

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.

<u>AIRPORT</u> TOLEDO EXPRESS	<u>AIRPORT ID</u> KTOL	<u>PROCEDURE NAME</u> ILS OR LOC RWY 7	<u>ORIGINAL/AMENDMENT</u> 29	<u>CITY</u> TOLEDO	<u>STATE</u> OH	
<u>AIRPORT ELEVATION</u> 683	<u>TDZE</u> 683	<u>SUPERSEDED</u> ILS OR LOC RWY 7	<u>ORIGINAL/AMENDMENT</u> 28A	<u>DATED</u> 05/24/2018	<u>MAG VAR</u> 5W	<u>EPOCH YEAR</u> 1990
<u>FACILITY</u> I-TOL	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<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>
MCLUR		TOPHR LOM					023.66	14.71	2300

MISSED APPROACH

MAP:

ILS: DA
LOC: 4.40 NM AFTER TOPHR LOM

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1200 THEN CLIMBING RIGHT TURN TO 2500 DIRECT WUPTA AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT R SIDE OF COURSE 252.16 OUTBOUND 2300 FT WITHIN 15 MILES OF TOPHR LOM (IAF)
2.
3. FAC: 072.16 FAF: TOPHR LOM DIST FAF TO MAP: 4.40 DIST FAF TO THLD: 4.40
4. MIN ALT: TOPHR LOM 2200
5. DIST TO THLD FROM OM: 4.40 MM: IM: 150 HAT: GS ANT: 1125
6. MIN GS INCPT: 2200 GS ALT AT FAF : OM: 2143 MM: IM:
7. GP ANGLE: 3.00 34:1: 20:1: TCH: 59.2
8. MSA FROM: TO LOM 3100

EQUIPMENT REQUIREMENTS NOTES:

ADF OR RADAR REQUIRED FOR PROCEDURE ENTRY.
RNAV 1-GPS REQUIRED.
ADF REQUIRED FOR LOC ONLY.

NOTES:

CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-ILS 7 CAT E VISIBILITY TO RVR 4000, S-LOC 7 CAT E VISIBILITY TO 1 3/8 SM.



ADDITIONAL FLIGHT DATA:

CHART ASR
CHART (CFD TT) AT 413055.08N/0840238.87W
CHART CIRCLING ICON.
FAS OBST: 885 AAO 413331N/0835558W.
HOLD SE, RT, 320.00 INBOUND

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

ALTERNATE: NA ☐ ILS: STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE., NA WHEN CONTROL TOWER CLOSED. LOC: NA

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 07	883	1800	200	883	1800	200	883	1800	200	883	1800	200	883	1800	200
S-LOC 07	1140	2400	457	1140	2400	457	1140	4500	457	1140	4500	457	1140	4500	457
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. PRIMARY MISSED APPROACH "CLIMB TO 2500 THEN RIGHT TURN DIRECT VWV VOR/DME AND HOLD" CHANGED REMOVED AND REPLACED WITH RNAV MISSED APPROACH, "CLIMB TO 1200 THEN CLIMBING RIGHT TURN TO 2500 DIRECT WUPTA AND HOLD". ADDED RNAV 1-GPS REQUIRED TO EQUIPMENT REQUIREMENTS NOTES - MISSED APPROACH UTILIZES AN RNAV MISSED. VORMON PROJECT, VWV DECOMMISSION.
2. REMOVED ALTERNATE MISSED APPROACH. - NOT REQUIRED WITH RNAV MISSED APPROACH.
3. FIX MCLUR TYPE CHANGED FROM "WP, INT, DME" TO "WP". - VORMON PROJECT, VWV DECOMMISSION.
4. REMOVED TERMINAL ROUTE VWV VOR/DME TO TOPHR LOM. - VORMON PROJECT, VWV DECOMMISSION.
5. LOC FINAL OBSTRUCTION CHANGED FROM 785 TREE (KTOL0034) 413437.56N/0835047.95W TO 885 AAO 413331.15N/0835557.77W. UPDATED OBSTACLE INFO.
6. ADDED REQUIREMENTS NOTE: ADF REQUIRED FOR LOC ONLY. - PER 8260.19H 8-6-8 A(2)(C).
7. ADDED VDP AT 1.20 NM TO RWY 7. - FINAL FACILITY USES TOL TACAN DME.
8. FAS OBSTRUCTION CHANGED FROM 785 TREE 413438N/0835048W TO FAS OBST 885 TREE 413331N/0835557W.
9. S-LOC 7 MINIMUMS CHANGED FROM CAT A/B/C 1080/24, CAT D 1080/40, CAT E 1080/50 TO CAT A/B 1140/24, CAT C/D/E 1140/50. - NEW OBSTACLE DATA.
10. CIRCLING MINIMUMS CHANGED FROM CAT C MDA 1360, CAT D/E MDA 1400 TO CAT C MDA 1300, CAT D/E MDA 1360. - NEW OBSTACLE DATA.

COORDINATED WITH:

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

FLIGHT CHECKED BY

OFFICE

DATE

DEVELOPED BY
TOMMY BYRNS

Digitally signed by
TOMMY BYRNS
Oct 30, 2019

OFFICE
AJV-A423

DATE
09/25/2019

APPROVED BY
MARLON ROBINSON

OFFICE
AJV-A420

DATE

TITLE
MANAGER



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

AIRPORT	AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
TOLEDO EXPRESS	KTOL	ILS OR LOC RWY 7	29	TOLEDO	OH	683	I-TOL

PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM
MCLUR

TO
TOPHR LOM

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
	14.71											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
1.TOWER (39-003740)	413049.00N/0835100.00W		1026	250	50	4D	1000				AT274	2300
2.TERRAIN	413427.00N/0840018.00W		726 (700)								AS1500	2200

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: PT

FROM
15 NM

TO
TOPHR LOM

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
	15.00											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
3.TOWER (39-000579)	412453.00N/0841051.00W		1092	500	50	5D	500				AT608	2200
4.TERRAIN	413136.00N/0841048.00W		775 (800)								AS1000	1800

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



TO
RW07

HMAS

COMPUTATIONS

RF CENTER FIX/DISTANCE**SEGMENT REMARKS:**

IQ
4.40 NM AFTER TOPHR LOM

HMAS

COMPUTATIONS

RF CENTER FIX/DISTANCE**SEGMENT REMARKS:**

HMASRF CENTER FIX/DISTANCE

712

RF CENTER FIX/DISTANCE

QUALITY
25
CHECKED

MISSED APPROACH : LOC

FROM

4.40 NM AFTER TOPHR LOM

TO

WUPTA

RNP	DISTANCE	PAT	MAP	HAT			HMAS 1040					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				2500
8.TOWER (39-001311)	412728.00N/0833933.00W		1050	500	50	5D	1000					2100
9.TERRAIN	412530.00N/0833948.00W		695 (700)								AS1500	2200

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

CIRCLING

☒ ALL CATS

☒ CAT A

☒ CAT B

☒ CAT C

☒ CAT D

☒ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
10.TOWER (39-000149)	413333.87N/0834926.89W	1.30	517	884	20	3	1A	300			1200
CATEGORY B											
10.TOWER (39-000149)	413333.87N/0834926.89W	1.83	517	884	20	3	1A	300			1200
CATEGORY C											
11.TOWER (39-000157)	413602.65N/0835301.90W	2.88	617	981	50	20	2C	300			1300
CATEGORY D											
12.TOWER (39-003822)	413603.21N/0835426.40W	3.76	677	1057	50	20	2C	300			1360
CATEGORY E											
12.TOWER (39-003822)	413603.21N/0835426.40W	4.70	677	1057	50	20	2C	300			1360

CIRCLING REMARKS:



<u>AIRPORT</u> TOLEDO EXPRESS	<u>AIRPORT ID</u> KTOL	<u>PROCEDURE NAME</u> ILS OR LOC RWY 7	<u>AMDT NO.</u> 29	<u>CITY</u> TOLEDO	<u>STATE</u> OH	<u>AIRPORT ELEVATION</u> 683	<u>FACILITY</u> I-TOL
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MSA

CENTER
TO LOM

RADIUS
25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TOWER (39-000350)	414003.00N/0832122.00W	080	26.3	2015	500	50	5D	1000			3100

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

PER FPT - THE FAA (TECH OPS) MAINTAINS A BACKUP STAND-ALONE ALTIMETER SOURCE FOR THE AIRPORT (TRACON). BECAUSE OF THE GUARD MISSION, ALL PARTIES CONCERNED REQUEST THAT KDUH BE LISTED AS THE REMOTE ALTIMETER SOURCE FOR CONTINGENCY PURPOSES.

NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TOLEDO SUBURBAN ALTIMETER SETTING AND INCREASE ALL DA 28 FEET AND ALL MDA 40 FEET. INCREASE S-LOC 7 CAT C/D/E VISIBILITY TO RVR 5000.

QUALITY
25
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PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

TOL TOWER, TOL APP CON, ZOB ARTCC

<u>WX SERVICE</u> ASOS	<u>LOCATION</u> KTOL	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KTOL	<u>DISTANCE</u> 0	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 0
<u>BACK-UP WX SERVICE</u> AWOS 3	<u>LOCATION</u> KDUH	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KDUH	<u>DISTANCE</u> 11.25	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 28

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME KTOL 683, KDUH 669 RA = 27.9.

<u>PRIMARY NAVAID</u> I-TOL	<u>MONITOR POINT</u> TOL ATCT	<u>HRS OPERATION</u> TOWER OPEN TOWER CLOSED	<u>CAT</u> 1 3
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<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW16 - MIRL, REIL, PAPI-4L	NPI-F	
RW34 - MIRL, REIL, PAPI-4L	NPI-F	
RW07 - TDZ, ALSF-2, HIRL, C/LINE	PIR-G	APPROACH, ROLL OUT
RW25 - MALSR, HIRL, C/LINE, PAPI-4L	PIR-G	APPROACH, ROLL OUT

<u>GLIDESLOPE ANGLE</u> 3.00	<u>ELEV RWY THRESHOLD</u> 682.5	<u>TCH</u> 59.2	<u>ELEV GS ANTENNA</u> 677.6	<u>DISTANCE FROM RWY</u> 1125	<u>VGSI ANGLE</u>	<u>TCH</u>
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input checked="" type="checkbox"/>	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS



AIRPORT	AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
TOLEDO EXPRESS	KTOL	ILS OR LOC RWY 7	29	TOLEDO	OH	683	I-TOL

and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

S-LOC 7 ALT MINS NA, TO LOM UNMONITORED.

ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

QUALITY
25
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<u>AIRPORT</u> TOLEDO EXPRESS	<u>AIRPORT ID</u> KTOL	<u>PROCEDURE NAME</u> ILS OR LOC RWY 7	<u>AMDT NO.</u> 29	<u>CITY</u> TOLEDO	<u>STATE</u> OH	<u>AIRPORT ELEVATION</u> 683	<u>FACILITY</u> I-TOL
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PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	THLD	TO 1000FT POINT	2.99
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	0.87
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	067.16
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	700
DISTANCE FROM	FAF	TO 1500FT POINT	7.00
WIDTH OF	INTERMEDIATE	SEGMENT AT 1500FT POINT	4.33
TRUE COURSE OF	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	067.16
HIGH TERRAIN IN	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	800

THRESHOLD
COORDINATES
(IF STR-IN)

413452.99N/0834950.52W

ARP COORDINATES

413512.50N/0834828.20W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP

RUNWAY 7 DISTANCE 1.08 NM

FAF
COORDINATES

FIX NAME
COORDINATES

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED

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PART E: PREPARED BY							
<u>NAME</u> TOMMY BYRNS	<u>OFFICE</u> AJV-A423			<u>DATE</u> 09/25/2019	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST		

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