

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** BIRRS

**STATE:** MI

**COUNTRY:** US

**LATITUDE/LONGITUDE:** 432026.48N/0834637.11W

**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	FAC FEET	MRA	MAA
1	SAGINAW	MBS	VOR/DME	L	134.00	131.00	17.42	17.42		3000	17500
2	FLINT	FNT	VORTAC	H	002.65	356.65		22.47		3000	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	317.00	137.00	R		4	3100	6000	5	6

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	310	TOWER (26-000558)	431301.00N/0834317.00W	2013	4D
1	200	TOWER (26-000116)	432503.39N/0835506.04W	1109	5D

**HOLDING RESTRICTIONS:**

UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 3100.

**REMARKS:**

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 24		1	KCFS	CARO	MI (US)
IAP	RNAV (GPS) RWY 6		1	KCFS	CARO	MI (US)
IAP	RNAV (GPS) RWY 18			KFNT	FLINT	MI (US)
IAP	VOR RWY 32			KMBS	SAGINAW	MI (US)

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

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 8

**DATE OF REVISION:** 05/26/2016

**REASON FOR REVISION:**

HOLDING: CHANGED OBSTACLE 200KT PATTERN OBSTACLE MSL VALUE FROM 1107 TO 1109.  
UPDATE FIX USE.

**DEVELOPED BY:** **DATE:** 11/16/2015

**OFFICE:** AJV-5423

**NAME:** THOMAS KIRKPATRICK

**APPROVED BY:** **DATE:**

**OFFICE:** AJV-5420

**NAME:** GEORGE GONZALEZ

**SIGNATURE:**

**DISTRIBUTION:**

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: MBS APP CON  
OTHER:



# RADIO FIX AND HOLDING DATA RECORD

NAME: FLINT VORTAC

STATE: MI

COUNTRY: US

LATITUDE/LONGITUDE: 425800.38N/0834449.08W

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	FLINT	FNT	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	W	FNT	VORTAC	254.15	074.15	L	1	2200 6000	4 5
2	N	FNT	VORTAC	012.00	192.00	R	1	2600 4000	4 4

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (26-003098)	425427.12N/0835006.85W	1190	4D
2	200	TOWER (26-000637)	430504.99N/0834018.41W	1075	2B

**REASON FOR NONSTANDARD HOLDING:**

PAT 1 OBSTRUCTION

**HOLDING RESTRICTIONS:**

HOLDING LIMITED TO ESTABLISHED PATTERNS.

**REMARKS:**

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	PALACE	1		KARB	ANN ARBOR	MI (US)
DP	ST. CLAIR	1		KARB	ANN ARBOR	MI (US)
DP	PALACE	1		KDET	DETROIT	MI (US)
DP	ST. CLAIR	1		KDET	DETROIT	MI (US)
DP	PALACE	1		KDTW	DETROIT	MI (US)
DP	ST. CLAIR	1		KDTW	DETROIT	MI (US)
DP	PALACE	1		KYIP	DETROIT	MI (US)
DP	ST. CLAIR	1		KYIP	DETROIT	MI (US)
DP	PALACE	1		KPTK	PONTIAC	MI (US)
DP	ST. CLAIR	1		KPTK	PONTIAC	MI (US)
EN ROUTE	J36	1				(US)
EN ROUTE	J547	1				(US)
EN ROUTE	J68	1				(US)
EN ROUTE	J94	1				(US)
EN ROUTE	Q818					(US)
EN ROUTE	Q822					(US)
EN ROUTE	Q824					(US)
EN ROUTE	T616					(US)
EN ROUTE	T781					(US)
EN ROUTE	V353	1				(US)
EN ROUTE	V450	1				(US)
IAP	RNAV (GPS) RWY 6	1		KCFS	CARO	MI (US)
IAP	VOR RWY 8	1	1	K6G0	DAVISON	MI (US)
IAP	ILS OR LOC RWY 27	1		KFNT	FLINT	MI (US)
IAP	ILS OR LOC RWY 9	1		KFNT	FLINT	MI (US)
IAP	RNAV (GPS) RWY 9	1		KFNT	FLINT	MI (US)
IAP	VOR RWY 18	1		KFNT	FLINT	MI (US)
IAP	VOR RWY 27	1		KFNT	FLINT	MI (US)
IAP	VOR RWY 36	1		KFNT	FLINT	MI (US)
IAP	VOR RWY 9	1		KFNT	FLINT	MI (US)
IAP	ILS OR LOC RWY 13	1		KOZW	HOWELL	MI (US)
IAP	NDB RWY 13	1		KOZW	HOWELL	MI (US)
IAP	RNAV (GPS) RWY 13	1		KOZW	HOWELL	MI (US)
IAP	ILS OR LOC RWY 10R	1		KLAN	LANSING	MI (US)
IAP	VOR-A	1		KD95	LAPEER	MI (US)
IAP	VOR-A	1	2	K9G2	LINDEN	MI (US)
IAP	VOR/DME RWY 29	1		KRNP	OWOSSO	MI (US)
IAP	RNAV (GPS) RWY 27L	1		KPTK	PONTIAC	MI (US)
IAP	RNAV (GPS) RWY 9R	1		KPTK	PONTIAC	MI (US)
IAP	ILS OR LOC RWY 4	1		KPHN	PORT HURON	MI (US)
IAP	NDB RWY 4	1		KPHN	PORT HURON	MI (US)
IAP	ILS OR LOC/DME RWY 27	1		KHYX	SAGINAW	MI (US)
IAP	RNAV (GPS) RWY 27	1		KHYX	SAGINAW	MI (US)
IAP	RNAV (GPS) RWY 9	1		KHYX	SAGINAW	MI (US)
IAP	VOR RWY 14	1		KMBS	SAGINAW	MI (US)
STAR	PAITN	1		KORD	CHICAGO	IL (US)

QUALITY  
16  
CHECKED

STAR	WYNDE (RNAV)		KORD	CHICAGO	IL (US)
STAR	SPRTN	1	KDET	DETROIT	MI (US)
STAR	POLAR	1	KDTW	DETROIT	MI (US)

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

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 17                      **DATE OF REVISION:** 05/26/2016

**REASON FOR REVISION:**  
UPDATE FIX USE.

**DEVELOPED BY:**              **DATE:** 11/16/2015              **OFFICE:** AJV-5423              **NAME:** THOMAS KIRKPATRICK

**APPROVED BY:**              **DATE:**              **OFFICE:** AJV-5420              **NAME:** GEORGE GONZALEZ

**SIGNATURE:**

**DISTRIBUTION:**      **NFDC**  
                         **FPO:** CEN  
                         **ARTCC:** ZOB  
                         **ATC FACILITY:** FNT ATCT/FNT APP CON  
                         **OTHER:**



# RADIO FIX AND HOLDING DATA RECORD

NAME: HIPRA

STATE: MI

COUNTRY: US

LATITUDE/LONGITUDE: 432053.91N/0833743.92W

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 6

FAC

PAT

AIRPORT IDENT  
KCFS

CITY  
CARO

STATE  
MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 05/26/2016

REASON FOR REVISION:

UPDATE FIX COORDINATES: MOVED 5868 FEET NORTHEAST.

FAC 1: REMOVED.

UPDATE FIX USE.

DEVELOPED BY:

DATE: 11/16/2015

OFFICE: AJV-5423

NAME: THOMAS KIRKPATRICK

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: GEORGE GONZALEZ

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZOB

ATC FACILITY: MBS APP CON

OTHER:

QUALITY  
16  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: VOWER

STATE: MI

COUNTRY: US

LATITUDE/LONGITUDE: 432609.58N/0832901.25W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

FIX USE:  
USE TYPE  
IAP

USE TITLE  
RNAV (GPS) RWY 6

FAC

PAT

AIRPORT IDENT  
KCFS

CITY  
CARO

STATE  
MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 05/26/2016

DEVELOPED BY: DATE: 11/16/2015

OFFICE: AJV-5423

NAME: THOMAS KIRKPATRICK

APPROVED BY: DATE:

OFFICE: AJV-5420

NAME: GEORGE GONZALEZ

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: MBS  
OTHER:

QUALITY  
16  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: YOGUS

STATE: MI

COUNTRY: US

LATITUDE/LONGITUDE: 432405.37N/0833227.21W

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 6

FAC

PAT

AIRPORT IDENT  
KCFS

CITY  
CARO

STATE  
MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 05/26/2016

REASON FOR REVISION:

UPDATE FIX COORDINATES: MOVED 827 FEET SOUTH.

FAC 1: REMOVED.

UPDATE FIX USE.

DEVELOPED BY:

DATE: 11/16/2015

OFFICE: AJV-5423

NAME: THOMAS KIRKPATRICK

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: GEORGE GONZALEZ

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZOB

ATC FACILITY: MBS APP CON

OTHER:

QUALITY  
16  
CHECKED