

**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.  
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<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
MIGGY	TWO	MIGGY2.MIGGY	ONE	07/19/2018	15 AUG 2019
<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 METROPOLITAN 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 CROSS JAXII AT OR ABOVE 4000, 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 CROSS JAXII AT OR ABOVE 4000, 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 CROSS JAXII AT OR ABOVE 4000, 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 CROSS JAXII AT OR ABOVE 4000, 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 TO 1146, THEN ON HEADING 275.71 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

**TAKEOFF RWY 27R:** CLIMB ON HEADING 275.72 TO 1146, THEN ON HEADING 275.70 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, 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 5L:** CLIMB ON HEADING 053.71 TO 1220, THEN LEFT TURN HEADING 300.00 FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

**TAKEOFF RWY 5R:** CLIMB ON HEADING 053.70 TO 1220, THEN LEFT TURN HEADING 300.00 FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

**TAKEOFF RWY 9:** CLIMB ON HEADING 095.55 TO 1220, THEN LEFT TURN HEADING 300.00 FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

**TAKEOFF RWY 23L:** CLIMB ON HEADING 233.72 TO 1220, THEN ON HEADING 233.70 FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

**TAKEOFF RWY 23R:** CLIMB ON HEADING 233.73 TO 1220, THEN ON HEADING 233.72 FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

**TAKEOFF RWY 27:** CLIMB ON HEADING 275.57 TO 1220, THEN ON HEADING 275.56 FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

...ON TRACK 322.83 TO MIGGY, 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 FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

**TAKEOFF RWY 24:** CLIMB ON HEADING 239.53 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

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



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

**TAKEOFF RWY 7:** CLIMB ON HEADING 068.30 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 15:** CLIMB ON HEADING 148.32 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 25:** CLIMB ON HEADING 248.31 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 33:** CLIMB ON HEADING 328.33 TO 1800 THEN AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

...ON TRACK 322.83 TO MIGGY, 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 FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 21:** CLIMB ON HEADING 207.50 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

...ON TRACK 322.83 TO MIGGY, 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 FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 17:** CLIMB ON HEADING 173.78 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 22:** CLIMB ON HEADING 217.34 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 35:** CLIMB ON HEADING 005.78 TO 1800 THEN AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

...ON TRACK 322.83 TO MIGGY, 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 FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 31:** CLIMB ON HEADING 312.36 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

...ON TRACK 322.83 TO MIGGY, 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 FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 9R:** CLIMB ON HEADING 094.63 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 27L:** CLIMB ON HEADING 274.65 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 27R:** CLIMB ON HEADING 274.68 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

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

**OAKLAND/TROY (KVLL):**

**TAKEOFF RWY 9:** CLIMB ON HEADING 095.71 TO 1400 THEN AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...  
**TAKEOFF RWY 27:** CLIMB ON HEADING 275.72 TO 1500 THEN AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

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



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**SELFRIDGE ANGB (KMTG):**

**TAKEOFF RWY 1:** CLIMB ON HEADING 007.47 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

**TAKEOFF RWY 19:** CLIMB ON HEADING 187.47 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

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

**WINDSOR (CYQG):**

**TAKEOFF RWY 7:** CLIMB ON HEADING 069.55 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

**TAKEOFF RWY 12:** CLIMB ON HEADING 122.61 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

**TAKEOFF RWY 25:** CLIMB ON HEADING 249.56 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

**TAKEOFF RWY 30:** CLIMB ON HEADING 302.60 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS JAXII AT OR ABOVE 4000, THENCE...

...ON TRACK 322.83 TO MIGGY, THEN ON (TRANSITION). MAINTAIN ATC ASSIGNED ALTITUDE, 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	MIGGY2.GETCH	MIGGY	MONEE	TRACK 322.63	20.33	10000		
		MONEE	GETCH	TRACK 274.00	69.76	10000		
HUBBY	MIGGY2.HUBBY	MIGGY	MONEE	TRACK 322.63	20.33	10000		
		MONEE	HUBBY	TRACK 331.51	33.92	10000		
SLLAP	MIGGY2.SLLAP	MIGGY	MONEE	TRACK 322.63	20.33	10000		
		MONEE	SLLAP	TRACK 308.34	24.29	10000		

**PROCEDURAL DATA NOTES:**

**NOTE:** RNAV 1

**NOTE:** RADAR REQUIRED

**NOTE:** DME/DME/IRU OR GPS REQUIRED.

**NOTE:** TURBOJET 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.

**NOTE:** KDTW/KYIP DEPARTURES: IF UNABLE TO ACCEPT 500 FT PER NM CLIMB RATE, ADVISE CLEARANCE DELIVERY ON INITIAL CONTACT.

**TAKEOFF MINIMUMS:**

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

**RWY 3L, 3R, 4L, 4R, 21L, 21R, 22L, 22R, 27L, 27R:** STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1146.



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**WILLOW RUN (KYIP):**

**RWY 5L, 5R, 9, 23L, 23R, 27:** STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1220.

**ANN ARBOR MUNI (KARB):**

**RWY 6, 24:** STANDARD.

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

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

**RWY 7, 15, 33:** STANDARD.

**RWY 25:** STANDARD WITH MINIMUM CLIMB OF 210 FEET PER NM TO 1000.

**CUSTER (KTTF):**

STANDARD.

**GROSSE ILE MUNI (KONZ):**

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

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

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

STANDARD.

**OAKLAND COUNTY INTL (KPTK):**

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

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

**OAKLAND/TROY (KVLL):**

**RWY 9:** STANDARD.

**RWY 27:** STANDARD WITH MINIMUM CLIMB OF 476 FT PER NM TO 1500.

**SELFRIDGE ANGB (KMTX):**

**RWY 1:** STANDARD.

**RWY 19:** STANDARD WITH MINIMUM CLIMB OF 234 FT PER NM TO 1500.

**WINDSOR (CYQG):**

**RWY 7, 12, 25:** STANDARD.

**RWY 30:** STANDARD WITH MINIMUM CLIMB OF 210 FT PER NM TO 1300.

**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 421431.78N/0833411.47W

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

**RWY 25:** 871 FT MSL STACK 422307.00N/0830235.00W

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



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**GROSSE ILE MUNI (KONZ):****RWY 35:** 1146 FT MSL STACK, 420718.61N/0831050.62W**OAKLAND/TROY (KVLL):****RWY 27:** 940 FT MSL BLDG 423234.20N/0831235.50W (CG), 1749 FT MSL TOWER 422858.00N/0831219.00W (CGTA)**SELFRIDGE ANGB (KMTG):****RWY 19:** 1246 FT MSL TOWER 423315.00N/0825315.00W**LOST COMMUNICATIONS PROCEDURES:****ADDITIONAL FLIGHT DATA:**

CHART: TOP ALTITUDE: KDTW 17000.

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

REFERENCE MAG VAR; KDTW 7W/2020

DME/DME ASSESSMENT: SAT (RNP 2.0)

**KDTW CHART:** SEE ADDITIONAL REQUIREMENTS IN RNAV DEPARTURE AAUP.**AIRPORTS SERVED:**

<u>AIRPORT NAME</u>	<u>CITY</u>	<u>STATE</u>
DETROIT METROPOLITAN WAYNE COUNTY (KDTW)	DETROIT	MI
WILLOW RUN (KYIP)	DETROIT	MI
ANN ARBOR MUNI (KARB)	ANN ARBOR	MI
COLEMAN A YOUNG MUNI (KDET)	DETROIT	MI
CUSTER (KTTF)	MONROE	MI
GROSSE ILE MUNI (KONZ)	DETROIT/GROSSE ILE	MI
LIVINGSTON COUNTY SPENCER J HARDY (KOZW)	HOWELL	MI
OAKLAND COUNTY INTL (KPTK)	PONTIAC	MI
OAKLAND/TROY (KVLL)	TROY	MI
SELFRIDGE ANGB (KMTG)	MOUNT CLEMENS	MI
WINDSOR (CYQG)	WINDSOR, ONTARIO, CANADA	

QUALITY  
3  
CHECKED

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**COMMUNICATIONS:**

ATIS, AWOS/ASOS, CLNC DEL, GND CON, TWR, CTAF, DEP CON, CPDLC

**FIXES AND/OR NAVAIDS:****REMARKS:**

MOCA(S) NOT CHARTED PER ATC REQUEST TO REDUCE CHART CLUTTER.

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:**      *Digitally signed by*  
BRYAN VEIT      **DONALD H LANIER**  
Jun 11, 2019

**OFFICE SYMBOL:**      **DATE:**  
FICO      6/5/19

**DEVELOPED BY:**      *Digitally signed by*  
CHRISTINE BAYSE      **DONALD H LANIER**  
Jun 11, 2019

**OFFICE SYMBOL:**      **DATE:**  
AJV-A432      03/12/2019

**APPROVED BY:**      *Digitally signed by*  
LONNIE EVERHART      **DONALD H LANIER**  
Jun 11, 2019

**OFFICE SYMBOL:**      **DATE:**  
AJV-A430

**REQUIRED EFFECTIVE DATE:**

ROUTINE

**COORDINATED WITH:**

<b>A4A</b>	<b>ALPA</b>	<b>AOPA</b>	<b>APA</b>	<b>HAI</b>	<b>NBAA</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**OTHER:**

ZOB, DTW APP CON, AMGR

**CHANGES - REASONS:**

1. CHANGED TOP ALTITUDE FOR KDTW TO 17000.- INDUSTRY REQUEST TO REDUCE CONFUSION.
2. CHANGE DEPARTURE ROUTE DESCRIPTION FOR KDTW FROM "MAINTAIN ATC ASSIGNED ALTITUDE" TO "MAINTAIN 17000 OR AS ASSIGNED BY ATC".- INDUSTRY REQUEST TO REDUCE CONFUSION.
3. MOVE FORDZ 1 NM SW. - DECONFLICT SID FROM OTHER PROCEDURES.
4. ADD AT OR ABOVE 4000 RESTRICTION AT FORDZ. - DECONFLICT SID FROM OTHER PROCEDURES.
5. ADD AT OR ABOVE 15000 RESTRICTION AT VESSA. - DECONFLICT SID FROM OTHER PROCEDURES.
6. MOVE LLOUU 1.64 NM NORTH. - DECONFLICT SID FROM OTHER PROCEDURES.
7. ADD AT OR BELOW 7000 RESTRICTION AT LLOUU. - DECONFLICT SID FROM OTHER PROCEDURES.
8. MOVE THEJO 3.7 NM NW. - DECONFLICT SID FROM OTHER PROCEDURES.
9. ADD AT OR BELOW 11000 RESTRICTION AT THEJO. - DECONFLICT SID FROM OTHER PROCEDURES.
10. REMOVE BURPZ, DCATS, AND HOJAR WPS FROM PROCEDURE. - CREATE MORE EFFICIENT ROUTING.
11. ADD CHART NOTE: GETCH TRANSITION: FOR USE BY KMKE AREA ARRIVALS ONLY, OR ASSIGNED BY ATC.

QUALITY  
3  
CHECKED

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12. CHANGE ALL VI LEGS TO MINIMUM ALLOWABLE LENGTH AND CHANGE KDTW RWY 3L AND 3R TO VI-CF LEGS. - REDUCE DRIFT ON INITIAL CLIMBOUT.					
13. ADD CHART NOTE: KDTW/KYIP DEPARTURES: IF UNABLE TO ACCEPT 500 FT PER NM CLIMB RATE, ADVISE CLEARANCE DELIVERY ON INITIAL CONTACT. - ENSURE PILOTS ARE AWARE OF REQUIREMENTS.					
14. ADD KDTW CHART:SEE ADDITIONAL REQUIREMENTS IN RNAV DEPARTURE AAUP. - ENSURE PILOTS ARE AWARE OF REQUIREMENTS.					
15. MOVE MIGGY 1 NM NW. - CORRECT CRITERIA FAILURE.					
16. UPDATE DP ROUTE DESCRIPTION KDTW RWY 3L FROM "CLIMB ON HEADING 035.71 TO 1160, THEN DIRECT DCATS, THEN ON TRACK 036.01 TO HOYAR..." TO "CLIMB HEADING 035.71 TO INTERCEPT COURSE 004.01 TO CROSS LLOUU...". - CHANGED FROM VA-DF TO VI-CF AND REMOVED DCATS AND HOYAR.					
17. UPDATE DP ROUTE DESCRIPTION KDTW RWY 3R FROM "CLIMB ON HEADING 035.71 TO 1160, THEN DIRECT BURPZ, THEN ON TRACK 034.06 TO HOYAR..." TO "CLIMB HEADING 035.70 TO INTERCEPT COURSE 003.77 TO CROSS LLOUU...". - CHANGED FROM VA-DF TO VI-CF AND REMOVED BURPZ AND HOYAR.					
18. UPDATE DP ROUTE DESCRIPTION KDTW RWY 4L INTERCEPT COURSE FROM "007.73 TO LLOUU" TO "009.15 TO CROSS LLOUU". - LLOUU MOVED AND VI-CF MINIMUM.					
19. UPDATE DP ROUTE DESCRIPTION KDTW RWY 4R INTERCEPT COURSE FROM "004.38 TO LLOUU" TO "006.37 TO CROSS LLOUU". - LLOUU MOVED AND VI-CF MINIMUM.					
20. UPDATE DP ROUTE DESCRIPTION KDTW RWY 3L, 3R, 4L AND 4R FROM "ON TRACK 316.96 TO THEJO THEN ON TRACK 316.96 TO CROSS JAXII..." TO "ON TRACK 315.15 TO CROSS THEJO AT OR BELOW 11000, THEN ON TRACK 314.22 TO CROSS JAXII...". - LLOUU AND THEJO MOVED.					
21. UPDATE DP ROUTE DESCRIPTION KDTW RWY 21L INTERCEPT COURSE FROM "261.68 TO FORDZ" TO "256.35 TO CROSS FORDZ". - FORDZ MOVED AND VI-CF MINIMUM.					
22. UPDATE DP ROUTE DESCRIPTION KDTW RWY 21R INTERCEPT COURSE FROM "256.05 TO FORDZ" TO "251.99 TO CROSS FORDZ". - FORDZ MOVED AND VI-CF MINIMUM.					
23. UPDATE DP ROUTE DESCRIPTION KDTW RWY 22L INTERCEPT COURSE FROM "256.00 TO FORDZ" TO "251.44 TO CROSS FORDZ". - FORDZ MOVED AND VI-CF MINIMUM.					
24. UPDATE DP ROUTE DESCRIPTION KDTW RWY 22R INTERCEPT COURSE FROM "254.05 TO FORDZ" TO "249.57 TO CROSS FORDZ". - FORDZ MOVED AND VI-CF MINIMUM.					
25. UPDATE DP ROUTE DESCRIPTION KDTW RWY 21L, 21R, 22L AND 22R FROM "...ON TRACK 309.08 TO CROSS CORVE" TO "...ON TRACK 314.11 TO CROSS CORVE". - FORDZ MOVED.					
26. UPDATED DP ROUTE DESCRIPTION KDTW RWY 27L AND 27R FROM "1160" TO "1146". - UPDATED CLIMB GRADIENT TERMINATION ALTITUDE.					
27. UPDATED TAKEOFF MINIMUMS KDTW FROM "RWY 4L, 4R, 21L, 21R, 22L, 22R: STANDARD" AND "RWY 3L, 3R, 27L, 27R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1160" TO "RWY 3L, 3R, 4L, 4R, 21L, 21R, 22L, 22R, 27L, 27R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1146". - ALL RUNWAYS ARE 500 FT PER NM TO 500 FT ABOVE FOR LNAV ENGAGEMENT.					
28. UPDATED RECOMMENDED NAVAID FROM AIR VOR/DME TO ECK TACAN ON 8260-15C. - NAVAID CLOSER TO AIRPORT.					

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**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>EFFECTIVE DATE</u>
MIGGY		TWO		MIGGY2.MIGGY		ONE		07/19/2018	15 AUG 2019
<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 METROPOLITAN WAYNE COUNTY (KDTW)									
RW03L (AER)	421228.21N/0832104.39W	N	-	-	-	-			
-	421436.02N/0831930.16W	-	-	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		RECOMMENDED NAVAID: ECK TACAN
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	AT/ABOVE 4000		
RW03R (AER)	421144.21N/0832106.49W	N	-	-	-	-			
-	421404.99N/0831922.74W	-	-	VI	028.71	2.67			CG 500 FT/NM TO 1146
LLOUU	422938.86N/0832033.56W	Y	FB	CF	356.77	15.58	AT/BELOW 7000		RECOMMENDED NAVAID: ECK TACAN
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	AT/ABOVE 4000		
RW04L (AER)	421207.82N/0832302.40W	N	-	-	-	-			
-	421427.54N/0832119.53W	-	-	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		RECOMMENDED NAVAID: ECK TACAN
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	AT/ABOVE 4000		
RW04R (AER)*	421212.78N/0832213.32W*	N	-	-	-	-			*DISPL THLD (509 FT)
-	421446.08N/0832020.37W	-	-	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		RECOMMENDED NAVAID: ECK TACAN

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

DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
MIGGY							TWO	MIGGY2.MIGGY	ONE	07/19/2018	15 AUG 2019
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
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	AT/ABOVE 4000				
RW21L (AER)	421310.86N/0832002.65W	N	-	-	-	-					
-	421050.18N/0832146.27W	-	-	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	RECOMMENDED NAVAID: ECK TACAN			
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)	421341.85N/0832010.12W	N	-	-	-	-					
-	421134.48N/0832143.96W	-	-	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	RECOMMENDED NAVAID: ECK TACAN			
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)	421352.37N/0832059.97W	N	-	-	-	-					
-	421114.77N/0832256.02W	-	-	VI	208.71	2.99	CG 500 FT/NM TO 1146				
FORDZ	420747.33N/0833240.34W	Y	FB	CF	244.44	8.03	AT/ABOVE 4000	RECOMMENDED NAVAID: ECK TACAN			
CORVE	421315.71N/0834224.97W	Y	FB	TF	307.11	9.08	AT/BELOW 7000				

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

DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
MIGGY							TWO	MIGGY2.MIGGY	ONE	07/19/2018	15 AUG 2019
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
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					
RW22R (AER)	421334.48N/0832158.61W	N	-	-	-	-					
-	421115.08N/0832341.20W	-	-	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	RECOMMENDED NAVAID: ECK TACAN			
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	-	-	-	-					
1146 MSL	-	-	-	VA	268.73	-	CG 500 FT/NM TO 1146				
-	-	-	-	VM	268.71	-					
RW27R (AER)	421303.02N/0831951.72W	N	-	-	-	-					
1146 MSL	-	-	-	VA	268.72	-	CG 500 FT/NM TO 1146				
-	-	-	-	VM	268.70	-					
WILLOW RUN (KYIP)											
RW05L (AER)	421355.86N/0833230.06W	N	-	-	-	-					
1220 MSL	-	-	-	VA	046.71	-	CG 500 FT/NM TO 1220				
-	-	-	-	VM	293.00	-	LEFT TURN				

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

DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
MIGGY							TWO	MIGGY2.MIGGY	ONE	07/19/2018	15 AUG 2019
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED		REMARKS	
RW05R (AER)	421350.25N/0833223.46W	N	-	-	-	-					
1220 MSL	-	-	-	VA	046.70	-			CG 500 FT/NM TO 1220		
-	-	-	-	VM	293.00	-			LEFT TURN		
RW09 (AER)*	421438.37N/0833228.33W*	N	-	-	-	-			*DISPL THLD (576 FT)		
1220 MSL	-	-	-	VA	088.55	-			CG 500 FT/NM TO 1220		
-	-	-	-	VM	293.00	-			LEFT TURN		
RW23L (AER)	421441.34N/0833110.47W	N	-	-	-	-					
1220 MSL	-	-	-	VA	226.72	-			CG 500 FT/NM TO 1220		
-	-	-	-	VM	226.70	-					
RW23R (AER)	421436.47N/0833132.03W	N	-	-	-	-					
1220 MSL	-	-	-	VA	226.73	-			CG 500 FT/NM TO 1220		
-	-	-	-	VM	226.72	-					
RW27 (AER)	421440.03N/0833059.06W	N	-	-	-	-					
1220 MSL	-	-	-	VA	268.57	-			CG 500 FT/NM TO 1220		
-	-	-	-	VM	268.56	-					
JAXII	424701.67N/0835118.37W	Y	-	IF	-	-	AT/ABOVE 4000				
MIGGY	425955.20N/0840823.94W	Y	FB	TF	315.83	18.00					

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

DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
MIGGY							TWO	MIGGY2.MIGGY	ONE	07/19/2018	15 AUG 2019
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
MIGGY	425955.20N/0840823.94W	Y	-	IF	-	-			MIGGY2.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	-	-			MIGGY2.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	-	-			MIGGY2.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					

