |                                                                                                |                                                                                       |       |
| D                                                        | 1½ |     |     |     |     |     |     | 165            | 740' (594') - 2           |                                                                                                |                                                                                       |       |

|                                                                                                                                                                                                                   |  |                                  |                                                     |                                    |                                              |        |                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------|-----------------------------------------------------|------------------------------------|----------------------------------------------|--------|------------------------------------------------------------|
| D-ATIS                                                                                                                                                                                                            |  | POTOMAC Approach (R)             |                                                     | BALTIMORE Tower                    |                                              | Ground |                                                            |
| 115.1      127.8                                                                                                                                                                                                  |  | 119.7                            |                                                     | 119.4                              |                                              | 121.9  |                                                            |
| WAAS<br><b>Ch 48808</b><br>W-28A                                                                                                                                                                                  |  | Final<br>Apch Crs<br><b>285°</b> | Minimum Alt<br><b>JURTI</b><br><b>2000'</b> (1858') | LPV<br>DA(H)<br><b>342'</b> (200') | Apt Elev <b>146'</b><br><br><b>TDZE 142'</b> |        | <div><div></div><div>2600'</div></div> <div>MSA RW28</div> |
| MISSED APCH: Climb to 2500' direct COLUM and hold.                                                                                                                                                                |  |                                  |                                                     |                                    |                                              |        |                                                            |
| Alt Set: INCHES                      Trans level: FL 180                      Trans alt: 18000'                                                                                                                   |  |                                  |                                                     |                                    |                                              |        |                                                            |
| 1. <b>RADAR required.</b> 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -15°C (5°F) or above 48°C (118°F). 3. DME/DME RNP-0.3 not authorized. 4. VGSI and RNAV glidepath not coincident. |  |                                  |                                                     |                                    |                                              |        |                                                            |

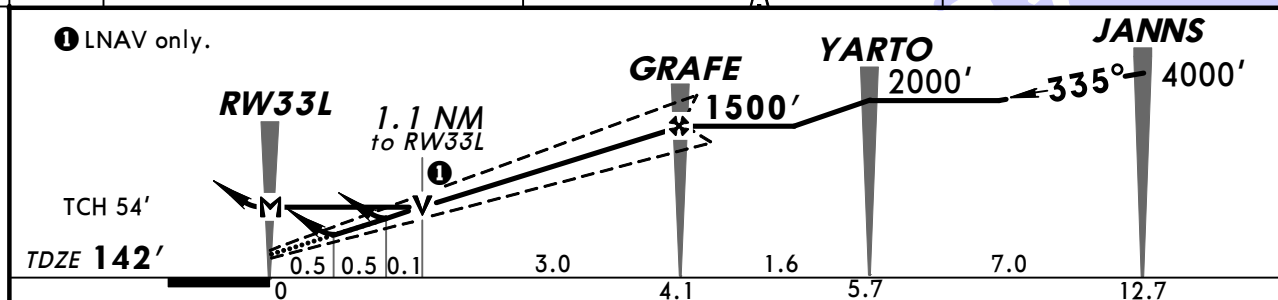
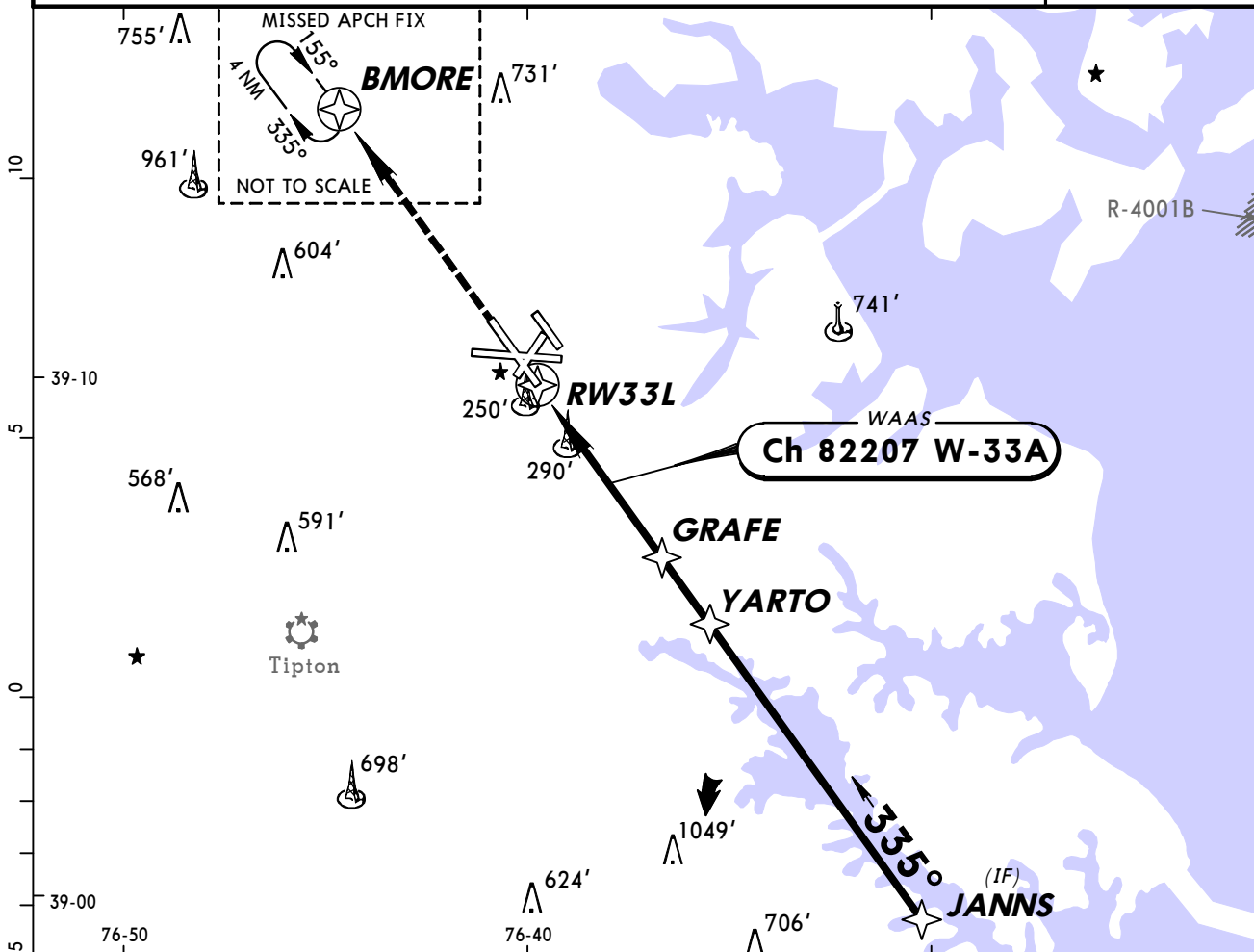


|              |  |                         |  |                         |  |       |  |
|--------------|--|-------------------------|--|-------------------------|--|-------|--|
| ① LNAV only. |  | ZIXUS<br>2.0 NM to RW28 |  | JURTI<br>2.0 NM to RW28 |  | HURTZ |  |
| RW28         |  | 0.9 NM to RW28          |  | 2000'                   |  | 2000' |  |
| TCH 55'      |  | 820'                    |  | 285°                    |  | 2000' |  |
| TDZE 142'    |  | 0.5                     |  | 0.4                     |  | 0.3   |  |
|              |  | 0.8                     |  | 3.6                     |  | 6.2   |  |
|              |  | 5.6                     |  | 11.8                    |  |       |  |

|                  |       |     |     |     |     |     |                             |       |
|------------------|-------|-----|-----|-----|-----|-----|-----------------------------|-------|
| Gnd speed-Kts    | 70    | 90  | 100 | 120 | 140 | 160 | MALSR<br>VASI<br>2500'<br>↑ | COLUM |
| Glide Path Angle | 3.00° | 372 | 478 | 531 | 637 | 743 |                             |       |
| MAP at RW28      |       |     |     |     |     |     |                             |       |

| STRAIGHT-IN LANDING RWY 28      |  |                                       |  |                                   |  |  | CIRCLE-TO-LAND |                  |
|---------------------------------|--|---------------------------------------|--|-----------------------------------|--|--|----------------|------------------|
| LPV<br>DA(H) <b>342'</b> (200') |  | LNAV/VNAV<br>DA(H) <b>567'</b> (425') |  | LNAV<br>MDA(H) <b>480'</b> (338') |  |  | Max Kts        | MDA(H)           |
| RAIL or ALS out                 |  | RAIL out                              |  | ALS out                           |  |  | 90             | 640' (494') - 1  |
| RAIL or ALS out                 |  | RAIL out                              |  | ALS out                           |  |  | 120            |                  |
| RAIL or ALS out                 |  | RAIL out                              |  | ALS out                           |  |  | 140            | 640' (494') - 1½ |
| RAIL or ALS out                 |  | RAIL out                              |  | ALS out                           |  |  | 165            | 740' (594') - 2  |

|                                                                                                                                                                                                                                  |                                   |                                                     |                                    |                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------|------------------------------------|------------------------------------------|
| D-ATIS<br>115.1                                                                                                                                                                                                                  | 127.8                             | POTOMAC Approach (R)<br>119.7                       | BALTIMORE Tower<br>119.4           | Ground<br>121.9                          |
| WAAS<br><b>Ch 82207</b><br>W-33A                                                                                                                                                                                                 | Final<br>Aptch Crs<br><b>335°</b> | Minimum Alt<br><b>GRAFE</b><br><b>1500'</b> (1358') | LPV<br>DA(H)<br><b>342'</b> (200') | Apt Elev <b>146'</b><br>TDZE <b>142'</b> |
| <b>MISSED APCH: Climb to 3000' direct BMORE and hold.</b>                                                                                                                                                                        |                                   |                                                     |                                    |                                          |
| Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'<br><b>1. RADAR required.</b> 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -15°C (5°F) or above 48°C (118°F). 3. DME/DME RNP-0.30 not authorized. |                                   |                                                     |                                    |                                          |
| <div style="text-align: center;">2600'</div> <div style="text-align: center;">MSA RW33L</div>                                                                                                                                    |                                   |                                                     |                                    |                                          |

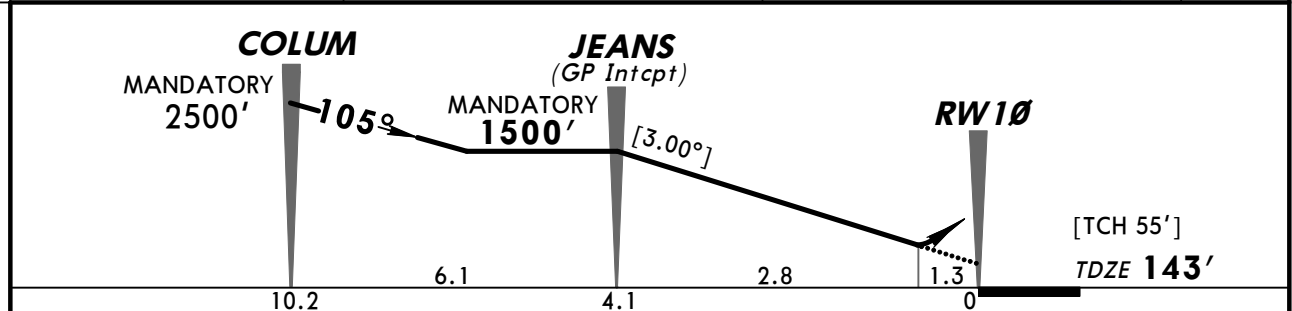
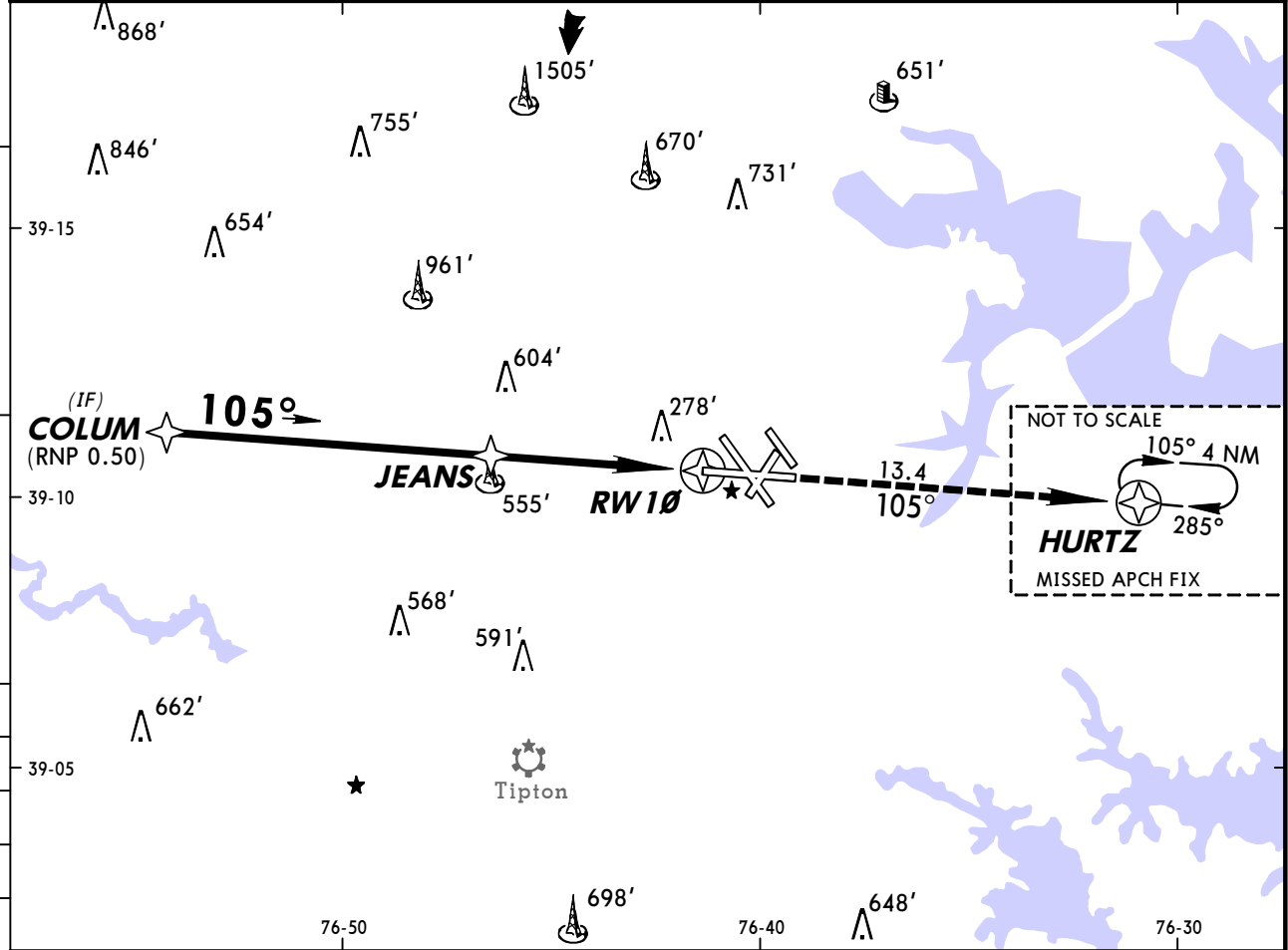


|                  |       |     |     |     |     |     |       |       |       |
|------------------|-------|-----|-----|-----|-----|-----|-------|-------|-------|
| Gnd speed-Kts    | 70    | 90  | 100 | 120 | 140 | 160 | MALSR | 3000' | BMORE |
| Glide Path Angle | 3.00° | 372 | 478 | 531 | 637 | 743 | 849   | ↑     |       |
| MAP at RW33L     |       |     |     |     |     |     |       |       |       |

| STRAIGHT-IN LANDING RWY 33L     |               |                                       |               |                                   |               |                 | CIRCLE-TO-LAND |                     |
|---------------------------------|---------------|---------------------------------------|---------------|-----------------------------------|---------------|-----------------|----------------|---------------------|
| LPV<br>DA(H) <b>342'</b> (200') |               | LNAV/VNAV<br>DA(H) <b>510'</b> (368') |               | LNAV<br>MDA(H) <b>540'</b> (398') |               |                 | Max Kts        | MDA(H)              |
| RAIL or ALS out                 |               | RAIL out ALS out                      |               | RAIL out ALS out                  |               |                 | 90             |                     |
| A                               |               |                                       |               |                                   |               |                 | 120            | 640' (494') - 1     |
| B                               | RVR 24 or 1/2 | RVR 40 or 3/4                         | RVR 40 or 3/4 | RVR 60 or 1 1/4                   | RVR 24 or 1/2 | RVR 40 or 3/4   | 140            | 640' (494') - 1 1/2 |
| C                               |               |                                       |               |                                   | RVR 50 or 1   | RVR 60 or 1 1/4 | 165            | 740' (594') - 2     |
| D                               |               |                                       |               |                                   |               |                 |                |                     |



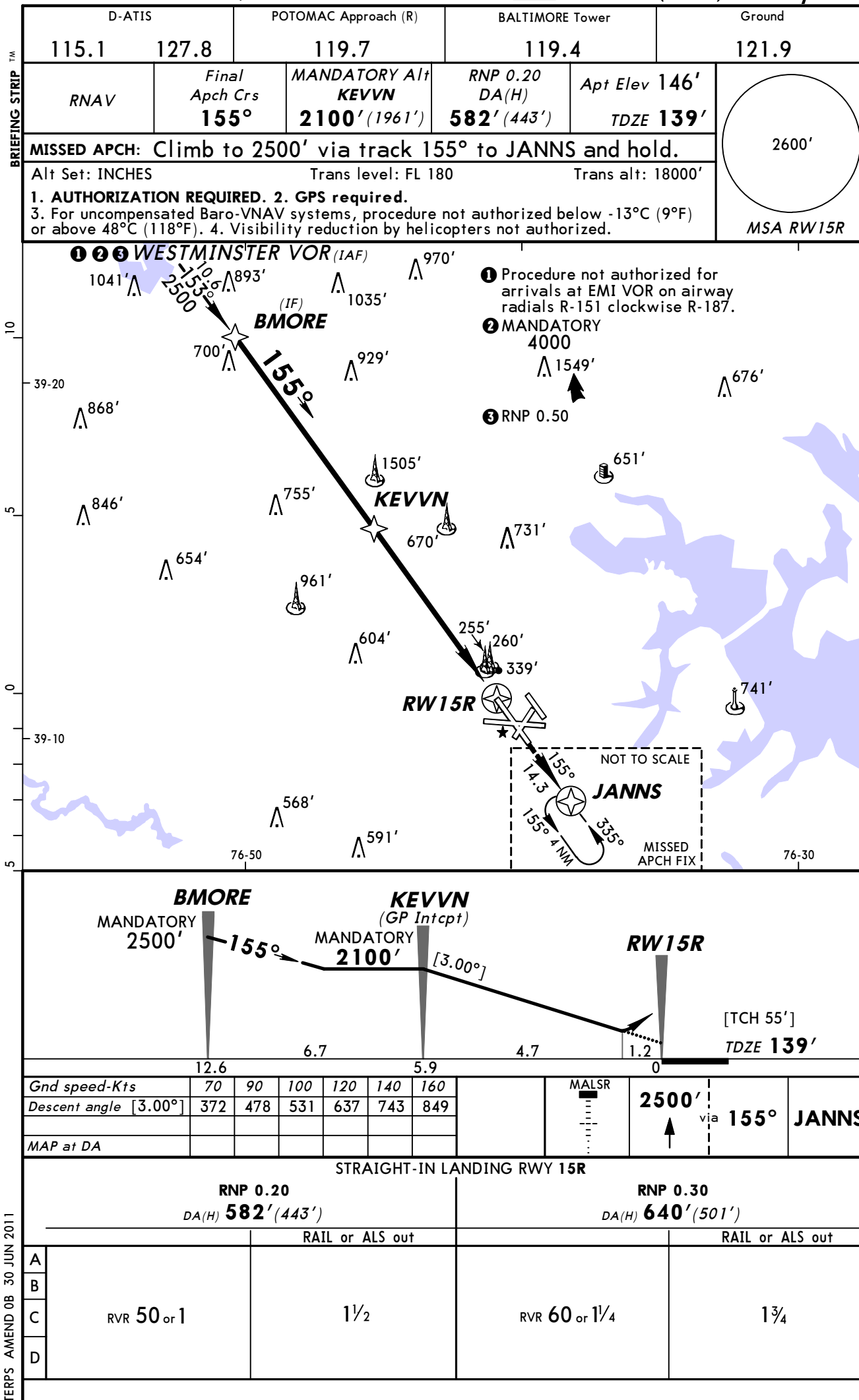
|                                                              |                           |                                         |                                  |                            |  |                                      |  |
|--------------------------------------------------------------|---------------------------|-----------------------------------------|----------------------------------|----------------------------|--|--------------------------------------|--|
| D-ATIS                                                       |                           | POTOMAC Approach (R)                    |                                  | BALTIMORE Tower            |  | Ground                               |  |
| 115.1      127.8                                             |                           | 119.7                                   |                                  | 119.4                      |  | 121.9                                |  |
| RNAV                                                         | Final<br>Apch Crs<br>105° | MANDATORY Alt<br>JEANS<br>1500' (1357') | RNP 0.30<br>DA(H)<br>623' (480') | Apt Elev 146'<br>TDZE 143' |  | <div>2600'</div> <div>MSA RW10</div> |  |
| MISSED APCH: Climb to 2500' on track 105° to HURTZ and hold. |                           |                                         |                                  |                            |  |                                      |  |
| Alt Set: INCHES                                              |                           |                                         |                                  |                            |  |                                      |  |



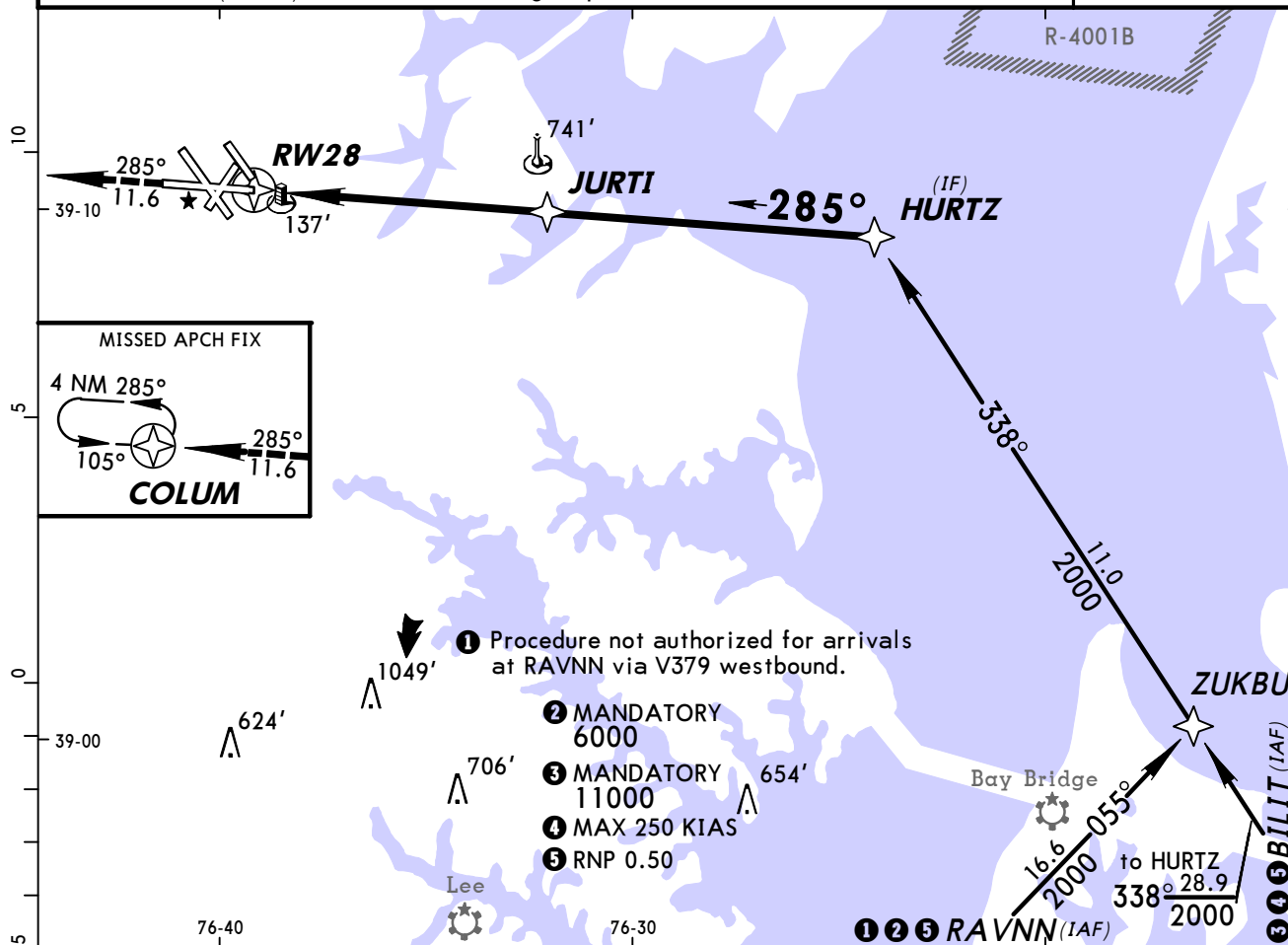
|                       |     |     |     |     |     |     |                                                                          |
|-----------------------|-----|-----|-----|-----|-----|-----|--------------------------------------------------------------------------|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 | <div>ALS F-II</div> <div>2500'</div> <div>on 105°</div> <div>HURTZ</div> |
| Descent angle [3.00°] | 372 | 478 | 531 | 637 | 743 | 849 |                                                                          |
| MAP at DA             |     |     |     |     |     |     |                                                                          |

|                            |  |  |  |  |  |  |
|----------------------------|--|--|--|--|--|--|
| STRAIGHT-IN LANDING RWY 10 |  |  |  |  |  |  |
| RNP 0.30                   |  |  |  |  |  |  |
| DA(H) <b>623'</b> (480')   |  |  |  |  |  |  |
| ALS out                    |  |  |  |  |  |  |

|   |               |       |
|---|---------------|-------|
| A | RVR 60 or 1/4 | 1 3/4 |
| B |               |       |
| C |               |       |
| D |               |       |



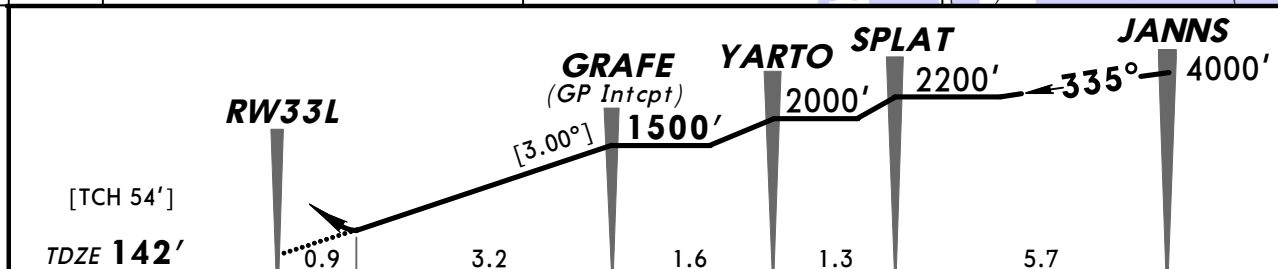
|                                                                                                                                                      |                           |                                         |                                  |                            |                                      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------|----------------------------------|----------------------------|--------------------------------------|--------|
| D-ATIS                                                                                                                                               |                           | POTOMAC Approach (R)                    |                                  | BALTIMORE Tower            |                                      | Ground |
| 115.1 127.8                                                                                                                                          |                           | 119.7                                   |                                  | 119.4                      |                                      | 121.9  |
| RNAV                                                                                                                                                 | Final<br>Apch Crs<br>285° | MANDATORY Alt<br>JURTI<br>2000' (1858') | RNP 0.30<br>DA(H)<br>493' (351') | Apt Elev 146'<br>TDZE 142' | <div>2600'</div> <div>MSA RW28</div> |        |
| MISSED APCH: Climb to 2500' via track 285° to COLUM and hold.                                                                                        |                           |                                         |                                  |                            |                                      |        |
| Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'                                                                                                |                           |                                         |                                  |                            |                                      |        |
| 1. AUTHORIZATION REQUIRED. 2. GPS required.                                                                                                          |                           |                                         |                                  |                            |                                      |        |
| 3. For uncompensated Baro-VNAV systems, procedure not authorized below -13°C (9°F) or above 48°C (118°F). 4. VGSI and RNAV glidepath not coincident. |                           |                                         |                                  |                            |                                      |        |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |     |     |     |     |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|
| <p>The diagram shows a profile view of a flight path. It starts at RW28 (Runway 28) with a TDZE of 142' and a TCH of 55'. The path descends at a 3.00° angle. Key points include JURTI (GP Intcpt) at 2000' and HURTZ at 2000'. Distances from RW28 are marked as 0, 1.0, 4.6, 5.6, 6.2, and 11.8. A horizontal line at 2000' is labeled 'MANDATORY 2000'' and '285°'. A vertical line at 11.8 is labeled '2500'' and 'via 285°'. A 'COLUM' (Columbus) is indicated at the end of the path.</p> |     |     |     |     |     |     |
| Gnd speed-Kts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 70  | 90  | 100 | 120 | 140 | 160 |
| Descent angle [3.00°]                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 372 | 478 | 531 | 637 | 743 | 849 |
| MAP at DA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |     |     |     |     |     |

|                            |                                |  |                 |                                |  |
|----------------------------|--------------------------------|--|-----------------|--------------------------------|--|
| STRAIGHT-IN LANDING RWY 28 |                                |  |                 |                                |  |
| RNP 0.30                   |                                |  |                 |                                |  |
| DA(H) <b>493'</b> (351')   |                                |  |                 |                                |  |
|                            |                                |  | RAIL or ALS out |                                |  |
| A                          | RVR <b>40</b> or $\frac{3}{4}$ |  |                 | RVR <b>60</b> or $\frac{1}{4}$ |  |
| B                          |                                |  |                 |                                |  |
| C                          |                                |  |                 |                                |  |
| D                          |                                |  |                 |                                |  |

**BRIEFING STRIP™**

10

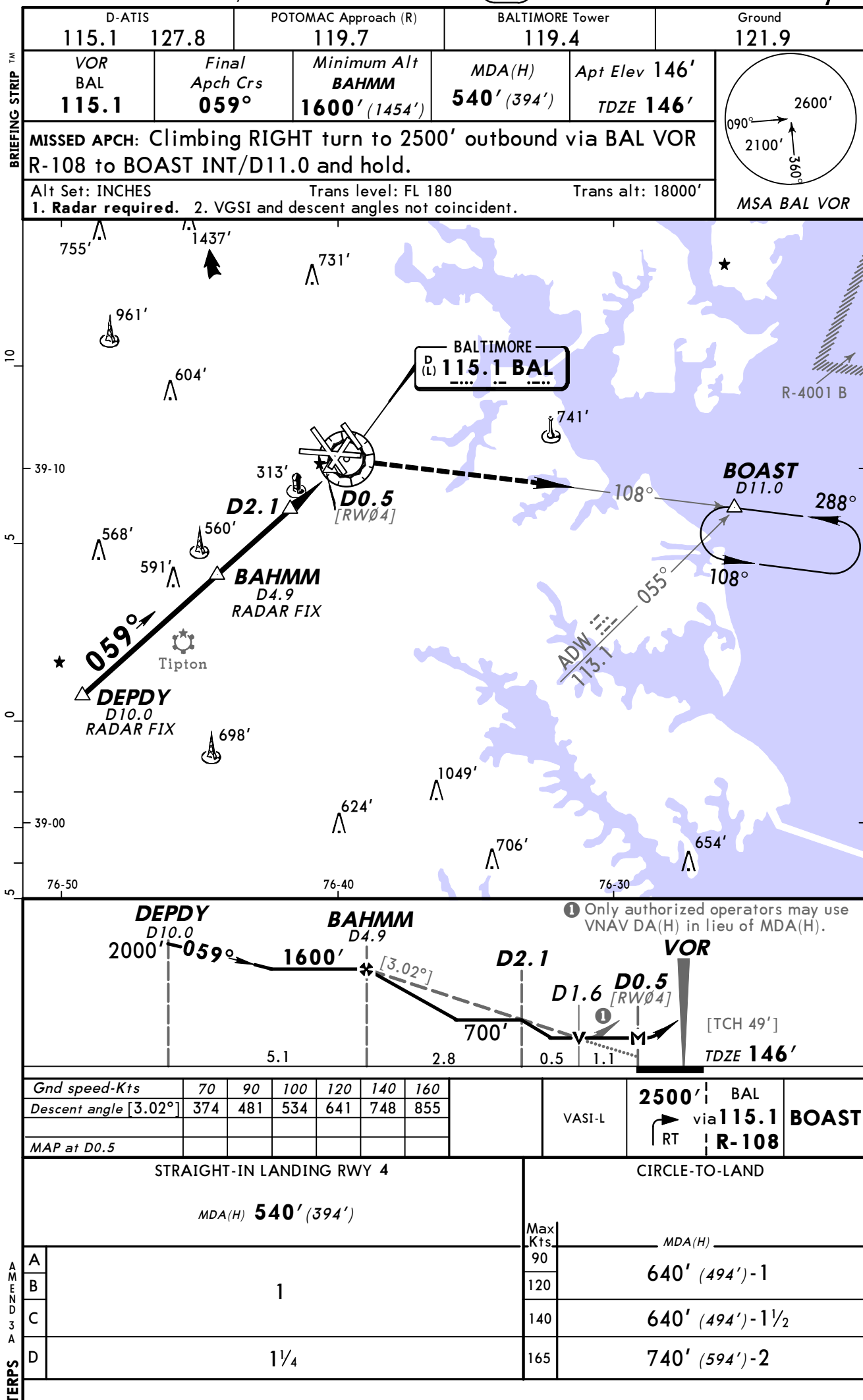
| 0                     |     | 4.1 |     |     |     |     | 5.7                                       | 7.0   | 12.7 |      |        |
|-----------------------|-----|-----|-----|-----|-----|-----|-------------------------------------------|-------|------|------|--------|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 | <div><div>VASI</div><div>MALS</div></div> | 2600' | on   | 335° | B MORE |
| Descent angle [3.00°] | 372 | 478 | 531 | 637 | 743 | 849 |                                           |       |      |      |        |
| MAP at DA             |     |     |     |     |     |     |                                           |       |      |      |        |

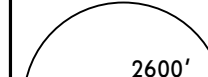
 $DA_{(H)} \mathbf{477'} (335')$ 

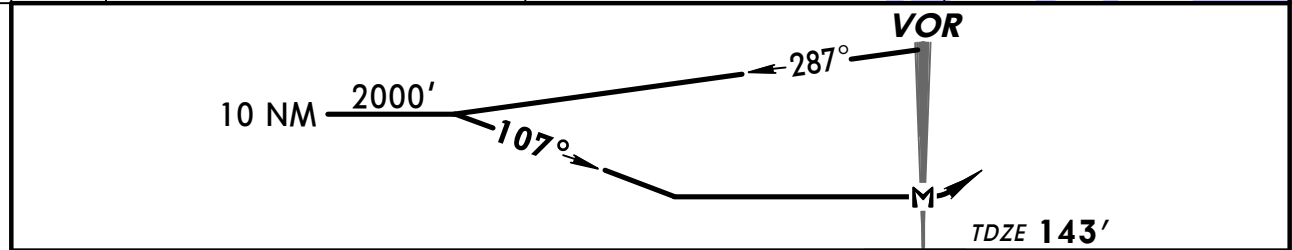
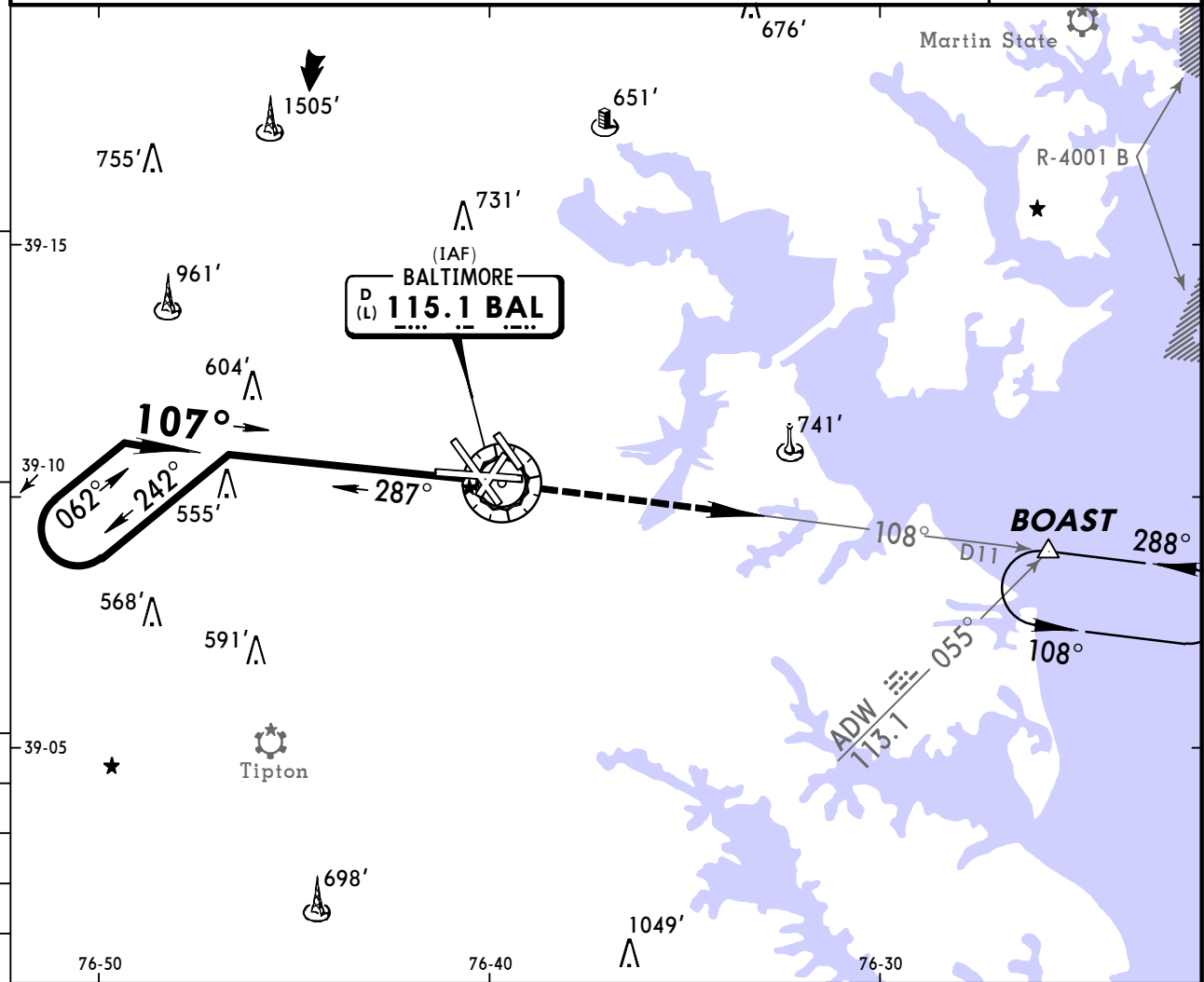
RAIL or ALS out

|   |                                |                                 |
|---|--------------------------------|---------------------------------|
| A |                                |                                 |
| B | RVR <b>40</b> or $\frac{3}{4}$ | RVR <b>60</b> or $1\frac{1}{4}$ |
| C |                                |                                 |
| D |                                |                                 |

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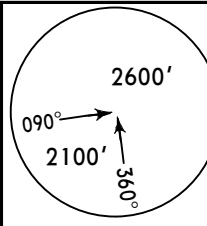
|                                                                               |                           |                               |  |                          |                            |                                                                                     |  |
|-------------------------------------------------------------------------------|---------------------------|-------------------------------|--|--------------------------|----------------------------|-------------------------------------------------------------------------------------|--|
| D-ATIS<br>115.1 127.8                                                         |                           | POTOMAC Approach (R)<br>119.7 |  | BALTIMORE Tower<br>119.4 |                            | Ground<br>121.9                                                                     |  |
| VOR<br>BAL<br>115.1                                                           | Final<br>Apch Crs<br>107° | No FAF                        |  | MDA(H)<br>1320' (1177')  | Apt Elev 146'<br>TDZE 143' |  |  |
| MISSED APCH: Climb to 2500' outbound via BAL VOR R-108 to BOAST INT and hold. |                           |                               |  |                          |                            |                                                                                     |  |
| Alt Set: INCHES                                                               |                           | Trans level: FL 180           |  | Trans alt: 18000'        |                            | MSA BAL VOR                                                                         |  |

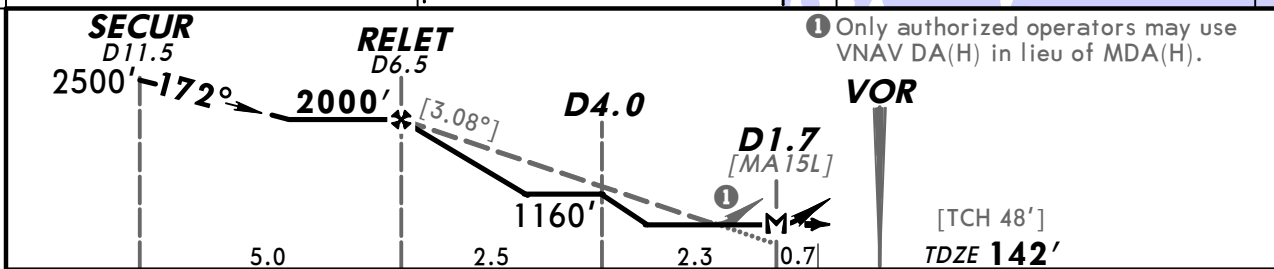
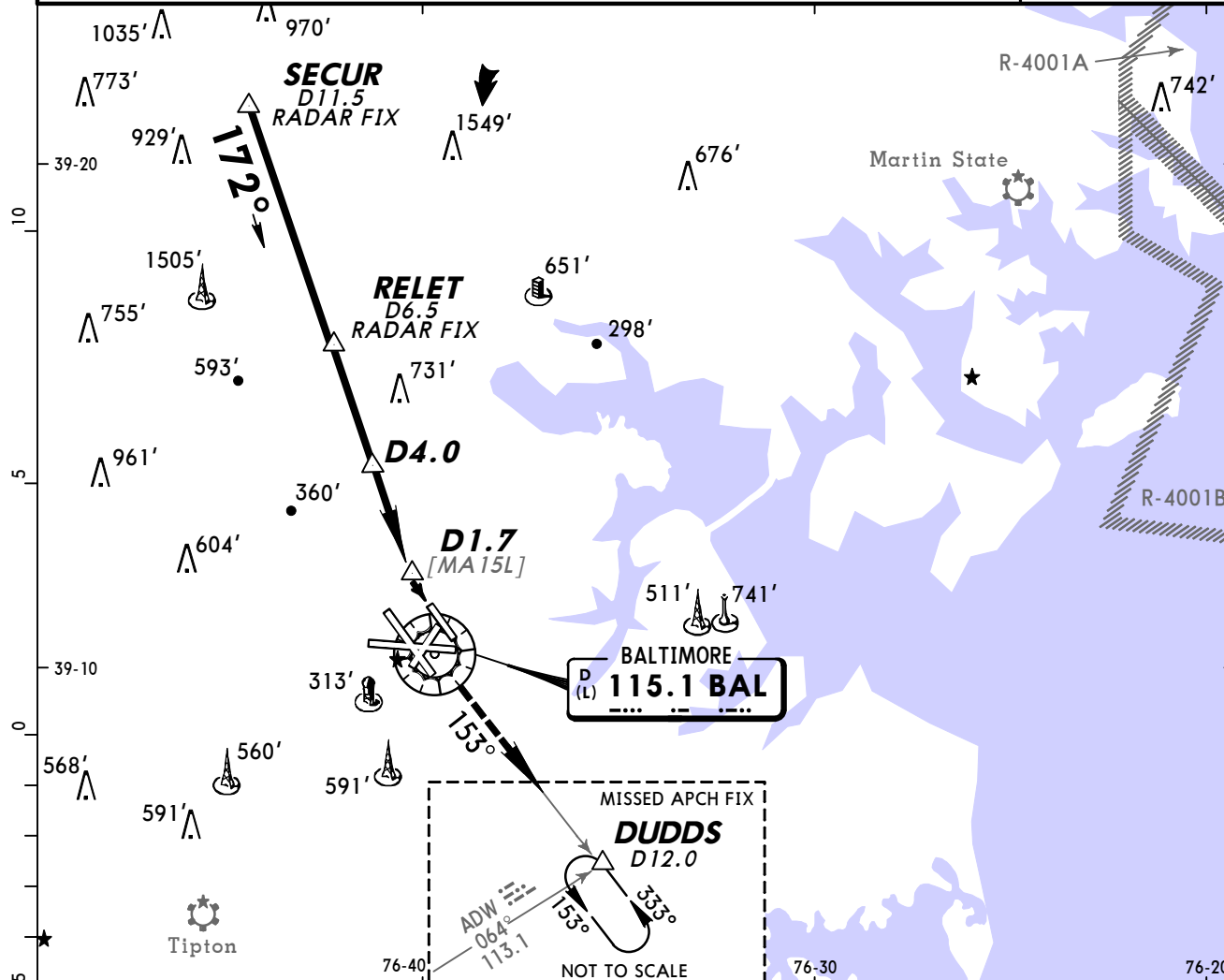


|            |  |  |  |  |  |         |       |                 |       |
|------------|--|--|--|--|--|---------|-------|-----------------|-------|
| MAP at VOR |  |  |  |  |  | ALSF-II | 2500' | BAL             | BOAST |
|            |  |  |  |  |  |         | ↑     | via 115.1 R-108 |       |

| STRAIGHT-IN LANDING RWY 10 |                         |                          |   | CIRCLE-TO-LAND |                                |  |  |
|----------------------------|-------------------------|--------------------------|---|----------------|--------------------------------|--|--|
| MDA(H) 1320' (1177')       |                         |                          |   |                |                                |  |  |
|                            |                         | ALS out                  |   | Max Kts        | MDA(H)                         |  |  |
| A                          | RVR 40 or $\frac{3}{4}$ | RVR 60 or $1\frac{1}{4}$ |   | 90             | 1320' (1174') - $1\frac{1}{4}$ |  |  |
| B                          | RVR 50 or 1             | $1\frac{1}{2}$           |   | 120            | 1320' (1174') - $1\frac{1}{2}$ |  |  |
| C                          | $2\frac{1}{2}$          |                          | 3 | 140            | 1320' (1174') - 3              |  |  |
| D                          |                         |                          |   | 165            |                                |  |  |

BRIEFING STRIP™

|                                                                                        |                           |                                       |                       |                            |  |                                                                                     |  |
|----------------------------------------------------------------------------------------|---------------------------|---------------------------------------|-----------------------|----------------------------|--|-------------------------------------------------------------------------------------|--|
| D-ATIS<br>115.1 127.8                                                                  |                           | POTOMAC Approach (R)<br>119.7         |                       | BALTIMORE Tower<br>119.4   |  | Ground<br>121.9                                                                     |  |
| VOR<br>BAL<br>115.1                                                                    | Final<br>Apch Crs<br>172° | Minimum Alt<br>RELET<br>2000' (1858') | MDA(H)<br>600' (458') | Apt Elev 146'<br>TDZE 142' |  |  |  |
| MISSED APCH: Climb to 2500' outbound via BAL VOR R-153 to<br>DUDDS INT/D12.0 and hold. |                           |                                       |                       |                            |  |                                                                                     |  |
| Alt Set: INCHES<br>1. RADAR required.                                                  |                           | Trans level: FL 180                   |                       | Trans alt: 18000'          |  |                                                                                     |  |
| MSA BAL VOR                                                                            |                           |                                       |                       |                            |  |                                                                                     |  |



|                       |     |     |     |     |     |     |                |                                                        |              |
|-----------------------|-----|-----|-----|-----|-----|-----|----------------|--------------------------------------------------------|--------------|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 | REIL<br>PAPI-L | <b>2500'</b> BAL<br>via <b>115.1</b><br>↑ <b>R-153</b> | <b>DUDDS</b> |
| Descent angle [3.08°] | 381 | 490 | 545 | 654 | 763 | 872 |                |                                                        |              |
| MAP at D1.7           |     |     |     |     |     |     |                |                                                        |              |

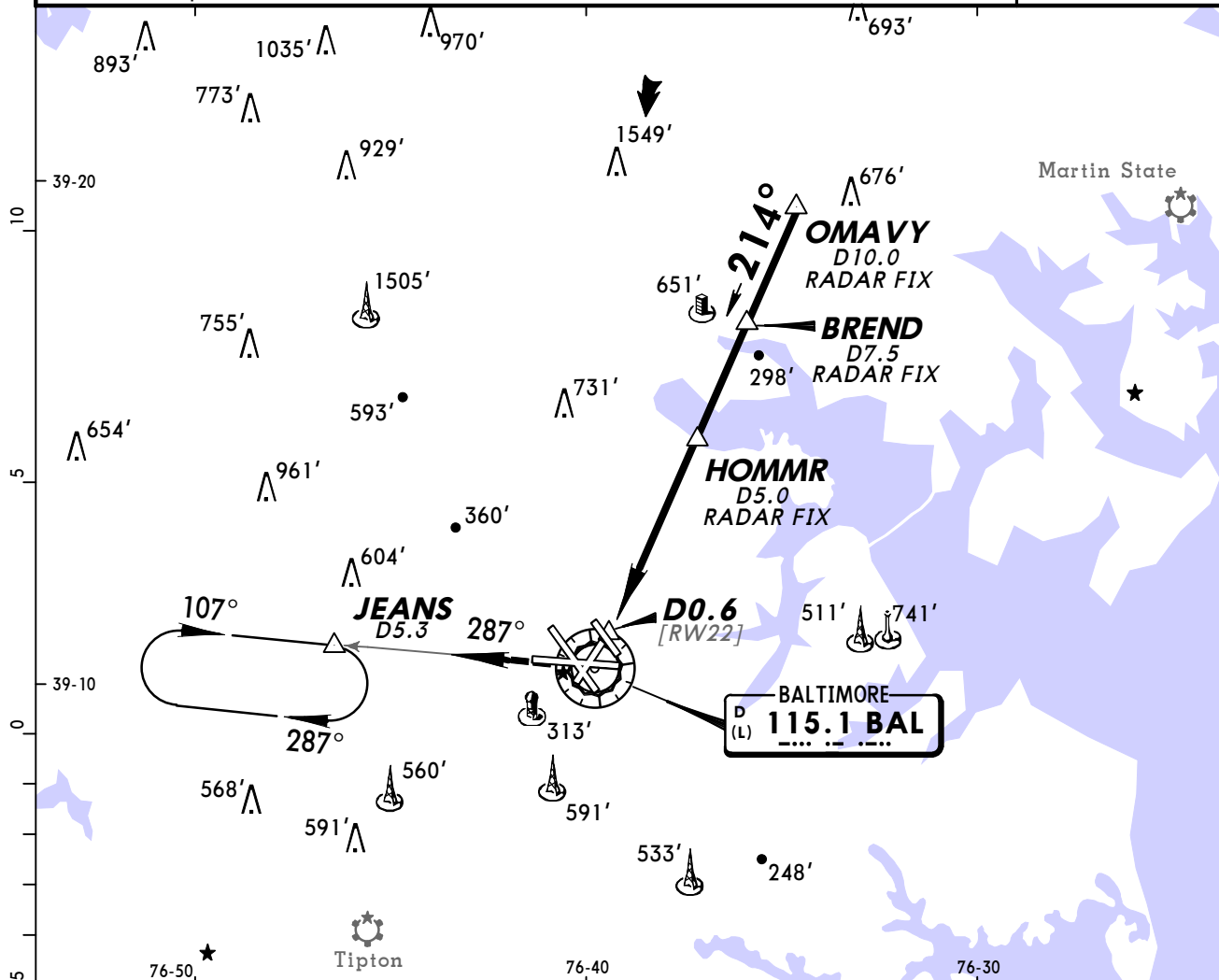
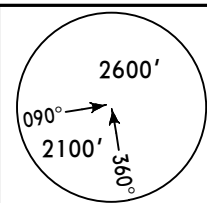
| STRAIGHT-IN LANDING RWY 15L |                 |  |  | CIRCLE-TO-LAND |                            |
|-----------------------------|-----------------|--|--|----------------|----------------------------|
| MDA(H) <b>600'</b> (458')   |                 |  |  | Max Kts.       | MDA(H)                     |
| A                           | RVR 50 or 1     |  |  | 90             | <b>640'</b> (494') - 1     |
| B                           |                 |  |  | 120            |                            |
| C                           | RVR 60 or 1 1/4 |  |  | 140            | <b>640'</b> (494') - 1 1/2 |
| D                           |                 |  |  | 165            |                            |
|                             | 1 1/2           |  |  |                | <b>740'</b> (594') - 2     |

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-WASHINGTON INTL

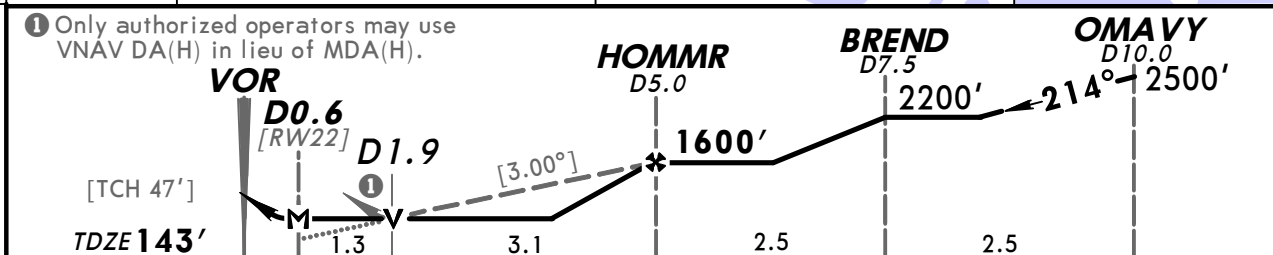
JEPPESEN  
10 MAR 06 (13-4)

BALTIMORE, MD  
VOR DME Rwy 22

|                                                                                              |                           |                                       |                          |                            |
|----------------------------------------------------------------------------------------------|---------------------------|---------------------------------------|--------------------------|----------------------------|
| D-ATIS<br>115.1 127.8                                                                        |                           | POTOMAC Approach (R)<br>119.7         | BALTIMORE Tower<br>119.4 | Ground<br>121.9            |
| VOR<br>BAL<br>115.1                                                                          | Final<br>Apch Crs<br>214° | Minimum Alt<br>HOMMR<br>1600' (1457') | MDA(H)<br>600' (457')    | Apt Elev 146'<br>TDZE 143' |
| MISSED APCH: Climbing RIGHT turn to 2000' outbound via BAL VOR R-287 to JEANS/D5.3 and hold. |                           |                                       |                          |                            |
| Alt Set: INCHES<br>1. RADAR required.                                                        |                           | Trans level: FL 180                   | Trans alt: 18000'        | MSA BAL VOR                |



① Only authorized operators may use VNAV DA(H) in lieu of MDA(H).



|                       |     |     |     |     |     |     |        |        |       |       |
|-----------------------|-----|-----|-----|-----|-----|-----|--------|--------|-------|-------|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 | REIL   | 2000'  | BAL   |       |
| Descent angle [3.00°] | 372 | 478 | 531 | 637 | 743 | 849 | VASI-L | via RT | 115.1 | JEANS |
| MAP at D0.6           |     |     |     |     |     |     |        |        | R-287 |       |

| STRAIGHT-IN LANDING RWY 22 |       |  |  | CIRCLE-TO-LAND |                     |  |  |
|----------------------------|-------|--|--|----------------|---------------------|--|--|
| MDA(H) 600' (457')         |       |  |  |                |                     |  |  |
| A                          |       |  |  | Max Kts        | MDA(H)              |  |  |
| B                          | 1     |  |  | 90             | 640' (494') - 1     |  |  |
| C                          | 1 1/4 |  |  | 140            | 640' (494') - 1 1/2 |  |  |
| D                          | 1 1/2 |  |  | 165            | 740' (594') - 2     |  |  |

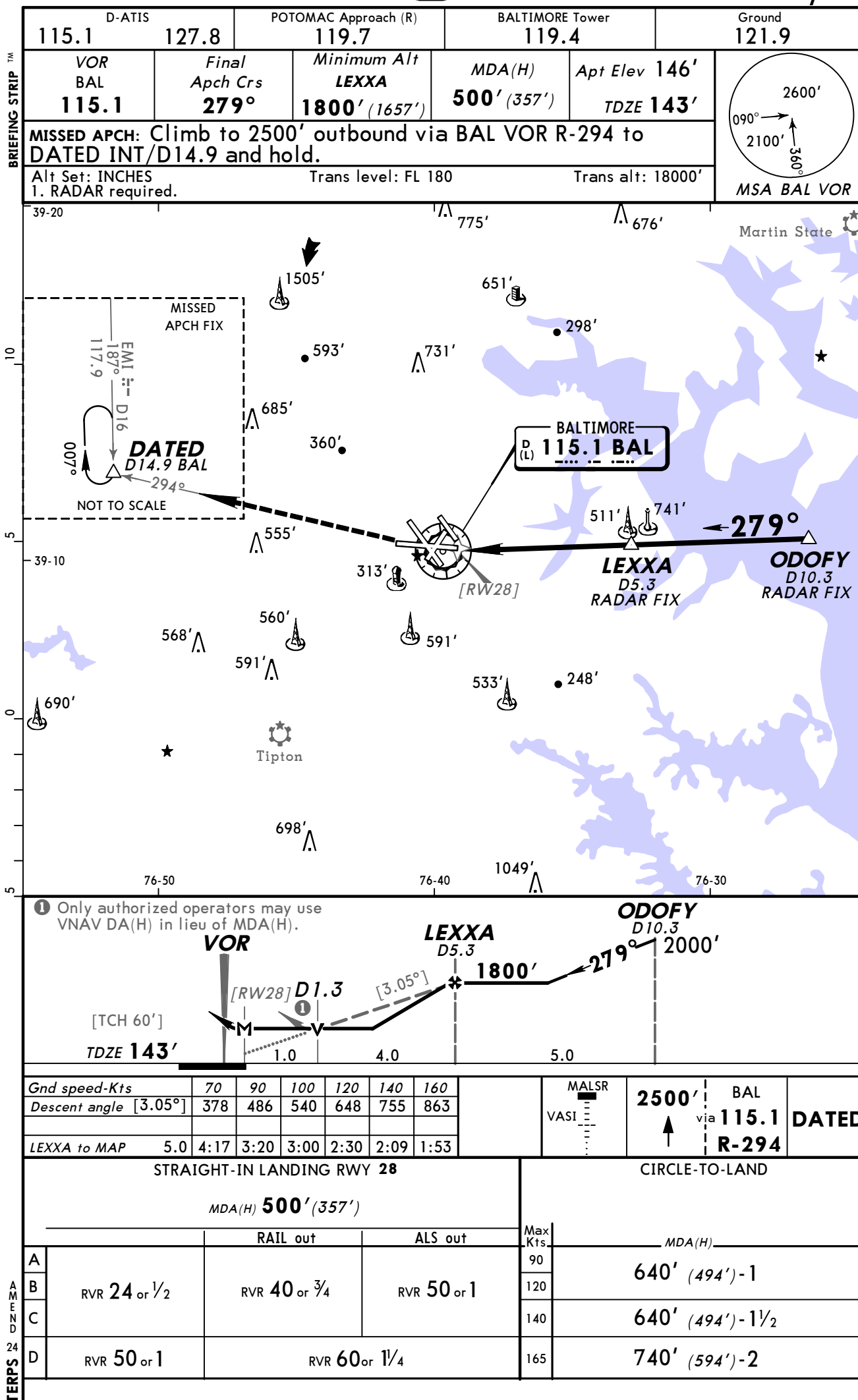
CHANGES: Charted obstructions.

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JEPPESEN  
10 MAR 06 (13-5)

BALTIMORE, MD  
VOR Rwy 28

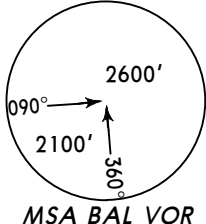


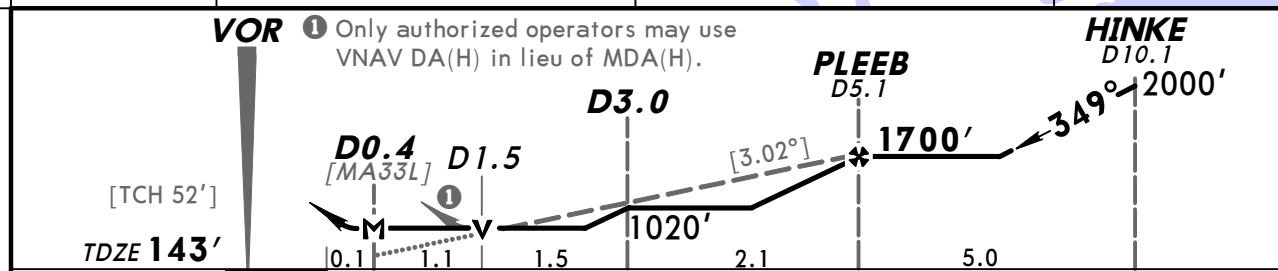
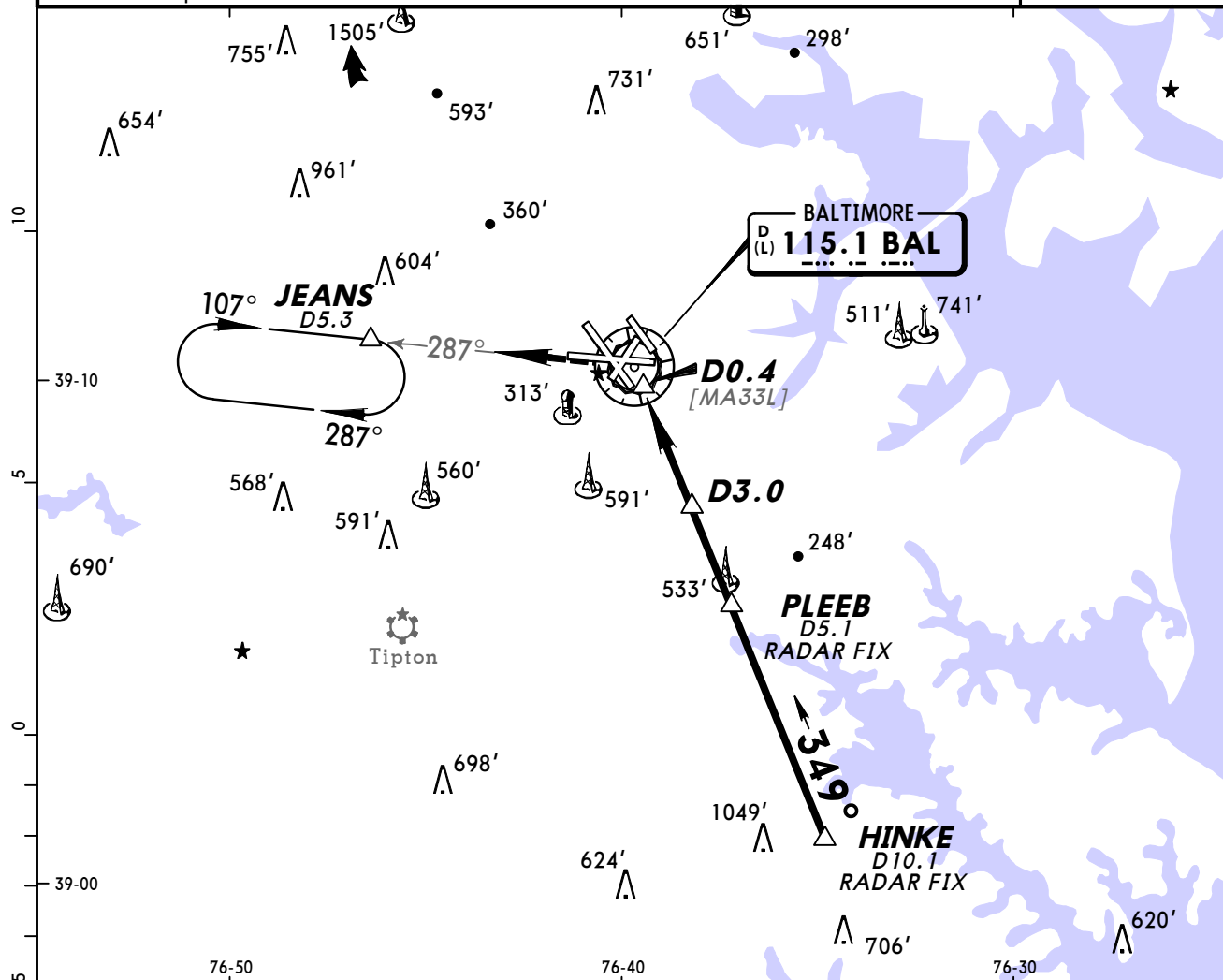
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JEPPESEN  
10 MAR 06 (13-6)

BALTIMORE, MD  
VOR DME Rwy 33L

BRIEFING STRIP™

|                                                                                             |                           |                                       |                       |                            |  |                                                                                                    |
|---------------------------------------------------------------------------------------------|---------------------------|---------------------------------------|-----------------------|----------------------------|--|----------------------------------------------------------------------------------------------------|
| D-ATIS<br>115.1 127.8                                                                       |                           | POTOMAC Approach (R)<br>119.7         |                       | BALTIMORE Tower<br>119.4   |  | Ground<br>121.9                                                                                    |
| VOR<br>BAL<br>115.1                                                                         | Final<br>Apch Crs<br>349° | Minimum Alt<br>PLEEB<br>1700' (1557') | MDA(H)<br>560' (417') | Apt Elev 146'<br>TDZE 143' |  | <br>MSA BAL VOR |
| MISSED APCH: Climbing LEFT turn to 2000' outbound via BAL VOR R-287 to JEANS/D5.3 and hold. |                           |                                       |                       |                            |  |                                                                                                    |
| Alt Set: INCHES<br>1. RADAR required.                                                       |                           | Trans level: FL 180                   |                       | Trans alt: 18000'          |  |                                                                                                    |

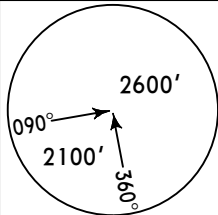


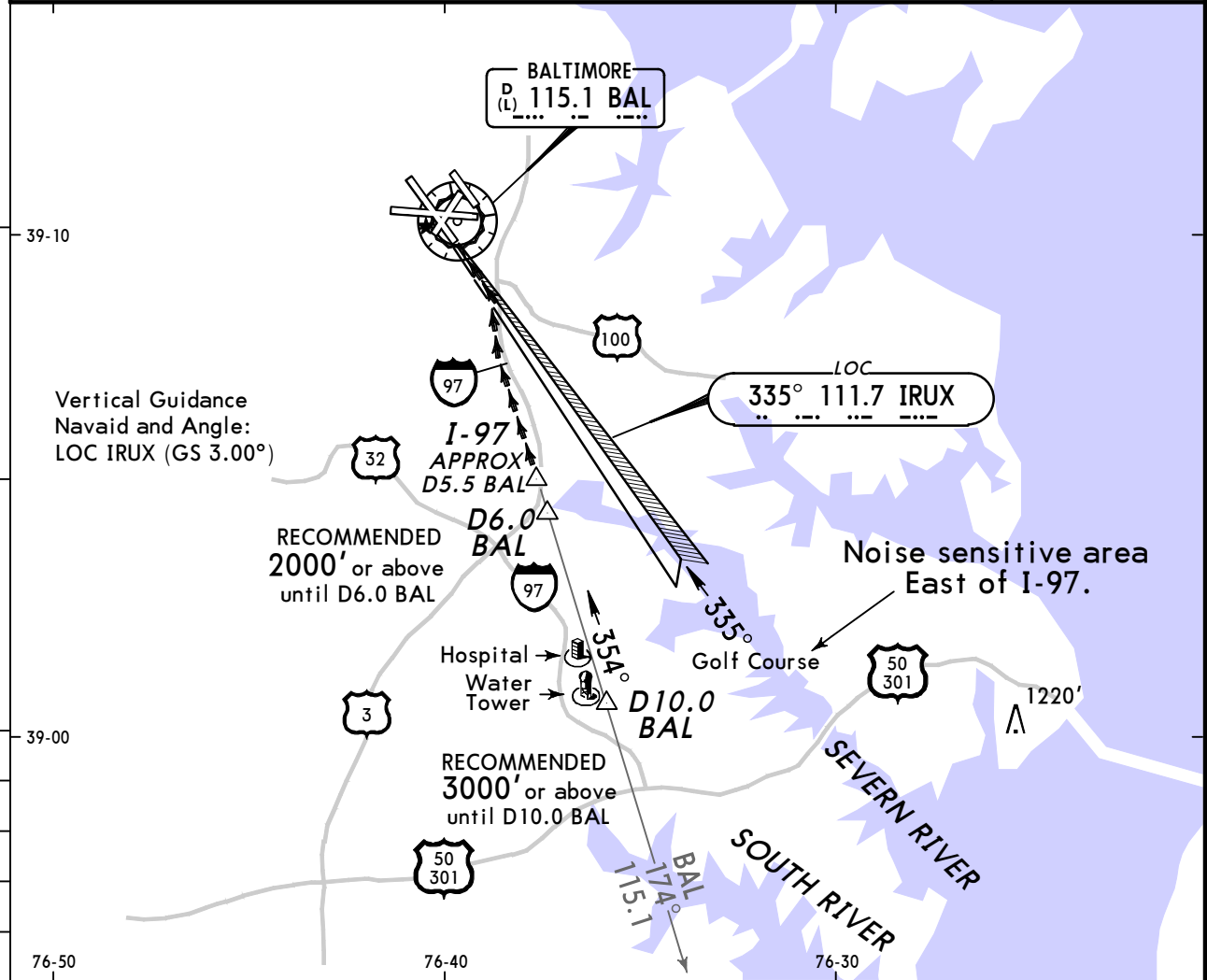
|                       |     |     |     |     |     |     |                                            |           |     |       |
|-----------------------|-----|-----|-----|-----|-----|-----|--------------------------------------------|-----------|-----|-------|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 | <div><div>MALSR</div><div>VASI</div></div> | 2000'     | BAL | JEANS |
| Descent angle [3.02°] | 374 | 481 | 534 | 641 | 748 | 855 |                                            | via 115.1 |     |       |
| MAP at D0.4           |     |     |     |     |     |     |                                            | LT        |     |       |
|                       |     |     |     |     |     |     |                                            | R-287     |     |       |

| STRAIGHT-IN LANDING RWY 33L |               |                 |             |  | CIRCLE-TO-LAND |                   |
|-----------------------------|---------------|-----------------|-------------|--|----------------|-------------------|
| MDA(H) 560' (417')          |               |                 |             |  |                |                   |
|                             |               | RAIL out        | ALS out     |  | Max Kts        | MDA(H)            |
| A                           | RVR 24 or 1/2 | RVR 40 or 3/4   | RVR 50 or 1 |  | 90             | 640' (494')-1     |
| B                           |               |                 |             |  | 120            |                   |
| C                           | RVR 40 or 3/4 | RVR 60 or 1 1/4 |             |  | 140            | 640' (494')-1 1/2 |
| D                           | RVR 50 or 1   |                 |             |  | 165            | 740' (594')-2     |

CHANGES: Charted obstructions.

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|                                                   |                                          |                      |  |                                     |                                                            |                                                                                                |  |
|---------------------------------------------------|------------------------------------------|----------------------|--|-------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------------------|--|
| D-ATIS                                            |                                          | POTOMAC Approach (R) |  | BALTIMORE Tower                     |                                                            | Ground                                                                                         |  |
| 115.1    127.8                                    |                                          | 119.7                |  | 119.4                               |                                                            | 121.9                                                                                          |  |
| <i>Nav aids</i><br>See<br>planview                | <i>Final<br/>Apch Crs</i><br><b>335°</b> | No FAF               |  | <i>Ceiling-Vis</i><br><b>4000-5</b> | <i>Apt Elev</i> <b>146'</b><br><br><i>TDZE</i> <b>143'</b> | <div></div> |  |
| <b>MISSED APCH: No missed approach published.</b> |                                          |                      |  |                                     |                                                            |                                                                                                |  |
| Alt Set: INCHES<br>1. RADAR required.             |                                          | Trans level: FL 180  |  | Trans alt: 18000'                   |                                                            |                                                                                                |  |



|                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| INTERSTATE VISUAL RWY 33L                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| <p>RADAR vectors will be provided to the BAL VOR R-174. When cleared for the Interstate Visual Runway 33L Approach, aircraft will proceed via the BAL VOR R-174 until over I-97 (Approx D5.5 BAL). Then via I-97 to join Runway 33L final approach course. Runway 33L ILS with MALSR will be on and available for use. Noise sensitive area East of I-97. This procedure applicable to turbojets arriving via Nottingham VOR.</p> |  |
| <p>Rwy 33L<br/>TDZE 143'</p>                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| Lighting - Refer to Airport Chart                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| WEATHER MINIMUMS                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| Ceiling <b>4000'</b> -VIS <b>5</b>                                                                                                                                                                                                                                                                                                                                                                                                |  |

## General Information

Location: Hagerstown MD USA  
IATA Code: HGR  
Lat/Long: N39° 42.5' W077° 43.6'  
Elevation: 703 ft

Airport Use: Public  
Magnetic Variation: 10.6°W  
Sectional Chart: Washington

Fuel Types: 100 Octane (LL), Jet A, Jet A-1  
Oxygen Types: High Pressure, Low Pressure, HP Bottle, LP Bottle  
Repair Types: Major Airframe, Major Engine  
Customs: No  
Airport Type: IFR  
Landing Fee: Yes  
Control Tower: Yes  
Jet Start Unit: Yes  
LLWS Alert: No  
Beacon: Yes

Sunrise: 1147 Z  
Sunset: 2300 Z,

## Runway Information

Runway: 02  
Length x Width: 3160 ft x 100 ft  
Surface Type: asphalt  
TDZ-Elev: 697 ft  
Lighting: Edge, REIL, Pilot controlled

Runway: 09  
Length x Width: 7000 ft x 150 ft  
Surface Type: asphalt  
TDZ-Elev: 695 ft  
Lighting: Edge, REIL, Pilot controlled

Runway: 20  
Length x Width: 3160 ft x 100 ft  
Surface Type: asphalt  
TDZ-Elev: 703 ft  
Lighting: Edge, REIL, Pilot controlled

Runway: 27  
Length x Width: 7000 ft x 150 ft  
Surface Type: asphalt  
TDZ-Elev: 701 ft  
Lighting: Edge, ALS, Pilot controlled

## Communication Information

ASOS 126.375

Hagerstown Tower 120.3 CTAF PCL

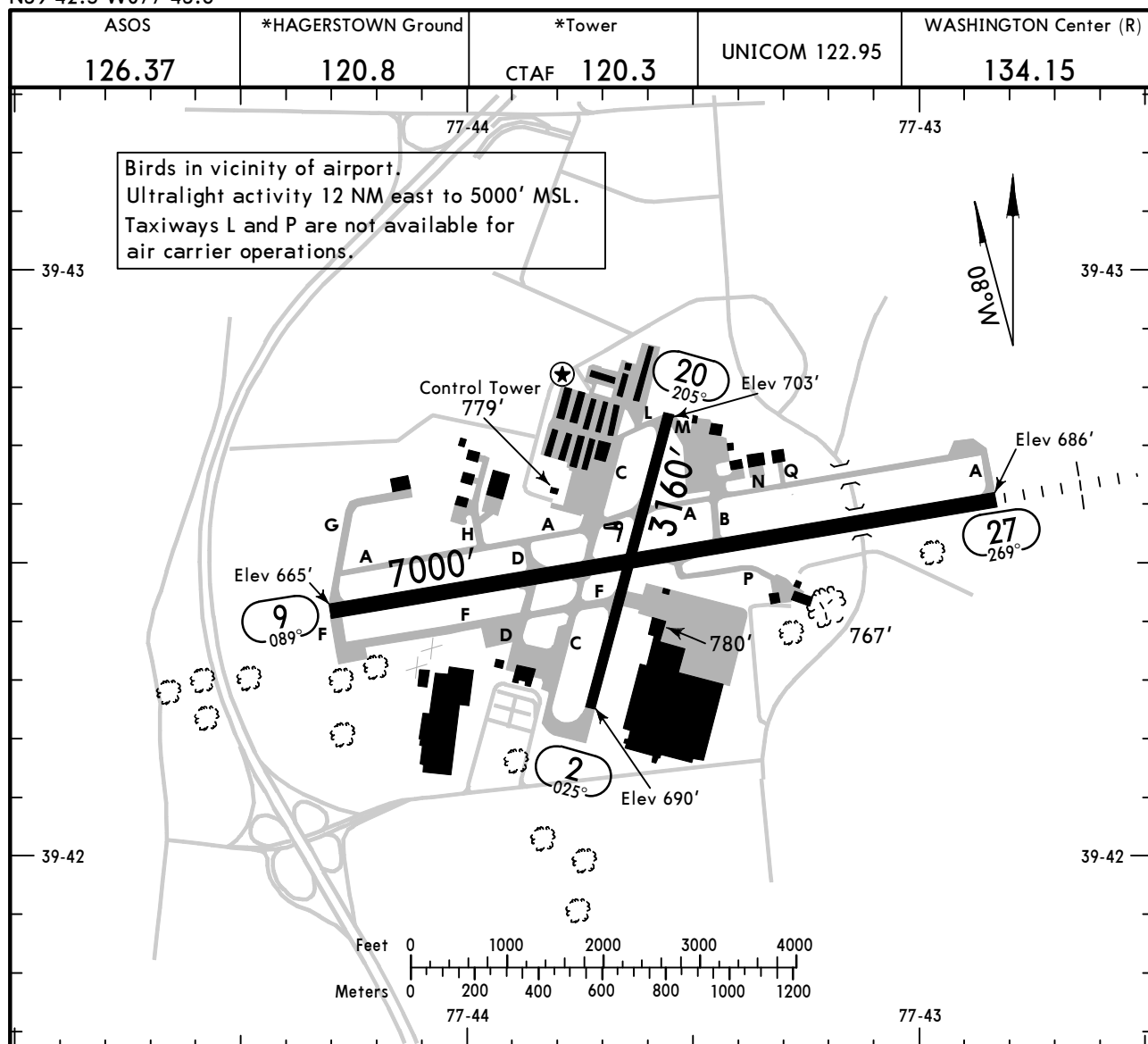
Hagerstown Ground Control 120.8

Hagerstown Regl-Henson Unicom 122.95

Leesburg Flight Service Station 122.1 RCO

Leesburg Flight Service Station 109.8 RCO

Washington Center 134.15 Remote Communications Air-Ground



**ADDITIONAL RUNWAY INFORMATION**

| RWY |                                             | USABLE LENGTHS |             |          |       |
|-----|---------------------------------------------|----------------|-------------|----------|-------|
|     |                                             | LANDING BEYOND |             | Take-Off | WIDTH |
|     |                                             | Threshold      | Glide Slope |          |       |
| 2   | ① MIRL ① REIL PAPI-L (angle 4.0°)           |                |             |          | 100'  |
| 9   | ①② HIRL REIL PAPI-L (angle 3.0°) grooved    |                | 6157'       |          | 150'  |
| 27  | ①② HIRL ① MALSR PAPI-L (angle 3.0°) grooved |                | 6090'       |          |       |
|     |                                             |                |             |          |       |
|     |                                             |                |             |          |       |

- ① Activate on 120.3 when Twr inop.
- ② Preset on low intensity dusk-dawn.

**TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE**

|           | Rwys 9, 20, 27   |     | Rwy 2 |
|-----------|------------------|-----|-------|
|           | Adequate Vis Ref | STD |       |
| 1 & 2 Eng | 1/4              | 1   | 300-1 |
| 3 & 4 Eng |                  | 1/2 |       |

**FOR FILING AS ALTERNATE**

Authorized Only When Local Weather Available

Authorized Only  
When Twr Operating

ILS Rwy 9  
ILS Rwy 27

LOC Rwy 9  
LOC Rwy 27

VOR Rwy 9  
RNAV (GPS) Rwy 9  
RNAV (GPS) Rwy 27

A  
B  
C  
D

600-2

800-2

800-2

OBSTACLE DP: Rwy 9, climbing left turn to 2500' via 040° heading to intercept the HGR VOR R-084 before departing as cleared. Rwys 2 & 20, climb to 2000' before turning eastbound.

AMEND 5

KHGR/HGR

HAGERSTOWN REGL-HENSON

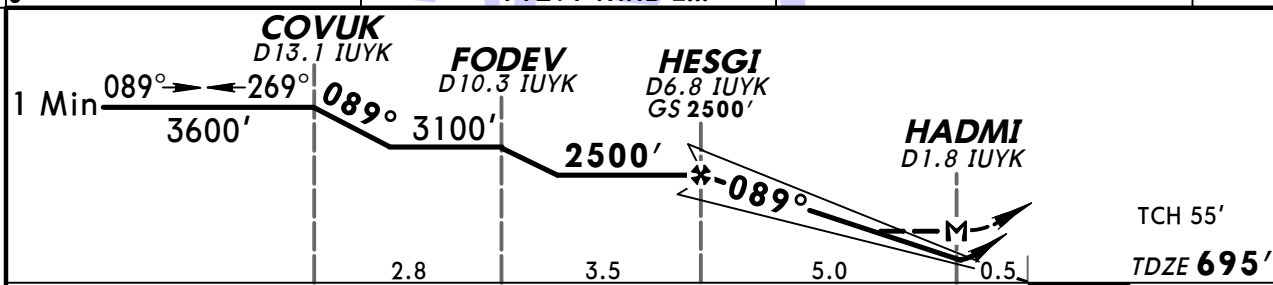
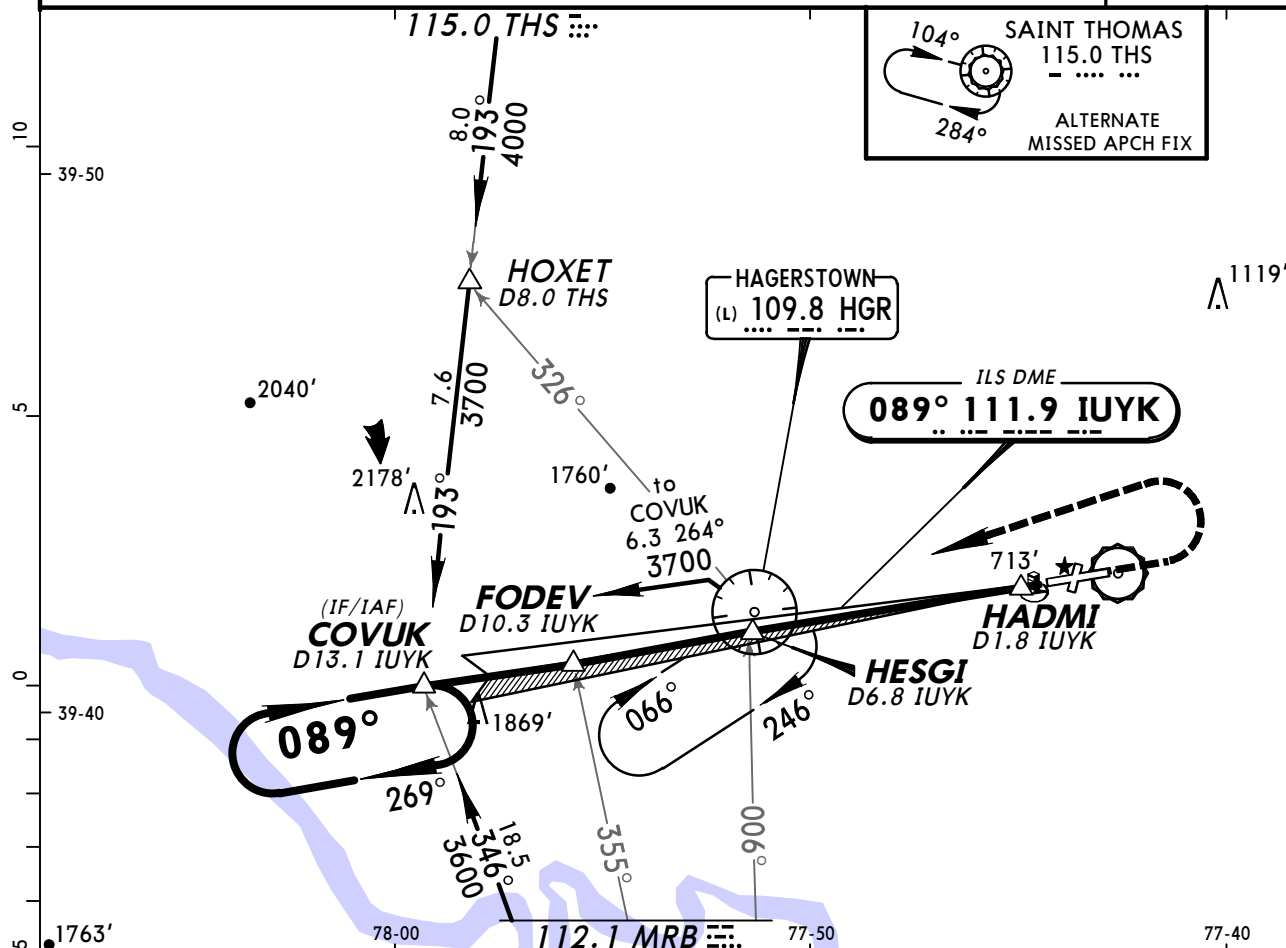
11 JUN 10 (11-1)

JEPPesen

HAGERSTOWN, MD  
ILS or LOC Rwy 9

BRIEFING STRIP™

|                                                                                                                                  |                           |                                 |                                              |                                 |                                         |                  |  |
|----------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------|----------------------------------------------|---------------------------------|-----------------------------------------|------------------|--|
| ASOS<br>126.37                                                                                                                   |                           | WASHINGTON Center (R)<br>134.15 |                                              | *HAGERSTOWN Tower<br>CTAF 120.3 |                                         | *Ground<br>120.8 |  |
| LOC<br>IUYK<br>111.9                                                                                                             | Final<br>Apch Crs<br>089° | GS<br>HESGI<br>2500' (1805')    | ILS<br>DA(H)<br>(CONDITIONAL)<br>895' (200') | Apt Elev 703'                   | <div>3900'</div> <div>MSA HGR VOR</div> |                  |  |
| MISSED APCH: Climb to 1300', then climbing LEFT turn to 3600' direct HGR VOR and hold, continue climb-in-hold to 3600'.          |                           |                                 |                                              |                                 |                                         |                  |  |
| Alt Set: INCHES                      Trans level: FL 180                      Trans alt: 18000'                                  |                           |                                 |                                              |                                 |                                         |                  |  |
| 1. Use local altimeter setting; if not received, use Martinsburg, W Va altimeter setting.<br>2. Pilot controlled lighting 120.3. |                           |                                 |                                              |                                 |                                         |                  |  |



|                                 |       |      |      |      |      |      |                |       |       |   |              |
|---------------------------------|-------|------|------|------|------|------|----------------|-------|-------|---|--------------|
| Gnd speed-Kts                   | 70    | 90   | 100  | 120  | 140  | 160  | REIL<br>PAPI-L | 1300' | 3600' | D | HGR<br>109.8 |
| GS                              | 3.00° | 377  | 484  | 538  | 646  | 753  |                |       |       |   |              |
| MAP at HADMI or<br>HESGI to MAP | 5.0   | 4:17 | 3:20 | 3:00 | 2:30 | 2:09 |                |       |       |   |              |

## STRAIGHT-IN LANDING RWY 9

## CIRCLE-TO-LAND

| 1 ILS<br><i>DA(H)</i> <b>895'</b> (200') |     | 2 LOC (GS out)<br><i>MDA(H)</i> <b>980'</b> (285') |  | With Local<br>Altimeter Setting |                        | With<br>Martinsburg, W Va<br>Altimeter Setting |  |
|------------------------------------------|-----|----------------------------------------------------|--|---------------------------------|------------------------|------------------------------------------------|--|
|                                          |     |                                                    |  | Max<br>Kts                      | <i>MDA(H)</i>          | <i>MDA(H)</i>                                  |  |
| A                                        | 3/4 | 1                                                  |  | 90                              | <b>1140'</b> (437')-1  | <b>1220'</b> (517')-1                          |  |
| B                                        |     |                                                    |  | 120                             | <b>1160'</b> (457')-1  | <b>1240'</b> (537')-1                          |  |
| C                                        |     |                                                    |  | 140                             | <b>1160'</b> (457')-1½ | <b>1240'</b> (537')-1½                         |  |
| D                                        |     |                                                    |  | 165                             | <b>1260'</b> (557')-2  | <b>1340'</b> (637')-2                          |  |

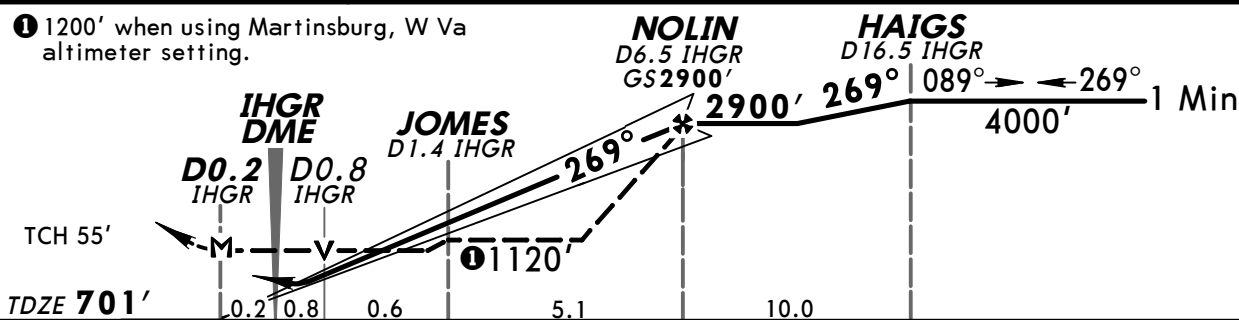
1 DA(H) 966' (271') with Martinsburg, W Va altimeter setting.

2 MDA(H) 1060' (365') with Martinsburg, W Va altimeter setting.

CHANGES: None.

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**BRIEFING STRIP** <sup>TM</sup>



|                            |      |      |      |      |      |      |                                                                                      |                                                                                       |                                                                                       |                                                                                       |
|----------------------------|------|------|------|------|------|------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <i>Gnd speed-Kts</i>       | 70   | 90   | 100  | 120  | 140  | 160  |  |  |  |  |
| <i>GS</i> 3.00°            | 377  | 484  | 538  | 646  | 753  | 861  |                                                                                      |                                                                                       |                                                                                       |                                                                                       |
| <i>MAP at D0.2 IHGR or</i> |      |      |      |      |      |      |                                                                                      |                                                                                       |                                                                                       |                                                                                       |
| <i>NOLIN to MAP</i> 6.7    | 5:45 | 4:28 | 4:01 | 3:21 | 2:52 | 2:31 |                                                                                      |                                                                                       |                                                                                       |                                                                                       |

| STRAIGHT-IN LANDING RWY 27<br>With Local Altimeter Setting |                 |     |                                                 |          |         |     |          |         |                                    | CIRCLE-TO-LAND<br>With Local Altimeter Setting |            |        |
|------------------------------------------------------------|-----------------|-----|-------------------------------------------------|----------|---------|-----|----------|---------|------------------------------------|------------------------------------------------|------------|--------|
| ILS<br>DA(H)<br>901'(200')                                 |                 |     | LOC (GS out)<br>MDA(H)1040'(339')<br>With JOMES |          |         |     |          |         | MDA(H)1120'(419')<br>Without JOMES |                                                | Max<br>Kts | MDA(H) |
| FULL                                                       | RAIL or ALS out |     |                                                 | RAIL out | ALS out |     | RAIL out | ALS out |                                    |                                                |            |        |
| A                                                          | 1/2             | 3/4 | 1/2                                             | 3/4      | 1       | 1/2 | 3/4      | 1       | 90                                 | 1140' (437') - 1                               |            |        |
| B                                                          |                 |     |                                                 |          |         |     |          |         | 120                                | 1160' (457') - 1                               |            |        |
| C                                                          |                 |     |                                                 |          |         |     |          |         | 140                                | 1160' (457') - 1 1/2                           |            |        |
| D                                                          |                 |     | 3/4                                             | 1        |         | 3/4 | 1 1/4    |         | 165                                | 1260' (557') - 2                               |            |        |

TERPS  
10  
AMEND

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## BRIEFING STRIP™



|            |              |
|------------|--------------|
| <b>D</b> → | <b>HAIGS</b> |
|------------|--------------|

**CIRCLE-TO-LAND**  
With Local  
Altimeter Setting

With Martinsburg, W Va  
Altimeter Setting

KHGR/HGR

HAGERSTOWN REGL-HENSON

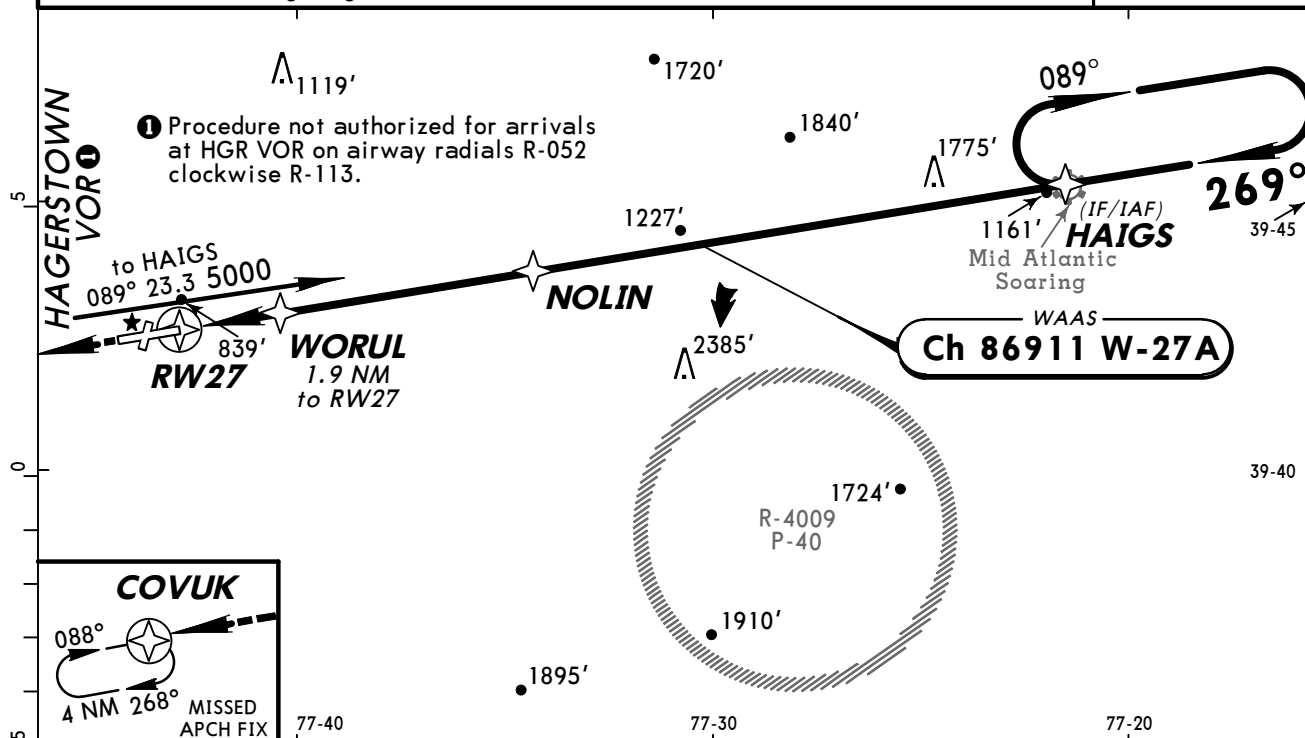
11 JUN 10

(12-2)

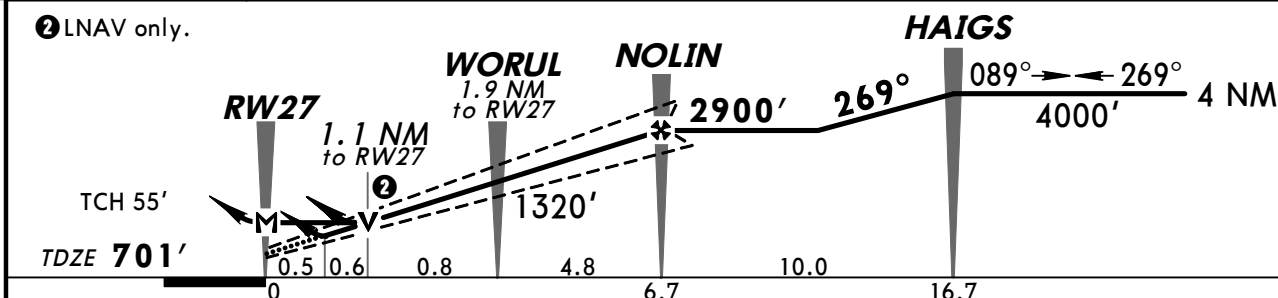
JEPPESEN

HAGERSTOWN, MD  
RNAV (GPS) Rwy 27

|                                                                                                                                                                                                                                                                                                                                                                 |                                  |                                                     |                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| ASOS<br>126.37                                                                                                                                                                                                                                                                                                                                                  | WASHINGTON Center (R)<br>134.15  | *HAGERSTOWN Tower<br>CTAF 120.3                     | *Ground<br>120.8                                    |
| WAAS<br><b>Ch 86911</b><br>W-27A                                                                                                                                                                                                                                                                                                                                | Final<br>Apch Crs<br><b>269°</b> | Minimum Alt<br><b>NOLIN</b><br><b>2900'</b> (2199') | LPV<br>DA(H)<br>(CONDITIONAL)<br><b>901'</b> (200') |
| MISSED APCH: Climb to 3600' direct COVUK and hold.                                                                                                                                                                                                                                                                                                              |                                  |                                                     |                                                     |
| Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'                                                                                                                                                                                                                                                                                                           |                                  |                                                     |                                                     |
| 1. Use local altimeter setting; if not received, use Martinsburg, W Va altimeter setting. 2. DME/DME RNP-0.30 not authorized. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -16°C (4°F) or above 48°C (118°F). 4. VDP and Baro-VNAV not authorized when using Martinsburg, W Va altimeter setting. 5. Pilot controlled lighting 120.3. |                                  |                                                     |                                                     |
| 3700'                                                                                                                                                                                                                                                                                                                                                           |                                  |                                                     |                                                     |
| MSA RW27                                                                                                                                                                                                                                                                                                                                                        |                                  |                                                     |                                                     |



② LNAV only.



|                  |       |     |     |     |     |     |       |       |       |
|------------------|-------|-----|-----|-----|-----|-----|-------|-------|-------|
| Gnd speed-Kts    | 70    | 90  | 100 | 120 | 140 | 160 | MALSR | 3600' | COVUK |
| Glide Path Angle | 3.00° | 372 | 478 | 531 | 637 | 743 | PAPI  | ↑     |       |
| MAP at RW27      |       |     |     |     |     |     |       |       |       |

| STRAIGHT-IN LANDING RWY 27<br>With Local Altimeter Setting |     |                                 |       |                             |     |       | CIRCLE-TO-LAND<br>With Local Altimeter Setting |                     |
|------------------------------------------------------------|-----|---------------------------------|-------|-----------------------------|-----|-------|------------------------------------------------|---------------------|
| LPV<br>DA(H) 901' (200')                                   |     | LNAV/VNAV<br>DA(H) 1105' (404') |       | LNAV<br>MDA(H) 1100' (399') |     |       | Max Kts                                        | MDA(H)              |
| RAIL or ALS out                                            |     | RAIL or ALS out                 |       | RAIL out ALS out            |     |       | 90                                             | 1140' (437') -1     |
| A                                                          |     |                                 |       |                             |     |       | 120                                            | 1160' (457') -1     |
| B                                                          | 1/2 | 3/4                             | 1     | 1 1/2                       | 1/2 | 3/4   | 1                                              | 1160' (457') -1 1/2 |
| C                                                          |     |                                 |       |                             |     |       | 140                                            | 1260' (557') -2     |
| D                                                          |     |                                 |       |                             | 1   | 1 1/4 | 165                                            |                     |
| With Martinsburg, W Va Altimeter Setting                   |     |                                 |       |                             |     |       | With Martinsburg, W Va Altimeter Setting       |                     |
| LPV<br>DA(H) 971' (270')                                   |     | LNAV/VNAV<br>DA(H) 1175' (474') |       | LNAV<br>MDA(H) 1180' (479') |     |       | Max Kts                                        | MDA(H)              |
| RAIL or ALS out                                            |     | RAIL or ALS out                 |       | RAIL out ALS out            |     |       | 90                                             | 1220' (517') -1     |
| A                                                          |     |                                 |       |                             |     |       | 120                                            | 1240' (537') -1     |
| B                                                          | 1/2 | 1                               | 1 1/4 | 1 3/4                       | 1/2 | 3/4   | 1                                              | 1240' (537') -1 1/2 |
| C                                                          |     |                                 |       |                             | 3/4 | 1 1/4 | 140                                            | 1340' (637') -2     |
| D                                                          |     |                                 |       |                             | 1   | 1 1/2 | 165                                            |                     |

CHANGES: REIL removed.

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# BRIEFING STRIP™



**ERPS**  
**AMEND**  
**7**

**ERPS**  
**AMEND**  
**7**

## General Information

Location: Baltimore MD USA  
IATA Code: MTN  
Lat/Long: N39° 19.5' W076° 24.8'  
Elevation: 21 ft

Airport Use: Public  
Magnetic Variation: 11.3°W  
Sectional Chart: Washington

Fuel Types: 100 Octane (LL), Jet A  
Repair Types: Minor Airframe, Minor Engine  
Customs: No  
Airport Type: IFR  
Landing Fee: No  
Control Tower: Yes  
Jet Start Unit: Yes  
LLWS Alert: No  
Beacon: Yes

Sunrise: 1142 Z  
Sunset: 2255 Z,

## Runway Information

Runway: 15  
Length x Width: 6996 ft x 180 ft  
Surface Type: asphalt  
TDZ-Elev: 21 ft  
Lighting: Edge, REIL, Pilot controlled

Runway: 33  
Length x Width: 6996 ft x 180 ft  
Surface Type: asphalt  
TDZ-Elev: 14 ft  
Lighting: Edge, REIL, Pilot controlled

## Communication Information

ATIS 124.925  
AWOS 124.925  
Martin State Tower 121.3 CTAF PCL  
Martin State Ground Control 121.8  
Potomac Clearance Delivery 121.8  
Potomac Approach Control 119.0  
Potomac Departure Control 119.0  
Martin State Unicom 122.95

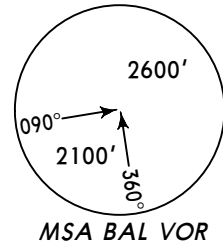
ATIS  
**124.92**

Apt Elev  
See graphic

Alt set: INCHES

Trans level: FL180 Trans alt: 18000'

1. Authorized for turbojet aircraft only.
2. All Part 91, 101, 103, 105, 125, 133, 135 and 137 flight operations are prohibited on the CASANOVA Transition.



## NOTTINGHAM SIX ARRIVAL (OTT.OTT6)

WESTMINSTER MD  
Carroll Co Regl/Poage  
789

BALTIMORE  
D (L) 115.1 BAL  
N39 10.3 W076 39.7

Martin State  
22

BALTIMORE MD  
Washington Intl/  
Marshall  
146

RIPKN  
N38 55.9 W076 34.1

EXPECT RADAR  
vectors to final  
approach course

DEALE  
N38 47.9 W076 32.0

EXPECT to cross  
at 6000'

EXPECT to cross at  
or below 9000'

RAVNN  
N38 48.3  
W076 31.1

CASANOVA  
D (H) 116.3 CSN  
N38 38.5 W077 51.9

EXPECT to  
cross at  
FL190

CASANOVA  
(CSN.OTT6)  
5500  
23

SACCO  
N38 40.2  
W077 22.9

EXPECT to cross  
at 16000'

BROOKE  
D (L) 114.5 BRV  
N38 20.2 W077 21.2

EXPECT to cross  
at 280 KT  
and 15000'

SABBI  
N38 22.9  
W077 08.3

EXPECT to cross  
at 15000'

NOTTINGHAM  
D (L) 113.7 OTT  
N38 42.4 W076 44.7

PEGBY  
N38 04.7 W077 12.1

OGATE  
N38 03.5  
W077 31.1

FLAT ROCK  
D (H) 113.3 FAK  
N37 31.7 W077 49.7

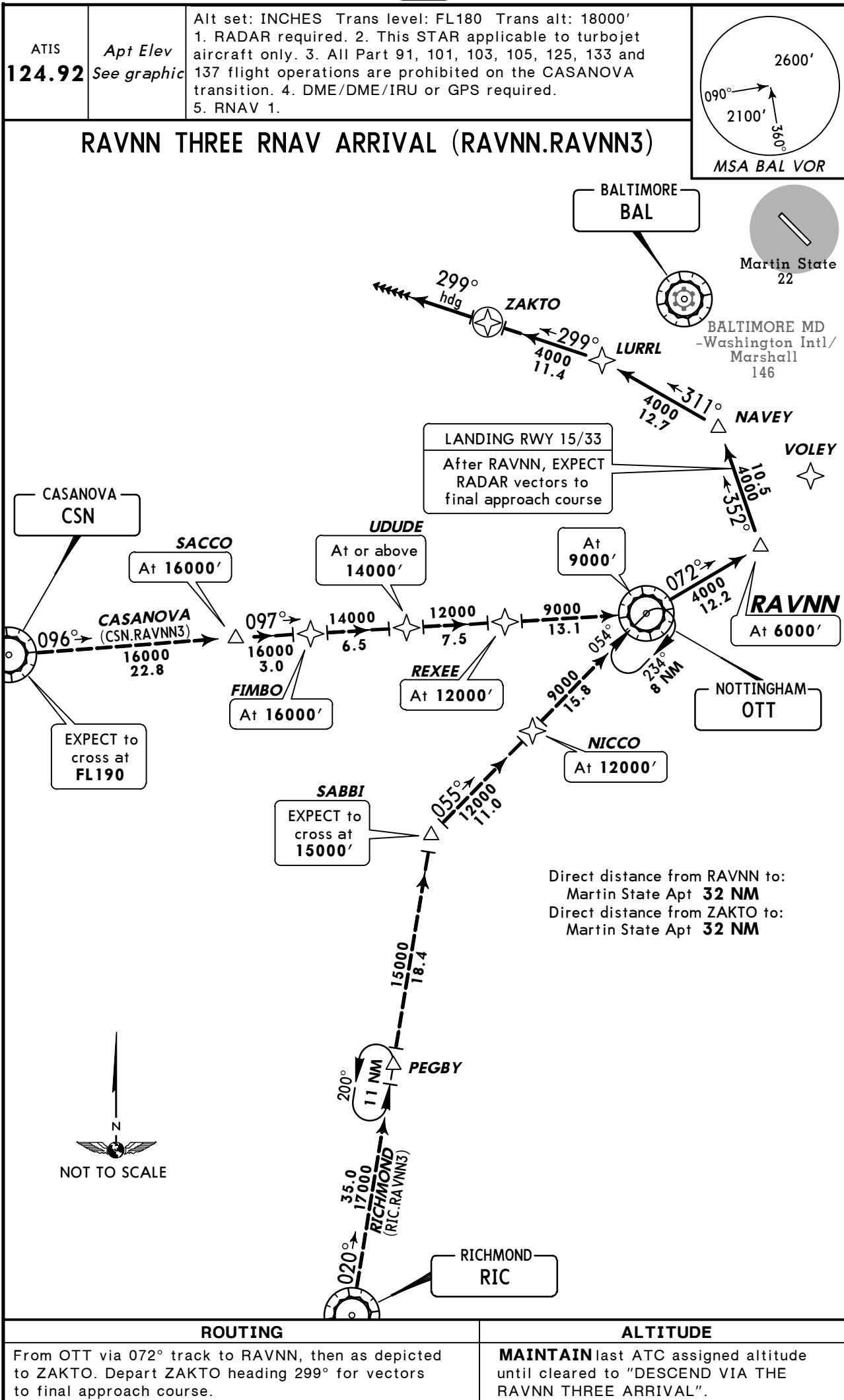
RICHMOND  
D (H) 114.1 RIC  
N37 30.1 W077 19.2



Direct distance from RIPKIN to:  
Martin State Apt 25 NM

### ROUTING

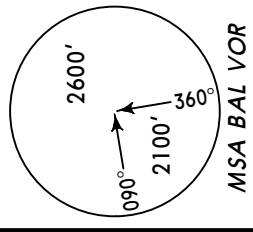
From over OTT via OTT R-071 to RAVNN, then via BAL R-174 to RIPKN. EXPECT RADAR vectors to final approach course after passing RIPKN.



ATIS  
**124.92**

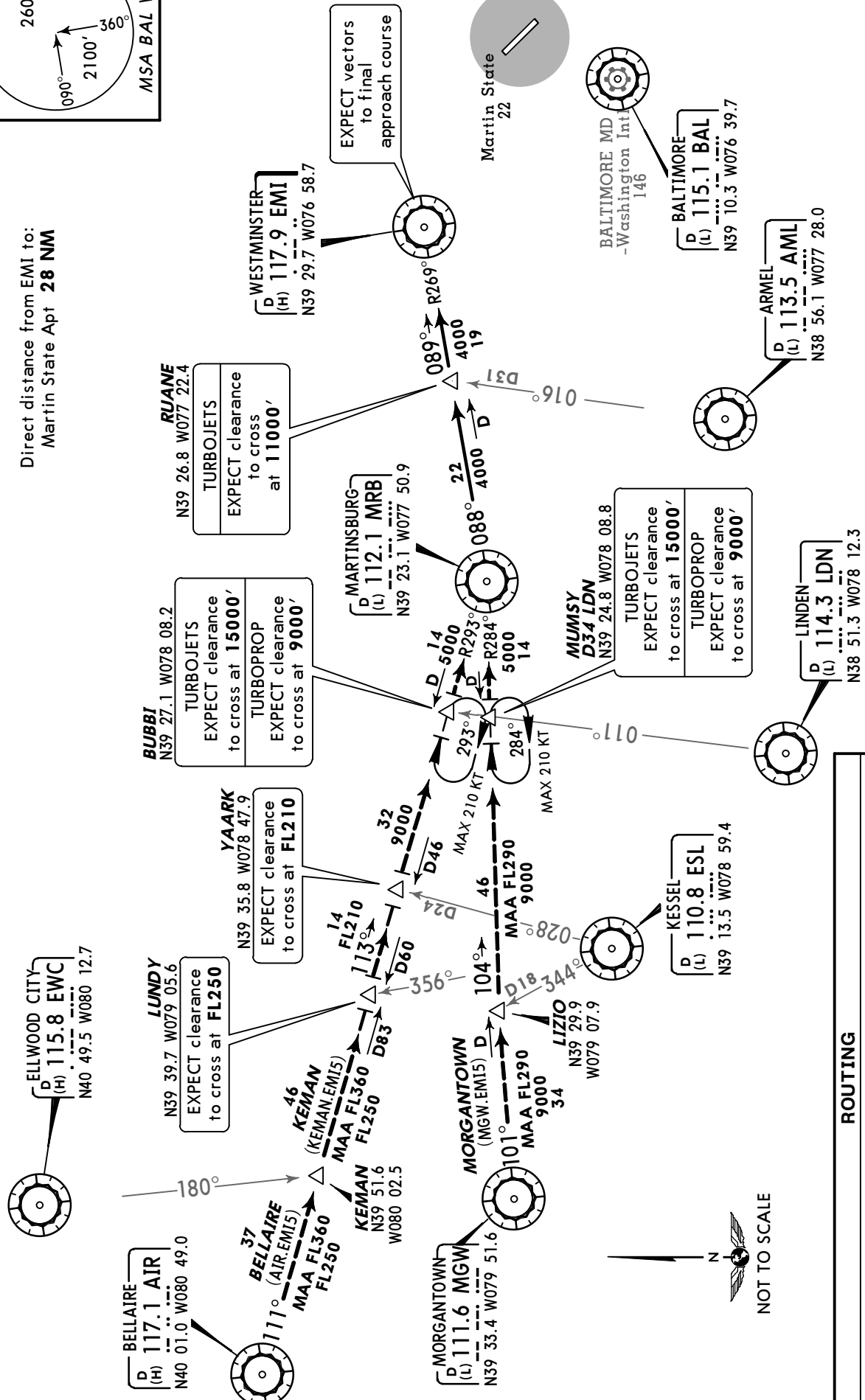
Apt Elev  
See graphic

Alt set: INCHES Trans level: FL180 Trans alt: 18000'  
MORGANTOWN Transition only for use by Pittsburgh and  
Pittsburgh Satellite departures or when assigned by ATC.



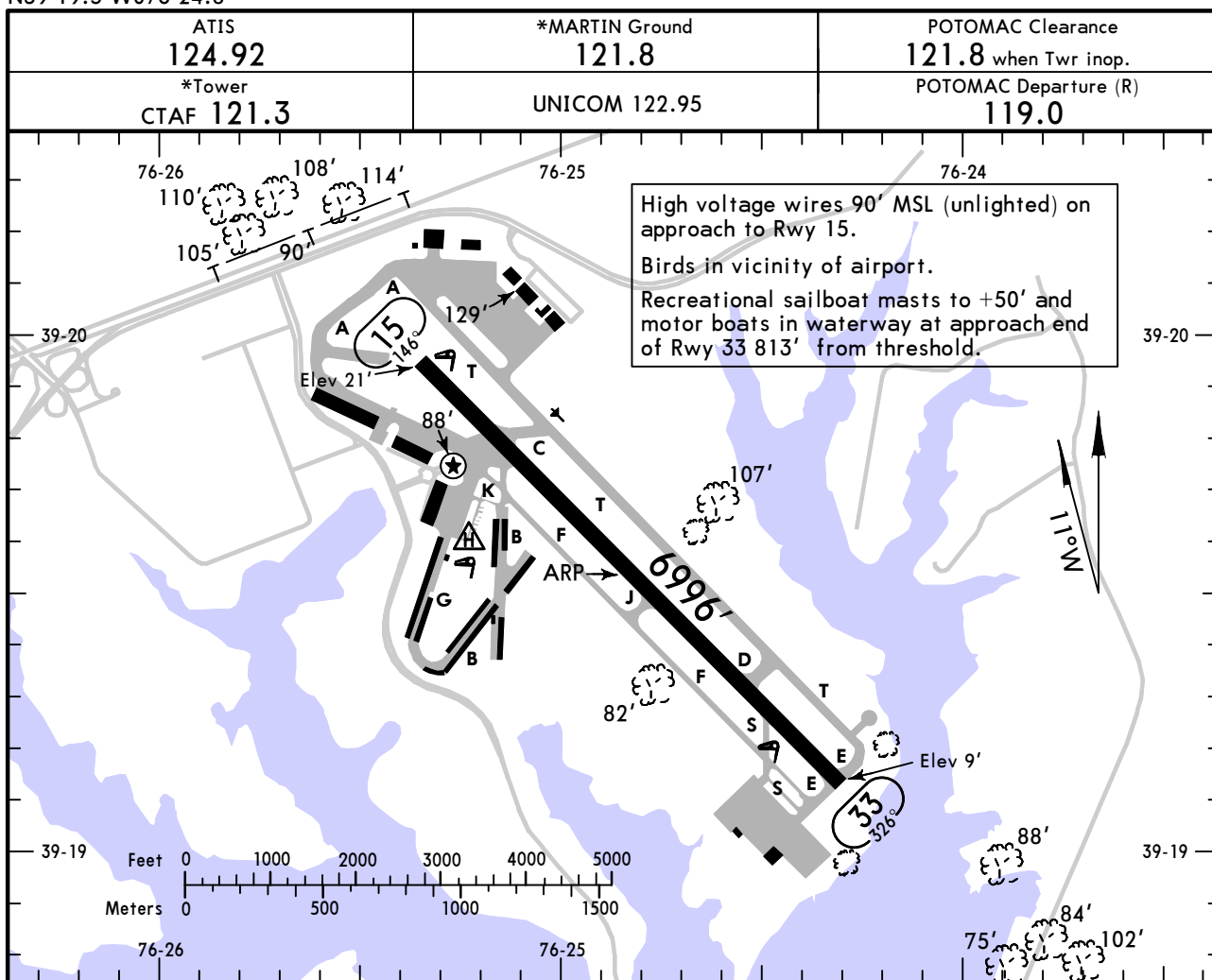
## WESTMINSTER FIVE ARRIVAL (EMI.EMI5)

Direct distance from EMI to:  
Martin State Apt **28 NM**



### ROUTING

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



#### ADDITIONAL RUNWAY INFORMATION

| RWY |                                               | USABLE LENGTHS |             |          | WIDTH |
|-----|-----------------------------------------------|----------------|-------------|----------|-------|
|     |                                               | LANDING BEYOND |             | TAKE-OFF |       |
|     |                                               | Threshold      | Glide Slope |          |       |
| 15  | ① HIRL ① REIL ② PLASI-L (angle 4.01°) grooved |                |             |          | 180'  |
| 33  | ① HIRL ① REIL ③ PLASI-L grooved               |                | 6089'       |          |       |

- ① Activate on 121.3 when Twr inop.
- ② Unusable beyond 5° right of course.
- ③ Unusable beyond 5° left of course and beyond 8° right of course.

#### TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE

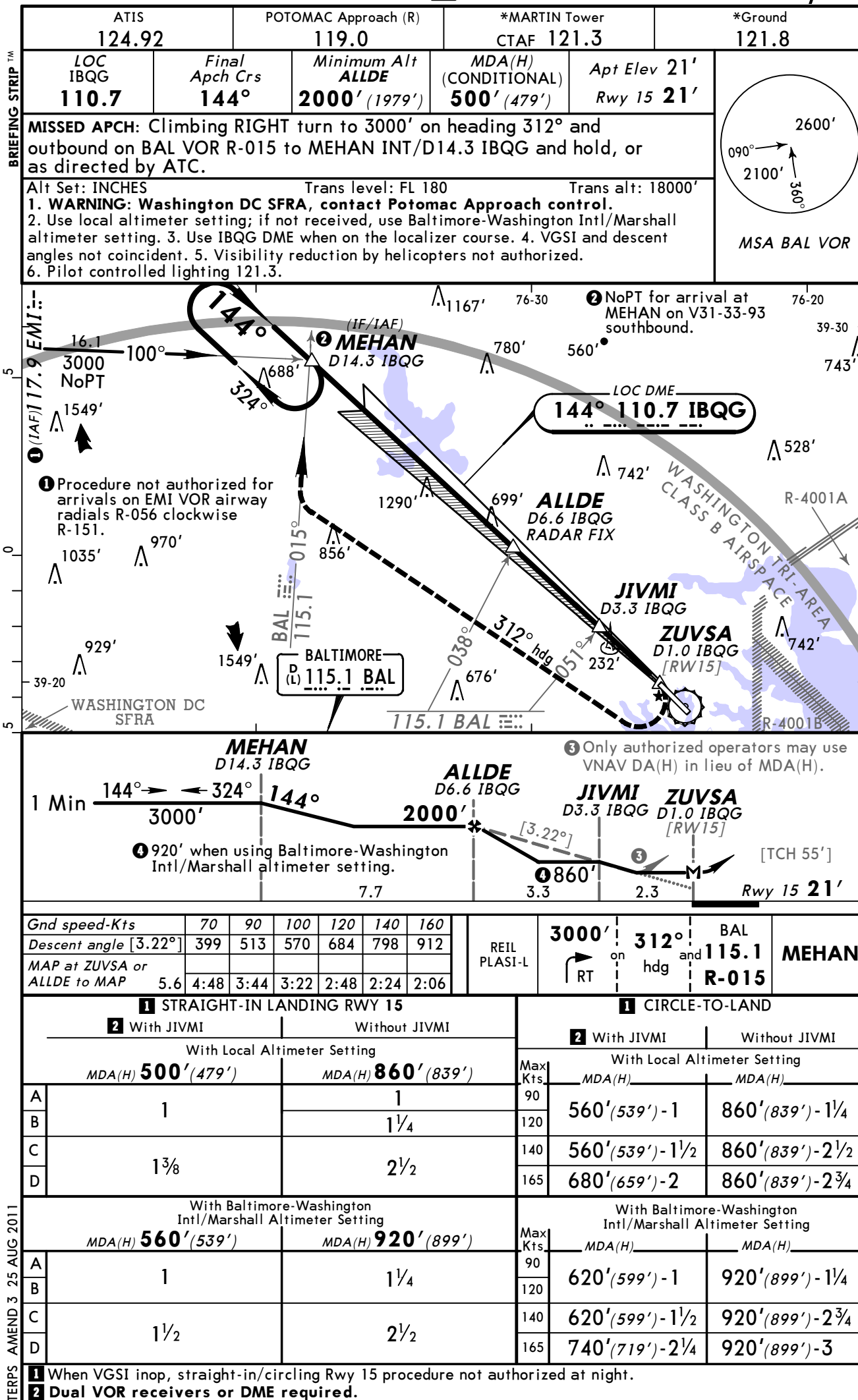
|           | Rwy 15                             |     |       | Rwy 33                             |     |        |
|-----------|------------------------------------|-----|-------|------------------------------------|-----|--------|
|           | With Min climb of 300'/NM to 1000' |     | Other | With Min climb of 340'/NM to 1700' |     | Other  |
|           | Adequate Vis Ref                   | STD |       | Adequate Vis Ref                   | STD |        |
| 1 & 2 Eng | 1/4                                | 1   | 800-2 | 1/4                                | 1   | 1300-2 |
| 3 & 4 Eng |                                    | 1/2 |       |                                    | 1/2 |        |

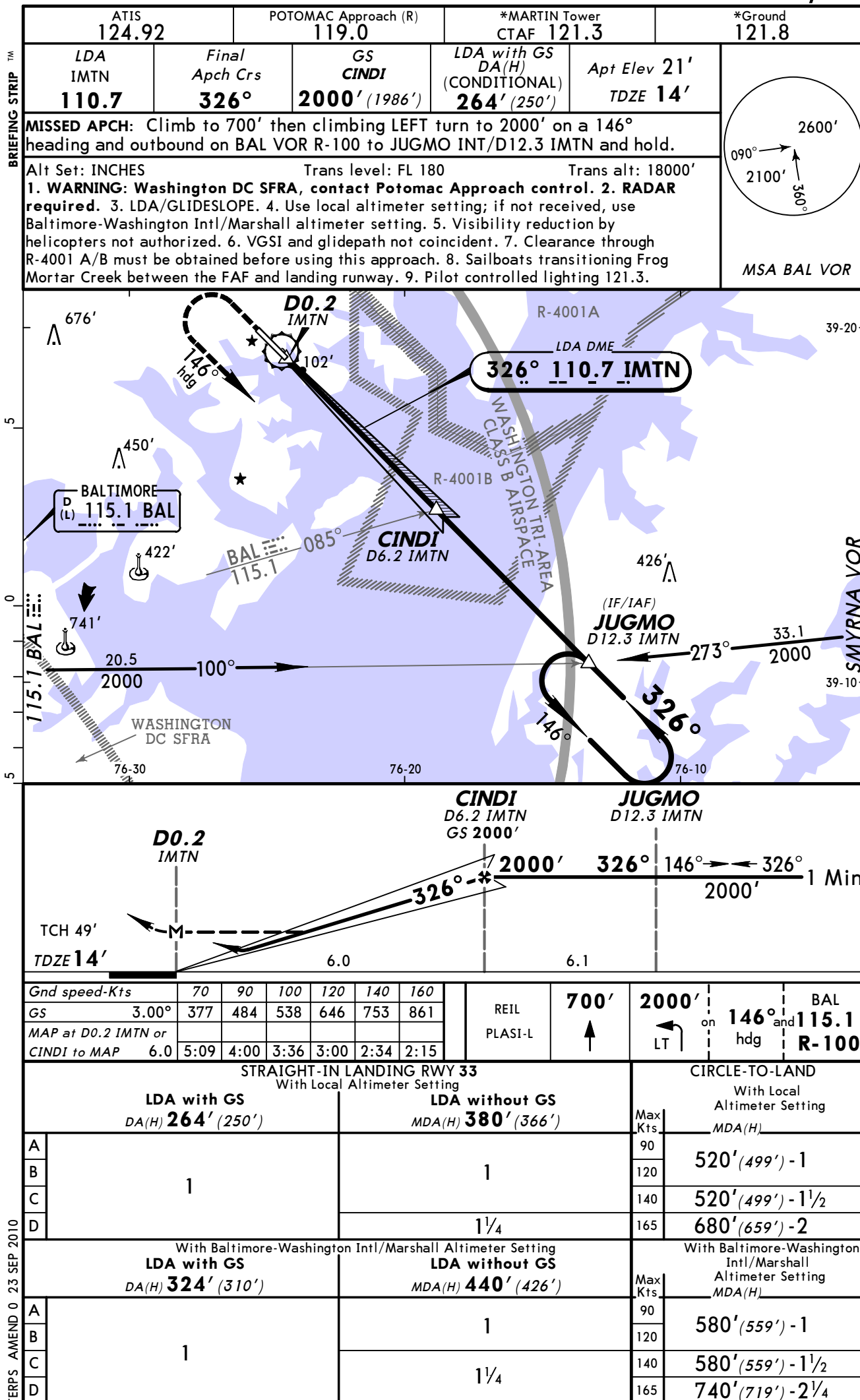
OBSTACLE DP: Rwy 15, climb runway heading to 1000' before proceeding on course, or when directed by ATC, climbing right turn heading 190° to 1000' before proceeding on course.  
NOTE: Rwy 15; Trees 1960' from departure end of runway, 684' left of centerline, 78' AGL/88' MSL.

Trees 3395' from departure end of runway, 585' left of centerline, 92' AGL/102' MSL.  
NOTE: Rwy 33; Poles 1553' from departure end of runway, across centerline, 68' AGL/90' MSL. Trees 2342' from departure end of runway, across centerline, 86' AGL/108' MSL.

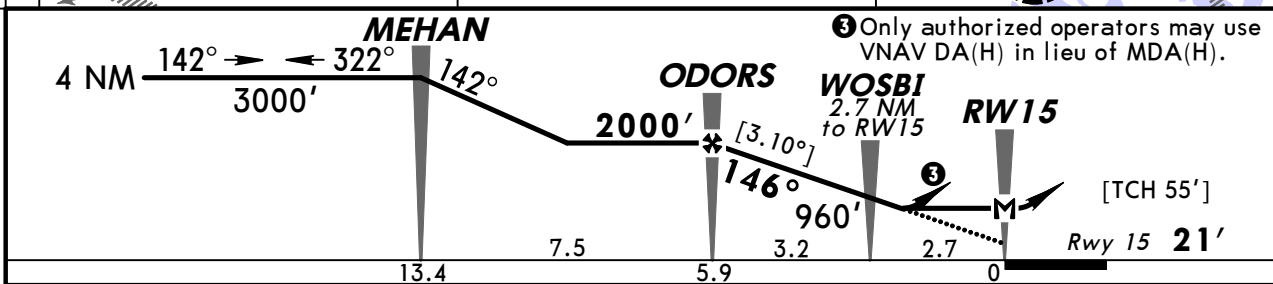
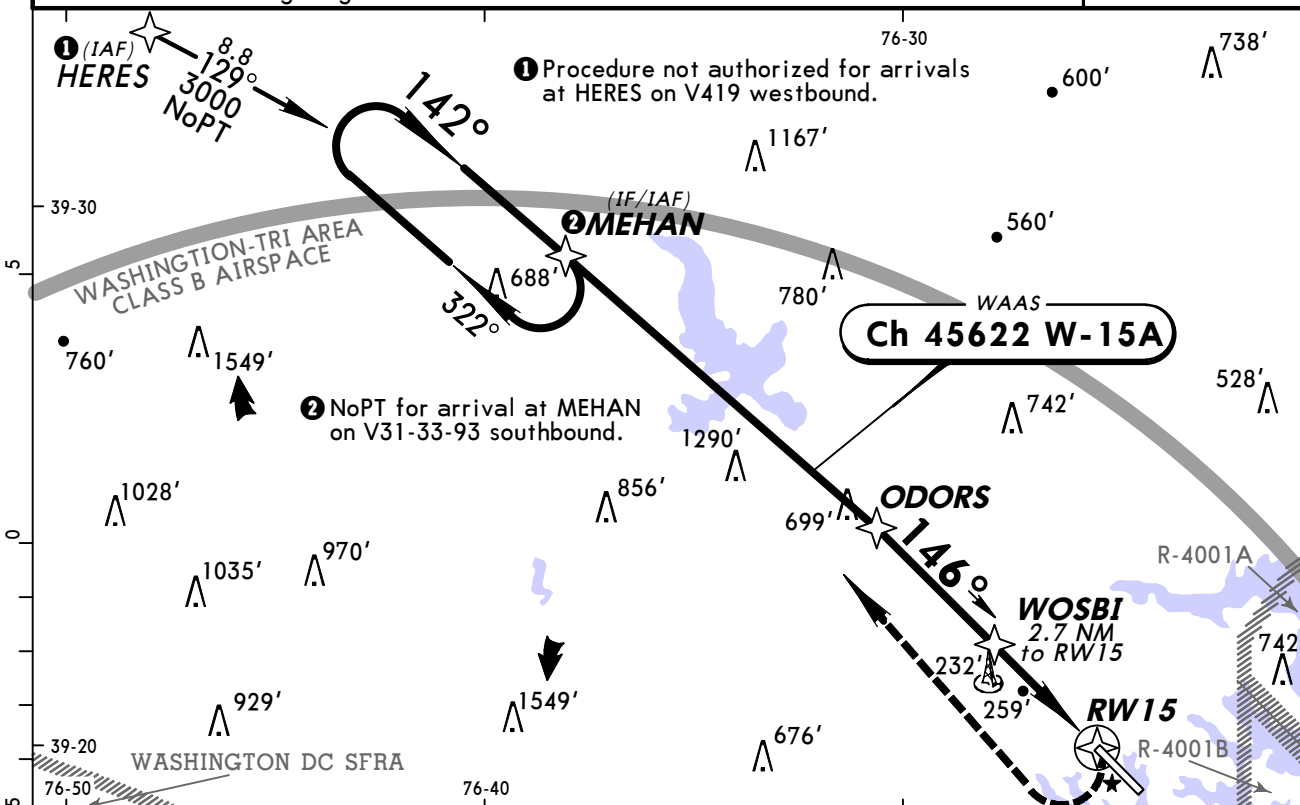
#### FOR FILING AS ALTERNATE

|   | Authorized Only When Twr Operating and When Local Weather Available<br>LDA Rwy 33 | Authorized Only When Local Weather Available<br>RNAV (GPS) Rwy 15<br>RNAV (GPS) Rwy 33 | Authorized Only When Twr Operating and When Local Weather Available<br>LOC Rwy 15 | VOR DME Rwy 15 | Other |
|---|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------|-------|
| A | 800-2                                                                             | 800-2                                                                                  | 900-2                                                                             | 900-2          | NA    |
| B |                                                                                   |                                                                                        | 900-2 1/2                                                                         | 900-2 1/2      |       |
| C |                                                                                   |                                                                                        | 900-2 3/4                                                                         | 900-2 3/4      |       |
| D |                                                                                   |                                                                                        |                                                                                   |                |       |





|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                  |                                                     |                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| ATIS<br>124.92                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | POTOMAC Approach (R)<br>119.0    | *MARTIN Tower<br>CTAF 121.3                         | *Ground<br>121.8                                    |
| WAAS<br><b>Ch 45622</b><br>W-15A                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Final<br>Apch Crs<br><b>146°</b> | Minimum Alt<br><b>ODORS</b><br><b>2000'</b> (1979') | LP<br>MDA(H)<br>(CONDITIONAL)<br><b>500'</b> (479') |
| Apt Elev 21'<br>Rwy 15 21'                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                  |                                                     |                                                     |
| <b>MISSED APCH:</b> Climbing RIGHT turn to 3000' direct MEHAN and hold.<br>Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'<br>1. <b>WARNING:</b> Washington DC SFRA, contact Potomac Approach control.<br>2. Use local altimeter setting; if not received, use Baltimore-Washington Intl/Marshall altimeter setting. 3. DME/DME RNP-0.30 not authorized. 4. Visibility reduction by helicopters not authorized. 5. VGSI and descent angles not coincident. 6. Pilot controlled lighting 121.3. |                                  |                                                     |                                                     |
| <div style="border: 1px solid black; border-radius: 50%; width: 100px; height: 100px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">             2600'           </div> MSA RW15                                                                                                                                                                                                                                                                                     |                                  |                                                     |                                                     |



|                       |     |     |     |     |     |     |  |         |       |  |       |
|-----------------------|-----|-----|-----|-----|-----|-----|--|---------|-------|--|-------|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 |  | REIL    | 3000' |  | MEHAN |
| Descent angle [3.10°] | 384 | 494 | 548 | 658 | 768 | 878 |  | PLASI-L | RT    |  |       |
| MAP at RW15           |     |     |     |     |     |     |  |         |       |  |       |

| 1 STRAIGHT-IN LANDING RWY 15<br>With Local Altimeter Setting |       |                            |       | 1 CIRCLE-TO-LAND<br>With Local Altimeter Setting          |     |                   |  |
|--------------------------------------------------------------|-------|----------------------------|-------|-----------------------------------------------------------|-----|-------------------|--|
| LP<br>MDA(H) 500' (479')                                     |       | LNAV<br>MDA(H) 520' (499') |       | Max Kts<br>MDA(H)                                         |     |                   |  |
| A                                                            | 1     |                            | 1     |                                                           | 90  | 560' (539')-1     |  |
| B                                                            |       |                            |       |                                                           | 120 |                   |  |
| C                                                            | 1 3/8 |                            | 1 3/8 |                                                           | 140 | 560' (539')-1 1/2 |  |
| D                                                            |       |                            |       |                                                           | 165 | 680' (659')-2     |  |
| With Baltimore-Washington Intl/Marshall Altimeter Setting    |       |                            |       | With Baltimore-Washington Intl/Marshall Altimeter Setting |     |                   |  |
| LP<br>MDA(H) 560' (539')                                     |       | LNAV<br>MDA(H) 580' (559') |       | Max Kts<br>MDA(H)                                         |     |                   |  |
| A                                                            | 1     |                            | 1     |                                                           | 90  | 620' (599')-1     |  |
| B                                                            |       |                            |       |                                                           | 120 |                   |  |
| C                                                            | 1 1/2 |                            | 1 5/8 |                                                           | 140 | 620' (599')-1 5/8 |  |
| D                                                            |       |                            |       |                                                           | 165 | 740' (719')-2 1/4 |  |

1 When VGSI inop, straight-in/circling Rwy 15 procedure not authorized at night.

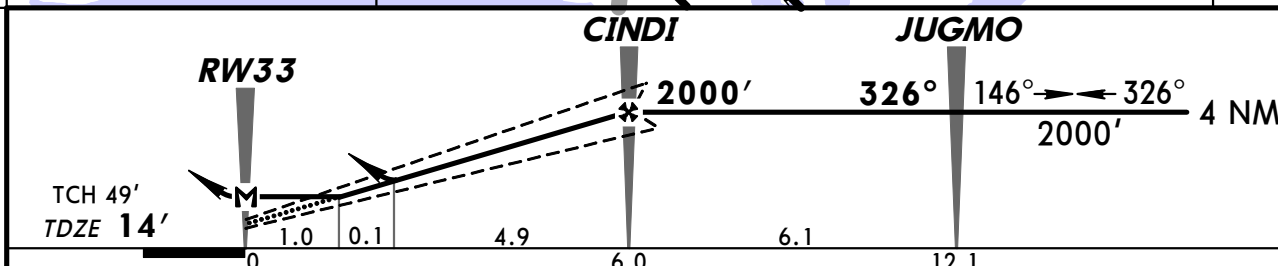
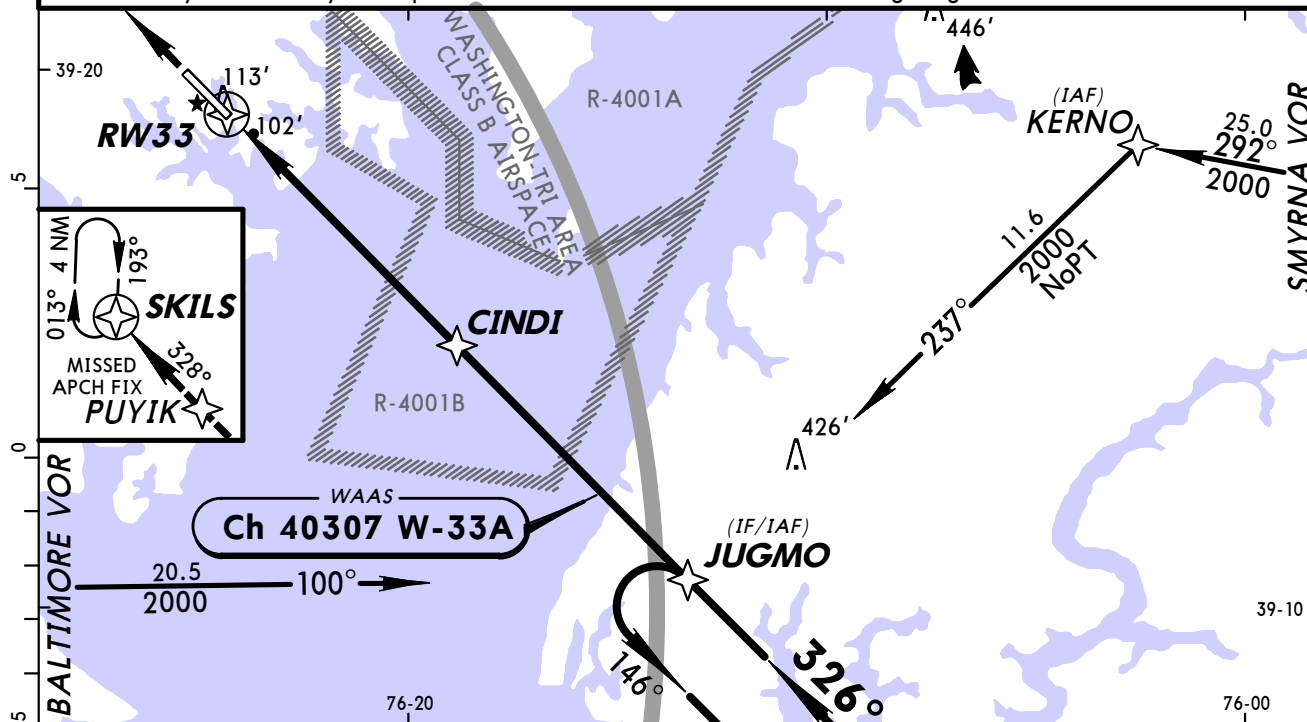
CHANGES: Procedure.

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**BRIFFING STRIP** <sup>TM</sup>

Trans alt: 18000'

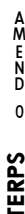
1. **WARNING: Washington DC SFRA, contact Potomac Approach control.** 2. Clearance through R-4001A/B must be obtained before using this approach. 3. Use local altimeter setting; if not received, use Baltimore-Washington Intl/Marshall altimeter setting. 4. Baro-VNAV not authorized when using Baltimore-Washington Intl/Marshall altimeter setting. 5. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -15°C (5°F) or above 49°C (120°F). 6. DME/DME RNP-0.30 not authorized. 7. When VGS1 inop, procedure not authorized at night. 8. VGS1 and RNAV glidepath not coincident. 9. Sailboats transitioning Frog Mortar Creek between the FAF and landing runway. 10. Visibility reduction by helicopters not authorized. 11. Pilot controlled lighting 121.3.



|                               |     |     |     |     |     |     |                                                                                                                                                                                                                                                                                             |
|-------------------------------|-----|-----|-----|-----|-----|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Gnd speed-Kts</i>          | 70  | 90  | 100 | 120 | 140 | 160 | <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;"> REIL<br/>PLASI-L </div> <div style="margin: 0 10px;"> 3000'<br/>↑ </div> <div style="text-align: center;"> </div> <div style="text-align: center;"> <b>PUYIK</b> </div> </div> |
| <i>Glide Path Angle 3.00°</i> | 372 | 478 | 531 | 637 | 743 | 849 |                                                                                                                                                                                                                                                                                             |
|                               |     |     |     |     |     |     |                                                                                                                                                                                                                                                                                             |
| <i>MAP at RW33</i>            |     |     |     |     |     |     |                                                                                                                                                                                                                                                                                             |

| STRAIGHT-IN LANDING RWY 33<br>With Local Altimeter Setting |    |                                        |                                    | CIRCLE-TO-LAND<br>With Local Altimeter Setting            |                  |
|------------------------------------------------------------|----|----------------------------------------|------------------------------------|-----------------------------------------------------------|------------------|
| LPV<br>DA(H) <b>402'</b> (388')                            |    | LNNAV/VNAV<br>DA(H) <b>402'</b> (388') | LNNAV<br>MDA(H) <b>380'</b> (366') | Max<br>Kts                                                | MDA(H)           |
| A                                                          | 1¼ | 1¼                                     | 1                                  | 90                                                        | 520' (499') - 1  |
| B                                                          |    |                                        |                                    | 120                                                       |                  |
| C                                                          |    |                                        | 1¼                                 | 140                                                       | 520' (499') - 1½ |
| D                                                          |    |                                        |                                    | 165                                                       | 680' (659') - 2  |
| With Baltimore-Washington Intl/Marshall Altimeter Setting  |    |                                        |                                    | With Baltimore-Washington Intl/Marshall Altimeter Setting |                  |
| LPV<br>DA(H) <b>454'</b> (440')                            |    | LNNAV/VNAV<br>DA(H) <b>454'</b> (440') | LNNAV<br>MDA(H) <b>440'</b> (426') | Max<br>Kts                                                | MDA(H)           |
| A                                                          | 1½ | 1½                                     | 1                                  | 90                                                        | 580' (559') - 1  |
| B                                                          |    |                                        |                                    | 120                                                       |                  |
| C                                                          |    |                                        | 1¼                                 | 140                                                       | 580' (559') - 1½ |
| D                                                          |    |                                        |                                    | 165                                                       | 740' (719') - 2½ |

**BALTIMORE, MD**  
**VOR DME Rwy 15**

BRIEFING STRIP™TERPS  
AMEND  
0TERPS  
AMEND  
0

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## General Information

Location: Patuxent River MD USA

IATA Code: NHK

Lat/Long: N38° 17.2' W076° 24.7'

Elevation: 39 ft

Airport Use: Military

Magnetic Variation: 11.0°W

Sectional Chart: Washington

Fuel Types: 100 Octane (LL), Jet 4, Jet 5

Customs: Upon Prior Request

Airport Type: IFR

Landing Fee: No

Control Tower: Yes

Jet Start Unit: Yes

LLWS Alert: No

Beacon: Yes

Sunrise: 1141 Z

Sunset: 2256 Z,

## Runway Information

Runway: 02

Length x Width: 5021 ft x 75 ft

Surface Type: asphalt

TDZ-Elev: 37 ft

Runway: 06

Length x Width: 11807 ft x 200 ft

Surface Type: asphalt

TDZ-Elev: 39 ft

Lighting: Edge, ALS, Centerline

Stopway: 2000 ft

Runway: 14

Length x Width: 9742 ft x 200 ft

Surface Type: concrete

TDZ-Elev: 27 ft

Lighting: Edge

Runway: 20

Length x Width: 5021 ft x 75 ft

Surface Type: asphalt

TDZ-Elev: 33 ft

Runway: 24

Length x Width: 11807 ft x 200 ft

Surface Type: asphalt

TDZ-Elev: 20 ft  
Lighting: Edge, Centerline

Runway: 32  
Length x Width: 9742 ft x 200 ft  
Surface Type: concrete  
TDZ-Elev: 18 ft  
Lighting: Edge

## Communication Information

Patuxent Tower 123.7  
Patuxent Ground Control 120.6  
Patuxent Clearance Delivery 135.2  
Patuxent Approach Control 127.95 (56°-164°)  
Patuxent Approach Control 120.05 (165°-55°)  
Patuxent Approach Control 121.0 (165°-55°) At or below 3000 ft  
Patuxent Departure Control 127.95 (56°-164°)  
Patuxent Departure Control 120.05 (165°-55°)  
Patuxent Departure Control 121.0 (165°-55°) At or below 3000 ft  
Patuxent Radar 135.025  
Leesburg Flight Service Station 122.1 RCO  
Leesburg Flight Service Station 117.6 RCO  
Washington Center 133.9 Remote Communications Air-Ground

MSA PXT VOR

| RWY | INITIAL CLIMB                                                                                  |
|-----|------------------------------------------------------------------------------------------------|
| 6   | Climb to <b>6000'</b> via heading 060°.                                                        |
| 14  | Climbing LEFT turn to <b>6000'</b> via heading 060° within PXT 2.5 DME.                        |
| 24  | Climb on heading 240° to PXT 2 DME, then climbing RIGHT turn to <b>6000'</b> via heading 080°. |
| 32  | Climbing RIGHT turn to <b>6000'</b> via heading 080°.                                          |

| ROUTING                                                                                     |
|---------------------------------------------------------------------------------------------|
| Intercept SBY R-284 to SBY. Cross FRAND as assigned, then via assigned route or transition. |

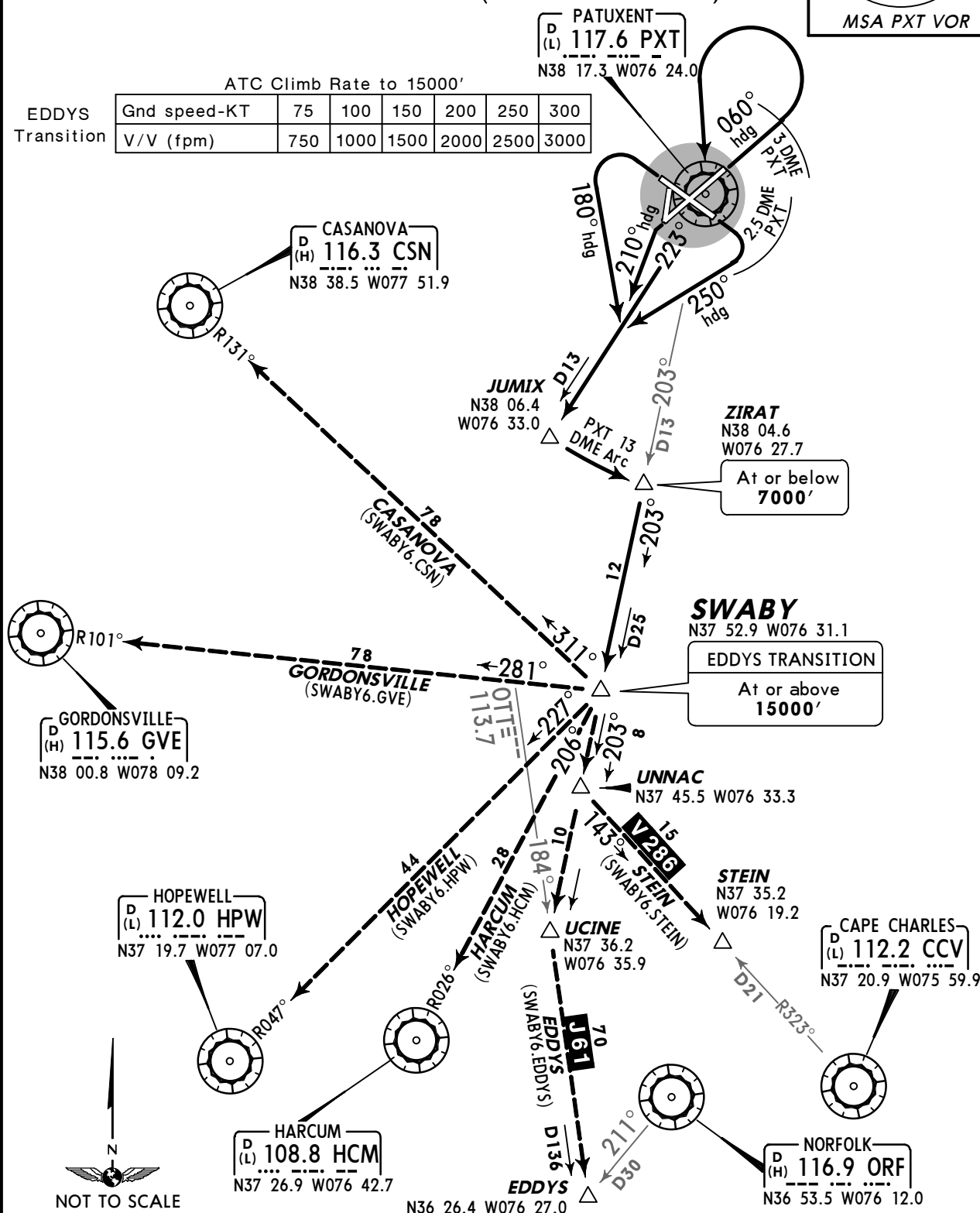
The diagram illustrates a flight path starting from Waterloo (D 112.6 ATR) and ending at Snow Hill (D 112.4 SWL). Key waypoints include OYEYI (N38 21.6 W076 07.5), FRAND (N38 20.9 W075 38.3), CBEAV (N38 22.3 W075 15.9), SALISBURY (D 111.2 SBY), PATUXENT (D 117.6 PXT), and SNOW HILL (D 112.4 SWL). The path involves several turns and transitions, with headings ranging from 034° to 104° and distances marked in miles and nautical miles. A north arrow points upwards, and the text 'NOT TO SCALE' is present.

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MSA PXT VOR

PATUXENT  
D  
(L) 117.6 PXT  
N38 17.3 W076 24.0

## EDDYS Transition



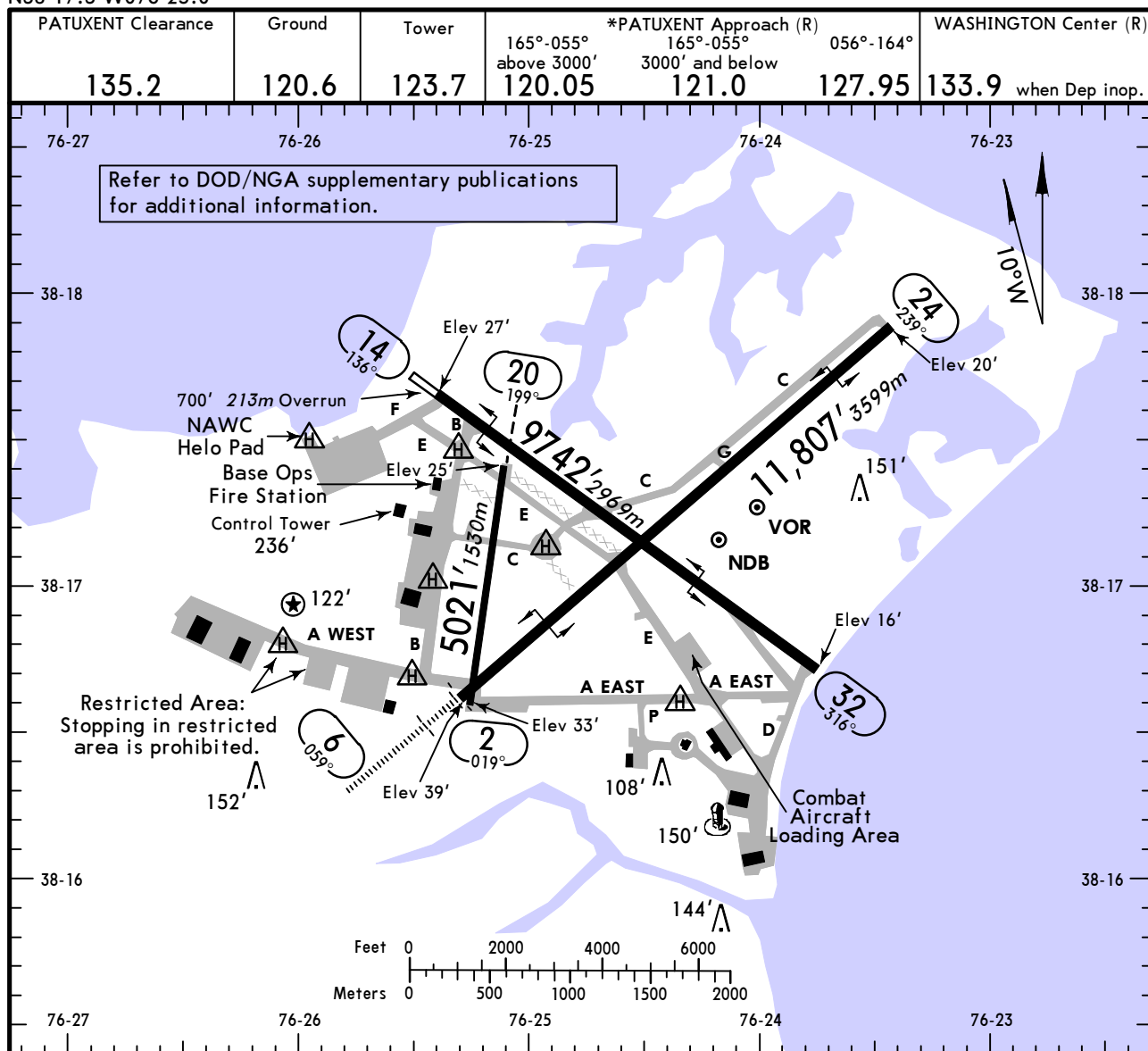
| RWY | INITIAL CLIMB                                                                                 |
|-----|-----------------------------------------------------------------------------------------------|
| 6   | Climb to <b>3000'</b> via heading 060°, at PXT 3 DME, turn LEFT direct PXT.                   |
| 14  | Climbing RIGHT turn to <b>3000'</b> via heading 250° within PXT 2.5 DME, intercept PXT R-223. |
| 24  | Climbing LEFT turn to <b>3000'</b> via heading 210°, intercept PXT R-223.                     |
| 32  | Climbing LEFT turn to <b>3000'</b> via heading 180°, intercept PXT R-223.                     |

Fly PXT R-223 to JUMIX, then Arc counterclockwise SOUTHWEST of PXT via 13 NM Arc to ZIRAT, then fly PXT R-203 to SWABY, then fly assigned transition or EXPECT RADAR vectors to join assigned route.

**KNHK/NHK**  
Apt Elev **39'**  
N38 17.3 W076 25.0

**JEPPesen**  
17 FEB 12 **(30-9)**

**PATUXENT RIVER NAS**  
**PATUXENT RIVER, MD**



**ADDITIONAL RUNWAY INFORMATION**

| RWY |                       | USABLE LENGTHS |             |          |             |
|-----|-----------------------|----------------|-------------|----------|-------------|
|     |                       | Threshold      | Glide Slope | TAKE-OFF | WIDTH       |
| 2   | MIRL                  |                |             |          | 75'<br>23m  |
| 6   | HIRL CL(White) ALSF-I |                |             |          | 200'<br>61m |
| 24  | HIRL CL(White)        |                |             |          |             |
| 14  | HIRL                  |                |             |          | 200'<br>61m |
| 32  |                       |                |             |          |             |

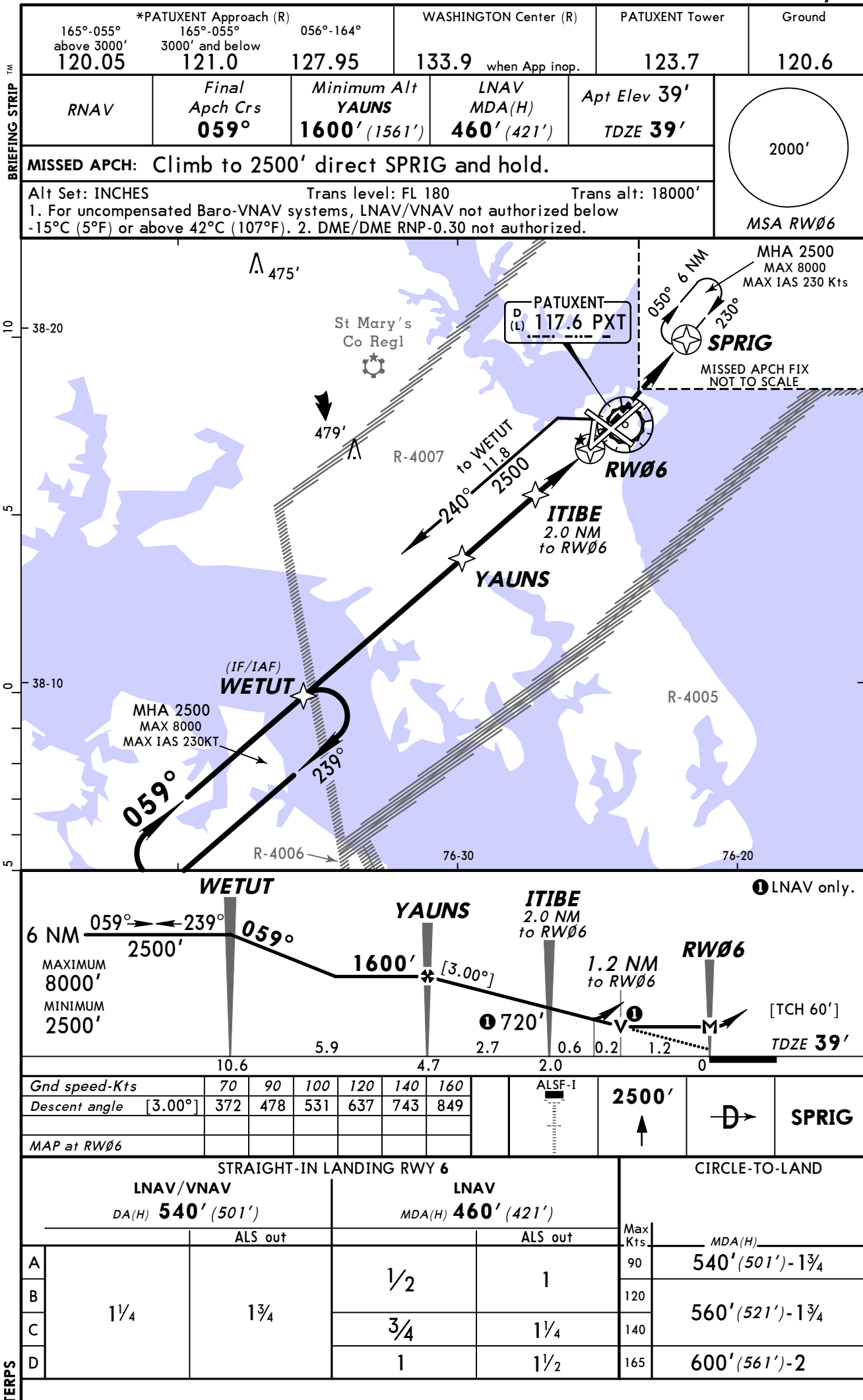
| TAKE-OFF         |     |     |  | FOR FILING AS ALTERNATE |       |               |
|------------------|-----|-----|--|-------------------------|-------|---------------|
| All Rwys         |     |     |  |                         |       |               |
| Adequate Vis Ref |     | STD |  | Precision               |       | Non-Precision |
| 1 & 2<br>Eng     | 1/4 | 1   |  | A                       | 600-2 | 800-2         |
| 3 & 4<br>Eng     |     | 1/2 |  | B                       |       |               |
|                  |     |     |  | C                       |       |               |
|                  |     |     |  | D                       |       |               |

Rwy 6 and 24: Obstacle identification surface begins 15' above DER. Rwy 14: Obstacle identification surface begins 35' above DER. Rwy 20: Obstacle identification surface begins 20' above DER.  
TAKE-OFF OBSTACLES: Rwy 6, Pole 63' AGL/83' MSL, 1967' from DER, 981' left of centerline. Rwy 14, Trees 42' AGL/57' MSL, 190' from DER, 223' left of centerline. Two lane road crossing rwy threshold max height 17' AGL/33' MSL, 193' from DER. Pole 34' AGL/50' MSL 315' from DER, 198' left of centerline. Trees 43' AGL/59' MSL, 520' from DER,

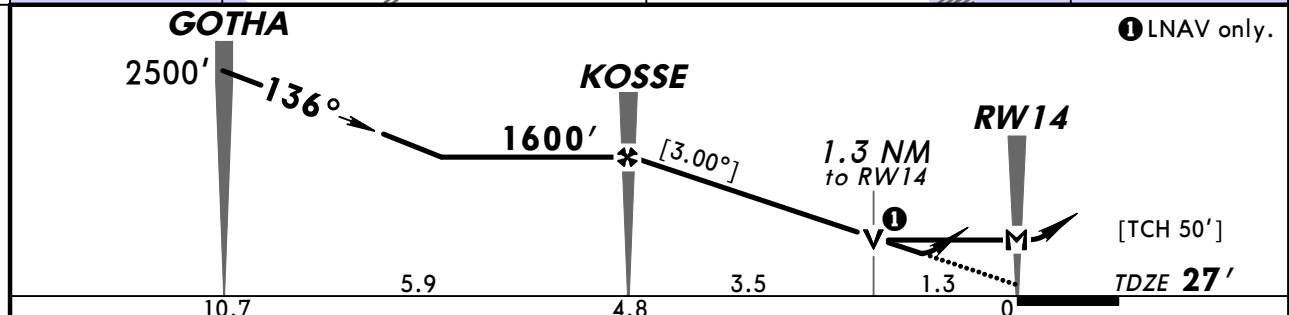
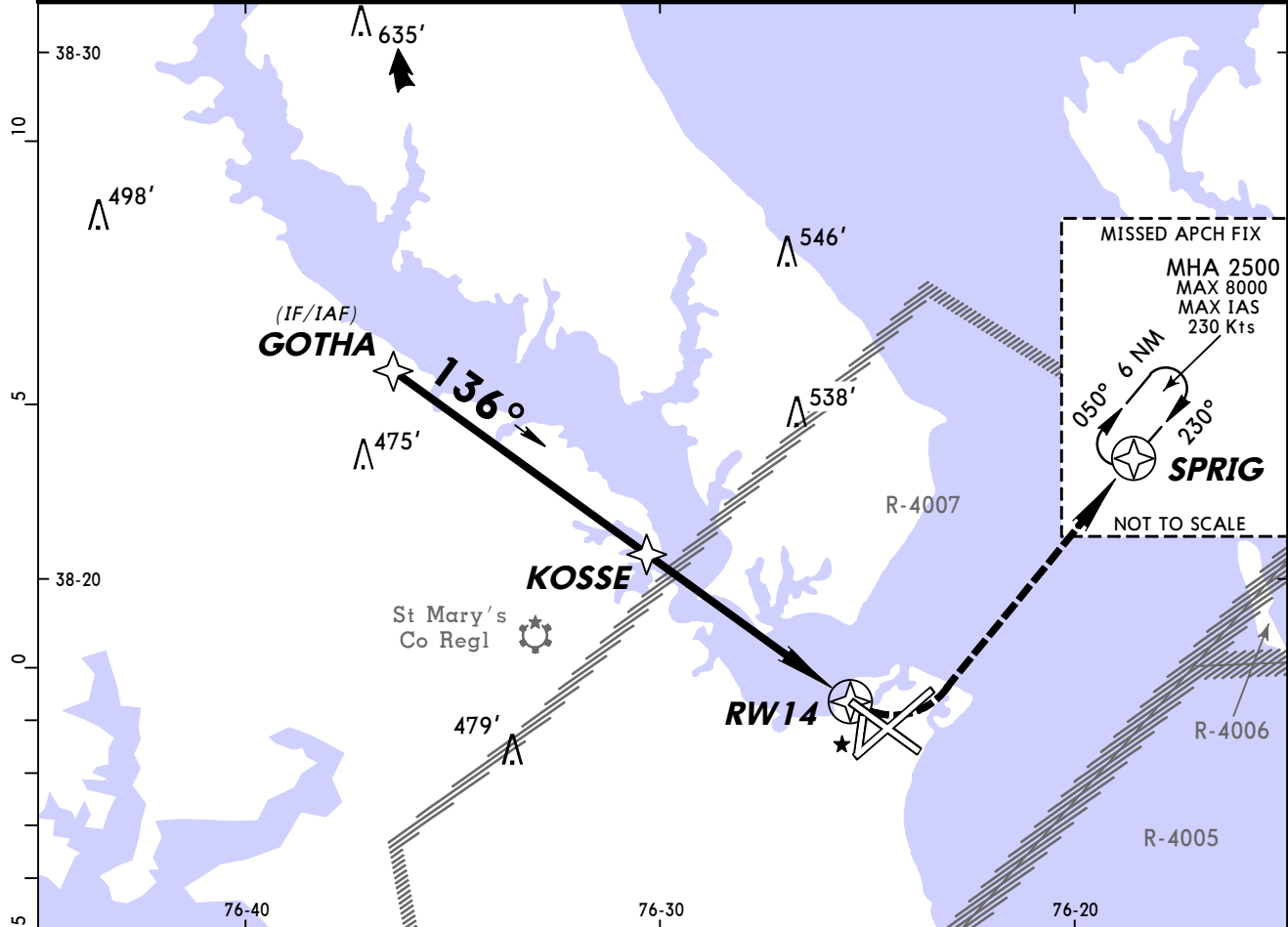
637' right of centerline. Rwy 20, Trees 44' AGL/81' MSL, 1555' from DER, 845' right of centerline. Trees 56' AGL/ 93' MSL, 2057' from DER, 778' right of centerline. Trees 67' AGL/104' MSL, 2077' from DER, 818' right of centerline. Trees 93' AGL/ 130' MSL, 3029' from DER, 32' left of centerline. Rwy 24, 43' AGL/81' MSL, 1682' from DER, 582' left of centerline. Trees 57' AGL/93' MSL, 2015' from DER, 965' left of centerline. Trees 66' AGL/ 104' MSL, 2056' from DER, 948' left of centerline.

CHANGES: Notes.

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|                                                                                                                                                                                                                                                                              |                                                                 |                              |                                       |                                   |  |                          |                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------|---------------------------------------|-----------------------------------|--|--------------------------|--------------------------------------|
| BRIEFING STRIP™                                                                                                                                                                                                                                                              | *PATUXENT Approach (R)                                          |                              |                                       | WASHINGTON Center (R)             |  | PATUXENT Tower           | Ground                               |
|                                                                                                                                                                                                                                                                              | 165°-055°<br>above 3000'                                        | 165°-055°<br>3000' and below | 056°-164°                             |                                   |  |                          |                                      |
|                                                                                                                                                                                                                                                                              | 120.05                                                          | 121.0                        | 127.95                                | 133.9 when App inop.              |  | 123.7                    | 120.6                                |
|                                                                                                                                                                                                                                                                              | RNAV                                                            | Final<br>Apch Crs<br>136°    | Minimum Alt<br>KOSSE<br>1600' (1573') | LNAV/VNAV<br>DA(H)<br>400' (373') |  | Apt Elev 39'<br>TDZE 27' | <div>2000'</div> <div>MSA RW14</div> |
|                                                                                                                                                                                                                                                                              | MISSED APCH: Climbing LEFT turn to 2500' direct SPRIG and hold. |                              |                                       |                                   |  |                          |                                      |
| Alt Set: INCHES                      Trans level: FL 180                      Trans alt: 18000'<br>1. Radar required.    2. For uncompensated Baro-VNAV systems, LNAV/VNAV not<br>authorized below -15°C (5°F) or above 42°C (108°F).    3. DME/DME RNP-0.30 not authorized. |                                                                 |                              |                                       |                                   |  |                          |                                      |

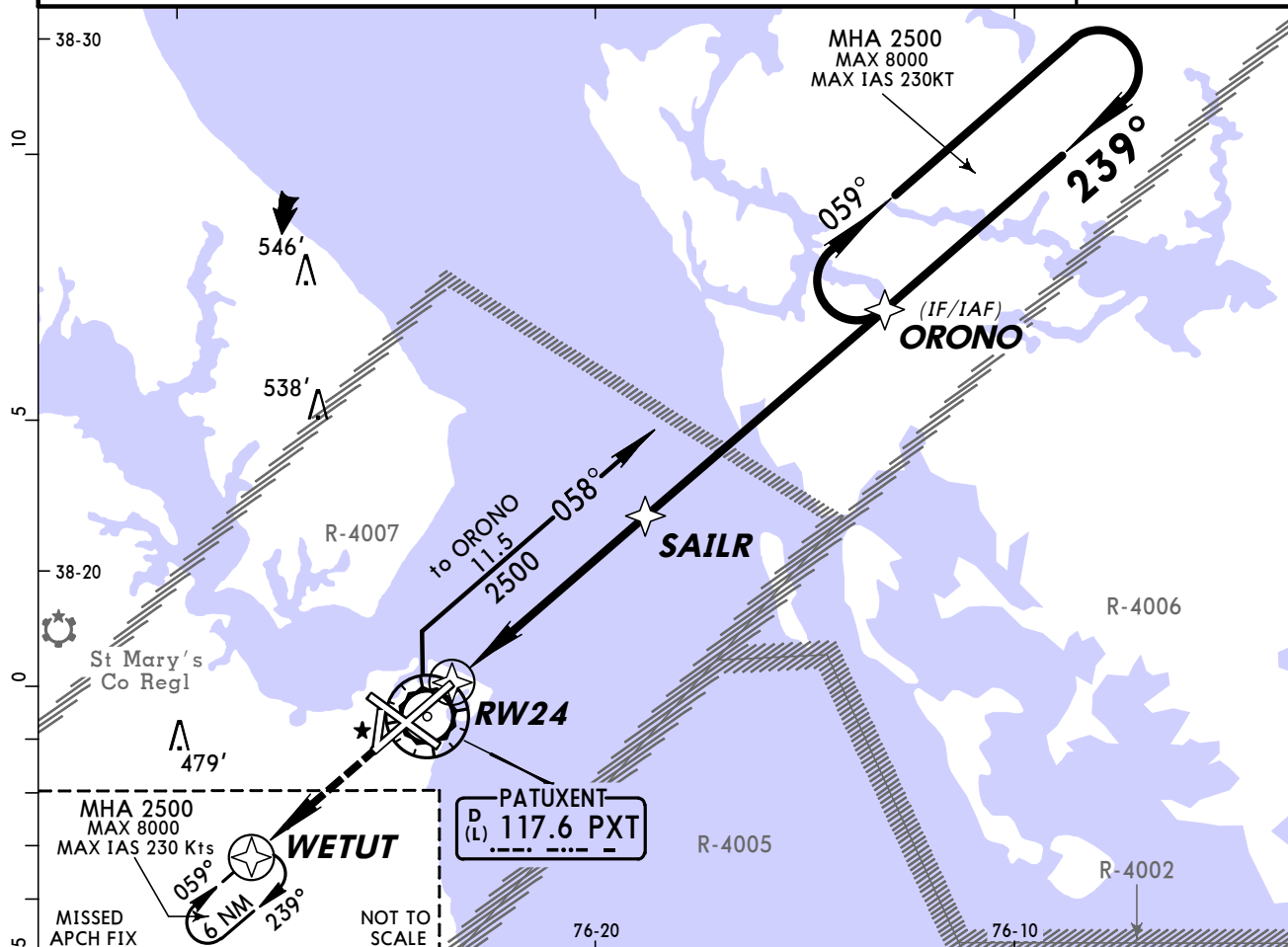


|                       |     |     |     |     |     |     |                                                       |                        |       |
|-----------------------|-----|-----|-----|-----|-----|-----|-------------------------------------------------------|------------------------|-------|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 | <div>2500'</div> <div><div></div></div> <div>LT</div> | <div><div></div></div> | SPRIG |
| Descent angle [3.00°] | 372 | 478 | 531 | 637 | 743 | 849 |                                                       |                        |       |
|                       |     |     |     |     |     |     |                                                       |                        |       |
| MAP at RW14           |     |     |     |     |     |     |                                                       |                        |       |

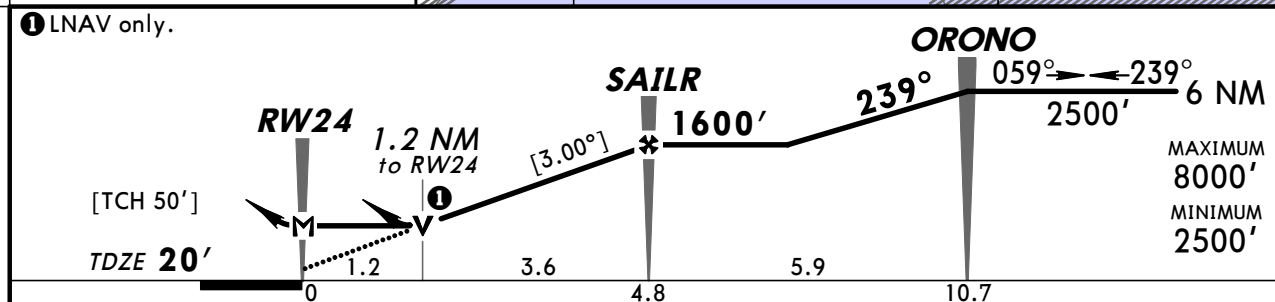
| STRAIGHT-IN LANDING RWY 14            |    |                                   |    | CIRCLE-TO-LAND |                       |  |  |
|---------------------------------------|----|-----------------------------------|----|----------------|-----------------------|--|--|
| LNAV/VNAV<br>DA(H) <b>400'</b> (373') |    | LNAV<br>MDA(H) <b>500'</b> (473') |    | Max<br>Kts     | MDA(H)                |  |  |
| A                                     |    |                                   | 1  | 90             | <b>540'</b> (501')-1  |  |  |
| B                                     | 1  |                                   |    | 120            | <b>560'</b> (521')-1  |  |  |
| C                                     |    |                                   | 1¼ | 140            | <b>560'</b> (521')-1½ |  |  |
| D                                     | 1¼ |                                   | 1½ | 165            | <b>600'</b> (561')-2  |  |  |

BRIEFING STRIP™

|                                                                                                                                                                                        |  |                                   |                                           |                                                     |                            |                                                      |                                |                                            |                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------|-------------------------------------------|-----------------------------------------------------|----------------------------|------------------------------------------------------|--------------------------------|--------------------------------------------|--------------------------------------|
| *PATUXENT Approach (R)<br>165°-055° above 3000'<br><b>120.05</b>                                                                                                                       |  |                                   | 165°-055° 3000' and below<br><b>121.0</b> |                                                     | 056°-164°<br><b>127.95</b> | WASHINGTON Center (R)<br><b>133.9</b> when App inop. | PATUXENT Tower<br><b>123.7</b> | Ground<br><b>120.6</b>                     |                                      |
| RNAV                                                                                                                                                                                   |  | Final<br>Aptch Crs<br><b>239°</b> |                                           | Minimum Alt<br><b>SAILR</b><br><b>1600'</b> (1580') |                            | LNAV/VNAV<br>DA(H)<br><b>340'</b> (320')             |                                | Apt Elev <b>39'</b><br><br>TDZE <b>20'</b> | <div>2000'</div> <div>MSA RW24</div> |
| MISSED APCH: Climb to 2500' direct WETUT and hold.                                                                                                                                     |  |                                   |                                           |                                                     |                            |                                                      |                                |                                            |                                      |
| Alt Set: INCHES                      Trans level: FL 180                      Trans alt: 18000'                                                                                        |  |                                   |                                           |                                                     |                            |                                                      |                                |                                            |                                      |
| 1. SAFE ALTITUDE WITHIN 100 NM 6100'. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -15°C (5°F) or above 42°C (108°F).<br>3. DME/DME RNP-0.30 not authorized. |  |                                   |                                           |                                                     |                            |                                                      |                                |                                            |                                      |



① LNAV only.

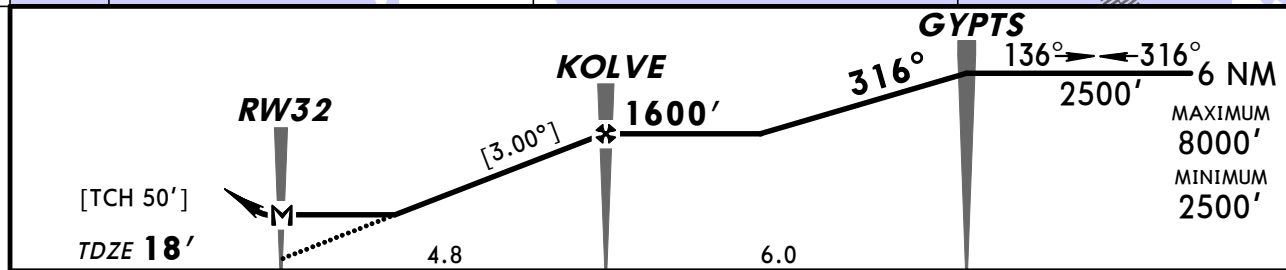
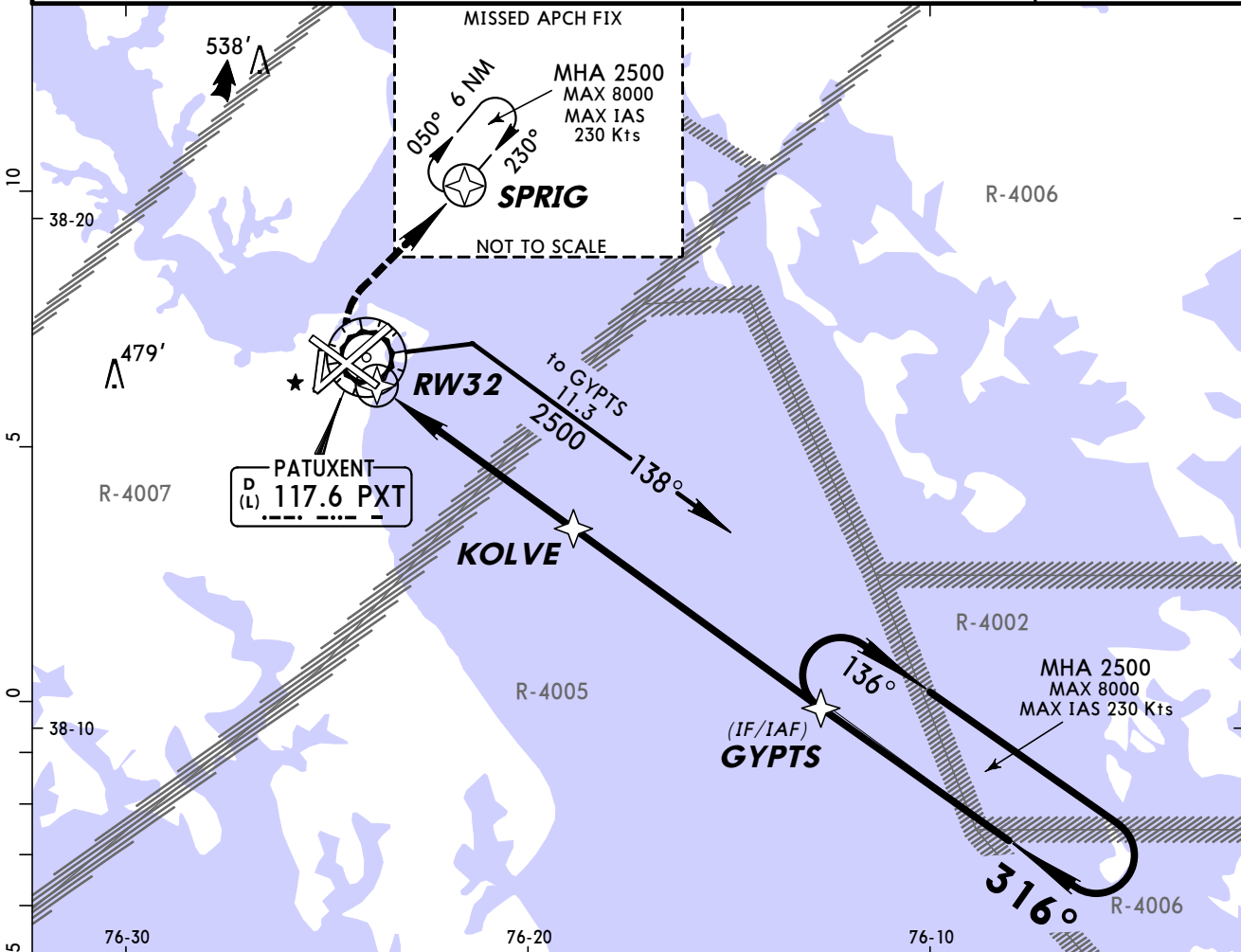


|                       |     |     |     |     |     |     |  |  |  |
|-----------------------|-----|-----|-----|-----|-----|-----|--|--|--|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 |  |  |  |
| Descent angle [3.00°] | 372 | 478 | 531 | 637 | 743 | 849 |  |  |  |
| MAP at RW24           |     |     |     |     |     |     |  |  |  |

| STRAIGHT-IN LANDING RWY 24 |       |                           |  | CIRCLE-TO-LAND |  |                          |  |
|----------------------------|-------|---------------------------|--|----------------|--|--------------------------|--|
| LNAV/VNAV                  |       | LNAV                      |  |                |  |                          |  |
| DA(H) <b>340'</b> (320')   |       | MDA(H) <b>440'</b> (420') |  |                |  |                          |  |
| A                          |       | 1                         |  | Max Kts        |  | MDA(H)                   |  |
| B                          | 1     |                           |  | 90             |  | <b>540'</b> (501')-1     |  |
| C                          |       |                           |  | 120            |  | <b>560'</b> (521')-1     |  |
| D                          | 1 1/4 | 1 1/4                     |  | 140            |  | <b>560'</b> (521')-1 1/2 |  |
|                            |       |                           |  | 165            |  | <b>600'</b> (561')-2     |  |

BRIEFING STRIP™

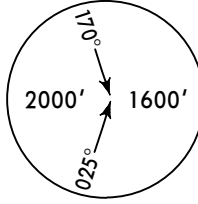
|                                                                                                                                                                                                                                      |                              |                                       |                               |                          |                |                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------|-------------------------------|--------------------------|----------------|--------------------------------------|
| *PATUXENT Approach (R)                                                                                                                                                                                                               |                              |                                       | WASHINGTON Center (R)         |                          | PATUXENT Tower | Ground                               |
| 165°-055°<br>above 3000'                                                                                                                                                                                                             | 165°-055°<br>3000' and below | 056°-164°                             | 133.9 when App inop.          |                          | 123.7          | 120.6                                |
| RNAV                                                                                                                                                                                                                                 | Final<br>Apch Crs<br>316°    | Minimum Alt<br>KOLVE<br>1600' (1582') | LNAV<br>MDA(H)<br>420' (402') | Apt Elev 39'<br>TDZE 18' |                | <div>1800'</div> <div>MSA RW32</div> |
| MISSED APCH: Climbing RIGHT turn to 2500' direct SPRIG and hold.                                                                                                                                                                     |                              |                                       |                               |                          |                |                                      |
| Alt Set: INCHES                      Trans level: FL 180                      Trans alt: 18000'<br>1. CAUTION: DAFIF users SPRIG duplicate WP name. 2. SAFE ALTITUDE WITHIN 100 NM<br>6100 '. 3. Magnetic variation of record 10° W. |                              |                                       |                               |                          |                |                                      |

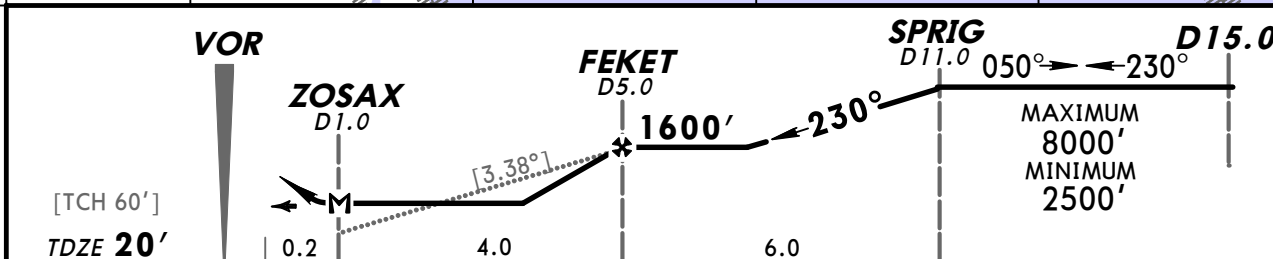
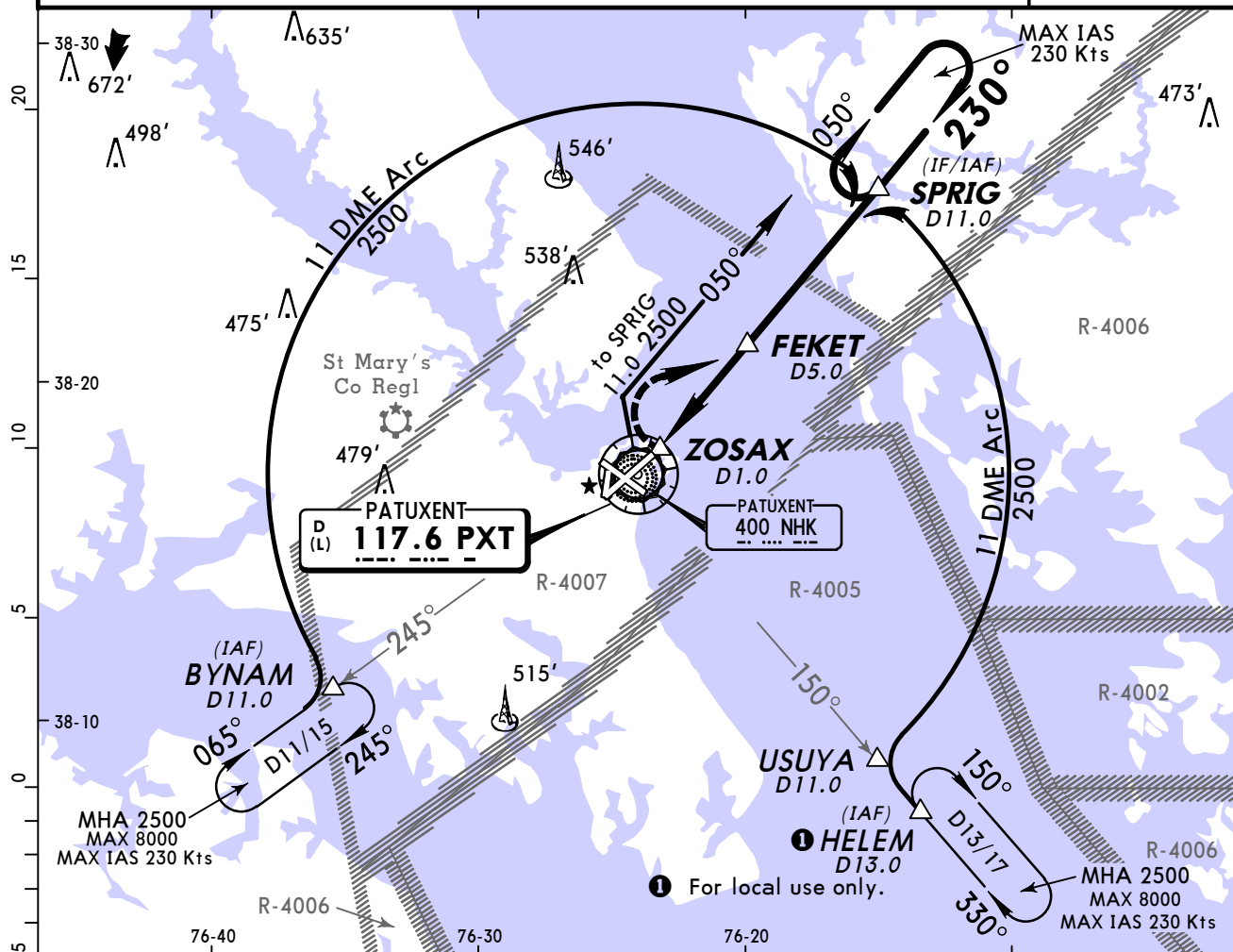


|                       |     |     |     |     |     |     |  |  |       |    |       |
|-----------------------|-----|-----|-----|-----|-----|-----|--|--|-------|----|-------|
| Gnd speed-Kts         | 70  | 90  | 100 | 120 | 140 | 160 |  |  | 2500' | RT | SPRIG |
| Descent angle [3.00°] | 372 | 478 | 531 | 637 | 743 | 849 |  |  |       |    |       |
| MAP at RW32           |     |     |     |     |     |     |  |  |       |    |       |

| STRAIGHT-IN LANDING RWY 32 |       |  |  | CIRCLE-TO-LAND |                   |  |  |
|----------------------------|-------|--|--|----------------|-------------------|--|--|
| LNAV                       |       |  |  |                |                   |  |  |
| MDA(H) <b>420'</b> (402')  |       |  |  | Max Kts        | MDA(H)            |  |  |
| A                          | 1     |  |  | 90             | 540' (501')-1     |  |  |
| B                          |       |  |  | 120            | 560' (521')-1     |  |  |
| C                          | 1 1/4 |  |  | 140            | 560' (521')-1 1/2 |  |  |
| D                          |       |  |  | 165            | 600' (561')-2     |  |  |

BRIEFING STRIP™

|                                                                                                              |  |                                  |                                              |                                                     |                                |                                  |                                                          |                                        |                                    |                                                                                     |                            |  |
|--------------------------------------------------------------------------------------------------------------|--|----------------------------------|----------------------------------------------|-----------------------------------------------------|--------------------------------|----------------------------------|----------------------------------------------------------|----------------------------------------|------------------------------------|-------------------------------------------------------------------------------------|----------------------------|--|
| *PATUXENT Approach (R)<br>165°-055°<br>above 3000'<br><b>120.05</b>                                          |  |                                  | 165°-055°<br>3000' and below<br><b>121.0</b> |                                                     | 056°-164°<br><br><b>127.95</b> |                                  | WASHINGTON Center (R)<br><br><b>133.9</b> when App inop. |                                        | PATUXENT Tower<br><br><b>123.7</b> |                                                                                     | Ground<br><br><b>120.6</b> |  |
| VOR<br>PXT<br><b>117.6</b>                                                                                   |  | Final<br>Apch Crs<br><b>230°</b> |                                              | Minimum Alt<br><b>FEKET</b><br><b>1600'</b> (1580') |                                | MDA(H)<br><br><b>440'</b> (420') |                                                          | Apt Elev <b>39'</b><br>TDZE <b>20'</b> |                                    |  |                            |  |
| <b>MISSED APCH:</b> Climbing RIGHT turn to 2500', intercept the PXT<br>VOR R-050 outbound to SPRIG and hold. |  |                                  |                                              |                                                     |                                |                                  |                                                          |                                        |                                    |                                                                                     |                            |  |
| Alt Set: INCHES                                                                                              |  |                                  | Trans level: FL 180                          |                                                     |                                | Trans alt: 18000'                |                                                          |                                        |                                    |                                                                                     |                            |  |
| 1. EMERG SAFE ALT 100 NM 6100'.                                                                              |  |                                  |                                              |                                                     |                                |                                  |                                                          |                                        |                                    |                                                                                     |                            |  |
| MSA PXT VOR                                                                                                  |  |                                  |                                              |                                                     |                                |                                  |                                                          |                                        |                                    |                                                                                     |                            |  |



|                                 |     |      |      |      |      |      |      |       |       |
|---------------------------------|-----|------|------|------|------|------|------|-------|-------|
| Gnd speed-Kts                   | 70  | 90   | 100  | 120  | 140  | 160  |      |       |       |
| Descent angle [3.38°]           | 419 | 538  | 598  | 718  | 837  | 957  |      |       |       |
| MAP at ZOSAX or<br>FEKET to MAP | 4.0 | 3:26 | 2:40 | 2:24 | 2:00 | 1:43 | 1:30 | 2500' | PXT   |
|                                 |     |      |      |      |      |      |      | RT    | 117.6 |
|                                 |     |      |      |      |      |      |      |       | R-050 |
|                                 |     |      |      |      |      |      |      |       | SPRIG |

STRAIGHT-IN LANDING RWY 24

CIRCLE-TO-LAND

MDA(H) **440'** (420')

TERPS

|   | Max<br>Kts | MDA(H)           |
|---|------------|------------------|
| A | 90         | 540' (501') - 1  |
| B | 120        | 560' (521') - 1  |
| C | 140        | 560' (521') - 1½ |
| D | 165        | 600' (561') - 2  |

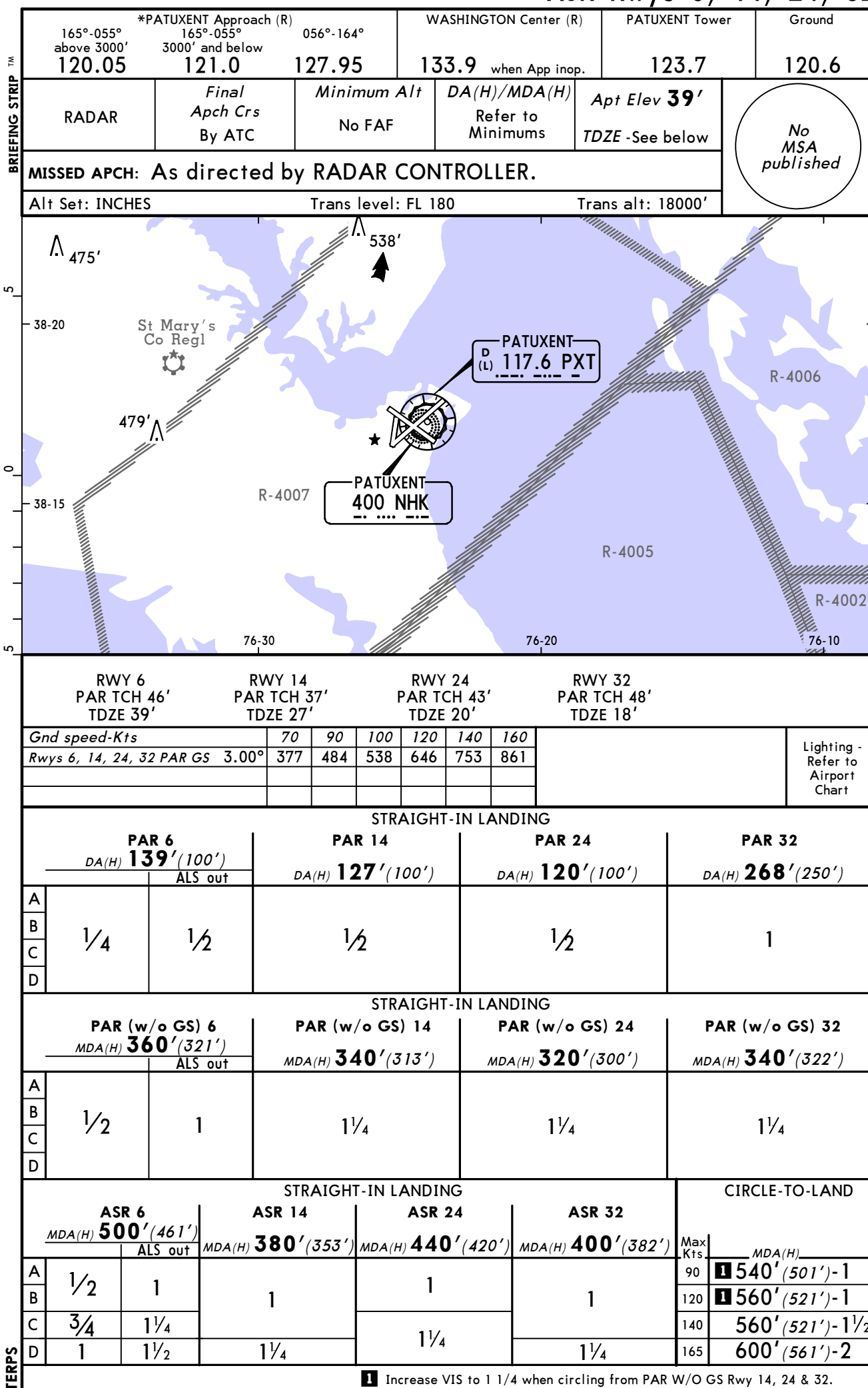


**Chart changes since cycle 03-2012**

|                                                              |                              |       |             |          |
|--------------------------------------------------------------|------------------------------|-------|-------------|----------|
| ADD = added chart, REV = revised chart, DEL = deleted chart. |                              |       |             |          |
| ACT                                                          | PROCEDURE IDENT              | INDEX | REV DATE    | EFF DATE |
| CAMP SPRINGS, MD (ANDREWS AFB/NAF - KADW)                    |                              |       |             |          |
| ABERDEEN PROVING GROUNDS, MD (PHILLIPS AAF - KAPG)           |                              |       |             |          |
| BALTIMORE, MD (BALTIMORE/WASHINGTON INTL THUR - KBWI)        |                              |       |             |          |
| HAGERSTOWN, MD (HAGERSTOWN REGL-HENSON - KHGR)               |                              |       |             |          |
| BALTIMORE, MD (MARTIN STATE - KMTN)                          |                              |       |             |          |
| PATUXENT RIVER, MD (PATUXENT RIVER NAS - KNHK)               |                              |       |             |          |
| REV                                                          | AIRPORT, AIRPORT INFO, TA... | 30-9  | 17 Feb 2012 |          |

## **TERMINAL CHART CHANGE NOTICES**

### **No Chart Change Notices for Airport KADW**

### **No Chart Change Notices for Airport KAPG**

### **No Chart Change Notices for Airport KBWI**

### **Chart Change Notices for Airport KHGR**

**Type:** Terminal

**Effectivity:** Temporary

**Begin Date:** Immediately

**End Date:** Until Further Notice

ILS Rwy 9 (IUYK) and ILS Rwy 27 (IHGR) are unavailable when Control Tower clsd.

### **No Chart Change Notices for Airport KMTN**

### **No Chart Change Notices for Airport KNHK**