

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.33

Bearings, headings, courses, tracks 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 feet RVR.

<u>AIRPORT</u> DETROIT METROPOLITAN WAYNE COUNTY	<u>AIRPORT ID</u> KDTW	<u>PROCEDURE NAME</u> RNAV (GPS) Z RWY 21L	<u>ORIGINAL/AMENDMENT</u> 5	<u>CITY</u> DETROIT	<u>STATE</u> MI
<u>AIRPORT ELEVATION</u> 645	<u>TDZE</u> 632	<u>SUPERSEDED</u> RNAV (GPS) Z RWY 21L	<u>ORIGINAL/AMENDMENT</u> 4A	<u>DATED</u> 02/28/2019	<u>MAG VAR</u> 7W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 10 OCTOBER 2019	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
RYEDR	IAF	TOFFY		TF	FB	1.00	305.52	3.60	5200
COBBO	IAF	KAALI		TF	FB	1.00	279.88	4.01	6000
COUNT	IAF	TIGRZ		TF	FB	1.00	215.86	5.62	5000
TOFFY		GIVVZ		TF	FB	1.00	273.98	2.59	5000
GIVVZ		COUNT		TF	FB	1.00	225.58	2.05	5000
KAALI		TIGRZ		TF	FB	1.00	245.14	3.14	5000
TIGRZ		ROBBI		TF	FB	1.00	215.84	3.14	5000
ROBBI		BALAS		TF	FB	1.00	215.82	3.14	4000
BALAS		NESBI		TF	FB	1.00	215.80	3.14	3000
NESBI	IF	PUKLE		TF	FB	1.00	215.78	3.14	2000
PUKLE	FAF	RW21L	MAP	TF	FO	0.30	215.75	4.12	
RW21L	MAP	1100 MSL		CA			215.75		1100
1100 MSL		GAAGE		DF	FO	1.00			4000



MISSED APPROACH

MAP:
LPV: DA
LNAV/VNAV: DA
LNAV: RW21L

MISSED APPROACH INSTRUCTIONS:
CLIMB TO 1100 THEN CLIMBING LEFT TURN TO 4000 DIRECT GAAGE AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2.	PROFILE STARTS AT TIGRZ				
3. FAC:	215.75	FAF: PUKLE	DIST FAF TO MAP: 4.12	DIST FAF TO THLD: 4.12	
4. MIN ALT:	TIGRZ 5000, ROBBI 5000, BALAS 4000, NESBI 3000, PUKLE 2000				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	200 HAT: 0.46	GS ANT:
6. MIN GP INCPT: 2000	GP ALT AT FAF	PUKLE 2000	OM:	MM:	IM:
7. GP ANGLE: 3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 55.0		
8. MSA FROM:	RW21L 2800				

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: LNAV PROCEDURE NA DURING SIMULTANEOUS OPERATIONS.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19°C OR ABOVE 54°C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: FOR INOPERATIVE ALS INCREASE LNAV CATS C AND D VISIBILITY TO RVR 6000.
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.
CHART NOTE: USE OF FD OR AP REQUIRED DURING SIMULTANEOUS OPERATIONS.
CHART SPEED ICON IN PLANVIEW AT RYEDR: MAX 210 KIAS.
CHART SPEED ICON IN PLANVIEW AT COBBO: MAX 210 KIAS.
CHART NOTE: **RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.

ADDITIONAL FLIGHT DATA:

CHART MANDATORY 7000 AT RYEDR.
CHART MANDATORY 6000 AT COBBO.
CHART LOC RWY 22L/22R
CHART MANDATORY 5000 AT GIVVZ.
CHART AT OR ABOVE 5000 AT COUNT.
CHART AT OR BELOW 6000 AT TOFFY.
CHART CIRCLING ICON.
CHART VDP AT 1.03 NM TO RW21L*
*LNAV ONLY
WAAS CHANNEL #81820
REFERENCE PATH ID: W21A
CHART FAS OBST: 788 TOWER 421506N/0831931W.
829 AAO 421631N/0831753W.
HOLD SE, RT, 303.46 INBOUND
LTP HAE: 158.1 M



AIRPORT

DETROIT METROPOLITAN WAYNE
COUNTY

AIRPORT ID

KDTW

PROCEDURE NAME

RNAV (GPS) Z RWY 21L

ORIGINAL/AMENDMENT

5

CITY

DETROIT

STATE

MI

MINIMUMS:

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ STANDARD

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
LPV DA**	832	2400	200	832	2400	200	832	2400	200	832	2400	200			
LNAV/VNAV DA	1062	4000	430	1062	4000	430	1062	4000	430	1062	4000	430			
LNAV MDA	1040	2400	408	1040	2400	408	1040	4000	408	1040	4000	408			
CIRCLING	1180	1	535	1180	1	535	1180	1 1/2	535	1240	2	595			

CHANGES - REASONS

1. TERMINAL ROUTE RYEDR TO TOFFY CHANGED FROM 272.46/4.00 TO 305.52/3.60 - RYEDR MOVED 2.28 NM SOUTH DUE TO TPGUN STAR REDESIGN.
2. TERMINAL ROUTE RYEDR TO TOFFY ALTITUDE CHANGED FROM 5000 TO 5200 - DESCENT GRADIENT FROM HARD ALTITUDE AT RYEDR.
3. TERMINAL ROUTE TOFFY TO GIVVZ CHANGED FROM 268.72/2.26 TO 273.98/2.59 - TOFFY MOVED 0.40 NM SOUTHEAST AT ATC REQUEST.
4. MISSED APPROACH, ADDED CLIMB IN HOLD - AIRCRAFT ALTITUDE DID NOT REACH 4000 BY THE HOLDING FIX.
5. MAXIMUM SPEED ICON AT RYEDR CHANGED FROM 200 TO 210 - 200 ONLY ALLOWED UNDERNEATH CLASS B AIRSPACE.

COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** ZOB, DTW APP CON, METRO TOWER

FLIGHT CHECKED BY

SCOTT WIEBE

Digitally signed by

DAVID DANNER

Aug 26, 2019

OFFICE

FICO

DATE

8/26/19

DEVELOPED BY

RUSSELL ROSLEWSKI

Digitally signed by

RUSSELL ROSLEWSKI

Jun 14, 2019

OFFICE

AJV-A421

DATE

05/06/2019

APPROVED BY

MARLON ROBINSON

Digitally signed by

DAVID DANNER

Aug 26, 2019

OFFICE

AJV-A420

DATE

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KDTW
RUNWAY	RW21L
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Z
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W21A
LTP/FTP LATITUDE	421310.8550N
LTP/FTP LONGITUDE	0832002.6515W
LTP/FTP ELLIPSOIDAL HEIGHT	+01581
FPAP LATITUDE	421144.2120N
FPAP LONGITUDE	0832106.4870W
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	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	EB5EA96F

ADDITIONAL PATH POINT RECORD INFORMATION

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

