

**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> TOLEDO EXPRESS	<u>AIRPORT ID</u> KTOL	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 25	<u>ORIGINAL/AMENDMENT</u> 2C	<u>CITY</u> TOLEDO	<u>STATE</u> OH	
<u>AIRPORT ELEVATION</u> 683	<u>TDZE</u> 678	<u>SUPERSEDED</u> RNAV (GPS) RWY 25	<u>ORIGINAL/AMENDMENT</u> 2B	<u>DATED</u> 02/01/2018	<u>MAG VAR</u> 5W	<u>EPOCH YEAR</u> 1990
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 30 JANUARY 2020	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

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>
CRL VOR/DME		VELXE		TF	FB	1.00	205.20	19.55	3000
VELXE	IAF	AKEPE	NOPT	TF	FB	1.00	162.30	5.00	3000
SEFOJ	IAF	AKEPE	NOPT	TF	FB	1.00	342.36	5.00	3000
AKEPE	IF/IAF	VUGCO		TF	FB	1.00	252.33	6.01	2400
VUGCO	FAF	RIYOS/1.80 NM TO RW25		TF	FB	0.30	252.25	3.41	
RIYOS/1.80 NM TO RW25		RW25	MAP	TF	FO	0.30	252.25	1.80	
RW25	MAP	878 MSL		CA			252.25		
878 MSL		ATVIY		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW25

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT ATVIY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD E AKEPE, RT, 252.33 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 10000.
3. FAC: 252.25 FAF: VUGCO DIST FAF TO MAP: 5.21 DIST FAF TO THLD: 5.21
4. MIN ALT: AKEPE 3000, VUGCO 2400, RIYOS/1.80 NM TO RW25 1280*
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 200 HAT: 0.51 GS ANT: MM: IM:
6. MIN GP INCPT: 2400 GP ALT AT FAF : VUGCO 2400 OM:
7. GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 51.6
8. MSA FROM: RW25 3100

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 52°C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: **RVR 1800 AUTHORIZED WITH THE USE OF FD OR AP OR HUD TO DA.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LPV CAT E VISIBILITY TO RVR 4000, LNAV/VNAV CAT E VISIBILITY TO 1 1/2 SM, LNAV CAT D/E VISIBILITY TO RVR 6000.

ADDITIONAL FLIGHT DATA:

CHART: ASR
CHART CIRCLING ICON.
CHART VDP AT 1.01 NM TO RW25*
*LNAV ONLY
WAAS CHANNEL #48899
REFERENCE PATH ID: W25A
CHART FAS OBST: 786 TOWER 413529N/0834654W.
HOLD W, RT, 072.02 INBOUND
LTP HAE: 167.4 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/4, CAT E 800-2 1/2



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**	878	2400	200	878	2400	200	878	2400	200	878	2400	200	878	2400	200
LNAV/VNAV DA	1065	5000	387	1065	5000	387	1065	5000	387	1065	5000	387	1065	5000	387
LNAV MDA	1040	2400	362	1040	2400	362	1040	2400	362	1040	5000	362	1040	5000	362
CIRCLING	1200	1	517	1200	1	517	1300	1 3/4	617	1360	2 1/4	677	1360	2 1/2	677

CHANGES - REASONS

1. CHANGED UNCOMPENSATED BARO-VNAV NOTE FROM, "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C (2F) OR ABOVE 54C (130F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C OR ABOVE 52C. - IAW 8260.19H 8-6-9 S.
2. ADDED PBN REQUIREMENTS NOTE: RNP APCH AND REMOVED DME/DME RNP-0.3 NA - IAW 8260.19H PARA 8-6-8 B(1).
3. REMOVED FEEDER ROUTE FROM WATERVILLE (VWV) TO SEFOJ. - VORMON PROJECT, VWV DECOMMISSION.
4. CIRCLING CHANGED FROM MDA CAT C 1360, CAT D/E 1400 TO CAT C 1300, CAT D/E 1360. - TO MATCH THE ALREADY FLIGHT CHECKED ILS OR LOC RWY 7 CIRCLING MINIMUMS.

COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** ZOB, TOL APP CON, AMGR, TOL APP CON

FLIGHT CHECKED BY

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, OCTOBER 3, 2018, SUBJECT:
FLIGHT INSPECTION REVIEW NOT REQUIRED

OFFICE

DATE

Digitally signed by

ALLAN WILL

Nov 01, 2019

DEVELOPED BY

TOMMY BYRNS

Digitally signed by

TOMMY BYRNS

Oct 31, 2019

OFFICE

AJV-A423

DATE

08/02/2019

APPROVED BY

MARLON ROBINSON

OFFICE

AJV-A420

DATE

Digitally signed by

ALLAN WILL

Nov 01, 2019

TITLE

MANAGER

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KTOL
RUNWAY	RW25
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W25A
LTP/FTP LATITUDE	413533.6200N
LTP/FTP LONGITUDE	0834741.9665W
LTP/FTP ELLIPSOIDAL HEIGHT	+01674
FPAP LATITUDE	413452.9915N
FPAP LONGITUDE	0834950.5230W
THRESHOLD CROSSING HEIGHT (TCH)	00051.6
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	C8FB4FA6

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02026
FPAP ORTHOMETRIC HEIGHT	+02026

