

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
UPN	200	AAO	444343.00N/0931722.60W	1399	2C
1	200	AAO	445136.00N/0933551.00W	1247	4E
1	310	TOWER (27-001132)	444641.00N/0934450.00W	1459	5D

HOLDING RESTRICTIONS:

UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 4000.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	COPTER ILS OR LOC RWY 10R	KFCM	MINNEAPOLIS	MN (US)
1	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: 1E 2010.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	COULT			KANE	MINNEAPOLIS	MN (US)
DP	DARWIN			KANE	MINNEAPOLIS	MN (US)
DP	KBREW			KANE	MINNEAPOLIS	MN (US)
DP	ROCHESTER			KANE	MINNEAPOLIS	MN (US)
DP	COULT			KFCM	MINNEAPOLIS	MN (US)
DP	DARWIN			KFCM	MINNEAPOLIS	MN (US)
DP	KBREW			KFCM	MINNEAPOLIS	MN (US)
DP	ROCHESTER			KFCM	MINNEAPOLIS	MN (US)
DP	COULT			KMSP	MINNEAPOLIS	MN (US)
DP	DARWIN			KMSP	MINNEAPOLIS	MN (US)
DP	KBREW			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	SMERF (RNAV)			KMSP	MINNEAPOLIS	MN (US)
DP	ZMBRO			KMSP	MINNEAPOLIS	MN (US)
DP	COULT			KSTP	ST PAUL	MN (US)
DP	DARWIN			KSTP	ST PAUL	MN (US)
DP	KBREW			KSTP	ST PAUL	MN (US)
DP	ROCHESTER			KSTP	ST PAUL	MN (US)
EN ROUTE	V412					(US)
EN ROUTE	V456					(US)
IAP	VOR-A			KCFE	BUFFALO	MN (US)
IAP	NDB RWY 31			KGYL	GLENCOE	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	RNAV (GPS) RWY 12			KLVN	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 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 Z OR LOC RWY 30L (ALT MA)			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS Z RWY 30L (CAT II)			KMSP	MINNEAPOLIS	MN (US)
IAP	LOC RWY 17			KMSP	MINNEAPOLIS	MN (US)
IAP	LOC RWY 22		1	KMSP	MINNEAPOLIS	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	TWOLF	KANE	MINNEAPOLIS	MN (US)
STAR	AGUDE	KFCM	MINNEAPOLIS	MN (US)
STAR	TWOLF	KFCM	MINNEAPOLIS	MN (US)
STAR	AGUDE	KLVN	MINNEAPOLIS	MN (US)
STAR	TWOLF	KLVN	MINNEAPOLIS	MN (US)
STAR	AGUDE	KMIC	MINNEAPOLIS	MN (US)
STAR	TWOLF	KMIC	MINNEAPOLIS	MN (US)
STAR	KASPR	KMSP	MINNEAPOLIS	MN (US)
STAR	TWOLF	KMSP	MINNEAPOLIS	MN (US)
STAR	WILDD	KMSP	MINNEAPOLIS	MN (US)
STAR	AGUDE	KSGS	SOUTH ST PAUL	MN (US)
STAR	AGUDE	K21D	ST PAUL	MN (US)
STAR	AGUDE	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, IAP, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 14

DATE OF REVISION: 01/05/2017

REASON FOR REVISION:

DELETED FIX USE, KMSP: ILS Z RWY 35 (SA CAT I/II/III), ILS Z OR LOC RWY 35, ILS V RWY 35 (CONVERGING).

ADDED FIX USE, KMSP: ILS Z RWY 30L (CAT II)

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
 OTHER:

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:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA FEET	MAA
1	GOPHER	GEP	VORTAC	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	NW	GEP	VORTAC	297.00	117.00	L	1		3000	14000	4	10
2	N	GEP	VORTAC	346.00	166.00	L	1		2600	14000	4	10
3	W	GEP	VORTAC	264.00	084.00	R	1		2700	14000	4	10
4	NW		WP	297.00	117.00	L		4	3000	14000	5	11
5	N		WP	346.00	166.00	L		4	2700	14000	5	11
6	W		WP	265.00	085.00	R		4	2700	14000	5	11

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
3	200	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
4	200	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
4	265	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
5	200	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D
6	200	TOWER (27-000032)	451043.00N/0932100.00W	1530	4D

REASON FOR NONSTANDARD HOLDING:

PAT 4 ATC REQUEST
PAT 5 ATC REQUEST
PAT 1 ATC REQUEST
PAT 2 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.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DES MOINES			KDSM	DES MOINES	IA (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)
DP	BLUFS			KOMA	OMAHA	NE (US)
EN ROUTE	J106					(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	J70					(US)
EN ROUTE	Q501					(US)
EN ROUTE	Q502					(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	NDB RWY 34	KCBG	CAMBRIDGE	MN (US)
IAP	RNAV (GPS) RWY 34	KCBG	CAMBRIDGE	MN (US)
IAP	RNAV (GPS) RWY 28	KMGG	MAPLE LAKE	MN (US)
IAP	VOR-A	KMGG	MAPLE LAKE	MN (US)
IAP	ILS OR LOC RWY 27	KANE	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 18	KANE	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 27	6 KANE	MINNEAPOLIS	MN (US)
IAP	VOR RWY 9	3 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 14L	5 KMIC	MINNEAPOLIS	MN (US)
IAP	VOR OR GPS-A	2 KMIC	MINNEAPOLIS	MN (US)
IAP	ILS OR LOC RWY 12L (ALT MA)	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 Z OR LOC RWY 35	KMSP	MINNEAPOLIS	MN (US)
IAP	ILS Z RWY 35 (CAT II/III)	KMSP	MINNEAPOLIS	MN (US)
IAP	ILS Z RWY 35 (SA CAT I)	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	4 KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 30R	4 KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 35	4 KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 30R	4 KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 35	4 KMSP	MINNEAPOLIS	MN (US)
IAP	NDB RWY 15	KPNM	PRINCETON	MN (US)
IAP	ILS OR LOC RWY 9	KRGK	RED WING	MN (US)
IAP	RNAV (GPS) RWY 34	KROS	RUSH CITY	MN (US)
IAP	LOC RWY 34	KSGS	SOUTH ST PAUL	MN (US)
IAP	NDB-B	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	NDB RWY 4	K21D	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)
IAP	NDB RWY 31	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	TWOLF	KMSP	MINNEAPOLIS	MN (US)
STAR	WILDD	KMSP	MINNEAPOLIS	MN (US)
STAR	AGUDE	KSGS	SOUTH ST PAUL	MN (US)
STAR	AGUDE	K21D	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, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 21

DATE OF REVISION: 06/22/2017

REASON FOR REVISION:

1. UPDATED FIX USE.

DEVELOPED BY:

DATE: 03/21/2017

OFFICE: AJV-5411

NAME: ROBERT COOK

APPROVED BY:

DATE:

OFFICE: AJV-5410

NAME: GEORGE DAVIS

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZMP

ATC FACILITY: MSP APP CON, MSP ATCT

OTHER: