

FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE  
TITLE 14 CFR PART 97.33

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.  
Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

|                                 |                                               |                                                  |                                           |                            |
|---------------------------------|-----------------------------------------------|--------------------------------------------------|-------------------------------------------|----------------------------|
| <u>AIRPORT ID</u><br>BWI        | <u>PROCEDURE NAME</u><br>RNAV (GPS) Y RWY 33L | <u>ORIGINAL/AMENDMENT</u><br>5                   | <u>CITY</u><br>BALTIMORE                  | <u>STATE</u><br>MD         |
| <u>AIRPORT ELEVATION</u><br>143 | <u>TDZE</u><br>143                            | <u>SUPERSEDED</u><br>RNAV (GPS) Y RWY 33L        | <u>ORIGINAL/AMENDMENT</u><br>4B           | <u>DATED</u><br>09/08/2022 |
| <u>FACILITY</u><br>RNAV         | <u>COORDINATES OF FACILITIES</u>              | <u>ACTUAL EFFECTIVE DATE</u><br>5 SEPTEMBER 2024 | <u>REQUIRED EFFECTIVE DATE</u><br>ROUTINE | <u>MAG VAR</u><br>11W      |
|                                 |                                               |                                                  |                                           | <u>EPOCH YEAR</u><br>2000  |
|                                 |                                               |                                                  |                                           | <u>CANCEL/SUSPEND</u>      |

TERMINAL ROUTES

| FROM    | FIX TYPE | TO      | FIX TYPE | LEG TYPE | FO/FB | RNP  | COURSE | DISTANCE | ALTITUDE |
|---------|----------|---------|----------|----------|-------|------|--------|----------|----------|
| KOOLZ   | IAF      | SPLAT   |          | TF       | FB    | 1.00 | 008.26 | 9.05     | 2400     |
| JANNS   | IAF      | SPLAT   |          | TF       | FB    | 1.00 | 335.31 | 5.55     | 2400     |
| SPLAT   | IF       | GRAFE   |          | TF       | FB    | 1.00 | 335.25 | 3.11     | 1500     |
| GRAFE   | FAF      | RW33L   | MAP      | TF       | FO    | 0.30 | 335.25 | 4.12     |          |
| RW33L   | MAP      | 343 MSL |          | CA       |       |      | 335.25 |          |          |
| 343 MSL |          | BMORE   |          | DF       | FO    | 1.00 |        |          | 3000     |

MISSED APPROACH

MAP:

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW33L

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT BMORE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- PROFILE STARTS AT SPLAT
- FAC: 335.25 FAF: GRAFE DIST FAF TO MAP: 4.12 DIST FAF TO THLD: 4.12
- MIN ALT: SPLAT 2400, GRAFE 1500
- DIST TO THLD FROM OM: MM: IM: 150 HAT: 200 HAT: 0.49 GS ANT: MM: IM:
- MIN GP INCPT: 1500 GP ALT AT PFAF: GRAFE 1500 OM: MM: IM:
- GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 55.4
- MSA FROM: RW33L 2600



PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -11°C OR ABOVE 54°C.  
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).  
CHART SPEED ICON IN PLANVIEW AT KOOLZ: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT JANNs: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

HOLD NW, RT, 155.10 INBOUND.  
FAS OBST: 319 AAO 390654N/0763742W.  
CHART 532 TOWER (24-000454) 390558N/0763721W.  
CHART VDP AT 1.24 NM TO RW33L.  
WAAS CHANNEL # 82207  
REFERENCE PATH ID: W33A  
CHART MANDATORY 5000 AT KOOLZ.  
CHART AT OR ABOVE 4000 AT JANNs.  
CHART CIRCLING ICON.  
LTP HAE: 7.5 M

MINIMUMS:

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/4

| CATEGORY:    | A      |      |         | B      |      |         | C      |       |         | D      |       |         | E      |     |         |
|--------------|--------|------|---------|--------|------|---------|--------|-------|---------|--------|-------|---------|--------|-----|---------|
| FINAL TYPE   | DA/MDA | VIS  | HAT/HAA | DA/MDA | VIS  | HAT/HAA | DA/MDA | VIS   | HAT/HAA | DA/MDA | VIS   | HAT/HAA | DA/MDA | VIS | HAT/HAA |
| LPV DA       | 343    | 1800 | 200     | 343    | 1800 | 200     | 343    | 1800  | 200     | 343    | 1800  | 200     |        |     |         |
| LNAV/VNAV DA | 432    | 2400 | 289     | 432    | 2400 | 289     | 432    | 2400  | 289     | 432    | 2400  | 289     |        |     |         |
| LNAV MDA     | 600    | 2400 | 457     | 600    | 2400 | 457     | 600    | 4500  | 457     | 600    | 4500  | 457     |        |     |         |
| CIRCLING     | 640    | 1    | 497     | 660    | 1    | 517     | 700    | 1 1/2 | 557     | 880    | 2 1/4 | 737     |        |     |         |



CHANGES - REASONS

1. TERMINAL ROUTES: ADDED IAF LEG FROM KOOLZ TO SPLAT – PER FPT REQUEST.
2. PROFILE LINE 2: UPDATED FROM “PROFILE STARTS AT JANNS” TO “PROFILE STARTS AT SPLAT” – SINGLE IF IAW 8260.19.
3. PROFILE LINE 7: UPDATED TCH FROM “55.2” TO “55.4” – NEW DESIGN TCH, IAW 8260.58 1-3-1.
4. PROFILE LINE 7: ADDED 20:1 IS CLEAR – IAW 8260.19I 8-6-7.
5. NOTES: REMOVED “CHART PLANVIEW NOTE: RADAR REQUIRED,” -NO LONGER REQUIRED.
6. NOTES: ADDED “CHART SPEED ICON IN PLANVIEW AT KOOLZ: MAX 210 KIAS” AND “CHART SPEED ICON IN PLANVIEW AT JANNS: MAX 210 KIAS” – PROCEDURE CONNECTS TO RAVNN AND MIIDY STARS.
7. NOTES: UPDATED CHART NOTE FROM “FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15°C OR ABOVE 54°C” TO “FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -11°C OR ABOVE 54°C” – UPDATED AVERAGE COLD TEMPERATURE DERIVED FROM FIVE YEAR HISTORY.
8. ADDITIONAL FLIGHT DATA: UPDATED FAS OBST FROM: “339 AAO 390654N/0763742W” TO “319 AAO 390654N/0763742W” – UPDATED OBSTACLE DATA, NEW SURVEY.
9. ADDITIONAL FLIGHT DATA: UPDATED CHART VDP AT: FROM “1.29 MILES TO RW33L” TO “1.24 NM TO RW33L,” AND REMOVED “\*LNAV ONLY” – UPDATED DISTANCE DUE TO NEW FAF LOCATION, \* AND LNAV ONLY NOTE NO LONGER REQUIRED.
10. ADDITIONAL FLIGHT DATA: REMOVED “CHART TDZE 143” – NO LONGER REQUIRED, DOCUMENTED ON PAGE 1.
11. ADDITIONAL FLIGHT DATA: UPDATED LTP HAE FROM “7.6 M” TO “7.5 M” – UPDATED AIRNAV DATA.
12. ADDITIONAL FLIGHT DATA: ADDED “CHART MANDATORY 5000 AT KOOLZ” AND “CHART AT OR ABOVE 4000 AT JANNS” – PROCEDURE CONNECTS TO RAVNN AND MIIDY STARS.
13. MINIMUMS: LNAV CAT C AND D VISIBILITY UPDATED FROM “5000” TO “4500” – IAW 8260.3E TABLE 3-3-1.
14. FAS DATA: UPDATED LTP/FTP LAT/LONG FROM “390955.1410N/0763948.3265W” TO “390955.1405N/0763948.3250W” – NEW AIRNAV DATA.
15. FAS DATA: UPDATED LTP/FTP ELLIPSOIDAL HEIGHT FROM “+00075” TO “+00076” – NEW AIRNAV DATA.
16. FAS DATA: UPDATED FPAP LAT/LONG FROM “391107.4790N/0764055.3370W” TO “391107.4785N/0764055.3350W” - NEW TARGETS CALCULATION.
17. FAS DATA: CRC REMAINDER UPDATED FROM “924DDDE4” TO “9B8E5579” – FAS DATA CHANGES.
18. FAS DATA: LTP AND FPAP ORTHOMETRIC HEIGHTS UPDATED FROM “+00403” TO “+00402” – NEW AIRNAV DATA.

COORDINATED WITH:

A4A

☒

ALPA

☒

AOPA

☒

APA

☒

HAI

☐

NBAA

☒

OTHER: ZDC, POTOMAC APP CON, BWI ATCT, AMGR.

FLIGHT CHECKED BY

MICHAEL G CAMPBELL

Digitally signed by

**ERIC N SUSKI**

Jul 25, 2024

OFFICE

FPO

DATE

07/23/2024

DEVELOPED BY

ERIC N SUSKI (JUDITH TUTTLE)

Digitally signed by

**ERIC N SUSKI**

Jun 13, 2024

OFFICE

AJV-A431

DATE

01/22/2024

APPROVED BY

ERIC N SUSKI

Digitally signed by

**ERIC N SUSKI**

Jun 13, 2024

OFFICE

AJV-A431

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

| DATA FIELD                               | DATA          |
|------------------------------------------|---------------|
| OPERATION TYPE                           | 0             |
| SBAS SERVICE PROVIDER IDENTIFIER         | 0             |
| AIRPORT IDENTIFIER                       | KBWI          |
| RUNWAY                                   | RW33L         |
| APPROACH PERFORMANCE DESIGNATOR          | 0             |
| ROUTE INDICATOR                          | Y             |
| REFERENCE PATH DATA SELECTOR             | 0             |
| REFERENCE PATH IDENTIFIER (APPROACH ID)  | W33A          |
| LTP/FTP LATITUDE                         | 390955.1405N  |
| LTP/FTP LONGITUDE                        | 0763948.3250W |
| LTP/FTP ELLIPSOIDAL HEIGHT               | +00075        |
| FPAP LATITUDE                            | 391107.4785N  |
| FPAP LONGITUDE                           | 0764055.3350W |
| THRESHOLD CROSSING HEIGHT (TCH)          | 00055.4       |
| TCH UNITS SELECTOR (METERS OR FEET USED) | F             |
| GLIDEPATH ANGLE (GPA)                    | 03.00         |
| COURSE WIDTH AT THRESHOLD                | 106.75        |
| LENGTH OFFSET                            | 0008          |
| HORIZONTAL ALERT LIMIT (HAL)             | 40.0          |
| VERTICAL ALERT LIMIT (VAL)               | 35.0          |
| CRC REMAINDER                            | 9B8E5579      |

ADDITIONAL PATH POINT RECORD INFORMATION

|                         |        |
|-------------------------|--------|
| ICAO CODE               | K6     |
| LTP ORTHOMETRIC HEIGHT  | +00402 |
| FPAP ORTHOMETRIC HEIGHT | +00402 |

