

**GENERAL****ATS Hours**

H24

**Airport Information**

**RFF:** FAA Index B / CAT 6  
**Fuel:** Jet A  
**PCN:** RWY 09/27: 75/R/C/W/U  
 RWY 03/21: 45/F/B/X/T

**Operation****TWY Restriction**

Between TWYs A and D and west of C seasonal taxilane G in use as ALTN TWY when TWY C is CLSD for snow removal.

**Warnings**

**LKI DME** unusable:

R135-R170

R250-R267 beyond 10NM below 5000ft.

R315-R340 beyond 20NM below 5500ft.

**DLH VOR** unusable: R233-R261 below 10000ft.

**ILS/LOC RWY 27** unusable: Beyond 25° left and right of course.

Windshear and downdrafts on final APCH RWY 27.

High speed military ACFT traffic between 3000-3300ft MSL in area.

Birds in vicinity of AD. Especially from 01SEP to 31OCT.

**ARRIVAL****Speed**

MAX IAS 250KT below 10000ft.

**Communication**

**COM Failure:** See CRAR United States.

**Arrival Procedure****Land And Hold Short Operation (LAHSO)**

These OPS include LDG and hold short of an intersection RWY/TWY or other predetermined points on the RWY other than RWY or TWY marked with (\*).

<b>LDG RWY</b>	<b>Hold Short Point (HSP)</b>	<b>Distance</b>
RWY 09	RWY 03/21*	2728m / 8950ft

**Non-standard GP intercept position on RWY 27**

GP intercepts RWY 27 at 494m / 1621ft after landing threshold.

Remaining LDG DIST beyond GP is 2603m / 8541ft.

**RWY 09**

GP intercepts RWY 09 at 343m / 1126ft after landing threshold.

Remaining LDG DIST beyond GP is 2754m / 9036ft.

**DEPARTURE**

**Take-off Minima**

RWY		09/27	
1 + 2 ENG	ft - ft/SM	0 - 5000R/1.0v	-
3 + 4 ENG		0 - 2400R/0.5v	-
RWY		03/21	
1 + 2 ENG	ft - ft/SM	0 - 1.0v	-
3 + 4 ENG		0 - 0.5v	-

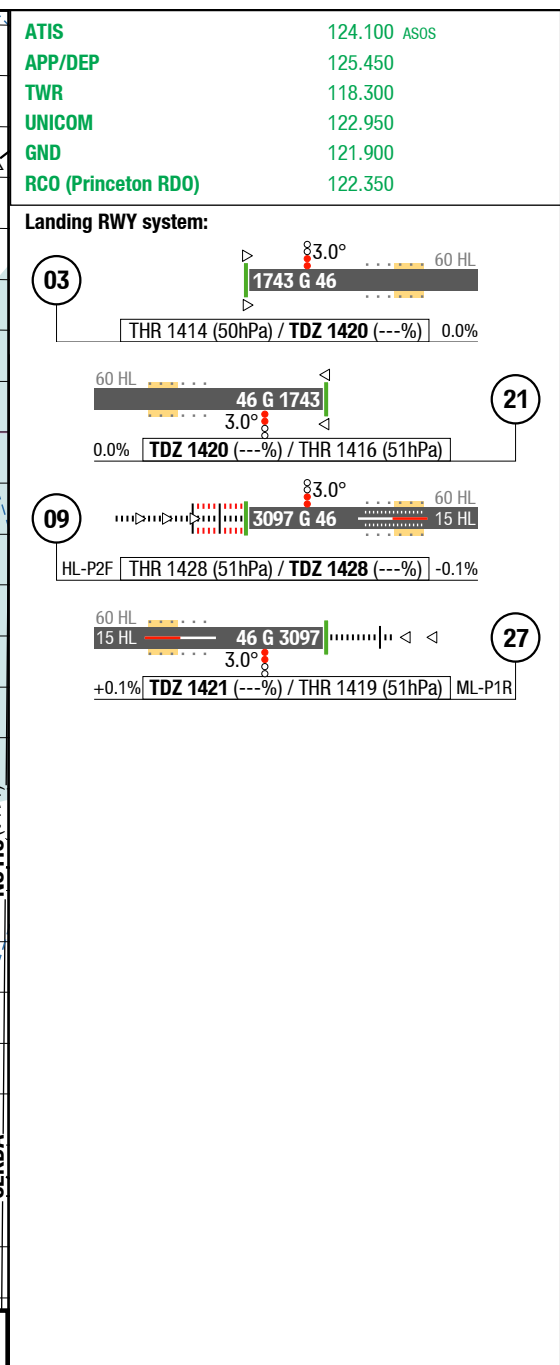
**Speed**

MAX IAS 250KT below 10000ft.

**Communication**

**COM Failure:** See CRAR United States.

**AGC**  
**AFC**



16-AUG-2018  
DLH-KDLH

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AGC

AGC

AGC

Duluth Intl **Duluth** United States

AGC

3-20

W092° 13'

W092° 12'

W092° 11'

**Caution:**

Be alert to RWY crossing clearances.  
Readback of all RWY holding instructions is required.

**Remark:**

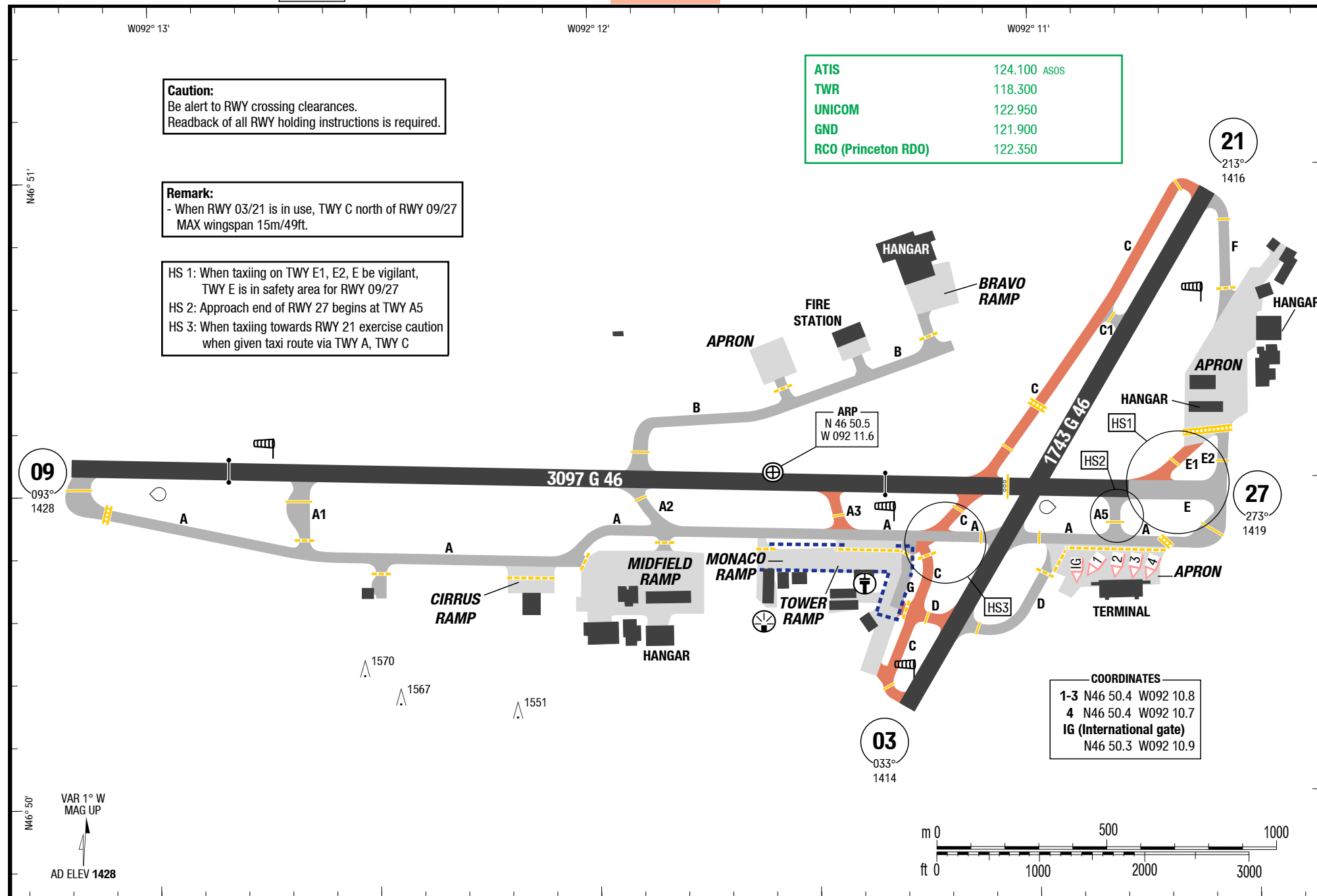
- When RWY 03/21 is in use, TWY C north of RWY 09/27  
MAX wingspan 15m/49ft.

HS 1: When taxiing on TWY E1, E2, E be vigilant,  
TWY E is in safety area for RWY 09/27

HS 2: Approach end of RWY 27 begins at TWY A5

HS 3: When taxiing towards RWY 21 exercise caution  
when given taxi route via TWY A, TWY C

ATIS	124.100 ASOS
TWR	118.300
UNICOM	122.950
GND	121.900
RCO (Princeton RDO)	122.350



Changes: HLDG POS

24-MAR-2011

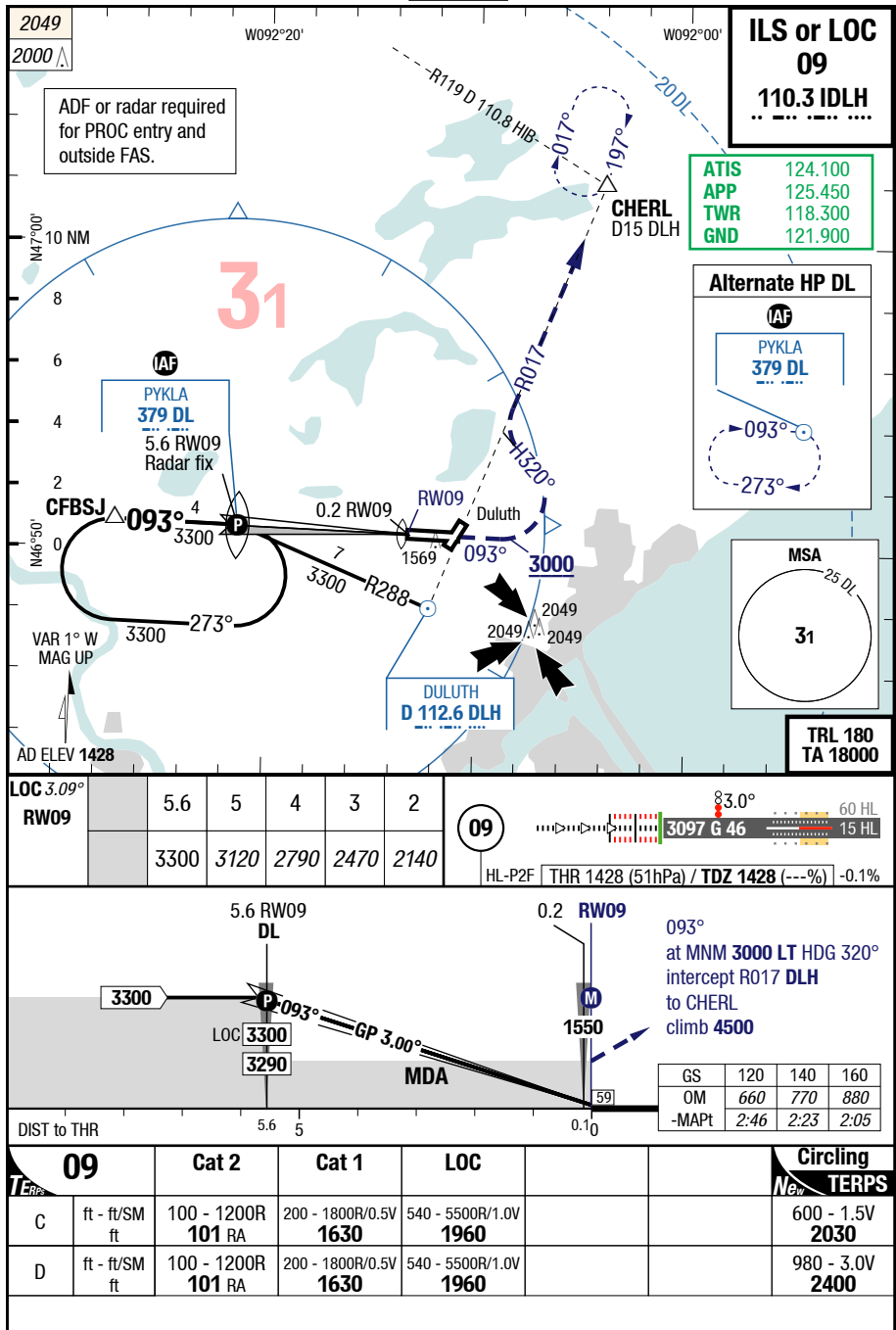
United States **Duluth** Duluth Intl**DLH-KDLH****5-10****Obstacle Departure****SIDPT****Obstacle Departure**

<b>RWY</b>	<b>Notes</b>
<b>03</b>	Multiple trees beginning 21ft from DER, 226ft right of centerline, up to 68ft AGL/1477ft MSL. Multiple trees beginning 246ft from DER, 26ft left of centerline, up to 64ft AGL/1473ft MSL.
<b>09</b>	Electrical equipment 207ft from DER, 408ft left of centerline, 6ft AGL/1425ft MSL.
<b>21</b>	Tower 3762ft from DER, 410ft left of centerline, 92ft AGL/1522ft MSL.
<b>27</b>	Tree 2426ft from DER, 1127ft right of centerline, 53ft AGL/1522ft MSL. Bush and multiple trees beginning 347ft from DER, 484ft left of centerline, up to 44ft AGL/1533ft MSL.

DLH-KDLH

7-10

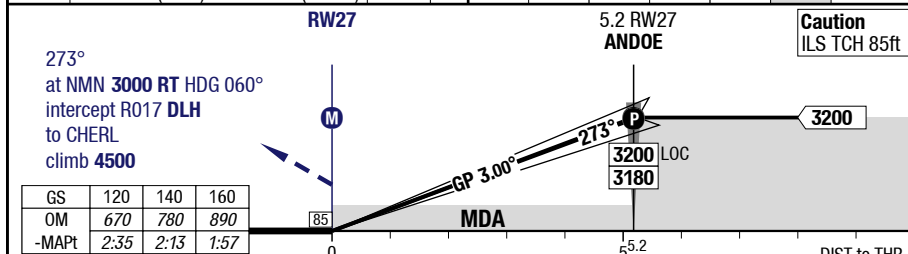
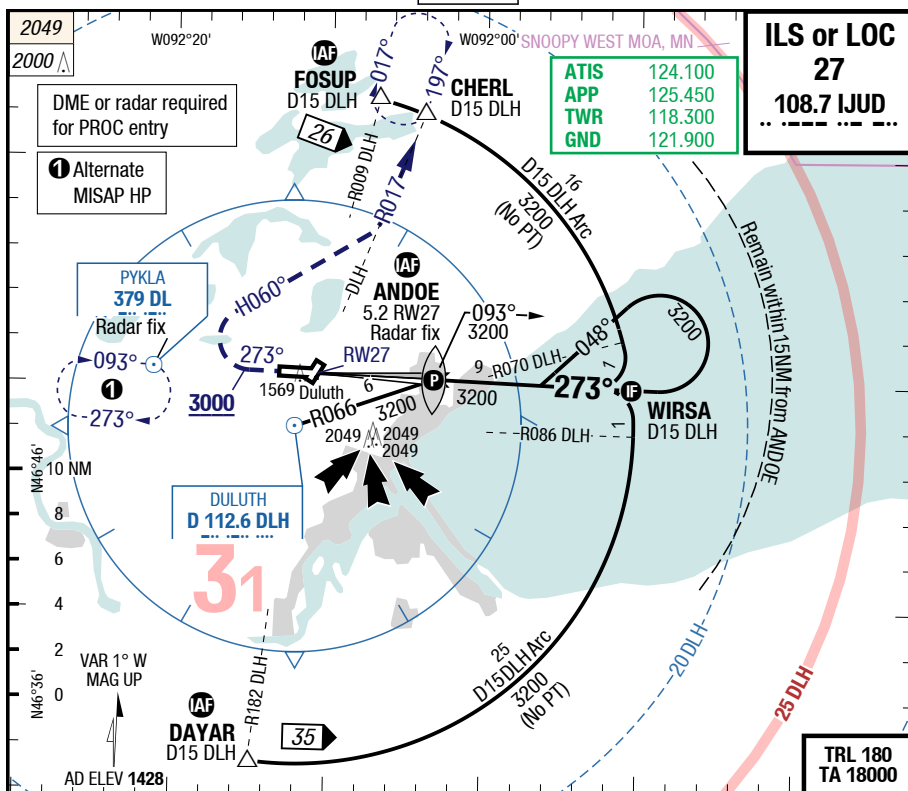
ILS or LOC 09



## DLH-KDLH

7-20

## ILS or LOC 27

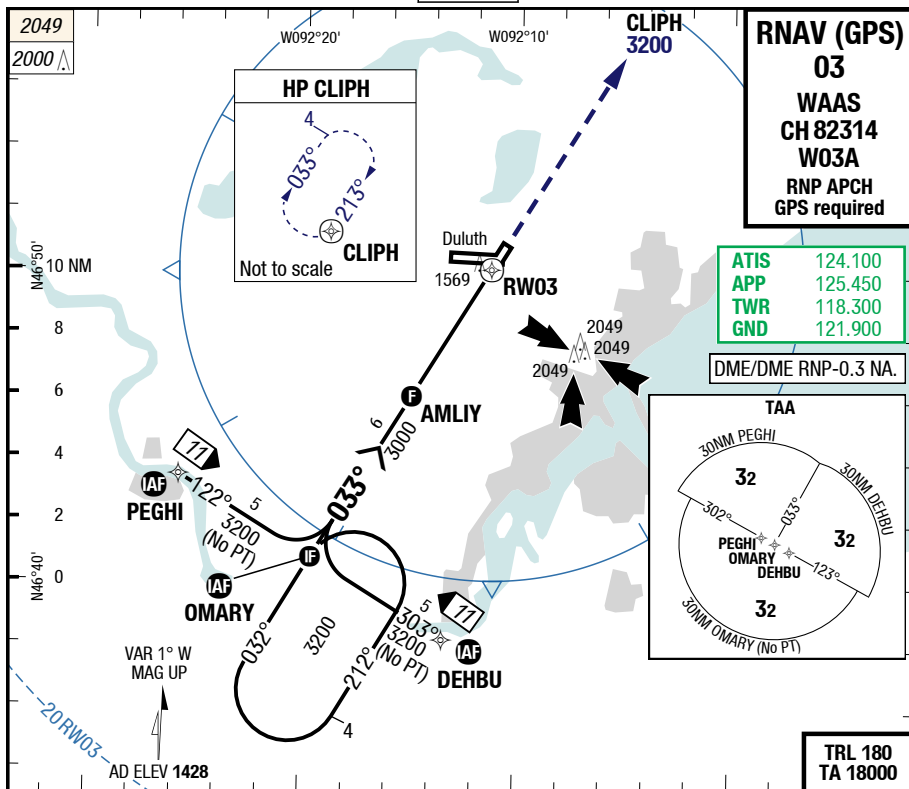


27		Cat 1	LOC				TERPS
C	ft - ft/SM ft	230 - 4000R/0.75V <b>1660</b>	440 - 4500R/0.88V <b>1860</b>				600 - 1.5V <b>2030</b>
D	ft - ft/SM ft	230 - 4000R/0.75V <b>1660</b>	440 - 4500R/0.88V <b>1860</b>				980 - 3.0V <b>2400</b>

# DLH-KDLH

7-30

## RNAV (GPS) 03



03		RNAV GPS LPV	RNAV GPS VNAV 1)	RNAV GPS LNAV	Circling TERPS
C	ft - ft/SM	410 - 1.5V 1830	460 - 1.75V 1880	400 - 1.13V 1820	
D	ft - ft/SM	410 - 1.5V 1830	460 - 1.75V 1880	400 - 1.25V 1820	600 - 1.75V 2030
					980 - 3.0V 2400

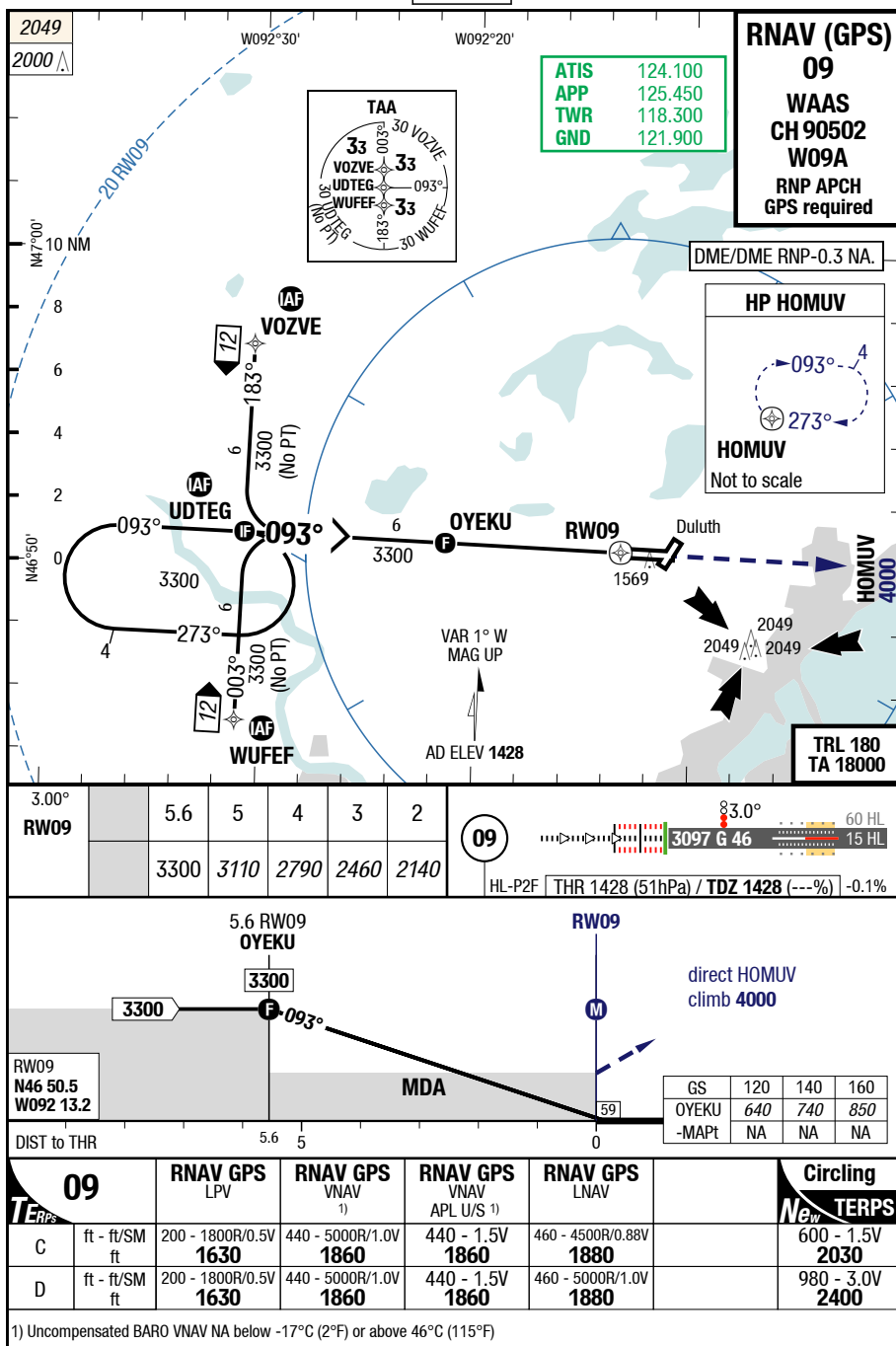
1) Uncompensated BARO VNAV NA below -17°C (2°F) or above 46°C (115°F)



DLH-KDLH

7-40

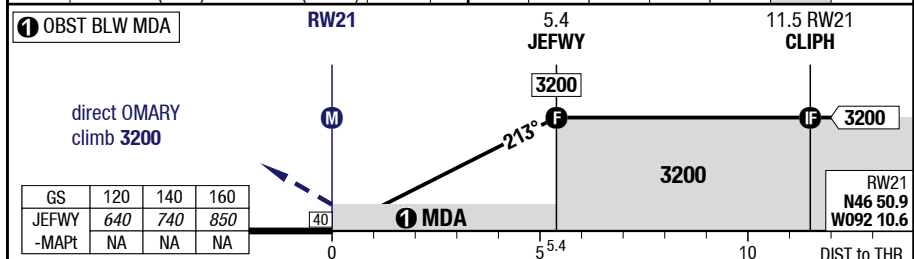
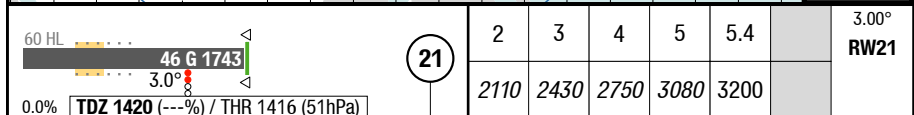
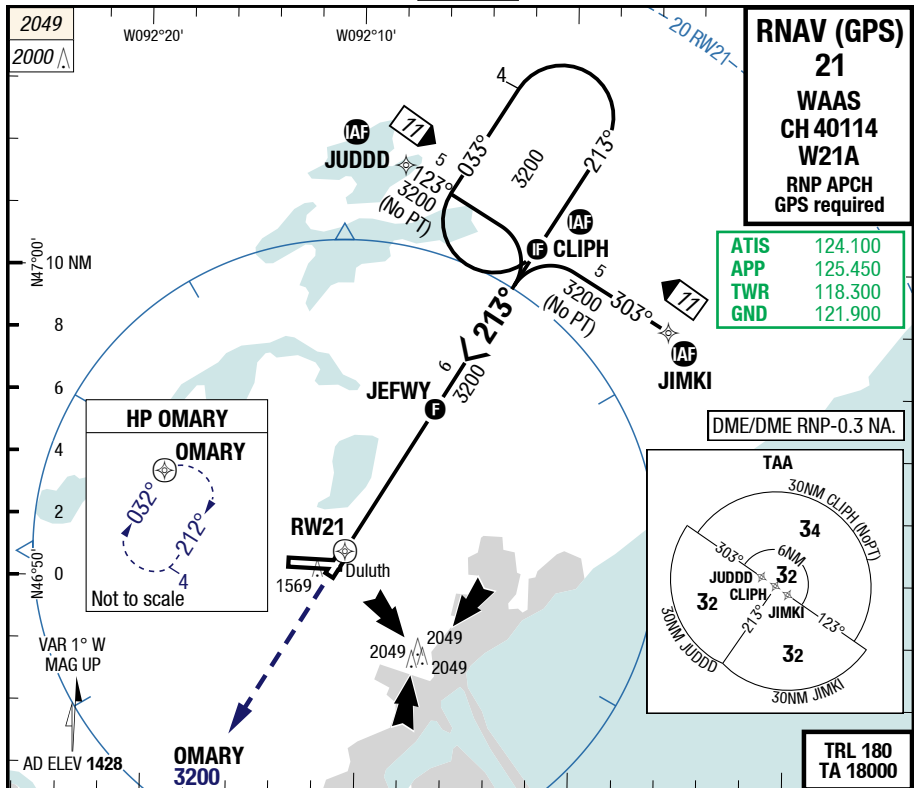
RNAV (GPS) 09



## DLH-KDLH

**7-50**

## RNAV (GPS) 21



21		RNAV GPS LPV	RNAV GPS VNAV 1)	RNAV GPS LNAV			Circling TERPS
C	ft - ft/SM ft	290 - 1.0V 1710	510 - 1.75V 1930	420 - 1.25V 1840			600 - 1.75V 2030
D	ft - ft/SM ft	290 - 1.0V 1710	510 - 1.75V 1930	420 - 1.25V 1840			980 - 3.0V 2400

1) Uncompensated BARO VNAV NA below -17°C (2°F) or above 46°C (115°F)

**12-JUL-2018**

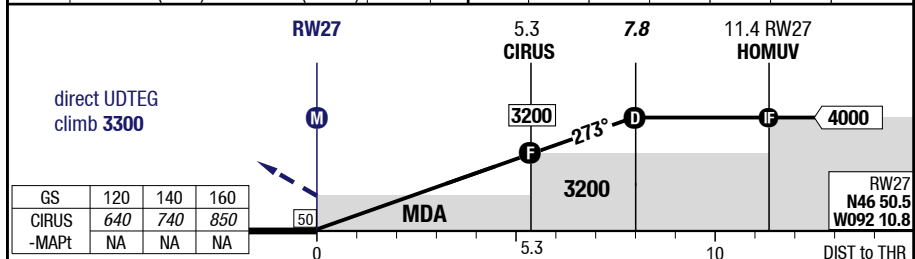
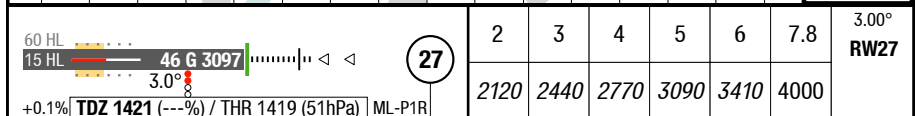
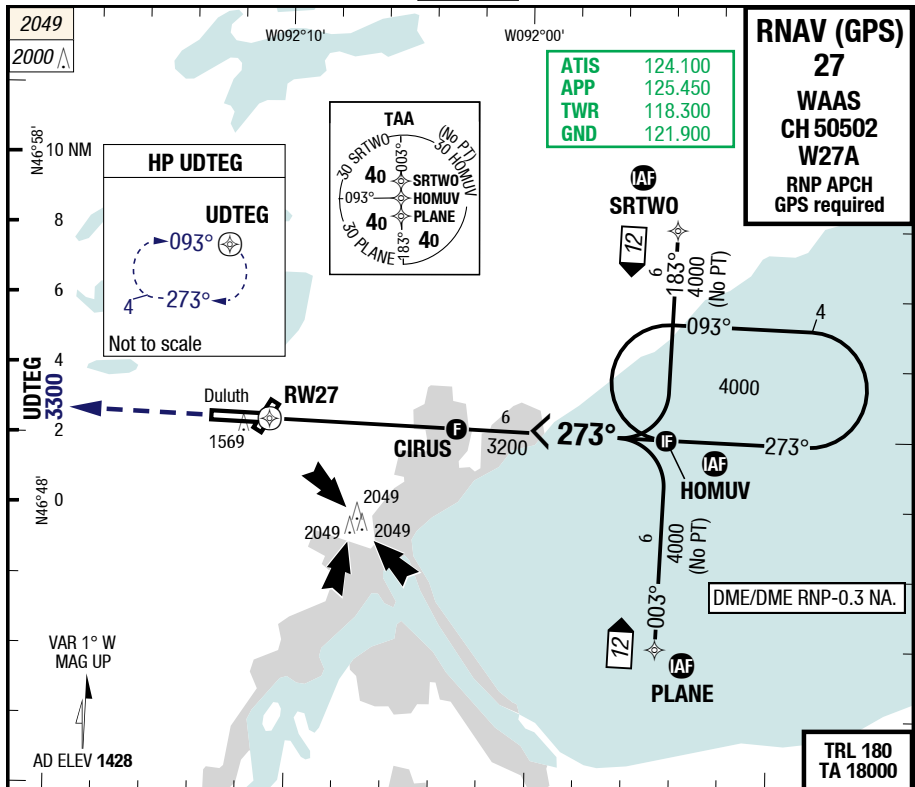
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# IAC

## DLH-KDLH

**7-60**

## RNAV (GPS) 27



27		RNAV GPS LPV	RNAV GPS VNAV 1)	RNAV GPS LNAV			Circling TERPS
C	ft - ft/SM ft	250 - 2400R/0.5V 1680	330 - 4000R/0.75V 1750	480 - 5000R/1.0V 1900			600 - 1.5V 2030
D	ft - ft/SM ft	250 - 2400R/0.5V 1680	330 - 4000R/0.75V 1750	480 - 5000R/1.0V 1900			980 - 3.0V 2400

1) Uncompensated BARO VNAV NA below -17°C (2°F) or above 46°C (115°F)

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Changes: Track, FAT, HLDG, TAA, VAR

Orig C

Effective 19-JUL-2018

12-JUL-2018

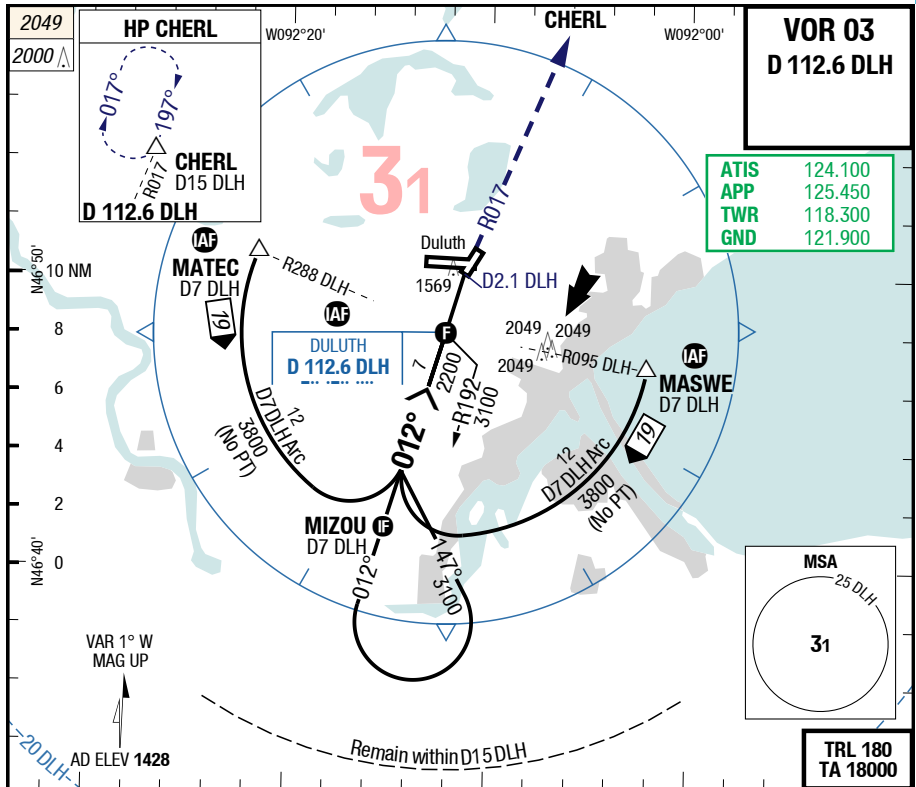
United States Duluth Duluth Intl

IAC

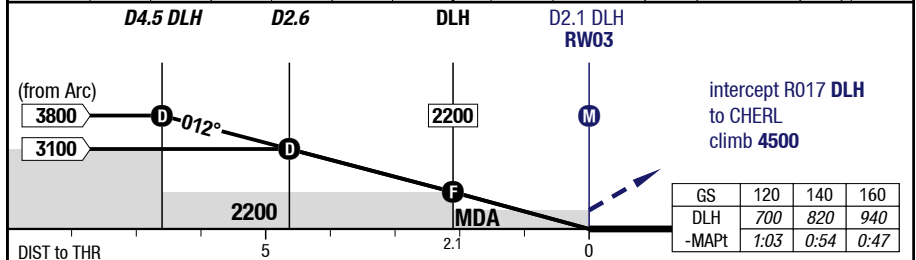
DLH-KDLH

7-70

VOR 03



3.32° D DLH 012° RWY 033°	4.5	3	2	1	DLH	1	03	83.0° 1743 G 46 60 HL	THR 1414 (50hPa) / TDZ 1420 (---%) 0.0%
	3800	3270	2920	2560	2200	1850			



03	VOR						Circling TERPS
C	ft - ft/SM ft	400 - 1.13V 1820					600 - 1.5V 2030
D	ft - ft/SM ft	400 - 1.13V 1820					Not authorized

Changes: VAR, QFU

AMDT 21B

**12-JUL-2018**

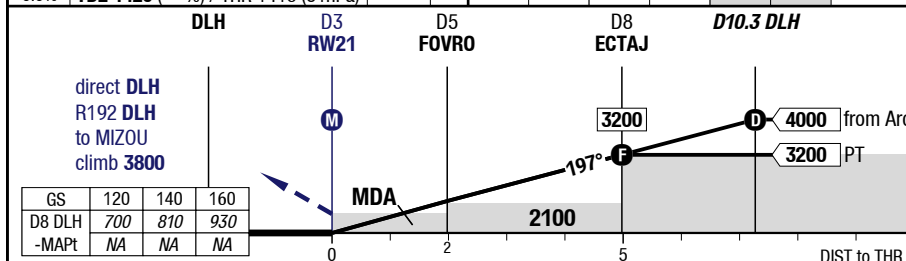
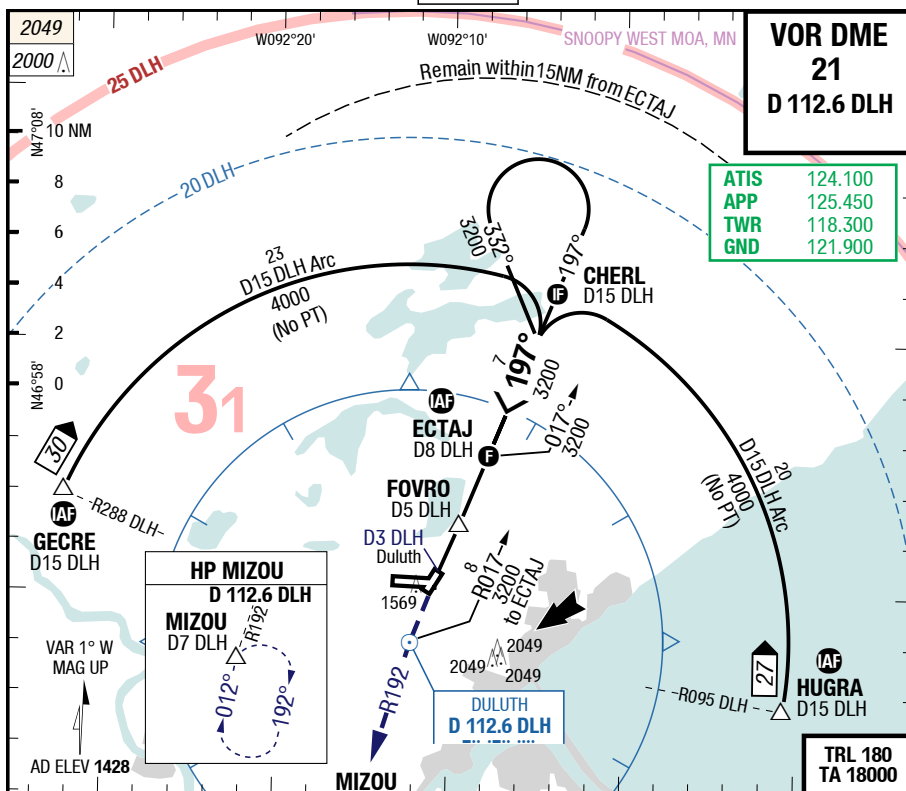
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# IAC

## DLH-KDLH

**7-80**

## VOR DME 21



<b>21</b>		<b>VOR DME</b> 1)				<b>Circling <sup>1)</sup> TERPS</b> <i>N<sub>GW</sub></i>
C	ft - ft/SM ft	440 - 1.38V <b>1860</b>				600 - 1.5V <b>2030</b>
D	ft - ft/SM ft	440 - 1.38V <b>1860</b>				980 - 3.0V <b>2400</b>

1) Straight-in and Circling MINIMA NA at night

Changes: VAR, QFU

AMDT 15A

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