

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
LINSE	TWO	LINSE2.LINSE	ONE	07/11/2024	20 FEB 2025
<u>TYPE:</u>	<u>OBSTACLE</u>	<u>COPTER</u>	<u>SID</u>	<u>SPECIAL</u>	<u>RNAV</u>
☐	☐	☒	☐	☐	☒

DP ROUTE DESCRIPTION:**BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL:**

TAKEOFF RWY 10: CLIMB ON HEADING 105.20 TO 644, THEN DIRECT JWALL, THEN RIGHT TURN DIRECT UNSLD AT OR BELOW 9000, THEN ON TRACK 283.41 TO AADDY, THEN ON TRACK 292.30 TO CROSS TERPZ AT OR ABOVE 11000, THENCE...

TAKEOFF RWY 15L: CLIMB ON HEADING 155.23 TO 644, THEN DIRECT HEDWG, THEN RIGHT TURN DIRECT NOPRO AT OR ABOVE 4000 AND AT OR BELOW 230 KIAS, THEN ON TRACK 288.68 TO CROSS UNSLD AT OR BELOW 9000, THEN ON TRACK 283.41 TO AADDY, THEN ON TRACK 292.30 TO CROSS TERPZ AT OR ABOVE 11000, THENCE...

TAKEOFF RWY 15R: CLIMB ON HEADING 155.20 TO 644, THEN DIRECT WARYN, THEN RIGHT TURN DIRECT BOBYJ AT OR ABOVE 4000 AT OR BELOW 230 KIAS, THEN ON TRACK 290.41 TO CROSS FLACO AT OR BELOW 9000, THEN ON TRACK 281.08 TO AADDY, THEN ON TRACK 292.30 TO CROSS TERPZ AT OR ABOVE 11000, THENCE...

TAKEOFF RWY 28: CLIMB ON HEADING 285.22 TO 644, THEN DIRECT JLENN, THEN ON TRACK 287.34 TO AADDY, THEN ON TRACK 292.30 TO CROSS TERPZ AT OR ABOVE 11000, THENCE...

TAKEOFF RWY 33L: CLIMB ON HEADING 335.21 TO 644, THEN LEFT TURN DIRECT PCHEN AT OR BELOW 5000, THEN ON TRACK 276.29 TO AADDY, THEN ON TRACK 292.30 TO CROSS TERPZ AT OR ABOVE 11000, THENCE...

TAKEOFF RWY 33R: CLIMB ON HEADING 335.24 TO 644, THEN LEFT TURN DIRECT PCHEN AT OR BELOW 5000, THEN ON TRACK 276.29 TO AADDY, THEN ON TRACK 292.30 TO CROSS TERPZ AT OR ABOVE 11000, THENCE...

CARROLL COUNTY RGNL/JACK B POAGE FLD, MARTIN STATE, EASTON/NEWNAM FLD, FREDERICK MUNI, MONTGOMERY COUNTY AIRPARK:

CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO CROSS TERPZ AT OR ABOVE 11000, THENCE...

...THEN ON TRACK 330.34 TO CROSS LINSE AT OR ABOVE 14000. THEN ON ASSIGNED TRANSITION. MAINTAIN 16000, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL:

ALL AIRCRAFT ATC CLIMB GRADIENT: IF UNABLE TO ACCEPT CLIMB RATE ADVISE ATC PRIOR TO TAXI. RWY 15R: 780 FT/NM UNTIL 644 FT MSL.

FREDERICK MUNI:

TAKEOFF RWY 5: CLIMB ON HEADING 048.49 TO 1100 BEFORE TURNING LEFT.

TAKEOFF RWY 12: CLIMB ON HEADING 123.95 TO 900 BEFORE PROCEEDING WESTBOUND.

TAKEOFF RWY 23: CLIMB ON HEADING 228.50 TO 1200 BEFORE TURNING RIGHT.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

<u>TRANSITION NAME</u>	<u>TRANSITION COMPUTER CODE</u>	<u>FROM FIX/NAVAID</u>	<u>TO FIX/NAVAID</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>MEA</u>	<u>MOCA</u>	<u>CROSSING ALTITUDE/FIXES</u>
JERES	LINSE2.JERES	LINSE	JERES	TRACK 347.55	17.90	4300	4300	
MCRAY	LINSE2.MCRAY	LINSE	BUFFR	TRACK 302.50	14.83	4300	4000	
		BUFFR	MCRAY	TRACK 302.31	13.07	4300	4000	

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PBN REQUIREMENT NOTES:

RNAV 1 - DME/DME/IRU OR GPS

EQUIPMENT REQUIREMENT NOTES:

RADAR REQUIRED

PROCEDURAL DATA NOTES:

NOTE: JET AIRCRAFT ONLY.

TAKEOFF MINIMUMS:**BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL**

RWY 15R: STANDARD WITH MINIMUM CLIMB OF 780 FT/NM TO 644.

RWY 10, 15L, 28, 33R, 33L: STANDARD WITH MINIMUM CLIMB OF 500 FT/NM TO 644.

CARROLL COUNTY RGNL/JACK B POAGE FLD

RWY 34: STANDARD.

RWY 16: 400-2 3/4 OR STANDARD WITH MINIMUM CLIMB OF 225 FT/NM TO 1300.

EASTON/NEWNAM FLD

RWY 4, 15, 33: STANDARD.

RWY 22: 300-2 OR STANDARD WITH MINIMUM CLIMB OF 210 FT/NM TO 400.

FREDERICK MUNI

RWY 23: STANDARD.

RWY 5: 400-3 OR STANDARD WITH MINIMUM CLIMB OF 255 FT/NM TO 600.

RWY 12: 500-2 3/4 OR STANDARD WITH MINIMUM CLIMB OF 410 FT/NM TO 800.

RWY 30: STANDARD WITH MINIMUM CLIMB OF 340 FT/NM TO 2400.

MARTIN STATE

RWY 15: STANDARD.

RWY 33: STANDARD WITH MINIMUM CLIMB OF 215 FT/NM TO 1300.

MONTGOMERY COUNTY AIRPARK

RWY 14, 32: STANDARD.

TAKEOFF OBSTACLES NOTES:

SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP).

CONTROLLING OBSTACLES:**CARROLL COUNTY RGNL/JACK B POAGE FLD**

RWY 16: 1144 FT MSL TOWER 393423.59N/0765815.00W.

EASTON/NEWNAM FLD

RWY 22: 294 FT MSL ANTENNA 384613.92N/0760455.09W (CLIMB GRADIENT) (CLIMB-TO ALTITUDE) (CEILING), 290 FT MSL TOWER 384616.00N/0760457.00W (VISIBILITY)

FREDERICK MUNI

RWY 5: 435 FT MSL ELEVATOR 392548.00N/0772123.00W (CLIMB GRADIENT), 528 FT MSL TREE 392557.10N/0772037.30W (CLIMB-TO ALTITUDE), 659 FT MSL TREE 392639.83N/0771925.31W (CEILING) (VISIBILITY).

RWY 12: 555 FT MSL TREE 392501.93N/0772054.90W (CLIMB GRADIENT), 785 FT MSL TREE 39242616.00N/0771933.58W (CLIMB-TO ALTITUDE) (CEILING), 636 FT MSL TREE 392432.58N/0771911.87W (VISIBILITY).

RWY 30: 1808 FT MSL AAO 392812.00N/0772939.00W.

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 5, 12: 1956 FT MSL AAO 392936.00N/0772954.00W, RWY 23: 1815 FT MSL AAO 392812.00N/0772942.00W.



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MARTIN STATE

RWY 33: 175 FT MSL TREE 392043.41N/0762605.51W (CLIMB GRADIENT), 1289 FT MSL TOWER 392504.00N/0763320.00W (CLIMB-TO ALTITUDE).

MSA:

KBWI: MSA FROM KBWI 2600
KDMW: MSA FROM KDMW 3400
KMTN: MSA FROM KMTN 2600
KFDK: MSA FROM KFDK 3400
KESN: MSA FROM KESN 2100
KGAI: MSA FROM KGAI 3300

LOST COMMUNICATIONS PROCEDURES:**ADDITIONAL FLIGHT DATA:**

AIRPORT MV: BWI (P) 11W/2000, DMW 11W/2000, MTN 11W/2000, FDK 8W/1980, ESN 10W/1985, GAI 9W/1985.
DME/DME ASSESSMENT: SAT (RNP 2.0).
CHART: MINIMUM CROSSING ALTITUDE AT TERPZ 11000.
CHART: MINIMUM CROSSING ALTITUDE AT LINSE 14000.
CHART SPEED ICON: MAXIMUM SPEED 230 KIAS AT BOBYJ.
ALL AIRPORTS - CHART: TOP ALTITUDE: 16000.

AIRPORTS SERVED:

<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
KBWI	BALTIMORE	MD
KDMW	WESTMINSTER	MD
KMTN	BALTIMORE	MD
KFDK	FREDERICK	MD
KESN	EASTON	MD
KGAI	GAITHERSBURG	MD

COMMUNICATIONS:

CHART ATIS: BWI, MTN, FDK, ESN
CHART CLNC DEL: BWI, DMW, MTN, FDK, ESN, GAI
CHART GND CON: BWI, MTN, FDK, ESN
CHART TOWER: BWI, MTN, FDK, ESN
CHART AWOS: GAI, DMW

FIXES AND/OR NAVAIDS:**REMARKS:**

KBWI RWY 10, 15L, 28, 33R, 33L LNAV ENGAGEMENT OF 500 FT/NM CLIMB GRADIENT IS PER ATC REQUEST TO ACCOMODATE AIRSPACE CONSTRAINTS AND NOISE ABATEMENT REQUIREMENTS.
DO NOT CHART MOCA: FROM LINSE TO JERES, LINSE TO BUFFR, BUFFR TO MCRAY.
APPROVAL LETTERS (3) FOR CG, CALCULATIONS BELOW.
1. CG CALCULATIONS FOR RWY 15R CG: CG TERMINATION ALTITUDE 644 FT - 129.6 (DER) = 514, 514 FT DIVIDED BY .66 NM SEGMENT= 780 FT/NM CG.
2. CG CALCULATIONS FOR RWY 15L CG: CG TERMINATION ALTITUDE 644 FT - 114 (DER) = 530, 530 FT DIVIDED BY 1.06 NM SEGMENT = 500 FT/NM CG.
3. CG CALCULATIONS FOR RWY 28 CG: CG TERMINATION ALTITUDE 11000 FT - 139 (DER) = 10861 FT, 10861 DIVIDED BY 21.27 NM SEGMENT = 511 FT/NM CG.
WAIVERS (6):
1. ATC CG RWY 15R, WAIVER TO SEPARATE FROM OTHER EXISTING PROCEDURES.



2. RWY 15L WIND SPIRAL, VA-DF OEA CAN NOT BE CONSTRUCTED DUE TO INSUFFICIENT DISTANCE FROM DF FIX.
3. RWY 33L WIND SPIRAL, VA-DF OEA CAN NOT BE CONSTRUCTED, DF FIX FALLS OUTSIDE OF WIND SPIRAL BOUNDARY.
4. RWY 33L WIND SPIRAL, VA-DF OEA CAN NOT BE CONSTRUCTED DUE TO INSUFFICIENT DISTANCE FROM DF FIX.
5. RWY 33R WIND SPIRAL, VA-DF OEA CAN NOT BE CONSTRUCTED, DF FIX FALLS OUTSIDE OF WIND SPIRAL BOUNDARY.
6. RWY 33R, VA-DF OEA CAN NOT BE CONSTRUCTED DUE TO INSUFFICIENT DISTANCE FROM DF FIX.
MEAS WERE DEVELOPED BY ATC DURING FULL WORKGROUP PROCEDURE DESIGN MEETINGS AND COORDINATED WITH ATC AND THE MARYLAND AVIATION AUTHORITY TO COMPLY WITH ENVIRONMENTAL FACTORS.
THE ENVIRONMENTAL REVIEW UNDER ORDER 1050.1 (LATEST EDITION) AND THE NOISE SCREENING HAVE BEEN ACOMPLISHED.

FLIGHT INSPECTED BY	SIGNATURE	OFFICE	DATE	
DAVIN C O'BRIEN	<i>Digitally signed by</i> ALLAN WILL Nov 19, 2024	AJF	11/13/2024	

DEVELOPED BY	SIGNATURE	OFFICE	DATE	
TRAVIS BRISTOW	<i>Digitally signed by</i> TRAVIS D BRISTOW Sep 30, 2024	AJV-A421	08/19/2024	

APPROVED BY	SIGNATURE	OFFICE	DATE	TITLE
JOHN BORDY	<i>Digitally signed by</i> ALLAN WILL Nov 19, 2024	AJV-A33	02/20/2025	MANAGER

REQUIRED EFFECTIVE DATE
ROUTINE

COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** ZDC, POTOMAC DEP CON, BWI ATCT, FDK ATCT, ESN ATCT, MTN ATCT, AMGR(S).

CHANGES - REASONS:
EN ROUTE MCRAY TRANSITION: BUFFR TO MCRAY COURSE CHANGED FROM "291.31" TO "302.31" - DUE TO TRUE COURSE HEADING PUBLISHED INSTEAD OF MAGNETIC COURSE.
EN ROUTE JERES TRANSITION: LINSE TO JERES MOCA RAISED FROM 4200 TO 4300 - ROUNDING ERROR.



NFDD No. 228			11/26/2024			23								
FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE DEPARTURE (DATA RECORD)														
DP NAME LINSE			NUMBER TWO		DP COMPUTER CODE LINSE2.LINSE		SUPERSEDED NUMBER ONE		DATED 07/11/2024		ACTUAL EFFECTIVE DATE 20 FEB 2025			
FIX/NAVAID		LAT/LONG		C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE		SPEED		REMARKS	
BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL														
RW10 (AER)*		391028.69N/0764115.66W*		N	-	-	-	-	*DISPL THLD (550 FT)					
644 MSL		-		-	-	VA	094.20	-	AT/ABOVE 644		CG 500 FT PER NM TO 644 FT			
JWALL		391014.37N/0763706.68W		Y	FO	DF	-	-						
UNSLD		391128.01N/0764743.89W		Y	FB	DF	-	8.35	AT/BELOW 9000		RIGHT TURN			
AADDY		391148.48N/0765824.27W		Y	FB	TF	272.41	8.30						
TERPZ		391320.71N/0770820.29W		Y	FB	TF	281.30	7.87	AT/ABOVE 11000					
RWY15L (AER)		391114.54N/0763948.74W		N	-	-	-	-	CG 500 FT PER NM TO 644 FT					
644 MSL		-		-	-	VA	144.23	-	AT/ABOVE 644					
HEDWG		390929.74N/0763810.79W		Y	FO	DF	-	-						
NOPRO		391114.15N/0764531.57W		Y	FB	DF	-	5.97	AT/ABOVE 4000		AT/BELOW 230K		RIGHT TURN	
UNSLD		391128.01N/0764743.89W		Y	FB	TF	277.68	1.73	AT/BELOW 9000					
AADDY		391148.48N/0765824.27W		Y	FB	TF	272.41	8.30						
TERPZ		391320.71N/0770820.29W		Y	FB	TF	281.30	7.87	AT/ABOVE 11000					
RW15R (AER)*		391104.89N/0764052.94W		N	-	-	-	-	*DISPL THLD (301 FT)					
644 MSL		-		-	-	VA	144.20	-	AT/ABOVE 644		CG 780 FT PER NM TO 644 FT			
WARYN		390917.03N/0763913.04W		Y	FO	DF	-	-						
BOBYJ		391125.35N/0764535.81W		Y	FB	DF	-	5.40	AT/ABOVE 4000		AT/BELOW 230K		RIGHT TURN	
FLACO		391148.27N/0764833.88W		Y	FB	TF	279.41	2.34	AT/BELOW 9000					
QUALITY 26 CHECKED														
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LINSE		TWO		LINSE2.LINSE		ONE		07/11/2024	20 FEB 2025
<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
AADDY	391148.48N/0765824.27W	Y	FB	TF	270.08	7.65			
TERPZ	391320.71N/0770820.29W	Y	FB	TF	281.30	7.87	AT/ABOVE 11000		
RW28 (AER)*	391021.98N/0763918.49W*	N	-	-	-	-			*DISPL THLD (700 FT)
644 MSL	-		-	VA	274.22	-	AT/ABOVE 644		CG 500 FT PER NM TO 644 FT
JLENN	391041.24N/0764518.19W	Y	FB	DF	-	-			
AADDY	391148.48N/0765824.27W	Y	FB	TF	276.34	10.25			
TERPZ	391320.71N/0770820.29W	Y	FB	TF	281.30	7.87	AT/ABOVE 11000		
RW33L (AER)*	390955.14N/0763948.33W*	N	-	-	-	-			*DISPL THLD (500 FT)
644 MSL	-		-	VA	324.21	-	AT/ABOVE 644		CG 500 FT PER NM TO 644 FT
PCHEN	391231.65N/0764718.62W	Y	FB	DF	-	-	AT/BELOW 5000		LEFT TURN
AADDY	391148.48N/0765824.27W	Y	FB	TF	265.29	8.65			
TERPZ	391320.71N/0770820.29W	Y	FB	TF	281.30	7.87	AT/ABOVE 11000		
RW33R (AER)	391034.45N/0763911.63W	N	-	-	-	-			
644 MSL	-		-	VA	324.24	-	AT/ABOVE 644		CG 500 FT PER NM TO 644 FT
PCHEN	391231.65N/0764718.62W	Y	-	DF	-	-	AT/BELOW 5000		LEFT TURN
AADDY	391148.48N/0765824.27W	Y	-	TF	265.29	8.65			
TERPZ	391320.71N/0770820.29W	Y	-	TF	281.30	7.87	AT/ABOVE 11000		
TERPZ	391320.71N/0770820.29W	Y	-	IF	-	-	AT/ABOVE 11000		
LINSE	392208.58N/0771804.80W	Y	FB	TF	319.34	11.60	AT/ABOVE 14000		



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LINSE		TWO		LINSE2.LINSE		ONE		07/11/2024	20 FEB 2025
<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
LINSE	392208.58N/0771804.80W	Y	-	IF	-	-	AT/ABOVE 14000		LINSE2.JERES
JERES	393834.40N/0772718.20W	Y	FB	TF	336.55	17.90			
LINSE	392208.58N/0771804.80W	Y	-	IF	-	-	AT/ABOVE 14000		LINSE2.MCRAY
BUFFR	392733.65N/0773553.93W	Y	FB	TF	291.50	14.83			
MCRAY	393217.69N/0775138.07W	Y	FB	TF	291.31	13.07			

