

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 ID</u> KYIP	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 9	<u>ORIGINAL/AMENDMENT</u> 3	<u>CITY</u> DETROIT	<u>STATE</u> MI		
<u>AIRPORT ELEVATION</u> 716	<u>TDZE</u> 716	<u>SUPERSEDED</u> RNAV (GPS) RWY 9	<u>ORIGINAL/AMENDMENT</u> 2A	<u>DATED</u> 06/25/2015	<u>MAG VAR</u> 6W	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 30 NOVEMBER 2023	<u>REQUIRED EFFECTIVE DATE</u> 11/30/2023	<u>CANCEL/SUSPEND</u>		

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 004/30 CW 184/30	NOPT	CIGAL	IF/IAF	4000
2. 184/30 CW 004/30		CIGAL	IF/IAF	4000

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>
CIGAL	IF/IAF	ATOYE		TF	FB	1.00	094.40	5.58	2600
ATOYE	FAF	NOCIN/2.41 NM TO RW09		TF	FB	0.30	094.47	3.15	
NOCIN/2.41 NM TO RW09		RW09	MAP	TF	FO	0.30	094.47	2.41	
RW09	MAP	1900 MSL		CA			094.47		1900
1900 MSL		CIGAL		DF	FO	1.00			4000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW09

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1900 THEN CLIMBING LEFT TURN TO 4000 DIRECT CIGAL 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. HOLD W CIGAL, LT, 094.39 INBOUND, 4000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 094.47FAF: ATOYE

DIST FAF TO MAP: 5.56

DIST FAF TO THLD: 5.56

4. MIN ALT: CIGAL 4000, ATOYE 2600, NOCIN/2.41 NM TO RW09 1560

5. DIST TO THLD FROM OM:MM:IM:150 HAT:250 HAT: 0.61GS ANT:

6. MIN GP INCPT: 2600GP ALT AT PFAF : ATOYE 2600OM:MM:IM:

7. GP ANGLE: 3.1134:1: IS NOT CLEAR20:1: IS CLEARTCH: 50.0

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: RWY 9 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -21°C OR ABOVE 54°C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

ADDITIONAL FLIGHT DATA:

CHART FAS OBST: 903 TOWER (26-002998) 421432N/0833411W.
CHART 1049 VERTICAL STRUCTURE 421328N/0834021W.
CHART VDP AT 1.26 NM TO RW09.
WAAS CHANNEL # 73035
REFERENCE PATH ID: W09A
CHART CIRCLING ICON.
LTP HAE: 183.9 M

MINIMUMS:

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

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

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	966	3/4	250	966	3/4	250	966	3/4	250	966	3/4	250			
LNAV/VNAV DA	1201	1 3/8	485	1201	1 3/8	485	1201	1 3/8	485	1201	1 3/8	485			
LNAV MDA	1160	1	444	1160	1	444	1160	1 3/8	444	1160	1 3/8	444			
CIRCLING	1220	1	504	1220	1	504	1220	1 1/2	504	1400	2 1/4	684			



CHANGES - REASONS

1. TERMINAL ROUTE UPDATE: INTERMEDIATE ROUTE FROM CIGAL TO ATOYE COURSE/DISTANCE CHANGED FROM 094.39/5.47 TO 094.40/5.58 - ATOYE MOVED FROM 421429.41N/0834013.69W TO 421429.55N/0834004.58W, 0.11 NM EAST.
2. TERMINAL ROUTE UPDATE: CHANGED FINAL ROUTE "ATOYE-NOCIN/2.50 NM TO RW09" TO "ATOYE-NOCIN/2.41 NM TO RW09". DISTANCE CHANGED FROM 3.26 TO 3.15 - ATOYE MOVED FROM 421429.41N/0834013.69W TO 421429.55N/0834004.58W, 0.11 NM EAST.
3. TERMINAL ROUTE UPDATE: FINAL ROUTE "NOCIN/2.50 NM TO RW09" CHANGED TO "NOCIN/2.41 NM TO RW09". DISTANCE CHANGED FROM 2.50 TO 2.41 - ATOYE MOVED FROM 421429.41N/0834013.69W TO 421429.55N/0834004.58W, 0.11 NM EAST.
4. LINE 2 UPDATE: CHANGED "HOLD W CIGAL, RT, 094.39 INBOUND, 4000 FT. IN LIEU OF PT (IAF)" TO "HOLD W CIGAL, LT, 094.39 INBOUND, 4000 FT. IN LIEU OF PT (IAF), MAX 6000"- RT CHANGED TO LT PER FPT CHECKLIST. ATC REQUESTED CIGAL TO HAVE LEFT TURNS TO DECONFLICT WITH HOLDING AT ZAVEX
5. LINE 3 UPDATE: CHANGED DIST FAF TO MAP/THLD FROM 5.76 TO 5.56 - RW09 DISPLACED THRESHOLD REMOVED.
6. LINE 4 UPDATE: MIN. ALT: CHANGED "CIGAL 4000, ATOYE 2600, NOCIN/2.50 NM TO RW09 1560*" TO "CIGAL 4000, ATOYE 2600, NOCIN/2.41 NM TO RW09 1560" - ATOYE MOVED FROM 421429.41N/0834013.69W TO 421429.55N/0834004.58W, 0.11 NM EAST - * NO LONGER REQUIRED FOR LNAV ONLY PER CURRENT CRITERIA.
7. LINE 5 UPDATE: ADDED 250 HAT: 0.61 - FOR LPV MINS.
8. LINE 7 UPDATE: CHANGED TCH FROM 3.00 TO 3.11 - PER CHECKLIST DUE TO NEW LOCATION OF PFAF (ATOYE).
9. LINE 7 UPDATE: ADDED 20:1 IS CLEAR - IAW 8260.19I PARA 8-6-7.G.(3).
10. LPV MINS UPDATE: LPV ALL CATS MDA/HAT/VIS CHANGED FROM "965/250/1" TO "966/250/3/4" - TDZE CHANGED FROM 715 TO 716. VISIBILITY RECALCULATION UPDATE.
11. LNAV/VNAV MINS UPDATE: LNAV/VNAV ALL CATS MDA/HAT/VIS CHANGED FROM "1197/482/ 1 5/8" TO "1201/485/ 1 3/8" - NEW CONTROLLING OBSTACLE UPDATE.
12. LNAV MINS UPDATE: LNAV CATS A/B/C/D HAT CHANGED FROM 445 TO 444 - TDZE CHANGED FROM 715 TO 716.
13. ADDED PBN REQUIREMENTS NOTE: RNP APCH - GPS - IAW 8260.19I, PARA 8-6-8.B.(2).
14. DELETED CHART NOTE: DME/DME RNP-0.3 NA - IAW 8260.19H, PARA 4-6-10E AND MEMO 266 DATED 7/18/2018.
15. CHART PROFILE NOTE: ADDED VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}) - VGSI AND GLIDEPATH NOT COINCIDENT IAW 8260.19I PARA 8-6-9.M.(1).
16. CHANGED CHART NOTE FROM "HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED" TO "RWY 9 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" - IAW 8260.19I PARA 8-6-11K(3). 20:1 IS CLEAR.
17. CHANGED CHART NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19°C (-2°F) OR ABOVE 54°C (130°F)" TO "CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -21°C OR ABOVE 54°C" - IAW 8260.19I PARA 8-6-9R.
18. MA INSTRUCTION UPDATE: CHANGED "CLIMB TO 1900 THEN CLIMBING LEFT TURN TO 4000 DIRECT CIGAL AND HOLD" TO "CLIMB TO 1900 THEN CLIMBING LEFT TURN TO 4000 DIRECT CIGAL AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000" - NEW CONTROLLING OBSTACLE UPDATE.
19. ADDITIONAL FLIGHT DATA UPDATE: REMOVED DISTANCE TO THLD FROM 250 HATH: 0.63 NM - NO LONGER REQUIRED. ADDED 250 HAT 0.61 TO LINE 5.
20. ADDITIONAL FLIGHT DATA UPDATE: ADDED CHART VDP AT 1.26 NM TO RW09 - 20:1 IS CLEAR.
21. ADDITIONAL FLIGHT DATA UPDATE: CHANGED "1049 AAO 421328N/0834021W" TO "CHART 1049 VERTICAL_STRUCTURE 421328N/0834021W" - NEW 7:1 OBSTACLE UPDATE.
22. ADDITIONAL FLIGHT DATA UPDATE: CHANGED CHART FAS OBST FROM "903 TOWER 421432N/0833411W" TO "903 TOWER (26-002998) 421432N/0833411W" - ADDED OBSTACLE ID IAW 8260.19I, PARA 8-6-10C.
23. CHANGED CRC REMAINDER FROM D313B4E3 TO 5F2586E6 - LTP/FTP LAT/LONG CHANGED FROM 421438.3680N/0833228.3285W TO 421438.2220N/0833235.9820W. FPAP LAT/LONG CHANGED FROM 421440.5920N/0833028.4050W TO 421440.4570N/0833036.0585W. LENGTH OFFSET CHANGED FROM 0704 TO 1224.

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZOB, DTW ATCT, YIP ATCT, AMGR, MI AERO

FLIGHT CHECKED BY

PENDING

DEVELOPED BY
KWEKU DONKOR

APPROVED BY
JOHNNIE BAKER

Digitally signed by
KWEKU DONKOR
Sep 14, 2023

Digitally signed by
DAVID TEFFETELLER
Sep 21, 2023

Digitally signed by
DAVID TEFFETELLER
Sep 21, 2023

OFFICE

OFFICE
AJV-A433

OFFICE
AJV-A430

DATE

DATE
08/01/2023

DATE

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KYIP
RUNWAY	RW09
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W09A
LTP/FTP LATITUDE	421438.2220N
LTP/FTP LONGITUDE	0833235.9820W
LTP/FTP ELLIPSOIDAL HEIGHT	+01839
FPAP LATITUDE	421440.4570N
FPAP LONGITUDE	0833036.0585W
THRESHOLD CROSSING HEIGHT (TCH)	00050.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.11
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	5F2586E6

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02182
FPAP ORTHOMETRIC HEIGHT	+02182