

ATTENTION ALL USERS PAGE (AAUP)

SIMULTANEOUS RNAV DEPARTURES

The purpose of this briefing is to provide guidance, safe operating practices, and phraseology that will help ensure heightened awareness when conducting parallel RNAV departures at the Detroit Metro Wayne County Airport (DTW). Where applicable, pilots should comply with established company procedures for RNAV operations.

1. **PREFLIGHT:** Expect clearance for RNAV Standard Instrument Departure (SID), if capable of terminal RNAV procedures. If unable to accept the assigned RNAV SID, advise Clearance Delivery on initial contact. Upon assignment of an RNAV SID, crosscheck the charted RNAV SID with the aircraft navigation system against the ATC clearance. Consider the following cross items:

- Ensure correct departure runway is loaded
- Ensure all transitions are loaded correctly
- Ensure sequence of waypoints match the appropriate charts
- Use the LEGS page to verify routing (for navigation systems with ROUTE and LEGS pages)
- Ensure altitude set in the altitude window matches the TOP ALTITUDE of the SID (unless amended by ATC)
- Do not modify or manually construct RNAV procedures
- Advise ATC prior to takeoff if unable verify correct loading or if unable to comply with the SID

2. **BEFORE TAKEOFF:** Ensure the departure runway assigned on taxi is depicted by the navigation system.

- Verify all modifications, including runway changes, in the navigation system with the RNAV SID
- Verify aircraft symbol relative to the runway symbol, lateral track, and depicted route agree with the ATC clearance (electronic navigation map displays)

3. **LINE UP/TAKEOFF:** Expect a takeoff clearance that will include "RNAV to" the first waypoint on the SID, or a heading. If issued a heading, do not delete the SID from the navigation system.

- Clearance: "Delta 123, RNAV to SAAMS, Runway 22L, Cleared for Takeoff"
- Response: "Delta 123, RNAV to SAAMS, Runway 22L, Cleared for Takeoff"
- Verify the correct runway and SID are loaded and the correct lateral navigation mode is available and ready for use after takeoff
- If the takeoff clearance does not match the planned/loaded procedure, request an initial heading from tower or refuse the takeoff clearance until the discrepancy is resolved.

4. **AFTER TAKEOFF:** Unless issued a heading, engage lateral navigation flight guidance as soon as practical and fly the departure precisely.

- Parallel RNAV departures must not encroach on the airspace between parallel runway centerlines without specific ATC clearance
- When possible, track the runway centerline until reaching the departure end of runway
- Strict compliance with the lateral and vertical tracks and charted speed restrictions is imperative
- Once established on the procedure, maintain route centerline, as depicted by onboard lateral navigation indicators and/or flight guidance
- Manually intervene if necessary, to stay on track to avoid transgressing in the direction of a parallel runway, track, or aircraft
- If unable to comply with the SID profile, either laterally or vertically, immediately notify ATC

(CONTINUED ON FOLLOWING PAGE)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

ATTENTION ALL USERS PAGE (AAUP)

(CONTINUED FROM PREVIOUS PAGE)

5. **SPECIFIC INFORMATION:** Runway assignments will be issued on initial contact with Ground Control and will be based on traffic conditions, runway closures, and other operational requirements.

For planning purposes, pilots can anticipate a runway assignment based upon the information below.

Runway Assignment for Dual Departure Operations

Departing Runways 22L/R, 21L/R

SNDRS, CCOBB, KAYLN, MIGGY, TRMML, ZETTR - Expect Runway 22L
 HHOWE, PAVYL, LIDDS, BARI, CLVIN - Expect Runway 21R

Departing Runways 4L/R, 3L/R

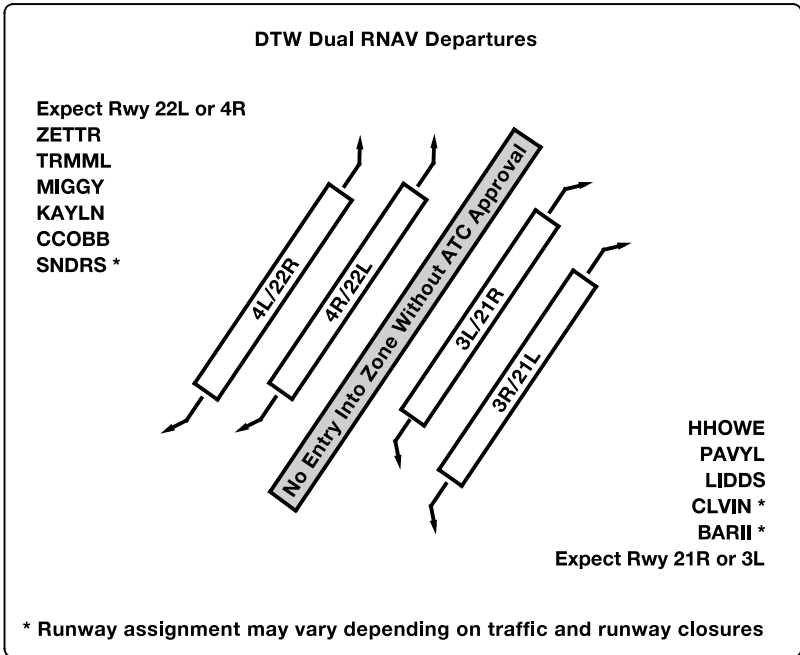
SNDRS, CCOBB, KAYLN, MIGGY, TRMML, ZETTR - Expect Runway 04R
 HHOWE, PAVYL, LIDDS, BARI, CLVIN - Expect Runway 03L

Departing Runways 27L/R (not depicted below)

KAYLN, MIGGY, TRMML, ZETTR, HHOWE - Expect Runway 27R
 CCOBB, SNDRS, BARI, CLVIN, LIDDS, PAVYL - Expect Runway 27L

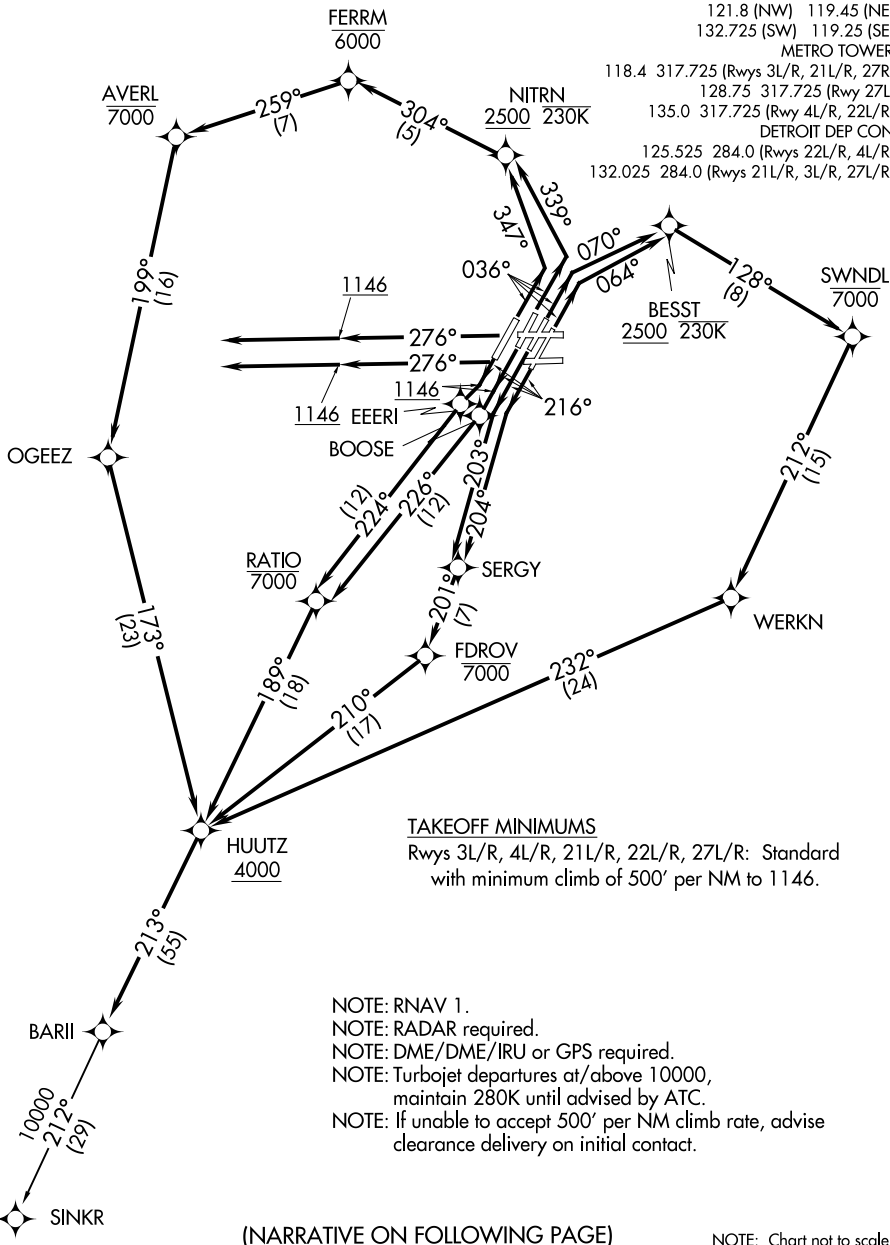
EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024



TOP ALTITUDE:
17000

D-ATIS 118.125
 CLNC DEL 120.65
 CPDLC
 GND CON
 121.8 (NW) 119.45 (NE)
 132.725 (SW) 119.25 (SE)
 METRO TOWER
 118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
 128.75 317.725 (Rwy 27L)
 135.0 317.725 (Rwy 4L/R, 22L/R)
 DETROIT DEP CON
 125.525 284.0 (Rwys 22L/R, 4L/R)
 132.025 284.0 (Rwys 21L/R, 3L/R, 27L/R)



EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

TAKEOFF MINIMUMS
 Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R: Standard
 with minimum climb of 500' per NM to 1146.

- 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: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

NOTE: See additional requirements in RNAV departure AAUP.

TAKEOFF RWY 3L: Climb on heading 036° to intercept course 070° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 212° to WERKN, then on track 232° to cross HUUTZ at or above 4000, thence....

TAKEOFF RWY 3R: Climb on heading 036° to intercept course 064° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 212° to WERKN, then on track 232° to cross HUUTZ at or above 4000, thence....

TAKEOFF RWY 4L: Climb on heading 036° to intercept course 347° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then on track 199° to OGEEZ, then on track 173° to cross HUUTZ at or above 4000, thence....

TAKEOFF RWY 4R: Climb on heading 036° to intercept course 339° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then on track 199° to OGEEZ, then on track 173° to cross HUUTZ at or above 4000, thence....

TAKEOFF RWY 21L: Climb on heading 216° to intercept course 204° to SERGY, then on track 201° to cross FDROV at or below 7000, then on track 210° to cross HUUTZ at or above 4000, thence....

TAKEOFF RWY 21R: Climb on heading 216° to intercept course 203° to SERGY, then on track 201° to cross FDROV at or below 7000, then on track 210° to cross HUUTZ at or above 4000, thence....

TAKEOFF RWY 22L: Climb on heading 216° to 1146, then direct BOOSE, then on track 226° to cross RATIO at or below 7000, then on track 189° to cross HUUTZ at or above 4000, thence....

TAKEOFF RWY 22R: Climb on heading 216° to 1146, then direct EEERI, then on track 224° to cross RATIO at or below 7000, then on track 189° to cross HUUTZ at or above 4000, thence....

TAKEOFF RWY 27L/R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross HUUTZ at or above 4000, thence....

....on track 213° to BARII, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

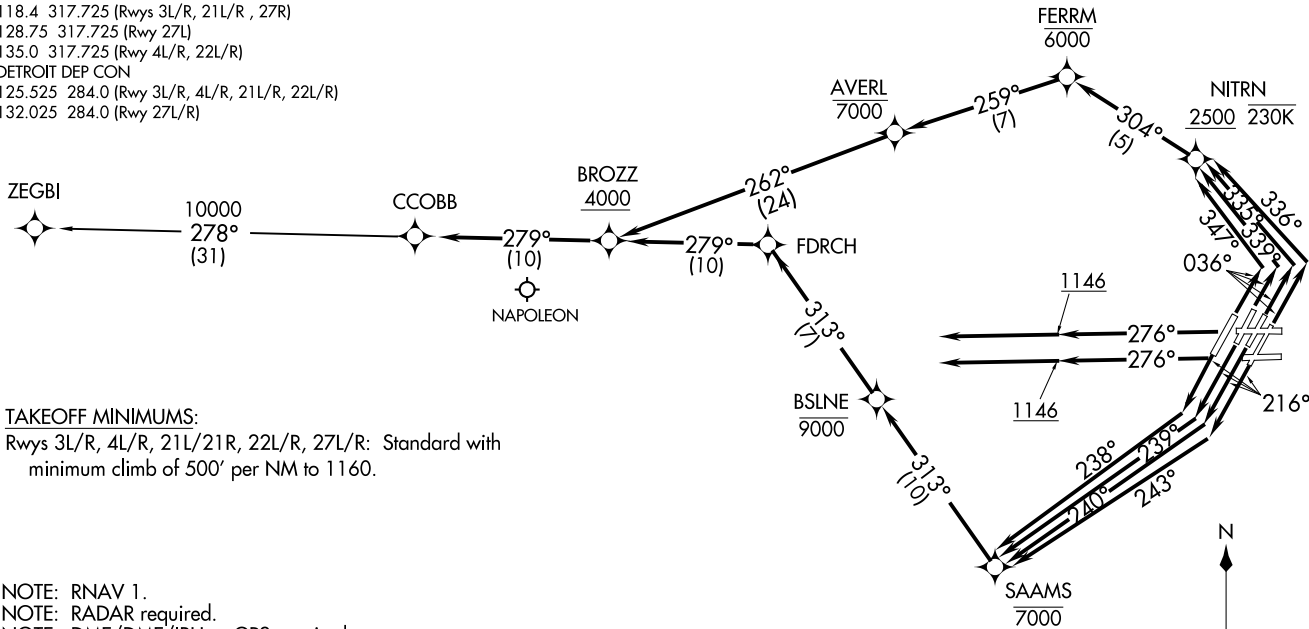
SINKR TRANSITION (BARI2.SINKR):

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

**TOP ALTITUDE:
17000**

D-ATIS 118.125
 CLNC DEL 120.65
 CPDLC
 GND CON
 121.8 (NW) 119.45 (NE)
 132.725 (SW) 119.25 (SE)
 METRO TOWER
 118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
 128.75 317.725 (Rwy 27L)
 135.0 317.725 (Rwy 4L/R, 22L/R)
 DETROIT DEP CON
 125.525 284.0 (Rwy 3L/R, 4L/R, 21L/R, 22L/R)
 132.025 284.0 (Rwy 27L/R)



TAKEOFF MINIMUMS:

Rwys 3L/R, 4L/R, 21L/21R, 22L/R, 27L/R: Standard with minimum climb of 500' per NM to 1160.

- 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: For use by aircraft filed at or below FL220, or as assigned by ATC.
- NOTE: CAUTION: Parachute jumping 6 NM SW of BROZZ, 3 NM radius of Napoleon Airport (3NP) at or below 17999 (SR-SS).
- NOTE: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

CCOBB TWO DEPARTURE (RNAV)
(CCOBB2.CCOBB) 15AUG19

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

(CCOBB2.CCOBB) 21112
CCOBB TWO DEPARTURE (RNAV)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

AL-119 (FAA)



DEPARTURE ROUTE DESCRIPTION

NOTE: See additional requirements in RNAV departure AAUP.

TAKEOFF RUNWAY 3L: Climb on heading 036° to intercept course 335° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then on track 262° to cross BROZZ at or above 4000, thence....

TAKEOFF RUNWAY 3R: Climb on heading 036° to intercept course 336° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then on track 262° to cross BROZZ at or above 4000, thence....

TAKEOFF RUNWAY 4L: Climb on heading 036° to intercept course 347° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then on track 262° to cross BROZZ at or above 4000, thence....

TAKEOFF RUNWAY 4R: Climb on heading 036° to intercept course 339° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then on track 262° to cross BROZZ at or above 4000, thence....

TAKEOFF RUNWAY 21L: Climb heading 216° to intercept course 243° to cross SAAMS at or below 7000, then on track 313° to cross BSLNE at or below 9000, then on track 313° to FDRCH, then on track 279° to cross BROZZ at or above 4000, thence....

TAKEOFF RUNWAY 21R: Climb on heading 216° to intercept course 240° to cross SAAMS at or below 7000, then on track 313° to cross BSLNE at or below 9000, then on track 313° to FDRCH, then on track 279° to cross BROZZ at or above 4000, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to intercept course 239° to cross SAAMS at or below 7000, then on track 313° to cross BSLNE at or below 9000, then on track 313° to FDRCH, then on track 279° to cross BROZZ at or above 4000, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to intercept course 238° to cross SAAMS at or below 7000, then on track 313° to cross BSLNE at or below 9000, then on track 313° to FDRCH, then on track 279° to cross BROZZ at or above 4000, thence....

TAKEOFF RUNWAYS 27L/27R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross BROZZ at or above 4000, thence....

...on track 279° to CCOBB, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude within 10 minutes after departure.

ZEGBI TRANSITION (CCOBB2.ZEGBI):

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

(CLVIN2.CLVIN) 21112

AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)

CLVIN TWO DEPARTURE (RNAV)

Departure Routes

DETROIT, MICHIGAN

**TOP ALTITUDE:
17000**

D-ATIS 118.125

CLNC DEL 120.65

CPDLC

GND CON

121.8 (NW) 119.45 (NE)

132.725 (SW) 119.25 (SE)

METRO TOWER

118.4 317.725 (Rwys 3L/R, 21L/R, 27R)

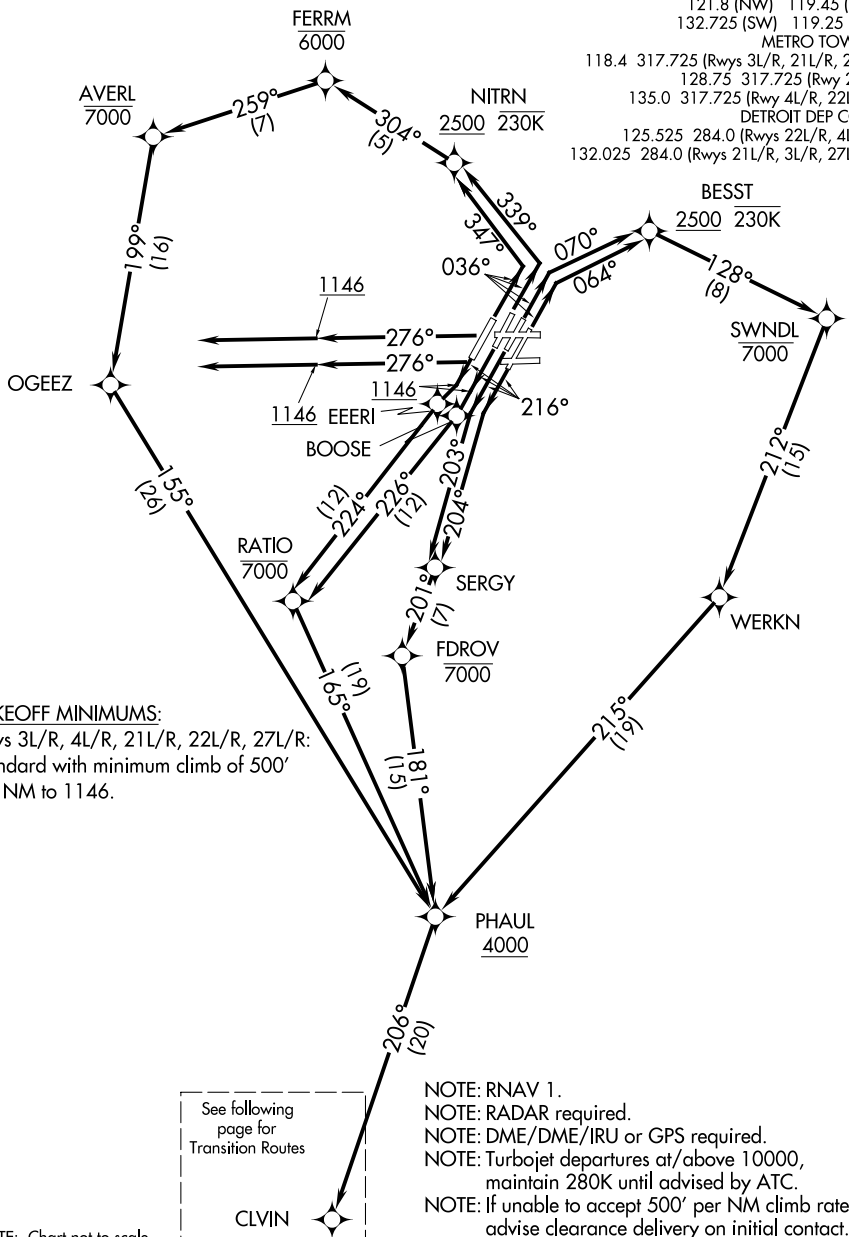
128.75 317.725 (Rwy 27L)

135.0 317.725 (Rwy 4L/R, 22L/R)

DETROIT DEP CON

125.525 284.0 (Rwys 22L/R, 4L/R)

132.025 284.0 (Rwys 21L/R, 3L/R, 27L/R)



TAKEOFF MINIMUMS:

Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R:

Standard with minimum climb of 500' per NM to 1146.

See following page for Transition Routes

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: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.

NOTE: Chart not to scale.

CLVIN TWO DEPARTURE (RNAV)

Departure Routes

DETROIT, MICHIGAN

(CLVIN2.CLVIN) 15AUG19

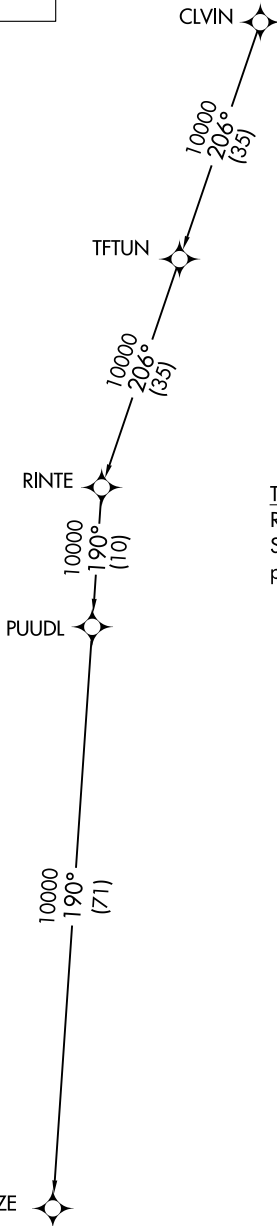
DETROIT METRO WAYNE COUNTY (DTW)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

**TOP ALTITUDE:
17000**

D-ATIS 118.125
 CLNC DEL 120.65
 CPDLC
 GND CON
 121.8 (NW) 119.45 (NE)
 132.725 (SW) 119.25 (SE)
 METRO TOWER
 118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
 128.75 317.725 (Rwy 27L)
 135.0 317.725 (Rwy 4L/R, 22L/R)
 DETROIT DEP CON
 125.525 284.0 (Rwys 22L/R, 4L/R)
 132.025 284.0 (Rwys 21L/R, 3L/R, 27L/R)



TAKEOFF MINIMUMS:
 Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R:
 Standard with minimum climb of 500'
 per NM to 1146.

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: If unable to accept 500' per NM climb rate,
 advise clearance delivery on initial contact.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024



DEPARTURE ROUTE DESCRIPTION

SEE ADDITIONAL REQUIREMENTS IN RNAV DEPARTURE AAUP.

TAKEOFF RUNWAY 3L: Climb on heading 036° to intercept course 070° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWINDL at or below 7000, then on track 212° to WERKN, then on track 215° to cross PHAUL at or above 4000, thence....

TAKEOFF RUNWAY 3R: Climb on heading 036° to intercept course 064° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWINDL at or below 7000, then on track 212° to WERKN, then on track 215° to cross PHAUL at or above 4000, thence....

TAKEOFF RUNWAY 4L: Climb on heading 036° to intercept course 347° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then on track 199° to OGEEZ, then on track 155° to cross PHAUL at or above 4000, thence....

TAKEOFF RUNWAY 4R: Climb on heading 036° to intercept course 339° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then on track 199° to OGEEZ, then on track 155° to cross PHAUL at or above 4000, thence....

TAKEOFF RUNWAY 21L: Climb on heading 216° to intercept course 204° to SERGY, then on track 201° to cross FDROV at or below 7000, then on track 181° to cross PHAUL at or above 4000, thence....

TAKEOFF RUNWAY 21R: Climb on heading 216° to intercept course 203° to SERGY, then on track 201° to cross FDROV at or below 7000, then on track 181° to cross PHAUL at or above 4000, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to 1146, then direct BOOSE, then on track 226° to cross RATIO at or below 7000, then on track 165° to cross PHAUL at or above 4000, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to 1146, then direct EEERI, then on track 224° to cross RATIO at or below 7000, then on track 165° to cross PHAUL at or above 4000, thence....

TAKEOFF RUNWAYS 27L/27R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross PHAUL at or above 4000, thence....

...on track 206° to CLVIN, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

STAZE TRANSITION (CLVIN2.STAZE):

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

TOP ALTITUDE:
17000

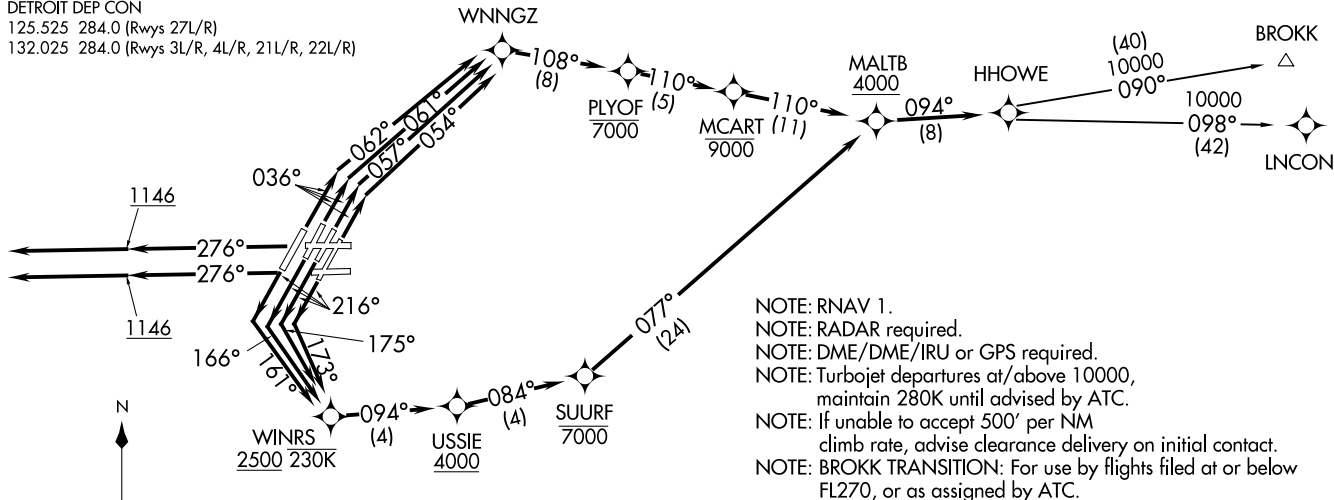
HHOWE THREE DEPARTURE (RNAV)
(HHOWE3.HHOWE) 05DEC19

(HHOWE3.HHOWE) 21112
HHOWE THREE DEPARTURE (RNAV)

D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON
121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)
DETROIT DEP CON
125.525 284.0 (Rwys 27L/R)
132.025 284.0 (Rwys 3L/R, 4L/R, 21L/R, 22L/R)

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN



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: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.
 NOTE: BROKK TRANSITION: For use by flights filed at or below FL270, or as assigned by ATC.

TAKEOFF MINIMUMS:
 Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R: Standard with minimum climb of 500' per NM to 1146.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION



NOTE: See additional requirements in RNAV departures AAUP.

TAKEOFF RUNWAY 3L: Climb on heading 036° to intercept course 057° to WNNGZ, then on track 108° to cross PLYOF at or below 7000, then on track 110° to cross MCART at or below 9000, then on track 110° to cross MALTB at or above 4000, thence....

TAKEOFF RUNWAY 3R: Climb on heading 036° to intercept course 054° to WNNGZ, then on track 108° to cross PLYOF at or below 7000, then on track 110° to cross MCART at or below 9000, then on track 110° to cross MALTB at or above 4000, thence....

TAKEOFF RUNWAY 4L: Climb on heading 036° to intercept course 062° to WNNGZ, then on track 108° to cross PLYOF at or below 7000, then on track 110° to cross MCART at or below 9000, then on track 110° to cross MALTB at or above 4000, thence....

TAKEOFF RUNWAY 4R: Climb on heading 036° to intercept course 061° to WNNGZ, then on track 108° to cross PLYOF at or below 7000, then on track 110° to cross MCART at or below 9000, then on track 110° to cross MALTB at or above 4000, thence....

TAKEOFF RUNWAY 21L: Climb on heading 216° to intercept course 173° to cross WINRS at or above 2500 and at or below 230K, then on track 094° to cross USSIE at or above 4000, then on track 084° to cross SUURF at or below 7000, then on track 077° to cross MALTB at or above 4000, thence....

TAKEOFF RUNWAY 21R: Climb on heading 216° to intercept course 175° to cross WINRS at or above 2500 and at or below 230K, then on track 094° to cross USSIE at or above 4000, then on track 084° to cross SUURF at or below 7000, then on track 077° to cross MALTB at or above 4000, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to intercept course 166° to cross WINRS at or above 2500 and at or below 230K, then on track 094° to cross USSIE at or above 4000, then on track 084° to cross SUURF at or below 7000, then on track 077° to cross MALTB at or above 4000, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to intercept course 161° to cross WINRS at or above 2500 and at or below 230K, then on track 094° to cross USSIE at or above 4000, then on track 084° to cross SUURF at or below 7000, then on track 077° to cross MALTB at or above 4000, thence....

TAKEOFF RUNWAYS 27L/27R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross MALTB at or above 4000, thence....

....on track 094° to HHOWE, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

BROKK TRANSITION (HHOWE3.BROKK)

LNCON TRANSITION (HHOWE3.LNCON)

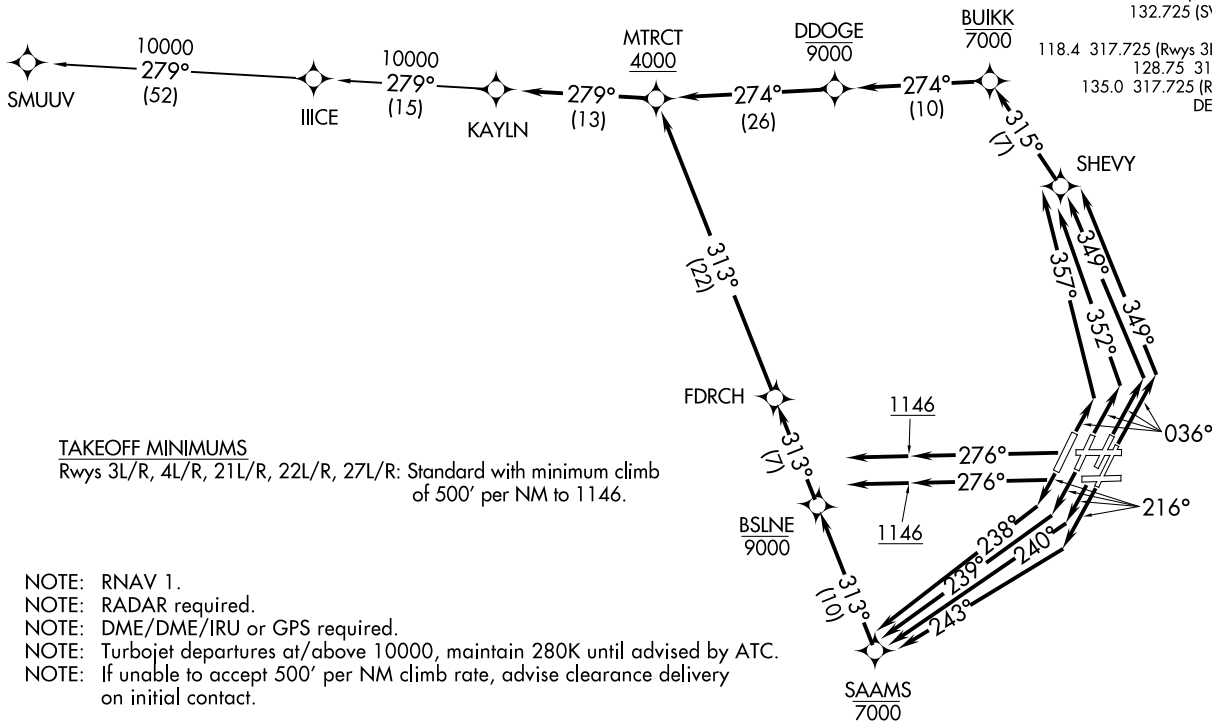
EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

KAYLN TWO DEPARTURE (RNAV)
(KAYLN2.KAYLN) 15AUG19

TOP ALTITUDE:
17000

D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON
121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)
DETROIT DEP CON
125.525 284.0



TAKEOFF MINIMUMS

Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R: Standard with minimum climb of 500' per NM to 1146.

- 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: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

(KAYLN2.KAYLN) 21112
KAYLN TWO DEPARTURE (RNAV) AL-119 (FAA)
DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

DEPARTURE ROUTE DESCRIPTION



NOTE: See additional requirements in RNAV departure AAUP.

TAKEOFF RUNWAY 3L/R: Climb on heading 036° to intercept course 349° to SHEVY, then on track 315° to cross BUIKK at or below 7000, then on track 274° to cross DDOGE at or below 9000, then on track 274° to cross MTRCT at or above 4000, thence....

TAKEOFF RUNWAY 4L: Climb on heading 036° to intercept course 357° to SHEVY, then on track 315° to cross BUIKK at or below 7000, then on track 274° to cross DDOGE at or below 9000, then on track 274° to cross MTRCT at or above 4000, thence....

TAKEOFF RUNWAY 4R: Climb on heading 036° to intercept course 352° to SHEVY, then on track 315° to cross BUIKK at or below 7000, then on track 274° to cross DDOGE at or below 9000, then on track 274° to cross MTRCT at or above 4000, thence....

TAKEOFF RUNWAY 21L: Climb on heading 216° to intercept course 243° to cross SAAMS at or below 7000, then on track 313° to cross BSLNE at or below 9000, then on track 313° to FDRCH, then on track 313° to cross MTRCT at or above 4000, thence....

TAKEOFF RUNWAY 21R: Climb on heading 216° to intercept course 240° to cross SAAMS at or below 7000, then on track 313° to cross BSLNE at or below 9000, then on track 313° to FDRCH, then on track 313° to cross MTRCT at or above 4000, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to intercept course 239° to cross SAAMS at or below 7000, then on track 313° to cross BSLNE at or below 9000, then on track 313° to FDRCH, then on track 313° to cross MTRCT at or above 4000, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to intercept course 238° to cross SAAMS at or below 7000, then on track 313° to cross BSLNE at or below 9000, then on track 313° to FDRCH, then on track 313° to cross MTRCT at or above 4000, thence....

TAKEOFF RUNWAYS 27L/R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross MTRCT at or above 4000, thence....

...on track 279° to KAYLN, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

SMUUV TRANSITION (KAYLN2.SMUUV)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

KZLOV ONE DEPARTURE (RNAV)
(KZLOV1, WINNZ) 14JUL22

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON
121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)
DETROIT DEP CON
132.025 284.0

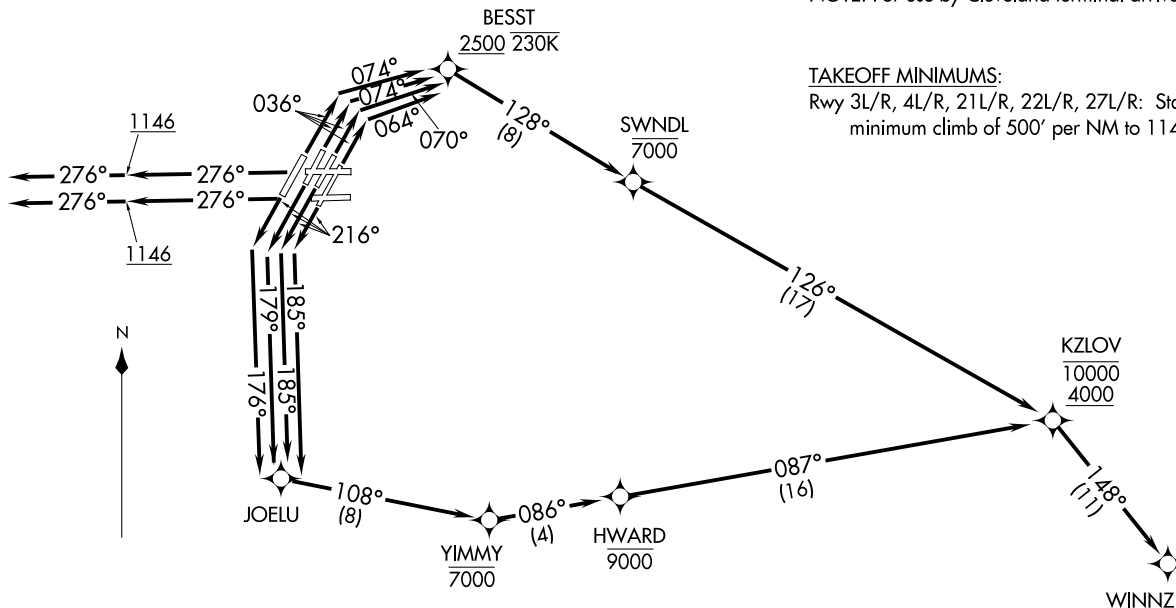
RNAV 1 - DME/DME/IRU or GPS.

RADAR required.

TOP ALTITUDE:
10000

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: If unable initial 500' per NM climb rate, advise clearance delivery on initial contact.
NOTE: For use by Cleveland terminal arrivals only.

TAKEOFF MINIMUMS:
Rwy 3L/R, 4L/R, 21L/R, 22L/R, 27L/R: Standard with minimum climb of 500' per NM to 1146.



NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

(KZLOV1, WINNZ) 22195
KZLOV ONE DEPARTURE (RNAV)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN
AL-119 (FAA)

DEPARTURE ROUTE DESCRIPTION



TAKEOFF RUNWAY 3L: Climb on heading 036° to intercept course 070° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 126° to cross KZLOV at or above 4000 and at or below 10000, thence....

TAKEOFF RUNWAY 3R: Climb on heading 036° to intercept course 064° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 126° to cross KZLOV at or above 4000 and at or below 10000, thence....

TAKEOFF RUNWAY 4L/R: Climb on heading 036° to intercept course 074° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 126° to cross KZLOV at or above 4000 and at or below 10000, thence....

TAKEOFF RUNWAY 21L/R: Climb on heading 216° to intercept course 185° to JOELU, then on track 108° to cross YIMMY at or below 7000, then on track 086° to cross HWARD at or below 9000, then on track 087° to cross KZLOV at or above 4000 and at or below 10000, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to intercept course 179° to JOELU, then on track 108° to cross YIMMY at or below 7000, then on track 086° to cross HWARD at or below 9000, then on track 087° to cross KZLOV at or above 4000 and at or below 10000, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to intercept course 176° to JOELU, then on track 108° to cross YIMMY at or below 7000, then on track 086° to cross HWARD at or below 9000, then on track 087° to cross KZLOV at or above 4000 and at or below 10000, thence....

TAKEOFF RUNWAY 27L/R: Climb on heading 276° to 1146, then on heading 276° or as assigned by ATC for RADAR vectors to cross KZLOV at or above 4000 and at or below 10000, thence....

....on track 148° to WINNZ. Maintain assigned altitude, expect filed altitude ten minutes after departure.

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

LIDDS TWO DEPARTURE (RNAV)
(LIDDS2.LIDDS) 15AUG19

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON
121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)
DETROIT DEP CON
132.025 284.0

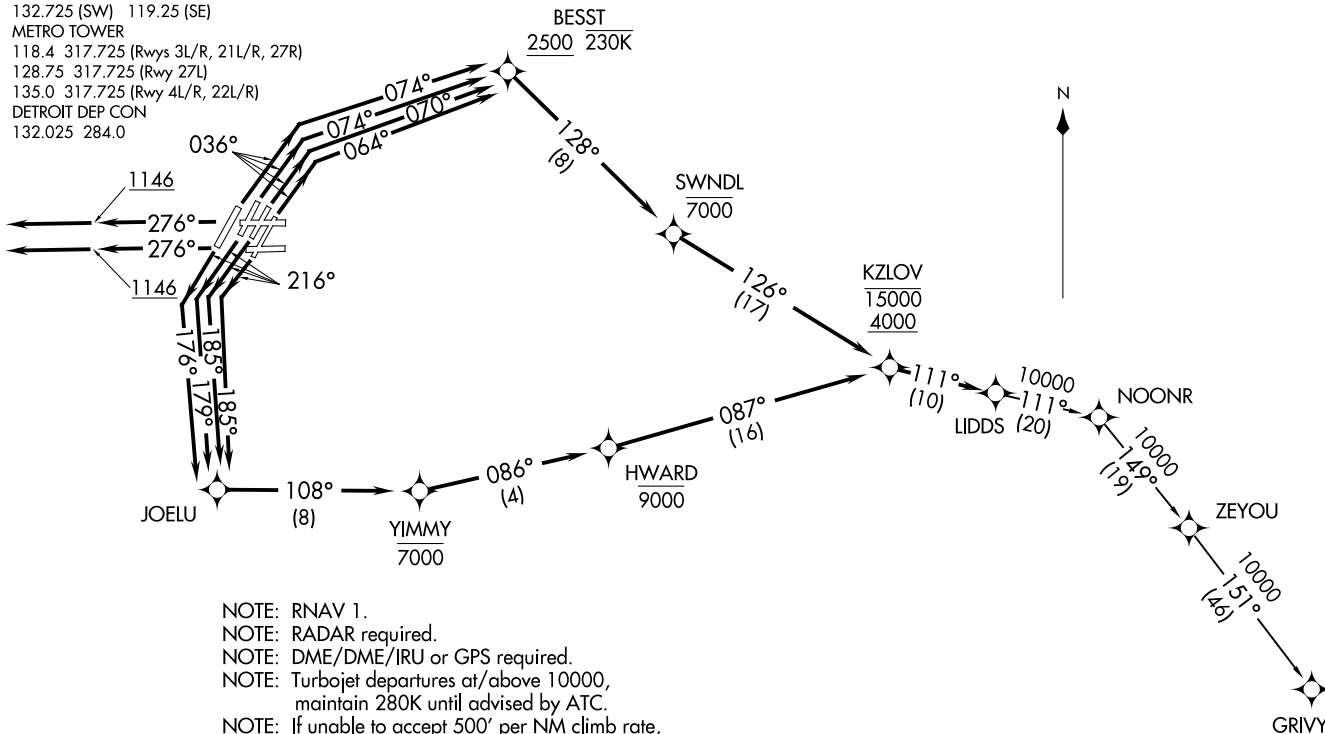
TAKEOFF MINIMUMS:

Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R: Standard with minimum climb of 500' per NM to 1146.

**TOP ALTITUDE:
17000**

(LIDDS2.LIDDS) 21112
LIDDS TWO DEPARTURE (RNAV)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN
AL-119 (FAA)



- 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: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.

(NARRATIVE ON FOLLOWING PAGE)



DEPARTURE ROUTE DESCRIPTION

NOTE: See additional requirements in RNAV departure AAUP.

TAKEOFF RUNWAY 3L: Climb on heading 036° to intercept course 070° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 126° to cross KZLOV between 4000 and 15000, thence....

TAKEOFF RUNWAY 3R: Climb on heading 036° to intercept course 064° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 126° to cross KZLOV between 4000 and 15000, thence....

TAKEOFF RUNWAYS 4L/R: Climb on heading 036° to intercept course 074° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 126° to cross KZLOV between 4000 and 15000, thence....

TAKEOFF RUNWAYS 21L/R: Climb on heading 216° to intercept course 185° to JOELU, then on track 108° to cross YIMMY at or below 7000, then on track 086° to cross HWARD at or below 9000, then on track 087° to cross KZLOV between 4000 and 15000, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to intercept course 179° to JOELU, then on track 108° to cross YIMMY at or below 7000, then on track 086° to cross HWARD at or below 9000, then on track 087° to cross KZLOV between 4000 and 15000, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to intercept course 176° to JOELU, then on track 108° to cross YIMMY at or below 7000, then on track 086° to cross HWARD at or below 9000, then on track 087° to cross KZLOV between 4000 and 1500, thence....

TAKEOFF RUNWAY 27L: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross KZLOV between 4000 and 15000, thence....

TAKEOFF RUNWAY 27R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross KZLOV between 4000 and 15000, thence....

....on track 111° to LIDDS, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

GRIVY TRANSITION (LIDDS2.GRIVY)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

METRO THREE DEPARTURE
(METRO3.DXO) 05NOV20

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON
121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)

TAKEOFF MINIMUMS

Rwys 3L/R, 4L/R, 9L/R, 21L/R, 22L/R, 27L/R: Standard.

NOTE: RADAR required.
NOTE: DME required.
NOTE: For use by non-RNAV equipped aircraft only.

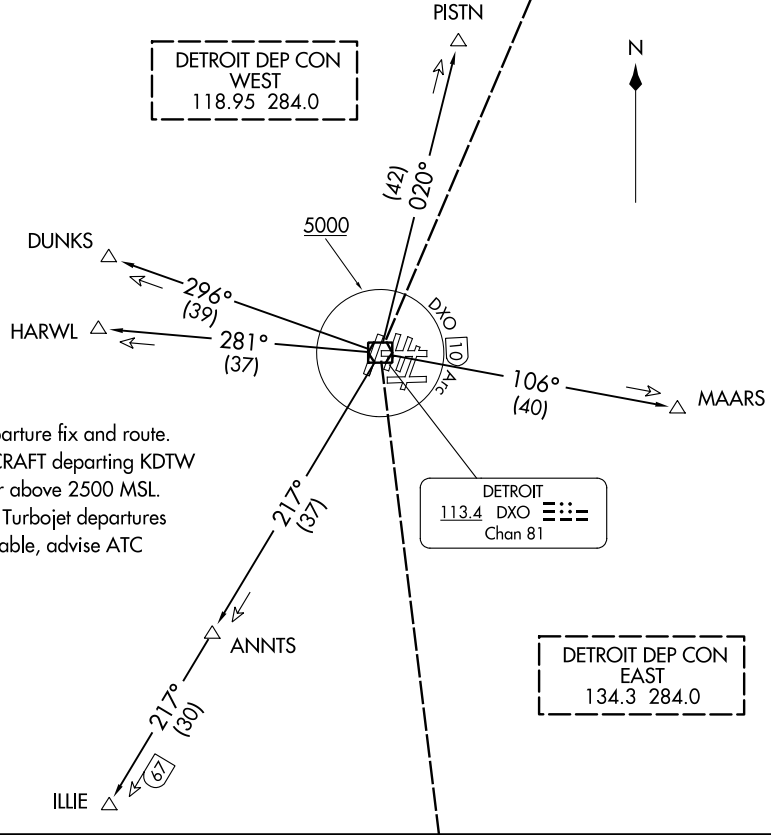
SPECIAL INSTRUCTIONS:

When using this departure, file the appropriate depicted departure fix and route.
Aircraft over HARWL must file FL220 and below. PROP AIRCRAFT departing KDTW Rwy 21L/R and 22L/R westbound, cross DXO 3.5 DME at or above 2500 MSL.
Aircraft landing Cleveland (CLE) must file MAARS transition. Turbojet departures at/above 10000, maintain 280K until advised by ATC. If unable, advise ATC prior to departure.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

**TOP ALTITUDE:
ASSIGNED BY ATC**



(METRO3.DXO) 23334
METRO THREE DEPARTURE

AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

METRO THREE DEPARTURE

AL-119 (FAA)

DETROIT, MICHIGAN



DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading, thence....

.....maintain ATC assigned altitude for RADAR vectors to intercept filed/assigned transition or enroute fix/navaid. When ATC assigned altitude is at or above 5000, cross DXO 10 DME Arc at or above 5000 for noise abatement. If unable to comply, advise ATC prior to departure. Expect clearance to filed altitude/flight level within ten (10) minutes after departure.

DUNKS TRANSITION (METRO3.DUNKS): From over DXO VOR/DME on DXO R-296 to DUNKS.

HARWL TRANSITION (METRO3.HARWL): From over DXO VOR/DME on DXO R-281 to HARWL.

ILLIE TRANSITION (METRO3.ILLIE): From over DXO VOR/DME on DXO R-217 to ILLIE.

MAARS TRANSITION (METRO3.MAARS): From over DXO VOR/DME on DXO R-106 to MAARS.

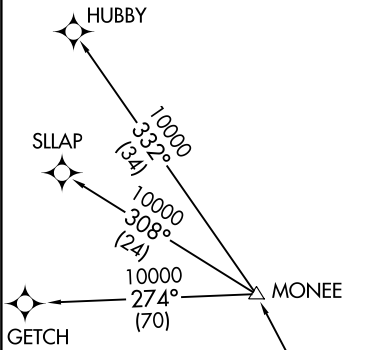
PISTN TRANSITION (METRO3.PISTN): From over DXO VOR/DME on DXO R-020 to PISTN.

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

**TOP ALTITUDE:
17000**

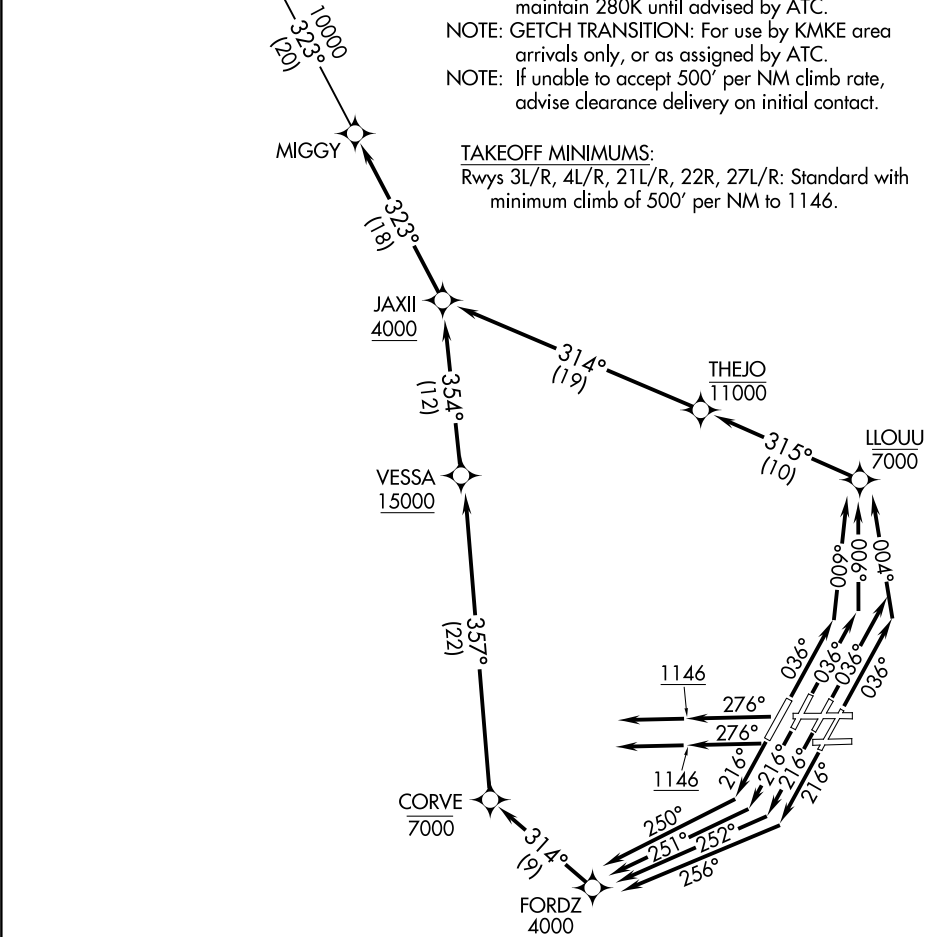
D-ATIS 118.125
 CLNC DEL 120.65
 CPDLC
 GND CON
 121.8 (NW) 119.45 (NE)
 132.725 (SW) 119.25 (SE)
 METRO TOWER
 118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
 128.75 317.725 (Rwy 27L)
 135.0 317.725 (Rwys 4L/R, 22L/R)
 DETROIT DEP CON
 125.525 284.0



- 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: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.

TAKEOFF MINIMUMS:

Rwys 3L/R, 4L/R, 21L/R, 22R, 27L/R: Standard with minimum climb of 500' per NM to 1146.



(NARRATIVE ON FOLLOWING PAGE)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024



DEPARTURE ROUTE DESCRIPTION

NOTE: See additional requirements in RNAV departure AAUP.

TAKEOFF RUNWAYS 3L/R: Climb on heading 036° to intercept course 004° to cross LLOUU at or below 7000, then on track 315° to cross THEJO at or below 11000, then on track 314° to cross JAXII at or above 4000, thence....

TAKEOFF RUNWAY 4L: Climb on heading 036° to intercept course 009° to cross LLOUU at or below 7000, then on track 315° to cross THEJO at or below 11000, then on track 314° to cross JAXII at or above 4000, thence....

TAKEOFF RUNWAY 4R: Climb on heading 036° to intercept course 006° to cross LLOUU at or below 7000, then on track 315° to cross THEJO at or below 11000, then on track 314° to cross JAXII at or above 4000, thence....

TAKEOFF RUNWAY 21L: Climb on heading 216° to intercept course 256° to cross FORDZ at or above 4000, then on track 314° to cross CORVE at or below 7000, then on track 357° to cross VESSA at or above 15000, then on track 354° to JAXII, thence....

TAKEOFF RUNWAY 21R: Climb on heading 216° to intercept course 252° to cross FORDZ at or above 4000, then on track 314° to cross CORVE at or below 7000, then on track 357° to cross VESSA at or above 15000, then on track 354° to JAXII, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to intercept course 251° to cross FORDZ at or above 4000, then on track 314° to cross CORVE at or below 7000, then on track 357° to cross VESSA at or above 15000, then on track 354° to JAXII, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to intercept course 250° to cross FORDZ at or above 4000, then on track 314° to cross CORVE at or below 7000, then on track 357° to cross VESSA at or above 15000, then on track 354° to JAXII, thence....

TAKEOFF RUNWAY 27L/R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross JAXII at or above 4000, thence....

....on track 323° to MIGGY, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

GETCH TRANSITION (MIGGY2.GETCH)

HUBBY TRANSITION (MIGGY2.HUBBY)

SLAP TRANSITION (MIGGY2.SLAP)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

PAVYL TWO DEPARTURE (RNAV)
(PAVYL2.PAVYL) 15AUG19

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

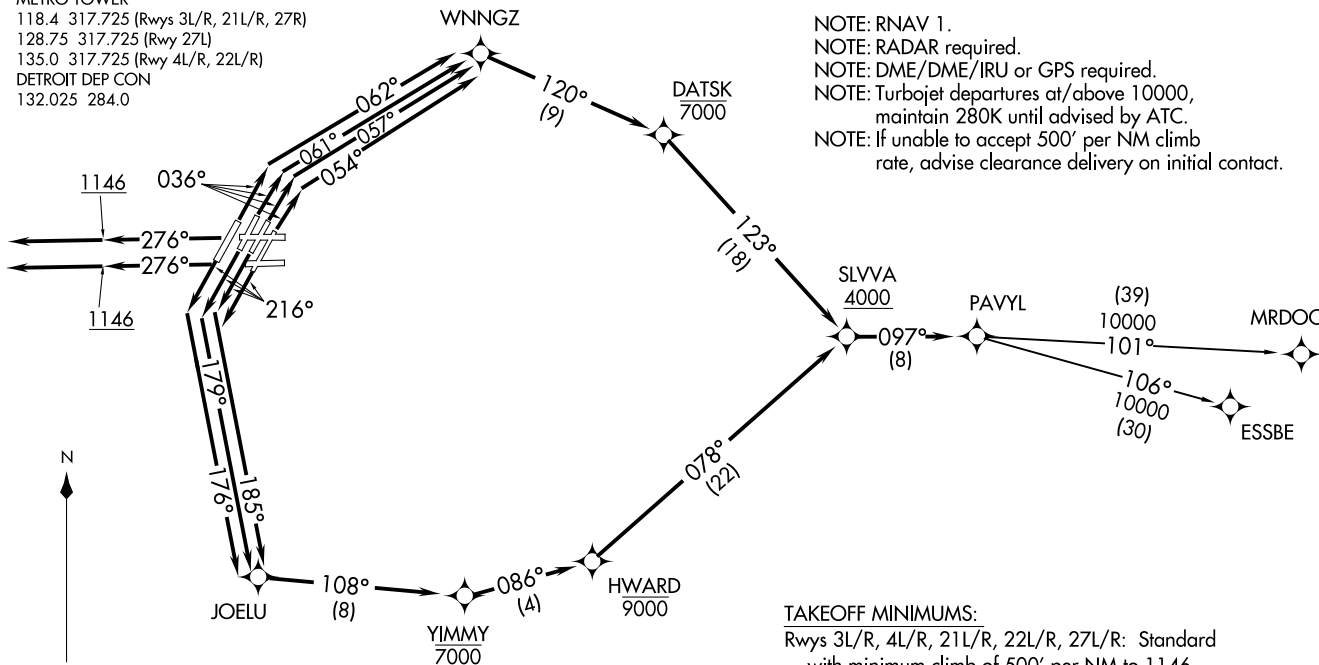
D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON
121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)
DETROIT DEP CON
132.025 284.0

TOP ALTITUDE:
17000

(PAVYL2.PAVYL) 21112
PAVYL TWO DEPARTURE (RNAV)

DETROIT METRO WAYNE COUNTY (DTW)
AL-119 (FAA)
DETROIT, MICHIGAN

NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbopjet departures at/above 10000,
maintain 280K until advised by ATC.
NOTE: If unable to accept 500' per NM climb
rate, advise clearance delivery on initial contact.



TAKEOFF MINIMUMS:
Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R: Standard
with minimum climb of 500' per NM to 1146.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)



DEPARTURE ROUTE DESCRIPTION

NOTE: See additional requirements in RNAV departure AAUP.

TAKEOFF RUNWAY 3L: Climb on heading 036° to intercept course 057° to WNNGZ, then on track 120° to cross DATSK at or below 7000, then on track 123° to cross SLVVA at or above 4000, thence....

TAKEOFF RUNWAY 3R: Climb on heading 036° to intercept course 054° to WNNGZ, then on track 120° to cross DATSK at or below 7000, then on track 123° to cross SLVVA at or above 4000, thence....

TAKEOFF RUNWAY 4L: Climb on heading 036° to intercept course 062° to WNNGZ, then on track 120° to cross DATSK at or below 7000, then on track 123° to cross SLVVA at or above 4000, thence....

TAKEOFF RUNWAY 4R: Climb on heading 036° to intercept course 061° to WNNGZ, then on track 120° to cross DATSK at or below 7000, then on track 123° to cross SLVVA at or above 4000, thence....

TAKEOFF RUNWAYS 21L/R: Climb on heading 216° to intercept course 185° to JOELU, then on track 108° to cross YIMMY at or below 7000, then on track 086° to cross HWARD at or below 9000, then on track 078° to cross SLVVA at or above 4000, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to intercept course 179° to JOELU, then on track 108° to cross YIMMY at or below 7000, then on track 086° to cross HWARD at or below 9000, then on track 078° to cross SLVVA at or above 4000, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to intercept course 176° to JOELU, then on track 108° to cross YIMMY at or below 7000, then on track 086° to cross HWARD at or below 9000, then on track 078° to cross SLVVA at or above 4000, thence....

TAKEOFF RUNWAYS 27L/27R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross SLVVA at or above 4000, thence....

....on track 097° to PAVYL, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

ESSBE TRANSITION (PAVYL2.ESSBE)
MRDOC TRANSITION (PAVYL2.MRDOC)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

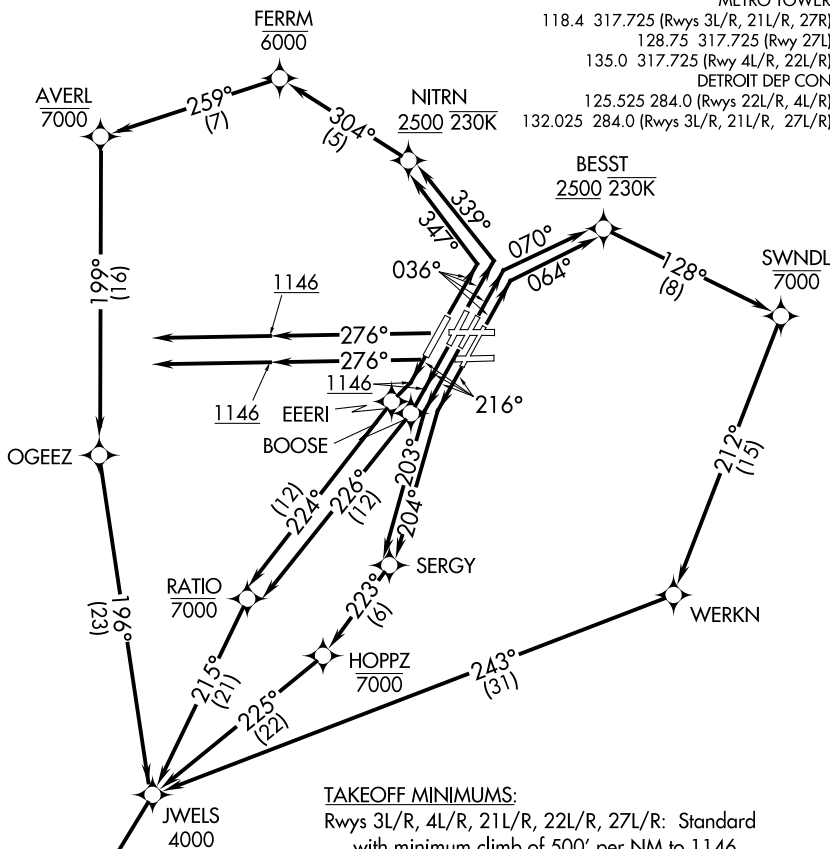
SNDRS TWO DEPARTURE (RNAV) Departure Routes

**TOP ALTITUDE:
17000**

D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON

121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)

METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)
DETROIT DEP CON
125.525 284.0 (Rwys 22L/R, 4L/R)
132.025 284.0 (Rwys 3L/R, 21L/R, 27L/R)



TAKEOFF MINIMUMS:

Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R: Standard with minimum climb of 500' per NM to 1146.

- 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: TORRR TRANSITION: For use by KIND and KCVG area arrivals only and flights filed at or below FL220, or as assigned by ATC.
- NOTE: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.

◆ SNDRS
See following page for Transition Routes

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

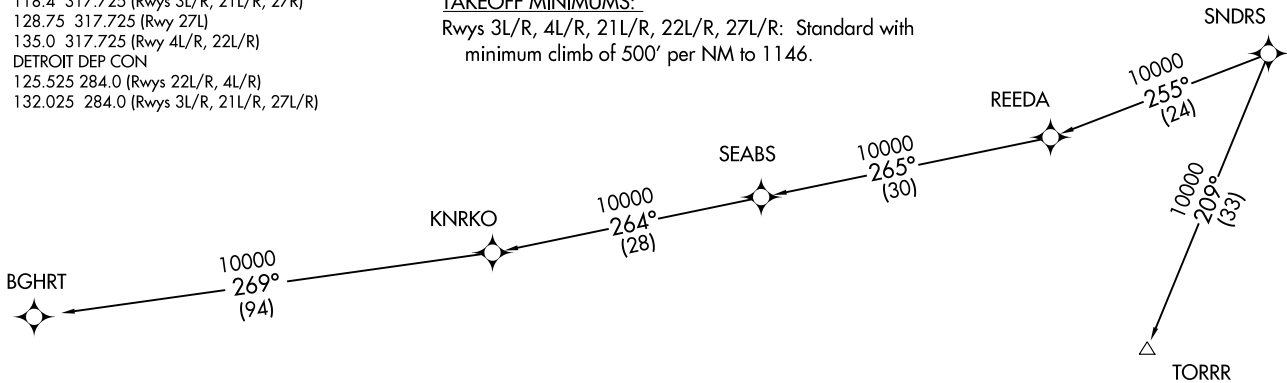
SNDRS TWO DEPARTURE (RNAV) Transition Routes
(SNDRS2,SNDRS) 15AUG19 DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON
121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwy 4L/R, 22L/R)
DETROIT DEP CON
125.525 284.0 (Rwys 22L/R, 4L/R)
132.025 284.0 (Rwys 3L/R, 21L/R, 27L/R)

**TOP ALTITUDE:
17000**

TAKEOFF MINIMUMS:

Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R: Standard with
minimum climb of 500' per NM to 1146.



- 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: TORRR TRANSITION: For use by KIND and KCVG area arrivals only and flights filed at or below FL220, or as assigned by ATC.
- NOTE: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)



(SNDRS2,SNDRS) 21112 AL119 (FAA)
SNDRS TWO DEPARTURE (RNAV) Transition Routes
DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN



DEPARTURE ROUTE DESCRIPTION

NOTE: See additional requirements in RNAV departure AAUP.

TAKEOFF RUNWAY 3L: Climb on heading 036° to intercept course 070° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 212° to WERKN, then on track 243° to cross JWELS at or above 4000, thence...

TAKEOFF RUNWAY 3R: Climb on heading 036° to intercept course 064° to cross BESST at or above 2500 and at or below 230K, then on track 128° to cross SWNDL at or below 7000, then on track 212° to WERKN, then on track 243° to cross JWELS at or above 4000, thence...

TAKEOFF RUNWAY 4L: Climb on heading 036° to intercept course 347° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then or track 199° to OGEEZ, then on track 196° to cross JWELS at or above 4000, thence...

TAKEOFF RUNWAY 4R: Climb on heading 036° to intercept course 339° to cross NITRN at or above 2500 and at or below 230K, then on track 304° to cross FERRM at or below 6000, then on track 259° to cross AVERL at or below 7000, then or track 199° to OGEEZ, then on track 196° to cross JWELS at or above 4000, thence....

TAKEOFF RUNWAY 21L: Climb on heading 216° to intercept course 204° to SERGY, then on track 223° to cross HOPPPZ at or below 7000, then on track 225° to cross JWELS at or above 4000, thence....

TAKEOFF RUNWAY 21R: Climb on heading 216° to intercept course 203° to SERGY, then on track 223° to cross HOPPPZ at or below 7000, then on track 225° to cross JWELS at or above 4000, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to 1146, then direct BOOSE, then on track 226° to cross RATIO at or below 7000, then on track 215° to cross JWELS at or above 4000, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to 1146, then direct EEERI, then on track 224° to cross RATIO at or below 7000, then on track 215° to cross JWELS at or above 4000, thence....

TAKEOFF RUNWAYS 27L/27R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross JWELS at or above 4000, thence....

....on track 218° to SNDRS, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

BGHRT TRANSITION (SNDRS2.BGHRT):

TORRR TRANSITION (SNDRS2.TORRR):

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

TRMML THREE DEPARTURE (RNAV) Departure Routes

**TOP ALTITUDE:
17000**

TRMML

See following page for Transition Route

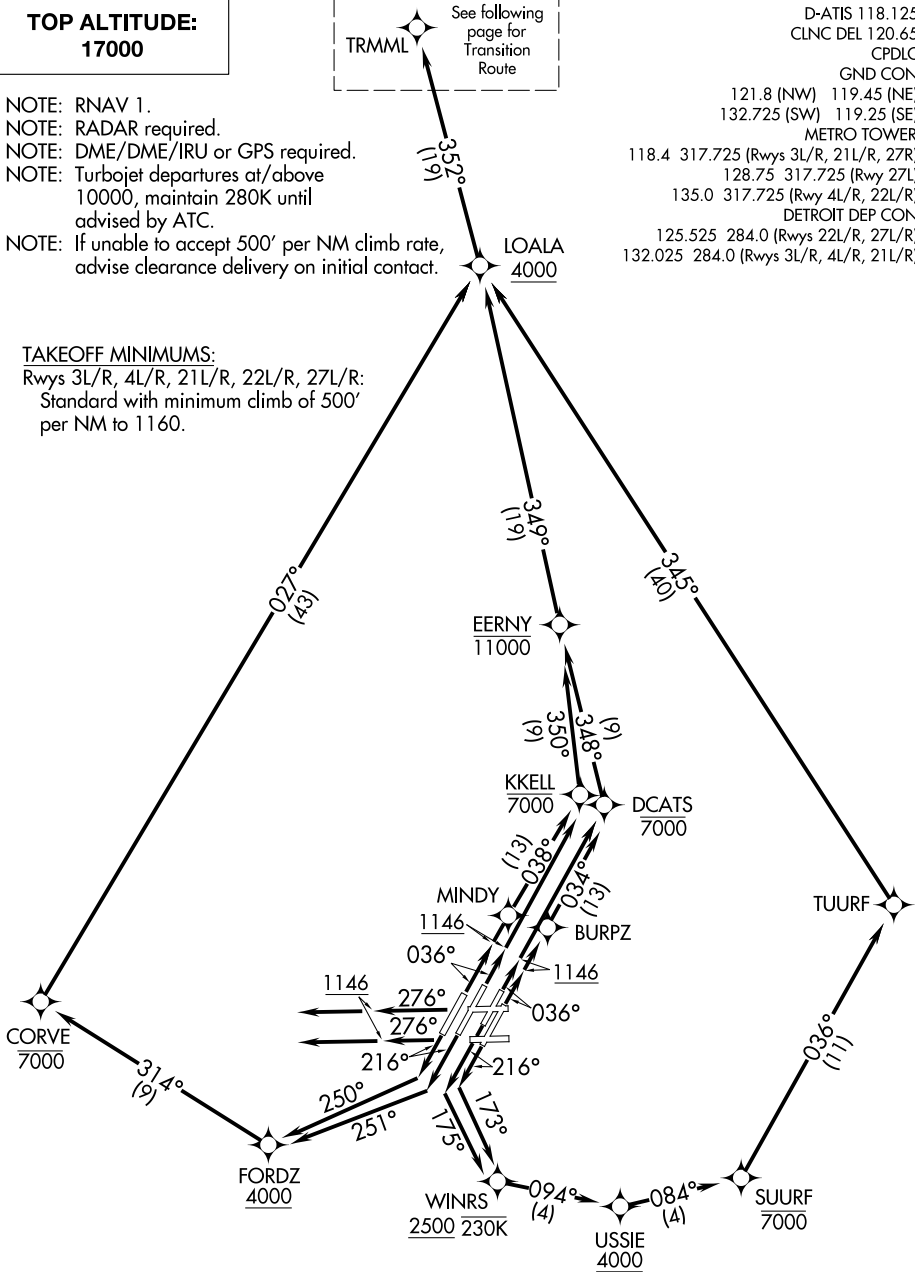
D-ATIS 118.125
CLNC DEL 120.65
CPDLC
GND CON

- 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: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.

121.8 (NW) 119.45 (NE)
132.725 (SW) 119.25 (SE)
METRO TOWER
118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
128.75 317.725 (Rwy 27L)
135.0 317.725 (Rwys 4L/R, 22L/R)
DETROIT DEP CON
125.525 284.0 (Rwys 22L/R, 27L/R)
132.025 284.0 (Rwys 3L/R, 4L/R, 21L/R)

TAKEOFF MINIMUMS:

Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R:
Standard with minimum climb of 500' per NM to 1160.



(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

(TRMML3.TRMML) 21112

AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)

TRMML THREE DEPARTURE (RNAV) Transition Route

DETROIT, MICHIGAN

TOP ALTITUDE: 17000		D-ATIS 118.125 CLNC DEL 120.65 CPDLC GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE) METRO TOWER 118.4 317.725 (Rwys 3L/R, 21L/R, 27R) 128.75 317.725 (Rwy 27L) 135.0 317.725 (Rwy 4L/R, 22L/R) DETROIT DEP CON 125.525 284.0 (Rwys 22L/R, 27L/R) 132.025 284.0 (Rwys 3L/R, 4L/R, 21L/R)
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: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.	NOTE: Chart not to scale.	

DEPARTURE ROUTE DESCRIPTION

NOTE: See additional requirements in RNAV departure AAUP.

TAKEOFF RUNWAY 3L: Climb on heading 036° to 1146, then direct to cross DCATS at or below 7000, then on track 348° to cross EERNY at or below 11000, then on track 349° to cross LOALA at or above 4000, thence....

TAKEOFF RUNWAY 3R: Climb on heading 036° to 1146, then direct BURPZ, then on track 034° to cross DCATS at or below 7000, then on track 348° to cross EERNY at or below 11000, then on track 349° to cross LOALA at or above 4000, thence....

TAKEOFF RUNWAY 4L: Climb on heading 036° to 1146, then direct MINDY, then on track 038° to cross KKELL at or below 7000, then on track 350° to cross EERNY at or below 11000, then on track 349° to cross LOALA at or above 4000, thence....

TAKEOFF RUNWAY 4R: Climb on heading 036° to 1146, then direct to cross KKELL at or below 7000, then on track 350° to cross EERNY at or below 11000, then on track 349° to cross LOALA at or above 4000, thence....

TAKEOFF RUNWAY 21L: Climb on heading 216° to intercept course 173° to cross WINRS at or above 2500 and at or below 230K, then on track 094° to cross USSIE at or above 4000, then on track 084° to cross SUURF at or below 7000, then on track 036° to TUURF, then on track 345° to cross LOALA at or above 4000, thence....

TAKEOFF RUNWAY 21R: Climb on heading 216° to intercept course 175° to cross WINRS at or above 2500 and at or below 230K, then on track 094° to cross USSIE at or above 4000, then on track 084° to cross SUURF at or below 7000, then on track 036° to TUURF, then on track 345° to cross LOALA at or above 4000, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to intercept course 251° to cross FORDZ at or above 4000, then on track 314° to cross CORVE at or below 7000, then on track 027° to cross LOALA at or above 4000, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to intercept course 250° to cross FORDZ at or above 4000, then on track 314° to cross CORVE at or below 7000, then on track 027° to cross LOALA at or above 4000, thence....

TAKEOFF RUNWAYS 27L/R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross LOALA at or above 4000, thence....

....on track 352° to TRMML, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

GNZOE TRANSITION (TRMML3.GNZOE)

TRMML THREE DEPARTURE (RNAV) Transition Route

DETROIT, MICHIGAN

(TRMML3.TRMML) 10OCT19

DETROIT METRO WAYNE COUNTY (DTW)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

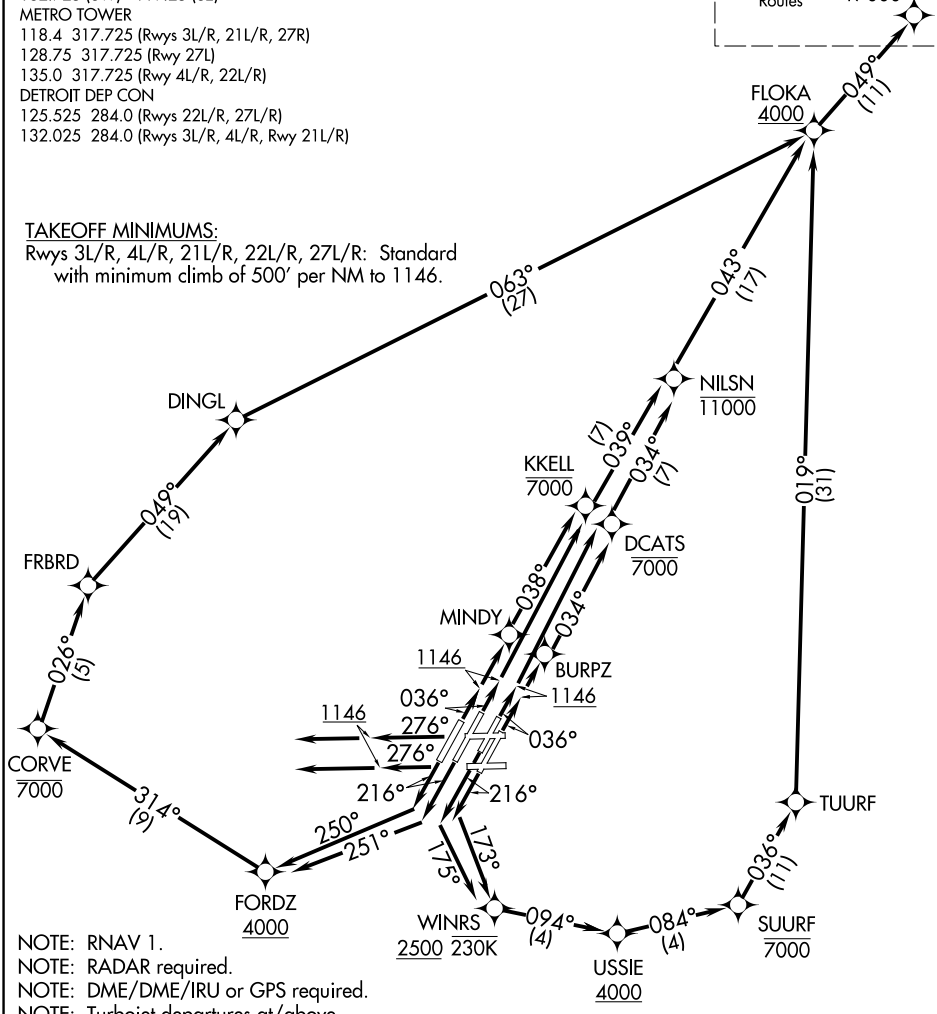
ZETTR THREE DEPARTURE (RNAV) Departure Routes

D-ATIS 118.125
 CLNC DEL 120.65
 CPDLC
 GND CON
 121.8 (NW) 119.45 (NE)
 132.725 (SW) 119.25 (SE)
 METRO TOWER
 118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
 128.75 317.725 (Rwy 27L)
 135.0 317.725 (Rwy 4L/R, 22L/R)
 DETROIT DEP CON
 125.525 284.0 (Rwys 22L/R, 27L/R)
 132.025 284.0 (Rwys 3L/R, 4L/R, Rwy 21L/R)

**TOP ALTITUDE:
17000**

See following page for Transition Routes
ZETTR 17000

TAKEOFF MINIMUMS:
 Rwys 3L/R, 4L/R, 21L/R, 22L/R, 27L/R: Standard with minimum climb of 500' per NM to 1146.



EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

- 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: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

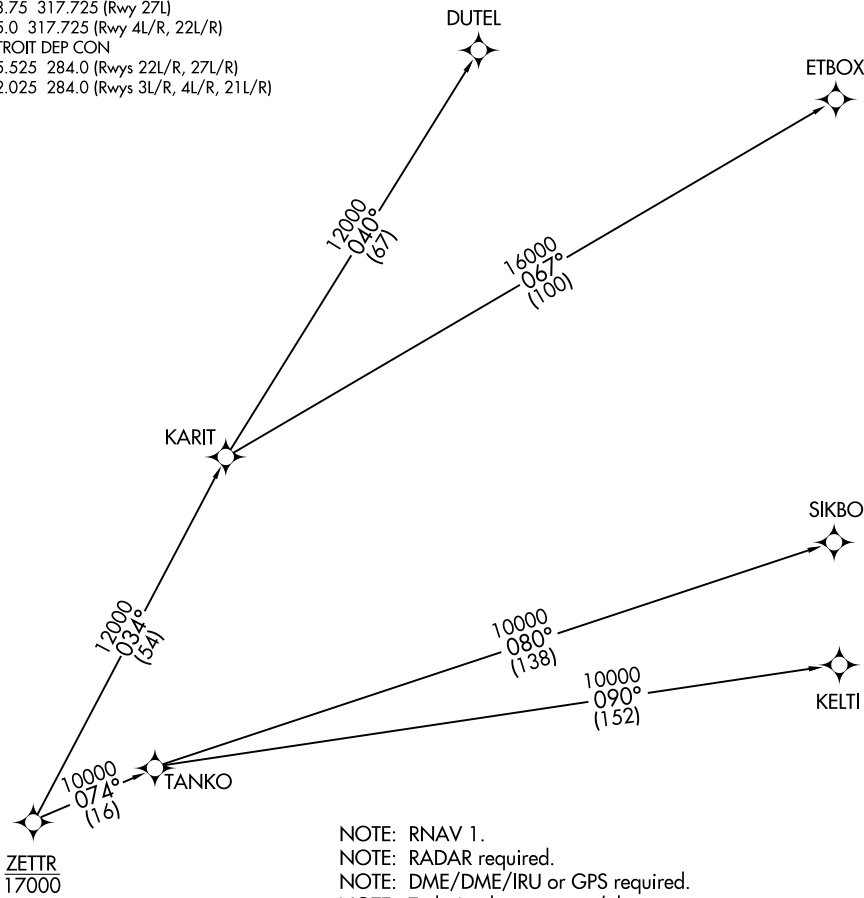
ZETTR THREE DEPARTURE (RNAV) Transition Routes

D-ATIS 118.125
 CLNC DEL 120.65
 CPDLC
 GND CON
 121.8 (NW) 119.45 (NE)
 132.725 (SW) 119.25 (SE)
 METRO TOWER
 118.4 317.725 (Rwys 3L/R, 21L/R, 27R)
 128.75 317.725 (Rwy 27L)
 135.0 317.725 (Rwy 4L/R, 22L/R)
 DETROIT DEP CON
 125.525 284.0 (Rwys 22L/R, 27L/R)
 132.025 284.0 (Rwys 3L/R, 4L/R, 21L/R)

**TOP ALTITUDE:
17000**

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024



- 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: If unable to accept 500' per NM climb rate, advise clearance delivery on initial contact.

(NARRATIVE CONTINUED ON FOLLOWING PAGE) NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

NOTE: See additional requirements in RNAV departure AAUP.

TAKEOFF RUNWAY 3L: Climb on heading 036° to 1146, then direct to cross DCATS at or below 7000, then on track 034° to cross NILSN at or below 11000, then on track 043° to cross FLOKA at or above 4000, thence....

TAKEOFF RUNWAY 3R: Climb on heading 036° to 1146, then direct BURPZ, then on track 034° to cross DCATS at or below 7000, then on track 034° to cross NILSN at or below 11000, then on track 043° to cross FLOKA at or above 4000, thence....

TAKEOFF RUNWAY 4L: Climb on heading 036° to 1146, then direct MINDY, then on track 038° to cross KKELL at or below 7000, then on track 039° to cross NILSN at or below 11000, then on track 043° to cross FLOKA at or above 4000, thence....

TAKEOFF RUNWAY 4R: Climb on heading 036° to 1146, then direct to cross KKELL at or below 7000, then on track 039° to cross NILSN at or below 11000, then on track 043° to cross FLOKA at or above 4000, thence....

TAKEOFF RUNWAY 21L: Climb on heading 216° to intercept course 173° to cross WINRS at or above 2500 and at or below 230K, then on track 094° to cross USSIE at or above 4000, then on track 084° to cross SUURF at or below 7000, then on track 036° to TUURF, then on track 019° to cross FLOKA at or above 4000, thence....

TAKEOFF RUNWAY 21R: Climb on heading 216° to intercept course 175° to cross WINRS, at or above 2500 and at or below 230K, then on track 094° to cross USSIE at or above 4000, then on track 084° to cross SUURF at or below 7000, then on track 036° to TUURF, then on track 019° to cross FLOKA at or above 4000, thence....

TAKEOFF RUNWAY 22L: Climb on heading 216° to intercept course 251° to cross FORDZ at or above 4000, then on track 314° to cross CORVE at or below 7000, then on track 026° to FRBRD, then on track 049° to DINGL, then on track 063° to cross FLOKA at or above 4000, thence....

TAKEOFF RUNWAY 22R: Climb on heading 216° to intercept course 250° to cross FORDZ at or above 4000, then on track 314° to cross CORVE at or below 7000, then on track 026° to FRBRD, then on track 049° to DINGL, then on track 063° to cross FLOKA at or above 4000, thence....

TAKEOFF RUNWAYS 27L/R: Climb on heading 276° to 1146, then on heading 276° or as assigned for RADAR vectors to cross FLOKA at or above 4000, thence....

....on track 049° to cross ZETTR at or below 17000, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.

DUTEL TRANSITION (ZETTR3.DUTEL):

ETBOX TRANSITION (ZETTR3.ETBOX):

KELTI TRANSITION (ZETTR3.KELTI):

SIKBO TRANSITION (ZETTR3.SIKBO):

TANKO TRANSITION (ZETTR3.TANKO):

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

HOT SPOTS

An "airport surface hot spot" is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

A "hot spot" is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as "HS 1", "HS 2", etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

CITY/AIRPORT	HOT SPOT	DESCRIPTION*
ANN ARBOR, MI ANN ARBOR MUNI (ARB)	HS 1	Int of Twy A1/A not visible from the control twr.
	HS 2	Twy A crosses turf Rwy 12-30.
DETROIT, MI DETROIT METRO WAYNE COUNTY (DTW)	HS 1	Int of Rwy 09L and Rwy 03L-21R.
FLINT, MI BISHOP INTL (FNT)	HS 1	Int of Twy C and Rwy 18-36.
	HS 2	Deicing Pad. Twy C and Rwy 09-27.
GRAND RAPIDS, MI GERALD R FORD INTL (GRR)	HS 1	Pilot confusion risk int Twy A, Twy M Twy A2 near Rwy 08R-26L.
	HS 2	Pilot confusion risk int Twy A, Twy F, Twy B, Twy A1 near Rwy 08R-26L.
	HS 3	Pilot confusion risk int Twy B, Twy V, Twy B4 near Rwy 17-35
KALAMAZOO, MI KALAMAZOO/BATTLE CREEK INTL (AZO)	HS 1	Complex rwy/twy int.
LANSING, MI CAPITAL REGION INTL (LAN)	HS 1	Twy C intersecting Twy B; and Rwy 10R-28L.
	HS 2	Twy M intersecting Twy B; and Rwy 10R-28L.
MUSKEGON, MI MUSKEGON COUNTY (MKG)	HS 1	Twy A at Rwy 14-32.

*See appropriate Chart Supplement HOT SPOT table for additional information.

LOC/DME I-DWC 110.7 Chan 44	APP CRS 216°	Rwy Idg TDZE Apt Elev 12003 637 645
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ILS RWY 22L (SA CAT I)

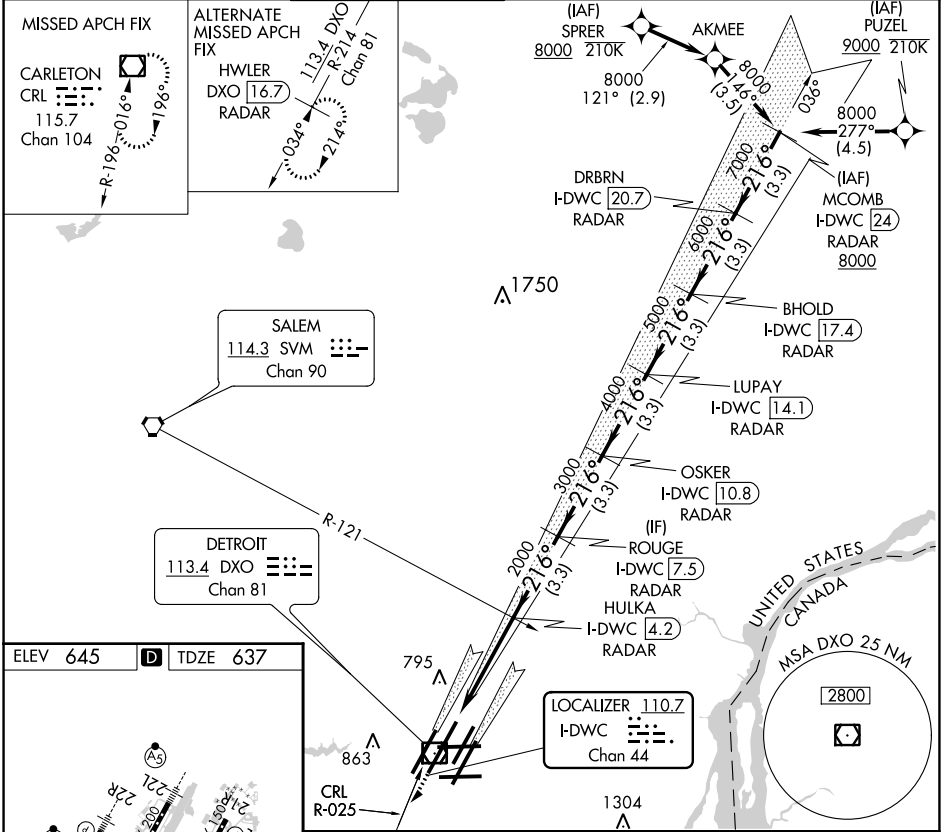
DETROIT METRO WAYNE COUNTY (DTW)

DME or RADAR required. RNAV 1-DME/DME/IRU or RADAR required for procedure entry.

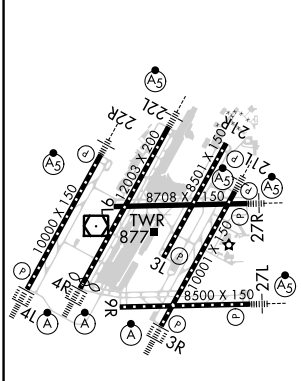
MALS R (AS) MISSED APPROACH: Climb to 4000 on heading 216° and CRL VOR/DME R-025 to CRL VOR/DME and hold, continue climb-in-hold to 4000.

Simultaneous approach authorized. Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725	GND CON 121.8 (NW) 132.725 (SW)	119.45 (NE) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	D	TDZE 637
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TDZ/CL Rwy's 3R, 4L, 4R and 22R
REIL Rwy's 3L, 9L, 9R and 21R
HIRL all runways

4000	CRL R-025	CRL	OSKER I-DWC 10.8	LUPAY I-DWC 14.1	BHOLD I-DWC 17.4	DRBRN I-DWC 20.7	MCOMB I-DWC 24
hdg 216°	HULKA I-DWC 4.2	ROUGE I-DWC 7.5	RADAR	RADAR	RADAR	RADAR	RADAR
2000	2000	3000	4000	5000	6000	7000	8000
GS 2.85°	TCH 60						

11201	4.3 NM	3.3 NM	3.3 NM	3.3 NM	3.3 NM	3.3 NM
CATEGORY	A	B	C	D		
S-ILS 22L	SA CAT I		RA 148/14	150 DA 787		

SA CATEGORY I ILS- SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

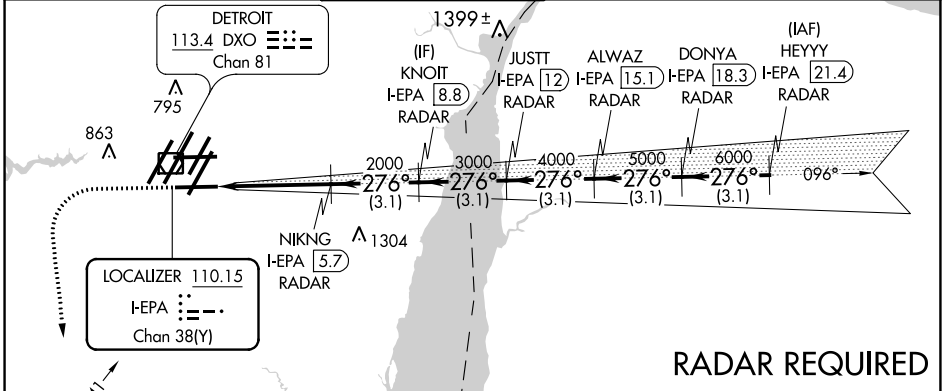
LOC/DME I-EPA 110.15 Chan 38(Y)	APP CRS 276°	Rwy Ldg TDZE Apt Elev 8500 630 645
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ILS RWY 27L (SA CAT I & II)

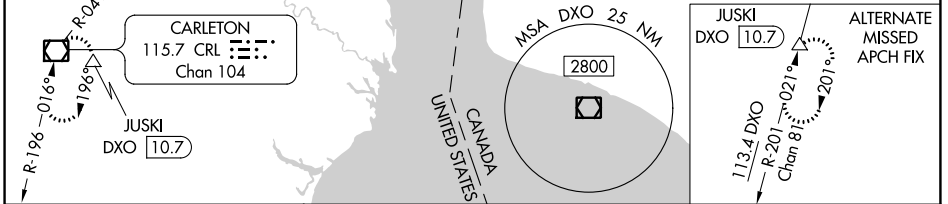
DETROIT METRO WAYNE COUNTY (DTW)

<p>▼ DME or RADAR required. Simultaneous approach authorized. SA Cat I: Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH. SA Cat II: Reduced lighting: Requires specific OPSPEC, MSPEC, or LOA approval and use of Autoland or HUD to touchdown.</p>	<p>MALSR AS</p>	<p>MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 on heading 180° and CRL VOR/DME R-041 to CRL VOR/DME and hold, continue climb-in-hold to 4000.</p>
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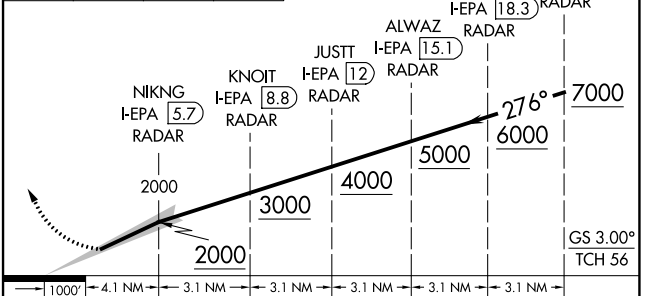
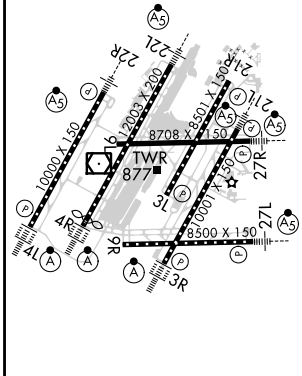
D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.75 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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RADAR REQUIRED



ELEV 645	D TDZE 630	1100	4000	CRL R-041	VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 71).
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TDZ/CL Rwy 3R, 4L, 4R and 22R REIL Rwy 3L, 9L, 9R and 21R HIRL all runways	<p>SA CATEGORY I & II ILS SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED</p>			
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EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

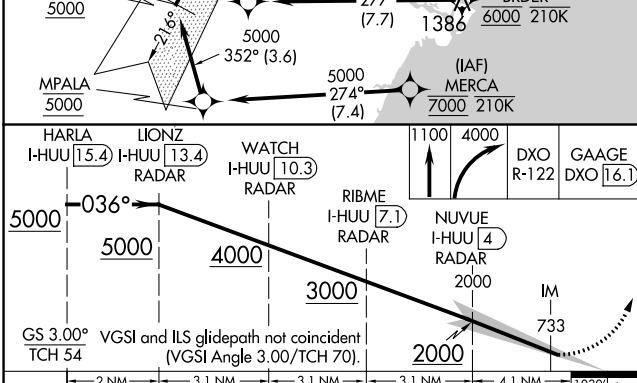
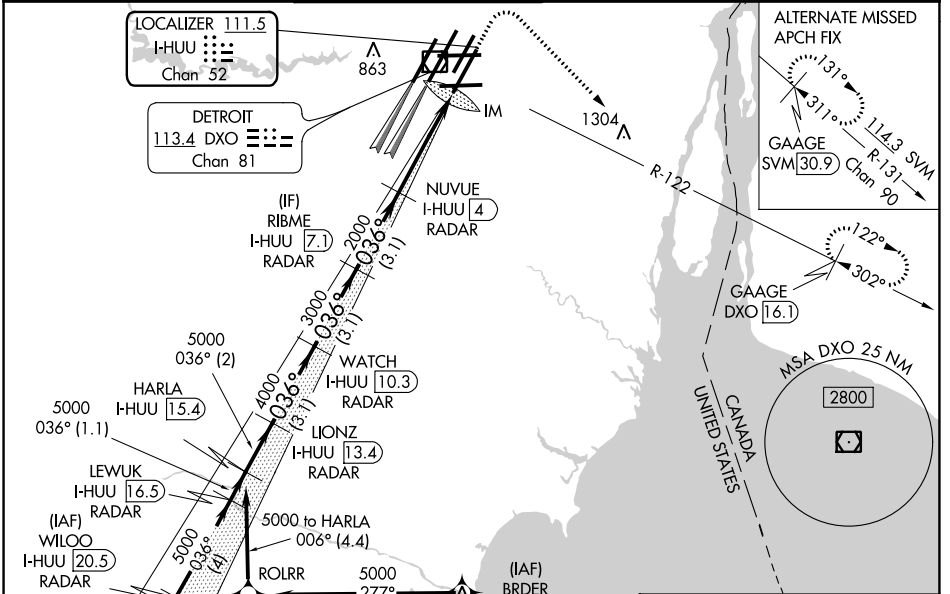
LOC/DME I-HUU 111.5 Chan 52	APP CRS 036°	Rwy Idg 10001 TDZE 633 Apt Elev 645
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ILS RWY 3R (CAT II & III)

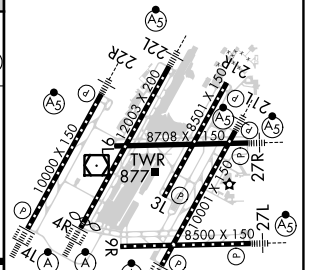
DETROIT METRO WAYNE COUNTY (DTW)

RNAV 1-GPS. MERC A and BRDR: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.	ALSF-2 	MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 on DXO VOR/DME R-122 to GAAGE/DXO 16.1 DME and hold.
<p>Simultaneous approach authorized. DME required. RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.</p>		

D-ATIS 133.675	DETROIT APP CON 125.15 284.0	METRO TOWER 118.4 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	D TDZE 633
HIRL all runways	
REIL Rws 3L, 9L, 9R and 21R	
TDZ/CL Rws 3R, 4L, 4R and 22R	



CATEGORY	A	B	C	D
S-ILS 3R	CAT II RA 101/12 100 DA 733			
S-ILS 3R	CAT III RVR 06			

CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

LOC/DME I-DTW 110.7	APP CRS 036°	Rwy Idg 11494
Chan 44		TDZE 640
		Apt Elev 645

ILS RWY 4R (CAT II & III)

DETROIT METRO WAYNE COUNTY (DTW)

RNAV 1-GPS

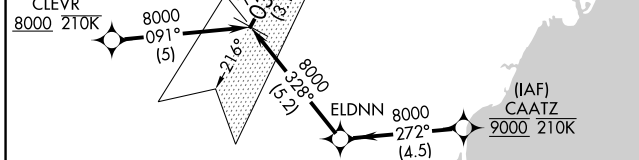
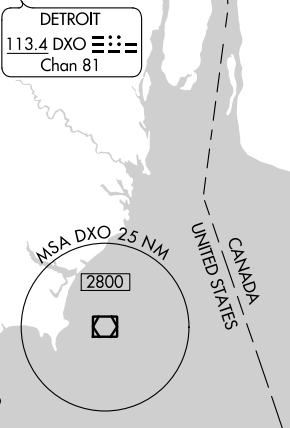
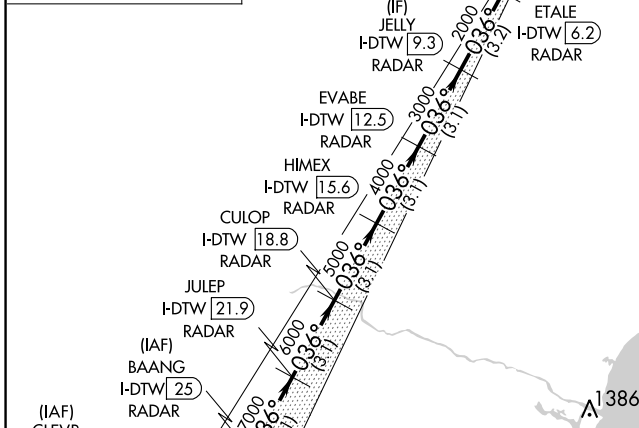
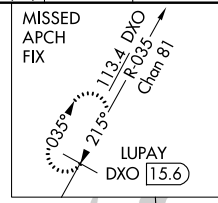
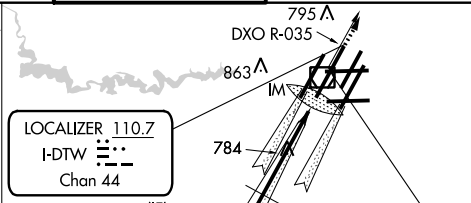
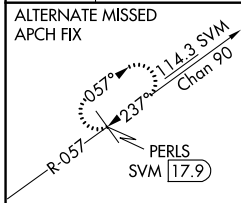
CLEVR, CAATZ and ELDNN: RNAV 1-DME/DME/IRU or GPS required.
 Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.
 DME or RADAR required.



MISSED APPROACH: Climb to 4000 on DXO VOR/DME R-035 to LUPAY/DXO VOR/DME/15.6 DME and hold.

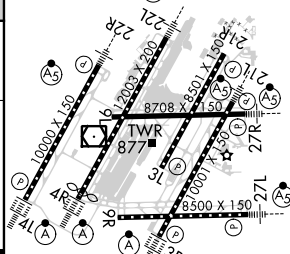
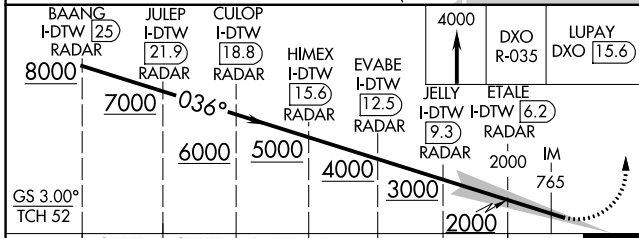
Simultaneous approach authorized.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725	GND CON 121.8 (NW) 132.725 (SW)	119.45 (NE) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	D TDZE 640
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TDZ/CL Rwy's 3R, 4L, 4R and 22R
 REIL Rwy's 3L, 9L, 9R and 21R
 HIRL all runways



GS 3.00°	TCH 52	3.1 NM	3.1 NM	3.1 NM	3.1 NM	3.1 NM	3.2 NM	4.1 NM	980'
CATEGORY	A	B	C	D					
S-ILS 4R	CAT II RA 104/12				100 DA 740				
S-ILS 4R	CAT III				RVR 06				

CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

LOC/DME I-DTW 110.7	APP CRS 036°	Rwy Idg TDZE Apt Elev	11494 640 645
Chan 44			

ILS RWY 4R (SA CAT I)

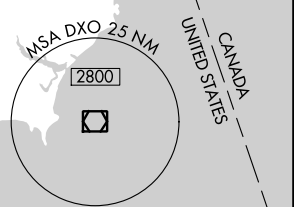
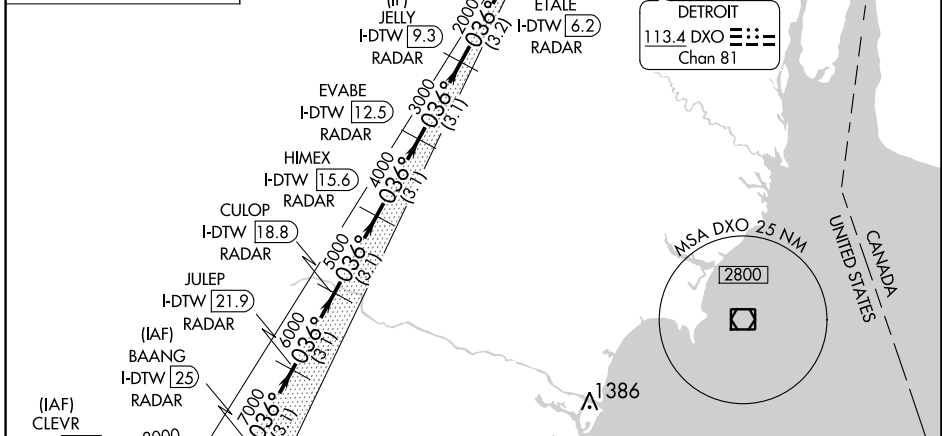
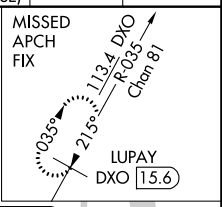
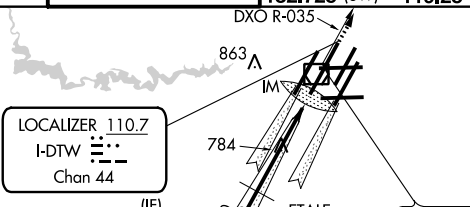
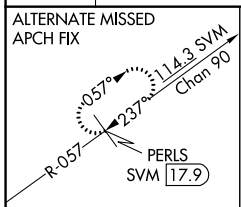
DETROIT METRO WAYNE COUNTY (DTW)

RNAV T-GPS.
CLEVR, CAATZ and ELDNN: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped- RADAR required for procedure entry. DME or RADAR required.
 Simultaneous approach authorized.
 Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.

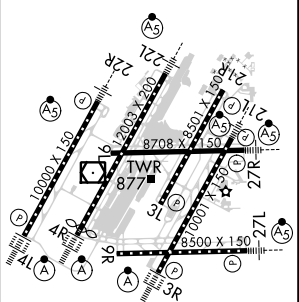
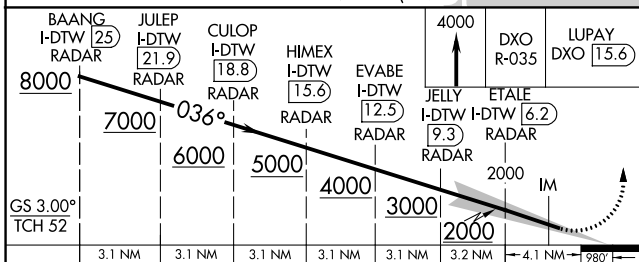


MISSED APPROACH: Climb to 4000 on DXO VOR/DME R-035 to LUPAY/DXO VOR/DME/15.6 DME and hold.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725	GND CON 121.8 (NW) 132.725 (SW)	CON 119.45 (NE) 119.25 (SE)	CNLC DEL 120.65	CPDLC
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ELEV 645	D TDZE 640
TDZ/CL Rwys 3R, 4L, 4R and 22R REIL Rwys 3L, 9L, 9R and 21R HIRL all runways	



CATEGORY	A	B	C	D
S-ILS 4R	RA 154/14		150 DA 790	
SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED				

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

LOC/DME I-EJR 111.5 Chan 52	APP CRS 216°	Rwy Idg TDZE Apt Elev	10001 632 645
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ILS or LOC RWY 21L

DETROIT METRO WAYNE COUNTY (DTW)

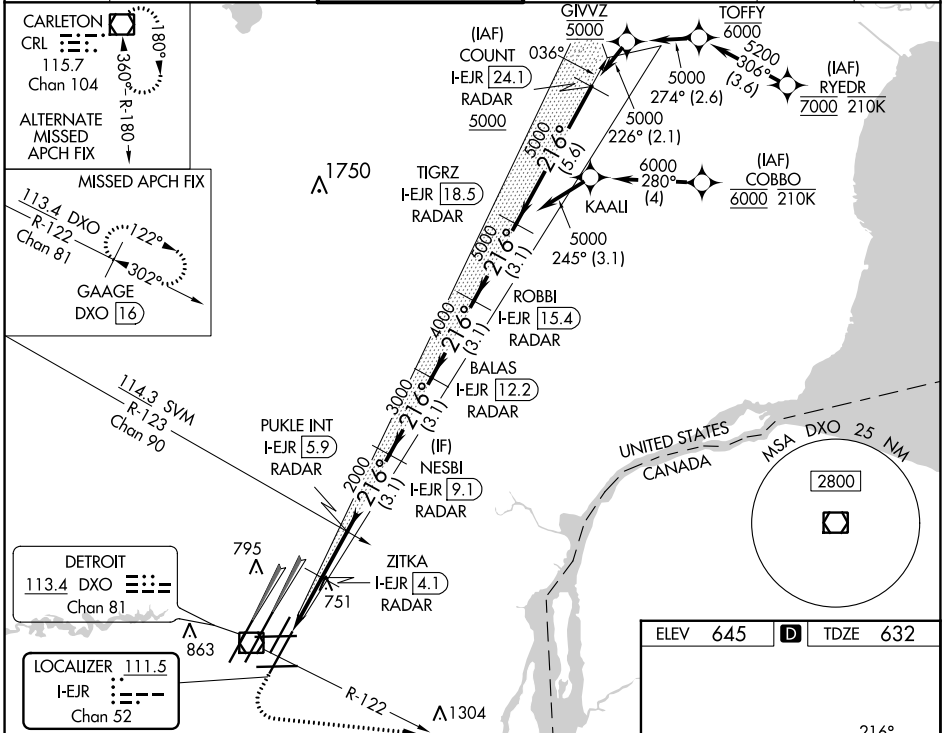
From RYEDR, COBBO: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry. DME or RADAR required.



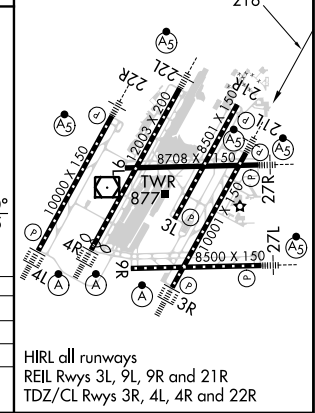
MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 on DXO R-122 to GAAGE/DXO 16 DME and hold, continue climb-in-hold to 4000.

Simultaneous approach authorized.
**RVR 1800 authorized with use of FD or AP or HUD to DA.

D-ATIS 133.675	DETROIT APP CON 125.15 284.0	METRO TOWER 118.4 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	TDZE 632
1100	4000
DXO R-122	GAAGE DXO 16
VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 80).	
*LOC only	ROBBI I-EJR 15.4 RADAR
ZITKA I-EJR 4.1 RADAR	TIGRZ I-EJR 18.5 RADAR
PUKLE INT I-EJR 5.9 RADAR	
NESBI I-EJR 9.1 RADAR	
BALAS I-EJR 12.2 RADAR	
I-EJR 1.8	5000
I-EJR 2.8	3000
I-EJR 4.1	2000
I-EJR 5.9	1400
GS 3.00° TCH 55	
1 NM 1.3 NM 1.8 NM 3.1 NM 3.1 NM 3.1 NM 3.1 NM	
CATEGORY	A B C D
S-ILS 21L **	832/24 200 (200-½)
S-LOC 21L	1020/24 388 (400-½) 1020/35 388 (400-½)
◻ CIRCLING	1180-1 535 (600-1) 1180-1½ 535 (600-1½) 1240-2 595 (600-2)



HIRL all runways
REIL Rwy's 3L, 9L, 9R and 21R
TDZ/CL Rwy's 3R, 4L, 4R and 22R

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024


LOC/DME I-DWC 110.7 Chan 44	APP CRS 216°	Rwy Idg TDZE Apt Elev	12003 637 645
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ILS or LOC RWY 22L

DETROIT METRO WAYNE COUNTY (DTW)

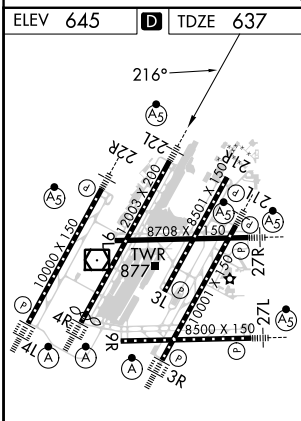
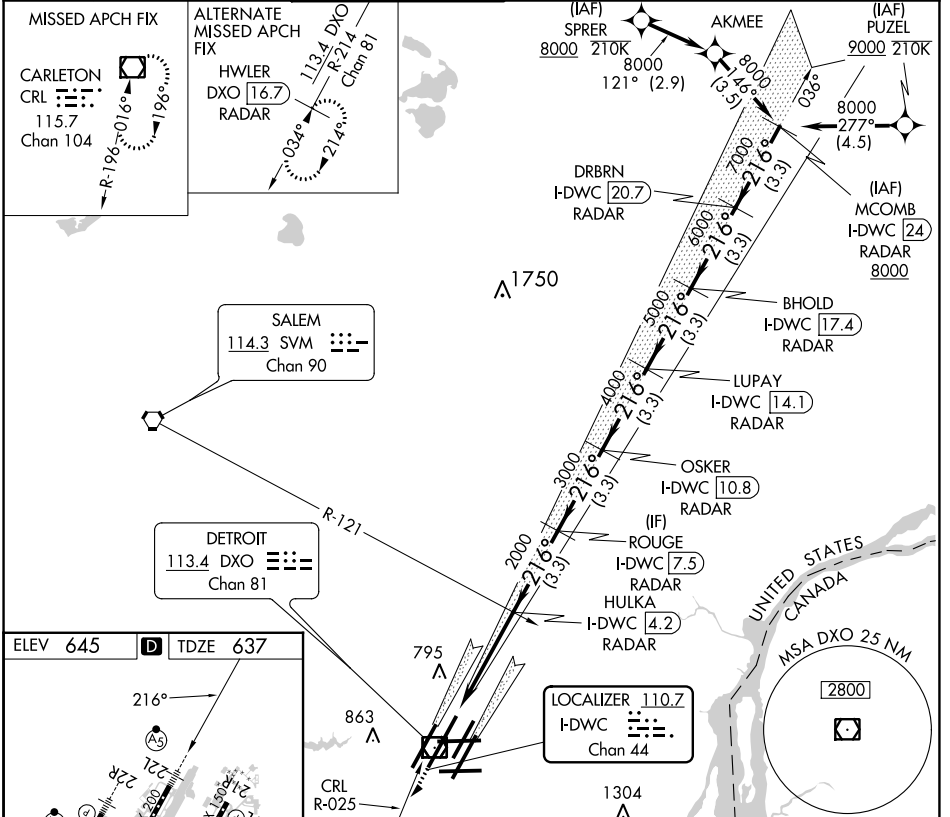
DME or RADAR required.
RNAV 1-DME/DME/IRU or RADAR required for procedure entry.

Simultaneous approach authorized.
#RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSRS 

MISSED APPROACH: Climb to 4000 on heading 216° and CRL VOR/DME R-025 to CRL VOR/DME and hold, continue climb-in-hold to 4000.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725	GND CON 121.8 (NW) 132.725 (SW)	119.45 (NE) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	TDZE 637	* LOC only		LUPAY I-DWC 14.1	BHOLD I-DWC 17.4	DRBRN I-DWC 20.7	MCOMB I-DWC 24
CRL R-025	CRL	OSKER I-DWC 10.8	LUPAY I-DWC 14.1	BHOLD I-DWC 17.4	DRBRN I-DWC 20.7	MCOMB I-DWC 24	
I-DWC DME ANTENNA 0.2	HULKA I-DWC 4.2	ROUGE I-DWC 7.5	OSKER I-DWC 10.8	BHOLD I-DWC 17.4	DRBRN I-DWC 20.7	MCOMB I-DWC 24	
* I-DWC 0.9	2000	3000	4000	5000	6000	7000	8000
1 NM		3.3 NM	3.3 NM	3.3 NM	3.3 NM	3.3 NM	
CATEGORY	A	B	C	D			
S-ILS 22L #	837/24		200 (200-1/2)				
S-LOC 22L	1020/24	383 (400-1/2)	1020/35	383 (400-5/8)			
CIRCLING	1180-1	535 (600-1)	1180-1 1/2	535 (600-1 1/2)	1240-2	595 (600-2)	

TDZ/CL Rwy 3R, 4L, 4R and 22R
REIL Rwy 3L, 9L, 9R and 21R
HIRL all runways

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

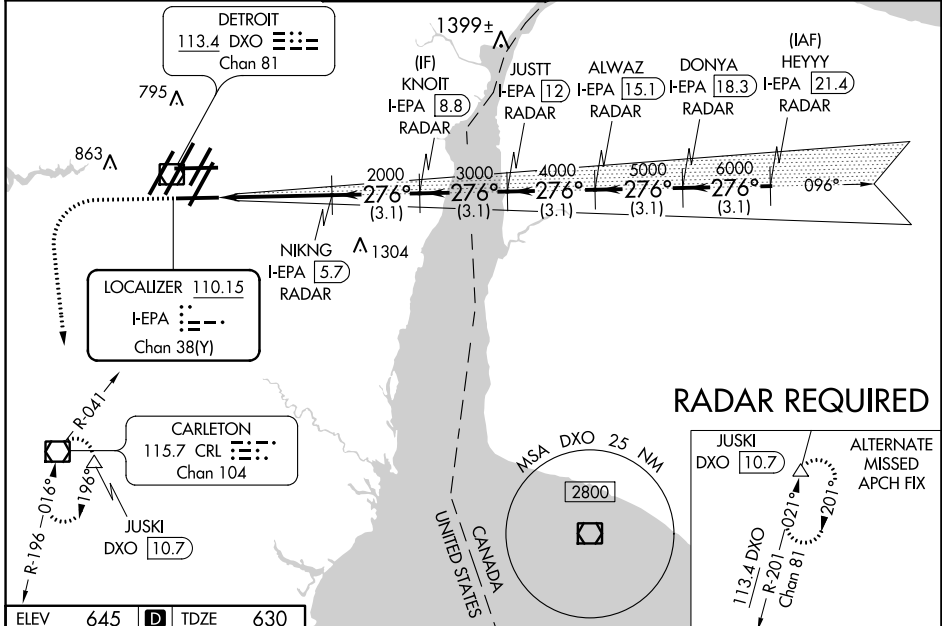
LOC/DME I-EPA 110.15	APP CRS 276°	Rwy Ldg TDZE Apt Elev	8500 630 645
Chan 38(Y)			

ILS or LOC RWY 27L

DETROIT METRO WAYNE COUNTY (DTW)

▽ DME or RADAR required. Simultaneous approach authorized. **RVR 1800 authorized with use of FD or AP or HUD to DA.	MALSR 	MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 on heading 180° and CRL VOR/DME R-041 to CRL VOR/DME and hold, continue climb-in-hold to 4000.

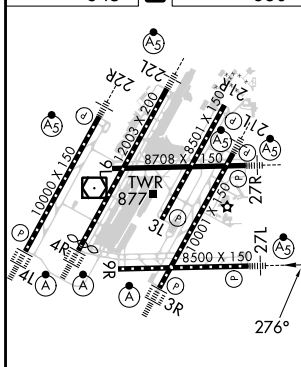
D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.75 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

ELEV 645	D	TDZE 630
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TDZ/CL Rws 3R, 4L, 4R and 22R
REIL Rws 3L, 9L, 9R and 21R
HIRL all runways

FAF to MAP 4.1 NM

Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

1100	4000	CRL R-041	CRL	VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 71).																																			
* LOC only.																																							
<table border="1"> <tr> <td>1.2 NM</td> <td>2.9 NM</td> <td>3.1 NM</td> <td>3.1 NM</td> <td>3.1 NM</td> <td>3.1 NM</td> <td>3.1 NM</td> </tr> <tr> <td>CATEGORY</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td colspan="2"></td> </tr> <tr> <td>S-ILS 27L **</td> <td colspan="6">830/24 200 (200-1/2)</td> </tr> <tr> <td>S-LOC 27L</td> <td>1080/24</td> <td>450 (500-1/2)</td> <td>1080/45</td> <td>450 (500-2/3)</td> <td colspan="2"></td> </tr> <tr> <td>C CIRCLING</td> <td>1180-1</td> <td>535 (600-1)</td> <td>1180-1 1/2</td> <td>595 (600-1 1/2)</td> <td>1240-2</td> <td>595 (600-2)</td> </tr> </table>					1.2 NM	2.9 NM	3.1 NM	3.1 NM	3.1 NM	3.1 NM	3.1 NM	CATEGORY	A	B	C	D			S-ILS 27L **	830/24 200 (200-1/2)						S-LOC 27L	1080/24	450 (500-1/2)	1080/45	450 (500-2/3)			C CIRCLING	1180-1	535 (600-1)	1180-1 1/2	595 (600-1 1/2)	1240-2	595 (600-2)
1.2 NM	2.9 NM	3.1 NM	3.1 NM	3.1 NM	3.1 NM	3.1 NM																																	
CATEGORY	A	B	C	D																																			
S-ILS 27L **	830/24 200 (200-1/2)																																						
S-LOC 27L	1080/24	450 (500-1/2)	1080/45	450 (500-2/3)																																			
C CIRCLING	1180-1	535 (600-1)	1180-1 1/2	595 (600-1 1/2)	1240-2	595 (600-2)																																	

LOC I-DMI 108.5	APP CRS 276°	Rwy ldg TDZE 8708 635	Apt Elev 645
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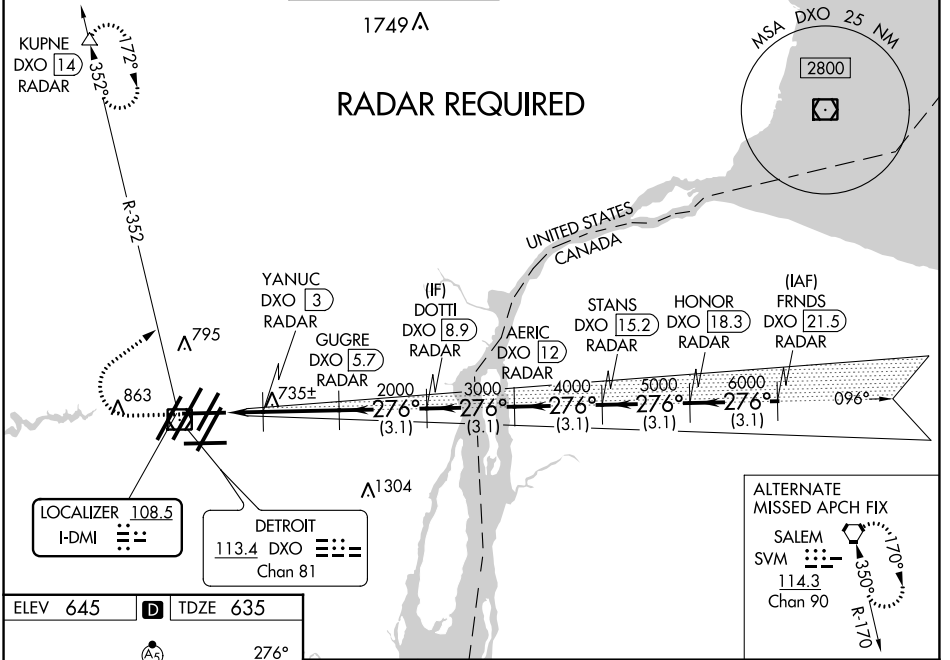
ILS or LOC RWY 27R

DETROIT METRO WAYNE COUNTY (DTW)

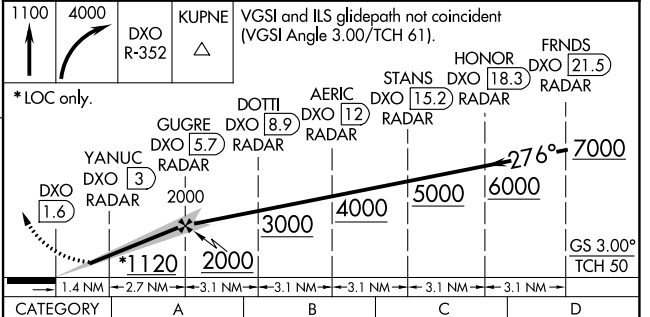
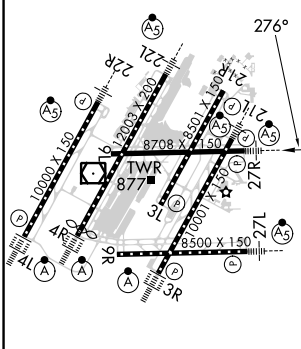
▼ DME or RADAR required. Simultaneous approach authorized. DME from DXO VOR/DME. Simultaneous reception of I-DMI and DXO DME required. For inop ALS, increase S-LOC 27R Cats C and D visibility to RVR 5500.
 ** RVR 1800 authorized with use of FD or AP or HUD to DA.

MALS R
 MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 on DXO VOR/DME R-352 to KUPNE/DXO 14 DME/RADAR and hold, continue climb-in-hold to 4000.

D-ATIS 133.675	DETROIT APP CON 125.15 284.0	METRO TOWER 118.4 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	D	TDZE 635
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CATEGORY	A	B	C	D
S-ILS 27R	** 835/24 200 (200-½)			
S-LOC 27R	1000/24	365 (400-½)	1000/35	365 (400-¾)
CIRCLING	1180-1	535 (600-1)	1180-1½ 535 (600-½)	1240-2 595 (600-2)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

LOC/DME I-HUU 111.5 Chan 52	APP CRS 036°	Rwy Idg 10001 TDZE 633 Apt Elev 645
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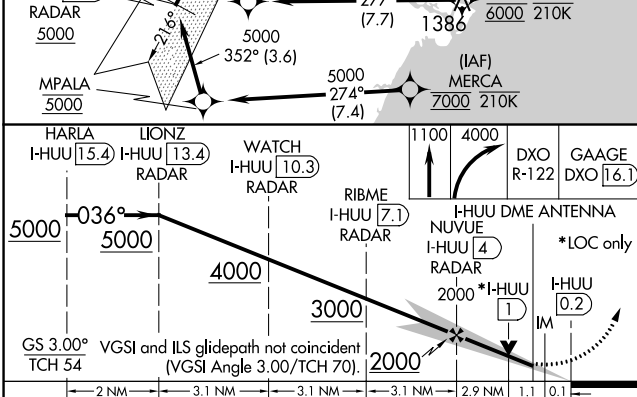
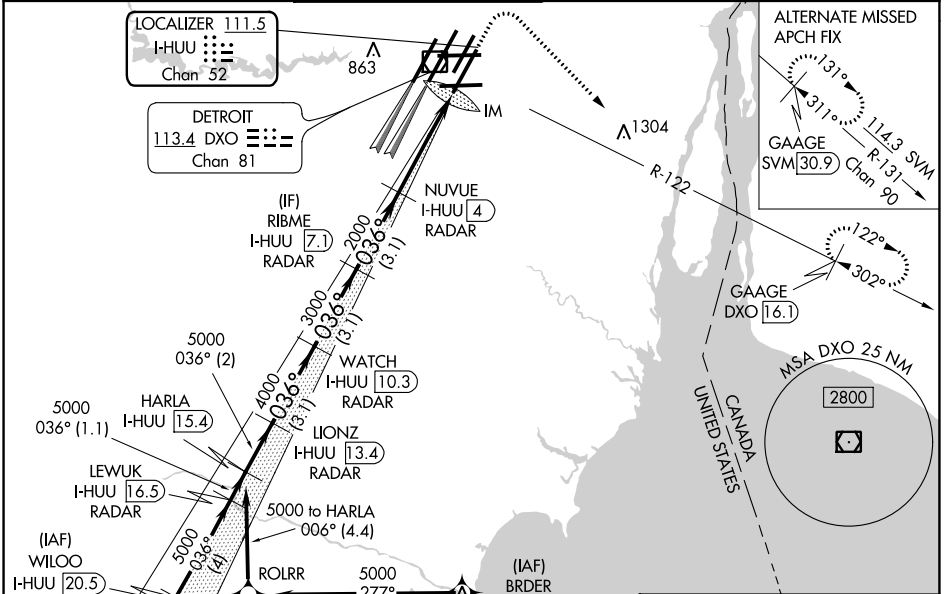
ILS or LOC RWY 3R

DETROIT METRO WAYNE COUNTY (DTW)

RNAV 1-GPS.
MERCIA and BRDER: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.
Simultaneous approach authorized. DME required.

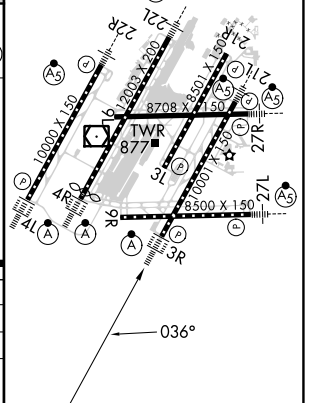
ALSF-2
MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 on DXO VOR/DME R-122 to GAAGE/DXO 16.1 DME and hold.

D-ATIS 133.675	DETROIT APP CON 125.15 284.0	METRO TOWER 118.4 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	TDZE 633
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HIRL all runways
REL Rwy 3L, 9L, 9R and 21R
TDZ/CL Rwy 3R, 4L, 4R and 22R



CATEGORY	A	B	C	D
S-ILS 3R		833/18	200 (200-½)	
S-LOC 3R	1080/24	447 (500-½)	1080/45	447 (500-¾)
CIRCLING	1180-1	535 (600-1)	1180-1½ 535 (600-½)	1240-2 595 (600-2)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

LOC/DME I-DTW 110.7 Chan 44	APP CRS 036°	Rwy Idg TDZE Apt Elev	11494 640 645
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ILS or LOC RWY 4R

DETROIT METRO WAYNE COUNTY (DTW)

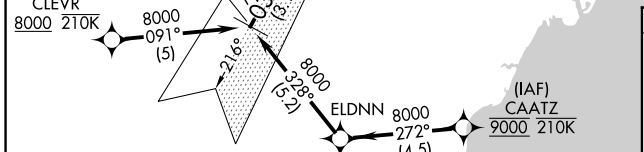
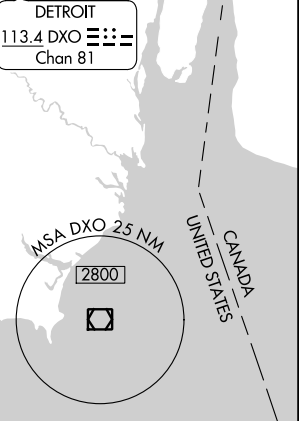
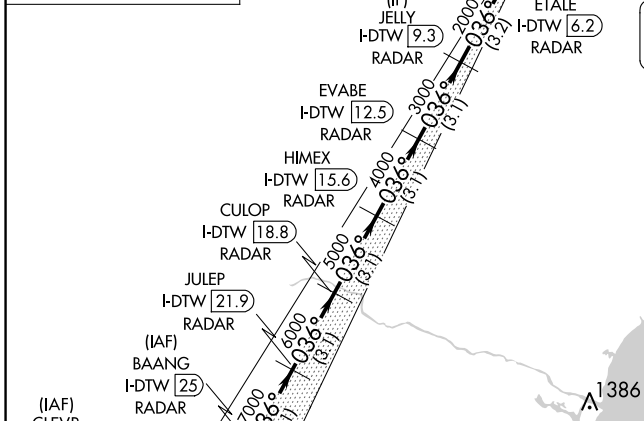
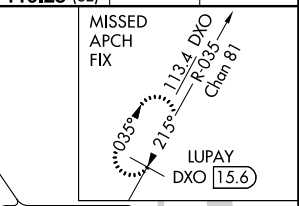
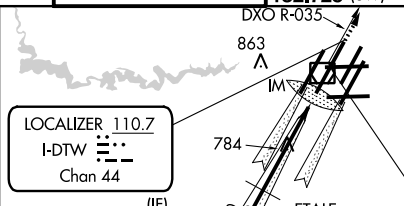
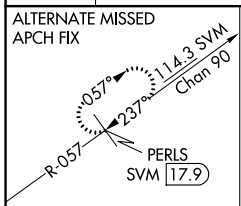
RNAV 1-GPS.
CLEVR, CAATZ and ELDNN: RNAV 1-DME/DME/IRU or GPS required.
Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.
DME or RADAR required.



MISSED APPROACH: Climb to 4000 on DXO VOR/DME R-035 to LUPAY/DXO VOR/DME/15.6 DME and hold.

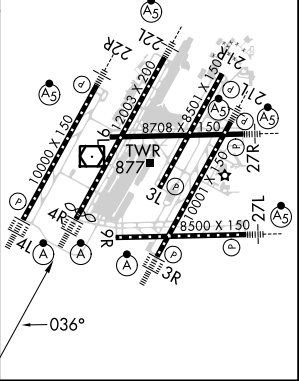
Simultaneous approach authorized. For inop ALS, increase S-LOC 4R Cat C/D visibility to RVR 6000.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725	GND CON 121.8 (NW) 132.725 (SW)	119.45 (NE) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	TDZE 640
TDZ/CL Rws 3R, 4L, 4R and 22R	
REIL Rws 3L, 9L, 9R and 21R	
HIRL all runways	

BAANG I-DTW 25 RADAR	JULEP I-DTW 21.9 RADAR	CULOP I-DTW 18.8 RADAR	HIMEX I-DTW 15.6 RADAR	EVABE I-DTW 12.5 RADAR	JELLY I-DTW 9.3 RADAR	ETALE I-DTW 6.2 RADAR	LUPAY DXO 15.6
8000	7000	6000	5000	4000	3000	2000	
GS 3.00° TCH 52		3.1 NM		3.1 NM	3.1 NM	3.1 NM	3.2 NM



CATEGORY	A	B	C	D
S-ILS 4R	840/18 200 (200-1/2)			
S-LOC 4R	1040/24	400 (400-1/2)	1040/35	400 (400-5/8)
CIRCLING	1180-1	535 (600-1)	1180-1/2	1240-2
			535 (600-1/2)	595 (600-2)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

ILS PRM RWY 22L (CLOSE PARALLEL)

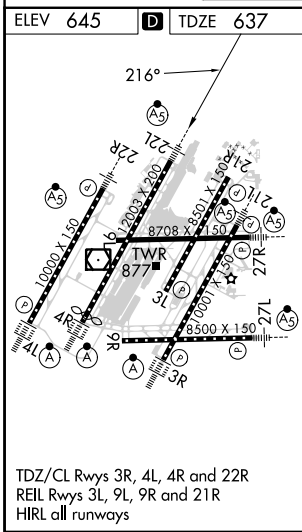
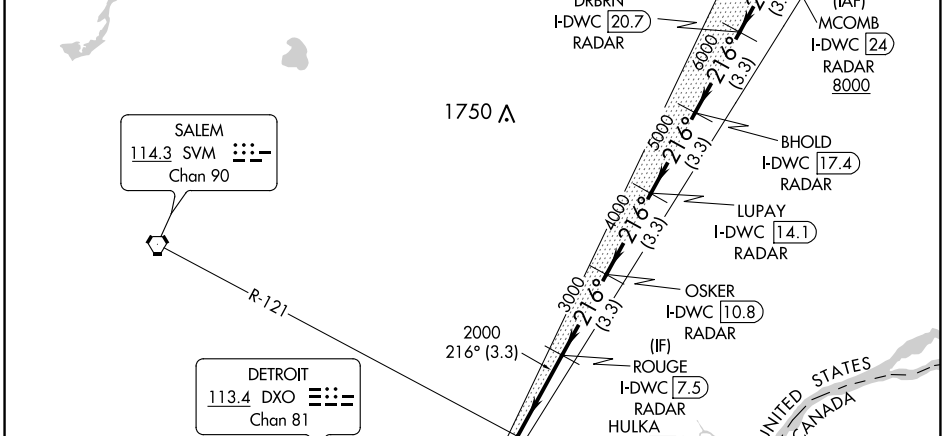
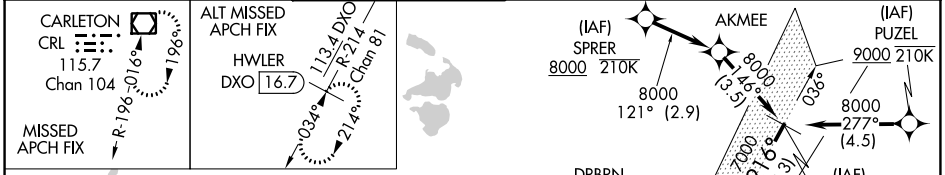
DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-DWC 110.7 Chan 44	APP CRS 216°	Rwy Idg TDZE Apt Elev	12003 637 645
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RNAV 1-GPS.
 RNAV 1-DME/DME/IRU or RADAR required for procedure entry. DME or RADAR required.
 Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF comm required. See additional requirements on AAUP.
 Procedure NA when glide slope not available.
 *RVR 1800 authorized with use of FD or AP or HUD to DA.

MALS R
 MISSED APPROACH:
 Climb to 4000 on heading 216° and CRL VOR/DME R-025 to CRL VOR/DME and hold, continue climb-in-hold to 4000.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725 PRM 135.775	GND CON 121.8 (NW) 132.725 (SW)	119.45 (NE) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	TDZE 637				
4000	CRL R-025	CRL	ROUGE I-DWC 7.5	LUPAY I-DWC 14.1	BHOLD I-DWC 17.4
3000		HULKA I-DWC 4.2	OSKER I-DWC 10.8	DRBRN I-DWC 20.7	MCOMB I-DWC 24.0
2000					
I-DWC DME ANTENNA					
hdg 216°					
216°-8000					
GS 2.85° TCH 60					
4.3 NM		3.3 NM	3.3 NM	3.3 NM	3.3 NM
CATEGORY	A	B	C	D	
S-ILS 22L*	837/24 200 (200-1/2)				

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

DETROIT, MICHIGAN

AL-119 (FAA)

21168

ILS PRM RWY 4R (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-DTW 110.7	APP CRS 036°	Rwy Idg 11494
Chan 44		TDZE 640
		Apt Elev 645

RNAV 1-GPS.

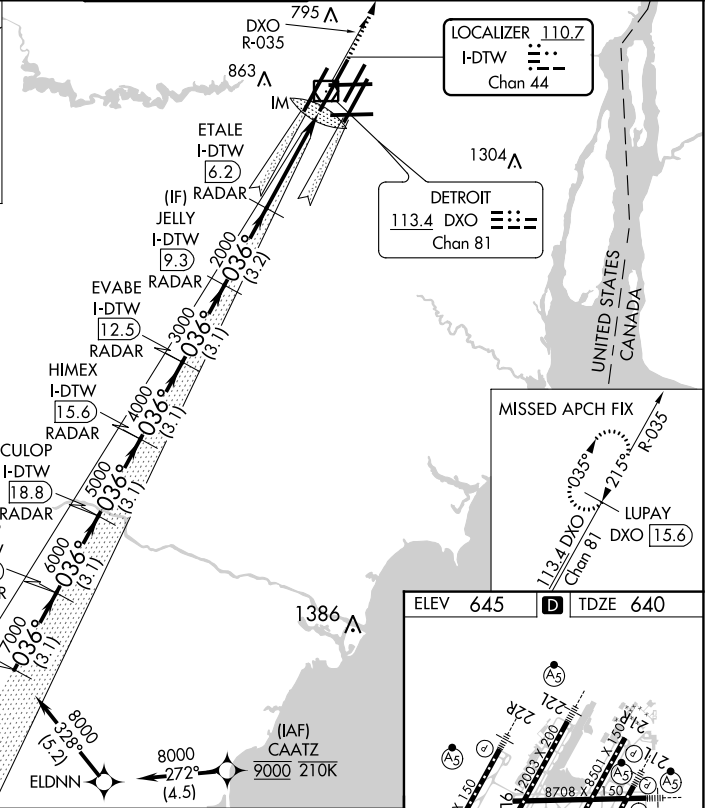
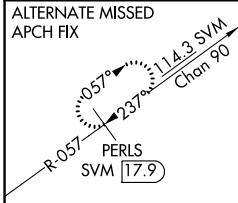
DME or RADAR required. CLEVR, CAATZ and ELDNN: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped- RADAR required for procedure entry.

ALSF-2

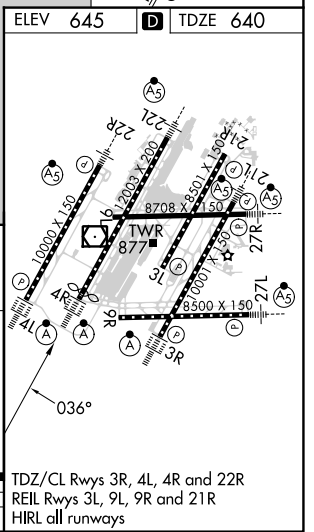
MISSED APPROACH:
Climb to 4000 on DXO
VOR/DME R-035 to
LUPAY/DXO VOR/DME
15.6 DME and hold.

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF Comm required. See additional requirements on AAUP. Procedure NA when glideslope not available.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725 PRM 135.775	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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BAANG I-DTW 25 RADAR	JULEP I-DTW 21.9 RADAR	CULOP I-DTW 18.8 RADAR	HIMEX I-DTW 15.6 RADAR	EVABE I-DTW 12.5 RADAR	JELLY I-DTW 9.3 RADAR	ETALE I-DTW 6.2 RADAR	DXO R-035	LUPAY DXO 15.6
8000	7000	6000	5000	4000	3000	2000	4000	
GS 3.00° TCH 52								
CATEGORY	A		B		C		D	
S-ILS 4R	840/18		200 (200-1/2)					



DETROIT, MICHIGAN
Amdt 3A 13SEP18

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)

ILS PRM RWY 4R (CLOSE PARALLEL)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

LOC/DME I-DTW 110.7	APP CRS 036°	Rwy Idg TDZE Apt Elev	11494 640 645
Chan 44			

(CLOSE PARALLEL)

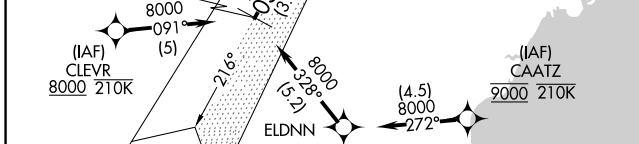
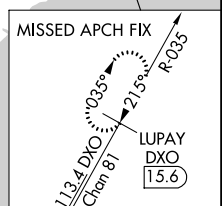
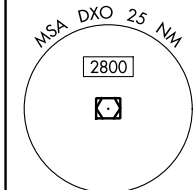
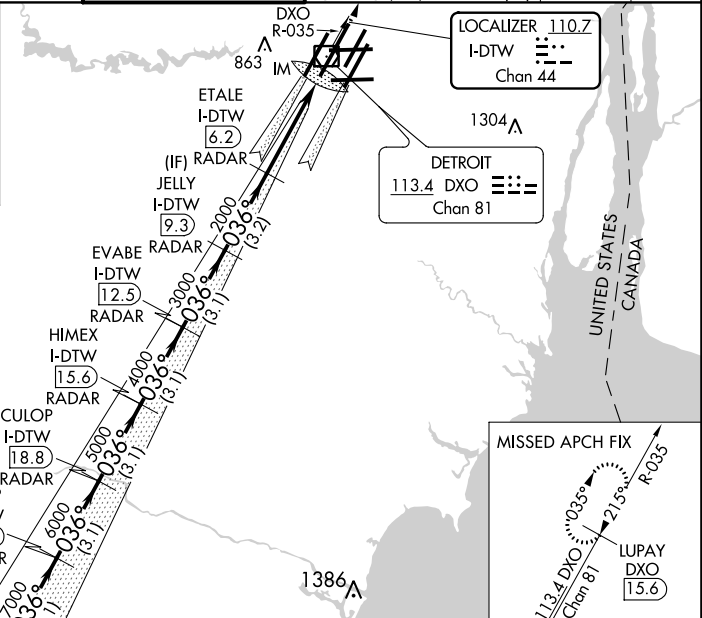
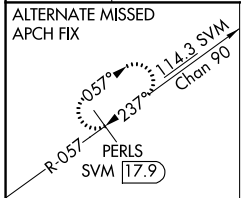
DETROIT METRO WAYNE COUNTY (DTW)

RNAV 1-GPS, DME or RADAR required. CLEVR, CAATZ and ELDNN: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped- RADAR required for procedure entry.

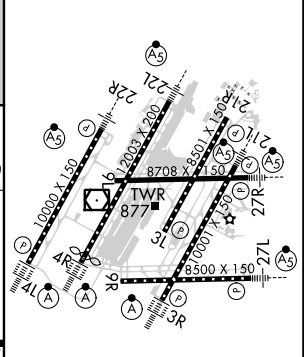
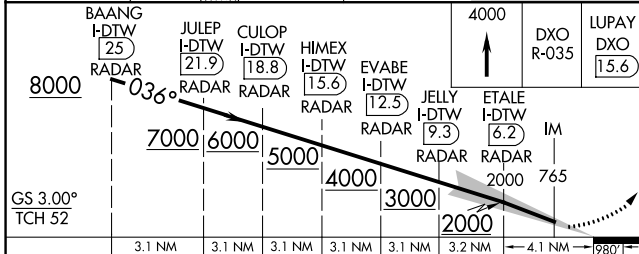
ALSF-2 MISSED APPROACH:
Climb to 4000 on DXO
VOR/DME R-035 to
LUPAY/DXO VOR/DME
15.6 DME and hold.

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF Comm required. See additional requirements on AAPP. Procedure NA when glideslope not available.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725 PRM 135.775	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	TDZE 640
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CATEGORY	A	B	C	D
S-ILS 4R	CAT II RA 104/12		100 DA 740	
S-ILS 4R	CAT III		RVR 06	

TDZ/CL Rws 3R, 4L, 4R and 22R
REIL Rws 3L, 9L, 9R and 21R
HIRL all runways

CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

DETROIT, MICHIGAN

AL-119 (FAA)

ILS PRM RWY 4R (SA CAT I)

21168

(CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-DTW 110.7 Chan 44	APP CRS 036°	Rwy Idg TDZE Apt Elev	11494 640 645
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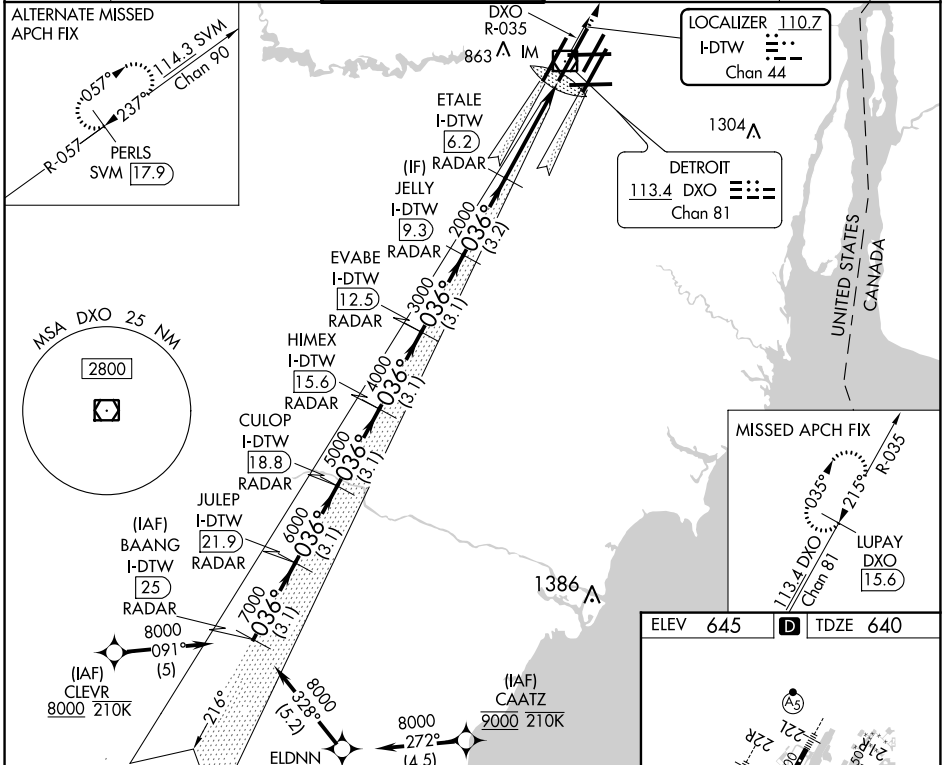
RNAV 1-GPS. DME or RADAR required. CLEVR, CAATZ and ELDNN: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped- RADAR required for procedure entry.

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF Comm required. See additional requirements on AAUP. Procedure NA when glideslope not available. Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.

ALSIF-2

MISSED APPROACH: Climb to 4000 on DXO VOR/DME R-035 to LUPAY/DXO VOR/DME 15.6 DME and hold.

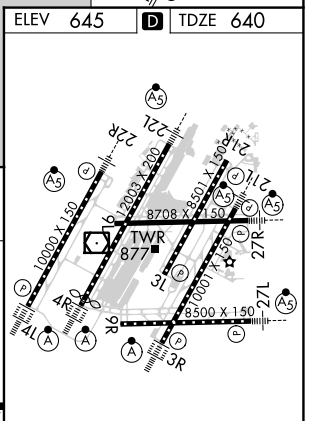
D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725 PRM 135.775	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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BAANG I-DTW 25 RADAR	JULEP I-DTW 21.9 RADAR	CULOP I-DTW 18.8 RADAR	HIMEX I-DTW 15.6 RADAR	EVABE I-DTW 12.3 RADAR	JELLY I-DTW 9.3 RADAR	ETALE I-DTW 6.2 RADAR	IM
8000	7000	6000	5000	4000	3000	2000	2000
3.1 NM	3.1 NM	3.1 NM	3.1 NM	3.1 NM	3.2 NM	4.1 NM	980'

4000 DXO R-035 LUPAY DXO 15.6

GS 3.00° TCH 52



SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

BAANG I-DTW 25 RADAR

JULEP I-DTW 21.9 RADAR

CULOP I-DTW 18.8 RADAR

HIMEX I-DTW 15.6 RADAR

EVABE I-DTW 12.3 RADAR

JELLY I-DTW 9.3 RADAR

ETALE I-DTW 6.2 RADAR

IM

8000 7000 6000 5000 4000 3000 2000

3.1 NM 3.1 NM 3.1 NM 3.1 NM 3.1 NM 3.2 NM 4.1 NM 980'

CATEGORY A B C D

S-ILS 4R RA 154/14 150 DA 790

TDZ/CL Rwy 3R, 4L, 4R and 22R
REIL Rwy 3L, 9L, 9R and 21R
HIRL all runways

DETROIT, MICHIGAN
Amdt 3A 13SEP18

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)

ILS PRM RWY 4R (SA CAT I) (CLOSE PARALLEL)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

ILS PRM Y RWY 22R (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

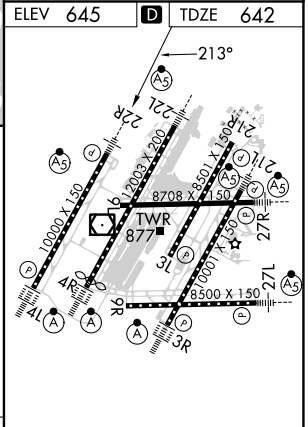
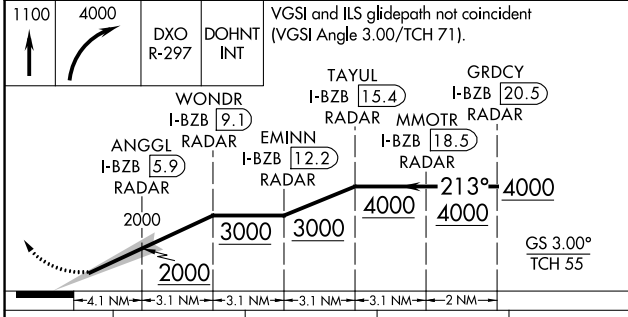
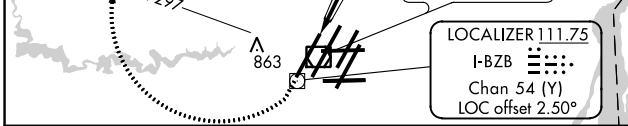
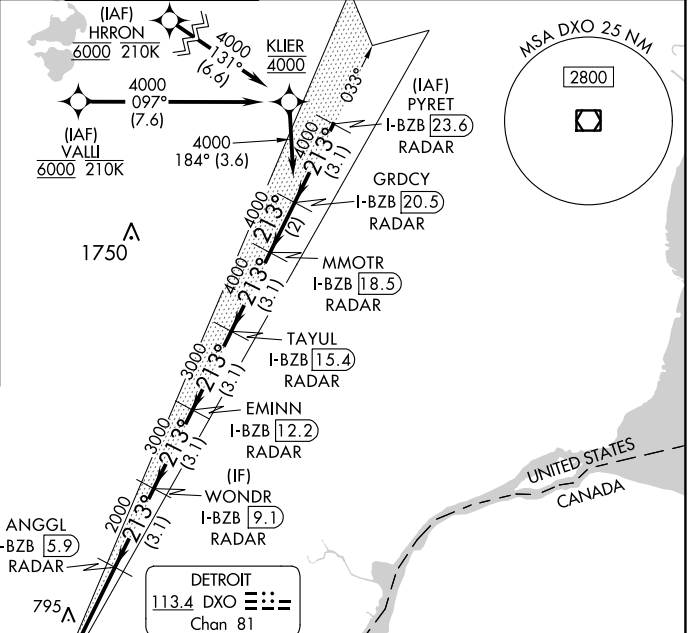
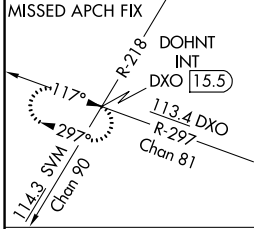
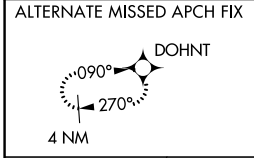
LOC/DME I-BZB 111.75 Chan 54 (Y)	APP CRS 213°	Rwy Idg TDZE Apt Elev 10000 642 645
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RNAV 1-GPS, HRRON and VALLI: RNAV 1-DME/DME/IRU or GPS required.
Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.

Simultaneous approach authorized.
Procedure NA when glide slope not available (ILS procedures only).
Dual VHF Comm required. See additional requirements on AAUP.

MALSR
MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 on DXO VOR/DME R-297 to DOHNT INT/DXO 15.5 DME and hold.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725 PRM 127.05	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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CATEGORY	A	B	C	D
S-ILS 22R		892/24	250 (300-1/2)	

EC-1, 22 FEB 2024 to 21 MAR 2024


EC-1, 22 FEB 2024 to 21 MAR 2024

LOC/DME I-JKI 111.95	APP CRS 216°	Rwy Idg TDZE Apt Elev	10000 642 645
Chan 56 (Y)			

ILS PRM Z RWY 22R (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

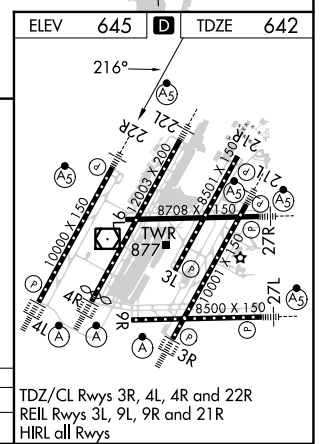
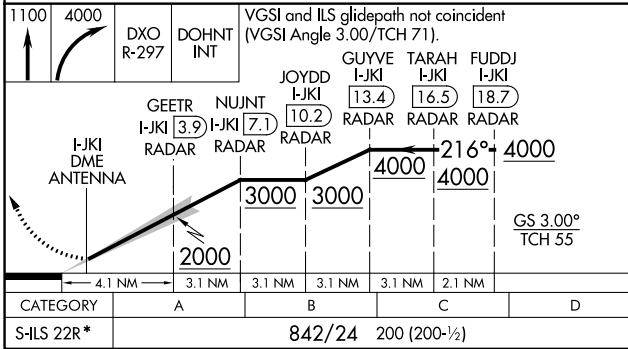
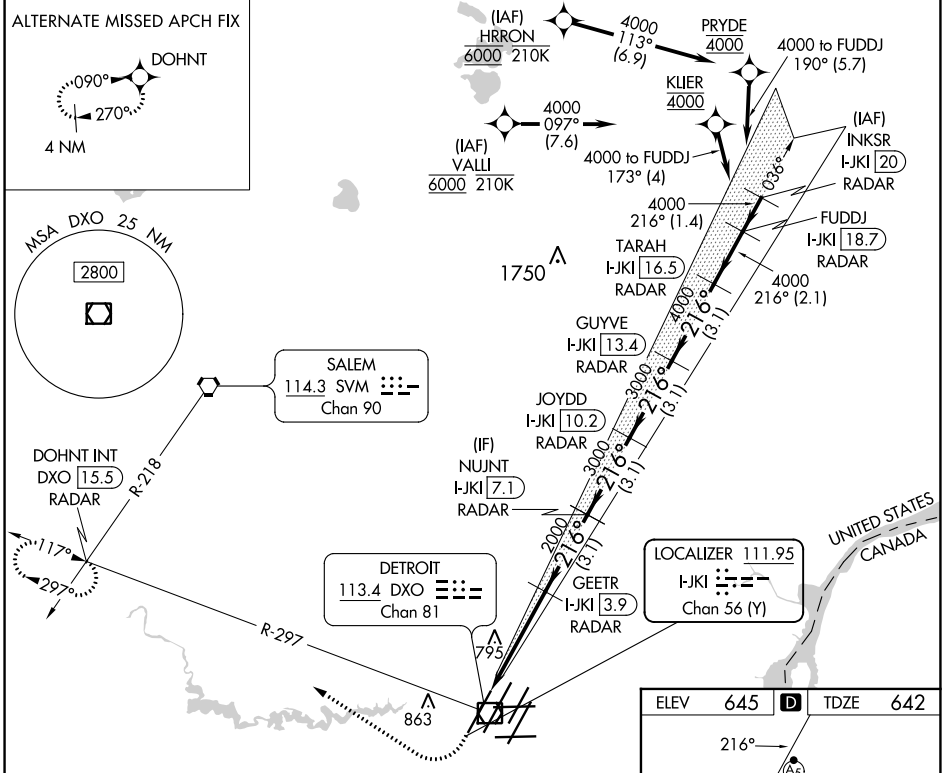
RNAV 1-GPS. HRRON and VALLI: RNAV 1-DME/DME/IRU or GPS required.
 Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.

MALSR 

MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 on DXO VOR/DME R-297 to DOHNT INT/DXO 15.5 DME/RADAR and hold.

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF Comm required. See additional requirements on AAUP.
 *RVR 1800 authorized with use of FD or AP or HUD to DA.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725 PRM 127.05	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

DETROIT, MICHIGAN

AL-119 (FAA)

21168

LOC/DME I-JKI 111.95	APP CRS 216°	Rwy Idg TDZE Apt Elev	10000 642 645
Chan 56 (Y)			

ILS PRM Z RWY 22R (SA CAT I & II) (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

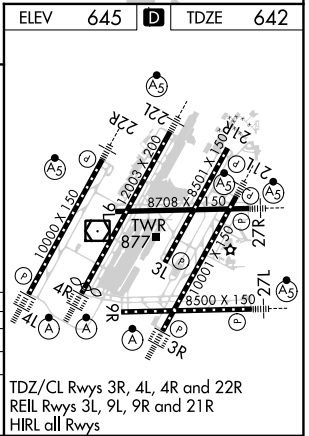
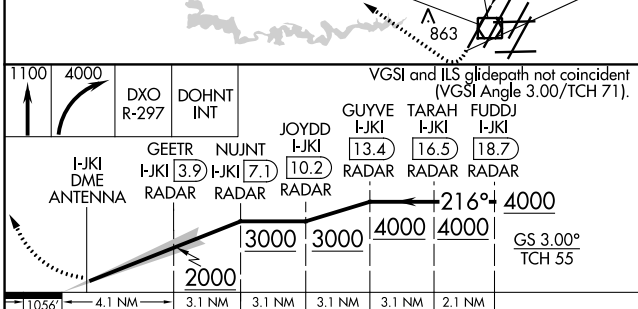
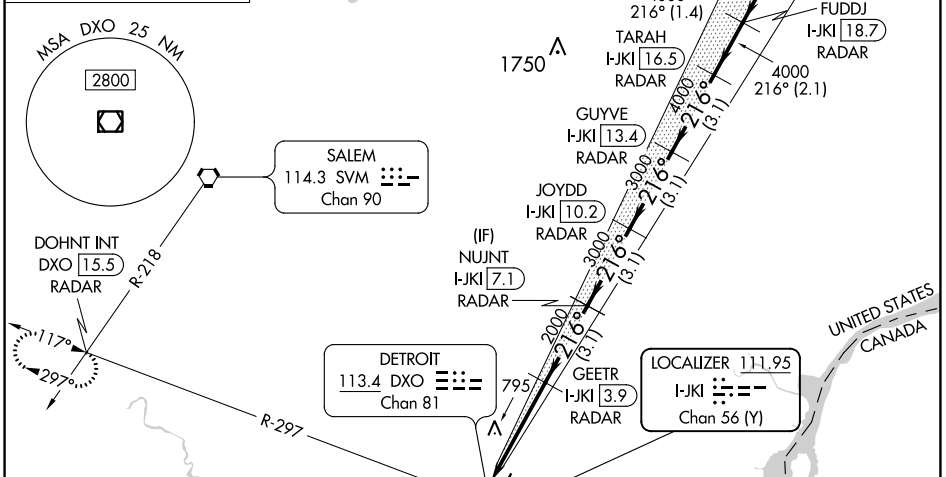
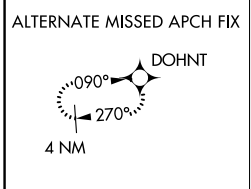
RNAV 1-GPS, HRRON and VALLI: RNAV 1-DME/DME/IRU or GPS required.
Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF Comm required. See additional requirements on AAUP.
SA CAT I: Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH.
SA CAT II: Reduced lighting: Requires specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

MALS R

MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 on DXO VOR/DME R-297 to DOHNT INT/DXO 15.5 DME/RADAR and hold.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.25 PRM 127.05	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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1058	4.1 NM	3.1 NM	3.1 NM	3.1 NM	3.1 NM	2.1 NM
CATEGORY	A	B	C	D		
S-ILS 22R	SA CAT I RA 148/14 150 DA 792					
S-ILS 22R	SA CAT II RA 98/12 100 DA 742					

DETROIT, MICHIGAN 42°13'N-83°21'W DETROIT METRO WAYNE COUNTY (DTW)

Orig-B 30JAN20

ILS PRM Z RWY 22R (SA CAT I & II) (CLOSE PARALLEL)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

DETROIT, MICHIGAN

AL-119 (FAA)

ILS PRM Z RWY 4L (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-HJT 111.95 Chan 56 (Y)	APP CRS 036°	Rwy Idg TDZE Apt Elev 10000 645 645
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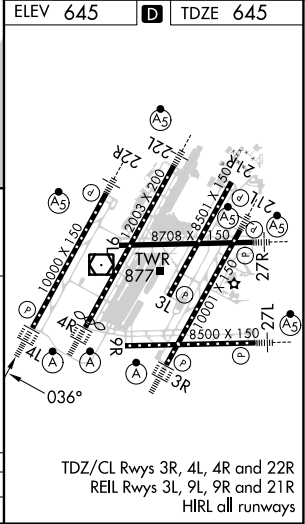
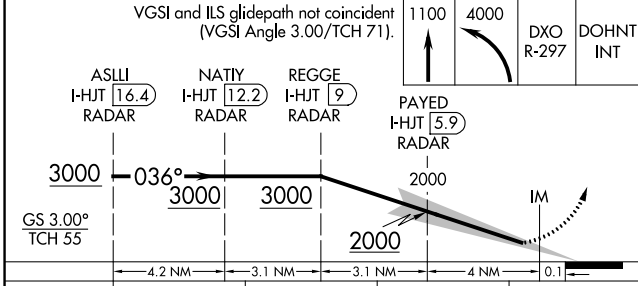
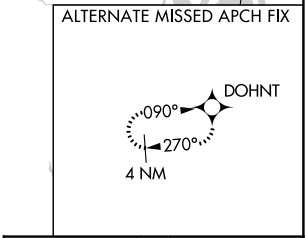
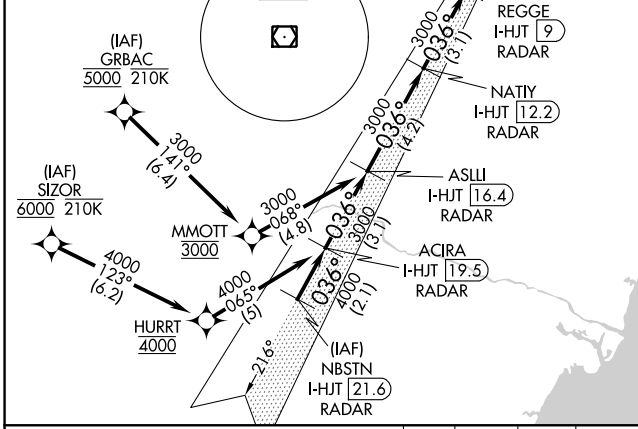
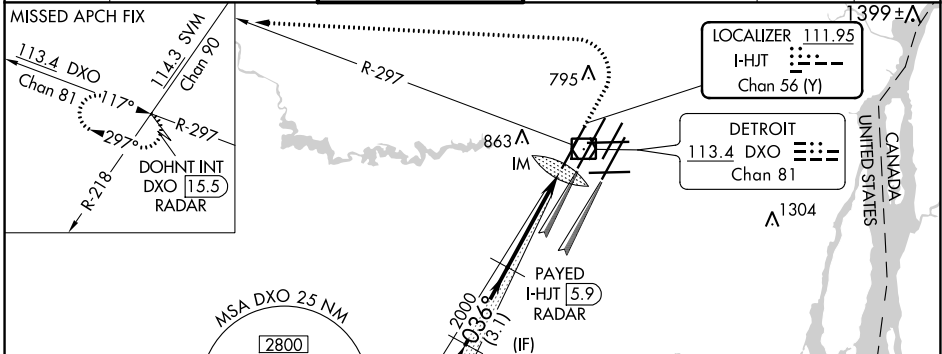
From GRBAC, SIZOR: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry. DME or RADAR required.

Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF Comm required. See additional requirements on AAUP.

ALSF-2

MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 on DXO VOR/DME R-297 to DOHNT INT/DXO 15.5 DME/RADAR and hold.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725 PRM 127.05	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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CATEGORY	A	B	C	D
S-ILS 4L	845/18 200 (200-½)			

DETROIT, MICHIGAN
Orig-B 30JAN20

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)

ILS PRM Z RWY 4L (CLOSE PARALLEL)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

DETROIT, MICHIGAN

ILS PRM Z RWY 4L (CAT II & III)

(CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-HJT 111.95 Chan 56 (Y)	APP CRS 036°	Rwy Idg TDZE Apt Elev	10000 645 645
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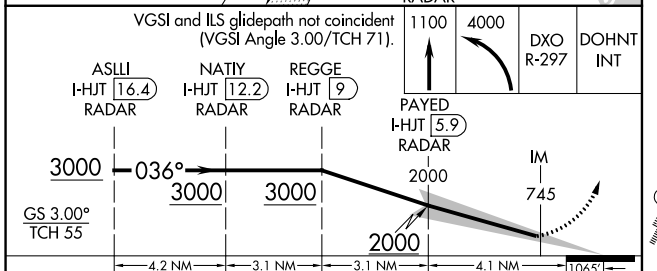
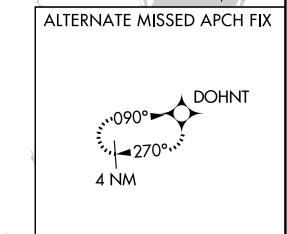
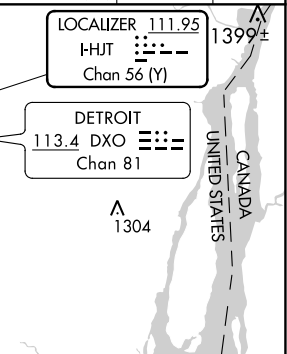
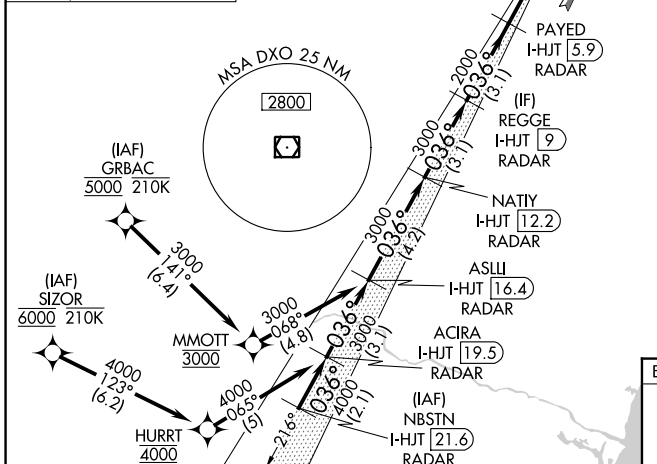
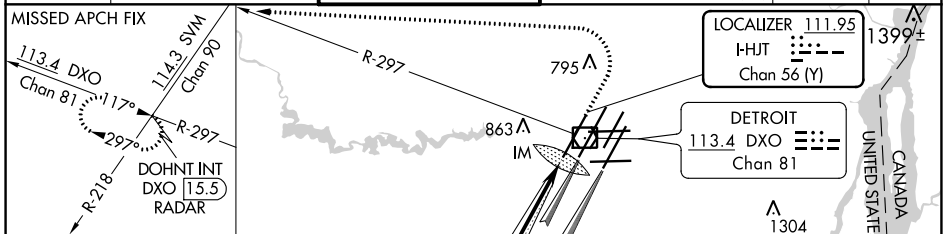
From GRBAC, SIZOR 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry. DME or RADAR required.

MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 on DXO VOR/DME R-297 to DOHNT INT/DXO 15.5 DME/RADAR and hold.

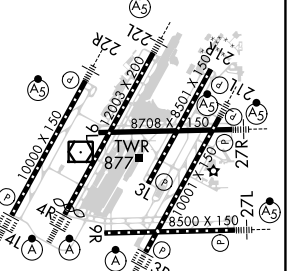
ALSF-2
A

Caution: Cat II: RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown. Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF Comm required. See additional requirements on AAUP.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725 PRM 127.05	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	TDZE 645
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CATEGORY	A	B	C	D
S-ILS 4L	CAT II RA 101/12 100 DA 745			
S-ILS 4L	CAT III RVR 06			

CATEGORY II & III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

TDZ/CL Rwy 3R, 4L, 4R and 22R
REIL Rwy 3L, 9L, 9R and 21R
HIRL all runways

DETROIT, MICHIGAN
Orig-B 30JAN20

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)

ILS PRM Z RWY 4L (CAT II & III) (CLOSE PARALLEL)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

LOC/DME I-JKI 111.95	APP CRS 216°	Rwy Idg 10000
Chan 56 (Y)		TDZE 642
		Apt Elev 645

ILS Z RWY 22R (SA CAT I & II)

DETROIT METRO WAYNE COUNTY (DTW)

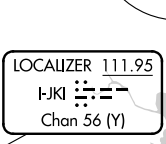
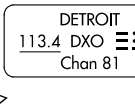
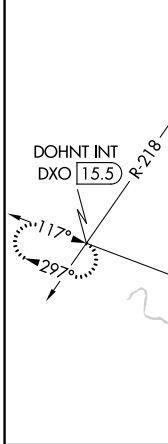
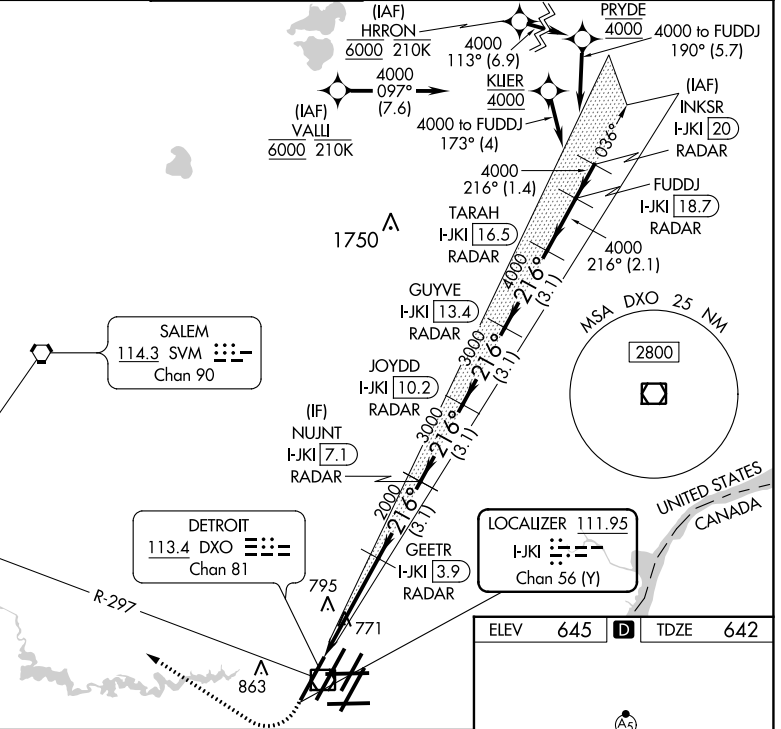
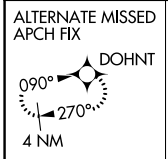
RNAV 1-GPS, HRRON and VALLI: RNAV 1-DME/DME/IRU or GPS required.
 Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.

Simultaneous approach authorized. SA CAT I: Requires specific OPSPEC, MSPEC, or LOA approval and use of HUD to DH. SA CAT II: Reduced lighting; Requires specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

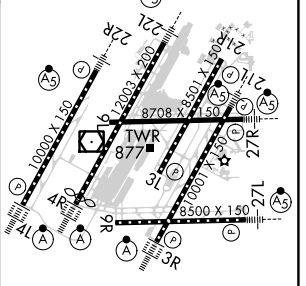
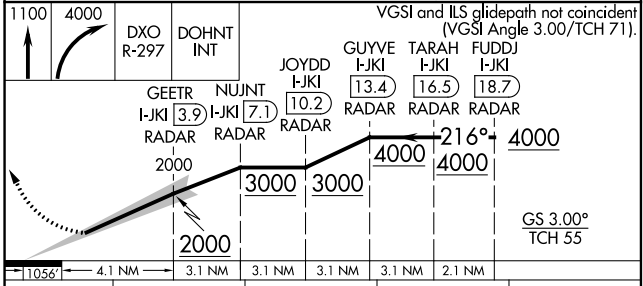
MALSR

MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 on DXO VOR/DME R-297 to DOHNT INT/DXO 15.5 DME and hold.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	D	TDZE 642
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CATEGORY	A	B	C	D
S-ILS 22R	SA CAT I	RA 148/14	150 DA 792	
S-ILS 22R	SA CAT II	RA 98/12	100 DA 742	

TDZ/CL Rwy's 3R, 4L, 4R and 22R
 REL Rwy's 3L, 9L, 9R and 21R
 HIRL all Rwy's

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

LOC/DME I-JKI 111.95	APP CRS 216°	Rwy Idg 10000
Chan 56 (Y)		TDZE 642
		Apt Elev 645

ILS Z or LOC RWY 22R

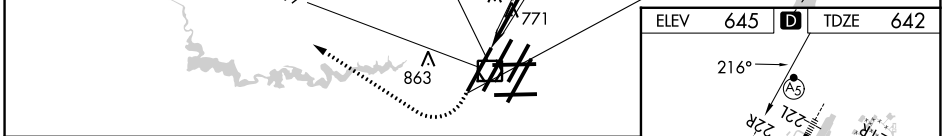
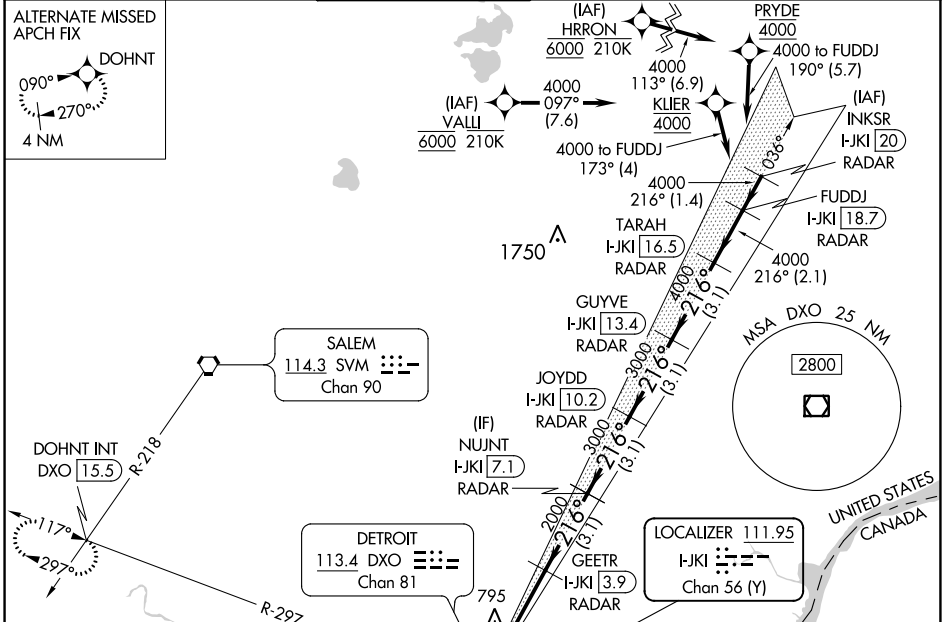
DETROIT METRO WAYNE COUNTY (DTW)

RNAV 1-GPS, HRRON and VALLI: RNAV 1-DME/DME/IRU or GPS required.
 Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.

MALSR MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 on DXO VOR/DME R-297 to DOHNT INT/DXO 15.5 DME and hold.

Simultaneous approach authorized.
 **RVR 1800 authorized with use of FD or AP or HUD to DA.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	TDZE 642
VGS1 and ILS glidepath not coincident (VGS1 Angle 3.00/TCH 71). *LOC only.	
GEETR I-JKI [3.9] RADAR NUJNT I-JKI [7.1] RADAR JOYDD I-JKI [10.2] RADAR GUYVE I-JKI [13.4] RADAR TARAH I-JKI [16.5] RADAR FUDDJ I-JKI [18.7] RADAR	I-JKI [0.9] DME ANTENNA I-JKI [0.2] I-JKI [7.1] RADAR I-JKI [10.2] RADAR I-JKI [13.4] RADAR I-JKI [16.5] RADAR I-JKI [18.7] RADAR
1100 4000 DXO R-297 DOHNT INT 11056 1.1 NM 3 NM 3.1 NM 3.1 NM 3.1 NM 3.1 NM 2.1 NM	216° 4000 GS 3.00° TCH 55
CATEGORY	A B C D
S-ILS 22R**	842/24 200 (200-1/2)
S-LOC 22R	1060/24 418 (500-1/2) 1060/40 418 (500-3/4)
CIRCLING 1180-1 535 (600-1)	1180-1/2 535 (600-1/2) 1240-2 595 (600-2)
TDZ/CL Rwys 3R, 4L, 4R and 22R REIL Rwys 3L, 9L, 9R and 21R HIRL all Rwys	
FAF to MAP 4.1 NM	
Knots	60 90 120 150 180
Min:Sec	4:06 2:44 2:03 1:38 1:22

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

ATTENTION ALL USERS PAGE (AAUP)

Pilots who are unable to participate will be afforded appropriate arrival services as operational conditions permit and must notify the controlling ATC facility as soon as practical, but at least 100 miles from destination.

ILS PRM Rwys 4R, 22L
 ILS PRM Y Rwys 4L, 22R
 ILS PRM (SA CAT I) Rwy 4R
 ILS PRM (CAT II & III) Rwy 4R
 RNAV (GPS) PRM Z Rwys 4R, 22L
 RNAV (GPS) PRM Y Rwys 4L, 22R

Review procedure for executing a climbing and descending PRM breakout

Breakout phraseology: "TRAFFIC ALERT (call sign) TURN (left/right) IMMEDIATELY HEADING (degrees) CLIMB/DESCEND AND MAINTAIN (altitude)."

All breakouts: Hand flown, initiate immediately.

Descending on the glideslope/glidepath ensures compliance with any charted crossing restrictions.

Dual VHF Comm.: When assigned or planning a specific PRM approach, tune a second receiver to the PRM monitor frequency or, if silent, another active frequency (i.e., ATIS), set the volume, retune the PRM frequency if necessary, then deselect the audio. When directed by ATC, immediately switch to the tower frequency and select the second receiver audio to ON.

If later assigned the same runway, non-PRM approach, consider it briefed provided the same minimums are utilized. PRM related chart notes and PRM frequency no longer apply.

TCAS during breakout: Follow TCAS climb/descend if it differs from ATC, while executing the breakout turn.

Runway Specific**RWY 4L**

- Exit the runway as soon as practical; whenever possible, do not stop on taxiway A.
- ILS PRM Y 4L and RNAV (GPS) PRM Y 4L approaches offset 2.5 degrees.

RWY 22R

- Exit the runway as soon as practical; whenever possible, do not stop on taxiway A.
- ILS PRM Y 22R and RNAV (GPS) PRM Y 22R approaches offset 2.5 degrees.

WAAS CH 53300	APP CRS 276°	Rwy Idg TDZE 630	8500
W27B		Apt Elev 645	

RNAV (GPS) RWY 27L

DETROIT METRO WAYNE COUNTY (DTW)

RNP APCH

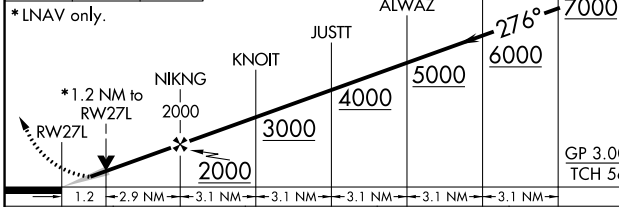
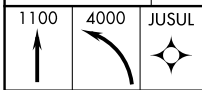
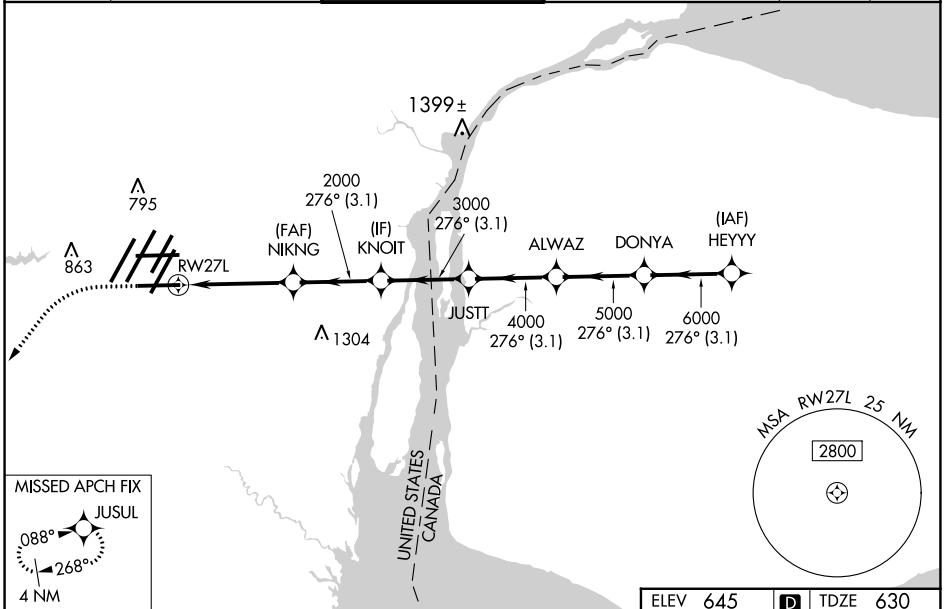
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). Simultaneous approach authorized. LNAV procedure NA during simultaneous operations. Use of FD or AP required during simultaneous operations. For inop ALS, increase LNAV/VNAV all Cats visibility to RVR 5000. ** RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSR



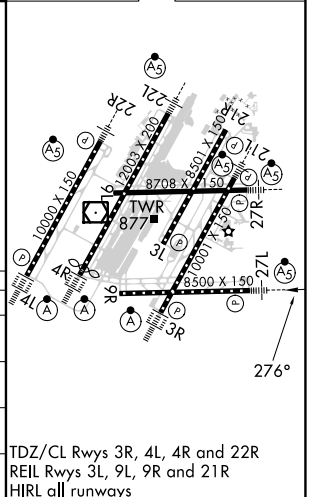
MISSED APPROACH:
Climb to 1100 then climbing left turn to 4000 direct JUSUL and hold.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.75 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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CATEGORY	A	B	C	D
LPV DA**		830/24	200 (200-½)	
LNAV/VNAV DA		958/30	328 (400-⅝)	
LNAV MDA	1080/24	450 (500-½)	1080/45	450 (500-⅞)
CIRCLING	1180-1	535 (600-1)	1180-1½ 535 (600-1½)	1240-2 595 (600-2)

ELEV 645 **D** TDZE 630



WAAS CH 86220 W27A	APP CRS 276°	Rwy Idg 8708 TDZE 635 Apt Elev 645
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RNAV (GPS) RWY 27R

DETROIT METRO WAYNE COUNTY (DTW)

RNP APCH

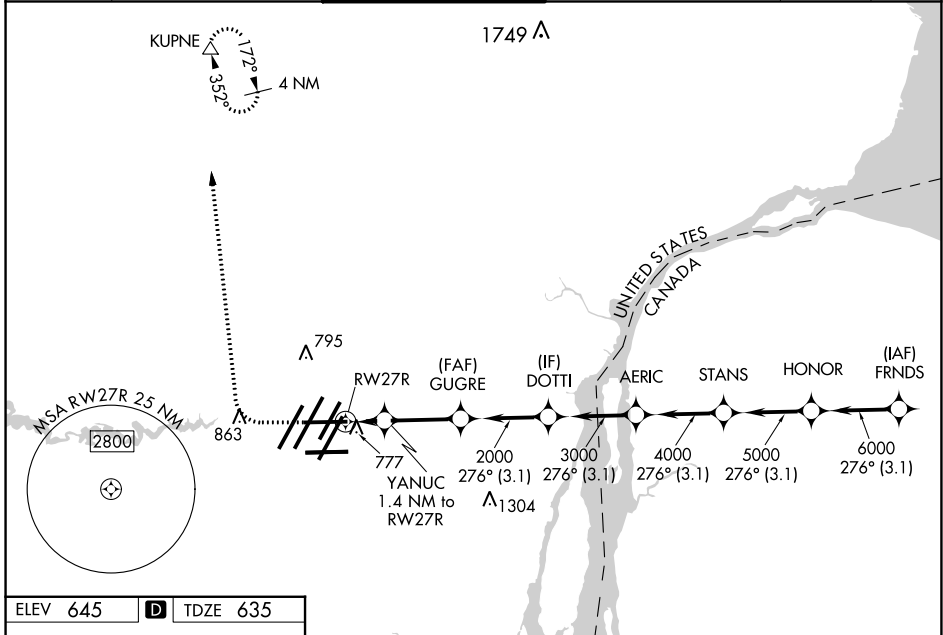
▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 54°C (130°F). For inop ALS, increase LNAV Cat C and D visibility to RVR 6000. Simultaneous approach authorized. LNAV procedure NA during simultaneous operations. Use of FD or AP required during simultaneous operations. ** RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSR

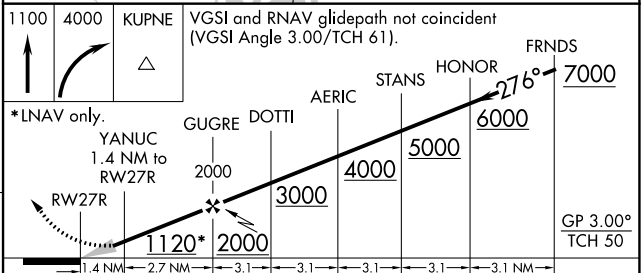
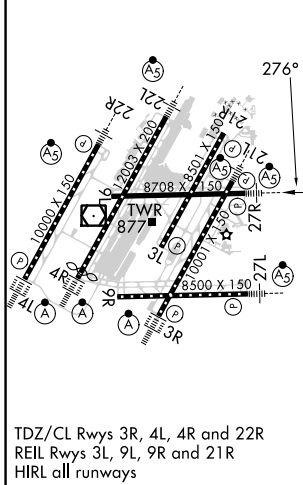


MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct KUPNE and hold, continue climb-in-hold to 4000.

D-ATIS 133.675	DETROIT APP CON 125.15 284.0	METRO TOWER 118.4 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	D	TDZE 635
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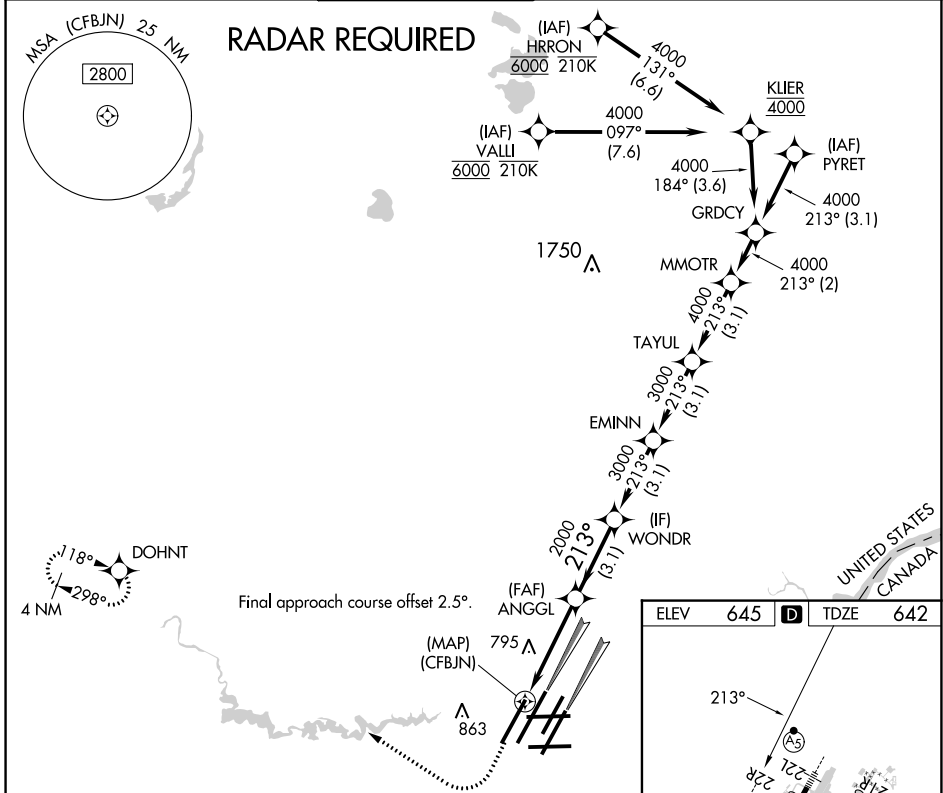
CATEGORY	A	B	C	D
LPV DA**		835/24	200 (200-½)	
LNAV/VNAV DA		938/24	303 (300-½)	
LNAV MDA	1040/24	405 (400-½)	1040/40	405 (400-¾)
C CIRCLING	1180-1	535 (600-1)	1180-1½ 535 (600-1½)	1240-2 595 (600-2)

WAAS CH 42939 W22B	APP CRS 213°	Rwy Idg TDZE 642 Apt Elev 645
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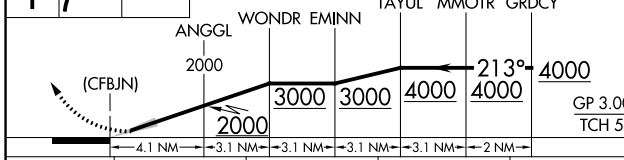
▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Use of FD or AP providing RNAV track guidance required during simultaneous operations. Simultaneous approach authorized. Dual VHF comm required. See additional requirements on AAUP.

MALSR  MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct DOHNT and hold.

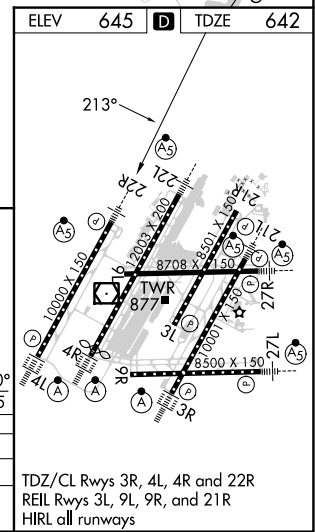
D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725 PRM 127.05	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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1100 4000 DOHNT VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 71).



CATEGORY	A	B	C	D
LPV DA		892/24	250 (300-½)	
LNAV/VNAV DA		1050/45	408 (500-7/8)	



EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

RNAV (GPS) PRM Y RWY 4L (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

WAAS CH 82439 W04A	APP CRS 038°	Rwy Idg 10000 TDZE 645 Apt Elev 645
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RNP APCH.

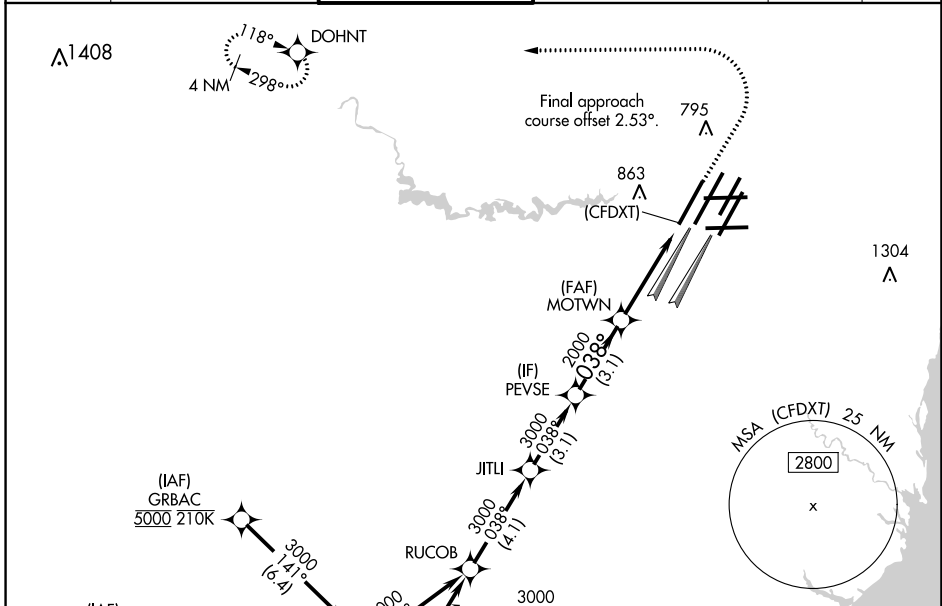
▼ Rwy 4L and 4R separated by 3000 feet centerline to centerline. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C or above 54°C. Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF comm required. See additional requirements on AAUP.

ALSF-2



MISSED APPROACH:
Climb to 1100 then
climbing left turn to 4000
direct DOHNT and hold.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725 PRM 127.05	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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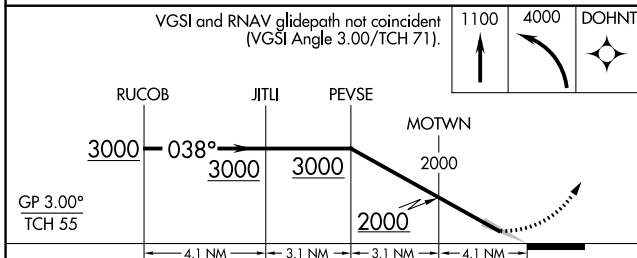


EC-1, 22 FEB 2024 to 21 MAR 2024

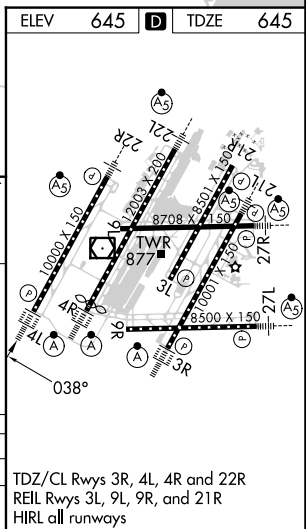
EC-1, 22 FEB 2024 to 21 MAR 2024

ELEV 645	D	TDZE 645
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VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 71).



CATEGORY	A	B	C	D
LPV DA		895/24	250 (300-1/2)	
LNAV/VNAV DA		1068/45	423 (500-7/8)	



RNAV (GPS) PRM Y RWY 4L (CLOSE PARALLEL)

DETROIT, MICHIGAN

AL-119 (FAA)

RNAV (GPS) PRM Z RWY 22L (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

WAAS CH 99601 W22A	APP CRS 216°	Rwy Idg TDZE 637 Apt Elev 645
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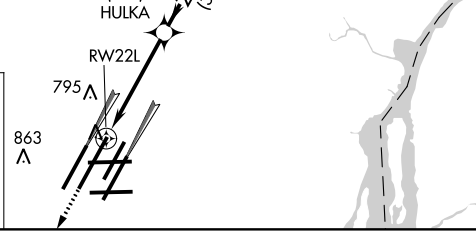
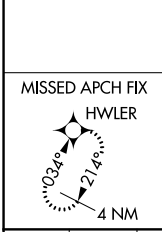
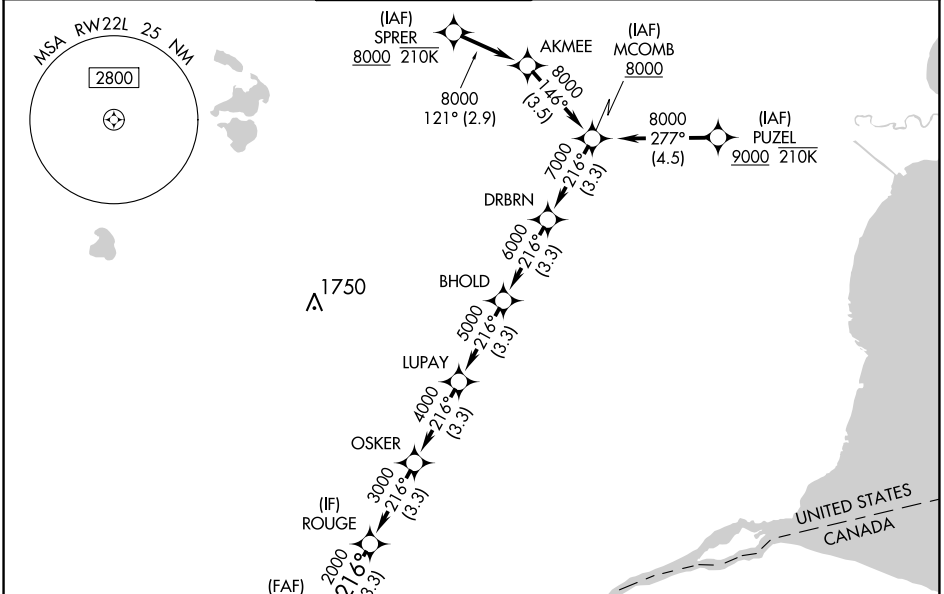
RNP APCH.

▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -10°C or above 54°C. Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF comm required. See additional requirements on AAUP. For inop ALS, increase LNAV/VNAV all Cats visibility to RVR 4500. * RVR 1800 authorized with use of FD or AP or HUD to DA.

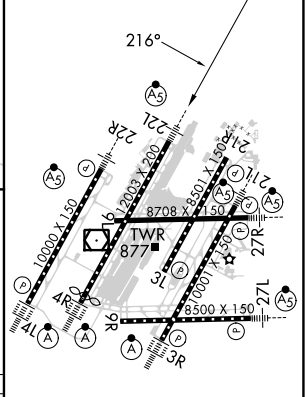


MISSED APPROACH:
Climb to 4000 direct
HWLER and hold.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725 PRM 135.775	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	D	TDZE 637
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4000	HWLER	DRBRN	MCOMB	216°	8000
HULKA	ROUGE	OSKER	LUPAY	BHOLD	
2000	3000	4000	5000	6000	7000
RWY 22L					
4.3 NM	3.3 NM	3.3 NM	3.3 NM	3.3 NM	3.3 NM

CATEGORY	A	B	C	D
LPV DA *		837/24	200 (200-1/2)	
LNAV/VNAV DA		938/24	301 (300-1/2)	

TDZ/CL Rwsy 3R, 4L, 4R, and 22R
REIL Rwsy 3L, 9L, 9R, and 21R
HIRL all runways

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

DETROIT, MICHIGAN
Amdt 1A 28FEB19

RNAV (GPS) PRM Z RWY 22L (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

42°13'N-83°21'W

DETROIT, MICHIGAN

AL-119 (FAA)

RNAV (GPS) PRM Z RWY 4R (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

WAAS CH 87139 W04B	APP CRS 036°	Rwy Idg 11494 TDZE 640 Apt Elev 645
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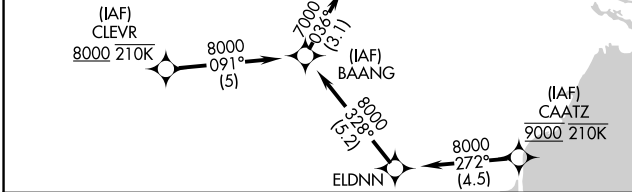
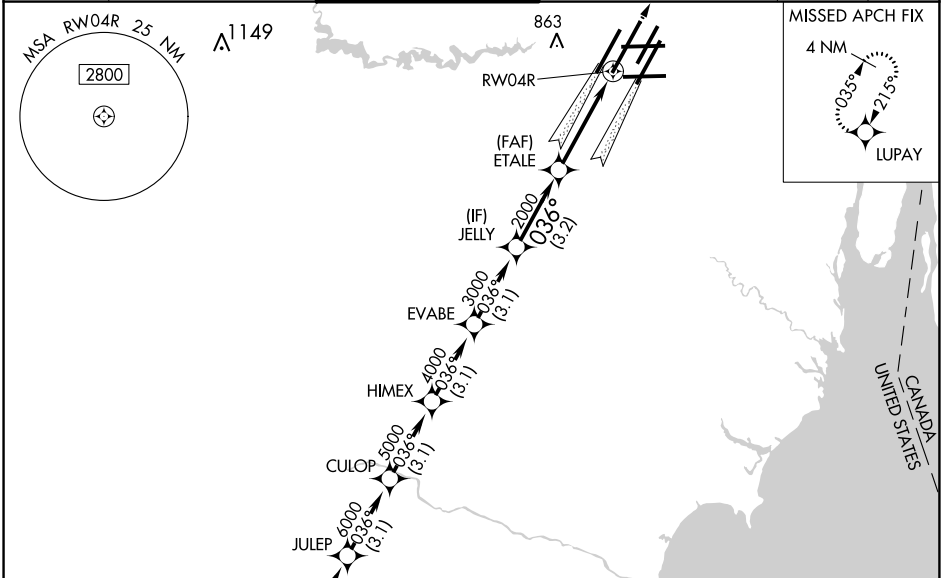
RNP APCH.

▽ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C or above 54°C. Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF comm required. See additional requirements on AAUP.

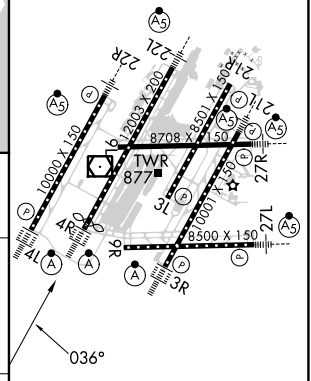
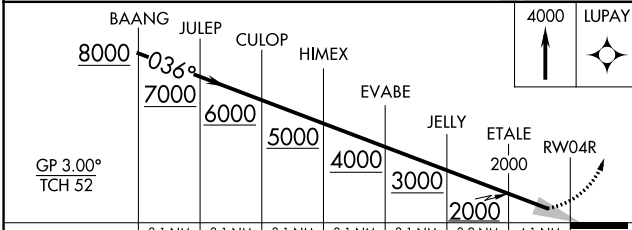
ALS-2

MISSED APPROACH:
Climb to 4000 direct LUPAY and hold.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725 PRM 135.775	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CINC DEL 120.65	CPDLC
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ELEV 645	D TDZE 640
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CATEGORY	A		B		C		D
LPV DA	840/18		200 (200-½)				
LNAV/VNAV DA	1021/35		381 (400-⅝)				

TDZ/CL Rwy 3R, 4L, 4R and 22R
REL Rwy 3L, 9L, 9R and 21R
HIRL all runways

DETROIT, MICHIGAN
Amdt 1A 28FEB19

RNAV (GPS) PRM Z RWY 4R (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

42°13'N-83°21'W

EC-1, 22 FEB 2024 to 21 MAR 2024

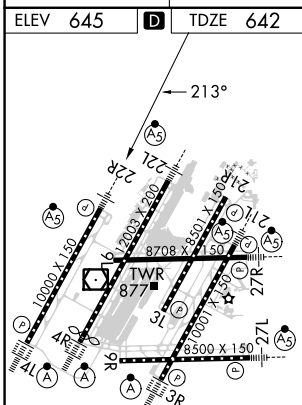
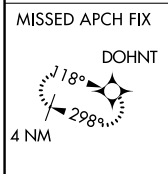
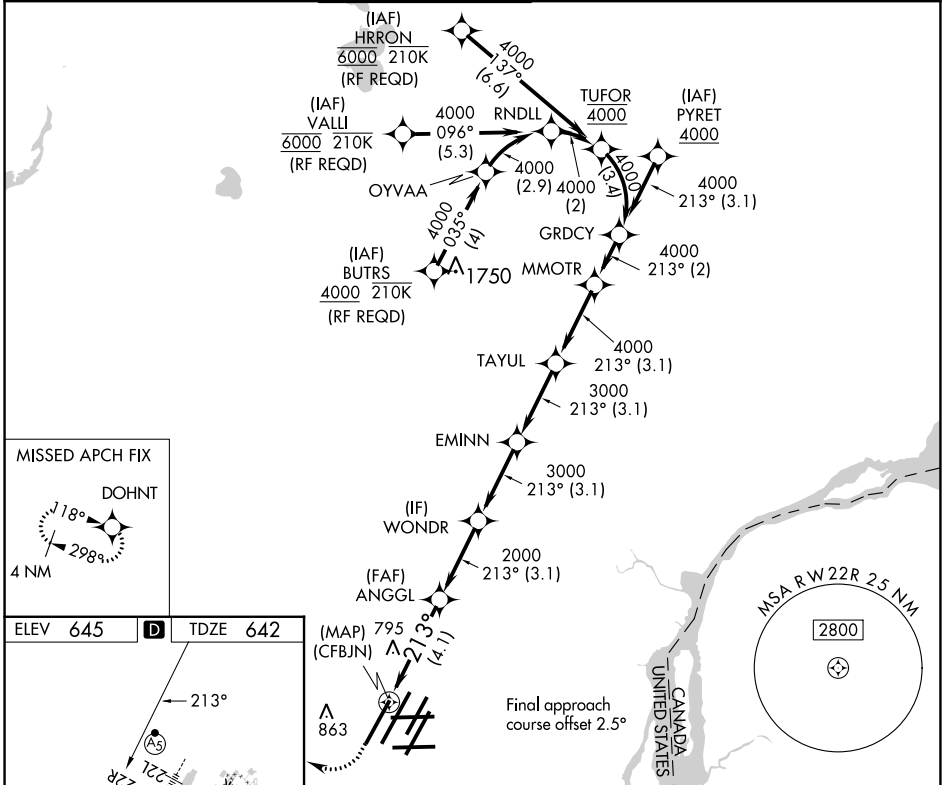
EC-1, 22 FEB 2024 to 21 MAR 2024

APP CRS 213°	Rwy Idg TDZE 642	10000
	Apt Elev 645	

RNAV (RNP) U RWY 22R

DETROIT METRO WAYNE COUNTY (DTW)

RNP AR APCH.		MALSR	MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct DOHNT and hold.		
<p>▼ For uncompensated Baro-VNAV systems, procedure NA below -19°C (-2°F) or above 54°C (130°F). Simultaneous approach authorized. For inop ALS, increase RNP 0.30 all Cats visibility to RVR 5500.</p>					
D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC



1100	4000	DOHNT	VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 71).			
			EMINN	TAYUL	MMOTR	GRDCY
			ANGGL	WONDRA	EMINN	TAYUL
			2000	3000	3000	4000
			2000	3000	4000	4000
			4.1 NM	3.1 NM	3.1 NM	3.1 NM
			3.1 NM	3.1 NM	3.1 NM	2 NM
			2000	3000	4000	4000
			213°	4000	4000	4000
			GP 3.00°	TCH 55		

CATEGORY	A	B	C	D
RNP 0.30 DA	987/30		345 (400-5%)	
AUTHORIZATION REQUIRED				

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

APP CRS	Rwy Idg	10000
038°	TDZE	645
	Apt Elev	645

RNAV (RNP) U RWY 4L

DETROIT METRO WAYNE COUNTY (DTW)

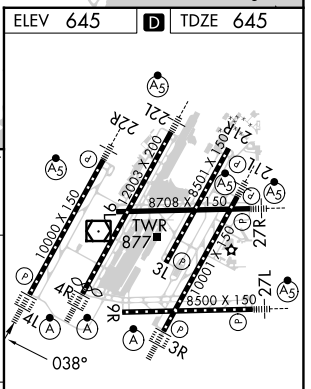
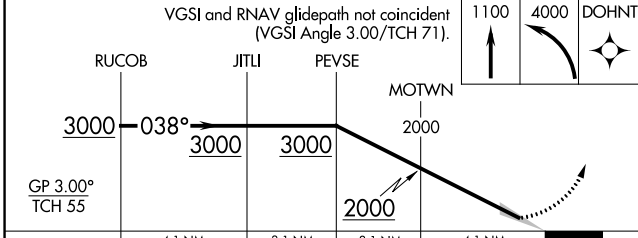
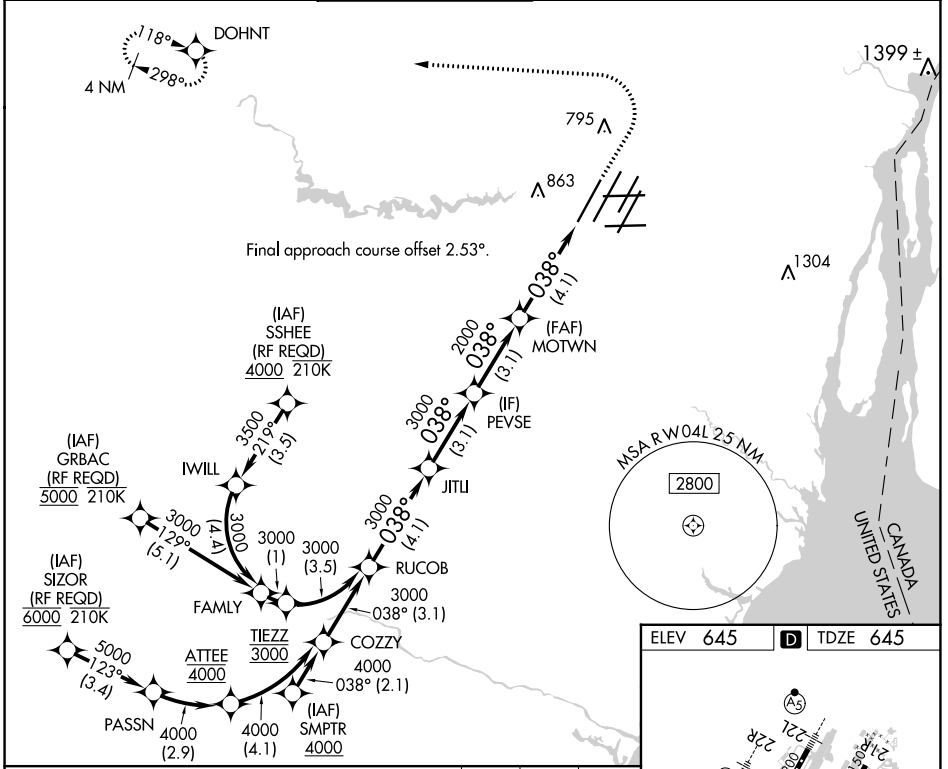
RNP AR APCH.

Simultaneous approach authorized. For uncompensated Baro-VNAV systems, procedure NA below -19°C or above 54°C. For inop ALS, increase RNP 0.30 DA all Cats visibility to RVR 6000.

ALSF-2

MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct DOHNT and hold.

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	135.0 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



CATEGORY	A	B	C	D
RNP 0.30 DA	1058/40 413 (500-¾)			

AUTHORIZATION REQUIRED

TDZ/CL Rws 3R, 4L, 4R and 22R
REIL Rws 3L, 9L, 9R and 21R
HIRL all Rws

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

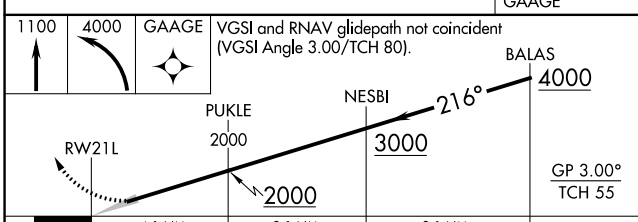
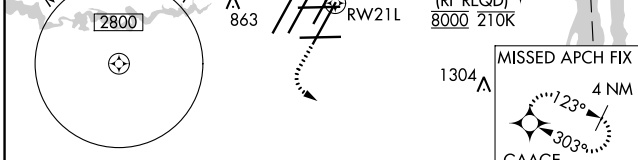
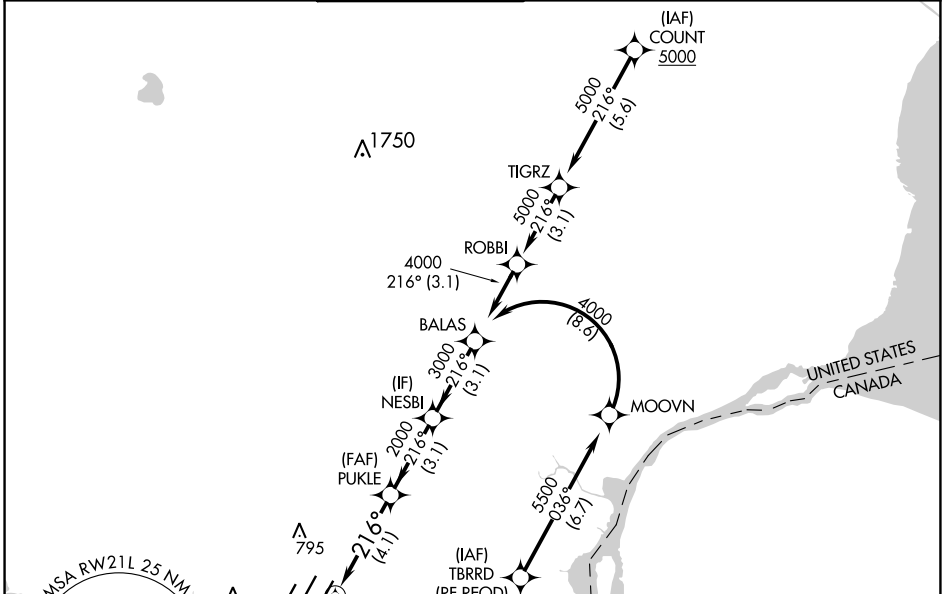
APP CRS	Rwy Idg	10001
216°	TDZE	632
	Apt Elev	645

RNAV (RNP) W RWY 21L

DETROIT METRO WAYNE COUNTY (DTW)

RNP AR APCH.		MALSR	MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct GAAGE and hold.
<p>▼ For uncompensated Baro-VNAV systems, procedure NA below -19°C or above 54°C. Simultaneous approach authorized. Use of FD or AP providing RNAV track guidance required during simultaneous operations.</p>			

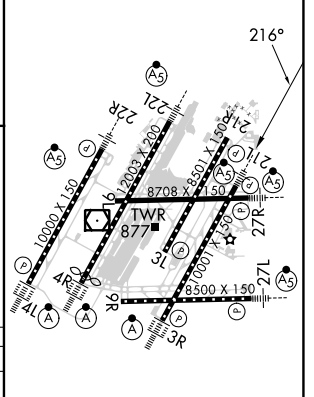
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	125.15 284.0	118.4 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



CATEGORY	A	B	C	D
RNP 0.30 DA		1062/40	430 (500-¾)	

AUTHORIZATION REQUIRED

ELEV 645	D	TDZE 632
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HIRL all runways
REIL Rwy 3L, 9L, 9R and 21R
TDZ/CL Rwy 3R, 4L, 4R and 22R

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

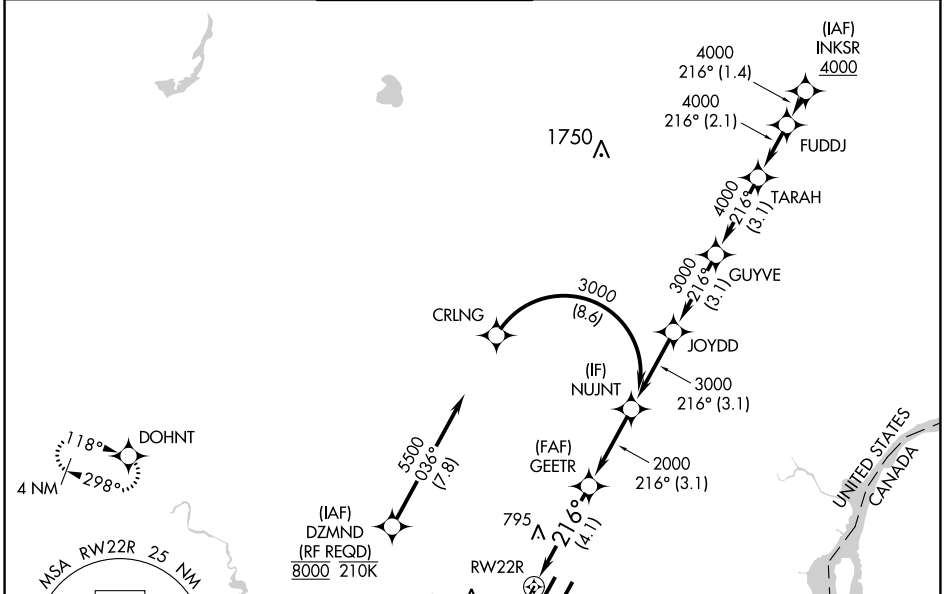
APP CRS	Rwy Idg	10000
216°	TDZE	642
	Apt Elev	645

RNAV (RNP) W RWY 22R

DETROIT METRO WAYNE COUNTY (DTW)

RNP AR APCH.		MALSR	MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct DOHNT and hold, continue climb-in-hold to 4000.
<p>▼ For uncompensated Baro-VNAV systems, procedure NA below -19°C or above 54°C. Simultaneous approach authorized. For inop ALS, increase RNP 0.30 all Cats visibility to RVR 5500.</p>			

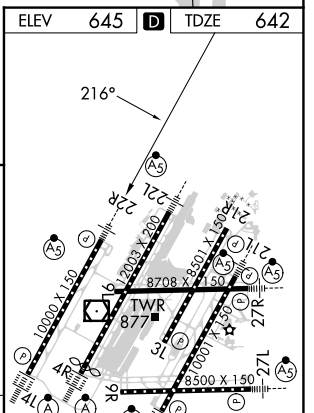
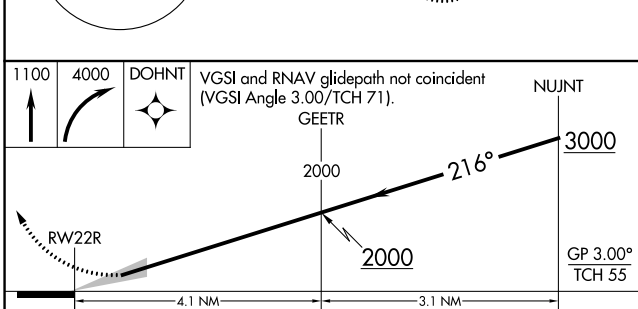
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	135.0 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

ELEV	645	TDZE	642
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CATEGORY	A	B	C	D
RNP 0.30 DA	987/30 345 (400-5/8)			

AUTHORIZATION REQUIRED

TDZ/CL Rwsy 3R, 4L, 4R, and 22R
REIL Rwsy 3L, 9L, 9R, and 21R
HIRL all runways

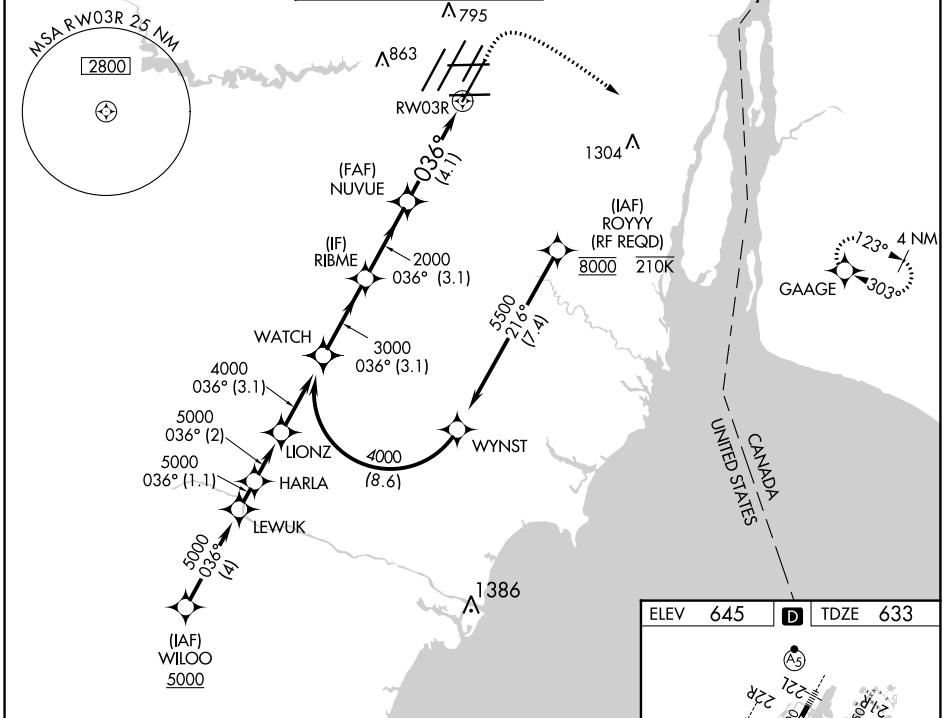
APP CRS	Rwy Idg	10001
036°	TDZE	633
	Apt Elev	645

RNAV (RNP) W RWY 3R

DETROIT METRO WAYNE COUNTY (DTW)

RNP AR APCH.		ALSF-2	MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct GAAGE and hold.
<p>For uncompensated Baro-VNAV systems, procedure NA below -19°C (-2°F) or above 54°C (130°F). Simultaneous approach authorized.</p>			

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CINC DEL	CPDLC
133.675	125.15 284.0	118.4 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



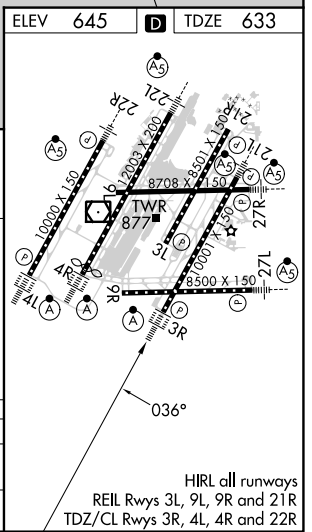
EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 70).

WATCH	RIBME	NUVUE	RWY03R
4000	3000	2000	
GP 3.00° TCH 54			
3.1 NM		3.1 NM	4.1 NM
CATEGORY	A	B	C
RNP 0.30 DA	1021/35 388 (400-%)		

AUTHORIZATION REQUIRED



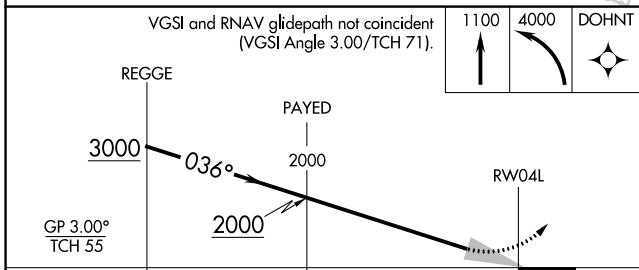
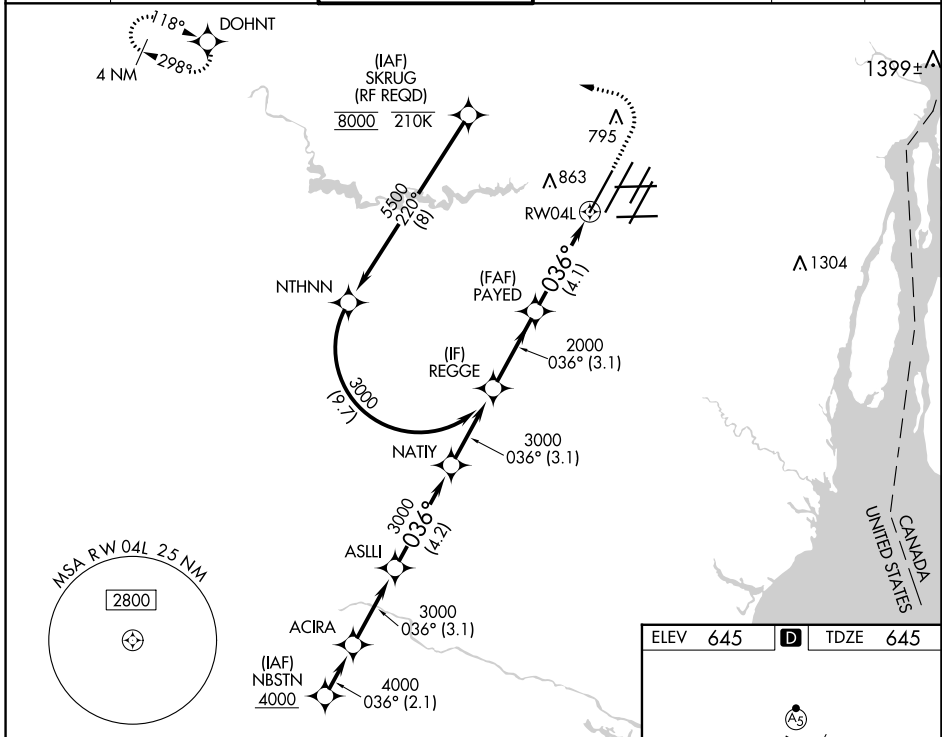
APP CRS 036°	Rwy Idg 10000
TDZE 645	
Apt Elev 645	

RNAV (RNP) W RWY 4L

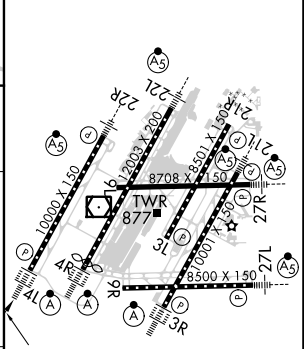
DETROIT METRO WAYNE COUNTY (DTW)

RNP AR APCH.	ALSF-2	MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct DOHNT and hold, continue climb-in-hold to 4000.
<p>Simultaneous approach authorized. For uncompensated Baro-VNAV systems, procedure NA below -19°C or above 54°C. For inop ALS, increase RNP 0.30 all Cats visibility to RVR 6000.</p>		

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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ELEV 645	D	TDZE 645
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CATEGORY	A	B	C	D
RNP 0.15 DA		970/26	325 (400-½)	
RNP 0.30 DA		1058/40	413 (500-¾)	

AUTHORIZATION REQUIRED

TDZ/CL Rwy 3R, 4L, 4R and 22R
REL Rwy 3L, 9L, 9R and 21R
HIRL all runways

EC-1, 22 FEB 2024 to 21 MAR 2024

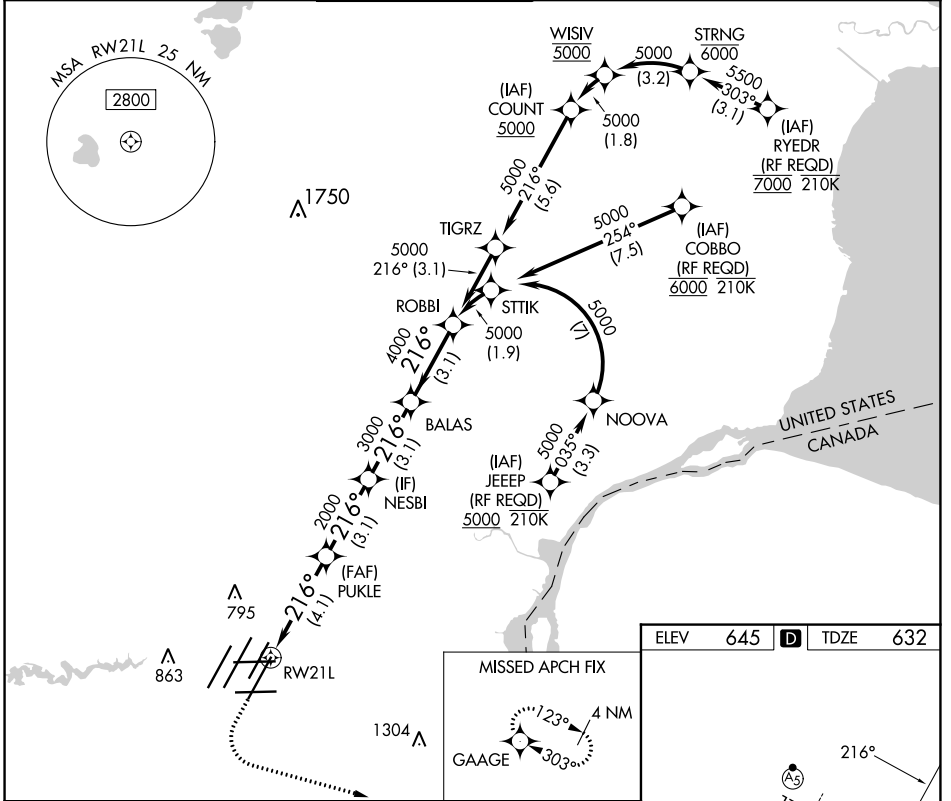
EC-1, 22 FEB 2024 to 21 MAR 2024

APP CRS	Rwy Idg	10001
216°	TDZE	632
	Apt Elev	645

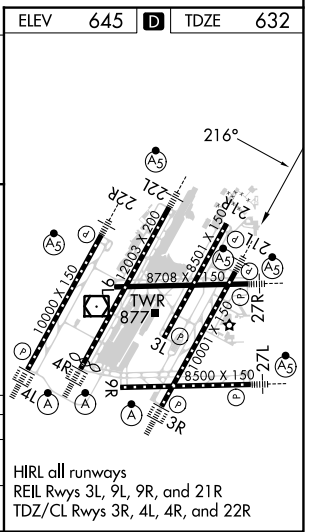
RNAV (RNP) X RWY 21L

DETROIT METRO WAYNE COUNTY (DTW)

RNP AR APCH.		MALSRS	MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct GAAGE and hold, continue climb-in-hold to 4000.		
<p>Simultaneous approach authorized. Use of FD or AP providing RNAV track guidance required during simultaneous operations. For uncompensated Baro-VNAV systems, procedure NA below -1°C or above 54°C.</p>					
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	125.15 284.0	118.4 317.725	121.8 (NW) 132.725 (SW)	119.45 (NE) 119.25 (SE)	120.65



1100	4000	GAAGE	VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 80).		ROBBI
			BALAS	5000	
			PUKLE	2000	
			NESBI	3000	
				4000	
				5000	
				GP 3.00°	
				TCH 55	
CATEGORY	A	B	C	D	
RNP 0.30 DA	1062/40		430 (500-¾)		
AUTHORIZATION REQUIRED					



EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

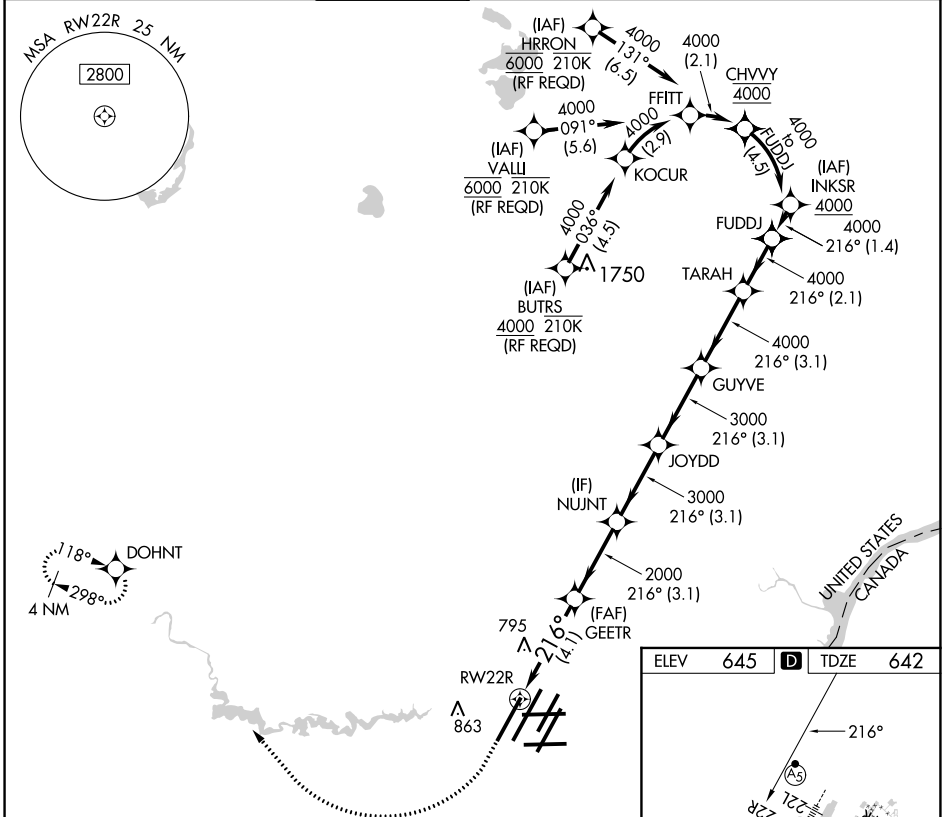
APP CRS 216°	Rwy ldg TDZE Apt Elev	10000 642 645
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RNAV (RNP) X RWY 22R

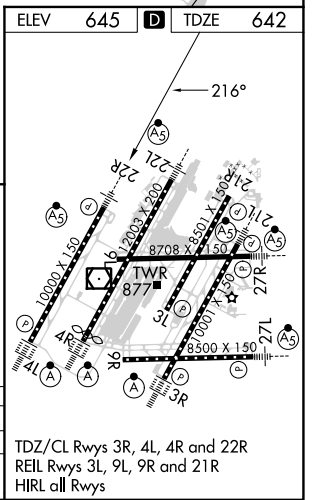
DETROIT METRO WAYNE COUNTY (DTW)

RNP AR APCH.	MALSR	MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct DOHNT and hold.
<p>⚠ For uncompensated Baro-VNAV systems, procedure NA below -19°C (-2°F) or above 54°C (130°F). Simultaneous approach authorized. For inop ALS, increase RNP 0.30 all Cats visibility to RVR 5500.</p>		

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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1100	4000	DOHNT	VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 71).			
			GUYVE	TARAH	FUDDJ	
			GEETR	NUJNT	JOYDD	
			2000	3000	3000	4000
			2000			4000
			4000	4000	4000	4000
			GP 3.00°			TCH 55
			4.1 NM	3.1 NM	3.1 NM	3.1 NM
			3.1 NM	3.1 NM	3.1 NM	2.1 NM
CATEGORY	A		B		D	
RNP 0.30 DA	987/30		345 (400-5/8)			



AUTHORIZATION REQUIRED

TDZ/CL Rwys 3R, 4L, 4R and 22R
REIL Rwys 3L, 9L, 9R and 21R
HIRL all Rwys

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

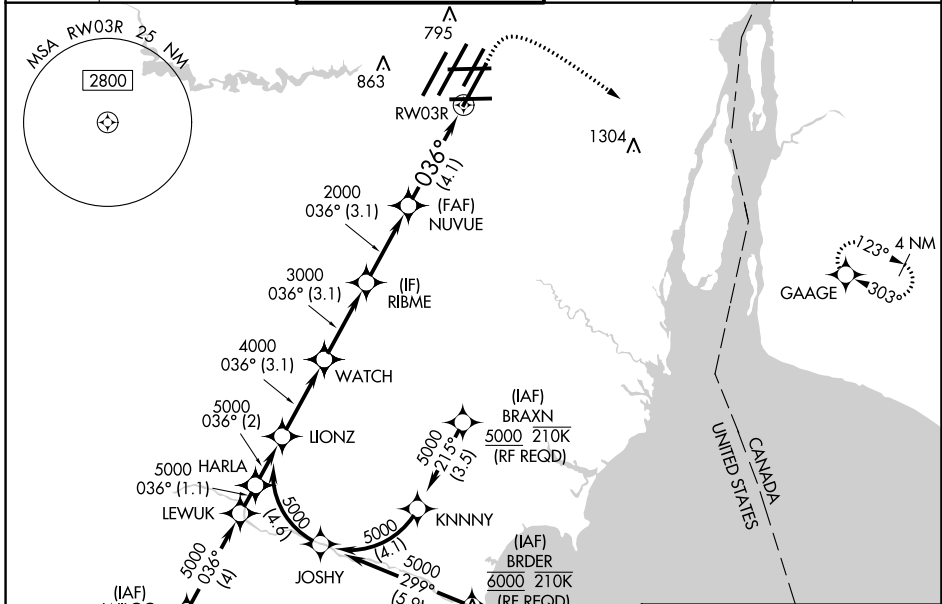
APP CRS	Rwy Idg	10001
036°	TDZE	633
	Apt Elev	645

RNAV (RNP) X RWY 3R

DETROIT METRO WAYNE COUNTY (DTW)

RNP AR APCH.		ALSF-2	MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct GAAGE and hold.	
Simultaneous approach authorized. For uncompensated Baro-VNAV systems, procedure NA below -19°C or above 54°C.				

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON		CINC DEL	CPDLC
133.675	125.15 284.0	118.4 317.725	121.8 (NW)	119.45 (NE)	120.65	
			132.725 (SW)	119.25 (SE)		

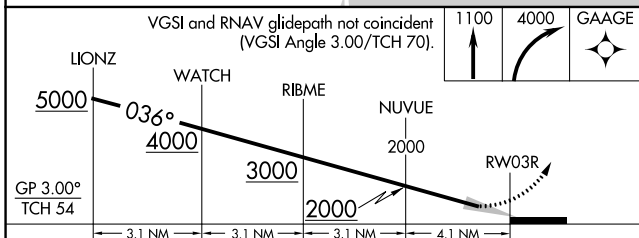
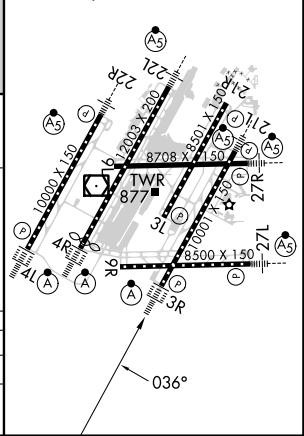


EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

ELEV	645	TDZE	633
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HIRL all runways
REIL Rwy's 3L, 9L, 9R and 21R
TDZ/CL Rwy's 3R, 4L, 4R and 22R



CATEGORY	A	B	C	D
RNP 0.30 DA		1021/35	388 (400-%)	

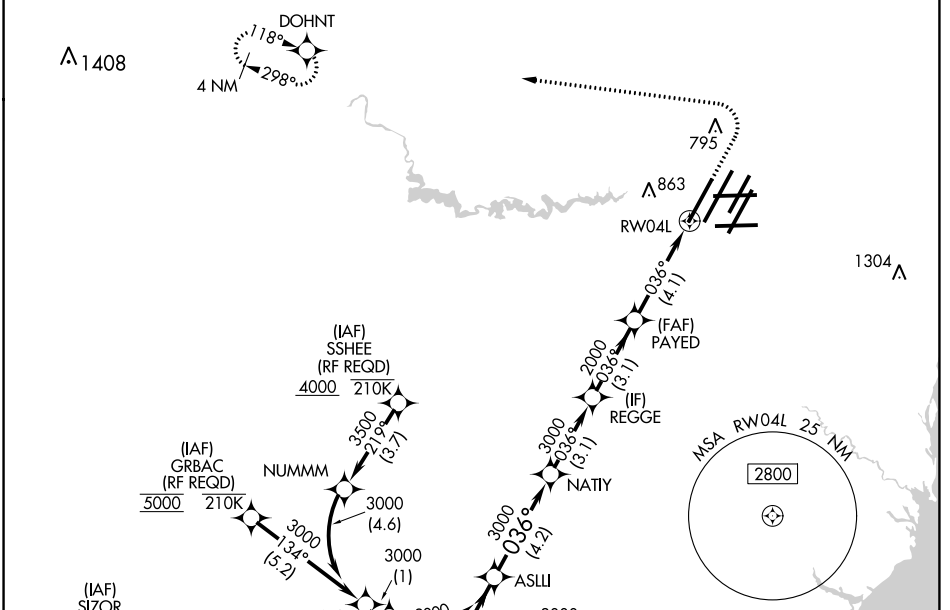
AUTHORIZATION REQUIRED

APP CRS	Rwy Idg	10000
036°	TDZE	645
	Apt Elev	645

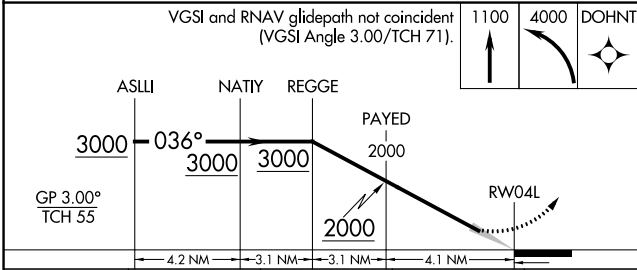
RNAV (RNP) X RWY 4L

DETROIT METRO WAYNE COUNTY (DTW)

RNP AR APCH.		METRO TOWER		GND CON		MISSED APPROACH:	
<p>Simultaneous approach authorized. For uncompensated Baro-VNAV systems, procedure NA below -19°C or above 54°C. For inop ALS, increase RNP 0.30 DA all Cats visibility to RVR 6000.</p>		<p>135.0 317.725</p>		<p>121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)</p>		<p>Climb to 1100 then climbing left turn to 4000 direct DOHNT and hold.</p>	
D-ATIS	DETROIT APP CON					CLNC DEL	CPDLC
133.675	124.05 284.0					120.65	

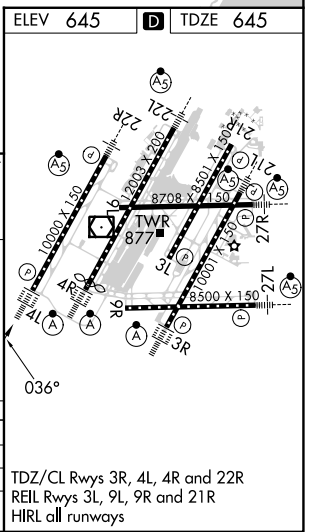


ELEV 645	D TDZE 645
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CATEGORY	A	B	C	D
RNP 0.15 DA		970/26	325 (400-½)	
RNP 0.30 DA		1058/40	413 (500-¾)	

AUTHORIZATION REQUIRED



TDZ/CL Rwy's 3R, 4L, 4R and 22R
REL Rwy's 3L, 9L, 9R and 21R
HIRL all runways

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

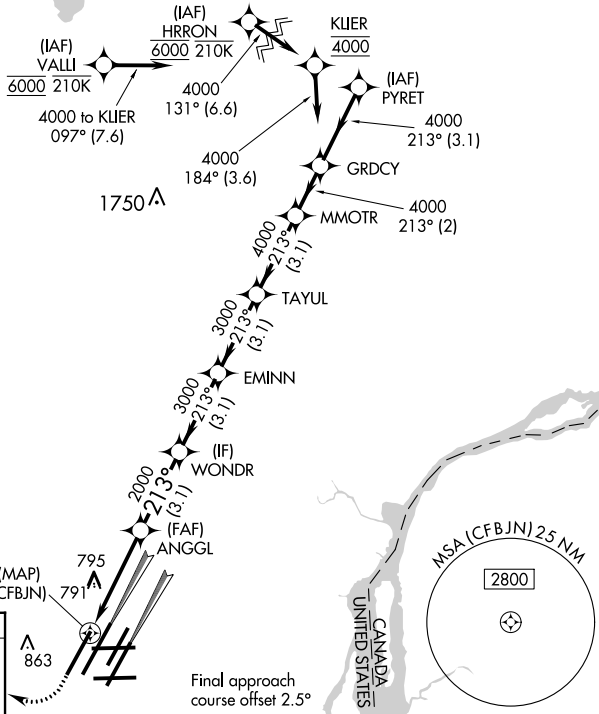
WAAS CH 42939 W22B	APP CRS 213°	Rwy Idg TDZE Apt Elev	10000 642 645
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RNAV (GPS) Y RWY 22R

DETROIT METRO WAYNE COUNTY (DTW)

<p>▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Simultaneous approach authorized. LNAV procedure NA during simultaneous operations. Use of FD or AP providing RNAV track guidance required during simultaneous operations.</p>		<p>MALS R</p>	<p>MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct DOHNT and hold.</p>		
D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC

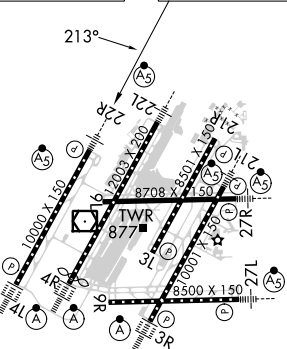
RADAR REQUIRED



MISSED APCH FIX



ELEV 645	D	TDZE 642
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1100	4000	DOHNT	VGSi and RNAV glidepath not coincident (VGSi Angle 3.00/TCH 71).					
*LNAV only.		ANGGL		WONDR	EMINN	TAYUL	MMOTR	GRDCY
*1.1 NM to (CFBJN)		2000	3000	3000	4000	4000	4000	4000
GP 3.00°		TCH 55						
1.1 NM		3.0 NM	3.1 NM	3.1 NM	3.1 NM	2 NM		
CATEGORY	A		B		C		D	
LPV	DA		892/24		250 (300-½)			
LNAV/VNAV	DA		1050/45		408 (500-¾)			
LNAV	MDA		1060/24		418 (500-½)		1060/40 418 (500-¾)	
C CIRCLING	1180-1		535 (600-1)		1180-1½		1240-2	
				535 (600-½)		595 (600-2)		

EC-1, 22 FEB 2024 to 21 MAR 2024

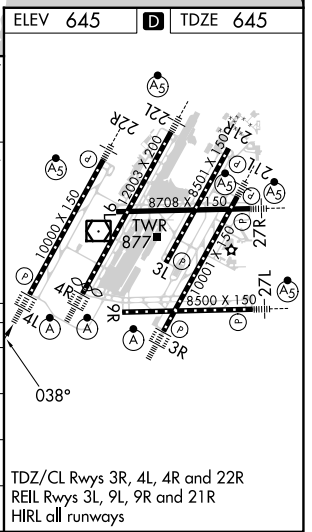
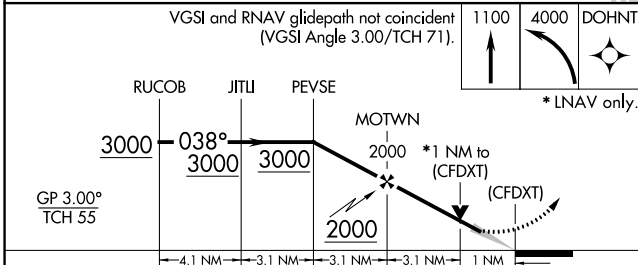
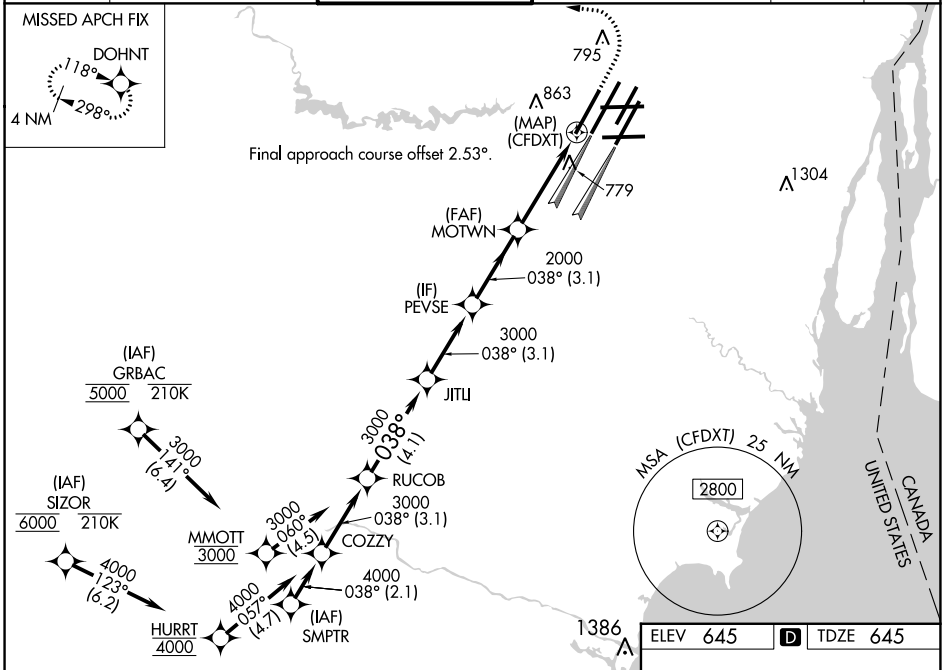
EC-1, 22 FEB 2024 to 21 MAR 2024

WAAS CH 82439 W04A	APP CRS 038°	Rwy Idg 10000 TDZE 645 Apt Elev 645
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RNAV (GPS) Y RWY 4L

DETROIT METRO WAYNE COUNTY (DTW)

RNP APCH. Simultaneous approach authorized. LNAV procedure NA during simultaneous operations. Use of FD or AP required during simultaneous operations. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C or above 54°C.		ALSF-2 	MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct DOHNT and hold.		
D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC



CATEGORY	A	B	C	D
LPV DA		895/24	250 (300-½)	
LNAV/VNAV DA		1068/45	423 (500-¾)	
LNAV MDA	1040/24	395 (400-½)	1040/35	395 (400-¾)
CIRCLING	1180-1	535 (600-1)	1180-1½ 535 (600-1½)	1240-2 595 (600-2)

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

WAAS CH 99601 W22A	APP CRS 216°	Rwy Idg 12003 TDZE 637 Apt Elev 645
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RNAV (GPS) Z RWY 22L

DETROIT METRO WAYNE COUNTY (DTW)

RNP APCH.

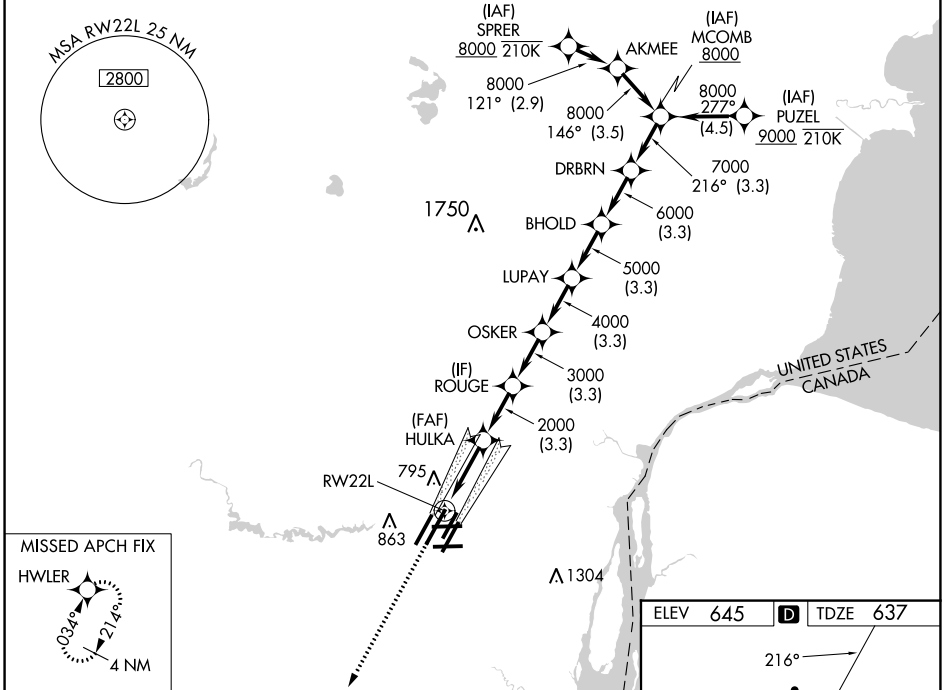
▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -10°C (14°F) or above 54°C (130°F). Simultaneous approach authorized. LNAV procedure NA during simultaneous operations. Use of FD or AP required during simultaneous operations. For inop ALS, increase LNAV/VNAV all Cats visibility to RVR 4500 and LNAV Cat C/D visibility to 1½ SM. #RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSRR

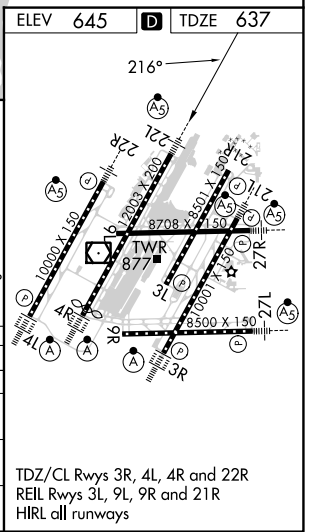


MISSED APPROACH:
Climb to 4000 direct
HWLER and hold.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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4000	HWLER				
*LNAV only.					
* 1.3 NM to RW22L					
RW22L					
1.3 NM		3 NM		3.3 NM	
HULKA 2000		ROUGE 3000		OSKER 4000	
LUPAY 5000		BHOLD 6000		DRBRN 7000	
MCOMB 8000					
GP 2.85°					
TCH 60'					
CATEGORY	3	A	B	C	D
LPV DA#		837/24		200 (200-½)	
LNAV/VNAV DA		938/24		301 (300-½)	
LNAV MDA	1100/24	463 (500-½)		1100/50 463 (500-¾)	
CIRCLING	1180-1	535 (600-1)		1180-1½ 535 (600-½) 1240-2 595 (600-2)	



TDZ/CL Rwys 3R, 4L, 4R and 22R
REIL Rwys 3L, 9L, 9R and 21R
HIRL all runways

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

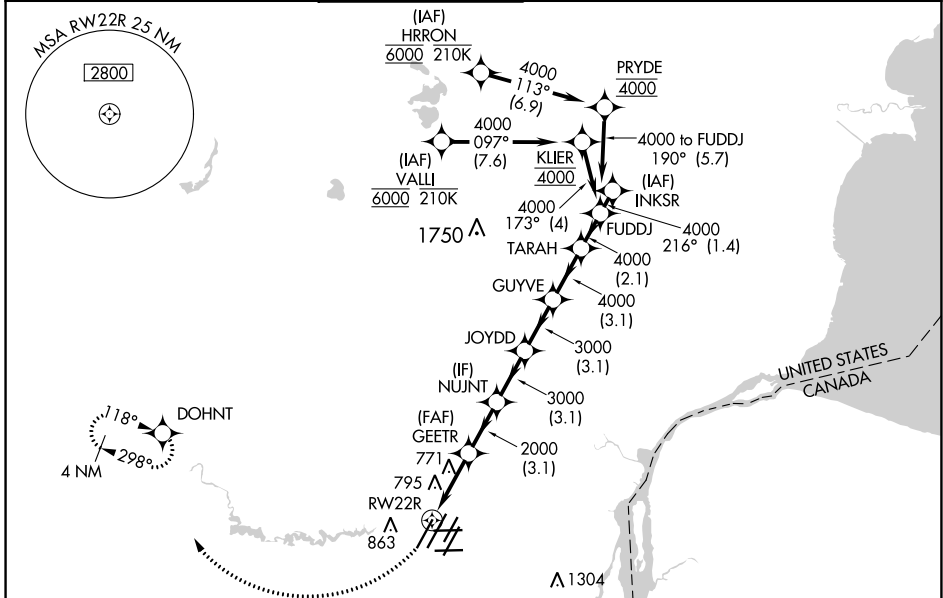
WAAS CH 70642 W22D	APP CRS 216°	Rwy Idg TDZE 642 Apt Elev 645	10000
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RNAV (GPS) Z RWY 22R

DETROIT METRO WAYNE COUNTY (DTW)

RNP APCH.	<p>Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. LNAV procedure NA during simultaneous operations. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats visibility to RVR 4500.</p>	<p>MALSRL</p>	<p>MISSED APPROACH: Climb to 1100 then climbing right turn 4000 direct DOHNT and hold, continue climb in hold to 4000.</p>
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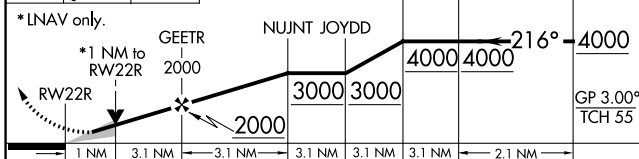
D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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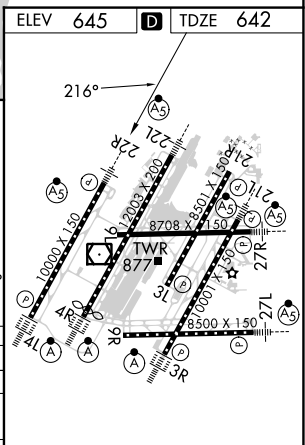
ELEV 645	D	TDZE 642
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1100 4000 DOHNT

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/ TCH 71)



CATEGORY	A	B	C	D
LPV DA		842/18	200 (200-½)	
LNAV/VNAV DA		948/24	306 (400-½)	
LNAV MDA	1040/24	398 (400-½)	1040/35	398 (400-¾)
C CIRCLING	1180-1	535 (600-1)	1180-1½	1240-2
			535 (600-1½)	595 (600-2)



TDZ/CL Rwys 3R, 4L, 4R and 22R
REIL Rwys 3L, 9L, 9R and 21R
HIRL all runways

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

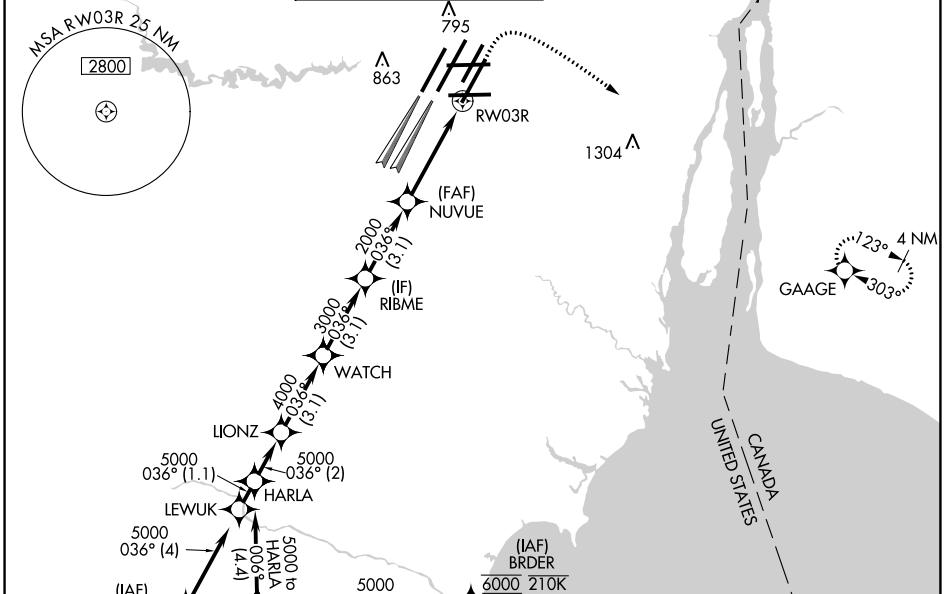
WAAS CH 61304 W03A	APP CRS 036°	Rwy Idg 10001 TDZE 633 Apt Elev 645
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RNAV (GPS) Z RWY 3R

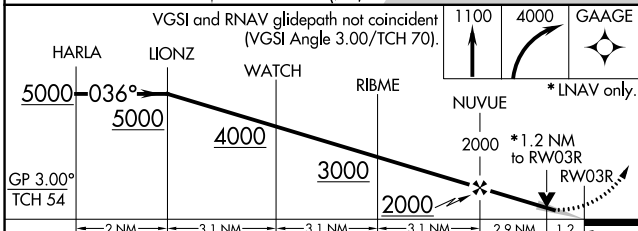
DETROIT METRO WAYNE COUNTY (DTW)

RNP APCH. ▼ For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). Simultaneous approach authorized. LNAV procedure NA during simultaneous operations. Use of FD or AP required during simultaneous operations.	ALSF-2 	MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct GAAGE and hold, continue climb-in-hold to 4000.
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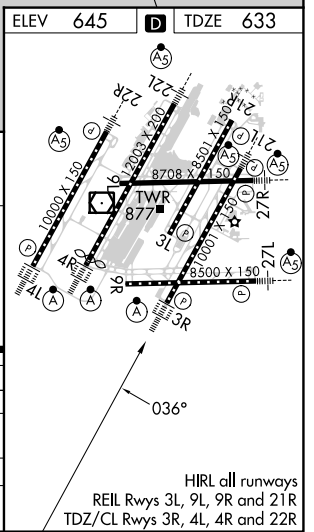
D-ATIS 133.675	DETROIT APP CON 125.15 284.0	METRO TOWER 118.4 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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(IAF) WILOO 5000	(IAF) HARLA 5000 to HARLA 5006 (4.4)	(IAF) ROLRR 5000	(IAF) BRDR 6000 210K	(IAF) MERCA 0000 210K
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CATEGORY	A	B	C	D
LPV DA	833/18		200 (200-1/2)	
LNAV/VNAV DA	1013/35		380 (400-5/8)	
LNAV MDA	1080/24	447 (500-1/2)	1080/45	447 (500-7/8)
CIRCLING	1180-1	535 (600-1)	1180-1 1/2	1240-2
			535 (600-1 1/2)	595 (600-2)



HIRL all runways
REIL Rwy 3L, 9L, 9R and 21R
TDZ/CL Rwy 3R, 4L, 4R and 22R

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

WAAS CH 82241 W04D	APP CRS 036°	Rwy Idg 10000 TDZE 645 Apt Elev 645
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RNAV (GPS) Z RWY 4L

DETROIT METRO WAYNE COUNTY (DTW)

RNP APCH

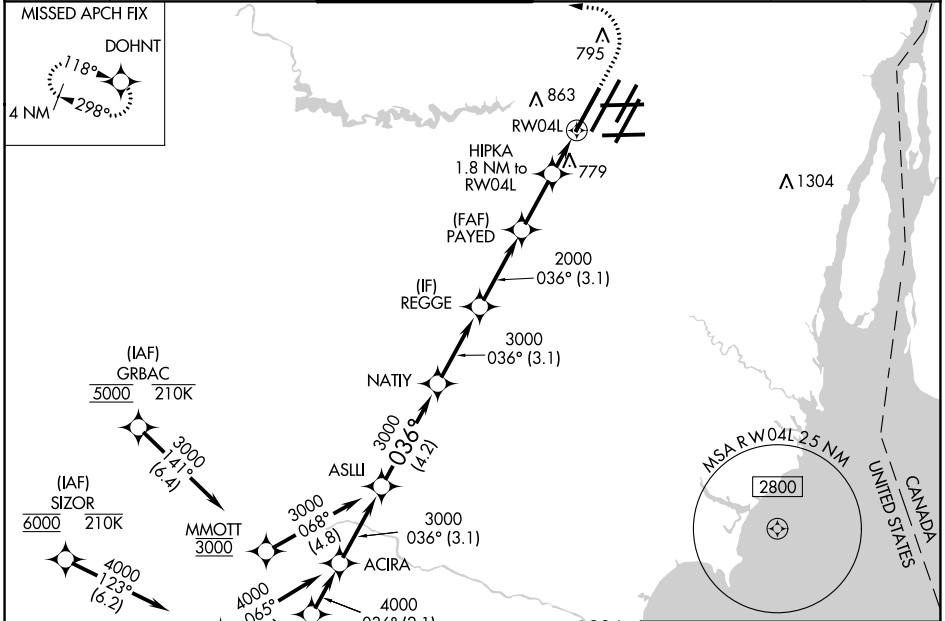
Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. LNAV procedure NA during simultaneous operations. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats visibility to RVR 6000.

ALS-F-2



MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct DOHNT and hold.

D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 135.0 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CLNC DEL 120.65	CPDLC
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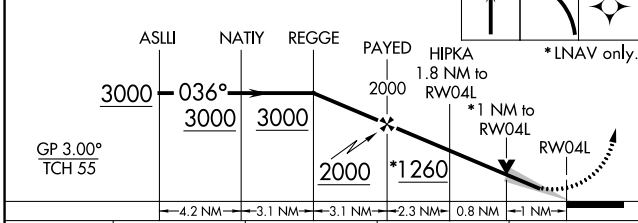
EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

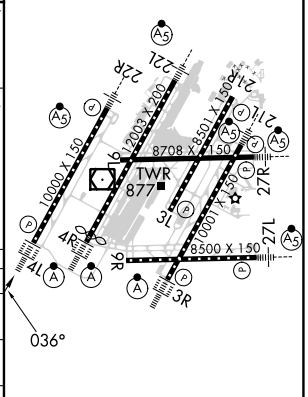
ELEV 645	D TDZE 645
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VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 71).

1100 4000 DOHNT



CATEGORY	A	B	C	D
LPV DA		845/18	200 (200-½)	
LNAV/VNAV DA		1046/40	401 (500-¾)	
LNAV MDA	1040/24	395 (400-½)	1040/35	395 (400-⅝)
C CIRCLING	1180-1	535 (600-1)	1180-1½ 535 (600-1½)	1240-2 595 (600-2)



TDZ/CL Rwys 3R, 4L, 4R and 22R
REL Rwys 3L, 9L, 9R and 21R
HIRL all runways

WAAS CH 63004 W04B	APP CRS 036°	Rwy Idg 11494 TDZE 640 Apt Elev 645
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RNAV (GPS) Z RWY 4R

DETROIT METRO WAYNE COUNTY (DTW)

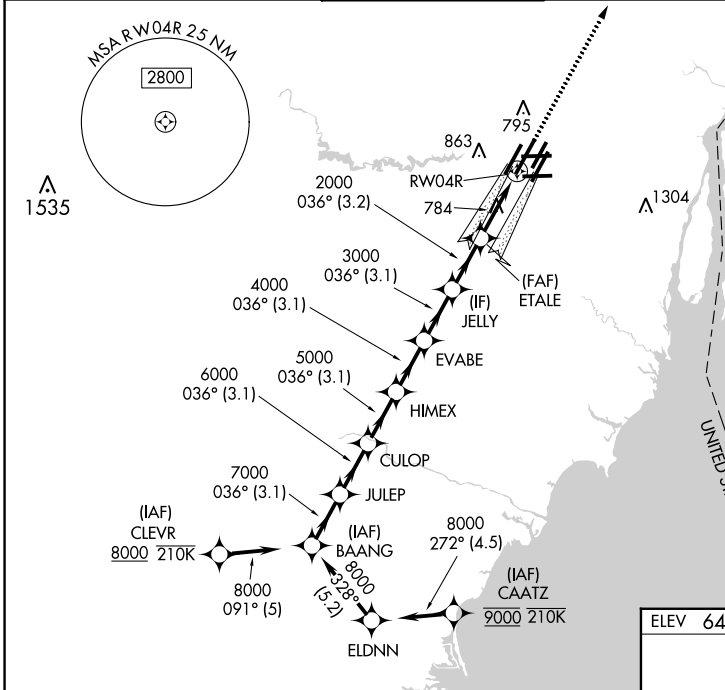
RNP APCH.

Simultaneous approach authorized. LNAV procedure NA during simultaneous operations.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19° C or above 54° C.
Use of FD or AP required during simultaneous operations.

ALSF-2

MISSED APPROACH:
Climb to 4000 direct LUPAY and hold.

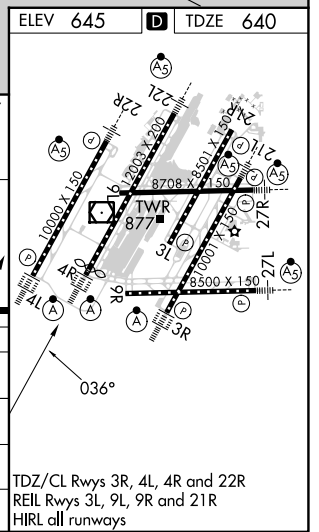
D-ATIS 133.675	DETROIT APP CON 124.05 284.0	METRO TOWER 128.125 317.725	GND CON 121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	CINC DEL 120.65	CPDLC
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BAANG	JULEP	CULOP	HIMEX	EVABE	JELLY	ETALE	4000	LUPAY
8000	7000	6000	5000	4000	3000	2000		
GP 3.00° TCH 52								
-3.1 NM		3.1 NM		3.1 NM		3.2 NM		1.1 NM

*LNAV only.

*1.1 NM to 2000 RW04R



CATEGORY	A	B	C	D
LPV DA		840/18	200 (200-½)	
LNAV/VNAV DA		1021/35	381 (400-¾)	
LNAV MDA	1040/24	400 (400-½)	1040/35	400 (400-¾)
CIRCLING	1180-1	535 (600-1)	1180-1½ 535 (600-1½)	1240-2 595 (600-2)

TDZ/CL Rwy 3R, 4L, 4R and 22R
REL Rwy 3L, 9L, 9R and 21R
HIRL all runways

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR takeoff minimums other than standard, are listed below. Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. An entry may also be listed that contains only Takeoff Obstacle Notes. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are textually described below, or published separately as a graphic procedure. If the ODP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned an ODP, SID, or RADAR vector as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the airport, a fix, or a NAVAID in a specified direction, at or above a specified altitude. These procedures are called Visual Climb Over Airport (VCOA). To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when requesting their IFR clearance.

At some locations where an ODP has been established, a diverse vector area (DVA) may be created to allow RADAR vectors to be used in lieu of an ODP. DVA information will state that headings will be as assigned by ATC and climb gradients, when applicable, will be published immediately following the specified departure procedure.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: (1) For aircraft, other than helicopters, having two engines or less – one statute mile visibility. (2) For aircraft having more than two engines – one-half statute mile visibility. (3) For helicopters – one-half statute mile visibility. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) takeoff minima are published below. For military takeoff minima, refer to appropriate service directives.

ADRIAN, MI

LENAWEE COUNTY (ADG)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 10MAY07 (07130) (FAA)

TAKEOFF MINIMUMS:

Rwys 11, 29, NA-ATC.

TAKEOFF OBSTACLE NOTES:

Rwy 5, multiple trees beginning 1837' from DER, 149' left of centerline, up to 75' AGL/873' MSL.

Multiple trees beginning 953' from DER, 146' right of centerline, up to 74' AGL/872' MSL.

Rwy 23, tree 1231' from DER, 633' left of centerline, 55' AGL/849' MSL.

ALLEGAN, MI

PADGHAM FLD (35D)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 11FEB10 (21224) (FAA)

TAKEOFF MINIMUMS:

Rwys 15, 33, NA-Environmental.

DEPARTURE PROCEDURE:

Rwy 11, climb heading 103° to 1200 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 11, multiple trees beginning 46' from DER, 10' left of centerline, up to 97' AGL/806' MSL.

Multiple trees beginning 1' from DER, 2' right of centerline, up to 100' AGL/794' MSL.

Rwy 29, multiple trees beginning 37' from DER, 4' left of centerline, up to 83' AGL/802' MSL.

Multiple trees beginning 22' from DER, 20' right of centerline, up to 84' AGL/803' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

EC-1


TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND


DIVERSE VECTOR AREA (RADAR VECTORS)

24025

ALMA, MI**GRATIOT COMMUNITY (AMN)****TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**

ORIG 11FEB10 (10042) (FAA)

TAKEOFF MINIMUMS:**Rwy 9**, 400-3 or std. w/min. climb of 251' per NM to 1400.**TAKEOFF OBSTACLE NOTES:****Rwy 9**, multiple trees beginning 841' from DER, 438' right of centerline, up to 58' AGL/817' MSL.

Multiple trees beginning 1383' from DER, 380' left of centerline, up to 71' AGL/820' MSL.

Rwy 18, multiple trees beginning 1067' from DER, 152' right of centerline, up to 70' AGL/829' MSL.

Multiple trees beginning 923' from DER, 374' left of centerline, up to 70' AGL/824' MSL.

Rwy 27, multiple trees beginning 306' from DER, 272' right of centerline, up to 81' AGL/840' MSL.

Multiple trees beginning 1168' from DER, 593' left of centerline, up to 93' AGL/852' MSL.

Rwy 36, multiple trees beginning 239' from DER, 3' right of centerline, up to 86' AGL/845' MSL.

Multiple trees beginning 143' from DER, 38' left of centerline, up to 103' AGL/852' MSL.

ALPENA, MI**ALPENA COUNTY RGNL (APN)****TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**

ORIG 15JAN09 (09015) (FAA)

TAKEOFF OBSTACLE NOTES:**Rwy 1**, tree 2293' from DER, 525' left of centerline, 100' AGL/749' MSL.**Rwy 7**, trees beginning 858' from DER, 567' right of centerline up to 100' AGL/774' MSL.

Trees beginning 1059' from DER, 166' left of centerline up to 100' AGL/769' MSL.

Rwy 19, trees beginning 1789' from DER, 270' left of centerline up to 100' AGL/779' MSL.

Trees beginning 1049' from DER, 777' right of centerline up to 100' AGL/789' MSL.

Vent on cable 44' from DER, 147' left of centerline up to 25' AGL/685' MSL.

Rwy 25, trees beginning 652' from DER, 53' left of centerline up to 100' AGL/755' MSL.

Trees beginning 1021' from DER, 275' right of centerline up to 100' AGL/751' MSL.

ANN ARBOR, MI**ANN ARBOR MUNI (ARB)****TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**

AMDT 9A 24MAY18 (18144) (FAA)

TAKEOFF MINIMUMS:**Rwys 12, 30**, NA - environmental.**TAKEOFF OBSTACLE NOTES:****Rwy 6**, building 98' from DER, 351' left of centerline, 21' AGL/849' MSL.

Building 312' from DER, 478' right of centerline, 17' AGL/838' MSL.

Transmission line 442' from DER, 394' right of centerline, 29' AGL/850' MSL.

Tree, transmission line beginning 538' from DER, 145' right of centerline, up to 878' MSL.

Trees beginning 887' from DER, 662' left of centerline, up to 877' MSL.

Trees beginning 1057' from DER, 183' left of centerline, up to 887' MSL.

Trees beginning 1478' from DER, 46' right of centerline, up to 887' MSL.

Tree 2040' from DER, 181' right of centerline, 888' MSL.

Trees beginning 2122' from DER, 148' right of centerline, up to 899' MSL.

Rwy 24, terrain 137' from DER, 475' right of centerline, 837' MSL.

Trees beginning 461' from DER, 486' right of centerline, up to 879' MSL.

Tree 79' from DER, 580' left of centerline, 867' MSL.

Tree 822' from DER, 559' right of centerline, 885' MSL.

Tree 1679' from DER, 682' left of centerline, 901' MSL.

Tree 2187' from DER, 686' left of centerline, 902' MSL.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024


TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND


DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

BAD AXE, MI

HURON COUNTY MEML (BAX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 20DEC07 (22083) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 4, vehicle on road 244' from DER, 531' left of centerline, 15' AGL/774' MSL.

Tree 810' from DER, 43' left of centerline, 100' AGL/859' MSL.

Vehicle on road 223' from DER, 470' right of centerline, 15' AGL/774' MSL.

Rwy 17, vehicle on road 164' from DER, on centerline, 15' AGL/784' MSL.

Bush 81' from DER, 497' right of centerline, 4' AGL/757' MSL.

Railroad 695' from DER, 684' right of centerline, 23' AGL/792' MSL.

Terrain beginning 222' from DER, 70' right of centerline, 0' AGL/757' MSL.

Trees beginning 855' from DER, 392' right of centerline, up to 100' AGL/879' MSL.

Pole 1135' from DER, 755' left of centerline, 35' AGL/798' MSL.

Terrain beginning 44' from DER, 9' left of centerline, 0' AGL/765' MSL.

Trees beginning 1693' from DER, 372' left of centerline, up to 100' AGL/859' MSL.

Rwy 22, terrain beginning 3' from DER, 172' left of centerline, 0' AGL/765' MSL.

Tree 2334' from DER, 422' left of centerline, 100' AGL/869' MSL.

Terrain beginning 49' from DER, 165' right of centerline, 0' AGL/762' MSL.

Railroad 41' from DER, 390' right of centerline, 23' AGL/782' MSL.

Rwy 35, antenna on tower 355' from DER, 478' right of centerline, 34' AGL/793' MSL.

Antenna 359' from DER, 477' right of centerline, 30' AGL/793' MSL.

Vehicle on road 575' from DER, 412' right of centerline, 15' AGL/778' MSL.

Trees beginning 1259' from DER, 53' right of centerline, up to 100' AGL/842' MSL.

Trees beginning 1509' from DER, 375' left of centerline, up to 100' AGL/859' MSL.

Tower 1085' from DER, 698' left of centerline, 63' AGL/822' MSL.

BALDWIN, MI

BALDWIN MUNI (7D3)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 03JAN19 (19003) (FAA)

TAKEOFF MINIMUMS:

Rwys 5, 23, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 9, vehicles on road beginning abeam DER, 99' left of centerline, up to 15' AGL/844' MSL.

Trees beginning abeam DER, 392' left of centerline, up to 60' AGL/889' MSL.

Trees beginning abeam DER, 390' right of centerline, up to 60' AGL/879' MSL.

Trees beginning 519' from DER, 343' left of centerline, up to 60' AGL/899' MSL.

Trees beginning 1187' from DER, on centerline and left and right of centerline, up to 60' AGL/899' MSL.

Rwy 27, vehicles on road beginning 194' from DER, 372' left of centerline, up to 15' AGL/844' MSL.

Vehicles on road beginning 757' from DER, 619' right of centerline, up to 15' AGL/844' MSL.

Trees beginning 1569' from DER, on centerline and left and right of centerline, up to 60' AGL/879' MSL.

Trees beginning 3078' from DER, on centerline, and left and right of centerline, up to 60' AGL/899' MSL.

BATTLE CREEK, MI

BATTLE CREEK EXEC AT KELLOGG FLD (BTL)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3A 10SEP20 (21112) (FAA)

TAKEOFF MINIMUMS:

Rwys 5R, 23L, NA - Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 5L, trees beginning 1590' from DER, 484' right of centerline, up to 80' AGL/999' MSL.

Vehicle on road 896' from DER, left and right of centerline, 17' AGL/956' MSL.

Rwy 13, vehicles on road 480' from DER, on centerline, 15' AGL/945' MSL.

Trees beginning 800' from DER, 3' right of centerline, up to 102' AGL/1021' MSL.

Trees and fence beginning 193' from DER, 31' left of centerline, up to 101' AGL/1030' MSL.

Rwy 23R, trees beginning 1995' from DER, 3' right of centerline, up to 103' AGL/1072' MSL.

Trees beginning 2065' from DER, 25' left of centerline, up to 80' AGL/1049' MSL.

Rwy 31, trees and tower beginning 1797' from DER, 2' right of centerline, up to 166' AGL/1 058' MSL.

Trees and railroad beginning 14' from DER, 116' left of centerline, up to 68' AGL/977' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

BAY CITY, MI

JAMES CLEMENTS MUNI (3CM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6B 10OCT19 (19283) (FAA)

TAKEOFF MINIMUMS:

Rwys 9W, 13W, 18W, 27W, 31W, 36W, NA – Environmental.

DEPARTURE PROCEDURE:

Rwy 18, climb heading 183° to 2000 before turning left.

Rwy 23, climb heading 232° to 1200 before turning left.

TAKEOFF OBSTACLE NOTES:

Rwy 5, road 260' from DER, left and right of centerline, up to 15' AGL/604' MSL.

Tree 1171' from DER 277' left of centerline, 87' AGL/678' MSL.

Rwy 18, bushes beginning 186' from DER, 151' right of centerline, 6' AGL/596' MSL.

Trees beginning 350' from DER, 200' left of centerline, 10' AGL/597' MSL.

Trees beginning 1368' from DER, 59' right of centerline, up to 80' AGL/673' MSL.

Trees beginning 1768' from DER, 330' left of centerline, up to 95' AGL/699' MSL.

Trees beginning 2353' from DER, 127' left of centerline, up to 110' AGL/680' MSL.

Rwy 23, trees 1120' from DER, 130' right of centerline, 40' AGL/624' MSL.

Rwy 36, trees beginning 103' from DER, 50' left of centerline, up to 27' AGL/621' MSL.

Trees beginning 436' from DER, 162' right of centerline, up to 90' AGL/681' MSL.

Pole 538' from DER, 434' left of centerline, up to 20' AGL/609' MSL.

Trees beginning 1856' from DER, 17' left of centerline, up to 87' AGL/681' MSL.

BEAVER ISLAND, MI

BEAVER ISLAND (SJX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 01JAN98 (98001) (FAA)

TAKEOFF MINIMUMS:

Rwys 9, 27, 300-1.

Rwys 5, 14, 23, 32, NA.

BELLAIRE, MI

ANTRIM COUNTY (ACB)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 03AUG06 (06215) (FAA)

TAKEOFF MINIMUMS:

Rwy 2, 700-3 or std. w/ a min. climb of 417' per NM to 1500.

DEPARTURE PROCEDURE:

Rwy 2, climb heading 022° to 1200 before turning right.

Rwy 20, climb heading 202° to 1300 before turning left.

TAKEOFF OBSTACLE NOTES:

Rwy 2, road 385' from DER, 528' right of centerline, 15' AGL/646' MSL.

Multiple trees beginning 2535' from DER, 96' left of centerline, up to 100' AGL/884' MSL.

Multiple trees beginning 406' from DER, 235' right of centerline, up to 100' AGL/1147' MSL.

Tower 2.57 NM from DER, 3271' right of centerline, 168' AGL/1198' MSL.

Rwy 20, multiple trees beginning 64' from DER, 204' right of centerline up to 100' AGL/693' MSL.

Multiple buildings and antenna on tower beginning 2641' from DER, 909' right of centerline, up to 121' AGL/721' MSL.

Multiple trees beginning 125' from DER, 220' left of centerline, up to 100' AGL/720' MSL.

BENTON HARBOR, MI

SOUTHWEST MICHIGAN RGNL (BEH)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7A 07OCT21 (21280) (FAA)

TAKEOFF MINIMUMS:

Rwy 28, 300-1½ or std. w/min. climb of 205' per NM to 900.

Rwy 32, 300-1½ or std. w/min. climb of 283' per NM to 900.

TAKEOFF OBSTACLE NOTES:

Rwy 10, tree 1456' from DER, 844' left of centerline, 704' MSL.

Tree 1819' from DER, 791' right of centerline, 697' MSL.

Trees beginning 2023' from DER, 882' left of centerline, up to 720' MSL.

Tree 2539' from DER, 1003' left of centerline, 731' MSL.

Trees beginning 2983' from DER, 975' left of centerline, up to 734' MSL.

Tree 3363' from DER, 295' left of centerline, 738' MSL.

Tree 3686' from DER, 259' left of centerline, 747' MSL.

Tree, transmission line beginning 3860' from DER, 232' left of centerline, up to 762' MSL.

Rwy 14, lighting 9' from DER, 71' left and 69' right of centerline, up to 3' AGL/632' MSL.

Tree, pole, transmission line beginning 978' from DER, 192' right of centerline, up to 695' MSL.

Tree 1185' from DER, 54' left of centerline, 662' MSL.

Catenary 1317' from DER, 233' left of centerline, 30' AGL/670' MSL.

Tree, pole, transmission line beginning 1347' from DER, 123' left of centerline, up to 695' MSL.

Tree, catenary, pole, transmission line beginning 1400' from DER, 114' right of centerline, up to 699' MSL.

Tree 1451' from DER, 375' left of centerline, 700' MSL.

CON'T

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

BENTON HARBOR, MI (CON'T)

SOUTHWEST MICHIGAN RGNL (BEH) (CON'T)

Rwy 14 (CON'T), tree, tower beginning 1497' from DER, 8' left of centerline, up to 717' MSL.

Trees beginning 1622' from DER, 23' right of centerline, up to 708' MSL.

Trees beginning 2035' from DER, 98' right of centerline, up to 713' MSL.

Trees beginning 2228' from DER, 51' right of centerline, up to 719' MSL.

Trees beginning 2449' from DER, 21' right of centerline, up to 730' MSL.

Trees beginning 2637' from DER, 120' left of centerline, up to 732' MSL.

Trees beginning 2736' from DER, 61' left of centerline, up to 740' MSL.

Trees beginning 2955' from DER, 69' left of centerline, up to 744' MSL.

Trees beginning 3257' from DER, 35' left of centerline, up to 748' MSL.

Rwy 28, tree 582' from DER, 589' right of centerline, 645' MSL.

Tree 882' from DER, 595' right of centerline, 654' MSL.

Tree 907' from DER, 629' right of centerline, 662' MSL.

Vertical structure 955' from DER, 312' left of centerline, 662' MSL.

Trees beginning 1149' from DER, 635' left of centerline, up to 698' MSL.

Trees beginning 2230' from DER, 997' left of centerline, up to 702' MSL.

Rwy 32, trees beginning 9' from DER, 348' left of centerline, up to 655' MSL.

Trees beginning 36' from DER, 54' right of centerline, up to 671' MSL.

Trees beginning 108' from DER, 232' left of centerline, up to 662' MSL.

Tree 790' from DER, 390' left of centerline, 665' MSL.

Trees beginning 840' from DER, 380' left of centerline, up to 669' MSL.

Trees beginning 1054' from DER, 106' right of centerline, up to 674' MSL.

Tree 1262' from DER, 389' right of centerline, 679' MSL.

Trees beginning 1265' from DER, 253' right of centerline, up to 685' MSL.

Tree 1307' from DER, 163' left of centerline, 673' MSL.

Trees beginning 1413' from DER, 424' left of centerline, up to 685' MSL.

Tree 2094' from DER, 520' right of centerline, 690' MSL.

Transmission line 2368' from DER, 107' left of centerline, 64' AGL/703' MSL.

Transmission line 2425' from DER, 389' right of centerline, 74' AGL/694' MSL.

Tree 2513' from DER, 756' left of centerline, 720' MSL.

Trees beginning 2652' from DER, 604' left of centerline, up to 723' MSL.

Trees beginning 3083' from DER, 62' right of centerline, up to 746' MSL.

BERRIEN SPRINGS, MI

ANDREW UNIVERSITY AIRPARK (C20)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 08NOV18 (18312) (FAA)

TAKEOFF MINIMUMS:

Rwys 3, 21, NA- environmental, obstacles.

Rwy 13, NA- obstacles.

Rwy 31, 300-1 or std. w/min. climb of 328' per NM to 900. Procedure NA at night.

TAKEOFF OBSTACLE NOTES:

Rwy 31, trees beginning 28' from DER, 49' right of centerline, up to 756' MSL.

Tree, terrain, vehicle on road, sign, pole beginning 53' from DER, 14' left of centerline, up to 747' MSL.

Trees beginning 165' from DER, 24' right of centerline, up to 758' MSL.

Tree, terrain, traverse way, sign, pole beginning 396' from DER, 51' right of centerline, up to 761' MSL.

Tree, pole beginning 1880' from DER, 243' right of centerline, up to 769' MSL.

Pole, tree beginning 1927' from DER, 264' left of centerline, up to 750' MSL.

Pole 2045' from DER, 130' left of centerline, 752' MSL.

Trees beginning 2102' from DER, 258' right of centerline, up to 774' MSL.

Tree, pole beginning 2190' from DER, 6' right of centerline, up to 782' MSL.

Tree 2237' from DER, 29' left of centerline, 769' MSL.

Trees beginning 2413' from DER, 414' right of centerline, up to 806' MSL.

Tree, pole beginning 2519' from DER, 127' left of centerline, up to 775' MSL.

Tree, pole beginning 2598' from DER, 628' right of centerline, up to 807' MSL.

Tree, vehicle on road, pole beginning 2739' from DER, 716' right of centerline, up to 809' MSL.

Tree, pole, building beginning 2919' from DER, 128' left of centerline, up to 780' MSL.

Trees beginning 3132' from DER, 178' left of centerline, up to 801' MSL.

Tree, pole beginning 3210' from DER, 344' left of centerline, up to 809' MSL.

Tree, pole, building beginning 3616' from DER, 962' left of centerline, up to 820' MSL.

Tree, pole beginning 4031' from DER, 1031' left of centerline, up to 834' MSL.

Tree 4636' from DER, 1662' left of centerline, 828' MSL.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

BIG RAPIDS, MI

ROBEN-HOOD (RQB)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6A 21JUN18 (18172) (FAA)

TAKEOFF MINIMUMS:

Rwy 14, 200-1¼ or std. w/ min. climb of 210' per NM to 1200.

Rwy 27, 300-1½ or std. w/ min. climb of 400' per NM to 1200.

Rwy 32, 200-1½ or std. w/ min. climb of 300' per NM to 1200.

TAKEOFF OBSTACLE NOTES:

Rwy 9, lighting 39' from DER, 77' right of centerline, 946' MSL.

Lighting 40' from DER, 77' left of centerline, 5' AGL/946' MSL.

Tree 1880' from DER, 714' left of centerline, 992' MSL.

Tree 4536' from DER, 1640' left of centerline, 1060' MSL.

Tree 4611' from DER, 1567' left of centerline, 1063' MSL.

Tree 4652' from DER, 1724' left of centerline, 1072' MSL.

Tree 4738' from DER, 1523' left of centerline, 1074' MSL.

Tree 4783' from DER, 1636' left of centerline, 120' AGL/1083' MSL.

Trees beginning 4858' from DER, 1497' left of centerline, up to 126' AGL/1090' MSL.

Rwy 14, tree 73' from DER, 202' right of centerline, 958' MSL.

Pole, tree, traverse way beginning 77' from DER, 451' left of centerline, up to 959' MSL.

Trees beginning 94' from DER, 201' right of centerline, up to 74' AGL/992' MSL.

Trees beginning 224' from DER, 425' left of centerline, up to 970' MSL.

Trees, pole beginning 328' from DER, 123' left of centerline, up to 78' AGL/997' MSL.

Trees beginning 1197' from DER, 92' right of centerline, up to 999' MSL.

Trees beginning 1322' from DER, 152' left of centerline, up to 1007' MSL.

Trees beginning 1624' from DER, 718' right of centerline, up to 1002' MSL.

Trees beginning 1734' from DER, 52' right of centerline, up to 1003' MSL.

Tree 2721' from DER, 483' right of centerline, 1013' MSL.

Trees beginning 2727' from DER, 487' right of centerline, up to 1019' MSL.

Antenna 5968' from DER, 2085' left of centerline, 1078' MSL.

Rwy 27, tree, lighting, terrain beginning 2' from DER, 112' right of centerline, up to 5' AGL/1001' MSL.

Lighting 9' from DER, 112' left of centerline, 991' MSL.

Tree 240' from DER, 472' left of centerline, 999' MSL.

Tree 544' from DER, 544' left of centerline, 1012' MSL.

Tree 725' from DER, 659' left of centerline, 1038' MSL.

Tree 745' from DER, 628' right of centerline, 1010' MSL.

Trees beginning 912' from DER, 192' right of centerline, up to 1018' MSL.

Trees beginning 1160' from DER, 460' right of centerline, up to 1059' MSL.

Trees beginning 1275' from DER, 97' right of centerline, up to 1062' MSL.

Tree 1442' from DER, 120' left of centerline, 1050' MSL.

Trees beginning 1858' from DER, 157' left of centerline, up to 1059' MSL.

Tree 1970' from DER, 312' left of centerline, 1072' MSL.

Trees beginning 1976' from DER, 231' right of centerline, up to 1066' MSL.

Tree 2046' from DER, 902' left of centerline, 1084' MSL.

Trees beginning 2054' from DER, 11' left of centerline, up to 1111' MSL.

Tree 2054' from DER, 721' left of centerline, 1095' MSL.

Tree 2063' from DER, 748' right of centerline, 1087' MSL.

Trees, building, pole beginning 2065' from DER, 35' right of centerline, up to 1104' MSL.

Trees beginning 2209' from DER, 14' left of centerline, up to 1118' MSL.

Trees, pole beginning 2605' from DER, 62' left of centerline, up to 1121' MSL.

Tree 2777' from DER, 898' left of centerline, 1124' MSL.

Trees beginning 2816' from DER, 413' left of centerline, up to 1126' MSL.

Trees, pole beginning 2849' from DER, 165' left of centerline, up to 1127' MSL.

Trees beginning 2929' from DER, 994' left of centerline, up to 1136' MSL.

Trees, pole beginning 3029' from DER, 166' left of centerline, up to 1138' MSL.

Trees, pole, sign beginning 3165' from DER, 25' left of centerline, up to 1146' MSL.

Pole, trees beginning 3383' from DER, 53' right of centerline, up to 1108' MSL.

Trees, pole beginning 3645' from DER, 37' right of centerline, up to 1124' MSL.

Sign, trees, pole beginning 3902' from DER, 33' right of centerline, up to 1132' MSL.

Trees beginning 4227' from DER, 408' right of centerline, up to 1137' MSL.

Trees beginning 4558' from DER, 171' right of centerline, up to 1138' MSL.

Trees beginning 4703' from DER, 163' left of centerline, up to 1152' MSL.

Trees beginning 4716' from DER, 164' right of centerline, up to 1153' MSL.

Trees beginning 4761' from DER, 1' left of centerline, up to 1167' MSL.

CON'T

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

BIG RAPIDS, MI (CON'T)

ROBEN-HOOD (RQB) (CON'T)

Rwy 27 (CON'T), trees beginning 4817' from DER, 93' right of centerline, up to 1155' MSL.

Trees beginning 5498' from DER, 42' left of centerline, up to 1171' MSL.

Tree 5546' from DER, 636' right of centerline, 1156' MSL.

Trees beginning 5627' from DER, 202' right of centerline, up to 1162' MSL.

Trees beginning 5716' from DER, 2' left of centerline, up to 1176' MSL.

Trees beginning 5854' from DER, 258' left of centerline, up to 1183' MSL.

Trees beginning 5858' from DER, 13' left of centerline, up to 94' AGL/1185' MSL.

Trees beginning 6036' from DER, 70' right of centerline, up to 1167' MSL.

Trees beginning 1 NM from DER, 162' right of centerline, up to 1168' MSL.

Vertical structure 1.2 NM from DER, 1391' right of centerline, 100' AGL/1196' MSL.

Rwy 32, terrain 20' from DER, 242' right of centerline, 933' MSL.

Trees, terrain beginning 28' from DER, 342' left of centerline, up to 936' MSL.

Tree 196' from DER, 225' left of centerline, 5' AGL/938' MSL.

Tree 347' from DER, 563' left of centerline, 942' MSL.

Lighting 469' from DER, 387' right of centerline, 946' MSL.

Lighting 668' from DER, 6' right of centerline, 950' MSL.

Tree 696' from DER, 676' left of centerline, 951' MSL.

Wind indicator 993' from DER, 519' left of centerline, 11' AGL/958' MSL.

Tree 1965' from DER, 834' right of centerline, 994' MSL.

Tree 2117' from DER, 658' right of centerline, 1002' MSL.

Trees beginning 2244' from DER, 548' right of centerline, up to 1012' MSL.

Trees beginning 2329' from DER, 346' right of centerline, up to 1030' MSL.

Trees beginning 2436' from DER, 409' right of centerline, up to 1031' MSL..

Trees beginning 2529' from DER, 125' right of centerline, up to 1035' MSL.

Pole 2659' from DER, 1104' left of centerline, 1000' MSL..

Trees, pole beginning 2666' from DER, 44' left of centerline, up to 1026' MSL..

Lighting, trees beginning 2979' from DER, 613' left of centerline, up to 59' AGL/1027' MSL.

Trees beginning 3289' from DER, 401' left of centerline, up to 1033' MSL.

Tree 4265' from DER, 756' left of centerline, 1041' MSL.

Trees beginning 4273' from DER, 318' left of centerline, up to 1053' MSL.

Tree 4503' from DER, 703' right of centerline, 1053' MSL.

Trees beginning 4558' from DER, 418' left of centerline, up to 1088' MSL.

Trees beginning 4774' from DER, 372' left of centerline, up to 1092' MSL.

Trees beginning 4825' from DER, 461' left of centerline, up to 1096' MSL.

Tree 4929' from DER, 117' right of centerline, 1067' MSL.

Trees beginning 4930' from DER, 65' left of centerline, up to 91' AGL/1103' MSL.

Trees beginning 5038' from DER, 277' left of centerline, up to 92' AGL/1107' MSL.

Tree 5057' from DER, 367' right of centerline, 1073' MSL.

Tree 5084' from DER, 521' right of centerline, 1075' MSL.

Tree 5096' from DER, 165' left of centerline, 88' AGL/1110' MSL.

Trees beginning 5102' from DER, 15' left of centerline, up to 92' AGL/1118' MSL.

Trees beginning 5103' from DER, 13' right of centerline, up to 1100' MSL.

Tree 5375' from DER, 279' right of centerline, 1111' MSL.

Trees beginning 5393' from DER, 50' right of centerline, up to 99' AGL/1113' MSL.

Trees beginning 5704' from DER, 177' left of centerline, up to 1119' MSL.

Tree 5862' from DER, 142' left of centerline, 1121' MSL.

Trees beginning 5886' from DER, 37' left of centerline, up to 1122' MSL.

Trees beginning 5997' from DER, 126' left of centerline, up to 1127' MSL.

Trees beginning 6045' from DER, 19' left of centerline, up to 104' AGL/1128' MSL.

Tree 1.2 NM from DER, 1914' left of centerline, 1119' MSL.

BOIS BLANC ISLAND, MI

BOIS BLANC ISLAND (6Y1)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 13NOV14 (14317) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 10, trees beginning abeam DER, 144' left of centerline, up to 100' AGL/759' MSL.

Trees beginning abeam DER, 200' right of centerline, up to 100' AGL/759' MSL.

Trees beginning 1738' from DER, left and right of centerline, up to 100' AGL/759' MSL.

Rwy 28, trees beginning abeam DER, 217' left of centerline, up to 100' AGL/769' MSL.

Trees beginning abeam DER, 266' right of centerline, up to 100' AGL/799' MSL.

Vehicles on road beginning abeam DER, 170' left of centerline, up to 15' AGL/684' MSL.

Vehicles on road beginning 440' from DER, crossing centerline from left to right, up to 15' AGL/684' MSL.

Trees beginning 1590' from DER, left and right of centerline up to 100' AGL/799' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

BOYNE CITY, MI

BOYNE CITY MUNI (N98)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 20JUN19 (19171) (FAA)

TAKEOFF MINIMUMS:

Rwy 9, 600-2¼ or std. w/min. climb of 503' per NM to 1300.

Rwy 27, std. w/min. climb of 238' per NM to 1800 or 1200-2½ for VCOA.

DEPARTURE PROCEDURE:

Rwy 9, climb heading 098° to 1200 before proceeding on course.

Rwy 27, climb heading 278° to 1900 before turning left.

VCOA:

Rwy 27, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Boyne City Muni at or above 1700 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 9, tree 10' from DER, 180' right of centerline, 681' MSL.

NAVAID 13' from DER, 112' left of centerline, 8' AGL/661' MSL.

Tree 38' from DER, 300' left of centerline, 700' MSL.

Tree, vehicles on road beginning 98' from DER, 246' right of centerline, up to 704' MSL.

Tree 125' from DER, 486' left of centerline, 722' MSL.

Tree, pole, transmission line beginning 143' from DER, 18' left of centerline, up to 739' MSL.

Tree, sign, vehicles on road beginning 175' from DER, 145' right of centerline, up to 709' MSL.

Tree, vehicles on road, transmission line, pole beginning 431' from DER, 176' right of centerline, up to 731' MSL.

Trees beginning 893' from DER, 22' right of centerline, up to 732' MSL.

Trees beginning 2479' from DER, 55' left of centerline, up to 740' MSL.

Tree 2594' from DER, 296' right of centerline, 733' MSL.

Tree 2602' from DER, 124' right of centerline, 745' MSL.

Trees beginning 2612' from DER, 82' right of centerline, up to 755' MSL.

Tree 2618' from DER, 83' left of centerline, 751' MSL.

Trees beginning 2621' from DER, 32' left of centerline, up to 755' MSL.

Tree 2654' from DER, 187' left of centerline, 759' MSL.

Trees beginning 2654' from DER, 58' right of centerline, up to 762' MSL.

Trees beginning 2655' from DER, 128' left of centerline, up to 760' MSL.

Trees beginning 2681' from DER, 53' left of centerline, up to 761' MSL.

Trees beginning 2682' from DER, 35' right of centerline, up to 763' MSL.

Trees beginning 2709' from DER, 158' left of centerline, up to 766' MSL.

Trees beginning 2753' from DER, 4' left of centerline, up to 768' MSL.

Trees beginning 2820' from DER, 2' left of centerline, up to 773' MSL.

Trees beginning 3881' from DER, 1083' left of centerline, up to 823' MSL.

Trees beginning 3974' from DER, 473' left of centerline, up to 846' MSL.

Trees beginning 4075' from DER, 322' left of centerline, up to 861' MSL.

Tree 4481' from DER, 849' left of centerline, 868' MSL.

Trees beginning 4502' from DER, 459' left of centerline, up to 869' MSL.

Trees beginning 4641' from DER, 443' left of centerline, up to 879' MSL.

Trees beginning 4727' from DER, 467' left of centerline, up to 886' MSL.

Trees beginning 4834' from DER, 691' left of centerline, up to 887' MSL.

Trees beginning 4854' from DER, 395' left of centerline, up to 892' MSL.

Trees beginning 4935' from DER, 286' left of centerline, up to 909' MSL.

Trees beginning 5063' from DER, 266' left of centerline, up to 923' MSL.

Trees beginning 5086' from DER, 299' left of centerline, up to 936' MSL.

Trees beginning 5157' from DER, 286' left of centerline, up to 939' MSL.

Tree 5189' from DER, 1178' left of centerline, 940' MSL.

Trees beginning 5197' from DER, 271' left of centerline, up to 962' MSL.

Trees beginning 5292' from DER, 213' left of centerline, up to 988' MSL.

Tree, terrain beginning 5371' from DER, on centerline, up to 997' MSL.

Tree 5605' from DER, 1019' right of centerline, 805' MSL.

Trees beginning 5812' from DER, 11' right of centerline, up to 814' MSL.

Trees beginning 5912' from DER, 227' right of centerline, up to 823' MSL.

Trees beginning 5933' from DER, 307' right of centerline, up to 831' MSL.

Trees beginning 5972' from DER, 14' right of centerline, up to 838' MSL.

Tree, terrain beginning 6023' from DER, 14' left of centerline, up to 1027' MSL.

Trees beginning 6066' from DER, 2' right of centerline, up to 858' MSL.

Tree, terrain beginning 1 NM from DER, 9' left of centerline, up to 1036' MSL.

Trees beginning 1 NM from DER, 133' right of centerline, up to 873' MSL.

Trees beginning 1.1 NM from DER, 151' right of centerline, up to 894' MSL.

Trees beginning 1.1 NM from DER, 360' right of centerline, up to 898' MSL.

Trees beginning 1.1 NM from DER, 1802' left of centerline, up to 1050' MSL.

Tree 1.1 NM from DER, 540' right of centerline, 912' MSL.

Trees beginning 1.1 NM from DER, 336' right of centerline, up to 931' MSL.

Tree, terrain beginning 1.1 NM from DER, 224' left of centerline, up to 1061' MSL.

Trees beginning 1.1 NM from DER, 139' right of centerline, up to 954' MSL.

Tree, terrain beginning 1.1 NM from DER, 495' left of centerline, up to 1074' MSL.

Tree, terrain beginning 1.2 NM from DER, 197' left of centerline, up to 1087' MSL.

Tree 1.2 NM from DER, 339' right of centerline, 972' MSL.

Tree, pole, transmission line, catenary beginning 1.2 NM from DER, 4' right of centerline, up to 1007' MSL.

Tree, terrain, transmission line, pole beginning 1.2 NM from DER, 19' left of centerline, up to 1127' MSL.

CON'T

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

BOYNE CITY, MI (CON'T)

BOYNE CITY MUNI (N98) (CON'T)

Rwy 9 (CON'T), trees beginning 1.3 NM from DER, 320' right of centerline, up to 1011' MSL.

Trees beginning 1.3 NM from DER, 174' right of centerline, up to 1027' MSL.

Trees beginning 1.3 NM from DER, 117' right of centerline, up to 1036' MSL.

Trees beginning 1.3 NM from DER, 280' left of centerline, up to 1130' MSL.

Trees beginning 1.3 NM from DER, 12' left of centerline, up to 1141' MSL.

Trees beginning 1.4 NM from DER, 301' right of centerline, up to 1040' MSL.

Trees beginning 1.4 NM from DER, 361' left of centerline, up to 1146' MSL.

Trees beginning 1.4 NM from DER, 63' right of centerline, up to 1051' MSL.

Trees beginning 1.4 NM from DER, 119' left of centerline, up to 1147' MSL.

Tree 1.4 NM from DER, 289' right of centerline, 1055' MSL.

Trees beginning 1.4 NM from DER, 30' left of centerline, up to 1149' MSL.

Trees beginning 1.4 NM from DER, 2' right of centerline, up to 1080' MSL.

Trees beginning 1.4 NM from DER, 70' right of centerline, up to 1101' MSL.

Trees beginning 1.5 NM from DER, 786' left of centerline, up to 1151' MSL.

Tree, terrain beginning 1.5 NM from DER, 47' left of centerline, up to 1157' MSL.

Trees beginning 1.5 NM from DER, 700' left of centerline, up to 1161' MSL.

Tree, terrain beginning 1.5 NM from DER, 13' left of centerline, up to 1167' MSL.

Trees beginning 1.5 NM from DER, 52' right of centerline, up to 1132' MSL.

Trees beginning 1.5 NM from DER, 8' right of centerline, up to 1142' MSL.

Tree 2.2 NM from DER, 2497' right of centerline, 1025' MSL.

Rwy 27, building 30' from DER, 437' right of centerline, 27' AGL/678' MSL.

Tree 30' from DER, 311' right of centerline, 703' MSL.

Tree, building, pole, transmission line beginning 45' from DER, 1' right of centerline, up to 725' MSL.

Vehicles on road 64' from DER, 203' left of centerline, 672' MSL.

Pole 113' from DER, 515' left of centerline, 31' AGL/690' MSL.

Building, pole, fence beginning 118' from DER, 67' left of centerline, up to 37' AGL/694' MSL.

Tree, pole, building, transmission line beginning 244' from DER, 13' left of centerline, up to 728' MSL.

Tree, pole, transmission line, building beginning 435' from DER, 19' right of centerline, up to 726' MSL.

Trees beginning 649' from DER, 24' right of centerline, up to 739' MSL.

Tree, building, pole, transmission line beginning 719' from DER, 1' right of centerline, up to 743' MSL.

Tree, pole, transmission line beginning 1056' from DER, 7' left of centerline, up to 734' MSL.

Trees beginning 2774' from DER, 58' left of centerline, up to 743' MSL.

BOYNE FALLS, MI

BOYNE MOUNTAIN (BFA)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4A 11AUG22 (22223) (FAA)

TAKEOFF MINIMUMS:

Rwy 17, std. w/min. climb of 490' per NM to 1400 or 1300-3 for climb in visual conditions.

Rwy 35, std. w/min. climb of 310' per NM to 1400 or 1300-3 for climb in visual conditions.

DEPARTURE PROCEDURE:

Rwy 17, climb heading 175° to 1400 before proceeding on course, or for climb in visual conditions cross Boyne Mountain airport at or above 1900 before proceeding on course. When executing VCOA, notify ATC prior to departure.

Rwy 35, climb heading 355° to 1400 before proceeding on course, or for climb in visual conditions cross Boyne Mountain airport at or above 1900 before proceeding on course. When executing VCOA, notify ATC prior to departure.

TAKEOFF OBSTACLE NOTES:

Rwy 17, vehicles on road beginning 10' from DER, 93' right of centerline, up to 15' AGL/753' MSL.

Trees beginning 13' from DER, 170' left of centerline, up to 100' AGL/854' MSL.

Vehicles on road beginning 402' from DER, 16' left of centerline, up to 15' AGL/736' MSL.

Trees beginning 529' from DER, 143' right of centerline, up to 100' AGL/838' MSL.

Trees beginning 2915' from DER, 1028' right of centerline, up to 100' AGL/903' MSL.

Trees beginning 2.4 NM from DER, left and right of centerline, up to 100' AGL/1231' MSL.

Rwy 35, vehicles on road beginning 28' from DER, left and right of centerline, up to 15' AGL/720' MSL.

Trees beginning 613' from DER, 599' left of centerline, up to 100' AGL/805' MSL.

Trees beginning 1355' from DER, left and right of centerline, up to 100' AGL/805' MSL.

Trees beginning 2319' from DER, 465' right of centerline, up to 100' AGL/797' MSL.

Multiple trees beginning 1.6 NM from DER, left and right of centerline, up to 100' AGL/1069' MSL.

Trees beginning 1.7 NM from DER, left and right of centerline, up to 100' AGL/1091' MSL.

Trees beginning 1.8 NM from DER, left and right of centerline, up to 100' AGL/1124' MSL.

Multiple trees beginning 1.9 NM from DER, left and right of centerline, up to 100' AGL/1127' MSL.

Multiple trees beginning 2.1 NM from DER, left and right of centerline, up to 100' AGL/1161' MSL.

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

CADILLAC, MI

WEXFORD COUNTY (CAD)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7 02JUL09 (09183) (FAA)

TAKEOFF MINIMUMS:

Rwys 18, 36, NA-Environmental.

DEPARTURE PROCEDURE:

Rwy 25, climb heading 250° to 1800 before turning left.

TAKEOFF OBSTACLE NOTES:

Rwy 7, trees beginning 783' from DER, 129' right of centerline, up to 53' AGL/1348' MSL.

Trees beginning 849' from DER, 348' left of centerline, up to 74' AGL/1378' MSL.

Poles beginning 1221' from DER, 596' left of centerline, up to 30' AGL/1336' MSL.

Poles beginning 1228' from DER, 366' right of centerline, up to 38' AGL/1333' MSL.

Train and tracks 1386' from DER, 819' left of centerline, 23' AGL/1335' MSL.

Rwy 25, bush 14' from DER, 275' right of centerline, 10' AGL/1317' MSL.

Vehicle and road 660' from DER, 623' left of centerline, 15' AGL/1327' MSL.

CARO, MI

TUSCOLA AREA (CFS)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 08SEP22 (22251) (FAA)

TAKEOFF MINIMUMS:

Rwys 13, 31, NA-Environmental.

DEPARTURE PROCEDURE:

Rwy 24, climb on heading 238° to 1200 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 6, NAVAID 41' from DER, 84' left of centerline, 702' MSL.

Vegetation, tree, pole beginning 152' from DER, 239' left of centerline, up to 715' MSL.

Trees beginning 666' from DER, 225' left of centerline, up to 724' MSL.

Tree 697' from DER, 673' right of centerline, 753' MSL.

Trees beginning 819' from DER, 21' right of centerline, up to 759' MSL.

Tree 825' from DER, 366' left of centerline, 725' MSL.

Tree 944' from DER, 419' left of centerline, 766' MSL.

Trees beginning 990' from DER, 98' left of centerline, up to 774' MSL.

Trees beginning 1069' from DER, 341' right of centerline, up to 773' MSL.

Tree, transmission lines, poles, tank beginning 1242' from DER, 397' left of centerline, up to 775' MSL.

Trees, buildings, transmission line, pole beginning 1278' from DER, 203' right of centerline, up to 778' MSL.

Trees beginning 1615' from DER, 96' right of centerline, up to 791' MSL.

Trees beginning 2075' from DER, 78' left of centerline, up to 789' MSL.

Trees beginning 2202' from DER, 19' right of centerline, up to 793' MSL.

Tree 3612' from DER, 796' right of centerline, 800' MSL.

Rwy 24, pole 21' from DER, 330' left of centerline, 6' AGL/687' MSL.

Tree, NAVAID, pole beginning 36' from DER, 76' left of centerline, up to 703' MSL.

NAVAID 40' from DER, 78' right of centerline, 5' AGL/688' MSL.

Pole 84' from DER, 240' right of centerline, 9' AGL/693' MSL.

Trees beginning 179' from DER, 472' left of centerline, up to 714' MSL.

Trees beginning 724' from DER, 565' left of centerline, up to 730' MSL.

Trees, transmission line, pole, catenary beginning 948' from DER, 167' left of centerline, up to 737' MSL.

Trees, catenary, pole, transmission line beginning 1243' from DER, 46' left of centerline, up to 741' MSL.

Trees beginning 1369' from DER, 25' right of centerline, up to 770' MSL.

Trees beginning 1586' from DER, 28' left of centerline, up to 765' MSL.

Trees, poles, transmission lines beginning 2360' from DER, 108' right of centerline, up to 808' MSL.

CHARLEVOIX, MI

CHARLEVOIX MUNI (CVX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 15JUN23 (23166) (FAA)

TAKEOFF MINIMUMS:

Rwys 4, 22, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 9, buildings beginning 963' from DER, 607' right of centerline, up to 679' MSL.

Tree, transmission line, pole beginning 1093' from DER, 103' left of centerline, up to 691' MSL.

Trees beginning 1493' from DER, 309' left of centerline, up to 697' MSL.

Building 1501' from DER, 594' right of centerline, 56' AGL/698' MSL.

Trees beginning 1748' from DER, 86' left of centerline, up to 700' MSL.

Trees beginning 1992' from DER, 86' left of centerline, up to 710' MSL.

Tree 2097' from DER, 129' right of centerline, 705' MSL.

Pole beginning 2736' from DER, 951' left of centerline, up to 81' AGL/713' MSL.

Rwy 27, tree 2' from DER, 295' right of centerline, 3' AGL/671' MSL.

Fence 154' from DER, 536' left of centerline, 674' MSL.

Tree 231' from DER, 527' left of centerline, 680' MSL.

Terrain 407' from DER, 572' left of centerline, 681' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

CHARLOTTE, MI

FITCH H BEACH (FPK)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 22JUN17 (17173) (FAA)

TAKEOFF MINIMUMS:

Rwys 15, 33, NA - Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 3, tree 21' from DER, 482' left of centerline, 14' AGL/899' MSL.

REILs and electrical system 35' from DER, 77' left and right of centerline, 4' AGL/894' MSL.

Tree and vehicles on road 248' from DER, 337' left of centerline, 909' MSL.

Vehicles on road 367' from DER, 516' left of centerline, 911' MSL.

Vehicles on road 457' from DER, 461' left of centerline, 912' MSL.

Power lines, pole and vehicles on road beginning 520' from DER, 298' left of centerline, up to 40' AGL/936' MSL.

Trees, vehicles on road, building, pole, beginning 746' from DER, 101' left of centerline, up to 970' MSL.

Tree and OL pole 1108' from DER, 10' left of centerline, 973' MSL.

Trees, pole, OL pole, vehicles on road, building, and power lines beginning 1223' from DER, 14' left of centerline, up to 74' AGL/1000' MSL.

Trees beginning 2366' from DER, 58' left of centerline, up to 1008' MSL.

Tree 4540' from DER, 23' left of centerline, 87' AGL/1021' MSL.

Tree 298' from DER, 328' right of centerline, 911' MSL.

Pole and tree 465' from DER, 264' right of centerline, 935' MSL.

Pole 637' from DER, 546' right of centerline, 936' MSL.

Pole and trees beginning 676' from DER, 137' right of centerline, up to 38' AGL/938' MSL.

Pole and tree 841' from DER, 79' right of centerline, 36' AGL/939' MSL.

Poles and tree, beginning 969' from DER, 476' right of centerline, up to 35' AGL/940' MSL.

Pole 1003' from DER, 436' right of centerline, 35' AGL/941' MSL.

Pole, building and vehicles on road beginning 1135' from DER, 108' right of centerline, up to 944' MSL.

Pole, tree and vehicles on road beginning 1235' from DER, 16' right of centerline, up to 35' AGL/945' MSL.

Sign and pole 1332' from DER, 119' right of centerline, 949' MSL.

Pole, building, power lines and vehicles on road beginning 1430' from DER, 13' right of centerline, up to 35' AGL/953' MSL.

Sign, vehicles on road and building beginning 1642' from DER, 105' right of centerline, up to 37' AGL/958' MSL.

Building, pole, power lines and vehicles on road beginning 1721' from DER, 72' right of centerline, up to 35' AGL/959' MSL.

Pole and building 1814' from DER, 500' right of centerline, 43' AGL/968' MSL.

Sign, vehicles on road, pole, tree and power lines beginning 1842' from DER, 185' right of centerline, up to 971' MSL.

Tree and pole 2181' from DER, 119' right of centerline, 991' MSL.

Tree and pole 2292' from DER, 105' right of centerline, 993' MSL.

Trees beginning 2426' from DER, 88' right of centerline, up to 1000' MSL.

Trees beginning 2487' from DER, 836' right of centerline, up to 1008' MSL.

Tree, power lines and pole beginning 2542' from DER, 25' right of centerline, up to 1010' MSL.

Trees, antenna and tower beginning 2663' from DER, 35' right of centerline, up to 94' AGL/1026' MSL.

Rwy 21, trees beginning 17' from DER, 427' right of centerline, up to 53' AGL/929' MSL.

REILs and electrical system 33' from DER, 77' left and right of centerline, 5' AGL/884' MSL.

Trees beginning 941' from DER, 182' right of centerline, up to 935' MSL.

Trees beginning 1042' from DER, 414' right of centerline, up to 944' MSL.

Tree, powerlines and pole beginning 1046' from DER, 536' right of centerline, up to 950' MSL.

Trees beginning 2319' from DER, 269' right of centerline, up to 952' MSL.

Trees beginning 2453' from DER, 682' right of centerline, up to 976' MSL.

Trees beginning 2554' from DER, 53' right of centerline, up to 982' MSL.

Tree 34' from DER, 284' left of centerline, 889' MSL.

Tower, airport beacon, pole, powerlines and tree beginning 489' from DER, 553' left of centerline, up to 80' AGL/964' MSL.

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

CHEBOYGAN, MI

CHEBOYGAN COUNTY (SLH)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3A 13SEP18 (18256) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 10, tree 96' from DER, 379' left of centerline, 643' MSL.

Trees beginning 409' from DER, 429' left of centerline, up to 662' MSL.

Tree 961' from DER, 598' right of centerline, 670' MSL.

Tree 1180' from DER, 503' left of centerline, 663' MSL.

Tree 1221' from DER, 431' left of centerline, 667' MSL.

Tree 1268' from DER, 357' left of centerline, 669' MSL.

Trees beginning 1282' from DER, 189' left of centerline, up to 670' MSL.

Trees beginning 1300' from DER, 288' right of centerline, up to 673' MSL.

Tree 1451' from DER, 295' left of centerline, 675' MSL.

Rwy 17, trees beginning 77' from DER, 47' right of centerline, up to 100' AGL/750' MSL.

Trees beginning 187' from DER, 31' left of centerline, up to 100' AGL/747' MSL.

Trees beginning 1417' from DER, 1' left of centerline, up to 100' AGL/750' MSL.

Trees beginning 1838' from DER, 28' right of centerline, up to 100' AGL/753' MSL.

Trees beginning 3306' from DER, 10' right of centerline, up to 100' AGL/757' MSL.

Rwy 28, tree, vehicles on traverse way beginning 74' from DER, 407' left of centerline, up to 670' MSL.

Tree 443' from DER, 429' right of centerline, 680' MSL.

Tree 479' from DER, 389' left of centerline, 702' MSL.

Tree 548' from DER, 400' right of centerline, 693' MSL.

Trees beginning 1212' from DER, 570' left of centerline, up to 711' MSL.

Trees beginning 1534' from DER, 184' left of centerline, up to 724' MSL.

Trees beginning 1561' from DER, 93' right of centerline, up to 718' MSL.

Trees beginning 2059' from DER, 354' right of centerline, up to 727' MSL.

Tree 2826' from DER, 769' right of centerline, 732' MSL.

Trees beginning 2980' from DER, 22' left of centerline, up to 734' MSL.

Tree 3901' from DER, 506' right of centerline, 745' MSL.

Rwy 35, tree 47' from DER, 454' right of centerline, 100' AGL/704' MSL.

Tree 103' from DER, 249' right of centerline, 100' AGL/707' MSL.

Trees beginning 158' from DER, 24' right of centerline, up to 100' AGL/711' MSL.

Tree 213' from DER, 162' left of centerline, 100' AGL/714' MSL.

Trees beginning 268' from DER, 5' left of centerline, up to 100' AGL/717' MSL.

CLARE, MI

CLARE MUNI (48D)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 19SEP13 (13262) (FAA)

TAKEOFF MINIMUMS:

Rwy 9, 300-1 or std. w/min. climb of 371' per NM to 1100.

TAKEOFF OBSTACLE NOTES:

Rwy 4, bush 24' from DER, 131' left of centerline, 8' AGL/859' MSL.

Trees beginning 495' from DER, 431' right of centerline, up to 56' AGL/897' MSL.

Pole and trees beginning 728' from DER, 629' left of centerline, up to 55' AGL/906' MSL.

Tree 1158' from DER, 166' left of centerline, 48' AGL/889' MSL.

Trees beginning 1693' from DER, 607' right of centerline, up to 67' AGL/908' MSL.

Trees beginning 1668' from DER, 111' left of centerline, up to 114' AGL/955' MSL.

Rwy 9, vehicle on road 7' from DER, 92' left of centerline, 15' AGL/834' MSL.

Vehicle on road 229' from DER, crossing centerline, 15' AGL/834' MSL.

Buildings beginning 394' from DER, 275' right of centerline, up to 30' AGL/849' MSL.

Trees beginning 81' from DER, 417' right of centerline, up to 45' AGL/864' MSL.

Trees beginning 1894' from DER, crossing centerline, up to 130' AGL/989' MSL.

Rwy 22, terrain 38' from DER, 486' right of centerline, 828' MSL.

Light 39' from DER, 111' right of centerline, 4' AGL/829' MSL.

Light 40' from DER, 111' left of centerline, 4' AGL/828' MSL.

Windsock 373' from DER, 559' right of centerline, 34' AGL/855' MSL.

Trees beginning 1033' from DER, crossing centerline, up to 129' AGL/934' MSL.

Rwy 27, building 290' from DER, 574' right of centerline, 20' AGL/851' MSL.

Antenna 329' from DER, 399' right of centerline, 32' AGL/863' MSL.

Building 434' from DER, 552' right of centerline, 21' AGL/852' MSL.

Vehicle on road 532' from DER, 516' right of centerline, 15' AGL/854' MSL.

Trees beginning 566' from DER, 238' right of centerline, up to 98' AGL/918' MSL.

Trees beginning 411' from DER, 212' left of centerline, up to 95' AGL/906' MSL.

Trees beginning 1261' from DER, 462' right of centerline, up to 124' AGL/932' MSL.

Trees beginning 2372' from DER, 230' left of centerline, up to 109' AGL/930' MSL.

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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EC-1

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

COLDWATER, MI

BRANCH COUNTY MEML (OEB)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 10APR08 (21224) (FAA)

TAKEOFF MINIMUMS:

Rwys 16, 34, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 4, vehicles on road and trees beginning 5' from DER, 92' right of centerline, up to 100' AGL/1059' MSL.

Vehicles on road and trees beginning 347' from DER, 317' left of centerline, up to 100' AGL/1,059' MSL.

Rwy 7, trees beginning 1246' from DER, 430' left of centerline, up to 100' AGL/1059' MSL.

Vehicles on road and trees beginning 154' from DER, 315' right of centerline, up to 100' AGL/1039' MSL.

Pole 336' from DER, 274' right of centerline, 18' AGL/977' MSL.

Rwy 22, trains on railroad and trees beginning 769' from DER, 986' left to 945' right of centerline, up to 100' AGL/1099' MSL.

Rwy 25, vehicles on road and trees beginning 1171' from DER, 394' left of centerline, up to 100' AGL/1,059' MSL. Trees beginning 732' from DER, 95' right of centerline, up to 100' AGL/1034' MSL.

DETROIT, MI

COLEMAN A YOUNG MUNI (DET)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7A 24MAY18 (18144) (FAA)

TAKEOFF MINIMUMS:

Rwy 25, std. w/ min. climb of 210' per NM to 1000, or alternatively, with std. takeoff minimums and a 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

DEPARTURE PROCEDURE:

Rwy 33, climb heading 328° to 1800 before turning left.

TAKEOFF OBSTACLE NOTES:

Rwy 7, building, pole, tree, transmission line, stack beginning 290' from DER, 65' right of centerline, up to 77' AGL/695' MSL.

Pole 459' from DER, 138' left of centerline, 31' AGL/654' MSL.

Tree, lighting beginning 909' from DER, 96' left of centerline, up to 680' MSL.

Rwy 15, building 449' from DER, 317' left of centerline, 16' AGL/637' MSL.

Building, trees beginning 662' from DER, 220' left of centerline, up to 77' AGL/695' MSL.

Building 803' from DER, 521' right of centerline, 656' MSL.

Tree 1058' from DER, 367' right of centerline, 659' MSL.

Tree 1527' from DER, 445' right of centerline, 669' MSL.

Tree 1990' from DER, 492' right of centerline, 679' MSL.

Pole 3401' from DER, 1110' right of centerline, 106' AGL/722' MSL.

Rwy 25, vehicle on road 1' from DER, 125' left of centerline, 650' MSL.

Building, vehicles on road, stack, beginning 48' from DER, 39' left of centerline, up to 36' AGL/662' MSL.

Tree, pole beginning 456' from DER, 132' right of centerline, up to 658' MSL.

Tree, stack beginning 908' from DER, 11' left of centerline, up to 683' MSL.

Tree 1109' from DER, 325' right of centerline, 685' MSL.

Trees beginning 1294' from DER, 132' left of centerline, up to 703' MSL.

Tower 2828' from DER, 1224' left of centerline, 141' AGL/770' MSL.

Stack 1.5 NM from DER, 2412' left of centerline, 241' AGL/871' MSL.

Rwy 33, tree 113' from DER, 414' left of centerline, 666' MSL.

Tree 233' from DER, 512' left of centerline, 677' MSL.

Tree, pole beginning 449' from DER, 118' left of centerline, up to 681' MSL.

Tree 743' from DER, 505' right of centerline, 661' MSL.

Trees beginning 1707' from DER, 366' left of centerline, up to 694' MSL.

Trees beginning 1753' from DER, 83' right of centerline, up to 709' MSL.

DETROIT METRO WAYNE COUNTY (DTW)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1A 24MAY18 (21112) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 3R, terrain 14' from DER, 332' left of centerline, 633' MSL.

Vehicle on road 358' from DER, 522' right of centerline, 651' MSL.

Vehicle on road, wall, fence beginning 361' from DER, 387' right of centerline, up to 652' MSL.

Vehicle on roads beginning 421' from DER, 394' left of centerline, up to 653' MSL.

Rwy 4L, terrain 179' from DER, 78' left of centerline, 647' MSL.

Vehicle on roads beginning 302' from DER, 514' right of centerline, up to 655' MSL.

Vehicle on roads beginning 403' from DER, 546' left of centerline, up to 656' MSL.

Tree 996' from DER, 743' right of centerline, 29' AGL/668' MSL.

Tree, pole beginning 1183' from DER, 765' left of centerline, up to 43' AGL/682' MSL.

Tree 1345' from DER, 787' right of centerline, 42' AGL/682' MSL.

Transmission line 1515' from DER, 826' left of centerline, 47' AGL/685' MSL.

Transmission line 1599' from DER, 876' left of centerline, 52' AGL/690' MSL.

Tree 1971' from DER, 852' left of centerline, 56' AGL/694' MSL.

Tower, antenna beginning 2694' from DER, 757' right of centerline, up to 78' AGL/716' MSL.

Tower, antenna beginning 2858' from DER, 852' right of centerline, up to 79' AGL/717' MSL.

CON'T

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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EC-1


**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND
DIVERSE VECTOR AREA (RADAR VECTORS)**


24025

DETROIT, MI (CON'T)**DETROIT METRO WAYNE COUNTY (DTW) (CON'T)****Rwy 4R**, lighting, NAVAID beginning 9' from DER, 10' right of centerline, up to 3' AGL/638' MSL.

Vehicle on roads beginning 941' from DER, 618' left of centerline, up to 664' MSL.

Building beginning 3347' from DER, 1302' left of centerline, up to 98' AGL/736' MSL.

Rwy 9L, vehicle on roads beginning 292' from DER, 342' left of centerline, up to 652' MSL.

Vehicle on roads beginning 601' from DER, 354' right of centerline, up to 652' MSL.

Tree 1699' from DER, 882' right of centerline, 59' AGL/687' MSL.

Tree 1804' from DER, 913' right of centerline, 63' AGL/690' MSL.

Trees beginning 2043' from DER, 936' right of centerline, up to 73' AGL/699' MSL.

Trees beginning 2242' from DER, 970' right of centerline, up to 74' AGL/701' MSL.

Trees beginning 2424' from DER, 937' left of centerline, up to 77' AGL/704' MSL.

Tree 2461' from DER, 1056' right of centerline, 77' AGL/705' MSL.

Tree 2519' from DER, 1168' right of centerline, 84' AGL/710' MSL.

Tree 2632' from DER, 1163' left of centerline, 81' AGL/708' MSL.

Tree 2788' from DER, 1050' left of centerline, 85' AGL/711' MSL.

Tree 2891' from DER, 1065' left of centerline, 90' AGL/716' MSL.

Rwy 9R, sign 60' from DER, 288' left of centerline, 5' AGL/631' MSL.

Tree 538' from DER, 618' right of centerline, 19' AGL/645' MSL.

Tree 1836' from DER, 940' right of centerline, 71' AGL/695' MSL.

Rwy 21L, vehicle on road 586' from DER, 617' right of centerline, 648' MSL.

Tree 1121' from DER, 738' left of centerline, 39' AGL/674' MSL.

Tree 1763' from DER, 906' right of centerline, 59' AGL/687' MSL.

Tree 2160' from DER, 982' left of centerline, 68' AGL/693' MSL.

Tree 2256' from DER, 1040' left of centerline, 67' AGL/696' MSL.

Tree 2408' from DER, 1050' left of centerline, 76' AGL/707' MSL.

Tree 2548' from DER, 1077' left of centerline, 84' AGL/715' MSL.

Trees beginning 2619' from DER, 867' left of centerline, up to 90' AGL/723' MSL.

Trees beginning 2726' from DER, 1172' right of centerline, up to 83' AGL/714' MSL.

Tree 2809' from DER, 1245' right of centerline, 85' AGL/716' MSL.

Tree 2907' from DER, 1174' right of centerline, 86' AGL/718' MSL.

Trees beginning 2933' from DER, 1133' right of centerline, up to 95' AGL/728' MSL.

Tree 3275' from DER, 1222' left of centerline, 99' AGL/727' MSL.

Trees beginning 3412' from DER, 1161' left of centerline, up to 107' AGL/735' MSL.

Trees beginning 3687' from DER, 1169' right of centerline, up to 100' AGL/733' MSL.

Tree 3921' from DER, 1229' right of centerline, 103' AGL/734' MSL.

Trees beginning 3926' from DER, 1351' right of centerline, up to 109' AGL/739' MSL.

Rwy 21R, pole 322' from DER, 570' right of centerline, 28' AGL/655' MSL.

Pole, fence, sign, vehicle on roads beginning 450' from DER, 570' right of centerline, up to 29' AGL/657' MSL.

Pole beginning 533' from DER, 571' right of centerline, up to 29' AGL/658' MSL.

Building 1092' from DER, 773' right of centerline, 58' AGL/670' MSL.

Building 1237' from DER, 773' right of centerline, 58' AGL/671' MSL.

Building beginning 1311' from DER, 829' right of centerline, up to 71' AGL/677' MSL.

Rwy 22L, lighting 10' from DER, 5' left of centerline, 1' AGL/638' MSL.

NAVAID 79' from DER, 412' left of centerline, 4' AGL/640' MSL.

Tree 3681' from DER, 1384' left of centerline, 103' AGL/738' MSL.

Rwy 22R, terrain 19' from DER, 438' left of centerline, 649' MSL.

Terrain 150' from DER, 86' left of centerline, 650' MSL.

Tree 1102' from DER, 734' right of centerline, 37' AGL/681' MSL.

Tree 1859' from DER, 854' right of centerline, 60' AGL/702' MSL.

Tree 1979' from DER, 942' right of centerline, 66' AGL/706' MSL.

Tree 2386' from DER, 892' left of centerline, 75' AGL/715' MSL.

Tree 3343' from DER, 1361' left of centerline, 97' AGL/735' MSL.

Tree 3727' from DER, 1351' left of centerline, 103' AGL/741' MSL.

Rwy 27L, vehicle on road 491' from DER, 600' left of centerline, 650' MSL.

Pole 1011' from DER, 698' left of centerline, 27' AGL/662' MSL.

Rwy 27R, NAVAID 11' from DER, 55' right of centerline, 2' AGL/639' MSL.

NAVAID 11' from DER, 54' left of centerline, 2' AGL/639' MSL.

Pole 14' from DER, 441' left of centerline, 19' AGL/656' MSL.

Tower 4460' from DER, 462' left of centerline, 106' AGL/756' MSL.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND
DIVERSE VECTOR AREA (RADAR VECTORS)**


24025


TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND


DIVERSE VECTOR AREA (RADAR VECTORS)

24025

DETROIT, MI (CON'T)**WILLOW RUN (YIP)****TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**

AMDT 11 14JUL22 (22195) (FAA)

TAKEOFF MINIMUMS:

Rwy 27, 300-1% or std. w/min. climb or 209' per NM to 1000, or alternatively, with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1300' prior to departure end of runway

TAKEOFF OBSTACLE NOTES:

Rwy 5, electrical systems, beginning 5' from DER, 56' right of centerline, up to 3' AGL/703' MSL.

Electrical system 5' from DER, 56' left of centerline, 3' AGL/703' MSL.

Transmission line 1070' from DER, 593' left of centerline, 34' AGL/731' MSL.

Transmission line 1180' from DER, 492' left of centerline, 36' AGL/732' MSL.

Trees 1406' from DER, 799' left of centerline, 42' AGL/741' MSL.

Trees 1593' from DER, 900' left of centerline, 764' MSL.

Trees beginning 2193' from DER, 1037' right of centerline, up to 69' AGL/762' MSL.

Tree 2344' from DER, 1076' left of centerline, 68' AGL/769' MSL.

Rwy 23, electrical system, sign beginning 4' from DER, 69' left of centerline, up to 3' AGL/716' MSL.

Electrical system 5' from DER, 89' right of centerline, 2' AGL/716' MSL.

Sign 33' from DER, 501' right of centerline, 3' AGL/717' MSL.

Tree 813' from DER, 702' left of centerline, 28' AGL/739' MSL.

Electrical system 835' from DER, 3' right of centerline, 24' AGL/738' MSL.

Pole 866' from DER, 710' left of centerline, 38' AGL/750' MSL.

Tree 1360' from DER, 763' right of centerline, 54' AGL/751' MSL.

Tree 1406' from DER, 817' right of centerline, 49' AGL/761' MSL.

Tree 1760' from DER, 883' left of centerline, 56' AGL/761' MSL.

Trees beginning 1785' from DER, 975' left of centerline, up to 70' AGL/774' MSL.

Tree 2137' from DER, 916' left of centerline, 75' AGL/775' MSL.

Trees beginning 2378' from DER, 924' left of centerline, up to 75' AGL/784' MSL.

Trees beginning 2422' from DER, 607' left of centerline, up to 82' AGL/790' MSL.

Rwy 27, terrain 468' from DER, 545' left of centerline, 729' MSL.

Tree 706' from DER, 624' right of centerline, 16' AGL/734' MSL.

Trees beginning 713' from DER, 491' right of centerline, up to 21' AGL/739' MSL.

Pole 1221' from DER, 424' left of centerline, 43' AGL/760' MSL.

Pole beginning 1534' from DER, 412' right of centerline, up to 53' AGL/770' MSL.

Pole 1558' from DER, 418' left of centerline, 54' AGL/772' MSL.

Tree 2869' from DER, 984' right of centerline, 75' AGL/794' MSL.

Trees beginning 2910' from DER, 1006' right of centerline, up to 76' AGL/795' MSL.

Transmission line 3709' from DER, 390' right of centerline, 90' AGL/812' MSL.

Transmission lines, catenaries beginning 3961' from DER, 776' left of centerline, up to 101' AGL/825' MSL.

Trees beginning 4001' from DER, 371' right of centerline, up to 832' MSL.

Transmission line, trees beginning 4076' from DER, 119' left of centerline, up to 104' AGL/830' MSL.

Tree 4397' from DER, 302' right of centerline, 834' MSL.

Tree 4449' from DER, 523' right of centerline, 835' MSL.

Tree 4486' from DER, 459' right of centerline, 846' MSL.

Tower 1.1 NM from DER, 469' left of centerline, 165' AGL/903' MSL.

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND


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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

DETROIT/GROSSE ILE, MI

GROSSE ILE MUNI (ONZ)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5A 24MAY18 (18144) (FAA)

TAKEOFF MINIMUMS:

Rwy 35, 800 - 1½ or std. w/ min. climb of 500' per NM to 1100.

DEPARTURE PROCEDURE:

Rwy 4, climb heading 037° to 1200 before turning left.

Rwy 35, climb heading 006° to 1800 before turning left.

TAKEOFF OBSTACLE NOTES:

Rwy 4, tree 12' from DER, 390' left of centerline, 615' MSL.

Tree, vegetation beginning 94' from DER, 192' right of centerline, up to 620' MSL.

Tree 106' from DER, 497' left of centerline, 629' MSL.

Tree, transmission line, pole beginning 137' from DER, 350' right of centerline, up to 655' MSL.

Tree 191' from DER, 422' left of centerline, 642' MSL.

Trees beginning 256' from DER, 376' left of centerline, up to 653' MSL.

Tree, building beginning 410' from DER, 164' left of centerline, up to 672' MSL.

Trees beginning 720' from DER, 279' right of centerline, up to 660' MSL.

Trees beginning 903' from DER, 20' right of centerline, up to 661' MSL.

Trees beginning 974' from DER, 148' left of centerline, up to 673' MSL.

Trees beginning 1189' from DER, 55' right of centerline, up to 667' MSL.

Trees beginning 1490' from DER, 38' right of centerline, up to 676' MSL.

Trees beginning 1492' from DER, 37' left of centerline, up to 679' MSL.

Trees beginning 2083' from DER, 155' left of centerline, up to 697' MSL.

Trees beginning 2088' from DER, 179' right of centerline, up to 685' MSL.

Tree 3459' from DER, 210' right of centerline, 687' MSL.

Trees beginning 3492' from DER, 255' left of centerline, up to 698' MSL.

Trees beginning 4123' from DER, 611' left of centerline, up to 700' MSL.

Tree 4453' from DER, 411' left of centerline, 702' MSL.

Tree 4610' from DER, 877' left of centerline, 713' MSL.

Rwy 17, tree 44' from DER, 378' right of centerline, 621' MSL.

Tree, fence beginning 64' from DER, 218' right of centerline, up to 622' MSL.

Tree 148' from DER, 485' left of centerline, 583' MSL.

Tree 164' from DER, 540' left of centerline, 595' MSL.

Trees beginning 275' from DER, 395' right of centerline, up to 643' MSL.

Tree 2311' from DER, 991' left of centerline, 651' MSL.

Tree 2497' from DER, 1103' left of centerline, 671' MSL.

Trees beginning 2515' from DER, 740' left of centerline, up to 672' MSL.

Rwy 22, trees beginning 14' from DER, 350' left of centerline, up to 583' MSL.

Tree, fence beginning 369' from DER, 517' right of centerline, up to 607' MSL.

Trees beginning 516' from DER, 385' right of centerline, up to 621' MSL.

Tree 548' from DER, 485' right of centerline, 622' MSL.

Tree 765' from DER, 407' right of centerline, 643' MSL.

Trees beginning 787' from DER, 180' right of centerline, up to 653' MSL.

Trees beginning 903' from DER, 563' right of centerline, up to 662' MSL.

Trees beginning 1083' from DER, 413' right of centerline, up to 665' MSL.

Tree 1382' from DER, 614' right of centerline, 667' MSL.

Trees beginning 1545' from DER, 624' right of centerline, up to 683' MSL.

Trees beginning 1907' from DER, 763' right of centerline, up to 691' MSL.

Rwy 35, terrain 1' from DER, 101' right of centerline, 583' MSL.

Tree, building, fence beginning 26' from DER, 165' left of centerline, up to 663' MSL.

Terrain 158' from DER, 227' right of centerline, 586' MSL.

Building 450' from DER, 515' right of centerline, 9' AGL/595' MSL.

Tree 519' from DER, 591' right of centerline, 612' MSL.

Tree, road, building beginning 663' from DER, 144' right of centerline, up to 615' MSL.

Tree, building beginning 684' from DER, 224' left of centerline, up to 668' MSL.

Tree, pole, transmission line, building beginning 823' from DER, 15' left of centerline, up to 675' MSL.

Transmission line, pole beginning 934' from DER, 508' right of centerline, up to 38' AGL/627' MSL.

Pole, transmission line beginning 1004' from DER, 379' right of centerline, up to 628' MSL.

Tree, transmission line, pole beginning 1073' from DER, 135' right of centerline, up to 635' MSL.

Tree, pole, transmission line beginning 1083' from DER, 14' right of centerline, up to 636' MSL.

Trees beginning 1149' from DER, 127' right of centerline, up to 641' MSL.

Trees beginning 1215' from DER, 35' right of centerline, up to 658' MSL.

Trees beginning 1362' from DER, 236' right of centerline, up to 663' MSL.

Trees beginning 2148' from DER, 62' right of centerline, up to 668' MSL.

Trees beginning 3337' from DER, 467' right of centerline, up to 678' MSL.

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

DOWAGIAC, MI

DOWAGIAC MUNI (C91)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5A 26MAR20 (20086) (FAA)

TAKEOFF MINIMUMS:

Rwys 4, 22, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 9, building, 258' from DER, 549' right of centerline, 26' AGL/778' MSL.

Multiple poles beginning 372' from DER, 432' right of centerline, up to 42' AGL/795' MSL.

Antenna, 459' from DER, 367' right of centerline, 35' AGL/787' MSL.

Antenna, 615' from DER, 341' right of centerline, 35' AGL/775' MSL.

Multiple poles beginning 654' from DER, 341' left of centerline, up to 48' AGL/779' MSL.

Trees beginning 667' from DER, 21' left of centerline, up to 77' AGL/839' MSL.

Trees beginning 864' from DER, 7' right of centerline, up to 121' AGL/879' MSL.

Rwy 27, trees beginning 21' from DER, 33' right of centerline, up to 93' AGL/828' MSL.

Trees beginning 154' from DER, 112' left of centerline, up to 111' AGL/837' MSL.

DRUMMOND ISLAND, MI

DRUMMOND ISLAND (DRM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 31MAY12 (12152) (FAA)

TAKEOFF MINIMUMS:

Rwys 1,19, NA - environmental.

Rwy 8, 300-1 or std. w/min. climb of 449' per NM to 1000.

TAKEOFF OBSTACLE NOTES:

Rwy 8, fence beginning 72' from DER, left and right of centerline, up to 5' AGL/664' MSL.

Vehicle on road beginning 199' from DER, left and right of centerline, up to 15' AGL/675' MSL.

Buildings beginning 11' from DER, left and right of centerline, up to 20' AGL/679' MSL.

Poles 123' from DER, 182' left of centerline, up to 30' AGL/689' MSL.

Trees beginning 91' from DER, left and right of centerline, up to 100' AGL/860' MSL.

Rwy 26, trees beginning 42' from DER, left and right of centerline, up to 100' AGL/809' MSL.

Buildings beginning 102' from DER, 87' left of centerline, up to 20' AGL/669' MSL.

EAST TAWAS, MI

IOSCO COUNTY (6D9)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 25JUL13 (13206) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 8, trees beginning at DER, 400' left and right of centerline, up to 100' AGL/704' MSL.

Vehicles on roadway 17' from DER, 306' left of centerline, up to 15' AGL/619' MSL.

Train 113' from DER, 510' right of centerline, up to 23' AGL/627' MSL.

Rwy 26, trees beginning at DER, 100' left and right of centerline, up to 100' AGL/714' MSL.

ESCANABA, MI

DELTA COUNTY (ESC)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 03NOV22 (22307) (FAA)

TAKEOFF MINIMUMS:

Rwy 1, 400-2¼ or std. w/min. climb of 220' per NM to 1100, or alternatively, with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1900' prior to DER

TAKEOFF OBSTACLE NOTES:

Rwy 1, vehicle on road beginning 40' from DER, 40' right of centerline, up to 621' MSL.

Tower 1.8 NM from DER, 2363' left of centerline, 293' AGL/915' MSL.

Rwy 10, vehicle on road beginning 1' from DER, 272' right of centerline, up to 607' MSL.

Trees beginning 1760' from DER, 417' right of centerline, up to 642' MSL.

Tree 1859' from DER, 561' right of centerline, 654' MSL.

Trees beginning 1869' from DER, 54' right of centerline, up to 656' MSL.

Tree 2024' from DER, 444' left of centerline, 646' MSL.

Rwy 19, fence beginning 131' from DER, 402' right of centerline, up to 9' AGL/599' MSL.

Pole 247' from DER, 562' right of centerline, 28' AGL/618' MSL.

Tree 321' from DER, 350' left of centerline, 606' MSL.

Trees beginning 367' from DER, 524' right of centerline, up to 646' MSL.

Tree 374' from DER, 454' left of centerline, 643' MSL.

Trees beginning 447' from DER, 383' left of centerline, up to 650' MSL.

Trees beginning 463' from DER, 383' left of centerline, up to 660' MSL.

Trees beginning 543' from DER, 500' right of centerline, up to 652' MSL.

Trees beginning 640' from DER, 19' left of centerline, up to 664' MSL.

Trees beginning 671' from DER, 19' right of centerline, up to 673' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

EC-1

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

FLINT, MI

BISHOP INTL (FNT)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 21FEB02 (02052) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 18, trees 1200' from DER, 500' right of centerline, 65' AGL/863' MSL.

FRANKFORT, MI

FRANKFORT DOW MEML FLD (FKS)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 10MAR11 (21112) (FAA)

TAKEOFF MINIMUMS:

Rwy 15, 400-2¼ or std. w/min. climb of 300' per NM to 1100.

Rwy 33, 500-2¼ or 300-1 w/ min. climb of 600' per NM to 1200.

DEPARTURE PROCEDURE:

Rwy 15, climb heading 143° to 1500 before turning left.

Rwy 33, climb heading 323° to 1200 before turning.

TAKEOFF OBSTACLE NOTES:

Rwy 15, vehicles on roadway, beginning 13' from DER, right and left of centerline, up to 15' AGL/654' MSL.

Trees beginning 33' from DER, 507' right of centerline, 100' AGL/706' MSL.

Trees beginning 345' from DER, 293' left of centerline, 100' AGL/756' MSL.

Trees beginning 1.2 NM from DER, 1030' left of centerline, 100' AGL/969' MSL.

Tree 1.9 NM from DER, 903' right of centerline, 100' AGL/936' MSL.

Tree 2.2 NM from DER, 15' left of centerline, 100' AGL/953' MSL.

Rwy 33, vehicles on roadway, beginning 6' from DER, right and left of centerline, up to 15' AGL/687' MSL.

Trees beginning 316' from DER, 323' right of centerline, 100' AGL/805' MSL.

Trees beginning 470' from DER, 256' left of centerline, 100' AGL/838' MSL.

Trees beginning 2759' from DER, 1219' right of centerline, 100' AGL/1035' MSL.

Tree 1.3 NM from DER, 379' left of centerline, 100' AGL/1002' MSL.

FREMONT, MI

FREMONT MUNI (FFX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 08NOV18 (18312) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 1, lighting 40' from DER, 90' right of centerline, 4' AGL/772' MSL.

Lighting 40' from DER, 89' left of centerline, 4' AGL/772' MSL.

Terrain 78' from DER, 483' left of centerline, 774' MSL.

Transmission line 1154' from DER, 727' left of centerline, 49' AGL/817' MSL.

Tree, catenary, pole, transmission line beginning 1157' from DER, 41' right of centerline, up to 843' MSL.

Tree 1247' from DER, 659' left of centerline, 830' MSL.

Trees beginning 1358' from DER, 493' left of centerline, up to 842' MSL.

Tree 2047' from DER, 970' left of centerline, 843' MSL.

Tree 2632' from DER, 412' right of centerline, 844' MSL.

Rwy 10, lighting 6' from DER, 19' right of centerline, 2' AGL/771' MSL.

Lighting 7' from DER, 19' left of centerline, 2' AGL/771' MSL.

Trees beginning 910' from DER, 399' right of centerline, up to 839' MSL.

Tree 1458' from DER, 485' right of centerline, 841' MSL.

Pole 1486' from DER, 380' right of centerline, 48' AGL/812' MSL.

Trees beginning 2254' from DER, 16' left of centerline, up to 855' MSL.

Tree 2850' from DER, 326' right of centerline, 863' MSL.

Tree 3040' from DER, 225' right of centerline, 867' MSL.

Rwy 19, lighting 39' from DER, 124' right of centerline, 4' AGL/755' MSL.

Lighting 40' from DER, 125' left of centerline, 4' AGL/755' MSL.

Transmission line 1139' from DER, 616' right of centerline, 30' AGL/784' MSL.

Trees beginning 1759' from DER, 878' left of centerline, up to 810' MSL.

Tree 2038' from DER, 318' right of centerline, 806' MSL.

Trees beginning 2107' from DER, 239' right of centerline, up to 813' MSL.

Trees beginning 2175' from DER, 395' right of centerline, up to 814' MSL.

Trees beginning 2184' from DER, 464' right of centerline, up to 822' MSL.

Trees beginning 2399' from DER, 1131' left of centerline, up to 824' MSL.

Rwy 28, tree 742' from DER, 657' left of centerline, 829' MSL.

Trees beginning 951' from DER, 652' left of centerline, up to 838' MSL.

Tree 1798' from DER, 498' right of centerline, 863' MSL.

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

GAYLORD, MI

GAYLORD RGNL (GLR)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 07MAY09 (09127) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 9, trees beginning 917' from DER, 318' right of centerline, up to 57' AGL/1387' MSL.

Trees beginning 918' from DER, 357' left of centerline, up to 79' AGL/1407' MSL.

Ceiling meter 166' from DER, 258' left of centerline, 4' AGL/1334' MSL.

Rwy 18, power line pylon 2125' from DER, 917' right of centerline, 79' AGL/1398' MSL.

Bushes beginning 18' from DER, 255' left of centerline, up to 21' AGL/1338' MSL.

Rwy 27, trees beginning 2870' from DER, 345' right of centerline, up to 83' AGL/1403' MSL.

Tree 2906' from DER, 234' left of centerline, 75' AGL/1395' MSL.

Rwy 36, trees and bush beginning 79' from DER, 191' left of centerline, up to 54' AGL/1374' MSL.

GLADWIN, MI

CHARLES ZETTEL MEML (GDW)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 20OCT11 (21252) (FAA)

TAKEOFF MINIMUMS:

Rwy 27, 400-2 or std. w/min. climb of 341' per NM to 1300.

Rwys 15, 33, NA - Environmental.

DEPARTURE PROCEDURE:

Rwy 27, climb heading 272° to 1500 before turning left.

TAKEOFF OBSTACLE NOTES:

Rwy 9, trees beginning 42' from DER left and right of centerline, up to 82' AGL/850' MSL.

Rwy 27, vehicle on road 108' from DER, across centerline, 15' AGL/789' MSL.

Trees beginning 736' from DER, left and right of centerline, up to 111' AGL/991' MSL.

Tank 5787' from DER, 1118' right of centerline, 170' AGL/996' MSL.

Tower 1.5 NM from DER, 1250' right of centerline, 187' AGL/1080' MSL.

Tower 1.6 NM from DER, 1390' right of centerline, 199' AGL/1118' MSL.

GRAND HAVEN, MI

GRAND HAVEN MEML AIRPARK (3GM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 09FEB12 (21280) (FAA)

TAKEOFF MINIMUMS:

Rwy 27, 300-1¼ or std. w/min. climb of 231' per NM to 900.

TAKEOFF OBSTACLE NOTES:

Rwy 9, trees beginning 23' from DER, left and right of centerline, up to 96' AGL/705' MSL.

Terrain beginning 47' from DER, 322' left of centerline, up to 594' MSL.

Wire 22' from DER, 1064' left of centerline, 22' AGL/620' MSL.

Rwy 18, tree 204' from DER, 553' right of centerline, 69' AGL/678' MSL.

Rwy 27, building 7' from DER, 472' left of centerline, 18' AGL/619' MSL.

Trees beginning 25' from DER, 604' right and left of centerline, up to 112' AGL/746' MSL.

Rwy 36, stack 2732' from DER, 430' left of centerline, 128' AGL/735' MSL.

GRAND LEDGE, MI

ABRAMS MUNI (4D0)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 05APR12 (12096) (FAA)

TAKEOFF MINIMUMS:

Rwys 18, 36, NA - ATC.

Rwy 27, 300-1 or std. w/min. climb of 306' per NM to 1100.

TAKEOFF OBSTACLE NOTES:

Rwy 9, trees beginning 75' from DER, left and right of centerline, up to 114' AGL/954' MSL.

Terrain beginning 82' from DER, 242' right of centerline, up to 852' MSL.

Pole 1433' from DER, 61' left of centerline, 45' AGL/877' MSL.

Navajids beginning 30' from DER, left and right of centerline, up to 2' AGL/841' MSL.

Rwy 27, vehicle on road 59' from DER, 359' right of centerline, 15' AGL/846' MSL.

Fence 70' from DER, 405' left of centerline, 4' AGL/836' MSL.

Navaid 587' from DER, 490' left of centerline, 15' AGL/852' MSL.

Buildings beginning 740' from DER, 326' right of centerline, up to 34' AGL/878' MSL.

Buildings beginning 771' from DER, 555' left of centerline, up to 21' AGL/859' MSL.

Flagpole 819' from DER, 601' right of centerline, 25' AGL/869' MSL.

Trees beginning 827' from DER, left and right of centerline, up to 88' AGL/932' MSL.

Power poles beginning 868' from DER, left and right of centerline, up to 24' AGL/871' MSL.

Tank 4595' from DER, 478' left of centerline, 169' AGL/1004' MSL.

Vertical structure, 4597' from DER, 470' left of centerline, 171' AGL/1006' MSL.

Elevator 4646' from DER, 555' left of centerline, 162' AGL/997' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

GRAND RAPIDS, MI

GERALD R FORD INTL (GRR)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 02JUL09 (09183) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 8L, vehicle on road 20' from DER, 156' left of centerline, 15' AGL/794' MSL.

Trees beginning 1419' from DER, 740' left of centerline, up to 100' AGL/859' MSL.

Rwy 17, trees beginning 1382' from DER, 134' left of centerline, up to 100' AGL/929' MSL.

Trees beginning 1389' from DER, 819' right of centerline, up to 100' AGL/899' MSL.

Rwy 26R, terrain beginning 102' from DER, 381' right of centerline, up to 808' MSL.**Rwy 35**, vehicle on road 742' from DER, 675' left of centerline, up to 15' AGL/804' MSL.

Trees beginning 2002' from DER, 715' left of centerline, up to 100' AGL/869' MSL.

Trees beginning 1339' from DER, 7' right of centerline, up to 100' AGL/879' MSL.

GRAYLING, MI

GRAYLING AAF (GOV)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 03JUN10 (10154) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 5, tree 1192' from DER, 275' right of centerline, 56' AGL/1215' MSL.

Tree 1684' from DER, 600' left of centerline, 56' AGL/1225' MSL.

Rwy 14, tree 435' from DER, 402' right of centerline, 57' AGL/1216' MSL.

Antenna 3937' from DER, 1179' right of centerline, 136' AGL/1279' MSL.

Rwy 23, trees beginning 1438' from DER, 29' right of centerline, up to 100' AGL/1269' MSL.**Rwy 32**, trees beginning 1611' from DER, 50' left of centerline, up to 66' AGL/1216' MSL.

GREENVILLE, MI

GREENVILLE MUNI (6D6)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2B 13SEP18 (18256) (FAA)

TAKEOFF MINIMUMS:

Rwys 18, 36, NA - environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 10, trees 5' from DER, 389' right of centerline, 845' MSL.

Trees beginning 42' from DER, 141' right of centerline, up to 858' MSL.

Trees beginning 128' from DER, 423' left of centerline, up to 870' MSL.

Trees 359' from DER, 588' left of centerline, 895' MSL.

Trees, transmission line and poles beginning 474' from DER, 25' left of centerline, up to 911' MSL.

Trees beginning 760' from DER, 242' right of centerline, up to 907' MSL.

Trees, transmission line and poles beginning 1946' from DER, 5' right of centerline, up to 923' MSL.

Trees beginning 2688' from DER, 93' left of centerline, up to 925' MSL.

Rwy 28, building 34' from DER, 309' right of centerline, 22' AGL/872' MSL.

Trees beginning 87' from DER, 254' left of centerline, up to 897' MSL.

Tree 282' from DER, 534' left of centerline, 907' MSL.

Tree 326' from DER, 507' right of centerline, 879' MSL.

Trees beginning 460' from DER, 392' left of centerline, up to 929' MSL.

Tree 563' from DER, 535' right of centerline, 905' MSL.

Trees beginning 616' from DER, 474' right of centerline, up to 906' MSL.

Trees beginning 621' from DER, 459' left of centerline, up to 937' MSL.

Trees beginning 730' from DER, 456' right of centerline, up to 909' MSL.

Trees beginning 789' from DER, 411' left of centerline, up to 948' MSL.

Tree 995' from DER, 464' right of centerline, 910' MSL.

Trees beginning 1033' from DER, 462' right of centerline, up to 922' MSL.

Trees beginning 1112' from DER, 6' left of centerline, up to 952' MSL.

Trees beginning 1273' from DER, 558' right of centerline, up to 929' MSL.

Trees beginning 1399' from DER, 435' right of centerline, up to 931' MSL.

Tree 1532' from DER, 460' right of centerline, 932' MSL.

Trees beginning 1555' from DER, 400' right of centerline, up to 939' MSL.

Trees beginning 1706' from DER, 26' right of centerline, up to 942' MSL.

Tree 3416' from DER, 249' left of centerline, 954' MSL.

Trees beginning 3552' from DER, 176' left of centerline, up to 958' MSL.

22 FEB 2024 to 21 MAR 2024

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

EC-1

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

HANCOCK, MI

HOUGHTON COUNTY MEML (CMX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3B 30NOV23 (23334) (FAA)

TAKEOFF MINIMUMS:

Rwy 25, 400-2¼ or std w/min climb of 215'/NM to 1600 or alternatively, with std takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1500' prior to DER.

Rwy 32, 300-1½ or std w/min climb of 245'/NM to 1400 or alternatively, with std takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 2200' prior to DER.

TAKEOFF OBSTACLE NOTES:

Rwy 7, utility building 35' from DER, 126' right of centerline, 8' AGL/1077' MSL.

Utility building 35' from DER, 123' left of centerline, 7' AGL/1078' MSL.

Tree 407' from DER, 490' left of centerline, 1091' MSL.

Tree 580' from DER, 507' left of centerline, 1096' MSL.

Trees beginning 678' from DER, 631' left of centerline, up to 1098' MSL.

Tree 998' from DER, 516' left of centerline, 1108' MSL.

Tree 1064' from DER, 753' right of centerline, 1125' MSL.

Trees beginning 1131' from DER, 448' right of centerline, up to 1126' MSL.

Tree 1250' from DER, 699' right of centerline, 1129' MSL.

Trees beginning 1345' from DER, 494' right of centerline, up to 1142' MSL.

Tree 1630' from DER, 236' left of centerline, 1120' MSL.

Tree 1840' from DER, 917' left of centerline, 1137' MSL.

Trees beginning 1929' from DER, 865' left of centerline, up to 1139' MSL.

Tree 2084' from DER, 913' left of centerline, 1141' MSL.

Trees beginning 2178' from DER, 682' left of centerline, up to 1145' MSL.

Rwy 14, lighting 9' from DER, 54' left of centerline, 2' AGL/1062' MSL.

Lighting 9' from DER, 55' right of centerline, 2' AGL/1062' MSL.

Rwy 25, utility building 39' from DER, 124' left of centerline, 3' AGL/1062' MSL.

Utility building 39' from DER, 124' right of centerline, 3' AGL/1063' MSL.

Shrub 41' from DER, 285' right of centerline, 1070' MSL.

Shrubs, terrain beginning 105' from DER, 354' right of centerline, up to 1071' MSL.

Vehicles on road beginning 376' from DER, 441' right of centerline, up to 1081' MSL.

Trees beginning 381' from DER, 80' left of centerline, up to 1112' MSL.

Trees beginning 981' from DER, 430' right of centerline, up to 1089' MSL.

Trees beginning 1180' from DER, 23' right of centerline, up to 1114' MSL.

Tree 1764' from DER, 405' right of centerline, 1118' MSL.

Trees beginning 1985' from DER, 90' right of centerline, up to 1121' MSL.

Tree 2086' from DER, 636' left of centerline, 1113' MSL.

Tree 2147' from DER, 769' right of centerline, 1125' MSL.

Trees beginning 2149' from DER, 900' right of centerline, up to 1127' MSL.

Trees beginning 2192' from DER, 248' left of centerline, up to 1116' MSL.

Tree 2240' from DER, 207' left of centerline, 1117' MSL.

Trees beginning 2261' from DER, 136' left of centerline, up to 1119' MSL.

Tree 2279' from DER, 210' left of centerline, 1126' MSL.

Trees beginning 2302' from DER, 36' left of centerline, up to 1129' MSL.

Trees beginning 2328' from DER, 30' right of centerline, up to 1142' MSL.

Trees beginning 2497' from DER, 58' left of centerline, up to 1137' MSL.

Trees beginning 2533' from DER, 211' left of centerline, up to 1143' MSL.

Trees beginning 2603' from DER, 129' left of centerline, up to 1145' MSL.

Tree 2870' from DER, 73' right of centerline, 1146' MSL.

Trees beginning 2903' from DER, 256' right of centerline, up to 1149' MSL.

Trees beginning 2932' from DER, 332' left of centerline, up to 1153' MSL.

Trees beginning 3001' from DER, 604' right of centerline, up to 1158' MSL.

Tree 3445' from DER, 745' left of centerline, 1156' MSL.

Trees beginning 3475' from DER, 896' right of centerline, up to 1164' MSL.

Trees beginning 3586' from DER, 924' right of centerline, up to 1166' MSL.

Trees beginning 3811' from DER, 419' left of centerline, up to 1160' MSL.

Trees beginning 3838' from DER, 966' right of centerline, up to 1170' MSL.

Trees beginning 3917' from DER, 475' right of centerline, up to 1173' MSL.

Tree 4063' from DER, 1048' right of centerline, 1174' MSL.

Trees beginning 4072' from DER, 356' left of centerline, up to 1164' MSL.

Tree 4074' from DER, 598' right of centerline, 1177' MSL.

Trees beginning 4094' from DER, 279' right of centerline, up to 1180' MSL.

Trees beginning 4137' from DER, 295' left of centerline, up to 1169' MSL.

Tree 4190' from DER, 465' right of centerline, 1182' MSL.

Trees beginning 4191' from DER, 6' right of centerline, up to 1188' MSL.

Trees beginning 4215' from DER, 223' left of centerline, up to 1170' MSL.

Trees beginning 4240' from DER, 204' left of centerline, up to 1173' MSL.

Trees beginning 4280' from DER, 242' left of centerline, up to 1174' MSL.

Trees beginning 4327' from DER, 95' left of centerline, up to 1180' MSL.

Trees beginning 4633' from DER, 51' right of centerline, up to 1193' MSL.

Trees beginning 4728' from DER, 181' left of centerline, up to 1183' MSL.

Trees beginning 4993' from DER, 40' left of centerline, up to 1190' MSL.

Trees beginning 1.1 NM from DER, 1163' left of centerline, up to 1242' MSL.

Trees beginning 1.2 NM from DER, 1060' left of centerline, up to 1259' MSL.

CONT

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

HANCOCK, MI

HOUGHTON COUNTY MEML (CMX)

TAKEOFF OBSTACLE NOTES:

Rwy 25 (CON'T), trees beginning 1.3 NM from DER, 2139' left of centerline, up to 1278' MSL.
Tree 1.4 NM from DER, 2563' left of centerline, 1285' MSL.
Rwy 32, light pole 40' from DER, 149' left of centerline, 9' AGL/1097' MSL.
Light pole 40' from DER, 150' right of centerline, 4' AGL/1097' MSL.
Trees beginning 139' from DER, 489' left of centerline, up to 1108' MSL.
Tree 226' from DER, 511' left of centerline, 1115' MSL.
Trees beginning 294' from DER, 282' left of centerline, up to 1131' MSL.
Tree 1313' from DER, 809' right of centerline, 1137' MSL.
Tree 1465' from DER, 808' right of centerline, 1146' MSL.
Trees beginning 1563' from DER, 304' right of centerline, up to 1151' MSL.
Trees beginning 1742' from DER, 815' right of centerline, up to 1155' MSL.
Trees beginning 1813' from DER, 373' left of centerline, up to 1177' MSL.
Trees beginning 1959' from DER, 120' right of centerline, up to 1177' MSL.
Trees beginning 2241' from DER, 322' right of centerline, up to 1190' MSL.
Trees beginning 2283' from DER, 576' left of centerline, up to 1181' MSL.
Trees beginning 2400' from DER, 382' right of centerline, up to 1192' MSL.
Tree 2535' from DER, 1116' right of centerline, 1193' MSL.
Trees beginning 2617' from DER, 142' right of centerline, up to 1195' MSL.
Trees beginning 3010' from DER, 275' right of centerline, up to 1196' MSL.
Trees beginning 3057' from DER, 195' right of centerline, up to 1203' MSL.
Trees beginning 3097' from DER, 4' right of centerline, up to 1205' MSL.
Tree 3411' from DER, 25' left of centerline, 1186' MSL.
Trees beginning 4129' from DER, 77' right of centerline, up to 1212' MSL.
Tree 4156' from DER, 527' left of centerline, 1202' MSL.
Tree 4503' from DER, 171' right of centerline, 1214' MSL.
Trees beginning 4508' from DER, 93' right of centerline, up to 1220' MSL.
Tree 4514' from DER, 68' left of centerline, 1209' MSL.
Trees beginning 4548' from DER, 48' left of centerline, up to 1212' MSL.
Tree 4904' from DER, 236' left of centerline, 1218' MSL.
Trees beginning 5049' from DER, 344' right of centerline, up to 1223' MSL.
Tree 5172' from DER, 977' right of centerline, 1225' MSL.

HARBOR SPRINGS, MI

HARBOR SPRINGS (MGN)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMD T 3 11OCT18 (18284) (FAA)

TAKEOFF MINIMUMS:

Rwy 28, 300-2 or std. w/ min. climb of 305 feet per NM to 1000, or alternatively, with std. takeoff minimums and a normal 200 feet per NM climb gradient, takeoff must occur no later than 2100 feet prior to DER.

DEPARTURE PROCEDURE:

Rwy 10, climb heading 101° to 1400 before proceeding on course.

Rwy 28, climb heading 281° to 2000 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 10, terrain 20' from DER, 43' left of centerline, 687' MSL.
Tree 39' from DER, 299' right of centerline, 755' MSL.
Tree 69' from DER, 324' left of centerline, 752' MSL.
Tree 78' from DER, 498' right of centerline, 762' MSL.
Trees and pole beginning 108' from DER, 33' right of centerline, up to 83' AGL/766' MSL.
Trees, vehicles on roads, pole, terrain, buildings, and elevator beginning 164' from DER, 5' left of centerline, up to 74' AGL/782' MSL.
Trees, buildings and poles beginning 251' from DER, 34' right of centerline, up to 89' AGL/769' MSL.
Trees and pole beginning 1344' from DER, 37' right of centerline, up to 770' MSL.
Trees beginning 1596' from DER, 21' right of centerline, up to 772' MSL.
Trees beginning 1679' from DER, 10' right of centerline, up to 76' AGL/779' MSL.
Rwy 28, trees and vehicles on roads beginning abeam DER, 2' left of centerline, up to 718' MSL.
Tree and vehicles on road beginning 104' from DER, 52' right of centerline, up to 766' MSL.
Trees and pole beginning 164' from DER, 11' right of centerline, up to 99' AGL/791' MSL.
Trees beginning 600' from DER, 25' left of centerline, up to 113' AGL/727' MSL.
Trees and stack beginning 693' from DER, 26' right of centerline, up to 794' MSL.
Trees beginning 3761' from DER, 1159' right of centerline, up to 800' MSL.
Trees beginning 4723' from DER, 1577' right of centerline, up to 817' MSL.
Trees beginning 4971' from DER, 1545' right of centerline, up to 100' AGL/849' MSL.
Trees beginning 5106' from DER, 1546' right of centerline, up to 870' MSL.
Trees beginning 5854' from DER, 1788' right of centerline, up to 100' AGL/871' MSL.
Tree 1 NM from DER, 2007' right of centerline, 880' MSL.
Trees and buildings beginning 1 NM from DER, 1975' right of centerline, up to 100' AGL/898' MSL.
Trees beginning 1.2 NM from DER, 2286' right of centerline, up to 100' AGL/917' MSL.
Trees beginning 1.4 NM from DER, 2734' right of centerline, up to 917' MSL.
Trees beginning 1.5 NM from DER, 2843' right of centerline, up to 918' MSL.
Trees beginning 1.5 NM from DER, 2904' right of centerline, up to 923' MSL.
Tree 1.5 NM from DER, 3021' right of centerline, 920' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

EC-1

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

HART/SHELBY, MI

OCEANA COUNTY (C04)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 10DEC15 (15344) (FAA)

TAKEOFF MINIMUMS:

Rwy 15, 33, NA-Environmental.

Rwy 9, 300-1 or std. w/min. climb of 265' per NM to 1200.

DEPARTURE PROCEDURE:

Rwy 27, climb heading 268° to 1500 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 9, terrain beginning 74' from DER, 196' right of centerline, up to 908' MSL.

Terrain beginning 54' from DER, 314' left of centerline, up to 904' MSL.

Trees beginning 257' from DER, 41' right of centerline, up to 114' AGL/1056' MSL.

Vehicle on road 787' from DER, 654' left of centerline, 15' AGL/926' MSL.

Trees beginning 895' from DER, 10' left of centerline, up to 100' AGL/1017' MSL.

Transmission line tower 1809' from DER, 400' left of centerline, 41' AGL/958' MSL.

Rwy 27, terrain beginning 10' from DER, 181' right of centerline, up to 970' MSL.

Trees beginning 115' from DER, 455' left of centerline, up to 61' AGL/976' MSL.

Trees beginning 468' from DER, 467' right of centerline, up to 56' AGL/971' MSL.

Vehicles on road beginning 446' from DER, left and right of centerline, up to 15' AGL/939' MSL.

Building 677' from DER, 595' left of centerline, 21' AGL/941' MSL.

Irrigation equipment 1163' from DER, 657' right of centerline, 13' AGL/947' MSL.

Terrain beginning 1876' from DER, 335' left of centerline, up to 974' MSL.

Trees beginning 1992' from DER, 12' left of centerline, up to 93' AGL/1067' MSL.

Trees beginning 2033' from DER, 9' right of centerline, up to 64' AGL/1048' MSL.

Poles and transmission line towers beginning 2323' from DER, 480' right of centerline, up to 60' AGL/1034' MSL.

Trees beginning 4343' from DER, 589' left of centerline, up to 84' AGL/1063' MSL.

HASTINGS, MI

HASTINGS (9D9)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 29MAR18 (18088) (FAA)

TAKEOFF MINIMUMS:

Rwys 9, 18, 27, 36 NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 12, tree 18' from DER, 225' right of centerline, 826' MSL.

Trees 57' from DER, 419' right of centerline, up to 868' MSL.

Trees beginning 2086' from DER, 288' right of centerline, up to 884' MSL.

Trees, and terrain 80' from DER, 269' left of centerline, up to 851' MSL.

Trees, terrain, vegetation beginning 280' from DER, 210' left of centerline, up to 885' MSL.

Rwy 30, trees 170' from DER, 452' left of centerline, up to 829' MSL.

Trees 602' from DER, 365' left of centerline, up to 848' MSL.

Trees beginning 712' from DER, 12' left of centerline, up to 867' MSL.

Traverse way 191' from DER, 491' right of centerline, 810' MSL.

Trees 245' from DER, 484' right of centerline, 851' MSL.

Trees beginning 1477' from DER, 90' right of centerline, up to 869' MSL.

HILLSDALE, MI

HILLSDALE MUNI (JYM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 25JUL13 (13206) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 10, trees beginning 73' from DER 25' right of centerline, up to 110' AGL/1277' MSL.

Tree 1188' from DER, 413' left of centerline, 82' AGL/1261' MSL.

Vehicles on road beginning 1125' from DER, 722' right of centerline, up to 15' AGL/1214' MSL.

Rwy 28, trees beginning 147' from DER, 38' right of centerline, up to 117' AGL/1216' MSL.

Trees beginning 1052' from DER, 575' left of centerline, up to 116' AGL/1275' MSL.

HOLLAND, MI

WEST MICHIGAN RGNL (BIV)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 02JUL09 (09183) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 8, vehicles on road beginning 48' from DER, 500' right of centerline, up to 15' AGL/694' MSL.

Trees beginning 1828' from DER, 829' left of centerline, up to 72' AGL/741' MSL.

Rwy 26, vehicles on road beginning 86' from DER, 517' left of centerline, up to 15' AGL/714' MSL.

Pole 805' from DER, 475' left of centerline, 35' AGL/734' MSL.

Trees 1056' from DER, 468' left of centerline, up to 41' AGL/740' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

HOUGHTON LAKE, MI

ROSCOMMON COUNTY/BLODGETT MEML (HTL)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 25OCT07 (23166) (FAA)

TAKEOFF MINIMUMS:

Rwy 9, 200-1¼, or std. w/min. climb of 237' per NM to 1400.

Rwys 18, 36, NA-ATC.

DEPARTURE PROCEDURE:

Rwy 27, climb heading 274° to 2600 before turning south.

TAKEOFF OBSTACLE NOTES:

Rwy 9, multiple trees beginning 2330' from DER, on centerline, up to 71' AGL/1216' MSL.
Multiple trees beginning 5927' from DER 275' left of centerline, up to 100' AGL/1299' MSL.
Terrain beginning 31' from DER, 215' right of centerline, up to 0' AGL/1165' MSL.
Terrain beginning 43' from DER, 84' left of centerline, up to 0' AGL/1162' MSL.
Rwy 27, multiple trees beginning 791' from DER, on centerline, up to 90' AGL/1239' MSL.
Fence and road beginning 323' from DER, on centerline, up to 15' AGL/1164' MSL.
Terrain beginning 100' from DER, 171' right of centerline, up to 0' AGL/1165' MSL.
Terrain beginning 112' from DER, 128' left of centerline, up to 0' AGL/1162' MSL.

HOWELL, MI

LIVINGSTON COUNTY SPENCER J HARDY (OZW)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3A 24MAY18 (18144) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 13, tree 1776' from DER, 695' right of centerline, 1009' MSL.
Rwy 31, pole 138' from DER, 407' right of centerline, 1004' MSL.
Trees beginning 914' from DER, 725' left of centerline, up to 1006' MSL.
Tree 1234' from DER, 582' left of centerline, 1010' MSL.
Trees beginning 1321' from DER, 647' left of centerline, up to 1012' MSL.

IONIA, MI

IONIA COUNTY (Y70)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-B 02DEC21 (21336) (FAA)

TAKEOFF MINIMUMS:

Rwys 18, 36, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 10, trees beginning 11' from DER, 320' left of centerline, up to 825' MSL.
NAVAID 39' from DER, 77' right of centerline, 804' MSL.
Ground beginning 60' from DER, 276' right of centerline, up to 810' MSL.
Trees beginning 101' from DER, 344' left of centerline, up to 836' MSL.
Ground 258' from DER, 333' right of centerline, 811' MSL.
Trees beginning 664' from DER, 521' right of centerline, up to 872' MSL.
Trees beginning 1011' from DER, 77' right of centerline, up to 881' MSL.
Tree 1530' from DER, 834' left of centerline, 845' MSL.
Trees beginning 1538' from DER, 289' left of centerline, up to 848' MSL.
Tree 1882' from DER, 845' left of centerline, 860' MSL.
Tree 2507' from DER, 302' left of centerline, 870' MSL.
Tree 2509' from DER, 259' left of centerline, 875' MSL.
Trees beginning 2513' from DER, 202' left of centerline, up to 886' MSL.
Trees beginning 2639' from DER, 220' left of centerline, up to 895' MSL.
Tree 3036' from DER, 691' left of centerline, 898' MSL.
Rwy 28, NAVAID 41' from DER, 77' right of centerline, 2' AGL/815' MSL.
Building 473' from DER, 547' right of centerline, 25' AGL/837' MSL.
Poles, building beginning 596' from DER, 513' left of centerline, up to 26' AGL/839' MSL.
Building 780' from DER, 574' right of centerline, 30' AGL/841' MSL.
Pole, transmission line beginning 816' from DER, 680' right of centerline, up to 845' MSL.
Trees, poles, building, transmission lines beginning 890' from DER, 137' left of centerline, up to 888' MSL.
Tree 1025' from DER, 197' right of centerline, 849' MSL.
Trees, pole, transmission line beginning 1027' from DER, 82' right of centerline, up to 851' MSL.
Tree 1608' from DER, 698' right of centerline, 859' MSL.
Trees beginning 1614' from DER, 466' right of centerline, up to 877' MSL.
Trees beginning 1635' from DER, 439' left of centerline, up to 892' MSL.
Tree 3031' from DER, 1294' right of centerline, 891' MSL.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

EC-1

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

IRON MOUNTAIN KINGSFORD, MI

FORD (IMT)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 12MAR09 (23334) (FAA)

TAKEOFF MINIMUMS:

Rwy 13, 300-1 or std. w/ min. climb of 590' per NM to 1400.**Rwy 31**, 300-1¼ or std. w/ min. climb of 260' per NM to 1400.

DEPARTURE PROCEDURE:

Rwy 1, climb heading 010° to 1700 before turning right.**Rwy 13**, climb heading 134° to 1900 before turning left.

TAKEOFF OBSTACLE NOTES:

Rwy 1, trees and bushes beginning 526' from DER, 292' right of centerline, up to 79' AGL/1259' MSL.

Antenna, trees and bushes beginning 378' from DER, 192' left of centerline, up to 76' AGL/1276' MSL.

Rwy 13, tree 1276' from DER, 312' right of centerline, 88' AGL/1188' MSL.

Trees and poles beginning 547' from DER, 100' left of centerline, up to 86' AGL/1306' MSL.

Rwy 19, trees beginning 992' from DER, 245' right of centerline, up to 56' AGL/1192' MSL.

Trees beginning 1229' from DER, 376' left of centerline, up to 48' AGL/1183' MSL.

Rwy 31, trees 1711' from DER, 113' right of centerline, 66' AGL/1186' MSL.

Bush 165' from DER, 161' right of centerline, 11' AGL/1131' MSL.

Trees beginning 66' from DER, 182' left of centerline, up to 95' AGL/1315' MSL.

IRONWOOD, MI

GOGEBIC/IRON COUNTY (IWD)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 07MAY09 (21336) (FAA)

DEPARTURE PROCEDURE:

Rwy 9, climb heading 090° to 2300 before turning right.**Rwy 27**, climb heading 270° to 1700 before turning left.

TAKEOFF OBSTACLE NOTES:

Rwy 9, trees beginning 61' from DER, 544' left of centerline, up to 31' AGL/1244' MSL.

Tree 1853' from DER, 972' left of centerline, 100' AGL/1346' MSL.

Rwy 27, vehicle on road 287' from DER, 2' right of centerline, 15' AGL/1237' MSL.

Tree 1946' from DER, 952' right of centerline, 69' AGL/1283' MSL.

Tree 2817' from DER, 588' left of centerline, 74' AGL/1304' MSL.

JACKSON, MI

JACKSON COUNTY/REYNOLDS FLD (JXN)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 01FEB18 (22251) (FAA)

DEPARTURE PROCEDURE:

Rwy 14, climb on heading 140° to 1500 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 7, tree 3384' from DER, 723' right of centerline, 16' AGL/1094' MSL.**Rwy 14**, building, vertical point, fence, pole, vehicle, light standard beginning 12' from DER, 101' right of centerline, up to 29' AGL/1032' MSL.

Sign 15' from DER, 124' left of centerline, 3' AGL/1001' MSL.

Tree 963' from DER, 102' right of centerline, 1036' MSL.

Tree 1136' from DER, 8' left of centerline, 1034' MSL.

Trees beginning 1436' from DER, 13' right of centerline, up to 1073' MSL.

Trees beginning 1469' from DER, 122' left of centerline, up to 1065' MSL.

Tree 1877' from DER, 143' left of centerline, 1067' MSL.

Tree 1936' from DER, 2' left of centerline, 1082' MSL.

Trees beginning 1972' from DER, 81' left of centerline, up to 1083' MSL.

Tree 1987' from DER, 566' right of centerline, 1075' MSL.

Trees beginning 2109' from DER, 208' left of centerline, up to 1094' MSL.

Trees beginning 2114' from DER, 28' right of centerline, up to 1083' MSL.

Trees beginning 2366' from DER, 477' right of centerline, up to 1088' MSL.

Tree 2522' from DER, 947' right of centerline, 1097' MSL.

Trees beginning 2617' from DER, 472' right of centerline, up to 1099' MSL.

Trees beginning 2656' from DER, 6' right of centerline, up to 1108' MSL.

Tank 2665' from DER, 359' left of centerline, 107' AGL/1107' MSL.

Trees beginning 3009' from DER, 233' right of centerline, up to 1111' MSL.

Antenna, tower beginning 3101' from DER, 596' left of centerline, up to 1111' MSL.

Trees beginning 3368' from DER, 57' right of centerline, up to 1113' MSL.

Trees beginning 3383' from DER, 233' right of centerline, up to 1121' MSL.

Rwy 25, tree, pole beginning 952' from DER, 710' left of centerline, up to 1046' MSL.

Tree 1400' from DER, 814' right of centerline, 1041' MSL.

Pole, tree beginning 1612' from DER, 103' left of centerline, up to 79' AGL/1057' MSL.

Tree 2870' from DER, 312' right of centerline, 1057' MSL.

CON'T

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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JACKSON, MI (CON'T)

JACKSON COUNTY/REYNOLDS FLD (JXN) (CON'T)

Rwy 32, ground 3' from DER, 483' left of centerline, 977' MSL.
 Bush 8' from DER, 144' right of centerline, 975' MSL.
 Bush beginning 44' from DER, 145' right of centerline, up to 978' MSL.
 Tree, bush beginning 73' from DER, 172' right of centerline, up to 991' MSL.
 Tree, fence beginning 168' from DER, 148' left of centerline, up to 1022' MSL.
 Fence beginning 278' from DER, 367' right of centerline, up to 10' AGL/999' MSL.
 Trees beginning 818' from DER, 231' left of centerline, up to 1062' MSL.
 Tree 1117' from DER, 233' right of centerline, 1005' MSL.
 Trees beginning 1214' from DER, 651' right of centerline, up to 1050' MSL.
 Tree, H twr, pole beginning 1413' from DER, 23' right of centerline, up to 1058' MSL.
 Trees beginning 1671' from DER, 863' left of centerline, up to 1068' MSL.
 Trees beginning 1841' from DER, 224' left of centerline, up to 1071' MSL.
 Tree 2875' from DER, 1128' left of centerline, 1081' MSL.
 Trees beginning 2876' from DER, 829' left of centerline, up to 1094' MSL.
 Tree 3126' from DER, 207' right of centerline, 1061' MSL.
 Tree 3274' from DER, 1241' left of centerline, 1098' MSL.
 Trees beginning 3285' from DER, 37' left of centerline, up to 1104' MSL.
 Tree 3628' from DER, 58' right of centerline, 1065' MSL.
 Trees beginning 3777' from DER, 78' right of centerline, up to 1085' MSL.
 Tree 3900' from DER, 45' right of centerline, 1087' MSL.

KALAMAZOO, MI

KALAMAZOO/BATTLE CREEK INTL (AZO)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 9 30AUG07 (07242) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 5, light pole 908' from DER, 511' left of centerline, 25' AGL/879' MSL.
 Multiple trees beginning 1433' from DER, 90' left of centerline, up to 65' AGL/914' MSL.
 Multiple towers beginning 2399' from DER, 331' right of centerline, up to 119' AGL/970' MSL.
 Multiple trees beginning 156' from DER, 163' right of centerline, up to 78' AGL/917' MSL.
Rwy 9, multiple trees beginning 588' from DER, on centerline, up to 104' AGL/958' MSL.
 Antenna 2187' from DER, 222' right of centerline, 69' AGL/928' MSL.
 Tree 677' from DER, 214' right of centerline, 45' AGL/899' MSL.
Rwy 17, railroad 587' from DER, 613' left of centerline, 17' AGL/885' MSL.
 Tree 691' from DER, 583' right of centerline, 57' AGL/894' MSL.
Rwy 23, multiple trees beginning 937' from DER, 50' left of centerline, up to 72' AGL/956' MSL.
 Multiple poles and hangar beginning 22' from DER, 331' right of centerline, up to 24' AGL/905' MSL.
 Multiple trees beginning 943' from DER, 144' right of centerline, up to 107' AGL/986' MSL.
Rwy 27, road 543' from DER, on centerline, 15' AGL/890' MSL.
 Multiple trees beginning 414' from DER, 292' left of centerline, up to 23' AGL/972' MSL.
 Multiple light poles and towers beginning 521' from DER, 18' right of centerline, up to 180' AGL/1015' MSL.
 Multiple trees beginning 1012' from DER, 23' right of centerline, up to 75' AGL/969' MSL.
Rwy 35, multiple trees beginning 2319' from DER, 163' left of centerline, up to 75' AGL/934' MSL.
 Multiple trees beginning 1961' from DER, 753' right of centerline, up to 77' AGL/936' MSL.

LAKEVIEW, MI

LAKEVIEW/GRIFFITH FLD (13C)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 08OCT98 (22139) (FAA)

TAKEOFF MINIMUMS:

Rwy 28, 300-1 or std. w/min. climb of 400' per NM to 1200.

TAKEOFF OBSTACLE NOTES:

Rwy 10, 1018' tree 50' from DER, 490' right of centerline.

LAMBERTVILLE, MI

TOLEDO SUBURBAN (DUH)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 25DEC80 (80360) (FAA)

TAKEOFF MINIMUMS:

Rwys 9, 27, 300-1.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

LANSING, MI

CAPITAL REGION INTL (LAN)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 14 13NOV14 (14317) (FAA)

DEPARTURE PROCEDURE:

Rwys 6, 10L, 10R, climb runway heading to 2000 before turning south.

Rwys 6, 24, 28L, 28R, climb runway heading to 1500 before turning southeast.

TAKEOFF OBSTACLE NOTES:

Rwy 6, trees beginning 1441' from DER, 321' left of centerline, up to 102' AGL/942' MSL.

Trees beginning 2536' from DER, 7' right of centerline, up to 107' AGL/947' MSL.

Trees beginning 2711' from DER, 126' left of centerline, up to 107' AGL/956' MSL.

Rwy 10L, tree 350' from DER, 394' left of centerline, 86' AGL/916' MSL.

Fence 525' from DER, 148' right of centerline, 17' AGL/864' MSL.

Trees beginning 883' from DER, 198' left of centerline, up to 90' AGL/920' MSL.

Trees beginning 1698' from DER, 368' right of centerline, up to 104' AGL/934' MSL.

Rwy 10R, pole 111' from DER, 290' right of centerline, 41' AGL/871' MSL.

MALSRS 155' from DER, 4' right of centerline, 18' AGL/866' MSL.

Pole 575' from DER, 290' right of centerline, 35' AGL/865' MSL.

Trees beginning 700' from DER, 551' right centerline, up to 84' AGL/924' MSL.

Trees beginning 1077' from DER, 599' left of centerline, up to 98' AGL/928' MSL.

Trees beginning 1831' from DER, left and right of centerline, up to 93' AGL/956' MSL.

Rwy 24, trees beginning 549' from DER, 114' left of centerline, up to 68' AGL/918' MSL.

Poles beginning 830' from DER, 358' left of centerline, up to 41' AGL/893' MSL.

Trees beginning 1107' from DER, 81' right of centerline, up to 89' AGL/919' MSL.

Trees beginning 1271' from DER, 386' left of centerline, up to 104' AGL/937' MSL.

Rwy 28L, trees beginning 1690' from DER, 862' right of centerline, up to 83' AGL/923' MSL.

Trees beginning 1782' from DER, 786' left of centerline, up to 100' AGL/959' MSL.

Rwy 28R, rod on ASR 987' from DER, 516' right of centerline, 104' AGL/954' MSL.

Trees beginning 1853' from DER, 902' right of centerline, up to 100' AGL/939' MSL.

Tree 2209' from DER, 221' left of centerline, 79' AGL/919' MSL.

LAPEER, MI

DUPONT/LAPEER (D95)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3B 22APR21 (22139) (FAA)

TAKEOFF MINIMUMS:

Rwys 9, 27, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 18, terrain, NAVAID beginning 13' from DER, 77' left of centerline, up to 831' MSL.

NAVAID 41' from DER, 77' right of centerline, 1' AGL/831' MSL.

Terrain 83' from DER, 356' left of centerline, 832' MSL.

Tree, catenary beginning 252' from DER, 27' right of centerline, up to 853' MSL.

Tree, catenary beginning 707' from DER, 10' left of centerline, up to 853' MSL.

Pole 744' from DER, 179' right of centerline, 855' MSL.

Transmission line, catenary, NAVAID beginning 744' from DER, 26' right of centerline, up to 26' AGL/856' MSL.

Pole, transmission line, catenary, NAVAID beginning 747' from DER, 11' left of centerline, up to 856' MSL.

Tree, pole beginning 772' from DER, 85' right of centerline, up to 884' MSL.

Tree, pole, transmission line beginning 858' from DER, 260' right of centerline, up to 891' MSL.

Tree 920' from DER, 244' left of centerline, 859' MSL.

Tree, pole, transmission line beginning 931' from DER, 232' left of centerline, up to 862' MSL.

Pole, transmission line, tree beginning 956' from DER, 253' left of centerline, up to 863' MSL.

Tree, pole, transmission line beginning 1059' from DER, 257' left of centerline, up to 888' MSL.

Trees beginning 1377' from DER, 818' left of centerline, up to 908' MSL.

Tree 1488' from DER, 890' right of centerline, 896' MSL.

Tree 1587' from DER, 693' right of centerline, 905' MSL.

Trees beginning 1711' from DER, 718' right of centerline, up to 909' MSL.

Trees beginning 1842' from DER, 694' left of centerline, up to 921' MSL.

Tree 2571' from DER, 1100' right of centerline, 943' MSL.

Trees beginning 2620' from DER, 577' right of centerline, up to 944' MSL.

Trees beginning 2704' from DER, 637' left of centerline, up to 930' MSL.

Trees beginning 3750' from DER, 856' right of centerline, up to 945' MSL.

Rwy 36, terrain, NAVAID beginning 31' from DER, 76' left of centerline, up to 836' MSL.

NAVAID 41' from DER, 77' right of centerline, 836' MSL.

Tree, terrain beginning 44' from DER, 287' left of centerline, up to 909' MSL.

Tree 237' from DER, 488' left of centerline, 911' MSL.

Building beginning 294' from DER, 520' right of centerline, up to 27' AGL/859' MSL.

Tree, pole, transmission line, vehicle on road beginning 379' from DER, 13' left of centerline, up to 914' MSL.

Tree, transmission line, tank beginning 579' from DER, 347' right of centerline, up to 891' MSL.

Tree 1999' from DER, 279' left of centerline, 917' MSL.

Tree 2020' from DER, 40' right of centerline, 905' MSL.

Trees beginning 2035' from DER, 50' left of centerline, up to 99' AGL/919' MSL.

Trees beginning 2201' from DER, 114' left of centerline, up to 920' MSL.

Trees beginning 2236' from DER, 48' right of centerline, up to 911' MSL.

CONT

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

LAPEER, MI (CON'T)

DUPONT/LAPEER (D95) (CON'T)

- Rwy 36 (CON'T)**, trees beginning 2327' from DER, 56' left of centerline, up to 921' MSL.
Trees beginning 2473' from DER, 191' left of centerline, up to 107' AGL/923' MSL.
Trees beginning 2541' from DER, 46' right of centerline, up to 913' MSL.
Tree 3176' from DER, 542' left of centerline, 924' MSL.
Tree 3241' from DER, 742' left of centerline, 926' MSL.

LINDEN, MI

PRICES (9G2)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 12DEC13 (13346) (FAA)

TAKEOFF OBSTACLE NOTES:

- Rwy 9**, trees beginning 446' from DER, left and right of centerline, up to 100' AGL/1009' MSL.
Rwy 27, trees beginning 18' from DER, 103' left of centerline, up to 100' AGL/1019' MSL.
Trees beginning 30' from DER, 204' right of centerline, up to 100' AGL/1009' MSL.

LUDINGTON, MI

MASON COUNTY (LDM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7 19MAY22 (22139) (FAA)

TAKEOFF MINIMUMS:

- Rwy 26**, 300-1 or std. w/min. climb of 480' per NM to 1000.

TAKEOFF OBSTACLE NOTES:

- Rwy 1**, trees beginning 1' from DER, 312' left of centerline, up to 77' AGL/715' MSL.
Trees beginning 128' from DER, 185' left of centerline, up to 100' AGL/747' MSL.
Tree, beginning 140' from DER, 7' right of centerline, up to 100' AGL/740' MSL.
Tree, beginning 729' from DER, 1' left of centerline, up to 100' AGL/750' MSL.
Trees 4988' from DER, 1017' right of centerline, 122' AGL/776' MSL.
Rwy 19, trees, beginning at DER, 139' left of centerline, up to 100' AGL/744' MSL.
Trees, transmission line, tower beginning 6' from DER, 1' right of centerline, up to 100' AGL/744' MSL.
Trees, pole, beginning 303' from DER, 7' left of centerline, up to 100' AGL/747' MSL.
Trees beginning 3915' from DER, 1130' left of centerline, up to 100' AGL/750' MSL.
Rwy 8, lighting 40' from DER, 112' right of centerline, 5' AGL/649' MSL.
Fence 91' from DER, 497' right of centerline, 7' AGL/653' MSL.
Trees 368' from DER, 584' left of centerline, 60' AGL/706' MSL.
Trees 375' from DER, 574' right of centerline, 30' AGL/673' MSL.
Trees beginning 418' from DER, 574' left of centerline, up to 67' AGL/712' MSL.
Trees beginning 582' from DER, 596' right of centerline, up to 68' AGL/712' MSL.
Trees, pole beginning 896' from DER, 294' right of centerline, up to 81' AGL/724' MSL.
Tree 954' from DER, 582' left of centerline, 76' AGL/724' MSL.
Trees beginning 978' from DER, 595' left of centerline, up to 80' AGL/728' MSL.
Trees beginning 1343' from DER, 594' left of centerline, up to 80' AGL/729' MSL.
Trees beginning 1426' from DER, 1' left of centerline, up to 87' AGL/736' MSL.
Trees beginning 1712' from DER, 279' right of centerline, up to 78' AGL/725' MSL.
Trees beginning 1807' from DER, 2' right of centerline, up to 78' AGL/726' MSL.
Trees beginning 2333' from DER, 3' right of centerline, up to 79' AGL/727' MSL.
Trees beginning 2469' from DER, 17' right of centerline, up to 80' AGL/730' MSL.
Trees beginning 2518' from DER, 7' left of centerline, up to 90' AGL/738' MSL.
Trees beginning 2706' from DER, 16' right of centerline, up to 83' AGL/732' MSL.
Trees beginning 2824' from DER, 11' right of centerline, up to 88' AGL/737' MSL.
Trees beginning 2852' from DER, 11' left of centerline, up to 90' AGL/739' MSL.
Trees beginning 3047' from DER, 142' right of centerline, up to 83' AGL/738' MSL.
Trees beginning 3072' from DER, 86' right of centerline, up to 90' AGL/741' MSL.
Rwy 26, trees, terrain, roadway, fence, transmission line beginning 142' from DER, 267' right of centerline, up to 66' AGL/706' MSL.
Trees, building beginning 415' from DER, 129' right of centerline, up to 75' AGL/718' MSL.
Trees, transmission line beginning 957' from DER, 543' left of centerline, up to 62' AGL/699' MSL.
Tree 1922' from DER, 80' left of centerline, 712' MSL.
Trees beginning 1927' from DER, 598' right of centerline, up to 89' AGL/725' MSL.
Trees beginning 2023' from DER, 293' right of centerline, up to 98' AGL/734' MSL.
Tree 2160' from DER, 148' left of centerline, 716' MSL.
Tree 2184' from DER, 279' left of centerline, 717' MSL.
Trees beginning 2220' from DER, 195' right of centerline, up to 93' AGL/737' MSL.
Tree 2952' from DER, 1054' right of centerline, 105' AGL/740' MSL.
Trees, building beginning 3036' from DER, 937' right of centerline, up to 94' AGL/742' MSL.
Tower 3990' from DER, 1348' left of centerline, 169' AGL/799' MSL.

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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MACKINAC ISLAND, MI

MACKINAC ISLAND (MCD)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 23AUG12 (12236) (FAA)

TAKEOFF MINIMUMS:

Rwy 8, 300-1 or std. w/min. climb of 608' per NM to 1000.

TAKEOFF OBSTACLE NOTES:

Rwy 8, trees and building beginning 69' from DER, 16' left of centerline, up to 100' AGL/841' MSL.

Trees beginning 34' from DER, 34' right of centerline, up to 100' AGL/896' MSL.

Fence 49' from DER, 295' right of centerline, 8' AGL/741' MSL.

Vehicle on road 525' from DER, 610' right of centerline, 15' AGL/774' MSL.

Rwy 26, trees beginning 8' from DER, 193' left of centerline, up to 100' AGL/829' MSL.

Vehicle on road 36' from DER, 334' left of centerline, 15' AGL/744' MSL.

Trees beginning at DER, 196' right of centerline, up to 100' AGL/829' MSL.

Fence 53' from DER, 202' right of centerline, 8' AGL/727' MSL.

Building 129' from DER, 498' right of centerline, 28' AGL/747' MSL.

Vehicle on road 354' from DER, 20' right of centerline, 15' AGL/734' MSL.

MANISTEE, MI

MANISTEE COUNTY/BLACKER (MBL)

TAKEOFF MINIMUM AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 8 18MAY23 (23138) (FAA)

TAKEOFF MINIMUMS:

Rwy 1, 300-1% or std. w/min. climb of 445' per NM to 900.

DEPARTURE PROCEDURE:

Rwy 1, climb on heading 007° to 1400 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 1, vehicles on road 192' from DER, 491' right of centerline, 634' MSL.

Tree, vehicles on road beginning 383' from DER, 158' right of centerline, up to 658' MSL.

Tree 1000' from DER, 624' left of centerline, 672' MSL.

Trees beginning 1077' from DER, 21' right of centerline, up to 681' MSL.

Tree 1077' from DER, 754' left of centerline, 673' MSL.

Trees beginning 1096' from DER, 127' left of centerline, up to 691' MSL.

Tree 1645' from DER, 274' right of centerline, 684' MSL.

Trees beginning 2276' from DER, 798' right of centerline, up to 739' MSL.

Trees beginning 2346' from DER, 654' right of centerline, up to 756' MSL.

Tree 2420' from DER, 803' right of centerline, 760' MSL.

Tree, building beginning 2426' from DER, 37' right of centerline, up to 769' MSL.

Trees beginning 2553' from DER, 933' left of centerline, up to 760' MSL.

Trees beginning 2608' from DER, 1030' left of centerline, up to 766' MSL.

Trees beginning 2762' from DER, 1075' left of centerline, up to 771' MSL.

Tree 2911' from DER, 1244' left of centerline, 772' MSL.

Tree 3559' from DER, 884' left of centerline, 791' MSL.

Trees beginning 3562' from DER, 664' left of centerline, up to 793' MSL.

Tree 3638' from DER, 708' left of centerline, 794' MSL.

Trees beginning 3639' from DER, 487' left of centerline, up to 797' MSL.

Trees beginning 3824' from DER, 389' left of centerline, up to 811' MSL.

Trees 1 NM from DER, 2167' right of centerline, 794' MSL.

Trees beginning 1 NM from DER, 1940' left of centerline, up to 814' MSL.

Trees beginning 1.1 NM from DER, 1915' left of centerline, up to 821' MSL.

Trees 1.1 NM from DER, 2221' right of centerline, 809' MSL.

Tree 1.3 NM from DER, 751' right of centerline, 829' MSL.

Rwy 10, vehicles on road, vegetation beginning 101' from DER, 344' left of centerline, up to 636' MSL.

Tree 2679' from DER, 333' left of centerline, 693' MSL.

Trees beginning 2816' from DER, 299' left of centerline, up to 698' MSL.

Tree 3326' from DER, 1147' left of centerline, 712' MSL.

Rwy 19, trees beginning 9' from DER, 262' left of centerline, up to 653' MSL.

Trees beginning 79' from DER, 358' left of centerline, up to 659' MSL.

Tree 94' from DER, 301' right of centerline, 634' MSL.

Tree 103' from DER, 430' right of centerline, 653' MSL.

Tree 125' from DER, 462' left of centerline, 664' MSL.

Tree, vegetation beginning 152' from DER, 122' left of centerline, up to 667' MSL.

Trees beginning 171' from DER, 160' right of centerline, up to 656' MSL.

Trees beginning 258' from DER, 3' left of centerline, up to 678' MSL.

Trees beginning 346' from DER, 289' right of centerline, up to 666' MSL.

Tree 437' from DER, 553' right of centerline, 669' MSL.

Trees beginning 458' from DER, 99' right of centerline, up to 673' MSL.

Trees beginning 1004' from DER, 365' right of centerline, up to 675' MSL.

Trees beginning 4896' from DER, 1182' left of centerline, up to 769' MSL.

CON'T

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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MANISTEE, MI (CON'T)

MANISTEE COUNTY/BLACKER (MBL) (CON'T)

Rwy 28, tree 20' from DER, 497' left of centerline, 620' MSL.
Sign 27' from DER, 343' right of centerline, 7' AGL/622' MSL.
Vehicles on road 146' from DER, 357' right of centerline, 630' MSL.
Tree 611' from DER, 595' left of centerline, 641' MSL.
Tree 1009' from DER, 478' left of centerline, 653' MSL.
Tree 1276' from DER, 354' left of centerline, 655' MSL.
Trees beginning 1327' from DER, 203' left of centerline, up to 667' MSL.
Tree 1885' from DER, 324' left of centerline, 668' MSL.
Tree 1972' from DER, 86' left of centerline, 671' MSL.
Trees beginning 2002' from DER, 65' left of centerline, up to 672' MSL.
Tree 2195' from DER, 61' right of centerline, 676' MSL.
Tree 2276' from DER, 125' right of centerline, 677' MSL.
Tree 2341' from DER, 111' right of centerline, 679' MSL.
Tree 2362' from DER, 151' left of centerline, 682' MSL.
Tree 2375' from DER, 23' right of centerline, 681' MSL.
Tree 2390' from DER, 229' left of centerline, 684' MSL.
Trees beginning 2462' from DER, 126' left of centerline, up to 687' MSL.
Trees beginning 2563' from DER, 176' left of centerline, up to 697' MSL.

MANISTIQUE, MI

SCHOOLCRAFT COUNTY (ISQ)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 15DEC11 (11349) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 1, trees beginning 511' from DER, 54' left of centerline, up to 100' AGL/779' MSL.
Trees beginning 753' from DER, 372' right of centerline, up to 100' AGL/779' MSL.
Vehicle on road beginning 360' from DER, 587' right of centerline, up to 15' AGL/694' MSL.
Power line beginning 446' from DER, 611' right of centerline, up to 30' AGL/709' MSL.
Transmission lines beginning 4758' from DER, left and right of centerline, up to 114' AGL/803' MSL.
Rwy 10, trees beginning 92' from DER, 263' right of centerline, up to 100' AGL/769' MSL.
Trees beginning 30' from DER, 165' left of centerline, up to 100' AGL/769' MSL.
Trees beginning 1131' from DER, left and right of centerline, up to 100' AGL/769' MSL.
Rwy 19, trees beginning 50' from DER, left and right of centerline, up to 100' AGL/779' MSL.
Vehicle on road beginning abeam DER, 506' left of centerline, up to 15' AGL/694' MSL.
Aircraft tail on taxiway abeam DER, 127' right of centerline, up to 19' AGL/698' MSL.
Hangar 380' from DER, 540' right of centerline, 20' AGL/699' MSL.
Buildings beginning 474' from DER, 220' left of centerline, up to 20' AGL/699' MSL.
Vehicle on road 658' from DER, left and right of centerline, up to 15' AGL/694' MSL.
Power lines 707' from DER, left and right of centerline, up to 30' AGL/709' MSL.
Billboards and buildings beginning 744' from DER, left and right of centerline, up to 20' AGL/699' MSL.
Drive-in theater beginning 857' from DER, 510' right of centerline, up to 100' AGL/779' MSL.
Rwy 28, trees beginning 41' from DER, 376' right of centerline, up to 100' AGL/784' MSL.
Poles beginning 1174' from DER, 488' left of centerline, up to 82' AGL/761' MSL.
Trees beginning 1254' from DER, 159' left of centerline, up to 100' AGL/779' MSL.
Transmission lines beginning 4321' from DER, left and right of centerline, up to 112' AGL/796' MSL.

MARLETTE, MI

MARLETTE TOWNSHIP (77G)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 24MAR22 (22083) (FAA)

TAKEOFF MINIMUMS:

Rwys 10, 28, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 1, trees beginning 8' from DER, 168' right of centerline, up to 908' MSL.
Terrain and trees beginning 11' from DER, 250' left of centerline, up to 901' MSL.
Tree 30' from DER, 344' left of centerline, 5' AGL/904' MSL.
Terrain beginning 49' from DER, 305' left of centerline, up to 905' MSL.
Trees beginning 84' from DER, 247' right of centerline, up to 63' AGL/934' MSL.
Terrain and trees beginning 111' from DER, 193' left of centerline, up to 907' MSL.
Tree 191' from DER, 389' right of centerline, 939' MSL.
Trees beginning 222' from DER, 14' right of centerline, up to 80' AGL/948' MSL.
Trees beginning 321' from DER, 1' left of centerline, up to 953' MSL.
Rwy 19, lighting 10' from DER, 47' left of centerline, 2' AGL/872' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

MARQUETTE, MI

MARQUETTE/SAWYER RGNL (SAW)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 11OCT18 (23166) (FAA)

TAKEOFF OBSTACLE NOTES:

- Rwy 1**, sign 15' from DER, 100' right of centerline, 3' AGL/1206' MSL.
- Sign 113' from DER, 125' left of centerline, 4' AGL/1208' MSL.
- Tree 4078' from DER, 1540' left of centerline, 1326' MSL.
- Trees beginning 4347' from DER, 1598' left of centerline, up to 1339' MSL.
- Rwy 19**, lighting 9' from DER, 55' right of centerline, 2' AGL/1180' MSL.
- Lighting 10' from DER, 55' left of centerline, 2' AGL/1180' MSL.

MARSHALL, MI

BROOKS FLD (RMY)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 02MAY13 (21308) (FAA)

TAKEOFF OBSTACLE NOTES:

- Rwy 10**, trees beginning 31' from DER, 37' right of centerline, up to 100' AGL/1012' MSL.
- Trees beginning 168' from DER, 15' left of centerline, up to 100' AGL/1035' MSL.
- Fence beginning 211' from DER, 457' right of centerline, up to 13' AGL/953' MSL.
- Rwy 28**, vehicles on roadway 535' from DER, left and right of centerline, up to 15' AGL/954' MSL.
- Trees beginning 1222' from DER, 572' right of centerline, up to 100' AGL/1039' MSL.
- Trees beginning 1665' from DER, 408' left of centerline, up to 100' AGL/1039' MSL.

MASON, MI

MASON JEWETT FLD (TEW)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2A 03JUN10 (22083) (FAA)

TAKEOFF OBSTACLE NOTES:

- Rwy 10**, trees, pole, and vehicle on road beginning 109' from DER, 57' right of centerline, up to 100' AGL/1023' MSL.
- Poles and vehicles on road 276' from DER, 245' left of centerline, up to 35' AGL/944' MSL.

MENOMINEE, MI

MENOMINEE RGNL (MNM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3A 19JUL18 (18200) (FAA)

TAKEOFF OBSTACLE NOTES:

- Rwy 3**, tree and bushes beginning 155' from DER, 488' left of centerline, up to 634' MSL.
- Trees beginning 714' from DER, 459' left of centerline, up to 641' MSL.
- Trees beginning 1064' from DER, 226' right of centerline, up to 651' MSL.
- Rwy 14**, vehicle on road, tree, power lines, and building beginning 379' from DER, 156' right of centerline, up to 619' MSL.
- Power lines, vehicle on road, and trees beginning 403' from DER, 3' left of centerline, up to 33' AGL/635' MSL.
- Trees, building, and power lines beginning 879' from DER, 4' right of centerline, up to 665' MSL.
- Trees and power lines beginning 1061' from DER, 24' left of centerline, up to 654' MSL.
- Trees beginning 1874' from DER, 86' left of centerline, up to 687' MSL.
- Buildings beginning 5170' from DER, 1006' left of centerline, up to 135' AGL/735' MSL.
- Rwy 21**, NAVAID 15' from DER, 59' right of centerline, 1 foot AGL/615' MSL.
- Trees beginning 581' from DER, 596' left of centerline, up to 645' MSL.
- Tree 944' from DER, 751' right of centerline, 648' MSL.
- Trees beginning 1403' from DER, 599' left of centerline, up to 666' MSL.
- Trees beginning 1456' from DER, 700' right of centerline, up to 672' MSL.
- Trees beginning 2007' from DER, 497' left of centerline, up to 677' MSL.
- Rwy 32**, trees and building beginning 1 foot from DER, 305' left of centerline, up to 683' MSL.
- Fence and utilities beginning 178' from DER, 498' right of centerline, up to 6' AGL/626' MSL.
- Trees beginning 354' from DER, 276' left of centerline, up to 691' MSL.
- Trees beginning 615' from DER, 8' right of centerline, up to 682' MSL.
- Trees and power lines beginning 702' from DER, 11' left of centerline, up to 694' MSL.
- Trees beginning 1800' from DER, 58' right of centerline, up to 695' MSL.
- Trees beginning 3194' from DER, 92' left of centerline, up to 711' MSL.
- Trees beginning 3544' from DER, 154' right of centerline, up to 712' MSL.

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24025

MIDLAND, MI

JACK BARSTOW (IKW)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 02JUL09 (09183) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 6, trees beginning 56' from DER, 493' right of centerline, up to 25' AGL/655' MSL.

Trees beginning 920' from DER, 47' left of centerline, up to 20' AGL/660' MSL.

Trees beginning 1144' from DER, from right to left of centerline, up to 100' AGL/754' MSL.

Pole 1495' from DER, 331' right of centerline, 37' AGL/672' MSL.

Rwy 18, trees beginning 339' from DER, 279' left of centerline, up to 100' AGL/729' MSL.

Trees beginning 358' from DER, 306' right of centerline, up to 100' AGL/724' MSL.

Rwy 24, vehicles on road beginning 225' from DER, from right to left of centerline, up to 15' AGL/634' MSL.

Trees beginning 510' from DER, 103' right of centerline, up to 100' AGL/710' MSL.

Trees beginning 787' from DER, 152' left of centerline, up to 100' AGL/709' MSL.

Rwy 36, trees beginning 105' from DER, 200' right of centerline, up to 100' AGL/744' MSL.

Trees beginning 147' from DER, 242' left of centerline, up to 100' AGL/729' MSL.

MONROE, MI

CUSTER (TTF)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6A 24MAY18 (18144)

TAKEOFF OBSTACLE NOTES:

Rwy 21, tree 80' from DER, 229' right of centerline, 627' MSL.

Pole 242' from DER, 379' left of centerline, 25' AGL/634' MSL.

Trees beginning 385' from DER, 193' right of centerline, up to 641' MSL.

Pole, transmission lines beginning 405' from DER, 505' left of centerline, up to 647' MSL.

Tree 418' from DER, 391' left of centerline, 652' MSL.

Pole 980' from DER, 703' left of centerline, 64' AGL/673' MSL.

Pole, trees beginning 982' from DER, 217' left of centerline, up to 64' AGL/674' MSL.

Trees beginning 1811' from DER, 9' right of centerline, up to 700' MSL.

Tree 2299' from DER, 798' left of centerline, 704' MSL.

Trees beginning 2359' from DER, 536' left of centerline, up to 707' MSL.

Tree 2747' from DER, 969' right of centerline, 733' MSL.

Trees beginning 2765' from DER, 440' right of centerline, up to 736' MSL.

MOUNT PLEASANT, MI

MOUNT PLEASANT MUNI (MOP)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 08SEP22 (22251) (FAA)

TAKEOFF MINIMUMS:

Rwys 5, 23, NA-Environmental.

DEPARTURE PROCEDURE:

Rwy 27, climb on heading 276° to 1600 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 9, trees beginning 32' from DER, 474' left of centerline, up to 806' MSL.

Transmission lines beginning 668' from DER, 663' right of centerline, up to 29' AGL/778' MSL.

Rwy 27, tree 1069' from DER, 247' left of centerline, 790' MSL.

Tree, transmission lines, pole beginning 1145' from DER, 270' left of centerline, up to 800' MSL.

Transmission line 1223' from DER, 72' right of centerline, 26' AGL/785' MSL.

Transmission line 1233' from DER, 374' right of centerline, 29' AGL/789' MSL.

Tree 1350' from DER, 722' right of centerline, 828' MSL.

Trees beginning 1686' from DER, 312' left of centerline, up to 828' MSL.

Trees beginning 1721' from DER, 155' right of centerline, up to 850' MSL.

Trees beginning 2070' from DER, 237' left of centerline, up to 836' MSL.

Trees beginning 2105' from DER, 21' right of centerline, up to 855' MSL.

Trees beginning 2349' from DER, 34' left of centerline, up to 861' MSL.

Trees beginning 3544' from DER, 158' left of centerline, up to 863' MSL.

Pole 3785' from DER, 1215' right of centerline, 85' AGL/857' MSL.

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MUSKEGON, MI

MUSKEGON COUNTY (MKG)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 10 15JAN09 (09015) (FAA)

TAKEOFF OBSTACLE NOTES:

- Rwy 6**, tree 1700' from DER, 600' right of centerline, 25' AGL/672' MSL.
Multiple trees beginning 1980' from DER, 300' left of centerline, up to 75' AGL/709' MSL.
- Rwy 14**, pole 1040' from DER, 700' left of centerline, 25' AGL/655' MSL.
Multiple poles beginning 1500' from DER, 880' right of centerline, up to 50' AGL/677' MSL.
Tree 1900' from DER, 940' left of centerline, 79' AGL/709' MSL.
- Rwy 24**, bush 124' from DER, 480' left of centerline, 19' AGL/630' MSL.
Tree 500' from DER, 300' right of centerline, 42' AGL/649' MSL.
Tree 1210' from DER, 450' left of centerline, 42' AGL/653' MSL.
Antenna 1220' from DER, 500' right of centerline, 43' AGL/654' MSL.
Multiple trees beginning 2200' from DER, 50' left of centerline, up to 86' AGL/697' MSL.
- Rwy 32**, tree 1040' from DER, 740' right of centerline, 65' AGL/659' MSL.
Tree 1190' from DER, 500' left of centerline, 65' AGL/663' MSL.
Tree 1270' from DER, 800' left of centerline, 89' AGL/690' MSL.

NEW HUDSON, MI

OAKLAND SOUTHWEST (Y47)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2A 13SEP18 (18256) (FAA)

TAKEOFF MINIMUMS:

Rwy 8, 300-2¼ or std. w/min. climb of 230' per NM to 1300.

TAKEOFF OBSTACLE NOTES:

- Rwy 8**, trees 27' from DER, 183' left of centerline, 100' AGL/1019' MSL.
Trees beginning 45' from DER, 32' right of centerline, up to 100' AGL/1022' MSL.
Trees beginning 124' from DER, 39' left of centerline, up to 100' AGL/1022' MSL.
Trees beginning 1207' from DER, 248' right of centerline, up to 100' AGL/1026' MSL.
Trees beginning 1420' from DER, 32' right of centerline, up to 100' AGL/1029' MSL.
Trees beginning 1846' from DER, 32' right of centerline, up to 100' AGL/1032' MSL.
Trees beginning 2216' from DER, 39' left of centerline, up to 100' AGL/1026' MSL.
Trees beginning 3706' from DER, 183' left of centerline, up to 100' AGL/1029' MSL.
Tree 4229' from DER, 687' left of centerline, 100' AGL/1032' MSL.
- Rwy 26**, trees 1' from DER, 32' left of centerline, 100' AGL/1013' MSL.
Trees beginning 98' from DER, 103' left of centerline, up to 100' AGL/1016' MSL.
Trees beginning 116' from DER, 39' right of centerline, up to 100' AGL/1016' MSL.
Trees 455' from DER, 40' right of centerline, up to 100' AGL/1039' MSL.
Trees beginning 931' from DER, 31' left of centerline, up to 100' AGL/1022' MSL.
Trees beginning 1976' from DER, 40' right of centerline, up to 100' AGL/1049' MSL.

NEWBERRY, MI

LUCE COUNTY (ERY)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 29JUL10 (10210) (FAA)

TAKEOFF MINIMUMS:

Rwys 4, 22, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

- Rwy 11**, trees beginning 15' from DER, 112' right of centerline, up to 79' AGL/919' MSL.
Trees beginning 1207' from DER, 10' left of centerline, up to 119' AGL, 969' MSL.
- Rwy 29**, ground 1' from DER, 221' right of centerline, 0' AGL/872' MSL.
Tree 1' from DER, 431' right of centerline, 12' AGL/872' MSL.
Trees and antenna on building beginning 88' from DER, 13' left of centerline, up to 84' AGL/954' MSL.
Trees, vehicle on road, and antenna on building beginning 561' from DER, 28' right of centerline, up to 89' AGL/959' MSL.

NILES, MI

JERRY TYLER MEML (3TR)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 05MAY11 (21196) (FAA)

TAKEOFF MINIMUMS:

Rwy 22, NA-Obstacles.

TAKEOFF OBSTACLE NOTES:

- Rwy 4**, vehicles on road beginning 192' from DER, crossing left to right of centerline, up to 15' AGL/754' MSL.
Trees beginning 360' from DER, 276' right of centerline, up to 100' AGL/849' MSL.
Building 410' from DER, 225' left of centerline, 30' AGL/759' MSL.
- Rwy 15**, trees beginning 470' from DER, 461' left of centerline, up to 100' AGL/869' MSL.
Trees beginning 568' from DER, 187' right of centerline, up to 100' AGL/869' MSL.
- Rwy 33**, vehicles on road beginning 198' from DER, crossing right to left of centerline, up to 15' AGL/764' MSL. Building 705' from DER, 604' left of centerline, 30' AGL/779' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

ONTONAGON, MI

ONTONAGON COUNTY/SCHUSTER FLD (OGM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 31MAY12 (24025) (FAA)

TAKEOFF MINIMUMS:

Rwy 17, 300-1¼ or std with a climb gradient of 390' per NM to 1000.

TAKEOFF OBSTACLE NOTES:

Rwy 35, hanger 70' from DER, 467' right of centerline up to 50' AGL/689' MSL.

Vehicle on road 225' from DER, 367' right of centerline up to 17' AGL/664' MSL.

Trees beginning abeam DER, 537' right of centerline, up to 100' AGL/756' MSL.

Trees 80' from DER, 179' left of centerline, up to 100' AGL/756' MSL.

Sailing boat 3128' from DER, on centerline, up to 100' AGL/719' MSL.

Rwy 17, trees beginning 439' from DER, 423' left of centerline up to 100' AGL/ 901' MSL.

Trees beginning 354' from DER, 243' right of centerline, up to 100' AGL /851' MSL.

OSCODA, MI

OSCODA/WURTHSMITH (OSC)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 08NOV18 (22251) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 7, trees beginning 3205' from DER, 37' left of centerline, up to 100' AGL/719' MSL.

Trees beginning 3292' from DER, 43' right of centerline, up to 100' AGL/719' MSL.

Rwy 25, tree 1439' from DER, 558' left of centerline, 676' MSL.

Trees beginning 1453' from DER, 331' left of centerline, up to 699' MSL.

Trees beginning 2076' from DER, 445' right of centerline, up to 698' MSL.

Trees beginning 2396' from DER, 631' left of centerline, up to 703' MSL.

Tree 2657' from DER, 664' left of centerline, 708' MSL.

OWOSSO, MI

OWOSSO COMMUNITY (RNP)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4 31JUL08 (08213) (FAA)

TAKEOFF MINIMUMS:

Rwys 6, 18, 24, 36, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 11, bush 187' from DER, 158' right of centerline, 3' AGL/742' MSL.

Trees beginning 1136' from DER, 630' left of centerline, up to 75' AGL/814' MSL.

Trees and pole beginning 1111' from DER, 596' right of centerline, up to 90' AGL/829' MSL.

Power line with towers beginning 2029' from DER, left and right of centerline, 90' AGL/829' MSL.

Rwy 29, bush 212' from DER, 436' right of centerline, 11' AGL/741' MSL.

Vent, trees, and a building beginning 266' from DER, 46' left of centerline, up to 100' AGL/836' MSL.

Trees and a pole beginning 1184' from DER, 244' right of centerline, up to 60' AGL/815' MSL.

PELLSTON, MI

PELLSTON RGNL/EMMET COUNTY (PLN)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 29DEC22 (22363) (FAA)

TAKEOFF MINIMUMS:

Rwy 23, 500-3 w/min. climb of 260' per NM to 1400, or std. w/min. climb of 280' per NM to 1400 or 1000-3 for VCOA.

Rwy 32, 300-2¼ or std. w/min. climb of 355' per NM to 1000.

VCOA:

Rwy 23, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Pellston Rgnl/Emmet County airport at or above 1600 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 5, tree, vehicle on road beginning 58' from DER, 331' left of centerline, up to 756' MSL.

Trees beginning 1071' from DER, 747' left of centerline, up to 792' MSL.

Trees beginning 1077' from DER, 525' right of centerline, up to 781' MSL.

Trees beginning 1201' from DER, 534' right of centerline, up to 787' MSL.

Tree 1272' from DER, 830' left of centerline, 799' MSL.

Trees beginning 1287' from DER, 413' right of centerline, up to 790' MSL.

Tree 1298' from DER, 800' right of centerline, 794' MSL.

Trees beginning 1321' from DER, 407' right of centerline, up to 797' MSL.

Tree 1324' from DER, 813' left of centerline, 806' MSL.

Trees beginning 1349' from DER, 757' left of centerline, up to 808' MSL.

Trees beginning 1445' from DER, 12' left of centerline, up to 816' MSL.

Trees beginning 2216' from DER, 135' right of centerline, up to 798' MSL.

Trees beginning 2273' from DER, 140' right of centerline, up to 801' MSL.

Trees beginning 2405' from DER, 123' right of centerline, up to 803' MSL.

Trees beginning 2559' from DER, 57' right of centerline, up to 810' MSL.

Rwy 14, light pole 8' from DER, 55' left of centerline, 2' AGL/709' MSL.

Light pole 9' from DER, 55' right of centerline, 2' AGL/709' MSL.

Tree 1093' from DER, 706' left of centerline, 749' MSL.

CON'T

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

EC-1


TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND


DIVERSE VECTOR AREA (RADAR VECTORS)

24025

PELLSTON, MI (CON'T)**PELLSTON RGNL/EMMET COUNTY (PLN) (CON'T)****Rwy 14 (CON'T)**, trees beginning 1192' from DER, 608' left of centerline, up to 758' MSL.

Trees beginning 1553' from DER, 698' left of centerline, up to 763' MSL.

Trees beginning 1627' from DER, 741' left of centerline, up to 768' MSL.

Trees beginning 1749' from DER, 814' right of centerline, up to 757' MSL.

Tree 1890' from DER, 720' right of centerline, 761' MSL.

Trees beginning 2018' from DER, 759' left of centerline, up to 779' MSL.

Tree 2246' from DER, 694' right of centerline, 764' MSL.

Tree 2369' from DER, 847' right of centerline, 774' MSL.

Tree 2413' from DER, 1035' right of centerline, 782' MSL.

Trees beginning 2434' from DER, 815' right of centerline, up to 785' MSL.

Rwy 23, trees beginning 5' from DER, 496' right of centerline, up to 771' MSL.

Tree 536' from DER, 622' left of centerline, 752' MSL.

Trees beginning 698' from DER, 612' left of centerline, up to 763' MSL.

Trees beginning 855' from DER, 664' left of centerline, up to 771' MSL.

Trees beginning 957' from DER, 26' left of centerline, up to 776' MSL.

Trees beginning 973' from DER, 32' right of centerline, up to 778' MSL.

Trees beginning 1221' from DER, 38' right of centerline, up to 780' MSL.

Trees beginning 1485' from DER, 14' left of centerline, up to 788' MSL.

Trees beginning 2216' from DER, 409' right of centerline, up to 785' MSL.

Tree 3093' from DER, 57' right of centerline, 788' MSL.

Tree 3102' from DER, 25' right of centerline, 789' MSL.

Tree 1.8 NM from DER, 3552' right of centerline, 1005' MSL.

Trees beginning 2 NM from DER, 1821' right of centerline, up to 1055' MSL.

Tree 2 NM from DER, 249' left of centerline, 1034' MSL.

Trees beginning 2 NM from DER, 151' left of centerline, up to 1047' MSL.

Trees beginning 2.1 NM from DER, 1027' right of centerline, up to 1088' MSL.

Tree 2.1 NM from DER, 2290' right of centerline, 1095' MSL.

Trees beginning 2.1 NM from DER, 1356' right of centerline, up to 1097' MSL.

Trees beginning 2.1 NM from DER, 66' right of centerline, up to 1104' MSL.

Tree 2.2 NM from DER, 282' left of centerline, 1070' MSL.

Trees beginning 2.2 NM from DER, 105' left of centerline, up to 1088' MSL.

Trees beginning 2.2 NM from DER, 6' right of centerline, up to 1111' MSL.

Tree 2.2 NM from DER, 323' left of centerline, 1090' MSL.

Trees beginning 2.2 NM from DER, 68' right of centerline, up to 1135' MSL.

Tree 2.2 NM from DER, 89' left of centerline, 1095' MSL.

Trees beginning 2.2 NM from DER, 39' left of centerline, up to 1097' MSL.

Trees beginning 2.2 NM from DER, 231' right of centerline, up to 1153' MSL.

Trees beginning 2.3 NM from DER, 99' left of centerline, up to 1101' MSL.

Trees beginning 2.3 NM from DER, 139' left of centerline, up to 1103' MSL.

Trees beginning 2.3 NM from DER, 39' left of centerline, up to 1114' MSL.

Trees beginning 2.3 NM from DER, 97' left of centerline, up to 1121' MSL.

Trees beginning 2.3 NM from DER, 13' right of centerline, up to 1204' MSL.

Trees beginning 2.3 NM from DER, 39' left of centerline, up to 1132' MSL.

Trees beginning 2.3 NM from DER, 30' right of centerline, up to 1207' MSL.

Trees beginning 2.4 NM from DER, 123' left of centerline, up to 1133' MSL.

Tree 2.4 NM from DER, 178' left of centerline, 1134' MSL.

Trees beginning 2.4 NM from DER, 95' left of centerline, up to 1135' MSL.

Trees beginning 2.5 NM from DER, 170' left of centerline, up to 1141' MSL.

Tree 2.5 NM from DER, 423' left of centerline, 1142' MSL.

Trees beginning 2.5 NM from DER, 325' left of centerline, up to 1150' MSL.

Trees beginning 2.5 NM from DER, 260' left of centerline, up to 1151' MSL.

Rwy 32, light poles 41' from DER, 117' right of centerline, 4' AGL/720' MSL.

Vegetation 104' from DER, 309' right of centerline, 722' MSL.

Pole 148' from DER, 324' left of centerline, 6' AGL/722' MSL.

Sign 148' from DER, 323' left of centerline, 6' AGL/723' MSL.

Trees beginning 1134' from DER, 336' right of centerline, up to 754' MSL.

Tree 1202' from DER, 393' right of centerline, 757' MSL.

Trees beginning 1206' from DER, 1' right of centerline, up to 772' MSL.

Tree 1252' from DER, 54' left of centerline, 760' MSL.

Tree 1407' from DER, 67' left of centerline, 761' MSL.

Trees beginning 1439' from DER, 26' left of centerline, up to 772' MSL.

Trees, vegetation beginning 1607' from DER, 47' right of centerline, up to 777' MSL.

Tree 1760' from DER, 853' right of centerline, 786' MSL.

Trees, vegetation beginning 1762' from DER, 632' right of centerline, up to 793' MSL.

Trees beginning 1806' from DER, 3' left of centerline, up to 775' MSL.

Trees, terrain, vegetation beginning 2016' from DER, 46' right of centerline, up to 803' MSL.

Tree 2023' from DER, 16' left of centerline, 777' MSL.

Tree 2043' from DER, 44' left of centerline, 778' MSL.

Trees beginning 2053' from DER, 18' left of centerline, up to 780' MSL.

Trees, terrain, vegetation beginning 2342' from DER, 696' right of centerline, up to 805' MSL.

Tree 2501' from DER, 398' left of centerline, 783' MSL.

Trees, vegetation, terrain beginning 2634' from DER, 370' right of centerline, up to 806' MSL.

Tree 2855' from DER, 679' right of centerline, 808' MSL.

CON'T

22 FEB 2024 to 21 MAR 2024

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND


DIVERSE VECTOR AREA (RADAR VECTORS)

24025


TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND


DIVERSE VECTOR AREA (RADAR VECTORS)

24025

PELLSTON, MI (CON'T)**PELLSTON RGNL/EMMET COUNTY (PLN) (CON'T)**

Rwy 32 (CON'T), tree 2877' from DER, 628' right of centerline, 813' MSL.
 Trees, terrain beginning 2944' from DER, 771' right of centerline, up to 823' MSL.
 Trees beginning 3103' from DER, 851' right of centerline, up to 827' MSL.
 Tree, vehicle on road beginning 3288' from DER, 1104' right of centerline, up to 845' MSL.
 Tree, pole beginning 3477' from DER, 1299' right of centerline, up to 871' MSL.
 Tree 3620' from DER, 1431' right of centerline, 875' MSL.
 Tree 3867' from DER, 1' left of centerline, 822' MSL.
 Trees beginning 4109' from DER, 359' right of centerline, up to 882' MSL.
 Trees beginning 4343' from DER, 316' right of centerline, up to 885' MSL.
 Trees beginning 4480' from DER, 21' left of centerline, up to 834' MSL.
 Tree 4567' from DER, 295' left of centerline, 844' MSL.
 Trees beginning 4577' from DER, 9' left of centerline, up to 858' MSL.
 Trees beginning 5183' from DER, 370' right of centerline, up to 889' MSL.
 Trees beginning 5409' from DER, 901' right of centerline, up to 895' MSL.
 Tree 5993' from DER, 460' left of centerline, 868' MSL.
 Trees beginning 1 NM from DER, 801' left of centerline, up to 885' MSL.
 Trees beginning 1 NM from DER, 658' left of centerline, up to 890' MSL.
 Trees beginning 1 NM from DER, 908' left of centerline, up to 902' MSL.
 Trees beginning 1 NM from DER, 1395' left of centerline, up to 909' MSL.
 Trees beginning 1 NM from DER, 1597' left of centerline, up to 916' MSL.
 Trees beginning 1.1 NM from DER, 1577' left of centerline, up to 921' MSL.
 Trees beginning 1.1 NM from DER, 1434' left of centerline, up to 936' MSL.
 Trees beginning 1.1 NM from DER, 1457' left of centerline, up to 944' MSL.
 Trees beginning 1.1 NM from DER, 31' left of centerline, up to 946' MSL.
 Tree 1.1 NM from DER, 57' right of centerline, 903' MSL.
 Trees beginning 1.2 NM from DER, 145' left of centerline, up to 948' MSL.
 Trees beginning 1.2 NM from DER, 126' left of centerline, up to 964' MSL.
 Trees beginning 1.2 NM from DER, 36' left of centerline, up to 965' MSL.
 Tree 1.3 NM from DER, 150' right of centerline, 935' MSL.
 Trees beginning 1.3 NM from DER, 3' right of centerline, up to 936' MSL.
 Trees beginning 1.3 NM from DER, 165' left of centerline, up to 968' MSL.
 Trees beginning 1.3 NM from DER, 27' right of centerline, up to 939' MSL.
 Trees beginning 1.3 NM from DER, 1055' right of centerline, up to 943' MSL.
 Trees beginning 1.3 NM from DER, 202' left of centerline, up to 970' MSL.
 Trees beginning 1.3 NM from DER, 15' right of centerline, up to 945' MSL.
 Trees beginning 1.4 NM from DER, 5' right of centerline, up to 956' MSL.
 Trees beginning 1.4 NM from DER, 920' right of centerline, up to 958' MSL.
 Trees beginning 1.4 NM from DER, 53' left of centerline, up to 979' MSL.
 Trees beginning 1.4 NM from DER, 14' right of centerline, up to 968' MSL.
 Trees beginning 1.4 NM from DER, 12' left of centerline, up to 997' MSL.
 Trees beginning 1.5 NM from DER, 1062' right of centerline, up to 976' MSL.
 Tree 1.5 NM from DER, 1265' right of centerline, 981' MSL.
 Trees beginning 1.5 NM from DER, 1226' right of centerline, up to 988' MSL.
 Trees beginning 1.6 NM from DER, 1205' right of centerline, up to 89' AGL/991' MSL.
 Trees beginning 1.6 NM from DER, 1393' left of centerline, up to 86' AGL/998' MSL.
 Tree 1.7 NM from DER, 1088' right of centerline, 994' MSL.
 Trees beginning 1.7 NM from DER, 20' right of centerline, up to 1012' MSL.
 Trees beginning 1.7 NM from DER, 162' left of centerline, up to 1002' MSL.
 Trees beginning 1.7 NM from DER, 53' left of centerline, up to 1009' MSL.
 Trees beginning 1.7 NM from DER, 47' left of centerline, up to 1010' MSL.
 Trees beginning 1.8 NM from DER, 1008' right of centerline, up to 1014' MSL.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

PLYMOUTH, MI**CANTON-PLYMOUTH-METTETAL (1D2)****TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**

AMDT 2 10DEC92 (92345) (FAA)

TAKEOFF MINIMUMS:

Rwys 18, 36, 300-1.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND


DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

PONTIAC, MI

OAKLAND COUNTY INTL (PTK)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6A 24MAY18 (18144) (FAA)

TAKEOFF MINIMUMS:

Rwy 18, 36, NA - environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 9R, building 868' from DER, 732' right of centerline, 36' AGL/1006' MSL.

Tree 1381' from DER, 645' left of centerline, 1009' MSL.

Tree 1554' from DER, 687' left of centerline, 1011' MSL.

Rwy 27L, vehicle on road 401' from DER, 537' left of centerline, 991' MSL.

Tree 450' from DER, 553' right of centerline, 994' MSL.

Tree 564' from DER, 587' left of centerline, 1003' MSL.

Tree 747' from DER, 614' left of centerline, 1012' MSL.

Tree 823' from DER, 588' right of centerline, 1002' MSL.

Tree 836' from DER, 628' left of centerline, 1013' MSL.

Trees beginning 854' from DER, 539' left of centerline, up to 1016' MSL.

Tree 1586' from DER, 827' left of centerline, 1024' MSL.

Tree 2200' from DER, 958' left of centerline, 1046' MSL.

Rwy 27R, tree 450' from DER, 1' right of centerline, 994' MSL.

Tree 823' from DER, 35' right of centerline, 1002' MSL.

Tree 1014' from DER, 10' right of centerline, 1003' MSL.

Tree 1024' from DER, 112' right of centerline, 1004' MSL.

Tree 1233' from DER, 19' left of centerline, 1009' MSL.

Tree 1454' from DER, 234' left of centerline, 1011' MSL.

Tree 1479' from DER, 361' left of centerline, 1014' MSL.

Tree 1619' from DER, 192' right of centerline, 1017' MSL.

PORT HURON, MI

ST CLAIR COUNTY INTL (PHN)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 25AUG11 (11237) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 4, trees beginning 1196' from DER, 140' right of centerline, up to 115' AGL/764' MSL.

Trees and bush beginning 13' from DER, 80' left of centerline, up to 115' AGL/779' MSL.

Rwy 10, trees and building beginning 150' from DER, 2' right of centerline, up to 115' AGL/769' MSL.

Trees beginning 329' from DER, 161' left of centerline, up to 115' AGL/769' MSL.

Rwy 22, trees beginning 2376' from DER, 171' right of centerline, up to 103' AGL/738' MSL.

Trees beginning 2138' from DER, 612' left of centerline, up to 101' AGL/737' MSL.

Rwy 28, trees beginning 192' from DER, 361' right of centerline, up to 115' AGL/759' MSL.

Trees beginning 667' from DER, 112' left of centerline, up to 114' AGL/749' MSL.

RAY, MI

RAY COMMUNITY (57D)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-B 03NOV22 (22307) (FAA)

TAKEOFF MINIMUMS:

Rwys 1, 19, NA-ATC.

TAKEOFF OBSTACLE NOTES:

Rwy 10, road 60' from DER, left to right of centerline, 15' AGL/645' MSL.

Tree 119' from DER, 181' right of centerline, 25' AGL/655' MSL.

Trees beginning 353' from DER, 204' left of centerline, up to 100' AGL/729' MSL.

Trees beginning 2067' from DER, 137' left of centerline, up to 100' AGL/729' MSL.

Rwy 28, trees beginning 158' from DER, 232' right of centerline, up to 100' AGL/729' MSL.

Trees 184' from DER, 131' left of centerline, up to 100' AGL/729' MSL.

Trees 920' from DER, 233' right of centerline, up to 100' AGL/729' MSL.

ROGERS CITY, MI

PRESQUE ISLE COUNTY (PZQ)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 03MAY12 (12124) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 9, trees beginning 348' from DER, 378' left of centerline, up to 100' AGL/759' MSL.

Pole 730' from DER, 620' right of centerline, 43' AGL/723' MSL.

Trees beginning 899' from DER, 708' right of centerline, up to 100' AGL/789' MSL.

Tower 1021' from DER, 68' right of centerline, 44' AGL/716' MSL.

Rwy 27, trees beginning 940' from DER, 289' left of centerline, up to 100' AGL/799' MSL.

Trees beginning 977' from DER, 11' right of centerline, up to 56' AGL/739' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

ROMEO, MI

ROMEO STATE (D98)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 02MAY13 (13122) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 18, pole 239' from DER, 395' right of centerline, 30' AGL/760' MSL.

Trees along and vehicles on road 342' from DER, left and right of centerline, up to 15' AGL/741' MSL.

Line of trees beginning 401' from DER, 498' right of centerline, up to 65' AGL/770' MSL.

Trees beginning 420' from DER, 228' left of centerline, up to 75' AGL/793' MSL.

Pole 500' from DER, 337' left of centerline, 45' AGL/759' MSL.

Rwy 36, pole on building 118' from DER, 444' left of centerline, 37' AGL/772' MSL.

Buildings beginning 228' from DER, 322' right of centerline, up to 25' AGL/754' MSL.

Building 303' from DER, 454' left of centerline, 23' AGL/758' MSL.

Vehicles on road beginning 410' from DER, 159' left of centerline, up to 15' AGL/760' MSL.

Trees beginning 639' from DER, 654' left of centerline, up to 70' AGL/809' MSL.

Catenary beginning 774' from DER, left and right of centerline, up to 43' AGL/782' MSL.

Poles 887' from DER, 170' right of centerline, up to 35' AGL/770' MSL.

Trees beginning 2747' from DER, left and right of centerline, up to 100' AGL/841' MSL.

SAGINAW, MI

MBS INTL (MBS)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 01FEB18 (18032) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 5, vegetation 85' from DER, 269' right of centerline, 654' MSL.

Rwy 23, transmission line, pole beginning 1259' from DER, 785' left of centerline, up to 29' AGL/698' MSL.

Tree 2169' from DER, 1071' right of centerline, 725' MSL.

Rwy 32, tree 1447' from DER, 706' left of centerline, 734' MSL.

Tree 3628' from DER, 650' left of centerline, 767' MSL.

SAGINAW COUNTY/H W BROWNE (HYX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 9 07DEC17 (22307) (FAA)

DEPARTURE PROCEDURE:

Rwy 5, climb heading 052° to 1900 before turning left.

Rwy 10, climb heading 097° to 1600 before turning left.

Rwy 23, climb heading 232° to 1300 before proceeding on course.

Rwy 28, climb heading 277° to 1300 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 5, lighting 10' from DER, 20' right of centerline, 2' AGL/600' MSL.

Traverse way 18' from DER, 349' left of centerline, 606' MSL.

Antenna, tree, pole, beginning 285' from DER, 173' right of centerline, up to 46' AGL/642' MSL.

Traverse way 345' from DER, 17' left of centerline, 607' MSL.

Tree 983' from DER, 365' right of centerline, 657' MSL.

Rwy 10, lighting 6' from DER, 9' right of centerline, 2' AGL/599' MSL.

Lighting 6' from DER, 9' left of centerline, 2' AGL/599' MSL.

Transmission line 1037' from DER, 641' left of centerline, 34' AGL/628' MSL.

Transmission line 1261' from DER, 632' left of centerline, 38' AGL/632' MSL.

Rwy 23, lighting 10' from DER, 19' right of centerline, 3' AGL/603' MSL.

Tree, traverse way beginning 54' from DER, 162' left of centerline, up to 652' MSL.

Tree 959' from DER, 414' right of centerline, 664' MSL.

Rwy 28, lighting 9' from DER, 30' left of centerline, 3' AGL/601' MSL.

Lighting 10' from DER, 30' right of centerline, 3' AGL/601' MSL.

Transmission line 3519' from DER, 239' right of centerline, 92' AGL/691' MSL.

ST. IGNACE

MACKINAC COUNTY (83D)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 05MAY11 (11125) (FAA)

TAKEOFF MINIMUMS:

Rwy 25, 300-1 or std. w/min. climb of 430' per NM to 900.

TAKEOFF OBSTACLE NOTES:

Rwy 7, vehicles on road beginning 10' from DER, 322' right of centerline, up to 15' AGL/627' MSL.

Trees beginning 70' from DER, 363' right of centerline, up to 85' AGL/686' MSL.

Poles beginning 117' from DER, 381' left of centerline, up to 54' AGL/629' MSL.

Vehicles on road beginning 310' from DER, left and right of centerline, up to 15' AGL/631' MSL.

Poles beginning 602' from DER, 328' right of centerline, up to 54' AGL/644' MSL.

Ships beginning 3099' from DER, left and right of centerline, up to 155' AGL/735' MSL.

Rwy 25, trees beginning 20' from DER, left and right of centerline, up to 85' AGL/809' MSL.

Vehicles on road 366' from DER, left and right of centerline, up to 17' AGL/663' MSL.

Poles beginning 919' from DER, left and right of centerline, up to 62' AGL/682' MSL.

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

SANDUSKY, MI

SANDUSKY CITY (Y83)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 05OCT23 (23278) (FAA)

TAKEOFF MINIMUMS:

Rwys 18, 36, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 10, building 34' from DER, 328' right of centerline, 20' AGL/793' MSL.

Building 41' from DER, 219' right of centerline, 23' AGL/797' MSL.

Tree 418' from DER, 605' left of centerline, 81' AGL/836' MSL.

Tree, electrical systems, poles, vehicles on road beginning 440' from DER, 58' left of centerline, up to 63' AGL/837' MSL.

Pole, vehicles on road beginning 455' from DER, 2' right of centerline, up to 798' MSL.

Trees beginning 568' from DER, 415' right of centerline, up to 835' MSL.

Trees beginning 674' from DER, 468' right of centerline, up to 65' AGL/838' MSL.

Rwy 28, vegetation 18' from DER, 152' left of centerline, 779' MSL.

Vegetation 62' from DER, 288' right of centerline, 779' MSL.

Tree 106' from DER, 427' left of centerline, 96' AGL/871' MSL.

Trees, poles beginning 224' from DER, 192' left of centerline, up to 881' MSL.

Trees, poles beginning 1175' from DER, 403' right of centerline, up to 847' MSL.

Trees beginning 1473' from DER, 486' right of centerline, up to 864' MSL.

SAULT STE MARIE, MI

CHIPPEWA COUNTY INTL (CIU)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 05MAR15 (15064) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 10, poles beginning 156' from DER, 518' left and 439' right of centerline up to 45' AGL/839' MSL.

Buildings beginning 379' from DER, 532' right of centerline, up to 55' AGL/848' MSL.

Building 416' from DER, 503' left of centerline, 31' AGL/823' MSL.

Trees beginning 348' from DER, 456' right of centerline, up to 100' AGL/899' MSL.

Tank 1475' from DER, 75' right of centerline, 49' AGL/842' MSL.

Rwy 16, trees beginning 3645' from DER, extending from 1018' right of centerline to 1221' left of centerline, up to 100' AGL/899' MSL.**Rwy 28**, vertical structure, 11' from DER, 4' right of centerline, 2' AGL/794' MSL.

Natural high point, 33' from DER, 355' left of centerline, 0' AGL/793' MSL.

Vehicle on road, 412' from DER, 510' left of centerline, up to 15' AGL/804' MSL.

Trees beginning 520' from DER, extending from 581' left of centerline to 827' right of centerline, up to 100' AGL/879' MSL.

SAULT STE MARIE MUNI/SANDERSON FLD (ANJ)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 25AUG11 (21224) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 14, trees, poles, and road beginning 25' from DER, 56' left of centerline, up to 54' AGL/763' MSL.

Trees and poles beginning 5' from DER, 49' right of centerline, up to 65' AGL/774' MSL.

Rwy 32, tree 200' from DER, 330' left of centerline, 24' AGL/723' MSL.

Trees beginning 91' from DER, 300' right of centerline, up to 24' AGL/723' MSL.

SELFRIDGE ANGB (KMTC)

MT. CLEMENS, MI

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3A, 29MAY14 (14149)

TAKEOFF MINIMUMS:

Rwy 1, std.**Rwy 19**, std. w/min. climb of 234' per NM to 1500.

TAKEOFF OBSTACLE NOTES:

Rwy 19, Numerous trees beginning 1872' from DER, 269' left of centerline, up to 100' AGL/693' MSL.

Numerous trees beginning 3007' from DER, 57' right of centerline, up to 100' AGL/704' MSL.

Rwy 1, Numerous trees beginning 2290' from DER, 800' left of centerline, up to 100' AGL/689' MSL.

Numerous trees beginning 2308' from DER, 539' right of centerline, up to 100' AGL/683' MSL.

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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SOUTH HAVEN, MI

SOUTH HAVEN AREA RGNL (LWA)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4A 08SEP22 (22251) (FAA)

TAKEOFF MINIMUMS:

Rwys 14, 32, NA-Environmental.

TAKEOFF OBSTACLE NOTES:

Rwy 5, trees beginning 1440' from DER, 94' left of centerline, up to 93' AGL/773' MSL.

Poles beginning 1272' from DER, 122' right of centerline, up to 43' AGL/713' MSL.

Trees beginning 1812' from DER, 137' right of centerline, up to 81' AGL/771' MSL.

Rwy 23, pole 520' from DER, 582' left of centerline, 53' AGL/703' MSL.

Building 185' from DER, 334' left of centerline, 20' AGL/670' MSL.

Trees beginning 436' from DER, 428' left of centerline, up to 81' AGL/731' MSL.

Trees beginning 1172' from DER, 133' right of centerline, up to 89' AGL/739' MSL.

SPARTA, MI

PAUL C MILLER/SPARTA (8D4)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 06MAY10 (22307) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 7, multiple trees beginning 564' from DER, 105' right of centerline, up to 97' AGL/827' MSL.

Tree 782' from DER, 379' left of centerline, 47' AGL/784' MSL.

Rwy 25, multiple trees beginning 507' from DER, 47' right of centerline, up to 81' AGL/841' MSL.

Tree 117' from DER, 218' left of centerline, 47' AGL/817' MSL.

Tree 656' from DER, 464' left of centerline, 67' AGL/822' MSL.

STURGIS, MI

KIRSCH MUNI (IRS)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4A 29DEC22 (23054) (FAA)

TAKEOFF MINIMUMS:

Rwy 1, 300-1% or std. w/min. climb of 215' per NM to 1200, or alternatively, with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 1400' prior to DER.

Rwy 6, 300-1% or std. w/min. climb of 243' per NM to 1200, or alternatively, with std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 2100' prior to DER.

TAKEOFF OBSTACLE NOTES:

Rwy 1, vehicle on road 22' from DER, 188' left of centerline, 921' MSL.

NAVAID 39' from DER, 89' right of centerline, 3' AGL/910' MSL.

Terrain 73' from DER, 481' right of centerline, 920' MSL.

Fence beginning 78' from DER, 303' right of centerline, up to 2' AGL/921' MSL.

Tree, vehicle on road beginning 80' from DER, 222' left of centerline, up to 960' MSL.

Terrain beginning 167' from DER, 418' right of centerline, up to 924' MSL.

Trees beginning 464' from DER, 394' left of centerline, up to 963' MSL.

Tree 710' from DER, 355' right of centerline, 932' MSL.

Tree 801' from DER, 504' right of centerline, 951' MSL.

Trees beginning 979' from DER, 386' right of centerline, up to 957' MSL.

Trees beginning 1265' from DER, 475' right of centerline, up to 979' MSL.

Trees beginning 1341' from DER, 471' left of centerline, up to 967' MSL.

Tree 2359' from DER, 413' left of centerline, 969' MSL.

Trees beginning 2526' from DER, 1013' right of centerline, up to 995' MSL.

Tree 3034' from DER, 408' left of centerline, 985' MSL.

Tree 3120' from DER, 334' left of centerline, 992' MSL.

Tree 3235' from DER, 197' left of centerline, 996' MSL.

Tree 3356' from DER, 200' left of centerline, 1002' MSL.

Trees beginning 3379' from DER, 39' left of centerline, up to 1014' MSL.

Tree 3607' from DER, 1464' right of centerline, 1006' MSL.

Tree 3943' from DER, 1484' right of centerline, 1009' MSL.

Tree 4051' from DER, 96' right of centerline, 1013' MSL.

Tree 4344' from DER, 1118' right of centerline, 1019' MSL.

Tree 4347' from DER, 843' right of centerline, 1021' MSL.

Tree 4457' from DER, 1017' right of centerline, 1028' MSL.

Trees beginning 4507' from DER, 856' right of centerline, up to 1032' MSL.

Tree 4777' from DER, 1408' right of centerline, 1034' MSL.

Tree 4875' from DER, 1591' right of centerline, 1045' MSL.

Trees beginning 4885' from DER, 507' right of centerline, up to 1047' MSL.

Tree 5752' from DER, 810' right of centerline, 1061' MSL.

CON'T

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

STURGIS, MI (CON'T)

KIRSCH MUNI (IRS) (CON'T)

Rwy 6, NAVAID 39' from DER, 112' right of centerline, 3' AGL/928' MSL.
NAVAID 51' from DER, 112' left of centerline, 2' AGL/928' MSL.
Vehicle on road 139' from DER, 511' left of centerline, 938' MSL.
Vehicle on road beginning 188' from DER, 210' left of centerline, up to 941' MSL.
Vehicle on road beginning 339' from DER, 302' right of centerline, up to 941' MSL.
Building 522' from DER, 546' right of centerline, 30' AGL/954' MSL.
Vehicle on road 667' from DER, 189' left of centerline, 942' MSL.
Pole, transmission line beginning 971' from DER, 595' left of centerline, up to 960' MSL.
Transmission line, pole beginning 973' from DER, 564' right of centerline, up to 35' AGL/961' MSL.
Pole, transmission line, tree beginning 1044' from DER, 256' left of centerline, up to 975' MSL.
Tree, pole, transmission line beginning 1079' from DER, 400' right of centerline, up to 982' MSL.
Tree, pole, transmission line beginning 1137' from DER, 235' right of centerline, up to 983' MSL.
Tree, transmission line, pole beginning 1248' from DER, on centerline, up to 997' MSL.
Tree, transmission line, pole beginning 1488' from DER, 122' left of centerline, up to 989' MSL.
Trees beginning 1586' from DER, 50' left of centerline, up to 992' MSL.
Trees beginning 2425' from DER, 347' left of centerline, up to 997' MSL.
Trees beginning 2794' from DER, 962' left of centerline, up to 1012' MSL.
Trees beginning 3342' from DER, 75' left of centerline, up to 1043' MSL.
Tree 3478' from DER, 833' right of centerline, 1026' MSL.
Trees beginning 4230' from DER, 1062' left of centerline, up to 1045' MSL.
Tree 4385' from DER, 1633' left of centerline, 1050' MSL.
Tree 4540' from DER, 1153' left of centerline, 1052' MSL.
Trees beginning 4668' from DER, 1179' left of centerline, up to 1060' MSL.
Tree 4996' from DER, 1332' left of centerline, 100' AGL/1075' MSL.
Tree 5811' from DER, 1170' left of centerline, 1094' MSL.
Trees beginning 5835' from DER, 976' left of centerline, up to 1102' MSL.
Tree 1.0 NM from DER, 1339' left of centerline, 1086' MSL.
Rwy 19, NAVAID 38' from DER, 90' left of centerline, 2' AGL/913' MSL.
NAVAID 38' from DER, 90' right of centerline, 3' AGL/914' MSL.
Transmission line, pole beginning 1494' from DER, 808' left of centerline, up to 75' AGL/979' MSL.
Tree, pole, transmission line beginning 1686' from DER, 598' right of centerline, up to 960' MSL.
Trees beginning 1989' from DER, 77' right of centerline, up to 963' MSL.
Trees beginning 2031' from DER, 152' right of centerline, up to 968' MSL.
Tree 2085' from DER, 550' right of centerline, 971' MSL.
Rwy 24, vehicle on road, tree, transmission line beginning 29' from DER, 17' right of centerline, up to 100' AGL/1016' MSL.

THREE RIVERS, MI

THREE RIVERS MUNI/DR HAINES (HA1)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 15DEC11 (22363) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 5, vehicles on road beginning 1' from DER, 221' left of centerline, up to 15' AGL/839' MSL.
Trees beginning 1' from DER, left and right of centerline, up to 100' AGL/929' MSL.
Airplane on tarmac 2' from DER, 394' right of centerline, 40' AGL/864' MSL.
Building 1094' from DER, 537' right of centerline, 25' AGL/849' MSL.
Rwy 9, vehicles on road 484' from DER, 624' left of centerline, up to 15' AGL/839' MSL.
Trees beginning 104' from DER, left and right of centerline, up to 100' AGL/934' MSL.
Buildings beginning 1258' from DER, left and right of centerline, up to 25' AGL/859' MSL.
Rwy 23, rising terrain beginning 25' from DER, 497' left of centerline, 826' MSL.
Vehicles on roads beginning 258' from DER, right and left of centerline, up to 15' AGL/844' MSL.
Trees beginning 128' from DER, 125' right of centerline, up to 100' AGL/924' MSL.
Buildings beginning 256' from DER, 144' right of centerline, up to 25' AGL/849' MSL.
Rwy 27, vehicles on road 369' from DER, 595' right of centerline, up to 15' AGL/834' MSL.
Building 892' from DER, 678' right of centerline, 25' AGL/844' MSL.
Trees beginning 544' from DER, left and right of centerline, up to 100' AGL/924' MSL.

TRAVERSE CITY, MI

CHERRY CAPITAL (TVC)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 13 14JUL22 (22195) (FAA)

TAKEOFF MINIMUMS:

Rwy 10, 400-2 w/min. climb of 233' per NM to 1300 or std. w/min. climb of 280' per NM to 1100, or 1300-3 for VCOA.
Rwy 18, 400-2½ w/min. climb of 214' per NM to 1400 or std. w/min. climb of 222' per NM to 1200, or 1300-3 for VCOA.
Rwy 28, std. w/min. climb of 340' per NM to 2000, or 1300-3 for VCOA.
Rwy 36, 400-2½ or std. w/min. climb of 203' per NM to 1000 or alternatively, with std. takeoff minimums and normal 200' per NM climb gradient, takeoff must occur no later than 1200' prior to DER.

DEPARTURE PROCEDURE:

Rwy 10, climb heading 099° to 1100' before turning right.
Rwy 18, climb heading 185° to 1100' before turning.
Rwy 36, climb heading 005° to 1300' before turning left.

CON'T

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TRAVERSE CITY, MI (CON'T) CHERRY CAPITAL (TVC) (CON'T)

VCOA:

Rwys 10, 18, 28, obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Cherry Capital airport at or above 1800 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 10, tree 1284' from DER, 739' left of centerline, 662' MSL.
Trees beginning 1524' from DER, 821' left of centerline, up to 663' MSL.
Trees beginning 1822' from DER, 916' right of centerline, up to 669' MSL.
Tree 2242' from DER, 963' right of centerline, 671' MSL.
Trees beginning 2341' from DER, 941' right of centerline, up to 672' MSL.
Tree 2570' from DER, 1169' right of centerline, 679' MSL.
Tree 2996' from DER, 1213' right of centerline, 694' MSL.
Trees beginning 3091' from DER, 1241' right of centerline, up to 700' MSL.
Tree 3773' from DER, 1270' right of centerline, 705' MSL.
Trees beginning 1.3 NM from DER, 2444' right of centerline, 822' MSL.
Trees beginning 1.4 NM from DER, 1356' right of centerline, up to 922' MSL.
Trees beginning 1.5 NM from DER, 1795' right of centerline, up to 930' MSL.
Tree 2.4 NM from DER, 3984' right of centerline, 981' MSL.
Tree 2.5 NM from DER, 3987' right of centerline, 1007' MSL.

Rwy 18, fence, buildings beginning 228' from DER, 555' left of centerline, up to 11' AGL/636' MSL.
Transmission line 856' from DER, 695' right of centerline, 34' AGL/660' MSL.
Transmission lines beginning 859' from DER, 372' right of centerline, up to 38' AGL/664' MSL.
Transmission line 966' from DER, 654' left of centerline, 34' AGL/655' MSL.
Transmission lines beginning 1086' from DER, 414' right of centerline, up to 41' AGL/667' MSL.
Tree 1930' from DER, 410' right of centerline, 677' MSL.
Transmission lines, trees beginning 1.8 NM from DER, 2679' left of centerline, up to 942' MSL.
Trees beginning 2 NM from DER, 3609' left of centerline, up to 951' MSL.
Transmission line 2.2 NM from DER, 2697' left of centerline, 122' AGL/980' MSL.

Rwy 28, poles, building beginning 963' from DER, 584' right of centerline, up to 28' AGL/651' MSL.
Transmission line 1150' from DER, 576' right of centerline, 30' AGL/654' MSL.
Transmission line 1160' from DER, 633' right of centerline, 32' AGL/656' MSL.
Poles, transmission line beginning 1163' from DER, 726' left of centerline, up to 663' MSL.
Tree 1181' from DER, 755' left of centerline, 688' MSL.
Trees, pole, transmission line beginning 1226' from DER, 734' left of centerline, up to 695' MSL.
Transmission lines beginning 1251' from DER, 625' right of centerline, up to 35' AGL/658' MSL.
Trees beginning 1325' from DER, 763' left of centerline, up to 78' AGL/703' MSL.
Pole 1355' from DER, 823' right of centerline, 36' AGL/659' MSL.
Trees, transmission lines beginning 1421' from DER, 7' left of centerline, up to 80' AGL/705' MSL.
Tree 1457' from DER, 611' right of centerline, 675' MSL.
Trees beginning 1495' from DER, 604' right of centerline, up to 694' MSL.
Trees beginning 1664' from DER, 617' right of centerline, up to 699' MSL.
Trees beginning 1708' from DER, 603' right of centerline, up to 701' MSL.
Trees beginning 2275' from DER, 3' right of centerline, up to 708' MSL.
Trees beginning 2960' from DER, 82' left of centerline, up to 80' AGL/706' MSL.
Trees beginning 3033' from DER, 69' left of centerline, up to 707' MSL.
Tree 3597' from DER, 278' left of centerline, 88' AGL/714' MSL.

Rwy 36, poles, trees, transmission line beginning 734' from DER, 62' left of centerline, up to 37' AGL/655' MSL.
Trees, buildings, transmission line, sign beginning 803' from DER, 247' right of centerline, up to 657' MSL.
Trees, pole, transmission line beginning 936' from DER, 107' right of centerline, up to 664' MSL.
Trees beginning 974' from DER, 488' right of centerline, up to 684' MSL.
Trees, transmission line beginning 1028' from DER, 16' right of centerline, up to 685' MSL.
Trees beginning 1234' from DER, 34' left of centerline, up to 671' MSL.
Trees beginning 1322' from DER, 91' left of centerline, up to 673' MSL.
Trees beginning 1350' from DER, 12' left of centerline, up to 682' MSL.
Trees beginning 1405' from DER, 115' right of centerline, up to 688' MSL.
Trees beginning 1420' from DER, 71' right of centerline, up to 689' MSL.
Trees beginning 1460' from DER, 120' left of centerline, up to 685' MSL.
Trees beginning 1511' from DER, 355' right of centerline, up to 690' MSL.
Trees beginning 1514' from DER, 52' right of centerline, up to 691' MSL.
Trees, transmission lines, pole beginning 1517' from DER, 23' left of centerline, up to 692' MSL.
Trees beginning 1754' from DER, 87' right of centerline, up to 704' MSL.
Trees beginning 1809' from DER, 7' right of centerline, up to 706' MSL.
Trees, pole, transmission line beginning 1866' from DER, 59' left of centerline, up to 693' MSL.
Trees, pole, transmission line beginning 2246' from DER, 141' left of centerline, up to 695' MSL.
Tree 2407' from DER, 310' left of centerline, 696' MSL.
Trees beginning 2425' from DER, 48' left of centerline, up to 697' MSL.
Trees beginning 2956' from DER, 102' left of centerline, up to 714' MSL.
Trees beginning 1.5 NM from DER, 2547' right of centerline, up to 919' MSL.
Trees beginning 2 NM from DER, 1898' right of centerline, up to 937' MSL.

22 FEB 2024 to 21 MAR 2024

22 FEB 2024 to 21 MAR 2024

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

TROY, MI

OAKLAND/TROY (VLL)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4B 14JUL22 (22195) (FAA)

TAKEOFF MINIMUMS:

Rwy 28, std. w/min. climb of 476' per NM to 1500.

DEPARTURE PROCEDURE:

Rwy 10, climb on heading 096° to 1400 before turning right.

Rwy 28, climb on heading 276° to 1500 before turning left.

TAKEOFF OBSTACLE NOTES:

Rwy 10, building 78' from DER, 370' left of centerline, 30' AGL/729' MSL.

Buildings and air con on building beginning 314' from DER, 64' right of centerline, up to 47' AGL/745' MSL.

Trees beginning 1495' from DER, left and right of centerline, up to 100' AGL/799' MSL.

Rwy 28, trees beginning 21' from DER, 8' right of centerline, up to 103' AGL/843' MSL.

Buildings beginning 1422' from DER, 19' right of centerline, up to 59' AGL/799' MSL.

Vehicles on road beginning 3' from DER, 41' left of centerline, up to 17' AGL/746' MSL.

Trees beginning 176' from DER, 20' left of centerline, up to 105' AGL/845' MSL.

Buildings beginning 72' from DER, 468' left of centerline, up to 158' AGL/784' MSL.

Poles beginning 426' from DER, 11' right of centerline, up to 111' AGL/851' MSL.

Poles beginning 146' from DER, 19' left of centerline, up to 91' AGL/831' MSL.

Railroad 1682' from DER, 428' left of centerline, up to 30' AGL/770' MSL.

Powerline with catenary balls, 1888' from DER, left and right of centerline, up to 80' AGL/820' MSL.

Tower 2456' from DER, 867' right of centerline, up to 132' AGL/872' MSL.

Buildings beginning 1.1 NM from DER, 3' left of centerline, up to 178' AGL/940' MSL.

WEST BRANCH, MI

WEST BRANCH COMMUNITY (Y31)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3 10MAR11 (11069) (FAA)

TAKEOFF MINIMUMS:

Rwy 27, std. w/min. climb of 313' per NM to 1600 or 1000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE:

Rwy 27, for climb in visual conditions cross West Branch Community Airport at or above 1700 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 27, trees beginning 42' from DER, 7' right of centerline, up to 100' AGL/ 984' MSL.

Trees beginning 538' from DER, 194' left of centerline, up to 100' AGL/ 1094' MSL.

Rwy 9, trees beginning 24' from DER, 181' left of centerline, up to 100' AGL/959' MSL.

Trees beginning 30' from DER, 208' right of centerline, up to 100' AGL/ 959' MSL.

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22 FEB 2024 to 21 MAR 2024

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

24025

EC-1

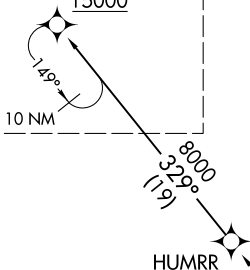
BONZZ TWO ARRIVAL (RNAV) Transition Routes

D-ATIS
133.675
DETROIT APP CON
126.225 284.0

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Use Rwy 21L transition or as assigned by ATC. Expect runway assignment from Detroit APP CON no later than 10 NM from FFORK.
- NOTE: Jet aircraft descend via Mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
- NOTE: For use when DTW landing south. When DTW landing north or west, file and expect the KLYNK RNAV STAR.

See following page for arrival route

BONZZ	
FL210	280K
15000	



HUMRR

8000
327.9°
(21)

EEEZI	
FL270	280K
FL240	



SSAID

10000
352°
(23)

BOBCT

10000
359°
(51)

JAMOX

10000
304°
(84)

KOZAR

NOTE: Chart not to scale.

JAMOX TRANSITION (JAMOX.BONZZ2)
KOZAR TRANSITION (KOZAR.BONZZ2)

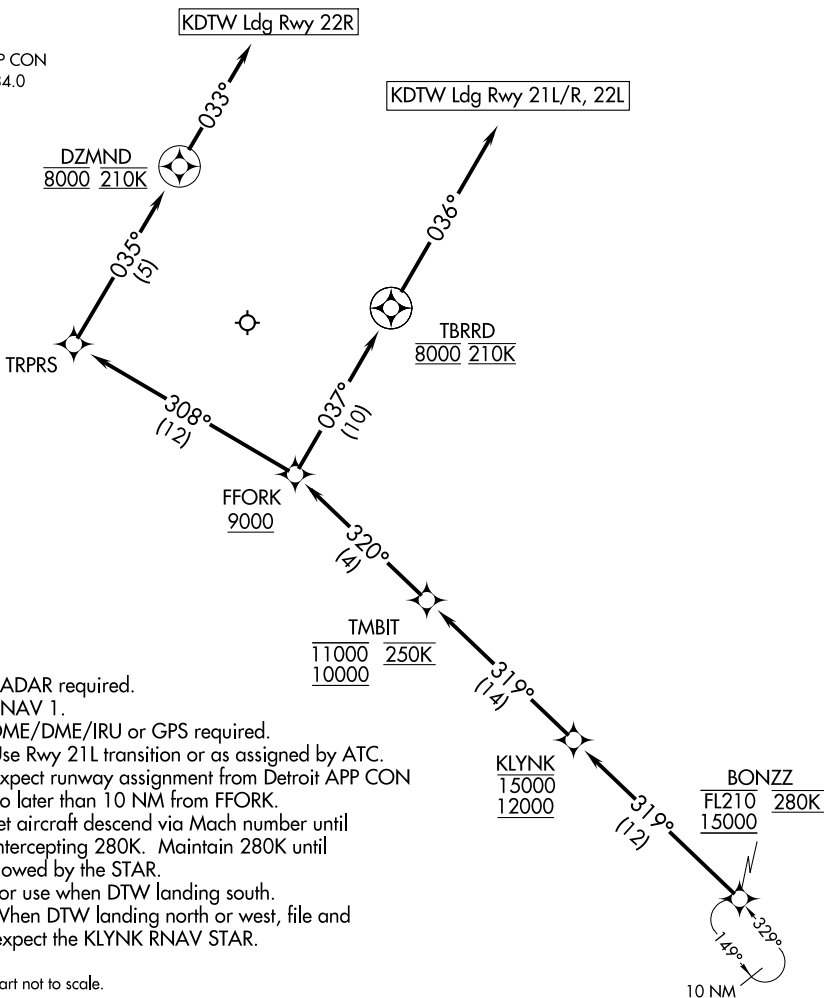
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EC-1, 22 FEB 2024 to 21 MAR 2024

BONZZ TWO ARRIVAL (RNAV) Arrival Routes

D-ATIS
133.675
DETROIT APP CON
126.225 284.0



- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Use Rwy 21L transition or as assigned by ATC. Expect runway assignment from Detroit APP CON no later than 10 NM from FFORK.
- NOTE: Jet aircraft descend via Mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
- NOTE: For use when DTW landing south. When DTW landing north or west, file and expect the KLYNK RNAV STAR.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

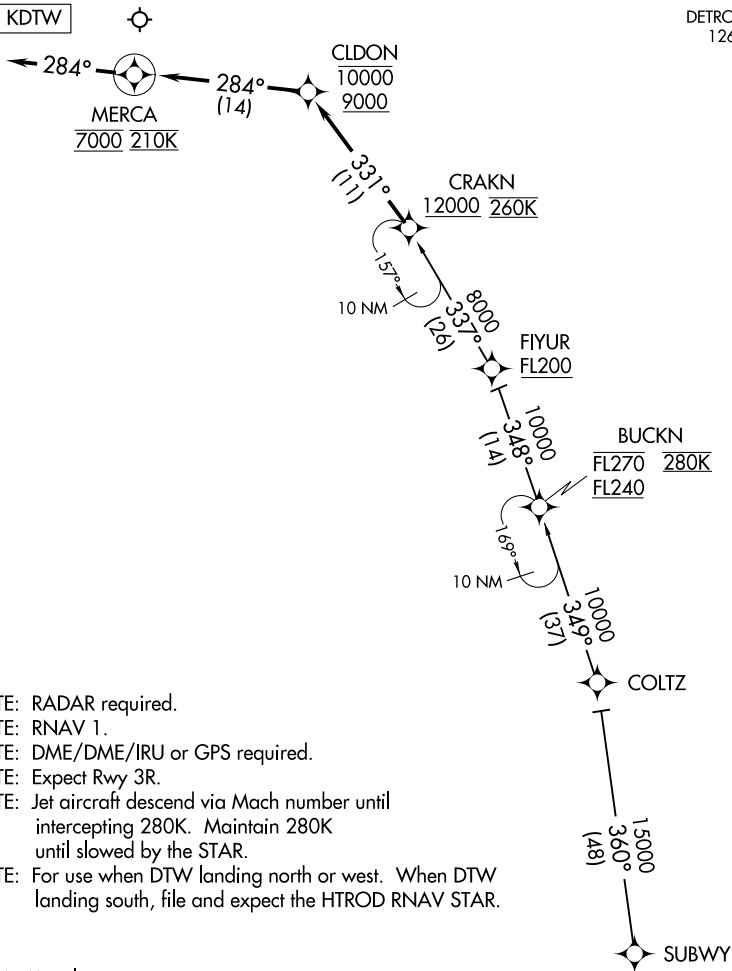
From BONZZ on track 319° to cross KLYNK between 12000 and 15000, then on track 319° to cross TMBIT between 10000 and 11000 and at 250K, then on track 320° to cross FFORK at or above 9000.

LANDING RWYS 22L, 21L/R: From FFORK on track 037° to cross TBRRD at 8000 and at 210K, then on track 036°. Expect RADAR vectors to final approach course.

LANDING RWY 22R: From FFORK on track 308° to TRPRS, then on track 035° to cross DZMND at 8000 and at 210K, then on track 033°. Expect RADAR vectors to final approach course.

D-ATIS
 133.675
 DETROIT APP CON
 126.225 284.0

Ldg KDTW



- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Expect Rwy 3R.
- NOTE: Jet aircraft descend via Mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
- NOTE: For use when DTW landing north or west. When DTW landing south, file and expect the HTROD RNAV STAR.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

SUBWY TRANSITION (SUBWY.CRAKN2)

From CRAKN on track 331° to cross CLDON between 9000 and 10000, then on track 284° to cross MERCA at 7000 and at 210K, then on track 284°. Expect RADAR vectors to final approach course.

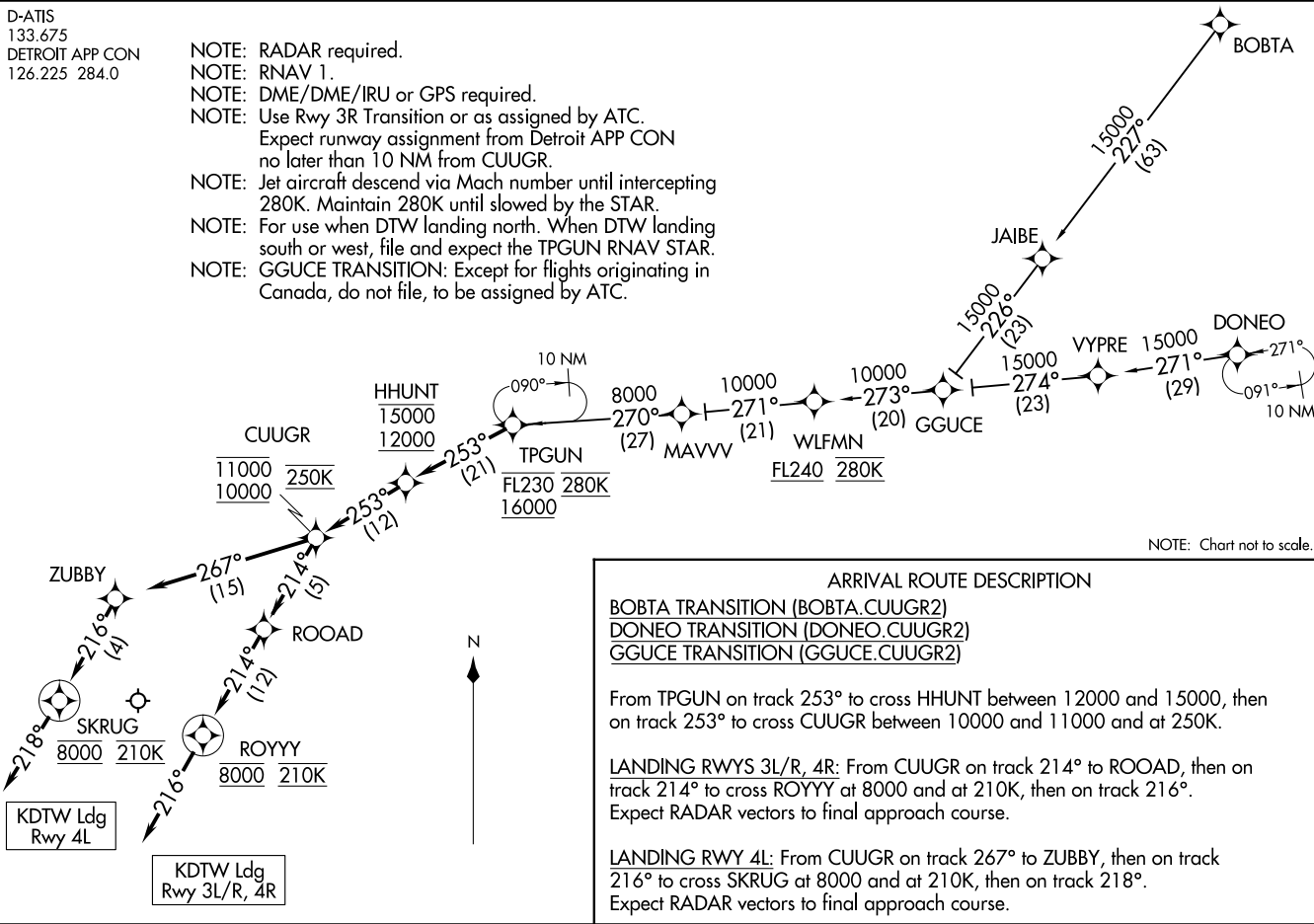
LOST COMMUNICATIONS:

From MERCA, execute ILS Rwy 3R approach.

CUUGR TWO ARRIVAL (RNAV)
(TPGUN, CUUGR2) 100CT19

D-ATIS
133.675
DETROIT APP CON
126.225 284.0

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Use Rwy 3R Transition or as assigned by ATC.
Expect runway assignment from Detroit APP CON
no later than 10 NM from CUUGR.
- NOTE: Jet aircraft descend via Mach number until intercepting
280K. Maintain 280K until slowed by the STAR.
- NOTE: For use when DTW landing north. When DTW landing
south or west, file and expect the TPGUN RNAV STAR.
- NOTE: GGUCE TRANSITION: Except for flights originating in
Canada, do not file, to be assigned by ATC.



NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

BOBTA TRANSITION (BOBTA.CUUGR2)
DONEO TRANSITION (DONEO.CUUGR2)
GGUCE TRANSITION (GGUCE.CUUGR2)

From TPGUN on track 253° to cross HHUNT between 12000 and 15000, then on track 253° to cross CUUGR between 10000 and 11000 and at 250K.

LANDING RWYS 3L/R, 4R: From CUUGR on track 214° to ROOAA, then on track 214° to cross ROYYY at 8000 and at 210K, then on track 216°.
Expect RADAR vectors to final approach course.

LANDING RWY 4L: From CUUGR on track 267° to ZUBBY, then on track 216° to cross SKRUG at 8000 and at 210K, then on track 218°.
Expect RADAR vectors to final approach course.

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

(TPGUN, CUUGR2) 21112
CUUGR TWO ARRIVAL (RNAV)

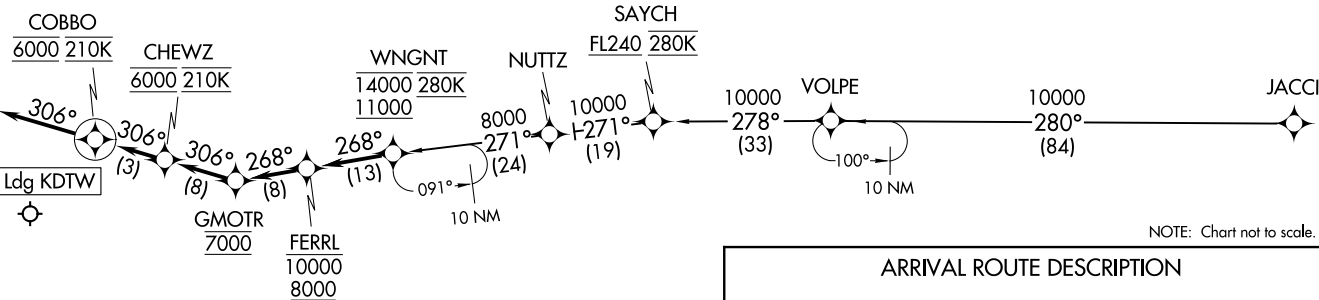
AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

D-ATIS
133.675
DETROIT APP CON
126.225 284.0



- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Expect Rwy 21L.
- NOTE: Jet aircraft descend via Mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
- NOTE: For use when DTW landing south or west. When DTW landing north, file and expect the WNGNT RNAV STAR.



NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

JACCI TRANSITION (JACCI.FERRL2)

From WNGNT on track 268° to cross FERRL between 8000 and 10000, then on track 268° to cross GMOTR at 7000, then on track 306° to cross CHEWZ at 6000 and at 210K, then on track 306° to cross COBBO at 6000 and at 210K, then on track 306°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS:

From COBBO, execute ILS Rwy 21L approach.

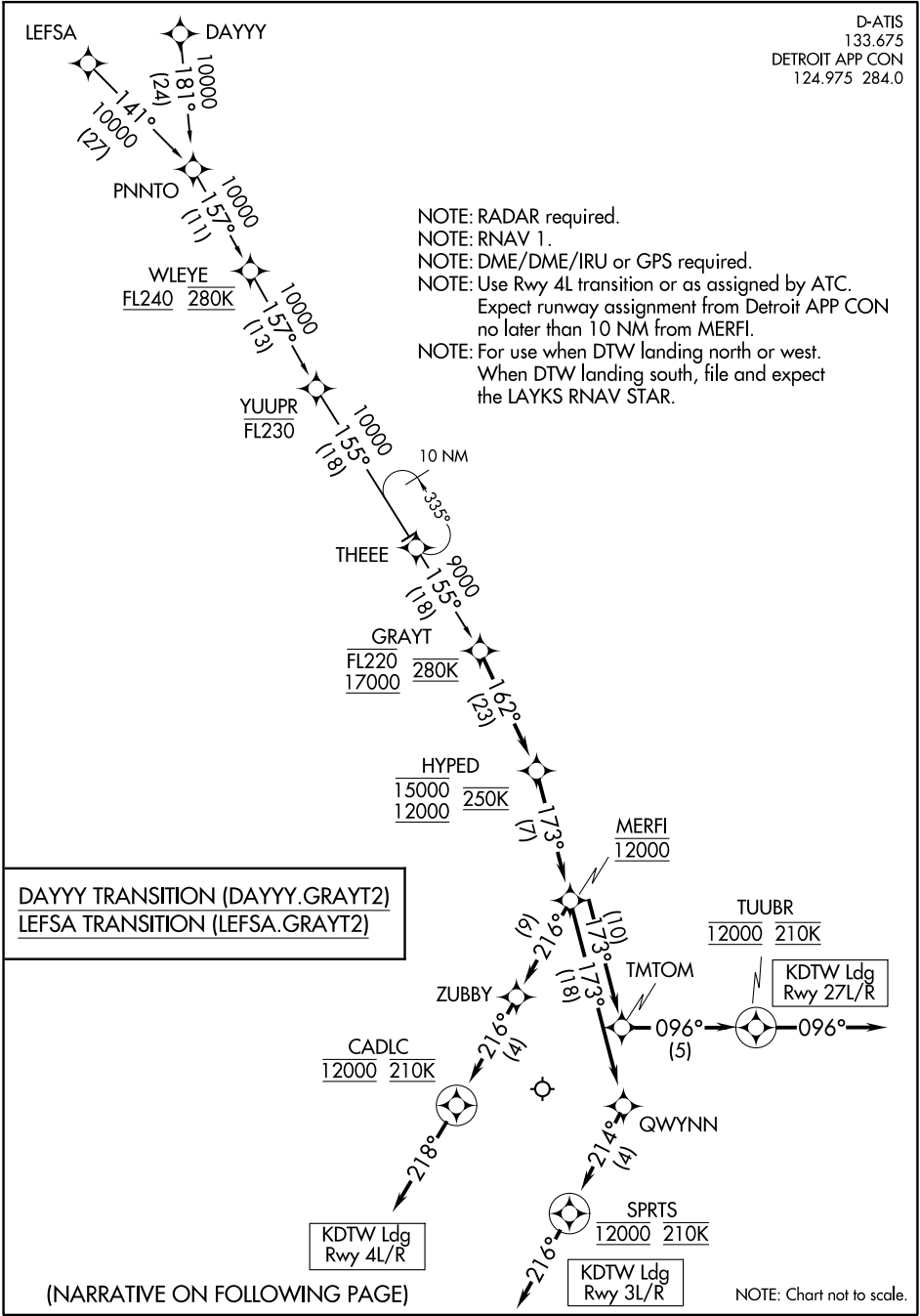
FERRL TWO ARRIVAL (RNAV) (WNGNT.FERRL2) 100CT19
 DETROIT METRO WAYNE COUNTY (DTW) DETROIT, MICHIGAN

(WNGNT.FERRL2) 21112
 FERRL TWO ARRIVAL (RNAV) AL119 (FAA)
 DETROIT METRO WAYNE COUNTY (DTW) DETROIT, MICHIGAN

GRAYT TWO ARRIVAL (RNAV)

DETROIT, MICHIGAN

D-ATIS
133.675
DETROIT APP CON
124.975 284.0



EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

GRAYT TWO ARRIVAL (RNAV)

(GRAYT.GRAYT2) 10OCT19

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

GRAYT TWO ARRIVAL (RNAV)

ARRIVAL ROUTE DESCRIPTION

From GRAYT on track 162° to cross HYPED between 12000 and 15000 and at 250K, then on track 173° to cross MERFI at 12000.

LANDING RWY 3L/R: From MERFI on track 173° to QWYNN, then on track 214° to cross SPRTS at 12000 and at 210K, then on track 216°. Expect RADAR vectors to final approach course.

LANDING RWY 4L/R: From MERFI on track 216° to ZUBBY, then on track 216° to cross CADLC at 12000 and at 210K, then on track 218°. Expect RADAR vectors to final approach course.

LANDING RWY 27L/R: From MERFI on track 173° to TMTOM, then on track 096° to cross TUUBR at 12000 and at 210K, then on track 096°. Expect RADAR vectors to final approach course.

EC-1, 22 FEB 2024 to 21 MAR 2024

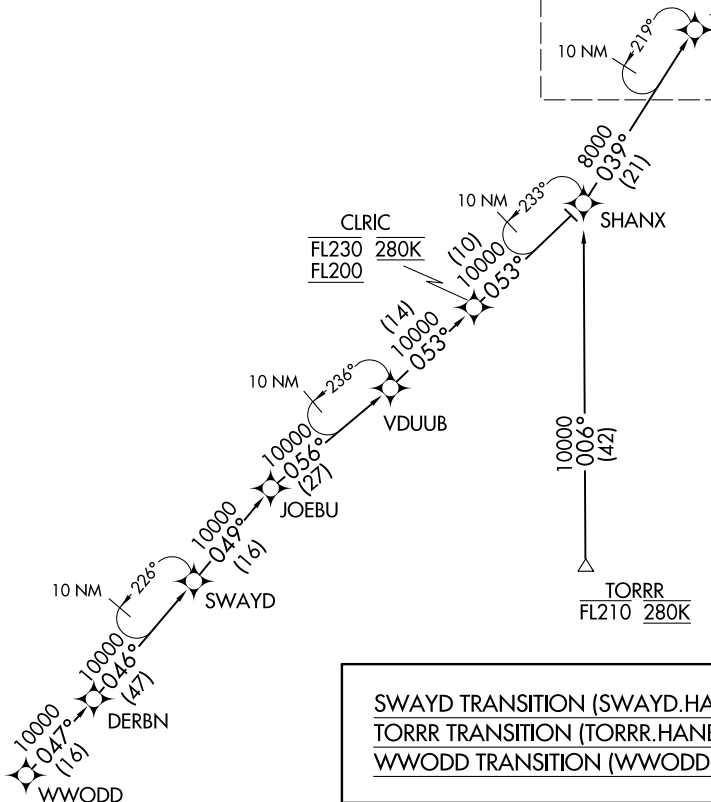
EC-1, 22 FEB 2024 to 21 MAR 2024

HANBL THREE ARRIVAL (RNAV) Transition Routes

D-ATIS
133.675
DETROIT APP CON
124.975 284.0

See following page
for arrival routes

HANBL
FL210 280K
17000



SWAYD TRANSITION (SWAYD.HANBL3)
TORRR TRANSITION (TORRR.HANBL3)
WWODD TRANSITION (WWODD.HANBL3)

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Use Runway 22R transition or as assigned by ATC. Expect runway assignment from Detroit APP CON no later than 10 NM from HEMIE.
- NOTE: For use when DTW landing south or west. When DTW landing north, file and expect the LECTR RNAV STAR.
- NOTE: TORRR Transition for use by CVG/DAY/SDF/LEX terminal area departures at or below FL210 only and ATC use as assigned.

(NARRATIVE ON FOLLOWING PAGE)
(CONTINUED ON FOLLOWING PAGE)

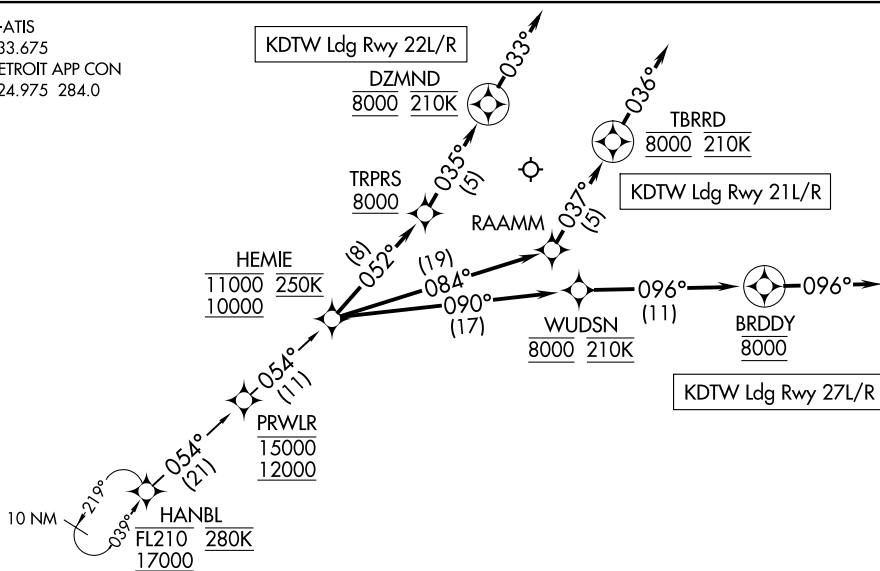
NOTE: Chart not to scale.

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

HANBL THREE ARRIVAL (RNAV) Arrival Routes

D-ATIS
133.675
DETROIT APP CON
124.975 284.0



NOTE: RADAR required.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

NOTE: Use Runway 22R transition or as assigned by ATC. Expect runway assignment from Detroit APP CON no later than 10 NM from HEMIE.

NOTE: For use when DTW landing south or west. When DTW landing north, file and expect the LECTR RNAV STAR.

NOTE: TORRR Transition for use by CVG/DAY/SDF/LEX terminal area departures at or below FL210 only and ATC use as assigned.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

From HANBL on track 054° to cross PRWLR between 12000 and 15000, then on track 054° to cross HEMIE between 10000 and 11000 and at 250K.

LANDING RUNWAY 21L/R: From HEMIE on track 084° to RAAMM, then on track 037° to cross TBRRD at 8000 and at 210K, then on track 036°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 22L/R: From HEMIE on track 052° to cross TRPRS at or above 8000, then on track 035° to cross DZMND at 8000 and at 210K, then on track 033°. Expect RADAR vectors to final approach course.

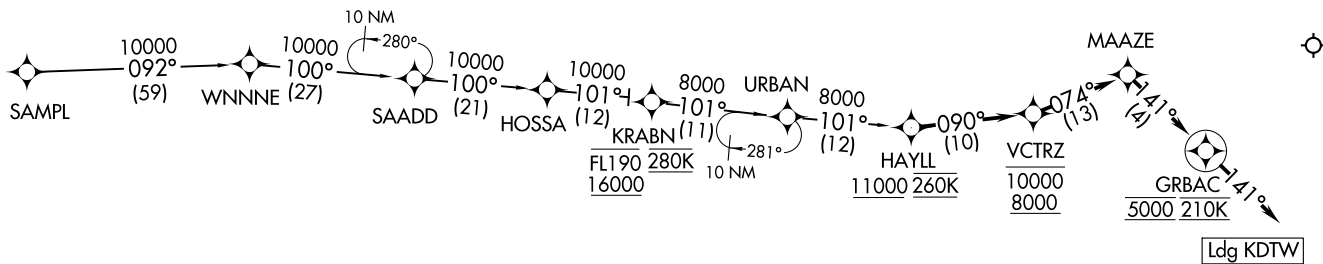
LANDING RUNWAY 27L/R: From HEMIE on track 090° to cross WUDSN at 8000 and at 210K, then on track 096° to cross BRDDY at 8000, then on track 096°. Expect RADAR vectors to final approach course.

HAYLL THREE ARRIVAL (RNAV)
(HAYLL.HAYLL3) 100CT19

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

D-ATIS
133.675
DETROIT APP CON
124.975 284.0

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Expect Rwy 4L.
- NOTE: For use when DTW landing north. When DTW landing south or west, file and expect the VCTRZ RNAV STAR.
- NOTE: For use by flights departing MDW, SBN, AZO, MCI, LAS, LAX, PHX, SAN, SNA airports only, or as assigned by ATC.



ARRIVAL ROUTE DESCRIPTION

HOSSA TRANSITION (HOSSA.HAYLL3)
SAMPL TRANSITION (SAMPL.HAYLL3)

From HAYLL on track 090° to cross VCTRZ between 8000 and 10000, then on track 074° to MAAZE, then on track 141° to cross GRBAC at 5000 and at 210K, then on track 141°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS

From GRBAC, execute RNAV (GPS) Y RWY 4L approach or ILS Y RWY 4L approach.

NOTE: Chart not to scale.

(HAYLL.HAYLL3) 21112
HAYLL THREE ARRIVAL (RNAV)

AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

HTROD TWO ARRIVAL (RNAV)

D-ATIS
133.675
DETROIT APP CON
126.225 284.0

KDTW Ldg Rwy 22R

KDTW Ldg Rwy 21L/R, 22L

SEEGR
12000 210K

MODLT
12000 210K

TRPRS
(3)

FFORK

HTROD
12000 250K

BEERR
15000
12000

CRAKN
FL210 280K
15000

FIYUR
FL200

BUCKN
FL270 280K
FL240

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Use Rwy 21L transition or as assigned by ATC. Expect runway assignment from Detroit APP CON no later than 10 NM from HTROD.
- NOTE: Jet aircraft descend via Mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
- NOTE: For use when DTW landing south. When DTW landing north or west, file and expect the CRAKN RNAV STAR.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

SUBWY TRANSITION (SUBWY.HTROD2)

From CRAKN on track 326° to cross BEERR between 12000 and 15000, then on track 327° to cross HTROD at 12000 and at 250K.

LANDING RUNWAY 22L, 21L/R: From HTROD on track 038° to FFORK, then on track 037° to cross MODLT at 12000 and at 210K, then on track 036°.

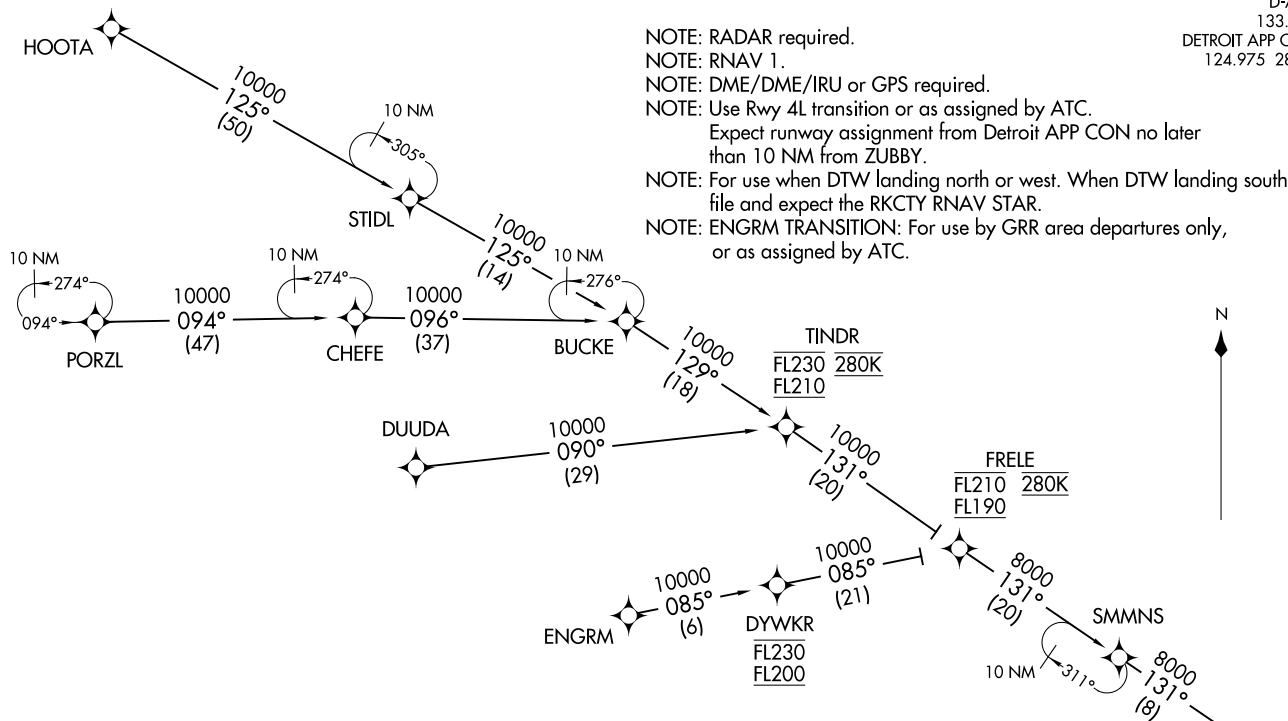
Expect RADAR vectors to final approach course.

LANDING RUNWAY 22R: From HTROD on track 326° to TRPRS, then on track 036° to cross SEEGR at 12000 and at 210K, then on track 033°.

Expect RADAR vectors to final approach course.

D-ATIS
133.675
DETROIT APP CON
124.975 284.0

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Use Rwy 4L transition or as assigned by ATC.
Expect runway assignment from Detroit APP CON no later than 10 NM from ZUBBY.
- NOTE: For use when DTW landing north or west. When DTW landing south, file and expect the RKCTY RNAV STAR.
- NOTE: ENGRM TRANSITION: For use by GRR area departures only, or as assigned by ATC.



DUUDA TRANSITION (DUUDA.KKISS2)
ENGRM TRANSITION (ENGRM.KKISS2)
HOOTA TRANSITION (HOOTA.KKISS2)
PORZL TRANSITION (PORZL.KKISS2)

(NARRATIVE ON FOLLOWING PAGE)
 (CONTINUED ON FOLLOWING PAGE)

RKCTY
FL210 280K
16000
 See following page for arrival route

NOTE: Chart not to scale.

KISS TWO ARRIVAL (RNAV) Transition Routes
 (RKCTY.KKISS2) 100CT19
 DETROIT, MICHIGAN
 DETROIT METRO WAYNE COUNTY (DTW)

(RKCTY.KKISS2) 21112
 KISS TWO ARRIVAL (RNAV) Transition Routes
 AL119 (FAA)
 DETROIT, MICHIGAN
 DETROIT METRO WAYNE COUNTY (DTW)

D-ATIS
133.675
DETROIT APP CON
124.975 284.0

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Use Rwy 4L transition or as assigned by ATC.
Expect runway assignment from Detroit APP CON no later than 10 NM from ZUBBY.
- NOTE: For use when DTW landing north or west. When DTW landing south, file and expect the RKCTY RNAV STAR.
- NOTE: ENGRM TRANSITION: For use by GRR area departures only, or as assigned by ATC.

ARRIVAL ROUTE DESCRIPTION

From RKCTY on track 141° to cross KKISS between 12000 and 15000, then on track 140° to cross STLEY between 10000 and 11000 and at 250K, then on track 140° to ZUBBY.

LANDING RWY 3L/R: From ZUBBY on track 144° to QWYNN, then on track 214° to cross ROYYY at 8000 and at 210K, then on track 216°. Expect RADAR vectors to final approach course.

LANDING RWY 4L/R: From ZUBBY on track 216° to cross SKRUG at 8000 and at 210K, then on track 218°. Expect RADAR vectors to final approach course.

LANDING RWY 27L/R: From ZUBBY on track 112° to cross TMTOM at 8000 and at 210K, then on track 096° to cross TUUBR at 8000, then on track 096°. Expect RADAR vectors to final approach course.

RKCTY
FL210 280K
16000

KKISS
15000
12000

STLEY
11000 250K
10000

ZUBBY

SKRUG
8000 210K

TMTOM
8000 210K

QWYNN

ROYYY
8000 210K

KDTW Ldg Rwy 27L/R

TUUBR
8000

KDTW Ldg Rwy 4L/R

KDTW Ldg Rwy 3L/R

NOTE: Chart not to scale.

KKISS TWO ARRIVAL (RNAV) Arrival Route
(RKCTY, KKISS2) 100CT19

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

(RKCTY, KKISS2) 21112
KKISS TWO ARRIVAL (RNAV) Arrival Route

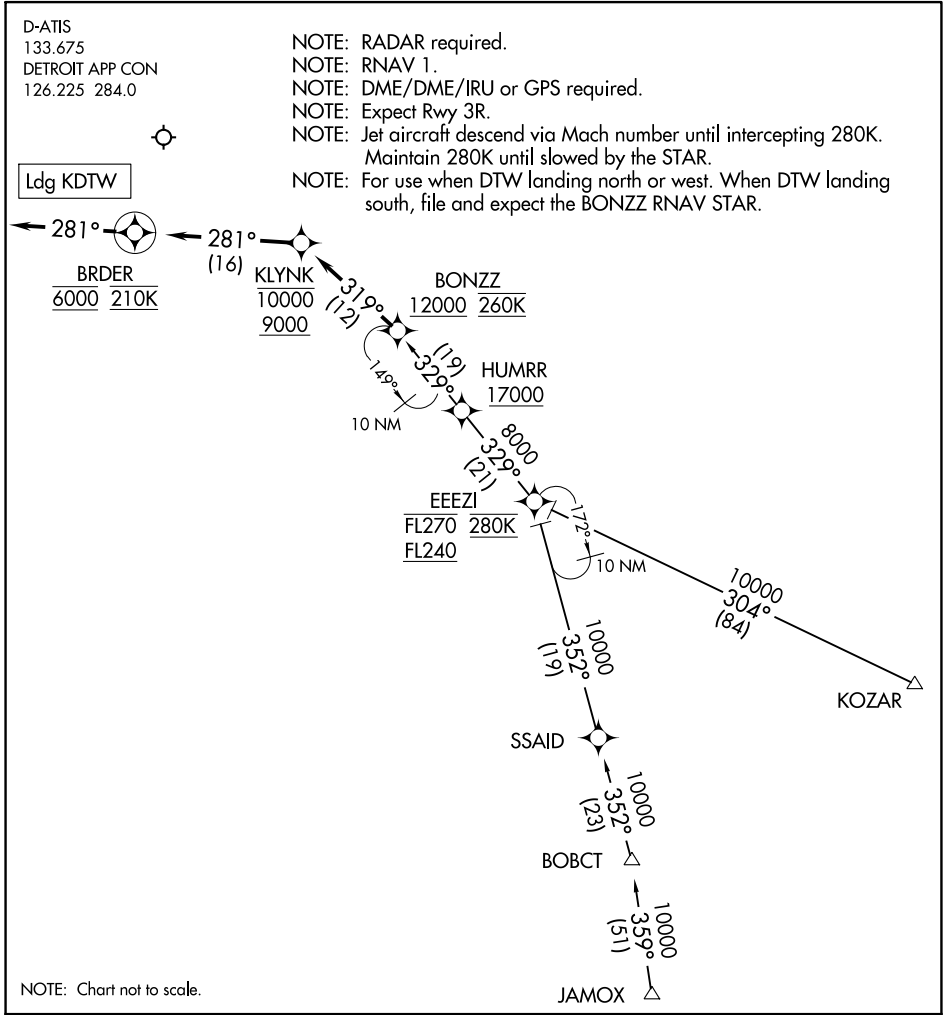
DETROIT METRO WAYNE COUNTY (DTW)
AL-119 (FAA) DETROIT, MICHIGAN

(BONZZ.KLYNK3) 21112

KLYNK THREE ARRIVAL (RNAV)

DETROIT METRO WAYNE COUNTY (DTW)

DETROIT, MICHIGAN



EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

ARRIVAL ROUTE DESCRIPTION

JAMOX TRANSITION (JAMOX.KLYNK3)
KOZAR TRANSITION (KOZAR.KLYNK3)

From BONZZ on track 319° to cross KLYNK between 9000 and 10000, then on track 281° to cross BRDER at 6000 and at 210K, then on track 281°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS
From BRDER, execute ILS Rwy 3R approach.

KLYNK THREE ARRIVAL (RNAV)
(BONZZ.KLYNK3) 10OCT19

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

(GRAYT.LAYKS2) 21112

LAYKS TWO ARRIVAL (RNAV)

AL-119 (FAA)

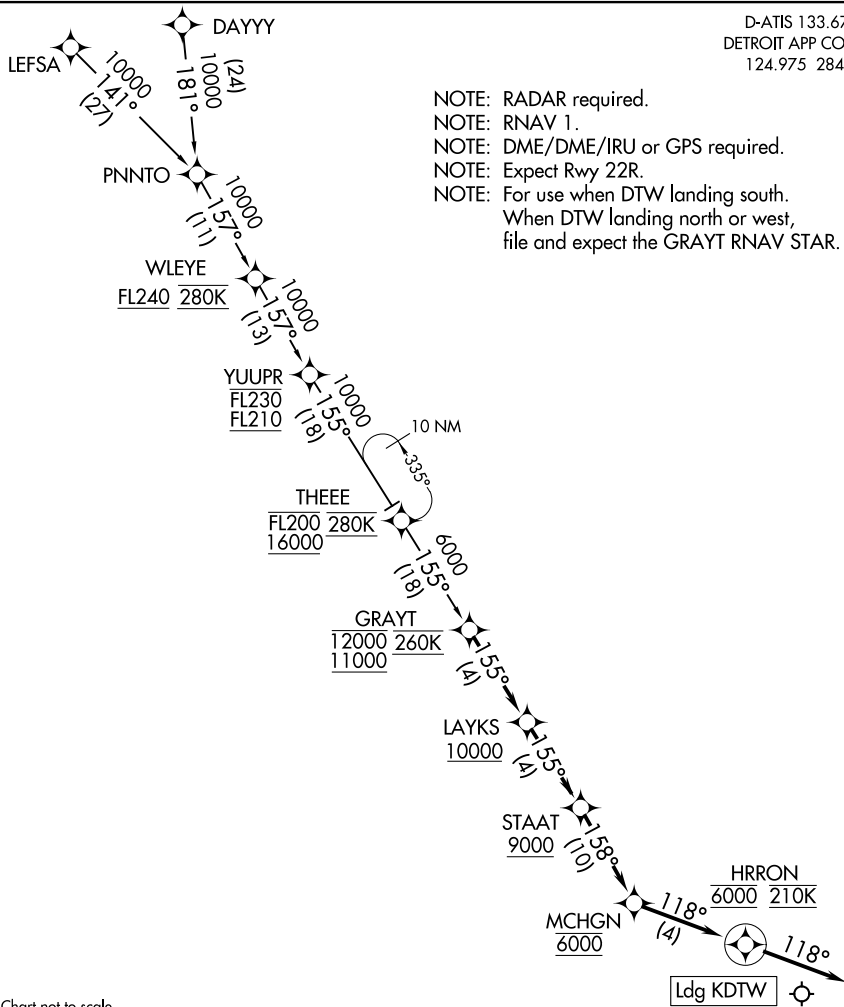
DETROIT METRO WAYNE COUNTY (DTW)

DETROIT, MICHIGAN

D-ATIS 133.675

DETROIT APP CON

124.975 284.0



- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Expect Rwy 22R.
- NOTE: For use when DTW landing south. When DTW landing north or west, file and expect the GRAYT RNAV STAR.

EC-1, 22 FEB 2024 to 21 MAR 2024

EC-1, 22 FEB 2024 to 21 MAR 2024

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

DAYYY TRANSITION (DAYYY.LAYKS2)

LEFSA TRANSITION (LEFSA.LAYKS2)

From GRAYT on track 155° to cross LAYKS at or above 10000, then on track 155° to cross STAAT at or above 9000, then on track 158° to MCHGN at 6000, then on track 118° to cross HRRON at 6000 and at 210K, then on track 118°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS: From HRRON, execute RNAV (GPS) Y RWY 22R or ILS Y RWY 22R approach.

LAYKS TWO ARRIVAL (RNAV)

(GRAYT.LAYKS2) 100CT19

DETROIT, MICHIGAN

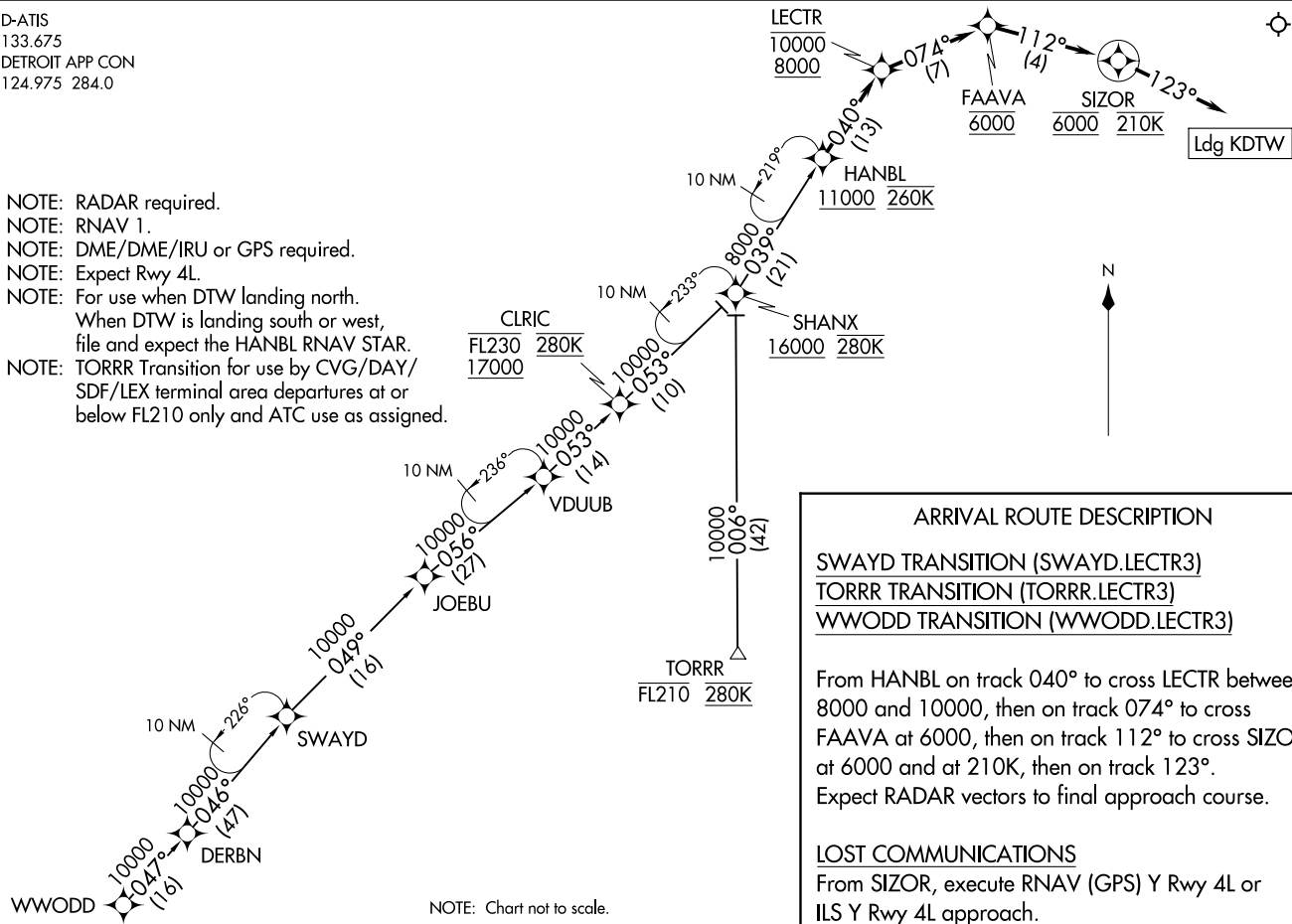
DETROIT METRO WAYNE COUNTY (DTW)

LECTR THREE ARRIVAL (RNAV)
(HANBL.LECTR3) 10OCT19

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

D-ATIS
133.675
DETROIT APP CON
124.975 284.0

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Expect Rwy 4L.
- NOTE: For use when DTW landing north. When DTW is landing south or west, file and expect the HANBL RNAV STAR.
- NOTE: TORRR Transition for use by CVG/DAY/SDF/LEX terminal area departures at or below FL210 only and ATC use as assigned.



NOTE: Chart not to scale.

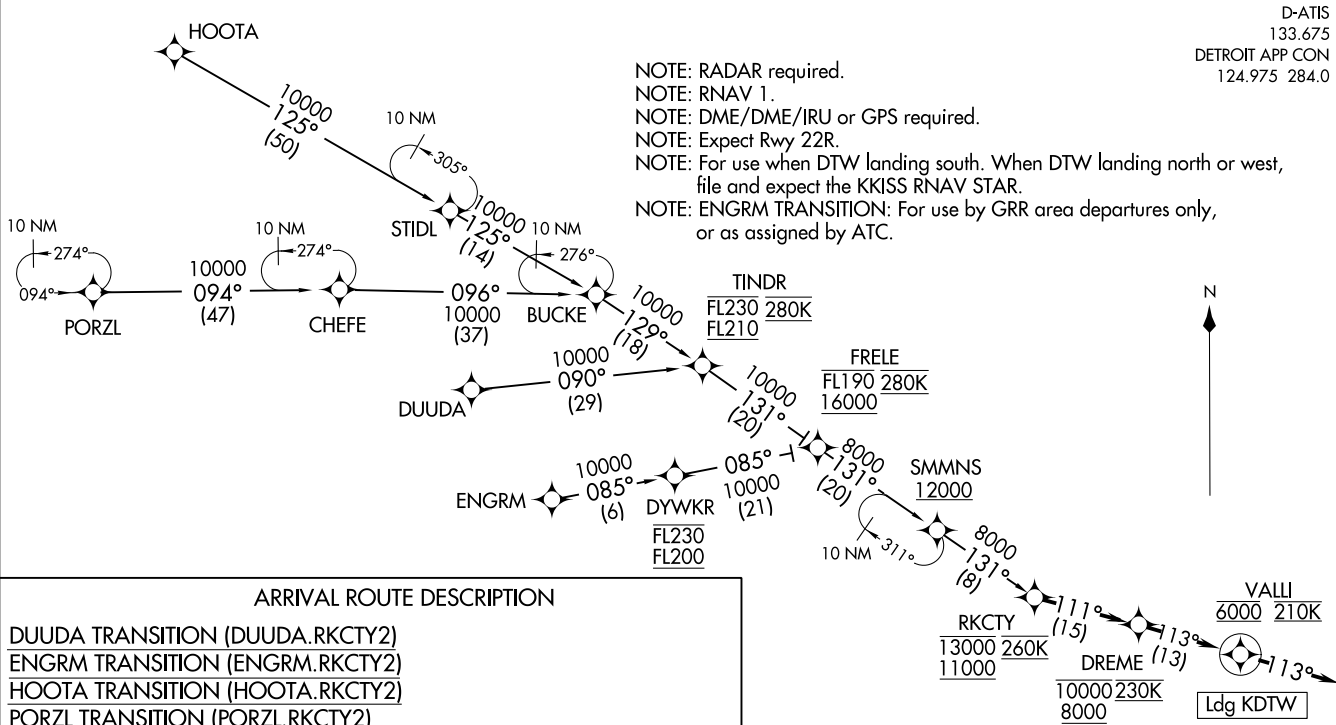
(HANBL.LECTR3) 21112
LECTR THREE ARRIVAL (RNAV)

AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

D-ATIS
133.675
DETROIT APP CON
124.975 284.0

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Expect Rwy 22R.
NOTE: For use when DTW landing south. When DTW landing north or west, file and expect the KKISS RNAV STAR.
NOTE: ENGRM TRANSITION: For use by GRR area departures only, or as assigned by ATC.



ARRIVAL ROUTE DESCRIPTION

- DUUDA TRANSITION (DUUDA.RKCTY2)
- ENGRM TRANSITION (ENGRM.RKCTY2)
- HOOA TRANSITION (HOOA.RKCTY2)
- PORZL TRANSITION (PORZL.RKCTY2)

From RKCTY on track 111° to cross DREME between 8000 and 10000 and at 230K, then on track 113° to cross VALLI at 6000 and at 210K, then on track 113°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS

From VALLI, execute RNAV (GPS) Y RWY 22R or ILS Y RWY 22R approach.

NOTE: Chart not to scale.

RKCTY TWO ARRIVAL (RNAV)
(RKCTY, RKCTY2) 10OCT19

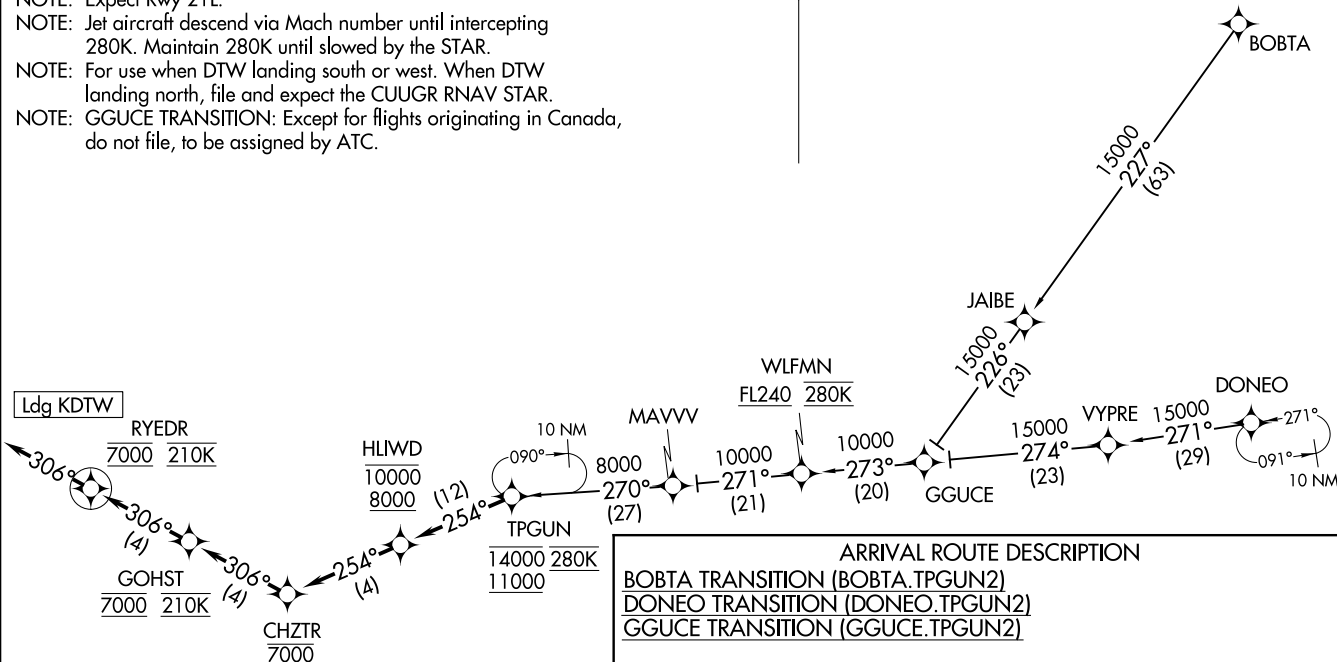
(RKCTY, RKCTY2) 2111Z
RKCTY TWO ARRIVAL (RNAV)
AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Expect Rwy 21L.
- NOTE: Jet aircraft descend via Mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
- NOTE: For use when DTW landing south or west. When DTW landing north, file and expect the CUUGR RNAV STAR.
- NOTE: GGUCE TRANSITION: Except for flights originating in Canada, do not file, to be assigned by ATC.

D-ATIS
133.675
DETROIT APP CON
126.225 284.0



ARRIVAL ROUTE DESCRIPTION
BOBTA TRANSITION (BOBTA.TPGUN2)
DONEO TRANSITION (DONEO.TPGUN2)
GGUCE TRANSITION (GGUCE.TPGUN2)

From TPGUN on track 254° to cross HLIWD between 8000 and 10000, then on track 254° to CHZTR at 7000, then on track 306° to cross GOHST at 7000 and at 210K, then on track 306° to cross RYEDR at 7000 and at 210K, then on track 306°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS:
 From RYEDR, execute ILS Rwy 21L approach.

NOTE: Chart not to scale.

TPGUN TWO ARRIVAL (RNAV)
(TPGUN, TPGUN2) 100CT19

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

(TPGUN, TPGUN2) 21112
TPGUN TWO ARRIVAL (RNAV)

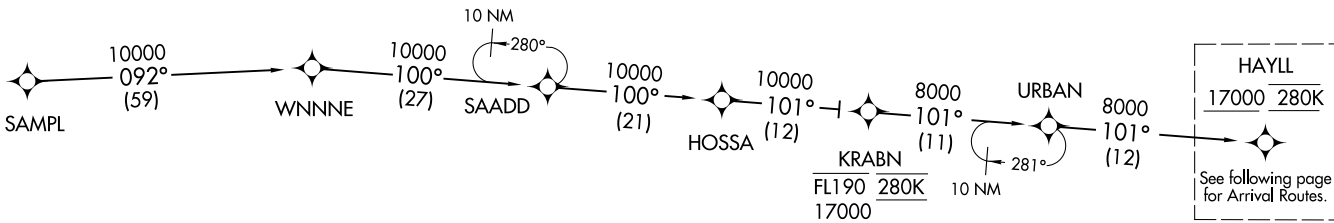
DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN
AL-119 (FAA)

VCTRZ TWO ARRIVAL (RNAV) Transition Routes
(HAYLL VCTRZ2) 100CT19
DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

D-ATIS
133.675
DETROIT APP CON
124.975 284.0

N

- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Use Runway 22R transition or as assigned by ATC.
Expect runway assignment from Detroit APP CON no later than 10 NM from UUOFM.
- NOTE: For use when DTW landing south or west. When DTW landing north, file and expect the HAYLL RNAV STAR.
- NOTE: For use by flights departing KMDW, KSBN, KAZO, KMCI, KLAS, KLAX, KPHX, KSAN, AND KSNA area airports only, or as assigned by ATC.



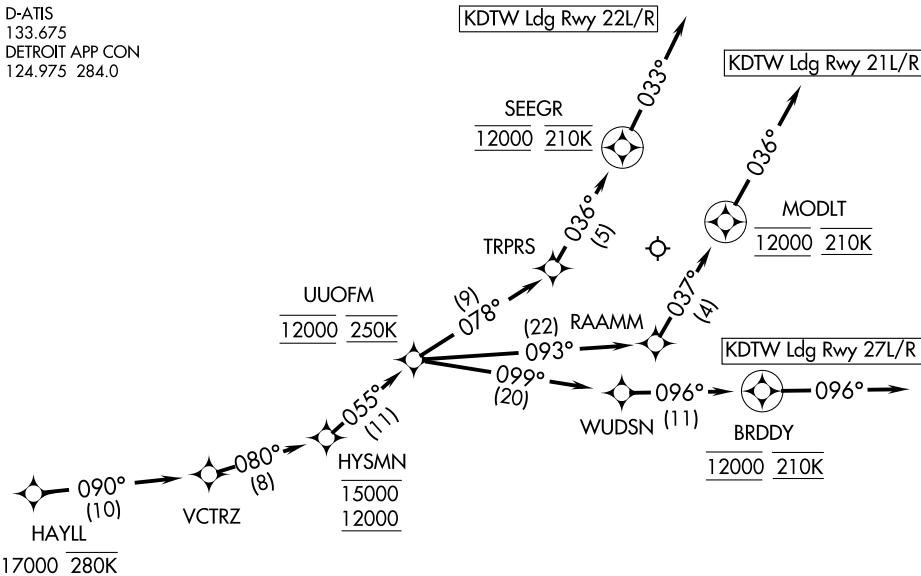
HOSSA TRANSITION (HOSSA.VCTRZ2)
 SAMPL TRANSITION (SAMPL.VCTRZ2)

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

(HAYLL VCTRZ2) 21112
VCTRZ TWO ARRIVAL (RNAV) Transition Routes
AL-119 (FAA)
DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

D-ATIS
133.675
DETROIT APP CON
124.975 284.0



- NOTE: RADAR required.
- NOTE: RNAV 1.
- NOTE: DME/DME/IRU or GPS required.
- NOTE: Use Runway 22R transition or as assigned by ATC. Expect runway assignment from Detroit APP CON no later than 10 NM from UOOFM.
- NOTE: For use when DTW landing south or west. When DTW landing north, file and expect the HAYLL RNAV STAR.
- NOTE: For use by flights departing KMDW, KSBM, KAZO, KMCI, KLAS, KLAX, KPHX, KSNM, AND KSNA area airports only, or as assigned by ATC.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

From HAYLL on track 090° to VCTRZ, then on track 080° to cross HYSMNM between 12000 and 15000, then on track 055° to cross UOOFM at 12000 and at 250K.

LANDING RUNWAY 21L/R: From UOOFM on track 093° to RAAMM, then on track 037° to cross MODLT at 12000 and at 210K, then on track 036°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 22L/R: From UOOFM on track 078° to TRPRS, then on track 036° to cross SEEGR at 12000 and at 210K, then on track 033°. Expect RADAR vectors to final approach course.

LANDING RUNWAY 27L/R: From UOOFM on track 099° to WUDSN, then on track 096° to cross BRDDY at 12000 and at 210K, then on track 096°. Expect RADAR vectors to final approach course.

EC-1, 22 FEB 2024 to 21 MAR 2024

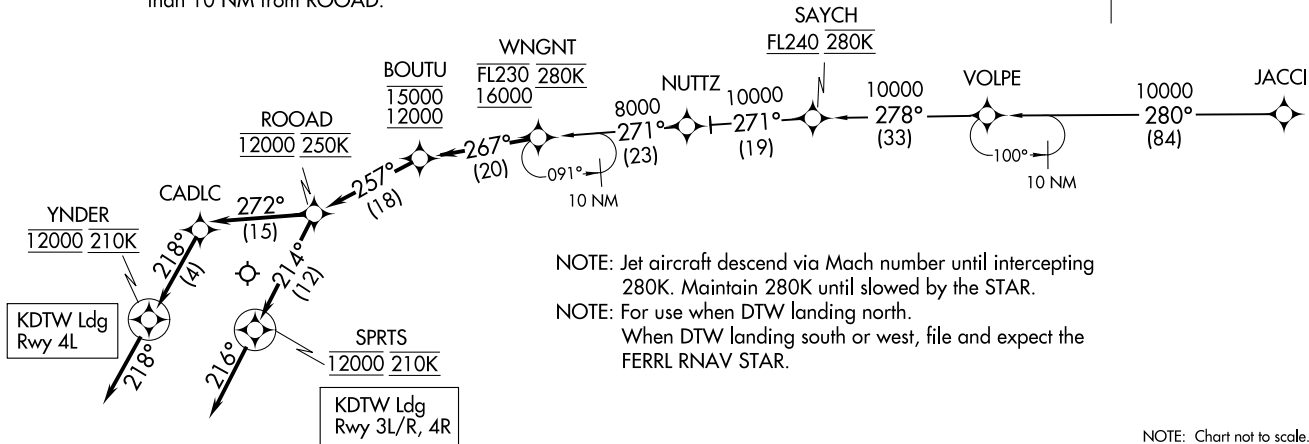
EC-1, 22 FEB 2024 to 21 MAR 2024

WNGNT TWO ARRIVAL (RNAV)
(WNGNT, WNGNT2) 100CT19

(WNGNT, WNGNT2) 2111Z
WNGNT TWO ARRIVAL (RNAV)

D-ATIS 133.675
DETROIT APP CON
126.225 284.0

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Use Rwy 3R transition or as assigned by ATC.
Expect runway assignment from Detroit APP CON no later than 10 NM from ROOAD.



NOTE: Jet aircraft descend via Mach number until intercepting 280K. Maintain 280K until slowed by the STAR.
NOTE: For use when DTW landing north.
When DTW landing south or west, file and expect the FERRL RNAV STAR.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

JACCI TRANSITION (JACCI.WNGNT2)

From WNGNT on track 267° to cross BOUTU between 12000 and 15000, then on track 257° to cross ROOAD at 12000 and at 250K.
LANDING RUNWAYS 3L/R, 4R: From ROOAD on track 214° to cross SPRTS at 12000 and at 210K, then on track 216°. Expect RADAR vectors to final approach course.
LANDING RUNWAY 4L: From ROOAD on track 272° to CADLC, then on track 218° to cross YNDER at 12000 and at 210K, then on track 218°. Expect RADAR vectors to final approach course.

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN
AL-119 (FAA)