FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP) **TITLE 14 CFR PART 97.37**

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.

AIRPORT	AIRPORT ID	CITY	<u>STATE</u>	AMDT NO	ACTUAL EFFECTIVE DATE
BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL	KBWI	BALTIMORE	MD	10A	21 MAY 2020

TAKEOFF MINIMUMS:

RWY 10, 15L, 15R, 28, STANDARD RWY 33L, STANDARD WITH A MINIMUM CLIMB OF 268 FT PER NM TO 1900. RWY 33R, STANDARD WITH MINIMUM CLIMB OF 255 FT PER NM TO 2000.

TEXTUAL DEPARTURE PROCEDURES:

RWY 28: CLIMB HEADING 285.22 TO 900 FT BEFORE TURNING RIGHT.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 10, LIGHTING 9 FT FROM DER, 54 FT LEFT OF CENTERLINE, 1 FT AGL/127 FT MSL. LIGHTING 9 FT FROM DER, 54 FT RIGHT OF CENTERLINE. 1 FT AGL/127 FT MSL, BUILDING BEGINNING 51 FT FROM DER. 319 FT LEFT OF CENTERLINE. UP TO 10 FT AGL/133 FT MSL. TREE 1143 FT FROM DER, 549 FT LEFT OF CENTERLINE, 65 FT AGL/157 FT MSL. TREES BEGINNING 1190 FT FROM DER, 457 FT LEFT OF CENTERLINE, UP TO 67 FT AGL/160 FT MSL. TREE 1210 FT FROM DER, 452 FT LEFT OF CENTERLINE, 68 FT AGL/161 FT MSL. TREES BEGINNING 1230 FT FROM DER, 384 FT LEFT OF CENTERLINE, UP TO 70 FT AGL/163 FT MSL.

NOTE: RWY 15L, TREE 615 FT FROM DER, 641 FT LEFT OF CENTERLINE, 47 FT AGL/131 FT MSL. TREES BEGINNING 646 FT FROM DER, 608 FT LEFT OF CENTERLINE, UP TO 52 FT AGL/136 FT MSL. TREE 748 FT FROM DER, 624 FT LEFT OF CENTERLINE, 69 FT AGL/148 FT MSL. TREES BEGINNING 773 FT FROM DER. 647 FT LEFT OF CENTERLINE. UP TO 73 FT AGL/152 FT MSL. POLE. TREE BEGINNING 920 FT FROM DER. 617 FT LEFT OF CENTERLINE, UP TO 79 FT AGL/161 FT MSL. TREES BEGINNING 962 FT FROM DER, 706 FT LEFT OF CENTERLINE, UP TO 77 FT AGL/162 FT MSL. ANTENNA 1067 FT FROM DER, 640 FT LEFT OF CENTERLINE, 68 FT AGL/164 FT MSL. POLE, TREE BEGINNING 1068 FT FROM DER, 548 FT LEFT OF CENTERLINE, UP TO 75 FT AGL/169 FT MSL. POLE, ANTENNA BEGINNING 1762 FT FROM DER, 941 FT RIGHT OF CENTERLINE, UP TO 61 FT AGL/179 FT MSL. TREES BEGINNING 1872 FT FROM DER. 750 FT RIGHT OF CENTERLINE. UP TO 68 FT AGL/181 FT MSL. TREES BEGINNING 2237 FT FROM DER, 660 FT RIGHT OF CENTERLINE, UP TO 183 FT MSL. TREE 2712 FT FROM DER, 1182 FT RIGHT OF CENTERLINE, 73 FT AGL/194 FT MSL. TREE 2740 FT FROM DER. 1117 FT RIGHT OF CENTERLINE. 74 FT AGL/198 FT MSL. TREES BEGINNING 2770 FT FROM DER. 1061 FT RIGHT OF CENTERLINE. UP TO 207 FT MSL.

NOTE: RWY 15R, NAVAID 1 FT FROM DER, 85 FT RIGHT OF CENTERLINE, 2 FT AGL/130 FT MSL. TREE 1086 FT FROM DER, 755 FT RIGHT OF CENTERLINE, 65 FT AGL/173 FT MSL. TREES BEGINNING 1126 FT FROM DER, 752 FT RIGHT OF CENTERLINE, UP TO 77 FT AGL/184 FT MSL.

NOTE: RWY 28, LIGHTING 50 FT FROM DER, 6 FT LEFT OF CENTERLINE, 2 FT AGL/141 FT MSL. LIGHTING 50 FT FROM DER, 6 FT RIGHT OF CENTERLINE. 2 FT AGL/141 FT MSL, POLE 150 FT FROM DER. 40 FT RIGHT OF CENTERLINE. 4 FT AGL/143 FT MSL, TREE 1293 FT FROM DER. 842 FT LEFT OF CENTERLINE, 79 FT AGL/174 FT MSL.TREES BEGINNING 1389 FT FROM DER, 252 FT LEFT OF CENTERLINE, UP TO 87 FT AGL/182 FT MSL, TREES BEGINNING 1582 FT FROM DER. 299 FT LEFT OF CENTERLINE, UP TO 96 FT AGL/188 FT MSL, TREES BEGINNING 1632 FT FROM DER. 264 FT LEFT OF CENTERLINE, UP TO 197 FT MSL. TREE 2830 FT FROM DER, 871 FT RIGHT OF CENTERLINE, 134 FT AGL/211 FT MSL. TREES BEGINNING 2834 FT FROM DER. 839 FT RIGHT OF CENTERLINE. UP TO 135 FT AGL/212 FT MSL.

NOTE: RWY 33L, FENCE 161 FT FROM DER, 528 FT RIGHT OF CENTERLINE, 10 FT AGL/145 FT MSL. FENCE 203 FT FROM DER, 520 FT RIGHT OF CENTERLINE, 18 FT AGL/149 FT MSL. POLE 516 FT FROM DER, 573 FT RIGHT OF CENTERLINE, 33 FT AGL/156 FT MSL. TREE 910 FT FROM DER, 595 FT LEFT OF CENTERLINE, 82 FT AGL/165 FT MSL. TREES BEGINNING 1662 FT FROM DER, 852 FT RIGHT OF CENTERLINE, UP TO 41 FT AGL/187 FT MSL, TREE 1715 FT FROM DER. 888 FT RIGHT OF CENTERLINE. 34 FT AGL/188 FT MSL, TREES BEGINNING 1716 FT FROM DER. 904 FT RIGHT OF CENTERLINE, UP TO 34 FT AGL/190 FT MSL. TREES BEGINNING 2189 FT FROM DER, 940 FT RIGHT OF CENTERLINE, UP TO 63 FT AGL/205 FT MSL TREES BEGINNING 2228 FT FROM DER. 877 FT RIGHT OF CENTERLINE, UP TO 73 FT AGL/214 FT MSL. BUILDING, ANTENNA, BLDG TWR NAL />L BEGINNING 4693 FT FROM DER, 877 FT RIGHT OF CENTERLINE, UP TO 146 FT AGL/265 FT MSL. 19

NOTE: RWY 33R, FENCE 400 FT FROM DER, 601 FT LEFT OF CENTERLINE, 1 FT AGL/157 FT MSL. FENCE 629 FT FROM DER, 600 FT LEFT OF CENTERLINE, 2 FT AGL/159 FT MSL. POLE 758 FT FROM DER, 677 FT LEFT OF CENTERLINE, 19 FT AGL/176 FT MSL. BUILDING 880 FT FROM DER, 654 FT LEFT OF CENTERLINE, 25 FT AGL/181 FT MSL. BUILDING, POLE BEGINNING 951 FT FROM DER, 611 FT LEFT OF CENTERLINE, UP TO 29 FT AGL/184 FT MSL. TREES BEGINNING 1072 FT FROM DER, 518 FT RIGHT OF CENTERLINE, UP TO 54 FT AGL/188 FT MSL. TREE 1530 FT FROM DER, 807 FT RIGHT OF CENTERLINE, 56 FT AGL/202 FT MSL. BUILDING, SIGN BEGINNING 1556 FT FROM DER, 916 FT LEFT OF CENTERLINE, UP TO 42 FT AGL/198 FT MSL. TREE 1565 FT FROM DER, 849 FT RIGHT OF CENTERLINE, 63 FT AGL/212 FT MSL. TREE 1582 FT FROM DER, 759 FT RIGHT OF CENTERLINE. 64 FT AGL/213 FT MSL, TREES BEGINNING 1593 FT FROM DER, 779 FT RIGHT OF CENTERLINE, UP TO 68 FT AGL/218 FT MSL, TREES

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BEGINNING 1662 FT FROM DER, 794 FT RIGHT OF CENTERLINE, UP TO 63 FT AGL/220 FT MSL. TREES BEGINNING 1748 FT FROM DER, 791 FT RIGHT OF CENTERLINE, UP TO 62 FT AGL/223 FT MSL. TREES BEGINNING 1785 FT FROM DER, 846 FT RIGHT OF CENTERLINE, UP TO 64 FT AGL/226 FT MSL. TREE 1866 FT FROM DER, 849 FT RIGHT OF CENTERLINE, 59 FT AGL/230 FT MSL. TREE 1907 FT FROM DER, 923 FT RIGHT OF CENTERLINE, 60 FT AGL/236 FT MSL. TREES BEGINNING 1930 FT FROM DER, 858 FT RIGHT OF CENTERLINE, UP TO 72 FT AGL/250 FT MSL. TREES BEGINNING 1985 FT FROM DER, 903 FT RIGHT OF CENTERLINE, UP TO 68 FT AGL/253 FT MSL. TREES BEGINNING 2200 FT FROM DER, 967 FT RIGHT OF CENTERLINE, UP TO 69 FT AGL/260 FT MSL. TREE 2241 FT FROM DER, 1052 FT RIGHT OF CENTERLINE, 75 FT AGL/261 FT MSL. TREE POLE BEGINNING 2243 FT FROM DER, 15 FT RIGHT OF CENTERLINE, UP TO 76 FT AGL/265 FT MSL. ELECTRICAL SYSTEM 2452 FT FROM DER, 903 FT LEFT OF CENTERLINE, 44 FT AGL/204 FT MSL. TREES BEGINNING 2574 FT FROM DER, 685 FT LEFT OF CENTERLINE, UP TO 49 FT AGL/209 FT MSL, TREE 2894 FT FROM DER, 902 FT LEFT OF CENTERLINE, 64 FT AGL/217 FT MSL, TREES BEGINNING 2908 FT FROM DER, 908 FT LEFT OF CENTERLINE, UP TO 69 FT AGL/220 FT MSL. TREES BEGINNING 2949 FT FROM DER, 348 FT LEFT OF CENTERLINE, UP TO 65 FT AGL/222 FT MSL. TREES BEGINNING 2984 FT FROM DER. 201 FT LEFT OF CENTERLINE. UP TO 79 FT AGL/231 FT MSL, TREES BEGINNING 3121 FT FROM DER. 154 FT LEFT OF CENTERLINE, UP TO 79 FT AGL/235 FT MSL. TREES BEGINNING 3151 FT FROM DER, 409 FT LEFT OF CENTERLINE, UP TO 84 FT AGL/237 FT MSL. TREES BEGINNING 3165 FT FROM DER, 89 FT LEFT OF CENTERLINE, UP TO 73 FT AGL/238 FT MSL. TREES BEGINNING 3185 FT FROM DER, 49 FT LEFT OF CENTERLINE, UP TO 73 FT AGL/241 FT MSL. TREES BEGINNING 3242 FT FROM DER, 122 FT LEFT OF CENTERLINE, UP TO 71 FT AGL/242 FT MSL. TREES BEGINNING 3252 FT FROM DER, 87 FT LEFT OF CENTERLINE, UP TO 73 FT AGL/244 FT MSL. TREES BEGINNING 3283 FT FROM DER, 50 FT LEFT OF CENTERLINE, UP TO 65 FT AGL/246 FT MSL. TREES BEGINNING 3373 FT FROM DER, 78 FT LEFT OF CENTERLINE, UP TO 62 FT AGL/248 FT MSL. TREES BEGINNING 3397 FT FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 59 FT AGL/250 FT MSL. TREE, POLE BEGINNING 3791 FT FROM DER, 20 FT LEFT OF CENTERLINE, UP TO 80 FT AGL/252 FT MSL. TREES BEGINNING 4001 FT FROM DER, 92 FT LEFT OF CENTERLINE, UP TO 75 FT AGL/255 FT MSL. TREES BEGINNING 4024 FT FROM DER, 312 FT RIGHT OF CENTERLINE, UP TO 80 FT AGL/266 FT MSL. TREE, POLE BEGINNING 4032 FT FROM DER. 55 FT RIGHT OF CENTERLINE, UP TO 66 FT AGL/274 FT MSL. TREE 4060 FT FROM DER. 1206 FT LEFT OF CENTERLINE, 85 FT AGL/257 FT MSL. TREES BEGINNING 4062 FT FROM DER, 34 FT LEFT OF CENTERLINE, UP TO 86 FT AGL/264 FT MSL. TREE, POLE BEGINNING 4071 FT FROM DER. 2 FT RIGHT OF CENTERLINE, UP TO 74 FT AGL/280 FT MSL. TREES BEGINNING 4157 FT FROM DER. 26 FT LEFT OF CENTERLINE, UP TO 75 FT AGL/268 FT MSL. TREES BEGINNING 4373 FT FROM DER, 333 FT LEFT OF CENTERLINE, UP TO 79 FT AGL/272 FT MSL. TREES BEGINNING 4384 FT FROM DER, 82 FT LEFT OF CENTERLINE, UP TO 68 FT AGL/275 FT MSL. TREES BEGINNING 4469 FT FROM DER, 87 FT LEFT OF CENTERLINE, UP TO 84 FT AGL/281 FT MSL. TREES BEGINNING 4511 FT FROM DER, 39 FT LEFT OF CENTERLINE, UP TO 73 FT AGL/282 FT MSL. TREES BEGINNING 4564 FT FROM DER, 610 FT RIGHT OF CENTERLINE, UP TO 76 FT AGL/281 FT MSL. TREES BEGINNING 4600 FT FROM DER, 843 FT LEFT OF CENTERLINE, UP TO 65 FT AGL/283 FT MSL. TREES BEGINNING 4606 FT FROM DER, 213 FT LEFT OF CENTERLINE, UP TO 82 FT AGL/284 FT MSL. TREES BEGINNING 4635 FT FROM DER, 121 FT LEFT OF CENTERLINE, UP TO 85 FT AGL/289 FT MSL.TREES BEGINNING 5250 FT FROM DER, 345 FT LEFT OF CENTERLINE, UP TO 96 FT AGL/291 FT MSL. TREE 1 NM FROM DER, 1991 FT LEFT OF CENTERLINE, 88 FT AGL/300 FT MSL.

CONTROLLING OBSTACLES:

RWY 33R:1437 FT MSL TOWER 391641.69N/0764502.70W (CG). 1504 FT MSL TOWER 391716.23N/0764537.03W (CGTA). **RWY 33L**:1437 FT MSL TOWER 391641.69N/0764502.70W (CG).

REMARKS:

1. RWY 33R DEPARTURE ROUTE THAT MEETS ATC FLOW REQUIREMENTS COULD NOT BE CONSTRUCTED. ATC HAS REQUESTED TO OPT- OUT OF PUBLISHING A VCOA AS IT IS NOT PRACTICAL DUE TO HIGH TRAFFIC VOLUME.

2. RWY 33R CLIMB GRADIENT ROUNDED UP TO 255 FT PER NM. COMPUTED VALUE IS 251 FT PER NM.

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FLIGHT INSPECTED BY JORGE A MALCUN	Digitally sign DAVID DAN Mar 02, 20	NER	OFFICE FICO	<u>DATE</u> 02/28/2020	
DEVELOPED BY		Digitally signed by	OFFICE	DATE	
DAVID DANNER (JOSEF	PH HILLEY)	DAVID DANNER	AJV-A421	01/06/2020	
APPROVED BY MARLON ROBINSON	<i>Digitally signed by</i> DAVID DANNER Mar 02, 2020	Mar 02, 2020	OFFICE AJV-A420	DATE	<u>TITLE</u> MANAGER

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

 NBAA OTHER: ZDC, POTOMAC APPCON, BWI TOWER, ARPT MGR



CHANGES - REASONS:

1. CHANGED RWY 33L TAKEOFF MINIMUMS FROM "STANDARD" TO "268 FT PER NM TO 1900 FT" - NEW CONTROLLING OBSTACLE. CANCELS FDC NOTAM 9/3096.

2. UPDATED TAKEOFF OBSTACLE NOTES FOR ALL RWYS - NEW SURVEY DATA.

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3. REMOVED 33L TEXTUAL DEPARTURE PROCEDURE - NEW TARGETS EVALUATION.