Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: IAP	Date Open: 06/18/2008	Task #: 2008061719757399003	Request #: 20080617197573
Procedure: RNAV (GPS) RWY 23 ORIG		Airport ID: KMWO	Airport: HOOK FIELD MUNI		Reimbursable #:
City: MIDDLETOWN	ST: OH	GPS #:		Estimated Chart Date: 09/20/2012	FICO #:
Fac ID:	Fac. Type: LPV	Specialist: MICHAEL GARRITY			

LPV

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	12/28/2011	04/26/2012	STEVEN SZUKALA	
QA:	04/26/2012	04/26/2012	STEVEN SZUKALA	
Liaison:	04/26/2012		Alfonso	

P1

Procedure Comments: ENROUTE **Remark Type:** INFORMATION

pkg 2 of 5

MIDDLETOWN, OH HOOK FIELD MUNI (KMWO) RNAV (GPS) RWY 23, ORIG (LPV) ENROUTE-NO FC: 8.7.12 PUB: 9.20.12

ATTACHED FORMS: 8260-3; 8260-10; 8260-9; 8260-2(S): FRAAM-INT, REV 1; PRUDE-INT, REV 14; VOYUV, ORIG; WIBAR, ORIG; YEBTO, ORIG; ZABSI, ORIG.

CONTACT: JILL OLSON, AJV-353 LEAD, 405.954.9568:

WAAS CH 90429 W23A	APP CRS 234°	Rwy ldg 5801 THRE 650 Apt Elev 650

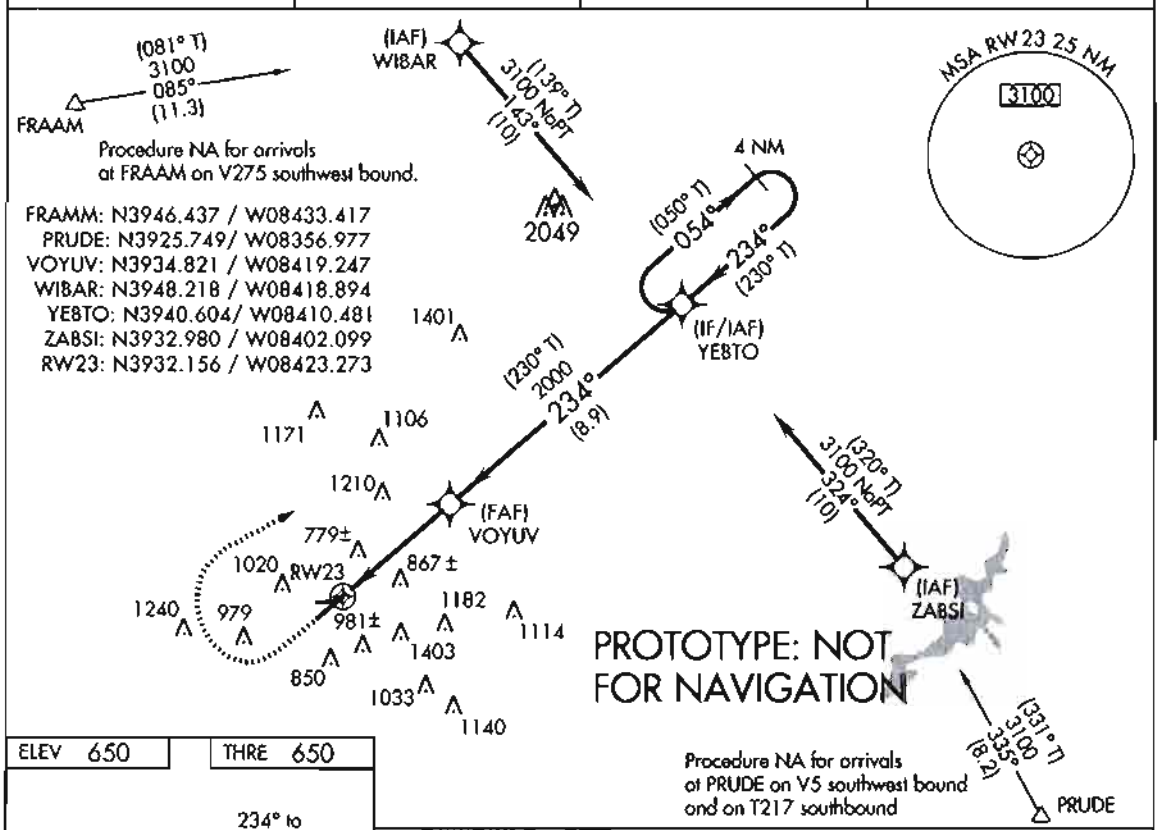
RNAV (GPS) RWY 23

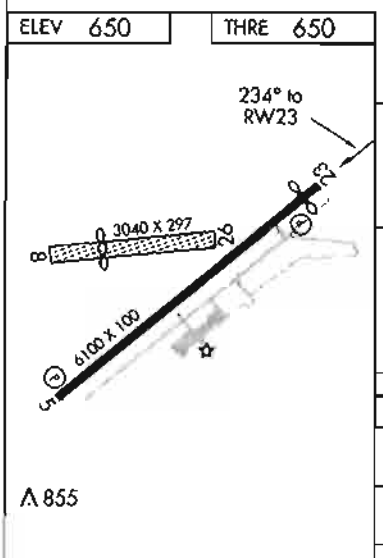
MIDDLETOWN RGNL/ HOOK FIELD (MWO)

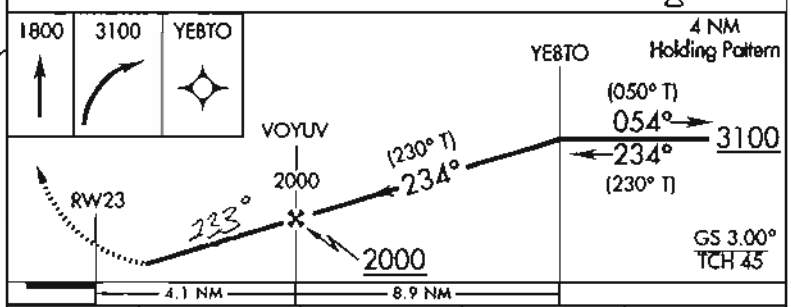
Baro-VNAV NA when using Dayton-Wright Brothers altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 40°C (104°F). Procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Dayton-Wright Brothers altimeter setting; increase all DA 63' and all MDA 80'; increase LPV visibility all Cats ¼ mile, LNAV/VNAV visibility all Cats ¼ mile, LNAV visibility Cats C and D ¼ mile, and Circling visibility Cat C ¼ mile.

MISSED APPROACH: Climb to 1800 then climbing right turn to 3100 direct YEBTO and hold.

AWOS-3	COLUMBUS APP CON	COLUMBUS CLNC DEL	UNICOM
120.025	126.5 327.1	119.4	123.0 (CTAF)

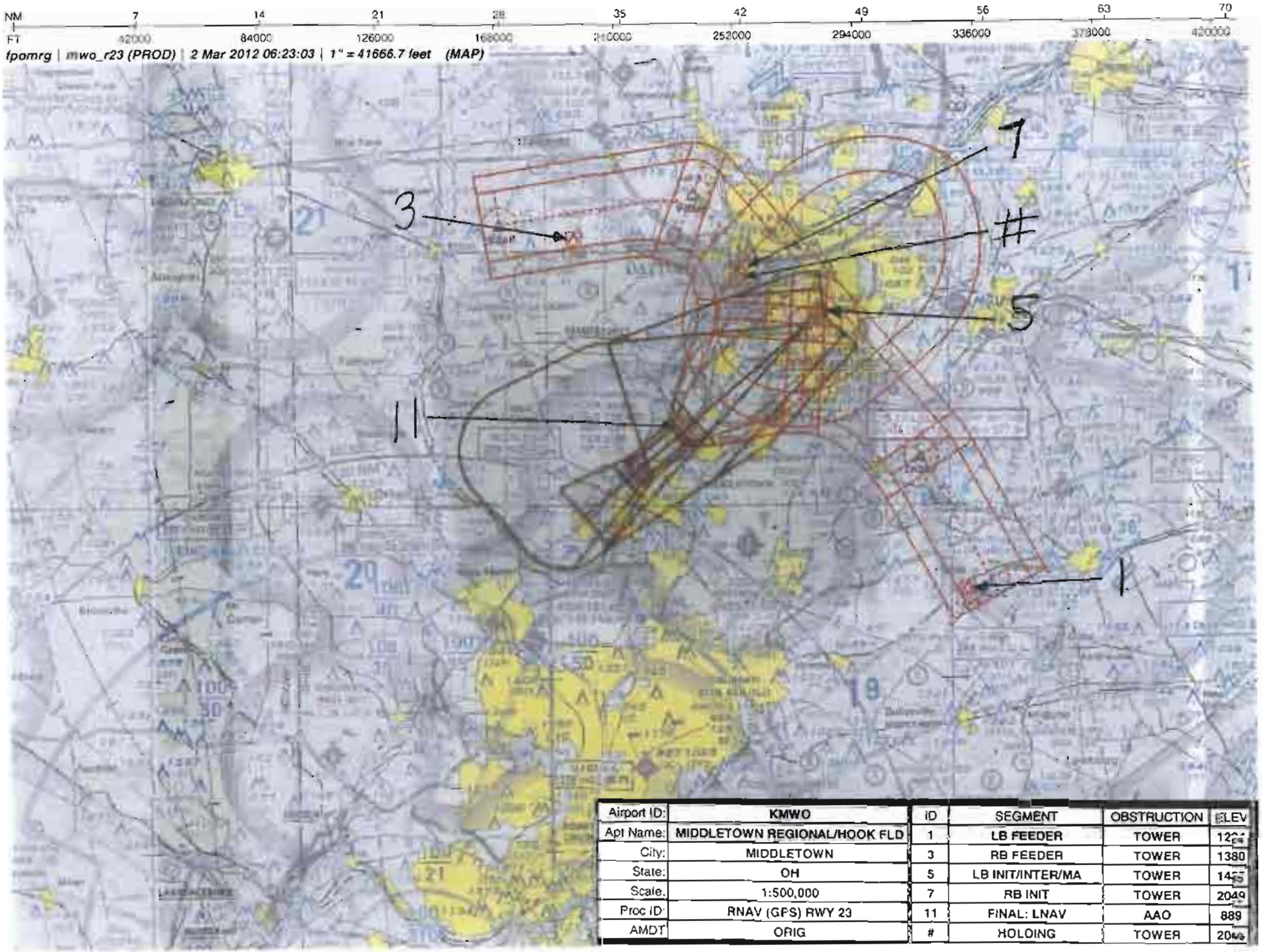




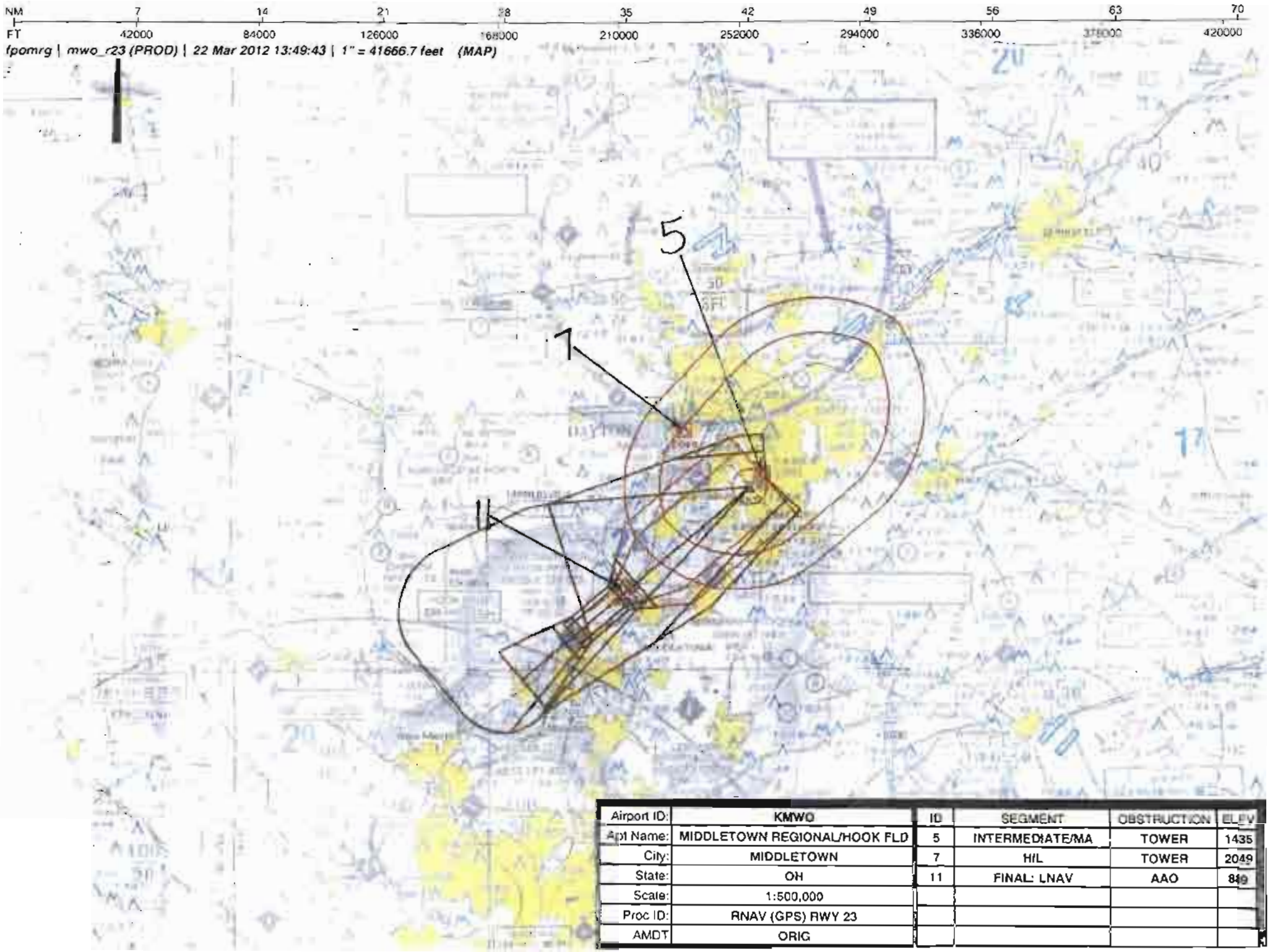


CATEGORY	A	B	C	D
LPV DA	986-1⅛ 336 (400-1⅛)			
LNAV/VNAV DA	1083-1½ 433 (500-1½)			
LNAV MDA	1140-1 490 (500-1)		1140-1⅜ 490 (500-1⅜)	
CIRCLING	1380-1 730 (800-1)		1380-2 730 (800-2)	1840-3 1190 (1200-3)

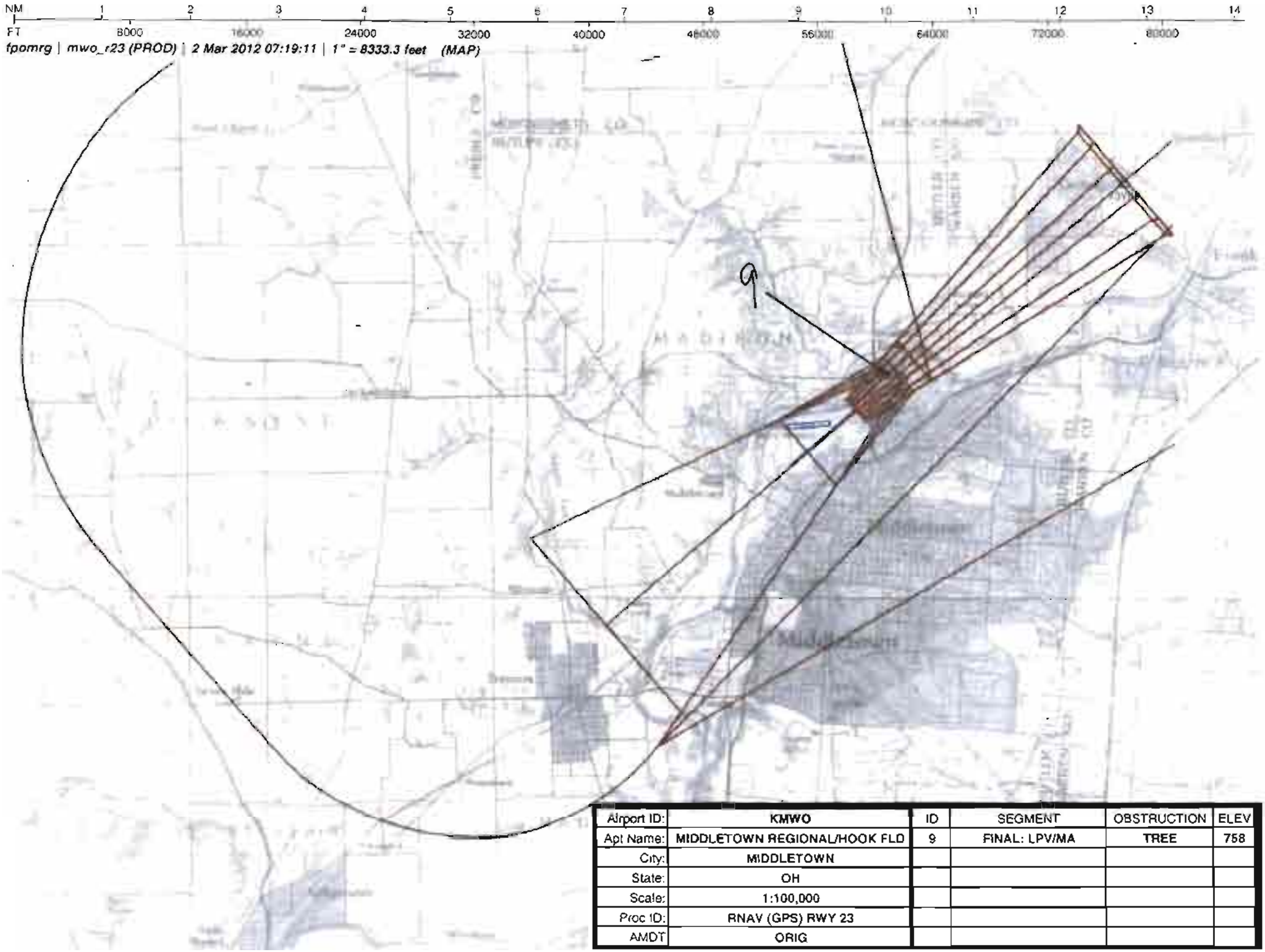
MIRL Rwy 5-23
REIL Rwys 5 and 23



Airport ID:	KMWO	ID	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	MIDDLETOWN REGIONAL/HOOK FLD	1	LB FEEDER	TOWER	12[illegible]
City:	MIDDLETOWN	3	RB FEEDER	TOWER	1380
State:	OH	5	LB INIT/INTER/MA	TOWER	14[illegible]5
Scale:	1:500,000	7	RB INIT	TOWER	2049
Proc ID:	RNAV (GPS) RWY 23	11	FINAL: LNAV	AAO	889
AMDT	ORIG	#	HOLDING	TOWER	20[illegible]



Airport ID:	KMWO	ID	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	MIDDLETOWN REGIONAL/HOOK FLD	5	INTERMEDIATE/MA	TOWER	1435
City:	MIDDLETOWN	7	HIL	TOWER	2049
State:	OH	11	FINAL: LNAV	AAO	849
Scale:	1:500,000				
Proc ID:	RNAV (GPS) RWY 23				
AMDT	ORIG				



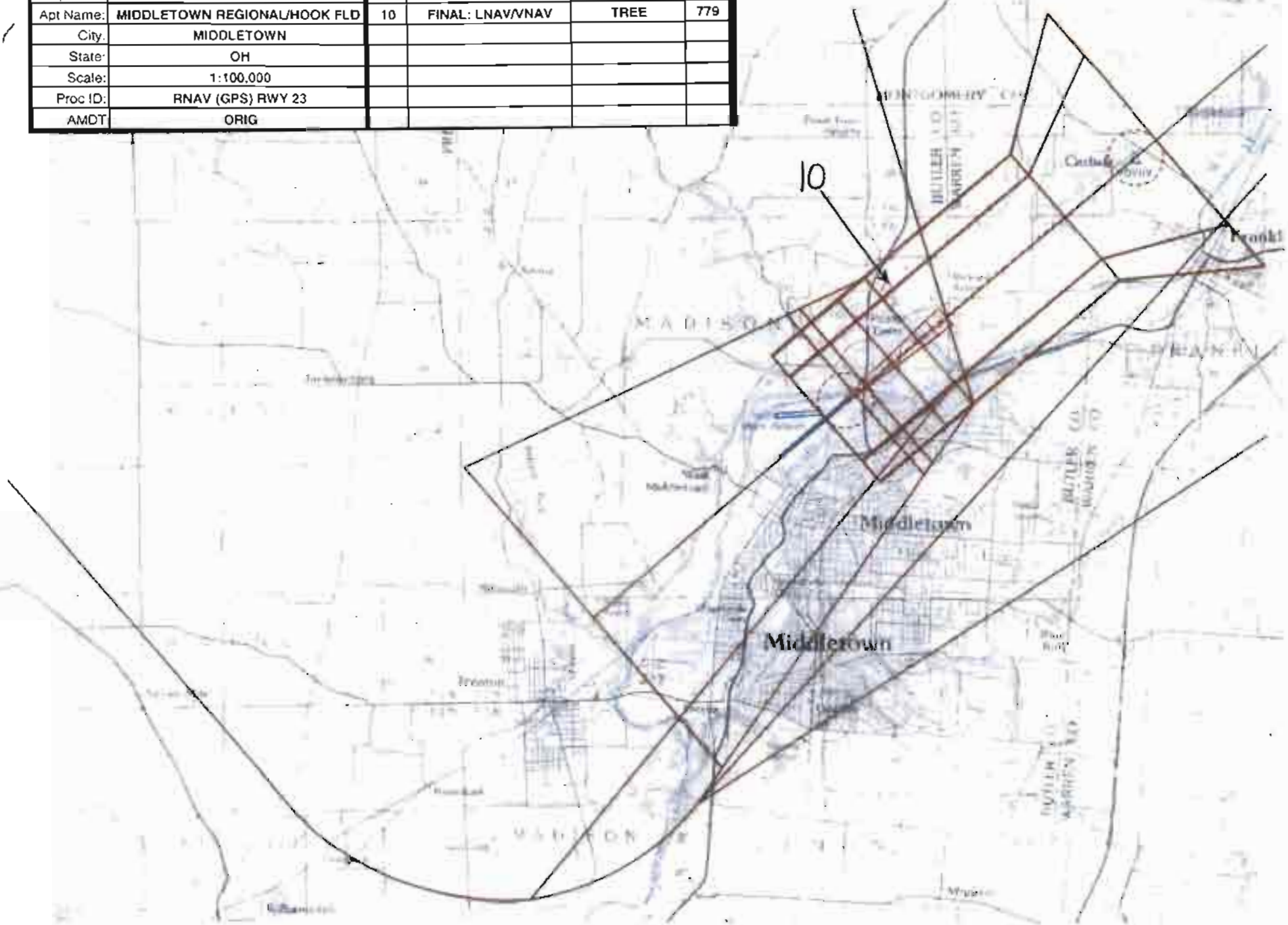
Airport ID:	KMWO	ID	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	MIDDLETOWN REGIONAL/HOOK FLD	9	FINAL: LPV/MA	TREE	758
City:	MIDDLETOWN				
State:	OH				
Scale:	1:100,000				
Proc ID:	RNAV (GPS) RWY 23				
AMDT	ORIG				

NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14

FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000

lpomrg | mwo_r23 (PROD) | 22 Mar 2012 13:14:18 | 1" = 8333.3 feet (MAP)

Airport ID:	KMWO	ID	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	MIDDLETOWN REGIONAL/HOOK FLD	10	FINAL: LNAV/VNAV	TREE	779
City:	MIDDLETOWN				
State:	OH				
Scale:	1:100,000				
Proc ID:	RNAV (GPS) RWY 23				
AMDT	ORIG				

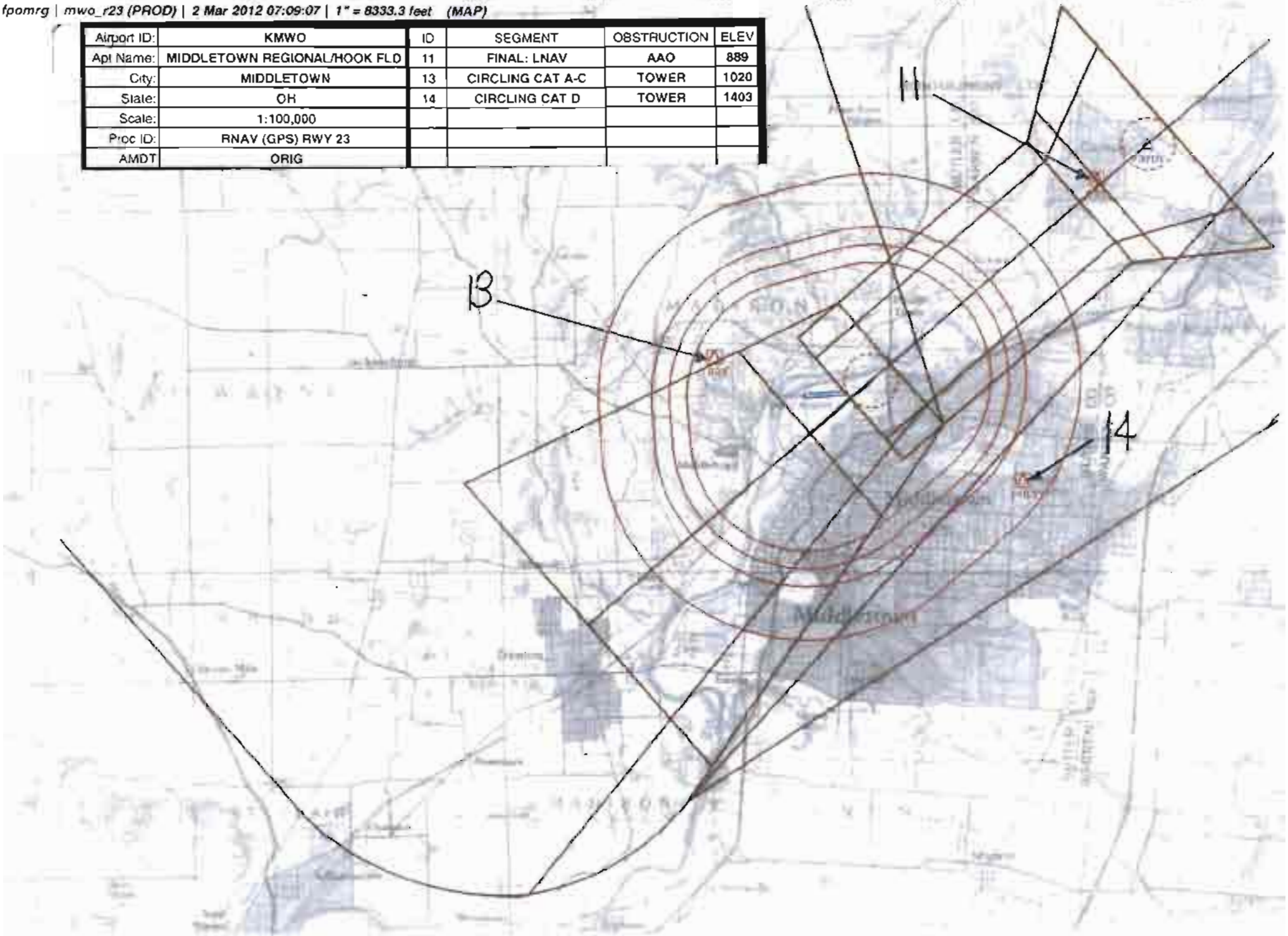


NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14

FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000

fpomrg | mwo_r23 (PROD) | 2 Mar 2012 07:09:07 | 1" = 8333.3 feet (MAP)

Airport ID:	KMWO	ID	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	MIDDLETOWN REGIONAL/HOOK FLD	11	FINAL: LNAV	AAO	889
City:	MIDDLETOWN	13	CIRCLING CAT A-C	TOWER	1020
State:	OH	14	CIRCLING CAT D	TOWER	1403
Scale:	1:100,000				
Proc ID:	RNAV (GPS) RWY 23				
AMDT	ORIG				



US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.33

Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

TERMINAL ROUTES

FROM	TO	COURSE AND DISTANCE	ALTITUDE
PRUDE	ZABSI (FB)	335.27 / 8.24	3100
FRAAM	WIBAR (FB)	084.89 / 11.34	3100
ZABSI (IAF)	YEBTO (NOPT) (FB)	323.67 / 10.00	3100
WIBAR (IAF)	YEBTO (NOPT) (FB)	143.49 / 10.00	3100
YEBTO (IF/IAF)	VOYUV (FB)	233.58 / 8.90	2000
VOYUV (FAF)	RW23 (MAP) (FO)	233.48 / 4.10	
RW23 (MAP)	1800 MSL	233.48	1800
1800 MSL	YEBTO (FO)		3100

MISSED APPROACH

LPV: DA
LNAV/VNAV: DA
LNAV: RW23

CLIMB TO 1800 THEN CLIMBING RIGHT TURN TO 3100 DIRECT YEBTO AND HOLD.

ADDITIONAL FLIGHT DATA:
CHART FAS OBST: 779 TREE 393320N/0842242W
FAS OBST: 889 AAO 393420N/0841959W
DISTANCE TO THLD FROM 336 HATH: 0.91 NM.
WAAS CHANNEL # 90429
REFERENCE PATH ID: W23A
LTP HAE: 164.7 M

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. HOLD NE YEBTO, RT, 233.58 INBOUND, 3100 FT. IN LIEU OF PT (IAF)
3. FAC: 233.48 FAF: VOYUV DIST FAF TO MAP: 4.10 THLD: 4.10
4. MIN. ALT: YEBTO 3100, VOYUV 2000
5. DIST TO THLD FROM OM: ____ MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 2000 GS ALT AT: VOYUV 2000 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 45.0 34:1 IS NOT CLEAR
8. MSA FROM: RW23 3100

MAG VAR: 4W EPOCH YEAR: 1985

MINIMUMS

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT | ALTERNATE: N A | STANDARD @

CATEGORY =====>	A			B			C			D			E		
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA
LPV DA	986	1 1/8	336	986	1 1/8	336	986	1 1/8	336	986	1 1/8	336			
LNAV/VNAV DA	1083	1 1/2	433	1083	1 1/2	433	1083	1 1/2	433	1083	1 1/2	433			
LNAV MDA	1140	1	490	1140	1	490	1140	1 3/8	490	1140	1 3/8	490			
CIRCLING	1380	1	730	1380	1	730	1380	2	730	1840	3	1190			

NOTES:
CHART NOTE: BARO-VNAV NA WHEN USING DAYTON-WRIGHT BROTHERS ALTIMETER SETTING.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 40C (104F).
CHART NOTE: PROCEDURE NA AT NIGHT.
CHART NOTE: DME/DME RNP-0.3 NA.
(SEE FORM 8260-10)

@ CAT D 1200-3
@ NA WHEN LOCAL WEATHER NOT AVAILABLE.

QUALITY CHECKED

CITY AND STATE	ELEVATION: 650 THRE: 650	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
MIDDLETOWN, OH	AIRPORT NAME: MIDDLETOWN REGIONAL/HOOK FIELD	RNAV	RNAV (GPS) RWY 23, ORIG	AMDT: NONE
				DATED

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

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FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMWO
RUNWAY	RW23
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W23A
LTP/FTP LATITUDE	393209.3425N
LTP/FTP LONGITUDE	0842316.3675W
LTP/FTP ELLIPSOIDAL HEIGHT	+01647
FPAP LATITUDE	393111.3500N
FPAP LONGITUDE	0842443.8400W
THRESHOLD CROSSING HEIGHT (TCH)	00045.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0984
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	DA755405

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+01982
FPAP ORTHOMETRIC HEIGHT	+01982

QUALITY CHECKED

CITY AND STATE	ELEVATION: 650 THRE: 650	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
MIDDLETOWN, OH	AIRPORT NAME: MIDDLETOWN REGIONAL/HOOK FIELD	RNAV	RNAV (GPS) RWY 23, ORIG	AMDT: NONE
				DATED:

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

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ARINC PACKET - 424-18 - RNAV (GPS)

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        --------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   FRAAM K50    C   L N39462622W084332502                      W0057     NAR           FRAAM
        SUSAEAENRT   PRUDE K50    C   L N39254492W083565860                      W0061     NAR           PRUDE
        SUSAEAENRT   VOYUV K50    W     N39344927W084191479                      W0058     NAR           VOYUV
        SUSAEAENRT   WIBAR K50    W     N39481310W084185365                      W0059     NAR           WIBAR
        SUSAEAENRT   YEBTO K50    W     N39403625W084102886                      W0060     NAR           YEBTO
        SUSAEAENRT   ZABSI K50    W     N39325878W084020592                      W0060     NAR           ZABSI

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        --------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMWOK5AMWO     0     061YHN39315450W084234720W004000650         1800018000C    MNAR    MIDDLETOWN REGIONAL/HOOK FIELD

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        --------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMWOK5FR23   AFRAAM 010FRAAMK5EA0E       IF                                                18000                A JS
        SUSAP KMWOK5FR23   AFRAAM 020WIBARK5EA0E  A 020TF                     08490113    + 03100                            A JS
        SUSAP KMWOK5FR23   AFRAAM 030YEBTOK5EA0EE B 010TF                     14350100    + 03100                            A JS
        SUSAP KMWOK5FR23   APRUDE 010PRUDEK5EA0E       IF                                                18000                A JS
        SUSAP KMWOK5FR23   APRUDE 020ZABSIK5EA0E  A 020TF                     33530082    + 03100                            A JS
        SUSAP KMWOK5FR23   APRUDE 030YEBTOK5EA0EE B 010TF                     32370100    + 03100                            A JS
        SUSAP KMWOK5FR23   AYEBTO 010YEBTOK5EA0EE AR   HF                     23360040    + 03100     18000                  A JS
        SUSAP KMWOK5FR23   R      010YEBTOK5EA0E  I    IF                                + 03100     18000                  A JS
        SUSAP KMWOK5FR23   R      020VOYUVK5EA1E  F 051TF                     23360089    + 02000                 RW23  K5PGA JS
        SUSAP KMWOK5FR23   R      020VOYUVK5EA2WALPV       ALNAV/VNAV ALNAV                                                   JS
        SUSAP KMWOK5FR23   R      030RW23 K5PG0GY M 031TF                     23350041      00695             -300           A JS
        SUSAP KMWOK5FR23   R      040         0  M     CA                     2335        + 01800                            A JS
        SUSAP KMWOK5FR23   R      050YEBTOK5EA0EY  R   DF                                + 03100                            A JS
        SUSAP KMWOK5FR23   R      060YEBTOK5EA0EE  R   HM                     23360040    + 03100                            A JS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        --------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMWOK5GRW23    0061002334 N39320934W084231637-0100    +0164700650029945100R

                 1         2         3         4         5         6         7         8         9         0         1         2         3
PP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        --------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMWOK5PR23   RW23 001 0000W23A0N3932093425W08423163675+016470300N3931113500W084244384001067509840004 50F400500DA755405
        SUSAP KMWOK5PR23   RW23 002E      +01982+01982LPV       90429
```

CITY AND STATE	ELEVATION: 650 THRE: 650	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
MIDDLETOWN, OH	AIRPORT NAME: MIDDLETOWN REGIONAL/HOOK FIELD	RNAV	RNAV (GPS) RWY 23, ORIG	AMDT: NONE
				DATED:

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER ☐ (specify) _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

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```
                1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMWOK5SRW23 K5PG                0   18018003125                                                                        M
```

QUALITY CHECKED

CITY AND STATE	ELEVATION: 650 THRE: 650	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
MIDDLETOWN, OH	AIRPORT NAME: MIDDLETOWN REGIONAL/HOOK FIELD	RNAV	RNAV (GPS) RWY 23, ORIG	AMDT: NONE
				DATED:

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER ☐ (specify) _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.33**

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ARINC SUMMARY - 424-18 - RNAV (GPS)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	FRAAM	FRAAM	010		IF		FB					
	FRAAM	WIBAR	020	IAF	TF		FB	2.0	084.9(080.9T)	011.3	AA 03100	
	FRAAM	YEBTO	030		TF		FB	1.0	143.5(139.5T)	010.0	AA 03100	
	PRUDE	PRUDE	010		IF		FB					
	PRUDE	ZABSI	020	IAF	TF		FB	2.0	335.3(331.3T)	008.2	AA 03100	
	PRUDE	YEBTO	030		TF		FB	1.0	323.7(319.7T)	010.0	AA 03100	
	YEBTO	YEBTO	010	IAF	HF	R	FO		233.6(229.6T)	004.0	AA 03100	
		YEBTO	010	FACF	IF		FB				AA 03100	
		VOYUV	020	FAF	TF		FB	0.5	233.6(229.6T)	008.9	AA 02000	
		RW23	030	MAP	TF		FO	0.3	233.5(229.5T)	004.1	AT 00695	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		233.5(229.5T)		AA 01800	
	YEBTO	050		DF	R	FO				AA 03100	
	YEBTO	060		HM	R	FO		233.6(229.6T)	004.0	AA 03100	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	FRAAM	N394626.22	W0843325.02	N3946.437	W08433.417
	PRUDE	N392544.92	W0835658.60	N3925.749	W08356.977
	VOYUV	N393449.27	W0841914.79	N3934.821	W08419.247
	WIBAR	N394813.10	W0841853.65	N3948.218	W08418.894
	YEBTO	N394036.25	W0841028.86	N3940.604	W08410.481
	ZABSI	N393258.78	W0840205.92	N3932.980	W08402.099
	RW23	N393209.34	W0842316.37	N3932.156	W08423.273

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW23	00650	45

QUALITY CHECKED

CITY AND STATE	ELEVATION: **650**	THRE: **650**	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
MIDDLETOWN, OH	AIRPORT NAME: **MIDDLETOWN REGIONAL/HOOK FIELD**		**RNAV**	**RNAV (GPS) RWY 23, ORIG**	AMDT: **NONE**
					DATED:

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
FEEDER	PRUDE	ZABSI	1. TOWER (39-002995)	392452.60N/0835844.60W	1224 (5D)	1000	AT876	3100
			2. TERRAIN	392921.00N/0835639.00W	1004 (1000)		AS1500	2500
FEEDER	FRAAM	WIBAR	3. TOWER (39-002855)	394511.00N/0842753.00W	1380 (5D)	1000	AT720	3100
			4. TERRAIN	394915.00N/0842700.00W	1054 (1100)		AS1500	2600
INITIAL	ZABSI	YEBTO	5. TOWER (39-000028)	394057.00N/0840928.00W	1435 (4D)	1000	AT665	3100
			6. TERRAIN	394048.00N/0840939.00W	1086 (1100)		AS1500	2600
INITIAL	WIBAR	YEBTO	7. TOWER (39-001362)	394328.61N/0841517.58W	2049 (3C)	1000		3100
			6. TERRAIN	394048.00N/0840939.00W	1086 (1100)		AS1500	2600
INTERMEDIATE	YEBTO (IF/IAF)	VOYUV	5. TOWER (39-000028)	394057.00N/0840928.00W	1435 (4D)	500		2000
			8. TERRAIN	394036.00N/0841027.00W	1037 (1000)		AS1000	2000
FINAL: LPV	VOYUV	RW23	9. TREE (KMWOT026)	393231.35N/0842241.12W	758 (2C)	34:1	AC20 MA47	986/336
FINAL: LNAV/VNAV	VOYUV	RW23	10. TREE	393319.57N/0842241.83W	779 (2C)	23.4:1	AC20	1083/433
FINAL: LNAV	VOYUV	RW23	11. AAO	393419.91N/0841959.14W	889 (2C)	250		1140
2. HOLD-IN-LIEU-OF-PT	YEBTO	P-5	7. TOWER (39-001362)	394328.61N/0841517.58W	2049 (3C)	1000		3100
			6. TERRAIN	394048.00N/0840939.00W	1086 (1100)		AS1500	2600
3. MISSED APPROACH MAP:	DA / DA / RW23	YEBTO	9. TREE (KMWOT026)	393231.35N/0842241.12W	758 (2C)	ASC	AC20	3100
			5. TOWER (39-000028)	394057.00N/0840928.00W	1435 (4D)	1000		2500
ELEV:	762/922/1040		12. TERRAIN	393551.00N/0843330.00W	1100 (1100)		AS1500	2600

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL							
CATEGORY A	1.3 NM	350	730	13. TOWER (39-003075)	393221.00N/0842532.00W	1020 (5D)	300	AC50	1380
CATEGORY B	1.5 NM	450	730	13. TOWER (39-003075)	393221.00N/0842532.00W	1020 (5D)	300	AC50	1380
CATEGORY C	1.7 NM	450	730	13. TOWER (39-003075)	393221.00N/0842532.00W	1020 (5D)	300	AC50	1380
CATEGORY D	2.3 NM	550	1190	14. TOWER (39-000031)	393057.00N/0842105.00W	1403 (5E)	300	AC125	1840
CATEGORY E	4.5 NM	550							

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: RW23

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	TWR (39-000043)	032/ 12.6	2049 (5D)	3100					

CITY AND STATE		FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
MIDDLETOWN, OH	ELEVATION: 650 AIRPORT NAME: MIDDLETOWN REGIONAL/HOOK FIELD	RNAV	RNAV (GPS) RWY 23, ORIG	AGL

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE		3. ALTIMETER SETTING
CMH APP CON DAY FSS	N W S	OTHER: AWOS-3	SOURCE: KMWO / KMGY
	F A A		DISTANCE: 0 / 8.67
	A / C		HOURS REMOTE OPERATION: 24 / BACKUP
SATISFACTORY ON: X V H F X U H F H F	LOCATION: KMWO		ADJUSTMENT: 0 / 63

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN: CAT 1	
	HRS OPTN: CAT 3	
5. APPROACH & RUNWAY LIGHTING		ALS
		(S) SALS
		MALS
		HIRL
	X	MIRL 05 (PCL), 23 (PCL)
	X	REIL 05, 23
		TDZ
		C/LINE
	X	OTHER (SPECIFY) PAPI-4L 05, 23
6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	
	INSTRUMENT	NPI-F 05, 23
7. RUNWAY VISUAL RANGE	APPROACH	
	MIDFIELD	
	ROLL OUT	
8. GLIDE PATH	GP ANGLE: 3.00	ELEV RWY THRESHOLD: 650.1
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: 45.0
9. FINAL APPROACH COURSE AIMING	X	RUNWAY THRESHOLD FT. FROM THRESHOLD
	X	ON CENTERLINE FT. FROM CENTERLINE

10. WAIVERS: NONE

PART D - PREPARED BY: JILL OLSON (MICHAEL R. GARRITY JR.)	DATE: 02/29/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-353

PART C - REMARKS:

THRESHOLD DISPLACED 299 FT.

VDP NOT ESTABLISHED - 20:1 PENETRATION.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

UNABLE TO VERIFY RWY 5 VISUAL SURFACES DUE TO LACK OF SURVEY

TAA NOT USED PER FPT REQUEST

25 DEGREE BANK USED IN MA SEGMENT TO AVOID CVG CLASS B AIRSPACE

TERPS, VOLUME 1, VISUAL PORTION OF FINAL PENETRATIONS:

20:1 (ALL PENETRATIONS ARE ON RWY 23)
663 RD(N) (KMWOT048) 393214.39N/0842316.62W (7.04)

34:1
707 TREE (KMWOT013) 393216.08N/0842257.97W (17.54)
691 TREE (KMWOT067) 393213.35N/0842301.90W (13.70)
718 TREE (KMWOT011) 393226.20N/0842259.90W (12.35)
728 TREE (KMWOT016) 393226.73N/0842253.89W (10.81)
766 TREE (KMWOT040) 393228.72N/0842233.75W (9.71)
747 TREE (KMWOT028) 393229.62N/0842245.54W (9.60)
758 TREE (KMWOT026) 393231.35N/0842241.12W (9.52)
726 TREE (KMWOT015) 393221.46N/0842248.43W (9.44)
708 TREE (KMWOT010) 393225.51N/0842302.77W (8.71)
761 TREE (KMWOT041) 393227.35N/0842234.47W (8.62)
749 TREE (KMWOT024) 393228.97N/0842242.80W (8.07)
718 TREE (KMWOT012) 393225.65N/0842256.80W (7.99)
749 TREE (KMWOT027) 393230.15N/0842244.01W (7.90)
685 TREE (KMWOT066) 393214.62N/0842302.43W (6.17)
662 RD(N) (KMWOT049) 393214.98N/0842314.90W (4.30)
741 TREE (KMWOT039) 393227.13N/0842243.18W (4.29)
748 TREE (KMWOT025) 393230.39N/0842242.56W (3.90)
738 TREE (KMWOT023) 393228.35N/0842244.29W (0.87)
714 TREE (KMWOT014) 393220.93N/0842249.70W (0.69)
683 POLE (KMWOT065) 393214.69N/0842300.39W (0.47)
661 RD(N) (KMWOT050) 393215.40N/0842313.70W (0.39)

RASS PRESSURE PATTERNS SAME
KMWO 650.4, KMGY 956.6
RA = 62.81.
SEE ATTACHED AIRSPACE LETTER.

KMWO AND KMGY ON SERVICE A.

100 FT VEGETATION USED PER FPT.

LPV SLOPE 34:1
LNAV/VNAV SLOPE 23.410:1

AVERAGE COLD TEMPERATURE BASED ON STANDARD -30C ISA DEVIATION. HISTORICAL DATA NOT AVAILABLE.

RADIO FIX AND HOLDING DATA RECORD

NAME: FRAAM **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 394626.22N/0843325.02W **TYPE:** WP, 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	DIST FROM FAC FEET	MRA	MAA
1	DAYTON	DQN	VOR/DME	L	208.00	207.00	16.31	16.31		2900	17500

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V275	1				(US)
IAP	RNAV (GPS) RWY 24			KRID	RICHMOND	IN (US)
IAP	RNAV (GPS) RWY 23			KMWO	MIDDLETOWN	OH (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
UPDATED FIX USES.

DEVELOPED BY: **DATE:** 03/01/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (MICHAEL GARRITY)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: CEN
ARTCC: ZID
ATC FACILITY: CMH APP CON
OTHER: CVG APP CON, DAY APP CON

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: PRUDE **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 392544.92N/0835658.60W **TYPE:** WP, 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 FAC NM	DIST FROM FAC FEET	MRA	MAA
1	CINCINNATI	CVG	VORTAC	L	058.59	054.59	42.99	42.99		3000	17500
2	DAYTON	DQN	VOR/DME	L	150.40	149.40	40.85	40.85		3000	17500
3	ONIDA	MW	LOM		121.10	117.10	19.53	19.53		3000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
DQN	VOR/DME	R-150	41	3000	17500
CVG	VORTAC	R-059	43	3000	17500
MW	LOM	BRG-121	20	3000	17500

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V-5, T217	1, 2				(US)
IAP	VOR/DME OR GPS-A			KHOC	HILLSBORO	OH (US)
IAP	LOC RWY 23			KMWO	MIDDLETOWN	OH (US)
IAP	NDB RWY 23	3		KMWO	MIDDLETOWN	OH (US)
IAP	NDB-A			KMWO	MIDDLETOWN	OH (US)
IAP	RNAV (GPS) RWY 23			KMWO	MIDDLETOWN	OH (US)
IAP	VOR-A			KI66	WILMINGTON	OH (US)
IAP	NDB RWY 04L			KILN	WILMINGTON	OH (US)
IAP	VOR OR GPS RWY 04L			KILN	WILMINGTON	OH (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 14 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
UPDATED FIX TYPE.
ADDED FAC3.
UPDATED FAC1/FAC2 ESV.
ADDED FAC3 ESV.
UPDATED FIX USES.

DEVELOPED BY: **DATE:** 03/01/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (MICHAEL GARRITY)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: CEN
ARTCC: ZID
ATC FACILITY: CMH APP CON
OTHER: CVG APP CON, DAY APP CON

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: VOYUV **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 393449.27N/0841914.79W **TYPE:** WP

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

REMARKS:
COORDINATES DETERMINED USING 8260.54A FORMULA 2-16B.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 23			KMWO	MIDDLETOWN	OH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 02/14/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (MICHAEL GARRITY)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZID
ATC FACILITY: CMH APP CON
OTHER: CVG APP CON, DAY APP CON

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: WIBAR **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 394813.10N/0841853.65W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 23			KMWO	MIDDLETOWN	OH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 02/14/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (MICHAEL GARRITY)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZID
ATC FACILITY: CMH APP CON
OTHER: CVG APP CON, DAY APP CON

QUALITY A CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: YEBTO **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 394036.25N/0841028.86W **TYPE:** WP

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

HOLDING: **HOLDING TYPE OF ACTION:** ESTABLISH

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	NE		WP	053.58	233.58	R		4	3100	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (39-000043)	394315.00N/0841539.00W	2049	5D

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 23		1	KMWO	MIDDLETOWN	OH (US)
IAP	RNAV (GPS) RWY 5		1	KMWO	MIDDLETOWN	OH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 02/21/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (MICHAEL GARRITY)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZID
ATC FACILITY: CMH APP CON
OTHER: CVG APP CON, DAY APP CON

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: ZABSI **STATE:** OH **COUNTRY:** US

LATITUDE/LONGITUDE: 393258.78N/0840205.92W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 23			KMWO	MIDDLETOWN	OH (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 02/14/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (MICHAEL GARRITY)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZID
ATC FACILITY: CMH APP CON
OTHER: CVG APP CON, DAY APP CON

QUALITY CHECKED

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **MIDDLETOWN** STATE: **OH**

AIRPORT NAME: **MIDDLETOWN REGIONAL/HOOK FIELD** ID: **KMWO**

PROCEDURE: **RNAV (GPS) RWY 23** AMDT: **ORIG**

DOCKET # :
(96-AXX-X/Required/Not Required)

ALL DIST TO 1/100 NM; ELEV TO NEAREST FT; COORD TO 1/100 SEC; DEG TO 1/100 DG.

1. Distance from **THLD** to 1000' point **3.16**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **1.20**
   (Enter appropriate segment , final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **229.48**
4. High Terrain in **FINAL** segment containing 1000' point **735**
5. Distance from **THLD** to 1500' point **11.80**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **INTERMEDIATE** segment at 1500' point **4.00**
7. True Course of **INTERMEDIATE** segment containing 1500' point **229.58**
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **1035**
9. Threshold Coordinates (if straight-in) ... *** 393209.34N / 0842316.37W**
10. ARP Coordinates ..... **393154.50N / 0842347.20W**
11. Runway Approach End and distance furthest from ARP.....RWY **23**
    Distance **.52** NM
12. FAF Coordinates ..... **393449.27N / 0841914.79W**
    (Click to Select)

REMARKS: Approach/Drawing attached.
Actual Threshhold Coordinates -393211.27N / 0842313.47W.
*** DRWT.**