

# RADIO FIX AND HOLDING DATA RECORD

NAME: BHOLD

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 422915.85N/0830936.17W

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	DETROIT	I-DWC	LOC/DME		035.71	028.71	17.39	19.70		6000	7000

## EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-DWC	LOC/DME	R-036	20	6000	7000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## REMARKS:

DME ANTENNA COORDINATES: 421359.69N-0832050.36W

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 22L	1		KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 22L (CP)	1		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT I)	1		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT II)	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM RWY 22L (CP)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 22L			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7

DATE OF REVISION: 11/10/2016

## REASON FOR REVISION:

1. CHANGED LAT/LONG FROM 422832.24N/0831008.61W TO 422915.85N/0830936.17W.
2. ADDED WP TO FIX TYPE.
3. CHANGED FAC 1 MAG BRG FROM 034.71 TO 035.71; DME FROM 16.56 TO 17.39, DIST FROM FAC FROM 18.87 TO 19.70.
4. CHANGED ESV DATA: RADIAL FROM 035 TO 036; DISTANCE FROM 19 TO 20.
5. UPDATED FIX USE: ADDED KDTW RNAV (GPS) RWY 22L AND RNAV (GPS) PRM RWY 22L(CP); CHANGED ALL REFERENCE TO (SCP) TO (CP).

DEVELOPED BY:

DATE: 06/23/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY  
25  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: CARLETON VORTAC STATE: MI COUNTRY: US ICAO REGION CODE: K5  
 LATITUDE/LONGITUDE: 420252.89N/0832727.29W 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	FEET	MRA	MAA
1	CARLETON	CRL	VORTAC	H							45000

## FIX RESTRICTIONS:

UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 3000.

## 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	S	CRL	VORTAC	180.00	360.00	R	1		3000	6000	4	5
2	W	CRL	VORTAC	260.00	080.00	R	1		2400	6000	4	5
3	S	CRL	VORTAC	196.00	016.00	R	1		3000	6000	4	5
4	S		WP	196.00	016.00	R		4	3000	6000	5	6

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	200	TOWER (26-002207)	420108.16N/0831422.74W	1079	5D
1	200	TOWER (26-003174)	420358.25N/0832337.21W	1017	1B
2	200	STACK (26-000291)	415940.00N/0833936.00W	1016	5D
3	200	TOWER (26-003174)	420358.25N/0832337.21W	1017	1B
3	310	STACK (26-000438)	415327.00N/0832043.00W	1386	5D
4	200	TOWER (26-000288)	415328.00N/0832540.00W	1014	4D

## PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
3	ILS OR LOC RWY 27L	KDTW	DETROIT	MI (US)
3	ILS RWY 27L (SA CAT I, II)	KDTW	DETROIT	MI (US)

## REMARKS:

PRECIPITIOUS TERRAIN EVALUATION COMPLETED.  
 HOLDING PAT 3 CLIMB IN HOLD EVALUATED PAT 13.  
 ASSIGNED FACILITY MAG VAR: 3W 1965.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	AMRST			KBKL	CLEVELAND	OH (US)
DP	SANDUSKY			KBKL	CLEVELAND	OH (US)
DP	AMRST			KCGF	CLEVELAND	OH (US)
DP	SANDUSKY			KCGF	CLEVELAND	OH (US)
DP	AMRST			KCLE	CLEVELAND	OH (US)
DP	SANDUSKY			KCLE	CLEVELAND	OH (US)
DP	AMRST			K1G1	ELYRIA	OH (US)
DP	SANDUSKY			K1G1	ELYRIA	OH (US)
DP	AMRST			KLPR	LORAIN/ELYRIA	OH (US)
DP	SANDUSKY			KLPR	LORAIN/ELYRIA	OH (US)
DP	AMRST			K1G5	MEDINA	OH (US)
DP	SANDUSKY			K1G5	MEDINA	OH (US)
DP	AMRST			K7G8	MIDDLEFIELD	OH (US)
DP	SANDUSKY			K7G8	MIDDLEFIELD	OH (US)
DP	AMRST			K2G1	PAINESVILLE	OH (US)
DP	SANDUSKY			K2G1	PAINESVILLE	OH (US)
DP	AMRST			KLNN	WILLOUGHBY	OH (US)
DP	SANDUSKY			KLNN	WILLOUGHBY	OH (US)
EN ROUTE	J190					(US)
EN ROUTE	J34					(US)
EN ROUTE	J554					(US)
EN ROUTE	J584					(US)
EN ROUTE	V10					(US)
EN ROUTE	V176					(US)
EN ROUTE	V188					(US)
EN ROUTE	V426					(US)
EN ROUTE	V493					(US)
EN ROUTE	V65					(US)
IAP	VOR RWY 6			KARB	ANN ARBOR	MI (US)
IAP	ILS OR LOC RWY 21L		1	KDTW	DETROIT	MI (US)
IAP	ILS OR LOC RWY 22L		3	KDTW	DETROIT	MI (US)
IAP	ILS OR LOC RWY 27L		3	KDTW	DETROIT	MI (US)
IAP	ILS RPM RWY 22L		3	KDTW	DETROIT	MI (US)
IAP	ILS RWY 21L (SA CAT I, II)		1	KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT I, II)		3	KDTW	DETROIT	MI (US)
IAP	ILS RWY 27L (SA CAT I, II)		3	KDTW	DETROIT	MI (US)

QUALITY  
25  
CHECKED

IAP	RNAV (GPS) RWY 22L	4	KDTW	DETROIT	MI (US)
IAP	ILS OR LOC RWY 5R		KYIP	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 23R		KYIP	DETROIT	MI (US)
IAP	NDB RWY 4		KONZ	DETROIT/GROSSE ILE	MI (US)
IAP	VOR-A	2	KONZ	DETROIT/GROSSE ILE	MI (US)
IAP	VOR RWY 21	1	KTTF	MONROE	MI (US)
IAP	VOR-A		K3TE	TECUMSEH	MI (US)
IAP	HI-ILS OR LOC RWY 7		KTOL	TOLEDO	OH (US)
IAP	HI-ILS OR LOC RWY 25		KTOL	TOLEDO	OH (US)
IAP	HI-TACAN RWY 25		KTOL	TOLEDO	OH (US)
IAP	HI-TACAN RWY 7		KTOL	TOLEDO	OH (US)
IAP	RNAV (GPS) RWY 25		KTOL	TOLEDO	OH (US)
STAR	CRUXX		KARB	ANN ARBOR	MI (US)
STAR	MIZAR		KDTW	DETROIT	MI (US)
STAR	WEEDA		KDTW	DETROIT	MI (US)
STAR	CRUXX		KYIP	DETROIT	MI (US)
STAR	CRUXX		KONZ	DETROIT/GROSSE ILE	MI (US)
STAR	CRUXX		KOZW	HOWELL	MI (US)
STAR	CRUXX		KTTF	MONROE	MI (US)
STAR	CRUXX		KY47	NEW HUDSON	MI (US)
STAR	CRUXX		K1D2	PLYMOUTH	MI (US)
STAR	CRUXX		KPTK	PONTIAC	MI (US)
STAR	CRUXX		K36MI	TECUMSEH	MI (US)
STAR	CRUXX		K3TE	TECUMSEH	MI (US)
STAR	CRUXX		KVLL	TROY	MI (US)
STAR	FAILS		KBKL	CLEVELAND	OH (US)
STAR	FAILS		KCGF	CLEVELAND	OH (US)
STAR	HIMEZ		KCLE	CLEVELAND	OH (US)
STAR	HIMEZ		K1G1	ELYRIA	OH (US)
STAR	HIMEZ		KLPR	LORAIN/ELYRIA	OH (US)
STAR	HIMEZ		K1G5	MEDINA	OH (US)
STAR	FAILS		K7G8	MIDDLEFIELD	OH (US)
STAR	FAILS		K2G1	PAINESVILLE	OH (US)
STAR	FAILS		KLNN	WILLOUGHBY	OH (US)

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

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 17

**DATE OF REVISION:** 11/10/2016

**REASON FOR REVISION:**

HOLDING PATTERN 1: MIN HOLDING 2600 CHANGED TO 3000.

HOLDING PATTERN 1. UPDATED CONTROLLING OBSTACLE DATA.

HOLDING PATTERN 3. UPDATED CONTROLLING OBSTACLE DATA AND ADDED C-I-H 310 DATA.

ADD UNPLANNED HOLDING CONTROLLING OBSTACLE.

FIX RESTRICTIONS: REMOVED HOLDING LIMITED TO ESTABLISHED PATTERNS.

UPDATED FIX USE.

**DEVELOPED BY:**      **DATE:** 06/17/2016      **OFFICE:** AJV-5421      **NAME:** DEANNA FIELDS

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

**SIGNATURE:**

**DISTRIBUTION:**    **NFDC**  
**FPO:** CEN  
**ARTCC:** ZOB  
**ATC FACILITY:** DTW  
**OTHER:**

QUALITY  
25  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: DRBRN

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 423209.65N/0830726.76W

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	DETROIT	I-DWC	LOC/DME		035.71	028.71	20.70	23.00		7000	10000

## EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-DWC	LOC/DME	R-036	24	7000	10000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## REMARKS:

DME ANTENNA COORDINATES: 421359.69N-0832050.36W

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 22L	1		KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 22L (CP)	1		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT I)	1		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT II)	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM RWY 22L (CP)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 22L			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 11/10/2016

## REASON FOR REVISION:

1. CHANGED LAT/LONG FROM 423109.24N/0830811.76W TO 423209.65N/0830726.76W. FIX MOVED 1.15 NM NORTHEAST.
2. ADDED WP TO FIX TYPE.
3. CHANGED FAC 1 MAG BRG FROM 034.71 TO 035.71; DME FROM 19.55 TO 20.70; DIST FROM FAC FROM 21.85 TO 23.00.
4. CHANGED ESV RADIAL/BEARING FROM R-035 TO R-036; DISTANCE FROM 20 TO 24.
5. UPDATED FIX USE: ADDED KDTW RNAV (GPS) PRM RWY 22L(CP); CHANGED ALL REFERENCE TO (SCP) TO (CP).

DEVELOPED BY:

DATE: 06/23/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY  
25  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: HULKA

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 421739.24N/0831812.57W

TYPE: WP, RADAR, 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 NM	FAC FEET	MRA	MAA
1	DETROIT	I-DWC	LOC/DME		035.71	028.71	4.15	6.45	39211	2000	5100
2	SALEM	SVM	VORTAC	L	120.87	117.87		14.63		2000	5100

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## REMARKS:

DETROIT (FAC 1) USED TO ESTABLISH FIX COORDINATES  
DME ANTENNA COORDINATES: 421359.69N-0832050.36W

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 22L	1, 2		KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 22L (CP)	1, 2		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT I)	1, 2		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT II)	1, 2		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM RWY 22L (CP)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 22L			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5

DATE OF REVISION: 11/10/2016

## REASON FOR REVISION:

1. CHANGED LAT/LONG FROM 421832.53N/0831733.20W TO 421739.24N/0831812.57W.
2. CHANGED FAC 1 DME FROM 5.16 TO 4.15; DIST FROM FAC NM FROM 7.47 TO 6.45; DIST FROM FAC IN FT FROM 45363 TO 39211; MRA FROM 2300 TO 2000.
3. CHANGED FAC 2 MAG/TRUE BRG FROM 116.92/113.92 TO 120.87/117.87; DIST FROM FAC NM FROM 14.68 TO 14.63; MRA FROM 2300 TO 2000.
4. UPDATED FIX USE: ADDED KDTW RNAV (GPS) RWY 22L AND RNAV (GPS) PRM RWY 22L(CP); CHANGED ALL REFERENCE TO (SCP) TO (CP).

DEVELOPED BY:

DATE: 06/23/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY  
25  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** HWLER **STATE:** MI **COUNTRY:** US **ICAO REGION CODE:** K5

**LATITUDE/LONGITUDE:** 415800.93N/0833234.34W **TYPE:** WP, RADAR, DME

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

**FIX MAKE-UP FACILITIES:**

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	DETROIT	DXO	VOR/DME	H	214.12	208.12	16.73	16.73		4000	10000

**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 ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	SW	DXO	VOR/DME	214.12	034.12	R	1-1 1/2	4000 6000	5 6
2	SW		WP	214.12	034.12	R	4	4000 6000	5 6

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (26-001782)	415516.83N/0833948.48W	935	2C
2	200	TOWER (26-001782)	415516.83N/0833948.48W	935	2C

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 22L	1	1	KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 22L (CP)	1	1	KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT I)	1	1	KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT II)	1	1	KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM RWY 22L (CP)		2	KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 22L		2	KDTW	DETROIT	MI (US)

**REQUIRED CHARTING:** IAP

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** ORIG **DATE OF REVISION:** 11/10/2016

**DEVELOPED BY:** **DATE:** 06/23/2016 **OFFICE:** AJV-5421 **NAME:** JAMES ROGERS

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

**SIGNATURE:**

**DISTRIBUTION:** NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: DTW  
OTHER:

QUALITY  
25  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** LUPAY **STATE:** MI **COUNTRY:** US **ICAO REGION CODE:** K5  
**LATITUDE/LONGITUDE:** 422622.02N/0831145.38W **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	MRA	MAA
1	DETROIT	I-DWC	LOC/DME		035.71	028.71	14.08	16.39	5000	6000
2	DETROIT	DXO	VOR/DME	H	035.18	029.18	15.56	15.56	4000	10000

**EXPANDED SERVICE VOLUME (ESV):**

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-DWC	LOC/DME	R-036	17	5000	6000

**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	NE	DXO	VOR/DME	215.18	215.18	R	1		4000	6000	5	6
2	NE		WP	035.18	215.18	R		4	4000	6000	5	6

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (26-000093)	422858.00N/0831219.00W	1749	1D
2	200	TOWER (26-000093)	422858.00N/0831219.00W	1749	1D

**HOLDING RESTRICTIONS:**

HOLDING LIMITED TO ESTABLISHED PATTERNS.

**REMARKS:**

DETROIT (FAC 1) USED TO ESTABLISH FIX COORDINATES  
DME ANTENNA COORDINATES: 421359.69N/0832050.36W.  
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 22L	1		KDTW	DETROIT	MI (US)
IAP	ILS OR LOC RWY 4R		1	KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 22L (CP)	1		KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 4R (CP)		1	KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT I)	1		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT II)	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM RWY 22L (CP)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM RWY 4R (CP)		2	KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 22L			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 4R		2	KDTW	DETROIT	MI (US)

**REQUIRED CHARTING:** IAP

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 4 **DATE OF REVISION:** 11/10/2016

**REASON FOR REVISION:**

1. CHANGED LAT/LONG FROM 422552.65N/0831207.18W TO 422622.02N/0831145.38W.
2. ADDED WP TO FIX TYPE.
3. ADDED DXO VOR/DME TO FIX MAKEUP FOR MISSED APPROACH ILS OR LOC AND ILS PRM RWY 4R.
4. ADDED HOLDING PATTERN 1 AND APPLICABLE OBSTACLE DATA.
5. ADDED FAC 1 USED TO ESTABLISH FIX COORDINATES TO REMARKS.
6. CHANGED FAC 1: MAG BRG FROM 034.71 TO 035.71; DME FROM 13.52 TO 14.08; DIST FROM FAC NM FROM 15.83 TO 16.39.
7. UPDATED FIX USE: ADDED KDTW RNAV (GPS) RWY 4R AND RNAV (GPS) PRM RWY 4R(CP) ILS OR LOC RWY 4R ILS PRM RWY 4R (CP); CHANGED ALL REFERENCES TO (SCP) TO (CP).
8. UPDATED ESV DATA: CHANGED RADIAL FROM 035 TO 036 AND DISTANCE FROM 16 TO 17.

**DEVELOPED BY:** **DATE:** 06/23/2016 **OFFICE:** AJV-5421 **NAME:** JAMES ROGERS

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

**SIGNATURE:**

**DISTRIBUTION:** NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: DTW



# RADIO FIX AND HOLDING DATA RECORD

NAME: MCOMB

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 423503.44N/0830517.25W

TYPE: WP, RADAR, DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

## FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	DETROIT	I-DWC	LOC/DME		035.71	028.71	24.00	26.31		8000	10000

## EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-DWC	LOC/DME	R-036	27	8000	10000

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 22L	1		KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 22L (CP)	1		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT I)	1		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT II)	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM RWY 22L (CP)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 22L			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 11/10/2016

DEVELOPED BY: DATE: 06/23/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY: DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY  
25  
CHECKED



# RADIO FIX AND HOLDING DATA RECORD

NAME: OSKER

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 422328.14N/0831354.39W

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	DETROIT	I-DWC	LOC/DME		035.71	028.71	10.78	13.08		4000	5100

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## REMARKS:

DME ANTENNA COORDINATES: 421359.69N-0832050.36W.  
ESV ON DWC GS OUT TO 11 NM FROM GS/10.78 DME.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 22L	1		KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 21L (CP)	1		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT I)	1		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT II)	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM RWY 22L (CP)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 22L			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 11

DATE OF REVISION: 11/10/2016

## REASON FOR REVISION:

1. CHANGED LAT/LONG FROM 422310.35N/0831407.58W TO 422328.14N/0831354.39W.
2. ADDED WP TO FIX TYPE.
3. CHANGED FAC 1: MAG BRG FROM 034.71 TO 035.71; DME FROM 10.44 TO 10.78; DIST FROM FAC NM FROM 12.75 TO 13.08.
4. UPDATED FIX USE: ADDED KDTW RNAV (GPS) RWY 22L AND RNAV (GPS) PRM RWY 22L(CP); CHANGED ALL REFERENCE TO (SCP) TO (CP).

DEVELOPED BY:

DATE: 06/23/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

QUALITY  
25  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: ROUGE

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 422034.22N/0831603.21W

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	DETROIT	I-DWC	LOC/DME		035.71	028.71	7.47	9.78		3000	5100

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## REMARKS:

DME ANTENNA COORDINATES: 421359.69N-0832050.36W

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 22L	1		KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 21L (CP)	1		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT I)	1		KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT II)	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM RWY 22L (CP)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 22L			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 11

DATE OF REVISION: 11/10/2016

## REASON FOR REVISION:

1. CHANGED LAT/LONG FROM 422025.19N/0831608.89W TO 422034.22N/0831603.21W.
2. ADDED WP TO FIX TYPE.
3. CHANGED FAC 1: MAG BRG FROM 034.71 TO 035.71; DME FROM 7.30 TO 7.47; DIST FROM FAC NM FROM 9.61 TO 9.78.
4. UPDATED FIX USE: ADDED KDTW RNAV (GPS) RWY 22L AND RNAV (GPS) PRM RWY 22L(CP); CHANGED ALL REFERENCE TO (SCP) TO (CP).

DEVELOPED BY: DATE: 06/23/2016

OFFICE: AJV-5421

NAME: JAMES ROGERS

APPROVED BY: DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

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

