

RADIO FIX AND HOLDING DATA RECORD

NAME: BFFLO

STATE: SD

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 444329.34N/1025709.73W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 22-ACE-1

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA	MAA
1	RAPID CITY	RAP	VORTAC	VH	350.25	003.25	45.00	45.00	5000	17500
2	DUPREE	DPR	VOR/DME	VH	238.55	248.55		56.88	5000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
RAP	VORTAC	R-350	45	5000	8200
DPR	VOR/DME	R-239	57	5000	7600

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

RAPID CITY (FAC 1) AND DUPREE (FAC 2) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T286					(US)
EN ROUTE	V491	1, 2				(US)
IAP	RNAV (GPS) RWY 13			KSPF	SPEARFISH	SD (US)
IAP	RNAV (GPS) RWY 31			KSPF	SPEARFISH	SD (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9

DATE OF REVISION: 02/23/2023

REASON FOR REVISION:

- DOCKET: ADDED "22-ACE-1"
- ESV: UPDATED RAP MAX ALTITUDE FROM "17500" TO "8200"; UPDATED DPR MAX ALTITUDE FROM "17500" TO "7600"
- FIX USE: ADDED "EN ROUTE T286"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A421

NAME: HENRY BRADSHAW

APPROVED BY:

DATE: 02/23/2023

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by

JASON KRETSCHMER

Sep 28, 2022



RADIO FIX AND HOLDING DATA RECORD

NAME: DICKINSON VORTAC STATE: ND COUNTRY: US ICAO REGION CODE: K3
 LATITUDE/LONGITUDE: 465136.14N/1024624.60W TYPE:
 AIRSPACE DOCKET: 22-ACE-1 FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FEET	MRA	MAA
1	DICKINSON	DIK	VORTAC	VH							45000

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG TIME	LENGTH DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	N	DIK	VORTAC	003.00	183.00	R	1		4600	10000	5	13

CONTROLLING OBSTRUCTIONS:

PAT	AIR SPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (38-000427)	465515.00N/1024344.00W	3115	5D
1	310	TOWER (38-000355)	465652.74N/1025926.84W	3320	5C

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN(S).

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS OR LOC RWY 32	KDIK	DICKINSON	ND (US)

REMARKS:

- PRECIPITOUS TERRAIN EVALUATION COMPLETED.
- ASSIGNED MAGVAR EAST 14 1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	WILLISTON			KXWA	WILLISTON	ND (US)
EN ROUTE	J36					(US)
EN ROUTE	J562					(US)
EN ROUTE	J70					(US)
EN ROUTE	T268					(US)
EN ROUTE	T286					(US)
EN ROUTE	V2					(US)
EN ROUTE	V439					(US)
EN ROUTE	V491					(US)
EN ROUTE	V510					(US)
IAP	ILS OR LOC RWY 32		1	KDIK	DICKINSON	ND (US)
IAP	VOR-A		1	KDIK	DICKINSON	ND (US)

REQUIRED CHARTING: DP, IAP, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: LOW

RECORD REVISION NUMBER: 16 DATE OF REVISION: 02/23/2023

REASON FOR REVISION:

- DOCKET: ADDED "22-ACE-1"
- FIX USE: ADDED "EN ROUTE T286"

12/20/22: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 09/28/22.

- FIX USE: ADDED "KDIK ILS OR LOC RWY 32"; CHANGED "WILLISTON FIVE DEPARTURE" TO "WILLISTON".
- PATTERNS: UPDATED MAX TEMPLATE FROM "9" TO "13".
- OBSTRUCTIONS: REMOVED "230 TOWER (38-000018)"; ADDED "200 TOWER (38-000427)" AND "310 TOWER (38-000355)".
- HOLDING RESTRICTIONS: CHANGED "HOLDING LIMITED TO ESTABLISHED PATTERN" TO "HOLDING LIMITED TO ESTABLISHED PATTERN(S)".
- REMARKS: ADDED "1. PRECIPITOUS TERRAIN EVALUATION COMPLETED." AND "2. ASSIGNED MAGVAR EAST 14 1965".
- CHARTING: REMOVED "SPECIAL DP"; ADDED "DP".

INITIATED BY: DATE: ORGANIZATION: NAME:
 OFFICE OF PRIMARY RESPONSIBILITY: AJV-A421 NAME: HENRY BRADSHAW
 APPROVED BY: DATE: 02/23/2023 OFFICE: AJV-A420 NAME: MARLON ROBINSON
 SIGNATURE: Digitally signed by JASON KRETSCHMER
 Dec 21, 2022



RADIO FIX AND HOLDING DATA RECORD

NAME: DIXLE

STATE: SD

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 452744.24N/1025332.12W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 22-ACE-1

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	DICKINSON	DIK	VORTAC	H	169.42	183.42	84.03		9000	17500
2	DUPREE	DPR	VOR/DME	VH	285.22	295.22	54.95		10000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
DIK	VORTAC	R-169	84	9000	17100

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

DICKINSON (FAC 1) AND DUPREE (FAC 2) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T286					(US)
EN ROUTE	V120	1, 2				(US)
EN ROUTE	V491	1, 2				(US)
IAP	RNAV (GPS) RWY 31			KBHK	BAKER	MT (US)
IAP	GPS RWY 29			KBPP	BOWMAN	ND (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 02/23/2023

REASON FOR REVISION:

- DOCKET: ADDED "22-ACE-1"
- FIX MAKE UP FACILITIES: UPDATED DUPREE DPR FROM "VORTAC H" TO "VOR/DME VH"
- ESV: REMOVED "DPR VORTAC R-285"; UPDATED DIK VORTAC R-169 MAX ALTITUDE FROM "17000" TO "17100"
- FIX USE: ADDED "EN ROUTE T286"; SEPERATED "EN ROUTE V120, V491" TO "EN ROUTE V120" AND "EN ROUTE V491"; ADDED FAC 1 AND 2 TO EN ROUTE V120 AND EN ROUTE V491
- CHARTING: UPDATED "CONTROLLER" TO "CONTROLLER LOW"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A421

NAME: HENRY BRADSHAW

APPROVED BY:

DATE: 02/23/2023

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by
JASON KRETSCHMER

Sep 28, 2022



RADIO FIX AND HOLDING DATA RECORD

NAME: FONIA

STATE: ND

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 481535.07N/1031037.54W

TYPE: WP, DME

AIRSPACE DOCKET: 22-ACE-1

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	WILLISTON	ISN	VOR/DME	L	080.84	088.84	23.00	23.00		5000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	WILLISTON	1		KXWA	WILLISTON	ND (US)
EN ROUTE	T286					(US)
EN ROUTE	T331					(US)
EN ROUTE	V430	1				ND (US)
IAP	RNAV (GPS) RWY 30			D50	CROSBY	ND (US)
IAP	RNAV (GPS) RWY 12			D60	TIOGA	ND (US)
IAP	RNAV (GPS) RWY 30			D60	TIOGA	ND (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7

DATE OF REVISION: 02/23/2023

REASON FOR REVISION:

1. DOCKET: ADDED "22-ACE-1"
2. FIX USE: ADDED "EN ROUTE T286"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A421

NAME: HENRY BRADSHAW

APPROVED BY:

DATE: 02/23/2023

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by
JASON KRETSCHMER
Sep 28, 2022



RADIO FIX AND HOLDING DATA RECORD

NAME: HAYNI

STATE: ND

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 460834.57N/1025006.59W

TYPE: WP, DME

AIRSPACE DOCKET: 22-ACE-1

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	DICKINSON	DIK	VORTAC	VH	169.42	183.42	43.11	43.11		5000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
DIK	VORTAC	R-169	44	5000	7600

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	N		WP	355.42	175.42	L		6	6000	14000	8	19

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	460336.00N/1025036.00W	3258	4E
1	310	WINDMILL (38-023158)	460419.43N/1023813.06W	3393	2C

REASON FOR NONSTANDARD HOLDING:

PAT 1 TERRAIN/OBSTRUCTIONS

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	RNAV (GPS) RWY 30	KHEI	HETTINGER	ND (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T286					(US)
EN ROUTE	V491	1				(US)
IAP	RNAV (GPS) RWY 13		1	KBWW	BOWMAN	ND (US)
IAP	RNAV (GPS) RWY 31		1	KBWW	BOWMAN	ND (US)
IAP	RNAV (GPS) RWY 30		1	KHEI	HETTINGER	ND (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5

DATE OF REVISION: 02/23/2023

REASON FOR REVISION:

1. DOCKET: ADDED "22-ACE-1"
2. FIX MAKE-UP: UPDATED DICKINSON VORTAC CLASS FROM "H" TO "VH"
3. ESV: UPDATED DIK VORTAC MAX ALTITUDE FROM "17000" TO "7600"
4. PATTERNS: UPDATED PAT 1 MAX TEMPLATE FROM "11" TO "19"
5. REMOVED UNPLANNED HOLDING DATA
6. FIX USE: ADDED "EN ROUTE T286"
7. CHARTING: UPDATED "CONTROLLER" TO "CONTROLLER LOW"
8. HOLDING RESTRICTIONS: ADDED "HOLDING LIMITED TO ESTABLISHED PATTERN."

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A421

NAME: HENRY BRADSHAW

APPROVED BY:

DATE: 02/23/2023

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by
JASON KRETSCHMER

Sep 28, 2022



RADIO FIX AND HOLDING DATA RECORD

NAME: JELRO STATE: SD COUNTRY: US ICAO REGION CODE: K3
 LATITUDE/LONGITUDE: 454843.83N/1025146.96W TYPE: WP, DME
 AIRSPACE DOCKET: 22-ACE-1 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	DICKINSON	DIK	VORTAC	VH	169.42	183.42	63.00	63.00	9000	45000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

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	N		WP	355.42	175.42	R		7	9000	45000	10	30
2	N		WP	356.40	176.40	R		5	5500	17100	6	17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	455112.00N/1030221.00W	3386	4E
1	310	AAO	455109.00N/1030427.00W	3452	4E
2	200	AAO	454957.00N/1030006.00W	3288	4E

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN(S).

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	RNAV (GPS) RWY 12	KHEI	HETTINGER	ND (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	Q156		1			(US)
EN ROUTE	T286		2			(US)
EN ROUTE	V491	1				(US)
IAP	RNAV (GPS) RWY 12		1	KHEI	HETTINGER	ND (US)
IAP	RNAV (GPS) RWY 30			KHEI	HETTINGER	ND (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 02/23/2023

REASON FOR REVISION:

- DOCKET: ADDED "22-ACE-1"
- FIX MAKE-UP: UPDATED DICKINSON VORTAC CLASS FROM "H" TO "VH"
- ESV: REMOVED "DIK VORTAC"
- FIX USE: ADDED "EN ROUTE V286"
- HOLDING: ADDED PATTERN 2 AND ASSOCIATED DATA.
- HOLDING RESTRICTIONS: ADDED "HOLDING LIMITED TO ESTABLISHED PATTERN(S)."
- REMARKS: ADDED "PRECIPITOUS TERRAIN EVALUATION COMPLETED. "

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A421

NAME: HENRY BRADSHAW

APPROVED BY:

DATE: 02/23/2023

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by
JASON KRETSCHMER
 Sep 28, 2022



RADIO FIX AND HOLDING DATA RECORD

NAME: JORNO

STATE: SD

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 442830.85N/1025821.90W

TYPE: WP, DME

AIRSPACE DOCKET: 22-ACE-1

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA	MAA
1	RAPID CITY	RAP	VORTAC	H	350.25	003.25	30.00	30.00	5000	45000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

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	N		WP	352.25	172.25	R	7	7000 14000	9 11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	AAO	442827.00N/1025836.00W	3170	4E

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T286					(US)
EN ROUTE	V491	1				(US)
IAP	RNAV (GPS) RWY 11		1	49B	STURGIS	SD (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 02/23/2023

REASON FOR REVISION:

1. DOCKET: ADDED "22-ACE-1"
2. FIX USE: ADDED "EN ROUTE V286"
3. CHARTING: UPDATED "CONTROLLER" TO "CONTROLLER LOW"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A421

NAME: HENRY BRADSHAW

APPROVED BY:

DATE: 02/23/2023

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by
JASON KRETSCHMER
Sep 28, 2022

QUALITY
13
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: NEXRU

STATE: ND

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 463200.95N/1024806.36W

TYPE: WP, DME

AIRSPACE DOCKET: 22-ACE-1

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	DICKINSON	DIK	VORTAC	VH	169.42	183.42	19.63	19.63		5000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T286					(US)
EN ROUTE	V491	1				(US)
IAP	ILS OR LOC RWY 32			KDIK	DICKINSON	ND (US)
IAP	RNAV (GPS) RWY 32			KDIK	DICKINSON	ND (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6

DATE OF REVISION: 02/23/2023

REASON FOR REVISION:

1. DOCKET: ADDED "22-ACE-1"
2. FIX MAKE-UP: UPDATE DICKINSON VORTAC CLASS FROM "H" TO "VH"
3. FIX USE: ADDED "EN ROUTE V286"

12/20/22: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 09/28/22.

1. FIX USE: REMOVED KDIK RNAV (GPS) RWY 33 FROM FIX USE.
2. FIX USE: ADDED KDIK RNAV (GPS) RWY 32 TO FIX USE.
3. FIX USE: ADDED KDIK ILS OR LOC/DME RWY 32 TO FIX USE.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A421

NAME: HENRY BRADSHAW

APPROVED BY:

DATE: 02/23/2023

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

Digitally signed by
JASON KRETSCHMER
Dec 21, 2022

QUALITY
40
CHECKED