

**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
GRAPHIC DEPARTURE PROCEDURES (DP)**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated  
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
MIGGY	THREE	MIGGY3.MIGGY	TWO	08/15/2019	<b>16 May 2024</b>

<u>TYPE:</u>	<u>OBSTACLE</u>	<u>COPTER</u>	<u>SID</u>	<u>SPECIAL</u>	<u>RNAV</u>
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DP ROUTE DESCRIPTION:  
DETROIT METRO WAYNE COUNTY (KDTW):**

- TAKEOFF RWY 3L:** CLIMB ON HEADING 035.71 TO INTERCEPT COURSE 004.01 TO CROSS LLOUU AT OR BELOW 7000, THEN ON TRACK 315.15 TO CROSS THEJO AT OR BELOW 11000, THEN ON TRACK 314.22 TO JAXII, THENCE...
- TAKEOFF RWY 3R:** CLIMB ON HEADING 035.71 TO INTERCEPT COURSE 003.77 TO CROSS LLOUU AT OR BELOW 7000, THEN ON TRACK 315.15 TO CROSS THEJO AT OR BELOW 11000, THEN ON TRACK 314.22 TO JAXII, THENCE...
- TAKEOFF RWY 4L:** CLIMB ON HEADING 035.68 TO INTERCEPT COURSE 009.15 TO CROSS LLOUU AT OR BELOW 7000, THEN ON TRACK 315.15 TO CROSS THEJO AT OR BELOW 11000, THEN ON TRACK 314.22 TO JAXII, THENCE...
- TAKEOFF RWY 4R:** CLIMB ON HEADING 035.70 TO INTERCEPT COURSE 006.37 TO CROSS LLOUU AT OR BELOW 7000, THEN ON TRACK 315.15 TO CROSS THEJO AT OR BELOW 11000, THEN ON TRACK 314.22 TO JAXII, THENCE...
- TAKEOFF RWY 21L:** CLIMB ON HEADING 215.72 TO INTERCEPT COURSE 256.35 TO CROSS FORDZ AT OR ABOVE 4000, THEN ON TRACK 314.11 TO CROSS CORVE AT OR BELOW 7000, THEN ON TRACK 357.34 TO CROSS VESSA AT OR ABOVE 15000, THEN ON TRACK 353.59 TO JAXII, THENCE...
- TAKEOFF RWY 21R:** CLIMB ON HEADING 215.72 TO INTERCEPT COURSE 251.99 TO CROSS FORDZ AT OR ABOVE 4000, THEN ON TRACK 314.11 TO CROSS CORVE AT OR BELOW 7000, THEN ON TRACK 357.34 TO CROSS VESSA AT OR ABOVE 15000, THEN ON TRACK 353.59 TO JAXII, THENCE...
- TAKEOFF RWY 22L:** CLIMB ON HEADING 215.71 TO INTERCEPT COURSE 251.44 TO CROSS FORDZ AT OR ABOVE 4000, THEN ON TRACK 314.11 TO CROSS CORVE AT OR BELOW 7000, THEN ON TRACK 357.34 TO CROSS VESSA AT OR ABOVE 15000, THEN ON TRACK 353.59 TO JAXII, THENCE...
- TAKEOFF RWY 22R:** CLIMB ON HEADING 215.69 TO INTERCEPT COURSE 249.57 TO CROSS FORDZ AT OR ABOVE 4000, THEN ON TRACK 314.11 TO CROSS CORVE AT OR BELOW 7000, THEN ON TRACK 357.34 TO CROSS VESSA AT OR ABOVE 15000, THEN ON TRACK 353.59 TO JAXII, THENCE...
- TAKEOFF RWY 27L:** CLIMB ON HEADING 275.73 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO JAXII, THENCE...
- TAKEOFF RWY 27R:** CLIMB ON HEADING 275.72 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO JAXII, THENCE...

...ON TRACK 322.83 TO MIGGY, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

**WILLOW RUN (KYIP):**

- TAKEOFF RWY 5:** CLIMB ON HEADING 052.70 TO 1220, THEN ON HEADING 300.00 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO JAXII, THENCE...
- TAKEOFF RWY 9:** CLIMB ON HEADING 094.55 TO 1220, THEN ON HEADING 300.00 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO JAXII, THENCE...
- TAKEOFF RWY 23:** CLIMB ON HEADING 232.72 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO JAXII, THENCE...
- TAKEOFF RWY 27:** CLIMB ON HEADING 274.56 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO JAXII, THENCE...

...ON TRACK 322.83 TO MIGGY, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

**ANN ARBOR MUNI (KARB):**

- TAKEOFF RWY 6:** CLIMB ON HEADING 059.53 OR AS ASSIGNED BY ATC, THENCE...
- TAKEOFF RWY 24:** CLIMB ON HEADING 239.53 OR AS ASSIGNED BY ATC, THENCE...

...FOR RADAR VECTORS TO JAXII, THEN ON TRACK 322.83 TO MIGGY, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

**COLEMAN A YOUNG MUNI (KDET):**

- TAKEOFF RWY 15:** CLIMB ON HEADING 148.32 OR AS ASSIGNED BY ATC, THENCE...
- TAKEOFF RWY 33:** CLIMB ON HEADING 328.33 OR AS ASSIGNED BY ATC, THENCE...



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...FOR RADAR VECTORS TO JAXII, THEN ON TRACK 322.83 TO MIGGY, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

**CUSTER (KTF):**

**TAKEOFF RWY 3:** CLIMB ON HEADING 027.49 OR AS ASSIGNED BY ATC, THENCE...  
**TAKEOFF RWY 21:** CLIMB ON HEADING 207.50 OR AS ASSIGNED BY ATC, THENCE...

...FOR RADAR VECTORS TO JAXII, THEN ON TRACK 322.83 TO MIGGY, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

**GROSSE ILE MUNI (KONZ):**

**TAKEOFF RWY 4:** CLIMB ON HEADING 037.34 TO 1200 THEN AS ASSIGNED BY ATC, THENCE...  
**TAKEOFF RWY 17:** CLIMB ON HEADING 173.78 OR AS ASSIGNED BY ATC, THENCE...  
**TAKEOFF RWY 22:** CLIMB ON HEADING 217.34 OR AS ASSIGNED BY ATC, THENCE...  
**TAKEOFF RWY 35:** CLIMB ON HEADING 005.78 TO 1800 THEN AS ASSIGNED BY ATC, THENCE...

...FOR RADAR VECTORS TO JAXII, THEN ON TRACK 322.83 TO MIGGY, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

**LIVINGSTON COUNTY SPENCER J HARDY (KOZW):**

**TAKEOFF RWY 13:** CLIMB ON HEADING 132.35 OR AS ASSIGNED BY ATC, THENCE...  
**TAKEOFF RWY 31:** CLIMB ON HEADING 312.36 OR AS ASSIGNED BY ATC, THENCE...

...FOR RADAR VECTORS TO JAXII, THEN ON TRACK 322.83 TO MIGGY, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

**OAKLAND COUNTY INTL (KPTK):**

**TAKEOFF RW9L:** CLIMB ON HEADING 094.66 OR AS ASSIGNED BY ATC, THENCE...  
**TAKEOFF RW9R:** CLIMB ON HEADING 094.63 OR AS ASSIGNED BY ATC, THENCE...  
**TAKEOFF RW27L:** CLIMB ON HEADING 274.65 OR AS ASSIGNED BY ATC, THENCE...  
**TAKEOFF RW27R:** CLIMB ON HEADING 274.68 OR AS ASSIGNED BY ATC, THENCE...

...FOR RADAR VECTORS TO JAXII, THEN ON TRACK 322.83 TO MIGGY, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

**OAKLAND/TROY (KVLL)**

**TAKEOFF RWY 10:** CLIMB ON HEADING 095.71 TO 1400 THEN AS ASSIGNED BY ATC, THENCE...  
**TAKEOFF RWY 28:** CLIMB ON HEADING 275.72 TO 1500 THEN AS ASSIGNED BY ATC, THENCE...

...FOR RADAR VECTORS TO JAXII, THEN ON TRACK 322.83 TO MIGGY, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

**SELFRIDGE ANGB (KMT):**

**TAKEOFF RWY 1:** CLIMB ON HEADING 007.47 OR AS ASSIGNED BY ATC, THENCE...  
**TAKEOFF RWY 19:** CLIMB ON HEADING 187.47 OR AS ASSIGNED BY ATC, THENCE...

...FOR RADAR VECTORS TO JAXII, THEN ON TRACK 322.83 TO MIGGY, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

**TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):**

<u>TRANSITION NAME</u>	<u>TRANSITION COMPUTER CODE</u>	<u>FROM FIX/NAVAID</u>	<u>TO FIX/NAVAID</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>MEA</u>	<u>MOCA</u>	<u>CROSSING ALTITUDE/FIXES</u>
GETCH	MIGGY3.GETCH	MIGGY	MONEE	TRACK 322.63	20.33	5000	2300	



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MIGGY	THREE	MIGGY3.MIGGY	TWO	08/15/2019	<b>16 May 2024</b>
	MONEE	GETCH	TRACK 274.00	69.76	5000 2400
HUBBY	MIGGY3.HUBBY	MIGGY	MONEE	TRACK 322.63	20.33 5000 2300
	MONEE	HUBBY	TRACK 331.51	33.92	5000 2600
SLLAP	MIGGY3.SLLAP	MIGGY	MONEE	TRACK 322.63	20.33 5000 2300
	MONEE	SLLAP	TRACK 308.34	24.29	5000 2300

**PBN REQUIREMENT NOTES:**

RNAV 1 - DME/DME/IRU OR GPS

**EQUIPMENT REQUIREMENT NOTES:**

RADAR REQUIRED.

**PROCEDURAL DATA NOTES:**

NOTE: JET DEPARTURES AT/ABOVE 10000, MAINTAIN 280K UNTIL ADVISED BY ATC.

NOTE: GETCH TRANSITION: FOR USE BY KMKE AREA ARRIVALS ONLY, OR AS ASSIGNED BY ATC.

**TAKEOFF MINIMUMS:**

**DETROIT METRO WAYNE COUNTY (KDTW):**

**RWY 27L, 27R:** STANDARD.

**RWY 3L, 3R, 4L, 4R, 21L, 21R, 22L, 22R:** STANDARD WITH MINIMUM CLIMB OF 500 FT/NM TO 1146.

**WILLOW RUN (KYIP):**

**RWY 23:** STANDARD.

**RWY 5, 9:** STANDARD WITH MINIMUM CLIMB OF 500 FT/NM TO 1220.

**RWY 27:** STANDARD WITH MINIMUM CLIMB OF 209 FT/NM TO 1000.

**ANN ARBOR MUNI (KARB):**

**RWY 12, 30:** NA - ENVIRONMENTAL.

**RWY 6, 24:** STANDARD.

**COLEMAN A YOUNG MUNI (KDET):**

**RWY 15, 33:** STANDARD.

**CUSTER (KTTF):**

**RWY 3, 21:** STANDARD.

**GROSSE ILE MUNI (KONZ):**

**RWY 4, 17, 22:** STANDARD.

**RWY 35:** STANDARD WITH MINIMUM CLIMB OF 500 FT/NM TO 1100.

**LIVINGSTON COUNTY SPENCER J HARDY (KOZW):**

**RWY 13, 31:** STANDARD.

**OAKLAND COUNTY INTL (KPTK):**

**RWY 18, 36:** NA - ENVIRONMENTAL.

**RWY 9L, 9R, 27L, 27R:** STANDARD.

**OAKLAND/TROY (KVLL):**

**RWY 10:** STANDARD.

**RWY 28:** STANDARD WITH MINIMUM CLIMB OF 476 FT/NM TO 1500.



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**SELFRIDGE ANGB (KMTC):**

**RWY 1:** STANDARD.

**RWY 19:** STANDARD WITH MINIMUM CLIMB OF 235 FT/NM TO 1500.

**TAKEOFF OBSTACLES NOTES:**

SEE FORM 8260-15A TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP).

**CONTROLLING OBSTACLES:**

**WILLOW RUN (KYIP):**

**RWY 27:** 903 FT MSL TOWER 421431.80N/0833411.49W.

**COLEMAN A YOUNG MUNI (KDET):**

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT:

**RWY 33:** 1749 FT MSL TOWER 422653.00N/0831023.00W.

**GROSSE ILE MUNI (KONZ):**

**RWY 35:** 1146 FT MSL STACK 420718.61N/0831050.62W.

**OAKLAND/TROY (KVLL):**

**RWY 28:** 905 FT MSL BUILDING 423232.54N/0831234.07W.

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT:

**RWY 10, 28:** 1724 FT MSL TOWER 422858.46N/0831218.94W.

**SELFRIDGE ANGB (KMTC):**

**RWY 19:** 1246 FT MSL TOWER 423312.00N/0825315.00W.

**MSA:**

KDTW: MSA FROM KDTW, 2800.

KYIP: MSA FROM KYIP, 3000.

KARB: MSA FROM KARB, 3000.

KDET: MSA FROM KDET, 2800.

KTTF: MSA FROM KTTF, 3100.

KONZ: MSA FROM KONZ, 3100.

KOZW: MSA FROM KOZW, 3000.

KPTK: MSA FROM KPTK, 2900.

KVLL: MSA FROM KVLL, 2900.

KMTC: MSA FROM KMTC, 2800.

**LOST COMMUNICATIONS PROCEDURES:**

**ADDITIONAL FLIGHT DATA:**

**DME/DME ASSESSMENT:** SAT (RNP 2.0)

**AIRPORT MV:** DTW (P) 7W/2020, ARB 5W/1985, DET 5W/1980, MTC 6W/1985, ONZ 7W/2010, OZW 5W/1990, PTK 7W/2020, TTF 5W/1980, VLL 6W/1995, YIP 6W/1995.

**DETROIT METRO WAYNE COUNTY - CHART:** TOP ALTITUDE: 17000

**ALL OTHER AIRPORTS - CHART:** TOP ALTITUDE: ASSIGNED BY ATC.

**AIRPORTS SERVED:**

<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
KARB	ANN ARBOR	MI
KDET	DETROIT	MI
KTTF	MONROE	MI

QUALITY  
26  
CHECKED

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
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KDTW		DETROIT			MI
KONZ		DETROIT/GROSSE ILE			MI
KOZW		HOWELL			MI
KPTK		PONTIAC			MI
KVLL		TROY			MI
KMTC		MOUNT CLEMENS			MI
KYIP		DETROIT			MI

**COMMUNICATIONS:**

CHART: ATIS, AWOS/ASOS, CLNC DEL, GND CON, TWR, CTAF, CPDLC.

**FIXES AND/OR NAVAIDS:**

**REMARKS:**

- 100 FT MAXIMUM VEGETATION HEIGHT UTILIZED PER FPT CHECKLIST.
- MEA BASED ON LOWEST DME/DME COVERAGE.
- WAIVER ON FILE: TO NOT CHART IF ALTITUDE AT IF FOR RADAR VECTORS.
- WAIVER ON FILE: TO FAA ORDER 8260.58C PARAGRAPH 1-2-5.C.(3), MAXIMUM BANK ANGLE.
- KDTW CHART NOTE: SEE ADDITIONAL REQUIREMENTS IN RNAV DEPARTURE AAUP.
- CHANGES TO THIS PROCEDURE MUST BE COORDINATED WITH NAVCANADA, AERONAUTICAL INFORMATION MANAGEMENT (AIM), AIMDATA@NAVCANADA.CA (CURRENT POC IS CHARLES SIMARD, 613-248-3819, SIMACHA@NAVCANADA.CA).

**FLIGHT INSPECTED BY**

SCOTT WIEBE

*Digitally signed by*  
**ERIC N SUSKI**  
Mar 18, 2024

**SIGNATURE**

**OFFICE**

FPO

**DATE**

03/07/2024

**DEVELOPED BY**

PARNELL PRASSADA

*Digitally signed by*  
**PARNELL R PRASSADA**  
Jan 25, 2024

**SIGNATURE**

**OFFICE**

AJV-A431

**DATE**

11/08/2023

**APPROVED BY**

ERIC SUSKI

*Digitally signed by*  
**ERIC N SUSKI**

**SIGNATURE**

**OFFICE**

AJV-A431

**DATE**

**TITLE**

MANAGER

**REQUIRED EFFECTIVE DATE**

Jan 29, 2024

ROUTINE

**COORDINATED WITH:**

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

**CHANGES - REASONS:**

- AIRPORT NAME: CHANGED ALL KDTW AIRPORT NAME REFERENCES FROM DETROIT METROPOLITAN WAYNE COUNTY TO DETROIT METRO WAYNE COUNTY - OFFICIAL NASR NAME.
- DELETED ALL CYQG DATA FROM DP ROUTE DESCRIPTION, TAKEOFF MINIMUMS, AND AIRPORTS SERVED - AIRPORT REMOVED FROM SID PER NAVCANADA REQUEST.
- DELETED KYIP RWY 5L, 23R REFERENCES AND CHANGED RUNWAY NUMBERS FROM RWY 5R TO RWY 5 AND FROM RWY 23L TO RWY 23 IN DP ROUTE DESCRIPTION AND TAKEOFF MINIMUMS -



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RUNWAY 5L, 23R DECOMMISSIONED AND RWY 5R, 23L RENUMBERED ON 10/06/2022.

4. DELETED KDET RWY 7, 25 REFERENCES IN DP ROUTE DESCRIPTION, TAKEOFF MINIMUMS AND RWY 25 CONTROLLING OBSTACLE - RUNWAY WILL BE DECOMMISSIONED.
5. CHANGED KVLL RWYS FROM RWY 9, 27 TO RWY 10, 28 - RUNWAYS WERE RENUMBERED ON 02/10/2021.
6. DP ROUTE DESCRIPTION: ALL RUNWAY TRANSITIONS, DELETED FIX JAXII MINIMUM CROSSING ALTITUDE AND CHANGED VERBIAGE FROM "TO CROSS JAXII AT OR ABOVE 4000" TO "TO JAXII" - CROSSING ALTITUDE REMOVED PER ATC REQUEST AND WAIVER ON FILE TO NOT CHART IF ALTITUDE AT IF FIX FOR RADAR VECTORS.
7. DP ROUTE DESCRIPTION: CHANGED KDTW RWY 27L FROM "CLIMB ON HEADING 275.73 TO 1146, THEN ON HEADING 275.71 OR AS ASSIGNED FOR RADAR VECTORS" TO "CLIMB ON HEADING 275.73 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS" - EARLY TURN AND LNAV ENGAGEMENT ALTITUDE NOT REQUIRED, SEGMENTS CHANGED FROM VA-VM LEGS TO VM LEG; VERBIAGE IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.C.(7).
8. DP ROUTE DESCRIPTION: CHANGED KDTW RWY 27R FROM "CLIMB ON HEADING 275.72 TO 1146, THEN ON HEADING 275.70 OR AS ASSIGNED FOR RADAR VECTORS" TO "CLIMB ON HEADING 275.72 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS" - EARLY TURN AND LNAV ENGAGEMENT ALTITUDE NOT REQUIRED, SEGMENTS CHANGED FROM VA-VM LEGS TO VM LEG; VERBIAGE IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.C.(7).
9. DP ROUTE DESCRIPTION: DELETED KDTW TOP ALTITUDE VERBIAGE "OR AS ASSIGNED BY ATC" - KDTW HAS A NUMERIC TOP ALTITUDE 17000 CHARTED FOR ALL RUNWAYS.
10. DP ROUTE DESCRIPTION: CHANGED KYIP TAKEOFF RWY 5 FROM "CLIMB ON HEADING 053.70 TO 1220, THEN LEFT TURN HEADING 300.00 FOR RADAR VECTORS TO" TO "CLIMB ON HEADING 052.70 TO 1220, THEN ON HEADING 300.00 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO" - CLIMB ON HEADING MAG VAR CHANGED FROM KDTW (7W/2020) TO KYIP (6W/1995) IAW AJV-A MEMO "MAGNETIC VARIATION DOCUMENTATION FOR STANDARD INSTRUMENT DEPARTURES AND GRAPHIC OBSTACLE DEPARTURE PROCEDURES" DATED 07/15/2022; ATC REQUESTED TO ADD ATC ASSIGNED HEADINGS ON VM LEG; VERBIAGE IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.C.(7).
11. DP ROUTE DESCRIPTION: CHANGED KYIP TAKEOFF RWY 9 FROM "CLIMB ON HEADING 095.55 TO 1220, THEN LEFT TURN HEADING 300.00 FOR RADAR VECTORS TO" TO "CLIMB ON HEADING 094.55 TO 1220, THEN ON HEADING 300.00 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO" - CLIMB ON HEADING MAG VAR CHANGED FROM KDTW (7W/2020) TO KYIP (6W/1995) IAW AJV-A MEMO "MAGNETIC VARIATION DOCUMENTATION FOR STANDARD INSTRUMENT DEPARTURES AND GRAPHIC OBSTACLE DEPARTURE PROCEDURES" DATED 07/15/2022; ATC REQUESTED TO ADD ATC ASSIGNED HEADINGS ON VM LEG; VERBIAGE IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.C.(7).
12. DP ROUTE DESCRIPTION: CHANGED KYIP TAKEOFF RWY 23 FROM "CLIMB ON HEADING 233.72 TO 1220, THEN ON HEADING 233.70 FOR RADAR VECTORS TO" TO "CLIMB ON HEADING 232.72 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO" - EARLY TURN AND LNAV ENGAGEMENT ALTITUDE NOT REQUIRED, SEGMENT CHANGED FROM VA-VM TO VM LEG; CLIMB ON HEADING MAG VAR CHANGED FROM KDTW (7W/2020) TO KYIP (6W/1995) IAW AJV-A MEMO "MAGNETIC VARIATION DOCUMENTATION FOR STANDARD INSTRUMENT DEPARTURES AND GRAPHIC OBSTACLE DEPARTURE PROCEDURES" DATED 07/15/2022; ATC REQUESTED TO ADD ATC ASSIGNED HEADINGS ON VM LEG; VERBIAGE IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.C.(7).
13. DP ROUTE DESCRIPTION: CHANGED KYIP TAKEOFF RWY 27 FROM "CLIMB ON HEADING 275.57 TO 1220, THEN ON HEADING 275.56 FOR RADAR VECTORS TO" TO "CLIMB ON HEADING 274.56 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO" - EARLY TURN AND LNAV ENGAGEMENT ALTITUDE NOT REQUIRED, SEGMENT CHANGED FROM VA-VM TO VM LEG; CLIMB ON HEADING MAG VAR CHANGED FROM KDTW (7W/2020) TO KYIP (6W/1995) IAW AJV-A MEMO "MAGNETIC VARIATION DOCUMENTATION FOR STANDARD INSTRUMENT DEPARTURES AND GRAPHIC OBSTACLE DEPARTURE PROCEDURES" DATED 07/15/2022; ATC REQUESTED TO ADD ATC ASSIGNED HEADINGS ON VM LEG; VERBIAGE IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.C.(7).
14. DP ROUTE DESCRIPTION: KARB, KDET, KONZ, KOZW, KTF, KPTK, KVLL AND KMTC, CHANGED ATC ASSIGNED HEADING VERBIAGE FROM "OR AS ASSIGNED" TO "OR AS ASSIGNED BY ATC", MOVED "FOR RADAR VECTORS" FROM THE INDIVIDUAL RUNWAY DESCRIPTIONS TO THE SHARED ROUTE DESCRIPTIONS - UPDATED VERBIAGE IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.C.(7).
15. TRANSITION ROUTES: LOWERED MEA FROM 10000 TO 5000 - LOWEST DME RECEPTION ALTITUDE PER DME/DME EVALUATION.
16. TRANSITION ROUTES: ADDED MOCAS AND DELETED REMARK "MOCA(S) NOT CHARTED PER ATC REQUEST TO REDUCE CHART CLUTTER" - MOCA REQUIRED IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.D.(8).
17. PBN REQUIREMENT NOTES: RELOCATED PBN NAV SPEC/SENSORS FROM PROCEDURAL DATA NOTES TO PBN REQUIREMENT NOTES AND UPDATED VERBIAGE FROM "NOTE: RNAV 1" AND "NOTE: DME/DME/IRU OR GPS REQUIRED" TO "RNAV 1 - DME/DME/IRU OR GPS" - DOCUMENTATION IAW FAAO 8260.46J PARAGRAPH 2-1-1. F.
18. EQUIPMENT REQUIREMENT NOTES: RELOCATED "NOTE: RADAR REQUIRED" FROM PROCEDURAL DATA NOTES TO EQUIPMENT REQUIREMENT NOTES AND DELETED "NOTE:" - DOCUMENTATION IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.F.
19. PROCEDURAL DATA NOTES: DELETED "NOTE: KDTW/KYIP DEPARTURES: IF UNABLE TO ACCEPT 500 FT PER NM CLIMB RATE, ADVISE CLEARANCE DELIVERY ON INITIAL CONTACT" - REDUNDANT AND NO LONGER NEEDED.
20. PROCEDURAL DATA NOTES: CHANGED "TURBOJET" TO "JET" - IAW 8260.19I, 4-5-12.
21. TAKEOFF MINIMUMS: CHANGED ALL CLIMB GRADIENT FORMATS FROM "FT PER NM" TO "FT/NM" - FORMAT IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.H.
22. TAKEOFF MINIMUMS: CHANGED KDTW RWY 27L AND 27R FROM "500 FT PER NM TO 1146" TO "STANDARD" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT.
23. TAKEOFF MINIMUMS: CHANGED KYIP RWY 23 FROM "500 FT PER NM TO 1220" TO "STANDARD" AND RWY 27 FROM "500 FT PER NM TO 1220" TO "209 FT/NM TO 1000" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT.
24. TAKEOFF MINIMUMS: KTF, ADDED "RWY 3, 21" - LISTED RUNWAYS AUTHORIZED STANDARD TAKEOFF MINIMUMS IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.H.(2).
25. TAKEOFF MINIMUMS: KOZW, ADDED "RWY 13, 31" - LISTED RUNWAYS AUTHORIZED STANDARD TAKEOFF MINIMUMS IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.H.(2).
26. TAKEOFF MINIMUMS: CHANGED KMTC RWY 19 CLIMB GRADIENT FROM 234 FT PER NM TO 235 FT/NM - UPDATED CALCULATIONS, CONTROLLING OBSTACLE REMAINED THE SAME BUT OBSTACLE ACCURACY INCREASED FROM 5D TO 4D.
27. CONTROLLING OBSTACLES: KYIP RWY 27, CHANGED CONTROLLING OBSTRUCTION LAT/LONG FROM 421431.78N/0833411.47W TO 421431.80N/0833411.49W (MOVED 2.52 FT NORTHWEST) - UPDATED OBSTACLE DATA.
28. CONTROLLING OBSTACLES: KDET, CHANGED RWY 33 CONTROLLING OBSTACLES FROM TOWER TO STACK - PER NEW TARGETS EVALUATION.
29. CONTROLLING OBSTACLES: KDET, ADDED VERBIAGE TO RWY 33 "OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" - CLIMB GRADIENT IS STANDARD AND THIS OBSTACLE IS REASON FOR EXTENDED ICA; DOCUMENTED IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.J.(3).
30. CONTROLLING OBSTACLES: KONZ, DELETED COMMA BETWEEN "STACK" AND LAT/LONG - CORRECTED TYPO.



<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
MIGGY	THREE	MIGGY3.MIGGY	TWO	08/15/2019	<b>16 May 2024</b>

31. CONTROLLING OBSTACLES: KVLL RWY 28, CHANGED CONTROLLING OBSTACLES FROM 940 FT MSL BLDG. 423234.20N/0831235.50 (CG), 1749 FT MSL TOWER 422858.00N/0831219.00W (CGTA) TO 905 FT MSL BUILDING 423232.54N/0831234.07W - UPDATED OBSTACLE EVALUATION AND RETAINED CLIMB GRADIENT AND CLIMB-TO ALTITUDE TO MATCH PUBLISHED ODP AND REDUCE PILOT CONFUSION.
32. CONTROLLING OBSTACLES: KVLL, ADDED "OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 10, 28: 1724 FT MSL TOWER 422858.46N/0831218.94W" - THIS OBSTACLE IS REASON FOR EXTENDED ICA; DOCUMENTED IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.J.(3).
33. MSA: ADDED MSA AT ALL AIRPORTS - REQUIRED IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.K.
34. ADDITIONAL FLIGHT DATA: MAGNETIC VARIATION ADDED FOR ALL AIRPORTS AND UPDATED KDTW FORMAT FROM "REFERENCE MAG VAR; KDTW 7W/2020" TO "AIRPORT MV: DTW (P) 7W/2020" - REQUIRED ALL AIRPORTS AND DOCUMENTED IAW AJV-A MEMO "MAGNETIC VARIATION DOCUMENTATION FOR STANDARD INSTRUMENT DEPARTURES AND GRAPHIC OBSTACLE DEPARTURE PROCEDURES" DATED 07/15/2022.
35. ADDITIONAL FLIGHT DATA: UPDATED TOP ALTITUDE FORMAT FROM "CHART: TOP ALTITUDE: KDTW 17000" TO "DETROIT METRO WAYNE COUNTY - CHART: TOP ALTITUDE: 17000" AND FROM "CHART: TOP ALTITUDE: ALL OTHER AIRPORTS ASSIGNED BY ATC" TO "ALL OTHER AIRPORTS - CHART: TOP ALTITUDE: ASSIGNED BY ATC". FORMAT IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.M.(B).
36. ADDITIONAL FLIGHT DATA: DELETED "KDTW CHART NOTE: SEE ADDITIONAL REQUIREMENTS IN RNAV DEPARTURE AAUP" AND RELOCATED IT TO REMARKS - IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.Q(3).
37. AIRPORTS SERVED: DELETED AIRPORT NAMES - NAMES NOT REQUIRED IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.N.
38. COMMUNICATIONS: ADDED "CHART:" AND DELETED "DEP CON" - VERBIAGE REQUIRED AND DEP CON CHARTED AUTOMATICALLY IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.O.
39. REMARKS: ADDED "100 FT MAXIMUM VEGETATION HEIGHT UTILIZED PER FPT CHECKLIST; MEA BASED ON LOWEST DME/DME COVERAGE; WAIVER ON FILE: TO NOT CHART IF ALTITUDE AT IF FOR RADAR VECTORS; WAIVER ON FILE: TO FAA ORDER 8260.58C PARAGRAPH 1-2-5.C.(3), MAXIMUM BANK ANGLE" - IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.Q.



FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
DEPARTURE (DATA RECORD)

DP NAME	NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	ACTUAL EFFECTIVE DATE				
MIGGY	THREE	MIGGY3.MIGGY	TWO	08/15/2019	16 May 2024				
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
	DETROIT METRO WAYNE COUNTY (KDTW)								
RW03L (AER)	421228.21N/0832104.39W	N	-	-	-	-			
-	421436.11N/0831930.10W	-	-	VI	028.71	2.43			CG 500 FT/NM TO 1146
LLOUU	422938.86N/0832033.56W	Y	FB	CF	357.01	15.06	AT/BELOW 7000		
THEJO	423538.61N/0833054.19W	Y	FB	TF	308.15	9.72	AT/BELOW 11000		
JAXII	424701.67N/0835118.37W	Y	FB	TF	307.22	18.87			
RW03R (AER)	421144.21N/0832106.49W	N	-	-	-	-			
-	421405.11N/0831922.65W	-	-	VI	028.71	2.68			CG 500 FT/NM TO 1146
LLOUU	422938.86N/0832033.56W	Y	FB	CF	356.77	15.58	AT/BELOW 7000		
THEJO	423538.61N/0833054.19W	Y	FB	TF	308.15	9.72	AT/BELOW 11000		
JAXII	424701.67N/0835118.37W	Y	FB	TF	307.22	18.87			
RW04L (AER)	421207.82N/0832302.40W	N	-	-	-	-			
-	421427.59N/0832119.49W	-	-	VI	028.68	2.65			CG 500 FT/NM TO 1146
LLOUU	422938.86N/0832033.56W	Y	FB	CF	002.15	15.19	AT/BELOW 7000		
THEJO	423538.61N/0833054.19W	Y	FB	TF	308.15	9.72	AT/BELOW 11000		
JAXII	424701.67N/0835118.37W	Y	FB	TF	307.22	18.87			
RW04R (AER)*	421212.78N/0832213.32W*	N	-	-	-	-			*DISPL THLD (509 FT)
-	421445.97N/0832020.45W	-	-	VI	028.70	2.91			CG 500 FT/NM TO 1146
LLOUU	422938.86N/0832033.56W	Y	FB	CF	359.37	14.88	AT/BELOW 7000		



<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
MIGGY	THREE	MIGGY3.MIGGY	TWO	08/15/2019	<b>16 May 2024</b>

<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
THEJO	423538.61N/0833054.19W	Y	FB	TF	308.15	9.72	AT/BELOW 11000		
JAXII	424701.67N/0835118.37W	Y	FB	TF	307.22	18.87			
RW21L (AER)	421310.86N/0832002.65W	N	-	-	-	-			
-	421050.15N/0832146.29W	-	-	VI	208.72	2.67			CG 500 FT/NM TO 1146
FORDZ	420747.33N/0833240.34W	Y	FB	CF	249.35	8.66	AT/ABOVE 4000		
CORVE	421315.71N/0834224.97W	Y	FB	TF	307.11	9.08	AT/BELOW 7000		
VESSA	423506.62N/0834726.94W	Y	FB	TF	350.34	22.16	AT/ABOVE 15000		
JAXII	424701.67N/0835118.37W	Y	FB	TF	346.59	12.25			
RW21R (AER)	421341.86N/0832010.11W	N	-	-	-	-			
-	421134.58N/0832143.89W	-	-	VI	208.72	2.42			CG 500 FT/NM TO 1146
FORDZ	420747.33N/0833240.34W	Y	FB	CF	244.99	8.97	AT/ABOVE 4000		
CORVE	421315.71N/0834224.97W	Y	FB	TF	307.11	9.08	AT/BELOW 7000		
VESSA	423506.62N/0834726.94W	Y	FB	TF	350.34	22.16	AT/ABOVE 15000		
JAXII	424701.67N/0835118.37W	Y	FB	TF	346.59	12.25			
RW22L (AER)	421352.36N/0832059.97W	N	-	-	-	-			
-	421114.74N/0832256.04W	-	-	VI	208.71	2.99			CG 500 FT/NM TO 1146
FORDZ	420747.33N/0833240.34W	Y	FB	CF	244.44	8.02	AT/ABOVE 4000		
CORVE	421315.71N/0834224.97W	Y	FB	TF	307.11	9.08	AT/BELOW 7000		
VESSA	423506.62N/0834726.94W	Y	FB	TF	350.34	22.16	AT/ABOVE 15000		
JAXII	424701.67N/0835118.37W	Y	FB	TF	346.59	12.25			



<b>DP NAME</b> MIGGY	<b>NUMBER</b> THREE	<b>DP COMPUTER CODE</b> MIGGY3.MIGGY	<b>SUPERSEDED NUMBER</b> TWO	<b>DATED</b> 08/15/2019	<b>ACTUAL EFFECTIVE DATE</b> <b>16 May 2024</b>
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FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW22R (AER)	421334.48N/0832158.61W	N	-	-	-	-			
-	421115.08N/0832341.19W	-	-	VI	208.69	2.65			CG 500 FT/NM TO 1146
FORDZ	420747.33N/0833240.34W	Y	FB	CF	242.57	7.53	AT/ABOVE 4000		
CORVE	421315.71N/0834224.97W	Y	FB	TF	307.11	9.08	AT/BELOW 7000		
VESSA	423506.62N/0834726.94W	Y	FB	TF	350.34	22.16	AT/ABOVE 15000		
JAXII	424701.67N/0835118.37W	Y	FB	TF	346.59	12.25			

RW27L (AER)	421158.34N/0831949.33W	N	-	-	-	-			
-	-	-	-	VM	268.73	-			

RW27R (AER)	421303.02N/0831951.71W	N	-	-	-	-			
-	-	-	-	VM	268.72	-			

WILLOW RUN (KYIP)

RW05 (AER)	421350.25N/0833223.46W	N	-	-	-	-			
1220 MSL	-	-	-	VA	046.70	-			CG 500 FT/NM TO 1220
-	-	-	-	VM	294.00	-			

RW09 (AER)	421438.22N/0833235.98W	N	-	-	-	-			
1220 MSL	-	-	-	VA	088.55	-			CG 500 FT/NM TO 1220
-	-	-	-	VM	294.00	-			

RW23 (AER)	421441.34N/0833110.47W	N	-	-	-	-			
-	-	-	-	VM	226.72	-			



<u>DP NAME</u>		<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>			
MIGGY		THREE	MIGGY3.MIGGY	TWO	08/15/2019	<b>16 May 2024</b>			
<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
RW27 (AER)	421439.47N/0833129.51W	N	-	-	-	-			
-	-	-	-	VM	268.56	-			
JAXII	424701.67N/0835118.37W	Y	-	IF	-	-			
MIGGY	425955.20N/0840823.94W	Y	FB	TF	315.83	18.00			
MIGGY	425955.20N/0840823.94W	Y	-	IF	-	-			MIGGY3.GETCH
MONEE	431425.80N/0842750.95W	Y	FB	TF	315.63	20.33			
GETCH	431007.15N/0860303.06W	Y	FB	TF	267.00	69.76			
MIGGY	425955.20N/0840823.94W	Y	-	IF	-	-			MIGGY3.HUBBY
MONEE	431425.80N/0842750.95W	Y	FB	TF	315.63	20.33			
HUBBY	434200.00N/0845500.00W	Y	FB	TF	324.51	33.92			
MIGGY	425955.20N/0840823.94W	Y	-	IF	-	-			MIGGY3.SLLAP
MONEE	431425.80N/0842750.95W	Y	FB	TF	315.63	20.33			
SLLAP	432700.30N/0845619.79W	Y	FB	TF	301.34	24.29			

