

RADIO FIX AND HOLDING DATA RECORD

NAME: FARGO VOR/DME STATE: ND COUNTRY: US ICAO REGION CODE: K3
 LATITUDE/LONGITUDE: 464512.01N/0965104.75W TYPE:

AIRSPACE DOCKET: 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	FARGO	FAR	VOR/DME	VH							45000

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	S	FAR	VOR/DME	179.79	359.79	R	1		2500	6000	4	13
2	SW	FAR	VOR/DME	240.05	060.05	R	1		2700	6000	4	5
3	SW	FAR	VOR/DME	228.49	048.49	R	1		2700	6000	4	5
4	NE	FAR	VOR/DME	029.87	209.87	R	1		2800	6000	12	13
5	SW		WP	240.00	060.00	R		4	2700	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (38-000036)	464902.00N/0964808.00W	1339	4D
1	310	TOWER (27-000206)	464909.00N/0964557.00W	1352	4D
2	200	TOWER (38-000270)	464807.00N/0965300.00W	1306	4D
3	200	TOWER (38-000270)	464807.00N/0965300.00W	1306	4D
4	310	TOWER (27-000206)	464909.00N/0964557.00W	1352	4D
5	200	TOWER (38-000270)	464807.00N/0965300.00W	1306	4D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
4	ILS OR LOC RWY 36	FAR	FARGO	ND (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 ASSIGNED FACILITY MAG VAR E9/1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	J140					(US)
EN ROUTE	J36					(US)
EN ROUTE	T407					(US)
EN ROUTE	V181					(US)
EN ROUTE	V2					(US)
EN ROUTE	V344					(US)
EN ROUTE	V510					(US)
IAP	RNAV (GPS) RWY 34		5	04Y	HAWLEY	MN (US)
IAP	VOR/DME-A		2	04Y	HAWLEY	MN (US)
IAP	RNAV (GPS) RWY 30			JKJ	MOORHEAD	MN (US)
IAP	VOR-A		3	JKJ	MOORHEAD	MN (US)
IAP	ILS OR LOC RWY 18		1	FAR	FARGO	ND (US)
IAP	ILS OR LOC RWY 36		4	FAR	FARGO	ND (US)
IAP	VOR RWY 36		1	FAR	FARGO	ND (US)
IAP	RNAV (GPS) RWY 11			K74	KINDRED	ND (US)
IAP	RNAV (GPS) RWY 29			K74	KINDRED	ND (US)
STAR	GOPHER			ANE	MINNEAPOLIS	MN (US)
STAR	GOPHER			FCM	MINNEAPOLIS	MN (US)
STAR	GOPHER			LVN	MINNEAPOLIS	MN (US)
STAR	GOPHER			MIC	MINNEAPOLIS	MN (US)
STAR	GOPHER			MSP	MINNEAPOLIS	MN (US)
STAR	GOPHER			STP	ST PAUL	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 24

DATE OF REVISION: 05/14/2026

REASON FOR REVISION:

- HOLDING PATTERN ASSOCIATION 3, FAR, VOR/DME AND ASSOCIATED CONTROLLING OBSTRUCTION AND REASON FOR NON STANDARD HOLDING "PAT 3 AT REQUEST" DELETED.
- FIX USE IAP, VOR/DME RWY 31, K5N8 CASSELTON DELETED.

INITIATED BY:**DATE:****ORGANIZATION:****NAME:****OFFICE OF PRIMARY RESPONSIBILITY:**

AJV-A432

NAME: JAMIE KUNKLER**APPROVED BY:****DATE:** 04/09/2026**OFFICE:** AJV-A432**NAME:** CASIMIR TABAKA**SIGNATURE:**

RADIO FIX AND HOLDING DATA RECORD

NAME: FLYING CLOUD VOR/DME **STATE:** MN **COUNTRY:** US **ICAO REGION CODE:** K3

LATITUDE/LONGITUDE: 444931.26N/0932633.68W **TYPE:**

AIRSPACE DOCKET: N **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	FLYING CLOUD	FCM	VOR/DME	L						17500

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	W	FCM	VOR/DME	265.00	085.00	R	1	2600 12000	4 9

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	444512.00N/0932354.00W	1260	4B
1	310	TOWER (27-001132)	444641.60N/0934449.00W	1449	4D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN(S)

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	VOR RWY 10R	FCM	MINNEAPOLIS	MN (US)
1	COPTER ILS OR LOC RWY 10R	FCM	MINNEAPOLIS	MN (US)
1	ILS OR LOC RWY 12R (ALT MA)	MSP	MINNEAPOLIS	MN (US)
1	ILS RWY 12R (CAT II - III) (ALT MA)	MSP	MINNEAPOLIS	MN (US)
1	ILS OR LOC RWY 10R	FCM	MINNEAPOLIS	MN (US)
1	ILS RWY 12R (SA CAT I) (ALT MA)	MSP	MINNEAPOLIS	MN (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAG VAR: E1/2010.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V412					(US)
IAP	VOR-A			CFE	BUFFALO	MN (US)
IAP	COPTER ILS OR LOC RWY 10R		1	FCM	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 10R		1	FCM	MINNEAPOLIS	MN (US)
IAP	VOR RWY 10R		1	FCM	MINNEAPOLIS	MN (US)
IAP	VOR/DME RWY 36		1	FCM	MINNEAPOLIS	MN (US)
IAP	VOR RWY 12			LVN	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 12R		1	MSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 12R (ALT MA)		1	MSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12R (CAT II - III) (ALT MA)		1	MSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12R (SA CAT I) (ALT MA)		1	MSP	MINNEAPOLIS	MN (US)
IAP	LOC RWY 17			MSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 14			STP	ST PAUL	MN (US)
STAR	AGUDE			CFE	BUFFALO	MN (US)
STAR	AGUDE			FBL	FARIBAULT	MN (US)
STAR	AGUDE			Gyl	GLENCOE	MN (US)
STAR	AGUDE			MGG	MAPLE LAKE	MN (US)
STAR	AGUDE			ANE	MINNEAPOLIS	MN (US)
STAR	AGUDE			FCM	MINNEAPOLIS	MN (US)
STAR	AGUDE			LVN	MINNEAPOLIS	MN (US)
STAR	AGUDE			MIC	MINNEAPOLIS	MN (US)
STAR	KASPR			MSP	MINNEAPOLIS	MN (US)
STAR	AGUDE			SGS	SOUTH ST PAUL	MN (US)
STAR	AGUDE			21D	ST PAUL	MN (US)
STAR	AGUDE			STP	ST PAUL	MN (US)
STAR	AGUDE			RNH	NEW RICHMOND	WI (US)
STAR	AGUDE			OEO	OSCEOLA	WI (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 25

DATE OF REVISION: 10/29/2026

REASON FOR REVISION:

1. FIX USE: REMOVED DP COULT, KBREW AND ROCHESTER FROM KANE, KFCM, KMSP AND KSTP.
2. FIX USE: REMOVED DP SCHEP, SMERF (RNAV) AND ZMBRO FROM KMSP.
3. REQUIRED CHARTING: REMOVED DP.

INITIATED BY:**DATE:****ORGANIZATION:****NAME:****OFFICE OF PRIMARY RESPONSIBILITY:**

AJV-A431

NAME: EMMANUEL GONZALES**APPROVED BY:****DATE:** 09/24/2026**OFFICE:** AJV-A422**NAME:** RAKE MCGRAW**SIGNATURE:**

RADIO FIX AND HOLDING DATA RECORD

NAME: GOPHER VORTAC STATE: MN COUNTRY: US ICAO REGION CODE: K3
 LATITUDE/LONGITUDE: 450844.47N/0932223.45W TYPE:

AIRSPACE DOCKET: 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	GOPHER	GEP	VORTAC	VH						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	NW	GEP	VORTAC	297.00	117.00	L	1	3000 14000	4 10
2	W	GEP	VORTAC	264.00	084.00	R	1	2700 14000	4 12
3	NW		WP	297.00	117.00	L	4	3000 14000	5 11
4	N		WP	346.00	166.00	L	4	3100 14000	5 11
5	W		WP	265.00	085.00	R	4	2700 14000	5 13

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
1	265	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
2	200	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
2	310	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
3	200	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
3	265	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
4	200	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
4	310	TOWER (27-000990)	452011.92N/0932331.17W	2048	1A
5	200	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
5	310	TOWER (27-000499)	450344.83N/0930822.61W	2438	1D

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST
 PAT 3 ATC REQUEST
 PAT 4 ATC REQUEST

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED
 HOLDING PATTERN 1 AND 4 EVALUATED FOR MILITARY AIRCRAFT AT KMSP
 ASSIGNED FACILITY MAGVAR: E6 1965
 PAT 5 310KT CONTROLLING OBSTACLE 1604 FT MSL PRIMARY EQUIVALENT.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
SPECIAL IAP	COPTER RNAV (GPS) 18		4	25MY	MINNEAPOLIS	MN (US)
SPECIAL IAP	COPTER RNAV (GPS) 18		4	MY65	MINNEAPOLIS	MN (US)
SPECIAL IAP	COPTER RNAV (GPS) 12		4	7MN1	ST PAUL	MN (US)
DP	MINNEAPOLIS			MSP	MINNEAPOLIS	MN (US)
EN ROUTE	J114					(US)
EN ROUTE	J21					(US)
EN ROUTE	J25					(US)
EN ROUTE	J36					(US)
EN ROUTE	J68					(US)
EN ROUTE	J70					(US)
EN ROUTE	T330					(US)
EN ROUTE	T383					(US)
EN ROUTE	V148					(US)
EN ROUTE	V161					(US)
EN ROUTE	V2					(US)
EN ROUTE	V218					(US)
EN ROUTE	V413					(US)
EN ROUTE	V505					(US)
EN ROUTE	V510					(US)
EN ROUTE	V78					(US)
EN ROUTE	V82					(US)
EN ROUTE	V97					(US)
IAP	VOR-A			CFE	BUFFALO	MN (US)
IAP	RNAV (GPS) RWY 34			CBG	CAMBRIDGE	MN (US)
IAP	ILS OR LOC RWY 27		2	ANE	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 27		5	ANE	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 18			ANE	MINNEAPOLIS	MN (US)
IAP	COPTER ILS OR LOC RWY 10R			FCM	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 10R			FCM	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 10L			FCM	MINNEAPOLIS	MN (US)

IAP	RNAV (GPS) RWY 10R		FCM	MINNEAPOLIS	MN (US)
IAP	VOR RWY 10R		FCM	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 30		LVN	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 14	4	MIC	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 12L		MSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 30R	1	MSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12L (CAT II)		MSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12L (CAT III)		MSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12L (SA CAT I)		MSP	MINNEAPOLIS	MN (US)
IAP	LOC RWY 17		MSP	MINNEAPOLIS	MN (US)
IAP	LOC RWY 22		MSP	MINNEAPOLIS	MN (US)
IAP	LOC RWY 4	1	MSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 4	3	MSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 30R	3	MSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 35	3	MSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 30R	3	MSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 9		RGK	RED WING	MN (US)
IAP	LOC RWY 34		SGS	SOUTH ST PAUL	MN (US)
IAP	ILS OR LOC RWY 31		STC	ST CLOUD	MN (US)
IAP	VOR RWY 31		STC	ST CLOUD	MN (US)
IAP	ILS OR LOC RWY 14		STP	ST PAUL	MN (US)
IAP	ILS OR LOC RWY 32		STP	ST PAUL	MN (US)
IAP	RNAV (GPS) RWY 14		STP	ST PAUL	MN (US)
STAR	AGUDE		CFE	BUFFALO	MN (US)
STAR	AGUDE		FBL	FARIBAULT	MN (US)
STAR	AGUDE		Gyl	GLENCOE	MN (US)
STAR	AGUDE		MGG	MAPLE LAKE	MN (US)
STAR	AGUDE		ANE	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)		ANE	MINNEAPOLIS	MN (US)
STAR	GOPHER		ANE	MINNEAPOLIS	MN (US)
STAR	TWOLF		ANE	MINNEAPOLIS	MN (US)
STAR	AGUDE		FCM	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)		FCM	MINNEAPOLIS	MN (US)
STAR	GOPHER		FCM	MINNEAPOLIS	MN (US)
STAR	TWOLF		FCM	MINNEAPOLIS	MN (US)
STAR	AGUDE		LVN	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)		LVN	MINNEAPOLIS	MN (US)
STAR	GOPHER		LVN	MINNEAPOLIS	MN (US)
STAR	TWOLF		LVN	MINNEAPOLIS	MN (US)
STAR	AGUDE		MIC	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)		MIC	MINNEAPOLIS	MN (US)
STAR	GOPHER		MIC	MINNEAPOLIS	MN (US)
STAR	TWOLF		MIC	MINNEAPOLIS	MN (US)
STAR	BAINY (RNAV)		MSP	MINNEAPOLIS	MN (US)
STAR	GOPHER		MSP	MINNEAPOLIS	MN (US)
STAR	AGUDE		SGS	SOUTH ST PAUL	MN (US)
STAR	AGUDE		21D	ST PAUL	MN (US)
STAR	AGUDE		STP	ST PAUL	MN (US)
STAR	ENCEE (RNAV)		STP	ST PAUL	MN (US)
STAR	GOPHER		STP	ST PAUL	MN (US)
STAR	TWOLF		STP	ST PAUL	MN (US)
STAR	AGUDE		RNH	NEW RICHMOND	WI (US)
STAR	TWOLF		RNH	NEW RICHMOND	WI (US)
STAR	AGUDE		OEO	OSCEOLA	WI (US)
STAR	TWOLF		OEO	OSCEOLA	WI (US)

REQUIRED CHARTING: DP, STAR, MILITARY IAP, IAP, AREA, EN ROUTE LOW, EN ROUTE HIGH, SPECIAL IAP, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 36

DATE OF REVISION: 10/29/2026

REASON FOR REVISION:

1. FIX USE: REMOVED DP COULT, KBREW AND WLSTN AT KANE, KFCM, KMSP AND KSTP.
2. FIX USE: REMOVED DP LEINY (RNAV) AT KMSP.
3. FIX USE: ADDED DP MINNEAPOLIS AT KMSP.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: EMMANUEL GONZALES

APPROVED BY:

DATE: 09/24/2026

OFFICE: AJV-A422

NAME: RAKE MCGRAW

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: HOMUR

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 452505.56N/0940436.50W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	KBREW (RNAV)			ANE	MINNEAPOLIS	MN (US)
DP	KBREW (RNAV)			FCM	MINNEAPOLIS	MN (US)
DP	KBREW (RNAV)			MSP	MINNEAPOLIS	MN (US)
DP	KBREW (RNAV)			STP	ST PAUL	MN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 10/29/2026

REASON FOR REVISION:

1. TYPE: ADDED "WP" AND REMOVED "INT" AND "DME."
2. FIX MAKE-UP FACILITES: REMOVED GEP VORTAC AND REDWOOD FALLS VOR/DME.
3. ESV: REMOVED RWF ESV.
4. REMARKS: REMOVED "GOPHER (FAC 1) AND REDWOOD FALLS (FAC 2) USED TO ESTABLISH FIX COORDINATES."
5. FIX USE: UPDATED KANE/KFCM/KMSP/KSTP DP "KBREW" TO "KBREW (RNAV)."

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: JUDITH TUTTLE

APPROVED BY:

DATE: 09/24/2026

OFFICE: AJV-A422

NAME: RAKE MCGRAW

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: HRBEK

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 451852.31N/0934825.17W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	KBREW (RNAV)			ANE	MINNEAPOLIS	MN (US)
DP	KBREW (RNAV)			FCM	MINNEAPOLIS	MN (US)
DP	KBREW (RNAV)			MSP	MINNEAPOLIS	MN (US)
DP	KBREW (RNAV)			STP	ST PAUL	MN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 10/29/2026

REASON FOR REVISION:

1. TYPE: REMOVED "INT" AND "DME."
2. FIX MAKE-UP FACILITES: REMOVED GEP VORTAC AND REDWOOD FALLS VOR/DME.
3. ESV: REMOVED RWF ESV.
4. REMARKS: REMOVED "GOPHER (FAC 1) AND REDWOOD FALLS (FAC 2) USED TO ESTABLISH FIX COORDINATES."
5. FIX USE: UPDATED KANE/KFCM/KMSP/KSTP DP "KBREW" TO "KBREW (RNAV)."
6. CHARTING: REMOVED "AREA, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH."

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: JUDITH TUTTLE

APPROVED BY:

DATE: 09/24/2026

OFFICE: AJV-A422

NAME: RAKE MCGRAW

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: KBREW

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 453503.67N/0943053.21W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	KBREW (RNAV)			ANE	MINNEAPOLIS	MN (US)
DP	KBREW (RNAV)			FCM	MINNEAPOLIS	MN (US)
DP	KBREW (RNAV)			MSP	MINNEAPOLIS	MN (US)
DP	KBREW (RNAV)			STP	ST PAUL	MN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 10/29/2026

REASON FOR REVISION:

1. FIX MAKE-UP FACILITES: REMOVED GEP VORTAC AND REDWOOD FALLS VOR/DME.
2. ESV: REMOVED GEP AND RWF ESVS.
3. REMARKS: REMOVED "GOPHER (FAC 1) AND REDWOOD FALLS (FAC 2) USED TO ESTABLISH FIX COORDINATES."
4. FIX USE: UPDATED KANE/KFCM/KMSP/KSTP DP "KBREW" TO "KBREW (RNAV)."
5. CHARTING: REMOVED "EN ROUTE LOW, CONTROLLER LOW, CONTROLLER HIGH."

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: JUDITH TUTTLE

APPROVED BY:

DATE: 09/24/2026

OFFICE: AJV-A422

NAME: RAKE MCGRAW

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: REDWOOD FALLS VOR/DME **STATE:** MN **COUNTRY:** US **ICAO REGION CODE:** K3

LATITUDE/LONGITUDE: 442802.19N/0950741.63W **TYPE:**

AIRSPACE DOCKET: **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	REDWOOD FALLS	RWF	VOR/DME	VH						45000

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	S	RWF	VOR/DME	196.00	016.00	R	1	2600 6000	4 5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	WINDMILL (27-002448)	443005.90N/0951032.20W	1433	5D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN(S)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAG VAR: 7E/1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	J34					(US)
EN ROUTE	J90					(US)
EN ROUTE	T322					(US)
EN ROUTE	V148					(US)
EN ROUTE	V175					(US)
EN ROUTE	V24					(US)
EN ROUTE	V26					(US)
EN ROUTE	V398					(US)
EN ROUTE	V412					(US)
IAP	VOR/DME RWY 33			KGDB	GRANITE FALLS	MN (US)
IAP	ILS OR LOC RWY 12			KMML	MARSHALL	MN (US)
IAP	RNAV (GPS) RWY 12			KMML	MARSHALL	MN (US)
IAP	VOR RWY 12			KMML	MARSHALL	MN (US)
IAP	RNAV (GPS) RWY 32			KMVE	MONTEVIDEO	MN (US)
IAP	VOR/DME OR GPS-A		1	KOVL	OLIVIA	MN (US)
IAP	RNAV (GPS) RWY 30			KRWF	REDWOOD FALLS	MN (US)
IAP	VOR-A		1	KRWF	REDWOOD FALLS	MN (US)
IAP	RNAV (GPS) RWY 13			D42	SPRINGFIELD	MN (US)
IAP	RNAV (GPS) RWY 31			D42	SPRINGFIELD	MN (US)
IAP	VOR RWY 13			D42	SPRINGFIELD	MN (US)
IAP	RNAV (GPS) RWY 11			KTKC	TRACY	MN (US)
IAP	RNAV (GPS) RWY 29			KTKC	TRACY	MN (US)
IAP	ILS OR LOC RWY 13			KBDH	WILLMAR	MN (US)
IAP	RNAV (GPS) RWY 31			KBDH	WILLMAR	MN (US)
IAP	RNAV (GPS) RWY 17			KMWM	WINDOM	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 24

DATE OF REVISION: 03/19/2026

REASON FOR REVISION:

1. REMOVED FIX USE: KMSP SKETR STAR; DP LEINY (RNAV) AT KMSP, KBREW AND SCHEP AT KANE, KFCM, KMSP AND KSTP.
2. REMOVED REQUIRED CHARTING: STAR, DP.
3. REMOVED HOLDING PATTERN 2, ASSOCIATED OBSTACLE AND REASON FOR NONSTANDARD HOLDING.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: BARBARA GORMAN

APPROVED BY:

DATE: 02/12/2026

OFFICE: AJV-A430

NAME: CASIMIR TABAKA

SIGNATURE: