

**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> CAPITAL REGION INTL	<u>AIRPORT ID</u> KLAN	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 24	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> LANSING	<u>STATE</u> MI
<u>AIRPORT ELEVATION</u> 861	<u>TDZE</u> 857	<u>SUPERSEDED</u> RNAV (GPS) RWY 24	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 08/27/2009	<u>MAG VAR</u> 5W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 25 FEBRUARY 2021	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 1985

TAA

THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 21-03.

FROM	FIX TYPE	TO	FIX TYPE	ALTITUDE
1. 148/30 CW 328/30	NOPT	FETUM	IF/IAF	3000
2. 328/30 CW 058/30		GOYBU	IAF	3000
3. 058/30 CW 148/30		AFJEF	IAF	3000

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
GOYBU	IAF	FETUM	NOPT	TF	FB	1.00	328.22	7.00	3000
AFJEF	IAF	FETUM	NOPT	TF	FB	1.00	148.10	7.00	3000
FETUM	IF/IAF	HAKEK		TF	FB	1.00	238.17	6.00	2400
HAKEK	FAF	TIBRE/2.37 NM TO RW24		TF	FB	0.30	238.09	2.37	
TIBRE/2.37 NM TO RW24		RW24	MAP	TF	FO	0.30	238.09	2.37	
RW24	MAP	1162 MSL		CA			238.09		
1162 MSL		EGUTY		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW24

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT EGUTY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

QUALITY
24
CHECKED

PROFILE:

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

2. HOLD NE FETUM, RT, 238.17 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 238.09 FAF: HAKEK DIST FAF TO MAP: 4.74 DIST FAF TO THLD: 4.74

4. MIN ALT: FETUM 3000, HAKEK 2400, TIBRE/2.37 NM TO RW24 1640*

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 305 HAT: 0.85 GS ANT: MM: IM:

6. MIN GP INCPT: 2400 GP ALT AT FAF : HAKEK 2400 OM:

7. GP ANGLE: 3.00 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH: 41.6

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING RWY 10L, 28R NA AT NIGHT.
CHART NOTE: RWY 24 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -22°C OR ABOVE 54°C.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 1.10 NM TO RW24*
*LNAV ONLY
WAAS CHANNEL #50413
REFERENCE PATH ID: W24A
CHART FAS OBST: 973 TREE 424817N/0843345W.
HOLD SW, RT, 057.90 INBOUND
LTP HAE: 224.9 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 900-3

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	1162	7/8	305	1162	7/8	305	1162	7/8	305	1162	7/8	305			
LNAV/VNAV DA	1286	1 1/4	429	1286	1 1/4	429	1286	1 1/4	429	1286	1 1/4	429			
LNAV MDA	1240	1	383	1240	1	383	1240	1 1/8	383	1240	1 1/8	383			
CIRCLING	1320	1	459	1380	1	519	1600	2	739	1760	3	899			



CHANGES - REASONS

1. REMOVED 15NM STEPDOWN FROM LEFT BASE TAA SECTOR. - NEW EVALUATION COMPLETED WITH NEW CONTROLLING OBSTACLE.
2. TERMINAL ROUTES COURSES/DISTANCES FOR IAF GOYBU TO FETUM AND IAF AFJEF TO FETUM CHANGED FROM 328.21 AND 148.11/5.00 TO 328.22 AND 148.11/7.00. - MOVED GOYBU AND AFJEF 2NM SOUTHEAST AND NORTHWEST RESPECTIVELY REFLECTING CURRENT CRITERIA IAW 8260.58A, CHAPTER 1-2-5B.
3. TERMINAL ROUTES COURSE/DISTANCE FOR INTERMEDIATE FETUM TO HAKEK CHANGED FROM 238.16/6.01 TO 238.17/6.00. - MOVED HAKEK AND FETUM FOR OPTIMAL DESIGN.
4. ADDED TIBRE AS FINAL STEPDOWN FIX AND TIBRE/2.37 NM TO RW24 1640* TO LINE 4 MIN ALT. - PROVIDED LOWEST MINS.
5. CHANGED COURSE FROM 238.16 TO 238.17 AND ADDED MAX 6000 TO LINE 2 H-I-L. - REFLECT CURRENT CRITERIA.
6. CHANGED DIST FAF TO MAP/THLD FROM 4.68 TO 4.74. - MOVED HAKEK PFAF FOR OPTIMAL FINAL DESIGN.
7. ADDED CHART NOTE: CIRCLING RWY 10L, 28R NA AT NIGHT. - REQUIRED BY FLIGHT INSPECTION RESULTS.
8. ADDED CAT D 900-3. TO ALT MINS. - NEW EVALUATION COMPLETED WITH NEW MINS.
9. ADDED 20:1 IS CLEAR TO LINE 7. - NEW EVALUATION COMPLETED AND NO 20:1 PENETRATIONS EXIST.
10. REMOVED CHART NOTE: DME/DME RNP-0.3 NA. AND ADDED RNP APCH TO PBN REQUIREMENTS NOTES. - IAW 8260.19H 8-6-8 B (1).
11. REMOVED THE FAHRENHEIT VALUES FROM AND CHANGED THE TEMPS FROM -16C/47C TO -22C/54C IN THE UNCOMPENSATED BARO-VNAV CHART NOTE. - ACCOMPLISHED 5 YEAR TEMP STUDY AND IAW 8260.19H 8-6-9 S..
12. CHANGED DIST TO THLD FROM 358 HAT: 1.02 TO 305 HAT: 0.85 ON LINE 5. - NEW EVALUATION COMPLETED WITH LOWER MINS.
13. ADDED CHART CIRCLING ICON. - IAW 8260.19H 8-6-10 T AND UPDATED TO NEW CIRCLING CRITERIA.
14. LNAV/VNAV MINS CHANGED FROM 1254/397/1 1/2 TO 1286/429/1 1/4. - NEW EVALUATION COMPLETED WITH NEW CONT OBST.
15. REMOVED 956 TREE AND 990 TOWER FROM ADDITIONAL FLIGHT DATA AND ADDED 973 TREE AS FAS OBST. - NEW EVALUATION COMPLETED WITH NEW CONTROLLING OBST.
16. MISSED HOLD INBOUND COURSE CHANGED FROM 058.02 TO 057.90. - RECIPROCAL PROCEDURE INTERMEDIATE FIX WAS MOVE FOR ALIGNMENT.
17. LNAV MINS LOWERED FROM CAT C 1 AND CAT D 1 1/4 TO CAT C/D 1 1/8. - NEW EVALUATION COMPLETED WITH NEW CONT OBST.
18. CIRCLING MINS CHANGED: CAT A FROM 1380/519 TO 1320/459, CAT C FROM 1380/5519/1 1/2 TO 1600/739/2, CAT D 1440/579/2 TO 1760/899/3. - NEW EVALUATION COMPLETED WITH NEW CIRLING CRITERIA.
19. CHANGED FAS DATA CRC REMAINDER FROM 63085713 TO F80E8F42. - CHANGED LTP FROM 424653.1240N/0843510.1775W TO 424653.1225N/0843510.1705W, FPAP FROM 424559.5100N/0843646.8200W TO 424559.5135N/0843646.8165W.
20. LOWERED LPV MINS ALL CATS FROM 1215 / 358 / 1 1/4 TO 1162 / 305 / 7/8. - NEW EVALUATION COMPLETED WITH NEW CONTROLLING OBSTACLE AND MA PENETRATIONS.

12/17/20: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 10/14/20.
1. ADDED "SM" TO HELICOPTER VISIBILITY REDUCTION NOTE.

COORDINATED WITH:

~~A4A~~ ☒ ~~ALPA~~ ☒ ~~AOPA~~ ☒ ~~APA~~ ☒ ~~HAI~~ ☐ ~~NBAA~~ ☒ OTHER: ZOB, LAN APPCON, LAN ATCT, AMGR

FLIGHT CHECKED BY
GREGORY SCOTT WIEBE

Digitally signed by
JOHN BORDY
Dec 17, 2020

OFFICE
FIOG

DATE
10/10/2020

DEVELOPED BY
JOHN BORDY (ANDRE TUCKER)

Digitally signed by
JOHN BORDY
Dec 17, 2020

OFFICE
AJV-A422

DATE
03/18/2020

APPROVED BY
MARLON ROBINSON

Digitally signed by
JOHN BORDY
Dec 17, 2020

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	KLAN
RUNWAY	RW24
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W24A
LTP/FTP LATITUDE	424653.1225N
LTP/FTP LONGITUDE	0843510.1705W
LTP/FTP ELLIPSOIDAL HEIGHT	+02249
FPAP LATITUDE	424559.5135N
FPAP LONGITUDE	0843646.8165W
THRESHOLD CROSSING HEIGHT (TCH)	00041.6
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	F80E8F42

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02584
FPAP ORTHOMETRIC HEIGHT	+02584

