

RADIO FIX AND HOLDING DATA RECORD

NAME: BADGER VOR/DME STATE: WI COUNTRY: US ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 430700.67N/0881703.64W TYPE:

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	BADGER	BAE	VOR/DME	H						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	BAE	VOR/DME	270.00	090.00	R	1	2800 17500	4 16
2	NW	BAE	VOR/DME	333.00	153.00	R	1	2800 17500	4 16
3	NE	BAE	VOR/DME	066.74	246.74	R	1	2700 8000	4 6
4	W	WP	WP	270.00	090.00	R	4	2800 6000	5 6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	430154.00N/0882339.00W	1428	4B
1	310	TOWER (55-001851)	430141.53N/0882332.34W	1630	4D
2	200	AAO	431439.00N/0881939.00W	1513	4E
3	200	TOWER (55-000551)	430922.00N/0880907.00W	1349	5D
4	200	TOWER (55-001851)	430141.53N/0882332.34W	1630	4D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS OR LOC RWY 10	KUES	WAUKESHA	WI (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
MAG VAR: E02/1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CICERO			KMDW	CHICAGO	IL (US)
DP	MIDWAY			KMDW	CHICAGO	IL (US)
DP	O'HARE			KORD	CHICAGO	IL (US)
DP	PAL-WAUKEE			KPWK	CHICAGO/PROSPECT HEIGHTS/WHEELING	IL (US)
DP	MITCHELL			KMKE	MILWAUKEE	WI (US)
EN ROUTE	J101					(US)
EN ROUTE	J16					(US)
EN ROUTE	J34					(US)
EN ROUTE	J36					(US)
EN ROUTE	J538					(US)
EN ROUTE	J68					(US)
EN ROUTE	J70					(US)
EN ROUTE	J89					(US)
EN ROUTE	V170					(US)
EN ROUTE	V191					(US)
EN ROUTE	V217					(US)
EN ROUTE	V30					(US)
EN ROUTE	V63					(US)
IAP	VOR-A			KBUU	BURLINGTON	WI (US)
IAP	VOR/DME-A			57C	EAST TROY	WI (US)
IAP	LOC RWY 36			KFLD	FOND DU LAC	WI (US)
IAP	VOR-A		3	61C	FORT ATKINSON	WI (US)
IAP	RNAV (GPS) RWY 20			KUNU	JUNEAU	WI (US)
IAP	RNAV (GPS) RWY 23			C02	LAKE GENEVA	WI (US)
IAP	ILS OR LOC RWY 18			KMSN	MADISON	WI (US)
IAP	ILS OR LOC/DME RWY 36			KMSN	MADISON	WI (US)
IAP	ILS RWY 18 (SA CAT I-II)			KMSN	MADISON	WI (US)
IAP	ILS RWY 36 (CAT II-III)			KMSN	MADISON	WI (US)
IAP	ILS RWY 36 (SA CAT I)			KMSN	MADISON	WI (US)
IAP	ILS OR LOC RWY 19R		1	KMKE	MILWAUKEE	WI (US)
IAP	ILS OR LOC RWY 1L		1	KMKE	MILWAUKEE	WI (US)
IAP	ILS OR LOC RWY 7R		1	KMKE	MILWAUKEE	WI (US)
IAP	ILS RWY 1L (CAT II-III)		1	KMKE	MILWAUKEE	WI (US)
IAP	LOC RWY 25L		1	KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 13			KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 19L		4	KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 19R		4	KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 1L		4	KMKE	MILWAUKEE	WI (US)

IAP	RNAV (GPS) RWY 1R		KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 7L		KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) Z RWY 25L	4	KMKE	MILWAUKEE	WI (US)
IAP	RNAV (GPS) Z RWY 7R	4	KMKE	MILWAUKEE	WI (US)
IAP	LOC RWY 15L	1	KMWC	MILWAUKEE	WI (US)
IAP	RNAV (GPS) RWY 4L		KMWC	MILWAUKEE	WI (US)
IAP	ILS OR LOC RWY 4		KRAC	RACINE	WI (US)
IAP	NDB RWY 23		KRYV	WATERTOWN	WI (US)
IAP	NDB RWY 5		KRYV	WATERTOWN	WI (US)
IAP	RNAV (GPS) RWY 23		KRYV	WATERTOWN	WI (US)
IAP	RNAV (GPS) RWY 29		KRYV	WATERTOWN	WI (US)
IAP	ILS OR LOC RWY 10	1	KUES	WAUKESHA	WI (US)
IAP	VOR -A	2	KUES	WAUKESHA	WI (US)
IAP	RNAV (GPS) RWY 13		KETB	WEST BEND	WI (US)
IAP	RNAV (GPS) RWY 31		KETB	WEST BEND	WI (US)
IAP	RNAV (GPS) RWY 6		KETB	WEST BEND	WI (US)
IAP	VOR RWY 13		KETB	WEST BEND	WI (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	EAU CLAIRE		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: DP, STAR, IAP, AREA, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 38

DATE OF REVISION: 02/20/2025

REASON FOR REVISION:

1. CONTROLLING OBSTRUCTIONS: 1. CHANGED COORDINATES 430154.00N/0882339.00W. ELEVATION 1428. ACCURACY CODE 4B.
2. CONTROLLING OBSTRUCTIONS: 1. ADDED OBSTRUCTION 310 AIRSPEED. TOWER (55-001851) 430141.53N/0882332.34W. ELEVATION 1630. ACCURACY CODE 4D.
2. PROCEDURES REQUIRING CLIMB-IN-HOLD: ILS OR LOC RWY 10, KUES, WAUKESHA, WI.
3. FIX USE: KUES ILS OR LOC RWY 10 ADDED PATTERN 1.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A421

NAME: CHRISTOPHER MENDENHALL

APPROVED BY:

DATE: 01/16/2025

OFFICE: AJV-A420

NAME: CASIMIR TABAKA

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: BEERI

STATE: WI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 434609.00N/0892450.22W

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	FEET	MRA	MAA
1	BADGER	BAE	VOR/DME	H	306.79	308.79	63.00	63.00		18000	45000

HOLDING:

HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	SE	BAE	VOR/DME	126.79	306.79	R	1 1/2		18000	45000	18	31
2	SE		WP	128.78	308.78	R		10	10000	45000	15	30

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	265	TOWER (55-001013)	440112.82N/0893331.28W	1620	5D
2	230	WINDMILL (55-020786)	433615.50N/0890730.70W	1435	5D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

PAT 2: MIN TEMPLATE 15 USED TO ACCOMMODATE 10NM LEGS REQUESTED BY ATC.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	AGUDE	1	1	KCFE	BUFFALO	MN (US)
STAR	AGUDE	1	1	KFBL	FARIBAULT	MN (US)
STAR	AGUDE	1	1	KGYL	GLENCOE	MN (US)
STAR	AGUDE	1	1	KMGG	MAPLE LAKE	MN (US)
STAR	AGUDE	1	1	KANE	MINNEAPOLIS	MN (US)
STAR	AGUDE	1	1	KFCM	MINNEAPOLIS	MN (US)
STAR	AGUDE	1	1	KLVN	MINNEAPOLIS	MN (US)
STAR	AGUDE	1	1	KMIC	MINNEAPOLIS	MN (US)
STAR	KKILR (RNAV)		2	KMSP	MINNEAPOLIS	MN (US)
STAR	AGUDE	1	1	KSGS	SOUTH ST PAUL	MN (US)
STAR	AGUDE	1	1	21D	ST PAUL	MN (US)
STAR	AGUDE	1	1	KSTP	ST PAUL	MN (US)
STAR	AGUDE	1	1	KRNH	NEW RICHMOND	WI (US)
STAR	AGUDE	1	1	KOEO	OSCEOLA	WI (US)

REQUIRED CHARTING: STAR, EN ROUTE HIGH, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7

DATE OF REVISION: 08/07/2025

REASON FOR REVISION:

1. REMOVED FIX USE: KMSP WILDD STAR AND EAU CLAIRE STAR.
2. UPDATED REQUIRED CHARTING: FROM CONTROLLER TO CONTROLLER HIGH.
3. ADDED HOLDING PATTERN 1 CONTROLLING OBSTRUCTION.
4. UPDATED HOLDING PATTERN 2 CONTROLLING OBSTRUCTION FROM 1475 WINDMILL (55-020959) TO 1435 WINDMILL (55-020786).

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: BARBARA GORMAN

APPROVED BY:

DATE: 07/03/2025

OFFICE: AJV-A430

NAME: CASIMIR TABAKA

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: EAU CLAIRE VORTAC STATE: WI COUNTRY: US ICAO REGION CODE: K5
 LATITUDE/LONGITUDE: 445351.61N/0912842.73W TYPE:

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	EAU CLAIRE	EAU	VORTAC	VL						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	N	EAU	VORTAC	004.17	184.17	R	1	2900 6000	4 13
2	SE	EAU	VORTAC	122.57	302.57	R	1	9000 35000	9 25
3	E	EAU	VORTAC	084.71	264.71	R	1	2800 4000	4 4
4	N	EAU	VORTAC	360.00	180.00	R	1	4000 6000	4 5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (55-001044)	450100.00N/0913347.00W	1580	5E
1	310	TOWER (55-000138)	444800.00N/0912757.00W	1850	1D
2	230	TOWER (55-000138)	444800.00N/0912757.00W	1850	1D
3	200	TOWER (55-001021)	445107.01N/0912230.76W	1641	1A
4	200	TOWER (55-001044)	450100.00N/0913347.00W	1580	5E

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 HOLDING PAT 2: STAR MEA FL180, MIN HOLDING ALTITUDE 9000 PER AIR TRAFFIC REQUEST.
 ASSIGNED MAGNETIC VARIATION: 4E.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	COULT			KANE	MINNEAPOLIS	MN (US)
DP	COULT			KFCM	MINNEAPOLIS	MN (US)
DP	COULT			KMSP	MINNEAPOLIS	MN (US)
DP	COULT			KSTP	ST PAUL	MN (US)
EN ROUTE	V129					(US)
EN ROUTE	V26					(US)
EN ROUTE	V345					(US)
EN ROUTE	V413					(US)
EN ROUTE	V78					(US)
IAP	RNAV (GPS) RWY 26			3T3	BOYCEVILLE	WI (US)
IAP	RNAV (GPS) RWY 35			Y23	CHETEK	WI (US)
IAP	ILS OR LOC RWY 22			KEAU	EAU CLAIRE	WI (US)
IAP	LOC BC RWY 4		1	KEAU	EAU CLAIRE	WI (US)
IAP	RNAV (GPS) RWY 22			KEAU	EAU CLAIRE	WI (US)
IAP	VOR -A		1	KEAU	EAU CLAIRE	WI (US)
IAP	ILS OR LOC RWY 18			KLSE	LA CROSSE	WI (US)
IAP	VOR/DME RWY 27		3	KLUM	MENOMONIE	WI (US)
IAP	ILS OR LOC RWY 1		4	KRPD	RICE LAKE	WI (US)
IAP	RNAV (GPS) RWY 1			KRPD	RICE LAKE	WI (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	EAU CLAIRE		2	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: DP, STAR, IAP, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 28

DATE OF REVISION: 06/12/2025

REASON FOR REVISION:

1. REMOVED PAT 1 FROM ILS OR LOC RWY 22 - ALTERNATE MISSED REMOVED FROM PROCEDURE.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: DEVON KERCHER

APPROVED BY:

DATE: 05/08/2025

OFFICE: AJV-A431

NAME: ERIC N SUSKI

SIGNATURE:

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	178.03	358.03	R		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
DP	ORSKY			KANE	MINNEAPOLIS	MN (US)
DP	ROCHESTER			KANE	MINNEAPOLIS	MN (US)
DP	SCHEP			KANE	MINNEAPOLIS	MN (US)
DP	ORSKY			KFCM	MINNEAPOLIS	MN (US)
DP	ROCHESTER			KFCM	MINNEAPOLIS	MN (US)
DP	SCHEP			KFCM	MINNEAPOLIS	MN (US)
DP	COULT			KMSP	MINNEAPOLIS	MN (US)
DP	MEADOW LAKE			KMSP	MINNEAPOLIS	MN (US)
DP	MINNEAPOLIS			KMSP	MINNEAPOLIS	MN (US)
DP	ORSKY			KMSP	MINNEAPOLIS	MN (US)
DP	ROCHESTER			KMSP	MINNEAPOLIS	MN (US)
DP	SCHEP			KMSP	MINNEAPOLIS	MN (US)
DP	WLSTN			KMSP	MINNEAPOLIS	MN (US)
DP	ZMBRO			KMSP	MINNEAPOLIS	MN (US)
DP	ORSKY			KSTP	ST PAUL	MN (US)
DP	ROCHESTER			KSTP	ST PAUL	MN (US)
DP	SCHEP			KSTP	ST PAUL	MN (US)
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: DP, STAR, IAP, AREA, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 30

DATE OF REVISION: 05/16/2024

REASON FOR REVISION:

FIX USE: REMOVED DP DARWIN AND KBREW AT KMSP

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: DEXTER SWEETING

APPROVED BY:

DATE: 05/16/2024

OFFICE: AJV-A430

NAME: ERIC N SUSKI

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	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 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	VOR RWY 10R	KFCM	MINNEAPOLIS	MN (US)
1	COPTER ILS OR LOC 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
DP	COULT			KANE	MINNEAPOLIS	MN (US)
DP	KBREW			KANE	MINNEAPOLIS	MN (US)
DP	ROCHESTER			KANE	MINNEAPOLIS	MN (US)
DP	COULT			KFCM	MINNEAPOLIS	MN (US)
DP	KBREW			KFCM	MINNEAPOLIS	MN (US)
DP	ROCHESTER			KFCM	MINNEAPOLIS	MN (US)
DP	COULT			KMSP	MINNEAPOLIS	MN (US)
DP	KBREW			KMSP	MINNEAPOLIS	MN (US)
DP	ROCHESTER			KMSP	MINNEAPOLIS	MN (US)
DP	SCHP			KMSP	MINNEAPOLIS	MN (US)
DP	SMERF (RNAV)			KMSP	MINNEAPOLIS	MN (US)
DP	ZMBRO			KMSP	MINNEAPOLIS	MN (US)
DP	COULT			KSTP	ST PAUL	MN (US)
DP	KBREW			KSTP	ST PAUL	MN (US)
DP	ROCHESTER			KSTP	ST PAUL	MN (US)
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 (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: DP, STAR, IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 23

DATE OF REVISION: 05/16/2024

REASON FOR REVISION:

FIX USE: REMOVED DP DARWIN AT KANE, KFCM, KMSP, KSTP.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: DEXTER SWEETING

APPROVED BY:

DATE: 05/16/2024

OFFICE: AJV-A430

NAME: ERIC N SUSKI

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.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
2	ILS OR LOC RWY 27	KANE	MINNEAPOLIS	MN (US)
4	RNAV (GPS) RWY 14	KMIC	MINNEAPOLIS	MN (US)
5	RNAV (GPS) RWY 27	KANE	MINNEAPOLIS	MN (US)

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	COULT			KANE	MINNEAPOLIS	MN (US)
DP	KBREW			KANE	MINNEAPOLIS	MN (US)
DP	WLSTN			KANE	MINNEAPOLIS	MN (US)
DP	COULT			KFCM	MINNEAPOLIS	MN (US)
DP	KBREW			KFCM	MINNEAPOLIS	MN (US)
DP	WLSTN			KFCM	MINNEAPOLIS	MN (US)
DP	COULT			KMSP	MINNEAPOLIS	MN (US)
DP	KBREW			KMSP	MINNEAPOLIS	MN (US)
DP	LEINY (RNAV)			KMSP	MINNEAPOLIS	MN (US)
DP	WLSTN			KMSP	MINNEAPOLIS	MN (US)
DP	COULT			KSTP	ST PAUL	MN (US)
DP	KBREW			KSTP	ST PAUL	MN (US)
DP	WLSTN			KSTP	ST PAUL	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		KCFE	BUFFALO	MN (US)
IAP	RNAV (GPS) RWY 34		KCBG	CAMBRIDGE	MN (US)
IAP	ILS OR LOC RWY 27	2	KANE	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 18		KANE	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 27	5	KANE	MINNEAPOLIS	MN (US)
IAP	VOR RWY 9	2	KANE	MINNEAPOLIS	MN (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 10R		KFCM	MINNEAPOLIS	MN (US)
IAP	VOR RWY 10R		KFCM	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 30		KLVN	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 14	4	KMIC	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 OR LOC RWY 12L (ALT MA)		KMSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 30L		KMSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 30R	1	KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12L (CAT II) (ALT MA)		KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12L (CAT III) (ALT MA)		KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 12L (SA CAT I) (ALT MA)		KMSP	MINNEAPOLIS	MN (US)
IAP	ILS RWY 30L (CAT II)		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		KMSP	MINNEAPOLIS	MN (US)
IAP	LOC RWY 22		KMSP	MINNEAPOLIS	MN (US)
IAP	LOC RWY 4	1	KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 4	3	KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 30R	3	KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 35	3	KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 30R	3	KMSP	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 9		KRGK	RED WING	MN (US)
IAP	LOC RWY 34		KSGS	SOUTH ST PAUL	MN (US)
IAP	ILS OR LOC RWY 31		KSTC	ST CLOUD	MN (US)
IAP	VOR RWY 31		KSTC	ST CLOUD	MN (US)
IAP	ILS OR LOC RWY 14		KSTP	ST PAUL	MN (US)
IAP	ILS OR LOC RWY 32		KSTP	ST PAUL	MN (US)
IAP	RNAV (GPS) 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	ENCEE (RNAV)		KANE	MINNEAPOLIS	MN (US)
STAR	GOPHER		KANE	MINNEAPOLIS	MN (US)
STAR	TWOLF		KANE	MINNEAPOLIS	MN (US)
STAR	AGUDE		KFCM	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)		KFCM	MINNEAPOLIS	MN (US)
STAR	GOPHER		KFCM	MINNEAPOLIS	MN (US)
STAR	TWOLF		KFCM	MINNEAPOLIS	MN (US)
STAR	AGUDE		KLVN	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)		KLVN	MINNEAPOLIS	MN (US)
STAR	GOPHER		KLVN	MINNEAPOLIS	MN (US)
STAR	TWOLF		KLVN	MINNEAPOLIS	MN (US)
STAR	AGUDE		KMIC	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)		KMIC	MINNEAPOLIS	MN (US)
STAR	GOPHER		KMIC	MINNEAPOLIS	MN (US)
STAR	TWOLF		KMIC	MINNEAPOLIS	MN (US)
STAR	BAINY (RNAV)		KMSP	MINNEAPOLIS	MN (US)
STAR	EAU CLAIRE		KMSP	MINNEAPOLIS	MN (US)
STAR	GOPHER		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	ENCEE (RNAV)		KSTP	ST PAUL	MN (US)
STAR	GOPHER		KSTP	ST PAUL	MN (US)
STAR	TWOLF		KSTP	ST PAUL	MN (US)
STAR	AGUDE		KRNH	NEW RICHMOND	WI (US)
STAR	TWOLF		KRNH	NEW RICHMOND	WI (US)
STAR	AGUDE		KOEO	OSCEOLA	WI (US)
STAR	TWOLF		KOEO	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: 33

DATE OF REVISION: 12/26/2024

REASON FOR REVISION:
FIX USE: REMOVED DP DES MOINES AT KDSM.

INITIATED BY:	DATE:	ORGANIZATION:	NAME:
OFFICE OF PRIMARY RESPONSIBILITY:		AJV-A431	NAME: RICHARD CHRISTENSEN
APPROVED BY:	DATE: 12/26/2024	OFFICE: AJV-A431	NAME: ERIC N SUSKI
	SIGNATURE:		

RADIO FIX AND HOLDING DATA RECORD

NAME: ROBBY

STATE: WI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 440432.81N/0895737.61W

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	FEET	MRA	MAA
1	BADGER	BAE	VOR/DME	H	306.79	308.79	93.00	93.00		18000	45000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	AGUDE	1		KCFE	BUFFALO	MN (US)
STAR	AGUDE	1		KFBL	FARIBAULT	MN (US)
STAR	AGUDE	1		KGYL	GLENCOE	MN (US)
STAR	AGUDE	1		KMGG	MAPLE LAKE	MN (US)
STAR	AGUDE	1		KANE	MINNEAPOLIS	MN (US)
STAR	AGUDE	1		KFCM	MINNEAPOLIS	MN (US)
STAR	AGUDE	1		KLVN	MINNEAPOLIS	MN (US)
STAR	AGUDE	1		KMIC	MINNEAPOLIS	MN (US)
STAR	KKILR (RNAV)			KMSP	MINNEAPOLIS	MN (US)
STAR	AGUDE	1		KSGS	SOUTH ST PAUL	MN (US)
STAR	AGUDE	1		21D	ST PAUL	MN (US)
STAR	AGUDE	1		KSTP	ST PAUL	MN (US)
STAR	AGUDE	1		KRNH	NEW RICHMOND	WI (US)
STAR	AGUDE	1		KOEO	OSCEOLA	WI (US)

REQUIRED CHARTING: STAR, EN ROUTE HIGH, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7

DATE OF REVISION: 08/07/2025

REASON FOR REVISION:

1. REMOVED FIX USE: KMSP WILDD STAR AND EAU CLAIRE STAR.
2. UPDATED REQUIRED CHARTING: FROM CONTROLLER TO CONTROLLER HIGH.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: BARBARA GORMAN

APPROVED BY:

DATE: 07/03/2025

OFFICE: AJV-A430

NAME: CASIMIR TABAKA

SIGNATURE: