

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										MISSED APPROACH					
FROM	TO			COURSE AND DISTANCE			ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW27R CLIMB TO 1100 THEN CLIMBING RIGHT TURN TO 4000 DIRECT KUPNE AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000. ADDITIONAL FLIGHT DATA: HOLD S, RT, 352.49 INBOUND. CHART FAS OBST: 777 TOWER 421240N/0831920W. DISTANCE TO THLD FROM 200 HAT: 0.47 NM. WAAS CHANNEL # 86220 REFERENCE PATH ID: W27A CHART CIRCLING ICON. LTP HAE: 158.8 M						
FRNDS (IAF)	HONOR (TF) (FB) (RNP 1.00)			276.02 / 3.14			6000								
HONOR	STANS (TF) (FB) (RNP 1.00)			275.97 / 3.14			5000								
STANS	AERIC (TF) (FB) (RNP 1.00)			275.92 / 3.14			4000								
AERIC	DOTTI (TF) (FB) (RNP 1.00)			275.88 / 3.14			3000								
DOTTI (IF)	GUGRE (TF) (FB) (RNP 1.00)			275.83 / 3.14			2000								
(SEE FORM 8260-10)															
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. PROFILE STARTS AT FRNDS 3. FAC: 275.78 FAF: GUGRE DIST FAF TO MAP: 4.13 THLD: 4.13 4. MIN. ALT: FRNDS 7000, HONOR 6000, STANS 5000, AERIC 4000, DOTTI 3000, GUGRE 2000, YANUC/1.40 NM TO RW27R 1120* 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 2000 GS ALT AT: GUGRE 2000 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 49.8 20:1 IS CLEAR 34:1 IS CLEAR 8. MSA FROM: RW27R 2800															
										MAG VAR: 7W			EPOCH YEAR: 2020		
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**	835	2400	200	835	2400	200	835	2400	200	835	2400	200			
LNAV/VNAV DA	938	2400	303	938	2400	303	938	2400	303	938	2400	303			
LNAV MDA	1040	2400	405	1040	2400	405	1040	4000	405	1040	4000	405			
CIRCLING	1180	1	535	1180	1	535	1180	1 1/2	535	1240	2	595			
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -20C (-4F) OR ABOVE 54C (130F). CHART NOTE: LNAV PROCEDURE NA DURING SIMULTANEOUS OPERATIONS. CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}). *LNAV ONLY (CONTINUED ON PAGE 2)															
CITY AND STATE		ELEVATION: 645 TDZE: 635		FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE:				SUP:					
DETROIT, MI		AIRPORT NAME:		DETROIT METROPOLITAN WAYNE COUNTY		RNAV (GPS) RWY 27R, AMDT 3A				AMDT: 3					
										DATED 11/10/2016					



ALL AFFECTED PROCEDURES REVIEWED? <div><input type="checkbox"/> YES</div> <div><input type="checkbox"/> NO</div>		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
				ROUTINE	
COORDINATED WITH:					
A4A <div><input checked="" type="checkbox"/></div>	ALPA <div><input checked="" type="checkbox"/></div>	AOPA <div><input checked="" type="checkbox"/></div>	APA <div><input checked="" type="checkbox"/></div>	HAI <div><input type="checkbox"/></div>	NBAA <div><input checked="" type="checkbox"/></div>
				OTHER (specify) <div>ZOB, DTW ATCT, AMGR</div>	
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY <i>Digitally signed by</i>					
NAME: <div>NICHOLAS K. JACKSON</div>				FIFO <div>AJV-5431</div>	DATE: <div>01/17/2018</div>
Feb 06, 2018					
APPROVED BY					
NAME: <div>PATRICK J. MULQUEEN</div>				FIFO <div>AJV-5430</div>	DATE:
MANAGER					
CHANGES:					
<div>1. ADDED NOTE **RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.</div> <div>2. REMOVED NOTE "USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE DURING SIMULTANEOUS OPERATIONS".</div> <div>3. REMOVED NOTE "DME/DME RNP -0.3 NA".</div> <div>4. REMOVED PLANVIEW NOTE "RADAR REQUIRED".</div> <div>5. ADDED NOTE "USE OF FD OR AP REQUIRED DURING SIMULTANEOUS OPERATIONS".</div> <div>6. ADDED PBN REQUIREMENTS NOTE "RNP APCH".</div> <div>7. CRC REMAINDER CHANGED FROM 3D1F3290 TO 8B871918.</div>					
REASONS:					
<div>1. NOTE ADDED IAW IMPLEMENTATION OF RVR LESS THAN 2400 FOR LPV AND GLS INSTRUMENT APPROACH PROCEDURES MEMO DATED 06/29/2017.</div> <div>2, 3, 4. NOTES NO LONGER APPLICABLE.</div> <div>5. NOTE ADDED IAW 8260.19H CHAP 8 PARA 8-6-11O(7)D.</div> <div>6. NOTE ADDED IAW 8260.19H CHAP 3 PARA 8-6-8B(1).</div> <div>7. LTP/FTP LAT/LONG UPDATED.</div>					



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, (CONT.):

<u>FROM</u>	<u>TO</u>	<u>COURSE AND DISTANCE</u>	<u>ALTITUDE</u>
GUGRE (FAF)	YANUC/1.40 NM TO RW27R (TF) (FB) (RNP 0.30)	275.78 / 2.73	
YANUC/1.40 NM TO RW27R	RW27R (MAP) (TF) (FO) (RNP 0.30)	275.78 / 1.40	
RW27R (MAP)	1100 MSL (CA)	275.78	1100
1100 MSL	KUPNE (DF) (FO) (RNP 1.00)		4000

NOTES, (CONT.):

CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV CAT C AND D VISIBILITY TO RVR 6000.

CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.

CHART NOTE: **1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.

CHART NOTE: USE OF FD OR AP REQUIRED DURING SIMULTANEOUS OPERATIONS.

PBN REQUIREMENTS NOTE: RNP APCH

QUALITY
23
CHECKED

CITY AND STATE DETROIT, MI	ELEVATION: 645 AIRPORT NAME: DETROIT METROPOLITAN WAYNE COUNTY	TDZE: 635	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 27R, AMDT 3A	SUP:
					AMDT: 3
					DATED: 11/10/2016

ALL AFFECTED PROCEDURES REVIEWED? <input type="checkbox"/> YES <input type="checkbox"/> NO		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
COORDINATED WITH: A4A ALPA APA AOPA HAI NBAA OTHER (specify) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> _____					
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
APPROVED BY					
NAME:				FIFO	DATE:
CHANGES:					
REASONS:					

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - 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.

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KDTW
RUNWAY	RW27R
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W27A
LTP/FTP LATITUDE	421303.0215N
LTP/FTP LONGITUDE	0831951.7145W
LTP/FTP ELLIPSOIDAL HEIGHT	+01588
FPAP LATITUDE	421301.0135N
FPAP LONGITUDE	0832151.5950W
THRESHOLD CROSSING HEIGHT (TCH)	00049.8
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0096
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
 <u>CRC REMAINDER</u>	 8B871918

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+01933
FPAP ORTHOMETRIC HEIGHT	+01933

QUALITY
23
CHECKED

CITY AND STATE DETROIT, MI	ELEVATION: 645 AIRPORT NAME: DETROIT METROPOLITAN WAYNE COUNTY	TDZE: 635 RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 27R, AMDT 3A	SUP:
				AMDT: 3
				DATED: 11/10/2016

ALL AFFECTED PROCEDURES REVIEWED? <div><input type="checkbox"/> YES</div> <div><input type="checkbox"/> NO</div>		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
COORDINATED WITH: <div><div>A4A<div></div></div><div>ALPA<div></div></div><div>APA<div></div></div><div>AOPA<div></div></div><div>HAI<div></div></div><div>NBAA<div></div></div><div>OTHER (specify)<div></div></div></div>					
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
APPROVED BY					
NAME:				FIFO	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.	
INITIAL	FRNDS	HONOR	1. TOWER (CA-000278)	421230.00N/0825530.00W	934 (4D)	1000	AT4066	6000	
			2. TERRAIN	421127.00N/0825427.00W	650 (700)		AS1500	2200	
INITIAL: STEPDOWN	HONOR	STANS	3. AAO	421345.00N/0825951.00W	850 (3E)	1000	AT3150	5000	
			4. TERRAIN	421345.00N/0825951.00W	650 (700)		AS1500	2200	
INITIAL: STEPDOWN	STANS	AERIC	5. AAO	421257.00N/0830657.00W	834 (5E)	1000	AT2166	4000	
			6. TERRAIN	421142.00N/0830148.00W	617 (600)		AS1500	2100	
INITIAL: STEPDOWN	AERIC	DOTTI	7. AAO	421118.00N/0830848.00W	844 (5E)	1000	AT1156	3000	
			8. TERRAIN	421118.00N/0830848.00W	644 (600)		AS1500	2100	
INTERMEDIATE	DOTTI	GUGRE	9. AAO	421309.00N/0831442.00W	863 (5E)	500	AC63 AT574	2000	
			10. TERRAIN	421406.00N/0831351.00W	647 (600)		AS1000	1600	
FINAL: LPV	GUGRE	RW27R				ASC		835/200	
FINAL: LNAV/VNAV	GUGRE	RW27R	11. TOWER (26-003223)	421239.81N/0831920.06W	777 (1A)	161		938/303	
FINAL: LNAV	GUGRE	YANUC/1.40 NM TO RW27R	12. AAO	421316.98N/0831504.11W	834 (2C)	250	DG36	1120	
2. PROCEDURE TURN									
3. MISSED APPROACH	MAP: DA / DA / RW27R	KUPNE				ASC		4000	
	ELEV: 670/777/940		13. TOWER (26-000724)	422522.00N/0832739.00W	1250 (5D)	1000		2300	
			14. TERRAIN	422618.00N/0832915.00W	932 (900)		AS1500	2400	
4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT.							
CATEGORY A	1.3 NM	REQUIRED 350	535	15. TWR (26-001770)	421245.80N/0832115.66W	877 (1A)	300	1180	
CATEGORY B	1.5 NM	450	535	15. TWR (26-001770)	421245.80N/0832115.66W	877 (1A)	300	1180	
CATEGORY C	1.7 NM	450	535	15. TWR (26-001770)	421245.80N/0832115.66W	877 (1A)	300	1180	
CATEGORY D	2.3 NM	550	595	16. TWR (26-000777)	421627.36N/0832411.86W	936 (1B)	300	1240	
CATEGORY E	4.5 NM	550							
5. MINIMUM SAFE ALTITUDES									
SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	TWR (26-000324)	010/16.0	1750 (4D)	2800					
CITY AND STATE	ELEVATION: 645	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION					
DETROIT, MI	AIRPORT NAME: DETROIT METROPOLITAN WAYNE COUNTY	RNAV	RNAV (GPS) RWY 27R, AMDT 3A	AGL					

 QUALITY
23
CHECKED

PART B - SUPPLEMENTAL DATA										PART C - REMARKS: VDP NOT ESTABLISHED - VDP IS LESS THAN 0.5NM AFTER STEPDOWN. PRECIPITOUS TERRAIN EVALUATION COMPLETED. CRITICAL TEMPERATURES: CRITICAL LOW :-20C (-4F) CRITICAL HIGH :+54C (+130F) ACT :-20C APT ISA :+13.72C CRITICAL TEMPERATURE REMARKS AVERAGE COLD TEMPERATURE DERIVED FROM 5-YEAR HISTORY (2012-2016). CRITICAL LOW TEMPERATURE BASED ON ACT. DESCENT RATE (FPM): STANDARD TEMP 962 HIGH TEMP 1123. ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED. CAT A: 1.30NM CAT B: 1.83NM CAT C: 2.87NM CAT D: 3.75NM NO ADDITIONAL AIRSPACE REQUIRED. VGSI DATA: 3.00/60.6 LPV SLOPE: 34:1 LNAV/VNAV SLOPE 23.86:1 BACK-UP ALTIMETER MINIMUMS NOT IDENTIFIED DUE TO MAJOR AIRPORT WEATHER SYSTEM REDUNDANCY. CONFIRMED BY FPT THE SECONDARY ROADS ARE NOT PUBLIC ACCESS INTENDED FOR AIRPORT/FACILITY MAINTENANCE ONLY. THE FOLLOWING ROADS (DTWT002702) SECONDARY RD 421306.78N-0831947.40W 652.00 FT MSL (1A). (KDTWT002781) SECONDARY RD 421306.53N-0831944.85W 652.00 FT MSL (1A). (KDTWT002771) SECONDARY RD 421259.67N-0831942.58W 652.00 FT MSL (1A). (KDTWT002836) SECONDARY RD 421306.58N-0831943.13W 651.00 FT MSL (1A). KDTW ASOS ON WMSCR; HOURS OPTN: 24. VEGETATION 100 FT. I-DMI PROCEDURAL TCH 49.8' USED FOR DEVELOPMENT. OBS #3 HORIZONTAL ACCURACY 95 FT. OBS #5, #7, AND #9 HORIZONTAL ACCURACY 256 FT.																			
1. COMMUNICATIONS WITH:				2. WEATHER SERVICE				3. ALTIMETER SETTING																					
ZOB ARTCC DTW TOWER						N W S		OTHER: ASOS												SOURCE:KDTW									
						F A A														DISTANCE:									
						A / C														HOURS REMOTE OPERATION:									
SATISFACTORY ON:																				ADJUSTMENT: 0									
X		V H F		X		U H F														H F		LOCATION: KDTW							
4. MONITOR STATUS		PRIMARY NAVAID:																											
		MONITOR POINT:																											
		HRS OPTN:		CAT 1																									
				CAT 3																									
5. APPROACH & RUNWAY LIGHTING		X		ALSF-2 03R, 04L, 04R																									
				(S) SALS																									
		X		MALSR 21L, 22L, 22R, 27L, 27R																									
		X		HIRL 03L, 03R, 04L, 04R, 09L, 09R, 21L, 21R, 22L, 22R, 27L, 27R																									
				MIRL																									
		X		REIL 03L, 09L, 09R, 21R																									
		X		TDZ 03R, 04L, 04R																									
		X		C/L 03L, 03R, 04L, 04R, 09R, 21L, 21R, 22L, 22R, 27L																									
		X		OTHER (SPECIFY) PAPI-4R 03L, 03R, 22R PAPI-4L 04L, 21L, 21R, 27L, 27R																									
6. RUNWAY MARKINGS				BASIC																									
				ALL WEATHER				PIR-G 03R, 04L, 04R, 09L, 09R, 21L, 22L, 22R, 27L, 27R																					
				INSTRUMENT				NPI-G 03L, 21R																					
7. RUNWAY VISUAL RANGE				APPROACH				03L, 03R, 04L, 04R, 21L, 21R, 22L, 22R, 27L, 27R																					
				MIDFIELD				03R, 04L, 04R, 21L, 22L, 22R																					
				ROLL OUT				03L, 03R, 04L, 04R, 09L, 09R, 21L, 21R, 22L, 22R																					
8. GLIDE PATH				GP ANGLE: 3.00						ELEV RWY THRESHOLD: 634.3																			
				DISTANCE FROM RWY:						ELEV GP ANTENNA:																			
										THRESHOLD CROSSING HEIGHT: 49.8																			
9. FINAL APPROACH COURSE AIMING						X		RUNWAY THRESHOLD										FT. FROM THRESHOLD											
						X		ON CENTERLINE										FT. FROM CENTERLINE											
10. WAIVERS: NONE																													
PART D - PREPARED BY: NICHOLAS K. JACKSON														DATE: 01/17/2018															
TITLE: AERONAUTICAL INFORMATION SPECIALIST														OFFICE: AJV-5431															



STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD	
--	--

PART - A OBSTRUCTION DATA

[illegible]

PART B - SUPPLEMENTAL DATA										PART C - REMARKS:	
1. COMMUNICATIONS WITH:				2. WEATHER SERVICE			3. ALTIMETER SETTING				
SATISFACTORY ON:					N W S	OTHER:		SOURCE:			
					DISTANCE:						
					HOURS REMOTE OPERATION:						
				F A A							
				A / C							
	V H F		U H F		H F	LOCATION:			ADJUSTMENT:		
4. MONITOR STATUS		PRIMARY NAVAID:									
		MONITOR POINT:									
		HRS	CAT 1								
		OPTN:	CAT 3								
5. APPROACH & RUNWAY LIGHTING			ALS								
			(S) SALS								
			MALS								
			HIRL								
			MIRL								
			REIL								
			TDZ								
			C/LINE								
6. RUNWAY MARKINGS			OTHER (SPECIFY)								
			BASIC								
			ALL WEATHER								
7. RUNWAY VISUAL RANGE			INSTRUMENT								
			APPROACH								
			MIDFIELD								
8. GLIDE PATH			ROLL OUT								
			GP ANGLE:								
			ELEV RWY THRESHOLD:								
9. FINAL APPROACH COURSE AIMING			DISTANCE FROM RWY:								
			ELEV GP ANTENNA:								
			THRESHOLD CROSSING HEIGHT:								
10. WAIVERS:			RUNWAY THRESHOLD								
			FT. FROM THRESHOLD								
PART D - PREPARED BY:			ON CENTERLINE								
			FT. FROM CENTERLINE								
TITLE:										OFFICE:	