

**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.

<b>CITY, STATE</b>	<b>AIRPORT</b>	<b>EFFECTIVE DATE</b>	<b>AMDT NO</b>
DULUTH, MN	DULUTH INTL	10/10/2019	1

**TAKEOFF MINIMUMS:**

RWY 3, 9, 21, 27: STANDARD

**TEXTUAL DEPARTURE PROCEDURES:**

**VISUAL CLIMB OVER AIRPORT:**

**TAKEOFF OBSTACLE NOTES:**

**NOTE: RWY 3:** TREE 5 FT FROM DER, 306 FT RIGHT OF CENTERLINE, 12 FT AGL/1424 FT MSL. TREES, TERRAIN BEGINNING 11 FT FROM DER, 300 FT RIGHT OF CENTERLINE, UP TO 1442 FT MSL. TREE 234 FT FROM DER, 542 FT RIGHT OF CENTERLINE, 1464 FT MSL. TREE 612 FT FROM DER, 26 FT LEFT OF CENTERLINE, 1432 FT MSL. TREES BEGINNING 655 FT FROM DER, 441 FT RIGHT OF CENTERLINE, UP TO 1471 FT MSL. TREE 1217 FT FROM DER, 789 FT LEFT OF CENTERLINE, 1449 FT MSL. TREES BEGINNING 1469 FT FROM DER, 596 FT LEFT OF CENTERLINE, UP TO 54 FT AGL/1468 FT MSL. TREES BEGINNING 1501 FT FROM DER, 519 FT RIGHT OF CENTERLINE, UP TO 1478 FT MSL. TREE 1600 FT FROM DER, 704 FT RIGHT OF CENTERLINE, 1481 FT MSL. TREES BEGINNING 1673 FT FROM DER, 225 FT RIGHT OF CENTERLINE, UP TO 1484 FT MSL. TREES BEGINNING 1892 FT FROM DER, 622 FT LEFT OF CENTERLINE, UP TO 59 FT AGL/1476 FT MSL. TREES BEGINNING 2112 FT FROM DER, 598 FT LEFT OF CENTERLINE, UP TO 60 FT AGL/1479 FT MSL. TREES BEGINNING 2171 FT FROM DER, 532 FT LEFT OF CENTERLINE, UP TO 64 FT AGL/1482 FT MSL.

**NOTE: RWY 21:** SIGN 30 FT FROM DER, 399 FT RIGHT OF CENTERLINE, 3 FT AGL/1416 FT MSL. VEHICLES ON ROAD 178 FT FROM DER, 412 FT RIGHT OF CENTERLINE, 1426 FT MSL. VEHICLES ON ROAD 359 FT FROM DER, 423 FT RIGHT OF CENTERLINE, 1429 FT MSL. TREE 471 FT FROM DER, 563 FT LEFT OF CENTERLINE, 37 FT AGL/1440 FT MSL. TREE, VEHICLES ON ROAD, POLES, TRANSMISSION LINE BEGINNING 576 FT FROM DER, 423 FT RIGHT OF CENTERLINE, UP TO 1457 FT MSL. TREES BEGINNING 1183 FT FROM DER, 778 FT LEFT OF CENTERLINE, UP TO 44 FT AGL/1460 FT MSL. TOWER 3751 FT FROM DER, 408 FT LEFT OF CENTERLINE, 92 FT AGL/1522 FT MSL.

**NOTE: RWY 27:** LIGHTING BEGINNING 4 FT FROM DER, 80 FT LEFT OF CENTERLINE, UP TO 2 FT AGL/1428 FT MSL. LIGHTING 4 FT FROM DER, 120 FT RIGHT OF CENTERLINE, 2 FT AGL/1428 FT MSL. LIGHTING BEGINNING 4 FT FROM DER, 20 FT RIGHT OF CENTERLINE, UP TO 2 FT AGL/1429 FT MSL. LIGHTING BEGINNING 4 FT FROM DER, 29 FT LEFT OF CENTERLINE, UP TO 2 FT AGL/1429 FT MSL. LIGHTING 99 FT FROM DER, 6 FT LEFT OF CENTERLINE, 3 FT AGL/1431 FT MSL. VEGETATION 347 FT FROM DER, 484 FT LEFT OF CENTERLINE, 1437 FT MSL. TREES BEGINNING 1190 FT FROM DER, 791 FT LEFT OF CENTERLINE, UP TO 1470 FT MSL. TREE 1606 FT FROM DER, 558 FT RIGHT OF CENTERLINE, 33 FT AGL/1468 FT MSL. TREES BEGINNING 1829 FT FROM DER, 961 FT RIGHT OF CENTERLINE, UP TO 60 FT AGL/1505 FT MSL. TREES BEGINNING 2137 FT FROM DER, 989 FT RIGHT OF CENTERLINE, UP TO 1507 FT MSL. TREES BEGINNING 2257 FT FROM DER, 997 FT LEFT OF CENTERLINE, UP TO 36 FT AGL/1509 FT MSL. TREES BEGINNING 2390 FT FROM DER, 986 FT LEFT OF CENTERLINE, UP TO 1519 FT MSL. TREES BEGINNING 2425 FT FROM DER, 985 FT RIGHT OF CENTERLINE, UP TO 1522 FT MSL. TREES BEGINNING 2561 FT FROM DER, 326 FT LEFT OF CENTERLINE, UP TO 1524 FT MSL. TREES BEGINNING 2573 FT FROM DER, 1065 FT RIGHT OF CENTERLINE, UP TO 1528 FT MSL. TREES BEGINNING 2651 FT FROM DER, 389 FT RIGHT OF CENTERLINE, UP TO 1531 FT MSL. TREES BEGINNING 2903 FT FROM DER, 981 FT RIGHT OF CENTERLINE, UP TO 1534 FT MSL. TREES BEGINNING 2960 FT FROM DER, 306 FT RIGHT OF CENTERLINE, UP TO 1541 FT MSL. TREES BEGINNING 3117 FT FROM DER, 531 FT LEFT OF CENTERLINE, UP TO 1533 FT MSL. TREES BEGINNING 3142 FT FROM DER, 412 FT LEFT OF CENTERLINE, UP TO 52 FT AGL/1539 FT MSL.

**CONTROLLING OBSTACLES:**

**REMARKS:**

**FLIGHT INSPECTED BY:**

PENDING  
*Digitally signed by*  
**CASIMIR L TABAKA**  
Jun 10, 2019

**OFFICE SYMBOL:**

**DATE:**

**DEVELOPED BY:**

DAVID DANNER (DEAN GRACEY)

*Digitally signed by*  
**CASIMIR L TABAKA**  
Jun 10, 2019

**OFFICE SYMBOL:**

AJV-A421

**DATE:**

05/07/2019

**APPROVED BY:**

MARLON ROBINSON

*Digitally signed by*  
**CASIMIR L TABAKA**

Jun 10, 2019

**OFFICE SYMBOL:**

AJV-A420

**DATE:**

**REQUIRED EFFECTIVE DATE:**

10/10/2019



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**COORDINATED WITH:**

**A4A**      **ALPA**      **AOPA**      **APA**      **HAI**      **NBAA**



**OTHER:**

ZMP, DLH ATCT, DLH APPCH CON, AMGR

**CHANGES - REASONS:**

UPDATED TAKE-OFF OBSTACLES NOTES TO ALL RUNWAYS - NEW OBSTACLE EVALUATION USING SURVEYS CONDUCTED AFTER THE LAST AMENDMENT. FORMATTED IAW DEPARTURE OBSTACLE GROUPER SOP (1.0).

