

**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>        | <u>PROCEDURE NAME</u>            | <u>ORIGINAL/AMENDMENT</u>    | <u>CITY</u>                    | <u>STATE</u>          |                |                   |
| BWP                      | RNAV (GPS) RWY 33                | 2                            | WAHPETON                       | ND                    |                |                   |
| <u>AIRPORT ELEVATION</u> | <u>TDZE</u>                      | <u>SUPERSEDED</u>            | <u>ORIGINAL/AMENDMENT</u>      | <u>DATED</u>          | <u>MAG VAR</u> | <u>EPOCH YEAR</u> |
| 968                      | 968                              | RNAV (GPS) RWY 33            | 1B                             | 10/06/2022            | 5E             | 1995              |
| <u>FACILITY</u>          | <u>COORDINATES OF FACILITIES</u> | <u>ACTUAL EFFECTIVE DATE</u> | <u>REQUIRED EFFECTIVE DATE</u> | <u>CANCEL/SUSPEND</u> |                |                   |
| RNAV                     |                                  |                              | ROUTINE                        |                       |                |                   |

**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> |
|-----------------------|-----------------|-----------------------|-----------------|-----------------|--------------|------------|---------------|-----------------|-----------------|
| GUVEY                 |                 | COINS                 |                 | TF              | FB           | 1.00       | 062.82        | 13.47           | 3000            |
| LOCKR                 |                 | COINS                 |                 | TF              | FB           | 1.00       | 139.50        | 17.63           | 3000            |
| PANIC                 |                 | BRUKS                 |                 | TF              | FB           | 1.00       | 178.04        | 20.67           | 3000            |
| BRUKS                 | IAF             | JALIS                 | NOPT            | TF              | FB           | 1.00       | 241.17        | 9.25            | 3000            |
| COINS                 | IAF             | JALIS                 | NOPT            | TF              | FB           | 1.00       | 060.79        | 9.25            | 3000            |
| JALIS                 | IF/IAF          | SATYO                 |                 | TF              | FB           | 1.00       | 331.02        | 6.86            | 2500            |
| SATYO                 | FAF             | ZAKPU/2.50 NM TO RW33 |                 | TF              | FB           | 0.30       | 330.97        | 2.14            |                 |
| ZAKPU/2.50 NM TO RW33 |                 | RW33                  | MAP             | TF              | FO           | 0.30       | 330.97        | 2.50            |                 |
| RW33                  | MAP             | 1218 MSL              |                 | CA              |              |            | 330.97        |                 |                 |
| 1218 MSL              |                 | FAMMS                 |                 | DF              | FO           | 1.00       |               |                 | 3000            |

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW33

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 3000 DIRECT FAMMS AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

|    |                                                                            |                                                    |                 |              |                  |          |                   |      |          |      |         |  |  |     |  |
|----|----------------------------------------------------------------------------|----------------------------------------------------|-----------------|--------------|------------------|----------|-------------------|------|----------|------|---------|--|--|-----|--|
| 1. | PT                                                                         | SIDE OF COURSE                                     | OUTBOUND        | FT WITHIN    | MILES OF         | (IAF)    |                   |      |          |      |         |  |  |     |  |
| 2. | HOLD SE JALIS, RT, 331.02 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000. |                                                    |                 |              |                  |          |                   |      |          |      |         |  |  |     |  |
| 3. | FAC:                                                                       | 330.97                                             | FAF:            | SATYO        | DIST FAF TO MAP: | 4.64     | DIST FAF TO THLD: | 4.64 |          |      |         |  |  |     |  |
| 4. | MIN ALT:                                                                   | JALIS 3000, SATYO 2500, ZAKPU/2.50 NM TO RW33 1800 |                 |              |                  |          |                   |      |          |      |         |  |  |     |  |
| 5. | DIST TO THLD FROM OM:                                                      |                                                    | MM:             |              | IM:              |          | 150 HAT:          |      | 250 HAT: | 0.62 | GS ANT: |  |  |     |  |
| 6. | MIN GP INCPT:                                                              | 2500                                               | GP ALT AT PFAF: | SATYO 2500   |                  |          |                   |      | OM:      |      | MM:     |  |  | IM: |  |
| 7. | GP ANGLE:                                                                  | 3.00                                               | 34:1:           | IS NOT CLEAR | 20:1:            | IS CLEAR | TCH:              | 55.0 |          |      |         |  |  |     |  |
| 8. | MSA FROM:                                                                  | RW33 3100                                          |                 |              |                  |          |                   |      |          |      |         |  |  |     |  |

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: CIRCLING NA TO RWYS 3 AND 21.  
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16°C OR ABOVE 54°C.  
CHART NOTE: RWY 33 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.  
CHART NOTE: BARO-VNAV AND VDP NA WHEN USING FFM ALTIMETER SETTING.  
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT PANIC ON V2 NORTHWEST BOUND.  
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE FFM ALTIMETER SETTING AND INCREASE LPV DA TO 1290 FEET AND ALL VISIBILITIES 1/4 SM. INCREASE LNAV/VNAV DA TO 1322 FEET AND ALL VISIBILITIES 1/8 SM. INCREASE ALL MDAS 80 FEET AND LNAV VISIBILITY CAT C/D 1/4 SM, AND CIRCLING VISIBILITY CAT C/D 1/4 SM.

ADDITIONAL FLIGHT DATA:

HOLD NW, RT, 150.84 INBOUND.  
CHART FAS OBST: 1069 TREE 461326N/0963550W.  
CHART VDP AT 1.03 NM TO RW33.  
WAAS CHANNEL # 77930  
REFERENCE PATH ID: W33A  
LTP HAE: 267.7 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/4, 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       | 1218   | 3/4 | 250     | 1218   | 3/4 | 250     | 1218   | 3/4 | 250     | 1218   | 3/4   | 250     |        |     |         |
| LNAV/VNAV DA | 1250   | 7/8 | 282     | 1250   | 7/8 | 282     | 1250   | 7/8 | 282     | 1250   | 7/8   | 282     |        |     |         |
| LNAV MDA     | 1320   | 1   | 352     | 1320   | 1   | 352     | 1320   | 1   | 352     | 1320   | 1     | 352     |        |     |         |
| CIRCLING     | 1520   | 1   | 552     | 1520   | 1   | 552     | 1660   | 2   | 692     | 1660   | 2 1/4 | 692     |        |     |         |



CHANGES - REASONS

1. TERMINAL ROUTES: CHANGED FROM BANEY TO COINS TO LOCKR TO COINS – REMOVED THE FIX BANEY TO ALLEVIATE CONFUSION WITH ANOTHER NEARBY FIX, PER FPT.
2. TERMINAL ROUTES: CHANGED ZAKPU TO RW33 COURSE FROM 330.96 TO 330.97 – NEW EVALUATION.
3. TERMINAL ROUTES: CHANGED CA LEG FROM RW33 TO 1216 MSL TO RW33 TO 1218 MSL – NEW EVALUATION.
4. TERMINAL ROUTES: CHANGED DF LEG FROM 1216 MSL TO FAMMS TO 1218 MSL TO FAMMS – NEW EVALUATION.
5. NOTES: REMOVED WHEN CIRCLING RWY 15 NA AT NIGHT, OPERATIONAL VGSI REQUIRED, REMAIN ON OR ABOVE VGSI GLIDEPATH UNTIL THRESHOLD – 20:1 PENETRATIONS MITIGATED.
6. PROFILE VIEW LINE 2: ADDED MAX 6000 – 8260.19J 8-6-7(B)2.
7. PROFILE VIEW LINE 4: REMOVED \*, AND \*LNAV ONLY FROM ADDITIONAL FLIGHT DATA – NO LONGER REQUIRED.
8. PROFILE VIEW LINE 5: CHANGED 250 HAT FROM 0.61 TO 0.62 – 8260.19J 8-6-7E(3).
9. PROFILE VIEW LINE 7: ADDED 20:1 IS CLEAR – NO 20:1 PENETRATIONS.
10. CHART NOTE: CHANGED FROM WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE FERGUS FALLS ALTIMETER SETTING: INCREASE LPV DA TO 1292 AND ALL VISIBILITIES 3/8 SM; INCREASE LNAV/VNAV DA TO 1326 AND ALL VISIBILITIES 3/8 SM; INCREASE ALL MDA 80 FEET AND VISIBILITY LNAV ALL CATS 3/8 SM AND CIRCLING CAT C AND D 1/4 SM TO WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE FFM ALTIMETER SETTING AND INCREASE LPV DA TO 1290 FEET AND ALL VISIBILITIES 1/4 SM. INCREASE LNAV/VNAV DA TO 1322 FEET AND ALL VISIBILITIES 1/8 SM. INCREASE ALL MDAS 80 FEET AND LNAV VISIBILITY CAT C/D 1/4 SM, AND CIRCLING VISIBILITY CAT C/D 1/4 SM – NEW EVALUATION AND UPDATED TO CURRENT FORMAT.
11. VDP NA: CHANGED FROM "BARO-VNAV AND VDP NA WHEN USING FERGUS FALLS ALTIMETER SETTING" TO "BARO-VNAV AND VDP NA WHEN USING FFM ALTIMETER SETTING – 8260.19J 8-6-10.E(9).
12. ADDITIONAL FLIGHT DATA: CHANGED FROM HOLD NW, RT, 150.85 INBOUND TO HOLD NW, RT, 150.84 INBOUND.
13. ADDITIONAL FLIGHT DATA CHART VDP AT: CHANGED FROM 1.09 NM TO RW33 TO 1.03 NM TO RW33 – UPDATED MINIMUMS.
14. ADDITIONAL FLIGHT DATA: ADDED FAS OBST: 1069 TREE 461326N/0963550W – 8260.19J 8-6-11(C).
15. LOWERED LNAV/VNAV DA/HAT FROM 1252/284 TO 1250/282 – NEW EVALUATION.
16. LOWERED LNAV MDA/HAT FROM 1340/372 TO 1320/352 – NEW EVALUATION.
17. FAS DATA: CRC REMAINDER: CHANGED FROM 408761CB TO CBB51297 – FPAP LAT/LONG CHANGED FROM 461537.5200N/0963703.0200W TO 461537.5225N/0963703.0250W.

12/10/2024: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 10/31/24  
1. CHANGED CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}) TO VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

COORDINATED WITH:

A4A

ALPA

☒

AOPA

☒

APA

HAI

NBAA

☒

OTHER: ZMP, AMGR

FLIGHT CHECKED BY  
GLEN BURSON FREEMAN

Digitally signed by  
**ALLAN WILL**  
Dec 16, 2024

OFFICE  
FIOG  
DATE  
10/30/2024

DEVELOPED BY  
RAYMOND JOHNSON

Digitally signed by  
**RAYMOND R JOHNSON**  
Dec 10, 2024

OFFICE  
AJV-A423  
DATE  
09/19/2024

APPROVED BY  
ALLAN WILL

Digitally signed by  
**ALLAN WILL**  
Dec 16, 2024

OFFICE  
AJV-A423  
DATE  
01/16/2025  
TITLE  
MANAGER



AIRPORT ID  
BWP

PROCEDURE NAME  
RNAV (GPS) RWY 33

ORIGINAL/AMENDMENT  
2

CITY  
WAHPETON

STATE  
ND

**FAS DATA BLOCK INFORMATION**

| <u>DATA FIELD</u>                        | <u>DATA</u>   |
|------------------------------------------|---------------|
| OPERATION TYPE                           | 0             |
| SBAS SERVICE PROVIDER IDENTIFIER         | 0             |
| AIRPORT IDENTIFIER                       | KBWP          |
| RUNWAY                                   | RW33          |
| APPROACH PERFORMANCE DESIGNATOR          | 0             |
| ROUTE INDICATOR                          |               |
| REFERENCE PATH DATA SELECTOR             | 0             |
| REFERENCE PATH IDENTIFIER (APPROACH ID)  | W33A          |
| LTP/FTP LATITUDE                         | 461416.1930N  |
| LTP/FTP LONGITUDE                        | 0963610.6725W |
| LTP/FTP ELLIPSOIDAL HEIGHT               | +02677        |
| FPAP LATITUDE                            | 461537.5225N  |
| FPAP LONGITUDE                           | 0963703.0250W |
| THRESHOLD CROSSING HEIGHT (TCH)          | 00055.0       |
| TCH UNITS SELECTOR (METERS OR FEET USED) | F             |
| GLIDEPATH ANGLE (GPA)                    | 03.00         |
| COURSE WIDTH AT THRESHOLD                | 106.75        |
| LENGTH OFFSET                            | 1192          |
| HORIZONTAL ALERT LIMIT (HAL)             | 40.0          |
| VERTICAL ALERT LIMIT (VAL)               | 50.0          |

|               |          |
|---------------|----------|
| CRC REMAINDER | CBB51297 |
|---------------|----------|

**ADDITIONAL PATH POINT RECORD INFORMATION**

|                         |        |
|-------------------------|--------|
| ICAO CODE               | K3     |
| LTP ORTHOMETRIC HEIGHT  | +02945 |
| FPAP ORTHOMETRIC HEIGHT | +02945 |



# FEDERAL AVIATION ADMINISTRATION

## FLIGHT STANDARDS SERVICE

### STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

| <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> |
|-------------------|-----------------------|-----------------|-------------|--------------|--------------------------|-----------------|
| BWP               | RNAV (GPS) RWY 33     | 2               | WAHPETON    | ND           | 968                      | RNAV            |

#### PART A: OBSTRUCTION DATA SEGMENTS

##### FEEDER

FROM GUYEY TO COINS

RNP 1.00 DISTANCE 13.47 PAT MAP HAT HMAS

| <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> |
|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|------------|-----------|-------------|--------------------|----------------|
| AAO                | 455512.00N/0970109.00W | 1414            | 215         | 8           | 4B        | 1000       |            |           |             | AT586              | 3000           |
| TERRAIN            | 455636.00N/0965954.00W | 1194 (1200)     |             |             |           |            |            |           |             | AS1500             | 2700           |

#### COMPUTATIONS

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

#### SEGMENT REMARKS:

##### FEEDER

FROM LOCKR TO COINS

RNP 1.00 DISTANCE 17.63 PAT MAP HAT HMAS

| <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> |
|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|------------|-----------|-------------|--------------------|----------------|
| TWR (38-000740)    | 460907.00N/0965047.00W | 1298            | 500         | 50          | 5D        | 1000       |            |           |             | AT702              | 3000           |
| TERRAIN            | 455827.00N/0964321.00W | 1033 (1000)     |             |             |           |            |            |           |             | AS1500             | 2500           |

#### COMPUTATIONS

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

#### SEGMENT REMARKS:



FEEDER

FROM

PANIC

TO

BRUKS

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  |             | <u>HAT</u> |            |            |           |             | <u>HMAS</u>        |                |
|--------------------|------------------------|-----------------|-------------|-------------|------------|------------|------------|-----------|-------------|--------------------|----------------|
| 1.00               | 20.67                  |                 |             |             |            |            |            |           |             |                    |                |
| <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> |
| AAO                | 462612.00N/0961315.00W | 1615            | 215         | 8           | 4B         | 1000       |            |           |             | AT385              | 3000           |
| TERRAIN            | 462612.00N/0961315.00W | 1414 (1400)     |             |             |            |            |            |           |             | AS1500             | 2900           |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL

FROM

BRUKS

TO

JALIS

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  |             | <u>HAT</u> |            |            |           |             | <u>HMAS</u>        |                |
|--------------------|------------------------|-----------------|-------------|-------------|------------|------------|------------|-----------|-------------|--------------------|----------------|
| 1.00               | 9.25                   |                 |             |             |            |            |            |           |             |                    |                |
| <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> |
| AAO                | 460730.00N/0961445.00W | 1234            | 215         | 8           | 4B         | 1000       |            |           |             | AT766              | 3000           |
| TERRAIN            | 460633.00N/0961521.00W | 1023 (1000)     |             |             |            |            |            |           |             | AS1500             | 2500           |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL

FROM

COINS

TO

JALIS

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  |             |           |            | <u>HAT</u> | <u>HMAS</u> |             |                    |                |
|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|------------|-------------|-------------|--------------------|----------------|
| 1.00               | 9.25                   |                 |             |             |           |            |            |             |             |                    |                |
| <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> |
| AAO                | 455821.00N/0964230.00W | 1234            | 215         | 8           | 4B        | 1000       |            |             |             | AT766              | 3000           |
| TERRAIN            | 455812.00N/0964215.00W | 1030 (1000)     |             |             |           |            |            |             |             | AS1500             | 2500           |

COMPUTATIONS

ALTKIASKTASHAAVKTWTRBADTACOURSE CHANGEDVEBVEB OCSRF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE

FROM

JALIS (IF/IAF)

TO

SATYO

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  |             |           |            | <u>HAT</u> | <u>HMAS</u> |             |                    |                |
|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|------------|-------------|-------------|--------------------|----------------|
| 1.00               | 6.86                   |                 |             |             |           |            |            |             |             |                    |                |
| <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> |
| TOWER (27-000320)  | 460221.00N/0962940.00W | 1231            | 250         | 50          | 4D        | 500        |            |             |             |                    | 1800           |
| TERRAIN            | 460206.00N/0963027.00W | 994 (1000)      |             |             |           |            |            |             |             | AS1500             | 2500           |

COMPUTATIONS

ALTKIASKTASHAAVKTWTRBADTACOURSE CHANGEDVEBVEB OCSRF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: LPV

FROM

SATYO

TO

RW33

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  |             |           |            | <u>HAT</u> | <u>HMAS</u> |             |                    |                |
|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|------------|-------------|-------------|--------------------|----------------|
| 0.30               | 4.64                   |                 | DA          |             |           |            | 250        |             |             |                    |                |
| <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> |
| TREE (38-024535)   | 461403.71N/0963600.86W | 1009            | 50          | 20          | 2C        |            | 34:1       |             |             | AC20               | 1218           |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: LNAV/VNAV

FROM

SATYO

TO

RW33

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  |             |           |            | <u>HAT</u> | <u>HMAS</u> |             |                    |                |
|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|------------|-------------|-------------|--------------------|----------------|
| 0.30               | 4.64                   |                 | DA          |             |           |            | 282        |             |             |                    |                |
| <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> |
| TREE               | 461325.97N/0963550.17W | 1069            | 50          | 20          | 2C        | 161        |            |             |             | AC20               | 1250           |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: LNAV

FROM

SATYO

TO

ZAKPU/2.50 NM TO RW33

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  |             |           |            | <u>HAT</u> | <u>HMAS</u> |             |                    |                |
|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|------------|-------------|-------------|--------------------|----------------|
| 0.30               | 2.14                   |                 |             |             |           |            |            |             |             |                    |                |
| <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> |
| AAO                | 461015.00N/0963439.00W | 1181            | 215         | 8           | 4B        | 250        |            |             |             | RA80 DG289         | 1800           |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:





FINAL: LNAV STEPDOWN

FROM

ZAKPU/2.50 NM TO RW33

TO

RW33

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  |             |           |            | <u>HAT</u> | <u>HMAS</u> |             |                    |                |
|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|------------|-------------|-------------|--------------------|----------------|
| 0.30               | 2.50                   |                 | RW33        |             |           |            | 352        |             |             |                    |                |
| <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> |
| TREE               | 461325.97N/0963550.17W | 1069            | 50          | 20          | 2C        | 250        |            |             |             |                    | 1320           |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

HOLD-IN-LIEU OF PT

FROM

JALIS

TO

P-5

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u><br>P-5 | <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> |
| TOWER (27-001395)  | 460046.17N/0961920.48W | 1275              | 250         | 50          | 4D        | 1000       |            |             |             | AT725              | 3000           |
| TERRAIN            | 455633.00N/0963015.00W | 1020 (1000)       |             |             |           |            |            |             |             | AS1500             | 2500           |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH: LPV

FROM

DA

TO

FAMMS

| <u>RNP</u><br>0.30-1.00 | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  |             |           | <u>HAT</u> | <u>HMAS</u><br>1027 |           |             |                    |                |
|-------------------------|------------------------|-----------------|-------------|-------------|-----------|------------|---------------------|-----------|-------------|--------------------|----------------|
| <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> |
|                         |                        |                 |             |             |           |            | ASC                 |           |             |                    | 3000           |
| TOWER (38-000675)       | 461747.76N/0963626.22W | 1342            | 20          | 3           | 1A        | 1000       |                     |           |             |                    | 2400           |
| TERRAIN                 | 461924.00N/0963745.00W | 1046 (1000)     |             |             |           |            |                     |           |             | AS1500             | 2500           |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH: LNAV/VNAV

FROM

DA

TO

FAMMS

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  |             |           |            | <u>HAT</u> | <u>HMAS</u> |             |                    |                |
|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|------------|-------------|-------------|--------------------|----------------|
| 0.30-1.00          |                        |                 |             |             |           |            |            |             |             |                    | 1089           |
| <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> |
|                    |                        |                 |             |             |           |            | ASC        |             |             |                    | 3000           |
| TOWER (38-000675)  | 461747.76N/0963626.22W | 1342            | 20          | 3           | 1A        | 1000       |            |             |             |                    | 2400           |
| TERRAIN            | 461924.00N/0963745.00W | 1046 (1000)     |             |             |           |            |            |             |             | AS1500             | 2500           |

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSED APPROACH: LNAV

FROM

RW33

TO

FAMMS

| <u>RNP</u>         | <u>DISTANCE</u>        | <u>PAT</u>      | <u>MAP</u>  |             |           | <u>HAT</u> | <u>HMAS</u> |           |             |                    |                |
|--------------------|------------------------|-----------------|-------------|-------------|-----------|------------|-------------|-----------|-------------|--------------------|----------------|
| 0.30-1.00          |                        |                 |             |             |           |            |             |           |             |                    | 1220           |
| <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> |
|                    |                        |                 |             |             |           |            | ASC         |           |             |                    | 3000           |
| TOWER (38-000675)  | 461747.76N/0963626.22W | 1342            | 20          | 3           | 1A        | 1000       |             |           |             |                    | 2400           |
| TERRAIN            | 461924.00N/0963745.00W | 1046 (1000)     |             |             |           |            |             |           |             | AS1500             | 2500           |

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

| OBSTRUCTION       | COORDINATES            | RADIUS | HAA | ELEV MSL | HORZ | VERT | AC | ROC | OCS | ADJUSTMENTS | MIN ALT |
|-------------------|------------------------|--------|-----|----------|------|------|----|-----|-----|-------------|---------|
| CATEGORY A        |                        |        |     |          |      |      |    |     |     |             |         |
| TOWER (27-000718) | 461546.56N/0963523.79W | 1.30   | 552 | 1155     | 20   | 50   | 1D | 300 |     | AC50        | 1520    |
| CATEGORY B        |                        |        |     |          |      |      |    |     |     |             |         |
| TOWER (27-000718) | 461546.56N/0963523.79W | 1.84   | 552 | 1155     | 20   | 50   | 1D | 300 |     | AC50        | 1520    |
| CATEGORY C        |                        |        |     |          |      |      |    |     |     |             |         |
| TOWER (38-000675) | 461747.76N/0963626.22W | 2.89   | 692 | 1342     | 20   | 3    | 1A | 300 |     |             | 1660    |
| CATEGORY D        |                        |        |     |          |      |      |    |     |     |             |         |
| TOWER (38-000675) | 461747.76N/0963626.22W | 3.78   | 692 | 1342     | 20   | 3    | 1A | 300 |     |             | 1660    |

CIRCLING REMARKS:

MSA

CENTER

RW33

RADIUS

25

| SECTOR  | OBSTRUCTION     | COORDINATES            | BEARING | DISTANCE | ELEV MSL | HORZ | VERT | AC | ROC  | OCS | ADJUSTMENTS | MIN ALT |
|---------|-----------------|------------------------|---------|----------|----------|------|------|----|------|-----|-------------|---------|
| 360-360 | TWR (27-001703) | 462848.00N/0960146.00W | 053     | 27.9     | 2035     | 250  | 50   | 4D | 1000 |     |             | 3100    |

MSA REMARKS:



NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

TAA NOT DEVELOPED PER ATC REQUEST.

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZMP ARTCC, GFK FSS

| WX SERVICE         | LOCATION | HRS OPERATION | ALTIMETER SOURCE | DISTANCE | WMSCR | ADJUSTMENTS |
|--------------------|----------|---------------|------------------|----------|-------|-------------|
| AWOS-3             | BWP      | 24            | BWP              | 0        | Y     | 0           |
| BACK-UP WX SERVICE | LOCATION | HRS OPERATION | ALTIMETER SOURCE | DISTANCE | WMSCR | ADJUSTMENTS |
| AWOS-3PT           | FFM      | 24            | FFM              | 18.85    | Y     | 72          |

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME  
KBWP 968 FT. MSL, KFFM 1170 FT. MSL  
RA = 71.7.

| PRIMARY NAVAID                               | MONITOR POINT | HRS OPERATION   | CAT                 |
|----------------------------------------------|---------------|-----------------|---------------------|
| APPROACH AND RUNWAY LIGHTING SYSTEM          |               | RUNWAY MARKINGS | RUNWAY VISUAL RANGE |
| RW21                                         |               |                 |                     |
| RW03                                         |               |                 |                     |
| RW15 - MIRL (PCL), REIL (PCL), PAPI-2L (PCL) |               | NPI-F           |                     |
| RW33 - REIL (PCL), MIRL (PCL), PAPI-2L (PCL) |               | NPI-F           |                     |

| GLIDESLOPE ANGLE | ELEV RWY THRESHOLD | TCH  | ELEV GS ANTENNA | DISTANCE FROM RWY | VGSI ANGLE | TCH  |
|------------------|--------------------|------|-----------------|-------------------|------------|------|
| 3.00             | 966.2              | 55.0 |                 |                   | 3.00       | 26.1 |

FINAL APPROACH COURSE AIMING

|                  |              |                    |                              |
|------------------|--------------|--------------------|------------------------------|
| RUNWAY THRESHOLD | <div>X</div> | FT FROM THRESHOLD  | DISPLACED THRESHOLD DISTANCE |
| ON CENTERLINE    | <div>X</div> | FT FROM CENTERLINE |                              |

CRITICAL TEMPERATURES

| CRITICAL LOW | CRITICAL HIGH | ACT  | APT ISA |
|--------------|---------------|------|---------|
| -16C         | +54C          | -16C | +13.08C |

CRITICAL TEMPERATURE REMARKS:

AVERAGE COLD TEMPERATURE DERIVED FROM STANDARD -30C ISA DEVIATION.  
CRITICAL LOW TEMPERATURE BASED ON ACT.  
DESCENT RATE (FPM): STANDARD TEMP 968 HIGH TEMP 1277.

"VISUAL PORTION OF FINAL" PENETRATIONS

|            |                          |
|------------|--------------------------|
| FINAL TYPE | LPV, LNAV/VNAV, AND LNAV |
| 34:1       |                          |



|                                                     |                                            |                      |                         |                    |                                 |                         |
|-----------------------------------------------------|--------------------------------------------|----------------------|-------------------------|--------------------|---------------------------------|-------------------------|
| <u>AIRPORT ID</u><br>BWP                            | <u>PROCEDURE NAME</u><br>RNAV (GPS) RWY 33 | <u>AMDT NO.</u><br>2 | <u>CITY</u><br>WAHPETON | <u>STATE</u><br>ND | <u>AIRPORT ELEVATION</u><br>968 | <u>FACILITY</u><br>RNAV |
| 1009 TREE (38-024535) 461403.71N/0963600.86W (6.45) |                                            |                      |                         |                    |                                 |                         |
| <u>PENETRATIONS REMARKS:</u>                        |                                            |                      |                         |                    |                                 |                         |
|                                                     |                                            |                      |                         |                    |                                 |                         |

**HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS**

and/or

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

|                              |
|------------------------------|
| <u>PENETRATIONS REMARKS:</u> |
|                              |

**PART C: GENERAL REMARKS:**

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

CIRCLING NA TO RWYS 3 AND 21 - NO SURVEY. VISUAL PENETRATIONS ASSUMED.  
VEGETATION HEIGHT USED: 100 FT PER FPT.  
ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

**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                 | 3.07   |
| WIDTH OF        | FINAL | SEGMENT AT 1000FT POINT         | 1.20   |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1000FT POINT | 335.97 |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1000FT POINT | 1000   |
| DISTANCE FROM   | THLD  | TO 1500FT POINT                 | 4.64   |
| WIDTH OF        | FINAL | SEGMENT AT 1500FT POINT         | 2.14   |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1500FT POINT | 335.97 |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1500FT POINT | 1000   |

|                                            |                            |
|--------------------------------------------|----------------------------|
| THRESHOLD COORDINATES (IF STR-IN)          | 461416.19N/0963610.67W     |
| ARP COORDINATES                            | 461439.46N/0963625.76W     |
| RUNWAY APCH END AND DIST FURTHEST FROM ARP | RUNWAY 33 DISTANCE 0.43 NM |
| FAF COORDINATES                            | 461001.83N/0963327.23W     |
| FIX NAME COORDINATES                       |                            |

**REMARKS**

**PART E: PREPARED BY**

|                 |               |             |                                     |
|-----------------|---------------|-------------|-------------------------------------|
| <u>NAME</u>     | <u>OFFICE</u> | <u>DATE</u> | <u>TITLE</u>                        |
| RAYMOND JOHNSON | AJV-A423      | 09/19/2024  | AERONAUTICAL INFORMATION SPECIALIST |

