

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

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
BARII	TWO	BARII2.BARII	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 069.88 TO CROSS BESST AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS, THEN ON TRACK 128.00 TO CROSS SWNDL AT OR BELOW 7000, THEN ON TRACK 212.12 TO WERKN, THEN ON TRACK 231.76 TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

TAKEOFF RWY 3R: CLIMB ON HEADING 035.71 TO INTERCEPT COURSE 064.45 TO CROSS BESST AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS, THEN ON TRACK 128.00 TO CROSS SWNDL AT OR BELOW 7000, THEN ON TRACK 212.12 TO WERKN, THEN ON TRACK 231.76 TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

TAKEOFF RWY 4L: CLIMB ON HEADING 035.68 TO INTERCEPT COURSE 347.26 TO CROSS NITRN AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS, THEN ON TRACK 304.14 TO CROSS FERRM AT OR BELOW 6000, THEN ON TRACK 258.76 TO CROSS AVERL AT OR BELOW 7000, THEN ON TRACK 199.38 TO OGEEZ, THEN ON TRACK 173.14 TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

TAKEOFF RWY 4R: CLIMB ON HEADING 035.70 TO INTERCEPT COURSE 339.14 TO CROSS NITRN AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS, THEN ON TRACK 304.14 TO CROSS FERRM AT OR BELOW 6000, THEN ON TRACK 258.76 TO CROSS AVERL AT OR BELOW 7000, THEN ON TRACK 199.38 TO OGEEZ, THEN ON TRACK 173.14 TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

TAKEOFF RWY 21L: CLIMB ON HEADING 215.72 TO INTERCEPT COURSE 204.45 TO SERGY, THEN ON TRACK 200.87 TO CROSS FDROV AT OR BELOW 7000, THEN ON TRACK 210.05 TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

TAKEOFF RWY 21R: CLIMB ON HEADING 215.72 TO INTERCEPT COURSE 202.94 TO SERGY, THEN ON TRACK 200.87 TO CROSS FDROV AT OR BELOW 7000, THEN ON TRACK 210.05 TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

TAKEOFF RWY 22L: CLIMB ON HEADING 215.71 TO 1146, THEN DIRECT BOOSE, THEN ON TRACK 226.25 TO CROSS RATIO AT OR BELOW 7000, THEN ON TRACK 189.42 TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

TAKEOFF RWY 22R: CLIMB ON HEADING 215.69 TO 1146, THEN DIRECT EEERI, THEN ON TRACK 224.01 TO CROSS RATIO AT OR BELOW 7000, THEN ON TRACK 189.42 TO CROSS HUUTZ 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 HUUTZ 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 HUUTZ AT OR ABOVE 4000, THENCE...

...ON TRACK 213.38 TO BARII, 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 HUUTZ 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 HUUTZ 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 HUUTZ 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 HUUTZ 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 HUUTZ 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 HUUTZ AT OR ABOVE 4000, THENCE...

...ON TRACK 213.38 TO BARII, 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 HUUTZ AT OR ABOVE 4000, THENCE...

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

...ON TRACK 213.38 TO BARII, THEN ON (TRANSITION). MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.



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

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
BARII	TWO	BARII2.BARII	ONE	07/19/2018	15 AUG 2019

COLEMAN A YOUNG MUNI (KDET):

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

...ON TRACK 213.38 TO BARII, 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 HUUTZ AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 21: CLIMB ON HEADING 207.50 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

...ON TRACK 213.38 TO BARII, 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 HUUTZ AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 17: CLIMB ON HEADING 173.78 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 22: CLIMB ON HEADING 217.34 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 35: CLIMB ON HEADING 005.78 TO 1800 THEN AS ASSIGNED FOR RADAR VECTORS TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

...ON TRACK 213.38 TO BARII, 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 HUUTZ AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 31: CLIMB ON HEADING 312.36 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

...ON TRACK 213.38 TO BARII, 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 HUUTZ AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 9R: CLIMB ON HEADING 094.63 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 27L: CLIMB ON HEADING 274.65 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 27R: CLIMB ON HEADING 274.68 OR AS ASSIGNED FOR RADAR VECTORS TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

...ON TRACK 213.38 TO BARII, 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 HUUTZ AT OR ABOVE 4000, THENCE...
TAKEOFF RWY 27: CLIMB ON HEADING 275.72 TO 1500 THEN AS ASSIGNED FOR RADAR VECTORS TO CROSS HUUTZ AT OR ABOVE 4000, THENCE...

...ON TRACK 213.38 TO BARII, THEN ON (TRANSITION). MAINTAIN ATC ASSIGNED ALTITUDE, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.



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

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
BARII	TWO	BARII2.BARII	ONE	07/19/2018	15 AUG 2019

SELFRIDGE ANGB (KMTG):

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

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

...ON TRACK 213.38 TO BARII, 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 HUUTZ AT OR ABOVE 4000, THENCE...

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

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

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

...ON TRACK 213.38 TO BARII, 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>
SINKR	BARII2.SINKR	BARII	SINKR	TRACK 211.65	28.89	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.

QUALITY
3
CHECKED

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

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
BARII	TWO	BARII2.BARII	ONE	07/19/2018	15 AUG 2019

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



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

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
BARII	TWO	BARII2.BARII	ONE	07/19/2018	15 AUG 2019

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

REFERENCE MAG VAR; KDTW 7W/2020

DME/DME ASSESSMENT: SAT (RNP 2.0)

KDTW CHART: TOP ALTITUDE 17000

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

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:



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

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
BARII	TWO	BARII2.BARII	ONE	07/19/2018	15 AUG 2019

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 VIET **DONALD H LANIER**
Jun 11, 2019

OFFICE SYMBOL: **DATE:**
FICO 6/3/19

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

OFFICE SYMBOL: **DATE:**
AJV-A432 03/05/2019

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

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

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

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 DTW FROM ASSIGNED BY ATC TO 17000. - INDUSTRY REQUEST TO REDUCE CONFUSION.
2. CHANGED COMMON ROUTE DEPARTURE DESCRIPTION FOR KDTW FROM "MAINTAIN ATC ASSIGNED ALTITUDE" TO "MAINTAIN 17000 OR AS ASSIGNED BY ATC". - INDUSTRY REQUEST TO REDUCE CONFUSION.
3. REPLACED LAZYI WITH SWNDL AND MOVED 1 NM SOUTHEAST. - DECONFLICT FROM OTHER PROCEDURES.
4. ADDED AT OR BELOW 7000 CROSSING RESTRICTION AT FDROV AND RATIO. - DECONFLICT FROM OTHER PROCEDURES.
5. MOVED OGEEZ 7.37 NM SOUTH.- DECONFLICT FROM OTHER PROCEDURES.
6. CHANGED AYRTN WP TO SINKR.- IMPROVE WP NAME PRONOUNCEABILITY.
7. REDUCED VI LEG LENGTH TO MINIMUM ALLOWED BY CRITERIA. - REDUCE AIRCRAFT DRIFT ON INITIAL CONTACT.
8. MOVE NITRN 0.8 NM NORTH.- REDUCE AIRCRAFT DRIFT ON INITIAL CONTACT.
9. ADD AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS RESTRICTIONS AT NITRN. - REDUCE AIRCRAFT DRIFT ON INITIAL CONTACT.
10. MOVE BESST 0.7 NM EAST. - REDUCE AIRCRAFT DRIFT ON INITIAL CONTACT.
11. ADD AT OR ABOVE 2500 AND AT OR BELOW 230 KIAS RESTRICTION AT BESST. - REDUCE AIRCRAFT DRIFT ON INITIAL CONTACT.
12. ADD CHART NOTE: "IF UNABLE TO ACCEPT 500 FT PER NM CLIMB RATE, ADVISE CLEARANCE DELIVERY ON INITIAL CONTACT".- ENSURE PILOTS ARE AWARE OF THESE REQUIREMENTS.
13. ADD KDTW CHART: "SEE ADDITIONAL REQUIREMENTS IN RNAV DEPARTURE AAUP".- ENSURE PILOTS ARE AWARE OF THESE REQUIREMENTS.
14. MOVE BOOSE 0.2 NM SOUTH. - CORRECT OEA CONSTRUCTION ISSUE.
15. UPDATED KDTW DP ROUTE DESCRIPTION RWY 3L INTERCEPT COURSE FROM "079.50 TO BESST" TO "069.88 TO CROSS BESST". - BESST FIX MOVED.
16. UPDATED KDTW DP ROUTE DESCRIPTION RWY 3R INTERCEPT COURSE FROM 071.65 TO BESST" TO "064.45 TO CROSS BESST". - BESST FIX MOVED.
17. UPDATED KDTW RWY 3L AND 3R DP ROUTE DESCRIPTION FROM "THEN ON TRACK 123.33 TO CROSS LAZYI AT OR BELOW 7000 THEN ON TRACK 208.32 TO WERKN..." TO "THEN ON TRACK 128.00 TO CROSS SWNDL AT OR BELOW 7000, THEN ON TRACK 212.12 TO WERKN..." - LAZYI REPLACED WITH SWNDL AND MOVED.

QUALITY
3
CHECKED

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

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
BARII	TWO	BARII2.BARII	ONE	07/19/2018	15 AUG 2019
18. UPDATED KDTW DP ROUTE DESCRIPTION RWY 4L INTERCEPT COURSE FROM "337.25 TO NITRN" TO "347.26 TO CROSS NITRN". - NITRN FIX MOVED.					
19. UPDATED KDTW DP ROUTE DESCRIPTION RWY 4R INTERCEPT COURSE FROM "327.10 TO NITRN" TO "339.14 TO CROSS NITRN". - NITRN FIX MOVED.					
20. UPDATED KDTW RWY 4L AND 4R DP ROUTE DESCRIPTION FROM "ON TRACK 309.54 TO CROSS FERRM... ON TRACK 197.39 TO OGEEZ, THEN ON TRACK 180.03 TO CROSS HUUTZ..." TO "ON TRACK 304.14 TO CROSS FERRM... ON TRACK 199.38 TO OGEEZ, THEN ON TRACK 179.14 TO CROSS HUUTZ...". - NITRN AND OGEEZ FIX MOVED.					
21. UPDATED KDTW DP ROUTE DESCRIPTION RWY 21L INTERCEPT COURSE FROM "202.55 TO SERGY" TO "204.45 TO SERGY". - CHANGED TO VI-CF MINIMUM.					
22. UPDATED KDTW DP ROUTE DESCRIPTION RWY 21R INTERCEPT COURSE FROM "201.00 TO SERGY" TO "202.94 TO SERGY". - CHANGED TO VI-CF MINIMUM.					
23. UPDATED KDTW DP ROUTE DESCRIPTION CLIMB TO ALTITUDE FOR RWY 22L, 22R, 27L, AND 27R FROM "1160" TO "1146". - UPDATED CLIMB GRADIENT TERMINATION ALTITUDE.					
24. UPDATED TAKEOFF MINIMUMS KDTW FROM "RWY 3L, 3R, 4L, 4R, 21L, 21R: STANDARD" AND "RWY 22L, 22R, 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.					
25. UPDATED RECOMMENDED NAVAID FROM AIR VOR/DME TO ECK TACAN ON 8260-15C. - NAVAID CLOSER TO AIRPORT.					



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

DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
BARII							TWO	BARII2.BARII	ONE	07/19/2018	15 AUG 2019
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED		REMARKS	
	DETROIT METROPOLITAN WAYNE COUNTY (KDTW)										
RW03L (AER)	421228.21N/0832104.39W	N	-	-	-	-				CG 500 FT/NM TO 1146	
-	421527.18N/0831852.42W	-	-	VI	028.71	2.43					
BESST	421656.69N/0831321.04W	Y	FB	CF	062.88	5.13	AT/ABOVE 2500	AT/BELOW 230K		RECOMMENDED NAVAID: ECK TACAN	
SWNDL	421255.80N/0830422.44W	Y	FB	TF	121.00	7.78	AT/BELOW 7000				
WERKN	415920.13N/0831254.75W	Y	FB	TF	205.12	15.00					
HUUTZ	414218.64N/0833523.75W	Y	FB	TF	224.76	23.92	AT/ABOVE 4000				
RW03R (AER)	421144.21N/0832106.49W	N	-	-	-	-				CG 500 FT/NM TO 1146	
-	421404.99N/0831922.74W	-	-	VI	028.71	2.67					
BESST	421656.69N/0831321.04W	Y	FB	CF	057.45	5.31	AT/ABOVE 2500	AT/BELOW 230K		RECOMMENDED NAVAID: ECK TACAN	
SWNDL	421255.80N/0830422.44W	Y	FB	TF	121.00	7.78	AT/BELOW 7000				
WERKN	415920.13N/0831254.75W	Y	FB	TF	205.12	15.00					
HUUTZ	414218.64N/0833523.75W	Y	FB	TF	224.76	23.92	AT/ABOVE 4000				
RW04L (AER)	421207.82N/0832302.40W	N	-	-	-	-				CG 500 FT/NM TO 1146	
-	421427.54N/0832119.53W	-	-	VI	028.68	2.65					
NITRN	421943.95N/0832352.28W	Y	FB	CF	340.26	5.60	AT/ABOVE 2500	AT/BELOW 230K		RECOMMENDED NAVAID: ECK TACAN	
FERRM	422158.09N/0832945.62W	Y	FB	TF	297.14	4.91	AT/BELOW 6000				
AVERL	421955.54N/0833805.48W	Y	FB	TF	251.76	6.51	AT/BELOW 7000				
OGEEZ	420423.55N/0834240.04W	Y	FB	TF	192.38	15.90					
HUUTZ	414218.64N/0833523.75W	Y	FB	TF	166.14	22.73	AT/ABOVE 4000				

QUALITY

3

0 0 0

QUALITY
3
CHECKED

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

DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
BARII							TWO	BARII2.BARII	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)	
-	421446.08N/0832020.37W	-	-	VI	028.70	2.91				CG 500 FT/NM TO 1146	
NITRN	421943.95N/0832352.28W	Y	FB	CF	332.14	5.61	AT/ABOVE 2500	AT/BELOW 230K		RECOMMENDED NAVAID: ECK TACAN	
FERRM	422158.09N/0832945.62W	Y	FB	TF	297.14	4.91	AT/BELOW 6000				
AVERL	421955.54N/0833805.48W	Y	FB	TF	251.76	6.51	AT/BELOW 7000				
OGEEZ	420423.55N/0834240.04W	Y	FB	TF	192.38	15.90					
HUUTZ	414218.64N/0833523.75W	Y	FB	TF	166.14	22.73	AT/ABOVE 4000				
RW21L (AER)	421310.86N/0832002.65W	N	-	-	-	-				CG 500 FT/NM TO 1146	
-	421050.18N/0832146.27W	-	-	VI	208.72	2.67					
SERGY	420429.17N/0832427.29W	Y	FB	CF	197.45	6.65				RECOMMENDED NAVAID: ECK TACAN	
FDROV	415731.95N/0832645.35W	Y	FB	TF	193.87	7.16	AT/BELOW 7000				
HUUTZ	414218.64N/0833523.75W	Y	FB	TF	203.05	16.53	AT/ABOVE 4000				
RW21R (AER)	421341.85N/0832010.12W	N	-	-	-	-				CG 500 FT/NM TO 1146	
-	421134.48N/0832143.96W	-	-	VI	208.72	2.42					
SERGY	420429.17N/0832427.29W	Y	FB	CF	195.94	7.37				RECOMMENDED NAVAID: ECK TACAN	
FDROV	415731.95N/0832645.35W	Y	FB	TF	193.87	7.16	AT/BELOW 7000				
HUUTZ	414218.64N/0833523.75W	Y	FB	TF	203.05	16.53	AT/ABOVE 4000				

QUALITY
3
CHECKED

QUALITY
3
CHECKED

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

DP NAME		NUMBER		DP COMPUTER CODE		SUPERSEDED NUMBER		DATED		EFFECTIVE DATE	
BARI		TWO		BARI2.BARI		ONE		07/19/2018		15 AUG 2019	
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
RW22L (AER)	421352.37N/0832059.97W	N	-	-	-	-					
1146 MSL	-	-	-	VA	208.71	-			CG 500 FT/NM TO 1146		
BOOSE	421002.00N/0832349.56W	Y	FB	DF	-	-					
RATIO	420025.84N/0833422.45W	Y	FB	TF	219.35	12.40	AT/BELOW 7000				
HUUTZ	414218.64N/0833523.75W	Y	FB	TF	182.42	18.13	AT/ABOVE 4000				
RW22R (AER)	421334.48N/0832158.61W	N	-	-	-	-					
1146 MSL	-	-	-	VA	208.69	-			CG 500 FT/NM TO 1146		
EEERI	421022.39N/0832419.94W	Y	FB	DF	-	-					
RATIO	420025.84N/0833422.45W	Y	FB	TF	217.01	12.44	AT/BELOW 7000				
HUUTZ	414218.64N/0833523.75W	Y	FB	TF	182.42	18.13	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	-					

QUALITY

3

QUALITY
3
CHECKED

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

DP NAME		NUMBER		DP COMPUTER CODE		SUPERSEDED NUMBER		DATED		EFFECTIVE DATE	
BARI		TWO		BARI2.BARI		ONE		07/19/2018		15 AUG 2019	
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
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		
-	-	-	-	VM	226.72	-					
QUALITY											
3											

QUALITY
3
CHECKED

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

DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
BARII							TWO	BARII2.BARII	ONE	07/19/2018	15 AUG 2019
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
RW27 (AER)	421440.03N/0833059.06W	N	-	-	-	-					
1220 MSL	-	-	-	VA	268.57	-			CG 500 FT/NM TO 1220		
-	-	-	-	VM	268.56	-					
HUUTZ	414218.64N/0833523.75W	Y	-	IF	-	-	AT/ABOVE 4000				
BARII	405322.50N/0840719.69W	Y	FB	TF	206.38	54.51					
BARII	405322.50N/0840719.69W	Y	-	IF	-	-			BARII2.SINKR		
SINKR	402704.65N/0842306.73W	Y	FB	TF	204.65	28.89					

