

FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
VOR STANDARD INSTRUMENT APPROACH PROCEDURE  
TITLE 14 CFR PART 97.23

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><br>THIEF RIVER FALLS RGNL | <u>AIRPORT ID</u><br>KTVF        | <u>PROCEDURE NAME</u><br>VOR Z RWY 13 | <u>ORIGINAL/AMENDMENT</u><br>2D           | <u>CITY</u><br>THIEF RIVER FALLS | <u>STATE</u><br>MN   |                           |
| <u>AIRPORT ELEVATION</u><br>1119         | <u>TDZE</u><br>1115              | <u>SUPERSEDED</u><br>VOR/DME RWY 13   | <u>ORIGINAL/AMENDMENT</u><br>2C           | <u>DATED</u><br>09/15/2016       | <u>MAG VAR</u><br>8E | <u>EPOCH YEAR</u><br>1965 |
| <u>FACILITY</u><br>TVF                   | <u>COORDINATES OF FACILITIES</u> | <u>ACTUAL EFFECTIVE DATE</u>          | <u>REQUIRED EFFECTIVE DATE</u><br>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                       |                 | KATTO/6.00 DME              |                 |                 |              |            | 297.00        | 6.00             | 2700            |
| UGACU/TVF VOR/DME 12.00 DME<br>CW | IAF             | JITOB/TVF VOR/DME 12.00 DME | NOPT            |                 |              |            | 12.00 DME ARC |                  | 2700            |
| JITOB/TVF VOR/DME 12.00 DME       | IF              | KATTO/6.00 DME              | NOPT            |                 |              |            | 117.00        | 6.00 (TVF R-297) | 2700            |

**MISSED APPROACH**

**MAP:**

ZASEG/TVF 0.30 DME

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 2700 THEN RIGHT TURN DIRECT TVF VOR/DME AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**

**PROFILE:**

1. PT      SIDE OF COURSE      OUTBOUND      FT WITHIN      MILES OF (IAF)
2. HOLD NW KATTO, RT, 117.00 INBOUND, 2700 FT. IN LIEU OF PT (IAF), MAX 8000.
3. FAF: 117.00      FAF: KATTO/6.00 DME      DIST FAF TO MAP:      DIST FAF TO THLD:
4. MIN ALT: KATTO/6.00 DME 2700
8. MSA FROM: TVF VOR/DME 2700

**EQUIPMENT REQUIREMENTS NOTES:**

DME REQUIRED.

**NOTES:**



ADDITIONAL FLIGHT DATA:

CHART TVF R-253 AT UGACU.  
CHART VDP AT 1.50 DME  
DISTANCE VDP TO THLD 1.20 NM  
CHART FAS OBST: 1254 TREES 480740N/0961540W.  
FAC CROSSES RWY C/L EXTENDED 2800 FT FROM THLD.  
HOLD NW, RT, 117.00 INBOUND

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

ALTERNATE: NA ☐

| 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 |
| S-13       | 1520   | 1   | 405     | 1520   | 1   | 405     | 1520   | 1 1/4 | 405     | 1520   | 1 1/4 | 405     |        |     |         |

CHANGES - REASONS

- DELETED CIRCLING MINIMUMS. - NPA CANCELTION. (SUPERSEDES AMDTS 2B AND 2C).
- INCORPORATES AMDT 2A. - P-NOTAM 03/1600.
- CHANGED PROCEDURE NAME FROM VOR/DME RWY 13 TO VOR Z RWY 13. - FAAO 8260.19H PROCEDURE NAMING CONVENTIONS AND TO DIFFERENTIATE FROM VOR Y RWY 13.
- DELETED CHART NOTE: CIRCLING TO RWY 3/21 NA. - STRAIGHT - IN ONLY PROCEDURE.
- ASSIGNED A NAME (JITOB) TO INTERMEDIATE FIX. - FAAO 8260.19H PARAGRAPH 2-10-5.
- ADDED DME REQUIRED TO EQUIPMENT REQUIREMENTS NOTES - DME REQUIRED.
- ASSIGNED NAME (ZASEG) TO MAP. - FAAO 8260.19H PARAGRAPH 2-10-5.

02/05/19: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 12/18/18.

- NAMED 12 NM DME ARC IAF UGACU.
- ADDED CHART TVF R-253 AT UGACU TO ADDITIONAL FLIGHT DATA.

COORDINATED WITH:

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

FLIGHT CHECKED BY

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

DEVELOPED BY Digitally signed by

LIAM DONAHUE LIAM DONAHUE

Feb 05, 2019

APPROVED BY

PATRICK MULQUEEN Digitally signed by

DONALD H LANIER

Feb 08, 2019

OFFICE

OFFICE

AJV-5431

OFFICE

AJV-5430

DATE

DATE

11/16/2018

DATE

TITLE

MANAGER



FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

| AIRPORT                | AIRPORT ID | PROCEDURE NAME | AMDT NO. | CITY              | STATE | AIRPORT ELEVATION | FACILITY |
|------------------------|------------|----------------|----------|-------------------|-------|-------------------|----------|
| THIEF RIVER FALLS RGNL | KTVF       | VOR Z RWY 13   | 2D       | THIEF RIVER FALLS | MN    | 1119              | TVF      |

PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM TVF VOR/DME TO KATTO/6.00 DME

| <u>RNP</u>         | <u>DISTANCE</u><br>6.00 | <u>PAT</u> | <u>MAP</u>      | <u>HAT</u>  |             |           | <u>HMAS</u> |            |           |             |                    |                |
|--------------------|-------------------------|------------|-----------------|-------------|-------------|-----------|-------------|------------|-----------|-------------|--------------------|----------------|
| <u>OBSTRUCTION</u> | <u>COORDINATES</u>      |            | <u>ELEV MSL</u> | <u>HORZ</u> | <u>VERT</u> | <u>AC</u> | <u>ROC</u>  | <u>OCS</u> | <u>CG</u> | <u>CGTA</u> | <u>ADJUSTMENTS</u> | <u>MIN ALT</u> |
| 1.TOWER            | 480751.00N/0961144.00W  |            | 1615            | 20          | 3           | 1A        | 1000        |            |           |             | AS85               | 2700           |

COMPUTATIONS

| ALT | KIAS | KTAS | HAA | VKTW | TR | BA | DTA | COURSE CHANGE | DVEB | VEB OCS | RF CENTER FIX/DISTANCE |
|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|
|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|

SEGMENT REMARKS:

INITIAL: ARC

FROM UGACU/TVF VOR/DME 12.00 DME CW TO JITOB/TVF VOR/DME 12.00 DME

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  | <u>HAT</u>  |           |            | <u>HMAS</u> |           |             |                    |                |
|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|-------------|-----------|-------------|--------------------|----------------|
| <u>OBSTRUCTION</u> | <u>COORDINATES</u>     | <u>ELEV MSL</u> | <u>HORZ</u> | <u>VERT</u> | <u>AC</u> | <u>ROC</u> | <u>OCS</u>  | <u>CG</u> | <u>CGTA</u> | <u>ADJUSTMENTS</u> | <u>MIN ALT</u> |
| 2.TOWER            | 481248.00N/0962610.00W | 1350            | 20          | 3           | 1A        | 1000       |             |           |             | AS350              | 2700           |

COMPUTATIONS

| ALT | KIAS | KTAS | HAA | VKTW | TR | BA | DTA | COURSE CHANGE | DVEB | VEB OCS | RF CENTER FIX/DISTANCE |
|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|
|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|

SEGMENT REMARKS:



HMAS

RF CENTER FIX/DISTANCE

HMAS

RF CENTER FIX/DISTANCE

HOLD-IN-LIEU OF PT

FROM

KATTO

TO

P-4

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u><br>P-4 | <u>MAP</u>  | <u>HAT</u>  |           |            | <u>HMAS</u> |           |             |                    |                |
|--------------------|------------------------|-------------------|-------------|-------------|-----------|------------|-------------|-----------|-------------|--------------------|----------------|
| <u>OBSTRUCTION</u> | <u>COORDINATES</u>     | <u>ELEV MSL</u>   | <u>HORZ</u> | <u>VERT</u> | <u>AC</u> | <u>ROC</u> | <u>OCS</u>  | <u>CG</u> | <u>CGTA</u> | <u>ADJUSTMENTS</u> | <u>MIN ALT</u> |
| 4.TOWER            | 481248.00N/0962610.00W | 1350              | 20          | 3           | 1A        | 1000       |             |           |             | AS350              | 2700           |

| COMPUTATIONS | ALT | KIAS | KTAS | HAA | VKTW | TR | BA | DTA | COURSE CHANGE | DVEB | VEB OCS | RF CENTER FIX/DISTANCE |
|--------------|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|
|--------------|-----|------|------|-----|------|----|----|-----|---------------|------|---------|------------------------|

SEGMENT REMARKS:

CIRCLING

☐ ALL CATS

☐ CAT A

☐ CAT B

☐ CAT C

☐ CAT D

☐ CAT E

☒ NOT AUTHORIZED

MSA

CENTER

TVF VOR/DME

RADIUS

25

| SECTOR  | OBSTRUCTION       | COORDINATES            | BEARING | DISTANCE | ELEV MSL | HORZ | VERT | AC | ROC  | OCS | ADJUSTMENTS | MIN ALT |
|---------|-------------------|------------------------|---------|----------|----------|------|------|----|------|-----|-------------|---------|
| 360-360 | TOWER (27-002161) | 475838.00N/0963619.00W | 244     | 17.7     | 1655     | 500  | 50   | 5D | 1000 |     |             | 2700    |

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

MISSED APPROACH: 40:1 SURFACE CLEAR





| <u>AIRPORT</u>         | <u>AIRPORT ID</u> | <u>PROCEDURE NAME</u> | <u>AMDT NO.</u> | <u>CITY</u>       | <u>STATE</u> | <u>AIRPORT ELEVATION</u> | <u>FACILITY</u> |
|------------------------|-------------------|-----------------------|-----------------|-------------------|--------------|--------------------------|-----------------|
| THIEF RIVER FALLS RGNL | KTVF              | VOR Z RWY 13          | 2D              | THIEF RIVER FALLS | MN           | 1119                     | TVF             |

and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

**PART C: GENERAL REMARKS:**

CONTINGENCY BACKUP ALTIMETER SETTING NOTE:  
NOTE: USE CROOKSTON ALTIMETER SETTING AND INCREASE ALL MDA 100 FEET.  
NOTE: VDP NA.  
ALTERNATE MINIMUMS NA.



PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

|                 |       |                                 |        |
|-----------------|-------|---------------------------------|--------|
| DISTANCE FROM   | THLD  | TO 1000FT POINT                 | 4.05   |
| WIDTH OF        | FINAL | SEGMENT AT 1000FT POINT         | 2.38   |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1000FT POINT | 125.00 |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1000FT POINT | 1205   |
| DISTANCE FROM   | THLD  | TO 1500FT POINT                 | 5.72   |
| WIDTH OF        | FINAL | SEGMENT AT 1500FT POINT         | 2.54   |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1500FT POINT | 125.00 |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1500FT POINT | 1205   |

THRESHOLD  
COORDINATES  
(IF STR-IN)480415.43N/0961136.13W

ARP COORDINATES480356.40N/0961106.00W

RUNWAY APCH END  
AND DIST FURTHEST  
FROM ARP

RUNWAY 31 DISTANCE 0.61 NM

FAF  
COORDINATES480735.69N/0961831.36W

FIX NAME  
COORDINATES

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED.





|  |                           |                                       |                       |                                  |   |                                  |                        |
|--|---------------------------|---------------------------------------|-----------------------|----------------------------------|---|----------------------------------|------------------------|
| <u>AIRPORT</u><br>THIEF RIVER FALLS RGNL | <u>AIRPORT ID</u><br>KTVF | <u>PROCEDURE NAME</u><br>VOR Z RWY 13 | <u>AMDT NO.</u><br>2D | <u>CITY</u><br>THIEF RIVER FALLS | <u>STATE</u><br>MN                                  | <u>AIRPORT ELEVATION</u><br>1119 | <u>FACILITY</u><br>TVF |
| PART E: PREPARED BY                      |                           |                                       |                       |                                  |   |                                  |                        |
| <u>NAME</u><br>LIAM DONAHUE              | <u>OFFICE</u><br>AJV-5431 |                                       |                       | <u>DATE</u><br>11/16/2018        | <u>TITLE</u><br>AERONAUTICAL INFORMATION SPECIALIST |                                  |                        |

QUALITY  
41  
CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

Page 7 of 7