

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

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ZETTR	TWO	ZETTR2.ZETTR	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 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 CROSS FLOKA AT OR ABOVE 4000, 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 CROSS FLOKA AT OR ABOVE 4000, 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 CROSS FLOKA AT OR ABOVE 4000, 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 CROSS FLOKA AT OR ABOVE 4000, 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 CROSS FLOKA AT OR ABOVE 4000, 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 CROSS FLOKA AT OR ABOVE 4000, 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 CROSS FLOKA AT OR ABOVE 4000, 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 CROSS FLOKA 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 FLOKA 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 FLOKA AT OR ABOVE 4000, THENCE...

...ON TRACK 049.05 TO CROSS ZETTR AT OR BELOW 17000, 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 FLOKA 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 FLOKA 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 FLOKA 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 FLOKA 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 FLOKA 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 FLOKA AT OR ABOVE 4000, THENCE...

...ON TRACK 049.05 TO CROSS ZETTR AT OR BELOW 17000, 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 FLOKA AT OR ABOVE 4000, THENCE...

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

...ON TRACK 049.05 TO CROSS ZETTR AT OR BELOW 17000, THEN ON (TRANSITION). MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

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

...ON TRACK 049.05 TO CROSS ZETTR AT OR BELOW 17000, 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 FLOKA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 21: CLIMB ON HEADING 207.50 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS FLOKA AT OR ABOVE 4000, THENCE...

...ON TRACK 049.05 TO CROSS ZETTR AT OR BELOW 17000, 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 FLOKA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 17: CLIMB ON HEADING 173.78 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS FLOKA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 22: CLIMB ON HEADING 217.34 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS FLOKA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 35: CLIMB ON HEADING 005.78 TO 1800 THEN AS ASSIGNED FOR RADAR VECTORS TO CROSS FLOKA AT OR ABOVE 4000, THENCE...

...ON TRACK 049.05 TO CROSS ZETTR AT OR BELOW 17000, 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 FLOKA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 31: CLIMB ON HEADING 312.36 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS FLOKA AT OR ABOVE 4000, THENCE...

...ON TRACK 049.05 TO CROSS ZETTR AT OR BELOW 17000, 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 FLOKA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 9R: CLIMB ON HEADING 094.63 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS FLOKA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 27L: CLIMB ON HEADING 274.65 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS FLOKA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 27R: CLIMB ON HEADING 274.68 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS FLOKA AT OR ABOVE 4000, THENCE...

...ON TRACK 049.05 TO CROSS ZETTR AT OR BELOW 17000, 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 FLOKA AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 27: CLIMB ON HEADING 275.72 TO 1500 THEN AS ASSIGNED FOR RADAR VECTORS TO CROSS FLOKA 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 FLOKA AT OR ABOVE 4000, THENCE...

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

...ON TRACK 049.05 TO CROSS ZETTR AT OR BELOW 17000, 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 FLOKA AT OR ABOVE 4000, THENCE...

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

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

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

...ON TRACK 049.05 TO CROSS ZETTR AT OR BELOW 17000, 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>
DUTEL	ZETTR2.DUTEL	ZETTR	KARIT	TRACK 034.08	53.98	12000		
		KARIT	DUTEL	TRACK 039.60	67.40	12000		
ETBOX	ZETTR2.ETBOX	ZETTR	KARIT	TRACK 034.08	53.98	12000		
		KARIT	ETBOX	TRACK 067.32	99.53	16000		
KELTI	ZETTR2.KELTI	ZETTR	TANKO	TRACK 073.68	15.59	10000		
		TANKO	KELTI	TRACK 090.02	152.32	10000		
SIKBO	ZETTR2.SIKBO	ZETTR	TANKO	TRACK 073.68	15.59	10000		
		TANKO	SIKBO	TRACK 080.14	138.11	10000		
TANKO	ZETTR2.TANKO	ZETTR	TANKO	TRACK 073.68	15.59	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: TANKO TRANSITION: FOR USE BY CYYZ 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.



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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.

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 (KMTG):

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).

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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 (KMTC):

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

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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:**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*
DONALD H LANIER
BRYAN VEIT
Jun 11, 2019

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

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

OFFICE SYMBOL: **DATE:**
AJV-A432 03/13/2019

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

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

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

A4A	ALPA	AOPA	APA	HAI	NBAA
<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 FROM "MAINTAIN ATC ASSIGNED ALTITUDE" TO "MAINTAIN 17000 OR AS ASSIGNED BY ATC". - ALLOW FOR AIRCRAFT WITH FILED ALTITUDES LOWER THAN TOP ALTITUDE.
3. MOVE FORDZ 1.0 NM SW. - DECONFLICT SID FROM OTHER PROCEDURES.
4. ADD AT OR ABOVE 4000 RESTRICTION AT FORDZ. - DECONFLICT SID FROM OTHER PROCEDURES.

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5. ADD AT OR ABOVE 4000 RESTRICTION AT USSIE. - DECONFLICT SID FROM OTHER PROCEDURES. 6. MOVE DCATS 7.8 NM N. - DECONFLICT SID FROM OTHER PROCEDURES. 7. ADD AT OR BELOW 7000 RESTRICTION AT DCATS. - DECONFLICT SID FROM OTHER PROCEDURES. 8. MOVE KKELL 6.82 NM NE. - DECONFLICT SID FROM OTHER PROCEDURES. 9. ADD AT OR BELOW 7000 RESTRICTION TO KKELL. - DECONFLICT SID FROM OTHER PROCEDURES. 10. ADD NILSN WITH AT OR BELOW 11000 RESTRICTION TO RWY 3L, 3R, 4L, 4R RUNWAY TRANSITIONS. - DECONFLICT SID FROM OTHER PROCEDURES. 11. MOVE FLOKA 8.82 NM NE. - DECONFLICT SID FROM OTHER PROCEDURES. 12. MOVE ZETTR 4.3 NM NE. - DECONFLICT SID FROM OTHER PROCEDURES. 13. ADD CHART NOTE: TANKO TRANSITION: FOR USE BY CYYZ AREA ARRIVALS ONLY, OR AS ASSIGNED BY ATC. - RESTRICT USE OF TRANSITION TO CYYZ AREA ARRIVALS. 14. CHANGE ALL VI LEGS TO MINIMUM ALLOWABLE LENGTH. - REDUCE DRIFT ON INITIAL CLIMBOUT. 15. MOVE WINRS 1.2 NM SOUTH. - REDUCE DRIFT ON INITIAL CLIMBOUT. 16. ADD AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS RESTRICTION AT WINRS. - REDUCE DRIFT ON INITIAL CLIMBOUT. 17. 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. 18. ADD KDTW CHART: SEE ADDITIONAL REQUIREMENTS IN RNAV DEPARTURE AUP. - ENSURE PILOTS ARE AWARE OF REQUIREMENTS. 19. UPDATED DP ROUTE DESCRIPTION KDTW RWY 3L, 3R, 4L, 4R, 27L, AND 27R CLIMB TO ALTITUDE FROM "1160" TO "1146". - UPDATED LNAV ENGAGEMENT ALTITUDE. 20. UPDATED DP ROUTE DESCRIPTION KDTW RWY 3L FROM "035.36 TO CROSS FLOKA" TO "042.53 TO CROSS FLOKA". - FLOKA MOVED AND ADDED FIXES TO RWY TRANSITION. 21. UPDATED DP ROUTE DESCRIPTION KDTW RWY 3R TO ADD ON TRACK 034.39 TO CROSS DCATS AT OR BELOW 7000 AND UPDATED FROM "ON TRACK 034.81 TO CROSS FLOKA" TO "ON TRACK 042.53 TO CROSS FLOKA". - FLOKA MOVED AND ADDED FIXES TO RWY TRANSITION. 22. UPDATED DP ROUTE DESCRIPTION KDTW RWY 4L TO ADD ON TRACK 037.88 TO CROSS KKELL AT OR BELOW 7000 AND UPDATED FROM "ON TRACK 037.67 TO CROSS FLOKA" TO "ON TRACK 042.53 TO CROSS FLOKA". - FLOKA MOVED AND ADDED FIXES TO RWY TRANSITION. 23. UPDATED DP ROUTE DESCRIPTION KDTW RWY 4R FROM "ON TRACK 037.02 TO CROSS FLOKA" TO "ON TRACK 042.53 TO CROSS FLOKA".- FLOKA MOVED AND NILSN ADDED TO RWY TRANSITION. 24. UPDATED DP ROUTE DESCRIPTION KDTW RWY 21L INTERCEPT COURSE FROM "161.34 TO WINRS" TO "172.93 TO CROSS WINRS". - WINRS MOVED AND VI-CF MINIMUM. 25. UPDATED DP ROUTE DESCRIPTION KDTW RWY 21R INTERCEPT COURSE FROM 166.03 TO WINRS" TO "174.91 TO CROSS WINRS". - WINRS MOVED AND VI-CF MINIMUM. 26. UPDATED DP ROUTE DESCRIPTION KDTW RWY 21L AND 21R FROM "...ON TRACK 108.58 TO USSIE...ON TRACK 008.76 TO CROSS FLOKA" TO "...ON TRACK 093.68 TO CROSS USSIE...ON TRACK 019.05 TO CROSS FLOKA".- WINRS AND FLOKA MOVED. 27. UPDATED 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. 28. UPDATED 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. 29. UPDATED DP ROUTE DESCRIPTION KDTW RWY 22L AND 22R FROM "...ON TRACK 309.08 TO CROSS CORVE...THEN ON TRACK 070.37 TO CROSS FLOKA" TO "...ON TRACK 314.11 TO CROSS CORVE...THEN ON TRACK 063.33 TO CROSS FLOKA".- FORDZ AND FLOKA MOVED. 30. UPDATED DP ROUTE DESCRIPTION ALL AIRPORTS FROM "...ON TRACK 048.55 TO CROSS ZETTR" TO "...ON TRACK 049.05 TO CROSS ZETTR". - FLOKA AND ZETTR MOVED. 31. UPDATED TAKEOFF MINIMUMS FOR DTW FROM "RWY 3L, 3R, 4L, 4R, 27L, 27R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1160 AND RWY 21L, 21R, 22L, 22R: STANDARD" TO "RWY 3L, 3R, 4L, 4R, 21L, 21R, 22L, 22R, 27L, 27R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1146.". - CLIMB TO ALTITUDE UPDATED WITH NEW LNAV ENGAGEMENT ALTITUDE. 32. UPDATED RECOMMENDED NAVAID FROM AIR VOR/DME TO ECK TACAN ON 8260-15C. - NAVAID CLOSER TO AIRPORT.					



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
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ZETTR		TWO		ZETTR2.ZETTR		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	-	-	-	-			
1146 MSL	-	-	-	VA	028.71	-			CG 500 FT/NM TO 1146
DCATS	422712.00N/0831009.17W	Y	FB	DF	-	-	AT/BELOW 7000		
NILSN	423328.65N/0830552.66W	Y	FB	TF	026.72	7.03	AT/BELOW 11000		
FLOKA	424727.13N/0825218.92W	Y	FB	TF	035.53	17.18	AT/ABOVE 4000		
RW03R (AER)	421144.21N/0832106.49W	N	-	-	-	-			
1146 MSL	-	-	-	VA	028.71	-			CG 500 FT/NM TO 1146
BURPZ	421517.69N/0831829.10W	Y	FB	DF	-	-			
DCATS	422712.00N/0831009.17W	Y	FB	TF	027.39	13.41	AT/BELOW 7000		
NILSN	423328.65N/0830552.66W	Y	FB	TF	026.72	7.03	AT/BELOW 11000		
FLOKA	424727.13N/0825218.92W	Y	FB	TF	035.53	17.18	AT/ABOVE 4000		
RW04L (AER)	421207.82N/0832302.40W	N	-	-	-	-			
1146 MSL	-	-	-	VA	028.68	-			CG 500 FT/NM TO 1146
MINDY	421559.47N/0832011.78W	Y	FB	DF	-	-			
KKELL	422730.48N/0831053.34W	Y	FB	TF	030.88	13.42	AT/BELOW 7000		
NILSN	423328.65N/0830552.66W	Y	FB	TF	031.82	7.02	AT/BELOW 11000		
FLOKA	424727.13N/0825218.92W	Y	FB	TF	035.53	17.18	AT/ABOVE 4000		

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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
ZETTR							TWO	ZETTR2.ZETTR	ONE	07/19/2018	15 AUG 2019
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED		REMARKS	
RW04R (AER)*	421212.78N/0832213.32W*	N	-	-	-	-				*DISPL THLD (509 FT)	
1146 MSL	-	-	-	VA	028.70	-				CG 500 FT/NM TO 1146	
KKELL	422730.48N/0831053.34W	Y	FB	DF	-	-	AT/BELOW 7000				
NILSN	423328.65N/0830552.66W	Y	FB	TF	031.82	7.02	AT/BELOW 11000				
FLOKA	424727.13N/0825218.92W	Y	FB	TF	035.53	17.18	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	
WINRS	420542.02N/0832002.39W	Y	FB	CF	165.93	5.29	AT/ABOVE 2500	AT/BELOW 230K	RECOMMENDED NAVAID: ECK TACAN		
USSIE	420556.34N/0831427.74W	Y	FB	TF	086.68	4.16	AT/ABOVE 4000				
SUURF	420657.51N/0830837.76W	Y	FB	TF	076.76	4.46	AT/BELOW 7000				
TUURF	421644.40N/0830113.28W	Y	FB	TF	029.34	11.22					
FLOKA	424727.13N/0825218.92W	Y	FB	TF	012.05	31.40	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	
WINRS	420542.02N/0832002.39W	Y	FB	CF	167.91	6.01	AT/ABOVE 2500	AT/BELOW 230K	RECOMMENDED NAVAID: ECK TACAN		
USSIE	420556.34N/0831427.74W	Y	FB	TF	086.68	4.16	AT/ABOVE 4000				
SUURF	420657.51N/0830837.76W	Y	FB	TF	076.76	4.46	AT/BELOW 7000				
TUURF	421644.40N/0830113.28W	Y	FB	TF	029.34	11.22					
FLOKA	424727.13N/0825218.92W	Y	FB	TF	012.05	31.40	AT/ABOVE 4000				

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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>
ZETTR		TWO		ZETTR2.ZETTR		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>
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		
FRBRD	421824.14N/0834000.66W	Y	FB	TF	019.15	5.44			
DINGL	423219.38N/0832317.31W	Y	FB	TF	041.58	18.63			
FLOKA	424727.13N/0825218.92W	Y	FB	TF	056.33	27.40	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
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		
FRBRD	421824.14N/0834000.66W	Y	FB	TF	019.15	5.44			
DINGL	423219.38N/0832317.31W	Y	FB	TF	041.58	18.63			
FLOKA	424727.13N/0825218.92W	Y	FB	TF	056.33	27.40	AT/ABOVE 4000		
RW27L (AER)	421158.34N/0831949.33W	N	-	-	-	-			
1146 MSL	-	-	-	VA	268.73	-			CG 500 FT/NM TO 1146
-	-	-	-	VM	268.71	-			
									

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DEPARTURE (DATA RECORD)**

DP NAME		NUMBER		DP COMPUTER CODE		SUPERSEDED NUMBER		DATED		EFFECTIVE DATE	
ZETTR		TWO		ZETTR2.ZETTR		ONE		07/19/2018		15 AUG 2019	
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
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		
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		

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**FEDERAL AVIATION ADMINISTRATION
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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>
ZETTR		TWO		ZETTR2.ZETTR		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>
-	-	-	-	VM	226.72	-			
RW27 (AER)	421440.03N/0833059.06W	N	-	-	-	-			
1220 MSL	-	-	-	VA	268.57	-			CG 500 FT/NM TO 1220
-	-	-	-	VM	268.56	-			
FLOKA	424727.13N/0825218.92W	Y	-	IF	-	-	AT/ABOVE 4000		
ZETTR	425523.59N/0824233.71W	Y	FB	TF	042.05	10.70	AT/BELOW 17000		
ZETTR	425523.59N/0824233.71W	Y	-	IF	-	-	AT/BELOW 17000	ZETTR2.DUTEL	
KARIT	434300.00N/0834000.00W	Y	FB	TF	027.08	53.98			
DUTEL	443959.00N/0811747.00W	Y	FB	TF	032.60	67.40			
ZETTR	425523.59N/0824233.71W	Y	-	IF	-	-	AT/BELOW 17000	ZETTR2.ETBOX	
KARIT	434323.00N/0820840.00W	Y	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	-	-	AT/BELOW 17000	ZETTR2.KELTI	
TANKO	430132.48N/0822302.38W	Y	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	-	-	AT/BELOW 17000	ZETTR2.SIKBO	

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DEPARTURE (DATA RECORD)

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ZETTR		TWO		ZETTR2.ZETTR		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>
TANKO	430132.48N/0822302.38W	Y	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	-	-	AT/BELOW 17000		ZETTR2.TANKO
TANKO	430132.48N/0822302.38W	Y	FB	TF	066.68	15.59			

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