

**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.

<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>	<u>AMDT NO</u>	<u>ACTUAL EFFECTIVE DATE</u>
RONALD REAGAN WASHINGTON NATIONAL	KDCA	WASHINGTON	DC	8B	30 JANUARY 2020

TAKEOFF MINIMUMS:

RWY 1: 600-2 WITH MINIMUM CLIMB OF 275 FT PER NM TO 1500 OR STANDARD WITH MINIMUM CLIMB OF 460 FT PER NM TO 800.

RWY 4: 300-2 OR STANDARD WITH MINIMUM CLIMB OF 210 FT PER NM TO 400, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1400 FT PRIOR TO DER.

RWY 15: 300-1 3/4 OR STANDARD WITH MINIMUM CLIMB OF 215 FT PER NM TO 400, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1500 FT PRIOR TO DER.

RWY 19: 300-1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 205 FT PER NM TO 300, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1200 FT PRIOR TO DER.

RWY 22: 500-2 3/4 OR STANDARD WITH MINIMUM CLIMB OF 305 FT PER NM TO 600.

RWY 33: STANDARD WITH MINIMUM CLIMB OF 285 FT PER NM TO 700.

TEXTUAL DEPARTURE PROCEDURES:

RWY 1: CLIMBING LEFT TURN AS SOON AS PRACTICAL TO INTERCEPT DCA VOR/DME R-328. MAINTAIN 5000 OR AS ASSIGNED.

RWY 4: CLIMBING RIGHT TURN AS SOON AS PRACTICAL TO INTERCEPT DCA VOR/DME R-070. MAINTAIN 2000 OR AS ASSIGNED.

RWY 15: CLIMB ON HEADING 153.64 TO 5000 OR AS ASSIGNED.

RWY 19: CLIMB ON HEADING 186.50 TO 500 BEFORE TURNING RIGHT. MAINTAIN 5000 OR AS ASSIGNED.

RWY 22: CLIMB ON HEADING 216.56 TO 3000 OR AS ASSIGNED.

RWY 33: CLIMB ON DCA VOR/DME R-328. MAINTAIN 5000 OR AS ASSIGNED.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 01: BUILDING BEGINNING 118 FT FROM DER, 331 FT RIGHT OF CENTERLINE, UP TO 22 FT AGL/23 FT MSL.
FENCE 261 FT FROM DER, 514 FT LEFT OF CENTERLINE, 10 FT AGL/20 FT MSL.
TREE AND POLE BEGINNING 995 FT FROM DER, 476 FT LEFT OF CENTERLINE, UP TO 47 FT AGL/49 FT MSL.
TREES BEGINNING 1007 FT FROM DER, 152 FT LEFT OF CENTERLINE, UP TO 71 FT AGL/72 FT MSL.
TREE 1364 FT FROM DER, 333 FT RIGHT OF CENTERLINE, 50 FT AGL/51 FT MSL.
MONUMENT 1.6 NM FROM DER, 1785 FT RIGHT OF CENTERLINE, 556 FT AGL/595 FT MSL.

NOTE: RWY 04: MICROWAVE SENSOR AND TERRAIN BEGINNING 3 FT FROM DER, 334 FT RIGHT OF CENTERLINE, UP TO 4 FT AGL/16 FT MSL.
MICROWAVE SENSOR 206 FT FROM DER, 260 FT RIGHT OF CENTERLINE, 7 FT AGL/18 FT MSL.
SIGN 857 FT FROM DER, 681 FT LEFT OF CENTERLINE, 83 FT MSL.
TOWER 860 FT FROM DER, 677 FT LEFT OF CENTERLINE, 72 FT AGL/84 FT MSL.
SPIRE 1.6 NM FROM DER, 206 FT RIGHT OF CENTERLINE, 265 FT MSL.

NOTE: RWY 15: LIGHTING BEGINNING 178 FT FROM DER, 288 FT RIGHT OF CENTERLINE, UP TO 11 FT AGL/20 FT MSL.
TREE 1.4 NM FROM DER, 12 FT RIGHT OF CENTERLINE, UP TO 94 FT AGL/245 FT MSL.
TREE 1.5 NM FROM DER, 519 FT RIGHT OF CENTERLINE, UP TO 80 FT AGL/239 FT MSL.

NOTE: RWY 19: POLE 395 FT FROM DER, 549 FT RIGHT OF CENTERLINE, 18 FT AGL/22 FT MSL.
TREE 3434 FT FROM DER, 1134 FT RIGHT OF CENTERLINE, 105 FT MSL.
BUILDING 1.1 NM FROM DER, 1911 FT RIGHT OF CENTERLINE, 153 FT AGL/183 FT MSL.
BUILDING 1.1 NM FROM DER, 1889 FT RIGHT OF CENTERLINE, 172 FT AGL/190 FT MSL.
STACKS BEGINNING 1.2 NM FROM DER, 1673 FT RIGHT OF CENTERLINE, UP TO 162 FT AGL/197 FT MSL.
BUILDING 1.2 NM FROM DER, 1691 FT RIGHT OF CENTERLINE, 198 FT MSL.
BUILDING 1.7 NM FROM DER, 2444 FT RIGHT OF CENTERLINE, 272 FT MSL.

QUALITY
3
CHECKED

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NOTE: RWY 22: POLE 217 FT FROM DER, 478 FT LEFT OF CENTERLINE, 15 FT AGL/23 FT MSL.
TREES BEGINNING 550 FT FROM DER, 498 FT RIGHT OF CENTERLINE, UP TO 45 FT AGL/51 FT MSL.
TREE 661 FT FROM DER, 566 FT RIGHT OF CENTERLINE, 56 FT AGL/57 FT MSL.
TREE 1325 FT FROM DER, 586 FT RIGHT OF CENTERLINE, 59 FT AGL/61 FT MSL.
TREE 1351 FT FROM DER, 704 FT RIGHT OF CENTERLINE, 67 FT AGL/93 FT MSL.
TREE, BUILDING, POLE BEGINNING 1411 FT FROM DER, 19 FT RIGHT OF CENTERLINE, UP TO 82 FT AGL/110 FT MSL.
TREE 2899 FT FROM DER, 605 FT LEFT OF CENTERLINE, 102 FT MSL.
BUILDING 3336 FT FROM DER, 513 FT RIGHT OF CENTERLINE, 114 FT AGL/148 FT MSL.
BUILDING AND POLE BEGINNING 3440 FT FROM DER, 114 FT RIGHT OF CENTERLINE, UP TO 118 FT AGL/153 FT MSL.
CRANE 1.5 NM FROM DER, 1913 FT RIGHT OF CENTERLINE, 240 FT AGL/276 FT MSL.
BUILDING 2.3 NM FROM DER, 1067 FT RIGHT OF CENTERLINE, 336 FT AGL/440 FT MSL.
BUILDING 2.3 NM FROM DER, 1008 FT RIGHT OF CENTERLINE, 324 FT AGL/443 FT MSL.

NOTE: RWY 33: SIGN 18 FT FROM DER, 191 FT LEFT OF CENTERLINE, 3 FT AGL/15 FT MSL.
FENCE 27 FT FROM DER, 332 FT RIGHT OF CENTERLINE, 8 FT AGL/18 FT MSL.
POLE 93 FT FROM DER, 423 FT RIGHT OF CENTERLINE, 19 FT AGL/29 FT MSL.
TREE, VEHICLES ON ROAD BEGINNING 365 FT FROM DER, 344 FT LEFT OF CENTERLINE, UP TO 70 FT MSL.
POLE 580 FT FROM DER, 481 FT RIGHT OF CENTERLINE, 31 FT AGL/41 FT MSL.
TREES BEGINNING 699 FT FROM DER, 78 FT RIGHT OF CENTERLINE, UP TO 56 FT AGL/60 FT MSL.
TREES BEGINNING 882 FT FROM DER, 349 FT LEFT OF CENTERLINE, UP TO 84 FT AGL/93 FT MSL.
CRANE, TREE, POLE BEGINNING 1389 FT FROM DER, 289 FT LEFT OF CENTERLINE, UP TO 82 FT AGL/95 FT MSL.
TREE 1665 FT FROM DER, 236 FT RIGHT OF CENTERLINE, 62 FT AGL/62 FT MSL.
TREE 1691 FT FROM DER, 215 FT RIGHT OF CENTERLINE, 59 FT AGL/68 FT MSL.
TREE 1715 FT FROM DER, 882 FT RIGHT OF CENTERLINE, 79 FT MSL.
BUILDING, POLE, ANTENNA BEGINNING 1776 FT FROM DER, 247 FT LEFT OF CENTERLINE, UP TO 128 FT AGL/145 FT MSL.
TREES BEGINNING 1784 FT FROM DER, 934 FT RIGHT OF CENTERLINE, UP TO 79 FT AGL/83 FT MSL.
POLE 2917 FT FROM DER, 524 FT RIGHT OF CENTERLINE, 102 FT MSL.
POLE 2925 FT FROM DER, 510 FT RIGHT OF CENTERLINE, 79 FT AGL/106 FT MSL.
ANTENNA BEGINNING 4608 FT FROM DER, 277 FT LEFT OF CENTERLINE, UP TO 115 FT AGL/151 FT MSL.
TREE 1.5 NM FROM DER, 3046 FT LEFT OF CENTERLINE, 81 FT AGL/254 FT MSL.
POLE 1.7 NM FROM DER, 2115 FT LEFT OF CENTERLINE, 101 FT AGL/308 FT MSL.
TREES BEGINNING 1.8 NM FROM DER, 1912 FT LEFT OF CENTERLINE, UP TO 311 FT MSL.
BUILDING AND TOWER BEGINNING 2.2 NM FROM DER, 1374 FT RIGHT OF CENTERLINE, UP TO 353 FT AGL/420 FT MSL.
BUILDING, CRANE, SPIRE BEGINNING 2.4 NM FROM DER, 1089 FT RIGHT OF CENTERLINE, UP TO 387 FT AGL/470 FT MSL.
BUILDING 2.4 NM FROM DER, 3481 FT LEFT OF CENTERLINE, 178 FT AGL/387 FT MSL.
BUILDING 2.4 NM FROM DER, 3585 FT LEFT OF CENTERLINE, 185 FT AGL/392 FT MSL.
BUILDINGS BEGINNING 2.4 NM FROM DER, 154 FT LEFT OF CENTERLINE, UP TO 182 FT AGL/416 FT MSL.
BUILDING, ANTENNA BEGINNING 2.4 NM FROM DER, 2457 FT LEFT OF CENTERLINE, UP TO 196 FT AGL/427 FT MSL.

CONTROLLING OBSTACLES:

RWY 1: 1049 FT MSL TOWER 385624.20N/0770452.42W (275 FT PER NM CLIMB GRADIENT). 595 FT MSL MONUMENT 385322.00N/0770207.00W (460 FT PER NM CLIMB GRADIENT, CEILING, VISIBILITY).

RWY 4: 265 FT MSL SPIRE 385238.83N/0770106.34W.

RWY 15: 245 FT MSL TREE 384949.86N/0770048.40W (CLIMB GRADIENT, CLIMB-TO ALTITUDE, CEILING). 239 FT MSL TREE 384944.42N/0770051.15W (VISIBILITY).

RWY 19: 189 FT MSL BUILDING 384920.48N/0770229.29W.

RWY 22: 370 FT MSL BUILDING 384900.00N/0770359.00W (CLIMB GRADIENT, CLIMB-TO ALTITUDE). 443 FT MSL BUILDING 384826.98N/0770357.36W (CEILING, VISIBILITY).

RWY 33: 470 FT MSL BUILDING 385343.00N/0770415.00W.

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT:

RWY 4 - 1048 FT MSL TOWER 385746.00N/0770135.00W.

RWY 33 - 1049 FT MSL TOWER 385624.20N/0770452.42W.

REMARKS:

CHART NOTE AT BOTTOM OF TAKEOFF MINIMUMS: PROHIBITED AREA (P-56) 1.5 NM NORTH OF AIRPORT.

1. UNABLE TO CONSTRUCT RWY 1 AND RWY 33 DEPARTURE ROUTES THAT WOULD PERMIT A STANDARD 200 FT PER NM CLIMB. ATC HAS

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REQUESTED TO OPT OUT OF PUBLISHING A VCOA AS IT IS NOT PRACTICAL DUE TO HIGH TRAFFIC VOLUME AND PROHIBITED AIRSPACE 1.5 NM NORTH OF THE AIRPORT.

2. DEPARTURE ROUTES FOR RWY 15, 19, 22 AND CLIMB TO ALTITUDES FOR RWY 1, 4, 33 PUBLISHED FOR PROHIBITED AIRSPACE AVOIDANCE AND TO MEET ATC FLOW REQUIREMENTS.
3. RWY 1: 460 FT PER NM CLIMB GRADIENT ROUNDED UP TO NEXT HIGHEST 5 FT INCREMENT FOR PUBLICATION (COMPUTED VALUE 455 FT PER NM); 275 FT PER NM CLIMB GRADIENT ROUNDED UP TO NEXT HIGHEST 5 FT INCREMENT FOR PUBLICATION (COMPUTED VALUE 272 FT PER NM).
4. RWY 4 CLIMB GRADIENT ROUNDED UP TO NEXT HIGHEST 5 FT INCREMENT FOR PUBLICATION (COMPUTED VALUE 209 FT PER NM).
5. RWY 15 CLIMB GRADIENT ROUNDED UP TO NEXT HIGHEST 5 FT INCREMENT FOR PUBLICATION (COMPUTED VALUE 213 FT PER NM).
6. RWY 19 CLIMB GRADIENT ROUNDED UP TO NEXT HIGHEST 5 FT INCREMENT FOR PUBLICATION (COMPUTED VALUE 203 FT PER NM).
7. RWY 22 CLIMB GRADIENT ROUNDED UP TO NEXT HIGHEST 5 FT INCREMENT FOR PUBLICATION (COMPUTED VALUE 303 FT PER NM).
8. RWY 33 CLIMB GRADIENT ROUNDED UP TO NEXT HIGHEST 5 FT INCREMENT FOR PUBLICATION (COMPUTED VALUE 281 FT PER NM).
9. CONTROLLING OBSTACLES, RWY 22, 370 FT MSL BUILDING MAY NO LONGER BE ACCURATE GIVEN CURRENT SURVEY DATA AND SHOULD BE CONFIRMED AT THE NEXT FULL AMENDMENT.

FLIGHT INSPECTED BY

PROCESSED IAW AIRCRAFT OPERATIONS GROUP
(AJW-33) MEMO, OCTOBER 3, 2018, SUBJECT:
FLIGHT INSPECTION REVIEW NOT REQUIRED.

Digitally signed by

HEIDI SNIDER

Oct 04, 2019

OFFICE

DATE

DEVELOPED BY

Digitally signed by

RUSS ROSLEWSKI

RUSSELL ROSLEWSKI

Oct 01, 2019

OFFICE

AJV-A421

DATE

08/23/2019

APPROVED BY

Digitally signed by

MARLON ROBINSON

HEIDI SNIDER

Oct 04, 2019

OFFICE

AJV-A420

DATE

TITLE

MANAGER

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** ZDC, POTOMAC APP CON, DCA TOWER, ARPT MGR

CHANGES - REASONS:

1. UPDATED TAKOFF OBSTACLE NOTES - NEW AIRPORT SURVEY.
2. TAKEOFF MINIMUMS, RUNWAY 4, CHANGED "TAKEOFF MUST OCCUR NOT LATER" TO "TAKEOFF MUST OCCUR NO LATER" TO MATCH CURRENT WORDING IN 8260.46G AND OTHER RUNWAYS.
3. TEXTUAL DEPARTURE PROCEDURES, RWY 15, 19, 22, CHANGED "CLIMB HEADING" TO "CLIMB ON HEADING" - CURRENT 8260.46G WORDING.

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