# 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

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		ACTUAL EFFECTIVE DATE 16 May 2024							<u>1E</u>	
*** See page 7 for details. ***  DP ROUTE DESCRIPTION: DETROIT METROPOLITAN WAYNE COUNTY (KDTW):	DP ROU	FDD 064.	oublished in N				$\boxtimes$	DN:	TE DESCRIPTION	DP ROU

TAKEOFF RWY 3L: CLIMB ON HEADING 035.71 TO 1146. THEN DIRECT TO CROSS DCATS AT OR BELOW 7000. THEN ON TRACK 033.72 TO CROSS NILSN AT OR BELOW 11000. THEN ON TRACK 042.53 TO FLOKA, THENCE ...

TAKEOFF RWY 3R: CLIMB ON HEADING 035.71 TO 1146, THEN DIRECT BURPZ, THEN ON TRACK 034.39 TO CROSS DCATS AT OR BELOW 7000, THEN ON TRACK 033.72 TO CROSS NILSN AT OR BELOW 11000. THEN ON TRACK 042.53 TO FLOKA. THENCE...

TAKEOFF RWY 4L: CLIMB ON HEADING 035.68 TO 1146, THEN DIRECT MINDY, THEN ON TRACK 037.88 TO CROSS KKELL AT OR BELOW 7000, THEN ON TRACK 038.82 TO CROSS NILSN AT OR BELOW 11000. THEN ON TRACK 042.53 TO FLOKA. THENCE...

TAKEOFF RWY 4R: CLIMB ON HEADING 035.70 TO 1146, THEN DIRECT TO CROSS KKELL AT OR BELOW 7000, THEN ON TRACK 038.82 TO CROSS NILSN AT OR BELOW 11000, THEN ON TRACK 042.53 TO FLOKA, THENCE...

TAKEOFF RWY 21L: CLIMB ON HEADING 215.72 TO INTERCEPT COURSE 172.93 TO CROSS WINRS AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS, THEN ON TRACK 093.68 TO CROSS USSIE AT OR ABOVE 4000. THEN ON TRACK 083,76 TO CROSS SUURF AT OR BELOW 7000. THEN ON TRACK 036.34 TO TUURF, THEN ON TRACK 019.05 TO FLOKA, THENCE...

TAKEOFF RWY 21R: CLIMB ON HEADING 215.72 TO INTERCEPT COURSE 174.91 TO CROSS WINRS AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS. THEN ON TRACK 093.68 TO CROSS USSIE AT OR ABOVE 4000, THEN ON TRACK 083.76 TO CROSS SUURF AT OR BELOW 7000, THEN ON TRACK 036.34 TO TUURF, THEN ON TRACK 019.05 TO FLOKA, 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 026.15 TO FRBRD. THEN ON TRACK 048.58 TO DINGL. THEN ON TRACK 063.33 TO FLOKA. 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 026.15 TO FRBRD. THEN ON TRACK 048.58 TO DINGL. THEN ON TRACK 063.33 TO FLOKA. THENCE...

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

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

...ON TRACK 049.05 TO ZETTR. THEN ON (TRANSITION), MAINTAIN 17000, 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 FLOKA. 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 FLOKA. THENCE...

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

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

...ON TRACK 049.05 TO ZETTR. THEN ON (TRANSITION). MAINTAIN ATC ASSIGNED ALTITUDE. 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 FLOKA, THEN ON TRACK 049.05 TO ZETTR, THEN ON (TRANSITION). MAINTAIN ATC ASSIGNED ALTITUDE, 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 TO 1800 THEN AS ASSIGNED BY ATC, THENCE...

...FOR RADAR VECTORS TO FLOKA, THEN ON TRACK 049.05 TO ZETTR, THEN ON (TRANSITION). MAINTAIN ATC ASSIGNED ALTITUDE, 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 FLOKA, THEN ON TRACK 049.05 TO ZETTR, THEN ON (TRANSITION). MAINTAIN ATC ASSIGNED ALTITUDE, 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 FLOKA, THEN ON TRACK 049.05 TO ZETTR, THEN ON (TRANSITION). MAINTAIN ATC ASSIGNED ALTITUDE, 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 FLOKA, THEN ON TRACK 049.05 TO ZETTR, THEN ON (TRANSITION), MAINTAIN ATC ASSIGNED ALTITUDE, 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 FLOKA, THEN ON TRACK 049.05 TO ZETTR, THEN ON (TRANSITION), MAINTAIN ATC ASSIGNED ALTITUDE, 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 FLOKA, THEN ON TRACK 049.05 TO ZETTR, THEN ON (TRANSITION), MAINTAIN ATC ASSIGNED ALTITUDE, 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...

...FOR RADAR VECTORS TO FLOKA, THEN ON TRACK 049.05 TO ZETTR, THEN ON (TRANSITION). MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

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### 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	<u>Crossing</u> <u>Altitude/fixes</u>
DUTEL	ZETTR4.DUTEL	ZETTR	ZETTR KARIT TRACK (		53.98	12000	2300	
		KARIT	DUTEL	TRACK 039.60	67.40	12000	2300	
ETBOX	ZETTR4.ETBOX	ZETTR	KARIT	TRACK 034.08	53.98	12000	2300	
		KARIT	ETBOX	TRACK 067.32	99.53	16000	3000	
KELTI	ZETTR4.KELTI	ZETTR	TANKO	TRACK 073.68	15.59	10000	2100	
		TANKO	KELTI	TRACK 090.02	152.32	10000	2800	
SIKBO	ZETTR4.SIKBO	ZETTR	TANKO	TRACK 073.68	15.59	10000	2100	
		TANKO	SIKBO	TRACK 080.14	138.11	10000	3200	
TANKO	ZETTR4.TANKO	ZETTR	TANKO	TRACK 073.68	15.59	10000	2100	

# **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: TANKO TRANSITION: FOR USE BY CYYZ 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):** 

ONALITY 8 CHECKE

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 (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.

<u>DETROIT METRO WAYNE COUNTY</u> - CHART: TOP ALTITUDE: 17000. **ALL OTHER AIRPORTS - CHART:** TOP ALTITUDE: ASSIGNED BY ATC.

CHART SPEED ICON MAXIMUM 230 KIAS AT WINRS.

### **AIRPORTS SERVED:**

AIRPORT ID	<u>CITY</u>	<u>STATE</u>
KDTW	DETROIT	MI
KYIP	DETROIT	MI
KARB	ANN ARBOR	MI
KDET	DETROIT	MI
KTTF	MONROE	MI
KONZ	DETROIT/GROSSE ILE	MI
KOZW	HOWELL	MI
KPTK	PONTIAC	MI
KVLL	TROY	MI
КМТС	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 MINIMUM CROSSING ALTITUDE AT IF FOR RADAR VECTORS.
- 3. WAIVER ON FILE: AFS-420 MEMORANDUM "WAIVER TO FAA ORDER 8260.58C PARAGRAPH 1-2-5.C.(3), MAXIMUM BANK ANGLE" DATED 01/31/2023 16 DEGREE BANK ANGLE APPLIED AT ZETTR; 16 DEGREE BANK ANGLE APPLIED AT TANKO; REQUIRED FOR KDTW, KYIP, KARB, KONZ, KOZW, KTTF.
- 4. 45 DEGREE TURN APPLIED AT FLOKA.
- 5. 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).
- 6. KDTW CHART NOTE: SEE ADDITIONAL REQUIREMENTS ON AAUP.
- 7. KDTW RWY 3L, 3R, 4L, 4R, 21L, 21R, 22L, 22R DEPARTURES EARLY TURN AND SHORTENED ICA REQUIRED DUE TO SIMULTANEOUS DEPARTURES.
- 8. KYIP RWY 5, 9 DEPARTURES EARLY TURN AND SHORTENED ICA REQUIRED DUE TO KDTW AIR TRAFFIC FLOW.
- 9. MEA BASED ON LOWEST DME/DME COVERAGE.



<u>DP NAME</u> ZETTR			<u>NUMBER</u> FOUR	<u>DP COMPUTER CODE</u> ZETTR4.ZETTR	SUPERSEDED NUMBER THREE	<b>DATED</b> 12/5/2019	ACTUAL EFFECTIVE DATE  16 May 2024
FLIGHT INSPECTED BY SCOTT WIEBE	Digitally signed by  CASIMIR L TABAKA	SIGNATURE			OFFICE FPO	<b>DATE</b> 03/07/2024	
DEVELOPED BY APRIL SARMENTO	Mar 15, 2024	SIGNATURE		Digitally signed by  APRIL T SARMENTO  Jan 24, 2024	OFFICE AJV-A432	<b>DATE</b> 11/15/2023	
APPROVED BY CASIMIR TABAKA			Digitally signed	•	OFFICE AJV-A432	DATE	<u>TITLE</u> MANAGER
REQUIRED EFFECTIVE DA	ATE		Jan 26, 2024	ļ.			

# COORDINATED WITH:

ROUTINE

A4A ALPA ADPA ADPA APA HAI NBAA OTHER: ZOB, DTW APP CON, AMGR(S), NAVCANADA (AIMDAT@NAVCANADA.CA)

#### **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 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.
- 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 FLOKA MINIMUM CROSSING ALTITUDE AND CHANGED VERBIAGE FROM "TO CROSS FLOKA AT OR ABOVE 4000" TO "TO FLOKA" 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, REMOVED ALL OF THE "CROSS ZETTR AT OR BELOW 17,000" AND CHANGED TO READ "TO ZETTR" REMOVED PER ATC/NO LONGER REQUIRED.
- 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" 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 "CLIMB ON HEADING 275.72 TO 1146, THEN ON HEADING 275.71 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 053.71 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; 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; 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", 8

MOVED "FOR RADAR VECTORS" FROM THE INDIVIDUAL RUNWAY DESCRIPTIONS TO THE SHARED ROUTE DESCRIPTIONS - UPDATED VERBIAGE IAW 8260.46. APPENDIX E.

- 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. MOVED 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" NEW PBN DOCUMENTATION FORMAT IAW 8260.46J, 2-1-1.F.(6).(C).1.
- 18. ADDITIONAL FLIGHT DATA: ADDED "CHART SPEED ICON MAXIMUM 230 KIAS AT WINRS" IAW 8260.46J, 2-1-1.E.(4).(B).
- 19. MOVED "NOTE: RADAR REQUIRED" FROM PROCEDURAL DATA NOTES TO EQUIPMENT REQUIREMENT NOTES AND DELETED "NOTE: " NEW DOCUMENTATION FORMAT.
- 20. PROCEDURAL DATA NOTES, DELETED "NOTE: KDTW/KYIP DEPARTURES: IF UNABLE TO ACCEPT 500 FT PER NM CLIMB RATE, ADVISE CLEARANCE DELIVERY ON INITIAL CONTACT" ATC REQUEST.
- 21. TAKEOFF MINIMUMS, CHANGED ALL CLIMB GRADIENT FORMATS FROM "FT PER NM" TO "FT/NM" NEW FORMAT.
- 22. TAKEOFF MINIMUMS, CHANGED KDTW RWY 27L AND 27R FROM "500 FT PER NM TO 1146" TO "STANDARD" EARLY TURN AND LNAV ENGAGEMENT CG NOT REQUIRED; LOWERED TO OBSTACLE-BASED CG.
- 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 CG NOT REQUIRED; LOWERED TO OBSTACLE-BASED CG.
- 24. TAKEOFF MINIMUMS, KTTF, ADDED "RWY 3, 21:" LISTED RUNWAYS AUTHORIZED STANDARD TAKEOFF MINIMUMS.
- 25. TAKEOFF MINIMUMS, KOZW, ADDED "RWY 13, 31:" LISTED RUNWAYS AUTHORIZED STANDARD TAKEOFF MINIMUMS.
- 26. TAKEOFF MINIMUMS, CHANGED KMTC RWY 19 CLIMB GRADIENT FROM 234 FT PER NM TO 235 FT/NM UPDATED CALCULATIONS/CONTROLLING OBSTACLE SAME CHANGED FROM 5D TO 4D BY OBSTACLE DATA TEAM.
- 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, ADDED VERBIAGE TO RWY 33 "OBSTACLES MANDATING ODP ROUTE DEVELOPMENT" CG IS STANDARD/OBSTACLE IS REASON FOR EXTENDED ICA/IAW FAAO 8260.46J APPENDIX E.SECTION 1.2.J.(3).
- 29. CONTROLLING OBSTACLES, KONZ, DELETED COMMA BETWEEN "STACK" AND LAT/LONG FIXED TYPO.
- 30. CONTROLLING OBSTACLES, KVLL RWY 10, DELETED CONTROLLING OBSTACLE CG IS STANDARD.
- 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 CG AND CGTA 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/IAW FAAO 8260.46J APPENDIX E.SECTION 1.2.J.(3).
- 33. 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 "KDTW CHART: TOP ALTITUDE 17000" TO "DETROIT METRO WAYNE COUNTY CHART: TOP ALTITUDE: 17000" AND FROM "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, MOVED TO REMARKS AND CHANGED FROM "KDTW CHART: SEE ADDITIONAL REQUIREMENTS IN RNAV DEPARTURE AAUP" TO "KDTW CHART NOTE: SEE ADDITIONAL REQUIREMENTS ON AAUP" IAW 8260,46J. APPENDIX E. 2.Q.(3).
- 37. ADDITIONAL FLIGHT DATA: ADDED "CHART SPEED ICON MAXIMUM 230 KIAS AT WINRS" IAW 8260.46J, 2-1-1.E.(4).(B).
- 38. AIRPORTS SERVED, DELETED AIRPORT NAMES NAMES NO LONGER REQUIRED.
- 39. COMMUNICATIONS, ADDED "CHART:" AND DELETED "DEP CON" VERBIAGE REQUIRED AND DEP CON CHARTED AUTOMATICALLY IAW 8260,46J APPENDIX E. SECTION 1.2.O.
- 40. REMARKS, ADDED "100 FT MAXIMUM VEGETATION HEIGHT UTILIZED PER FPT CHECKLIST" INFORMATION ONLY IAW IAW 8260.46J, APPENDIX E. 2.Q.
- 41. REMARKS, ADDED "WAIVER ON FILE: TO NOT CHART MINIMUM CROSSING ALTITUDE AT IF FOR RADAR VECTORS" INFORMATION ONLY IAW IAW 8260.46J, APPENDIX E, 2.Q.
- 42. REMARKS, ADDED "WAIVER ON FILE: AFS-420 MEMORANDUM "WAIVER TO FAA ORDER 8260.58C PARAGRAPH 1-2-5.C.(3), MAXIMUM BANK ANGLE" DATED 01/31/2023 16 DEGREE BANK ANGLE APPLIED AT ZETTR; AND 16 DEGREE BANK ANGLE APPLIED AT TANKO; REQUIRED FOR KDTW, KYIP, KARB, KONZ, KOZW, KTTF" INFORMATION ONLY IAW IAW 8260.46J, APPENDIX E, 2.Q.
- 44. REMARKS, ADDED "45 DEGREE TURN APPLIED AT FLOKA" INFORMATION ONLY IAW IAW 8260.46J, APPENDIX E, 2.Q.
- 44. REMARKS, ADDED "KDTW CHART NOTE: SEE ADDITIONAL REQUIREMENTS ON AAUP" AND REMOVED FROM ADDITIONAL FLIGHT DATA IAW 8260.46J, APPENDIX E, 2.Q.(3).
- 45. REMARKS, ADDED "KDTW RWY 3L, 3R, 4L, 4R, 21L, 21R, 22L, 22R DEPARTURES EARLY TURN AND SHORTENED ICA REQUIRED DUE TO SIMULTANEOUS DEPARTURES" INFORMATION ONLY IAW 8260.46J. APPENDIX E. 2.Q.
- 46. REMARKS, ADDED "KYIP RWY 5, 9 DEPARTURES EARLY TURN AND SHORTENED ICA REQUIRED DUE TO KDTW AIR TRAFFIC FLOW" INFORMATION ONLY IAW IAW 8260.46J, APPENDIX E, 2.Q.
- 47. REMARKS, ADDED "MEA BASED ON LOWEST DME/DME COVERAGE" INFORMATION ONLY IAW 8260.46J, APPENDIX E. 2.Q.
- 48. REMARKS: DELETED "MOCA(S) NOT CHARTED PER ATC REQUEST TO REDUCE CHART CLUTTER" INFORMATION ONLY IAW IAW 8260.46J, APPENDIX E, 2.Q.

### 04/09/2024: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 01/26/2024.

DP ROUTE DESCRIPTION: GROSSE ILE MUNI (KONZ) - DELETE THE DUPLICATION "THEN ON TRAC 049.05 TO ZETTER" FROM INSTRUCTIONS.

0.VAL17, 16 Cyrcx& NFDD NO. 072 04/12/2024 43

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

DP NAME						NUMBER	DP COMPUTER CODE	SUPERSEDED N	IUMBER DATED	ACTUAL EFFECTIVE DATE
ZETTR						FOUR	ZETTR4.ZETTR	THREE	12/5/2019	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	-	-	-	-				
1146 MSL		-	-	VA	028.71		AT/ABOVE 1146		CG 500 FT PER NM	ГО 1146
DCATS	422712.00N/0831009.17W	Υ	FB	DF			AT/BELOW 7000			
NILSN	423328.65N/0830552.66W	Υ	FB	TF	026.72	7.03	AT/BELOW 11000			
FLOKA	424727.13N/0825218.92W	Y	FB	TF	035.53	17.18				
RW03R (AER)	421144.21N/0832106.49W	N	-	-	-	-				
1146 MSL		-	-	VA	028.71		AT/ABOVE 1146		CG 500 FT PER NM	ΓO 1146
BURPZ	421517.69N/0831829.10W	Υ	FB	DF						
DCATS	422712.00N/0831009.17W	Υ	FB	TF	027.39	13.41	AT/BELOW 7000			
NILSN	423328.65N/0830552.66W	Υ	FB	TF	026.72	7.03	AT/BELOW 11000			
FLOKA	424727.13N/0825218.92W	Y	FB	TF	035.53	17.18				
RW04L (AER)	421207.82N/0832302.40W	N	_	-	_					
1146 MSL		-	-	VA	028.68		AT/ABOVE 1146		CG 500 FT PER NM	
MINDY	421559.47N/0832011.78W	Υ	FB	DF						
KKELL	422730.48N/0831053.34W	Υ	FB	TF	030.88	13.42	AT/BELOW 7000			
NILSN	423328.65N/0830552.66W	Υ	FB	TF	031.82	7.02	AT/BELOW 11000			
FLOKA	424727.13N/0825218.92W	Υ	FB	TF	035.53	17.18				

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DP NAME						NUMBER	DP COMPUTER C		SEDED NUMBER	DATED	ACTUAL EFFECTIVE DATE
ZETTR						FOUR	ZETTR4.ZETT	R 	THREE	12/5/2019	16 May 2024
FIX/NAVAID	<u>LAT/LONG</u>	<u>C</u>	FO/FB	LEG TYPE	<u>TC</u>	DIST (NM)	ALTITUDE	SPEED		REMARKS	
RW04R (AER)*	421212.78N/0832213.32W*	N	-	-	-	-				*DISPL THLD (509	FT)
1146 MSL		-	-	VA	028.70		AT/ABOVE 1146			CG 500 FT PER NM T	O 1146
KKELL	422730.48N/0831053.34W	Υ	FB	DF			AT/BELOW 7000				
NILSN	423328.65N/0830552.66W	Υ	FB	TF	031.82	7.02	AT/BELOW 11000				
FLOKA	424727.13N/0825218.92W	Υ	FB	TF	035.53	17.18					
RW21L (AER)	421310.86N/0832002.65W	N	-	-	-	-					
-	421050.18N/0832146.27W	-	-	VI	208.72	2.67				CG 500 FT PER NM T	O 1146
WINRS	420542.02N/0832002.39W	Υ	FB	CF	165.93	5.29	AT/ABOVE 2500	AT/BELOW 230K			
USSIE	420556.34N/0831427.74W	Υ	FB	TF	086.68	4.16	AT/ABOVE 4000				
SUURF	420657.51N/0830837.76W	Υ	FB	TF	076.76	4.46	AT/BELOW 7000				
TUURF	421644.40N/0830113.28W	Υ	FB	TF	029.34	11.22					
FLOKA	424727.13N/0825218.92W	Υ	FB	TF	012.05	31.40					
RW21R (AER)	421341.86N/0832010.11W	N	-	-	-	-					
-	421134.48N/0832143.96W	-	-	VI	208.72	2.42				CG 500 FT PER NM T	O 1146
WINRS	420542.02N/0832002.39W	Υ	FB	CF	167.91	6.01	AT/ABOVE 2500	AT/BELOW 230K			
USSIE	420556.34N/0831427.74W	Υ	FB	TF	086.68	4.16	AT/ABOVE 4000				
SUURF	420657.51N/0830837.76W	Υ	FB	TF	076.76	4.46	AT/BELOW 7000				
TUURF	421644.40N/0830113.28W	Υ	FB	TF	029.34	11.22					
FLOKA	424727.13N/0825218.92W	Υ	FB	TF	012.05	31.40					

<b>DP NAME</b> ZETTR						NUMBER FOUR	DP COMPUTER CODE ZETTR4.ZETTR	SUPERSEDED NUMBER THREE	<b>DATED</b> 12/5/2019	ACTUAL EFFECTIVE DATE 16 May 2024
FIX/NAVAID	<u>LAT/LONG</u>	<u>c</u>	FO/FB	LEG TYPE	<u>TC</u>	DIST (NM)	<u>ALTITUDE</u>	SPEED	REMARKS	
RW22L (AER)	421352.36N/0832059.97W	N	-	-	-	-				
-	421114.77N/0832256.02W	-	-	VI	208.71	2.99			CG 500 FT PER NM T	O 1146
FORDZ	420747.33N/0833240.34W	Υ	FB	CF	244.44	8.03	AT/ABOVE 4000			
CORVE	421315.71N/0834224.97W	Υ	FB	TF	307.11	9.08	AT/BELOW 7000			
FRBRD	421824.14N/0834000.66W	Υ	FB	TF	019.15	5.44				
DINGL	423219.38N/0832317.31W	Υ	FB	TF	041.58	18.63				
FLOKA	424727.13N/0825218.92W	Υ	FB	TF	056.33	27.40				
RW22R (AER)	421334.48N/0832158.61W	N	-	-	-	-				
-	421115.08N/0832341.19W	-	-	VI	208.69	2.65			CG 500 FT PER NM T	O 1146
FORDZ	420747.33N/0833240.34W	Υ	FB	CF	242.57	7.53	AT/ABOVE 4000			
CORVE	421315.71N/0834224.97W	Υ	FB	TF	307.11	09.08	AT/BELOW 7000			
FRBRD	421824.14N/0834000.66W	Υ	FB	TF	019.15	05.44				
DINGL	423219.38N/0832317.31W	Υ	FB	TF	041.58	18.63				
FLOKA	424727.13N/0825218.92W	Υ	FB	TF	056.33	27.40				
RW27L (AER)	421158.34N/0831949.33W	N	-	-	-	-				
-	-	-	-	VM	268.73	-				
RW27R (AER)	421303.02N/0831951.71W	N	-	-	-	-				
-	-		-	VM	268.72	-				

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INITI	DD NO. 072						04/12/2024			40
<b>DP NAME</b> ZETTR						NUMBER FOUR	DP COMPUTER COD ZETTR4.ZETTR	E SUPERSEDED NUMBER THREE	<b>DATED</b> 12/5/2019	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	
	WILLOW RUN (KYIP)									
RW05 (AER)	421350.25N/0833223.46W	N	-	-	-	-				
1220 MSL	-	-	-	VA	046.70	-	AT/ABOVE 1220		CG 500 FT PER NM T	O 1220
-	-	-	-	VM	294.00	-				
RW09 (AER)	421438.22N/0833235.98W	N	-	-	-	-				
1220 MSL	-	-	-	VA	088.55	-	AT/ABOVE 1220		CG 500 FT PER NM T	O 1220
-	-	-	-	VM	294.00					
RW23 (AER)	421441.34N/0833110.47W	N	-	-	-	-				
-	-	-	-	VM	226.72	-				_
RW27 (AER)	421439.47N/0833129.51W	N	-	-	-	-				
-	-	-	-	VM	268.56	-			CG 209 FT PER NM T	O 1000
FLOKA	424727.13N/0825218.92W	Y	-	IF	-	-				
ZETTR	425523.59N/0824233.71W	Y	FB	TF	042.05	10.70				
ZETTR	425523.59N/0824233.71W	Y	-	IF	-	-			ZETTR4.DUTE	L
KARIT	434323.00N/0820840.00W	Υ	FB	TF	027.08	53.98				
DUTEL	443959.00N/0811747.00W	Y	FB	TF	032.60	67.40				QVAL/72
										CHECKED S
										JECK A

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<b>DP NAME</b> ZETTR						NUMBER FOUR	DP COMPUTER CODE ZETTR4.ZETTR	<u>SUPERSEDED NUMBER</u> THREE	<b>DATED</b> 12/5/2019	ACTUAL EFFECTIVE DATE 16 May 2024
FIX/NAVAID	LAT/LONG	<u>C</u>	FO/FB	LEG TYPE	TC	DIST (NM)	<u>ALTITUDE</u>	SPEED	REMARKS	
ZETTR	425523.59N/0824233.71W	Υ	-	IF	-	-			ZETTR4.ETBO	<
KARIT	434323.00N/0820840.00W	Υ	FB	TF	027.08	53.98				
ETBOX	443137.00N/0800747.00W	Y	FB	TF	060.32	99.53				
ZETTR	425523.59N/0824233.71W	Y	-	IF	-	-			ZETTR4.KELTI	
TANKO	430132.48N/0822302.38W	Υ	FB	TF	066.68	15.59				
KELTI	431657.00N/0785600.00W	Y	FB	TF	083.02	152.32				
ZETTR	425523.59N/0824233.71W	Y	-	IF	-	-			ZETTR4.SIKBO	)
TANKO	430132.48N/0822302.38W	Υ	FB	TF	066.68	15.59				
SIKBO	433913.00N/0792057.00W	Y	FB	TF	073.14	138.11				
ZETTR	425523.59N/0824233.71W	Y	-	IF	-	-			ZETTR4.TANKO	)

430132.48N/0822302.38W

Y FB TF 066.68

15.59

TANKO