

# RADIO FIX AND HOLDING DATA RECORD

NAME: HYMLI OM

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413728.47N/0834137.07W

TYPE: 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	TOLEDO	I-BQE	LOC		072.18	067.18		6.86	41668	2400	5100
2	WATERVILLE	VWV	VOR/DME	L	348.61	346.61		10.67	64839	2400	17500
3	TOLEDO	TOL	TACAN	T			5.11	5.11	31026	2400	12000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## REMARKS:

COORDINATES REFLECT LOCATION ON LOC/AZ CENTERLINE ABEAM THE HYMLI OM.  
ACTUAL FACILITY LOCATION IS 413725.60N/0834135.59W.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI-ILS OR LOC RWY 25	1, 2, 3		KTOL	TOLEDO	OH (US)
IAP	ILS OR LOC RWY 25	1, 2, 3		KTOL	TOLEDO	OH (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8

DATE OF REVISION: 04/27/2017

## REASON FOR REVISION:

UPDATED I-BQE DATA FROM HISTORY TO ACTIVE.

DEVELOPED BY:

DATE: 12/15/2016

OFFICE: AJV-5431

NAME: SEAN BARBEE

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

*Digitally signed by*

**DONALD H LANIER**

Jan 30, 2017

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZOB

ATC FACILITY: TOL APP CON, TOL ATCT

OTHER:

QUALITY  
4  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: MIKIE

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 413612.77N/0834537.65W

TYPE: 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	TOLEDO	I-BQE	LOC		072.18	067.18		3.60		1140	5100
2	WATERVILLE	VWV	VOR/DME	L	331.00	329.00		10.64		1140	17500
3	TOLEDO	TOL	TACAN	T			1.85	1.85		1140	12000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## REMARKS:

TOLEDO (FAC 1) AND WATERVILLE (FAC 2) USED TO ESTABLISH FIX COORDINATES

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI-ILS OR LOC RWY 25	1, 2, 3		KTOL	TOLEDO	OH (US)
IAP	ILS OR LOC RWY 25	1, 2, 3		KTOL	TOLEDO	OH (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8

DATE OF REVISION: 04/27/2017

## REASON FOR REVISION:

ADDED "TOLEDO (FAC 1) AND WATERVILLE (FAC 2) USED TO ESTABLISH FIX COORDINATES" NOTE TO REMARKS.

DEVELOPED BY:

DATE: 12/21/2016

OFFICE: AJV-5431

NAME: SEAN BARBEE

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE: Digitally signed by

**DONALD H LANIER**

DISTRIBUTION:

NFDC

FPO: CEN

ARTCC: ZOB

ATC FACILITY: TOL APP CON, TOL ATCT

OTHER:

QUALITY  
4  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: MYANN STATE: OH COUNTRY: US ICAO REGION CODE: K5  
 LATITUDE/LONGITUDE: 411127.33N/0833923.47W TYPE: 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	MRA FEET	MAA
1	TOLEDO	TOL	TACAN	T	170.00	165.00	25.00			18000

## EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
TOL	TACAN	R-170	35	15000	18000

## FIX RESTRICTIONS:

MILITARY ONLY

## 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	S	TOL	TACAN	170.00	350.00	L		10 15000 18000	13 17

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (39-001446)	405500.00N/0833545.00W	1310	5D
1	265	TOWER (39-000616)	410812.00N/0835424.40W	1817	5D

## REASON FOR NONSTANDARD HOLDING:

PAT 1 AT REQUEST

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

## REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETE.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI-ILS OR LOC RWY 25		1	KTOL	TOLEDO	OH (US)
IAP	HI-ILS OR LOC RWY 7		1	KTOL	TOLEDO	OH (US)
IAP	HI-TACAN RWY 25		1	KTOL	TOLEDO	OH (US)
IAP	HI-TACAN RWY 7		1	KTOL	TOLEDO	OH (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 04/27/2017

## REASON FOR REVISION:

- ADDED ESV DATA FOR TOLEDO (TOL) TACAN.
- MOVED "HOLDING LIMITED TO.." NOTE FROM REMARKS TO HOLDING RESTRICTIONS.
- ADDED "PRECIPITOUS TERRAIN EVAL..." NOTE TO REMARKS.
- MOVED "MILITARY ONLY" NOTE FROM REMARKS TO FIX RESTRICTIONS.
- UPDATED FIX USE.

DEVELOPED BY: DATE: 12/13/2016 OFFICE: AJV-5431 NAME: SEAN BARBEE

APPROVED BY: DATE: OFFICE: AJV-5430 NAME: PATRICK MULQUEEN

SIGNATURE: *Digitally signed by*  
**DONALD H LANIER**

Jan 30, 2017

## DISTRIBUTION:

NFDC  
 FPO: CEN  
 ARTCC: ZOB  
 ATC FACILITY:  
 OTHER: TOL ATCT

QUALITY  
4  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: OTBUE

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 414117.30N/0832926.19W

TYPE: 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	TOLEDO	I-BQE	LOC		072.18	067.18		16.72		4000	5100
2	TOLEDO	TOL	TACAN	T			15.00	15.00		4000	12000

## FIX RESTRICTIONS:

MILITARY ONLY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI-ILS OR LOC RWY 25	1, 2		KTOL	TOLEDO	OH (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 04/27/2017

## REASON FOR REVISION:

1. ADDED MRA OF 4000 TO FACS 1 AND 2.
2. ADDED 16.72 NM DIST TO FIX FROM FAC 1.
3. ADDED 15.00 NM DIST TO FIX FROM FAC 2
4. MOVED "MILITARY ONLY" NOTE FROM REMARKS TO FIX RESTRICTIONS.
5. UPDATED FIX USE.

DEVELOPED BY:

DATE: 12/14/2016

OFFICE: AJV-5431

NAME: SEAN BARBEE

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

*Digitally signed by*  
**DONALD H LANIER**

DISTRIBUTION:

NFDC  
FPO: CEN  
ARTCC: ZOB  
ATC FACILITY: TOL ATCT, TOL APP CON  
OTHER:  
Jan 30, 2017

QUALITY  
4  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: POUDR STATE: OH COUNTRY: US ICAO REGION CODE: K5  
 LATITUDE/LONGITUDE: 412107.39N/0834248.38W TYPE: 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 NM	FAC FEET	MRA	MAA
1	TOLEDO	TOL	TACAN	T	170.00	165.00	15.00	15.00		3000	15000

FIX RESTRICTIONS:  
MILITARY ONLY

HOLDING: HOLDING TYPE OF ACTION: MODIFY

## PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	HOLDING ALTITUDES MIN DME	ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	S	TOL	TACAN	170.00	350.00	L		8	3000	15000	11 16

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (39-020159)	410410.00N/0833738.00W	1234	2B
1	265	TOWER (39-020159)	410410.00N/0833738.00W	1234	2B

REASON FOR NONSTANDARD HOLDING:  
PAT 1 AIRSPACE COORDINATION.

HOLDING RESTRICTIONS:  
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:  
PRECIPITOUS TERRAIN EVALUATION COMPLETE.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI-ILS OR LOC RWY 25		1	KTOL	TOLEDO	OH (US)
IAP	HI-ILS OR LOC RWY 7		1	KTOL	TOLEDO	OH (US)
IAP	HI-TACAN RWY 25		1	KTOL	TOLEDO	OH (US)
IAP	HI-TACAN RWY 7		1	KTOL	TOLEDO	OH (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 DATE OF REVISION: 04/27/2017

## REASON FOR REVISION:

- ADDED NM DIST TO FAC FOR FAC 1 IN FIX MAKE-UP FACILITIES.
- CHANGED PAT 1 MIN HOLDING TEMPLATE FROM 7 TO 11 IAW 7130.3A, TABLE 8.
- CHANGED PAT 1 230K CONTROLLING OBSTACLE FROM 1068 MSL WINDMILL (39-004119) TO 1234 MSL TOWER (39-020159).
- CHANGED PAT 1 265K CONTROLLING OBSTACLE FROM 1105 MSL TOWER (39-002025) TO 1234 MSL TOWER (39-020159).
- MOVED "HOLDING LIMITED TO..." NOTE FROM REMARKS TO HOLDING RESTRICTIONS.-
- MOVED "MILITARY ONLY" NOTE FROM REMARKS TO FIX RESTRICTIONS.
- UPDATED FIX USE.

DEVELOPED BY: DATE: 12/15/2016 OFFICE: AJV-5431 NAME: SEAN BARBEE  
 APPROVED BY: DATE: OFFICE: AJV-5430 NAME: PATRICK MULQUEEN

SIGNATURE: Digitally signed by  
DONALD H LANIER

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

Jan 30, 2017

QUALITY  
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# RADIO FIX AND HOLDING DATA RECORD

NAME: WATERVILLE VOR/DME

STATE: OH

COUNTRY: US

ICAO REGION CODE: K5

LATITUDE/LONGITUDE: 412705.35N/0833819.30W

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	WATERVILLE	VWV	VOR/DME	L							17500

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	SW	VWV	VOR/DME	228.52	048.52	R	1		2300	6000	4	5
2	SE	VWV	VOR/DME	140.00	320.00	R	1		2400	14000	4	13
3	SE	VWV	VOR/DME	139.00	319.00	R	1		2300	6000	4	5
4	S	VWV	VOR/DME	180.00	360.00	R	1		2500	6000	4	5
5	N	VWV	VOR/DME	358.76	178.76	R	1		2200	6000	4	5
6	SW	WP	WP	240.50	060.50	R		4	2300	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	265	TOWER (39-001418)	413922.00N/0832645.00W	1849	5D
1	200	WINDMILL (39-004119)	412227.50N/0834427.43W	1068	4D
2	200	TOWER (39-001311)	412728.00N/0833933.00W	1051	5D
3	200	TOWER (39-001311)	412728.00N/0833933.00W	1051	5D
4	200	TOWER (39-001311)	412728.00N/0833933.00W	1051	5D
5	200	TOWER (39-000655)	413157.00N/0833536.00W	1149	5D
6	200	WINDMILL (39-004119)	412227.50N/0834427.43W	1068	4D

HOLDING RESTRICTIONS:

UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 3000.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	FORT WAYNE			KARB	ANN ARBOR	MI (US)
DP	RICHMOND			KARB	ANN ARBOR	MI (US)
DP	ROSEWOOD			KARB	ANN ARBOR	MI (US)
DP	FORT WAYNE			KDET	DETROIT	MI (US)
DP	RICHMOND			KDET	DETROIT	MI (US)
DP	ROSEWOOD			KDET	DETROIT	MI (US)
DP	FORT WAYNE			KDTW	DETROIT	MI (US)
DP	RICHMOND			KDTW	DETROIT	MI (US)
DP	ROSEWOOD			KDTW	DETROIT	MI (US)
DP	FORT WAYNE			KYIP	DETROIT	MI (US)
DP	RICHMOND			KYIP	DETROIT	MI (US)
DP	ROSEWOOD			KYIP	DETROIT	MI (US)
DP	FORT WAYNE			KPTK	PONTIAC	MI (US)
DP	RICHMOND			KPTK	PONTIAC	MI (US)
DP	ROSEWOOD			KPTK	PONTIAC	MI (US)
DP	AMRST			KCGF	CLEVELAND	OH (US)
DP	AMRST			KCLE	CLEVELAND	OH (US)
DP	AMRST			K1G1	ELYRIA	OH (US)
DP	AMRST			KLPR	LORAIN/ELYRIA	OH (US)
DP	AMRST			K1G5	MEDINA	OH (US)
DP	AMRST			K7G8	MIDDLEFIELD	OH (US)
DP	AMRST			K2G1	PAINESVILLE	OH (US)
DP	AMRST			KLNN	WILLOUGHBY	OH (US)
EN ROUTE	V30-45					(US)
EN ROUTE	V45-493					(US)
EN ROUTE	V467					(US)
EN ROUTE	V47					(US)
EN ROUTE	V493					(US)
EN ROUTE	V584					(US)
EN ROUTE	V6					(US)
EN ROUTE	V6-30-126					(US)
EN ROUTE	V92					(US)
EN ROUTE	V92-126					(US)
IAP	NDB RWY 5			KADG	ADRIAN	MI (US)
IAP	RNAV (GPS) RWY 23			KADG	ADRIAN	MI (US)
IAP	VOR OR GPS-A		4	KDUH	LAMBERTVILLE	MI (US)
IAP	RNAV (GPS) RWY 3			KTTF	MONROE	MI (US)
IAP	VOR RWY 18		5	K1G0	BOWLING GREEN	OH (US)
IAP	RNAV (GPS) RWY 27			KFZI	FOSTORIA	OH (US)
IAP	VOR-A			KFZI	FOSTORIA	OH (US)
IAP	VOR RWY 9			K14G	FREMONT	OH (US)

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IAP	RNAV (GPS) RWY 28		K7W5	NAPOLEON	OH (US)
IAP	VOR RWY 28	2	K7W5	NAPOLEON	OH (US)
IAP	RNAV (GPS) RWY 24		K16G	TIFFIN	OH (US)
IAP	VOR RWY 6		K16G	TIFFIN	OH (US)
IAP	RNAV (GPS) RWY 32	6	KTDZ	TOLEDO	OH (US)
IAP	RNAV (GPS) RWY 4	6	KTDZ	TOLEDO	OH (US)
IAP	VOR RWY 4	1	KTDZ	TOLEDO	OH (US)
IAP	HI-ILS OR LOC RWY 25		KTOL	TOLEDO	OH (US)
IAP	ILS OR LOC RWY 25	2	KTOL	TOLEDO	OH (US)
IAP	ILS OR LOC RWY 7	2	KTOL	TOLEDO	OH (US)
IAP	RNAV (GPS) RWY 25		KTOL	TOLEDO	OH (US)
IAP	VOR/DME RWY 34	3	KTOL	TOLEDO	OH (US)
STAR	LLEEO		CYQG	ONTARIO, CANADA	(CA)
STAR	KNOX		KORD	CHICAGO	IL (US)
STAR	LLEEO		KARB	ANN ARBOR	MI (US)
STAR	LLEEO		KDET	DETROIT	MI (US)
STAR	GEMNI		KDTW	DETROIT	MI (US)
STAR	WEEDA		KDTW	DETROIT	MI (US)
STAR	LLEEO		KYIP	DETROIT	MI (US)
STAR	LLEEO		KOZW	HOWELL	MI (US)
STAR	LLEEO		KMTC	MOUNT CLEMENS	MI (US)
STAR	LLEEO		KY47	NEW HUDSON	MI (US)
STAR	LLEEO		K1D2	PLYMOUTH	MI (US)
STAR	LLEEO		KPTK	PONTIAC	MI (US)
STAR	LLEEO		KVLL	TROY	MI (US)

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

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 21

**DATE OF REVISION:** 04/27/2017

**REASON FOR REVISION:**

1. UPDATED FIX USE; ADDED KTOL HI-ILS OR LOC RWY 25.

**DEVELOPED BY:**      **DATE:** 12/21/2016      **OFFICE:** AJV-5431      **NAME:** SEAN BARBEE

**APPROVED BY:**      **DATE:**      **OFFICE:** AJV-5430      **NAME:** PATRICK MULQUEEN

*Digitally signed by*  
**SIGNATURE: DONALD H LANIER**

**DISTRIBUTION:**      **NFDC**      Jan 30, 2017  
**FPO:** CHI  
**ARTCC:** ZOB  
**ATC FACILITY:** TOL APP CON, DTW APP CON  
**OTHER:**

QUALITY  
4  
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