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 statue miles or feet RVR unless otherwise indicated.

DP NAM	<u>1E</u>					NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	ACTUAL EFFECTIVE DATE
PAVYL						THREE	PAVYL3.PAVYL	TWO	08/15/2019	16 May 2024
TYPE:	OBSTACLE	COPTER	SID	SPECIAL	RNAV					
			\boxtimes		\boxtimes					

DP ROUTE DESCRIPTION:

DETROIT METRO WAYNE COUNTY (KDTW):

TAKEOFF RWY 3L: CLIMB ON HEADING 035.71 TO INTERCEPT COURSE 057.40 TO WNNGZ, THEN ON TRACK 119.92 TO CROSS DATSK AT OR BELOW 7000, THEN ON TRACK 122.86 TO SLVVA, THENCE...

TAKEOFF RWY 3R: CLIMB ON HEADING 035.71 TO INTERCEPT COURSE 054.43 TO WNNGZ, THEN ON TRACK 119.92 TO CROSS DATSK AT OR BELOW 7000, THEN ON TRACK 122.86 TO SLVVA, THENCE

TAKEOFF RWY 4L: CLIMB ON HEADING 035.68 TO INTERCEPT COURSE 061.86 TO WNNGZ, THEN ON TRACK 119.92 TO CROSS DATSK AT OR BELOW 7000, THEN ON TRACK 122.86 TO SLVVA, THENCE

TAKEOFF RWY 4R: CLIMB ON HEADING 035.70 TO INTERCEPT COURSE 060.77 TO WNNGZ, THEN ON TRACK 119.92 TO CROSS DATSK AT OR BELOW 7000, THEN ON TRACK 122.86 TO SLVVA, THENCE...

TAKEOFF RWY 21L: CLIMB ON HEADING 215.72 TO INTERCEPT COURSE 184.56 TO JOELU, THEN ON TRACK 107.88 TO CROSS YIMMY AT OR BELOW 7000, THEN ON TRACK 086.49 TO CROSS HWARD AT OR BELOW 9000. THEN ON TRACK 078.17 TO SLVVA. THENCE...

TAKEOFF RWY 21R: CLIMB ON HEADING 215.72 TO INTERCEPT COURSE 184.92 TO JOELU, THEN ON TRACK 107.88 TO CROSS YIMMY AT OR BELOW 7000, THEN ON TRACK 086.49 TO CROSS HWARD AT OR BELOW 9000, THEN ON TRACK 078.17 TO SLVVA, THENCE...

TAKEOFF RWY 22L: CLIMB ON HEADING 215.71 TO INTERCEPT COURSE 179.22 TO JOELU, THEN ON TRACK 107.88 TO CROSS YIMMY AT OR BELOW 7000, THEN ON TRACK 086.49 TO CROSS HWARD AT OR BELOW 9000. THEN ON TRACK 078.17 TO SLVVA. THENCE...

TAKEOFF RWY 22R: CLIMB ON HEADING 215.69 TO INTERCEPT COURSE 175.77 TO JOELU, THEN ON TRACK 107.88 TO CROSS YIMMY AT OR BELOW 7000, THEN ON TRACK 086.49 TO CROSS HWARD AT OR BELOW 9000. THEN ON TRACK 078.17 TO SLVVA. THENCE...

TAKEOFF RWY 27L: CLIMB ON HEADING 275.73 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO SLVVA, THENCE...

TAKEOFF RWY 27R: CLIMB ON HEADING 275.72 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO SLVVA, THENCE...

...ON TRACK 097.33 TO PAVYL, 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 SLVVA, 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 SLVVA, THENCE...

TAKEOFF RWY 23: CLIMB ON HEADING 232.72 OR AS ASSIGNED BY ATC, FOR RADAR VECTORS TO SLVVA, THENCE...

TAKEOFF RWY 27: CLIMB ON HEADING 274.56 OR AS ASSIGNED BY ATC. FOR RADAR VECTORS TO SLVVA. THENCE...

...ON TRACK 097.33 TO PAVYL, 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 SLVVA, THEN ON TRACK 097.33 TO PAVYL, 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...



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TAKEOFF RWY 33: CLIMB ON HEADING 328.33 TO 1800 THEN AS ASSIGNED BY ATC, THENCE...

...FOR RADAR VECTORS TO SLVVA, THEN ON TRACK 097.33 TO PAVYL, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

CUSTER (KTTF):

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 SLVVA, THEN ON TRACK 097.33 TO PAVYL, 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 SLVVA, THEN ON TRACK 097.33 TO PAVYL, 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 SLVVA, THEN ON TRACK 097.33 TO PAVYL, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

OAKLAND COUNTY INTL (KPTK):

TAKEOFF RWY 9L: CLIMB ON HEADING 094.66 OR AS ASSIGNED BY ATC, THENCE...
TAKEOFF RWY 9R: CLIMB ON HEADING 094.63 OR AS ASSIGNED BY ATC, THENCE...
TAKEOFF RWY 27L: CLIMB ON HEADING 274.65 OR AS ASSIGNED BY ATC, THENCE...
TAKEOFF RWY 27R: CLIMB ON HEADING 274.68 OR AS ASSIGNED BY ATC. THENCE...

....FOR RADAR VECTORS TO SLVVA, THEN ON TRACK 097.33 TO PAVYL, 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 SLVVA, THEN ON TRACK 097.33 TO PAVYL, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

SELFRIDGE ANGB (KMTC):

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...



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...FOR RADAR VECTORS TO SLVVA, THEN ON TRACK 097.33 TO PAVYL, THEN ON (TRANSITION). MAINTAIN 17000 OR AS ASSIGNED BY ATC, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

TRANSITION NAME	TRANSITION COMPUTER CODE	<u>FROM</u> <u>FIX/NAVAID</u>	<u>TO</u> <u>FIX/NAVAID</u>	COURSE	DISTANCE	<u>MEA</u>	MOCA	CROSSING ALTITUDE/FIXES
ESSBE	PAVYL3.ESSBE	PAVYL	ESSBE	TRACK 106.46	29.99	9000	2200	
MRDOC	PAVYL3.MRDOC	PAVYL	MRDOC	TRACK 101.22	38.50	9000	2200	

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.

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 KWLL, 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:

	AIRPORT ID	<u>CITY</u>	STATE
	KDTW	DETROIT	MI
	KYIP	DETROIT	MI
_	KARB	ANN ARBOR	MI 26
			CHECKER

NFDD NO. 064	04/02/2024	111
DP NAME PAVYL	NUMBERDP COMPUTER CODESUPERSEDEDTHREEPAVYL3.PAVYLTWO	
KDET	DETROIT	MI
KTTF	MONROE	MI
KONZ	DETROIT/GROSSE ILE	MI
KOZW	HOWELL	MI
KPTK	PONTIAC	MI
KVLL	TROY	MI
KMTC	MOUNT CLEMENS	MI

COMMUNICATIONS:

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

FIXES AND/OR NAVAIDS:

FLIGHT INSPECTED BY

REMARKS:

- 1. 100 FT MAXIMUM VEGETATION HEIGHT UTILIZED PER FPT CHECKLIST.
- 2. MEA BASED ON LOWEST DME/DME COVERAGE.
- 3. WAIVER ON FILE: TO NOT CHART IF ALTITUDE AT IF FOR RADAR VECTORS.
- 4. WAIVER ON FILE: TO FAA ORDER 8260.58C PARAGRAPH 1-2-5.C.(3), MAXIMUM BANK ANGLE.
- 5. KDTW CHART NOTE: SEE ADDITIONAL REQUIREMENTS IN RNAV DEPARTURE AAUP.

Digitally signed by

6. 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).

OFFICE

DATE

SCOTT WIEBE	ERIC N SUSKI Mar 18, 2024		FPO	03/07/2024	
DEVELOPED BY PARNELL PRASSADA	Digitally signed by PARNELL R PRASSADA	SIGNATURE	OFFICE AJV-A431	DATE 11/16/2023	
APPROVED BY	Jan 25, 2024	<u>SIGNATURE</u>	OFFICE	DATE	TITLE
ERIC N SUSKI			AJV-A431		MANAGER

REQUIRED EFFECTIVE DATE
ROUTINE

COORDINATED WITH:

Digitally signed by
ERIC N SUSKI
Mar 18, 2024

SIGNATURE

CHANGES - REASONS:

- 1. AIRPORT NAME: CHANGED ALL KDTW AIRPORT NAME REFERENCES FROM DETROIT METROPOLITAN WAYNE COUNTY TO DETROIT METRO WAYNE COUNTY OFFICIAL NASR NAME.
- 2. DELETED ALL CYQG DATA FROM DP ROUTE DESCRIPTION, TAKEOFF MINIMUMS, AND AIRPORTS SERVED AIRPORT REMOVED FROM SID PER NAVCANADA REQUEST.
- 3. 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.
- CHANGED KVLL RWYS FROM RWY 9, 27 TO RWY 10, 28 RUNWAYS WERE RENUMBERED ON 02/10/2021.
- 6. PAVYL FIX MOVED 0.06 NM EAST FIX MOVED TO MEET LENGTH REQUIREMENT IAW FAAO 8260.46J 3-1-6.C.
- 7. DP ROUTE DESCRIPTION: ALL RUNWAY TRANSITIONS, DELETED FIX SLVVA MINIMUM CROSSING ALTITUDE AND CHANGED VERBIAGE FROM "TO CROSS SLVVA AT OR ABOVE 4000" TO "TO SLVVA" CROSSING ALTITUDE REMOVED PER ATC REQUEST AND WAIVER ON FILE TO NOT CHART IF ALTITUDE AT IF FIX FOR RADAR VECTORS.
- 8. 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).
- 9. 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).
- 10. DP ROUTE DESCRIPTION: DELETED KDTW TOP ALTITUDE VERBIAGE "OR AS ASSIGNED BY ATC" KDTW HAS A NUMERIC TOP ALTITUDE 17000 CHARTED FOR ALL RUNWAYS.
- 11. 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).
- 12. 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).
- 13. 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).
- 14. 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).
- 15. DP ROUTE DESCRIPTION: KARB, KDET, KONZ, KOZW, KTTF, 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). 16. TRANSITION ROUTES: PAVYL TO ESSBE TRACK/DISTANCE CHANGED FROM 106.45/30.05 TO 106.46/29.99 PAVYL FIX MOVED 0.06 NM EAST.
- 17. TRANSITION ROUTES: PAVYL TO MRDOC TRACK/DISTANCE CHANGED FROM 101.21/38.56 TO 101.22/38.50 PAVYL FIX MOVED 0.06 NM EAST.
- 18. TRANSITION ROUTES: LOWERED MEA FROM 10000 TO 9000 UPDATED DME/DME EVALUATION.
- 19. TRANSITION ROUTES: ADDED MOCA 2200 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).
- 20. 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.
- 21. 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.
- 22. 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.
- 23. PROCEDURAL DATA NOTES: CHANGED "TURBOJET" TO "JET" IAW 8260.19I, 4-5-12.
- 24. 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.
- 25. 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.
- 26. 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.
- 27. TAKEOFF MINIMUMS: KTTF, ADDED "RWY 3, 21" LISTED RUNWAYS AUTHORIZED STANDARD TAKEOFF MINIMUMS IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.H.(2).
- 28. TAKEOFF MINIMUMS: KOZW, ADDED "RWY 13, 31" LISTED RUNWAYS AUTHORIZED STANDARD TAKEOFF MINIMUMS IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.H.(2).
- 29. 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.
- 30. 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.
- 31. CONTROLLING OBSTACLES: KDET, ADDED VERBIAGE TO RWY 33 "OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W" CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W CLIMB & LANDATING ODP ROUTE DEVELOPMENT: RWY 33: 1749 FT MSL TOWER 422653.00N/0831023.00W RWY 33: 1749 FT MSL TOWER 422653.00N RWY 33: 1749 FT MSL TOWER 422653.00N RWY 33: 1749 FT MSL TOWER 422653.00N RWY 33: 1749 FT

DP NAMENUMBERDP COMPUTER CODESUPERSEDED NUMBERDATEDACTUAL EFFECTIVE DATEPAVYLTHREEPAVYL3.PAVYLTWO08/15/201916 May 2024

GRADIENT IS STANDARD AND THIS OBSTACLE IS REASON FOR EXTENDED ICA; DOCUMENTED IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.J.(3).

- 32. CONTROLLING OBSTACLES: KONZ. DELETED COMMA BETWEEN "STACK" AND LAT/LONG CORRECTED TYPO.
- 33. 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.
- 34. 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).
- 35. MSA: ADDED MSA AT ALL AIRPORTS REQUIRED IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.K.
- 36. 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.
- 37. 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).
- 38. 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).
- 39. AIRPORTS SERVED: DELETED AIRPORT NAMES NAMES NOT REQUIRED IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.N.
- 40. COMMUNICATIONS: ADDED "CHART:" AND DELETED "DEP CON" VERBIAGE REQUIRED AND DEP CON CHARTED AUTOMATICALLY IAW FAAO 8260.46J APPENDIX E. SECTION 1.2.O.
- 41. 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 PAVYL						NUMBER THREE	DP COMPUTER CODE PAVYL3.PAVYL	SUPERSEDED NUMBER TWO	DATED 08/15/2019	16 May 2024
FIX/NAVAID	LAT/LONG	<u>C</u>	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS	
	DETROIT METRO WAYNE COUNTY (KDTW)									
RW03L (AER)	421228.21N/0832104.39W	N	-	-	-	-				
-	421436.05N/0831930.14W	-	-	VI	028.71	2.43			CG 500 FT/NM TO 1	146
WNNGZ	422003.77N/0831037.55W	Υ	FB	CF	050.40	8.56				
DATSK	421629.78N/0825917.88W	Υ	FB	TF	112.92	9.13	AT/BELOW 7000			
SLVVA	420838.11N/0823736.16W	Υ	FB	TF	115.86	17.94				
RW03R (AER)	421144.21N/0832106.49W	N	-			-				
-	421404.99N/0831922.74W	-	-	VI	028.71	2.67			CG 500 FT/NM TO 1	146
WNNGZ	422003.77N/0831037.55W	Υ	FB	CF	047.43	8.83				
DATSK	421629.78N/0825917.88W	Υ	FB	TF	112.92	9.13	AT/BELOW 7000			
SLVVA	420838.11N/0823736.16W	Υ	FB	TF	115.86	17.94				
RW04L (AER)	421207.82N/0832302.40W	N	_			_				
-	421427.50N/0832119.56W	_	_	VI	028.68	2.65			CG 500 FT/NM TO 1	146
WNNGZ	422003.77N/0831037.55W	Y	FB	CF	054.86	9.72				
DATSK	421629.78N/0825917.88W	Y	FB	TF	112.92	9.13	AT/BELOW 7000			
SLVVA	420838.11N/0823736.16W	Υ	FB	TF	115.86	17.94				
RW04R (AER)*	421212.78N/0832213.32W*	N	-		_	-			*DISPL THLD (509	9 FT)
-	421446.08N/0832020.37W	-	-	VI	028.70	2.91			CG 500 FT/NM TC	
WNNGZ	422003.77N/0831037.55W	Υ	FB	CF	053.77	8.94				O)AL/7_
										Quantities ()

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DP NAME PAVYL						NUMBER THREE	DP COMPUTER CODE PAVYL3.PAVYL	SUPERSEDED NUMBER TWO	DATED 08/15/2019	ACTUAL EFFECTIVE DATE 16 May 2024
FIX/NAVAID	LAT/LONG	<u>C</u>	FO/FB	LEG TYPE	<u>TC</u>	DIST (NM)	ALTITUDE	SPEED	REMARKS	
DATSK	421629.78N/0825917.88W	Υ	FB	TF	112.92	9.13	AT/BELOW 7000			
SLVVA	420838.11N/0823736.16W	Υ	FB	TF	115.86	17.94				
RW21L (AER)	421310.86N/0832002.65W	N	-	-	-	-				
-	421050.18N/0832146.27W	-	-	VI	208.72	2.67			CG 500 FT/NM TO	1146
JOELU	420213.33N/0832116.60W	Υ	FB	CF	177.56	8.62				
YIMMY	420046.57N/0831114.47W	Υ	FB	TF	100.88	7.62	AT/BELOW 7000			
HWARD	420130.79N/0830553.79W	Υ	FB	TF	079.49	4.05	AT/BELOW 9000			
SLVVA	420838.11N/0823736.16W	Υ	FB	TF	071.17	22.24				
RW21R (AER)	421341.86N/0832010.11W	N	-	-	-	-				
-	421134.48N/0832143.96W	-	-	VI	208.72	2.42			CG 500 FT/NM TO	1146
JOELU	420213.33N/0832116.60W	Υ	FB	CF	177.92	9.35				
YIMMY	420046.57N/0831114.47W	Υ	FB	TF	100.88	7.62	AT/BELOW 7000			
HWARD	420130.79N/0830553.79W	Υ	FB	TF	079.49	4.05	AT/BELOW 9000			
SLVVA	420838.11N/0823736.16W	Υ	FB	TF	071.17	22.24				
RW22L (AER)	421352.36N/0832059.97W	N	_		-	-				
-	421114.77N/0832256.02W	-	-	VI	208.71	2.99			CG 500 FT/NM TO	1146
JOELU	420213.33N/0832116.60W	Y	FB	CF	172.22	9.10				
YIMMY	420046.57N/0831114.47W	Y	FB	TF	100.88	7.62	AT/BELOW 7000			
HWARD	420130.79N/0830553.79W	Υ	FB	TF	079.49	4.05	AT/BELOW 9000			
SLVVA	420838.11N/0823736.16W	Υ	FB	TF	071.17	22.24				WAL17,

	DD 110.004						04/02/2024			110
DP NAME PAVYL						NUMBER THREE	DP COMPUTER CODE PAVYL3.PAVYL	SUPERSEDED NUMBER TWO	DATED 08/15/2019	ACTUAL EFFECTIVE DATE 16 May 2024
FIX/NAVAID	LAT/LONG	<u>C</u>	FO/FB	LEG TYPE	<u>TC</u>	DIST (NM)	ALTITUDE	SPEED	REMARKS	
RW22R (AER)	421334.48N/0832158.61W	N	-	-	-	-				
-	421115.04N/0832341.23W	-	-	VI	208.69	2.65			CG 500 FT/NM TO	1146
JOELU	420213.33N/0832116.60W	Υ	FB	CF	168.77	9.20				
YIMMY	420046.57N/0831114.47W	Υ	FB	TF	100.88	7.62	AT/BELOW 7000			
HWARD	420130.79N/0830553.79W	Υ	FB	TF	079.49	4.05	AT/BELOW 9000			
SLVVA	420838.11N/0823736.16W	Y	FB	TF	071.17	22.24				
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	-		-	-				NAL/Y.
-	-	-	-	VM	226.72	-				26 Chrecker
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DP NAME PAVYL						NUMBER THREE	DP COMPUTER CODE PAVYL3.PAVYL	SUPERSEDED NUMBER TWO	DATED 08/15/2019	ACTUAL EFFECTIVE DATE 16 May 2024
FIX/NAVAID	LAT/LONG	<u>C</u>	FO/FB	LEG TYPE	<u>TC</u>	DIST (NM)	ALTITUDE	SPEED	REMARKS	
RW27 (AER)	421439.47N/0833129.51W	N	-	-	-	-				
-	-	-	-	VM	268.56	-				
SLVVA	420838.11N/0823736.16W	Y		IF						
PAVYL	420834.87N/0822700.62W	Y	FB	TF	090.33	7.88				
PAVYL	420834.87N/0822700.62W	Υ	-	IF	-	-			PAVYL3.ESSBE	<u> </u>
ESSBE	420331.96N/0814717.79W	Υ	FB	TF	099.46	29.99				
PAVYL	420834.87N/0822700.62W	Y	-	IF	-	-			PAVYL3.MRD0	DC
MRDOC	420533.23N/0813526.34W	Υ	FB	TF	094.22	38.50				