

RADIO FIX AND HOLDING DATA RECORD

NAME: FRYRE **STATE:** SD **COUNTRY:** US **ICAO REGION CODE:** K3

LATITUDE/LONGITUDE: 434107.97N/0970719.24W **TYPE:** WP, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FEET	MRA	MAA
1	SIoux FALLS	FSD	VORTAC	VH	269.40	278.40	15.00	15.00		3700	17500

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	W	FSD	VORTAC	269.40	089.40	R		8	5000	17500	8	17
2	W	FSD	VORTAC	269.40	089.40	R	1		5000	14000	8	11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (46-000195)	434346.00N/0970514.90W	2681	4D
2	230	TOWER (46-000147)	433756.00N/0972225.00W	3051	5D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE (US)
EN ROUTE	V120	1				(US)
IAP	RNAV (GPS) RWY 33			KMDS	MADISON	SD (US)
IAP	HI - ILS OR LOC RWY 21	1	1	KFSD	SIoux FALLS	SD (US)
IAP	HI - ILS Z OR LOC Z RWY 3	1	1	KFSD	SIoux FALLS	SD (US)
IAP	HI - TACAN RWY 15	1	1	KFSD	SIoux FALLS	SD (US)
IAP	RNAV (GPS) RWY 15			KFSD	SIoux FALLS	SD (US)
IAP	VOR OR TACAN RWY 15	1	2	KFSD	SIoux FALLS	SD (US)
IAP	VOR/DME OR TACAN RWY 33	1	2	KFSD	SIoux FALLS	SD (US)

REQUIRED CHARTING: MILITARY IAP, IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8 **DATE OF REVISION:** 06/12/2025

REASON FOR REVISION:

1. FIX MAKE-UP FACILITIES: FAC 1 FSD CHANGED FROM H TO VH.
2. PATTERNS: PAT 1 CHANGED MIN TEMPLATE FROM 6 TO 8.
3. PATTERNS: PAT 2 CHANGED LEG TIME FROM 1-1 1/2 TO 1.
4. CONTROLLING OBSTRUCTIONS: CHANGED PAT 1 OBSTACLE ACCURACY CODE FROM 5D TO 4D.
5. FIX USE: CHANGED V-120 TO V120.
6. FIX USE: ADDED "HI - ILS Z OR LOC Z RWY 3" AT KFSD AND ASSOCIATED FAC AND PATTERN.
7. FIX USE: CHANGED FROM "HI - ILS 21" TO "HI - ILS OR LOC RWY 21" AT KFSD.
8. REQUIRED CHARTING: DELETED CONTROLLER AND ADDED CONTROLLER LOW.

INITIATED BY: **DATE:** **ORGANIZATION:** **NAME:**

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A432 **NAME:** CHRISTOPHER WILKINSON

APPROVED BY: **DATE:** 05/08/2025 **OFFICE:** AJV-A432 **NAME:** CASIMIR TABAKA

SIGNATURE:

Digitally signed by
CASIMIR L TABAKA
Jun 06, 2025



RADIO FIX AND HOLDING DATA RECORD

NAME: HETBO STATE: SD COUNTRY: US ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 432045.09N/0965812.63W TYPE: DME

AIRSPACE DOCKET: FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA	MAA
1	SIOUX FALLS	I-FSD	LOC		209.89	214.89		18.22	5000	5900
2	SIOUX FALLS	FSD	VORTAC	H	195.44	204.44	20.00	20.00	5000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-FSD	LOC	R-210	30	3400	11000

HOLDING: HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:
MILITARY USE ONLY.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI - ILS Z OR LOC Z RWY 3	1, 2		KFSD	SIOUX FALLS	SD (US)

REQUIRED CHARTING: MILITARY IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 DATE OF REVISION: 06/12/2025

REASON FOR REVISION:

1. FIX MAKE-UP: ADDED DIST FROM FAC FOR FAC 1 AT 18.22 NM AND FAC 2 AT 20.00 NM.
2. EXPANDED SERVICE VOLUME (ESV): ADDED ESV FOR I-FSD COVERING HETBO RADIAL.
3. FIX USE: ADDED USE TITLE "HI - ILS Z OR LOC Z RWY 3" AND FACS 1 AND 2 TO KFSD.

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A432 NAME: CHRISTOPHER WILKINSON

APPROVED BY: DATE: 05/08/2025 OFFICE: AJV-A432 NAME: CASIMIR TABAKA

SIGNATURE: *Digitally signed by*
CASIMIR L TABAKA
Jun 06, 2025



RADIO FIX AND HOLDING DATA RECORD

NAME: MAREY **STATE:** SD **COUNTRY:** US **ICAO REGION CODE:** K3

LATITUDE/LONGITUDE: 433242.97N/0964647.72W **TYPE:** INT

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC	MRA	MAA
								NM	FEET	
1	SIoux FALLS	I-FSD	LOC		209.89	214.89		3.65	2000	5900
2	SIoux FALLS	FSD	VORTAC	VH	170.52	179.52		6.25	2000	17500

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI - ILS Z OR LOC Z RWY 3	1, 2		KFSD	SIoux FALLS	SD (US)
IAP	ILS OR LOC RWY 3	1, 2		KFSD	SIoux FALLS	SD (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6 **DATE OF REVISION:** 06/12/2025

REASON FOR REVISION:

1. LATITUDE/LONGITUDE: CHANGED FROM "433312.84N/0964618.97W" TO "433242.97N/0964647.72W", POSITION MOVED .61 NM/ 3692 FT SOUTHWEST.
2. FIX MAKE-UP FACILITIES: FAC 1 DISTANCE FROM FAC ADDED " 3.65 NM", AND MRA CHANGED FROM "1840" TO "2000".
3. FIX MAKE-UP FACILITIES: FAC 2 FSD VORTAC CHANGED FROM H TO VH, MAG BRG/TRUE BRG CHANGED FROM 167.00/176.00 TO 170.52/179.52, DISTANCE FROM FAC ADDED "6.25 NM", AND MRA CHANGED FROM "1840" TO "2000".
4. REMARKS: DELETED "MAREY INT ON FSD VORTAC R-167, FLIGHT CHECK REPORTS MAREY INT ON FSD VORTAC R-164."
5. FIX USE: ADDED USE TITLE "HI - ILS Z OR LOC Z RWY 3" AND "ILS OR LOC RWY 3" AND FACS 1 AND 2 TO KFSD.

INITIATED BY: **DATE:** **ORGANIZATION:** **NAME:**

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A432 **NAME:** CHRISTOPHER WILKINSON

APPROVED BY: **DATE:** 05/08/2025 **OFFICE:** AJV-A432 **NAME:** CASIMIR TABAKA

SIGNATURE: *Digitally signed by*
CASIMIR L TABAKA
Jun 06, 2025



RADIO FIX AND HOLDING DATA RECORD

NAME: SKIES STATE: SD COUNTRY: US ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 430704.42N/0970638.48W TYPE: DME

AIRSPACE DOCKET: FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC	MRA	MAA
								NM FEET		
1	SIoux FALLS	FSD	VORTAC	H	195.44	204.44	35.00	35.00	18000	45000

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH DME	HOLDING ALTITUDES	TEMPLATES
								MIN MAX	MIN MAX
1	S	FSD	VORTAC	195.44	015.44	R	12	18000 30000	18 24

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
RESTRICTED: MILITARY ONLY

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI - ILS Z OR LOC Z RWY 3	1	1	KFSD	SIoux FALLS	SD (US)

REQUIRED CHARTING: MILITARY IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 DATE OF REVISION: 06/12/2025

REASON FOR REVISION:

1. FIX MAKE-UP FACILITIES: ADDED DIST FROM FAC FOR FAC 1 AT 35.00 NM.
2. PATTERNS: PAT 1 CHANGED LENGTH DME FROM 10 TO 12 AND ADDED MIN TEMPLATE OF 18.
3. HOLDING RESTRICTIONS: ADDED "HOLDING LIMITED TO ESTABLISHED PATTERN."
4. REMARKS: DELETED "2D (CONT): HOLDING LIMITED TO ESTABLISHED PATTERN."
5. FIX USE: ADDED USE TITLE "HI - ILS Z OR LOC Z RWY 3" AND ASSOCIATED FAC AND PATTERN TO KFSD.

INITIATED BY: DATE: ORGANIZATION: NAME:
OFFICE OF PRIMARY RESPONSIBILITY: AJV-A432 NAME: CHRISTOPHER WILKINSON
APPROVED BY: DATE: 05/08/2025 OFFICE: AJV-A432 NAME: CASIMIR TABAKA
SIGNATURE: Digitally signed by CASIMIR L TABAKA Jun 06, 2025

