

RADIO FIX AND HOLDING DATA RECORD

NAME: HOMUR

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 452505.56N/0940436.50W

TYPE: INT, 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	FEET	MRA	MAA
1	GOPHER	GEP	VORTAC	H	293.00	299.00	34.00	34.00		9000	45000
2	REDWOOD FALLS	RWF	VOR/DME	VH	030.77	037.77		72.55		9000	45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
RWF	VOR/DME	R-031	73	9000	15600

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

GOPHER (FAC 1) AND REDWOOD FALLS (FAC 2) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	KBREW	1, 2		KANE	MINNEAPOLIS	MN (US)
DP	KBREW	1, 2		KFCM	MINNEAPOLIS	MN (US)
DP	KBREW	1, 2		KMSP	MINNEAPOLIS	MN (US)
DP	KBREW	1, 2		KSTP	ST PAUL	MN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 05/16/2024

REASON FOR REVISION:

FIX MAKE-UP FACILITIES: REMOVED FAC 2 DARWIN (DWN) VORTAC, ADDED FAC 2 REDWOOD FALLS (RWF) VOR/DME
EXPANDED SERVICE VOLUME (ESV): ADDED RWF VOR/DME R-031 DISTANCE 73 MIN ALTITUDE 9000 MAXIMUM ALTITUDE 15600.
REMARKS: ADDED GOPHER (FAC 1) AND REDWOOD FALLS (FAC 2) USED TO ESTABLISH FIX COORDINATES.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: DEXTER SWEETING

APPROVED BY:

DATE: 05/16/2024

OFFICE: AJV-A431

NAME: ERIC N SUSKI

SIGNATURE:

Digitally signed by

ERIC N SUSKI

Feb 08, 2024

QUALITY
23
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: HRBEK

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 451852.31N/0934825.17W

TYPE: WP, INT, 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	293.00	299.00	21.00	21.00	9000	45000
2	REDWOOD FALLS	RWF	VOR/DME	VH	040.48	047.48		75.90	9000	45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
RWF	VOR/DME	R-040	76	9000	15600

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

GOPHER (FAC 1) AND REDWOOD FALLS (FAC 2) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	KBREW	1, 2		KANE	MINNEAPOLIS	MN (US)
DP	KBREW	1, 2		KFCM	MINNEAPOLIS	MN (US)
DP	KBREW	1, 2		KMSP	MINNEAPOLIS	MN (US)
DP	KBREW	1, 2		KSTP	ST PAUL	MN (US)

REQUIRED CHARTING: DP, AREA, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 05/16/2024

REASON FOR REVISION:

FIX MAKE-UP FACILITIES: REMOVED FAC 2 DARWIN (DWN) VORTAC, ADDED FAC 2 REDWOOD FALLS (RWF) VOR/DME.
EXPANDED SERVICE VOLUME (ESV): ADDED RWF VOR/DME R-040 DISTANCE 76 MINIMUM ALTITUDE 9000 MAXIMUM ALTITUDE 15600.
REMARKS: CHANGED FROM "GOPHER (FAC 1) USED TO ESTABLISH FIX COORDINATES" TO "GOPHER (FAC 1) AND REDWOOD FALLS (FAC 2) USED TO ESTABLISH FIX COORDINATES"
REQUIRED CHARTING: CHANGED "CONTROLLER" TO "CONTROLLER LOW", ADDED "CONTROLLER HIGH"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: DEXTER SWEETING

APPROVED BY:

DATE: 05/16/2024

OFFICE: AJV-A431

NAME: ERIC N SUSKI

SIGNATURE:

Digitally signed by

ERIC N SUSKI

Feb 08, 2024

QUALITY
23
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: KBREW

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 453503.67N/0943053.21W

TYPE: INT, 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	293.00	299.00	55.00	55.00	9000	45000
2	REDWOOD FALLS	RWF	VOR/DME	VH	014.06	021.06		71.93	9000	45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
GEP	VORTAC	R-293	55	9000	15400
RWF	VOR/DME	R-014	72	9000	15600

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

GOPHER (FAC 1) AND REDWOOD FALLS (FAC 2) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	KBREW	1, 2		KANE	MINNEAPOLIS	MN (US)
DP	KBREW	1, 2		KFCM	MINNEAPOLIS	MN (US)
DP	KBREW	1, 2		KMSP	MINNEAPOLIS	MN (US)
DP	KBREW	1, 2		KSTP	ST PAUL	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 05/16/2024

REASON FOR REVISION:

FIX MAKE-UP FACILITIES: REMOVED FAC 2 DARWIN (DWN) VORTAC, ADDED FAC 2 REDWOOD FALLS (RWF) VOR/DME.
EXPANDED SERVICE VOLUME (ESV): REMOVED DWN VORTAC R-348; ADDED RWF VOR/DME R-014 DISTANCE 72 MIN ALTITUDE 9000 MAX ALTITUDE 15600.
REMARKS: ADDED GOPHER (FAC 1) AND REDWOOD FALLS (FAC 2) USED TO ESTABLISH FIX COORDINATES.
REQUIRED CHARTING: CHANGED "CONTROLLER" TO "CONTROLLER LOW", ADDED CONTROLLER HIGH.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A431

NAME: DEXTER SWEETING

APPROVED BY:

DATE: 05/16/2024

OFFICE: AJV-A431

NAME: ERIC N SUSKI

SIGNATURE:

Digitally signed by

ERIC N SUSKI

Feb 08, 2024

QUALITY
23
CHECKED

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: MODIFY

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: 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	RWF	VOR/DME	196.00	016.00	R	1	2600 6000	4 5
2	SW	RWF	VOR/DME	244.69	064.69	L	1	7000 31000	8 23

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	WINDMILL (27-002448)	443005.90N/0951032.20W	1433	5D
2	230	TOWER (27-001418)	442154.00N/0951928.00W	1588	5D

REASON FOR NONSTANDARD HOLDING:

PAT 2 AIR TRAFFIC REQUEST

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
DP	KBREW			KANE	MINNEAPOLIS	MN (US)
DP	SCHEP			KANE	MINNEAPOLIS	MN (US)
DP	KBREW			KFCM	MINNEAPOLIS	MN (US)
DP	SCHEP			KFCM	MINNEAPOLIS	MN (US)
DP	KBREW			KMSP	MINNEAPOLIS	MN (US)
DP	LEINY (RNAV)			KMSP	MINNEAPOLIS	MN (US)
DP	SCHEP			KMSP	MINNEAPOLIS	MN (US)
DP	KBREW			KSTP	ST PAUL	MN (US)
DP	SCHEP			KSTP	ST PAUL	MN (US)
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)
STAR	SKETR		2	KMSP	MINNEAPOLIS	MN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 23

DATE OF REVISION: 05/16/2024

REASON FOR REVISION:



AIRSPACE DOCKET: REMOVED 22-AGL-4.
FIX USE: ADDED DP KBREW AT KMSP, KANE, KSTP, KFCM.

INITIATED BY:	DATE:	ORGANIZATION:	NAME:
OFFICE OF PRIMARY RESPONSIBILITY:		AJV-A431	NAME: DEXTER SWEETING
APPROVED BY:	DATE: 05/16/2024	OFFICE: AJV-A431	NAME: ERIC N SUSKI
SIGNATURE:			<i>Digitally signed by</i> ERIC N SUSKI Feb 08, 2024

