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 visibilites which are in statute miles or in feet RVR.

TERMINAL ROUTES

FROM	TO	COURSE AND DISTANCE	ALTITUDE
DELOW (IAF)	ROBBI (FB)	247.92 / 6.31	4000
ROBBI (IF)	BALAS (FB)	214.81 / 2.95	3700
BALAS	PUKLE (FB)	214.79 / 4.21	2600
PUKLE (FAF)	RW21L (MAP) (FO)	214.76 / 5.91	
RW21L (MAP)	922 MSL	214.76	
922 MSL	CURMO (FB)		
CURMO	RYS NDB (FO)	108.45	3000

MISSED APPROACH

LPV: DA
LNAV/VNAV: DA
LNAV: RW21L

CLIMB TO 3000 DIRECT CURMO AND LEFT TURN ON TRACK 108.45 TO RYS NDB AND HOLD.

ADDITIONAL FLIGHT DATA:
HOLD SW, RT, 043.00 INBOUND.
CHART FAS OBST: 774 TOWER 421422N/0832005W
FAS OBST: 839 AAO 421739N/0831806W
DISTANCE TO THLD FROM 290 HATH: 0.74 NM.
CHART VDP AT 1.47 MILES TO RW21L*
*LNAV ONLY.
WAAS CHANNEL # 81820
REFERENCE PATH ID: W21A
CHART LOC RWY 22R.
LTP HAE: 158.1 M

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT ROBBI
3. FAC: 214.76 FAF: PUKLE DIST FAF TO MAP: 5.91 THLD: 5.91
4. MIN. ALT: ROBBI 4000, BALAS 3700, PUKLE 2600
5. DIST TO THLD FROM OM: ____ MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 2600 GS ALT AT: PUKLE 2600 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 55.0 34:1 IS CLEAR
8. MSA FROM: RW21L 2800

MAG VAR: 6W EPOCH YEAR: 1990

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	922	2400	290	922	2400	290	922	2400	290	922	2400	290			
LNAV/VNAV DA	1118	5000	486	1118	5000	486	1118	5000	486	1118	5000	486			
LNAV MDA	1180	2400	548	1180	2400	548	1180	6000	548	1180	6000	548			
CIRCLING	1200	1	555	1200	1	555	1200	1 1/2	555	1200	2	555			

NOTES:
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 47C (116F).
CHART NOTE: DME/DME RNP-0.3 NA.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT DELOW ON V2-221-464 EASTBOUND.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT.
(SEE FORM 8260-10)

QUALITY 9 CHECKED

CITY AND STATE	ELEVATION: 645 THRE: 632 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
DETROIT, MI	DETROIT METROPOLITAN WAYNE COUNTY	RNAV	RNAV (GPS) RWY 21L, AMDT 2A	AMDT: 2
				DATED 09/25/2008

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]	[X]	[X] **ZOB, DTW ATCT, AMGR**

FLIGHT CHECKED BY

NAME:	FIFO	DATE:
ZACK LEE SMYER	**FIOG**	**05/02/2012**

DEVELOPED BY

NAME:	FIFO	DATE:
JOSE ALFONSO (ROSS F. BARTO)	**AJV-353**	**10/21/2011**

APPROVED BY

NAME:	FIFO	DATE:
LARRY H STROUT MANAGER	**AJV-353**	

CHANGES:

1. ALL MINIMUMS BASED ON HEIGHT ABOVE THLD VS TOUCHDOWN.
2. PUKLE NAME CHANGE TO PICUP.
3. INOPERATIVE NOTE REVISED.
4. RAISED LNAV CAT C VISIBILITY FROM RVR 5000 TO RVR 6000 AND LOWERED LNAV/VNAV ALL CATS VISIBILITY FROM RVR 6000 TO RVR 5000.

REASONS:

1/3 AND 4. 8260.3, CH 20.
2. PER FPT AND ATC REQUEST TO MATCH ILS OR LOC RWY 21L.

03/02/12: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 10/21/11.
ADDED CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED WITH ILS Y RWY 22R AND ILS Z OR LOC RWY 22R.
ADDED CHART NOTE: LNAV PROCEDURE NA DURING SIMULTANEOUS OPERATIONS.
ADDED CHART NOTE: USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS.
ADDED CHART LOC RWY 22R.

05/29/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 10/21/2011.
FIX NAME PICUP CHANGED TO PUKLE.

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NOTES, (CONT.):
CHART NOTE: FOR INOPERATIVE MALSR INCREASE LPV ALL CATS VISIBILITY TO RVR 4500, LNAV/VNAV ALL CATS VISIBILITY TO 1 3/8 MILES, LNAV CATS A AND B VISIBILITY TO RVR 5500 AND LNAV CATS C AND D VISIBILITY TO 1 5/8 MILES.
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED WITH ILS Y RWY 22R AND ILS Z OR LOC RWY 22R.
CHART NOTE: LNAV PROCEDURE NA DURING SIMULTANEOUS OPERATIONS.
CHART NOTE: USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS.

QUALITY CHECKED

CITY AND STATE		FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	
DETROIT, MI	**ELEVATION: 645** **THRE: 632** AIRPORT NAME: **DETROIT METROPOLITAN WAYNE COUNTY**	**RNAV**	**RNAV (GPS) RWY 21L, AMDT 2A**	SUP: AMDT: **2** DATED: **09/25/2008**

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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FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KDTW
RUNWAY	RW21L
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W21A
LTP/FTP LATITUDE	421310.8595N
LTP/FTP LONGITUDE	0832002.6545W
LTP/FTP ELLIPSOIDAL HEIGHT	+01581
FPAP LATITUDE	421143.6100N
FPAP LONGITUDE	0832106.9400W
THRESHOLD CROSSING HEIGHT (TCH)	00055.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0024
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	E942D437

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+01926
FPAP ORTHOMETRIC HEIGHT	+01926

QUALITY 9 CHECKED

CITY AND STATE	ELEVATION: 645 THRE: 632	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
DETROIT, MI	AIRPORT NAME: DETROIT METROPOLITAN WAYNE COUNTY	RNAV	RNAV (GPS) RWY 21L, AMDT 2A	AMDT: 2
				DATED: 09/25/2008

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

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

ARINC PACKET - 424-18 - RNAV (GPS)

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSADB       RYS   K5004190H MW N42060404W083091072                      W0070          NARGROSSE ILE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   BALAS K50    W     N42220329W083132910                      W0073     NAR           BALAS
        SUSAEAENRT   CURMO K50    W     N42082656W083233193                      W0071     NAR           CURMO
        SUSAEAENRT   DELOW K50    C   L N42273686W083040336                      W0075     NAR           DELOW
        SUSAEAENRT   PUKLE K50    C     N42182191W083161300                      W0073     NAR           PUKLE
        SUSAEAENRT   ROBBI K50    W     N42243842W083113404                      W0073     NAR           ROBBI

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KDTWK5ADTW     0     120YHN42124480W083211220W006000645         1800018000C    MNAR    DETROIT METROPOLITAN WAYNE COU

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KDTWK5FR21L  ADELOW 010DELOWK5EA0E  A    IF                                                  18000                A JS
        SUSAP KDTWK5FR21L  ADELOW 020ROBBIK5EA0EE B 010TF                    24790063    + 04000                                A JS
        SUSAP KDTWK5FR21L  R      010ROBBIK5EA0E  I    IF                               + 04000     18000                      A JS
        SUSAP KDTWK5FR21L  R      020BALASK5EA0E S  051TF                    21480030    + 03700                                A JS
        SUSAP KDTWK5FR21L  R      021PUKLEK5EA1E  F 051TF                    21480042    + 02600                RW21L K5PGA JS
        SUSAP KDTWK5FR21L  R      021PUKLEK5EA2WALPV       ALNAV/VNAV ALNAV                                                    JS
        SUSAP KDTWK5FR21L  R      030RW21LK5PG0GY M 031TF                    21480059      00687                -300          A JS
        SUSAP KDTWK5FR21L  R      040         0  M     CA                    2148        + 00922                              A JS
        SUSAP KDTWK5FR21L  R      050CURMOK5EA0E        DF                                                                    A JS
        SUSAP KDTWK5FR21L  R      060RYS  K5DB0NY   010TF                    1085        + 03000                              A JS
        SUSAP KDTWK5FR21L  R      070RYS  K5DB0NE  R   HM                    04300040    + 03000                              A JS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KDTWK5GRW21L   0100012147 N42131086W083200265+0000    +01581006320000551501

                 1         2         3         4         5         6         7         8         9         0         1         2         3
PP      12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KDTWK5PR21L  RW21L001 0000W21A0N4213108595W08320026545+015810300N4211436100W083210694001067500240005501F400500E942D437
        SUSAP KDTWK5PR21L  RW21L002E      +01926+01926LPV       81820
```

QUALITY 9 CHECKED

CITY AND STATE	ELEVATION: 645 THRE: 632	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
DETROIT, MI	AIRPORT NAME: **DETROIT METROPOLITAN WAYNE COU**	**RNAV**	**RNAV (GPS) RWY 21L, AMDT 2A**	AMDT: **2**
				DATED: **09/25/2008**

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

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:

QUALITY 9 CHECKED

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```
                1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KDTWK5SRW21LK5PG                0   18018002825                                                                          M
```

QUALITY CHECKED

CITY AND STATE	ELEVATION: 645 THRE: 632	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
DETROIT, MI	AIRPORT NAME: DETROIT METROPOLITAN WAYNE COU	RNAV	RNAV (GPS) RWY 21L, AMDT 2A	AMDT: 2
				DATED: 09/25/2008

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

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:

QUALITY CHECKED

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR 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.

ARINC SUMMARY - 424-18 - RNAV (GPS)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	DELOW	DELOW	010	IAF	IF		FB					
	DELOW	ROBBI	020		TF		FB	1.0	247.9(241.9T)	006.3	AA 04000	
		ROBBI	010	FACF	IF		FB				AA 04000	
		BALAS	020	SDF	TF		FB	0.5	214.8(208.8T)	003.0	AA 03700	
		PUKLE	021	FAF	TF		FB	0.5	214.8(208.8T)	004.2	AA 02600	
		RW21L	030	MAP	TF		FO	0.3	214.8(208.8T)	005.9	AT 00687	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		214.8(208.8T)		AA 00922	
	CURMO	050		DF		FB					
	RYS	060		TF		FO	1.0	108.5(102.5T)		AA 03000	
	RYS	070		HM	R	FO		043.0(037.0T)	004.0	AA 03000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	RYS	N420604.04	W0830910.72	N4206.067	W08309.179
	BALAS	N422203.29	W0831329.10	N4222.055	W08313.485
	CURMO	N420826.56	W0832331.93	N4208.443	W08323.532
	DELOW	N422736.86	W0830403.36	N4227.614	W08304.056
	PUKLE	N421821.91	W0831613.00	N4218.365	W08316.217
	ROBBI	N422438.42	W0831134.04	N4224.640	W08311.567
	RW21L	N421310.86	W0832002.65	N4213.181	W08320.044

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW21L	00632	55

CITY AND STATE	ELEVATION: **645** THRE: **632**	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
DETROIT, MI	AIRPORT NAME: **DETROIT METROPOLITAN WAYNE COU**	**RNAV**	**RNAV (GPS) RWY 21L, AMDT 2A**	AMDT: **2**
				DATED: **09/25/2008**

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

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:

QUALITY 9 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.
INITIAL	DELOW	ROBBI	1. TOWER (26-002338)	422653.00N/0831023.00W	1749 (2C)	1000	AT1251	4000
			2. TERRAIN	422812.00N/0830857.00W	706 (700)		AS1500	2200
INTERMEDIATE	ROBBI	BALAS	3. TOWER (26-000885)	422326.00N/0831030.00W	1133 (3C)	500	AT2067	3700
			4. TERRAIN	422512.00N/0831406.00W	699 (700)		AS1500	2200
INTERMEDIATE: STEPDOWN	BALAS	PUKLE	5. TOWER (26-000133)	422239.00N/0831435.00W	1125 (1D)	500	AT975	2600
			6. TERRAIN	422015.00N/0831521.00W	670 (700)		AS1500	2200
FINAL: LPV	PUKLE	RW21L	7. TREE (KDTW0045)	421341.03N/0831936.82W	702 (1A)	27.03:1		922/290
FINAL: LNAV/VNAV	PUKLE	RW21L	8. TOWER (26-000907)	421422.00N/0832005.00W	774 (5D)	23.4:1	AC50	1118/486
FINAL: LNAV	PUKLE	RW21L	9. AAO	421739.00N/0831806.00W	839 (2C)	250	XP80	1180
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	DA / DA / RW21L	RYS NDB				ASC		3000
			10. STACK (KONZT0958)	420718.61N/0831050.62W	1146 (1A)	1000		2200
ELEV:	702/825/930		11. TERRAIN	421048.00N/0832454.00W	712 (700)		AS1500	2200

4. CIRCLING AREA	DISTANCE		REQUIRED		ACTUAL	
CATEGORY A	1.3 NM	HT. ABV. ARPT.	350			555
CATEGORY B	1.5 NM		450			555
CATEGORY C	1.7 NM		450			555
CATEGORY D	2.3 NM		550			555
CATEGORY E	4.5 NM		550			

12. ATCT (26-001770)	421246.00N/0832116.00W	881 (1A)	300		1200
12. ATCT (26-001770)	421246.00N/0832116.00W	881 (1A)	300		1200
12. ATCT (26-001770)	421246.00N/0832116.00W	881 (1A)	300		1200
12. ATCT (26-001770)	421246.00N/0832116.00W	881 (1A)	300		1200

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: **RW21L**

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	TWR (26-000093)	026/ 16.8	1749 (1D)	2800					

CITY AND STATE		FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
DETROIT, MI	ELEVATION: 645 AIRPORT NAME: DETROIT METROPOLITAN WAYNE COUNTY	RNAV	RNAV (GPS) RWY 21L, AMDT 2A	AGL

QUALITY CHECKED

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
DTW TOWER **ZOB ARTCC** SATISFACTORY ON:	[ ] NWS OTHER: **ASOS** [ ] FAA [ ] A/C	SOURCE: **KDTW** DISTANCE: HOURS REMOTE OPERATION:
[X] VHF [X] UHF [ ] HF	LOCATION: **KDTW**	ADJUSTMENT: **0**

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

5. APPROACH & RUNWAY LIGHTING	
X	**ALSF-2 04R, 03R, 04L**
	(S) SALS
X	**MALSR 21L, 27L, 22R, 22L, 27R**
X	**HIRL 09L, 21L, 03L, 04R, 21R, 03R, 27L, 22R, 04L, 09R, 22L, 27R**
	MIRL
X	**REIL 09L, 03L, 21R, 09R**
X	**TDZ 04R, 03R, 04L**
X	**C/L 21L, 03L, 04R, 21R, 03R, 27L, 22R, 04L, 09R, 22L**
X	**OTHER (SPECIFY)** **PAPI-4R 03L, 03R, 22R PAPI-4L 21L, 21R, 27L, 04L, 27R**

6. RUNWAY MARKINGS		
BASIC		
ALL WEATHER	**PIR-G 09L, 21L, 04R, 03R, 27L, 22R, 04L, 09R, 22L, 27R**	
INSTRUMENT	**NPI-G 03L, 21R**	

7. RUNWAY VISUAL RANGE	
APPROACH	**21L, 03L, 04R, 21R, 03R, 27L, 22R, 04L, 22L, 27R**
MIDFIELD	**09L, 21L, 04R, 03R, 22R, 04L, 22L**
ROLL OUT	**21L, 03L, 04R, 21R, 03R, 22R, 04L, 22L**

8. GLIDE PATH		
GP ANGLE: **3.00**	ELEV RWY THRESHOLD: **631.9**	
DISTANCE FROM RWY:	ELEV GP ANTENNA:	
	THRESHOLD CROSSING HEIGHT: **55.0**	

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

10. WAIVERS: **NONE**

PART D - PREPARED BY:	DATE:
JOSE ALFONSO (ROSS F. BARTO)	**10/21/2011**
TITLE: **AERONAUTICAL INFORMATION SPECIALIST**	OFFICE: **AJV-353**

PART C - REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

BLOCK 3: ALTIMETER SETTING
SOURCE: KDTW
VGSI DATA: 3.00/79.8

FLIGHT CHECK RDH 55 FT, (ORDER 8260.3B CHG 19)

NO ADDITIONAL AIRSPACE REQUIRED.

LPV: INNER SURFACE 27.03: 1
OUTER SURFACE 34: 1

LNAV/VNAV INNER SURFACE 23.4: 1
OUTER SURFACE 34: 1

ISA DEVIATION -30

BACK-UP ALTIMETER MINIMUMS NOT IDENTIFIED DUE TO MAJOR AIRPORT WEATHER SYSTEM REDUNDANCY.

LPV, LNAV/VNAV, LNAV INTERMEDIATE OBS AND TERRAIN THE SAME.

XP TO MAINTAIN CURRENT MDA

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: BALAS **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 422203.29N/0831329.10W **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 21L			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 **DATE OF REVISION:** 02/09/2012

REASON FOR REVISION:
1. REMOVED FAC 1 AND 2.
2. REMOVED ESV.
3. REMOVED DME COORDINATES.
4. UPDATED FIX USE (RNAV ONLY).
5. REMOVED DME AND RADAR FROM FIX TYPE.

DEVELOPED BY: **DATE:** 10/21/2011 **OFFICE:** AJV-353 **NAME:** JOSE ALFONSO (ROSS BARTO)

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

SIGNATURE:

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

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CURMO **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 420826.56N/0832331.93W **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 21L			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 **DATE OF REVISION:** 02/09/2012

REASON FOR REVISION:
1. REMOVE FAC 1.
2. UPDATE FIX USE.

DEVELOPED BY: **DATE:** 10/21/2011 **OFFICE:** AJV-353 **NAME:** JOSE ALFONSO (ROSS BARTO)

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

SIGNATURE:

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

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: GROSSE ILE NDB **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 420604.04N/0830910.72W **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	GROSSE ILE	RYS	NDB	MH							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	SW	RYS	NDB	223.00	043.00	R	1		2400	10000	4	9
2	SW		WP	223.00	043.00	R		4	3000	10000	5	10

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	230	STACK (26-000438)	415327.00N/0832043.00W	1387	5D
1	200	CHIMMNEY/SMOKESTACK (KONZT0958)	420718.61N/0831050.62W	1146	1A
2	200	CHIMMNEY/SMOKESTACK (KONZT0958)	420718.61N/0831050.62W	1146	1A

HOLDING RESTRICTIONS:
UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 3000.
HOLDING LIMITED TO ESTABLISHED PATTERNS

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 21L	1	1	KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 21L	1	1	KDTW	DETROIT	MI (US)
IAP	ILS RWY 21L (SA CAT I, II)	1	1	KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 21L		2	KDTW	DETROIT	MI (US)
IAP	NDB RWY 4	1	1	KONZ	DETROIT/GROSSE ILE	MI (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 **DATE OF REVISION:** 02/09/2012

REASON FOR REVISION:
1. UPDATED HOLDING CONTROLLING OBSTACLES.
2. ADDED PRECIPITOUS TERRAIN EVALUATION.
3. MOVED HOLDING LIMITED AND UPN TO HOLDING RESTRICTIONS.

DEVELOPED BY: **DATE:** 10/21/2011 **OFFICE:** AJV-353 **NAME:** JOSE ALFONSO (ROSS BARTO)

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: PICUP **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 421821.91N/0831613.00W **TYPE:** RADAR, 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	DETROIT	I-EJR	LOC/DME		034.72	028.72	7.72	7.73	46983	2600	5100
2	SALEM	SVM	VORTAC	L	116.05	113.05		15.67		2600	17500

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

REMARKS:
FIX COORDINATES BASED ON DISTANCE FROM RWY 21L THLD.
NAME CHANGED FROM PUKLE TO PICUP.
DME L/L - 421134.31N-0832109.69W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 21L	1, 2		KDTW	DETROIT	MI (US)
IAP	ILS PRM RWY 21L	1, 2		KDTW	DETROIT	MI (US)
IAP	ILS RWY 21L (SA CAT I)	1, 2		KDTW	DETROIT	MI (US)
IAP	ILS RWY 21L (SA CAT II)	1, 2		KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 21L			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 02/09/2012

REASON FOR REVISION:
1. NAME CHANGE.
2. DELETED FAC 3.
3. ADDED DIST FROM FAC FOR FAC 1 AND FAC 2.
4. REVISED FIX USE.

DEVELOPED BY: **DATE:** 07/20/2011 **OFFICE:** AJV-353 **NAME:** JOSE ALFONSO (ROSS BARTO)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** GREGORY YAMAMOTO

SIGNATURE:

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

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: ROBBI **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 422438.42N/0831134.04W **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) RWT 21L			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 7 **DATE OF REVISION:** 02/09/2012

REASON FOR REVISION:
1. REMOVED FAC 1 AND 2.
2. REMOVED ESV.
3. REMOVED DME COORDINATES.
4. UPDATED FIX USE (RNAV ONLY).
5. REMOVED DME ABD RADAR FROM FIX TYPE.

DEVELOPED BY: **DATE:** 10/21/2011 **OFFICE:** AJV-353 **NAME:** JOSE ALFONSO (ROSS BARTO)

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

SIGNATURE:

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

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: DELOW **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 422736.86N/0830403.36W **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	SALEM	SVM	VORTAC	L	085.32	082.32	23.60	23.60		3000	17500
2	WINDSOR	YQG	VOR/DME	H	326.00	320.00	16.50	16.50		3000	17500

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

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	YQG	VOR/DME	326.00	146.00	L	1		3000	10000	5	10
2	NW	YQG	VOR/DME	326.00	146.00	L	1		3000	10000	13	16

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (26-000648)	422712.00N/0830951.00W	1749	3C
2	310	TOWER (26-000093)	422858.00N/0831219.00W	1749	1D

REASON FOR NONSTANDARD HOLDING:
PAT 1 AT REQUEST
PAT 2 AT REQUEST

INFO ONLY

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
2	VOR RWY 33	KDET	DETROIT	MI (US)

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V2-V221-464	1, 2				(US)
IAP	ILS OR LOC RWY 33	1, 2	1	KDET	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 33			KDET	DETROIT	MI (US)
IAP	VOR RWY 33	1, 2	2	KDET	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 21L			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 27L			KDTW	DETROIT	MI (US)
IAP	RNAV (GPS) RWY 27R			KDTW	DETROIT	MI (US)

REQUIRED CHARTING: IAP, AREA, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9 **DATE OF REVISION:** 12/15/2011

REASON FOR REVISION:
FAC 3 MAKE-UP REMOVED.
DISTANCE FROM FAC IN NM ADDED.
HOLDING CONTROLLING OBSTRUCTION UPDATED.
HOLDING RESTRICTION AND PRECIPITOUS TERRAIN REMARKS UPDATED.

DEVELOPED BY: **DATE:** 01/26/2011 **OFFICE:** AJV-353 **NAME:** ROY BARNETT

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** GREGORY YAMAMOTO

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZOB
ATC FACILITY: DTW / DET
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

"INFO ONLY"

NAME: PUKLE **STATE:** MI **COUNTRY:** US

LATITUDE/LONGITUDE: 421821.91N/0831613.00W **TYPE:** WP, RADAR, 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	DETROIT	I-EJR	LOC/DME		034.72	028.72	7.72			2600	5100
2	SALEM	SVM	VORTAC	L	116.05	113.05				2600	17500
3	KDTW R21L					028.72	35911.85				17500

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

REMARKS:
DME L/L - 421134.31N-0832109.69W
RNP CRITERIA APPLIED

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP				KDTW	DETROIT	MI (US)
	DETROIT METROPOLITAN WAYNE COUNTY - ILS OR LOC RWY 21L, RNAV (GPS) RWY 21L, ILS PRM RWY 21L.					

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 09/25/2008

REASON FOR REVISION:
DELETED FAC 3, 5.
UPDATE FIX USE.
MOVED FIX 43.66 FEET TO RNP PFAF LOCATION.

DEVELOPED BY: **DATE:** 12/08/2007 **OFFICE:** AVN-120 **NAME:** CASIMIR TABAKA

APPROVED BY: **DATE:** 08/20/2008 **OFFICE:** AVN-120 **NAME:** JOHN BICKERSTAFF

SIGNATURE:

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

QUALITY CHECKED