

LOC I-DLH	APP CRS	Rwy Idg	10062
110.3	093°	TDZE	1428
		Apt Elev	1428

ILS RWY 9 (CAT II)

DULUTH INTL (DLH)

ASR

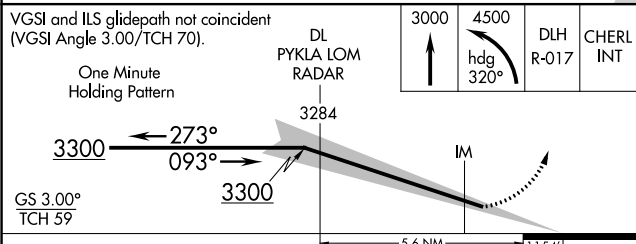
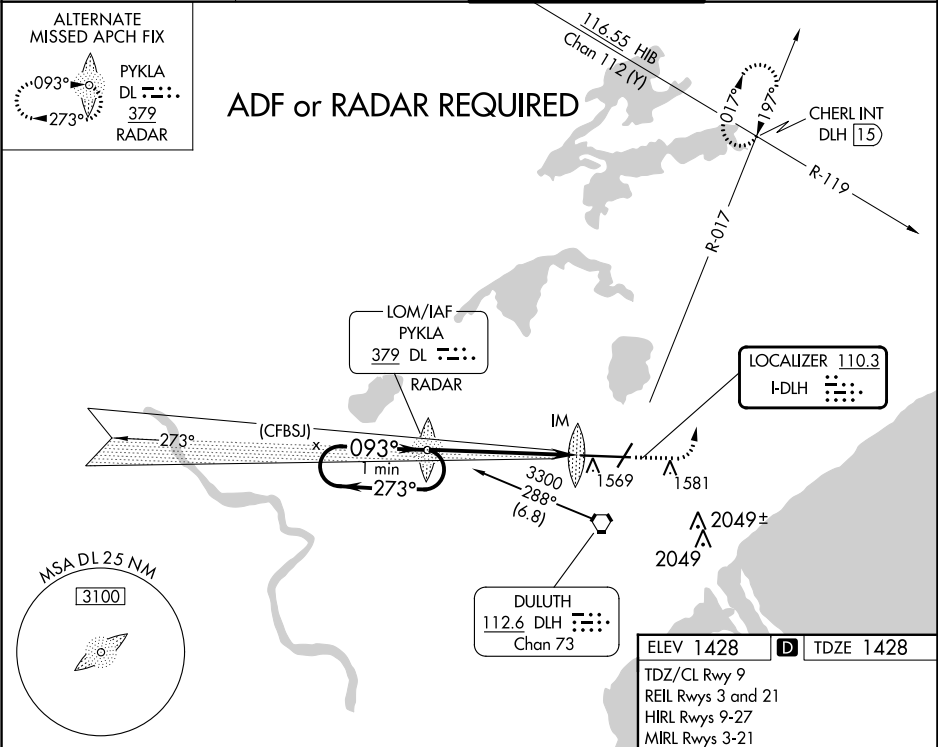
ADF or RADAR required.

ALS F-2

MISSED APPROACH:

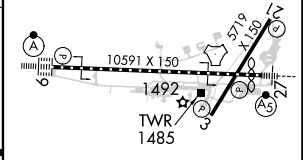
Climb to 3000 then climbing left turn to 4500 on heading 320° and on DLH VORTAC R-017 to CHERL INT/DLH 15 DME and hold.

ATIS 124.1 270.1	DULUTH APP CON 125.45 233.7	DULUTH TOWER 118.3 257.8	GND CON 121.9 348.6
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CATEGORY	A	B	C	D
S-ILS 9	RA 101/12 100 DA 1528			

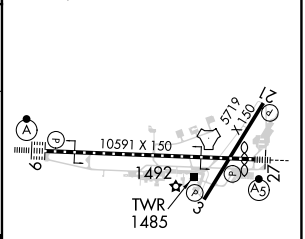
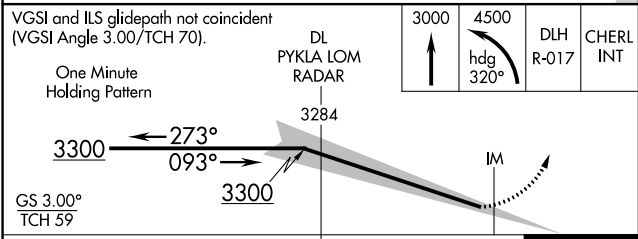
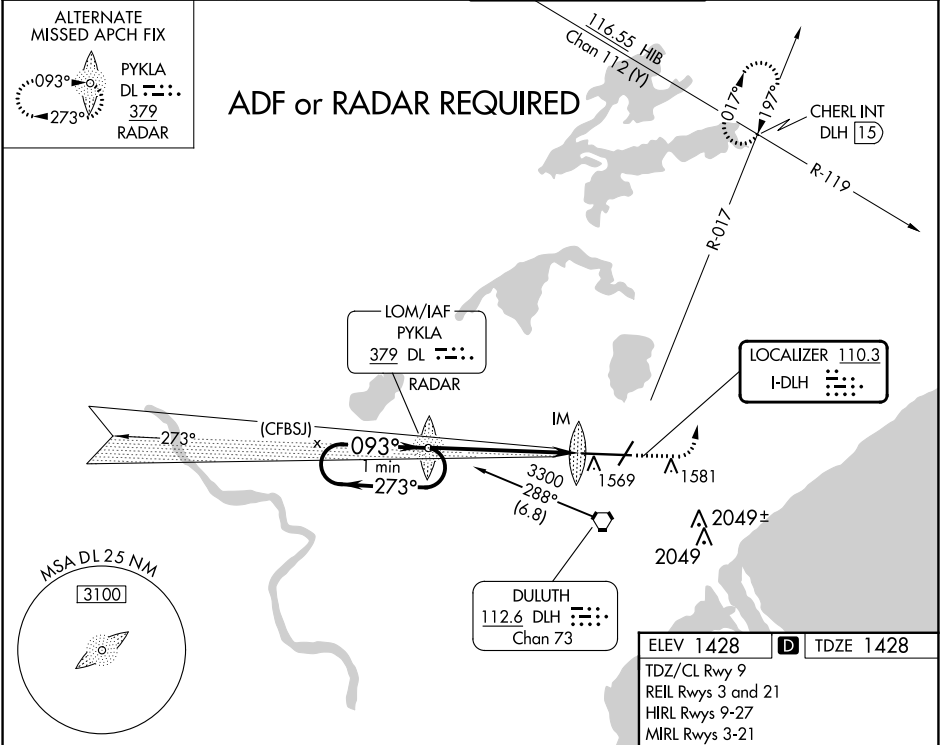
CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



LOC I-DLH	APP CRS	Rwy Idg	10062
110.3	093°	TDZE	1428
		Apt Elev	1428

ILS RWY 9 (SA CAT I)
DULUTH INTL (DLH)

ASR	Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH. ADF or RADAR required.		ALSF-2 	MISSED APPROACH: Climb to 3000 then climbing left turn to 4500 on heading 320° and on DLH VORTAC R-017 to CHERL INT/DLH 15 DME and hold.
	ATIS 124.1 270.1	DULUTH APP CON 125.45 233.7	DULUTH TOWER 118.3 257.8	GND CON 121.9 348.6



CATEGORY	A	B	C	D
S-ILS 9				
RA 144/14 150 DA 1578				
SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED				

NC-1, 22 FEB 2024 to 21 MAR 2024

NC-1, 22 FEB 2024 to 21 MAR 2024

ILS or LOC RWY 27
DULUTH INTL (DLH)

MISSED APPROACH: Climb to 3000 then climbing right turn to 4500 on heading 060° and DLH VORTAC R-017 to CHERL INT/DLH 15 DME and hold.



Procedure NA for arrival
on DLH VORTAC airway
radials 046 CW 116.

ELEV 1428	D	TDZE 1421
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ELEV 1428
D
TDZE 1421

TDZ/CL Rwy 9
 REIL Rwys 3 and 21
 HIRL Rwys 9-27
 MIRL Rwys 3-21

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

NC-1, 22 FEB 2024 to 21 MAR 2024

NC-1, 22 FEB 2024 to 21 MAR 2024

LOC I-DLH	APP CRS	Rwy Idg	10062
110.3	093°	TDZE	1428
		Apt Elev	1428

ILS or LOC RWY 9

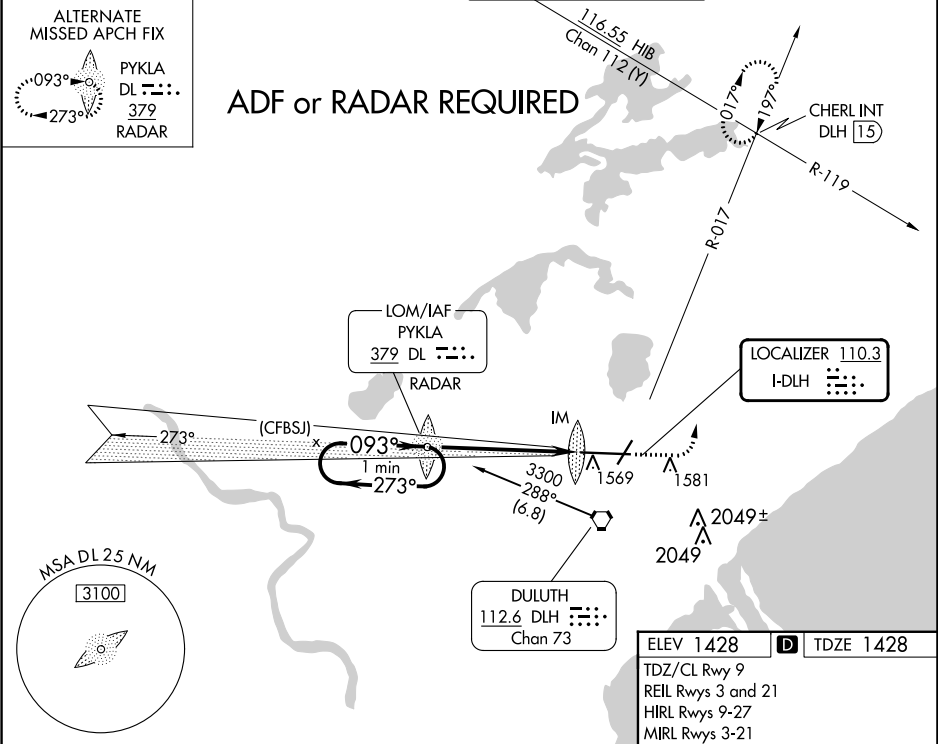
DULUTH INTL (DLH)

Circling NA for Cat E southeast of Rwy 3-27. ADF or RADAR required. For inop ALS, increase S-ILS 9 Cat E visibility to RVR 4000 and S-LOC 9 Cat C/D/E visibility to 1½ SM.

ALSF-2

MISSED APPROACH: Climb to 3000 then climbing left turn to 4500 on heading 320° and on DLH VORTAC R-017 to CHERL INT/DLH 15 DME and hold.

ATIS	DULUTH APP CON	DULUTH TOWER	GND CON
124.1 270.1	125.45 233.7	118.3 257.8	121.9 348.6



VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 70).
One Minute Holding Pattern

3000

4500

DLH

CHERL INT

3284

3300

273°

093°

3300

GS 3.00°
TCH 59

5.4 NM

0.2

IM

093°

5719

10591 X 150

1492

TWR 1485

AS

AS

AS

CATEGORY	A	B	C	D	E
S-ILS 9	1628/18 200 (200-½)				
S-LOC 9	1960/24 532 (600-½)		1960/55 532 (600-1)		
CIRCLING	1960-1 532 (600-1)		1960-1½ 532 (600-1½)		2400-3 972 (1000-3)

FAF to MAP 5.6 NM

Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

DULUTH, MINNESOTA

AL-125 (FAA)

23278

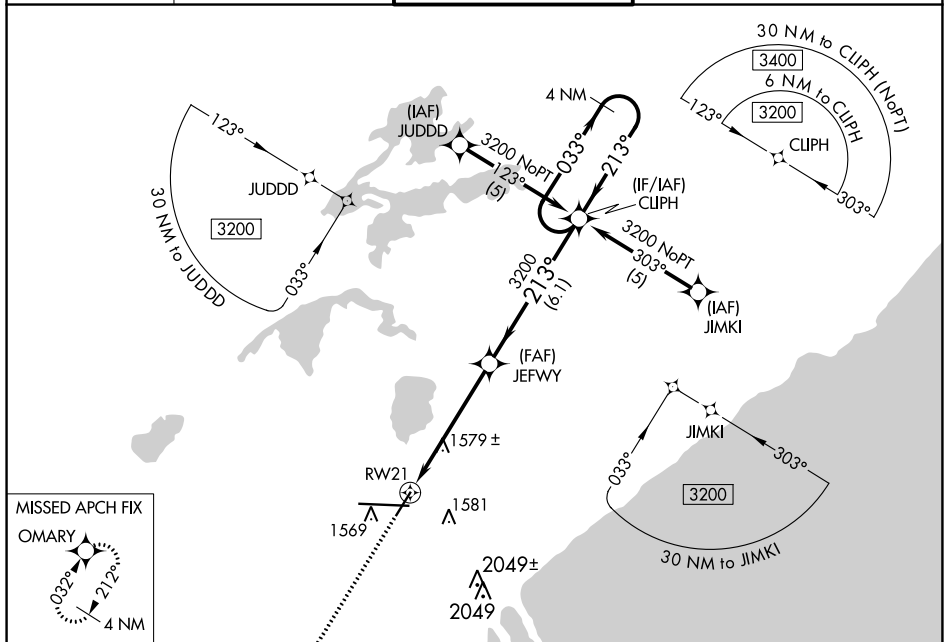
WAAS CH 40114 W21A	APP CRS 213°	Rwy Idg 5719 TDZE 1420 Apt Elev 1428
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RNAV (GPS) RWY 21
DULUTH INTL (DLH)

V For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F)
A or above 46°C (115°F). DME/DME RNP-0.3 NA. Rwy 21 helicopter visibility
 ASR reduction below $\frac{3}{4}$ SM NA.

MISSED APPROACH: Climb to 3200 direct OMARY and hold.

ATIS 124.1 270.1	DULUTH APP CON 125.45 233.7	DULUTH TOWER 118.3 257.8	GND CON 121.9 348.6
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ELEV 1428 **D** TDZE 1420

213°

3200 OMARY

JEFWY 3200

CLIPH

4 NM Holding Pattern

033° → 3200
← 213°

*LNAV only

* 1.2 NM to RW27

RW21

GP 3.00° TCH 40

CATEGORY	A	B	C	D
LPV DA	1708-1 288 (300-1)			
LNAV/VNAV DA	1927-1¾ 507 (500-1¾)			
LNAV MDA	1840-1 420 (500-1)		1840-1¼ 420 (500-1¼)	
C CIRCLING	1880-1 452 (500-1)	1900-1 472 (500-1)	1940-1½ 512 (600-1½)	2400-3 972 (1000-3)

TDZ/CL Rwy 9
REIL Rwy 3 and 21
HIRL Rwy 9-27
MIRL Rwy 3-21

DULUTH, MINNESOTA
Orig-B 19JUL18

46°51'N-92°12'W

DULUTH INTL (DLH)
RNAV (GPS) RWY 21

NC-1, 22 FEB 2024 to 21 MAR 2024

NC-1, 22 FEB 2024 to 21 MAR 2024

DULUTH, MINNESOTA

AL-125 (FAA)

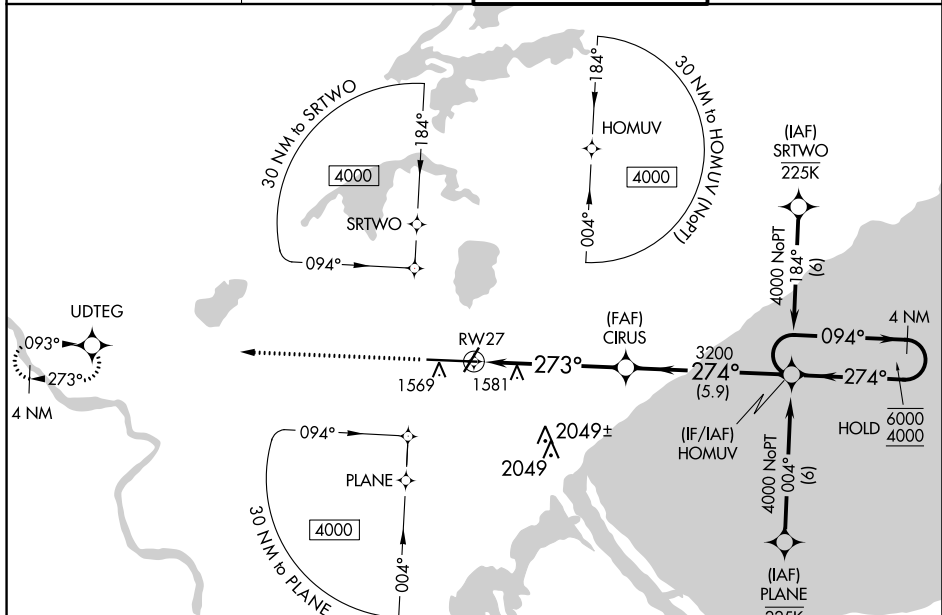
23278

WAAS CH 50502 W27A	APP CRS 273°	Rwy Idg 10062 TDZE 1421 Apt Elev 1428
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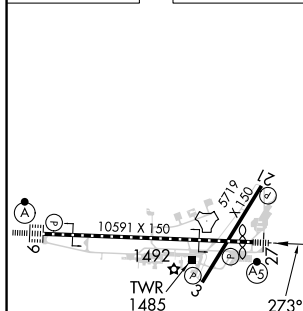
RNAV (GPS) RWY 27
DULUTH INTL (DLH)

RNP APCH.		MALSR 	MISSED APPROACH: Climb to 3300 direct UDTEG and hold.
 For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -21°C or above 54°C.  # RVR 1800 authorized with use of FD or AP or HUD to DA.	ASR		

ATIS 124.1 270.1	DULUTH APP CON 125.45 233.7	DULUTH TOWER 118.3 257.8	GND CON 121.9 348.6
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ELEV 1428	D	TDZE 1421
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VGS1 and RNAV glidepath not coincident
(VGS1 Angle 3.00/TCH 91).

3300 ↑ UDTEG

* LNAV only

RW27

* 1.1 NM to RW27

CIRUS 3200

HOMUV

4 NM Holding Pattern

094° → 6000
← 274° 4000

GP 3.00°
TCH 50

1.1 NM 4.3 NM 5.9 NM

CATEGORY	A	B	C	D
LPV DA#	1621/24	200 (200-½)		
LNAV/VNAV DA	1871/45	450 (500-¾)		
LNAV MDA	1860/24 439 (500-½)	1860/40 439 (500-¾)		
CIRCLING	1880-1 452 (500-1)	1900-1 472 (500-1)	1940-1½ 512 (600-1½)	2400-3 972 (1000-3)

TDZ/CL Rwy 9
REIL Rwy 3 and 21
HIRL Rwy 9-27
MIRL Rwy 3-21

DULUTH, MINNESOTA

Amdt 1 10OCT19

DULUTH INTL (DLH)

RNAV (GPS) RWY 27

46°51'N-92°12'W

NC-1, 22 FEB 2024 to 21 MAR 2024

NC-1, 22 FEB 2024 to 21 MAR 2024

DULUTH, MINNESOTA

AL-125 (FAA)

23278

WAAS
CH 82314
W03A

033°

Rwy Idg	5719
TDZE	1420
Apt Elev	1428

RNAV (GPS) RWY 3
DULUTH INTL (DLH)

T For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or
A above 46°C (115°F). DME/DME RNP-0.3 NA. Rwy 3 helicopter visibility reduction
 ASR below 3/4 SM NA.

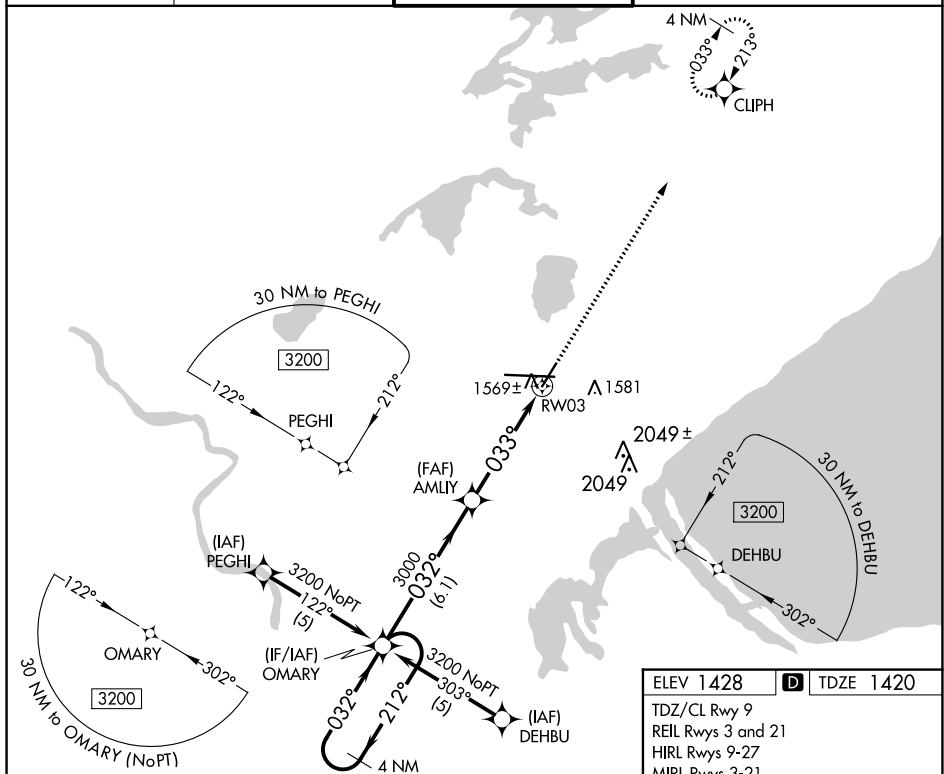
MISSED APPROACH: Climb to 3200 direct CLPH and hold.

ATIS
124.1 270.1

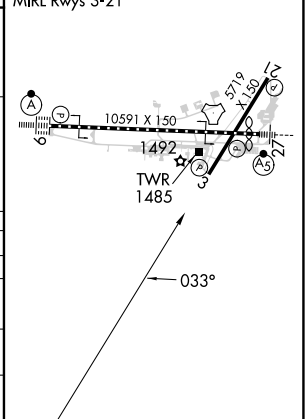
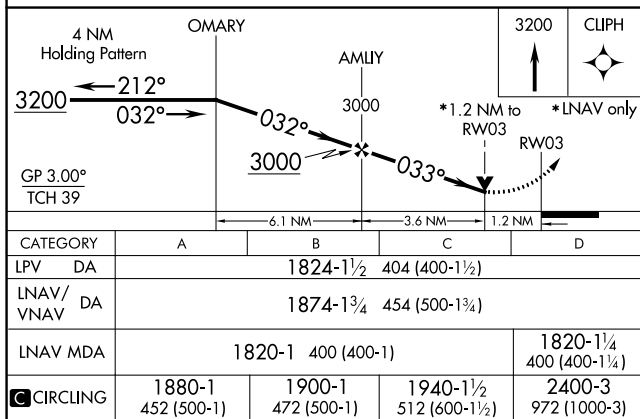
DULUTH APP CON
125.45 233.7

DULUTH TOWER
118.3 257.8

GND CON	
121.9	348.6



ELEV 1428	D	TDZE 1420
TDZ/CL Rwy 9 REIL Rwy 3 and 21 HIRL Rwy 9-27 MIRL Rwy 3-21		



DULUTH, MINNESOTA
Orig-B 19JUL18

46°51'N-92°12'W

DULUTH INTL (DLH)
RNAV (GPS) RWY 3

NC-1, 22 FEB 2024 to 21 MAR 2024

WAAS CH 90502 W09A	APP CRS 093°	Rwy Idg 10062 TDZE 1428 Apt Elev 1428
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RNAV (GPS) RWY 9

DULUTH INTL (DLH)

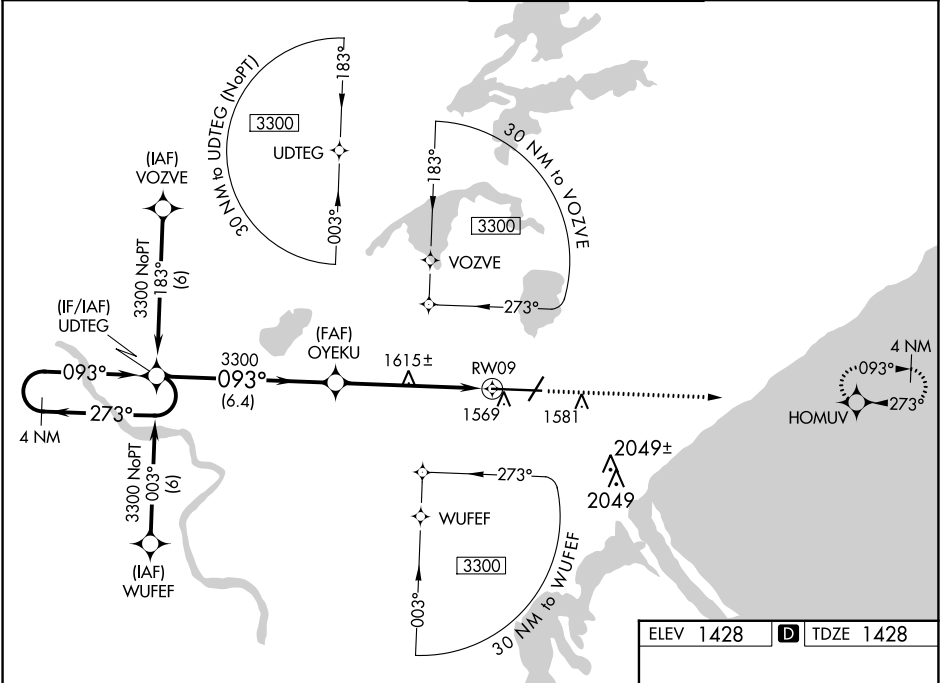
ASR

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (115°F). DME/DME RNP-0.3 NA. Circling NA for Cat E southeast of Rwys 3/27. For inop ALS, increase LPV Cat E visibility to ¾ SM, LNAV/VNAV all Cats visibility to 1½ SM and LNAV Cat E visibility to 1½ SM.

ALSF-2

MISSED APPROACH: Climb to 4000 direct HOMUV and hold.

ATIS 124.1 270.1	DULUTH APP CON 125.45 233.7	DULUTH TOWER 118.3 257.8	GND CON 121.9 348.6
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VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 70).

4000

HOMUV

4 NM Holding Pattern

UDTEG

OYEKU

3300

*1.3 NM to RW09

RW09

GP 3.00°

TCH 59

6.4 NM

4.3 NM

1.3

*LNAV only

CATEGORY	A	B	C	D	E
LPV DA	1628/18 200 (200-½)				
LNAV/VNAV DA	1860/50 432 (500-1)				
LNAV MDA	1880/24 452 (500-½)	1880/40 452 (500-¾)	1880/50 452 (500-1)		
CIRCLING	1880-1 452 (500-1)	1900-1 472 (500-1)	1940-1½ 512 (600-1½)	2400-3 972 (1000-3)	

ELEV 1428

TDZE 1428

093°

10591 X 150

1492

TWR 1485

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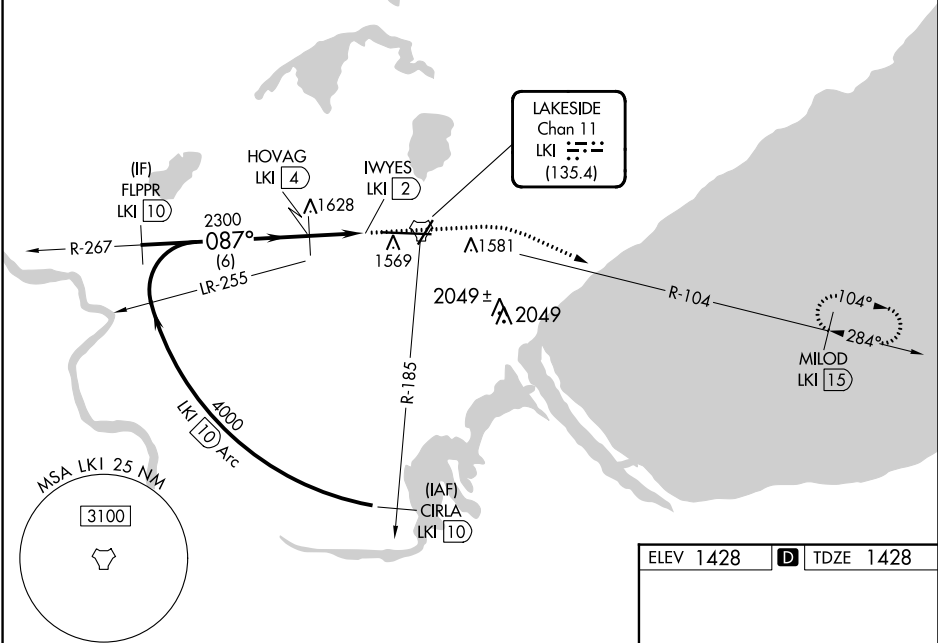
TACAN LKI Chan 11 (135.4)	APP CRS 087°	Rwy ldg 10062 TDZE 1428 Apt Elev 1428
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TACAN Y RWY 9
DULUTH INTL (DLH)

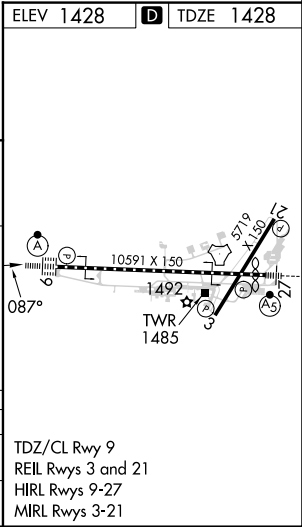
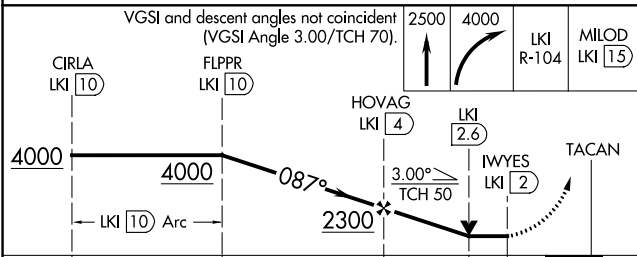
RADAR required for procedure entry.		ALSf-2 	MISSED APPROACH: Climb to 2500, then climbing right turn to 4000 on LKI TACAN R-104 to MILOD/1.5 DME and hold.
 * For inop ALS, increase S-9 Cat E visibility to 1 3/8 SM. # Circling NA for Cats D and E southeast of Rwys 3 and 27.			

ATIS 124.1 270.1	DULUTH APP CON 125.45 233.7	DULUTH TOWER 118.3 257.8	GND CON 121.9 348.6
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CAUTION: Do not select channel 73 "DLH" for channel 11 "LKI".
Towers 2049' on R-099 channel 73 "DLH".



EMERGENCY SAFE ALT 100 NM 4100



CATEGORY	A	B	C	D	E
S-9*	1880/24	452 (500-1/2)	1880/45	452 (500-7/8)	
 CIRCLING#	1920-1	492 (500-1)	1940-1 1/2 512 (600-1 1/2)	2020-2 592 (600-2)	2060-2 1/4 632 (700-2 1/4)

TDZ/CL Rwy 9
REIL Rwys 3 and 21
HIRL Rwys 9-27
MIRL Rwys 3-21

DULUTH, MINNESOTA

AL-125 (FAA)

23278

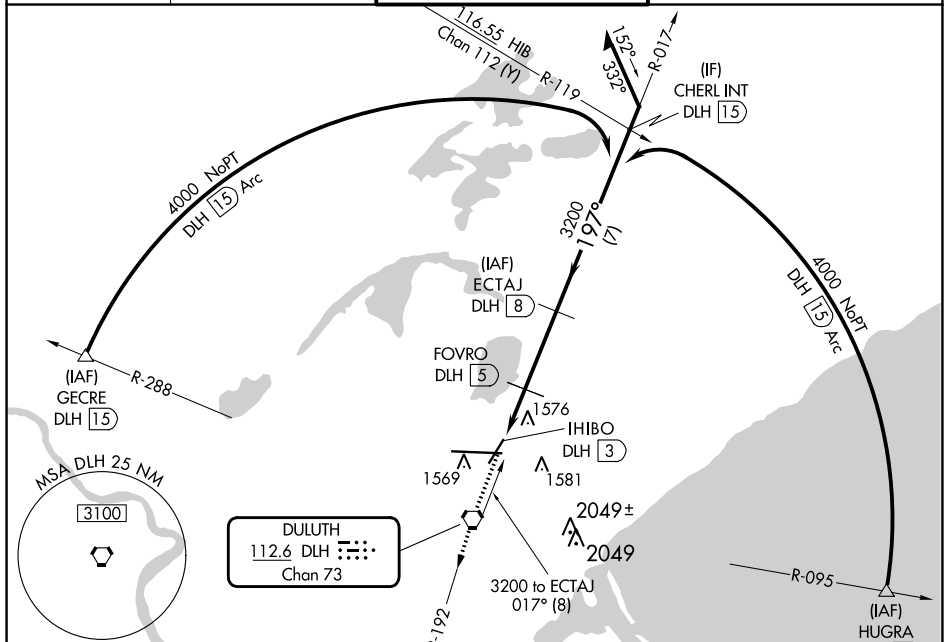
VORTAC DLH <u>112.6</u> Chan 73	APP CRS 197°	Rwy Idg 5719 TDZE 1420 Apt Elev 1428
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VOR/DME or TACAN RWY 21
DULUTH INTL (DLH)

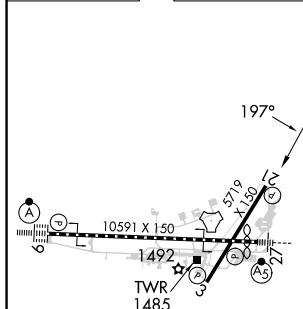
T	Circling NA for Cat E southeast of Rwy 3-27.
A	Visibility reduction by helicopters NA.
ASR	Rwy 21 Straight-in and Circling minimums NA at night.

MISSED APPROACH: Climb to 3800 direct DLH VORTAC then on DLH VORTAC R-192 to MIZOU/DLH 7 DME and hold.

ATIS 124.1 270.1	DULUTH APP CON 125.45 233.7	DULUTH TOWER 118.3 257.8	GND CON 121.9 348.6
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ELEV 1428	D	TDZE 1420
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VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 37).				
Remain within 15 NM				
3200 197° 3200				
2100 3.29° TCH 45				
2 NM 3 NM				
CATEGORY	A	B	C	D E
S-21	1860-1	440 (500-1)	1860-1 $\frac{3}{8}$	440 (500-1 $\frac{3}{8}$)
C CIRCLING	1880-1 452 (500-1)	1900-1 472 (500-1)	1940-1 $\frac{1}{2}$ 512 (600-1 $\frac{1}{2}$)	2400-3 972 (1000-3)

DULUTH, MINNESOTA
Amdt 15A 30APR15

46°51'N-92°12'W

DULUTH INTL (DLH)

VOR/DME or TACAN RWY 21

NC-1, 22 FEB 2024 to 21 MAR 2024

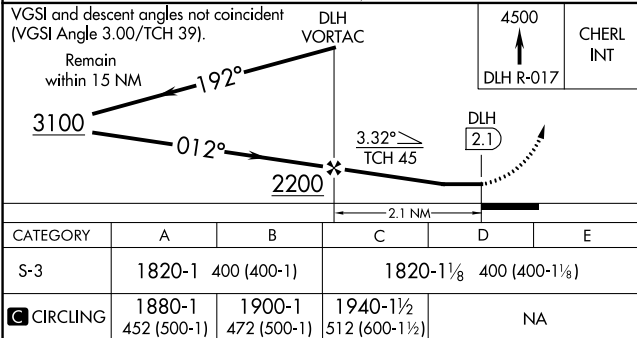
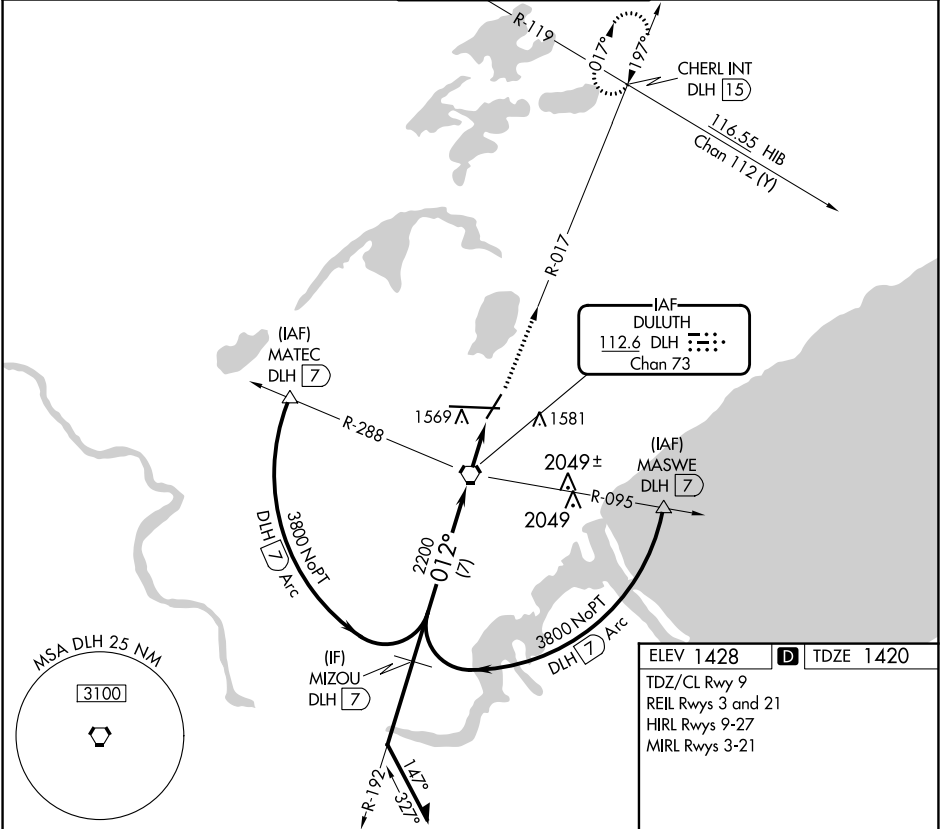
NC-1, 22 FEB 2024 to 21 MAR 2024

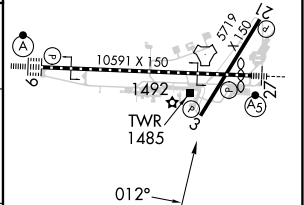
VORTAC DLH	APP CRS	Rwy Idg	5719
112.6	012°	TDZE	1420
Chan 73		Apt Elev	1428

VOR or TACAN RWY 3
DULUTH INTL (DLH)

 Rwy 3 helicopter visibility reduction below ¾ SM NA.	MISSED APPROACH: Climb to 4500 on DLH VORTAC R-017 to CHERL INT/DLH 1.5 DME and hold.
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ATIS 124.1 270.1	DULUTH APP CON 125.45 233.7	DULUTH TOWER 118.3 257.8	GND CON 121.9 348.6
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ELEV 1428	TDZE 1420
TDZ/CL Rwy 9	
REIL Rwy 3 and 21	
HIRL Rwy 9-27	
MIRL Rwy 3-21	
	
FAF to MAP 2.1 NM	
Knots	60 90 120 150 180
Min:Sec	2:06 1:24 1:03 0:50 0:42