

**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SUPERSEDED NUMBER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>
FOXHL	ONE	FOXHL1.FOXHL	NONE		11 JUL 2024

<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 293.05 TO WONCE, THEN ON TRACK 282.16 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 293.05 TO WONCE, THEN ON TRACK 282.16 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 291.57 TO WONCE, THEN ON TRACK 282.16 TO CROSS TERPZ AT OR ABOVE 11000, THENCE ...

TAKEOFF RWY 28: CLIMB ON HEADING 285.22 TO 644, THEN DIRECT JLENN, THEN ON TRACK 295.11 TO WONCE, THEN ON TRACK 282.16 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 285.56 TO WONCE, THEN ON TRACK 282.16 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 285.56 TO WONCE, THEN ON TRACK 282.16 TO CROSS TERPZ AT OR ABOVE 11000, THENCE ...

CARROLL COUNTY RGNL/JACK B POAGE FLD, MARTIN STATE, EASTON/NEWMAN FLD, FREDERICK MUNI, MONTGOMERY COUNTY AIRPARK: CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO CROSS TERPZ AT OR ABOVE 11000, THENCE...

...THEN ON TRACK 236.84 TO CROSS FOXHL AT OR ABOVE 17000, THEN ON ASSIGNED TRANSITION. MAINTAIN 17000, 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 TO 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>
OTTTO	FOXHL1.OTTTO	FOXHL	OTTTO	TRACK 264.80	40.78	5500	5200	
RAMAY	FOXHL1.RAMAY	FOXHL	RAMAY	TRACK 273.80	39.92	5500	4500	

PBN REQUIREMENT NOTES:

RNAV 1 - DME/DME/IRU OR GPS



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FOXHL	ONE	FOXHL1.FOXHL	NONE		11 JUL 2024

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.

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).



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MSA:

MSA FROM KBWI 2600
MSA FROM KDMW 3400
MSA FROM KMTN 2600
MSA FROM KFDK 3400
MSA FROM KESN 2100
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 FOXHL 17000.
CHART SPEED ICON: MAXIMUM SPEED 230 KIAS AT NOPRO.
ALL AIRPORTS - CHART: TOP ALTITUDE: 17000.

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.
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 TERMAINATION 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 CONSTRUCTED DUE TO INSUFFICIENT DISTANCE FROM DF FIX.
3. RWY 33L WIND SPIRAL, VA-DF OEA CAN NOT CONSTRUCT, DF FIX FALLS OUTSIDE OF WIND SPIRAL BOUNDARY.



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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.

DO NOT CHART MOCA: FROM FOXHL TO OTTTO.

FLIGHT INSPECTED BY

BOB S PRESSLER

SIGNATURE*Digitally signed by***ALLAN WILL**

May 14, 2024

SIGNATURE*Digitally signed by***TODD V DAMRON**

Feb 21, 2024

OFFICE

FPO

DATE

03/20/2024

DEVELOPED BY

TODD DAMRON

OFFICE

AJV-A423

DATE

02/16/2024

APPROVED BY

MIKE GARRITY

SIGNATURE*Digitally signed by***ALLAN WILL**

May 14, 2024

OFFICE

AJV-A423

DATE**TITLE**

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:**

NEW RSID.

**FEDERAL AVIATION ADMINISTRATION
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DEPARTURE (DATA RECORD)**

<u>DP NAME</u>		<u>NUMBER</u>		<u>DP COMPUTER CODE</u>		<u>SUPERSEDED NUMBER</u>		<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
FOXHL		ONE		FOXHL1.FOXHL		NONE			11 JUL 2024
<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>
	BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL		KBWI						
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
WONCE	391311.58N/0765810.49W	Y	FB	TF	282.05	8.30			
TERPZ	391320.71N/0770820.29W	Y	FB	TF	271.16	7.90	AT/ABOVE 11000		
RW15L (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		
WONCE	391311.58N/0765810.49W	Y	FB	TF	282.05	8.30			
TERPZ	391320.71N/0770820.29W	Y	FB	TF	271.16	7.90	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
20
CHECKED

DP NAME					NUMBER		DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	ACTUAL EFFECTIVE DATE
FOXHL					ONE		FOXHL1.FOXHL	NONE		11 JUL 2024
WONCE	391311.58N/0765810.49W	Y	FB	TF	280.57	7.60				
TERPZ	391320.71N/0770820.29W	Y	FB	TF	271.16	7.90	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	-	-				
WONCE	391311.58N/0765810.49W	Y	FB	TF	284.11	10.31				
TERPZ	391320.71N/0770820.29W	Y	FB	TF	271.16	7.90	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	
WONCE	391311.58N/0765810.49W	Y	FB	TF	274.56	8.47				
TERPZ	391320.71N/0770820.29W	Y	FB	TF	271.16	7.90	AT/ABOVE 11000			
RW33R (AER)	391034.45N/0763911.63W	N	-	-	-	-			CG 500 FT PER NM TO 644 FT	
644 MSL	-	-	-	VA	324.24	-	AT/ABOVE 644			
PCHEN	391231.65N/0764718.62W	Y	FB	DF	-	-	AT/BELOW 5000		LEFT TURN	
WONCE	391311.58N/0765810.49W	Y	FB	TF	274.56	8.47				
TERPZ	391320.71N/0770820.29W	Y	FB	TF	271.16	7.90	AT/ABOVE 11000			
TERPZ	391320.71N/0770820.29W	Y	-	IF	-	-	AT/ABOVE 11000			
FOXHL	390249.98N/0772212.24W	Y	FB	TF	225.84	15.06	AT/ABOVE 17000			



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FOXHL		ONE		FOXHL1.FOXHL		NONE			11 JUL 2024
FOXHL	390249.98N/0772212.24W	Y	-	IF	-	-	AT/ABOVE 17000		FOXHL1.OTTTO
OTTTO	385115.81N/0781220.01W	Y	FB	TF	253.80	40.78			
FOXHL	390249.98N/0772212.24W	Y	-	IF	-	-	AT/ABOVE 17000		FOXHL1.RAMAY
RAMAY	385738.57N/0781259.01W	Y	FB	TF	262.80	39.92			