

# RADIO FIX AND HOLDING DATA RECORD

NAME: AWSUM

STATE: IN

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413119.74N/0863423.35W

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	GOSHEN	GSH	VORTAC	H	269.76	269.76	24.57	24.57		6000	45000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	GOSHEN			KIGQ	CHICAGO	IL (US)
STAR	GOSHEN			KMDW	CHICAGO	IL (US)
STAR	PANGG (RNAV)			KMDW	CHICAGO	IL (US)
STAR	GOSHEN			KGYG	GARY	IN (US)
STAR	GOSHEN			05C	GRIFFITH	IN (US)
STAR	GOSHEN			3HO	HOBART	IN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 06/15/2023

## REASON FOR REVISION:

REMOVED INT FROM FIX TYPE.

REMOVED KNOX (OXI) VORTAC FROM FIX MAKE-UP FACILITIES.

REMOVED REMARKS "GOSHEN (FAC 1) AND KNOX (FAC 2) USED TO ESTABLISH FIX COORDINATES."

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: JOSHUA SAENZ

APPROVED BY:

DATE: 06/15/2023

OFFICE: AJV-A432

NAME: CASIMIR TABAKA

SIGNATURE:

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** BAGEL **STATE:** IN **COUNTRY:** US **ICAO REGION CODE:** K5

**LATITUDE/LONGITUDE:** 413057.51N/0853649.28W **TYPE:** WP, INT, 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	GOSHEN	GSH	VORTAC	H	091.55	091.55	18.68	18.68		2700	17500
2	FORT WAYNE	FWA	VORTAC	H	335.25	329.25	37.52	37.52		2700	17500

**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 MIN	ALTITUDES MAX	TEMPLATES MIN	MAX
1	SW		WP	206.00	026.00	R		4	3000	6000	5	6

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (18-020564)	412646.41N/0853123.48W	1315	4D

**HOLDING RESTRICTIONS:**

HOLDING LIMITED TO ESTABLISHED PATTERN(S)

**REMARKS:**

GOSHEN (FAC 1) AND FORT WAYNE (FAC 2) USED TO ESTABLISH FIX COORDINATES.  
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	GTLKE (RNAV)			KBKL	CLEVELAND	OH (US)
DP	GTLKE (RNAV)			KCGF	CLEVELAND	OH (US)
DP	GTLKE (RNAV)			KCLE	CLEVELAND	OH (US)
DP	GTLKE (RNAV)			KLPR	LORAIN/ELYRIA	OH (US)
DP	GTLKE (RNAV)			KLNN	WILLOUGHBY	OH (US)
EN ROUTE	V126	1, 2				(US)
EN ROUTE	V277	1, 2				(US)
IAP	RNAV (GPS) RWY 36			KEKM	ELKHART	IN (US)
IAP	RNAV (GPS) RWY 10			C62	KENDALLVILLE	IN (US)
IAP	RNAV (GPS) RWY 28		1	C62	KENDALLVILLE	IN (US)
IAP	RNAV (GPS) RWY 27			KASW	WARSAW	IN (US)
STAR	GOSHEN	1, 2		KIGQ	CHICAGO	IL (US)
STAR	GOSHEN	1, 2		KMDW	CHICAGO	IL (US)
STAR	PANGG (RNAV)			KMDW	CHICAGO	IL (US)
STAR	GOSHEN	1, 2		KGYV	GARY	IN (US)
STAR	GOSHEN	1, 2		05C	GRIFFITH	IN (US)
STAR	GOSHEN	1, 2		3HO	HOBART	IN (US)

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

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 10 **DATE OF REVISION:** 10/07/2021

**REASON FOR REVISION:**

1: ADDED KASW RNAV (GPS) RWY 27 TO FIX USE.

**INITIATED BY:** **DATE:** **ORGANIZATION:** **NAME:**

**OFFICE OF PRIMARY RESPONSIBILITY:** AJV-A431 **NAME:** MICAH HILLEY

**APPROVED BY:** **DATE:** 10/07/2021 **OFFICE:** AJV-A430 **NAME:** LONNIE EVERHART

**SIGNATURE:**

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** BOCAH

**STATE:** IL

**COUNTRY:** US

**ICAO REGION CODE:** K5

**LATITUDE/LONGITUDE:** 415100.78N/0872015.49W

**TYPE:** WP

**AIRSPACE DOCKET:**

**FIX TYPE OF ACTION:** ESTABLISH

**HOLDING:**

**HOLDING TYPE OF ACTION:** NO CHANGE

**FIX USE:**

**USE TYPE**  
STAR  
STAR

**USE TITLE**  
FISSK (RNAV)  
PANGG (RNAV)

**FAC**

**PAT**

**AIRPORT IDENT**  
KMDW  
KMDW

**CITY**  
CHICAGO  
CHICAGO

**STATE**  
IL (US)  
IL (US)

**REQUIRED CHARTING:** STAR

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** ORIG

**DATE OF REVISION:** 04/20/2023

**INITIATED BY:**

**DATE:**

**ORGANIZATION:**

**NAME:**

**OFFICE OF PRIMARY RESPONSIBILITY:**

AJV-A421

**NAME:** COLIN CAMPBELL

**APPROVED BY:**

**DATE:** 04/20/2023

**OFFICE:** AJV-A421

**NAME:** JASON KRETSCHMER

**SIGNATURE:**

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** FORT WAYNE VORTAC      **STATE:** IN      **COUNTRY:** US      **ICAO REGION CODE:** K5

**LATITUDE/LONGITUDE:** 405844.63N/0851117.01W      **TYPE:**

**AIRSPACE DOCKET:** 22-AGL-22      **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	FORT WAYNE	FWA	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	SE	FWA	VORTAC	140.75	320.75	R	1	4000 6000	4 5

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (18-000023)	410012.00N/0850559.00W	1159	4D

**HOLDING RESTRICTIONS:**

HOLDING LIMITED TO ESTABLISHED PATTERN(S)

**REMARKS:**

PRECIPITOUS TERRAIN EVALUATION COMPLETED.  
ASSIGNED FACILITY MAG VAR: 6W 2020.  
PAT 1 AT ATC REQUEST.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DAYTON			KDAY	DAYTON	OH (US)
EN ROUTE	J149					(US)
EN ROUTE	J178					(US)
EN ROUTE	J64					(US)
EN ROUTE	V11					(US)
EN ROUTE	V144					(US)
EN ROUTE	V221					(US)
EN ROUTE	V277					(US)
EN ROUTE	V38					(US)
EN ROUTE	V55					(US)
EN ROUTE	V96					(US)
IAP	ILS OR LOC RWY 27			KGWB	AUBURN	IN (US)
IAP	RNAV (GPS) RWY 27			KGWB	AUBURN	IN (US)
IAP	RNAV (GPS) RWY 9			KGWB	AUBURN	IN (US)
IAP	VOR-A			KGWB	AUBURN	IN (US)
IAP	ILS OR LOC RWY 32			KFWA	FORT WAYNE	IN (US)
IAP	ILS OR LOC RWY 5			KFWA	FORT WAYNE	IN (US)
IAP	ILS RWY 05 (CAT II)			KFWA	FORT WAYNE	IN (US)
IAP	RNAV (GPS) RWY 14			KFWA	FORT WAYNE	IN (US)
IAP	RNAV (GPS) RWY 23			KFWA	FORT WAYNE	IN (US)
IAP	RNAV (GPS) RWY 32			KFWA	FORT WAYNE	IN (US)
IAP	RNAV (GPS) RWY 5			KFWA	FORT WAYNE	IN (US)
IAP	VOR OR TACAN RWY 23			KFWA	FORT WAYNE	IN (US)
IAP	VOR OR TACAN RWY 5			KFWA	FORT WAYNE	IN (US)
IAP	VOR OR TACAN RWY 14			KFWA	FORT WAYNE	IN (US)
IAP	RNAV (GPS) RWY 31			KSMD	FORT WAYNE	IN (US)
IAP	VOR RWY 13			KSMD	FORT WAYNE	IN (US)
IAP	VOR-A			KHHG	HUNTINGTON	IN (US)
IAP	RNAV (GPS) RWY 23			KOKK	KOKOMO	IN (US)
IAP	ILS OR LOC RWY 27		1	KASW	WARSAW	IN (US)
IAP	HI-ILS OR LOC RWY 25			KTOL	TOLEDO	OH (US)
IAP	HI-ILS Y OR LOC Y RWY 7			KTOL	TOLEDO	OH (US)
IAP	HI-TACAN RWY 25			KTOL	TOLEDO	OH (US)
IAP	HI-TACAN RWY 7			KTOL	TOLEDO	OH (US)
STAR	GOSHEN			KIGQ	CHICAGO	IL (US)
STAR	GOSHEN			KMDW	CHICAGO	IL (US)
STAR	PANGG (RNAV)			KMDW	CHICAGO	IL (US)
STAR	ESSPO (RNAV)			KORD	CHICAGO	IL (US)
STAR	VEECK (RNAV)			KORD	CHICAGO	IL (US)
STAR	WATSN (RNAV)			KORD	CHICAGO	IL (US)
STAR	GOSHEN			KGYG	GARY	IN (US)
STAR	GOSHEN			05C	GRIFFITH	IN (US)
STAR	GOSHEN			3HO	HOBART	IN (US)
STAR	CLANG			KEYE	INDIANAPOLIS	IN (US)
STAR	CLANG			KIND	INDIANAPOLIS	IN (US)
STAR	CLANG			KMQJ	INDIANAPOLIS	IN (US)
STAR	SHELBYVILLE			KCVG	COVINGTON	KY (US)
STAR	HEDEE			K62	FALMOUTH	KY (US)
STAR	SHELBYVILLE			K62	FALMOUTH	KY (US)
STAR	HEDEE			I69	BATAVIA	OH (US)

STAR	SHELBYVILLE	I69	BATAVIA	OH (US)
STAR	HEDEE	KLUK	CINCINNATI	OH (US)
STAR	SHELBYVILLE	KLUK	CINCINNATI	OH (US)
STAR	HEDEE	KHAO	HAMILTON	OH (US)
STAR	SHELBYVILLE	KHAO	HAMILTON	OH (US)

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

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 26

**DATE OF REVISION:** 06/15/2023

**REASON FOR REVISION:**

AIRSPACE DOCKET: ADDED 22-AGL-22.  
FIX USE: DELETED V340, KNOX STAR.

**INITIATED BY:**

**DATE:**

**ORGANIZATION:**

**NAME:**

**OFFICE OF PRIMARY RESPONSIBILITY:**

AJV-A423

**NAME:** GREGORY LINDSEY

**APPROVED BY:**

**DATE:** 06/15/2023

**OFFICE:** AJV-A423

**NAME:** ALLAN WILL

**SIGNATURE:**

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** GERMN

**STATE:** IN

**COUNTRY:** US

**ICAO REGION CODE:** K5

**LATITUDE/LONGITUDE:** 414206.60N/0871506.58W

**TYPE:** WP

**AIRSPACE DOCKET:**

**FIX TYPE OF ACTION:** MODIFY

**HOLDING:**

**HOLDING TYPE OF ACTION:** NO CHANGE

**FIX USE:**

**USE TYPE**  
STAR  
STAR

**USE TITLE**  
FISSK (RNAV)  
PANGG (RNAV)

**FAC**

**PAT**

**AIRPORT IDENT**  
KMDW  
KMDW

**CITY**  
CHICAGO  
CHICAGO

**STATE**  
IL (US)  
IL (US)

**REQUIRED CHARTING:** STAR

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 1

**DATE OF REVISION:** 07/24/2014

**REASON FOR REVISION:**

UPDATE FIX COORDINATES, FIX MOVED 3.5 NM NORTH EAST (FIX NAME RETAINED AT ATC REQUEST).

**INITIATED BY:**

**DATE:**

**ORGANIZATION:**

**NAME:**

**DEVELOPED BY:**

**DATE:** 01/22/2014

**OFFICE:** AJV-353

**NAME:** THOMAS KIRKPATRICK

**APPROVED BY:**

**DATE:** 07/24/2014

**OFFICE:** AJV-353

**NAME:** GEORGE GONZALEZ

**SIGNATURE:**

**DISTRIBUTION:**

**NFDC**  
**FPO:** CEN  
**ARTCC:** ZAU  
**ATC FACILITY:** MDW TOWER, ORD APP CON  
**OTHER:**

# RADIO FIX AND HOLDING DATA RECORD

NAME: HAADN

STATE: IN

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413453.03N/0872252.46W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION:

FIX USE:

USE TYPE  
STAR  
STAR

USE TITLE  
FISSK (RNAV)  
PANGG (RNAV)

FAC

PAT

AIRPORT IDENT  
KMDW  
KMDW

CITY  
CHICAGO  
CHICAGO

STATE  
IL (US)  
IL (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 07/24/2014

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

DEVELOPED BY:

DATE: 01/22/2014

OFFICE: AJV-353

NAME: THOMAS KIRKPATRICK

APPROVED BY:

DATE: 07/24/2014

OFFICE: AJV-353

NAME: GEORGE GONZALEZ

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY: MDW TOWER, ORD APP CON  
OTHER:

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** HALIE **STATE:** IN **COUNTRY:** US **ICAO REGION CODE:** K5

**LATITUDE/LONGITUDE:** 413057.85N/0870931.95W **TYPE:** WP, DME

**AIRSPACE DOCKET:** 22-AGL-22 **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	CHICAGO HEIGHTS	CGT	VORTAC	L	086.74	088.74	18.60	18.60	2600	17500
2	PEOTONE	EON	VORTAC	L	060.42	062.42		32.15	2600	23000

**EXPANDED SERVICE VOLUME (ESV):**

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
EON	VORTAC	R-060	33	18600	23000

**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		WP	124.27	304.27	R		5	2400	10000	5	10
2	SE		WP	120.00	300.00	L		7	11000	23000	10	20
3	SE		WP	117.00	297.00	L		8	7000	31000	11	24
4	E	CGT	VORTAC	086.74	266.74	L	1		3000	18000	5	18
5	E		WP	093.18	273.18	L		8	2400	6000	11	12
6	SE		WP	117.00	297.00	L		10	7000	31000	15	24

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (18-000847)	413117.00N/0870126.00W	1320	2C
2	230	TOWER (18-000847)	413117.00N/0870126.00W	1320	2C
3	230	TOWER (18-000847)	413117.00N/0870126.00W	1320	2C
4	200	TOWER (18-000847)	413117.00N/0870126.00W	1320	2C
5	200	TOWER (18-000847)	413117.00N/0870126.00W	1320	2C
6	230	TOWER (18-000847)	413117.00N/0870126.00W	1320	2C

**REASON FOR NONSTANDARD HOLDING:**

PAT 2 ATC REQUEST  
PAT 3 ATC REQUEST  
PAT 4 ATC REQUEST  
PAT 5 ATC REQUEST  
PAT 6 ATC REQUEST

**REMARKS:**

PRECIPITOUS TERRAIN EVALUATION COMPLETED.  
HOLDING PATTERN 3 & 5 USED TEMPLATE 11 FOR 8 DME LEG LENGTH AT ATC REQUEST.  
HOLDING PATTERN 6 USED TEMPLATE 15 FOR 10 DME LEG LENGTH AT ATC REQUEST.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V8	1, 2				(US)
EN ROUTE	V92	1, 2				(US)
IAP	RNAV (GPS) RWY 27			KIGQ	CHICAGO	IL (US)
IAP	RNAV (RNP) Y 22L			KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) RWY 20		1	KGYG	GARY	IN (US)
IAP	RNAV (GPS) RWY 18			KOXI	KNOX	IN (US)
STAR	GOSHEN	1, 2	4	KIGQ	CHICAGO	IL (US)
STAR	FISSK (RNAV)			KMDW	CHICAGO	IL (US)
STAR	GOSHEN	1, 2	4	KMDW	CHICAGO	IL (US)
STAR	PANGG (RNAV)		5	KMDW	CHICAGO	IL (US)
STAR	ESSPO (RNAV)		3	KORD	CHICAGO	IL (US)
STAR	VEECK (RNAV)		6	KORD	CHICAGO	IL (US)
STAR	WATSN (RNAV)		3	KORD	CHICAGO	IL (US)
STAR	GOSHEN	1, 2	4	KGYG	GARY	IN (US)
STAR	GOSHEN	1, 2	4	05C	GRIFFITH	IN (US)
STAR	GOSHEN	1, 2	4	3HO	HOBART	IN (US)

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

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 12

**DATE OF REVISION:** 06/15/2023

**REASON FOR REVISION:**



AIRSPACE DOCKET: ADDED 22-AGL-22.

FIX TYPE: DELETED INT.

FIX MAKE-UP FACILITIES: DELETED FAC 1 (OXI); CHANGED FROM FAC 3 (CGT) TO FAC 1 (CGT).

HOLDING: DELETED PAT 1 (OXI); CHANGED PAT 5 (CGT) FROM 1-1 1/2 TO 1.

REMARKS: CHANGED FROM PEOTONE (FAC 1) USED TO ESTABLISH FIX COORDINATES. HOLDING PATTERN 4 & 6 USED TEMPLATE 11 FOR 8 DME LEG LENGTH AT ATC REQUEST. HOLDING PATTERN 7 USED TEMPLATE 15 FOR 10 DME LEG LENGTH AT ATC REQUEST TO HOLDING PATTERN 3 & 5 USED TEMPLATE 11 FOR 8 DME LEG LENGTH AT ATC REQUEST. HOLDING PATTERN 6 USED TEMPLATE 15 FOR 10 DME LEG LENGTH AT ATC REQUEST.

FIX USE: DELETED V126, V340 AND KNOX STAR, DELETED FAC 1 (OXI) ON ALL GOSHEN STAR ENTRIES; CHANGED EN ROUTE AIRWAYS FROM V8-92-126 TO SEPARATE ENTRIES FOR EACH AIRWAY.

REQUIRED CHARTING: CHANGED FROM CONTROLLER TO CONTROLLER LOW.

**INITIATED BY:**

**DATE:**

**ORGANIZATION:**

**NAME:**

**OFFICE OF PRIMARY RESPONSIBILITY:**

AJV-A423

**NAME:** GREGORY LINDSEY

**APPROVED BY:**

**DATE:** 06/15/2023

**OFFICE:** AJV-A423

**NAME:** ALLAN WILL

**SIGNATURE:**

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** HILLS

**STATE:** IL

**COUNTRY:** US

**ICAO REGION CODE:** K5

**LATITUDE/LONGITUDE:** 413725.40N/0873134.18W

**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	FEET	MRA	MAA
1	CHICAGO MIDWAY	I-MXT	LOC/DME		137.57	133.57	14.59	14.63		5000	5100
2	CHICAGO HEIGHTS	CGT	VORTAC	L	014.67	016.67		7.12		2200	5100

**HOLDING:**

**HOLDING TYPE OF ACTION:** NO CHANGE

**REMARKS:**

CHICAGO MIDWAY (FAC 1) AND CHICAGO HEIGHTS (FAC 2) USED TO ESTABLISH FIX COORDINATES.  
I-MXT DME COORDINATES: 414732.95N/0874536.16W.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
SPECIAL IAP	ILS Z RWY 31C	1, 2		KMDW	CHICAGO	IL (US)
IAP	ILS OR LOC/DME RWY 31C	1, 2		KMDW	CHICAGO	IL (US)
IAP	RNAV (GPS) Z RWY 31C			KMDW	CHICAGO	IL (US)
IAP	RNAV (RNP) Y RWY 31C			KMDW	CHICAGO	IL (US)
STAR	FISSK (RNAV)			KMDW	CHICAGO	IL (US)
STAR	PANGG (RNAV)			KMDW	CHICAGO	IL (US)

**REQUIRED CHARTING:** STAR, IAP, SPECIAL IAP

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 9

**DATE OF REVISION:** 11/05/2020

**REASON FOR REVISION:**

FAC 1: CHANGED MAA FROM 17500 TO 5100.  
REMOVED FIX RESTRICTIONS AND MOVED ILS Z RWY 31C TO FIX USE.  
UPDATED FIX USE - CHANGED IAP TO SPECIAL IAP FOR THE ILS Z RWY 31C AT KMDW.  
ADDED SPECIAL IAP TO REQUIRED CHARTING.

**INITIATED BY:**

**DATE:**

**ORGANIZATION:**

**NAME:**

**OFFICE OF PRIMARY RESPONSIBILITY:**

AJV-A431

**NAME:** ROBERT GRIM

**APPROVED BY:**

**DATE:**

**OFFICE:** AJV-A430

**NAME:** LONNIE EVERHART

**SIGNATURE:**

**DISTRIBUTION:**

NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY: MDW TOWER, ORD APP CON  
OTHER:

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** IROCK **STATE:** IN **COUNTRY:** US **ICAO REGION CODE:** K5

**LATITUDE/LONGITUDE:** 413108.73N/0865418.71W **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	CHICAGO HEIGHTS	CGT	VORTAC	L	086.74	088.74	30.04	30.04		6000	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	E	CGT	VORTAC	086.74	266.74	R	1-1 1/2	6000 17500	7 18
2	E		WP	093.41	273.41	R	10	3400 10000	15 17

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (18-000847)	413117.00N/0870126.00W	1320	2C
2	200	TOWER (18-000847)	413117.00N/0870126.00W	1320	2C

**HOLDING RESTRICTIONS:**

HOLDING LIMITED TO ESTABLISHED PATTERN.

**REMARKS:**

PRECIPITOUS TERRAIN EVALUATION COMPLETED.  
HOLDING PATTERN 2 USED TEMPLATE 15 FOR 10 DME LEG LENGTH AT ATC REQUEST.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	GOSHEN	1	1	KIGQ	CHICAGO	IL (US)
STAR	GOSHEN	1	1	KMDW	CHICAGO	IL (US)
STAR	PANGG (RNAV)		2	KMDW	CHICAGO	IL (US)
STAR	GOSHEN	1	1	KGYG	GARY	IN (US)
STAR	GOSHEN	1	1	05C	GRIFFITH	IN (US)
STAR	GOSHEN	1	1	3HO	HOBART	IN (US)

**REQUIRED CHARTING:** STAR

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 3 **DATE OF REVISION:** 07/24/2014

**REASON FOR REVISION:**

HOLDING PAT 2: CHANGED RAD/CRS/BRG FROM 090.41 TO 093.41, CRS INBOUND FROM 270.41 TO 273.41, MIN ALTITUDE FROM 5000 TO 3400.

**INITIATED BY:** **DATE:** **ORGANIZATION:** **NAME:**

**DEVELOPED BY:** **DATE:** 01/23/2014 **OFFICE:** AJV-353 **NAME:** THOMAS KIRKPATRICK

**APPROVED BY:** **DATE:** 07/24/2014 **OFFICE:** AJV-353 **NAME:** GEORGE GONZALEZ

**SIGNATURE:**

**DISTRIBUTION:** NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY: ORD APP CON  
OTHER:

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** LLTCH

**STATE:** MI

**COUNTRY:** US

**ICAO REGION CODE:** K5

**LATITUDE/LONGITUDE:** 420344.18N/0844555.71W

**TYPE:** WP

**AIRSPACE DOCKET:**

**FIX TYPE OF ACTION:** NO CHANGE

**HOLDING:**

**HOLDING TYPE OF ACTION:** NO CHANGE

**FIX USE:**

**USE TYPE**  
STAR

**USE TITLE**  
PANGG (RNAV)

**FAC**

**PAT**

**AIRPORT IDENT**  
KMDW

**CITY**  
CHICAGO

**STATE**  
IL (US)

**REQUIRED CHARTING:** STAR, EN ROUTE LOW, CONTROLLER LOW

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 1

**DATE OF REVISION:** 04/20/2023

**REASON FOR REVISION:**

FIX USE: ADDED "PANGG (RNAV)" STAR

REMARKS: REMOVED "ESTABLISHED AS A COORDINATION FIX PER ATC REQUEST" AND "NOTE: WILL REPLACE LFD VOR/DME ON THE PANGG STAR AT A LATER DATE"

REQUIRED CHARTING: ADDED "STAR"

**INITIATED BY:**

**DATE:**

**ORGANIZATION:**

**NAME:**

**OFFICE OF PRIMARY RESPONSIBILITY:**

AJV-A421

**NAME:** COLIN CAMPBELL

**APPROVED BY:**

**DATE:** 04/20/2023

**OFFICE:** AJV-A421

**NAME:** JASON KRETSCHMER

**SIGNATURE:**

# RADIO FIX AND HOLDING DATA RECORD

NAME: LNAME

STATE: IL

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 414518.38N/0871642.92W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION:

FIX USE:

USE TYPE  
STAR  
STAR

USE TITLE  
FISSK (RNAV)  
PANGG (RNAV)

FAC

PAT

AIRPORT IDENT  
KMDW  
KMDW

CITY  
CHICAGO  
CHICAGO

STATE  
IL (US)  
IL (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 07/24/2014

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

DEVELOPED BY:

DATE: 01/22/2014

OFFICE: AJV-353

NAME: THOMAS KIRKPATRICK

APPROVED BY:

DATE: 07/24/2014

OFFICE: AJV-353

NAME: GEORGE GONZALEZ

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY: MDW TOWER, ORD APP CON  
OTHER:

# RADIO FIX AND HOLDING DATA RECORD

NAME: MEGGZ

STATE: IN

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413124.28N/0862344.65W

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 NM	FAC FEET	MRA	MAA
1	GOSHEN	GSH	VORTAC	H	269.76	269.76	16.58	16.58		6000	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	GOSHEN			KIGQ	CHICAGO	IL (US)
STAR	GOSHEN			KMDW	CHICAGO	IL (US)
STAR	PANGG (RNAV)			KMDW	CHICAGO	IL (US)
STAR	GOSHEN			KGYG	GARY	IN (US)
STAR	GOSHEN			05C	GRIFFITH	IN (US)
STAR	GOSHEN			3HO	HOBART	IN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 06/15/2023

## REASON FOR REVISION:

REMOVED INT FROM FIX TYPE.

REMOVED KNOX (OXI) VORTAC FROM FIX MAKE-UP FACILITIES.

REMOVED REMARKS "GOSHEN (FAC 1) AND KNOX (FAC 2) USED TO ESTABLISH FIX COORDINATES."

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A432

NAME: JOSHUA SAENZ

APPROVED BY:

DATE: 06/15/2023

OFFICE: AJV-A432

NAME: CASIMIR TABAKA

SIGNATURE:

# RADIO FIX AND HOLDING DATA RECORD

NAME: OLCYK

STATE: IL

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413224.69N/0873616.06W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION:

**FIX USE:**

**USE TYPE**

IAP  
STAR  
STAR

**USE TITLE**

RNAV (RNP) Y RWY 4R  
FISSK (RNAV)  
PANGG (RNAV)

**FAC**

**PAT**

**AIRPORT IDENT**

KMDW  
KMDW  
KMDW

**CITY**

CHICAGO  
CHICAGO  
CHICAGO

**STATE**

IL (US)  
IL (US)  
IL (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 06/27/2013

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

DEVELOPED BY:

DATE: 01/16/2013

OFFICE: AJV-353

NAME: THOMAS KIRKPATRICK

APPROVED BY:

DATE: 04/30/2013

OFFICE: AJV-353

NAME: LARRY STROUT

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY: MDW TOWER, ORD APP CON  
OTHER:

# RADIO FIX AND HOLDING DATA RECORD

NAME: PANGG

STATE: IL

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413130.03N/0860420.39W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

HOLDING:

HOLDING TYPE OF ACTION: ESTABLISH

## PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING MIN	ALTITUDES MAX	TEMPLATES MIN	MAX
1	E		WP	093.73	273.73	L	10	3400	10000	15	17

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (18-002311)	413655.00N/0861107.00W	1949	5D

## REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST.

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

## REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETE.  
HOLDING USED TEMPLATE 15 FOR 10 DME LEG LENGTH AT ATC REQUEST.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	PANGG (RNAV)		1	KMDW	CHICAGO	IL (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 07/24/2014

## REASON FOR REVISION:

ADD WP HOLDING AND ASSOCIATED NOTES.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

DEVELOPED BY:

DATE: 01/23/2014

OFFICE: AJV-353

NAME: THOMAS KIRKPATRICK

APPROVED BY:

DATE: 07/24/2014

OFFICE: AJV-353

NAME: GEORGE GONZALEZ

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY:  
OTHER:



# RADIO FIX AND HOLDING DATA RECORD

NAME: STASH

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 414615.08N/0861923.31W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

HOLDING:

HOLDING TYPE OF ACTION: ESTABLISH

## PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING MIN	ALTITUDES MAX	TEMPLATES MIN	MAX
1	E		WP	090.00	270.00	R	10	6000	10000	15	15

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (18-001499)	414457.60N/0860710.50W	1300	2C

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN

## REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETE.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	FISSK (RNAV)		1	KMDW	CHICAGO	IL (US)
STAR	PANGG (RNAV)		1	KMDW	CHICAGO	IL (US)
STAR	ERNNY (RNAV)			KORD	CHICAGO	IL (US)

REQUIRED CHARTING: STAR, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 04/20/2023

## REASON FOR REVISION:

HOLDING: ADDED PATTERN 1 WITH ASSOCIATED CONTROLLING OBSTACLE, RESTRICTION, AND REMARK  
FIX USE: ADDED "FISSK (RNAV)" AND "PANGG (RNAV)" STARS

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A421

NAME: COLIN CAMPBELL

APPROVED BY:

DATE: 04/20/2023

OFFICE: AJV-A421

NAME: JASON KRETSCHMER

SIGNATURE:

# RADIO FIX AND HOLDING DATA RECORD

NAME: TACTT

STATE: IL

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 415100.82N/0872616.77W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## FIX USE:

### USE TYPE

### USE TITLE

### FAC

### PAT

### AIRPORT IDENT

### CITY

### STATE

IAP	RNAV (GPS) Z RWY 22L			KMDW	CHICAGO	IL (US)
IAP	RNAV (RNP) Y RWY 22L			KMDW	CHICAGO	IL (US)
STAR	FISSK (RNAV)			KMDW	CHICAGO	IL (US)
STAR	PANGG (RNAV)			KMDW	CHICAGO	IL (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 04/20/2023

## REASON FOR REVISION:

FIX USE: ADDED "FISSK (RNAV)" AND "PANGG (RNAV)" STARS  
REQUIRED CHARTING: ADDED "STAR"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A421

NAME: COLIN CAMPBELL

APPROVED BY:

DATE: 04/20/2023

OFFICE: AJV-A421

NAME: JASON KRETSCHMER

SIGNATURE:

# RADIO FIX AND HOLDING DATA RECORD

NAME: TINLY

STATE: IL

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413319.08N/0875057.56W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

HOLDING:

HOLDING TYPE OF ACTION:

**FIX USE:**

**USE TYPE**

IAP  
STAR  
STAR

**USE TITLE**

RNAV (RNP) Y RWY 13C  
FISSK (RNAV)  
PANGG (RNAV)

**FAC**

**PAT**

**AIRPORT IDENT**

KMDW  
KMDW  
KMDW

**CITY**

CHICAGO  
CHICAGO  
CHICAGO

**STATE**

IL (US)  
IL (US)  
IL (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 06/27/2013

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

DEVELOPED BY:

DATE: 01/16/2013

OFFICE: AJV-353

NAME: THOMAS KIRKPATRICK

APPROVED BY:

DATE: 04/30/2013

OFFICE: AJV-353

NAME: LARRY STROUT

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZAU  
ATC FACILITY: MDW TOWER, ORD APP CON  
OTHER: