

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.29

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.

AIRPORT DETROIT METROPOLITAN WAYNE COUNTY	AIRPORT ID KDTW	PROCEDURE NAME ILS OR LOC RWY 21L ILS RWY 21L (SA CAT I), ILS RWY 21L (SA CAT II)	ORIGINAL/AMENDMENT 14	CITY DETROIT	STATE MI
AIRPORT ELEVATION 645	TDZE 632	SUPERSEDED ILS OR LOC RWY 21L ILS RWY 21L (SA CAT I), ILS RWY 21L (SA CAT II)	ORIGINAL/AMENDMENT 13A	DATED 02/28/2019	MAG VAR 7W
FACILITY I-EJR	COORDINATES OF FACILITIES	ACTUAL EFFECTIVE DATE 10 OCTOBER 2019	REQUIRED EFFECTIVE DATE ROUTINE	CANCEL/SUSPEND	EPOCH YEAR 2020

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
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/I-EJR 24.13 DME/RADAR	IAF	TIGRZ/I-EJR 18.51 DME/RADAR				1.00	215.72	5.62 (I-EJR)	5000
TOFFY		GIVVZ		TF	FB	1.00	273.98	2.59	5000
GIVVZ		COUNT/I-EJR 24.13 DME/RADAR		TF	FB	1.00	225.58	2.05	5000
KAALI		TIGRZ/I-EJR 18.51 DME/RADAR		TF	FB	1.00	245.14	3.14	5000
TIGRZ/I-EJR 18.51 DME/RADAR		ROBBI/I-EJR 15.37 DME/RADAR					215.72	3.14 (I-EJR)	5000
ROBBI/I-EJR 15.37 DME/RADAR		BALAS/I-EJR 12.22 DME/RADAR					215.72	3.14 (I-EJR)	4000
BALAS/I-EJR 12.22 DME/RADAR		NESBI/I-EJR 9.08 DME/RADAR					215.72	3.14 (I-EJR)	3000
NESBI/I-EJR 9.08 DME/RADAR	IF	PUKLE INT/I-EJR 5.93 DME/RADAR					215.72	3.14 (I-EJR)	2000

MISSED APPROACH

MAP:

ILS: DA
LOC: I-EJR 1.81 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1100 THEN CLIMBING LEFT TURN TO 4000 ON DXO R-122 TO GAAGE/DXO 16.00 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 4000 DIRECT CRL VOR/DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000.



PROFILE:

1. **PT** **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**

2. PROFILE STARTS AT TIGRZ

3. **FAC:** 215.72 **FAF:** PUKLE INT/I-EJR 5.93 DME/RADAR **DIST FAF TO MAP:** **DIST FAF TO THLD:** 4.12

4. **MIN ALT:** TIGRZ/I-EJR 18.51 DME/RADAR 5000, ROBBI/I-EJR 15.37 DME/RADAR 5000, BALAS/I-EJR 12.22 DME/RADAR 4000, NESBI/I-EJR 9.08 DME/RADAR 3000, PUKLE INT/I-EJR 5.93 DME/RADAR 2000, ZITKA/I-EJR 4.05 DME/RADAR 1400*

5. **DIST TO THLD FROM OM:** **MM:** **IM:** **100 HAT:** 862 **150 HAT:** 1816 **GS ANT:** 1189

6. **MIN GS INCPT:** 2000 **GS ALT AT FAF :** PUKLE INT/I-EJR 5.93 DME/RADAR 2000 **OM:** **MM:** **IM:**

7. **GP ANGLE:** 3.00 **34:1:** **20:1:** **TCH:** 55.0

8. **MSA FROM:** DXO VOR/DME 2800

EQUIPMENT REQUIREMENTS NOTES:

FROM RYEDR, COBBO: RNAV 1-DME/DME/IRU OR GPS REQUIRED.
AIRCRAFT NOT DME/DME/IRU OR GPS EQUIPPED - RADAR REQUIRED FOR PROCEDURE ENTRY.
DME OR RADAR REQUIRED.

NOTES:

SA CAT I ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS21L: CAT A, B, C, D RA148, RVR 1400, HAT 150, DA 782 MSL.
SA CAT II ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS21L: CAT A, B, C, D RA98, RVR 1200, HAT 100, DA 732 MSL.
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.
SA CAT I CHART NOTE: REQUIRES SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL AND USE OF HUD TO DH.
SA CAT II CHART NOTE: REDUCED LIGHTING: REQUIRES SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL AND USE OF AUTOLAND OR HUD TO TOUCHDOWN.
CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART SPEED ICON IN PLANVIEW AT RYEDR: MAX 210 KIAS.
CHART SPEED ICON IN PLANVIEW AT COBBO: MAX210 KIAS.
CHART NOTE: **RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.

ADDITIONAL FLIGHT DATA:

CHART LOC RWY 22L/22R.
CHART MANDATORY 5000 AT GIVVZ.
CHART AT OR BELOW 6000 AT TOFFY.
CHART MANDATORY 7000 AT RYEDR.
CHART MANDATORY 6000 AT COBBO.
CHART AT OR ABOVE 5000 AT COUNT.
CHART CIRCLING ICON.
CHART IN PLANVIEW: CRL VOR/DME
CHART VDP AT 2.78 DME*
DISTANCE VDP TO THLD 0.97 NM
* LOC ONLY
CHART FAS OBST: 751 TOWER 421445N/0831824W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD S CRL VOR/DME, RT 360.00 INBOUND.
HOLD SE, RT, 302.46 INBOUND



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

ALTERNATE: NA ILS: STANDARD; LOC: 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
S-ILS 21L**	832	2400	200	832	2400	200	832	2400	200	832	2400	200				
S-LOC 21L	1020	2400	388	1020	2400	388	1020	3500	388	1020	3500	388				
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. PRIMARY AND ALTERNATE MISSED APPROACH, ADDED CLIMB IN HOLD - AIRCRAFT ALTITUDE DID NOT REACH 4000 BY THE HOLDING FIX.
5. PROFILE SECTION, LINE 5, 100 HAT DISTANCE CHANGED FROM 859 TO 862 AND 150 HAT DISTANCE CHANGED FROM 1813 TO 1816 - RECALCULATION.
6. "DME OR RADAR REQUIRED" MOVED FROM NOTES TO EQUIPMENT REQUIREMENT NOTES - 8260.19H REQUIREMENT.
7. MAXIMUM SPEED ICON AT RYEDR CHANGED FROM 200 TO 210 - 200 ONLY ALLOWED UNDERNEATH CLASS B AIRSPACE.
8. REMOVED PBN REQUIREMENT NOTE: RNAV 1-GPS - AFS MEMO REMOVING PBN REQUIREMENT NOTES FROM CONVENTIONAL PROCEDURES.
9. VDP CHANGED FROM 2.77 DME/0.96 NM TO THLD TO 2.78 DME/0.97 NM FROM THLD - RECALCULATION.

COORDINATED WITH:

A4A ALPA AOPA APA HAI NBAA **OTHER:** ZOB, DTW APP CON, DTW ATCT

Digitally signed by

FLIGHT CHECKED BY

DAVID DANNER

OFFICE

FICO

DATE

7/27/19

SHAWN D MAXWELL

Aug 26, 2019

DEVELOPED BY

RUSS ROSLEWSKI

Digitally signed by

RUSSELL ROSLEWSKI

OFFICE

AJV-A421

DATE

05/08/2019

APPROVED BY

MARLON ROBINSON

Digitally signed by Jun 19, 2019

DAVID DANNER

OFFICE

AJV-A420

DATE

Aug 26, 2019

TITLE
MANAGER

