

RADIO FIX AND HOLDING DATA RECORD

NAME: BEWEL **STATE:** OH **COUNTRY:** US **ICAO REGION CODE:** K5

LATITUDE/LONGITUDE: 421720.28N/0804442.49W **TYPE:** INT, DME

AIRSPACE DOCKET: 16-AGL-2 **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	JAMESTOWN	JHW	VOR/DME	H	282.30	275.30	72.62	72.62		8000	45000
2	LONDON	YXU	VOR/DME	H	166.16	158.16		48.35		4000	45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
JHW	VOR/DME	R-282	73	4000	16300

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

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	HOLDING ALTITUDES DME MIN MAX	TEMPLATES MIN MAX
1	W	JHW	VOR/DME	282.30	102.30	R	1 1/2	18000 45000	18 31

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

JAMESTOWN (FAC 1) USED TO ESTABLISH FIX COORDINATES
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 FAC 2 YXU VOR/DME IN CANADA; FLIGHT INSPECTION VALIDATED NAVAID RECEPTION.
 OBSTACLE EVALUATION NOT CONDUCTED ABOVE FL180 IN HIGH STRATUM.
 BEWEL IS INTERSECTION ONLY BELOW 8000

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	MOONN	1, 2		KARB	ANN ARBOR	MI (US)
DP	MOONN	1, 2		KDET	DETROIT	MI (US)
DP	MOONN	1, 2		KDTW	DETROIT	MI (US)
DP	MOONN	1, 2		KYIP	DETROIT	MI (US)
DP	MOONN	1, 2		KPTK	PONTIAC	MI (US)
EN ROUTE	J70	1, 2	1			(US)

REQUIRED CHARTING: DP, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 12 **DATE OF REVISION:** 05/24/2018

REASON FOR REVISION:

1. ADDED OBSTACLE EVALUATION NOT CONDUCTED ABOVE FL180 IN HIGH STRATUM IN REMARKS.
2. DELETED V418 FROM FIX USE.
3. ADDED BEWEL IS INTERSECTION ONLY BELOW 8000 TO REMARKS.
4. UPDATED JHW ESV DISTANCE FROM 74 TO 73.

DEVELOPED BY: **DATE:** 03/16/2018 **OFFICE:** AJV-5421 **NAME:** ROSE BOONE

APPROVED BY: **DATE:** **OFFICE:** AJV-5420 **NAME:** JULIE MORGAN

SIGNATURE:

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

Digitally signed by
ROBERT G HAMILTON
 Mar 20, 2018



RADIO FIX AND HOLDING DATA RECORD

NAME: CFCHK

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 422259.73N/0824905.99W

TYPE: CNF

AIRSPACE DOCKET: 16-AGL-2

FIX TYPE OF ACTION: CANCEL

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

CNF AT US/CANADIAN BOUNDARY.

FIX USE:

USE TYPE

USE TITLE

FAC

PAT

AIRPORT IDENT CITY

STATE

EN ROUTE

V406

EN ROUTE

V418

(US)

(US)

REQUIRED CHARTING: CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 08/17/2017

REASON FOR REVISION:

CHANGED FIX NAME FROM COFGI TO CFCHK.
CREATED FIX USE SECTION IN LIEU OF REMARKS.
DELETED V90 FROM PREVIOUS REMARKS.
ADDED AIRSPACE DOCKET NUMBER 16-AEA-11.

DEVELOPED BY:

DATE:

OFFICE:

NAME:

APPROVED BY:

DATE:

OFFICE: AJV-5420

NAME: JULIE MORGAN

SIGNATURE:

Digitally signed by

ROBERT G HAMILTON

Mar 20, 2018

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZOB

ATC FACILITY:

OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: JAMESTOWN VOR/DME **STATE:** NY **COUNTRY:** US **ICAO REGION CODE:** K6

LATITUDE/LONGITUDE: 421118.99N/0790716.70W **TYPE:**

AIRSPACE DOCKET: 16-AGL-2 **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA FEET	MAA
1	JAMESTOWN	JHW	VOR/DME	H						45000

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

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG TIME	LENGTH DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	E	JHW	VOR/DME	078.23	258.23	R	1		3700	6000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	421630.00N/0790736.00W	2270	4E

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETE.
MAGVAR W7/1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	ERRTH			KARB	ANN ARBOR	MI (US)
DP	MOONN			KARB	ANN ARBOR	MI (US)
DP	ERRTH			KDET	DETROIT	MI (US)
DP	MOONN			KDET	DETROIT	MI (US)
DP	ERRTH			KDTW	DETROIT	MI (US)
DP	MOONN			KDTW	DETROIT	MI (US)
DP	ERRTH			KYIP	DETROIT	MI (US)
DP	MOONN			KYIP	DETROIT	MI (US)
DP	ERRTH			KPTK	PONTIAC	MI (US)
DP	MOONN			KPTK	PONTIAC	MI (US)
DP	BUFFALO			KBUF	BUFFALO	NY (US)
DP	XEROX			KROC	ROCHESTER	NY (US)
EN ROUTE	J106					(US)
EN ROUTE	J554					(US)
EN ROUTE	J70					(US)
EN ROUTE	Q29					(US)
EN ROUTE	Q82					(US)
EN ROUTE	Q84					(US)
EN ROUTE	V115					(US)
EN ROUTE	V265					(US)
EN ROUTE	V270					(US)
IAP	ILS OR LOC RWY 23			KBUF	BUFFALO	NY (US)
IAP	ILS OR LOC RWY 32			KBUF	BUFFALO	NY (US)
IAP	ILS OR LOC RWY 5			KBUF	BUFFALO	NY (US)
IAP	RNAV (GPS) RWY 33			KDKK	DUNKIRK	NY (US)
IAP	RNAV (GPS)-B			KDKK	DUNKIRK	NY (US)
IAP	ILS OR LOC RWY 25			KJHW	JAMESTOWN	NY (US)
IAP	VOR RWY 25		1	KJHW	JAMESTOWN	NY (US)
IAP	VOR RWY 32			K8G2	CORRY	PA (US)
STAR	WILKES BARRE			KCDW	CALDWELL	NJ (US)
STAR	WILKES BARRE			KLDJ	LINDEN	NJ (US)
STAR	WILKES BARRE			KMMU	MORRISTOWN	NJ (US)
STAR	WILKES BARRE			K39N	PRINCETON/ROCKY HILL	NJ (US)
STAR	WILKES BARRE			KN51	READINGTON	NJ (US)
STAR	WILKES BARRE			KSMQ	SOMERVILLE	NJ (US)
STAR	WILKES BARRE			KTEB	TETERBORO	NJ (US)
STAR	CHARDON			KBKL	CLEVELAND	OH (US)
STAR	CHARDON			KCGF	CLEVELAND	OH (US)
STAR	CHARDON			KCLE	CLEVELAND	OH (US)
STAR	CHARDON			K1G1	ELYRIA	OH (US)
STAR	CHARDON			KLPR	LORAIN/ELYRIA	OH (US)
STAR	CHARDON			K1G5	MEDINA	OH (US)
STAR	CHARDON			K7G8	MIDDLEFIELD	OH (US)
STAR	CHARDON			K2G1	PAINESVILLE	OH (US)
STAR	CHARDON			KLNN	WILLOUGHBY	OH (US)

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

QUALITY
20
CHECKED

COMPULSORY REPORTING POINT: NO**RECORD REVISION NUMBER: 16****DATE OF REVISION: 05/24/2018****REASON FOR REVISION:**

1. DELETED V418 FROM FIX USE.
2. DELETED V486 FROM FIX USE.
3. ADDED BUF ILS OR LOC RWY 5/23/32 AND 8G2 VOR RWY 32 TO FIX USE.

DEVELOPED BY: **DATE:** 03/16/2018**OFFICE:** AJV-5421**NAME:** ROSE BOONE**APPROVED BY:** **DATE:****OFFICE:** AJV-5420**NAME:** JULIE MORGAN**SIGNATURE:***Digitally signed by***ROBERT G HAMILTON**

Mar 20, 2018

DISTRIBUTION:

NFDC
FPO: EST
ARTCC: ZOB
ATC FACILITY: ERI APP CON
OTHER:



NAME: MOONN	STATE:	COUNTRY: CA	ICAO REGION CODE: CY
LATITUDE/LONGITUDE: 422209.64N/0822707.14W	TYPE: WP, DME		
AIRSPACE DOCKET: 16-AGL-2	FIX TYPE OF ACTION: MODIFY		

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	SALEM	SVM	VORTAC	L	095.27	092.27	50.83	50.83		3000	20000
2	DETROIT	DXO	VOR/DME	H	082.74	076.74	41.80	41.80		3000	20000

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
SVM	VORTAC	R-095	51	3000	20000
DXO	VOR/DME	R-083	42	2500	17500

REMARKS:
SALEM (FAC 1) USED TO ESTABLISH FIX COORDINATES

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	MOONN	2		KARB	ANN ARBOR	MI (US)
DP	MOONN	2		KDET	DETROIT	MI (US)
DP	MOONN	2		KDTW	DETROIT	MI (US)
DP	MOONN	2		KYIP	DETROIT	MI (US)
DP	MOONN	2		KPTK	PONTIAC	MI (US)

COMPULSORY REPORTING POINT: NO

1. DELETED V406, V418, V90 FROM FIX USE.
2. ADDED WP TO FIX TYPE.

Mar 20, 2018

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

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RADIO FIX AND HOLDING DATA RECORD

NAME: SALEM VORTAC

STATE: MI

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 422431.11N/0833538.05W

TYPE:

AIRSPACE DOCKET: 16-AGL-2

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	SALEM	SVM	VORTAC	L							45000

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		2700	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	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 3 ATC REQUEST
PAT 8 PAT 10 ATC REQUEST
PAT 2 ATC REQUEST
PAT 6 ATC REQUEST

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

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	MOONN			KDET	DETROIT	MI (US)
DP	MOONN			KDTW	DETROIT	MI (US)
DP	MOONN			KYIP	DETROIT	MI (US)
DP	MOONN			KPTK	PONTIAC	MI (US)
EN ROUTE	J70					(US)
EN ROUTE	Q907					(US)
EN ROUTE	Q951					(US)
EN ROUTE	V170					(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 15	1		KDET	DETROIT	MI (US)
IAP	ILS OR LOC RWY 33			KDET	DETROIT	MI (US)
IAP	ILS OR LOC RWY 21L			KDTW	DETROIT	MI (US)
IAP	ILS OR LOC RWY 22L			KDTW	DETROIT	MI (US)
IAP	ILS OR LOC RWY 27R		4	KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 22L (CLOSE PAR)			KDTW	DETROIT	MI (US)
IAP	ILS PRM Y RWY 22R			KDTW	DETROIT	MI (US)
IAP	ILS PRM Y RWY 4L			KDTW	DETROIT	MI (US)
IAP	ILS RWY 21L (SA CAT I & II)			KDTW	DETROIT	MI (US)
IAP	ILS RWY 22L (SA CAT I - II)			KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R			KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 4L			KDTW	DETROIT	MI (US)
IAP	ILS Z OR LOC RWY 22R			KDTW	DETROIT	MI (US)
IAP	ILS Z OR LOC RWY 4L			KDTW	DETROIT	MI (US)
IAP	ILS Z RWY 22R (SA CAT I - II)			KDTW	DETROIT	MI (US)
IAP	ILS Z RWY 4L (CAT II - III)			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)

QUALITY
20
CHECKED

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)
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: 27

DATE OF REVISION: 05/24/2018

REASON FOR REVISION:

1. REMOVED V26 FROM FIX USE.
2. REMOVED ESV FROM SVM VORTAC.
3. DELETED V418 FROM FIX USE.
4. REMOVED V221 FROM FIX USE.
5. DELETED V116, V2, V464 FROM FIX USE.
6. DELETED RNAV (GPS) RWY 23 AT KADG FROM FIX USE.
7. DELETED RNAV (GPS) RWY 9R, RNAV (GPS) RWY 27L, VOR RWY 9R, VOR RWY 27L AT KPTK FROM FIX USE.
8. DELETED V133 AND V90 FROM FIX USE.
9. DELETED V406 FROM FIX USE.
10. ADDED KDET ILS OR LOC RWY 15/33 AND KDTW TO FIX USE.
11. CHANGED PAT 1 MIN HOLDING FROM 3000.
12. MOVED HOLD NOTE FROM FIX TO HOLDING RESTRICTIONS.

DEVELOPED BY: **DATE:** 03/16/2018

OFFICE: AJV-5421

NAME: ROSE BOONE

APPROVED BY: **DATE:**

OFFICE: AJV-5420

NAME: JULIE MORGAN

SIGNATURE:

Digitally signed by

ROBERT G HAMILTON

Mar 20, 2018

DISTRIBUTION:

NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW APP CON, DET ATCT
OTHER:

QUALITY
20
CHECKED