

RADIO FIX AND HOLDING DATA RECORD

NAME: AHMIT

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 442952.59N/0931142.65W

TYPE: WP, DME

AIRSPACE DOCKET: 19-AGL-16

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	FARMINGTON	FGT	VORTAC	H	178.04	184.04	8.00	8.00		3000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V13	1				MN (US)
IAP	RNAV (GPS) RWY 36			KFCM	MINNEAPOLIS	MN (US)
STAR	KASPR	1		KMSP	MINNEAPOLIS	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6

DATE OF REVISION: 11/05/2020

REASON FOR REVISION:

1. AIRSPACE DOCKET: ADDED 19-AGL-16.
2. FIX USE SECTION: REMOVED V411 EN ROUTE.
3. REQUIRED CHARTING SECTION: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: MICHAEL GARRITY

APPROVED BY:

DATE:

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY: MSP APP CON, MSP TOWER
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: DELZY

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 441354.94N/0931316.33W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 19-AGL-16

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	FARMINGTON	FGT	VORTAC	H	178.04	184.04	24.00	24.00		3000	17500
2	ROCHESTER	RST	VOR/DME	L	310.12	315.12		38.16		3000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V13	1, 2				MN (US)
IAP	RNAV (GPS) RWY 30			KOWA	OWATONNA	MN (US)
STAR	KASPR	1, 2		KMSP	MINNEAPOLIS	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 11/05/2020

REASON FOR REVISION:

1. AIRSPACE DOCKET: ADDED 19-AGL-16.
2. FIX MAKE-UP FACILITIES SECTION FAC2 DME: REMOVED 38.16.
3. FIX USE SECTION: REMOVED V411 EN ROUTE.
4. REQUIRED CHARTING SECTION: CHANGED CONTROLLER TO READ CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: MICHAEL GARRITY

APPROVED BY:

DATE:

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY: MSP APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: FARMINGTON VORTAC STATE: MN COUNTRY: US ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 443751.43N/0931055.39W 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	FARMINGTON	FGT	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	S	FGT	VORTAC	178.03	358.03	R	1	3000 14000	4 10
2	E	FGT	VORTAC	085.00	265.00	L	1	2800 14000	4 10
3	S	WP	WP	178.03	358.03	R	4	3000 6000	5 6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (27-000313)	442835.00N/0931107.00W	1474	2C
2	200	TOWER (27-001333)	443417.00N/0930441.00W	1360	5D
3	200	TOWER (27-000313)	442835.00N/0931107.00W	1474	2C

REASON FOR NONSTANDARD HOLDING:

PAT 2 ATC REQUEST

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED
ASSIGNED FACILITY MAGVAR: 6E (1965)

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V13					(US)
EN ROUTE	V161					(US)
EN ROUTE	V171					(US)
EN ROUTE	V26					(US)
EN ROUTE	V82					(US)
IAP	COPTER ILS OR LOC RWY 10R			KFCM	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 10R			KFCM	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 10L			KFCM	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 28L			KFCM	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 28R			KFCM	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 30		2	KLVN	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 30			KLVN	MINNEAPOLIS	MN (US)
IAP	VOR RWY 12		2	KLVN	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 12L			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 12R		1	KMSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 30R			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12L (CAT II - III)			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12L (SA CAT I)			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12R (CAT II - III)		1	KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12R (SA CAT I)		1	KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 35 (CAT II - III)			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 35 (SA CAT I)			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS V RWY 35 (CONVERGING)			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS Z OR LOC RWY 35			KMSP	MINNEAPOLIS	MN (US)
IAP	LOC RWY 17		1	KMSP	MINNEAPOLIS	MN (US)
IAP	LOC RWY 22		1	KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 22		3	KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 12R		3	KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 12R		3	KMSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 30			KOWA	OWATONNA	MN (US)
IAP	ILS OR LOC RWY 9		2	KRGK	RED WING	MN (US)
IAP	LOC RWY 34			KSGS	SOUTH ST PAUL	MN (US)
IAP	RNAV (GPS) RWY 34			KSGS	SOUTH ST PAUL	MN (US)
IAP	ILS OR LOC RWY 14			KSTP	ST PAUL	MN (US)
IAP	ILS OR LOC RWY 32			KSTP	ST PAUL	MN (US)
STAR	AGUDE			KCFE	BUFFALO	MN (US)
STAR	AGUDE			KFBL	FARIBAULT	MN (US)
STAR	AGUDE			KGYL	GLENCOE	MN (US)
STAR	AGUDE			KMGG	MAPLE LAKE	MN (US)
STAR	AGUDE			KANE	MINNEAPOLIS	MN (US)
STAR	AGUDE			KFCM	MINNEAPOLIS	MN (US)
STAR	AGUDE			KLVN	MINNEAPOLIS	MN (US)
STAR	AGUDE			KMIC	MINNEAPOLIS	MN (US)

STAR	KASPR	KMSP	MINNEAPOLIS	MN (US)
STAR	AGUDE	KSGS	SOUTH ST PAUL	MN (US)
STAR	AGUDE	21D	ST PAUL	MN (US)
STAR	AGUDE	KSTP	ST PAUL	MN (US)
STAR	AGUDE	KRNH	NEW RICHMOND	WI (US)
STAR	AGUDE	KOEO	OSCEOLA	WI (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 31

DATE OF REVISION: 03/19/2026

REASON FOR REVISION:

FIX USE: REMOVED DP ORSKY, ROCHESTER, AND SCHEP FROM KANE, KFCM, KMSP AND KSTP; REMOVED DP COULT, MEADOW LAKE, WLSTN, MINNEAPOLIS AND ZMBRO FROM KMSP.
REQUIRED CHARTING: REMOVE DP.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: DEXTER SWEETING

APPROVED BY:

DATE: 02/12/2026

OFFICE: AJV-A433

NAME: ROBERT HAMILTON

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:

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 FEET	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 TIME	LENGTH 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	445136.00N/0933551.00W	1247	4E
1	310	TOWER (27-001132)	444640.86N/0934449.86W	1450	5D

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 10R	KFCM	MINNEAPOLIS	MN (US)
1	COPTER ILS OR LOC RWY 10R	KFCM	MINNEAPOLIS	MN (US)
1	VOR RWY 10R	KFCM	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			KCFE	BUFFALO	MN (US)
IAP	COPTER ILS OR LOC RWY 10R		1	KFCM	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 10R		1	KFCM	MINNEAPOLIS	MN (US)
IAP	VOR RWY 10R		1	KFCM	MINNEAPOLIS	MN (US)
IAP	VOR/DME RWY 36		1	KFCM	MINNEAPOLIS	MN (US)
IAP	VOR RWY 12			KLVN	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 12R			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 12R (ALT MA)		1	KMSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 30L (ALT MA)			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12R (CAT II - III) (ALT MA)		1	KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12R (SA CAT I) (ALT MA)		1	KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 30L (CAT II)			KMSP	MINNEAPOLIS	MN (US)
IAP	LOC RWY 17			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 14			KSTP	ST PAUL	MN (US)
STAR	AGUDE			KCFE	BUFFALO	MN (US)
STAR	AGUDE			KFBL	FARIBAULT	MN (US)
STAR	AGUDE			KGYL	GLENCOE	MN (US)
STAR	AGUDE			KMGG	MAPLE LAKE	MN (US)
STAR	AGUDE			KANE	MINNEAPOLIS	MN (US)
STAR	AGUDE			KFCM	MINNEAPOLIS	MN (US)
STAR	AGUDE			KLVN	MINNEAPOLIS	MN (US)
STAR	AGUDE			KMIC	MINNEAPOLIS	MN (US)
STAR	KASPR			KMSP	MINNEAPOLIS	MN (US)
STAR	AGUDE			KSGS	SOUTH ST PAUL	MN (US)
STAR	AGUDE			21D	ST PAUL	MN (US)
STAR	AGUDE			KSTP	ST PAUL	MN (US)
STAR	AGUDE			KRNH	NEW RICHMOND	WI (US)
STAR	AGUDE			KOEO	OSCEOLA	WI (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 24

DATE OF REVISION: 03/19/2026

REASON FOR REVISION:

FIX USE: REMOVED DP COULT, KBREW AND ROCHESTER FROM KANE, KFCM, KMSP AND KSTP; REMOVED DP SCHEP, SMERF (RNAV) AND ZMBRO FROM KMSP; ADDED IAP ILS OR LOC RWY 12R AT KMSP.
REQUIRED CHARTING: REMOVED DP.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: DEXTER SWEETING

APPROVED BY:

DATE: 02/12/2026

OFFICE: AJV-A433

NAME: ROBERT HAMILTON

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: HALFWAY VOR/DME

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 441216.00N/0932213.80W

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	HALFWAY	FOW	VOR/DME	T						12000

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	FOW	VOR/DME	314.00	134.00	R	1	2600 6000	4 13
2	S	FOW	VOR/DME	196.89	016.89	R	1	2900 6000	4 5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (27-001169)	441243.90N/0932004.20W	1580	4D
1	310	TOWER (27-001169)	441243.90N/0932004.20W	1580	4D
2	200	TOWER (27-001422)	440246.00N/0932304.00W	1827	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
IAP	VOR-A		2	KFBL	FARIBAULT	MN (US)
IAP	COPTER ILS OR LOC RWY 33			KMKT	MANKATO	MN (US)
IAP	ILS OR LOC RWY 33			KMKT	MANKATO	MN (US)
IAP	ILS OR LOC RWY 30			KLVN	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 30		1	KOWA	OWATONNA	MN (US)
IAP	VOR RWY 12		1	KOWA	OWATONNA	MN (US)
STAR	KASPR			KMSP	MINNEAPOLIS	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 15

DATE OF REVISION: 03/19/2026

REASON FOR REVISION:

FIX USE: REMOVED DP ORSKY, ROCHESTER, SCHEP AND ZMBRO FROM KANE, KFCM, KMSP AND KSTP.
REQUIRED CHARTING: REMOVED DP.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: DEXTER SWEETING

APPROVED BY:

DATE: 02/12/2026

OFFICE: AVJ-A433

NAME: ROBERT HAMILTON

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: KASPR

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 435755.76N/0931449.35W

TYPE: WP, INT, DME

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	FARMINGTON	FGT	VORTAC	H	178.03	184.03	40.02	40.02		3000	45000
2	ROCHESTER	RST	VOR/DME	L	286.44	291.44		30.26		3000	45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
FGT	VORTAC	R-178	41	3000	17500
RST	VOR/DME	R-286	31	19300	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	S	FGT	VORTAC	178.03	358.03	R	1-1 1/2		3000	45000	6	31

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	WINDMILL (27-020988)	435527.18N/0930814.27W	1715	5D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

FARMINGTON (FAC 1) AND ROCHESTER (FAC 2) USED TO ESTABLISH FIX COORDINATES.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V13	1, 2				(US)
EN ROUTE	V24	1, 2				(US)
EN ROUTE	V398	1, 2				(US)
IAP	RNAV (GPS) RWY 17			KAEI	ALBERT LEA	MN (US)
IAP	VOR RWY 17	1, 2		KAEI	ALBERT LEA	MN (US)
IAP	VOR RWY 35	1, 2		KAEI	ALBERT LEA	MN (US)
IAP	RNAV (GPS) RWY 17			KAUM	AUSTIN	MN (US)
IAP	RNAV (GPS) RWY 30			KFBL	FARIBAULT	MN (US)
IAP	VOR-A	1, 2		KFBL	FARIBAULT	MN (US)
IAP	VOR RWY 12	1, 2		KOWA	OWATONNA	MN (US)
STAR	KASPR	1, 2	1	KMSP	MINNEAPOLIS	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 14

DATE OF REVISION: 09/10/2020

REASON FOR REVISION:

FIX USE: REMOVED KACQ IAP VOR-A - APPROACH CANCELLED.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: DEAN GRACEY

APPROVED BY:

DATE:

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY: RST APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: MASON CITY VOR/DME STATE: IA COUNTRY: US ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 430541.13N/0931947.54W 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	MASON CITY	MCW	VOR/DME	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	W	MCW	VOR/DME	278.00	098.00	L	1		3000	45000	4	29
2	S	MCW	VOR/DME	176.00	356.00	R	1		3000	6000	4	5
3	W		WP	278.00	098.00	L		10	15000	45000	16	30

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	WINDMILL (19-060134)	430321.68N/0932630.32W	1766	4D
2	200	TOWER (19-001289)	430528.00N/0932359.00W	1665	2C
3	265	TOWER (19-001056)	431005.60N/0930603.90W	1978	5D

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST
PAT 3 ATC REQUEST

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

HOLDING PAT 3 FOR ATC USE (NOT CHARTED).
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAGVAR: 6E (1965).

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	J148					(US)
EN ROUTE	J16		1			(US)
EN ROUTE	J25					(US)
EN ROUTE	J90					(US)
EN ROUTE	V120		1			(US)
EN ROUTE	V13					(US)
EN ROUTE	V158					(US)
EN ROUTE	V161					(US)
EN ROUTE	V505					(US)
IAP	RNAV (GPS) RWY 33			KFCY	FOREST CITY	IA (US)
IAP	VOR-A			KFCY	FOREST CITY	IA (US)
IAP	ILS OR LOC RWY 6			KFOD	FORT DODGE	IA (US)
IAP	VOR/DME RWY 35			KHPT	HAMPTON	IA (US)
IAP	ILS OR LOC RWY 36			KMCW	MASON CITY	IA (US)
IAP	VOR RWY 36		2	KMCW	MASON CITY	IA (US)
IAP	ILS OR LOC RWY 12			KALO	WATERLOO	IA (US)
IAP	RNAV (GPS) RWY 35			KAL	ALBERT LEA	MN (US)
IAP	VOR RWY 35			KAL	ALBERT LEA	MN (US)
IAP	ILS OR LOC RWY 35			KAUM	AUSTIN	MN (US)
IAP	RNAV (GPS) RWY 17			KAUM	AUSTIN	MN (US)
IAP	RNAV (GPS) RWY 35			KAUM	AUSTIN	MN (US)
STAR	JANESVILLE		1	KORD	CHICAGO	IL (US)
STAR	KASPR			KMSP	MINNEAPOLIS	MN (US)
STAR	TWOLF			KSTP	ST PAUL	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 28

DATE OF REVISION: 03/19/2026

REASON FOR REVISION:

FIX USE: REMOVED DP ORSKY FROM KANE, KFCM, KMSP AND KSTP.
REQUIRED CHARTING: REMOVED DP.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: DEXTER SWEETING

APPROVED BY:

DATE: 02/12/2026

OFFICE: AJV-A433

NAME: ROBERT HAMILTON

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: PEPPR

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 442253.61N/0931223.75W

TYPE: INT, DME

AIRSPACE DOCKET: 19-AGL-16

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	FARMINGTON	FGT	VORTAC	H	178.04	184.04	15.00	15.00		3000	17500
2	HALFWAY	FOW	VOR/DME	T	031.55	033.55		12.76		3000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
FOW	VOR/DME	R-032	13	13000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

FARMINGTON (FAC 1) AND HALFWAY (FAC 2) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V13	1, 2				MN (US)
IAP	VOR RWY 12			KOWA	OWATONNA	MN (US)
STAR	KASPR	1, 2		KMSP	MINNEAPOLIS	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9

DATE OF REVISION: 11/05/2020

REASON FOR REVISION:

1. FIX USE SECTION: REMOVED V411 EN ROUTE.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: MICHAEL GARRITY

APPROVED BY:

DATE:

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY: MSP APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: ROCHESTER VOR/DME

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 434658.45N/0923549.06W

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	ROCHESTER	RST	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	SW	RST	VOR/DME	205.14	025.14	R	1	3000 6000	4 5
2	NE		WP	062.00	242.00	R	4	2900 6000	5 6
3	SE	RST	VOR/DME	139.26	319.26	R	1	3000 6000	4 5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	WINDMILL (27-026327)	434254.73N/0924248.59W	1893	5D
2	200	WINDMILL (27-026327)	434254.73N/0924248.59W	1893	5D
3	200	TOWER (27-001580)	433834.00N/0923136.00W	2499	5D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

ASSIGNED FACILITY MAGVAR: 5E (1965).

PAT 3 CONTROLLING OBSTACLE LIES IN SECONDARY AREA 4205 FT FROM EDGE OF PRIMARY (PRIMARY EQUIVALENT HEIGHT 1826.01)

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
SPECIAL IAP	COPTER RNAV (GPS) 138			99MN	ROCHESTER	MN (US)
SPECIAL IAP	COPTER RNAV (GPS) 326			99MN	ROCHESTER	MN (US)
EN ROUTE	V161					(US)
EN ROUTE	V170					(US)
EN ROUTE	V24					(US)
EN ROUTE	V398					(US)
EN ROUTE	V503					(US)
EN ROUTE	V67					(US)
EN ROUTE	V82					(US)
IAP	ILS OR LOC RWY 35		1	KAUM	AUSTIN	MN (US)
IAP	RNAV (GPS) RWY 17			KAUM	AUSTIN	MN (US)
IAP	RNAV (GPS) RWY 35			KAUM	AUSTIN	MN (US)
IAP	VOR RWY 17			KAUM	AUSTIN	MN (US)
IAP	RNAV (GPS) RWY 16			KTOB	DODGE CENTER	MN (US)
IAP	RNAV (GPS) RWY 34			KTOB	DODGE CENTER	MN (US)
IAP	VOR -A		3	KTOB	DODGE CENTER	MN (US)
IAP	ILS OR LOC RWY 30			KOWA	OWATONNA	MN (US)
IAP	RNAV (GPS) RWY 30			KOWA	OWATONNA	MN (US)
IAP	COPTER ILS Y OR LOC Y RWY 31		1	KRST	ROCHESTER	MN (US)
IAP	ILS OR LOC RWY 13		1	KRST	ROCHESTER	MN (US)
IAP	ILS Z OR LOC Z RWY 31		1	KRST	ROCHESTER	MN (US)
IAP	ILS Z RWY 31 (SA CAT I/CAT II)		1	KRST	ROCHESTER	MN (US)
IAP	RADAR-1		1	KRST	ROCHESTER	MN (US)
IAP	RNAV (GPS) RWY 21		2	KRST	ROCHESTER	MN (US)
IAP	RNAV (GPS) RWY 13		2	KRST	ROCHESTER	MN (US)
IAP	ILS Y OR LOC Y RWY 30			KONA	WINONA	MN (US)
STAR	JANESVILLE			KORD	CHICAGO	IL (US)
STAR	KASPR			KMSP	MINNEAPOLIS	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 29

DATE OF REVISION: 03/19/2026

REASON FOR REVISION:

FIX USE: REMOVED DP ROCHESTER AND ZMBRO FROM KANE, KFCM, KMSP AND KSTP.

REQUIRED CHARTING: REMOVED DP.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: DEXTER SWEETING

APPROVED BY:

DATE: 02/12/2026

OFFICE: AJV-A433

NAME: ROBERT HAMILTON

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: SLIKK

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 444754.10N/0931712.48W

TYPE: INT, DME

AIRSPACE DOCKET: 21-ACE-4

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	FARMINGTON	FGT	VORTAC	H	329.99	335.99	11.00	11.00		3000	17500
2	FLYING CLOUD	FCM	VOR/DME	L	102.61	103.61		6.85		3000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	KASPR	1, 2		KMSP	MINNEAPOLIS	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 11/03/2022

REASON FOR REVISION:

AIRSPACE DOCKET: ADDED 21-ACE-4.
FIX USE: DELETED TWOLF STAR.
REQUIRED CHARTING CHANGED FROM CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: LEE STUCKEY

APPROVED BY:

DATE: 11/03/2022

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: ZIBBY

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 440655.95N/0931357.05W

TYPE: WP, DME

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	MRA	MAA
1	FARMINGTON	FGT	VORTAC	H	178.03	184.03	31.00	31.00	3000	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	S	FGT	VORTAC	178.03	358.03	R	1-1 1/2	3000 17500	6 18

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (27-000352)	440519.00N/0930826.00W	1641	5D

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	V13	1				(US)
STAR	KASPR	1	1	KMSP	MINNEAPOLIS	MN (US)

REQUIRED CHARTING: STAR, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 01/05/2017

REASON FOR REVISION:

UPDATED FIX USE; REMOVED KMSP RNAV (GPS) Z RWY 35.
REMOVED 'IAP' FROM REQUIRED CHARTING.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

DEVELOPED BY:

DATE: 09/08/2016

OFFICE: AJV-5422

NAME: JULIE MORGAN (LUCAS MCCLOUD)

APPROVED BY:

DATE: 11/22/2016

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY: MSP APP CON, MSP TOWER
OTHER: