

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

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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SUPERSEDED NUMBER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>
PAVYL	TWO	PAVYL2.PAVYL	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 057.40 TO WNNGZ, THEN ON TRACK 119.92 TO CROSS DATSK AT OR BELOW 7000, THEN ON TRACK 122.86 TO CROSS SLVVA AT OR ABOVE 4000, 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 CROSS SLVVA AT OR ABOVE 4000, 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 CROSS SLVVA AT OR ABOVE 4000, 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 CROSS SLVVA AT OR ABOVE 4000, 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 CROSS SLVVA AT OR ABOVE 4000, 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 CROSS SLVVA AT OR ABOVE 4000, 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 CROSS SLVVA AT OR ABOVE 4000, 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 CROSS SLVVA AT OR ABOVE 4000, THENCE...

TAKEOFF RWY 27L: CLIMB ON HEADING 275.73 TO 1146, THEN ON HEADING 275.71 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA 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 SLVVA AT OR ABOVE 4000, 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 5L: CLIMB ON HEADING 053.71 TO 1220, THEN LEFT TURN HEADING 300.00 FOR RADAR VECTORS TO CROSS SLVVA 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 SLVVA 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 SLVVA 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 SLVVA 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 SLVVA 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 SLVVA AT OR ABOVE 4000, THENCE...

...ON TRACK 097.33 TO PAVYL, 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 SLVVA AT OR ABOVE 4000, THENCE...

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

...ON TRACK 097.33 TO PAVYL, 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 SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 15: CLIMB ON HEADING 148.32 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 25: CLIMB ON HEADING 248.31 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 33: CLIMB ON HEADING 328.33 TO 1800 THEN AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...

...ON TRACK 097.33 TO PAVYL, 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 SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 21: CLIMB ON HEADING 207.50 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...

...ON TRACK 097.33 TO PAVYL, 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 SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 17: CLIMB ON HEADING 173.78 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 22: CLIMB ON HEADING 217.34 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 35: CLIMB ON HEADING 005.78 TO 1800 THEN AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...

...ON TRACK 097.33 TO PAVYL, 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 SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 31: CLIMB ON HEADING 312.36 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...

...ON TRACK 097.33 TO PAVYL, 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 SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 9R: CLIMB ON HEADING 094.63 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 27L: CLIMB ON HEADING 274.65 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 27R: CLIMB ON HEADING 274.68 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...

...ON TRACK 097.33 TO PAVYL, 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 SLVVA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 27: CLIMB ON HEADING 275.72 TO 1500 THEN AS ASSIGNED FOR RADAR VECTORS TO CROSS SLVVA AT OR ABOVE 4000, THENCE...

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SELFRIDGE ANGB (KMTCT):

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

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

...ON TRACK 097.33 TO PAVYL, 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 SLVVA AT OR ABOVE 4000, THENCE...

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

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

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

...ON TRACK 097.33 TO PAVYL, 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>
ESSBE	PAVYL2.ESSBE	PAVYL	ESSBE	TRACK 106.45	30.05	10000		
MRDOC	PAVYL2.MRDOC	PAVYL	MRDOC	TRACK 101.21	38.56	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: 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.

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.



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CUSTER (KTF):
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 (KMT):
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

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 (KMT):
RWY 19: 1246 FT MSL TOWER 423315.00N/0825315.00W



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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 (KMTC)	MOUNT CLEMENS	MI
WINDSOR (CYQG)	WINDSOR, ONTARIO, CANADA	

COMMUNICATIONS:

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

FIXES AND/OR NAVAIDS:

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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

DEVELOPED BY:

Digitally signed by

CHRISTINE BAYSE

DONALD H LANIER

Jun 11, 2019

APPROVED BY:

Digitally signed by

LONNIE EVERHART

DONALD H LANIER

Jun 11, 2019

OFFICE SYMBOL:**DATE:**

FICO

6/6/19

OFFICE SYMBOL:**DATE:**

AJV-A432

03/12/2019

OFFICE SYMBOL:**DATE:**

AJV-A430

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

A4A

ALPA

AOPA

APA

HAI

NBAA

**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". - ALLOW FOR AIRCRAFT WITH FILED LOWER ALTITUDE LOWER THAN TOP ALTITUDE.
3. MOVE WNNGZ 0.85 NM NE.- DECONFLICT SID FROM OTHER PROCEDURES.
4. ADD TF LEG (DATSK) BETWEEN WNNGZ AND SLVVA. - DECONFLICT SID FROM OTHER PROCEDURES.
5. ADD DATSK WITH AT OR BELOW 7000 RESTRICTION. - DECONFLICT SID FROM OTHER PROCEDURES.
6. MOVE JOELU 1.38 NM N. - DECONFLICT SID FROM OTHER PROCEDURES.
7. REMOVE ALTITUDE RESTRICTIONS AT WNNGZ AND JOELU. - DECONFLICT SID FROM OTHER PROCEDURES.
8. ADD YIMMY AND HWARD TO RWY 21L/R AND 22L/R RUNWAY TRANSITIONS. - DECONFLICT SID FROM OTHER PROCEDURES.
9. ADD TF LEGS JOELU-YIMMY, YIMMY-HWARD, HWARD-SLVVA. - DECONFLICT SID FROM OTHER PROCEDURES.
10. ADD AT OR BELOW 7000 RESTRICTION AT YIMMY. - DECONFLICT SID FROM OTHER PROCEDURES.
11. ADD AT OR BELOW 9000 RESTRICTION AT HWARD. - DECONFLICT SID FROM OTHER PROCEDURES.
12. CHANGE ALL VI LEGS TO MINIMUM ALLOWABLE LENGTH. - REDUCE DRIFT ON INITIAL CLIMBOUT.
13. ADDED 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. ADDED KDTW CHART: SEE ADDITIONAL REQUIREMENTS IN RNAV DEPARTURE AAUP. - ENSURE PILOTS ARE AWARE OF REQUIREMENTS.
15. UPDATED DP ROUTE DESCRIPTION KDTW RWY 3L INTERCEPT COURSE FROM "064.09 TO CROSS WNNGZ" TO "057.40 TO WNNGZ". - WNNGZ MOVED AND VI-CF MINIMUM.
16. UPDATED DP ROUTE DESCRIPTION KDTW RWY 3R INTERCEPT COURSE FROM "060.57 TO CROSS WNNGZ" TO "054.43 TO WNNGZ". - WNNGZ MOVED AND VI-CF MINIMUM.

QUALITY
3
CHECKED

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17. UPDATED DP ROUTE DESCRIPTION KDTW RWY 4L INTERCEPT COURSE FROM "068.17 TO CROSS WNNGZ" TO "061.86 TO WNNGZ". - WNNGZ MOVED AND VI-CF MINIMUM. 18. UPDATED DP ROUTE DESCRIPTION KDTW RWY 4R INTERCEPT COURSE FROM "067.52 TO CROSS WNNGZ" TO "060.77 TO WNNGZ". - WNNGZ MOVED AND VI-CF MINIMUM. 19. UPDATED DP ROUTE DESCRIPTION KDTW RWY 3L, 3R, 4L AND 4R FROM "THEN ON TRACK 064.09 FOR RADAR VECTORS TO CROSS SLVVA" TO "TRACK 119.92 TO CROSS DATSK... ON TRACK 122.86 TO CROSS SLVVA...". - ADDED DATSK AND REMOVED RADAR VECTORS. 20. UPDATED DP ROUTE DESCRIPTION KDTW RWY 21L INTERCEPT COURSE FROM "180.44 TO CROSS JOELU" TO "184.56 TO JOELU". - JOELU MOVED AND VI-CF MINIMUM. 21. UPDATED DP ROUTE DESCRIPTION KDTW RWY 21R INTERCEPT COURSE FROM "181.07 TO CROSS JOELU" TO "184.92 TO JOELU". - JOELU MOVED AND VI-CF MINIMUM. 22. UPDATED DP ROUTE DESCRIPTION KDTW RWY 22L INTERCEPT COURSE FROM "175.62 TO CROSS JOELU" TO "179.22 TO JOELU". - JOELU MOVED AND VI-CF MINIMUM. 23. UPDATED DP ROUTE DESCRIPTION KDTW RWY 22R INTERCEPT COURSE FROM "172.40 TO CROSS JOELU" TO "175.77 TO JOELU". - JOELU MOVED AND VI-CF MINIMUM. 24. UPDATED DP ROUTE DESCRIPTION KDTW RWY 21L, 21R, 22L AND 22R FROM "ON TRACK 181.00 FOR RADAR VECTORS TO CROSS SLVVA" TO "ON TRACK 078.17 TO CROSS SLVVA". - ADDED YIMMY AND HWARD TO RUNWAY TRANSITIONS. 25. UPDATED DP ROUTE DESCRIPTION KDTW RWY 27L AND 27R FROM "1160" TO "1146". - UPDATED CLIMB GRADIENT TERMINATION ALTITUDE. 26. UPDATED TAKEOFF MINIMUMS KDTW FROM "RWY 3L, 3R, 4L, 4R, 21L, 21R, 22L, 22R: STANDARD" AND "RWY 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. 27. UPDATED RECOMMENDED NAVAID FROM AIR VOR/DME TO ECK TACAN ON 8260-15C. - NAVAID CLOSER TO AIRPORT.					



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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>
PAVYL		TWO		PAVYL2.PAVYL		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
WNNGZ	422003.77N/0831037.55W	Y	FB	CF	050.40	8.56			RECOMMENDED NAVAID: ECK TACAN
DATSK	421629.78N/0825917.88W	Y	FB	TF	112.92	9.13	AT/BELOW 7000		
SLVVA	420838.11N/0823736.16W	Y	FB	TF	115.86	17.94	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
WNNGZ	421936.75N/0831013.71W	Y	FB	CF	047.43	8.83			RECOMMENDED NAVAID: ECK TACAN
DATSK	421629.78N/0825917.88W	Y	FB	TF	112.92	9.13	AT/BELOW 7000		
SLVVA	420838.11N/0823736.16W	Y	FB	TF	115.86	17.94	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
WNNGZ	422003.77N/0831037.55W	Y	FB	CF	054.86	9.72			RECOMMENDED NAVAID: ECK TACAN
DATSK	421629.78N/0825917.88W	Y	FB	TF	112.92	9.13	AT/BELOW 7000		
SLVVA	420838.11N/0823736.16W	Y	FB	TF	115.86	17.94	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
WNNGZ	422003.77N/0831037.55W	Y	FB	CF	053.77	8.94			RECOMMENDED NAVAID: ECK TACAN

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**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
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DP NAME				NUMBER		DP COMPUTER CODE		SUPERSEDED NUMBER		DATED		EFFECTIVE DATE	
PAVYL				TWO		PAVYL2.PAVYL		ONE		07/19/2018		15 AUG 2019	
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS				
DATSK	421629.78N/0825917.88W	Y	FB	TF	112.92	9.13	AT/BELOW 7000						
SLVVA	420838.11N/0823736.16W	Y	FB	TF	115.86	17.94	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						
JOELU	420213.33N/0832116.60W	Y	FB	CF	177.56	8.62	RECOMMENDED NAVAID: ECK TACAN						
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						
SLVVA	420838.11N/0823736.16W	Y	FB	TF	071.17	22.24	AT/ABOVE 4000						
RW21R (AER)	421341.85N/0832010.12W	N	-	-	-	-							
-	421134.48N/0832143.96W	-	-	VI	208.72	2.42	CG 500 FT/NM TO 1146						
JOELU	420213.33N/0832116.60W	Y	FB	CF	177.92	9.35	RECOMMENDED NAVAID: ECK TACAN						
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						
SLVVA	420838.11N/0823736.16W	Y	FB	TF	071.17	22.24	AT/ABOVE 4000						
RW22L (AER)	421352.37N/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	RECOMMENDED NAVAID: ECK TACAN						
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						

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**FEDERAL AVIATION ADMINISTRATION
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DEPARTURE (DATA RECORD)**

DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
PAVYL							TWO	PAVYL2.PAVYL	ONE	07/19/2018	15 AUG 2019
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED		REMARKS	
SLVVA	420838.11N/0823736.16W	Y	FB	TF	071.17	22.24	AT/ABOVE 4000				
RW22R (AER)	421334.48N/0832158.61W	N	-	-	-	-					
-	421115.08N/0832341.20W	-	-	VI	208.69	2.65			CG 500 FT/NM TO 1146		
JOELU	420213.33N/0832116.60W	Y	FB	CF	168.77	9.20			RECOMMENDED NAVAID: ECK TACAN		
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				
SLVVA	420838.11N/0823736.16W	Y	FB	TF	071.17	22.24	AT/ABOVE 4000				
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
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DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
PAVYL							TWO	PAVYL2.PAVYL	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	-					
SLVVA	420838.11N/0823736.16W	Y	-	IF	-	-	AT/ABOVE 4000				
PAVYL	420834.90N/0822705.46W	Y	FB	TF	090.33	7.82					

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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>
PAVYL		TWO		PAVYL2.PAVYL		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>
PAVYL	420834.90N/0822705.46W	Y	-	IF	-	-			PAVYL2.ESSBE
ESSBE	420331.96N/0814717.79W	Y	FB	TF	099.45	30.05			
PAVYL	420834.90N/0822705.46W	Y	-	IF	-	-			PAVYL2.MRDOC
MRDOC	420533.23N/0813526.34W	Y	FB	TF	094.21	38.56			

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