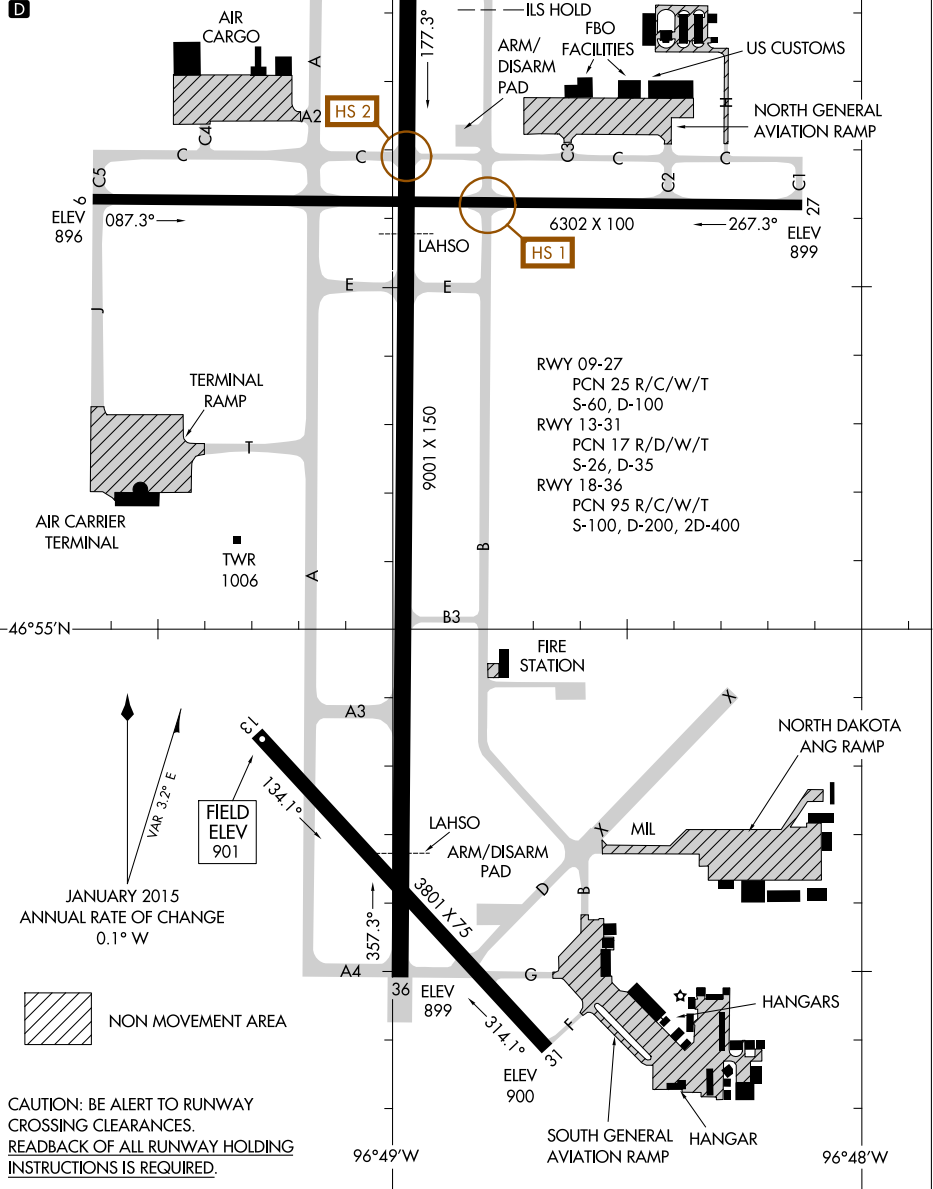


AL-144 (FAA)

ATIS  
124.5 379.2  
FARGO TOWER  
133.8 290.4  
GND CON  
121.9 348.6  
CLNC DEL  
121.9 348.6



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## HOT SPOTS

An "airport surface hot spot" is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

A "hot spot" is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as "HS 1", "HS 2", etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

CITY/AIRPORT	HOT SPOT	DESCRIPTION*
DULUTH, MN DULUTH INTL (DLH)	HS 1	Rwy 27 apch area.
	HS 2	Apch end of Rwy 27 located at Twy A5.
	HS 3	Rwy 21 via Twy A and Twy C complex int.
FARGO, ND HECTOR INTL (FAR)	HS 1	Rwy 09-27 at Twy B.
	HS 2	Rwy 18-36 at Twy C.
GRAND FORKS, ND GRAND FORKS INTL (GFK)	HS 1	Rwy 09L and Twy A int.
	HS 2	Rwy 17R and Twy B int.
MINNEAPOLIS, MN CRYSTAL (MIC)	HS 1	Short distance between rwys.
	HS 2	Short distance between rwys.
	HS 3	Short distance between rwys.
	HS 4	Int of Rwy 06R (sod) on Twy F.
	HS 5	Int of Rwy 24L (sod) on Twy D.
	HS 6	Multiple vehicle/pedestrian deviations occurrence.
	HS 7	Close proximity of Rwy 14R and Rwy 06R.
	HS 8	Rwy 24R proximity to Twy E and Twy B int.
MINNEAPOLIS, MN FLYING CLOUD (FCM)	HS 1	Hold position markings/sign proximity to Twy A.
	HS 2	Hold position markings/sign proximity to Twy A.
	HS 3	Hold position markings/sign proximity to Twy A.
	HS 4	Hold position markings/sign proximity to Twy A.
	HS 5	Hold position markings/sign proximity to Twy A.
	HS 6	Hold position markings/sign proximity to Twy A.
	HS 7	Hold position markings/sign proximity to Twy A.
	HS 8	Hold position markings/sign proximity to Twy A.
	HS 9	Rwy 18 apch area along Twy A.
	HS 10	Proximity of parallel rwys and holding positions.
	HS 11	Short distance between rwy hold short lines.
MINNEAPOLIS, MN MINNEAPOLIS-ST PAUL INTL/ WOLD-CHAMBERLAIN (MSP)	HS 1	Twy A, Twy B, Twy C, Twy D, Twy H, Rwy 04-22 and Rwy 12R-30L complex geometry.
	HS 2	Twy C, Twy D, Twy P, Twy Q, Rwy 04-22 and Rwy 12L-30R, complex geometry.
	HS 3	Twy/rwy geometry and traffic flow.
	HS 4	Complex geometry at Rwy 04 apch end.
MINOT, ND MINOT INTL (MOT)	HS 1	Apch end of Rwy 08.
	HS 2	Int of Twy C and Rwy 08-26.
ROCHESTER, MN ROCHESTER INTL (RST)	HS 1	Complex twy/rwy/twy int.

(SEE CONTINUATION PAGE FOR MORE LISTINGS)

HOT SPOTS

(CONTINUED)

CITY/AIRPORT	HOT SPOT	DESCRIPTION*
ST. PAUL, MN ST. PAUL DOWNTOWN HOLMAN FLD (STP)	HS 1	Helicopter landings on Twy A.
	HS 2	Twy D between Rwy 13 and Rwy 32 unusual configuration for rwy holding position markings.
	HS 3	Helicopter operations on Twy B.
SIOUX FALLS, SD JOE FOSS FIELD (FSD)	HS 1	Complex twy int in close proximity of rwys.

\*See appropriate Chart Supplement HOT SPOT table for additional information.

LOC I-AAM <b>108.9</b>	APP CRS <b>176°</b>	Rwy Idg TDZE Apt Elev	<b>9001</b> <b>900</b> <b>901</b>
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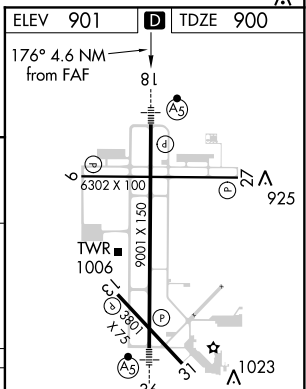
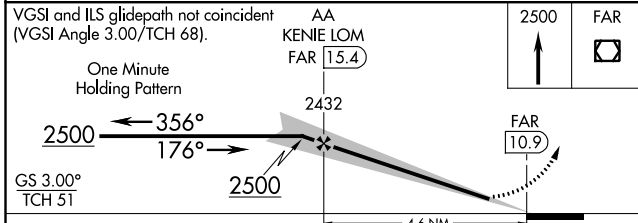
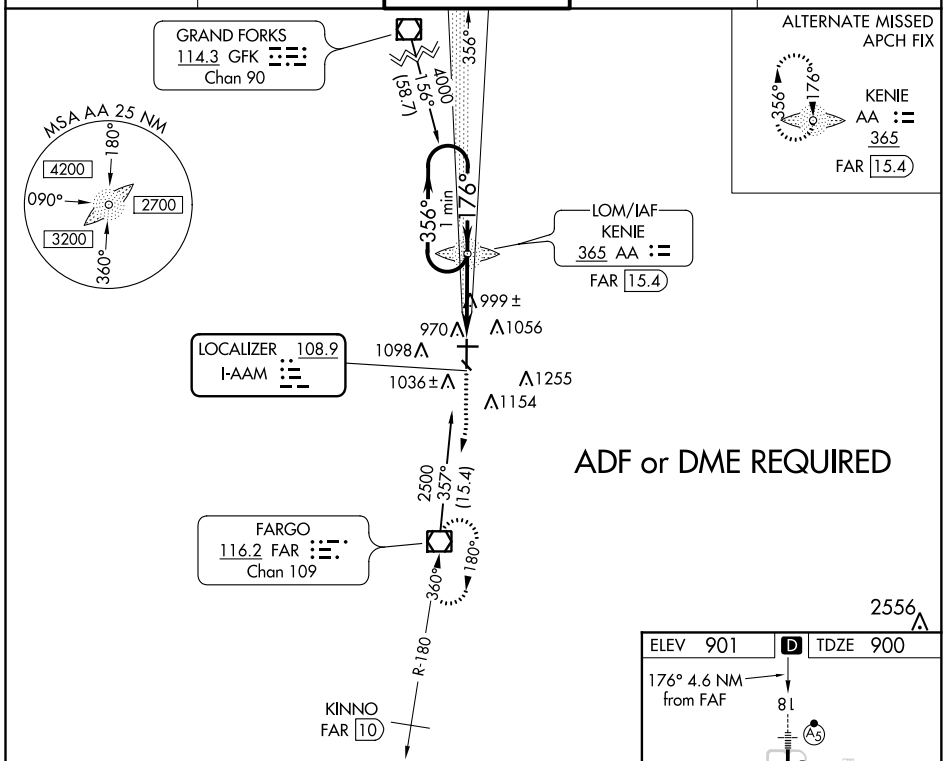
# ILS or LOC RWY 18

HECTOR INTL (FAR)

For inop MALSR, increase S-ILS 18 Cat E visibility to RVR 4000, and S-LOC 18 Cat E visibility to RVR 5000.  
 \* Visibility Cat A/B/C/D RVR 1800 authorized with the use of FD or AP or HUD to DA.

MALSR MISSED APPROACH: Climb to 2500 direct FAR VOR/DME and hold.

ATIS <b>124.5 379.2</b>	FARGO APP CON <b>120.4 377.15</b>	FARGO TOWER <b>133.8 290.4</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.9 348.6</b>
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CATEGORY	A	B	C	D	E
S-ILS 18*	1100/24 200 (200-1/2)				
S-LOC 18	1260/24	360 (400-1/2)	1260/40		360 (400-3/4)
CIRCLING	1380-1	479 (500-1)	1520-1 3/4 619 (700-1 3/4)	1620-2 1/4 719 (800-2 1/4)	1620-2 1/2 719 (800-2 1/2)

	Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32	

HIRL Rwy 18-36  
 REIL Rwys 9 and 27  
 MRL Rwys 9-27 and 13-31  
 FAF to MAP 4.6 NM

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LOC/DME I-FAR <b>110.3</b> Chan <b>40</b>	APP CRS <b>356°</b>	Rwy Idg TDZE Apt Elev	<b>9001</b> <b>899</b> <b>901</b>
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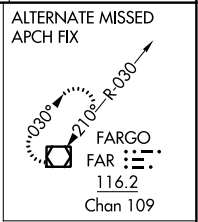
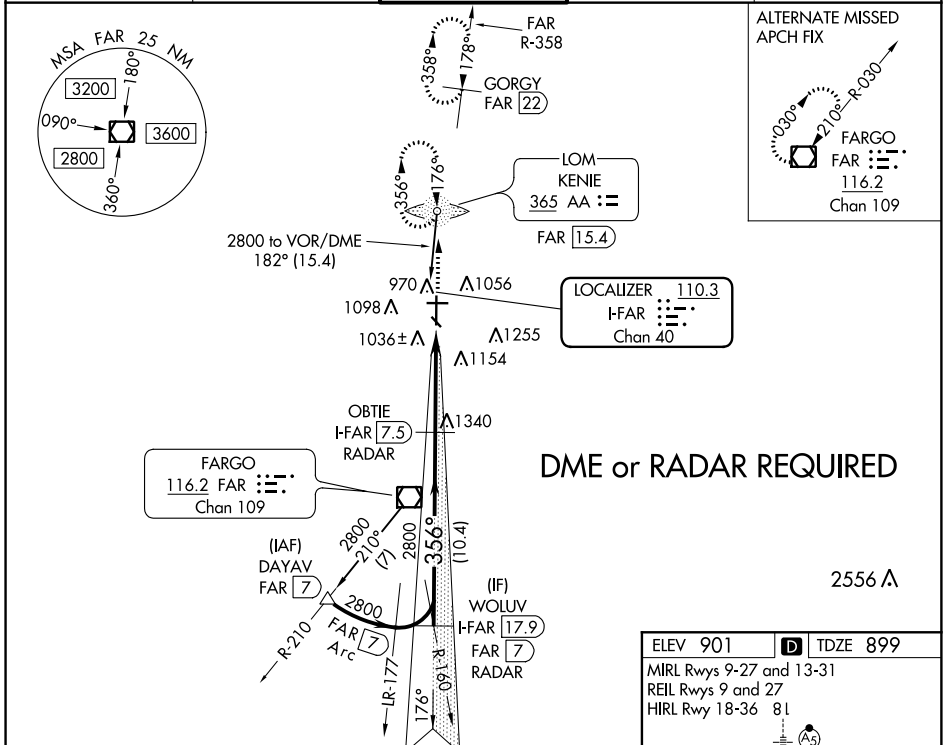
# ILS or LOC RWY 36

HECTOR INTL (FAR)

**⚠** ADF or DME required. For inop ALS increase S-ILS 36 Cat E visibility to RVR 4000 and S-LOC 36 Cat C/D/E visibility to 1 3/8 SM.  
**⚡** -25°C # RVR 1800 authorized with use of FD or AP or HUD to DA.

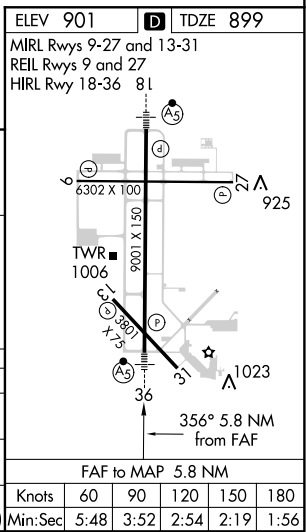
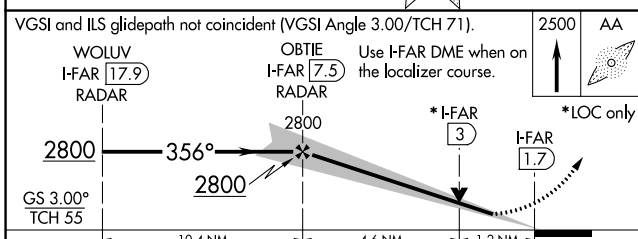
**MALS** MISSED APPROACH: Climb to 2500 direct KENIE LOM and hold (DME aircraft climb to 4000 on FAR VOR/DME R-358 to GORGY/22 DME and hold N, RT, 178° inbound, continue climb-in-hold to 4000).

ATIS <b>124.5 379.2</b>	FARGO APP CON <b>120.4 377.15</b>	FARGO TOWER <b>133.8 290.4</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.9 348.6</b>
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**DME or RADAR REQUIRED**

2556 MSL



VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 71).	2500 AA
WOLUV I-FAR 17.9 RADAR	Use I-FAR DME when on the localizer course.
OBTIE I-FAR 7.5 RADAR	
2800	* I-FAR 3
2800	* LOC only 1.7
GS 3.00° TCH 55	
10.4 NM	4.6 NM
1.2 NM	
CATEGORY	A B C D E
S-ILS 36 #	1099/24 200 (200-1/2)
S-LOC 36	1360/24 461 (500-1/2) 1360/50 461 (500-1)
CIRCLING	1380-1 479 (500-1) 1520-1 3/4 619 (700-1 3/4) 1620-2 1/4 719 (800-2 1/4) 1620-2 1/2 719 (800-2 1/2)

Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

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WAAS CH <b>97433</b> <b>W09A</b>	APP CRS <b>086°</b>	Rwy Idg TDZE Apt Elev	<b>6302</b> <b>900</b> <b>901</b>
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# RNAV (GPS) RWY 9

HECTOR INTL (F.A.R.)

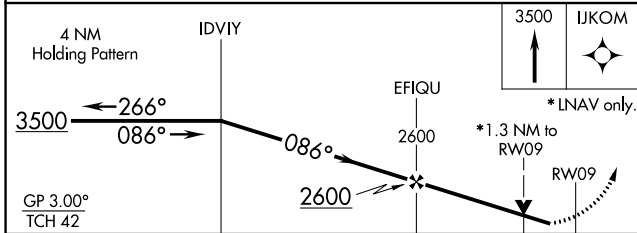
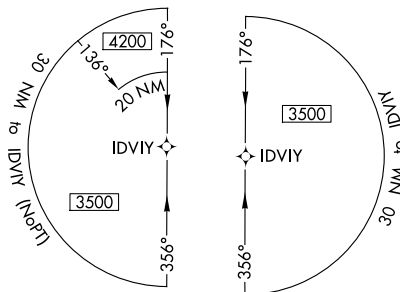
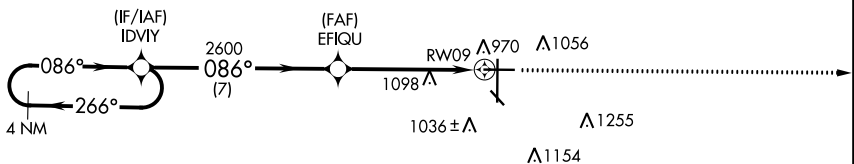
Baro-VNAV NA.  
DME/DME RNP-0.3 NA.  
-25°C  
Helicopter visibility reduction below ¾ SM not authorized.

MISSED APPROACH: Climb to 3500 direct IJKOM and hold.

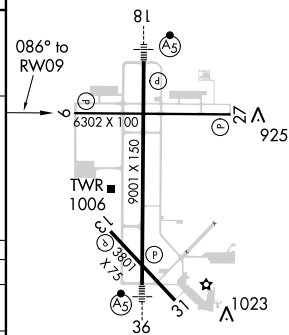
ATIS <b>124.5 379.2</b>	FARGO APP CON <b>120.4 377.15</b>	<b>FARGO TOWER</b> <b>133.8 290.4</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.9 348.6</b>
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Λ 2152



ELEV 901	<b>D</b> TDZE 900
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CATEGORY	A	B	C	D
LPV DA		1150-¾	250 (300-¾)	
LNAV/VNAV DA		1171-7/8	271 (300-7/8)	
LNAV MDA	1360-1	460 (500-1)	1360-13/8	460 (500-13/8)
<b>C</b> CIRCLING	1380-1	479 (500-1)	1520-1¾	1620-2¼
			619 (700-1¾)	719 (800-2¼)

HIRL Rwy 18-36  
REIL Rws 9 and 27  
MIRL Rws 9-27 and 13-31

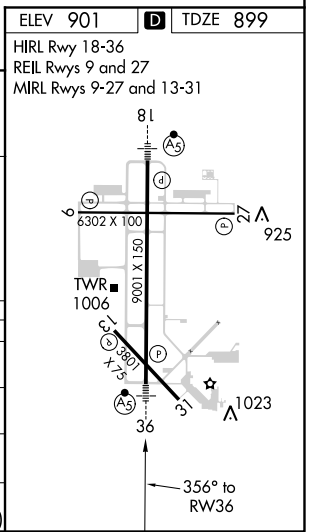
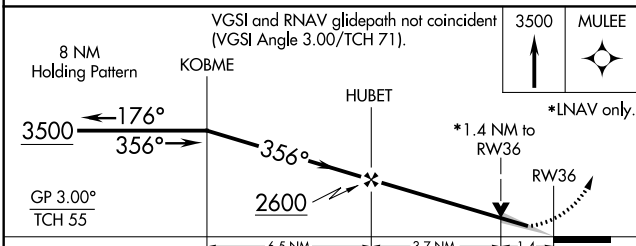
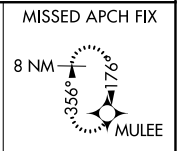
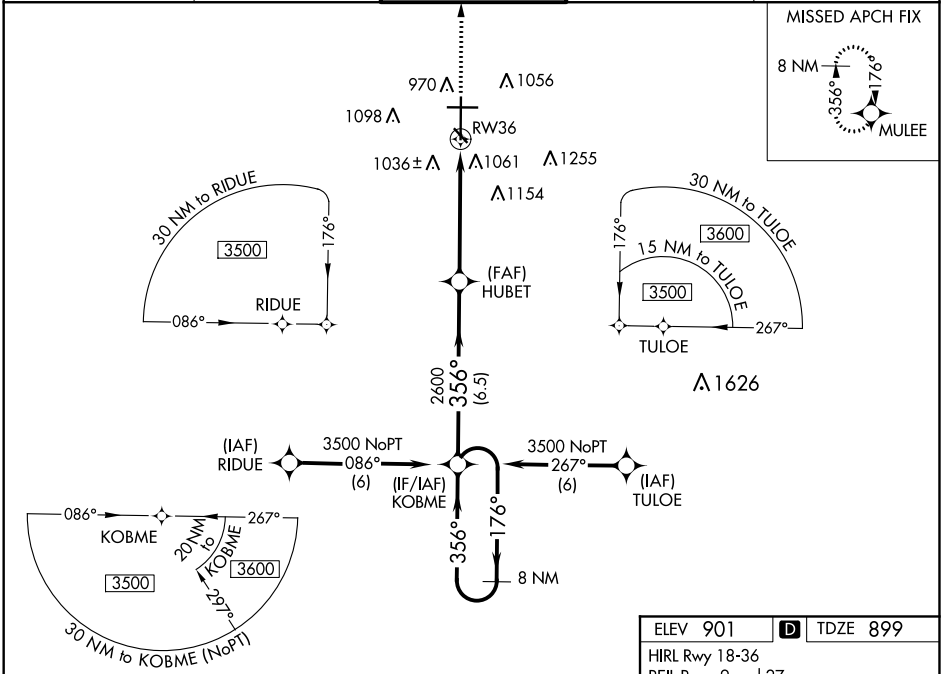
WAAS CH <b>50106</b> <b>W36A</b>	APP CRS <b>356°</b>	Rwy Idg <b>9001</b> TDZE <b>899</b> Apt Elev <b>901</b>
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# RNAV (GPS) RWY 36

HECTOR INTL (F.A.R.)

<p>-25°C</p>	<p>DME/DME RNP -0.3 NA. Baro-VNAV NA below -16°C (4°F). For inoperative MALSR, increase LPV Cat E visibility to RVR 4000, and increase LNAV/VNAV and LNAV Cat E visibility to 1 3/4 mile.</p>	<p>MALSR</p>	<p>MISSED APPROACH: Climb to 3500 direct MULEE and hold.</p>
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ATIS <b>124.5 379.2</b>	FARGO APP CON <b>120.4 377.15</b>	FARGO TOWER <b>133.8 290.4</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.9 348.6</b>
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CATEGORY	A	B	C	D	E
LPV DA	1150/24 251 (300-1/2)				
LNAV/VNAV DA	1360/50		461 (500-1)		1360/60 461 (500-1 1/4)
LNAV MDA	1420/24	521 (600-1/2)	1420/50 521 (600-1)	1420/60	521 (600-1 1/4)
CIRCLING	1420-1	519 (600-1)	1520-1 3/4 619 (700-1 3/4)	1620-2 1/4 719 (800-2 1/4)	1620-2 1/2 719 (800-2 1/2)

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WAAS CH <b>40006</b> W18A	APP CRS <b>176°</b>	Rwy Idg TDZE Apt Elev	<b>9001</b> <b>900</b> <b>901</b>
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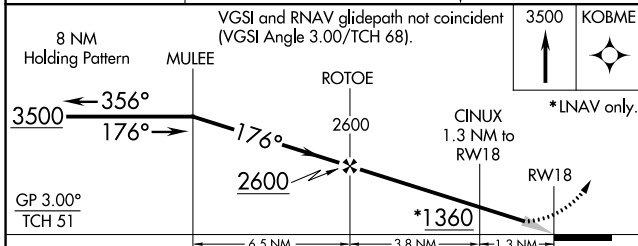
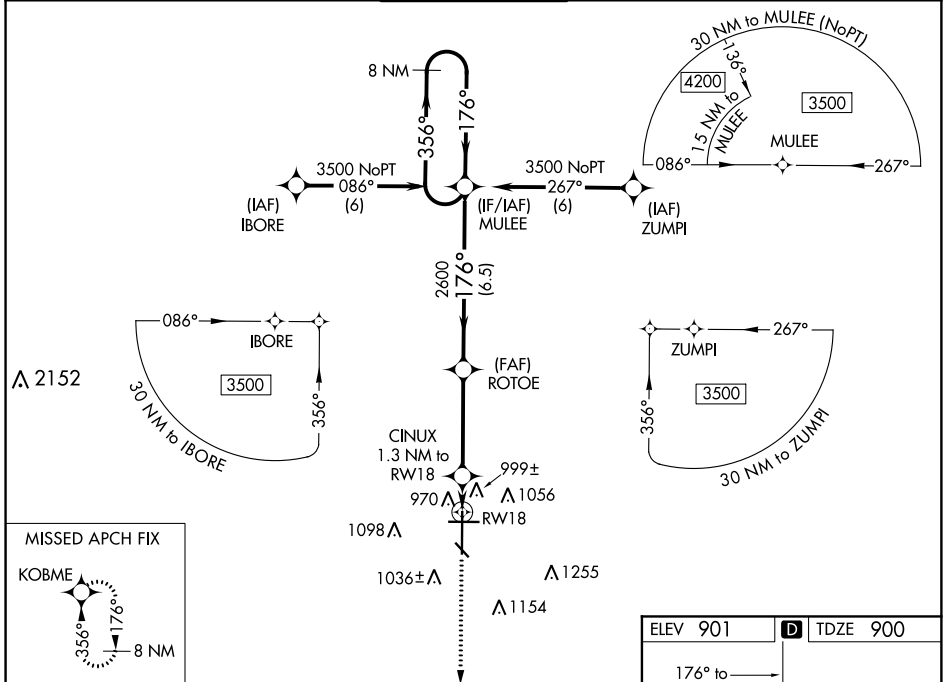
# RNAV (GPS) RWY 18

HECTOR INTL (FAR)

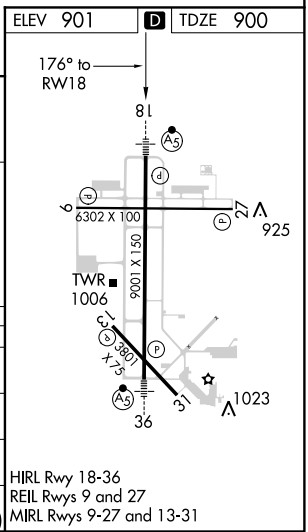
**⚠** For inoperative MALSRL, increase LPV Cat E visibility to RVR 4000 and LNAV/VNAV Cat E and LNAV Cat D and E to RVR 6000.  
**⚠** DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F).  
 # RVR 1800 authorized with use of FD or AP or HUD to DA.

**MALSRL**  
  
 MISSED APPROACH: Climb to 3500 direct KOBME and hold.

ATIS <b>124.5 379.2</b>	FARGO APP CON <b>120.4 377.15</b>	FARGO TOWER <b>133.8 290.4</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.9 348.6</b>
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CATEGORY	A	B	C	D	E
LPV DA#		1100/24	200 (200-½)		
LNAV/VNAV DA		1272/40	372 (400-¾)		
LNAV MDA	1260/24	360 (400-½)		1260/50	360 (400-1)
CIRCLING	1380-1	479 (500-1)	1520-1¾ 619 (700-1¾)	1620-2¼ 719 (800-2¼)	1620-2½ 719 (700-2½)



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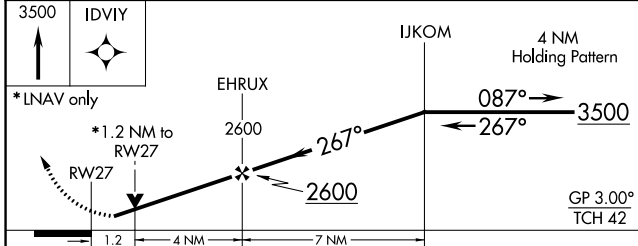
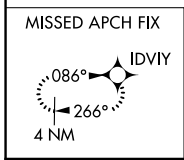
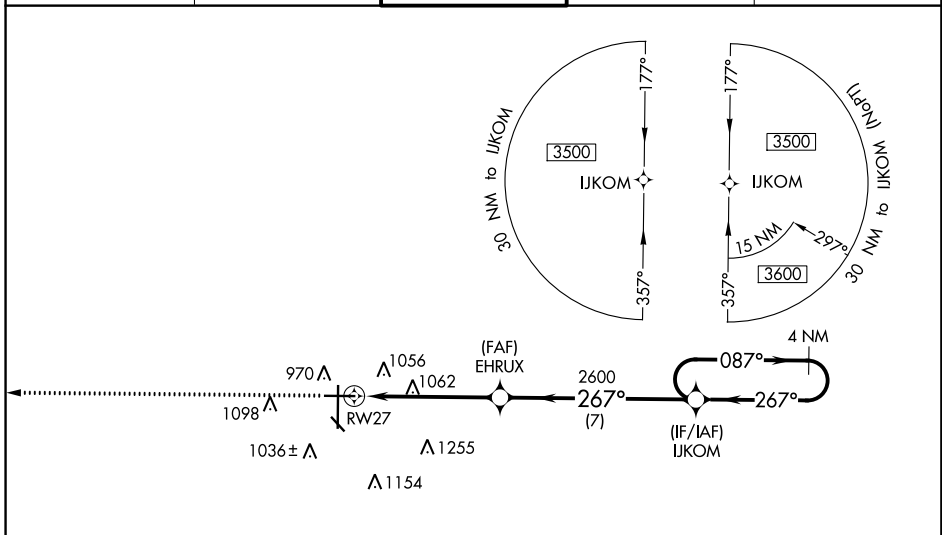
WAAS CH <b>65733</b> <b>W27A</b>	APP CRS <b>267°</b>	Rwy Idg TDZE Apt Elev	<b>6302</b> <b>899</b> <b>901</b>
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# RNAV (GPS) RWY 27

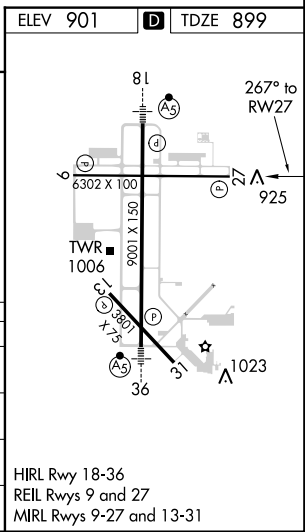
HECTOR INTL (FAR)

   -25°C	Baro-VNAV NA. DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM not authorized.	MISSED APPROACH: Climb to 3500 direct IDVIV and hold.
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ATIS <b>124.5 379.2</b>	FARGO APP CON <b>120.4 377.15</b>	FARGO TOWER <b>133.8 290.4</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.9 348.6</b>
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CATEGORY	A	B	C	D
LPV DA		1149-¾	250 (300-¾)	
LNAV/VNAV DA		1231-1½	332 (400-1½)	
LNAV MDA	1320-1	421 (500-1)	1320-1¼	421 (500-1¼)
CIRCLING	1380-1	479 (500-1)	1520-1¾ 619 (700-1¾)	1620-2¼ 719 (800-2¼)



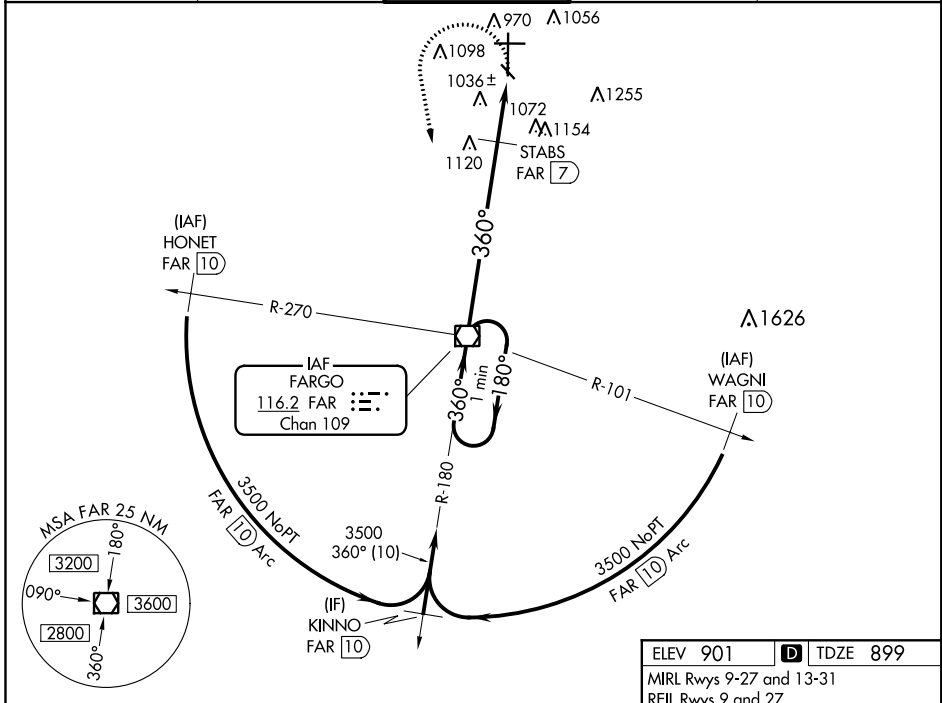
VOR/DME FAR	APP CRS	Rwy Idg	<b>9001</b>
<b>116.2</b>	<b>360°</b>	TDZE	<b>899</b>
Chan <b>109</b>		Apt Elev	<b>901</b>

# VOR RWY 36

HECTOR INTL (FAR)

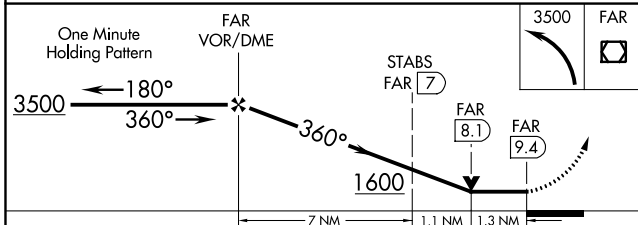
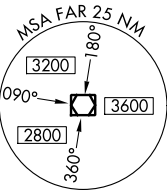
 	For inop MALSRS, increase S-36 Cat E visibility to 2½ miles. STABS fix minimums: For inop MALSRS, increase S-36 Cat E visibility to 1¾ mile.	MALSRS 	MISSED APPROACH: Climbing left turn to 3500 direct FAR VOR/DME and hold.

ATIS <b>124.5 379.2</b>	FARGO APP CON <b>120.4 377.15</b>	<b>FARGO TOWER</b> <b>133.8 290.4</b>	GND CON <b>121.9 348.6</b>	CLNC DEL <b>121.9 348.6</b>
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ELEV 901 **D** TDZE 899

MRL Rwy 9-27 and 13-31  
REIL Rwy 9 and 27  
HIRL Rwy 18-36 81

360° 9.4 NM from FAF

FAF to MAP 9.4 NM	
Knots	60 90 120 150 180
Min:Sec	9:24 6:16 4:42 3:46 3:08

CATEGORY	A	B	C	D	E
S-36	1600/24	701 (700-½)	1600-1½ 701 (700-1½)	1600-1¾ 701 (700-1¾)	1600-2 701 (700-2)
CIRCLING	1600-1	699 (700-1)	1600-2 699 (700-2)	1620-2¼ 719 (700-2¼)	1620-2½ 719 (700-2½)
STABS FIX MINIMUMS					
S-36	1380/24	481 (500-½)	1380/40 481 (500-¾)	1380/50 481 (500-1)	1380/60 481 (500-1½)
CIRCLING	1380-1	479 (500-1)	1520-1¾ 619 (700-1¾)	1620-2¼ 719 (800-2¼)	1620-2½ 719 (800-2½)

## LAND AND HOLD-SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for "Land and Hold-Short Operations." These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold-short operations and markings.

CITY/AIRPORT	LDG RWY	HOLD-SHORT POINT	AVBL LDG DIST
DULUTH, MN			
DULUTH INTL (DLH)	09	03-21	8,950 feet
FARGO, ND			
HECTOR INTL (FAR)	18	13-31	7,900 feet
	36	09-27	6,600 feet
GRAND FORKS, ND			
GRAND FORKS INTL (GFK)	27R	17R-35L	3,000 feet
	35L	09L-27R	4,600 feet
MINNEAPOLIS, MN			
MINNEAPOLIS-ST PAUL INTL/ WOLD-CHAMBERLAIN (MSP)	22	TWY K	8,550 feet
	30L	TWY A9 TWY W9	8,150 feet
ROCHESTER, MN			
ROCHESTER INTL (RST)	02	13-31	5,850 feet
	13	02-20	5,270 feet
	31	02-20	3,200 feet



NAME ALTERNATE MINIMUMS

**BRAINERD, MN**

BRAINERD LAKES  
RGNL (BRD).....**ILS or LOC Rwy 23<sup>1</sup>**  
**RNAV (GPS) Rwy 5**  
**RNAV (GPS) Rwy 23**  
**RNAV (GPS) Rwy 34**

NA when local weather not available.  
<sup>1</sup>Category D, 700-2.

**BROOKINGS, SD**

BROOKINGS  
RGNL (BKK).....**RNAV (GPS) Rwy 12**  
**RNAV (GPS) Rwy 30**

NA when local weather not available.  
Category D, 800-2<sup>1</sup>/<sub>4</sub>.

**BUFFALO, MN**

BUFFALO  
MUNI (CFE).....**VOR-A**  
NA when local weather not available.

**CAMBRIDGE, MN**

CAMBRIDGE  
MUNI (CBG).....**RNAV (GPS) Rwy 16**  
**RNAV (GPS) Rwy 34**

NA when local weather not available.

**CANBY, MN**

MYERS FIELD (CNB).....**RNAV (GPS) Rwy 12**  
**RNAV (GPS) Rwy 30**

NA when local weather not available.

**CARRINGTON, ND**

CARRINGTON  
MUNI (46D).....**RNAV (GPS) Rwy 31**  
NA when local weather not available.

**CAVALIER, ND**

CAVALIER  
MUNI (2C8).....**RNAV (GPS) Rwy 34**  
NA when local weather not available.

**CLOQUET, MN**

CLOQUET CARLTON  
COUNTY (COQ).....**RNAV (GPS) Rwy 17**  
**RNAV (GPS) Rwy 35**

NA when local weather not available.

**COOK, MN**

COOK MUNI (CQM).....**RNAV (GPS) Rwy 13**  
**RNAV (GPS) Rwy 31**

NA when local weather not available.

NAME ALTERNATE MINIMUMS

**CROOKSTON, MN**

CROOKSTON MUNI-KIRKWOOD  
FIELD (CKN).....**RNAV (GPS) Rwy 13**  
**RNAV (GPS) Rwy 31**  
**VOR/DME Rwy 13**

NA when local weather not available.

**DETROIT LAKES, MN**

DETROIT LAKES-WETHING  
FIELD (DTL).....**RNAV (GPS) Rwy 13**  
**RNAV (GPS) Rwy 31**

NA when local weather not available.  
Category D, 800-2<sup>1</sup>/<sub>4</sub>.

**DEVILS LAKE, ND**

DEVILS LAKE  
RGNL (DVL).....**RNAV (GPS) Rwy 3<sup>2</sup>**  
**RNAV (GPS) Rwy 13<sup>2</sup>**  
**RNAV (GPS) Rwy 21<sup>2</sup>**  
**RNAV (GPS) Rwy 31<sup>2</sup>**  
**VOR Rwy 3<sup>1</sup>**  
**VOR Rwy 13<sup>2</sup>**  
**VOR Rwy 31<sup>2</sup>**

NA when local weather not available.

<sup>1</sup>Categories A, B, 900-2; Category C, 900-2<sup>1</sup>/<sub>2</sub>;  
Category D, 900-2<sup>3</sup>/<sub>4</sub>.

<sup>2</sup>Category C, 800-2<sup>1</sup>/<sub>4</sub>, Category D, 800-2<sup>1</sup>/<sub>2</sub>.

**DICKINSON, ND**

DICKINSON-THEODORE ROOSEVELT  
RGNL (DIK).....**ILS or LOC Rwy 31<sup>1</sup>**  
**RNAV (GPS) Rwy 14<sup>2</sup>**  
**RNAV (GPS) Rwy 25<sup>2</sup>**  
**RNAV (GPS) Rwy 32<sup>2</sup>**  
**VOR-A<sup>2</sup>**

<sup>1</sup>ILS, Category D, 700-2.

<sup>2</sup>NA when local weather not available.

**DODGE CENTER, MN**

DODGE CENTER (TOB).....**RNAV (GPS) Rwy 16**  
**RNAV (GPS) Rwy 34**  
**VOR-A**

NA when local weather not available.

**DULUTH, MN**

DULUTH INTL (DLH).....**ILS or LOC Rwy 9<sup>1</sup>**  
**ILS or LOC Rwy 27<sup>1</sup>**  
**RNAV (GPS) Rwy 3<sup>2</sup>**  
**RNAV (GPS) Rwy 9<sup>3</sup>**  
**RNAV (GPS) Rwy 21<sup>2</sup>**  
**RNAV (GPS) Rwy 27<sup>3</sup>**  
**VOR or TACAN Rwy 3<sup>3</sup>**  
**VOR/DME or TACAN Rwy 21<sup>3</sup>**

<sup>1</sup>LOC, Categories D, E, 1000-3.

<sup>2</sup>Category D, 1000-3.

<sup>3</sup>Categories D, E, 1000-3.

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## NAME ALTERNATE MINIMUMS

**ELY, MN**

ELY MUNI (ELO).....RNAV (GPS) Rwy 12  
RNAV (GPS) Rwy 30

NA when local weather not available.

**EVELETH, MN**

EVELETH-VIRGINIA

MUNI (EVM).....RNAV (GPS) Rwy 27<sup>1</sup>  
VOR-A<sup>2</sup>

<sup>1</sup>NA when local weather not available.

<sup>2</sup>Category C, 800-2¼; Category D, 800-2½.

**FAIRMONT, MN**

FAIRMONT MUNI (FRM).....RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 31

NA when local weather not available.

**FARGO, ND**

HECTOR INTL (FAR).....ILS or LOC Rwy 18<sup>1</sup>  
ILS or LOC Rwy 36<sup>1</sup>  
RNAV (GPS) Rwy 9<sup>3</sup>  
RNAV (GPS) Rwy 18<sup>2</sup>  
RNAV (GPS) Rwy 27<sup>3</sup>  
RNAV (GPS) Rwy 36<sup>2</sup>  
VOR Rwy 36<sup>2</sup>

<sup>1</sup>ILS, Category C, 700-2; Category D, 800-2¼;

Category E, 800-2½. LOC, Category D, 800-2¼; Category E, 800-2½.

<sup>2</sup>Category D, 800-2¼, Category E, 800-2½.

<sup>3</sup>Category D, 800-2¼.

**FARIBAULT, MN**

FARIBAULT MUNI-LIZ WALL STROHFUS

FIELD (FBL).....RNAV (GPS) Rwy 12  
RNAV (GPS) Rwy 30

NA when local weather not available.

**FERGUS FALLS, MN**

FERGUS FALLS MUNI-EINAR MICKELSON

FIELD (FFM).....ILS or LOC Rwy 31<sup>1</sup>  
RNAV (GPS) Rwy 13<sup>2</sup>  
RNAV (GPS) Rwy 31<sup>2</sup>  
RNAV (GPS) Rwy 35

NA when local weather not available.

<sup>1</sup>ILS, Category D, 700-2¼. LOC, Category D, 800-2¼.

<sup>2</sup>Category D, 800-2¼.

**FOSSTON, MN**

FOSSTON MUNI-ANDERSON

FIELD (FSE).....NDB Rwy 34<sup>1</sup>  
RNAV (GPS) Rwy 16  
RNAV (GPS) Rwy 34

NA when local weather not available.

<sup>1</sup>Category C, 800-2½.

## NAME ALTERNATE MINIMUMS

**GLENCOE, MN**

GLENCOE  
MUNI (GYL).....RNAV (GPS) Rwy 31  
NA when local weather not available.

**GLENWOOD, MN**

GLENWOOD

MUNI (GHW).....RNAV (GPS) Rwy 15  
RNAV (GPS) Rwy 33

NA when local weather not available.

**GRAND FORKS, ND**

GRAND FORKS

INTL (GFK).....ILS or LOC Rwy 35L<sup>12</sup>  
LOC BC Rwy 17R<sup>13</sup>  
RNAV (GPS) Rwy 9L<sup>3</sup>  
RNAV (GPS) Rwy 17R<sup>3</sup>  
RNAV (GPS) Rwy 27R<sup>3</sup>  
RNAV (GPS) Rwy 35L<sup>3</sup>  
VOR Rwy 17R<sup>3</sup>  
VOR Rwy 35L<sup>3</sup>

<sup>1</sup>NA when control tower closed.

<sup>2</sup>ILS, Category E, 700-2½. LOC, Category E, 800-2½.

<sup>3</sup>NA when local weather not available.

**GRAND MARAIS, MN**

GRAND MARAIS/

COOK COUNTY (CKC).....RNAV (GPS) Rwy 10  
RNAV (GPS) Rwy 28

Category D, 900-2¾.

**GRAND RAPIDS, MN**

GRAND RAPIDS/ITASCA COUNTY-GORDON

NEWSTROM FIELD (GPZ).....ILS or LOC Rwy 34  
RNAV (GPS) Rwy 16  
RNAV (GPS) Rwy 34  
VOR Rwy 34

NA when local weather not available.

**GRANITE FALLS, MN**

GRANITE FALLS MUNI/LENZEN-ROE-FAGEN

MEMORIAL FIELD (GDB).....RNAV (GPS) Rwy 33  
NA when local weather not available.

**GWINNER, ND**

GWINNER-ROGER MELROE

FIELD (GWR).....RNAV (GPS) Rwy 16  
RNAV (GPS) Rwy 34

NA when local weather not available.

Category D, 800-2½.

**HALLOCK, MN**

HALLOCK MUNI (HCO).....RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 31

NA when local weather not available.

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NAME ALTERNATE MINIMUMS

**HETTINGER, ND**

HETTINGER  
MUNI (HEI).....RNAV (GPS) Rwy 12  
RNAV (GPS) Rwy 30

Category D, 800-2<sup>1</sup>/<sub>4</sub>.

**HIBBING, MN**

RANGE  
RGNL (HIB)..... ILS OR LOC/DME Rwy 13  
ILS, Categories A, B, C, D, 800-2.

**HURON, SD**

HURON RGNL (HON).....ILS or LOC Rwy 12<sup>1</sup>  
LOC/DME BC Rwy 30<sup>2</sup>  
RNAV (GPS) Rwy 12<sup>2</sup>  
RNAV (GPS) Rwy 30<sup>2</sup>  
VOR Rwy 12<sup>2</sup>

NA when local weather not available.

<sup>1</sup>ILS, Category D, 700-2<sup>1</sup>/<sub>4</sub>. LOC, Category D, 800-2<sup>1</sup>/<sub>4</sub>.

<sup>2</sup>Category D, 800-2<sup>1</sup>/<sub>4</sub>.

**HUTCHINSON, MN**

HUTCHINSON MUNI-  
BUTLER FIELD (HCD).....RNAV (GPS) Rwy 15  
NA when local weather not available.

**INTERNATIONAL FALLS, MN**

FALLS INTL-EINARSON  
FIELD (INL).....COPTER ILS or LOC Rwy 31<sup>1</sup>  
ILS or LOC/DME Rwy 13,700-2<sup>2</sup>  
ILS or LOC Rwy 31<sup>2</sup>  
RNAV (GPS) Rwy 13<sup>2</sup>  
RNAV (GPS) Rwy 31<sup>2</sup>  
VOR Rwy 13<sup>2,3</sup>

<sup>1</sup>LOC, NA; ILS, NA when local weather not available.

<sup>2</sup>NA when local weather not available.

<sup>3</sup>Category D, 800-2<sup>1</sup>/<sub>4</sub>.

**JACKSON, MN**

JACKSON MUNI (MJQ).....RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 31

NA when local weather not available.

**JAMESTOWN, ND**

JAMESTOWN  
RGNL (JMS).....RNAV (GPS) Rwy 4  
RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 22  
RNAV (GPS) Rwy 31  
VOR Rwy 13  
VOR Rwy 31

Category D, 800 2<sup>1</sup>/<sub>2</sub>.

NAME ALTERNATE MINIMUMS

**LANGDON, ND**

ROBERTSON  
FIELD (D55).....RNAV (GPS) Rwy 14  
RNAV (GPS) Rwy 32

NA when local weather not available.

**LONG PRAIRIE, MN**

TODD  
FIELD (14Y).....RNAV (GPS) Rwy 34  
NA when local weather not available.

**LITCHFIELD, MN**

LITCHFIELD  
MUNI (LJF).....RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 31  
VOR-A

Category D, 800-2<sup>1</sup>/<sub>4</sub>.

NA when local weather not available.

**LITTLE FALLS, MN**

LITTLE FALLS/MORRISON COUNTY-  
LINDBERGH  
FIELD (LXL).....RNAV (GPS) Rwy 31  
NA when local weather not available.

**LINTON, ND**

LINTON MUNI (7L2).....RNAV (GPS) Rwy 9  
RNAV (GPS) Rwy 27

NA when local weather not available.

**MADISON, MN**

LAC QUI PARLE  
COUNTY (DXX).....RNAV (GPS) Rwy 14  
RNAV (GPS) Rwy 32

NA when local weather not available

**MADISON, SD**

MADISON MUNI (MDS).....RNAV (GPS) Rwy 15  
RNAV (GPS) Rwy 33

NA when local weather not available

**MAHNOMEN, MN**

MAHNOMEN  
COUNTY (3N8).....RNAV (GPS) Rwy 17  
RNAV (GPS) Rwy 35

NA when local weather not available

**MANDAN, ND**

MANDAN MUNI (Y19).....RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 31  
VOR-A

NA when local weather not available

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NAME ALTERNATE MINIMUMS

**REDWOOD FALLS, MN**REDWOOD FALLS  
MUNI (RWF).....RNAV (GPS) Rwy 30  
VOR-ACategory D, 800-2 $\frac{1}{4}$ .  
NA when local weather not available.**ROCHESTER, MN**ROCHESTER  
INTL (RST).....ILS or LOC Rwy 13  
ILS or LOC Rwy 31  
COPTER ILS or LOC Rwy 31

NA when control tower closed.

**ROLLA, ND**ROLLA MUNI (06D).....RNAV (GPS) Rwy 32  
NA when local weather not available.  
Category D, 900-2 $\frac{3}{4}$ .**ROSEAU, MN**ROSEAU MUNI/RUDY BILLBERG  
FIELD (ROX).....RNAV (GPS) Rwy 16  
RNAV (GPS) Rwy 34

NA when local weather not available.

**RUGBY, ND**RUGBY MUNI (RUG).....RNAV (GPS) Rwy 12  
RNAV (GPS) Rwy 30

NA when local weather not available.

**RUSH CITY, MN**RUSH CITY  
RGNL (ROS).....RNAV (GPS) Rwy 34  
NA when local weather not available.**ST. CLOUD, MN**ST. CLOUD  
RGNL (STC).....ILS or LOC/DME Rwy 13<sup>123</sup>  
RNAV (GPS) Rwy 5<sup>1</sup>  
RNAV (GPS) Rwy 13<sup>1</sup>  
RNAV (GPS) Rwy 23<sup>1</sup>  
RNAV (GPS) Rwy 31<sup>1</sup>  
VOR Rwy 31<sup>3</sup><sup>1</sup>NA when local weather not available.<sup>2</sup>ILS, Categories A, B, C, D, 700-2.<sup>3</sup>NA when control tower closed.**ST. JAMES, MN**ST. JAMES  
MUNI (JYG).....RNAV (GPS) Rwy 15  
RNAV (GPS) Rwy 33

NA when local weather not available.

NAME ALTERNATE MINIMUMS

**ST. PAUL, MN**LAKE ELMO (21D).....NDB Rwy 4<sup>1</sup>  
RNAV (GPS) Rwy 32NA when local weather not available.  
<sup>1</sup>Categories A, B, 900-2; Category C 900-2 $\frac{1}{2}$ .**ST. PAUL DOWNTOWN HOLMAN**FIELD (STP).....ILS or LOC Rwy 14<sup>12</sup>  
ILS or LOC Rwy 32<sup>12</sup>  
NDB Rwy 31<sup>3</sup>  
RNAV (GPS) Rwy 14<sup>4</sup>  
RNAV (GPS) Rwy 32<sup>4</sup><sup>1</sup>NA when control tower closed.<sup>2</sup>LOC, Categories A, B, 900-2; Category C, 900-2 $\frac{1}{2}$ ; Category D, 900-2 $\frac{3}{4}$ .<sup>3</sup>Categories A, B, 900-2; Category C, 900-2 $\frac{3}{4}$ ; Category D, 900-3.<sup>4</sup>Categories A, B, 900-2; Category C, 900-2 $\frac{1}{2}$ ; Category D, 900-2 $\frac{3}{4}$ .**SAUK CENTRE, MN**SAUK CENTRE  
MUNI (D39).....RNAV (GPS) Rwy 14  
RNAV (GPS) Rwy 32

NA when local weather not available.

**SILVER BAY, MN**SILVER BAY  
MUNI (BFW).....RNAV (GPS) Rwy 25  
NA when local weather not available.**SIoux FALLS, SD**JOE FOSS  
FIELD (FSD).....ILS or LOC Rwy 3<sup>12</sup>  
ILS or LOC Rwy 21<sup>13</sup>  
RADAR-1<sup>4</sup>  
VOR or TACAN Rwy 15<sup>5</sup>  
VOR/DME or TACAN Rwy 33<sup>4</sup>  
RNAV (GPS) Rwy 15<sup>6</sup>  
RNAV (GPS) Rwy 21<sup>7</sup><sup>1</sup>NA when control tower closed.<sup>2</sup>ILS, Category D, 700-2.<sup>3</sup>ILS, Categories A, B, C, D, 700-2.<sup>4</sup>Category E, 800-2 $\frac{3}{4}$ .<sup>5</sup>Category E, 900-3.<sup>6</sup>Category C, 800-2 $\frac{1}{4}$ ; Category D, 800-2 $\frac{1}{2}$ .<sup>7</sup>Category D, 800-2 $\frac{1}{2}$ .**SLAYTON, MN**SLAYTON MUNI (DVP).....RNAV (GPS) Rwy 17  
RNAV (GPS) Rwy 35

NA when local weather not available.

NAME ALTERNATE MINIMUMS

**SOUTH ST. PAUL, MN**

SOUTH ST. PAUL MUNI-RICHARD E  
FLEMING FIELD (SGS) .....RNAV (GPS) Rwy 34  
Category D, 800-2½.

**SPEARFISH, SD**

BLACK HILLS-  
CLYDE ICE FIELD (SPF).....RNAV (GPS) Rwy 13<sup>1</sup>  
RNAV (GPS) Rwy 31<sup>2</sup>  
<sup>1</sup>Categories A, B, 900-2, Category C, 1000-2¾.  
<sup>2</sup>Categories A, B, 1000-2, Category C, 1000-2¾.

**STAPLES, MN**

STAPLES MUNI (SAZ).....RNAV (GPS) Rwy 14  
RNAV (GPS) Rwy 32  
NA when local weather not available.

**THIEF RIVER FALLS, MN**

THIEF RIVER  
FALLS RGNL (TVF).....ILS or LOC Rwy 31<sup>1</sup>  
RNAV (GPS) Rwy 4  
RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 22  
RNAV (GPS) Rwy 31  
VOR Rwy 13  
NA when local weather not available.  
<sup>1</sup>LOC, Category D, 900-2¾.

**TIOGA, ND**

TIOGA  
MUNI (D60).....RNAV (GPS) Rwy 30  
RNAV (GPS) Rwy 12  
NA when local weather not available.  
Category D, 800-2¼.

**TWO HARBORS, MN**

RICHARD B.  
HELGESON (TWM).....RNAV (GPS) Rwy 6  
RNAV (GPS) Rwy 24  
NA when local weather not available.

**VERMILLON, SD**

HAROLD DAVIDSON  
FIELD (VMR).....RNAV (GPS) Rwy 12  
RNAV (GPS) Rwy 30  
NA when local weather not available.

**WADENA, MN**

WADENA MUNI (ADC).....RNAV (GPS) Rwy 16  
RNAV (GPS) Rwy 34  
NA when local weather not available.

**WAHPETON, ND**

HARRY  
STERN (BWP).....RNAV (GPS) Rwy 33  
NA when local weather not available.

NAME ALTERNATE MINIMUMS

**WALKER, MN**

WALKER MUNI (Y49).....RNAV (GPS) Rwy 15  
RNAV (GPS) Rwy 33  
NA when local weather not available.  
Category C, 800-2¼.

**WARROAD, MN**

WARROAD INTL  
MEMORIAL (RRT).....RNAV (GPS) Rwy 13<sup>1</sup>  
RNAV (GPS) Rwy 31  
NA when local weather not available.  
<sup>1</sup>Category C, 900-2¾; Category D, 900-3.

**WASECA, MN**

WASECA MUNI (ACQ).....RNAV (GPS) Rwy 15  
RNAV (GPS) Rwy 33  
NA when local weather not available.

**WATERTOWN, SD**

WATERTOWN  
RGNL (ATY).....ILS or LOC Rwy 35<sup>1</sup>  
LOC BC Rwy 17<sup>2</sup>  
RNAV (GPS) Rwy 12<sup>2</sup>  
RNAV (GPS) Rwy 17<sup>3</sup>  
RNAV (GPS) Rwy 30<sup>3</sup>  
RNAV (GPS) Rwy 35<sup>2</sup>  
VOR or TACAN Rwy 17<sup>3</sup>  
<sup>1</sup>ILS, LOC, Category C, 800-2¼; Category D, 800-2½.  
<sup>2</sup>Category C, 800-2¼; Category D, 800-2½.  
<sup>3</sup>NA when local weather not available.

**WHEATON, MN**

WHEATON MUNI (ETH).....RNAV (GPS) Rwy 16  
RNAV (GPS) Rwy 34  
NA when local weather not available.

**WILLISTON, ND**

SLOULIN FIELD  
INTL (ISN).....RNAV (GPS) Rwy 11  
RNAV (GPS) Rwy 29  
VOR Rwy 11  
NA when local weather not available.

**WILLMAR, MN**

WILLMAR MUNI-JOHN  
L RICE FIELD (BDH).....RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 31  
VOR Rwy 31<sup>1</sup>  
NA when local weather not available.  
<sup>1</sup>Category D, 800-2¼.

**WINNER, SD**

WINNER RGNL (ICR).....RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 31  
VOR-A  
NA when local weather not available.

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**WINONA, MN**

WINONA MUNI-MAX CONRAD  
FLD (ONA).....**ILS Y or LOC Y Rwy 30<sup>12</sup>**  
**ILS Z or LOC Z Rwy 30<sup>12</sup>**  
**RNAV (GPS) Rwy 12<sup>3</sup>**  
**RNAV (GPS) Rwy 30<sup>1</sup>**

<sup>1</sup>NA when local weather not available.  
<sup>2</sup>ILS, LOC, Categories A, B, 1000-2; Category C, 1200-3; Category D, 1400-3.  
<sup>3</sup>Categories A, B, 1000-2; Category C, 1200-3; Category D, 1400-3.

**WORTHINGTON, MN**

WORTHINGTON  
MUNI (OTG).....**RNAV (GPS) Rwy 11<sup>2</sup>**  
**RNAV (GPS) Rwy 18<sup>2</sup>**  
**RNAV (GPS) Rwy 29<sup>2</sup>**  
**RNAV (GPS) Rwy 36<sup>2</sup>**  
**VOR Rwy 11<sup>1</sup>**  
**VOR Rwy 18<sup>2</sup>**

<sup>1</sup>Category D, 800-2½.  
<sup>2</sup>NA when local weather not available.

**YANKTON, SD**

CHAN GURNEY  
MUNI (YKN).....**RNAV (GPS) Rwy 13**  
**RNAV (GPS) Rwy 31**  
**VOR Rwy 13**

NA when local weather not available.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**  
**DIVERSE VECTOR AREA (RADAR VECTORS)**  
 INSTRUMENT APPROACH PROCEDURE CHARTS

18340

**IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR takeoff minimums other than standard, are listed below. Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. An entry may also be listed that contains only Takeoff Obstacle Notes. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are textually described below, or published separately as a graphic procedure. If the ODP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned an ODP, SID, or radar vector as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the airport, a fix, or a NAVAID in a specified direction, at or above a specified altitude. These procedures are called Visual Climb Over Airport (VCOA). To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when requesting their IFR clearance.

At some locations where an ODP has been established, a diverse vector area (DVA) may be created to allow radar vectors to be used in lieu of an ODP. DVA information will state that headings will be as assigned by ATC and climb gradients, when applicable, will be published immediately following the specified departure procedure.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: (1) For aircraft, other than helicopters, having two engines or less – one statute mile visibility. (2) For aircraft having more than two engines – one-half statute mile visibility. (3) For helicopters – one-half statute mile visibility. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) takeoff minima are published below. For military takeoff minima, refer to appropriate service directives.

NAME	TAKEOFF MINIMUMS	NAME	TAKEOFF MINIMUMS
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**ABERDEEN, SD**

ABERDEEN RGNL (ABR)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 AMDT 1 17061 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, lt 4' from DER, 1' right of centerline, 1' AGL/1302' MSL. Sign 12' from DER, 256' left of centerline, 4' AGL/1302' MSL. **Rwy 31**, runway end ident, beginning 39' from DER, 125' right of centerline, up to 5' AGL/1304' MSL. Runway end ident 40' from DER, 126' left of centerline, 5' AGL/1303' MSL. Tree 1278' from DER, 745' left of centerline, 1351' MSL. Tree 1309' from DER, 716' left of centerline, 1352' MSL.

**ADA/TWIN VALLEY, MN**

NORMAN COUNTY ADA/TWIN VALLEY  
 (D00)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG 11013 (FAA)

TAKEOFF MINIMUMS: **Rwy 15**, 300-2 or std. w/min climb of 205' per NM to 1300, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1300' prior to DER.

TAKEOFF OBSTACLE NOTES: **Rwy 15**, tree 176' from DER 383' left of centerline, 50' AGL/999' MSL. Tree 178' from DER 307' right of centerline, 50' AGL/999' MSL. Tree 1,305' from DER 493' right of centerline, 50' AGL/1,004' MSL. Tree 176' from DER 383' left of centerline, 50' AGL/999' MSL. **Rwy 33**, tree 85' from DER 282' left of centerline, 50' AGL/989' MSL. Multiple buildings beginning 2' from DER 468' right of centerline, up to 50' AGL/954' MSL.

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**  
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## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



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## DIVERSE VECTOR AREA (RADAR VECTORS)

## AITKIN, MN

## AITKIN MUNI-STEVE KURTZ FIELD (AIT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 4 15232 (FAA)

DEPARTURE PROCEDURE: **Rwy 8, 26**, NA-  
Environmental.

TAKEOFF OBSTACLE NOTES: **Rwy 16**, trees beginning 6' from DER, 86' left of centerline, up to 32' AGL/1238' MSL. Trees and road beginning 239' from DER, 357' left of centerline, up to 59' AGL/1265' MSL. Trees beginning 335' from DER, 114' right of centerline, up to 54' AGL/1260' MSL. Trees beginning 1352' from DER, 189' left of centerline, up to 94' AGL/1300' MSL. Trees beginning 1759' from DER, 5' right of centerline, up to 93' AGL/1299' MSL. Trees beginning 3354' from DER, 16' left of centerline, up to 100' AGL/1332' MSL. Trees beginning 3558' from DER, 48' right of centerline, up to 100' AGL/1333' MSL. **Rwy 34**, trees beginning 121' from DER, 408' right of centerline, up to 29' AGL/1235' MSL. Trees beginning 320' from DER, 406' right of centerline, up to 62' AGL/1268' MSL. Trees beginning 2084' from DER, 108' right of centerline, up to 74' AGL/1280' MSL. Trees beginning 1906' from DER, 179' left of centerline, up to 82' AGL/1288' MSL.

## ALBERT LEA, MN

## ALBERT LEA MUNI (AEL)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 11293 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 5**, sign 2074' from DER, 952' right of centerline, 47' AGL/1316' MSL. **Rwy 17**, tree 9' from DER, 349' right of centerline, 14' AGL/1263' MSL. Trees beginning 711' from DER, 121' left of centerline, up to 71' AGL/1330' MSL. **Rwy 23**, trees beginning 77' from DER, 259' left of centerline, up to 75' AGL/1324' MSL. Trees beginning 127' from DER, 326' right of centerline, up to 36' AGL/1285' MSL. **Rwy 35**, trees beginning 8' from DER, 397' right of centerline, up to 51' AGL/1290' MSL.

## ALEXANDRIA, MN

## CHANDLER FIELD (AXN)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

DEPARTURE PROCEDURE: **Rwys 4, 13, 22**, when weather is below 200-1, climb runway heading to 1800 before turning.

## APPLETON, MN

## APPLETON MUNI (AQP)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG-A 10126 (FAA)

DEPARTURE PROCEDURE: **Rwy 4**, climb heading 039° to 2000 before turning right. **Rwy 13**, climb heading 130° to 2500 before turning right. **Rwy 22**, climb heading 219° to 2400 before turning left. **Rwy 31**, climb heading 300° to 2000 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees beginning 91' from DER, 464' left of centerline, up to 100' AGL/1134' MSL. Trees beginning 576' from DER, 388' right of centerline, up to 100' AGL/1120' MSL. Tower 2.3 NM from DER, 2.4 right of centerline, 1283' AGL/2318' MSL.

## AUSTIN, MN

## AUSTIN MUNI (AUM)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 08045 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 17**, Multiple trees beginning 809' from DER, 663' right of centerline, up to 61' AGL/1285' MSL. **Rwy 35**, Tree 1380' from DER, 484' right of centerline, 100' AGL/1314' MSL.

## BEACH, ND

## BEACH (20U)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 16203 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 125° to 4000 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, airfield lt 9' from DER, 27' right of centerline, 2749' MSL. Vehicles on road beginning 39' from DER, 371' right of centerline, up to 2764' MSL. Terrain 95' from DER, 416' left of centerline, 2751' MSL. Vehicles on road beginning 444' from DER, 379' right of centerline, up to 2766' MSL. Vehicle on road 1230' from DER, 182' left of centerline, 2780' MSL. Vehicle on road 1237' from DER, 198' left of centerline, 2781' MSL. Vehicle on road 1276' from DER, 226' left of centerline, 2782' MSL. Vehicles on road beginning 1326' from DER, 273' left of centerline, up to 2785' MSL. Vehicle on road 1474' from DER, 418' left of centerline, 2786' MSL. Vehicles on road 1652' from DER, 586' left of centerline, 2790' MSL. Vehicles on road, tree, and building beginning 1671' from DER, 664' left of centerline, up to 2808' MSL. **Rwy 30**, airfield lt beginning 10' from DER, 9' right of centerline, up to 1' AGL/2757' MSL.

## BAUDETTE, MN

## BAUDETTE INTL (BDE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 10154 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 117° to 1700 before turning northbound.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, trees, pipes, and markers beginning 61' from DER, 354' right of centerline, up to 100' AGL/1184' MSL. Trees beginning 593' from DER, 138' left of centerline, up to 21' AGL/1100' MSL. Rod on OL tank 4132' from DER, 1233' right of centerline, 120' AGL/1204' MSL. **Rwy 30**, trees beginning 15' from DER, 348' right of centerline, 12' AGL/1096' MSL. Trees beginning 2036' from DER, 532' left of centerline, 64' AGL/1143' MSL.

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**BELLE FOURCHE, SD**

BELLE FOURCHE MUNI (EFC)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 09015 (FAA)

TAKEOFF MINIMUMS: **Rwy 18,36**, NA. **Rwy 14**, std. w/ min. climb of 240' per NM to 9000 or 1400-3 for climb in visual conditions. **Rwy 32**, std. w/ min. climb of 413' per NM to 3900.

DEPARTURE PROCEDURE: **Rwy 14**, for climb in visual conditions: cross Belle Fourche Muni airport at or above 4400 MSL before proceeding on course. **Rwy 32**, climb heading 321° to 3900 before proceeding southbound.

TAKEOFF OBSTACLE NOTES: **Rwy 14**, trees 651' from DER, 547' left of centerline, up to 20' AGL/3299' MSL.

**Rwy 32**, trees 857' from DER, 150' left of centerline, up to 20' AGL/3199' MSL. Trees 3880' from DER, 966' right of centerline, up to 20' AGL/3289' MSL.

**BEMIDJI, MN**

BEMIDJI RGNL (BJI)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 3 08213 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 7**, vegetation beginning 859' from DER, 544' right of centerline, up to 62' AGL/1442' MSL. Vegetation beginning 1404' from DER, 683' left of centerline, up to 44' AGL/1424' MSL.

**Rwy 13**, vehicle on road, 541' from DER, 525' right of centerline, 15' AGL/1398' MSL. **Rwy 25**, poles beginning 1337' from DER, 205' right of centerline up to 61' AGL/1445' MSL. Trees beginning 1414' from DER, 254' left of centerline, up to 57' AGL/1441' MSL. Tree 1406' from DER, 233' right of centerline, 53' AGL/1437' MSL.

**BENSON, MN**

BENSON MUNI (BBB)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 09127 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 14**, numerous trees beginning 838' from DER, 246' right of centerline, up to 33' AGL/1087' MSL. Numerous trees beginning 1232' from DER, 64' left of centerline, up to 69' AGL/1108' MSL. Sign 206' from DER, 198' left of centerline, 19' AGL/1044' MSL. Tower 4884' from DER, 274' right of centerline, 126' AGL/1161' MSL. **Rwy 32**, Tree 2380' from DER, 646' left of centerline, 68' AGL/1107' MSL. Multiple fences beginning 13' from DER, 361' left of centerline, up to 8' AGL/1043' MSL.

**BIGFORK, MN**

BIGFORK MUNI (FOZ)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 18088 (FAA)

DEPARTURE PROCEDURE: **Rwy 15**, climb on heading 149° to 1800 before turning right.

TAKEOFF OBSTACLE NOTES: **Rwy 15**, sign 20' from DER, 115' left of centerline, 3' AGL/1348' MSL. Tree 29' from DER, 326' right of centerline, 1354' MSL. Trees beginning 63' from DER, 168' right of centerline, up to 1370' MSL. Traverse way 67' from DER, 432' left of centerline, 1363' MSL. Trees beginning 154' from DER, 393' left of centerline, up to 1378' MSL. Trees beginning 189' from DER, 348' right of centerline, up to 1371' MSL. Trees beginning 261' from DER, 413' left of centerline, up to 1379' MSL. Tree 274' from DER, 292' right of centerline, 1374' MSL. Tree 392' from DER, 556' left of centerline, 1387' MSL. Trees beginning 393' from DER, 344' right of centerline, up to 1375' MSL. Trees beginning 493' from DER, 177' right of centerline, up to 1396' MSL. Tree 513' from DER, 604' left of centerline, 1417' MSL. Trees beginning 556' from DER, 185' left of centerline, up to 1420' MSL. Trees beginning 580' from DER, 272' right of centerline, up to 1403' MSL. Tree 957' from DER, 679' right of centerline, 1407' MSL. Trees beginning 996' from DER, 123' right of centerline, up to 1414' MSL. Trees beginning 2109' from DER, 539' right of centerline, up to 1423' MSL. Trees beginning 2698' from DER, 448' right of centerline, up to 1434' MSL. Trees beginning 2800' from DER, 93' right of centerline, up to 1442' MSL. Trees beginning 3374' from DER, 519' right of centerline, up to 1444' MSL. **Rwy 33**, tree 56' from DER, 374' right of centerline, 1375' MSL. Trees beginning 81' from DER, 257' left of centerline, up to 1378' MSL. Trees beginning 82' from DER, 245' right of centerline, up to 1376' MSL. Trees beginning 178' from DER, 287' left of centerline, up to 1413' MSL. Trees beginning 503' from DER, 300' right of centerline, up to 1381' MSL. Trees beginning 543' from DER, 390' left of centerline, up to 1414' MSL. Trees beginning 720' from DER, 329' right of centerline, up to 1384' MSL. Trees beginning 757' from DER, 1' left of centerline, up to 1424' MSL. Trees beginning 1207' from DER, 73' right of centerline, up to 1396' MSL. Tree 1231' from DER, 63' right of centerline, 1399' MSL. Tree 1246' from DER, 142' right of centerline, 1401' MSL. Trees beginning 1249' from DER, 42' right of centerline, up to 1403' MSL. Tree 1354' from DER, 184' right of centerline, 1405' MSL. Tree 1378' from DER, 167' right of centerline, 1406' MSL. Trees beginning 1397' from DER, 149' right of centerline, up to 1410' MSL. Trees beginning 1609' from DER, 254' right of centerline, up to 1418' MSL. Trees beginning 1746' from DER, 1' right of centerline, up to 1426' MSL. Trees beginning 2435' from DER, 8' right of centerline, up to 1429' MSL. Trees beginning 2566' from DER, 7' right of centerline, up to 1430' MSL. Tree 2777' from DER, 596' left of centerline, 1425' MSL.

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**BISMARCK, ND**

BISMARCK MUNI (BIS)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 8 11069 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, climb heading  
131° to 2400 before turning right. **Rwy 21**, climb  
heading 212° to 3700 before turning left. **Rwy 31**,  
climb heading 311° to 2200 before turning right.TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees and  
pole beginning 864' from DER, 721' left of centerline,  
up to 56' AGL/1696' MSL. **Rwy 31**, light pole 1424' from  
DER, 872' right of centerline, 43' AGL/1702' MSL.**BLUE EARTH, MN**

BLUE EARTH MUNI (SBU)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 16091 (FAA)

TAKEOFF MINIMUMS: **Rwys 3, 21**, NA-Environmental.TAKEOFF OBSTACLE NOTES: **Rwy 16**, poles  
beginning 1017' from DER, 586' left of centerline, up to  
32' AGL/1142' MSL. **Rwy 34**, trees beginning 3407'  
from DER, 523' right of centerline, up to 100'  
AGL/1200' MSL.**BOTTINEAU, ND**

BOTTINEAU MUNI (D09)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 10154 (FAA)

TAKEOFF MINIMUMS: **Rwys 3, 21**, NA.DEPARTURE PROCEDURE: **Rwy 13**, climb heading  
127° to 2200 before turning left. **Rwy 31**, climb  
heading 307° to 2600 before turning right.TAKEOFF OBSTACLE NOTES: **Rwy 31**, street light  
116' from DER, 474' left of centerline, 16' AGL/1700'  
MSL.**BOWMAN, ND**

BOWMAN RGNL (BWW)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 16091 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, terrain  
beginning 171' from DER, 334' right of centerline,  
3013' MSL. Terrain 4199' from DER, 1275' left of  
centerline, 3077' MSL. **Rwy 31**, terrain beginning 18'  
from DER, 182' left of centerline, 2958' MSL. Pole  
2360' from DER, 395' right of centerline, 33'  
AGL/3005' MSL.**BRAINERD, MN**

BRAINERD LAKES RGNL (BRD)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 6 12320 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 16**, multiple trees  
beginning 1830' from DER, 749' left of centerline, up to  
74' AGL/1314' MSL. **Rwy 23**, multiple trees beginning  
1485' from DER, 91' left of centerline, up to 50'  
AGL/1299' MSL. Tree 2426' from DER, 184' right of  
centerline, 50' AGL/1297' MSL. **Rwy 34**, trees  
beginning 1635' from DER, left and right of centerline,  
up to 86' AGL/1312' MSL.**BRITTON, SD**

BRITTON MUNI (BTN)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 13010 (FAA)

TAKEOFF MINIMUMS: **Rwys 1, 19**, NA-Environmental.TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees, poles and  
terrain beginning 382' from DER, 9' right of centerline, up  
to 81' AGL/1439' MSL. Trees, poles, vehicles on road  
and terrain beginning 1286' from DER, 17' left of  
centerline, up to 75' AGL/1449' MSL. **Rwy 31**, trees and  
vehicles on road beginning 578' from DER, 185' right of  
centerline, up to 66' AGL/1375' MSL. Tree and vehicles  
on road beginning 234' from DER, 413' left of centerline,  
up to 61' AGL/1370' MSL.**BROOKINGS, SD**

BROOKINGS RGNL (BKX)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 15176 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 12**, building 1297'  
from DER, 734' right of centerline, 38' AGL/1681' MSL.**Rwy 17**, trees beginning 1219' from DER, 562' left of  
centerline, up to 82' AGL/1733' MSL. Trees beginning  
2097' from DER, 252' left of centerline, up to 82'  
AGL/1728' MSL. **Rwy 35**, trees beginning 481' from DER,  
407' right of centerline, up to 45' AGL/1641' MSL.  
Railroad beginning 514' from DER, crossing centerline  
from right to left, 23' AGL/1626' MSL. Trees 701' from  
DER, 216' left of centerline, 35' AGL/1631' MSL.**BUFFALO, MN**

BUFFALO MUNI (CFE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 11013 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, 300-1½ or std. w/min  
climb of 403' per NM to 1200.TAKEOFF OBSTACLE NOTES: **Rwy 18**, building 613'  
from DER, 608' right of centerline, up to 25' AGL/984'  
MSL. Vehicle on road 710' from DER, 641' right of  
centerline, up to 17' AGL/986' MSL. Trees beginning  
1000' from DER, 615' left of centerline, up to 100'  
AGL/1059' MSL. **Rwy 36**, building 361' from DER, 262'  
left of centerline, up to 25' AGL/994' MSL. Vehicle on  
road 845' from DER, 701' left of centerline, up to 15'  
AGL/994' MSL. Trees beginning 1506' from DER, 350'  
right of centerline, up to 100' AGL/1089' MSL. Trees  
beginning 1508' from DER, 129' left of centerline, up to  
100' AGL/1109' MSL.

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**CAMBRIDGE, MN**

CAMBRIDGE MUNI (CBG)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 12096 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 16**, navaid 38' from DER, 78' left of centerline, 2' AGL/941' MSL. Poles beginning 1203' from DER, 140' left of centerline, up to 66' AGL/1007' MSL. Navaid 40' from DER 81' right of centerline, 2' AGL/941' MSL. Trees beginning 198' from DER, 8' left and right of centerline, up to 100' AGL/1011' MSL. Fence post 176' from DER, 403' right of centerline, 8' AGL/947' MSL. Vehicles on road 191' from DER, 431' right of centerline, 15' AGL/954' MSL. **Rwy 34**, terrain beginning 167' from DER, 374' left of centerline, up to 951' MSL. Fence post 178' from DER, 481' left of centerline, 14' AGL/959' MSL. Fence 615' from DER, 329' left of centerline, 13' AGL/958' MSL. Vehicles on road 12' from DER, 492' left and right of centerline, 15' AGL/969' MSL. Trees beginning 498' from DER, 12' left and right of centerline, up to 100' AGL/1 020' MSL. Building 427' from DER, 538' right of centerline, 24' AGL/969' MSL.

**CANBY, MN**

MYERS FIELD (CNB)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 10210 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 12**, numerous poles beginning 40' from DER, 421' left and right of centerline, up to 36' AGL/1216' MSL. Truck on roads beginning 134' from DER, 37' left and right of centerline, up to 22' AGL/1202' MSL. Tree 3' from DER, 159' right of centerline, 7' AGL/1187' MSL. **Rwy 30**, numerous trees beginning 726' from DER, 176' left of centerline, up to 70' AGL/1278' MSL. Tree 1338' from DER, 716' right of centerline, 68' AGL/1268' MSL.

**CANDO, ND**

CANDO MUNI (9D7)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 15232 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 16**, vehicles on road 443' from DER, 524' left of centerline, 15' AGL/1495' MSL. Lt support structure 10' from DER, 10' right of centerline, 3' AGL/1484' MSL. **Rwy 34**, poles beginning 382' from DER, 465' right of centerline, up to 32' AGL/1513' MSL. Building 277' from DER, 574' right of centerline, 22' AGL/1503' MSL. Vehicles on road beginning 596' from DER, 25' right of centerline, 15' AGL/1500' MSL. Vehicles on road beginning 754' from DER, 16' left of centerline, 15' AGL/1504' MSL. Lt support structure 10' from DER, 9' right of centerline, 3' AGL/1483' MSL. Tank 344' from DER, 470' right of centerline, 9' AGL/1490' MSL.

**CARRINGTON, ND**

CARRINGTON MUNI (46D)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 13178 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees beginning 2097' from DER, 314' left of centerline, up to 100' AGL/1676' MSL. **Rwy 31**, terrain 60' from DER, 481' left of centerline, 1614' MSL. Trees beginning 603' from DER, 341' left of centerline, up to 100' AGL/1709' MSL.

**CASSELTON, ND**

CASSELTON ROBERT MILLER RGNL (5N8)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 07354 (FAA)

TAKEOFF MINIMUMS: **Rwy 31**, 400-2½' or std. w/ a min. climb of 212' per NM to 1400 or alternatively, with standard takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1700' prior to DER.  
TAKEOFF OBSTACLE NOTES: **Rwy 13**, railroad 30' from DER, 505' right of centerline, 23' AGL/945' MSL. Vehicle on road 449' from DER, 300' left of centerline, 15' AGL/949' MSL. **Rwy 31**, trees 2251' from DER, 456' left of centerline, up to 100' AGL/1052' MSL.

**CAVALIER, ND**

CAVALIER MUNI (2C8)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 12264 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 16**, trees beginning 83' from DER, 454' left of centerline, up to 77' AGL/963' MSL. Trees beginning 751' from DER, 615' right of centerline, up to 77' AGL/963' MSL. Power pole 1233' from DER, 544' right of centerline, 38' AGL/927' MSL. Power poles beginning 1445' from DER, 330' left of centerline, up to 45' AGL/931' MSL. Bean elevator 1603' from DER, 450' left of centerline, 83' AGL/1003' MSL. Tank 1736' from DER, 434' left of centerline, 83' AGL/969' MSL. **Rwy 34**, trees beginning 1053' from DER, 623' left of centerline, up to 65' AGL/959' MSL. Trees beginning 2005' from DER, 393' right of centerline, up to 65' AGL/954' MSL.

**CHAMBERLAIN, SD**

CHAMBERLAIN MUNI (9V9)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 12348 (FAA)

TAKEOFF MINIMUMS: **Rwys 18,36**, NA-Environmental.  
TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees left and right of centerline beginning 100' from DER, up to 47' AGL/1725' MSL. Pole 1116' from DER, 712' left of centerline, 32' AGL/1710' MSL. **Rwy 31**, rising terrain 91' from DER, 290' right of centerline, 1702' MSL. Vehicle on road 1072' from DER, from 553' to 781' right of centerline, 15' AGL/1728' MSL. Trees left and right of centerline beginning 1359' from DER, up to 71' AGL/1767' MSL. Pole 1201' from DER, 701' right of centerline, 45' AGL/1741' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## CLARK, SD

CLARK COUNTY (8D7)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 17229 (FAA)

TAKEOFF MINIMUMS: **Rwys 3, 21**, NA - Environmental. **Rwy 31**, standard with a minimum climb of 207' per NM to 2500 or 1800-3 for VCOA or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1600' prior to DER.

DEPARTURE PROCEDURES: **Rwy 13**, climb on heading 131° to 2900 before turning northeast. **Rwy 31**, climb on heading 311° to 2600 before proceeding on course.

VCOA: **Rwy 31**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Clark County airport at or above 3400 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, fence 4' from DER, 346' right of centerline, 1791' MSL. Tree 63' from DER, 475' right of centerline, 1796' MSL. Tree 83' from DER, 262' left of centerline, 1797' MSL. Tree 130' from DER, 425' left of centerline, 1800' MSL. Tree 277' from DER, 522' left of centerline, 1807' MSL. Tree 2500' from DER, 1100' left of centerline, 1898' MSL. Trees and pole beginning 2675' from DER, 320' left of centerline, up to 1908' MSL. **Rwy 31**, tree 268' from DER, 560' left of centerline, 1817' MSL. Vehicle on road beginning 416' from DER, 155' left of centerline, up to 1812' MSL. Tree 1407' from DER, 676' right of centerline, 1842' MSL.

## CLOQUET, MN

CLOQUET CARLTON COUNTY (COQ)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 12208 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 7**, trees beginning abeam DER, 264' left of centerline, up to 100' AGL/1369' MSL. Trees beginning 897' from DER, 358' right of centerline, up to 100' AGL/1349' MSL. Vehicles on road beginning abeam DER, 431' right of centerline, 15' AGL/1274' MSL. **Rwy 17**, trees beginning 69' from DER, 372' right of centerline, up to 81' AGL/1340' MSL. **Rwy 25**, tree 542' from DER, 365' left of centerline, 34' AGL/1313' MSL. Trees beginning 1625' from DER, 462' left of centerline, up to 119' AGL/1388' MSL. Trees beginning 153' from DER, 446' right of centerline, up to 93' AGL/1362' MSL. **Rwy 35**, tree 41' from DER, 434' left of centerline, 49' AGL/1318' MSL. Trees beginning 2181' from DER, crossing centerline left to right, up to 87' AGL/1366' MSL.

## COOK, MN

COOK MUNI (CQM)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 12040 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees and terrain beginning 17' from DER, left and right of centerline, up to 60' AGL/1379' MSL. Buildings beginning 326' from DER, 561' left of centerline, up to 20' AGL/1349' MSL. **Rwy 31**, trees beginning 134' from DER, 376' left and right of centerline, up to 60' AGL/1389' MSL.

## COOPERSTOWN, ND

COOPERSTOWN MUNI (S32)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 10322 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, power lines 4085' from DER, 1585' right to 1588' left of centerline, up to 80' AGL/1526' MSL. **Rwy 31**, building 12' from DER, 369' left of centerline, 14' AGL/1443' MSL. Vehicles 312' from DER, 550' left of centerline, 15' AGL/1444' MSL. Vehicles 353' from DER, 585' right of centerline, 15' AGL/1434' MSL.

## CROOKSTON, MN

CROOKSTON MUNI-KIRKWOOD FIELD

(CKN)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2 07298 (FAA)

TAKEOFF MINIMUMS: **Rwys 6, 17, 24, 35**, NA-turf runways.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, tree 1998' from DER, 587' left of centerline, 94' AGL/970' MSL. Pole 1127' from DER, 662' left of centerline, 46' AGL/926' MSL.

## CROSBY, ND

CROSBY MUNI (D50)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 10154 (FAA)

TAKEOFF MINIMUMS: **Rwys 3, 21**, NA-Environmental. TAKEOFF OBSTACLE NOTES: **Rwy 12**, hangars and poles beginning 133' from DER, 263' right of centerline, up to 35' AGL/1983' MSL. Vehicle on road 800' from DER, 200' right of centerline, 22' AGL/1967' MSL. **Rwy 30**, power line, 2100' from DER, on centerline, 60' AGL/2011' MSL.

## DETROIT LAKES, MN

DETROIT LAKES-WETHING FIELD (DTL)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 05132 (FAA)

TAKEOFF MINIMUMS: **Rwys 17, 35**, NA.

TAKEOFF OBSTACLE NOTES: **Rwy 31**, highway 243' from DER, 267' right of centerline, 15' AGL/1404' MSL. Railroad 534' from DER, 298' right of centerline, 23' AGL/1411' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)****DEVILS LAKE, ND****DEVILS LAKE RGNL (DVL)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

AMDT 2 13346 (FAA)

DEPARTURE PROCEDURE: **Rwy 3**, Climb heading 038° to 1900 before turning left.TAKEOFF OBSTACLE NOTES: **Rwy 3**, tree 1523' from DER, 136' right of centerline, 49' AGL/1489' MSL. Tree 1531' from DER, 319' left of centerline, 50' AGL/1490' MSL. Trees beginning 3105' from DER, 544' right of centerline, 71' AGL/1522' MSL. **Rwy 13**, tree 1144' from DER, 716' right of centerline, 37' AGL/1482' MSL. Pole 1601' from DER, 609' right of centerline, 39' AGL/1484' MSL. **Rwy 21**, vehicle on road beginning 335' from DER, 404' right of centerline, up to 15' AGL/1477' MSL.

Antenna on pole 552' from DER, 595' left of centerline, 61' AGL/1506' MSL. Trees beginning 613' from DER, 355' left of centerline, up to 47' AGL/1492' MSL. Vehicles on road beginning 674' from DER, left and right of centerline, up to 15' AGL/1483' MSL. Transmission tower 3566' from DER, 441' left of centerline, 123' AGL/1549' MSL.

**EAGLE BUTTE, SD****CHEYENNE EAGLE BUTTE (84D)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

ORIG-A 16035 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, vehicles on road beginning 55' from DER, 77' left of centerline, up to 15' AGL/2463' MSL. Fence beginning 14' from DER, 347' left of centerline, up to 16' AGL/2458' MSL. **Rwy 31**, terrain 26' from DER, 284' left of centerline, 2435' MSL. Fence 21' from DER, 390' right of centerline, 5' AGL/2433' MSL. Vehicles on road beginning 70' from DER, 283' right of centerline, up to 15' AGL/2444' MSL. Fence beginning 122' from DER, 364' left of centerline, up to 9' AGL/2441' MSL.**EDGELEY, ND****EDGELEY MUNI (51D)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

ORIG 16287 (FAA)

TAKEOFF MINIMUMS: **Rwy 9, 27**, NA-Turf strip.TAKEOFF OBSTACLE NOTES: **Rwy 14**, ground 5' from DER, 11' left of centerline, 1592' MSL. Electric sys 11' from DER, 10' right of centerline, 2' AGL/1594' MSL.Electric sys 11' from DER, 9' left of centerline, 2' AGL/1594' MSL. **Rwy 32**, electric system 8' from DER, 10' left of centerline, 3' AGL/1603' MSL. Fence 47' from DER, 250' left of centerline, 4' AGL/1604' MSL. Pole 759' from DER, 672' right of centerline, 26' AGL/1626' MSL. Tree 1276' from DER, 635' left of centerline, 47' AGL/1652' MSL. Tree 1383' from DER, 823' left of centerline, 51' AGL/1652' MSL. Tree 2075' from DER, 800' left of centerline, 58' AGL/1659' MSL. Tree 2477' from DER, 854' left of centerline, 68' AGL/1669' MSL.**DICKINSON, ND****DICKINSON-THEODORE ROOSEVELT****RGNL (DIK)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

AMDT 1A 12180 (FAA)

DEPARTURE PROCEDURE: **Rwy 25**, climb heading 250° to 3500 before turning left.TAKEOFF OBSTACLE NOTES: **Rwy 7**, road 887' from DER, on rwy centerline, 15' AGL/2631' MSL.**DODGE CENTER, MN****DODGE CENTER (TOB)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

ORIG 09015 (FAA)

TAKEOFF MINIMUMS: **Rwy 22**, NA-Environmental.TAKEOFF OBSTACLE NOTES: **Rwy 16**, trees 3945' from DER, 1542' left of centerline, 100' AGL/1409' MSL.**DULUTH, MN****DULUTH INTL (DLH)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

ORIG 06327 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 3**, multiple trees beginning 21' from DER, 226' right of centerline, up to 68' AGL/1477' MSL. Multiple trees beginning 246' from DER, 26' left of centerline, up to 64' AGL/1473' MSL. **Rwy 9**, electrical equipment 207' from DER, 408' left of centerline, 6' AGL/1425' MSL. **Rwy 21**, tower 3762' from DER, 410' left of centerline, 92' AGL/1522' MSL. **Rwy 27**, tree 2426' from DER, 1127' right of centerline, 53' AGL/1522' MSL. Bush and multiple trees beginning 347' from DER, 484' left of centerline, up to 44' AGL/1533' MSL.**ELBOW LAKE, MN****ELBOW LAKE MUNI-PRIDE OF THE****PRAIRIE (Y63)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

ORIG 13290 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 14**, trees, sign, and terrain beginning 128' from DER, 73' right of centerline, up to 29' AGL/1229' MSL. Navaid and terrain beginning 28' from DER, 69' left of centerline, up to 10' AGL/1210' MSL. **Rwy 32**, trees beginning 405' from DER, 190' left of centerline, up to 32' AGL/1232' MSL.

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**DIVERSE VECTOR AREA (RADAR VECTORS)**

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**ELLEDALE, ND****ELLEDALE MUNI (4E7)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 18032 (FAA)

TAKEOFF MINIMUMS: **Rwy 17, 35**, NA-environmental.  
TAKEOFF OBSTACLE NOTES: **Rwy 13**, fence, pole,  
terrain beginning 10' from DER, 36' right of centerline,  
up to 6' AGL/1462' MSL. Trees, terrain beginning 89'  
from DER, 206' right of centerline, up to 26' AGL/1481'  
MSL. Tree 122' from DER, 179' left of centerline, 1461'  
MSL. Tree 268' from DER, 442' right of centerline,  
1482' MSL. Tree 983' from DER, 740' left of centerline,  
1481' MSL. Trees beginning 994' from DER, 455' right  
of centerline, up to 1501' MSL. Tree 1077' from DER,  
658' left of centerline, 1487' MSL. Trees beginning  
1149' from DER, 509' left of centerline, up to 1500'  
MSL. Trees, transmission line, pole, tower beginning  
1367' from DER, 384' right of centerline, up to 1507'  
MSL. Trees beginning 1468' from DER, 243' left of  
centerline, up to 1501' MSL. Tree 1573' from DER,  
456' left of centerline, 57' AGL/1502' MSL. **Rwy 31**,  
tree 4' from DER, 405' left of centerline, 27' AGL/1481'  
MSL. Pole 19' from DER, 35' right of centerline, 2'  
AGL/1458' MSL. Trees beginning 87' from DER, 295'  
left of centerline, up to 32' AGL/1485' MSL. Tree 1056'  
from DER, 692' right of centerline, 59' AGL/1512' MSL.  
Trees beginning 1474' from DER, 76' right of  
centerline, up to 80' AGL/1530' MSL. Trees beginning  
1729' from DER, 39' right of centerline, up to 85'  
AGL/1536' MSL.

**ELLSWORTH AFB (KRCA),****RAPID CITY, SD**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 14317

TAKE-OFF OBSTACLES: **Rwy 13**, Terrain 3182' MSL,  
1' from DER, 490' left of centerline. Terrain 3182' MSL,  
inward of DER, 500' left of centerline. Terrain 3182'  
MSL, 0' from DER, 500' left of centerline. Tree 140'  
AGL/3289' MSL, 2405' from DER, 1044' left of  
centerline. B1 tail 34' AGL/3208' MSL, 64' inward of  
DER, 582' right of centerline. **Rwy 31**, Building 12'  
AGL/3311' MSL, 1804' from DER, 762' left of  
centerline.

**ELY, MN****ELY MUNI (ELO)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 12040 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 12**, rising terrain  
and trees beginning 148' from DER, 18' right of  
centerline, up to 53' AGL/1539' MSL. Trees beginning  
181' from DER, 247' left of centerline, up to 81'  
AGL/1542' MSL. **Rwy 30**, trees beginning 61' from  
DER, 242' left of centerline, up to 73' AGL/1520' MSL.  
Trees beginning 665' from DER, 652' right of  
centerline, up to 100' AGL/1551' MSL. Pole 670' from  
DER, 529' right of centerline, 49' AGL/1460' MSL.

**EVELETH, MN****EVELETH-VIRGINIA MUNI (EVM)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3A 17313

TAKEOFF MINIMUMS: **Rwy 14,32**, NA - environmental.  
DEPARTURE PROCEDURE: **Rwy 27**, northwest  
departures (270-050) climb heading 274° to 2000 before  
proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 9**, trees beginning  
1842' from DER, crossing centerline left to right, up to 88'  
AGL/1455' MSL. Trees and vehicle on road beginning 13'  
from DER, 188' right of centerline, up to 88' AGL/433'  
MSL. **Rwy 27**, trees and poles beginning 989' from  
DER, crossing centerline left to right, up to 110'  
AGL/1502' MSL. Trees and vehicle on road beginning 66'  
from DER, 285' left of centerline, up to 37' AGL/1416'  
MSL.

**FAIRMONT, MN****FAIRMONT MUNI (FRM)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 09127 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 2**, trees beginning  
2466' from DER, 1105' right of centerline, up to 100'  
AGL/1269' MSL. **Rwy 13**, tree 2340' from DER, 1039' left  
of centerline, 100' AGL/1269' MSL. **Rwy 20**, trees  
beginning 1640' from DER, 914' right of centerline, up to  
100' AGL/1289' MSL. Trees beginning 913' from DER,  
449' left of centerline, up to 100' AGL/1299' MSL. **Rwy  
31**, trees beginning 954' from DER, 161' left of centerline,  
up to 100' AGL/1299' MSL. Trees and road beginning  
791' from DER, 339' right of centerline, up to 57'  
AGL/1226' MSL.

**FARGO, ND****HECTOR INTL (FAR)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 4A 11349 (FAA)

TAKEOFF MINIMUMS: **Rwys 13,31**, NA.  
TAKEOFF OBSTACLE NOTES: **Rwy 9**, tree 1876' from  
DER 686' left of centerline, 53' AGL/952' MSL. Tree 2620'  
from DER, 1100' right of centerline, 66' AGL/965' MSL.  
Road and vehicle beginning 420' from DER, 601' right of  
centerline, up to 15' AGL/913' MSL. Road and vehicle  
beginning 543' from DER, 619' left of centerline, up to 15'  
AGL/912' MSL. Runway end lights beginning 41' from  
DER, left and right of centerline, up to 3' AGL/901' MSL.  
Sign 39' from DER, 201' left of centerline, 2' AGL/900'  
MSL. Multiple light poles beginning 1082' from DER, left  
and right of centerline, up to 27' AGL/927' MSL. **Rwy 18**,  
road and vehicle 536' from DER, 19' right of centerline,  
15' AGL/914' MSL. **Rwy 27**, road and vehicle beginning  
451' from DER, 479' right of centerline, up to 15'  
AGL/910' MSL. Tree 2912' from DER, 944' left of  
centerline, 72' AGL/971' MSL. Runway end lights 42' from  
DER, 126' right of centerline, 2' AGL/898' MSL. **Rwy 36**,  
light support structure 11' from DER, 55' right of  
centerline, 1' AGL/901' MSL.

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**FARIBAULT, MN**

FARIBAULT MUNI-LIZ WALL STROHFUS  
 FIELD (FBL)

TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES

AMDT 1 17341 (FAA)

TAKEOFF MINIMUMS: **Rwys 1, 19**, NA - environmental  
 TAKEOFF OBSTACLE NOTES: **Rwy 12**, road beginning  
 27' from DER, 496' right of centerline, 1063' MSL.  
 Tree, road beginning 123' from DER, 369' right of  
 centerline, up to 1069' MSL. Tree, road beginning 270'  
 from DER, 308' right of centerline, up to 1092' MSL.  
 Road 323' from DER, 401' left of centerline, 1062'  
 MSL. Tree 331' from DER, 490' right of centerline,  
 1096' MSL. Tree, road beginning 366' from DER, 286'  
 right of centerline, up to 1105' MSL. Pole, road,  
 building, stack beginning 371' from DER, 334' left of  
 centerline, up to 42' AGL/1085' MSL. **Rwy 30**, tree,  
 NAVAID beginning 17' from DER, 111' left of  
 centerline, up to 1099' MSL. Tree 39' from DER, 260'  
 left of centerline, 1104' MSL. Tree, 68' from DER, 498'  
 left of centerline, 1121' MSL. Trees beginning 125'  
 from DER, 61' left of centerline, up to 1127' MSL. Tree  
 249' from DER, 334' right of centerline, 1081' MSL.  
 Tree 338' from DER, 425' right of centerline, 1085'  
 MSL. Tree 377' from DER, 550' right of centerline  
 1111' MSL. Trees beginning 511' from DER, 364' right  
 of centerline, up to 1115' MSL. Tree 2368' from DER,  
 649' right of centerline, 1129' MSL. Tree 2836' from  
 DER, 1178' right of centerline, 1136' MSL. Trees  
 beginning 2921' from DER, 1148' right of centerline, up  
 to 1146' MSL.

**FERGUS FALLS, MN**

FERGUS FALLS MUNI-EINAR  
 MICKELSON FIELD (FFM)

TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES

ORIG 09239 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees  
 beginning 2612' from DER, 128' right of centerline, up  
 to 100' AGL/1269' MSL. Trees beginning 2514' from  
 DER, 42' left of centerline, up to 100' AGL/1259' MSL.  
**Rwy 17**, trees beginning 1100' from DER 663' right  
 of centerline, up to 100' AGL/1269' MSL. Road 222'  
 from DER, 469' right of centerline, 15' AGL/1173' MSL.  
**Rwy 35**, trees beginning 2156' from DER, 176' right  
 of centerline, up to 100' AGL/1289' MSL.

**FOSSTON, MN**

FOSSTON MUNI-ANDERSON FIELD (FSE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES

AMDT 2A 18312 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 16**, road 17' from  
 DER, 114' left of centerline, 10' AGL/1289' MSL. Road  
 27' from DER, 127' left of centerline, 10' AGL/1289'  
 MSL. **Rwy 34**, multiple trees and REIL beginning 39'  
 from DER, 78' left of centerline, up to 56' AGL/1329'  
 MSL. Tree 192' from DER, 537' right of centerline, 13'  
 AGL/1273' MSL.

**GARRISON, ND**

GARRISON MUNI (D05)

TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES

ORIG 11013 (FAA)

TAKEOFF MINIMUMS: **Rwys 3,21**, NA - Environmental.  
 TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees 849' from  
 DER, 190' left of centerline, up to 100' AGL/1989' MSL.  
 Grain silos 1588' from DER, 895' left of centerline, 100'  
 AGL/1989' MSL. **Rwy 31**, vehicles on roadway beginning  
 424' from DER, left and right of centerline, up to 15'  
 AGL/1974' MSL. Trees 538' from DER, 425' left of  
 centerline, up to 100' AGL/2059' MSL.

**GETTYSBURG, SD**

GETTYSBURG MUNI (O08)

TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES

AMDT 1 07018 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 4**, multiple trees  
 beginning 1011' from DER, 420' left of centerline, up to  
 60' AGL/2119' MSL. **Rwy 13**, multiple trees beginning  
 1897' from DER, 975' left of centerline, 60' AGL/2119'  
 MSL. **Rwy 22**, multiple trees beginning 679' from DER,  
 117' left of centerline, up to 60' AGL/2109' MSL.

**GLENCOE, MN**

GLENCOE MUNI (GYL)

TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES

ORIG 09071 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees  
 beginning 349' from DER, 257' right of centerline, up to  
 100' AGL/1099' MSL. Trees beginning 1211' from DER,  
 314' left of centerline, up to 100' AGL/1109' MSL. Terrain  
 beginning 53' from DER, 166' left of centerline, up to 998'  
 MSL. Terrain beginning 286' from DER, 435' right of  
 centerline, up to 1001' MSL. **Rwy 31**, trees beginning  
 501' from DER, 530' right of centerline, up to 100'  
 AGL/1099' MSL. Tree 2577' from DER, 129' left of  
 centerline, 100' AGL/1109' MSL.

**GLENWOOD, MN**

GLENWOOD MUNI (GHW)

TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES

AMDT 3 10233 (FAA)

TAKEOFF MINIMUMS: **Rwys 5, 23** N/A Environmental.  
 TAKEOFF OBSTACLE NOTES: **Rwy 15**, road beginning  
 278' from DER, 521' left of centerline, 15' AGL/1414'  
 MSL. Trees beginning 3257' from DER, 1239' right of  
 centerline, up to 100' AGL/1489' MSL. Terrain beginning  
 42' from DER, 448' left of centerline, 1378' MSL. **Rwy 33**,  
 trees beginning 1266' from DER, 174' left of centerline,  
 up to 100' AGL/1499' MSL. Power lines beginning 1259'  
 from DER, 793' left of centerline, up to 50' AGL/1439'  
 MSL.

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## GLEN ULLIN, ND

### GLEN ULLIN RGNL (D57)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 18312 (FAA)

TAKEOFF MINIMUMS: **Rwy 11**, 300-1¼ or std. w/ min. climb of 205' per NM to 2300, or alternatively, with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1200' prior to DER.

TAKEOFF OBSTACLE NOTES: **Rwy 11**, lighting 10' from DER, 9' right of centerline, 2' AGL/2093' MSL. Lighting 10' from DER, 9' left of centerline, 2' AGL/2093' MSL. Tree 577' from DER, 235' left of centerline, 2106' MSL. Trees beginning 660' from DER, 403' right of centerline, up to 2128' MSL. Trees beginning 793' from DER, 158' right of centerline, up to 2129' MSL. Trees beginning 830' from DER, 352' left of centerline, up to 2127' MSL. Trees beginning 903' from DER, 115' left of centerline, up to 2130' MSL. Trees beginning 992' from DER, 240' right of centerline, up to 2133' MSL. Tree 1054' from DER, 695' right of centerline, 2139' MSL. Trees beginning 1148' from DER, 558' right of centerline, up to 2141' MSL. Trees beginning 1174' from DER, 770' left of centerline, up to 2144' MSL. Pole 6057' from DER, 1661' left of centerline, 29' AGL/2246' MSL. **Rwy 29**, lighting 10' from DER, 11' left of centerline, 2' AGL/2092' MSL. Lighting 10' from DER, 9' right of centerline, 2' AGL/2092' MSL.

## GRAFTON, ND

### HUTSON FIELD (GAF)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 10210 (FAA)

TAKEOFF MINIMUMS: **Rwys 8, 26**, NA-Environmental. TAKEOFF OBSTACLE NOTES: **Rwy 17**, vehicle on roads beginning 23' from DER, 300' left of centerline, up to 15' AGL/837' MSL. Tree 2612' from DER, 857' left of centerline, 100' AGL/929' MSL. **Rwy 35**, building 107' from DER, 344' left of centerline, 17' AGL/836' MSL. Electrical system 153' from DER, 398' left of centerline, 21' AGL/840' MSL. Vehicle on roads beginning 260' from DER, 74' left of centerline, up to 15' AGL/841' MSL. Obstruction light on airport beacon 471' from DER, 601' left of centerline, 54' AGL/873' MSL.

## GRAND FORKS, ND

### GRAND FORKS INTL (GFK)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 09071 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 9L**, tree 127' from DER, 451' left of centerline, 12' AGL/853' MSL. **Rwy 27R**, bush 38' from DER, 474' right of centerline, 5' AGL/844' MSL. **Rwy 35L**, obstruction light on DME 645' from DER, 198' left of centerline, 21' AGL/860' MSL. **Rwy 35R**, tree 1259' from DER, 521' right of centerline, 41' AGL/880' MSL. Tree 1655' from DER, 271' left of centerline, 45' AGL/884' MSL.

## GRAND MARAIS, MN

### GRAND MARAIS/COOK COUNTY (CKC)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 17061 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 10**, runway lights beginning 9' from DER, 16' right of centerline, up to 2' AGL/1796' MSL. Trees, REIL, runway lights, and terrain beginning 39' from DER, 77' right of centerline, up to 1818' MSL. REIL 40' from DER, 76' left of centerline, 3' AGL/1797' MSL. Trees beginning 147' from DER, 35' left of centerline, up to 1819' MSL. Trees beginning 536' from DER, 249' right of centerline, up to 1820' MSL. Trees beginning 739' from DER, 82' right of centerline, up to 1835' MSL. **Rwy 28**, tree and terrain beginning 8' from DER, 202' left of centerline, up to 1838' MSL. Tree and terrain beginning 43' from DER, 58' right of centerline, up to 1824' MSL. Tree and terrain beginning 177' from DER, 41' right of centerline, up to 38' AGL/1837' MSL. Trees beginning 359' from DER, 201' left of centerline, up to 1849' MSL. Trees beginning 388' from DER, 223' right of centerline, up to 1847' MSL. Trees beginning 552' from DER, 222' right of centerline, up to 1856' MSL. Trees beginning 844' from DER, 236' right of centerline, up to 1865' MSL. Trees and terrain beginning 1061' from DER, 320' right of centerline, up to 1867' MSL. Trees beginning 1355' from DER, 536' right of centerline, up to 20' AGL/1880' MSL. Trees beginning 1540' from DER, 123' right of centerline, up to 1896' MSL. Trees beginning 1542' from DER, 5' left of centerline, up to 1867' MSL. Trees beginning 2953' from DER, 92' right of centerline, up to 1900' MSL. Trees beginning 3035' from DER, 32' left of centerline, up to 1890' MSL. Trees beginning 4461' from DER, 344' right of centerline, up to 1924' MSL.

## GRAND RAPIDS, MN

### GRAND RAPIDS/ITASCA COUNTY- GORDON NEWSTROM FIELD (GPZ)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 09127 (FAA)

TAKEOFF MINIMUMS: **Rwys 5, 10, 23, 28**, NA-Environmental. TAKEOFF OBSTACLE NOTES: **Rwy 16**, tree 1655' from DER, 899' left of centerline, 51' AGL/1410' MSL. Tree 3236' from DER, 1130' right of centerline, 82' AGL/1441' MSL. **Rwy 34**, tree 3416' from DER, 1253' right of centerline, 100' AGL/1399' MSL.

## GRANITE FALLS, MN

### GRANITE FALLS MUNI/LENZEN-ROE

#### FAGEN MEMORIAL FIELD (GDB)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 10126 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 15**, trees beginning 1780' from DER, 94' left of centerline, up to 100' AGL/1149' MSL. **Rwy 33**, trees beginning 1196' from DER, right and left of centerline, up to 100' AGL/1149' MSL. Power line 1242' from DER, 762' left of centerline, 80' AGL/1129' MSL. Train 1390' from DER, 149' left of centerline, 23' AGL/1162' MSL. Vehicle on road 1389' from DER, 156' left of centerline, up to 15' AGL/1154' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

  
**DIVERSE VECTOR AREA (RADAR VECTORS)**

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**GREGORY, SD**

GREGORY MUNI-FLYNN FIELD (9D1)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG-A 10182 (FAA)  
 TAKEOFF MINIMUMS: **Rwy 31**, 400-2¼ or std. with a  
 min. climb of 228' per NM to 2600.  
 TAKEOFF OBSTACLE NOTES: **Rwy 31**, tower 11377'  
 from DER, 816' right of centerline, 210' AGL/2491'  
 MSL.

**GWINNER, ND**

GWINNER-ROGER MELROE FIELD  
 (GWR)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 AMDT1 14261 (FAA)  
 TAKEOFF MINIMUMS: **Rwys 6, 24**, NA-Environment.  
 DEPARTURE PROCEDURE: **Rwy 34**, climbing right  
 turn heading 010° to 2000 before proceeding on  
 course.  
 TAKEOFF OBSTACLE NOTES: **Rwy 34**, tree 84' from  
 DER, 469' right of centerline, 43' AGL/1293' MSL. Pole  
 523' from DER, 626' right of centerline, 47' AGL/1296'  
 MSL.

**HALLOCK, MN**

HALLOCK MUNI (HCO)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG 11125 (FAA)  
 TAKEOFF OBSTACLE NOTES: **Rwy 13**, tree 1076'  
 from DER, 620' right of centerline, 100' AGL/919' MSL.  
 Trees beginning 81' from DER, from 472' left of  
 centerline, up to 100' AGL/919' MSL. **Rwy 31**, tree  
 1668' from DER, 560' right of centerline, 100' AGL/919'  
 MSL.

**HARVEY, ND**

HARVEY MUNI (5H4)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG 10266 (FAA)  
 TAKEOFF OBSTACLE NOTES: **Rwy 11**, vehicle on  
 road beginning 50' from DER, 318' left of centerline, up  
 to 15' AGL/1654' MSL. Tree 300' from DER, 329' right  
 of centerline, 20' AGL/1621' MSL. Tree 350' from DER,  
 444' right of centerline, 20' AGL/1619' MSL. **Rwy 29**,  
 vehicle on road beginning 4' from DER, left and right of  
 centerline, up to 15' AGL/1654' MSL. Rising terrain  
 beginning 7' from DER, 31' left of centerline, up to  
 1608' MSL.

**HAWLEY, MN**

HAWLEY MUNI (04Y)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG 07074 (FAA)  
 TAKEOFF OBSTACLE NOTES: **Rwy 34**, road 15' from  
 DER, 421' left of centerline, 15' AGL/1224' MSL.

**HAZEN, ND**

MERCER COUNTY RGNL (HZE)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG 10210 (FAA)  
 TAKEOFF MINIMUMS: **Rwy 32**, std. w/ min. climb of 215'  
 per NM to 2700, or 900-3 for climb in visual conditions.  
 DEPARTURE PROCEDURE: **Rwy 32**, for climb in visual  
 conditions: cross Mercer County Rgnl airport at or above  
 2600 MSL before proceeding on course.  
 TAKEOFF OBSTACLE NOTES: **Rwy 14**, numerous  
 fences beginning 196' from DER, 108' left of centerline,  
 up to 12' AGL/1843' MSL. Terrain beginning 501' from  
 DER, 271' left of centerline, up to 1837' MSL. **Rwy 32**,  
 tree 1291' from DER, 592' right of centerline, 25'  
 AGL/1833' MSL. Terrain 495' from DER, 360' left of  
 centerline, 1803' MSL. Fence 5' from DER, 298' left of  
 centerline, 8' AGL/1790' MSL. Tree 1444' from DER, 520'  
 right of centerline, 25' AGL/1823' MSL.

**HETTINGER, ND**

HETTINGER MUNI (HEI)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 AMDT 3 18312 (FAA)  
 TAKEOFF MINIMUMS: **Rwys 17, 35**, NA – environmental.  
**Rwy 12**, 300-1¼ or std. w/min. climb of 301' per NM to  
 3000.  
 DEPARTURE PROCEDURE: **Rwy 30**, climb heading 308°  
 to 3200 before turning right.  
 TAKEOFF OBSTACLE NOTES: **Rwy 12**, fence 26' from  
 DER, 435' right of centerline, 2703' MSL. Tree 1655' from  
 DER, 857' left of centerline, 2743' MSL. Tree 1763' from  
 DER, 733' left of centerline, 2754' MSL. Tree 2443' from  
 DER, 1095' left of centerline, 2764' MSL. Tree 3135' from  
 DER, 628' left of centerline, 2779' MSL. Tree 3137' from  
 DER, 1028' left of centerline, 2780' MSL. Tree 3403' from  
 DER, 1276' left of centerline, 2786' MSL. Tree 3513' from  
 DER, 1427' left of centerline, 2792' MSL. Tree 3527' from  
 DER, 1216' left of centerline, 2809' MSL. Tree 3589' from  
 DER, 1354' left of centerline, 2816' MSL. Trees  
 beginning 3613' from DER, 1137' left of centerline, up to  
 2826' MSL. Tree 4520' from DER, 1293' left of centerline,  
 2838' MSL. Trees beginning 4569' from DER, 1262' left  
 of centerline, up to 60' AGL/2849' MSL. Tree 5487' from  
 DER, 1936' left of centerline, 60' AGL/2869' MSL. Tower,  
 trees beginning 5516' from DER, 1129' left of centerline,  
 up to 100' AGL/2906' MSL. Trees beginning 5926' from  
 DER, 1917' left of centerline, up to 60' AGL/2859' MSL.  
**Rwy 30**, fence 26' from DER, 401' left of centerline,  
 2706' MSL. Terrain 93' from DER, 252' right of centerline,  
 2709' MSL. Fence 199' from DER, 349' right of  
 centerline, 2713' MSL. Terrain 290' from DER, 569' right  
 of centerline, 2714' MSL. Terrain 888' from DER, 703'  
 right of centerline, 2732' MSL. Fence 1134' from DER,  
 670' right of centerline, 2743' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

  
**DIVERSE VECTOR AREA (RADAR VECTORS)**

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## HIBBING, MN

### RANGE RGNL (HIB)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 04218 (FAA)

DEPARTURE PROCEDURE: **Rwy 22**, climb via heading 227° to 2200 before turning right. **Rwy 31**, climb via heading 310° to 2200 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 4**, antenna on pole, 361' from DER, 409' right of centerline, 1377' MSL. **Rwy 13**, obstacle light on pole, 1184' from DER, 636' left of centerline. Numerous trees beginning 1291' from DER, 745' left of centerline up to 1419' MSL. Trees 1497' from DER, 563' right of centerline, 1388' MSL. **Rwy 22**, multiple trees beginning 368' from DER, 170' right of centerline, up to 1416' MSL. Multiple trees beginning 413' from DER, 117' left of centerline, up to 1400' MSL. **Rwy 31**, light standard, 865' from DER, 595' right of centerline, 1381' MSL.

## HIGHMORE, SD

### HIGHMORE MUNI (9D0)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 16259 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, tank 245' from DER, 564' left of centerline, 44' AGL/1890' MSL. Tank 9' from DER, 492' left of centerline, 30' AGL/1877' MSL. Building 169' from DER, 449' left of centerline, 23' AGL/1871' MSL. Vehicles on road beginning 70' from DER, 397' left of centerline, 15' AGL/1865' MSL. Ground beginning 7' from DER, 413' right of centerline, 0' AGL/1856' MSL. NAVAID 10' from DER, 11' right of centerline, 3' AGL/1855' MSL. **Rwy 31**, fence beginning 83' from DER, 453' left of centerline, up to 12' AGL/1852' MSL. Fence beginning 129' from DER, 449' right of centerline, up to 12' AGL/1851' MSL. Trees beginning 1079' from DER, 397' left of centerline, up to 50' AGL/1898' MSL. Vertical structure 25' from DER, 450' right of centerline, up to 33' AGL/1845' MSL. NAVAID 9' from DER, 8' right of centerline, 2' AGL/1843' MSL. Vertical structure 201' from DER, 439' left of centerline, 32' AGL/1847' MSL.

## HILLSBORO, ND

### HILLSBORO MUNI (3H4)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 15008 (FAA)

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 166° to 1700 before turning right. **Rwy 34**, climb heading 346° to 2000 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 16**, REILs 11' from DER, 52' right of centerline, 1' AGL/906' MSL. Vehicles on road beginning 9' from DER, 463' right of centerline, up to 17' AGL/922' MSL. Vehicles on road beginning 109' from DER, 326' right of centerline, up to 17' AGL/923' MSL. Vehicles on road beginning 355' from DER, 326' right of centerline, 17' AGL/924' MSL. Vehicles on roads beginning 632' from DER, 61' right of centerline, 17' AGL/925' MSL. **Rwy 34**, post 4' from DER, 140' right of centerline, 5' AGL/908' MSL. NAVAID 21' from DER, 126' left of centerline, 2' AGL/907' MSL. Vehicles on road beginning 65' from DER, 411' right of centerline, up to 20' AGL/919' MSL.

## HINCKLEY, MN

### FIELD OF DREAMS (04W)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 08045 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 6**, Tree 82' from DER, 480' right of centerline, 100' AGL/1114' MSL. Tree 143' from DER, 161' left of centerline, 100' AGL/1114' MSL. **Rwy 24**, Tree 48' from DER, 165' left of centerline, 100' AGL/1124' MSL.

## HOT SPRINGS, SD

### HOT SPRINGS MUNI (HSR)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 12208 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, 24, NA-environmental. **Rwy 1**, 400-2½ or std. w/min. climb of 235' per NM to 3700. **Rwy 19**, 400-2¼ or std. w/min. climb of 255' per NM to 3600.

DEPARTURE PROCEDURE: **Rwy 1**, climb heading 026° to 4700 before turning westbound. **Rwy 19**, climb heading 192° to 4700 before turning westbound.

TAKEOFF OBSTACLE NOTES: **Rwy 1**, terrain 55' from DER, 468' right of centerline, 3144' MSL. Vehicle on road beginning 312' from DER, left and right of centerline, up to 15' AGL/3154' MSL. Trees beginning 528' from DER, left and right of centerline, up to 100' AGL/3239' MSL. Trees 2.1 NM from DER, 3246' left of centerline, up to 100' AGL/3519' MSL. **Rwy 19**, vehicle on road beginning 5' from DER, 369' left of centerline, up to 15' AGL/3161' MSL. Vehicle on road beginning 407' from DER, left and right of centerline, up to 15' AGL/3166' MSL. Poles beginning 607' from DER, left and right of centerline, up to 30' AGL/3181' MSL. Multiple trees and poles beginning 1875' from DER, left and right of centerline, up to 100' AGL/3281' MSL. Buildings 3031' from DER, 149' left of centerline, up to 20' AGL/3230' MSL. Fence beginning 3033' from DER, 559' left of centerline, up to 6' AGL/3236' MSL. Rising terrain beginning 3477' from DER, 545' left of centerline, up to 3241' MSL. Trees beginning 1.6 NM from DER, 764' left of centerline, up to 100' AGL/3489' MSL. Power lines beginning 1.4 NM from DER, 166' left of centerline, up to 120' AGL/3440' MSL.

## HURON, SD

### HURON RGNL (HON)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 09239 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 12**, trees and pole beginning 918' from DER, 525' left of centerline, up to 62' AGL/1341' MSL. Trees beginning 291' from DER, 234' right of centerline, up to 100' AGL/1389' MSL. **Rwy 17**, trees beginning 236' from DER, 307' left of centerline, up to 67' AGL/1346' MSL. Trees beginning 264' from DER, 262' right of centerline, 73' AGL/1352' MSL. **Rwy 30**, trees beginning 3428' from DER, 1378' left of centerline, up to 100' AGL/1394' MSL. **Rwy 35**, trees beginning 60' from DER, 104' left of centerline, up to 49' AGL/1328' MSL. Trees beginning 251' from DER, 97' right of centerline, 52' AGL/1331' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



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## DIVERSE VECTOR AREA (RADAR VECTORS)

**HUTCHINSON, MN**HUTCHINSON MUNI-BUTLER FIELD  
(HCD)TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 11181 (FAA)TAKEOFF OBSTACLE NOTES: **Rwy 15**, tree 3342'  
from DER, 425' right of centerline, 89' AGL/1148' MSL.  
Trees beginning 545' from DER, 394' left of centerline,  
up to 64' AGL/1113' MSL. **Rwy 33**, tree 994' from  
DER, 561' right of centerline, 40' AGL/1 099' MSL.**INTERNATIONAL FALLS, MN**FALLS INTL-EINARSON FIELD (INL)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3A 15008 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 4**, Tree 392' from  
DER 311' left of centerline, 51' AGL/1231' MSL. **Rwy 13**,  
multiple trees beginning 1999' from DER, 773' left  
of centerline, up to 63' AGL/1233' MSL. Pole 1091,  
from DER, 703' right of centerline, 37' AGL/1207' MSL.  
Road 1005' from DER, 766' left of centerline, 15'  
AGL/1195' MSL. **Rwy 22**, Multiple trees beginning  
433' from DER 273' left of centerline, up to 33'  
AGL/1213' MSL. Trees 1144' from DER 136' right of  
centerline, 28' AGL/1208' MSL. **Rwy 31**, Trees 968'  
from DER, 752' left of centerline, 56' AGL/1236' MSL.**JACKSON, MN**

JACKSON MUNI (MJQ)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 08045 (FAA)TAKEOFF MINIMUMS: **Rwys 4,22**, NA-TURF.  
DEPARTURE PROCEDURE: **Rwy 13**, Climb heading  
134° to 1900 before turning right.TAKEOFF OBSTACLE NOTES: **Rwy 13**, Trees  
beginning 1474' from DER, 556' left of centerline, up to  
80' AGL/1539' MSL. Vehicle on road 258' from DER,  
559' from centerline, 15' AGL/1459' MSL. **Rwy 31**,  
Vehicle on road 465' from DER, 618' left of centerline,  
15' AGL/1446' MSL. Trees beginning 1616' from DER,  
580' right of centerline, up to 80' AGL/1519' MSL.  
Trees beginning 1110' from DER, 429' left of  
centerline, up to 80' AGL/1509' MSL.**JAMESTOWN, ND**

JAMESTOWN RGNL (JMS)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 07242 (FAA)TAKEOFF OBSTACLE NOTES: **Rwy 22**, antenna and  
tank beginning 2960' from DER, 1007' left of  
centerline, up to 150' AGL/1631' MSL. **Rwy 31**,  
multiple trees beginning 2129' from DER 47' right of  
centerline, up to 60' AGL/1560' MSL.**KENMARE, ND**

KENMARE MUNI (7K5)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 11125 (FAA)TAKEOFF OBSTACLE NOTES: **Rwy 8**, vehicles on  
roadway 359' from DER, left and right of centerline, up to  
15' AGL/1980' MSL. Trees 374' from DER, 359' right of  
centerline, 50' AGL/2004' MSL. **Rwy 26**, aircraft on  
taxiway beginning abeam DER, 385' right of centerline,  
up to 17' AGL/1981' MSL. Hangars beginning 147' from  
DER, 506' right of centerline, up to 30' AGL/1994' MSL.  
Pole 1259' from DER, 49' right of centerline, 40'  
AGL/2002' MSL. Trees beginning 1342' from DER, 85'  
right of centerline, up to 50' AGL/2014' MSL.**KINDRED, ND**

ROBERT ODEGAARD FIELD (K74)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG-A 15064 (FAA)TAKEOFF OBSTACLE NOTES: **Rwy 29**, tree 991' from  
DER, 367' left of centerline, 38' AGL/982' MSL. Tree  
1073' from DER, 221' left of centerline, 38' AGL/982'  
MSL.**LANGDON, ND**

ROBERTSON FIELD (D55)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 10154 (FAA)TAKEOFF MINIMUMS: **Rwys 8, 26**, NA - Environmental.  
TAKEOFF OBSTACLE NOTES: **Rwy 14**, vehicles on  
road beginning 479' to 684' from DER, from 238' to 413'  
left of centerline, up to 15' AGL/1627' MSL. **Rwy 32**,  
windsock 13' from DER, 416' right of centerline, 16'  
AGL/1619' MSL. Fence 24' from DER, 301' left of  
centerline, 5' AGL/1608' MSL. Fence 199' from DER,  
293' left of centerline, 5' AGL/1608' MSL. Trees  
beginning 485' from DER 203' right of centerline, up to  
30' AGL/1628' MSL. Trees beginning 1912' from DER,  
from 241' to 418' left of centerline, up to 78' AGL/1677'  
MSL.

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## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



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## DIVERSE VECTOR AREA (RADAR VECTORS)

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)****LAKOTA, ND****LAKOTA MUNI (5L0)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 17173 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 15**, tree 129' from DER, 141' right of centerline, 1511' MSL. Tree 849' from DER, 214' left of centerline, 1531' MSL. Tree 877' from DER, 202' left of centerline, 1532' MSL. T-L tower 906' from DER, 439' left of centerline, 27' AGL/1533' MSL. Pole beginning 907' from DER, 430' left of centerline, up to 29' AGL/1534' MSL. Trees beginning 979' from DER, 197' left of centerline, up to 1553' MSL. **Rwy 33**, tree 29' from DER, 290' right of centerline, 1524' MSL. Building 482' from DER, 576' left of centerline, 23' AGL/1531' MSL. Road (N) beginning 587' from DER, 113' right of centerline, up to 1527' MSL. Tree 817' from DER, 536' right of centerline, 1541' MSL. Trees beginning 894' from DER, 173' right of centerline, up to 1554' MSL. Trees beginning 904' from DER, 175' right of centerline, up to 1557' MSL. Trees beginning 937' from DER, 158' right of centerline, up to 1558' MSL. Trees beginning 1004' from DER, 56' right of centerline, up to 1560' MSL. Tree 1063' from DER, 72' left of centerline, 1542' MSL. Trees and pole beginning 1099' from DER, 77' left of centerline, up to 1551' MSL.

**LEMMON, SD****LEMMON MUNI (LEM)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMD T 1 13234 (FAA)

TAKEOFF MINIMUMS: **Rwys 7, 25**, NA - Environmental.

TAKEOFF OBSTACLE NOTES: **Rwy 11**, rising terrain beginning 43' from DER, 318' right of centerline, up to 2575' MSL. Vehicles on road beginning 861' from DER, 369' left of centerline, up to 15' AGL/2596' MSL. **Rwy 29**, vehicles on road beginning 445' from DER, 231' left of centerline, up to 15' AGL/2583' MSL.

**LINTON, ND****LINTON MUNI (7L2)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 13234 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 9**, trees beginning 902' from DER, 210' right of centerline, up to 100' AGL/1830' MSL. Flag pole 37' from DER, 465' left of centerline, 30' AGL/1810' MSL. Vehicle on road beginning 72' from DER, 237' right of centerline, up to 15' AGL/1815' MSL. **Rwy 27**, trees beginning 14' from DER, 286' left of centerline, up to 100' AGL/1806' MSL.

**LISBON, ND****LISBON MUNI (6L3)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 17005 (FAA)

TAKEOFF MINIMUMS: **Rwy 3, 21**, NA, Environmental. TAKEOFF OBSTACLE NOTES: **Rwy 14**, terrain beginning 2' from DER, 168' right of centerline, up to 1231' MSL. Pole 51' from DER, 499' left of centerline, 1250' MSL. Vehicle on road beginning 441' from DER, left and right of centerline, up to 1248' MSL. Trees beginning 1136' from DER, 405' right of centerline, up to 1280' MSL. **Rwy 32**, terrain beginning 60' from DER, 297' left of centerline, up to 1234' MSL. Tree 109' from DER, 167' left of centerline, 1238' MSL. Fence beginning 123' from DER, 497' right of centerline, up to 3' AGL/1235' MSL. Fence and tree beginning 270' from DER, 149' right of centerline, up to 1242' MSL.

**LITCHFIELD, MN****LITCHFIELD MUNI (LJF)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMD T 1 10266 (FAA)

DEPARTURE PROCEDURE: **Rwy 31**, climb heading 316° to 1700 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees beginning 11' from DER, 417' left and right of centerline, up to 90' AGL/1234' MSL. Trees beginning 1251' from DER, 830' left of centerline, up to 89' AGL/1228' MSL. **Rwy 31**, trees beginning 958' from DER, 73' left of centerline, up to 46' AGL/1185' MSL. Trees beginning 13' from DER, 370' right of centerline, up to 95' AGL/1234' MSL.

**LITTLE FALLS, MN****LITTLE FALLS/MORRISON COUNTY-LINDBERGH FIELD (LXL)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMD T 4A 14121 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, 300-1½ or std. with a min. climb of 301' per NM to 1500. **Rwys 18,36**, NA-Environmental.

DEPARTURE PROCEDURE: **Rwy 31**, climb heading 308° to 1600 before turning right.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, numerous trees beginning 76' from DER, right and left of centerline, up to 100' AGL/1389' MSL. **Rwy 31**, numerous trees beginning 1986' from DER, right and left of centerline, up to 100' AGL/1214' MSL.

**LONG PRAIRIE, MN****TODD FIELD (14Y)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 08157 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 16**, tree 273' from DER, 310' right of centerline, 100' AGL/1436' MSL. **Rwy 34**, tree 70' from DER, 100' right of centerline, 100' AGL/1439' MSL. Tree 122' from DER, 105' left of centerline, 100' AGL/1436' MSL. Tree 18' from DER, 106' right of centerline, 100' AGL/1433' MSL.

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)**

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

  
**DIVERSE VECTOR AREA (RADAR VECTORS)**
**LONGVILLE, MN**

LONGVILLE MUNI (XVG)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 31**, 300-1½ or std. w/min. climb of 330' per NM to 1600.  
 TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees beginning 237' from DER, 497' right of centerline, up to 100' AGL/1449' MSL. Trees beginning 286' from DER, 533' left of centerline, up to 100' AGL/1429' MSL. Trees beginning 1122' from DER, 4' left of centerline, up to 100' AGL/1429' MSL. **Rwy 31**, vehicles on roadway beginning 58' from DER. 59' left of centerline, up to 17' AGL/1366' MSL. Trees beginning 281' from DER, 559' right of centerline, up to 100' AGL/1519' MSL. Trees beginning 327' from DER, 115' left of centerline, up to 100' AGL/1479' MSL.

**LUVERNE, MN**

QUENTIN AANENSON FIELD (LYV)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG 10154 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 18**, tree 813' from DER, 578' left of centerline, 50' AGL/1469' MSL. Road plus vehicle 685' from DER, 574' right of centerline, 15' AGL/1454' MSL. Terrain 20' from DER, on centerline, 1429' MSL. **Rwy 36**, transmission tower, 5752' from DER, 1036' right of centerline, 139' AGL/1581' MSL.

**MADISON, MN**

LAC QUI PARLE COUNTY (DXX)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG 12320 (FAA)

TAKEOFF MINIMUMS: **Rwys 9, 27**, NA-Environmental. **Rwy 32**, 300-1½ or std. w/min. climb of 213' per NM to 1400, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1500' prior to DER.  
 TAKEOFF OBSTACLE NOTES: **Rwy 14**, trees beginning 40' from DER, 463' right of centerline, up to 100' AGL/1081' MSL. Terrain 22' from DER, 175' left of centerline, 1080' MSL. **Rwy 32**, vehicles on roadway beginning 538' from DER, left to right of centerline, up to 15' AGL/1098' MSL. Trees beginning 1485' from DER, 790' left of centerline, up to 100' AGL/1152' MSL. Tower 1.2 NM from DER, 2112' right of centerline, 200' AGL/1277' MSL.

**MADISON, SD**

MADISON MUNI (MDS)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG 11181 (FAA)

TAKEOFF MINIMUMS: **Rwys 3, 21**, NA - environmental.  
 TAKEOFF OBSTACLE NOTES: **Rwy 15**, trees beginning 764' from DER, 284' left of centerline, up to 76' AGL/1766' MSL. Plant and fence beginning 65' from DER, 384' right of centerline, up to 24' AGL/1733' MSL. **Rwy 33**, road 82' from DER, 399' left of centerline, 23' AGL/1723' MSL. Road and trees beginning 131' from DER, 9' right of centerline, up to 100' AGL/1859' MSL.

**MAHNOMEN, MN**

MAHNOMEN COUNTY (3N8)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG 13290 (FAA)

TAKEOFF MINIMUMS: **Rwys 9,27**, NA-Environmental.  
 TAKEOFF OBSTACLE NOTES: **Rwy 17**, terrain beginning 14' from DER, 402' right of centerline, up to 1248' MSL. **Rwy 35**, vehicles on roadway, poles, and telephone lines beginning 201' from DER, 450' left of centerline, up to 42' AGL/1273' MSL. Telephone line 972' from DER, 590' right of centerline, 35' AGL/1266' MSL. Trees beginning 1597' from DER 605' left of centerline, 75' AGL/1306' MSL.

**MANDAN, ND**

MANDAN MUNI (Y19)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 AMDT 1 14149 (FAA)

TAKEOFF MINIMUMS: **Rwys 4, 22**, NA-Environmental.  
 TAKEOFF OBSTACLE NOTES: **Rwy 13**, fence and trees beginning 26' from DER, 310' left of centerline, up to 48' AGL/1988' MSL. Transmission lines and pole beginning 1604' from DER, from left to right of centerline, up to 64' AGL/1984' MSL. **Rwy 31**, trees beginning 1256' from DER, from left to right of centerline up to 65' AGL/1995' MSL.

**MANKATO, MN**

MANKATO RGNL (MKT)  
 TAKEOFF MINIMUMS AND (OBSTACLE)  
 DEPARTURE PROCEDURES  
 ORIG 09267 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 4**, trees beginning 447' from DER, 408' right of centerline, up to 100' AGL/1078' MSL. Trees beginning 1996' from DER, 17' left of centerline, up to 100' AGL/1084' MSL. **Rwy 15**, trees beginning 1552' from DER, 719' left of centerline, up to 100' AGL/1088' MSL. **Rwy 22**, trees beginning 2370' from DER, 989' right of centerline, up to 100' AGL/1069' MSL. **Rwy 33**, trees beginning 2085' from DER, 780' right of centerline, up to 100' AGL/1077' MSL. Rising terrain 9' from DER, 65' right of centerline, up to 1029' MSL. Terrain beginning 82' from DER, 60' left of centerline, up to 1029' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

  
**DIVERSE VECTOR AREA (RADAR VECTORS)**



## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



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## DIVERSE VECTOR AREA (RADAR VECTORS)

## MARSHALL, MN

SOUTHWEST MINNESOTA RGNL  
MARSHALL/RYAN FIELD (MML)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2A 15344 (FAA)

TAKEOFF MINIMUMS: **Rwy 20**, Std. w/ min. climb of 270' per NM to 2000, or 1000-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 20**, for climb in visual conditions, cross Marshall Airport at or above 2000 MSL before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 2**, runway light 39' from DER, 79' left of centerline, 3' AGL/1174' MSL; trees beginning 1324' from DER, 796' left of centerline, up to 89' AGL/1256' MSL. **Rwy 12**, Pole 706' from DER, 671' right of centerline, 60' AGL/1212' MSL, pole 1580' from DER, 732' left of centerline, 70' AGL/1225' MSL, antenna 1496' from DER, 620' right of centerline, 64' AGL/1219' MSL, pole 1185' from DER, 540' right of centerline, 55' AGL/1210' MSL, tree 3564' from DER, 400' right of centerline, 110' AGL/1269' MSL, tree 2135' from DER, 113' left of centerline, 77' AGL/1232' MSL. **Rwy 20**, runway light 42' from DER, 77' left of centerline, 2' AGL, 1183' MSL; runway light 41' from DER, 78' right of centerline, 2' AGL/1182' MSL. **Rwy 30**, Vehicle on road 1' from DER, 435' left of centerline, 24' AGL/1200' MSL.

## MARTIN, SD

MARTIN MUNI (9V6)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 16147 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 14**, It support structure 9' from DER, 20' left of centerline, 3280' MSL. Lt support structure 10' from DER, 9' right of centerline, 3278' MSL. Ground 13' from DER, 408' left of centerline, 3282' MSL. Ground 27' from DER, 199' left of centerline, 15' AGL/3282' MSL. Fence and ground beginning 74' from DER, 219' left of centerline, up to 3287' MSL. Vehicle on road 145' from DER, 289' right of centerline, 15' AGL/3283' MSL. **Rwy 32**, building, pole, ground and, vehicle on road, beginning 1' from DER, 9' left of centerline, up to 23' AGL/3317 MSL. Tree 1083' from DER, 19' left of centerline, 3322' MSL. Tree 1095' from DER, 387' right of centerline, 3382' MSL. Tree 1172' from DER, 130' left of centerline, 3340' MSL. Tree and pole beginning 1270' from DER, 9' left of centerline, up to 3341' MSL. Tree 1315' from DER, 219' left of centerline, 3343' MSL. Poles and trees beginning 1366' from DER, 174' left of centerline, up to 44' AGL/3349' MSL. Trees beginning 1463' from DER, 94' right of centerline, up to 3334' MSL. Poles and trees beginning 1481' from DER, 406' left of centerline, up to 43' AGL/3350' MSL.

## MC GREGOR, MN

ISEDOR IVERSON (HZX)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 11349 (FAA)

DEPARTURE PROCEDURE: **Rwy 14**, climb heading 139° to 1900 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 14**, trees beginning 72' from DER, 440' left of centerline, up to 100' AGL/1324' MSL. Trees beginning 1158' from DER, 724' right of centerline, up to 100' AGL/1324' MSL. Trees beginning 2888' from DER, 589' left of centerline, up to 100' AGL/1334' MSL. **Rwy 32**, vehicles on roadway beginning 499' from DER, 577' left of centerline, up to 17' AGL/1246' MSL. Trees beginning 2919' from DER, left and right of centerline, up to 100' AGL/1329' MSL.

## MILBANK, SD

MILBANK MUNI (1D1)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 08101 (FAA)

TAKEOFF MINIMUMS: **Rwy 25**, Std. w/ a min. climb of 207' per NM to 1900, or 900-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 25**, For climb in visual conditions cross Milbank Muni airport at or above 1900 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 7**, trees beginning 1207' from DER, 387' left of centerline, up to 100' AGL/ 1219' MSL. Vehicle on road 829' from DER, 373' right of centerline, 15' AGL/ 1134' MSL. Building 322' from DER, 582' right of centerline, 25' AGL/ 1134' MSL. **Rwy 13**, trees beginning 1448' from DER, 394' right of centerline, up to 100' AGL/ 1219' MSL. Vehicle on road 218' from DER, 490' left of centerline, 15' AGL/ 1134' MSL. Building 78' from DER, 397' left of centerline, 25' AGL/ 1134' MSL. **Rwy 25**, tree 3584' from DER, 477' left of centerline, 100' AGL/ 1249' MSL. **Rwy 31**, tree 2992' from DER, 715' left of centerline, 100' AGL/ 1239' MSL.

## MILLER, SD

MILLER MUNI (MKA)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 08269 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 15**, vehicle on road 769' from DER, 642' right of centerline, 15' AGL/1599' MSL. Snow removal equipment 206' from DER, 475' right of centerline, 21' AGL/1594' MSL. Tree 3903' from DER, 998' left of centerline, 100' AGL/1684' MSL. **Rwy 33**, vehicle on road 450' from DER, 560' left of centerline, 15' AGL/1584' MSL. Tree 762' from DER, 628' left of centerline, 100' AGL/1669' MSL.

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## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



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## DIVERSE VECTOR AREA (RADAR VECTORS)

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## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



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## DIVERSE VECTOR AREA (RADAR VECTORS)

## MINNEAPOLIS, MN

AIRLAKE (LVN)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 10154 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 12**, ground 198' from DER, 533' right of centerline, 0' AGL/963' MSL. Tree and vehicle on road, beginning 422' from DER, 379' right of centerline, up to 15' AGL/978' MSL. Tree 1291' from DER, 506' left of centerline, 62' AGL/1002' MSL. **Rwy 30**, ground 104' from DER, 479' left of centerline, 0' AGL/965' MSL. Tree, pole, and antenna on building beginning 171' from DER, 259' right of centerline, up to 50' AGL/1000' MSL. Tree, railroad, and antenna on building 486' from DER, 268' left of centerline, up to 41' AGL/1001' MSL. Trees and a building beginning 821' from DER, 30' right of centerline, up to 49' AGL/1009' MSL.

ANOKA COUNTY-BLAINE (JANES FIELD)  
(ANE)TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5B 17229 (FAA)

TAKEOFF MINIMUMS; **Rwy 9**, 300-1½ or std. w/ min. climb of 205' per NM to 1200, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1200' prior to DER. **Rwy 18**, 300-1 or std. w/ min. climb of 370' per NM to 1200.

DEPARTURE PROCEDURE: **Rwy 9**, climb heading 089° to 2200 before turning right. **Rwy 18**, climb heading 179° to 2600 before turning left. **Rwy 27**, climb heading 269° to 1700 before proceeding southeast bound. **Rwy 36**, climb heading 359° to 1700 before proceeding southeast bound.

TAKEOFF OBSTACLE NOTES: **Rwy 9**, tree 821' from DER, 618' right of centerline, 961' MSL. Water tank 1.1 NM from DER, 1278' right of centerline, 170' AGL/1082' MSL. **Rwy 18**, road beginning 2' from DER, 49' right of centerline, up to 925' MSL. Trees beginning 405' from DER, 286' left of centerline, up to 946' MSL. Trees beginning 487' from DER, 353' left of centerline, up to 954' MSL. Tree 757' from DER, 385' left of centerline, 955' MSL. Trees beginning 769' from DER, 335' left of centerline, up to 959' MSL. Tower 5016' from DER, 200' left of centerline, 120' AGL/1178' MSL. **Rwy 27**, tree 7' from DER, 270' right of centerline, 908' MSL. Trees beginning 70' from DER, 247' right of centerline, up to 912' MSL. Tree 185' from DER, 390' right of centerline, 926' MSL. Tree 447' from DER, 509' right of centerline, 930' MSL. Tree 684' from DER, 671' left of centerline, 946' MSL. Tree 1189' from DER, 811' left of centerline, 957' MSL. Tree 1296' from DER, 697' right of centerline, 946' MSL. Tree 3028' from DER, 553' right of centerline, 983' MSL. **Rwy 36**, trees beginning 85' from DER, 308' right of centerline, up to 927' MSL. Trees beginning 190' from DER, 267' right of centerline, up to 971' MSL. Trees beginning 1544' from DER, 249' right of centerline, up to 987' MSL. Tree 1985' from DER, 358' left of centerline, 962' MSL.

## MINNEAPOLIS, MN (CON'T)

CRYSTAL (MIC)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 11041 (FAA)

TAKEOFF MINIMUMS: **Rwy 6R, 24L, NA** -  
Environmental.

DEPARTURE PROCEDURE: **Rwy 6L**, Climb heading 051° to 2400 before turning right. **Rwys 14L, 14R** Climb heading 140° to 1900 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 6L**, multiple trees beginning 514' from DER, 35' left of centerline, up to 66' AGL/945' MSL. Multiple trees beginning 836' from DER, 18' right of centerline, up to 76' AGL/945' MSL. **Rwy 14L**, multiple trees, sign and pole beginning 46' from DER, 125' left of centerline, up to 61' AGL/940' MSL. Multiple trees beginning 153' from DER, 4' right of centerline, up to 57' AGL/946' MSL. **Rwy 14R**, multiple trees, pole, and sign beginning 51' from DER, 295' left of centerline, up to 61' AGL/940' MSL. Multiple trees beginning 5' from DER, 121' right of centerline, up to 67' AGL/946' MSL. **Rwy 24R**, multiple trees beginning 1179' from DER, 110' left of centerline, up to 60' AGL/939' MSL. Multiple trees, sign and hangar beginning 41' from DER, 132' right of centerline, up to 62' AGL/941' MSL. Vehicles on road 903' from DER, 8' right of centerline, up to 17' AGL/896' MSL. **Rwy 32L**, multiple trees beginning 562' from DER, 70' left of centerline, up to 79' AGL/958' MSL. Multiple trees and sign beginning 70' from DER, 26' right of centerline, up to 81' AGL/960' MSL. Vehicles on road beginning 390' from DER, 11' left of centerline, up to 15' AGL/984' MSL. Power line 272' from DER, 443' left of centerline, 40' AGL/909' MSL. Multiple hangars beginning 88' from DER, 326' left of centerline, up to 20' AGL/889' MSL. **Rwy 32R**, multiple trees beginning 899' from DER, 50' left of centerline, up to 81' AGL/960' MSL. Tree and sign beginning 77' from DER, 149' right of centerline, up to 70' AGL/950' MSL. Vehicles on road beginning 537' from DER, 311' left of centerline, up to 15' AGL/894' MSL. Multiple hangars beginning 355' from DER, 490' right of centerline, up to 30' AGL/899' MSL.

## FLYING CLOUD (FCM)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 6 14037 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 10L**, tree, buildings, and poles beginning 78' from DER, 346' left of centerline, up to 45' AGL/945' MSL. Vehicle on road, sign, and trees beginning 645' from DER, 442' right of centerline, up to 37' AGL/937' MSL. **Rwy 10R**, buildings beginning 260' from DER, 321' right of centerline, up to 40' AGL/943' MSL. Trees, poles, and general utility beginning 331' from DER, 106' right of centerline, up to 38' AGL/939' MSL. **Rwy 28R**, tree, buildings, and general utility beginning 105' from DER, 353' right of centerline, up to 38' AGL/938' MSL. **Rwy 18L**, buildings beginning 212' from DER, 318' right of centerline, up to 34' AGL/938' MSL. Vehicle on road 262' from DER, 195' left of centerline, 15' AGL/918' MSL. Trees beginning 401' from DER, 165' left of centerline, up to 51' AGL/961' MSL. **Rwy 36**, building 3' from DER, 478' left of centerline, 18' AGL/920' MSL. Trees beginning 426' from DER, 323' right of centerline, up to 61' AGL/951' MSL. Trees, buildings, poles, and windmill beginning 541' from DER, 302' left of centerline, up to 59' AGL/960' MSL.

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## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



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## DIVERSE VECTOR AREA (RADAR VECTORS)

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)****MINNEAPOLIS, MN (CON'T)**MINNEAPOLIS-ST. PAUL INTL / WOLD-  
CHAMBERLAIN (MSP)TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 12 13122 (FAA)

TAKEOFF MINIMUMS: **Rwy 12L**, 300-1½ or std. w/min. climb of 207' per NM to 1100, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1300' prior to DER. **Rwy 35**, std. w/ min. climb of 219' per NM to 2100.

DEPARTURE PROCEDURE: **Rwy 4**, climb heading 045° to 2100 before turning left. **Rwys 30L,30R**, climb heading 301° to 2100 before turning right.

**Rwy 35**, climb heading 350° to 2100 before proceeding on course

TAKEOFF OBSTACLE NOTES: **Rwy 4**, trees beginning 800' from DER, 301' left of centerline, up to 75' AGL/925' MSL. Rod on building 2528' from DER, 1174' left of centerline, 78' AGL/922' MSL. Fence beginning 13' from DER, 486' left of centerline, up to 6' AGL/860' MSL. Stack 4535' from DER, 480' left of centerline, 139' AGL/949' MSL. **Rwy 12L**, tree 1.1 NM from DER, 1691' left of centerline, 92' AGL/991' MSL. Light pole and camera on wall beginning 398' from DER, 561' right of centerline, up to 23' AGL/832' MSL.

**Rwy 12R**, tree 1479' from DER, 561' left of centerline, 86' AGL/855' MSL. Obstruction light on pole 1002' from DER, 753' left of centerline, 53' AGL/852' MSL. **Rwy 17**, pole 409' from DER, 530' right of centerline, 29' AGL/866' MSL. Building 2619' from DER, 881' left of centerline, 97' AGL/918' MSL. Building 1956' from DER, 904' left of centerline, 61' AGL/866' MSL. Tree 2619' from DER, on centerline, 79' AGL/900' MSL. **Rwy 22**, trees beginning 2659' from DER, 867' right of centerline, 94' AGL/934' MSL.

**Rwy 30L**, antenna on tower 3555' from DER, 1334' left of centerline, 116' AGL/935' MSL. **Rwy 30R**, billboard sign 1463' from DER, 848' right of centerline, 31' AGL/880' MSL. **Rwy 35**, trees beginning 2553' from DER, 770' right of centerline, 100' AGL/919' MSL. Trees beginning 1989' from DER, 194' left of centerline, up to 87' AGL/906' MSL. Buildings beginning 5.4 NM from DER, 1781' left of centerline, up to 889' AGL/1743' MSL.

**MINOT, ND**

MINOT INTL (MOT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3A 11097 (FAA)

TAKEOFF MINIMUMS: **Rwy 26**, 300-1½ or std. with a min. climb of 219' per NM to 2000.

DEPARTURE PROCEDURE: **Rwy 13**, climb via heading 128° to 2200 before turning right. **Rwy 26**, climb via heading 260° to 2300 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 8**, fence 261' from DER, 415' right of centerline, 9' AGL/1669' MSL. **Rwy 26**, poles beginning 952' from DER, 523' left of centerline, up to 42' AGL/1761' MSL. Tower 1297' from DER, 405' right of centerline, 29' AGL/1751' MSL. Sign 1372' from DER, 323' left of centerline, 31' AGL/1750' MSL. Sign 1377' from DER, 832' right of centerline, 59' AGL/1778' MSL. Light pole 1419' from DER, 24' right of centerline, 36' AGL/1752' MSL. Trees beginning 1463' from DER, 73' right of centerline, up to 76' AGL/1795' MSL. Building 1432' from DER, 303' right of centerline, 33' AGL/1753' MSL. Tree 2071' from DER, 60' left of centerline, 53' AGL/1772' MSL. Tank 1.1 NM from DER, 1812' right of centerline, 140' AGL/1900' MSL. **Rwy 31**, trees beginning 2908' from DER, 560' left of centerline, up to 64' AGL/1778' MSL.

**MITCHELL, SD**

MITCHELL MUNI (MHE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1A 15344 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 18**, trees beginning 829' from DER, 505' right of centerline, up to 80' AGL/1386' MSL. NAVAID 119' from DER, 409' left of centerline, 9' AGL/1308' MSL. **Rwy 36**, trees beginning 552' from DER, 575' right of centerline, up to 80' AGL/1328' MSL. NAVAIDs beginning 34' from DER, 100' right and left of centerline, up to 3' AGL/1286' MSL.

**MOBRIDGE, SD**

MOBRIDGE MUNI(MBG)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 11181 (FAA)

TAKEOFF MINIMUMS: **Rwys 17,35,NA** - environmental DEPARTURE PROCEDURE: **Rwy 12**, climb heading 118° to 2600 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, tower 2587' from DER, 651' right of centerline, 40' AGL/ 1810' MSL. Pole 3567' from DER, 12' right of centerline, 11' AGL/ 1790' MSL. Tree 1495' from DER, 230' right of centerline, 29' AGL/ 1738' MSL. Trees and poles beginning 1698' from DER, 160' left of centerline, up to 75' AGL/ 1811' MSL. Terrain and road beginning 153' from DER, 307' left of centerline, up to 17' AGL/1749' MSL. **Rwy 30**, terrain and road beginning 36' from DER, left to right across centerline, up to 17' AGL/1710' MSL.

**MOHALL, ND**

HOHALL MUNI (HBC)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 11293 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, vehicles on roadway, 361' from DER, left and right of centerline, up to 15' AGL/1664' MSL.

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
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**MONTEVIDEO, MN**

MONTEVIDEO-CHIPPEWA COUNTY  
(MVE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG-A 15232 (FAA)

TAKEOFF MINIMUMS: **Rwy 3, 21**, NA-Environmental.  
DEPARTURE PROCEDURE: **Rwy 14**, climb runway  
heading to 1500 before turning.

**MOORHEAD, MN**

MOORHEAD MUNI (JKJ)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 11293 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 12**, building 263'  
from DER, 495' left of centerline, 15' AGL/932' MSL.  
Tree 657' from DER, 449' left of centerline, 114'  
AGL/1031' MSL. Trees 1463' from DER, 711' left of  
centerline, up to 69' AGL/986' MSL. Poles beginning  
868' from DER, left and right of centerline, up to 48'  
AGL/965' MSL.  
**Rwy 30**, tree 119' from DER, 104' left of centerline,  
4' AGL/918' MSL. Poles beginning 1342' from DER,  
855' right of centerline, up to 55' AGL/969' MSL.

**MOOSE LAKE, MN**

MOOSE LAKE CARLTON COUNTY (MZH)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 94006 (FAA)

TAKEOFF MINIMUMS: **Rwys 4, 22**, 300-1.

**MORA, MN**

MORA MUNI (JMR)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG-A 18144 (FAA)

TAKEOFF MINIMUMS: **Rwy 11, 29**, NA - environmental.  
TAKEOFF OBSTACLE NOTES: **Rwy 17**, light pole 16'  
from DER, 17' right of centerline, 3' AGL/1012' MSL.  
Terrain 27' from DER, 311' from DER, 1012' MSL.  
Vehicle on road, building, and trees beginning 162' from  
DER, 410' right of centerline, up to 33' AGL/1034' MSL.  
Trees beginning 208' from DER, 443' left of centerline, up  
to 44' AGL/1045' MSL. Trees beginning 644' from DER,  
455' right of centerline, up to 53' AGL/1054' MSL. Trees  
beginning 864' from DER, 178' right of centerline, up to  
76' AGL/1068' MSL. Trees beginning 1055' from DER,  
37' left of centerline, up to 62' AGL/1063' MSL. Trees  
beginning 1619' from DER, 491' right of centerline, up to  
72' AGL/1074' MSL. Tree 1975' from DER, 405' left of  
centerline, 68' AGL/1069' MSL. Tree 2054' from DER, 2'  
right of centerline, 68' AGL/1069' MSL. Trees beginning  
2237' from DER, crossing centerline, up to 88' AGL/1089'  
MSL. Trees beginning 2645' from DER, 777' right of  
centerline, up to 89' AGL/1105' MSL. **Rwy 35**, terrain  
beginning 168' from DER, 290' left of centerline, up to  
1018' MSL. Terrain 178' from DER, 383' right of  
centerline, 1005' MSL. Terrain, vehicle on road, and trees  
beginning 349' from DER, 387' right of centerline, up to  
58' AGL/1059' MSL. Trees beginning 441' from DER,  
388' left of centerline, up to 46' AGL/1057' MSL. Trees  
beginning 634' from DER, 354' left of centerline, up to 70'  
AGL/1071' MSL. Trees beginning 617' from DER, 427'  
right of centerline, up to 66' AGL/1067' MSL. Trees  
beginning 1032' from DER, 267' left of centerline, up to  
68' AGL/1086' MSL. Trees beginning 1563' from DER,  
582' right of centerline, up to 61' AGL/1072' MSL. Tree  
1791' from DER, 964' left of centerline, 66' AGL/1097'  
MSL. Trees beginning 2085' from DER, crossing  
centerline, up to 73' AGL/1104' MSL.

**MORRIS, MN**

MORRIS MUNI-CHARLIE SCHMIDT FLD  
(MOX)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 08045 (FAA)

TAKEOFF MINIMUMS: **Rwys 4, 22**, NA-Environmental.  
TAKEOFF OBSTACLE NOTES: **Rwy 32**, Trees 2888'  
from DER, 1125' left of centerline, 100' AGL/1209' MSL.

**NEW ULM, MN**

NEW ULM MUNI (ULM)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG-A 15260 (FAA)

TAKEOFF MINIMUMS: **Rwy 4, 22**, NA-Environmental.  
TAKEOFF OBSTACLE NOTES: **Rwy 33**, tree 628' from  
DER, 417' right of centerline, 33' AGL/1034' MSL. Tree  
1457' from DER, 650' left of centerline, 38' AGL/1047'  
MSL. Ground 4' from DER, 154' left of centerline, 1007'  
MSL. **Rwy 15**, tree 1935' from DER, 610' left of  
centerline, 100' AGL/1099' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)****NORTHWOOD, ND**

NORTHWOOD MUNI-VINCE FIELD (4V4)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 12040 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 8**, trees beginning 3317' from DER, 737' left of centerline, up to 100' AGL/1214' MSL. **Rwy 26**, trees beginning 1171' from DER, left and right of centerline, up to 100' AGL/1214' MSL.**OAKES, ND**

OAKES MUNI (2D5)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1A 18116 (FAA)

TAKEOFF MINIMUMS: **Rwys 17, 35**, NA - Environmental.TAKEOFF OBSTACLE NOTES: **Rwy 12**, trees beginning 2071' from DER, left and right of centerline, up to 100' AGL/1459' MSL. **Rwy 30**, trees beginning 2509' from DER, 744' left of centerline, up to 100' AGL/1454' MSL.**OLIVIA, MN**

OLIVIA RGNL (OVL)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 86044 (FAA)

TAKEOFF MINIMUMS: **Rwy 11**, 300-1.**ONIDA, SD**

ONIDA MUNI (98D)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 18032 (FAA)

TAKEOFF MINIMUMS: **Rwy 8, 26**, NA - environmental. **Rwy 13**, 300-1½ or std. w/min. climb gradient of 250 feet per NM to 2500.TAKEOFF OBSTACLE NOTES: **Rwy 13**, light pole 10' from DER, 10' left of centerline, 2' AGL/1887' MSL. Light pole 10' from DER, 10' right of centerline, 3' AGL/1887' MSL. **Rwy 31**, light pole 11' from DER, 10' right of centerline, 3' AGL/1864' MSL. Light pole 11' from DER, 11' left of centerline, 3' AGL/1863' MSL.**ORR, MN**

ORR RGNL (ORB)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 12152 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, 300-1½ or std. w/min. climb of 260' per NM to 1600.DEPARTURE PROCEDURE: **Rwy 13**, climb heading 136° to 1900 before turning right.TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees beginning 630' from DER, 476' right of centerline, up to 80' AGL/1389' MSL. Trees beginning 759' from DER, 361' left of centerline, up to 80' AGL/1459' MSL. Trees beginning 1.1 NM from DER, 1343' right of centerline, up to 80' AGL/1499' MSL. **Rwy 31**, trees beginning 366' from DER, 162' left of centerline, up to 80' AGL/429' MSL. Trees beginning 867' from DER, 719' right of centerline, up to 80' AGL/1429' MSL. Trees beginning 5401' from DER, 148' right of centerline, up to 80' AGL/1449' MSL.**ORTONVILLE, MN**

ORTONVILLE MUNI-MARTINSON FIELD

(VVV)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 81274 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, 300-1 or std. with a min. climb of 210' per NM to 1300.**OWATONNA, MN**

OWATONNA DEGNER RGNL (OWA)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 97030 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climb runway heading to 1500 before turning on course.**PARK RAPIDS, MN**

PARK RAPIDS MUNI-KONSKHOK FIELD

(PKD)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 16175 (FAA)

DEPARTURE PROCEDURE: **Rwy 36**, climb heading 356° to 2000 before turning right.TAKEOFF OBSTACLE NOTES: **Rwy 13**: Pole 880' from DER, 711' left of centerline, 26' AGL/1467' MSL. **Rwy 18**: Trees beginning 1371' from DER, left and right of centerline, up to 1549' MSL. Trees beginning 3080' from DER, left and right of centerline, up to 1539' MSL. **Rwy 31**: Vehicles on road beginning 66' from DER, right and left of centerline, up to 1462' MSL. Trees beginning 359' from DER, 454' right of centerline, up to 1468' MSL. Trees beginning 799' from DER, 236' left of centerline, up to 1479' MSL. Trees beginning 854' from DER, 296' right of centerline, up to 1476' MSL. **Rwy 36**: Trees and buildings beginning 575' from DER, left and right of centerline, up to 1549' MSL. Trees beginning 2802' from DER, 95' right of centerline, up to 1559' MSL.**PARKSTON, SD**

PARKSTON MUNI (8V3)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 13290 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 15**, poles beginning 628' from DER, left and right of centerline, up to 37' AGL/1452' MSL. Transmission towers beginning 758' from DER, left and right of centerline, up to 29' AGL/1444' MSL. Train on railroad, 777' from DER, 573' left of centerline, 24' AGL/1439' MSL. Building 1189' from DER, 694' left of centerline, 35' AGL/1450' MSL. Trees beginning 1227' from DER, 268' left of centerline, up to 36' AGL/1459' MSL. **Rwy 33**, trees beginning 300' from DER, left and right of centerline, up to 63' AGL/1478' MSL. Poles beginning 662' from DER, left and right of centerline, up to 48' AGL/1463' MSL. Transmission towers beginning 896' from DER, left and right of centerline, up to 44' AGL/1459' MSL. Lighted support structures beginning 1076' from DER, left and right of centerline, up to 48' AGL/1463' MSL. Fences beginning 17' from DER, left and right of centerline, up to 6' AGL/1421' MSL. Silo, 1677' from DER, 43' AGL/1458' MSL. Vehicle on road, 54' from DER, 14' AGL/1459' MSL.**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## PAYNESVILLE, MN

PAYNESVILLE MUNI (PEX)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 18312 (FAA)

TAKEOFF MINIMUMS: **Rwy 11**, 300-1½ or std. w/min. climb of 234' per NM to 1600. **Rwy 29**, 300-1¾ or std. w/min. climb of 210' per NM to 1500.

TAKEOFF OBSTACLE NOTES: **Rwy 11**, trees beginning 61' from DER, 482' right of centerline, up to 1231' MSL. Tree 3539' from DER, 1234' right of centerline, 1309' MSL. Tower 1.5 NM from DER, 1956' left of centerline, 184' AGL/1456' MSL. Tower 1.5 NM from DER, 1318' left of centerline, 193' AGL/1458' MSL. **Rwy 29**, tree 1951' from DER, 990' right of centerline, 1240' MSL. Power lines 1.3 NM from DER, 2625' left of centerline, 200' AGL/1399' MSL.

## PEMBINA, ND

PEMBINA MUNI (PMB)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 85325 (FAA)  
DEPARTURE PROCEDURE: **Rwy 33**, climb runway heading 3200 before turning left.

## PERHAM, MN

PERHAM MUNI (16D)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 13234 (FAA)  
DEPARTURE PROCEDURE: **Rwy 13**, climb heading 128° to 1900 before turning left.  
TAKEOFF OBSTACLE NOTES: **Rwy 13**, REILS 8' from DER, 79' right of centerline, 2' AGL/1373' MSL. Trees beginning 6' from DER, 350' right of centerline, up to 50' AGL/1386' MSL and trees beginning 138' from DER, 115' right of centerline, up to 50' AGL/1433' MSL. Light 8' from DER, 79' left of centerline, 2' AGL/1373' MSL. Trees beginning 261' from DER, 251' left of centerline, up to 50' AGL/1387' MSL. **Rwy 31**, REILS 9' from DER, 79' right of centerline, 2' AGL/1378' MSL. Ground 8' from DER, 223' right of centerline, 1377' MSL. Poles and tower beginning 627' from DER, 570' right of centerline, up to 43' AGL/1430' MSL. Light, 8' from DER, 79' left of centerline, 2' AGL/1377' MSL. Vehicles on road beginning 431' from DER, 32' left of centerline, up to 18' AGL/1394' MSL. Trees, pole, and building beginning 93' from DER, 377' left of centerline, up to 50' AGL/1409' MSL.

## PHILIP, SD

PHILIP (PHP)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 14037 (FAA)  
TAKEOFF MINIMUMS: **Rwys 5, 23**, NA-Environmental.  
TAKEOFF OBSTACLE NOTES: **Rwy 12**, tree and fence beginning 2' from DER, 334' right of centerline, up to 25' AGL/2204' MSL. Sign, fence and trees beginning 27' from DER, 127' left of centerline, up to 30' AGL/2212' MSL. **Rwy 30**, fence beginning 174' from DER, 286' left of centerline, up to 10' AGL/2219' MSL. Fence and vehicles on road beginning 3' from DER, 448' right of centerline, up to 15' AGL/2219' MSL. Poles beginning 950' from DER, 308' right of centerline, up to 36' AGL/2250' MSL. Terrain beginning 2598' from DER, 251' right of centerline, up to 277' MSL. Road beginning 4019' from DER, 1413' right of centerline, up to 15' AGL/2322' MSL.

## PIERRE, SD

PIERRE RGNL (PIR)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 85115 (FAA)  
TAKEOFF MINIMUMS: **Rwy 25**, 300-1.

## PINE RIDGE, SD

PINE RIDGE (IEN)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 12208 (FAA)  
TAKEOFF MINIMUMS: **Rwy 6, 24**, NA- closed indefinitely.  
**Rwy 12**, 300-1 or std. w/min. climb of 450' per NM to 3700. **Rwy 30**, 300-1 or std. w/min. climb of 407' per NM to 3600.  
TAKEOFF OBSTACLE NOTES: **Rwy 12**, vehicle on road 10' from DER, left to right of centerline, 15' AGL/3347' MSL. Fence 200' from DER, 350' right of centerline, 10' AGL/3338' MSL. **Rwy 30**, tree 638' from DER, 492' right of centerline, 50' AGL/3339' MSL. Vehicle on road 10' from DER, right of centerline, 15' AGL/3316' MSL. Vehicle on road 407' from DER, right to left of centerline, 15' AGL/3313' MSL.

## PINECREEK, MN

PINEY PINECREEK BORDER (48Y)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 12320 (FAA)  
TAKEOFF OBSTACLE NOTES: **Rwy 15**, poles beginning 459' from DER, 415' left of centerline, up to 32' AGL/1092' MSL. Airfield light 8' from DER, 45' right of centerline, 8' AGL/1068' MSL. Vehicle on road 900' from DER, left and right of centerline, 15' AGL/1078' MSL.  
**Rwy 33**, trees beginning 11' from DER, 47' left of centerline, up to 100' AGL/1084' MSL. Trees beginning 167' from DER, 406' right of centerline, up to 100' AGL/1101' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## PINE RIVER, MN

PINE RIVER RGNL (PWC)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 12068 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, 300-1¼ or std. w/min. climb gradient of 218' per NM to 1500.DEPARTURE PROCEDURE: **Rwy 16**, climb heading 160° to 1800 before turning right.

TAKEOFF OBSTACLE NOTES: **Rwy 16**, trees 2' from DER, 181' right of centerline, up to 5' AGL/1296' MSL. Trees beginning 10' from DER, 113' left of centerline, up to 67' AGL/1366' MSL. Road beginning 63' from DER, 381' right of centerline, up to 15' AGL/1310' MSL. Poles beginning 611' from DER, 424' right of centerline, 26' AGL/1325' MSL. REIL 50' from DER, 76' right of centerline, 7' AGL/1298' MSL. Trees beginning 1267' from DER, 15' right of centerline, up to 100' AGL/1449' MSL. **Rwy 34**, trees beginning 13' from DER, 121' right of centerline, up to 65' AGL/1374' MSL. Trees beginning 1059' from DER, left and right of centerline, up to 101' AGL/1400' MSL. REIL 50' from DER, 77' left of centerline, 7' AGL/1298' MSL. Poles beginning 522' from DER, 520' left of centerline, up to 35' AGL/1334' MSL. Buildings beginning 373' from DER, 465' left of centerline, up to 18' AGL/1327' MSL.

## PIPESTONE, MN

PIPESTONE MUNI (PQN)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 08045 (FAA)

TAKEOFF MINIMUMS: **Rwys 9,27**, NA-Environmental.TAKEOFF OBSTACLE NOTES: **Rwy 18**, Trees beginning 3811' from DER, 854' right of centerline, up to 100' AGL/1859' MSL.

## PRESTON, MN

FILLMORE COUNTY (FKA)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 98113 (FAA)

TAKEOFF MINIMUMS: **Rwys 11,29**, 300-1.

## PRINCETON, MN

PRINCETON MUNI (PNM)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 05132 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 15**, trees 982' from DER, 335' right of centerline, 50' AGL/1029' MSL. Trees 1449' from DER, 387' left of centerline, 50' AGL/1029' MSL. **Rwy 33**, barn 1159' from DER, 780' right of centerline, 50' AGL/1139' MSL, multiple trees, terrain, and road beginning 36' from DER, 84' right of centerline, up to 50' AGL/1045' MSL.

## RAPID CITY, SD

RAPID CITY RGNL (RAP)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 7 11069 (FAA)

DEPARTURE PROCEDURE: **Rwy 5**, climb on heading between 255° CW to 210° from DER, or min. climb of 240' per NM to 8800 for all other courses. **Rwy 14**, climb on heading between 325° CW to 210° from DER, or min. climb of 245' per NM to 8900 for all other courses. **Rwy 23**, climb on heading between 210° CCW to 055° from DER, or min. climb of 245' per NM to 8900 for all other courses. **Rwy 32**, climb on heading 324° to 3700 for courses between 255° CW to 140° from DER, or min. climb of 244' per NM to 8800 for all other courses.

TAKEOFF OBSTACLE NOTES: **Rwy 5**, fence 132' from DER, 249' left of centerline, up to 13' AGL/3215' MSL. Trees beginning 16' from DER, 188' right of centerline, up to 25' AGL/3234' MSL. Trees beginning 11' from DER, 111' left of centerline, up to 25' AGL/3234' MSL. **Rwy 14**, trees beginning 136' from DER, 123' right of centerline, up to 25' AGL/3174' MSL. Trees beginning 33' from DER, 229' left of centerline, up to 25' AGL/3164' MSL. **Rwy 23**, vehicle on road 36' from DER, 121' left of centerline, up to 15' AGL/3175' MSL. Hanger 201' from DER, 298' left of centerline, up to 30' AGL/3193' MSL. Fence 333' from DER, 255' right of centerline, up to 14' AGL/3184' MSL. Trees beginning 199' from DER, 175' right of centerline, up to 25' AGL/3194' MSL. Trees beginning 158' from DER, 159' left of centerline, up to 25' AGL/3194' MSL. **Rwy 32**, fence 1001' from DER, 750' right of centerline, up to 13' AGL/3233' MSL. Obstruction light 661' from DER, 242' left of centerline, up to 43' AGL/3213' MSL. Trees beginning 31' from DER, 262' right of centerline, up to 25' AGL/3254' MSL. Trees beginning 61' from DER, 146' left of centerline, up to 25' AGL/3204' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)

ORIG 17285 (FAA)

**Rwy 32**, heading as assigned by ATC.

## RAY S. MILLER AAF (KRYM)

CAMP RIPLEY, MN

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2, 09155

TAKEOFF OBSTACLES: **Rwy 13**, Terrain 1270' MSL, 73' from DER, 8' left and right of centerline. Vehicle 15' AGL/1180' MSL, 765' from DER, 638' left of centerline. **Rwy 31**, Terrain 1273' MSL, 54' from DER, 9' left and right of centerline. Trees 64' AGL/1282' MSL, 798' from DER, 325' left and right of centerline.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)****RED WING, MN****RED WING RGNL (RGK)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

AMDT 2A 18256 (FAA)

TAKEOFF MINIMUMS: **Rwy 9**, std. w/min. climb of 339' per NM to 1700.

TAKEOFF OBSTACLE NOTES: **Rwy 9**, NAVAID 51' from DER, 75' left of centerline, 14' AGL/778' MSL. Trees beginning 273' from DER, 457' left of centerline, up to 787' MSL. Tree 523' from DER, 427' left of centerline, 790' MSL. Pole beginning 1079' from DER, 554' left of centerline, up to 37' AGL/812' MSL. Tree 1334' from DER, 332' right of centerline, 823' MSL. Tree 1369' from DER, 384' left of centerline, 816' MSL. Trees beginning 1383' from DER, 480' left of centerline, up to 820' MSL. Tree 1413' from DER, 771' right of centerline, 824' MSL. Trees beginning 1487' from DER, 264' right of centerline, up to 826' MSL. Trees beginning 1911' from DER, 429' right of centerline, up to 835' MSL. Trees beginning 1.2 NM from DER, 2172' left of centerline, up to 1032' MSL. Tree 1.2 NM from DER, 2019' left of centerline, 1039' MSL. Trees beginning 1.3 NM from DER, 1731' left of centerline, up to 1103' MSL. Tree, vehicles, terrain beginning 1.3 NM from DER, 3' left of centerline, up to 1119' MSL. Tree 1.6 NM from DER, 89' right of centerline, 1088' MSL. Trees beginning 1.6 NM from DER, 36' right of centerline, up to 1097' MSL. Trees beginning 1.6 NM from DER, 33' right of centerline, up to 1099' MSL. Trees beginning 1.8 NM from DER, 9' left of centerline, up to 1120' MSL. Trees beginning 1.8 NM from DER, 176' right of centerline, up to 1108' MSL. Tree 1.9 NM from DER, 20' right of centerline, 1123' MSL. Trees beginning 2 NM from DER, 13' left of centerline, up to 1127' MSL. Trees beginning 2 NM from DER, 24' right of centerline, up to 1125' MSL. Trees beginning 2 NM from DER, 12' right of centerline, up to 1130' MSL. Tree 2.1 NM from DER, 1401' right of centerline, 1134' MSL. Building, tree beginning 2.2 NM from DER, 307' right of centerline, up to 68' AGL/1139' MSL. Trees beginning 2.2 NM from DER, 7' left of centerline, up to 1162' MSL. Tree 2.2 NM from DER, 17' right of centerline, 1152' MSL. Tree 2.5 NM from DER, 1342' right of centerline, 1192' MSL. **Rwy 27**, vehicles beginning 12' from DER, 33' right of centerline, up to 807' MSL. Trees beginning 379' from DER, 510' right of centerline, up to 800' MSL. Tree 2290' from DER, 1034' left of centerline, 838' MSL.

**ROCHESTER, MN****ROCHESTER INTL (RST)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

ORIG 09015 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 2**, road 73' from DER, 385' right of centerline, 10' AGL/1292' MSL. Tree 4377' from DER, 1132' right of centerline, 100' AGL/1399' MSL. Road 268' from DER, 366' right of centerline, 10' AGL/1290' MSL. **Rwy 13**, tree 1498' from DER, 840' right of centerline, 44' AGL/1348' MSL. **Rwy 20**, pole 250' from DER, 407' right of centerline, 23' AGL/1338' MSL. Roads beginning 1' from DER, 231' right of centerline, up to 10' AGL/1327' MSL. **Rwy 31**, tree 4760' from DER, 1103' left of centerline, 100' AGL/1389' MSL.

**ROLLA, ND****ROLLA MUNI (06D)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

ORIG 11013 (FAA)

TAKEOFF MINIMUMS: **Rwys 7, 25**, NA-Environmental. TAKEOFF OBSTACLE NOTES: **Rwy 14**, vehicle on road 49' from DER, 23' left of centerline, 15' AGL/1830' MSL. Trees beginning 1232' from DER, 209' left of centerline, up to 80' AGL/1867' MSL. **Rwy 32**, trees beginning 2207' from DER, 59' left of centerline, up to 80' AGL/1929' MSL. Trees beginning 651' from DER, 80' right of centerline, up to 80' AGL/1939' MSL.

**ROSEAU, MN****ROSEAU MUNI-RUDY BILLBERG FIELD  
(ROX)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

ORIG 07242 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 16**, building 258' from DER, 505' right of centerline, 24' AGL/1078' MSL. Tree 1582' from DER, 337' left of centerline, 47' AGL/1101' MSL. **Rwy 34**, truck on road 41' from DER, 511' left of centerline, 15' AGL/1069' MSL.

**REDWOOD FALLS, MN****REDWOOD FALLS MUNI (RWF)****TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

ORIG 09071 (FAA)

TAKEOFF MINIMUMS: **Rwys 5, 23**, NA-Environmental.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, numerous buildings beginning 388' from DER, 376' right of centerline, up to 13' AGL/1052' MSL. Numerous fences beginning 6' from DER, 329' right of centerline, up to 13' AGL/1052' MSL. Tree 62' from DER, 444' left of centerline, 11' AGL/1040' MSL. **Rwy 30**, multiple trees beginning 865' from DER, 401' right of centerline, up to 100' AGL/1119' MSL. Vehicle on road 128' from DER, 306' right of centerline, 15' AGL/1027' MSL.

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)**

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## ROSEBUD, SD

ROSEBUD SIOUX TRIBAL (SUO)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 17341 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, 300-1 ¾ or std. w/min. climb gradient of 240' per NM to 3500 or 1300-3 for VCOA.

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 177° to 3500 before turning left.

VCOA: **Rwy 16**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Rosebud Sioux Tribal Airport at or above 3900 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 16**, light 10' from DER, 18' right of centerline, 2' AGL/2725' MSL. Light 10' from DER, 17' left of centerline, 2' AGL/2725' MSL. Fence 867' from DER, 184' left of centerline, 10' AGL/2751' MSL. Ground 1256' from DER, 679' left of centerline, 2795' MSL. Secondary Rd 1526' from DER, 809' left of centerline, 2807' MSL. Tree 1770' from DER, 882' left of centerline, 2818' MSL. **Rwy 34**, light 10' from DER, 17' right of centerline, 2' AGL/2684' MSL. Light 10' from DER, 18' left of centerline, 2' AGL/2685' MSL. Ground 448' from DER, 213' right of centerline, 2695' MSL. Ground 493' from DER, 40' right of centerline, 2697' MSL. Ground 496' from DER, 108' right of centerline, 2697' MSL. Ground 504' from DER, 8' left of centerline, 2698' MSL. Bush 555' from DER, 166' right of centerline, 2698' MSL. Ground 556' from DER, 107' left of centerline, 2698' MSL. Fence 623' from DER, 110' left of centerline, 3' AGL/2698' MSL.

## RUGBY, ND

RUGBY MUNI (RUG)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 14205 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, 300-1¾ or std. w/min. climb of 300' per NM to 2000.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, trees beginning 1186' from DER, 432' left of centerline, up to 67' AGL/1620' MSL. Elevators beginning 1.4 NM from DER, 819' right of centerline, up to 246' AGL/1804' MSL. **Rwy 30**, edge light 11' from DER, 9' right of centerline, 1' AGL/1534' MSL. Edge light 11' from DER, 20' left of centerline, 1' AGL/1534' MSL.

## RUSH CITY, MN

RUSH CITY RGNL (ROS)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 11041 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 16**, multiple trees beginning 27' from DER, 315' left of centerline, up to 100' AGL/ 969' MSL. Multiple trees beginning 838' from DER, 226' right of centerline, up to 100' AGL/ 997' MSL. Pole 1712' from DER, 811' left of centerline, 50' AGL/ 970' MSL.

**Rwy 34**, trees 91' from DER, 472' left of centerline, 100' AGL/ 939' MSL. Trees 1173' from DER, 375' right of centerline, 100' AGL/ 1029' MSL. Trees 2250' from DER, 928' left of centerline, 100' AGL/ 1009' MSL.

## RUSHFORD, MN

RUSHFORD MUNI-ROBERT W BUNKE  
FIELD (55Y)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2A 18032 (FAA)

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 161° to 1800 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 16**, trees beginning 132' from DER, 448' left of centerline, up to 100' AGL/1280' MSL. Trees beginning 899' from DER, 685' right of centerline, up to 100' AGL/1319' MSL. **Rwy 34**, Trees beginning 308' from DER, 147' right of centerline, up to 100' AGL/1299' MSL. Trees beginning 761' from DER, 34' left of centerline, up to 100' AGL/1319' MSL. Trees beginning 1169' from DER, 23' right of centerline, up to 100' AGL/1344' MSL.

## ST. CLOUD, MN

ST. CLOUD RGNL (STC)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 09239 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, 300-1¼ or std. w/ min. climb of 201' per NM to 1300 or alternatively, with standard TAKEOFF minimums and a normal 200'/NM climb gradient, TAKEOFF must occur no later than 1100' prior to DER.

TAKEOFF OBSTACLE NOTES: **Rwy 5**, tower 6201' from DER, 1416' left of centerline, 149' AGL/1179' MSL. Multiple trees beginning 17' from DER, 373' right of centerline, up to 59' AGL/1081' MSL. Multiple trees beginning 1752' from DER, 56' left of centerline, up to 80' AGL/1102' MSL. **Rwy 13**, tree 1654' from DER, 884' right of centerline, 61' AGL/1078' MSL. Tree 1265' from DER, 794' left of centerline, 42' AGL/1059' MSL. **Rwy 23**, trees 2109' from DER, 29' right of centerline, up to 61' AGL/1082' MSL. Trees 1725' from DER, 93' left of centerline, up to 55' AGL/1076' MSL. Fence 74' from DER, 216' left of centerline, 2' AGL, 1023' MSL. **Rwy 31**, terrain beginning 29' from DER, 50' right of centerline, up to 1083' MSL. Terrain beginning 107' from DER, 7' left of centerline, up to 1060' MSL.

## ST. JAMES, MN

ST. JAMES MUNI (JYG)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG-A 18144 (FAA)

DEPARTURE PROCEDURE: **Rwy 15**, climb to 1900 on heading 148° before turning eastbound.

TAKEOFF OBSTACLE NOTES: **Rwy 15**, pole 8' from DER, 78' left of centerline, 4' AGL/1067' MSL. Tree 58' from DER, 379' left of centerline, 1072' MSL. Pole 1489' from DER, 611' left of centerline, 41' AGL/1112' MSL. Tree, pole beginning 1510' from DER, 309' left of centerline, up to 1133' MSL. Tree 2209' from DER, 79' right of centerline, 1124' MSL. Trees beginning 2834' from DER, 25' left of centerline, up to 1139' MSL. Tree 2849' from DER, 6' right of centerline, 1145' MSL. Tree 2937' from DER, 5' left of centerline, 1142' MSL. **Rwy 33**, pole 11' from DER, 78' left of centerline, 3' AGL/1063' MSL. Pole 11' from DER, 78' right of centerline, 3' AGL/1063' MSL. Tree 120' from DER, 326' left of centerline, 1066' MSL. Trees beginning 2030' from DER, 911' left of centerline, up to 1134' MSL.

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND

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## DIVERSE VECTOR AREA (RADAR VECTORS)

### ST. PAUL MN

#### LAKE ELMO (21D)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1A 15148 (FAA)

TAKEOFF MINIMUMS: **Rwy 14**, 400-2¼ or std. w/min. climb of 233' per NM to 1400.

DEPARTURE PROCEDURE: **Rwy 4**, climb heading 038° to 1600 before turning right.

TAKEOFF OBSTACLE NOTES: **Rwy 4**, trees beginning at DER, 458' right of centerline, up to 100' AGL/1039' MSL. Trees and buildings beginning 94' from DER, 377' left of centerline up to 100' AGL/1049' MSL. **Rwy 14**, trees and vehicles on road beginning 152' from DER, left and right of centerline, up to 100' AGL/933' MSL. Trees beginning 1106' from DER, right and left of centerline, up to 100' AGL/1005' MSL. **Rwy 22**, buildings and pole beginning 100' from DER, 476' right of centerline, up to 39' AGL/962' MSL. Trees beginning 1912' from DER, left and right of centerline, up to 100' AGL/986' MSL. **Rwy 32**, sign 13' from DER, 154' right of centerline, 3' AGL/924' MSL. Pole 388' from DER, 388' left of centerline, 34' AGL/951' MSL. Poles and trees beginning 876' from DER, 73' right of centerline, up to 100' AGL/1004' MSL.

### ST. PAUL DOWNTOWN HOLMAN FIELD (STP)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 8A 17229 (FAA)

TAKEOFF MINIMUMS: **Rwy 31**, NA - obstacles. **Rwy 9**, std. w/min. climb of 340' per NM to 1300. **Rwy 13**, std. w/min. climb of 235' per NM to 1500. **Rwy 27**, 600 -2 or std. w/min. climb of 442' per NM to 1500. **Rwy 32**, std. w/min. climb of 340' per NM to 3000.

DEPARTURE PROCEDURE: **Rwy 9**, climb heading 091° to 1400 before proceeding on course. **Rwy 13**, climb heading 128° to 1300 before proceeding on course. **Rwy 14**, climb heading 146° to 1400 before proceeding on course. **Rwy 27**, climb heading 271° to 1700 before proceeding on course. **Rwy 32**, climb heading 326° to 1400 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 9**, mobile crane 1362' from DER, 124' left of centerline, 68' AGL/758' MSL. Trees and silo 1464' from DER, 178' right of centerline, up to 116' AGL/816' MSL. Trees and pole beginning 1.1 NM from DER, left and right of centerline, up to 100' AGL/1099' MSL. **Rwy 13**, tree and tower beginning 1125' from DER, 609' left of centerline, up to 67' AGL/767' MSL. Tree, pole, vent on building, stacks, and oil on stack beginning 1672' from DER, 55' right of centerline, up to 120' AGL/820' MSL. Trees beginning 1.9 NM from DER, 2938' left of centerline, up to 100' AGL/1020' MSL. **Rwy 14**, trees, OL on DME antenna, and pole beginning 290' from DER, 1' right of centerline, up to 129' AGL/819' MSL. Trees and pole beginning 1099' from DER, 6' left of centerline, up to 87' AGL/777' MSL. **Rwy 27**, trees, light pole, and flagpole beginning 617' from DER, 198' left of centerline, up to 119' AGL/829' MSL. OL on antenna, buildings, tower, and tree beginning 810' from DER, 26' right of centerline, up to 165' AGL/955' MSL. Trees and building beginning 3886' from DER, 120' left of centerline, up to 84' AGL/1014' MSL. Tower 1.7 NM from DER, 633' left of centerline, 569' AGL/1279' MSL.

### ST. PAUL MN (CON'T)

#### ST. PAUL DOWNTOWN HOLMAN FIELD (STP) (CON'T)

**Rwy 32**, vehicle on road, trees, railroad, poles, and NAVIAID beginning 179' from DER, 267' right of centerline, up to 58' AGL/758' MSL. Vehicle on road, railroad, and trees beginning 192' from DER, left and right of centerline, up to 59' AGL/759' MSL. NAVIAID 257' from DER, on centerline, 26' AGL/726' MSL. Trees, poles, buildings, and tower beginning 3674' from DER, 616' right of centerline, up to 157' AGL/973' MSL. Trees, buildings, tower, sign, and stack beginning 1924' from DER, 378' left of centerline, up to 143' AGL/969' MSL.

### SAUK CENTRE, MN

#### SAUK CENTRE MUNI (D39)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 11237 (FAA)

TAKEOFF MINIMUMS: **Rwys 8, 26**, NA -Environmental. TAKEOFF OBSTACLE NOTES: **Rwy 14**, tree 1269' from DER, 39' right of centerline, 80' AGL/1319' MSL. **Rwy 32**, tree 1105' from DER, 136' left of centerline, 80' AGL/1299' MSL.

### SILVER BAY, MN

#### SILVER BAY MUNI (BFW)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 10322 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, 500-3 or std. w/min. climb of 240' per NM to 1700. **Rwy 25**, 400-2½ or std. w/min. climb of 215' per NM to 1600 or alternatively, with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1600' prior to DER.

DEPARTURE PROCEDURE: **Rwy 7**, Climb heading 087° to 1700 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 7**, vehicles on roadway 4' from DER, 257' right of centerline, up to 16' AGL/1155' MSL. Trees beginning 7' from DER, 104' right of centerline, up to 100' AGL/1509' MSL. Hangar 268' from DER, 268' left of centerline, 30' AGL/1149' MSL. Trees beginning 1088' from DER, 774' left of centerline, up to 100' AGL/1549' MSL. **Rwy 25**, trees beginning 170' from DER, 152' right of centerline, up to 100' AGL/1419' MSL. Trees beginning 4' from DER, 164' left of centerline, up to 100' AGL/1229' MSL.

06 DEC 2018 to 03 JAN 2019

06 DEC 2018 to 03 JAN 2019

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND

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## DIVERSE VECTOR AREA (RADAR VECTORS)

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## SIoux FALLS, SD

### JOE FOSS FIELD (FSD)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

##### AMDT 8A 17341 (FAA)

TAKEOFF MINIMUMS: **Rwy 9, 27**, NA -ATC request  
**Rwy 33**, 200 - 1% or std. w/ min. climb of 345' per NM  
to 1700.

DEPARTURE PROCEDURE: **Rwy 3**, climb heading  
30° to 2300 before turning eastbound. **Rwy 15**, climb  
heading 150° to 2000, then right turn direct **FSD**  
VORTAC, continue climb in FSD VORTAC holding  
pattern (hold NW, left turn, 147° inbound) to cross  
FSD VORTAC at or above MEA for route of flight.  
**Rwy 21**, climb heading 210° to 2200 before turning  
eastbound. **Rwy 33**, climb heading 330° to 2300  
before turning eastbound.

TAKEOFF OBSTACLE NOTES: **Rwy 3**, rwy light,  
poles beginning 5' from DER, 3' left of centerline, up  
to 2' AGL/1432' MSL. Rwy light 5' from DER, 5' right  
of centerline, 2' AGL/1432' MSL. **Rwy 15**, pole, rwy  
light beginning 11' from DER, 39' left of centerline, up  
to 2' AGL/1424' MSL. Rwy light 11' from DER, 40'  
right of centerline, 2' AGL/1424' MSL. Fence 112'  
from DER, 457' left of centerline, 10' AGL/1435' MSL.  
Poles beginning 553' from DER, 419' left of centerline,  
up to 22' AGL/1444' MSL. Pole 919' from DER, 351'  
left of centerline, 26' AGL/1448' MSL. Tank, tree  
beginning 1282' from DER, 222' left of centerline, up  
to 47' AGL/1472' MSL. Poles beginning 1330' from  
DER, 708' right of centerline, up to 39' AGL/1460'  
MSL. Pole 1609' from DER, 530' right of centerline,  
44' AGL/1463' MSL. T-L twr 1627' from DER, 806'  
left of centerline, 53' AGL/1474' MSL. Poles beginning  
1701' from DER, 180' right of centerline, up to 48'  
AGL/1468' MSL. T-L twr, pole, tree beginning 1725'  
from DER, 210' left of centerline, up to 58' AGL/1480'  
MSL. T-L twr 2592' from DER, 893' right of centerline,  
68' AGL/1489' MSL. Pole 2857' from DER, 314' right  
of centerline, 73' AGL/1495' MSL. Building, tower, T-L  
twr, tree beginning 3053' from DER, 228' left of  
centerline, up to 106' AGL/1573' MSL. Tree 3297'  
from DER, 413' right of centerline, 1514' MSL. tree  
3344' from DER, 441' right of centerline, 1520' MSL.  
**Rwy 21**, rwy light 4' from DER, 4' right of  
centerline, 2' AGL/1426' MSL. Rwy light, sign  
beginning 4' from DER, 5' left of centerline, up to 2'  
AGL/1426' MSL. Tree 424' from DER, 607' right of  
centerline, 1457' MSL. Trees beginning 567' from  
DER, 543' right of centerline, up to 1458' MSL. Trees  
beginning 986' from DER, 531' right of centerline, up  
to 1479' MSL. **Rwy 33**, NAVAIDS beginning 34' from  
DER, 113' right of centerline, up to 4' AGL/1431' MSL.  
Tree, tank beginning 2121' from DER, 746' left of  
centerline, up to 1511' MSL. Trees beginning 2403'  
from DER, 654' left of centerline, up to 1519' MSL.  
Trees beginning 2483' from DER, 844' left of  
centerline, up to 1536' MSL. Tree, pole beginning  
2707' from DER, 263' left of centerline, up to 1537'  
MSL. Poles beginning 3491' from DER, 366' right of  
centerline, up to 44' AGL/1518' MSL. Tree, pole  
beginning 3546' from DER, 148' left of centerline, up  
to 1545' MSL. NAVAID, pole beginning 3559' from  
DER, 147' left of centerline, up to 58' AGL/1577' MSL.  
Pole 3594' from DER, 138' right of centerline, 40'  
AGL/1521' MSL. Pole 3596' from DER, 139' right of  
centerline, 40' AGL/1522' MSL. Tower, pole, NAVAID,  
tree beginning 3638' from DER, 79' left of centerline,  
up to 65' AGL/1586' MSL. Tree 3677' from DER, 108'  
right of centerline, 1525' MSL.

## SIoux FALLS, SD

### JOE FOSS FIELD (FSD)

**Rwy 33 (CON'T)**, tree 3784' from DER, 362' right of  
centerline, 1537' MSL. Trees beginning 4205' from DER,  
5' right of centerline, up to 1545' MSL. Tree 5300' from  
DER, 769' left of centerline, 1587' MSL. Tree 5319' from  
DER, 1650' left of centerline, 1593' MSL. Tree 5345'  
from DER, 888' left of centerline, 1601' MSL. Tree, pole  
beginning 5392' from DER, 1026' left of centerline, up to  
1607' MSL. Trees beginning 6034' from DER, 1681' left  
of centerline, up to 1613' MSL.

## SISSETON, SD

### SISSETON MUNI (8D3)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

##### ORIG 16203 (FAA)

TAKEOFF MINIMUMS: **Rwy 04,22**, NA-Environmental.  
DEPARTURE PROCEDURE: **Rwy 34**, climb heading  
344° to 1600 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 16**, poles beginning  
1462' from DER, 709' left of centerline, 1216' MSL.  
Fence beginning 51' from DER, crossing left to right, 5'  
AGL/1166' MSL. Trees beginning 934' from DER, 710'  
right of centerline, 1235' MSL. Pole 1508' from DER,  
878' right of centerline, 41' AGL/1201' MSL. Pole 1562'  
from DER, 638' right of centerline, 45' AGL/1205' MSL.  
**Rwy 34**, trees beginning 832' from DER, 618' left of  
centerline, 1194' MSL.

## SLAYTON, MN

### SLAYTON MUNI (DVP)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

##### ORIG 11265 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 17**, trees beginning  
951' from DER, 345' right of centerline, up to 100'  
AGL/1723' MSL. Power lines beginning 1531' from DER,  
left and right of centerline, 40' AGL/1663' MSL. Vehicle  
on road beginning at DER, 234' right of centerline, 15'  
AGL/1638' MSL. Terrain beginning 65' from DER, left  
and right of centerline up to 1657' MSL. **Rwy 35**, trees  
beginning 1034' from DER, left and right of centerline,  
up to 100' AGL/1715' MSL. Power lines beginning 892'  
from DER, 206' left of centerline, 40' AGL/1655' MSL.  
Vehicle on roads beginning at DER, 230' left and right of  
centerline, 15' AGL/1630' MSL. Terrain beginning 271'  
from DER, left and right of centerline up to 1650' MSL.

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# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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## SOUTH ST PAUL, MN

SOUTH ST PAUL MUNI-RICHARD E  
FLEMING FLD (SGS)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 14317 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, 300 -1/4 or std. w/min. climb of 225' per NM to 1200 or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1900' prior to DER. **Rwy 34**, 200-1/4 or std. w/min. climb of 220' per NM to 1100 or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1500' prior to DER.

TAKEOFF OBSTACLE NOTES: **Rwy 16**, tree, 1' from DER, 321' left of centerline, 56' AGL/877' MSL. Trees beginning 108' from DER, 103' left of centerline, up to 68' AGL/889' MSL. Trees beginning 1021' from DER, 88' left of centerline, up to 85' AGL/898' MSL. Trees beginning 116' from DER, 193' right of centerline, up to 75' AGL/894' MSL. Trees beginning 1108' from DER, 78' right of centerline up to 64' AGL/875' MSL. Trees beginning 2123' from DER, 444' right of centerline, up to 100' AGL/1069' MSL. **Rwy 34**, poles, trees and buildings beginning 76' from DER, 274' left of centerline, up to 79' AGL/880' MSL. Poles and trees beginning 1021' from DER, 6' left of centerline, up to 82' AGL/901' MSL. Trees beginning 2048' from DER, 71' left of centerline, up to 68' AGL/889' MSL. Tower 1 mile from DER, 657' left of centerline, 103' AGL/987' MSL. Trees and buildings beginning 84' from DER, 351' right of centerline, up to 38' AGL/856' MSL. Trees beginning 1042' from DER, 54' right of centerline, up to 72' AGL/892' MSL. Trees beginning 2017' from DER, 10' right of centerline, up to 80' AGL/899' MSL.

## SPEARFISH, SD

BLACK HILLS-CLYDE ICE FIELD (SPF)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 18312 (FAA)

DEPARTURE PROCEDURE: Use SWUNG (RNAV)  
DEPARTURE.

TAKEOFF OBSTACLE NOTES: **Rwy 13**, lighting 9' from DER, 17' right of centerline, 2' AGL/3897' MSL. Lighting beginning 9' from DER, 17' left of centerline, up to 2' AGL/3897' MSL. Terrain beginning 185' from DER, 320' right of centerline, up to 3904' MSL. Terrain 338' from DER, 496' right of centerline, 3905' MSL. Lighting 487' from DER, 579' right of centerline, 1' AGL/3909' MSL. Terrain 562' from DER, 628' right of centerline, 3911' MSL. Vehicle on traverse way 1071' from DER, 480' right of centerline, 3931' MSL. **Rwy 31**, lighting 9' from DER, 18' left of centerline, 2' AGL/3886' MSL. Lighting 9' from DER, 17' right of centerline, 2' AGL/3886' MSL. Terrain beginning 53' from DER, 356' left of centerline, up to 3918' MSL. Terrain 142' from DER, 394' right of centerline, 3897' MSL. Terrain 192' from DER, 492' right of centerline, 3902' MSL. Terrain beginning 328' from DER, 395' right of centerline, up to 3907' MSL. Terrain beginning 346' from DER, 450' left of centerline, up to 3929' MSL. Terrain 592' from DER, 641' left of centerline, 3942' MSL. Pole, terrain beginning 734' from DER, 446' left of centerline, up to 9' AGL/3986' MSL. Tree 1.1 NM from DER, 2402' right of centerline, 4084' MSL. Trees, vehicle on traverse way beginning 1.2 NM from DER, 1993' right of centerline, up to 4112' MSL. Trees, terrain, vehicle on traverse way beginning 1.2 NM from DER, 1883' right of centerline, up to 4126' MSL. Terrain, trees beginning 1.2 NM from DER, 1786' right of centerline, up to 4155' MSL. Vehicle on traverse way 1.3 NM from DER, 2624' right of centerline, 4217' MSL. Trees, terrain beginning 1.3 NM from DER, 744' right of centerline, up to 4228' MSL.

## SPRINGFIELD, MN

SPRINGFIELD MUNI (D42)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 13010 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, trees beginning 267' from DER, 267' right of centerline, up to 100' AGL/1149' MSL. Building 802' from DER, 684' left of centerline, up to 30' AGL/1089' MSL. Trees beginning 763' from DER, 603' left of centerline, up to 100' AGL/1159' MSL. Trees beginning 1083' from DER, 240' right of centerline, up to 100' AGL/1169' MSL. Trees beginning 3562' from DER, 98' left of centerline, up to 100' AGL/1169' MSL. **Rwy 31**, trees beginning 2248' from DER, 183' left of centerline, up to 100' AGL/1189' MSL. Building 604' from DER, 563' right of centerline, up to 30' AGL/1109' MSL. Trees beginning 656' from DER, 481' right of centerline, up to 100' AGL/1169' MSL. Trees beginning 3889' from DER, 1495' right of centerline, up to 100' AGL/1199' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)****STANLEY, ND**

STANLEY MUNI (08D)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 11013 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 27**, Power line beginning 23' from DER, right to left of centerline, up to 40' AGL/2299' MSL.**STAPLES, MN**

STAPLES MUNI (SAZ)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 3 12152 (FAA)

TAKEOFF MINIMUMS: **Rwy 14**, 400-2 or std. w/min. climb of 285' per NM to 1800.TAKEOFF OBSTACLE NOTES: **Rwy 14**, towers beginning 1.60 NM from DER, 1868' right of centerline, up to 367' AGL/1634' MSL. Vehicles on road and trees beginning 38' from DER, 76' right of centerline, up to 63' AGL/1332' MSL. Vehicles on road, trees and pole beginning 38' from DER, 77' left of centerline, up to 63' AGL/1342' MSL. **Rwy 32**, vehicles on road and trees beginning 228' from DER, 8' right of centerline, up to 85' AGL/1374' MSL. Vehicles on road and trees beginning 2' from DER, 18' left of centerline, up to 79' AGL/1368' MSL.**STURGIS, SD**

STURGIS MUNI (49B)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1A 15288 (FAA)

TAKEOFF MINIMUMS: **Rwys 5, 23**, NA-Environmental. 096° to 5200, then climbing right turn to 7000 directRAP VORTAC. **Rwy 29**, climb heading 291° to 5000, then climbing right turn to 7000 direct RAP VORTAC.TAKEOFF OBSTACLE NOTES: **Rwy 11**, fence 37' from DER, 347' left of centerline, 6' AGL/3210' MSL. **Rwy 29**, trees 63' from DER, 271' right of centerline, up to 20' AGL/3265' MSL. Ground 134' from DER, 443' left of centerline, 3248' MSL.**THIEF RIVER FALLS, MN**

THIEF RIVER FALLS RGNL (TVF)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 14317 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 4**, light 41' from DER, 77' left of centerline, 2' AGL/1120' MSL. Terrain 2' from DER, 255' right of centerline, 1119' MSL. Light 41' from DER, 75' right of centerline, 2' AGL/1120' MSL. Road with vehicle beginning 578' from DER, 595' right of centerline, up to 15' AGL/1135' MSL. **Rwy 13**, lights beginning 6' from DER, 4' left of centerline, up to 2' AGL/1114' MSL. Sign 22' from DER, 253' left of centerline, 3' AGL/1114' MSL. Lights beginning 6' from DER, 5' right of centerline, up to 2' AGL/1114' MSL. **Rwy 22**, utilities and lights beginning 10' from DER, 77' left of centerline, up to 4' AGL/1115' MSL. Sign 38' from DER, 197' left of centerline, 4' AGL/1115' MSL. Light 40' from DER, 77' right of centerline, 3' AGL/1114' MSL. Trees beginning 545' from DER, 183' right of centerline, up to 91' AGL/1181' MSL. **Rwy 31**, lights beginning 9' from DER, 39' left of centerline, up to 3' AGL/1116' MSL. Trees beginning 275' from DER, 549' left of centerline, up to 61' AGL/1172' MSL. Lights beginning 9' from DER, 40' right of centerline, up to 2' AGL/1116' MSL.**TIOGA, ND**

TIOGA MUNI (D60)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 18256 (FAA)

TAKEOFF MINIMUMS: **Rwys 3, 21**, NA - Environmental. **Rwy 30**, 300 - 1 ½ or std. w/min. climb of 249' per NM to 2500, or alternately, with std. takeoff minimums and a normal 200' per mile climb gradient, takeoff must occur no later than 2200' prior to DER.TAKEOFF OBSTACLE NOTES: **Rwy 12**, lighting 10' from DER, 18' right of centerline, 2' AGL/2272' MSL. Lighting 10' from DER, 15' left of centerline, 2' AGL/2273' MSL. Pole, traverse way beginning 630' from DER, 144' right of centerline, up to 23' AGL/2311' MSL. **Rwy 30**, lighting 9' from DER, 18' right of centerline, 2' AGL/2242' MSL. Lighting 9' from DER, 18' left of centerline, 2' AGL/2242' MSL. Building 554' from DER, 640' right of centerline, 27' AGL/2264' MSL. General utility 4410' from DER, 1465' right of centerline, 170' AGL/2366' MSL. Stack 5674' from DER, 1751' right of centerline, 167' AGL/2417' MSL.**TOWER, MN**

TOWER MUNI (12D)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 09127 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, NA - Obstacles.TAKEOFF OBSTACLE NOTES: **Rwy 26**, tree 2315' from DER, 700' right of centerline, 100' AGL/1479' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)****TRACY, MN****TRACY MUNI (TKC)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 11013 (FAA)

TAKEOFF MINIMUMS: **Rwys 6,17, 24, 35**, NA-Environmental. **Rwy 29**, 300-2 ¼ or std. w/ min. climb of 250' per NM to 1800.TAKEOFF OBSTACLE NOTES: **Rwy 11**, tree 56' from DER, 174' right of centerline, 20' AGL/1342' MSL. Numerous trees and bushes beginning 137' from DER, 86' left of centerline, up to 100' AGL/1410' MSL. **Rwy 29**, tower 1.9 NM from DER, 1951' left of centerline, 265' AGL/1625' MSL.**TWO HARBORS, MN****RICHARD B. HELGESON (TWM)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 11181 (FAA)

TAKEOFF MINIMUMS: **Rwys 15,33**, NA - environmental.TAKEOFF OBSTACLE NOTES: **Rwy 6**, multiple trees, beginning 20' from DER, 44' right of centerline, up to 40' AGL/1122' MSL. Multiple trees, beginning 46' from DER, 201' left of centerline, up to 40' AGL/1126' MSL. **Rwy 24**, multiple trees, beginning 13' from DER, 61' right of centerline, up to 40' AGL/1156' MSL. Multiple trees, beginning 56' from DER, 97' left of centerline, up to 40' AGL/1138' MSL.**VALLEY CITY, ND****BARNES COUNTY MUNI (BAC)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 10098 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 13**, vehicle on road, 111' from DER, 356' right of centerline, 15' AGL/1396' MSL. Trees beginning 644' from DER, 242' right of centerline, up to 40' AGL/1421' MSL. **Rwy 31**, terrain beginning 32' from DER, 20' right of centerline, up to 1424' MSL. Vehicle on road 38' from DER, 285' right of centerline, 15' AGL/1418' MSL. Fence 71' from DER, 292' left of centerline, 4' AGL/1407' MSL. Terrain beginning 120' from DER, 125' left of centerline, up to 1447' MSL. Fence 198' from DER, 299' right of centerline, 4' AGL/1408' MSL. Trees beginning 365' from DER, 10' left of centerline, up to 40' AGL/1457' MSL. Tree 545' from DER, 607' right of centerline, 16' AGL/1436' MSL.**VERMILLION, SD****HAROLD DAVIDSON FIELD (VMR)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 09239 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 12**, road 1' from DER, 200' right of centerline, up to 15' AGL/1156' MSL. Multiple trees beginning 541' from DER, 366' right of centerline, up to 62' AGL/1202' MSL. **Rwy 30**, road 79' from DER 342' left of centerline 15' AGL/1155' MSL. Road 200' from DER, 450' right of centerline, 15' AGL/1160' MSL. Fence 199' from DER, 347' left of centerline, 6' AGL/1150' MSL.**WADENA, MN****WADENA MUNI (ADC)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 13234 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 34**, runway lights beginning 38' from DER, 76' left and right of centerline 5' AGL/1369' MSL. Rising terrain and trees beginning 69' from DER, 267' left of centerline, up to 20' AGL/1381' MSL. Trees beginning 1678' from DER, 213' right of centerline, up to 91' AGL/1436' MSL. Trees beginning 2445' from DER, 272' right of centerline, up to 96' AGL/1447' MSL.**WAGNER, SD****WAGNER MUNI (AGZ)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 13290 (FAA)

TAKEOFF MINIMUMS: **Rwys 14, 32**, NA-Environmental.TAKEOFF OBSTACLE NOTES: **Rwy 9**, vehicles on roadway beginning 629' from DER, 162' right of centerline, up to 15' AGL/1485' MSL. Trees beginning 700' from DER, 227' right of centerline, up to 49' AGL/1514' MSL. Trees beginning 727' from DER, 532' left of centerline, up to 44' AGL/1508' MSL. Building and pole beginning 781' from DER, 416' left of centerline, up to 26' AGL/1491' MSL. Trees beginning 881' from DER, 229' right of centerline, up to 40' AGL/1505' MSL. Tree 1239' from DER, 558' left of centerline, 36' AGL/1501' MSL. **Rwy 27**, terrain 13' from DER, 371' right of centerline, 1478 MSL. Vehicles on roadway beginning 338' from DER, 556' right of centerline, up to 15' AGL/1494' MSL. Tree 939' from DER, 462' left of centerline, 32' AGL/1509' MSL. Trees beginning 1331' from DER, 409' right of centerline, up to 53' AGL/1530' MSL.**WAHPETON, ND****HARRY STERN (BWP)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 11181 (FAA)

TAKEOFF MINIMUMS: **Rwys 3,21**, NA - environmental.TAKEOFF OBSTACLE NOTES: **Rwy 15**, trees beginning 1020' from DER, 114' left of centerline, up to 74' AGL/1033' MSL. Trees beginning 2753' from DER, 457' right of centerline, up to 86' AGL/1045' MSL. **Rwy 33**, electrical system 657' from DER, 632' right of centerline, 71' AGL/1010' MSL. Trees beginning 714' from DER, 33' right of centerline, up to 70' AGL/1039' MSL. Electrical system 1570' from DER, 258' right of centerline, 68' AGL/1032' MSL. Trees beginning 1326' from DER, 15' left of centerline, up to 75' AGL/1039' MSL.**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)**



## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



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## DIVERSE VECTOR AREA (RADAR VECTORS)

## WALHALLA, ND

## WALHALLA MUNI (96D)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 11125 (FAA)

TAKEOFF MINIMUMS: **Rwy 15**, 400-2¾ or std. w/min. climb gradient of 260' per NM to 1500.DEPARTURE PROCEDURE: **Rwy 15**, Climb heading 164° to 1500 before turning right.TAKEOFF OBSTACLE NOTES: **Rwy 15**, vehicles on roadway beginning 478' from DER, 583' right of centerline, 15' AGL/969' MSL. Trees beginning 734' from DER, 623' right to 708' left of centerline, up to 100' AGL/1054' MSL. **Rwy 33**, trees beginning 53' from DER, 12' left to 654' right of centerline, up to 100' AGL/1049' MSL. Power lines beginning 81' from DER, 266' left of centerline, up to 70' AGL/1019' MSL. Vehicles on roadway beginning 113' from DER, 490' left of centerline, 15' AGL/964' MSL.

## WALKER, MN

## WALKER MUNI (Y49)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 14093 (FAA)

TAKEOFF MINIMUMS: **Rwy 33**, 300-1¼ or std. w/min. climb of 235' per NM to 1600, or alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1800' prior to DER.TAKEOFF OBSTACLE NOTES: **Rwy 15**, terrain beginning 1' from DER, 1' right of centerline crossing left of centerline, 1408' MSL. Lights 38' from DER, 76' left and right of centerline, 2' AGL/1348' MSL. Trees beginning 220' from DER, 466' right of centerline, up to 50' AGL/1396' MSL. Trees beginning 330 from DER, 408' left of centerline, up to 38' AGL/1384' MSL. Trees beginning 453' from DER, 400' left and right crossing centerline, up to 48' AGL/1453' MSL. **Rwy 33**, lights 38' from DER, 77' left and right of centerline, 3' AGL/1348' MSL. Terrain beginning 84' from DER, 37' left and right of centerline, 1418' MSL. Vehicle on road 250' from DER, 455' right of centerline, 15' AGL/1360' MSL. Tree 328' from DER, 200' right of centerline, 6' AGL/1354' MSL. Trees beginning 420' from DER, 370' left of centerline, up to 55' AGL/1388' MSL. Trees beginning 903' from DER, 19' right and left of centerline, up to 39' AGL/1392' MSL. Trees beginning 2213' from DER, 100' left and right crossing centerline, up to 72' AGL/1404' MSL. Terrain beginning 2916' from DER, 20' left and right of centerline, 1503' MSL. Trees beginning 3597' from DER, 400' left and right crossing centerline, up to 128' AGL/1509' MSL.

## WARREN, MN

## WARREN MUNI (D37)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 15008 (FAA)

TAKEOFF MINIMUMS: **Rwys 4,22**, NA - environmental. DEPARTURE PROCEDURE: **Rwy 30**, climb runway heading to 1400 before turning on course.TAKEOFF OBSTACLE NOTES: **Rwy 12**, trees beginning 379' from DER, 306' left of centerline, up to 86' AGL/973' MSL. Light support structure 3' from DER, 17' right of centerline, 2' AGL/888' MSL. Trees beginning 926' from DER, left and right of centerline, up to 71' AGL/955' MSL. **Rwy 30**, trees beginning 30' from DER, 86' right of centerline, up to 15' AGL/904' MSL. Trees, poles and antenna beginning 331' from DER, 373' right of centerline, up to 62' AGL/948' MSL. Trees and bush beginning 51' from DER, 36' left of centerline, up to 68' AGL/954' MSL. Vehicles on road beginning 233' from DER, 179' right of centerline, up to 15' AGL/906' MSL.

## WARROAD, MN

## WARROAD INTL MEMORIAL (RRT)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 16175 (FAA)

TAKEOFF MINIMUMS: **Rwys 4, 22**, NA-Environmental. TAKEOFF OBSTACLE NOTES: **Rwy 13**, pole 148' from DER, 471' right of centerline, 24' AGL/1093'MSL.

## WASECA, MN

## WASECA MUNI (ACQ)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 09015 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 15**, tree 560' from DER, 560' right of centerline, 100' AGL/1239' MSL. Terrain beginning 172' from DER, on centerline, up to 1149' MSL. **Rwy 33**, tree 5042' from DER, 1533' right of centerline, 100' AGL/1259' MSL.

## WATERTOWN, SD

## WATERTOWN RGNL (ATY)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 16147 (FAA)

TAKEOFF OBSTACLE NOTES: **Rwy 30**, light 10' from DER, 30' left of centerline, 1' AGL/1749' MSL. Light 11' from DER, 30' right of centerline, 1' AGL/1749' MSL. Tree, 2091' from DER, 34' right of centerline, 100' AGL/1806' MSL. Tree 2241' from DER, 812' left of centerline, 100' AGL/1805' MSL. **Rwy 35**, sign , 102' from DER, 4' left of centerline, 10' AGL/1750' MSL.

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## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



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## DIVERSE VECTOR AREA (RADAR VECTORS)

## WATFORD CITY, ND

## WATFORD CITY MUNI (S25)

## TAKEOFF MINIMUMS AND (OBSTACLE)

## DEPARTURE PROCEDURES

AMDT 1 10154 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, 400-1¼ or std. with a min. climb of 462' per NM to 2600. **Rwys 18, 36**, NA-Environmental.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, tree 5528' from DER, 1819' right of centerline, up to 100' AGL/2439' MSL. Vehicle on road, trees, and terrain beginning 186' from DER, 62' right of centerline, up to 100' AGL/2258' MSL. Vehicle on road, fence, and terrain beginning 90' from DER, 43' left of centerline, up to 27' AGL/2167' MSL. **Rwy 30**, trees and buildings beginning 672' from DER, 119' right of centerline, up to 41' AGL/2101' MSL. Vehicle on road, light and trees beginning 199' from DER, 128' left of centerline, up to 59' AGL/2119' MSL.

## WESSINGTON SPRINGS, SD

## WESSINGTON SPRINGS (4X4)

## TAKEOFF MINIMUMS AND (OBSTACLE)

## DEPARTURE PROCEDURES

ORIG 17341 (FAA)

TAKEOFF MINIMUMS: **Rwy 30**, std. w/ min. climb of 240' per NM to 2400 or 1400 - 3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 12**, climb on heading 127° to 2000 before turning right. **Rwy 30**, climb on heading 313° to 2400 before turning left.

VCOA: **Rwy 30**, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Wessington Springs airport at or above 2800 before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, pole 10' from DER, 10' right of centerline, 2' AGL/1531' MSL. Fence beginning 127' from DER, 493' right of centerline, up to 9' AGL/1539' MSL. Tree 1753' from DER, 759' right of centerline, 50' AGL/1575' MSL. Pole 2003' from DER, 1030' right of centerline, 57' AGL/1580' MSL. **Rwy 30**, pole 10' from DER, 9' left of centerline, 1546' MSL. Fence 12' from DER, 498' left of centerline, 9' AGL/1554' MSL. Tree 812' from DER, 332' right of centerline, 1565' MSL. Pole 4998' from DER, 320' left of centerline, 73' AGL/1672' MSL. Tree 1.2 NM from DER, 1336' left of centerline, 1731' MSL. Trees beginning 1.3 NM from DER, 2293' left of centerline, up to 1771' MSL. Trees beginning 1.4 NM from DER, 2587' left of centerline, up to 1794' MSL. Tree 1.6 NM from DER, 2761' left of centerline, up to 1805' MSL. Tree 1.8 NM from DER, 3351' left of centerline, 1845' MSL. Tree, terrain beginning 1.9 NM from DER, 3408' left of centerline, up to 1887' MSL. Tree beginning 2 NM from DER, 3138' left of centerline, up to 1890' MSL. Tree and pole beginning 2.1 NM from DER, 2642' left of centerline, up to 40' AGL/1926' MSL. Trees beginning 2.2 NM from DER, 1876' left of centerline, up to 100' AGL/1932' MSL.

## WHEATON, MN

## WHEATON MUNI (ETH)

## TAKEOFF MINIMUMS AND (OBSTACLE)

## DEPARTURE PROCEDURES

AMDT 2 18312 (FAA)

TAKEOFF MINIMUMS: **Rwys 6, 24**, NA - ATC.

TAKEOFF OBSTACLE NOTES: **Rwy 16**, electrical pole beginning 9' from DER, 16' right of centerline, up to 1024' MSL. Tree 87' from DER, 136' right of centerline, up to 1025' MSL. Tree 110' from DER, 155' left of centerline, up to 1026' MSL. Tree 178' from DER, 480' left of centerline, up to 49' AGL/1072' MSL. Tree 252' from DER, 478' left of centerline, up to 55' AGL/1078' MSL. Tree 487' from DER, 616' right of centerline, up to 79' AGL/1102' MSL. Tree, pole beginning 384' from DER, 22' left of centerline, up to 93' AGL/1116' MSL. Tree, pole, building beginning 540' from DER, 3' right of centerline, up to 102' AGL/1125' MSL. Trees beginning 2209' from DER, 339' right of centerline, up to 109' AGL/1132' MSL. Trees beginning 2344' from DER, 342' right of centerline, up to 114' AGL/1137' MSL. Trees beginning 2418' from DER, 499' right of centerline, up to 115' AGL/1138' MSL. Trees beginning 2531' from DER, 133' right of centerline, up to 116' AGL/1139' MSL. Tree 2882' from DER, 728' right of centerline, up to 121' AGL/1144' MSL. Trees beginning 2901' from DER, 2' right of centerline, up to 125' AGL/1148' MSL. Trees beginning 3499' from DER, 103' left of centerline, up to 103' AGL/1126' MSL. Tree 3571' from DER, 80' left of centerline, up to 105' AGL/1128' MSL. Tree 3664' from DER, 35' left of centerline, up to 108' AGL/1131' MSL. Trees beginning 3700' from DER, 26' left of centerline, up to 110' AGL/1133' MSL. Trees beginning 4490' from DER, 67' left of centerline, up to 120' AGL/1143' MSL. **Rwy 34**, building 1' from DER, 453' right of centerline, up to 18' AGL/1035' MSL. Electrical pole beginning 8' from DER, 16' left of centerline, up to 1018' MSL. Tree, sign beginning 96' from DER, 361' right of centerline, up to 23' AGL/1040' MSL. Building beginning 236' from DER, 515' right of centerline, up to 29' AGL/1044' MSL. Tree 870' from DER, 683' right of centerline, up to 31' AGL/1046' MSL. Tree 964' from DER, 515' right of centerline, up to 63' AGL/1078' MSL.

06 DEC 2018 to 03 JAN 2019

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## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND



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## DIVERSE VECTOR AREA (RADAR VECTORS)

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)****WILLISTON, ND****SLOULIN FIELD INTL (ISN)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5 15232 (FAA)

TAKEOFF MINIMUMS: **Rwy 29**, 300-2 or std. w/min.  
climb of 359' per NM to 2400.

DEPARTURE PROCEDURE: **Rwy 11**, climb heading  
115° to 2400 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 2**, poles  
beginning 973' from DER, 258' left of centerline, up to  
40' AGL/1953' MSL. **Rwy 20**, bldg 1811' from DER,  
371' right of centerline, 65' AGL/1980' MSL. Pole  
1346' from DER, 69' right of centerline, 44' AGL/1954'  
MSL. **Rwy 29**, rising terrain 639' from DER, 301' left  
of centerline, up to 2001' MSL. Rising terrain 645'  
from DER, 305' right of centerline, up to 2000' MSL.  
Fences beginning 966' from DER, 250' left of  
centerline, up to 7' AGL/2029' MSL. NAVAID 999'  
from DER, on centerline, 14' AGL/2104' MSL.  
Buildings beginning 1000' from DER, 270' right of  
centerline, up to 27' AGL/2040' MSL. Fence 1341'  
from DER, 210' right of centerline, 21' AGL/2021'  
MSL. Rising terrain beginning 1965' from DER, 459'  
right of centerline, up to 2071' MSL. Building 2345'  
from DER, 519' left of centerline, 5' AGL/2066' MSL.  
Rising terrain beginning 2531' from DER, 733' left of  
centerline, up to 2092' MSL. Rising terrain and t-l  
tower beginning 3479' from DER, 248' right of  
centerline, up to 77' AGL/2137' MSL. Rising terrain  
and t-l tower beginning 3693' from DER, 179' left of  
centerline, up to 82' AGL/2150' MSL. T-l towers and  
tree beginning 5861' from DER, 35' right of centerline,  
up to 74' AGL/2226' MSL.

**WINDOM, MN****WINDOM MUNI (MWM)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 10322 (FAA)

TAKEOFF MINIMUMS: **Rwy 35**, 200-1½ or std. w/ min.  
climb of 225' per NM to 1700, or alternatively, with  
std. takeoff minimums and a normal 200' per NM  
climb gradient, takeoff must occur no later than 1700'  
prior to DER.

TAKEOFF OBSTACLE NOTES: **Rwy 17**, trees  
beginning 1074' from DER, 461' right of centerline, up  
to 100' AGL/1409' MSL. **Rwy 35**, trees beginning 1.1  
NM from DER, 2057' right of centerline, up to 100'  
AGL/1599' MSL.

**WILLMAR, MN****WILLMAR MUNI-JOHN L. RICE FIELD**

(BDH)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG-A 18340 (FAA)

TAKEOFF MINIMUMS: **Rwy 3, 21**, NA- Environmental.  
TAKEOFF OBSTACLE NOTES: **Rwy 31**, tree 1338'  
from DER, 740' left of centerline, 67' AGL/1193' MSL.

**WINNER, SD****WINNER RGNL (ICR)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 4 16203 (FAA)

TAKEOFF MINIMUMS: **Rwy 3, 21**, NA-Environmental.

**WINONA, MN****WINONA MUNI-MAX CONRAD FIELD (ONA)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 5A 17173 (FAA)

TAKEOFF MINIMUMS: **Rwy 30**, 700-2¾ w/min. climb of  
318' per NM to 1700 or std. w/min. climb of 454' per NM  
to 1300 or 1400-2¾ for VCOA.

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 110°  
to 1900 before turning. **Rwy 30**, climb heading 300° to  
1400 before turning.

VCOA: **Rwy 30**, obtain ATC approval for VCOA when  
requesting IFR clearance. Climb in visual conditions to  
cross Winona Muni-Max Conrad Field at or above 1900  
before proceeding on course.

TAKEOFF OBSTACLE NOTES: **Rwy 12**, fence beginning  
89' from DER, 102' right of centerline, 5' AGL/660' MSL.  
Trees beginning 958' from DER, left and right of  
centerline, up to 87' AGL/737' MSL. **Rwy 30**, trees  
beginning 789' from DER, 283' right of centerline, 104'  
AGL/758' MSL. Tree 56' from DER, 431' left of  
centerline, 12' AGL/666' MSL.

**WORTHINGTON, MN****WORTHINGTON MUNI (OTG)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 13010 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, 300-1½ or std. w/min.  
climb of 233' per NM to 1900, or alternately, with  
standard takeoff minimums and a normal 200' per NM  
climb gradient, takeoff must occur no later than 2100'  
prior to DER.

DEPARTURE PROCEDURE: **Rwy 29**, climb heading 293°  
to 2100 before turning left.

TAKEOFF OBSTACLE NOTES: **Rwy 18**, REIL beginning  
34' from DER, 78' left of centerline, 4' AGL/1577' MSL.  
VOR/DME 1201' from DER, 432' left of centerline, 35'  
AGL/1606' MSL. Pole 7390' from DER, 1989' left of  
centerline, 195' AGL/1781' MSL. REIL beginning 34' from  
DER, 78' right of centerline, 4' AGL/1577' MSL. Poles  
beginning 455' from DER, 530' right of centerline, up to  
39' AGL/1610' MSL. Building 703' from DER, 627' right of  
centerline, 20' AGL/1611' MSL. **Rwy 29**, vehicles on road  
beginning 106' from DER, 258' left of centerline, up to 18'  
AGL/1587' MSL. Trees beginning 1083' from DER, 475'  
left of centerline, up to 56' AGL/1625' MSL. Terrain  
beginning 17' from DER, 2' right of centerline, 1574'  
MSL. **Rwy 36**, light support structure 10' from DER, 18'  
left of centerline, 3' AGL/1574' MSL. Light support  
structure 10' from DER. 17' right of centerline, 3'  
AGL/1574' MSL.

**YANKTON, SD****CHAN GURNEY MUNI (YKN)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 85003 (FAA)

TAKEOFF MINIMUMS: **Rwy 31**, 300-1.  
DEPARTURE PROCEDURE: **Rwys 1, 13, 19, 31**, climb  
runway heading to 2400 before turning.

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

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**DIVERSE VECTOR AREA (RADAR VECTORS)**

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