

RADIO FIX AND HOLDING DATA RECORD

NAME: DRAIL

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 444929.16N/0935526.19W

TYPE: WP, DME

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	FAC FEET	MRA	MAA
1	REDWOOD FALLS	RWF	VOR/DME	H	060.00	067.00	55.87	55.87		4000	17500
2	FLYING CLOUD	FCM	VOR/DME	L	269.07	270.07	20.55	20.55		2800	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
RWF	VOR/DME	R-060	56	4000	15600

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

FLYING CLOUD (FAC 2) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V412	1, 2				(US)
IAP	RNAV (GPS) RWY 36			KCFE	BUFFALO	MN (US)
IAP	RNAV (GPS) RWY 10L			KFCM	MINNEAPOLIS	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5

DATE OF REVISION: 12/02/2021

REASON FOR REVISION:

FIX MAKE-UP FACILITIES: CHANGED FAC 1 (RWF) MRA FROM 2800 TO 4000.
ESV: CHANGED RWF VOR/DME MIN/MAX ALTITUDE FROM 2800/14500 TO 4000/15600.
REQUIRED CHARTING: CHANGED CONTROLLER TO CONTROLLER LOW.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: BARRY SMITH

APPROVED BY:

DATE: 06/28/2021

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: HUBEV

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 445807.73N/0935048.70W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

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 MIN	ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	S		WP	179.78	359.78	R	4	3000	6000	5 6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (27-001784)	445625.00N/0935544.00W	1310	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
IAP	RNAV (GPS) RWY 36		1	KCFE	BUFFALO	MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 06/22/2017

REASON FOR REVISION:

UPDATED HOLDING PAT 1 OBSTACLE ELEVATION FROM 1649 TO 1310 AND ACCURACY CODE FROM 4D TO 5D.
UPDATED HOLDING PAT 1 RAD AND CRS INBOUND FROM 179.96 AND 359.76 TO 179.78 AND 359.78.

INITIATED BY:	DATE:	ORGANIZATION:	NAME:
DEVELOPED BY:	DATE: 02/02/2017	OFFICE: AJV-5433	NAME: BEV L BORDY (CHRISTINE BAYSE)
APPROVED BY:	DATE:	OFFICE: AJV-5430	NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: JONNA

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 444915.61N/0934215.16W

TYPE: WP

AIRSPACE DOCKET: 23-AGL-18

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE
IAP
IAP

USE TITLE
RNAV (GPS) RWY 36
RNAV (GPS) RWY 9

FAC

PAT

AIRPORT IDENT
KCFE
KANE

CITY
BUFFALO
MINNEAPOLIS

STATE
MN (US)
MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5

DATE OF REVISION: 05/16/2024

REASON FOR REVISION:

TYPE: REMOVED "INT" AND "DME"

AIRSPACE DOCKET: ADDED 23-AGL-18

FIX MAKE-UP FACILITIES: REMOVED FARMINGTON (FAC 1) VORTAC, GOPHER (FAC 2) VORTAC AND DARWIN (FAC 3) VORTAC

REMARKS: REMOVED "FARMINGTON (FAC 1) AND GOPHER (FAC 2) USED TO ESTABLISH FIX COORDINATES."

FIX USE: REMOVED V171

REQUIRED CHARTING: CHANGED "CONTROLLER" TO "CONTROLLER LOW"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: GALE SHELTON

APPROVED BY:

DATE: 05/16/2024

OFFICE: AJV-A423

NAME: ALLAN WILL

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: MAYER

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 445504.77N/0935829.08W

TYPE: WP, DME

AIRSPACE DOCKET: 23-AGL-18

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	GOPHER	GEP	VORTAC	H	236.12	242.12	29.01	29.01		2900	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V148	1				(US)
IAP	RNAV (GPS) RWY 36			KCFE	BUFFALO	MN (US)
IAP	RNAV (GPS) RWY 13			KGYL	GLENCOE	MN (US)
IAP	RNAV (GPS) RWY 31			KLJF	LITCHFIELD	MN (US)
IAP	RNAV (GPS) RWY 10L			KFCM	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) RWY 10R			KFCM	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)			KANE	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)			KFCM	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)			KLVN	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)			KMIC	MINNEAPOLIS	MN (US)
STAR	ENCEE (RNAV)			KSTP	ST PAUL	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8

DATE OF REVISION: 05/16/2024

REASON FOR REVISION:

TYPE: REMOVED INT

AIRSPACE DOCKET: ADDED 23-AGL-18

FIX MAKE-UP FACILITIES: REMOVED FAC 2 DARWIN (DWN) VORTAC

REMARKS: REMOVED GOPHER (FAC 1) AND DARWIN (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE: REMOVED V171, REMOVED FAC 2 DARWIN (DWN) VORTAC FROM V148

REQUIRED CHARTING: CHANGED "CONTROLLER" TO "CONTROLLER LOW"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: GALE SHELTON

APPROVED BY:

DATE: 05/16/2024

OFFICE: AJV-A423

NAME: ALLAN WILL

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: SODIE

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 452207.48N/0935217.11W

TYPE: WP, DME

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	MAA
1	GOPHER	GEP	VORTAC	H	296.55	302.55	25.00	25.00	3400	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	NW		WP	297.00	117.00	R	4	3400 6000	5 6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	STACK (27-000477)	452245.00N/0935345.00W	1620	1C

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	V2	1				(US)
IAP	RNAV (GPS) RWY 36		1	KCFE	BUFFALO	MN (US)
IAP	RNAV (GPS) RWY 9			KANE	MINNEAPOLIS	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 05/16/2024

REASON FOR REVISION:

TYPE: REMOVED INT

FIX MAKE-UP FACILITIES: (FAC 2) REMOVED DARWIN (DWN) VORTAC

HOLDING: (PAT 1) UPDATED IDENT "GEP" TO TYPE "WP"

REMARKS: REMOVED "GOPHER (FAC 1) AND DARWIN (FAC 2) USED TO ESTABLISH FIX COORDINATES"

FIX USE: REMOVED FAC 2 FROM V2

REQUIRED CHARTING: UPDATED "CONTROLLER" TO "CONTROLLER LOW"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: GALE SHELTON

APPROVED BY:

DATE: 05/16/2024

OFFICE: AJV-A423

NAME: ALLAN WILL

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

NAME: YABFE

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 450413.40N/0935041.72W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE
IAP

USE TITLE
RNAV (GPS) RWY 36

FAC

PAT

AIRPORT IDENT
KCFE

CITY
BUFFALO

STATE
MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 06/22/2017

REASON FOR REVISION:

UPDATED LATTITUDE/LONGITUDE FROM "450413.42N/0935041.87W" TO "450413.40N/0935041.72W".

FIX MOVED 11 FT EAST.

REMOVED REMARK "RNP CRITERIA APPLIED".

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

DEVELOPED BY:

DATE: 02/02/2017

OFFICE: AJV-5433

NAME: BEV L BORDY (CHRISTINE BAYSE)

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

DISTRIBUTION:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: ZIKPO

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 451615.89N/0935028.32W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION:

FIX USE:

USE TYPE
IAP

USE TITLE
RNAV (GPS) RWY 36

FAC

PAT

AIRPORT IDENT
KCFE

CITY
BUFFALO

STATE
MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/05/2011

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

DEVELOPED BY:

DATE: 10/20/2010

OFFICE: AVN-120

NAME: DAN CAIRNS

APPROVED BY:

DATE: 02/18/2011

OFFICE: AVN-120

NAME: GREGORY YAMAMOTO

SIGNATURE:

DISTRIBUTION:

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