Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: IAP	Date Open: 03/01/2010	Task #: 2008061618983755002	Request #: 20080616189837
Procedure: RNAV (GPS) RWY 9 AMDT 1		Airport ID: KVLL	Airport: OAKLAND/TROY		Reimbursable #:
City: TROY	ST: MI	GPS #:		Estimated Chart Date: 01/10/2013	FICO #:
Fac ID:	Fac. Type: LNAV		Specialist: RODNEY TEMPLETON(Contractor)		

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	07/18/2012	09/11/2012	JEFF RAWDON	
QA:	09/11/2012	09/15/2012	STEVEN SZUKALA	
Liaison:	09/15/2012		Spurlin	

P1

Procedure Comments:

Remark Type: INFORMATION

pkg 1 of 2

TROY, MI OAKLAND/TROY (KVLL) RNAV (GPS) RWY 9, AMDT 1 (LNAV) ENROUTE-NO FC: 11.27.12 PUB: 1.10.13

ATTACHED FORMS: 8260-3; 8260-10; 8260-9; 8260-2(S): CELUB, ORIG; LOFWY, REV 2; PONTIAC (PSI) VTAC, REV 9; ZAVMO, ORIG.
FLCK NOTE: REQUEST FLIGHT CHECK VERIFICATION OF OBSTACLE #26-003210

CONTACT: JILL OLSON/STEVE BARNETT -AVJ-353 LEADS, 405.954.4014 / 405.954.9307.

RNAV (GPS) RWY 9

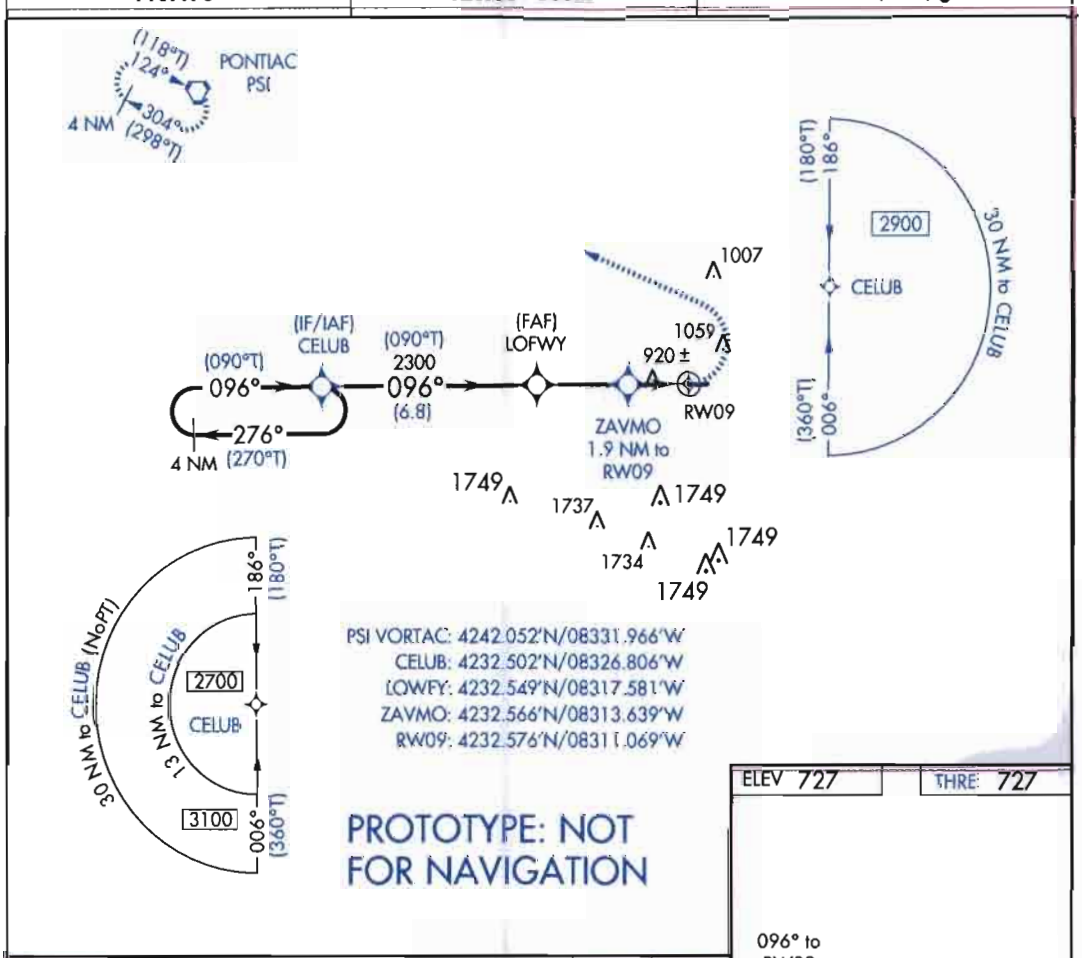
TROY/OAKLAND/TROY (VLL)

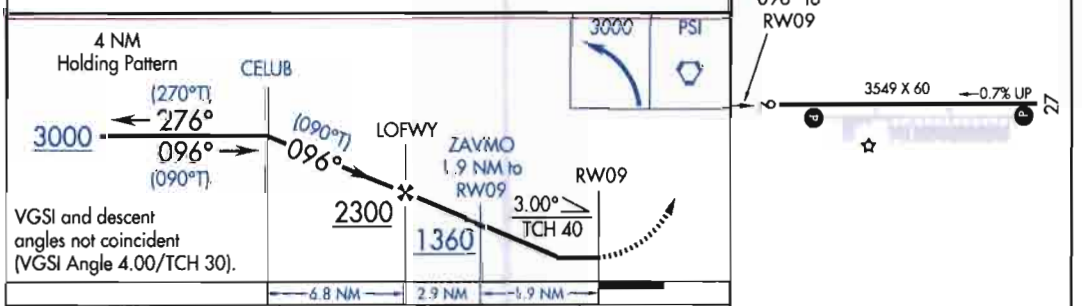
APP CRS	Rwy ldg	3549
096°	THRE	727
	Apt Elev	727

DME/DME RNP-0.3 NA. When local altimeter setting not received, use Coleman A.Young **Muni** altimeter setting and increase all MDA 40 feet and increase LNAV Cat C visibility ½ mile. Procedure NA at night.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climbing left turn to 3000 direct PSI VORTAC and hold.

AWOS-3	DETROIT APP CON	UNICOM
119.475	126.85 363.2	123.05 (CTAF)





CATEGORY	A	B	C	D
LNAV MDA	1220-1 493 (500-1)		1220-1 3/8 493 (500-1 3/8)	NA
CIRCLING	1400-1 673 (700-1)		1400-2 673 (700-2)	NA

MIRL Rwy 9-27

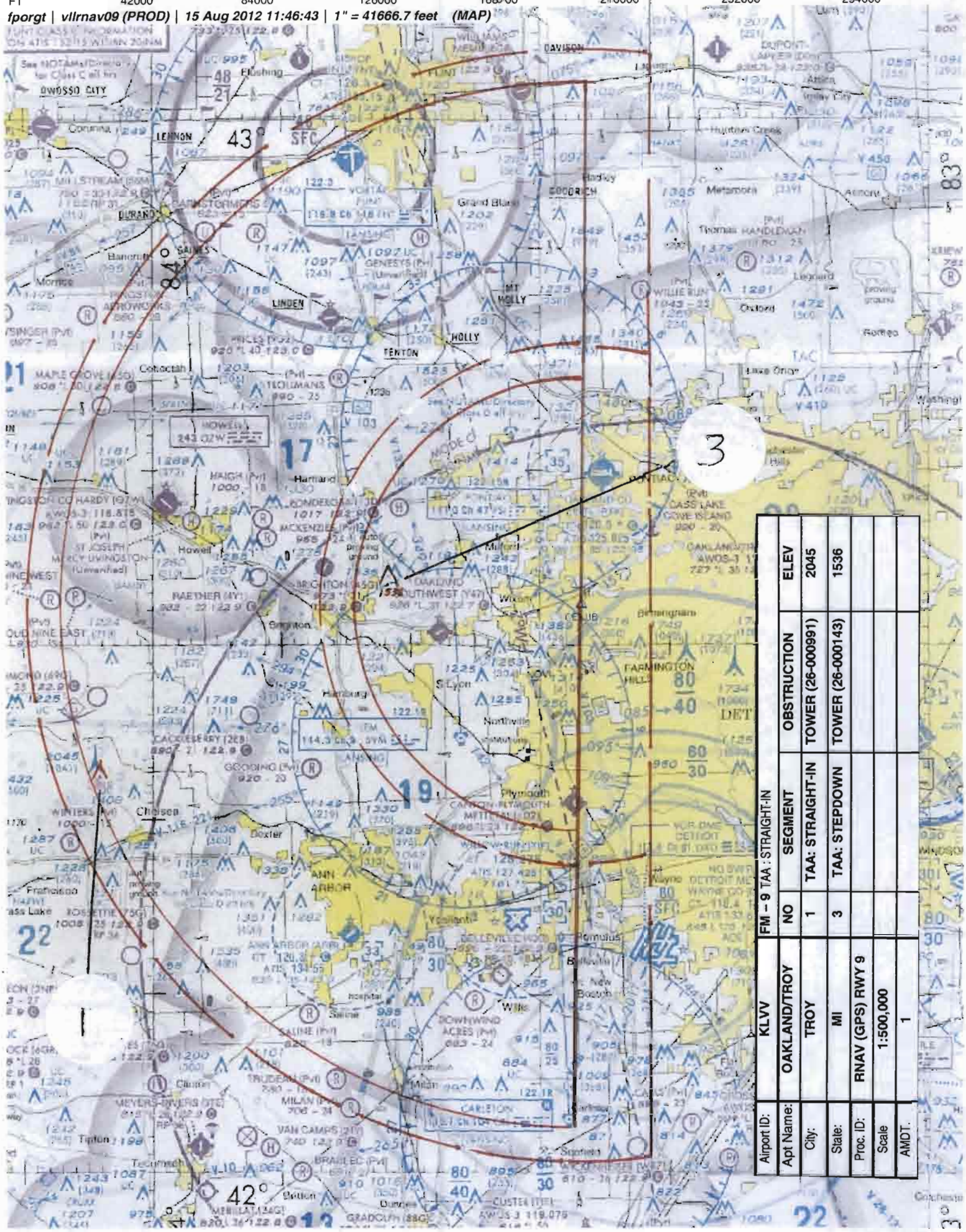
AUTOMATED AL-5293 RNAV (GPS) RWY 9

EC-1
28 AUG 2012
COMPILER: BB
REVIEWER:
DBL CHK:
EFF: FIG

NM 7 14 21 28 35 42 49

FT 42000 84000 126000 168000 210000 252000 294000

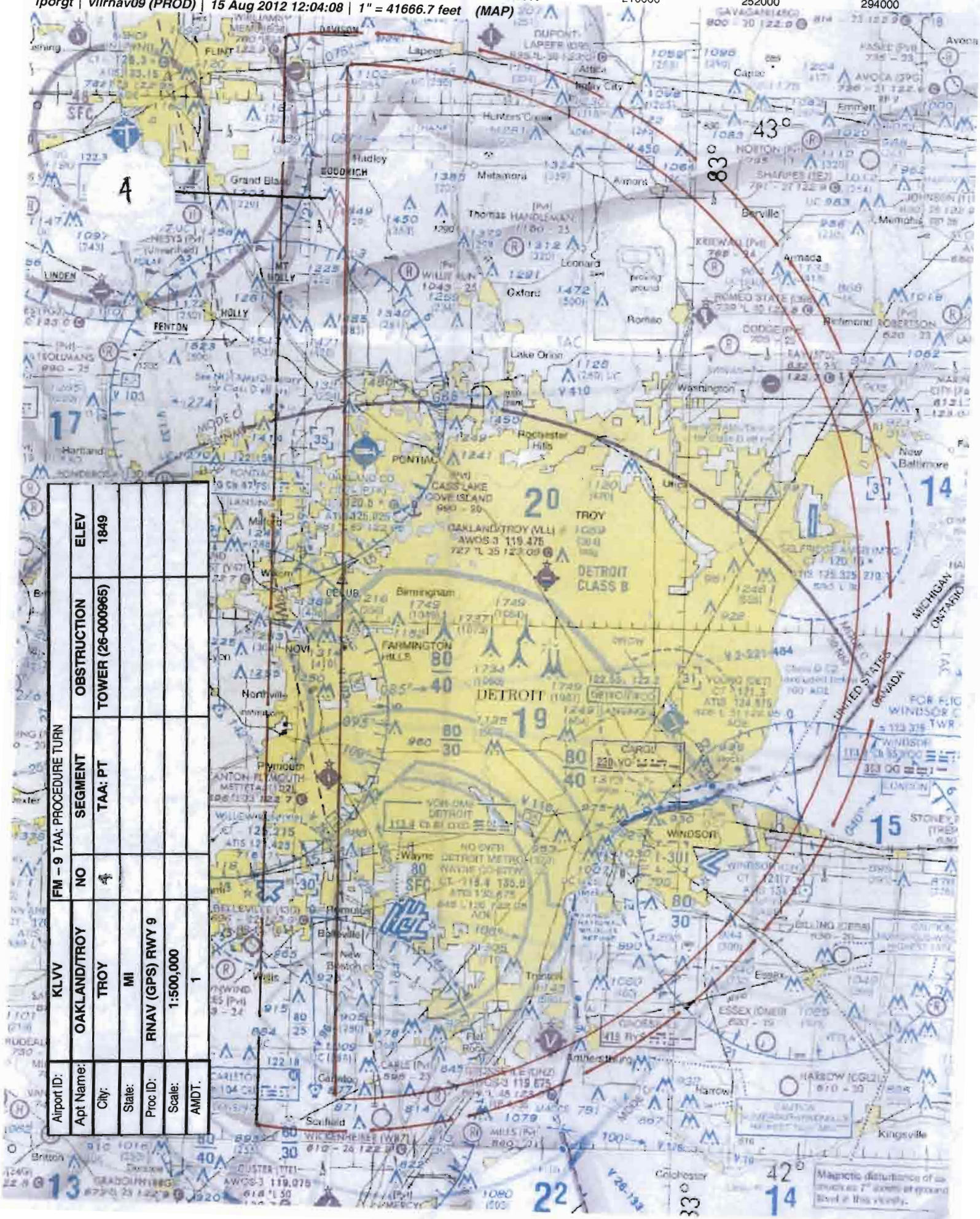
fporgt | vllrnav09 (PROD) | 15 Aug 2012 11:46:43 | 1" = 41666.7 feet (MAP)


43°
42°
83°
84°
3
1
LENNON
DURAND
LINDEN
HOLLY
TENTON
Howell
Brighton
Chelsea
ANN ARBOR
Ypsilanti
Romulus
Belleville
Milan
Tipton
Tecumseh
Adrian
Hudson
Clinton
Flushing
Davison
Goodrich
Metamora
Oxford
Romeo
Lake Orion
Pontiac
Farmington Hills
Northville
Plymouth
Dexter
Saline
Manchester
Morenci
Coldwater
Coldwater
Hillsdale
Tecumseh
Ann Arbor
Ypsilanti
Wayne
Belleville
Milan
Tipton
Adrian
Hudson
Clinton
Flushing
Davison
Goodrich
Metamora
Oxford
Romeo
Lake Orion
Pontiac
Farmington Hills
Northville
Plymouth
Dexter
Saline
Manchester
Morenci

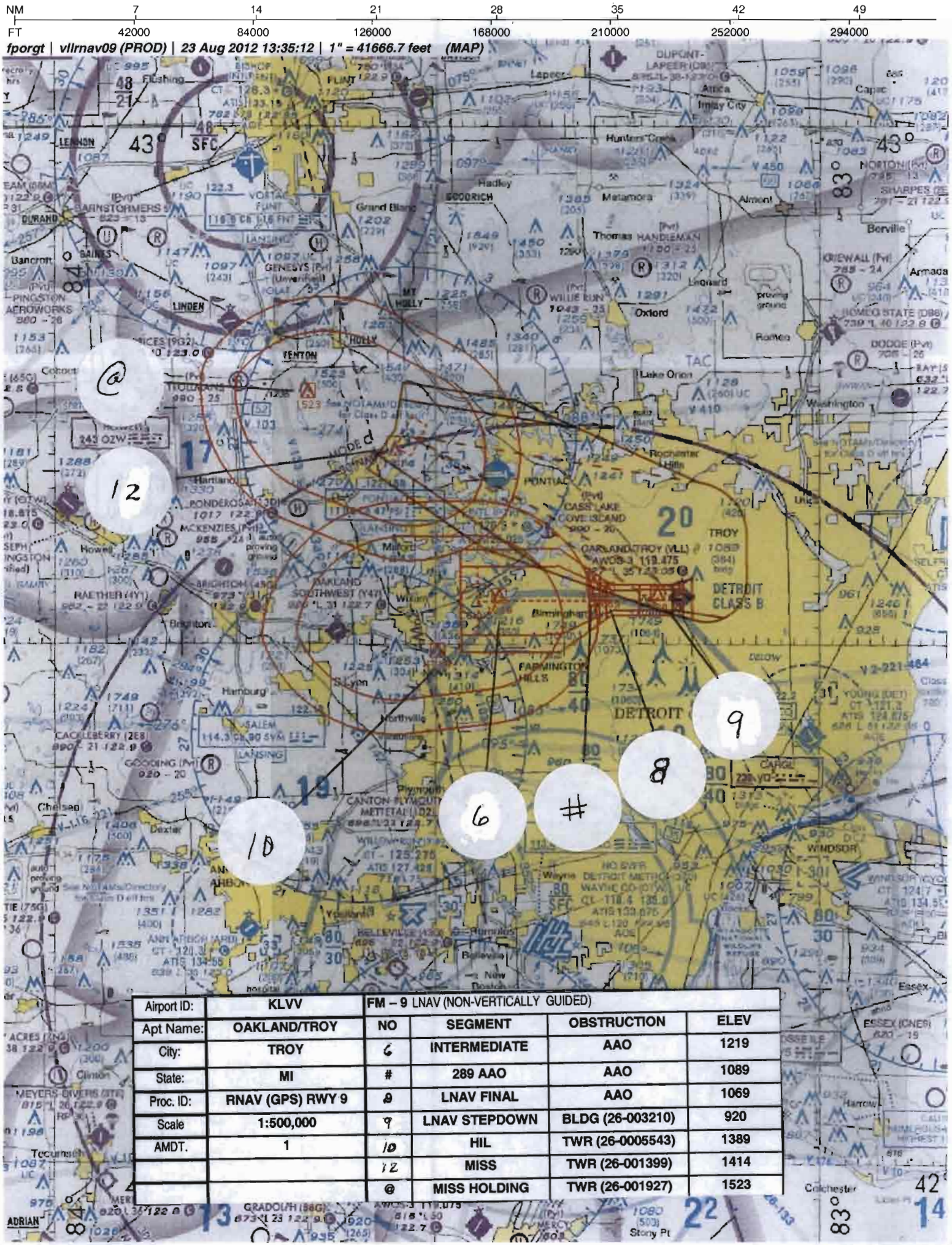
NM 7 14 21 28 35 42 49

FT 42000 84000 126000 168000 210000 252000 294000

fporgt | vilrnav09 (PROD) | 15 Aug 2012 12:04:08 | 1" = 41666.7 feet (MAP)



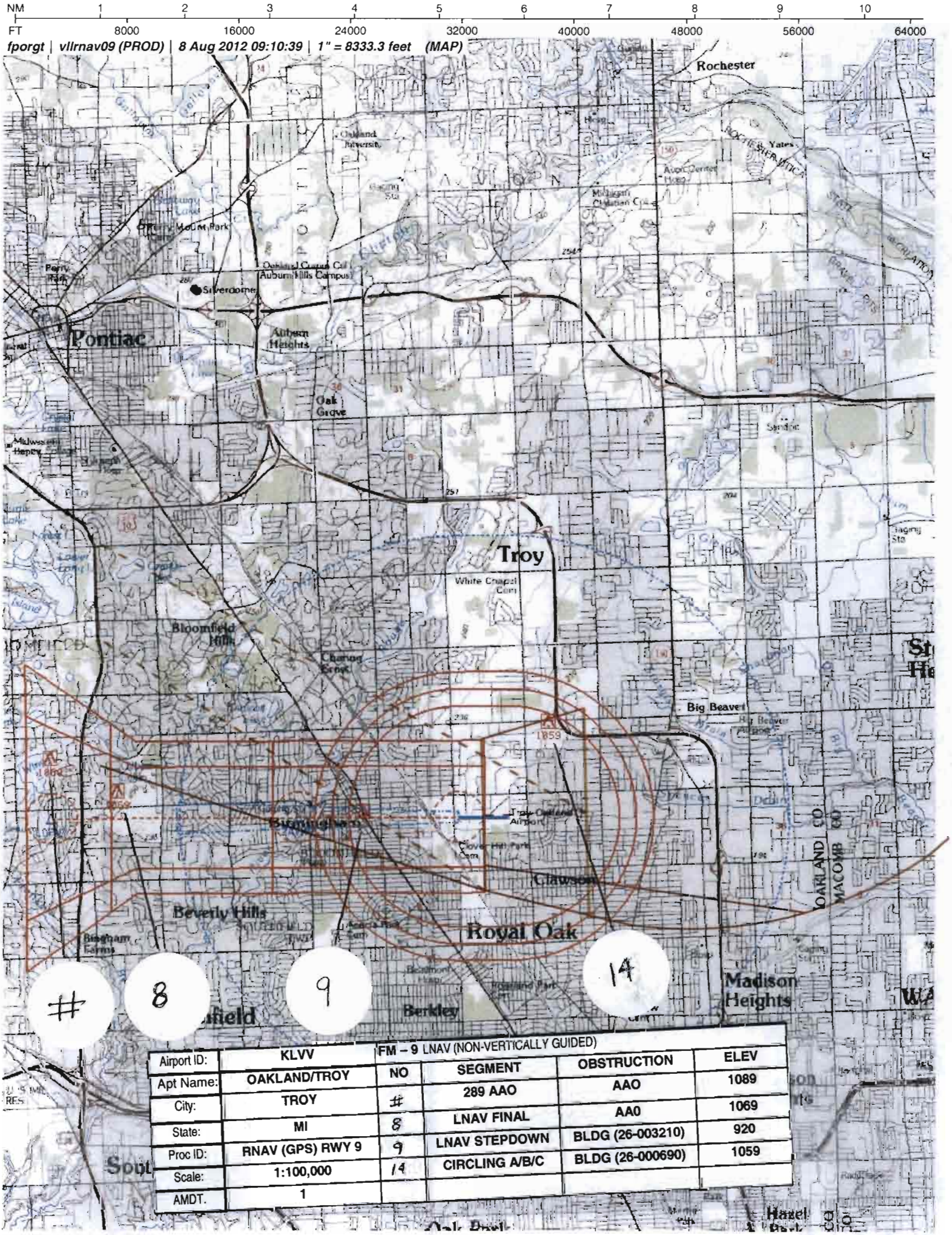
Airport ID:	KLVV	FM – 9 TAA: PROCEDURE TURN			
Apt Name:	OAKLAND/TROY	NO	SEGMENT	OBSTRUCTION	ELEV
City:	TROY		TAA: PT	TOWER (26-000965)	1849
State:	MI				
Proc ID:	RNAV (GPS) RWY 9				
Scale:	1:500,000				
AMDT.	1				



Airport ID:	KLVV
Apt Name:	OAKLAND/TROY
City:	TROY
State:	MI
Proc. ID:	RNAV (GPS) RWY 9
Scale	1:500,000
AMDT.	1

FM – 9 LNAV (NON-VERTICALLY GUIDED)

NO	SEGMENT	OBSTRUCTION	ELEV
6	INTERMEDIATE	AAO	1219
#	289 AAO	AAO	1089
8	LNAV FINAL	AAO	1069
9	LNAV STEPDOWN	BLDG (26-003210)	920
10	HIL	TWR (26-0005543)	1389
12	MISS	TWR (26-001399)	1414
@	MISS HOLDING	TWR (26-001927)	1523



Airport ID:	KLVV	FM – 9 LNAV (NON-VERTICALLY GUIDED)			
Apt Name:	OAKLAND/TROY	NO	SEGMENT	OBSTRUCTION	ELEV
City:	TROY	#	289 AAO	AAO	1089
State:	MI	8	LNAV FINAL	AA0	1069
Proc ID:	RNAV (GPS) RWY 9	9	LNAV STEPDOWN	BLDG (26-003210)	920
Scale:	1:100,000	14	CIRCLING A/B/C	BLDG (26-000690)	1059
AMDT.	1				

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
CELUB (IF/IAF)	LOFWY (FB)	095.55 / 6.82	2300
LOFWY (FAF)	ZAVMO/1.90 NM TO RW09 (FB)	095.65 / 2.91	
ZAVMO/1.90 NM TO RW09	RW09 (MAP) (FO)	095.65 / 1.90	
RW09 (MAP)	1127 MSL	095.65	
1127 MSL	PSI VORTAC (FO)		3000

MISSED APPROACH

LNAV: RW09

CLIMBING LEFT TURN TO 3000 DIRECT PSI VORTAC AND HOLD.

ADDITIONAL FLIGHT DATA:
HOLD NW, RT, 124.00 INBOUND.
CHART FAS OBST: 920 BLDG 423234N/0831236W
1089 AAO 423311N/0831736W
LOFWY TO RW09: 3.00/40.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. HOLD W CELUB, RT, 095.55 INBOUND, 2700 FT. IN LIEU OF PT (IAF)
3. FAC: 095.65 FAF: LOFWY DIST FAF TO MAP: 4.81 THLD: 4.81
4. MIN. ALT: CELUB 2700, LOFWY 2300, ZAVMO/1.90 NM TO RW09 1360
5. DIST TO THLD FROM OM: ____ MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: ____ GS ALT AT: ____ OM: ____ MM: ____ IM: ____
7. GS ANGLE: ____ TCH: 34:1 IS NOT CLEAR
8. MSA FROM:

MAG VAR: 6W EPOCH YEAR: 1995

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
LNAV MDA	1220	1	493	1220	1	493	1220	1 3/8	493		NA				
CIRCLING	1400	1	673	1400	1	673	1400	2	673		NA				

NOTES:
CHART NOTE: DME/DME RNP-0.3 NA.
CHART NOTE: PROCEDURE NA AT NIGHT.
CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT.
(SEE FORM 8260-10)

@ NA WHEN LOCAL WEATHER NOT AVAILABLE.

QUALITY 2 CHECKED

CITY AND STATE	ELEVATION: 727 THRE: 727	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
TROY, MI	AIRPORT NAME: OAKLAND/TROY	RNAV	RNAV (GPS) RWY 9, AMDT 1	AMDT: ORIG-A
				DATED 10/05/2000

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
[ ] YES [X] NO		ROUTINE

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
[ ]	[ ]	[X]	[ ]	[X]	[X]	[X] DTW APP CON, AMGR

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME: JOSE ALFONSO (RODNEY TEMPLETON)	FIFO AJV-353	DATE: 08/08/2012
APPROVED BY		
NAME: LARRY H STROUT	FIFO AJV-353	DATE:

CHANGES:

1. CANCELLED TUSVE AND URUMY IAF(S).
2. CANCELLED LEFT AND RIGHT TAA BASES.
3. CANCELLED OHEVU (IF/IAF).
4. MOVED IF/IAF 1.74NM WEST AND CREATED NEW FIX (CELUB).
5. IF/IAF TO FAF COURSE CHANGED FROM 095.56 TO 095.55.
6. CREATED STEPDOWN FIX (ZAVMO)/1.90 TO RW09.
7. COURSE FROM FAF TO MAP CHANGED FROM 095.63 TO 095.65.
8. MISSED APPROACH CHANGED FROM CLIMB TO 2200 THEN CLIMBING LEFT TURN TO 2800 DIRECT OHEVU, TO CLIMBING LEFT TURN TO 3000 DIRECT PSI VORTAC AND HOLD.
9. INBD HOLDING PATTERN COURSE CHANGED FROM 095.56 TO 095.55.
10. DISTANCE FROM FAF TO MAP CHANGED FROM 4.82 TO 4.81.
11. LOWERED LNAV MDA FROM 1260 TO 1220.
12. DECREASED LNAV CAT C VISIBILITY FROM 1 1/2 TO 1 3/8.
13. CHART NOTE CHANGED FROM WHEN VGSI INOP, CIRCLING NA AT NIGHT TO PROCEDURE NA AT NIGHT.

REASONS:

1, 2, AND 8 PER FPT REQUEST.
3. FPT REQUEST AND JO7400.2J(F).
4. 8260.3B, CHANGE 19, PARA 242B(1)
5. MOVED IF/IAF (1.74NM WEST) AND FAF 42.40 FEET WEST.
6, AND 12. TO OBTAIN LOWER LNAV MINIMA.
7. ADDED STEPDOWN FIX.
9. MOVED HOLDING FIX FROM OHEVU TO PONTIAC VORTAC 11.07NM.
10. MOVED FAF 42.40 FEET/0.01NM WEST.
11. LNAV CAT C VISIBILITY DECREASED FROM 1 1/2NM TO 1 3/8NM DUE TO THE 40 FEET LOWER MDA.
12. RWY 27 VISUAL SURFACES ASSUMED NOT CLEAR DUE TO LACK OF SURVEY AND RWY 9/27 VGSI NOT VERIFIED.

QUALITY 2 CHECKED

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NOTES, (CONT.):
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE COLEMAN A. YOUNG MUNI ALTIMETER SETTING AND INCREASE ALL MDA 40 FEET AND INCREASE LNAV CAT C VISIBILITY 1/8 MILE.

TAA

	FROM	TO	ALT
1.	006/30 CW 186/30 (NOPT)	006/13 CW 186/13	3100
2.	006/13 CW 186/13	CELUB (IF/IAF) (FB)	2700
3.	186/30 CW 006/30	CELUB (IF/IAF) (FO)	2900

QUALITY 2 CHECKED

CITY AND STATE	ELEVATION: 727 THRE: 727	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
TROY, MI	AIRPORT NAME: OAKLAND/TROY	RNAV	RNAV (GPS) RWY 9, AMDT 1	AMDT: ORIG-A
				DATED: 10/05/2000

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:

QUALITY CHECKED

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ARINC PACKET - 424-18 - RNAV (GPS)

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        PSI   K5011100VTL  N42420309W083315798    N42420309W083315798W0030011491     NARPONTIAC

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   CELUB K50    W     N42323009W083264838                      W0072     NAR           CELUB
        SUSAEAENRT   LOFWY K50    W     N42323296W083173485                      W0073     NAR           LOFWY
        SUSAEAENRT   ZAVMO K50    W     N42323397W083133835                      W0074     NAR           ZAVMO

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KVLLK5AVLL     0     035YHN42323460W083104040W006000727         1800018000C    MNAR    OAKLAND/TROY

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KVLLK5FR09   ACELUB 010CELUBK5EA0EE AR   HF                    09560040    + 02700     18000                B JS
        SUSAP KVLLK5FR09   R      010CELUBK5EA0E  I    IF                                + 02700     18000                B JS
        SUSAP KVLLK5FR09   R      020LOFWYK5EA1E  F 051TF                    09560068    + 02300                          B JS
        SUSAP KVLLK5FR09   R      020LOFWYK5EA2WN          N          ALNAV                                                 JS
        SUSAP KVLLK5FR09   R      021ZAVMOK5EA0E S  031TF                    09570029    V 0136001372        -300         B JS
        SUSAP KVLLK5FR09   R      030RW09 K5PG0GY M 031TF                    09570019      00767             -300         B JS
        SUSAP KVLLK5FR09   R      040         0  M     CA                    0957        + 01127                          B JS
        SUSAP KVLLK5FR09   R      050PSI  K5D 0VY  L   DF                                + 03000                          B JS
        SUSAP KVLLK5FR09   R      060PSI  K5D 0VE  R   HM                    12400040    + 03000                          B JS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KVLLK5GRW09    0035490957 N42323456W083110414-0700    +01874007270000400 60R
```

QUALITY CHECKED 2

CITY AND STATE	ELEVATION: 727 THRE: 727	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
TROY, MI	AIRPORT NAME: OAKLAND/TROY	RNAV	RNAV (GPS) RWY 9, AMDT 1	AMDT: ORIG-A
				DATED: 10/05/2000

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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ARINC SUMMARY - 424-18 - RNAV (GPS)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	CELUB	CELUB	010	IAF	HF	R	FO		095.6(089.6T)	004.0	AA 02700	
		CELUB	010	FACF	IF		FB				AA 02700	
		LOFWY	020	FAF	TF		FB	0.5	095.6(089.6T)	006.8	AA 02300	
		ZAVMO	021	SDF	TF		FB	0.3	095.7(089.7T)	002.9	AA 01360 GS 01372	
		RW09	030	MAP	TF		FO	0.3	095.7(089.7T)	001.9	AT 00767	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		095.7(089.7T)		AA 01127	
	PSI	050		DF	L	FO				AA 03000	
	PSI	060		HM	R	FO		124.0(118.0T)	004.0	AA 03000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	PSI	N424203.09	W0833157.98	N4242.052	W08331.966
	CELUB	N423230.09	W0832648.38	N4232.502	W08326.806
	LOFWY	N423232.96	W0831734.85	N4232.549	W08317.581
	ZAVMO	N423233.97	W0831338.35	N4232.566	W08313.639
	RW09	N423234.56	W0831104.14	N4232.576	W08311.069

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW09	00727	40

QUALITY CHECKED

CITY AND STATE	ELEVATION: 727 THRE: 727	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
TROY, MI	AIRPORT NAME: OAKLAND/TROY	RNAV	RNAV (GPS) RWY 9, AMDT 1	AMDT: ORIG-A
				DATED: 10/05/2000

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.
STRAIGHT-IN AREA	006/30 CW 186/30	006/13 CW 186/13	1. TOWER (26-000991)	422225.60N/0840410.22W	2045 (1A)	1000		3100
			2. TERRAIN	424436.00N/0832209.00W	1234 (1200)		AS1500	2700
STRAIGHT-IN AREA	006/13 CW 186/13	CELUB	3. TWR (26-000143)	423323.40N/0834140.22W	1536 (5D)	1000		2600
			2. TERRAIN	424436.00N/0832209.00W	1234 (1200)		AS1500	2700
STRAIGHT-IN AREA	186/30 CW 006/30	CELUB	4. TWR (26-000965)	425357.00N/0832742.00W	1849 (5D)	1000		2900
			5. TERRAIN	425306.00N/0831933.00W	1244 (1200)		AS1500	2700
INTERMEDIATE	CELUB (IF/IAF)	LOFWY	6. AAO	423222.52N/0832500.64W	1219 (2C)	500	AT581	2300
			7. TERRAIN	423222.52N/0832500.64W	1019 (1000)		AS1000	2000
FINAL: LNAV	LOFWY	ZAVMO/1.90 NM TO RW09	8. AAO	423248.00N/0831632.00W	1069 (2C)	250	RA40	1360
FINAL: LNAV STEPDOWN	ZAVMO/1.90 NM TO RW09	RW09	9. BLDG (26-003210)	423234.20N/0831235.50W	920 (4D)	250	AC50	1220
2. HOLD-IN-LIEU-OF-PT	CELUB	P-5	10. TWR (26-000543)	422911.99N/0832949.10W	1389 (5D)	1000	AT311	2700
			11. TERRAIN	423324.00N/0833442.00W	1139 (1100)		AS1500	2600
3. MISSED APPROACH — MAP:	RW09	PSI VORTAC				ASC		3000
			12. TOWER (26-001399)	424058.84N/0833310.66W	1414 (1A)	1000		2500
ELEV:	1120		13. TERRAIN	424345.00N/0832724.00W	1181 (1200)		AS1500	2700

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL							
CATEGORY A	1.3 NM	350	673	14. BLDG (26-000690)	423336.85N/0830938.32W	1059 (2C)	300	XP41	1400
CATEGORY B	1.5 NM	450	673	14. BLDG (26-000690)	423336.85N/0830938.32W	1059 (2C)	300	XP41	1400
CATEGORY C	1.7 NM	450	673	14. BLDG (26-000690)	423336.85N/0830938.32W	1059 (2C)	300	XP41	1400
CATEGORY D	2.3 NM	550							
CATEGORY E	4.5 NM	550							

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID:

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A

CHECKED

CITY AND STATE	ELEVATION: 727 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
TROY, MI	OAKLAND/TROY	RNAV	RNAV (GPS) RWY 9, AMDT 1	AGL

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE			3. ALTIMETER SETTING
LAN FSS DTW APP CON		N W S	OTHER: AWOS-3	SOURCE: KVLL / KDET
		F A A		DISTANCE: 0 / 10.94
SATISFACTORY ON:		A / C		HOURS REMOTE OPERATION: 24 / BACKUP
X V H F X U H F H F	LOCATION: KVLL			ADJUSTMENT: 0 / 40

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN:	CAT 1
		CAT 3

5. APPROACH & RUNWAY LIGHTING	
	ALS
	(S) SALS
	MALS
	HIRL
X	MIRL 27 (PCL), 09 (PCL)
	REIL
	TDZ
	C/LINE
X	OTHER (SPECIFY) PAPI-2L 27 (PCL) PAPI-2R 09 (PCL)

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	
	INSTRUMENT	NPI-F 27, 09
7. RUNWAY VISUAL RANGE	APPROACH	
	MIDFIELD	
	ROLL OUT	
8. GLIDE PATH	GP ANGLE:	ELEV RWY THRESHOLD:
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT:

9. FINAL APPROACH COURSE AIMING			
	X	RUNWAY THRESHOLD	FT. FROM THRESHOLD
	X	ON CENTERLINE	FT. FROM CENTERLINE

10. WAIVERS: NONE

PART D - PREPARED BY: JOSE ALFONSO (RODNEY TEMPLETON)	DATE: 08/08/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-353

PART C - REMARKS:

VDP NOT ESTABLISHED - OBSTACLES PENETRATE VISUAL SURFACES.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

TERPS PARAGRAPH 289 APPLIED TO 1089 AAO 423311N/0831736W

ORDER 8260.3, VOLUME 1, "VISUAL PORTION OF FINAL" PENETRATIONS:
20:1
R09
765 TREE (KVLLT040) 423231.93N/0831108.12W (33.04)
767 TREE (KVLLT045) 423237.62N/0831108.98W (31.97)
757 TREE (KVLLT037) 423237.13N/0831106.88W (29.81)
833 TWR (KVLLT002) 423229.24N/0831128.23W (25.73)
755 TREE (KVLLT039) 423232.95N/0831108.10W (23.14)
751 BLDG (KVLLT192) 423230.85N/0831108.11W (19.05)
758 TREE (KVLLT120) 423231.56N/0831110.81W (15.97)
831 POLE (KVLLT016) 423233.95N/0831130.37W (15.85)
756 TREE (KVLLT116) 423238.07N/0831111.20W (12.67)
851 POLE (KVLLT018) 423240.71N/0831136.64W (12.56)
764 POLE (KVLLT163) 423238.36N/0831113.43W (12.34)
819 POLE (KVLLT015) 423231.26N/0831128.18W (11.97)
775 POLE (KVLLT132) 423229.77N/0831116.74W (10.74)
765 POLE (KVLLT147) 423231.16N/0831114.12W (10.57)
755 TREE (KVLLT121) 423232.52N/0831111.54W (10.26)
746 RD(N) (KVLLT175) 423236.13N/0831109.41W (9.32)
839 POLE (KVLLT017) 423238.35N/0831134.38W (8.95)
761 TREE (KVLLT211) 423232.51N/0831113.59W (8.59)
745 RD(N) (KVLLT176) 423235.15N/0831109.36W (8.48)
745 RD(N) (KVLLT174) 423238.52N/0831109.53W (7.93)
744 RD(N) (KVLLT177) 423234.14N/0831109.31W (7.65)
750 TREE (KVLLT118) 423236.26N/0831111.24W (6.48)
756 TREE (KVLLT112) 423233.89N/0831112.85W (6.39)
743 TREE (KVLLT125) 423231.73N/0831109.46W (6.02)
746 RD(N) (KVLLT179) 423237.03N/0831110.39W (5.68)
764 TREE (KVLLT209) 423238.52N/0831115.37W (5.08)
742 RD(N) (KVLLT180) 423230.52N/0831109.54W (4.69)
816 CATENARY BALL (KVLLT003) 423232.68N/0831129.34W (4.67)
760 TREE (KVLLT210) 423233.40N/0831114.76W (3.24)
747 TREE (KVLLT113) 423234.62N/0831111.43W (2.73)
774 POLE (KVLLT139) 423239.48N/0831118.74W (2.50)
742 RD(N) (KVLLT178) 423232.68N/0831110.16W (2.43)
774 POLE (KVLLT144) 423235.81N/0831118.78W (2.26)
784 BLDG (KVLLT200) 423229.73N/0831121.50W (1.93)
773 POLE (KVLLT162) 423230.65N/0831118.57W (1.91)
744 RD(N) (KVLLT183) 423233.55N/0831110.91W (1.64)
761 POLE (KVLLT148) 423232.32N/0831115.45W (1.63)
760 TREE (KVLLT208) 423237.15N/0831115.22W (1.61)
773 POLE (KVLLT142) 423237.64N/0831118.73W (1.49)
762 POLE (KVLLT146) 423235.83N/0831115.92W (0.96)
765 POLE (KVLLT159) 423232.54N/0831116.76W (0.73)
772 POLE (KVLLT160) 423233.10N/0831118.68W (0.56)
34:1
R09
820 CATENARY BALL (KVLLT004) 423236.22N/0831132.43W (36.64)
782 BLDG (KVLLT199) 423230.78N/0831121.66W (22.27)
776 POLE (KVLLT133) 423232.43N/0831120.89W (17.99)
773 POLE (KVLLT161) 423231.83N/0831119.65W (17.71)
776 POLE (KVLLT136) 423235.74N/0831121.06W (17.66)
776 POLE (KVLLT137) 423237.57N/0831121.15W (17.49)
775 POLE (KVLLT134) 423234.31N/0831120.69W (17.45)
768 POLE (KVLLT158) 423231.89N/0831117.87W (16.62)
833 TREE (KVLLT060) 423238.36N/0831147.56W (16.38)
CONT.

QUALITY 2 CHECKED

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.

3. MISSED APPROACH								
	MAP:							
	ELEV:							

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT.								
CATEGORY A	1.3 NM	REQUIRED	350	ACTUAL						
CATEGORY B	1.5 NM		450							
CATEGORY C	1.7 NM		450							
CATEGORY D	2.3 NM		550							
CATEGORY E	4.5 NM		550							

5. MINIMUM SAFE ALTITUDES

PRIMARY NAVAID:

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A

N/A 2 CHECKED

CITY AND STATE	ELEVATION: 727 AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
TROY, MI	OAKLAND/TROY	RNAV	RNAV (GPS) RWY 9, AMDT 1	AGL

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE		3. ALTIMETER SETTING
SATISFACTORY ON:	N W S	OTHER:	SOURCE:
	F A A		DISTANCE:
	A / C		HOURS REMOTE OPERATION:
V H F / U H F / H F	LOCATION:		ADJUSTMENT:

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

10. WAIVERS:

PART D - PREPARED BY:	DATE:
TITLE:	OFFICE:

PART C - REMARKS:

CONTINUED.
779 BLDG (KVLLT012) 423236.84N/0831123.16W (16.06)
800 TREE (KVLLT050) 423238.75N/0831133.06W (15.30)
776 POLE (KVLLT135) 423234.61N/0831122.16W (15.22)
771 POLE (KVLLT143) 423238.21N/0831120.10W (14.81)
764 POLE (KVLLT145) 423236.45N/0831117.02W (14.56)
826 TREE (KVLLT084) 423228.49N/0831145.16W (14.51)
774 BLDG (KVLLT198) 423233.49N/0831121.63W (14.37)
828 TREE (KVLLT065) 423234.21N/0831146.51W (13.63)
763 POLE (KVLLT141) 423238.29N/0831117.18W (13.24)
786 POLE (KVLLT023) 423232.76N/0831127.60W (13.22)
835 TREE (KVLLT059) 423240.91N/0831150.22W (12.56)
838 TREE (KVLLT068) 423235.81N/0831151.62W (12.40)
828 TREE (KVLLT064) 423235.11N/0831147.32W (11.86)
777 POLE (KVLLT151) 423234.17N/0831124.80W (10.41)
830 TREE (KVLLT062) 423237.36N/0831148.98W (10.24)
825 TREE (KVLLT083) 423228.87N/0831146.73W (10.06)
757 TREE (KVLLT124) 423231.07N/0831115.98W (9.77)
822 TREE (KVLLT061) 423237.83N/0831145.83W (9.18)
779 POLE (KVLLT024) 423231.30N/0831126.37W (8.91)
836 TREE (KVLLT085) 423228.65N/0831152.33W (8.73)
776 POLE (KVLLT025) 423230.04N/0831125.28W (8.29)
791 TREE (KVLLT052) 423235.07N/0831132.27W (7.98)
777 POLE (KVLLT152) 423235.03N/0831126.03W (7.71)
827 TREE (KVLLT063) 423235.12N/0831148.75W (7.71)
777 POLE (KVLLT155) 423237.15N/0831126.24W (7.28)
755 TREE (KVLLT114) 423234.85N/0831116.29W (7.15)
819 TREE (KVLLT057) 423240.03N/0831145.43W (7.09)
780 POLE (KVLLT154) 423237.09N/0831128.16W (6.06)
750 TREE (KVLLT119) 423236.08N/0831114.59W (5.91)
746 TREE (KVLLT115) 423237.47N/0831112.79W (5.89)
799 BLDG (KVLLT005) 423236.07N/0831136.94W (5.72)
769 BLDG (KVLLT195) 423229.92N/0831123.32W (5.60)
769 BLDG (KVLLT197) 423234.14N/0831123.42W (5.44)
775 POLE (KVLLT156) 423238.46N/0831126.24W (5.30)
799 BLDG (KVLLT011) 423237.99N/0831137.19W (5.20)
753 TREE (KVLLT122) 423233.83N/0831116.31W (5.09)
821 TREE (KVLLT126) 423237.31N/0831147.49W (4.52)
817 TREE (KVLLT078) 423231.28N/0831145.69W (4.39)
823 TREE (KVLLT082) 423228.31N/0831148.60W (3.94)
769 BLDG (KVLLT196) 423232.66N/0831124.26W (3.57)
843 TREE (KVLLT100) 423237.82N/0831157.95W (3.50)
825 TREE (KVLLT081) 423228.85N/0831149.83W (3.24)
777 POLE (KVLLT153) 423234.96N/0831128.08W (3.20)
799 BLDG (KVLLT009) 423237.18N/0831138.10W (3.18)
780 TREE (KVLLT053) 423234.68N/0831129.45W (3.18)
798 BLDG (KVLLT187) 423234.63N/0831137.93W (2.52)
825 TREE (KVLLT067) 423233.84N/0831150.27W (2.35)
819 TREE (KVLLT058) 423240.99N/0831147.67W (2.18)
776 POLE (KVLLT157) 423238.81N/0831128.12W (2.17)
754 TREE (KVLLT123) 423234.29N/0831118.11W (2.13)
820 TREE (KVLLT079) 423232.43N/0831148.13W (2.03)
798 BLDG (KVLLT188) 423238.90N/0831138.46W (1.41)
799 BLDG (KVLLT186) 423235.78N/0831139.05W (1.07)
793 BLDG (KVLLT190) 423238.92N/0831136.44W (0.86)
825 TREE (KVLLT086) 423231.67N/0831151.12W (0.44)
822 TREE (KVLLT071) 423238.60N/0831149.84W (0.36)
786 POLE (KVLLT027) 423230.44N/0831133.45W (0.31)
785 POLE (KVLLT167) 423233.12N/0831133.03W (0.28)

SERVICE A: KVLL, YES/KDET, YES.

LPV AND LNAV/VNAV NOT DEVELOPED DUE TO NUMEROUS GQS PENETRATIONS.

FPT NOTIFIED OF 20:1 PENETRATIONS.

CONT.

QUALITY 2 CHECKED

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.

3. MISSED APPROACH								
	MAP:							
	ELEV:							

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT.							
CATEGORY A	1.3 NM	REQUIRED	350	ACTUAL					
CATEGORY B	1.5 NM		450						
CATEGORY C	1.7 NM		450						
CATEGORY D	2.3 NM		550						
CATEGORY E	4.5 NM		550						

5. MINIMUM SAFE ALTITUDES PRIMARY NAVAID:

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A

QUALITY CHECKED

CITY AND STATE	ELEVATION: 727 AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
TROY, MI	OAKLAND/TROY	RNAV	RNAV (GPS) RWY 9, AMDT 1	AGL

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE			3. ALTIMETER SETTING
SATISFACTORY ON:		N W S	OTHER:	SOURCE:
		F A A		DISTANCE:
		A / C		HOURS REMOTE OPERATION:
V H F / U H F / H F	LOCATION:			ADJUSTMENT:

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN:	CAT 1
		CAT 3
5. APPROACH & RUNWAY LIGHTING		
6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	
	INSTRUMENT	
7. RUNWAY VISUAL RANGE	APPROACH	
	MIDFIELD	
	ROLL OUT	
8. GLIDE PATH	GP ANGLE:	ELEV RWY THRESHOLD:
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT:
9. FINAL APPROACH COURSE AIMING	RUNWAY THRESHOLD	FT. FROM THRESHOLD
	ON CENTERLINE	FT. FROM CENTERLINE

10. WAIVERS:

PART D - PREPARED BY:	DATE:
TITLE:	OFFICE:

PART C - REMARKS:

CONTINUED.
VEGETATION HEIGHT ASSUMED TO BE 100 FEET.

LP MINS NOT DEVELOPED PER 8-10-11 MEMO: LP MDA SAME AS LNAV MDA.

OBS #10 REQUESTED FLIGHT CHECK 4D ACCURACY.

25 DEGREE BANK ANGLE USED IN MISSED APPROACH.

RASS PRESSURE PATTERNS SAME
KVLL 727, KDET 626
RA = 39.34.
SEE ATTACHED AIRSPACE LETTER.

VGSI DATA: 4.00/15.9

XP 41' ADDED TO MATCH PREVIOUS/OTHER APPROACH MINIMA

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CELUB **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 423230.09N/0832648.38W **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	W		WP	275.55	095.55	R		4	2700	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (26-000543)	422911.99N/0832949.10W	1389	5D

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 9		1	KVLL	TROY	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/01/2012 **OFFICE:** AJV-353 **NAME:** JOSE ALFONSO (RODNEY TEMPLETON)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: LOFWY **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 423232.96N/0831734.85W **TYPE:** WP

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 9			KVLL	TROY	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 01/10/2013

REASON FOR REVISION:
UPDATE COORDINATES
FIX MOVED 42.40 FT.
DELETED FAC 1

DEVELOPED BY: **DATE:** 08/01/2012 **OFFICE:** AJV-353 **NAME:** JOSE ALFONSO (RODNEY TEMPLETON)

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

SIGNATURE:

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: PONTIAC VORTAC **STATE:** MI **COUNTRY:** US

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	DIST FROM FAC FEET	MRA	MAA
1	PONTIAC	PSI	VORTAC	L							17500

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

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	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

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	PALACE			KPTK	PONTIAC	MI (US)
DP	PONTIAC			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 27R		1	KDTW	DETROIT	MI (US)
IAP	ILS OR LOC RWY 4R		1	KDTW	DETROIT	MI (US)
IAP	ILS OR LOC Z RWY 22R		1	KDTW	DETROIT	MI (US)
IAP	ILS RWY 4R (CAT II/III)		1	KDTW	DETROIT	MI (US)
IAP	ILS Y RWY 22R		1	KDTW	DETROIT	MI (US)
IAP	ILS OR LOC RWY 27			KFNT	FLINT	MI (US)
IAP	ILS RWY 9			KFNT	FLINT	MI (US)
IAP	RNAV (GPS) RWY 27			KFNT	FLINT	MI (US)
IAP	VOR RWY 18			KFNT	FLINT	MI (US)
IAP	VOR RWY 36			KFNT	FLINT	MI (US)
IAP	VOR RWY 9			KFNT	FLINT	MI (US)
IAP	VOR RWY 31			KOZW	HOWELL	MI (US)
IAP	VOR-A			KD95	LAPEER	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/DME-A			KD98	ROMEO	MI (US)
IAP	RNAV (GPS) RWY 9		2	KVLL	TROY	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: 9 **DATE OF REVISION:** 01/10/2013

REASON FOR REVISION:

QUALITY 2 CHECKED

FIX USE UPDATED.
AMENDMENT FOR ADMINISTRATIVE REASONS TO CHANGE FAC STATUS FROM HISTORY TO ACTIVE.
ADDED PAT 2

DEVELOPED BY:	**DATE:** 08/27/2012	**OFFICE:** AJV-353	**NAME:** JOSE ALFONSO (RODNEY TEMPLETON)
APPROVED BY:	**DATE:**	**OFFICE:** AJV-353	**NAME:** LARRY STROUT
	SIGNATURE:		

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

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: ZAVMO **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 423233.97N/0831338.35W **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 9			KVLL	TROY	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/01/2012 **OFFICE:** AJV-353 **NAME:** JOSE ALFONSO (RODNEY TEMPLETON)

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

SIGNATURE:

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

QUALITY 2 CHECKED

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **TROY** STATE: **MI**

AIRPORT NAME: **OAKLAND/TROY** ID: **KVLL**

PROCEDURE: **RNAV (GPS) RWY 9** AMDT: **1**

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 **3.48**
   (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 **89.65**
4. High Terrain in **FINAL** segment containing 1000' pc **906**
5. Distance from **THLD** to 1500' point **10.23**
   (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 **89.55**
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **1019**
9. Threshold Coordinates (if straight-in) ... **423234.56N / 0831104.14W**
10. ARP Coordinates ..... **423234.60N / 0831040.40W**
11. Runway Approach End and distance furthest from ARP.....RWY **9**
    Distance **0.29** NM
12. FAF Coordinates ..... **423232.96N / 0831734.85W**
    (Click to Select)

REMARKS: Approach/Drawing attached.
CELUB: 423230.09N/0832648.38W

RADIO FIX AND HOLDING DATA RECORD

NAME: OHEVU **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 423230.76N/0832421.22W **TYPE:** WP

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

CANCELLED

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	KVLL R09					269.71	9.82				17500

HOLDING: **HOLDING TYPE OF ACTION:** CANCEL

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	W		WP	275.56	095.56	R		4	2700	10000	5	8

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (23-0324)	422901.00N/0831844.00W	1749	4D

REMARKS:
HOLDING LIMITED TO ESTABLISHED PATTERN

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	OAKLAND/TROY - RNAV RWY 9 (FB/FO)			KVLL	TROY	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 08/28/2000

REASON FOR REVISION:
UPDATED COORDINATES.
CHANGE AIR/GROUND COMMUNICATIONS ALTITUDE TO 2700.
ADD HOLDING.

DEVELOPED BY: **DATE:** **OFFICE:** **NAME:**

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** JOSE ALFONSO

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CHI
ARTCC: ZOB
ATC FACILITY: DTW ATCT
OTHER:

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

CANCELLED

NAME: TUSVE **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 423730.84N/0832424.34W **TYPE:** WP

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

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FEET	MRA	MAA
1	OHEVU					359.56	5.00				17500

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	OAKLAND/TROY - RNAV RWY 9 (FB)			KVLL	TROY	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 08/28/2000

DEVELOPED BY: **DATE:** **OFFICE:** **NAME:**

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** JOSE ALFONSO

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CHI
ARTCC: ZOB
ATC FACILITY: DTW ATCT
OTHER:

QUALITY 2 CHECKED

RADIO FIX AND HOLDING DATA RECORD

CANCELLED

NAME: URUMY **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 422730.67N/0832418.11W **TYPE:** WP

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

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	OHEVU					179.56	5.00				17500

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	OAKLAND/TROY - RNAV RWY 9 (FB)			KVLL	TROY	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 08/28/2000

DEVELOPED BY: **DATE:** **OFFICE:** **NAME:**

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** JOSE ALFONSO

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CHI
ARTCC: ZOB
ATC FACILITY: DTW ATCT
OTHER:

QUALITY 2 CHECKED