

FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE  
TITLE 14 CFR PART 97.33

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.  
Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT ID</u> FFM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 13	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<u>CITY</u> FERGUS FALLS	<u>STATE</u> MN
<u>AIRPORT ELEVATION</u> 1183	<u>TDZE</u> 1182	<u>SUPERSEDED</u> RNAV (GPS) RWY 13	<u>DATED</u> 05/20/2021	<u>MAG VAR</u> 5E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 25 JANUARY 2024	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>EPOCH YEAR</u> 1995
			<u>CANCEL/SUSPEND</u>	

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
RUSTD	IAF	CUKVU	NOPT	TF	FB	1.00	085.89	22.64	2900
WIRDE	IAF	CUKVU	NOPT	TF	FB	1.00	140.30	14.02	2900
YILUV	IAF	CUKVU	NOPT	TF	FB	1.00	190.72	11.92	2900
CUKVU	IF/IAF	ITMUW		TF	FB	1.00	128.07	6.10	2900
ITMUW	FAF	TUYQU/1.70 NM TO RW13		TF	FB	0.30	128.14	3.57	
TUYQU/1.70 NM TO RW13		RW13	MAP	TF	FO	0.30	128.14	1.70	
RW13	MAP	1382 MSL		CA			128.14		
1382 MSL		IGAKE		DF	FO	1.00			2900

MISSED APPROACH

MAP:

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW13

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2900 DIRECT IGAKE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD NW CUKVU, RT, 128.07 INBOUND, 2900 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 128.14

FAF: ITMUW

DIST FAF TO MAP: 5.27

DIST FAF TO THLD: 5.27
4. MIN ALT: CUKVU 2900, ITMUW 2900, TUYQU/1.70 NM TO RW13 1760
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

200 HAT: 0.50

GS ANT:
6. MIN GP INCPT: 2900

GP ALT AT PFAF: ITMUW 2900

OM:

MM:

IM:
7. GP ANGLE: 3.00

34:1: IS CLEAR

20:1: IS CLEAR

TCH: 40.0
8. MSA FROM: RW13 3600



**PBN REQUIREMENTS NOTE:**

RNP APCH-GPS.

**NOTES:**

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C.  
CHART PROFILE NOTE: VGSi AND RNAV GLIDEPATH NOT COINCIDENT (VGSi ANGLE {ANGLE}/TCH {FEET}).  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT RUSTD ON T407 SOUTHBOUND.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT WIRDE ON V2 NORTHWEST BOUND.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT YILUV ON V510 NORTHWEST BOUND.  
WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ELBOW LAKE ALTIMETER SETTING AND INCREASE LPV DA TO 1428 FEET, INCREASE LNAV/VNAV DA TO 1516 FEET AND ALL VISIBILITIES 1/8 SM; INCREASE ALL MDAS 60 FEET AND LNAV CAT C/D AND CIRCLING CAT C/D VISIBILITY 1/4 SM.  
CHART NOTE: BARO-VNAV AND VDP NA WHEN USING ELBOW LAKE ALTIMETER SETTING.

**ADDITIONAL FLIGHT DATA:**

HOLD SE, RT, 308.36 INBOUND.  
CHART FAS OBST: 1319 TREE 461847N/0961114W.  
CHART VDP AT 1.09 NM TO RW13.  
WAAS CHANNEL # 65920  
REFERENCE PATH ID: W13A  
LTP HAE: 333.4 M

**MINIMUMS:****TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT****ALTERNATE:** NA ☐ STANDARD - CAT D 800-2 1/2, NA WHEN LOCAL WEATHER NOT AVAILABLE.

<b><u>CATEGORY:</u></b>	<b><u>A</u></b>			<b><u>B</u></b>			<b><u>C</u></b>			<b><u>D</u></b>			<b><u>E</u></b>		
<b><u>FINAL TYPE</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>
LPV DA	1382	3/4	200	1382	3/4	200	1382	3/4	200	1382	3/4	200			
LNAV/VNAV DA	1470	7/8	288	1470	7/8	288	1470	7/8	288	1470	7/8	288			
LNAV MDA	1580	1	398	1580	1	398	1580	1 1/8	398	1580	1 1/8	398			
CIRCLING	1640	1	457	1740	1	557	1820	1 3/4	637	1940	2 1/2	757			

**CHANGES - REASONS**

1. INCORPORATED CHANGES FROM P-NOTAM FOR AMDT ORIG-A AND ORIG-B INTO FORM - 8260.19I 8-3-4.C (3).
2. PROFILE LINE 4: UPDATED FROM "CUKVU 2900, ITMUW 2900, TUYQU/1.70 NM TO RW13 1760\*" TO "CUKVU 2900, ITMUW 2900, TUYQU/1.70 NM TO RW13 1760" DELETED "LNAV ONLY" FROM ADDITIONAL FLIGHT DATA. - NO LONGER REQUIRED.
3. PROFILE LINE 7 : ADDED 20:1 IS CLEAR - 8260.19I 8-6-7.G (3).
4. NOTES: CHANGED FROM "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT RUSTD ON V181 SOUTH BOUND." TO "PROCEDURE NA FOR ARRIVALS AT RUSTD ON T407 SOUTHBOUND." – V181 CANCELED AND REPLACED WITH T407.
5. NOTES: CHANGED FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 36°C." TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C." - DERIVED FROM STANDARD -30°C ISA DEVIATION.



COORDINATED WITH:

A4A

☐

ALPA

☒

AOPA

☒

APA

☒

HAI

☐

NBAA

☒

OTHER:

ZMP, AMGR, ST. AV. DIR

FLIGHT CHECKED BY

PROCESSED IAW TECHNICAL SUPPORT GROUP (AJF-17) MEMO DATED 07/07/2021 GUIDANCE FOR PROCEDURAL CHANGES REQUIRING FLIGHT INSPECTION/VALIDATION

OFFICE

DATE

Digitally signed by  
**ROBERT G HAMILTON**  
Dec 11, 2023

DEVELOPED BY

ERIC N SUSKI (COLE NESBITT)

OFFICE

AJV-A431

DATE

08/02/2023

Digitally signed by  
**ROBERT G HAMILTON**  
Dec 11, 2023

APPROVED BY

ERIC N SUSKI

OFFICE

AJV-A430

DATE

**ROBERT G HAMILTON**  
Dec 11, 2023

**TITLE**  
MANAGER

FAS DATA BLOCK INFORMATION

DATA FIELD

OPERATION TYPE  
SBAS SERVICE PROVIDER IDENTIFIER  
AIRPORT IDENTIFIER  
RUNWAY  
APPROACH PERFORMANCE DESIGNATOR  
ROUTE INDICATOR  
REFERENCE PATH DATA SELECTOR  
REFERENCE PATH IDENTIFIER (APPROACH ID)  
LTP/FTP LATITUDE  
LTP/FTP LONGITUDE  
LTP/FTP ELLIPSOIDAL HEIGHT  
FPAP LATITUDE  
FPAP LONGITUDE  
THRESHOLD CROSSING HEIGHT (TCH)  
TCH UNITS SELECTOR (METERS OR FEET USED)  
GLIDEPATH ANGLE (GPA)  
COURSE WIDTH AT THRESHOLD  
LENGTH OFFSET  
HORIZONTAL ALERT LIMIT (HAL)  
VERTICAL ALERT LIMIT (VAL)

DATA

0  
0  
KFFM  
RW13  
0  
0  
W13A  
461721.4375N  
0960944.1535W  
+03334  
461620.4500N  
0960810.5300W  
00040.0  
F  
03.00  
106.75  
1032  
40.0  
35.0

CRC REMAINDER

60B04528

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE  
LTP ORTHOMETRIC HEIGHT  
FPAP ORTHOMETRIC HEIGHT

K3  
+03602  
+03602

