

RADIO FIX AND HOLDING DATA RECORD

NAME: BONNA

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 444608.17N/0925609.02W

TYPE: WP, RADAR, 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	MINNEAPOLIS	I-INN	LOC/DME		121.35	121.35	13.12	14.47		5000	6000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-INN	LOC/DME	R-121	15	5000	6000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

MINNEAPOLIS (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-INN DME: 445303.67N/0931148.87W.
LOCATION IAW 8260.54A FORMULA 2-16B.
ESTABLISHED ESV IS FOR LOC/GS.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 30R	1		KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 30R			KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 30R			KMSP	MINNEAPOLIS	MN (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 12

DATE OF REVISION: 01/05/2017

REASON FOR REVISION:

1. UPDATED FIX USE: DELETED ILS V RWY 30R KMSP; UPDATED PROCEDURE NAME FOR ILS Z OR LOC RWY 30R TO ILS OR LOC RWY 30R.
2. ADDED RADAR TO FIX TYPE AND DELETED INT FROM FIX TYPE.
3. DELETED FAC 2 FROM FIX MAKEUP AND DELETED FAC 2 FROM FIX USE.
4. CHANGED ESV DISTANCE FROM 14 TO 15.
5. UPDATED DME COORDINATES IN REMARKS.

DEVELOPED BY:

DATE: 08/18/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY
22
CHECKED

RADIO FIX AND HOLDING DATA RECORD

INFO ONLY

NAME: CFMDJ

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 445200.67N/0930126.32W

TYPE: CNF

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

REMARKS:

PRECISE FIX COORDINATES: 445200.665N/0930126.318W.

FIX USE:

USE TYPE
IAP

USE TITLE

RNAV (RNP) Y RWY 30R

FAC

PAT

AIRPORT IDENT

KMSP

CITY

MINNEAPOLIS

STATE

MN (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 04/30/2015

DEVELOPED BY:

DATE: 09/11/2014

OFFICE: AJV-353

NAME: DONALD LANIER

APPROVED BY:

DATE: 04/30/2015

OFFICE: AJV-353

NAME: GEORGE GONZALEZ

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZMP

ATC FACILITY: MSP APP CON, MSP ATCT

OTHER:

QUALITY
22
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: GEEQU

STATE: WI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 444614.91N/0924519.26W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 30R			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS Z OR LOC RWY 30L			KMSP	MINNEAPOLIS	MN (US)
IAP	ILS Z RWY 30L (CAT II)			KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 30L			KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 30L			KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 30R			KMSP	MINNEAPOLIS	MN (US)
STAR	KKILR (RNAV)			KMSP	MINNEAPOLIS	MN (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 01/05/2017

REASON FOR REVISION:

1. UDPATED FIX USE: ADDED ILS OR LOC RWY 30R KMSP; ILS Z OR LOC RWY 30L; ILS Z RWY 30L (CAT II); RNAV (GPS) Z RWY 30L; RNAV (RNP) Y RWY 30L.

DEVELOPED BY:

DATE: 08/29/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY
22
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: GROVZ

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 444250.91N/0924838.71W

TYPE: WP, RADAR, 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	MINNEAPOLIS	I-INN	LOC/DME		121.35	121.35	19.40	20.75		5000	8000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-INN	LOC/DME	R-121	21	5000	8000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

MINNEAPOLIS (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-INN DME: 445303.67N/0931148.87W.
LOCATION IAW 8260.54A FORMULA 2-16B.
ESTABLISHED ESV IS FOR LOC/GS.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 30R	1		KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 30R			KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 30R			KMSP	MINNEAPOLIS	MN (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6

DATE OF REVISION: 01/05/2017

REASON FOR REVISION:

1. UPDATED FIX USE: DELETED ILS V RWY 30R KMSP; UPDATED PROCEDURE NAME FOR ILS Z OR LOC RWY 30R TO ILS OR LOC RWY 30R.
2. ADDED RADAR TO FIX TYPE AND DELETED INT FROM FIX TYPE.
3. DELETED FAC 2 FROM FIX MAKEUP AND DELETED FAC 2 FROM FIX USE.
4. UPDATED DME COORDINATES IN REMARKS.

DEVELOPED BY:

DATE: 08/18/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY
22
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: JACKO

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 444924.96N/0930340.22W

TYPE: WP, RADAR, DME

AIRSPACE DOCKET:

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	MINNEAPOLIS	I-INN	LOC/DME		121.35	121.35	6.84	8.19	49759	3000	5300

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

MINNEAPOLIS (FAC 1) USED TO ESTABLISH FIX COORDINATES
LOCATION IAW 8260.54A FORMULA 2-16B.
I-INN DME LAT/LONG: 445303.67N/0931148.87W.
PRECISE FIX COORDINATES: 444924.957N/0930340.217W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 30R	1		KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 30R			KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 30R			KMSP	MINNEAPOLIS	MN (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 10

DATE OF REVISION: 01/05/2017

REASON FOR REVISION:

1. UPDATED FIX USE: DELETED ILS V RWY 30R KMSP; UPDATED PROCEDURE NAME FOR ILS Z OR LOC RWY 30R TO ILS OR LOC RWY 30R.
2. DELETED INT FROM FIX TYPE.
3. DELETED FAC 2 FROM FIX MAKEUP AND DELETED FAC 2 FROM FIX USE.
4. UPDATED DME COORDINATES IN REMARKS.
5. CHANGED DME DISTANCE FROM FAC 1 TO 6.84.

DEVELOPED BY:

DATE: 08/18/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY
22
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: OSMOH **STATE:** MN **COUNTRY:** US **ICAO REGION CODE:** K3

LATITUDE/LONGITUDE: 445749.95N/0930634.25W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

REMARKS:
FIX NAME RETAINED, PER JO 7400.2K.

FIX USE:	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
USE TYPE						
IAP	RNAV (RNP) Y RWY 30R			KMSP	MINNEAPOLIS	MN (US)
STAR	BAINY (RNAV)			KMSP	MINNEAPOLIS	MN (US)
STAR	TORGY (RNAV)			KMSP	MINNEAPOLIS	MN (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 01/05/2017

REASON FOR REVISION:
MOVED FIX 2.98 NM SE FROM 445749.95N/0931009.42W AND ADDED FIX NAME RETENTION REMARK.

DEVELOPED BY: **DATE:** 08/25/2016 **OFFICE:** AJV-5431 **NAME:** DAVID DOWLING

APPROVED BY: **DATE:** **OFFICE:** AJV-5420 **NAME:** TONY LAWSON

SIGNATURE:

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

QUALITY
22
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: RVERR **STATE:** MN **COUNTRY:** US **ICAO REGION CODE:** K3

LATITUDE/LONGITUDE: 444858.23N/0930134.87W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

REMARKS:
PRECISE FIX COORDINATES: 444858.232N/0930134.869W.

FIX USE:						
USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Y RWY 30R			KMSP	MINNEAPOLIS	MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 04/30/2015

REASON FOR REVISION:
01/08/2015: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 09/11/2014: UPDATED LATITUDE/LONGITUDE COORDINATES AND PRECISE FIX COORDINATES IN REMARKS.

DEVELOPED BY:	DATE: 09/11/2014	OFFICE: AJV-353	NAME: DONALD LANIER
APPROVED BY:	DATE: 04/30/2015	OFFICE: AJV-353	NAME: GEORGE GONZALEZ

SIGNATURE:

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

QUALITY
22
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: SAMMZ

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 444746.62N/0925954.51W

TYPE: WP, RADAR, DME

AIRSPACE DOCKET:

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	MINNEAPOLIS	I-INN	LOC/DME		121.35	121.35	9.98	11.33		4000	5300

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

MINNEAPOLIS (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-INN DME: 445303.67N/0931148.87W.
LOCATION IAW 8260.54A FORMULA 2-16B.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 30R	1		KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 30R			KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 30R			KMSP	MINNEAPOLIS	MN (US)
STAR	KKILR (RNAV)			KMSP	MINNEAPOLIS	MN (US)
STAR	MUSCL (RNAV)			KMSP	MINNEAPOLIS	MN (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5

DATE OF REVISION: 01/05/2017

REASON FOR REVISION:

1. UPDATED FIX USE: DELETED ILS V RWY 30R KMSP; UPDATED PROCEDURE NAME FOR ILS Z OR LOC RWY 30R TO ILS OR LOC RWY 30R; ADDED KKILR (RNAV) AND MUSCL (RNAV) KMSP.
2. ADDED RADAR TO FIX TYPE AND DELETED INT FROM FIX TYPE.
3. DELETED FAC 2 FROM FIX MAKEUP AND DELETED FAC 2 FROM FIX USE.
4. UPDATED DME COORDINATES IN REMARKS.

DEVELOPED BY:

DATE: 08/18/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY
22
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: SOGGY

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 444740.29N/0925133.11W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

PRECISE FIX COORDINATES: 444740.290N/0925133.112W.

FIX USE:

USE TYPE

USE TITLE

FAC

PAT

AIRPORT IDENT

CITY

STATE

IAP

ILS OR LOC RWY 30R

KMSP

MINNEAPOLIS

MN (US)

IAP

RNAV (RNP) Y RWY 30R

KMSP

MINNEAPOLIS

MN (US)

STAR

MUSCL (RNAV)

KMSP

MINNEAPOLIS

MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 01/05/2017

REASON FOR REVISION:

1. UPDATED FIX USE: ADDED ILS OR LOC RWY 30R KMSP; ADDED MUSCL (RNAV) KMSP.

DEVELOPED BY:

DATE: 08/29/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZMP

ATC FACILITY: MSP APP CON, MSP ATCT

OTHER:

QUALITY
22
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: TRTEL

STATE: WI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 445157.46N/0924543.09W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE
IAP
IAP
STAR

USE TITLE
ILS OR LOC RWY 30R
RNAV (RNP) Y RWY 30R
MUSCL (RNAV)

FAC PAT

AIRPORT IDENT
KMSP
KMSP
KMSP

CITY
MINNEAPOLIS
MINNEAPOLIS
MINNEAPOLIS

STATE
MN (US)
MN (US)
MN (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 01/05/2017

REASON FOR REVISION:

1. UPDATED FIX USE: ADDED ILS OR LOC RWY 30R KMSP.

DEVELOPED BY:

DATE: 08/29/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY
22
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: WULAM

STATE: MN

COUNTRY: US

ICAO REGION CODE: K3

LATITUDE/LONGITUDE: 444429.60N/0925223.75W

TYPE: WP, RADAR, 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	MINNEAPOLIS	I-INN	LOC/DME		121.35	121.35	16.26	17.61		5000	7000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-INN	LOC/DME	R-121	18	5000	7000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

MINNEAPOLIS (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-INN DME: 445303.67N/0931148.87W.
LOCATION IAW 8260.54A FORMULA 2-16B.
ESTABLISHED ESV IS FOR LOC/GS.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 30R	1		KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (GPS) Z RWY 30R			KMSP	MINNEAPOLIS	MN (US)
IAP	RNAV (RNP) Y RWY 30R			KMSP	MINNEAPOLIS	MN (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5

DATE OF REVISION: 01/05/2017

REASON FOR REVISION:

1. UPDATED FIX USE: DELETED ILS V RWY 30R KMSP; UPDATED PROCEDURE NAME FOR ILS Z OR LOC RWY 30R TO ILS OR LOC RWY 30R.
2. ADDED RADAR TO FIX TYPE AND DELETED INT FROM FIX TYPE.
3. DELETED FAC 2 FROM FIX MAKEUP AND DELETED FAC 2 FROM FIX USE.
4. UPDATED DME COORDINATES IN REMARKS.

DEVELOPED BY:

DATE: 08/18/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY
22
CHECKED