

**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SUPERSEDED NUMBER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>
KZLOV	TWO	KZLOV2.WINNZ	ONE	07/14/2022	16 May 2024
<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 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 069.88 TO CROSS BESST AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS, THEN ON TRACK 128.00 TO CROSS SWNDL AT OR BELOW 7000, THEN ON TRACK 126.36 TO KZLOV, THENCE ...

TAKEOFF RWY 3R: CLIMB ON HEADING 035.71 TO INTERCEPT COURSE 064.45 TO CROSS BESST AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS, THEN ON TRACK 128.00 TO CROSS SWNDL AT OR BELOW 7000, THEN ON TRACK 126.36 TO KZLOV, THENCE ...

TAKEOFF RWY 4L: CLIMB ON HEADING 035.68 TO INTERCEPT COURSE 074.28 TO CROSS BESST AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS, THEN ON TRACK 128.00 TO CROSS SWNDL AT OR BELOW 7000, THEN ON TRACK 126.36 TO KZLOV, THENCE ...

TAKEOFF RWY 4R: CLIMB ON HEADING 035.70 TO INTERCEPT COURSE 074.29 TO CROSS BESST AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS, THEN ON TRACK 128.00 TO CROSS SWNDL AT OR BELOW 7000, THEN ON TRACK 126.36 TO KZLOV, 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 086.75 TO KZLOV, 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 086.75 TO KZLOV, THENCE ...

TAKEOFF RWY 22L: CLIMB ON HEADING 215.71 TO INTERCEPT COURSE 179.22 TO JOELU, THEN ON TRACK 107.88/7.62 TO CROSS YIMMY AT OR BELOW 7000, THEN ON TRACK 086.49 TO CROSS HWARD AT OR BELOW 9000, THEN ON TRACK 086.75 TO KZLOV, 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 086.75 TO KZLOV, THENCE ...

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

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

...ON TRACK 148.26 TO WINNZ. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE TEN 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 KZLOV, 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 KZLOV, THENCE ...

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

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

...ON TRACK 148.26 TO WINNZ. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE TEN 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 KZLOV, THEN ON TRACK 148.26 TO WINNZ. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE TEN MINUTES AFTER DEPARTURE.



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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 TO 1800 THEN AS ASSIGNED BY ATC. THENCE...

...FOR RADAR VECTORS TO KZLOV, THEN ON TRACK 148.26 TO WINNZ. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE TEN 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 KZLOV, THEN ON TRACK 148.26 TO WINNZ. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE TEN 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 KZLOV, THEN ON TRACK 148.26 TO WINNZ. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE TEN 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 KZLOV, THEN ON TRACK 148.26 TO WINNZ. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE TEN 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 KZLOV, THEN ON TRACK 148.26 TO WINNZ. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE TEN 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 KZLOV, THEN ON TRACK 148.26 TO WINNZ. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE TEN MINUTES AFTER DEPARTURE.

SELFRIEDGE ANGB (KMTG):**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 KZLOV, THEN ON TRACK 148.26 TO WINNZ. MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE TEN MINUTES AFTER DEPARTURE.

NFDD NO. 064

04/02/2024

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<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
KZLOV	TWO	KZLOV2.WINNZ	ONE	07/14/2022	16 May 2024

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>
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PBN REQUIREMENT NOTES:

RNAV 1 - DME/DME/IRU OR GPS.

EQUIPMENT REQUIREMENT NOTES:

RADAR REQUIRED

PROCEDURAL DATA NOTES:

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

NOTE: FOR USE BY CLEVELAND TERMINAL ARRIVALS ONLY.

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.

SELFRIDGE ANGB (KMTX):

RWY 1: STANDARD.

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



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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: 10000

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

CHART SPEED ICON MAXIMUM SPEED 230 KIAS AT BESST

<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
KDTW	DETROIT	MI
KYIP	DETROIT	MI
KARB	ANN ARBOR	MI
KDET	DETROIT	MI

FAA Form 8260-15B (03/23) Supersedes Previous Edition

Electronic Version

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QUALITY

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KZLOV	TWO	KZLOV2.WINNZ	ONE	07/14/2022	16 May 2024

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:

REMARKS:

1. 100 FT MAXIMUM VEGETATION HEIGHT UTILIZED PER FPT CHECKLIST.

2. WAIVER ON FILE: TO NOT CHART IF ALTITUDE AT IF FOR RADAR VECTORS.

3. 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).

4. KDTW CHART NOTE: SEE ADDITIONAL REQUIREMENTS ON AAUP.

5. KDTW RWY 3L, 3R, 4L, 4R, 21L, 21R, 22L, 22R DEPARTURES EARLY TURN AND SHORTENED ICA REQUIRED DUE TO SIMULTANEOUS DEPARTURES. KIYP RWY 5, 9 DEPARTURES EARLY TURN AND SHORTENED ICA REQUIRED DUE TO KDTW AIR TRAFFIC FLOW.

FLIGHT INSPECTED BY	SIGNATURE	OFFICE	DATE
SCOTT WIEBE	Digitally signed by ERIC N SUSKI Mar 18, 2024	FPO	03/07/2024

DEVELOPED BY	SIGNATURE	OFFICE	DATE
HIRST, CHARLES K	Digitally signed by ERIC N SUSKI Jan 26, 2024	AJV-A431	11/28/2023

APPROVED BY	SIGNATURE	OFFICE	DATE	TITLE
SUSKI, ERIC N	Digitally signed by ERIC N SUSKI Jan 26, 2024	AJV-A431		MANAGER

REQUIRED EFFECTIVE DATE

ROUTINE

COORDINATED WITH:

A4A☒ ALPA☒ AOPA☒ APA☒ HAI☐ NBAA☒ OTHER:ZOB, DTW APP CON, AMGR(S), NAVCANADA

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 KIYP 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. - 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 IS GOING TO BE DECOMMISSIONED.

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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 KZLOV MINIMUM CROSSING ALTITUDE AND CHANGED VERBIAGE FROM "TO CROSS KZLOV AT OR ABOVE 4000 AND AT OR BELOW 10000" TO "TO KZLOV". - ATC REQUESTED REMOVAL DUE TO NOT NEEDING IT AND TO REDUCE PILOT CONFUSION; 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 275.73 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 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).

10. 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).

11. 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; UPDATED RUNWAY SURVEY 12/20/2022; 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, KARB, KDET, KONZ, KOZW, KTTF, KPTK, KVLL AND KMTC, CHANGED ATC ASSIGNED HEADING VERBIAGE FROM "OR AS ASSIGNED" TO "OR AS ASSIGNED BY ATC", AND MOVED "FOR RADAR VECTORS TO CROSS KZLOV" FROM THE INDIVIDUAL RUNWAY DESCRIPTIONS TO THE SHARED ROUTE DESCRIPTIONS TO READ "...FOR RADAR VECTORS TO KZLOV". - UPDATED VERBIAGE IAW FAAO 8260.46J APPENDIX E.SECTION 1.2.C AND CONSOLIDATED SHARED ROUTINGS VERBIAGE

13. 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.

14. 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; MATCHES ODP TAKEOFF MINIMUMS.

15. TAKEOFF MINIMUMS, CHANGED KYIP RWY 23 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1216" TO "STANDARD" - LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED.

16. TAKEOFF MINIMUMS, CHANGED KYIP RWY 27 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1216" TO "STANDARD WITH MINIMUM CLIMB OF 209 FT/NM TO 1000". - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT AND MATCHES ODP TAKEOFF MINIMUMS.

17. TAKEOFF MINIMUMS, CHANGED KARB RWY 6, 24 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1339" TO "STANDARD" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT AND MATCHES ODP TAKEOFF MINIMUMS.

18. TAKEOFF MINIMUMS, CHANGED KDET RWY 15, 33 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1126" TO "STANDARD" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT AND MATCHES ODP TAKEOFF MINIMUMS.

19. TAKEOFF MINIMUMS, CHANGED KTTF RWY 3, 21 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1339" TO "STANDARD" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT AND MATCHES ODP TAKEOFF MINIMUMS.

20. TAKEOFF MINIMUMS, CHANGED KONZ RWY 4, 17, 22 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1091" TO "STANDARD" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT AND MATCHES ODP TAKEOFF MINIMUMS.

21. TAKEOFF MINIMUMS, CHANGED KONZ RWY 35 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1091" TO "STANDARD WITH MINIMUM CLIMB OF 500 FT/NM TO 1091" - MATCHES ODP TAKEOFF MINIMUMS.

22. TAKEOFF MINIMUMS, CHANGED KOZW RWY 13,31 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1462" TO "STANDARD" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT AND MATCHES ODP TAKEOFF MINIMUMS.

23. TAKEOFF MINIMUMS, CHANGED KPTK RWY 9L, 9R, 27L, 27R FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1481" TO "STANDARD" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT AND MATCHES ODP TAKEOFF MINIMUMS.

24. TAKEOFF MINIMUMS, CHANGED KVLL RWY 10 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1228" TO "STANDARD" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT AND MATCHES ODP TAKEOFF MINIMUMS.

25. TAKEOFF MINIMUMS, CHANGED KVLL RWY 28 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1228" TO "STANDARD WITH MINIMUM CLIMB OF 476 FT/NM TO 1500" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT AND MATCHES ODP TAKEOFF MINIMUMS.

26. TAKEOFF MINIMUMS, CHANGED KMTC RWY 1 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1080" TO "STANDARD" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
KZLOV	TWO	KZLOV2.WINNZ	ONE	07/14/2022	16 May 2024

NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT AND MATCHES ODP TAKEOFF MINIMUMS.

27. TAKEOFF MINIMUMS, CHANGED KMTC RWY 19 FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1080" TO "STANDARD WITH MINIMUM CLIMB OF 235 FT/NM TO 1500" - EARLY TURN AND LNAV ENGAGEMENT CLIMB GRADIENT NOT REQUIRED; LOWERED TO OBSTACLE-BASED CLIMB GRADIENT AND MATCHES ODP TAKEOFF MINIMUMS.

28. ADDED CONTROLLING OBSTACLES KYIP RWY 27, KDET RWY 33, KONZ RWY 35, KVLL RWY 10, 28, KMTC RWY 19 - REQUIRED PER 8260.46J APPENDIX E PARA 2J

29. ADDED MSA AT ALL AIRPORTS. - REQUIRED IAW IAW FAO 8260.46J APPENDIX E SECTION 1.2.K.

30. 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.

31. ADDITIONAL FLIGHT DATA, UPDATED TOP ALTITUDE FORMAT FROM "KDTW CHART: TOP ALTITUDE 10000" TO "DETROIT METRO WAYNE COUNTY - CHART: TOP ALTITUDE: 10000" AND FROM "ALL OTHER AIRPORTS CHART: TOP ALTITUDE: ASSIGNED BY ATC" TO "ALL OTHER AIRPORTS - CHART: TOP ALTITUDE: ASSIGNED BY ATC". - FORMAT IAW FAO 8260.46J APPENDIX E SECTION 1.2. M.(B).

THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 11/28/2023:

1. DP ROUTE DESCRIPTION KONZ TAKEOFF RWY 35 INSTRUCTIONS CHANGED TO READ "CLIMB ON HEADING 005.78 TO 1800 THEN AS ASSIGNED BY ATC. THENCE..." - CORRECTED PROCEDURE TO BE CONGRUENT WITH ALL OTHER SIDS & PUBLISHED ODP INSTRUCTIONS FOR OBSTACLE AVOIDANCE

2. DP COMPUTER CODE CHANGED FROM KZLOV2.KZLOV TO KZLOV2.WINNZ - CORRECTED DP COMPUTER CODE TO MATCH ACTIVE PROCEDURE FOR CORRECT CODING



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
DEPARTURE (DATA RECORD)**

<u>DP NAME</u>		<u>NUMBER</u>		<u>DP COMPUTER CODE</u>		<u>SUPERSEDED NUMBER</u>		<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
KZLOV		TWO		KZLOV2.WINNZ		ONE		07/14/2022	16 May 2024
<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>
	DETROIT METRO WAYNE COUNTY (KDTW)								
RW03L (AER)	421228.21N/0832104.39W	N	-	-	-	-			CG 500 FT PER NM TO 1146
-	421436.07N/0831930.13W	-	-	VI	028.71	2.43			
BESST	421656.69N/0831321.04W	Y	FB	CF	062.88	5.13	AT ABOVE 2500	AT/BELOW 230K	
SWNDL	421255.80N/0830422.44W	Y	FB	TF	121.00	7.78	AT/BELOW 7000		
KZLOV	420424.81N/0824407.44W	Y	FB	TF	119.36	17.30			
RW03R (AER)	421144.21N/0832106.49W	N	-	-	-	-			CG 500 FT PER NM TO 1146
-	421404.99N/0831922.74W	-	-	VI	028.71	2.67			
BESST	421656.69N/0831321.04W	Y	FB	CF	057.45	5.31	AT/ABOVE 2500	AT/BELOW 230K	
SWNDL	421255.80N/0830422.44W	Y	FB	TF	121.00	7.78	AT/BELOW 7000		
KZLOV	420424.81N/0824407.44W	Y	FB	TF	119.36	17.30			
RW04L (AER)	421207.82N/0832302.40W	N	-	-	-	-			CG 500 FT PER NM TO 1146
-	421427.54N/0832119.53W	-	-	VI	028.68	2.65			
BESST	421656.69N/0831321.04W	Y	FB	CF	067.28	6.42	AT/ABOVE 2500	AT/BELOW 230K	
SWNDL	421255.80N/0830422.44W	Y	FB	TF	121.00	7.78	AT/BELOW 7000		
KZLOV	420424.81N/0824407.44W	Y	FB	TF	119.36	17.30			
RW04R (AER)*	421212.78N/0832213.32W*	N	-	-	-	-			CG 500 FT PER NM TO 1146
-	421446.08N/0832020.37W	-	-	VI	028.70	2.91			*DISPL THLD (509.1 FT)
BESST	421656.69N/0831321.04W	Y	FB	CF	067.29	5.63	AT/ABOVE 2500	AT/BELOW 230K	

QUALITY
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CHECKED

DP NAME		NUMBER		DP COMPUTER CODE		SUPERSEDED NUMBER		DATED	ACTUAL EFFECTIVE DATE
KZLOV		TWO		KZLOV2.WINN2		ONE		07/14/2022	16 May 2024
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
SWNDL	421255.80N/0830422.44W	Y	FB	TF	121.00	7.78	AT/BELOW 7000		
KZLOV	420424.81N/0824407.44W	Y	FB	TF	119.36	17.30			
RW21L (AER)	421310.86N/0832002.65W	N	-	-	-	-			CG 500 FT PER NM TO 1146
-	421050.18N/0832146.27W	-	-	VI	208.72	2.67			
JOELU	420213.33N/0832116.60W	Y	FB	CF	177.56	8.62			
YIMMY	420046.57N/0831114.47W	Y	FB	TF	100.88	7.62	AT/BELOW 7000		
HWARD	420130.79N/0830553.79W	Y	FB	TF	079.49	4.05	AT/BELOW 9000		
KZLOV	420424.81N/0824407.44W	Y	FB	TF	079.75	16.48			
RW21R (AER)	421341.86N/0832010.11W	N	-	-	-	-			CG 500 FT PER NM TO 1146
-	421134.48N/0832143.96W	-	-	VI	208.72	2.42			
JOELU	420213.33N/0832116.60W	Y	FB	CF	177.92	9.35			
YIMMY	420046.57N/0831114.47W	Y	FB	TF	100.88	7.62	AT/BELOW 7000		
HWARD	420130.79N/0830553.79W	Y	FB	TF	079.49	04.05	AT/BELOW 9000		
KZLOV	420424.81N/0824407.44W	Y	FB	TF	079.75	16.48			
RW22L (AER)	421352.36N/0832059.97W	N	-	-	-	-			CG 500 FT PER NM TO 1146
-	421114.77N/0832256.02W	-	-	VI	208.71	2.99			
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	Y	FB	TF	079.49	4.05	AT/BELOW 9000		
KZLOV	420424.81N/0824407.44W	Y	FB	TF	079.75	16.48			



NFDD NO. 064							04/02/2024		83		
<u>DP NAME</u>							<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
KZLOV							TWO	KZLOV2.WINNZ	ONE	07/14/2022	16 May 2024
<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>		
RW22R (AER)	421334.48N/0832158.61W	N	-	-	-	-			CG 500 FT PER NM TO 1146		
-	421115.04N/0832341.23W	-	-	VI	208.69	2.65					
JOELU	420213.33N/0832116.60W	Y	FB	CF	168.77	9.20					
YIMMY	420046.57N/0831114.47W	Y	FB	TF	100.88	7.62	AT/BELOW 7000				
HWARD	420130.79N/0830553.79W	Y	FB	TF	079.49	4.05	AT/BELOW 9000				
KZLOV	420424.81N/0824407.44W	Y	FB	TF	079.75	16.48					
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	-	AT/ABOVE 1220		CG 500 FT PER NM TO 1220		
-	-	-	-	VM	294.00	-					
RW09 (AER)	421438.22N/0833235.98W	N	-	-	-	-					
1220 MSL	-	-	-	VA	088.55	-	AT/ABOVE 1220		CG 500 FT PER NM TO 1220		
-	-	-	-	VM	294.00	-					
RW23 (AER)	421441.34N/0833110.47W	N	-	-	-	-					
-	-	-	-	VM	226.72	-					

QUALITY
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<u>DP NAME</u>		<u>NUMBER</u>		<u>DP COMPUTER CODE</u>		<u>SUPERSEDED NUMBER</u>		<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
KZLOV		TWO		KZLOV2.WINNZ		ONE		07/14/2022	16 May 2024
<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	-			CG 209 FT PER NM TO 1000
KZLOV	420424.81N/0824407.44W	Y	-	IF	-	-			
WINNZ	415526.66N/0823429.63W	Y	FB	TF	141.26	11.49			