

RADIO FIX AND HOLDING DATA RECORD

NAME: ANGGL

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 421714.30N/0831931.30W

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-BZB	LOC/DME		033.19	026.19	5.92	5.91	35882	2000	5100

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

I-BZB DME: 421157.11N-0832306.18W

FIX NAME CHANGED FROM JELVU TO ANGGL PER ATC REQUEST / METROPLEX PROJECT COORDINATION.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL)	1		KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 22R			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 11/10/2016

REASON FOR REVISION:

1. FIX NAME CHANGED FROM JELVU TO ANGGL.

2. FIX MOVED 0.87 NM SOUTHWEST.

3. FAC 1 - MAG BRG CHANGED FROM 032.19 TO 033.19; DME CHANGED FROM 6.79 TO 5.92; ADDED DIST FROM FAC DATA; CHANGED MRA/MAA FROM 2300/4000 TO 2000/5100.

4. REMOVED FAC 2.

5. UPDATED FIX USE FORMAT; ADDED KDTW RNAV Y RWY 22R SIAPS.

DEVELOPED BY:

DATE: 06/23/2016

OFFICE: AJV-5421

NAME: JEFFREY ROBINSON

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZOB

ATC FACILITY: DTW APP CON, METRO TOWER

OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CFBJN

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 421333.99N/0832157.26W

TYPE: CNF

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

FICTITIOUS THRESHOLD POINT FOR OFFSET FAC.

FIX USE:

USE TYPE

IAP

USE TITLE

ILS PRM Y RWY 22R (CLOSE
PARALLEL)

FAC

PAT

AIRPORT IDENT

KDTW

CITY

DETROIT

STATE

MI (US)

IAP

ILS Y RWY 22R

KDTW

DETROIT

MI (US)

IAP

RNAV (GPS) PRM Y RWY 22R
(CLOSE PARALLEL)

KDTW

DETROIT

MI (US)

IAP

RNAV (GPS) Y RWY 22R

KDTW

DETROIT

MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 11/10/2016

REASON FOR REVISION:

1. FIX COORDINATES RECALCULATED AND UPDATED TO HIGHER PRECISION; FIX MOVED LESS THAN 1 FT.
2. UPDATED FIX USE -- ADDED DTW RNAV (GPS) Y IAPS.

DEVELOPED BY:

DATE: 06/24/2016

OFFICE: AJV-5421

NAME: JEFFREY ROBINSON

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZOB

ATC FACILITY: DTW APP CON, METRO TOWER

OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: DOHNT STATE: MI COUNTRY: US ICAO REGION CODE: K5
 LATITUDE/LONGITUDE: 421812.54N/0834130.41W TYPE: WP, RADAR, INT, 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	MRA	MAA
1	DETROIT	DXO	VOR/DME	H	296.62	290.62	15.47	15.47	4000	6000
2	SALEM	SVM	VORTAC	L	217.65	214.65	7.66	7.66	4000	6000
3	CARLETON	CRL	VORTAC	H	328.79	325.79	18.54	18.54	4000	6000
4	JACKSON	JXN	VOR/DME	L	090.30	085.30	34.25	34.25	4000	6000

FIX RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

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	NW		WP	117.62	117.62	R		4	4000	6000	5	6
2	NW	DXO	VOR/DME	116.62	116.62	R	1		4000	6000	5	6
3	W	JXN	VOR/DME	090.30	090.30	R	1		4000	6000	6	7

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (26-001919)	421747.00N/0835301.00W	1408	5D
2	200	TOWER (26-001919)	421747.00N/0835301.00W	1408	5D
3	200	TOWER (26-001919)	421747.00N/0835301.00W	1408	5D

REMARKS:

DETROIT (FAC 1) AND SALEM (FAC 2) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL)	1, 2	2	KDTW	DETROIT	MI (US)
IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL) (ALT MA)	3, 4	3	KDTW	DETROIT	MI (US)
IAP	ILS PRM Y RWY 4L (CLOSE PARALLEL)	1, 2	2	KDTW	DETROIT	MI (US)
IAP	ILS PRM Y RWY 4L (CLOSE PARALLEL) (ALT MA)	3, 4	3	KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R	1, 2	2	KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R (ALT MA)	3, 4	3	KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 4L	1, 2	2	KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 4L (ALT MA)	3, 4	3	KDTW	DETROIT	MI (US)
IAP	ILS Z OR LOC RWY 22R	1, 2	2	KDTW	DETROIT	MI (US)
IAP	ILS Z OR LOC RWY 22R (ALT MA)	3, 4	3	KDTW	DETROIT	MI (US)
IAP	ILS Z OR LOC RWY 4L	1, 2	2	KDTW	DETROIT	MI (US)
IAP	ILS Z OR LOC RWY 4L (ALT MA)	3, 4	3	KDTW	DETROIT	MI (US)
IAP	ILS Z RWY 22R (SA CAT I & II)	1, 2	2	KDTW	DETROIT	MI (US)
IAP	ILS Z RWY 22R (SA CAT I & II) (ALT MA)	3, 4	3	KDTW	DETROIT	MI (US)
IAP	ILS Z RWY 4L (CAT II & III)	1, 2	2	KDTW	DETROIT	MI (US)
IAP	ILS Z RWY 4L (CAT II & III) (ALT MA)	3, 4	3	KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)		1	KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 4L (CLOSE PARALLEL)		1	KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 22R		1	KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 4L		1	KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: DATE: 06/21/2016 OFFICE: AJV-5421 NAME: JEFFREY ROBINSON

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

QUALITY
2
CHECKED

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW APP CON, METRO TOWER
OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: EMINN

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 422252.91N/0831546.35W

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-BZB	LOC/DME		033.19	026.19	12.21	12.20		3000	5100

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-BZB	LOC/DME	R-033	11	3000	5100

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

I-BZB DME: 421157.11N-0832306.18W.
ESV IS FOR I-BZB GS.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL)	1		KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 22R			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 11/10/2016

REASON FOR REVISION:

1. FIX MOVED 1778 FT NORTHEAST.
2. ADDED WP TO FIX TYPE.
- 3 FAC 1 - CHANGED MAG BRG FROM 032.19 TO 033.19; CHANGED DME FROM 11.91 TO 12.21; ADDED DIST FROM FAC DATA; CHANGED MRA/MAA FROM 4000/5000 TO 3000/5100.
4. REMOVED FAC 2.
5. ADDED ESV DATA AND REMARK.
6. UPDATED FIX USE FORMAT; ADDED DTW RWY 22R RNAV (GPS) Y IAPS.

DEVELOPED BY: DATE: 06/24/2016

OFFICE: AJV-5421

NAME: JEFFREY ROBINSON

APPROVED BY: DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW APP CON, METRO TOWER
OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: GRDCY

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 423018.98N/0831048.83W

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-BZB	LOC/DME		033.19	026.19	20.50	20.48		4000	7000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-BZB	LOC/DME	R-033	21	4000	7000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

I-BZB DME: 421157.11N-0832306.18W.

ADDITIONAL ESV INFO: GS (R-033/19, 4000-7000), DME (R-033/21, 4000-7000).

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL)	1		KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 22R			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 11/10/2016

REASON FOR REVISION:

1. FIX MOVED 826 FT SOUTHWEST.
2. ADDED WP TO FIX TYPE.
3. FAC 1 - CHANGED MAG BRG FROM 32.19 TO 33.19; CHANGED DME FROM 20.63 TO 20.50; ADDED DIST FROM FAC DATA; CHANGED MRA/MAA FROM 7000/10000 TO 4000/7000.
4. REMOVED FAC 2.
5. CHANGED ESV DATA FROM "ON FILE" TO R-033/21, 4000-7000; ADDED ESV REMARK FOR GS AND DME.
6. UPDATED FIX USE FORMAT; ADDED DTW RWY 22R RNAV (GPS) Y IAPS.

DEVELOPED BY: DATE: 06/24/2016

OFFICE: AJV-5421

NAME: JEFFREY ROBINSON

APPROVED BY: DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW APP CON, METRO TOWER
OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: HRRON

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 423738.73N/0831826.46W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:
USE TYPE**

USE TITLE

FAC

PAT

AIRPORT IDENT

CITY

STATE

IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R			KDTW	DETROIT	MI (US)
IAP	ILS Z OR LOC RWY 22R			KDTW	DETROIT	MI (US)
IAP	ILS Z RWY 22R (SA CAT I & II)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 22R			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 11/10/2016

DEVELOPED BY:

DATE: 08/04/2016

OFFICE: AJV-5421

NAME: JEFFREY ROBINSON

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW APP CON, METRO TOWER
OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: KLIER

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 423355.17N/0831103.94W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:
USE TYPE**

USE TITLE

FAC

PAT

AIRPORT IDENT

CITY

STATE

IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R			KDTW	DETROIT	MI (US)
IAP	ILS Z OR LOC RWY 22R			KDTW	DETROIT	MI (US)
IAP	ILS Z RWY 22R (SA CAT I & II)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 22R			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 11/10/2016

DEVELOPED BY:

DATE: 06/24/2016

OFFICE: AJV-5421

NAME: JEFFREY ROBINSON

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW APP CON, METRO TOWER
OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: MMOTR

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 422831.38N/0831200.72W

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-BZB	LOC/DME		033.19	026.19	18.50	18.48		4000	6000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-BZB	LOC/DME	R-033	19	4000	6000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

I-BZB DME: 421157.11N-0832306.18W.
ADDITIONAL ESV INFO: GS (R-033/17, 4000-6000), DME (R-033/19, 4000-6000).

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL)	1		KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 22R			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 11/10/2016

REASON FOR REVISION:

1. FIX MOVED 4416 FT NORTHEAST.
2. ADDED WP TO FIX TYPE.
3. FAC 1 - CHANGED MAG BRG FROM 32.19 TO 33.19; CHANGED DME FROM 17.77 TO 18.50; ADDED DIST FROM FAC DATA; CHANGED MRA/MAA FROM 6000/7000 TO 4000/6000.
4. REMOVED FAC 2.
5. CHANGED ESV DATA FROM "ON FILE" TO R-033/19, 4000-6000; ADDED ESV REMARK FOR GS AND DME.
6. UPDATED FIX USE FORMAT; ADDED DTW RWY 22R RNAV (GPS) Y IAPS.

DEVELOPED BY: DATE: 06/24/2016

OFFICE: AJV-5421

NAME: JEFFREY ROBINSON

APPROVED BY: DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW APP CON, METRO TOWER
OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: PONTIAC VORTAC

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 424203.09N/0833157.98W

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	MAA
1	PONTIAC	PSI	VORTAC	L						17500

FIX RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

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	NW	PSI	VORTAC	304.00	124.00	R	1		2700	6000	4	5
2	NW		WP	304.00	124.00	R		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (26-001927)	424417.00N/0834003.00W	1523	5D
2	200	TOWER (26-001927)	424417.00N/0834003.00W	1523	5D

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAGVAR: 3W/1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	PALACE			KPTK	PONTIAC	MI (US)
EN ROUTE	V103					(US)
EN ROUTE	V410					(US)
IAP	RNAV (GPS) RWY 15			KDET	DETROIT	MI (US)
IAP	ILS OR LOC RWY 4R		1	KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 4R (CAT II) (CP)		1	KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 4R (CAT III) (CP)		1	KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 4R (CP)		1	KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 4R (SA CAT I) (CP)		1	KDTW	DETROIT	MI (US)
IAP	ILS RWY 4R (CAT II)		1	KDTW	DETROIT	MI (US)
IAP	ILS RWY 4R (CAT III)		1	KDTW	DETROIT	MI (US)
IAP	ILS RWY 4R (SA CAT I)		1	KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 27			KFNT	FLINT	MI (US)
IAP	RNAV (GPS)-B			K1D2	PLYMOUTH	MI (US)
IAP	ILS OR LOC RWY 9R (ALT MA)		1	KPTK	PONTIAC	MI (US)
IAP	LOC BC RWY 27L (ALT MA)		1	KPTK	PONTIAC	MI (US)
IAP	VOR RWY 27L			KPTK	PONTIAC	MI (US)
IAP	VOR RWY 9R			KPTK	PONTIAC	MI (US)
IAP	VOR-A		1	KVLL	TROY	MI (US)
STAR	GOHMA			CYQG	ONTARIO, CANADA	(CA)
STAR	GOHMA			KARB	ANN ARBOR	MI (US)
STAR	GOHMA			KDET	DETROIT	MI (US)
STAR	SPRTN			KDET	DETROIT	MI (US)
STAR	GOHMA			KYIP	DETROIT	MI (US)
STAR	SWWAN			KOZW	HOWELL	MI (US)
STAR	SWWAN			KY47	NEW HUDSON	MI (US)
STAR	GOHMA			K1D2	PLYMOUTH	MI (US)
STAR	SWWAN			KPTK	PONTIAC	MI (US)
STAR	SWWAN			KVLL	TROY	MI (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 12

DATE OF REVISION: 11/10/2016

REASON FOR REVISION:

1. MOVED HOLDING RESTRICTION TO FIX RESTRICTIONS BLOCK.
2. ADDED FAC MAGVAR REMARK.
3. UPDATED FIX USE - REMOVED DTW ILS OR LOC RWY 27R, ILS Y RWY 22R, ILS Z OR LOC RWY 22R, ILS Z RWY 22R (SA CAT I, II); FNT ILS OR LOC RWY 27, VOR RWY 18, VOR RWY 36, VOR RWY 9; OZW VOR RWY 31; D95 VOR-A; CHANGED 1D2 RNAV (GPS) RWY 18 TO RNAV (GPS)-B.

QUALITY
2
CHECKED

DEVELOPED BY: **DATE:** 07/26/2016 **OFFICE:** AJV-5421 **NAME:** JEFFREY ROBINSON

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

SIGNATURE:

DISTRIBUTION: **NFDC**
 FPO: CEN
 ARTCC: ZOB
 ATC FACILITY: DTW APP CON, FNT APP CON
 OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: PYRET

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 423307.90N/0830855.82W

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	I-BZB	LOC/DME		033.19	026.19	23.63	23.62		4000	8000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-BZB	LOC/DME	R-033	24	4000	8000

REMARKS:

DME L/L: 421157.11N-0832306.18W.

ADDITIONAL ESV INFO: GS (R-033/22, 6600-8000), DME (R-033/24, 4000-8000).

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL)	1		KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 22R			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 11/10/2016

DEVELOPED BY: DATE: 06/24/2016

OFFICE: AJV-5421

NAME: JEFFREY ROBINSON

APPROVED BY: DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW APP CON, METRO TOWER
OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: SALEM VORTAC STATE: MI COUNTRY: US ICAO REGION CODE: K5
 LATITUDE/LONGITUDE: 422431.09N/0833538.05W 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	SALEM	SVM	VORTAC	L							45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
SVM	VORTAC	R-095	90	90	430

FIX RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

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	SVM	VORTAC	033.00	213.00	R	1		3000	6000	4	5
2	NW	SVM	VORTAC	294.00	114.00	L	1		3000	6000	4	5
3	NW	SVM	VORTAC	303.76	123.76	L	1		2400	6000	4	5
4	S	SVM	VORTAC	170.00	350.00	R	1		3000	6000	4	5
5	N	SVM	VORTAC	360.00	180.00	R	1		3000	6000	4	5
6	N	SVM	VORTAC	343.63	163.63	L	1		2600	6000	4	5
7	NE	SVM	VORTAC	055.00	235.00	R	1		3000	6000	4	5
8	NW	WP		294.00	114.00	L		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (26-000543)	422911.99N/0832949.10W	1389	5D
2	200	GEN UTIL (26-027127)	422403.80N/0833325.40W	1308	2C
3	200	GEN UTIL (26-027127)	422403.80N/0833325.40W	1308	2C
4	200	GEN UTIL (26-027127)	422403.80N/0833325.40W	1308	2C
5	200	AAO	423318.00N/0833942.00W	1349	4E
6	200	AAO	423318.00N/0833942.00W	1349	4E
7	200	TOWER (26-000543)	422911.99N/0832949.10W	1389	5D
8	200	GEN UTIL (26-027127)	422403.80N/0833325.40W	1308	2C

REASON FOR NONSTANDARD HOLDING:

PAT 6 ATC REQUEST
 PAT 3 ATC REQUEST
 PAT 8 PAT 10 ATC REQUEST
 PAT 2 ATC REQUEST

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 SALEM VORTAC MAGNETIC VARIATION W3/1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	MOONN			KARB	ANN ARBOR	MI (US)
DP	PALACE			KARB	ANN ARBOR	MI (US)
DP	MOONN			KDET	DETROIT	MI (US)
DP	PALACE			KDET	DETROIT	MI (US)
DP	MOONN			KDTW	DETROIT	MI (US)
DP	PALACE			KDTW	DETROIT	MI (US)
DP	MOONN			KYIP	DETROIT	MI (US)
DP	PALACE			KYIP	DETROIT	MI (US)
DP	MOONN			KPTK	PONTIAC	MI (US)
DP	PALACE			KPTK	PONTIAC	MI (US)
EN ROUTE	J70					(US)
EN ROUTE	Q907					(US)
EN ROUTE	Q951					(US)
EN ROUTE	V116					(US)
EN ROUTE	V116-221					(US)
EN ROUTE	V133					(US)
EN ROUTE	V170					(US)
EN ROUTE	V2-221-464					(US)
EN ROUTE	V2-26					(US)
EN ROUTE	V26-133					(US)
EN ROUTE	V90-406-418					(US)
IAP	RNAV (GPS) RWY 23			KADG	ADRIAN	MI (US)
IAP	VOR RWY 24		1	KARB	ANN ARBOR	MI (US)
IAP	VOR RWY 6		7	KARB	ANN ARBOR	MI (US)
IAP	ILS OR LOC RWY 21L			KDTW	DETROIT	MI (US)
IAP	ILS OR LOC RWY 22L			KDTW	DETROIT	MI (US)

QUALITY
2
CHECKED

IAP	ILS OR LOC RWY 27R	4	KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 22L (CLOSE PAR)		KDTW	DETROIT	MI (US)
IAP	ILS RWY 21L (SA CAT I & II)		KDTW	DETROIT	MI (US)
IAP	ILS OR LOC RWY 23L	2	KYIP	DETROIT	MI (US)
IAP	ILS OR LOC RWY 5R	2	KYIP	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 23R		KYIP	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 5L	8	KYIP	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 5R	8	KYIP	DETROIT	MI (US)
IAP	VOR-A	6	KYIP	DETROIT	MI (US)
IAP	ILS OR LOC RWY 13		KOZW	HOWELL	MI (US)
IAP	RNAV (GPS) RWY 31		KOZW	HOWELL	MI (US)
IAP	VOR RWY 31		KOZW	HOWELL	MI (US)
IAP	VOR OR GPS-A	4	KY47	NEW HUDSON	MI (US)
IAP	RNAV (GPS) - B		K1D2	PLYMOUTH	MI (US)
IAP	VOR-A	3	K1D2	PLYMOUTH	MI (US)
IAP	ILS OR LOC RWY 9R	5	KPTK	PONTIAC	MI (US)
IAP	LOC BC RWY 27L	5	KPTK	PONTIAC	MI (US)
IAP	RNAV (GPS) RWY 27L		KPTK	PONTIAC	MI (US)
IAP	RNAV (GPS) RWY 9R		KPTK	PONTIAC	MI (US)
IAP	VOR RWY 27L	5	KPTK	PONTIAC	MI (US)
IAP	VOR RWY 9R	5	KPTK	PONTIAC	MI (US)
STAR	SPICA		KDTW	DETROIT	MI (US)
STAR	WEEDA		KDTW	DETROIT	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, IAP, AREA, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 24

DATE OF REVISION: 11/10/2016

REASON FOR REVISION:

DELETED HOLDING PATTERNS 8 AND 9 - NO LONGER IN USE

RENUMBERED HOLDING PATTERN #10 TO #8 AND UPDATED FIX USE ACCORDINGLY

ADDED MAGNETIC VARIATION REMARK

UPDATED FIX USE, KDTW PROCEDURES

DEVELOPED BY: **DATE:** 05/24/2016

OFFICE: AJV-5423

NAME: THOMAS KIRKPATRICK (LUCAS MCCLOUD)

APPROVED BY: **DATE:**

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

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

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: TAYUL

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 422542.16N/0831353.62W

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-BZB	LOC/DME		033.19	026.19	15.35	15.34		4000	5100

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-BZB	LOC/DME	R-033	14	4000	5100

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

I-BZB DME: 421157.11N-0832306.18W.
ESV FOR I-BZB GS.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL)	1		KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 22R			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 11/10/2016

REASON FOR REVISION:

1. FIX MOVED 2962 FT NORTHEAST.
2. ADDED WP TO FIX TYPE.
3. FAC 1 - CHANGED MAG BRG FROM 032.19 TO 033.19; CHANGED DME FROM 14.86 TO 15.35; ADDED DIST FROM FAC DATA; CHANGED MRA/MAA FROM 5000/6000 TO 4000/5100.
4. REMOVED FAC 2.
5. CHANGED ESV DATA FROM "ON FILE" TO R-033/14, 4000-5100.
6. UPDATED FIX USE FORMAT; ADDED DTW RWY 22R RNAV (GPS) Y IAPS.

DEVELOPED BY: DATE: 06/24/2016

OFFICE: AJV-5421

NAME: JEFFREY ROBINSON

APPROVED BY: DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW APP CON, METRO TOWER
OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: VALLI

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 423356.33N/0832118.10W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:
USE TYPE**

USE TITLE

FAC

PAT

AIRPORT IDENT

CITY

STATE

IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R			KDTW	DETROIT	MI (US)
IAP	ILS Z OR LOC RWY 22R			KDTW	DETROIT	MI (US)
IAP	ILS Z RWY 22R (SA CAT I & II)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 22R			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 11/10/2016

DEVELOPED BY:

DATE: 06/24/2016

OFFICE: AJV-5421

NAME: JEFFREY ROBINSON

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW APP CON, METRO TOWER
OTHER:

QUALITY
2
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: WONDR

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 422003.63N/0831738.91W

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	DETROIT	I-BZB	LOC/DME		033.19	026.19	9.06	9.05		3000	5100

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

I-BZB DME: 421157.11N-0832306.18W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS PRM Y RWY 22R (CLOSE PARALLEL)	1		KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R	1		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) Y RWY 22R			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 11/10/2016

REASON FOR REVISION:

1. FIX MOVED 879 FT NORTHEAST.
2. ADDED WP TO FIX TYPE.
3. FAC 1 - CHANGED MAG BRG FROM 032.19 TO 033.19; CHANGED DME FROM 8.92 TO 9.06; ADDED DIST FROM FAC DATA, CHANGE MAA FROM 4000 TO 5100.
4. REMOVED FAC 2.
5. UPDATED FIX USE FORMAT; ADDED DTW RNAV (GPS) Y IAPS.

DEVELOPED BY:

DATE: 06/24/2016

OFFICE: AJV-5421

NAME: JEFFREY ROBINSON

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: TONY LAWSON

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW APP CON, METRO TOWER
OTHER:

QUALITY
2
CHECKED