

**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</u> THIEF RIVER FALLS RGNL	<u>AIRPORT ID</u> KTVF	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 4	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> THIEF RIVER FALLS	<u>STATE</u> MN	
<u>AIRPORT ELEVATION</u> 1119	<u>TDZE</u> 1116	<u>SUPERSEDED</u> RNAV (GPS) RWY 4	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 11/13/2014	<u>MAG VAR</u> 2E	<u>EPOCH YEAR</u> 2015
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 25 FEBRUARY 2021	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
TVF VOR/DME		BOOMS		TF	FO	1.00	216.70	10.38	3300
BETRA	IAF	BOOMS	NOPT	TF	FB	1.00	356.70	23.73	3300
BOOMS	IF/IAF	AGIPE		TF	FB	1.00	037.09	5.00	2700
AGIPE	FAF	CATSA/2.50 NM TO RW04		TF	FB	0.30	037.14	2.36	
CATSA/2.50 NM TO RW04		RW04	MAP	TF	FO	0.30	037.14	2.50	
RW04	MAP	1366 MSL		CA			037.14		
1366 MSL		FISTS		DF	FO	1.00			3300

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW04

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3300 DIRECT FISTS AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)

2. HOLD SW BOOMS, RT, 037.09 INBOUND, 3300 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 037.14 FAF: AGIPE DIST FAF TO MAP: 4.86 DIST FAF TO THLD: 4.86

4. MIN ALT: BOOMS 3300, AGIPE 2700, CATSA/2.50 NM TO RW04 1940*

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 250 HAT: 0.67 GS ANT: MM: IM:

6. MIN GP INCPT: 2700 GP ALT AT FAF : AGIPE 2700 OM: MM: IM:

7. GP ANGLE: 3.00 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH: 40.0

8. MSA FROM: RW04 2700

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: RWY 4 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
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 TVF VOR/DME ON V430 EASTBOUND.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON
HOLD NE, RT, 217.33 INBOUND.
CHART FAS OBST: 1192 TREE 480208N/0961357W.
CHART VDP AT 0.98 NM TO RW04*
*LNAV ONLY.
WAAS CHANNEL # 70636
REFERENCE PATH ID: W04A
LTP HAE: 311.9 M

MINIMUMS:

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE.



CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
LPV DA	1366	1	250	1366	1	250		NA			NA				
LNAV/VNAV DA	1366	1	250	1366	1	250		NA			NA				
LNAV MDA	1460	1	344	1460	1	344		NA			NA				
CIRCLING	1540	1	421	1580	1	461		NA			NA				

CHANGES - REASONS

1. REMOVED DME/DME RNP -0.3 NA - NO LONGER REQUIRED.
2. ADDED PBN REQUIREMENTS NOTE: RNP APCH - IAW 8260.19H 8-6-8.B.(1).
3. ADDED "MAX 6000" TO HOLD-IN-LIEU ON LINE 2 - IAW 8260.19H PARA 8-6-7.B(2).
4. ADDED "20:1 IS CLEAR" TO LINE 7 - THERE ARE NO 20:1 PENETRATIONS TO RWY 04.
5. CHANGED "CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C (-2F) OR ABOVE 54C (130F)" TO "CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C OR ABOVE 54C" - REMOVED FAHRENHEIT IAW 8260.19H 8-6-9.S.
6. MOVED ALL NOTES AND REFERENCES TO CROOKSTON ALTIMETER SETTING TO 8260-9 FOR CONTINGENCY PURPOSES - LOCAL AND SECONDARY WEATHER ON WMSCR.
7. CHANGED HELICOPTER VISIBILITY NOTE FROM "CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" TO "CHART NOTE: RWY 04 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" - UPDATED TO CURRENT CRITERIA.
8. CHANGED RNP VALUE FROM 2.00 TO 1.00 FOR LEG TVF VOR/DME TO BOOMS IN TERMINAL ROUTES - UPDATED TO CURRENT CRITERIA.
9. CHANGED RNP VALUE FROM 0.50 TO 1.00 FOR LEG BOOMS TO AGIPE IN TERMINAL ROUTES - UPDATED TO CURRENT CRITERIA.
10. REMOVED "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT BETRA ON V55 SOUTHEAST BOUND." - V55 DECOMMISSIONED WITH PKD VOR DECOMMISSIONING.

COORDINATED WITH:

~~A4A~~ ☒ ~~ALPA~~ ☒ ~~AOPA~~ ☒ ~~APA~~ ☒ ~~HAI~~ ☐ ~~NBAA~~ ☒ OTHER: ZMP, AMGR

FLIGHT CHECKED BY

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, OCTOBER 3, 2018, SUBJECT:
FLIGHT INSPECTION REVIEW NOT REQUIRED

DEVELOPED BY

ALLAN WILL (COLIN CAMPBELL)

APPROVED BY

MARLON ROBINSON

Digitally signed by
WARDELL HENNING
May 08, 2020

OFFICE

Digitally signed by
WARDELL HENNING
May 08, 2020

OFFICE

AJV-A423

OFFICE

AJV-A420

Digitally signed by

DATE

DATE

12/09/2019

DATE

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KTVF
RUNWAY	RW04
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W04A
LTP/FTP LATITUDE	480342.0320N
LTP/FTP LONGITUDE	0961134.2425W
LTP/FTP ELLIPSOIDAL HEIGHT	+03119
FPAP LATITUDE	480451.0265N
FPAP LONGITUDE	0961010.2585W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	84D2EC56

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+03391
FPAP ORTHOMETRIC HEIGHT	+03391

