

**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
RADAR - STANDARD INSTRUMENT APPROACH PROCEDURE  
TITLE 14 CFR PART 97.31**

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.

Initial approach minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below. Positive identification must be established with the radar controller. From initial contact with radar to final authorized landing minimums, the instructions of the radar controller are mandatory except when; (A) Visual contact is established on final approach at or before descent to the authorized landing minimums; or (B) at pilot's discretion if it appears desirable to discontinue the approach. Except when the radar controller may direct otherwise prior to final approach, a missed approach shall be executed as provided below when; (A) communications on final approach is lost for more than 5 seconds during a precision approach, or for more than 30 seconds during a surveillance approach; (B) directed by radar controllers; (C) visual contact is not established upon descent to authorized landing minimums; or (D) if landing is not accomplished.

| <u>AIRPORT ID</u>        | <u>PROCEDURE NAME</u>            | <u>ORIGINAL/AMENDMENT</u>    | <u>CITY</u>                    | <u>STATE</u> |                |                   |
|--------------------------|----------------------------------|------------------------------|--------------------------------|--------------|----------------|-------------------|
| KFSD                     | RADAR-1                          | 11                           | SIOUX FALLS                    | SD           |                |                   |
| <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SUPERSEDED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> |
| 1430                     | 1430                             | RADAR-1                      | 10B                            | 02/06/2014   | 5E             | 2000              |
| <u>FACILITY</u>          | <u>COORDINATES OF FACILITIES</u> | <u>ACTUAL EFFECTIVE DATE</u> | <u>REQUIRED EFFECTIVE DATE</u> |              |                |                   |
| FSD ASR                  |                                  |                              | ROUTINE                        |              |                |                   |

**RADAR TERMINAL AREA MANEUVERING SECTORS AND ALTITUDES** *(Sectors and distances measured from radar antenna)*

| <u>FROM</u>                                                             | <u>TO</u> | <u>DISTANCE</u> | <u>ALTITUDE</u> | <u>DISTANCE</u> | <u>ALTITUDE</u> | <u>DISTANCE</u> | <u>ALTITUDE</u> | <u>DISTANCE</u> | <u>ALTITUDE</u> | <u>DISTANCE</u> | <u>ALTITUDE</u> |
|-------------------------------------------------------------------------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| AS ESTABLISHED BY THE CURRENT SIOUX FALL ASR MINIMUM VECTORING ALTITUDE |           |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |

**MISSED APPROACH**

**MAP:**

RWY 3, 15, 21, 33: 0.75 NM FROM THLD.

**MISSED APPROACH INSTRUCTIONS:**

RWY 3: CLIMBING LEFT TURN TO 3400 DIRECT FSD VORTAC AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3400, HOLD NW, LT, 147.00 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 ON FSD R-269 TO FRYRE/15 DME AND HOLD W, RT, 089.40 INBOUND.

RWY 15: CLIMB TO 2100 THEN CLIMBING LEFT TURN TO 3400 DIRECT FSD VORTAC AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3400, HOLD NW, LT, 147.00 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 ON FSD R-269 TO FRYRE/15 DME AND HOLD W, RT, 089.40 INBOUND.

RWY 21: CLIMBING RIGHT TURN TO 3400 DIRECT FSD VORTAC AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3400, HOLD NW, LT, 147.00 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 ON FSD R-269 TO FRYRE/15 DME AND HOLD W, RT, 089.40 INBOUND.

RWY 33: CLIMB TO 3400 DIRECT FSD VORTAC AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3400, HOLD NW, LT, 147.00 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 ON FSD R-269 TO FRYRE/15 DME AND HOLD W, RT, 089.40 INBOUND.

**ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):**

QUALITY  
10  
CHECKED

**NOTES:**

RWY 3: FAF 4.8 NM FROM THRESHOLD, MINIMUM ALTITUDE 3000; FINAL APPROACH COURSE: 030. RECOMMENDED ALTITUDES: 4 NM 2760; 3 NM 2440; 2 NM 2100.

RWY 15: FAF 4.8 NM FROM THRESHOLD, MINIMUM ALTITUDE 3000; FINAL APPROACH COURSE: 150. RECOMMENDED ALTITUDES: 4 NM 2760; 3 NM 2440; 2 NM 2120.

RWY 21: FAF 4.8 NM FROM THRESHOLD, MINIMUM ALTITUDE 3000; FINAL APPROACH COURSE: 210. RECOMMENDED ALTITUDES: 4 NM 2760; 3 NM 2440; 2 NM 2120.

RWY 33: FAF 4.8 NM FROM THRESHOLD, MINIMUM ALTITUDE 3000; FINAL APPROACH COURSE: 330. RECOMMENDED ALTITUDES: 4 NM 2740; 3 NM 2420; 2 NM 2100.

CHART NOTE: RWY 15 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

CHART NOTE: RWY 33 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

CHART NOTE: FOR INOPERATIVE ALS INCREASE ASR-3 CAT E VISIBILITY TO 1 5/8 SM.

CHART NOTE: FOR INOPERATIVE ALS INCREASE ASR-21 CAT C, D AND E VISIBILITY TO 1 5/8 SM.

**LOST COMMUNICATIONS (ALL RWYS):** AS DIRECTED BY ATC ON INITIAL CONTACT.

**ADDITIONAL FLIGHT DATA:**

**TDZE:** 1424    **RWY:** 3    **TDZE:** 1429    **RWY:** 15    **TDZE:** 1430    **RWY:** 21    **TDZE:** 1423    **RWY:** 33

FAS OBST: RWY 3: 1729 AAO 433057N/0964824W.  
 FAS OBST: RWY 15: 1798 AAO 433933N/0964833W  
 FAS OBST: RWY 21: 1746 AAO 433851N/0964133W.  
 FAS OBST: RWY 33: 1759 AAO 433151N/0964027W.

**MINIMUMS:**  
**TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT**  
**ALTERNATE:** NA ☐ STANDARD - CAT D 800-2 1/2, CAT E 900-2 3/4

| 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 |  |
| ASR-3      | 1980   | 2400 | 556     | 1980   | 2400 | 556     | 1980   | 6000  | 556     | 1980   | 6000  | 556     | 1980   | 6000  | 556     |  |
| ASR-15     | 2060   | 1    | 631     | 2060   | 1    | 631     | 2060   | 1 3/4 | 631     | 2060   | 1 3/4 | 631     | 2060   | 1 3/4 | 631     |  |
| ASR-21     | 2000   | 2400 | 570     | 2000   | 2400 | 570     | 2000   | 1 1/4 | 570     | 2000   | 1 1/4 | 570     | 2000   | 1 1/4 | 570     |  |
| ASR-33     | 2020   | 1    | 597     | 2020   | 1    | 597     | 2020   | 1 3/4 | 597     | 2020   | 1 3/4 | 597     | 2020   | 1 3/4 | 597     |  |
| CIRCLING   | 2060   | 1    | 630     | 2060   | 1    | 630     | 2060   | 1 3/4 | 630     | 2200   | 2 1/2 | 770     | 2240   | 2 3/4 | 810     |  |



| <u>AIRPORT ID</u> | <u>PROCEDURE NAME</u> | <u>ORIGINAL/AMENDMENT</u> | <u>CITY</u> | <u>STATE</u> |
|-------------------|-----------------------|---------------------------|-------------|--------------|
| KFSD              | RADAR-1               | 11                        | SIOUX FALLS | SD           |

# **CHANGES - REASONS:**

1. MISSED APPROACH INSTRUCTIONS: UPDATED RUNWAY 3 FROM "CLIMBING LEFT TURN TO 3000 DIRECT FSD VORTAC AND HOLD NW, LT, 147 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 VIA FSD R-269 TO FRYRE 15 DME AND HOLD W, RT, 089 INBOUND." TO "CLIMBING LEFT TURN TO 3400 DIRECT FSD VORTAC AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3400, HOLD NW, LT, 147.00 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 ON FSD R-269 TO FRYRE/15 DME AND HOLD W, RT, 089.40 INBOUND." - NEW CONTROLLING OBSTACLE.
2. MISSED APPROACH INSTRUCTIONS: UPDATED RUNWAY 15 FROM "CLIMBING LEFT TURN TO 3000 DIRECT FSD VORTAC AND HOLD NW, LT, 147 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 VIA FSD R-269 TO FRYRE 15 DME AND HOLD W, RT, 089 INBOUND." TO "CLIMB TO 2100 THEN CLIMBING LEFT TURN TO 3400 DIRECT FSD VORTAC AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3400, HOLD NW, LT, 147.00 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 ON FSD R-269 TO FRYRE/15 DME AND HOLD W, RT, 089.40 INBOUND." - NEW CONTROLLING OBSTACLE.
3. MISSED APPROACH INSTRUCTIONS: UPDATED RUNWAY 21 FROM "CLIMBING RIGHT TURN TO 3000 DIRECT FSD VORTAC AND HOLD NW, LT, 147 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 VIA FSD R-269 TO FRYRE 15 DME AND HOLD W, RT, 089 INBOUND." TO "CLIMBING RIGHT TURN TO 3400 DIRECT FSD VORTAC AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3400, HOLD NW, LT, 147.00 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 ON FSD R-269 TO FRYRE/15 DME AND HOLD W, RT, 089.40 INBOUND." - NEW CONTROLLING OBSTACLE.
4. MISSED APPROACH INSTRUCTIONS: UPDATED RUNWAY 33 FROM "CLIMB TO 3000 DIRECT FSD VORTAC AND HOLD NW, LT, 147 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 VIA FSD R-269 TO FRYRE 15 DME AND HOLD W, RT, 089 INBOUND." TO "CLIMB TO 3400 DIRECT FSD VORTAC AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3400, HOLD NW, LT, 147.00 INBOUND. TACAN AIRCRAFT CONTINUE CLIMB TO 5000 ON FSD R-269 TO FRYRE/15 DME AND HOLD W, RT, 089.40 INBOUND." - NEW CONTROLLING OBSTACLE.
5. NOTES: UPDATED RUNWAY 3 FROM "FAF 5 MILES FROM THRESHOLD, MINIMUM ALTITUDE 3000, FINAL APPROACH COURSE 030, RECOMMENDED ALTITUDES 4 MILES 2680, 3 MILES 2360, 2 MILES 2040" TO "FAF 4.8 NM FROM THRESHOLD, MINIMUM ALTITUDE 3000; FINAL APPROACH COURSE: 030. RECOMMENDED ALTITUDES: 4 NM 2760; 3 NM 2440; 2 NM 2100." - IAW 8260.19J, 8-6-10.S.
6. NOTES: UPDATED RUNWAY 15 FROM "FAF 5 MILES FROM THRESHOLD, MINIMUM ALTITUDE 3000, FINAL APPROACH COURSE 150, RECOMMENDED ALTITUDES 4 MILES 2680, 3 MILES 2360, 2 MILES 2040" TO "FAF 4.8 NM FROM THRESHOLD, MINIMUM ALTITUDE 3000; FINAL APPROACH COURSE: 150. RECOMMENDED ALTITUDES: 4 NM 2760; 3 NM 2440; 2 NM 2120." - IAW 8260.19J, 8-6-10.S.
7. NOTES: UPDATED RUNWAY 21 FROM "FAF 5 MILES FROM THRESHOLD, MINIMUM ALTITUDE 3000, FINAL APPROACH COURSE 210, RECOMMENDED ALTITUDES 4 MILES 2680, 3 MILES 2360, 2 MILES 2040" TO "FAF 4.8 NM FROM THRESHOLD, MINIMUM ALTITUDE 3000; FINAL APPROACH COURSE: 210. RECOMMENDED ALTITUDES: 4 NM 2760; 3 NM 2440; 2 NM 2120." - IAW 8260.19J, 8-6-10.S.
8. NOTES: UPDATED RUNWAY 33 FROM "FAF 5 MILES FROM THRESHOLD, MINIMUM ALTITUDE 3000, FINAL APPROACH COURSE 330, RECOMMENDED ALTITUDES 4 MILES 2680, 3 MILES 2360, 2 MILES 2040" TO "FAF 4.8 NM FROM THRESHOLD, MINIMUM ALTITUDE 3000; FINAL APPROACH COURSE: 330. RECOMMENDED ALTITUDES: 4 NM 2760; 3 NM 2440; 2 NM 2100." - IAW 8260.19J, 8-6-10.S.
9. NOTES: ADDED "CHART NOTE: RWY 15 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED." - IAW 8260.19J, 8-6-12.K.(2).
10. NOTES: ADDED "CHART NOTE: RWY 33 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED." - IAW 8260.19J, 8-6-12.K.(2).
11. NOTES: ADDED "CHART NOTE: FOR INOPERATIVE ALS INCREASE ASR-3 CAT E VISIBILITY TO 1 5/8 SM." - IAW 8260.19J, 8-6-12.O.(3)(D).
12. NOTES: ADDED "CHART NOTE: FOR INOPERATIVE ALS INCREASE ASR-21 CAT C, D AND E VISIBILITY TO 1 5/8 SM." - IAW 8260.19J, 8-6-12.O.(3)(D).
13. ADDITIONAL FLIGHT DATA: UPDATED RWY 3 FAS OBST FROM "1651 ANTENNA 433248/964556" TO "1729 AAO 433057N/0964824W." - NEW CONTROLLING OBSTACLE.
14. ADDITIONAL FLIGHT DATA: UPDATED RWY 15 FAS OBST FROM "1709 TREE 433939/964829" TO "1798 AAO 433933N/0964833W." - NEW CONTROLLING OBSTACLE.
15. ADDITIONAL FLIGHT DATA: UPDATED RWY 21 FAS OBST FROM "1660 POWER LINE 433819/964125" TO "1746 AAO 433851N/0964133W." - NEW CONTROLLING OBSTACLE.
16. ADDITIONAL FLIGHT DATA: UPDATED RWY 33 FAS OBST FROM "1665 ANTENNA 433232/964338" TO "1759 AAO 433151N/0964027W." - NEW CONTROLLING OBSTACLE.
17. MINIMUMS: ADDED ALTERNATE MINIMUMS "STANDARD - CAT D 800-2 1/2, CAT E 900-2 3/4" - IAW 8260.19J, 8-6-12.B.(4).
18. MINIMUMS: UPDATED ASR-3 DA/HAT ALL CATS FROM "1920/497" TO "1980/556", INCREASED CAT C VISIBILITY FROM "4000" TO "6000", INCREASED CAT D VISIBILITY FROM "5000" TO "6000" - NEW CONTROLLING OBSTACLE AND IAW 8260.3G, TABLE 3-3-1.
19. MINIMUMS: UPDATED ASR-15 DA/HAT ALL CATS FROM "1960/534" TO "2060/631", INCREASED CAT C VISIBILITY FROM "1 1/2" TO "1 3/4" - NEW CONTROLLING OBSTACLE AND IAW 8260.3G, TABLE 3-3-1.
20. MINIMUMS: UPDATED ASR-21 DA/HAT ALL CATS FROM "1960/531" TO "2000/570", INCREASED CAT C VISIBILITY FROM "5000" TO "1 1/4", INCREASED CAT D VISIBILITY FROM "6000" TO "1 1/4" - NEW CONTROLLING OBSTACLE AND IAW 8260.3G, TABLE 3-3-1.
21. MINIMUMS: UPDATED ASR-33 DA/HAT ALL CATS FROM "1920/497" TO "2020/597", INCREASED CAT C VISIBILITY FROM "1 1/4" TO "1 3/4", INCREASED CAT D VISIBILITY FROM "1 1/2" TO "1 3/4" - NEW CONTROLLING OBSTACLE AND IAW 8260.3G, TABLE 3-3-1.
22. MINIMUMS: UPDATED CIRCLING CMDA/HAA CAT A FROM "1960/531" TO "2060/630", CAT B FROM "1960/531" TO "2060/630", CAT C FROM "1960/531" TO "2060/630", CAT D FROM "1980/551" TO "2200/770", CAT E FROM "2180/751" TO "2240/810", INCREASED CAT C VISIBILITY FROM "1 1/2" TO "1 3/4", INCREASED CAT D VISIBILITY FROM "2" TO "2 1/2" - NEW CONTROLLING OBSTACLE AND IAW 8260.3G, TABLE 3-3-1.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZMP, SIOUX FALLS APP CON, AMGR

|                                     |                     |          |            |         |
|-------------------------------------|---------------------|----------|------------|---------|
| FLIGHT CHECKED BY                   | Digitally signed by | OFFICE   | DATE       |         |
| JEREMY C LEIGHTON                   | ROBERT G HAMILTON   | AJF      | 08/01/2025 |         |
| DEVELOPED BY                        | Sep 12, 2025        | OFFICE   | DATE       |         |
| ROBERT G HAMILTON (TODD A. RUSSELL) | Digitally signed by | AJV-A433 | 04/04/2025 |         |
|                                     | ROBERT G HAMILTON   |          |            |         |
| APPROVED BY                         | Sep 12, 2025        | OFFICE   | DATE       | TITLE   |
| ROBERT G HAMILTON                   | Digitally signed by | AJV-A433 |            | MANAGER |
|                                     | ROBERT G HAMILTON   |          |            |         |
|                                     | Sep 12, 2025        |          |            |         |



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

|              |            |                |          |             |       |                   |          |
|--------------|------------|----------------|----------|-------------|-------|-------------------|----------|
| AIRPORT      | AIRPORT ID | PROCEDURE NAME | AMDT NO. | CITY        | STATE | AIRPORT ELEVATION | FACILITY |
| JOE FOSS FLD | FSD        | RADAR-1        | 11       | SIOUX FALLS | SD    | 1430              | FSD ASR  |

**PART A: OBSTRUCTION DATA SEGMENTS**

**FINAL RW03**

**FROM**

4.78 NM

**TO**

0.75 NM

**RNP**

**DISTANCE**

**PAT**

**MAP**

**HAT**

**HMAS**

4.03

556

**OBSTRUCTION**

**COORDINATES**

**ELEV MSL**

**HORZ**

**VERT**

**AC**

**ROC**

**OCS**

**CG**

**CGTA**

**ADJUSTMENTS**

**MIN ALT**

AAO

433057.00N/0964824.00W

1729

215

10

4B

250

1980

**COMPUTATIONS**

|                  |            |             |             |            |             |           |           |            |                      |             |                |                               |
|------------------|------------|-------------|-------------|------------|-------------|-----------|-----------|------------|----------------------|-------------|----------------|-------------------------------|
| Select from list | <b>ALT</b> | <b>KIAS</b> | <b>KTAS</b> | <b>HAA</b> | <b>VKTW</b> | <b>TR</b> | <b>BA</b> | <b>DTA</b> | <b>COURSE CHANGE</b> | <b>DVEB</b> | <b>VEB OCS</b> | <b>RF CENTER FIX/DISTANCE</b> |
|------------------|------------|-------------|-------------|------------|-------------|-----------|-----------|------------|----------------------|-------------|----------------|-------------------------------|

**SEGMENT REMARKS**

**FINAL RW15**

**FROM**

4.78 NM

**TO**

0.75

**RNP**

**DISTANCE**

**PAT**

**MAP**

**HAT**

**HMAS**

4.04

631

**OBSTRUCTION**

**COORDINATES**

**ELEV MSL**

**HORZ**

**VERT**

**AC**

**ROC**

**OCS**

**CG**

**CGTA**

**ADJUSTMENTS**

**MIN ALT**

AAO

433933.00N/0964833.00W

1798

215

10

4B

250

2060

**COMPUTATIONS**

|                  |            |             |             |            |             |           |           |            |                      |             |                |                               |
|------------------|------------|-------------|-------------|------------|-------------|-----------|-----------|------------|----------------------|-------------|----------------|-------------------------------|
| Select from list | <b>ALT</b> | <b>KIAS</b> | <b>KTAS</b> | <b>HAA</b> | <b>VKTW</b> | <b>TR</b> | <b>BA</b> | <b>DTA</b> | <b>COURSE CHANGE</b> | <b>DVEB</b> | <b>VEB OCS</b> | <b>RF CENTER FIX/DISTANCE</b> |
|------------------|------------|-------------|-------------|------------|-------------|-----------|-----------|------------|----------------------|-------------|----------------|-------------------------------|

QUALITY  
10  
CHECKED

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

|                         |                   |                           |                |                     |             |                           |                     |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|
| AIRPORT<br>JOE FOSS FLD | AIRPORT ID<br>FSD | PROCEDURE NAME<br>RADAR-1 | AMDT NO.<br>11 | CITY<br>SIOUX FALLS | STATE<br>SD | AIRPORT ELEVATION<br>1430 | FACILITY<br>FSD ASR |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|

**SEGMENT REMARKS**

**FINAL RW21**

**FROM**

4.78 NM

**TO**

0.75 NM

**RNP**

**DISTANCE**

**PAT**

**MAP**

**HAT**

**HMAS**

4.03

570

**OBSTRUCTION**

**COORDINATES**

**ELEV MSL**

**HORZ**

**VERT**

**AC**

**ROC**

**OCS**

**CG**

**CGTA**

**ADJUSTMENTS**

**MIN ALT**

AAO

433851.00N/0964133.00W

1746

215

10

4B

250

2000

**COMPUTATIONS**

|                  |                   |                    |                    |                   |                    |                  |                  |                   |                             |                    |                       |                                      |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|
| Select from list | <b><u>ALT</u></b> | <b><u>KIAS</u></b> | <b><u>KTAS</u></b> | <b><u>HAA</u></b> | <b><u>VKTW</u></b> | <b><u>TR</u></b> | <b><u>BA</u></b> | <b><u>DTA</u></b> | <b><u>COURSE CHANGE</u></b> | <b><u>DVEB</u></b> | <b><u>VEB OCS</u></b> | <b><u>RF CENTER FIX/DISTANCE</u></b> |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|

**SEGMENT REMARKS**

**FINAL RW33**

**FROM**

4.81 NM

**TO**

0.75 NM

**RNP**

**DISTANCE**

**PAT**

**MAP**

**HAT**

**HMAS**

4.07

597

**OBSTRUCTION**

**COORDINATES**

**ELEV MSL**

**HORZ**

**VERT**

**AC**

**ROC**

**OCS**

**CG**

**CGTA**

**ADJUSTMENTS**

**MIN ALT**

AAO

433151.00N/0964027.00W

1759

215

10

4B

250

2020

QUALITY  
10  
CHECKED

**COMPUTATIONS**

|                  |                   |                    |                    |                   |                    |                  |                  |                   |                             |                    |                       |                                      |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|
| Select from list | <b><u>ALT</u></b> | <b><u>KIAS</u></b> | <b><u>KTAS</u></b> | <b><u>HAA</u></b> | <b><u>VKTW</u></b> | <b><u>TR</u></b> | <b><u>BA</u></b> | <b><u>DTA</u></b> | <b><u>COURSE CHANGE</u></b> | <b><u>DVEB</u></b> | <b><u>VEB OCS</u></b> | <b><u>RF CENTER FIX/DISTANCE</u></b> |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|

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

|                         |                   |                           |                |                     |             |                           |                     |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|
| AIRPORT<br>JOE FOSS FLD | AIRPORT ID<br>FSD | PROCEDURE NAME<br>RADAR-1 | AMDT NO.<br>11 | CITY<br>SIOUX FALLS | STATE<br>SD | AIRPORT ELEVATION<br>1430 | FACILITY<br>FSD ASR |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|

**SEGMENT REMARKS**

**MISSED APPROACH RW03**

|                               |                                |
|-------------------------------|--------------------------------|
| <b><u>FROM</u></b><br>0.75 NM | <b><u>TO</u></b><br>FSD VORTAC |
|-------------------------------|--------------------------------|

| <b><u>RNP</u></b>         | <b><u>DISTANCE</u></b>    | <b><u>PAT</u></b> | <b><u>MAP</u></b>      | <b><u>HAT</u></b>  | <b><u>HMAS</u></b><br>1730 |                  |                   |                          |                  |                    |                           |                       |
|---------------------------|---------------------------|-------------------|------------------------|--------------------|----------------------------|------------------|-------------------|--------------------------|------------------|--------------------|---------------------------|-----------------------|
| <b><u>OBSTRUCTION</u></b> | <b><u>COORDINATES</u></b> |                   | <b><u>ELEV MSL</u></b> | <b><u>HORZ</u></b> | <b><u>VERT</u></b>         | <b><u>AC</u></b> | <b><u>ROC</u></b> | <b><u>OCS</u></b><br>ASC | <b><u>CG</u></b> | <b><u>CGTA</u></b> | <b><u>ADJUSTMENTS</u></b> | <b><u>MIN ALT</u></b> |
| TOWER (46-020593)         | 433628.57N/0964836.10W    |                   | 1847                   | 500                | 50                         | 5D               | 1000              |                          |                  |                    |                           | 3400                  |
| TERRAIN                   | 433815.00N/0965048.00W    |                   | 1587 (1600)            |                    |                            |                  |                   |                          |                  |                    | AS1500                    | 2900                  |
|                           |                           |                   |                        |                    |                            |                  |                   |                          |                  |                    |                           | 3100                  |

**COMPUTATIONS**

|                  |                   |                    |                    |                   |                    |                  |                  |                   |                             |                    |                       |                                      |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|
| Select from list | <b><u>ALT</u></b> | <b><u>KIAS</u></b> | <b><u>KTAS</u></b> | <b><u>HAA</u></b> | <b><u>VKTW</u></b> | <b><u>TR</u></b> | <b><u>BA</u></b> | <b><u>DTA</u></b> | <b><u>COURSE CHANGE</u></b> | <b><u>DVEB</u></b> | <b><u>VEB OCS</u></b> | <b><u>RF CENTER FIX/DISTANCE</u></b> |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|

**SEGMENT REMARKS**

**MISSED APPROACH ALTERNATE RW03**

|                               |                                                |
|-------------------------------|------------------------------------------------|
| <b><u>FROM</u></b><br>0.75 NM | <b><u>TO</u></b><br>FRYRE/FSD VORTAC 15.00 DME |
|-------------------------------|------------------------------------------------|

| <b><u>RNP</u></b>         | <b><u>DISTANCE</u></b>    | <b><u>PAT</u></b> | <b><u>MAP</u></b>      | <b><u>HAT</u></b>  | <b><u>HMAS</u></b><br>1730 |                  |                   |                          |                  |                    |                           |                       |
|---------------------------|---------------------------|-------------------|------------------------|--------------------|----------------------------|------------------|-------------------|--------------------------|------------------|--------------------|---------------------------|-----------------------|
| <b><u>OBSTRUCTION</u></b> | <b><u>COORDINATES</u></b> |                   | <b><u>ELEV MSL</u></b> | <b><u>HORZ</u></b> | <b><u>VERT</u></b>         | <b><u>AC</u></b> | <b><u>ROC</u></b> | <b><u>OCS</u></b><br>ASC | <b><u>CG</u></b> | <b><u>CGTA</u></b> | <b><u>ADJUSTMENTS</u></b> | <b><u>MIN ALT</u></b> |
| TOWER (46-000195)         | 434346.00N/0970514.90W    |                   | 2681                   | 250                | 50                         | 4D               | 1000              |                          |                  |                    |                           | 5000                  |
| TERRAIN                   | 434354.00N/0970518.00W    |                   | 1811 (1800)            |                    |                            |                  |                   |                          |                  |                    | AS1500                    | 3700                  |
|                           |                           |                   |                        |                    |                            |                  |                   |                          |                  |                    |                           | 3300                  |

QUALITY  
10  
CHECKED

**COMPUTATIONS**

|                  |                   |                    |                    |                   |                    |                  |                  |                   |                             |                    |                       |                                      |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|
| Select from list | <b><u>ALT</u></b> | <b><u>KIAS</u></b> | <b><u>KTAS</u></b> | <b><u>HAA</u></b> | <b><u>VKTW</u></b> | <b><u>TR</u></b> | <b><u>BA</u></b> | <b><u>DTA</u></b> | <b><u>COURSE CHANGE</u></b> | <b><u>DVEB</u></b> | <b><u>VEB OCS</u></b> | <b><u>RF CENTER FIX/DISTANCE</u></b> |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|

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

|                         |                   |                           |                |                     |             |                           |                     |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|
| AIRPORT<br>JOE FOSS FLD | AIRPORT ID<br>FSD | PROCEDURE NAME<br>RADAR-1 | AMDT NO.<br>11 | CITY<br>SIOUX FALLS | STATE<br>SD | AIRPORT ELEVATION<br>1430 | FACILITY<br>FSD ASR |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|

**SEGMENT REMARKS**

**MISSED APPROACH RW15**

|                               |                                |
|-------------------------------|--------------------------------|
| <b><u>FROM</u></b><br>0.75 NM | <b><u>TO</u></b><br>FSD VORTAC |
|-------------------------------|--------------------------------|

| <b><u>RNP</u></b>         | <b><u>DISTANCE</u></b>    | <b><u>PAT</u></b>      | <b><u>MAP</u></b>  | <b><u>HAT</u></b>  | <b><u>HMAS</u></b><br>1810                                                                            |
|---------------------------|---------------------------|------------------------|--------------------|--------------------|-------------------------------------------------------------------------------------------------------|
| <b><u>OBSTRUCTION</u></b> | <b><u>COORDINATES</u></b> | <b><u>ELEV MSL</u></b> | <b><u>HORZ</u></b> | <b><u>VERT</u></b> | <b><u>AC</u></b> <b><u>ROC</u></b>                                                                    |
| AAO                       | 434324.00N/0964806.00W    | 1841                   | 250                | 10                 | 4B   1000                                                                                             |
| TERRAIN                   | 434324.00N/0964806.00W    | 1640 (1600)            |                    |                    |                                                                                                       |
|                           |                           |                        |                    |                    | <b><u>OCS</u></b> <b><u>CG</u></b> <b><u>CGTA</u></b> <b><u>ADJUSTMENTS</u></b> <b><u>MIN ALT</u></b> |
|                           |                           |                        |                    |                    | ASC   3400                                                                                            |
|                           |                           |                        |                    |                    | AS1500   2900                                                                                         |
|                           |                           |                        |                    |                    | AS1500   3100                                                                                         |

**COMPUTATIONS**

|                  |                   |                    |                    |                   |                    |                  |                  |                   |                             |                    |                       |                                      |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|
| Select from list | <b><u>ALT</u></b> | <b><u>KIAS</u></b> | <b><u>KTAS</u></b> | <b><u>HAA</u></b> | <b><u>VKTW</u></b> | <b><u>TR</u></b> | <b><u>BA</u></b> | <b><u>DTA</u></b> | <b><u>COURSE CHANGE</u></b> | <b><u>DVEB</u></b> | <b><u>VEB OCS</u></b> | <b><u>RF CENTER FIX/DISTANCE</u></b> |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|

**SEGMENT REMARKS**

**MISSED APPROACH ALTERNATE RW15**

|                               |                                                |
|-------------------------------|------------------------------------------------|
| <b><u>FROM</u></b><br>0.75 NM | <b><u>TO</u></b><br>FRYRE/FSD VORTAC 15.00 DME |
|-------------------------------|------------------------------------------------|

| <b><u>RNP</u></b>         | <b><u>DISTANCE</u></b>    | <b><u>PAT</u></b>      | <b><u>MAP</u></b>  | <b><u>HAT</u></b>  | <b><u>HMAS</u></b><br>1810                                                                            |
|---------------------------|---------------------------|------------------------|--------------------|--------------------|-------------------------------------------------------------------------------------------------------|
| <b><u>OBSTRUCTION</u></b> | <b><u>COORDINATES</u></b> | <b><u>ELEV MSL</u></b> | <b><u>HORZ</u></b> | <b><u>VERT</u></b> | <b><u>AC</u></b> <b><u>ROC</u></b>                                                                    |
| TOWER (46-000195)         | 434346.00N/0970514.90W    | 2681                   | 250                | 50                 | 4D   1000                                                                                             |
| TERRAIN                   | 434354.00N/0970518.00W    | 1811 (1800)            |                    |                    |                                                                                                       |
|                           |                           |                        |                    |                    | <b><u>OCS</u></b> <b><u>CG</u></b> <b><u>CGTA</u></b> <b><u>ADJUSTMENTS</u></b> <b><u>MIN ALT</u></b> |
|                           |                           |                        |                    |                    | ASC   5000                                                                                            |
|                           |                           |                        |                    |                    | AS1500   3700                                                                                         |
|                           |                           |                        |                    |                    | AS1500   3300                                                                                         |

QUALITY  
10  
CHECKED

**COMPUTATIONS**

|                  |                   |                    |                    |                   |                    |                  |                  |                   |                             |                    |                       |                                      |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|
| Select from list | <b><u>ALT</u></b> | <b><u>KIAS</u></b> | <b><u>KTAS</u></b> | <b><u>HAA</u></b> | <b><u>VKTW</u></b> | <b><u>TR</u></b> | <b><u>BA</u></b> | <b><u>DTA</u></b> | <b><u>COURSE CHANGE</u></b> | <b><u>DVEB</u></b> | <b><u>VEB OCS</u></b> | <b><u>RF CENTER FIX/DISTANCE</u></b> |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|

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

|                         |                   |                           |                |                     |             |                           |                     |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|
| AIRPORT<br>JOE FOSS FLD | AIRPORT ID<br>FSD | PROCEDURE NAME<br>RADAR-1 | AMDT NO.<br>11 | CITY<br>SIOUX FALLS | STATE<br>SD | AIRPORT ELEVATION<br>1430 | FACILITY<br>FSD ASR |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|

**SEGMENT REMARKS**

**MISSED APPROACH RW21**

|                               |                                |
|-------------------------------|--------------------------------|
| <b><u>FROM</u></b><br>0.75 NM | <b><u>TO</u></b><br>FSD VORTAC |
|-------------------------------|--------------------------------|

| <b><u>RNP</u></b>         | <b><u>DISTANCE</u></b>    | <b><u>PAT</u></b>      | <b><u>MAP</u></b>  | <b><u>HAT</u></b>  | <b><u>HMAS</u></b><br>1750 |
|---------------------------|---------------------------|------------------------|--------------------|--------------------|----------------------------|
| <b><u>OBSTRUCTION</u></b> | <b><u>COORDINATES</u></b> | <b><u>ELEV MSL</u></b> | <b><u>HORZ</u></b> | <b><u>VERT</u></b> | <b><u>AC</u></b>           |
| TOWER (46-000424)         | 433839.38N/0964912.35W    | 1939                   | 20                 | 3                  | 1A                         |
| TERRAIN                   | 433933.00N/0964833.00W    | 1597 (1600)            |                    |                    |                            |

| <b><u>ROC</u></b> | <b><u>OCS</u></b><br>ASC | <b><u>CG</u></b> | <b><u>CGTA</u></b> | <b><u>ADJUSTMENTS</u></b> | <b><u>MIN ALT</u></b> |
|-------------------|--------------------------|------------------|--------------------|---------------------------|-----------------------|
| 1000              |                          |                  |                    |                           | 3400                  |
|                   |                          |                  |                    | AS1500                    | 3000                  |
|                   |                          |                  |                    |                           | 3100                  |

**COMPUTATIONS**

|                  |                   |                    |                    |                   |                    |                  |                  |                   |                             |                    |                       |                                      |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|
| Select from list | <b><u>ALT</u></b> | <b><u>KIAS</u></b> | <b><u>KTAS</u></b> | <b><u>HAA</u></b> | <b><u>VKTW</u></b> | <b><u>TR</u></b> | <b><u>BA</u></b> | <b><u>DTA</u></b> | <b><u>COURSE CHANGE</u></b> | <b><u>DVEB</u></b> | <b><u>VEB OCS</u></b> | <b><u>RF CENTER FIX/DISTANCE</u></b> |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|

**SEGMENT REMARKS**

**MISSED APPROACH ALTERNATE RW21**

|                               |                                                |
|-------------------------------|------------------------------------------------|
| <b><u>FROM</u></b><br>0.75 NM | <b><u>TO</u></b><br>FRYRE/FSD VORTAC 15.00 DME |
|-------------------------------|------------------------------------------------|

| <b><u>RNP</u></b>         | <b><u>DISTANCE</u></b>    | <b><u>PAT</u></b>      | <b><u>MAP</u></b>  | <b><u>HAT</u></b>  | <b><u>HMAS</u></b><br>1750 |
|---------------------------|---------------------------|------------------------|--------------------|--------------------|----------------------------|
| <b><u>OBSTRUCTION</u></b> | <b><u>COORDINATES</u></b> | <b><u>ELEV MSL</u></b> | <b><u>HORZ</u></b> | <b><u>VERT</u></b> | <b><u>AC</u></b>           |
| TOWER (46-000195)         | 434346.00N/0970514.90W    | 2681                   | 250                | 50                 | 4D                         |
| TERRAIN                   | 434354.00N/0970518.00W    | 1811 (1800)            |                    |                    |                            |

| <b><u>ROC</u></b> | <b><u>OCS</u></b><br>ASC | <b><u>CG</u></b> | <b><u>CGTA</u></b> | <b><u>ADJUSTMENTS</u></b> | <b><u>MIN ALT</u></b> |
|-------------------|--------------------------|------------------|--------------------|---------------------------|-----------------------|
| 1000              |                          |                  |                    |                           | 5000                  |
|                   |                          |                  |                    | AS1500                    | 3700                  |
|                   |                          |                  |                    |                           | 3300                  |

QUALITY  
10  
CHECKED

**COMPUTATIONS**

|                  |                   |                    |                    |                   |                    |                  |                  |                   |                             |                    |                       |                                      |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|
| Select from list | <b><u>ALT</u></b> | <b><u>KIAS</u></b> | <b><u>KTAS</u></b> | <b><u>HAA</u></b> | <b><u>VKTW</u></b> | <b><u>TR</u></b> | <b><u>BA</u></b> | <b><u>DTA</u></b> | <b><u>COURSE CHANGE</u></b> | <b><u>DVEB</u></b> | <b><u>VEB OCS</u></b> | <b><u>RF CENTER FIX/DISTANCE</u></b> |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|

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

|                         |                   |                           |                |                     |             |                           |                     |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|
| AIRPORT<br>JOE FOSS FLD | AIRPORT ID<br>FSD | PROCEDURE NAME<br>RADAR-1 | AMDT NO.<br>11 | CITY<br>SIOUX FALLS | STATE<br>SD | AIRPORT ELEVATION<br>1430 | FACILITY<br>FSD ASR |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|

**SEGMENT REMARKS**

**MISSED APPROACH RW33**

|                               |                                |
|-------------------------------|--------------------------------|
| <b><u>FROM</u></b><br>0.75 NM | <b><u>TO</u></b><br>FSD VORTAC |
|-------------------------------|--------------------------------|

| <b><u>RNP</u></b>         | <b><u>DISTANCE</u></b>    | <b><u>PAT</u></b> | <b><u>MAP</u></b>      | <b><u>HAT</u></b>  | <b><u>HMAS</u></b><br>1770 |                  |                   |                          |                  |                    |                           |                       |
|---------------------------|---------------------------|-------------------|------------------------|--------------------|----------------------------|------------------|-------------------|--------------------------|------------------|--------------------|---------------------------|-----------------------|
| <b><u>OBSTRUCTION</u></b> | <b><u>COORDINATES</u></b> |                   | <b><u>ELEV MSL</u></b> | <b><u>HORZ</u></b> | <b><u>VERT</u></b>         | <b><u>AC</u></b> | <b><u>ROC</u></b> | <b><u>OCS</u></b><br>ASC | <b><u>CG</u></b> | <b><u>CGTA</u></b> | <b><u>ADJUSTMENTS</u></b> | <b><u>MIN ALT</u></b> |
| TOWER (46-020593)         | 433628.57N/0964836.10W    |                   | 1847                   | 500                | 50                         | 5D               | 1000              |                          |                  |                    |                           | 3400                  |
| TERRAIN                   | 433818.00N/0964845.00W    |                   | 1578 (1600)            |                    |                            |                  |                   |                          |                  |                    | AS1500                    | 2900<br>3100          |

**COMPUTATIONS**

|                  |                   |                    |                    |                   |                    |                  |                  |                   |                             |                    |                       |                                      |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|
| Select from list | <b><u>ALT</u></b> | <b><u>KIAS</u></b> | <b><u>KTAS</u></b> | <b><u>HAA</u></b> | <b><u>VKTW</u></b> | <b><u>TR</u></b> | <b><u>BA</u></b> | <b><u>DTA</u></b> | <b><u>COURSE CHANGE</u></b> | <b><u>DVEB</u></b> | <b><u>VEB OCS</u></b> | <b><u>RF CENTER FIX/DISTANCE</u></b> |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|

**SEGMENT REMARKS**

**MISSED APPROACH ALTERNATE RW33**

|                               |                                                |
|-------------------------------|------------------------------------------------|
| <b><u>FROM</u></b><br>0.75 NM | <b><u>TO</u></b><br>FRYRE/FSD VORTAC 15.00 DME |
|-------------------------------|------------------------------------------------|

| <b><u>RNP</u></b>         | <b><u>DISTANCE</u></b>    | <b><u>PAT</u></b> | <b><u>MAP</u></b>      | <b><u>HAT</u></b>  | <b><u>HMAS</u></b><br>1770 |                  |                   |                          |                  |                    |                           |                       |
|---------------------------|---------------------------|-------------------|------------------------|--------------------|----------------------------|------------------|-------------------|--------------------------|------------------|--------------------|---------------------------|-----------------------|
| <b><u>OBSTRUCTION</u></b> | <b><u>COORDINATES</u></b> |                   | <b><u>ELEV MSL</u></b> | <b><u>HORZ</u></b> | <b><u>VERT</u></b>         | <b><u>AC</u></b> | <b><u>ROC</u></b> | <b><u>OCS</u></b><br>ASC | <b><u>CG</u></b> | <b><u>CGTA</u></b> | <b><u>ADJUSTMENTS</u></b> | <b><u>MIN ALT</u></b> |
| TOWER (46-000195)         | 434346.00N/0970514.90W    |                   | 2681                   | 250                | 50                         | 4D               | 1000              |                          |                  |                    |                           | 5000                  |
| TERRAIN                   | 434354.00N/0970518.00W    |                   | 1811 (1800)            |                    |                            |                  |                   |                          |                  |                    | AS1500                    | 3700<br>3300          |

QUALITY  
10  
CHECKED

**COMPUTATIONS**

|                  |                   |                    |                    |                   |                    |                  |                  |                   |                             |                    |                       |                                      |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|
| Select from list | <b><u>ALT</u></b> | <b><u>KIAS</u></b> | <b><u>KTAS</u></b> | <b><u>HAA</u></b> | <b><u>VKTW</u></b> | <b><u>TR</u></b> | <b><u>BA</u></b> | <b><u>DTA</u></b> | <b><u>COURSE CHANGE</u></b> | <b><u>DVEB</u></b> | <b><u>VEB OCS</u></b> | <b><u>RF CENTER FIX/DISTANCE</u></b> |
|------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------------------|------------------|-------------------|-----------------------------|--------------------|-----------------------|--------------------------------------|

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

|              |            |                |          |             |       |                   |          |
|--------------|------------|----------------|----------|-------------|-------|-------------------|----------|
| AIRPORT      | AIRPORT ID | PROCEDURE NAME | AMDT NO. | CITY        | STATE | AIRPORT ELEVATION | FACILITY |
| JOE FOSS FLD | FSD        | RADAR-1        | 11       | SIOUX FALLS | SD    | 1430              | FSD ASR  |

**SEGMENT REMARKS**

**CIRCLING**

|                           |                        |        |     |          |      |      |    |     |     |             |         |
|---------------------------|------------------------|--------|-----|----------|------|------|----|-----|-----|-------------|---------|
| CATEGORY A<br>OBSTRUCTION | COORDINATES            | RADIUS | HAA | ELEV MSL | HORZ | VERT | AC | ROC | OCS | ADJUSTMENTS | MIN ALT |
| SPIRE (46-029222)         | 433310.11N/0964404.70W | 1.31   | 630 | 1661     | 20   | 10   | 1B | 300 |     | SI          | 2060    |
| CATEGORY B<br>OBSTRUCTION | COORDINATES            | RADIUS | HAA | ELEV MSL | HORZ | VERT | AC | ROC | OCS | ADJUSTMENTS | MIN ALT |
| SPIRE (46-029222)         | 433310.11N/0964404.70W | 1.86   | 630 | 1661     | 20   | 10   | 1B | 300 |     | SI          | 2060    |
| CATEGORY C<br>OBSTRUCTION | COORDINATES            | RADIUS | HAA | ELEV MSL | HORZ | VERT | AC | ROC | OCS | ADJUSTMENTS | MIN ALT |
| CRANE (46-045354)         | 433616.78N/0964739.20W | 2.92   | 630 | 1710     | 20   | 10   | 1B | 300 |     | SI          | 2060    |
| CATEGORY D<br>OBSTRUCTION | COORDINATES            | RADIUS | HAA | ELEV MSL | HORZ | VERT | AC | ROC | OCS | ADJUSTMENTS | MIN ALT |
| TOWER (46-020593)         | 433628.57N/0964836.10W | 3.82   | 770 | 1847     | 500  | 50   | 5D | 300 |     |             | 2200    |
| CATEGORY E<br>OBSTRUCTION | COORDINATES            | RADIUS | HAA | ELEV MSL | HORZ | VERT | AC | ROC | OCS | ADJUSTMENTS | MIN ALT |
| TOWER (46-000424)         | 433839.38N/0964912.35W | 4.78   | 810 | 1939     | 20   | 3    | 1A | 300 |     |             | 2240    |

**CIRCLING REMARKS**

**MSA**

**CENTER**

**RADIUS**

|                      |                           |                           |                       |                        |                        |                    |                    |                  |                   |                           |                       |
|----------------------|---------------------------|---------------------------|-----------------------|------------------------|------------------------|--------------------|--------------------|------------------|-------------------|---------------------------|-----------------------|
| <b><u>SECTOR</u></b> | <b><u>OBSTRUCTION</u></b> | <b><u>COORDINATES</u></b> | <b><u>BEARING</u></b> | <b><u>DISTANCE</u></b> | <b><u>ELEV MSL</u></b> | <b><u>HORZ</u></b> | <b><u>VERT</u></b> | <b><u>AC</u></b> | <b><u>ROC</u></b> | <b><u>ADJUSTMENTS</u></b> | <b><u>MIN ALT</u></b> |
|----------------------|---------------------------|---------------------------|-----------------------|------------------------|------------------------|--------------------|--------------------|------------------|-------------------|---------------------------|-----------------------|

**MSA REMARKS**

**NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:**

QUALITY  
10  
CHECKED

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

|              |            |                |          |             |       |                   |          |
|--------------|------------|----------------|----------|-------------|-------|-------------------|----------|
| AIRPORT      | AIRPORT ID | PROCEDURE NAME | AMDT NO. | CITY        | STATE | AIRPORT ELEVATION | FACILITY |
| JOE FOSS FLD | FSD        | RADAR-1        | 11       | SIOUX FALLS | SD    | 1430              | FSD ASR  |

**PART B: SUPPLEMENTAL DATA**

**COMMUNICATIONS WITH**

FSD TOWER, ZMP ARTCC, HON FSS

| <u>WX SERVICE</u>         | <u>LOCATION</u> | <u>HRS OPERATION</u> | <u>ALTIMETER SOURCE</u> | <u>DISTANCE</u> | <u>SERVICE-A</u> | <u>ADJUSTMENTS</u> |
|---------------------------|-----------------|----------------------|-------------------------|-----------------|------------------|--------------------|
| ASOS                      | KFSD            | 24                   | FSD                     | 0               | Y                | 0                  |
| <u>BACK-UP WX SERVICE</u> | <u>LOCATION</u> | <u>HRS OPERATION</u> | <u>ALTIMETER SOURCE</u> | <u>DISTANCE</u> | <u>SERVICE-A</u> | <u>ADJUSTMENTS</u> |

**WX REMARKS**

REDUNDANT RESOURCES, NO BACK-UP REQUIRED.

| <u>PRIMARY NAVAID</u> | <u>MONITOR POINT</u> | <u>HRS OPERATION</u> | <u>CAT</u> |
|-----------------------|----------------------|----------------------|------------|
| FSD ASR               | KFSD TRACON          | 1100-0600            | 0          |

| <u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>            | <u>RUNWAY MARKINGS</u> | <u>RUNWAY VISUAL RANGE</u> |
|-------------------------------------------------------|------------------------|----------------------------|
| RW03 - MALSR (PCL), HIRL (PCL), C/LINE, PAPI-4L       | PIR-G                  | APPROACH                   |
| RW15 - HIRL (PCL), REIL (PCL), PAPI-4L                | NPI-G                  |                            |
| RW21 - TDZ, MALSR (PCL), HIRL (PCL), C/LINE (PCL), PA | PIR-G                  |                            |
| RW33 - HIRL (PCL), REIL (PCL), PAPI-4L                | NPI-G                  |                            |

| <u>GLIDESLOPE ANGLE</u> | <u>ELEV RWY THRESHOLD</u> | <u>TCH</u> | <u>ELEV GS ANTENNA</u> | <u>DISTANCE FROM RWY</u> | <u>VGSI ANGLE</u> | <u>TCH</u> |
|-------------------------|---------------------------|------------|------------------------|--------------------------|-------------------|------------|
|-------------------------|---------------------------|------------|------------------------|--------------------------|-------------------|------------|

| <u>FINAL APPROACH COURSE AIMING</u>                  | <u>FT FROM THRESHOLD</u> | <u>FT FROM CENTERLINE</u> | <u>DISPLACED THRESHOLD DISTANCE</u> |
|------------------------------------------------------|--------------------------|---------------------------|-------------------------------------|
| RUNWAY THRESHOLD <input checked="" type="checkbox"/> |                          |                           |                                     |
| ON CENTERLINE <input checked="" type="checkbox"/>    |                          |                           |                                     |

**CRITICAL TEMPERATURES**

| <u>CRITICAL LOW</u> | <u>CRITICAL HIGH</u> | <u>ACT</u> | <u>APT ISA</u> |
|---------------------|----------------------|------------|----------------|
|---------------------|----------------------|------------|----------------|

**CRITICAL TEMPERATURE REMARKS**

**"VISUAL PORTION OF FINAL" PENETRATIONS**

QUALITY  
10  
CHECKED

20:1

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

| AIRPORT      | AIRPORT ID | PROCEDURE NAME | AMDT NO. | CITY        | STATE | AIRPORT ELEVATION | FACILITY |
|--------------|------------|----------------|----------|-------------|-------|-------------------|----------|
| JOE FOSS FLD | FSD        | RADAR-1        | 11       | SIOUX FALLS | SD    | 1430              | FSD ASR  |

34:1

RW15

1601 TREE (46-029430) 433619.3600N/0964527.5500W (20.47)  
1600 TREE (46-045212) 433619.5300N/0964527.8600W (18.72)  
1597 TREE (46-033105) 433619.5200N/0964525.8800W (17.56)  
1593 TREE (46-033104) 433619.4000N/0964523.3000W (16.25)  
1520 POLE (46-021472) 433559.6800N/0964510.0800W (8.57)  
1537 TREE (46-029377) 433610.6300N/0964503.1500W (2.39)  
1524 POLE (46-029620) 433604.6200N/0964508.6800W (0.53)  
1534 POLE (46-021484) 433606.4300N/0964514.3500W (0.45)

RW33

1520 TREE (46-029546) 433351.9200N/0964346.0000W (5.11)  
1464 TREE (46-029408) 433411.0800N/0964348.3600W (2.97)  
1482 TRANSMISSION\_LINE (46-039467) 433405.9200N/0964342.1100W (1.31)  
1514 TREE (46-033142) 433352.4600N/0964345.9200W (0.49)

**PENETRATIONS REMARKS**

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

and/or

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

**PENETRATIONS REMARKS**

QUALITY  
10  
CHECKED

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

| AIRPORT      | AIRPORT ID | PROCEDURE NAME | AMDT NO. | CITY        | STATE | AIRPORT ELEVATION | FACILITY |
|--------------|------------|----------------|----------|-------------|-------|-------------------|----------|
| JOE FOSS FLD | FSD        | RADAR-1        | 11       | SIOUX FALLS | SD    | 1430              | FSD ASR  |

**PART C: GENERAL REMARKS**

VEGETATION HEIGHT 100FT PER FPT.

PRECIPITIOUS TERRAIN EVALUATION COMPLETED.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



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

|              |            |                |          |             |       |                   |          |
|--------------|------------|----------------|----------|-------------|-------|-------------------|----------|
| AIRPORT      | AIRPORT ID | PROCEDURE NAME | AMDT NO. | CITY        | STATE | AIRPORT ELEVATION | FACILITY |
| JOE FOSS FLD | FSD        | RADAR-1        | 11       | SIOUX FALLS | SD    | 1430              | FSD ASR  |

**PART D: AIRSPACE RW03**

**DOCKET #**

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

|                 |       |                                 |        |
|-----------------|-------|---------------------------------|--------|
| DISTANCE FROM   | THLD  | TO 1000FT POINT                 | 3.21   |
| WIDTH OF        | FINAL | SEGMENT AT 1000FT POINT         | 0.91   |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1000FT POINT | 034.84 |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1000FT POINT | 1500   |
| DISTANCE FROM   | THLD  | TO 1500FT POINT                 | 4.78   |
| WIDTH OF        | FINAL | SEGMENT AT 1500FT POINT         | 1.25   |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1500FT POINT | 034.84 |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1500FT POINT | 1500   |

**THRESHOLD  
COORDINATES  
(IF STR-IN)** 433421.42N/0964513.34W

**ARP COORDINATES** 433455.27N/0964430.93W

**RUNWAY APCH END  
AND DIST FURTHEST  
FROM MAP** RUNWAY 03 DISTANCE 0.76 NM

**FAF/PFAF  
COORDINATES** 433026.05N/0964858.80W

**FIX NAME  
COORDINATES**

**REMARKS**

QUALITY  
10  
CHECKED

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

| AIRPORT      | AIRPORT ID | PROCEDURE NAME | AMDT NO. | CITY        | STATE | AIRPORT ELEVATION | FACILITY |
|--------------|------------|----------------|----------|-------------|-------|-------------------|----------|
| JOE FOSS FLD | FSD        | RADAR-1        | 11       | SIOUX FALLS | SD    | 1430              | FSD ASR  |

**PART D: AIRSPACE RW15**

**DOCKET #**

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

|                 |       |                                 |        |
|-----------------|-------|---------------------------------|--------|
| DISTANCE FROM   | THLD  | TO 1000FT POINT                 | 3.52   |
| WIDTH OF        | FINAL | SEGMENT AT 1000FT POINT         | 0.98   |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1000FT POINT | 154.91 |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1000FT POINT | 1600   |
| DISTANCE FROM   |       | TO 1500FT POINT                 |        |
| WIDTH OF        |       | SEGMENT AT 1500FT POINT         |        |
| TRUE COURSE OF  |       | SEGMENT CONTAINING 1500FT POINT |        |
| HIGH TERRAIN IN |       | SEGMENT CONTAINING 1500FT POINT |        |

**THRESHOLD  
COORDINATES** 433535.26N/0964445.83W  
(IF STR-IN)

**ARP COORDINATES** 433455.27N/0964430.93W

**RUNWAY APCH END  
AND DIST FURTHEST  
FROM MAP** RUNWAY 03 DISTANCE 0.76 NM

**FAF/PFAF  
COORDINATES** 433955.08N/0964733.22W

**FIX NAME  
COORDINATES**

**REMARKS**

1500 FT PT IS BEFORE THE PFAF.



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

|                         |                   |                           |                |                     |             |                           |                     |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|
| AIRPORT<br>JOE FOSS FLD | AIRPORT ID<br>FSD | PROCEDURE NAME<br>RADAR-1 | AMDT NO.<br>11 | CITY<br>SIOUX FALLS | STATE<br>SD | AIRPORT ELEVATION<br>1430 | FACILITY<br>FSD ASR |
|-------------------------|-------------------|---------------------------|----------------|---------------------|-------------|---------------------------|---------------------|

**PART D: AIRSPACE RW21**

**DOCKET #**

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

|                 |       |                                 |        |
|-----------------|-------|---------------------------------|--------|
| DISTANCE FROM   | THLD  | TO 1000FT POINT                 | 3.21   |
| WIDTH OF        | FINAL | SEGMENT AT 1000FT POINT         | 0.91   |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1000FT POINT | 214.95 |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1000FT POINT | 1500   |
| DISTANCE FROM   | THLD  | TO 1500FT POINT                 | 4.78   |
| WIDTH OF        | FINAL | SEGMENT AT 1500FT POINT         | 1.25   |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1500FT POINT | 214.95 |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1500FT POINT | 1500   |

**THRESHOLD  
COORDINATES** 433534.32N/0964403.38W  
(IF STR-IN)

**ARP COORDINATES** 433455.27N/0964430.93W

**RUNWAY APCH END  
AND DIST FURTHEST  
FROM MAP** RUNWAY 03 DISTANCE 0.76 NM

**FAF/PFAF  
COORDINATES** 433929.34N/0964017.45W

**FIX NAME  
COORDINATES**

**REMARKS**

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

| AIRPORT      | AIRPORT ID | PROCEDURE NAME | AMDT NO. | CITY        | STATE | AIRPORT ELEVATION | FACILITY |
|--------------|------------|----------------|----------|-------------|-------|-------------------|----------|
| JOE FOSS FLD | FSD        | RADAR-1        | 11       | SIOUX FALLS | SD    | 1430              | FSD ASR  |

**PART D: AIRSPACE RW33**

**DOCKET #**

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

|                 |       |                                 |        |
|-----------------|-------|---------------------------------|--------|
| DISTANCE FROM   | THLD  | TO 1000FT POINT                 | 3.56   |
| WIDTH OF        | FINAL | SEGMENT AT 1000FT POINT         | 0.99   |
| TRUE COURSE OF  | FINAL | SEGMENT CONTAINING 1000FT POINT | 334.98 |
| HIGH TERRAIN IN | FINAL | SEGMENT CONTAINING 1000FT POINT | 1600   |
| DISTANCE FROM   |       | TO 1500FT POINT                 |        |
| WIDTH OF        |       | SEGMENT AT 1500FT POINT         |        |
| TRUE COURSE OF  |       | SEGMENT CONTAINING 1500FT POINT |        |
| HIGH TERRAIN IN |       | SEGMENT CONTAINING 1500FT POINT |        |

**THRESHOLD  
COORDINATES** 433423.69N/0964359.80W  
(IF STR-IN)

**ARP COORDINATES** 433455.27N/0964430.93W

**RUNWAY APCH END  
AND DIST FURTHEST  
FROM MAP** RUNWAY 03 DISTANCE 0.76 NM

**FAF/PFAF  
COORDINATES** 433002.09N/0964111.83W

**FIX NAME  
COORDINATES**

**REMARKS**

1500 FT PT IS BEFORE THE PFAF.



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

|              |            |                |          |             |       |                   |          |
|--------------|------------|----------------|----------|-------------|-------|-------------------|----------|
| AIRPORT      | AIRPORT ID | PROCEDURE NAME | AMDT NO. | CITY        | STATE | AIRPORT ELEVATION | FACILITY |
| JOE FOSS FLD | FSD        | RADAR-1        | 11       | SIOUX FALLS | SD    | 1430              | FSD ASR  |

**PART E: PREPARED BY**

|                                   |                                     |             |               |
|-----------------------------------|-------------------------------------|-------------|---------------|
| <b>NAME</b>                       | <b>TITLE</b>                        | <b>DATE</b> | <b>OFFICE</b> |
| ROBERT HAMILTON (TODD A. RUSSELL) | AERONAUTICAL INFORMATION SPECIALIST | 5/01/2025   | AJV-A433      |

