

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION TACAN OR VOR/DME STANDARD INSTRUMENT APPROACH PROCEDURE FLIGHT STANDARDS SERVICE - TITLE 14 CFR PART 97.23								Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.									
TERMINAL ROUTES										MISSED APPROACH							
FROM		TO		COURSE AND DISTANCE				ALTITUDE		MAP: IHIBO/ 3.02 DME FIX							
DLH VORTAC		ECTAJ/DLH 8.00 DME		017.00 / 8.00				3200		CLIMB TO 3800 DIRECT DLH VORTAC THEN ON DLH VORTAC R-192 TO MIZOU/DLH 7.00 DME AND HOLD. ADDITIONAL FLIGHT DATA: HOLD S, RT, 011.96 INBOUND. CHART FAS OBST: 1576 ANT 465133N/0920917W CHART DLH R-288 AT GECRE. CHART DLH R-095 AT HUGRA. ECTAJ TO RW21: 3.29/45. CHART CIRCLING ICON CHART: ASR							
HUGRA/DLH 15.00 DME CCW (IAF)		CHERL INT/DLH 15.00 DME (NOPT)		15.00 DME ARC				4000									
GECRE/DLH 15.00 DME CW (IAF)		CHERL INT/DLH 15.00 DME (NOPT)		15.00 DME ARC				4000									
CHERL INT/DLH 15.00 DME (IF)		ECTAJ/DLH 8.00 DME		197.00 / 7.00				3200									
1. PT <u>L</u> SIDE OF COURSE <u>017.00</u> OUTBOUND <u>3200</u> FT WITHIN <u>15</u> MILES OF <u>ECTAJ</u> (IAF) 2. _____ 3. FAC <u>197.00</u> FAF <u>ECTAJ/DLH 8.00 DME</u> DIST FAF TO MAP _____ THLD <u>4.98</u> 4. MIN. ALT <u>ECTAJ 3200, FOVRO/DLH 5.00 DME 2100</u> 8. MSA FROM: <u>DLH VORTAC 3100</u>														MAG VAR: 5E		EPOCH YEAR: 1965	
MINIMUMS																	
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT								ALTERNATE: N A		STANDARD @							
CATEGORY =====>		A			B			C			D			E			
	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA		
S-21	1860	1	444	1860	1	444	1860	1 3/8	444	1860	1 3/8	444	1860	1 3/8	444		
CIRCLING	1880	1	452	1900	1	472	1940	1 1/2	512	2400	3	972	2400	3	972		
NOTES: CHART NOTE: CIRCLING NA FOR CAT E SE OF RWY 3-27. CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT. CHART NOTE: RWY 21 STRAIGHT-IN AND CIRCLING MINIMUMS NA AT NIGHT.																	
CITY AND STATE DULUTH, MN		ELEVATION: 1428 AIRPORT NAME: DULUTH INTL		THRE: 1416		FACILITY IDENTIFIER: DLH		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: VOR/DME OR TACAN RWY 21, AMDT 15 14 NOVEMBER 2013				SUP AMDT 14A DATE 02/10/2011					