Federal Aviation Administration

TM

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East Central (EC) Vol 1 of 3

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07 AUG 2025

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02 OCT 2025

Consult the Change Notice (CN) effective 04 SEP 2025 for revised Instrument Procedure Charts for this volume

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CORRECTIONS, COMMENTS AND/OR PROCUREMENT

FOR CHARTING ERRORS, OR FOR CHANGES, ADDITIONS, RECOMMENDATIONS ON PROCEDURAL ASPECTS CONTACT:
FAA, Aeronautical Information Services
1305 East-West Highway
SSMC 4, Room 4531
Silver Spring, MD 20910-3281
Telephone: 1-800-638-8972
https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/

For inquiries regarding military charts, please contact **aerohelp@nga.mil**

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Frequently asked questions (FAQ) are answered on our website at: **https://www.faa.gov/go/ais**
See the FAQs prior to contact via toll free number or email.

Request for the creation or revisions to Airport Diagrams should be in accordance with FAA Order 7910.4

INOP COMPONENTS 25051

INOPERATIVE COMPONENTS OR VISUAL AIDS TABLE
(For Civil Use Only)

Straight-in and Sidestep landing minimums published on instrument approach procedure charts are based on full operation of all components and visual aids (see exception below for ALSF 1 & 2) associated with the particular approach chart being used. Higher minimums are required with inoperative components or visual aids as indicated below. If more than one component is inoperative, each minimum is raised to the highest minimum required by any single component that is inoperative. ILS glideslope inoperative minimums are published on the instrument approach charts as localizer minimums. This table applies to approach categories A thru D and is to be used unless amended by notes on the approach chart. Such notes apply only to the particular approach category(ies) as stated. Category E inoperative notes will be specified when published on civil charts. The inoperative table does not apply to Circling minimums. See legend page for description of components indicated below.

Full Operation Exception: For ALSF 1 & 2 operated as SSALR, or when the sequenced flashing lights are inoperative, there is no effect on visibility for ILS lines of minima.

(1) ILS, PAR, LPV, GLS minima

Inoperative Component or Visual Aid	Increase Visibility
All ALS types (except ODALS)	¼ mile

(2) ILS, LPV, GLS with visibility minima of RVR 1800†/2000*/2200*

Inoperative Component or Visual Aid	Increase Visibility
ALSF 1 & 2, MALSR, SSALR	To RVR 4000† To RVR 4500*
TDZL or RCLS	To RVR 2400#
RVR	To ½ mile

#For ILS, LPV, GLS procedures with a 200 foot HAT, RVR 1800 authorized with use of FD or AP or HUD to DA. For ILS procedures with a 200 foot HAT with a restriction on autopilot usage, RVR 1800 authorized with use of FD or HUD to DA.

(3) All Approach Types and all lines of minima other than (1) & (2) above

Inoperative Component or Visual Aid	Increase Visibility
ALSF 1 & 2, MALSR, SSALR	½ mile
MALSF, MALS, SSALF, SSALS, SALSF, SALS	¼ mile

(4) Sidestep minima (CAT C-D)

Inoperative Component or Visual Aid to Sidestep Runway	Increase Visibility
ALSF 1 & 2, MALSR, SSALR	½ mile

(5) All Approach Types, All lines of minima

Inoperative Component or Visual Aid	Increase Visibility
ODALS (CAT A-B)	¼ mile
ODALS (CAT C-D)	⅛ mile

INOP COMPONENTS 25051

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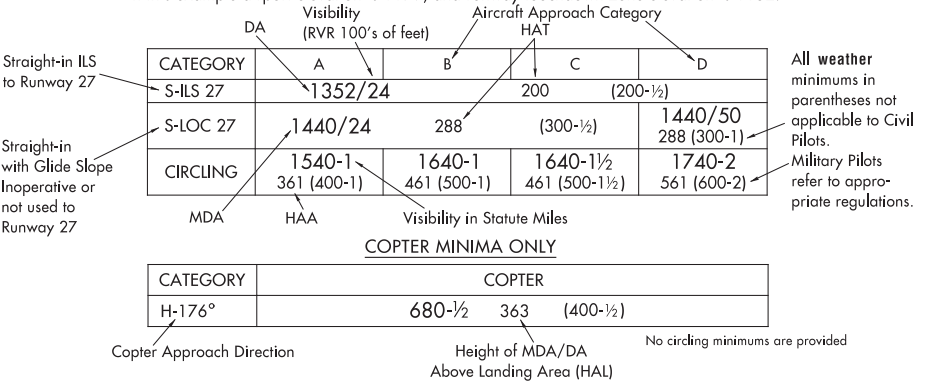
TERMS/LANDING MINIMA DATA 20142

IFR LANDING MINIMA

The United States Standard for Terminal Instrument Procedures (TERPS) is the approved criteria for formulating instrument approach procedures. Landing minima are established for six aircraft approach categories (ABCDE and COPTER).
In the absence of COPTER MINIMA, helicopters may use the CAT A minimums of other procedures.

LANDING MINIMA FORMAT

In this example airport elevation is 1179, and runway touchdown zone elevation is 1152.



COPTER MINIMA ONLY

NOTE: The W symbol indicates outages of the WAAS vertical guidance may occur daily at this location due to initial system limitations. WAAS NOTAMS for vertical outages are not provided for this approach. Use LNAV minima for flight planning at these locations, whether as a destination or alternate. For flight operations at these locations, when the WAAS avionics indicate that LNAV/VNAV or LPV service is available, then vertical guidance may be used to complete the approach using the displayed level of service. Should an outage occur during the procedure, reversion to LNAV minima may be required. As the WAAS coverage is expanded, the W will be removed.

RNAV minimums are dependent on navigation equipment capability, as stated in the applicable AFM, AFMS, or other FAA approved document. See AIM paragraph 5-4-5, AC 90-105 and AC 90-107 for detailed requirements for each line of minima.

COLD TEMPERATURE AIRPORTS

NOTE: A ❄-12°C symbol indicates a cold temperature altitude correction is required at this airport when reported temperature is at or below the published temperature. See the following Cold Temperature Error Table to make manual corrections. Advise ATC with altitude correction. Advising ATC with altitude corrections is not required in the final segment. See Aeronautical Information Manual (AIM), Chapter 7, for guidance and additional information. For a complete list, see the "Cold Temperature Airports" link under the Additional Resources heading at the bottom of the following page: http://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dtpp/search/

COLD TEMPERATURE ERROR TABLE

HEIGHT ABOVE AIRPORT IN FEET

REPORTED TEMP °C	200	300	400	500	600	700	800	900	1000	1500	2000	3000	4000	5000
+10	10	10	10	10	20	20	20	20	20	30	40	60	80	90
0	20	20	30	30	40	40	50	50	60	90	120	170	230	280
-10	20	30	40	50	60	70	80	90	100	150	200	290	390	490
-20	30	50	60	70	90	100	120	130	140	210	280	420	570	710
-30	40	60	80	100	120	140	150	170	190	280	380	570	760	950
-40	50	80	100	120	150	170	190	220	240	360	480	720	970	1210
-50	60	90	120	150	180	210	240	270	300	450	590	890	1190	1500

AIRCRAFT APPROACH CATEGORIES

Aircraft approach category indicates a grouping of aircraft based on a speed of VREF, if specified, or if VREF not specified, 1.3 VSO at the maximum certificated landing weight. VREF, VSO, and the maximum certificated landing weight are those values as established for the aircraft by the certification authority of the country of registry. Helicopters are Category A aircraft. An aircraft shall fit in only one category. When necessary to operate the aircraft at an airspeed in excess of the maximum airspeed of its certified aircraft approach category, pilots should use the applicable higher category minima. For additional options and to ensure the aircraft remains within protected airspace, consult the AIM. See following category limits:

MANEUVERING TABLE

Approach Category	A	B	C	D	E
Speed (Knots)	0-90	91-120	121-140	141-165	Abv 165

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TERMS/LANDING MINIMA DATA 25163

CIRCLING APPROACH OBSTACLE PROTECTED AIRSPACE

The circling MDA provides vertical obstacle clearance during a circle-to-land maneuver. The circling MDA protected area extends from the threshold of each runway authorized for landing following a circle-to-land maneuver for a distance as shown in the table below. The resultant arcs are then connected tangentially to define the protected area.

CIRCLING APPROACH MANEUVERING AIRSPACE RADIUS

Circling MDA protected areas use the radius distance shown in the following table, expressed in nautical miles (NM), dependent on aircraft approach category, and the altitude of the circling MDA, which accounts for true airspeed increase with altitude.

Circling MDA in feet MSL	Approach Category and Circling Radius (NM)				
	CAT A	CAT B	CAT C	CAT D	CAT E
1000 or less	1.3	1.7	2.7	3.6	4.5
1001-3000	1.3	1.8	2.8	3.7	4.6
3001-5000	1.3	1.8	2.9	3.8	4.8
5001-7000	1.3	1.9	3.0	4.0	5.0
7001-9000	1.4	2.0	3.2	4.2	5.3
9001 and above	1.4	2.1	3.3	4.4	5.5

Users may ignore the presence of C symbols on charts which will be removed on a day-forward basis. All circling areas within this volume have been evaluated for the circling MDA protected area radius shown in the table above.

Comparable Values of RVR and Visibility

The following table shall be used for converting RVR to ground or flight visibility. For converting RVR values that fall between listed values, use the next higher RVR value; do not interpolate. For example, when converting 4800 RVR, use 5000 RVR with the resultant visibility of 1 mile.

RVR (feet)	Visibility (SM)	RVR (feet)	Visibility (SM)	RVR (feet)	Visibility (SM)	RVR (feet)	Visibility (SM)
1600	¼	2400	½	3500	⅝	5500	1
1800	½	2600	½	4000	¾	6000	1¼
2000	½	3000	⅝	4500	⅞		
2200	½	3200	⅝	5000	1		

RADAR MINIMA

	RWY	GP/TCH/RPI	CAT	DA/ MDA-VIS	HAT HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT HAA	CEIL-VIS
PAR	10	2.5°/42/1000	ABCDE	**195**/16	100	(100-¼)				
	28	2.5°/48/1068	ABCDE	**187**/16	100	(100-¼)				
ASR	10		ABC	**560**/40	463	(500-¾)	DE	**560**/50	463	(500-1)
	28		AB	**600**/50	513	(600-1)	CDE	**600**/60	513	(600-1¼)
CIR	10		AB	**560**-1¼	463	(500-1¼)	CDE	**560**-1½	463	(500-1½)
	28		AB	**600**-1¼	503	(600-1¼)	CDE	**600**-1½	503	(600-1½)

Visibility (RVR 100's of feet)

Visibility in Statute Miles

All minimums in parentheses not applicable to Civil Pilots. Military Pilots refer to appropriate regulations.

Radar Minima:

1. Minima shown are the lowest permitted by established criteria. Pilots should consult applicable directives for their category of aircraft.
2. The circling MDA and weather minima to be used are those for the runway to which the final approach is flown- not the landing runway. In the above RADAR MINIMA example, a category C aircraft flying a radar approach to runway 10, circling to land on runway 28, must use an MDA of 560 feet with weather minima of 500-1½.

NOTE: Military RADAR MINIMA may be shown with communications symbology that indicates emergency frequency monitoring capability by the radar facility as follows: (E) VHF and UHF emergency frequencies monitored
(V) VHF emergency frequency (121.5) monitored
(U) UHF emergency frequency (243.0) monitored
Additionally, unmonitored frequencies which are available on request from the controlling agency may be annotated with an "x".

A Alternate Minimums not standard. Civil users refer to tabulation. USA/USN/USAF pilots refer to appropriate regulations.
A NA Alternate minimums are Not Authorized due to unmonitored facility or absence of weather reporting service.
T Airport is published in the Takeoff Minimums, (Obstacle) Departure Procedures, and Diverse Vector Area (Radar Vectors) tabulation.

TERMS/LANDING MINIMA DATA 25163

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GENERAL INFORMATION

This publication is issued every 56 days and includes Standard Instrument Approach Procedures (SIAPS), Standard Instrument Departures (SIDs), Standard Terminal Arrivals (STARs), IFR Takeoff Minimums and (Obstacle) Departure Procedures (ODPs), IFR Alternate Minimums, and Radar Instrument Approach Minimums for use by civil and military aviation. The organization responsible for SIAPs, Radar Minimums, SIDs, STARs and graphic ODPs is identified in parentheses in the top margin of the procedure; e.g., (FAA), (FAA-O), (USA), (USAF), (USN). SIAPS with the (FAA) and (FAA-O) designation are regulated under 14 CFR, Part 97. SIAPs with the (FAA-O) designation have been developed by an authorized non-FAA service provider. See 14 CFR, Part 91.175 (a) and the AIM for further details. 14 CFR, Part 91.175 (g) and the Special Notices section of the Chart Supplement contain information on civil operations at military airports.

The FAA uses an internal numbering system on all charts in the TPP. This Approach and Landing (AL) number is located on the top center margin of the chart followed by the organization responsible for the procedure in parentheses, e.g., AL-18 (FAA), AL-11919 (FAA-O). Military procedures do not show AL number, but do show the appropriate authority for the procedure, e.g., (USAF).

CHART CURRENCY INFORMATION

Date of Latest Revision 09365

The Date of Latest Revision identifies the Julian date the chart was added or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest revision of any kind has been made to the chart.

The FAA Procedure Amendment Number represents the most current amendment of a given procedure. The Procedure Amendment Effective Date represents the AIRAC cycle date on which the procedure amendment was incorporated into the chart. Updates to the amendment number & effective date represent procedural/criteria revisions to the charted procedure, e.g., course, fix, altitude, minima, etc. On Departure Procedures and Standard Terminal Arrivals, procedural revisions to the current chart are indicated by an upnumber to the procedure title with the procedure amendment effective date following. On Radar Minima, Takeoff Minimums and (Obstacle) Departure Procedures and Diverse Vector Areas, the FAA Procedure Amendment Number, Procedure Effective Date, and the Julian Date of Last Revision will be shown on the same line, e.g., AMDT 2 10DEC15 (15344).

MISCELLANEOUS

★ Indicates a non-continuously operating facility, see Chart Supplement.

For Civil (FAA) instrument procedures, "RADAR REQUIRED" in the planview of the chart indicates that ATC radar must be available to assist the pilot when transitioning from the en route environment. "Radar required" in the pilot briefing portion of the chart indicates that ATC radar is required on portions of the procedure outside the final approach segment, including the missed approach. Some military procedures also have equipment requirements such as "Radar Required", but do not conform to the same charting application standards used by the FAA.

Distances are in nautical miles (except visibility in statute miles and Runway Visual Range in hundreds of feet). Runway dimensions are in feet. Elevations are in feet, Mean Sea Level (MSL). Ceilings are in feet above airport elevation. Radials/bearings/headings/courses are magnetic. Horizontal Datum: Unless otherwise noted on the chart, all coordinates are referenced to North American Datum 1983 (NAD 83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).

Terrain is scaled within the neat lines (planview boundaries) and does not accurately underlie not-to-scale distance depictions or symbols.

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STANDARD TERMINAL ARRIVALS AND DEPARTURE PROCEDURES

The use of the associated codified STAR/DP and transition identifiers are requested of users when filing flight plans online. It must be noted that when filing a STAR/DP with a transition, the first three coded characters of the STAR and the last three coded characters of the DP are replaced by the transition code. Examples: ACTON SIX ARRIVAL, file (AQN.AQN6); ACTON SIX ARRIVAL, EDNAS TRANSITION, file (EDNAS.AQN6). FREEHOLD THREE DEPARTURE, file (FREH3.RBV), FREEHOLD THREE DEPARTURE, ELWOOD CITY TRANSITION, file (FREH3.EWC).

PROCEDURE PBN/EQUIPMENT REQUIREMENTS

Users will begin to see Performance-Based Navigation (PBN) Requirements and Equipment Requirements on Instrument Approach Procedures (IAPs), RNAV STARs and RNAV DPs prominently displayed in separate, standardized notes boxes. For procedures with PBN elements, the PBN box will contain the procedure's navigation specification(s); and, if required: specific sensors or infrastructure needed for the navigation solution; any additional or advanced functional requirements; the minimum Required Navigation Performance (RNP) value and any amplifying remarks. Items listed in this PBN box are REQUIRED for the procedure's PBN elements. The Equipment Requirements Box will list non-PBN requirements. On charts with both PBN elements and equipment requirements, the PBN requirements box will be listed first. The publication of these notes will continue incrementally until all charts have been amended to comply with the new standard.

IAP PBN/Equipment Requirements Notes Box

PBN Requirements Box →	From WINRZ, LIBGE: RNAV-1 GPS, RNAV-1GPS from MAP to YARKU.
Equipment Requirements Box →	DME required for LOC only.
Standard Procedure Notes Box →	(T) Circling to Rwy 25 NA at night. #For inop MALSR increase S-ILS 16R all cats visibility to 2½ SM.

RNAV STAR and DP PBN/Equipment Requirements Notes Box

PBN Requirements Box →	RNAV 1 - DME/DME/IRU or GPS
Equipment Requirements Box →	RADAR required

PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

Reference the Chart Supplement for detailed information on pilot controlled lighting (PCL) systems.

Available FAA standard approach lighting systems are charted as a negative symbol to indicate pilot contolled lighting, e.g., (A1), (V)

Available airport lighting systems that are charted as notes, e.g. REIL, MIRL, are shown with a negative "(L)" symbol beside the name to indicate pilot controlled lighting.

To activate lights, use frequency indicated in the communications section of the chart with a (L)

KEY MIKE	FUNCTION
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-off)

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ABBREVIATIONS 25107

AAF	Army Air Field
AAUP	Attention All Users Page
ADF	Automatic Direction Finder
ADIZ	Air Defense Identification Zone
AFAUX	Air Force Auxiliary
AFB	Air Force Base
AFRC	Armed Forces Reserve Center/Air Force Reserve Command
AGL	Above Ground Level
AFHP	Air Force Heliport
AFIS	Automatic Flight Information Service
AHP	Army Heliport
ALF	Auxiliary Landing Field
ALS	Approach Light System
ALSF	Approach Light System with Sequenced Flashing Lights
ANGB	Air National Guard Base
ANGS	Air National Guard Station
Ant	Antenna
AOB	At or Below
AP	Autopilot System
APCH	Approach
APP CON	Approach Control
AR	Authorization Required
ARB	Air Reserve Base
ARPT	Airport
ARR	Arrival
AS	Air Station
ASOS	Automated Surface Observing System
ASR	Airport Surveillance RADAR
ASSC	Airport Surface Surveillance Systems
ATC	Air Traffic Control
ATCT	Airport Traffic Control Tower
ATIS	Automatic Terminal Information Service
AUNICOM	Automated UNICOM
AWOS	Automated Weather Observing System
Baro-VNAV	Barometric Vertical Navigation
BC	Back Course
brg	Bearing
CAPT	Captain
CAT	Category
CCW	Counterclockwise
CDI	Course Deviation Indicator
CGAS	Coast Guard Air Station
Chan	Channel
CIR	Circling
CL	Centerline Lighting System
CLNC DEL	Clearance Delivery
CNF	Computer Navigation Fix
CPDLC	Controller Pilot Data Link Communications
CTAF	Common Traffic Advisory Frequency
CW	Clockwise
D-ATIS	Digital-Automatic Terminal Information Service
DA	Decision Altitude
DEP	Departure
DEP CON	Departure Control
DER	Departure End of Runway
DH	Decision Height
DME	Distance Measuring Equipment
DP	Departure Procedure
DTHR	Displaced Runway Threshold
DVA	Diverse Vector Area
ELEV	Elevation
EMAS	Engineered Material Arresting System
EXEC	Executive
FAF	Final Approach Fix
FD	Flight Director System
FL	Flight Level
FLD	Field
FM	Fan Marker
FMS	Flight Management System
GBAS	Ground Based Augmentation System
GCA	Ground Control Approach
GCO	Ground Communication Outlet
GLS	Ground Based Augmentation System Landing System
GP	Glidepath
GPS	Global Positioning System
GS	Glide Slope
HAA	Height Above Airport
HAL	Height Above Landing
HAT	Height Above Touchdown
HATh	Height Above Threshold
HCH	Heliport Crossing Height
hdg	Heading
HIRL	High Intensity Runway Lights
HUD	Head-up Display
IAF	Initial Approach Fix
IAP	Instrument Approach Procedure
ICAO	International Civil Aviation Organization
IF	Intermediate Fix
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IM	Inner Marker
INC	Incorporated
Inop	Inoperative
INT	Intersection
INTCNTL	Intercontinental
INTL	International
JNGB	Joint National Guard Base
JRB	Joint Reserve Base
K	Knots
KIAS	Knots Indicated Airspeed
LAAS	Local Area Augmentation System

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ABBREVIATIONS 25107

LDA	Localizer Type Directional Aid
Ldg	Landing
LIRL	Low Intensity Runway Lights
LNAV	Lateral Navigation
LOA	Letter of Agreement/ Authorization
LOC	Localizer
LOM	Locator Outer Marker
LP	Localizer Performance
LPV	Localizer Performance with Vertical Guidance
LR	Lead Radial
LRRS	Long Range RADAR Station
MAA	Maximum Authorized Altitude
MALS	Medium Intensity Approach Lighting System
MALSF	Medium Approach Lighting System with Sequenced Flashers
MALSR	Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights
MAP	Missed Approach Point
MCAF	Marine Corps Air Facility
MCALF	Marine Corps Auxiliary Landing Filed
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MCOLF	Marine Corps Outlying Field
MDA	Minimum Descent Altitude
MEA	Minimum Enroute Altitude
MEML	Memorial
METRO	Metropolitan
MIRL	Medium Intensity Runway Lights
MM	Middle Marker
MOCA	Minimum Obstruction Clearance Altitude
MRA	Minimum Reception Altitude
MSL	Mean Sea Level
MSPEC	Management Specification
MUNI	Municipal
N/A	Not Applicable
NA	Not Authorized
NAAS	Naval Auxiliary Air Station
NAF	Naval Air Facility
NALF	Naval Auxiliary Landing Field
NAS	Naval Air Station
NDB	Nondirectional Radio Beacon
NM	Nautical Mile
NOLF	Naval Outlying Field
NoPT	No Procedure Turn
NOTAM	Notice to Airmen
NS	Naval Station
NTL	National
ODALS	Omnidirectional Approach Lighting System
ODP	Obstacle Departure Procedure
OM	Outer Marker
OPSPEC	Operations Specification
PAR	Precision Approach Radar
PDC	Pre-Departure Clearance
PRM	Precision Runway Monitor
Pvt	Private
R	Radial
RA	Radio Altimeter setting height
RAIL	Runway Alignment Indicator Lights
RCLS	Runway Centerline Light System
REIL	Runway End Identifier Lights
RF	Radius to Fix
RGNL	Regional
RLLS	Runway Lead-in Light System
RNAV	Area Navigation
RNP	Required Navigation Performance
RPI	Runway Point of Interception)
RVR	Runway Visual Range
RWY	Runway
S	Straight-in
SALS	Simplified Short Approach Light System
SALSF	Short Approach Lighting System with Sequenced Flashing Lights
SDF	Simplified Directional Facility
SFB	Space Force Base
SID	Standard Instrument Departure
SM	Statute Mile
SR-SS	Sunrise-Sunset
SSALF	Short Approach Lighting System with Sequenced Flashing Lights
SSALR	Simplified Short Approach Light System with Runway Alignment Indicator Lights
SSALS	Simplified Short Approach Lighting System
ST	Saint
STE	Sainte
STAR	Standard Terminal Arrival
TAA	Terminal Arrival Area
TACAN	Tactical Air Navigation
TCH	Threshold Crossing Height
TDZ	Touchdown Zone
TDZE	Touchdown Zone Elevation
TDZ/CL	Touchdown Zone and Runway Centerline Lighting
TDZL	Touchdown Zone Lights
THR	Threshold
TODA	Takeoff Distance Available
TORA	Takeoff Run Available
tr	Track
TRML	Terminal
TWR	Tower
UNICOM	Universal Communications Station
USA	United States Army
USAF	United States Air Force

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ABBREVIATIONS 25107

USCG……	United States Coast Guard
USMC……	United States Marine Corps
USN……	United States Navy
USSF……..	United States Space Force
VASI……	Visual Approach Slope Indicator
VCOA……	Visual Climb Over Airport
VDA……	Vertical Descent Angle
VDP……	Visual Descent Point
VFR……...	Visual Flight Rules
VGSI……..	Visual Glide Slope Indicator
VNAV…….	Vertical Navigation
VOR……...	Very High Frequency Omni-Directional Range
VORTAC……...	Very High Frequency Omni-Directional Range/Tactical Air Navigation
WAAS……	Wide Area Augmentation System
WP/WPT……...	Waypoint

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LEGEND 23334

INSTRUMENT APPROACH PROCEDURES (CHARTS)

PLANVIEW SYMBOLS

ROUTES

Procedure Track

Feeder Route

Missed Approach

Visual Flight Path

165°
345°
Procedure Turn
(Type degree and point of turn optional)

Minimum Route Altitude → 3100 NoPT to LOM
045°
Mileage → (14.2)

HOLDING PATTERNS

Hold-in-lieu of Procedure Turn

HOLD 10000 / 8000
090° (IAS) 270°
4 NM

HOLD 10000 / 8000
090° 1 min 270°

Missed Approach
090° 270°

Arrival
HOLD 8000
090° 270°

Holding pattern with maximum restricted airspeed:
(175K) applies to all altitudes.
(210K) applies to altitudes above 6000′ to and including 14000′.
Arrival Holding Pattern altitude restrictions will be indicated when they deviate from the adjacent leg.

Timing or distance limits for Hold-in-lieu of Procedure Turn Holding Patterns will be shown.
DME fixes may be shown.

FIXES/ATC REPORTING REQUIREMENTS

Reporting Point

Waypoint

MAP WP (Flyby)

MAP WP (Flyover)

GLGHR INT — Intersection

MYLES
I-LVF 14.9 — (Distance From Facility)

DME

Flyover Point

x (CFTSP) — Computer Navigation Fix (CNF)-No ATC Function ("x" omitted when it is a MAP)

R-198 → Radial line and value

LR-198 → Lead Radial

LB-198 → Lead Bearing

ALTITUDES

5500 Mandatory Altitude
2500 Minimum Altitude
4300 Maximum Altitude
3000 Recommended Altitude
5000 Mandatory Block
3000 Altitude

INDICATED AIRSPEED

175K	120K	250K	180K
Mandatory Airspeed	Minimum Airspeed	Maximum Airspeed	Recommended Airspeed

RADIO AIDS TO NAVIGATION

110.1 Underline indicates No Voice transmitted on this frequency

VOR
VORTAC
TACAN
VOR/DME
DME
NDB
NDB/DME
LOM (Compass locator at Outer Marker)
Marker Beacon

Marker beacons that are not specifically part of the procedure.

Localizer Front Course (LOC/LDA)
Right side shading- Front course

Localizer Back Course
Left side shading- Back Course

SDF Course

LOC/LDA/SDF Transmitter
LOC/DME
(shown when installation is offset from its normal postion off the end of the runway.)

Primary NAVAID
LIMA
114.5 LIM
Chan 92

Secondary NAVAID
LOM
AKRON
362 AK

TACAN or DME NAVAID
SCOTT
Chan 59
SKE
(112.2)
VHF Paired Frequency

LEGEND 23334

EC-1, 07 AUG 2025 to 02 OCT 2025

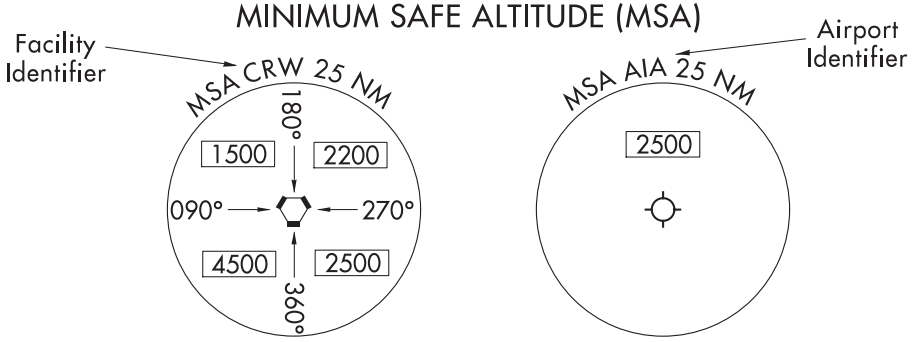
LEGEND 23110

INSTRUMENT APPROACH PROCEDURES (CHARTS)

EC-1, 07 AUG 2025 to 02 OCT 2025

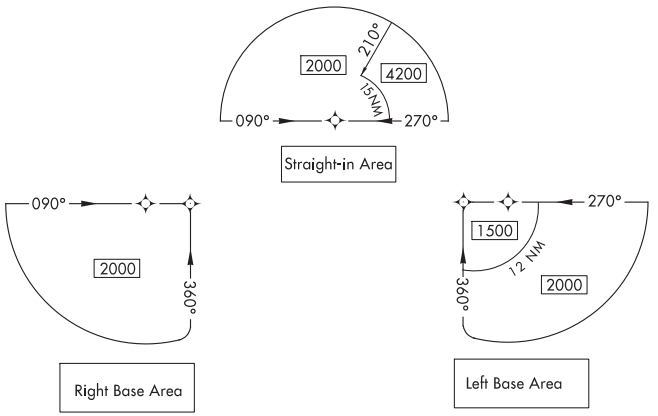
PLANVIEW SYMBOLS

MINIMUM SAFE ALTITUDE (MSA)



(arrows on distance circle identify sectors)

TERMINAL ARRIVAL AREA (TAA)



MISCELLANEOUS

VOR Changeover Point

RWY 15 S12° 00.52′ W77° 06.91′ End of Rwy Coordinates (DoD only)

Distance not to scale

International Boundary

Air Defense Identification Zone

SPECIAL USE AIRSPACE

R-352

R-Restricted W-Warning
P-Prohibited A-Alert
MOA-Military Operations Area

AIRPORTS

Primary and Secondary (named in planview)

Civil

Seaplane Base

Heliport

Joint (Civil-Military)

OBSTACLES

- Spot Elevation
- Obstacle
- Highest Obstacle
- Highest Spot Elevation
- Group of Obstacles
- ± Doubtful accuracy

LEGEND 23110

LEGEND 24361

INSTRUMENT APPROACH PROCEDURES (CHARTS)

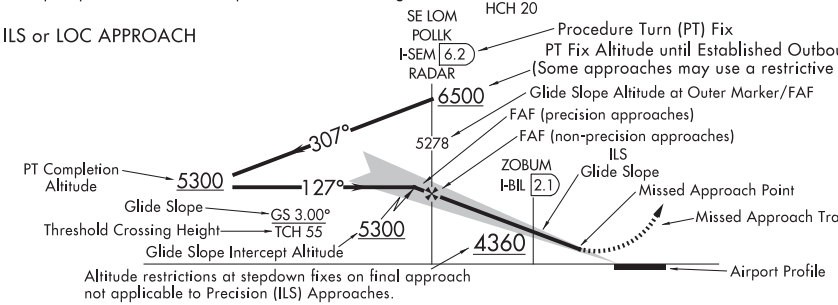
PROFILE VIEW

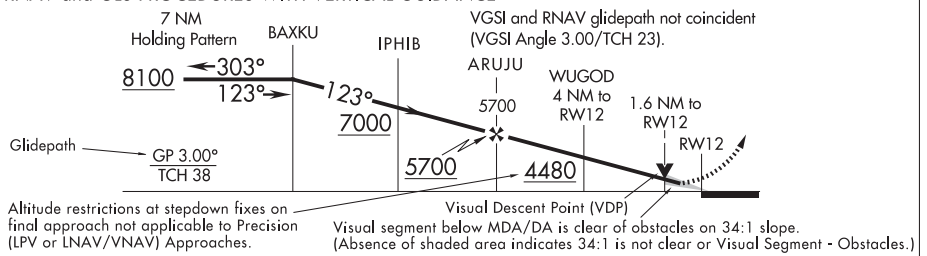
Three different methods are used to depict either electronic or vertical guidance: "GS", "GP", or "VDA".

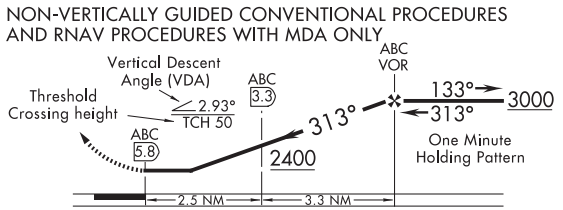
1. "GS" indicates that an Instrument Landing System (ILS) electronic glide slope (a ground antenna) provides vertical guidance. The profile section of ILS procedures depict a GS angle and TCH in the following format: GS 3.00°, TCH 55

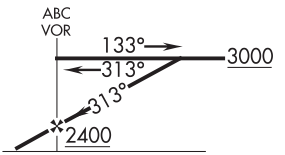
2. "GP" on GLS and RNAV procedures indicates that either electronic vertical guidance (via Wide Area Augmentation System - WAAS or Ground Based Augmentation System - GBAS) or barometric vertical guidance is provided. GLS and RNAV procedures with a published decision altitude (DA/H) depict a GP angle and TCH in the following format: GP 3.00°, TCH 50.

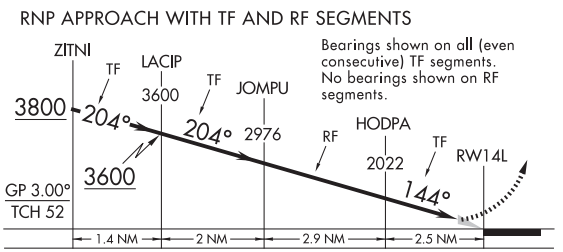
3. An advisory vertical descent angle (VDA) is provided on non-vertically guided conventional procedures and RNAV procedures with only a minimum descent altitude (MDA) to assist in preventing controlled flight into terrain. On Civil (FAA) procedures, this information is placed above or below the procedure track following the fix it is based on. Absence of a VDA or a note that the VDA is not authorized indicates that the prescribed obstacle clearance surface is not clear and the VDA must not be used below MDA. VDA is depicted in the following format: 3.00°, TCH 55. On Copter procedures this is depicted in the following format: 7.30°, HCH 20











ALTITUDES

5500	Mandatory Altitude	3000	Recommended Altitude
2500	Minimum Altitude	5000 / 3000	Mandatory Block Altitude
4300	Maximum Altitude		

PROFILE SYMBOLS

2400 — Glide Slope/Glidepath Intercept Altitude and final approach fix for vertically guided approach procedures.

▼ Visual Descent Point (VDP)

Visual Flight Path

Note: Facilities and waypoints are depicted as a solid vertical line while fixes and intersections are depicted as a dashed vertical line.

LEGEND 24361

EC-1, 07 AUG 2025 to 02 OCT 2025

LEGEND 23334 STANDARD TERMINAL ARRIVAL (STAR) CHARTS

RADIO AIDS TO NAVIGATION

Compulsory:

VOR · VORTAC · DME · NDB/DME · VOR/DME · TACAN · NDB

Non-Compulsory:

VOR · VORTAC · DME · NDB/DME · VOR/DME · TACAN · NDB

LOM (Compass locator at outer marker)

Marker Beacon

Localizer Front Course

BACK COURSE

Localizer Back Course (Shading on left)

(T) indicates frequency protection range

ORLANDO
112.25 (T) ORL
Chan 59(Y)

Underline indicates no voice transmitted on this frequency

(Y) TACAN must be placed in "Y" mode to receive distance information

TACAN or DME NAVAID Box

SCOTT
Chan 59
SKE
(112.2)

VHF Paired Frequency

FIXES/ATC REPORTING REQUIREMENTS

Unnamed DME fix

▲ Reporting Point (Compulsory)

△ Reporting Point (Non-Compulsory)

Obvious DME (DME mileage matches route mileage)

75 DME Mileage (when not obvious)

Waypoint (Compulsory)

Waypoint (Non-Compulsory)

Flyover Point

x
(CFTSP) Computer Navigation Fix (CNF) - No ATC Function

AIRPORTS

Civil · Military · Joint (Civil-Military)

Airports not served by the procedure shown in screened color

Civil · Military · Joint (Civil-Military)

ROUTES

MAA FL200 Maximum Authorized Altitude

4500 MEA-Minimum Enroute Altitude

*3500 MOCA-Minimum Obstruction Clearance Altitude

270° Arrival Route

(65) Mileage between Radio Aids, Reporting Points, and Route Breaks

Transition Route

R-275 Radial line and value

Lost Communications Track

V12 J80 Airway/Jet Route Identification

(IAS) Holding Pattern

Lost Comm Holding Pattern

Holding pattern with maximum restricted airspeed
(175K) applies to all altitudes
(210K) applies to altitudes above 6000' to and including 14000'

SPECIAL USE AIRSPACE

R-352

R-Restricted W-Warning
P-Prohibited A-Alert
MOA-Military Operations Area

ALTITUDES

5500 Mandatory Altitude (Cross at)

2300 Minimum Altitude (Cross at or above)

4800 Maximum Altitude (Cross at or below)

15000
12000
Block Altitude

Altitude change at other than Radio Aids to Navigation

INDICATED AIRSPEED

175K Mandatory Airspeed

120K Minimum Airspeed

250K Maximum Airspeed

MISCELLANEOUS

Changeover Point

Air Defense Identification Zone

N Indicates True North is not aligned to the top of the page

Ldg KLAS and KHND

Ldg Rwys 16L/C/R

Terminus identifier

LEGEND 23334

EC-1, 07 AUG 2025 to 02 OCT 2025

LEGEND 23334 DEPARTURE PROCEDURE (DP) CHARTS

RADIO AIDS TO NAVIGATION

Compulsory:

VOR · VORTAC · DME · NDB/DME · VOR/DME · TACAN · NDB

Non-Compulsory:

VOR · VORTAC · DME · NDB/DME · VOR/DME · TACAN · NDB

LOC · LOC/DME (shown when installation is offset from its normal position off the end of the runway.)

LOM (Compass locator at outer marker)

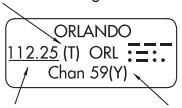
Marker Beacon

Localizer Front Course

BACK COURSE

Localizer Back Course (Shading on left)

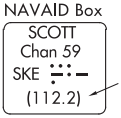
(T) indicates frequency protection range



Underline indicates no voice transmitted on this frequency

(Y) TACAN must be placed in "Y" mode to receive distance information

TACAN or DME NAVAID Box



VHF Paired Frequency

FIXES/ATC REPORTING REQUIREMENTS

Unnamed DME fix

▲ Reporting Point (Compulsory)

△ Reporting Point (Non-Compulsory)

Obvious DME (DME mileage matches route mileage)

75 → DME Mileage (when not obvious)

Waypoint (Compulsory)

Waypoint (Non-Compulsory)

Flyover Point

x (CFTSP) Computer Navigation Fix (CNF) - No ATC Function

MISCELLANEOUS

Changeover Point

Distance not to scale

International Boundary

Sector Boundary

Air Defense Identification Zone

Takeoff Minimums and (Obstacle) Departure Procedures entry published.

ROUTES

4500 MEA-Minimum Enroute Altitude

*3500 MOCA-Minimum Obstruction Clearance Altitude

270° Departure Route

(65) Mileage between Radio Aids, Reporting Points, and Route Breaks

Transition Route

R-275 Radial line and value

Lost Communications Track

Visual Flight Path

V12 J80 Airway/Jet Route Identification

(IAS) Holding Pattern

Lost Comm Holding Pattern

Holding pattern with maximum restricted airspeed (175K) applies to all altitudes (210K) applies to altitudes above 6000' to and including 14000'

SPECIAL USE AIRSPACE

R-352

R-Restricted W-Warning

P-Prohibited A-Alert

MOA-Military Operations Area

ALTITUDES

5500 Mandatory Altitude (Cross at)

2300 Minimum Altitude (Cross at or above)

4800 Maximum Altitude (Cross at or below)

15000 / 12000 Block Altitude

TOP ALTITUDE: 5000 Top altitude restriction

INDICATED AIRSPEED

175K Mandatory Airspeed

120K Minimum Airspeed

250K Maximum Airspeed

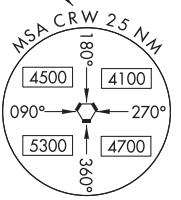
AIRPORTS

Heliport

Civil · Military · Joint (Civil-Military)

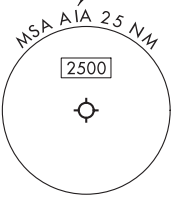
MINIMUM SAFE ALTITUDE (MSA)

Facility Identifier



(arrows on distance circle identify sectors)

Airport Identifier



LEGEND 23334

EC-1, 07 AUG 2025 to 02 OCT 2025

AIRPORT DIAGRAM/AIRPORT SKETCH

Runways

Hard Surface | Other Than Hard Surface | Taxiways, Parking Areas | Stopways, Overruns, Blast Pads | Metal Surface

Closed Runway | Closed Surface | Non-Movement | Under Construction | Water Runway

ARRESTING GEAR: Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.

uni-directional | bi-directional | Jet Barrier

ARRESTING SYSTEM (EMAS)

REFERENCE FEATURES

Displaced Threshold
Hot Spot
Runway Holding Position Markings
Buildings
Self-Serve Fuel ##
Tanks
Obstructions
Airport Beacon #
Runway Radar Reflectors
Bridges
Control Tower # TWR

	Unlit	Lit
Wind Cone		
Landing Tee		
Tetrahedron		

When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

See appropriate Chart Supplement for information.

Runway Weight Bearing Capacity or Pavement Classification Number (PCN)/Pavement Classification Rating (PCR) is shown as a codified expression. Refer to the appropriate Supplement/Directory for applicable codes e.g., RWY 14-32 PCR 560 R/B/W/T; S-75, D-185, 2D-325, 2D/2D2-1120

Helicopter Alighting Areas

Negative Symbols used to identify Copter Procedures

landing point

NOTE:
Landmark features depicted on Copter Approach insets and sketches are provided for visual reference only.

Runway TDZ elevation.....TDZE 123

Runway Slope..... ←0.3% Down.....0.8% UP→
(shown when rounded runway slope is ≥ 0.3%)

NOTE:
Runway Slope measured to midpoint on runways 8000 feet or longer.

U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Approach light symbols are shown in the Flight Information Handbook.

Airport diagram scales are variable.

True/magnetic North orientation may vary from diagram to diagram

Coordinate values are shown in 1 or ½ minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.

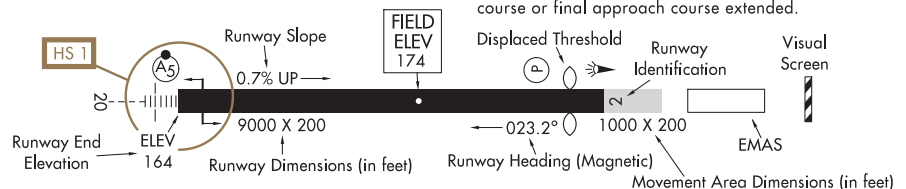
Positional accuracy within ± 600 feet unless otherwise noted on the chart.

Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.

A D symbol is shown to indicate runway declared distance information available, see appropriate Chart Supplement for distance information.

NOTE:
All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in DoD FLIP. (Foreign Only)

The airport sketch box includes the final approach course or final approach course extended.



SCOPE

Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

EC-1, 07 AUG 2025 to 02 OCT 2025

LEGEND 22195

INSTRUMENT APPROACH PROCEDURES (CHARTS)
APPROACH LIGHTING SYSTEM - UNITED STATES

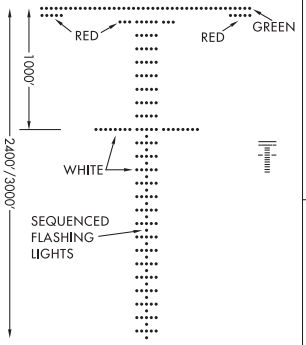
Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, e.g., (A2), (V), etc.

A dot " ● " portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., (A1). Negative symbology, e.g., (A1), (V) indicates Pilot Controlled Lighting (PCL).

CATEGORY I APPROACH LIGHTING SYSTEM

(A1)

ALSF-1

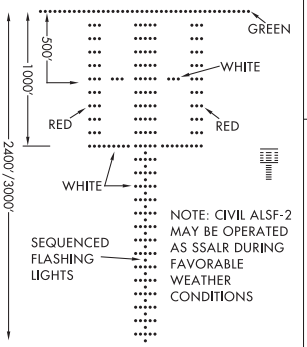


(High Intensity)
LENGTH 2400/3000 FEET

CATEGORY II APPROACH LIGHTING SYSTEM

(A)

ALSF-2

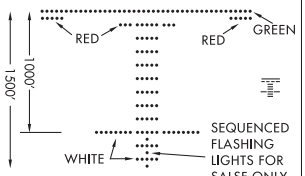


(High Intensity)
LENGTH 2400/3000 FEET

SHORT APPROACH LIGHTING SYSTEM

(A2) (A2)

SALS/SALSF



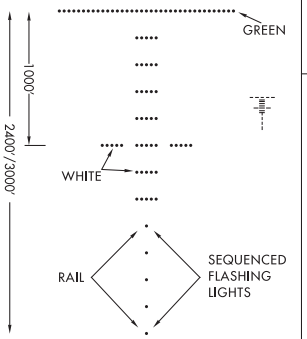
(High Intensity)
LENGTH 1500 FEET

SIMPLIFIED SHORT APPROACH LIGHTING SYSTEM

with Runway Alignment Indicator Lights

(A3)

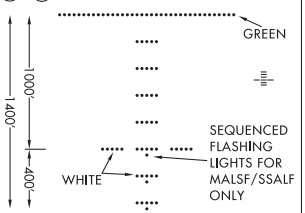
SSALR



(High Intensity)
LENGTH 2400/3000 FEET

MEDIUM INTENSITY (**MALS** and **MALSF**) OR SIMPLIFIED SHORT (**SSALS** and **SSALF**) APPROACH LIGHTING SYSTEMS

(A4) (A4)



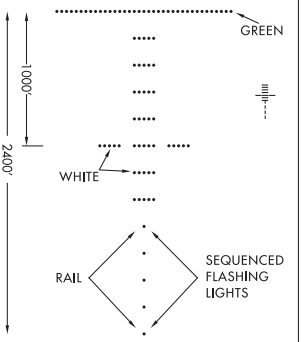
LENGTH 1400 FEET

MEDIUM INTENSITY APPROACH LIGHTING SYSTEM

with Runway Alignment Indicator Lights

(A5)

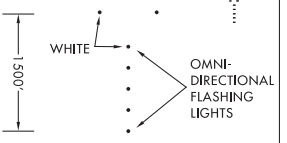
MALSR



LENGTH 2400 FEET

OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM

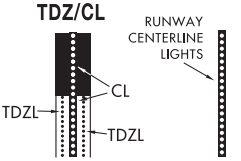
ODALS



LENGTH 1500 FEET

RUNWAY TOUCHDOWN ZONE AND CENTERLINE LIGHTING SYSTEMS

TDZ/CL



AVAILABILITY of TDZ/CL will be shown by NOTE in SKETCH e.g. "TDZ/CL Rwy 15"

LEGEND 22195

EC-1, 07 AUG 2025 to 02 OCT 2025

LEGEND 22195

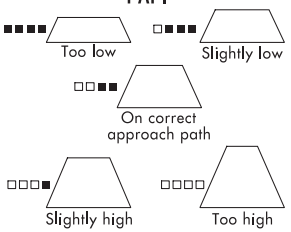
INSTRUMENT APPROACH PROCEDURES (CHARTS)
APPROACH LIGHTING SYSTEM - UNITED STATES

Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, (A2), (V), etc.

A dot " ● " portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., (A1). Negative symbology, e.g., (A1), (V) indicates Pilot Controlled Lighting (PCL).

(P) PRECISION APPROACH PATH INDICATOR

PAPI



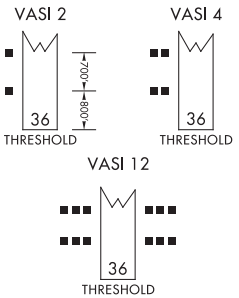
Legend: □ White ■ Red

(V) VISUAL APPROACH SLOPE INDICATOR

VASI

VISUAL APPROACH SLOPE INDICATOR WITH STANDARD THRESHOLD CLEARANCE PROVIDED.

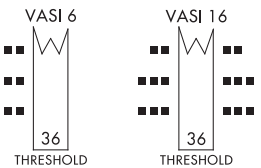
ALL LIGHTS WHITE — TOO HIGH
FAR LIGHTS RED, NEAR LIGHTS WHITE — ON GLIDE SLOPE
ALL LIGHTS RED — TOO LOW



(V3) VISUAL APPROACH SLOPE INDICATOR

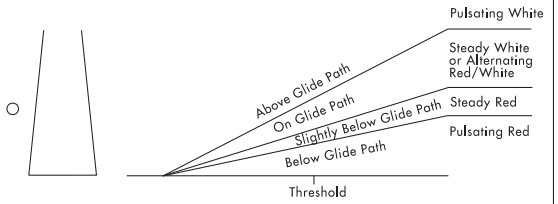
VASI

3-BAR, 6 OR 16 BOX, VISUAL APPROACH SLOPE INDICATOR THAT PROVIDES 2 GLIDE ANGLES AND 2 THRESHOLD CROSSING HEIGHTS.



(V2) PULSATING VISUAL APPROACH SLOPE INDICATOR

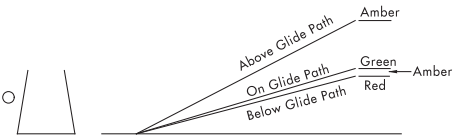
PVASI



CAUTION: When viewing the pulsating visual approach slope indicators in the pulsating white or pulsating red sectors, it is possible to mistake this lighting aid for another aircraft or a ground vehicle. Pilots should exercise caution when using this type of system.

(V4) TRI-COLOR VISUAL APPROACH SLOPE INDICATOR

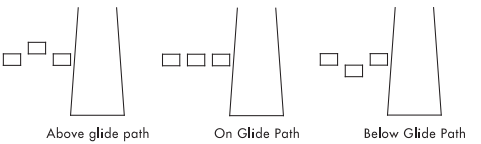
TRCV



CAUTION: When the aircraft descends from green to red, the pilot may see a dark amber color during the transition from green to red.

(V5) ALIGNMENT OF ELEMENTS SYSTEMS

APAP



Painted panels which may be lighted at night. To use the system the pilot positions the aircraft so the elements are in alignment.

LEGEND 22195

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SUPPLEMENTAL TABLES 25107

FREQUENCY PAIRING TABLE

TACAN CHANNEL	VHF FREQUENCY	TACAN CHANNEL	VHF FREQUENCY	TACAN CHANNEL	VHF FREQUENCY
17Y	108.05	40X	110.30	88Y	114.15
18X	108.10	40Y	110.35	89Y	114.25
18Y	108.15	41Y	110.45	90Y	114.35
19Y	108.25	42X	110.50	91Y	114.45
20X	108.30	42Y	110.55	92Y	114.55
20Y	108.35	43Y	110.65	93Y	114.65
21Y	108.45	44X	110.70	94Y	114.75
22X	108.50	44Y	110.75	95Y	114.85
22Y	108.55	45Y	110.85	96Y	114.95
23Y	108.65	46X	110.90	97Y	115.05
24X	108.70	46Y	110.95	98Y	115.15
24Y	108.75	47Y	111.05	99Y	115.25
25Y	108.85	48X	111.10	100Y	115.35
26X	108.90	48Y	111.15	101Y	115.45
26Y	108.95	49Y	111.25	102Y	115.55
27Y	109.05	50X	111.30	103Y	115.65
28X	109.10	50Y	111.35	104Y	115.75
28Y	109.15	51Y	111.45	105Y	115.85
29Y	109.25	52X	111.50	106Y	115.95
30X	109.30	52Y	111.55	107Y	116.05
30Y	109.35	53Y	111.65	108Y	116.15
31Y	109.45	54X	111.70	109Y	116.25
32X	109.50	54Y	111.75	110Y	116.35
32Y	109.55	55Y	111.85	111Y	116.45
33Y	109.65	56X	111.90	112Y	116.55
34X	109.70	56Y	111.95	113Y	116.65
34Y	109.75	80Y	113.35	114Y	116.75
35Y	109.85	81Y	113.45	115Y	116.85
36X	109.90	82Y	113.55	116Y	116.95
36Y	109.95	83Y	113.65	117Y	117.05
37Y	110.05	84Y	113.75	118Y	117.15
38X	110.10	85Y	113.85	119Y	117.25
38Y	110.15	86Y	113.95		
39Y	110.25	87Y	114.05		

See the Chart Supplement for a complete listing.

SUPPLEMENTAL TABLES 25107

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SUPPLEMENTAL TABLES 25107

INSTRUMENT TAKEOFF AND APPROACH PROCEDURE CHARTS
RATE OF CLIMB TABLE
(ft per min)

The rate of climb table is provided for use in planning and executing climbs with a known or approximate ground speed. Rates of climb in ft per min are monitored with a vertical speed indicator (VSI). The use of a climb rate should not be used if it will exceed the aircraft's operational limitations.

ft/NM	%	GROUND SPEED (knots)										
		60	90	120	150	180	210	240	270	300	330	360
152	2.50	152	228	304	380	456	532	608	684	760	836	912
200	3.29	200	300	400	500	600	700	800	900	1000	1100	1200
210	3.46	210	315	420	525	630	735	840	945	1050	1155	1260
220	3.62	220	330	440	550	660	770	880	990	1100	1210	1320
230	3.79	230	345	460	575	690	805	920	1035	1150	1265	1380
240	3.95	240	360	480	600	720	840	960	1080	1200	1320	1440
250	4.11	250	375	500	625	750	875	1000	1125	1250	1375	1500
260	4.28	260	390	520	650	780	910	1040	1170	1300	1430	1560
270	4.44	270	405	540	675	810	945	1080	1215	1350	1485	1620
280	4.61	280	420	560	700	840	980	1120	1260	1400	1540	1680
290	4.77	290	435	580	725	870	1015	1160	1305	1450	1595	1740
300	4.94	300	450	600	750	900	1050	1200	1350	1500	1650	1800
310	5.10	310	465	620	775	930	1085	1240	1395	1550	1705	1860
320	5.27	320	480	640	800	960	1120	1280	1440	1600	1760	1920
330	5.43	330	495	660	825	990	1155	1320	1485	1650	1815	1980
340	5.60	340	510	680	850	1020	1190	1360	1530	1700	1870	2040
350	5.76	350	525	700	875	1050	1225	1400	1575	1750	1925	2100
360	5.92	360	540	720	900	1080	1260	1440	1620	1800	1980	2160
370	6.09	370	555	740	925	1110	1295	1480	1665	1850	2035	2220
380	6.25	380	570	760	950	1140	1330	1520	1710	1900	2090	2280
390	6.42	390	585	780	975	1170	1365	1560	1755	1950	2145	2340
400	6.58	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
450	7.41	450	675	900	1125	1350	1575	1800	2025	2250	2475	2700
500	8.23	500	750	1000	1250	1500	1750	2000	2250	2500	2750	3000
550	9.05	550	825	1100	1375	1650	1925	2200	2475	2750	3025	3300

SUPPLEMENTAL TABLES 25107

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SUPPLEMENTAL TABLES 25107

INSTRUMENT TAKEOFF AND APPROACH PROCEDURE CHARTS
RATE OF DESCENT TABLE

The rate of descent table is provided for use in planning and executingdescents with a known or approximate ground speed. The descent chart may also be used to calculate a constant rate of descent in the final segment on a non-precision approach. This rate of descent is advisory only. Rates of descent in ft per min are monitored with a vertical speed indicator (VSI). The use of a descent rate should not be used if it will exceed the aircraft's operational limitations.

ANGLE	ft/NM	GROUND SPEED (knots)										
		60	90	120	150	180	210	240	270	300	330	360
2.0	212	212	318	424	530	637	743	849	955	1061	1167	1273
2.5	265	265	398	531	663	796	929	1061	1194	1326	1459	1592
2.6	276	276	414	552	690	828	966	1104	1242	1380	1518	1655
2.7	287	287	430	573	716	860	1003	1146	1289	1433	1576	1719
2.8	297	297	446	594	743	892	1040	1189	1337	1486	1634	1783
2.9	308	308	462	616	770	923	1077	1231	1385	1539	1693	1847
3.0	318	318	478	637	796	955	1115	1274	1433	1592	1751	1911
3.1	329	329	494	658	823	987	1152	1316	1481	1645	1810	1974
3.2	340	340	510	679	849	1019	1189	1359	1529	1699	1868	2038
3.3	350	350	526	701	876	1051	1226	1401	1577	1752	1927	2102
3.4	361	361	541	722	902	1083	1263	1444	1624	1805	1985	2166
3.5	372	372	557	743	929	1115	1301	1487	1672	1858	2044	2230
3.6	382	382	573	765	956	1147	1338	1529	1720	1911	2103	2294
3.7	393	393	589	786	982	1179	1375	1572	1768	1965	2161	2358
3.8	404	404	605	807	1009	1211	1413	1614	1816	2018	2220	2421
3.9	414	414	621	828	1036	1243	1450	1657	1864	2071	2278	2485
4.0	425	425	637	850	1062	1275	1487	1700	1912	2124	2337	2549
4.5	478	478	717	956	1196	1435	1674	1913	2152	2391	2630	2869
5.0	532	532	797	1063	1329	1595	1861	2126	2392	2658	2924	3190
5.5	585	585	878	1170	1463	1755	2048	2340	2633	2925	3218	3510
6.0	639	639	958	1277	1597	1916	2235	2555	2874	3193	3512	3832
6.5	692	692	1038	1385	1731	2077	2423	2769	3115	3461	3808	4154
7.0	746	746	1119	1492	1865	2238	2611	2984	3357	3730	4103	4476
7.5	800	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
8.0	854	854	1281	1708	2135	2562	2989	3416	3843	4270	4697	5124
8.5	908	908	1362	1816	2270	2724	3178	3632	4086	4540	4994	5448
9.0	962	962	1444	1925	2406	2887	3368	3849	4331	4812	5293	5774
9.5	1017	1017	1525	2034	2542	3050	3559	4067	4576	5084	5592	6101
10.0	1071	1071	1607	2143	2678	3214	3750	4286	4821	5357	5893	6428

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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.

EC-1, 07 AUG 2025 to 02 OCT 2025

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)

25219

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-A 26DEC24 (24361) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 1, light poles 37' from DER, 151' right of centerline, 684' MSL.
Light poles 39' from DER, 148' left of centerline, 5' AGL/686' MSL.
Tree 243' from DER, 552' right of centerline, 694' MSL.
Tree 396' from DER, 561' right of centerline, 709' MSL.
Tree 439' from DER, 467' right of centerline, 712' MSL.
Tree 877' from DER, 724' right of centerline, 720' MSL.
Tree 999' from DER, 608' right of centerline, 721' MSL.
Tree 1000' from DER, 730' right of centerline, 723' MSL.
Trees beginning 1114' from DER, 463' left of centerline, up to 723' MSL.
Trees beginning 1207' from DER, 573' left of centerline, up to 729' MSL.
Trees beginning 1331' from DER, 610' left of centerline, up to 731' MSL.
Tree 1996' from DER, 569' left of centerline, 733' MSL.
Tree 2082' from DER, 409' left of centerline, 737' MSL.
Tree 2811' from DER, 1046' left of centerline, 757' MSL.
Rwy 7, light poles 10' from DER, 126' right of centerline, 3' AGL/681' MSL.
Light poles 11' from DER, 123' left of centerline, 681' MSL.
Trees beginning 328' from DER, 304' right of centerline, up to 706' MSL.
Tree 479' from DER, 575' left of centerline, 692' MSL.
Tree 490' from DER, 298' left of centerline, 694' MSL.
Trees beginning 571' from DER, 431' right of centerline, up to 709' MSL.
Trees beginning 767' from DER, 370' right of centerline, up to 716' MSL.
Trees beginning 942' from DER, 199' right of centerline, up to 720' MSL.
Trees beginning 1152' from DER, 515' right of centerline, up to 722' MSL.
Tree 1173' from DER, 218' left of centerline, 711' MSL.
Tree 1254' from DER, 91' left of centerline, 712' MSL.
Trees beginning 1256' from DER, 374' right of centerline, up to 730' MSL.
Trees beginning 1395' from DER, 36' right of centerline, up to 734' MSL.
Tree 1409' from DER, 694' left of centerline, 728' MSL.
Trees beginning 1490' from DER, 118' left of centerline, up to 729' MSL.
Trees beginning 1804' from DER, 1' left of centerline, up to 735' MSL.
Tree 2129' from DER, 1059' left of centerline, 736' MSL.
Tree 2169' from DER, 121' left of centerline, 737' MSL.
Tree 2326' from DER, 244' left of centerline, 739' MSL.
Trees beginning 2470' from DER, 218' right of centerline, up to 742' MSL.
Trees beginning 2503' from DER, 330' right of centerline, up to 749' MSL.
Tree 2548' from DER, 1039' left of centerline, 746' MSL.
Trees beginning 2639' from DER, 469' right of centerline, up to 756' MSL.
Trees beginning 2822' from DER, 187' right of centerline, up to 759' MSL.
Rwy 19, utility building, electrical system beginning at DER, 146' left of centerline, up to 12' AGL/692' MSL.
NAVAID 206' from DER, 225' right of centerline, 694' MSL.
Tree 785' from DER, 669' right of centerline, 715' MSL.
Tree 1050' from DER, 778' right of centerline, 743' MSL.
Tree 1673' from DER, 934' left of centerline, 733' MSL.
Trees beginning 1790' from DER, 953' left of centerline, up to 750' MSL.
Trees beginning 1906' from DER, 833' right of centerline, up to 749' MSL.
Trees beginning 2049' from DER, 949' right of centerline, up to 757' MSL.
Tree 2121' from DER, 992' left of centerline, 765' MSL.
Tree 2676' from DER, 1199' right of centerline, 761' MSL.
Trees beginning 2718' from DER, 1027' right of centerline, up to 85' AGL/771' MSL.
CON'T

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

ALPENA, MI (CON'T)

ALPENA COUNTY RGNL (APN) (CON'T)

Rwy 25, terrain 45' from DER, 450' right of centerline, 692' MSL.
Tree 494' from DER, 567' left of centerline, 704' MSL.
Trees beginning 580' from DER, 343' left of centerline, up to 739' MSL.
Trees beginning 705' from DER, 567' right of centerline, up to 722' MSL.
Trees beginning 707' from DER, 295' left of centerline, up to 748' MSL.
Trees beginning 1020' from DER, 21' left of centerline, up to 751' MSL.
Tree 1024' from DER, 312' right of centerline, 723' MSL.
Trees beginning 1205' from DER, 22' right of centerline, up to 738' MSL.
Trees beginning 1465' from DER, 464' right of centerline, up to 749' MSL.
Trees beginning 1653' from DER, 673' right of centerline, up to 755' MSL.
Trees beginning 1726' from DER, 275' right of centerline, up to 766' MSL.
Trees beginning 1804' from DER, 53' left of centerline, up to 755' MSL.
Tree 2333' from DER, 443' left of centerline, 758' 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.

BAD AXE, MI

HURON COUNTY MEML (BAX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4A 12JUN25 (25163) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 4, building, vehicles on road, electrical system beginning 59' from DER, 171' left of centerline, up to 3' AGL/785' MSL.
Fence 179' from DER, 490' right of centerline, 10' AGL/770' MSL.
Tree, vehicles on road beginning 275' from DER, 463' right of centerline, up to 5' AGL/812' MSL.
Tree, vehicles on road beginning 434' from DER, 366' right of centerline, up to 5' AGL/814' MSL.
Tree, vehicles on road, pole beginning 459' from DER, 1' left of centerline, up to 5' AGL/808' MSL.
Trees, vehicles on road beginning 538' from DER, 39' right of centerline, up to 7' AGL/829' MSL.
Trees beginning 836' from DER, 455' left of centerline, up to 8' AGL/836' MSL.
Trees beginning 1047' from DER, 46' left of centerline, up to 9' AGL/847' MSL.
Trees beginning 1048' from DER, 16' right of centerline, up to 8' AGL/837' MSL.
Trees beginning 1613' from DER, 11' left of centerline, up to 10' AGL/854' MSL.
Trees beginning 1639' from DER, 12' right of centerline, up to 9' AGL/843' MSL.
Trees beginning 1910' from DER, 52' right of centerline, up to 9' AGL/845' MSL.
Tree 1988' from DER, 345' right of centerline, 9' AGL/846' MSL.
Trees beginning 1989' from DER, 11' right of centerline, up to 9' AGL/849' MSL.
Trees beginning 2104' from DER, 36' right of centerline, up to 9' AGL/851' MSL.
Trees beginning 2489' from DER, 3' left of centerline, up to 10' AGL/855' MSL.
Trees beginning 2608' from DER, 18' right of centerline, up to 1' AGL/856' MSL.
Trees beginning 2747' from DER, 30' left of centerline, up to 9' AGL/859' MSL.
Trees beginning 3010' from DER, 113' right of centerline, up to 1' AGL/858' MSL.
Trees beginning 3778' from DER, 183' right of centerline, up to 1' AGL/867' MSL.
Rwy 17, pole 20' from DER, 281' right of centerline, 8' AGL/756' MSL.
Vegetation 81' from DER, 498' right of centerline, 757' MSL.
Tree 91' from DER, 399' right of centerline, 5' AGL/758' MSL.
Pole, vehicles on road, tree beginning 315' from DER, 511' left of centerline, up to 4' AGL/788' MSL.
Trees, vehicles on road beginning 855' from DER, 643' right of centerline, up to 799' MSL.
Transmission line, power lines beginning 1135' from DER, 710' left of centerline, up to 45' AGL/798' MSL.
Pole 1467' from DER, 667' left of centerline, 5' AGL/800' MSL.
Tree 1692' from DER, 371' left of centerline, 809' MSL.
Tree, pole beginning 1753' from DER, 451' left of centerline, up to 814' MSL.
CON'T

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BAD AXE, MI (CON'T)

HURON COUNTY MEML (BAX) (CON'T)

Rwy 17 (CON'T), tree 1818' from DER, 392' right of centerline, 821' MSL.
Tree, pole beginning 1830' from DER, 510' left of centerline, up to 829' MSL.
Tree 3499' from DER, 246' right of centerline, 8' AGL/849' MSL.
Tree 3501' from DER, 273' right of centerline, 8' AGL/850' MSL.
Silos, tree beginning 3617' from DER, 614' right of centerline, up to 93' AGL/866' MSL.
Trees beginning 4071' from DER, 1391' right of centerline, up to 1' AGL/871' MSL.
Rwy 22, rwy lighting 10' from DER, 17' left of centerline, 1' AGL/756' MSL.
Trees beginning 45' from DER, 249' left of centerline, up to 3' AGL/779' MSL.
Trees, vehicles on road beginning 74' from DER, 19' right of centerline, up to 3' AGL/783' MSL.
Trees beginning 349' from DER, 349' left of centerline, up to 5' AGL/795' MSL.
Trees, vehicles on road beginning 508' from DER, 9' left of centerline, up to 5' AGL/801' MSL.
Trees beginning 1151' from DER, 545' left of centerline, up to 5' AGL/803' MSL.
Tree 1703' from DER, 822' left of centerline, 7' AGL/819' MSL.
Trees beginning 1803' from DER, 620' left of centerline, up to 7' AGL/820' MSL.
Tree 2474' from DER, 447' left of centerline, 8' AGL/837' MSL.
Tree 2478' from DER, 353' left of centerline, 8' AGL/845' MSL.
Trees beginning 2485' from DER, 213' left of centerline, up to 9' AGL/849' MSL.
Trees beginning 2567' from DER, 86' left of centerline, up to 9' AGL/850' MSL.
Trees beginning 2823' from DER, 580' left of centerline, up to 9' AGL/852' MSL.
Trees beginning 2898' from DER, 39' left of centerline, up to 10' AGL/856' MSL.
Trees beginning 3110' from DER, 204' left of centerline, up to 9' AGL/857' MSL.
Tree 3452' from DER, 472' right of centerline, 9' AGL/845' MSL.
Rwy 35, rwy lighting 33' from DER, 76' left of centerline, 3' AGL/765' MSL.
Airport lighting 36' from DER, 78' right of centerline, 3' AGL/765' MSL.
Tower 365' from DER, 478' right of centerline, 33' AGL/793' MSL.
Antenna, power line, pole, vehicles on road beginning 370' from DER, 412' right of centerline, up to 3' AGL/794' MSL.
Light poles, tower beginning 754' from DER, 419' right of centerline, up to 6' AGL/819' MSL.
Trees beginning 1084' from DER, 589' right of centerline, up to 7' AGL/823' MSL.
Antenna 1094' from DER, 696' left of centerline, 6' AGL/821' MSL.
Tower, tree beginning 1095' from DER, 698' left of centerline, up to 64' AGL/822' MSL.
Trees beginning 1283' from DER, 58' right of centerline, up to 8' AGL/835' MSL.
Trees beginning 1689' from DER, 27' left of centerline, up to 829' MSL.
Trees beginning 1793' from DER, 45' left of centerline, up to 10' AGL/858' MSL.
Tree 1834' from DER, 768' right of centerline, 8' AGL/838' MSL.
Trees beginning 1870' from DER, 343' right of centerline, up to 8' AGL/843' MSL.
Trees beginning 2297' from DER, 281' left of centerline, up to 1' AGL/867' MSL.
Trees beginning 2841' from DER, 24' right of centerline, up to 10' AGL/849' 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.

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, 300-1¼ 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

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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.

EC-1, 07 AUG 2025 to 02 OCT 2025
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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

25219

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.
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.

CON'T

EC-1, 07 AUG 2025 to 02 OCT 2025

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

BIG RAPIDS, MI (CON'T)

ROBEN-HOOD (RQB) (CON'T)

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.

BOYNE CITY, MI

BOYNE CITY MUNI (N98)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 20JUN19 (19171) (FAA)

TAKEOFF MINIMUMS:
Rwy 9, 600-2¾ 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.

CON'T

EC-1, 07 AUG 2025 to 02 OCT 2025

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

25219

BOYNE CITY, MI (CON'T)

BOYNE CITY MUNI (N98) (CON'T)

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.
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.

CON'T

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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

BOYNE CITY, MI (CON'T)

BOYNE CITY MUNI (N98) (CON'T)

Rwy 9 (CON'T), 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.

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.

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.

CON'T

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

CHARLOTTE, MI (CON'T)

FITCH H BEACH (FPK) (CON'T)

Rwy 3 (CON'T), 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

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.

EC-1, 07 AUG 2025 to 02 OCT 2025

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.

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 7C 20FEB25 (25051) (FAA)

DEPARTURE PROCEDURE:

Rwy 33, climb on heading 328° to 1800 before turning left.

TAKEOFF OBSTACLE NOTES:

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 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, MI (CON'T)

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.
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.
CON'T

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DETROIT, MI (CON'T)

DETROIT METRO WAYNE COUNTY (DTW) (CON'T)

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.

WILLOW RUN (YIP)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 11 14JUL22 (22195) (FAA)

TAKEOFF MINIMUMS:

Rwy 27, 300-1⅜ 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.

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.

CON'T

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DETROIT/GROSSE ILE, MI (CON'T)

GROSSE ILE MUNI (ONZ) (CON'T)

Rwy 4 (CON'T), 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.

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.

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

25219

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.

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, 400-2¾ 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.

CON'T

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

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FRANKFORT, MI (CON'T)

FRANKFORT DOW MEML FLD (FKS) (CON'T)

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.

GAYLORD, MI

GAYLORD RGNL (GLR)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 26DEC24 (24361) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 9, light poles 39' from DER, 115' right of centerline, 2' AGL/1331' MSL.
Light poles 39' from DER, 113' left of centerline, 2' AGL/1331' MSL.
NAVAID 166' from DER, 259' left of centerline, 5' AGL/1334' MSL.
Trees beginning 855' from DER, 357' left of centerline, up to 1371' MSL.
Trees beginning 917' from DER, 390' right of centerline, up to 1371' MSL.
Trees, pole, transmission line beginning 918' from DER, 499' left of centerline, up to 1376' MSL.
Trees beginning 930' from DER, 494' right of centerline, up to 1372' MSL.
Trees, sign, pole, transmission line beginning 1106' from DER, 419' left of centerline, up to 1407' MSL.
Tree 1698' from DER, 496' right of centerline, 1376' MSL.
Trees beginning 1961' from DER, 317' right of centerline, up to 1389' MSL.
Rwy 18, tree, vehicles beginning 168' from DER, 127' left of centerline, up to 1334' MSL.
Tree 174' from DER, 542' right of centerline, 1327' MSL.
Vehicles 430' from DER, 464' right of centerline, 1329' MSL.
Vehicles beginning 430' from DER, 93' right of centerline, up to 1331' MSL.
Trees beginning 544' from DER, 84' right of centerline, up to 1365' MSL.
Trees, pole beginning 569' from DER, 176' left of centerline, up to 1366' MSL.
Trees, pole, building beginning 637' from DER, 216' right of centerline, up to 1376' MSL.
Trees, transmission line beginning 1117' from DER, 241' right of centerline, up to 1377' MSL.
CON'T

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GAYLORD, MI (CON'T)

GAYLORD RGNL (GLR) (CON'T)

Rwy 18 (CON'T), tree 1165' from DER, 706' left of centerline, 1381' MSL.
Trees beginning 1184' from DER, 522' left of centerline, up to 1387' MSL.
Trees beginning 1720' from DER, 545' left of centerline, up to 1391' MSL.
Trees beginning 1799' from DER, 49' left of centerline, up to 1395' MSL.
Trees beginning 2020' from DER, 496' right of centerline, up to 1391' MSL.
Trees beginning 2546' from DER, 92' right of centerline, up to 87' AGL/1392' MSL.
Rwy 27, tree 595' from DER, 622' left of centerline, 1357' MSL.
Trees beginning 690' from DER, 630' right of centerline, up to 1369' MSL.
Tree 788' from DER, 680' left of centerline, 1362' MSL.
Trees beginning 1142' from DER, 707' left of centerline, up to 1373' MSL.
Trees beginning 1345' from DER, 232' right of centerline, up to 1378' MSL.
Trees beginning 2386' from DER, 332' right of centerline, up to 1383' MSL.
Tree 2469' from DER, 339' right of centerline, 1387' MSL.
Trees beginning 2862' from DER, 233' left of centerline, up to 1396' MSL.
Tree 2972' from DER, 1230' left of centerline, 1400' MSL.
Tree 3074' from DER, 1160' left of centerline, 1404' MSL.
Tree 3083' from DER, 346' right of centerline, 1402' MSL.
Tree 3112' from DER, 1274' left of centerline, 1405' MSL.
Tree 3206' from DER, 1141' left of centerline, 1406' MSL.
Tree 5366' from DER, 246' right of centerline, 1456' MSL.
Trees beginning 5381' from DER, 299' right of centerline, up to 1457' MSL.
Rwy 36, vehicles/farm equipment 50' from DER, 177' left of centerline, 1333' MSL.
Vegetation 79' from DER, 214' left of centerline, 1339' MSL.
Tree, vehicles/farm equipment beginning 84' from DER, 160' left of centerline, up to 1360' MSL.
Vehicles/farm equipment beginning 100' from DER, 31' right of centerline, up to 1334' MSL.
Tree 210' from DER, 492' left of centerline, 1361' MSL.
Trees beginning 420' from DER, 191' left of centerline, up to 1386' MSL.
Tree 627' from DER, 586' right of centerline, 1374' MSL.
Tree 753' from DER, 547' right of centerline, 1393' MSL.
Trees beginning 794' from DER, 515' right of centerline, up to 79' AGL/1400' MSL.
Trees beginning 1145' from DER, 149' left of centerline, up to 1395' MSL.
Trees beginning 1370' from DER, 481' right of centerline, up to 1401' MSL.
Trees beginning 1668' from DER, 659' left of centerline, up to 1396' MSL.
Tree 1714' from DER, 887' right of centerline, 1405' MSL.
Trees beginning 1735' from DER, 499' left of centerline, up to 1397' MSL.
Trees beginning 1740' from DER, 428' right of centerline, up to 1407' MSL.
Trees beginning 1828' from DER, 340' left of centerline, up to 1398' MSL.
Trees beginning 1935' from DER, 37' right of centerline, up to 1410' MSL.
Trees beginning 1958' from DER, 27' left of centerline, up to 1404' MSL.
Trees beginning 2491' from DER, 208' left of centerline, up to 87' AGL/1407' 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.
Navaids 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.

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.

CON'T

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GREENVILLE, MI (CON'T)

GREENVILLE MUNI (6D6) (CON'T)

Rwy 28 (CON'T), 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.

HANCOCK, MI

HOUGHTON COUNTY MEML (CMX)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 3B 30NOV23 (23334) (FAA)

TAKEOFF MINIMUMS:

Rwy 25, 400-2½ 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.

CON'T

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

25219

HANCOCK, MI (CON'T)

HOUGHTON COUNTY MEML (CMX) (CON'T)

Rwy 25 (CON'T), 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.
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

AMDT 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.
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)

25219

HARBOR SPRINGS, MI (CON'T)

HARBOR SPRINGS (MGN) (CON'T)

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.

HART/SHELBY, MI

OCEANA COUNTY (C04)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 07AUG25 (25219) (FAA)

TAKEOFF MINIMUMS:

Rwys 15, 33, NA-Environmental.
Rwy 9, 300-1⅛ or std w/min climb of 355'/NM to 1200.
Rwy 27, 300-1 or std w/min climb of 450'/NM to 1200.

DEPARTURE PROCEDURE:

Rwy 27, climb heading 268° to 1500 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 9, sign 13' from DER, 125' left of centerline, 2' AGL/903' MSL.
Terrain beginning 54' from DER, 314' left of centerline, up to 904' MSL.
Terrain 73' from DER, 195' right of centerline, 904' MSL.
Terrain 125' from DER, 371' right of centerline, 908' MSL.
Trees beginning 257' from DER, 269' right of centerline, up to 922' MSL.
Trees beginning 759' from DER, 82' right of centerline, up to 65' AGL/970' MSL.
Vehicles on road 786' from DER, 654' left of centerline, 926' MSL.
Tree 894' from DER, 434' left of centerline, 929' MSL.
Tree 927' from DER, 611' left of centerline, 951' MSL.
Trees, transmission line, pole beginning 1026' from DER, 17' left of centerline, up to 981' MSL.
Trees beginning 1206' from DER, 365' right of centerline, up to 71' AGL/976' MSL.
Trees beginning 1855' from DER, 451' right of centerline, up to 1004' MSL.
Trees beginning 1959' from DER, 525' right of centerline, up to 90' AGL/1013' MSL.
Trees beginning 2124' from DER, 201' left of centerline, up to 70' AGL/1004' MSL.
Trees beginning 2201' from DER, 152' left of centerline, up to 81' AGL/1011' MSL.
Tree 2770' from DER, 953' right of centerline, 78' AGL/1020' MSL.
Trees beginning 2786' from DER, 763' right of centerline, up to 1022' MSL.
Trees beginning 2804' from DER, 230' right of centerline, up to 82' AGL/1027' MSL.
Trees beginning 3700' from DER, 4' left of centerline, up to 151' AGL/1066' MSL.
Trees beginning 3791' from DER, 2' right of centerline, up to 102' AGL/1037' MSL.
Trees beginning 4539' from DER, 1206' right of centerline, up to 101' AGL/1062' MSL.
Tree 5525' from DER, 1800' right of centerline, 203' AGL/1082' MSL.
Rwy 27, terrain 11' from DER, 449' right of centerline, 920' MSL.
Terrain beginning 14' from DER, 192' right of centerline, up to 922' MSL.
Tree 76' from DER, 453' left of centerline, 925' MSL.
Terrain 115' from DER, 259' right of centerline, 923' MSL.
Tree 188' from DER, 476' left of centerline, 20' AGL/935' MSL.
Trees beginning 188' from DER, 383' left of centerline, up to 20' AGL/937' MSL.
Terrain beginning 192' from DER, 193' right of centerline, up to 924' MSL.
Terrain beginning 243' from DER, 304' right of centerline, up to 925' MSL.
Terrain 364' from DER, 294' right of centerline, 926' MSL.
Vehicles on road beginning 446' from DER, 196' right of centerline, up to 939' MSL.
Trees, vehicles on road beginning 468' from DER, 2' left of centerline, up to 17' AGL/938' MSL.
Trees, vehicles on road, agricultural equipment, terrain beginning 469' from DER, 44' right of centerline, up to 971' MSL.
Trees, building, terrain beginning 566' from DER, 455' left of centerline, up to 64' AGL/985' MSL.
Trees, terrain beginning 1982' from DER, 130' left of centerline, up to 76' AGL/1040' MSL.
Trees, pole, transmission lines beginning 2029' from DER, 13' right of centerline, up to 76' AGL/1044' MSL.
Trees beginning 2544' from DER, 176' left of centerline, up to 79' AGL/1044' MSL.
Trees beginning 2581' from DER, 121' left of centerline, up to 77' AGL/1050' MSL.
Trees beginning 2663' from DER, 106' left of centerline, up to 77' AGL/1051' MSL.
Trees beginning 2694' from DER, 135' left of centerline, up to 1062' MSL.
Trees beginning 2721' from DER, 111' left of centerline, up to 92' AGL/1067' MSL.
Trees beginning 2768' from DER, 233' left of centerline, up to 94' AGL/1070' MSL.
CON'T

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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HART/SHELBY, MI (CON'T)

OCEANA COUNTY (C04) (CON'T)

Rwy 27 (CON'T), tree 2800' from DER, 665' left of centerline, 94' AGL/1071' MSL.
Trees beginning 2806' from DER, 309' left of centerline, up to 98' AGL/1072' MSL.
Trees beginning 2832' from DER, 20' left of centerline, up to 97' AGL/1073' MSL.
Trees beginning 3221' from DER, 2' left of centerline, up to 91' AGL/1075' MSL.
Trees beginning 3265' from DER, 11' right of centerline, up to 77' AGL/1048' MSL.
Trees beginning 3355' from DER, 162' right of centerline, up to 76' AGL/1049' MSL.
Tree 3363' from DER, 38' right of centerline, 72' AGL/1051' MSL.
Trees beginning 3364' from DER, 7' right of centerline, up to 81' AGL/1056' MSL.
Trees, transmission lines, pole beginning 3434' from DER, 13' right of centerline, up to 80' AGL/1058' MSL.
Trees beginning 4634' from DER, 393' left of centerline, up to 104' AGL/1070' 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.

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.

IRON MOUNTAIN KINGSFORD, MI

FORD (IMT)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 05SEP24 (24249) (FAA)

TAKEOFF MINIMUMS:

Rwy 13, 300-1⅛ or std w/ min climb of 630'/NM to 1400.
Rwy 31, 300-1⅛ or std w/ min climb of 280'/NM to 1400.

DEPARTURE PROCEDURE:

Rwy 1, climb heading 010° to 1700 before turning right.
Rwy 13, climb heading 134° to 1800 before turning left.

TAKEOFF OBSTACLE NOTES:

Rwy 1, terrain, light poles beginning 8' from DER, 8' left of centerline, up to 1183' MSL.
Light poles 30' from DER, 149' right of centerline, 4' AGL/1184' MSL.
Tree 173' from DER, 522' left of centerline, 1193' MSL.
Vegetation 351' from DER, 572' right of centerline, 1197' MSL.
Trees beginning 358' from DER, 293' left of centerline, up to 1202' MSL.
Vegetation 612' from DER, 508' right of centerline, 1200' MSL.
Tree 614' from DER, 658' left of centerline, 1208' MSL.
Tree, vegetation beginning 637' from DER, 547' right of centerline, up to 1237' MSL.
Trees beginning 807' from DER, 49' right of centerline, up to 1273' MSL.
Trees beginning 924' from DER, 276' left of centerline, up to 1212' MSL.
Antenna 1443' from DER, 306' left of centerline, 1220' MSL.
Building 1655' from DER, 192' left of centerline, 10' AGL/1229' MSL.
Trees beginning 1787' from DER, 701' left of centerline, up to 1268' MSL.
Tree 1918' from DER, 983' left of centerline, 1281' MSL.
Tree 1920' from DER, 852' left of centerline, 1291' MSL.

CON'T

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

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

25219

IRON MOUNTAIN KINGSFORD, MI (CON'T)

FORD (IMT) (CON'T)

Rwy 1 (CON'T), trees beginning 2005' from DER, 59' left of centerline, up to 1295' MSL.
Rwy 13, light poles 35' from DER, 113' right of centerline, 1127' MSL.
Light poles 35' from DER, 112' left of centerline, 1129' MSL.
Trees, fence beginning 37' from DER, 409' left of centerline, up to 11' AGL/1138' MSL.
Tree 450' from DER, 450' left of centerline, 1151' MSL.
Tree 456' from DER, 560' left of centerline, 1178' MSL.
Trees beginning 588' from DER, 343' left of centerline, up to 1207' MSL.
Trees beginning 707' from DER, 408' left of centerline, up to 1209' MSL.
Trees, transmission lines beginning 1017' from DER, 1' left of centerline, up to 1231' MSL.
Trees beginning 1044' from DER, 7' right of centerline, up to 1168' MSL.
Tree 1260' from DER, 26' right of centerline, 1180' MSL.
Tree 1285' from DER, 146' right of centerline, 1192' MSL.
Trees beginning 1287' from DER, 94' right of centerline, up to 1195' MSL.
Trees, pole beginning 1459' from DER, 280' right of centerline, up to 1199' MSL.
Trees beginning 1552' from DER, 146' right of centerline, up to 1200' MSL.
Trees beginning 1872' from DER, 1' left of centerline, up to 1233' MSL.
Trees beginning 1967' from DER, 442' left of centerline, up to 1259' MSL.
Trees beginning 2040' from DER, 18' left of centerline, up to 1279' MSL.
Trees beginning 2136' from DER, 95' left of centerline, up to 1280' MSL.
Trees beginning 2292' from DER, 120' left of centerline, up to 1290' MSL.
Trees beginning 2378' from DER, 30' right of centerline, up to 1206' MSL.
Tree 2390' from DER, 978' left of centerline, 1298' MSL.
Trees, poles beginning 2402' from DER, 67' left of centerline, up to 84' AGL/1313' MSL.
Trees beginning 2477' from DER, 12' right of centerline, up to 1215' MSL.
Trees beginning 3121' from DER, 3' right of centerline, up to 1216' MSL.
Trees, pole, building, trees beginning 3158' from DER, 6' left of centerline, up to 1318' MSL.
Tree 3354' from DER, 17' right of centerline, 77' AGL/1218' MSL.
Trees beginning 5279' from DER, 1762' left of centerline, up to 1277' MSL.
Rwy 19, trees beginning 936' from DER, 724' right of centerline, up to 1203' MSL.
Tree 1100' from DER, 743' left of centerline, 1181' MSL.
Trees beginning 1168' from DER, 710' right of centerline, up to 1207' MSL.
Tree 1240' from DER, 684' left of centerline, 1185' MSL.
Tree 1359' from DER, 701' left of centerline, 1188' MSL.
Trees beginning 1415' from DER, 698' left of centerline, up to 1195' MSL.
Trees beginning 1774' from DER, 788' left of centerline, up to 1198' MSL.
Rwy 31, trees beginning 33' from DER, 173' left of centerline, up to 18' AGL/1135' MSL.
Tree 266' from DER, 464' left of centerline, 1154' MSL.
Trees beginning 396' from DER, 259' left of centerline, up to 1162' MSL.
Tree 656' from DER, 667' left of centerline, 1164' MSL.
Trees beginning 744' from DER, 256' left of centerline, up to 1165' MSL.
Trees beginning 758' from DER, 105' right of centerline, up to 1199' MSL.
Trees beginning 869' from DER, 184' left of centerline, up to 1169' MSL.
Trees beginning 942' from DER, 75' left of centerline, up to 1170' MSL.
Trees beginning 990' from DER, 109' left of centerline, up to 1172' MSL.
Trees beginning 1321' from DER, 648' left of centerline, up to 1174' MSL.
Trees beginning 1449' from DER, 213' left of centerline, up to 1184' MSL.
Trees beginning 1704' from DER, 515' left of centerline, up to 1200' MSL.
Trees beginning 1845' from DER, 96' left of centerline, up to 1204' MSL.
Trees beginning 1882' from DER, 150' right of centerline, up to 1200' MSL.
Trees beginning 2205' from DER, 103' right of centerline, up to 1207' MSL.
Tree 3597' from DER, 91' left of centerline, 1226' MSL.
Tree 3892' from DER, 376' right of centerline, 1231' MSL.
Trees beginning 4066' from DER, 208' right of centerline, up to 1241' MSL.
Tree 4099' from DER, 72' left of centerline, 1237' MSL.
Trees beginning 4169' from DER, 178' left of centerline, up to 1244' MSL.
Tree 4173' from DER, 425' right of centerline, 1246' MSL.
Trees beginning 4176' from DER, 650' right of centerline, up to 1248' MSL.
Trees beginning 4245' from DER, 132' right of centerline, up to 1249' MSL.
Trees beginning 4323' from DER, 42' right of centerline, up to 1251' MSL.
Tree 4349' from DER, 592' left of centerline, 1245' MSL.
Trees beginning 4357' from DER, 204' left of centerline, up to 1253' MSL.
Trees beginning 4389' from DER, 409' right of centerline, up to 1258' MSL.
Trees beginning 4406' from DER, 48' left of centerline, up to 1260' MSL.
Trees beginning 4457' from DER, 203' right of centerline, up to 1266' MSL.
Trees beginning 4504' from DER, 64' right of centerline, up to 1267' MSL.
Trees beginning 4506' from DER, 379' left of centerline, up to 1262' MSL.
Trees beginning 4555' from DER, 77' left of centerline, up to 1267' MSL.
Trees beginning 4623' from DER, 4' right of centerline, up to 1272' MSL.
Trees beginning 4731' from DER, 18' left of centerline, up to 1271' MSL.
Trees beginning 4900' from DER, 36' left of centerline, up to 1277' MSL.
Trees beginning 5064' from DER, 108' left of centerline, up to 1287' MSL.
Trees beginning 5114' from DER, 462' right of centerline, up to 1274' MSL.
Trees beginning 5176' from DER, 628' left of centerline, up to 1293' MSL.
CON'T

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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

IRON MOUNTAIN KINGSFORD, MI (CON'T)

FORD (IMT) (CON'T)

Rwy 31 (CON'T), trees beginning 5204' from DER, 150' right of centerline, up to 1277' MSL.
Tree 5234' from DER, 269' right of centerline, 1297' MSL.
Trees beginning 5244' from DER, 110' left of centerline, up to 1300' MSL.
Trees beginning 5270' from DER, 470' right of centerline, up to 1302' MSL.
Trees beginning 5329' from DER, 16' right of centerline, up to 1307' MSL.
Trees beginning 5441' from DER, 93' left of centerline, up to 1301' MSL.
Trees beginning 5459' from DER, 538' left of centerline, up to 1302' MSL.
Trees beginning 5532' from DER, 29' left of centerline, up to 1320' MSL.
Trees beginning 5704' from DER, 62' left of centerline, up to 1324' MSL.
Trees beginning 5763' from DER, 21' right of centerline, up to 105' AGL/1322' MSL.
Trees beginning 5827' from DER, 18' left of centerline, up to 105' AGL/1332' MSL.
Trees 1.2 NM from DER, 2243' left of centerline, 100' AGL/1328' 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.
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, t-l twr, pole beginning 1413' from DER, 23' right of centerline, up to 1058' MSL.
CON'T

EC-1, 07 AUG 2025 to 02 OCT 2025

JACKSON, MI (CON'T)

JACKSON COUNTY/REYNOLDS FLD (JXN) (CON'T)

Rwy 32 (CON'T), 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 906' 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 1A 12JUN25 (25163) (FAA)

TAKEOFF MINIMUMS:
Rwys 9, 27, 300-1.
TAKEOFF OBSTACLE NOTES:
Rwy 9, trees beginning 62' from DER, on and right of centerline, up to 100' AGL/767' MSL.
Trees beginning 95' from DER, 85' left of centerline, up to 100' AGL/767' MSL.
Trees beginning 1684' from DER, 60' left of centerline, up to 100' AGL/770' MSL.
Trees beginning 1961' from DER, 11' left of centerline, up to 100' AGL/773' MSL.
Rwy 27, trees beginning 94' from DER, 126' right of centerline, up to 100' AGL/770' MSL.
Trees beginning 127' from DER, 4' left of centerline, up to 100' AGL/770' MSL.
Trees beginning 548' from DER, 7' right of centerline, up to 100' AGL/773' MSL.

EC-1, 07 AUG 2025 to 02 OCT 2025

LANSING, MI

CAPITAL REGION INTL (LAN)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 14 13NOV14 (14317) (FAA)

DEPARTURE PROCEDURE:

Rwys 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.
MALSR 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.
Trees beginning 2327' from DER, 56' left of centerline, up to 921' MSL.

CON'T

LAPEER, MI (CON'T)

DUPONT/LAPEER (D95) (CON'T)

Rwy 36 (CON'T), 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)

25219

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, 300-1⅞ 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.
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.

CON'T

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 (CON'T), 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.

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.

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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.

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.

EC-1, 07 AUG 2025 to 02 OCT 2025

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.

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.

ONTONAGON, MI

ONTONAGON COUNTY/SCHUSTER FLD (OGM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 31MAY12 (24025) (FAA)

TAKEOFF MINIMUMS:

Rwy 17, 300-1¾ 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.
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.
CON'T

PELLSTON, MI (CON'T)

PELLSTON RGNL/EMMET COUNTY (PLN) (CON'T)

Rwy 23 (CON'T), 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.
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.
CON'T

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EC-1, 07 AUG 2025 to 02 OCT 2025

PELLSTON, MI (CON'T)

PELLSTON RGNL/EMMET COUNTY (PLN) (CON'T)

Rwy 32 (CON'T), 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.

PLYMOUTH, MI

CANTON-PLYMOUTH-METTETAL (1D2)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 10DEC92 (92345) (FAA)

TAKEOFF MINIMUMS:
Rwys 18, 36, 300-1.

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.

EC-1, 07 AUG 2025 to 02 OCT 2025
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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 2A 07AUG25 (25219) (FAA)

TAKEOFF OBSTACLE NOTES:

Rwy 9, terrain 38' from DER, 205' right of centerline, 671' MSL.
Terrain 83' from DER, 501' right of centerline, 692' MSL.
Tree 104' from DER, 400' left of centerline, 678' MSL.
Trees beginning 125' from DER, 261' right of centerline, up to 706' MSL.
Tree 165' from DER, 496' left of centerline, 688' MSL.
Tree 198' from DER, 397' right of centerline, 31' AGL/708' MSL.
Tree 209' from DER, 423' right of centerline, 711' MSL.
Tree, vehicles on road beginning 215' from DER, 64' left of centerline, up to 691' MSL.
Transmission lines, poles, trees, vehicles on road beginning 281' from DER, 28' right of centerline, up to 50' AGL/726' MSL.
Trees beginning 369' from DER, 326' left of centerline, up to 713' MSL.
Tree 432' from DER, 472' left of centerline, 714' MSL.
Trees, catenary wires, transmission lines, poles beginning 505' from DER, 72' left of centerline, up to 717' MSL.
Tree 2056' from DER, 988' right of centerline, 727' MSL.
Tree 2146' from DER, 921' right of centerline, 729' MSL.
Rwy 27, tree 22' from DER, 423' right of centerline, 705' MSL.
Vehicles on road, terrain, sign, fence beginning 23' from DER, 194' left of centerline, up to 687' MSL.
Tree 57' from DER, 510' right of centerline, 706' MSL.
Tree 152' from DER, 408' right of centerline, 53' AGL/711' MSL.
Trees beginning 221' from DER, 370' right of centerline, up to 713' MSL.
Tree, vehicles on road, fence beginning 258' from DER, 95' left of centerline, up to 738' MSL.
Tree, vehicles on road beginning 381' from DER, 109' left of centerline, up to 741' MSL.
Trees, vehicles on road beginning 405' from DER, 68' right of centerline, up to 719' MSL.
Tree 486' from DER, 451' left of centerline, 755' MSL.
Trees, buildings, terrain, transmission lines, poles, vehicles on road, catenary wires beginning 490' from DER, 29' left of centerline, up to 761' MSL.
Trees, vehicles on road beginning 557' from DER, 274' right of centerline, up to 724' MSL.
Trees, poles, transmission lines, catenary wires beginning 730' from DER, 101' right of centerline, up to 741' MSL.
Trees beginning 1003' from DER, 527' left of centerline, up to 765' MSL.
Trees beginning 1102' from DER, 322' right of centerline, up to 744' MSL.
Trees beginning 1490' from DER, 690' left of centerline, up to 768' MSL.
Trees beginning 1586' from DER, 20' left of centerline, up to 771' MSL.
Tree 1854' from DER, 219' right of centerline, 745' MSL.
Trees beginning 1857' from DER, 88' right of centerline, up to 752' MSL.
Trees beginning 2075' from DER, 1' right of centerline, up to 761' MSL.
Trees beginning 2457' from DER, 2' right of centerline, up to 762' MSL.
Trees beginning 2812' from DER, 57' left of centerline, up to 775' MSL.
Trees beginning 2897' from DER, 18' left of centerline, up to 111' AGL/793' MSL.
Trees beginning 4761' from DER, 1762' left of centerline, up to 100' AGL/799' MSL.

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.

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, 61' 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.

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.

CON'T

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SOUTH HAVEN, MI (CON'T)

SOUTH HAVEN AREA RGNL (LWA) (CON'T)

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 3 12JUN25 (25163) (FAA)

TAKEOFF MINIMUMS:

Rwy 25, 300-1⅝ or std w/min climb of 215'/NM to 1000.

TAKEOFF OBSTACLE NOTES:

Rwy 7, vehicle on road 16' from DER, 495' left of centerline, 755' MSL.
Tree, vehicle on road, building beginning 129' from DER, 393' left of centerline, up to 25' AGL/762' MSL.
Transmission line, pole, trees beginning 302' from DER, 295' left of centerline, up to 24' AGL/764' MSL.
Tree 331' from DER, 519' right of centerline, 759' MSL.
Building 471' from DER, 436' right of centerline, 773' MSL.
Trees, buildings beginning 541' from DER, 222' right of centerline, up to 58' AGL/798' MSL.
Trees, building beginning 700' from DER, 9' right of centerline, up to 802' MSL.
Pole, tree beginning 729' from DER, 339' left of centerline, up to 37' AGL/768' MSL.
Trees beginning 758' from DER, 30' left of centerline, up to 813' MSL.
Tree 1352' from DER, 645' right of centerline, 803' MSL.
Tree 1492' from DER, 513' right of centerline, 805' MSL.
Building, tree beginning 1510' from DER, 653' right of centerline, up to 820' MSL.
Trees beginning 1583' from DER, 65' left of centerline, up to 98' AGL/823' MSL.
Trees beginning 1605' from DER, 19' right of centerline, up to 97' AGL/827' MSL.
Trees beginning 1900' from DER, 4' left of centerline, up to 829' MSL.
Trees beginning 2367' from DER, 105' left of centerline, up to 108' AGL/832' MSL.
Trees beginning 2414' from DER, 5' left of centerline, up to 107' AGL/835' MSL.
Trees beginning 2467' from DER, 1' right of centerline, up to 108' AGL/836' MSL.
Trees, transmission line, pole beginning 2852' from DER, 33' left of centerline, up to 130' AGL/853' MSL.
Trees beginning 3657' from DER, 1015' right of centerline, up to 116' AGL/844' MSL.
Rwy 25, utility building 39' from DER, 112' right of centerline, 8' AGL/775' MSL.
Terrain 74' from DER, 463' left of centerline, 787' MSL.
Trees beginning 140' from DER, 207' left of centerline, up to 47' AGL/817' MSL.
Trees beginning 467' from DER, 139' right of centerline, up to 796' MSL.
Trees beginning 564' from DER, 261' right of centerline, up to 802' MSL.
Trees beginning 568' from DER, 518' left of centerline, up to 819' MSL.
Trees beginning 671' from DER, 351' right of centerline, up to 62' AGL/832' MSL.
Trees beginning 679' from DER, 167' left of centerline, up to 67' AGL/822' MSL.
Trees, pole beginning 866' from DER, 249' right of centerline, up to 836' MSL.
Trees beginning 1014' from DER, 88' left of centerline, up to 838' MSL.
Trees beginning 1289' from DER, 50' right of centerline, up to 81' AGL/851' MSL.
Trees beginning 1515' from DER, 212' left of centerline, up to 840' MSL.
Trees beginning 1529' from DER, 28' left of centerline, up to 858' MSL.
Trees beginning 1563' from DER, 426' right of centerline, up to 866' MSL.
Trees beginning 1646' from DER, 173' right of centerline, up to 96' AGL/868' MSL.
Tree 1729' from DER, 819' right of centerline, 103' AGL/875' MSL.
Trees beginning 1869' from DER, 42' right of centerline, up to 105' AGL/881' MSL.
Trees beginning 2644' from DER, 87' left of centerline, up to 860' MSL.
Trees beginning 2932' from DER, 61' left of centerline, up to 105' AGL/869' MSL.
Tree 3621' from DER, 120' left of centerline, 100' AGL/871' MSL.
Trees beginning 1 NM from DER, 794' right of centerline, up to 77' AGL/936' MSL.
Trees beginning 1.2 NM from DER, 1627' right of centerline, up to 74' AGL/974' MSL.
Tree 1.3 NM from DER, 1694' right of centerline, 73' AGL/979' MSL.

STURGIS, MI

KIRSCH MUNI (IRS)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 4A 29DEC22 (23054) (FAA)

TAKEOFF MINIMUMS:

Rwy 1, 300-1⅛ 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, 300-1¼ 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.
CON'T

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STURGIS, MI (CON'T)

KIRSCH MUNI (IRS) (CON'T)

Rwy 1 (CON'T), 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.
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.

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

25219

THREE RIVERS, MI

THREE RIVERS MUNI/DR HAINES (HAI)

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.

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.

CON'T

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

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TRAVERSE CITY, MI (CON'T)

CHERRY CAPITAL (TVC) (CON'T)

Rwy 28 (CON'T), 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.

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 caternary 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.

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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.

ZEELAND, MI

OTTAWA EXEC (Z98)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 17APR25 (25107) (FAA)

TAKEOFF MINIMUMS:

Rwy 2, 300-1.

TAKEOFF OBSTACLE NOTES:

Rwy 2, trees 22' from DER, 288' left of centerline, 50' AGL/802' MSL.
Trees 68' from DER, 69' left of centerline, 50' AGL/805' MSL.
Trees beginning 115' from DER, 85' right of centerline, up to 50' AGL/802' MSL.
Trees 272' from DER, 570' left of centerline, 50' AGL/812' MSL.
Trees beginning 319' from DER, 12' left of centerline, up to 50' AGL/815' MSL.
Trees beginning 709' from DER, 22' right of centerline, up to 50' AGL/808' MSL.
Tower 1719' from DER, 873' right of centerline, 193' AGL/931' MSL.
Rwy 20, trees beginning 86' from DER, 1' left of centerline, up to 50' AGL/772' MSL.
Trees beginning 179' from DER, 28' right of centerline, up to 50' AGL/766' MSL.

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INSTRUMENT APPROACH PROCEDURE CHARTS

IFR ALTERNATE AIRPORT MINIMUMS

Pilots must review the IFR Alternate Minimums Notes to determine alternate airport suitability. ⚠NA designation on the approach chart means that pilots may not use that approach as an alternate due to unmonitored facility, absence of weather reporting service, or lack of adequate navigation coverage. Approaches with the ⚠NA designation are not listed in this section. ⚠ designation on the approach chart indicates that the approach procedure has non-standard minimums (for aircraft other than helicopters) or restrictions (for all users) for its use as an alternate. A procedure is not authorized for alternate flight planning purposes when local weather is not available.

MILITARY USERS NOTE: For IFR alternate airport and minima planning, refer to appropriate service directives.

Alternate Minima (ref: 14 CFR 91.169)

	Precision Approach	Non-Precision Approach
Standard	**600-2**	**800-2**
⚠Non-Standard or restrictions	As indicated below	As indicated below
Helicopters	For the selected approach: Ceiling: 200' above published ceiling Visibility: the greater of 1 SM visibility or the published visibility	

Note: For alternate airport flight planning purposes, precision approach operations include: ILS, PAR, and GLS, and Non-Precision approach operations include: NDB, VOR, LOC, TACAN, LDA, SDF, ASR, RNAV (GPS) and RNAV (RNP).

NAME — ALTERNATE MINIMUMS

ADRIAN, MI
LENAWEE COUNTY (ADG)……..…….....**RNAV (GPS) Rwy 5**
RNAV (GPS) Rwy 23
NA when local weather not available.

ALMA, MI
GRATIOT COMMUNITY (AMN)…….…....**RNAV (GPS) Rwy 9**
RNAV (GPS) Rwy 27
NA when local weather not available.

ALPENA, MI
ALPENA COUNTY RGNL (APN)……..…**ILS or LOC Rwy 1[1]**
RNAV (GPS) Rwy 7[2]
RNAV (GPS) Rwy 25[2]
[1]NA when control tower closed.
[2]NA when local weather not available.

ANN ARBOR, MI
ANN ARBOR MUNI (ARB)……..…...**RNAV (GPS) Rwy 6**
RNAV (GPS) Rwy 24
VOR Rwy 6[1]
VOR Rwy 24[1]
NA when local weather not available.
[1]Category D, 900-2½.

NAME — ALTERNATE MINIMUMS

BAD AXE, MI
HURON COUNTY MEML (BAX)……...……..**RNAV (GPS) Rwy 4**
RNAV (GPS) Rwy 17
RNAV (GPS) Rwy 22
RNAV (GPS) Rwy 35
NA when local weather not available.

BATTLE CREEK, MI
BATTLE CREEK EXEC AT KELLOGG FLD (BTL)…..…..**ILS or LOC Rwy 23R[1]**
RNAV (GPS) Rwy 5L
RNAV (GPS) Rwy 23R
NA when local weather not available.
[1]NA when control tower closed.

BEAVER ISLAND, MI
BEAVER ISLAND (SJX)……..**RNAV (GPS) Rwy 9**
RNAV (GPS) Rwy 27
NA when local weather not available.

BELLAIRE, MI
ANTRIM COUNTY (ACB)……..**RNAV (GPS) Rwy 2**
NA when local weather not available.
Category C, 1000-2¾; Category D, 1100-3.

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NAME ALTERNATE MINIMUMS

BENTON HARBOR, MI
SOUTHWEST MICHIGAN
RGNL (BEH)……..**RNAV (GPS) Rwy 10**
VOR Rwy 28
Category D, 800-2¼.

BIG RAPIDS, MI
ROBEN-HOOD (RQB)…….…**RNAV (GPS) Rwy 27**
NA when local weather not available.
Category D, 900-2¾.

CADILLAC, MI
WEXFORD
COUNTY (CAD)……..……..**RNAV (GPS) Rwy 7**
RNAV (GPS) Rwy 25
NA when local weather not available.
Category D, 800-2½.

CARO, MI
TUSCOLA
AREA (CFS)..……..…....**RNAV (GPS) Rwy 6**[1]
RNAV (GPS) Rwy 24[1]
VOR Rwy 10[2]
NA when local weather not available.
[1]Category C, 900-2¾.
[2]Categories A, B, 900-2; Category C, 900-2¾.

CHARLEVOIX, MI
CHARLEVOIX
MUNI (CVX)……..**RNAV (GPS) Rwy 9**
RNAV (GPS) Rwy 27
NA when local weather not available.
Category D, 800-2¼.

CHARLOTTE, MI
FITCH H BEACH (FPK)…….…**RNAV (GPS) Rwy 21**
NA when local weather not available.

CHEBOYGAN, MI
CHEBOYGAN
COUNTY (SLH)……..…....**RNAV (GPS) Rwy 10**
RNAV (GPS) Rwy 28
VOR Rwy 10
NA when local weather not available.

COLDWATER, MI
BRANCH COUNTY
MEML (OEB)……..**RNAV (GPS) Rwy 7**
RNAV (GPS) Rwy 25
NA when local weather not available.

NAME ALTERNATE MINIMUMS

DETROIT, MI
COLEMAN A YOUNG
MUNI (DET)…….…..**ILS or LOC Rwy 15**[1]
ILS or LOC Rwy 33[1]
RNAV (GPS) Rwy 15[2]
RNAV (GPS) Rwy 33[2]
NA when local weather not available.
[1]LOC, Category D, 900-2¾.
[2]Category D, 900-2¾.

WILLOW RUN (YIP)……..**ILS or LOC Rwy 5**[1]
ILS or LOC Rwy 23[1]
RNAV (GPS) Rwy 5[2]
RNAV (GPS) Rwy 9[2]
RNAV (GPS) Rwy 23[2]
VOR-A[2]
[1]LOC, Category D, 800-2¼.
[2]Category D, 800-2¼.

DETROIT/GROSSE ILE, MI
GROSSE ILE MUNI (ONZ)..…**RNAV (GPS) Rwy 4**
RNAV (GPS) Rwy 22
VOR-A[1]
Categories A, B, 900-2; Category C, 900-2½;
Category D, 900-2¾.
[1]NA when local weather not available.

ESCANABA, MI
DELTA COUNTY (ESC)…….....**ILS or LOC Rwy 10**[1]
LOC BC Rwy 28[2]
RNAV (GPS) Rwy 1[2]
RNAV (GPS) Rwy 10[2]
RNAV (GPS) Rwy 19[2]
RNAV (GPS) Rwy 28[2]
VOR Rwy 1[2]
NA when local weather not available.
[1]LOC, Category D, 900-2¾.
[2]Category D, 900-2¾.

FLINT, MI
BISHOP INTL (FNT)…….…..…**ILS or LOC Rwy 9**[12]
ILS or LOC Rwy 27[12]
RNAV (GPS) Rwy 9[3]
RNAV (GPS) Rwy 18[34]
RNAV (GPS) Rwy 27[3]
RNAV (GPS) Rwy 36[3]
VOR Rwy 18[3]
VOR Rwy 36[3]
[1]NA when control tower closed.
[2]LOC, Category D, 800-2¼.
[3]Category D, 800-2¼.
[4]NA when local weather not available.

FRANKFORT, MI
FRANKFORT DOW MEML
FLD (FKS)……..…….....**RNAV (GPS) Rwy 15**
RNAV (GPS) Rwy 33
NA when local weather not available.
Category B, 900-2; Category C, 900-2¾.

NAME ALTERNATE MINIMUMS

FREMONT, MI
FREMONT
MUNI (FFX)……**RNAV (GPS) Rwy 1**
RNAV (GPS) Rwy 19
NA when local weather not available.
Category D, 800-2¼.

GAYLORD, MI
GAYLORD RGNL (GLR)……**RNAV (GPS) Rwy 9**
RNAV (GPS) Rwy 27
Category D, 800-2½.
NA when local weather not available.

GRAND RAPIDS, MI
GERALD R FORD
INTL (GRR)……**ILS or LOC Rwy 26L**[12]
ILS or LOC Rwy 35[1]
RNAV (GPS) Rwy 8L[2]
RNAV (GPS) Rwy 17[2]
RNAV (GPS) Rwy 35[2]
VOR Rwy 17[2]
[1]NA when control tower closed.
[2]NA when local weather not available.

GRAYLING, MI
GRAYLING AAF (GOV)……**RNAV (GPS) Rwy 14**
NA when local weather not available.
Category D, 900-2½.

HANCOCK, MI
HOUGHTON COUNTY
MEML (CMX)……**ILS or LOC Rwy 32**[1]
LOC BC Rwy 14[2]
RNAV (GPS) Rwy 7[2]
RNAV (GPS) Rwy 14[2]
RNAV (GPS) Rwy 25[2]
RNAV (GPS) Rwy 32[2]
VOR Rwy 25[2]
NA when local weather not available.
[1]LOC, Category D, 800-2¼.
[2]Category D, 800-2¼.

HARBOR SPRINGS, MI
HARBOR
SPRINGS (MGN)……**RNAV (GPS) Rwy 10**
RNAV (GPS) Rwy 28
NA when local weather not available.
Category B, 900-2.

HOLLAND, MI
WEST MICHIGAN
RGNL (BIV)……**RNAV (GPS) Rwy 8**
RNAV (GPS) Rwy 26
NA when local weather not available.

HOUGHTON LAKE, MI
ROSCOMMON COUNTY/BLODGETT
MEML (HTL)……**RNAV (GPS) Rwy 9**
RNAV (GPS) Rwy 27
NA when local weather not available.

NAME ALTERNATE MINIMUMS

HOWELL, MI
LIVINGSTON COUNTY SPENCER J
HARDY (OZW)……**RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
NA when local weather not available.

IONIA, MI
IONIA COUNTY (Y70)……**RNAV (GPS) Rwy 10**
RNAV (GPS) Rwy 28
NA when local weather not available.

IRON MOUNTAIN KINGSFORD, MI
FORD (IMT)……**RNAV (GPS) Rwy 1**
RNAV (GPS) Rwy 19
NA when local weather not available.

IRONWOOD, MI
GOGEBIC/IRON
COUNTY (IWD)……**RNAV (GPS) Rwy 9**
RNAV (GPS) Rwy 27
VOR Rwy 9
NA when local weather not available.
Categories A, B, 900-2; Categories C, D, 1000-3.

JACKSON, MI
JACKSON COUNTY/REYNOLDS
FLD (JXN)……**ILS or LOC Rwy 25**[1]
RNAV (GPS) Rwy 7
RNAV (GPS) Rwy 14
RNAV (GPS) Rwy 25
RNAV (GPS) Rwy 32
NA when local weather not available.
[1]NA when tower closed.

KALAMAZOO, MI
KALAMAZOO/BATTLE CREEK
INTL (AZO)……**RNAV (GPS) Rwy 17**
NA when local weather not available.

LANSING, MI
CAPITAL REGION
INTL (LAN)……**ILS or LOC Rwy 10R**[1]
ILS or LOC Rwy 28L[2]
RNAV (GPS) Rwy 6[3]
RNAV (GPS) Rwy 10R[3]
RNAV (GPS) Rwy 24[3]
RNAV (GPS) Rwy 28L[3]
[1]ILS, Category C, 800-2; Category D, 900-3;
LOC, Category D, 900-3.
[2]LOC, Category D, 900-3.
[3]Category D, 900-3.

LAPEER, MI
DUPONT/LAPEER (D95)……**RNAV (GPS) Rwy 18**
RNAV (GPS) Rwy 36
NA when local weather not available.

NAME	ALTERNATE MINIMUMS

LUDINGTON, MI
MASON COUNTY (LDM)……..**RNAV (GPS) Rwy 8**
RNAV (GPS) Rwy 26
NA when local weather not available.
Category D, 900-2¾.

MACKINAC ISLAND, MI
MACKINAC
ISLAND (MCD)……..….**RNAV (GPS) Rwy 8**
RNAV (GPS) Rwy 26
VOR/DME-A
NA when local weather not available.

MANISTEE, MI
MANISTEE COUNTY/
BLACKER (MBL)…….....**ILS or LOC Rwy 28[1]**
RNAV (GPS) Rwy 10[2]
RNAV (GPS) Rwy 28[2]
NA when local weather not available
[1]LOC, Category C, 800-2¼; Category D, 900-3.
[2]Category C, 800-2¼; Category D, 900-2¾.

MANISTIQUE, MI
SCHOOLCRAFT
COUNTY (ISQ)……...**RNAV (GPS) Rwy 10**
RNAV (GPS) Rwy 28
NA when local weather not available.

MARSHALL, MI
BROOKS FLD (RMY)……...**RNAV (GPS) Rwy 28**
NA when local weather not available.

MASON, MI
MASON JEWETT
FLD (TEW)……..……..**RNAV (GPS) Rwy 10**
RNAV (GPS) Rwy 28
NA when local weather not available.

MENOMINEE, MI
MENOMINEE
RGNL (MNM)…….....…..**RNAV (GPS) Rwy 3**
RNAV (GPS) Rwy 21
RNAV (GPS) Rwy 32
NA when local weather not available.
Category D, 800-2½.

MIDLAND, MI
JACK BARSTOW (IKW)…….....**RNAV (GPS) Rwy 6**
RNAV (GPS) Rwy 24
VOR-A
NA when local weather not available.

MONROE, MI
CUSTER (TTF)……..…...**RNAV (GPS) Rwy 3**
RNAV (GPS) Rwy 21
NA when local weather not available.
Category C, 800-2¼; Category D, 800-2½.

NAME	ALTERNATE MINIMUMS

MOUNT PLEASANT, MI
MOUNT PLEASANT
MUNI (MOP)……..……..**RNAV (GPS) Rwy 9**
RNAV (GPS) Rwy 27
NA when local weather not available.
Category D, 1000-3.

MUSKEGON, MI
MUSKEGON
COUNTY (MKG)……..…..**ILS or LOC Rwy 24[1]**
ILS or LOC Rwy 32[1]
RNAV (GPS) Rwy 6[2]
RNAV (GPS) Rwy 14[2]
RNAV (GPS) Rwy 24[2]
RNAV (GPS) Rwy 32[2]
[1]NA when control tower closed.
[2]NA when local weather not available.

NEWBERRY, MI
LUCE
COUNTY (ERY)……..……**RNAV (GPS) Rwy 11**
RNAV (GPS) Rwy 29
NA when local weather not available.
Category D, 800-2¼.

OWOSSO, MI
OWOSSO
COMMUNITY (RNP)…….....**RNAV (GPS) Rwy 29**
VOR/DME Rwy 29
NA when local weather not available.

PELLSTON, MI
PELLSTON RGNL/EMMET
COUNTY (PLN)…….....…..**ILS or LOC Rwy 32[1]**
RNAV (GPS) Rwy 5[2]
RNAV (GPS) Rwy 23[3]
RNAV (GPS) Rwy 32[3]
VOR Rwy 23[3]
NA when local weather not available.
[1]LOC, Category C, 900-2½; Category D, 1000-3.
[2]Categories A, B, 900-2; Category C, 900-2½; Category D, 1000-3.
[3]Category C, 900-2½; Category D, 1000-3.

PONTIAC, MI
OAKLAND COUNTY
INTL (PTK)……..……...**ILS or LOC Rwy 9R[1]**
LOC BC Rwy 27L[1]
RNAV (GPS) Rwy 9R
RNAV (GPS) Rwy 27L
NA when local weather not available.
[1]NA when tower closed.

PORT HURON, MI
ST CLAIR COUNTY
INTL (PHN)……..……..**RNAV (GPS) Rwy 4**
RNAV (GPS) Rwy 22
NA when local weather not available.

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NAME ALTERNATE MINIMUMS

SAGINAW, MI

MBS INTL (MBS)……..**ILS or LOC Rwy 5**[1]
ILS or LOC Rwy 23
NA when control tower closed.
[1]NA when local weather not available.

SAGINAW COUNTY/H W
BROWNE (HYX)……..**RNAV (GPS) Rwy 10**[1]
RNAV (GPS) Rwy 28
VOR/DME-A[1]
Category C, 900-2½.
[1]NA when local weather not available.

SAULT STE MARIE, MI

CHIPPEWA COUNTY
INTL (CIU)…….....…....**RNAV (GPS) Rwy 10**
RNAV (GPS) Rwy 16
RNAV (GPS) Rwy 28
RNAV (GPS) Rwy 34
NA when local weather not available.

SAULT STE MARIE MUNI/SANDERSON
FLD (ANJ)……..……**RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 32
VOR Rwy 32
NA when local weather not available.

SOUTH HAVEN, MI

SOUTH HAVEN
AREA RGNL (LWA)……....**RNAV (GPS) Rwy 5**
RNAV (GPS) Rwy 23
NA when local weather not available.
Category C, 800-2¼; Category D, 800-2½.

STURGIS, MI

KIRSCH MUNI (IRS)……...**NDB Rwy 19**
NDB Rwy 24
RNAV (GPS) Rwy 1
RNAV (GPS) Rwy 19
NA when local weather not available.
Category D, 800-2¼.

THREE RIVERS, MI

THREE RIVERS MUNI/
DR HAINES (HAI)……**RNAV (GPS) Rwy 27**
NA when local weather not available.

NAME ALTERNATE MINIMUMS

TRAVERSE CITY, MI

CHERRY
CAPITAL (TVC)……..**ILS or LOC Rwy 10**[123]
ILS or LOC Rwy 28[124]
RNAV (GPS) Rwy 10[5]
RNAV (GPS) Rwy 18[16]
RNAV (GPS) Rwy 28[16]
RNAV (GPS) Rwy 36[16]
VOR-A[17]
[1]NA when local weather not available.
[2]NA when control tower closed.
[3]LOC, Categories A, B, 1100-2; Categories C, D, 1100-3.
[4]LOC, Categories A, B, 900-2; Category C, 900-2½; Category D, 1100-3.
[5]Categories A, B, 1200-2; Categories C, D, 1200-3.
[6]Category C, 900-2½; Category D, 1100-3.
[7]Categories A, B, 900-2; Category C, 900-2½; Category D, 1100-3.

TROY, MI

OAKLAND/TROY (VLL)...……**RNAV (GPS) Rwy 10**
NA when local weather not available.

WEST BRANCH, MI

WEST BRANCH
COMMUNITY (Y31)……..…..**RNAV (GPS) Rwy 9**[12]
RNAV (GPS) Rwy 27[3]
[1]NA when local weather not available.
[2]Category C, 800-2¼; Category D, 900-2¾.
[3]Category D, 900-2¾.

THERE ARE NO RADAR PROCEDURES FOR EAST CENTRAL (EC-1)

EC-1, 07 AUG 2025 to 02 OCT 2025

24305

LAND AND HOLD-SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for "Land and Hold-Short Operations." These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold-short operations and markings.

CITY/AIRPORT	LDG RWY	HOLD-SHORT POINT	AVBL LDG DIST
BATTLE CREEK, MI			
BATTLE CREEK EXEC AT KELLOGG FLD (BTL)	05L	13-31	7,000 feet
FLINT, MI			
BISHOP INTL (FNT)	09	18-36	4,100 feet
	36	09-27	6,300 feet
TRAVERSE CITY, MI			
CHERRY CAPITAL (TVC)	18	10-28	2,850 feet
	28	18-36	5,950 feet

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

25051

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 ellipses 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.
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.

25051

EC-1, 07 AUG 2025 to 02 OCT 2025

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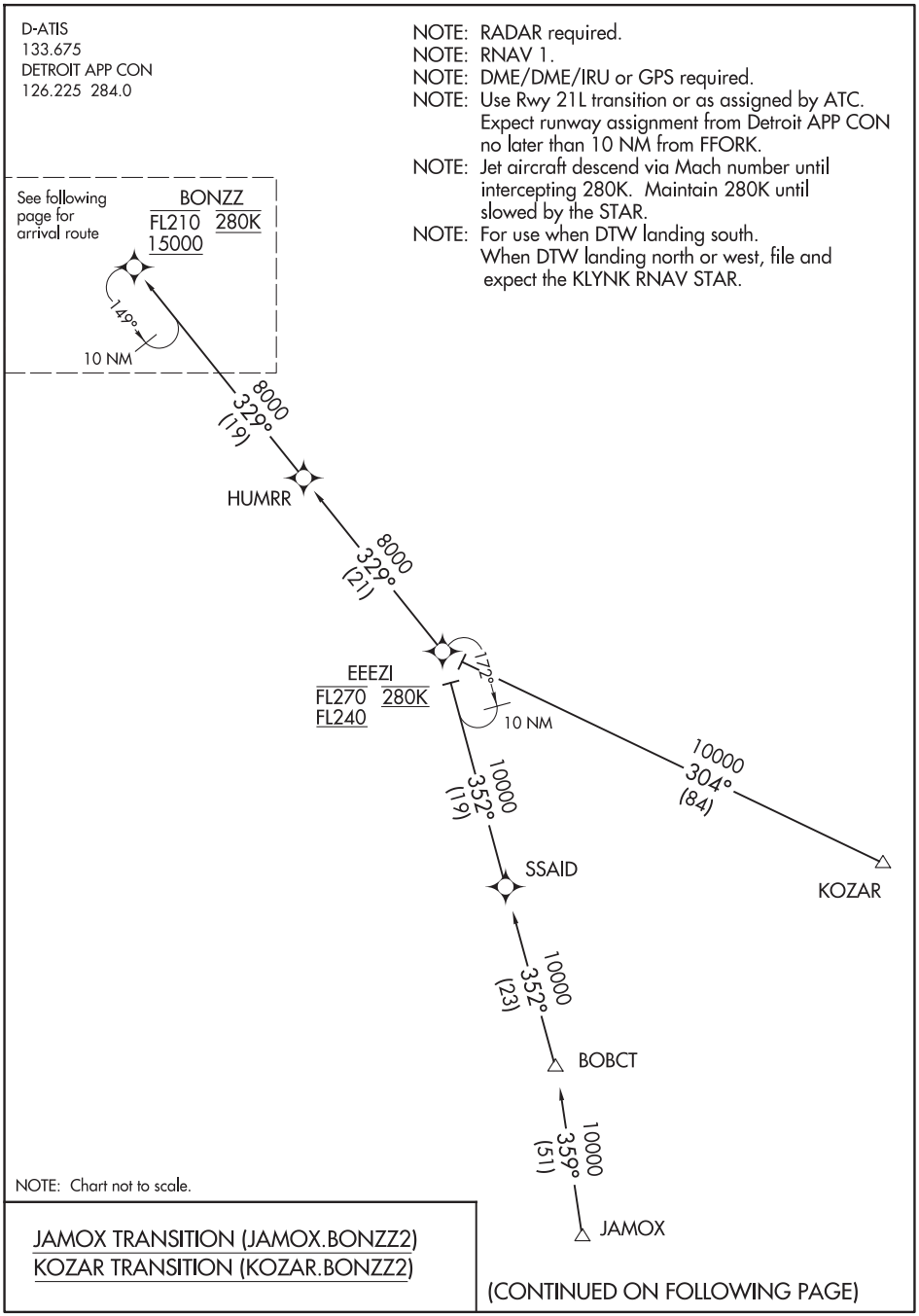
BONZZ TWO ARRIVAL (RNAV) Transition Routes

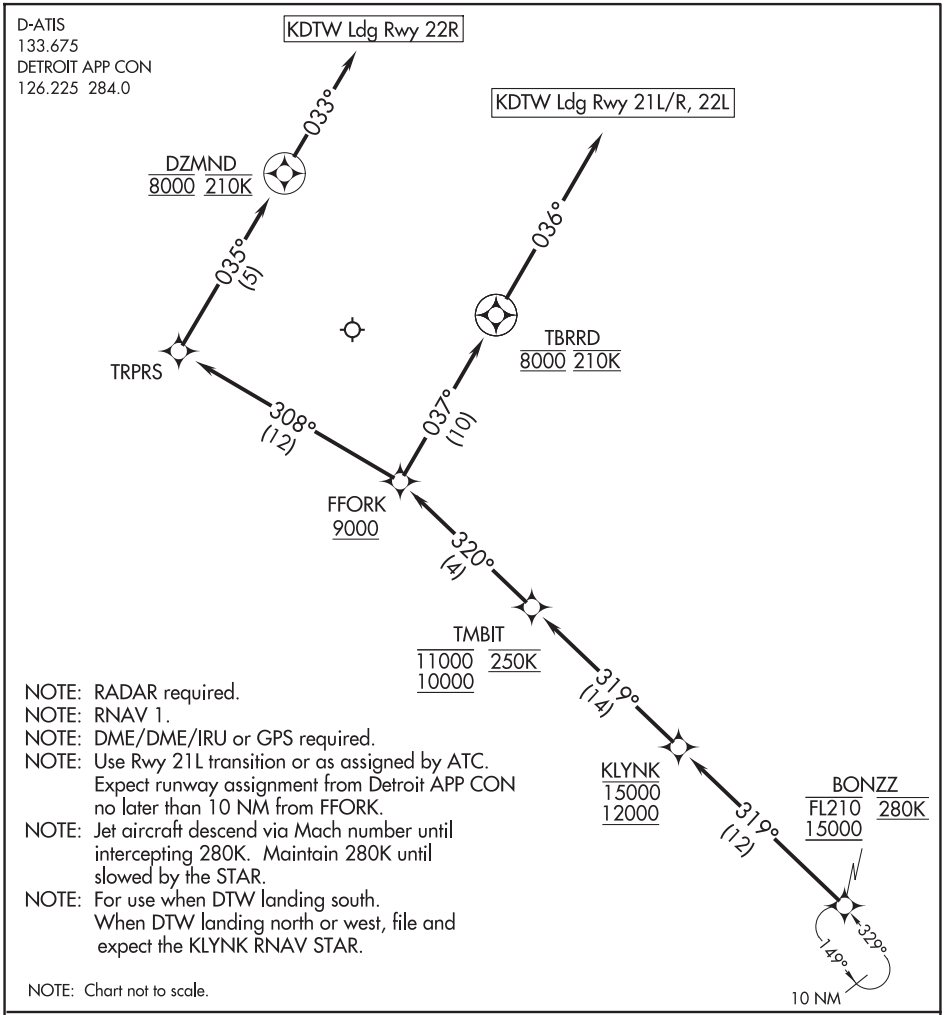


EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(BONZZ.BONZZ2) 21112 AL-119 (FAA) DETROIT METRO WAYNE COUNTY (DTW)

BONZZ TWO ARRIVAL (RNAV) Arrival Routes

DETROIT, MICHIGAN

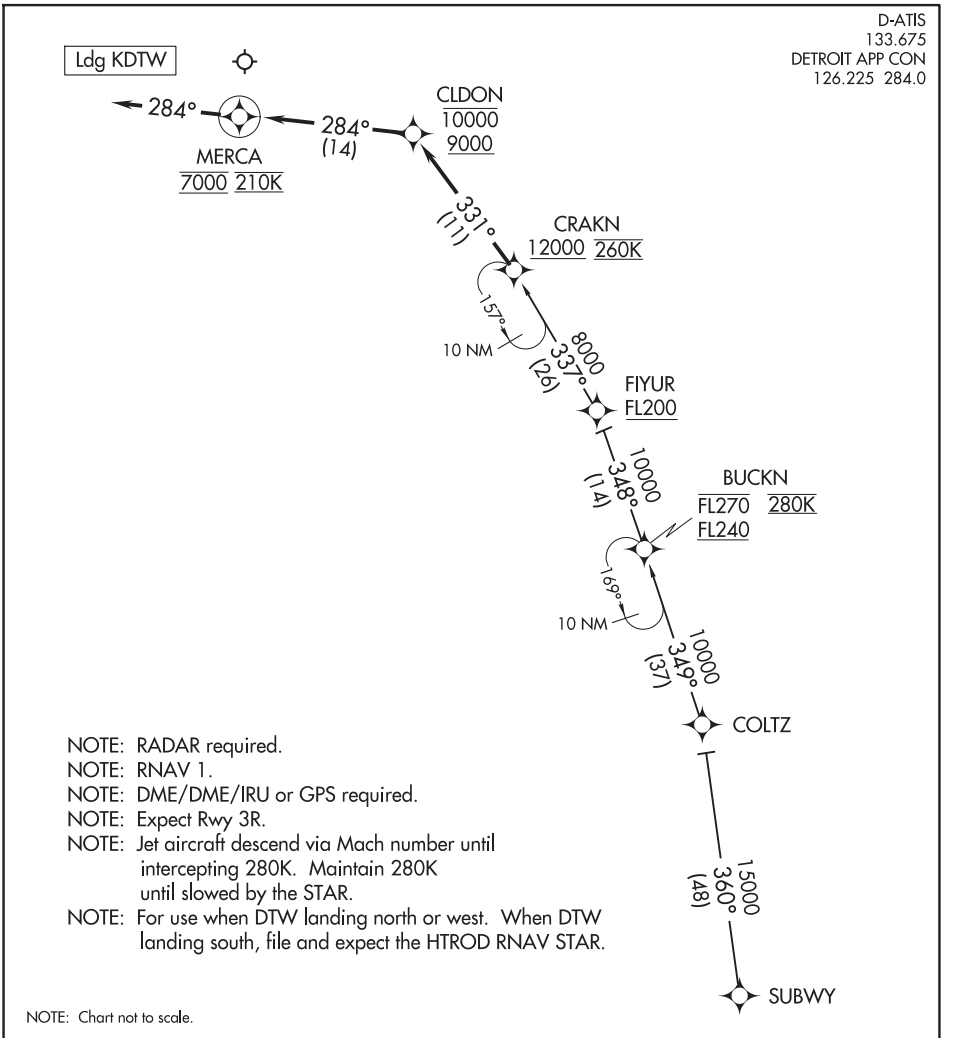


ARRIVAL ROUTE DESCRIPTION

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 apporach 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.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025



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.

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EC-1, 07 AUG 2025 to 02 OCT 2025

(TPGUN.CUUGR2) 21112

CUUGR TWO ARRIVAL (RNAV)

AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)

DETROIT, MICHIGAN

EC-1, 07 AUG 2025 to 02 OCT 2025

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CUUGR TWO ARRIVAL (RNAV)

(TPGUN.CUUGR2) 10OCT19

DETROIT METRO WAYNE COUNTY (DTW)

DETROIT, MICHIGAN

FERRL TWO ARRIVAL (RNAV)

AL-119 (FAA)

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.

EC-1, 07 AUG 2025 to 02 OCT 2025

(FOREY.FOREY2) 20198

FOREY TWO ARRIVAL (RNAV)

AL-5052 (FAA)

PONTIAC, MICHIGAN

ARRIVAL ROUTE DESCRIPTION

BOBCT TRANSITION (BOBCT.FOREY2)
KOZAR TRANSITION (KOZAR.FOREY2)
WWSHR TRANSITION (WWSHR.FOREY2)

LANDING ALL AIRPORTS: From FOREY on track 003° to VRNRS, then on track 341° to cross SWETY at or above 4000, then on track 300°. Expect RADAR vectors to final approach course.

FOREY TWO ARRIVAL (RNAV)
(FOREY.FOREY2) 10OCT19
PONTIAC, MICHIGAN

EC-1, 07 AUG 2025 to 02 OCT 2025

GIGGY TWO ARRIVAL (RNAV)

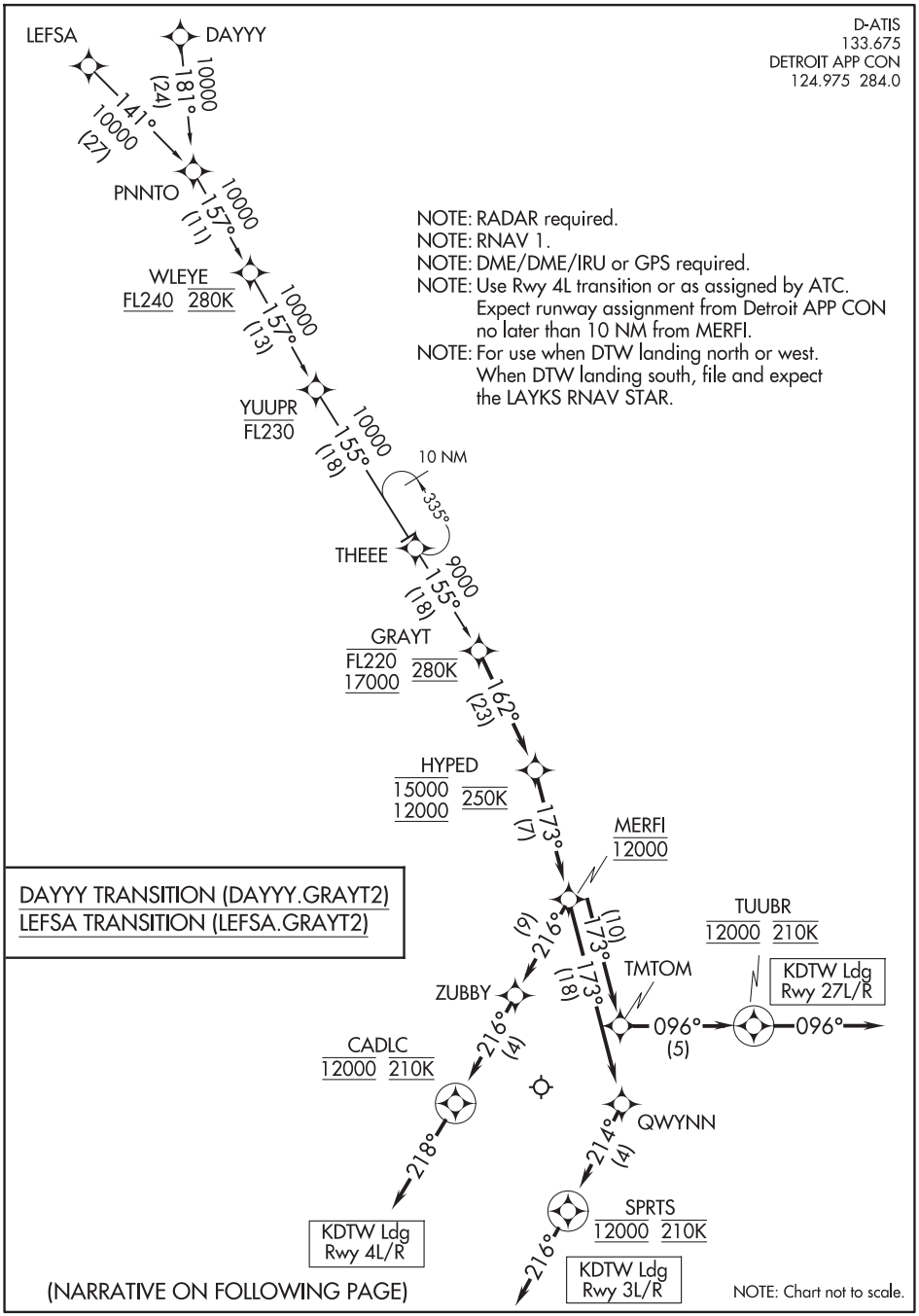
DETROIT, MICHIGAN

GIGGY TWO ARRIVAL (RNAV)
DETROIT, MICHIGAN

(GRAYT.GRAYT2) 21112

GRAYT TWO ARRIVAL (RNAV)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN



EC-1, 07 AUG 2025 to 02 OCT 2025

GRAYT TWO ARRIVAL (RNAV)
(GRAYT.GRAYT2) 10OCT19
DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

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.

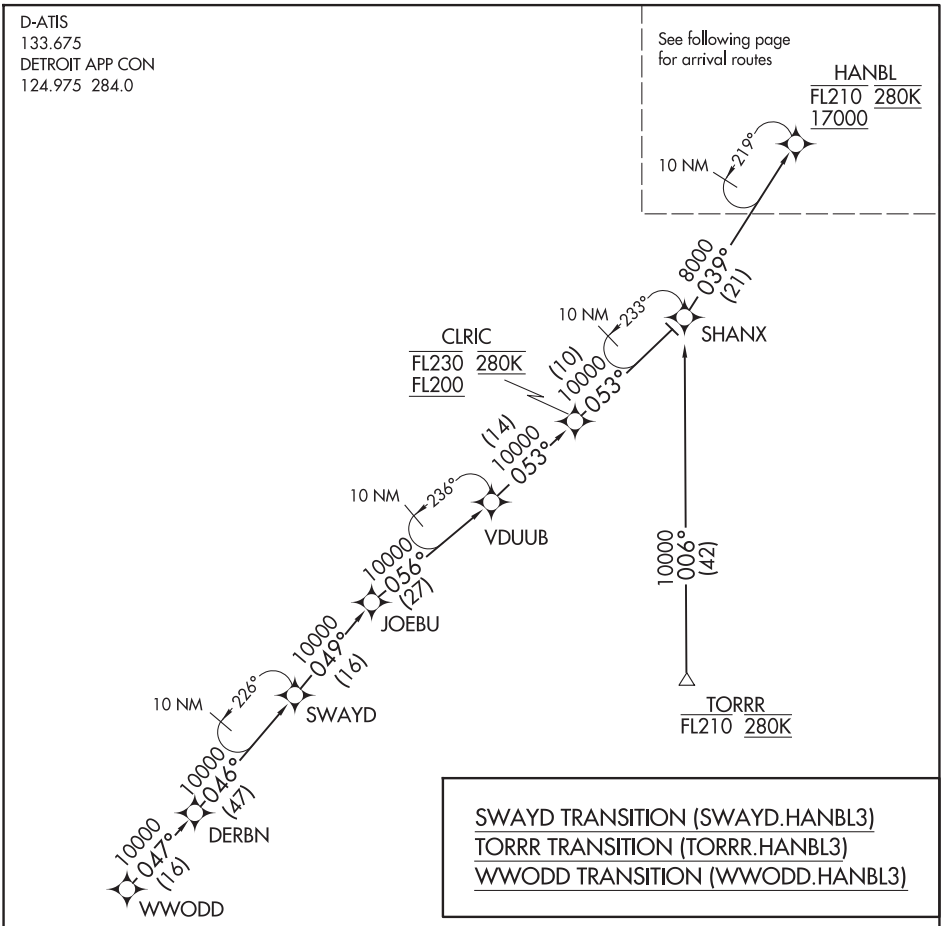
EC-1, 07 AUG 2025 to 02 OCT 2025

(HANBL.HANBL3) 21112

DETROIT METRO WAYNE COUNTY (DTW)

HANBL THREE ARRIVAL (RNAV) Transition Routes

DETROIT, MICHIGAN



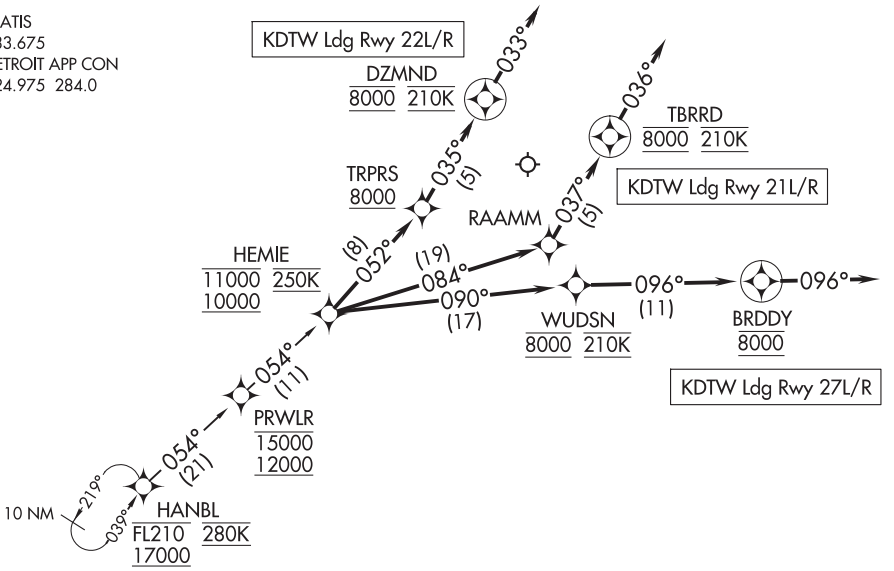
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Use Runway 22R transition or as assigned by ATC. Expect runway assignment from Detroit APP CON no later than 10 NM from HEMIE.
NOTE: For use when DTW landing south or west. When DTW landing north, file and expect the LECTR RNAV 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, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025



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.

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(HAYLL.HAYLL3) 21112

HAYLL THREE ARRIVAL (RNAV)

AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

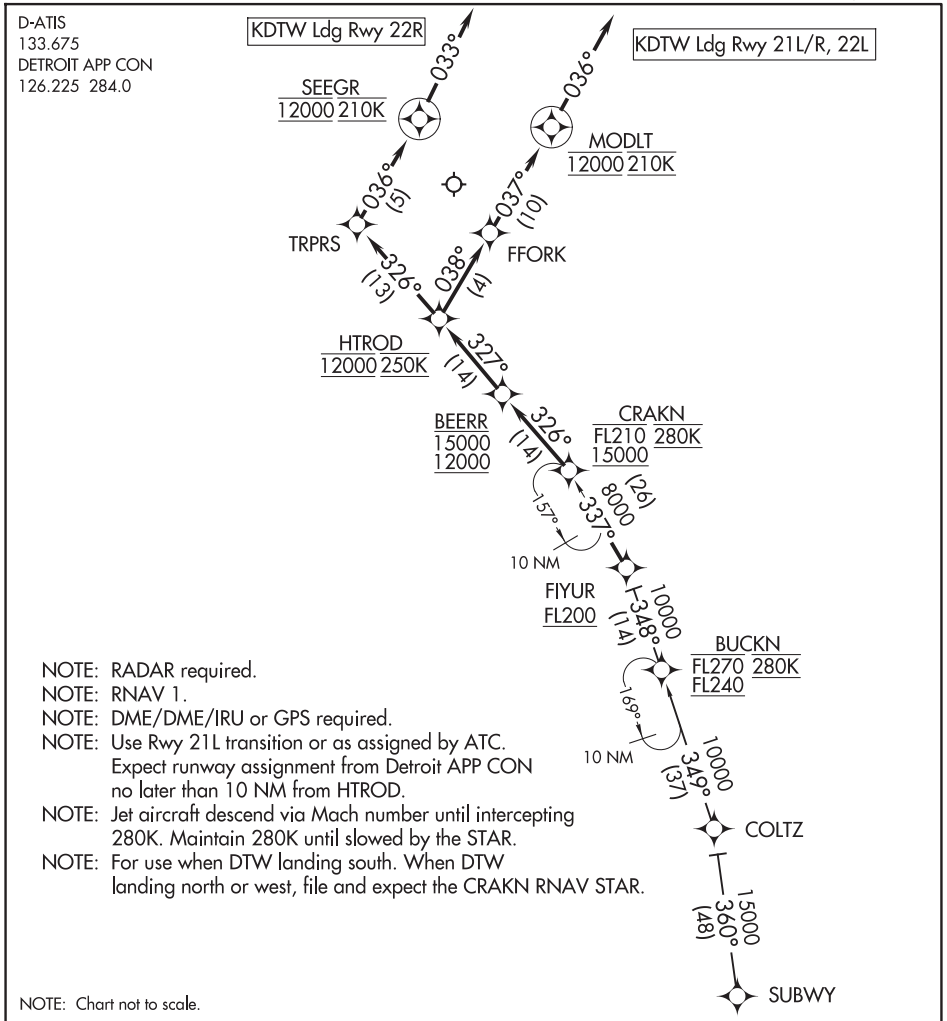
HAYLL THREE ARRIVAL (RNAV)

(HAYLL.HAYLL3) 10OCT19

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

EC-1, 07 AUG 2025 to 02 OCT 2025

HTROD TWO ARRIVAL (RNAV)



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.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(RKCTY.KKISS2) 21112

KKISS TWO ARRIVAL (RNAV) Transition Routes

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

KKISS TWO ARRIVAL (RNAV) Transition Routes
(RKCTY.KKISS2) 10OCT19
DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

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 STILEY 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.

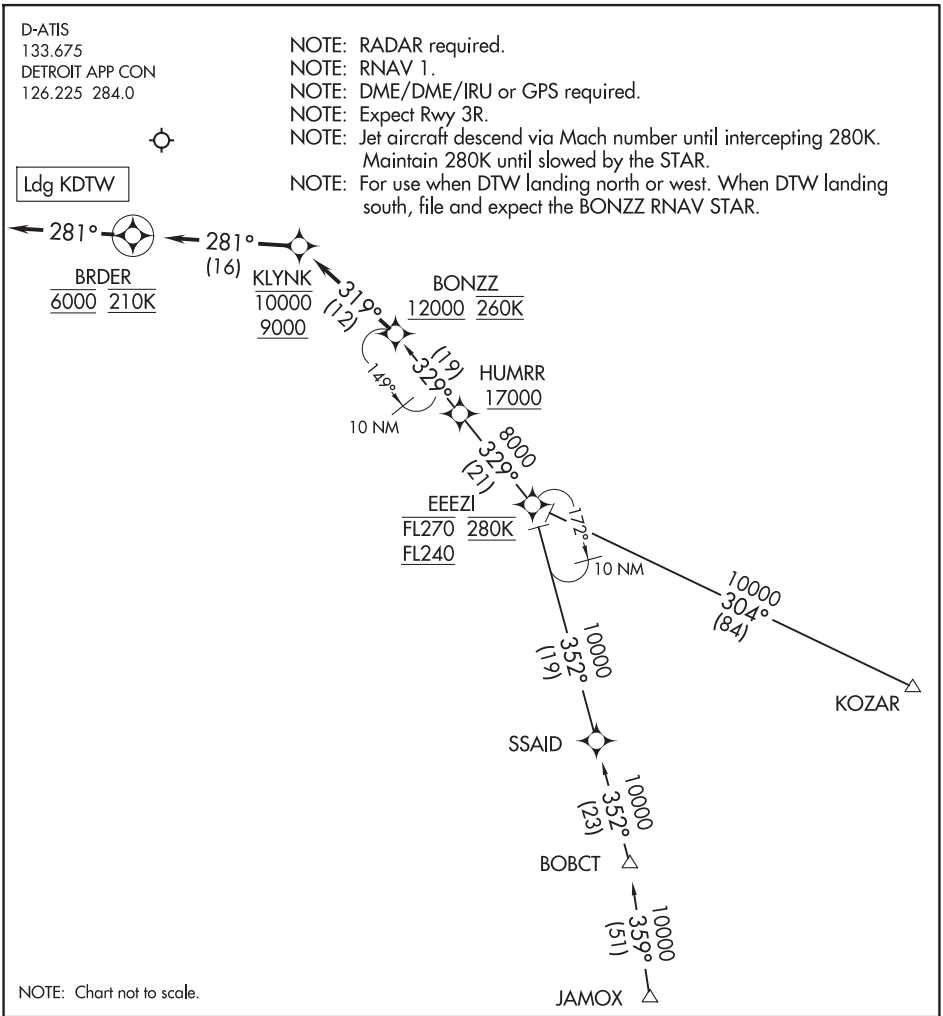
EC-1, 07 AUG 2025 to 02 OCT 2025

(BONZZ.KLYNK3) 21112

KLYNK THREE ARRIVAL (RNAV)

AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN



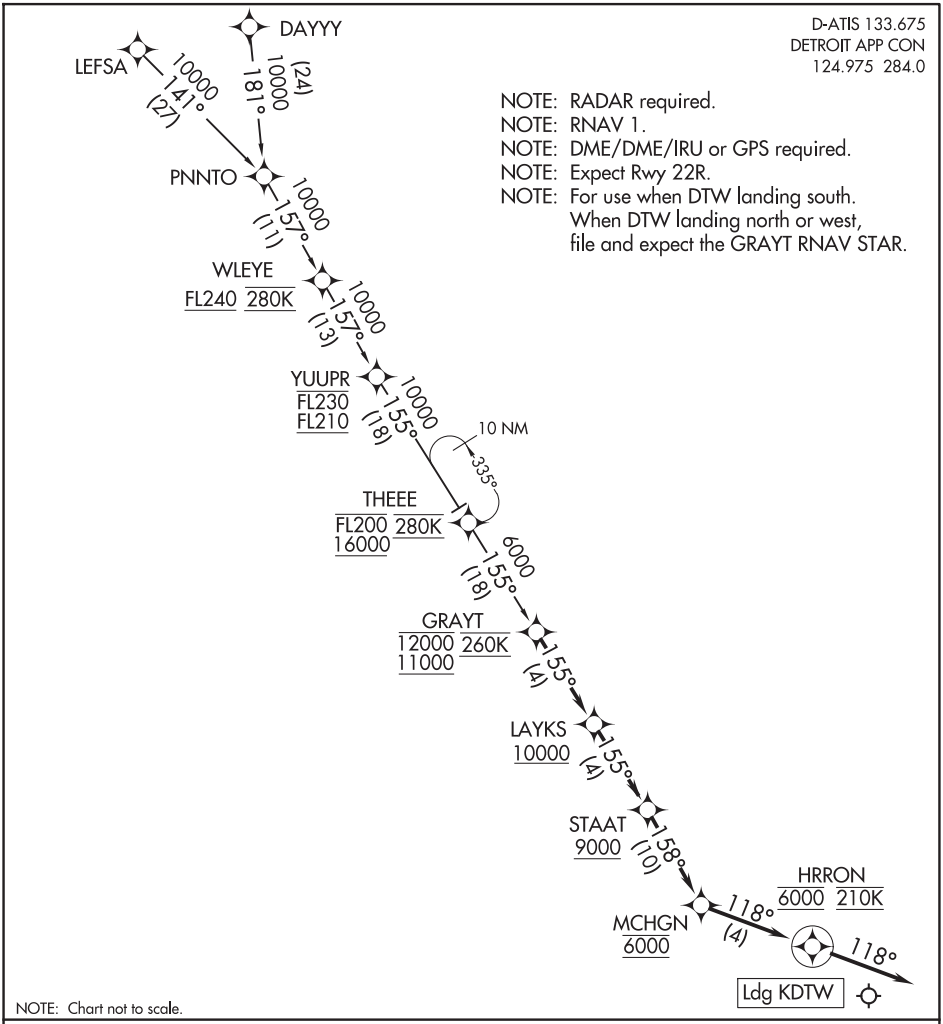
ARRIVAL ROUTE DESCRIPTION

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.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025



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.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(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 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.

LECTR
10000
8000

HANBL
11000 260K

SHANX
16000 280K

CLRIC
FL230 280K
17000

TORRR
FL210 280K

FAAVA
6000

SIZOR
6000 210K

Ldg KDTW

WWODD

DERBN

SWAYD

JOEBU

VDUUB

10 NM

N

ARRIVAL ROUTE DESCRIPTION

SWAYD TRANSITION (SWAYD.LECTR3)
TORRR TRANSITION (TORRR.LECTR3)
WWODD TRANSITION (WWODD.LECTR3)

From HANBL on track 040° to cross LECTR between 8000 and 10000, then on track 074° to cross FAAVA at 6000, then on track 112° to cross SIZOR at 6000 and at 210K, then on track 123°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS
From SIZOR, execute RNAV (GPS) Y Rwy 4L or ILS Y Rwy 4L approach.

NOTE: Chart not to scale.

EC-1, 07 AUG 2025 to 02 OCT 2025

LECTR THREE ARRIVAL (RNAV)

(HANBL.LECTR3) 10OCT19

DETROIT METRO WAYNE COUNTY (DTW)
DETROIT, MICHIGAN

OKLND ONE ARRIVAL (RNAV)

ARRIVAL ROUTE DESCRIPTION

COLTS TRANSITION (COLTS.OKLND1):

PICUP TRANSITION (PICUP.OKLND1):

LANDING ALL AIRPORTS: From AXXIS on track 272° to FAEGO, then on track 272° to RIPPY, then on track 272° to cross OKLND at or above 4000, then on track 272°. Expect RADAR vectors to final approach course.

OKLND ONE ARRIVAL (RNAV)

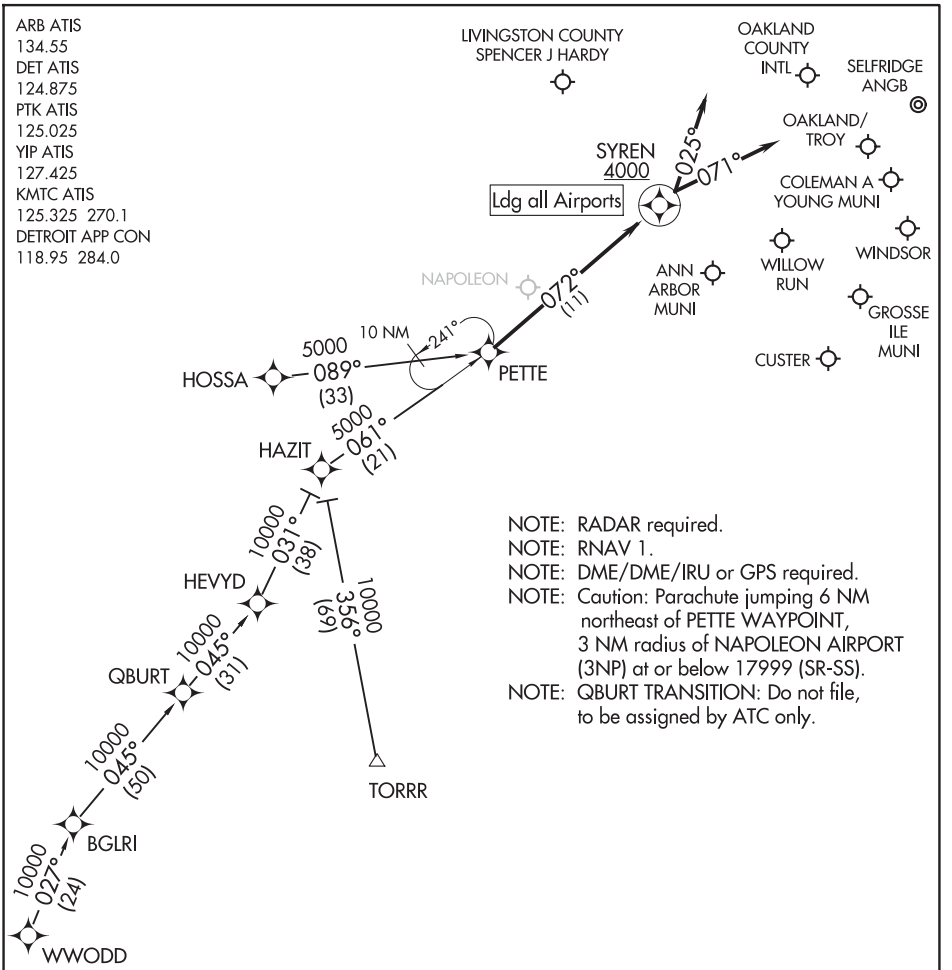
PONTIAC, MICHIGAN

EC-1, 07 AUG 2025 to 02 OCT 2025

(PETTE.PETTE2) 20198

PETTE TWO ARRIVAL (RNAV)

PONTIAC, MICHIGAN



NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

HOSSA TRANSITION (HOSSA.PETTE2):
QBURT TRANSITION (QBURT.PETTE2):
TORRR TRANSITION (TORRR.PETTE2):
WWODD TRANSITION (WWODD.PETTE2):

LANDING CYQG, KONZ, KARB, KYIP, KTTF, KDET: From PETTE on track 072° to cross SYREN at or above 4000, then on track 071°. Expect RADAR vectors to final approach course.

LANDING KPTK, KMTC, KOZW, KVLL: From PETTE on track 072° to cross SYREN at or above 4000, then on track 025°. Expect RADAR vectors to final approach course.

PETTE TWO ARRIVAL (RNAV)
PONTIAC, MICHIGAN

(PETTE.PETTE2) 10OCT19

EC-1, 07 AUG 2025 to 02 OCT 2025

ARRIVAL ROUTE DESCRIPTION

DUUDA TRANSITION (DUUDA.RKCTY2)
ENGRM TRANSITION (ENGRM.RKCTY2)
HOOTA TRANSITION (HOOTA.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.

(RRALF.RRALF3) 20198

RRALF THREE ARRIVAL (RNAV)

AL-5052 (FAA)

PONTIAC, MICHIGAN

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: CLLEM TRANSITION: Do not file, to be assigned by ATC only.

ARRIVAL ROUTE DESCRIPTION

CLLEM TRANSITION (CLLEM.RRALF3)
OREYO TRANSITION (OREYO.RRALF3)
WEBOR TRANSITION (WEBOR.RRALF3)

LANDING ALL AIRPORTS: From RRALF on track 102° to cross PICTR at or above 4000, then on track 085°. Expect RADAR vectors to final approach course.

NOTE: Chart not to scale.

RRALF THREE ARRIVAL (RNAV)
(RRALF.RRALF3) 21MAY20
PONTIAC, MICHIGAN
EC-1, 07 AUG 2025 to 02 OCT 2025

TPGUN TWO ARRIVAL (RNAV)

AL-119 (FAA)

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.

TPGUN TWO ARRIVAL (RNAV)
DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

(TPGUN.TPGUN2) 10OCT19

EC-1, 07 AUG 2025 to 02 OCT 2025

(HAYLL.VCTRZ2) 21112

DETROIT METRO WAYNE COUNTY (DTW)

VCTRZ TWO ARRIVAL (RNAV) Transition Routes

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 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.

N

SAMPL
10000
092°
(59)
WNNINE
10000
100°
(27)
10 NM
280°
SAADD
10000
100°
(21)
HOSSA
10000
101°
(12)
KRABN
FL190 280K
17000
8000
101°
(11)
10 NM
281°
URBAN
8000
101°
(12)
HAYLL
17000 280K
See following page for Arrival Routes.

HOSSA TRANSITION (HOSSA.VCTRZ2)
SAMPL TRANSITION (SAMPL.VCTRZ2)

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

VCTRZ TWO ARRIVAL (RNAV) Transition Routes
DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

(HAYLL.VCTRZ2) 10OCT19

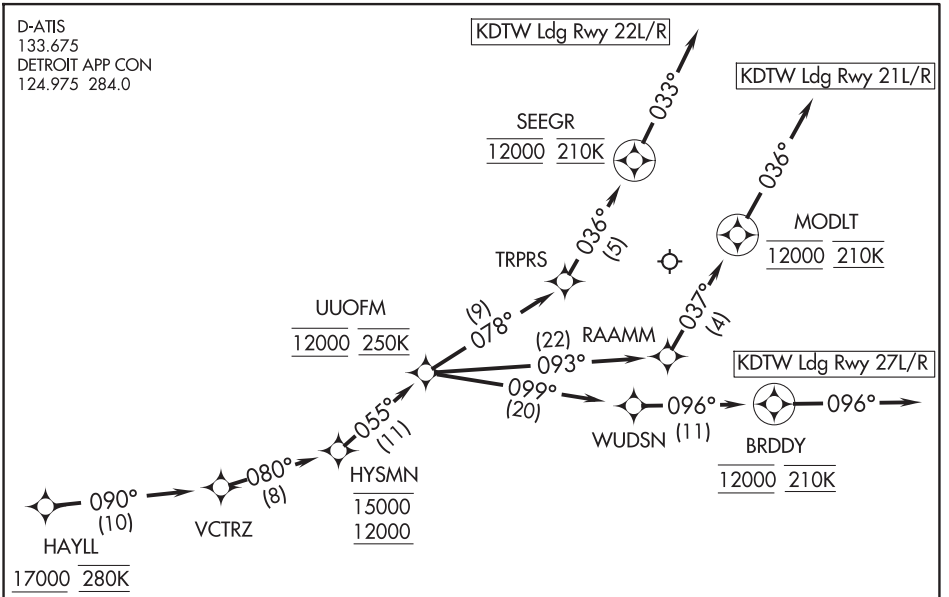
EC-1, 07 AUG 2025 to 02 OCT 2025

(HAYLL.VCTRZ2) 21112

DETROIT METRO WAYNE COUNTY (DTW)

VCTRZ TWO ARRIVAL (RNAV) Arrival Routes

DETROIT, MICHIGAN



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.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

From HAYLL on track 090° to VCTRZ, then on track 080° to cross HYSMN between 12000 and 15000, then on track 055° to cross UUOFM at 12000 and at 250K.

LANDING RUNWAY 21L/R: From UUOFM 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 UUOFM 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 UUOFM 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.

VCTRZ TWO ARRIVAL (RNAV) Arrival Routes

DETROIT, MICHIGAN

DETROIT METRO WAYNE COUNTY (DTW)

(HAYLL.VCTRZ2) 10OCT19

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

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.

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	5001
CH 42603	053°	TDZE	798
W05A		Apt Elev	802

RNAV (GPS) RWY 5

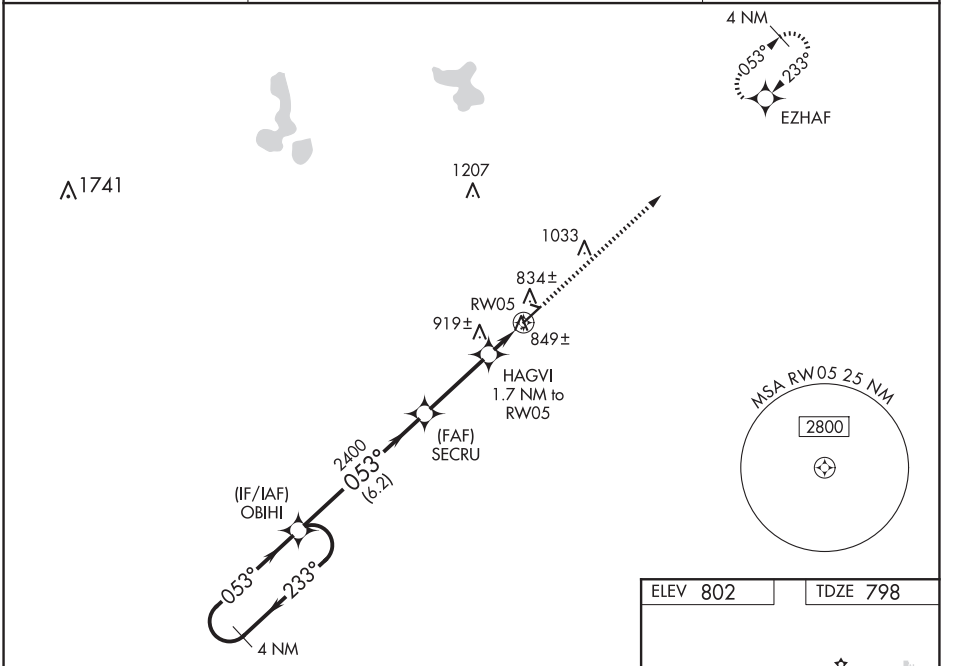
LENAWEE COUNTY (ADG)

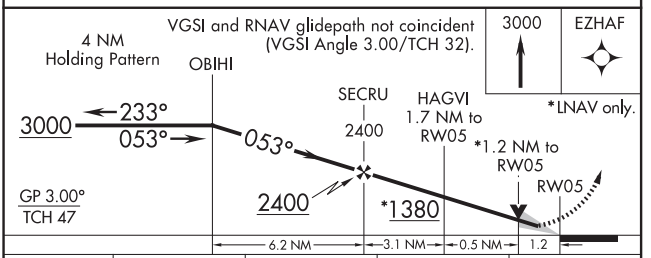
RNP APCH - GPS.

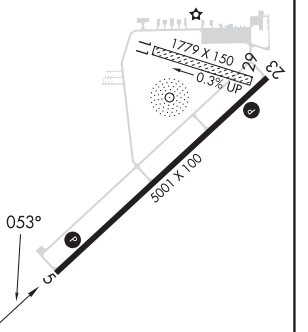
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. When local altimeter setting not received, use Ann Arbor Muni altimeter setting; increase LPV all Cats DA to 1114 feet and all visibilities ⅛ SM; increase LNAV/VNAV all Cats DA to 1185 feet; increase all MDA 80 feet and visibility LNAV Cats C/D ¼ SM. Baro-VNAV and VDP NA when using Ann Arbor Muni altimeter setting.

MISSED APPROACH: Climb to 3000 direct EZHAF and hold.

ASOS	TOLEDO APP CON	UNICOM
118.825	134.35 317.55	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1048-¾ 250 (300-¾)			
LNAV/VNAV DA	1119-1¼ 321 (400-1¼)			
LNAV MDA	1200-1 402 (500-1)		1200-1¼ 402 (500-1¼)	

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ADRIAN, MICHIGAN AL-5555 (FAA) 24305

RNAV (GPS) RWY 23

LENAWEE COUNTY (ADG)

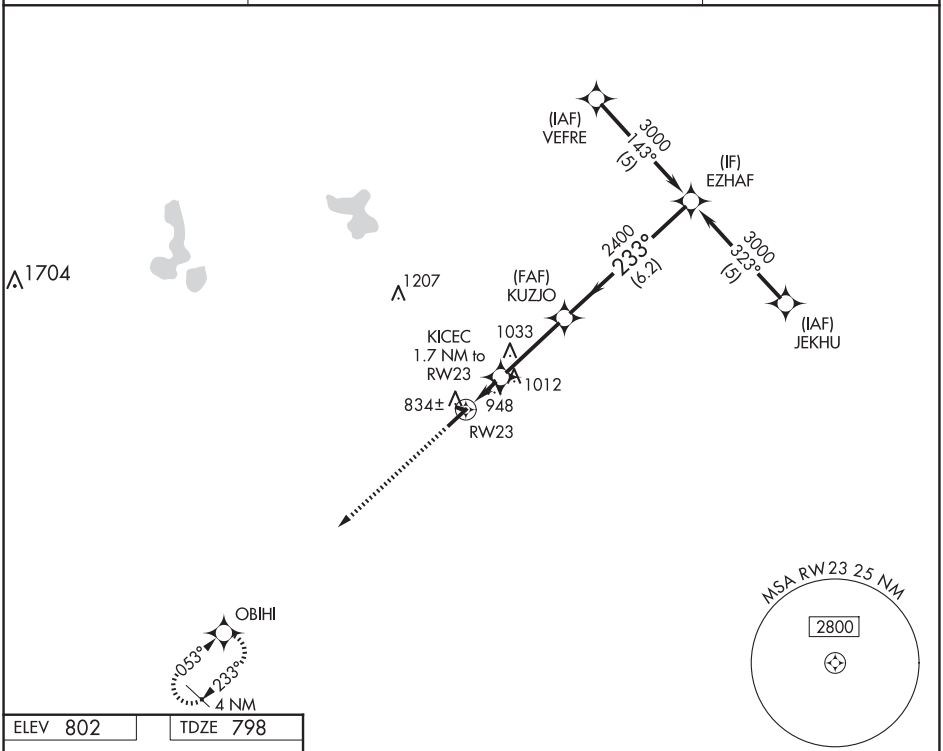
APP CRS	Rwy Idg	5001
233°	TDZE	798
	Apt Elev	802

RNP APCH - GPS.

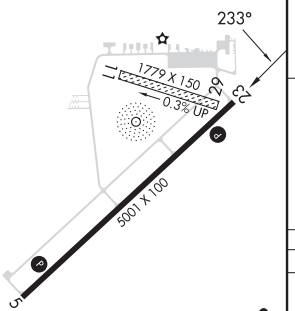
Rwy 23 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Ann Arbor Muni altimeter setting: increase all MDA 80 feet and visibility LNAV Cats C/D and Circling Cats C/D ¼ SM. Circling NA to Rwys 11 and 29.

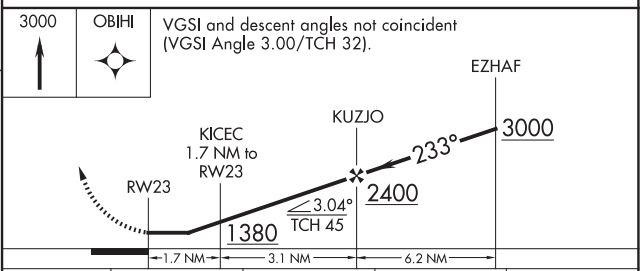
MISSED APPROACH: Climb to 3000 direct OBIHI and hold.

ASOS	TOLEDO APP CON	UNICOM
118.825	134.35 317.55	122.8 (CTAF) L



ELEV 802 TDZE 798





CATEGORY	A	B	C	D
LNAV MDA	1260-1 462 (500-1)		1260-1⅜ 462 (500-1⅜)	1260-1½ 462 (500-1½)
CIRCLING	1300-1 498 (500-1)	1320-1 518 (600-1)	1340-1½ 538 (600-1½)	1440-2 638 (700-2)

ADRIAN, MICHIGAN
Orig-D 19MAY22

41°52′N-84°05′W

LENAWEE COUNTY (ADG)

RNAV (GPS) RWY 23

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 11

PADGHAM FLD (35D)

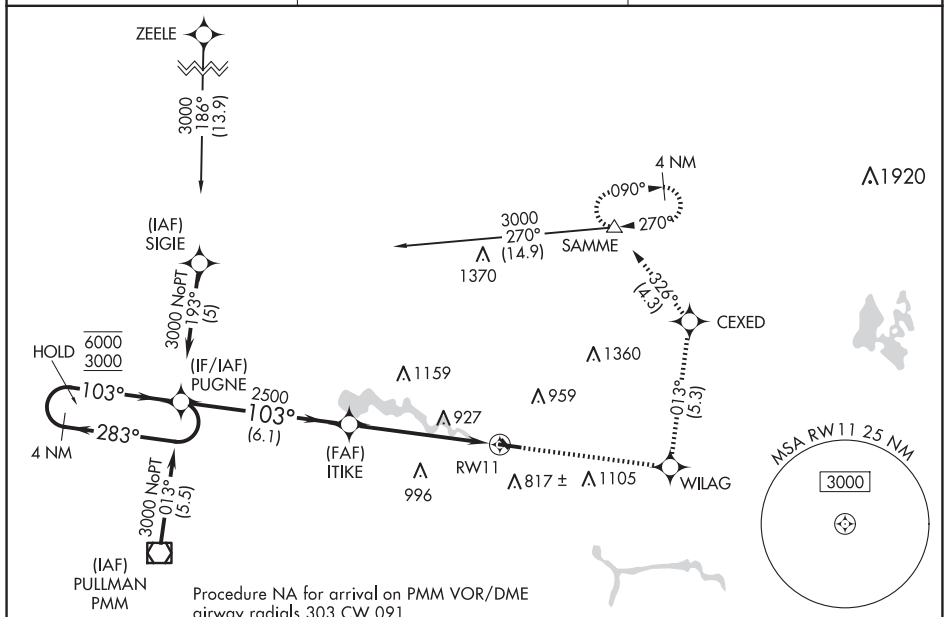
APP CRS	Rwy Idg	4300
103°	TDZE	706
	Apt Elev	706

RNP APCH - GPS.

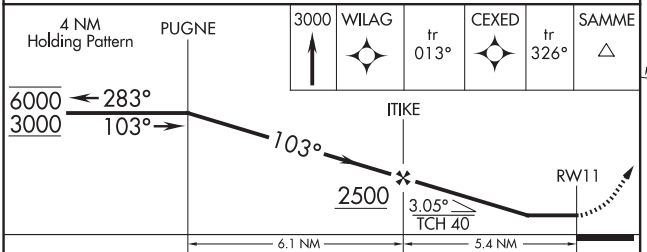
Circling NA to Rwys 15 and 33. Rwy 11 helicopter visibility reduction below ¾ SM NA. Use Holland altimeter setting, when not received use Grand Rapids altimeter setting and increase all MDAs 40 feet and LNAV Cat C visibility ¼ SM.

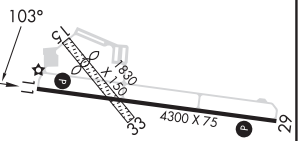
MISSED APPROACH: Climb to 3000 direct WILAG and on track 013° to CEXED and track 326° to SAMME and hold, continue climb-in-hold to 3000.

BIV ASOS	GREAT LAKES APP CON ★	UNICOM
119.025	128.4 257.6	122.8 (CTAF) L



ELEV 706	TDZE 706





CATEGORY	A	B	C	D
LNAV MDA	1220-1 514 (600-1)		1220-1⅜ 514 (600-1⅜)	NA
C CIRCLING	1280-1 574 (600-1)	1320-1 614 (700-1)	1460-2¼ 754 (800-2¼)	NA

REIL Rwys 11 and 29 L
MIRL Rwy 11-29 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ALLEGAN, MICHIGAN | AL-5465 (FAA) | 23110

RNAV (GPS) RWY 29

PADGHAM FLD (35D)

APP CRS	Rwy Idg	4300
283°	TDZE	705
	Apt Elev	706

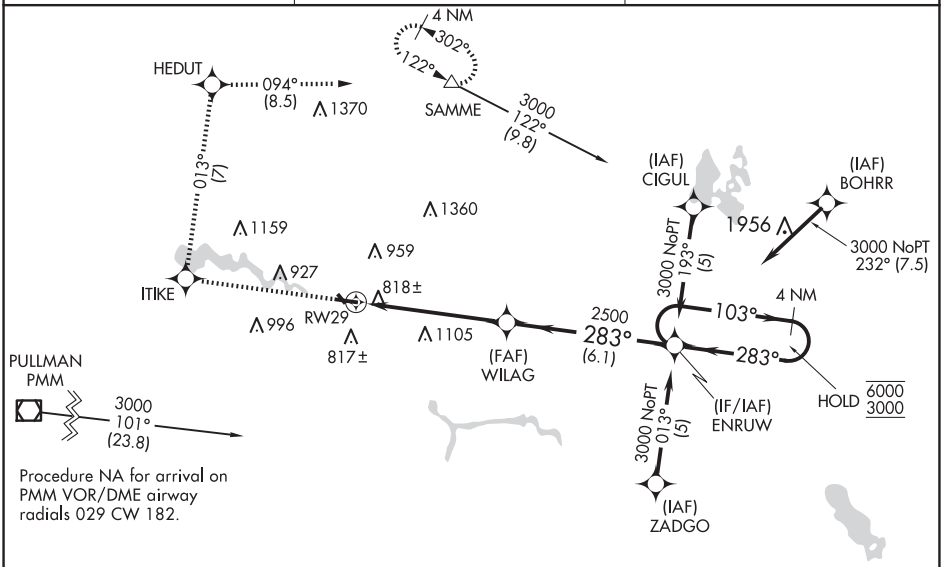
RNP APCH - GPS.

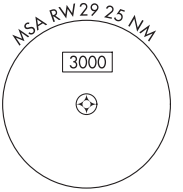
Circling NA to Rwys 15 and 33. Rwy 29 helicopter visibility reduction below ¾ SM NA. Use Holland altimeter setting; when not received, use Grand Rapids altimeter setting and increase all MDAs 40 feet and LNAV Cat C visibility ⅛ SM.

NA

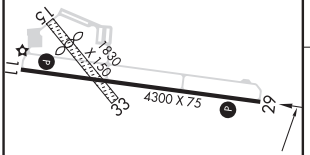
MISSED APPROACH: Climb to 3000 direct ITIKE and on track 013° to HEDUT and track 094° to SAMME and hold.

BIV ASOS	GREAT LAKES APP CON ★	UNICOM
119.025	128.4 257.6	122.8 (CTAF) L

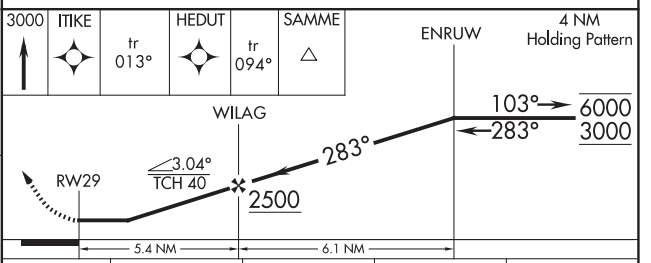




ELEV 706	TDZE 705



REIL Rwys 11 and 29 L
MIRL Rwy 11-29 L



CATEGORY	A	B	C	D
LNAV MDA	1380-1	675 (700-1)	1380-1⅞ 675 (700-1⅞)	NA
C CIRCLING	1380-1	674 (700-1)	1460-2¼ 754 (800-2¼)	NA

ALLEGAN, MICHIGAN
Orig-C 23FEB23

42°32'N-85°49'W

PADGHAM FLD (35D)

RNAV (GPS) RWY 29

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	5004
CH 90228	095°	TDZE	753
W09A		Apt Elev	754

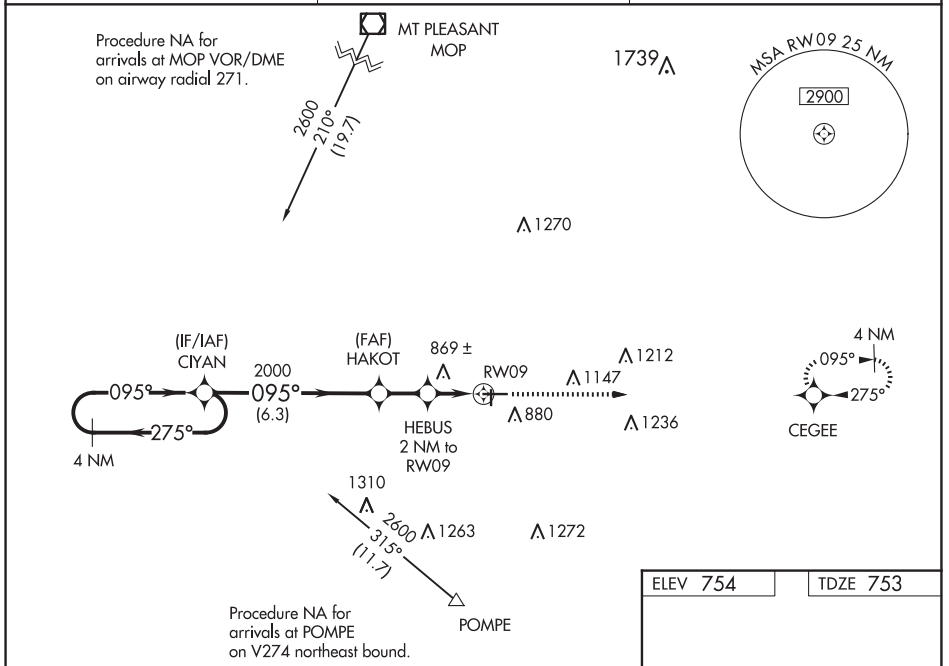
RNAV (GPS) RWY 9
GRATIOT COMMUNITY (AMN)

RNP APCH.

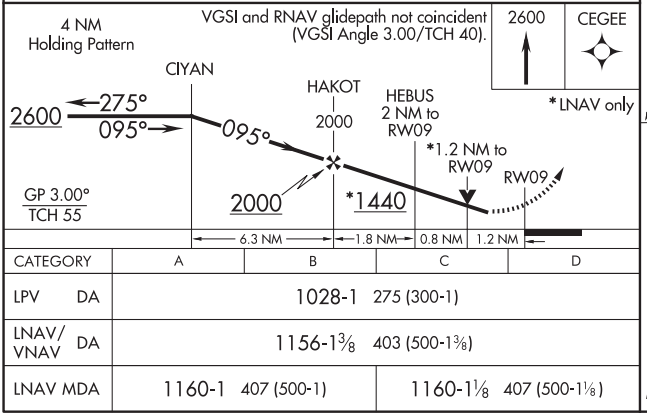
Baro-VNAV NA when using Mount Pleasant altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 39°C. Rwy 9 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Mount Pleasant altimeter setting and increase all DA 42 feet and VNAV all Cats visibility ⅛ mile, increase all MDA 60 feet, and LNAV Cat C and D visibility ¼ mile. VDP NA when using Mount Pleasant altimeter setting.

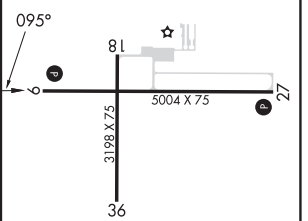
MISSED APPROACH: Climb to 2600 direct CEGEE and hold.

AWOS-3P	GREAT LAKES APP CON*	UNICOM
124.175	126.45 235.625	122.8 (CTAF) L



ELEV 754 TDZE 753





CATEGORY	A	B	C	D
LPV DA	1028-1 275 (300-1)			
LNAV/VNAV DA	1156-1⅜ 403 (500-1⅜)			
LNAV MDA	1160-1 407 (500-1)		1160-1⅛ 407 (500-1⅛)	

REIL Rwys 9 and 27 L
MIRL Rwys 9-27 and 18-36 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ALMA, MICHIGAN | AL-5620 (FAA) | 24137

RNAV (GPS) RWY 18

GRATIOT COMMUNITY (AMN)

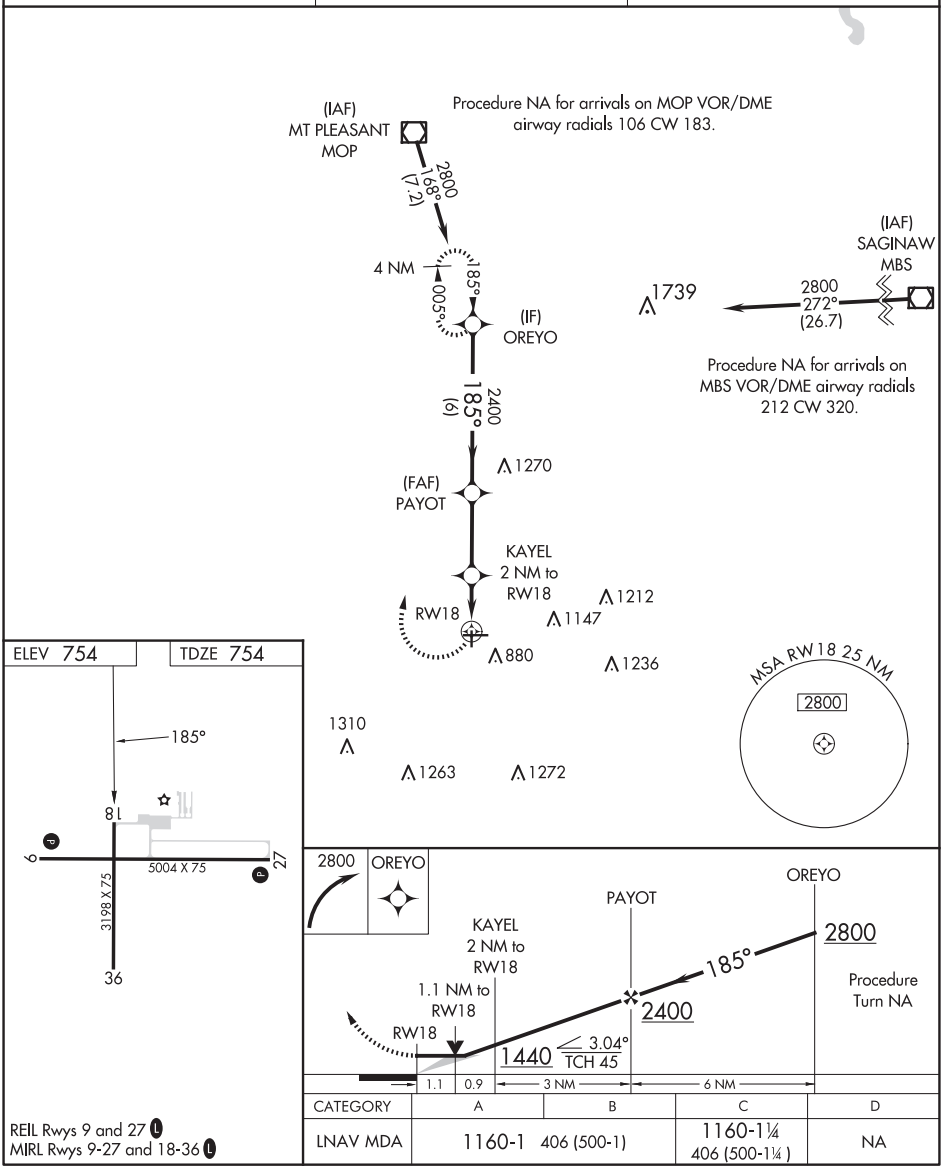
APP CRS	Rwy Idg	3198
185°	TDZE	754
	Apt Elev	754

RNP APCH.

NA — Procedure NA at night.

MISSED APPROACH: Climbing right turn to 2800 direct OREYO WP and hold.

AWOS-3P	GREAT LAKES APP CON*	UNICOM
124.175	126.45 235.625	122.8 (CTAF) L



CATEGORY	A	B	C	D
LNAV MDA	1160-1 406 (500-1)		1160-1¼ 406 (500-1¼)	NA

REIL Rwys 9 and 27 L
MIRL Rwys 9-27 and 18-36 L

ALMA, MICHIGAN
Orig-A 18JUL19

43°19′N-84°41′W

GRATIOT COMMUNITY (AMN)

RNAV (GPS) RWY 18

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 27

GRATIOT COMMUNITY (AMN)

WAAS CH 58028 W27A	APP CRS 275°	Rwy ldg 5004 TDZE 753 Apt Elev 754

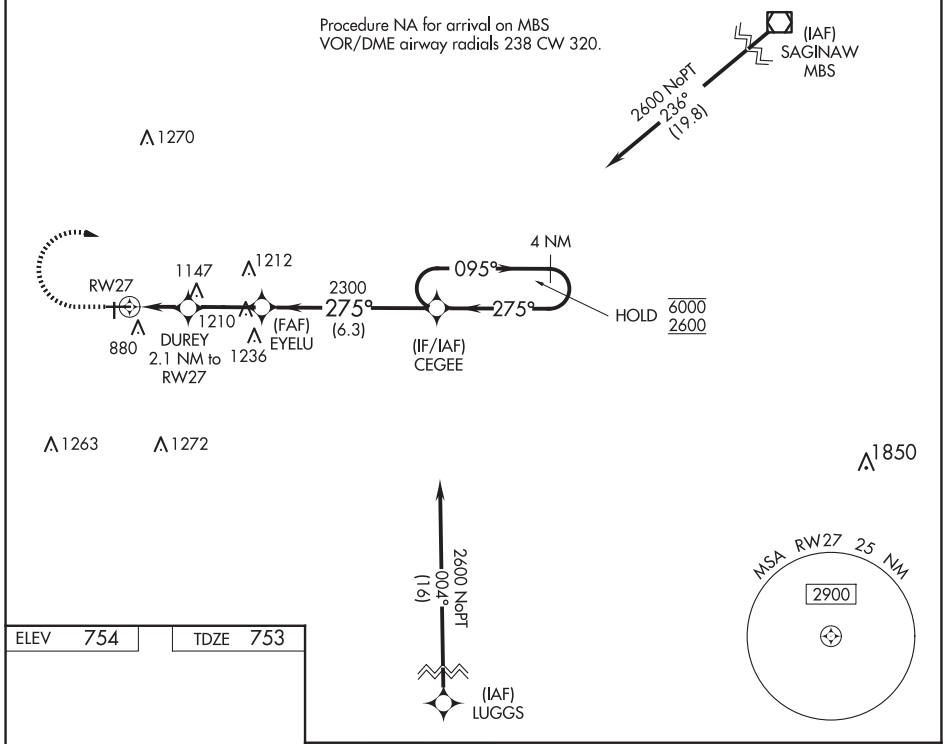
RNP APCH.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

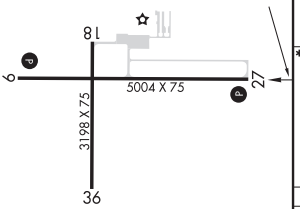
MISSED APPROACH: Climb to 1900 then climbing right turn 2600 direct CEGEE and hold.

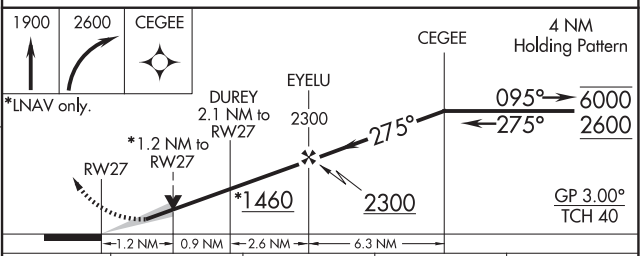
AWOS-3P	GREAT LAKES APP CON*	UNICOM
124.175	126.45 235.625	122.8 (CTAF) L

Procedure NA for arrival on MBS VOR/DME airway radials 238 CW 320.



ELEV 754 TDZE 753





CATEGORY	A	B	C	D
LPV DA		1003-1	250 (300-1)	
LNAV/VNAV DA		1036-1	283 (300-1)	
LNAV MDA	1160-1	407 (500-1)	1160-1⅛	407 (500-1⅛)

REIL Rwys 9 and 27 L
MIRL Rwys 9-27 and 18-36 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ALMA, MICHIGAN | AL-5620 (FAA) | 24137

VOR/DME MOP	APP CRS	Rwy Idg	3198
110.6	178°	TDZE	753
Chan 43		Apt Elev	754

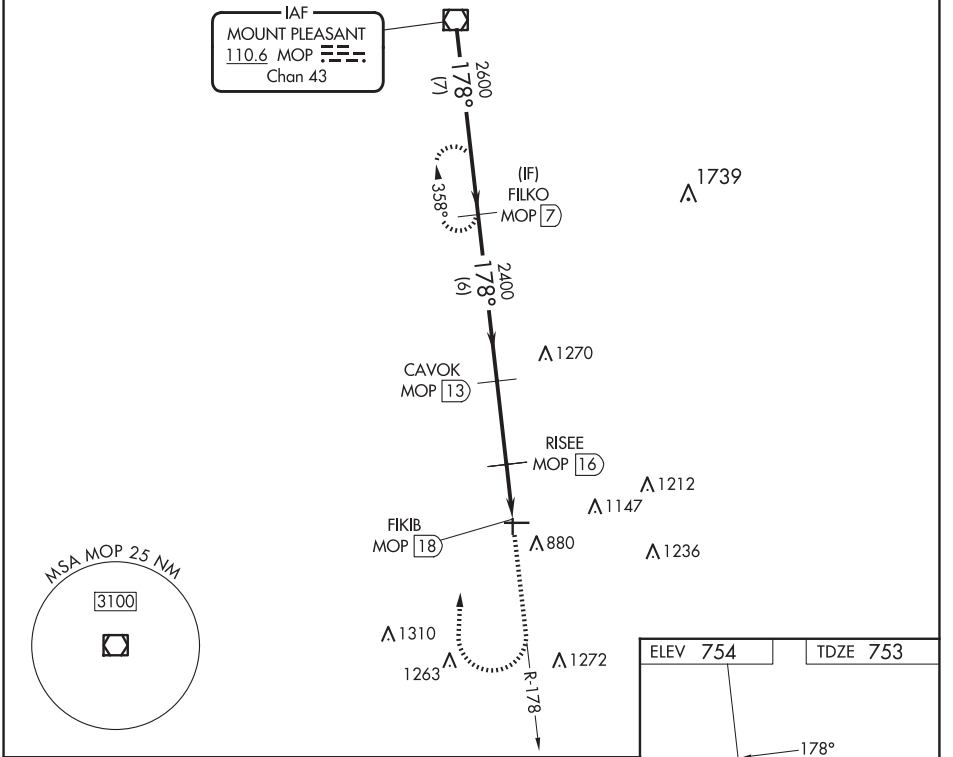
VOR RWY 18

GRATIOT COMMUNITY (AMN)

NA — Night landing: Rwy 18, 36 NA. DME required. Straight-in Rwy 18 NA at night, Circling Rwy 18, 36 NA at night. Rwy 18 helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 1200 then climbing right turn to 2600 on MOP VOR/DME R-178 direct FILKO/MOP VOR/DME 7 DME and hold.

AWOS-3P	GREAT LAKES APP CON★	UNICOM
124.175	126.45 235.625	122.8 (CTAF) L



CATEGORY	A	B	C	D
S-18	1140-1 387 (400-1)		1140-1¼ 387 (400-1¼)	NA
CIRCLING	1180-1 426 (500-1)	1220-1 466 (500-1)	1460-2 706 (800-2)	NA

REIL Rwys 9 and 27 L
MIRL Rwys 9-27 and 18-36 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LOC I-APN	APP CRS	Rwy Idg	9001
109.7	007°	TDZE	685
		Apt Elev	690

ILS or LOC RWY 1
ALPENA COUNTY RGNL (APN)

ADF required.

T A For inop ALS, increase S-LOC 1 Cat C/D visibility to 1⅝ SM.

MALSR (A5)

MISSED APPROACH: Climb to 1100 then climbing left turn to 2800 direct AP LOM and hold.

ATIS	ALPENA APP CON ★	ALPENA TOWER ★	GND CON	UNICOM
120.675 327.05	128.425 379.3	121.35 (CTAF) L 318.1	121.9 275.8	122.95

ALTERNATE MISSED APCH FIX

R-355 175° 355°

ALPENA APN 116.5 Chan 112

LOCALIZER 109.7 I-APN

ALPENA 116.5 APN Chan 112

1140 775 965 1409 799± 907

2800 to LOM 188° (7.3)

HOMSU APN 2.8

LOM/IAF FELPS 206 AP APN 7.3

187°

(IF) YARLU APN 13.3

007° (6) 2800

1648

2800 to YARLU 090° (3.9) and 007° (2.7)

142° 322°

(IAF) AILES APN 17

187°

MSA APN 25 NM 180° 3500 090° 2700

ELEV 690 D TDZE 685

HIRL Rwy 1-19 L

MIRL Rwy 7-25 L

REIL Rwys 7, 19 and 25 L

6L TWR 768 25 7 5028 X 100 9001 X 150 A5 007°

1100	2800	AP

*LOC only.

FELPS LOM APN 7.3 Remain within 10 NM

187° 2761 007° 2800

HOMSU APN 2.8

APN 1.1

1260* 2800 GS 3.00° TCH 52

1.7 NM 4.6 NM

CATEGORY	A	B	C	D
S-ILS 1	885-½ 200 (200-½)			
S-LOC 1	1260-½ 575 (600-½)		1260-1¼ 575 (600-1¼)	

HOMSU FIX MINIMUMS

S-LOC 1	1140-½ 455 (500-½)	1140-⅞ 455 (500-⅞)

FAF to MAP 6.3 NM

Knots	60	90	120	150	180
Min:Sec	6:18	4:12	3:09	2:31	2:06

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ALPENA, MICHIGAN | AL-718 (FAA) | 24361

RNAV (GPS) RWY 1

ALPENA COUNTY RGNL (APN)

WAAS	APP CRS	Rwy Idg	9001
CH 50310	007°	TDZE	685
W01A		Apt Elev	690

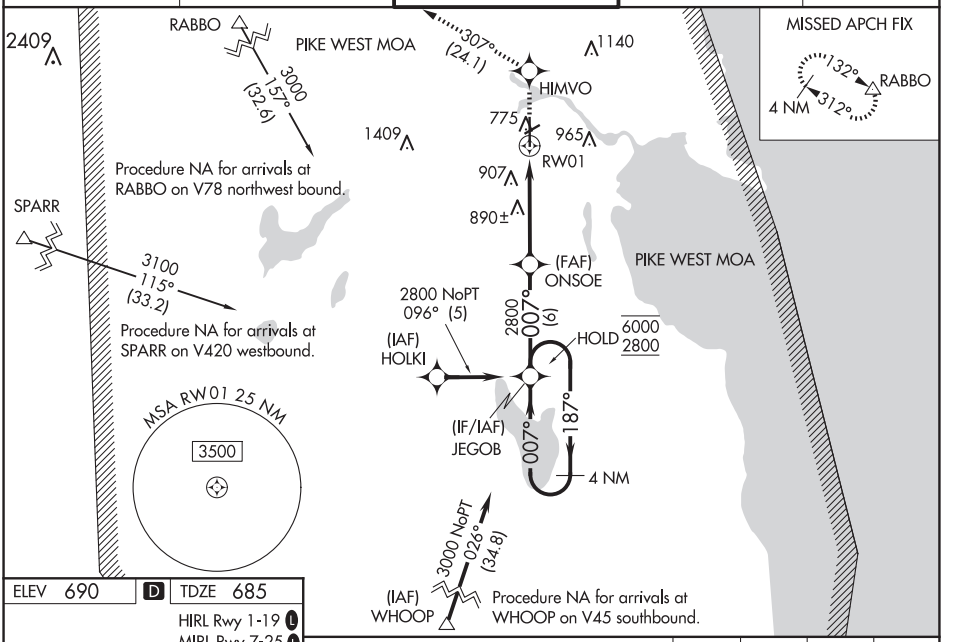
RNP APCH - GPS.

T For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. Baro-VNAV and VDP NA when using PZQ altimeter setting. For inop ALS, increase LPV all Cats visibility to ⅞ SM, LNAV/VNAV all Cats visibility to 1 SM and LNAV Cats C/D visibility to 1⅜ SM. When local altimeter setting not received, use PZQ altimeter setting and increase LPV DA to 1029 feet and all visibilities ⅛ SM; increase LNAV/VNAV DA to 1084 feet; increase all MDAs 60 feet. For inop ALS when using PZQ altimeter setting, increase LPV all Cats visibility to 1 SM.

MALSR (A5)

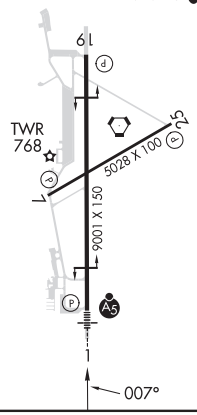
MISSED APPROACH: Climb to 3500 direct HIMVO and on track 307° to RABBO and hold.

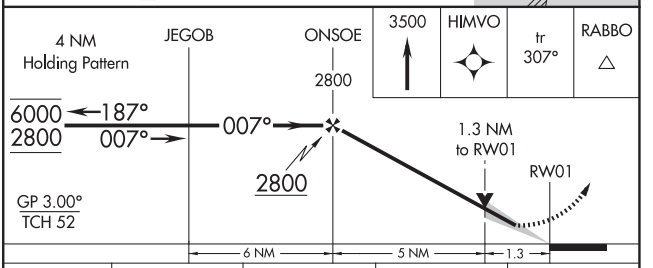
ATIS	ALPENA APP CON ★	ALPENA TOWER ★	GND CON	UNICOM
120.675 327.05	128.425 379.3	121.35 (CTAF) L 318.1	121.9 275.8	122.95



ELEV 690 | D | TDZE 685

HIRL Rwy 1-19 L
MIRL Rwy 7-25 L
REIL Rwys 7, 19 and 25 L





CATEGORY	A	B	C	D
LPV DA	974-½ 289 (300-½)			
LNAV/VNAV DA	1029-⅝ 344 (400-⅝)			
LNAV MDA	1160-½ 475 (500-½)		1160-1 475 (500-1)	
C CIRCLING	1160-1 470 (500-1)		1220-1½ 530 (600-1½)	1300-2 610 (700-2)

ALPENA, MICHIGAN
Orig-E 26DEC24

45°05'N-83°34'W

ALPENA COUNTY RGNL (APN)

RNAV (GPS) RWY 1

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 82746	APP CRS 067°	Rwy Idg 5031 TDZE 690 Apt Elev 690

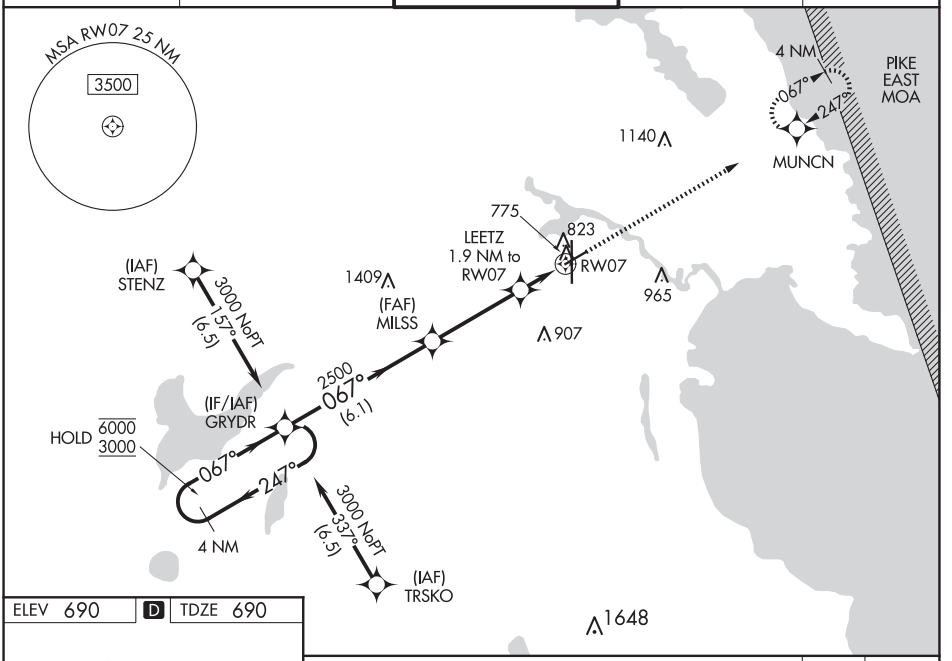
RNAV (GPS) RWY 7
ALPENA COUNTY RGNL (APN)

RNP APCH - GPS.

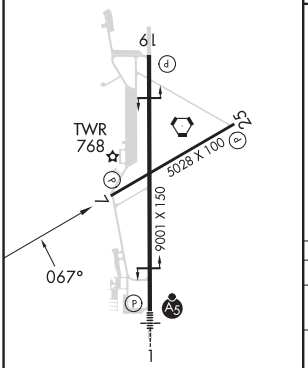
Baro-VNAV and VDP NA when using PZQ altimeter setting. Rwy 7 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C or above 54°C. When local altimeter setting not received, use PZQ altimeter setting and increase LPV DA to 1007 feet, increase LNAV/VNAV DA to 1039 feet; increase all MDAs 60 feet and LNAV visibility Cat C/D ¼ SM.

MISSED APPROACH: Climb to 3000 direct MUNCN and hold, continue climb-in-hold to 3000.

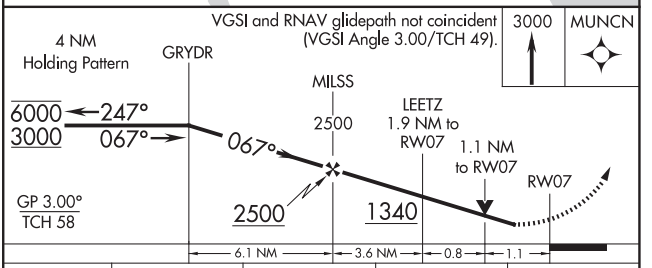
ATIS ★	ALPENA APP CON ★	ALPENA TOWER ★	GND CON	UNICOM
120.675 327.05	128.425 379.3	121.35 (CTAF) L 318.1	121.9 275.8	122.95



ELEV 690 | D | TDZE 690



HIRL Rwy 1-19 L
MIRL Rwy 7-25 L
REIL Rwys 7, 19 and 25 L



CATEGORY	A	B	C	D
LPV DA		952-1	262 (300-1)	
LNAV/VNAV DA		984-1	294 (300-1)	
LNAV MDA	1080-1	390 (400-1)	1080-1⅛	390 (400-1⅛)
CIRCLING	1140-1	450 (500-1)	1220-1½ 530 (600-1½)	1300-2 610 (700-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ALPENA, MICHIGAN AL-718 (FAA) 24305

RNAV (GPS) RWY 19

ALPENA COUNTY RGNL (APN)

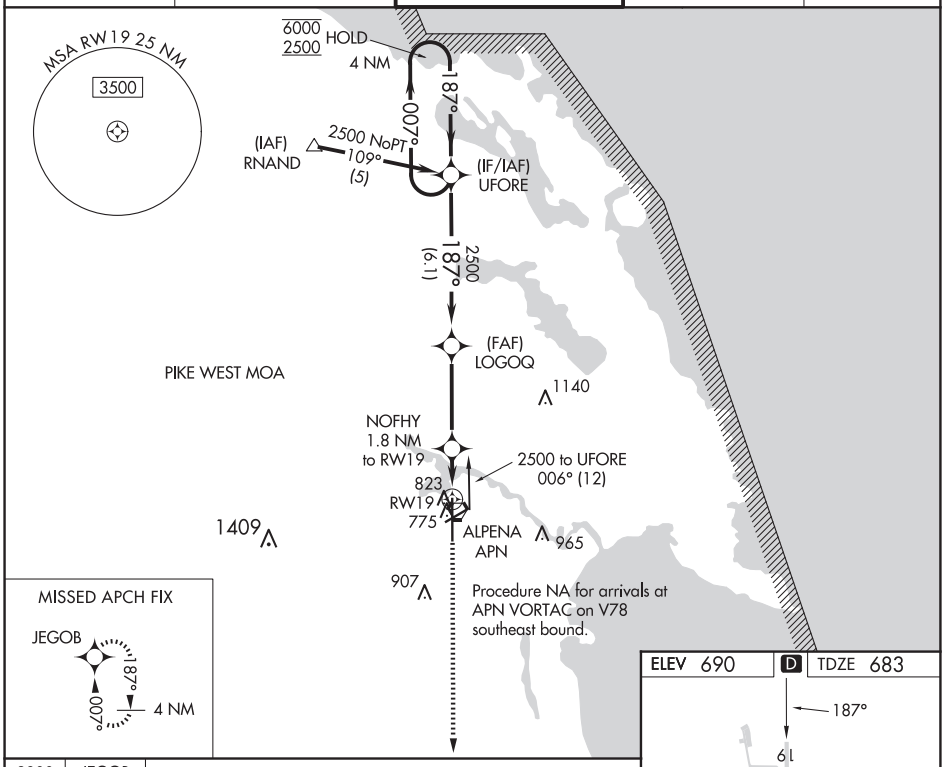
WAAS CH 53717 W19A	APP CRS 187°	Rwy Idg 9001 / TDZE 683 / Apt Elev 690

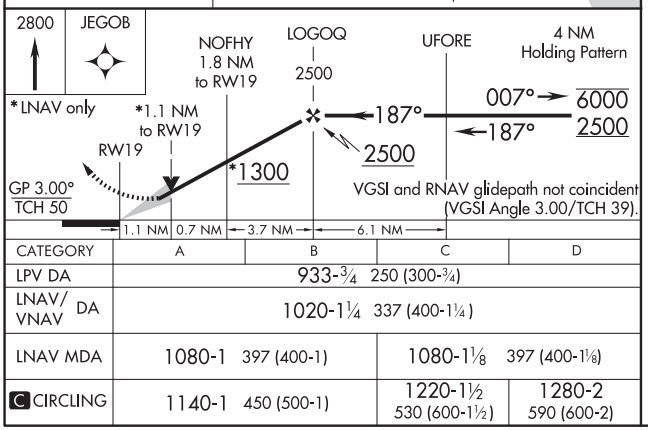
RNP APCH.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

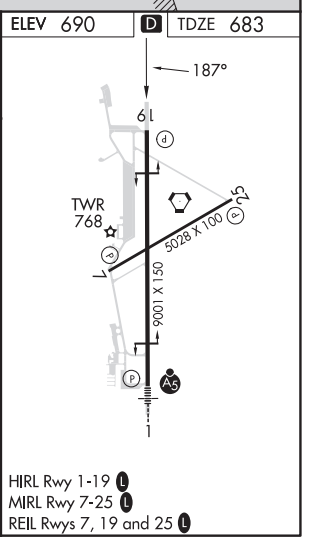
MISSED APPROACH: Climb to 2800 direct JEGOB and hold.

ATIS	ALPENA APP CON ★	ALPENA TOWER ★	GND CON	UNICOM
120.675 327.05	128.425 379.3	121.35 (CTAF) L 318.1	121.9 275.8	122.95





CATEGORY	A	B	C	D
LPV DA	933-¾ 250 (300-¾)			
LNAV/VNAV DA	1020-1¼ 337 (400-1¼)			
LNAV MDA	1080-1 397 (400-1)		1080-1⅛ 397 (400-1⅛)	
C CIRCLING	1140-1 450 (500-1)		1220-1½ 530 (600-1½)	1280-2 590 (600-2)



ALPENA, MICHIGAN
Orig-A 15AUG19

45°05'N - 83°34'W

ALPENA COUNTY RGNL (APN)
RNAV (GPS) RWY 19

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 25

ALPENA COUNTY RGNL (APN)

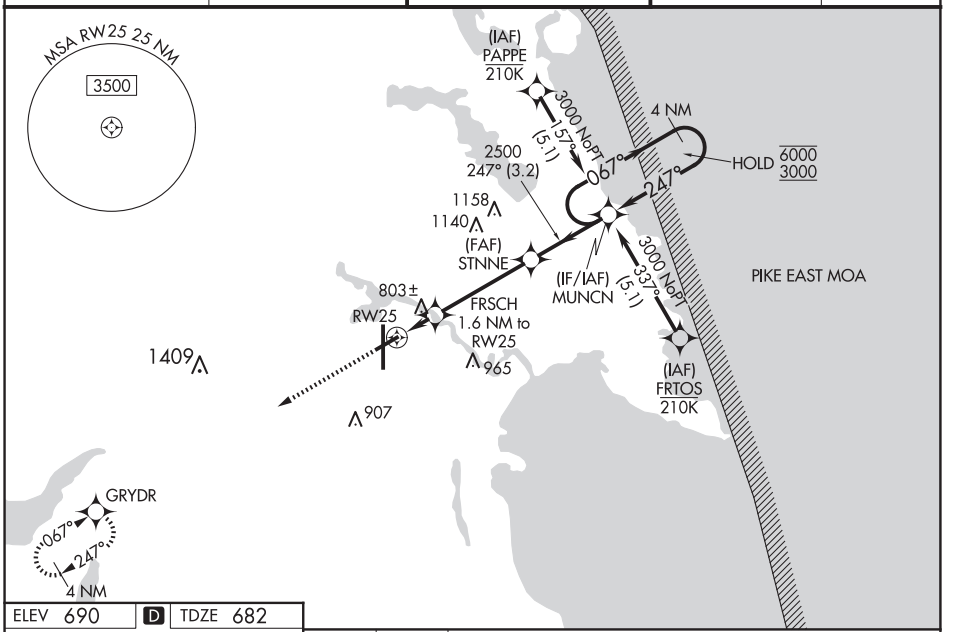
WAAS	APP CRS	Rwy Idg	5031
CH 45548	247°	TDZE	682
		Apt Elev	690

RNP APCH - GPS.

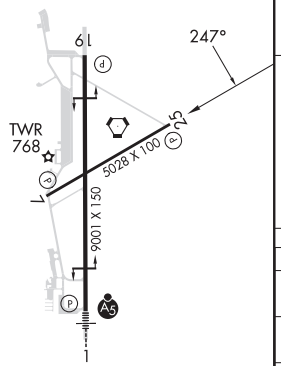
T A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C or above 54°C. Rwy 25 helicopter visibility reduction below ¾ SM NA. Baro-VNAV and VDP NA when using PZQ altimeter setting. When local altimeter setting not received, use PZQ altimeter setting and increase LPV DA to 1018 feet; increase LNAV/VNAV DA to 1115 feet and all visibilities ¼ SM. Increase all MDAs 60 feet and LNAV visibility Cat C/D ¼ SM.

MISSED APPROACH: Climb to 3000 direct GRYDR and hold.

ATIS★	ALPENA APP CON★	ALPENA TOWER★	GND CON	UNICOM
120.675 327.05	128.425 379.3	121.35 (CTAF) L 318.1	121.9 275.8	122.95



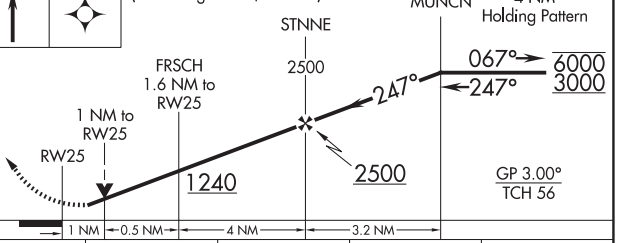
ELEV 690 D TDZE 682



HIRL Rwy 1-19 L
MIRL Rwy 7-25 L
REIL Rwys 7, 19 and 25 L

3000 GRYDR

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 48).



CATEGORY	A	B	C	D
LPV DA	963-1	281 (300-1)		
LNAV/VNAV DA	1060-1	378 (400-1)		
LNAV MDA	1060-1	378 (400-1)		
CIRCLING	1140-1	450 (500-1)	1220-1½ 530 (600-1½)	1300-2 610 (700-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

VORTAC APN	APP CRS	Rwy Idg	9001
116.5	175°	TDZE	683
Chan 112		Apt Elev	690

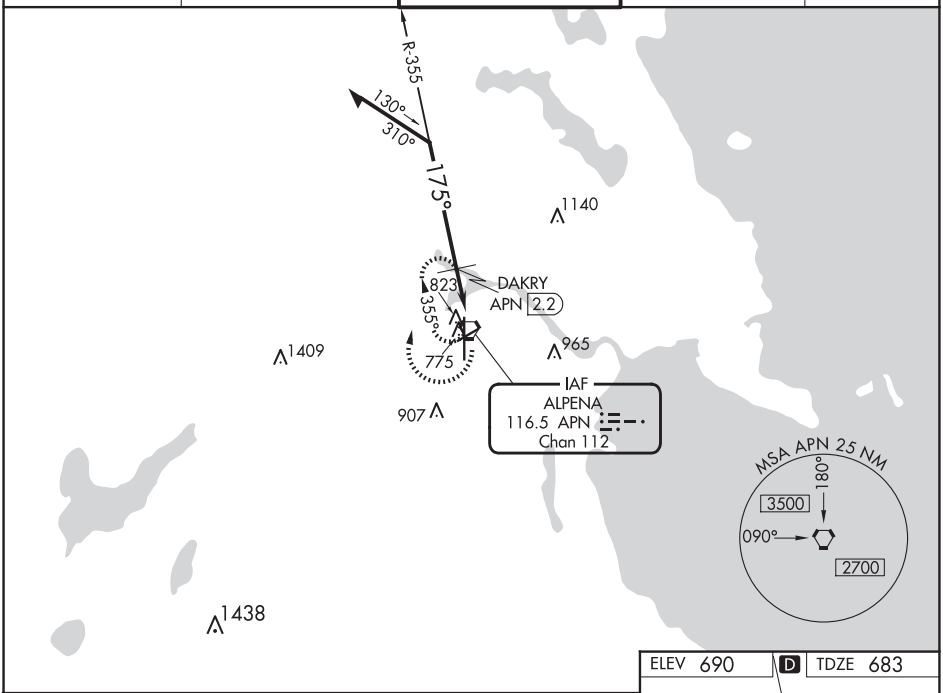
VOR RWY 19

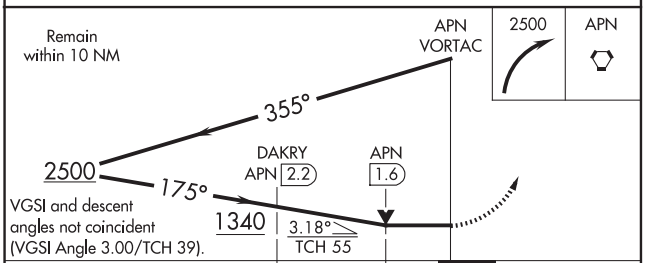
ALPENA COUNTY RGNL (APN)

Rwy 19 helicopter visibility reduction below ¾ SM NA.

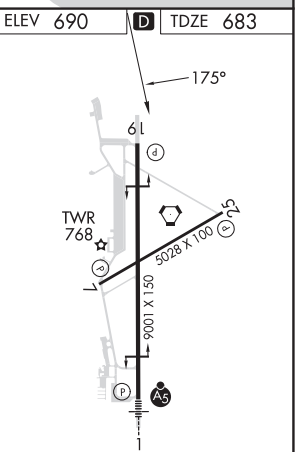
MISSED APPROACH: Climbing right turn to 2500 in APN VORTAC holding pattern.

ATIS	ALPENA APP CON ★	ALPENA TOWER ★	GND CON	UNICOM
120.675 327.05	128.425 379.3	121.35 (CTAF) L 318.1	121.9 275.8	122.95





CATEGORY	A	B	C	D
S-19	1340-1 657 (700-1)		1340-1⅞ 657 (700-1⅞)	
C CIRCLING	1340-1 650 (700-1)		1340-1⅞ 650 (700-1⅞)	1340-2 650 (700-2)
DAKRY FIX MINIMUMS				
S-19	1100-1 417 (500-1)		1100-1⅛ 417 (500-1⅛)	
C CIRCLING	1140-1 450 (500-1)		1220-1½ 530 (600-1½)	1280-2 590 (600-2)

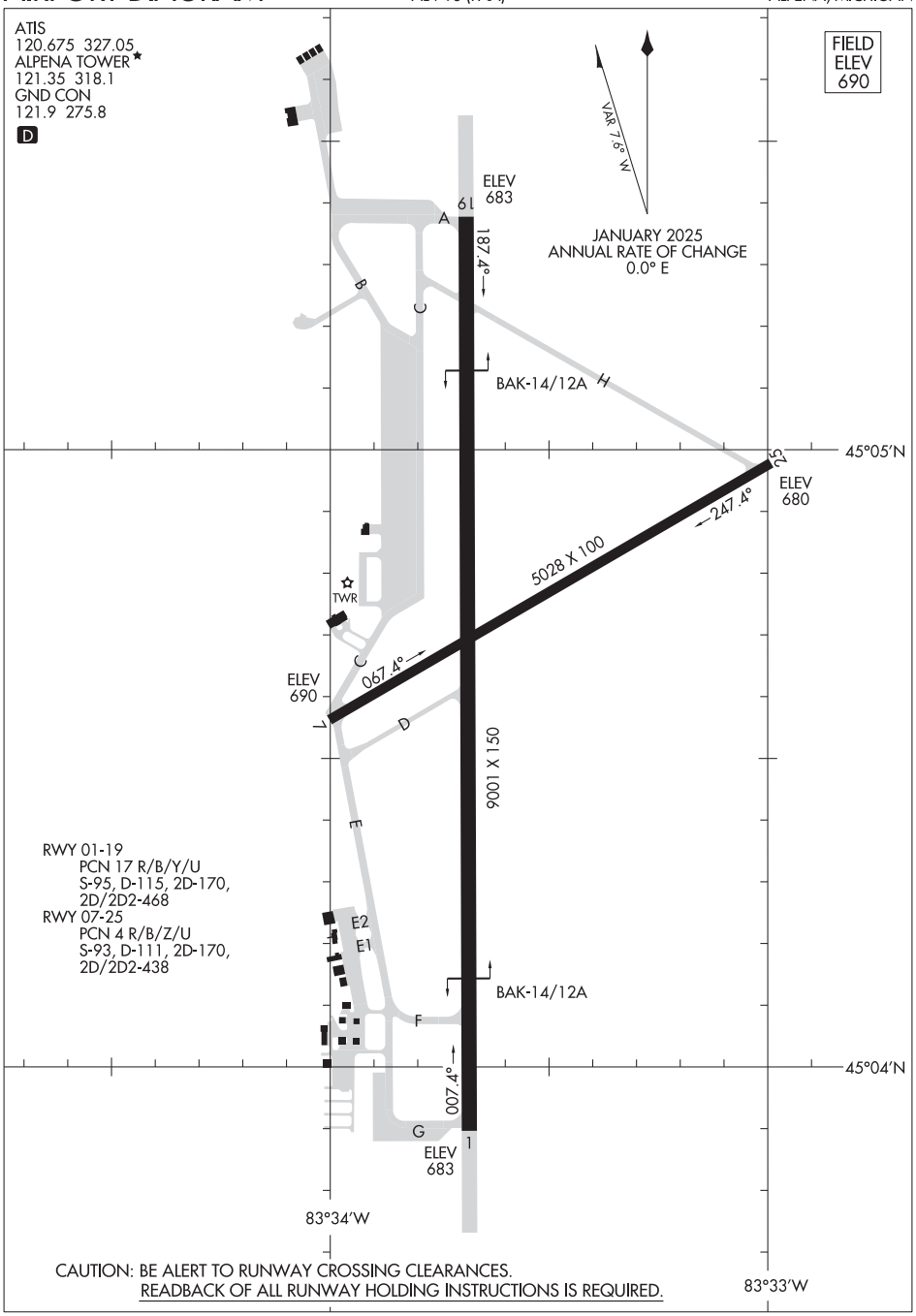


45°05′N-83°34′W

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

AL-718 (FAA)



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 6

ANN ARBOR MUNI (ARB)

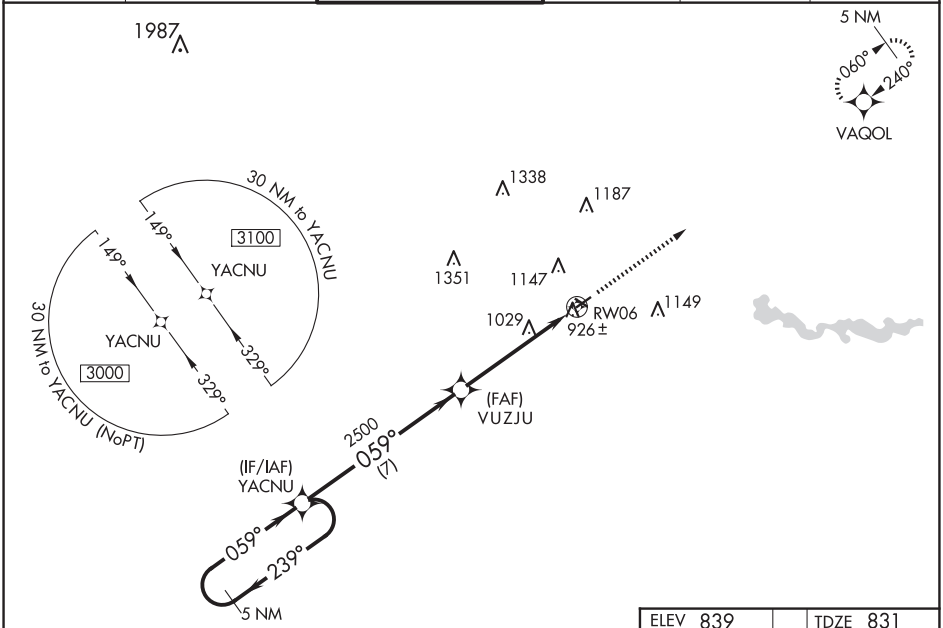
WAAS CH 77601 W06A	APP CRS 059°	Rwy Idg 3505 / TDZE 831 / Apt Elev 839

RNP APCH.

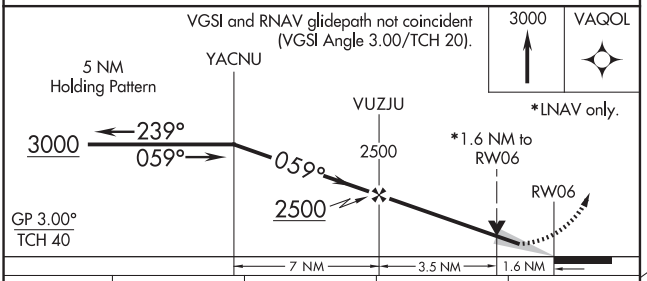
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 38°C. VDP and Baro-VNAV NA when using Willow Run altimeter setting. When local altimeter setting not received, use Willow Run altimeter setting and increase all DA/MDA 40 feet; increase LNAV Cats C and D visibility ⅛ SM.

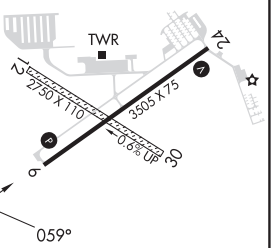
MISSED APPROACH: Climb to 3000 direct VAQOL and hold.

ATIS	DETROIT APP CON	ANN ARBOR TOWER ★	GND CON	CLNC DEL	UNICOM
134.55	118.95 284.0	120.3 (CTAF) L	121.6	121.6	123.0



ELEV 839	TDZE 831





CATEGORY	A	B	C	D
LPV DA	1081-1 250 (300-1)			
LNAV/VNAV DA	1097-1 266 (300-1)			
LNAV MDA	1360-1 529 (600-1)		1360-1½ 529 (600-1½)	

MIRL Rwy 6-24 L
REIL Rwy 6 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 24

ANN ARBOR MUNI (ARB)

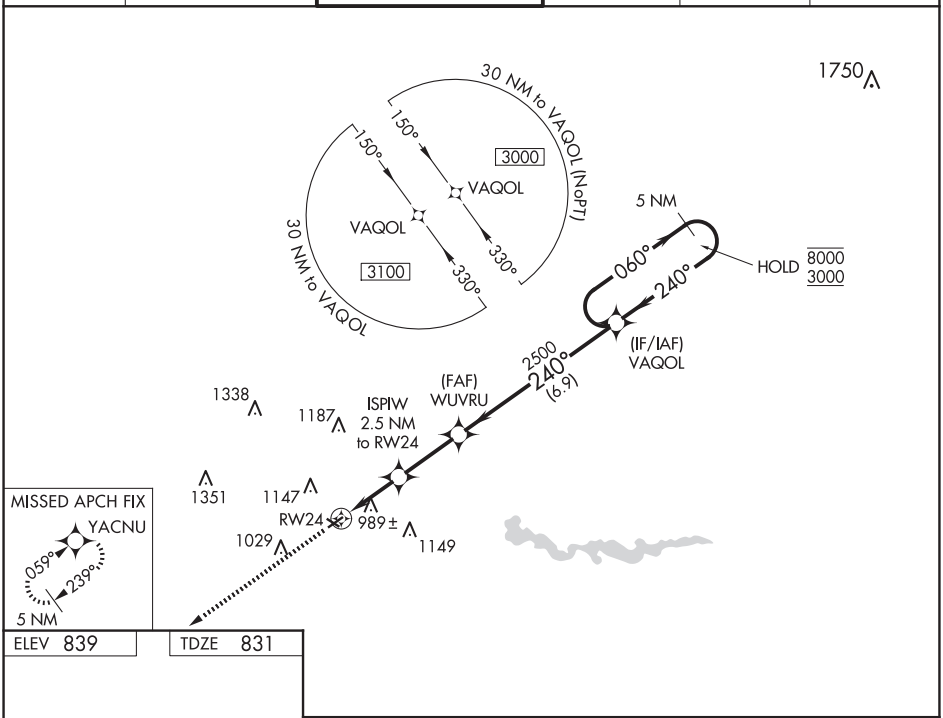
WAAS CH 61120 W24A	APP CRS 240°	Rwy Idg 3505 / TDZE 831 / Apt Elev 839

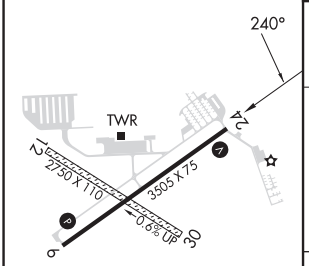
RNP APCH - GPS.

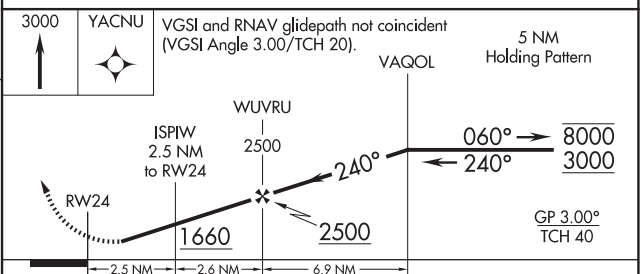
Circling NA to Rwys 12 and 30. Rwy 24 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 38°C.

MISSED APPROACH: Climb to 3000 direct YACNU and hold.

ATIS	DETROIT APP CON	ANN ARBOR TOWER ★	GND CON	CLNC DEL	UNICOM
134.55	118.95 284.0	120.3 (CTAF) L	121.6	121.6	123.0







CATEGORY	A	B	C	D
LPV DA	1132-1 301 (300-1)			
LNAV/VNAV DA	1170-1 339 (400-1)			
LNAV MDA	1300-1 469 (500-1)		1300-1⅜ 469 (500-1⅜)	

MIRL Rwy 6-24 L
REIL Rwy 6 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

VORTAC SVM 114.3 Chan 90	APP CRS 035°	Rwy ldg 3505 TDZE 831 Apt Elev 839

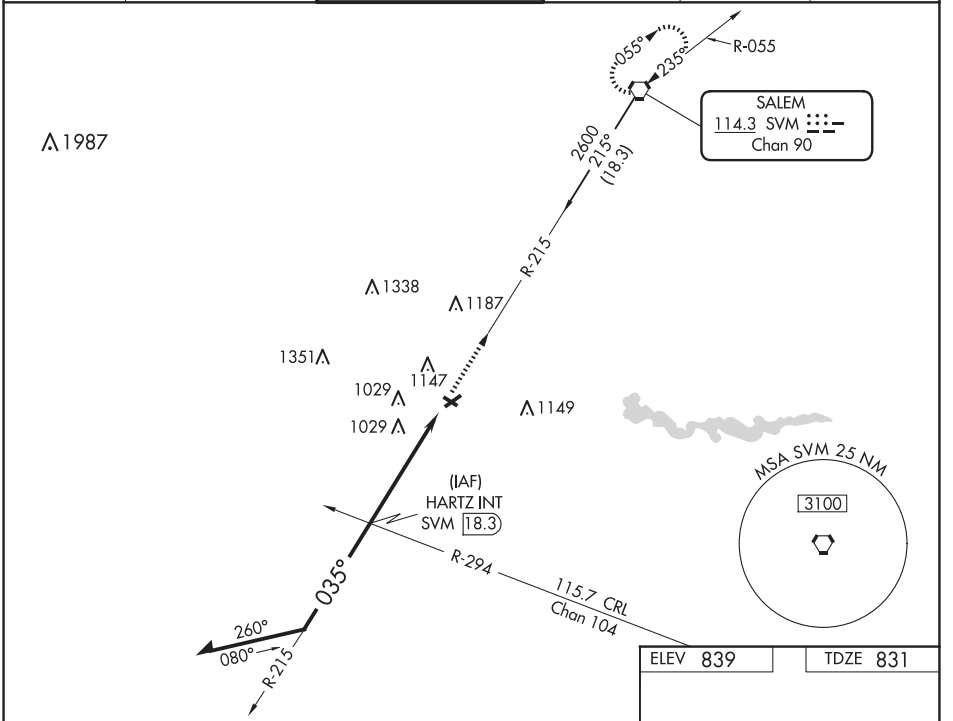
VOR RWY 6

ANN ARBOR MUNI (ARB)

When local altimeter setting not received, use Willow Run altimeter setting and increase all MDA 40 feet and Cat C/D visibility ⅛ mile and Circling Cat C/D visibility ¼ mile.
Rwy 6 helicopter visibility reduction below ¾ SM NA. Circling NA to Rwys 12 and 30.

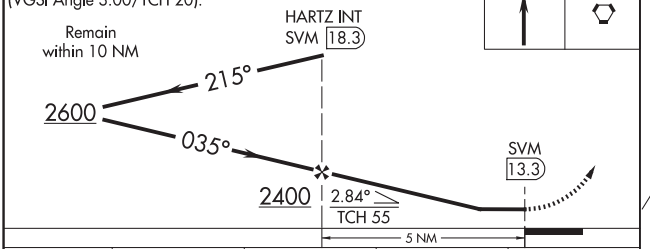
MISSED APPROACH: Climb to 3000 direct SVM VORTAC and hold.

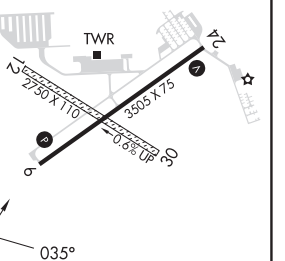
ATIS	DETROIT APP CON	ANN ARBOR TOWER ★	GND CON	CLNC DEL	UNICOM
134.55	118.95 284.0	120.3 (CTAF)	121.6	121.6	123.0



ELEV 839 TDZE 831

VGSI and descent angles not coincident
(VGSI Angle 3.00/TCH 20).





REIL Rwy 6 (L)
MIRL Rwy 6-24 (L)

CATEGORY	A	B	C	D
S-6	1360-1	529 (600-1)	1360-1½	529 (600-1½)
CIRCLING	1500-1	661 (700-1)	1500-1¾ 661 (700-1¾)	1640-2½ 801 (900-2½)

FAF to MAP 5 NM

Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

VOR RWY 24

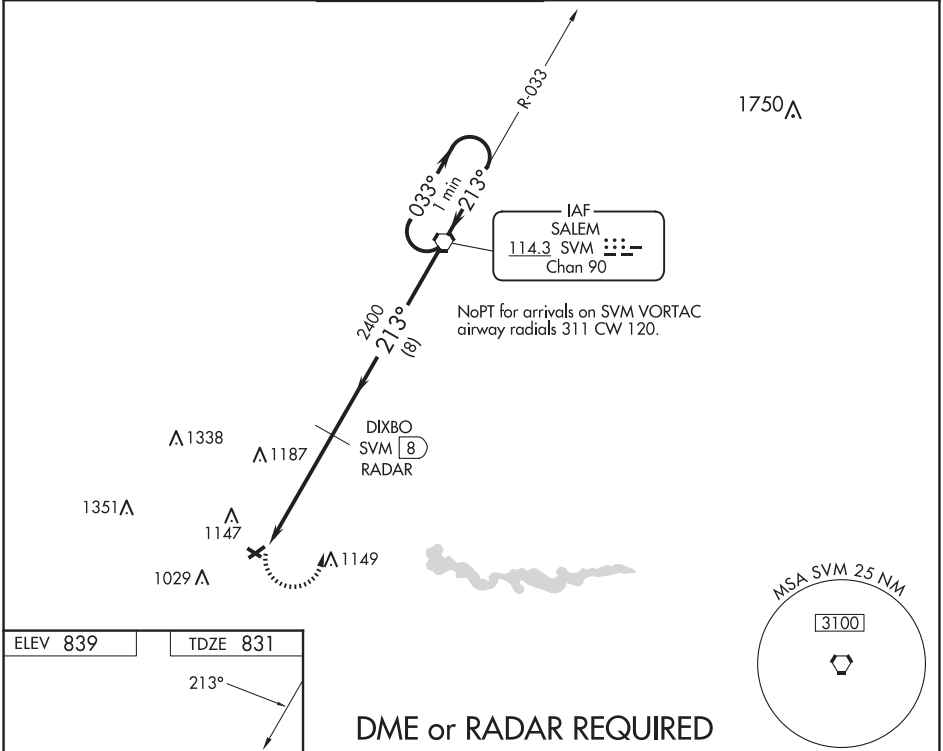
ANN ARBOR MUNI (ARB)

VORTAC SVM	APP CRS	Rwy Idg	3505
114.3	213°	TDZE	831
Chan 90		Apt Elev	839

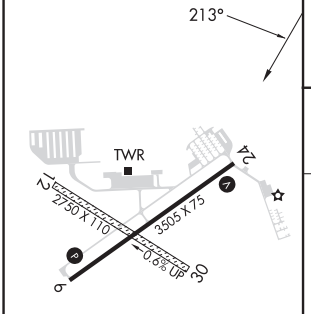
Inop table does not apply. Rwy 24 helicopter visibility reduction below ¾ SM NA.
When local altimeter setting not received, use Willow Run altimeter setting and increase all MDAs 40 feet and increase visibility S-24 Cat C/D visibility ⅛ SM and Circling Cat C/D visibility ¼ SM. Circling NA to Rwys 12 and 30.

MISSED APPROACH: Climbing left turn to 3000 direct SVM VORTAC and hold.

ATIS	DETROIT APP CON	ANN ARBOR TOWER ★	GND CON	CLNC DEL	UNICOM
134.55	118.95 284.0	120.3 (CTAF) L	121.6	121.6	123.0



ELEV 839 TDZE 831



MIRL Rwy 6-24 L
REIL Rwy 6 L

FAF to MAP 4.7 NM

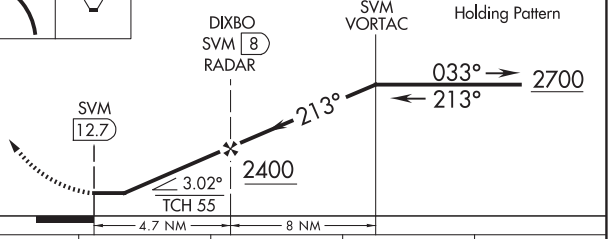
Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

DME or RADAR REQUIRED

3000 SVM

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 20).

One Minute Holding Pattern



CATEGORY	A	B	C	D
S-24	1460-1	629 (700-1)	1460-1¾ 629 (700-1¾)	1460-1¾ 629 (700-1¾)
CIRCLING	1500-1	661 (700-1)	1500-1¾ 661 (700-1¾)	1640-2½ 801 (900-2½)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

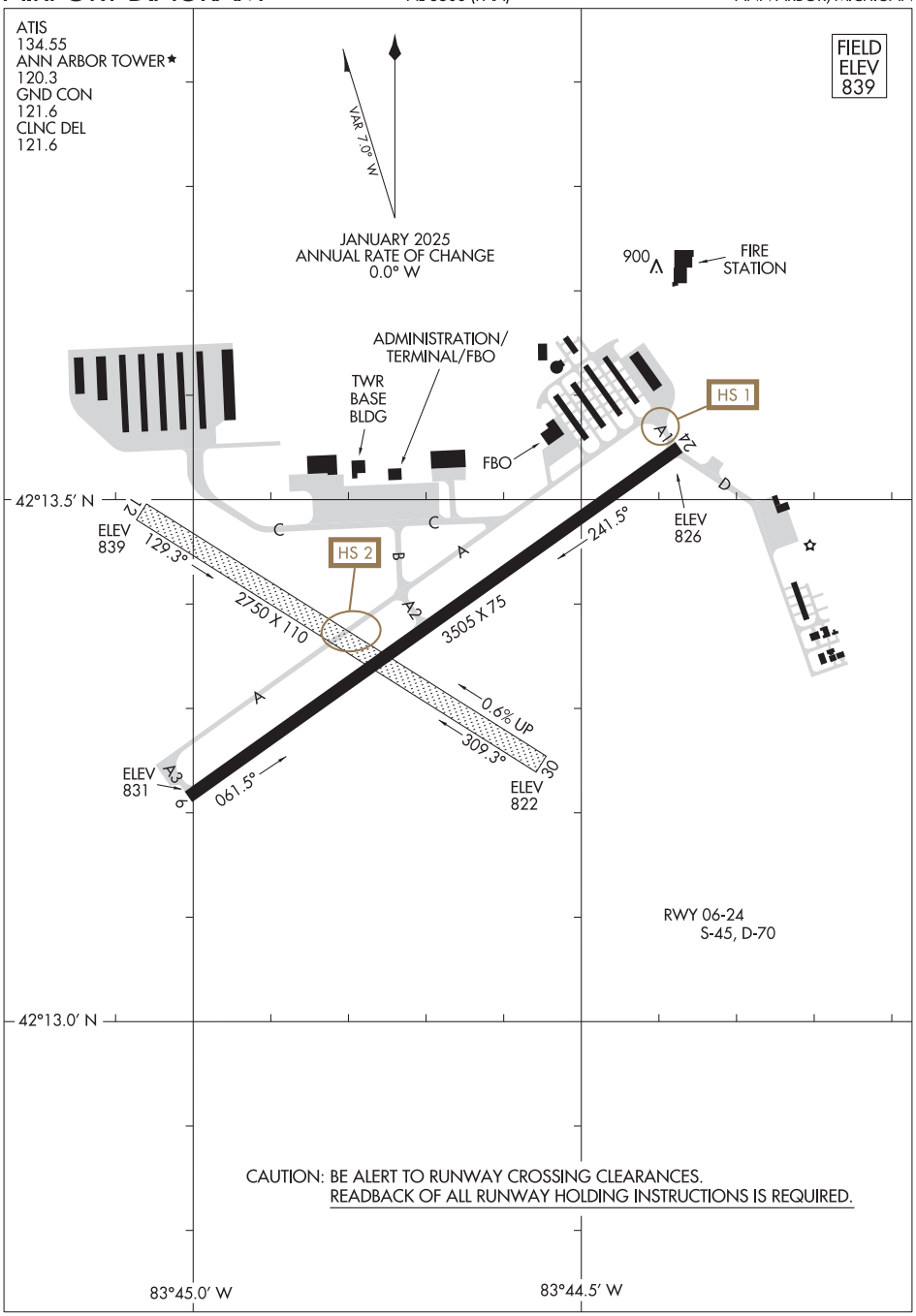
25107

AIRPORT DIAGRAM

AL-5506 (FAA)

ANN ARBOR MUNI (ARB)

ANN ARBOR, MICHIGAN



EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

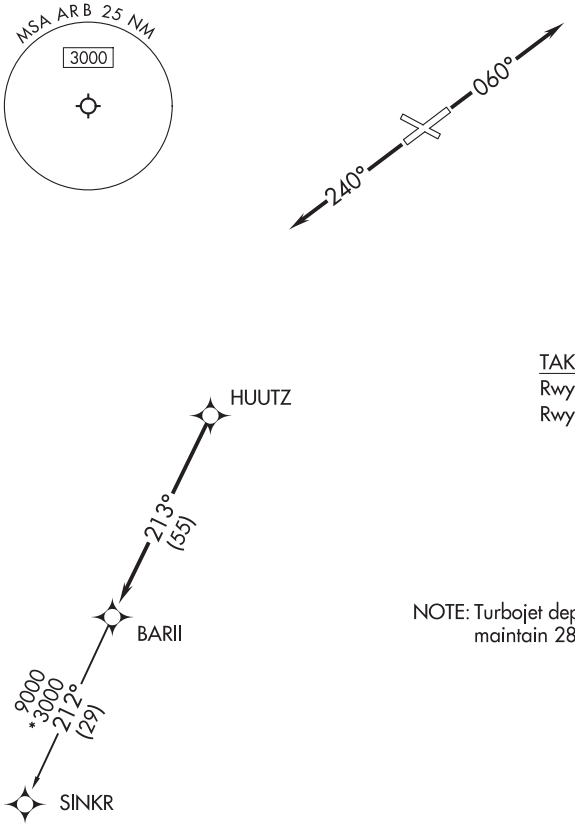
AIRPORT DIAGRAM
25107

ANN ARBOR, MICHIGAN
ANN ARBOR MUNI (ARB)

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
118.95 284.0
ATIS
134.55
CLNC DEL
121.6
GND CON
121.6
ANN ARBOR TOWER★
120.3 (CTAF)



TAKEOFF MINIMUMS:
Rwys 6, 24: Standard.
Rwys 12, 30: NA-Environmental.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....

....for RADAR vectors to HUUTZ, then on track 213° to BARII, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SINKR TRANSITION (BARII3.SINKR):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR 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: Chart not to scale.

DETROIT DEP CON 118.95 284.0
ATIS 134.55
CLNC DEL 121.6
GND CON 121.6
ANN ARBOR TOWER★ 120.3 (CTAF)

TAKEOFF MINIMUMS:
Rwys 6, 24: Standard.
Rwys 12, 30: NA-Environmental.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....

....for RADAR vectors to BROZZ, then on track 279° to CCOBB, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

ZEGBI TRANSITION (CCOBB3.ZEGBI):

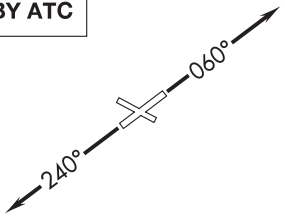
CCOBB THREE DEPARTURE (RNAV)
(CCOBB3.CCOBB) 16MAY24
ANN ARBOR, MICHIGAN
ANN ARBOR MUNI (ARB)

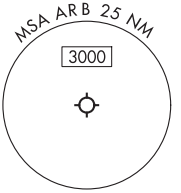
EC-1, 07 AUG 2025 to 02 OCT 2025

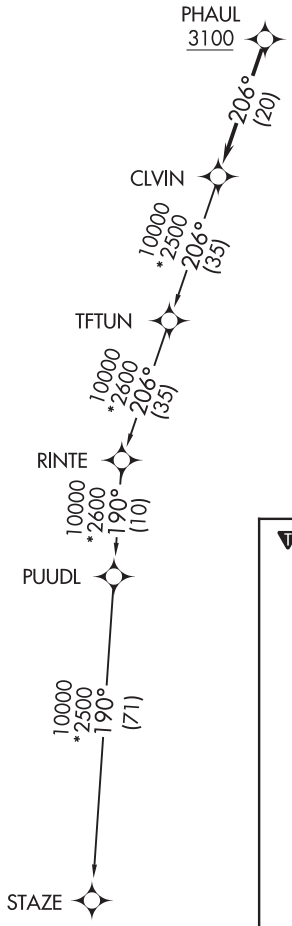
TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
118.95 284.0
ATIS
134.55
CLNC DEL
121.6
GND CON
121.6
ANN ARBOR TOWER ★
120.3 (CTAF)







TAKEOFF MINIMUMS:
Rwys 6, 24: Standard.
Rwys 12, 30: NA-Environmental.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....

....for RADAR vectors to cross PHAUL at or above 3100, then on track 206° to CLVIN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

STAZE TRANSITION (CLVIN3.STAZE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HHOWE FOUR DEPARTURE (RNAV)

(HHOWE4.HHOWE) 16MAY24

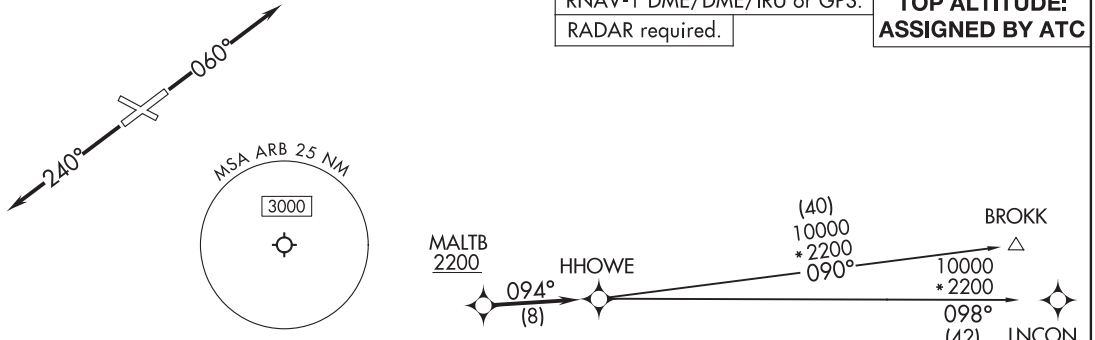
ANN ARBOR, MICHIGAN

ANN ARBOR MUNI (ARB)

DETROIT DEP CON
118.95 284.0
ATIS
134.55
CLNC DEL
121.6
GND CON
121.6
ANN ARBOR TOWER ★
120.3 (CTAF)

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: BROKK TRANSITION: For use by flights filed at or below FL270, or as assigned by ATC.

TAKEOFF MINIMUMS:
Rwy 6, 24: Standard.
Rwy 12, 30: NA - Environmental.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....

....for RADAR vectors to cross MALTB at or above 2200, then on track 094° to HHOWE, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BROKK TRANSITION (HHOWE4.BROKK):
LNCON TRANSITION (HHOWE4.LNCON):

(HHOWE4.HHOWE) 24137

HHOWE FOUR DEPARTURE (RNAV)

AL-5506 (FAA)

ANN ARBOR MUNI (ARB)

ANN ARBOR, MICHIGAN

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....

....for RADAR vectors to MTRCT, then on track 279° to KAYLN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SMUUV TRANSITION (KAYLN3.SMUUV):

RNAV 1 - DME/DME/IRU or GPS.

RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

DETROIT DEP CON
118.95 284.0
ATIS
134.55
CLNC DEL
121.6
GND CON
121.6
ANN ARBOR TOWER ★
120.3 (CTAF)

060°
240°

N

MSA ARB 2.5 NM
3000

TAKEOFF MINIMUMS:
Rwy 6, 24: Standard.
Rwy 12, 30: NA - Environmental.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: For use by Cleveland terminal arrivals only.

KZLOV
148° (11)
WINNZ

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....

....for RADAR vectors to KZLOV, then on track 148° to WINNZ. Maintain ATC assigned altitude, expect filed altitude ten minutes after departure.

EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE:
ASSIGNED BY ATC
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.
RADAR required for non-GPS equipped aircraft.
DETROIT DEP CON
118.95 284.0
ATIS
134.55
CLNC DEL
121.6
GND CON
121.6
ANN ARBOR TOWER★
120.3 (CTAF)
060°
240°
TAKEOFF MINIMUMS:
Rwys 12, 30: NA - Environmental.
Rwys 6, 24: Standard.
N
KZLOV
T5000
111°
(10)
LIDDS 10000
*2200
111°
(20)
NOONR
10000
*1800
149°
(19)
ZEYOU
10000
*2700
151°
(46)
GRIVY
NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: Chart not to scale.
ARB 25 NM
3000
DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....
....for RADAR vectors to cross KZLOV at or below 15000, then on track 111° to LIDDS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.
GRIVY TRANSITION (LIDDS4.GRIVY):

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 6 and 24: Climb on assigned heading. 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 (METRO4.DUNKS): From over DXO VOR/DME on DXO R-296 to DUNKS.
HARWL TRANSITION (METRO4.HARWL): From over DXO VOR/DME on DXO R-281 to HARWL.
ILLIE TRANSITION (METRO4.ILLIE): From over DXO VOR/DME on DXO R-217 to ILLIE.
MAARS TRANSITION (METRO4.MAARS): From over DXO VOR/DME on DXO R-106 to MAARS.
PISTN TRANSITION (METRO4.PISTN): From over DXO VOR/DME on DXO R-020 to PISTN.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(MIGGY3.MIGGY) 24137

MIGGY THREE DEPARTURE (RNAV) AL-5506 (FAA)

ANN ARBOR MUNI (ARB)
ANN ARBOR, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

NOTE: Jet 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.

TAKEOFF MINIMUMS:
Rwys 12, 30: NA - Environmental.
Rwys 6, 24: Standard.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....

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

GETCH TRANSITION (MIGGY3.GETCH):
HUBBY TRANSITION (MIGGY3.HUBBY):
SLLAP TRANSITION (MIGGY3.SLLAP):

EC-1, 07 AUG 2025 to 02 OCT 2025

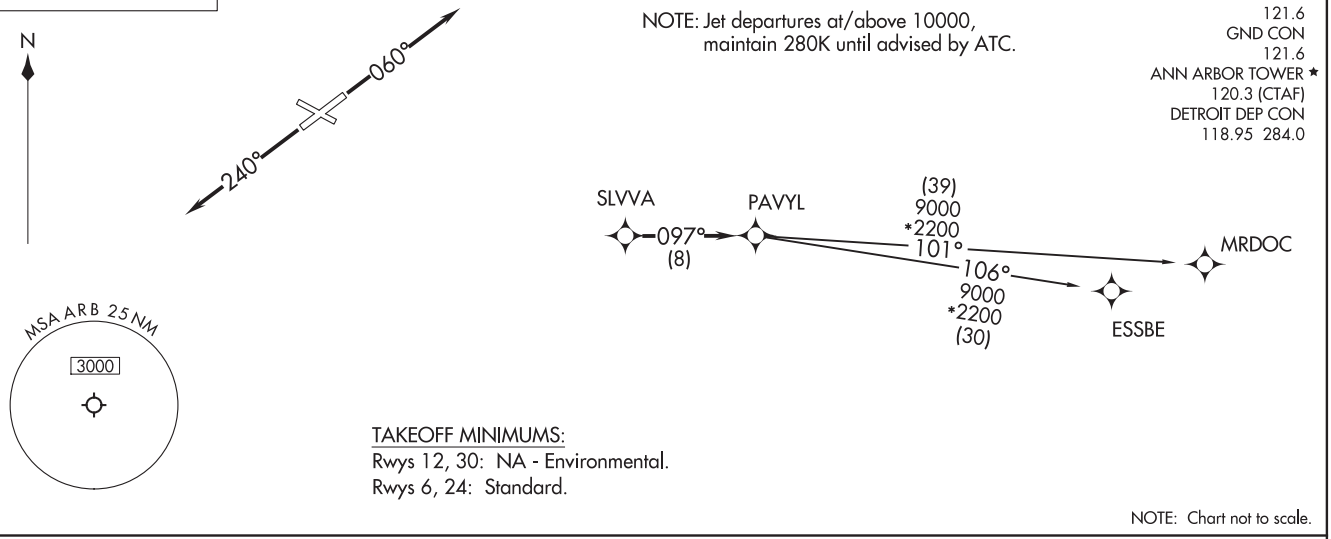
MIGGY THREE DEPARTURE (RNAV)
(MIGGY3.MIGGY) 16MAY24

ANN ARBOR, MICHIGAN
ANN ARBOR MUNI (ARB)

EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....

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

ESSBE TRANSITION (PAVYL3.ESSBE):
MRDOC TRANSITION (PAVYL3.MRDOC):

SNDRS THREE DEPARTURE (RNAV)

(SNDRS3.SNDRS) 16MAY24

ANN ARBOR, MICHIGAN
ANN ARBOR MUNI (ARB)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....

....for RADAR vectors to JWELS, then on track 218° to SNDRS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

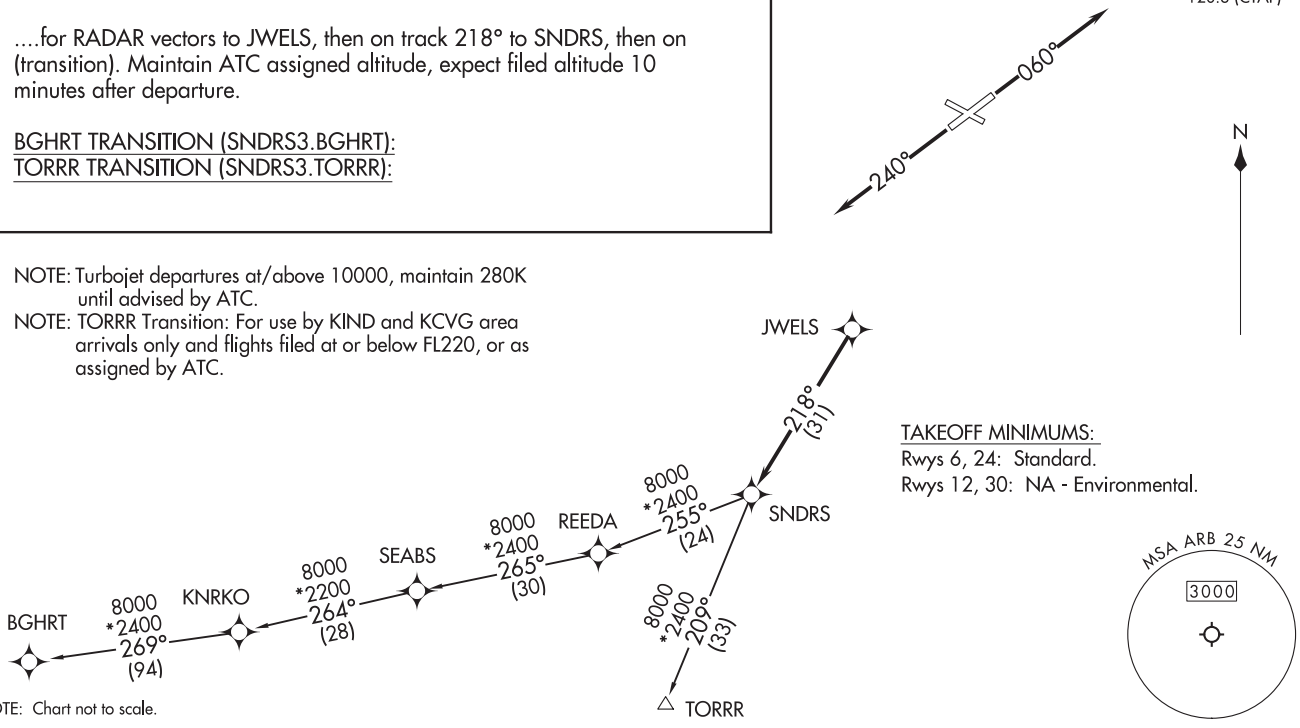
BGHRT TRANSITION (SNDRS3.BGHRT):
TORRR TRANSITION (SNDRS3.TORRR):

TOP ALTITUDE: ASSIGNED BY ATC

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
118.95 284.0
ATIS
134.55
CLNC DEL
121.6
GND CON
121.6
ANN ARBOR TOWER ★
120.3 (CTAF)

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: Chart not to scale.

TAKEOFF MINIMUMS:
Rwys 6, 24: Standard.
Rwys 12, 30: NA - Environmental.

(SNDRS3.SNDRS) 24137

SNDRS THREE DEPARTURE (RNAV)

AL-5506 (FAA)

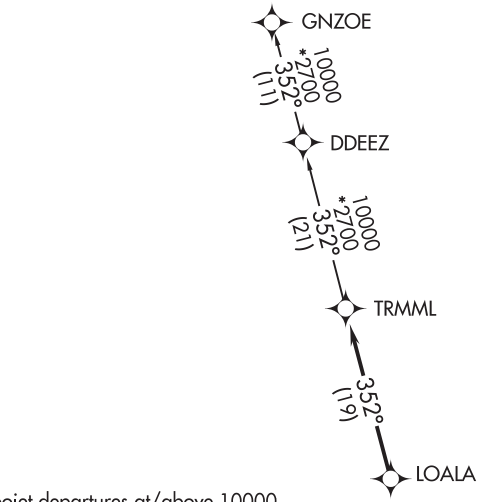
ANN ARBOR MUNI (ARB)
ANN ARBOR, MICHIGAN

32

TOP ALTITUDE: ASSIGNED BY ATC

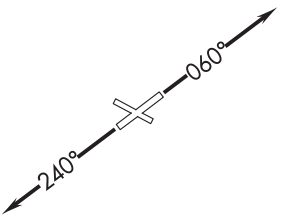
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

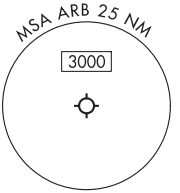
DETROIT DEP CON
118.95 284.0
ATIS
134.55
CLNC DEL
121.6
GND CON
121.6
ANN ARBOR TOWER ★
120.3 (CTAF)



TAKEOFF MINIMUMS:
Rwys 12, 30: NA - Environmental.
Rwys 6, 24: Standard.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.





NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....

....for RADAR vectors to LOALA, then on track 352° to TRMML, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

GNZOE TRANSITION (TRMML4.GNZOE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(ZETTR4.ZETTR) 24137

ZETTR FOUR DEPARTURE (RNAV)

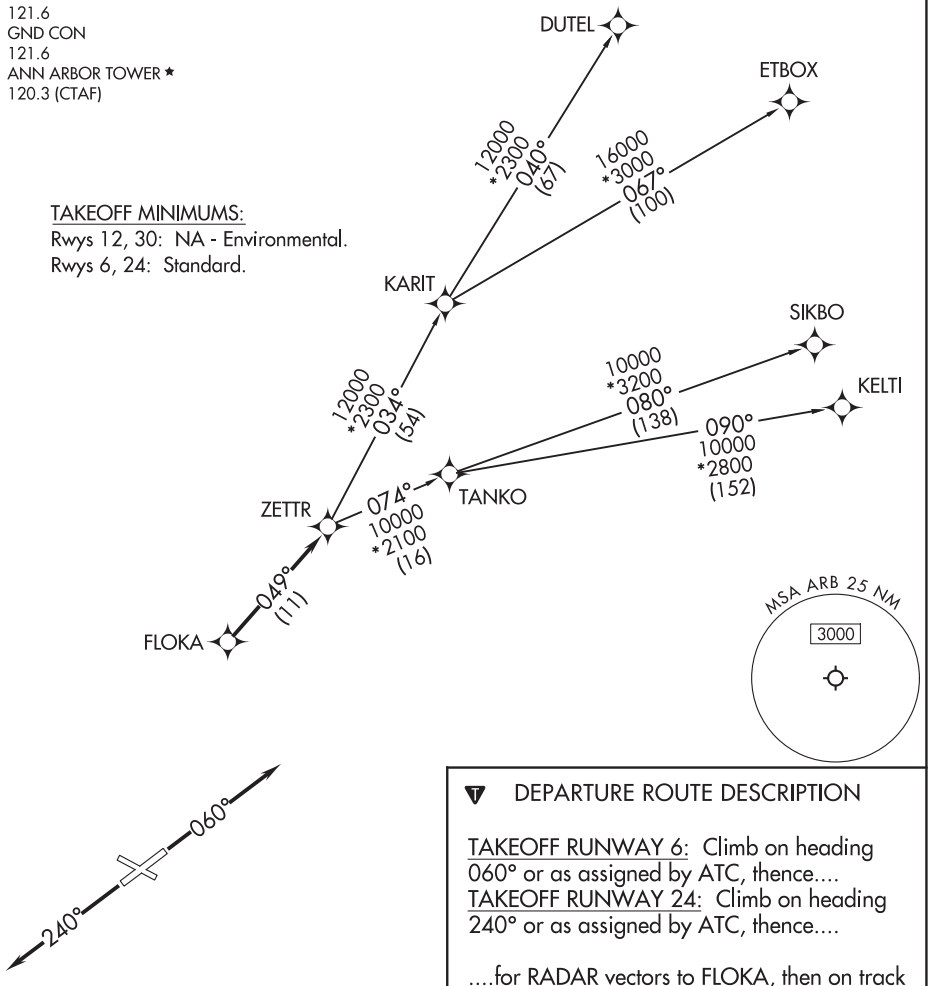
AL-5506 (FAA)

ANN ARBOR MUNI (ARB)
ANN ARBOR, MICHIGAN

DETROIT DEP CON
118.95 284.0
ATIS
134.55
CLNC DEL
121.6
GND CON
121.6
ANN ARBOR TOWER ★
120.3 (CTAF)

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC



TAKEOFF MINIMUMS:
Rwys 12, 30: NA - Environmental.
Rwys 6, 24: Standard.

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: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 060° or as assigned by ATC, thence....
TAKEOFF RUNWAY 24: Climb on heading 240° or as assigned by ATC, thence....

....for RADAR vectors to FLOKA, then on track 049° to ZETTR, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

DUTEL TRANSITION (ZETTR4.DUTEL):
ETBOX TRANSITION (ZETTR4.ETBOX):
KELTI TRANSITION (ZETTR4.KELTI):
SIKBO TRANSITION (ZETTR4.SIKBO):
TANKO TRANSITION (ZETTR4.TANKO):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

APP CRS	Rwy Idg	3195
033°	TDZE	763
	Apt Elev	763

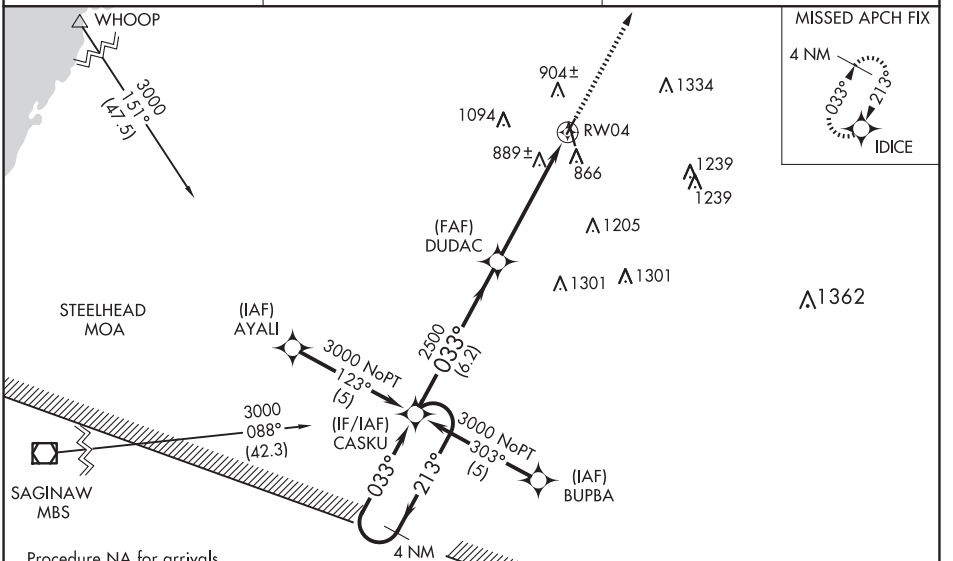
RNAV (GPS) RWY 4
HURON COUNTY MEML (BAX)

RNP APCH.

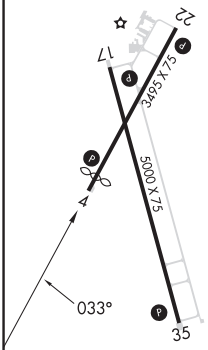
When local altimeter setting not received, use MBS Intl altimeter setting and increase all MDA 140 feet increase LNAV Cat C visibility ½ mile. Helicopter visibility reduction below 1 SM NA. Procedure NA at night.

MISSED APPROACH: Climb to 3000 direct IDICE and hold.

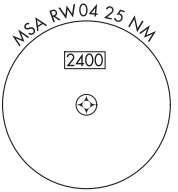
AWOS-3	CLEVELAND CENTER	UNICOM
118.6	127.7 290.425	123.075 (CTAF)

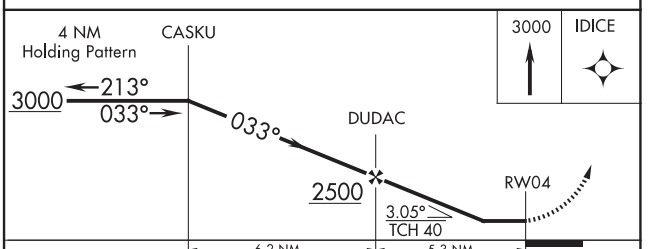


ELEV 763 TDZE 763



REIL Rwys 17 and 35 (L)
MIRL Rwys 4-22 and 17-35 (L)





CATEGORY	A	B	C	D
LNAV MDA	1140-1 377 (400-1)			NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

BAD AXE, MICHIGAN | AL-5908 (FAA) | 23334

WAAS CH 69205 W17A	APP CRS 170°	Rwy Idg 5000 TDZE 763 Apt Elev 763

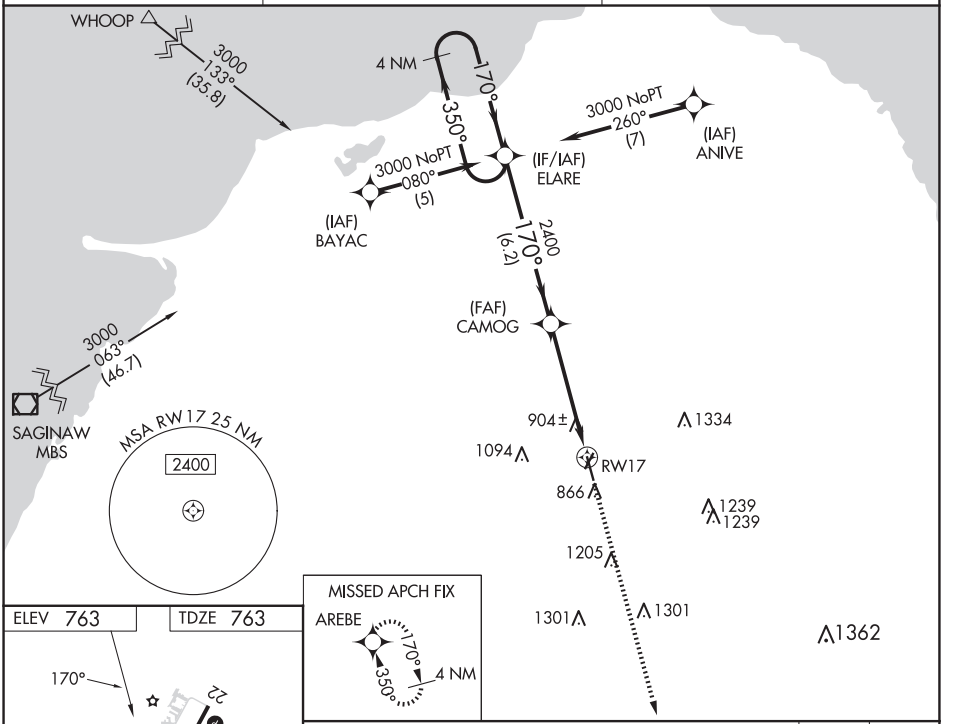
RNAV (GPS) RWY 17
HURON COUNTY MEML (BAX)

RNP APCH.

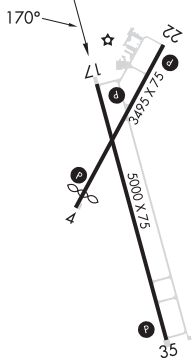
Baro-VNAV NA when using MBS Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. When local altimeter setting not received, use MBS Intl altimeter setting and increase all DA 129 feet and all MDA 140 feet, increase LPV all Cats visibility ⅜ mile; increase LNAV Cat C ½ mile. Rwy 17 helicopter visibility reduction below ¾ SM NA.

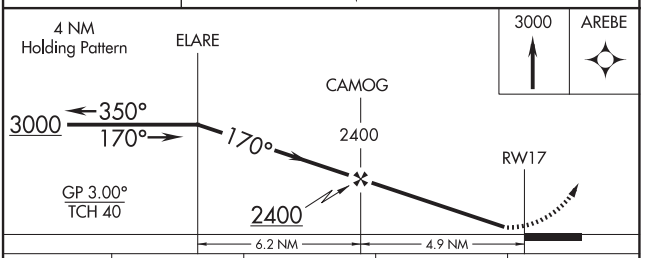
MISSED APPROACH: Climb to 3000 direct AREBE and hold.

AWOS-3	CLEVELAND CENTER	UNICOM
118.6	127.7 290.425	123.075 (CTAF) L



ELEV 763 | TDZE 763





CATEGORY	A	B	C	D
LPV DA	1075-1 312 (400-1)			NA
LNAV/VNAV DA	1352-2 589 (600-2)			NA
LNAV MDA	1220-1 457 (500-1)		1220-1¼ 457 (500-1¼)	NA

REIL Rwys 17 and 35 L
MIRL Rwys 4-22 and 17-35 L

BAD AXE, MICHIGAN
Orig-B 18JUL19

43°47'N-82°59'W

HURON COUNTY MEML (BAX)
RNAV (GPS) RWY 17

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 22

HURON COUNTY MEML (BAX)

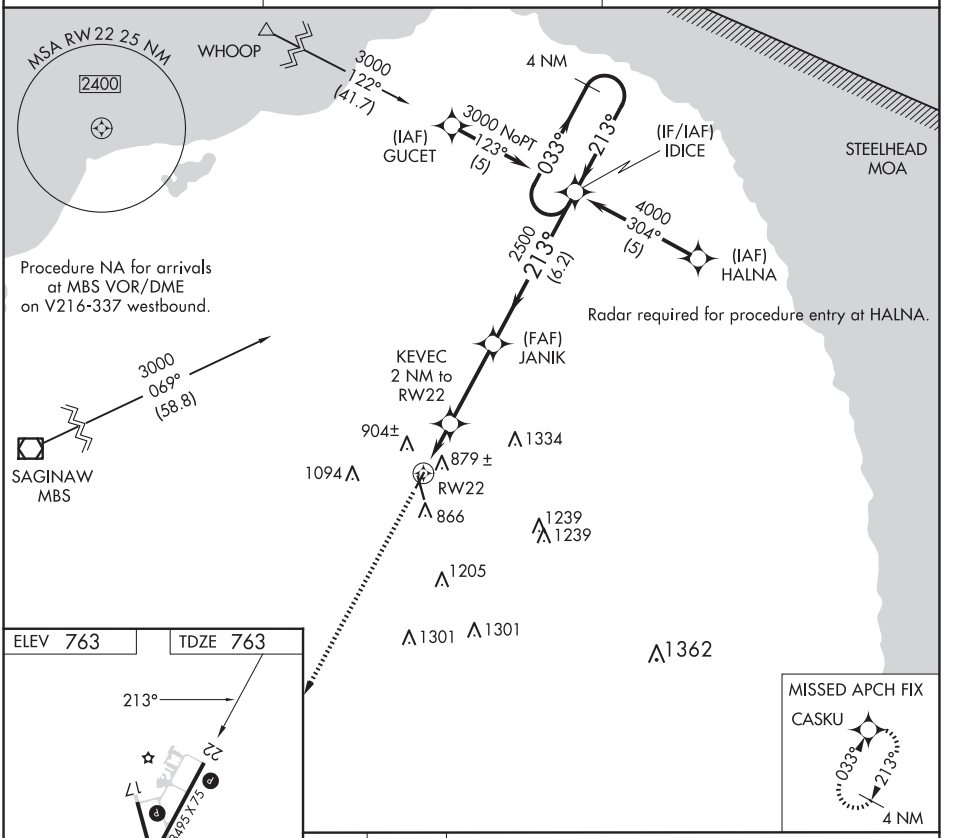
APP CRS	Rwy Idg	3495
213°	TDZE	763
	Apt Elev	763

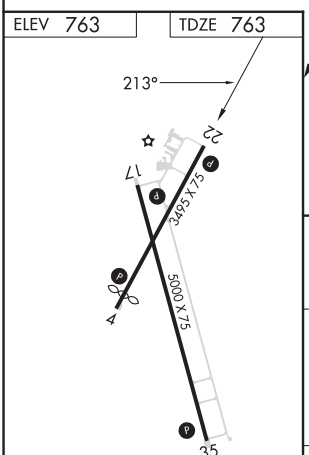
RNP APCH.

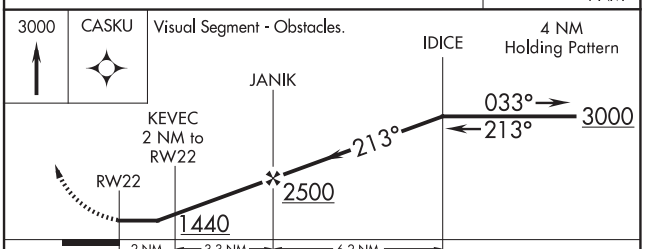
When local altimeter setting not received, use MBS Intl altimeter setting and increase all MDA 140 feet; increase LNAV Cat C visibility ½ SM. Procedure NA at night. Rwy 22 helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 3000 direct CASKU and hold.

AWOS-3	CLEVELAND CENTER	UNICOM
118.6	127.7 290.425	123.075 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1140-1 377 (400-1)			NA

REIL Rwys 17 and 35 L
MIRL Rwys 4-22 and 17-35 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

BAD AXE, MICHIGAN | AL-5908 (FAA) | 23334

RNAV (GPS) RWY 35

HURON COUNTY MEML (BAX)

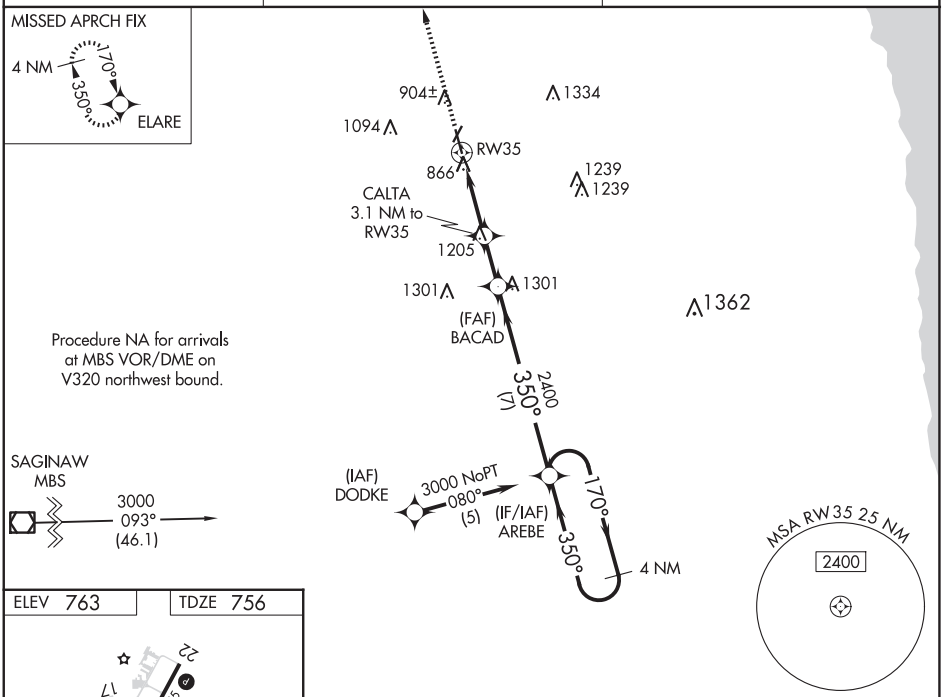
WAAS	APP CRS	Rwy Idg	5000
CH 62805	350°	TDZE	756
W35A		Apt Elev	763

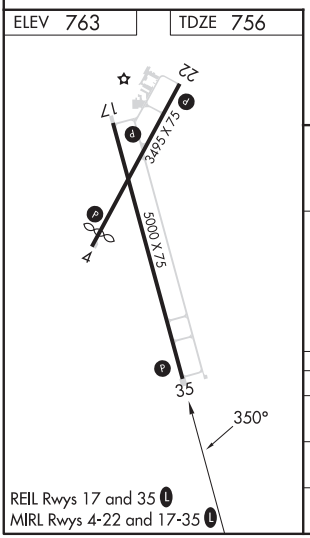
RNP APCH.

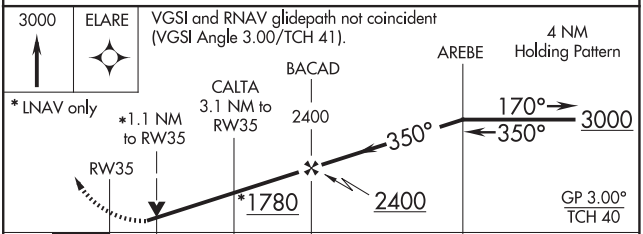
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. When local altimeter setting not received, use MBS Intl altimeter setting and increase all DA 129 feet and all MDA 140 feet; increase LPV all Cats and LNAV Cat C visibility ⅜ mile. Rwy 35 helicopter visibility reduction below ¾ SM NA. VDP and Baro/VNAV NA when using MBS Intl altimeter setting.

MISSED APPROACH: Climb to 3000 direct ELARE and hold.

AWOS-3	CLEVELAND CENTER	UNICOM
118.6	127.7 290.425	123.075 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1113-1¼ 357 (400-1¼)			NA
LNAV/VNAV DA	1154-1½ 398 (400-1½)			NA
LNAV MDA	1520-1 764 (800-1)	1520-1¼ 764 (800-1¼)	1520-2½ 764 (800-2½)	NA

BAD AXE, MICHIGAN
Orig-C 18JUL19

43°47'N-82°59'W

HURON COUNTY MEML (BAX)
RNAV (GPS) RWY 35

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

APP CRS	Rwy ldg	N/A
280°	TDZE	N/A
	Apt Elev	828

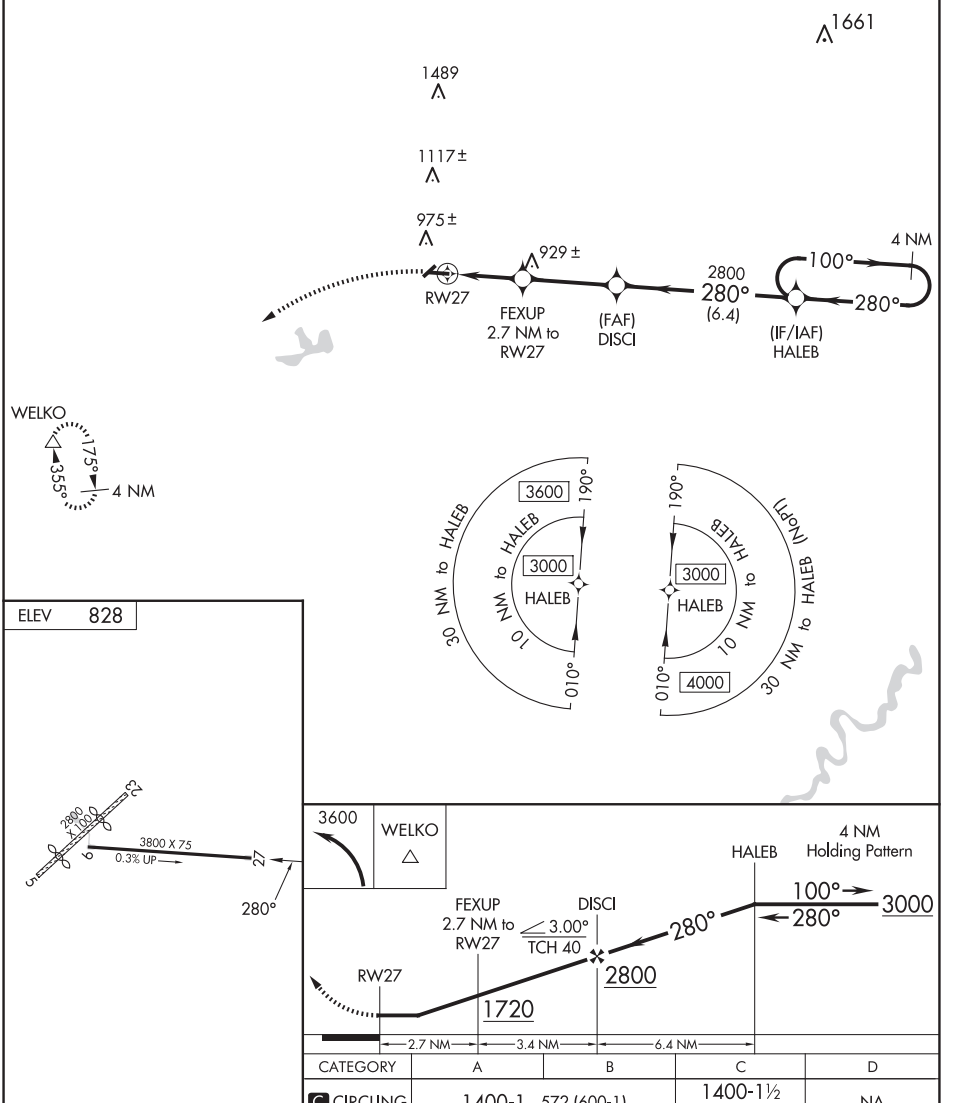
RNAV (GPS)-A
BALDWIN MUNI (7D3)

NA

Circling NA to Rwys 5 and 23. DME/DME RNP-0.3 NA.
Helicopter visibility reduction below 1 SM NA.
Use Fremont Muni altimeter setting. Procedure NA at night.

MISSED APPROACH: Climbing left turn to 3600 direct WELKO and hold.

FFX AWOS-3	MINNEAPOLIS CENTER	CTAF
118.775	120.85 322.35	122.9



CATEGORY	A	B	C	D
C CIRCLING	1400-1	572 (600-1)	1400-1½ 572 (600-1½)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

BATTLE CREEK, MICHIGAN AL-41 (FAA) 25219

LOC I-BTL	APP CRS	Rwy Ldg	10004
110.5	227°	TDZE	929
		Apt Elev	952

ILS or LOC RWY 23R

BATTLE CREEK EXEC AT KELLOGG FLD (BTL)

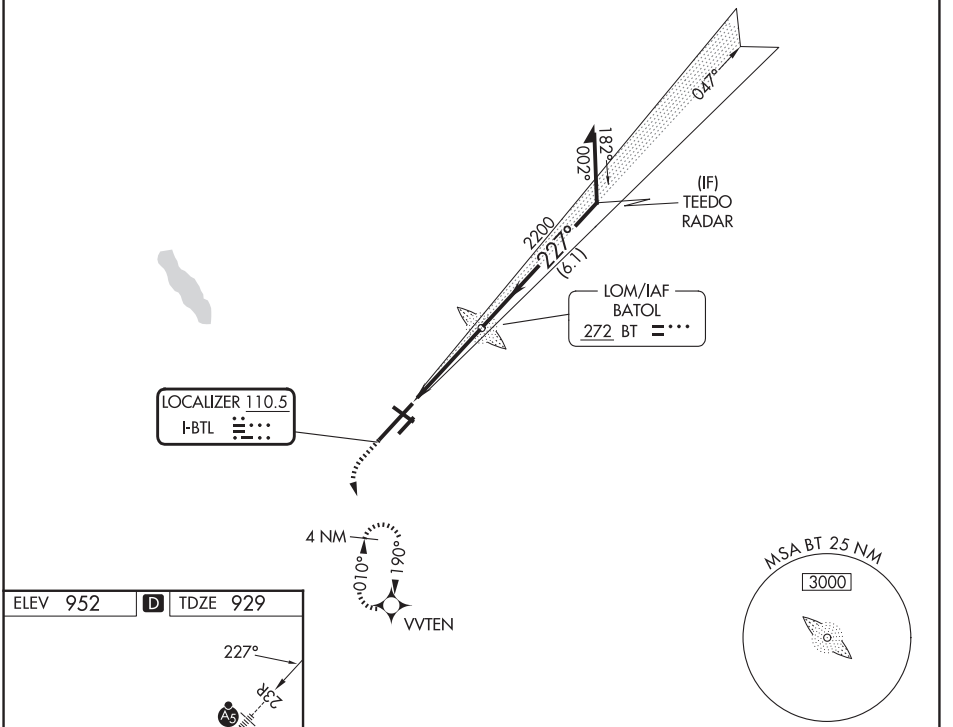
ADF required. RADAR required for procedure entry. RNP APCH - GPS.

Circling NA to Rwys 5R and 23L. Circling Rwy 31 NA at night. For inop ALS increase S-LOC 23R Cat C/D visibility to 1⅜ SM. * RVR 1800 authorized with use of FD or AP or HUD to DA (NA when using Grand Rapids altimeter setting).

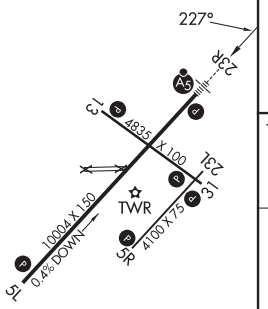
MALSR

MISSED APPROACH: Climb to 1400 then climbing left turn to 3000 direct VVTEN and hold, continue climb-in-hold to 3000.

ATIS	GREAT LAKES APP CON★	BATTLE CREEK TOWER★	GND CON	UNICOM
128.325	119.2 239.25	126.825 L (CTAF)	121.7	122.95



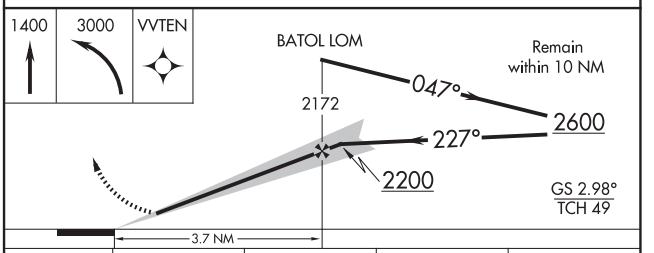
ELEV 952 D TDZE 929



HIRL Rwy 5L-23R L
MIRL Rwy 13-31 and 5R-23L L
REIL Rwys 5L, 5R, 13, 23L and 31 L

FAF to MAP 3.7 NM

Knots	60	90	120	150	180
Min:Sec	3:42	2:28	1:51	1:29	1:14



CATEGORY	A	B	C	D
S-ILS 23R*	1129/24		200 (200-½)	
S-LOC 23R	1400/24	471 (500-½)	1400/50	471 (500-1)
CIRCLING	1420-1 468 (500-1)	1480-1 528 (600-1)	1520-1½ 568 (600-1½)	1520-2 568 (600-2)

BATTLE CREEK, MICHIGAN
Amdt 20 19MAY22

42°18′N-85°15′W

BATTLE CREEK EXEC AT KELLOGG FLD (BTL)

ILS or LOC RWY 23R

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 5L

BATTLE CREEK EXEC AT KELLOGG FLD (BTL)

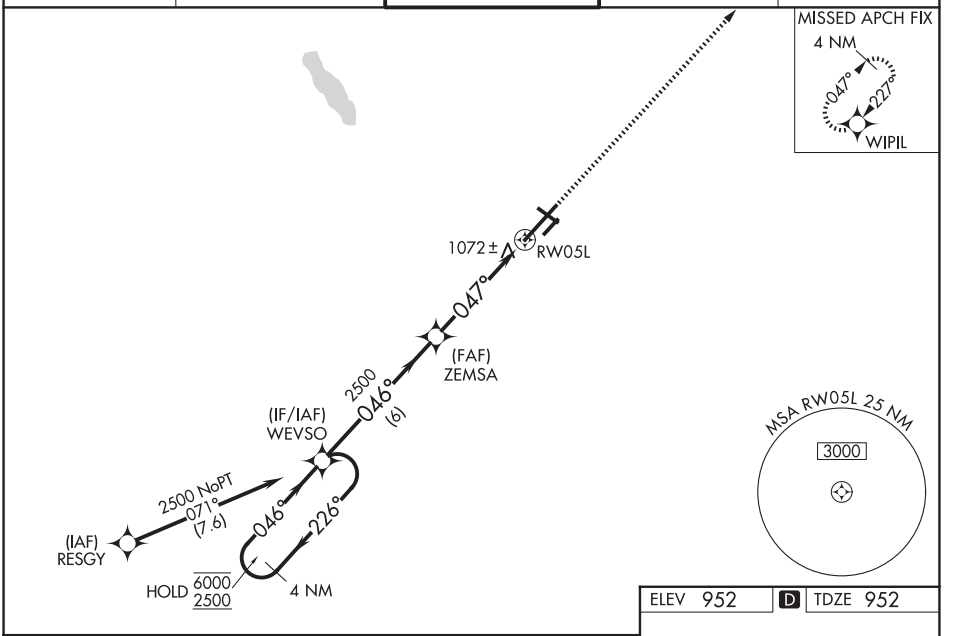
WAAS	APP CRS	Rwy Ldg	10004
CH 61220	047°	TDZE	952
W05A		Apt Elev	952

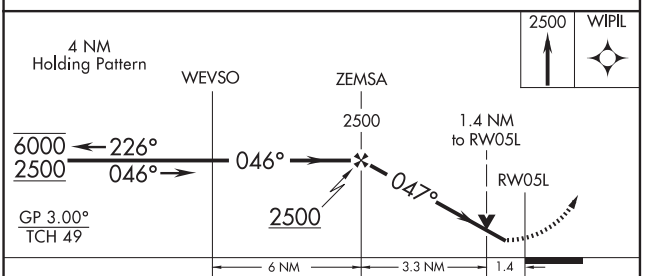
RNP APCH - GPS.

T A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. Circling to Rwy 5R, 23L and 31 NA at night. When local altimeter setting not received, use Grand Rapids altimeter setting and increase LPV DA to 1425 feet and all visibilities ⅜ SM; increase LNAV/VNAV DA to 1361 feet and all visibilities ¼ SM; increase all MDAs 120 feet and LNAV visibility Cat C and D ⅜ SM and Circling visibility Cat C and D ½ SM. VDP and Baro-VNAV NA when using Grand Rapids altimeter setting. Rwy 5L helicopter visibility reduction below ¾ SM NA.

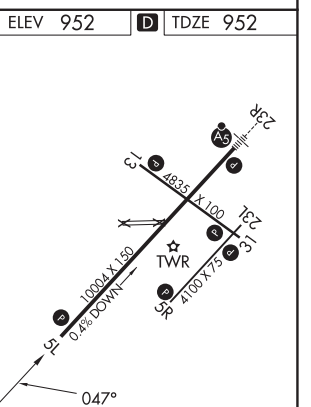
MISSED APPROACH: Climb to 2500 direct WIPIL and hold.

ATIS	GREAT LAKES APP CON★	BATTLE CREEK TOWER★	GND CON	UNICOM
128.325	119.2 239.25	126.825 L (CTAF)	121.7	122.95





CATEGORY	A	B	C	D
LPV DA	1317-1		365 (400-1)	
LNAV/VNAV DA	1253-⅞		301 (400-⅞)	
LNAV MDA	1440-1 488 (500-1)		1440-1⅜ 488 (500-1⅜)	
CIRCLING	1440-1 488 (500-1)	1480-1 528 (600-1)	1520-1½ 568 (600-1½)	1520-2 568 (600-2)



HIRL Rwy 5L-23R L
MIRL Rwy 13-31 and 5R-23L L
REIL Rwys 5L, 5R, 13, 23L and 31 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 23R

BATTLE CREEK EXEC AT KELLOGG FLD (BTL)

WAAS CH 56411 W23A	APP CRS 227°	Rwy Ldg 10004 TDZE 929 Apt Elev 952

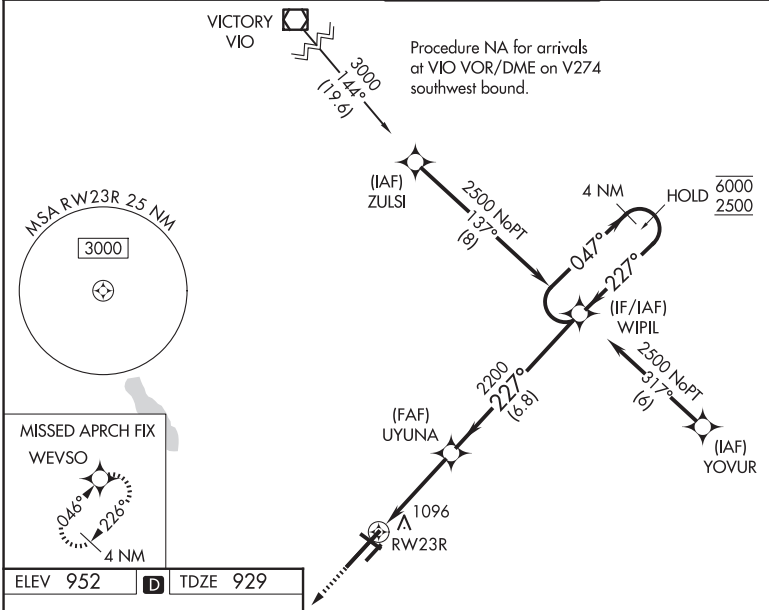
RNP APCH - GPS.

TA For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C or above 54°C. Circling to Rwy 5R, 23L and 31 NA at night. When local altimeter setting not received, use Grand Rapids altimeter setting: increase all LPV DA to 1236 feet and LNAV/VNAV DA to 1365 feet and visibility to RVR 5000 all Cats; increase all MDA 120 feet, LNAV Cats C and D visibility to 1¼ SM and Circling Cat C visibility to 2 SM and Cat D visibility to 2½ SM. For inop ALS when using Grand Rapids altimeter setting, increase LPV all Cats visibility to RVR 5000 and LNAV Cats C and D to visibility 1⅝ SM. Baro-VNAV and VDP NA when using Grand Rapids altimeter setting. *RVR 1800 authorized with use of FD or AP or HUD to DA.

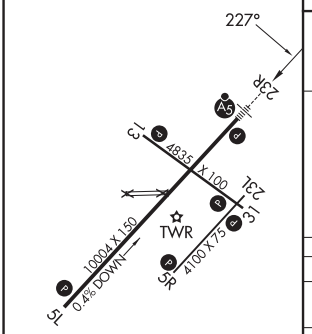
MALSR

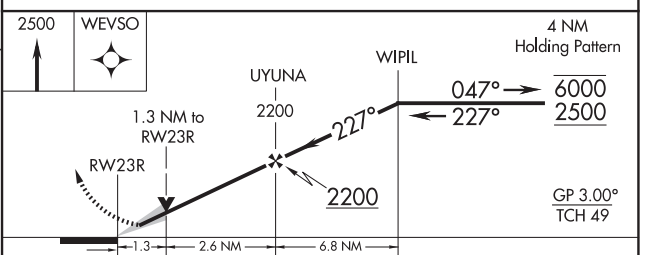
MISSED APPROACH: Climb to 2500 direct WEVSO and hold.

ATIS	GREAT LAKES APP CON*	BATTLE CREEK TOWER*	GND CON	UNICOM
128.325	119.2 239.25	126.825 L (CTAF)	121.7	122.95



ELEV 952 D TDZ 929





CATEGORY	A	B	C	D
LPV DA *	1129/24 200 (200-½)			
LNAV/VNAV DA	1258/32 329 (400-⅝)			
LNAV MDA	1380/24 451 (500-½)		1380/45 451 (500-⅞)	
CIRCLING	1420-1 468 (500-1)	1480-1 528 (600-1)	1520-1½ 568 (600-1½)	1520-2 568 (600-2)

HIRL Rwy 5L-23R L
MIRL Rwy 13-31 and 5R-23L L
REIL Rwys 5L, 5R, 13, 23L and 31 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

APP CRS	Rwy Ldg	4835
310°	TDZE	930
	Apt Elev	952

RNAV (GPS) RWY 31

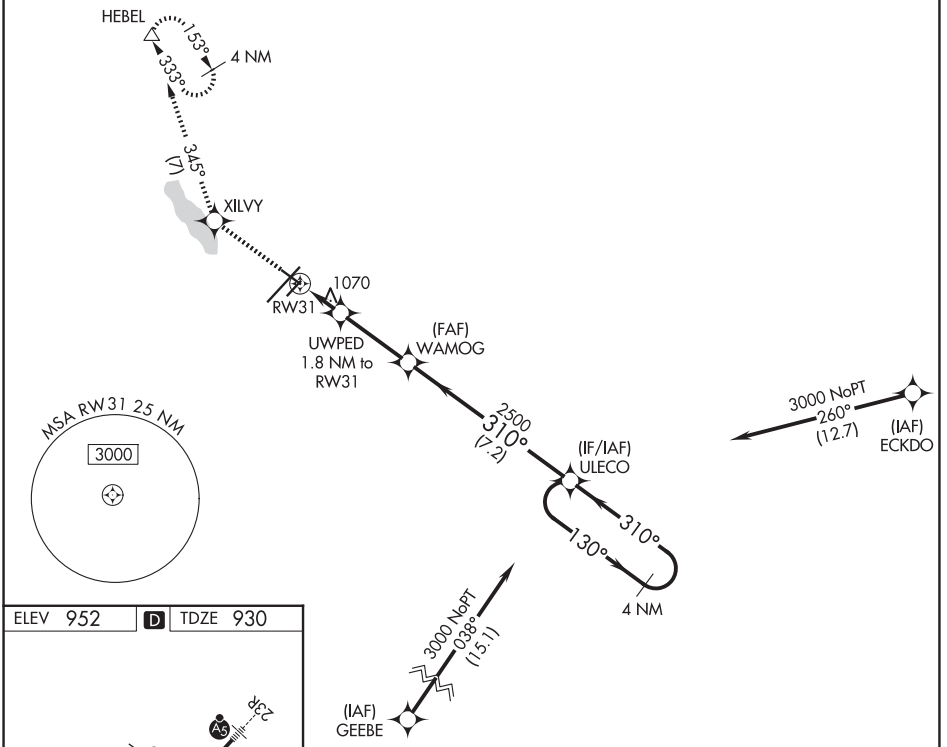
BATTLE CREEK EXEC AT KELLOGG FLD (BTL)

RNP APCH.

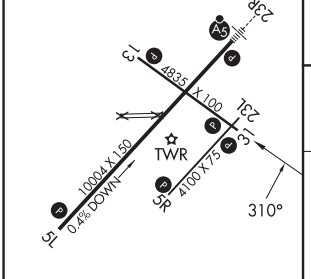
Circling NA to Rwys 5R and 23L. Rwy 31 helicopter visibility reduction below 1 SM NA. Procedure NA at night.

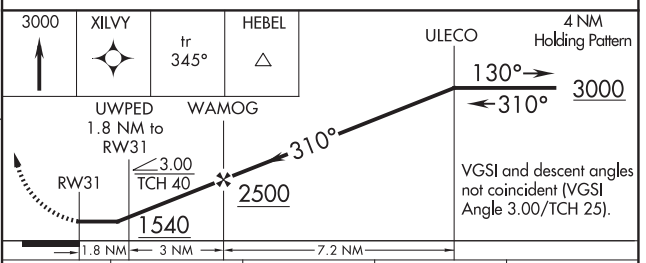
MISSED APPROACH: Climb to 3000 direct XILVY and on 345° track to HEBEL and hold.

ATIS	GREAT LAKES APP CON★	BATTLE CREEK TOWER★	GND CON	UNICOM
128.325	119.2 239.25	126.825 L (CTAF)	121.7	122.95



ELEV 952 D TDZE 930





CATEGORY	A	B	C	D
LNAV MDA	1320-1	390 (400-1)	1320-1⅛	390 (400-1⅛)
CIRCLING	1420-1 468 (500-1)	1480-1 528 (600-1)	1520-1½ 568 (600-1½)	1520-2 568 (600-2)

HIRL Rwy 5L-23R L
MIRL Rwys 13-31 and 5R-23L L
REIL Rwys 5L, 5R, 13, 23L and 31 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

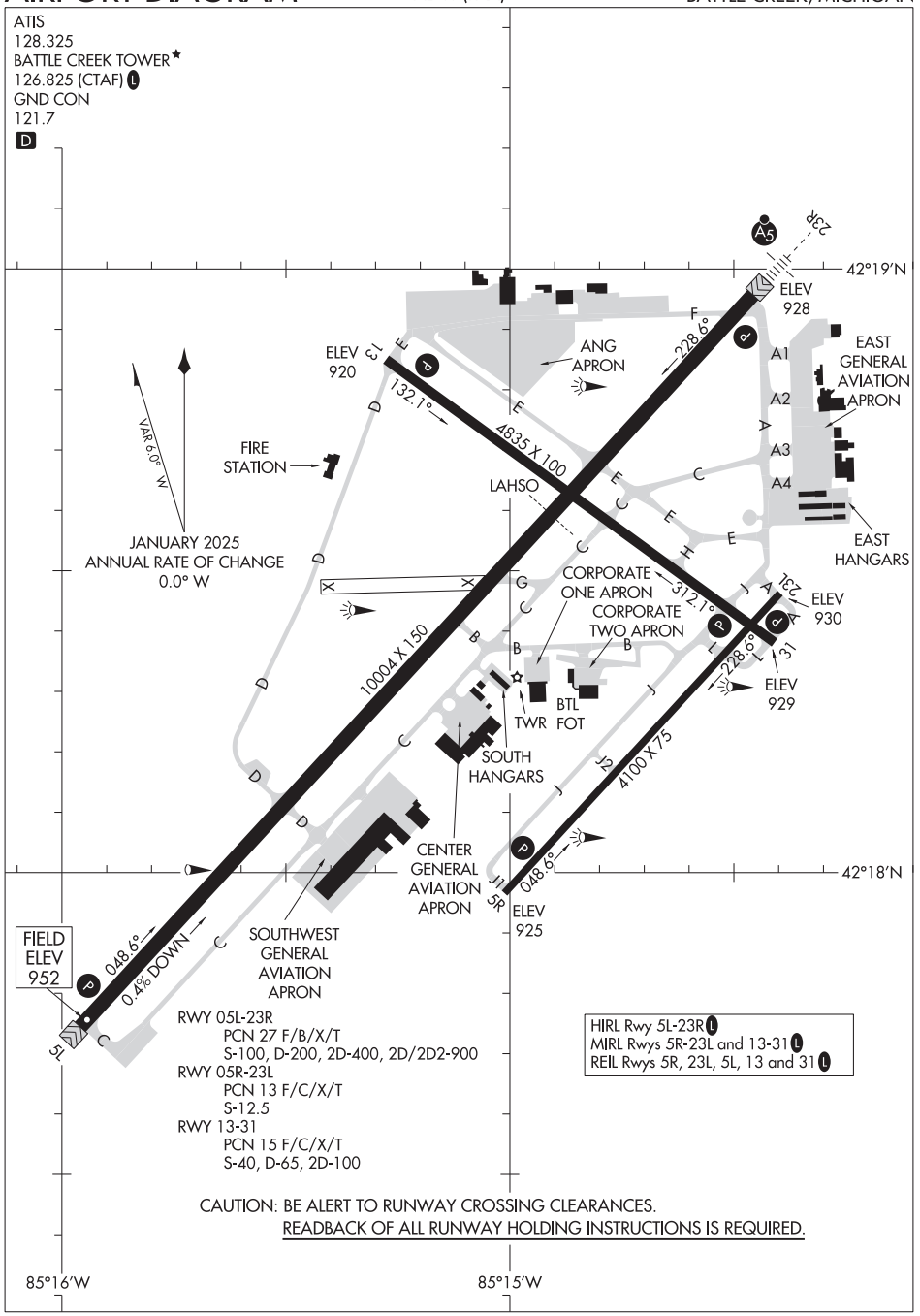
25219

AIRPORT DIAGRAM

BATTLE CREEK EXEC AT KELLOGG FLD (BTL)

AL-41 (FAA)

BATTLE CREEK, MICHIGAN



EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

AIRPORT DIAGRAM

25219

BATTLE CREEK, MICHIGAN

BATTLE CREEK EXEC AT KELLOGG FLD (BTL)

RNAV (GPS) RWY 18

JAMES CLEMENTS MUNI (3CM)

APP CRS	Rwy Idg	3798
183°	TDZE	585
	Apt Elev	585

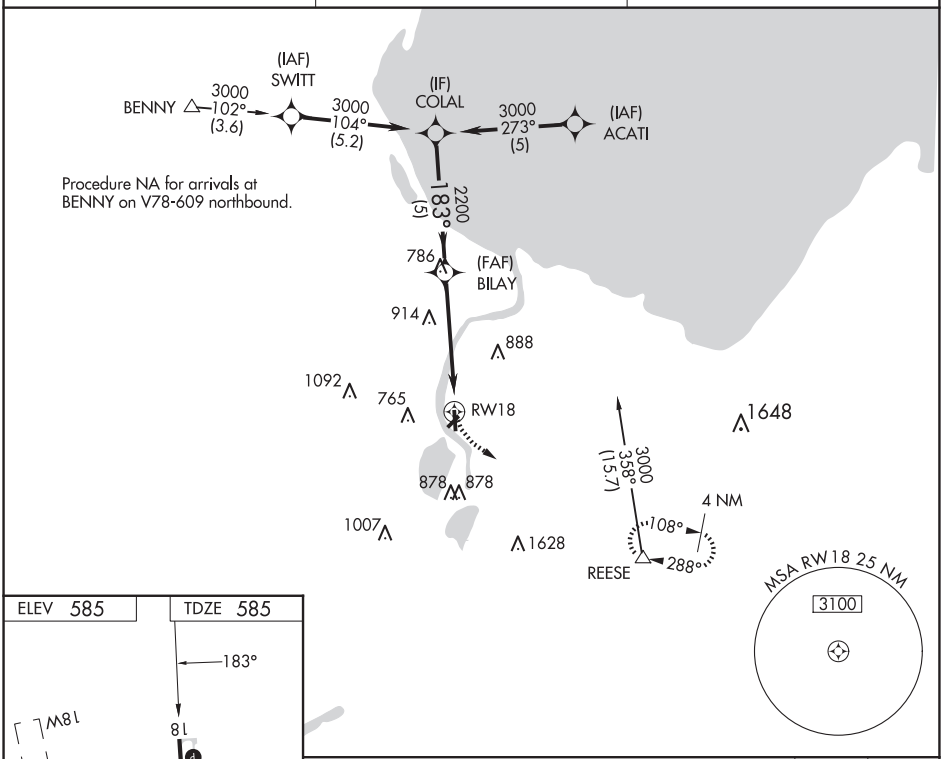
RNP APCH - GPS.

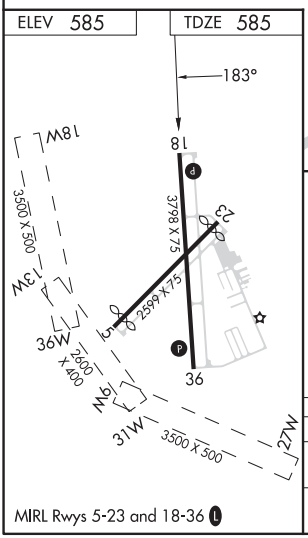
Circling NA to Rwys 18W, 36W, 13W, 31W, 9W and 27W. Circling NA southeast of Rwys 23 and 36. Rwy 18 helicopter visibility reduction below 1 SM NA. Use Saginaw County H W Browne altimeter setting. Procedure NA at night.

NA

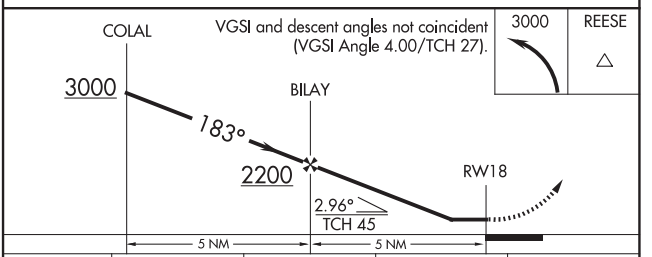
MISSED APPROACH: Climbing left turn to 3000 direct REESE and hold.

HYX AWOS-3PT	GREAT LAKES APP CON ★	UNICOM
118.325	120.95 235.625	122.725 (CTAF) L





MIRL Rwys 5-23 and 18-36 L



CATEGORY	A	B	C	D
LNAV MDA	1260-1	675 (700-1)	1260-2 675 (700-2)	NA
CIRCLING	1260-1	675 (700-1)	1260-2 675 (700-2)	NA

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BEAVER ISLAND, MICHIGAN | AL-9136 (FAA) | 23054

RNAV (GPS) RWY 9

BEAVER ISLAND (SJX)

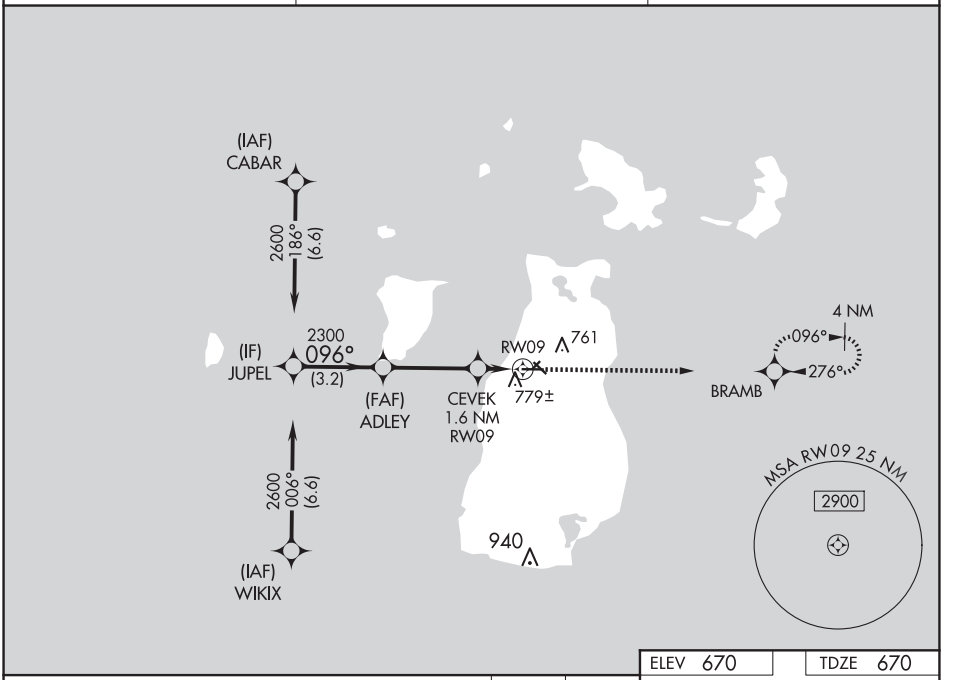
WAAS	APP CRS	Rwy Idg	4299
CH 77943	096°	TDZE	670
W09A		Apt Elev	670

RNP APCH - GPS.

Circling NA to Rwys 5-23 and 14-32. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

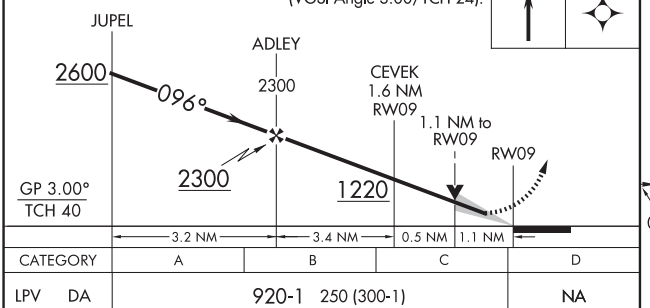
MISSED APPROACH: Climb to 2600 direct BRAMB and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.075	134.6 354.05	122.8 (CTAF) L

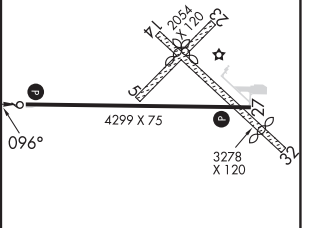


ELEV 670 | TDZE 670

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 24).



CATEGORY	A	B	C	D
LPV DA	920-1 250 (300-1)			NA
LNAV/VNAV DA	949-1 279 (300-1)			NA
LNAV MDA	1040-1 370 (400-1)			NA
C CIRCLING	1120-1 450 (500-1)		1180-1½ 510 (600-1½)	NA



MIRL Rwy 9-27 L

REIL Rwy 9 and 27 L

BEAVER ISLAND, MICHIGAN

Orig 23FEB23

45°42'N-85°34'W

BEAVER ISLAND (SJX)

RNAV (GPS) RWY 9

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RNAV (GPS) RWY 27

BEAVER ISLAND (SJX)

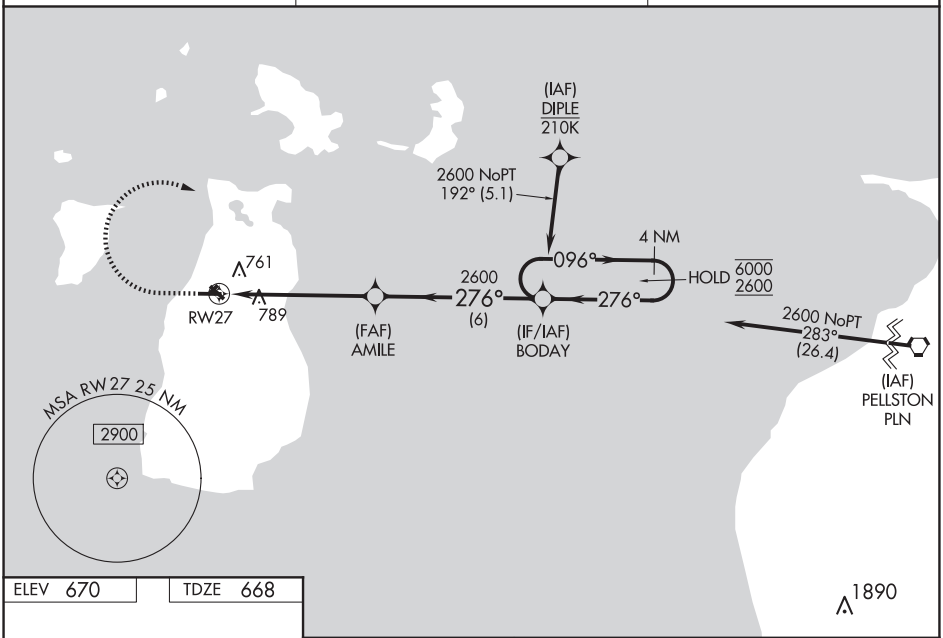
WAAS CH 97547 W27A	APP CRS 276°	Rwy Idg 4299 TDZE 668 Apt Elev 670

RNP APCH - GPS.

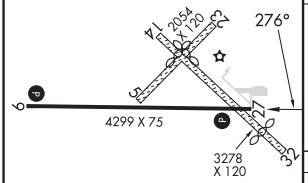
Circling NA to Rwys 5, 14, 23 and 32. Baro-VNAV and VDP NA when using PLN altimeter setting. Rwy 27 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. When local altimeter setting not recevied, use PLN altimeter setting: increase LPV DA to 1077 feet and all visibilities ⅛ SM; increase LNAV/VNAV DA to 1124 feet and all visibilities ⅜ SM; increase all MDAs 100 feet and LNAV visibility Cat C ⅜ SM, and Circling visibility Cat C ¼ SM.

MISSED APPROACH: Climb to 1200 then climbing right turn to 2600 direct BODAY and hold.

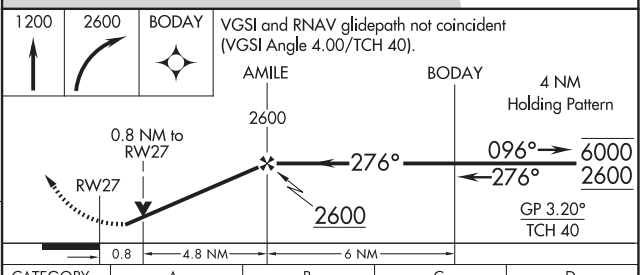
AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.075	134.6 354.05	122.8 (CTAF) L



ELEV 670 TDZE 668



MIRL Rwy 9-27 L
REIL Rwys 9 and 27 L



CATEGORY	A	B	C	D
LPV DA	993-1 325 (400-1)			NA
LNAV/VNAV DA	1040-1 372 (400-1)			NA
LNAV MDA	1040-1 372 (400-1)			NA
CIRCLING	1100-1 430 (500-1)	1120-1 450 (500-1)	1180-1½ 510 (600-1½)	NA

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EC-1, 07 AUG 2025 to 02 OCT 2025

BELLAIRE, MICHIGAN | AL-5131 (FAA) | 24361

WAAS	APP CRS	Rwy Idg	5003
CH 56301	022°	TDZE	623
W02A		Apt Elev	623

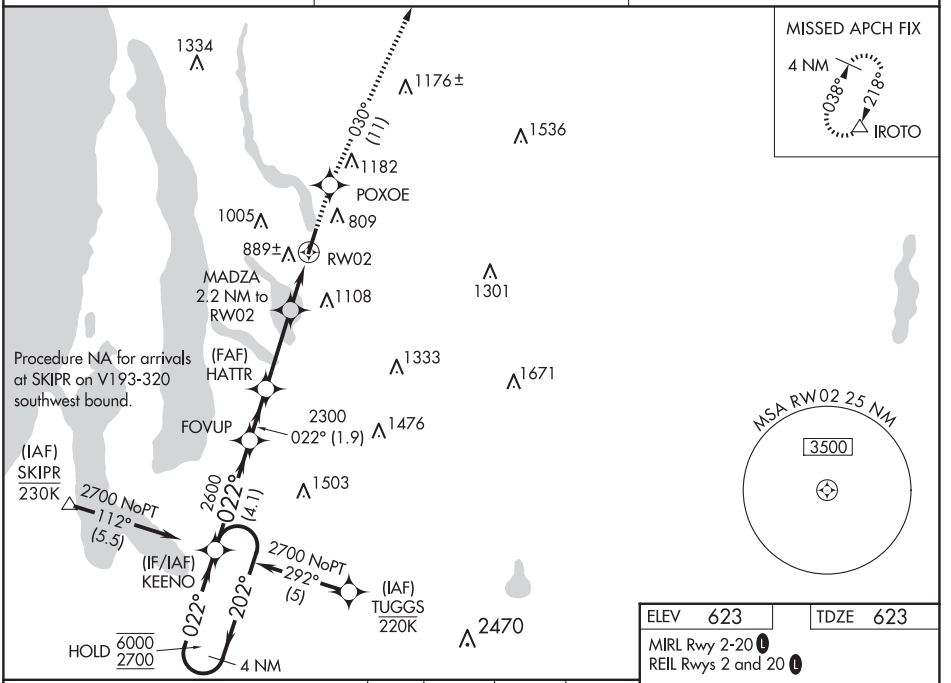
RNAV (GPS) RWY 2
ANTRIM COUNTY (ACB)

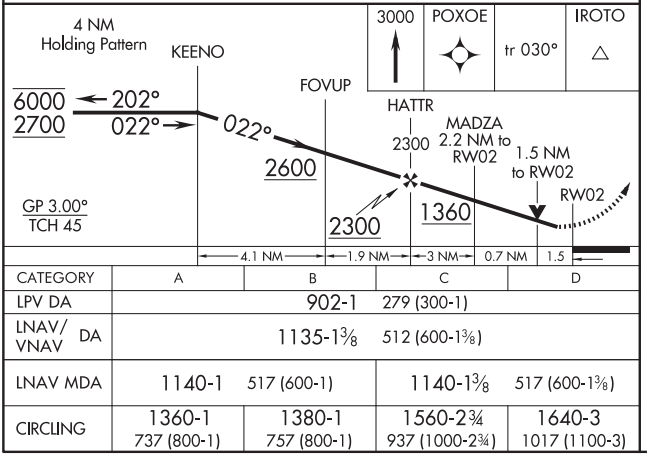
RNP APCH-GPS.

T A Rwy 2 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. Baro-VNAV and VDP NA when using TVC altimeter setting. When local altimeter setting not received, use TVC altimeter setting: increase LPV DA to 954 feet and all visibilities ⅛ SM; increase LNAV/VNAV DA to 1187 feet and all visibilities ¼ SM; increase all MDAs 60 feet and LNAV visibility Cats C and D ¼ SM, and Circling visibility Cats B and C ¼ SM.

MISSED APPROACH: Climb to 3000 direct POXOE and on track 030° to IROTO and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
119.275	132.9 338.3	122.7 (CTAF) L



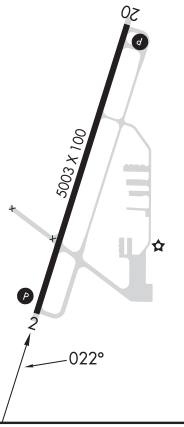


CATEGORY	A	B	C	D
LPV DA		902-1	279 (300-1)	
LNAV/VNAV DA		1135-1⅜	512 (600-1⅜)	
LNAV MDA	1140-1 517 (600-1)		1140-1⅜ 517 (600-1⅜)	
CIRCLING	1360-1 737 (800-1)	1380-1 757 (800-1)	1560-2¾ 937 (1000-2¾)	1640-3 1017 (1100-3)

ELEV 623 | TDZE 623

MIRL Rwy 2-20 L

REIL Rwys 2 and 20 L



BELLAIRE, MICHIGAN
Amdt 1 26DEC24

44°59′N-85°12′W

ANTRIM COUNTY (ACB)
RNAV (GPS) RWY 2

EC-1, 07 AUG 2025 to 02 OCT 2025

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ILS or LOC RWY 28

SOUTHWEST MICHIGAN RGNL (BEH)

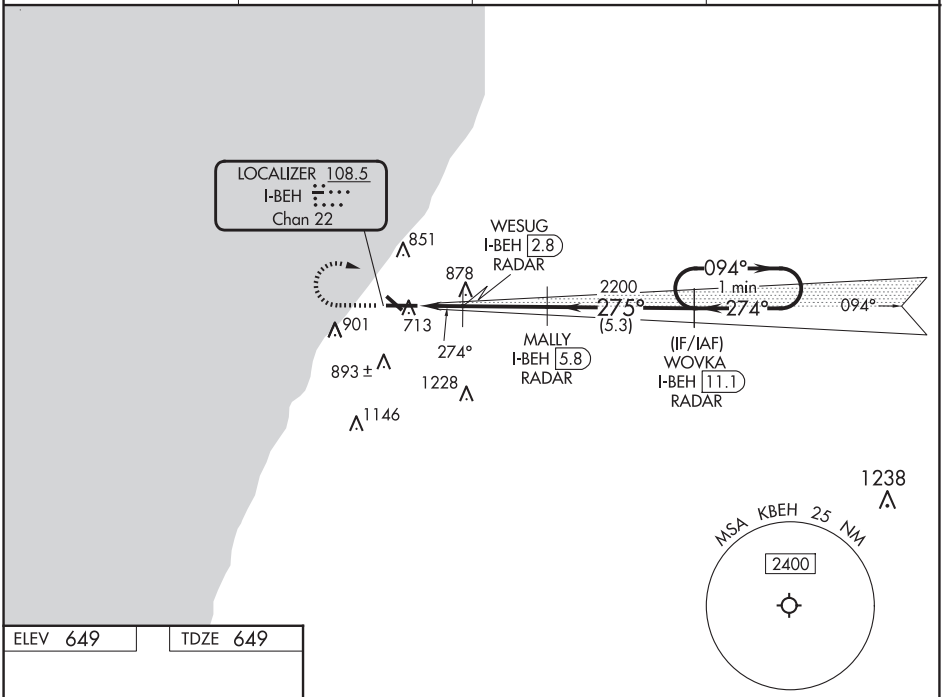
LOC I-BEH	APP CRS	Rwy Idg	6006
108.5	274°	TDZE	649
Chan 22		Apt Elev	649

RNAV 1-GPS required.
DME Required for LOC only.
T Circling Rwy 14 and 32 NA at night.
A NA For inop ALS, increase S-LOC 28 Cat C/D visibility to 1⅛ SM.

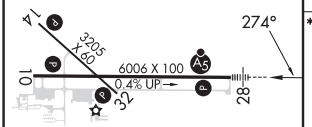
MALSR

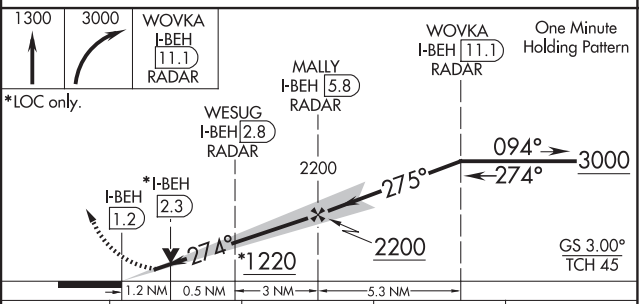
MISSED APPROACH: Climb to 1300 then climbing right turn to 3000 direct WOVKA and hold.

ASOS	SOUTH BEND APP CON *	SOUTH BEND CLNC DEL	UNICOM
121.55	118.55 257.8	119.7	123.0 (CTAF) L



ELEV 649 TDZE 649





CATEGORY	A	B	C	D
S-ILS 28	849-½	200 (200-½)		
S-LOC 28	1060-½	411 (500-½)	1060-¾	411 (500-¾)
C CIRCLING	1140-1 491 (500-1)	1160-1 511 (600-1)	1300-1¾ 651 (700-1¾)	1340-2 691 (700-2)

REIL Rwys 10, 14 and 32 L
MIRL Rwy 14-32 L
HIRL Rwy 10-28 L

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RNAV (GPS) RWY 10

SOUTHWEST MICHIGAN RGNL (BEH)

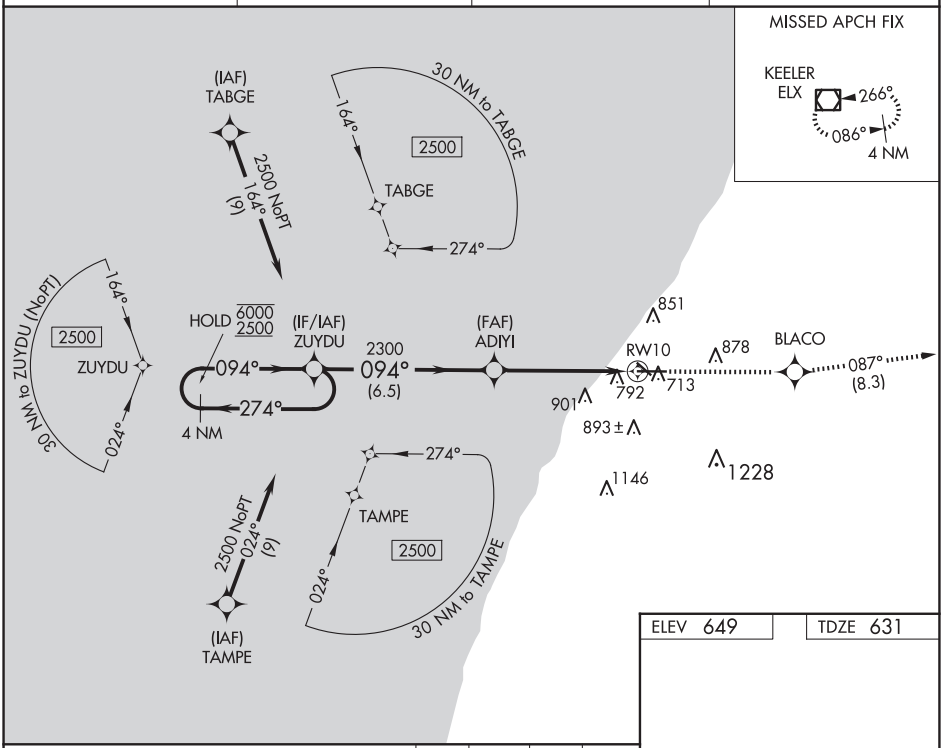
WAAS CH 86912 W10A	APP CRS 094°	Rwy Idg 6006 TDZE 631 Apt Elev 649

RNP APCH.

Rwy 10 helicopter visibility reduction below ¾ SM NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C or above 54°C.

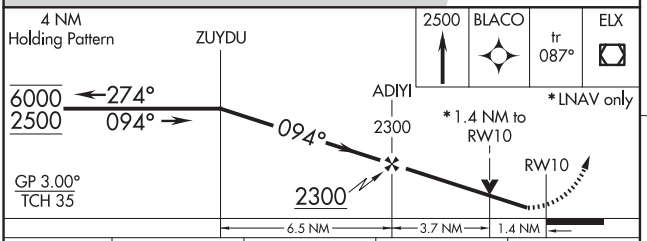
MISSED APPROACH: Climb to 2500 direct BLACO and on track 087° to ELX VOR/DME and hold.

ASOS	SOUTH BEND APP CON★	SOUTH BEND CLNC DEL	UNICOM
121.55	118.55 257.8	119.7	123.0 (CTAF) L

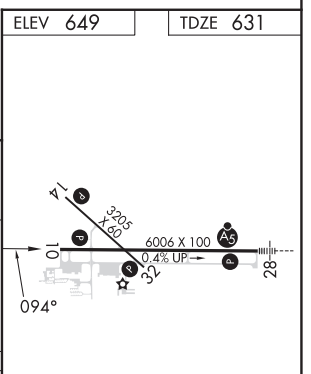


EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025



CATEGORY	A	B	C	D
LPV DA	881-⅞ 250 (300-⅞)			
LNAV/VNAV DA	1068-1½ 437 (500-1½)			
LNAV MDA	1100-1 469 (500-1)		1100-1⅜ 469 (500-1⅜)	



REIL Rwys 10, 14 and 32 L
MIRL Rwy 14-32 L
HIRL Rwy 10-28 L

WAAS	APP CRS		
CH **45822**	**275°**	Rwy Idg	**6006**
W28A		TDZE	**649**
		Apt Elev	**649**

RNAV (GPS) RWY 28

SOUTHWEST MICHIGAN RGNL (BEH)

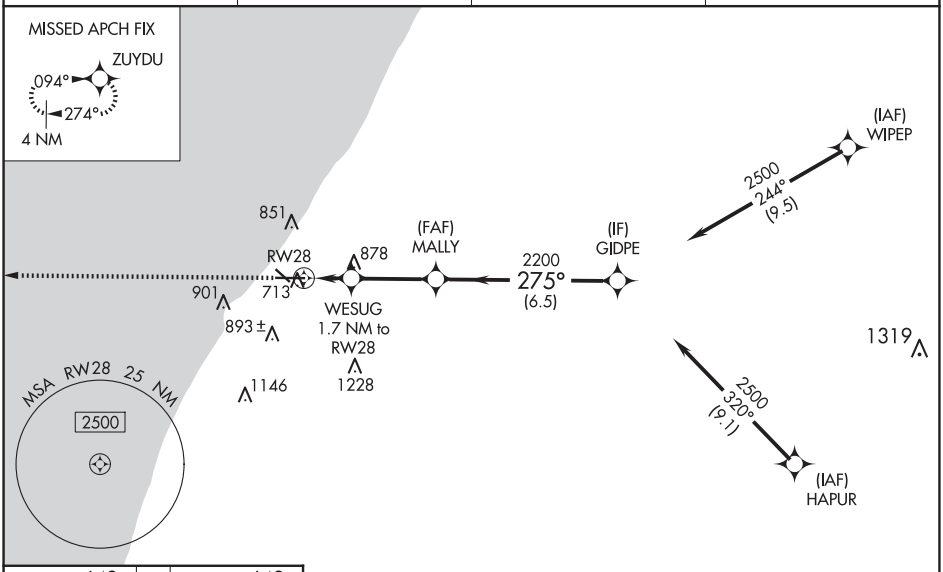
RNP APCH.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 39°C (102°F).
Circling Rwy 14, 32 NA at night.

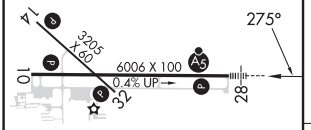
MALSR

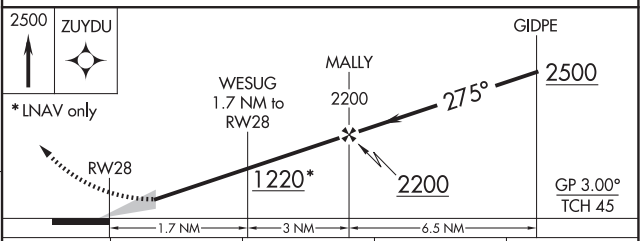
MISSED APPROACH: Climb to 2500 direct ZUYDU and hold.

ASOS	SOUTH BEND APP CON*	SOUTH BEND CLNC DEL	UNICOM
121.55	**118.55 257.8**	**119.7**	**123.0** (CTAF) L



ELEV 649 TDZE 649





CATEGORY	A	B	C	D
LPV DA	849-½ 200 (200-½)			
LNAV/VNAV DA	941-½ 292 (300-½)			
LNAV MDA	1140-½ 491 (500-½)		1140-1 491 (500-1)	
C CIRCLING	1140-1 491 (500-1)	1160-1 511 (600-1)	1300-1¾ 651 (700-1¾)	1340-2 691 (700-2)

REIL Rwys 10, 14 and 32 L
MIRL Rwy 14-32 L
HIRL Rwy 10-28 L

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BENTON HARBOR, MICHIGAN AL-721 (FAA) 24249

VOR/DME ELX	APP CRS	Rwy Idg	6006
116.6	266°	TDZE	649
Chan 113		Apt Elev	649

VOR RWY 28

SOUTHWEST MICHIGAN RGNL (BEH)

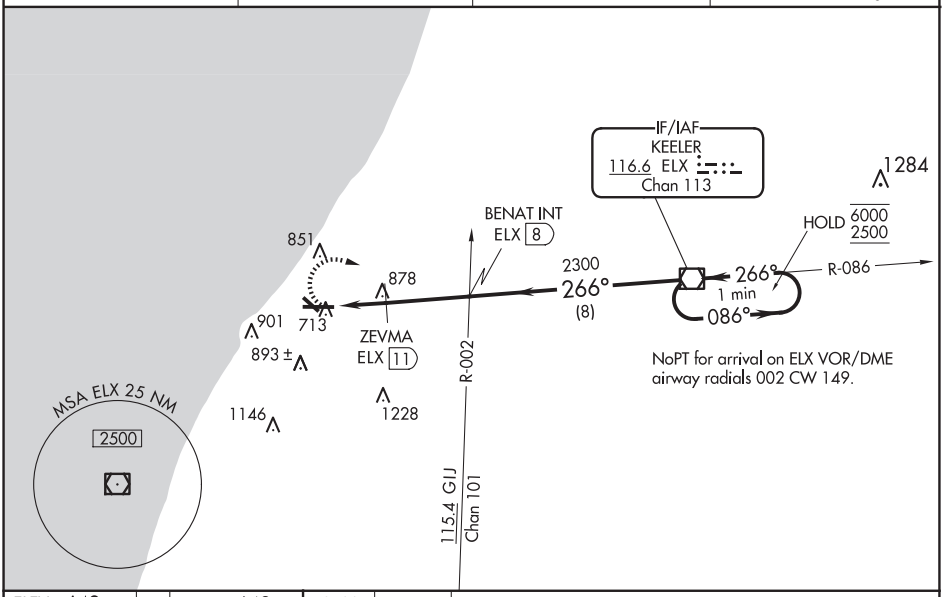
DME required.

Circling Rwy 14, 32 NA at night. For inop ALS, increase S-28 Cats A and B visibility to 1 SM. ZEVMA fix minimums: for inop ALS, increase S-28 Cats A and B visibility to 1 SM and Cats C and D visibility to 1⅜ SM.

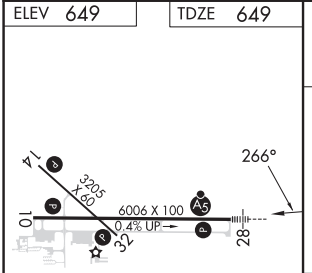
MALSR

MISSED APPROACH: Climbing right turn to 2500 direct ELX VOR/DME and hold.

ASOS	SOUTH BEND APP CON ★	SOUTH BEND CLNC DEL	UNICOM
121.55	118.55 257.8	119.7	123.0 (CTAF) L



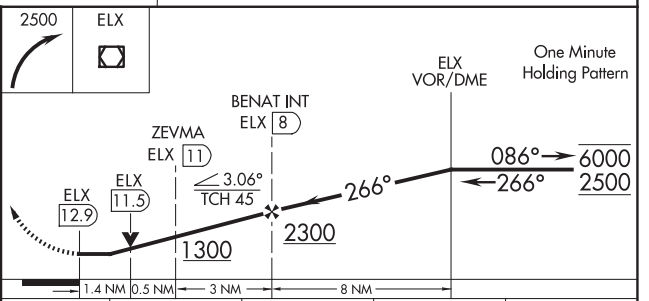
ELEV 649 TDZE 649



REIL Rwys 10, 14 and 32 L
MIRL Rwy 14-32 L
HIRL Rwy 10-28 L

FAF to MAP 4.9 NM

Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38



CATEGORY	A	B	C	D
S-28	1300-1	651 (700-1)	1300-1⅜	651 (700-1⅜)
C CIRCLING	1300-1	651 (700-1)	1300-1¾ 651 (700-1¾)	1340-2¼ 691 (700-2¼)
ZEVMA FIX MINIMUMS				
S-28	1140-¾	491 (500-¾)	1140-1	491 (500-1)
C CIRCLING	1140-1 491 (500-1)	1160-1 511 (600-1)	1300-1¾ 651 (700-1¾)	1340-2¼ 691 (700-2¼)

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WAAS	APP CRS	Rwy Ldg	4148
CH 90440	134°	TDZE	669
W13A		Apt Elev	674

RNAV (GPS) RWY 13

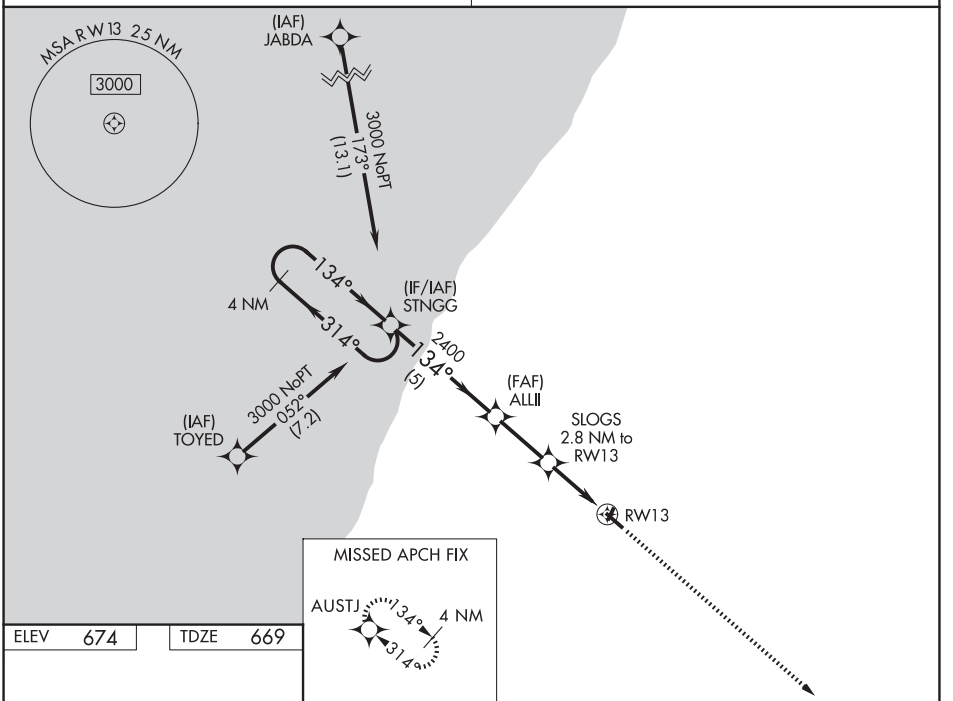
ANDREWS UNIVERSITY AIRPARK (C20)

Rwy 13 helicopter visibility reduction below 1 SM NA. DME/DME RNP-0.3 NA. Procedure NA at night. Use Benton Harbor altimeter setting; when not received, use South Bend Int altimeter setting and increase all MDA 40 feet. Increase LP and LNAV Cats C/D visibility ⅛ SM and Circling Cats B/C ¼ SM.

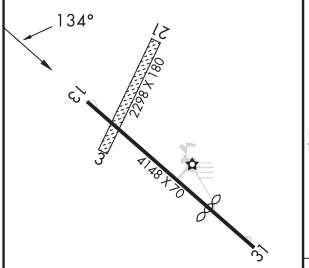
MISSED APPROACH: Climb to 3000 direct AUSTJ and hold.

SOUTH BEND APP CON * 118.55 257.8

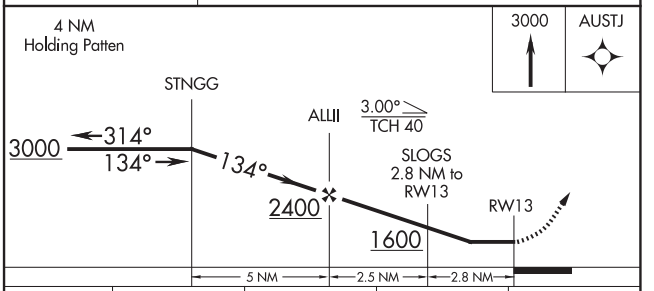
UNICOM 122.7 (CTAF) L



ELEV 674 TDZE 669



LIRL Rwy 13-31 L



CATEGORY	A	B	C	D
LP MDA	1100-1 431 (500-1)		1100-1¼ 431 (500-1¼)	
LNAV MDA	1280-1 611 (700-1)		1280-1¾ 611 (700-1¾)	
CIRCLING	1620-1¼ 946 (1000-1¼)		1620-2¾ 946 (1000-2¾)	1620-3 946 (1000-3)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 31

ANDREWS UNIVERSITY AIRPARK (C2Ø)

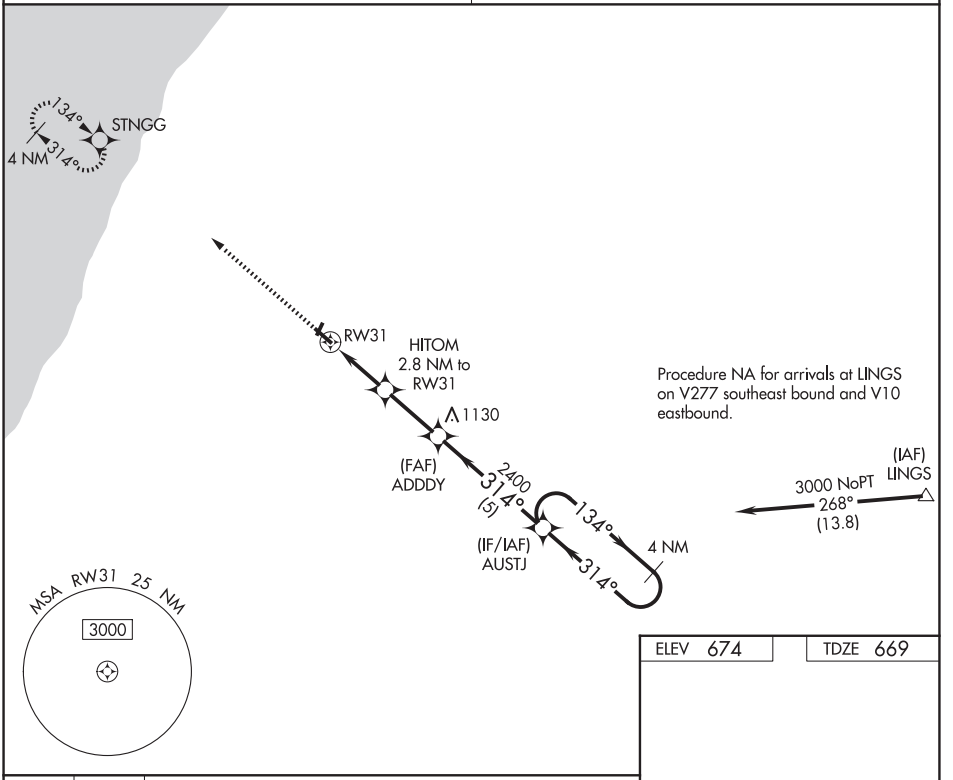
WAAS	APP CRS	Rwy Ldg	3019
CH 42840	314°	TDZE	669
W31A		Apt Elev	674

Rwy 31 helicopter visibility reduction below 1 SM NA. DME/DME RNP-0.3 NA. Procedure NA at night. Use Benton Harbor altimeter setting; when not received, use South Bend Intl altimeter setting and increase all MDA 40 feet. Increase LP and LNAV Cats C/D visibility ⅛ SM and Circling Cats B/C ¼ SM.

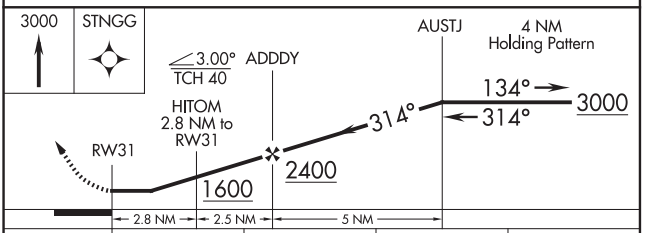
NA

MISSED APPROACH: Climb to 3000 direct STNGG and hold.

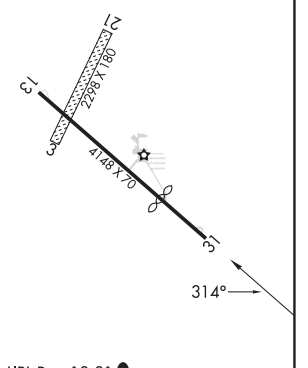
SOUTH BEND APP CON ★	UNICOM
118.55 257.8	122.7 (CTAF) L



ELEV 674 TDZE 669



CATEGORY	A	B	C	D
LP MDA	1100-1 431 (500-1)		1100-1¼ 431 (500-1¼)	
LNAV MDA	1160-1 491 (500-1)		1160-1⅜ 491 (500-1⅜)	
CIRCLING	1620-1¼ 946 (1000-1¼)		1620-2¾ 946 (1000-2¾)	1620-3 946 (1000-3)



LIRL Rwy 13-31 L

EC-1, 07 AUG 2025 to 02 OCT 2025
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RNAV (GPS) RWY 27

ROBEN-HOOD (RQB)

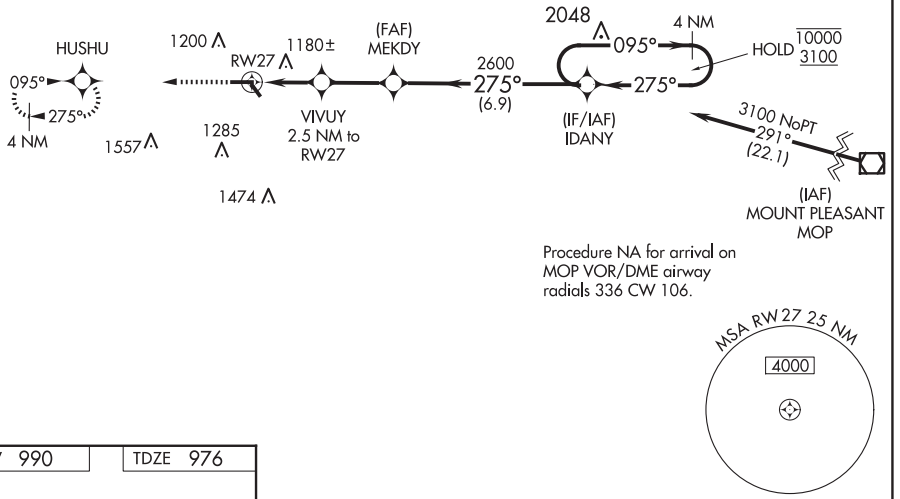
WAAS	APP CRS	Rwy Idg	4300
CH 56238	275°	TDZE	976
W27A		Apt Elev	990

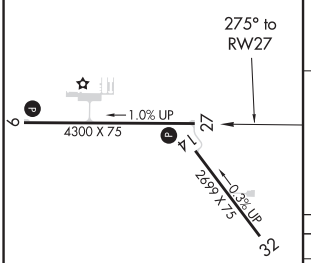
RNP APCH - GPS.

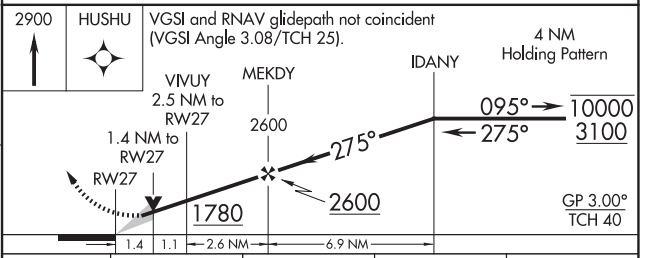
Circling Rwy 32 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

MISSED APPROACH: Climb to 2900 direct HUSHU and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
125.875	120.85 322.35	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1176-1 200 (200-1)			
LNAV/VNAV DA	1540-1⅝ 564 (600-1⅝)			
LNAV MDA	1440-1 464 (500-1)		1440-1⅜ 464 (500-1⅜)	
C CIRCLING	1500-1 510 (600-1)	1560-1 570 (600-1)	1700-2 710 (800-2)	1860-2¾ 870 (900-2¾)

REIL Rwys 9 and 27 L
MIRL Rwys 9-27 and 14-32 L

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EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 10

BOIS BLANC ISLAND (6Y1)

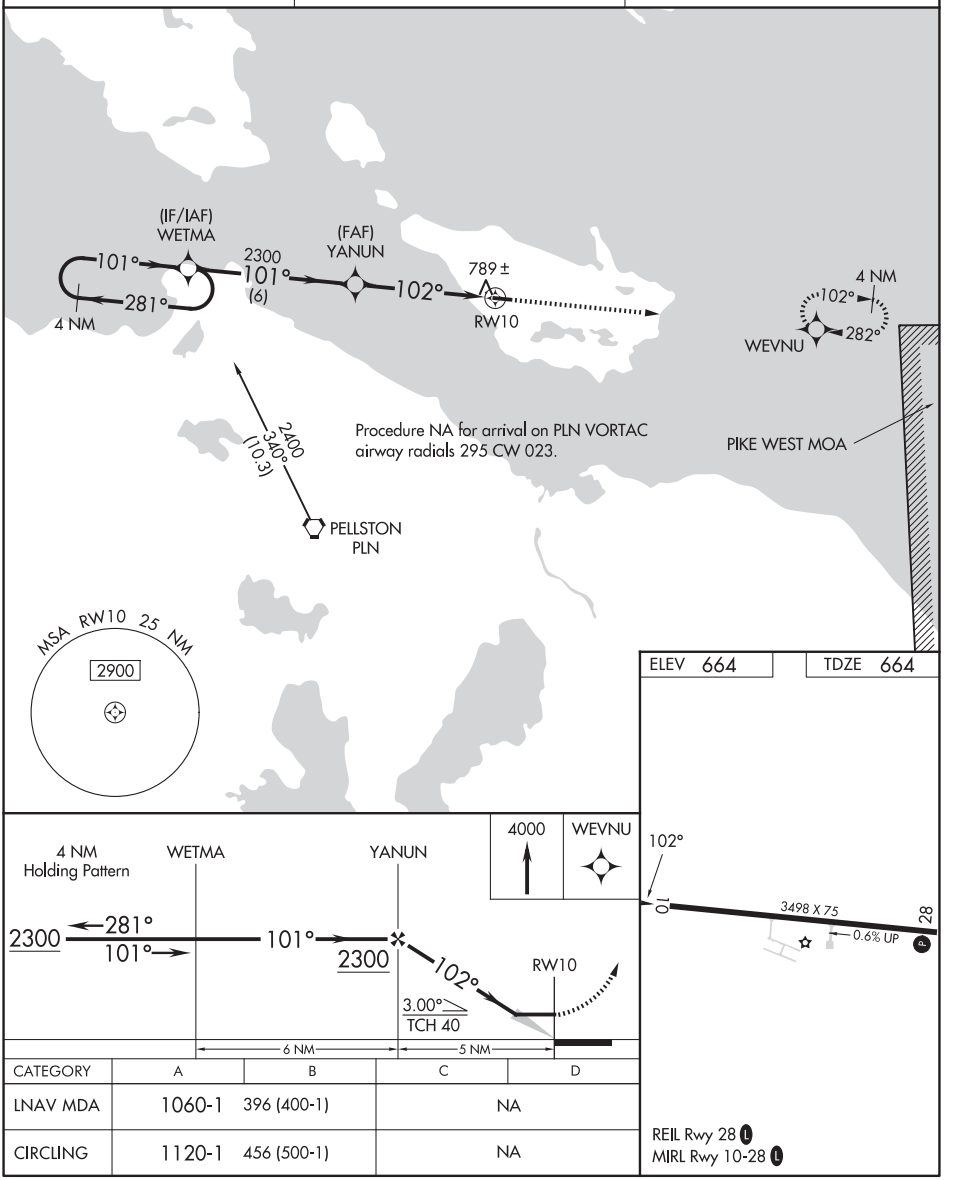
APP CRS	Rwy Ldg	3498
102°	TDZE	664
	Apt Elev	664

T NA

DME/DME RNP-0.3 NA.
Use Cheboygan altimeter setting.

MISSED APPROACH: Climb to 4000 direct WEVNU and hold, continue climb-in-hold to 4000.

SLH AWOS-3	MINNEAPOLIS CENTER	CTAF
118.175	134.6 354.05	122.9 L



CATEGORY	A	B	C	D
LNAV MDA	1060-1	396 (400-1)	NA	
CIRCLING	1120-1	456 (500-1)	NA	

REIL Rwy 28 L
MIRL Rwy 10-28 L

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EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 28

BOIS BLANC ISLAND (6Y1)

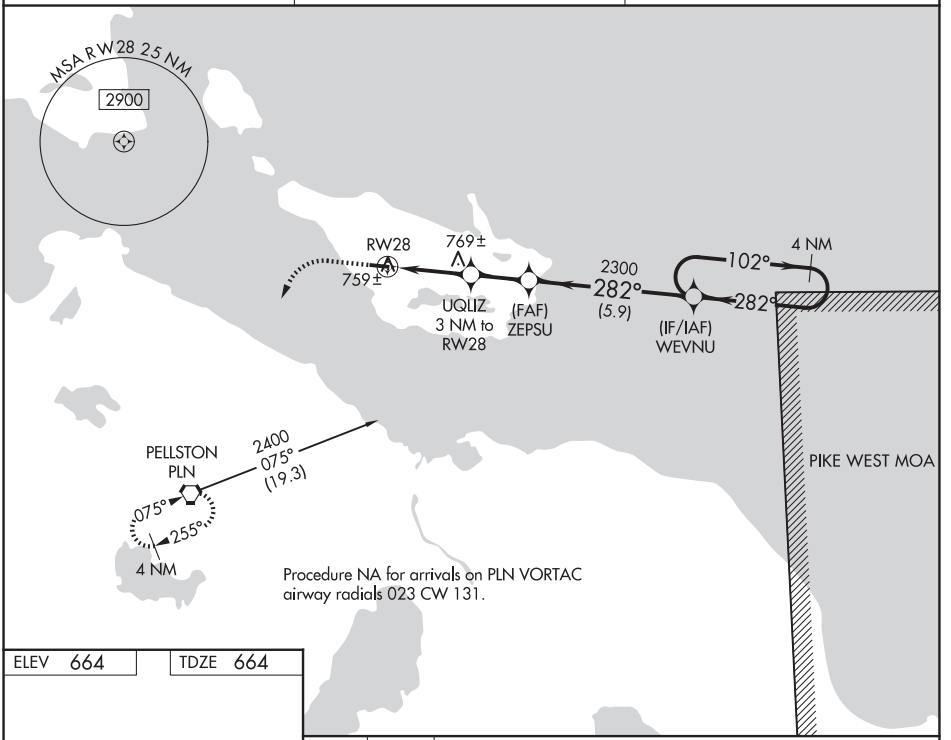
WAAS CH 42735 W28A	APP CRS 282°	Rwy Ldg 3498 TDZE 664 Apt Elev 664

NA

Use Cheboygan altimeter setting; when not received, Mackinac Island altimeter setting. DME/DME RNP-0.3 NA.

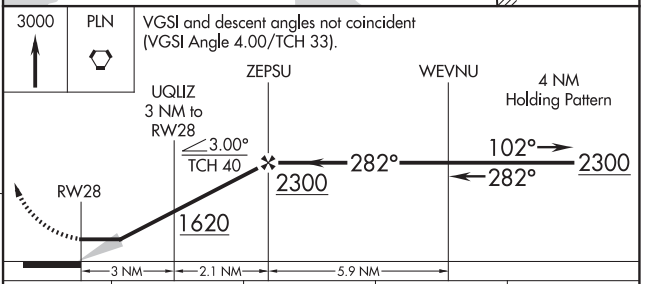
MISSED APPROACH: Climb to 3000 direct PELLSTON VORTAC and hold.

SLH AWOS-3	MINNEAPOLIS CENTER	CTAF
118.175	134.6 354.05	122.9 L



ELEV 664 TDZE 664

REIL Rwy 28 L
MIRL Rwy 10-28 L



CATEGORY	A	B	C	D
LP MDA	1040-1 376 (400-1)		NA	
LNAV MDA	1060-1 396 (400-1)		NA	
CIRCLING	1120-1 456 (500-1)		NA	

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EC-1, 07 AUG 2025 to 02 OCT 2025

BOYNE CITY, MICHIGAN AL-10402 (FAA) 24361

RNAV (GPS) RWY 9

BOYNE CITY MUNI (N98)

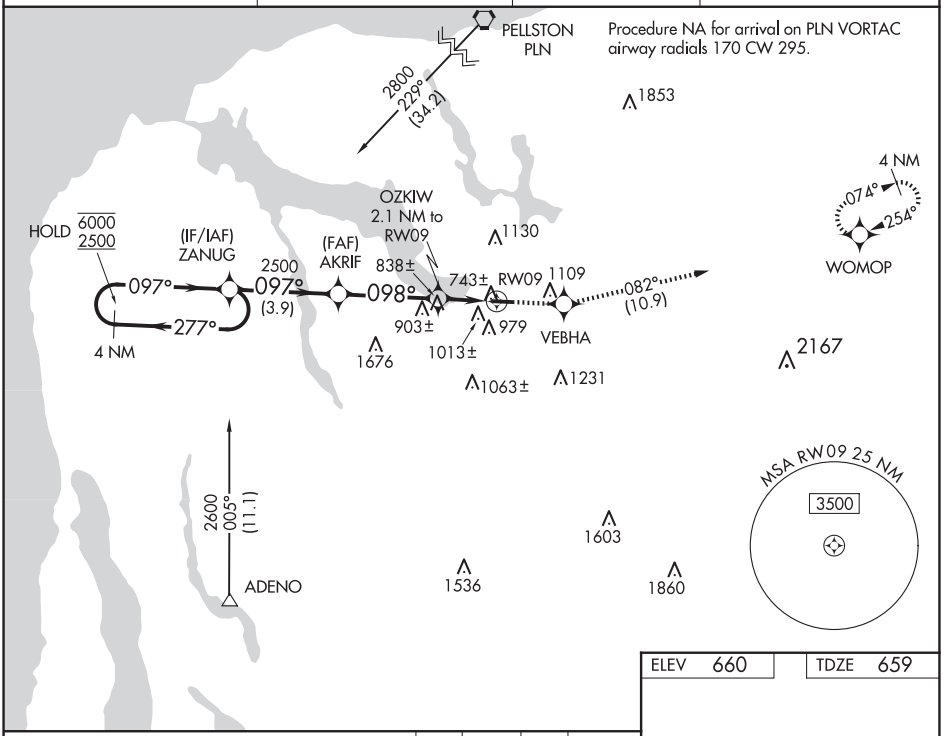
WAAS	APP CRS	Rwy Idg	3402
CH 97526	098°	TDZE	659
W09A		Apt Elev	660

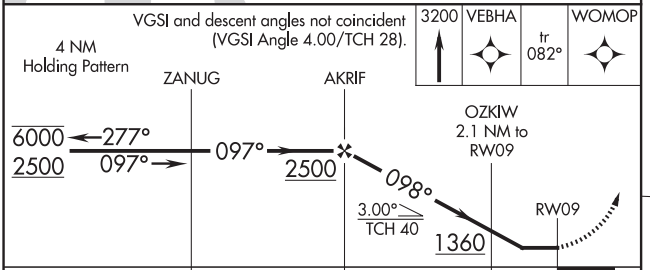
RNP APCH - GPS.

T NA Use CVX altimeter setting; when not received, use MGN altimeter setting. Procedure NA at night. Rwy 9 helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 3200 direct VEBHA and on track 082° to WOMOP and hold.

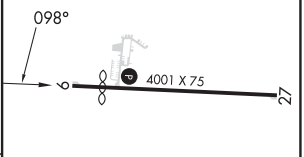
CVX AWOS-3P	MINNEAPOLIS CENTER	UNICOM	
120.0	134.6 354.05	122.8 (CTAF)	122.9 L





3200	VEBHA	tr 082°	WOMOP

ELEV 660 TDZE 659



CATEGORY	A	B	C	D
LP MDA	1060-1	401 (400-1)	NA	
LNAV MDA	1260-1	601 (600-1)	NA	
CIRCLING	1480-1¼ 820 (900-1¼)	1500-1¼ 840 (900-1¼)	NA	

REIL Rwy 27 L
MIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	4001
CH 50326	278°	TDZE	660
W27A		Apt Elev	660

RNAV (GPS) RWY 27

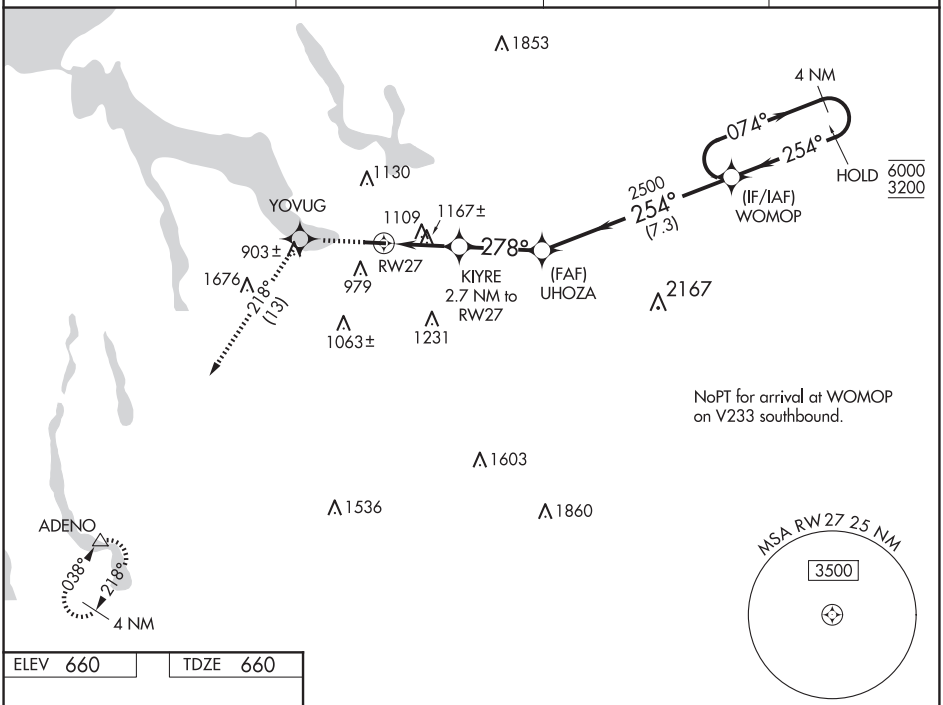
BOYNE CITY MUNI (N98)

RNP APCH.

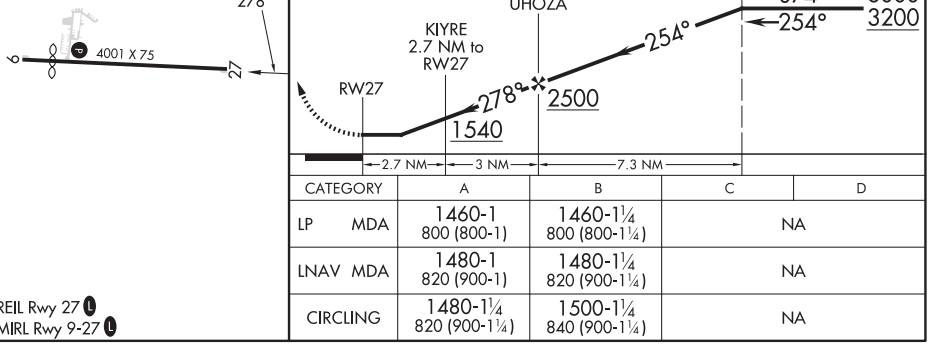
Procedure NA at night. Rwy 27 helicopter visibility reduction below 1 SM NA. Use Charlevoix altimeter setting, when not received, use Harbor Springs altimeter setting.

MISSED APPROACH: Climb to 3000 direct YOVUG and on track 218° to ADENO and hold.

CVX AWOS-3P	MINNEAPOLIS CENTER	UNICOM	
120.0	134.6 354.05	122.8 (CTAF)	122.9 L



ELEV 660	TDZE 660



CATEGORY	A	B	C	D
LP MDA	1460-1 800 (800-1)	1460-1¼ 800 (800-1¼)	NA	
LNAV MDA	1480-1 820 (900-1)	1480-1¼ 820 (900-1¼)	NA	
CIRCLING	1480-1¼ 820 (900-1¼)	1500-1¼ 840 (900-1¼)	NA	

REIL Rwy 27 L
MIRL Rwy 9-27 L

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BOYNE FALLS, MICHIGAN | AL-6027 (FAA) | 24361

RNAV (GPS) RWY 17

BOYNE MOUNTAIN (BFA)

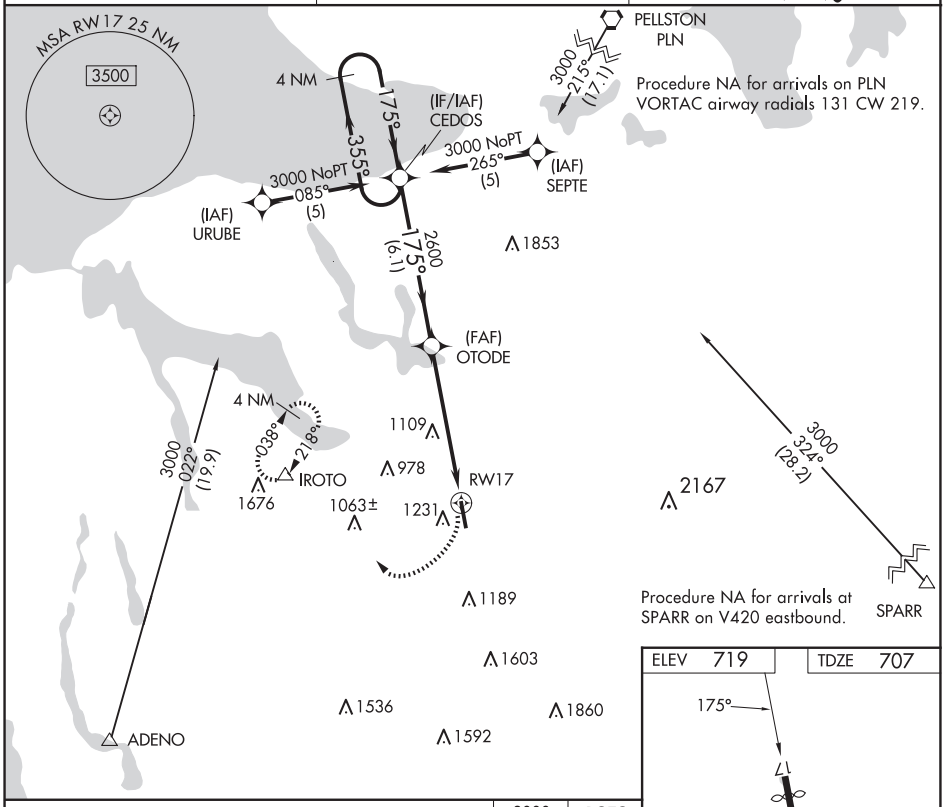
APP CRS	Rwy Idg	4887
175°	TDZE	707
	Apt Elev	719

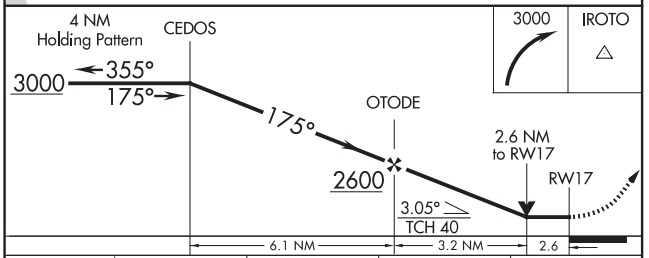
RNP APCH - GPS.

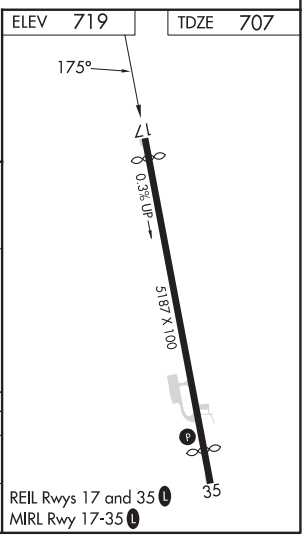
T NA — Circling NA west of Rwy 17-35. Rwy 17 helicopter visibility reduction below 1 SM NA. Procedure NA at night. When local altimeter setting not received, use Bellaire altimeter setting. VDP NA when using Bellaire altimeter setting.

MISSED APPROACH: Climbing right turn to 3000 direct IROTO and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
118.675	134.6 354.05	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1580 - 1 873 (900-1)	1580 - 1¼ 873 (900-1¼)	1580 - 2½ 873 (900-2½)	1580 - 2¾ 873 (900-2¾)
CIRCLING	1580 - 1¼ 861 (900-1¼)		1760- 3 1041 (1100-3)	1880- 3 1161 (1200-3)

BOYNE FALLS, MICHIGAN
Orig-C 13JUN24

45°10'N - 84°55'W

BOYNE MOUNTAIN (BFA)

RNAV (GPS) RWY 17

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 35

BOYNE MOUNTAIN (BFA)

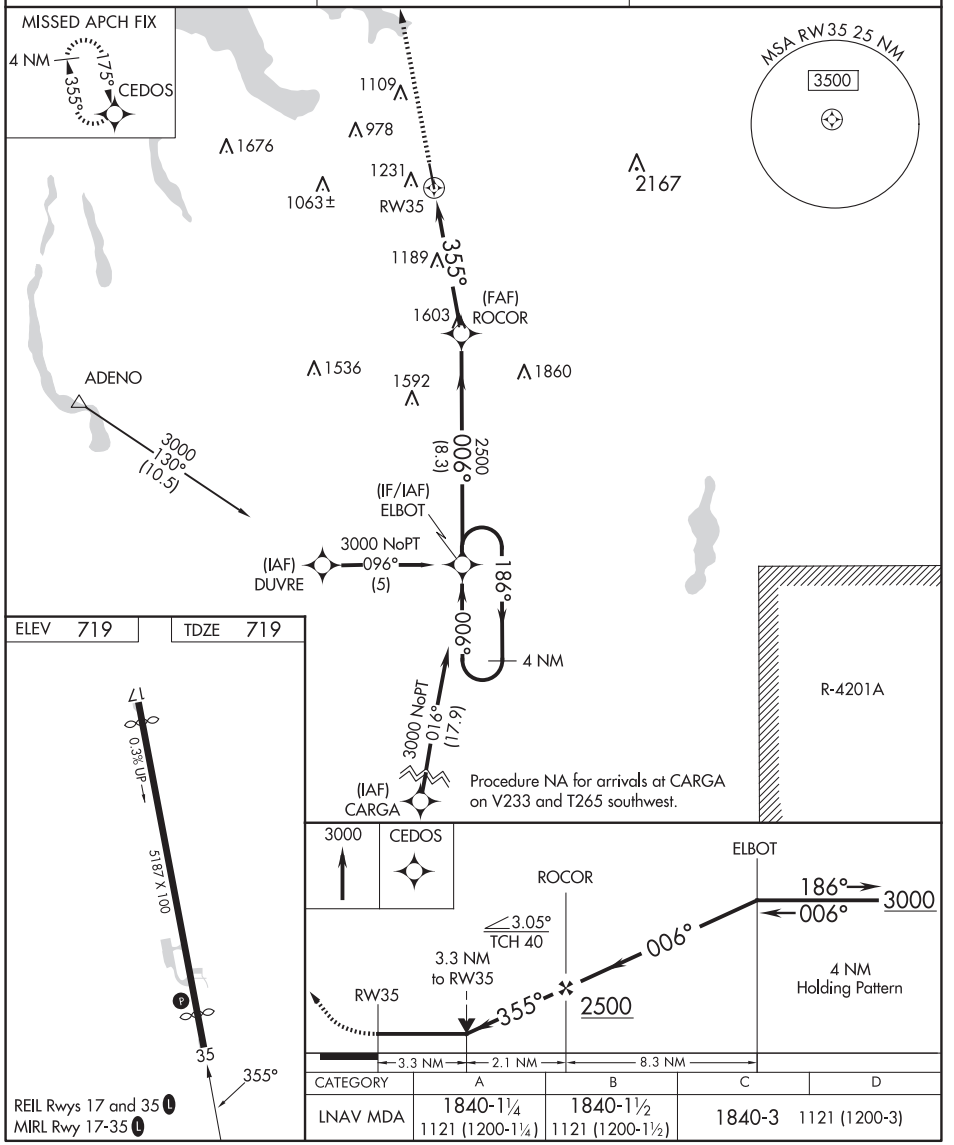
APP CRS		
355°	Rwy Idg	4687
	TDZE	719
	Apt Elev	719

RNP APCH - GPS.

When local altimeter setting not received, use Bellaire altimeter setting. Procedure NA at night. Rwy 35 helicopter visibility reduction below 1 SM NA. VDP NA when using Bellaire altimeter setting.

MISSED APPROACH: Climb to 3000 direct CEDOS and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
118.675	134.6 354.05	122.8 (CTAF) L



CATEGORY	A	B	C	D
LNAV MDA	1840-1¼ 1121 (1200-1¼)	1840-1½ 1121 (1200-1½)	1840-3 1121 (1200-3)	

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CADILLAC, MICHIGAN

AL-5421 (FAA)

25163

ILS or LOC RWY 7

WEXFORD COUNTY (CAD)

LOC/DME I-MAY	APP CRS	Rwy Ldg	5001
108.55	070°	TDZE	1307
Chan 22 (Y)		Apt Elev	1307

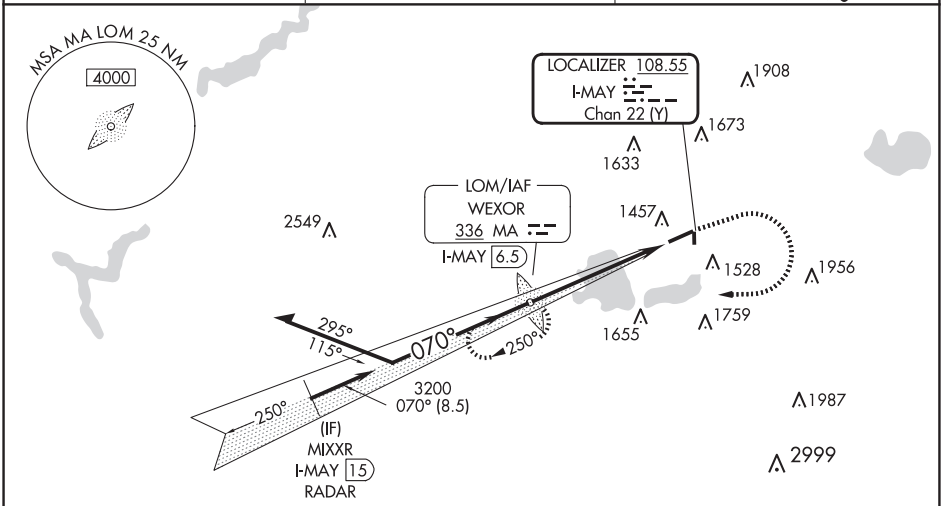
ADF required.
RADAR required for procedure entry.

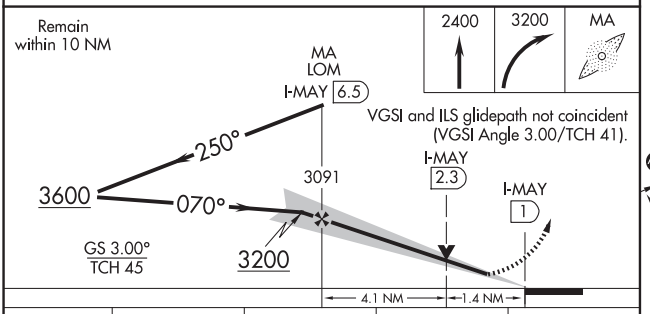
T NA Inop table does not apply to S-ILS 7 all Cats. Circling NA to Rwys 18 and 36. Rwy 7 helicopter visibility reduction below ¾ SM NA. For inop ALS, increase S-LOC 7 Cat C/D visibility to 1⅜ SM.

MALSF

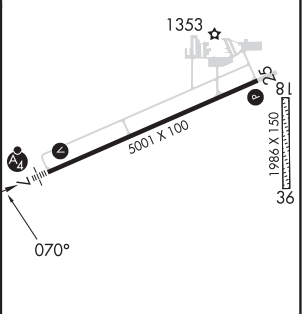
MISSED APPROACH: Climb to 2400 then climbing right turn to 3200 direct WEXOR LOM/I-MAY 6.5 DME and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
128.325	132.9 338.3	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-ILS 7	1557-¾ 250 (300-¾)			
S-LOC 7	1780-¾ 473 (500-¾)		1780-1⅛ 473 (500-1⅛)	
C CIRCLING	1820-1 513 (600-1)	1840-1 533 (600-1)	1860-1½ 553 (600-1½)	2060-2½ 753 (800-2½)



HIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

FAF to MAP 5.5 NM

Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

CADILLAC, MICHIGAN
Amdt 1A 12JUN25

44°17′N-85°25′W

WEXFORD COUNTY (CAD)
ILS or LOC RWY 7

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 86413 W07A	APP CRS 070°	Rwy Ldg 5001 TDZE 1307 Apt Elev 1307

RNAV (GPS) RWY 7

WEXFORD COUNTY (CAD)

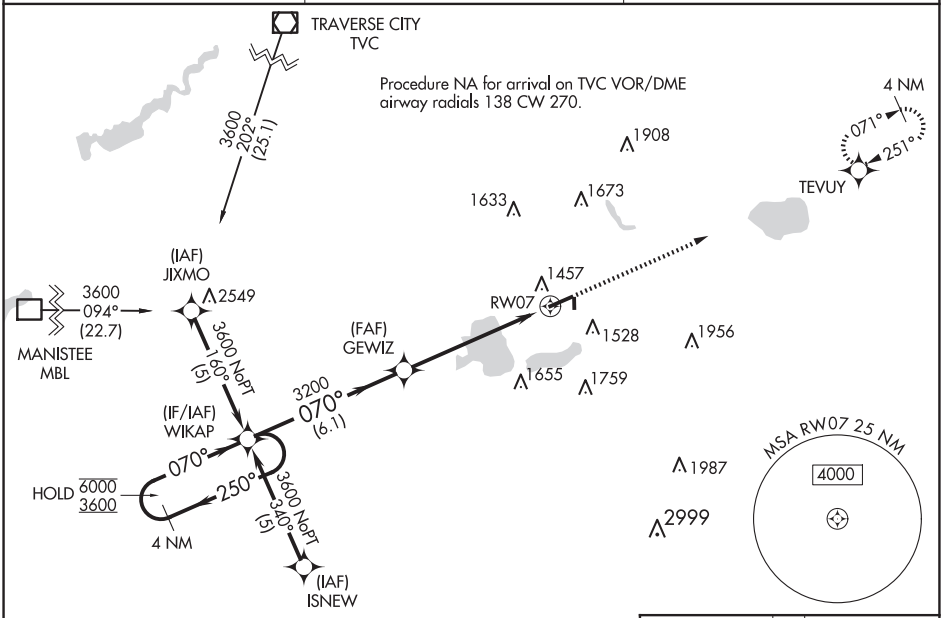
RNP APCH - GPS.

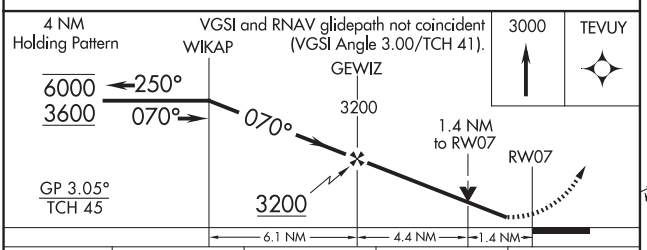
T A Inop table does not apply to LPV all Cats and LNAV Cats A and B. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -24°C or above 54°C. Circling NA to Rwys 18 and 36. Rwy 7 helicopter visibility reduction below ¾ SM NA. For inop ALS, increase LNAV/VNAV visibility all Cats to 1⅜ SM.

MALSF

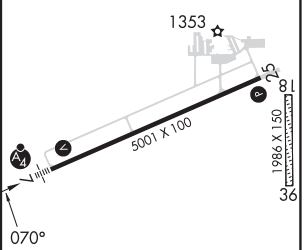
MISSED APPROACH: Climb to 3000 direct TEVUY and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
128.325	132.9 338.3	122.8 (CTAF) L





CATEGORY	A	B	C	D
LPV DA		1557-¾	250 (300-¾)	
LNAV/VNAV DA		1761-1	454 (500-1)	
LNAV MDA	1780-¾	473 (500-¾)	1780-1⅛	473 (500-1⅛)
C CIRCLING	1820-1 513 (600-1)	1840-1 533 (600-1)	1860-1½ 553 (600-1½)	2060-2½ 753 (800-2½)



HIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

CADILLAC, MICHIGAN | AL-5421 (FAA) | 24193

RNAV (GPS) RWY 25

WEXFORD COUNTY (CAD)

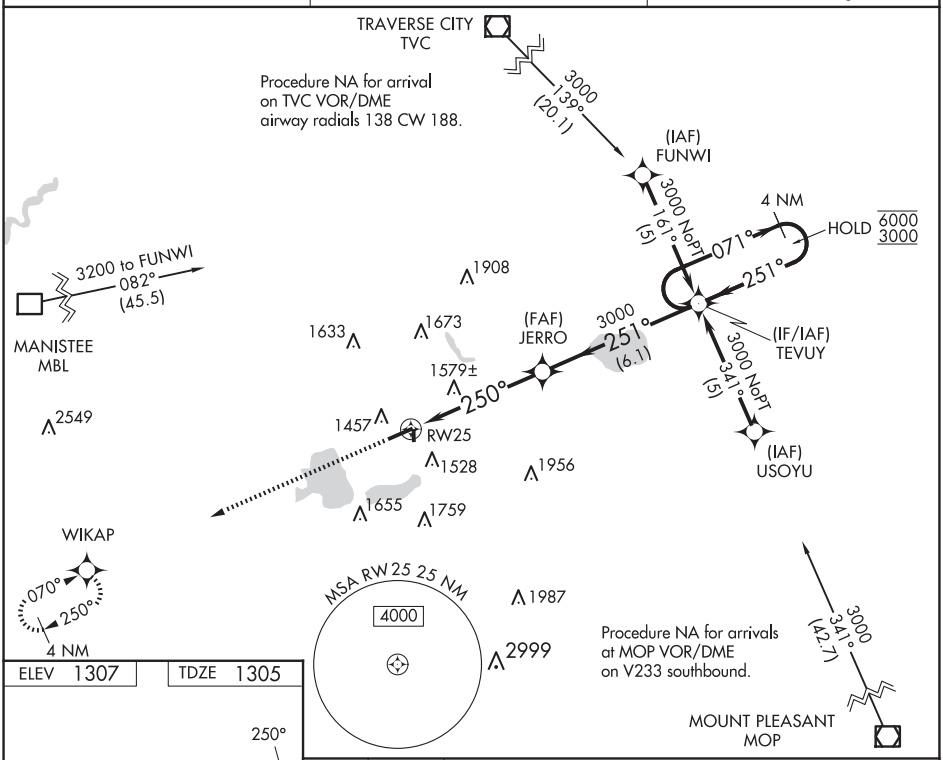
WAAS	APP CRS	Rwy Idg	5001
CH 97513	250°	TDZE	1305
W25A		Apt Elev	1307

RNP APCH - GPS.

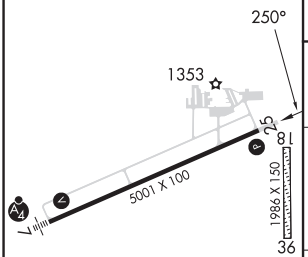
Circling NA to Rwys 18 and 36. Rwy 25 helicopter visibility reduction below ¾ SM NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -24°C or above 54°C.

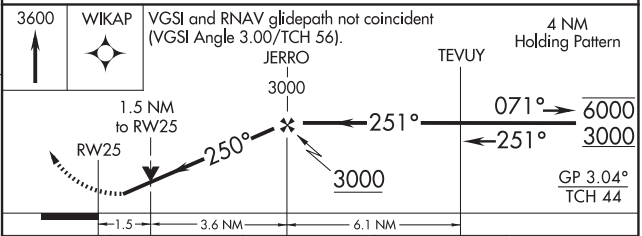
MISSED APPROACH: Climb to 3600 direct WIKAP and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
128.325	132.9 338.3	122.8 (CTAF) L



ELEV 1307 | TDZE 1305





CATEGORY	A	B	C	D
LPV DA	1625-⅞ 320 (400-⅞)			
LNAV/VNAV DA	1869-1⅝ 564 (600-1⅝)			
LNAV MDA	1840-1 535 (600-1)		1840-1½ 535 (600-1½)	
C CIRCLING	1840-1 533 (600-1)		2040-2 733 (800-2)	2060-2½ 753 (800-2½)

HIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

CADILLAC, MICHIGAN
Orig-B 02DEC21

44°17′N-85°25′W

WEXFORD COUNTY (CAD)

RNAV (GPS) RWY 25

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 6

TUSCOLA AREA (CFS)

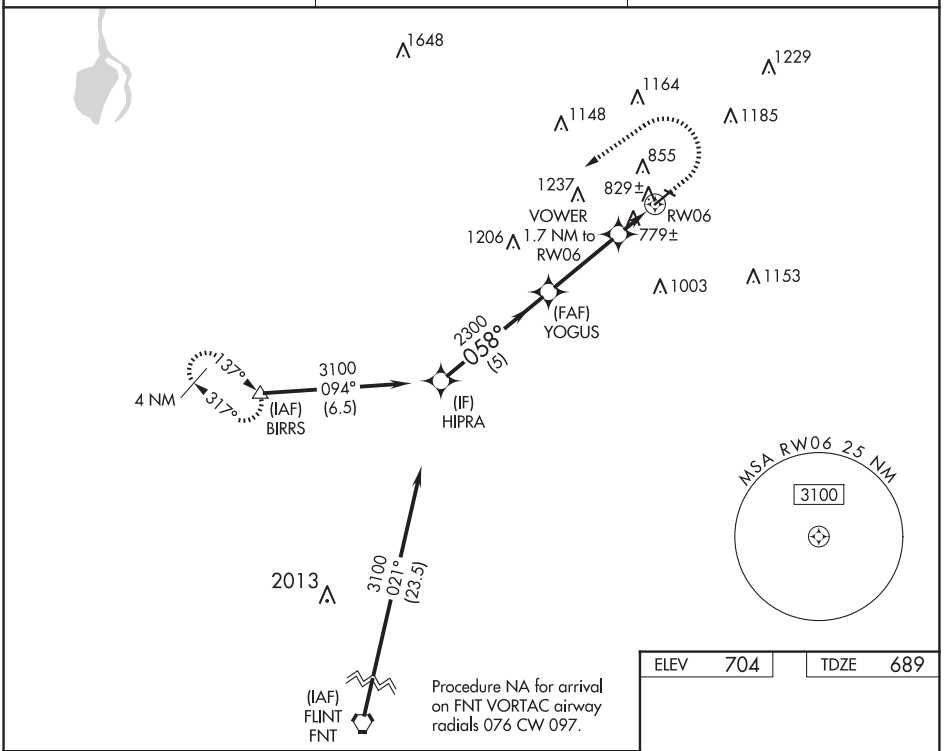
WAAS	APP CRS	Rwy Ldg	4302
CH 56441	058°	TDZE	689
W06A		Apt Elev	704

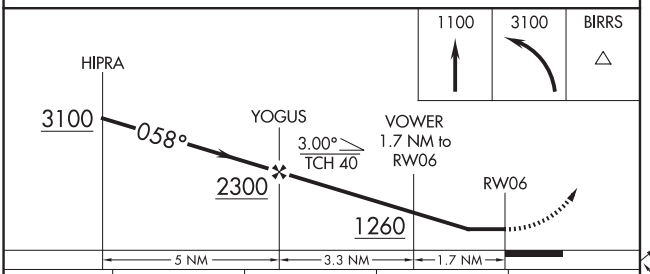
RNP APCH - GPS.

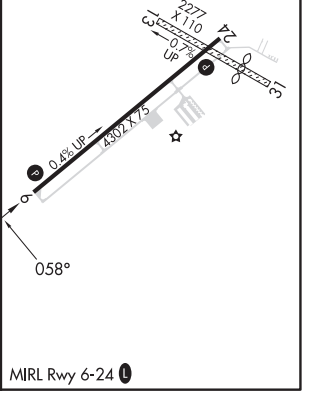
Circling NA to Rwys 13 and 31. Rwy 6 helicopter visibility reduction below 1 SM NA. Procedure NA at night.

MISSED APPROACH: Climb to 1100 then climbing left turn to 3100 direct BIRRS and hold.

AWOS-3	GREAT LAKES APP CON★	UNICOM
119.275	120.95 235.625	123.0 (CTAF)







CATEGORY	A	B	C	D
LP MDA	1040-1 351 (400-1)			NA
LNAV MDA	1080-1 391 (400-1)		1080-1⅛ 391 (400-1⅛)	NA
C CIRCLING	1200-1 496 (500-1)		1600-2¾ 896 (900-2¾)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

CARO, MICHIGAN | AL-6375 (FAA) | 25163

APP CRS	Rwy Ldg	4302
239°	TDZE	701
	Apt Elev	704

RNAV (GPS) RWY 24

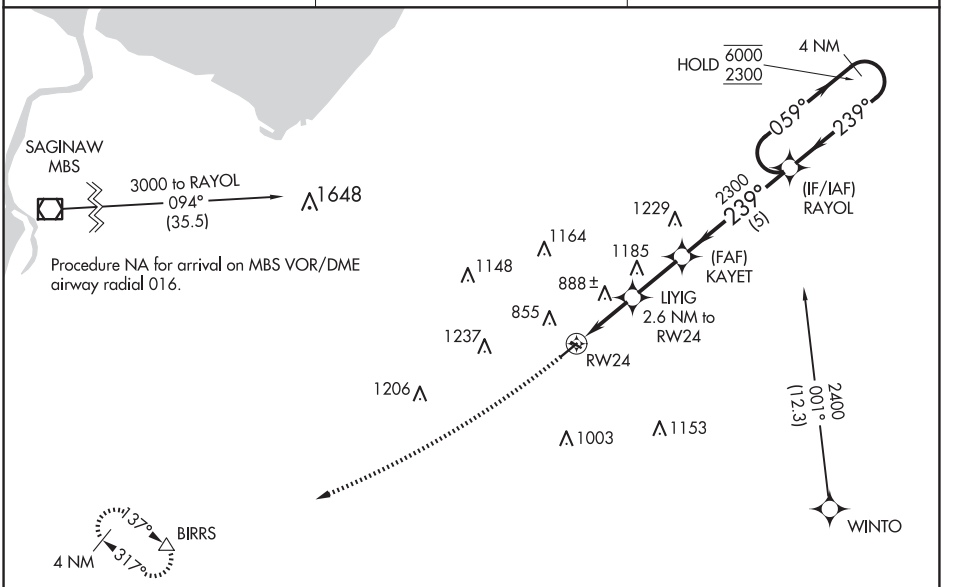
TUSCOLA AREA (CFS)

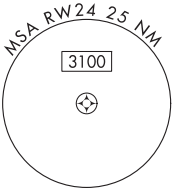
RNP APCH - GPS.

Circling NA to Rwys 13 and 31. Rwy 24 helicopter visibility reduction below 1 SM NA. Procedure NA at night.

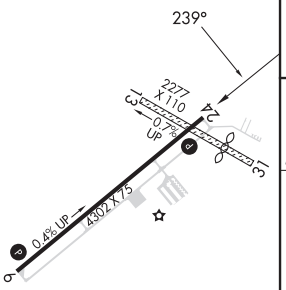
MISSED APPROACH: Climbing right turn to 3100 direct BIRRS and hold.

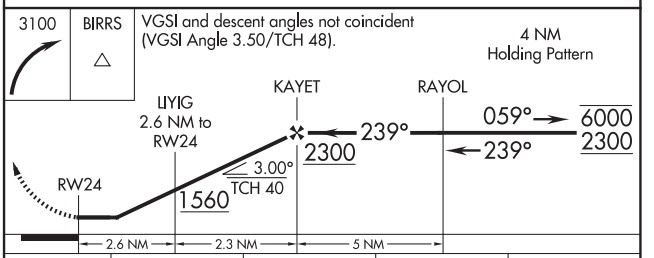
AWOS-3	GREAT LAKES APP CON ★	UNICOM
119.275	120.95 235.625	123.0 (CTAF) L





ELEV 704 | TDZE 701





CATEGORY	A	B	C	D
LNAV MDA	1140-1 439 (500-1)		1140-1¼ 439 (500-1¼)	NA
C CIRCLING	1200-1 496 (500-1)		1600-2¾ 896 (900-2¾)	NA

MIRL Rwy 6-24 L

CARO, MICHIGAN
Amdt 2B 12JUN25

43°28′N-83°27′W

TUSCOLA AREA (CFS)

RNAV (GPS) RWY 24

EC-1, 07 AUG 2025 to 02 OCT 2025

VOR/DME MBS	APP CRS	Rwy Idg	N/A
114.35	102°	TDZE	N/A
Chan 90 (Y)		Apt Elev	704

VOR-A

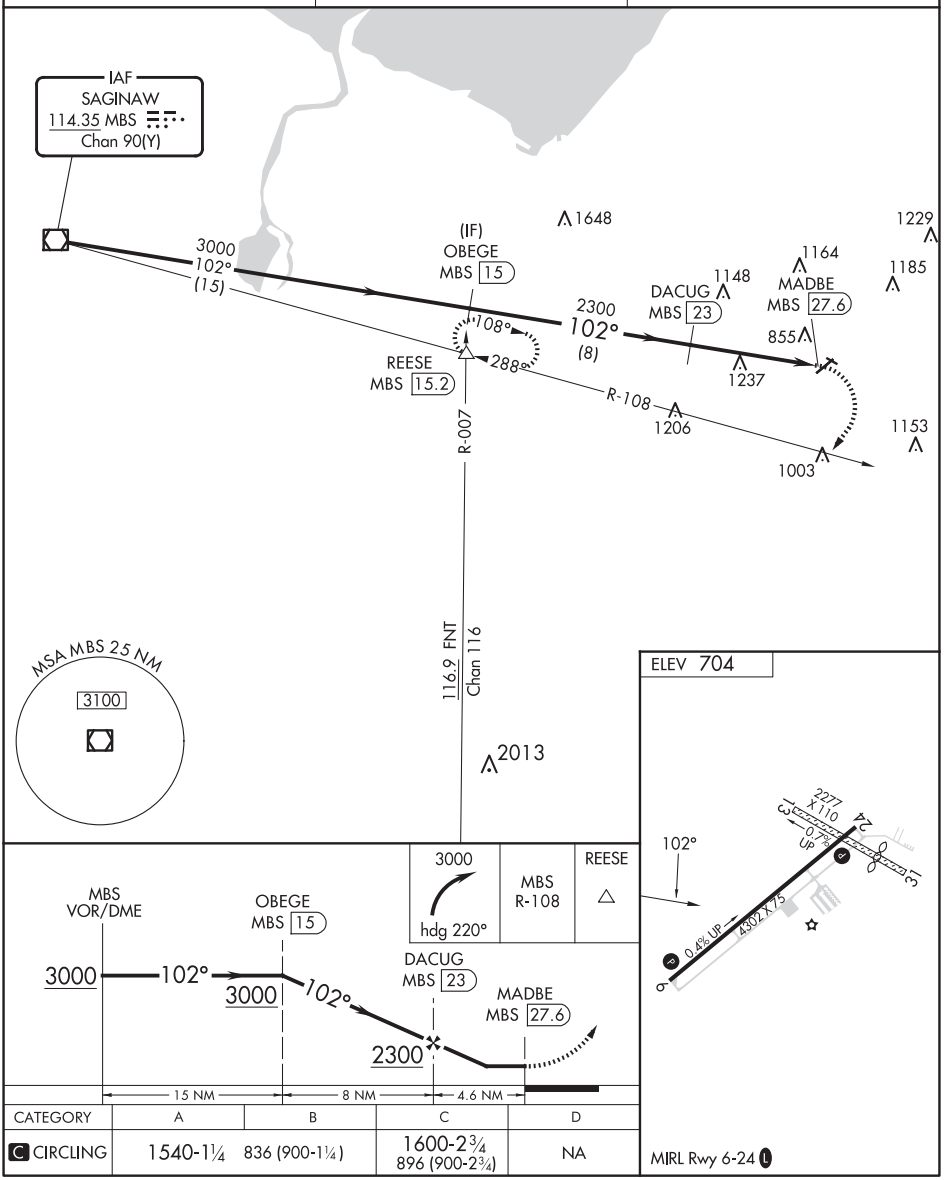
TUSCOLA AREA (CFS)

DME required.

Circling NA to Rwys 13 and 31.
Procedure NA at night.

MISSED APPROACH: Climbing right turn to 3000 on heading 220° and on MBS VOR/DME R-108 to REESE INT/15.2 DME and hold.

AWOS-3	GREAT LAKES APP CON ★	UNICOM
119.275	120.95 235.625	123.0 (CTAF) L



CATEGORY	A	B	C	D
C CIRCLING	1540-1¼	836 (900-1¼)	1600-2¾	NA
			896 (900-2¾)	

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

CHARLEVOIX, MICHIGAN | AL-5907 (FAA) | 23166

RNAV (GPS) RWY 9

CHARLEVOIX MUNI (CVX)

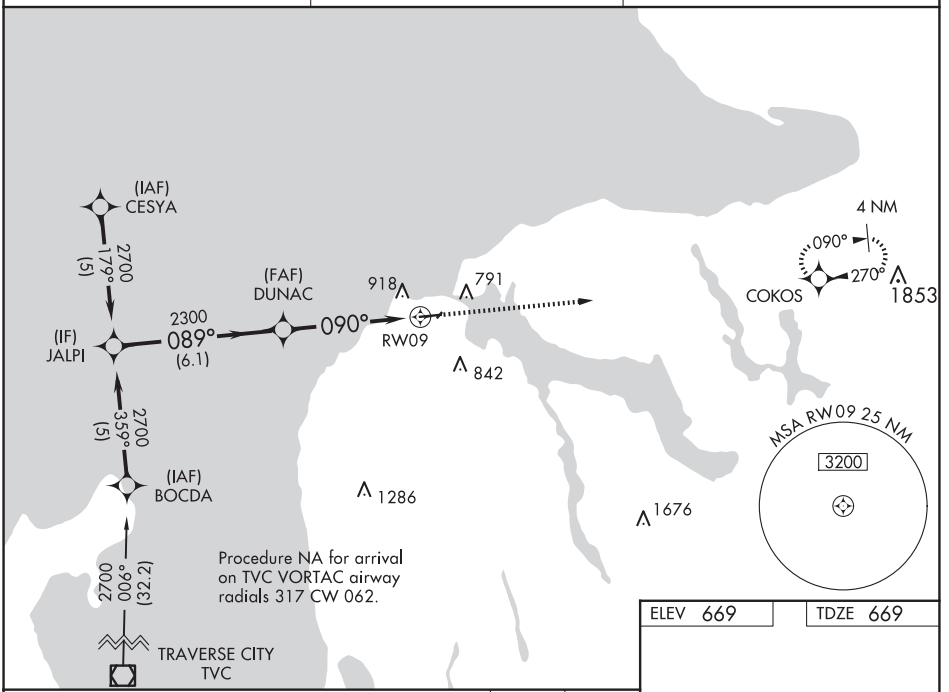
WAAS	APP CRS	Rwy ldg	4549
CH 97708	090°	TDZE	669
W09A		Apt Elev	669

RNP APCH - GPS.

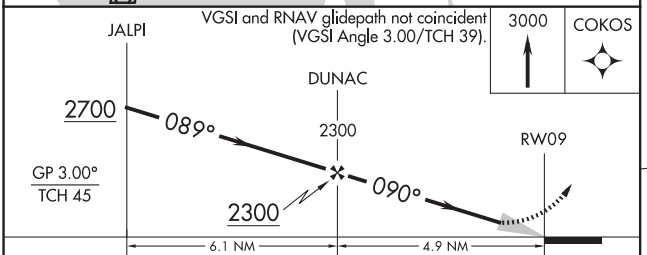
Circling NA to Rwys 4 and 22. Baro-VNAV NA when using Pellston altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. When local altimeter setting not received, use Pellston altimeter setting: increase LPV DA to 986 feet and all visibilities ⅛ SM; increase LNAV/VNAV DA to 1270 feet and all visibilities ¼ SM; increase all MDA 80 feet and visibility Cats C and D ¼ SM.

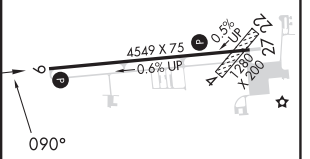
MISSED APPROACH: Climb to 3000 direct COKOS and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
120.0	134.6 354.05	122.8 (CTAF) L



ELEV 669 | TDZE 669





CATEGORY	A	B	C	D
LPV DA	919- ¾ 250 (300-¾)			
LNAV/VNAV DA	1203-1½ 534 (600-1½)			
LNAV MDA	1160-1 491 (500-1)		1160-1⅜ 491 (500-1⅜)	
CIRCLING	1280-1 611 (700-1)		1280-1¾ 611 (700-1¾)	1360-2¼ 691 (700-2¼)

REIL Rwys 9 and 27 L
MIRL Rwy 9-27 L

CHARLEVOIX, MICHIGAN
Amdt 1B 06OCT22

45°18′N-85°17′W

CHARLEVOIX MUNI (CVX)

RNAV (GPS) RWY 9

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 27
CHARLEVOIX MUNI (CVX)

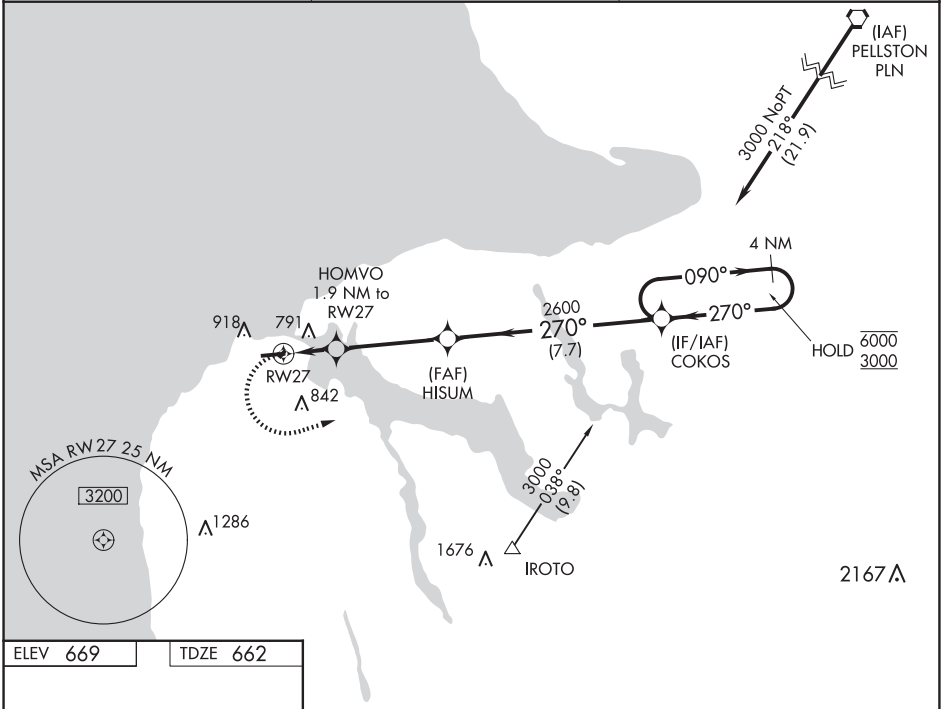
APP CRS	Rwy ldg	4549
270°	TDZE	662
	Apt Elev	669

RNP APCH - GPS.

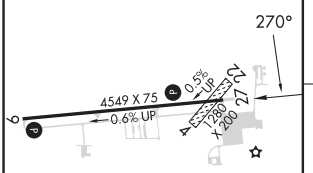
Rwy 27 helicopter visibility reduction below ¾ SM NA.
Circling NA to Rwys 4 and 22.

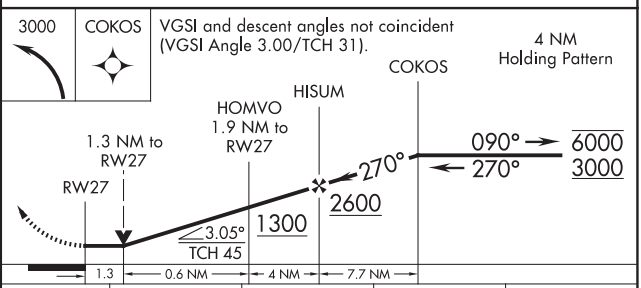
MISSED APPROACH: Climbing left turn to 3000 direct COKOS and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
120.0	134.6 354.05	122.8 (CTAF) L



ELEV 669 TDZE 662





CATEGORY	A	B	C	D
LNAV MDA	1100-1 438 (500-1)		1100-1¼ 438 (500-1¼)	
CIRCLING	1280-1 611 (700-1)		1280-1¾ 611 (700-1¾)	1360-2¼ 691 (700-2¼)

REIL Rwys 9 and 27 L
MIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

CHARLOTTE, MICHIGAN | AL-5627 (FAA) | 24025

APP CRS	Rwy Idg	3510
207°	TDZE	891
	Apt Elev	891

RNAV (GPS) RWY 21

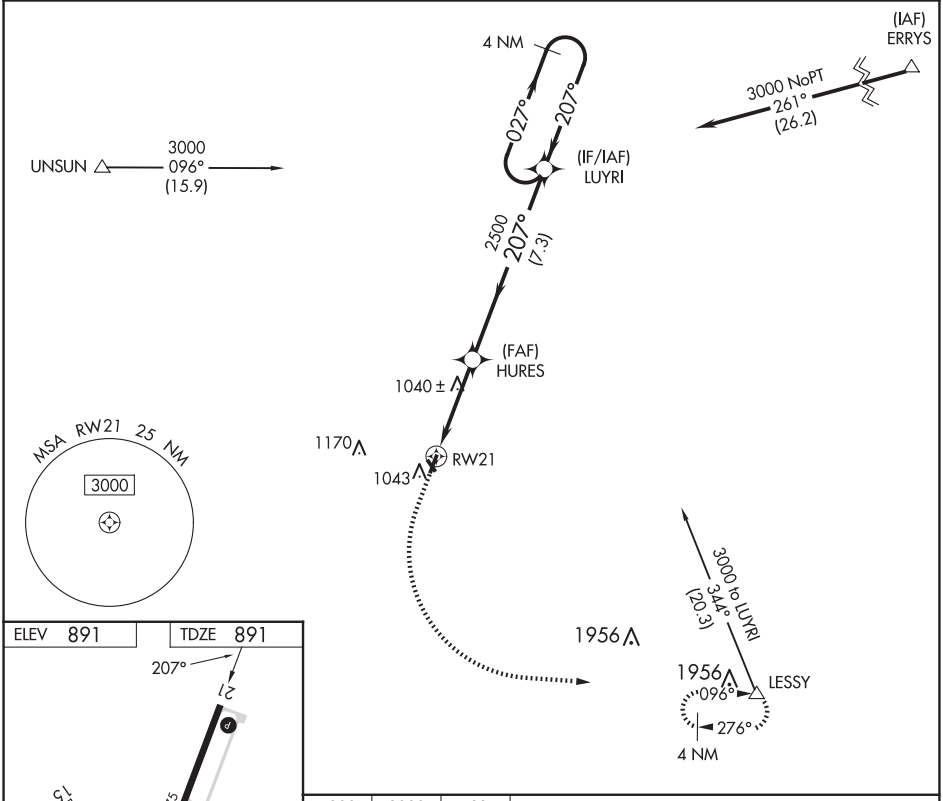
FITCH H BEACH (FPK)

RNP APCH - GPS.

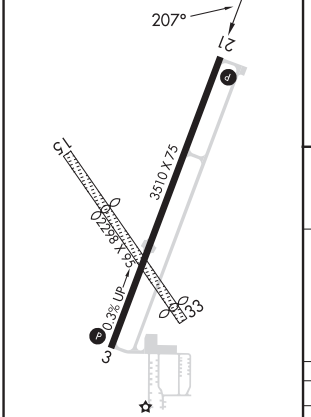
Circling NA to Rwys 15 and 33.
Rwy 21 helicopter visibility reduction below 1 SM NA.
Procedure NA at night.

MISSED APPROACH: Climb to 1300 then climbing left turn to 3000 direct LESSY and hold.

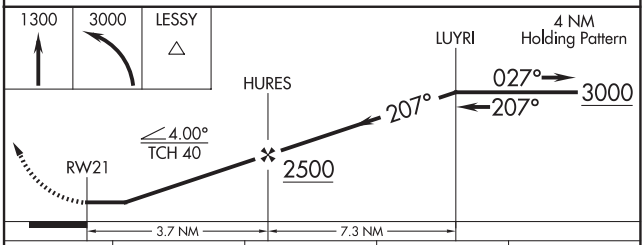
AWOS-3P	GREAT LAKES APP CON	UNICOM
118.075	118.65 226.4	123.0 (CTAF) L



ELEV 891 | TDZE 891



MIRL Rwy 3-21 L
REIL Rwys 3 and 21 L



CATEGORY	A	B	C	D
LNAV MDA	1300-1 409 (500-1)		NA	
C CIRCLING	1400-1 509 (600-1)	1480-1 589 (600-1)	NA	

CHARLOTTE, MICHIGAN
Amdt 1B 03NOV22

42°34'N-84°49'W

FITCH H BEACH (FPK)

RNAV (GPS) RWY 21

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 10

CHEBOYGAN COUNTY (SLH)

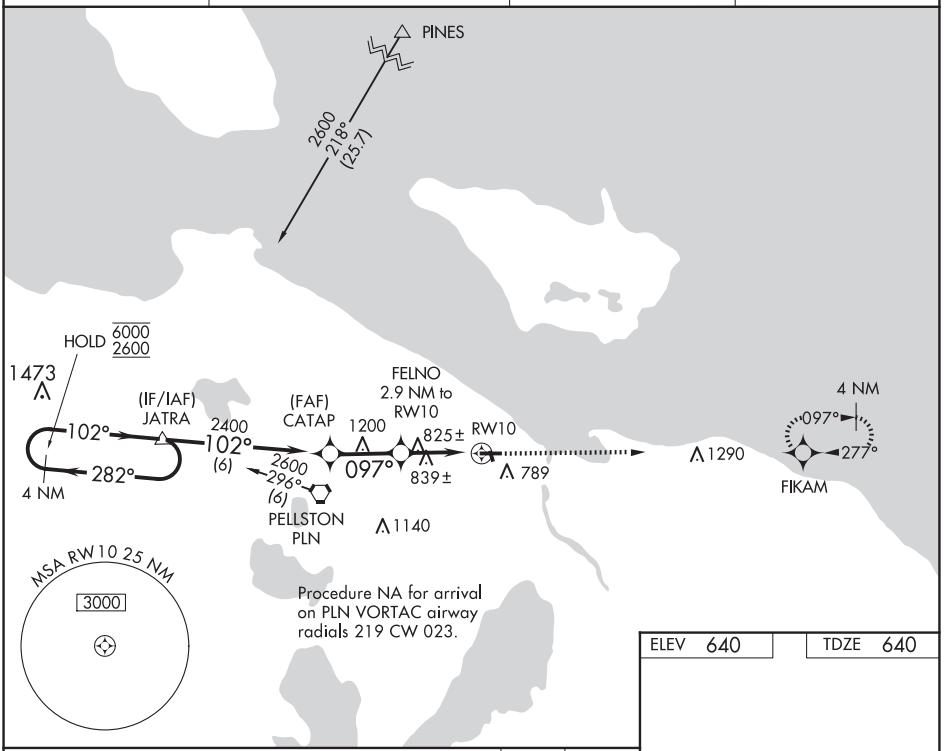
WAAS	APP CRS	Rwy Idg	4004
CH 50224	097°	TDZE	640
W10A		Apt Elev	640

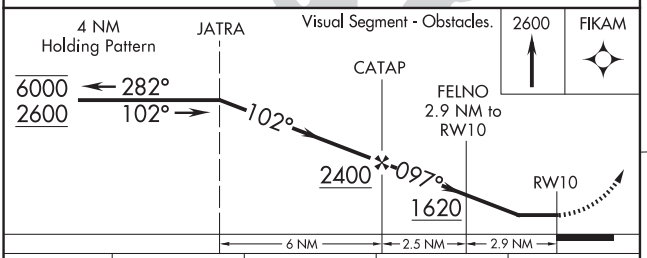
RNP APCH - GPS.

Rwy 10 helicopter visibility reduction below 1 SM NA. Procedure NA at night.

MISSED APPROACH: Climb to 2600 direct FIKAM and hold.

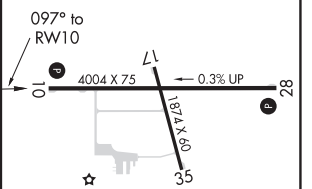
AWOS-3	MINNEAPOLIS CENTER	UNICOM	
118.175	134.6 354.05	122.8 (CTAF)	122.5 L





CATEGORY	A	B	C	D
LP MDA	1080-1	440 (500-1)	1080-1¼ 440 (500-1¼)	NA
LNAV MDA	1100-1	460 (500-1)	1100-1⅜ 460 (500-1⅜)	NA
C CIRCLING	1140-1	500 (500-1)	1140-1½ 500 (500-1½)	NA

ELEV 640 TDZE 640



REIL Rwys 10 and 28 L
MIRL Rwy 10-28 and 17-35 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

CHEBOYGAN, MICHIGAN | AL-6096 (FAA) | 22167

RNAV (GPS) RWY 28
CHEBOYGAN COUNTY (SLH)

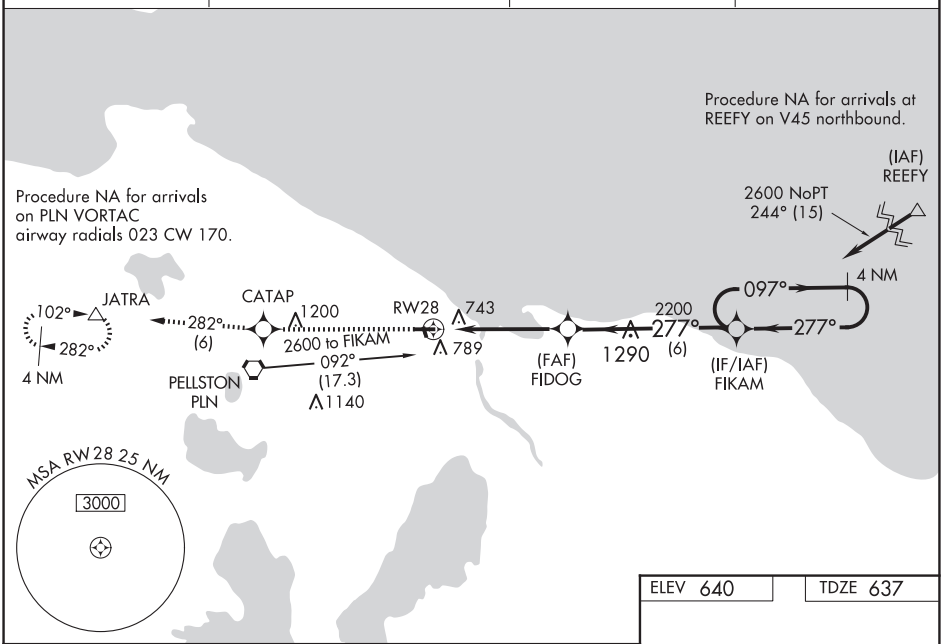
WAAS CH 99727 W28A	APP CRS 277°	Rwy Idg 4004 TDZE 637 Apt Elev 640

RNP APCH.

Night landing Rwy 17, 35 NA. Baro-VNAV NA when using Pellston altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). Helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Pellston altimeter setting; increase all DA 41 feet and all MDA 60 feet and increase LNAV/VNAV all Cats visibility ¼ SM and LNAV Cat C visibility ⅛ SM.

MISSED APPROACH: Climb to 2600 direct CATAP and on track 282° to JATRA and hold.

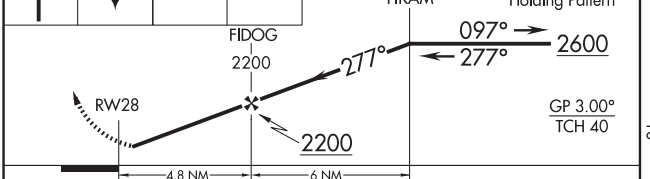
AWOS-3	MINNEAPOLIS CENTER	UNICOM	
118.175	134.6 354.05	122.8 (CTAF)	122.5 L

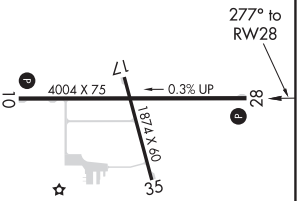


ELEV 640	TDZE 637

2600	CATAP	tr 282°	JATRA

VGSI and RNAV glidepath not coincident (VGSI Angle 4.00/TCH 25).





CATEGORY	A	B	C	D
LPV DA	887-1 250 (300-1)			NA
LNAV/VNAV DA	953-1 316 (400-1)			NA
LNAV MDA	1060-1 423 (500-1)		1060-1¼ 423 (500-1¼)	NA
C CIRCLING	1140-1 500 (500-1)		1140-1½ 500 (500-1½)	NA

REIL Rwys 10 and 28 L
MIRL Rwy 10-28 and 17-35 L

CHEBOYGAN, MICHIGAN
Amdt 2B 08OCT20

45°39′N-84°31′W

CHEBOYGAN COUNTY (SLH)
RNAV (GPS) RWY 28

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

VORTAC PLN	APP CRS	Rwy Idg	4004
111.8	082°	TDZE	640
Chan 55		Apt Elev	640

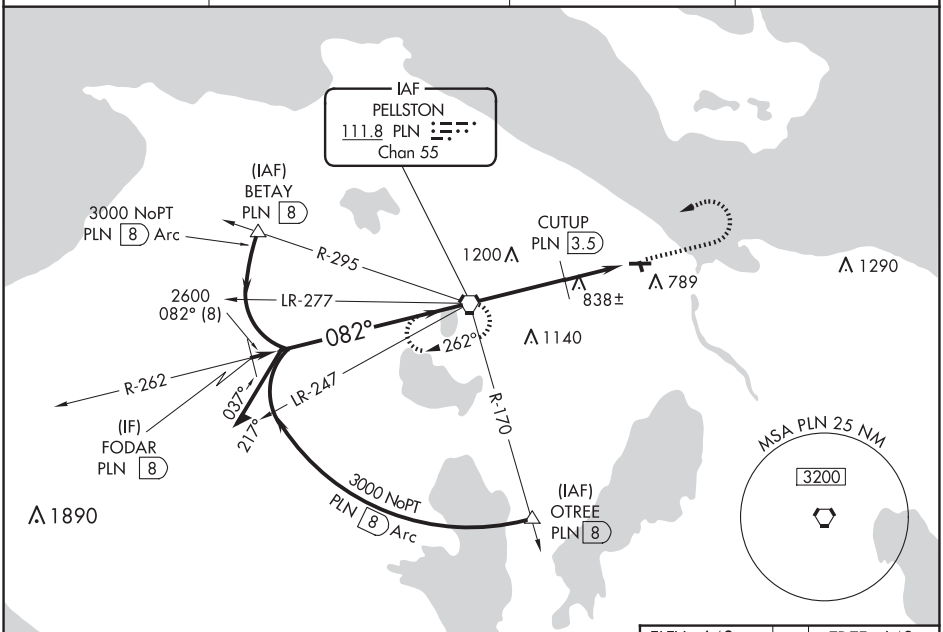
VOR RWY 10

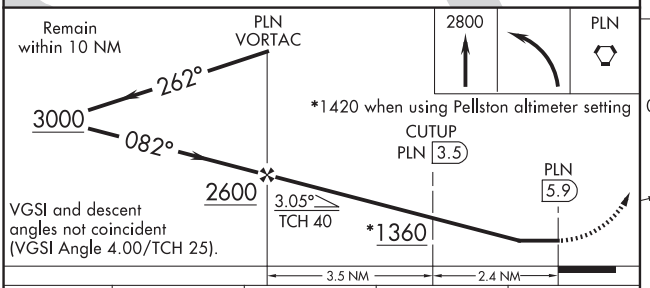
CHEBOYGAN COUNTY (SLH)

Helicopter visibility reduction below 1 SM NA. Night landing Rwy 10, 17, 35 NA. When local altimeter setting not received, use Pellston altimeter setting; increase all MDA 60 feet; increase S-10 Cat B visibility ¼ SM, S-10 Cat C visibility ½ SM, Circling Cat B visibility ¼ SM and Circling Cat C visibility ½ SM; increase CUTUP fix minimums S-10 Cat C visibility ⅛ SM.

MISSED APPROACH: Climb to 2800 then left turn direct PLN VORTAC and hold.

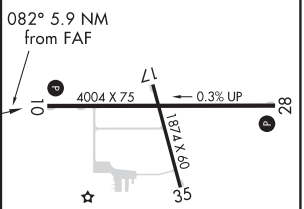
AWOS-3	MINNEAPOLIS CENTER	UNICOM	
118.175	134.6 354.05	122.8 (CTAF)	122.5 L





CATEGORY	A	B	C	D
S-10	1360-1	720 (800-1)	1360-2 720 (800-2)	NA
C CIRCLING	1360-1	720 (800-1)	1360-2 720 (800-2)	NA
CUTUP FIX MINIMUMS				
S-10	1100-1	460 (500-1)	1100-1⅜ 460 (500-1⅜)	NA
C CIRCLING	1140-1	500 (500-1)	1140-1½ 500 (500-1½)	NA

ELEV 640 TDZE 640



REIL Rwys 10 and 28 L
MIRL Rwy 10-28 and 17-35 L

FAF to MAP 5.9 NM					
Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

CLARE, MICHIGAN | AL-5491 (FAA) | 23054

RNAV (GPS) RWY 4

CLARE MUNI (48D)

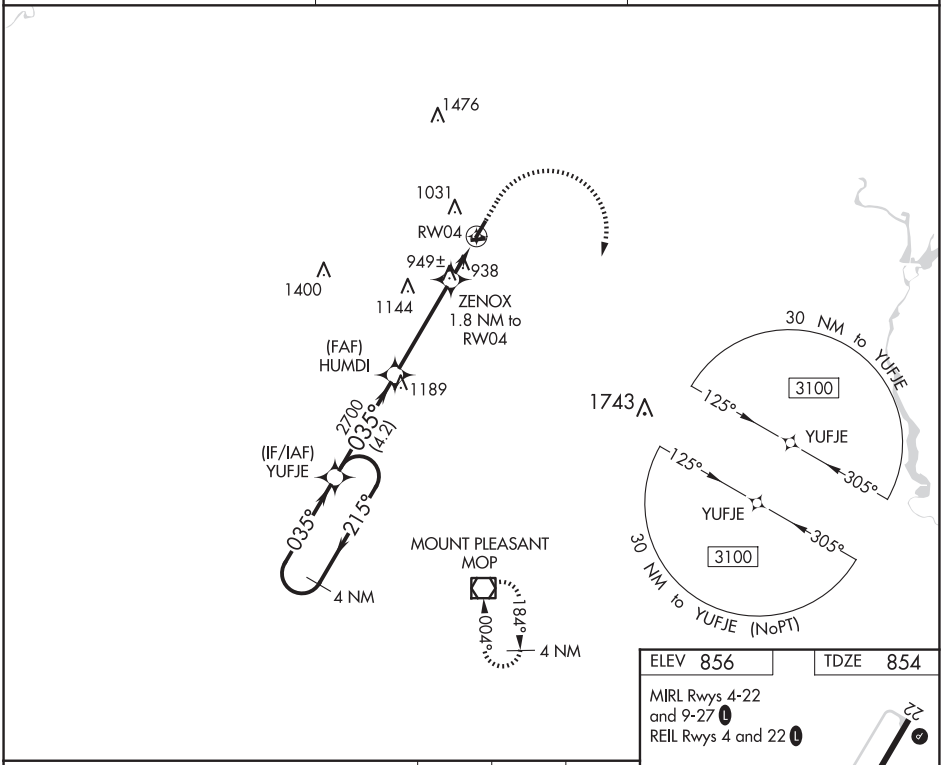
WAAS	APP CRS	Rwy Idg	3500
CH 72734	035°	TDZE	854
W04A		Apt Elev	856

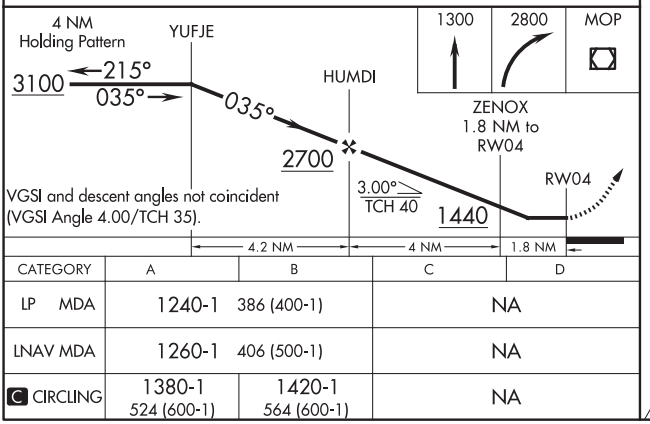
RNP APCH.

T A NA Use Mount Pleasant altimeter setting; when not received, use Midland altimeter setting and increase all MDA 60 feet. Rwy 4 helicopter visibility reduction below ¾ SM NA. Circling Rwy 9, 27 NA at night.

MISSED APPROACH: Climb to 1300, then climbing right turn to 2800 direct MOP VOR/DME and hold.

MOP AWOS-3	GREAT LAKES APP CON ★	UNICOM
133.025	126.45 235.625	122.8 (CTAF) L



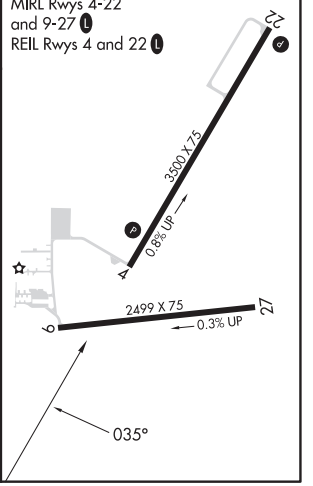


CATEGORY	A	B	C	D
LP MDA	1240-1	386 (400-1)	NA	
LNAV MDA	1260-1	406 (500-1)	NA	
C CIRCLING	1380-1 524 (600-1)	1420-1 564 (600-1)	NA	

ELEV 856 | TDZE 854

MIRL Rwys 4-22 and 9-27 L

REIL Rwys 4 and 22 L



CLARE, MICHIGAN

Orig-B 28FEB19

43°50'N-84°44'W

CLARE MUNI (48D)

RNAV (GPS) RWY 4

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 56506 W07A	APP CRS 069°	Rwy Idg 5350 TDZE 958 Apt Elev 958

RNAV (GPS) RWY 7

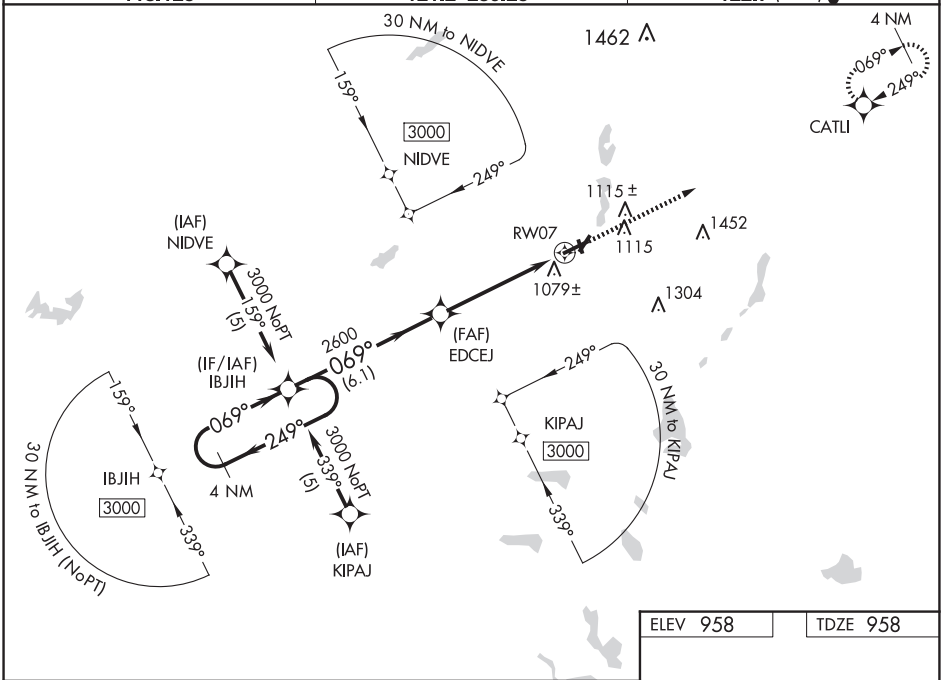
BRANCH COUNTY MEML (OEB)

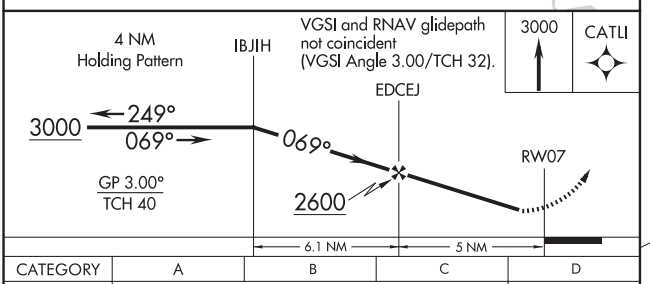
RNP APCH.

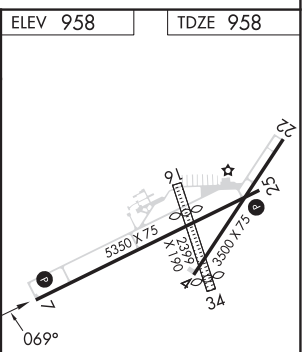
Rwy 7 helicopter visibility reduction below ¾ SM NA. Baro-VNAV NA when using Sturgis altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. Circling NA to Rwys 16 and 34. When local altimeter setting not received, use Sturgis altimeter setting and increase all DAs 48 feet and LPV visibility ¼ mile all Cats and all MDAs 60 feet and LNAV Cat C visibility ¼ mile.

MISSED APPROACH: Climb to 3000 direct CATLI and hold.

AWOS-3	GREAT LAKES APP CON ★	UNICOM
118.125	121.2 239.25	122.7 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1306-1¼ 348 (400-1¼)			NA
LNAV/VNAV DA	1417-1¾ 459 (500-1¾)			NA
LNAV MDA	1420-1 462 (500-1)		1420-1¼ 462 (500-1¼)	NA
CIRCLING	1420-1 462 (500-1)	1440-1 482 (500-1)	1560-1¾ 602 (700-1¾)	NA

MIRL Rwys 4-22 and 7-25 L
REIL Rwys 7 and 25 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

COLDWATER, MICHIGAN | AL-5259 (FAA) | 23278

WAAS	APP CRS	Rwy Idg	5350
CH 99606	249°	TDZE	958
W25A		Apt Elev	958

RNAV (GPS) RWY 25

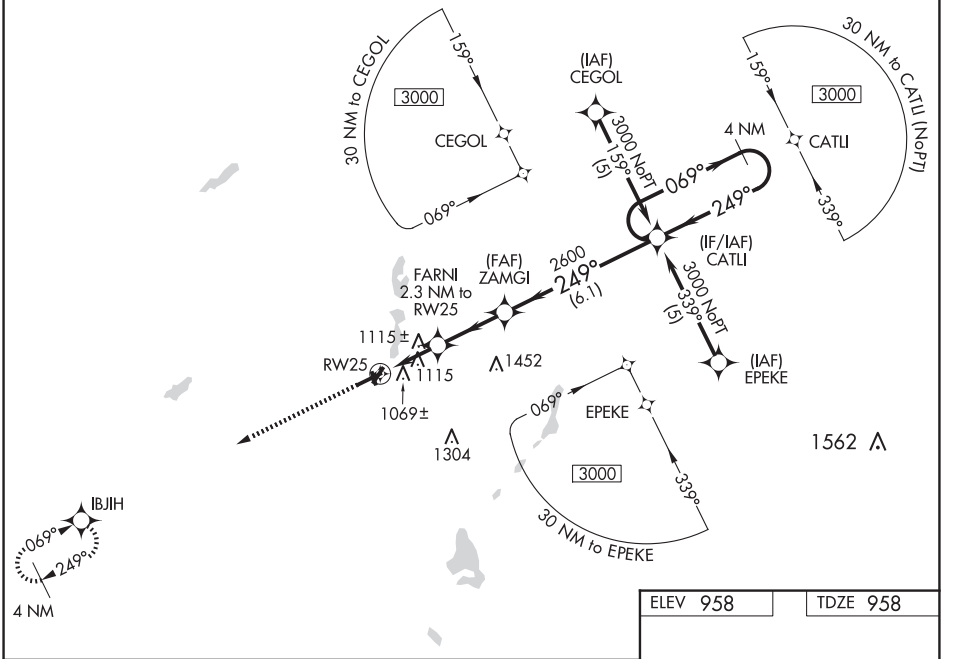
BRANCH COUNTY MEML (OEB)

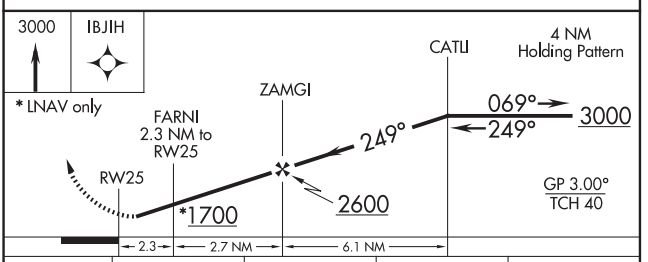
RNP APCH.

Rwy 25 helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Sturgis altimeter setting and increase all DAs 48 feet and LPV visibility ¼ mile all Cats and all MDAs 60 feet and LNAV Cat C visibility ¼ mile. Baro-VNAV NA when using Sturgis altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. Circling NA to Rwys 16 and 34.

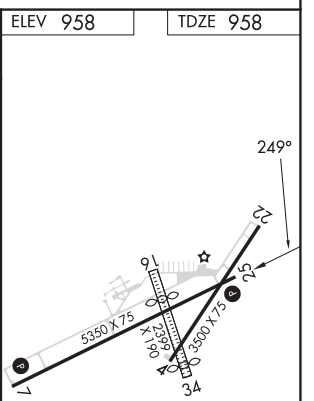
MISSED APPROACH: Climb to 3000 direct IBJIH and hold.

AWOS-3	GREAT LAKES APP CON ★	UNICOM
118.125	121.2 239.25	122.7 (CTAF) L





CATEGORY	A	B	C	D
LPV DA	1305-1¼ 347 (400-1¼)			NA
LNAV/VNAV DA	1423-1¾ 465 (500-1¾)			NA
LNAV MDA	1420-1 462 (500-1)		1420-1¼ 462 (500-1¼)	NA
CIRCLING	1420-1 462 (500-1)	1440-1 482 (500-1)	1560-1¾ 602 (700-1¾)	NA



MIRL Rwys 4-22 and 7-25 L
REIL Rwys 7 and 25 L

COLDWATER, MICHIGAN
Orig-B 25MAR21

41°56'N-85°03'W

BRANCH COUNTY MEML (OEB)
RNAV (GPS) RWY 25

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ILS or LOC RWY 15

COLEMAN A YOUNG MUNI (DET)

LOC I-DET	APP CRS	Rwy Idg	5092
111.3	148°	TDZE	623
		Apt Elev	624

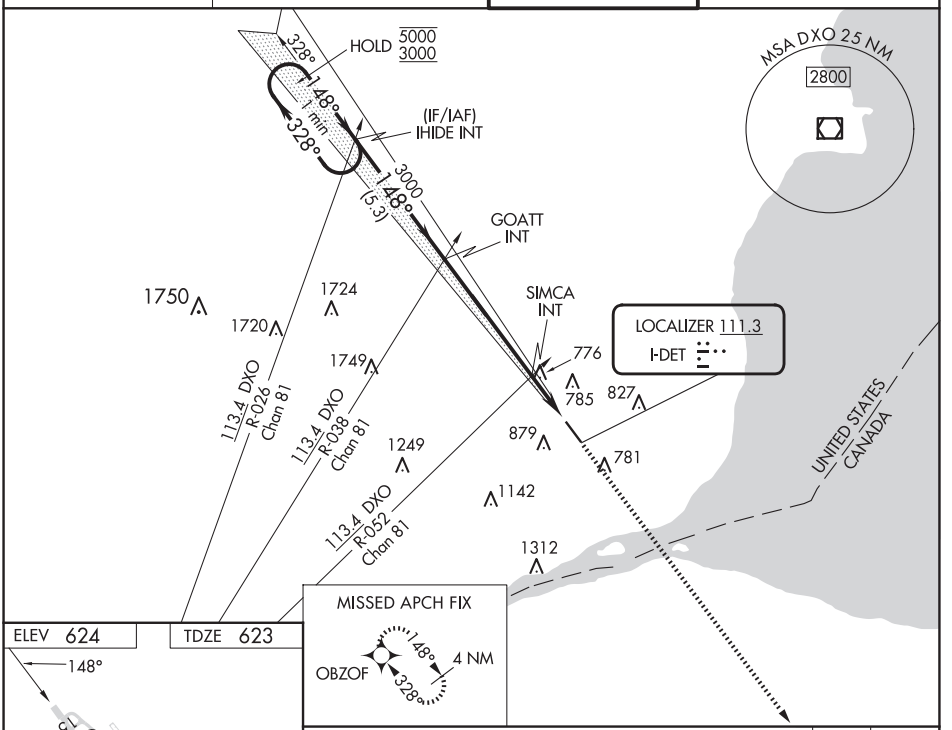
RNP APCH - GPS.

RADAR required for procedure entry.

Rwy 15 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 3000 direct OBZOF and hold.

ATIS	DETROIT APP CON	DETROIT CITY TOWER	GND CON
124.875	134.3 284.0	121.3 257.8	121.85



MIRL Rwy 7-25
HIRL Rwy 15-33
REIL Rwys 15 and 33

FAF to MAP 7.3 NM

Knots	60	90	120	150	180
Min:Sec	7:18	4:52	3:39	2:55	2:26

CATEGORY	A	B	C	D
S-ILS 15	910-⅞ 287 (300-⅞)			
S-LOC 15	1040-1 417 (500-1)		1040-1⅛ 417 (500-1⅛)	
C CIRCLING	1180-1 556 (600-1)		1320-2 696 (700-2)	1500-2¾ 876 (900-2¾)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ILS or LOC RWY 33

COLEMAN A YOUNG MUNI (DET)

LOC I-VQM	APP CRS	Rwy Idg	5092
111.3	328°	TDZE	624
		Apt Elev	624

RNP APCH - GPS.

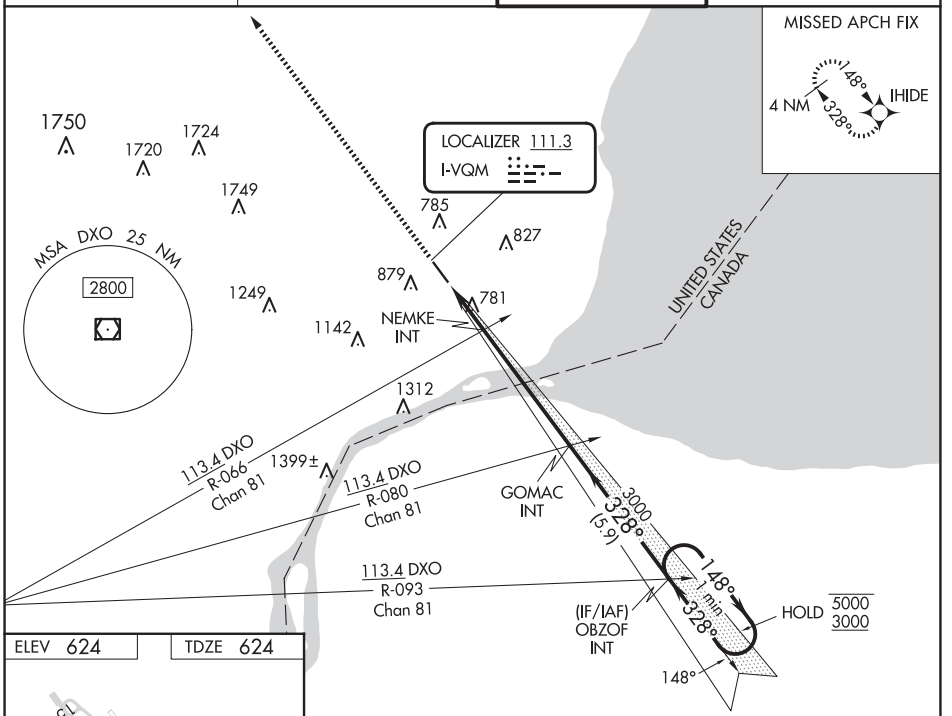
RADAR required for procedure entry.

Rwy 33 helicopter visibility reduction below ¾ SM NA.

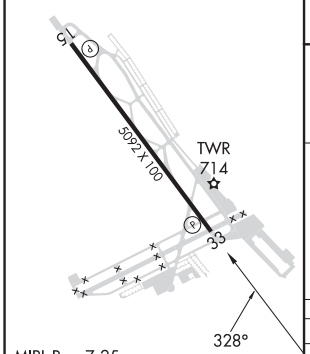
MISSED APPROACH: Climb to 3000 direct IHIDE and hold.

ATIS	DETROIT APP CON	DETROIT TOWER	GND CON
124.875	134.3 284.0	121.3 257.8	121.85

MISSED APCH FIX



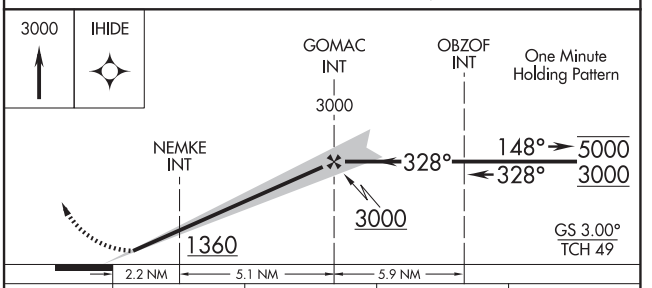
ELEV 624 TDZE 624



MIRL Rwy 7-25
HIRL Rwy 15-33
REIL Rwys 15 and 33

FAF to MAP 7.3 NM

Knots	60	90	120	150	180
Min:Sec	7:18	4:52	3:39	2:55	2:26



CATEGORY	A	B	C	D
S-ILS 33	874-¾ 250 (300-¾)			
S-LOC 33	1040-1 416 (500-1)		1040-1⅛ 416 (500-1⅛)	
C CIRCLING	1180-1 556 (600-1)		1320-2 696 (700-2)	1500-2¾ 876 (900-2¾)

42°25′N-83°01′W

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	5092
CH 63211	148°	TDZE	623
W15A		Apt Elev	624

RNAV (GPS) RWY 15

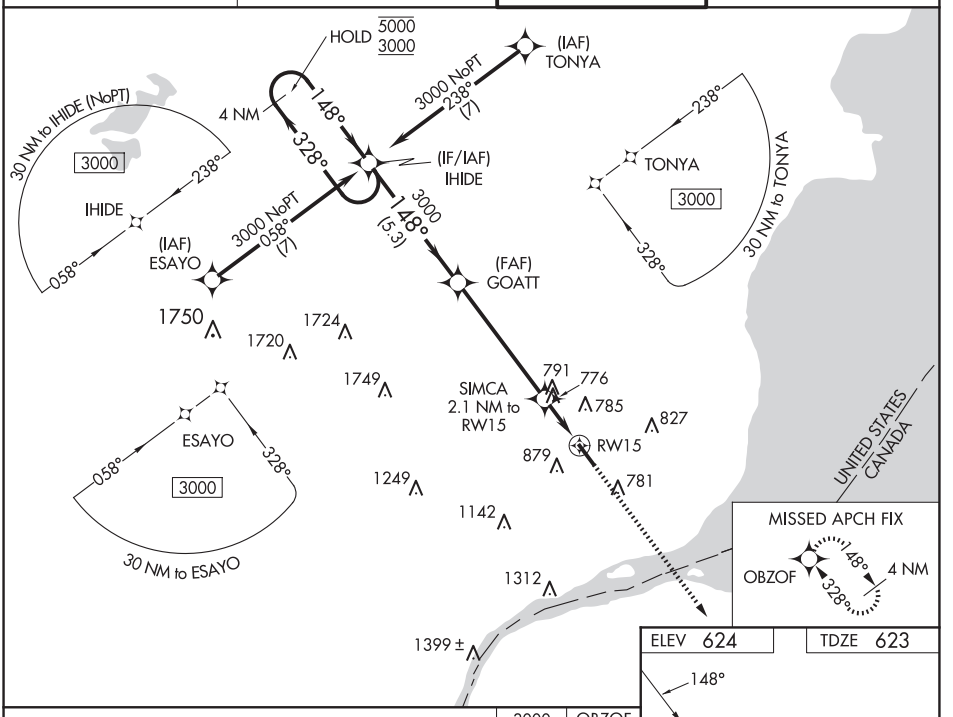
COLEMAN A YOUNG MUNI (DET)

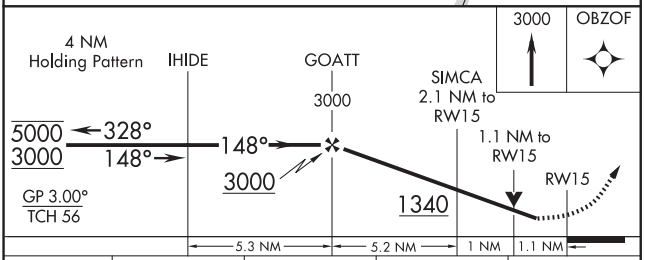
RNP APCH - GPS.

Rwy 15 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C or above 54°C. Baro-VNAV and VDP NA when using DTW altimeter setting.

MISSED APPROACH: Climb to 3000 direct OBZOF and hold.

ATIS	DETROIT APP CON	DETROIT CITY TOWER	GND CON
124.875	134.3 284.0	121.3 257.8	121.85





CATEGORY	A	B	C	D
LPV DA		910-⅞	287 (300-⅞)	
LNAV/VNAV DA		1016-1⅛	393 (400-1⅛)	
LNAV MDA	1040-1 417 (500-1)		1040-1⅛ 417 (500-1⅛)	
C CIRCLING	1180-1 556 (600-1)		1320-2 696 (700-2)	1500-2¾ 876 (900-2¾)

MIRL Rwy 7-25
HIRL Rwy 15-33
REIL Rwys 15 and 33

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN | AL-118 (FAA) | 25051

RNAV (GPS) RWY 33

COLEMAN A YOUNG MUNI (DET)

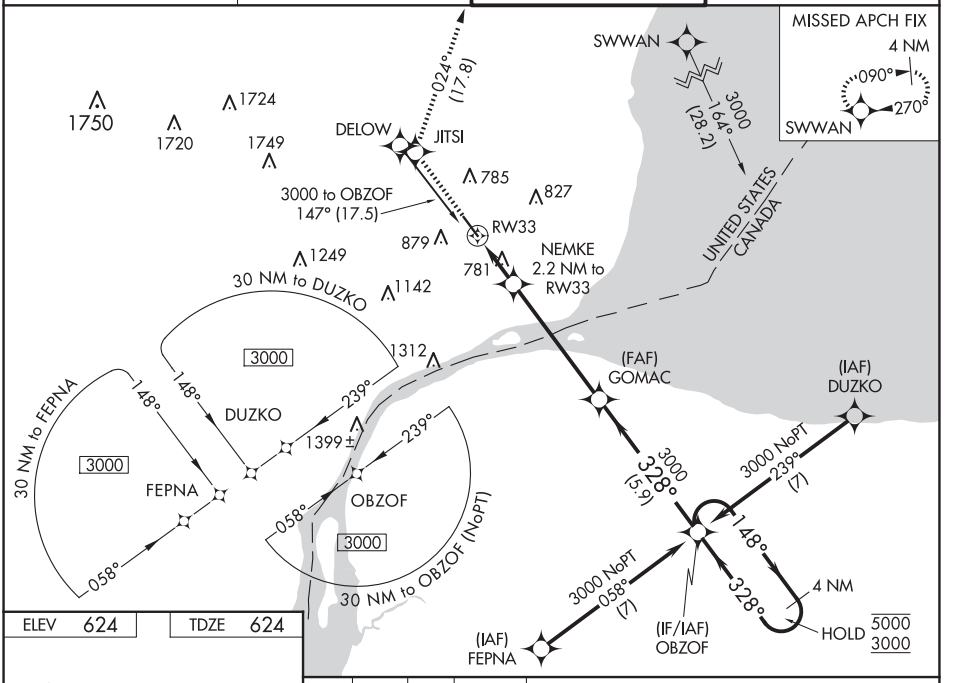
WAAS	APP CRS	Rwy Idg	5092
CH 58211	328°	TDZE	624
W33A		Apt Elev	624

RNP APCH - GPS.

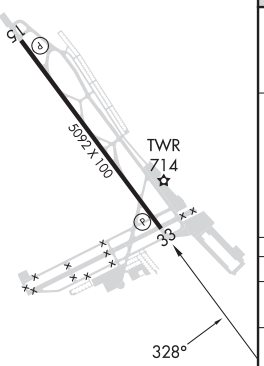
Rwy 33 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C or above 54°C. Baro-VNAV and VDP NA when using DTW altimeter setting.

MISSED APPROACH: Climb to 4000 direct JITSI and on track 024° to SWWAN and hold.

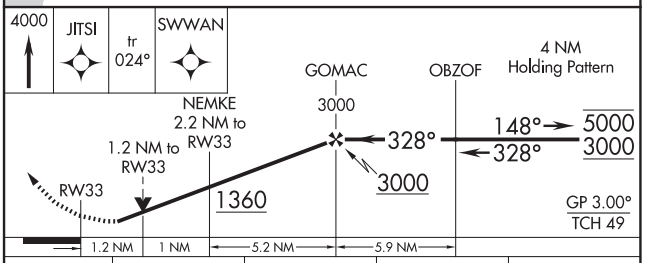
ATIS	DETROIT APP CON	DETROIT CITY TOWER	GND CON
124.875	134.3 284.0	121.3 257.8	121.85



ELEV 624 | TDZE 624



MIRL Rwy 7-25
HIRL Rwy 15-33
REIL Rwys 15 and 33



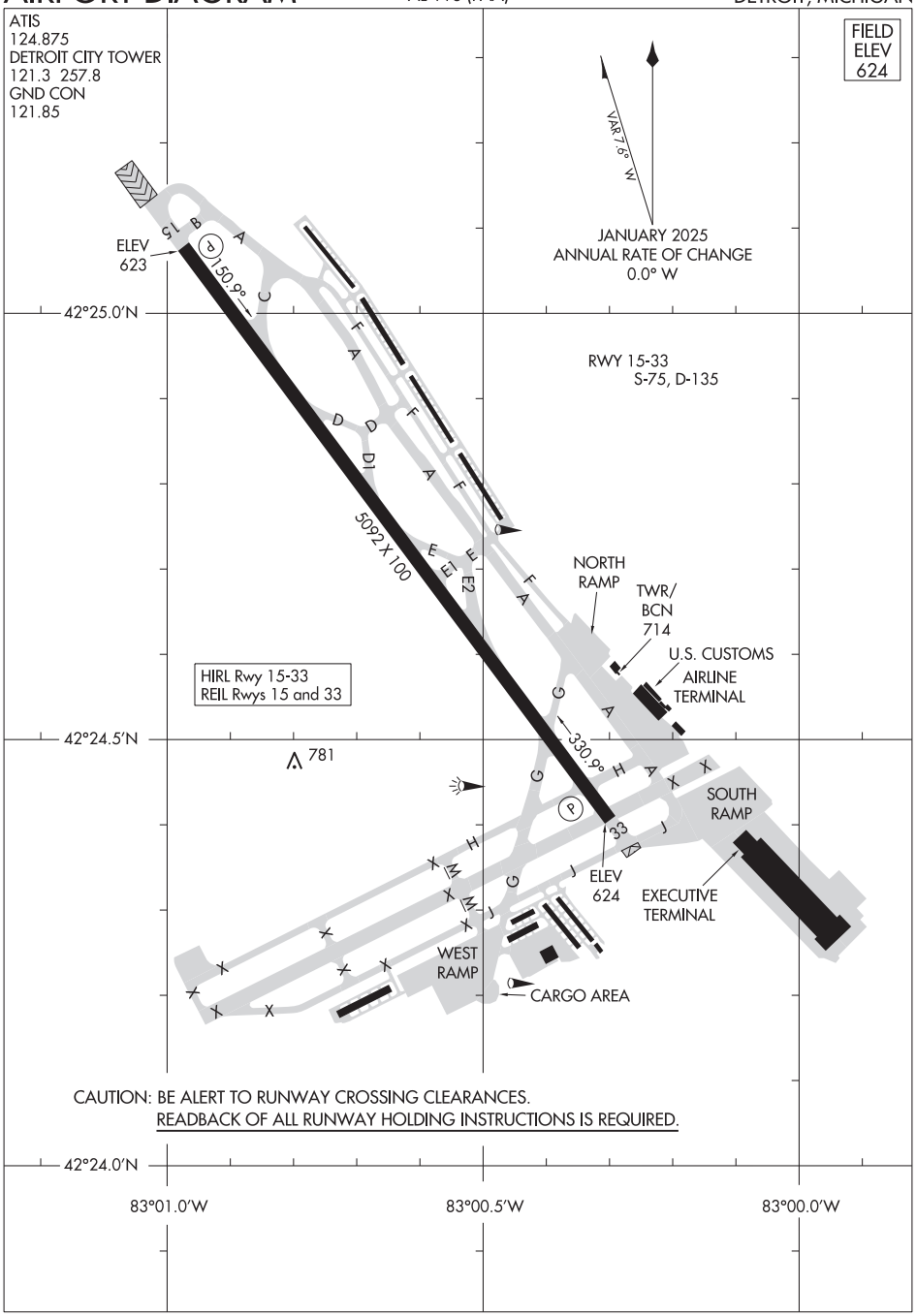
CATEGORY	A	B	C	D
LPV DA	874-¾ 250 (300-¾)			
LNAV/VNAV DA	1039-1⅛ 415 (500-1⅛)			
LNAV MDA	1040-1 416 (500-1)		1040-1⅛ 416 (500-1⅛)	
C CIRCLING	1180-1 556 (600-1)		1320-2 696 (700-2)	1500-2¾ 876 (900-2¾)

DETROIT, MICHIGAN
Amdt 1 26DEC24

42°25′N-83°01′W

COLEMAN A YOUNG MUNI (DET)
RNAV (GPS) RWY 33

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(BARII3.BARII) 24137

BARII THREE DEPARTURE (RNAV)

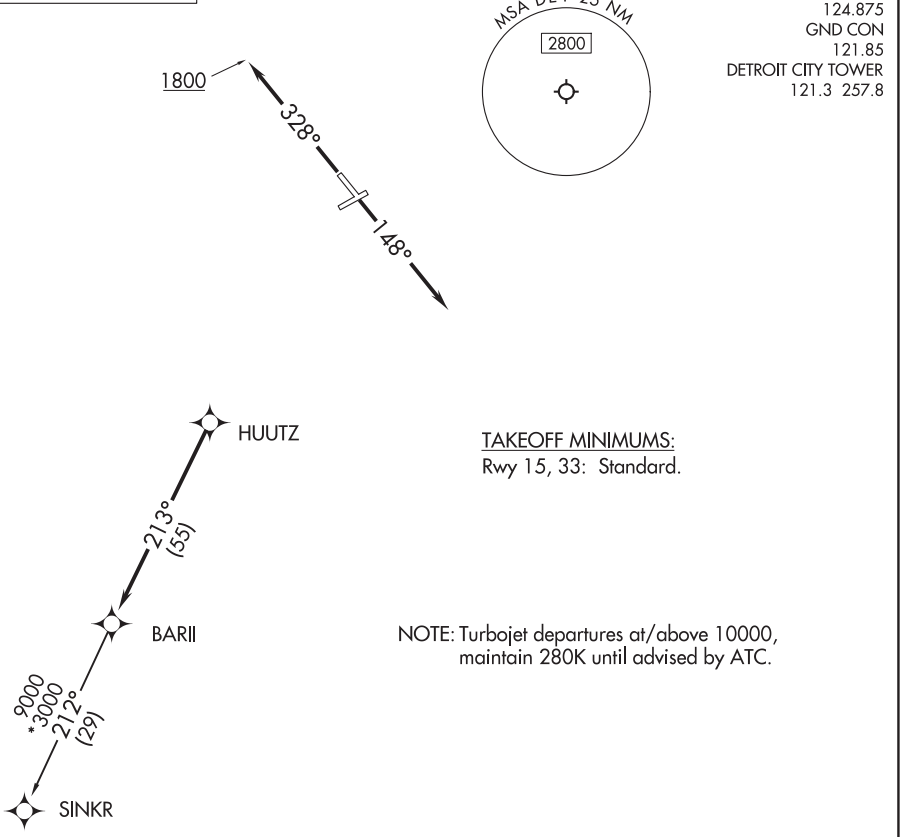
AL-118 (FAA)

COLEMAN A YOUNG MUNI (DET)
DETROIT, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
134.3 284.0
ATIS
124.875
GND CON
121.85
DETROIT CITY TOWER
121.3 257.8



TAKEOFF MINIMUMS:
Rwy 15, 33: Standard.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 148° or as assigned by ATC, thence....
TAKEOFF RUNWAY 33: Climb on heading 328° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to HUUTZ, then on track 213° to BARII, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SINKR TRANSITION (BARII3.SINKR):

EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR 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: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 148° or as assigned by ATC, thence....
TAKEOFF RUNWAY 33: Climb on heading 328° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to BROZZ, then on track 279° to CCOBB, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

ZEGBI TRANSITION (CCOBB3.ZEGBI):

(CLVIN3.CLVIN) 24137

CLVIN THREE DEPARTURE (RNAV)

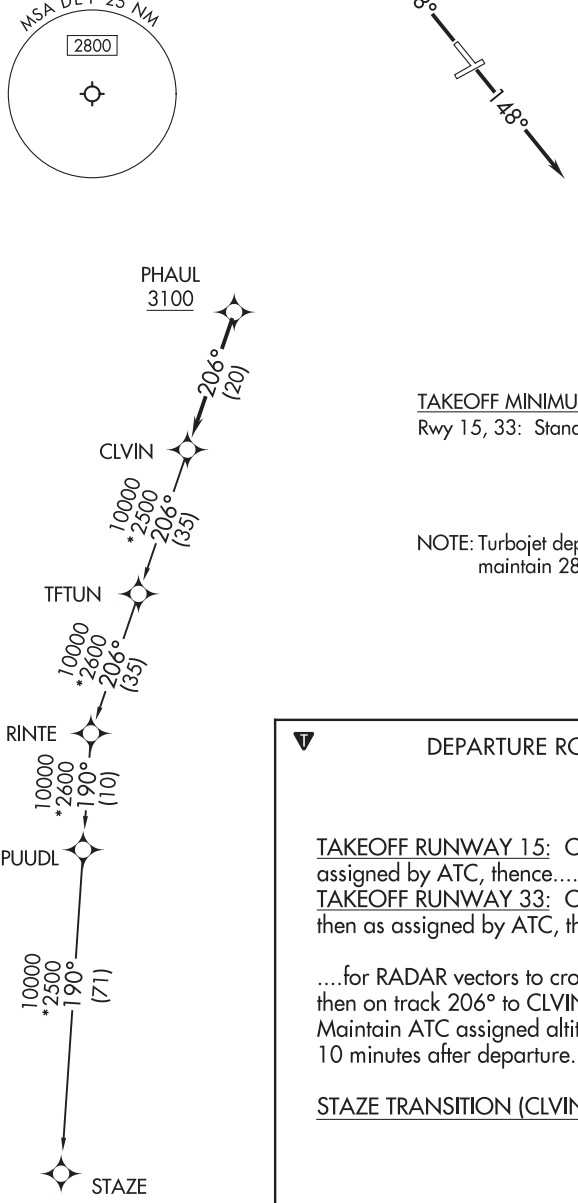
AL-118 (FAA)

COLEMAN A YOUNG MUNI (DET)
DETROIT, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
134.3 284.0
ATIS
124.875
GND CON
121.85
DETROIT CITY TOWER
121.3 257.8



TAKEOFF MINIMUMS:
Rwy 15, 33: Standard.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 148° or as assigned by ATC, thence....
TAKEOFF RUNWAY 33: Climb on heading 328° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to cross PHAUL at or above 3100, then on track 206° to CLVIN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

STAZE TRANSITION (CLVIN3.STAZE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HHOWE FOUR DEPARTURE (RNAV) AL-118 (FAA)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 148° or as assigned by ATC thence....

TAKEOFF RUNWAY 33: Climb on heading 328° to 1800 then as assigned thence....

....For RADAR vectors to cross MALTB at or above 2200, then on track 094° to HHOWE, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BROKK TRANSITION (HHOWE4.BROKK):

LNCON TRANSITION (HHOWE4.LNCON):

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 148° or as assigned by ATC, thence....
TAKEOFF RUNWAY 33: Climb on heading 328° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to MTRCT, then on track 279° to KAYLN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SMUUV TRANSITION (KAYLN3.SMUUV):

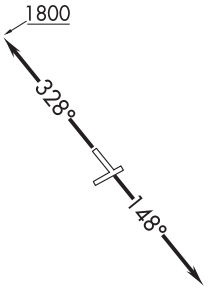
KZLOV TWO DEPARTURE (RNAV)

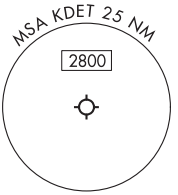
AL-118 (FAA)

DETROIT DEP CON
134.3 284.0
ATIS
124.875
GND CON
121.85
DETROIT CITY TOWER
121.3 257.8

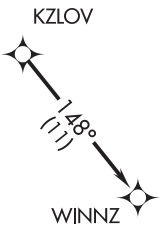
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC





TAKEOFF MINIMUMS:
Rwy 15, 33: Standard.



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: For use by Cleveland terminal arrivals only.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 148° or as assigned by ATC, thence....

TAKEOFF RUNWAY 33: Climb on heading 328° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to KZLOV, then on track 148° to WINNZ. Maintain ATC assigned altitude, expect filed altitude ten minutes after departure.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(LIDDS4.LIDDS) 25107

LIDDS FOUR DEPARTURE (RNAV)

AL-118 (FAA)

COLEMAN A YOUNG MUNI (DET)

DETROIT, MICHIGAN

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 148° or as assigned by ATC, thence....

TAKEOFF RUNWAY 33: Climb on heading 328° to 1800 then as assigned by ATC, thence....

.... for RADAR vectors to cross KZLOV at or below 15000, then on track 111° to LIDDS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

GRIVY TRANSITION (LIDDS4.GRIVY):

LIDDS FOUR DEPARTURE (RNAV)
(LIDDS4.LIDDS) 17APR25
DETROIT, MICHIGAN
COLEMAN A YOUNG MUNI (DET)
EC-1, 07 AUG 2025 to 02 OCT 2025

TAKEOFF MINIMUMS

Rwys 15, 33: Standard.

NOTE: For use by non-RNAV equipped aircraft only.
NOTE: When using this departure, file the appropriate depicted departure fix and route. Aircraft over HARWL must file FL220 and below. 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.

SPECIAL INSTRUCTIONS:

For appropriate departure control frequency, see graphic. Use frequency depicted within the sector where first navaid/fix for your route is located (sectors indicated by dashed lines; frequencies in dashed box within).

(CONTINUED ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on assigned heading, thence....
TAKEOFF RUNWAY 33: Climb heading 328° to 1800, then 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 (METRO4.DUNKS): From over DXO VOR/DME on DXO R-296 to DUNKS.
HARWL TRANSITION (METRO4.HARWL): From over DXO VOR/DME on DXO R-281 to HARWL.
ILLIE TRANSITION (METRO4.ILLIE): From over DXO VOR/DME on DXO R-217 to ILLIE.
MAARS TRANSITION (METRO4.MAARS): From over DXO VOR/DME on DXO R-106 to MAARS.
PISTN TRANSITION (METRO4.PISTN): From over DXO VOR/DME on DXO R-020 to PISTN.

EC-1, 07 AUG 2025 to 02 OCT 2025

MIGGY THREE DEPARTURE (RNAV)
(MIGGY3.MIGGY) 16MAY24
DETROIT, MICHIGAN
COLEMAN A YOUNG MUNI (DET)

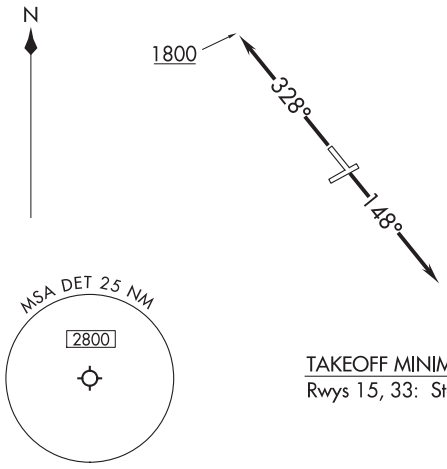
PAVYL THREE DEPARTURE (RNAV)

(PAVYL3.PAVYL) 16MAY24

TOP ALTITUDE: ASSIGNED BY ATC

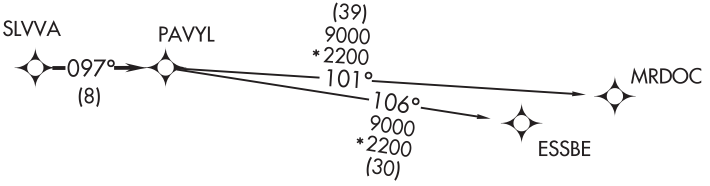
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

ATIS 124.875
GND CON 121.85
DETROIT CITY TOWER 121.3 257.8
DETROIT DEP CON 134.3 284.0



NOTE: Jet departures at/above 10000, maintain 280K until advised by ATC.

TAKEOFF MINIMUMS:
Rwys 15, 33: Standard.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 148° or as assigned by ATC, thence....
TAKEOFF RUNWAY 33: Climb on heading 328° to 1800 then as assigned by ATC, thence....

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

ESSBE TRANSITION (PAVYL3.ESSBE):

MRDOC TRANSITION (PAVYL3.MRDOC):

(PAVYL3.PAVYL) 24137
PAVYL THREE DEPARTURE (RNAV)
AL-118 (FAA)

COLEMAN A YOUNG MUNI (DET)
DETROIT, MICHIGAN

COLEMAN A YOUNG MUNI (DET)
DETROIT, MICHIGAN

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 148° or as assigned by ATC, thence....

TAKEOFF RUNWAY 33: Climb on heading 328° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to JWELS, then on track 218° to SNDRS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BGHRT TRANSITION (SNDRS3.BGHRT):
TORRR TRANSITION (SNDRS3.TORRR):

TOP ALTITUDE: ASSIGNED BY ATC

RNAV-1 DME/DME/IRU or GPS.

RADAR required.

DETROIT DEP CON 134.3 284.0
ATIS 124.875
GND CON 121.85
DETROIT CITY TOWER 121.3 257.8

TAKEOFF MINIMUMS:
Rwys 15, 33: Standard.

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: Chart not to scale.

(TRMML4.TRMML) 24137

TRMML FOUR DEPARTURE (RNAV)

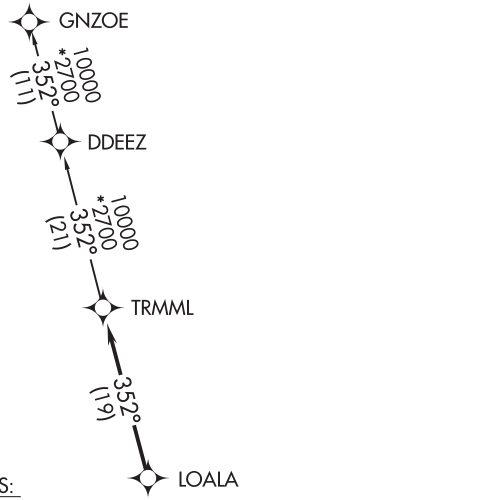
AL-118 (FAA)

COLEMAN A YOUNG MUNI (DET)
DETROIT, MICHIGAN

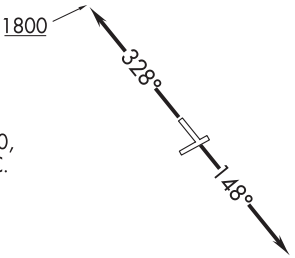
TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

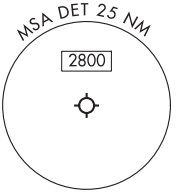
DETROIT DEP CON
134.3 284.0
ATIS
124.875
GND CON
121.85
DETROIT CITY TOWER
121.3 257.8



TAKEOFF MINIMUMS:
Rwys 15, 33: Standard.



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 148° or as assigned by ATC, thence....
TAKEOFF RUNWAY 33: Climb on heading 328° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to LOALA, then on track 352° to TRMML, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

GNZOE TRANSITION (TRMML4.GNZOE):

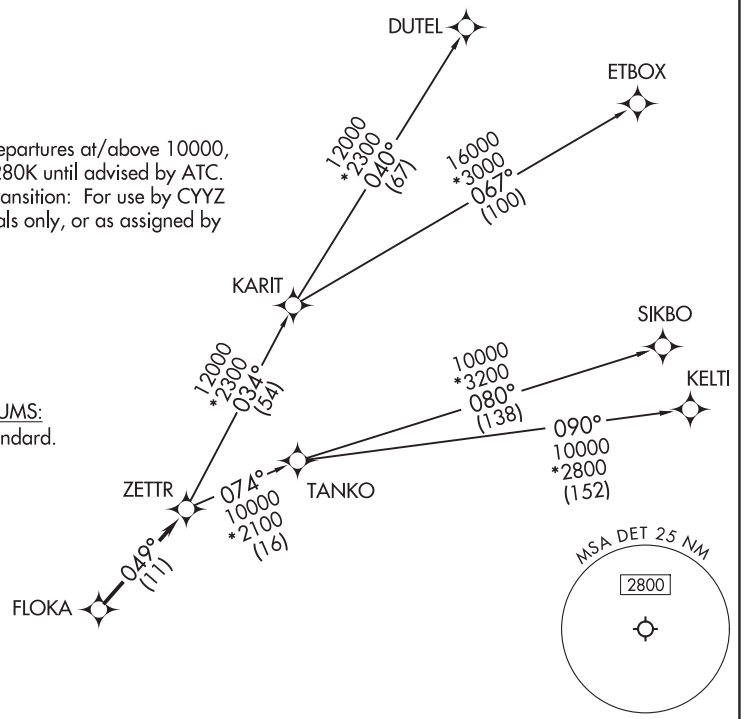
EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT DEP CON
134.3 284.0
ATIS
124.875
GND CON
121.85
DETROIT CITY TOWER
121.3 257.8

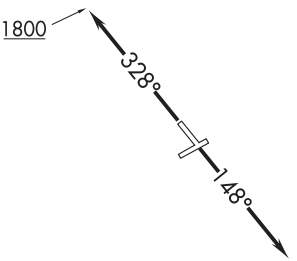
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

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.



TAKEOFF MINIMUMS:
Rwys 15, 33: Standard.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 15: Climb on heading 148° or as assigned by ATC, thence....
TAKEOFF RUNWAY 33: Climb on heading 328° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to FLOKA, then on track 049° to ZETTR, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

DUTEL TRANSITION (ZETTR4.DUTEL):
ETBOX TRANSITION (ZETTR4.ETBOX):
KELTI TRANSITION (ZETTR4.KELTI):
SIKBO TRANSITION (ZETTR4.SIKBO):
TANKO TRANSITION (ZETTR4.TANKO):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN | AL-119 (FAA) | 25163

LOC/DME I-HUU	APP CRS	Rwy Ldg 10001
111.5	036°	TDZE 633
Chan 52		Apt Elev 645

ILS or LOC RWY 3R

DETROIT METRO WAYNE COUNTY (DTW)

RNAV 1-GPS.

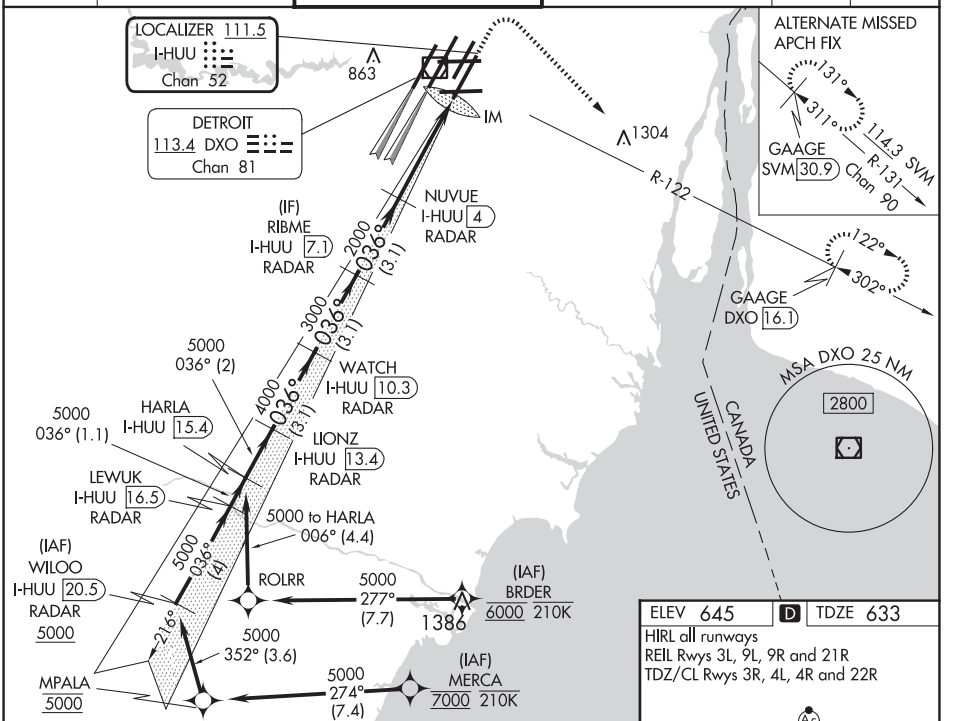
MERCA and BRDER: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.

Simultaneous approach authorized. DME required.

ALSF-2

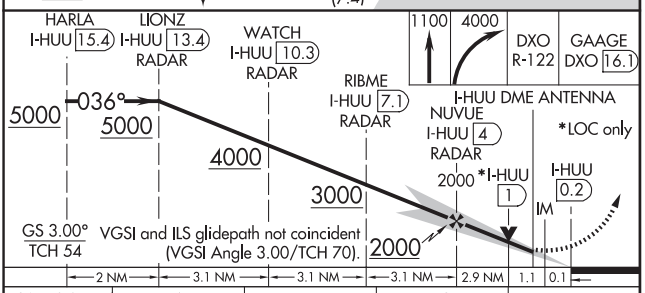
MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 on DXO VOR/DME R-122 to GAAGE/DXO 16.1 DME and hold.

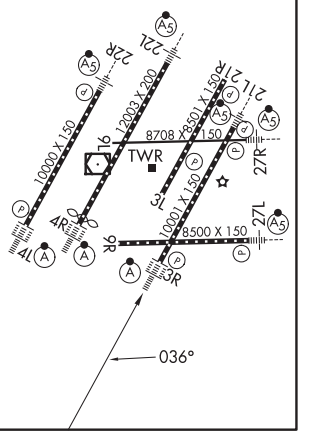
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	125.15 284.0	118.4 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



ELEV 645 | D | TDZE 633

HIRL all runways
REIL Rwys 3L, 9L, 9R and 21R
TDZ/CL Rwys 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 (500-⅞)
C CIRCLING	1180-1	535 (600-1)	1180-1½ 535 (600-1½)	1240-2 595 (600-2)

DETROIT, MICHIGAN
Amdt 18 24MAY18

42°13′N-83°21′W

DETROIT METRO WAYNE COUNTY (DTW)
ILS or LOC RWY 3R

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ILS or LOC RWY 4R

DETROIT METRO WAYNE COUNTY (DTW)

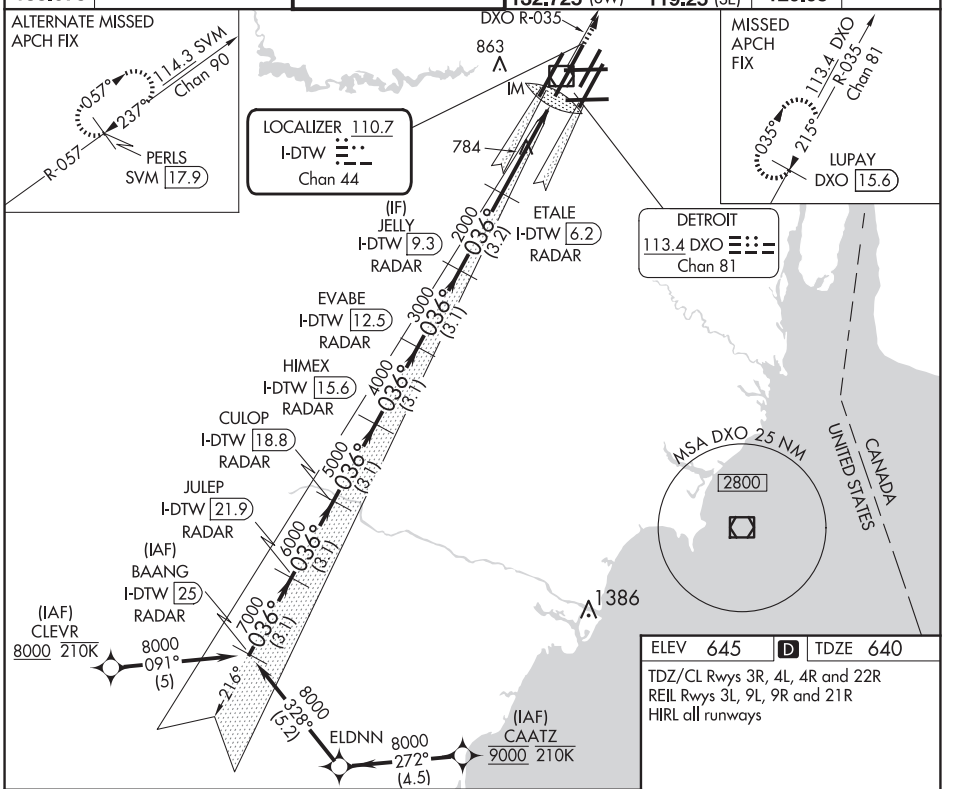
LOC/DME I-DTW	APP CRS	Rwy Ldg	11494
110.7	036°	TDZE	640
Chan 44		Apt Elev	645

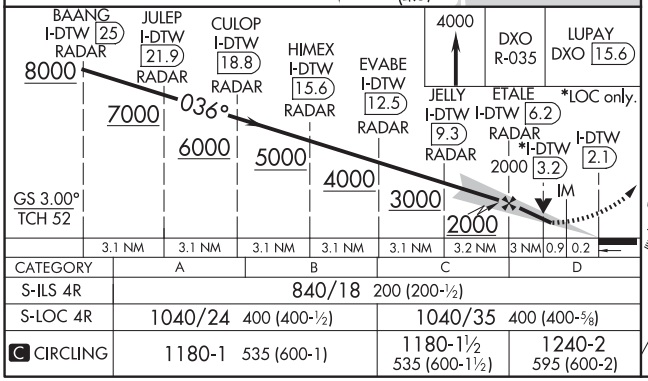
RNAV 1-GPS.
CLEVR, CAATZ and ELDNN: RNAV 1-DME/DME/IRU or GPS required.
Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.
DME or RADAR required.
Simultaneous approach authorized. For inop ALS, increase S-LOC 4R Cat C/D visibility to RVR 6000.

ALSF-2

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

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON		CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725	121.8 (NW) 132.725 (SW)	119.45 (NE) 119.25 (SE)	120.65	

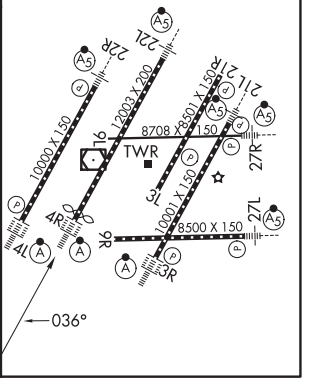




CATEGORY	A	B	C	D
S-ILS 4R	840/18 200 (200-½)			
S-LOC 4R	1040/24 400 (400-½)		1040/35 400 (400-⅝)	
C CIRCLING	1180-1 535 (600-1)		1180-1½ 535 (600-1½)	1240-2 595 (600-2)

ELEV 645 | D | TDZE 640

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



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

AL-119 (FAA)

25163

ILS or LOC RWY 21L

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-EJR	APP CRS	Rwy Ldg	10001
111.5	216°	TDZE	632
Chan 52		Apt Elev	645

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.

T 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 DXO R-122 to GAAGE/DXO 16 DME and hold, continue climb-in-hold to 4000.

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	

CARLETON CRL 115.7 Chan 104
ALTERNATE MISSED APCH FIX
180° 360° R-180

MISSED APCH FIX
113.4 DXO R-122 Chan 81
122° 302°
GAAGE DXO 16

GIVVZ 5000
(IAF) COUNT I-EJR 24.1 RADAR 5000
036°
5000 274° (2.6)
TOFFY 6000
5200 306° (3.6)
(IAF) RYEDR 7000 210K
5000 226° (2.1)
5000 216° (5.6)
6000 280° (4)
(IAF) COBBO 6000 210K
KAALI
5000 245° (3.1)
1750
TIGRZ I-EJR 18.5 RADAR
3000 216° (3.1)
4000 216° (3.1)
ROBBI I-EJR 15.4 RADAR
3000 216° (3.1)
BALAS I-EJR 12.2 RADAR
2000 216° (3.1)
(IF) NESBI I-EJR 9.1 RADAR
PUKLE INT I-EJR 5.9 RADAR
114.3 SVM R-123 Chan 90
UNITED STATES CANADA
MSA DXO 25 NM
2800
795
ZITKA I-EJR 4.1 RADAR
751
863
1304
DETROIT 113.4 DXO Chan 81
LOCALIZER 111.5 I-EJR Chan 52
R-122

ELEV 645 D TDZE 632

216°
22L 22R 21L 21R 16 27R 3L 9L 4R 9R 4L 3R 27L
10000 X 150
12003 X 200
8708 X 150
8501 X 150
10001 X 150
8500 X 150
TWR

1100 4000 DXO R-122 GAAGE DXO 16

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 80).

*LOC only
I-EJR 1.8
*I-EJR 2.8
ZITKA I-EJR 4.1 RADAR
PUKLE INT I-EJR 5.9 RADAR
NESBI I-EJR 9.1 RADAR
BALAS I-EJR 12.2 RADAR
ROBBI I-EJR 15.4 RADAR
TIGRZ I-EJR 18.5 RADAR
216° 5000
GS 3.00° TCH 55
2000 3000 4000 5000
*1400 2000
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 (400-⅝)	
C CIRCLING	1180-1 535 (600-1)		1180-1½ 535 (600-1½)	1240-2 595 (600-2)

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

DETROIT, MICHIGAN
Amdt 14 10OCT19

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)

ILS or LOC RWY 21L

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

ILS or LOC RWY 22L

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-DWC	APP CRS	Rwy Ldg	12003
110.7	216°	TDZE	637
Chan 44		Apt Elev	645

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.

MALSR

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	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	

MISSED APCH FIX
CARLETON CRL 115.7 Chan 104
R-196>016° 196°>

ALTERNATE MISSED APCH FIX
HWLER DXO 16.7 RADAR
113.4 DXO R-214 Chan 81
034° 214°

(IAF) SPRER 8000 210K
8000 121° (2.9)
AKMEE
8000 (3.5) 146°
(IAF) PUZEL 9000 210K
036°
8000 277° (4.5)

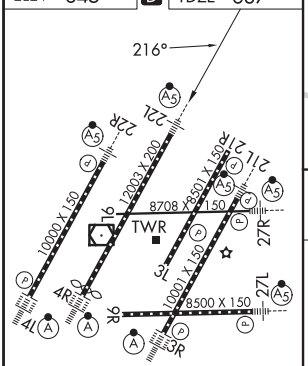
DRBRN I-DWC 20.7 RADAR
7000 216° (3.3)
(IAF) MCOMB I-DWC 24 RADAR 8000
6000 216° (3.3)
1750
5000 216° (3.3)
BHOLD I-DWC 17.4 RADAR
4000 216° (3.3)
LUPAY I-DWC 14.1 RADAR
3000 216° (3.3)
OSKER I-DWC 10.8 RADAR
2000 216° (3.3)
(IF) ROUGE I-DWC 7.5 RADAR
HULKA I-DWC 4.2 RADAR

SALEM 114.3 SVM Chan 90
R-121
DETROIT 113.4 DXO Chan 81

UNITED STATES
CANADA
MSA DXO 25 NM
2800

795
863
LOCALIZER 110.7 I-DWC Chan 44
CRL R-025
1304

ELEV 645 D TDZE 637



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

4000 hdg 216°
CRL R-025
CRL
* LOC only
I-DWC DME ANTENNA 0.2
*I-DWC 0.9
HULKA I-DWC 4.2 RADAR
ROUGE I-DWC 7.5 RADAR
OSKER I-DWC 10.8 RADAR
LUPAY I-DWC 14.1 RADAR
BHOLD I-DWC 17.4 RADAR
DRBRN I-DWC 20.7 RADAR
MCOMB I-DWC 24 RADAR
216°-8000
6000 7000
2000 3000 4000 5000
GS 2.85°
TCH 60

	1 NM	3.3 NM	3.3 NM	3.3 NM	3.3 NM	3.3 NM	3.3 NM	3.3 NM

CATEGORY	A	B	C	D
S-ILS 22L #	837/24 200 (200-½)			
S-LOC 22L	1020/24 383 (400-½)		1020/35 383 (400-⅝)	
C CIRCLING	1180-1 535 (600-1)		1180-1½ 535 (600-1½)	1240-2 595 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN | AL-119 (FAA) | 25163

ILS or LOC RWY 27L

DETROIT METRO WAYNE COUNTY (DTW)

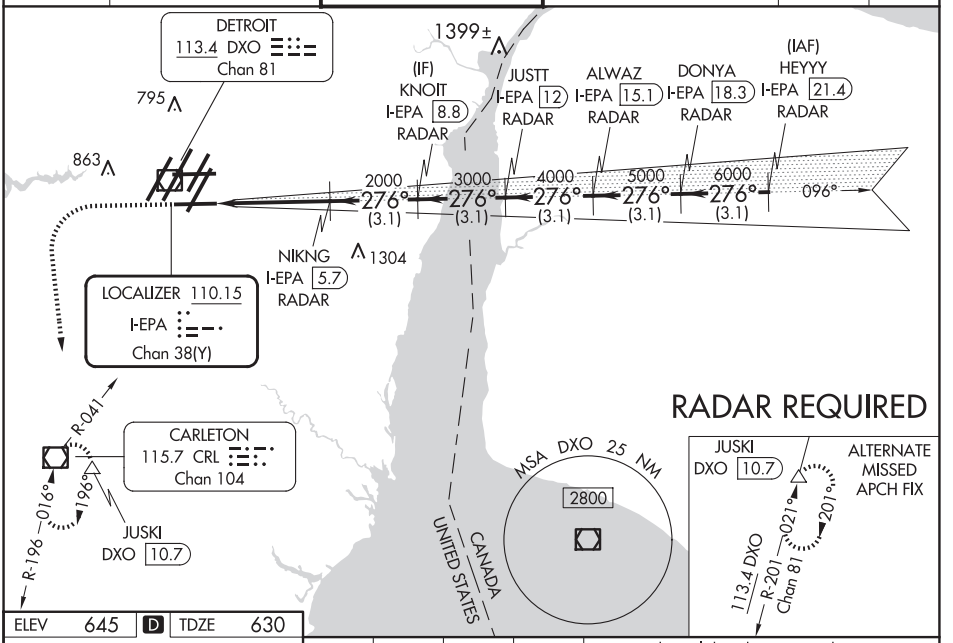
LOC/DME I-EPA	APP CRS	Rwy Ldg	8500
110.15	276°	TDZE	630
Chan 38(Y)		Apt Elev	645

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

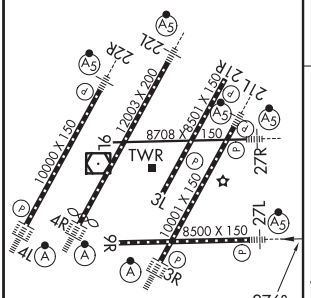
MALSR

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	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.75 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



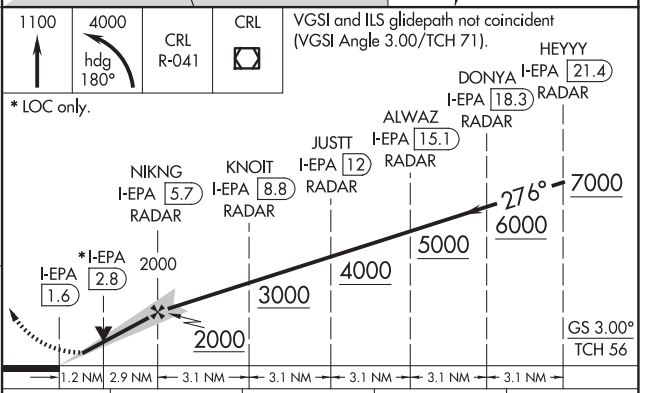
ELEV 645 | D | TDZE 630



TDZ/CL Rwys 3R, 4L, 4R and 22R
REIL Rwys 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



CATEGORY	A	B	C	D
S-ILS 27L **	830/24 200 (200-½)			
S-LOC 27L	1080/24 450 (500-½)		1080/45 450 (500-⅞)	
C CIRCLING	1180-1 535 (600-1)		1180-1½ 535 (600-1½)	1240-2 595 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ILS or LOC RWY 27R

DETROIT METRO WAYNE COUNTY (DTW)

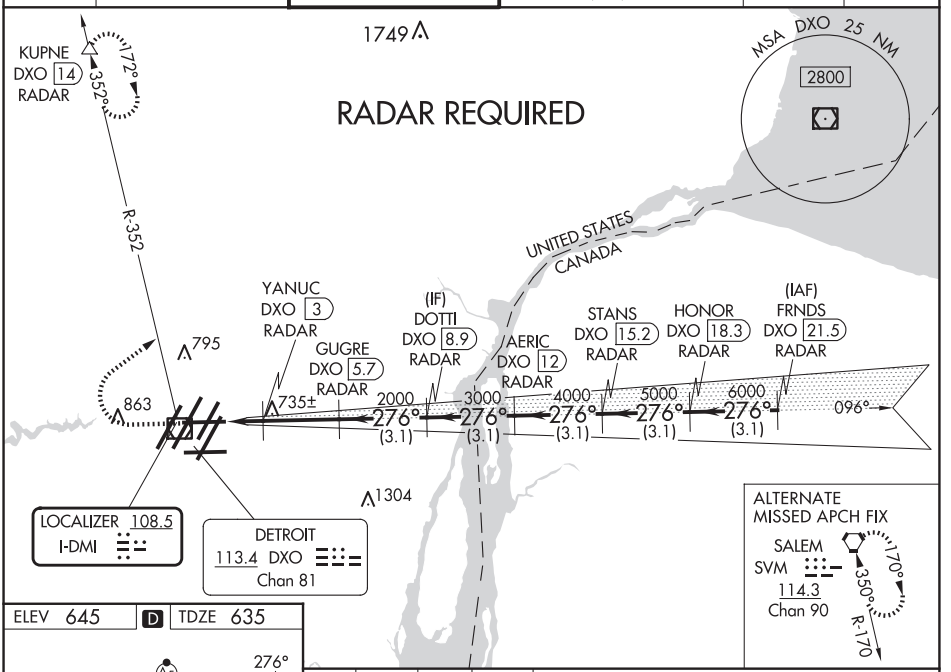
LOC I-DMI	APP CRS	Rwy Ldg	8708
108.5	276°	TDZE	635
		Apt Elev	645

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.

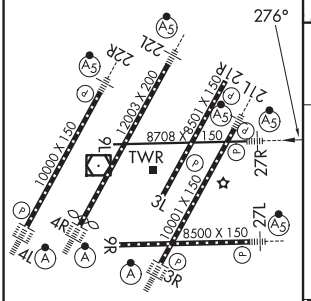
MALSR

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	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	



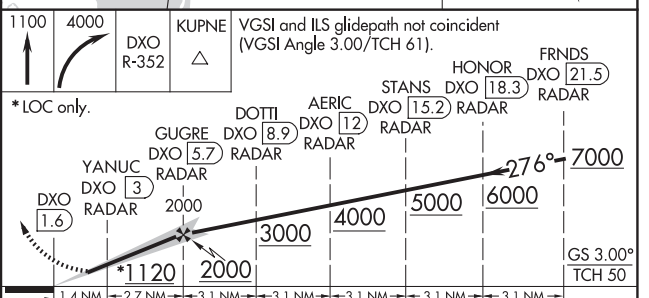
ELEV 645 D TDZE 635



TDZ/CL Rwys 3R, 4L, 4R and 22R
REIL Rwys 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



CATEGORY	A	B	C	D
S-ILS 27R	** 835/24 200 (200-½)			
S-LOC 27R	1000/24 365 (400-½)		1000/35 365 (400-⅝)	
C CIRCLING	1180-1 535 (600-1)		1180-1½ 535 (600-1½)	1240-2 595 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN | AL-119 (FAA) | 25163

LOC/DME I-HJT	APP CRS	Rwy Ldg	10000
111.95	036°	TDZE	645
Chan 56 (Y)		Apt Elev	645

ILS Z or LOC RWY 4L

DETROIT METRO WAYNE COUNTY (DTW)

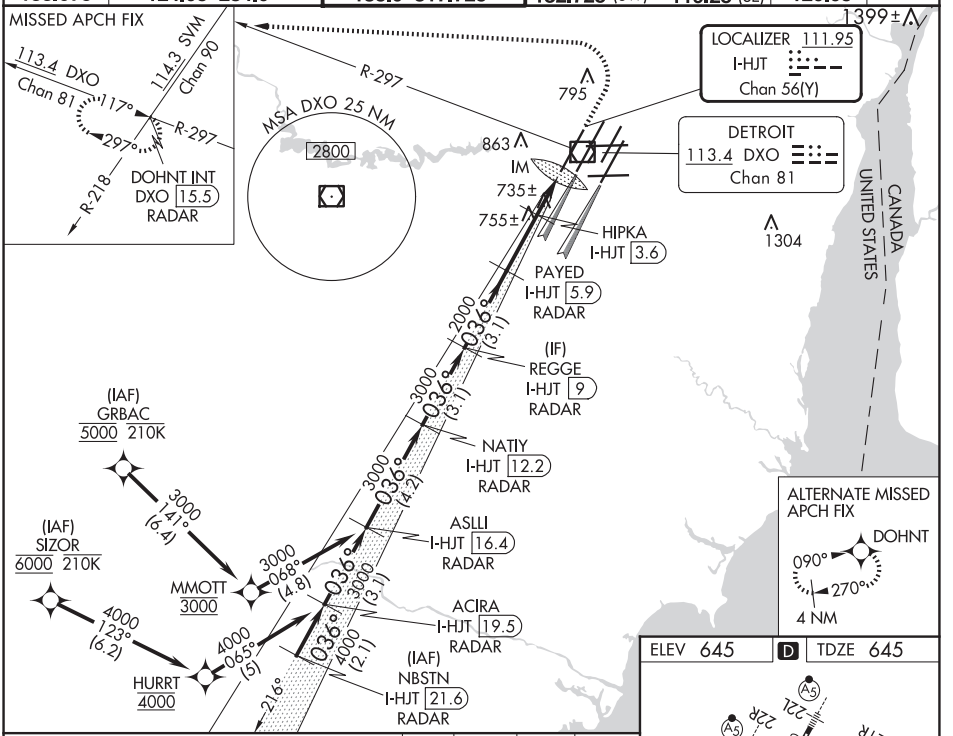
From GRBAC, SIZOR: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry. DME or RADAR required.

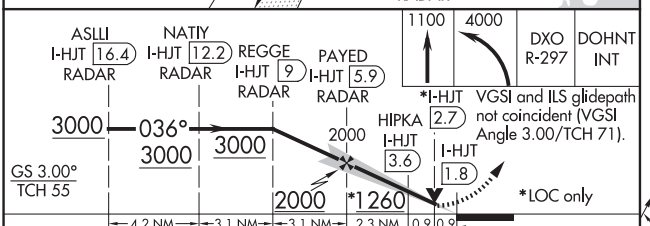
Simultaneous approach authorized.

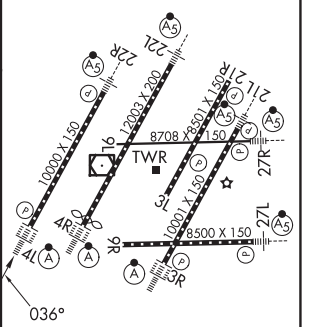
ALSF-2

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	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	







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 4L	845/18 200 (200-½)			
S-LOC 4L	1260/24 615 (700-½)		1260-1⅜ 615 (700-1⅜)	
C CIRCLING	1260-1 615 (700-1)		1260-1¾ 615 (700-1¾)	1260-2 615 (700-2)
HIPKA FIX MINIMUMS (DME REQUIRED)				
S-LOC 4L	1000/24 355 (400-½)		1000/30 355 (400-⅝)	
C CIRCLING	1180-1 535 (600-1)		1180-1½ 535 (600-1½)	1240-2 595 (600-2)

FAF to MAP 4.1 NM

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

DETROIT, MICHIGAN
Amdt 4C 30JAN20

42°13′N-83°21′W

DETROIT METRO WAYNE COUNTY (DTW)
ILS Z or LOC RWY 4L

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

ILS Z or LOC RWY 22R

DETROIT METRO WAYNE COUNTY (DTW)

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

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.
**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 on DXO VOR/DME R-297 to DOHNT INT/DXO 15.5 DME 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	

ALTERNATE MISSED APCH FIX
DOHNT
090° 270°
4 NM

(IAF) HRRON 6000 210K
(IAF) VALLI 6000 210K
PRYDE 4000
4000 to FUDDJ 190° (5.7)
4000 113° (6.9)
4000 097° (7.6)
KLIER 4000
(IAF) INKSR
I-JKI 20 RADAR
4000 to FUDDJ 173° (4)
036°
4000 216° (1.4)
FUDDJ I-JKI 18.7 RADAR
TARAH I-JKI 16.5 RADAR
1750
4000 216° (2.1)
GUYVE I-JKI 13.4 RADAR
3000 216° (3.1)
JOYDD I-JKI 10.2 RADAR
3000 216° (3.1)
(IF) NUJNT I-JKI 7.1 RADAR
2000 216° (3.1)
GEETR I-JKI 3.9 RADAR
795
771
863

SALEM 114.3 SVM Chan 90
DOHNT INT DXO 15.5
R-218
117°
297°
R-297
DETROIT 113.4 DXO Chan 81
LOCALIZER 111.95 I-JKI Chan 56 (Y)

MSA DXO 25 NM
2800

UNITED STATES
CANADA

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

1100 4000 | DXO R-297 | DOHNT INT

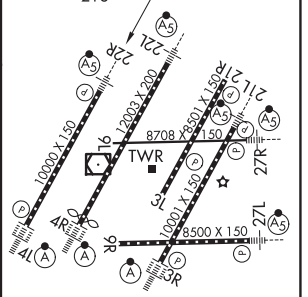
VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 71).

*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 RADAR
I-JKI DME ANTENNA
I-JKI 0.2
2000
3000 3000
4000 4000
216° 4000
GS 3.00°
TCH 55
2000

1056' 1.1 NM | 3 NM | 3.1 NM | 3.1 NM | 3.1 NM | 3.1 NM | 2.1 NM

ELEV 645 D TDZE 642



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

CATEGORY	A	B	C	D
S-ILS 22R**	842/24 200 (200-½)			
S-LOC 22R	1060/24 418 (500-½)		1060/40 418 (500-¾)	
C CIRCLING	1180-1 535 (600-1)		1180-1½ 535 (600-1½)	1240-2 595 (600-2)

FAF to MAP 4.1 NM

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

DETROIT, MICHIGAN

AL-119 (FAA)

25163

ILS Y RWY 4L

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-ALA	APP CRS	Rwy Ldg	10000
111.75	038°	TDZE	645
Chan 54 (Y)		Apt Elev	645

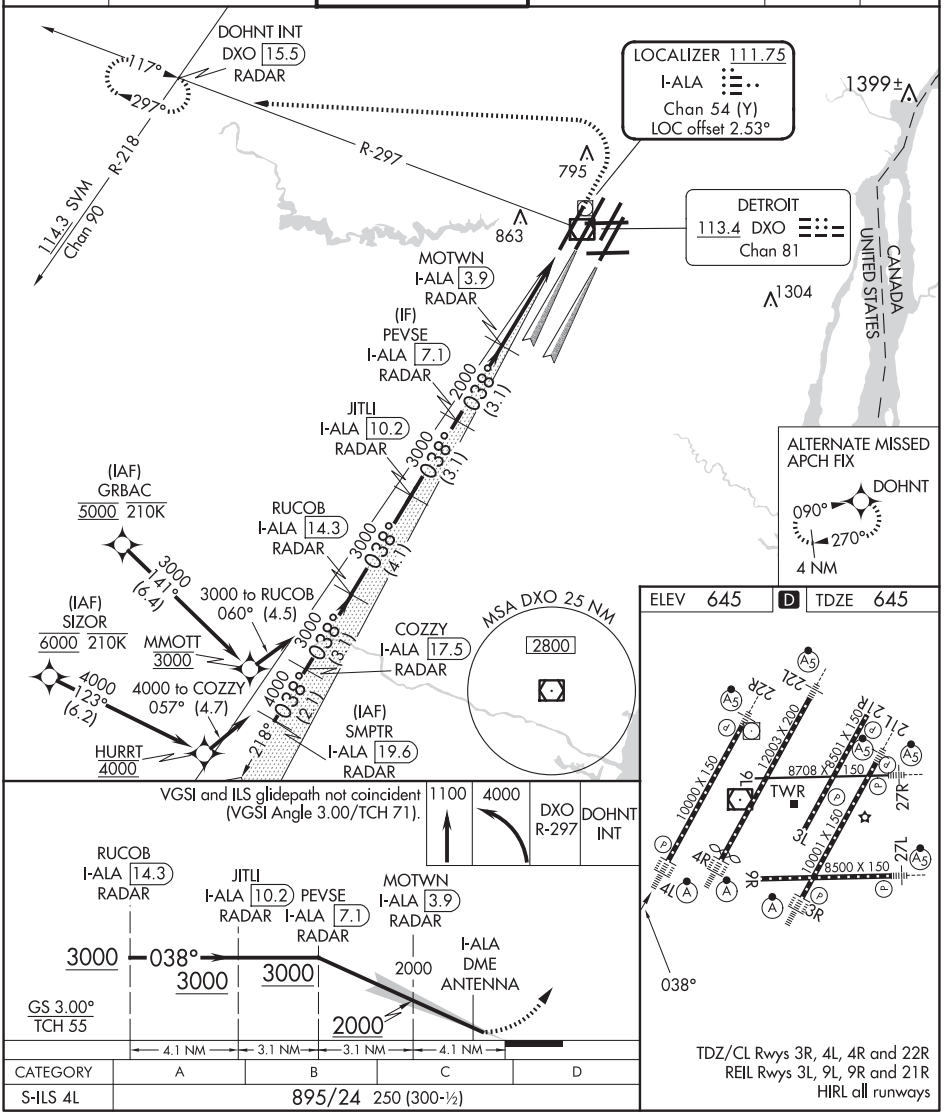
From GRBAC, SIZOR: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.
DME or RADAR required.

Simultaneous approach authorized.

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	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
S-ILS 4L	895/24 250 (300-½)			

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

DETROIT, MICHIGAN
Amdt 1C 30JAN20

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)

ILS Y RWY 4L

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

ILS Y RWY 22R

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-BZB	APP CRS	Rwy Ldg	10000
111.75	213°	TDZE	642
Chan 54 (Y)		Apt Elev	645

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.

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	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	

MISSED APCH FIX

R-297 117° R-218 113.4 DXO Chan 81 297° 114.3 SVM Chan 90 DOHNT INT DXO 15.5

ALTERNATE MISSED APCH FIX

DOHNT 090° 270° 4 NM

(IAF) HRRON RNAV 1-GPS REQD 6000 210K

4000 131° (6.6) KLIER 4000

4000 097° (7.6)

(IAF) VALLI RNAV 1-GPS REQD 6000 210K

4000 184° (3.6)

(IAF) PYRET I-BZB 23.6 RADAR 033°

4000 213° (3.1)

MMOTR I-BZB 18.5 RADAR 1750

GRDCY I-BZB 20.5 RADAR

TAYUL I-BZB 15.4 RADAR

4000 213° (2)

4000 213° (3.1)

3000 213° (3.1)

3000 213° (3.1)

EMINN I-BZB 12.2 RADAR

2000 213° (3.1)

(IF) WONDR I-BZB 9.1 RADAR

ANGGL I-BZB 5.9 RADAR

LOCALIZER 111.75 I-BZB Chan 54 (Y) LOC offset 2.50°

R-297

795

863

DETROIT 113.4 DXO Chan 81

UNITED STATES CANADA

MSA DXO 25 NM 2800

ELEV 645 D TDZE 642

213°

TWR

22L 22R 21L 21R 12000 X 200 8708 X 150 8501 X 150 10000 X 150 9L 27R 3L 10001 X 150 8500 X 150 4R 27L 4L 9R 3R

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

1100	4000	DXO R-297	DOHNT INT

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

TAYUL I-BZB 15.4 RADAR GRDCY I-BZB 20.5 RADAR WONDR I-BZB 9.1 RADAR MMOTR I-BZB 18.5 RADAR EMINN I-BZB 12.2 RADAR ANGGL I-BZB 5.9 RADAR

2000 3000 3000 4000 4000 213° 4000

GS 3.00° TCH 55

4.1 NM 3.1 NM 3.1 NM 3.1 NM 3.1 NM 2 NM

CATEGORY	A	B	C	D
S-ILS 22R	892/24 250 (300-½)			

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LOC/DME I-HUU	APP CRS	Rwy Ldg 10001
111.5	036°	TDZE 633
Chan 52		Apt Elev 645

ILS RWY 3R (SA CAT I)

DETROIT METRO WAYNE COUNTY (DTW)

RNAV 1-GPS.

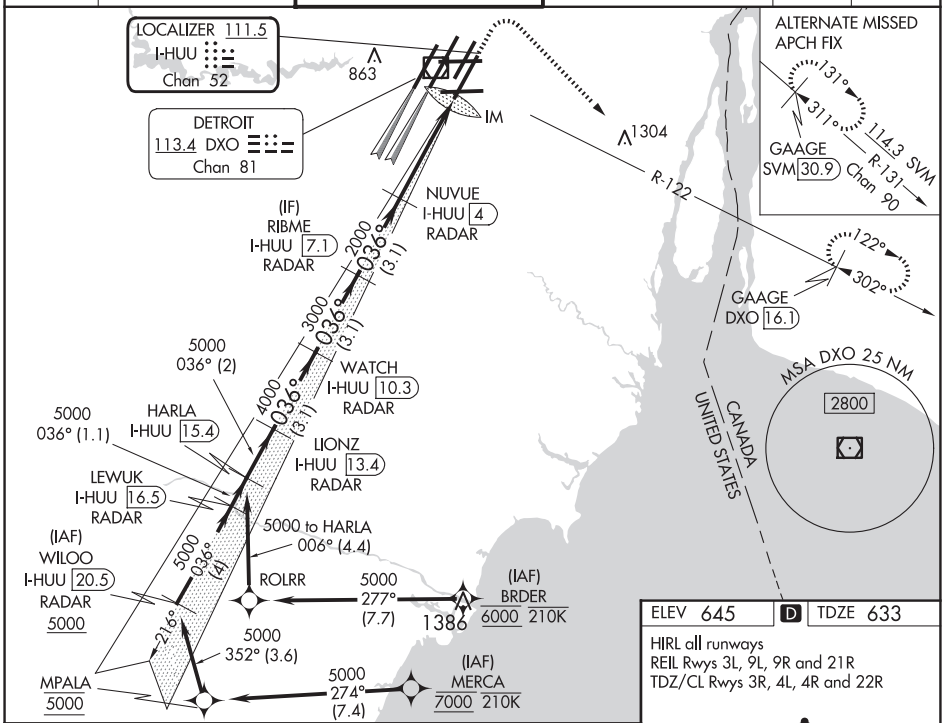
MERCA and BRDER: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.

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

ALSF-2

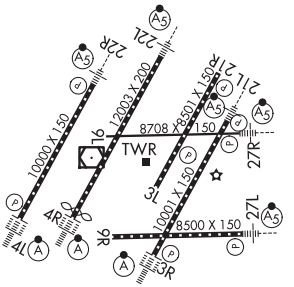
MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 on DXO VOR/DME R-122 to GAAGE/DXO 16.1 DME and hold.

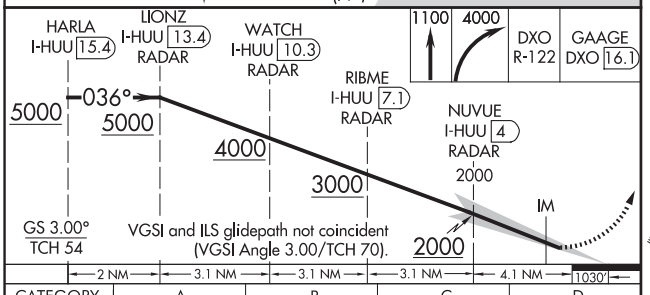
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	125.15 284.0	118.4 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



ELEV 645 D TDZE 633

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





CATEGORY	A	B	C	D
S-ILS 3R	RA 153/14 150 DA 783			

SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ILS RWY 4R (SA CAT I)

DETROIT METRO WAYNE COUNTY (DTW)

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

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.

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

ALSF-2

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

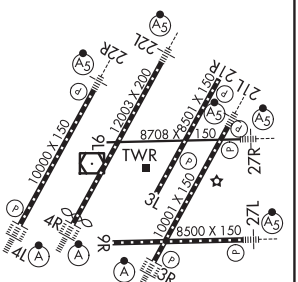
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	

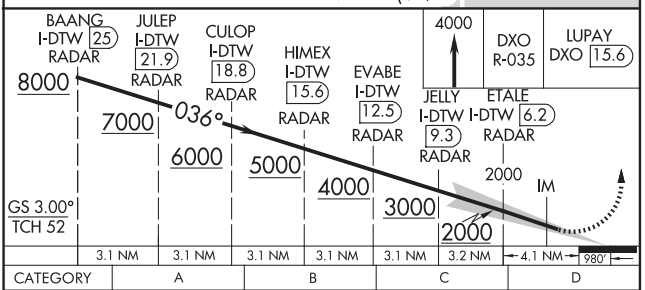
ALTERNATE MISSED APCH FIX
057° 237° 114.3 SVM Chan 90 R-057 PERLS SVM 17.9

MISSED APCH FIX
035° 215° 113.4 DXO R-035 Chan 81 LUPAY DXO 15.6

DXO R-035
863 A
IM
784
LOCALIZER 110.7 I-DTW Chan 44
(IF) JELLY I-DTW 9.3 RADAR
2000 036° (3.2)
ETALE I-DTW 6.2 RADAR
DETROIT 113.4 DXO Chan 81
EVABE I-DTW 12.5 RADAR
3000 036° (3.1)
HIMEX I-DTW 15.6 RADAR
4000 036° (3.1)
CULOP I-DTW 18.8 RADAR
5000 036° (3.1)
JULEP I-DTW 21.9 RADAR
6000 036° (3.1)
(IAF) BAANG I-DTW 25 RADAR
7000 036° (3.1)
(IAF) CLEVR 8000 210K
8000 091° (5)
216°
8000 328° (5.2)
ELDNN 8000
272° (4.5)
(IAF) CAATZ 9000 210K
MSA DXO 25 NM 2800
CANADA UNITED STATES
A 1386

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, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ILS RWY 22L (SA CAT I)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-DWC	APP CRS	Rwy Ldg	12003
110.7	216°	TDZE	637
Chan 44		Apt Elev	645

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

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

MALSR

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	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	

MISSED APCH FIX
CARLETON CRL 115.7 Chan 104
R-196 016° 196°

ALTERNATE MISSED APCH FIX
HWLER DXO 16.7 RADAR
113.4 DXO R-214 Chan 81
034° 214°

(IAF) SPRER 8000 210K
AKMEE
(IAF) PUZEL 9000 210K
8000 121° (2.9)
8000 (3.5) 146°
038°
8000 277° (4.5)

DRBRN I-DWC 20.7 RADAR
(IAF) MCOMB I-DWC 24 RADAR 8000
7000 216° (3.3)
6000 216° (3.3)
5000 216° (3.3)
4000 216° (3.3)
3000 216° (3.3)
2000 216° (3.3)

1750

BHOLD I-DWC 17.4 RADAR
LUPAY I-DWC 14.1 RADAR
OSKER I-DWC 10.8 RADAR
(IF) ROUGE I-DWC 7.5 RADAR
HULKA I-DWC 4.2 RADAR

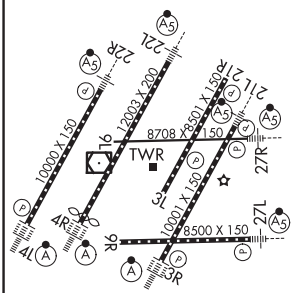
SALEM 114.3 SVM Chan 90
DETROIT 113.4 DXO Chan 81
R-121

LOCALIZER 110.7 I-DWC Chan 44

795
863
1304
CRL R-025

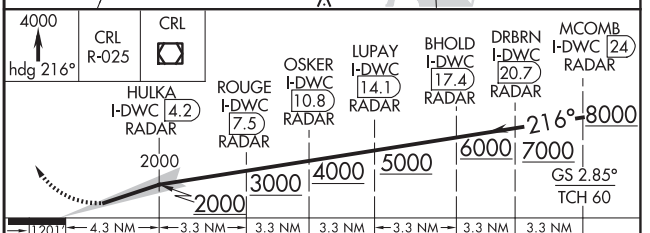
UNITED STATES
CANADA
MSA DXO 25 NM
2800

ELEV 645 D TDZE 637



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

4000 hdg 216°
CRL R-025
CRL



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, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

ILS RWY 21L (SA CAT I & II)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-EJR	APP CRS	Rwy Ldg	10001
111.5	216°	TDZE	632
Chan 52		Apt Elev	645

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.

T 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 left turn to 4000 on DXO R-122 to GAAGE/DXO 16 DME and hold, continue climb-in-hold to 4000.

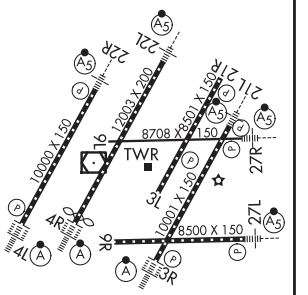
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	125.15 284.0	118.4 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	

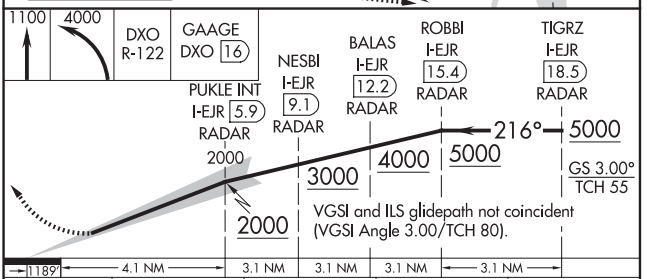
CARLETON CRL 115.7 Chan 104
ALTERNATE MISSED APCH FIX
180° 360° R-180

MISSED APCH FIX
113.4 DXO R-122 Chan 81
122° 302°
GAAGE DXO 16

GIVVZ 5000
(IAF) COUNT I-EJR 24.1 RADAR 5000
036°
TOFFY 6000
5200
306° (3.6)
(IAF) RYEDR 7000 210K
5000 274° (2.6)
5000 226° (2.1)
5000 216° (5.6)
6000 280° (4)
(IAF) COBBO 6000 210K
KAALI
TIGRZ I-EJR 18.5 RADAR
1750
5000 245° (3.1)
3000 216° (3.1)
4000 216° (3.1)
ROBBI I-EJR 15.4 RADAR
3000 216° (3.1)
BALAS I-EJR 12.2 RADAR
2000 216° (3.1)
PUKLE INT I-EJR 5.9 RADAR
(IF) NESBI I-EJR 9.1 RADAR
114.3 SVM R-123 Chan 90
UNITED STATES CANADA
MSA DXO 25 NM
2800
DETROIT 113.4 DXO Chan 81
795
751
863
LOCALIZER 111.5 I-EJR Chan 52
R-122
1304

ELEV 645 D TDZE 632





CATEGORY	A	B	C	D
S-ILS 21L	SA CAT I RA 148/14 150 DA 782			
S-ILS 21L	SA CAT II RA 98/12 100 DA 732			

SA CATEGORY I & II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

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

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN | AL-119 (FAA) | 25163

ILS RWY 27L (SA CAT I & II)

DETROIT METRO WAYNE COUNTY (DTW)

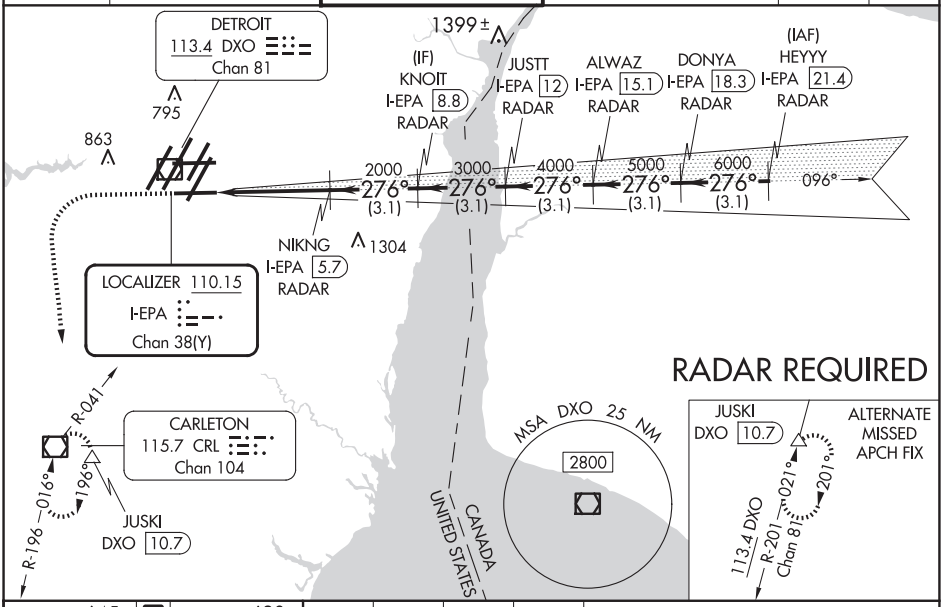
LOC/DME I-EPA	APP CRS	Rwy Ldg	8500
110.15	276°	TDZE	630
Chan 38(Y)		Apt Elev	645

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.

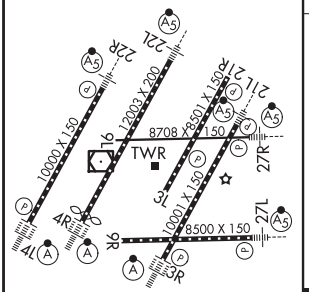
MALSR

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	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.75 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



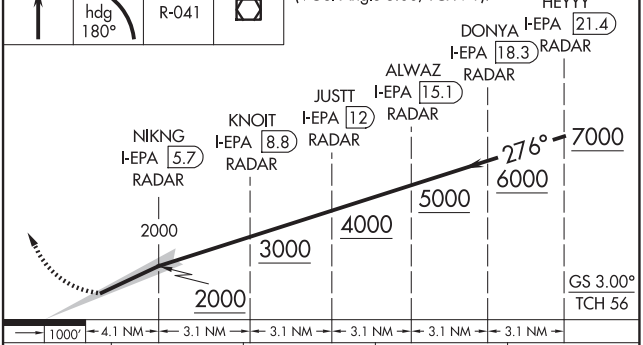
ELEV 645 | D | TDZE 630



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

1100	4000 hdg 180°	CRL R-041	CRL

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



CATEGORY	A	B	C	D
S-ILS 27L	SA CAT I RA 146/16		150 DA 780	
S-ILS 27L	SA CAT II RA 96/16		100 DA 730	

SA CATEGORY I & II ILS SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

DETROIT, MICHIGAN
Amdt 5A 24MAY18

42°13′N-83°21′W

DETROIT METRO WAYNE COUNTY (DTW)

ILS RWY 27L (SA CAT I & II)

EC-1, 07 AUG 2025 to 02 OCT 2025

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

DETROIT METRO WAYNE COUNTY (DTW)

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

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	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	

ALTERNATE MISSED APCH FIX
DOHNT
090°
270°
4 NM

(IAF) HRRON 6000 210K
4000 113° (6.9)
PRYDE 4000
4000 to FUDDJ 190° (5.7)
4000 097° (7.6)
KLIER 4000
(IAF) VALLI 6000 210K
4000 to FUDDJ 173° (4)
(IAF) INKSR I-JKI 20 RADAR
036°
4000 216° (1.4)
FUDDJ I-JKI 18.7 RADAR
TARAH I-JKI 16.5 RADAR
1750
4000 216° (2.1)
GUYVE I-JKI 13.4 RADAR
4000 216° (3.1)
MSA DXO 25 NM
2800
SALEM 114.3 SVM Chan 90
JOYDD I-JKI 10.2 RADAR
3000 216° (3.1)
(IF) NUJNT I-JKI 7.1 RADAR
3000 216° (3.1)
DOHNT INT DXO 15.5
R-218
2000 216° (3.1)
117°
297°
DETROIT 113.4 DXO Chan 81
LOCALIZER 111.95 I-JKI Chan 56 (Y)
GEETR I-JKI 3.9 RADAR
795
771
R-297
863
UNITED STATES
CANADA

ELEV 645 D TDZE 642

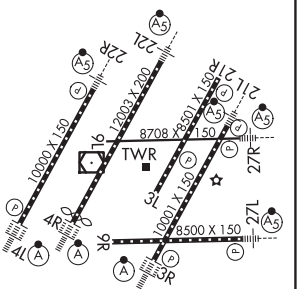
1100 4000 DXO R-297 DOHNT INT

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

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
2000
3000 3000
4000 4000
216° 4000
GS 3.00° TCH 55
2000
1056' 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	

SA CATEGORY I & II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ILS RWY 3R (CAT II & III)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-HUU	APP CRS	Rwy Ldg	10001
111.5	036°	TDZE	633
Chan 52		Apt Elev	645

RNAV 1-GPS.

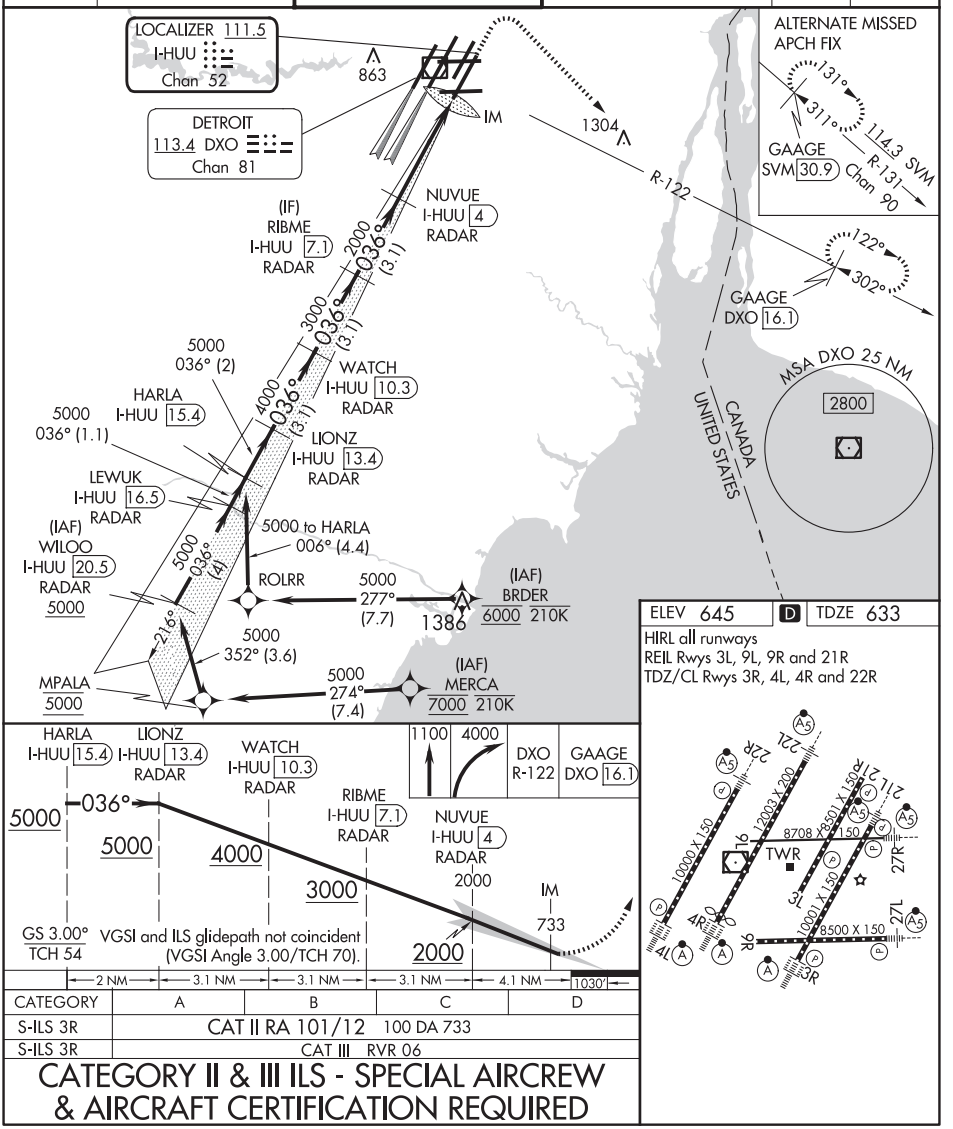
MERCA and BRDER: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry.

T Simultaneous approach authorized. DME required. RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

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	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
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, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LOC/DME I-DTW	APP CRS	Rwy Ldg	11494
110.7	036°	TDZE	640
Chan 44		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.
Simultaneous approach authorized.

ALSF-2

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

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON		CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725	121.8 (NW) 132.725 (SW)	119.45 (NE) 119.25 (SE)	120.65	

ALTERNATE MISSED APCH FIX
057° 237° 114.3 SVM Chan 90
R-057
PERLS SVM 17.9

LOCALIZER 110.7 I-DTW Chan 44

MISSED APCH FIX
035° 215° 113.4 DXO R-035 Chan 81
LUPAY DXO 15.6

DETROIT 113.4 DXO Chan 81

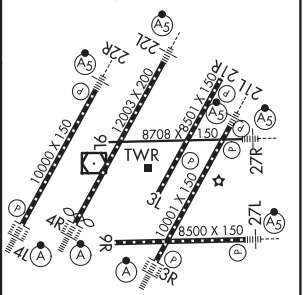
795 DXO R-035
863 IM
784

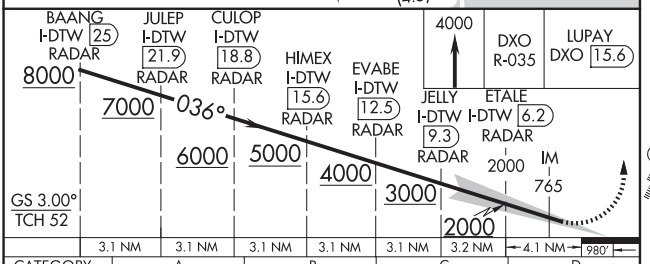
(IF) JELLY I-DTW 9.3 RADAR
ETALE I-DTW 6.2 RADAR
EVABE I-DTW 12.5 RADAR
HIMEX I-DTW 15.6 RADAR
CULOP I-DTW 18.8 RADAR
JULEP I-DTW 21.9 RADAR
(IAF) BAANG I-DTW 25 RADAR
(IAF) CLEVR 8000 210K
8000 091° (5)
ELDNN 8000 272° (4.5)
(IAF) CAATZ 9000 210K

2000 036° (3.2)
3000 036° (3.1)
4000 036° (3.1)
5000 036° (3.1)
6000 036° (3.1)
7000 036° (3.1)
8000 328° (5.2)
8000 216°

MSA DXO 25 NM 2800
CANADA UNITED STATES
1386

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	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, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

AL-119 (FAA)

25163

ILS Z RWY 4L (CAT II & III)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-HJT	APP CRS	Rwy Ldg	10000
111.95	036°	TDZE	645
Chan 56 (Y)		Apt Elev	645

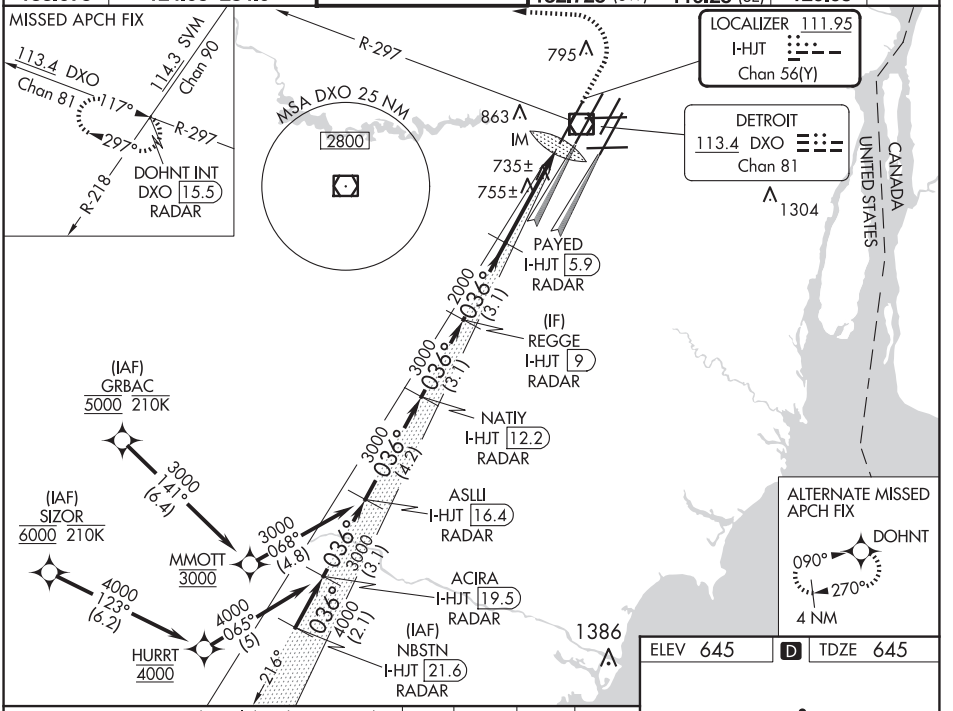
From GRBAC, SIZOR: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry. DME or RADAR required.

T Simultaneous approach authorized. CAT II; RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown.

ALSF-2

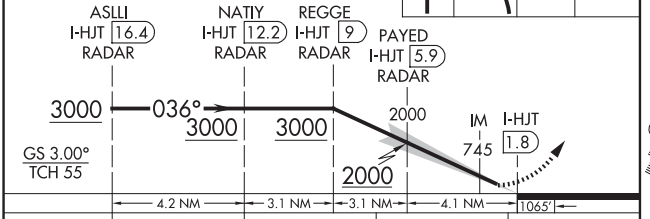
MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 on DXO VOR/DME R-297 to DOHNT INT/DXO 15.5 DME/RADAR and hold.

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



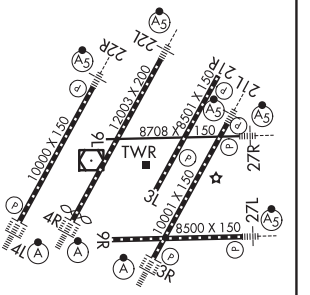
VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 71).

1100	4000	DXO R-297	DOHNT INT



CATEGORY	A	B	C	D
S-ILS 4L	CAT II RA 101/12 100 DA 745			
S-ILS 4L	CAT III RVR 600			

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



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

DETROIT, MICHIGAN
Amdt 4C 30JAN20

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)

ILS Z RWY 4L (CAT II & III)

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (RNP) U RWY 4L

DETROIT METRO WAYNE COUNTY (DTW)

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

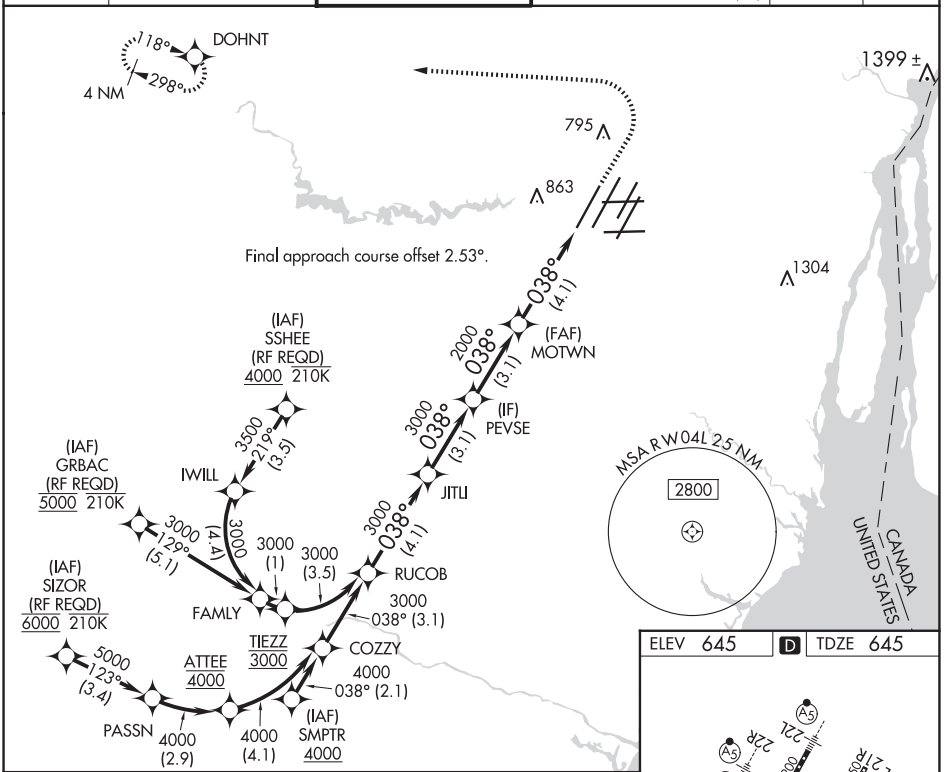
RNP AR APCH.

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.

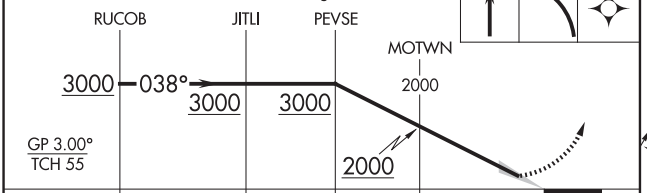
ALSF-2

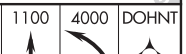
MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct DOHNT and hold.

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	



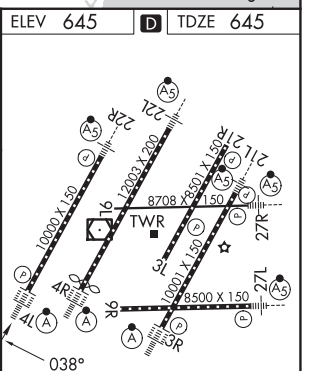
VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 71).





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

AUTHORIZATION REQUIRED



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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

25163

RNAV (RNP) U RWY 22R

DETROIT METRO WAYNE COUNTY (DTW)

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

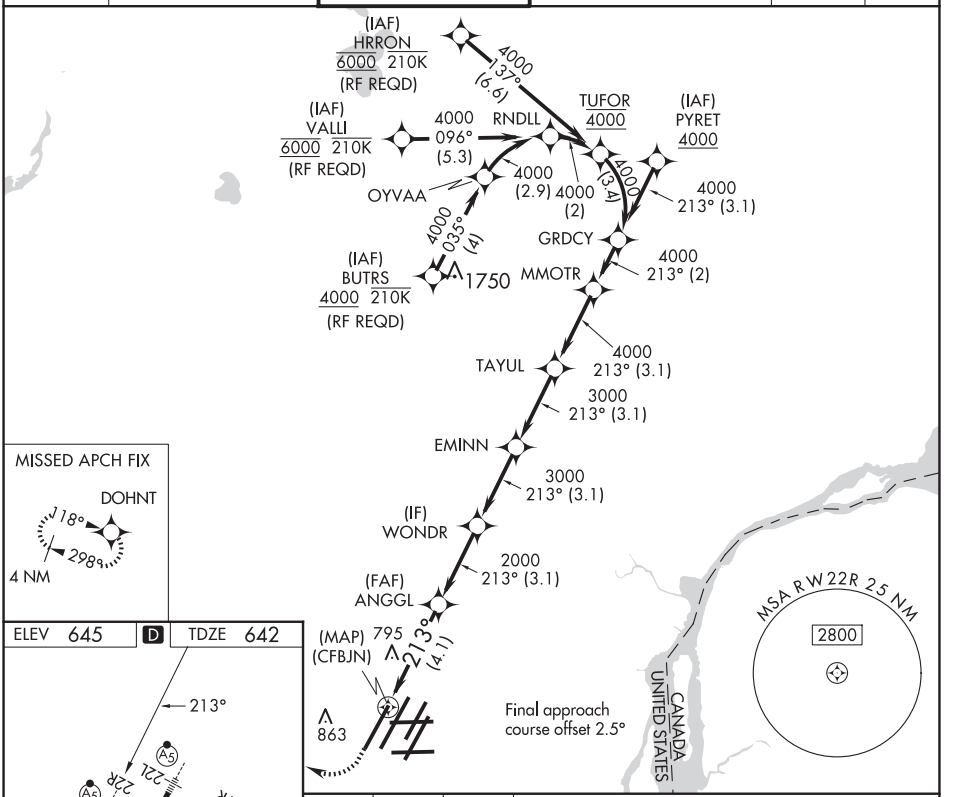
RNP AR APCH.

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.

MALSR

MISSED APPROACH: Climb to 1100 then climbing right 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	987/30	345 (400-5/8)		

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

AUTHORIZATION REQUIRED

42°13′N-83°21′W

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

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

RNAV (RNP) W RWY 3R

DETROIT METRO WAYNE COUNTY (DTW)

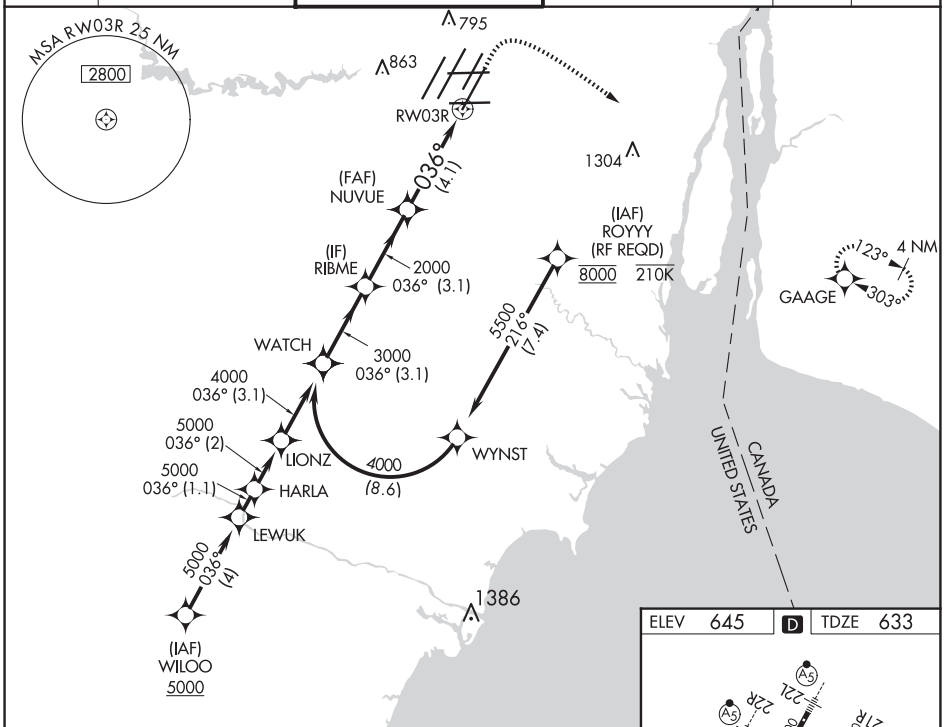
RNP AR APCH.

For uncompensated Baro-VNAV systems, procedure NA below -19°C (-2°F) or above 54°C (130°F). Simultaneous approach authorized.

ALSF-2

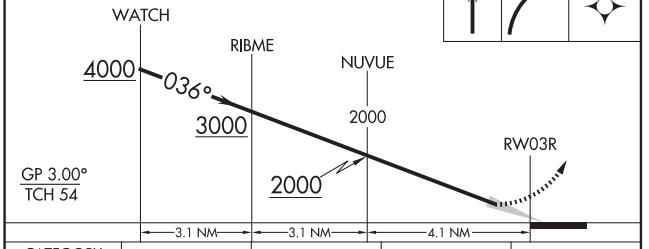
MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct GAAGE and hold.

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	



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

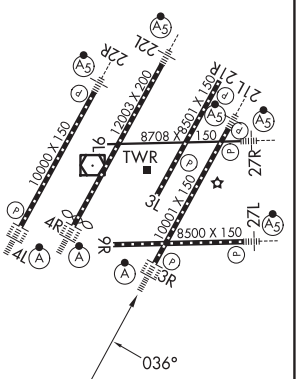
1100	4000	GAAGE



CATEGORY	A	B	C	D
RNP 0.30 DA	1021/35	388 (400-⅝)		

AUTHORIZATION REQUIRED

ELEV 645 D TDZE 633



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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (RNP) W RWY 4L

DETROIT METRO WAYNE COUNTY (DTW)

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

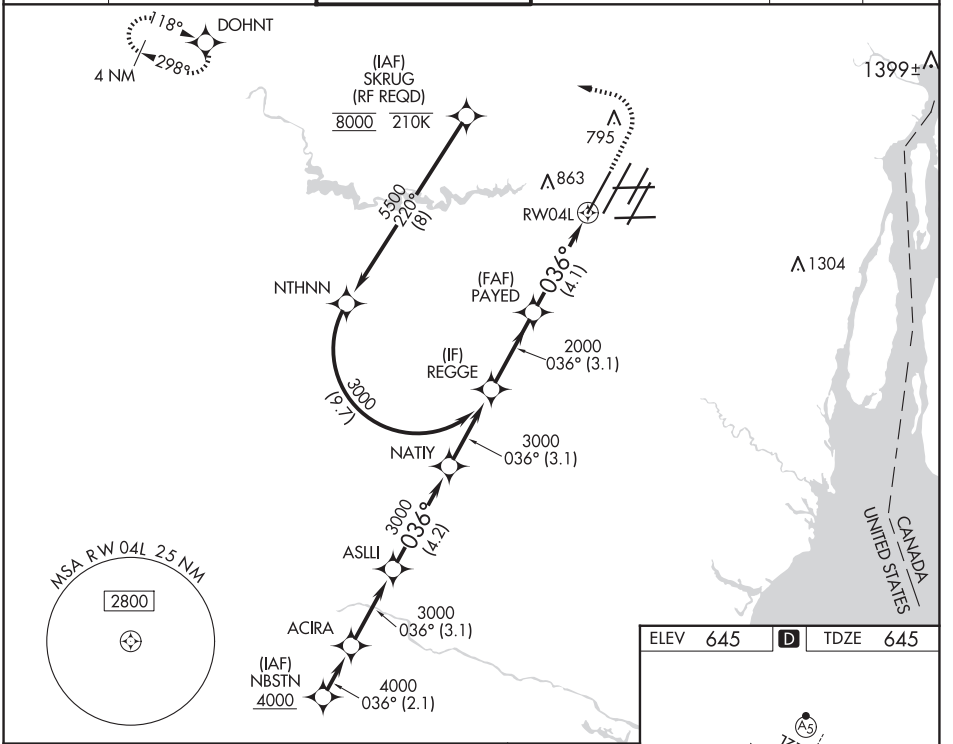
RNP AR APCH.

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

ALSF-2

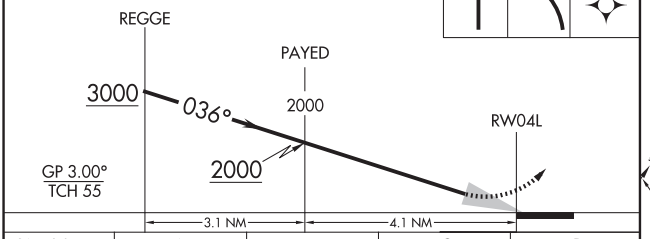
MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct DOHNT and hold, continue climb-in-hold to 4000.

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	



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

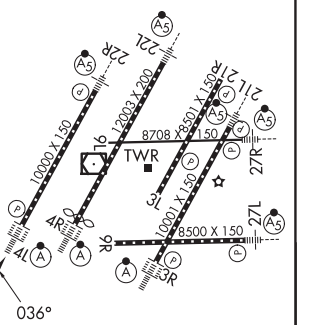
1100 4000 DOHNT



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

ELEV 645 D TDZE 645



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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (RNP) W RWY 21L

DETROIT METRO WAYNE COUNTY (DTW)

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

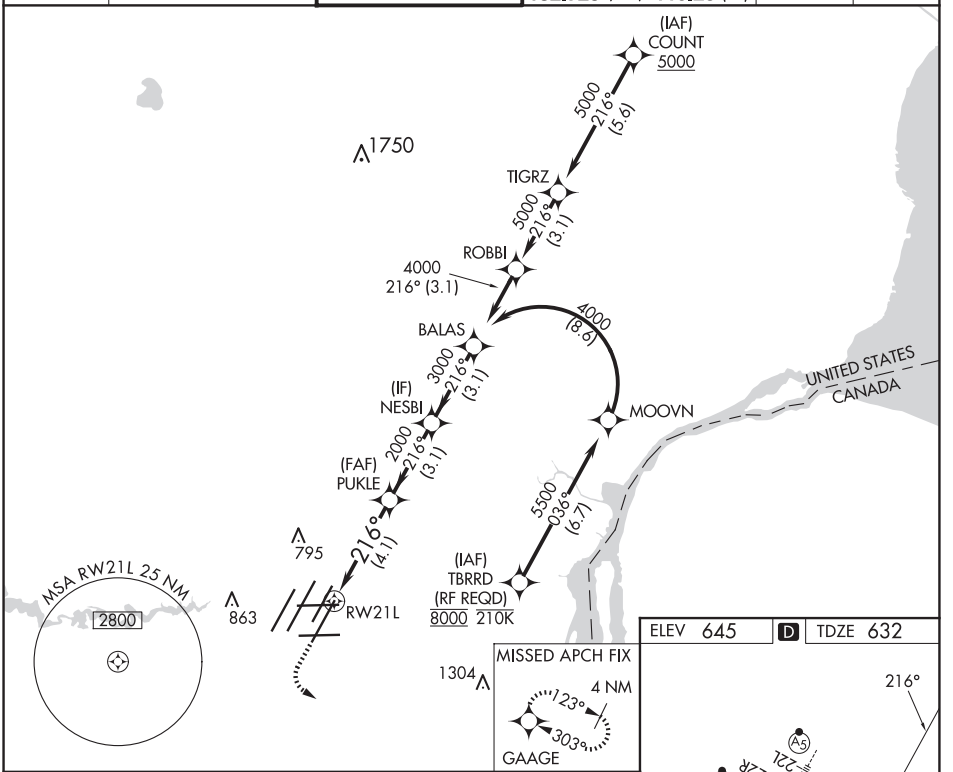
RNP AR APCH.

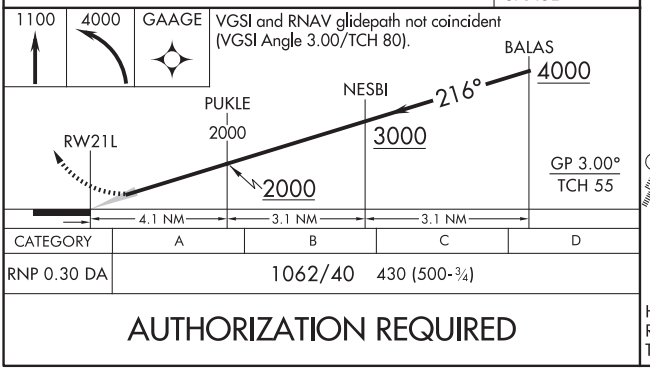
For uncompensated Baro-VNAV systems, procedure NA below -19°C or above 54°C. Simultaneous approach authorized. Use of FD or AP providing RNAV track guidance required during simultaneous operations.

MALSR

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

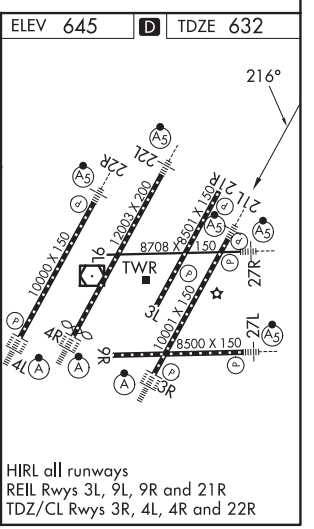
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	125.15 284.0	118.4 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	





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

AUTHORIZATION REQUIRED



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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

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

RNAV (RNP) W RWY 22R

DETROIT METRO WAYNE COUNTY (DTW)

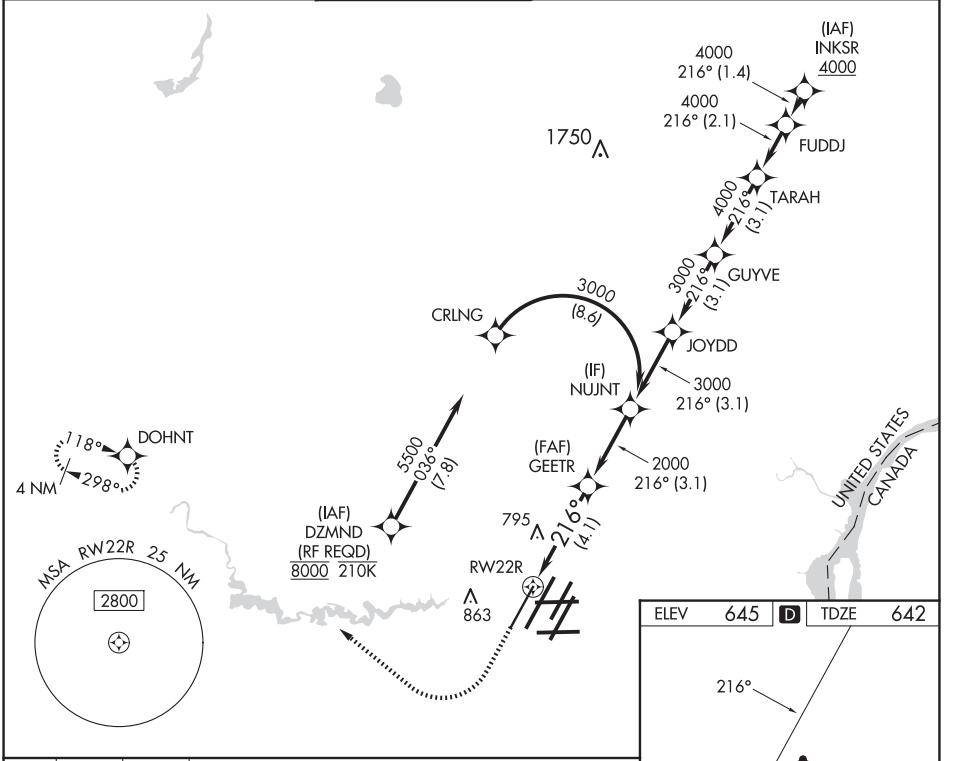
RNP AR APCH.

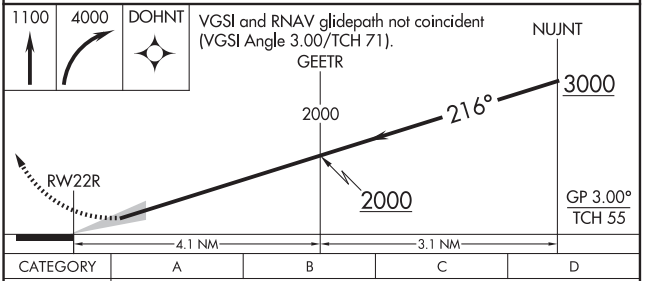
T For uncompensated Baro-VNAV systems, procedure NA below -19°C or above 54°C. Simultaneous approach authorized. For inop ALS, increase RNP 0.30 all Cats visibility to RVR 5500.

MALSR

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

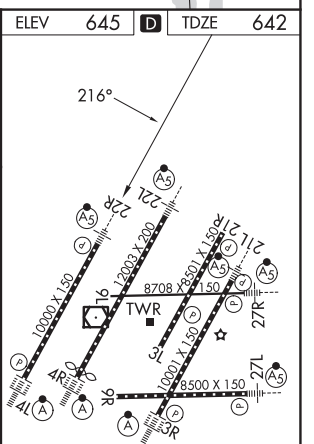
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	135.0 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	





CATEGORY	A	B	C	D
RNP 0.30 DA	987/30 345 (400-⅝)			

AUTHORIZATION REQUIRED



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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

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

RNAV (RNP) X RWY 3R
DETROIT METRO WAYNE COUNTY (DTW)

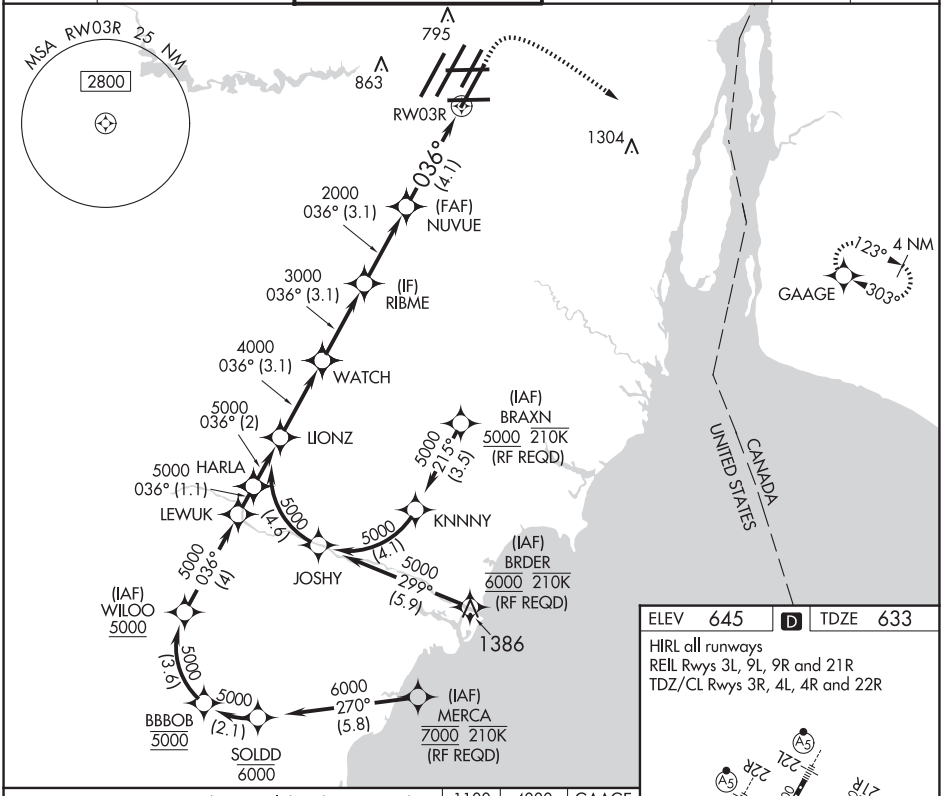
RNP AR APCH.

Simultaneous approach authorized. For uncompensated Baro-VNAV systems, procedure NA below -19°C or above 54°C.

ALSF-2

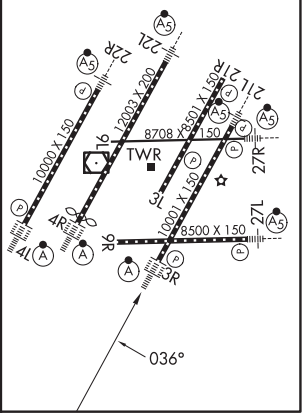
MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct GAAGE and hold.

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	



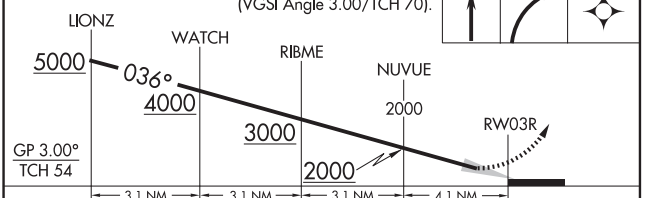
ELEV 645 D TDZE 633

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



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

1100 4000 GAAGE



CATEGORY	A	B	C	D
RNP 0.30 DA	1021/35	388 (400-⅝)		

AUTHORIZATION REQUIRED

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN | AL-119 (FAA) | 25163

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

RNAV (RNP) X RWY 4L

DETROIT METRO WAYNE COUNTY (DTW)

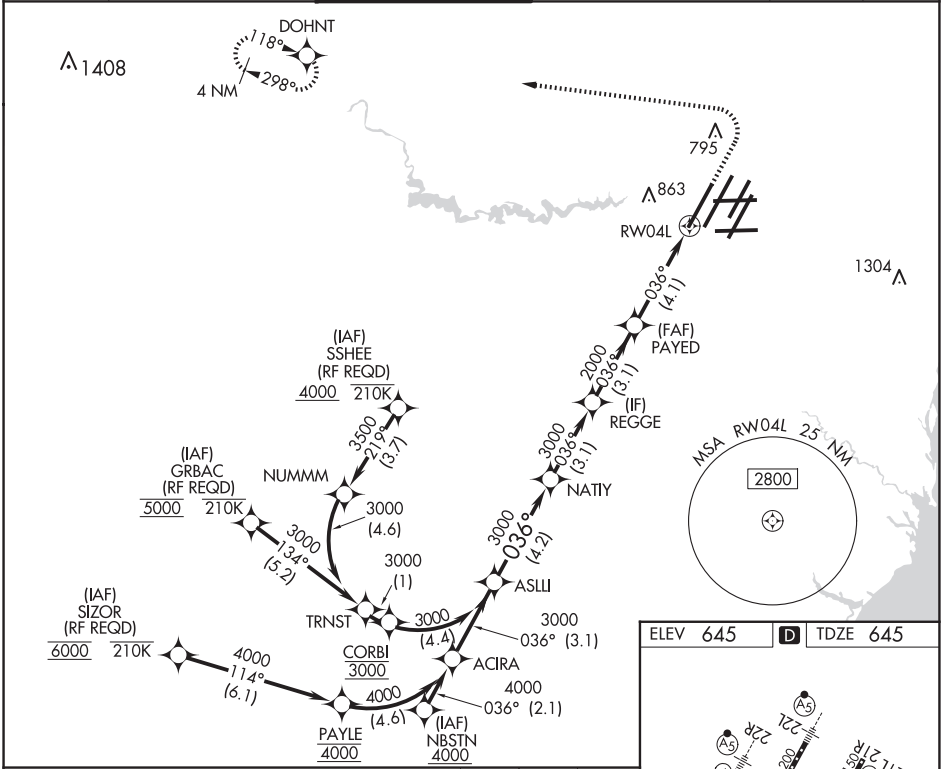
RNP AR APCH.

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.

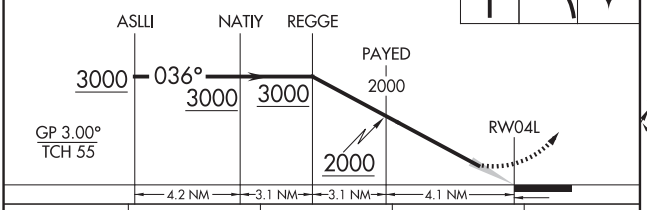
ALSF-2

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	



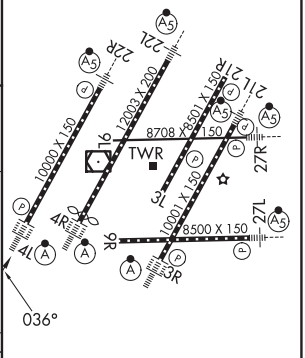
VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 71).



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

ELEV 645 | D | TDZE 645



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

DETROIT, MICHIGAN
Orig-A 10OCT19

42°13′N-83°21′W

DETROIT METRO WAYNE COUNTY (DTW)

RNAV (RNP) X RWY 4L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (RNP) X RWY 4R

DETROIT METRO WAYNE COUNTY (DTW)

APP CRS	Rwy Ldg	11494
036°	TDZE	640
	Apt Elev	645

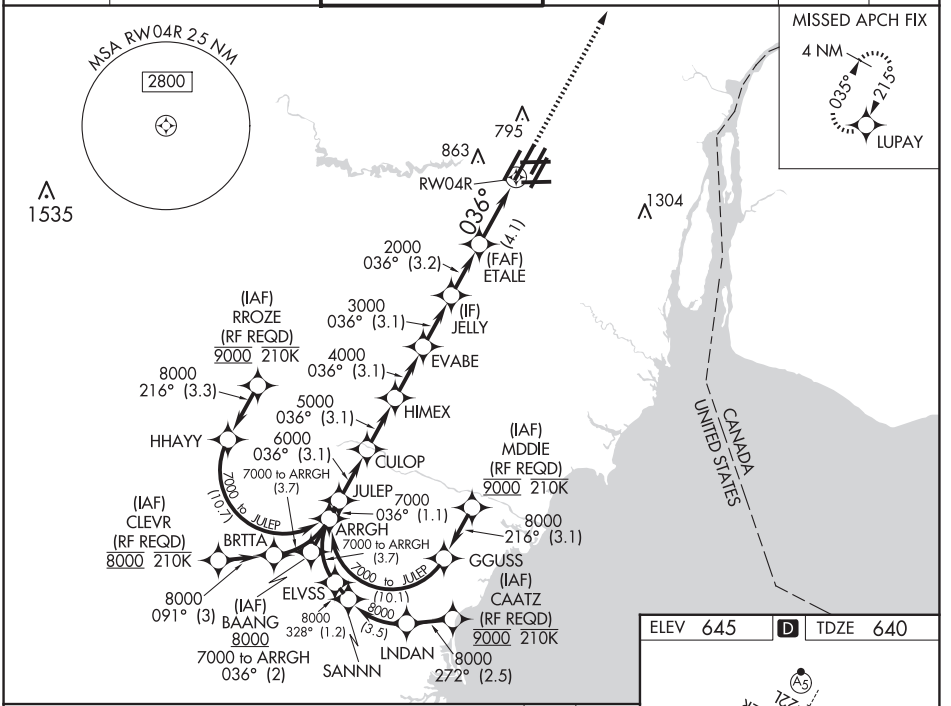
RNP AR APCH.

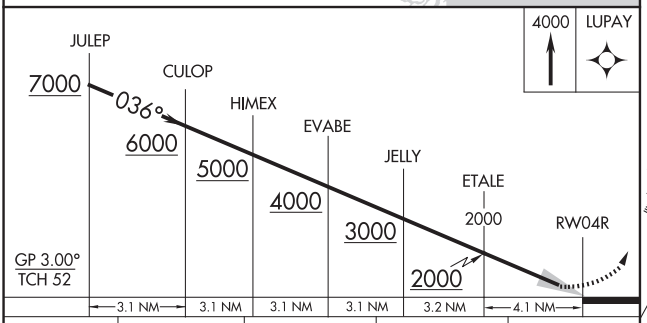
For uncompensated Baro-VNAV systems, procedure NA below -19°C (-2°F) or above 54°C (130°F). Simultaneous approach authorized.

ALSF-2

MISSED APPROACH: Climb to 4000 direct LUPAY and hold.

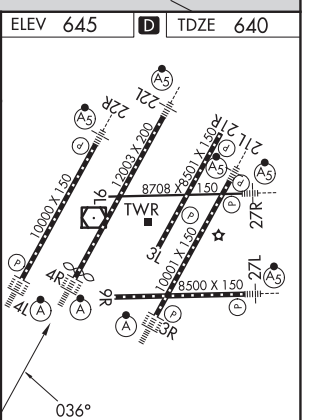
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	





CATEGORY	A	B	C	D
RNP 0.30 DA	1031/35	391 (400-⅝)		

AUTHORIZATION REQUIRED



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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN AL-119 (FAA) 25163

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

RNAV (RNP) X RWY 21L

DETROIT METRO WAYNE COUNTY (DTW)

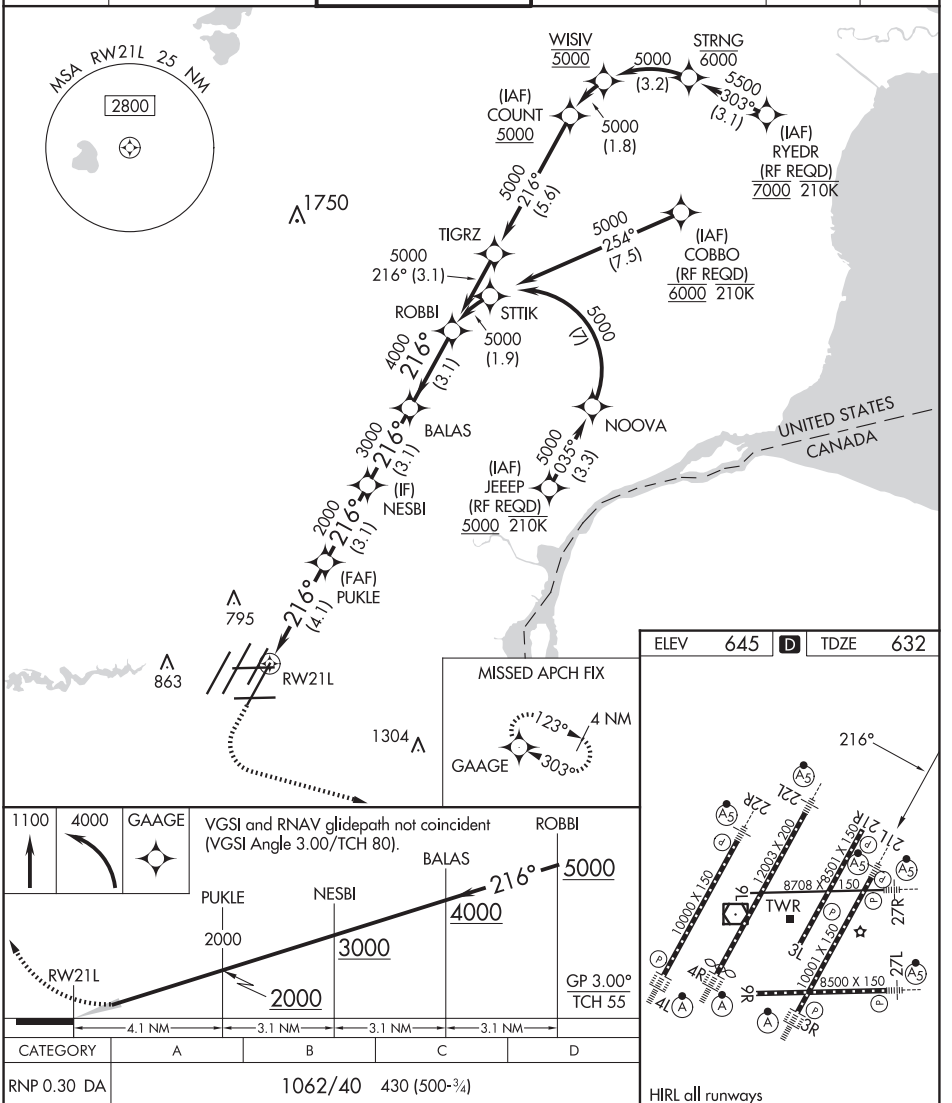
RNP AR APCH.

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

MALSR

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

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

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

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN
Amdt 1A 05DEC19

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)
RNAV (RNP) X RWY 21L

APP CRS	Rwy Ldg	12003
216°	TDZE	637
	Apt Elev	645

RNAV (RNP) X RWY 22L

DETROIT METRO WAYNE COUNTY (DTW)

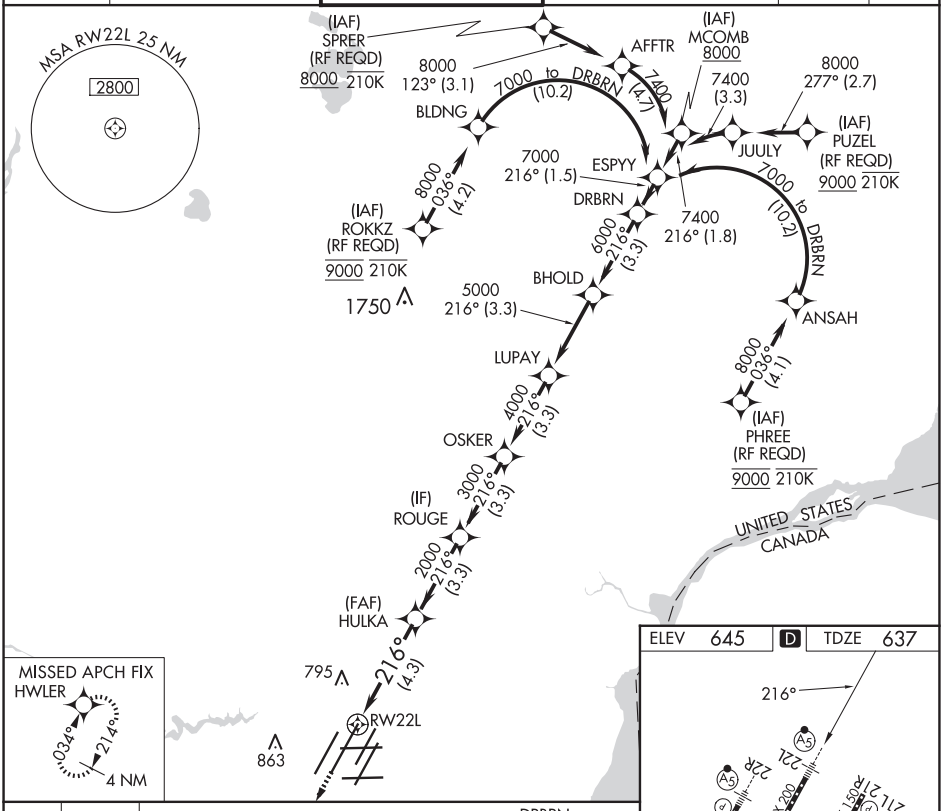
RNP AR APCH.

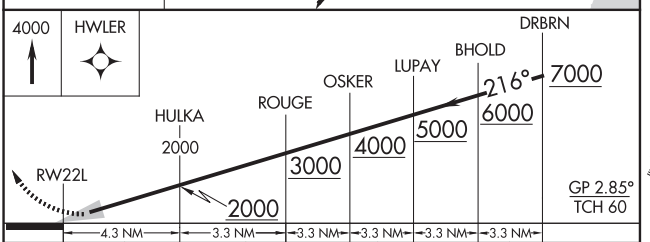
For uncompensated Baro-VNAV systems, procedure NA below -10°C (14°F) or above 54°C (130°F). Simultaneous approach authorized. For inop ALS, increase RNP 0.15 all Cats visibility to RVR 4500 and RNP 0.30 all Cats visibility to RVR 6000.

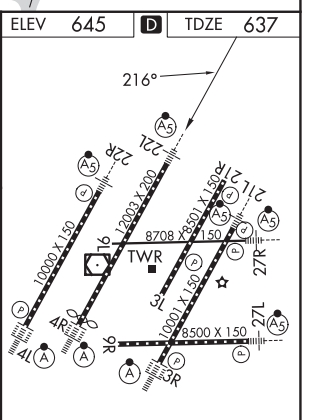
MALSR

MISSED APPROACH: Climb to 4000 direct HWLER and hold.

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	







CATEGORY	A	B	C	D
RNP 0.15 DA	941/24	304 (300-½)		
RNP 0.30 DA	1040/40	403 (400-¾)		

AUTHORIZATION REQUIRED

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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN | AL-119 (FAA) | 25163

RNAV (RNP) X RWY 22R

DETROIT METRO WAYNE COUNTY (DTW)

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

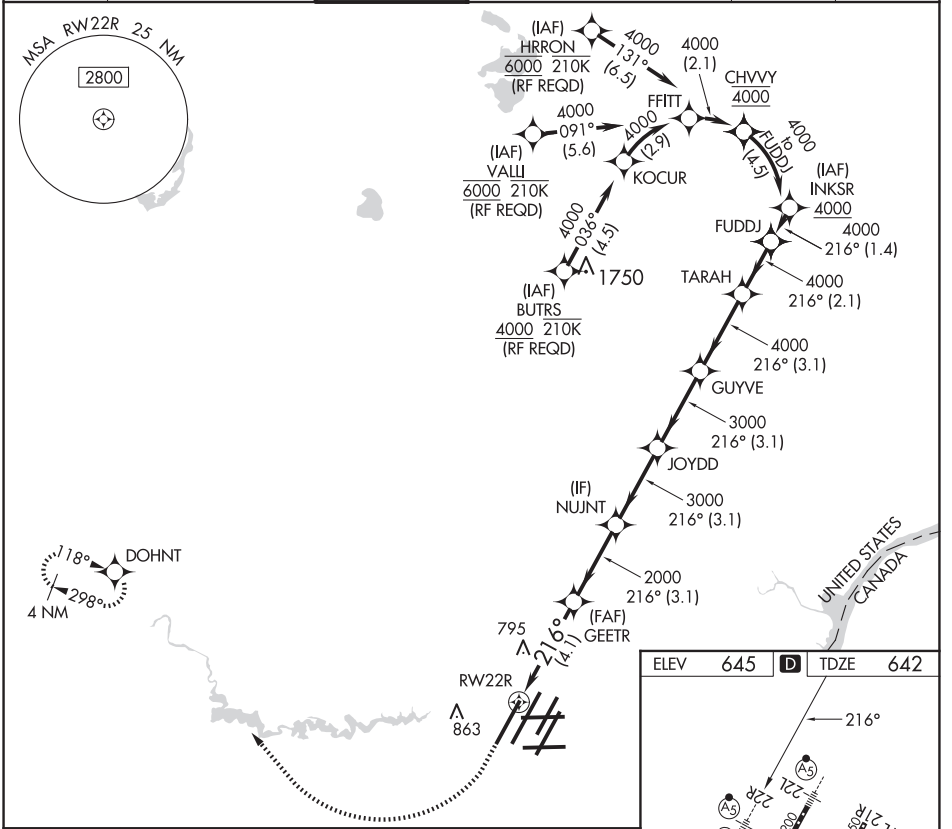
RNP AR APCH.

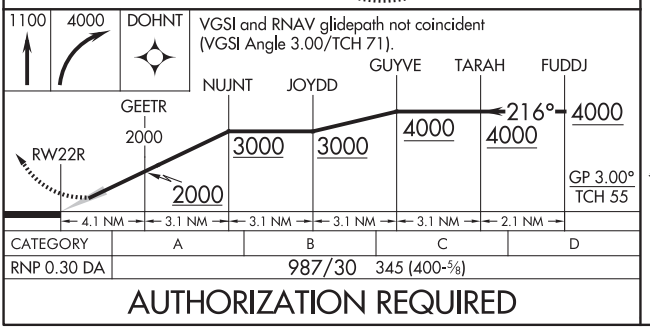
For uncompensated Baro-VNAV systems, procedure NA below -19°C (-2°F) or above 54°C (130°F). Simultaneous approach authorized. For inop ALS, increase RNP 0.30 all Cats visibility to RVR 5500.

MALSR

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

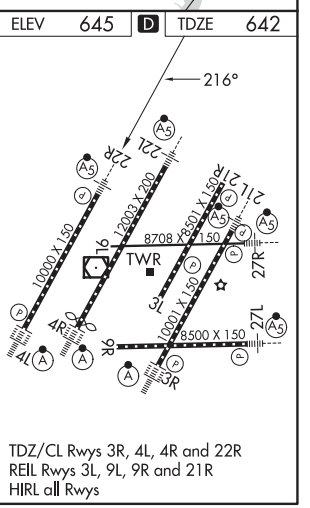
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	135.0 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	





CATEGORY	A	B	C	D
RNP 0.30 DA	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

DETROIT, MICHIGAN | DETROIT METRO WAYNE COUNTY (DTW)

Orig 24MAY18 | 42°13'N-83°21'W | RNAV (RNP) X RWY 22R

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 27L

DETROIT METRO WAYNE COUNTY (DTW)

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

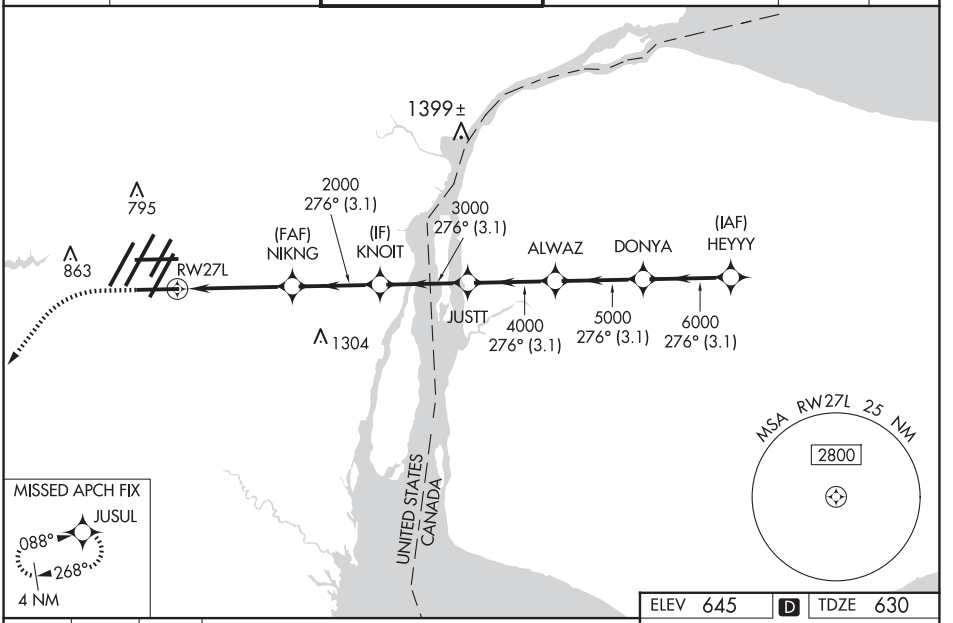
RNP APCH.

T 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.

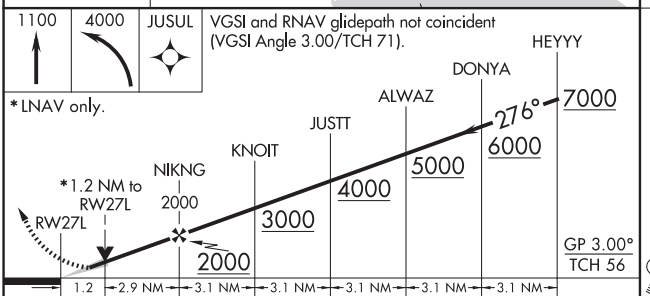
MALSR (A5)

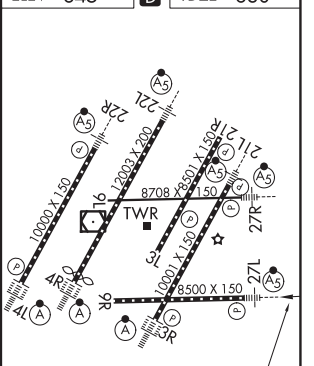
MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct JUSUL and hold.

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.75 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



ELEV 645 D TDZE 630





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)	
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
REIL Rwys 3L, 9L, 9R and 21R
HIRL all runways

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 27R

DETROIT METRO WAYNE COUNTY (DTW)

WAAS CH 86220 W27A	APP CRS 276°	Rwy Ldg 8708 / TDZE 635 / Apt Elev 645

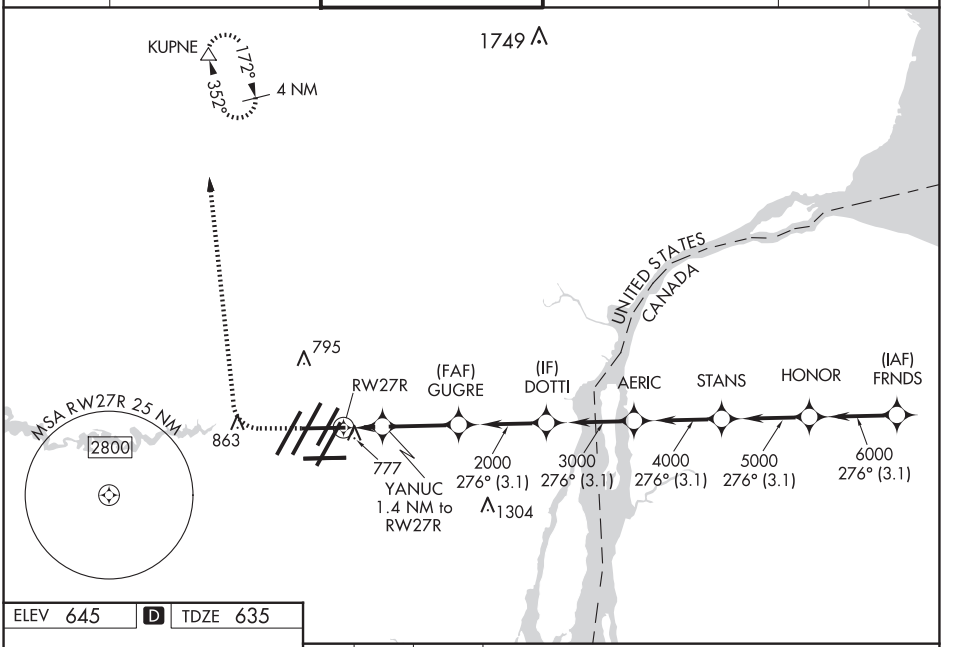
RNP APCH.

T 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 (A5)

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

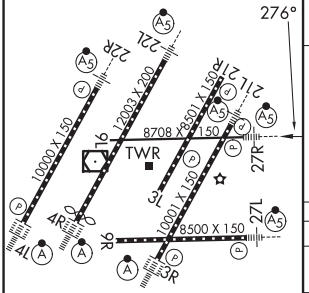
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	125.15 284.0	118.4 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



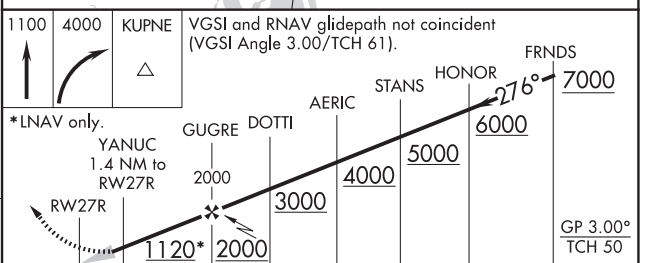
EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

ELEV 645 D TDZE 635



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



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)

42°13′N-83°21′W

RNAV (GPS) Y RWY 4L

DETROIT METRO WAYNE COUNTY (DTW)

WAAS	APP CRS	Rwy Ldg 10000
CH 82439	038°	TDZE 645
W04A		Apt Elev 645

RNP APCH.

T 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	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	

MISSED APCH FIX

DOHNT 118° 298° 4 NM

Final approach course offset 2.53°.

795 863 (MAP) (CFDXT) 779 1304

(FAF) MOTWN 2000 038° (3.1)

(IF) PEVSE 3000 038° (3.1)

JITLI 3000 038° (4.1)

(IAF) GRBAC 5000 210K 3000 141° (6.4)

RUCOB 3000 038° (3.1)

(IAF) SIZOR 6000 210K 3000 060° (4.5)

MMOTT 3000 COZZY 4000 038° (2.1)

4000 123° (6.2) 4000 057° (4.7)

HURRT 4000 (IAF) SMPTR

1386

MSA (CFDXT) 25 NM 2800

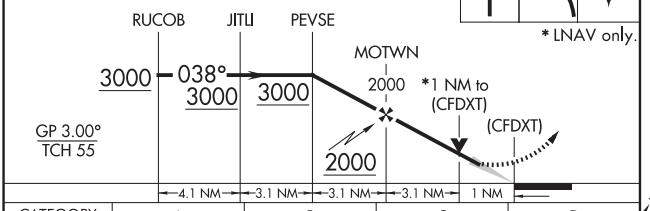
CANADA UNITED STATES

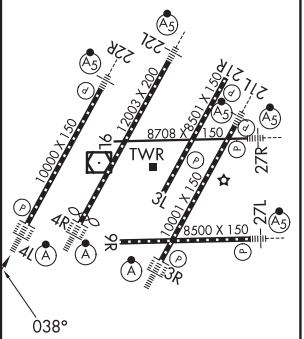
ELEV 645 D TDZE 645

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

1100 4000 DOHNT

* LNAV only.





CATEGORY	A	B	C	D
LPV DA	895/24 250 (300-½)			
LNAV/VNAV DA	1068/45 423 (500-⅞)			
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
REIL Rwys 3L, 9L, 9R and 21R
HIRL all runways

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

25163

RNAV (GPS) Y RWY 22R

DETROIT METRO WAYNE COUNTY (DTW)

WAAS	APP CRS	Rwy Ldg	10000
CH 42939	213°	TDZE	642
W22B		Apt Elev	645

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.

MALSR

MISSED APPROACH: Climb to 1100 then climbing right 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	

RADAR REQUIRED

(IAF) VALLI 6000 210K

4000 to KLIER 097° (7.6)

(IAF) HRRON 6000 210K

4000 131° (6.6)

KLIER 4000

(IAF) PYRET

4000 213° (3.1)

4000 184° (3.6)

GRDCY

1750

4000 213° (2)

MMOTR

4000 213° (3.1)

TAYUL

3000 213° (3.1)

EMINN

3000 213° (3.1)

(IF) WONDR

2000 213° (3.1)

(FAF) ANGGL

795

(MAP) (CFBJN) 791

863

Final approach course offset 2.5°

MISSED APCH FIX

DOHNT

118°

298°

4 NM

MSA (CFBJN) 25 NM

2800

CANADA

UNITED STATES

ELEV 645 D TDZE 642

213°

22L 22R 16 TWR 27R 27L 4L 4R 9L 9R 3L 3R

10000 X 150

12003 X 200

8708 X 150

8501 X 150

10001 X 150

8500 X 150

1100 4000 DOHNT

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

*LNAV only.

*1.1 NM to (CFBJN)

ANGGL WONDR EMINN TAYUL MMOTR GRDCY

2000 3000 3000 4000 4000 213° 4000

GP 3.00° TCH 55

1.1 NM 3.0 NM 3.1 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 (500-⅞)			
LNAV	MDA	1060/24 418 (500-½)		1060/40 418 (500-¾)	
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
HIRL all runways
REIL Rwys 3L, 9L, 9R and 21R

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 61304 W03A	APP CRS 036°	Rwy Ldg 10001 TDZE 633 Apt Elev 645

RNAV (GPS) Z RWY 3R

DETROIT METRO WAYNE COUNTY (DTW)

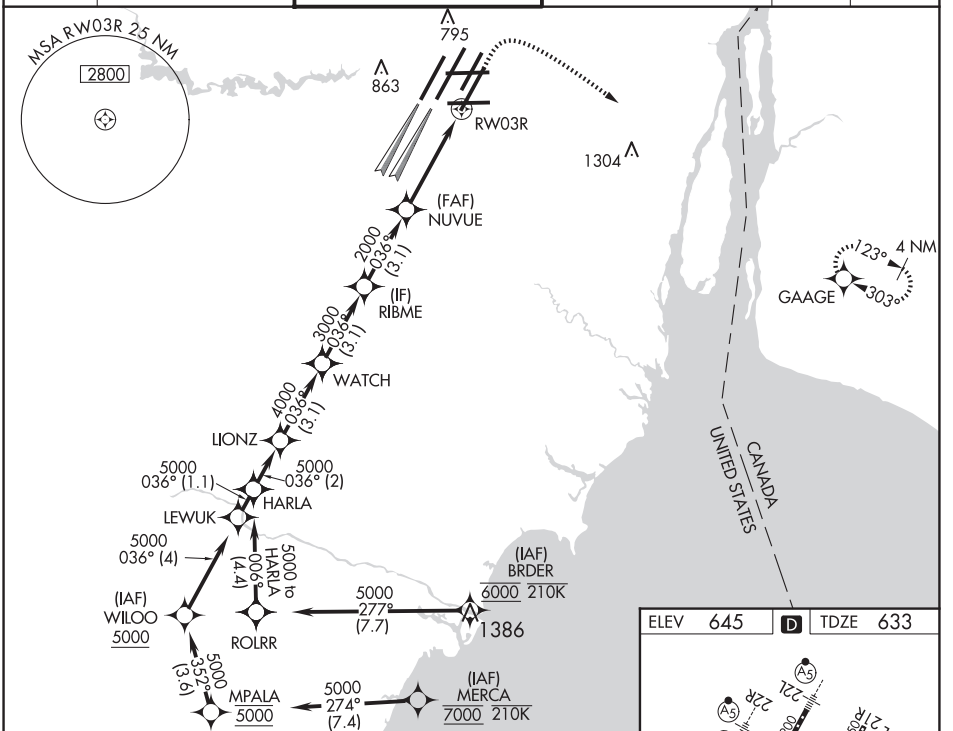
RNP APCH.

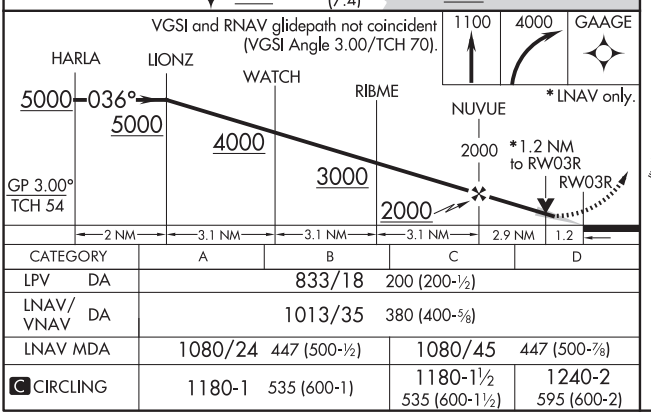
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). Simultaneous approach authorized. LNAV procedure NA during simultaneous operations. Use of FD or AP required during simultaneous operations.

ALSF-2

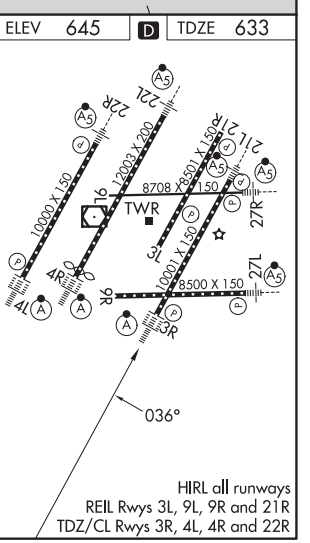
MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct GAAGE and hold, continue climb-in-hold to 4000.

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
LPV DA	833/18 200 (200-½)			
LNAV/VNAV DA	1013/35 380 (400-⅝)			
LNAV MDA	1080/24 447 (500-½)		1080/45 447 (500-⅞)	
C CIRCLING	1180-1 535 (600-1)		1180-1½ 535 (600-1½)	1240-2 595 (600-2)



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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN | AL-119 (FAA) | 25163

RNAV (GPS) Z RWY 4L

DETROIT METRO WAYNE COUNTY (DTW)

WAAS	APP CRS	Rwy Ldg	10000
CH 82241	036°	TDZE	645
W04D		Apt Elev	645

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.

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	

MISSED APCH FIX

DOHNT

118°

298°

4 NM

795

863

RW04L

HIPKA
1.8 NM to RW04L

779

1304

(FAF)
PAYED

2000
036° (3.1)

(IF)
REGGE

3000
036° (3.1)

NATIY

3000
036° (4.2)

(IAF)
GRBAC
5000 210K

3000
141° (6.4)

ASLLI

(IAF)
SIZOR
6000 210K

3000
068° (4.8)

MMOTT
3000

3000
036° (3.1)

ACIRA

4000
123° (6.2)

4000
065° (5)

4000
036° (2.1)

HURRT
4000

(IAF)
NBSTN

1386

MSA RW04L 25 NM
2800

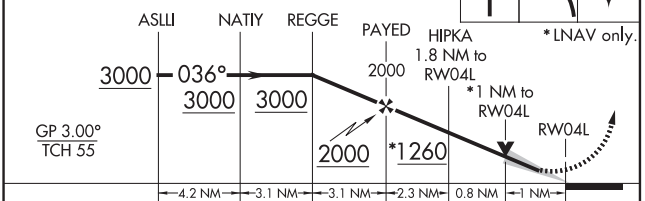
CANADA
UNITED STATES

ELEV 645 D TDZE 645

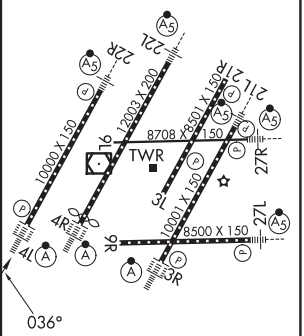
VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 71).

1100 4000 DOHNT

*LNAV only.



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
REIL Rwys 3L, 9L, 9R and 21R
HIRL all runways

DETROIT, MICHIGAN
Orig-B 10OCT19

42°13′N-83°21′W

DETROIT METRO WAYNE COUNTY (DTW)

RNAV (GPS) Z RWY 4L

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Ldg 11494
CH 63004	036°	TDZE 640
W04B		Apt Elev 645

RNAV (GPS) Z RWY 4R

DETROIT METRO WAYNE COUNTY (DTW)

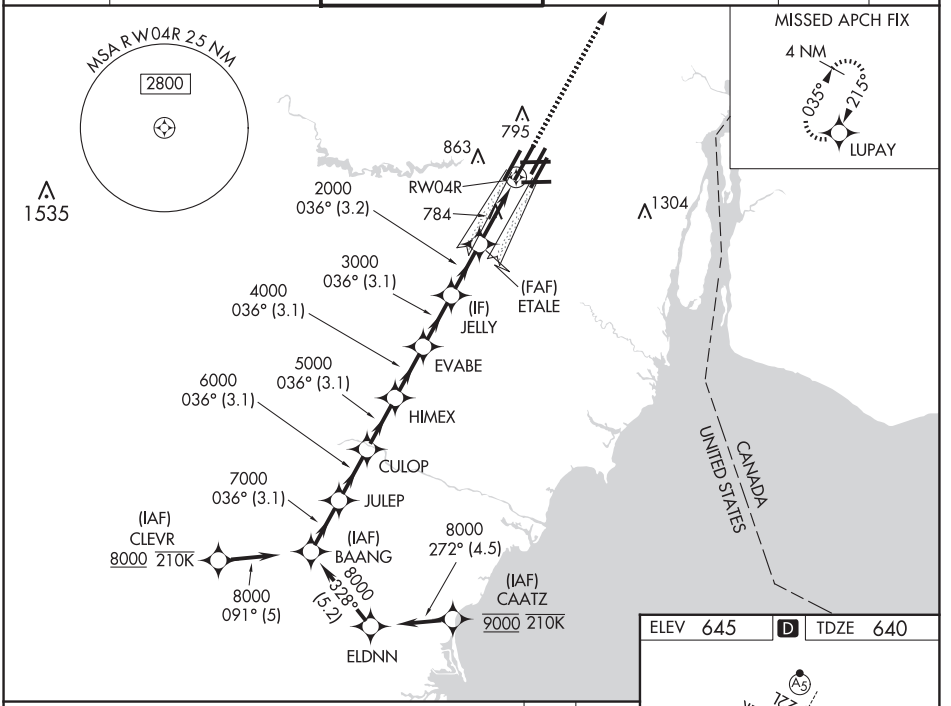
RNP APCH.

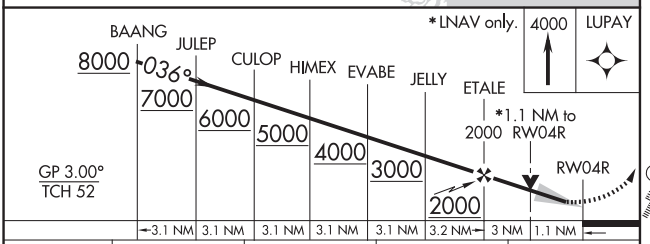
Simultaneous approach authorized. LNAV procedure NA during simultaneous operations. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19° C or above 54° C. Use of FD or AP required during simultaneous operations.

ALSF-2

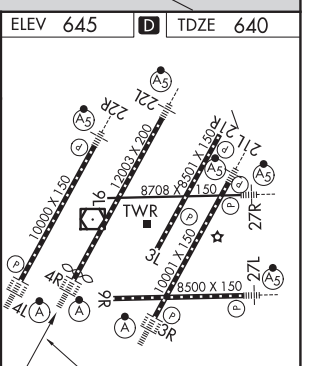
MISSED APPROACH: Climb to 4000 direct LUPAY and hold.

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	





CATEGORY	A	B	C	D
LPV DA	840/18 200 (200-½)			
LNAV/VNAV DA	1021/35 381 (400-⅝)			
LNAV MDA	1040/24 400 (400-½)		1040/35 400 (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
REIL Rwys 3L, 9L, 9R and 21R
HIRL all runways

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

AL-119 (FAA)

25163

RNAV (GPS) Z RWY 21L

DETROIT METRO WAYNE COUNTY (DTW)

WAAS CH 81820 W21A	APP CRS 216°	Rwy Ldg 10001 TDZE 632 Apt Elev 645

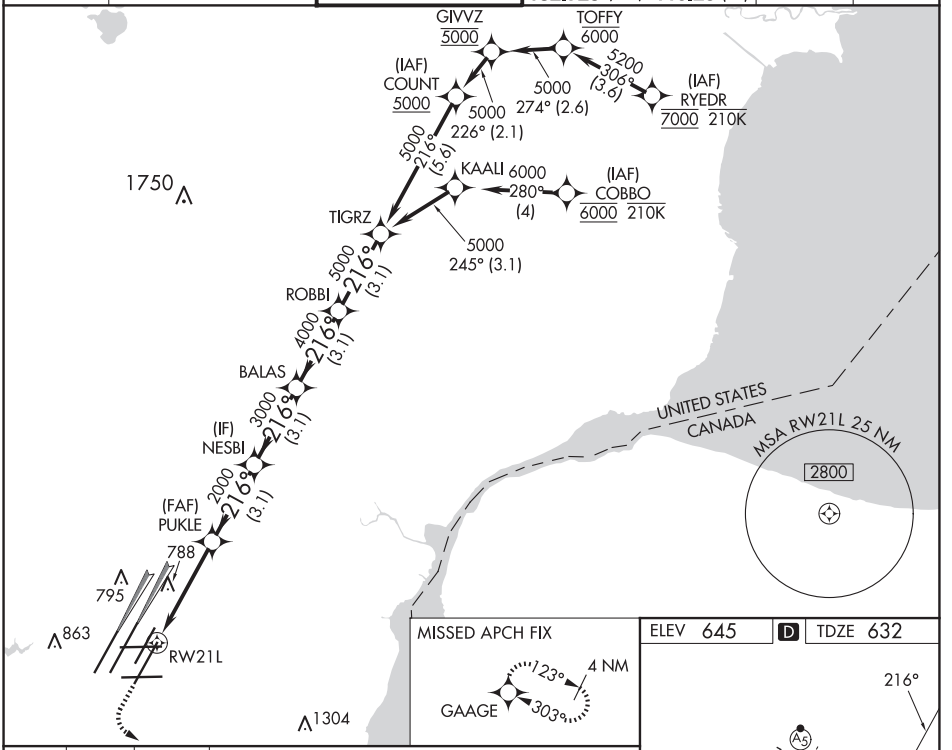
RNP APCH.

T 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 Cats C and D visibility to RVR 6000. Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. **RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSR (A5)

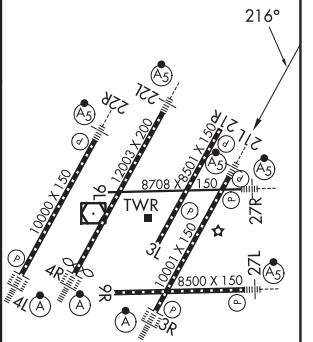
MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 direct GAAGE and hold, continue climb-in hold to 4000.

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	



MISSED APCH FIX

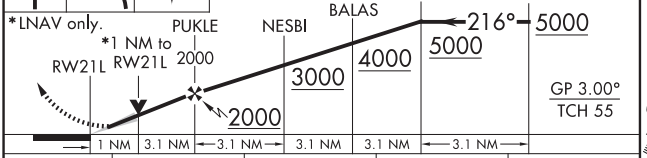
ELEV 645 D TDZE 632



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

1100 | 4000 | GAAGE

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 80).



CATEGORY	A	B	C	D
LPV DA**	832/24	200 (200-½)		
LNAV/VNAV DA	1062/40	430 (500-¾)		
LNAV MDA	1040/24	408 (400-½)	1040/40	408 (400-¾)
C CIRCLING	1180-1	535 (600-1)	1180-1½ 535 (600-1½)	1240-2 595 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Ldg 12003
CH 99601	216°	TDZE 637
W22A		Apt Elev 645

RNAV (GPS) Z RWY 22L

DETROIT METRO WAYNE COUNTY (DTW)

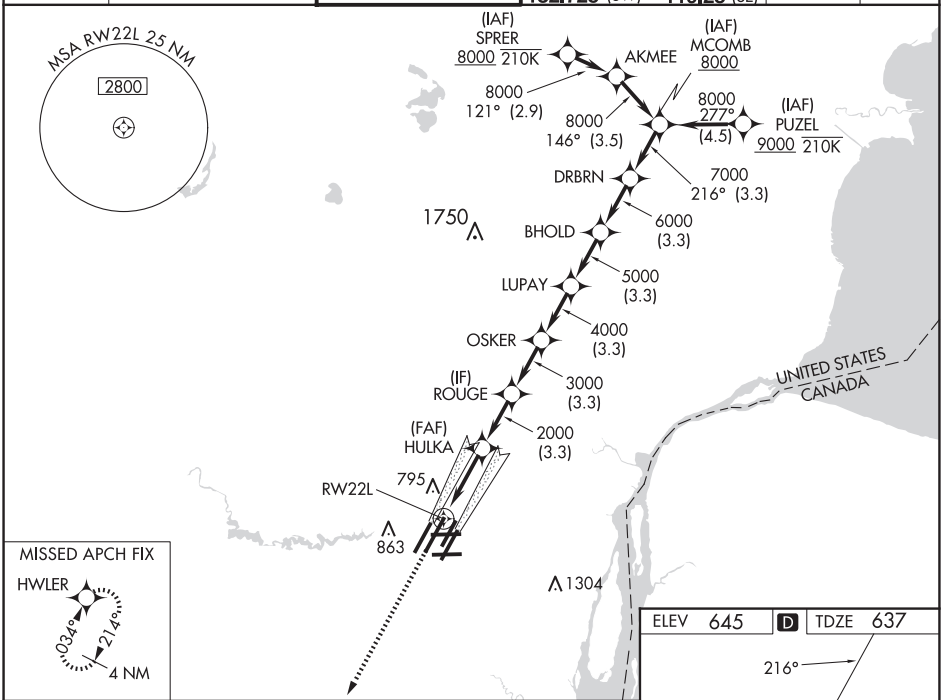
RNP APCH.

T 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 1⅜ SM. #RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSR (A5)

MISSED APPROACH: Climb to 4000 direct HWLER and hold.

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



CATEGORY	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)	
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
REIL Rwys 3L, 9L, 9R and 21R
HIRL all runways

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN | AL-119 (FAA) | 25163

RNAV (GPS) Z RWY 22R

DETROIT METRO WAYNE COUNTY (DTW)

WAAS	APP CRS	Rwy Ldg	10000
CH 70642	216°	TDZE	642
W22D		Apt Elev	645

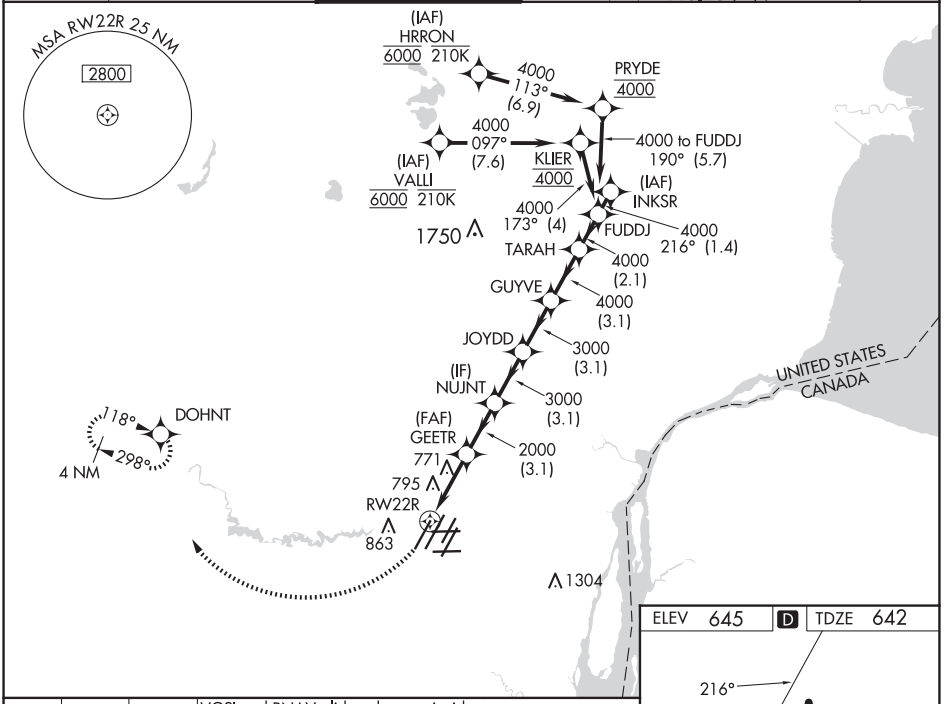
RNP APCH.

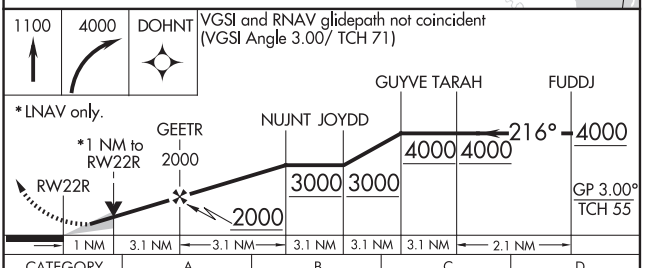
T Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. LNAV procedure NA during simultaneous operations. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats visibility to RVR 4500.

MALSR

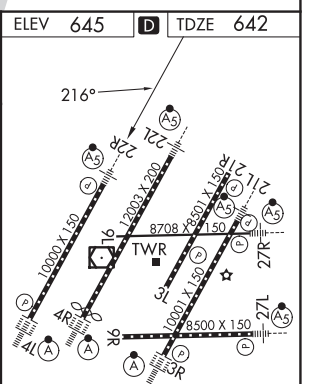
MISSED APPROACH: Climb to 1100 then climbing right turn 4000 direct DOHNT and hold, continue climb in hold to 4000.

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	





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 (400-⅝)	
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
REIL Rwys 3L, 9L, 9R and 21R
HIRL all runways

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

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.

EC-1, 07 AUG 2025 to 02 OCT 2025

25163

DETROIT, MICHIGAN

AL-119 (FAA)

ILS PRM RWY 4R (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-DTW	APP CRS	Rwy Ldg	11494
110.7	036°	TDZE	640
Chan 44		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.

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.

ALSF-2

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

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725 PRM 135.775	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	

ALTERNATE MISSED APCH FIX
057° 237° 114.3 SVM Chan 90
R-057 PERLS SVM 17.9

DXO R-035 795

LOCALIZER 110.7 I-DTW Chan 44

863 IM

ETALE I-DTW 6.2 RADAR

1304

DETROIT 113.4 DXO Chan 81

(IF) JELLY I-DTW 9.3 RADAR 2000 036° (3.2)

EVABE I-DTW 12.5 RADAR 3000 036° (3.1)

HIMEX I-DTW 15.6 RADAR 4000 036° (3.1)

CULOP I-DTW 18.8 RADAR 5000 036° (3.1)

JULEP I-DTW 21.9 RADAR 6000 036° (3.1)

(IAF) BAANG I-DTW 25 RADAR 7000 036° (3.1)

8000 091° (5)

(IAF) CLEVR 8000 210K

216°

328° (5.2) 8000

ELDNN

8000 272° (4.5)

(IAF) CAATZ 9000 210K

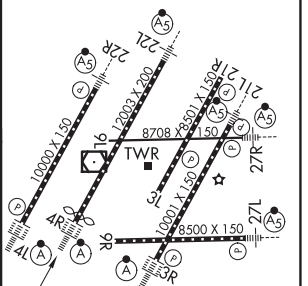
MSA DXO 25 NM 2800

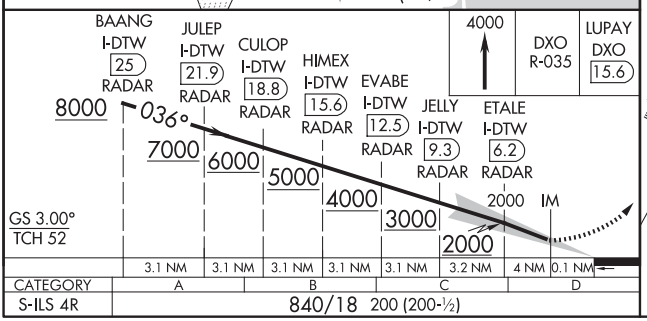
UNITED STATES CANADA

MISSED APCH FIX
035° 215° R-035
113.4 DXO Chan 81
LUPAY DXO 15.6

1386

ELEV 645 D TDZE 640





TDZ/CL Rwys 3R, 4L, 4R and 22R
REIL Rwys 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 (CLOSE PARALLEL)

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

AL-119 (FAA)

ILS PRM RWY 22L (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-DWC	APP CRS	Rwy Ldg	12003
110.7	216°	TDZE	637
Chan 44		Apt Elev	645

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.

MALSR

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	DETROIT APP CON	METRO TOWER	GND CON		CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725 PRM 135.775	121.8 (NW) 132.725 (SW)	119.45 (NE) 119.25 (SE)	120.65	

CARLETON CRL 115.7 Chan 104

MISSED APCH FIX

ALT MISSED APCH FIX

HWLER DXO 16.7

SALEM 114.3 SVM Chan 90

DETROIT 113.4 DXO Chan 81

(IAF) SPRER 8000 210K

(IAF) AKMEE 8000

(IAF) PUZEL 9000 210K

8000 121° (2.9)

8000 277° (4.5)

DRBRN I-DWC 20.7 RADAR

(IAF) MCOMB I-DWC 24 RADAR 8000

BHOLD I-DWC 17.4 RADAR

LUPAY I-DWC 14.1 RADAR

OSKER I-DWC 10.8 RADAR

(IF) ROUGE I-DWC 7.5 RADAR

HULKA I-DWC 4.2 RADAR

LOCALIZER 110.7 I-DWC Chan 44

CRL R-025

1750 ^

795 ^

863 ^

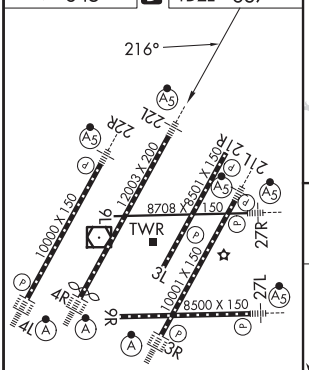
1304

2000 216° (3.3)

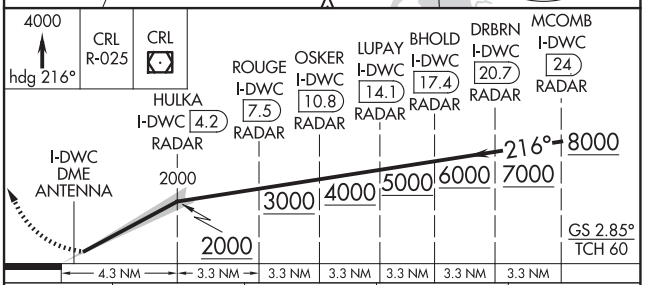
UNITED STATES CANADA

MSA DXO 25 NM 2800

ELEV 645 D TDZE 637



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 22L*	837/24 200 (200-½)			

DETROIT, MICHIGAN
Amdt 2 24MAY18

42°13′N-83°21′W

DETROIT METRO WAYNE COUNTY (DTW)

ILS PRM RWY 22L (CLOSE PARALLEL)

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

AL-119 (FAA)

25163

ILS PRM Y RWY 4L (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-ALA	APP CRS	Rwy Ldg	10000
111.75	038°	TDZE	645
Chan 54 (Y)		Apt Elev	645

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.

Rwy 4L and 4R separated by 3000 feet centerline to centerline. 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	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	135.0 317.725 PRM 127.05	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	

MISSED APCH FIX

117° 113.4 DXO R-297 Chan 81

297° DOHNT INT DXO 15.5 RADAR

114.3 SVM R-218 Chan 90

LOCALIZER 111.75 I-ALA Chan 54 (Y) LOC offset 2.53°

DETROIT 113.4 DXO Chan 81

CANADA UNITED STATES

MSA DXO 25 NM 2800

MOTWN I-ALA 3.9 RADAR

(IF) PEVSE I-ALA 7.1 RADAR

JITLI I-ALA 10.2 RADAR

(IAF) GRBAC 5000 210K

3000 to RUCOB 060° (4.5)

3000 141° (6.4)

MMOTT 3000

RUCOB I-ALA 14.3 RADAR

(IAF) SIZOR 6000 210K

4000 to COZZY 057° (4.7)

4000 123° (6.2)

COZZY I-ALA 17.5 RADAR

HURRT 4000

(IAF) SMPTR I-ALA 19.6 RADAR

218°

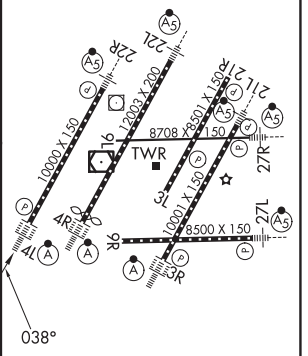
ALTERNATE MISSED APCH FIX

DOHNT

090° 270°

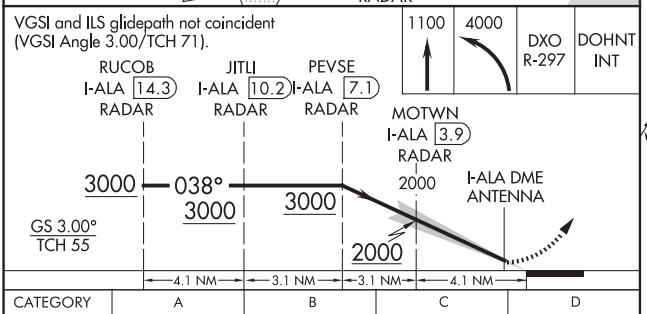
4 NM

ELEV 645 D TDZE 645



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

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



CATEGORY	A	B	C	D
S-ILS 4L	895/24 250 (300-½)			

DETROIT, MICHIGAN

Amdt 1C 30JAN20

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)

ILS PRM Y RWY 4L (CLOSE PARALLEL)

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

AL-119 (FAA)

ILS PRM Y RWY 22R (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-BZB	APP CRS	Rwy Ldg	10000
111.75	213°	TDZE	642
Chan 54 (Y)		Apt Elev	645

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

ALTERNATE MISSED APCH FIX

DOHNT

090°

270°

4 NM

MISSED APCH FIX

DOHNT INT

DXO 15.5

R-218

117°

297°

113.4 DXO

R-297

Chan 81

114.3 SVM

Chan 90

(IAF) HRRON 6000 210K

4000 131° (6.5)

KLIER 4000

4000 097° (7.6)

(IAF) VALLI 6000 210K

4000 184° (3.6)

033°

(IAF) PYRET

I-BZB 23.6 RADAR

4000 213° (3.1)

GRDCY

I-BZB 20.5 RADAR

4000 213° (2)

1750

MMOTR

I-BZB 18.5 RADAR

4000 213° (3.1)

TAYUL

I-BZB 15.4 RADAR

3000 213° (3.1)

EMINN

I-BZB 12.2 RADAR

3000 213° (3.1)

(IF) WONDR

I-BZB 9.1 RADAR

2000 213° (3.1)

ANGGL

I-BZB 5.9 RADAR

795

863

R-297

DETROIT 113.4 DXO Chan 81

LOCALIZER 111.75 I-BZB Chan 54 (Y) LOC offset 2.50°

MSA DXO 25 NM

2800

UNITED STATES

CANADA

ELEV 645 D TDZE 642

213°

22L 22R 21L 21R 27R 27L 9L 9R 4L 4R 3L 3R

10000 X 150

12003 X 200

8708 X 150

8501 X 150

8500 X 150

1000 X 150

TWR

1100 | 4000 | DXO R-297 | DOHNT INT

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

WONDR I-BZB 9.1 RADAR

ANGGL I-BZB 5.9 RADAR

EMINN I-BZB 12.2 RADAR

TAYUL I-BZB 15.4 RADAR

MMOTR I-BZB 18.5 RADAR

GRDCY I-BZB 20.5 RADAR

2000 3000 3000 4000 213° 4000 4000

GS 3.00° TCH 55

4.1 NM | 3.1 NM | 3.1 NM | 3.1 NM | 3.1 NM | 2 NM

CATEGORY	A	B	C	D
S-ILS 22R	892/24	250 (300-½)		

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

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

Amdt 1B 30JAN20

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)

ILS PRM Y RWY 22R (CLOSE PARALLEL)

25163

DETROIT, MICHIGAN

AL-119 (FAA)

ILS PRM Z RWY 4L (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-HJT	APP CRS	Rwy Ldg	10000
111.95	036°	TDZE	645
Chan 56 (Y)		Apt Elev	645

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

MISSED APCH FIX

113.4 DXO Chan 81 117° 297° R-297 R-218 114.3 SVM Chan 90 DOHNT INT DXO 15.5 RADAR

R-297 795 863 IM 1399 1304

LOCALIZER 111.95 I-HJT Chan 56 (Y)

DETROIT 113.4 DXO Chan 81

CANADA UNITED STATES

PAYED I-HJT 5.9 RADAR

MSA DXO 25 NM 2800

(IF) REGGE I-HJT 9 RADAR

NATIY I-HJT 12.2 RADAR

ASLLI I-HJT 16.4 RADAR

ACIRA I-HJT 19.5 RADAR

(IF) NBSTN I-HJT 21.6 RADAR

(IAF) GRBAC 5000 210K

(IAF) SIZOR 6000 210K

MMOTT 3000

HURRT 4000

3000 141° (6.4)

3000 068° (4.8)

4000 123° (6.2)

4000 065° (5)

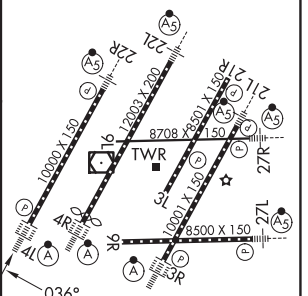
036° 3000 (3.1) 2000 (3.1) 3000 (3.1) 3000 (4.2) 4000 (2.1)

216°

ALTERNATE MISSED APCH FIX

DOHNT 090° 270° 4 NM

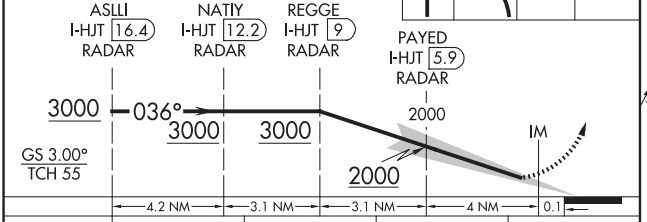
ELEV 645 D TDZE 645



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

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

1100	4000	DXO R-297	DOHNT INT



CATEGORY	A	B	C	D
S-ILS 4L	845/18 200 (200-½)			

DETROIT, MICHIGAN

42°13′N-83°21′W

DETROIT METRO WAYNE COUNTY (DTW)

Orig-B 30JAN20

ILS PRM Z RWY 4L (CLOSE PARALLEL)

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

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

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.

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.

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.

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

ALTERNATE MISSED APCH FIX
DOHNT
090°
270°
4 NM

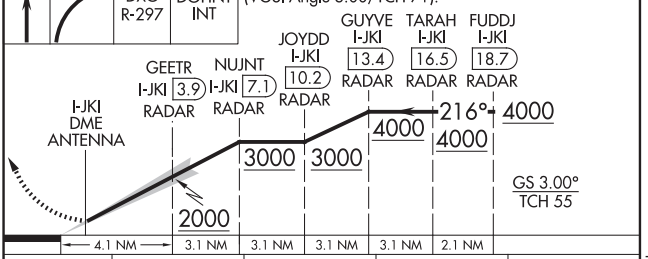
MSA DXO 25 NM
2800

(IAF) HRRON 6000 210K
4000 113° (6.9)
PRYDE 4000
4000 to FUDDJ 190° (5.7)
KLIER 4000
4000 097° (7.6)
(IAF) VALLI 6000 210K
4000 to FUDDJ 173° (4)
(IAF) INKSR I-JKI 20 RADAR
036°
4000 216° (1.4)
FUDDJ I-JKI 18.7 RADAR
TARAH I-JKI 16.5 RADAR
1750
4000 216° (2.1)
GUYVE I-JKI 13.4 RADAR
4000 216° (3.1)
JOYDD I-JKI 10.2 RADAR
3000 216° (3.1)
(IF) NUJNT I-JKI 7.1 RADAR
3000 216° (3.1)
2000 216° (3.1)
GEETR I-JKI 3.9 RADAR

SALEM 114.3 SVM Chan 90
DOHNT INT DXO 15.5 RADAR
R-218
117°
297°
R-297
DETROIT 113.4 DXO Chan 81
LOCALIZER 111.95 I-JKI Chan 56 (Y)
UNITED STATES
CANADA
795
863

1100 4000 DXO R-297 DOHNT INT

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



CATEGORY	A	B	C	D
S-ILS 22R*	842/24	200 (200-½)		

ELEV 645 D TDZE 642
216°
22L
22R
16
TWR
4R
4L
9R
9L
3R
3L
27R
27L
10000 X 150
12003 X 200
8708 X 150
10001 X 150
8500 X 150

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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

25163

DETROIT, MICHIGAN

AL-119 (FAA)

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

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-DTW	APP CRS	Rwy Ldg	11494
110.7	036°	TDZE	640
Chan 44		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.

T 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.

ALSF-2

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

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725 PRM 135.775	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	

ALTERNATE MISSED APCH FIX

114.3 SVM Chan 90

057° 237° R-057

PERLS SVM 17.9

DXO R-035 863 IM

LOCALIZER 110.7 I-DTW Chan 44

1304

DETROIT 113.4 DXO Chan 81

ETALE I-DTW 6.2 (IF) RADAR

JELLY I-DTW 9.3 RADAR

EVABE I-DTW 12.5 RADAR

HIMEX I-DTW 15.6 RADAR

CULOP I-DTW 18.8 RADAR

JULEP I-DTW 21.9 RADAR

(IAF) BAANG I-DTW 25 RADAR

036° (3.2) 2000

036° (3.1) 3000

036° (3.1) 4000

036° (3.1) 5000

036° (3.1) 6000

036° (3.1) 7000

MSA DXO 25 NM 2800

UNITED STATES CANADA

MISSED APCH FIX

035° 215° R-035

113.4 DXO Chan 81

LUPAY DXO 15.6

1386

(IAF) CLEVR 8000 210K

8000 091° (5)

216°

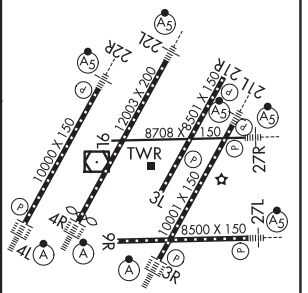
8000 328° (5.2)

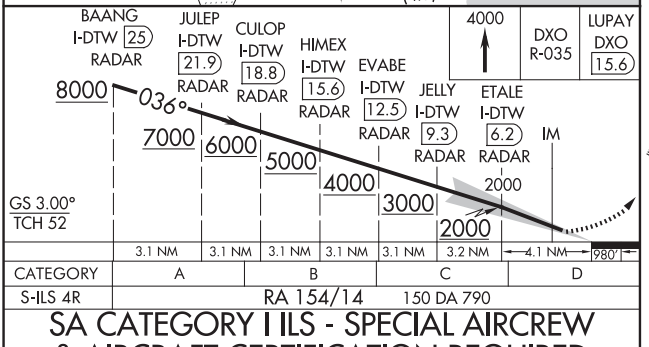
ELDNN

8000 272° (4.5)

(IAF) CAATZ 9000 210K

ELEV 645 D TDZE 640





CATEGORY	A	B	C	D
S-ILS 4R	RA 154/14		150 DA 790	

SA CATEGORY I ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

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

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

DETROIT METRO WAYNE COUNTY (DTW)

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

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.

MALSR

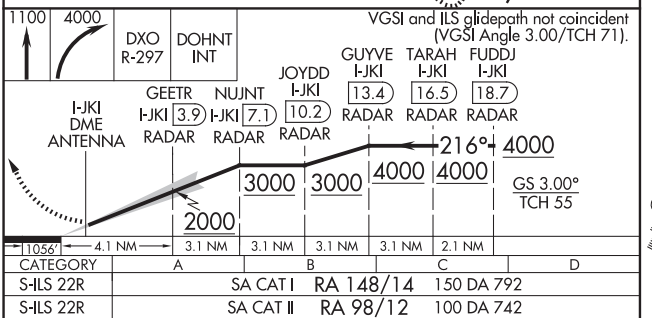
MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 on DXO VOR/DME R-297 to DOHNT INT/DXO 15.5 DME/RADAR and hold.

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

ALTERNATE MISSED APCH FIX
DOHNT
090°
270°
4 NM

(IAF) HRRON 6000 210K
4000 113°(6.9)
PRYDE 4000
4000 to FUDDJ 190° (5.7)
KLIER 4000
4000 097° (7.6)
(IAF) VALLI 6000 210K
4000 to FUDDJ 173° (4)
(IAF) INKSR I-JKI 20 RADAR
036°
4000 216° (1.4)
FUDDJ I-JKI 18.7 RADAR
TARAH I-JKI 16.5 RADAR
1750
4000 216° (2.1)
GUYVE I-JKI 13.4 RADAR
JOYDD I-JKI 10.2 RADAR
(IF) NUJNT I-JKI 7.1 RADAR
4000 216° (3.1)
3000 216° (3.1)
2000 216° (3.1)
MSA DXO 25 NM
2800
SALEM 114.3 SVM Chan 90
DOHNT INT DXO 15.5 RADAR
R-218
117°
297°
R-297
DETROIT 113.4 DXO Chan 81
795
GEETR I-JKI 3.9 RADAR
LOCALIZER 111.95 I-JKI Chan 56 (Y)
UNITED STATES
CANADA
863

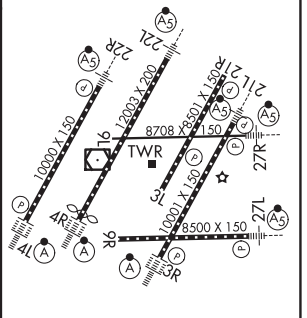
VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 71).



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	

SA CATEGORY I & II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

ELEV 645 D TDZE 642



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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

25163

DETROIT, MICHIGAN

AL-119 (FAA)

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

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-DTW	APP CRS	Rwy Ldg	11494
110.7	036°	TDZE	640
Chan 44		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.

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.

ALSF-2

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

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725 PRM 135.775	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	

ALTERNATE MISSED APCH FIX

114.3 SVM Chan 90

057° 237° R-057

PERLS SVM 17.9

LOCALIZER 110.7 I-DTW Chan 44

DETROIT 113.4 DXO Chan 81

UNITED STATES CANADA

MSA DXO 25 NM 2800

MISSED APCH FIX

R-035 035° 215° 113.4 DXO Chan 81 LUPAY DXO 15.6

ELEV 645 D TDZE 640

(IAF) CLEVR 8000 210K

(IAF) CAATZ 9000 210K

ELDNN

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

IM 765

DXO R-035

LUPAY DXO 15.6

GS 3.00° TCH 52

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

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

TWR

10000 X 150 12003 X 200 8501 X 150 8708 X 150 10001 X 150 8500 X 150

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EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

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

DETROIT METRO WAYNE COUNTY (DTW)

LOC/DME I-HJT	APP CRS	Rwy Ldg	10000
111.95	036°	TDZE	645
Chan 56 (Y)		Apt Elev	645

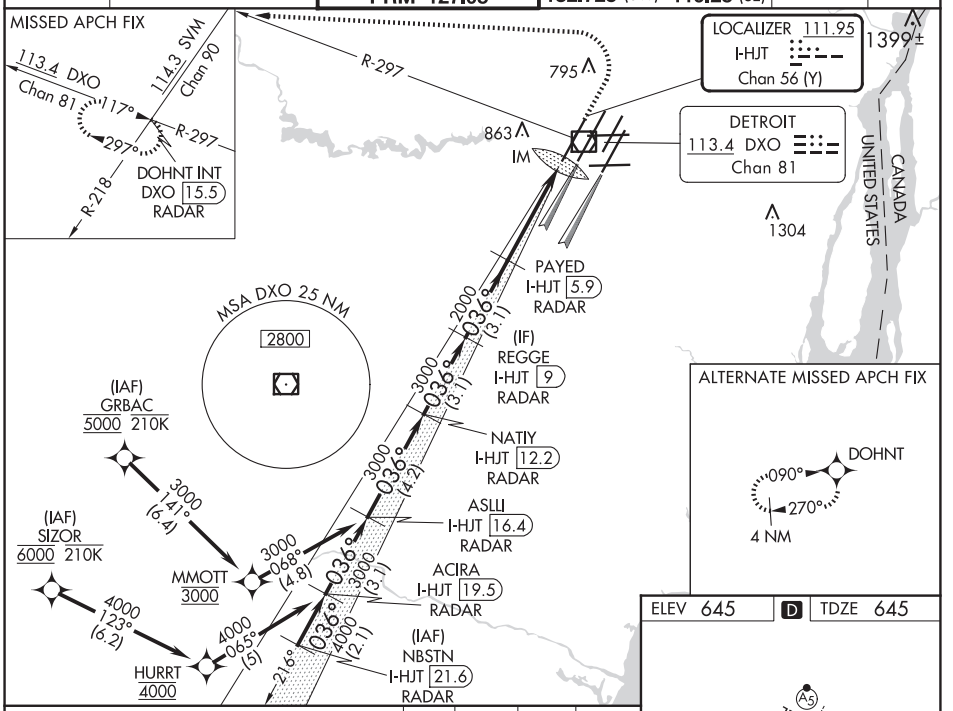
From GRBAC, SIZOR: RNAV 1-DME/DME/IRU or GPS required. Aircraft not DME/DME/IRU or GPS equipped - RADAR required for procedure entry. DME or RADAR required.

T 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.

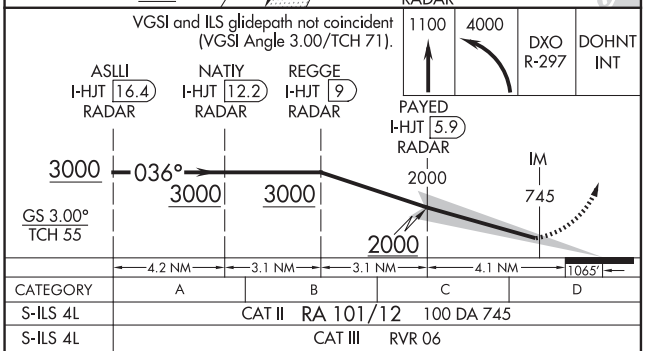
ALSF-2 (A)

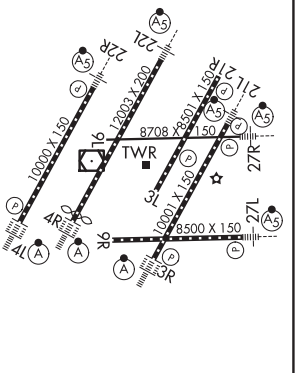
MISSED APPROACH: Climb to 1100 then climbing left turn to 4000 on DXO VOR/DME R-297 to DOHNT INT/DXO 15.5 DME/RADAR and hold.

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



ELEV 645 D TDZE 645





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

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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

25163

DETROIT, MICHIGAN

AL-119 (FAA)

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

DETROIT METRO WAYNE COUNTY (DTW)

WAAS	APP CRS	Rwy Ldg	10000
CH 82439	038°	TDZE	645
W04A		Apt Elev	645

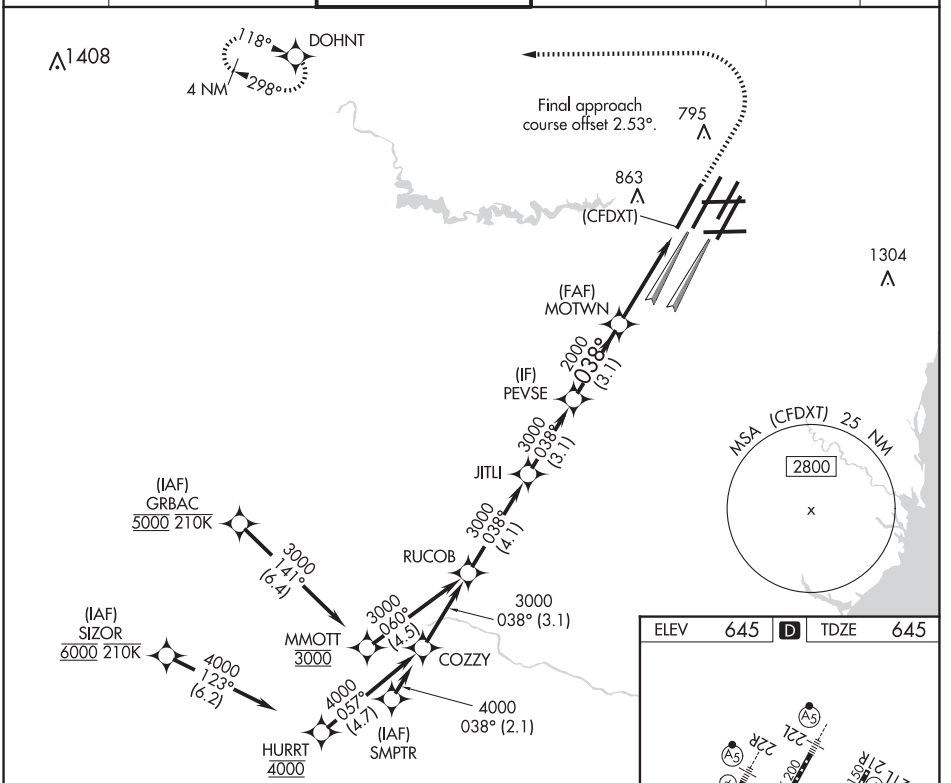
RNP APCH.

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.

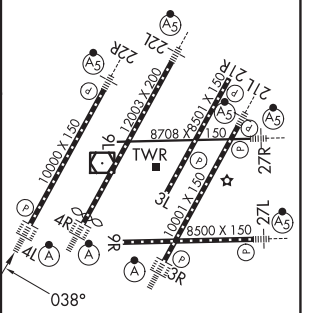
ALSF-2

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

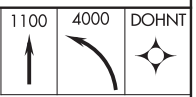
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	135.0 317.725 PRM 127.05	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	

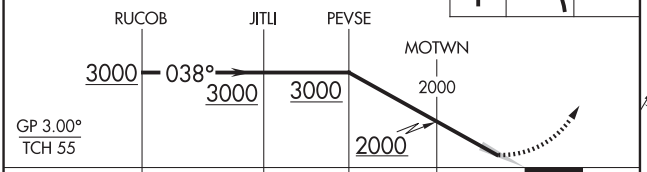


ELEV	645	D	TDZE	645



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





CATEGORY		A	B	C	D
LPV	DA	895/24	250 (300-½)		
LNAV/VNAV	DA	1068/45	423 (500-⅞)		

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

DETROIT, MICHIGAN
Orig-B 07SEP23

42°13′N-83°21′W

DETROIT METRO WAYNE COUNTY (DTW)

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

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

AL-119 (FAA)

RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)

DETROIT METRO WAYNE COUNTY (DTW)

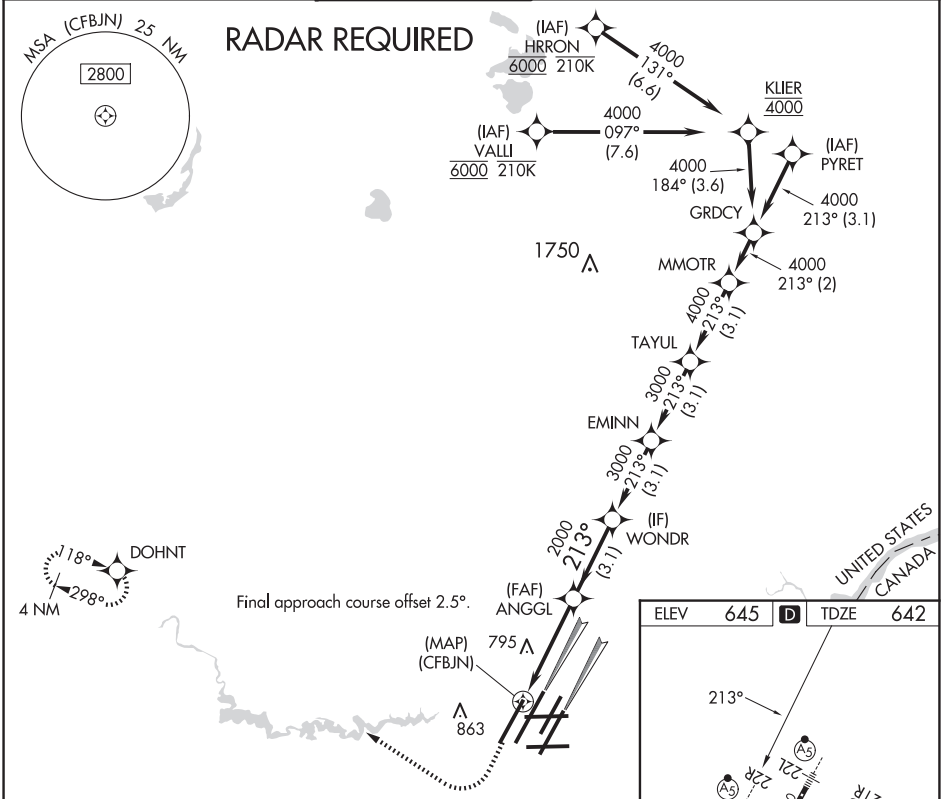
WAAS	APP CRS	Rwy Ldg	10000
CH 42939	213°	TDZE	642
W22B		Apt Elev	645

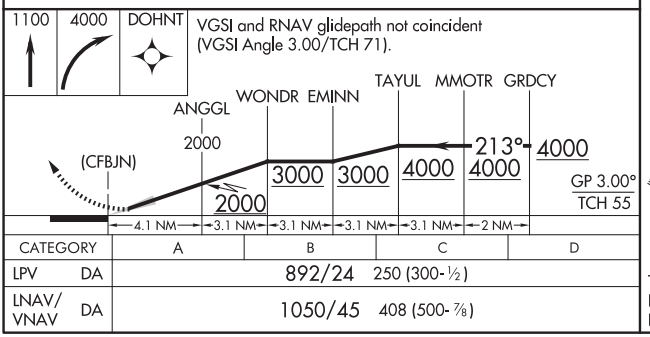
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Use of FD or AP providing RNAV track guidance required during simultaneous operations. Simultaneous approach authorized. Dual VHF comm required. See additional requirements on AAUP.

MALSR

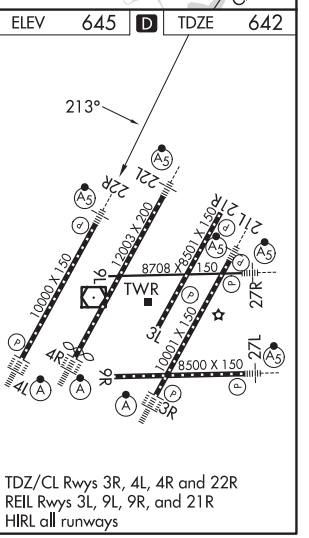
MISSED APPROACH: Climb to 1100 then climbing right turn to 4000 direct DOHNT and hold.

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





CATEGORY		A	B	C	D
LPV	DA	892/24 250 (300-½)			
LNAV/VNAV	DA	1050/45 408 (500-⅞)			



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

DETROIT, MICHIGAN
Orig 10NOV16

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)

RNAV (GPS) PRM Y RWY 22R (CLOSE PARALLEL)

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DETROIT, MICHIGAN

AL-119 (FAA)

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

DETROIT METRO WAYNE COUNTY (DTW)

WAAS	APP CRS	Rwy Ldg	11494
CH 87139	036°	TDZE	640
W04B		Apt Elev	645

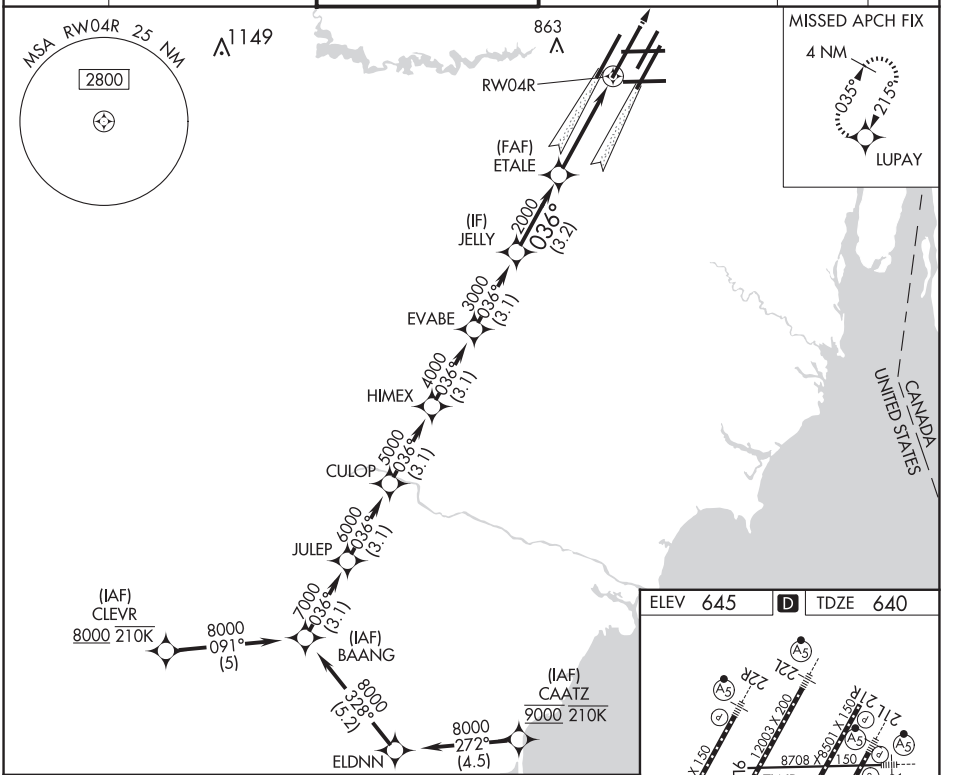
RNP APCH.

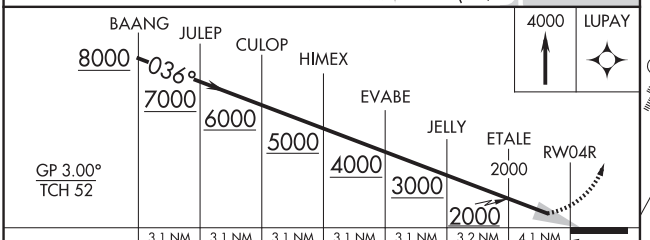
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C or above 54°C . Simultaneous approach authorized. Use of FD or AP required during simultaneous operations. Dual VHF comm required. See additional requirements on AAUP.

ALSF-2

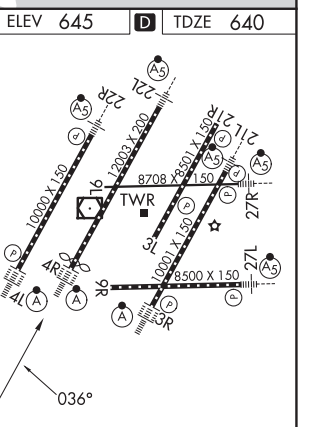
MISSED APPROACH: Climb to 4000 direct LUPAY and hold.

D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725 PRM 135.775	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	





CATEGORY	A	B	C	D
LPV DA	840/18 200 (200-½)			
LNAV/VNAV DA	1021/35 381 (400-⅝)			



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

DETROIT, MICHIGAN
Amdt 1A 28FEB19

42°13'N-83°21'W

DETROIT METRO WAYNE COUNTY (DTW)

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

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DETROIT, MICHIGAN

AL-119 (FAA)

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

DETROIT METRO WAYNE COUNTY (DTW)

WAAS	APP CRS	Rwy Ldg	12003
CH 99601	216°	TDZE	637
W22A		Apt Elev	645

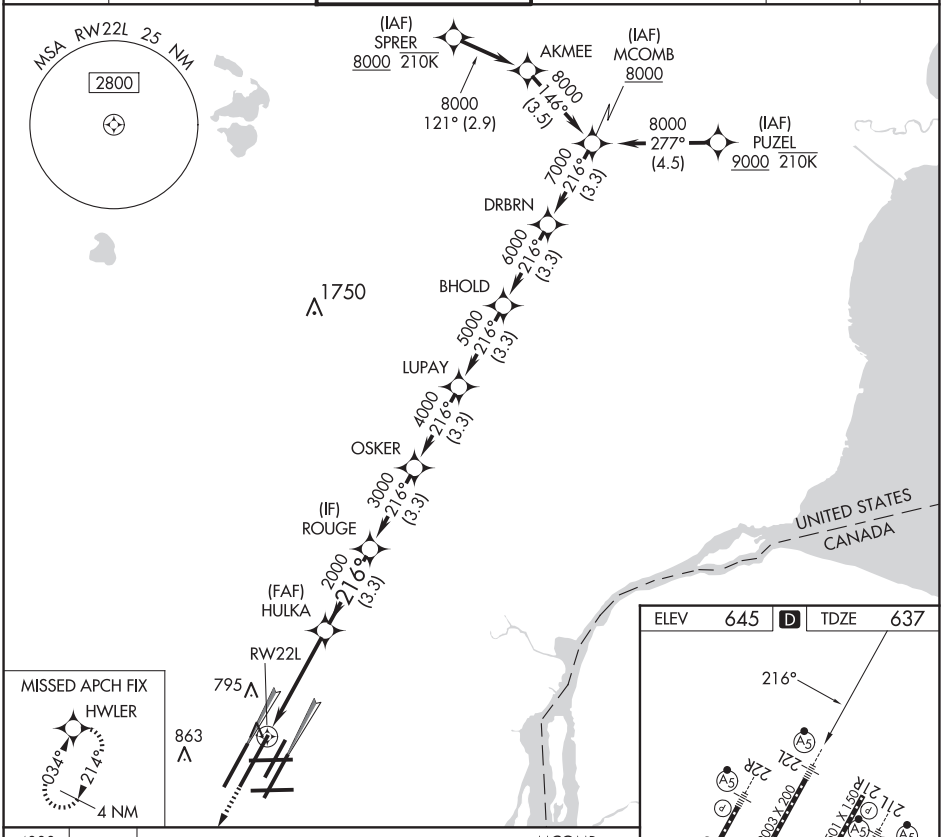
RNP APCH.

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.

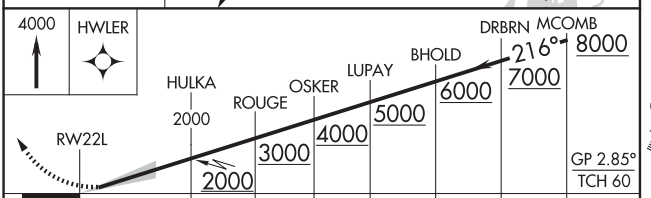
MALSR

MISSED APPROACH: Climb to 4000 direct HWLER and hold.

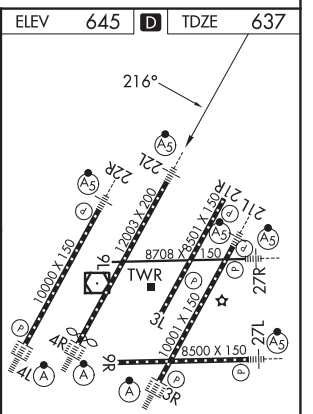
D-ATIS	DETROIT APP CON	METRO TOWER	GND CON	CLNC DEL	CPDLC
133.675	124.05 284.0	128.125 317.725 PRM 135.775	121.8 (NW) 119.45 (NE) 132.725 (SW) 119.25 (SE)	120.65	



MISSED APCH FIX



CATEGORY	A	B	C	D
LPV DA*	837/24	200 (200-½)		
LNAV/VNAV DA	938/24	301 (300-½)		



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

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

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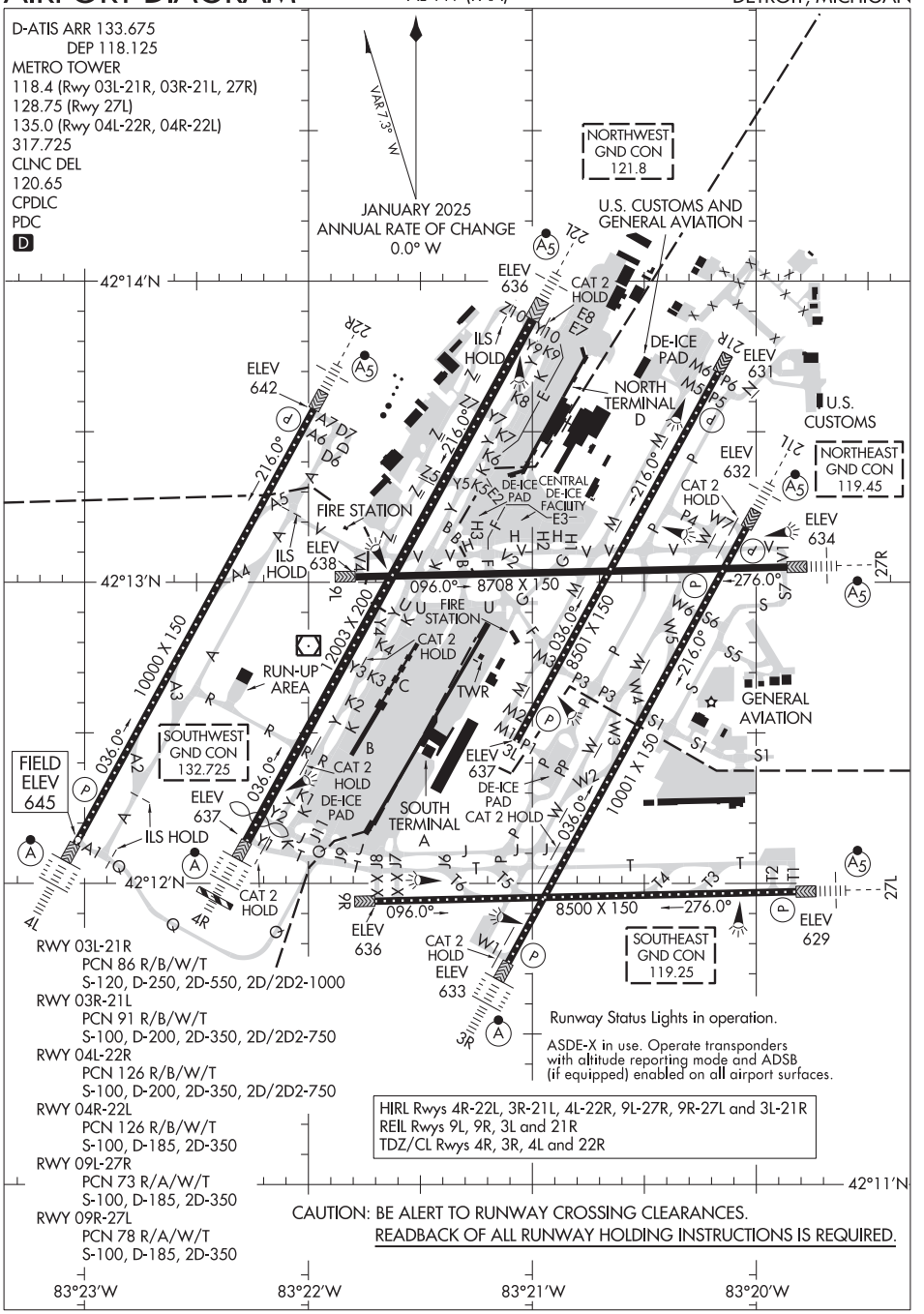
AIRPORT DIAGRAM

DETROIT METRO WAYNE COUNTY (DTW)

AL-119 (FAA)

DETROIT, MICHIGAN



RWY 03L-21R
PCN 86 R/B/W/T
S-120, D-250, 2D-550, 2D/2D2-1000

RWY 03R-21L
PCN 91 R/B/W/T
S-100, D-200, 2D-350, 2D/2D2-750

RWY 04L-22R
PCN 126 R/B/W/T
S-100, D-200, 2D-350, 2D/2D2-750

RWY 04R-22L
PCN 126 R/B/W/T
S-100, D-185, 2D-350

RWY 09L-27R
PCN 73 R/A/W/T
S-100, D-185, 2D-350

RWY 09R-27L
PCN 78 R/A/W/T
S-100, D-185, 2D-350

AIRPORT DIAGRAM

DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

25163

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

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, 07 AUG 2025 to 02 OCT 2025

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.

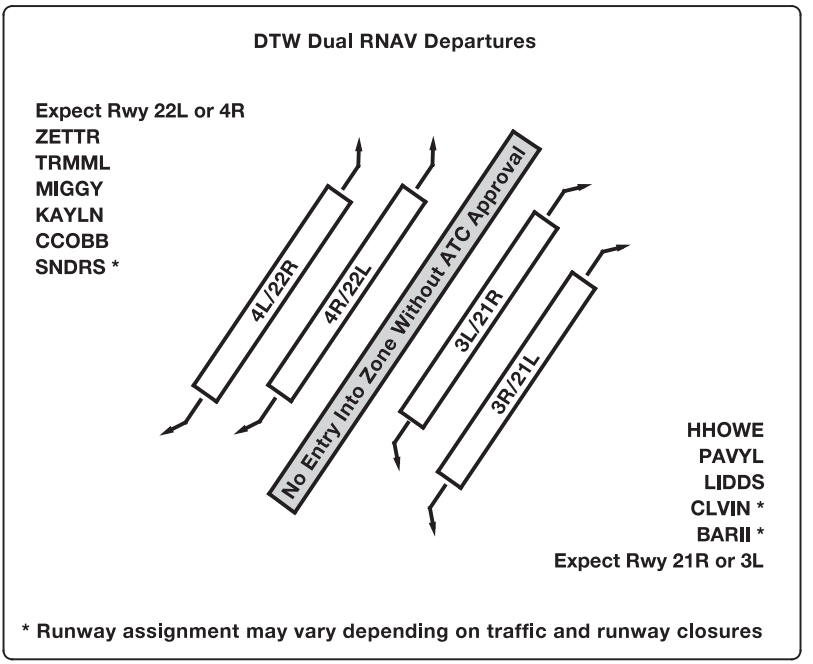
For planning purposes, pilots can anticipate a runway assignment based upon the information below.

Runway Assignment for Dual Departure Operations

Departing Runways 22L/R, 21L/R
SNDRS, CCOBB, KAYLN, MIGGY, TRMML, ZETTR - Expect Runway 22L
HHOWE, PAVYL, LIDDS, BARII, CLVIN - Expect Runway 21R

Departing Runways 4L/R, 3L/R
SNDRS, CCOBB, KAYLN, MIGGY, TRMML, ZETTR - Expect Runway 04R
HHOWE, PAVYL, LIDDS, BARII, CLVIN - Expect Runway 03L

Departing Runways 27L/R (not depicted below)
KAYLN, MIGGY, TRMML, ZETTR, HHOWE - Expect Runway 27R
CCOBB, SNDRS, BARII, CLVIN, LIDDS, PAVYL - Expect Runway 27L

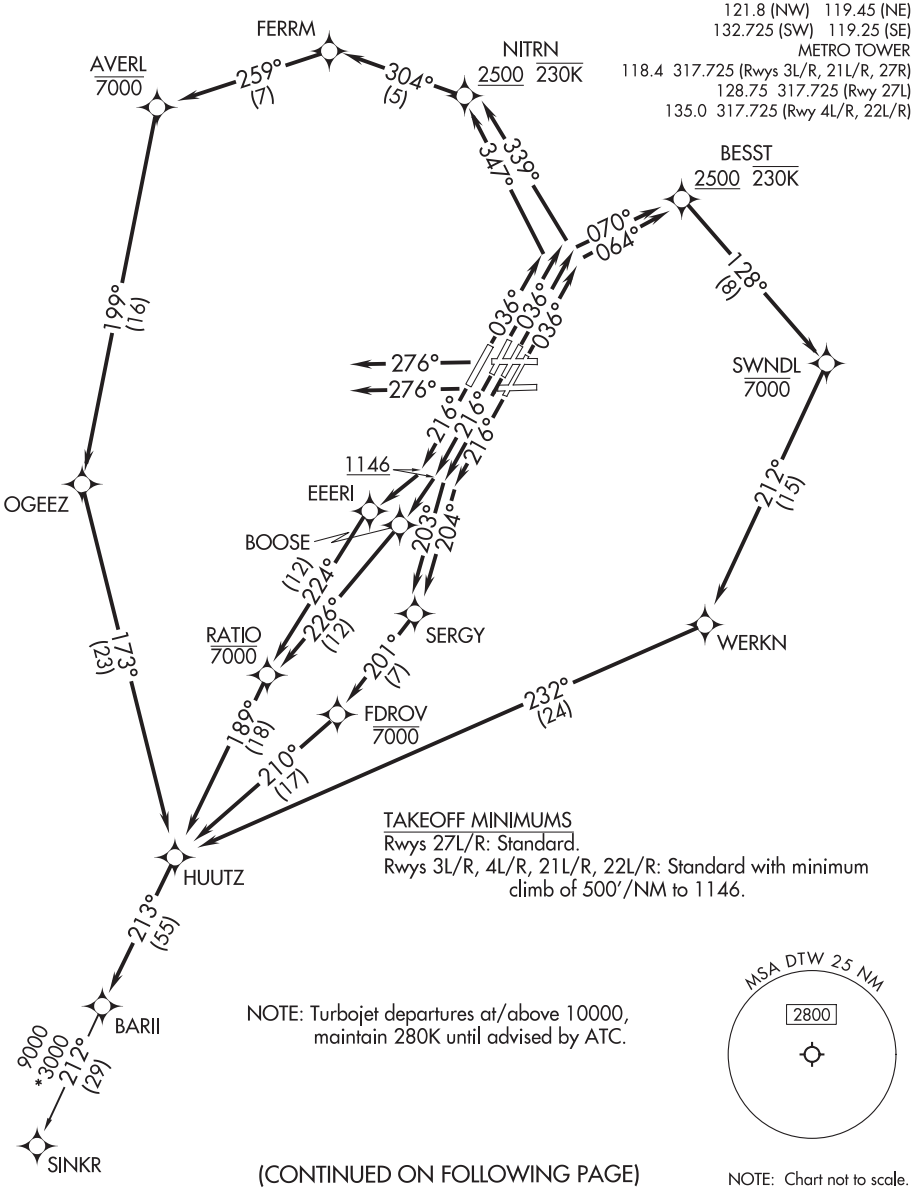


EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: 17000

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
125.525 284.0 (Rwys 4L/R, 22L/R)
132.025 284.0 (Rwys 3L/R, 21L/R, 27L/R)
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 27L/R: Standard.
Rwys 3L/R, 4L/R, 21L/R, 22L/R: Standard with minimum climb of 500'/NM to 1146.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

SEE ADDITIONAL REQUIREMENTS ON 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 232° to HUUTZ, 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 232° to HUUTZ, 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 FERRM, then on track 259° to cross AVERL at or below 7000, then on track 199° to OGEEZ, then on track 173° to HUUTZ, 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 FERRM, then on track 259° to cross AVERL at or below 7000, then on track 199° to OGEEZ, then on track 173° to HUUTZ, 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 210° to HUUTZ, 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 210° to HUUTZ, 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 189° to HUUTZ, 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 189° to HUUTZ, thence . . . .
TAKEOFF RUNWAYS 27L/R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to HUUTZ, thence . . . .

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

SINKR TRANSITION (BARII3.SINKR)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.
TOP ALTITUDE: 17000
DETROIT DEP CON
125.525 284.0 (Rwy 3L/R, 4L/R, 21L/R, 22L/R)
132.025 284.0 (Rwy 27L/R)
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)
ZEGBI
9000
*2500
278°
(31)
CCOBB
BROZZ
279°
(10)
NAPOLEON
262°
(24)
279°
(10)
FDRCH
313°
(5)
AVERL
7000
259°
(7)
FERRM
304°
(5)
NITRN
2500 230K
336°
335°
339°
347°
036°
276°
276°
216°
243°
240°
238°
232°
BSLNE
9000
313°
(10)
SAAMS
7000
WSA DTW 25 NM
2800
N
TAKEOFF MINIMUMS:
Rwys 27L/R: Standard.
Rwys 3L/R, 4L/R, 21L/R, 22L/R: Standard with minimum climb of 500'/NM to 1146.
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: Chart not to scale.
(CONTINUED ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

SEE ADDITIONAL REQUIREMENTS ON 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 FERRM, then on track 259° to cross AVERL at or below 7000, then on track 262° to BROZZ, 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 FERRM, then on track 259° to cross AVERL at or below 7000, then on track 262° to BROZZ, 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 FERRM, then on track 259° to cross AVERL at or below 7000, then on track 262° to BROZZ, 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 FERRM, then on track 259° to cross AVERL at or below 7000, then on track 262° to BROZZ, 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 279° to BROZZ, 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 BROZZ, 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 BROZZ, 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 BROZZ, thence....
TAKEOFF RUNWAYS 27L/27R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to BROZZ, thence....

....on track 279° to CCOBB, then on (transition). Maintain 17000, expect filed altitude 10 minutes after departure.

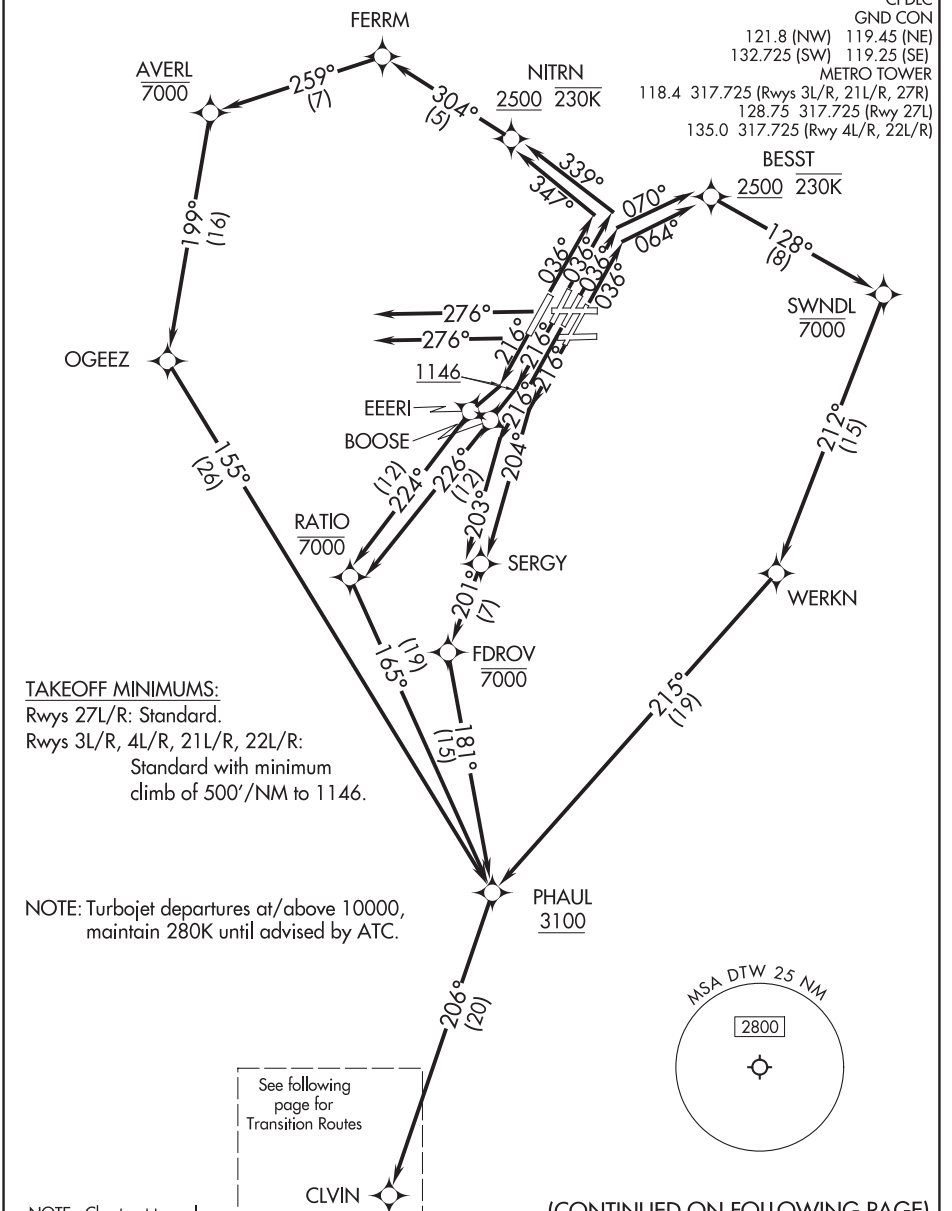
ZEGBI TRANSITION (CCOBB3.ZEGBI):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: 17000

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
125.525 284.0 (Rwys 4L/R, 22L/R)
132.025 284.0 (Rwys 3L/R, 21L/R, 27L/R)
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 27L/R: Standard.
Rwys 3L/R, 4L/R, 21L/R, 22L/R:
Standard with minimum climb of 500'/NM to 1146.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)

EC-1, 07 AUG 2025 to 02 OCT 2025

(CLVIN3.CLVIN) 24137 AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)

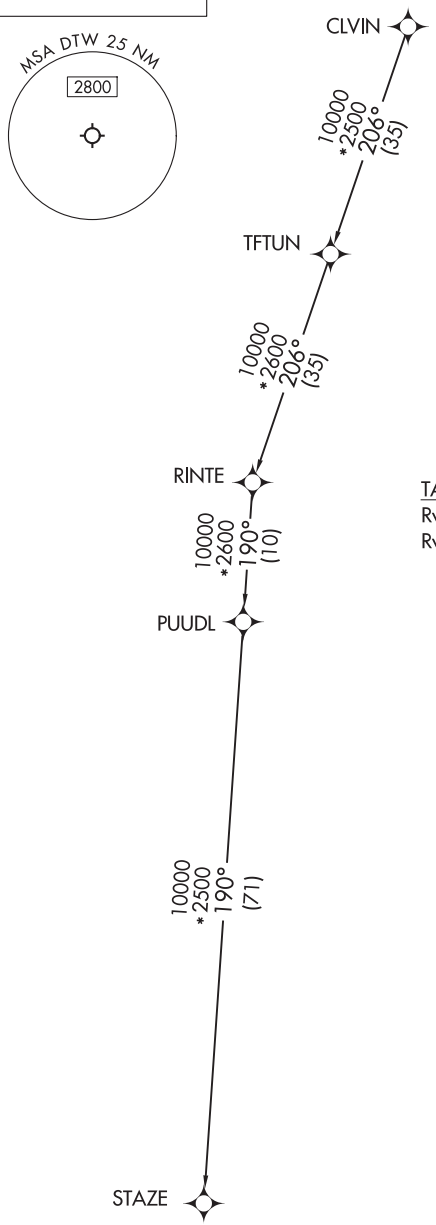
CLVIN THREE DEPARTURE (RNAV) Transition Routes

DETROIT, MICHIGAN

TOP ALTITUDE: 17000

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
125.525 284.0 (Rwys 4L/R, 22L/R)
132.025 284.0 (Rwys 3L/R, 21L/R, 27L/R)
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 27L/R: Standard.
Rwys 3L/R, 4L/R, 21L/R, 22L/R:
Standard with minimum climb of 500'/NM to 1146.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

SEE ADDITIONAL REQUIREMENTS ON 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 215° to cross PHAUL at or above 3100, 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 215° to cross PHAUL at or above 3100, 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 FERRM, 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 3100, 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 FERRM, 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 3100, 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 3100, 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 3100, 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 3100, 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 3100, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to cross PHAUL at or above 3100, thence....

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

STAZE TRANSITION (CLVIN3.STAZE):

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

SEE ADDITIONAL REQUIREMENTS ON 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 2200, 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 2200, 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 2200, 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 2200, 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 2200, 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 2200, 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 2200, 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 2200, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to cross MALTB at or above 2200, thence....

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

BROKK TRANSITION (HHOWE4.BROKK):
LNCON TRANSITION (HHOWE4.LNCON):

EC-1, 07 AUG 2025 to 02 OCT 2025

(KAYLN3.KAYLN) 24137

KAYLN THREE DEPARTURE (RNAV)

AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)

DETROIT, MICHIGAN

(CONTINUED ON FOLLOWING PAGE)

EC-1, 07 AUG 2025 to 02 OCT 2025

KAYLN THREE DEPARTURE (RNAV)
(KAYLN3.KAYLN) 16MAY24
DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

DEPARTURE ROUTE DESCRIPTION

SEE ADDITIONAL REQUIREMENTS ON AAUP.

TAKEOFF RUNWAYS 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 MTRCT, 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 MTRCT, 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 MTRCT, 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 MTRCT, 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 MTRCT, 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 MTRCT, 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 MTRCT, thence...
TAKEOFF RUNWAYS 27L/R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to MTRCT, thence....

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

SMUUV TRANSITION (KAYLN3.SMUUV):

EC-1, 07 AUG 2025 to 02 OCT 2025

KZLOV TWO DEPARTURE (RNAV)

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: For use by Cleveland terminal arrivals only.

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

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

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

EC-1, 07 AUG 2025 to 02 OCT 2025

KZLOV TWO DEPARTURE (RNAV)
(KZLOV2.WINNZ) 16MAY24
DETROIT, MICHIGAN
DETROIT METRO WAYNE COUNTY (DTW)

DEPARTURE ROUTE DESCRIPTION

SEE ADDITIONAL REQUIREMENTS ON 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 KZLOV, 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 KZLOV, 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 KZLOV, 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 KZLOV, 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 KZLOV, 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 KZLOV, thence....

TAKEOFF RUNWAYS 27L/R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to KZLOV, thence....

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

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

SEE ADDITIONAL REQUIREMENTS ON 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 at or below 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 at or below 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 at or below 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 at or below 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 at or below 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 at or below 15000, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to cross KZLOV at or below 15000, thence....

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

GRIVY TRANSITION (LIDDS4.GRIVY):

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading. 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.

ALL AIRCRAFT: ATC climb gradient: If unable to accept climb rate, advise ATC prior to taxi.
RUNWAY 3L: Cross DXO 3.5 DME at or above 2500 MSL, 737'/NM to 2500.
RUNWAY 3R: Cross DXO 3.5 DME at or above 2500 MSL, 820'/NM to 2500.
RUNWAY 4L: Cross DXO 3.5 DME at or above 2500 MSL, 669'/NM to 2500.
RUNWAY 4R: Cross DXO 3.5 DME at or above 2500 MSL, 856'/NM to 2500.
RUNWAY 9L: Cross DXO 3.5 DME at or above 2500 MSL, 988'/NM to 2500.
RUNWAY 9R: Cross DXO 3.5 DME at or above 2500 MSL, 1046'/NM to 2500.
RUNWAY 21L: Cross DXO 3.5 DME at or above 2500 MSL, 687'/NM to 2500.
RUNWAY 21R: Cross DXO 3.5 DME at or above 2500 MSL, 538'/NM to 2500.
RUNWAY 22L: Cross DXO 3.5 DME at or above 2500 MSL, 661'/NM to 2500.
RUNWAY 22R: Cross DXO 3.5 DME at or above 2500 MSL, 742'/NM to 2500.
RUNWAY 27L: Cross DXO 3.5 DME at or above 2500 MSL, 521'/NM to 2500.
RUNWAY 27R: Cross DXO 3.5 DME at or above 2500 MSL, 511'/NM to 2500.

DUNKS TRANSITION (METRO4.DUNKS): From over DXO VOR/DME on DXO R-296 to DUNKS.
HARWL TRANSITION (METRO4.HARWL): From over DXO VOR/DME on DXO R-281 to HARWL.
ILLIE TRANSITION (METRO4.ILLIE): From over DXO VOR/DME on DXO R-217 to ILLIE.
MAARS TRANSITION (METRO4.MAARS): From over DXO VOR/DME on DXO R-106 to MAARS.
PISTN TRANSITION (METRO4.PISTN): From over DXO VOR/DME on DXO R-020 to PISTN.

EC-1, 07 AUG 2025 to 02 OCT 2025

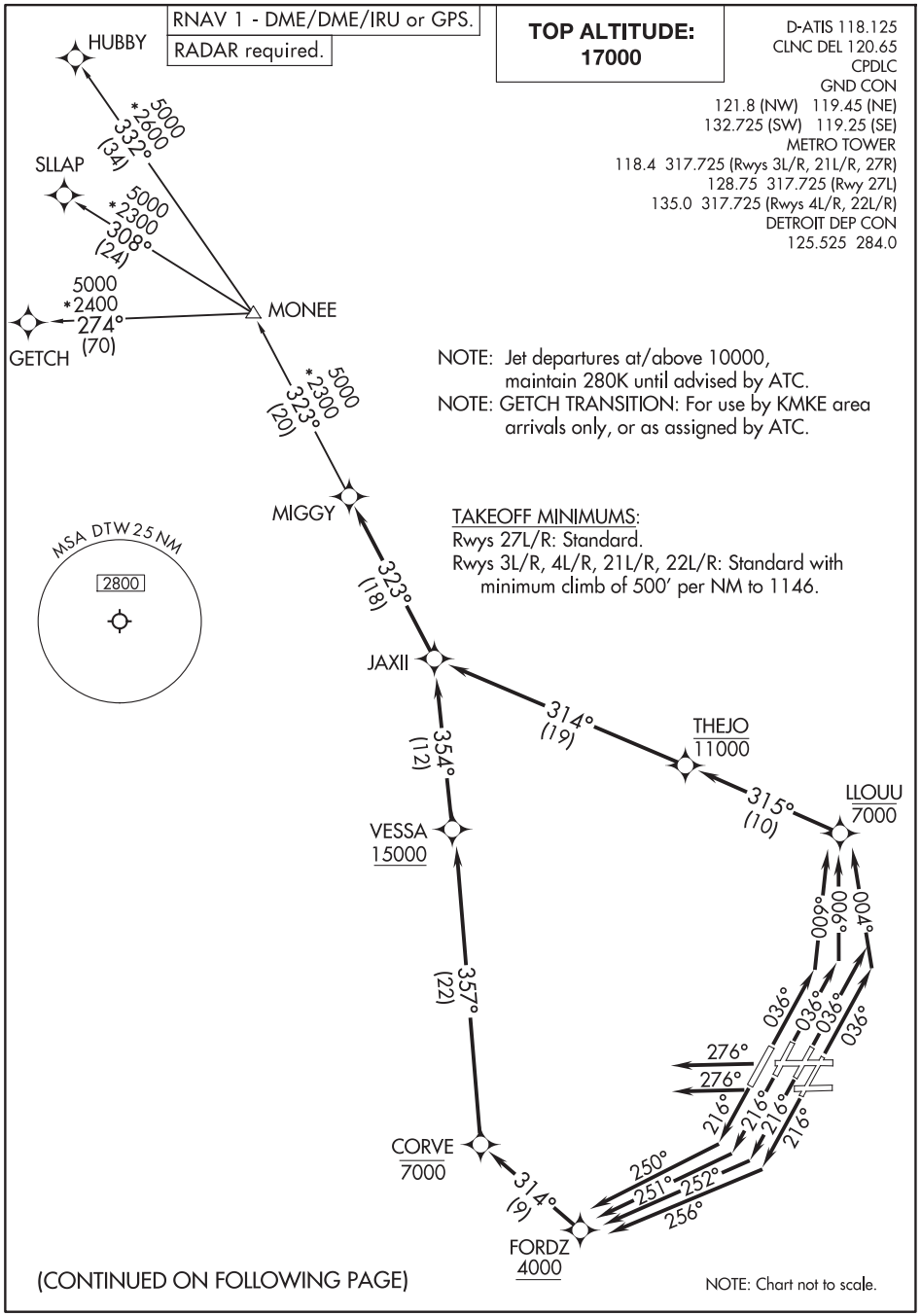
(MIGGY3.MIGGY) 24137

MIGGY THREE DEPARTURE (RNAV)

AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)

DETROIT, MICHIGAN



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NOTE: Chart not to scale.

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

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 JAXII, 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 JAXII, 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 JAXII, 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° or as assigned by ATC, for RADAR vectors to JAXII, 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 (MIGGY3.GETCH):
HUBBY TRANSITION (MIGGY3.HUBBY):
SLLAP TRANSITION (MIGGY3.SLLAP):

(PAVYL3.PAVYL) 24137

PAVYL THREE DEPARTURE (RNAV)

DETROIT METRO WAYNE COUNTY (DTW)

AL-119 (FAA)

DETROIT, MICHIGAN

PAVYL THREE DEPARTURE (RNAV)

(PAVYL3.PAVYL) 16MAY24

DETROIT, MICHIGAN

DETROIT METRO WAYNE COUNTY (DTW)

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

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 SLVVA, 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 SLVVA, 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 SLVVA, 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 SLVVA, 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 SLVVA, 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 SLVVA, 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 SLVVA, thence....
TAKEOFF RUNWAYS 27L/27R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to SLVVA, 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 (PAVYL3.ESSBE):
MRDOC TRANSITION (PAVYL3.MRDOC):

EC-1, 07 AUG 2025 to 02 OCT 2025

(SNDRS3.SNDRS) 24137 AL-119 (FAA)

DETROIT METRO WAYNE COUNTY (DTW)

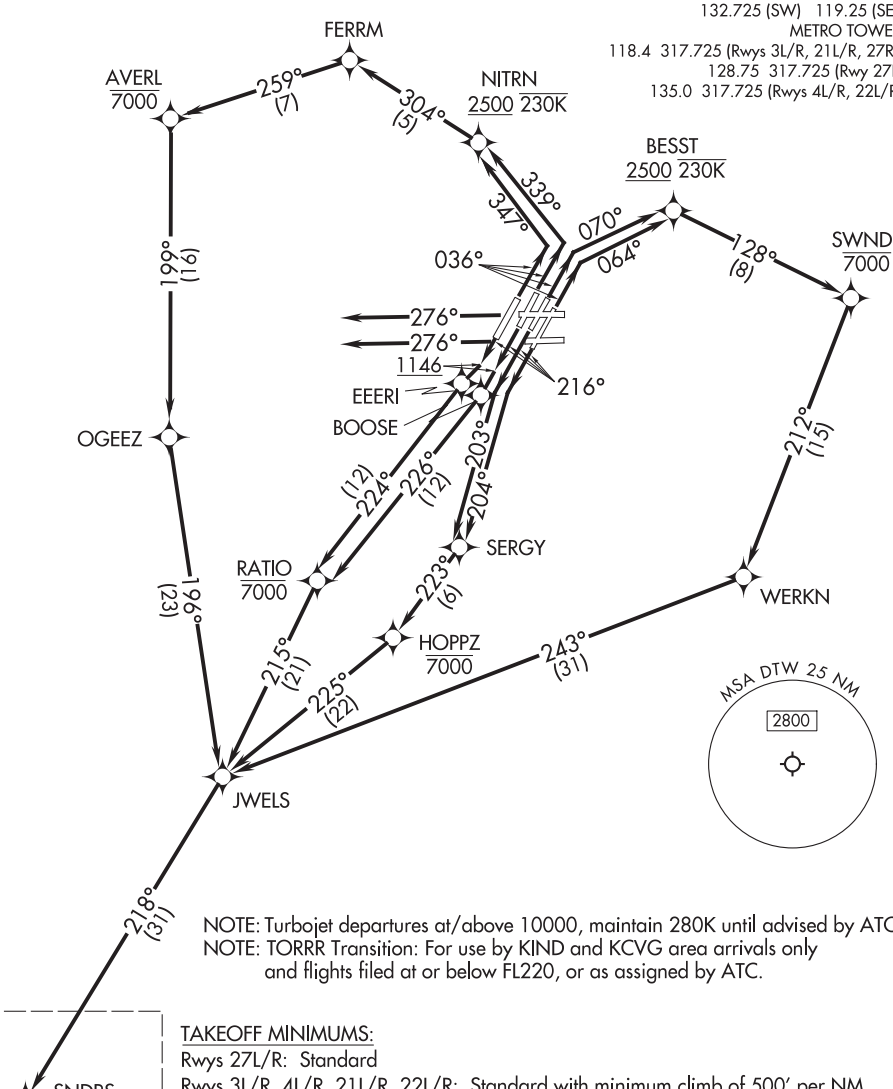
SNDRS THREE DEPARTURE (RNAV) Departure Routes

DETROIT, MICHIGAN

TOP ALTITUDE: 17000

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
125.525 284.0 (Rwys 4L/R, 22L/R)
132.025 284.0 (Rwys 3L/R, 21L/R, 27L/R)
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)



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.

SNDRS
See following page for Transition Routes

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

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT DEP CON
125.525 284.0 (Rwys 4L/R, 22L/R)
132.025 284.0 (Rwys 3L/R, 21L/R, 27L/R)
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)
N
RNAV-1 DME/DME/IRU or GPS.
RADAR required.
TOP ALTITUDE: 17000
BGHRT
8000
*2400
269°
(94)
KNRKO
8000
*2200
264°
(28)
SEABS
8000
*2400
265°
(30)
REEDA
8000
*2400
255°
(24)
SNDRS
8000
*2400
209°
(33)
TORRR
MSA DTW 2.5 NM
2800
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.
TAKEOFF MINIMUMS:
Rwys 27L/R: Standard
Rwys 3L/R, 4L/R, 21L/R, 22L/R: Standard with minimum climb of 500' per NM to 1146.
NOTE: Chart not to scale.
(CONTINUED ON FOLLOWING PAGE)

EC-1, 07 AUG 2025 to 02 OCT 2025

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 SWNDL at or below 7000, then on track 212° to WERKN, then on track 243° to JWELS, 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 JWELS, 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 FERRM, then on track 259° to cross AVERL at or below 7000, then or track 199° to OGEEZ, then on track 196° to JWELS, 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 FERRM, then on track 259° to cross AVERL at or below 7000, then or track 199° to OGEEZ, then on track 196° to JWELS, thence....

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

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

TAKEOFF RUNWAYS 27L/27R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to JWELS, thence....

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

BGHRT TRANSITION (SNDRS3.BGHRT):

TORRR TRANSITION (SNDRS3.TORRR):

EC-1, 07 AUG 2025 to 02 OCT 2025

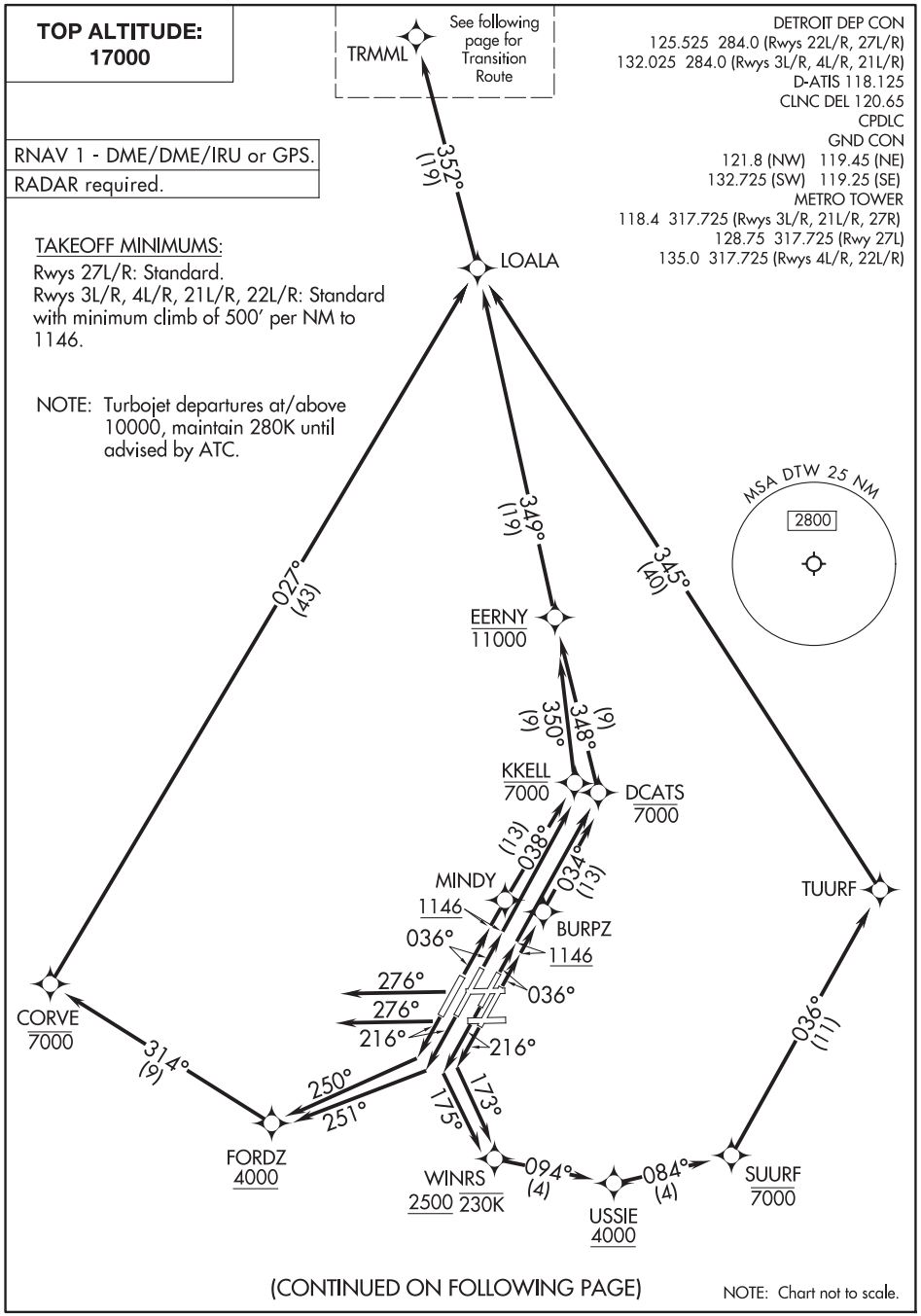
TOP ALTITUDE: 17000

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

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

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

DETROIT DEP CON
125.525 284.0 (Rwys 22L/R, 27L/R)
132.025 284.0 (Rwys 3L/R, 4L/R, 21L/R)
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)



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NOTE: Chart not to scale.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(TRMML4.TRMML) 24137 DETROIT METRO WAYNE COUNTY (DTW)

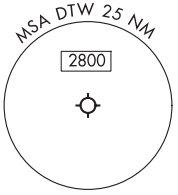
TRMML FOUR DEPARTURE (RNAV) Transition Route

DETROIT, MICHIGAN

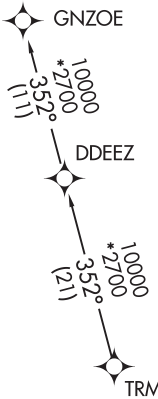
TOP ALTITUDE: 17000

RNAV 1 - DME/DME/IRU or GPS.

RADAR required.



NOTE: Chart not to scale.



DETROIT DEP CON
125.525 284.0 (Rwys 22L/R, 27L/R)
132.025 284.0 (Rwys 3L/R, 4L/R, 21L/R)
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)

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: See additional requirements on AAUP.

DEPARTURE ROUTE DESCRIPTION

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 LOALA, 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 LOALA, 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 LOALA, 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 LOALA, 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 LOALA, 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 LOALA, 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 LOALA, 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 LOALA, thence....

TAKEOFF RUNWAY 27L/R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to LOALA, thence....

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

GNZOE TRANSITION (TRMML4.GNZOE)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(ZETTR4.ZETTR) 24137

DETROIT METRO WAYNE COUNTY (DTW)

ZETTR FOUR DEPARTURE (RNAV) Departure Routes

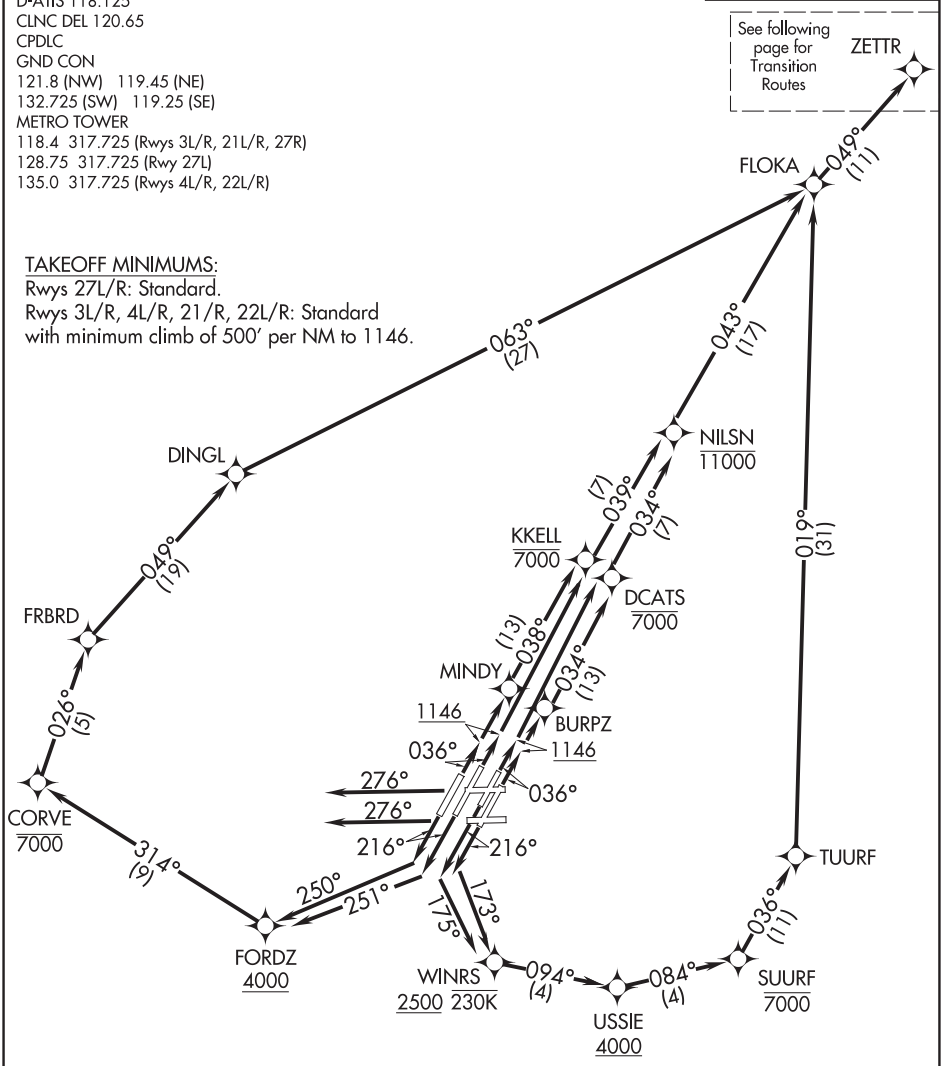
DETROIT, MICHIGAN

DETROIT DEP CON
125.525 284.0 (Rwys 22L/R, 27L/R)
132.025 284.0 (Rwys 3L/R, 4L/R, 21L/R)
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)

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: 17000

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



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: Chart not to scale.

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EC-1, 07 AUG 2025 to 02 OCT 2025

ZETTR FOUR DEPARTURE (RNAV) Departure Routes

DETROIT, MICHIGAN

(ZETTR4.ZETTR) 16MAY24

DETROIT METRO WAYNE COUNTY (DTW)

(ZETTR4.ZETTR) 24137

DETROIT METRO WAYNE COUNTY (DTW)

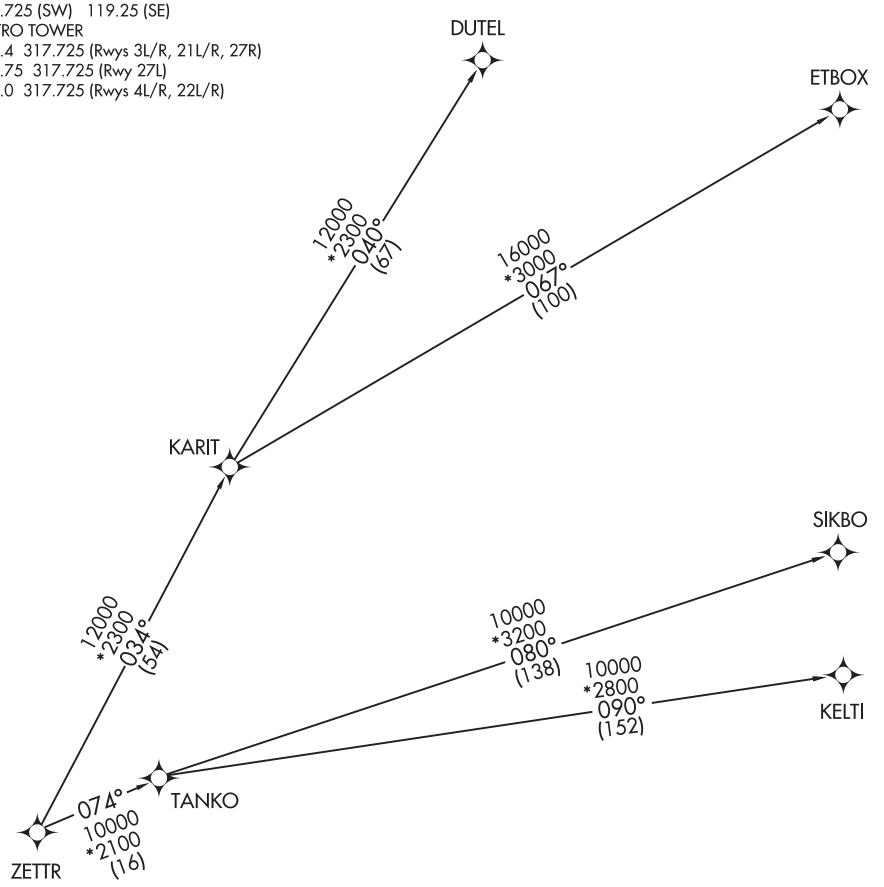
ZETTR FOUR DEPARTURE (RNAV) Transition Routes

DETROIT, MICHIGAN

DETROIT DEP CON
125.525 284.0 (Rwys 22L/R, 27L/R)
132.025 284.0 (Rwys 3L/R, 4L/R, 21L/R)
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)

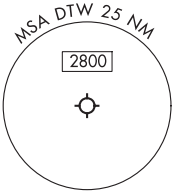
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: 17000



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: Chart not to scale.

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EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

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 FLOKA, 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 FLOKA, 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 FLOKA, 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 FLOKA, 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 FLOKA, 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 FLOKA, 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 FLOKA, 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 FLOKA, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 276° or as assigned by ATC, for RADAR vectors to FLOKA, thence....

....on track 049° to ZETTR, then on (transition). Maintain 17000, expect filed altitude 10 minutes after departure.

DUTEL TRANSITION (ZETTR4.DUTEL):
ETBOX TRANSITION (ZETTR4.ETBOX):
KELTI TRANSITION (ZETTR4.KELTI):
SIKBO TRANSITION (ZETTR4.SIKBO):
TANKO TRANSITION (ZETTR4.TANKO):

EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN | AL-467 (FAA) | 24305

ILS or LOC RWY 5

WILLOW RUN (YIP)

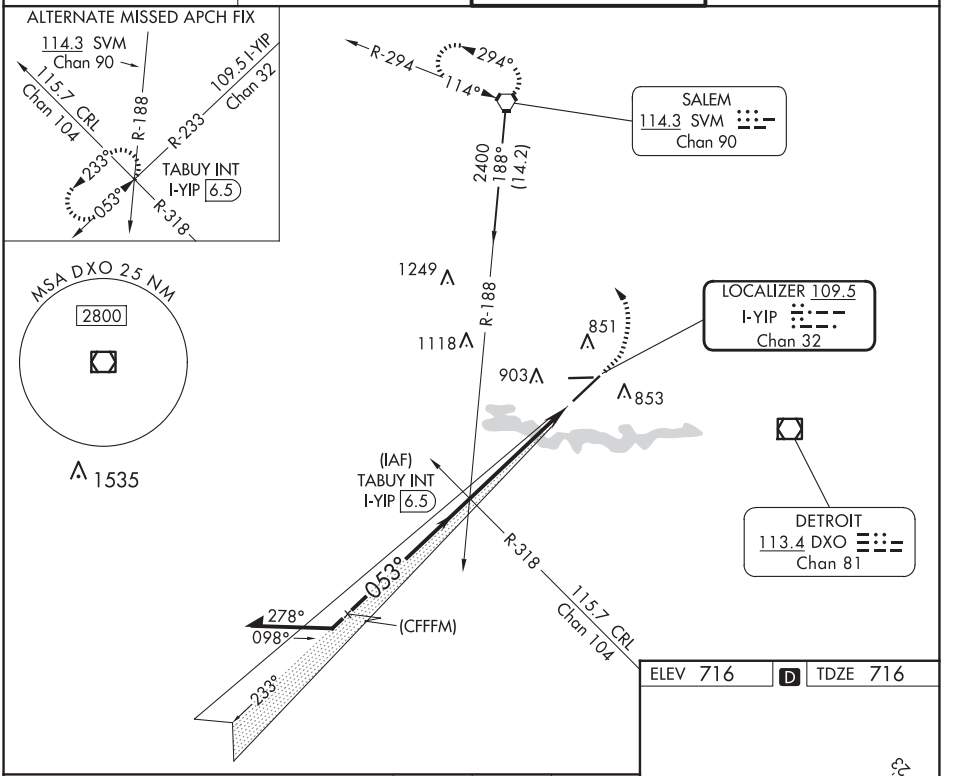
LOC/DME I-YIP	APP CRS	Rwy Idg	7543
109.5	053°	TDZE	716
Chan 32		Apt Elev	716

For inop ALS, increase S-LOC 5 Cats C/D visibility to 1⅜ SM.

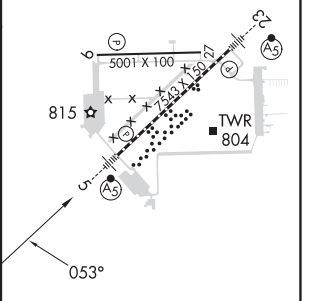
MALSR

MISSED APPROACH: Climb to 1200 then climbing left turn to 3000 direct SVM VORTAC and hold.

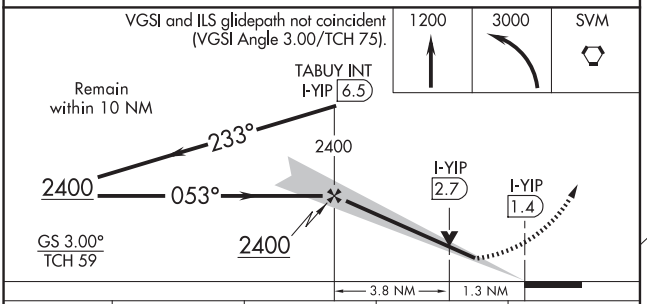
ATIS	DETROIT APP CON	WILLOW RUN TOWER	GND CON
127.425	118.95 284.0	125.275 256.9	119.975



ELEV 716 | D | TDZE 716



TDZ/CL Rwy 5
HIRL Rwy 5-23
MIRL Rwy 9-27



CATEGORY	A	B	C	D
S-ILS 5	916/18 200 (200-½)			
S-LOC 5	1200/24 484 (500-½)		1200/50 484 (500-1)	
C CIRCLING	1220-1 504 (600-1)		1220-1½ 504 (600-1½)	1400-2¼ 684 (700-2¼)

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

DETROIT, MICHIGAN
Orig 14JUL22

42°14′N-83°32′W

WILLOW RUN (YIP)

ILS or LOC RWY 5

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LOC/DME I-LSW	APP CRS	Rwy Idg 7543
109.5	233°	TDZE 710
Chan 32		Apt Elev 716

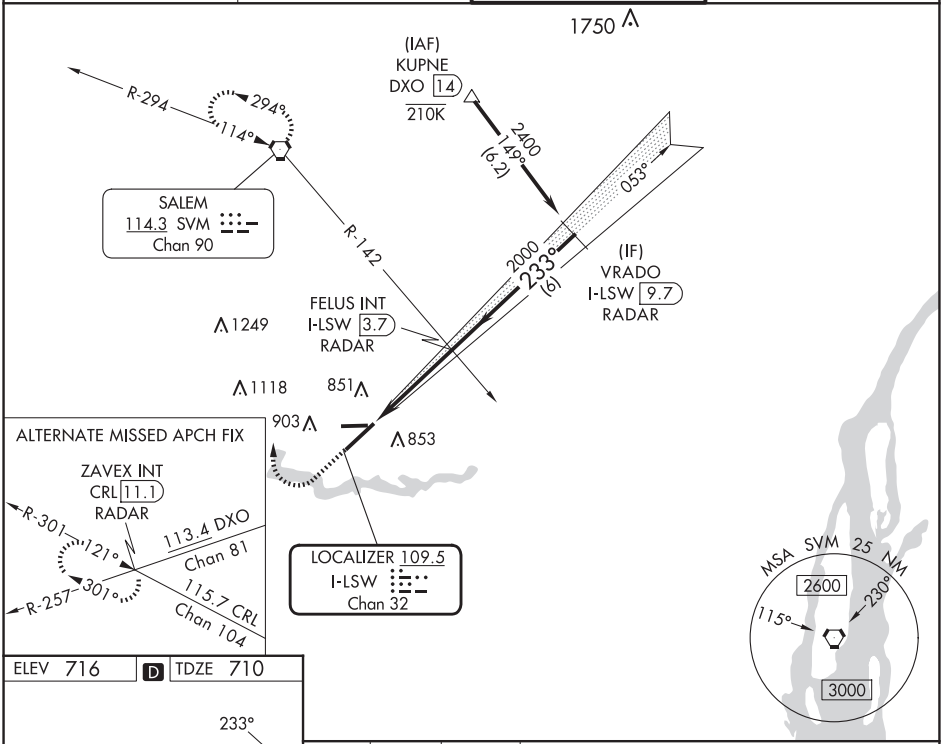
ILS or LOC RWY 23
WILLOW RUN (YIP)

RNP APCH-GPS from KUPNE. RADAR or GPS required.

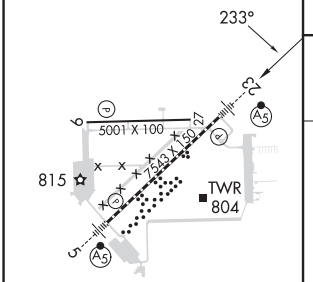
MALSR

MISSED APPROACH: Climb to 1400 then climbing right turn to 3000 direct SVM VORTAC and hold.

ATIS	DETROIT APP CON	WILLOW RUN TOWER	GND CON
127.425	118.95 284.0	125.275 256.9	119.975



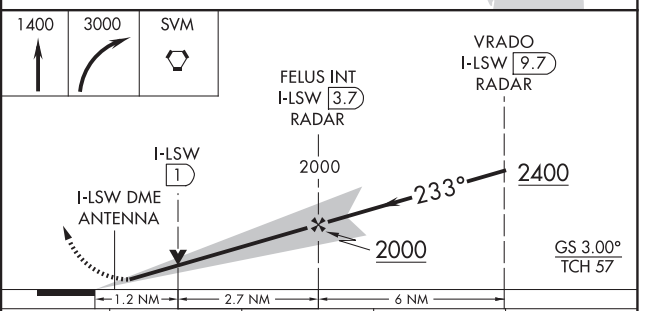
ELEV 716 D TDZE 710



TDZ/CL Rwy 5
HIRL Rwy 5-23
MIRL Rwy 9-27

FAF to MAP 3.9 NM

Knots	60	90	120	150	180
Min:Sec	3:54	2:36	1:57	1:34	1:18



CATEGORY	A	B	C	D
S-ILS 23	910-½ 200 (200-½)			
S-LOC 23	1140-½ 430 (500-½)		1140-¾ 430 (500-¾)	
C CIRCLING	1220-1 504 (600-1)		1220-1½ 504 (600-1½)	1400-2¼ 684 (700-2¼)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN

AL-467 (FAA)

24305

RNAV (GPS) RWY 5

WILLOW RUN (YIP)

WAAS	APP CRS	Rwy Idg	7543
CH 78144	053°	TDZE	716
W05A		Apt Elev	716

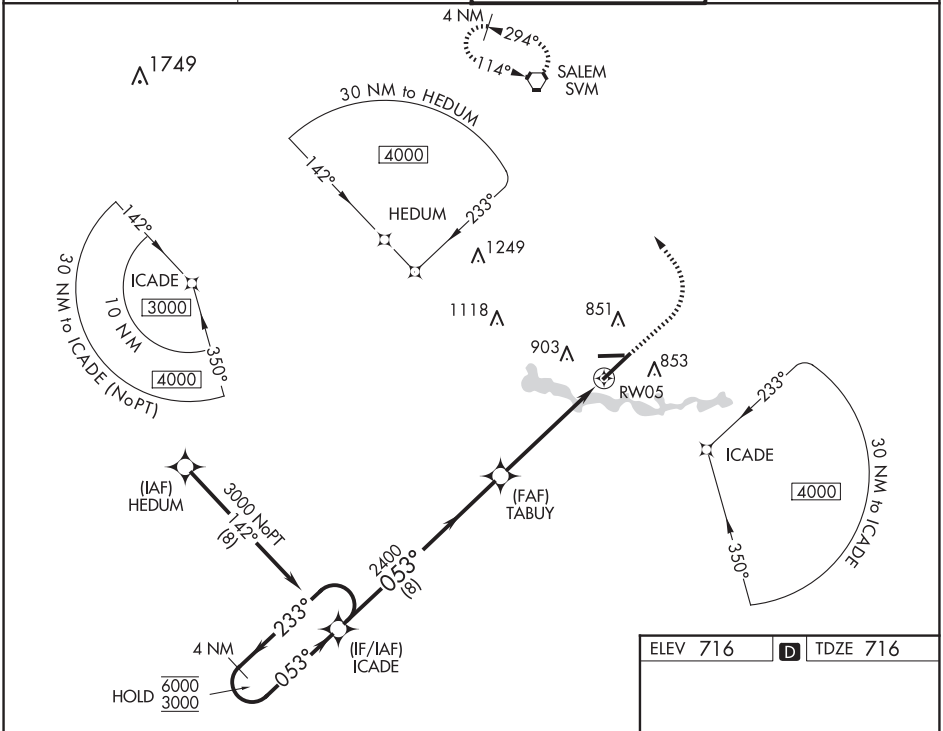
RNP APCH - GPS.

T A 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, LNAV Cats C/D visibility to 1⅜ SM.

MALSR

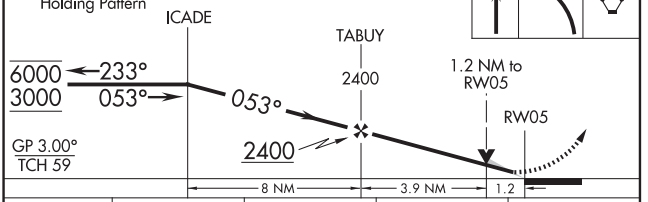
MISSED APPROACH: Climb to 1200 then climbing left turn to 3000 direct SVM VORTAC and hold.

ATIS	DETROIT APP CON	WILLOW RUN TOWER	GND CON
127.425	118.95 284.0	125.275 256.9	119.975



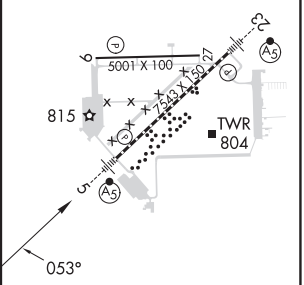
VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 75).

1200 3000 SVM



CATEGORY	A	B	C	D
LPV DA	916/18 200 (200-½)			
LNAV/VNAV DA	1121/40 405 (500-¾)			
LNAV MDA	1200/24 484 (500-½)		1200/50 484 (500-1)	
C CIRCLING	1220-1 504 (600-1)		1220-1½ 504 (600-1½)	1400-2¼ 684 (700-2¼)

ELEV 716 D TDZE 716



TDZ/CL Rwy 5
HIRL Rwy 5-23
MIRL Rwy 9-27

DETROIT, MICHIGAN
Orig 14JUL22

42°14'N-83°32'W

WILLOW RUN (YIP)

RNAV (GPS) RWY 5

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 9

WILLOW RUN (YIP)

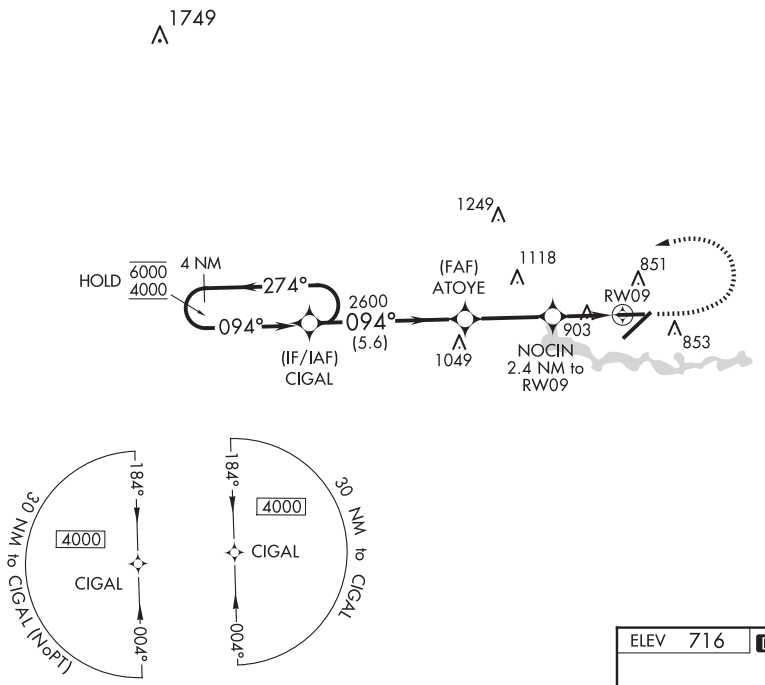
WAAS	APP CRS	Rwy Idg	5001
CH 73035	094°	TDZE	716
W09A		Apt Elev	716

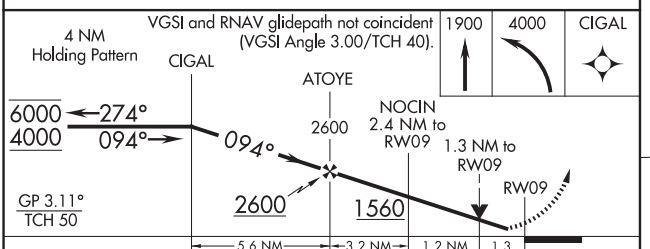
RNP APCH - GPS.

Rwy 9 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -21°C or above 54°C.

MISSED APPROACH: Climb to 1900 then climbing left turn to 4000 direct CIGAL and hold, continue climb-in-hold to 4000.

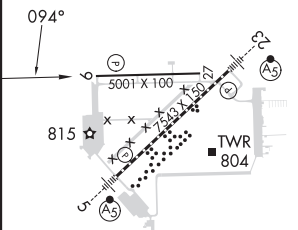
ATIS	DETROIT APP CON	WILLOW RUN TOWER	GND CON
127.425	118.95 284.0	125.275 256.9	119.975





CATEGORY	A	B	C	D
LPV DA	966-¾ 250 (300-¾)			
LNAV/VNAV DA	1201-1⅜ 485 (500-1⅜)			
LNAV MDA	1160-1 444 (500-1)		1160-1⅜ 444 (500-1⅜)	
C CIRCLING	1220-1 504 (600-1)		1220-1½ 504 (600-1½)	1400-2¼ 684 (700-2¼)

ELEV 716 D TDZE 716



TDZ/CL Rwy 5
HIRL Rwy 5-23
MIRL Rwy 9-27

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT, MICHIGAN | AL-467 (FAA) | 24305

RNAV (GPS) RWY 23

WILLOW RUN (YIP)

WAAS CH 65744 W23A	APP CRS 233°	Rwy Idg 7543 / TDZE 710 / Apt Elev 716

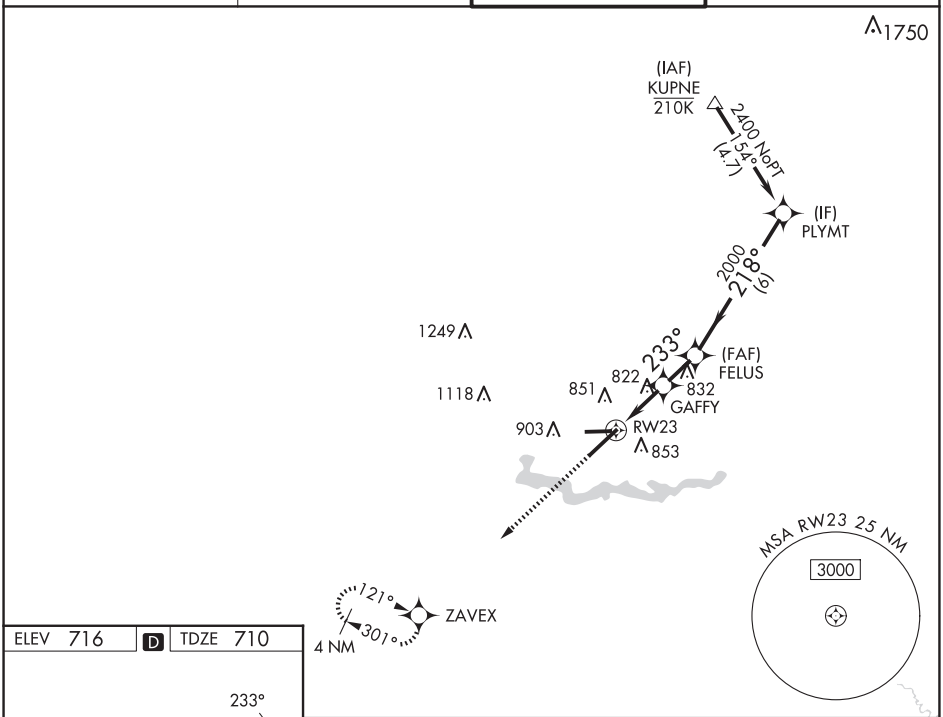
RNP APCH - GPS.

T A For uncompensated Baro-VNAV systems, procedure NA below -19°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats visibility to ⅞ SM, LNAV Cats C/D visibility to 1 SM.

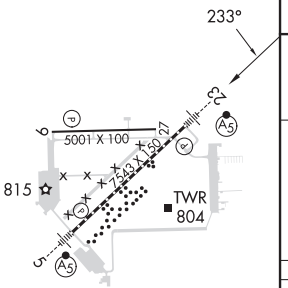
MALSR (A5)

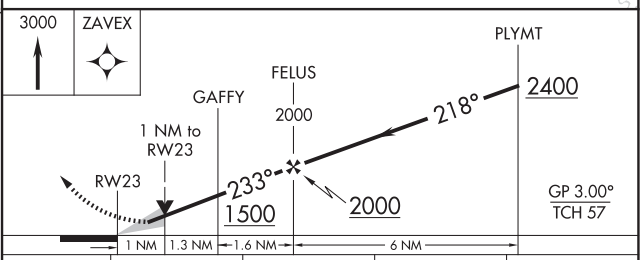
MISSED APPROACH: Climb to 3000 direct ZAVEX and hold, continue climb-in-hold to 3000.

ATIS	DETROIT APP CON	WILLOW RUN TOWER	GND CON
127.425	118.95 284.0	125.275 256.9	119.975



ELEV 716 | D | TDZE 710





CATEGORY	A	B	C	D
LPV DA	910-½ 200 (200-½)			
LNAV/VNAV DA	982-½ 272 (300-½)			
LNAV MDA	1080-½ 370 (400-½)		1080-⅝ 370 (400-⅝)	
C CIRCLING	1220-1 504 (600-1)		1220-1½ 504 (600-1½)	1400-2¼ 684 (700-2¼)

TDZ/CL Rwy 5
HIRL Rwy 5-23
MIRL Rwy 9-27

DETROIT, MICHIGAN
Orig 14JUL22

42°14′N-83°32′W

WILLOW RUN (YIP)
RNAV (GPS) RWY 23

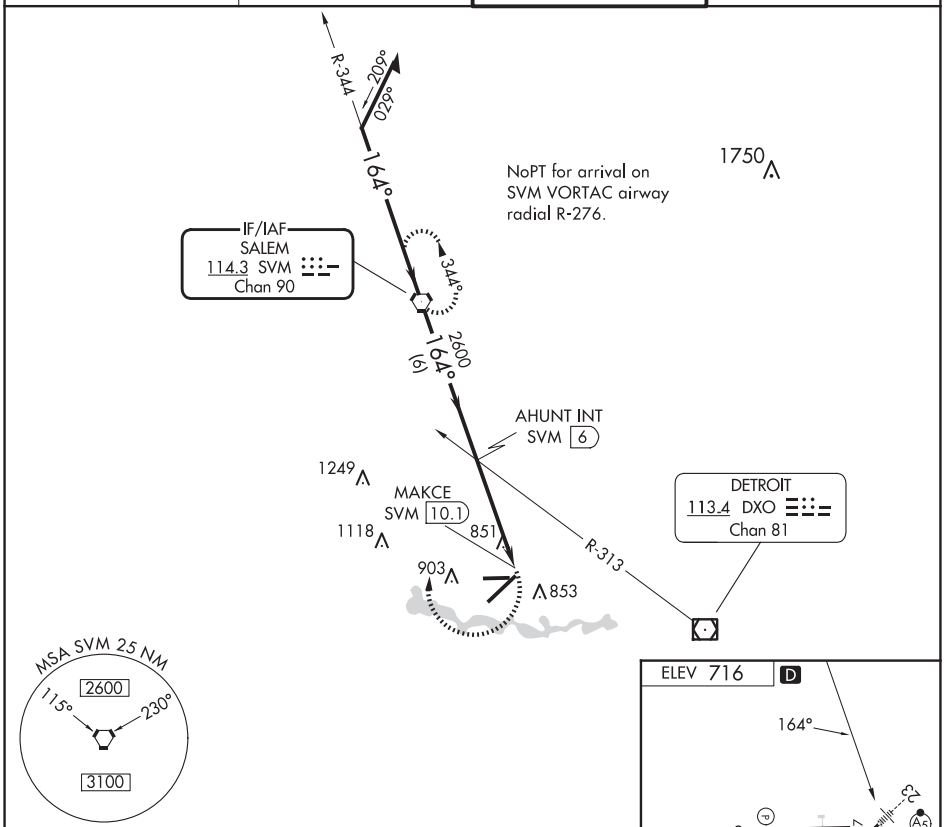
EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

VORTAC SVM	APP CRS	Rwy Ldg N/A
114.3	164°	TDZE N/A
Chan 90		Apt Elev 716

VOR-A
WILLOW RUN (YIP)

MISSED APPROACH: Climbing right turn to 2600 direct SVM VORTAC and hold.

ATIS	DETROIT APP CON	WILLOW RUN TOWER	GND CON
127.425	118.95 284.0	125.275 256.9	119.975



CATEGORY	A	B	C	D
C CIRCLING	1420-1 704 (800-1)		1420-2 704 (800-2)	1420-2¼ 704 (800-2¼)

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, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

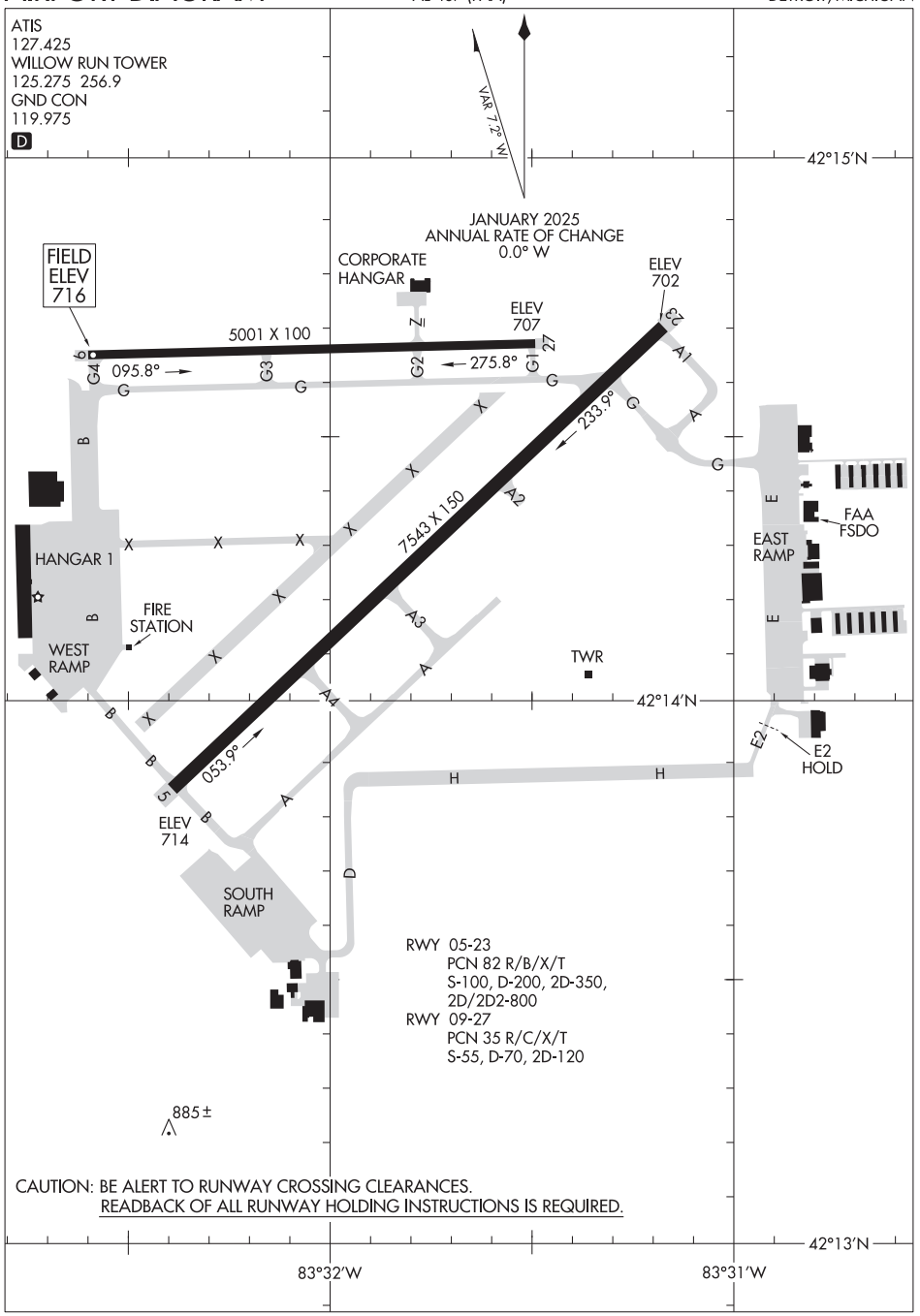
25107

AIRPORT DIAGRAM

WILLOW RUN (YIP)

DETROIT, MICHIGAN

AL-467 (FAA)



AIRPORT DIAGRAM

DETROIT, MICHIGAN

WILLOW RUN (YIP)

25107

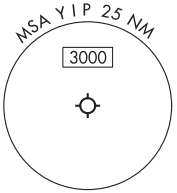
EC-1, 07 AUG 2025 to 02 OCT 2025

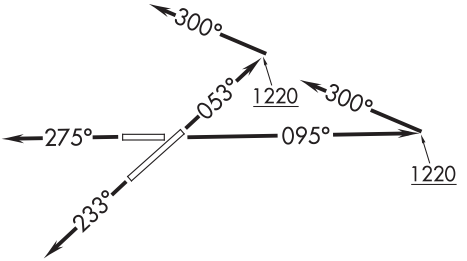
EC-1, 07 AUG 2025 to 02 OCT 2025

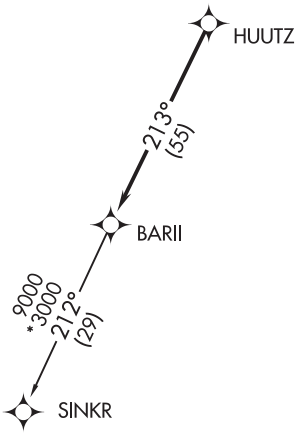
TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
118.95 284.0
ATIS
127.425
GND CON
119.975
WILLOW RUN TOWER
125.275 256.9







TAKEOFF MINIMUMS:
Rwys 5, 9: Standard with minimum climb of 500' per NM to 1220.
Rwy 23: Standard.
Rwy 27: Standard with minimum climb of 209' per NM to 1000.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to HUUTZ, thence....
TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to HUUTZ, thence....
TAKEOFF RUNWAY 23: Climb on heading 233° or as assigned by ATC, for RADAR vectors to HUUTZ, thence....
TAKEOFF RUNWAY 27: Climb on heading 275° or as assigned by ATC, for RADAR vectors to HUUTZ, thence....

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

SINKR TRANSITION (BARII3.SINKR):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR 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).

TAKEOFF MINIMUMS:
Rwys 5, 9: Standard with minimum climb of 500' per NM to 1220.
Rwy 23: Standard.
Rwy 27: Standard with minimum climb of 209' per NM to 1000.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to BROZZ, thence....
TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to BROZZ, thence....
TAKEOFF RUNWAY 23: Climb on heading 233° or as assigned by ATC, for RADAR vectors to BROZZ, thence....
TAKEOFF RUNWAY 27: Climb on heading 275° or as assigned by ATC, for RADAR vectors to BROZZ, thence....

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

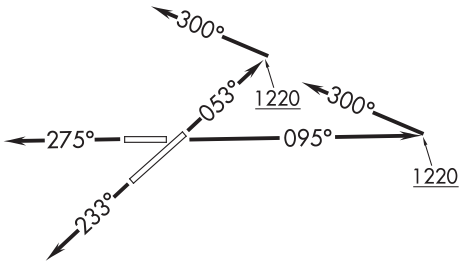
ZEGBI TRANSITION (CCOBB3.ZEGBI):

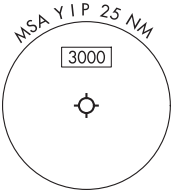
EC-1, 07 AUG 2025 to 02 OCT 2025

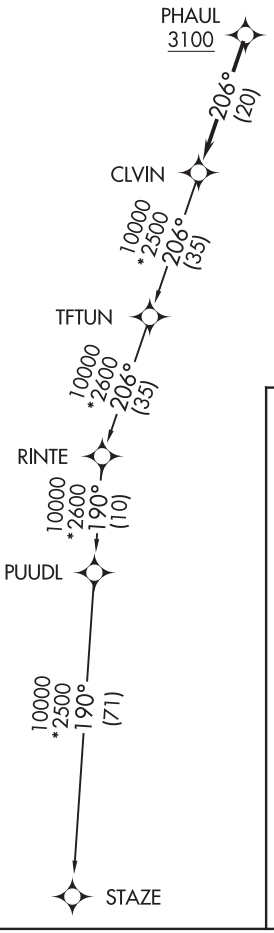
TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
118.95 284.0
ATIS
127.425
GND CON
119.975
WILLOW RUN TOWER
125.275 256.9







TAKEOFF MINIMUMS:
Rwys 5, 9: Standard with minimum climb of 500' per NM to 1220.
Rwy 23: Standard.
Rwy 27: Standard with minimum climb of 209' per NM to 1000.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to cross PHAUL at or above 3100, thence....
TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to cross PHAUL at or above 3100, thence....
TAKEOFF RUNWAY 23: Climb on heading 233° or as assigned by ATC, for RADAR vectors to cross PHAUL at or above 3100, thence....
TAKEOFF RUNWAY 27: Climb on heading 275° or as assigned by ATC, for RADAR vectors to cross PHAUL at or above 3100, thence....

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

STAZE TRANSITION (CLVIN3.STAZE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(HHOWE4.HHOWE) 24137

HHOWE FOUR DEPARTURE (RNAV) AL-467 (FAA)

WILLOW RUN (YIP)
DETROIT, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON 118.95 284.0
ATIS 127.425
GND CON 119.975
WILLOW RUN TOWER 125.275 256.9

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: BROKK TRANSITION: For use by flights filed at or below FL270, or as assigned by ATC.

TAKEOFF MINIMUMS:
Rwys 5, 9: Standard with minimum climb of 500' per NM to 1220.
Rwy 23: Standard.
Rwy 27: Standard with minimum climb of 209' per NM to 1000.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to cross MALTB at or above 2200, thence....

TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to cross MALTB at or above 2200, thence....

TAKEOFF RUNWAY 23: Climb on heading 233° or as assigned by ATC, for RADAR vectors to cross MALTB at or above 2200, thence....

TAKEOFF RUNWAY 27: Climb on heading 275° or as assigned by ATC, for RADAR vectors to cross MALTB at or above 2200, thence....

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

BROKK TRANSITION (HHOWE4.BROKK):
LNCON TRANSITION (HHOWE4.LNCON):

EC-1, 07 AUG 2025 to 02 OCT 2025

HHOWE FOUR DEPARTURE (RNAV)
(HHOWE4.HHOWE) 16MAY24
DETROIT, MICHIGAN
WILLOW RUN (YIP)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to MTRCT, thence....
TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to MTRCT, thence....
TAKEOFF RUNWAY 23: Climb on heading 233°, or as assigned by ATC, for RADAR vectors to MTRCT, thence....
TAKEOFF RUNWAY 27: Climb on heading 275°, or as assigned by ATC, for RADAR vectors to MTRCT, thence....

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

SMUUV TRANSITION (KAYLN3.SMUUV):

KZLOV TWO DEPARTURE (RNAV)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to KZLOV, thence....

TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to KZLOV, thence....

TAKEOFF RUNWAY 23: Climb on heading 233° or as assigned by ATC, for RADAR vectors to KZLOV, thence....

TAKEOFF RUNWAY 27: limb on heading 275° or as assigned by ATC, for RADAR vectors to KZLOV, thence....

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

EC-1, 07 AUG 2025 to 02 OCT 2025

KZLOV TWO DEPARTURE (RNAV)
(KZLOV2.WINNZ) 16MAY24
DETROIT, MICHIGAN
WILLOW RUN (YIP)

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.
RADAR required for non-GPS equipped aircraft.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

TAKEOFF MINIMUMS:
Rwy 23: Standard.
Rwys 5, 9: Standard with minimum climb of 500' per NM to 1220.
Rwy 27: Standard with minimum climb of 209' per NM to 1000.

DETROIT DEP CON 118.95 284.0
ATIS 127.425
GND CON 119.975
WILLOW RUN TOWER 125.275 256.9

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to cross KZLOV at or below 15000, thence....
TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to cross KZLOV at or above 15000, thence....
TAKEOFF RUNWAY 23: Climb on heading 233° or as assigned by ATC, for RADAR vectors to cross KZLOV at or above 15000, thence....
TAKEOFF RUNWAY 27: Climb on heading 275° or as assigned by ATC, for RADAR vectors to cross KZLOV at or above 15000, thence.....

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

GRIVY TRANSITION (LIDDS4.GRIVY):

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

TAKEOFF ALL RUNWAYS: Climb on assigned heading. 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 (METRO4.DUNKS): From over DXO VOR/DME on DXO R-296 to DUNKS.
HARWL TRANSITION (METRO4.HARWL): From over DXO VOR/DME on DXO R-281 to HARWL.
ILLIE TRANSITION (METRO4.ILLIE): From over DXO VOR/DME on DXO R-217 to ILLIE.
MAARS TRANSITION (METRO4.MAARS): From over DXO VOR/DME on DXO R-106 to MAARS.
PISTN TRANSITION (METRO4.PISTN): From over DXO VOR/DME on DXO R-020 to PISTN.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(MIGGY3.MIGGY) 24137

MIGGY THREE DEPARTURE (RNAV) AL-467 (FAA)

WILLOW RUN (YIP)
DETROIT, MICHIGAN

MIGGY THREE DEPARTURE (RNAV)

(MIGGY3.MIGGY) 16MAY24

DETROIT, MICHIGAN

WILLOW RUN (YIP)

EC-1, 07 AUG 2025 to 02 OCT 2025

PAVYL THREE DEPARTURE (RNAV)

AL-467 (FAA)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to SLVVA, thence....

TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to SLVVA, thence....

TAKEOFF RUNWAY 23: Climb on heading 233° or as assigned by ATC, for RADAR vectors to SLVVA, thence....

TAKEOFF RUNWAY 27: Climb on heading 275° or as assigned by ATC, for RADAR vectors to SLVVA, 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 (PAVYL3.ESSBE):
MRDOC TRANSITION (PAVYL3.MRDOC):

EC-1, 07 AUG 2025 to 02 OCT 2025

SNDRS THREE DEPARTURE (RNAV)

(SNDRS3.SNDRS) 16MAY24

(SNDRS3.SNDRS) 24137

SNDRS THREE DEPARTURE (RNAV)

AL-467 (FAA)

DETROIT DEP CON
118.95 284.0
ATIS
127.425
GND CON
119.975
WILLOW RUN TOWER
125.275 256.9

TOP ALTITUDE: ASSIGNED BY ATC

RNAV-1 DME/DME/IRU or GPS.

RADAR required.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to JWELS, thence....

TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to JWELS, thence....

TAKEOFF RUNWAY 23: Climb on heading 233° or as assigned by ATC, for RADAR vectors to JWELS, thence....

TAKEOFF RUNWAY 27: Climb on heading 275° or as assigned by ATC, for RADAR vectors to JWELS, thence....

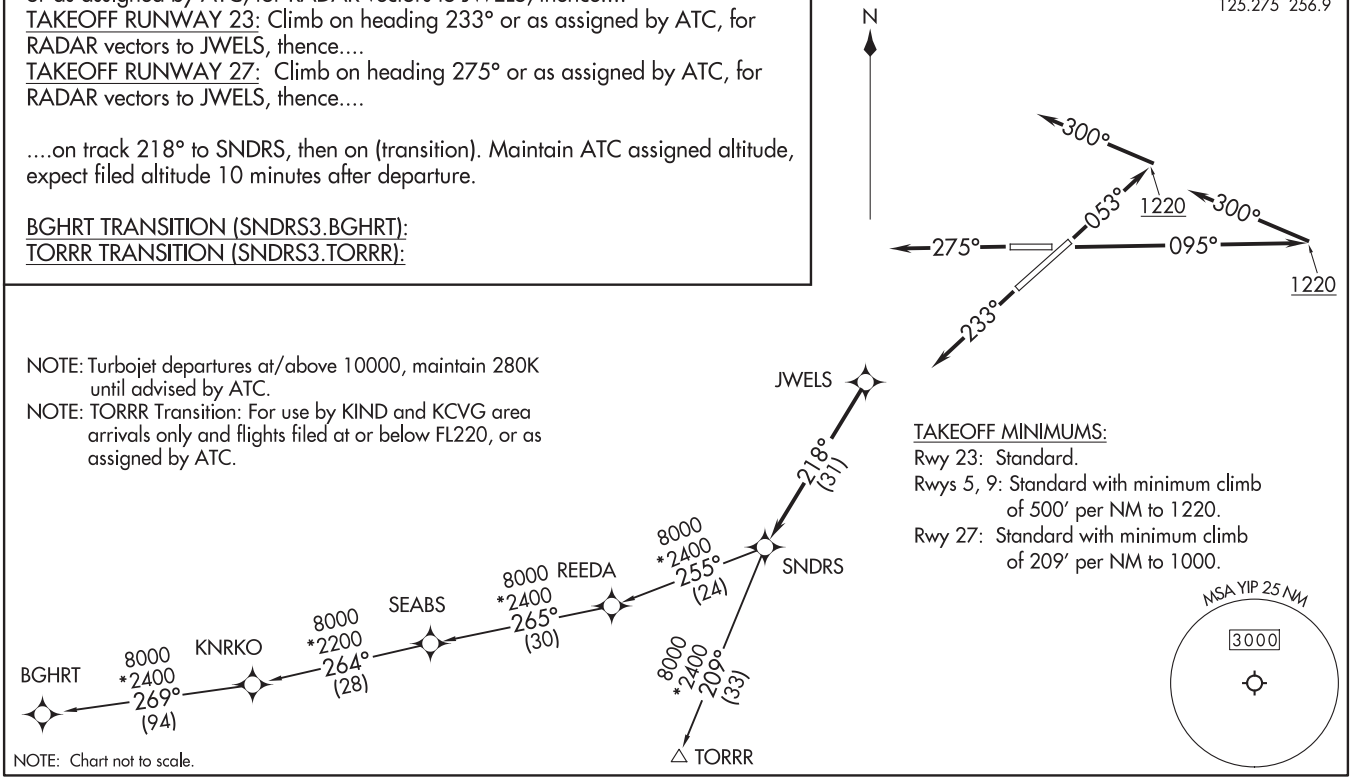
....on track 218° to SNDRS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BGHRT TRANSITION (SNDRS3.BGHRT):

TORRR TRANSITION (SNDRS3.TORRR):

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.



TAKEOFF MINIMUMS:

Rwy 23: Standard.

Rwys 5, 9: Standard with minimum climb of 500′ per NM to 1220.

Rwy 27: Standard with minimum climb of 209′ per NM to 1000.

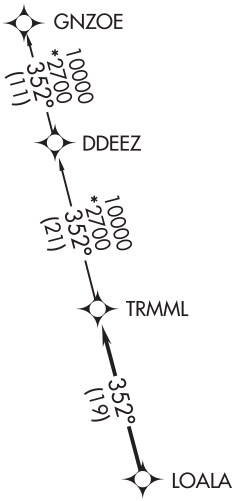
DETROIT, MICHIGAN
WILLOW RUN (YIP)

DETROIT, MICHIGAN
WILLOW RUN (YIP)

TOP ALTITUDE: ASSIGNED BY ATC

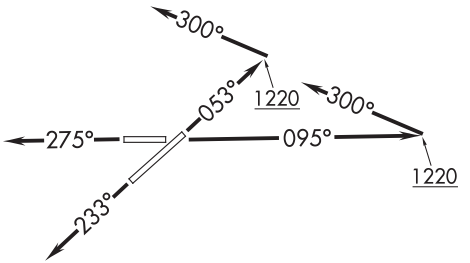
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

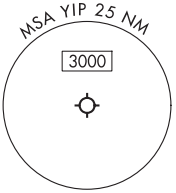
DETROIT DEP CON
118.95 284.0
ATIS
127.425
GND CON
119.975
WILLOW RUN TOWER
125.275 256.9



TAKEOFF MINIMUMS:
Rwy 23: Standard.
Rwys 5, 9: Standard with minimum climb of 500′ per NM to 1220.
Rwy 27: Standard with minimum climb of 209′ per NM to 1000.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.





NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to LOALA, thence....
TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to LOALA, thence....
TAKEOFF RUNWAY 23: Climb on heading 233° or as assigned by ATC, for RADAR vectors to LOALA, thence....
TAKEOFF RUNWAY 27: Climb on heading 275° or as assigned by ATC, for RADAR vectors to LOALA, thence....

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

GNZOE TRANSITION (TRMML4.GNZOE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(ZETTR4.ZETTR) 24137

ZETTR FOUR DEPARTURE (RNAV)

AL-467 (FAA)

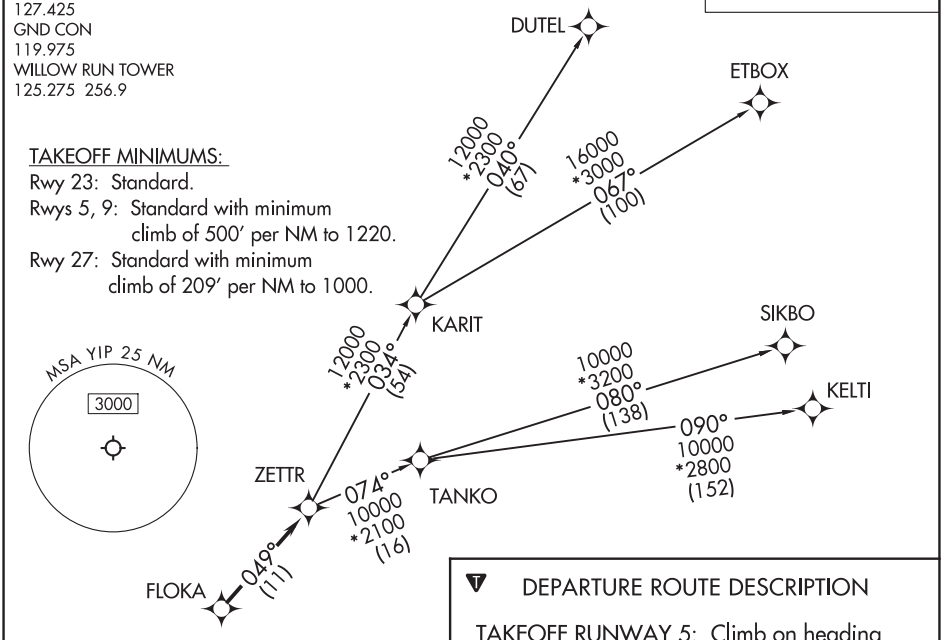
WILLOW RUN (YIP)
DETROIT, MICHIGAN

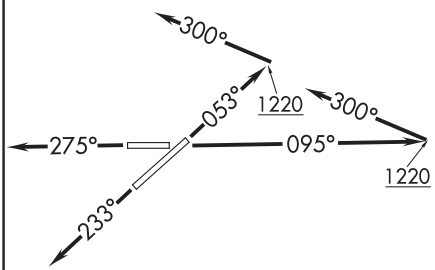
DETROIT DEP CON
118.95 284.0
ATIS
127.425
GND CON
119.975
WILLOW RUN TOWER
125.275 256.9

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS:
Rwy 23: Standard.
Rwys 5, 9: Standard with minimum climb of 500' per NM to 1220.
Rwy 27: Standard with minimum climb of 209' per NM to 1000.





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: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 053° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to FLOKA, thence....
TAKEOFF RUNWAY 9: Climb on heading 095° to 1220, then on heading 300° or as assigned by ATC, for RADAR vectors to FLOKA, thence....
TAKEOFF RUNWAY 23: Climb on heading 233° or as assigned by ATC, for RADAR vectors to FLOKA, thence....
TAKEOFF RUNWAY 27: Climb on heading 275° or as assigned by ATC, for RADAR vectors to FLOKA, thence....

....on track 049° to ZETTR, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

DUTEL TRANSITION (ZETTR4.DUTEL):
ETBOX TRANSITION (ZETTR4.ETBOX):
KELTI TRANSITION (ZETTR4.KELTI):
SIKBO TRANSITION (ZETTR4.SIKBO):
TANKO TRANSITION (ZETTR4.TANKO):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 4

GROSSE ILE MUNI (ONZ)

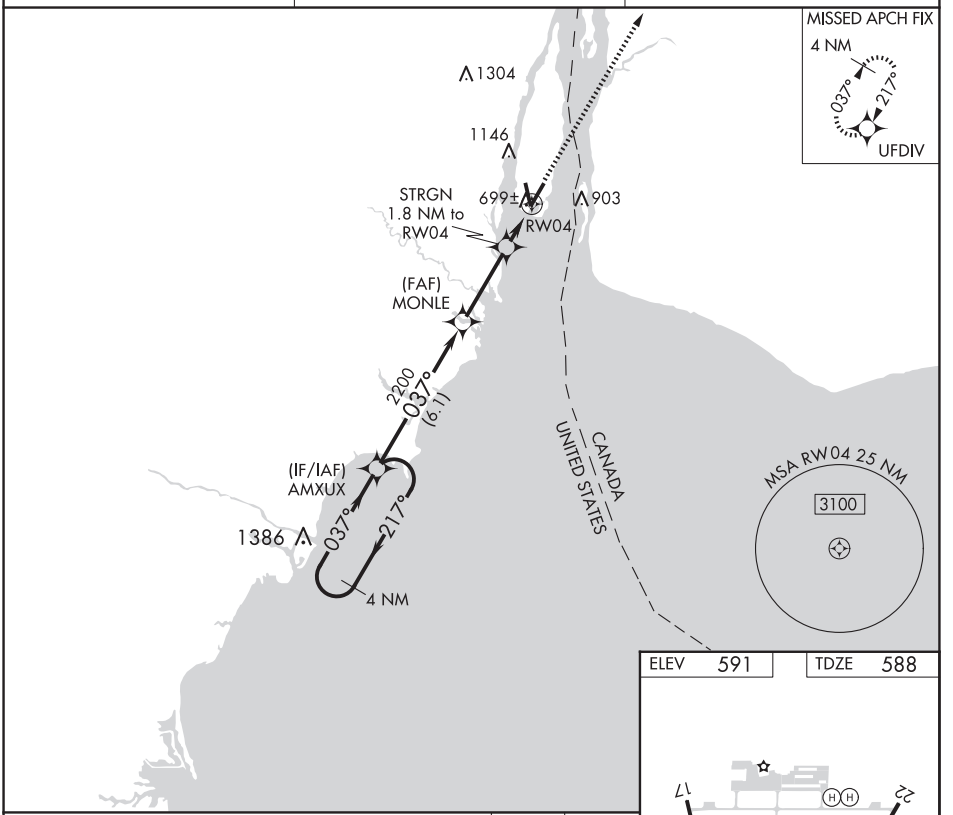
APP CRS	Rwy Idg	4846
037°	TDZE	588
	Apt Elev	591

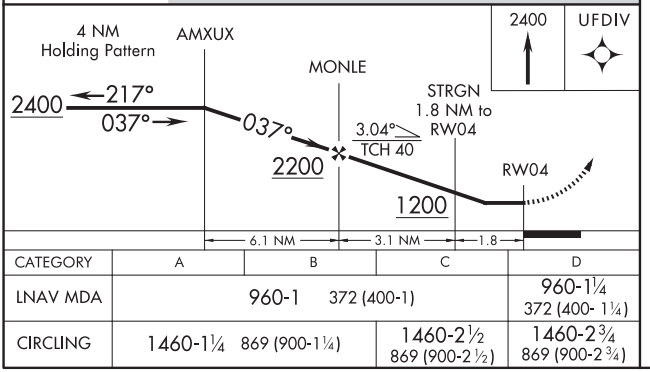
RNP APCH.

T A Rwy 4 helicopter visibility reduction below ¾ SM NA.

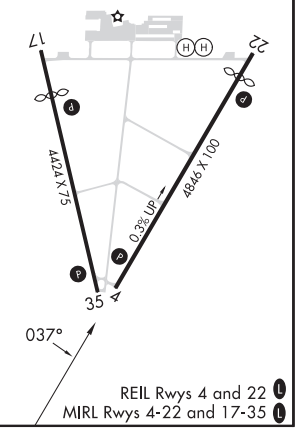
MISSED APPROACH: Climb to 2400 direct UFDIV and hold.

AWOS-3	DETROIT APP CON	UNICOM
119.675	134.3 284.0	123.0 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	960-1 372 (400-1)			960-1¼ 372 (400- 1¼)
CIRCLING	1460-1¼ 869 (900-1¼)		1460-2½ 869 (900-2½)	1460-2¾ 869 (900-2¾)



REIL Rwys 4 and 22 L
MIRL Rwys 4-22 and 17-35 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT/GROSSE ILE, MICHIGAN AL-940 (FAA) 25107

APP CRS	Rwy Idg	4418
217°	TDZE	591
	Apt Elev	591

RNAV (GPS) RWY 22

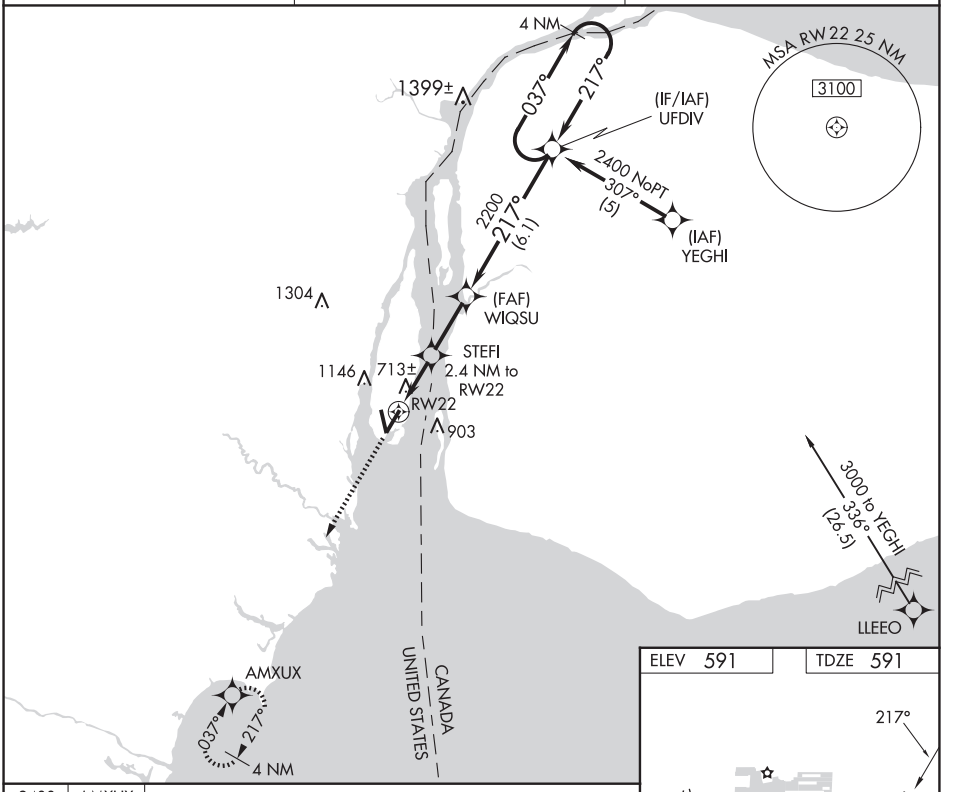
GROSSE ILE MUNI (ONZ)

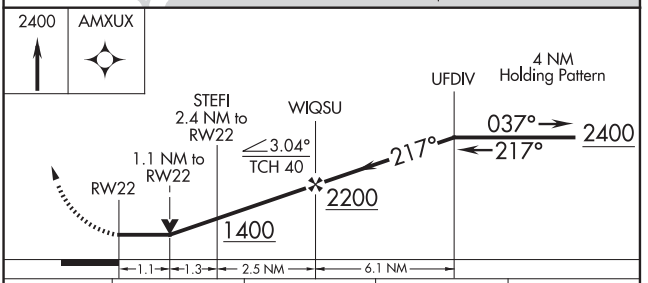
RNP APCH.

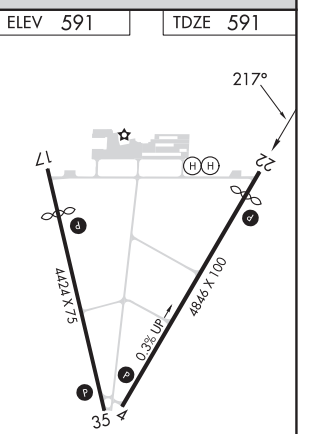
T A Rwy 22 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 2400 direct AMXUX and hold.

AWOS-3	DETROIT APP CON	UNICOM
119.675	134.3 284.0	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	980-1	389 (400-1)	980-1⅛ 389 (400-1⅛)	980-1¼ 389 (400-1¼)
CIRCLING	1460-1¼	869 (900-1¼)	1460-2½ 869 (900-2½)	1460-2¾ 869 (900-2¾)

REIL Rwys 4 and 22 L
MIRL Rwys 4-22 and 17-35 L

DETROIT/GROSSE ILE, MICHIGAN
Amdt 1A 24MAY18

42°06'N-83°10'W

GROSSE ILE MUNI (ONZ)
RNAV (GPS) RWY 22

EC-1, 07 AUG 2025 to 02 OCT 2025

VORTAC CRL 115.7 Chan 104	APP CRS 080°	Rwy Idg N/A TDZE N/A Apt Elev 591

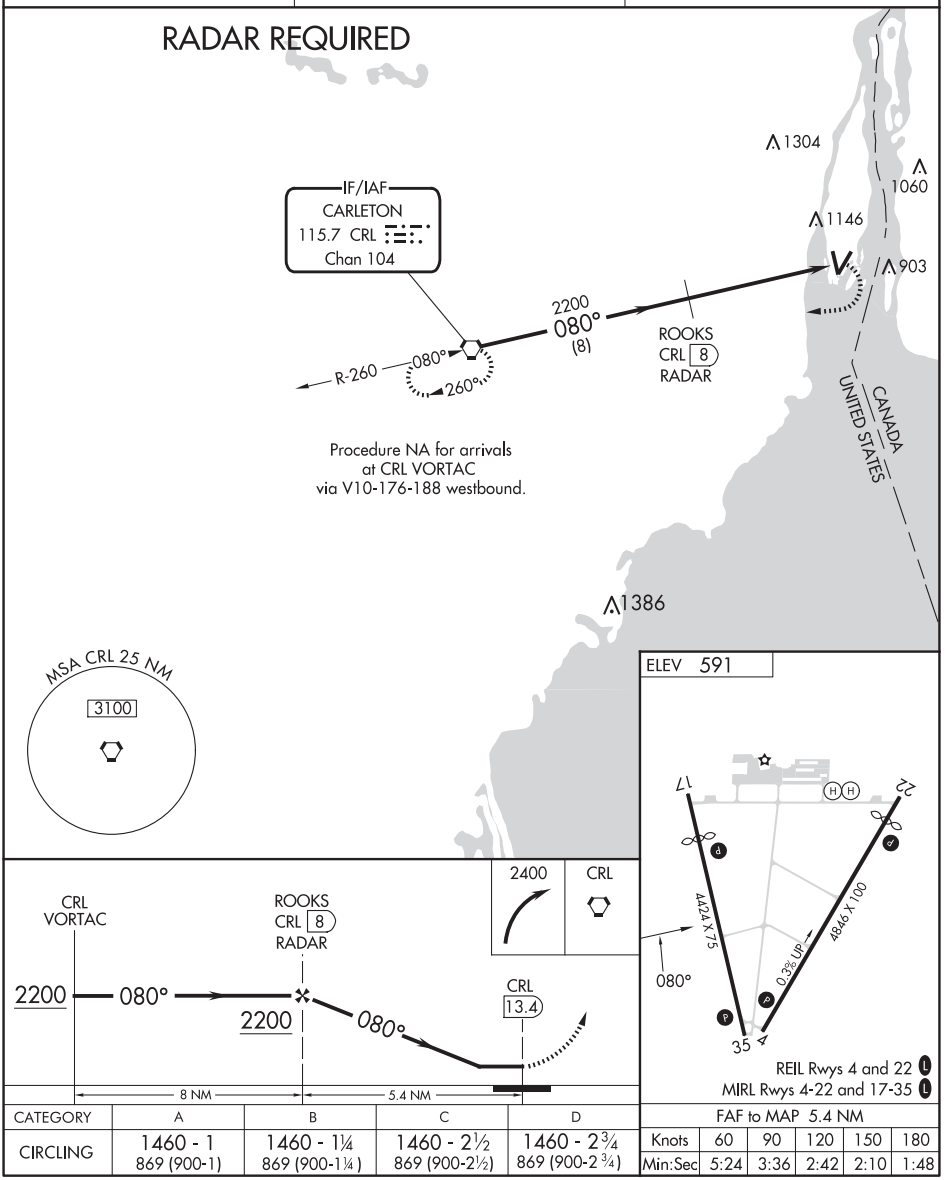
VOR-A

GROSSE ILE MUNI (ONZ)

When local altimeter setting not received, use Detroit Metropolitan Wayne County altimeter setting and increase all MDA 40 feet and Cat A, C, and D visibilities ¼ mile.

MISSED APPROACH: Climbing right turn to 2400 direct CRL VORTAC and hold.

AWOS-3	DETROIT APP CON	UNICOM
119.675	134.3 284.0	123.0 (CTAF) L



CATEGORY	A	B	C	D
CIRCLING	1460 - 1 869 (900-1)	1460 - 1¼ 869 (900-1¼)	1460 - 2½ 869 (900-2½)	1460 - 2¾ 869 (900-2¾)

FAF to MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

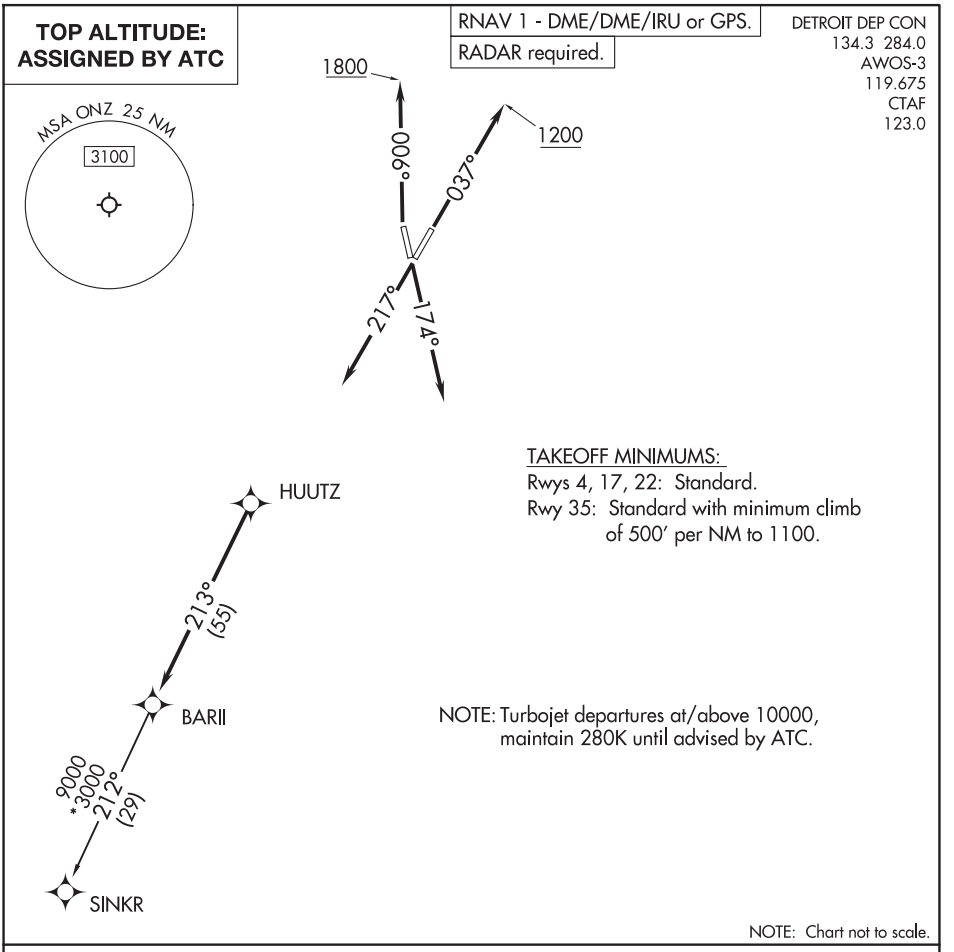
EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(BARII3.BARII) 24137

BARII THREE DEPARTURE (RNAV)

AL-940 (FAA)

GROSSE ILE MUNI (ONZ)
DETROIT/GROSSE ILE, MICHIGAN



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 037° to 1200 then as assigned by ATC, thence....
TAKEOFF RUNWAY 17: Climb on heading 174° or as assigned by ATC, thence....
TAKEOFF RUNWAY 22: Climb on heading 217° or as assigned by ATC, thence....
TAKEOFF RUNWAY 35: Climb on heading 006° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to HUUTZ, then on track 213° to BARII, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SINKR TRANSITION (BARII3.SINKR):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR 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: Chart not to scale.

TAKEOFF MINIMUMS:
Rwys 4, 17, 22: Standard.
Rwy 35: Standard with minimum climb of 500' per NM to 1100.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 037° to 1200 then as assigned by ATC, thence....
TAKEOFF RUNWAY 17: Climb on heading 174° or as assigned by ATC, thence....
TAKEOFF RUNWAY 22: Climb on heading 217° or as assigned by ATC, thence....
TAKEOFF RUNWAY 35: Climb on heading 006° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to BROZZ, then on track 279° to CCOBB, then on (transition).
Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

ZEGBI TRANSITION (CCOBB3.ZEGBI):

(CLVIN3.CLVIN) 24137

CLVIN THREE DEPARTURE (RNAV)

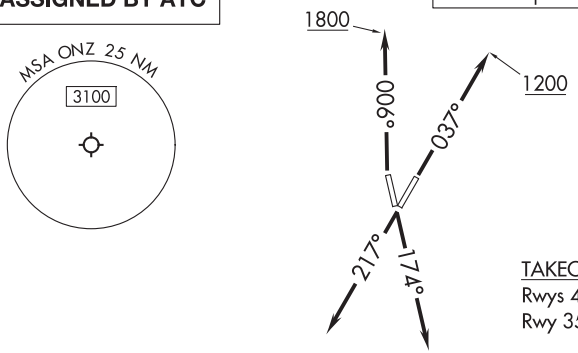
AL-940 (FAA)

GROSSE ILE MUNI (ONZ)
DETROIT/GROSSE ILE, MICHIGAN

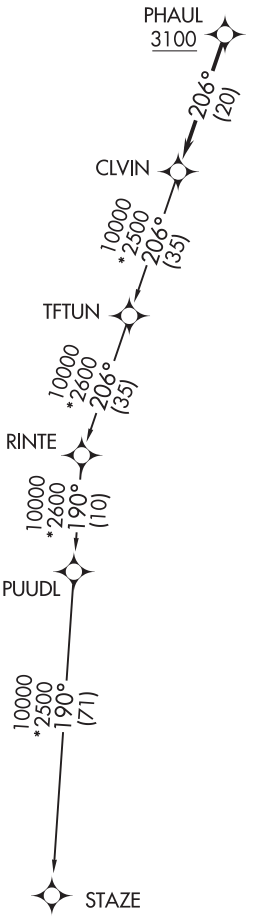
TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
134.3 284.0
AWOS-3
119.675
CTAF
123.0



TAKEOFF MINIMUMS:
Rwys 4, 17, 22: Standard.
Rwy 35: Standard with minimum climb of 500′ per NM to 1100.



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 037° to 1200 then as assigned by ATC, thence....
TAKEOFF RUNWAY 17: Climb on heading 174° or as assigned by ATC, thence....
TAKEOFF RUNWAY 22: Climb on heading 217° or as assigned by ATC, thence....
TAKEOFF RUNWAY 35: Climb on heading 006° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to cross PHAUL at or above 3100, then on track 206° to CLVIN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

STAZE TRANSITION (CLVIN3.STAZE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HHOWE FOUR DEPARTURE (RNAV) AL-940 (FAA)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 037° to 1200 then as assigned by ATC, thence....
TAKEOFF RUNWAY 17: Climb on heading 174° or as assigned by ATC, thence....
TAKEOFF RUNWAY 22: Climb on heading 217° or as assigned by ATC, thence....
TAKEOFF RUNWAY 35: Climb on heading 006° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to cross MALTB at or above 2200, then on track 094° to HHOWE, then on (transition).
Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BROKK TRANSITION (HHOWE4.BROKK):
LNCON TRANSITION (HHOWE4.LNCON):

EC-1, 07 AUG 2025 to 02 OCT 2025

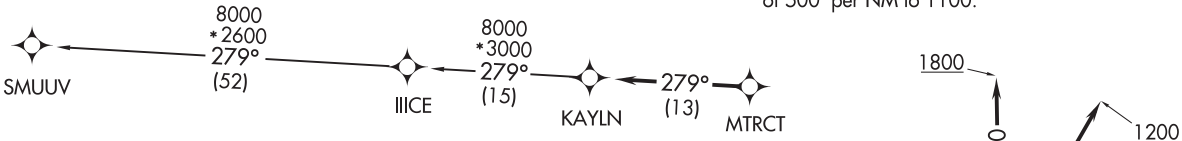
HHOWE FOUR DEPARTURE (RNAV)
(HHOWE4.HHOWE) 16MAY24
DETROIT/GROSSE ILE, MICHIGAN
GROSSE ILE MUNI (ONZ)

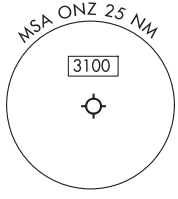
TOP ALTITUDE: ASSIGNED AT ATC

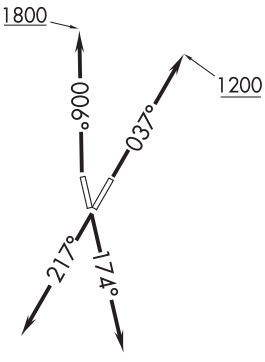
RNAV-1 DME/DME/IRU or GPS.
RADAR required.

TAKEOFF MINIMUMS:
Rwy 4, 17, 22: Standard.
Rwy 35: Standard with minimum climb of 500' per NM to 1100.

DETROIT DEP CON
134.3 284.0
AWOS-3
119.675
CTAF
123.0







NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 037° to 1200 then as assigned by ATC, thence....
TAKEOFF RUNWAY 17: Climb on heading 174° or as assigned by ATC, thence....
TAKEOFF RUNWAY 22: Climb on heading 217° or as assigned by ATC, thence....
TAKEOFF RUNWAY 35: Climb on heading 006° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to MTRCT, then on track 279° to KAYLN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SMUUV TRANSITION (KAYLN3.SMUUV):

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 037° to 1200 then as assigned by ATC, thence....
TAKEOFF RUNWAY 17: Climb on heading 174° or as assigned by ATC, thence....
TAKEOFF RUNWAY 22: Climb on heading 217° or as assigned by ATC, thence....
TAKEOFF RUNWAY 35: Climb on heading 006° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to KZLOV, then on track 148° to WINNZ. Maintain ATC assigned altitude, expect filed altitude ten minutes after departure.

EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE:
ASSIGNED BY ATC
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.
AWOS-3
119.675
CTAF
123.0
DETROIT DEP CON
134.3 284.0
NOTE: Jet 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.
HUBBY
SLAP
GETCH
MONEE
MIGGY
JAXII
5000
*2600
332°
(34)
5000
*2300
308°
(24)
5000
*2400
274°
(70)
5000
*2300
323°
(20)
323°
(18)
1800
900°
037°
1200
174°
217°
NSA ONZ 25 NM
3100
N
TAKEOFF MINIMUMS:
Rwys 4, 17, 22: Standard.
Rwy 35: Standard with minimum climb of 500' per NM to 1100.
NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 4: Climb on heading 037° to 1200 then as assigned by ATC, thence....
TAKEOFF RUNWAY 17: Climb on heading 174° or as assigned by ATC, thence....
TAKEOFF RUNWAY 22: Climb on heading 217° or as assigned by ATC, thence....
TAKEOFF RUNWAY 35: Climb on heading 006° to 1800 then as assigned by ATC, thence....
.... for RADAR vectors to JAXII, then on track 323° to MIGGY, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.
GETCH TRANSITION (MIGGY3.GETCH):
HUBBY TRANSITION (MIGGY3.HUBBY):
SILAP TRANSITION (MIGGY3.SILAP):

(PAVYL3.PAVYL) 24137

PAVYL THREE DEPARTURE (RNAV)

AL-940 (FAA)

GROSSE ILE MUNI (ONZ)
DETROIT/GROSSE ILE, MICHIGAN

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 037° to 1200 then as assigned by ATC, thence....
TAKEOFF RUNWAY 17: Climb on heading 174° or as assigned by ATC, thence....
TAKEOFF RUNWAY 22: Climb on heading 217° or as assigned by ATC, thence....
TAKEOFF RUNWAY 35: Climb on heading 006° to 1800 then as assigned by ATC, thence....

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

ESSBE TRANSITION (PAVYL3.ESSBE):
MRDOC TRANSITION (PAVYL3.MRDOC):

PAVYL THREE DEPARTURE (RNAV)
(PAVYL3.PAVYL) 16MAY24
DETROIT/GROSSE ILE, MICHIGAN
GROSSE ILE MUNI (ONZ)

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 4: Climb on heading 037° to 1200 then as assigned by ATC, thence....
TAKEOFF RUNWAY 17: Climb on heading 174° or as assigned by ATC, thence....
TAKEOFF RUNWAY 22: Climb on heading 217° or as assigned by ATC, thence....
TAKEOFF RUNWAY 35: Climb on heading 006° to 1800 then as assigned by ATC, thence....
....for RADAR vectors to JWELS, then on track 218° to SNDRS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.
BGHRT TRANSITION (SNDRS3.BGHRT):
TORRR TRANSITION (SNDRS3.TORRR):
TOP ALTITUDE: ASSIGNED BY ATC
RNAV-1 DME/DME/IRU or GPS.
RADAR required.
DETROIT DEP CON 134.3 284.0
AWOS-3 119.675
CTAF 123.0
N
1800
900°
037°
1200
174°
217°
TAKEOFF MINIMUMS:
Rwys 4, 17, 22: Standard.
Rwy 35: Standard with minimum climb of 500' per NM to 1100.
MSA ONZ 25 NM
3100
JWELS
218° (31)
SNDRS
8000 *2400 255° (24)
REEDA
8000 *2400 265° (30)
SEABS
8000 *2200 264° (28)
KNRKO
8000 *2400 269° (94)
BGHRT
8000 *2400 209° (33)
TORRR
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: Chart not to scale.

(TRMML4.TRMML) 24137

TRMML FOUR DEPARTURE (RNAV)

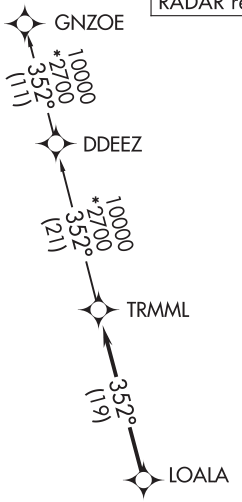
AL-940 (FAA)

GROSSE ILE MUNI (ONZ)
DETROIT/GROSSE ILE, MICHIGAN

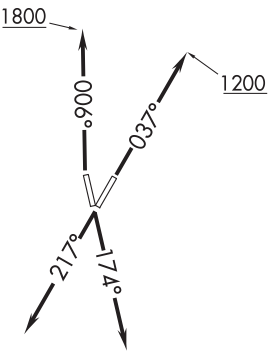
TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

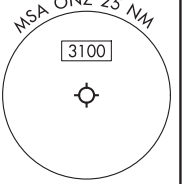
DETROIT DEP CON
134.3 284.0
AWOS-3
119.675
CTAF
123.0



TAKEOFF MINIMUMS:
Rwys 4, 17, 22: Standard.
Rwy 35: Standard with minimum climb of 500′ per NM to 1100.



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 037° to 1200 then as assigned by ATC, thence....
TAKEOFF RUNWAY 17: Climb on heading 174° or as assigned by ATC, thence....
TAKEOFF RUNWAY 22: Climb on heading 217° or as assigned by ATC, thence....
TAKEOFF RUNWAY 35: Climb on heading 006° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to LOALA, then on track 352° to TRMML, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

GNZOE TRANSITION (TRMML4.GNZOE):

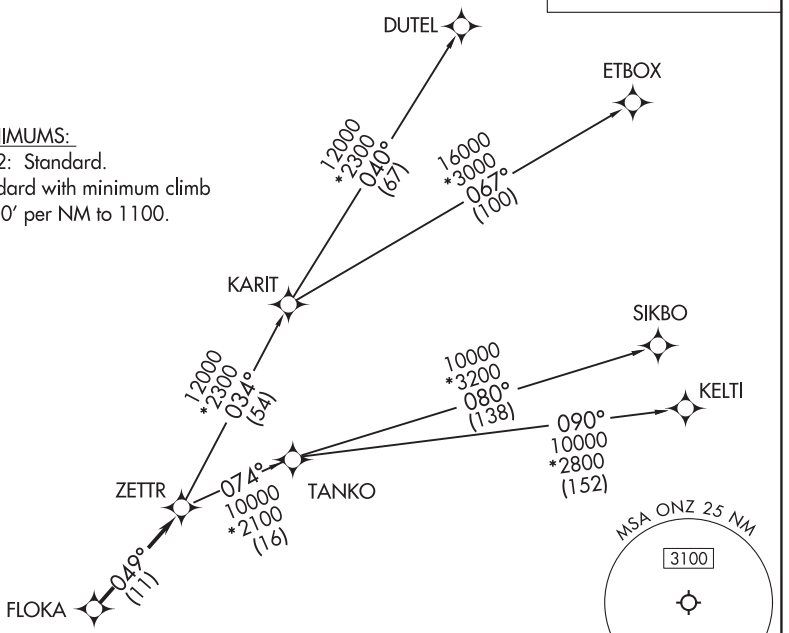
EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

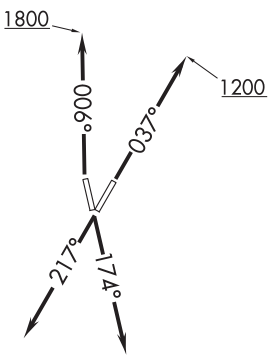
DETROIT DEP CON
134.3 284.0
AWOS-3
119.675
CTAF
123.0

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS:
Rwys 4, 17, 22: Standard.
Rwy 35: Standard with minimum climb of 500′ per NM to 1100.





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: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 4: Climb on heading 037° to 1200 then as assigned by ATC, thence....
TAKEOFF RUNWAY 17: Climb on heading 174° or as assigned by ATC, thence....
TAKEOFF RUNWAY 22: Climb on heading 217° or as assigned by ATC, thence....
TAKEOFF RUNWAY 35: Climb on heading 006° to 1800 then as assigned by ATC, thence....

....for RADAR vectors to FLOKA, then on track 049° to ZETTR, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

DUTEL TRANSITION (ZETTR4.DUTEL):
ETBOX TRANSITION (ZETTR4.ETBOX):
KELTI TRANSITION (ZETTR4.KELTI):
SIKBO TRANSITION (ZETTR4.SIKBO):
TANKO TRANSITION (ZETTR4.TANKO):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DOWAGIAC, MICHIGAN | AL-5321 (FAA) | 23110

RNAV (GPS) RWY 9

DOWAGIAC MUNI (C91)

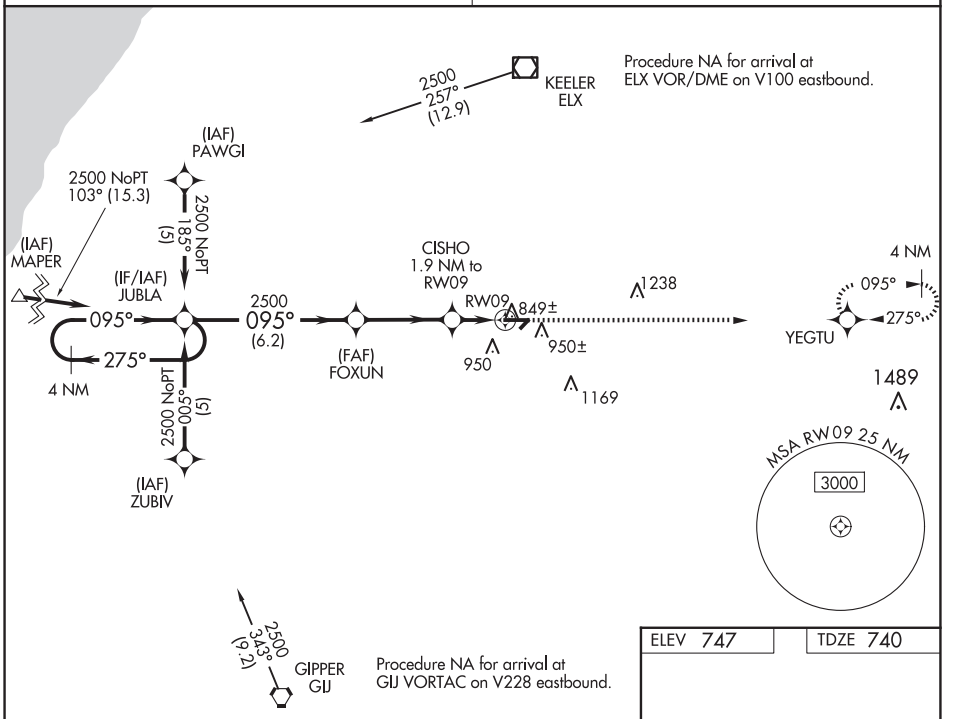
APP CRS	Rwy Idg	4700
095°	TDZE	740
	Apt Elev	747

DME/DME RNP-0.3 NA. Procedure NA at night.
Visibility reduction by helicopters NA. Obtain local altimeter setting on CTAF, when not received, use Elkhart altimeter setting and increase all MDA 60 feet; increase LNAV Cat C and Circling Cats C and D visibility ¼ SM.

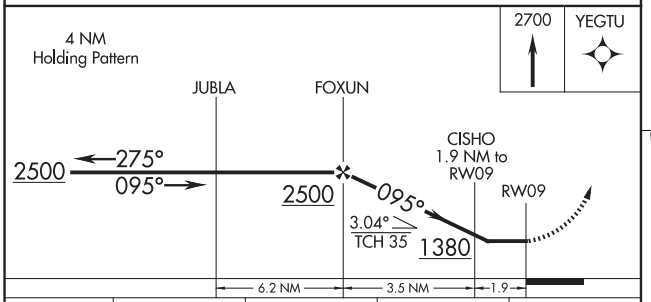
NA

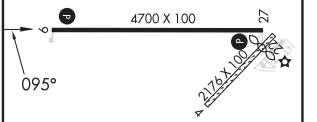
MISSED APPROACH: Climb to 2700 direct YEGTU and hold.

SOUTH BEND APP CON ★	UNICOM
118.55 257.8	122.8 (CTAF) L



ELEV 747 | TDZE 740





CATEGORY	A	B	C	D
LNAV MDA	1100-1 360 (400-1)			1100-1¼ 360 (400-1¼)
CIRCLING	1320-1 573 (600-1)		1480-2 733 (800-2)	1480-2¼ 733 (800-2¼)

REIL Rwys 9 and 27 L
MIRL Rwy 9-27 L

DOWAGIAC, MICHIGAN
Orig-A 20MAY21

42°00'N-86°08'W

DOWAGIAC MUNI (C91)

RNAV (GPS) RWY 9

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

APP CRS	Rwy Idg	4700
275°	TDZE	747
	Apt Elev	747

RNAV (GPS) RWY 27

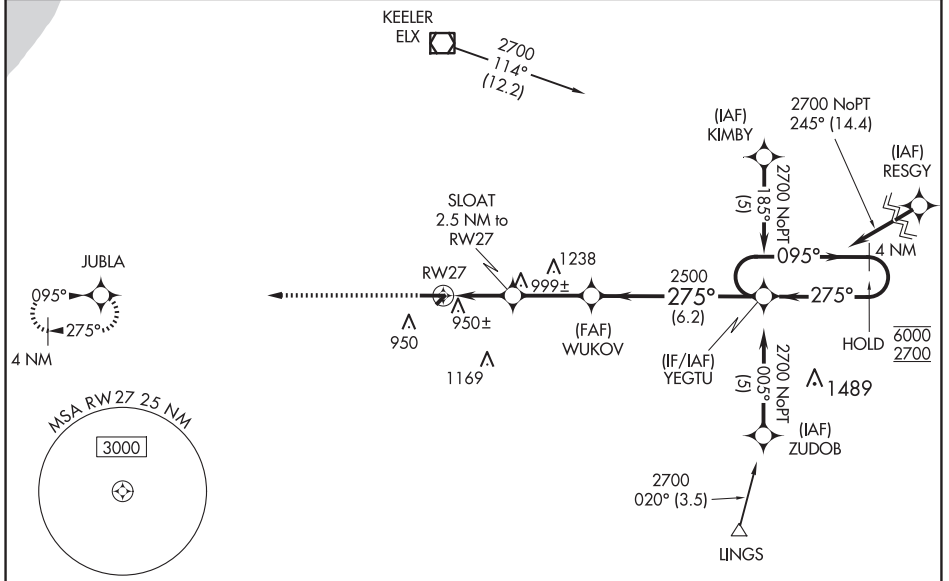
DOWAGIAC MUNI (C91)

RNP APCH - GPS.

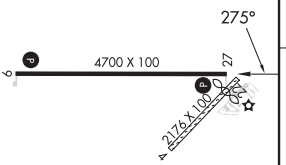
Circling Rwy 9 NA at night. Rwy 27 helicopter visibility reduction below ¾ SM NA. VDP NA when using Elkhart altimeter setting. Obtain local altimeter setting on CTAF, when local altimeter setting not received, use Elkhart altimeter setting and increase all MDAs 60 feet and visibility Cat C and D ¼ SM.

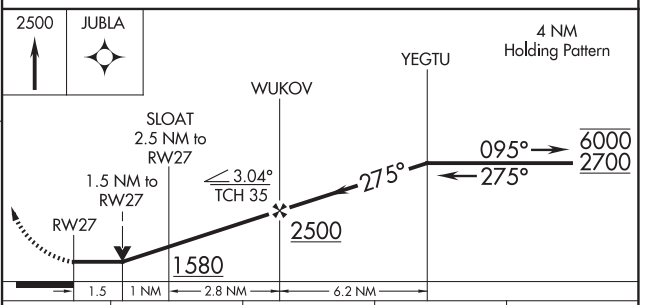
MISSED APPROACH: Climb to 2500 direct JUBLA and hold.

SOUTH BEND APP CON ★	UNICOM
118.55 257.8	122.8 (CTAF) L



ELEV 747 TDZE 747





CATEGORY	A	B	C	D
LNAV MDA	1260-1 513 (600-1)		1260-1⅜	513 (600-1⅜)
CIRCLING	1320-1 573 (600-1)		1480-2 733 (800-2)	1480-2¼ 733 (800-2¼)

REIL Rwys 9 and 27 L
MIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 8

DRUMMOND ISLAND (DRM)

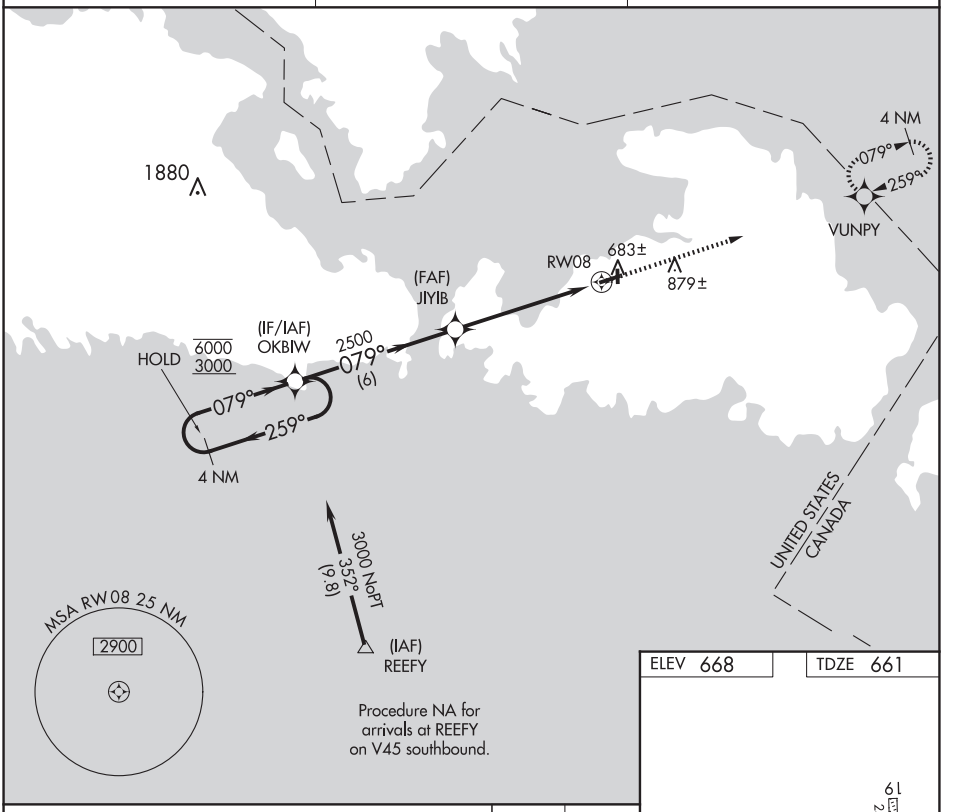
APP CRS	Rwy Idg	3350
079°	TDZE	661
	Apt Elev	668

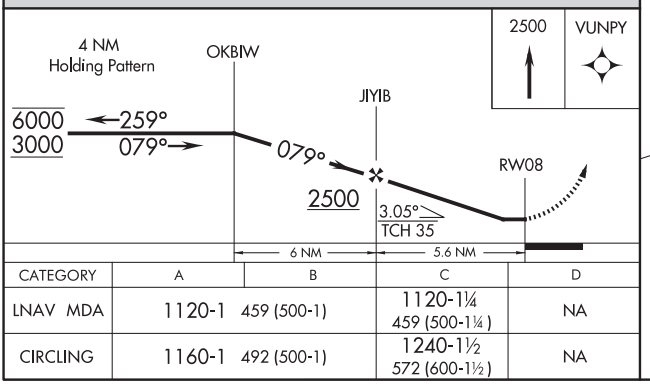
RNP APCH.

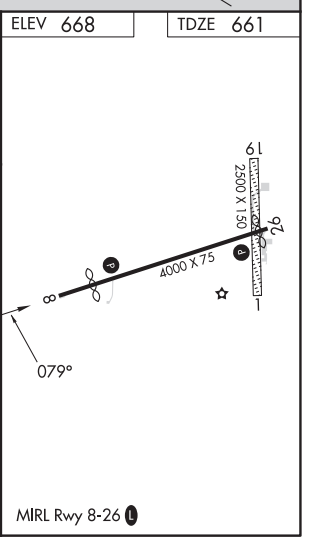
Rwy 8 helicopter visibility reduction below 1 SM NA. Procedure NA at night. Circling to Rwy 1-19 NA.

MISSED APPROACH: Climb to 2500 direct VUNPY and hold.

AWOS-3	TORONTO CENTER	UNICOM
118.325	132.65 344.5	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1120-1	459 (500-1)	1120-1¼ 459 (500-1¼)	NA
CIRCLING	1160-1	492 (500-1)	1240-1½ 572 (600-1½)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

APP CRS	Rwy Idg	3830
259°	TDZE	661
	Apt Elev	668

RNAV (GPS) RWY 26

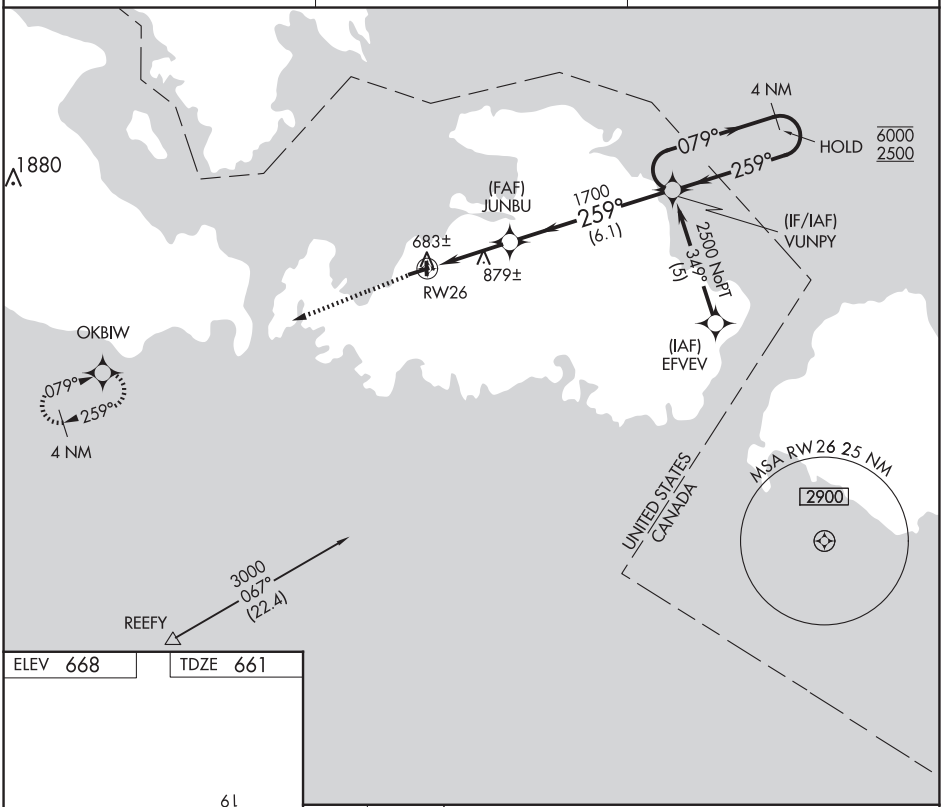
DRUMMOND ISLAND (DRM)

RNP APCH.

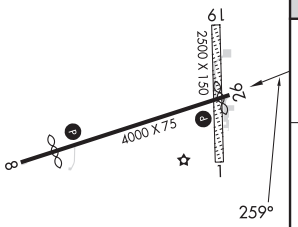
Rwy 26 helicopter visibility reduction below 1 SM NA.
Procedure NA at night. Circling to Rwy 1-19 NA.

MISSED APPROACH: Climb to 3000 direct OKBIW and hold.

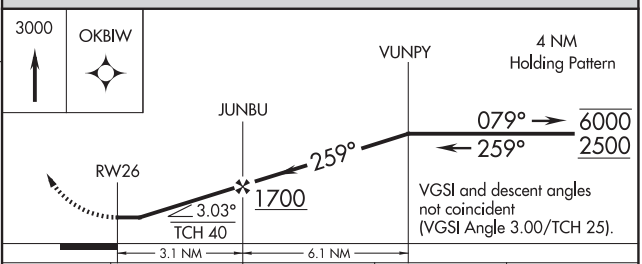
AWOS-3	TORONTO CENTER	UNICOM
118.325	132.65 344.5	122.8 (CTAF) L



ELEV 668 TDZE 661



MIRL Rwy 8-26 L



CATEGORY	A	B	C	D
LNAV MDA	1180-1	519 (600-1)	1180-1½ 519 (600-1½)	NA
CIRCLING	1180-1	512 (600-1)	1240-1½ 572 (600-1½)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

EAST TAWAS, MICHIGAN | AL-5929 (FAA) | 23110

RNAV (GPS) RWY 8

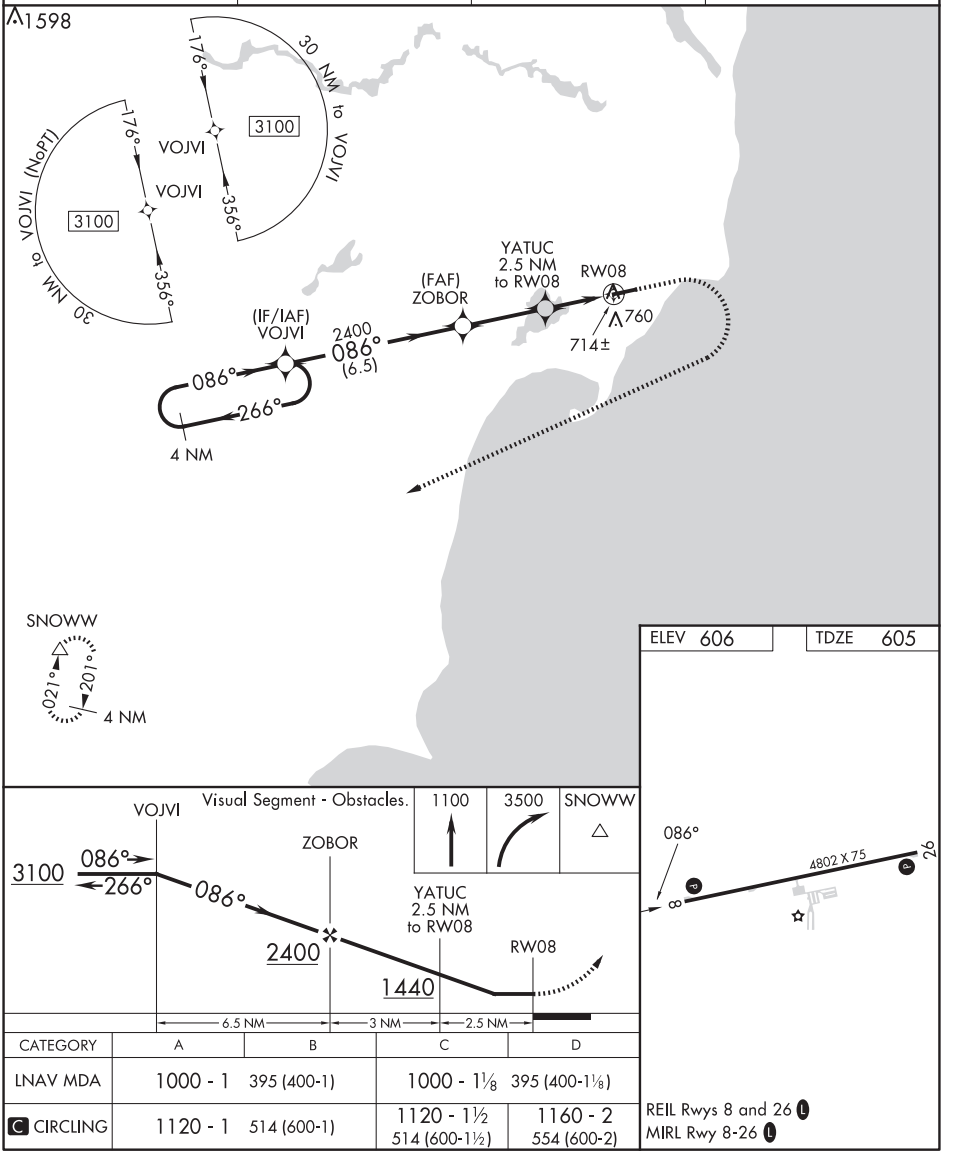
IOSCO COUNTY (6D9)

APP CRS	Rwy Idg	TDZE	Apt Elev
086°	4802	605	606

T NA DME/DME RNP-0.3 NA. Procedure NA at night. Helicopter visibility reduction below 1 SM NA. Use Oscoda altimeter setting: when not received, use Bad Axe altimeter setting and increase all MDA 100 feet; increase LNAV Cats C and D visibilities ¼ mile, increase Circling visibility Cat C ¼ mile.

MISSED APPROACH: Climb to 1100 then climbing right turn to 3500 direct SNOWW and hold.

OSC AWOS-3	MINNEAPOLIS CENTER	UNICOM	
118.7	125.475 269.45	122.8 (CTAF)	122.85 L



CATEGORY	A	B	C	D
LNAV MDA	1000 - 1	395 (400-1)	1000 - 1⅛	395 (400-1⅛)
C CIRCLING	1120 - 1	514 (600-1)	1120 - 1½ 514 (600-1½)	1160 - 2 554 (600-2)

REIL Rwys 8 and 26 L
MIRL Rwy 8-26 L

EAST TAWAS, MICHIGAN
Orig-B 17AUG17

44°19′N-83°25′W

IOSCO COUNTY (6D9)

RNAV (GPS) RWY 8

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

ILS or LOC RWY 10

DELTA COUNTY (ESC)

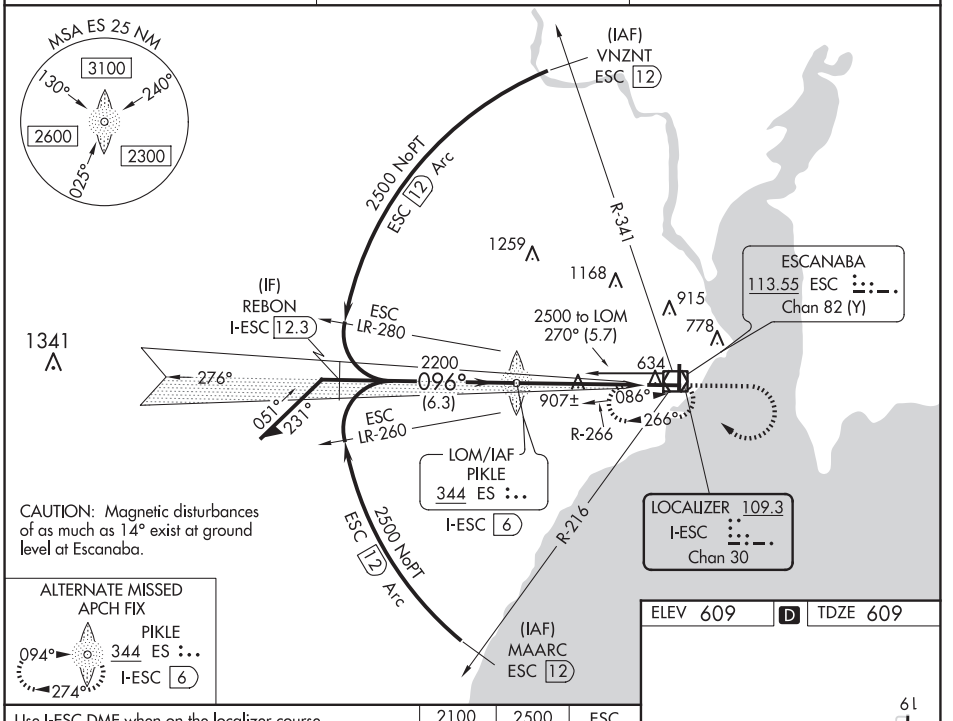
LOC/DME I-ESC	APP CRS	Rwy Idg	6498
109.3	096°	TDZE	609
Chan 30		Apt Elev	609

ADF or DME required for procedure entry. ADF or DME required for LOC only.

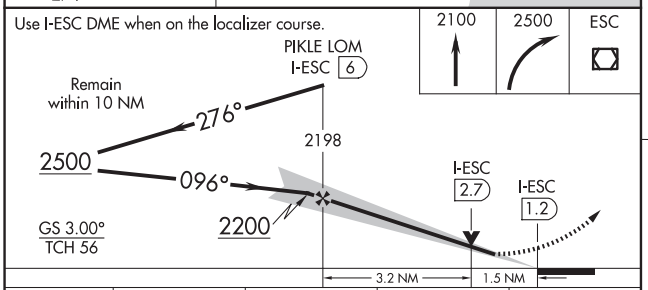
MALSR

MISSED APPROACH: Climb to 2100 then climbing right turn to 2500 direct ESC VOR/DME and hold.

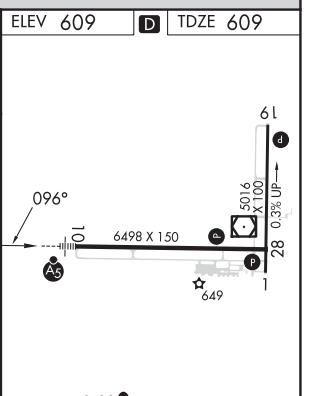
AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
121.425	127.65	122.8 (CTAF) L



ALTERNATE MISSED APCH FIX



CATEGORY	A	B	C	D
S-ILS 10	809-½ 200 (200-½)			
S-LOC 10	1160-½ 551 (600-½)		1160-1⅛ 551 (600-1⅛)	
C CIRCLING	1160-1 551 (600-1)		1280-2 671 (700-2)	1480-2¾ 871 (900-2¾)



HIRL Rwy 10-28 L
MIRL Rwy 1-19 L
REIL Rwys 1 and 28 L

FAF to MAP 4.8 NM					
Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36

EC-1, 07 AUG 2025 to 02 OCT 2025

ESCANABA, MICHIGAN AL-5123 (FAA) 24249

RNAV (GPS) RWY 1

DELTA COUNTY (ESC)

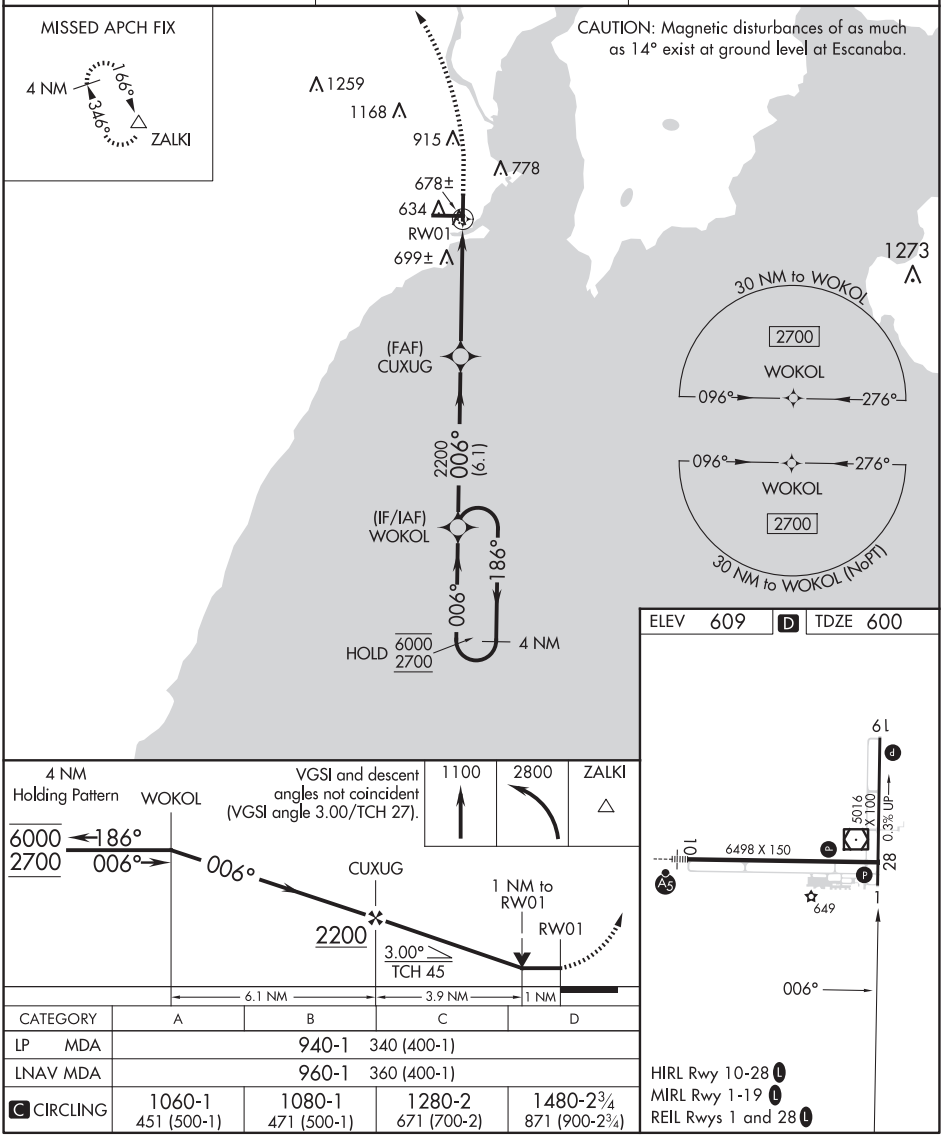
WAAS	APP CRS	Rwy Idg	5015
CH 69333	006°	TDZE	600
W01A		Apt Elev	609

RNP APCH - GPS.

T A Rwy 1 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 1100, then climbing left turn to 2800 direct ZALKI and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
121.425	127.65	122.8 (CTAF) L



CATEGORY	A	B	C	D
LP MDA	940-1		340 (400-1)	
LNAV MDA	960-1		360 (400-1)	
C CIRCLING	1060-1 451 (500-1)	1080-1 471 (500-1)	1280-2 671 (700-2)	1480-2¾ 871 (900-2¾)

ESCANABA, MICHIGAN
Orig-D 03NOV22

45°43'N-87°06'W

DELTA COUNTY (ESC)

RNAV (GPS) RWY 1

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 70511 W10A	APP CRS 096°	Rwy Idg 6498 TDZE 609 Apt Elev 609

RNAV (GPS) RWY 10
DELTA COUNTY (ESC)

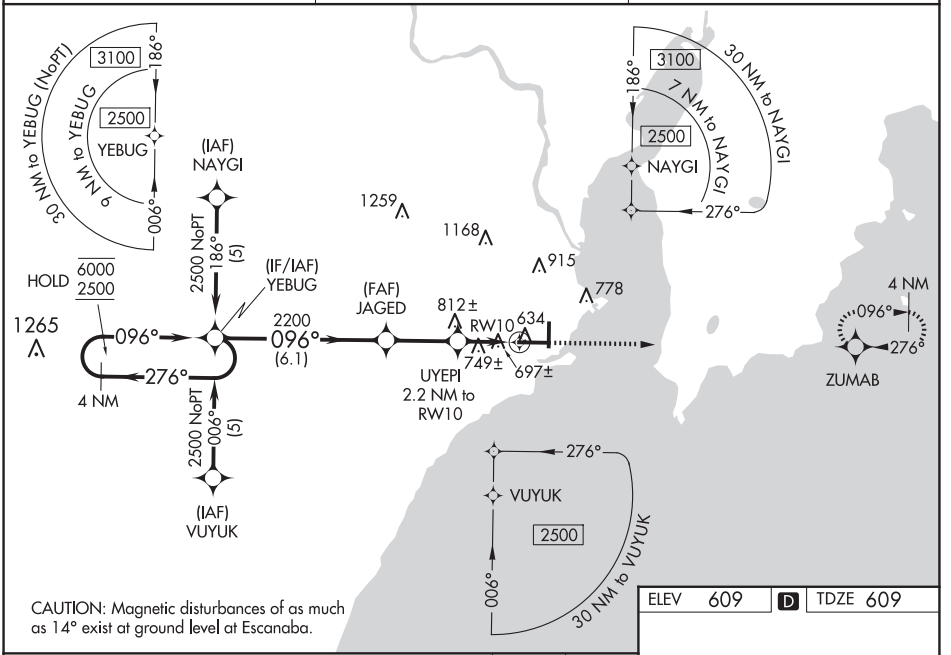
RNP APCH - GPS.

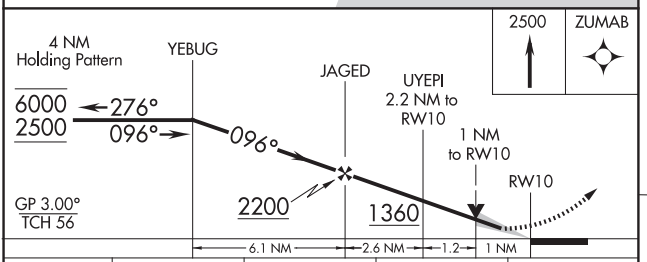
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. For inop ALS, increase LNAV/VNAV visibility to 1 SM.

MALSR

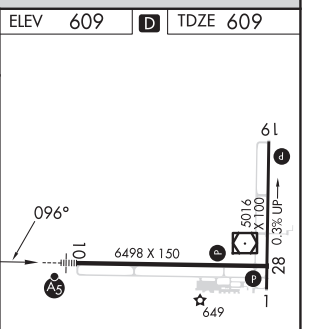
MISSED APPROACH: Climb to 2500 direct ZUMAB and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
121.425	127.65	122.8 (CTAF) L





CATEGORY	A	B	C	D
LPV DA	809-½		200 (200-½)	
LNAV/VNAV DA	967-⅝		358 (400-⅝)	
LNAV MDA	1000-½	391 (400-½)	1000-⅝	391 (400-⅝)
C CIRCLING	1060-1 451 (500-1)	1080-1 471 (500-1)	1280-2 671 (700-2)	1480-2¾ 871 (900-2¾)



HIRL Rwy 10-28 L
MIRL Rwy 1-19 L
REIL Rwys 1 and 28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ESCANABA, MICHIGAN AL-5123 (FAA) 24249

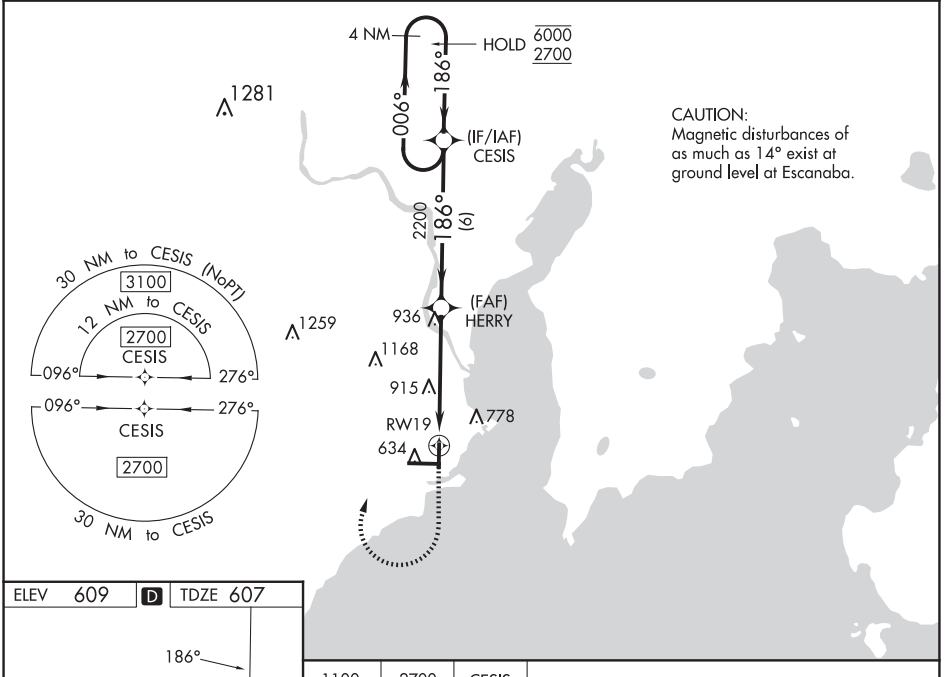
APP CRS	Rwy Idg	5015
186°	TDZE	607
	Apt Elev	609

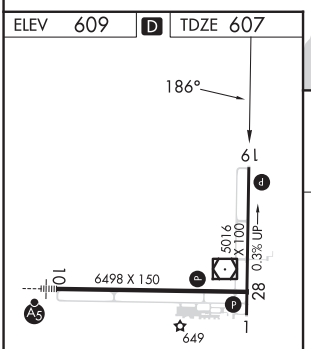
RNAV (GPS) RWY 19
DELTA COUNTY (ESC)

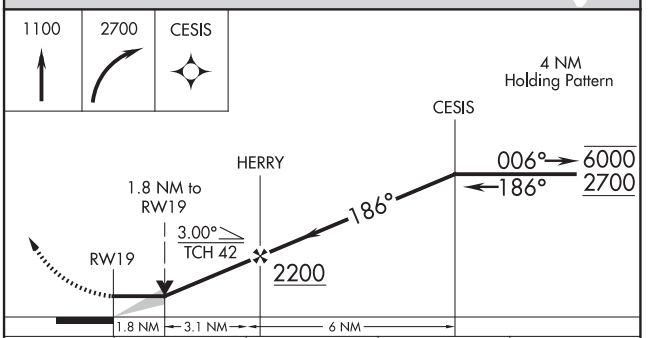
RNP APCH - GPS.

MISSED APPROACH:
Climb to 1100, then climbing right turn to 2700 direct CESIS and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
121.425	127.65	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1220-1	613 (700-1)	1220-1¾	613 (700-1¾)
C CIRCLING	1220-1	611 (700-1)	1280-1¾ 671 (700-1¾)	1480-2¾ 871 (900-2¾)

HIRL Rwy 10-28 L
MIRL Rwy 1-19 L
REIL Rwys 1 and 28 L

ESCANABA, MICHIGAN
Orig-A 03NOV22

45°43'N-87°06'W

DELTA COUNTY (ESC)
RNAV (GPS) RWY 19

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	6498
CH 63128	276°	TDZE	596
W28A		Apt Elev	609

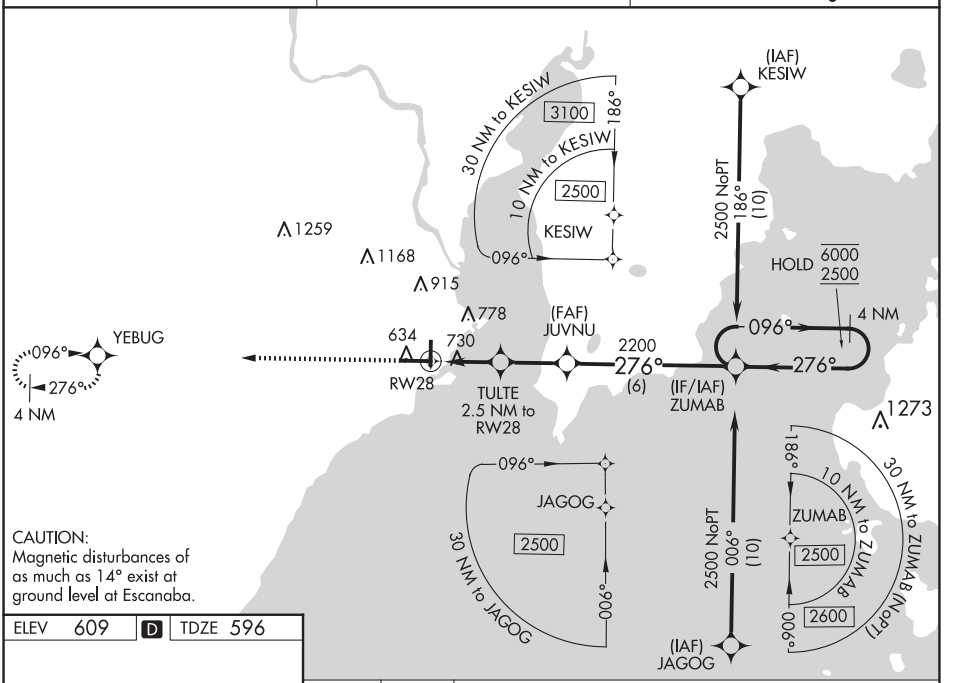
RNAV (GPS) RWY 28
DELTA COUNTY (ESC)

RNP APCH - GPS.

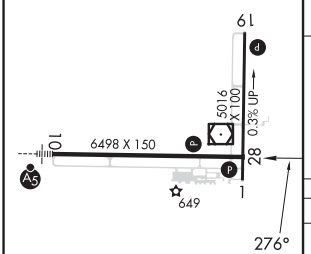
Rwy 28 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

MISSED APPROACH: Climb to 2500 direct YEBUG and hold.

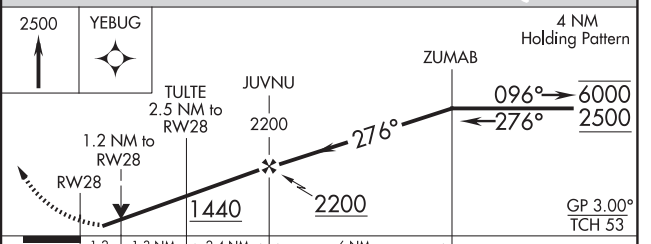
AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
121.425	127.65	122.8 (CTAF) L



ELEV 609 D TDZE 596



HIRL Rwy 10-28 L
MIRL Rwy 1-19 L
REIL Rwys 1 and 28 L



CATEGORY	A	B	C	D
LPV DA	846-1 250 (300-1)			
LNAV/VNAV DA	1076-1⅝ 480 (500-1⅝)			
LNAV MDA	1040-1 444 (500-1)		1040-1⅜ 444 (500-1⅜)	
C CIRCLING	1060-1 451 (500-1)	1080-1 471 (500-1)	1280-2 671 (700-2)	1480-2¾ 871 (900-2¾)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ESCANABA, MICHIGAN | AL-5123 (FAA) | 24249

LOC/DME I-ESC	APP CRS	Rwy Idg	6498
109.3	276°	TDZE	596
Chan 30		Apt Elev	609

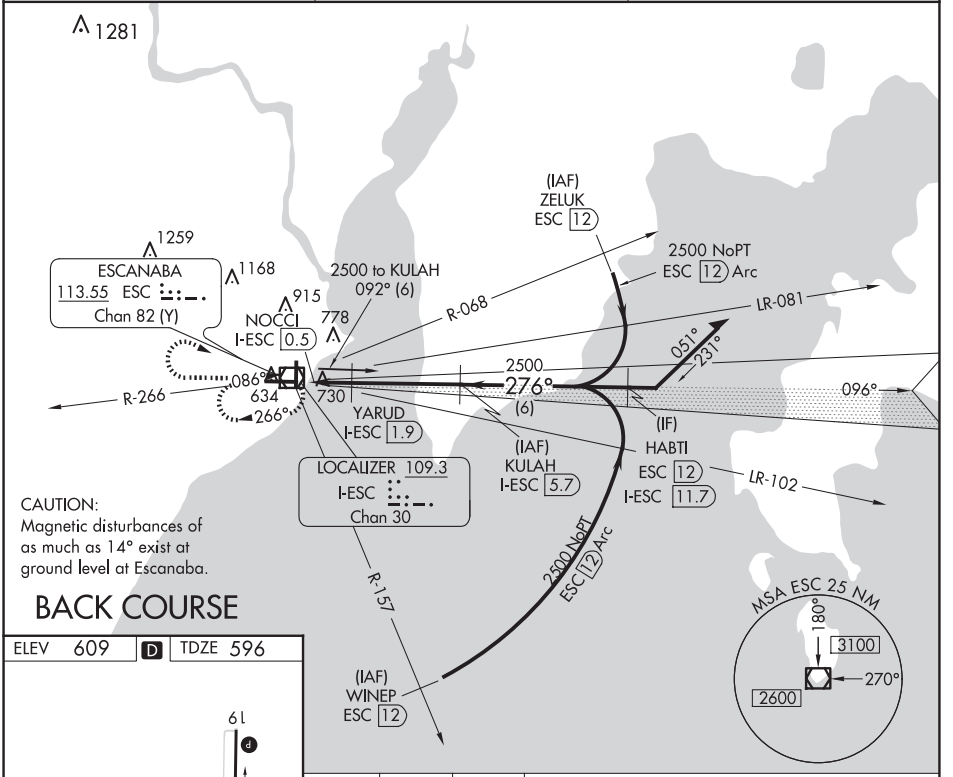
LOC BC RWY 28
DELTA COUNTY (ESC)

DME required.

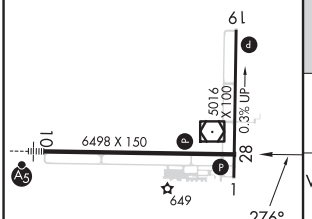
Rwy 28 helicopter visibility reduction below ¾ SM NA.

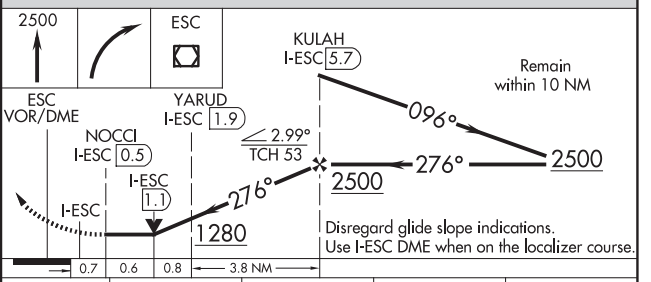
MISSED APPROACH: Climb to 2500 then right turn direct ESC VOR/DME and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
121.425	127.65	122.8 (CTAF) L



ELEV 609 | D | TDZE 596





CATEGORY	A	B	C	D
S-28	1040-1 444 (500-1)		1040-1⅜ 444 (500-1⅜)	
C CIRCLING	1060-1 451 (500-1)	1080-1 471 (500-1)	1280-2 671 (700-2)	1480-2¾ 871 (900-2¾)

HIRL Rwy 10-28 L
MIRL Rwy 1-19 L
REIL Rwys 1 and 28 L

ESCANABA, MICHIGAN
Amdt 1C 03NOV22

45°43'N-87°06'W

DELTA COUNTY (ESC)
LOC BC RWY 28

EC-1, 07 AUG 2025 to 02 OCT 2025

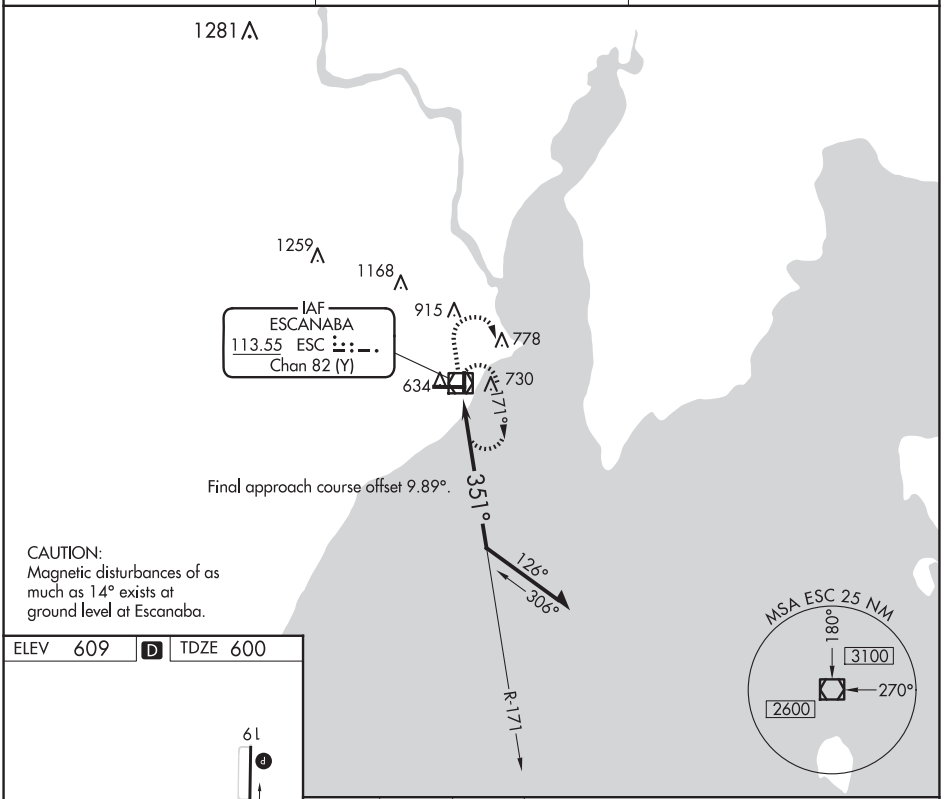
VOR/DME ESC	APP CRS	Rwy Idg	5015
113.55	351°	TDZE	600
Chan 82 (Y)		Apt Elev	609

VOR RWY 1
DELTA COUNTY (ESC)

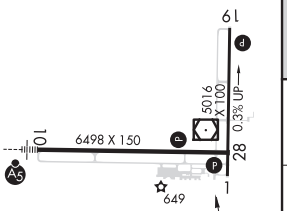
Rwy 1 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 2400 then right turn direct ESC VOR/DME and hold.

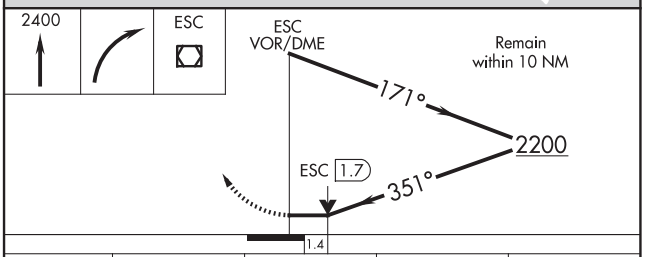
AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
121.425	127.65	122.8 (CTAF) L



ELEV 609 D TDZE 600



HIRL Rwy 10-28 L
MIRL Rwy 1-19 L
REIL Rwys 1 and 28 L



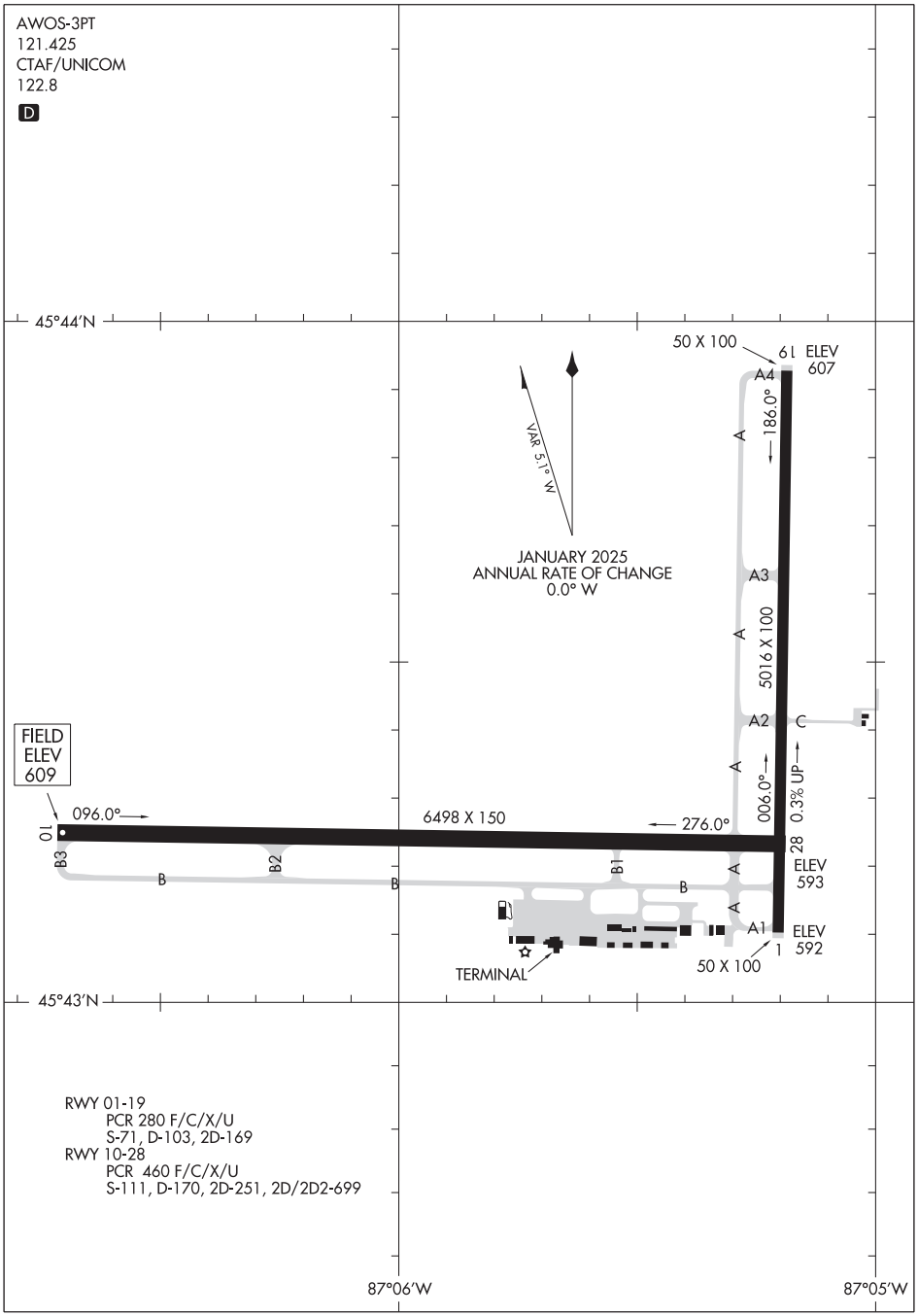
CATEGORY	A	B	C	D
S-1	1080-1 480 (500-1)		1080-1⅜	480 (500-1⅜)
C CIRCLING	1080-1 471 (500-1)		1280-2 671 (700-2)	1480-2¾ 871 (900-2¾)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

25107
AIRPORT DIAGRAM

DELTA COUNTY (ESC)
ESCANABA, MICHIGAN

AL-5123 (FAA)



EC-1, 07 AUG 2025 to 02 OCT 2025

AIRPORT DIAGRAM
25107
ESCANABA, MICHIGAN
DELTA COUNTY (ESC)

ILS or LOC RWY 9

BISHOP INTL (FNT)

LOC I-FNT	APP CRS	Rwy Idg / TDZE / Apt Elev
109.9	094°	7201 / 771 / 782

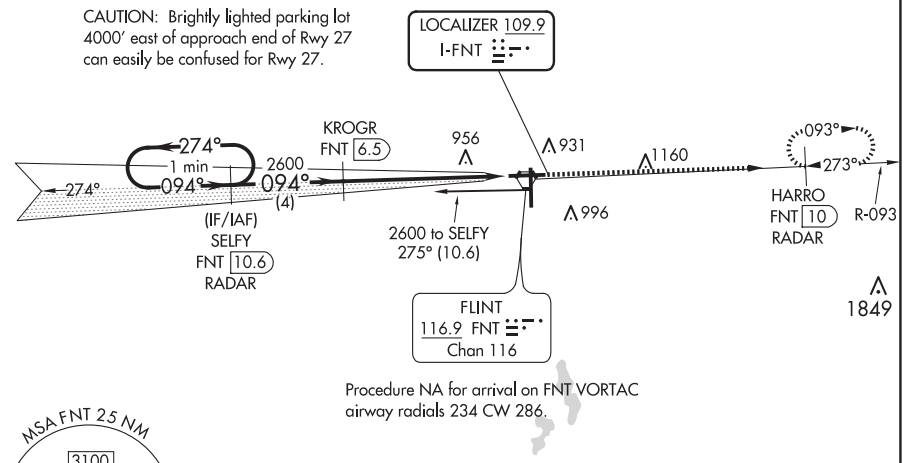
DME or RADAR required for procedure entry. DME or RADAR required.

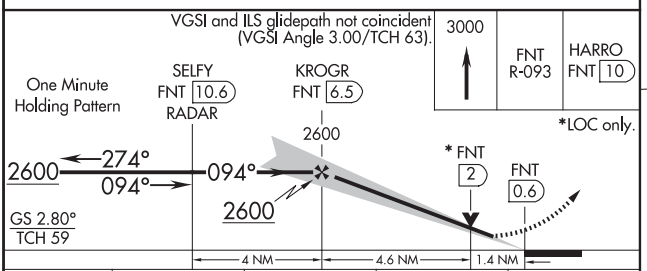
DME from FNT VORTAC. Simultaneous reception of I-FNT and FNT DME required. For inop ALS, increase S-LOC 9 Cat C/D visibility to 1⅜ SM. **RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSR

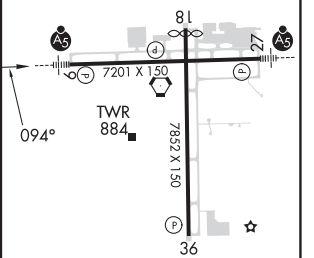
MISSED APPROACH: Climb to 3000 on FNT VORTAC R-093 to HARRO/FNT VORTAC 10 DME/RADAR and hold.

ATIS	GREAT LAKES APP CON ★	FLINT TOWER ★	GND CON	CLNC DEL	UNICOM
133.15	118.8 257.9	126.3 (CTAF) L 257.9	121.9	121.75	122.95





CATEGORY	A	B	C	D
S-ILS 9 **	971/24	200 (200-½)		
S-LOC 9	1280/24	509 (500-½)	1280/55	509 (500-1)
C CIRCLING	1280-1 498 (500-1)	1300-1 518 (600-1)	1300-1½ 518 (600-1½)	1520-2¼ 738 (800-2¼)



HIRL Rwys 9-27 and 18-36 L
REIL Rwy 18 and 36 L

FAF to MAP 6 NM

Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

FLINT, MICHIGAN

AL-618 (FAA)

23222

ILS or LOC RWY 27

BISHOP INTL (FNT)

LOC I-TUN	APP CRS	Rwy Idg	7201
109.9	274°	TDZE	770
		Apt Elev	782

DME or RADAR required for procedure entry. DME or RADAR required.

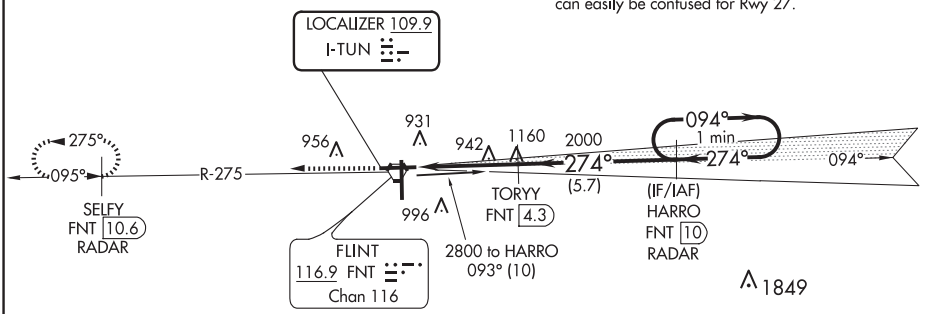
T A DME from FNT VORTAC. Simultaneous reception of I-TUN and FNT DME required. For inop ALS, increase S-LOC 27 Cat A/B visibility to 1 SM, and Cat C/D visibility to 1⅜ SM.

MALSR

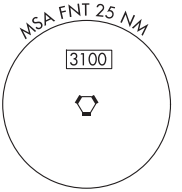
MISSED APPROACH: Climb to 2600 on FNT VORTAC R-275 direct SELFY/FNT VORTAC 10.6 DME/RADAR and hold.

ATIS	GREAT LAKES APP CON ★	FLINT TOWER ★	GND CON	CLNC DEL	UNICOM
133.15	118.8 257.9	126.3 (CTAF) L 257.9	121.9	121.75	122.95

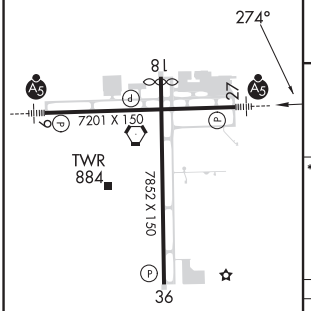
CAUTION: Brightly lighted parking lot 4000' east of approach end of Rwy 27 can easily be confused for Rwy 27.



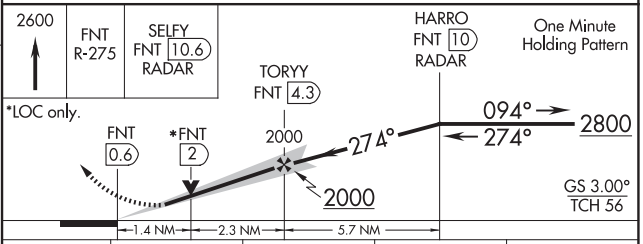
Procedure NA for arrival on FNT VORTAC airway radials 076 CW 097.



ELEV 782 D TDZE 770



HIRL Rwys 9-27 and 18-36 L
REIL Rwy 18 and 36 L



CATEGORY	A	B	C	D
S-ILS 27	970-½ 200 (200-½)			
S-LOC 27	1260-½ 490 (500-½)		1260-1 490 (500-1)	
C CIRCLING	1260-1 478 (500-1)	1300-1 518 (600-1)	1300-1½ 518 (600-1½)	1520-2¼ 738 (800-2¼)

FAF to MAP 3.7 NM

Knots	60	90	120	150	180
Min:Sec	3:42	2:28	1:51	1:29	1:14

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg 7201
CH 45714	094°	TDZE 771
W09A		Apt Elev 782

RNAV (GPS) RWY 9

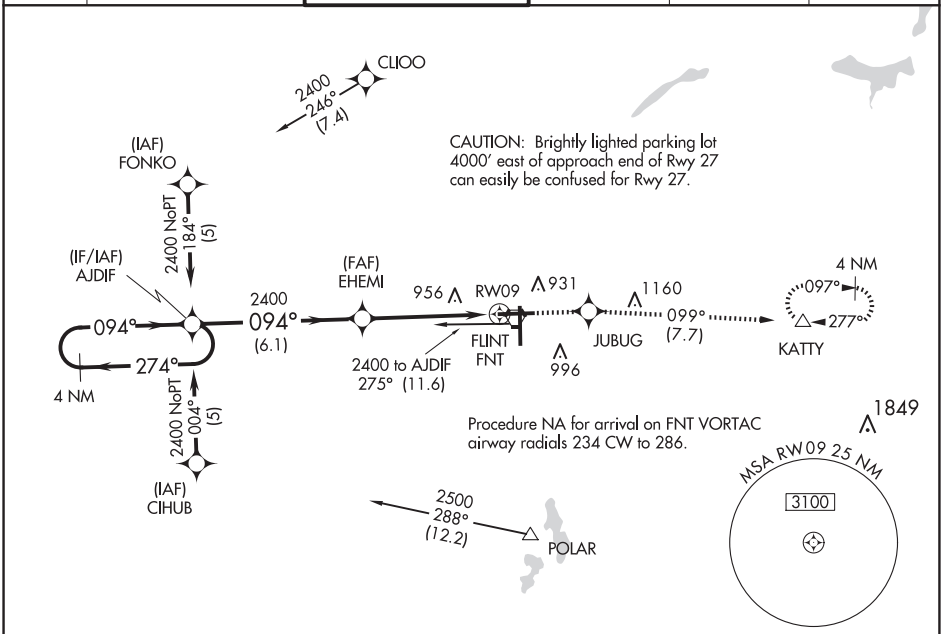
BISHOP INTL (FNT)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inop ALS, increase LNAV Cat C/D visibility to 1⅜ SM.
**RVR 1800 authorized with use of FD or AP or HUD to DA.

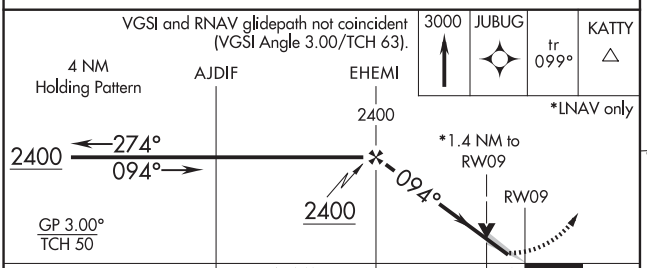
MALSR

MISSED APPROACH: Climb to 3000 direct JUBUG and on track 099° to KATTY and hold.

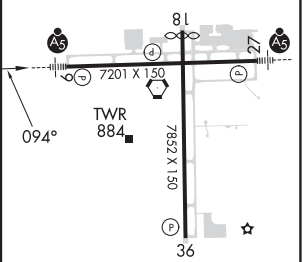
ATIS	GREAT LAKES APP CON ★	FLINT TOWER ★	GND CON	CLNC DEL	UNICOM
133.15	118.8 257.9	126.3 (CTAF) L 257.9	121.9	121.75	122.95



ELEV 782 D TDZE 771



CATEGORY	A	B	C	D
LPV DA **	971/24 200 (200-½)			
LNAV/VNAV DA	1227/50 456 (500-1)			
LNAV MDA	1260/24 489 (500-½)		1260/50 489 (500-1)	
C CIRCLING	1260-1 478 (500-1)	1300-1 518 (600-1)	1300-1½ 518 (600-1½)	1520-2¼ 738 (800-2¼)



HIRL Rwys 9-27 and 18-36 L
REIL Rwy 18 and 36 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

FLINT, MICHIGAN

AL-618 (FAA)

23222

RNAV (GPS) RWY 18

BISHOP INTL (FNT)

WAAS	APP CRS	Rwy Idg	7650
CH 99514	185°	TDZE	777
W18A		Apt Elev	782

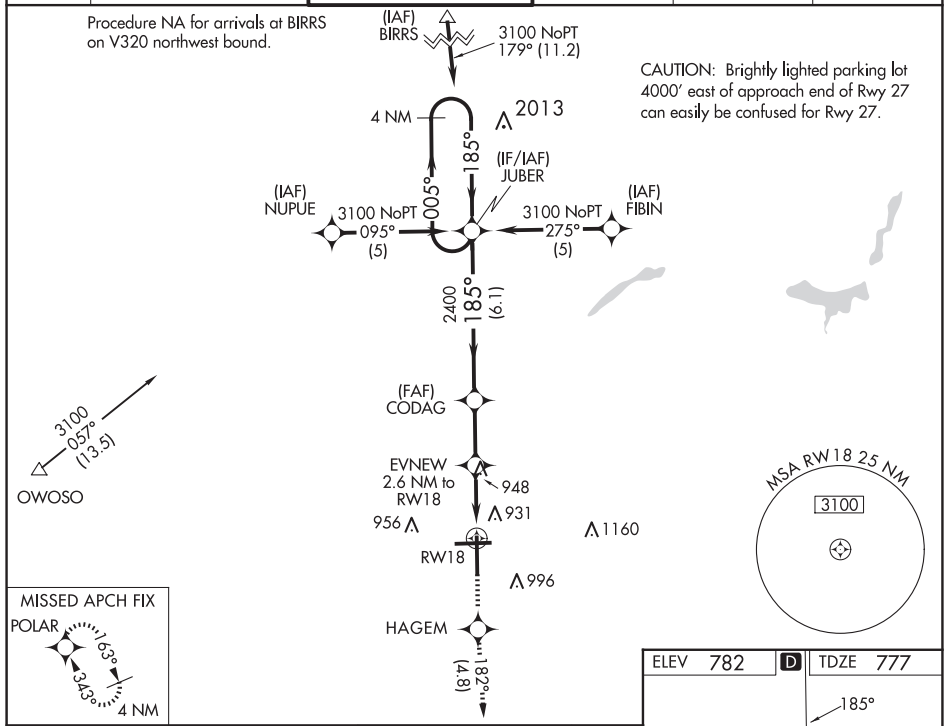
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP-0.3 NA. Rwy 18 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 3000 direct HAGEM and on track 182° to POLAR and hold.

ATIS	GREAT LAKES APP CON ★	FLINT TOWER ★	GND CON	CLNC DEL	UNICOM
133.15	118.8 257.9	126.3 (CTAF) L 257.9	121.9	121.75	122.95

Procedure NA for arrivals at BIRRS on V320 northwest bound.

CAUTION: Brightly lighted parking lot 4000' east of approach end of Rwy 27 can easily be confused for Rwy 27.



VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 47).

4 NM Holding Pattern

JUBER

3000	HAGEM	tr 182°	POLAR

CODAG

EVNEW 2.6 NM to RW18

*LNAV only

3100

005°

185°

185°

2400

*1.2 NM to RW18

RW18

GP 3.00°

TCH 42

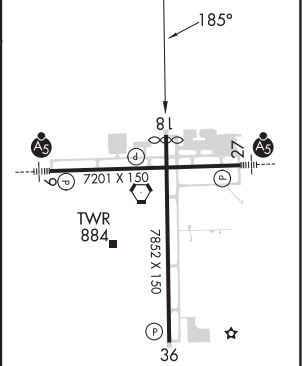
2400

*1640

6.1 NM | 2.3 NM | 1.4 | 1.2

CATEGORY	A	B	C	D
LPV DA	1109-1¼ 333 (400-1¼)			
LNAV/VNAV DA	1253-1¾ 477 (500-1¾)			
LNAV MDA	1220-1 443 (500-1)		1220-1⅜ 443 (500-1⅜)	
CIRCLING	1300-1 518 (600-1)		1300-1½ 518 (600-1½)	1520-2¼ 738 (800-2¼)

ELEV 782 D TDZE 777



HIRL Rwys 9-27 and 18-36 L

REIL Rwy 18 and 36 L

FLINT, MICHIGAN

Amdt 1D 09SEP21

42°58'N-83°45'W

BISHOP INTL (FNT)

RNAV (GPS) RWY 18

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	7201
CH 72810	274°	TDZE	770
W27A		Apt Elev	782

RNAV (GPS) RWY 27

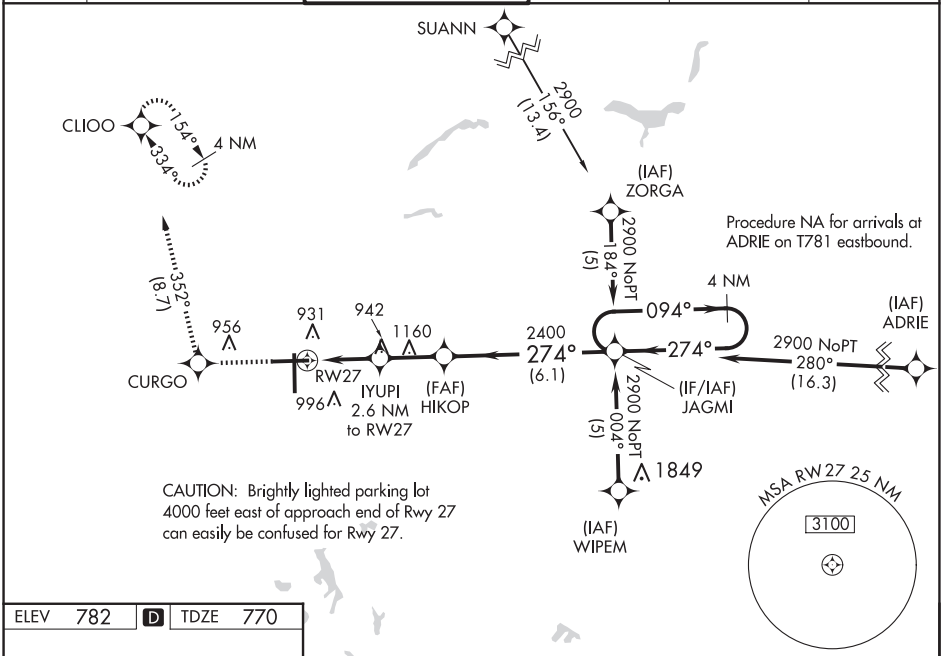
BISHOP INTL (FNT)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). Rwy 27 helicopter visibility reduction below ¾ SM NA. DME/DME RNP-0.3 NA. For inop ALS, increase LNAV/VNAV all Cats visibility to 1⅜ SM, LNAV Cat A/B visibility to 1 SM and LNAV Cat C/D visibility to 1⅜ SM.

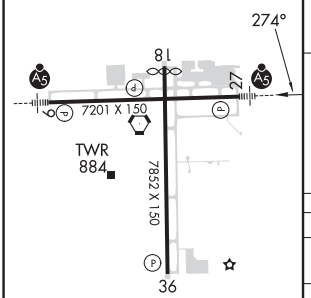
MALSR

MISSED APPROACH: Climb to 3000 direct CURGO and track 352° to CLIOO and hold.

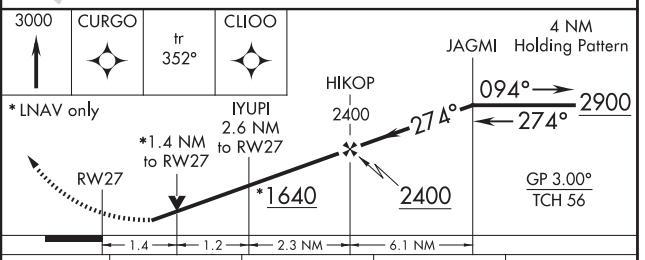
ATIS	GREAT LAKES APP CON ★	FLINT TOWER ★	GND CON	CLNC DEL	UNICOM
133.15	118.8 257.9	126.3 (CTAF) L 257.9	121.9	121.75	122.95



ELEV 782 D TDZE 770



HIRL Rwys 9-27 and 18-36 L
REIL Rwy 18 and 36 L



CATEGORY	A	B	C	D
LPV DA	1098-¾ 328 (400-¾)			
LNAV/VNAV DA	1240-1 470 (500-1)			
LNAV MDA	1260-¾ 490 (500-¾)		1260-1 490 (500-1)	
C CIRCLING	1260-1 478 (500-1)	1300-1 518 (600-1)	1300-1½ 518 (600-1½)	1520-2¼ 738 (800-2¼)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 36

BISHOP INTL (FNT)

WAAS	APP CRS		
CH 65914 W36A	005°	Rwy Idg	7652
		TDZE	782
		Apt Elev	782

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). Rwy 36 helicopter visibility reduction below ¾ SM NA. DME/DME RNP -0.3 NA.

MISSED APPROACH: Climb to 3000 direct CEGNA and on track 325° to CLIOO and hold.

ATIS	GREAT LAKES APP CON ★	FLINT TOWER ★	GND CON	CLNC DEL	UNICOM
133.15	118.8 257.9	126.3 (CTAF) L 257.9	121.9	121.75	122.95

MISSED APCH FIX

CLIOO 154° 334° 4 NM

325° (8.3)

CEGNA

Procedure NA for arrivals at KATTY on T781 eastbound.

956 ∧ ∧931 ∧1160

RW36 ∧996

CAUTION: Brightly lighted parking lot 4000' east of approach end of Rwy 27 can easily be confused for Rwy 27.

DUVIH 2.6 NM to RW36 ∧939

KATTY 2900 209° (12.7) ∧1849

(FAF) JORDI

ERRYS 2700 120° (14.3)

2400 005° (6.1)

2700 NoPT 095° (5) (IAF) COKIN

2700 NoPT 275° (5) (IAF) FISKU

(IF/IAF) HITMO 005° 185° 4 NM

MSA RW36 25 NM 3100

ELEV 782 D TDZE 782

HIRL Rwys 9-27 and 18-36 L

REIL Rwy 18 and 36 L

4 NM Holding Pattern

HITMO

3000	CEGNA	tr 325°	CLIOO

* LNAV only

JORDI 2400 005°

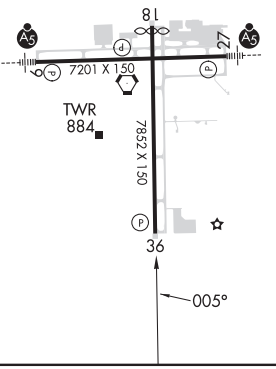
DUVIH 2.6 NM to RW36

2700 185° 005°

GP 3.00° TCH 54

2400 *1660 RW36

6.1 NM 2.3 NM 2.6 NM



CATEGORY	A	B	C	D
LPV DA	1123-1¼ 341 (400-1¼)			
LNAV/VNAV DA	1254-1¾ 472 (500-1¾)			
LNAV MDA	1260-1 478 (500-1)		1260-1⅜ 478 (500-1⅜)	1260-1½ 478 (500-1½)
C CIRCLING	1260-1 478 (500-1)	1300-1 518 (600-1)	1300-1½ 518 (600-1½)	1520-2¼ 738 (800-2¼)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

VOR RWY 18

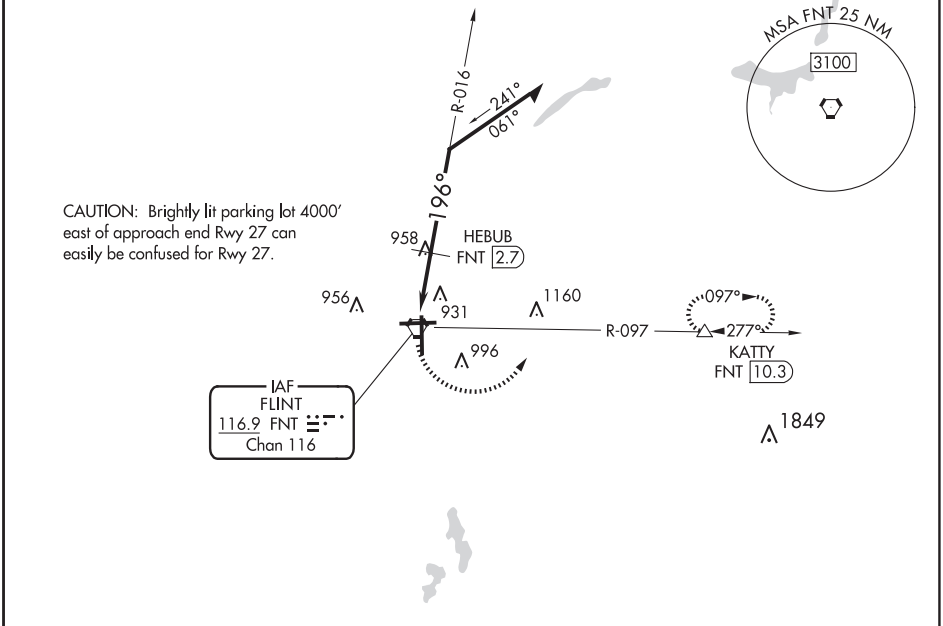
BISHOP INTL (FNT)

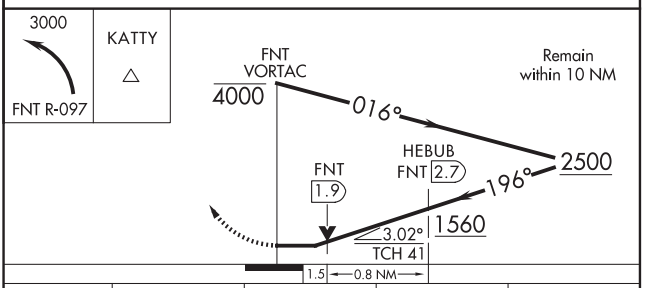
VORTAC FNT	APP CRS	Rwy Idg	7650
116.9	196°	TDZE	777
Chan 116		Apt Elev	782

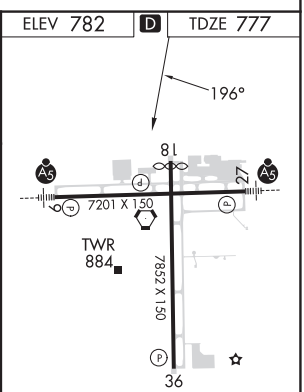
Rwy 18 helicopter visibility reduction below ¾ SM NA.
DME required.

MISSED APPROACH: Climbing left turn to 3000 on FNT VORTAC R-097 to KATTY/10.3 DME and hold.

ATIS	GREAT LAKES APP CON ★	FLINT TOWER ★	GND CON	CLNC DEL	UNICOM
133.15	118.8 257.9	126.3 (CTAF) L 257.9	121.9	121.75	122.95







CATEGORY	A	B	C	D
S-18	1300-1	523 (600-1)	1300-1½ 523 (600-1½)	1300-1¾ 523 (600-1¾)
C CIRCLING	1300-1	518 (600-1)	1300-1½ 518 (600-1½)	1520-2¼ 738 (800-2¼)

HIRL Rwys 9-27 and 18-36 L
REIL Rwy 18 and 36 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

FLINT, MICHIGAN

AL-618 (FAA)

23222

VORTAC FNT	APP CRS	Rwy Idg 7652
116.9	359°	TDZE 782
Chan 116		Apt Elev 782

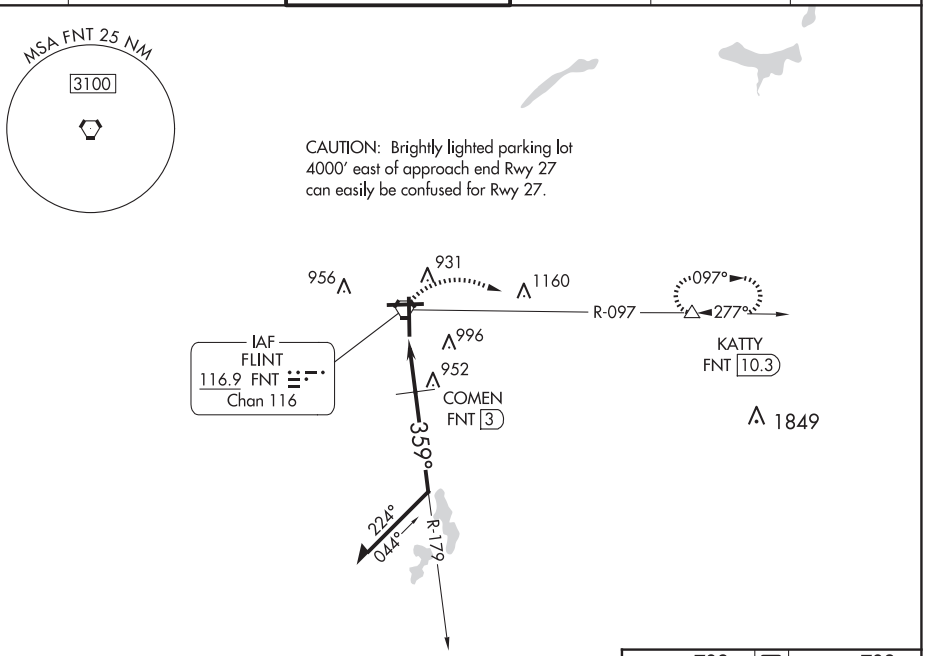
VOR RWY 36

BISHOP INTL (FNT)

Rwy 36 helicopter visibility reduction below ¾ SM NA.
DME required.

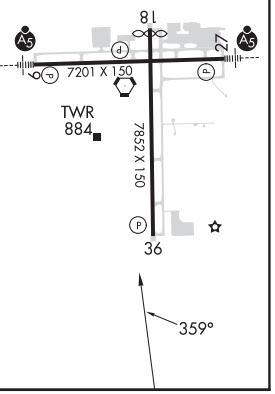
MISSED APPROACH: Climbing right turn to 3000 on FNT VORTAC R-097 to KATTY/10.3 DME and hold.

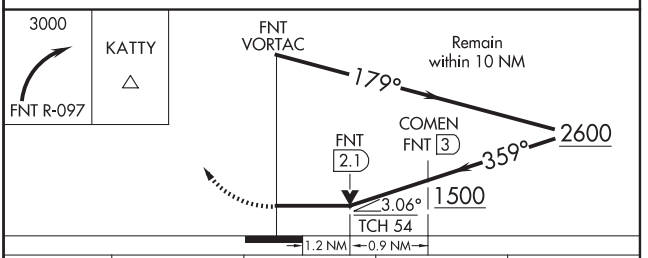
ATIS	GREAT LAKES APP CON ★	FLINT TOWER ★	GND CON	CLNC DEL	UNICOM
133.15	118.8 257.9	126.3 (CTAF) L 257.9	121.9	121.75	122.95



ELEV 782	D	TDZE 782

HIRL Rwys 9-27 and 18-36 L
REIL Rwy 18 and 36 L





CATEGORY	A	B	C	D
S-36	1220-1	438 (500-1)	1220-1¼	438 (500-1¼)
C CIRCLING	1240-1 458 (500-1)	1300-1 518 (600-1)	1300-1½ 518 (600-1½)	1520-2¼ 738 (800-2¼)

FLINT, MICHIGAN
Orig-A 24MAY18

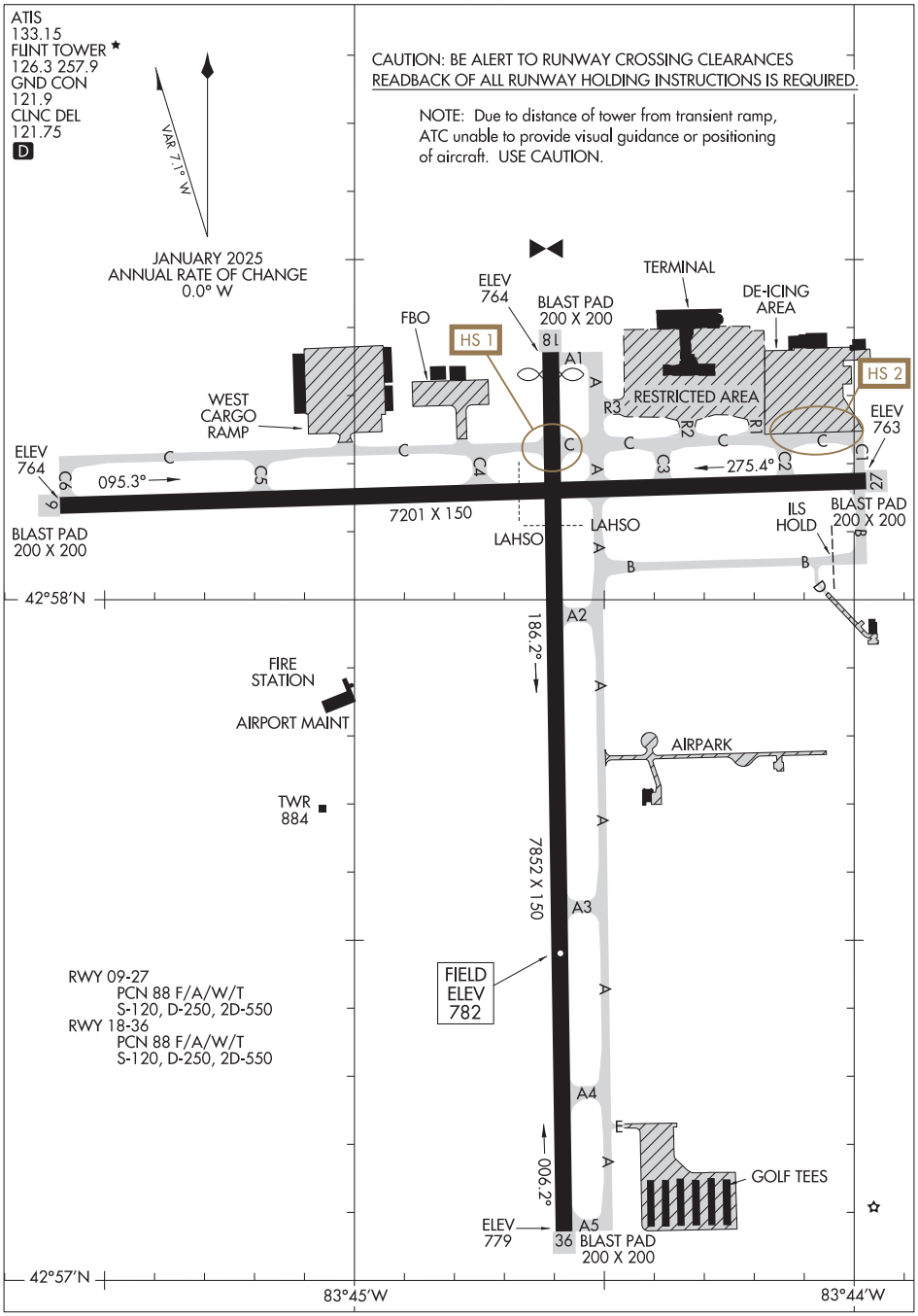
42°58'N-83°45'W

BISHOP INTL (FNT)

VOR RWY 36

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

FRANKFORT, MICHIGAN | AL-6732 (FAA) | 24081

RNAV (GPS) RWY 15

FRANKFORT DOW MEML FLD (FKS)

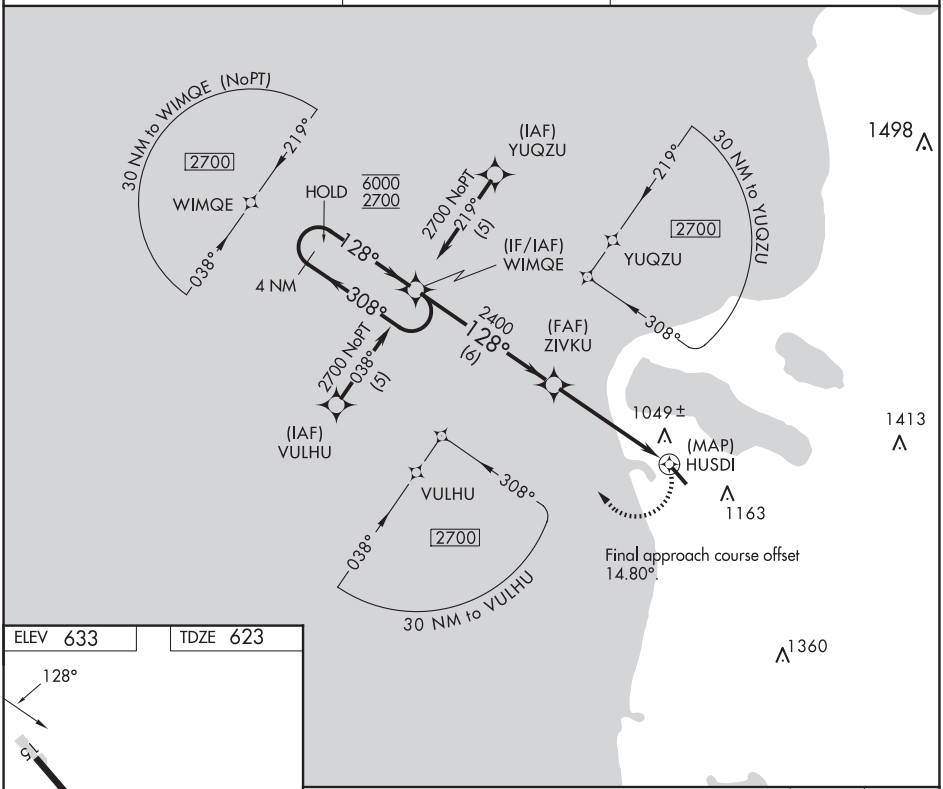
APP CRS	Rwy Idg	2956
128°	TDZE	623
	Apt Elev	633

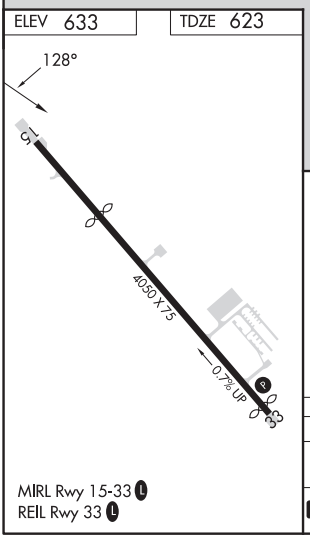
RNP APCH - GPS.

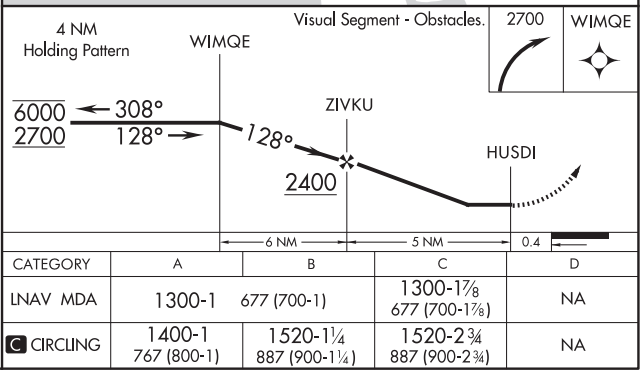
Procedure NA at night. Rwy 15 helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Manistee altimeter setting and increase all MDA's 60 feet and Circling Cat A visibility ¼ SM.

MISSED APPROACH: Climbing right turn to 2700 direct WIMQE and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
118.325	132.9 338.3	123.05 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1300-1 677 (700-1)		1300-1⅞ 677 (700-1⅞)	NA
C CIRCLING	1400-1 767 (800-1)	1520-1¼ 887 (900-1¼)	1520-2¾ 887 (900-2¾)	NA

FRANKFORT, MICHIGAN
Amdt 1B 07OCT21

44°38'N - 86°12'W

FRANKFORT DOW MEML FLD (FKS)
RNAV (GPS) RWY 15

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

APP CRS	Rwy Idg	3939
338°	TDZE	624
	Apt Elev	633

RNAV (GPS) RWY 33

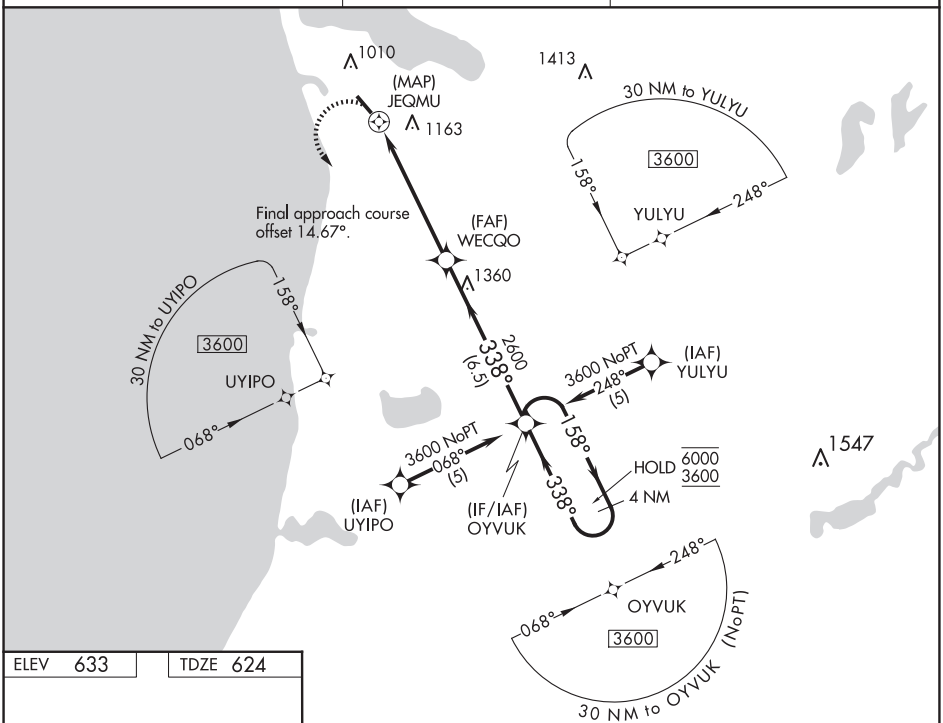
FRANKFORT DOW MEML FLD (FKS)

RNP APCH - GPS.

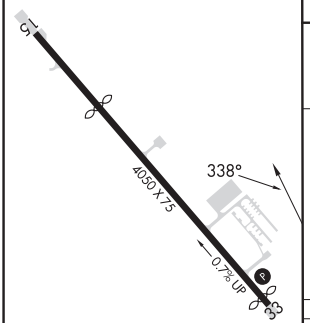
Procedure NA at night. Rwy 33 helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climbing left turn to 3600 direct OYVUK and hold.

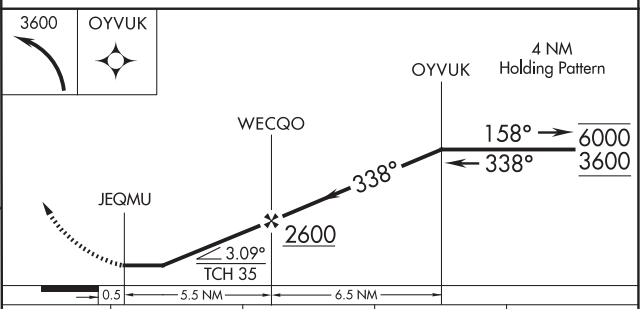
AWOS-3P	MINNEAPOLIS CENTER	UNICOM
118.325	132.9 338.3	123.05 (CTAF) L



ELEV 633 TDZE 624



MIRL Rwy 15-33 L
REIL Rwy 33 L



CATEGORY	A	B	C	D
LNAV MDA	1360-1 736 (800-1)		1360-2 736 (800-2)	NA
C CIRCLING	1400-1 767 (800-1)	1520-1¼ 887 (900-1¼)	1520-2¾ 887 (900-2¾)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 1

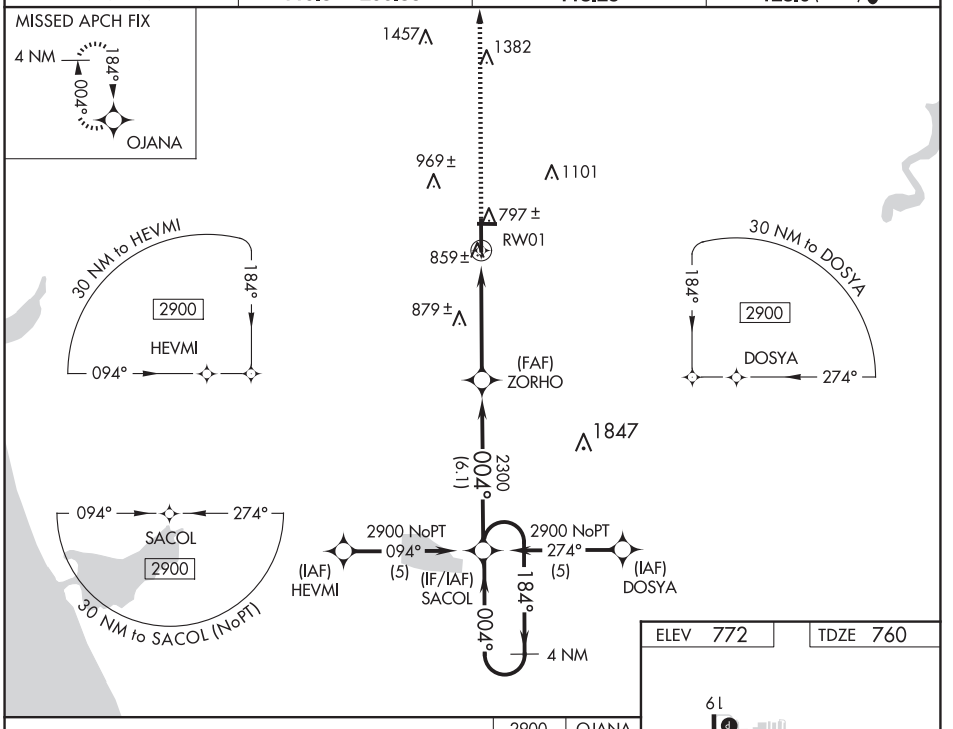
FREMONT MUNI (FFX)

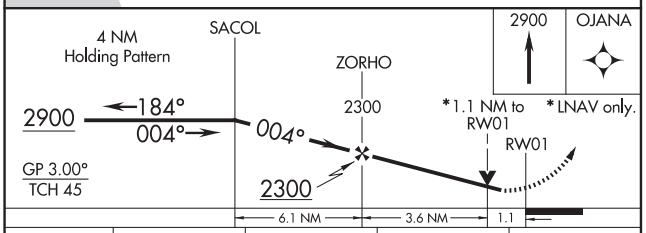
WAAS CH 56505 W01A	APP CRS 004°	Rwy Idg 6501 TDZE 760 Apt Elev 772

Baro-VNAV NA when using Muskegon altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). Rwy 1 helicopter visibility reduction below ¾ SM NA. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Muskegon altimeter setting and increase all DA 65 feet, and all visibilities ¼ mile. Increase all MDA 80 feet, and Cat C/D visibilities ¼ mile. VDP NA when using Muskegon altimeter setting.

MISSED APPROACH: Climb to 2900 direct OJANA and hold.

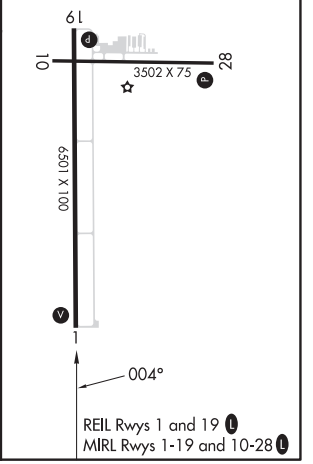
AWOS-3	GREAT LAKES APP CON ★	CLNC DEL	UNICOM
118.775	119.8 290.35	118.25	123.0 (CTAF) L





CATEGORY	A	B	C	D
LPV DA	1036-1 276 (300-1)			
LNAV/VNAV DA	1129-1¼ 369 (400-1¼)			
LNAV MDA	1140-1 380 (400-1)			1140-1¼ 380 (400-1¼)
CIRCLING	1260-1 488 (500-1)		1460-2 688 (700-2)	1460-2¼ 688 (700-2¼)

ELEV 772 TDZE 760



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 82405 W19A	APP CRS 184°	Rwy Idg 6501 TDZE 769 Apt Elev 772

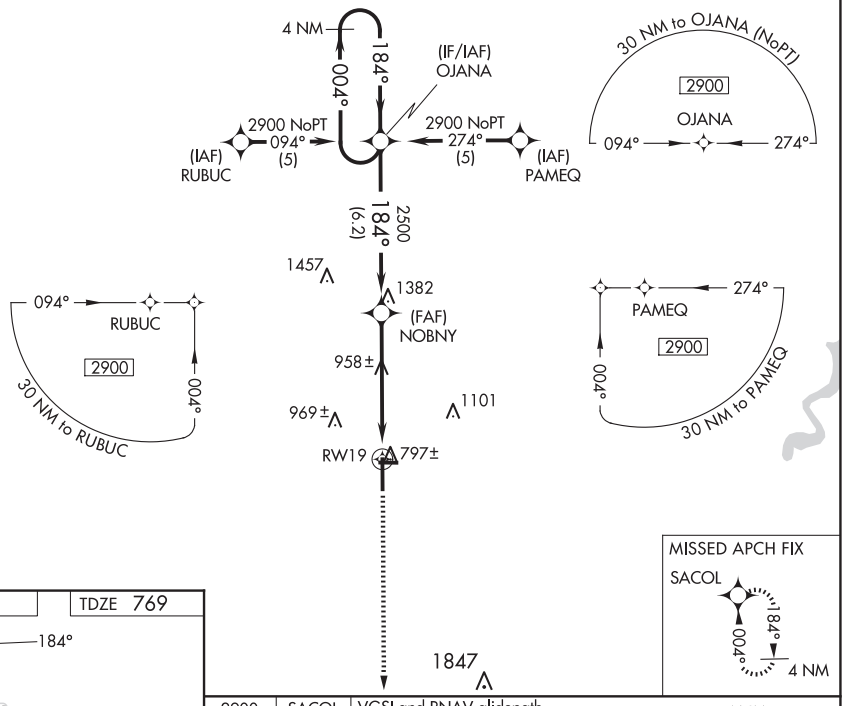
RNAV (GPS) RWY 19

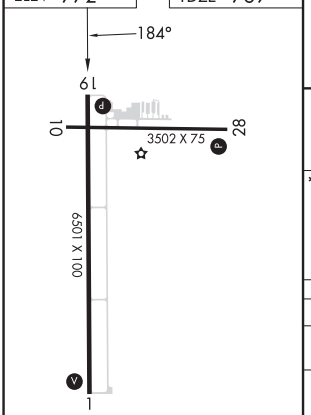
FREMONT MUNI (FFX)

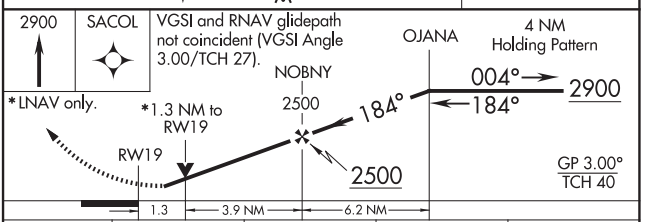
Baro-VNAV NA when using Muskegon altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). Rwy 19 helicopter visibility reduction below ¾ SM NA. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Muskegon altimeter setting and increase all DA 65 feet, and all visibilities ¼ mile. Increase all MDA 80 feet, and Cat C/D visibilities ¼ mile. VDP NA when using Muskegon altimeter setting.

MISSED APPROACH: Climb to 2900 direct SACOL and hold.

AWOS-3	GREAT LAKES APP CON *	CLNC DEL	UNICOM
118.775	119.8 290.35	118.25	123.0 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1074-1 305 (400-1)			
LNAV/VNAV DA	1295-2 526 (600-2)			
LNAV MDA	1220-1 451 (500-1)		1220-1¼ 451 (500-1¼)	1220-1½ 451 (500-1½)
CIRCLING	1260-1 488 (500-1)		1460-2 688 (700-2)	1460-2¼ 688 (700-2¼)

REIL Rwys 1 and 19 L
MIRL Rwys 1-19 and 10-28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

GAYLORD, MICHIGAN | AL-5373 (FAA) | 24361

ILS or LOC RWY 9

GAYLORD RGNL (GLR)

LOC I-GLR	APP CRS	Rwy Idg	6579
111.1	096°	TDZE	1321
		Apt Elev	1328

ADF required. RADAR required for procedure entry.

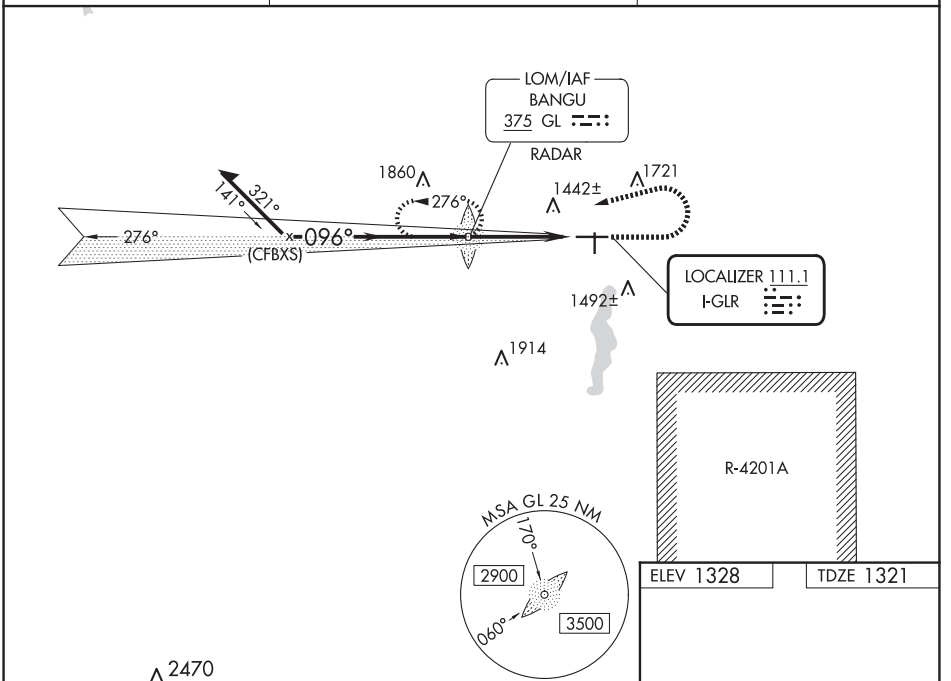
Circling Rwy 18, 36 NA at night. When local altimeter setting not received, use GOV altimeter setting and increase S-ILS 9 DA to 1591 feet; increase all MDAs 80 feet and S-LOC 9 visibility Cat C and D ⅜ SM, and Circling visibility Cat C and D ¼ SM. For inop ALS when using GOV altimeter setting, increase S-ILS 9 all Cats visibility to ⅞ SM and S-LOC 9 Cats C and D visibility to 1¾ SM. For inop ALS, increase S-LOC 9 Cats C and D visibility ⅜ SM.

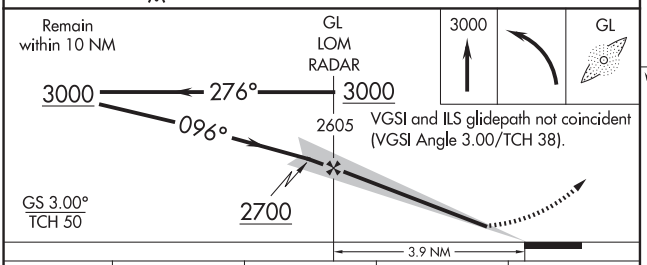
NA

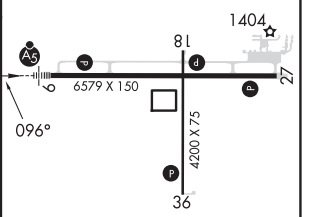
MALSR

MISSED APPROACH: Climb to 3000 then left turn direct BANGU LOM and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.375	134.6 354.05	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 9	1521-½ 200 (200-½)			
S-LOC 9	1860-½ 539 (600-½)		1860-1 539 (600-1)	
C CIRCLING	1860-1 532 (600-1)	1940-1 612 (700-1)	2040-2 712 (800-2)	2040-2¼ 712 (800-2¼)

HIRL Rwy 9-27 L
MIRL Rwy 18-36 L
REIL Rwys 18, 27 and 36 L

FAF to MAP 3.9 NM

Knots	60	90	120	150	180
Min:Sec	3:54	2:36	1:57	1:34	1:18

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 9

GAYLORD RGNL (GLR)

WAAS	APP CRS	Rwy Idg	6579
CH 97427	096°	TDZE	1321
W09A		Apt Elev	1328

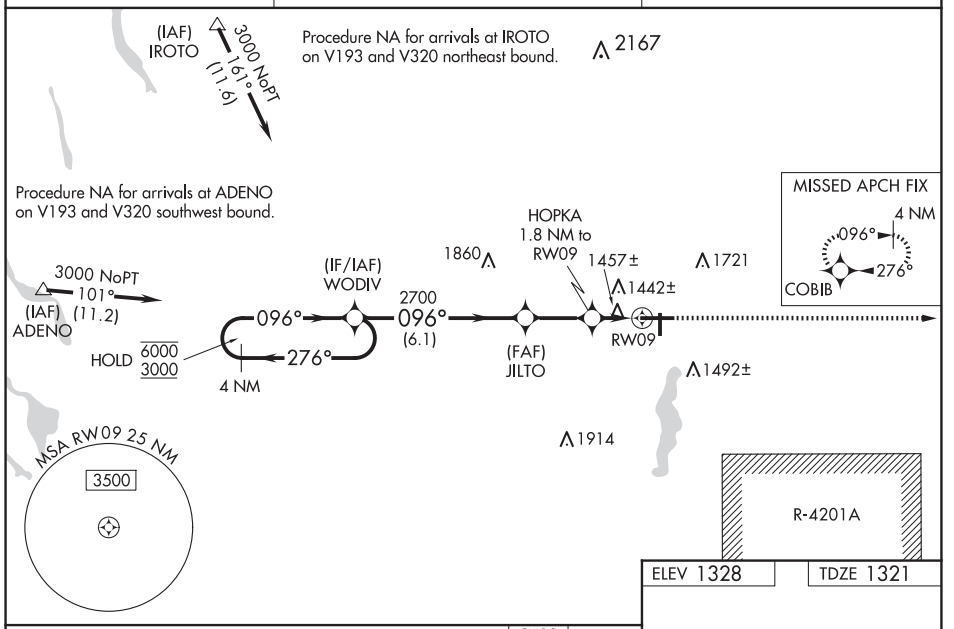
RNP APCH - GPS.

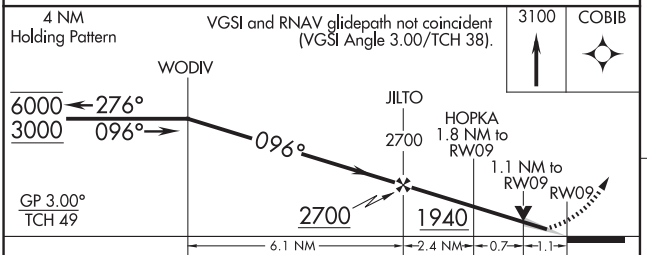
Circling Rwy 18, 36 NA at night. Baro-VNAV and VDP NA when using GOV altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -21° C or above 54° C. Inoperative table does not apply to LPV. When local altimeter setting not received, use GOV altimeter setting: increase LPV DA to 1591 feet; increase LNAV/VNAV DA to 1790 feet and all visibilities ¼ SM; increase all MDAs 80 feet and LNAV and Circling visibility Cats C and D ¼ SM. For inoperative ALS when using GOV altimeter setting, increase LNAV/VNAV visibility all Cats to 1⅜ SM and LNAV visibility Cats C and D to 1⅜ SM.

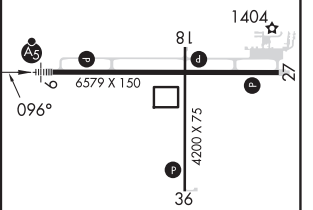
MALSR

MISSED APPROACH: Climb to 3100 direct COBIB and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.375	134.6 354.05	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1521-¾ 200 (200-¾)			
LNAV/VNAV DA	1720-¾ 399 (400-¾)			
LNAV MDA	1720-¾ 399 (400-¾)			
CIRCLING	1840-1 512 (600-1)	1940-1 612 (700-1)	2040-2 712 (800-2)	2080-2½ 752 (800-2½)

REIL Rwy 18, 27 and 36 L
MIRL Rwy 18-36 L
HIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

GAYLORD, MICHIGAN | AL-5373 (FAA) | 24361

RNAV (GPS) RWY 27

GAYLORD RGNL (GLR)

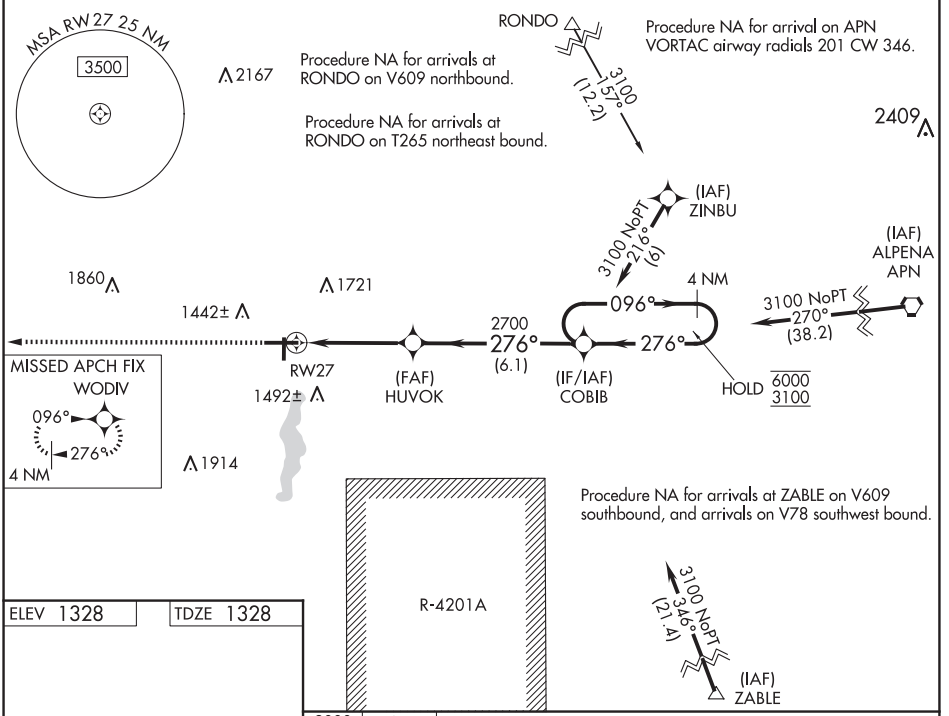
WAAS	APP CRS	Rwy Idg	6579
CH 56327	276°	TDZE	1328
W27A		Apt Elev	1328

RNP APCH - GPS.

T A Circling Rwy 18, 36 NA at night. Rwy 27 helicopter visibility reduction below ¾ SM NA. VDP NA when using GOV altimeter setting. When local altimeter setting not received, use GOV altimeter setting: increase LPV DA to 1648 feet; increase all MDAs 80 feet and LNAV visibility Cats C and D ⅜ SM and Circling visibility Cats C and D ¼ SM.

MISSED APPROACH: Climb to 3000 direct WODIV and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.375	134.6 354.05	122.8 (CTAF) L



CATEGORY	A	B	C	D
LPV DA	1578-1 250 (300-1)			
LNAV MDA	1840-1 512 (600-1)		1840-1⅜ 512 (600-1⅜)	
CIRCLING	1840-1 512 (600-1)	1940-1 612 (700-1)	2040-2 712 (800-2)	2080-2½ 752 (800-2½)

REIL Rwy 18, 27 and 36 L
MIRL Rwy 18-36 L
HIRL Rwy 9-27 L

GAYLORD, MICHIGAN
Amdt 1 26DEC24

45°01'N-84°42'W

GAYLORD RGNL (GLR)

RNAV (GPS) RWY 27

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH **48826** **W09A** | APP CRS **092°** | Rwy Idg **4699** TDZE **774** Apt Elev **774**

RNAV (GPS) RWY 9

GLADWIN ZETTEL MEML (GDW)

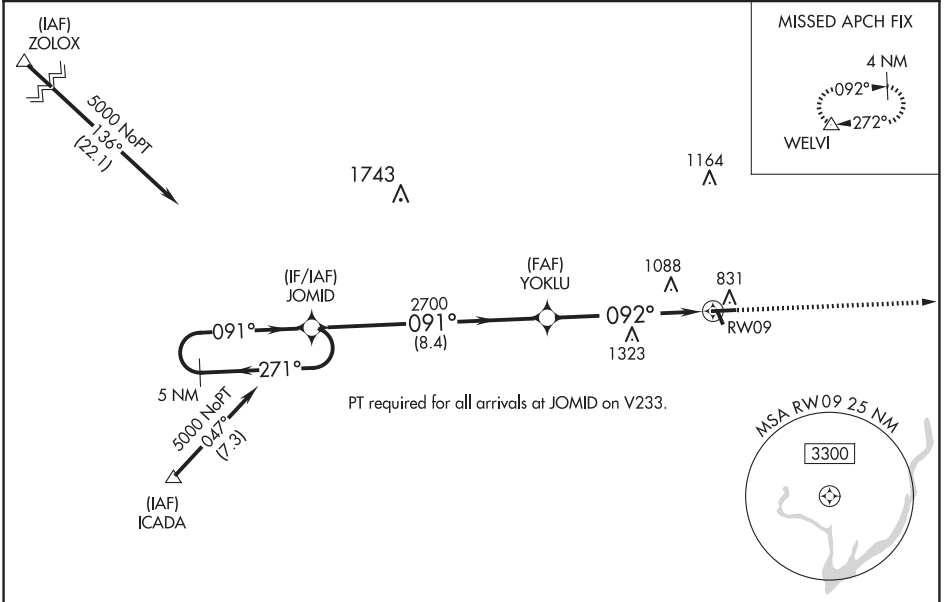
RNP APCH.

T NA Circling NA to Rwys 15 and 33. Rwy 9 helicopter visibility reduction below 1 SM NA. DME/DME RNP-0.3 NA. Procedure NA at night. Use Mount Pleasant altimeter setting; when not received, use Midland altimeter setting and increase all MDA 20 feet; increase LP and LNAV Cats C/D visibility ⅛ SM.

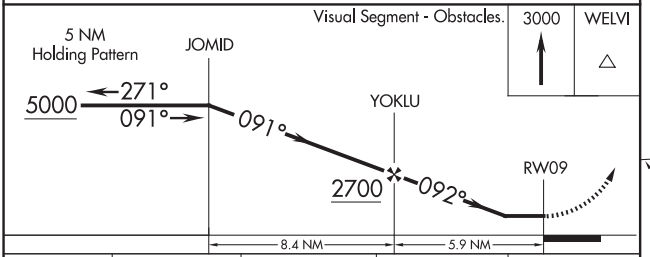
MISSED APPROACH: Climb to 3000 direct WELVI and hold.

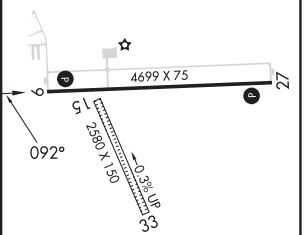
GREAT LAKES APP CON * **126.45** **235.625**

UNICOM **122.8** (CTAF) L



ELEV 774 TDZE 774





CATEGORY	A	B	C	D
LP MDA	1440-1	666 (700-1)	1440-1⅞	666 (700-1⅞)
LNAV MDA	1440-1	666 (700-1)	1440-1⅞	666 (700-1⅞)
CIRCLING	1440-1 666 (700-1)	1500-1 726 (800-1)	1520-2¼ 746 (800-2¼)	1700-3 926 (1000-3)

REIL Rwys 9 and 27 L
MIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

GLADWIN, MICHIGAN | AL-6672 (FAA) | 23110

RNAV (GPS) RWY 27

GLADWIN ZETTEL MEML (GDW)

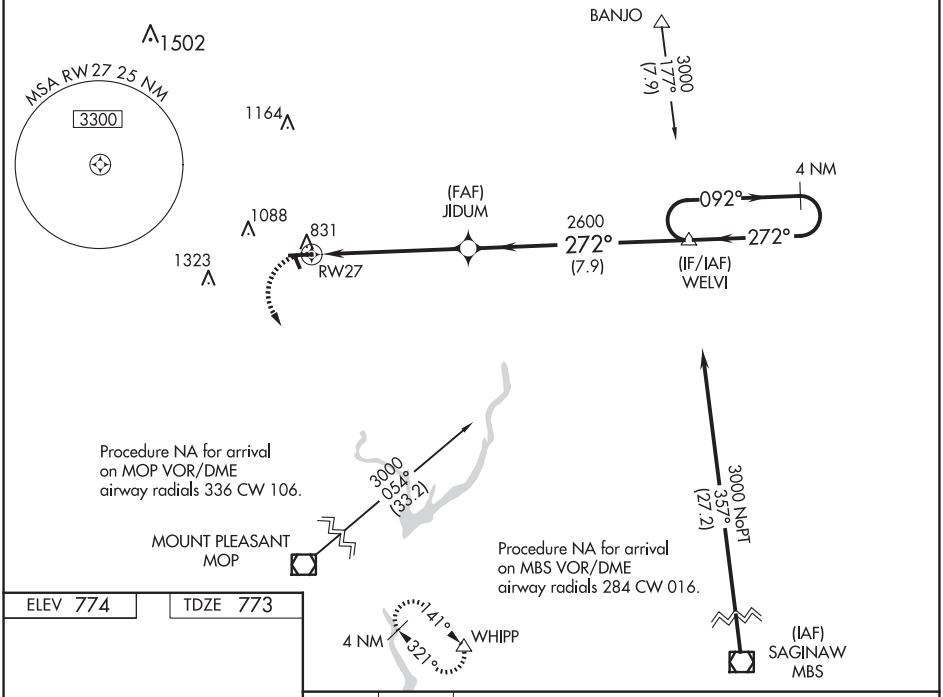
WAAS	APP CRS	Rwy Idg	4699
CH 99326	272°	TDZE	773
W27A		Apt Elev	774

RNP APCH - GPS.

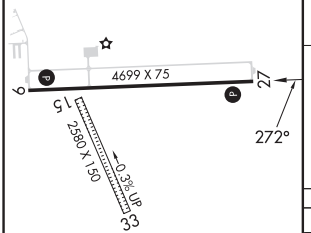
NA — Circling NA to Rwys 15 and 33. Rwy 27 helicopter visibility reduction below 1 SM NA. Procedure NA at night. Use Mount Pleasant altimeter setting; when not received, use Midland altimeter setting and increase all MDA 20 feet; increase LP and LNAV Cats C/D visibility ⅛ SM.

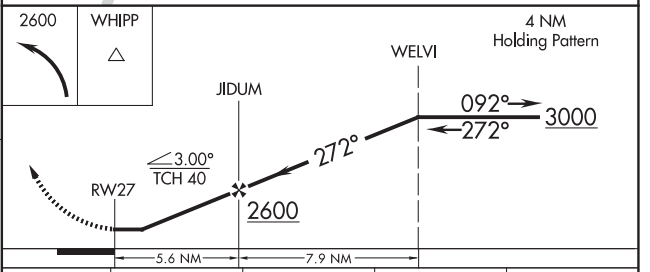
MISSED APPROACH: Climbing left turn to 2600 direct WHIPP and hold.

GREAT LAKES APP CON ★	UNICOM
126.45 235.625	122.8 (CTAF) L



ELEV 774 | TDZE 773





CATEGORY	A	B	C	D
LP MDA	1280-1	507 (600-1)	1280-1⅜	507 (600-1⅜)
LNAV MDA	1280-1	507 (600-1)	1280-1⅜	507 (600-1⅜)
CIRCLING	1420-1 646 (700-1)	1500-1 726 (800-1)	1520-2¼ 746 (800-2¼)	1700-3 926 (1000-3)

MIRL Rwy 9-27 L
REIL Rwys 9 and 27 L

GLADWIN, MICHIGAN
Orig-D 20APR23

43°58′N - 84°29′W

GLADWIN ZETTEL MEML (GDW)
RNAV (GPS) RWY 27

EC-1, 07 AUG 2025 to 02 OCT 2025

APP CRS	Rwy Idg	3752
095°	TDZE	603
	Apt Elev	604

RNAV (GPS) RWY 9

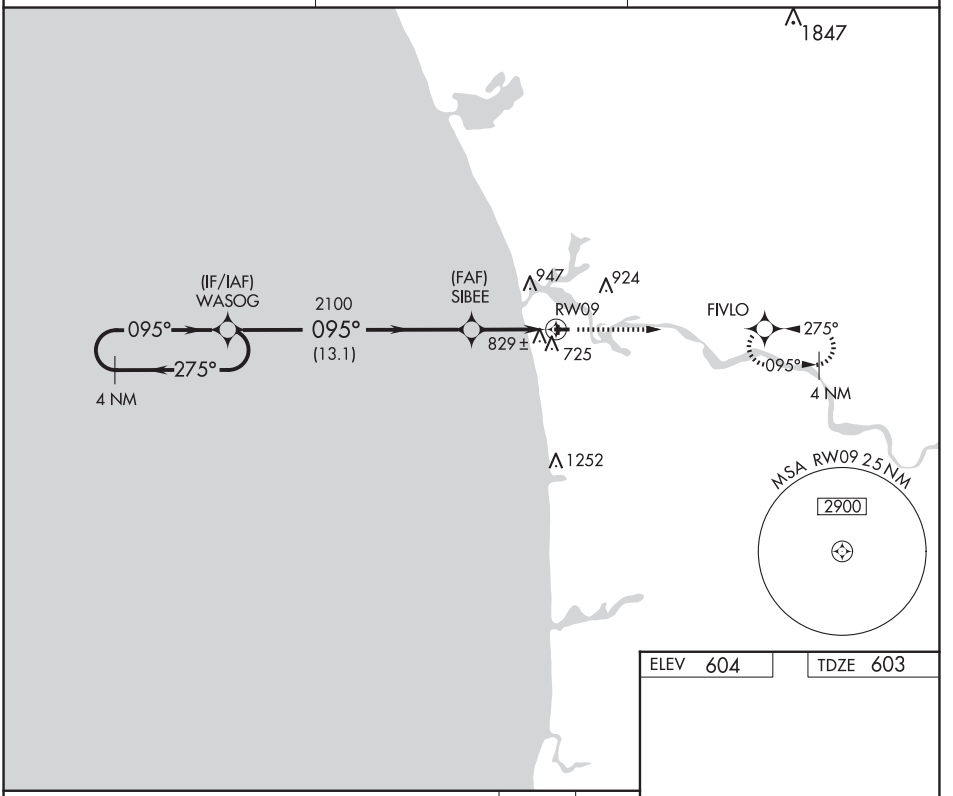
GRAND HAVEN MEML AIRPARK (3GM)

RNP APCH.

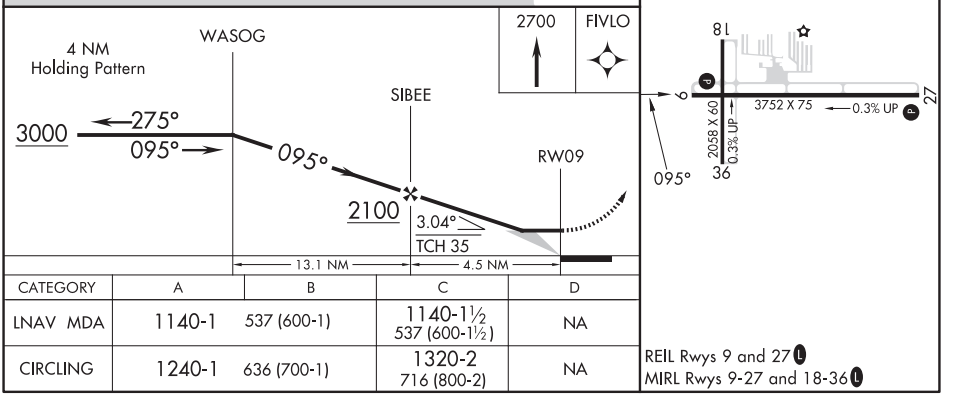
NA Use Muskegon altimeter setting. Circling Rwy 18, 36 NA at night. Rwy 9 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 2700 direct FIVLO and hold.

MKG ASOS	GREAT LAKES APP CON★	UNICOM
124.3	133.825 290.35	122.7 (CTAF) L



ELEV 604 TDZE 603



CATEGORY	A	B	C	D
LNAV MDA	1140-1	537 (600-1)	1140-1½ 537 (600-1½)	NA
CIRCLING	1240-1	636 (700-1)	1320-2 716 (800-2)	NA

REIL Rwys 9 and 27 L
MIRL Rwys 9-27 and 18-36 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

GRAND HAVEN, MICHIGAN | AL-5113 (FAA) | 23278

RNAV (GPS) RWY 27

GRAND HAVEN MEML AIRPARK (3GM)

APP CRS	Rwy Idg	TDZE	Apt Elev
275°	3752	602	604

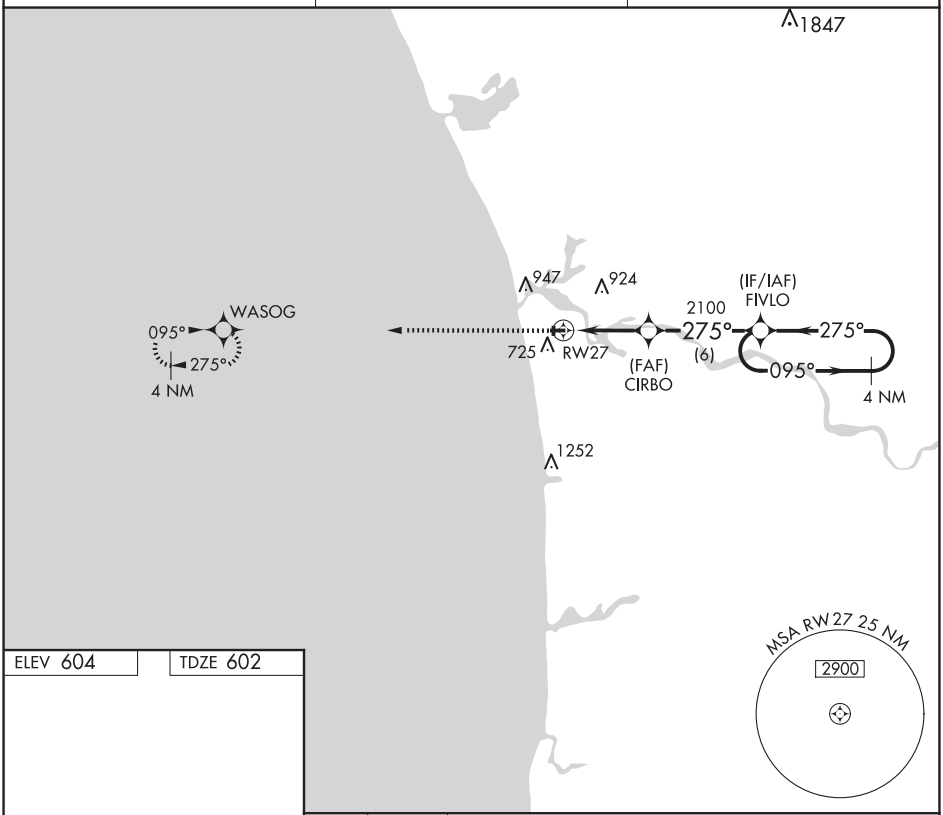
RNP APCH.

NA

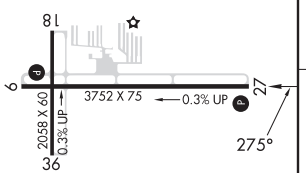
Use Muskegon altimeter setting. Rwy 27 helicopter visibility reduction below ¾ SM NA. Circling Rwy 18, 36 NA at night.

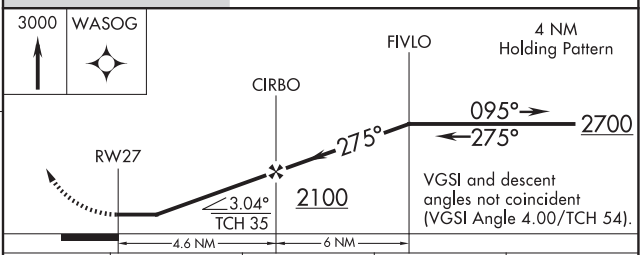
MISSED APPROACH: Climb to 3000 direct WASOG and hold.

MKG ASOS	GREAT LAKES APP CON★	UNICOM
124.3	133.825 290.35	122.7 (CTAF) L



ELEV 604 | TDZE 602





CATEGORY	A	B	C	D
LNAV MDA	1000-1 398 (400-1)			NA
CIRCLING	1240-1 636 (700-1)		1320-2 716 (800-2)	NA

REIL Rwys 9 and 27 L
MIRL Rwys 9-27 and 18-36 L

GRAND HAVEN, MICHIGAN
Orig-B 07OCT21

43°02'N-86°12'W

GRAND HAVEN MEML AIRPARK (3GM)
RNAV (GPS) RWY 27

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 58334 W09A | APP CRS 090° | Rwy Idg 3200 | TDZE 841 | Apt Elev 841

RNAV (GPS) RWY 9

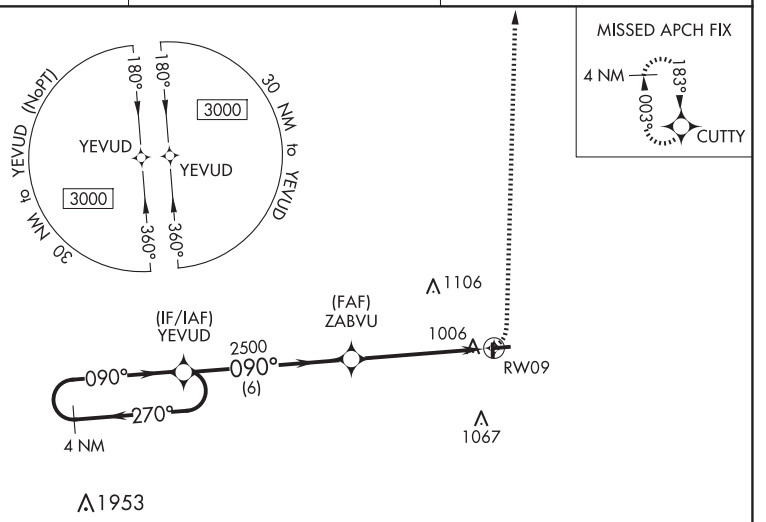
ABRAMS MUNI (4DØ)

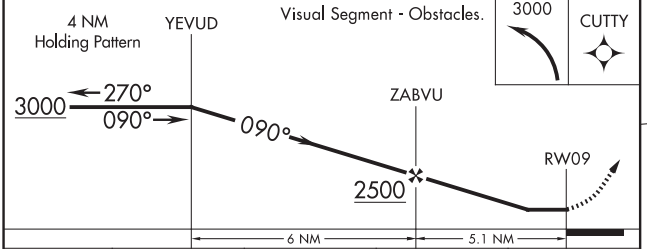
T
A NA

Use Lansing altimeter setting. DME/DME RNP-0.3 NA. Circling NA to Rwys 18 and 36. Helicopter visibility reduction below ¾ SM NA. Night Landing Rwy 27 NA.

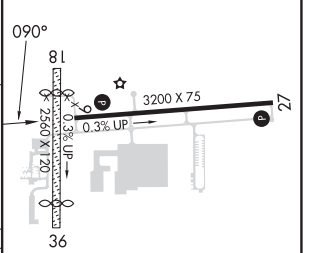
MISSED APPROACH: Climbing left turn 3000 direct CUTTY and hold.

LAN ASOS	GREAT LAKES APP CON ★	UNICOM
119.75	118.65 226.4	122.7 (CTAF) L





ELEV 841 | TDZE 841



CATEGORY	A	B	C	D
LP MDA	1380-1 539 (600-1)		NA	
LNAV MDA	1400-1 559 (600-1)		NA	
C CIRCLING	1400-1 559 (600-1)	1420-1 579 (600-1)	NA	

REIL Rwy 27 L
MIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

GRAND RAPIDS, MICHIGAN | AL-5184 (FAA) | 25163

ILS or LOC RWY 8R

GERALD R FORD INTL (GRR)

LOC I-CYZ	APP CRS	Rwy Ldg	10001
108.3	087°	TDZE	794
		Apt Elev	794

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

MALSR

MISSED APPROACH: Climb to 1300 then climbing right turn to 3000 direct VIO VOR/DME and hold.

ATIS	GREAT LAKES APP CON ★	GRAND RAPIDS TOWER ★	GND CON	CLNC DEL	UNICOM
118.725	128.4 257.6	135.65 (CTAF) L 339.8	121.8	119.3	122.95

ALTERNATE MISSED APCH FIX

087° 267°

KNOBS 263 GR

MSA VIO 25 NM

140° 2400 280° 3000

LOCALIZER 108.3 I-CYZ

LOM KNOBS 263 GR

949 1022 918

GLAWE INT

(IF/IAF) JAKES INT

2400 087° (7.7) 267° 087° 1 min 267°

R-288 R-309 LR-280 R-029 R-239 059° 239°

VICTORY 115.95 VIO Chan 106 (Y)

2700 NoPT 029° (25.9)

Procedure NA for arrival on PMM VOR/DME airway radials 004 CW 076.

1920

IAF PULLMAN 112.1 PMM Chan 58

ELEV 794 D TDZE 794

5001 X 100 18 26R 17

TWR

10001 X 150 8R 26L

8501 X 150 35

087°

One Minute Holding Pattern

JAKES INT GLAWE INT 1300 3000 VIO

2700 267° 087° 087° 2400

GS 3.00° TCH 51

2400

7.7 NM 4.8 NM

CATEGORY	A	B	C	D
S-ILS 8R		*994/24	200 (200-½)	
S-LOC 8R	1240/24	446 (500-½)	1240/45	446 (500-⅞)
C CIRCLING	1260-1	466 (500-1)	1340-1½ 546 (600-1½)	1360-2 566 (600-2)

MIRL Rwy 8L-26R L

REIL Rwys 8L, 17 and 26R L

HIRL Rwys 8R-26L and 17-35 L

FAF to MAP 4.8 NM

Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

LOC I-GRR	APP CRS	Rwy Ldg	10001
109.7	267°	TDZE	790
		Apt Elev	794

ILS or LOC RWY 26L

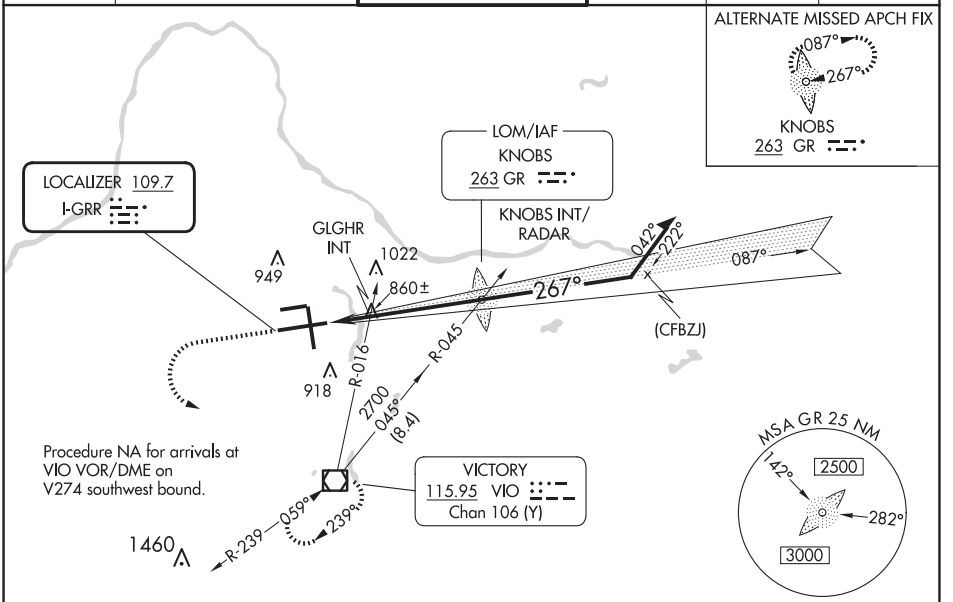
GERALD R FORD INTL (GRR)

For inop ALS increase S-LOC 26L Cat C/D visibility to 1⅝ SM.
* RVR 1800 authorized with use of FD or AP or HUD to DA.

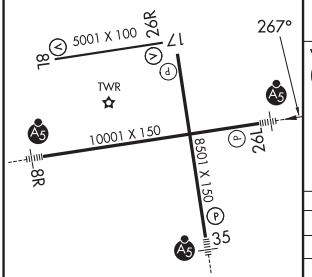
MALSR

MISSED APPROACH: Climb to 1300 then climbing left turn to 3000 direct VIO VOR/DME and hold, continue climb in hold to 3000.

ATIS	GREAT LAKES APP CON *		GRAND RAPIDS TOWER *		GND CON	CLNC DEL	UNICOM
118.725	128.4	257.6	135.65 (CTAF) L	339.8	121.8	119.3	122.95



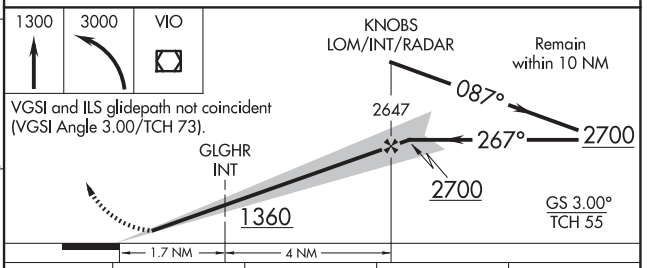
ELEV 794 D TDZE 790



MIRL Rwy 8L-26R L
REIL Rwys 8L, 17 and 26R L
HIRL Rwys 8R-26L and 17-35 L

FAF to MAP 5.7 NM

Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54



CATEGORY	A	B	C	D
S-ILS 26L *	990/24	200 (200-½)		
S-LOC 26L	1360/24	570 (600-½)	1360-1¼	570 (600-1¼)
C CIRCLING	1360-1	566 (600-1)	1360-1⅝ 566 (600-1⅝)	1380-2 586 (600-2)
GLGHR INT MINIMUMS (DUAL VOR RECEIVERS REQUIRED)				
S-LOC 26L	1120/24	330 (400-½)	1120/26	330 (400-½)
C CIRCLING	1260-1	466 (500-1)	1340-1½ 546 (600-1½)	1380-2 586 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

GRAND RAPIDS, MICHIGAN | AL-5184 (FAA) | 25163

ILS or LOC RWY 35

GERALD R FORD INTL (GRR)

LOC I-DVS	APP CRS	Rwy Ldg	8501
111.9	357°	TDZE	790
		Apt Elev	794

DME required. DME or RADAR required for procedure entry.

T A HONSE fix minimums: for inop ALS, increase Cat C and D visibility to RVR 6000.
** RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSR

MISSED APPROACH: Climb to 1300 then climbing left turn to 3000 on VIO VOR/DME R-353 to WALKS 13.7 DME and hold.

ATIS	GREAT LAKES APP CON ★	GRAND RAPIDS TOWER ★	GND CON	CLNC DEL	UNICOM
118.725	128.4 257.6	135.65 (CTAF) L 339.8	121.8	119.3	122.95

MISSED APCH FIX

WALKS VIO 13.7

173° 353° 115.95 VIO R-353 Chan 106 (Y)

LOCALIZER 111.9 I-DVS

VIO R-353 949 1022

HONSE INT VIO 2.9 892 918 063°

LOM KNOBS 263 GR

CALDO OM/RADAR

VICTORY 115.95 VIO Chan 106 (Y)

2500 to OM (6.4) 357°

1920

(IF/IAF) JJUDD VIO 6.4

177° 1 min 357° 177°

HOLD 5200 3000

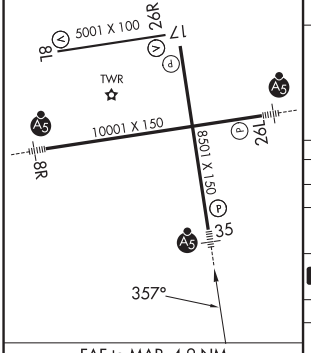
ALTERNATE MISSED APCH FIX

KNOBS GR 263 087° 267°

MSA VIO 25 NM 140° 2400 280° 3000

ELEV 794 D TDZE 790

MIRL Rwy 8L-26R L
REIL Rwys 8L, 17 and 26R L
HIRL Rwys 8R-26L and 17-35 L



FAF to MAP 4.9 NM

Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

1300 | 3000 VIO R-353 | WALKS

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 74).

VIO VOR/DME CALDO OM/RADAR

JJUDD VIO 6.4

One Minute Holding Pattern

*LOC only. VIO 4.9 * VIO 3.8 HONSE INT VIO 2.9 2412 357° 2500 *1480 177° 357° 5200 3000

GS 3.00° TCH 55

1.1 NM | 0.9 NM | 2.9 NM | 6.4 NM

CATEGORY	A	B	C	D
S-ILS 35 **	990/24	200 (200-½)		
S-LOC 35	1480/24	690 (700-½)	1480-1½	690 (700-1½)
C CIRCLING	1480-1	686 (700-1)	1480-2	1480-2¼
			686 (700-2)	686 (700-2¼)
HONSE MINIMUMS (ADF OR DME REQUIRED)				
S-LOC 35	1200/24	410 (500-½)	1200/40	410 (500-¾)
C CIRCLING	1260-1	466 (500-1)	1340-1½	1360-2
			546 (600-1½)	566 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ILS RWY 35 (SA CAT I & II)

GERALD R FORD INTL (GRR)

LOC I-DVS	APP CRS	Rwy Ldg	8501
111.9	357°	TDZE	790
		Apt Elev	794

DME required. DME or RADAR required for procedure entry.

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.
Procedure NA when tower closed.

MALSR

MISSED APPROACH: Climb to 1300 then climbing left turn to 3000 on VIO VOR/DME R-353 to WALKS 13.7 DME and hold.

ATIS	GREAT LAKES APP CON ★	GRAND RAPIDS TOWER ★	GND CON	CLNC DEL	UNICOM
118.725	128.4 257.6	135.65 (CTAF) L 339.8	121.8	119.3	122.95

MISSED APCH FIX

WALKS
VIO 13.7
173°
353°
115.95 VIO
R-353
Chan 106 (Y)

VIO
R-353
949
LOCALIZER 111.9
I-DVS
1022
892
918
LOM
KNOBS
263 GR
CALDO
OM/RADAR
VICTORY
115.95 VIO
Chan 106 (Y)
2500 to OM
357°
(6.4)
1920
(IF/IAF)
JJUDD
VIO 6.4
177°
1 min
357°
177°
HOLD 5200 3000
1956

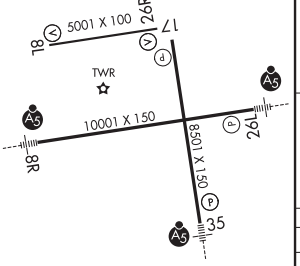
ALTERNATE MISSED APCH FIX

KNOBS
GR
263
087°
267°

MSA VIO 25 NM
140°
2400
280°
3000

ELEV 794 D TDZE 790

MIRL Rwy 8L-26R L
REIL Rwys 8L, 17 and 26R L
HIRL Rwys 8R-26L and 17-35 L



1300	3000	WALKS
	VIO R-353	

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 74).

VIO VOR/DME
CALDO
OM/RADAR

JJUDD
VIO 6.4

One Minute Holding Pattern

2412
357°
177°
357°
5200
3000
2500
VIO
4.9
GS 3.00°
TCH 55

1049' 4.9 NM 6.4 NM

CATEGORY	A	B	C	D
S-ILS 35	SA CAT I RA 160/14 150 DA 940			
S-ILS 35	SA CAT II RA 122/12 100 DA 890			

FAF to MAP 4.9 NM					
Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

SA CATEGORY I & II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 8L

GERALD R FORD INTL (GRR)

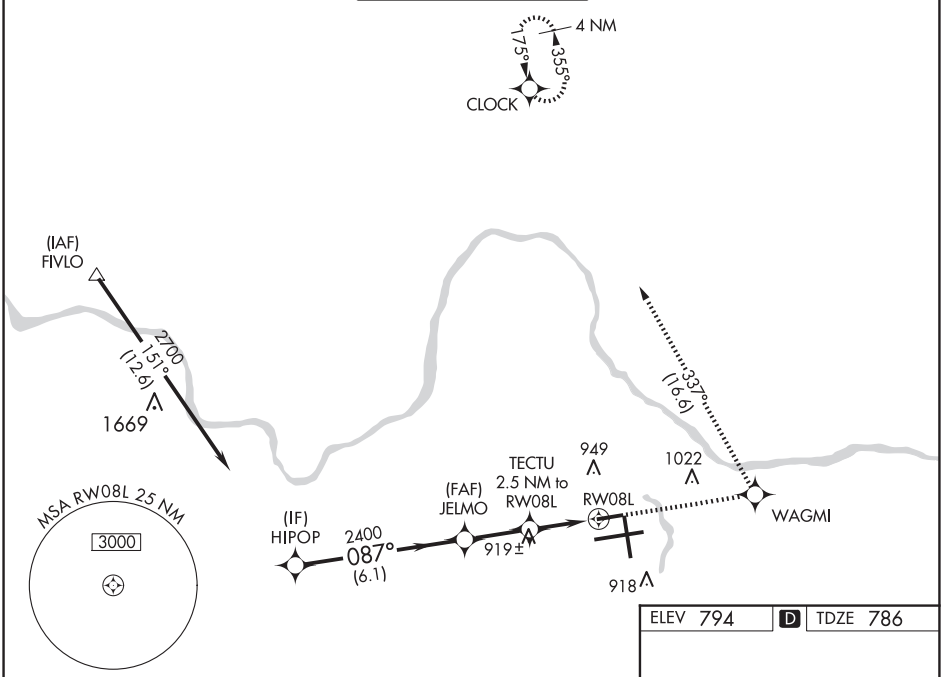
WAAS CH 40213 W08A	APP CRS 087°	Rwy Ldg 5001 TDZE 786 Apt Elev 794

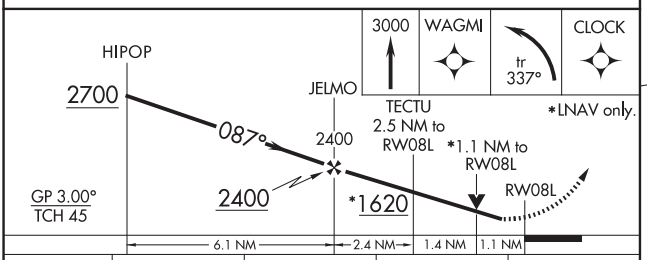
RNP APCH.

Rwy 8L helicopter visibility reduction below ¾ SM NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

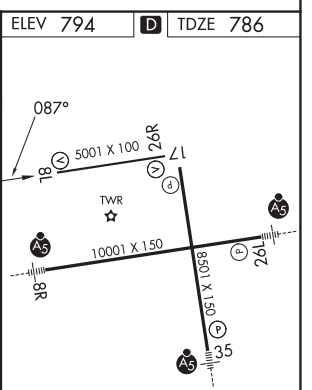
MISSED APPROACH: Climb to 3000 direct WAGMI and left turn on track 337° to CLOCK and hold.

ATIS	GREAT LAKES APP CON ★	GRAND RAPIDS TOWER ★	GND CON	CLNC DEL	UNICOM
118.725	128.4 257.6	135.65 (CTAF) L 339.8	121.8	119.3	122.95





CATEGORY	A	B	C	D
LPV DA	1036-1 250 (300-1)			
LNAV/VNAV DA	1203-1½ 417 (500-1½)			
LNAV MDA	1180-1 394 (400-1)		1180-1⅛ 394 (400-1⅛)	1180-1¼ 394 (400-1¼)
C CIRCLING	1260-1 466 (500-1)		1340-1½ 546 (600-1½)	1360-2 566 (600-2)



MIRL Rwy 8L-26R L
REIL Rwys 8L, 17 and 26R L
HIRL Rwys 8R-26L and 17-35 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 8R

GERALD R FORD INTL (GRR)

WAAS CH 40113 W08B	APP CRS 087°	Rwy Ldg 10001 TDZE 794 Apt Elev 794

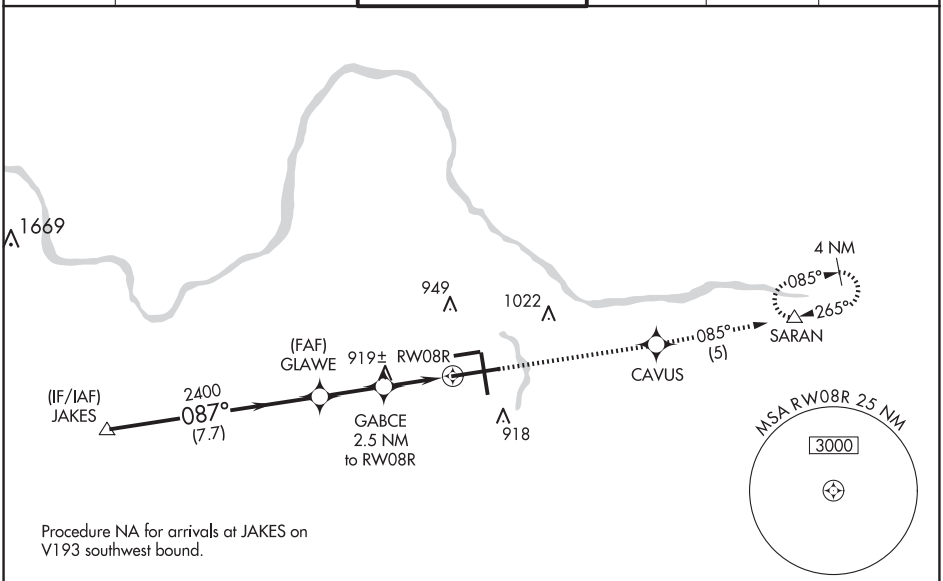
RNP APCH.

T For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 47°C. For inop ALS, increase LNAV Cat D visibility to RVR 6000.
** RVR 1800 authorized with use of FD or AP or HUD to DA.

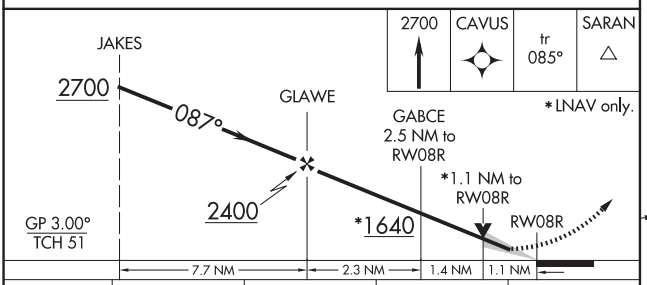
MALSR

MISSED APPROACH: Climb to 2700 direct CAVUS and on track 085° to SARAN and hold.

ATIS	GREAT LAKES APP CON ★	GRAND RAPIDS TOWER★	GND CON	CLNC DEL	UNICOM
118.725	128.4 257.6	135.65 (CTAF) L 339.8	121.8	119.3	122.95

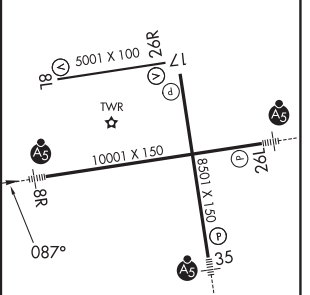


Procedure NA for arrivals at JAKES on V193 southwest bound.



CATEGORY	A	B	C	D
LPV DA **	994/24 200 (200-½)			
LNAV/VNAV DA	1297/50 503 (600-1)			
LNAV MDA	1180/24 386 (400-½)		1180/35 386 (400-⅝)	1180/50 386 (400-1)
C CIRCLING	1260-1 466 (500-1)		1340-1½ 546 (600-1½)	1360-2 566 (600-2)

ELEV 794 D TDZE 794



MIRL Rwy 8L-26R L
REIL Rwys 8L, 17 and 26R L
HIRL Rwys 8R-26L and 17-35 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

GRAND RAPIDS, MICHIGAN | AL-5184 (FAA) | 25163

RNAV (GPS) RWY 17

GERALD R FORD INTL (GRR)

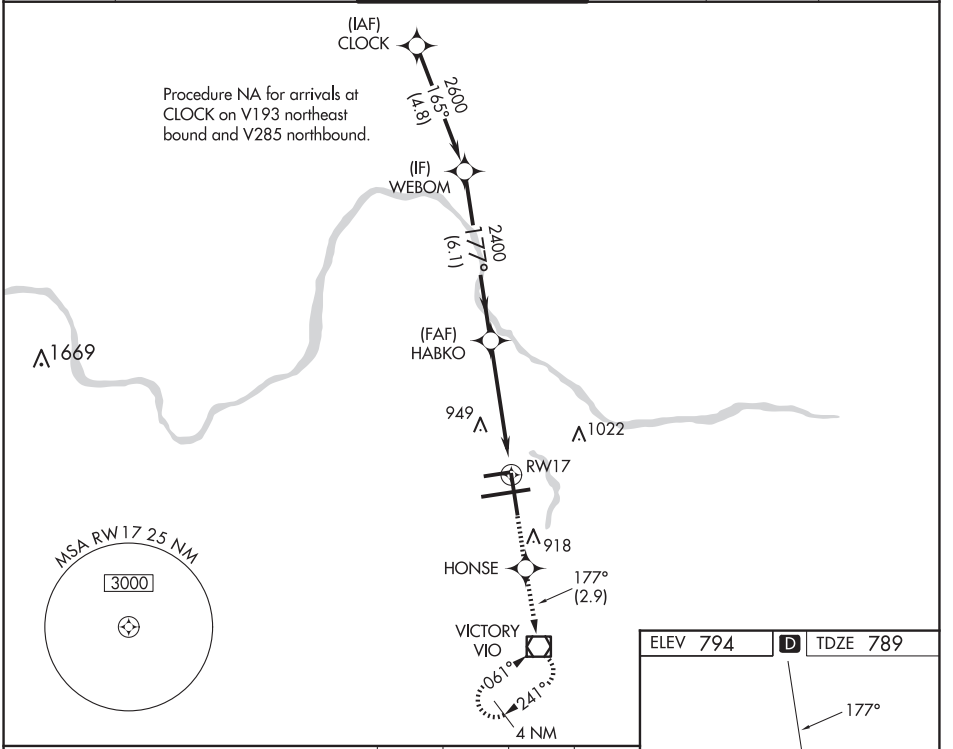
WAAS	APP CRS	Rwy Ldg	8501
CH 93912	177°	TDZE	789
W17A		Apt Elev	794

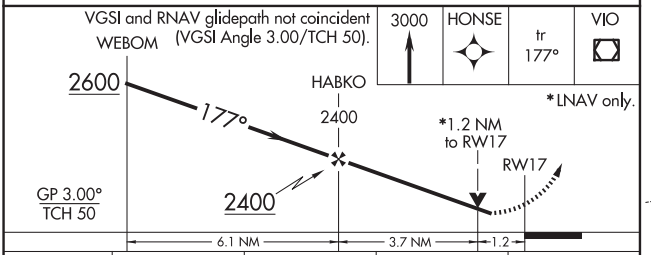
RNP APCH.

T A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. Rwy 17 helicopter visibility reduction below ¾ SM NA.

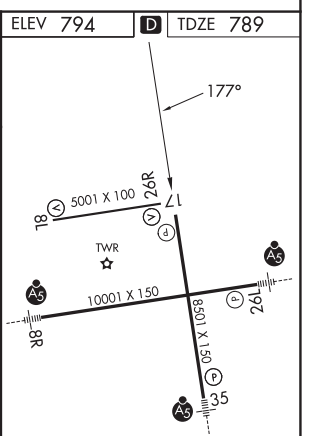
MISSED APPROACH: Climb to 3000 direct HONSE and on track 177° to VIO VOR/DME and hold, continue climb-in-hold to 3000.

ATIS	GREAT LAKES APP CON ★	GRAND RAPIDS TOWER ★	GND CON	CLNC DEL	UNICOM
118.725	128.4 257.6	135.65 (CTAF) L 339.8	121.8	119.3	122.95





CATEGORY	A	B	C	D
LPV DA	1108/50 319 (400-1)			
LNAV/VNAV DA	1259-1¾ 470 (500-1¾)			
LNAV MDA	1200/55 411 (500-1)		1200-1¼ 411 (500-1¼)	
C CIRCLING	1260-1 466 (500-1)		1340-1½ 546 (600-1½)	1360-2 566 (600-2)



MIRL Rwy 8L-26R L
REIL Rwys 8L, 17 and 26R L
HIRL Rwys 8R-26L and 17-35 L

GRAND RAPIDS, MICHIGAN
Amdt 1C 31DEC20

42°53′N-85°31′W

GERALD R FORD INTL (GRR)

RNAV (GPS) RWY 17

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH **86713** **W26B**	APP CRS **267°**	Rwy Ldg **10001** TDZE **790** Apt Elev **794**

RNAV (GPS) RWY 26L

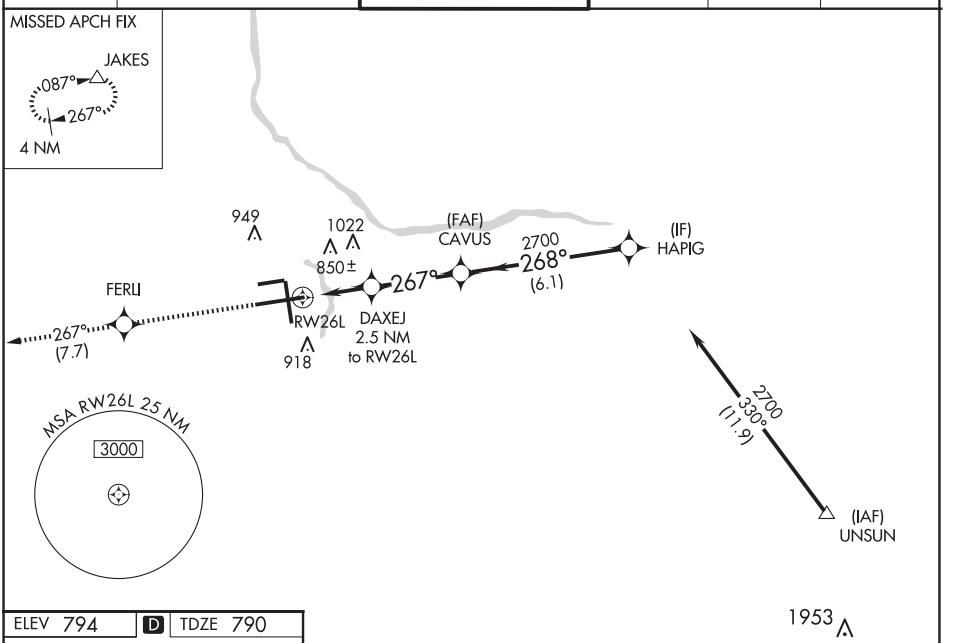
GERALD R FORD INTL (GRR)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inoperative ALS, increase LNAV/VNAV Cat D visibility to RVR 5000.
** RVR 1800 authorized with use of FD or AP or HUD to DA.

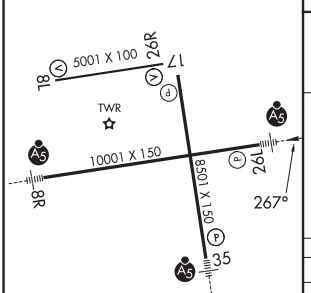
MALSR

MISSED APPROACH: Climb to 2700 direct FERLI and track 267° to JAKES and hold.

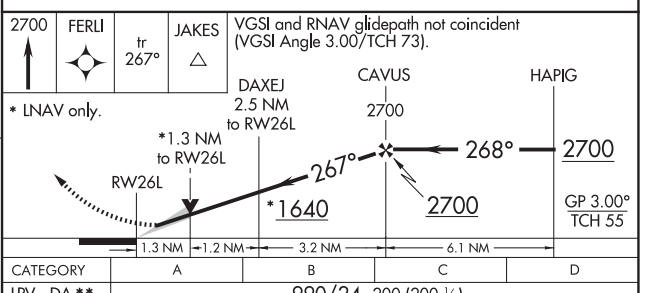
ATIS	GREAT LAKES APP CON ★	GRAND RAPIDS TOWER ★	GND CON	CLNC DEL	UNICOM
118.725	128.4 257.6	135.65 (CTAF) L 339.8	121.8	119.3	122.95



ELEV 794 D TDZE 790



MIRL Rwy 8L-26R L
REIL Rwys 8L, 17 and 26R L
HIRL Rwys 8R-26L and 17-35 L



CATEGORY	A	B	C	D
LPV DA **	990/24 200 (200-½)			
LNAV/ VNAV DA	1114/24 324 (400-½)			1114/40 324 (400-¾)
LNAV MDA	1280/24 490 (500-½)		1280/40 490 (500-¾)	1280/50 490 (500-1)
C CIRCLING	1280-1 486 (500-1)		1340-1½ 546 (600-1½)	1360-2 566 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 26R

GERALD R FORD INTL (GRR)

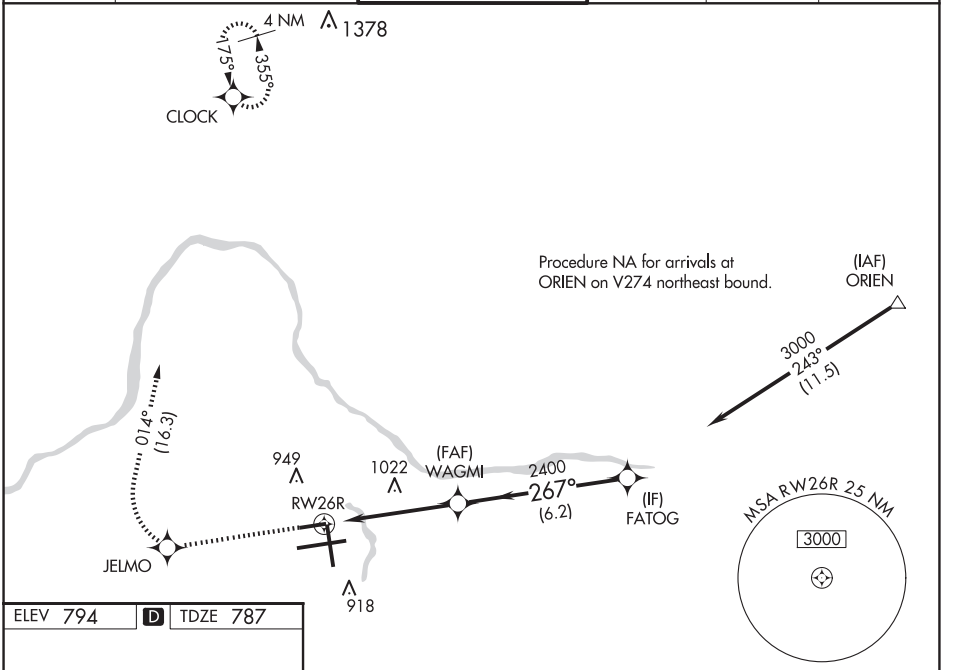
WAAS	APP CRS	Rwy Ldg	5001
CH 82413	267°	TDZE	787
W26A		Apt Elev	794

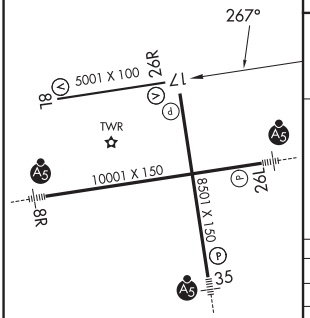
RNP APCH.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 47°C. Rwy 26R helicopter visibility reduction below 1 SM NA.

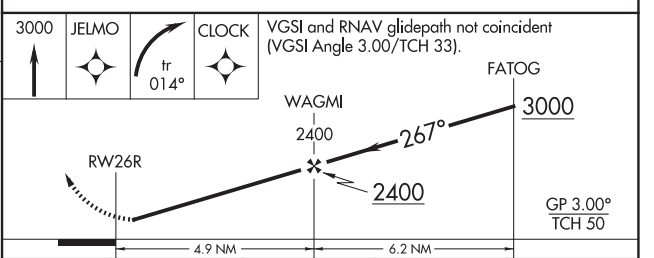
MISSED APPROACH: Climb to 3000 direct JELMO and right turn on track 014° to CLOCK and hold.

ATIS	GREAT LAKES APP CON ★	GRAND RAPIDS TOWER ★	GND CON	CLNC DEL	UNICOM
118.725	128.4 257.6	135.65 (CTAF) L 339.8	121.8	119.3	122.95





MIRL Rwy 8L-26R L
REIL Rwys 8L, 17 and 26R L
HIRL Rwys 8R-26L and 17-35 L



CATEGORY	A	B	C	D
LPV DA	1037-1 250 (300-1)			
LNAV/VNAV DA	1216-1½ 429 (500-1½)			
LNAV MDA	1280-1 493 (500-1)		1280-1⅜ 493 (500-1⅜)	1280-1½ 493 (500-1½)
C CIRCLING	1280-1 486 (500-1)		1340-1½ 546 (600-1½)	1360-2 566 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 35

GERALD R FORD INTL (GRR)

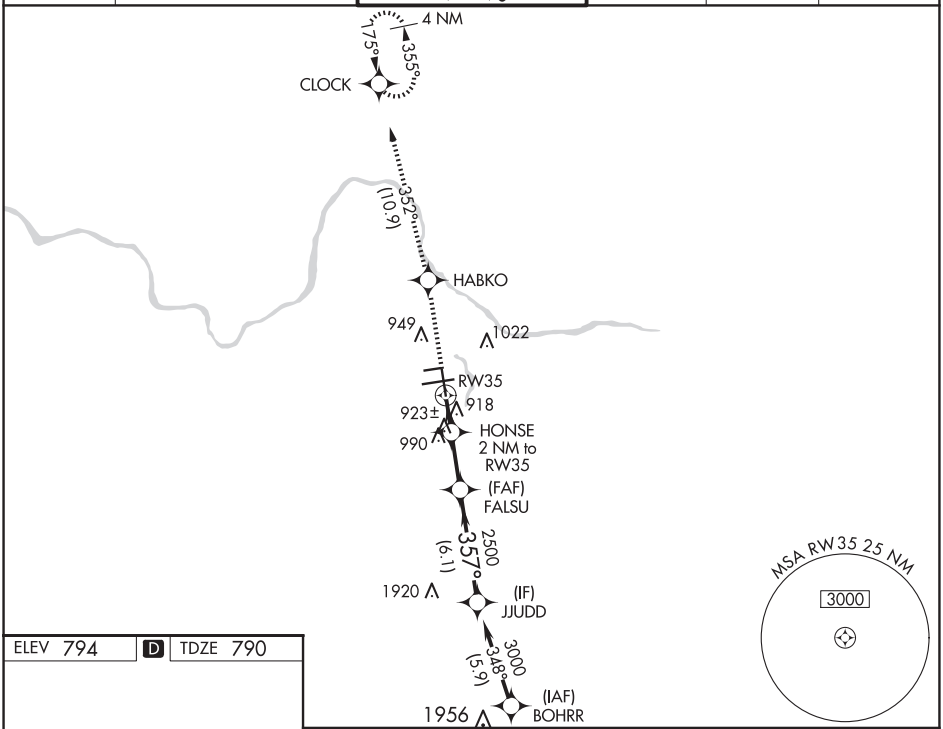
WAAS CH 87112 W35A	APP CRS 357°	Rwy Ldg 8501 TDZE 790 Apt Elev 794

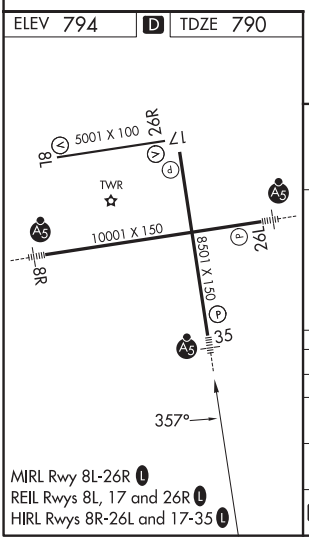
RNP APCH - GPS.
RADAR required for procedure entry.
T A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. For inop ALS, increase LNAV Cat D visibility to RVR 6000.
* RVR 1800 authorized with use of FD or AP or HUD to DA.

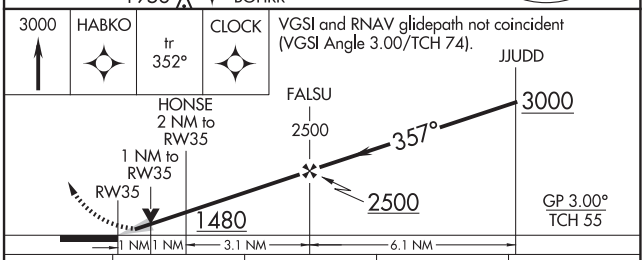
MALSR

MISSED APPROACH: Climb to 3000 direct HABKO and on track 352° to CLOCK and hold.

ATIS	GREAT LAKES APP CON ★	GRAND RAPIDS TOWER ★	GND CON	CLNC DEL	UNICOM
118.725	128.4 257.6	135.65 (CTAF) L 339.8	121.8	119.3	122.95







CATEGORY	A	B	C	D
LPV DA*	990/24 200 (200-½)			
LNAV/VNAV DA	1236/50 446 (500-1)			
LNAV MDA	1180/24 390 (400-½)		1180/35 390 (400-⅝)	1180/50 390 (400-1)
C CIRCLING	1260-1 466 (500-1)		1340-1½ 546 (600-1½)	1360-2 566 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

GRAND RAPIDS, MICHIGAN AL-5184 (FAA) 25163

VOR RWY 17

GERALD R FORD INTL (GRR)

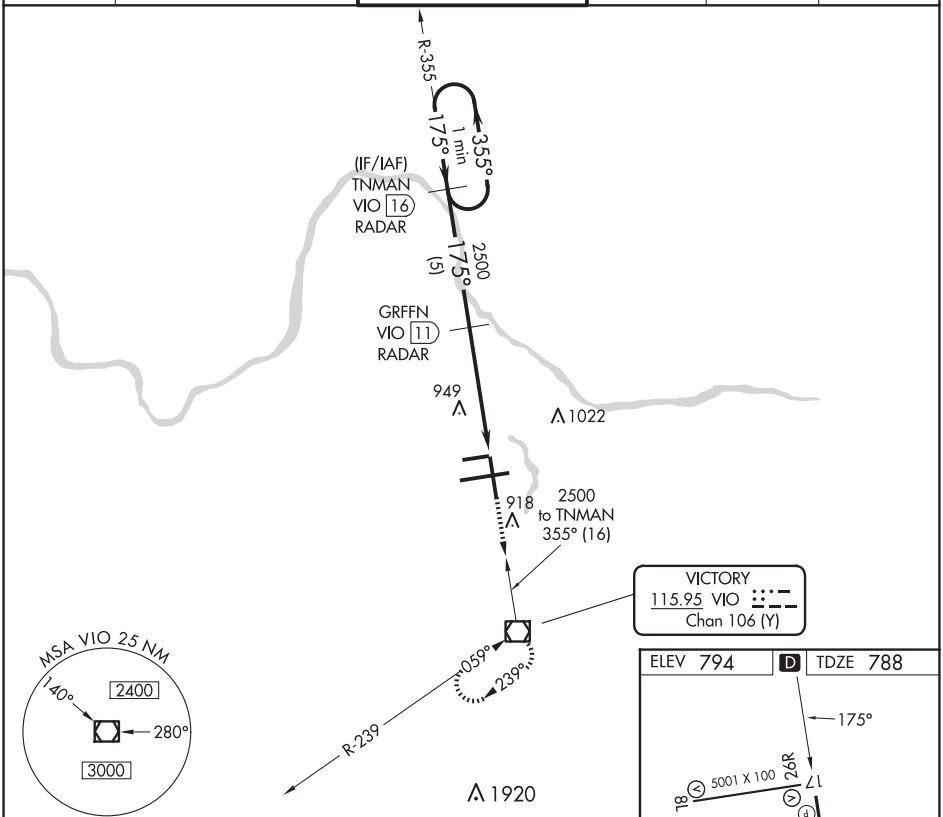
VOR/DME VIO	APP CRS	Rwy Ldg	8501
115.95	175°	TDZE	788
Chan 106 (Y)		Apt Elev	794

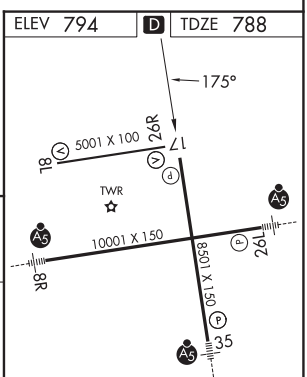
DME or RADAR required.

When local altimeter setting not received, use Holland altimeter setting and increase all MDAs 80 feet and increase S-17 Cat D visibility ¼ SM. Rwy 17 helicopter visibility reduction below ¾ SM NA.

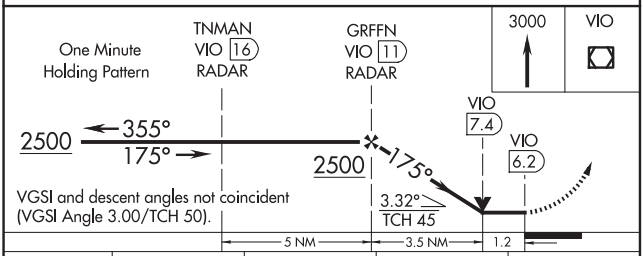
MISSED APPROACH: Climb to 3000 direct VIO VOR/DME and hold.

ATIS	GREAT LAKES APP CON ★		GRAND RAPIDS TOWER ★	GND CON	CLNC DEL	UNICOM
118.725	128.4	257.6	135.65 (CTAF) L 339.8	121.8	119.3	122.95





MIRL Rwy 8L-26R L
REIL Rwys 8L, 26R and 17 L
HIRL Rwys 8R-26L and 17-35 L

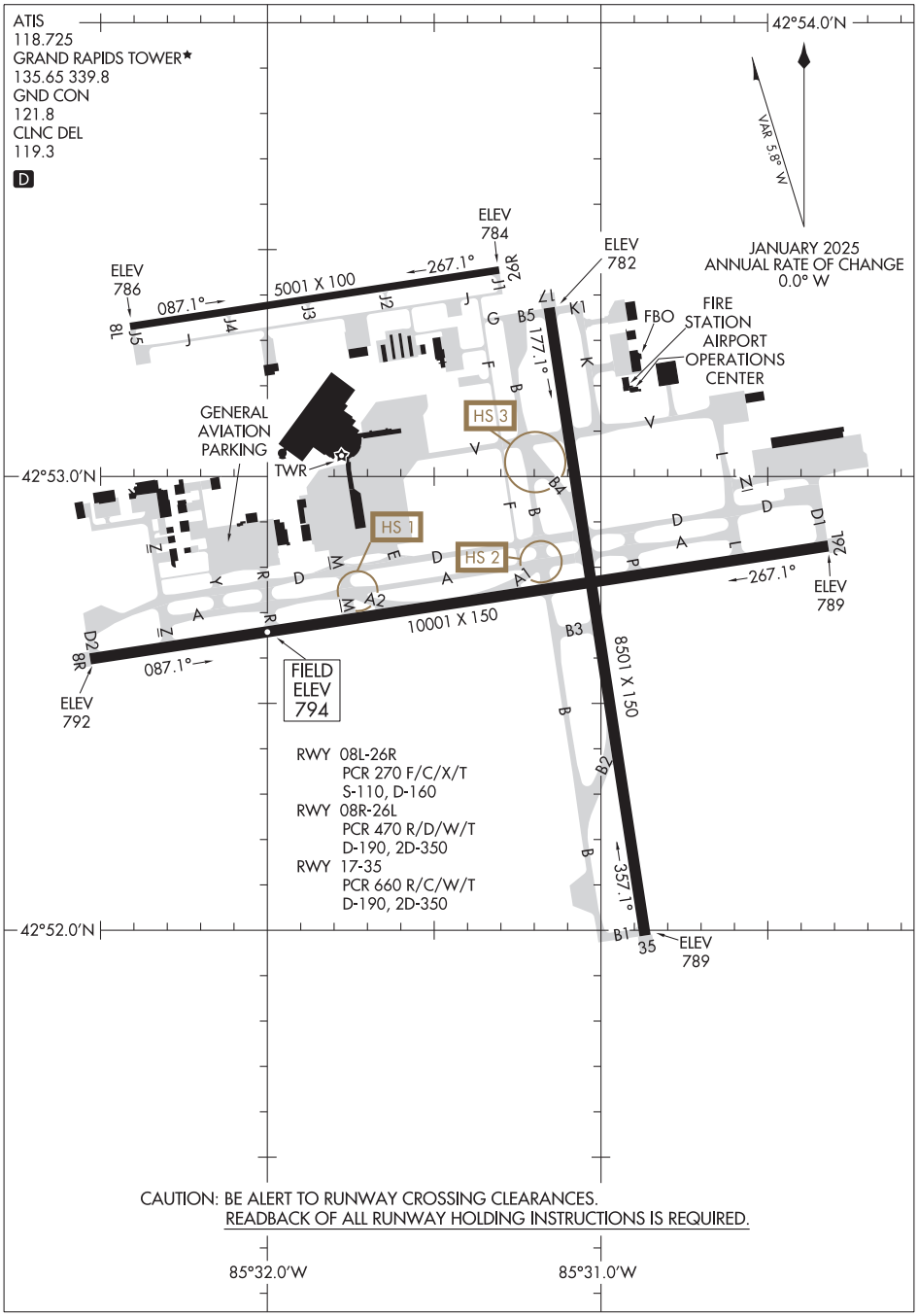


CATEGORY	A	B	C	D
S-17	1200-1	412 (500-1)	1200-1¼	412 (500-1¼)
C CIRCLING	1280-1	486 (500-1)	1340-1½	1360-2
			546 (600-1½)	566 (600-2)

FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

GRAYLING, MICHIGAN | AL-5957 (FAA) | 25219

RNAV (GPS) RWY 14

GRAYLING AAF (GOV)

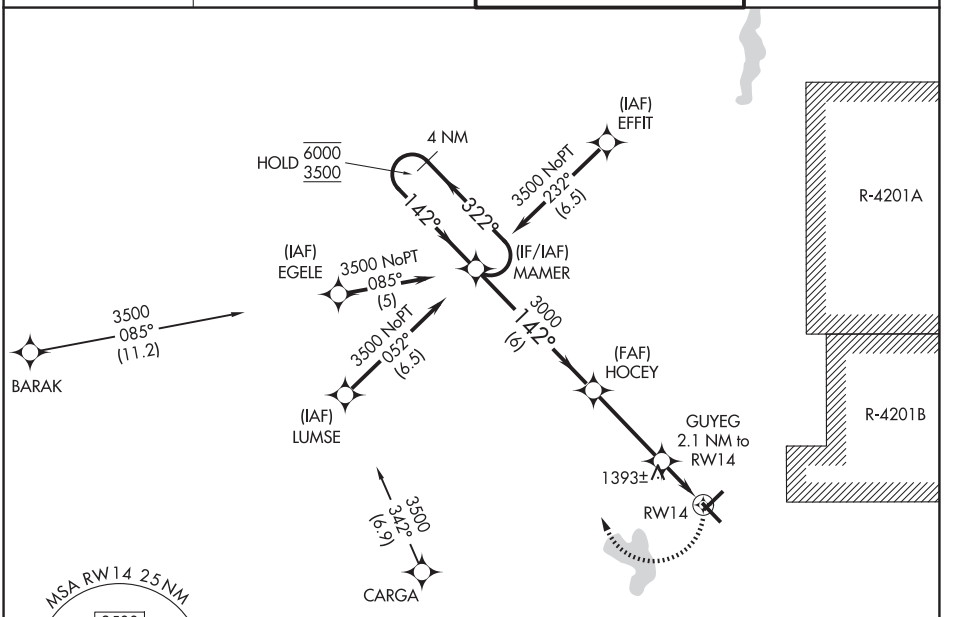
APP CRS	Rwy Ldg	5005
142°	TDZE	1154
	Apt Elev	1158

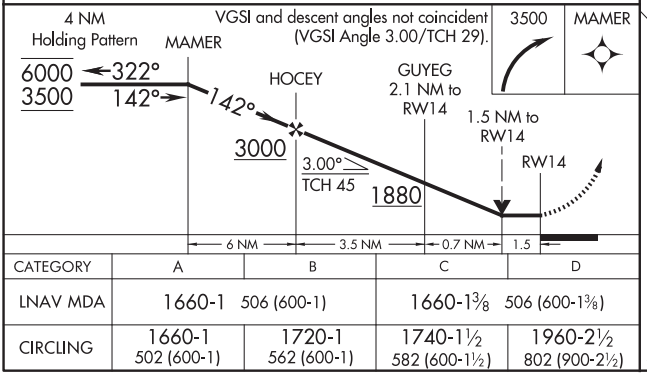
RNP APCH - GPS.

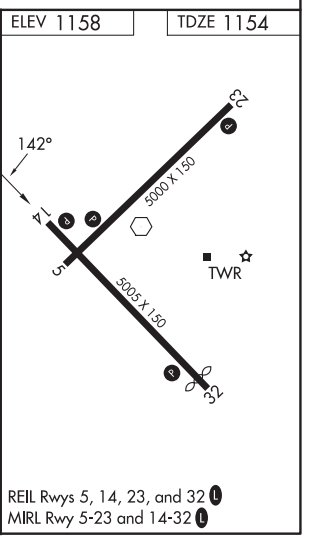
T A VDP NA when using HTL altimeter setting. Circling Rwy 5, 23, 32 NA at night. Rwy 14 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use HTL altimeter setting and increase all MDAs 60 feet and LNAV visibility Cat C and D ¼ SM, and Circling visibility Cat C and D ¼ SM.

MISSED APPROACH: Climbing right turn to 3500 direct MAMER and hold.

ATIS	MINNEAPOLIS CENTER	GRAYLING TOWER ★	GND CON
119.075	125.475 269.45	124.65 (CTAF) L	121.9







CATEGORY	A	B	C	D
LNAV MDA	1660-1	506 (600-1)	1660-1⅜	506 (600-1⅜)
CIRCLING	1660-1 502 (600-1)	1720-1 562 (600-1)	1740-1½ 582 (600-1½)	1960-2½ 802 (900-2½)

REIL Rwys 5, 14, 23, and 32 L
MIRL Rwy 5-23 and 14-32 L

GRAYLING, MICHIGAN
Amdt 1 26DEC24

44°41'N-84°44'W

GRAYLING AAF (GOV)

RNAV (GPS) RWY 14

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

VOR RWY 14

GRAYLING AAF (GOV)

VOR CGG	APP CRS	Rwy Ldg	5005
109.8	128°	TDZE	1154
		Apt Elev	1158

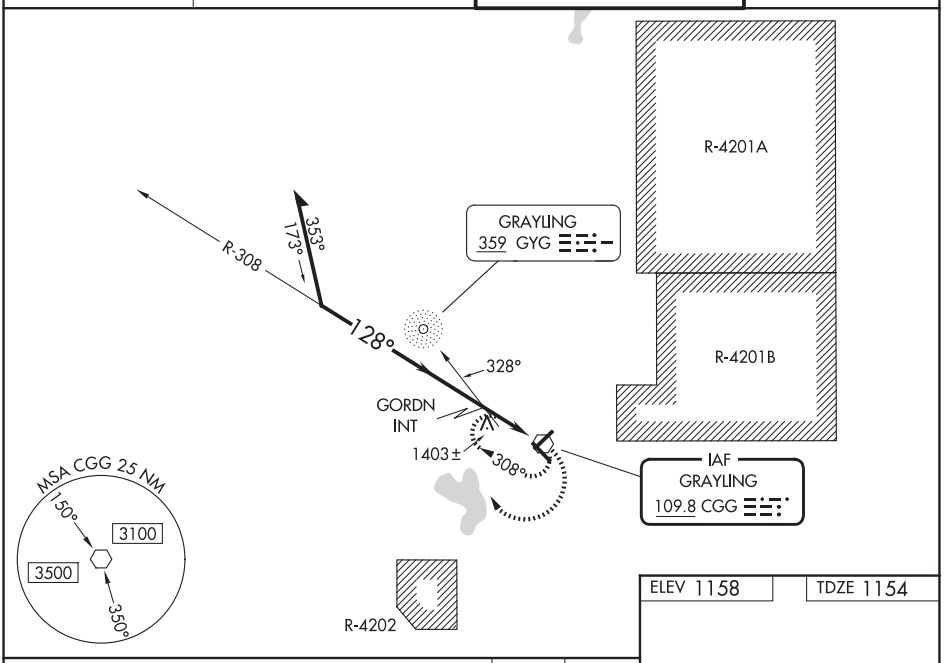
RADAR required for procedure entry.

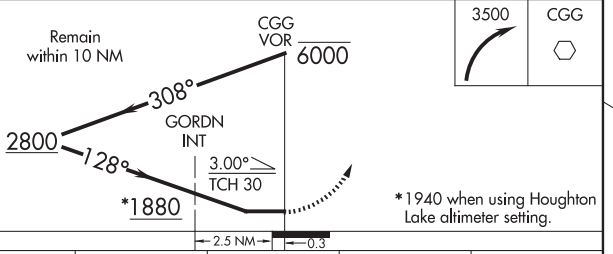
Circling Rwy 5, 23, 32 NA at night. Rwy 14 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Houghton Lake altimeter setting: increase all MDAs 60 feet and S-14 visibility Cat B ¼ SM, Cats C and D ½ SM and Circling Cat B ¼ SM, Cat C ½ SM, Cat D ¼ SM and GORDN fix minimums: S-14 Cats C and D ¼ SM and Circling Cat C and D visibility ¼ SM.

NA

MISSED APPROACH: Climbing right turn to 3500 in CGG VOR holding pattern.

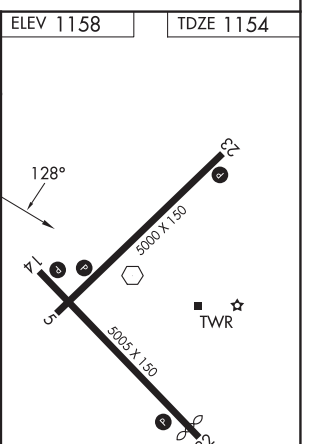
ATIS	MINNEAPOLIS CENTER	GRAYLING TOWER ★	GND CON
119.075	125.475 269.45	124.65 (CTAF) L	121.9





*1940 when using Houghton Lake altimeter setting.

CATEGORY	A	B	C	D
S-14	1880-1	726 (800-1)	1880-2	726 (800-2)
CIRCLING	1880-1	722 (800-1)	1880-2 722 (800-2)	1960-2½ 802 (900-2½)
GORDN FIX MINIMUMS (ADF REQUIRED)				
S-14	1660-1	506 (600-1)	1660-1⅜	506 (600-1⅜)
CIRCLING	1660-1 502 (600-1)	1720-1 562 (600-1)	1800-1¾ 642 (700-1¾)	1960-2½ 802 (900-2½)



REIL Rwys 5, 14, 23, and 32 L
MIRL Rwy 5-23 and 14-32 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

GRAYLING, MICHIGAN AL-5957 (FAA) 25219

NDB GYG 359	APP CRS 142°	Rwy Ldg 5005 TDZE 1154 Apt Elev 1158

NDB RWY 14

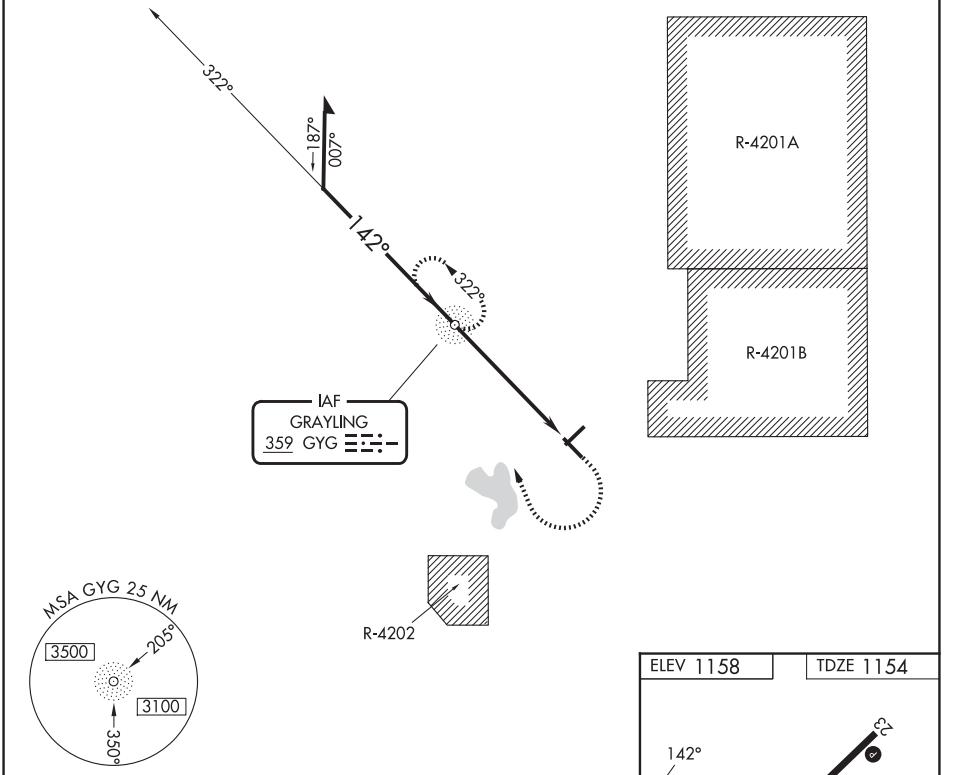
GRAYLING AAF (GOV)

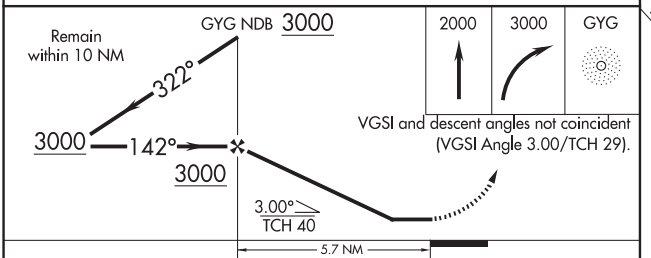
Circling Rwy 5, 23, 32 NA at night. Rwy 14 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use HTL altimeter setting and increase all MDAs 60 feet and S-14 and Circling Cats B/C/D visibilities ½ SM.

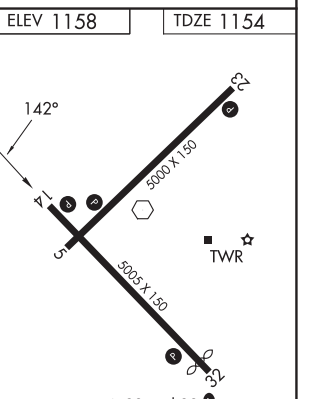
NA

MISSED APPROACH: Climb to 2000 then climbing right turn to 3000 direct GYG NDB and hold.

ATIS	MINNEAPOLIS CENTER	GRAYLING TOWER ★	GND CON
119.075	125.475 269.45	124.65 (CTAF) L	121.9







REIL Rwys 5, 14, 23 and 32 L
MIRL Rwy 5-23 and 14-32 L

CATEGORY	A	B	C	D
S-14	1880-1	726 (800-1)	1880-2	726 (800-2)
CIRCLING	1880-1	722 (800-1)	1880-2 722 (800-2)	1960-2½ 802 (900-2½)

FAF to MAP 5.7 NM					
Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54

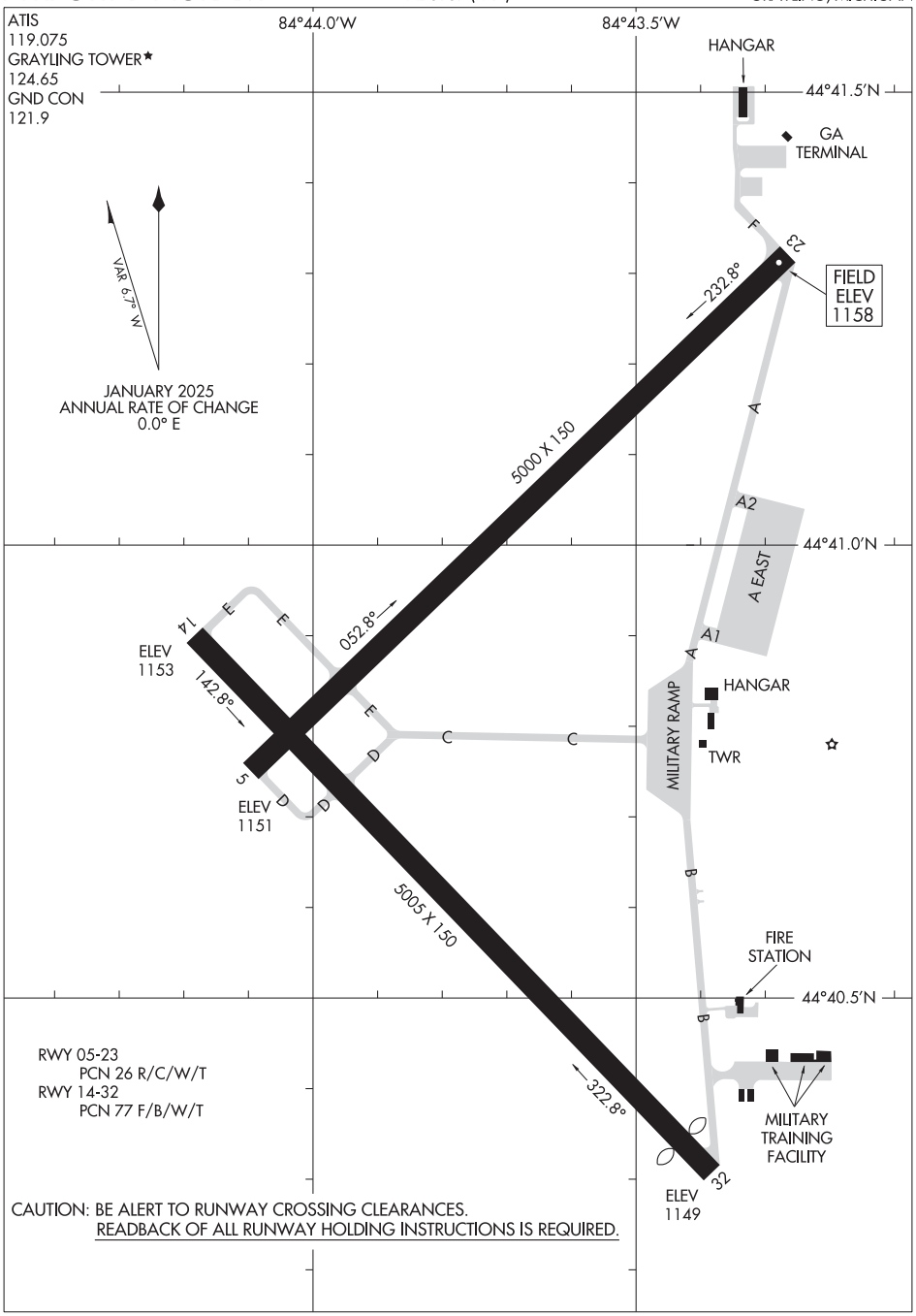
GRAYLING, MICHIGAN
Amdt 9 31OCT24

44°41'N-84°44'W

GRAYLING AAF (GOV)

NDB RWY 14

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025


ATIS
119.075
GRAYLING TOWER★
124.65
GND CON
121.9
84°44.0'W
84°43.5'W
44°41.5'N
44°41.0'N
44°40.5'N
HANGAR
GA TERMINAL
FIELD ELEV 1158
VAR 6.7° W
JANUARY 2025
ANNUAL RATE OF CHANGE
0.0° E
232.8°
23
5000 X 150
A
A2
A EAST
A1
MILITARY RAMP
HANGAR
TWR
052.8°
142.8°
14
ELEV 1153
5
ELEV 1151
5005 X 150
322.8°
32
ELEV 1149
FIRE STATION
MILITARY TRAINING FACILITY
RWY 05-23
PCN 26 R/C/W/T
RWY 14-32
PCN 77 F/B/W/T
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

GREENVILLE, MICHIGAN | AL-6875 (FAA) | 23110

RNAV (GPS) RWY 10

GREENVILLE MUNI (6D6)

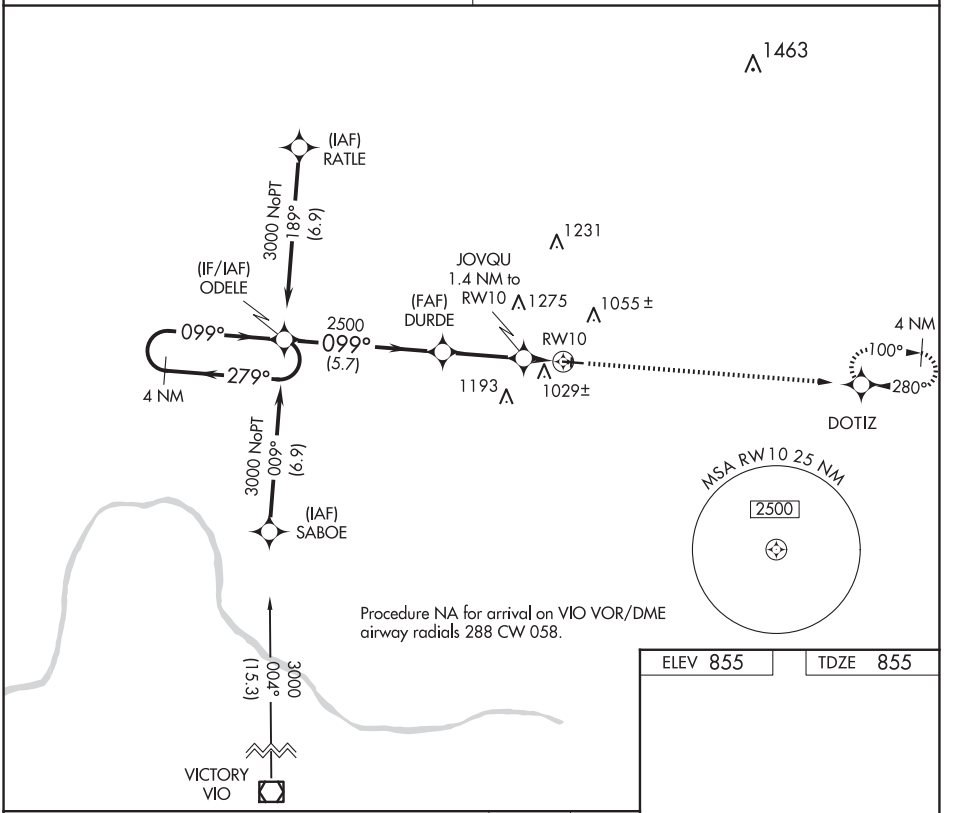
APP CRS	Rwy Idg	4199
099°	TDZE	855
	Apt Elev	855

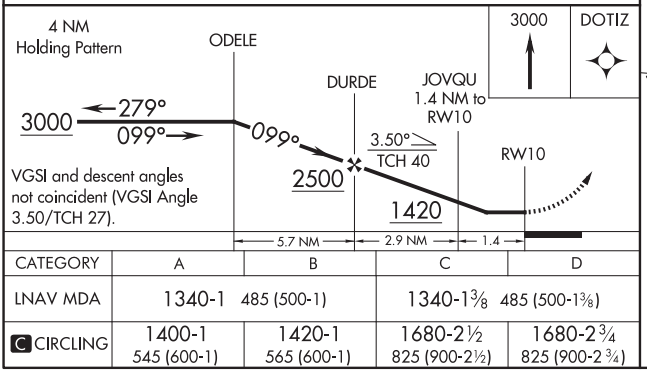
Circling NA to Rwys 18 and 36. Rwy 10 helicopter visibility reduction below 1 SM NA. DME/DME RNP-0.3 NA. Straight-in and Circling Rwy 10 NA at night. Use Grand Rapids altimeter setting; when not received, use Ionia altimeter setting.

MISSED APPROACH: Climb to 3000 direct DOTIZ and hold.

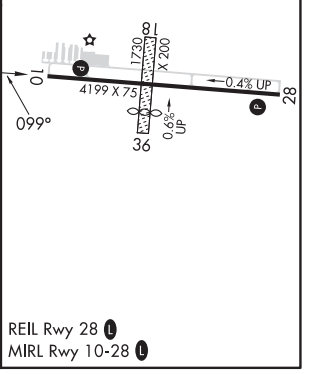
GREAT LAKES APP CON ★ **124.6 257.6**

UNICOM **122.8** (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	1340-1 485 (500-1)		1340-1⅜ 485 (500-1⅜)	
C CIRCLING	1400-1 545 (600-1)	1420-1 565 (600-1)	1680-2½ 825 (900-2½)	1680-2¾ 825 (900-2¾)



REIL Rwy 28 L
MIRL Rwy 10-28 L

GREENVILLE, MICHIGAN
Amdt 1 24MAY18

43°09′N-85°15′W

GREENVILLE MUNI (6D6)

RNAV (GPS) RWY 10

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 28

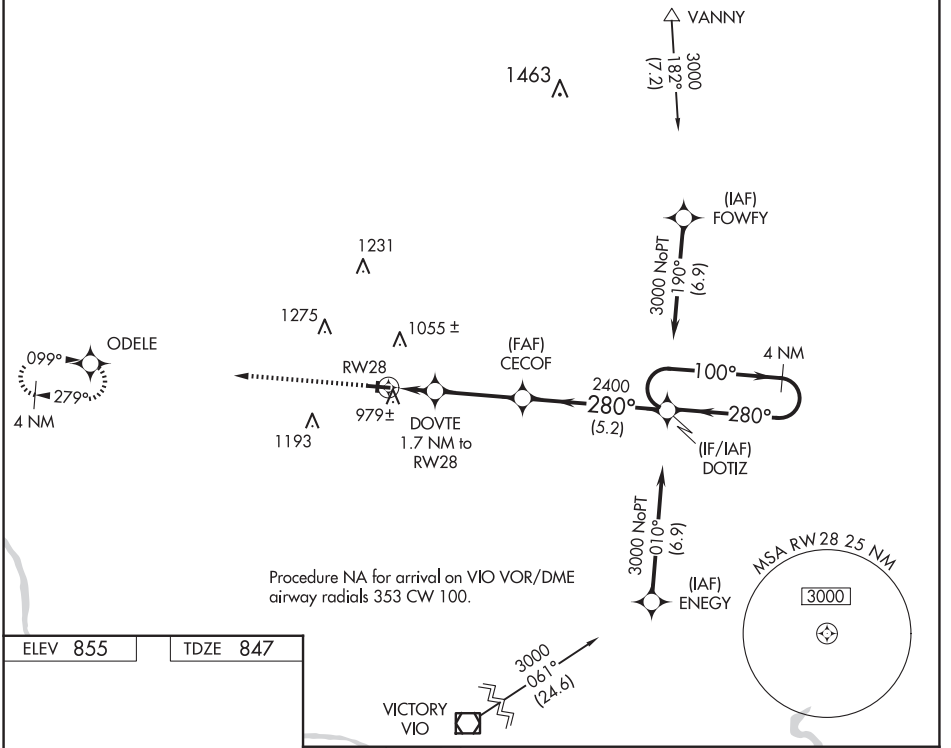
GREENVILLE MUNI (6D6)

APP CRS	Rwy Idg	4199
280°	TDZE	847
	Apt Elev	855

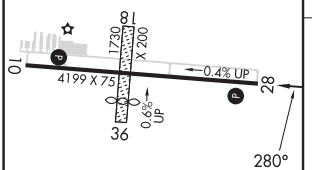
Circling NA to Rwys 18 and 36. DME/DME RNP-0.3 NA. Rwy 28 helicopter visibility reduction below ¾ SM NA. Circling Rwy 10 NA at night. Use Grand Rapids altimeter setting; when not received, use Ionia altimeter setting.

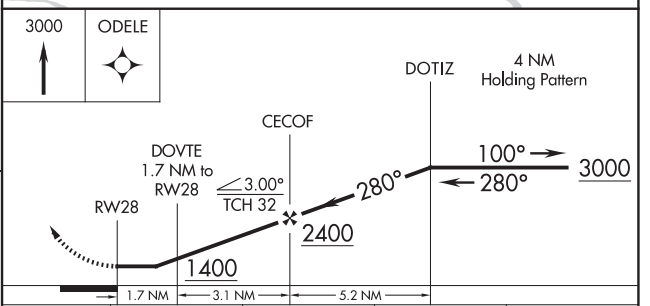
MISSED APPROACH: Climb to 3000 direct ODELE and hold.

GREAT LAKES APP CON ★	UNICOM
124.6 257.6	122.8 (CTAF) L



ELEV 855 TDZ 847





CATEGORY	A	B	C	D
LNAV MDA	1300-1 453 (500-1)		1300-1⅜ 453 (500-1⅜)	
C CIRCLING	1400-1 545 (600-1)	1420-1 565 (600-1)	1680-2½ 825 (900-2½)	1680-2¾ 825 (900-2¾)

REIL Rwy 28 L
MIRL Rwy 10-28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HANCOCK, MICHIGAN | AL-896 (FAA) | 24193

LOC/DME I-CMX	APP CRS	Rwy ldg	6501
110.3	313°	TDZE	1070
Chan 40		Apt Elev	1095

ILS or LOC RWY 32
HOUGHTON COUNTY MEML (CMX)

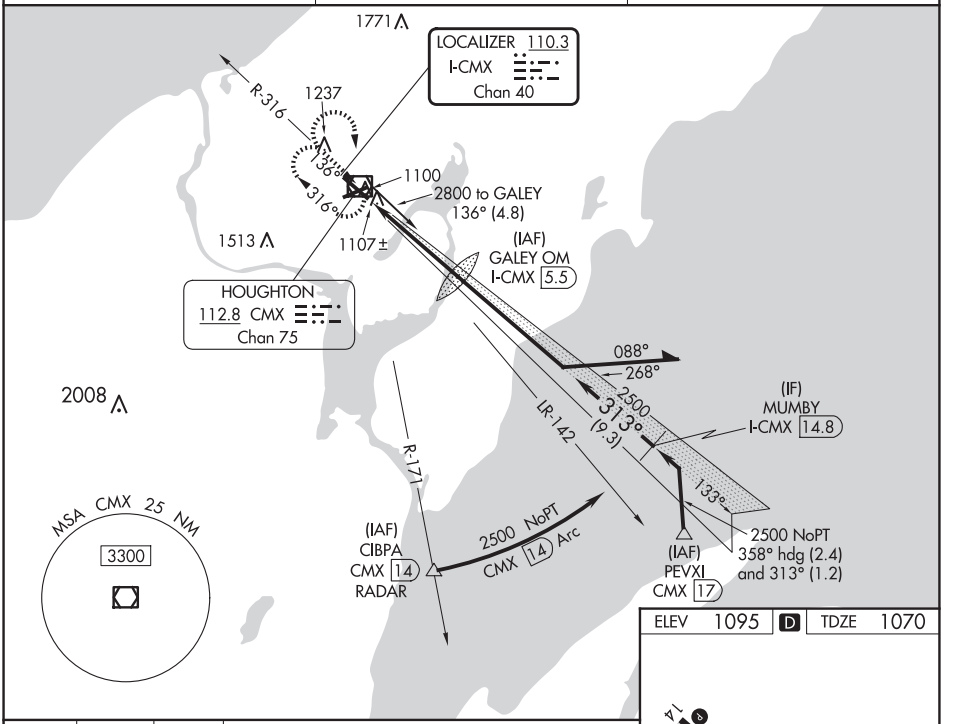
DME required for procedure entry.

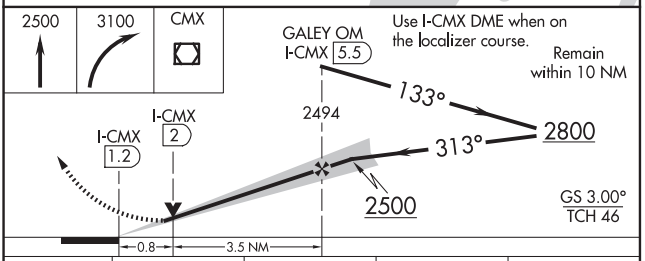
For inop ALS, increase S-LOC 32 Cat C/D visibility to ⅞ SM.

MALSR

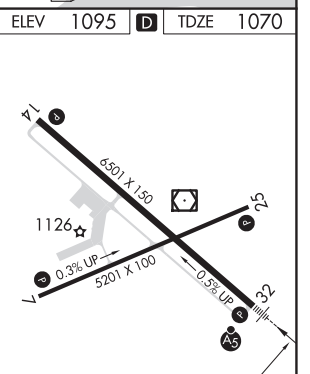
MISSED APPROACH: Climb to 2500 then climbing right turn to 3100 direct CMX VOR/DME and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
125.675	133.55 379.1	122.7 (CTAF) L





CATEGORY	A	B	C	D
S-ILS 32	1270-½	200 (200-½)		
S-LOC 32	1360-½	290 (300-½)		
C CIRCLING	1620-1 525 (600-1)	1660-1 565 (600-1)	1700-1¾ 605 (700-1¾)	1820-2¼ 725 (800-2¼)



MIRL Rwy 7-25 L
HIRL Rwy 14-32 L
REIL Rwy 7, 14, and 25 L

FAF to MAP 4.3 NM

Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26

HANCOCK, MICHIGAN
Amdt 15C 30NOV23

47°10′N-88°29′W

HOUGHTON COUNTY MEML (CMX)
ILS or LOC RWY 32

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	5201
CH 58233	069°	TDZE	1067
W07A		Apt Elev	1095

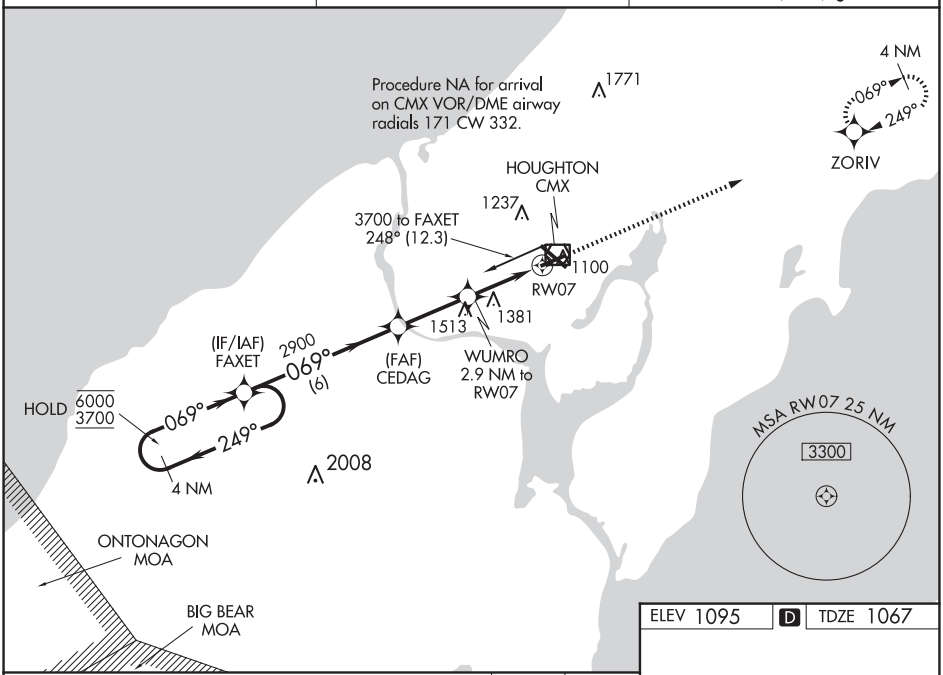
RNAV (GPS) RWY 7
HOUGHTON COUNTY MEML (CMX)

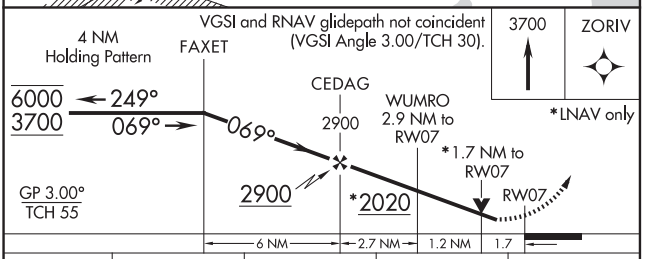
RNP APCH.

T A Rwy 7 helicopter visibility reduction below ¾ SM NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C or above 54°C.

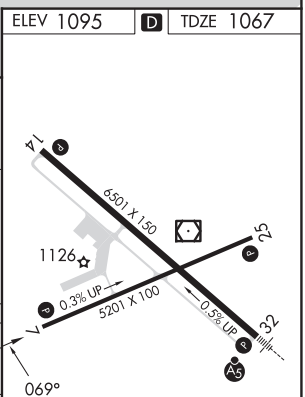
MISSED APPROACH: Climb to 3700 direct ZORIV and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
125.675	133.55 379.1	122.7 (CTAF) L





CATEGORY	A	B	C	D
LPV DA	1431-1	364 (400-1)		
LNAV/VNAV DA	1598-1½	531 (600-1½)		
LNAV MDA	1640-1 573 (600-1)		1640-1⅝ 573 (600-1⅝)	
C CIRCLING	1640-1 545 (600-1)		1700-1¾ 605 (700-1¾)	1820-2¼ 725 (800-2¼)



MIRL Rwy 7-25 L
REIL Rwys 7, 13 and 25 L
HIRL Rwy 13-31 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HANCOCK, MICHIGAN | AL-896 (FAA) | 24249

RNAV (GPS) RWY 14
HOUGHTON COUNTY MEML (CMX)

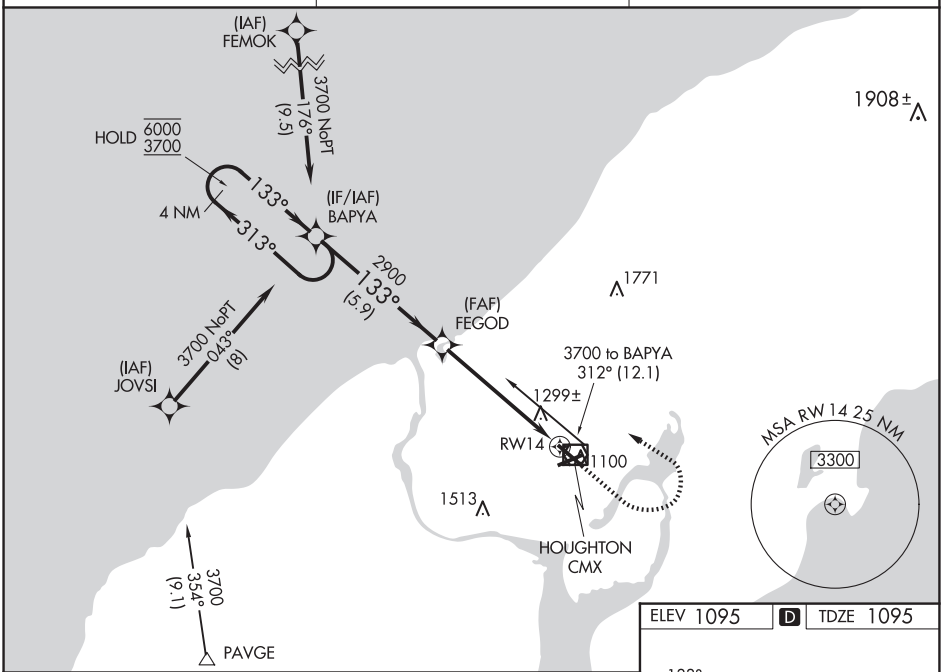
WAAS CH 93533 W14A	APP CRS 133°	Rwy Idg 6501	TDZE 1095	Apt Elev 1095

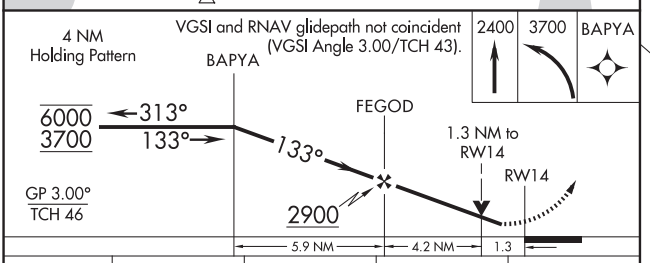
RNP APCH - GPS.

T A Rwy 14 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -21°C or above 54°C.

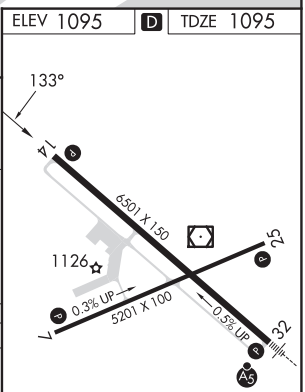
MISSED APPROACH: Climb to 2400 then climbing left turn to 3700 direct BAPYA and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
125.675	133.55 379.1	122.7 (CTAF) L





CATEGORY	A	B	C	D
LPV DA	1414-⅞ 319 (400-⅞)			
LNAV/VNAV DA	1626-1½ 531 (600-1½)			
LNAV MDA	1560-1 465 (500-1)		1560-1⅜ 465 (500-1⅜)	
C CIRCLING	1620-1 525 (600-1)	1660-1 565 (600-1)	1700-1¾ 605 (700-1¾)	1820-2¼ 725 (800-2¼)



MIRL Rwy 7-25 L
REIL Rwys 7, 14 and 25 L
HIRL Rwy 14-32 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 86634 W25A | APP CRS 249° | Rwy Idg 5201 | TDZE 1075 | Apt Elev 1095

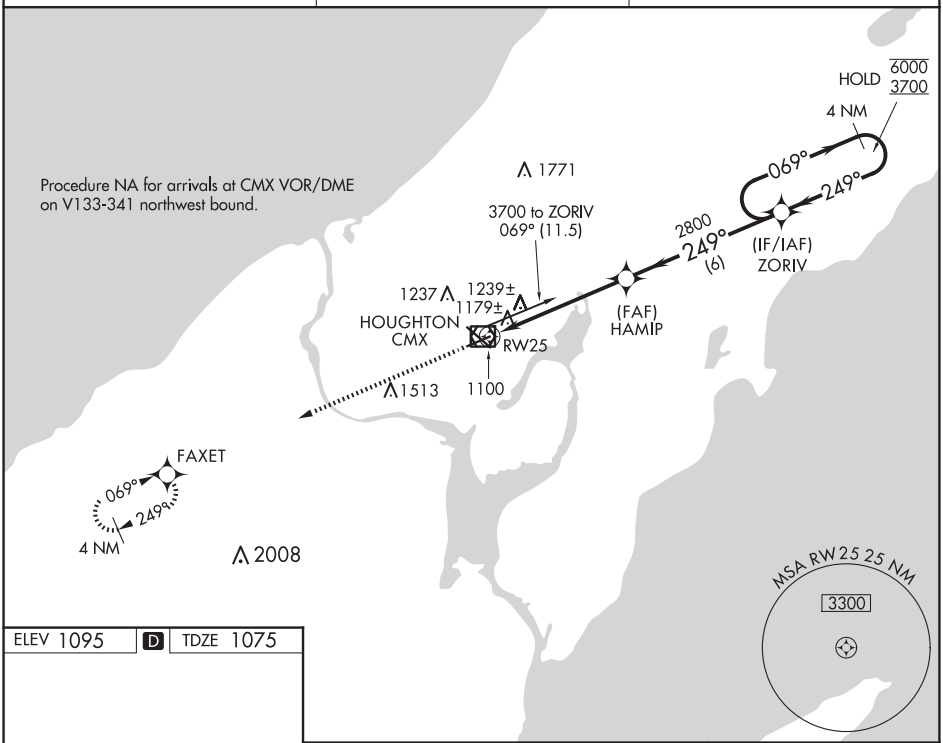
RNAV (GPS) RWY 25
HOUGHTON COUNTY MEML (CMX)

RNP APCH.

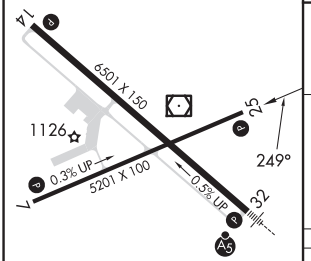
Rwy 25 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 3700 direct FAXET and hold.

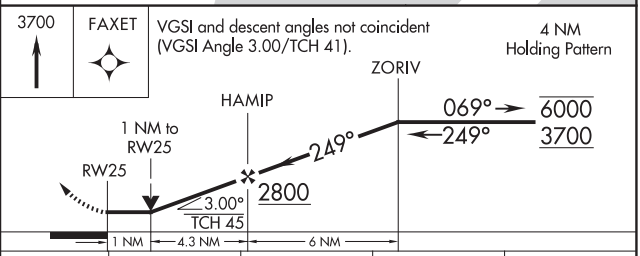
ASOS	MINNEAPOLIS CENTER	UNICOM
125.675	133.55 379.1	122.7 (CTAF) L



ELEV 1095 | D | TDZE 1075



MIRL Rwy 7-25 L
REIL Rwys 7, 14 and 25 L
HIRL Rwy 14-32 L



CATEGORY	A	B	C	D
LP MDA	1440-1 365 (400-1)			
LNAV MDA	1500-1 425 (500-1)		1500-1¼ 425 (500-1¼)	
C CIRCLING	1620-1 525 (600-1)	1660-1 565 (600-1)	1700-1¾ 605 (700-1¾)	1820-2¼ 725 (800-2¼)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HANCOCK, MICHIGAN | AL-896 (FAA) | 24193

WAAS	APP CRS	Rwy Idg	6501
CH 45809	313°	TDZE	1070
W32A		Apt Elev	1095

RNAV (GPS) RWY 32
HOUGHTON COUNTY MEML (CMX)

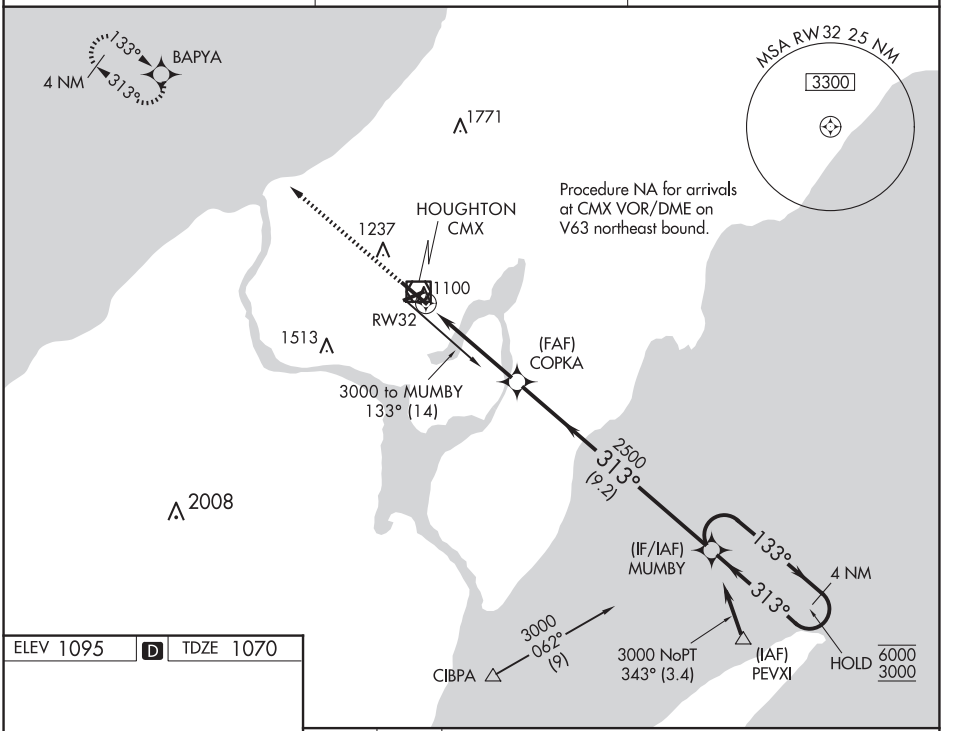
RNP APCH - GPS.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats visibility to ⅞ SM, increase LNAV Cats C/D visibility to 1 SM.

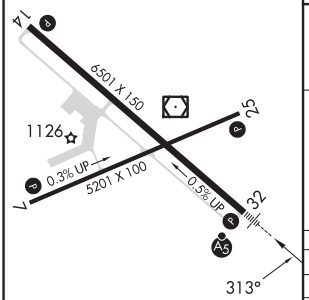
MALSR

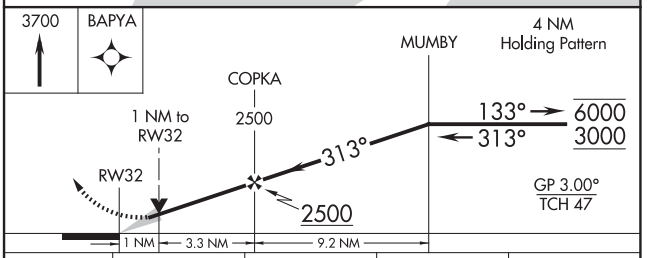
MISSED APPROACH: Climb to 3700 direct BAPYA and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
125.675	133.55 379.1	122.7 (CTAF) L



ELEV 1095 | D | TDZE 1070





CATEGORY	A	B	C	D
LPV DA	1320-½ 250 (300-½)			
LNAV/VNAV DA	1367-½ 297 (300-½)			
LNAV MDA	1420-½ 350 (400-½)		1420-⅝ 350 (400-⅝)	
C CIRCLING	1620-1 525 (600-1)	1660-1 565 (600-1)	1700-1¾ 605 (700-1¾)	1820-2¼ 725 (800-2¼)

HIRL Rwy 14-32 L
MIRL Rwy 7-25 L
REIL Rwys 7,14 and 25 L

HANCOCK, MICHIGAN
Orig-C 30NOV23

47°10′N-88°29′W

HOUGHTON COUNTY MEML (CMX)
RNAV (GPS) RWY 32

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LOC/DME I-CMX	APP CRS	Rwy Idg	6501
110.3	133°	TDZE	1095
Chan 40		Apt Elev	1095

LOC BC RWY 14

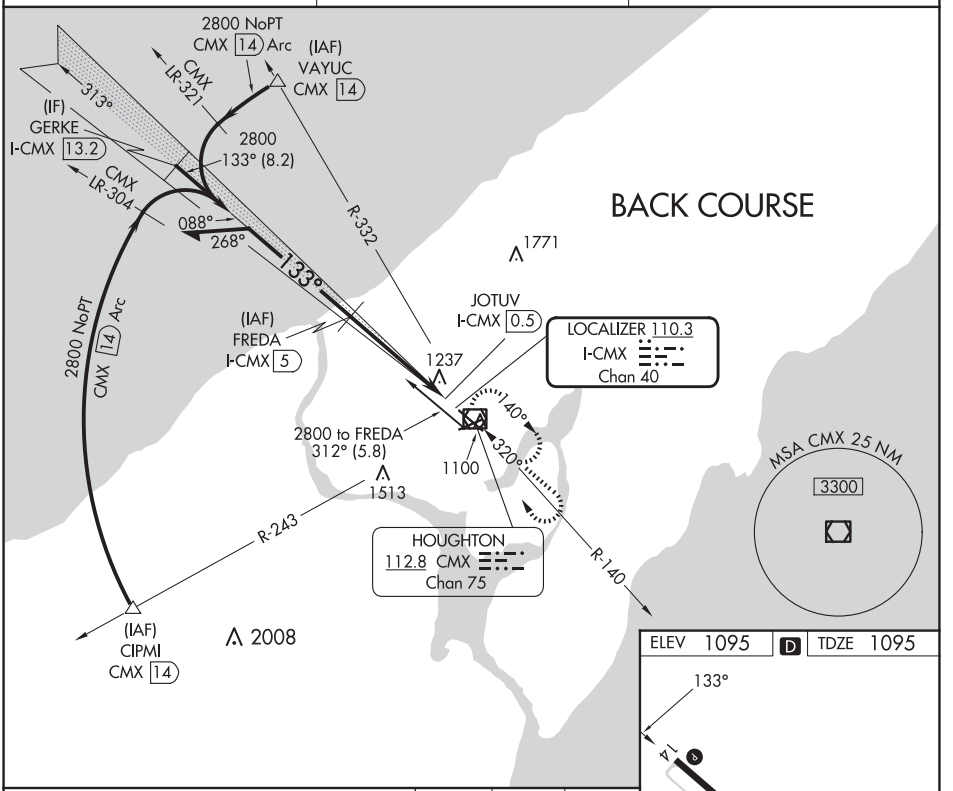
HOUGHTON COUNTY MEML (CMX)

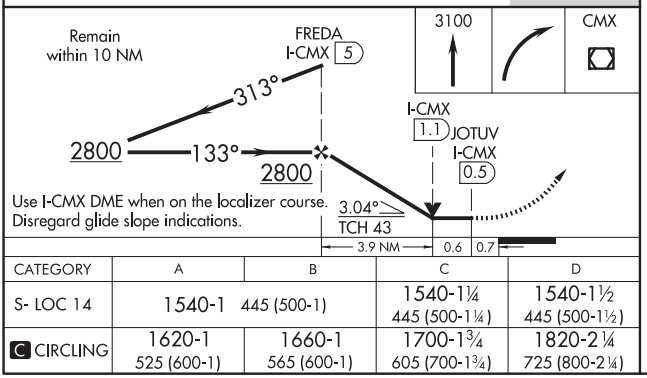
DME required.

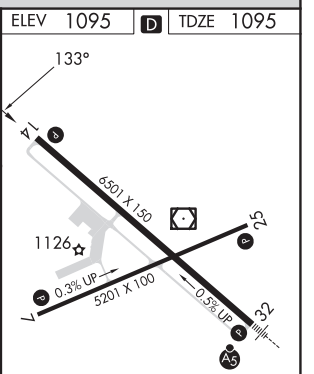
T A Rwy 14 helicopter visibility reduction below ¾ SM NA. Activate MIRLs Rwy 7-25 - CTAF.

MISSED APPROACH: Climb to 3100 then right turn direct CMX VOR/DME and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
125.675	133.55 379.1	122.7 (CTAF) L







CATEGORY	A	B	C	D
S- LOC 14	1540-1 445 (500-1)		1540-1¼ 445 (500-1¼)	1540-1½ 445 (500-1½)
C CIRCLING	1620-1 525 (600-1)	1660-1 565 (600-1)	1700-1¾ 605 (700-1¾)	1820-2¼ 725 (800-2¼)

MIRL Rwy 7-25 L
REIL Rwys 7, 14 and 25 L
HIRL Rwy 14-32 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HANCOCK, MICHIGAN | AL-896 (FAA) | 24193

VOR/DME CMX	APP CRS	Rwy Idg	5201
112.8	260°	TDZE	1075
Chan 75		Apt Elev	1095

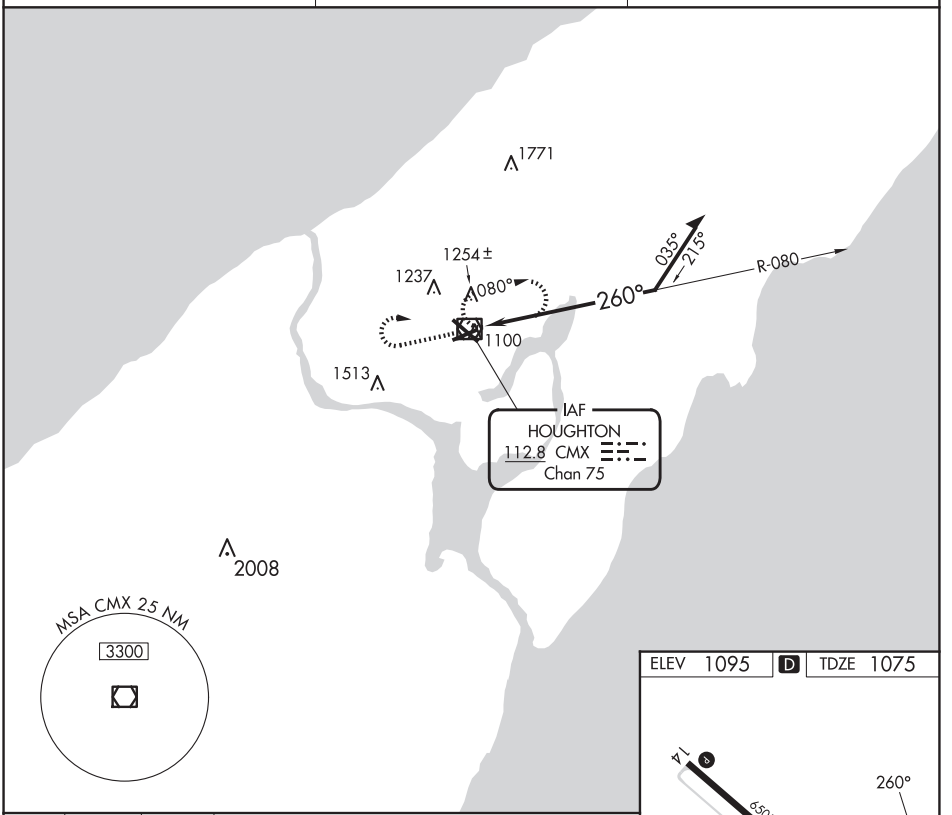
VOR RWY 25

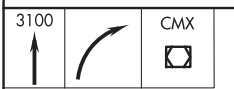
HOUGHTON COUNTY MEML (CMX)

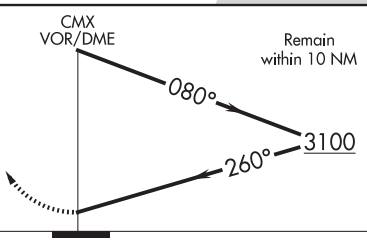
Rwy 25 helicopter visibility reduction below ¾ SM NA.

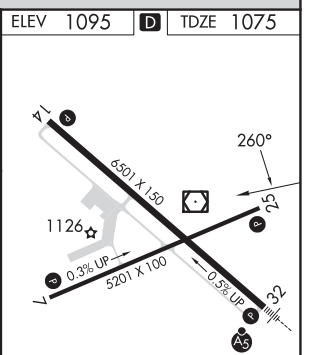
MISSED APPROACH: Climb to 3100 then right turn direct CMX VOR/DME and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
125.675	133.55 379.1	122.7 (CTAF) L









CATEGORY	A	B	C	D
S-25	1620-1 545 (600-1)		1620-1⅝ 545 (600-1⅝)	1620 1¾ 545 (600-1¾)
C CIRCLING	1620-1 525 (600-1)	1660-1 565 (600-1)	1700-1¾ 605 (700-1¾)	1820-2¼ 725 (800-2¼)

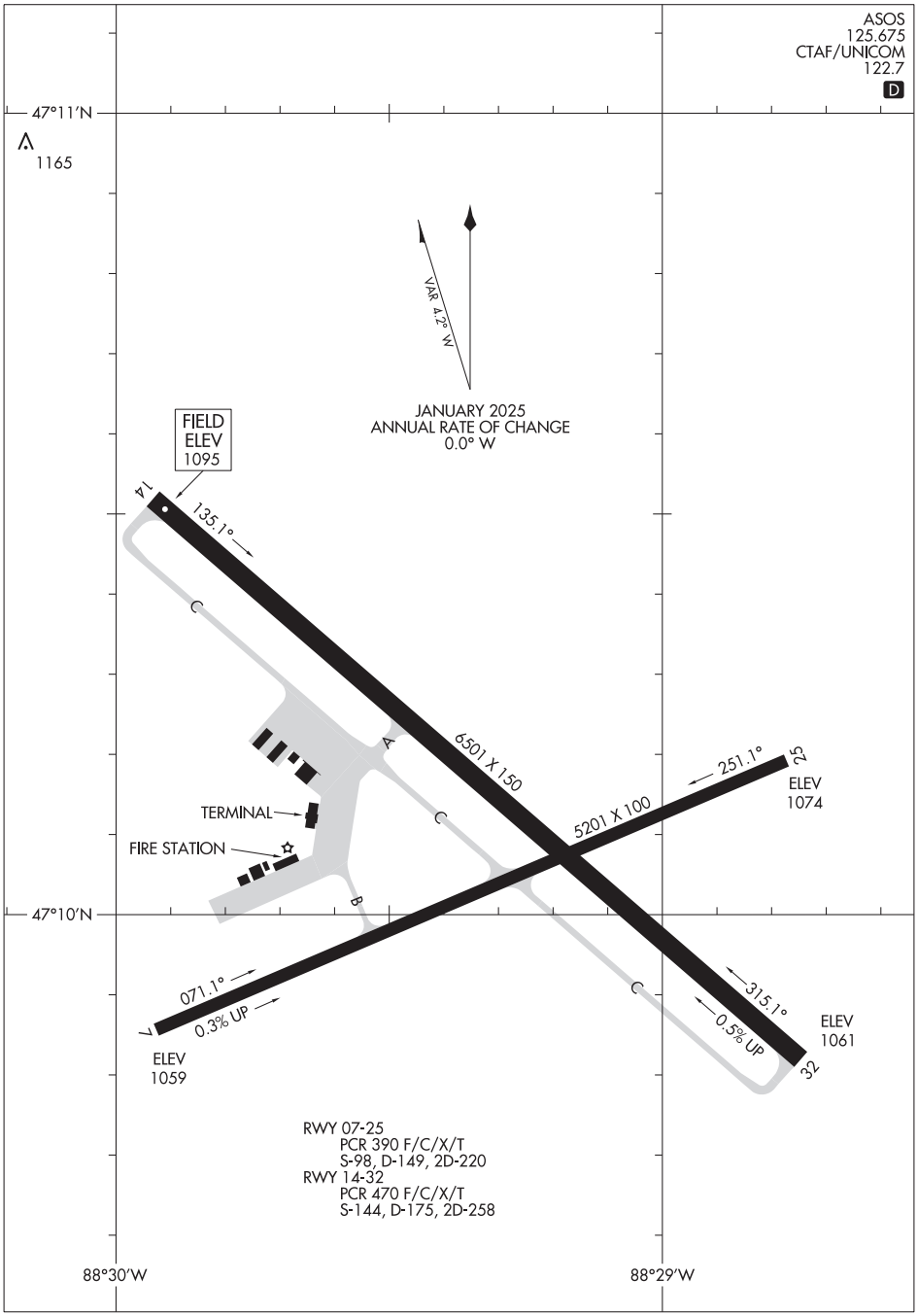
MIRL Rwy 7-25 L
REIL Rwys 7, 14 and 25 L
HIRL Rwy 14-32 L

HANCOCK, MICHIGAN
Amdt 17E 30NOV23

47°10′N-88°29′W

HOUGHTON COUNTY MEML (CMX)
VOR RWY 25

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025



EC-1, 07 AUG 2025 to 02 OCT 2025

HARBOR SPRINGS, MICHIGAN | AL-6985 (FAA) | 23166

RNAV (GPS) RWY 10

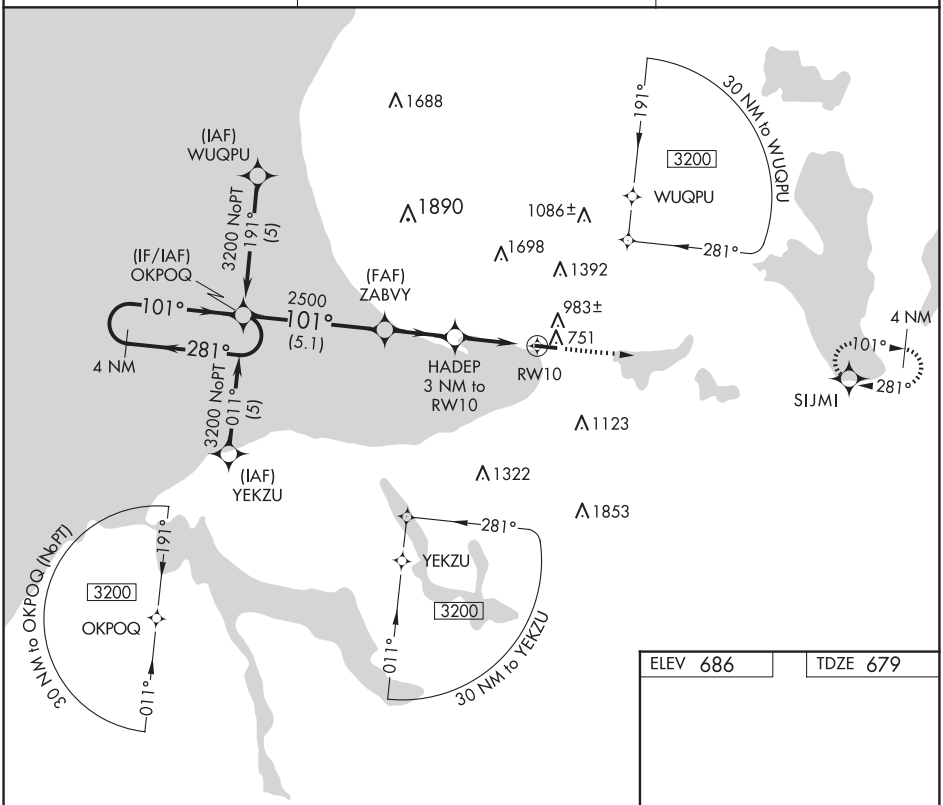
HARBOR SPRINGS (MGN)

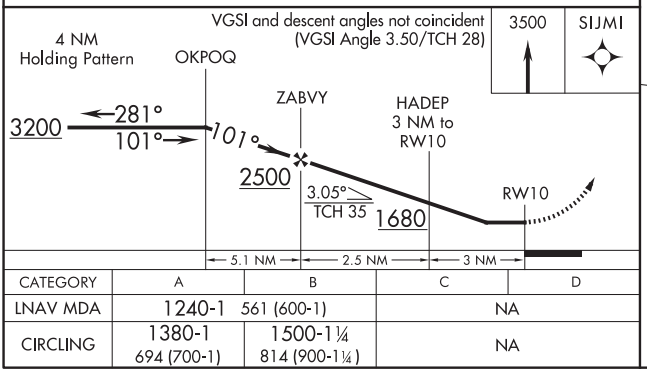
APP CRS	Rwy Idg	TDZE	Apt Elev
101°	3712	679	686

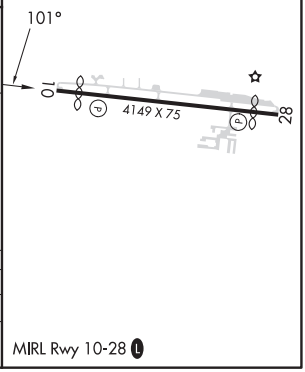
T A DME/DME RNP-0.3 NA. When local altimeter setting not received, use Pellston altimeter setting and increase all MDAs 40 feet. Procedure NA at night. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 3500 direct SIJMI and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
119.925	134.6 354.05	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1240-1	561 (600-1)	NA	
CIRCLING	1380-1 694 (700-1)	1500-1¼ 814 (900-1¼)	NA	

MIRL Rwy 10-28 L

HARBOR SPRINGS, MICHIGAN
Amdt 1A 28APR16

45°26′N - 84°55′W

HARBOR SPRINGS (MGN)
RNAV (GPS) RWY 10

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

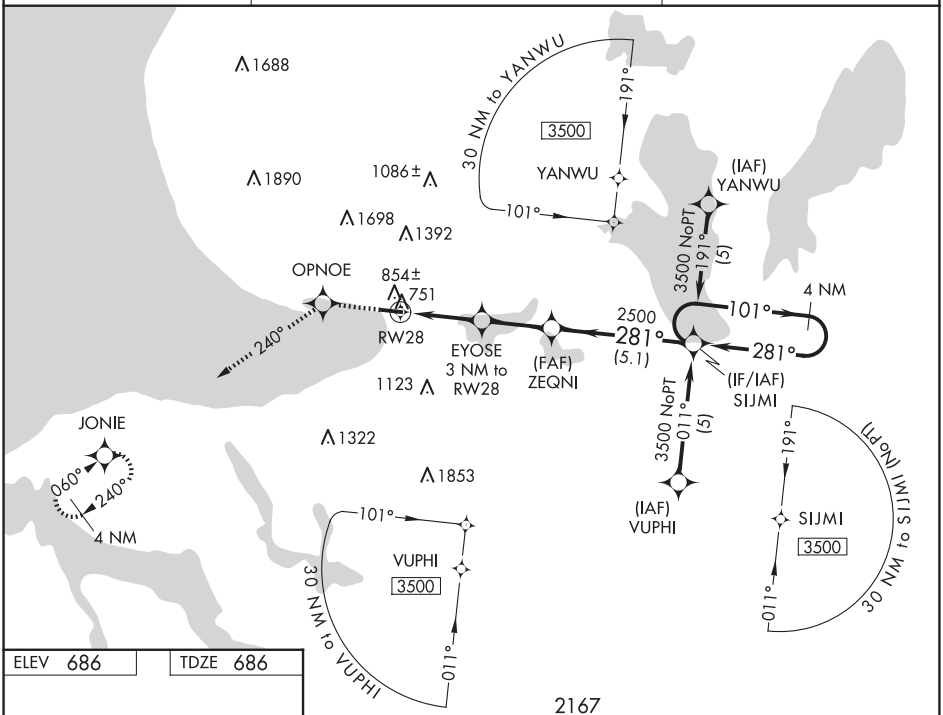
APP CRS	Rwy Idg	3705
281°	TDZE	686
	Apt Elev	686

RNAV (GPS) RWY 28
HARBOR SPRINGS (MGN)

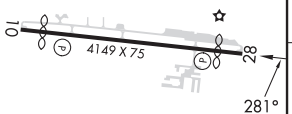
DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Pellston altimeter setting and increase all MDAs 40 feet. Procedure NA at night.

MISSED APPROACH: Climb to 3400 direct OPNOE and via 240° track to JONIE and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
119.925	134.6 354.05	122.8 (CTAF) L

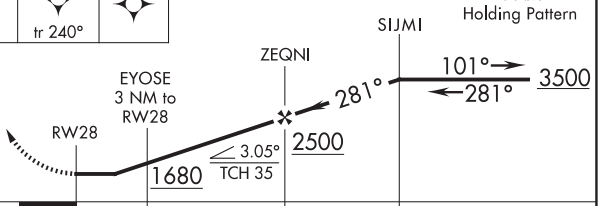


ELEV 686	TDZE 686



3400	OPNOE	JONIE
	tr 240°	

VGSI and descent angles not coincident (VGSI Angle 4.00/TCH 35).



CATEGORY	A	B	C	D
LNAV MDA	1120-1	434 (500-1)	NA	
CIRCLING	1380-1 694 (700-1)	1500-1¼ 814 (900-1¼)	NA	

MIRL Rwy 10-28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HART/SHELBY, MICHIGAN | AL-10401 (FAA) | 25219

APP CRS	Rwy Ldg	3500
088°	TDZE	916
	Apt Elev	916

RNAV (GPS) RWY 9

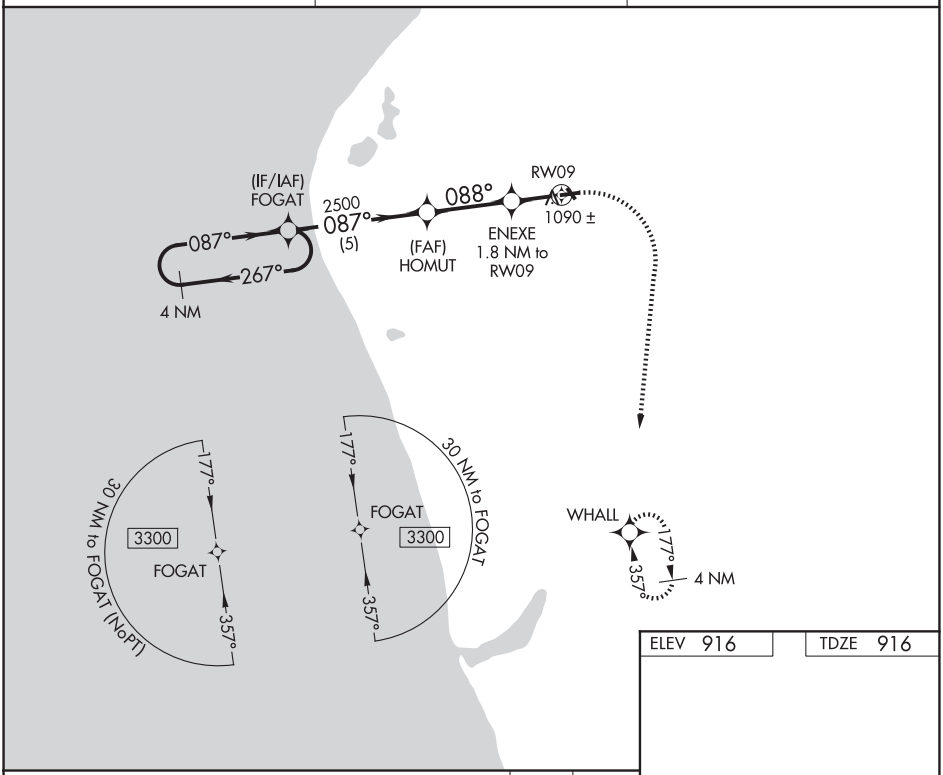
OCEANA COUNTY (CØ4)

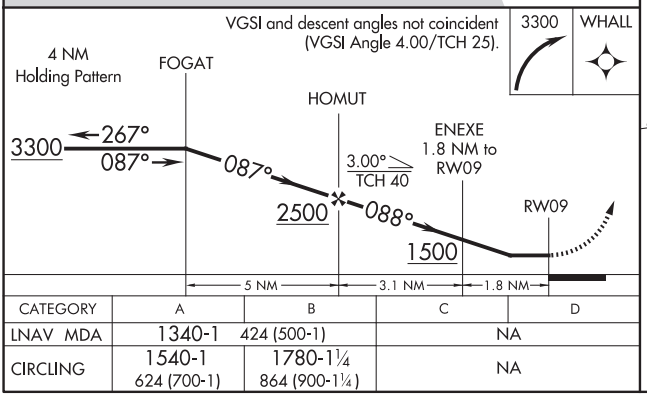
When local altimeter setting not received, use Fremont altimeter setting and increase all MDAs 80 feet. DME/DME RNP-0.3 NA. Procedure NA at night. Helicopter visibility reduction below 1 SM NA. Circling NA to Rwys 15 and 33.

NA

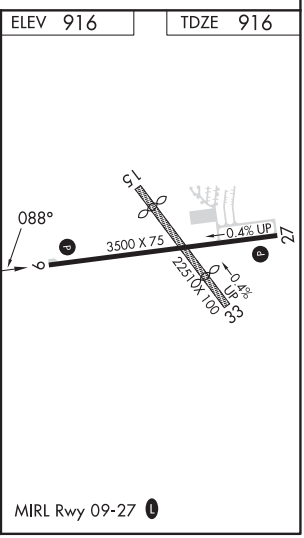
MISSED APPROACH: Climbing right turn to 3300 direct WHALL and hold.

AWOS-AV	GREAT LAKES APP CON★	UNICOM
122.7	119.8 290.35	122.7 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	1340-1	424 (500-1)	NA	
CIRCLING	1540-1 624 (700-1)	1780-1¼ 864 (900-1¼)	NA	



HART/SHELBY, MICHIGAN
Orig 10DEC15

43°38'N-86°20'W

OCEANA COUNTY (CØ4)

RNAV (GPS) RWY 9

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Ldg 3500
CH 97637	268°	TDZE 912
W27A		Apt Elev 916

RNAV (GPS) RWY 27

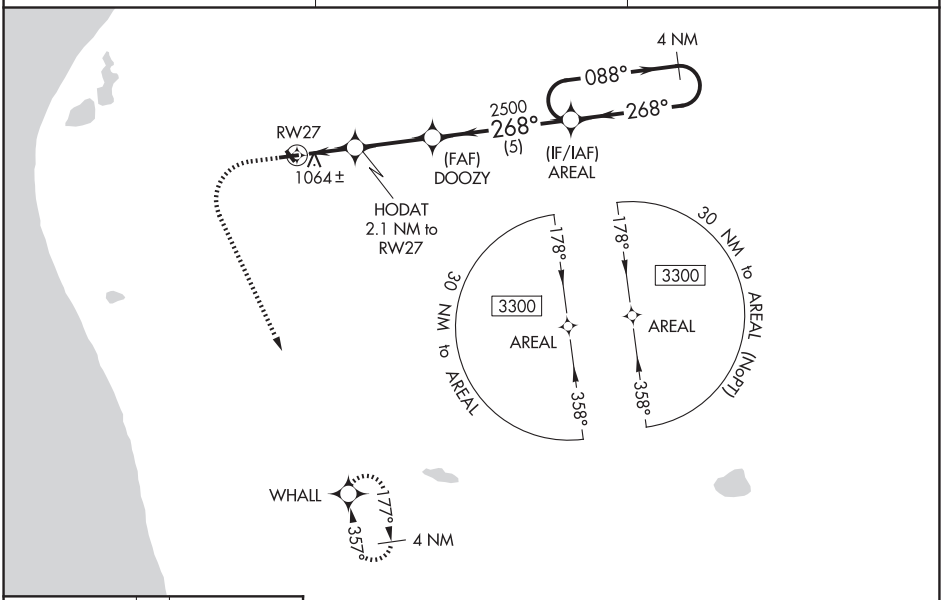
OCEANA COUNTY (C∅4)

Baro-VNAV NA when using Fremont altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). When local altimeter setting not received, use Fremont altimeter setting and increase all DA 64 feet, all MDA 80 feet, and LPV and LNAV/VNAV visibility all Cats ¼ mile. DME/DME RNP-0.3 NA. Procedure NA at night.
Helicopter visibility reduction below 1 SM NA. Circling NA to Rwys 15 and 33.

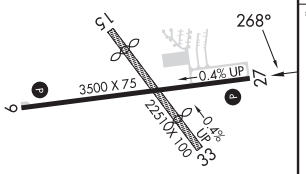
NA

MISSED APPROACH: Climb to 1500 then climbing left turn to 3300 direct WHALL and hold.

AWOS-AV	GREAT LAKES APP CON*	UNICOM
122.7	119.8 290.35	122.7 (CTAF) L



ELEV 916 TDZE 912

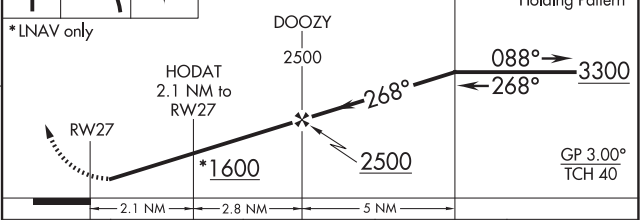


MIRL Rwy 09-27 L

1500 | 3300 | WHALL

VGSI angle and RNAV glidepath not coincident (VGSI Angle 4.00/TCH 25).

*LNAV only



CATEGORY	A	B	C	D
LPV DA	1254-1⅛	342 (400-1⅛)	NA	
LNAV/VNAV DA	1236-1⅛	324 (400-1⅛)	NA	
LNAV MDA	1340-1	428 (500-1)	NA	
CIRCLING	1540-1 624 (700-1)	1780-1¼ 864 (900-1¼)	NA	

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HASTINGS, MICHIGAN

AL-5778 (FAA)

25107

RNAV (GPS) RWY 12

HASTINGS (9D9)

WAAS	APP CRS	Rwy Idg	4762
CH 53326	129°	TDZE	800
W12A		Apt Elev	800

RNP APCH - GPS.

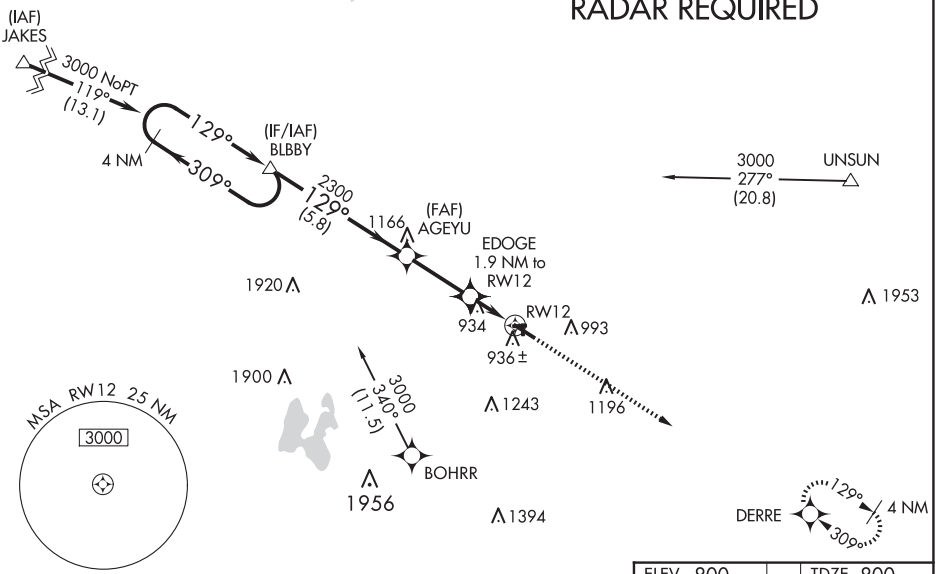
NA

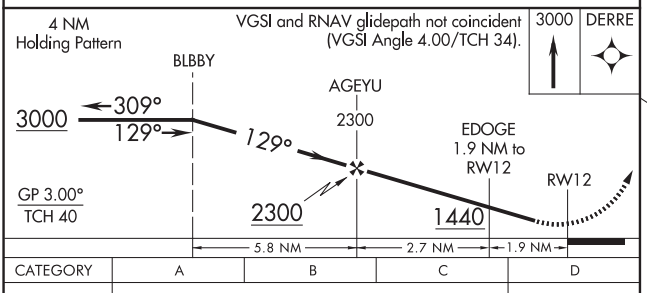
Circling NA to Rwys 9,18, 27 and 36. Baro-VNAV NA. Use GRR altimeter setting; when not received, use Y70 altimeter setting: increase LPV DA to 1102 feet; increase LNAV/VNAV DA to 1260 feet and all visibilities ⅛ SM; increase all MDA 20 feet, and LNAV visibility Cat C ⅛ SM. Rwy 12 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 3000 direct DERRE and hold.

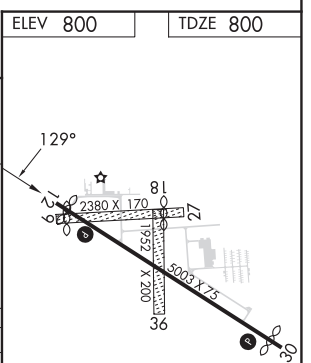
GRR ASOS	GREAT LAKES APP CON ★	UNICOM
118.725	128.4 257.6	123.075 (CTAF) L

RADAR REQUIRED





CATEGORY	A	B	C	D
LPV DA	1087-1 287 (300-1)			NA
LNAV/VNAV DA	1245-1⅜ 445 (500-1⅜)			NA
LNAV MDA	1240-1 440 (500-1)		1240-1¼ 440 (500-1¼)	NA
C CIRCLING	1380-1 580 (600-1)	1440-1 640 (700-1)	1440-1¾ 640 (700-1¾)	NA



MIRL Rwy 12-30 L

REIL Rwys 12 and 30 L

HASTINGS, MICHIGAN

Amdt 2A 17APR25

42°40'N-85°21'W

HASTINGS (9D9)

RNAV (GPS) RWY 12

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	4752
CH 86326	309°	TDZE	800
W30A		Apt Elev	800

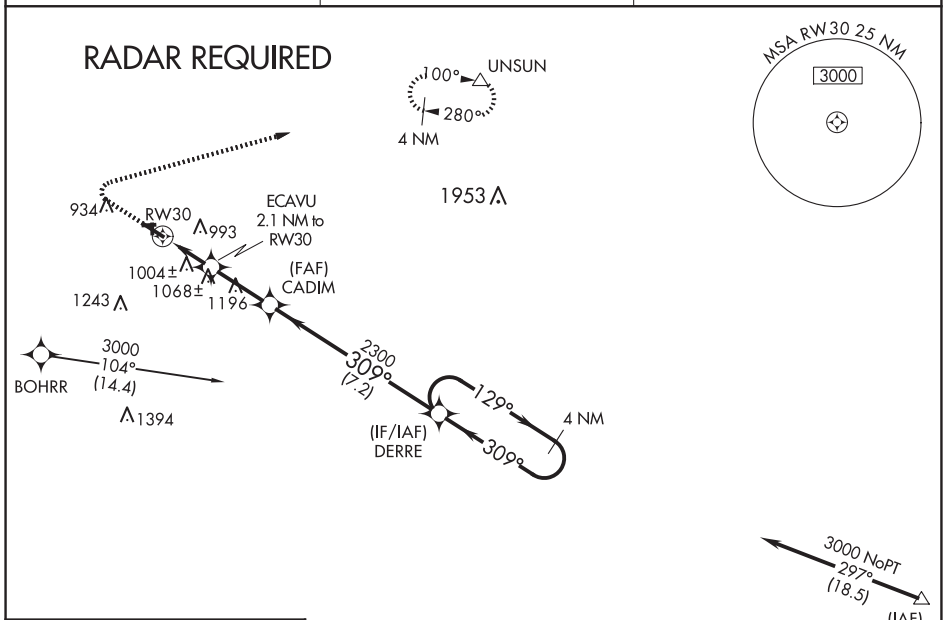
RNAV (GPS) RWY 30
HASTINGS (9D9)

RNP APCH - GPS.

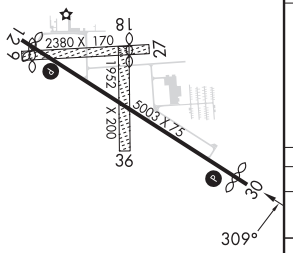
MISSED APPROACH: Climb to 1400 then climbing right turn to 3000 direct UNSUN and hold.

T A NA Circling NA to Rwys 9, 18, 27 and 36. Baro-VNAV NA. Use GRR altimeter setting; when not received, use Y70 altimeter setting: increase LPV DA to 1131 feet; increase LNAV/VNAV DA to 1377; increase all MDAs 20 feet. Rwy 30 helicopter visibility reduction below ¾ SM NA.

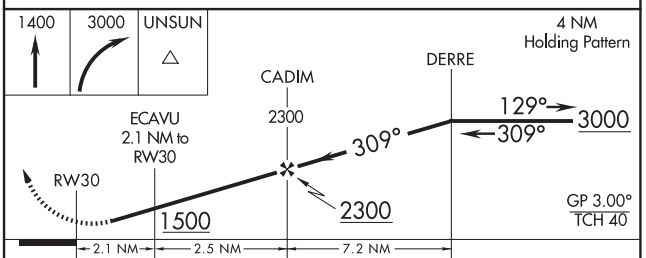
GRR ASOS	GREAT LAKES APP CON ★	UNICOM
118.725	128.4 257.6	123.075 (CTAF) L



ELEV 800 TDZE 800



MIRL Rwy 12-30 L
REIL Rwys 12 and 30 L



CATEGORY	A	B	C	D
LPV DA	1116-1 316 (400-1)			NA
LNAV/VNAV DA	1362-1⅝ 562 (600-1⅝)			NA
LNAV MDA	1300-1 500 (500-1)		1300-1⅜ 500 (500-1⅜)	NA
C CIRCLING	1380-1 580 (600-1)	1440-1 640 (700-1)	1440-1¾ 640 (700-1¾)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HASTINGS, MICHIGAN | AL-5778 (FAA) | 25107

VOR RWY 12

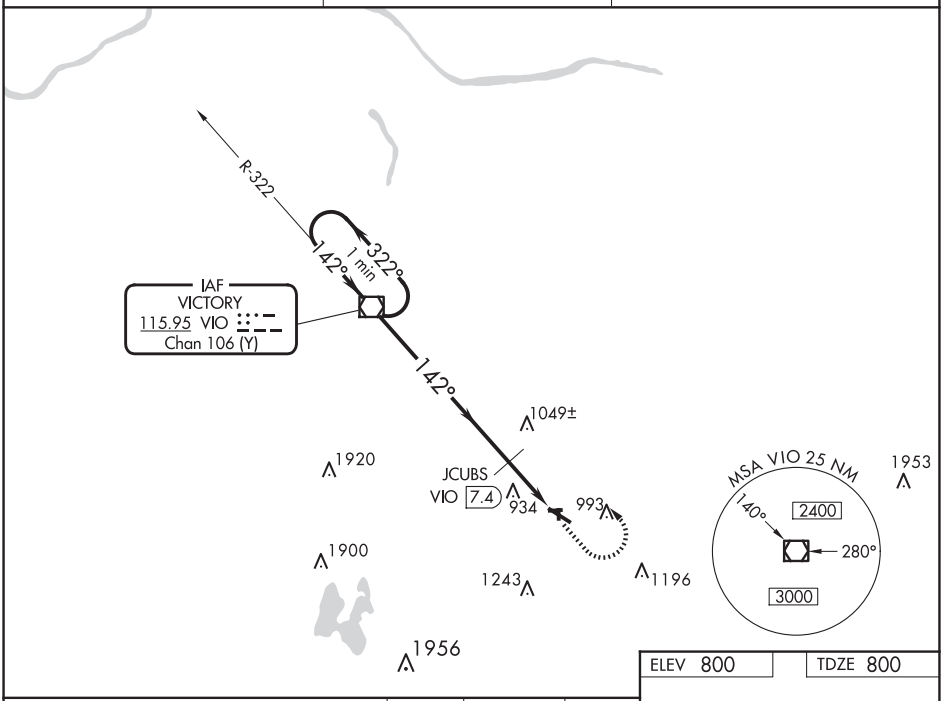
HASTINGS (9D9)

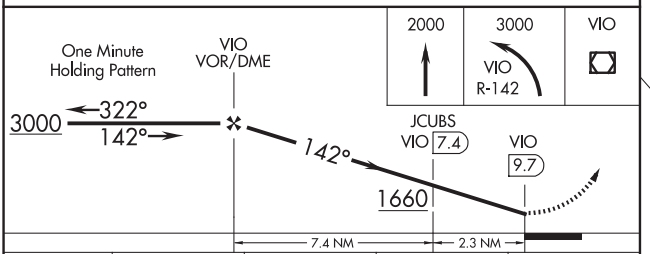
VOR/DME VIO	APP CRS	Rwy Idg	4763
115.95	142°	TDZE	800
Chan 106 (Y)		Apt Elev	800

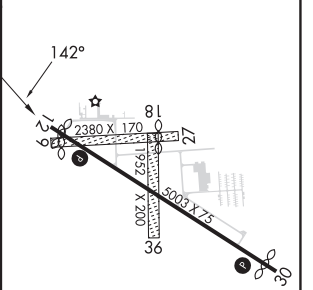
Helicopter visibility reduction below ¾ SM NA. Use GRR altimeter setting; when not received, use Y70 altimeter setting and increase all MDA 20 feet. Increase JCUBS DME minimums S-12 visibility ⅛ mile Cat C. Increase JCUBS fix minimum altitude 1700. Circling NA to Rwy 9, 18, 27, 36.

MISSED APPROACH: Climb to 2000, then climbing left turn to 3000 on VIO VOR/DME R-142 to VIO VOR/DME and hold.

GRR ASOS	GREAT LAKES APP CON ★	UNICOM
118.725	128.4 257.6	123.075 (CTAF) L







CATEGORY	A	B	C	D
S-12	1700-1¼ 900 (900-1¼)		1700-2½ 900 (900-2½)	NA
C CIRCLING	1700-1¼ 900 (900-1¼)		1700-2¾ 900 (900-2¾)	NA
JCUBS DME MINIMUMS				
S-12	1340-1 540 (600-1)		1340-1½ 540 (600-1½)	NA
C CIRCLING	1380-1 580 (600-1)	1440-1 640 (700-1)	1440-1¾ 640 (700-1¾)	NA

MIRL Rwy 12-30 L
REIL Rwys 12 and 30 L

FAF to MAP 9.7 NM

Knots	60	90	120	150	180
Min:Sec	9:42	6:28	4:51	3:53	3:14

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 10

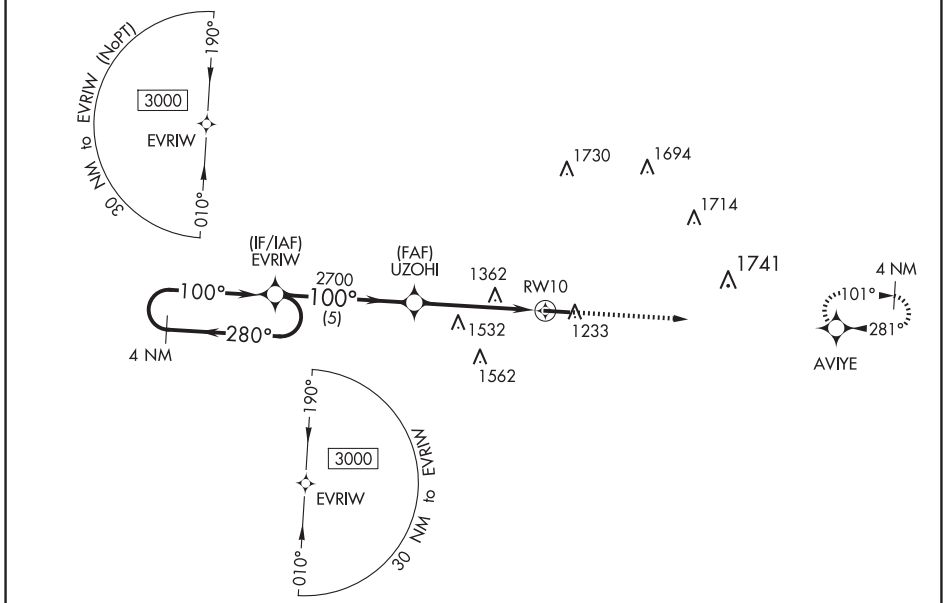
HILLSDALE MUNI (JYM)

WAAS	APP CRS	Rwy Idg	5000
CH 77534	100°	TDZE	1172
W10A		Apt Elev	1184

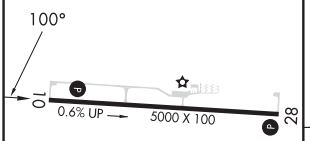
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3100 direct AVIYE and hold.

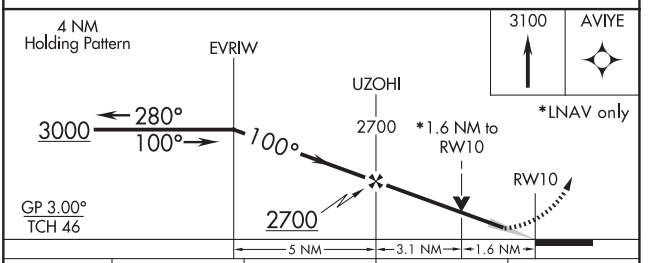
AWOS-3	TOLEDO APP CON	UNICOM
121.025	134.35 317.55	122.8 (CTAF) L



ELEV 1184 TDZE 1172



REIL Rwy 10 and 28 L
HIRL Rwy 10-28 L



CATEGORY	A	B	C	D
LPV DA	1441-1	269 (300-1)		NA
LNAV/VNAV DA	1601-1½	429 (500-1½)		NA
LNAV MDA	1720-1	548 (600-1)	1720-1⅝ 548 (600-1⅝)	NA
C CIRCLING	1720-1	536 (600-1)	1720-1⅝ 536 (600-1⅝)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HILLSDALE, MICHIGAN | AL-5484 (FAA) | 23054

RNAV (GPS) RWY 28

HILLSDALE MUNI (JYM)

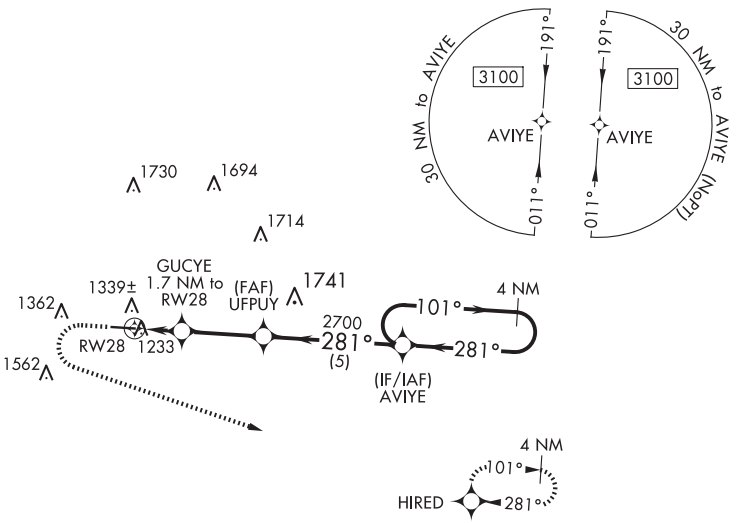
WAAS	APP CRS	Rwy Idg	5000
CH 50134	281°	TDZE	1184
W28A		Apt Elev	1184

RNP APCH.

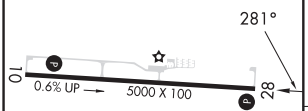
Rwy 28 helicopter visibility reduction below ¾ SM NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C or above 54°C.

MISSED APPROACH: Climb to 1700 then climbing left turn to 3100 direct HIRED and hold.

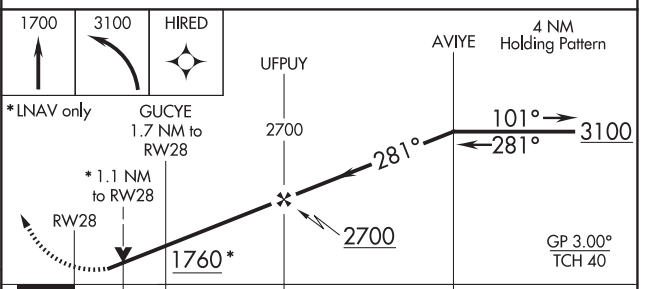
AWOS-3	TOLEDO APP CON	UNICOM
121.025	134.35 317.55	122.8 (CTAF) L



ELEV 1184 | TDZE 1184



REIL Rwy 10 and 28 L
HIRL Rwy 10-28 L



CATEGORY	A	B	C	D
LPV DA	1474-1	290 (300-1)		NA
LNAV/VNAV DA	1489-1	305 (400-1)		NA
LNAV MDA	1580-1	396 (400-1)	1580-1⅛ 396 (400-1⅛)	NA
C CIRCLING	1640-1 456 (500-1)	1680-1 496 (500-1)	1680-1½ 496 (500-1½)	NA

HILLSDALE, MICHIGAN
Amdt 1 24MAY18

41°55′N-84°35′W

HILLSDALE MUNI (JYM)

RNAV (GPS) RWY 28

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LOC/DME I-BIV	APP CRS	Rwy Idg	6002
110.55	264°	TDZE	686
Chan 42 (Y)		Apt Elev	698

ILS or LOC RWY 26
WEST MICHIGAN RGNL (BIV)

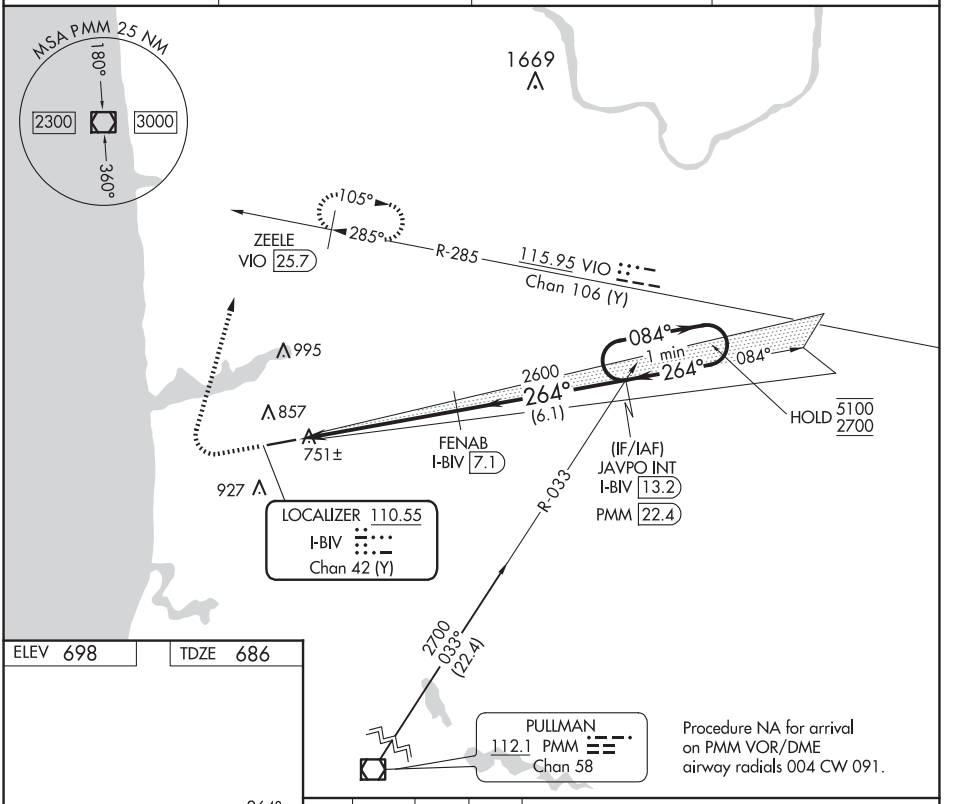
DME required.

NA

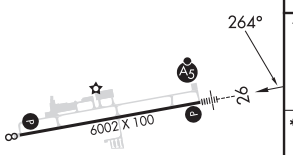
MALSR

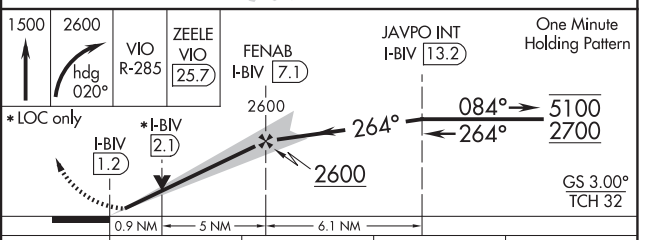
MISSED APPROACH: Climb to 1500 then climbing right turn to 2600 on heading 020° and VIO VOR/DME R-285 to ZEELE/VIO 25.7 DME and hold.

ASOS	GREAT LAKES APP CON★	CLNC DEL	UNICOM
119.025	133.825 290.35	123.95	123.05 (CTAF)



ELEV 698 TDZ 686





CATEGORY	A	B	C	D
S-ILS 26	886-½ 200 (200-½)			NA
S-LOC 26	1020-½ 334 (400-½)			NA
C CIRCLING	1200-1 502 (600-1)	1240-1 542 (600-1)	1240-1½ 542 (600-1½)	NA

REIL Rwy 8
HIRL Rwy 8-26

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HOLLAND, MICHIGAN | AL-5652 (FAA) | 22223

WAAS	APP CRS	Rwy Idg	6002
CH 49222	084°	TDZE	698
W08A		Apt Elev	698

RNAV (GPS) RWY 8

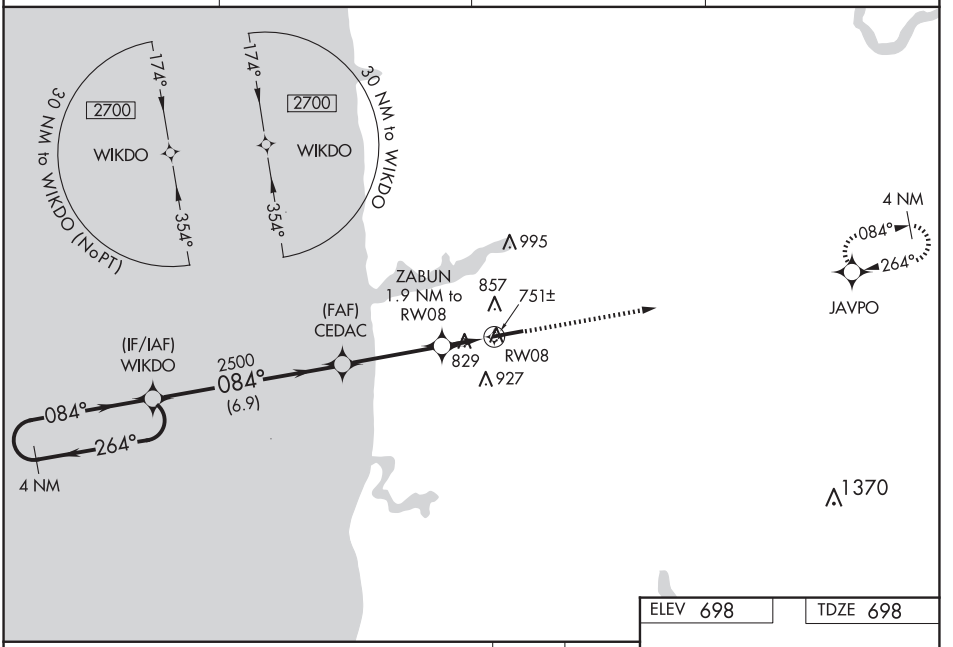
WEST MICHIGAN RGNL (BIV)

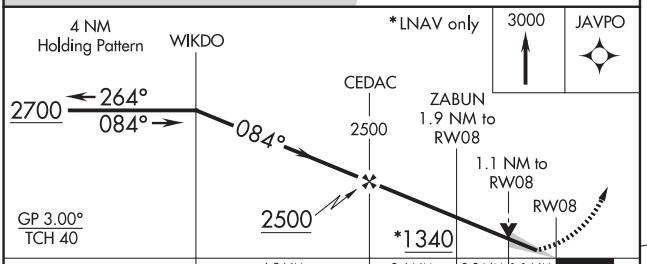
RNP APCH - GPS.

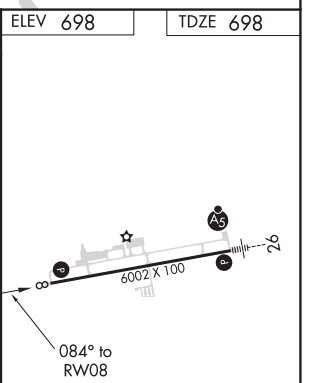
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. When local altimeter setting not received, use Muskegon altimeter setting: increase LPV DA to 1018 feet, increase LNAV/VNAV DA to 1160 feet, and all visibilities ¼ SM, increase all MDAs 80 feet, and visibility LNAV Cat C/D ¼ SM and Circling Cat C/D ¼ SM. Baro-VNAV and VDP NA when using Muskegon altimeter setting.

MISSED APPROACH: Climb to 3000 direct JAVPO and hold.

ASOS	GREAT LAKES APP CON*	CLNC DEL	UNICOM
119.025	133.825 290.35	123.95	123.05 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	948-⅞ 250 (300-⅞)			
LNAV/VNAV DA	1080-1⅛ 382 (400-1⅛)			
LNAV MDA	1080-1 382 (400-1)		1080-1⅛ 382 (400-1⅛)	
CIRCLING	1200-1 502 (600-1)	1240-1 542 (600-1)	1240-1½ 542 (600-1½)	1320-2 622 (700-2)

REIL Rwy 8 L
HIRL Rwy 8-26 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 26

WEST MICHIGAN RGNL (BIV)

WAAS	APP CRS	Rwy Idg	6002
CH 53402	264°	TDZE	686
W26A		Apt Elev	698

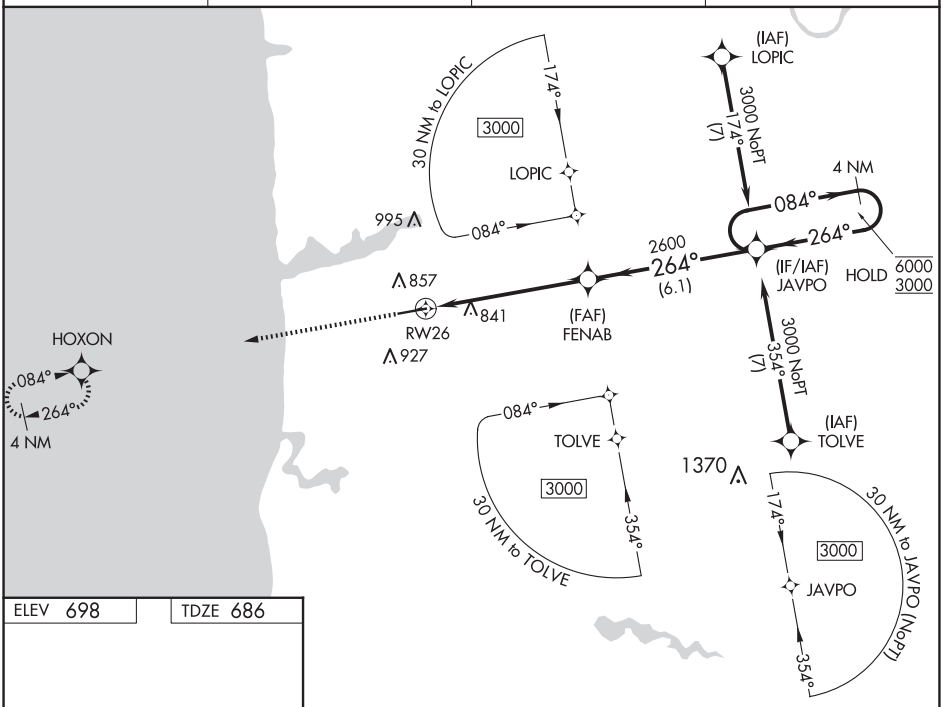
RNP APCH.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.
For inoperative ALS, increase LNAV/VNAV all Cats visibility to 1 SM; increase LNAV Cat C visibility to 1⅛ SM.

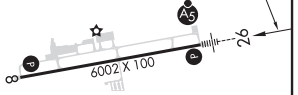
MALSR

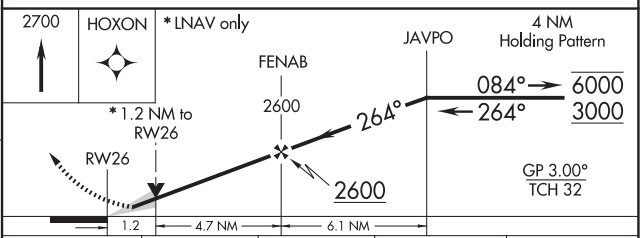
MISSED APPROACH: Climb to 2700 direct HOXON and hold.

ASOS	GREAT LAKES APP CON★	CLNC DEL	UNICOM
119.025	133.825 290.35	123.95	123.05 (CTAF) L



ELEV 698 TDZE 686





CATEGORY	A	B	C	D
LPV DA	886-½ 200 (200-½)			NA
LNAV/VNAV DA	1040-⅝ 354 (400-⅝)			NA
LNAV MDA	1100-½ 414 (500-½)		1100-¾ 414 (500-¾)	NA
C CIRCLING	1200-1 502 (600-1)	1240-1 542 (600-1)	1240-1½ 542 (600-1½)	NA

REIL Rwy 8 L
HIRL Rwy 8-26 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

HOUGHTON LAKE, MICHIGAN | AL-5517 (FAA) | 23166

WAAS	APP CRS	Rwy Idg	4000
CH 56434	094°	TDZE	1148
W09A		Apt Elev	1150

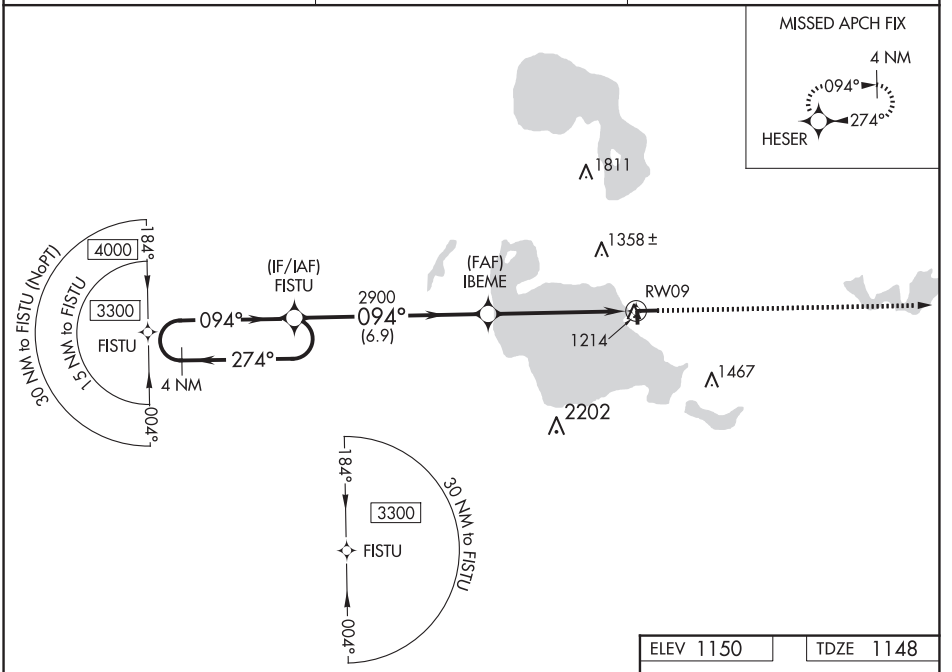
RNAV (GPS) RWY 9

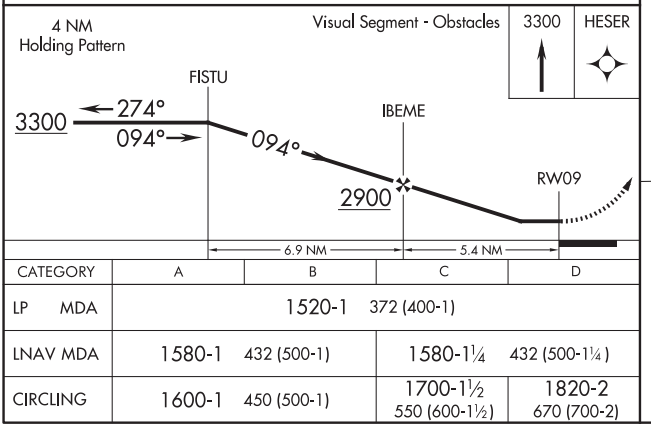
ROSCOMMON COUNTY/BLODGETT MEML (HTL)

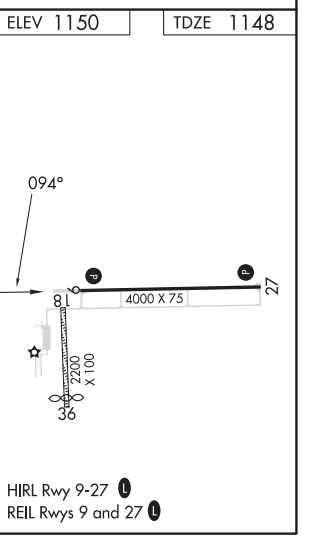
When local altimeter setting not received, use Gaylord altimeter setting and increase all MDAs 120 feet and visibility Cat C/D ½ SM. DME/DME RNP-0.3 NA. Procedure NA at night. Helicopter visibility reduction below 1 SM NA. Circling NA to Rwy 18 and 36.

MISSED APPROACH: Climb to 3300 direct HESER and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.05	125.475 269.45	122.8 (CTAF) L







CATEGORY	A	B	C	D
LP MDA	1520-1 372 (400-1)			
LNAV MDA	1580-1 432 (500-1)		1580-1¼ 432 (500-1¼)	
CIRCLING	1600-1 450 (500-1)		1700-1½ 550 (600-1½)	1820-2 670 (700-2)

HIRL Rwy 9-27 L
REIL Rwys 9 and 27 L

HOUGHTON LAKE, MICHIGAN
Amdt 2E 24FEB22

ROSCOMMON COUNTY/BLODGETT MEML (HTL)
44°22′N-84°40′W
RNAV (GPS) RWY 9

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	4000
CH 70534	274°	TDZE	1146
W27A		Apt Elev	1150

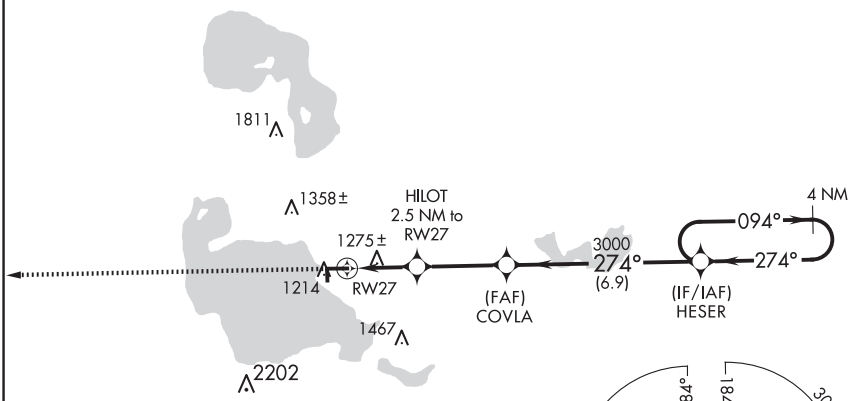
RNAV (GPS) RWY 27

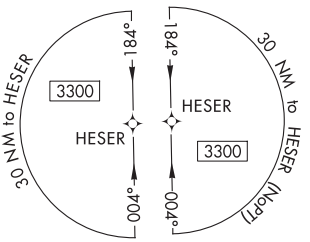
ROSCOMMON COUNTY/BLODGETT MEML (HTL)

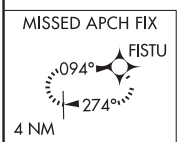
When local altimeter setting not received, use Gaylord altimeter setting and increase all MDAs 120 feet and visibility Cat C/D ½ SM. DME/DME RNP-0.3 NA. Procedure NA at night. Helicopter visibility reduction below 1 SM NA. Circling NA to Rwys 18, 36.

MISSED APPROACH: Climb to 3300 direct FISTU and hold.

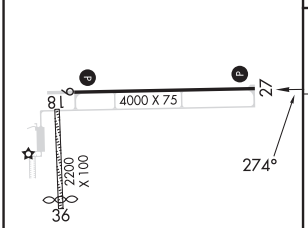
ASOS	MINNEAPOLIS CENTER	UNICOM
118.05	125.475 269.45	122.8 (CTAF) L

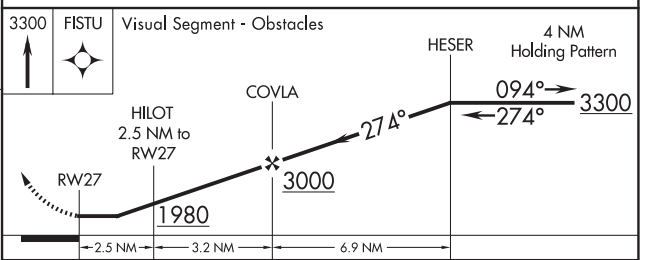






ELEV 1150	TDZE 1146





CATEGORY	A	B	C	D
LP MDA	1540-1	394 (400-1)	1540-1¼	394 (400-1¼)
LNAV MDA	1560-1	414 (500-1)	1560-1¼	414 (500-1¼)
CIRCLING	1600-1	450 (500-1)	1700-1½ 550 (600-1½)	1820-2 670 (700-2)

HIRL Rwy 9-27 L
REIL Rwys 9 and 27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LOC/DME I-OGO	APP CRS	Rwy Idg	5002
108.55	132°	TDZE	962
Chan 22 (Y)		Apt Elev	962

ILS or LOC RWY 13

LIVINGSTON COUNTY SPENCER J HARDY (OZW)

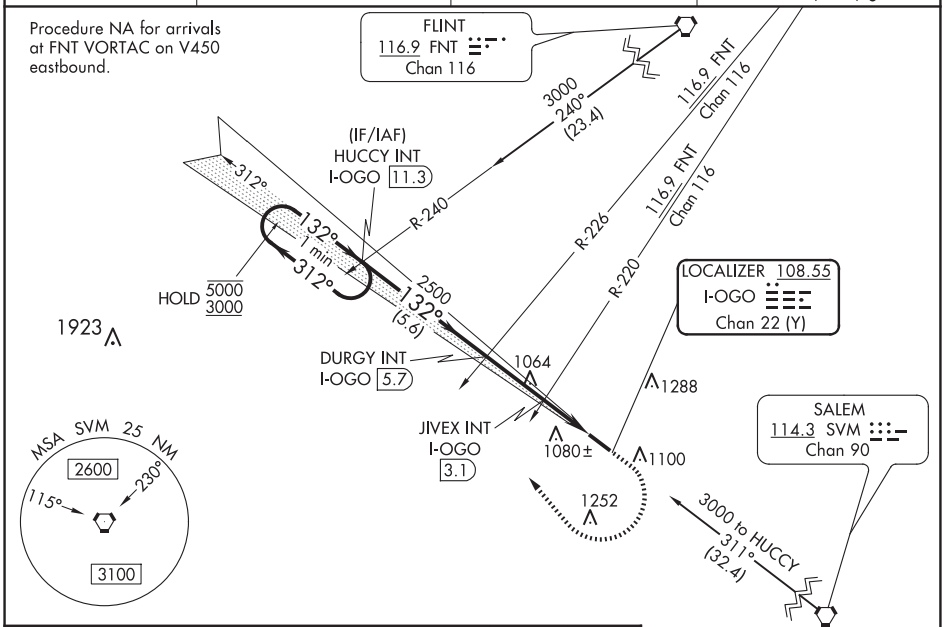
T
A NA — For inop ALS, increase LOC Cat C and D visibility to 1⅝ SM, and JIVEX fix minimums S-13 Cat C and D visibility to 1 SM.

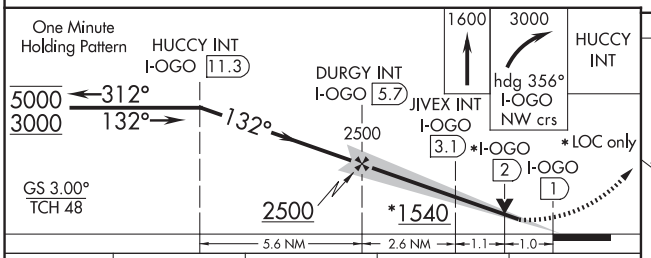
MALSR

MISSED APPROACH: Climb to 1600 then climbing right turn to 3000 heading 356° and I-OGO NW course to HUCCY INT/ I-OGO 11.3 DME and hold.

AWOS-3	DETROIT APP CON	CLNC DEL	UNICOM
118.875	132.35 284.0	121.725 (GCO)	123.0 (CTAF) L

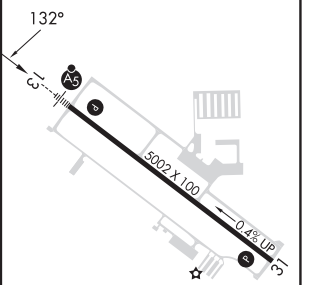
Procedure NA for arrivals at FNT VORTAC on V450 eastbound.





CATEGORY	A	B	C	D
S-ILS 13	1162-½ 200 (200-½)			
S-LOC 13	1540-½ 578 (600-½)		1540-1¼ 578 (600-1¼)	
CIRCLING	1540-1 578 (600-1)		1600-1¾ 638 (700-1¾)	1600-2 638 (700-2)
JIVEX FIX MINIMUMS (DUAL VOR RECEIVERS OR DME REQUIRED)				
S-LOC 13	1320-½ 358 (400-½)		1320-⅝ 358 (400-⅝)	
CIRCLING	1400-1 438 (500-1)	1420-1 458 (500-1)	1600-1¾ 638 (700-1¾)	1600-2 638 (700-2)

ELEV 962 TDZE 962



HIRL Rwy 13-31 L
REIL Rwy 31 L

FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	5002
CH 69601	132°	TDZE	962
W13A		Apt Elev	962

RNAV (GPS) RWY 13

LIVINGSTON COUNTY SPENCER J HARDY (OZW)

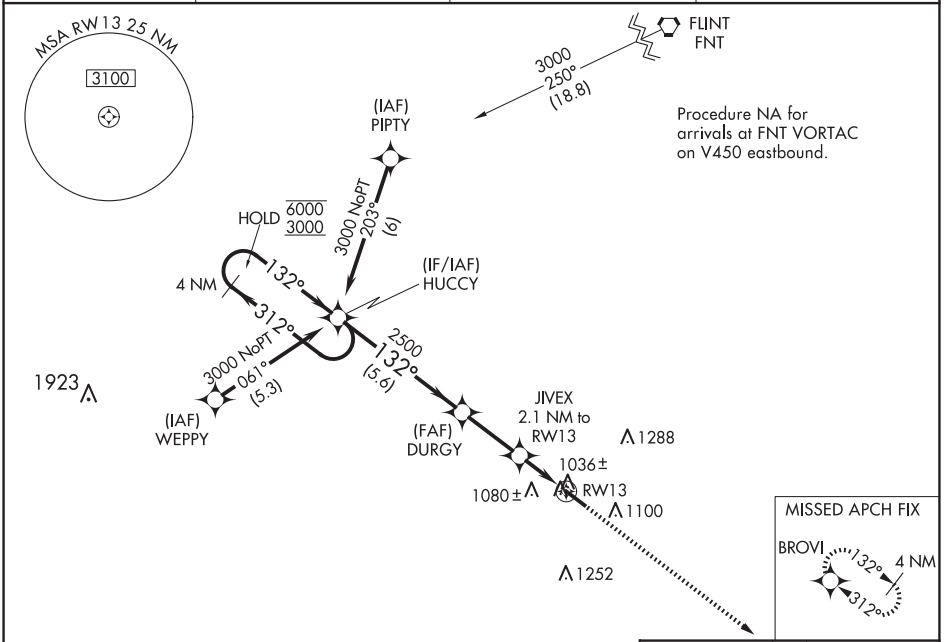
RNP APCH.

T A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 37°C. For inop ALS, increase LNAV/VNAV all Cats visibility to ¾ SM.

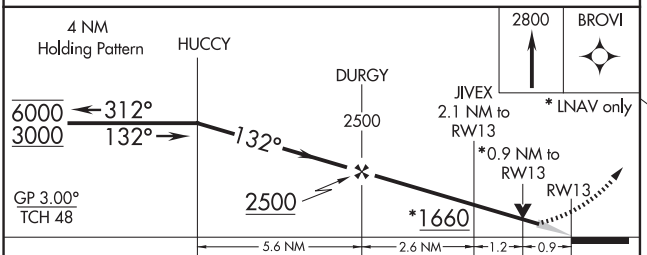
MALSR

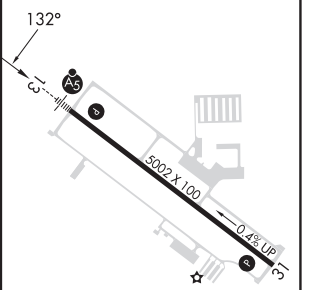
MISSED APPROACH: Climb to 2800 direct BROVI and hold.

AWOS-3	DETROIT APP CON	CLNC DEL	UNICOM
118.875	132.35 284.0	121.725 (GCO)	123.0 (CTAF) L



ELEV 962	TDZE 962





CATEGORY	A	B	C	D
LPV DA	1162-½ 200 (200-½)			
LNAV/VNAV DA	1212-½ 250 (300-½)			
LNAV MDA	1300-½ 338 (400-½)			
CIRCLING	1400-1 438 (500-1)	1420-1 458 (500-1)	1600-1¾ 638 (700-1¾)	1600-2 638 (700-2)

HIRL Rwy 13-31 L
REIL Rwy 31 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 31

LIVINGSTON COUNTY SPENCER J HARDY (OZW)

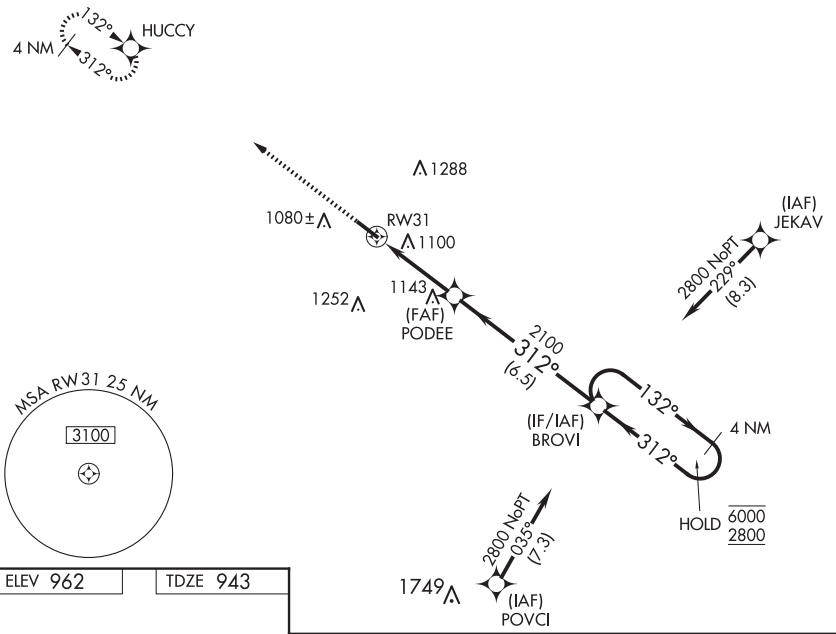
WAAS	APP CRS	Rwy Idg	5002
CH 99722	312°	TDZE	943
W31A		Apt Elev	962

RNP APCH.

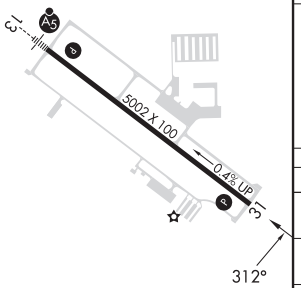
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

MISSED APPROACH: Climb to 3000 direct HUCCY and hold.

AWOS-3	DETROIT APP CON	CLNC DEL	UNICOM
118.875	132.35 284.0	121.725 (GCO)	123.0 (CTAF) L



ELEV 962 TDZE 943

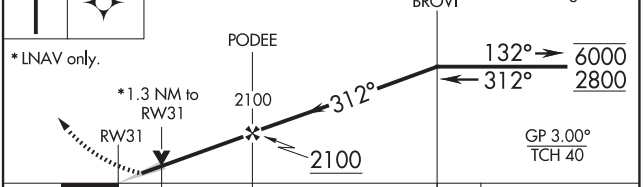


HIRL Rwy 13-31 L
REIL Rwy 31 L

3000 HUCCY

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 30).

4 NM Holding Pattern



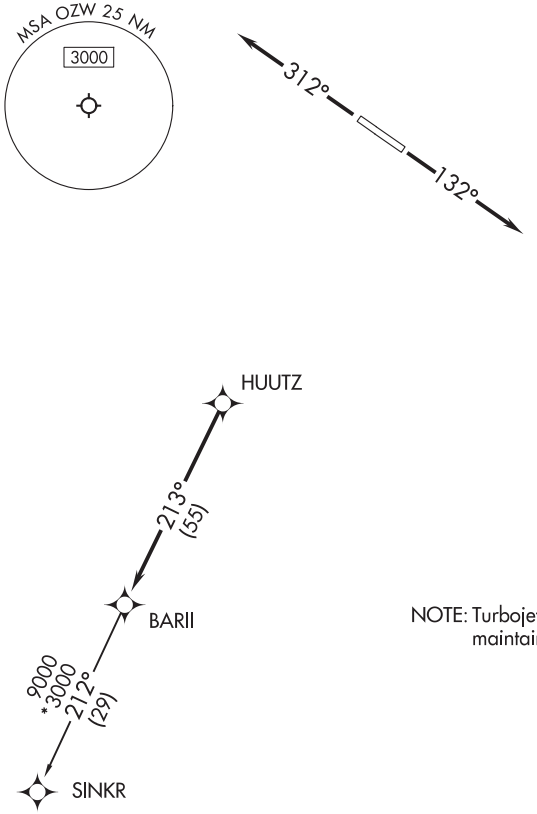
CATEGORY	A	B	C	D
LPV DA	1143-¾ 200 (200-¾)			
LNAV/VNAV DA	1410-1⅝ 467 (500-1⅝)			
LNAV MDA	1400-1 457 (500-1)		1400-1⅜ 457 (500-1⅜)	
CIRCLING	1400-1 438 (500-1)	1420-1 458 (500-1)	1600-1¾ 638 (700-1¾)	1600-2 638 (700-2)

EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
132.35 284.0
AWOS-3
118.875
CLNC DEL
121.725
CTAF
123.0



TAKEOFF MINIMUMS:
Rwys 13, 31: Standard.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned by ATC, thence....
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned by ATC, thence....

....for RADAR vectors to HUUTZ, then on track 213° to BARII, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SINKR TRANSITION (BARII3.SINKR):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR 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).

TAKEOFF MINIMUMS:
Rwys 13, 31: Standard.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned by ATC, thence....
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned by ATC, thence....

....for RADAR vectors to BROZZ, then on track 279° to CCOBB, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

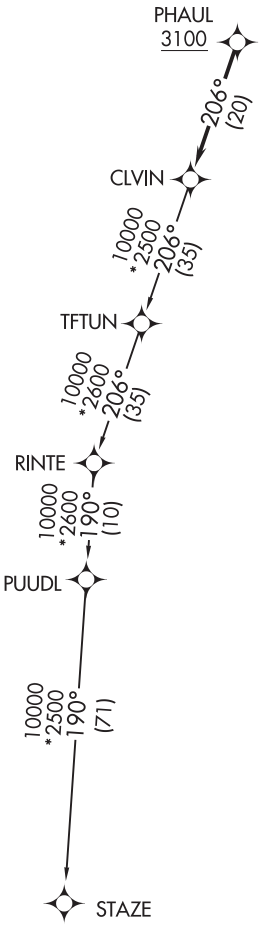
ZEGBI TRANSITION (CCOBB3.ZEGBI):

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
132.35 284.0
AWOS-3
118.875
CLNC DEL
121.725
CTAF
123.0

TAKEOFF MINIMUMS:
Rwys 13, 31: Standard.



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned by ATC, thence....
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned by ATC, thence....

....for RADAR vectors to cross PHAUL at or above 3100, then on track 206° to CLVIN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

STAZE TRANSITION (CLVIN3.STAZE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE:
ASSIGNED AT ATC
RNAV-1 DME/DME/IRU or GPS.
RADAR required.
NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
TAKEOFF MINIMUMS:
Rwy 13, 31: Standard.
312°
132°
DETROIT DEP CON 132.35 284.0
AWOS-3 118.875
CLNC DEL 121.725
CTAF 123.0
N
WSA OZW 25 NM
3000
NOTE: Chart not to scale.
SMUUV
8000
*2600
279°
(52)
IIICE
8000
*3000
279°
(15)
KAYLN
279°
(13)
MTRCT
DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned by ATC, thence....
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned by ATC, thence....
....for RADAR vectors to MTRCT, then on track 279° to KAYLN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.
SMUUV TRANSITION (KAYLN3.SMUUV):

(KZLOV2.WINNZ) 24137

KZLOV TWO DEPARTURE (RNAV)

LIVINGSTON COUNTY SPENCER J HARDY (OZW)
AL-5485 (FAA)
HOWELL, MICHIGAN

KZLOV TWO DEPARTURE (RNAV)
(KZLOV2.WINNZ) 16MAY24
HOWELL, MICHIGAN
LIVINGSTON COUNTY SPENCER J HARDY (OZW)

EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE:
ASSIGNED BY ATC
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.
RADAR required for non-GPS equipped aircraft.
TAKEOFF MINIMUMS:
Rwy 13, 31: Standard.
DETROIT DEP CON 132.35 284.0
AWOS-3 118.875
CLNC DEL 121.725
CTAF 123.0
312°
132°
WSA OZW 2.5 NM
3000
KZLOV
15000
111°
(10)
LIDDS
10000
*2200
111°
(20)
NOONR
10000
*1800
149°
(19)
ZEYOU
10000
*2700
151°
(46)
GRIVY
N
NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned by ATC, thence....
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned by ATC, thence....
....for RADAR vectors to cross KZLOV at or below 15000, then on track 111° to LIDDS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.
GRIVY TRANSITION (LIDDS4.GRIVY):
NOTE: Chart not to scale.

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

NOTE: Jet 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.

TAKEOFF MINIMUMS:
Rwys 13, 31: Standard.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned by ATC, thence....
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned by ATC, thence....

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

GETCH TRANSITION (MIGGY3.GETCH):
HUBBY TRANSITION (MIGGY3.HUBBY):
SLLAP TRANSITION (MIGGY3.SLLAP):

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

PAVYL THREE DEPARTURE (RNAV)

(PAVYL3.PAVYL) 16MAY24

LIVINGSTON COUNTY SPENCER J HARDY (OZW)

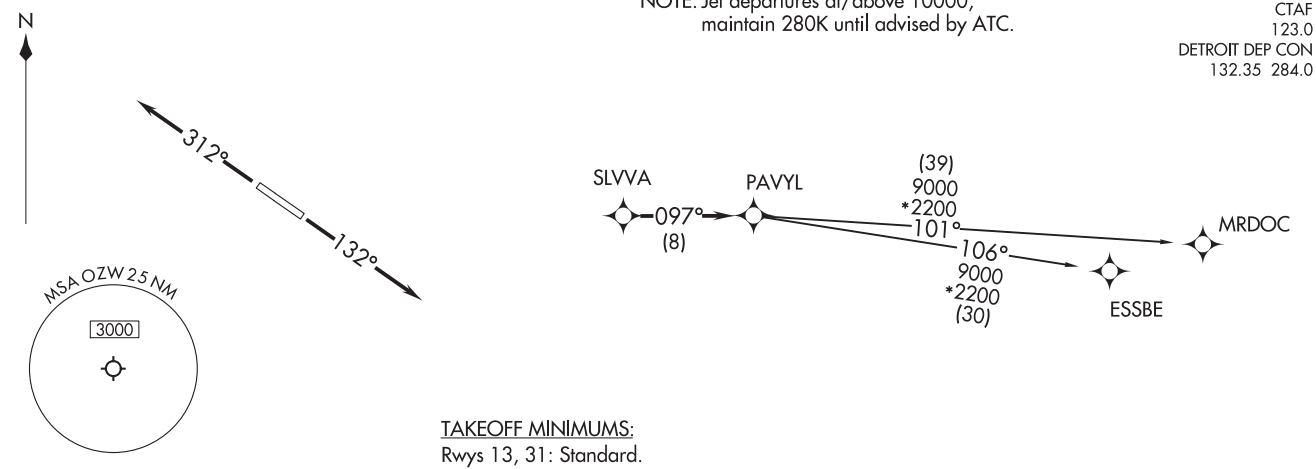
HOWELL, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

AWOS-3
118.875
CLNC DEL
121.725
CTAF
123.0
DETROIT DEP CON
132.35 284.0

NOTE: Jet departures at/above 10000, maintain 280K until advised by ATC.



TAKEOFF MINIMUMS:
Rwys 13, 31: Standard.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned by ATC, thence....
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned by ATC, thence....

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

ESSBE TRANSITION (PAVYL3.ESSBE):
MRDOC TRANSITION (PAVYL3.MRDOC):

(PAVYL3.PAVYL) 24137

PAVYL THREE DEPARTURE (RNAV)

LIVINGSTON COUNTY SPENCER J HARDY (OZW)

HOWELL, MICHIGAN

AL-5485 (FAA)

(SNDRS3.SNDRS) 24137

SNDRS THREE DEPARTURE (RNAV)

LIVINGSTON COUNTY SPENCER J HARDY (OZW)

AL-5485 (FAA)

HOWELL, MICHIGAN

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned by ATC, thence....

TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned by ATC, thence....

....for RADAR vectors to JWELS, then on track 218° to SNDRS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BGHRT TRANSITION (SNDRS3.BGHRT):
TORRR TRANSITION (SNDRS3.TORRR):

TOP ALTITUDE: ASSIGNED BY ATC

RNAV-1 DME/DME/IRU or GPS.

RADAR required.

DETROIT DEP CON 132.35 284.0
AWOS-3 118.875
CLNC DEL 121.725
CTAF 123.0

312° 132°

N

JWELS

218° (31)

SNDRS

8000 *2400 255° (24)

REEDA

8000 *2400 265° (30)

SEABS

8000 *2200 264° (28)

KNRKO

8000 *2400 269° (94)

BGHRT

8000 *2400 209° (33)

TORRR

TAKEOFF MINIMUMS:
Rwys 13, 31: Standard.

MSA OZW 25 NM

3000

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.

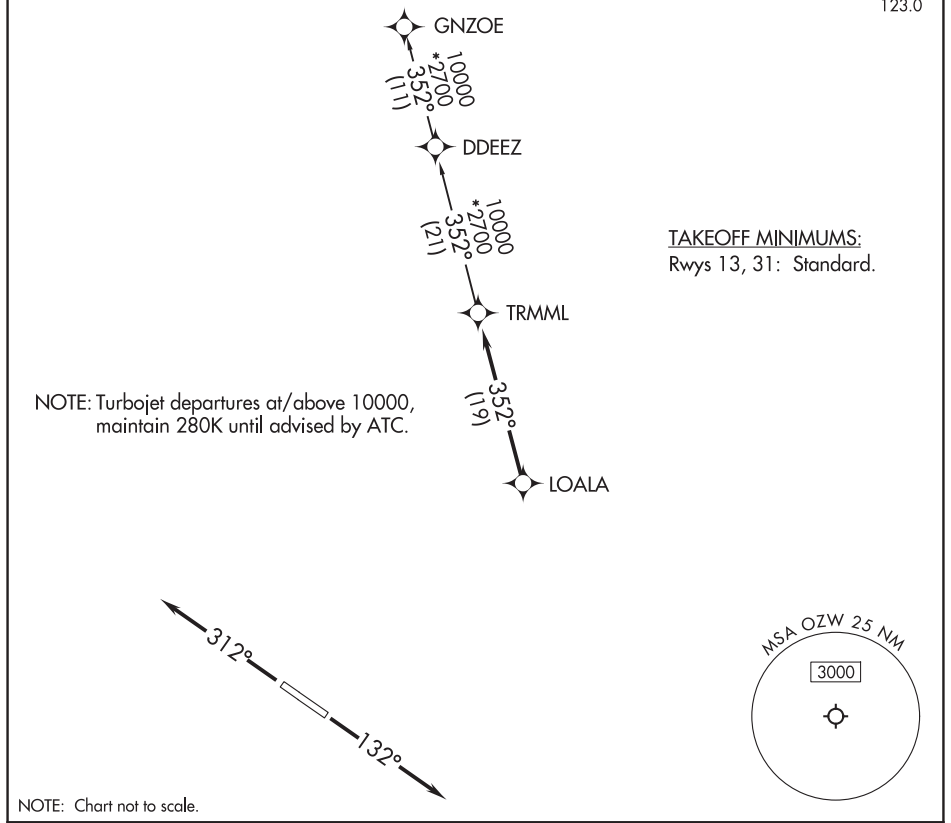
NOTE: Chart not to scale.

SNDRS THREE DEPARTURE (RNAV)
(SNDRS3.SNDRS) 16MAY24
HOWELL, MICHIGAN
LIVINGSTON COUNTY SPENCER J HARDY (OZW)
EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
132.35 284.0
AWOS-3
118.875
CLNC DEL
121.725
CTAF
123.0



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned by ATC, thence....
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned by ATC, thence....

....for RADAR vectors to LOALA, then on track 352° to TRMML, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

GNZOE TRANSITION (TRMML4.GNZOE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(ZETTR4.ZETTR) 24137

ZETTR FOUR DEPARTURE (RNAV)

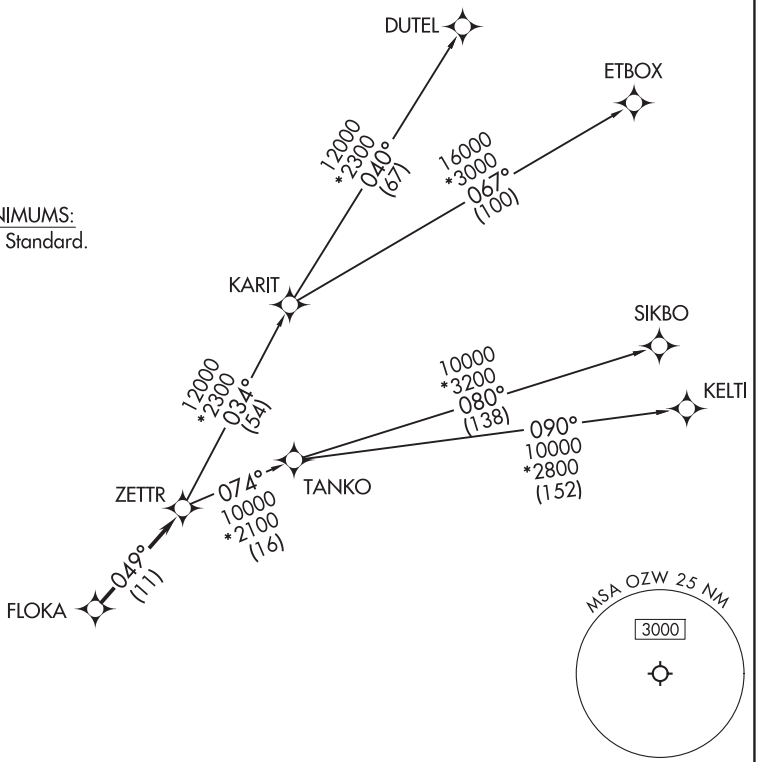
LIVINGSTON COUNTY SPENCER J HARDY (OZW)
AL-5485 (FAA)
HOWELL, MICHIGAN

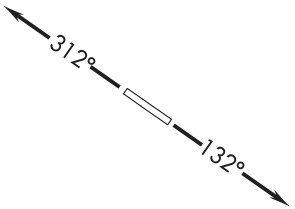
DETROIT DEP CON
132.35 284.0
AWOS-3
118.875
CLNC DEL
121.725
CTAF
123.0

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS:
Rwys 13, 31: Standard.





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: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 13: Climb on heading 132° or as assigned by ATC, thence....
TAKEOFF RUNWAY 31: Climb on heading 312° or as assigned by ATC, thence....

....for RADAR vectors to FLOKA, then on track 049° to ZETTR, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

DUTEL TRANSITION (ZETTR4.DUTEL):
ETBOX TRANSITION (ZETTR4.ETBOX):
KELTI TRANSITION (ZETTR4.KELTI):
SIKBO TRANSITION (ZETTR4.SIKBO):
TANKO TRANSITION (ZETTR4.TANKO):

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 10

IONIA COUNTY (Y7Ø)

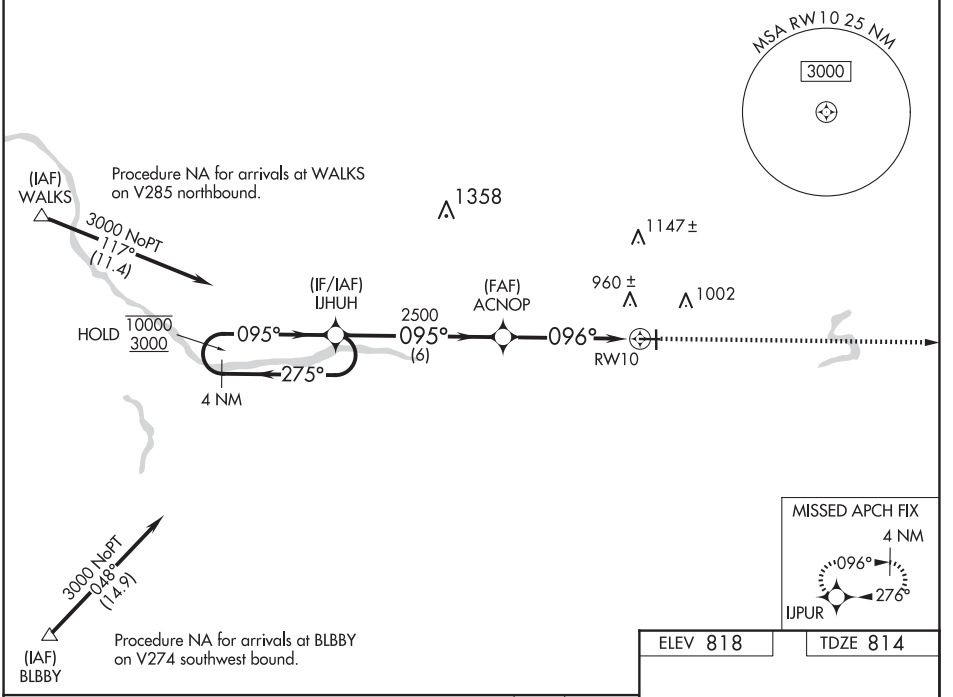
WAAS	APP CRS	Rwy Idg	4298
CH 42544	096°	TDZE	814
W10A		Apt Elev	818

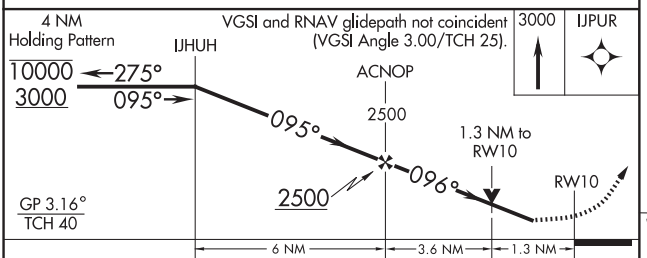
RNP APCH - GPS.

Circling NA to Rwys 18 and 36. Rwy 10 helicopter visibility reduction below ¾ SM NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

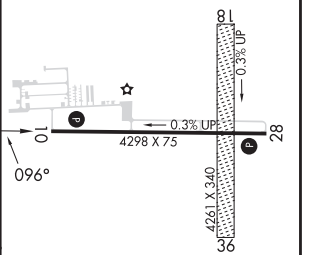
MISSED APPROACH: Climb to 3000 direct IJPUR and hold.

AWOS-3	GREAT LAKES APP CON★	UNICOM
118.9	118.65 226.4	122.8 (CTAF) L





ELEV 818 TDZE 814



CATEGORY	A	B	C	D
LPV DA	1064-¾ 250 (300-¾)			NA
LNAV/VNAV DA	1064-¾ 250 (300-¾)			NA
LNAV MDA	1260-1 446 (500-1)		1260-1⅜ 446 (500-1⅜)	NA
C CIRCLING	1320-1 502 (600-1)		1340-1½ 522 (600-1½)	NA

REIL Rwy 28 L
MIRL Rwy 10-28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

IONIA, MICHIGAN | AL-5486 (FAA) | 24025

RNAV (GPS) RWY 28

IONIA COUNTY (Y70)

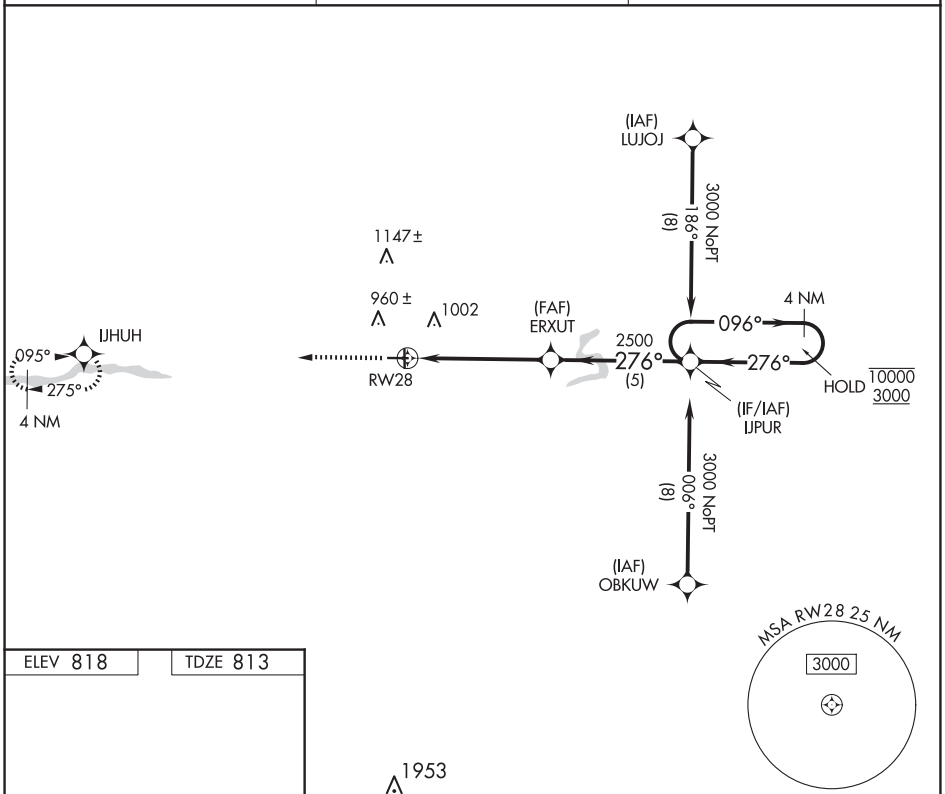
APP CRS	Rwy Idg	TDZE	Apt Elev
276°	4298	813	818

RNP APCH - GPS.

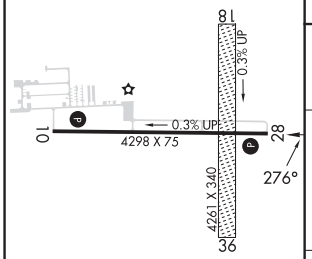
Circling NA to Rwys 18 and 36. Rwy 28 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 3000 direct IJHUH and hold.

AWOS-3	GREAT LAKES APP CON ★	UNICOM
118.9	118.65 226.4	122.8 (CTAF) L



ELEV 818 | TDZE 813

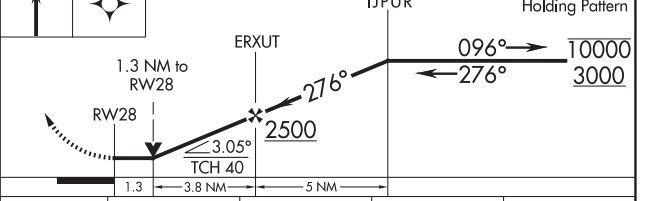


1953

3000 | IJHUH

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 22).

4 NM Holding Pattern



CATEGORY	A	B	C	D
LNAV MDA	1240-1	427 (500-1)	1240-1¼ 427 (500-1¼)	NA
C CIRCLING	1320-1	502 (600-1)	1340-1½ 522 (600-1½)	NA

REIL Rwy 28 L
MIRL Rwy 10-28 L

EC-1, 07 AUG 2025 to 02 OCT 2025

LOC I-IMT	APP CRS	Rwy Idg	6502
111.5	010°	TDZE	1133
		Apt Elev	1182

ILS or LOC RWY 1
FORD (IMT)

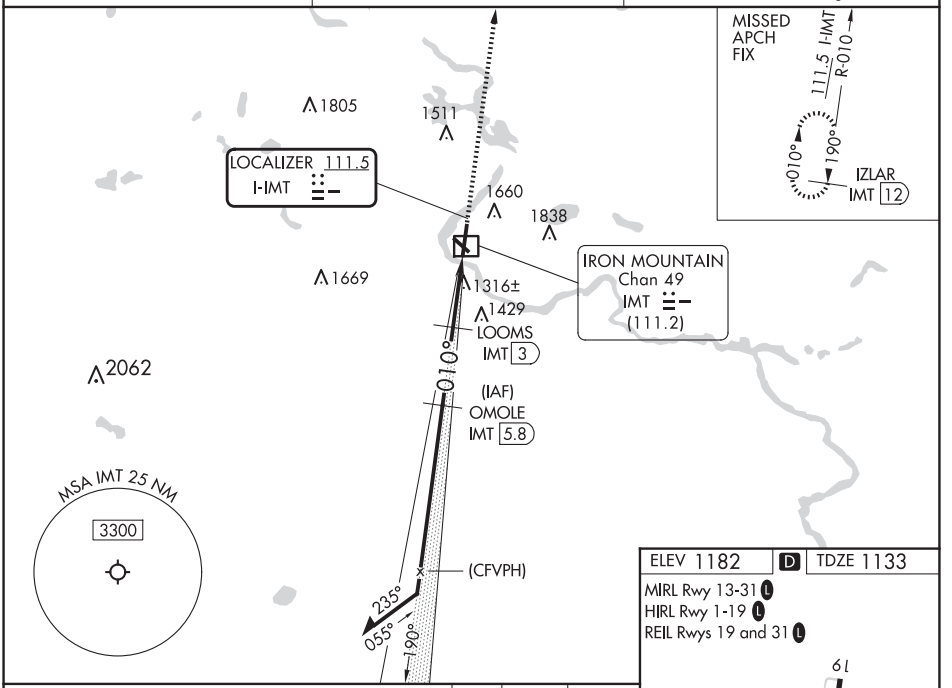
DME required. RADAR required for procedure entry.

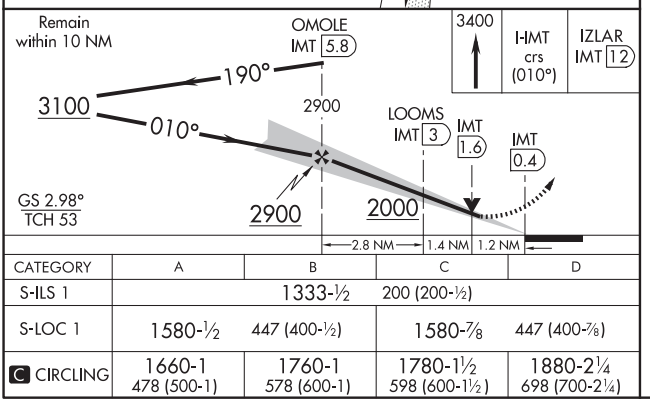
V A NA — Circling Rwy 13,19 and 31 NA at night. VDP NA when using ESC altimeter setting. Circling NA northeast of Rwys 19 and 31. DME from IMT DME. DME use requires simultaneous reception of I-IMT and IMT DME. For inop ALS, increase S-LOC 01 Cats C and D visibilities to 1⅜ SM. When local altimeter setting not received, use ESC altimeter setting: increase S-ILS 01 DA to 1513 feet and all visibilities ⅛ SM; increase all MDAs 180 feet and S-LOC 01 visibility Cat C and D ½ SM, and Circling visibility Cat C and D ¾ SM. For inop ALS when using ESC altimeter setting, increase S-ILS 01 all Cats visibility to 1 SM.

MALSR (A5)

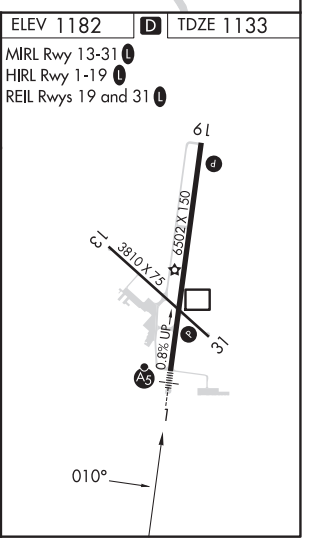
MISSED APPROACH: Climb to 3400 on I-IMT LOC course (010°) to IZLAR/IMT 12 DME and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
119.025	121.25 322.5	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-ILS 1	1333-½		200 (200-½)	
S-LOC 1	1580-½	447 (400-½)	1580-⅞	447 (400-⅞)
C CIRCLING	1660-1 478 (500-1)	1760-1 578 (600-1)	1780-1½ 598 (600-1½)	1880-2¼ 698 (700-2¼)



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

IRON MOUNTAIN KINGSFORD, MICHIGAN | AL-5347 (FAA) | 25107

WAAS	APP CRS	Rwy Idg	6502
CH 77811	010°	TDZE	1133
W01A		Apt Elev	1182

RNAV (GPS) RWY 1

FORD (IMT)

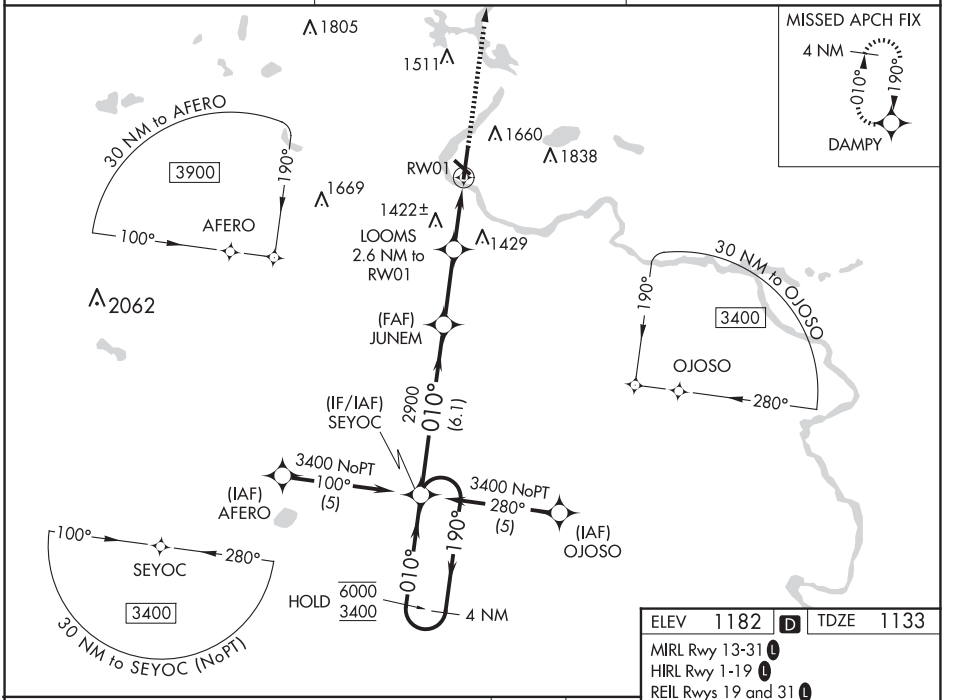
RNP APCH - GPS.

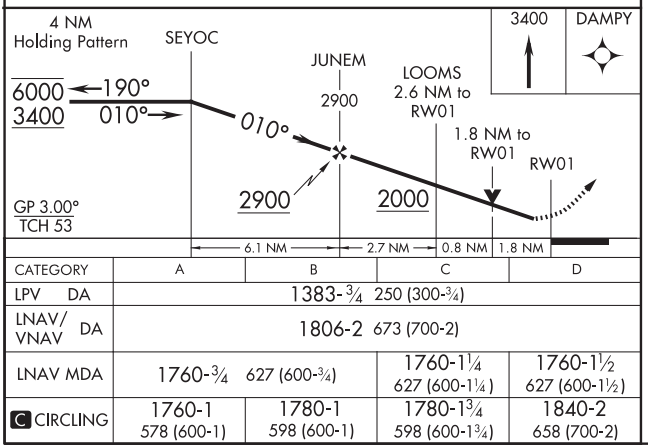
Circling NA northeast of Rwys 19 and 31. Circling Rwy 13, 19, 31 NA at night. Rwy 1 helicopter visibility reduction below ¾ SM NA. Inop table does not apply to LPV. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C or above 54°C. For inop ALS, increase LNAV Cat A and B visibility ¼ SM.

MALSR

MISSED APPROACH: Climb to 3400 direct DAMPY and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
119.025	121.25 322.5	122.8 (CTAF) L





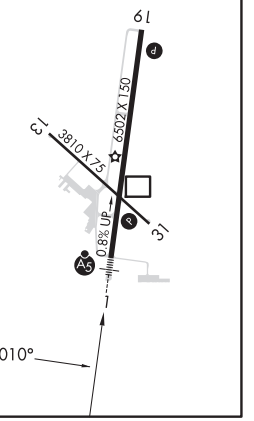
CATEGORY	A	B	C	D
LPV DA	1383-¾ 250 (300-¾)			
LNAV/VNAV DA	1806-2 673 (700-2)			
LNAV MDA	1760-¾ 627 (600-¾)		1760-1¼ 627 (600-1¼)	1760-1½ 627 (600-1½)
C CIRCLING	1760-1 578 (600-1)	1780-1 598 (600-1)	1780-1¾ 598 (600-1¾)	1840-2 658 (700-2)

ELEV 1182 D TDZE 1133

MIRL Rwy 13-31 L

HIRL Rwy 1-19 L

REIL Rwys 19 and 31 L



IRON MOUNTAIN KINGSFORD, MICHIGAN

Orig-D 05SEP24

45°49'N - 88°07'W

FORD (IMT)

RNAV (GPS) RWY 1

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

APP CRS	Rwy Idg	6376
190°	TDZE	1182
	Apt Elev	1182

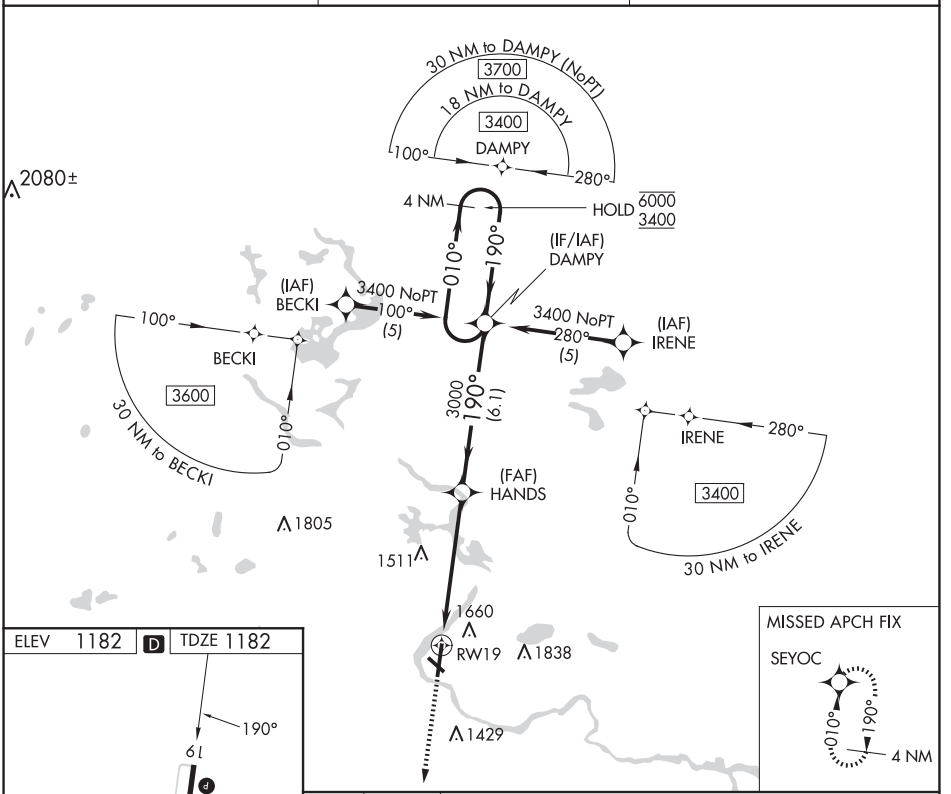
RNAV (GPS) RWY 19
FORD (IMT)

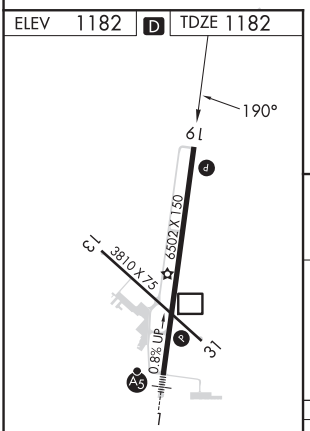
RNP APCH-GPS.

T Circling NA northeast of Rwys 19 and 31. Rwy 19 helicopter visibility reduction below 1 SM NA.
A Straight-in Rwy 19 NA at night, Circling Rwy 13, 19, 31 NA at night.

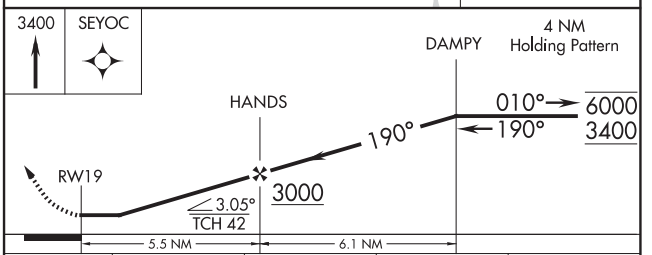
MISSED APPROACH: Climb to 3400 direct SEYOC and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
119.025	121.25 322.5	122.8 (CTAF) L





MIRL Rwy 13-31 L
HIRL Rwy 1-19 L
REIL Rwys 19 and 31 L



CATEGORY	A	B	C	D
LNAV MDA	1760-1 578 (600-1)		1760-1⅝	578 (600-1⅝)
C CIRCLING	1760-1 578 (600-1)	1780-1 598 (600-1)	1780-1⅝ 598 (600-1⅝)	1840-2 658 (700-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

IRON MOUNTAIN KINGSFORD, MICHIGAN AL-5347 (FAA) 25107

LOC I-IMT 111.5	APP CRS 190°	Rwy Idg 6376 TDZE 1182 Apt Elev 1182

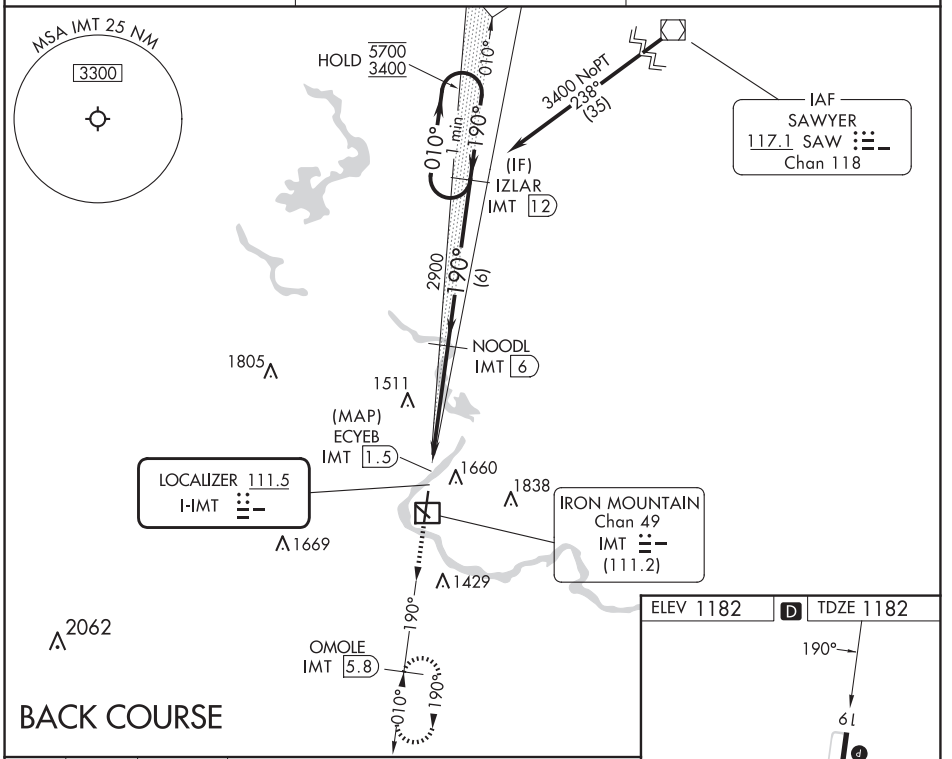
LOC BC RWY 19
FORD (IMT)

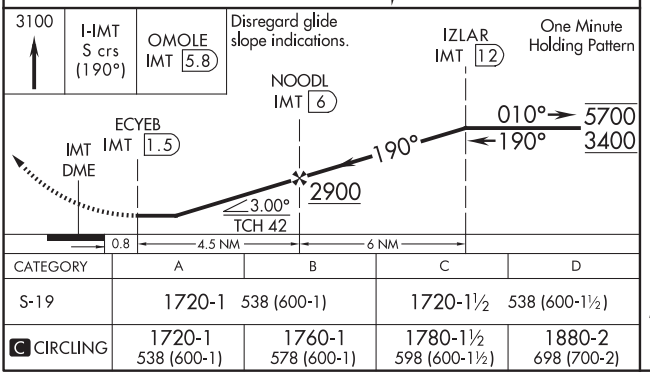
DME required.

T
A NA Rwy 19 helicopter visibility reduction below 1 SM NA. Circling NA northeast of Rwys 19 and 31. Straight-in Rwy 19 NA at night, Circling Rwy 13,19, 31 NA at night. When local altimeter setting not received, use ESC altimeter setting and increase all MDAs 180 feet, and increase S-19 Cats C and D visibility ½ SM and Circling Cats C and D visibility ¾ SM. DME from IMT DME. DME use requires simultaneous reception of I-IMT and IMT DME.

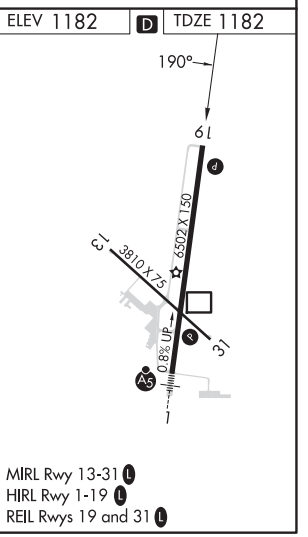
MISSED APPROACH: Climb to 3100 on I-IMT localizer south course (190°) to OMOLE/IMT 5.8 DME and hold.

ASOS 119.025	MINNEAPOLIS CENTER 121.25 322.5	UNICOM 122.8 (CTAF) L





CATEGORY	A	B	C	D
S-19	1720-1 538 (600-1)		1720-1½ 538 (600-1½)	
C CIRCLING	1720-1 538 (600-1)	1760-1 578 (600-1)	1780-1½ 598 (600-1½)	1880-2 698 (700-2)

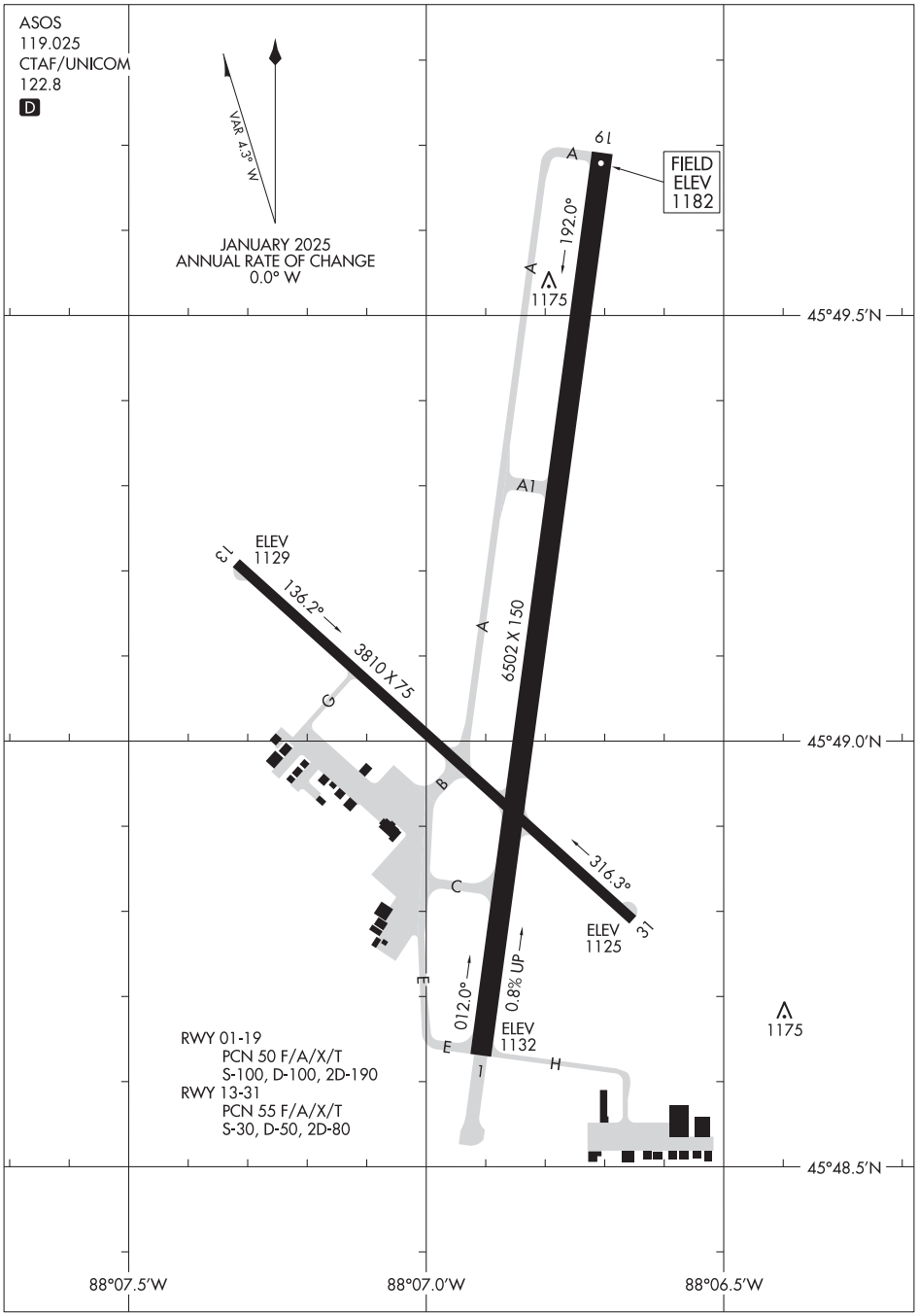


IRON MOUNTAIN KINGSFORD, MICHIGAN
Amdt 14 17APR25

45°49′N-88°07′W

FORD (IMT)
LOC BC RWY 19

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025



EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

IRONWOOD, MICHIGAN AL-5213 (FAA) 25163

LOC I-IWD	APP CRS	Rwy Ldg	6501
111.5	270°	TDZE	1230
		Apt Elev	1230

ILS or LOC RWY 27

GOGEBIC/IRON COUNTY (IWD)

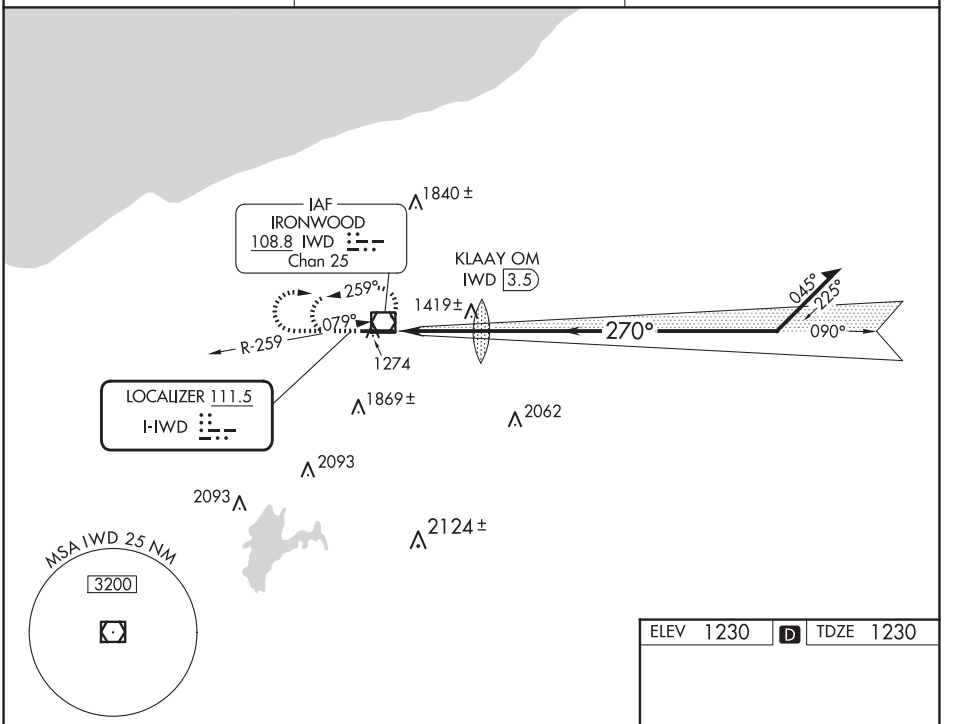
T
NA
-26°C

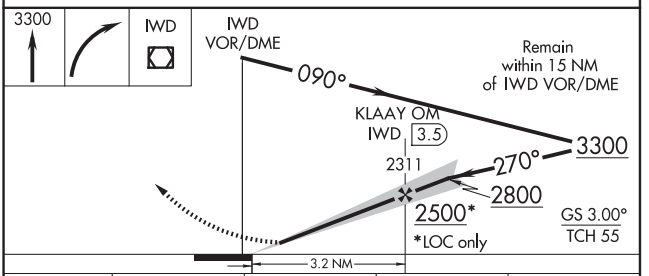
When local altimeter setting not received, use ASX altimeter setting: increase DA to 1562 feet; increase all MDAs 140 feet and S-LOC 27 visibility Cats C and D ½ SM and Circling visibility Cat B ¼ SM. For inop ALS when using ASX altimeter setting, increase S-ILS 27 all Cats visibility to 1 SM.

MALSR

MISSED APPROACH: Climb to 3300 then right turn direct IWD VOR/DME and hold.

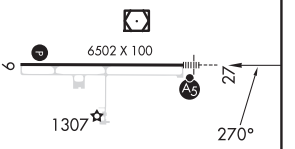
AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
125.175	133.55	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-ILS 27		1430-½	200 (200-½)	
S-LOC 27	1720-½	490 (500-½)	1720-1	490 (500-1)
CIRCLING	2100-1¼	870 (900-1¼)	2200-3 970 (1000-3)	2220-3 990 (1000-3)

ELEV 1230 D TDZE 1230



REIL Rwy 9 L
HIRL Rwy 9-27 L

FAF to MAP 3.2 NM

Knots	60	90	120	150	180
Min:Sec	3:12	2:08	1:36	1:17	1:04

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Ldg	6501
CH 86747	090°	TDZE	1230
W09A		Apt Elev	1230

RNAV (GPS) RWY 9

GOGEBIC/IRON COUNTY (IWD)

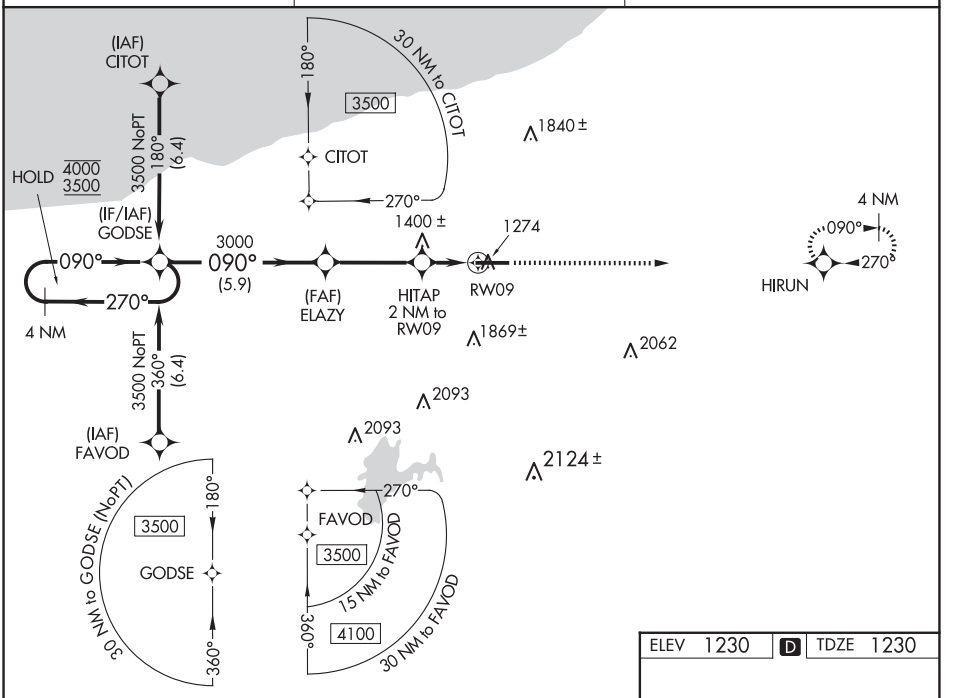
RNP APCH - GPS.

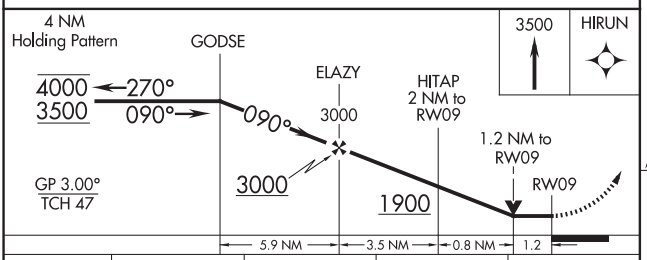
T A -26°C

Rwy 9 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C or above 54°C.

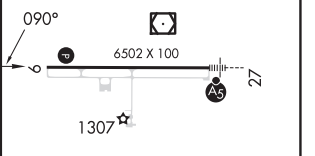
MISSED APPROACH: Climb to 3500 direct HIRUN and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
125.175	133.55	122.8 (CTAF) L





CATEGORY	A	B	C	D
LPV DA		1480-¾	250 (300-¾)	
LNAV/VNAV DA		1630-1⅛	400 (400-1⅛)	
LNAV MDA	1660-1	430 (500-1)	1660-1¼	430 (500-1¼)
CIRCLING	2100-1¼	870 (900-1¼)	2200-3 970 (1000-3)	2220-3 990 (1000-3)



REIL Rwy 9 L
HIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

IRONWOOD, MICHIGAN | AL-5213 (FAA) | 25163

WAAS	APP CRS	Rwy Ldg	6501
CH 50212	270°	TDZE	1230
W27A		Apt Elev	1230

RNAV (GPS) RWY 27

GOGEBIC/IRON COUNTY (IWD)

RNP APCH - GPS.

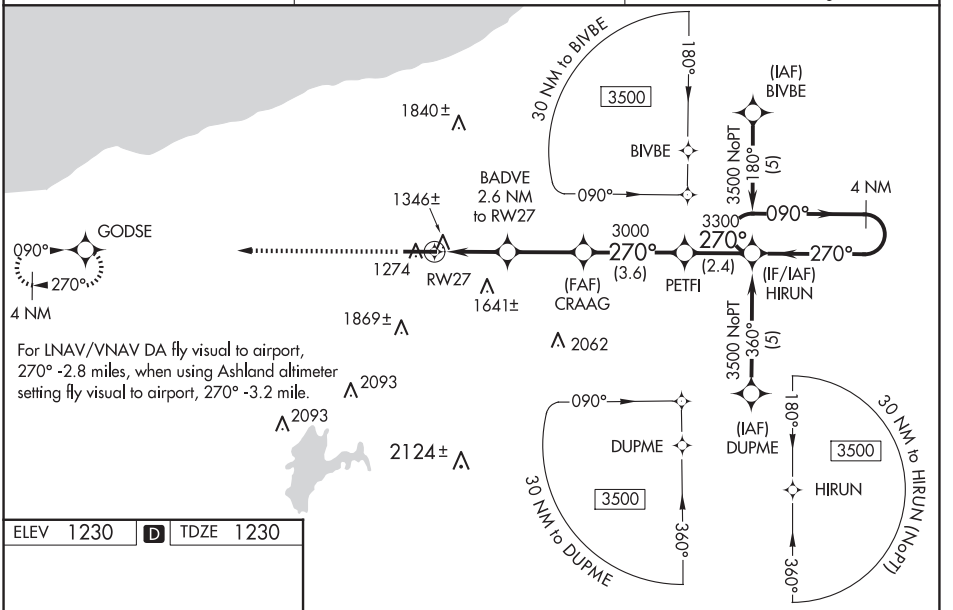
Inoperative table does not apply to LPV and LNAV/VNAV all Cats and LNAV Cats A and B. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C or above 46°C. When using Ashland altimeter setting: inop table does not apply to LNAV/VNAV all Cats and LNAV Cat A. When using Ashland altimeter setting: for inoperative MALSR, increase LNAV Cat B visibility to 1¼ mile. Baro-VNAV and VDP NA when using Ashland altimeter setting. When local altimeter setting not received, use Ashland altimeter setting: increase LPV DA to 1562 feet; increase LNAV/VNAV DA to 2298 feet and Cat C visibility ¼ SM; increase all MDA 140 feet and LNAV Cat C/D visibility ½ SM and Circling Cat B visibility ¼ SM.

-26°C

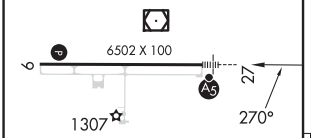
MALSR

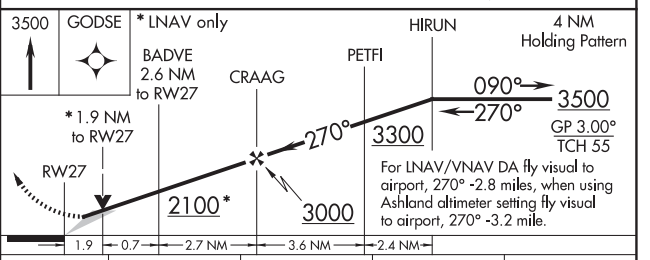
MISSED APPROACH: Climb to 3500 direct GODSE and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
125.175	133.55	122.8 (CTAF) L



ELEV 1230 | D | TDZE 1230





CATEGORY	A	B	C	D
LPV DA		1430-1 200 (200-1)		
LNAV/VNAV DA	2166-2 936 (1000-2)		2166-2¾ 936 (1000-2¾)	2166-3 936 (1000-3)
LNAV MDA	1900-1 670 (700-1)		1900-1¼ 670 (700-1¼)	1900-1½ 670 (700-1½)
CIRCLING	2100-1¼ 870 (900-1¼)		2200-3 970 (1000-3)	2220-3 990 (1000-3)

REIL Rwy 9 L
HIRL Rwy 9-27 L

IRONWOOD, MICHIGAN
Orig-A 15JUL21

46°32'N-90°08'W

GOGEBIC/IRON COUNTY (IWD)

RNAV (GPS) RWY 27

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

VOR/DME IWD	APP CRS	Rwy Ldg	6501
108.8	079°	TDZE	1230
Chan 25		Apt Elev	1230

VOR RWY 9

GOGEBIC/IRON COUNTY (IWD)

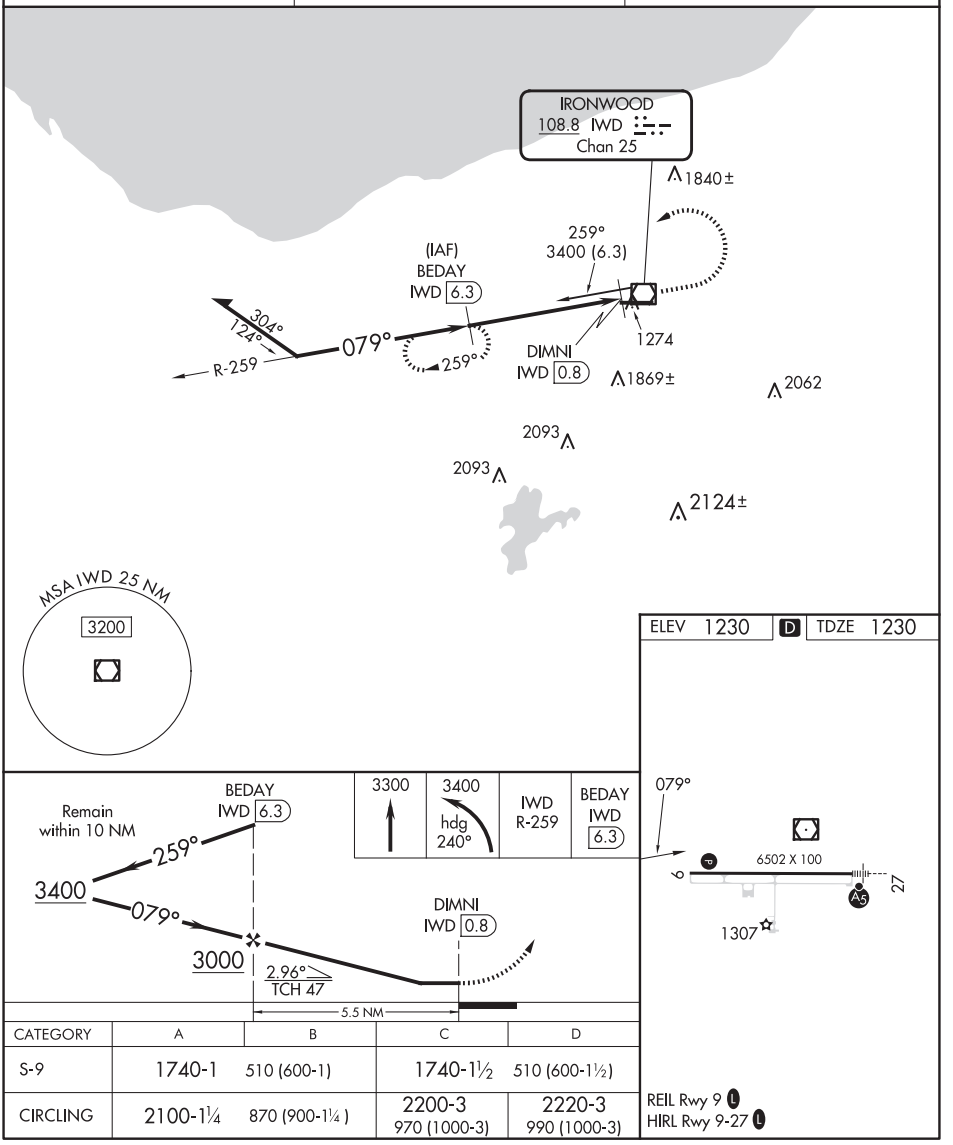
DME required.

Rwy 9 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use ASX altimeter setting: increase all MDAs 140 feet and S-9 visibility Cat C ¼ SM and Cat D ½ SM, and Circling visibility Cat B ¼ SM.

-26°C

MISSED APPROACH: Climb to 3300 then climbing left turn to 3400 on heading 240° and IWD R-259 to BEDAY/6.3 DME and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
125.175	133.55	122.8 (CTAF) L



CATEGORY	A	B	C	D
S-9	1740-1	510 (600-1)	1740-1½	510 (600-1½)
CIRCLING	2100-1¼	870 (900-1¼)	2200-3 970 (1000-3)	2220-3 990 (1000-3)

REIL Rwy 9 L
HIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

JACKSON, MICHIGAN AL-861 (FAA) 22251

ILS or LOC RWY 25

JACKSON COUNTY/REYNOLDS FLD (JXN)

LOC I-JXN	APP CRS	Rwy Idg	5351
109.1	254°	TDZE	996
		Apt Elev	1001

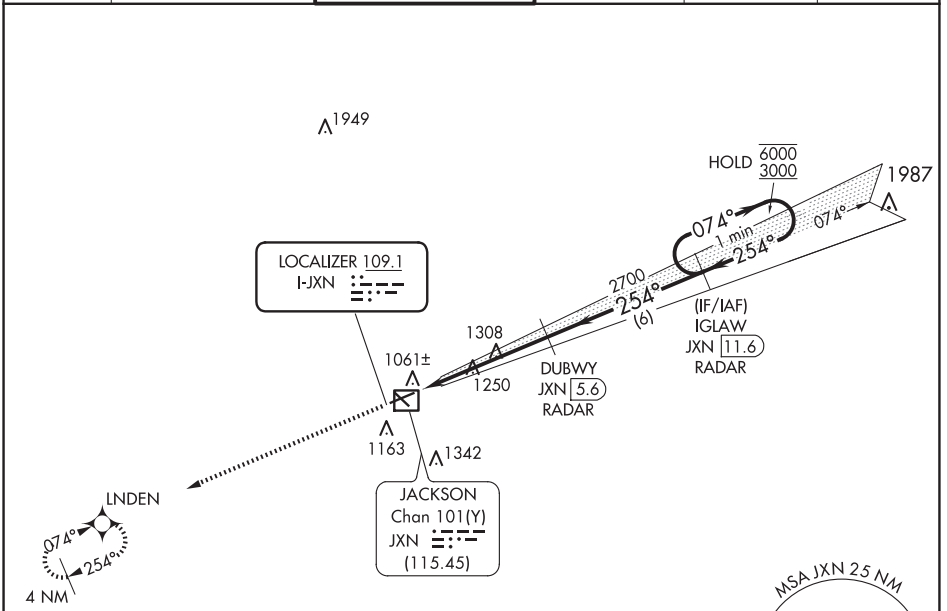
RNAV-1 GPS required. RADAR required for procedure entry. DME or RADAR required.

For inop ALS, increase S-LOC 25 Cat C/D visibility to 1¾ SM.

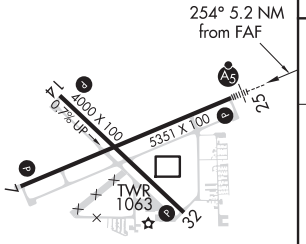
MALSR

MISSED APPROACH: Climb to 3000 direct LNDEN and hold.

ATIS	GREAT LAKES APP CON ★	JACKSON TOWER ★	GND CON	CLNC DEL	UNICOM
125.725	127.3 335.575	128.475 (CTAF) L 257.8	121.9	121.9	122.95

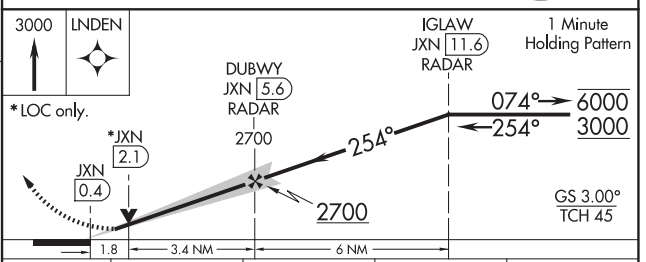


ELEV 1001 TDZE 996



HIRL Rwy 7-25 L
MIRL Rwy 14-32 L
REIL Rwys 7 and 32 L

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44



CATEGORY	A	B	C	D
S-ILS 25	1196-½ 200 (200-½)			
S-LOC 25	1620-½ 624 (700-½)		1620-1⅜ 624 (700-1⅜)	
C CIRCLING	1620-1 619 (700-1)		1660-1¾ 659 (700-1¾)	1660-2 659 (700-2)

JACKSON, MICHIGAN
Amdt 1 26MAR20

42°16′N-84°28′W

JACKSON COUNTY/REYNOLDS FLD (JXN)

ILS or LOC RWY 25

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 7

JACKSON COUNTY/REYNOLDS FLD (JXN)

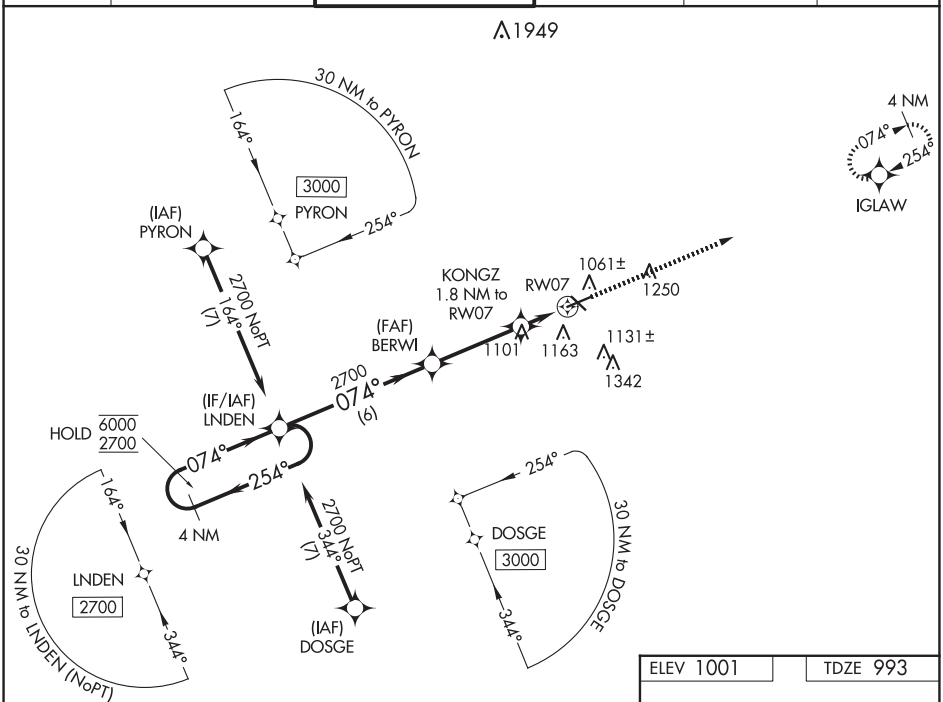
WAAS CH 62841 W07A	APP CRS 074°	Rwy Idg 5351 TDZE 993 Apt Elev 1001

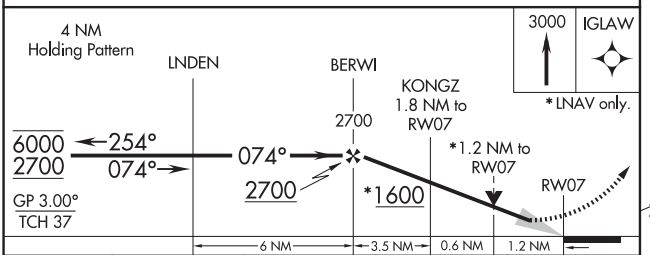
RNP APCH.

For uncompensated Baro-VNAV systems, LNAV/ VNAV NA below -23°C or above 54°C.

MISSED APPROACH: Climb to 3000 direct IGLAW and hold.

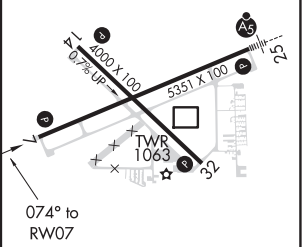
ATIS	GREAT LAKES APP CON ★	JACKSON TOWER ★	GND CON	CLNC DEL	UNICOM
125.725	127.3 335.575	128.475 (CTAF) L 257.8	121.9	121.9	122.95





CATEGORY	A	B	C	D
LPV DA	1258-⅞	265 (300-⅞)		
LNAV/ VNAV DA	1292-⅞	299 (300-⅞)		
LNAV MDA	1400-1	407 (400-1)	1400-1⅛	407 (400-1⅛)
C CIRCLING	1480-1	479 (500-1)	1660-1¾ 659 (700-1¾)	1660-2 659 (700-2)

ELEV 1001 TDZE 993



HIRL Rwy 7-25 L
MIRL Rwy 14-32 L
REIL Rwys 7 and 32 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

JACKSON, MICHIGAN | AL-861 (FAA) | 23054

RNAV (GPS) RWY 14

JACKSON COUNTY/REYNOLDS FLD (JXN)

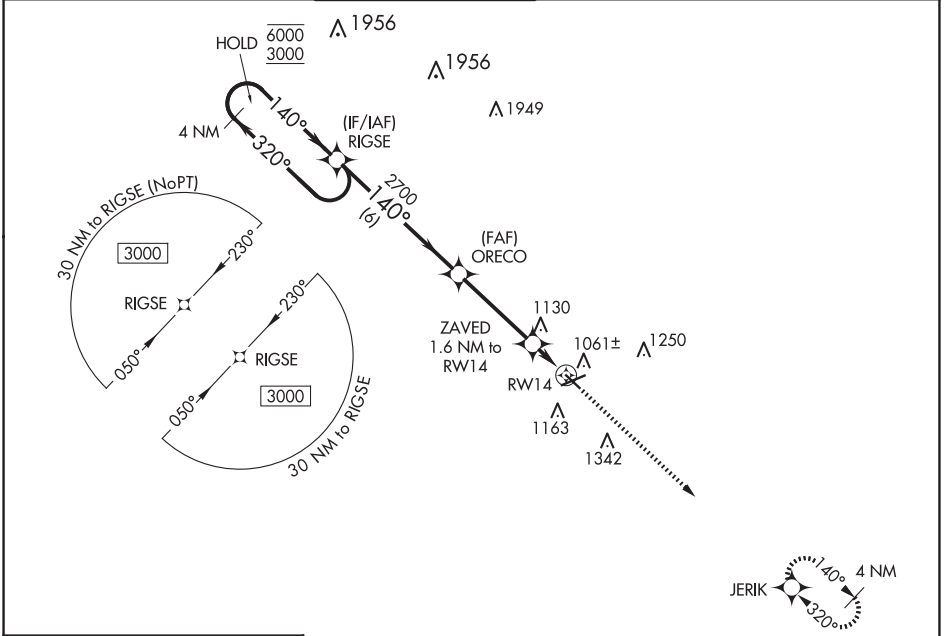
WAAS CH 86527 W14A	APP CRS 140°	Rwy Idg 4000 TDZE 996 Apt Elev 1001

RNP APCH - GPS.

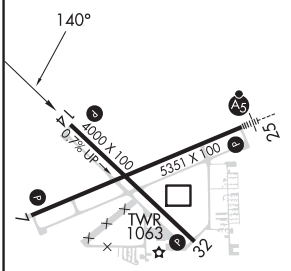
Rwy 14 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C or above 54°C.

MISSED APPROACH: Climb to 3000 direct JERIK and hold.

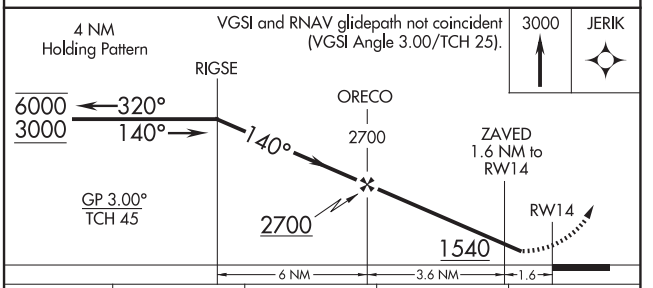
ATIS	GREAT LAKES APP CON ★	JACKSON TOWER ★	GND CON	CLNC DEL	UNICOM
125.725	127.3 335.575	128.475 (CTAF) L 257.8	121.9	121.9	122.95



ELEV 1001 | TDZE 996



HIRL Rwy 7-25 L
MIRL Rwy 14-32 L
REIL Rwys 7 and 32 L



CATEGORY	A	B	C	D
LPV DA	1345-1 349 (400-1)			
LNAV/VNAV DA	1463-1⅜ 467 (500-1⅜)			
LNAV MDA	1380-1 384 (400-1)		1380-1⅛ 384 (400-1⅛)	
C CIRCLING	1480-1 479 (500-1)		1660-1¾ 659 (700-1¾)	1660-2 659 (700-2)

JACKSON, MICHIGAN
Amdt 2 23FEB23

42°16′N-84°28′W

JACKSON COUNTY/REYNOLDS FLD (JXN)

RNAV (GPS) RWY 14

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 86341 W25A	APP CRS 254°	Rwy Idg 5351 TDZE 996 Apt Elev 1001

RNAV (GPS) RWY 25

JACKSON COUNTY/REYNOLDS FLD (JXN)

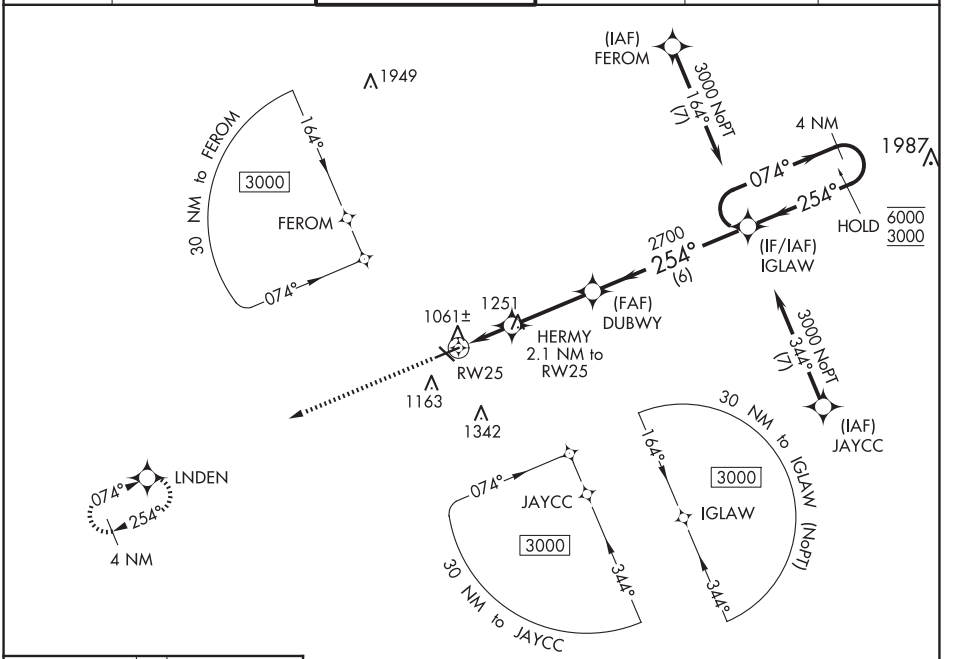
RNP APCH - GPS.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -21°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats visibility to ⅞ SM.

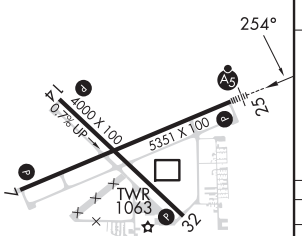
MALSR

MISSED APPROACH: Climb to 2700 direct LNDEN and hold.

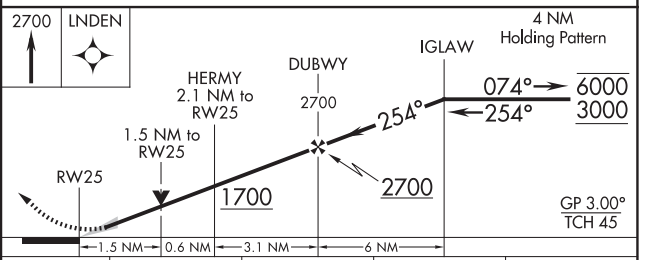
ATIS	GREAT LAKES APP CON ★	JACKSON TOWER ★	GND CON	CLNC DEL	UNICOM
125.725	127.3 335.575	128.475 (CTAF) L 257.8	121.9	121.9	122.95



ELEV 1001 TDZE 996



HIRL Rwy 7-25 L
MIRL Rwy 14-32 L
REIL Rwys 7 and 32 L



CATEGORY	A	B	C	D
LPV DA	1196-½ 200 (200-½)			
LNAV/VNAV DA	1279-½ 283 (300-½)			
LNAV MDA	1520-½ 524 (600-½)		1520-1 524 (600-1)	
C CIRCLING	1520-1 519 (600-1)		1660-1¾ 659 (700-1¾)	1660-2 659 (700-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

JACKSON, MICHIGAN | AL-861 (FAA) | 23054

APP CRS	Rwy Idg	4000
320°	TDZE	1001
	Apt Elev	1001

RNAV (GPS) RWY 32

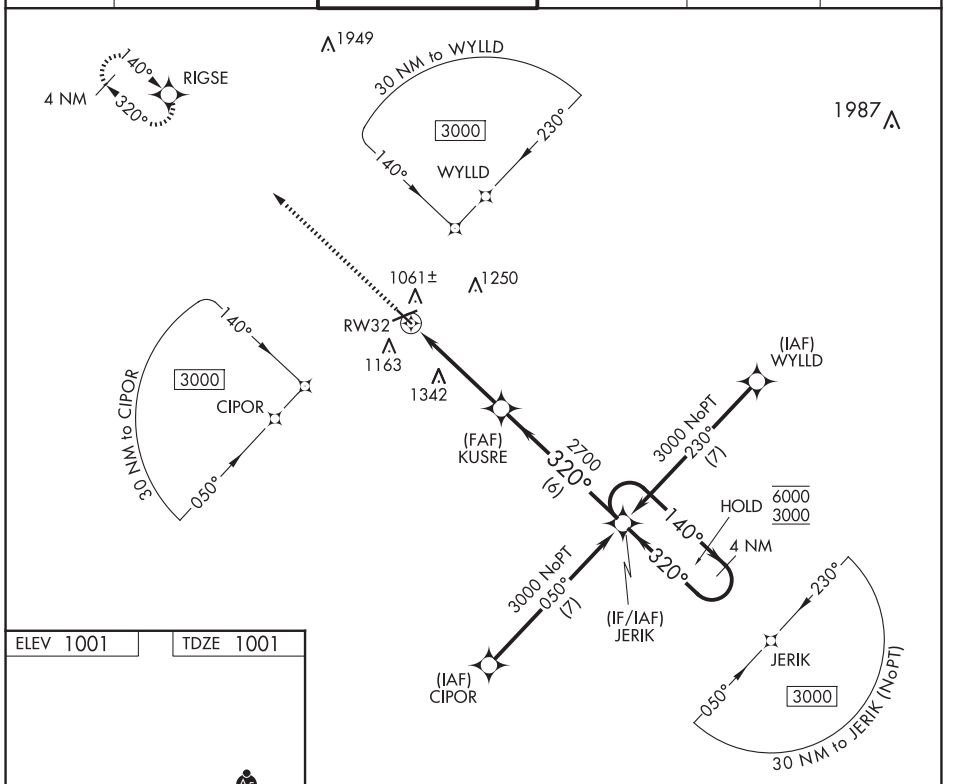
JACKSON COUNTY/REYNOLDS FLD (JXN)

RNP APCH - GPS.

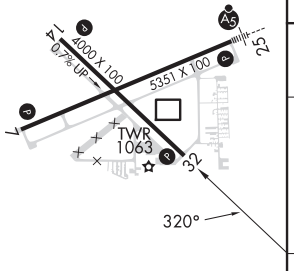
Rwy 32 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 3000 direct RIGSE and hold.

ATIS	GREAT LAKES APP CON ★	JACKSON TOWER ★	GND CON	CLNC DEL	UNICOM
125.725	127.3 335.575	128.475 (CTAF) L 257.8	121.9	121.9	122.95



ELEV 1001	TDZE 1001

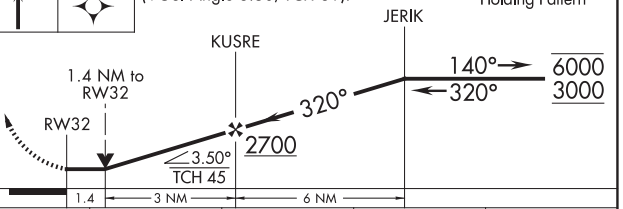


HIRL Rwy 7-25 L
MIRL Rwy 14-32 L
REIL Rwys 7 and 32 L

3000	RIGSE

VGSI and descent angles not coincident (VGSI Angle 3.50/TCH 31).

4 NM Holding Pattern



CATEGORY	A	B	C	D
LNAV MDA	1560-1	559 (600-1)	1560-1⅝	559 (600-1⅝)
C CIRCLING	1560-1	559 (600-1)	1660-1¾ 659 (700-1¾)	1660-2 659 (700-2)

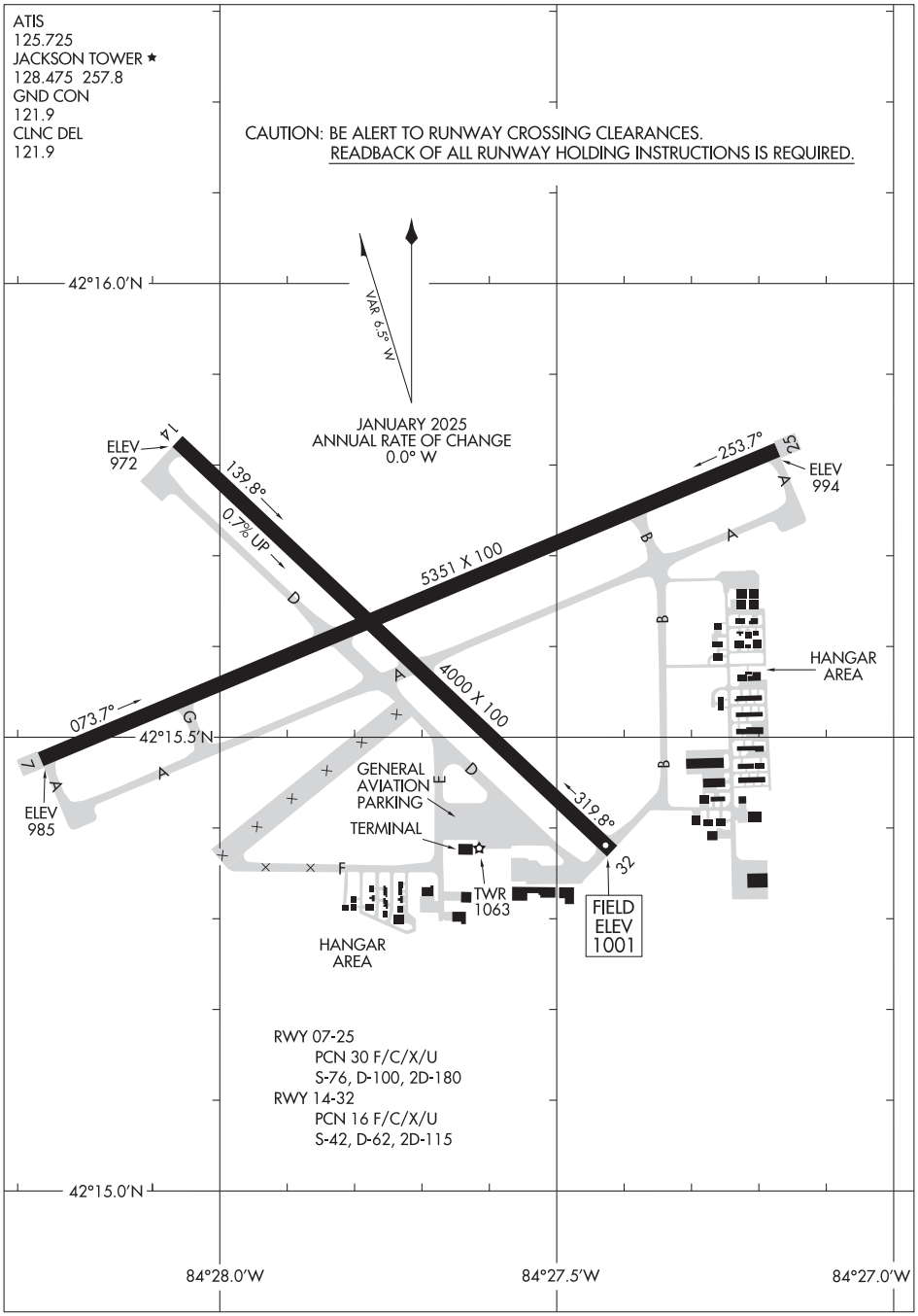
JACKSON, MICHIGAN
Amdt 1 23FEB23

42°16′N-84°28′W

JACKSON COUNTY/REYNOLDS FLD (JXN)

RNAV (GPS) RWY 32

EC-1, 07 AUG 2025 to 02 OCT 2025



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

KALAMAZOO, MICHIGAN | AL-717 (FAA) | 25051

ILS or LOC RWY 35

KALAMAZOO/BATTLE CREEK INTL (AZO)

LOC I-AZO	APP CRS	Rwy Idg	6502
110.9	354°	TDZE	868
		Apt Elev	874

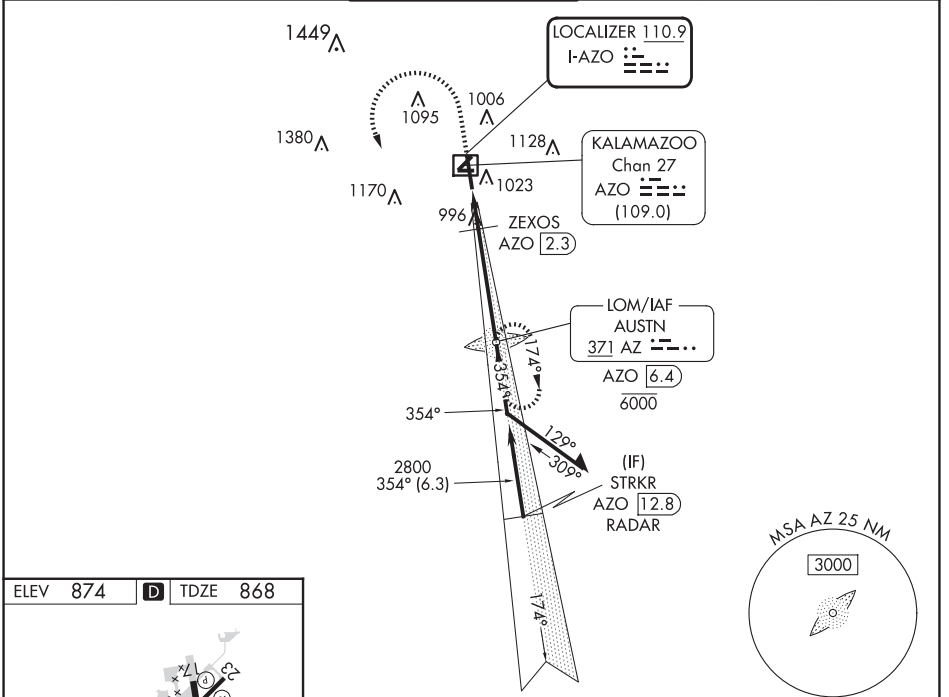
ADF required. DME required for LOC only. RADAR required for procedure entry.

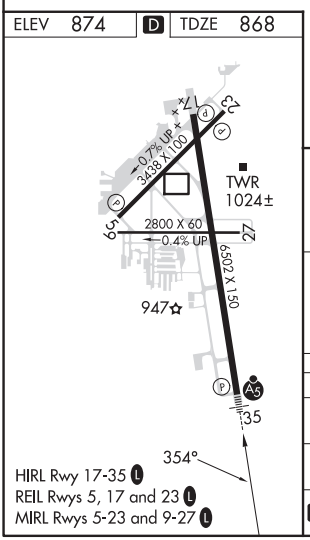
T NA DME from AZO DME. DME use requires simultaneous reception of I-AZO and AZO DME. Circling Rwy 5, 9, 23, 27 NA at night. When local altimeter setting not received, use Battle Creek altimeter setting: increase S-ILS 35 DA to 1112 feet; increase all MDAs 60 feet and visibility S-LOC 35 Cat C/D to RVR 4500. * RVR 1800 authorized with use of FD or AP or HUD to DA (NA when using Battle Creek altimeter setting).

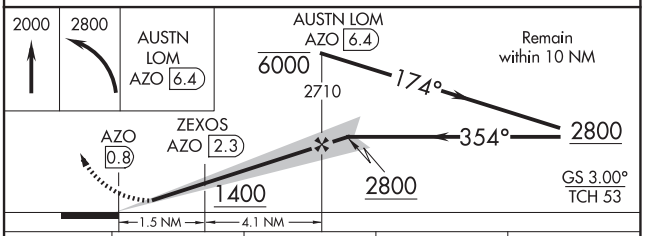
MALSR

MISSED APPROACH: Climb to 2000 then climbing left turn to 2800 direct AUSTN LOM/AZO 6.4 DME and hold.

ATIS	GREAT LAKES APP CON *	KALAMAZOO TOWER *	GND CON	CLNC DEL	UNICOM
127.25	121.2 239.25	118.3 (CTAF) L 257.875	121.9	121.75	122.95







CATEGORY	A	B	C	D
S-ILS 35*	1068/24 200 (200-½)			
S-LOC 35	1260/24 392 (400-½)		1260/35 392 (400-⅝)	
C CIRCLING	1340-1 466 (500-1)		1480-1¾ 606 (700-1¾)	1480-2 606 (700-2)

KALAMAZOO, MICHIGAN
Amdt 24 20APR23

42°14'N-85°33'W

KALAMAZOO/BATTLE CREEK INTL (AZO)

ILS or LOC RWY 35

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS		
CH **56321**	**048°**	Rwy Idg	**3439**
W05A		TDZE	**874**
		Apt Elev	**874**

RNAV (GPS) RWY 5

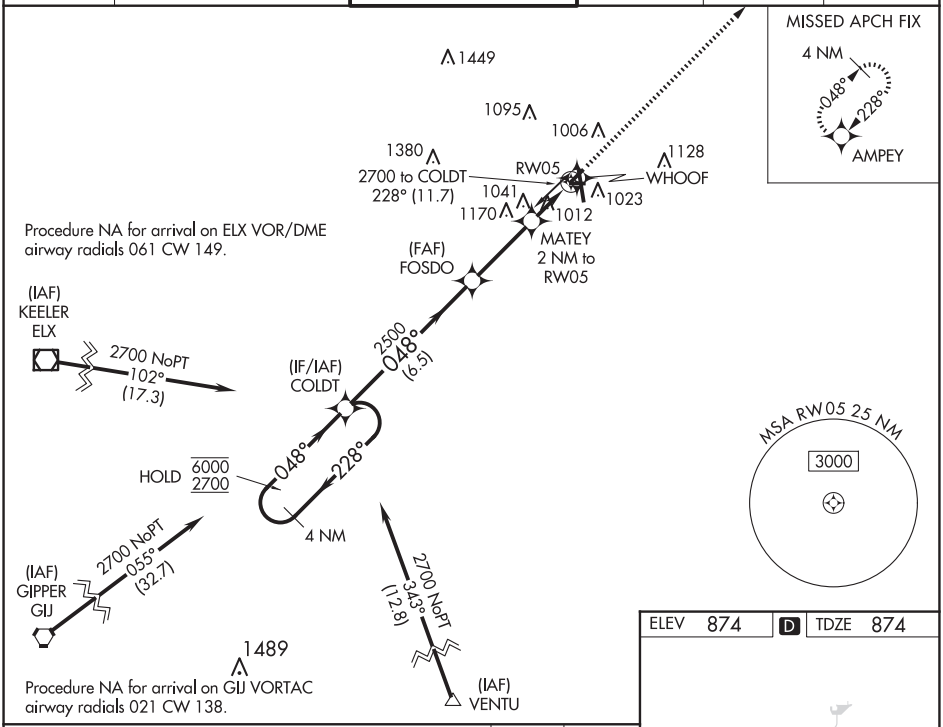
KALAMAZOO/BATTLE CREEK INTL (AZO)

RNP APCH - GPS.

Circling Rwy 5, 9, 17, 23, 27 NA at night.
Rwy 5 helicopter visibility reduction below 1 SM NA.
Rwy 5 straight-in minimums NA at night.

MISSED APPROACH: Climb to 3000 direct AMPEY and hold.

ATIS	GREAT LAKES APP CON ★	KALAMAZOO TOWER ★	GND CON	CLNC DEL	UNICOM
127.25	**121.2 239.25**	**118.3** (CTAF) L **257.875**	**121.9**	**121.75**	**122.95**



CATEGORY	A	B	C	D
LP MDA	1280-1	406 (500-1)	1280-1⅛ 406 (500-1⅛)	NA
LNAV MDA	1300-1	426 (500-1)	1300-1¼ 426 (500-1¼)	NA
C CIRCLING	1380-1	506 (600-1)	1480-1¾ 606 (700-1¾)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

KALAMAZOO, MICHIGAN | AL-717 (FAA) | 25051

RNAV (GPS) RWY 17

KALAMAZOO/BATTLE CREEK INTL (AZO)

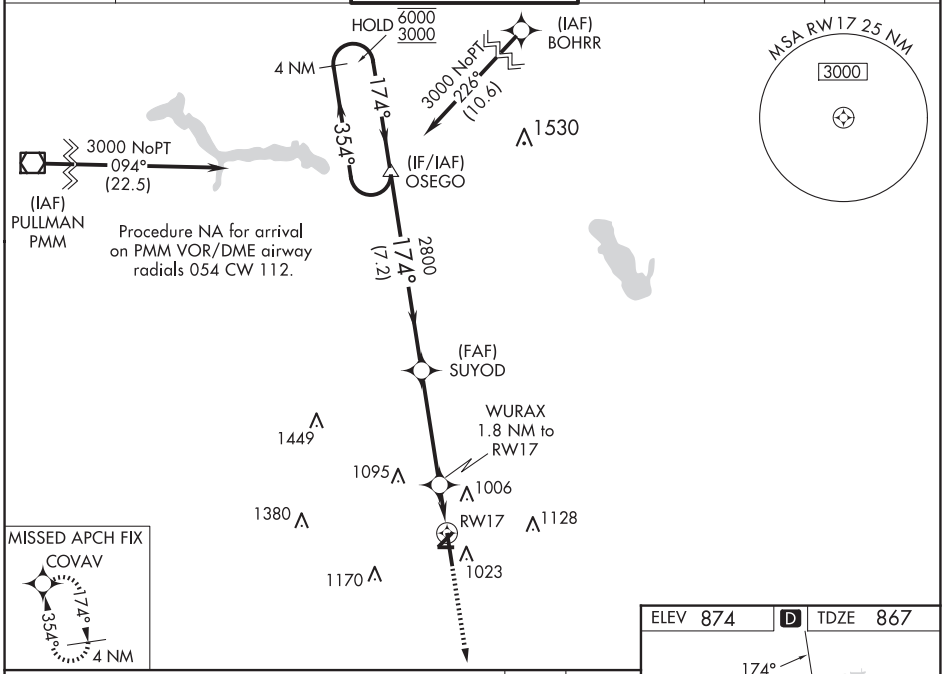
WAAS	APP CRS	Rwy Idg	6502
CH 57933	174°	TDZE	867
W17A		Apt Elev	874

RNP APCH - GPS.

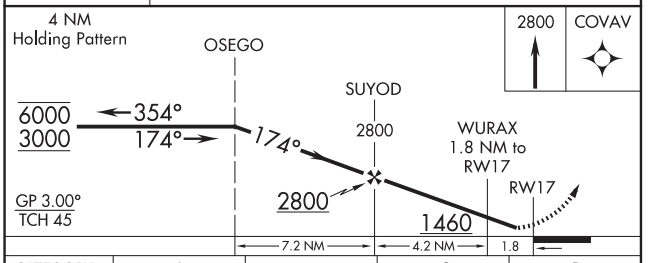
T A Rwy 17 helicopter visibility reduction below ¾ SM NA. Baro-VNAV NA when using Battle Creek altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C or above 54°C. Circling Rwy 5, 9, 23, 27 NA at night. When local altimeter setting not received, use Battle Creek altimeter setting: increase LPV DA to 1200 feet, LNAV/VNAV DA to 1229 feet; increase all MDAs 60 feet.

MISSED APPROACH: Climb to 2800 direct COVAV and hold.

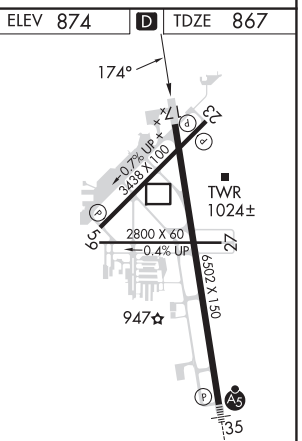
ATIS	GREAT LAKES APP CON ★	KALAMAZOO TOWER ★	GND CON	CLNC DEL	UNICOM
127.25	121.2 239.25	118.3 (CTAF) L 257.875	121.9	121.75	122.95



MISSED APCH FIX



CATEGORY	A	B	C	D
LPV DA		1156-1	289 (300-1)	
LNAV/VNAV DA		1185-1	318 (400-1)	
LNAV MDA	1320-1	453 (500-1)	1320-1⅜	453 (500-1⅜)
C CIRCLING	1380-1	506 (600-1)	1480-1¾ 606 (700-1¾)	1480-2 606 (700-2)



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	3439
CH 61021	228°	TDZE	874
W23A		Apt Elev	874

RNAV (GPS) RWY 23

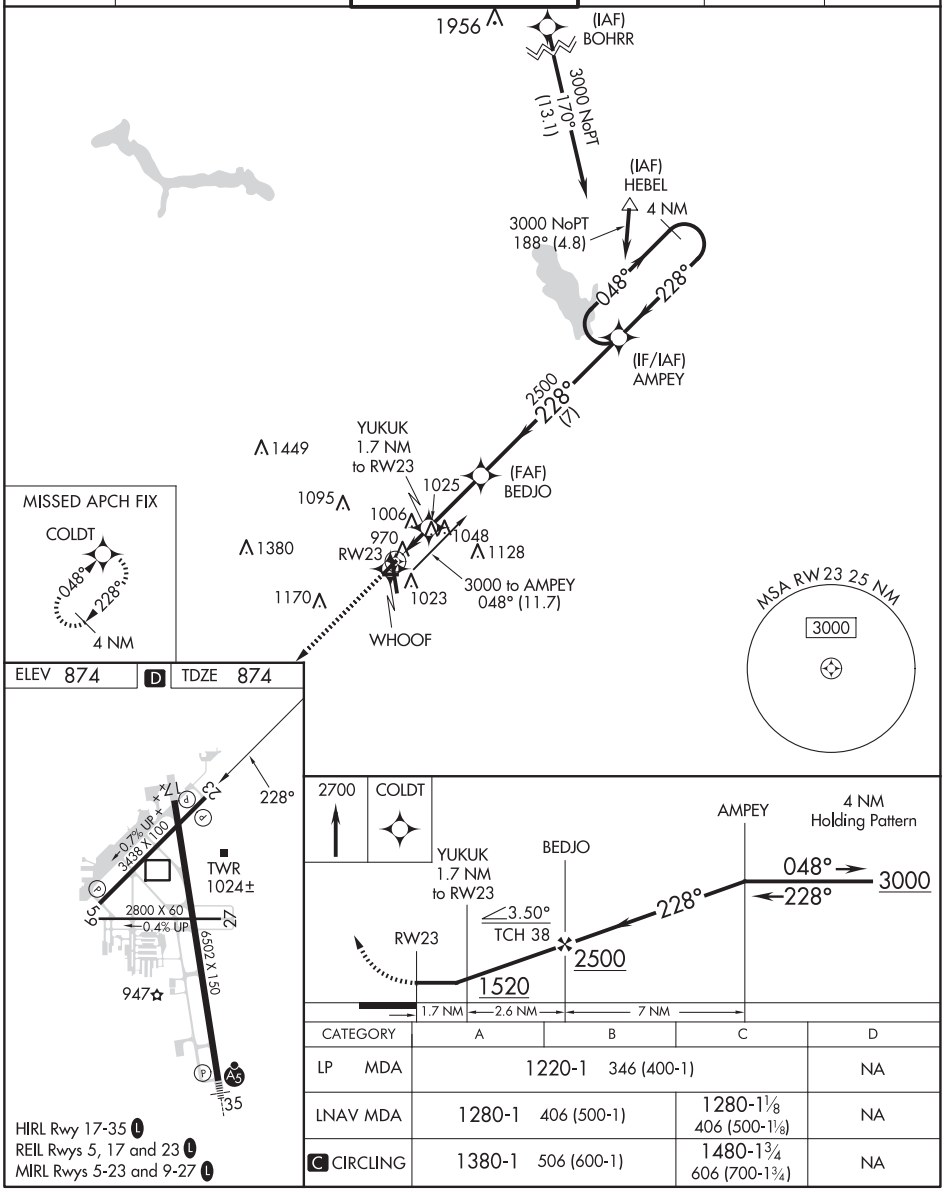
KALAMAZOO/BATTLE CREEK INTL (AZO)

RNP APCH.

Circling Rwy 5, 9, 17, 23, 27 NA at night. Rwy 23 helicopter visibility reduction below 1 SM NA. Straight-in Rwy 23 NA at night.

MISSED APPROACH: Climb to 2700 direct COLDT and hold.

ATIS	GREAT LAKES APP CON ★	KALAMAZOO TOWER★	GND CON	CLNC DEL	UNICOM
127.25	121.2 239.25	118.3 (CTAF) L 257.875	121.9	121.75	122.95



CATEGORY	A	B	C	D
LP MDA	1220-1 346 (400-1)			NA
LNAV MDA	1280-1 406 (500-1)		1280-1⅛ 406 (500-1⅛)	NA
C CIRCLING	1380-1 506 (600-1)		1480-1¾ 606 (700-1¾)	NA

HIRL Rwy 17-35 L
REIL Rwys 5, 17 and 23 L
MIRL Rwys 5-23 and 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

KALAMAZOO, MICHIGAN | AL-717 (FAA) | 25051

RNAV (GPS) RWY 35

KALAMAZOO/BATTLE CREEK INTL (AZO)

WAAS CH 61102 W35A	APP CRS 354°	Rwy Idg 6502 / TDZE 868 / Apt Elev 874

RNP APCH.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C or above 54°C. Circling Rwy 5, 9, 17, 23, 27 NA at night.
**RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSR

MISSED APPROACH: Climb to 3000 direct OSEGO and hold.

ATIS	GREAT LAKES APP CON ★	KALAMAZOO TOWER ★	GND CON	CLNC DEL	UNICOM
127.25	121.2 239.25	118.3 (CTAF) L 257.875	121.9	121.75	122.95

MISSED APCH FIX
4 NM 174° 354° OSEGO

1095 1006 1380 1128 1170 1023 1489

WHOOF
RW35
2800 to COVAV
174° (12.7)
GLEEK
2.7 NM to RW35
(FAF)
EYOLU
2800
354° (5.9)
(IF/IAF)
COVAV
174°
354°
4 NM
2800 NoPT
349° (6)
(IAF)
YURUD

MSA RW35 25 NM
3000

ELEV 874 | D | TDZE 868

TWR 1024±
0.7% UP
348 X 100
2800 X 60
0.4% UP
6502 X 150
947☆
35
354°

HIRL Rwy 17-35 L
REIL Rwys 5, 17 and 23 L
MIRL Rwys 5-23 and 9-27 L

3000 | OSEGO

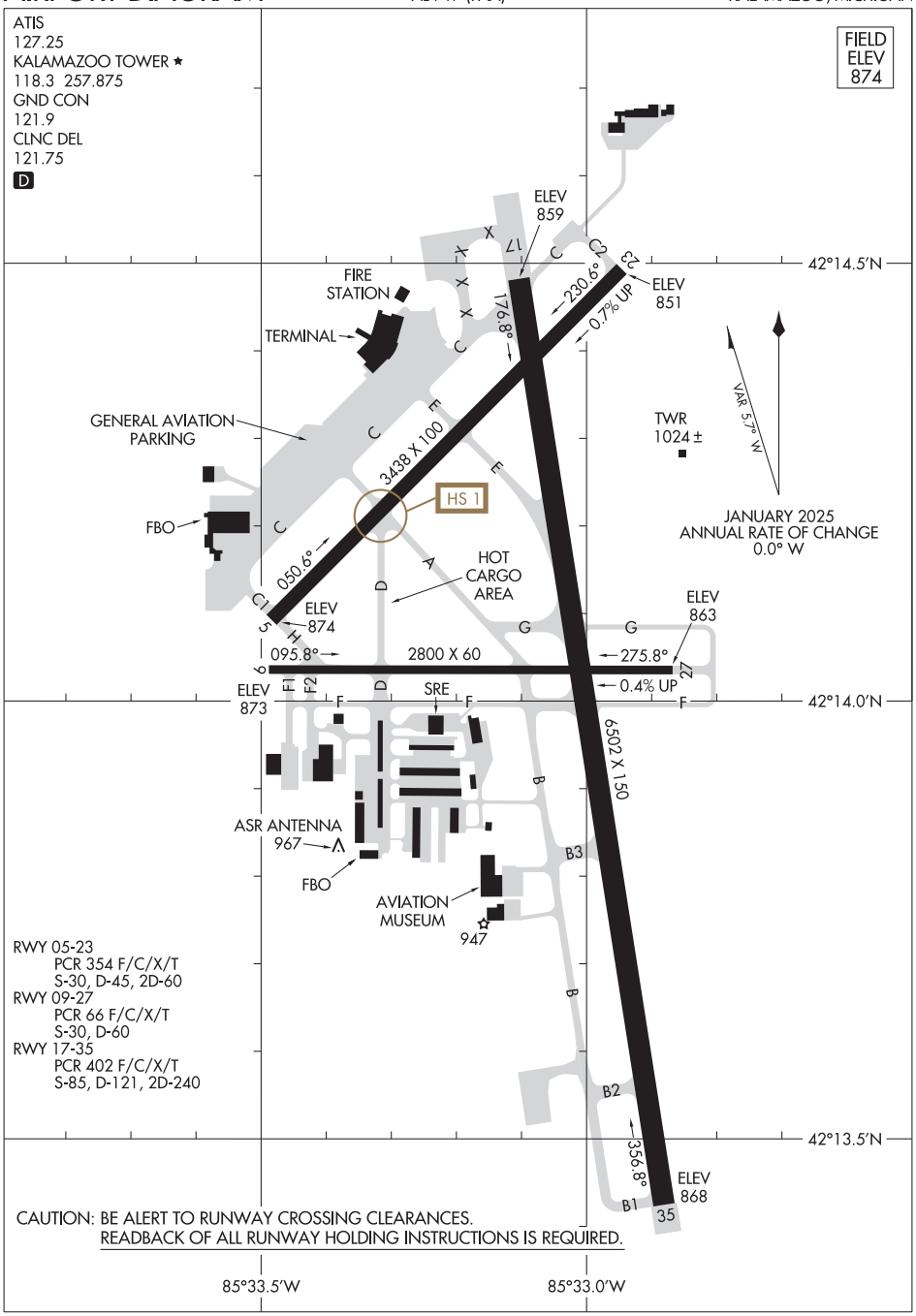
* LNAV only.

4 NM Holding Pattern
EYOLU
COVAV
GLEEK 2.7 NM to RW35
*1.1 NM to RW35
354°
174°
354°
2800
2800
RW35
*1780
GP 3.00°
TCH 53

1.1 | 1.6 NM | 3.2 NM | 5.9 NM

CATEGORY	A	B	C	D
LPV DA**	1068/24	200 (200-½)		
LNAV/VNAV DA	1264/35	396 (400-⅝)		
LNAV MDA	1280/24	412 (500-½)	1280/40	412 (500-¾)
C CIRCLING	1380-1	506 (600-1)	1480-1¾	606 (700-1¾)	1480-2	606 (700-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LAKEVIEW, MICHIGAN | AL-9344 (FAA) | 25219

RNAV (GPS) RWY 10

LAKEVIEW/GRIFFITH FLD (13C)

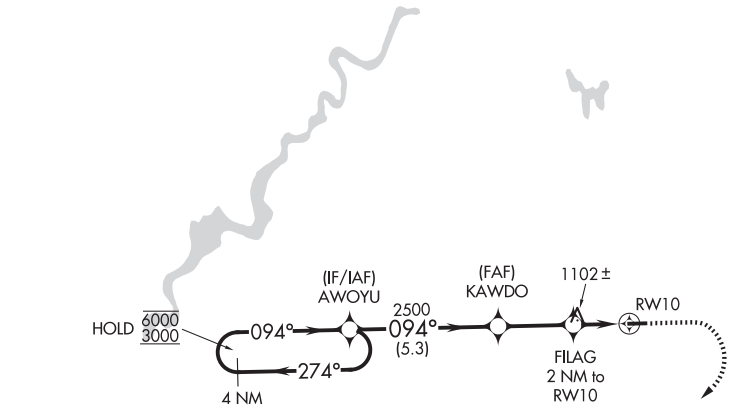
APP CRS	Rwy Ldg	3499
094°	TDZE	969
	Apt Elev	969

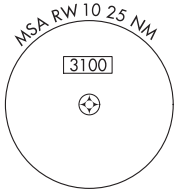
RNP APCH.

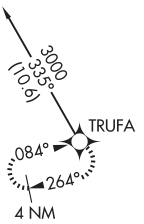
T A NA — Procedure NA at night. Rwy 10 helicopter visibility reduction below 1 SM NA. Use Big Rapids altimeter setting.

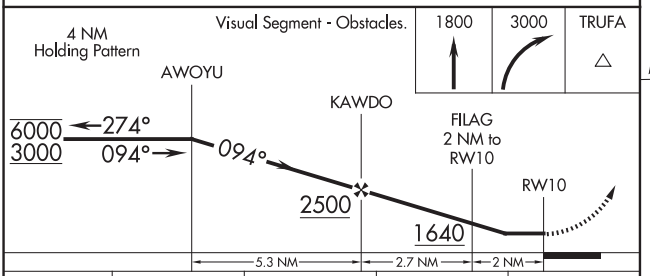
MISSED APPROACH: Climb to 1800 then climbing right turn to 3000 direct TRUFA and hold.

RQB AWOS-3P	GREAT LAKES APP CON ★	UNICOM
125.875	124.6 257.6	122.8 (CTAF) L

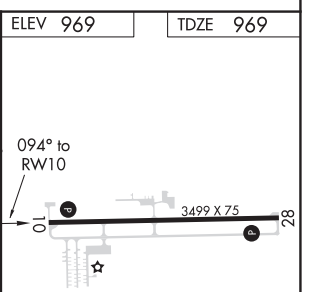








CATEGORY	A	B	C	D
LNAV MDA	1400-1	431 (500-1)	NA	
CIRCLING	1480-1 511 (600-1)	1580-1 611 (700-1)	NA	



MIRL Rwy 10-28 L

REIL Rwys 10 and 28 L

LAKEVIEW, MICHIGAN

Orig-D 16JUL20

43°27′N-85°16′W

LAKEVIEW/GRIFFITH FLD (13C)

RNAV (GPS) RWY 10

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 28

LAKEVIEW/GRIFFITH FLD (13C)

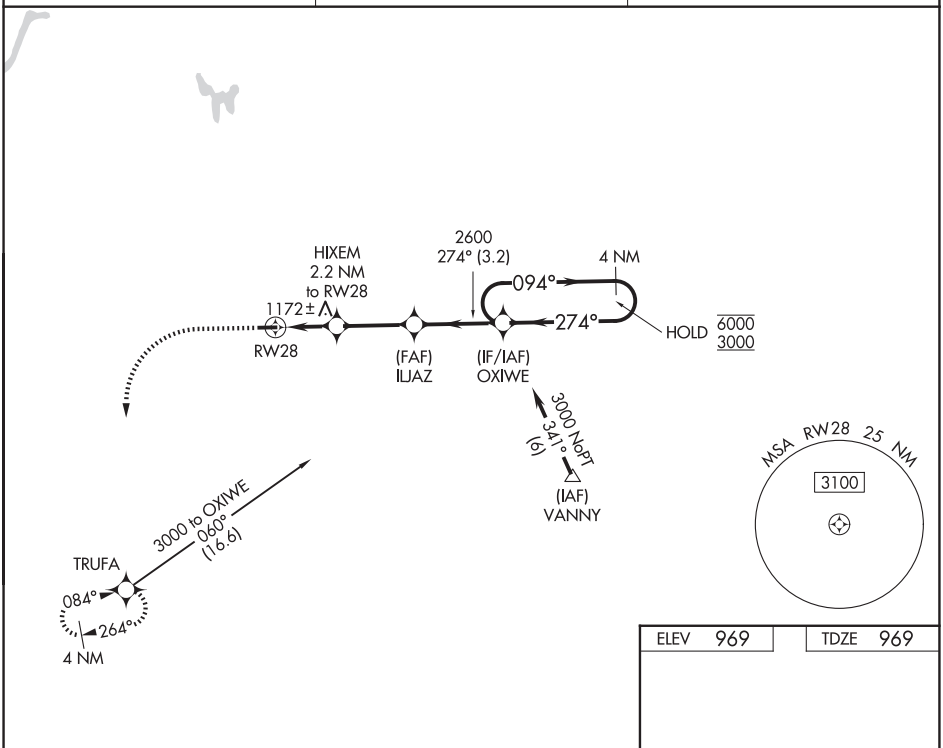
APP CRS	Rwy Ldg	3499
274°	TDZE	969
	Apt Elev	969

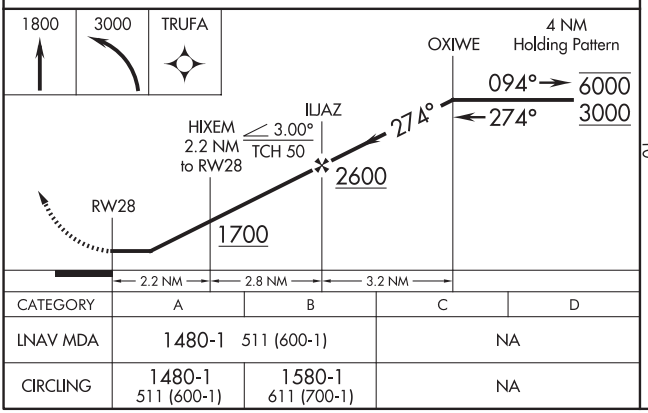
RNP APCH - GPS.

NA Procedure NA at night. Use Big Rapids altimeter setting; when not received, use Mount Pleasant altimeter setting and increase all MDAs 60 feet. Rwy 28 helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 1800 then climbing left turn to 3000 direct TRUFA and hold.

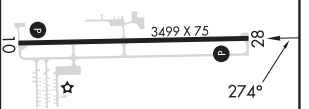
RQB AWOS-3P	GREAT LAKES APP CON ★	UNICOM
125.875	124.6 257.6	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	1480-1	511 (600-1)	NA	
CIRCLING	1480-1 511 (600-1)	1580-1 611 (700-1)	NA	

ELEV 969 TDZE 969



MIRL Rwy 10-28 L
REIL Rwys 10 and 28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LAMBERTVILLE, MICHIGAN

AL-5811 (FAA)

20254

RNAV (GPS)-A

TOLEDO SUBURBAN (DUH)

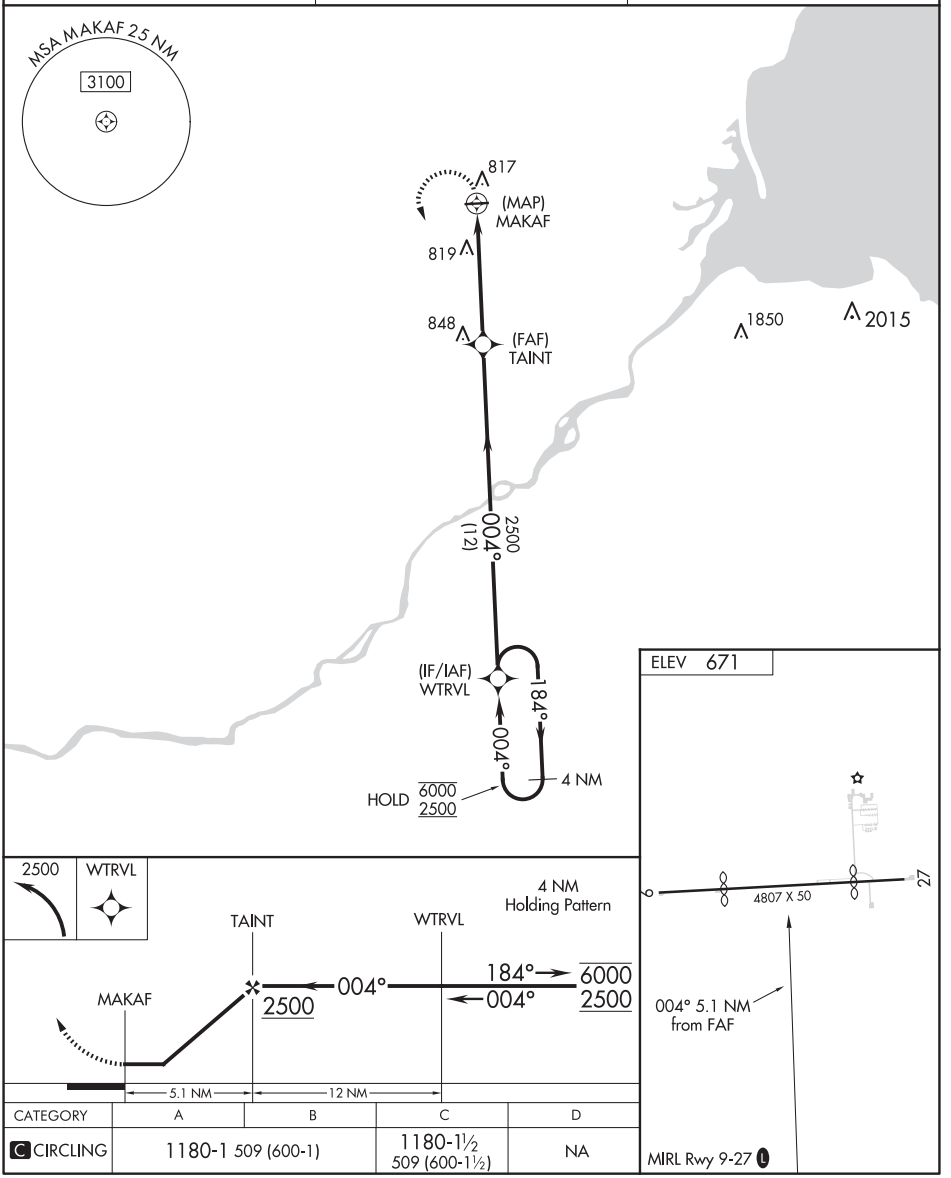
APP CRS	Rwy Idg	N/A
004°	TDZE	N/A
	Apt Elev	671

RNP APCH.

Procedure NA at night.

MISSED APPROACH: Climbing left turn to 2500 direct WTRVL and hold.

AWOS-3	TOLEDO APP CON	UNICOM
119.175	126.1 317.55	122.7 (CTAF)



CATEGORY	A	B	C	D
C CIRCLING	1180-1 509 (600-1)		1180-1½ 509 (600-1½)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

ILS or LOC RWY 10R

CAPITAL REGION INTL (LAN)

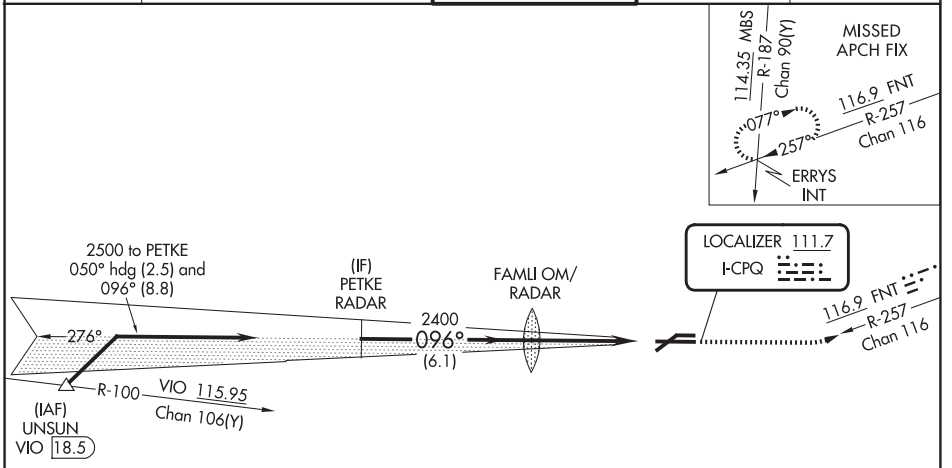
LOC I-CPQ	APP CRS	Rwy Ldg	8506
111.7	096°	TDZE	861
		Apt Elev	861

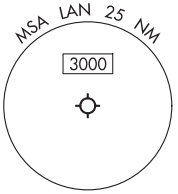
Circling Rwy 10L, 28R NA at night.
** RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSR

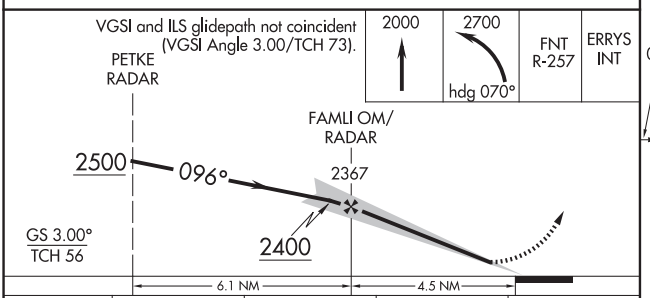
MISSED APPROACH: Climb to 2000 then climbing left turn to 2700 on heading 070° and on FNT VORTAC R-257 to ERRYS INT and hold.

ATIS	GREAT LAKES APP CON ★	LANSING TOWER	GND CON	CLNC DEL
119.75	118.65 226.4	119.9 240.9	121.9	123.675

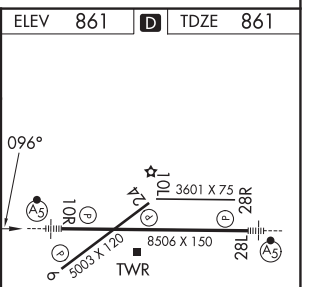




RADAR REQUIRED



CATEGORY	A	B	C	D
S-ILS 10R**	1061/24 200 (200-½)			
S-LOC 10R	1340/24 479 (500-½)		1340/50 479 (500-1)	
CIRCLING	1380-1 519 (600-1)		1600-2 739 (800-2)	1760-3 899 (900-3)



REIL Rwys 6 and 24
HIRL Rwy 10R-28L
MIRL Rwy 6-24

FAF to MAP 4.5 NM

Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

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LANSING, MICHIGAN | AL-224 (FAA) | 25219

ILS or LOC RWY 28L
CAPITAL REGION INTL (LAN)

LOC/DME I-LAN	APP CRS	Rwy Ldg	8506
110.1	276°	TDZE	852
Chan 38		Apt Elev	861

DME required. RADAR required for procedure entry.

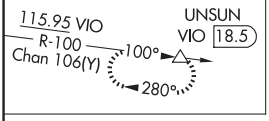
Circling Rwy 10L, 28R NA at night.
*RVR 1800 authorized with use of FD or AP or HUD to DA.

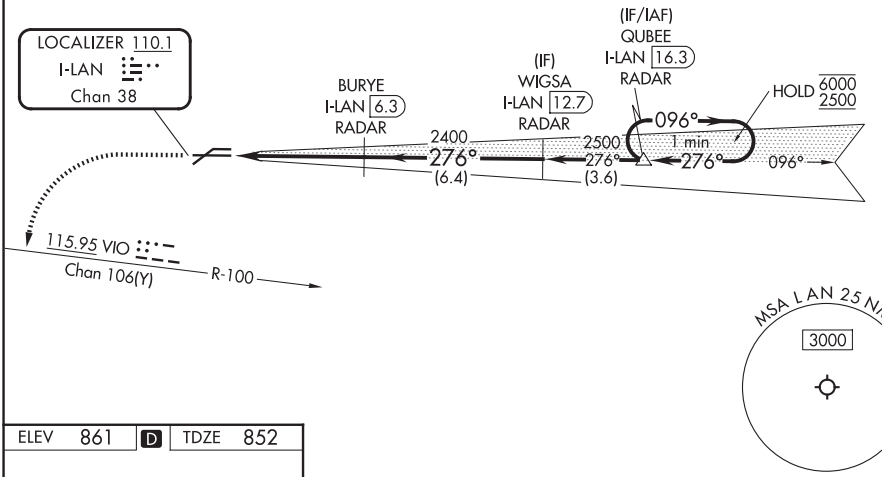
MALSR

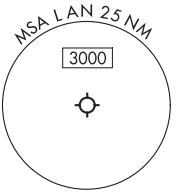
MISSED APPROACH: Climb to 2500 then climbing left turn to 3000 on VIO VOR/DME R-100 to UNSUN/VIO 18.5 DME and hold.

ATIS	GREAT LAKES APP CON ★	LANSING TOWER	GND CON	CLNC DEL
119.75	118.65 226.4	119.9 240.9	121.9	123.675

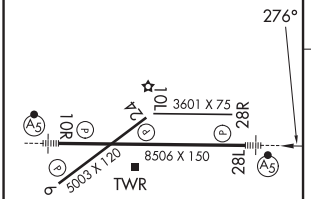
MISSED APCH FIX







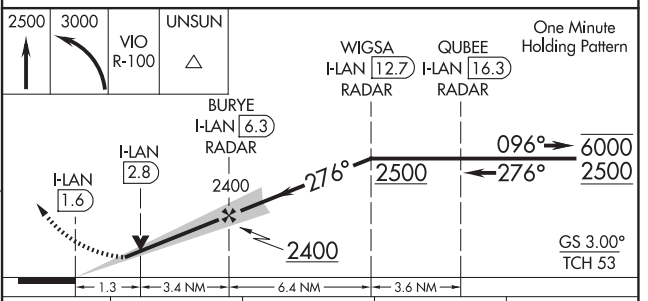
ELEV 861 D TDZE 852



REIL Rwys 6 and 24
HIRL Rwy 10R-28L
MIRL Rwy 6-24

FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34



CATEGORY	A	B	C	D
S-ILS 28L*	1052/24 200 (200-½)			
S-LOC 28L	1300/24 448 (500-½)		1300/45 448 (500-⅞)	
CIRCLING	1380-1 519 (600-1)		1600-2 739 (800-2)	1760-3 899 (900-3)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 6

CAPITAL REGION INTL (LAN)

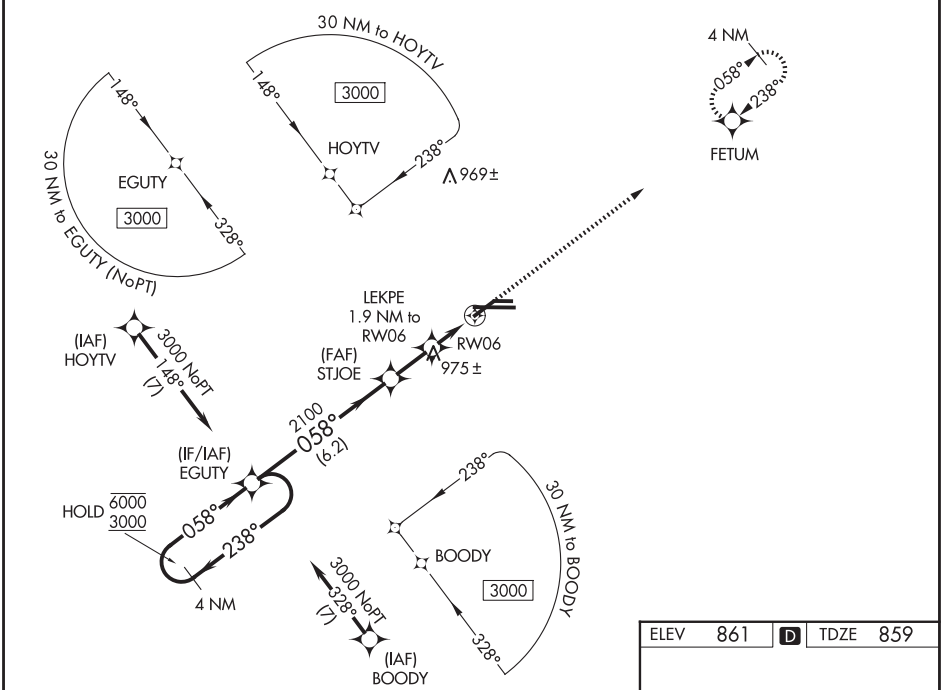
WAAS CH 82118 W06A	APP CRS 058°	Rwy Ldg 5002 TDZE 859 Apt Elev 861

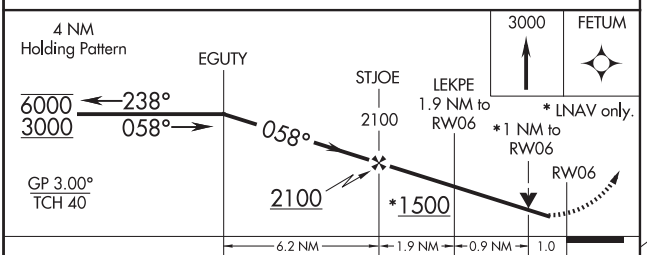
RNP APCH.

MISSED APPROACH: Climb to 3000 direct FETUM and hold.

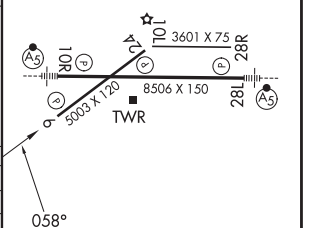
Circling Rwy 10L, 28R NA at night. Rwy 6 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -21°C or above 54°C.

ATIS	GREAT LAKES APP CON ★	LANSING TOWER	GND CON	CLNC DEL
119.75	118.65 226.4	119.9 240.9	121.9	123.675





CATEGORY	A	B	C	D
LPV DA	1109-¾ 250 (300-¾)			
LNAV/VNAV DA	1260-1⅛ 401 (400-1⅛)			
LNAV MDA	1220-1 361 (400-1)			
CIRCLING	1320-1 459 (500-1)	1380-1 519 (600-1)	1600-2 739 (800-2)	1760-3 899 (900-3)



MIRL Rwy 6-24
HIRL Rwy 10R-28L
REIL Rwys 6 and 24

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LANSING, MICHIGAN | AL-224 (FAA) | 25219

RNAV (GPS) RWY 10R

CAPITAL REGION INTL (LAN)

WAAS	APP CRS	Rwy Ldg	8506
CH 61314	096°	TDZE	861
W10A		Apt Elev	861

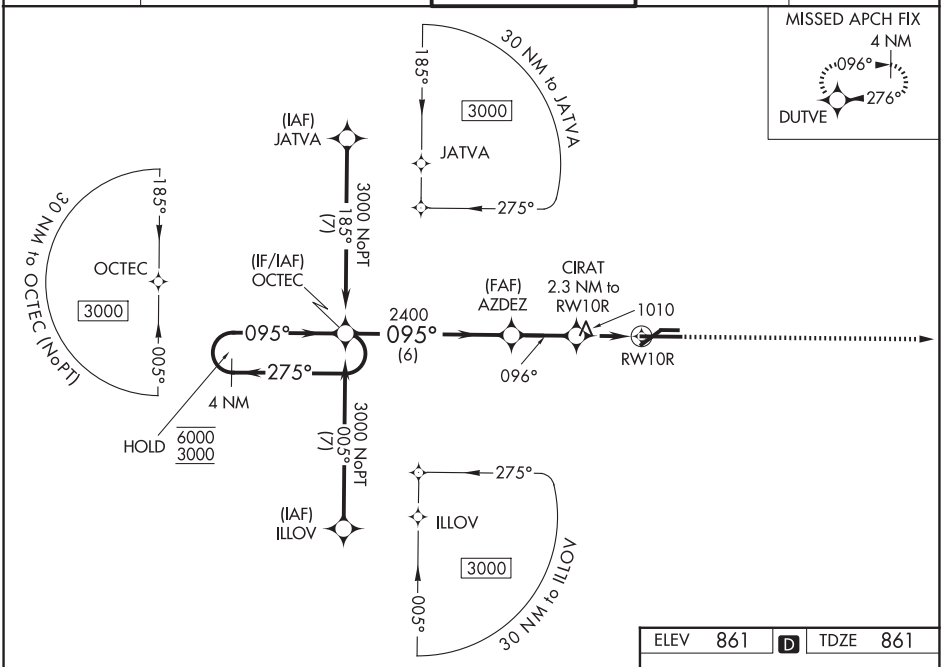
RNP APCH.

Circling Rwy 10L, 28R NA at night. 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. ** RVR 1800 authorized with use of FD or AP or HUD to DA.

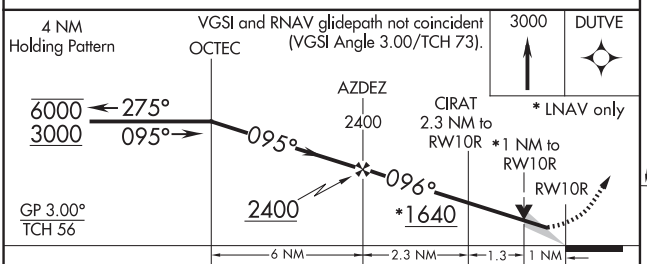
MALSR

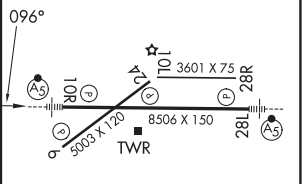
MISSED APPROACH: Climb to 3000 direct DUTVE and hold.

ATIS	GREAT LAKES APP CON ★	LANSING TOWER	GND CON	CLNC DEL
119.75	118.65 226.4	119.9 240.9	121.9	123.675



ELEV 861 | D | TDZE 861





CATEGORY	A	B	C	D
LPV DA **	1061/24 200 (200-½)			
LNAV/VNAV DA	1172/24 311 (400-½)			
LNAV MDA	1260/24 399 (400-½)		1260/35 399 (400-⅝)	
CIRCLING	1320-1 459 (600-1)	1380-1 519 (600-1)	1600-2 739 (800-2)	1760-3 899 (900-3)

MIRL Rwy 6-24
HIRL Rwy 10R-28L
REIL Rwys 6 and 24

LANSING, MICHIGAN
Amdt 1 25FEB21

42°47'N-84°35'W

CAPITAL REGION INTL (LAN)

RNAV (GPS) RWY 10R

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 50413 W24A	APP CRS 238°	Rwy Ldg 5002 TDZE 857 Apt Elev 861

RNAV (GPS) RWY 24

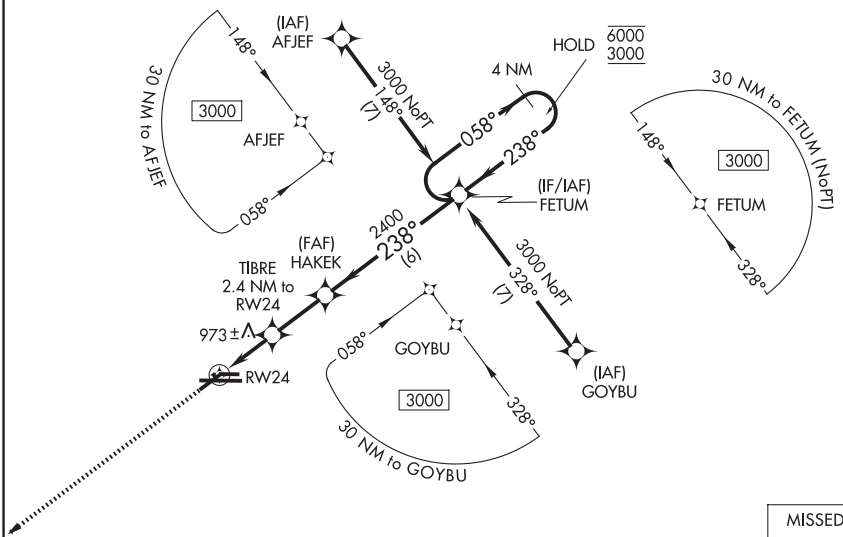
CAPITAL REGION INTL (LAN)

RNP APCH.

Circling Rwy 10L, 28R NA at night. Rwy 24 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -22°C or above 54°C.

MISSED APPROACH: Climb to 3000 direct EGUTY and hold.

ATIS	GREAT LAKES APP CON ★	LANSING TOWER	GND CON	CLNC DEL
119.75	118.65 226.4	119.9 240.9	121.9	123.675



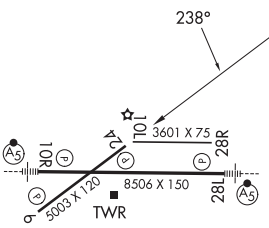
MISSED APCH FIX

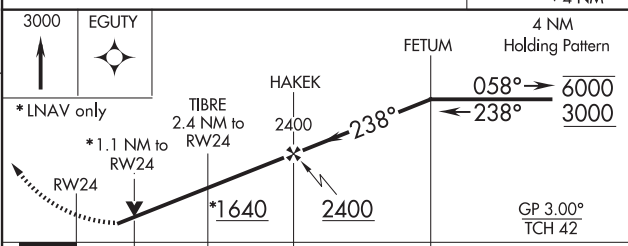
EGUTY

058° 238°

4 NM

ELEV 861 D TDZ 857





CATEGORY	A	B	C	D
LPV DA	1162-⅞ 305 (400-⅞)			
LNAV/VNAV DA	1286-1¼ 429 (500-1¼)			
LNAV MDA	1240-1 383 (400-1)		1240-1⅛ 383 (400-1⅛)	
CIRCLING	1320-1 459 (500-1)	1380-1 519 (600-1)	1600-2 739 (800-2)	1760-3 899 (900-3)

MIRL Rwy 6-24
HIRL Rwy 10R-28L
REIL Rwys 6 and 24

EC-1, 07 AUG 2025 to 02 OCT 2025
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RNAV (GPS) RWY 28L

CAPITAL REGION INTL (LAN)

WAAS	APP CRS	Rwy Ldg	8506
CH 40414	276°	TDZE	852
W28A		Apt Elev	861

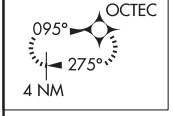
T A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Circling Rwy 10L, 28R NA at night. # RVR 1800 authorized with use of FD or AP or HUD to DA.

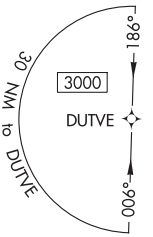
MALSR

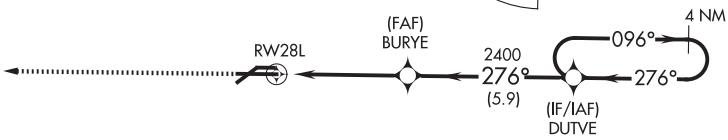
MISSED APPROACH: Climb to 3000 direct OCTEC and hold.

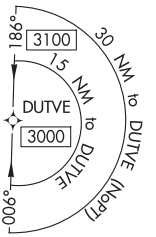
ATIS	GREAT LAKES APP CON ★	LANSING TOWER	GND CON	CLNC DEL
119.75	118.65 226.4	119.9 240.9	121.9	123.675

MISSED APCH FIX

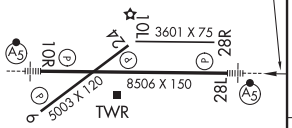


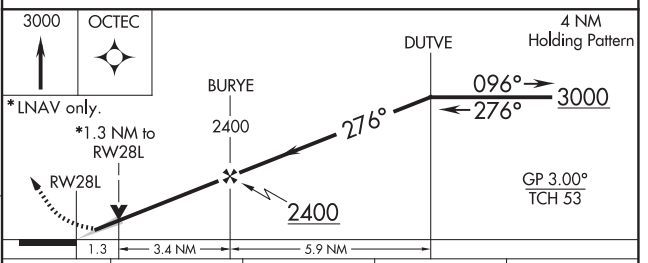






ELEV 861 D TDZE 852





CATEGORY	A	B	C	D
LPV DA #	1052/24 200 (200-½)			
LNAV/VNAV DA	1174/28 322 (400-⅜)			
LNAV MDA	1300/24 448 (500-½)		1300/45 448 (500-⅞)	
CIRCLING	1380-1 519 (600-1)		1600-2 739 (800-2)	1760-3 899 (900-3)

REIL Rwys 6 and 24
HIRL Rwy 10R-28L
MIRL Rwy 6-24

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

LAPEER, MICHIGAN

AL-5446 (FAA)

25163

RNAV (GPS) RWY 18

DUPONT/LAPEER (D95)

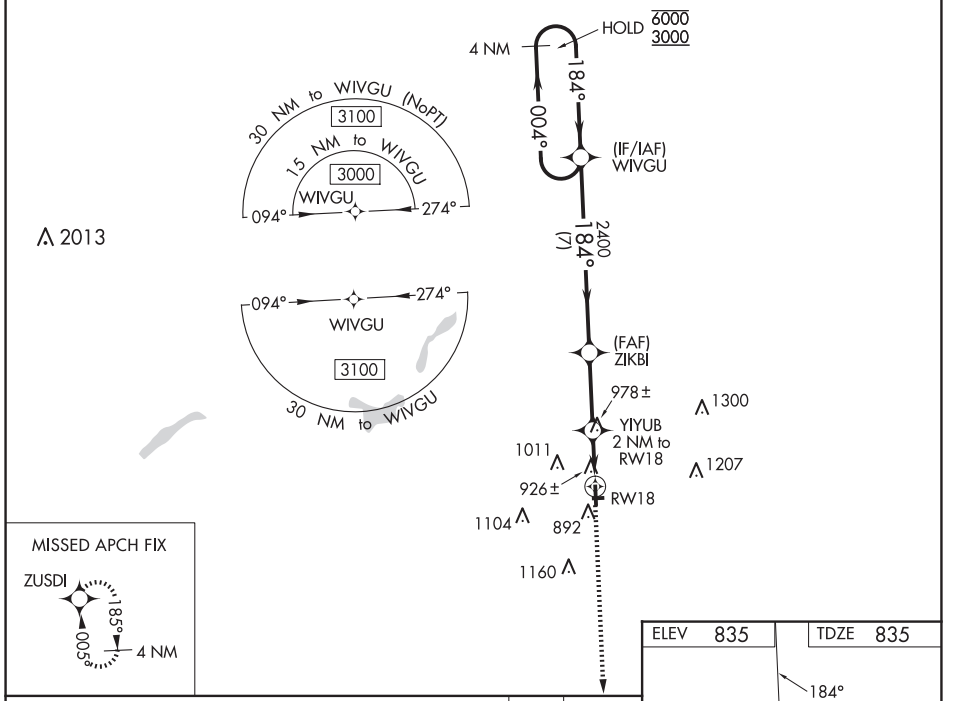
WAAS	APP CRS	Rwy Ldg	3800
CH 56234	184°	TDZE	835
W18A		Apt Elev	835

RNP APCH - GPS.

Rwy 18 helicopter visibility reduction below 1 SM NA. Circling NA to Rwys 9 and 27. When local altimeter setting not received, use FNT altimeter setting and increase all MDAs 60 feet and increase LP Cat C visibility ⅛ SM, LNAV Cat C and Circling Cat C visibility ¼ SM.

MISSED APPROACH: Climb to 3000 direct ZUSDI and hold.

AWOS-3P	GREAT LAKES APP CON ★	UNICOM
134.05	118.8 257.9	123.0 (CTAF) L



CATEGORY	A	B	C	D
LP MDA	1180-1 345 (400-1)			NA
LNAV MDA	1240-1 405 (500-1)		1240-1⅛ 405 (500-1⅛)	NA
C CIRCLING	1300-1 465 (500-1)	1380-1 545 (600-1)	1460-1¾ 625 (700-1¾)	NA

MIRL Rwy 18-36 L

REIL Rwy 18 and 36 L

LAPEER, MICHIGAN

Orig-C 12JUN25

43°04'N-83°16'W

DUPONT/LAPEER (D95)

RNAV (GPS) RWY 18

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Ldg	3800
CH 60934	004°	TDZE	832
W36A		Apt Elev	835

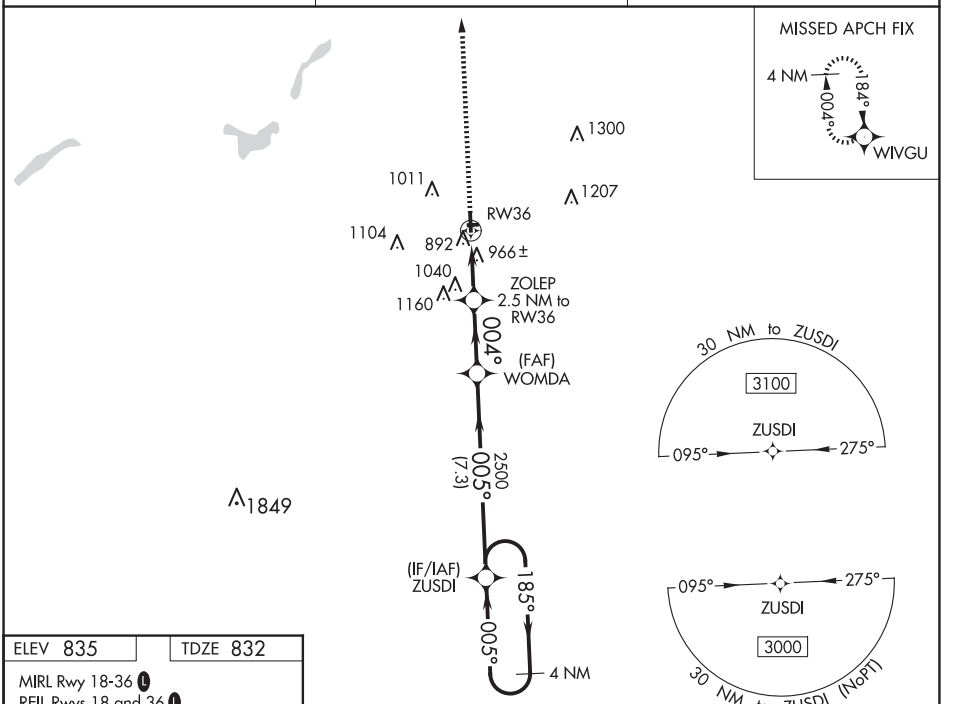
RNAV (GPS) RWY 36

DUPONT/LAPEER (D95)

DME/DME RNP-0.3 NA. Helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Flint altimeter setting and increase all MDA 60 feet and increase LNAV Cat C visibility ⅛ mile and LP Cat C and Circling Cat C visibility ¼ mile. Circling NA to Rwys 9 and 27.

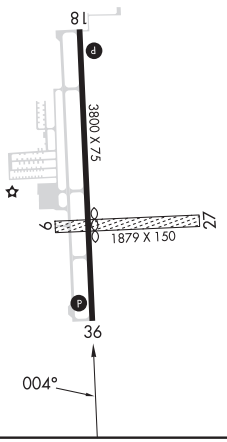
MISSED APPROACH: Climb to 3000 direct WIVGU and hold.

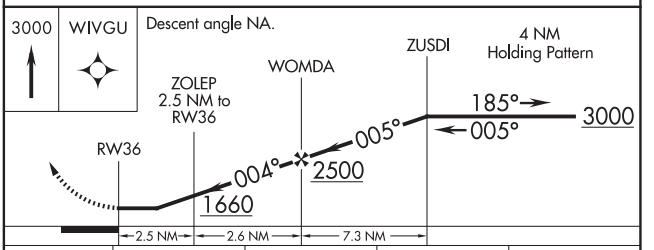
AWOS-3P	GREAT LAKES APP CON ★	UNICOM
134.050	118.8 257.9	123.0 (CTAF) L



ELEV 835	TDZE 832

MIRL Rwy 18-36 L
REIL Rwys 18 and 36 L





CATEGORY	A	B	C	D
LP MDA	1220-1 388 (400-1)		1220-1⅛ 388 (400-1⅛)	NA
LNAV MDA	1260-1 428 (500-1)		1260-1¼ 428 (500-1¼)	NA
C CIRCLING	1300-1 465 (500-1)	1380-1 545 (600-1)	1460-1¾ 625 (700-1¾)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LAPEER, MICHIGAN | AL-5446 (FAA) | 25163

VORTAC FNT 116.9 Chan 116	APP CRS 080°	Rwy Ldg N/A TDZE N/A Apt Elev 835

VOR-A

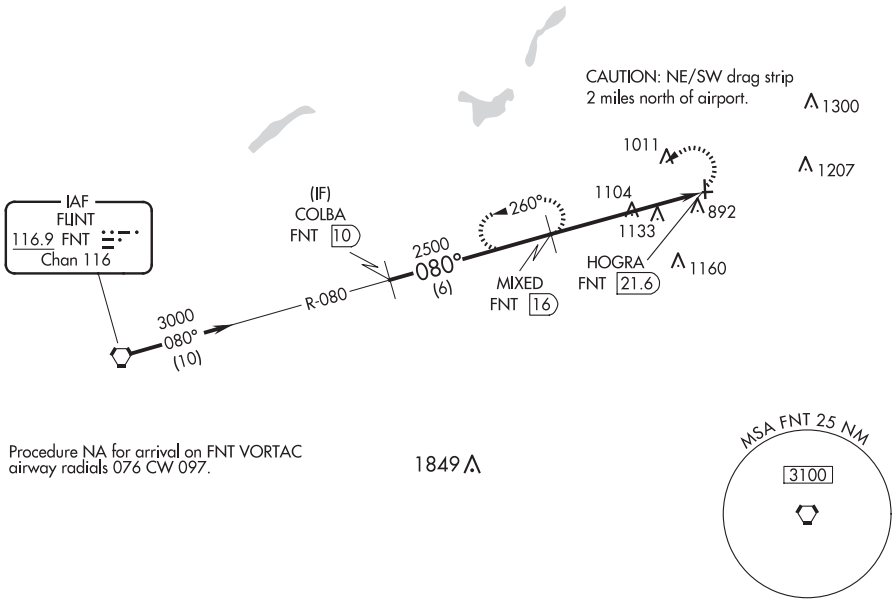
DUPONT/LAPEER (D95)

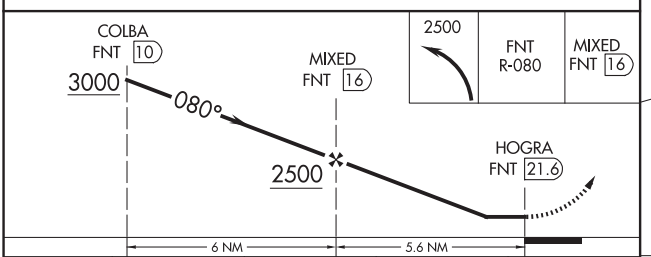
DME required.

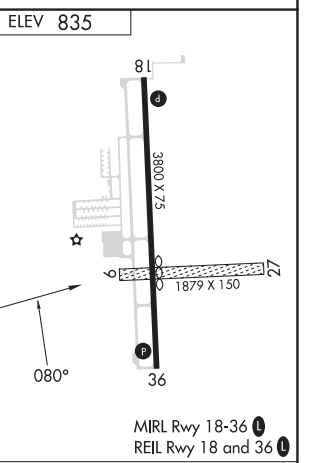
Circling NA to Rwys 9 and 27. Circling Rwy 18 NA at night. Rwy 18 helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climbing left turn to 2500 on FNT VORTAC R-080 to MIXED 16 DME and hold.

AWOS-3P	GREAT LAKES APP CON ★	UNICOM
134.050	118.8 257.9	123.0 (CTAF) L







MIRL Rwy 18-36 L
REIL Rwy 18 and 36 L

CATEGORY	A	B	C	D
C CIRCLING	1400-1	565 (600-1)	1460-1¾ 625 (700-1¾)	NA

FAF to MAP 5.6 NM					
Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 9

PRICES (9G2)

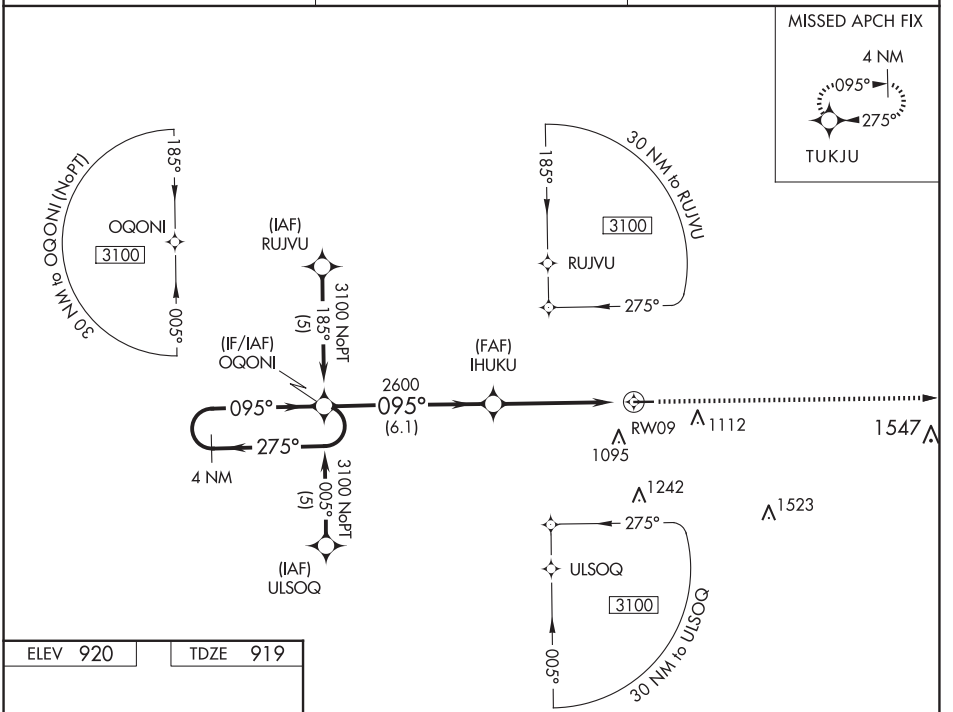
APP CRS	Rwy Idg	3732
095°	TDZE	919
	Apt Elev	920

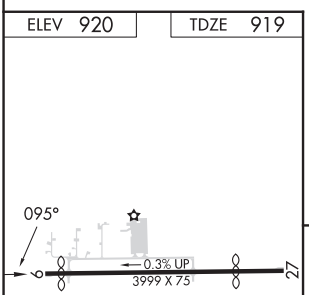
RNP APCH.

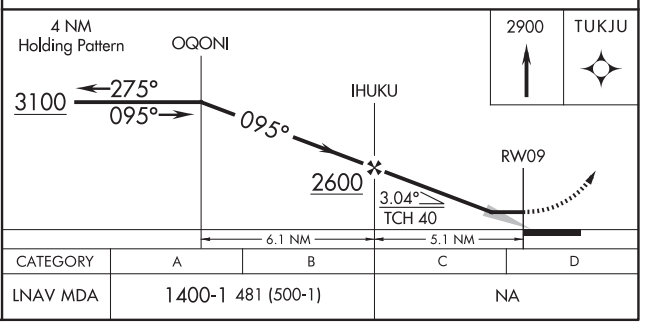
T A NA — Use Flint altimeter setting; when not received, use Howell altimeter setting. Procedure NA at night. Rwy 9 helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 2900 direct TUKJU and hold.

FNT ASOS	GREAT LAKES APP CON ★	UNICOM
133.15	128.55 257.9	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1400-1 481 (500-1)		NA	

REIL Rwy 9 L
MIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LINDEN, MICHIGAN | AL-6232 (FAA) | 23054

RNAV (GPS) RWY 27

PRICES (9G2)

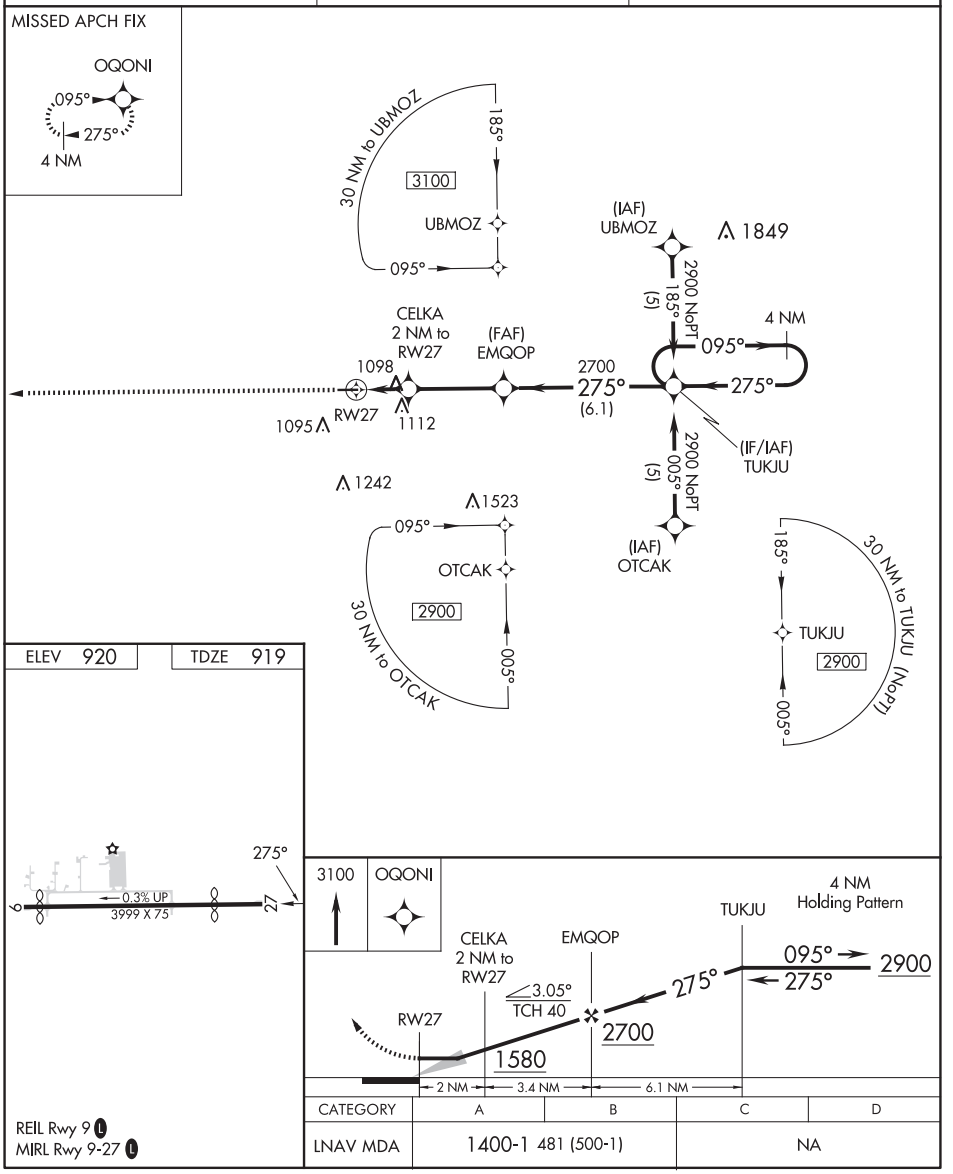
APP CRS	Rwy Idg	3199
275°	TDZE	919
	Apt Elev	920

RNP APCH.

T NA — Use Flint altimeter setting; when not received, use Howell altimeter setting. Procedure NA at night. Rwy 27 helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 3100 direct OQONI and hold.

FNT ASOS	GREAT LAKES APP CON ★	UNICOM
133.15	128.55 257.9	123.0 (CTAF) L



CATEGORY	A	B	C	D
LNAV MDA	1400-1 481 (500-1)		NA	

REIL Rwy 9 L
MIRL Rwy 9-27 L

LINDEN, MICHIGAN
Amdt 1B 18JUL19

42°48′N-83°46′W

PRICES (9G2)
RNAV (GPS) RWY 27

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

VORTAC FNT 116.9 Chan 116	APP CRS 192°	Rwy Idg N/A TDZE N/A Apt Elev 920

VOR-A
PRICES (9G2)

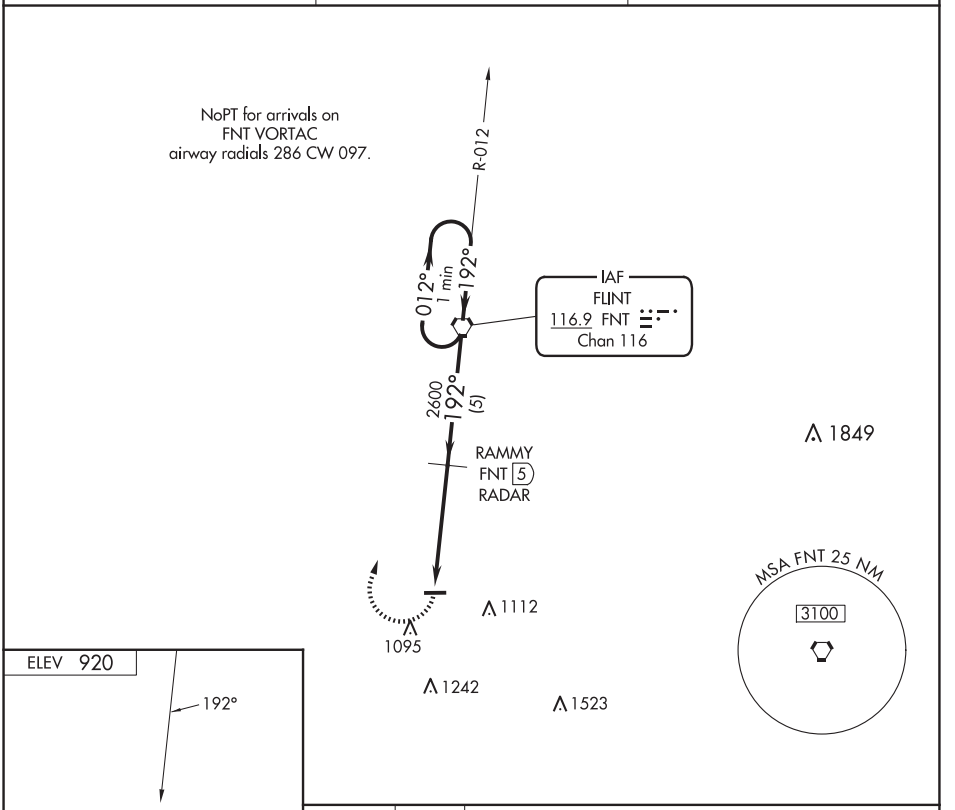
DME or RADAR required.

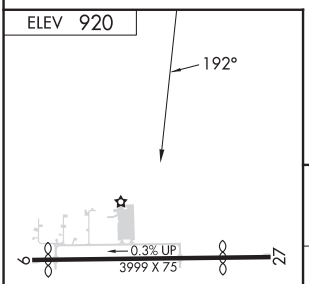
T Use Flint altimeter setting; when not received, use Howell altimeter setting.

A NA Procedure NA at night.

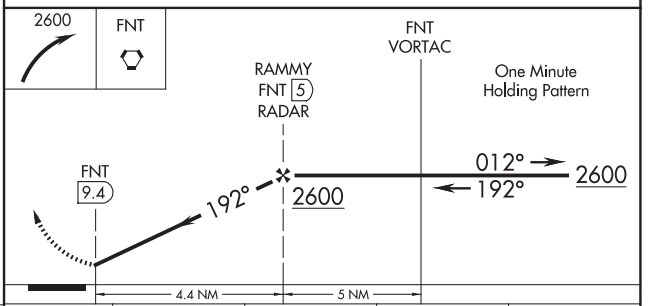
MISSED APPROACH: Climbing right turn to 2600 direct FNT VORTAC and hold.

FNT ASOS	GREAT LAKES APP CON ★	UNICOM
133.15	128.55 257.9	123.0 (CTAF) L





REIL Rwy 9 L
MIRL Rwy 9-27 L



FAF to MAP 4.4 NM					
Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

CATEGORY	A	B	C	D
CIRCLING	1460-1 540 (600-1)		NA	

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LUDINGTON, MICHIGAN | AL-5618 (FAA) | 24025

RNAV (GPS) RWY 8

MASON COUNTY (LDM)

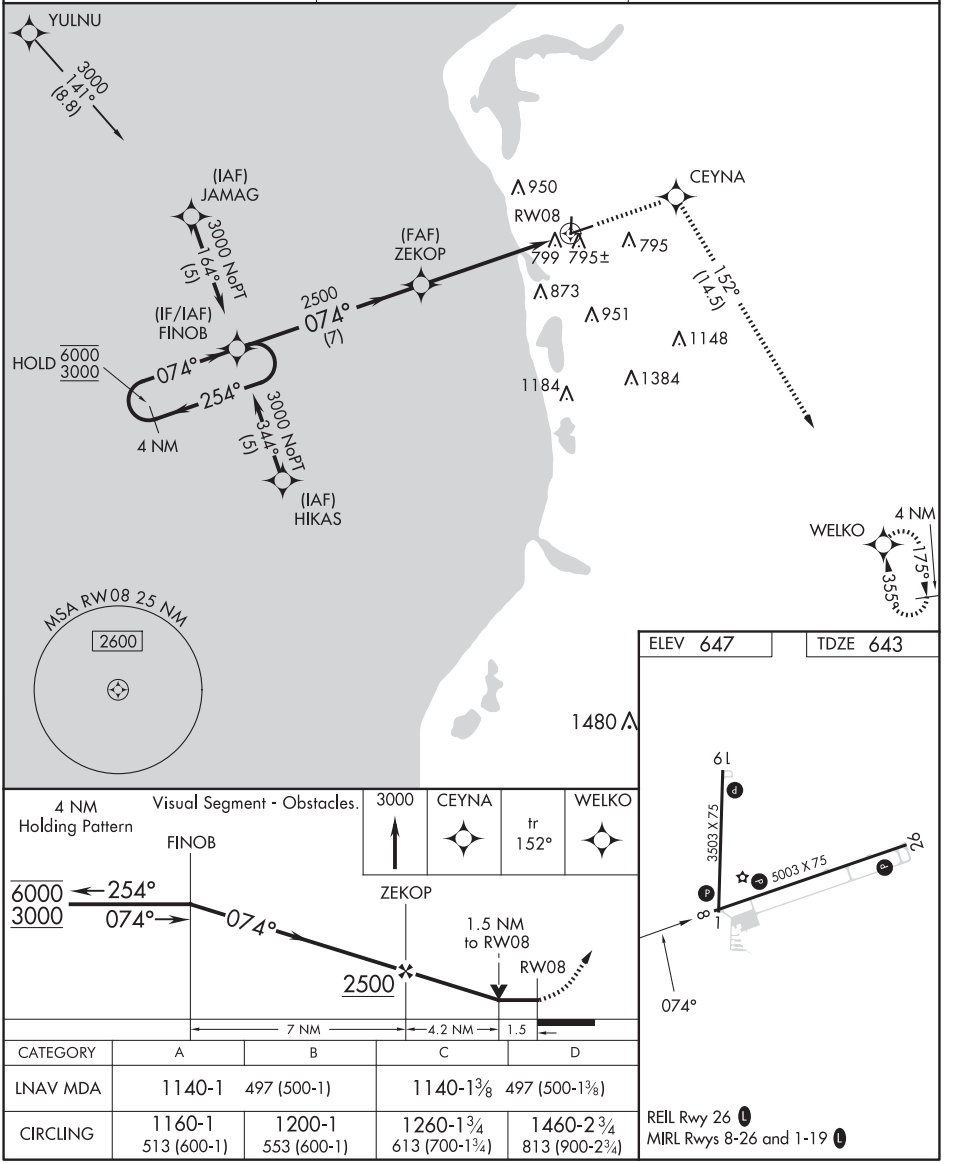
APP CRS	Rwy Idg	5003
074°	TDZE	643
	Apt Elev	647

RNP APCH-GPS.

Circling Rwy 1, 19 NA at night.
Rwy 8 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 3000 direct CEYNA and on track 152° to WELKO and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.925	120.85 322.35	123.0 (CTAF)



CATEGORY	A	B	C	D
LNAV MDA	1140-1 497 (500-1)		1140-1⅜ 497 (500-1⅜)	
CIRCLING	1160-1 513 (600-1)	1200-1 553 (600-1)	1260-1¾ 613 (700-1¾)	1460-2¾ 813 (900-2¾)

REIL Rwy 26
MIRL Rwys 8-26 and 1-19

LUDINGTON, MICHIGAN
Orig-F 03NOV22

43°58′N - 86°24′W

MASON COUNTY (LDM)

RNAV (GPS) RWY 8

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 26

MASON COUNTY (LDM)

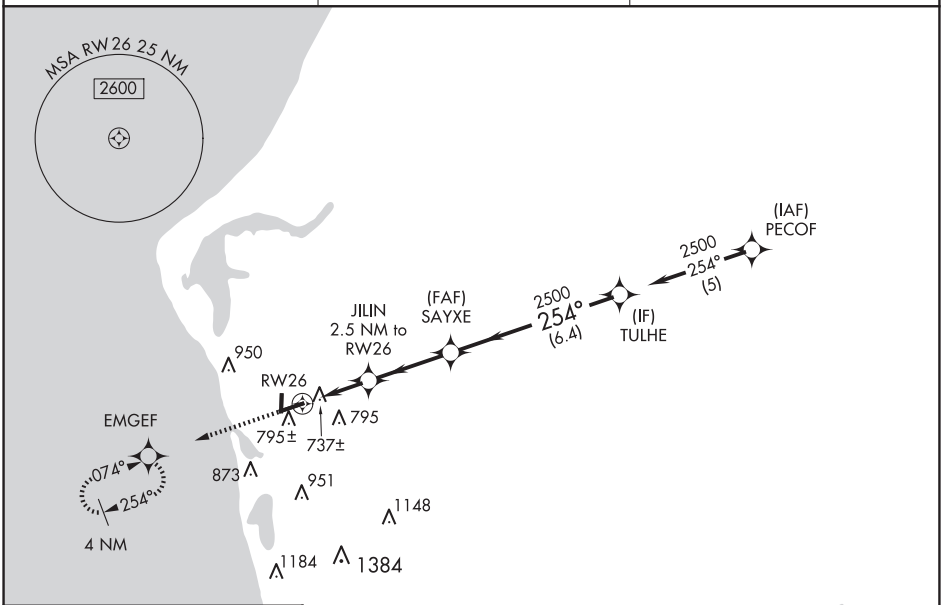
WAAS	APP CRS	Rwy Idg	5003
CH 49206	254°	TDZE	647
W26A		Apt Elev	647

RNP APCH-GPS.

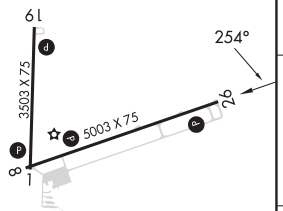
Circling Rwy 1, 19 NA at night. Rwy 26 helicopter visibility reduction below ¾ SM NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

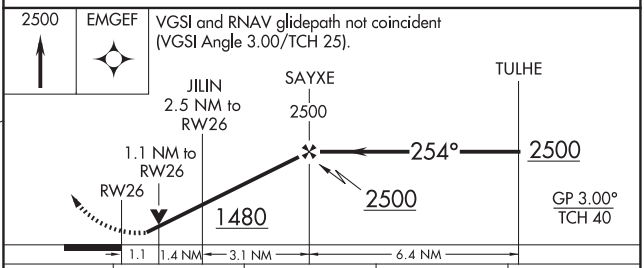
MISSED APPROACH: Climb to 2500 direct EMGEF and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.925	120.85 322.35	123.0 (CTAF) L



ELEV 647 TDZE 647





CATEGORY	A	B	C	D
LPV DA	975-1 328 (400-1)			
LNAV/VNAV DA	1020-1 373 (400-1)			
LNAV MDA	1020-1 373 (400-1)			
CIRCLING	1160-1 513 (600-1)	1200-1 553 (600-1)	1260-1¾ 613 (700-1¾)	1460-2¾ 813 (900-2¾)

REIL Rwy 26 L
MIRL Rwys 8-26 and 1-19 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MACKINAC ISLAND, MICHIGAN | AL-6041 (FAA) | 23166

RNAV (GPS) RWY 8

MACKINAC ISLAND (MCD)

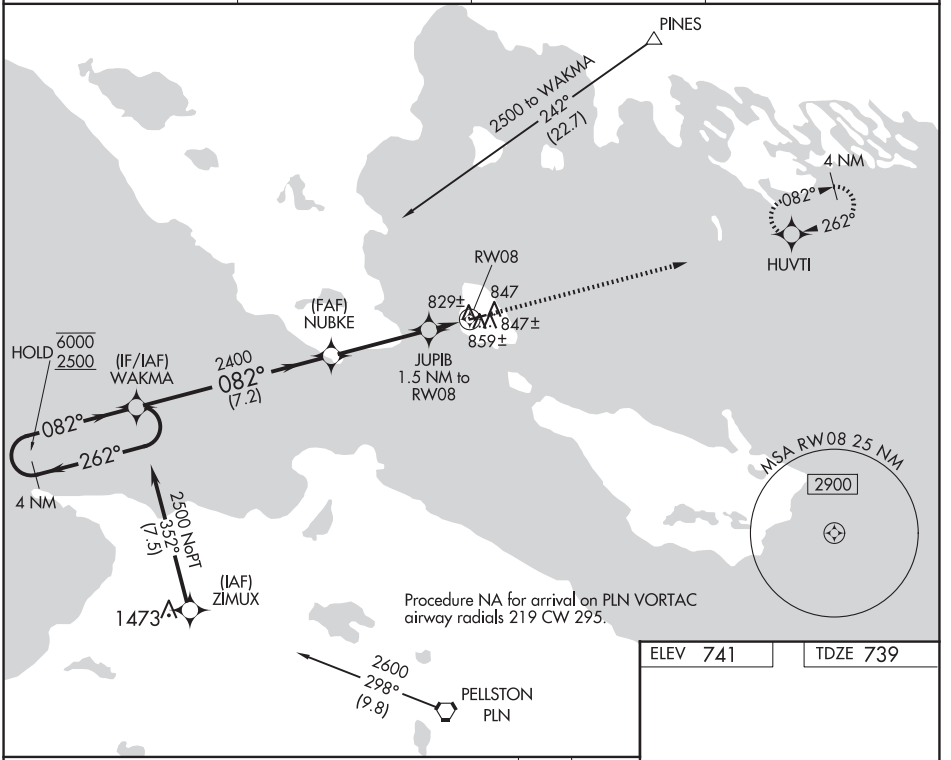
WAAS	APP CRS	Rwy Idg	3501
CH 63129	082°	TDZE	739
W08A		Apt Elev	741

RNP APCH.

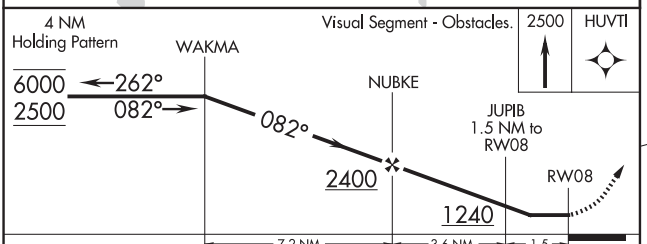
Rwy 8 helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Pellston altimeter setting and increase all MDA 60 feet, increase LP and LNAV Cat C visibility ⅛ SM and Circling Cat C visibility ¼ SM. Straight-in and Circling Rwy 8 NA at night.

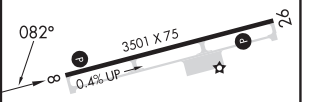
MISSED APPROACH: Climb to 2500 direct HUVTI and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM	122.8 L
118.275	134.6 354.05	122.7 (CTAF)	



ELEV 741 | TDZE 739





CATEGORY	A	B	C	D
LP MDA	1080-1 341 (400-1)			NA
LNAV MDA	1120-1 381 (400-1)		1120-1⅛ 381 (400-1⅛)	NA
C CIRCLING	1320-1 579 (600-1)		1320-1½ 579 (600-1½)	NA

MIRL Rwy 8-26 L
REIL Rwys 8 and 26 L

MACKINAC ISLAND, MICHIGAN
Amdt 1C 20JUN19

45°52'N-84°38'W

MACKINAC ISLAND (MCD)
RNAV (GPS) RWY 8

EC-1, 07 AUG 2025 to 02 OCT 2025

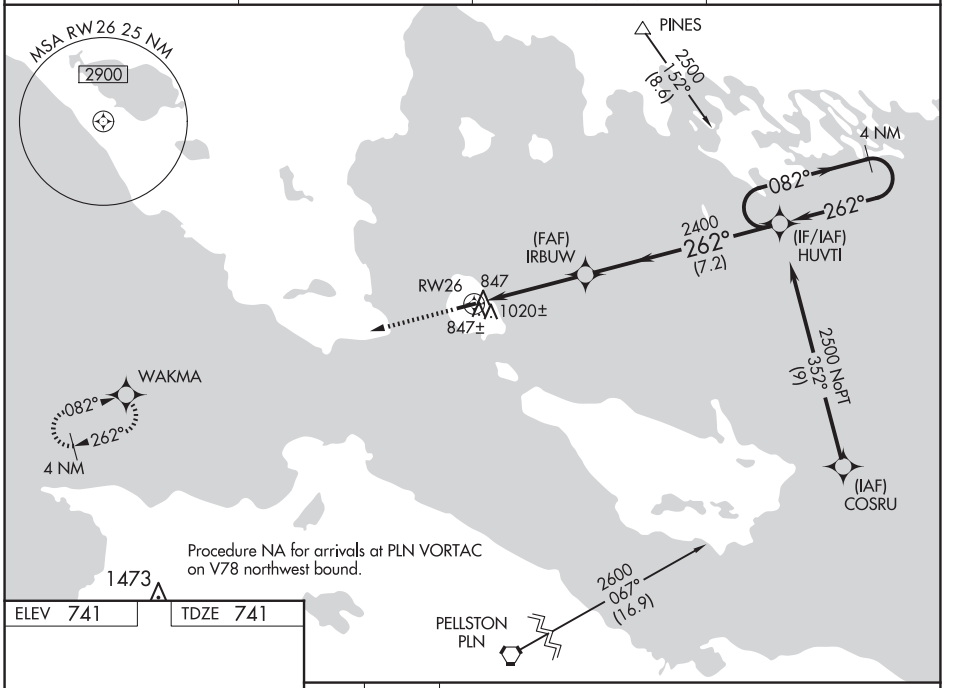
WAAS	APP CRS	Rwy Idg	3501
CH 99529	262°	TDZE	741
W26A		Apt Elev	741

RNAV (GPS) RWY 26
MACKINAC ISLAND (MCD)

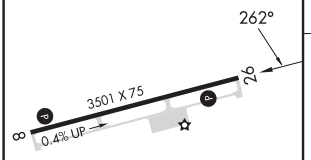
Baro-VNAV NA when using Pellston altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). When local altimeter setting not received, use Pellston altimeter setting and increase all DA 47 feet and all MDA 60 feet, increase LNAV Cat C visibility ⅛ mile and Circling Cat C visibility ¼ mile. DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. Night landing: Rwy 8 NA.

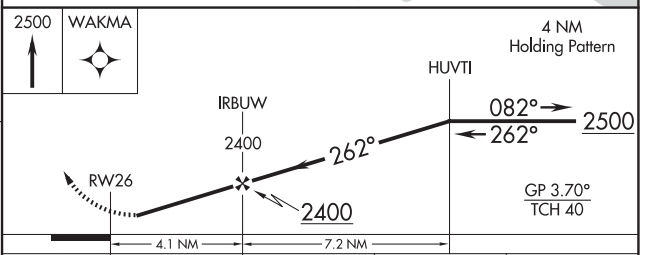
MISSED APPROACH: Climb to 2500 direct WAKMA and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM	
118.275	134.6 354.05	122.7 (CTAF)	122.8 (L)



ELEV 741 TDZE 741





CATEGORY	A	B	C	D
LPV DA	1058-1	317 (400-1)	NA	
LNAV/VNAV DA	1182-1⅜	441 (500-1⅜)	NA	
LNAV MDA	1280-1	539 (600-1)	1280-1½ 539 (600-1½)	NA
C CIRCLING	1320-1	579 (600-1)	1320-1½ 579 (600-1½)	NA

MIRL Rwy 8-26 (L)
REIL Rwys 8 and 26 (L)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MACKINAC ISLAND, MICHIGAN | AL-6041 (FAA) | 23166

VOR/DME-A

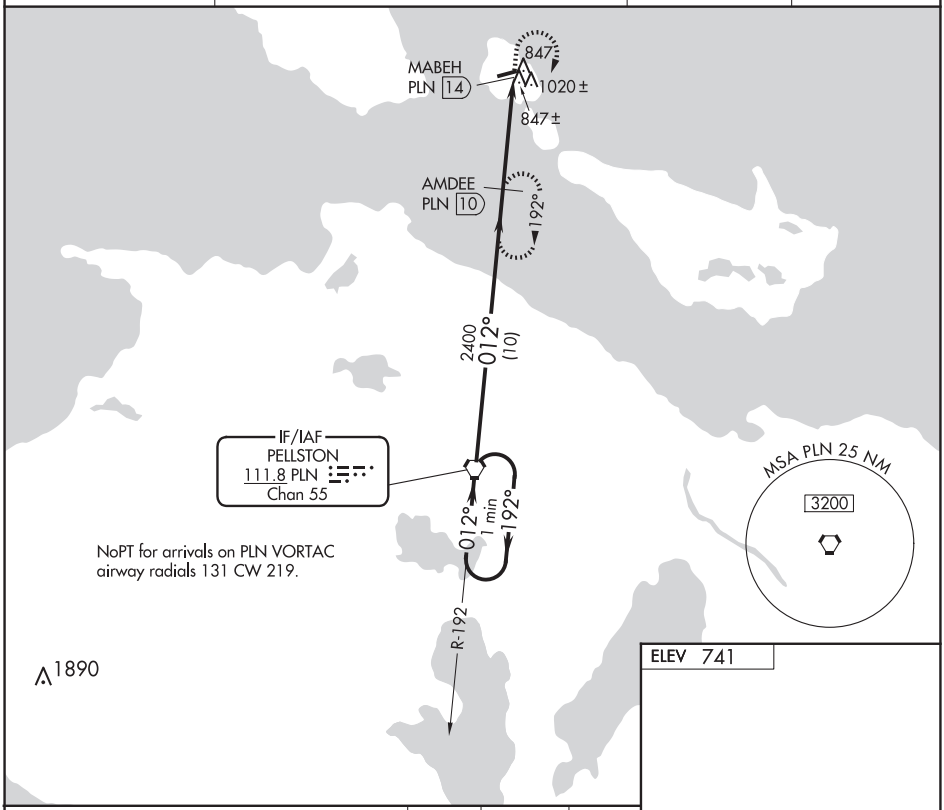
MACKINAC ISLAND (MCD)

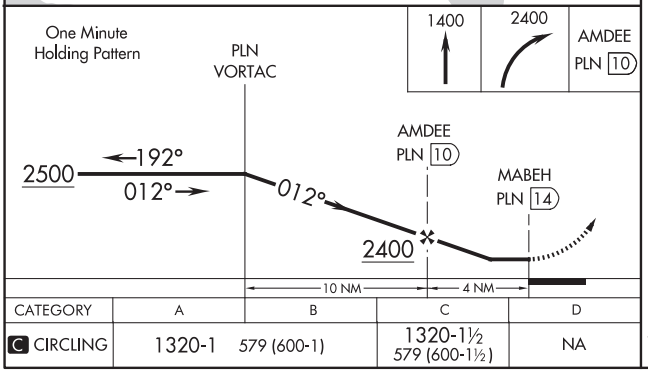
VORTAC PLN	APP CRS	Rwy Idg	N/A
111.8	012°	TDZE	N/A
Chan 55		Apt Elev	741

When local altimeter setting not received, use Pellston altimeter setting and increase all MDA 60 feet, increase Cat C visibility ¼ mile. Visibility reduction by helicopters NA. Night landing: Rwy 8 NA.

MISSED APPROACH: Climb to 1400 then climbing right turn to 2400 direct AMDEE 10 DME and hold.

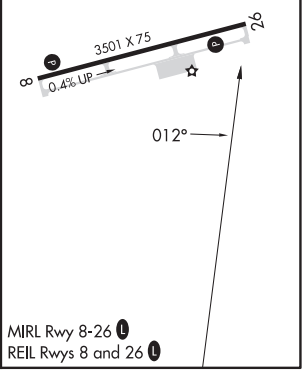
AWOS-3	MINNEAPOLIS CENTER	UNICOM	122.8 L
118.275	134.6 354.05	122.7 (CTAF)	





1400	2400	AMDEE PLN 10

CATEGORY	A	B	C	D
C CIRCLING	1320-1	579 (600-1)	1320-1½ 579 (600-1½)	NA



MACKINAC ISLAND, MICHIGAN
Amdt 9B 27FEB20

45°52'N-84°38'W

MACKINAC ISLAND (MCD)
VOR/DME-A

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LOC I-MBL	APP CRS	Rwy Idg	5501
108.35	277°	TDZE	621
		Apt Elev	621

ILS or LOC RWY 28
MANISTEE COUNTY/BLACKER (MBL)

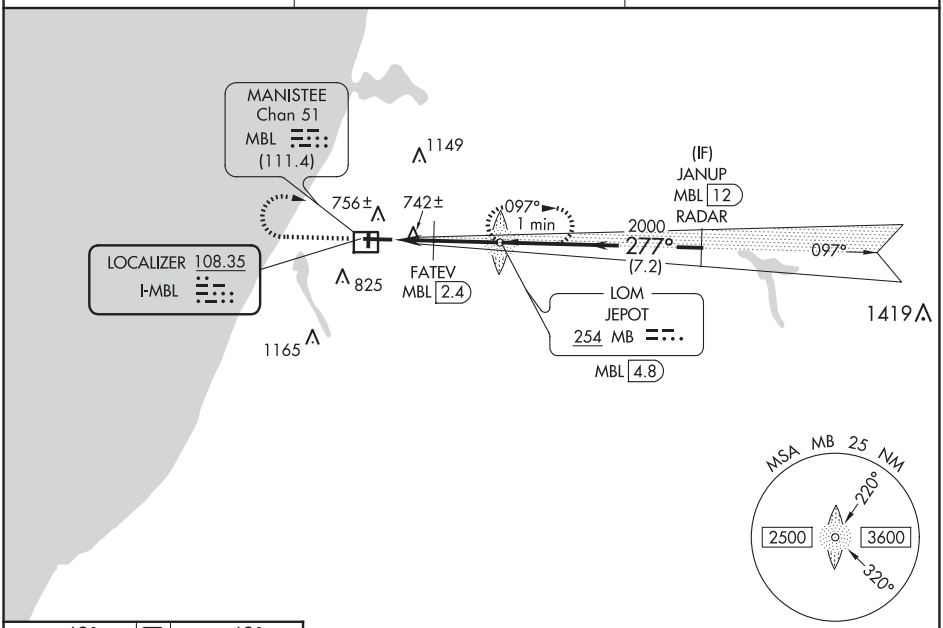
ADF required for missed approach. RADAR required for procedure entry. DME or RADAR required.

Circling Rwy 1, 19 NA at night. For inop ALS, increase FATEV fix minimums S-LOC 28 Cat C and D visibility to 1 SM. DME from MBL DME. DME use requires simultaneous reception of I-MBL and MBL DME.

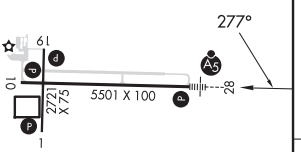
MALSR

MISSED APPROACH: Climb to 2000 then climbing right turn to 2500 direct JEPOT LOM/MBL 4.8 DME and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
118.825	120.85 322.35	122.8 (CTAF) L



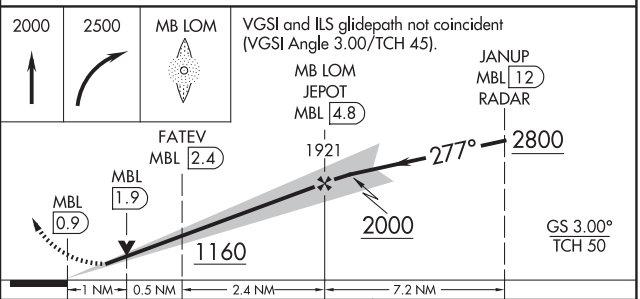
ELEV 621 D TDZE 621



HIRL Rwys 10-28 L
MIRL Rwys 1-19 L
REIL Rwy 10 L

FAF to MAP 3.9 NM

Knots	60	90	120	150	180
Min:Sec	3:54	2:36	1:57	1:34	1:18



CATEGORY	A	B	C	D
S-ILS 28	821-½ 200 (200-½)			
S-LOC 28	1160-½ 539 (600-½)		1160-1 539 (600-1)	
C CIRCLING	1160-1 539 (600-1)	1220-1 599 (600-1)	1400-2¼ 779 (800-2¼)	1520-3 899 (900-3)
FATEV FIX MINIMUMS				
S-LOC 28	1000-½ 379 (400-½)		1000-⅝ 379 (400-⅝)	
C CIRCLING	1160-1 539 (600-1)	1220-1 599 (600-1)	1400-2¼ 779 (800-2¼)	1520-3 899 (900-3)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MANISTEE, MICHIGAN AL-5257 (FAA) 23222

RNAV (GPS) RWY 10
MANISTEE COUNTY/BLACKER (MBL)

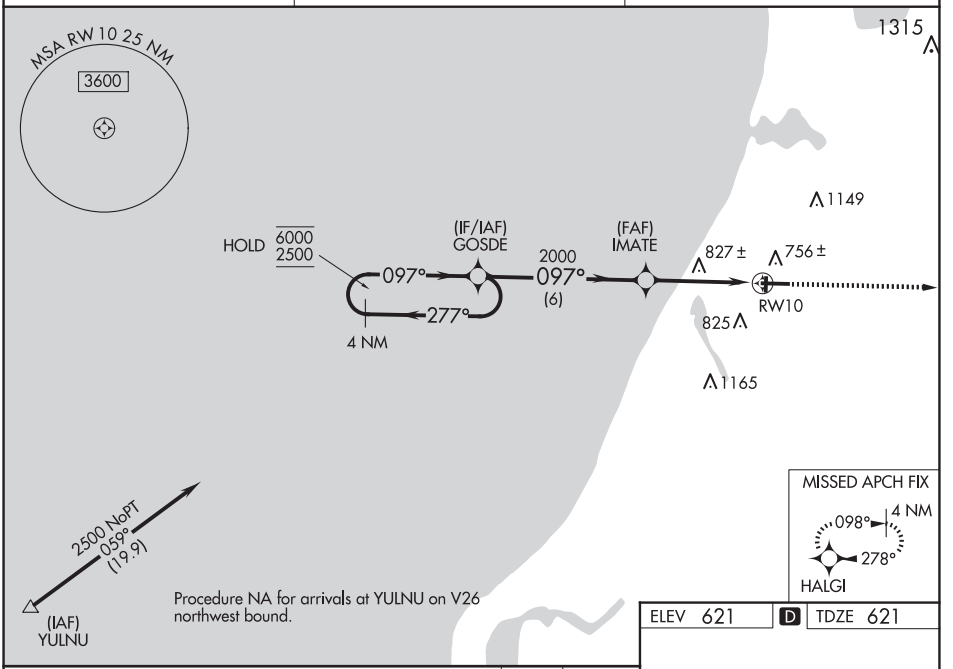
WAAS	APP CRS	Rwy Idg	5501
CH 60933	097°	TDZE	621
W10A		Apt Elev	621

RNP APCH - GPS.

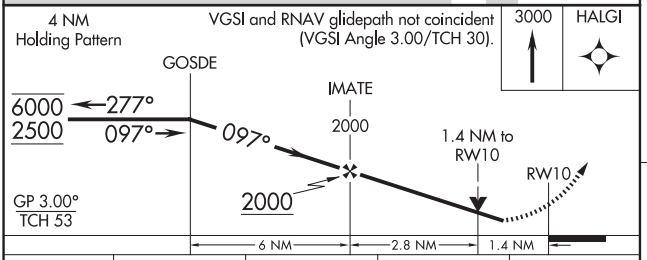
Circling Rwy 1, 19 NA at night. Rwy 10 helicopter visibility reduction below ¾ SM NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

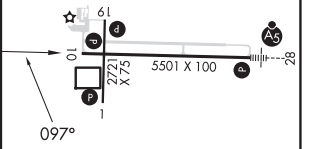
MISSED APPROACH: Climb to 3000 direct HALGI and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
118.825	120.85 322.35	122.8 (CTAF) L



ELEV 621 D TDZ 621





CATEGORY	A	B	C	D
LPV DA	890-⅞ 269 (300-⅞)			
LNAV/VNAV DA	1091-1⅜ 470 (500-1⅜)			
LNAV MDA	1080-1 459 (500-1)		1080-1⅜ 459 (500-1⅜)	
CIRCLING	1160-1 539 (600-1)	1220-1 599 (600-1)	1400-2¼ 779 (800-2¼)	1500-2¾ 879 (900-2¾)

HIRL Rwy 10-28 L
MIRL Rwy 1-19 L
REIL Rwy 10 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH **42532** **W28A**	APP CRS **278°**	Rwy Idg **5501** TDZE **621** Apt Elev **621**

RNAV (GPS) RWY 28

MANISTEE COUNTY/BLACKER (MBL)

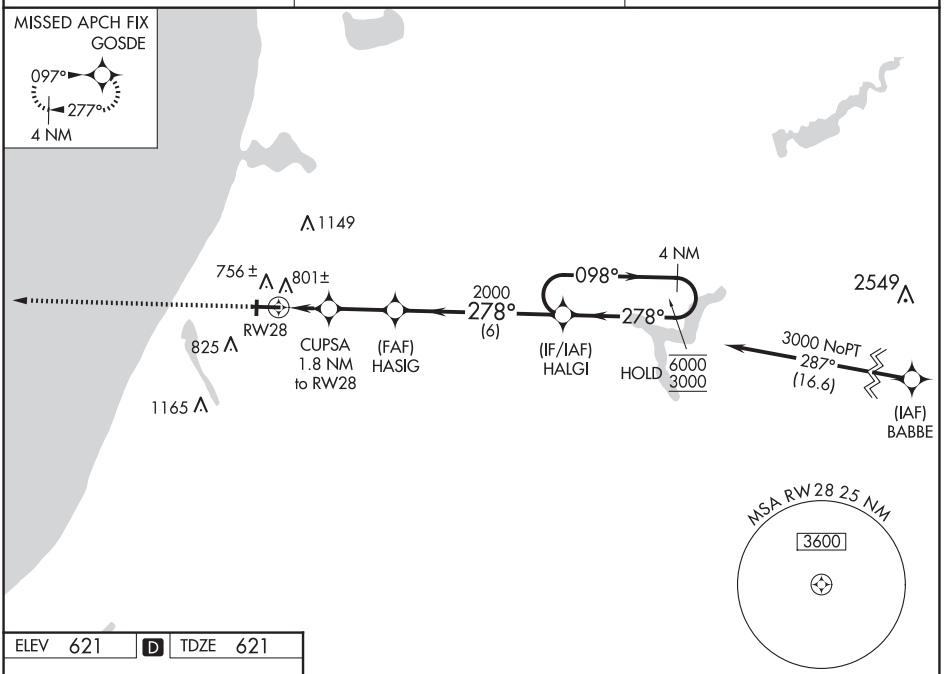
RNP APCH - GPS.

Circling to Rwy 1, 19 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

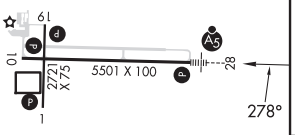
MALSR

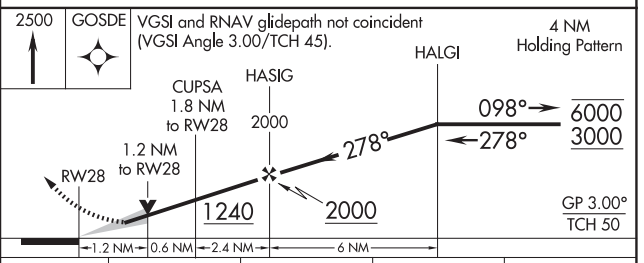
MISSED APPROACH: Climb to 2500 direct GOSDE and hold.

AWOS-3PT	MINNEAPOLIS CENTER	UNICOM
118.825	**120.85 322.35**	**122.8** (CTAF) L



ELEV 621 D TDZE 621





CATEGORY	A	B	C	D
LPV DA	821-½ 200 (200-½)			
LNAV/VNAV DA	984-⅝ 363 (400-⅝)			
LNAV MDA	1060-½ 439 (500-½)		1060-¾ 439 (500-¾)	
CIRCLING	1160-1 539 (600-1)	1220-1 599 (600-1)	1400-2¼ 779 (800-2¼)	1500-2¾ 879 (900-2¾)

HIRL Rwy 10-28 L
MIRL Rwy 1-19 L
REIL Rwy 10 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

25107
AIRPORT DIAGRAM

MANISTEE COUNTY/BLACKER (MBL)
MANISTEE, MICHIGAN
AL-5257 (FAA)

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

AIRPORT DIAGRAM
25107

MANISTEE, MICHIGAN
MANISTEE COUNTY/BLACKER (MBL)

RNAV (GPS) RWY 10

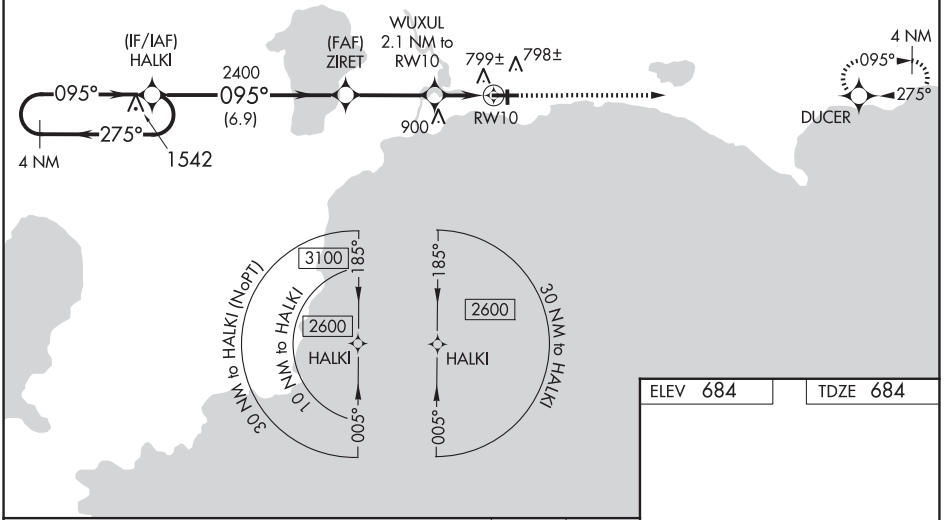
SCHOOLCRAFT COUNTY (ISQ)

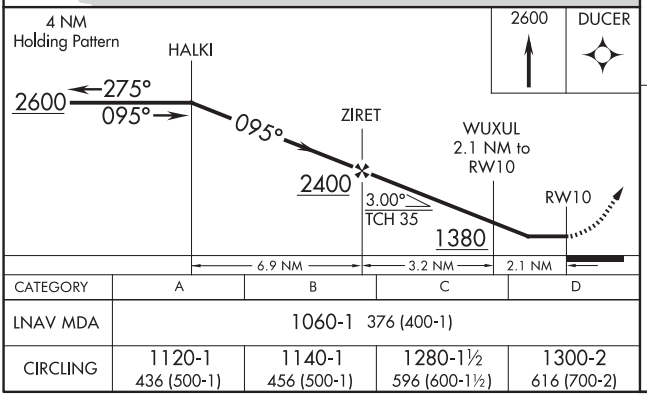
APP CRS	Rwy Idg	5001
095°	TDZE	684
	Apt Elev	684

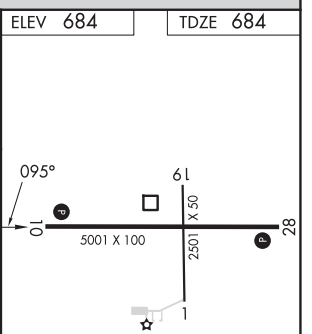
DME/DME RNP-0.3 NA. Helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Beaver Island altimeter setting and increase all MDA 80 feet, increase LNAV Cat C and D visibility ⅜ SM, Circling Cat C visibility ½ SM and Circling Cat D visibility ¼ SM. When VGSI inop, Straight-In/Circling Rwy 10 procedure NA at night. When VGSI inop, Circling Rwy 28 NA at night. Night landing: Rwy 1, 19 NA.

MISSED APPROACH: Climb to 2600 direct DUCER and hold.

AWOS-3	MINNEAPOLIS APP CON	UNICOM
118.775	134.6 354.05	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1060-1 376 (400-1)			
CIRCLING	1120-1 436 (500-1)	1140-1 456 (500-1)	1280-1½ 596 (600-1½)	1300-2 616 (700-2)

REIL Rwy 28 L
MIRL Rwy 10-28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MANISTIQUE, MICHIGAN AL-5616 (FAA) 23054

RNAV (GPS) RWY 28

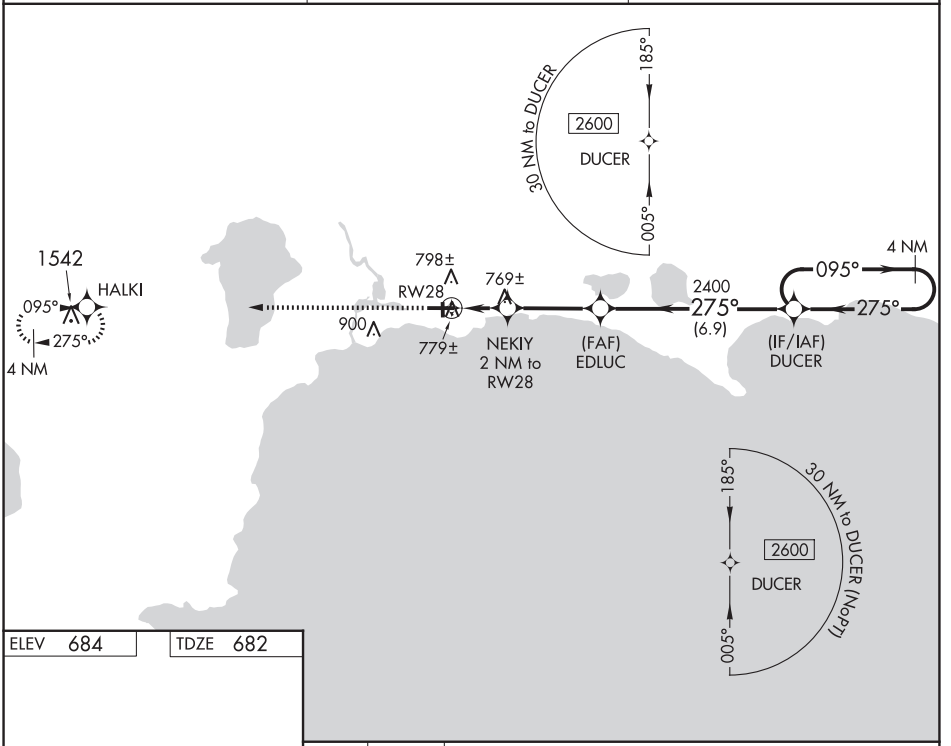
SCHOOLCRAFT COUNTY (ISQ)

WAAS	APP CRS	Rwy Idg	5001
CH 53527	275°	TDZE	682
W28A		Apt Elev	684

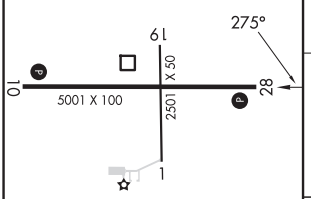
When local altimeter setting not received, use Beaver Island altimeter setting and increase all MDA 80 feet, increase LP Cat C and D and Circling Cat D visibility ¼ SM, LNAV Cat C and D visibility ⅜ SM, Circling Cat C visibility ½ SM. When VGSI inop, Straight-In/Circling Rwy 28 procedure NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Circling to Rwy 1/19 NA at night.

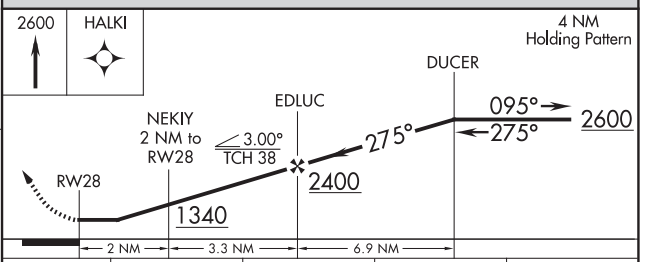
MISSED APPROACH: Climb to 2600 direct HALKI and hold.

AWOS-3	MINNEAPOLIS APP CON	UNICOM
118.775	134.6 354.05	122.8 (CTAF) L



ELEV 684 TDZE 682





CATEGORY	A	B	C	D
LP MDA	1020-1 338 (400-1)			
LNAV MDA	1040-1 358 (400-1)			
CIRCLING	1120-1 436 (500-1)	1140-1 456 (500-1)	1280-1½ 596 (600-1½)	1300-2 616 (700-2)

REIL Rwy 28 L
MIRL Rwy 10-28 L

MANISTIQUE, MICHIGAN
Orig-B 25MAR21

45°58'N-86°10'W

SCHOOLCRAFT COUNTY (ISQ)

RNAV (GPS) RWY 28

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 10

MARLETTE TOWNSHIP (77G)

APP CRS	Rwy Idg	3795
097°	TDZE	881
	Apt Elev	895

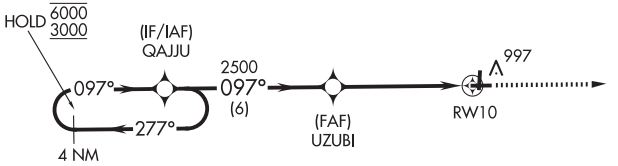
RNP APCH - GPS.

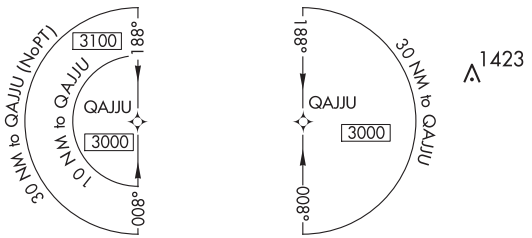
Rwy 10 helicopter visibility reduction below 1 SM NA. Straight-in Rwy 10 NA at night, Circling Rwy 10,19 NA at night. Use Caro altimeter setting, when not received, use Bad Axe altimeter setting and increase all MDAs 20 feet and LNAV visibility Cat C/D ⅛ SM.

NA

MISSED APPROACH: Climb to 2700 direct UYULU and hold.

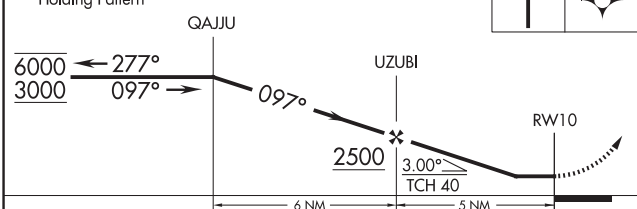
CFS AWOS-3	CLEVELAND CENTER	UNICOM
119.275	127.7 290.425	122.8 (CTAF) L





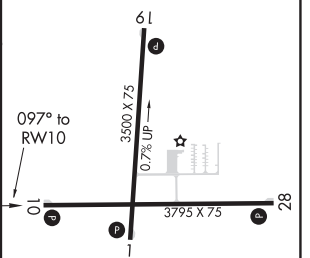
VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 44).

2700 UYULU



CATEGORY	A	B	C	D
LNAV MDA	1420-1	539 (600-1)	1420-1½	539 (600-1½)
C CIRCLING	1460-1	565 (600-1)	1460-1½ 565 (600-1½)	1560-2 665 (700-2)

ELEV 895 TDZE 881



MIRL Rwys 1-19 and 10-28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MARLETTE, MICHIGAN AL-6266 (FAA) 22083

RNAV (GPS) RWY 19

MARLETTE TOWNSHIP (77G)

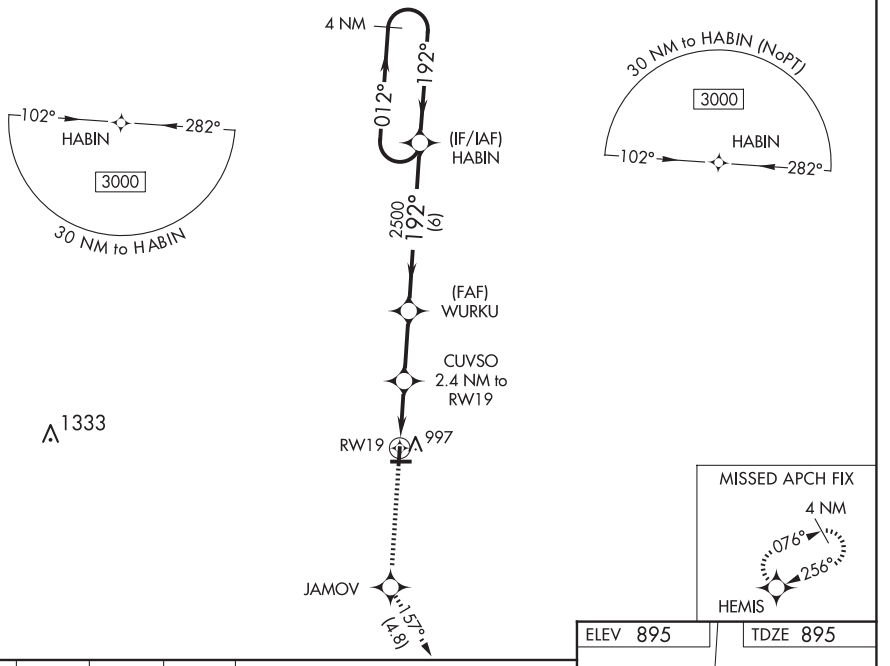
WAAS CH 70421 W19A	APP CRS 192°	Rwy Idg 3500 TDZE 895 Apt Elev 895

RNP APCH.

Baro-VNAV NA. Rwy 19 helicopter visibility reduction below 1 SM NA. Use Caro altimeter setting; when not received use Bad Axe altimeter setting and increase LPV DA to 1230 feet; increase LNAV/VNAV DA to 1280 feet; increase all MDA 20 feet and Circling Cat D visibility ¼ SM. Straight-in Rwy 19 NA at night, Circling Rwy 10, 19 NA at night.

MISSED APPROACH: Climb to 3000 direct JAMOV and on track 157° to HEMIS and hold.

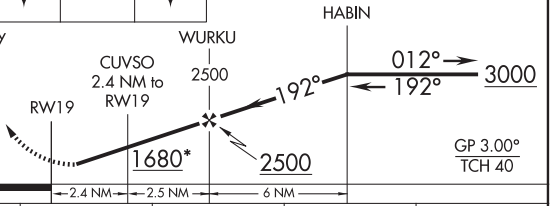
CFS AWOS-3	CLEVELAND CENTER	UNICOM
119.275	127.7 290.425	122.8 (CTAF) L



3000	JAMOV	tr 157°	HEMIS

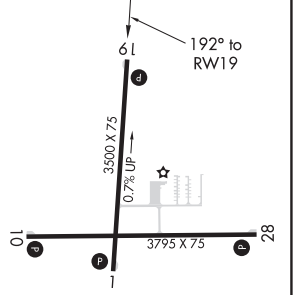
4 NM Holding Pattern

* LNAV only



CATEGORY	A	B	C	D
LPV DA	1214-1⅛		319 (400-1⅛)	
LNAV/VNAV DA	1264-1¼		369 (400-1¼)	
LNAV MDA	1340-1 445 (500-1)		1340-1⅜ 445 (500-1⅜)	
C CIRCLING	1460-1 565 (600-1)		1460-1½ 565 (600-1½)	1560-2 665 (700-2)

ELEV 895 TDZE 895



MIRL Rwys 1-19 and 10-28 L

MARLETTE, MICHIGAN
Orig-D 24MAR22

43°19′N-83°05′W

MARLETTE TOWNSHIP (77G)

RNAV (GPS) RWY 19

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 28

MARLETTE TOWNSHIP (77G)

WAAS CH 62944 W28A	APP CRS 278°	Rwy Idg 3795 TDZE 881 Apt Elev 895

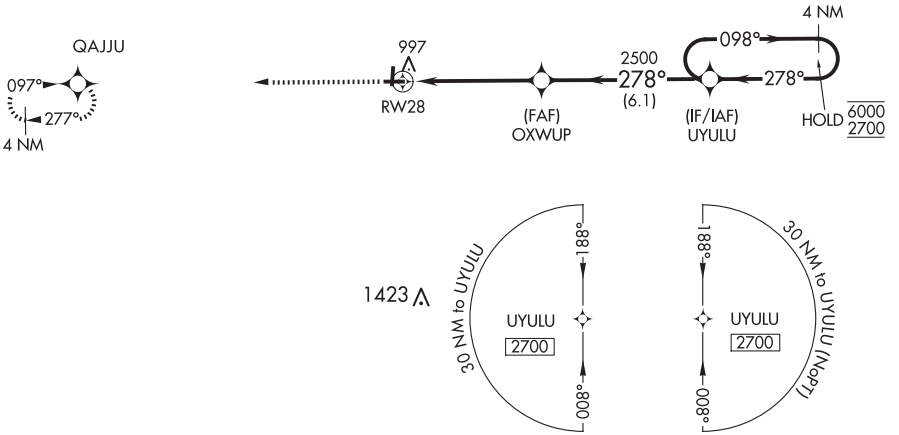
RNP APCH - GPS.

Rwy 28 helicopter visibility reduction below ¾ SM NA. Baro-VNAV NA. Use Caro altimeter setting, when not received, use Bad Axe altimeter setting and increase LPV DA to 1216 feet; increase LNAV/VNAV DA to 1279 feet; increase all MDAs 20 feet and Circling visibility Cat D ¼ SM. Circling Rwy 10, 19 NA at night.

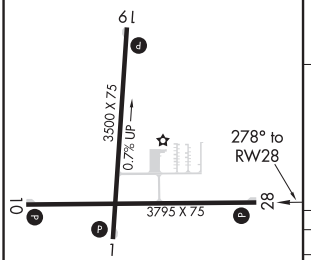
NA

MISSED APPROACH: Climb to 3000 direct QAJJU and hold.

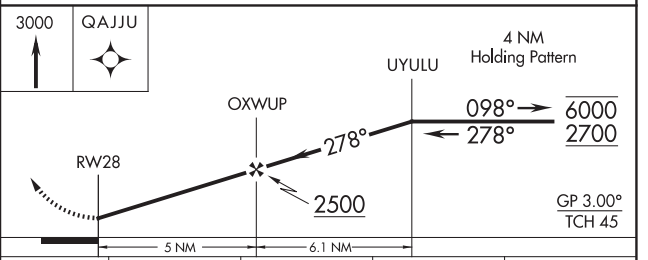
CFS AWOS-3	CLEVELAND CENTER	UNICOM
119.275	127.7 290.425	122.8 (CTAF) L



ELEV 895 TDZE 881



MIRL Rwys 1-19 and 10-28 L



CATEGORY	A	B	C	D
LPV DA	1199-1 318 (400-1)			
LNAV/VNAV DA	1262-1⅛ 381 (400-1⅛)			
LNAV MDA	1340-1 459 (500-1)		1340-1⅜ 459 (500-1⅜)	
C CIRCLING	1420-1 525 (600-1)		1420-1½ 525 (600-1½)	1560-2 665 (700-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ILS or LOC RWY 1

MARQUETTE/SAWYER RGNL (SAW)

LOC I-SOU	APP CRS	Rwy Ldg	9072
110.1	013°	TDZE	1180
		Apt Elev	1205

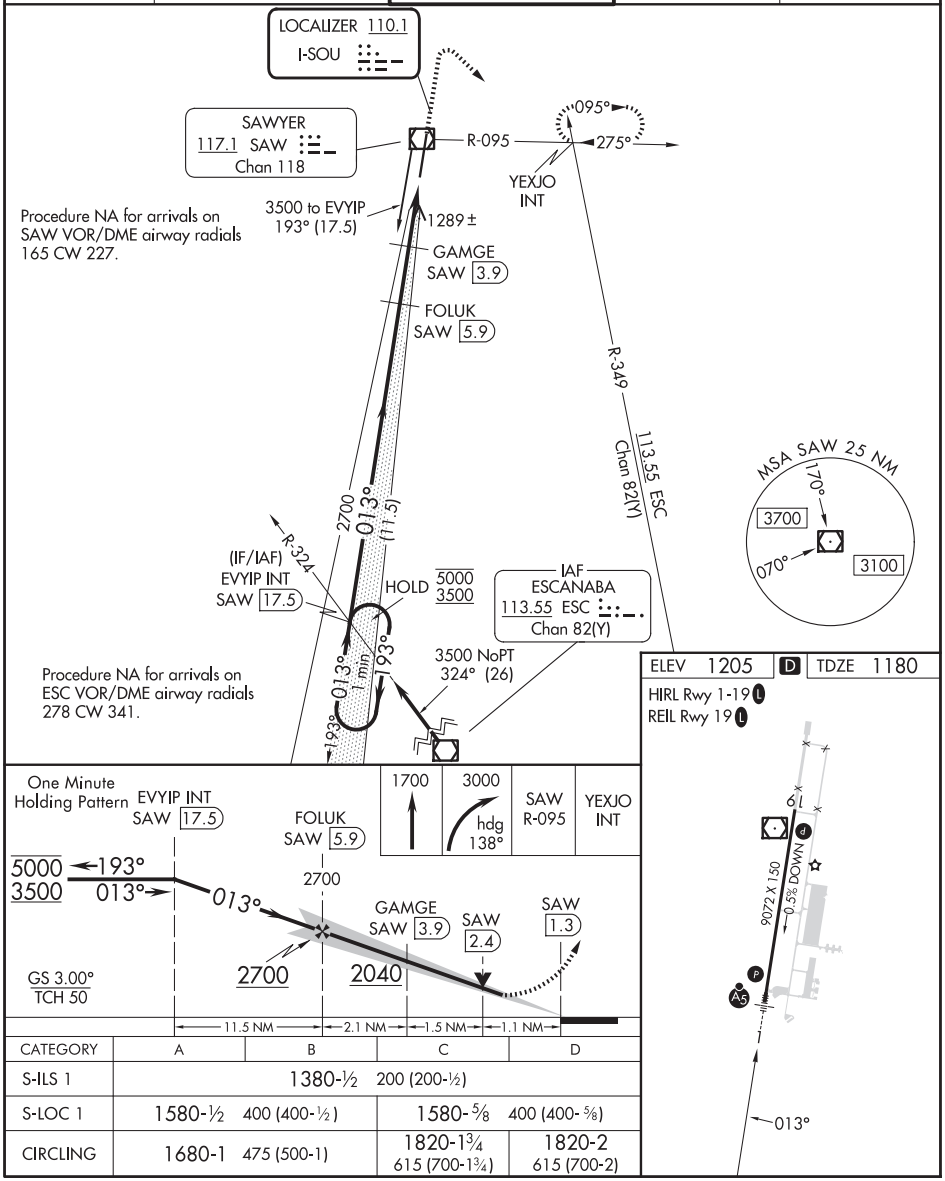
DME required for LOC only.

NA Autopilot coupled approach NA below 1360 MSL.

MALSR

MISSED APPROACH: Climb to 1700 then climbing right turn to 3000 on heading 138° and on SAW VOR/DME R-095 to YEXJO INT and hold, continue climb-in-hold to 3000.

AWOS-3PT	MINNEAPOLIS CENTER	SAWYER TOWER ★	GND CON	UNICOM
118.375	119.1 290.2	119.975 (CTAF) L	121.65	122.7



CATEGORY	A	B	C	D
S-ILS 1	1380-½ 200 (200-½)			
S-LOC 1	1580-½ 400 (400-½)		1580-⅝ 400 (400-⅝)	
CIRCLING	1680-1 475 (500-1)		1820-1¾ 615 (700-1¾)	1820-2 615 (700-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 1

MARQUETTE/SAWYER RGNL (SAW)

WAAS CH 97431 W01A	APP CRS 013°	Rwy Ldg 9072 / TDZE 1180 / Apt Elev 1205

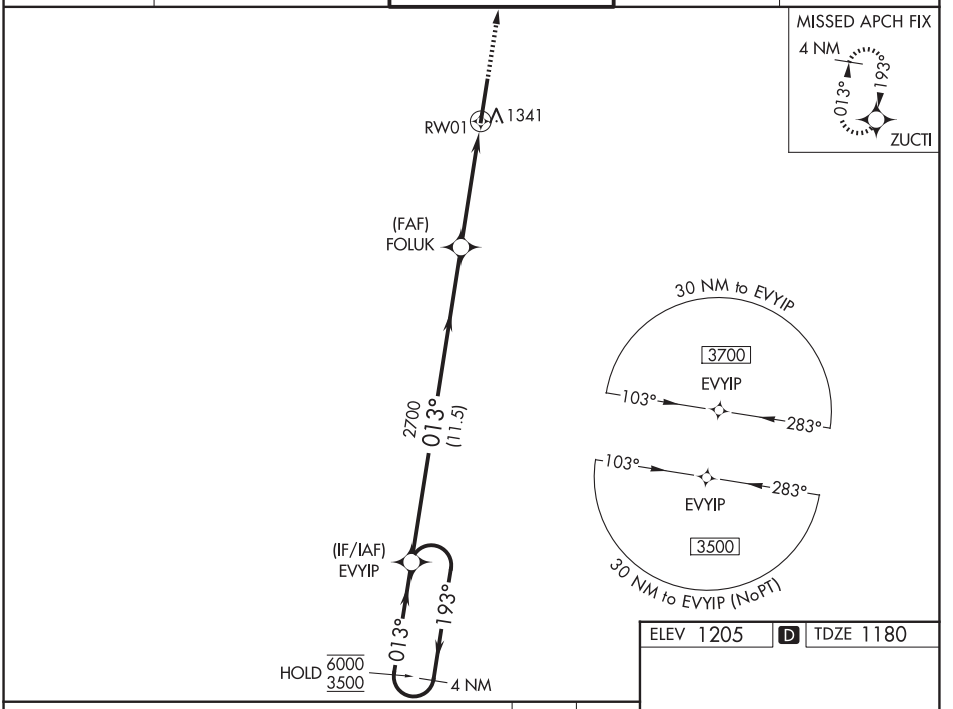
RNP APCH - GPS.

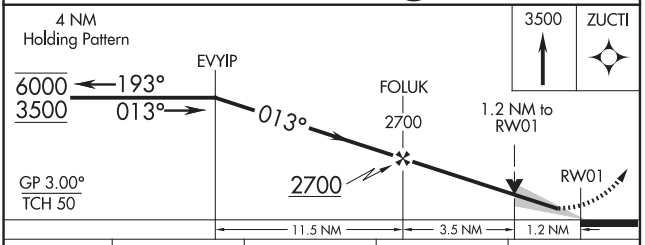
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C or above 54°C. For inop ALS, increase LNAV Cat C/D visibility to 1⅛ SM.

MALSR

MISSED APPROACH: Climb to 3500 direct ZUCTI and hold.

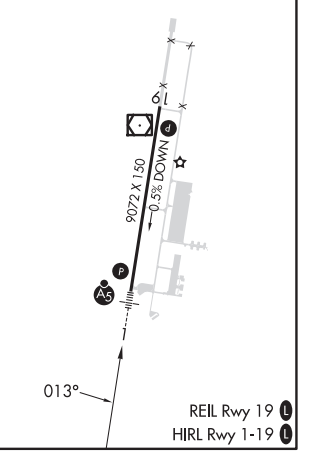
AWOS-3PT	MINNEAPOLIS CENTER	SAWYER TOWER ★	GND CON	UNICOM
118.375	119.1 290.2	119.975 (CTAF) L	121.65	122.7





CATEGORY	A	B	C	D
LPV DA	1380-½ 200 (200-½)			
LNAV/VNAV DA	1503-½ 323 (300-½)			
LNAV MDA	1600-½ 420 (400-½)		1600-¾ 420 (400-¾)	
CIRCLING	1680-1 475 (500-1)		1820-1¾ 615 (700-1¾)	1820-2 615 (700-2)

ELEV 1205 D TDZE 1180



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MARQUETTE, MICHIGAN

AL-773 (FAA)

25191

RNAV (GPS) RWY 19

MARQUETTE/SAWYER RGNL (SAW)

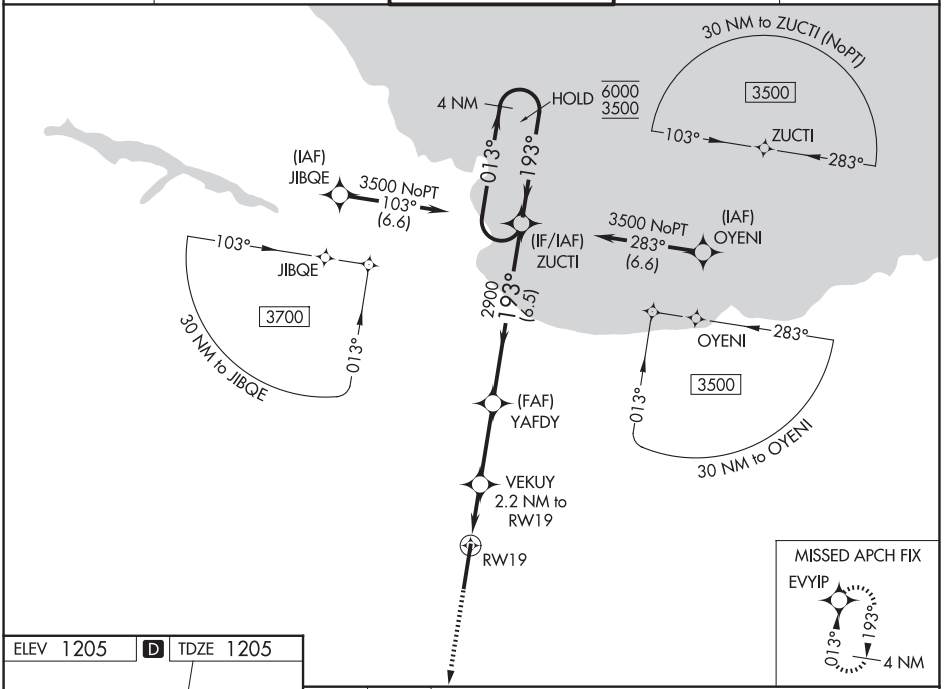
WAAS	APP CRS	Rwy Ldg	9072
CH 86616	193°	TDZE	1205
W19A		Apt Elev	1205

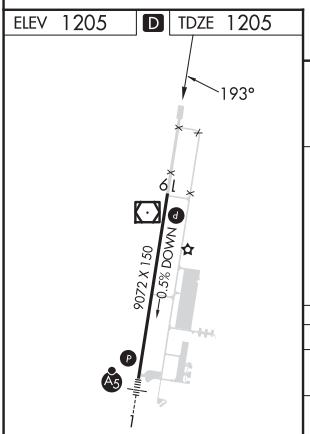
RNP APCH - GPS.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C or above 54°C.

MISSED APPROACH: Climb to 3500 direct EVYIP and hold.

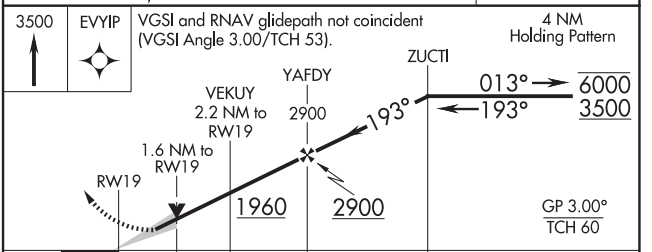
AWOS-3PT	MINNEAPOLIS CENTER	SAWYER TOWER ★	GND CON	UNICOM
118.375	119.1 290.2	119.975 (CTAF) L	121.65	122.7





HIRL Rwy 1-19 L

REIL Rwy 19 L



CATEGORY	A	B	C	D
LPV DA	1405-¾ 200 (200-¾)			
LNAV/VNAV DA	1522-⅞ 317 (400-⅞)			
LNAV MDA	1620-1 415 (500-1)		1620-1⅛ 415 (500-1⅛)	
CIRCLING	1680-1 475 (500-1)		1820-1¾ 615 (700-1¾)	1820-2 615 (700-2)

MARQUETTE, MICHIGAN

Amdt 2A 10JUL25

46°21'N-87°24'W

MARQUETTE/SAWYER RGNL (SAW)

RNAV (GPS) RWY 19

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

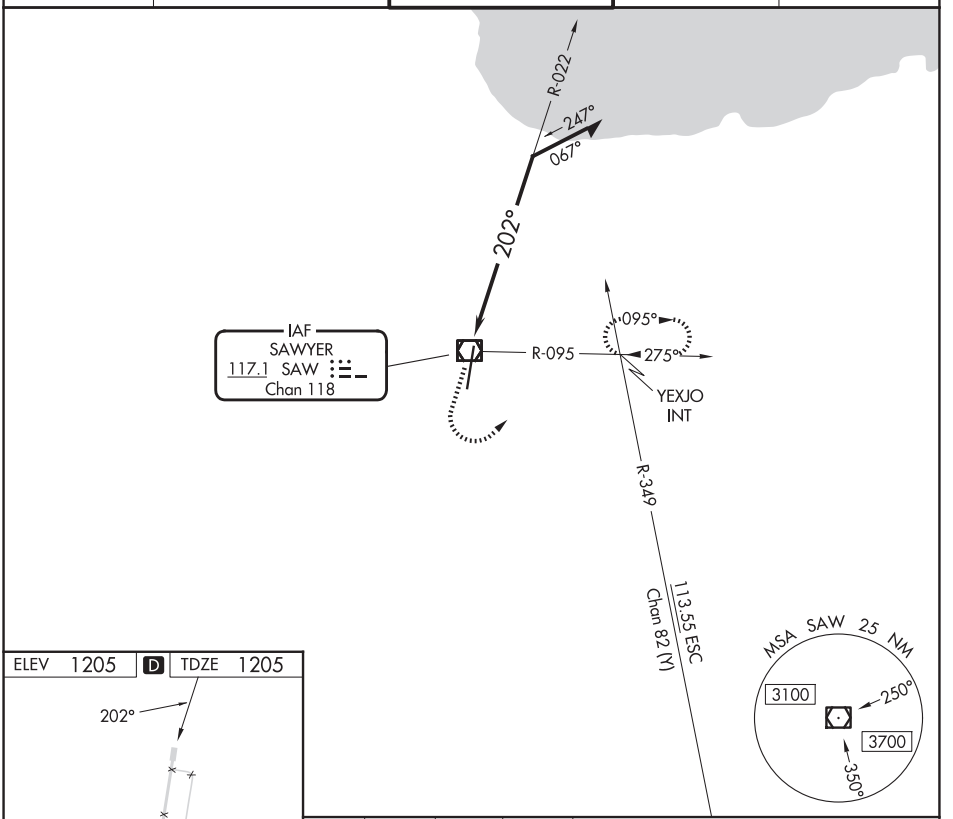
VOR RWY 19

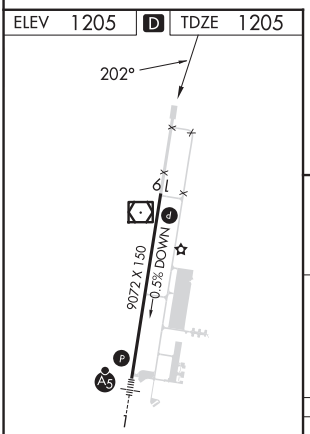
MARQUETTE/SAWYER RGNL (SAW)

VOR/DME SAW	APP CRS	Rwy Ldg	9072
117.1	202°	TDZE	1205
Chan 118		Apt Elev	1205

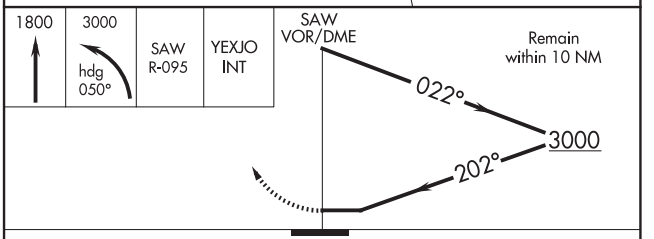
MISSED APPROACH: Climb to 1800 then climbing left turn to 3000 on heading 050° and SAW VOR/DME R-095 to YEXJO Int and hold.

AWOS-3PT	MINNEAPOLIS CENTER	SAWYER TOWER ★	GND CON	UNICOM
118.375	119.1 290.2	119.975 (CTAF) L	121.65	122.7





HIRL Rwy 1-19 L
REIL Rwy 19 L



CATEGORY	A	B	C	D
S-19	1780-1 575 (600-1)		1780-1⅝ 575 (600-1⅝)	
CIRCLING	1780-1 575 (600-1)		1820-1¾ 615 (700-1¾)	1820-2 615 (700-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

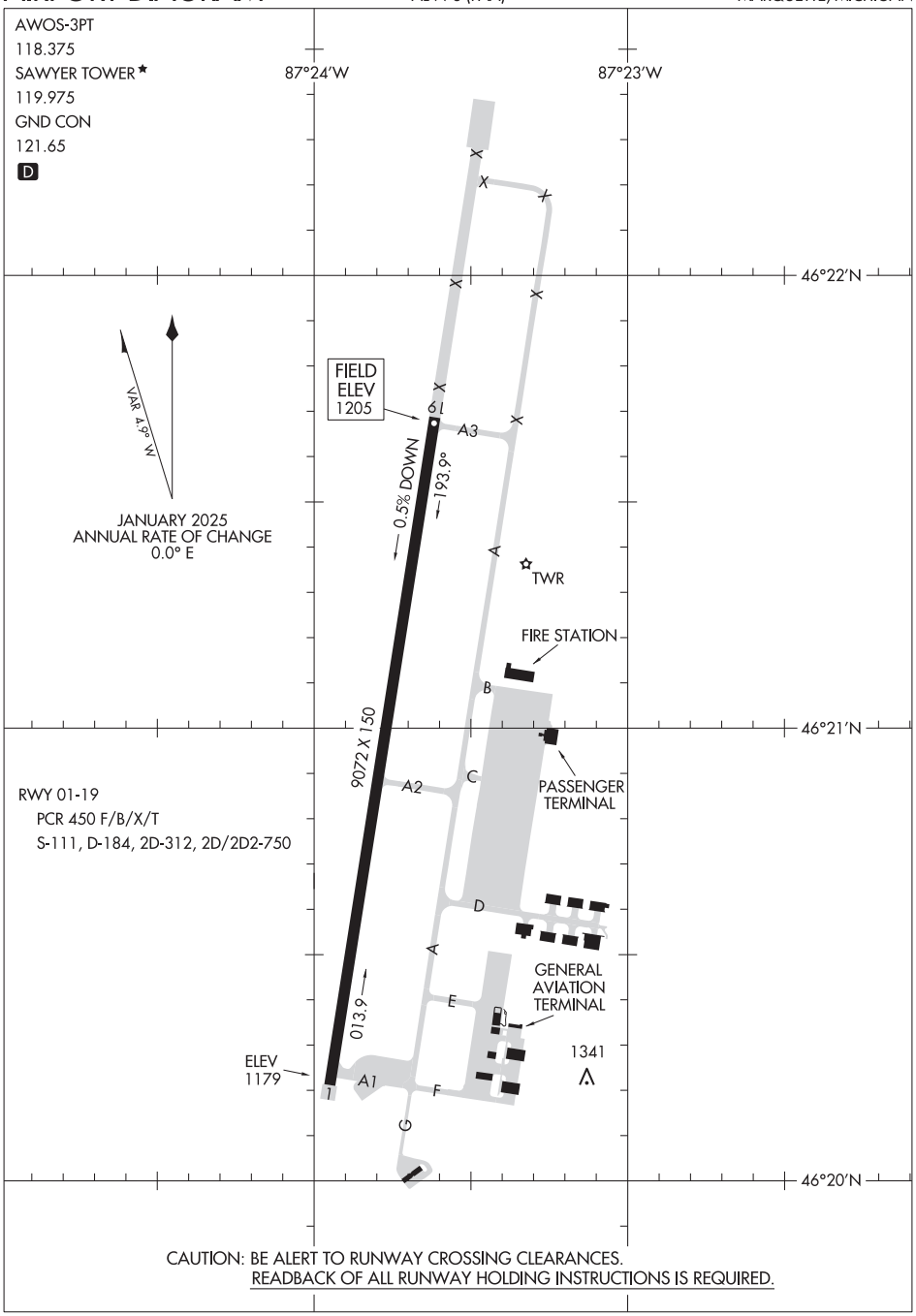
25107

AIRPORT DIAGRAM

AL-773 (FAA)

MARQUETTE/SAWYER RGNL (SAW)

MARQUETTE, MICHIGAN



EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

AIRPORT DIAGRAM

25107

MARQUETTE, MICHIGAN

MARQUETTE/SAWYER RGNL (SAW)

RNAV (GPS) RWY 28

BROOKS FLD (RMY)

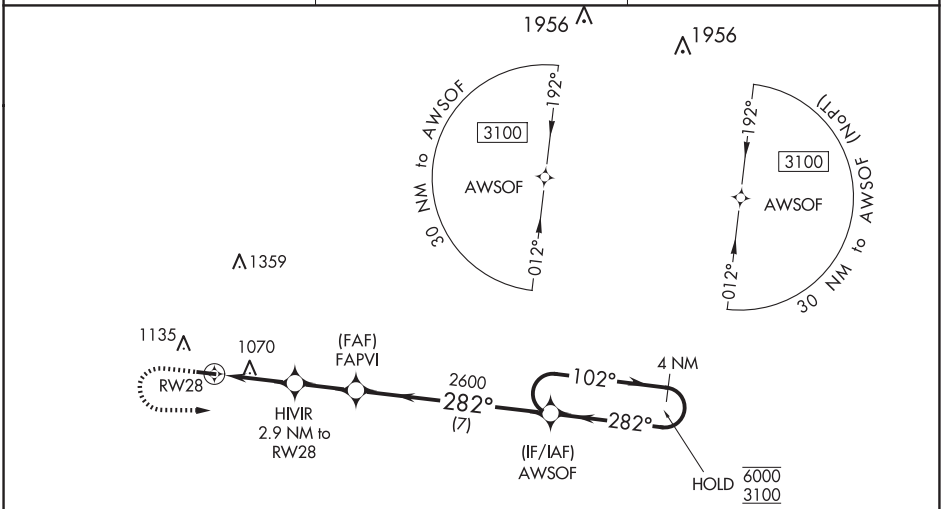
WAAS CH45533 W28A	APP CRS 282°	Rwy Idg 3501 TDZE 941 Apt Elev 941

RNP APCH - GPS.

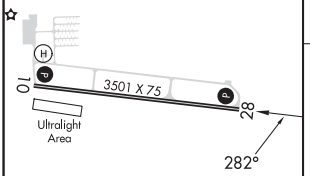
Rwy 28 helicopter visibility reduction below ¾ SM NA. Circling Rwy 10 NA at night. When local altimeter setting not received, use BTL altimeter setting: increase all MDAs 40 feet and increase LP and LNAV Cat C visibility ⅛ SM and Circling Cat C visibility ¼ SM. VDP NA with BTL altimeter setting.

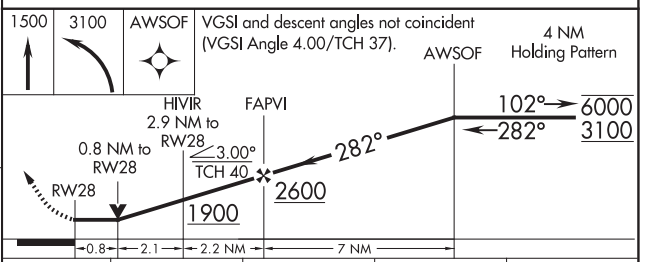
MISSED APPROACH: Climb to 1500 then climbing left turn to 3100 direct AWSOF and hold.

AWOS-3	GREAT LAKES APP CON *	UNICOM
120.025	119.2 239.25	122.8 (CTAF) L



ELEV 941 TDZE 941





CATEGORY	A	B	C	D
LP MDA	1320-1 379 (400-1)			NA
LNAV MDA	1320-1 379 (400-1)			NA
CIRCLING	1440-1 499 (500-1)		1660-2 719 (800-2)	NA

MIRL Rwy 10-28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MASON, MICHIGAN | AL-6487 (FAA) | 22083

RNAV (GPS) RWY 10

MASON JEWETT FLD (TEW)

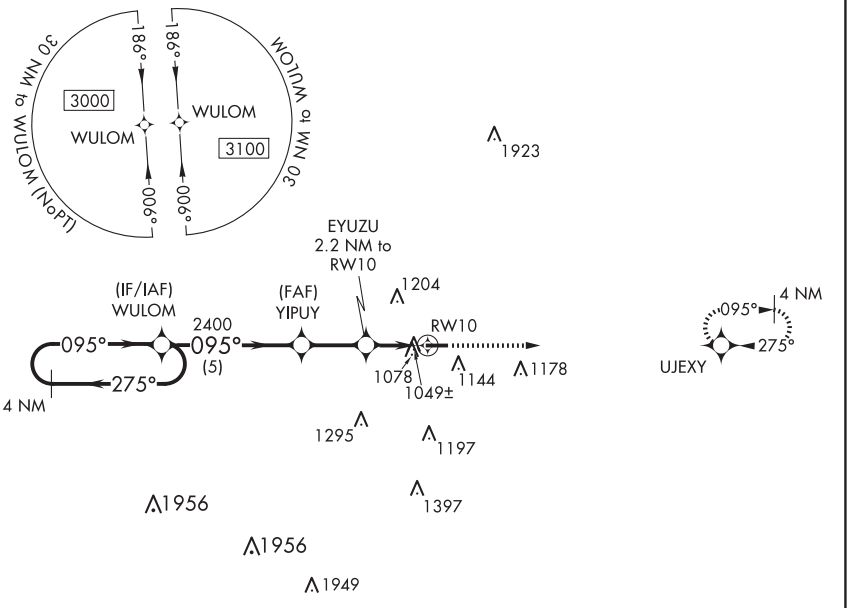
WAAS	APP CRS	Rwy Idg	4002
CH 61134	095°	TDZE	920
W10A		Apt Elev	920

RNP APCH.

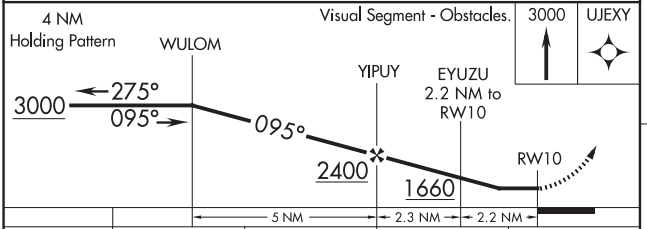
Rwy 10 helicopter visibility reduction below 1 SM NA. Straight-in Rwy 10 NA at night, Circling Rwy 10 NA at night.

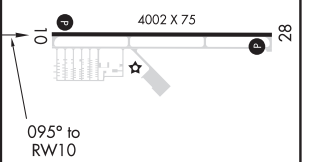
MISSED APPROACH: Climb to 3000 direct UJEXY and hold.

AWOS-3P	GREAT LAKES APP CON ★	UNICOM
119.425	118.65 226.4	122.7 (CTAF) L



ELEV 920 | TDZE 920





CATEGORY	A	B	C	D
LP MDA	1300-1	380 (400-1)	NA	
LNAV MDA	1380-1	460 (500-1)	NA	
CIRCLING	1500-1	580 (600-1)	NA	

MIRL Rwy 10-28 L
REIL Rwys 10 and 28 L

MASON, MICHIGAN
Orig-D 28FEB19

42°34'N-84°25'W

MASON JEWETT FLD (TEW)

RNAV (GPS) RWY 10

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	4002
CH 53534	275°	TDZE	918
W28A		Apt Elev	920

RNAV (GPS) RWY 28

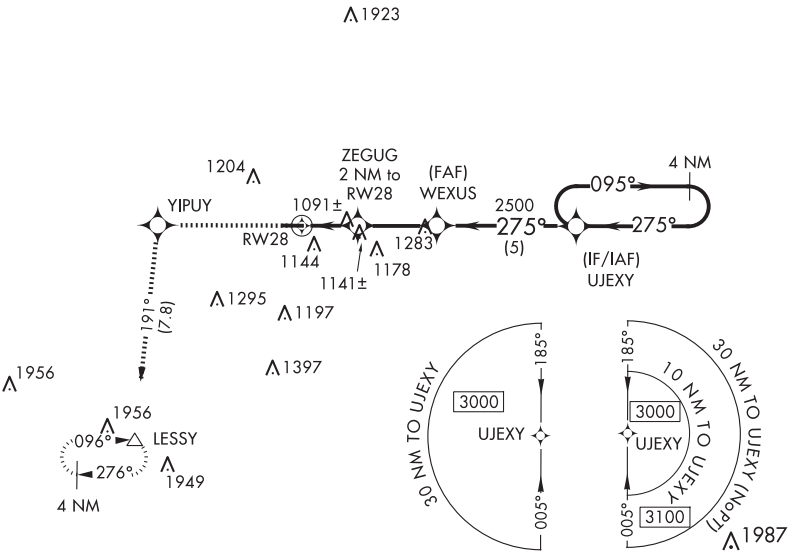
MASON JEWETT FLD (TEW)

RNP APCH - GPS.

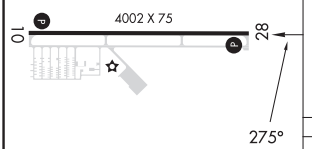
Rwy 28 helicopter visibility reduction below ¾ SM NA.
Circling Rwy 10 NA at night.

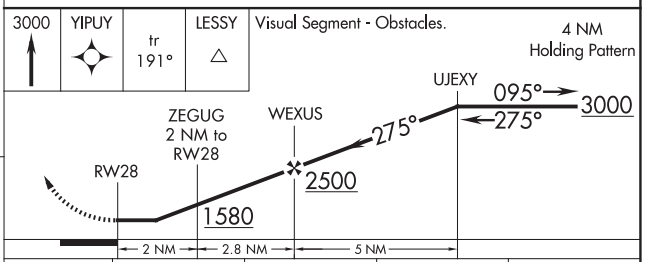
MISSED APPROACH: Climb to 3000 direct YIPUY and on track 191° direct LESSY and hold.

AWOS-3P	GREAT LAKES APP CON ★	UNICOM
119.425	118.65 226.4	122.7 (CTAF) L



ELEV 920	TDZE 918





CATEGORY	A	B	C	D
LP MDA	1360-1 440 (500-1)		NA	
LNAV MDA	1400-1 480 (500-1)		NA	
CIRCLING	1500-1 580 (600-1)		NA	

MIRL Rwy 10-28 L
REIL Rwys 10 and 28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MENOMINEE, MICHIGAN | AL-5145 (FAA) | 24221

LOC/DME I-TNQ	APP CRS	Rwy Idg	5999
108.7	034°	TDZE	624
Chan 24		Apt Elev	625

ILS or LOC RWY 3

MENOMINEE RGNL (MNM)

DME required.

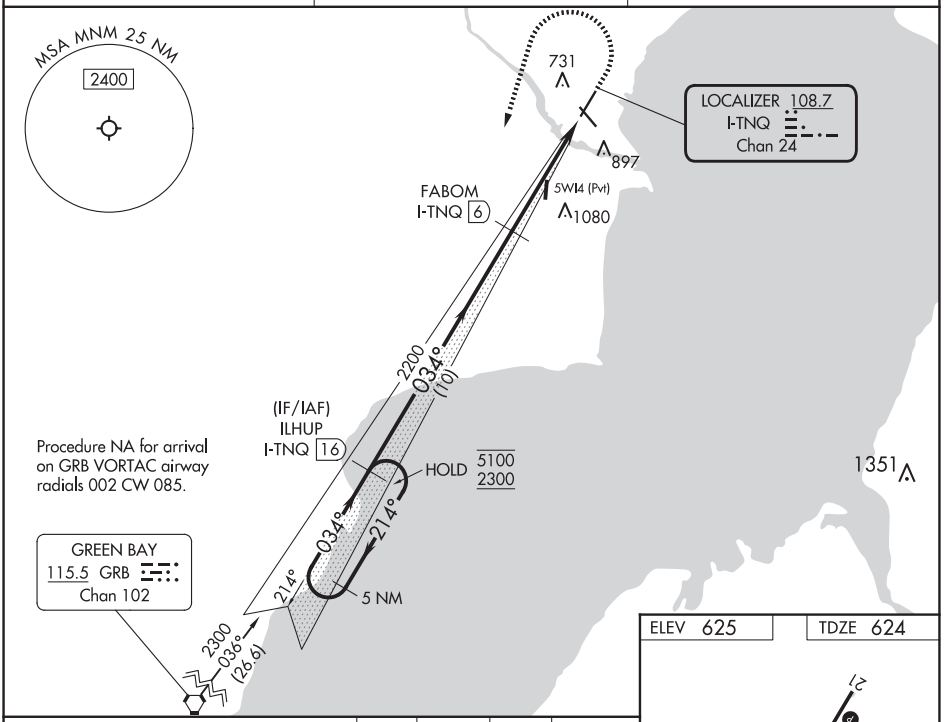
Autopilot coupled approach NA below 1830. Circling Rwy 14, 32 NA at night. Rwy 3 helicopter visibility reduction below ¾ SM NA. Inop table does not apply to S-ILS 3, S-LOC 3 Cats A and B. Increase S-LOC Cats C and D visibility to 1⅜ SM.

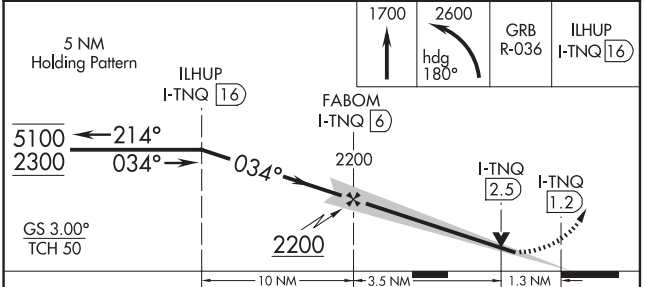
NA

MALSR

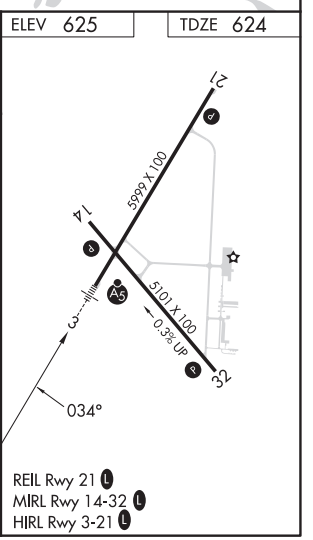
MISSED APPROACH: Climb to 1700 then climbing left turn to 2600 on heading 180° and GRB R-036 to ILHUP/16 DME and hold.

AWOS-3PT	GREEN BAY APP CON ★	UNICOM
121.45	120.3 338.2	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-ILS 3		900-1 276 (300-1)		
S-LOC 3		1080-1 456 (500-1)		
C CIRCLING	1200-1 575 (600-1)		1200-1½ 575 (600-1½)	1380-2½ 755 (800-2½)



MENOMINEE, MICHIGAN
Amdt 4 16MAY24

45°08'N-87°38'W

MENOMINEE RGNL (MNM)
ILS or LOC RWY 3

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	5999
CH 73014	034°	TDZE	624
W03A		Apt Elev	625

RNAV (GPS) RWY 3

MENOMINEE RGNL (MNM)

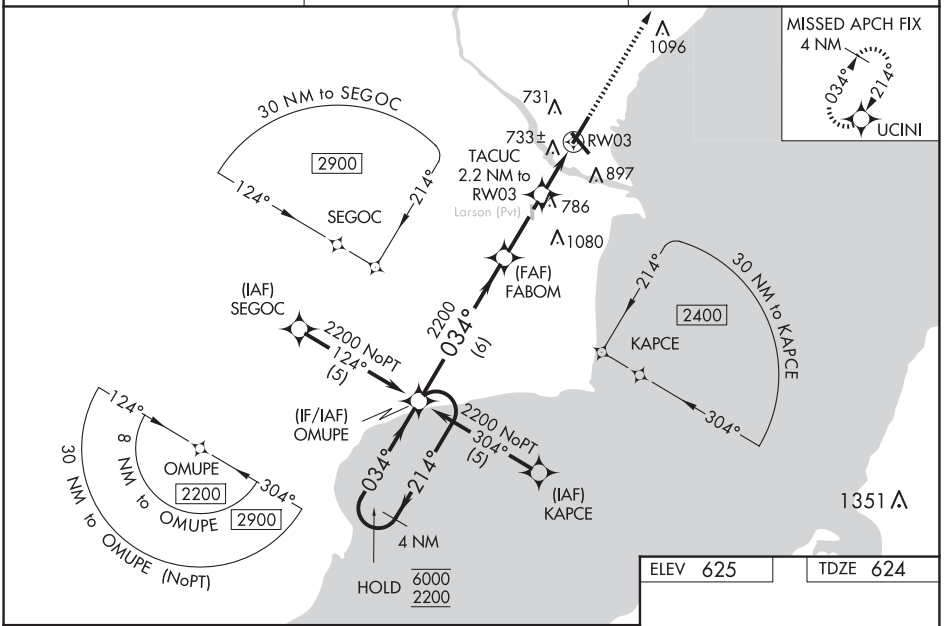
RNP APCH - GPS.

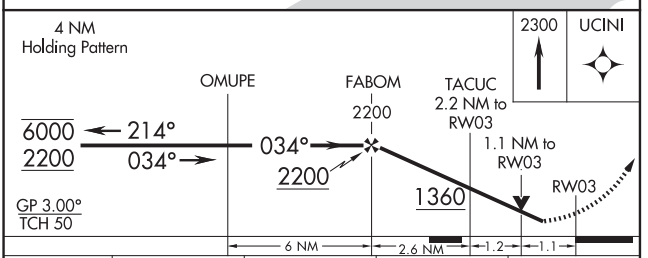
Baro-VNAV and VDP NA when using SUE altimeter setting. Circling Rwy 14, 32 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. Rwy 3 helicopter visibility reduction below ¾ SM NA. Inop table does not apply to LPV and LNAV all Cats. When local altimeter setting not received, use SUE altimeter setting: increase LPV DA to 959 feet; increase LNAV/VNAV DA to 1209 feet and all visibilities ¼ SM; increase all MDAs 60 feet and Circling visibility Cats C and D ¼ SM. For inop ALS when using SUE altimeter setting increase LNAV MDA visibility Cat C and D to 1¼ SM. Inop table does not apply to LPV all Cats and LNAV Cats A and B when using SUE altimeter setting.

MALSR

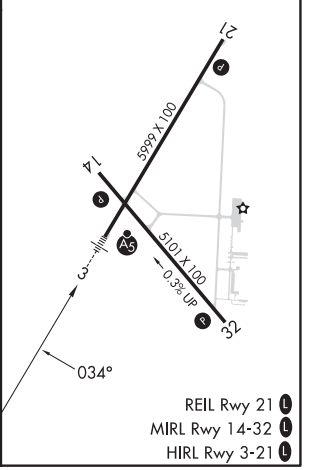
MISSED APPROACH: Climb to 2300 direct UCINI and hold.

AWOS-3PT	GREEN BAY APP CON ★	UNICOM
121.45	120.3 338.2	122.8 (CTAF) L





CATEGORY	A	B	C	D
LPV DA	900-1 276 (300-1)			
LNAV/VNAV DA	1150-1 526 (600-1)			
LNAV MDA	1000-1 376 (400-1)			
C CIRCLING	1200-1 575 (600-1)		1200-1½ 575 (600-1½)	1380-2½ 755 (800-2½)



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MENOMINEE, MICHIGAN AL-5145 (FAA) 24221

APP CRS	Rwy Idg	5999
214°	TDZE	625
	Apt Elev	625

RNAV (GPS) RWY 21

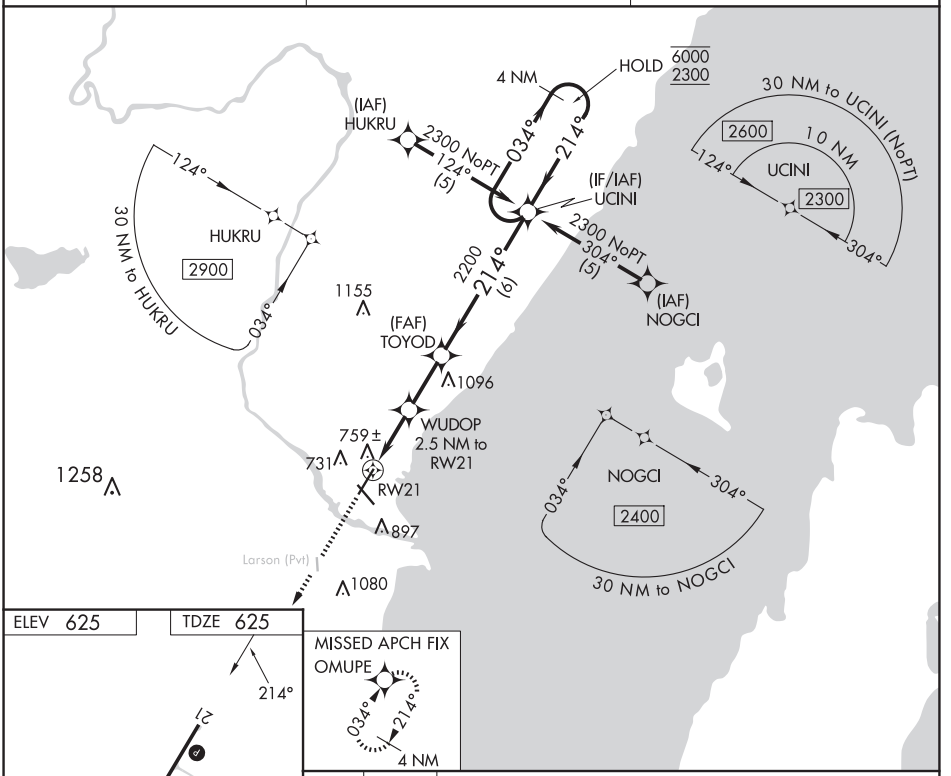
MENOMINEE RGNL (MNM)

RNP APCH.

T A Circling Rwy 14, 32 NA at night. Rwy 21 helicopter visibility reduction below ¾ SM NA. VDP NA when using Sturgeon Bay altimeter setting. When local altimeter setting not received, use Sturgeon Bay altimeter setting and increase all MDA 60 feet, increase LNAV Cat C/D and Circling Cat C/D visibility ¼ SM.

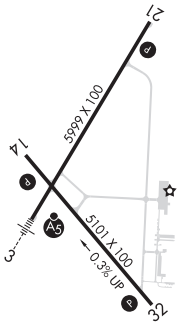
MISSED APPROACH: Climb to 2200 direct OMUPE and hold.

AWOS-3PT	GREEN BAY APP CON ★	UNICOM
121.45	120.3 338.2	122.8 (CTAF) L



ELEV 625 TDZE 625

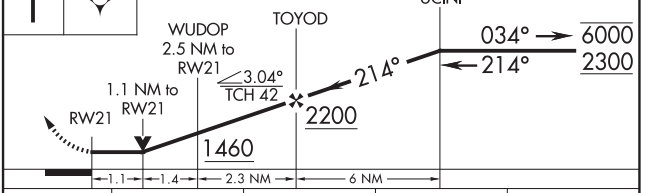
214°



MISSED APCH FIX
OMUPE
034°
214°
4 NM

2200 OMUPE

4 NM
Holding Pattern



CATEGORY	A	B	C	D
LNAV MDA	1020-1 395 (400-1)		1020-1⅛ 395 (400-1⅛)	
C CIRCLING	1200-1 575 (600-1)		1200-1½ 575 (600-1½)	1380-2½ 755 (800-2½)

REIL Rwy 21 L
MIRL Rwy 14-32 L
HIRL Rwy 3-21 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS		
CH 56333	323°	Rwy Idg	5101
W32A		TDZE	608
		Apt Elev	625

RNAV (GPS) RWY 32

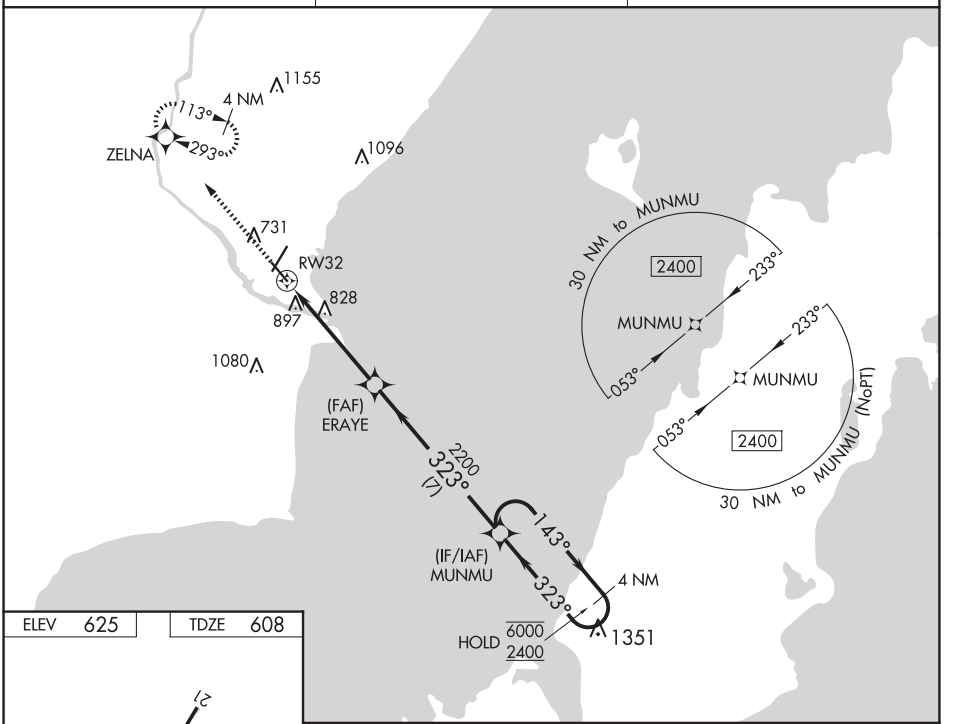
MENOMINEE RGNL (MNM)

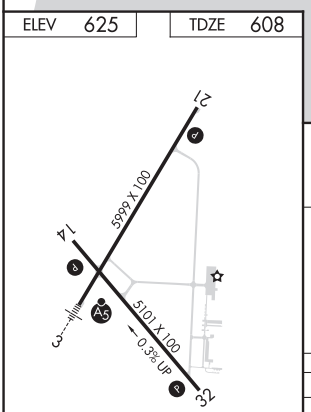
RNP APCH.

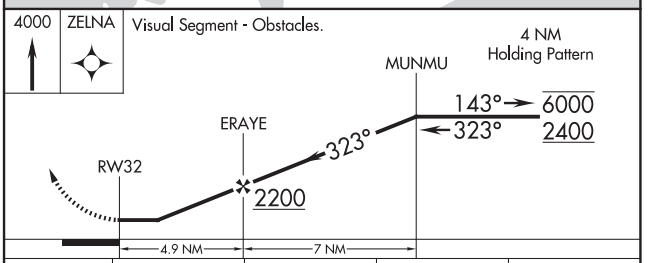
T A Rwy 32 helicopter visibility reduction below 1 SM NA.
Straight-in Rwy 32 NA at night, Circling Rwy 14, 32 NA at night.

MISSED APPROACH: Climb to 4000 direct ZELNA and hold, continue climb-in-hold to 4000.

AWOS-3PT	GREEN BAY APP CON ★	UNICOM
121.45	120.3 338.2	122.8 (CTAF) L







CATEGORY	A	B	C	D
LP MDA	1140-1	532 (600-1)	1140-1½	532 (600-1½)
LNAV MDA	1160-1	552 (600-1)	1160-1⅝	552 (600-1⅝)
C CIRCLING	1200-1	575 (600-1)	1200-1⅝ 575 (600-1⅝)	1380-2½ 755 (800-2½)

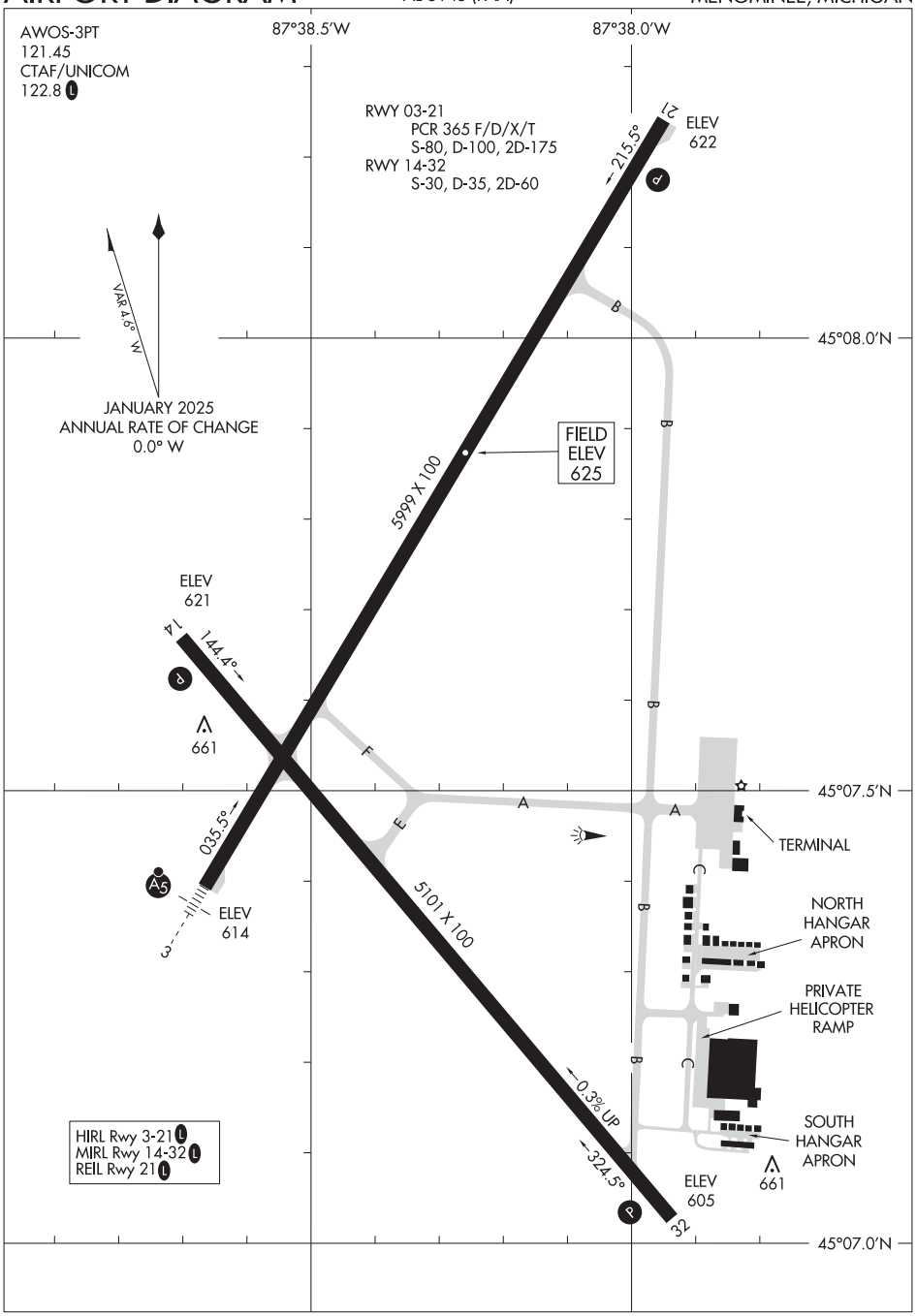
EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

25107

AIRPORT DIAGRAM

AL-5145 (FAA)

MENOMINEE RGNL (MNM)
MENOMINEE, MICHIGAN



EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

AIRPORT DIAGRAM
25107

MENOMINEE, MICHIGAN
MENOMINEE RGNL (MNM)

APP CRS	Rwy Idg	3801
066°	TDZE	628
	Apt Elev	635

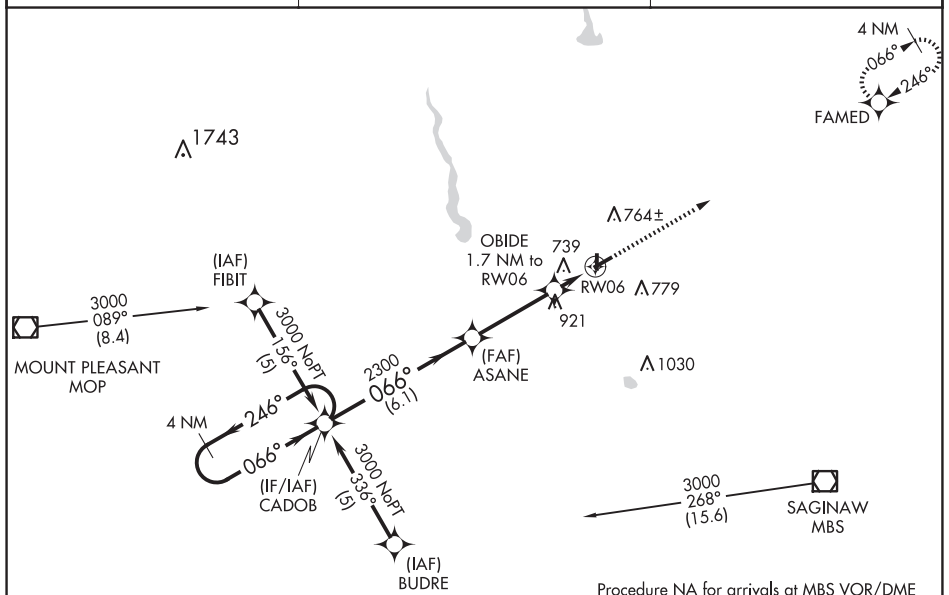
RNAV (GPS) RWY 6

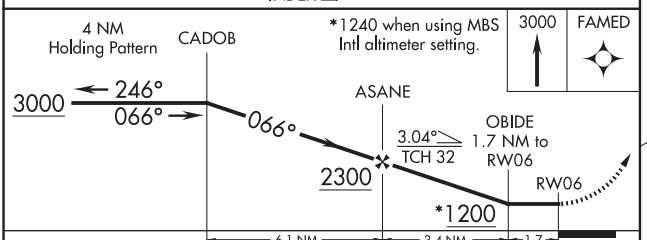
JACK BARSTOW (IKW)

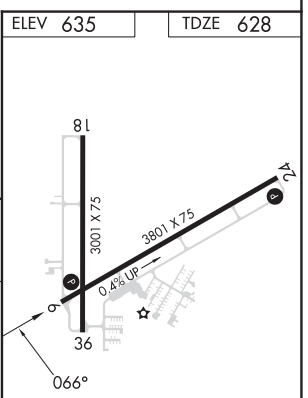
DME/DME RNP-0.3 NA. Rwy 24 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use MBS Intl altimeter setting and increase all MDA 40 feet and LNAV Cat C visibility ¼ mile. Circling Rwy 18, 36 NA at night.

MISSED APPROACH: Climb to 3000 direct FAMED and hold.

AWOS-3	GREAT LAKES APP CON ★	UNICOM
119.525	126.45 235.625	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1000-1 372 (400-1)			NA
CIRCLING	1120-1 485 (500-1)		1240-1¾ 605 (700-1¾)	NA

REIL Rwys 6, 18, 24, and 36 L
MIRL Rwys 6-24 and 18-36 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MIDLAND, MICHIGAN AL-5476 (FAA) 24193

RNAV (GPS) RWY 24

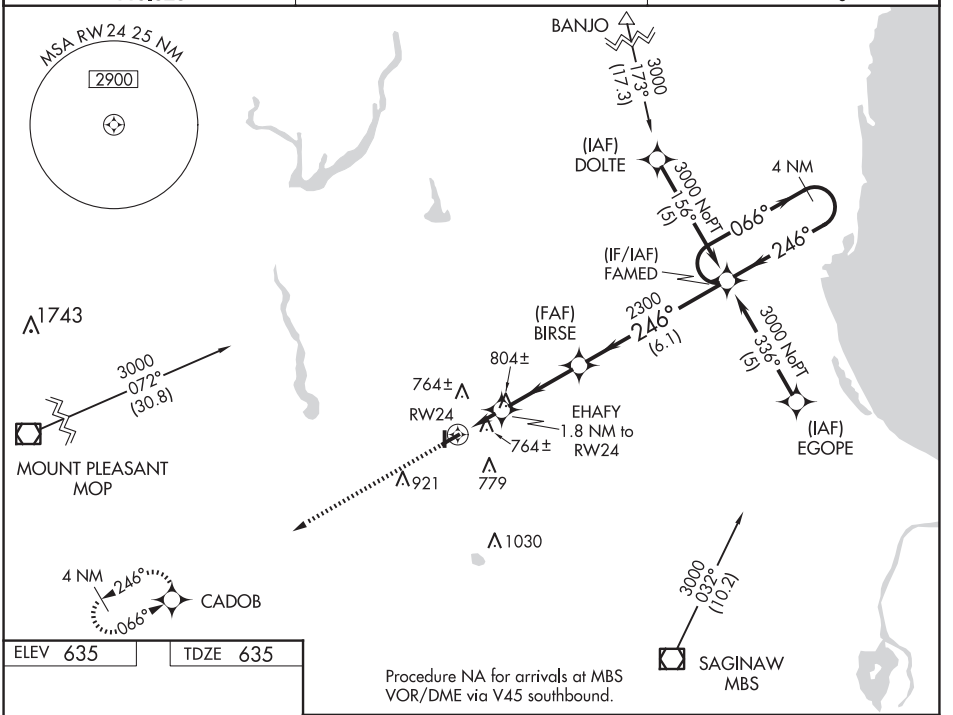
JACK BARSTOW (IKW)

WAAS CH 72912 W24A	APP CRS 246°	Rwy Idg 3801 TDZE 635 Apt Elev 635

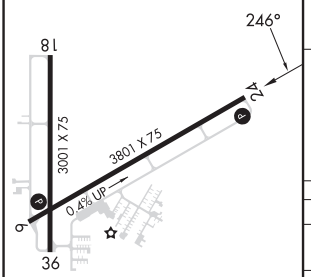
Baro-VNAV NA when using MBS Intl altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Rwy 24 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use MBS Intl altimeter setting and increase all DA 31 feet and all MDA 40 feet and all LPV visibility ¼ mile. Circling Rwy 18, 36 NA at night.

MISSED APPROACH: Climb to 3000 direct CADOB and hold.

AWOS-3	GREAT LAKES APP CON ★	UNICOM
119.525	126.45 235.625	122.8 (CTAF) L



ELEV 635 TDZE 635

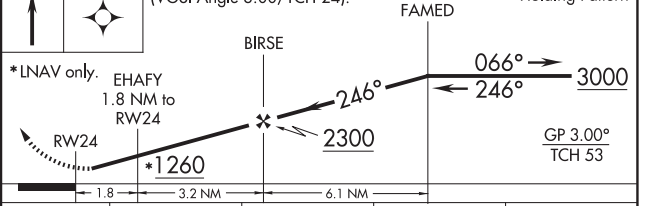


REIL Rwys 6, 18, 24 and 36 L
MIRL Rwys 6-24 and 18-36 L

3000 CADOB

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 24).

4 NM Holding Pattern



CATEGORY	A	B	C	D
LPV DA	1021-1¼ 386 (400-1¼)			NA
LNAV/VNAV DA	1068-1½ 433 (500-1½)			NA
LNAV MDA	1060-1 425 (500-1)		1060-1¼ 425 (500-1¼)	NA
CIRCLING	1120-1 485 (500-1)		1240-1¾ 605 (700-1¾)	NA

MIDLAND, MICHIGAN
Amdt 1B 22APR21

43°40′N-84°16′W

JACK BARSTOW (IKW)

RNAV (GPS) RWY 24

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

VOR/DME MBS	APP CRS	Rwy Idg	N/A
114.35	137°	TDZE	N/A
Chan 90 (Y)		Apt Elev	635

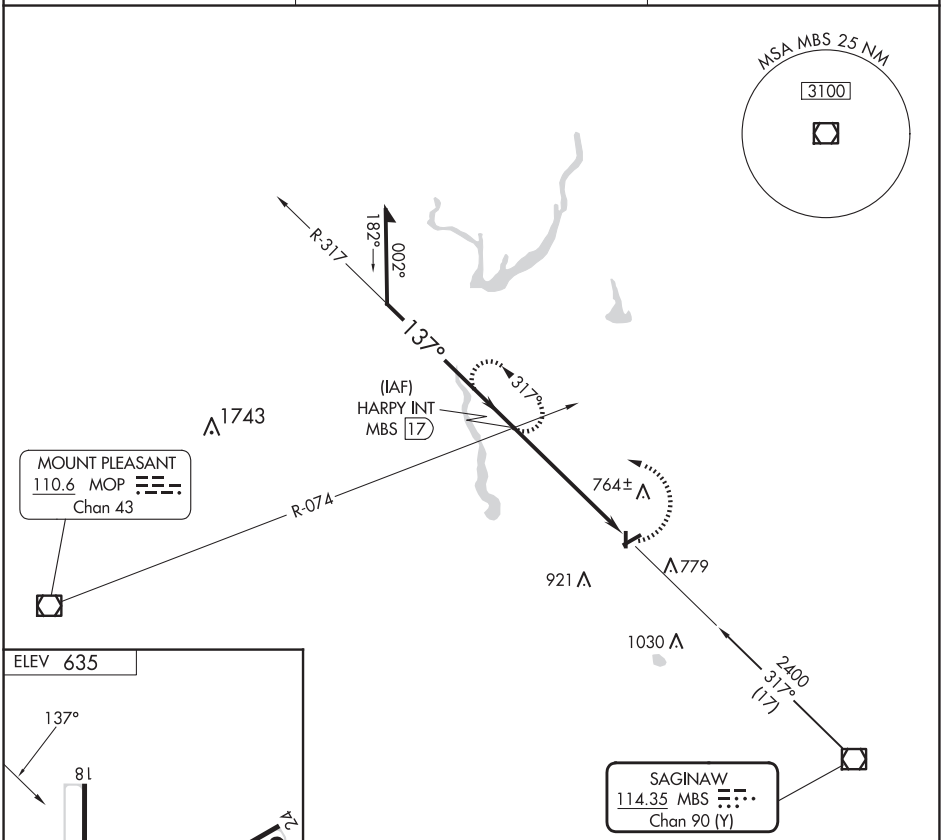
VOR-A

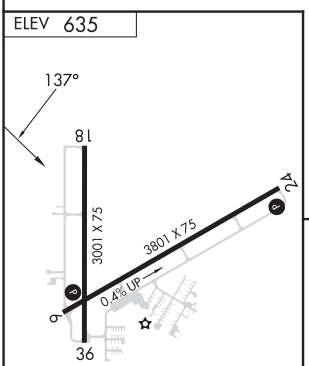
JACK BARSTOW (IKW)

When local altimeter setting not received, use MBS Intl altimeter setting and increase all MDA 40 feet. Circling Rwy 18, 36 NA at night. Rwy 18, 36 helicopter visibility reduction below 1 SM NA.

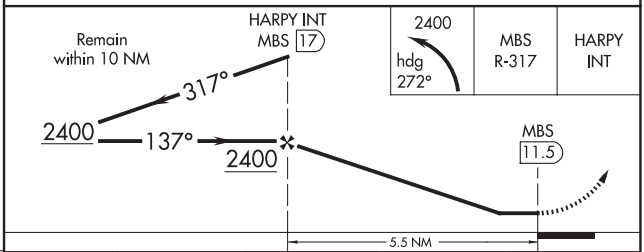
MISSED APPROACH: Climbing left turn to 2400 via heading 272° and MBS VOR/DME R-317 to HARPY INT/17 DME and hold.

AWOS-3	GREAT LAKES APP CON ★	UNICOM
119.525	126.45 235.625	122.8 (CTAF) L





REIL Rwys 6, 18, 24 and 36 L
MIRL Rwys 6-24 and 18-36 L



FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

CATEGORY	A	B	C	D
CIRCLING	1140-1	505 (600-1)	1240-1¾ 605 (700-1¾)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MONROE, MICHIGAN AL-5642 (FAA) 25163

RNAV (GPS) RWY 3

CUSTER (TTF)

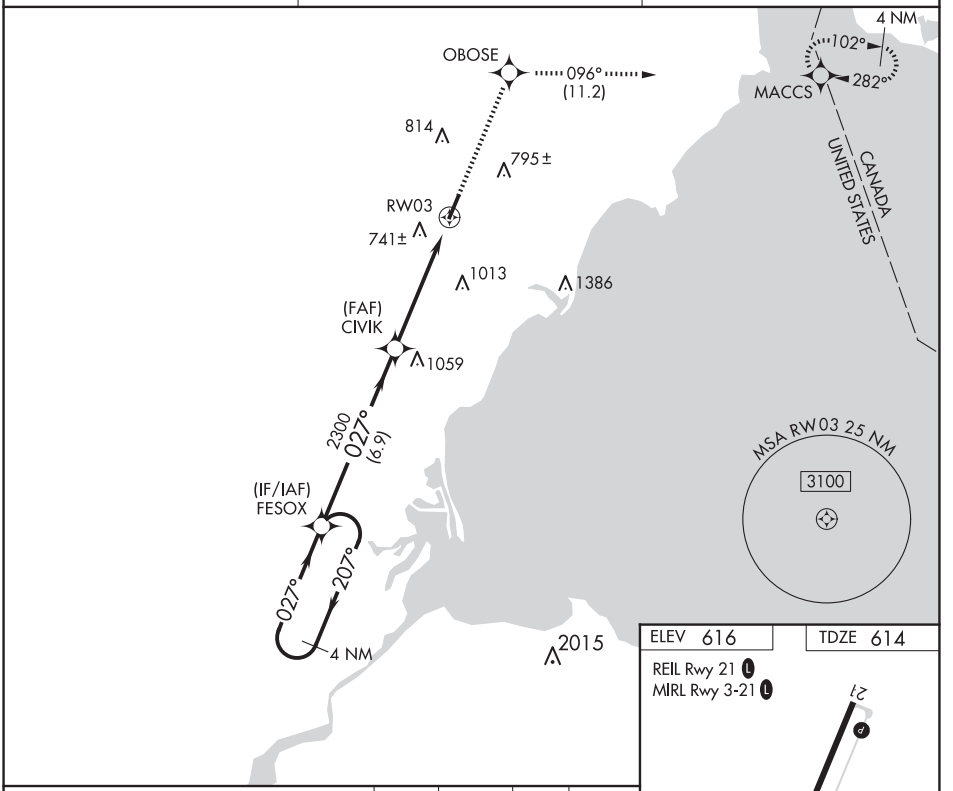
APP CRS	Rwy Ldg	4997
027°	TDZE	614
	Apt Elev	616

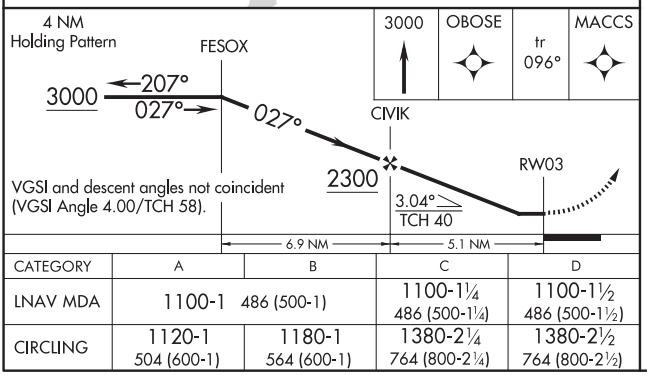
RNP APCH - GPS.

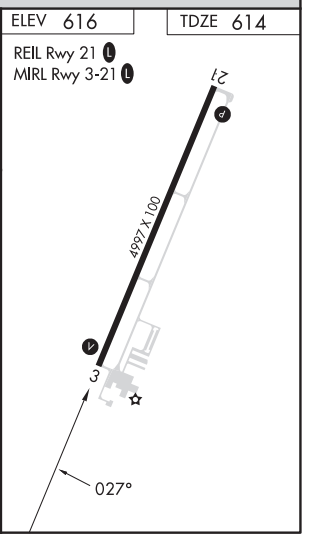
When local altimeter setting not received, use Detroit Metro Wayne County altimeter setting and increase all MDAs 60 feet and LNAV visibility Cat C/D ¼ SM, and Circling visibility Cat C/D ¼ SM. Rwy 3 helicopter visibility reduction below 1 SM NA. Procedure NA at night.

MISSED APPROACH: Climb to 3000 direct OBOSE and on track 096° to MACCS and hold.

AWOS-3	DETROIT APP CON	UNICOM
119.075	134.3 363.2	122.7 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1100-1 486 (500-1)		1100-1¼ 486 (500-1¼)	1100-1½ 486 (500-1½)
CIRCLING	1120-1 504 (600-1)	1180-1 564 (600-1)	1380-2¼ 764 (800-2¼)	1380-2½ 764 (800-2½)

MONROE, MICHIGAN
Orig-B 06OCT22

41°56'N-83°26'W

CUSTER (TTF)

RNAV (GPS) RWY 3

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 21

CUSTER (TTF)

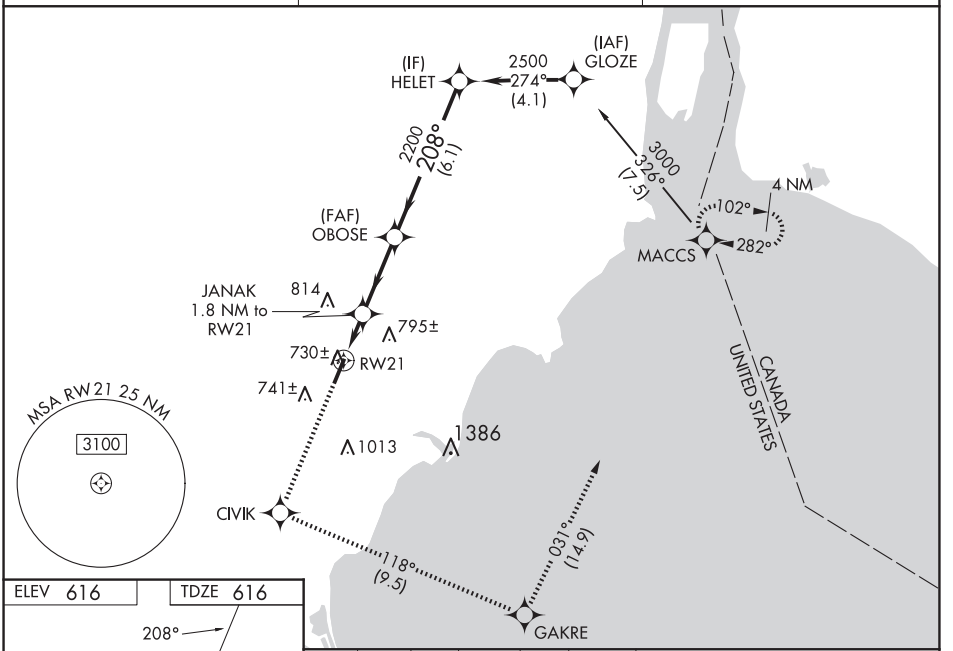
WAAS	APP CRS	Rwy Ldg	4997
CH 86707	208°	TDZE	616
W21A		Apt Elev	616

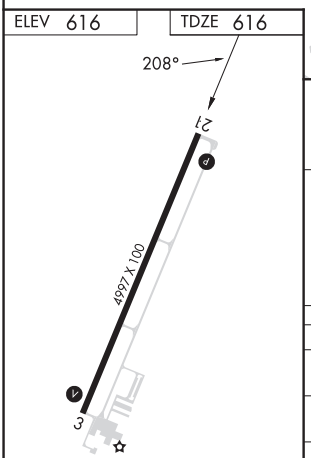
RNP APCH - GPS.

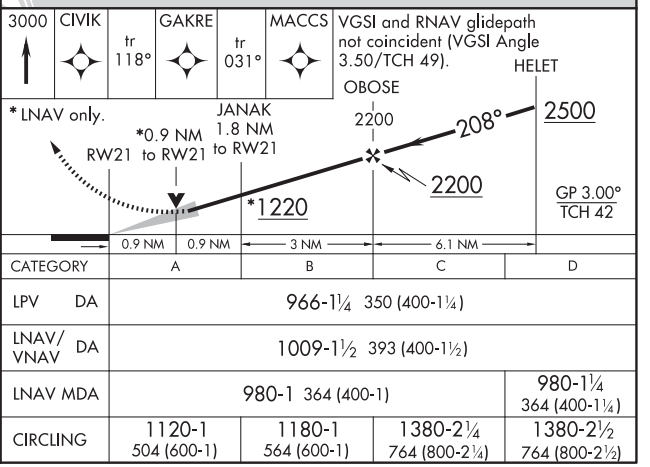
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 47°C. When local altimeter setting not received, use Detroit Metro Wayne County altimeter setting: increase LPV DA to 1011 feet; increase LNAV/VNAV DA 1054 feet; increase all MDAs 60 feet and visibility LNAV Cat C and Circling Cat C/D ¼ SM. Baro-VNAV and VDP NA when using Detroit Metro Wayne County altimeter setting. Circling to Rwy 3 NA at night.

MISSED APPROACH: Climb to 3000 direct CIVIK and on track 118° to GAKRE and on track 031° to MACCS and hold.

AWOS-3	DETROIT APP CON	UNICOM
119.075	134.3 363.2	122.7 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	966-1¼ 350 (400-1¼)			
LNAV/VNAV DA	1009-1½ 393 (400-1½)			
LNAV MDA	980-1 364 (400-1)			980-1¼ 364 (400-1¼)
CIRCLING	1120-1 504 (600-1)	1180-1 564 (600-1)	1380-2¼ 764 (800-2¼)	1380-2½ 764 (800-2½)

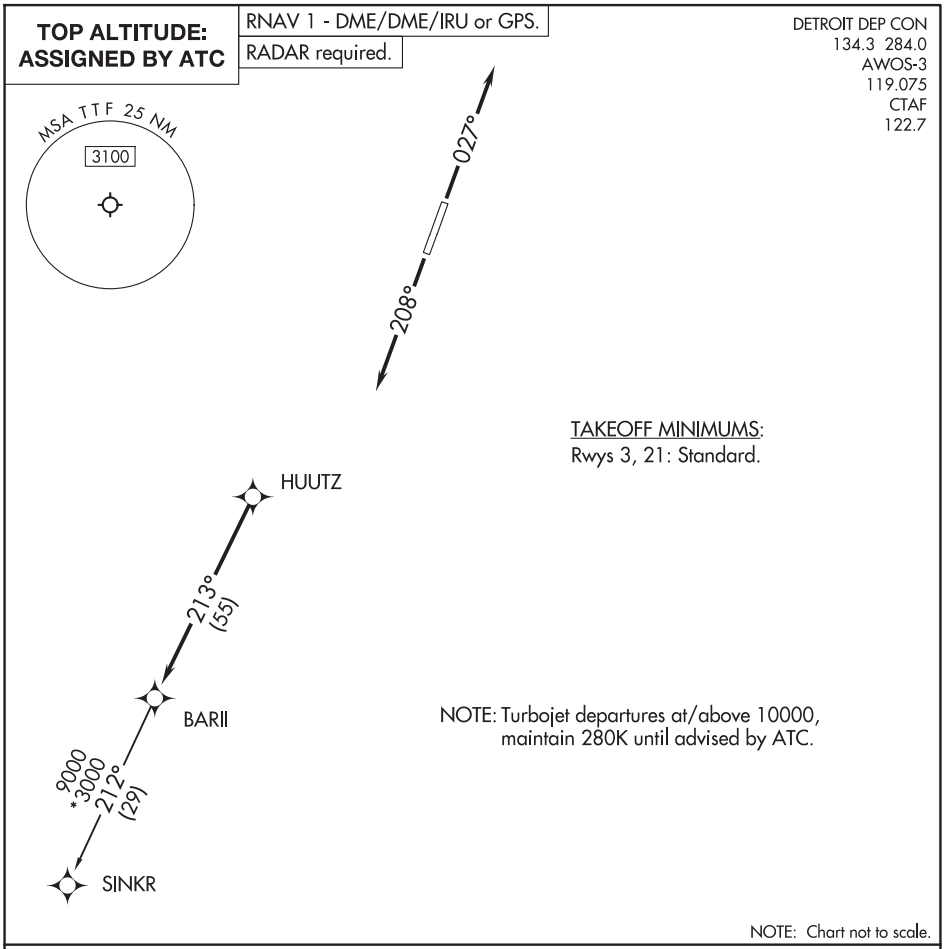
EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(BARII3.BARII) 24137

BARII THREE DEPARTURE (RNAV)

AL-5642 (FAA)

CUSTER (TTF)
MONROE, MICHIGAN



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....

....for RADAR vectors to HUUTZ, then on track 213° to BARII, then on (transition).
Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SINKR TRANSITION (BARII3.SINKR):

EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON 134.3 284.0
AWOS-3 119.075
CTAF 122.7

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: Chart not to scale.

TAKEOFF MINIMUMS:
Rwys 3, 21: Standard.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....

....for RADAR vectors to BROZZ, then on track 279° to CCOBB, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

ZEGBI TRANSITION (CCOBB3.ZEGBI):

(CLVIN3.CLVIN) 24137

CLVIN THREE DEPARTURE (RNAV)

AL-5642 (FAA)

CUSTER (TTF)
MONROE, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
134.3 284.0
AWOS-3
119.075
CTAF
122.7

MSA TTF 25 NM
3100

027°
208°

TAKEOFF MINIMUMS:
Rwys 3, 21: Standard.

PHAUL
3100
206°
(20)
CLVIN
10000
*2500
206°
(35)
TFTUN
10000
*2600
206°
(35)
RINTE
10000
*2600
190°
(10)
PUUDL
10000
*2500
190°
(71)
STAZE

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....

....for RADAR vectors to cross PHAUL at or above 3100, then on track 206° to CLVIN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

STAZE TRANSITION (CLVIN3.STAZE):

EC-1, 07 AUG 2025 to 02 OCT 2025

CLVIN THREE DEPARTURE (RNAV)
(CLVIN3.CLVIN) 16MAY24
MONROE, MICHIGAN
CUSTER (TTF)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....

....for RADAR vectors to cross MALTB at or above 2200, then on track 094° to HHOWE, then on (transition).
Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

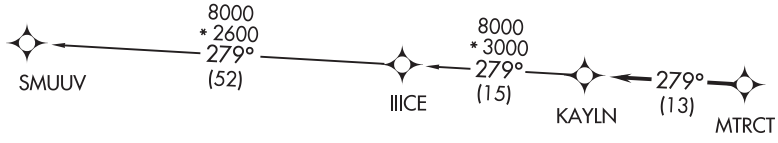
BROKK TRANSITION (HHOWE4.BROKK):
LNCON TRANSITION (HHOWE4.LNCON):

HHOWE FOUR DEPARTURE (RNAV)
(HHOWE4.HHOWE) 16MAY24
MONROE, MICHIGAN
CUSTER (TTF)

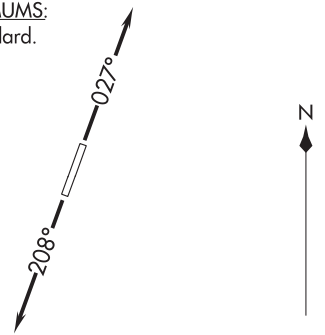
TOP ALTITUDE: ASSIGNED AT ATC

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

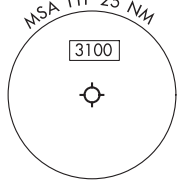
DETROIT DEP CON
134.3 284.0
AWOS-3
119.075
CTAF
122.7



TAKEOFF MINIMUMS:
Rwy 3, 21: Standard.



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....

....for RADAR vectors to MTRCT, then on track 279° to KAYLN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SMUUV TRANSITION (KAYLN3.SMUUV):

EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT DEP CON
134.3 284.0
AWOS-3
119.075
CTAF
122.7

RNAV 1 - DME/DME/IRU or GPS.

RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS:
Rwy 3, 21: Standard.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: For use by Cleveland terminal arrivals only.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....

....for RADAR vectors to KZLOV, then on track 148° to WINNZ. Maintain ATC assigned altitude, expect filed altitude ten minutes after departure.

(LIDDS4.LIDDS) 25107

LIDDS FOUR DEPARTURE (RNAV)

AL-5642 (FAA)

CUSTER (TTF)
MONROE, MICHIGAN

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....

....for RADAR vectors to cross KZLOV at or below 15000, then on track 111° to LIDDS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

GRIVY TRANSITION (LIDDS4.GRIVY):

LIDDS FOUR DEPARTURE (RNAV)
(LIDDS4.LIDDS) 17APR25
MONROE, MICHIGAN
CUSTER (TTF)

EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE:
ASSIGNED BY ATC
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.
AWOS-3
119.075
CTAF
122.7
DETROIT DEP CON
134.3 284.0
NOTE: Jet 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.
TAKEOFF MINIMUMS:
Rwys 3, 21: Standard.
HUBBY
*2600
332°
(34)
5000
SLAP
*2300
308°
(24)
5000
GETCH
*2400
274°
(70)
5000
MONEE
*2300
323°
(20)
MIGGY
323°
(18)
JAXII
NM
TTF 25
3100
208°
027°
N
NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....
....for RADAR vectors to JAXII, then on track 323° to MIGGY, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.
GETCH TRANSITION (MIGGY3.GETCH):
HUBBY TRANSITION (MIGGY3.HUBBY):
SLLAP TRANSITION (MIGGY3.SLLAP):

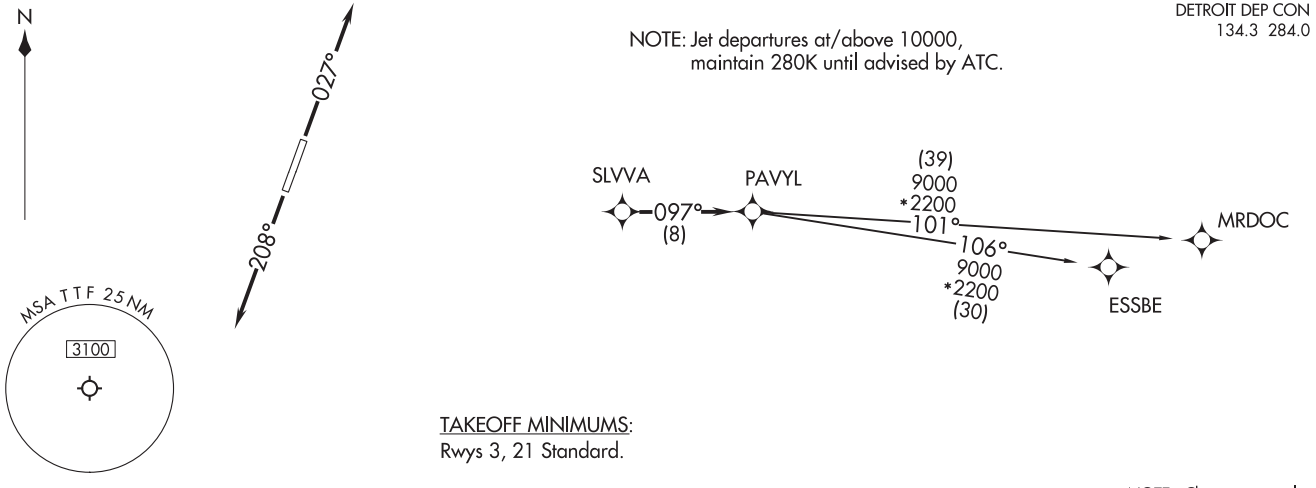
PAVYL THREE DEPARTURE (RNAV)

(PAVYL3.PAVYL) 16MAY24

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

AWOS-3
119.075
CTAF
122.7
DETROIT DEP CON
134.3 284.0



TAKEOFF MINIMUMS:
Rwys 3, 21 Standard.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....

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

ESSBE TRANSITION (PAVYL3.ESSBE):
MRDOC TRANSITION (PAVYL3.MRDOC):

MONROE, MICHIGAN
CUSTER (TTF)

(PAVYL3.PAVYL) 24137
PAVYL THREE DEPARTURE (RNAV)
AL-5642 (FAA)

CUSTER (TTF)
MONROE, MICHIGAN

DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....
....for RADAR vectors to JWELS, then on track 218° to SNDRS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.
BGHRT TRANSITION (SNDRS3.BGHRT):
TORRR TRANSITION (SNDRS3.TORRR):
TOP ALTITUDE: ASSIGNED BY ATC
RNAV-1 DME/DME/IRU or GPS.
RADAR required.
DETROIT DEP CON 134.3 284.0
AWOS-3 119.075
CTAF 122.7
N
208°
027°
MSA TTF 25 NM
3100
JWELS
218° (31)
SNDRS
8000 *2400 255° (24)
REEDA
8000 *2400 265° (30)
SEABS
8000 *2200 264° (28)
KNRKO
8000 *2400 269° (94)
BGHRT
8000 *2400 209° (33)
TORRR
TAKEOFF MINIMUMS:
Rwys 3, 21: Standard.
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: Chart not to scale.

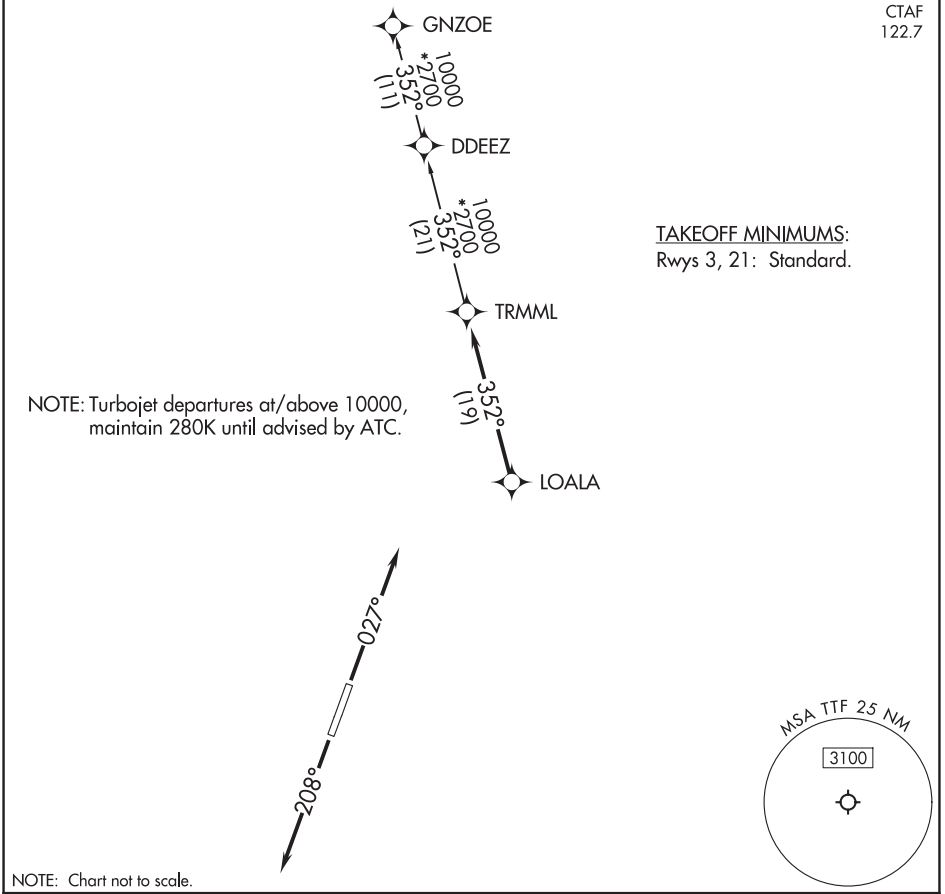
(TRMML4.TRMML) 24137
TRMML FOUR DEPARTURE (RNAV) AL-5642 (FAA)

CUSTER (TTF)
MONROE, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
134.3 284.0
AWOS-3
119.075
CTAF
122.7



TAKEOFF MINIMUMS:
Rwys 3, 21: Standard.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....

....for RADAR vectors to LOALA, then on track 352° to TRMML, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

GNZOE TRANSITION (TRMML4.GNZOE):

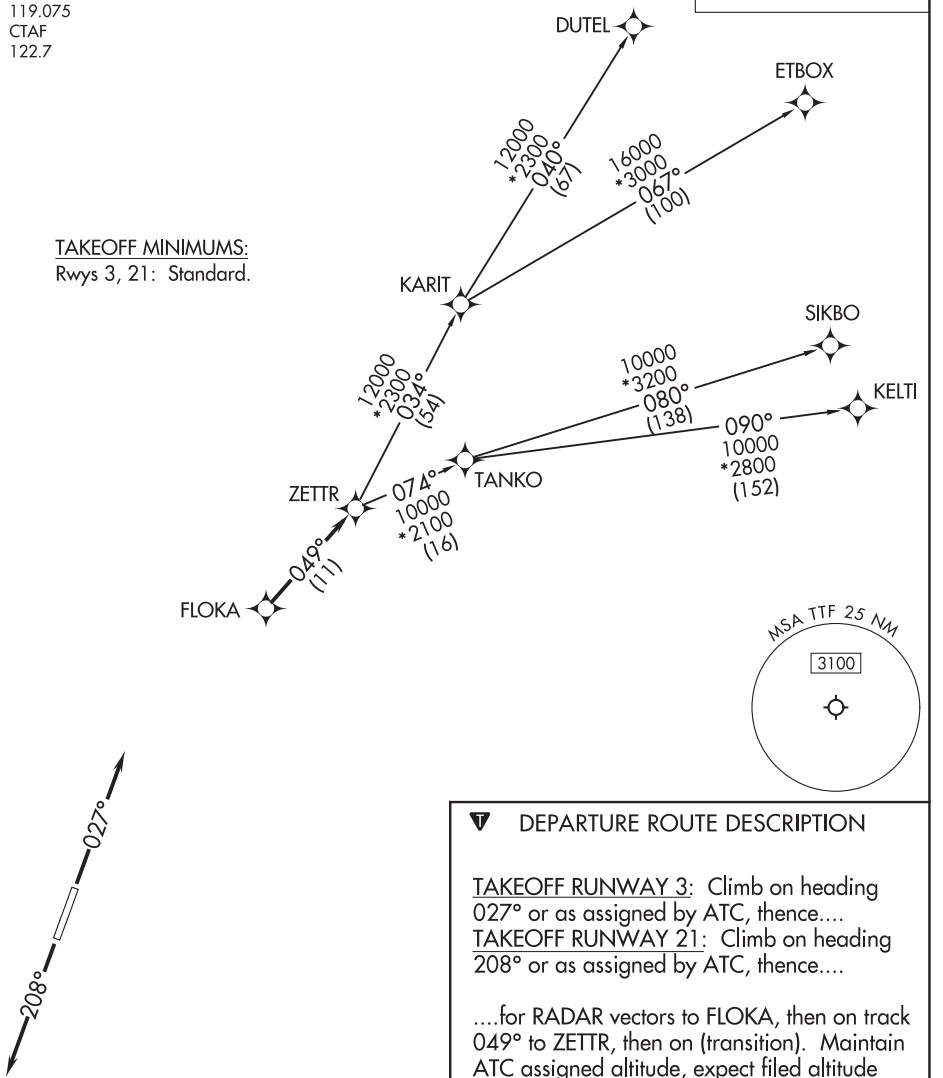
EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ZETTR FOUR DEPARTURE (RNAV)

DETROIT DEP CON
134.3 284.0
AWOS-3
119.075
CTAF
122.7

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC



TAKEOFF MINIMUMS:
Rwys 3, 21: Standard.

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: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 027° or as assigned by ATC, thence....
TAKEOFF RUNWAY 21: Climb on heading 208° or as assigned by ATC, thence....

....for RADAR vectors to FLOKA, then on track 049° to ZETTR, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

DUTEL TRANSITION (ZETTR4.DUTEL):
ETBOX TRANSITION (ZETTR4.ETBOX):
KELTI TRANSITION (ZETTR4.KELTI):
SIKBO TRANSITION (ZETTR4.SIKBO):
TANKO TRANSITION (ZETTR4.TANKO):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MOUNT PLEASANT, MICHIGAN | AL-5283 (FAA) | 24361

RNAV (GPS) RWY 9

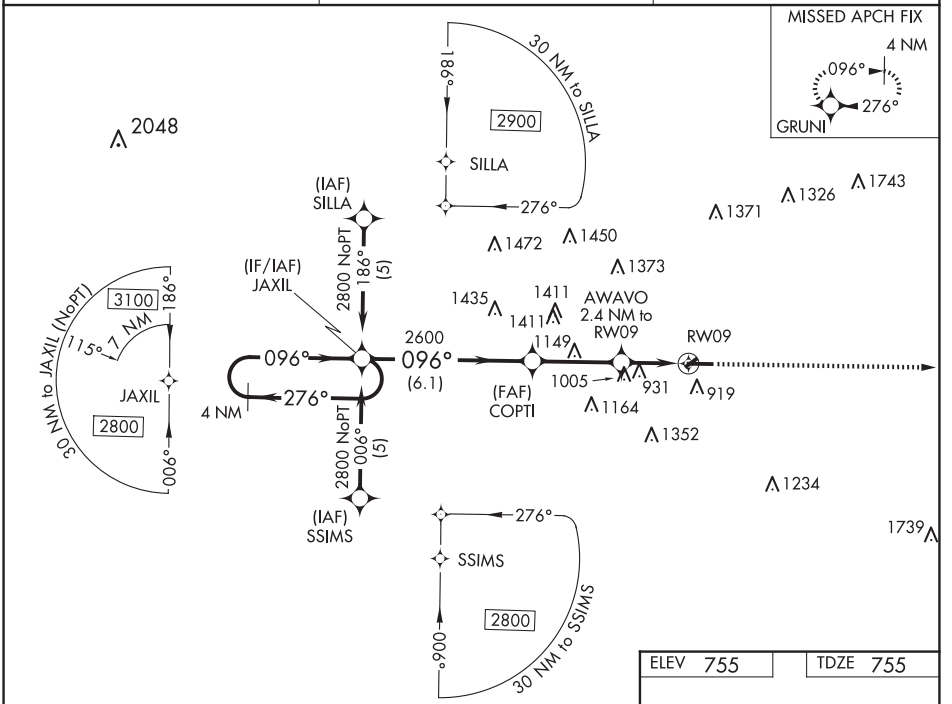
MOUNT PLEASANT MUNI (MOP)

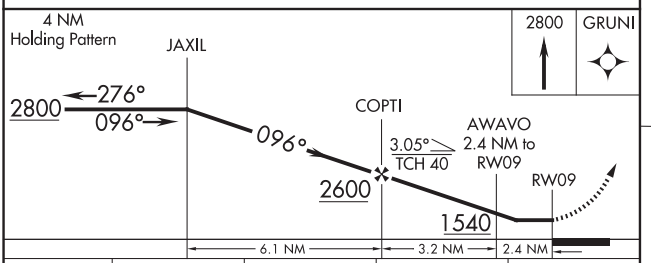
APP CRS	Rwy Idg	5000
096°	TDZE	755
	Apt Elev	755

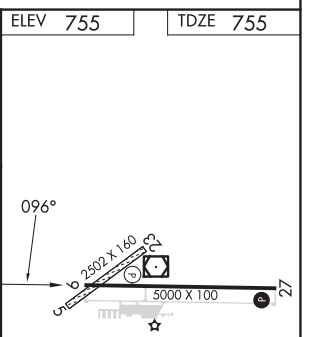
DME/DME RNP-0.3 NA. When local altimeter setting not received use Alma altimeter setting and increase all MDA 60 feet, increase LNAV Cat C/D and Circling Cat C visibility ¼ mile. Circling NA to Rwys 5 and 23. Rwy 9 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 2800 direct GRUNI and hold.

AWOS-3	GREAT LAKES APP CON ★	UNICOM
133.025	126.45 235.625	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1320-1	565 (600-1)	1320-1½ 565 (600-1½)	1320-1¾ 565 (600-1¾)
CIRCLING	1320-1	565 (600-1)	1400-1¾ 645 (700-1¾)	1700-3 945 (1000-3)

REIL Rwys 9 and 27 L
MIRL Rwy 9-27 L

MOUNT PLEASANT, MICHIGAN
Orig-B 09SEP21

43°37'N - 84°44'W

MOUNT PLEASANT MUNI (MOP)
RNAV (GPS) RWY 9

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 27

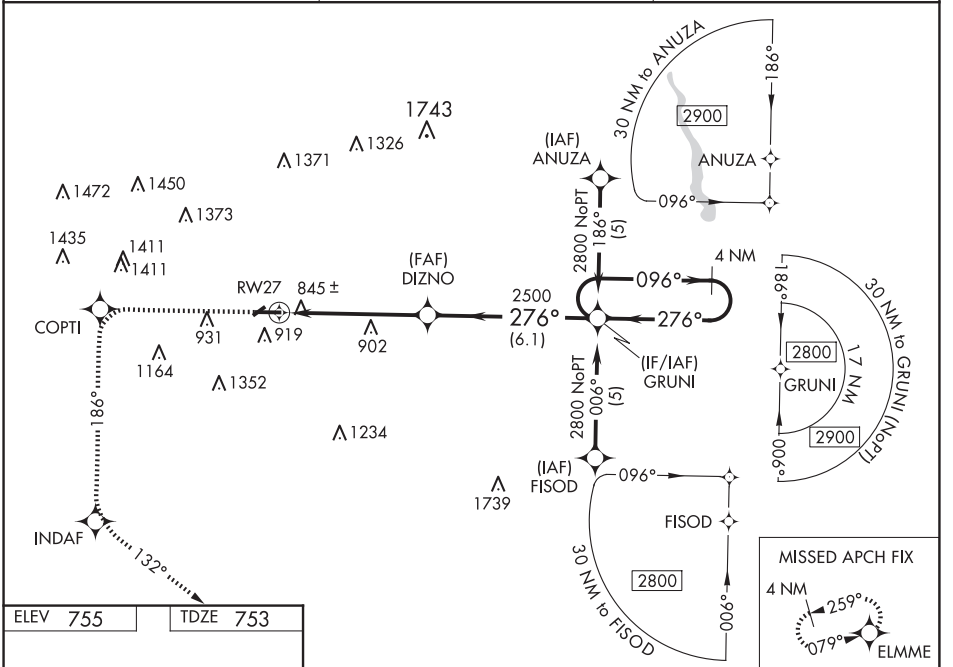
MOUNT PLEASANT MUNI (MOP)

WAAS	APP CRS	Rwy Idg	5000
CH 82613	276°	TDZE	753
W27A		Apt Elev	755

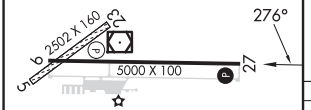
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Alma altimeter setting and increase all DA 42 feet and all MDA 60 feet, increase LPV, LNAV/VNAV all Cats, LNAV Cat D and Circling Cat C visibilities ¼ mile. Baro-VNAV and VDP NA when using Alma altimeter setting. Circling NA to Rwys 5 and 23.

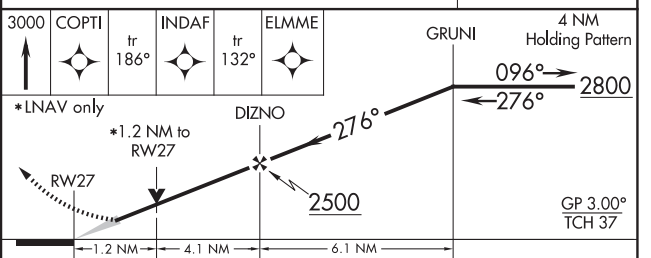
MISSED APPROACH: Climb to 3000 direct COPTI and via 186° track direct INDAF and via 132° track to ELMME and hold.

AWOS-3	GREAT LAKES APP CON*	UNICOM
133.025	126.45 235.625	123.0 (CTAF) L



ELEV 755	TDZE 753





CATEGORY	A	B	C	D
LPV DA	1099-1¼ 346 (400-1¼)			
LNAV/VNAV DA	1201-1½ 448 (500-1½)			
LNAV MDA	1160-1 407 (500-1)		1160-1¼ 407 (500-1¼)	
CIRCLING	1240-1 485 (500-1)		1400-1¾ 645 (700-1¾)	1700-3 945 (1000-3)

REIL Rwys 9 and 27 L
MIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MUSKEGON, MICHIGAN AL-278 (FAA) 25163

ILS or LOC RWY 24
MUSKEGON COUNTY (MKG)

LOC/DME I-CJH	APP CRS	Rwy Ldg	6500
109.5	240°	TDZE	627
Chan 32		Apt Elev	629

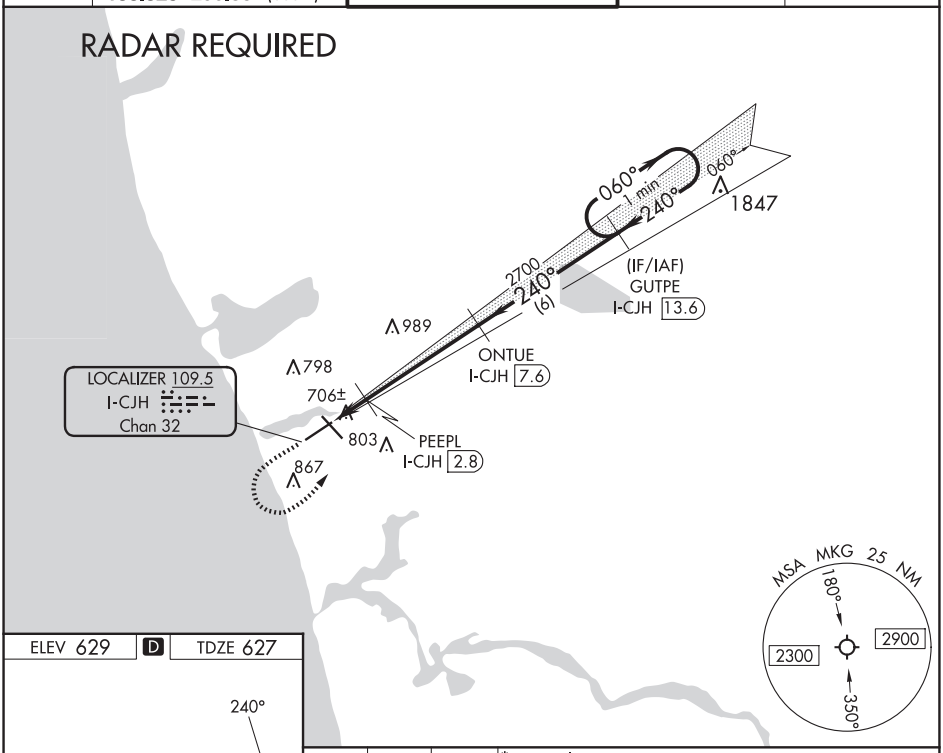
DME required.
RADAR required.
RNAV 1-GPS required.

MALSR

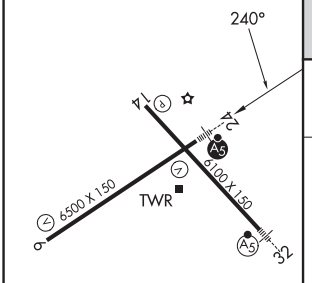
MISSED APPROACH: Climb to 2500 then climbing left turn to 3000 direct GUTPE and hold.

ATIS	GREAT LAKES APP CON ★	MUSKEGON TOWER ★	GND CON	UNICOM
124.3	119.8 290.35 (North) 133.825 290.35 (South)	126.25 (CTAF) L 343.725	121.6	122.95

RADAR REQUIRED



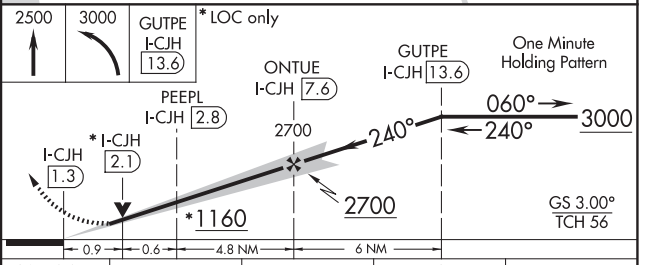
ELEV 629 D TDZE 627



REIL Rwy 6 L
REIL Rwy 14
HIRL Rwys 6-24 L
HIRL Rwys 14-32

FAF to MAP 6.3 NM

Knots	60	90	120	150	180
Min:Sec	6:18	4:12	3:09	2:31	2:06



CATEGORY	A	B	C	D
S-ILS 24	827-½ 200 (200-½)			
S-LOC 24	960-½ 333 (400-½)			
C CIRCLING	1080-1 451 (500-1)	1180-1 551 (600-1)	1200-1½ 571 (600-1½)	1200-2 571 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ILS or LOC RWY 32

MUSKEGON COUNTY (MKG)

LOC/DME I-MKG	APP CRS	Rwy Ldg 6100
109.9	321°	TDZE 629
Chan 36		Apt Elev 629

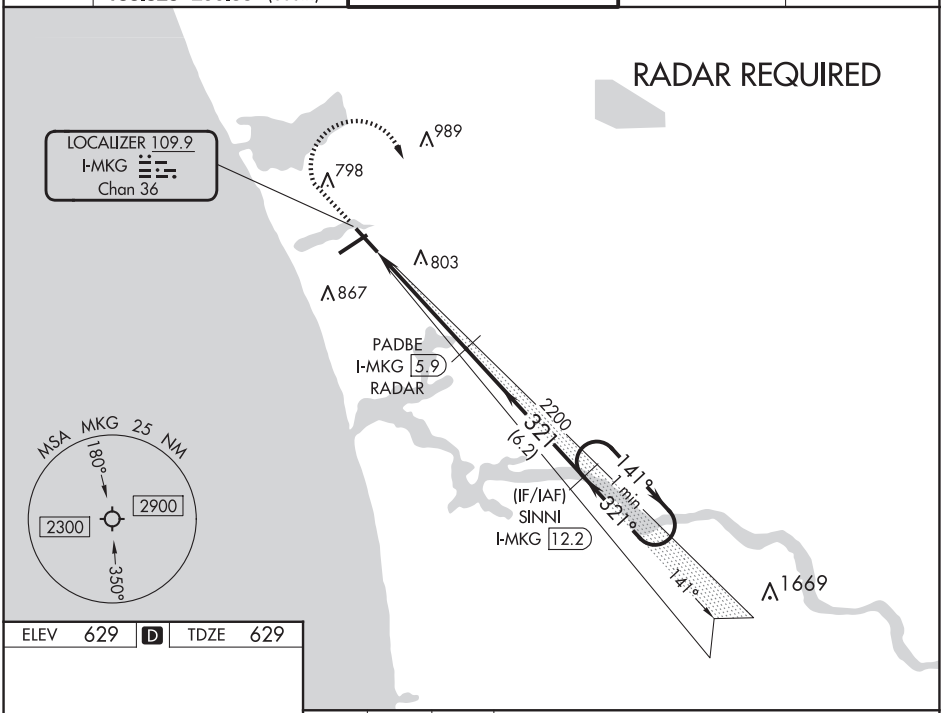
DME or RADAR required. RNAV 1-GPS required.

For inop ALS, increase S-LOC Cat C/D visibility to 1⅜ SM.
**RVR 1800 authorized with use of FD or AP or HUD to DA.

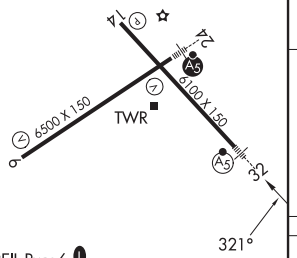
MALSR

MISSED APPROACH: Climb to 2500 then climbing right turn to 3000 direct SINNI and hold.

ATIS	GREAT LAKES APP CON ★	MUSKEGON TOWER ★	GND CON	UNICOM
124.3	119.8 290.35 (North) 133.825 290.35 (South)	126.25 (CTAF) L 343.725	121.6	122.95



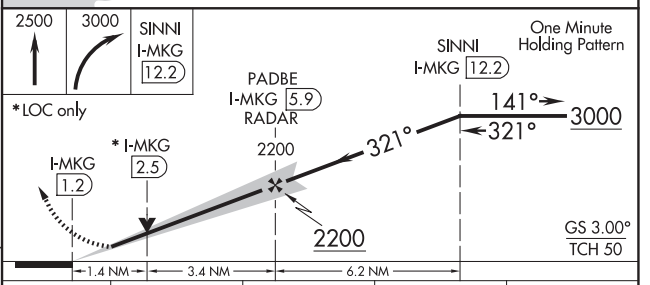
ELEV 629 D TDZE 629



REIL Rwy 6 L
REIL Rwy 14
HIRL Rwys 6-24 L
HIRL Rwys 14-32

FAF to MAP 4.8 NM

Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36



CATEGORY	A	B	C	D
S-ILS 32**	829/24 200 (200-½)			
S-LOC 32	1120/24 491 (500-½)		1120/50 491 (500-1)	
C CIRCLING	1120-1 491 (500-1)	1180-1 551 (600-1)	1200-1½ 571 (600-1½)	1200-2 571 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MUSKEGON, MICHIGAN

AL-278 (FAA)

25163

RNAV (GPS) RWY 6

MUSKEGON COUNTY (MKG)

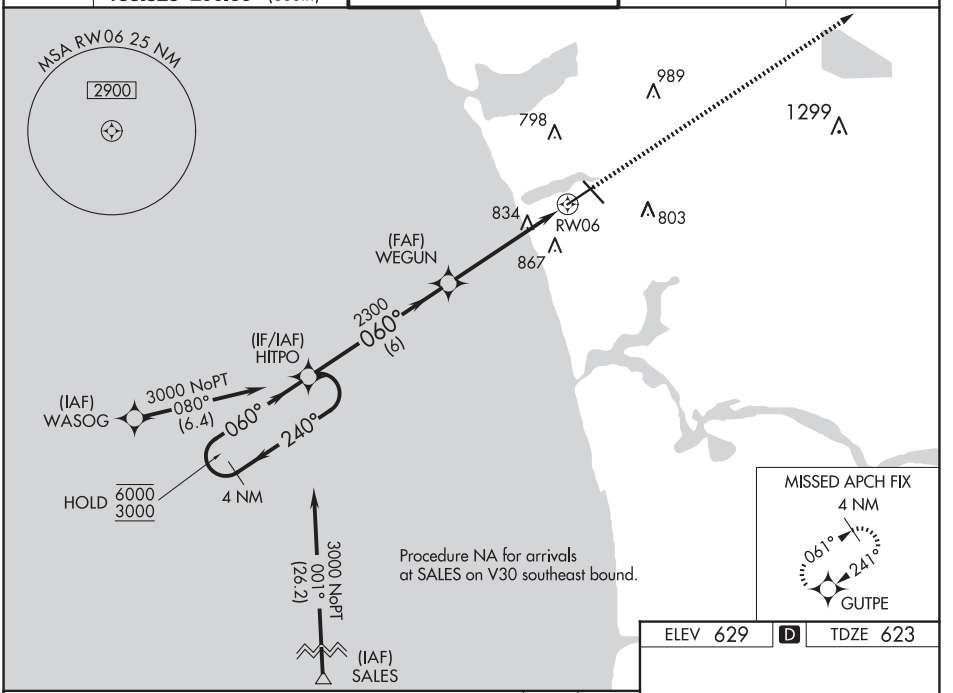
WAAS	APP CRS	Rwy Ldg	6500
CH 56618	060°	TDZE	623
W06A		Apt Elev	629

RNP APCH.

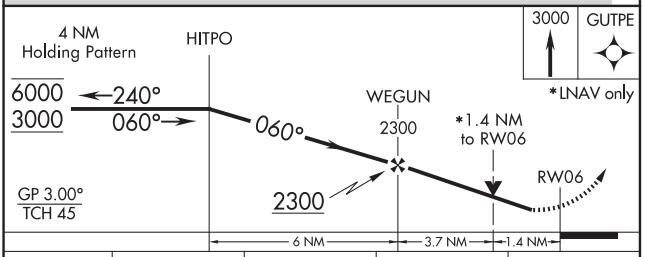
Rwy 6 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C or above 54°C.

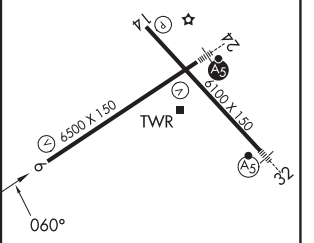
MISSED APPROACH: Climb to 3000 direct GUTPE and hold.

ATIS	GREAT LAKES APP CON★	MUSKEGON TOWER★	GND CON	UNICOM
124.3	119.8 290.35 (North) 133.825 290.35 (South)	126.25 (CTAF) L 343.725	121.6	122.95



ELEV 629 D TDZE 623





CATEGORY	A	B	C	D
LPV DA	928-⅞ 305 (300-⅞)			
LNAV/VNAV DA	975-1 352 (400-1)			
LNAV MDA	1100-1 477 (500-1)		1100-1⅜ 477 (500-1⅜)	
C CIRCLING	1100-1 471 (500-1)	1180-1 551 (600-1)	1200-1½ 571 (600-1½)	1200-2 571 (600-2)

REIL Rwy 6 L
REIL Rwy 14
HIRL Rwys 6-24 L
HIRL Rwys 14-32

MUSKEGON, MICHIGAN
Amdt 2A 05NOV20

43°10'N-86°14'W

MUSKEGON COUNTY (MKG)

RNAV (GPS) RWY 6

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 14

MUSKEGON COUNTY (MKG)

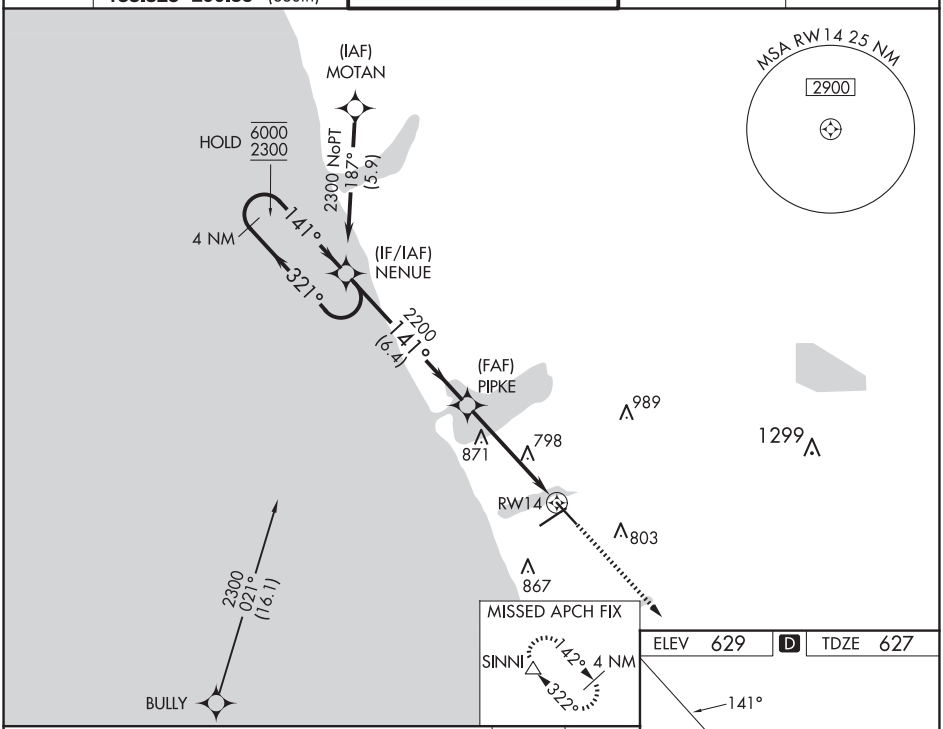
WAAS	APP CRS	Rwy Ldg	6100
CH 69410	141°	TDZE	627
W14A		Apt Elev	629

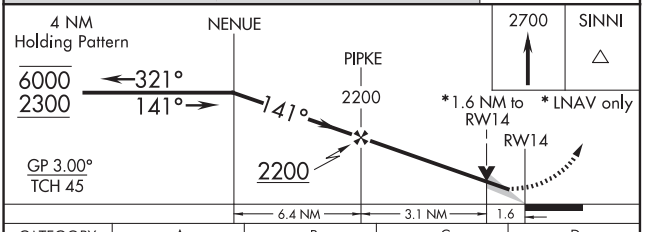
RNP APCH.

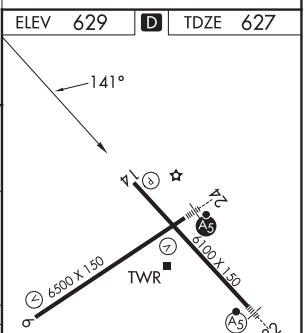
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C or above 54°C.

MISSED APPROACH: Climb to 2700 direct SINNI and hold.

ATIS	GREAT LAKES APP CON ★	MUSKEGON TOWER ★	GND CON	UNICOM
124.3	119.8 290.35 (North) 133.825 290.35 (South)	126.25 (CTAF) L 343.725	121.6	122.95







CATEGORY	A	B	C	D
LPV DA	877-¾ 250 (300-¾)			
LNAV/VNAV DA	1079-1½ 452 (500-1½)			
LNAV MDA	1180-1 553 (600-1)		1180-1⅝ 553 (600-1⅝)	1180-1¾ 553 (600-1¾)
C CIRCLING	1180-1 551 (600-1)		1200-1⅝ 571 (600-1⅝)	1200-2 571 (600-2)

REIL Rwy 6 L
REIL Rwy 14
HIRL Rwys 6-24 L
HIRL Rwys 14-32

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MUSKEGON, MICHIGAN AL-278 (FAA) 25163

RNAV (GPS) RWY 24

MUSKEGON COUNTY (MKG)

WAAS CH 42918 W24A	APP CRS 240°	Rwy Ldg 6500	TDZE 627	Apt Elev 629

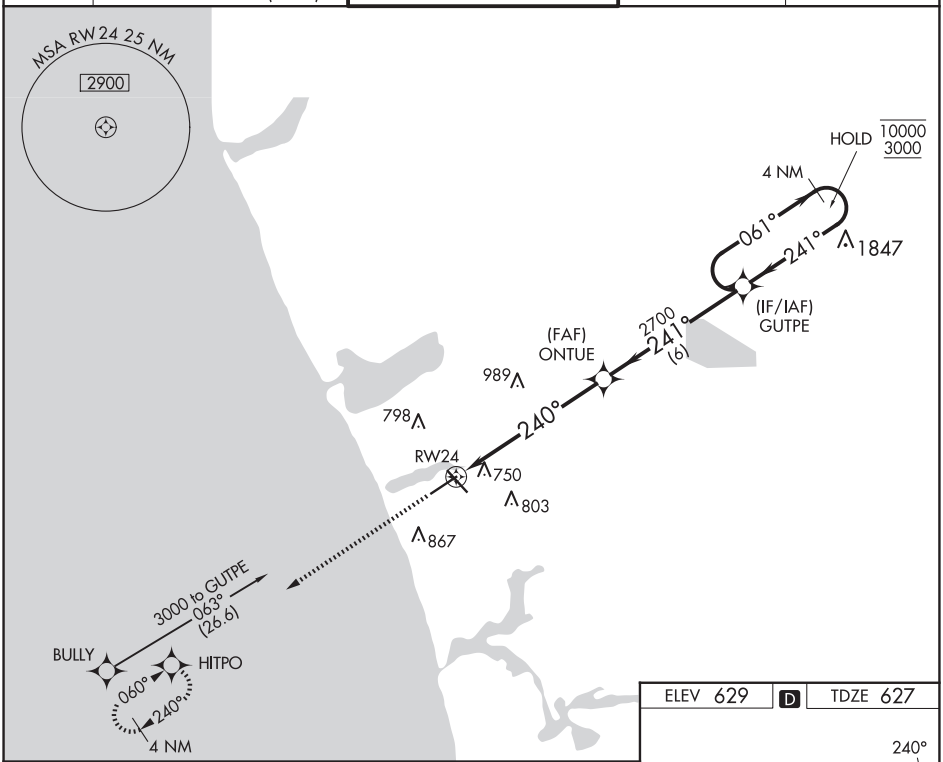
RNP APCH.

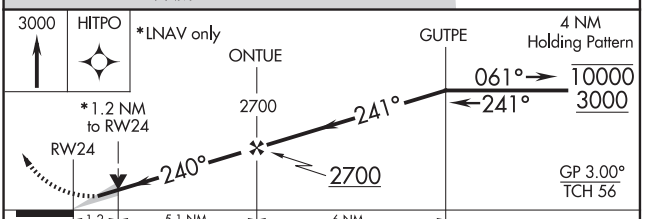
T A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C or above 54°C. For inop ALS, increase LPV visibility all Cats to ¾ SM, LNAV/VNAV visibility all Cats to 1⅜ SM, LNAV Cats A/B to 1 SM and LNAV Cats C/D to 1⅜ SM.

MALSR

MISSED APPROACH: Climb to 3000 direct HITPO and hold.

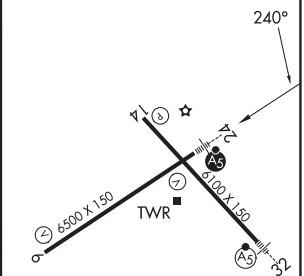
ATIS	GREAT LAKES APP CON★	MUSKEGON TOWER★	GND CON	UNICOM
124.3	119.8 290.35 (North) 133.825 290.35 (South)	126.25 (CTAF) L 343.725	121.6	122.95





CATEGORY	A	B	C	D
LPV DA	827-½ 200 (200-½)			
LNAV/VNAV DA	1092-1 465 (500-1)			
LNAV MDA	1080-½ 453 (500-½)		1080-⅞ 453 (500-⅞)	
C CIRCLING	1080-1 451 (500-1)	1180-1 551 (600-1)	1200-1½ 571 (600-1½)	1200-2 571 (600-2)

ELEV 629 D TDZE 627



REIL Rwy 6 L
REIL Rwy 14
HIRL Rwys 6-24 L
HIRL Rwys 14-32

MUSKEGON, MICHIGAN
Amdt 2A 05NOV20

43°10′N-86°14′W

MUSKEGON COUNTY (MKG)

RNAV (GPS) RWY 24

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 32

MUSKEGON COUNTY (MKG)

WAAS	APP CRS		
CH 63010	321°	Rwy Ldg	6100
W32A		TDZE	629
		Apt Elev	629

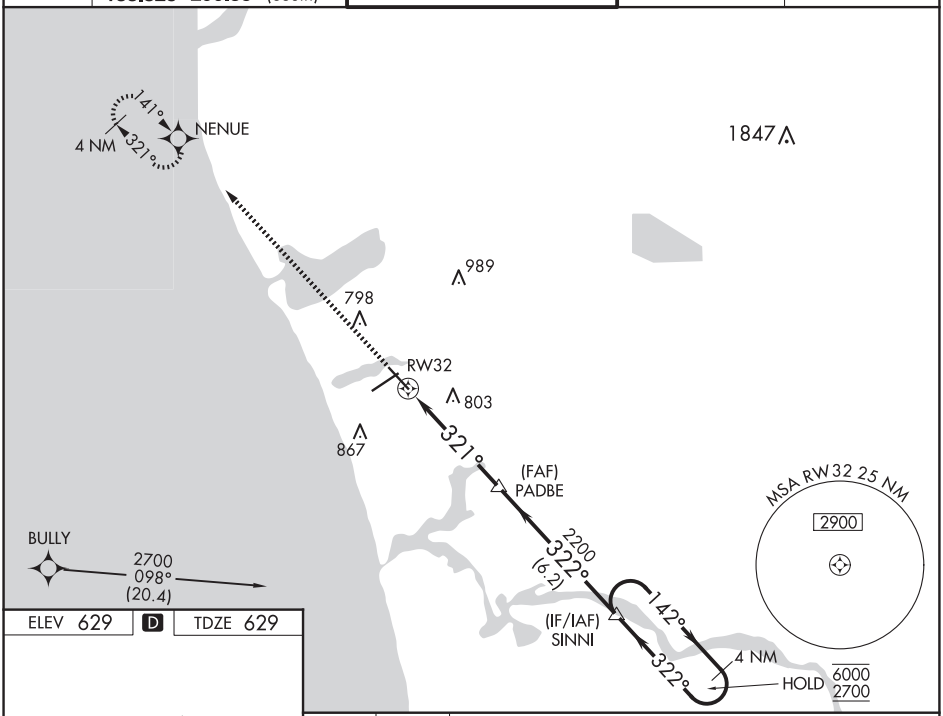
RNP APCH.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18° C or above 54°C. For inop ALS, increase LPV visibility all Cats to RVR 4000, LNAV/VNAV visibility all Cats to RVR 4500, and LNAV visibility Cats A/B to RVR 5500 and Cats C/D to 1⅜ SM.
** RVR 1800 authorized with use of FD or AP or HUD to DA, NA when using Fremont altimeter setting.

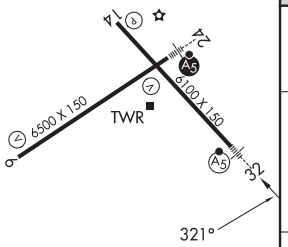
MALSR

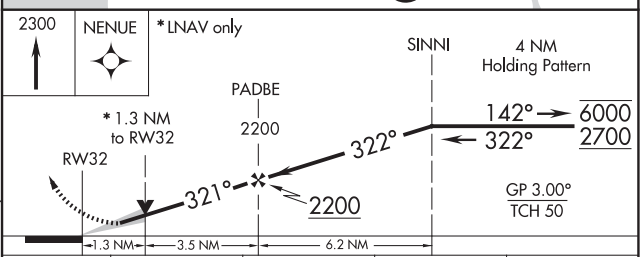
MISSED APPROACH: Climb to 2300 direct NENUE and hold.

ATIS	GREAT LAKES APP CON ★	MUSKEGON TOWER ★	GND CON	UNICOM
124.3	119.8 290.35 (North) 133.825 290.35 (South)	126.25 (CTAF) L 343.725	121.6	122.95



ELEV 629 D TDZE 629





CATEGORY	A	B	C	D
LPV DA**	829/24 200 (200-½)			
LNAV/VNAV DA	915/24 286 (300-½)			
LNAV MDA	1080/24 451 (500-½)		1080/45 451 (500-⅞)	
C CIRCLING	1080-1 451 (500-1)	1180-1 551 (600-1)	1200-1½ 571 (600-1½)	1200-2 571 (600-2)

REIL Rwy 6 L
REIL Rwy 14
HIRL Rwys 6-24 L
HIRL Rwys 14-32

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

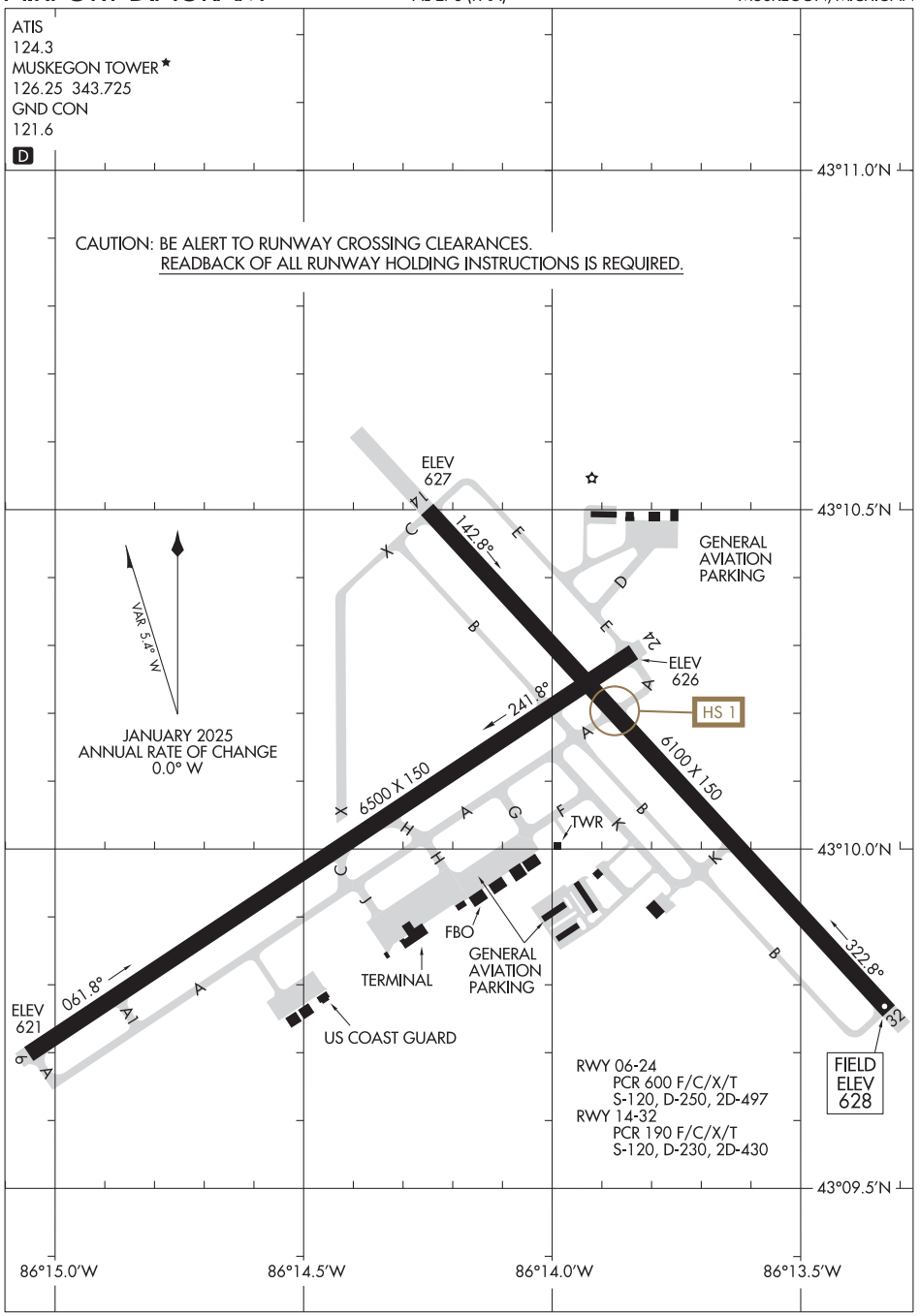
25163

AIRPORT DIAGRAM

AL-278 (FAA)

MUSKEGON COUNTY (MKG)

MUSKEGON, MICHIGAN



AIRPORT DIAGRAM

25163

MUSKEGON, MICHIGAN

MUSKEGON COUNTY (MKG)

EC-1, 07 AUG 2025 to 02 OCT 2025

APP CRS	Rwy Idg	N/A
050°	TDZE	N/A
	Apt Elev	926

RNAV (GPS)-A

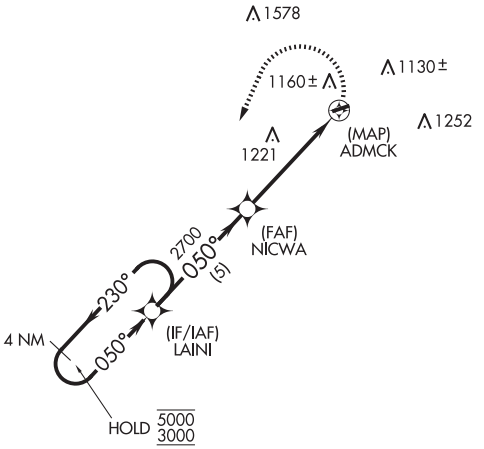
OAKLAND SOUTHWEST (Y47)

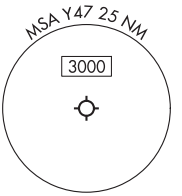
RNP APCH - GPS.

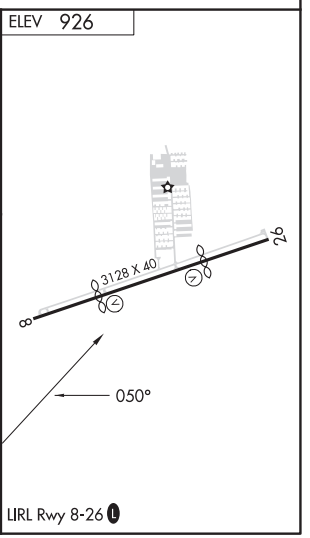
NA Procedure NA at night. Rwy 8 and 26 helicopter visibility reduction below 1 SM NA. Use Detroit Willow Run altimeter setting.

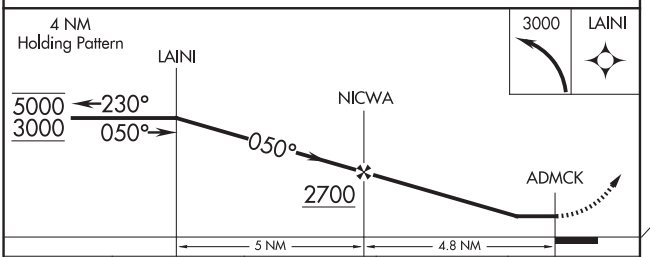
MISSED APPROACH: Climbing left turn to 3000 direct LAINI and hold.

YIP ASOS	DETROIT APP CON	UNICOM
127.425	132.35 284.0	122.7 (CTAF) L









CATEGORY	A	B	C	D
C CIRCLING	1540-1 614 (700-1)	1580-1 654 (700-1)	NA	

LIRL Rwy 8-26 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

NEWBERRY, MICHIGAN AL-5836 (FAA) 24081

APP CRS	Rwy Idg	4304
116°	TDZE	869
	Apt Elev	869

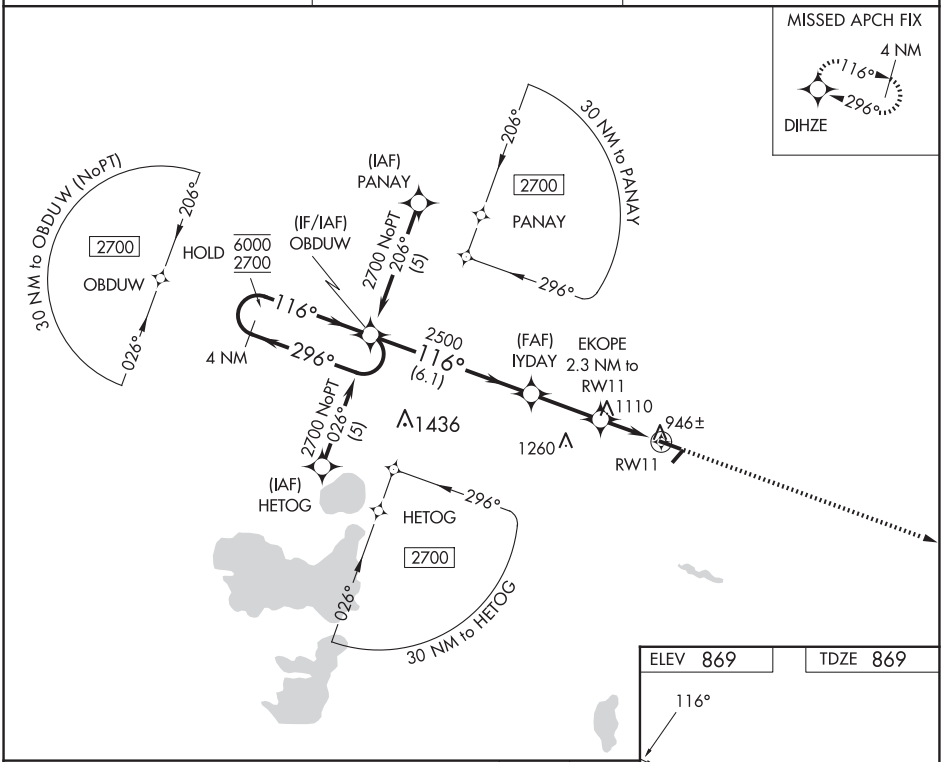
RNAV (GPS) RWY 11
LUCE COUNTY (ERY)

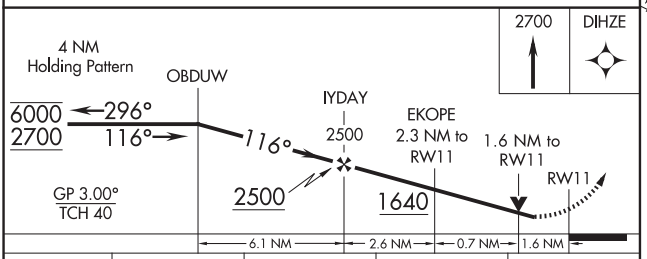
RNP APCH - GPS.

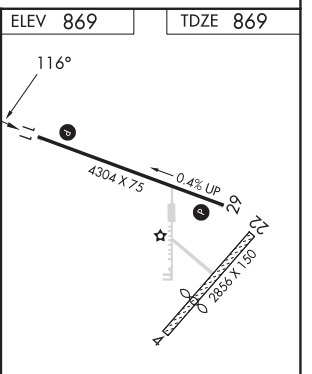
Circling NA to Rwys 4 and 22. Rwy 11 helicopter visibility reduction below ¾ SM NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.

MISSED APPROACH: Climb to 2700 direct DIHZE and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
119.525	134.6 354.05	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV/VNAV DA		1259-1⅛	390 (400-1⅛)	
LNAV MDA	1420-1	551 (600-1)	1420-1⅝	551 (600-1⅝)
CIRCLING	1420-1	551 (600-1)	1460-1⅝ 591 (600-1⅝)	1560-2¼ 691 (700-2¼)

MIRL Rwy 11-29 L
REIL Rwys 11 and 29 L

NEWBERRY, MICHIGAN
Orig-D 21MAR24

46°19′N - 85°27′W

LUCE COUNTY (ERY)
RNAV (GPS) RWY 11

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 40418 W29A	APP CRS 296°	Rwy Idg 4304 TDZE 867 Apt Elev 869

RNAV (GPS) RWY 29

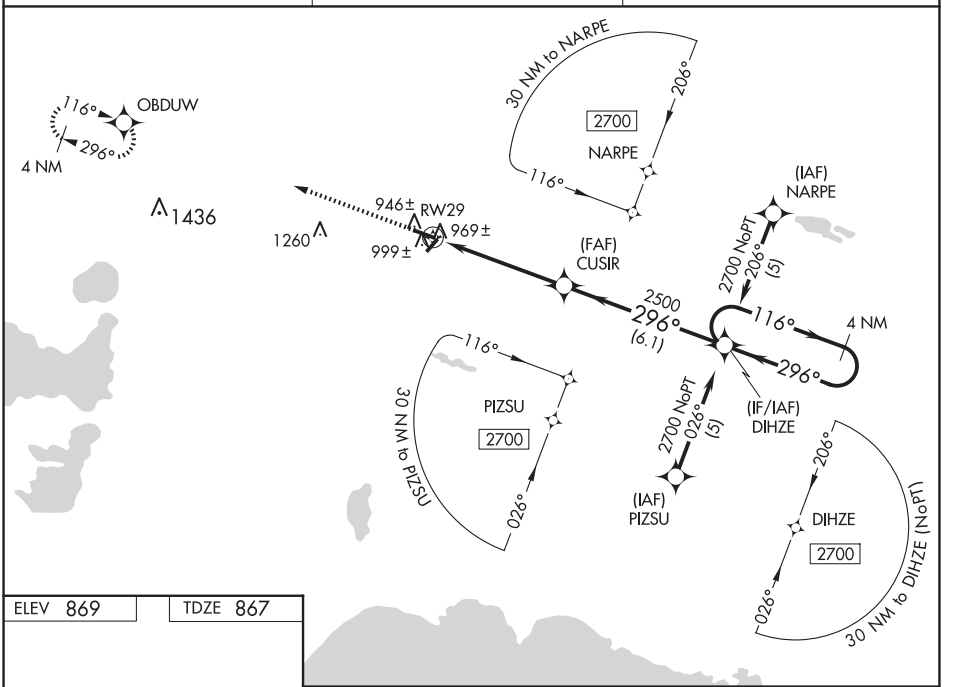
LUCE COUNTY (ERY)

RNP APCH - GPS.

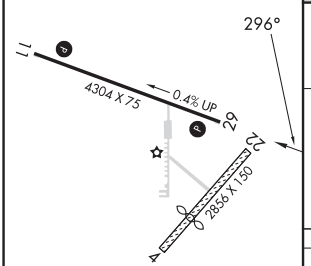
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 47°C. When local altimeter setting not recieved, use Chippewa County Intl altimeter setting and increase LPV DA to 1222 feet; increase LNAV/VNAV DA to 1344 feet; increase all MDAs 120 feet and LNAV visibility Cat C ⅜ SM and Cat D ⅛ SM, and Circling visibility Cat C/D ½ SM. Baro-VNAV NA when using Chippewa County Intl altimeter setting. Circling NA to Rwys 4 and 22. Rwy 29 helicopter visibility reduction below ¾ NA.

MISSED APPROACH: Climb to 2700 direct OBDUW and hold.

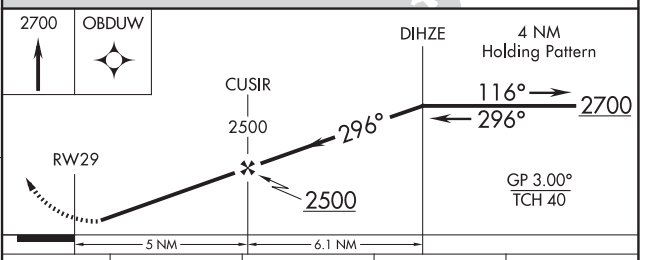
AWOS-3P	MINNEAPOLIS CENTER	UNICOM
119.525	134.6 354.05	122.8 (CTAF) L



ELEV 869	TDZE 867



MIRL Rwy 11-29 L
REIL Rwys 11 and 29 L



CATEGORY	A	B	C	D
LPV DA	1117-1 250 (300-1)			
LNAV/VNAV DA	1239-1½ 372 (400-1½)			
LNAV MDA	1260-1 393 (400-1)			1260-1¼ 393 (400-1¼)
CIRCLING	1300-1 431 (500-1)	1380-1 511 (600-1)	1460-1½ 591 (600-1½)	1560-2¼ 691 (700-2¼)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

NILES, MICHIGAN AL-5046 (FAA) 23166

APP CRS	Rwy Idg	3800
151°	TDZE	742
	Apt Elev	750

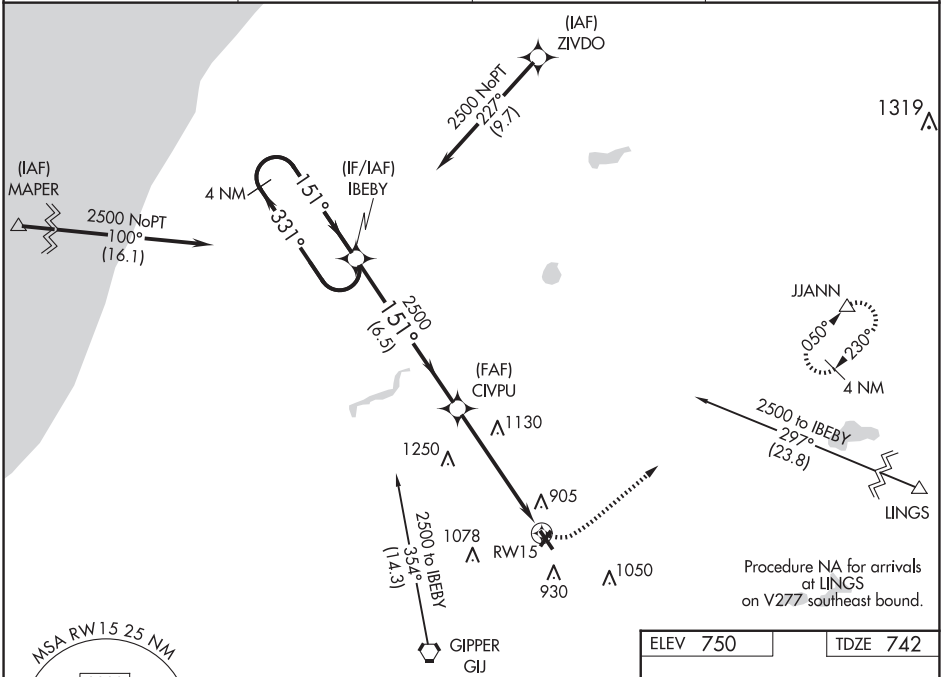
RNAV (GPS) RWY 15

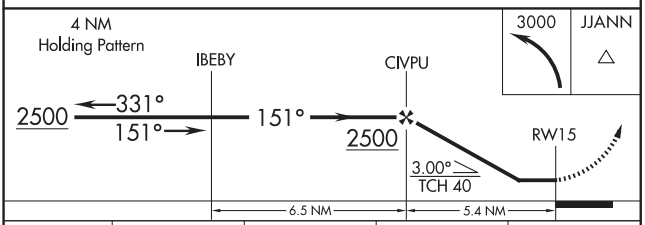
JERRY TYLER MEML (3TR)

T A NA — Use South Bend altimeter setting; when not received use Elkhart altimeter setting and increase all MDA 20 feet. DME/DME RNP-0.3 NA. Procedure NA at night. Visibility reduction by helicopters NA.

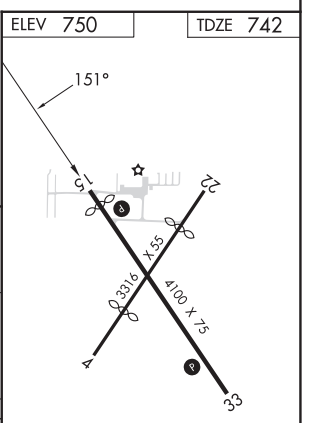
MISSED APPROACH: Climbing left turn to 3000 direct JJANN and hold.

SBN ASOS	SOUTH BEND APP CON ★	GCO	UNICOM
120.675	118.55 257.8	121.725	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	1460-1 718 (800-1)		1460-2 718 (800-2)	NA
CIRCLING	1460-1 710 (800-1)		1460-2 710 (800-2)	NA



MIRL Rwy 15-33 L
REIL Rwys 15 and 33 L

NILES, MICHIGAN
Orig-C 15OCT15

41°50'N-86°14'W

JERRY TYLER MEML (3TR)

RNAV (GPS) RWY 15

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 33

JERRY TYLER MEML (3TR)

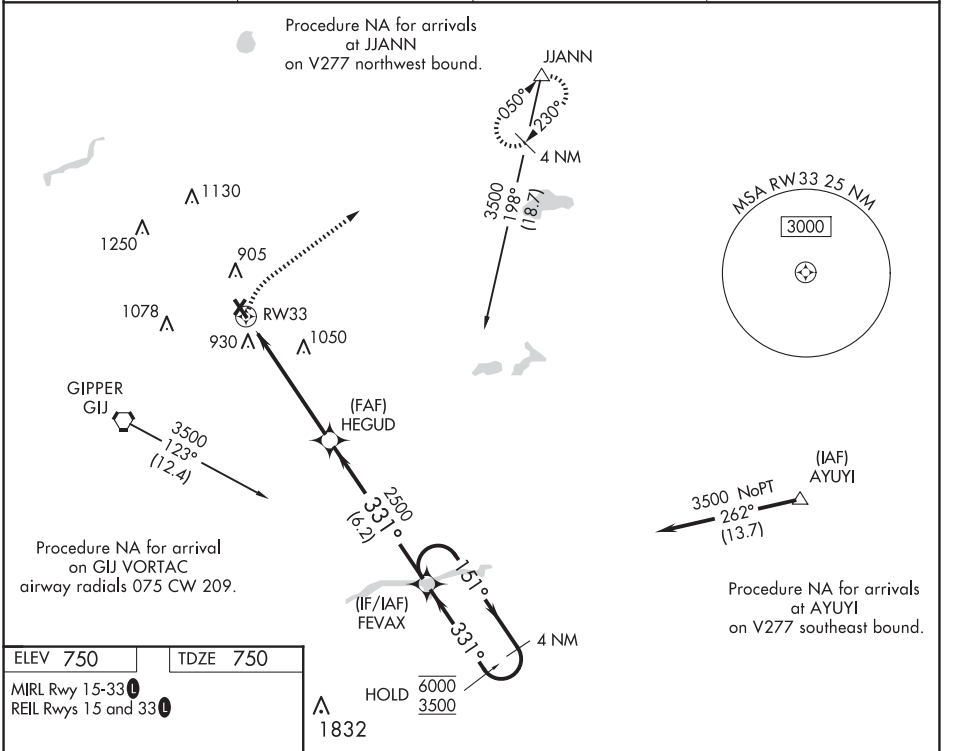
APP CRS	Rwy Idg	4100
331°	TDZE	750
	Apt Elev	750

RNP APCH.

T A NA — Procedure NA at night. Rwy 33 helicopter visibility reduction below 1 SM NA. Use South Bend altimeter setting; when not received, use Elkhart altimeter setting; increase all MDA 20 feet and LNAV Cat C visibility ⅛ SM.

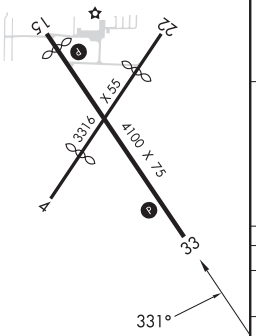
MISSED APPROACH: Climbing right turn to 3000 direct JJANN and hold.

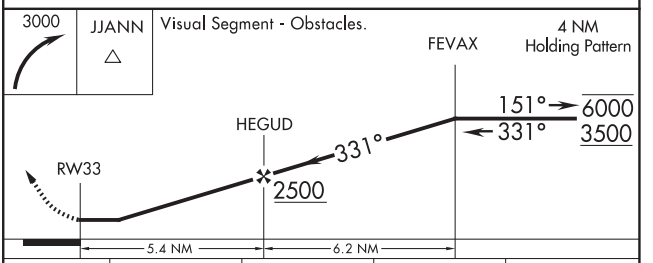
SBN ASOS	SOUTH BEND APP CON ★	GCO	UNICOM
120.675	118.55 257.8	121.725	122.8 (CTAF) L



ELEV 750	TDZE 750

MIRL Rwy 15-33 L
REIL Rwys 15 and 33 L





CATEGORY	A	B	C	D
LNAV MDA	1320-1	570 (600-1)	1320-1⅝ 570 (600-1⅝)	NA
CIRCLING	1320-1	570 (600-1)	1460-2 710 (800-2)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

NILES, MICHIGAN | AL-5046 (FAA) | 25163

VOR-A

JERRY TYLER MEML (3TR)

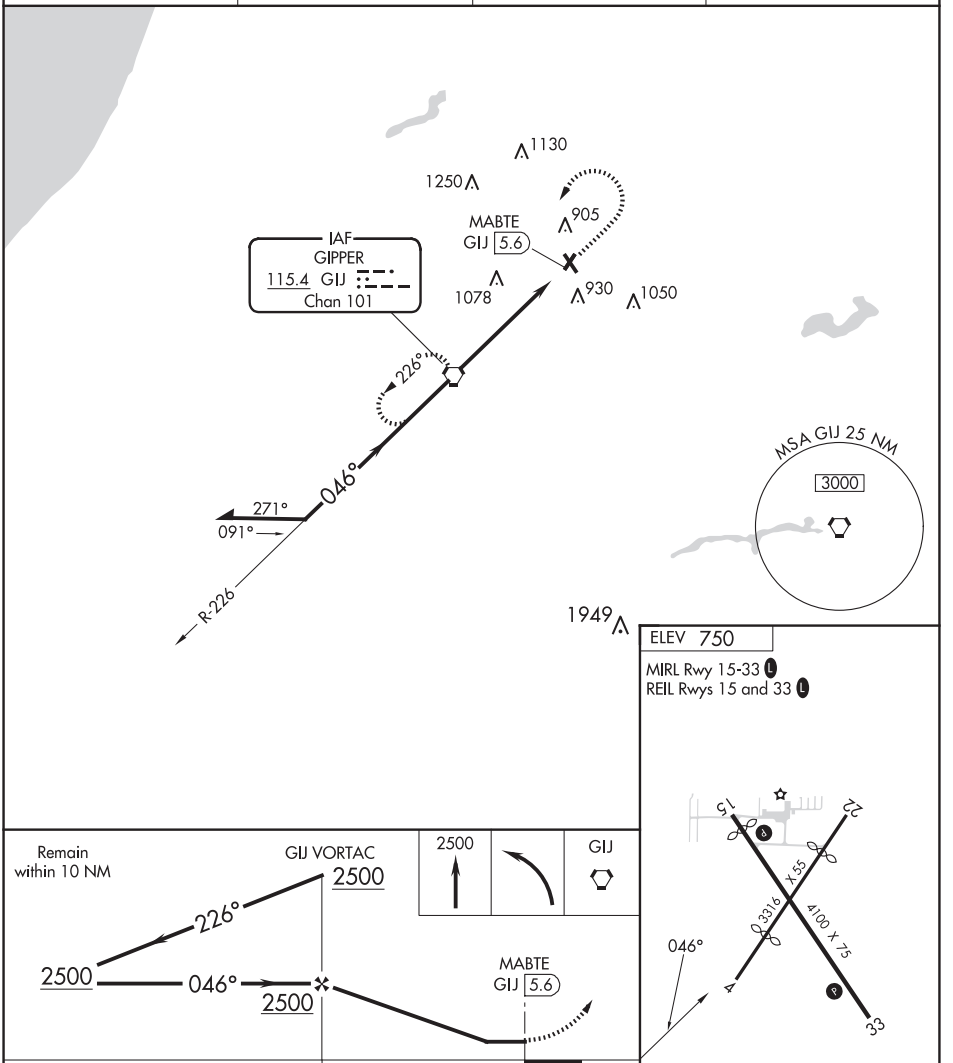
VORTAC GIJ	APP CRS	Rwy Ldg	N/A
115.4	046°	TDZE	N/A
Chan 101		Apt Elev	750

DME required.

NA — Procedure NA at night. Use SBN altimeter setting; when not received, use EKM altimeter setting and increase all MDAs 20 feet. Rwy 4, 15, 22, and 33 helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 2500 then left turn direct GIJ VORTAC and hold.

SBN ASOS	SOUTH BEND APP CON *	GCO	UNICOM
120.675	118.55 257.8	121.725	122.8 (CTAF) L



CATEGORY	A	B	C	D
CIRCLING	1300-1 550 (600-1)		1460-2 710 (800-2)	NA

FAF to MAP 5.6 NM

Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

APP CRS	Rwy Idg	3503
346°	TDZE	665
	Apt Elev	665

RNAV (GPS) RWY 35

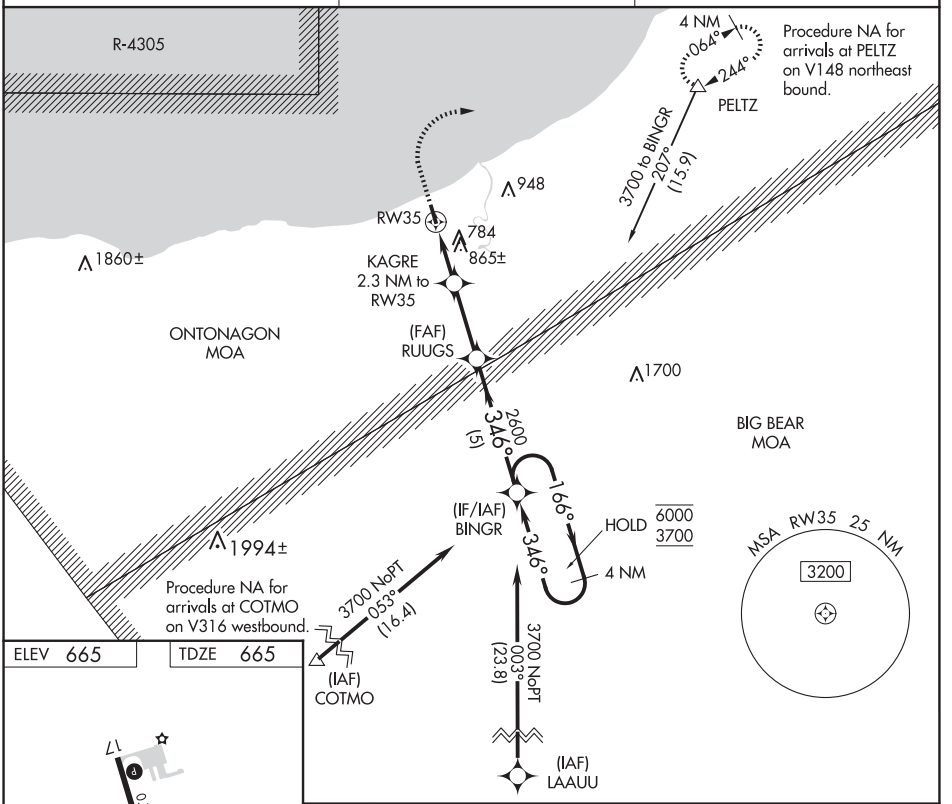
ONTONAGON COUNTY/SCHUSTER FLD (OGM)

RNP APCH - GPS.

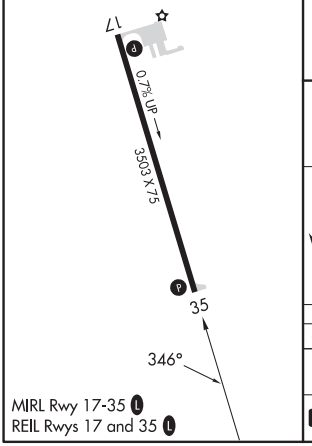
Rwy 35 helicopter visibility reduction below 1 SM NA. Procedure NA at night. Use CMX altimeter setting.

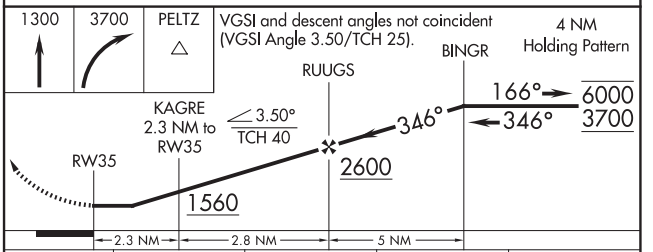
MISSED APPROACH: Climb to 1300 then climbing right turn to 3700 direct PELTZ and hold, continue climb-in-hold to 3700.

CMX ASOS	MINNEAPOLIS CENTER	CTAF
125.675	133.55 379.1	122.9 L



ELEV 665 TDZE 665





CATEGORY	A	B	C	D
LNAV MDA	1280-1 615 (700-1)		1280-1¾ 615 (700-1¾)	NA
C CIRCLING	1320-1 655 (700-1)		1420-2¼ 755 (800-2¼)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

OSCODA, MICHIGAN | AL-32 (FAA) | 25219

ILS or LOC RWY 25

OSCODA/WURTSMITH (OSC)

LOC I-LJU	APP CRS	Rwy Ldg	11800
108.5	245°	TDZE	624
		Apt Elev	633

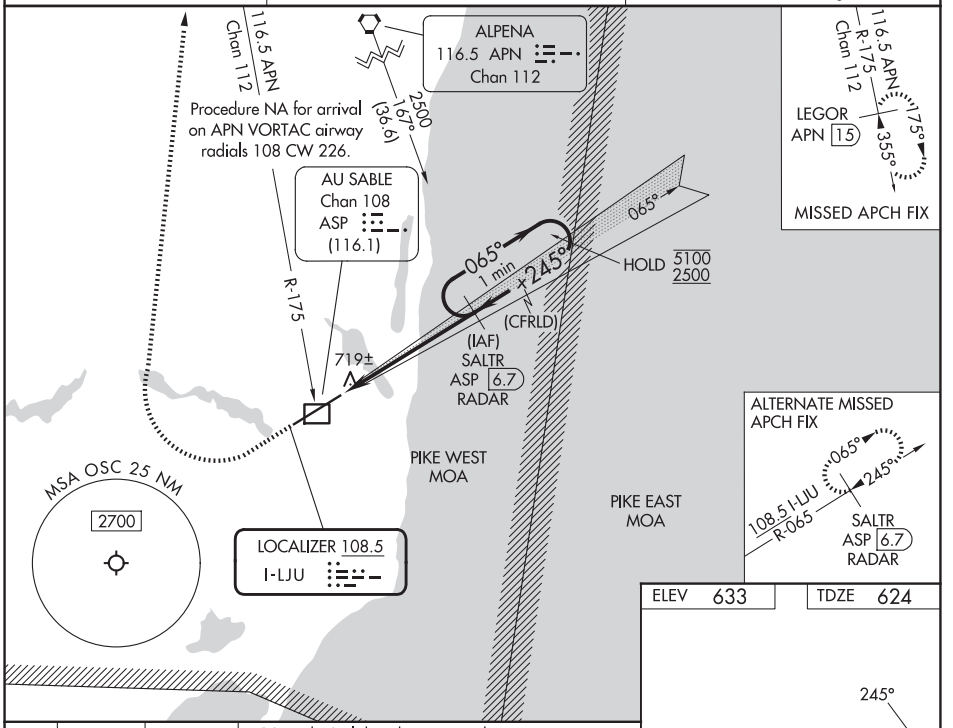
DME required.

Circling NA southeast of Rwy 7-25. For inop ALS, increase S-LOC Cats C and D visibility to 1 SM. DME from ASP DME. Simultaneous reception of I-LJU and ASP DME required.

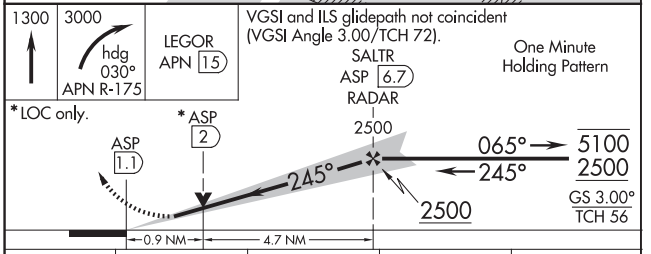
MALSR

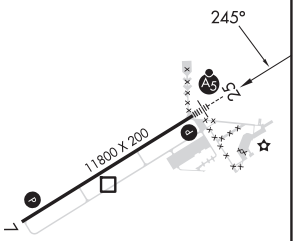
MISSED APPROACH: Climb to 1300 then climbing right turn to 3000 on heading 030° and on APN VORTAC R-175 to LEGOR/APN 15 DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.7	125.475 269.45	123.0 (CTAF) L



ELEV	633	TDZE	624





CATEGORY	A	B	C	D
S-ILS 25	824-½ 200 (200-½)			
S-LOC 25	980-½ 356 (400-½)		980-⅝ 356 (400-⅝)	
CIRCLING	1140-1 507 (600-1)		1160-1½ 527 (600-1½)	1300-2 667 (700-2)

REIL Rwy 7 L
HIRL Rwy 7-25 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Ldg	11800
CH 97417	065°	TDZE	633
W07A		Apt Elev	633

RNAV (GPS) RWY 7

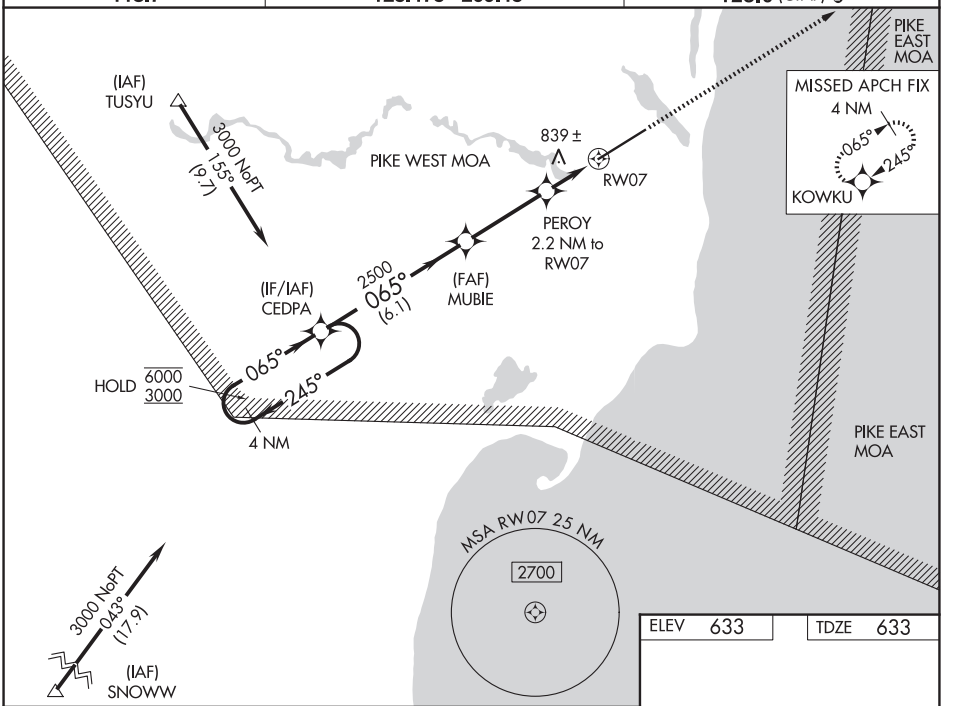
OSCODA/WURTSMITH (OSC)

RNP APCH.

Circling NA southeast of Rwy 7-25. Baro-VNAV and VDP NA when using Alpena altimeter setting. Rwy 7 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. When local altimeter setting not received use Alpena altimeter setting and increase all DA 96 feet and all MDA 100 feet. Increase LPV all Cats and LNAV Cat C and D visibility ¼ SM, and Circling Cat C visibility ¼ SM and Cat D visibility ½ SM.

MISSED APPROACH: Climb to 2500 direct KOWKU and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.7	125.475 269.45	123.0 (CTAF) L

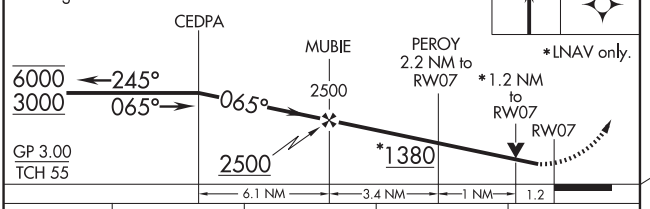


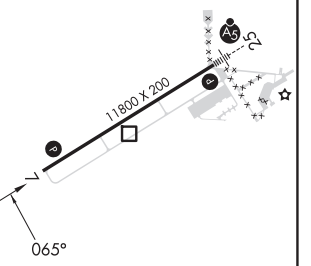
ELEV 633 TDZE 633

4 NM Holding Pattern

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 75).

2500 KOWKU





CATEGORY	A	B	C	D
LPV DA	892-¾ 259 (300-¾)			
LNAV/VNAV DA	1148-1¾ 515 (600-1¾)			
LNAV MDA	1080-1 447 (500-1)		1080-1⅜ 447 (500-1⅜)	1080-1½ 447 (500-1½)
CIRCLING	1140-1 507 (600-1)		1160-1½ 527 (600-1½)	1300-2 667 (700-2)

REIL Rwy 7 L
HIRL Rwy 7-25 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

OSCODA, MICHIGAN AL-32 (FAA) 25219

RNAV (GPS) RWY 25

OSCODA/WURTSMITH (OSC)

WAAS CH82317 W25A	APP CRS 245°	Rwy Ldg 11800 TDZE 624 Apt Elev 633

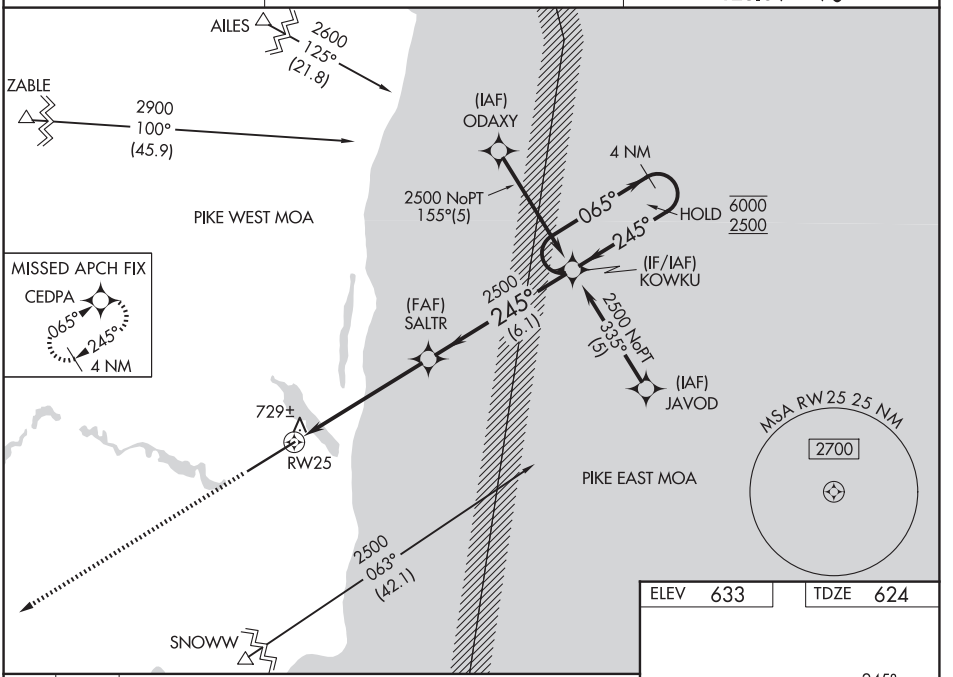
RNP APCH.

Circling NA southeast of Rwy 7-25. Baro-VNAV and VDP NA when using Alpena altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. When local altimeter setting not received, use Alpena altimeter setting and increase all DA 96 feet and all MDA 100 feet. Increase LNAV/VNAV all Cats and LNAV and Circling Cat C visibility ¼ SM, and Circling Cat D visibility ½ SM. For inop ALS, increase LNAV Cats C and D visibility to 1 SM. For inop ALS when using Alpena altimeter setting, increase LPV all Cats visibility to ⅞ SM.

MALSR

MISSED APPROACH: Climb to 3000 direct CEDPA and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.7	125.475 269.45	123.0 (CTAF) L

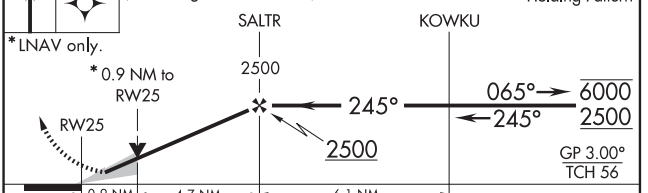


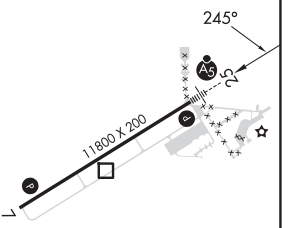
ELEV 633	TDZE 624

3000 CEDPA VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 72).

4 NM Holding Pattern

*LNAV only.





CATEGORY	A	B	C	D
LPV DA	824-½ 200 (200-½)			
LNAV/VNAV DA	1004-¾ 380 (400-¾)			
LNAV MDA	980-½ 356 (400-½)		980-⅝ 356 (400-⅝)	980-1 356 (400-1)
CIRCLING	1140-1 507 (600-1)		1160-1½ 527 (600-1½)	1300-2 667 (700-2)

REIL Rwy 7 L
HIRL Rwy 7-25 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH 50209 W11A	APP CRS 109°	Rwy Ldg 4300 TDZE 736 Apt Elev 737

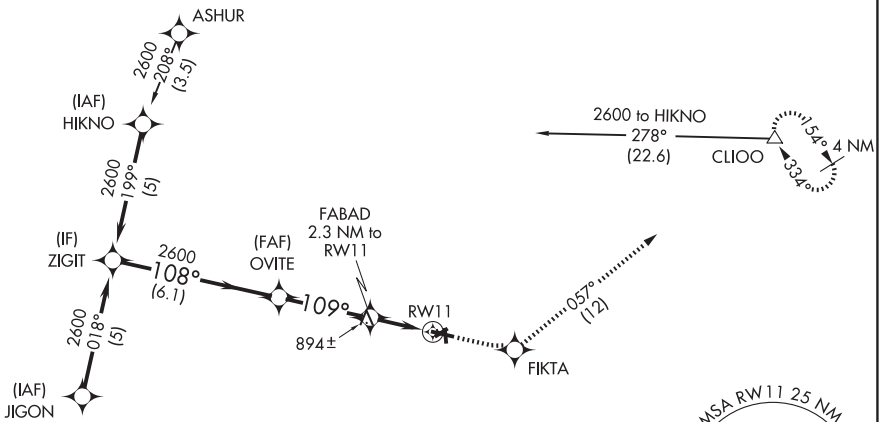
RNAV (GPS) RWY 11
OWOSSO COMMUNITY (RNP)

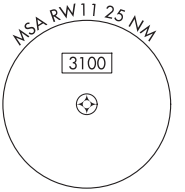
RNP APCH.

T Circling NA to Rwys 6, 18, 24, and 36. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). Rwy 11 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 3000 direct FIKTA and on track 057° to CLIOO and hold.

AWOS-3	GREAT LAKES APP CON *	UNICOM
118.025	128.55 257.9	123.0 (CTAF) L

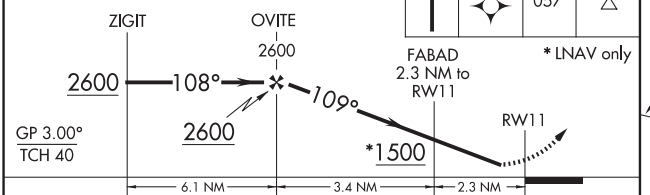




ELEV 737	TDZE 736

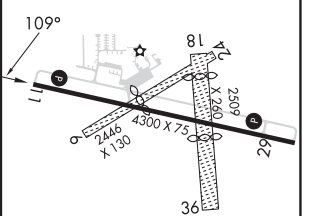
VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 40).

3000	FIKTA	tr 057°	CLIOO
↑	✧		△



* LNAV only

CATEGORY	A	B	C	D
LPV DA	1079-1¼ 343 (400-1¼)			NA
LNAV/VNAV DA	1258-2 522 (600-2)			NA
LNAV MDA	1180-1 444 (500-1)		1180-1¼ 444 (500-1¼)	NA
CIRCLING	1220-1 483 (500-1)	1260-1 523 (600-1)	1400-1¾ 663 (700-1¾)	NA



REIL Rwys 11 and 29 L
MIRL Rwy 11-29 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

OWOSSO, MICHIGAN | AL-5312 (FAA) | 25219

RNAV (GPS) RWY 29

OWOSSO COMMUNITY (RNP)

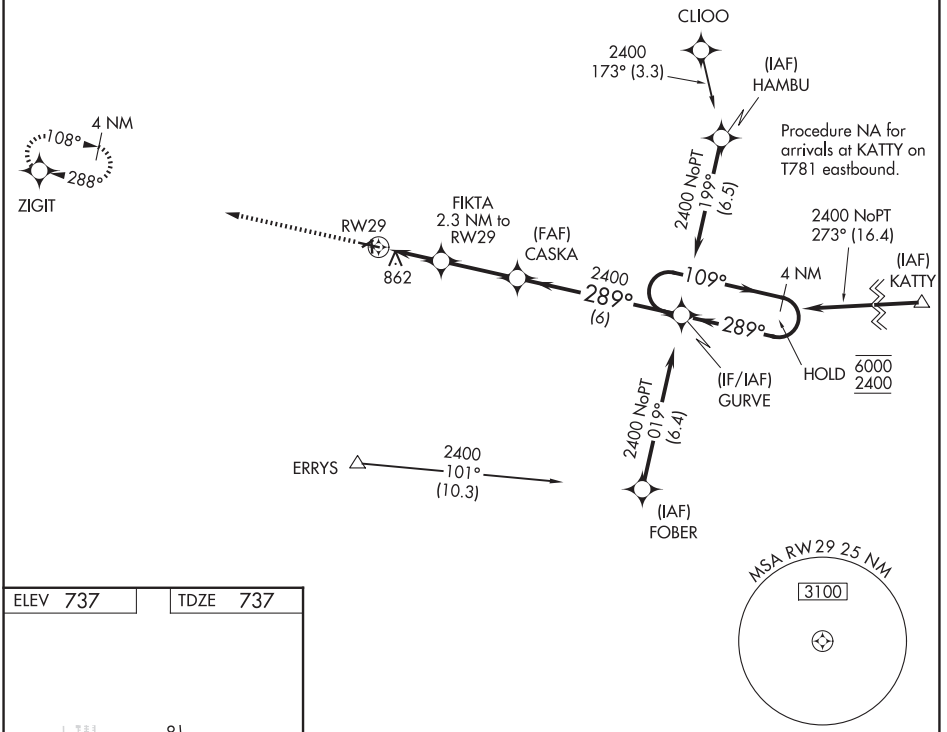
APP CRS	Rwy Ldg	4300
289°	TDZE	737
	Apt Elev	737

RNP APCH.

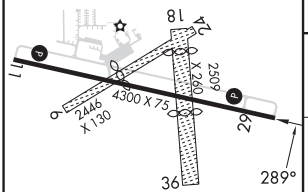
Circling NA to Rwys 6, 18, 24 and 36. Procedure NA at night. Rwy 29 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 2600 direct ZIGIT and hold.

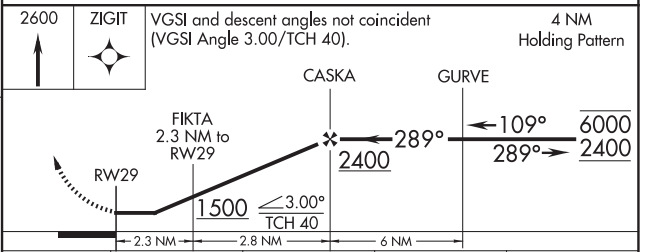
AWOS-3	GREAT LAKES APP CON ★	UNICOM
118.025	128.55 257.9	123.0 (CTAF) L



ELEV 737 | TDZE 737



REIL Rwys 11 and 29 L
MIRL Rwy 11-29 L



CATEGORY	A	B	C	D
LNAV MDA	1120-1 383 (400-1)		1120-1⅛ 383 (400-1⅛)	NA
CIRCLING	1220-1 483 (500-1)	1260-1 523 (600-1)	1400-1¾ 663 (700-1¾)	NA

OWOSSO, MICHIGAN
Amdt 2 15AUG19

43°00'N-84°08'W

OWOSSO COMMUNITY (RNP)
RNAV (GPS) RWY 29

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

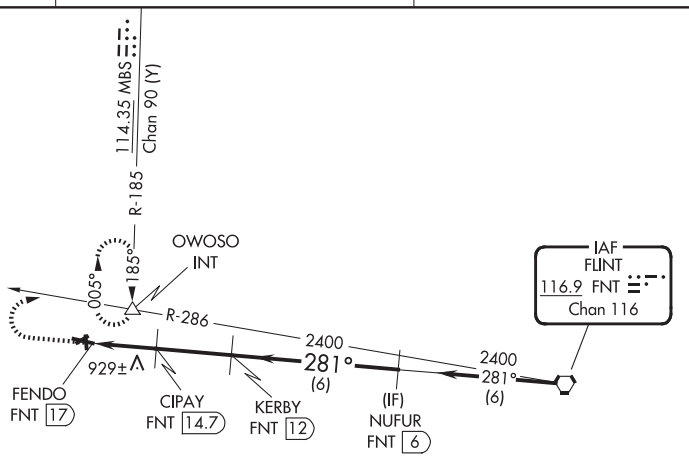
VORTAC FNT	APP CRS	Rwy Ldg	4300
116.9	281°	TDZE	736
Chan 116		Apt Elev	736

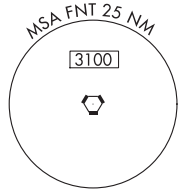
VOR/DME RWY 29
OWOSSO COMMUNITY (RNP)

Circling NA to Rwys 6, 18, 24 and 36. Rwy 29 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Flint altimeter setting and increase all MDA 60 feet and S-29 Cat C visibility ¼ mile.

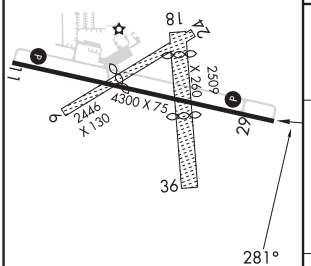
MISSED APPROACH: Climb to 1900 then climbing right turn to 2700 via FNT VORTAC R-286 to OWOSO INT and hold.

AWOS-3	GREAT LAKES APP CON ★	UNICOM
118.025	128.55 257.9	123.0 (CTAF) L

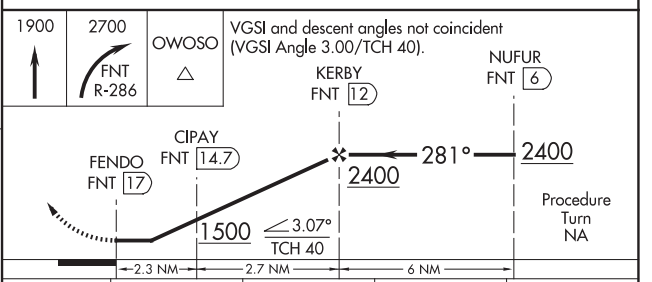




ELEV 736 | TDZE 736



REIL Rwys 11 and 29 L
MIRL Rwy 11-29 L



CATEGORY	A	B	C	D
S-29	1180-1	444 (500-1)	1180-1¼ 444 (500-1¼)	NA
CIRCLING	1220-1 483 (500-1)	1260-1 523 (600-1)	1400-1¾ 663 (700-1¾)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

PELLSTON, MICHIGAN | AL-647 (FAA) | 24305

LOC/DME I-PLN	APP CRS	Rwy Idg	6513
111.3	321°	TDZE	712
Chan 50		Apt Elev	721

ILS or LOC RWY 32

PELLSTON RGNL/EMMET COUNTY (PLN)

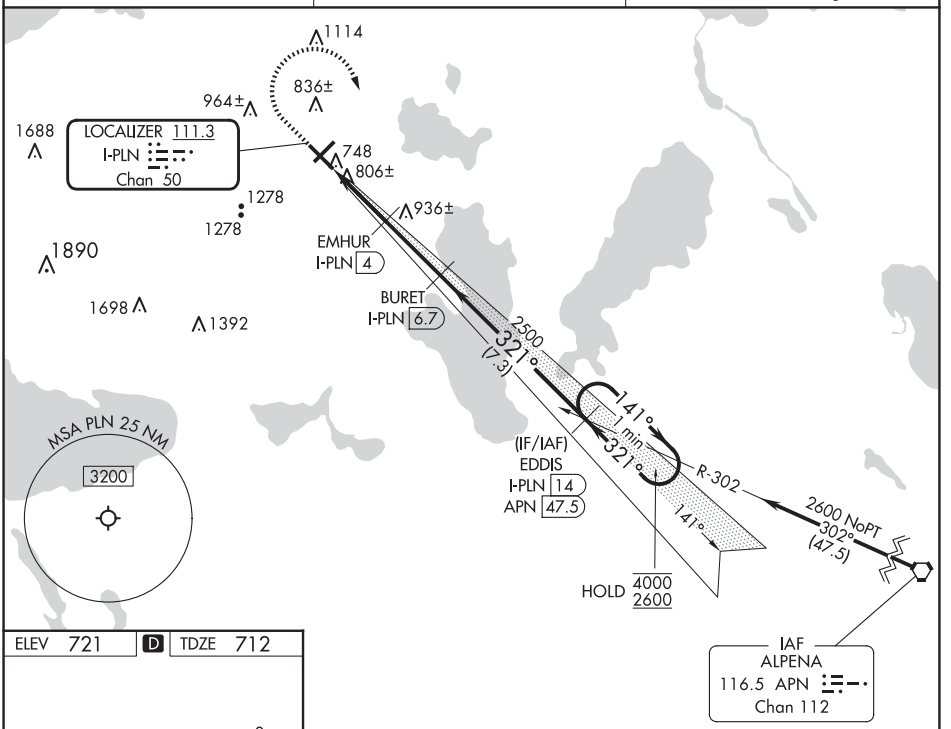
DME required.

Circling Rwy 5, 14 NA at night. Autopilot coupled approach NA below 1868 feet. When local altimeter setting not received, use MGN altimeter setting and increase S-ILS 32 DA to 942 feet. Increase all MDAs 40 feet. For inop ALS, increase S-LOC 32 Cat C/D visibility to 1 SM. VDP NA when using MGN altimeter setting.

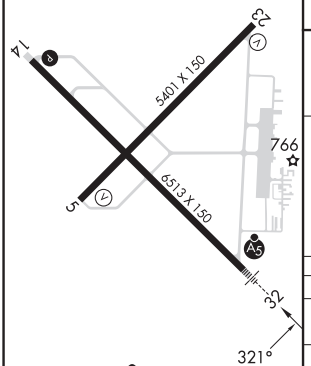
MALSR

MISSED APPROACH: Climb to 1400 then climbing right turn to 2600 on heading 160° and APN VORTAC R-302 to EDDIS/ I-PLN 14 DME and hold.

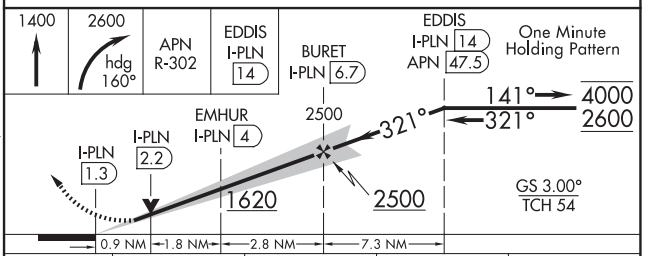
ASOS	MINNEAPOLIS CENTER	UNICOM
119.025	134.6 354.05	123.0 (CTAF) L



ELEV 721 | D | TDZE 712



HIRL Rwy 14-32 L
MIRL Rwy 5-23 L
REIL Rwys 5, 14, and 23 L



CATEGORY	A	B	C	D
S-ILS 32	912-½ 200 (200-½)			
S-LOC 32	1060-½ 348 (400-½)		1060-⅝ 348 (400-⅝)	
CIRCLING	1280-1 559 (600-1)	1320-1 599 (600-1)	1560-2½ 839 (900-2½)	1660-3 939 (1000-3)

PELLSTON, MICHIGAN
Amdt 12 05SEP24

45°34'N-84°48'W

PELLSTON RGNL/EMMET COUNTY (PLN)

ILS or LOC RWY 32

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 5

PELLSTON RGNL/EMMET COUNTY (PLN)

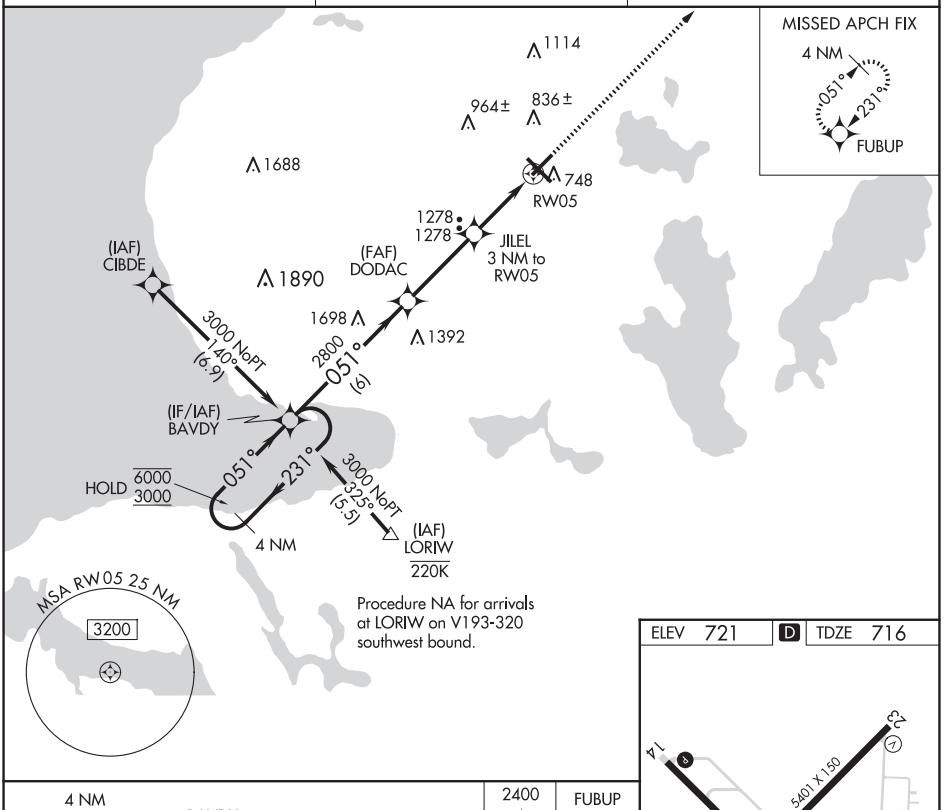
APP CRS	Rwy Idg	5395
051°	TDZE	716
	Apt Elev	721

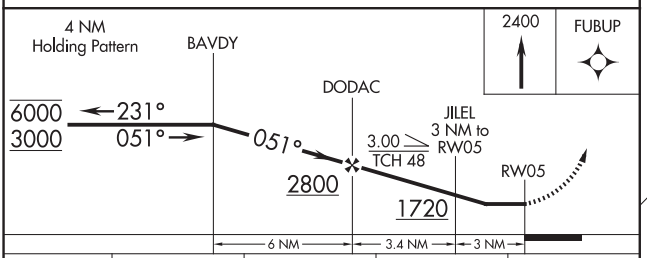
RNP APCH - GPS.

Rwy 5 helicopter visibility reduction below 1 SM NA.
When local altimeter setting not received, use MGN altimeter setting and increase all MDAs 40 feet, and LNAV visibility Cat A ¼ SM.
Straight-in Rwy 5 NA at night, Circling Rwy 5, 14 NA at night.

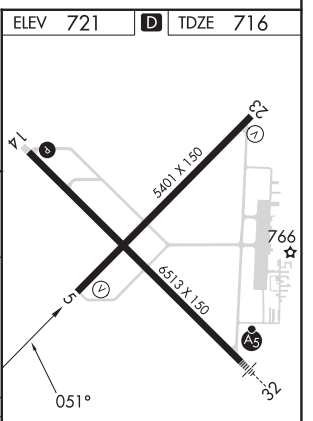
MISSED APPROACH: Climb to 2400 direct FUBUP and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
119.025	134.6 354.05	123.0 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	1560-1 844 (900-1)	1560-1¼ 844 (900-1¼)	1560-2½ 844 (900-2½)	
CIRCLING	1560-1¼ 839 (900-1¼)		1560-2½ 839 (900-2½)	1660-3 939 (1000-3)



HIRL Rwy 14-32 L
MIRL Rwy 5-23 L
REIL Rwys 5, 14, and 23 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

PELLSTON, MICHIGAN | AL-647 (FAA) | 23222

RNAV (GPS) RWY 23

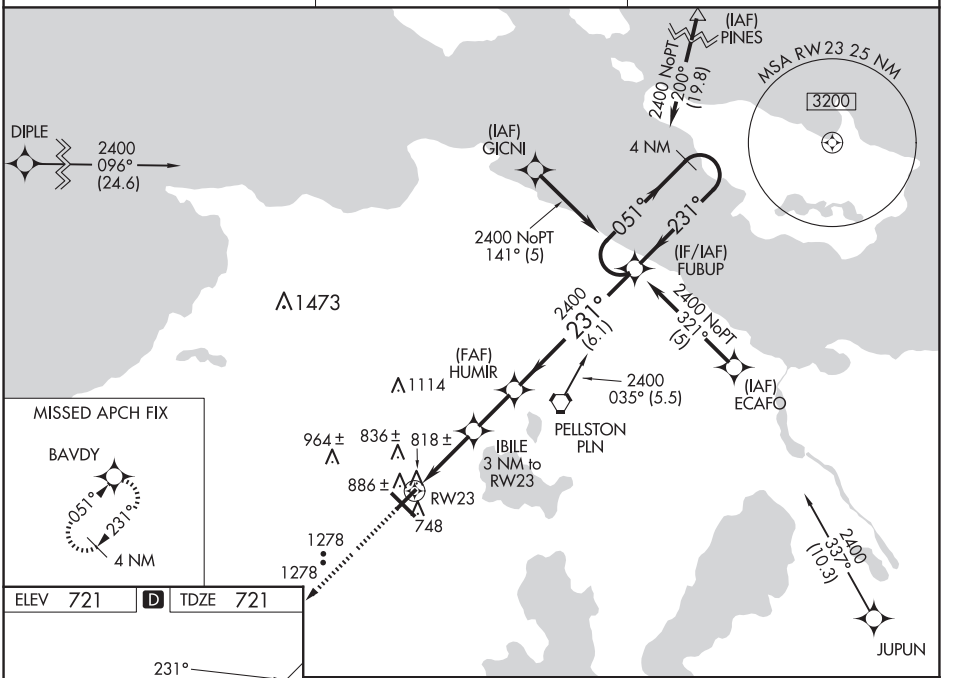
PELLSTON RGNL/EMMET COUNTY (PLN)

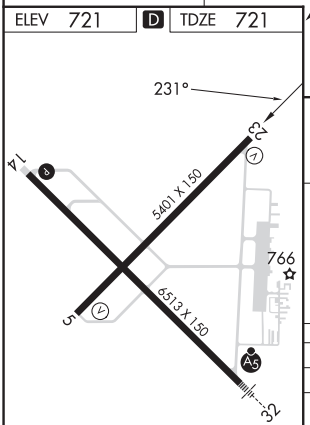
WAAS	APP CRS	Rwy Idg	5395
CH 81915	231°	TDZE	721
W23A		Apt Elev	721

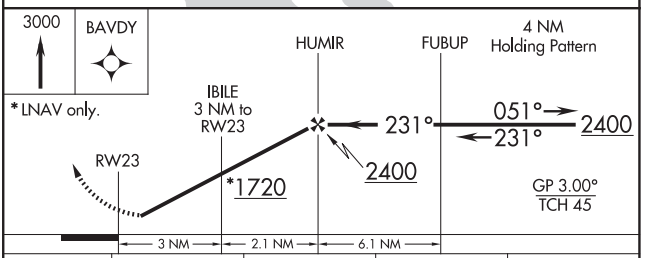
Baro-VNAV NA when using Harbor Springs altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP-0.3 NA. Rwy 23 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Harbor Springs altimeter setting; increase LPV DA to 1087 feet, LNAV/VNAV DA to 1139 feet and all visibilities ¼ SM; increase all MDA 40 feet. Circling Rwy 5, 14, 23 NA at night.

MISSED APPROACH: Climb to 3000 direct BAVDY and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
119.025	134.6 354.05	123.0 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1057-1¼ 336 (400-1¼)			
LNAV/VNAV DA	1109-1¼ 388 (400-1¼)			
LNAV MDA	1240-1 519 (600-1)		1240-1½ 519 (600-1½)	1240-1¾ 519 (600-1¾)
CIRCLING	1280-1 559 (600-1)	1320-1 599 (600-1)	1560-2½ 839 (900-2½)	1660-3 939 (1000-3)

PELLSTON, MICHIGAN
Orig-D 09SEP21

45°34′N-84°48′W

PELLSTON RGNL/EMMET COUNTY (PLN)

RNAV (GPS) RWY 23

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg 6513
CH 77813	321°	TDZE 712
W32A		Apt Elev 721

RNAV (GPS) RWY 32

PELLSTON RGNL/EMMET COUNTY (PLN)

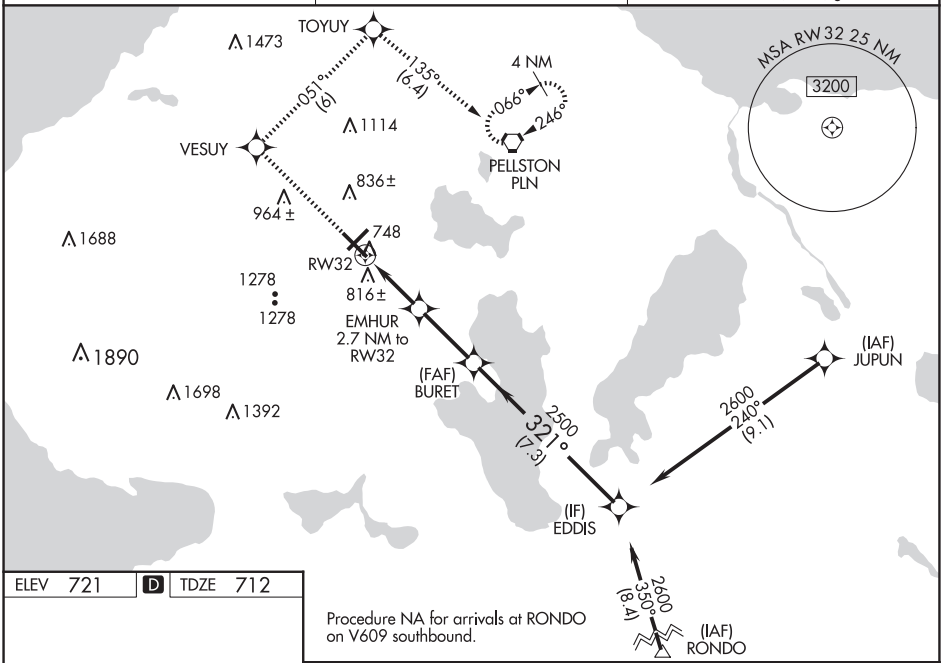
RNP APCH - GPS.

T A Circling Rwy 5, 14 NA at night. Baro-VNAV and VDP NA when using MGN altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats and LNAV Cat C/D visibility to 1 SM. For inop ALS when using MGN altimeter setting, increase LNAV/VNAV all Cats visibility to 1 SM and LNAV Cat C/D visibility to 1⅛ SM. When local altimeter setting not received, use MGN altimeter setting and increase LPV DA to 942 feet; increase LNAV/VNAV DA to 1086 feet; increase all MDAs 40 feet and LNAV visibility Cat C/D ⅛ SM.

MALSR (A5)

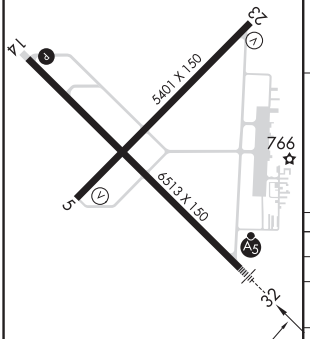
MISSED APPROACH: Climb to 2600 direct VESUY and on track 051° to TOYUY and on track 135° to PLN VORTAC and hold. (Do not exceed 200K until TOYUY).

ASOS	MINNEAPOLIS CENTER	UNICOM
119.025	134.6 354.05	123.0 (CTAF) L

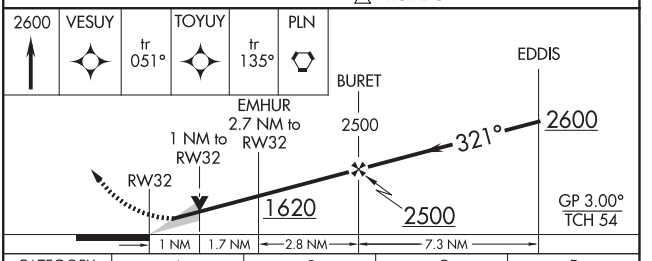


Procedure NA for arrivals at RONDO on V609 southbound.

ELEV 721 D TDZE 712



HIRL Rwy 14-32 L
MIRL Rwy 5-23 L
REIL Rwys 5, 14, and 23 L



CATEGORY	A	B	C	D
LPV DA	912-½ 200 (200-½)			
LNAV/VNAV DA	1056-⅝ 344 (400-⅝)			
LNAV MDA	1080-½ 368 (400-½)		1080-⅝ 368 (400-⅝)	
CIRCLING	1280-1 559 (600-1)	1320-1 599 (600-1)	1560-2½ 839 (900-2½)	1660-3 939 (1000-3)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

PELLSTON, MICHIGAN

AL-647 (FAA)

23222

VOR RWY 23

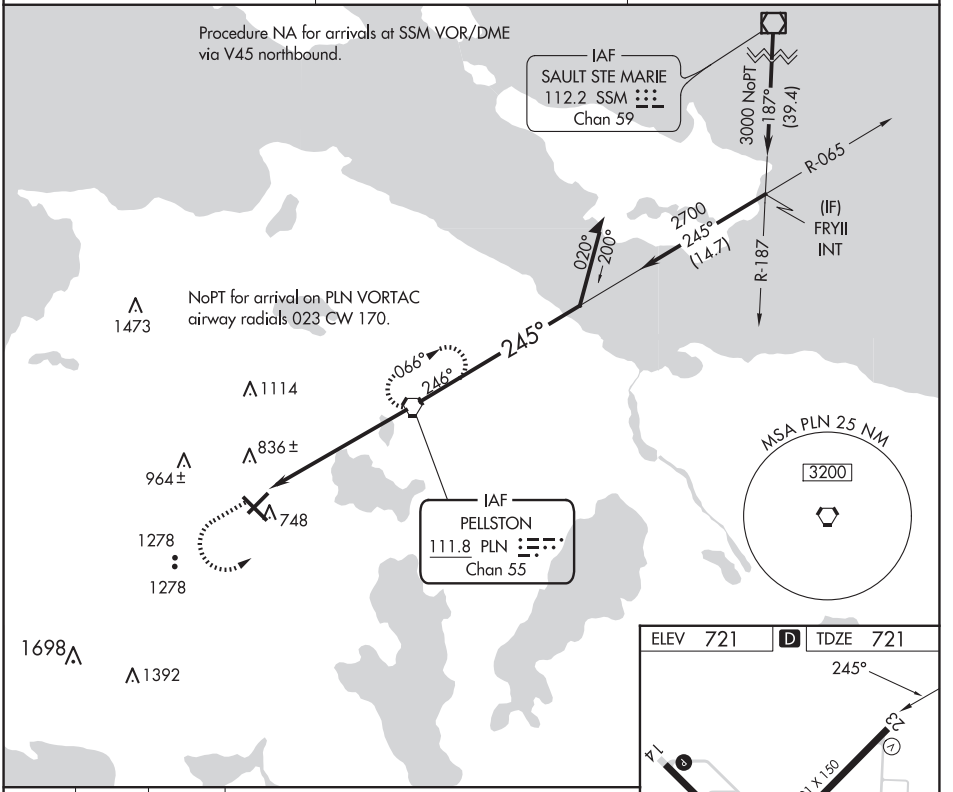
PELLSTON RGNL/EMMET COUNTY (PLN)

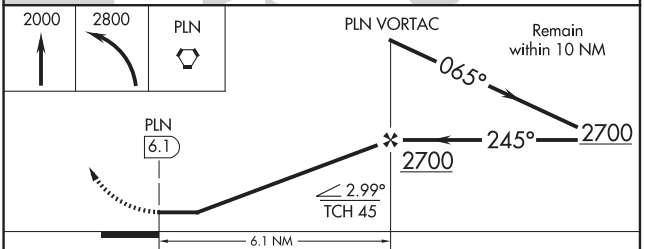
VORTAC PLN	APP CRS	Rwy Idg	5395
111.8	245°	TDZE	721
Chan 55		Apt Elev	721

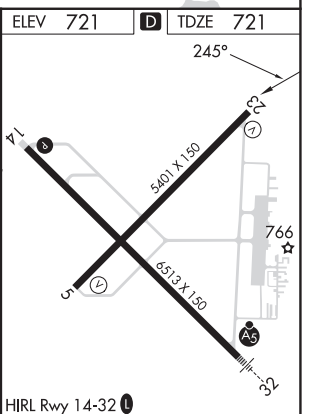
When local altimeter setting not received, use Harbor Springs altimeter setting: increase all MDA 40 feet and visibility S-23 Cat C and D ¼ SM.
Rwy 23 helicopter visibility reduction below 1 SM NA.
Straight-in Rwy 23 NA at night, Circling Rwy 5, 14, 23 NA at night.

MISSED APPROACH: Climb to 2000 then climbing left turn to 2800 direct PLN VORTAC and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
119.025	134.6 354.05	123.0 (CTAF) L







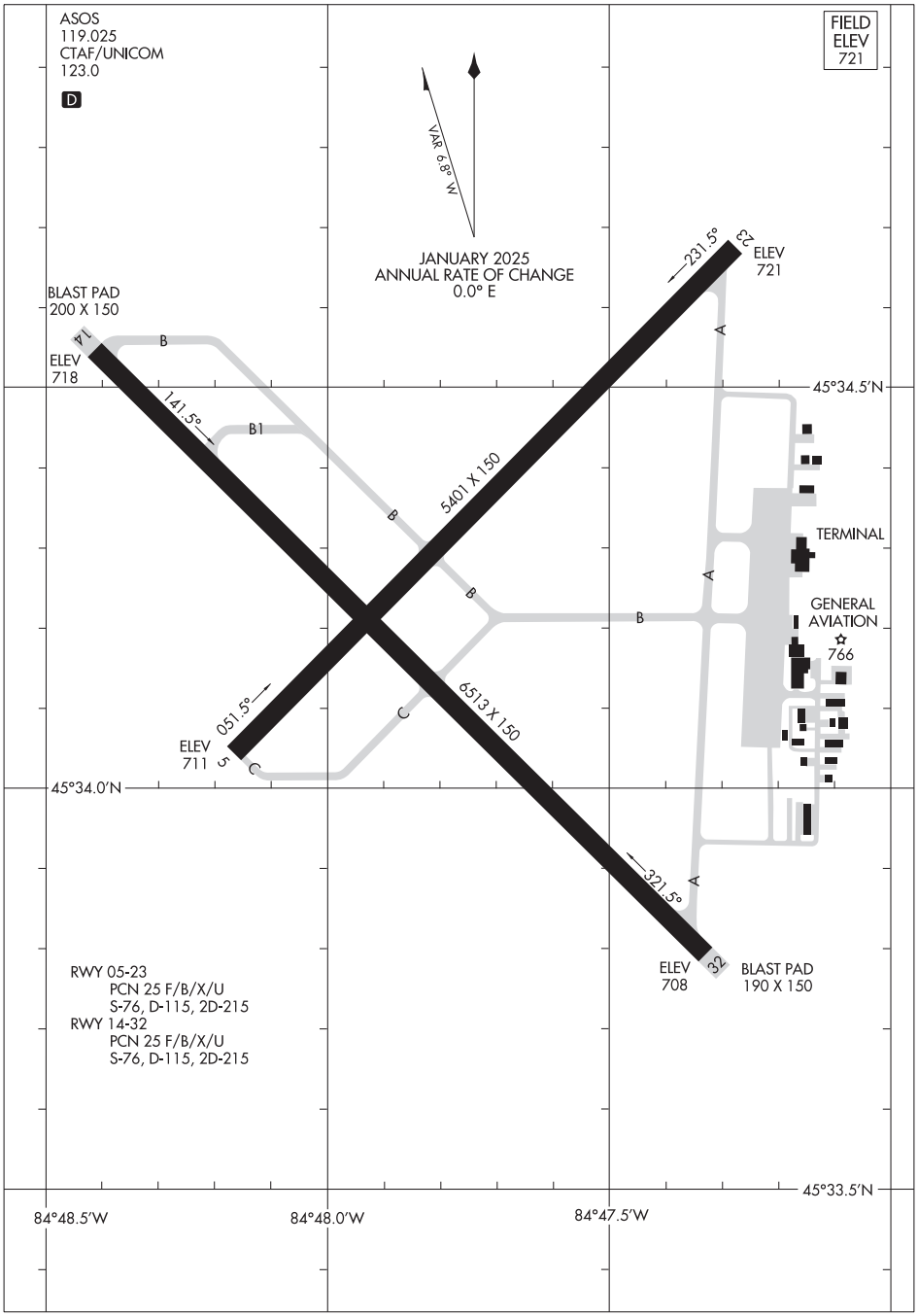
HIRL Rwy 14-32 L
MIRL Rwy 5-23 L
REIL Rwys 5, 14, and 23 L

CATEGORY	A	B	C	D
S-23	1300-1	579 (600-1)	1300-1½ 579 (600-1½)	1300-1¾ 579 (600-1¾)
CIRCLING	1300-1 579 (600-1)	1320-1 599 (600-1)	1560-2½ 839 (900-2½)	1660-3 939 (1000-3)

FAF to MAP 6.1 NM

Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025



EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

PLYMOUTH, MICHIGAN | AL-5508 (FAA) | 24025

RNAV (GPS)-B

CANTON-PLYMOUTH-METTETAL (1D2)

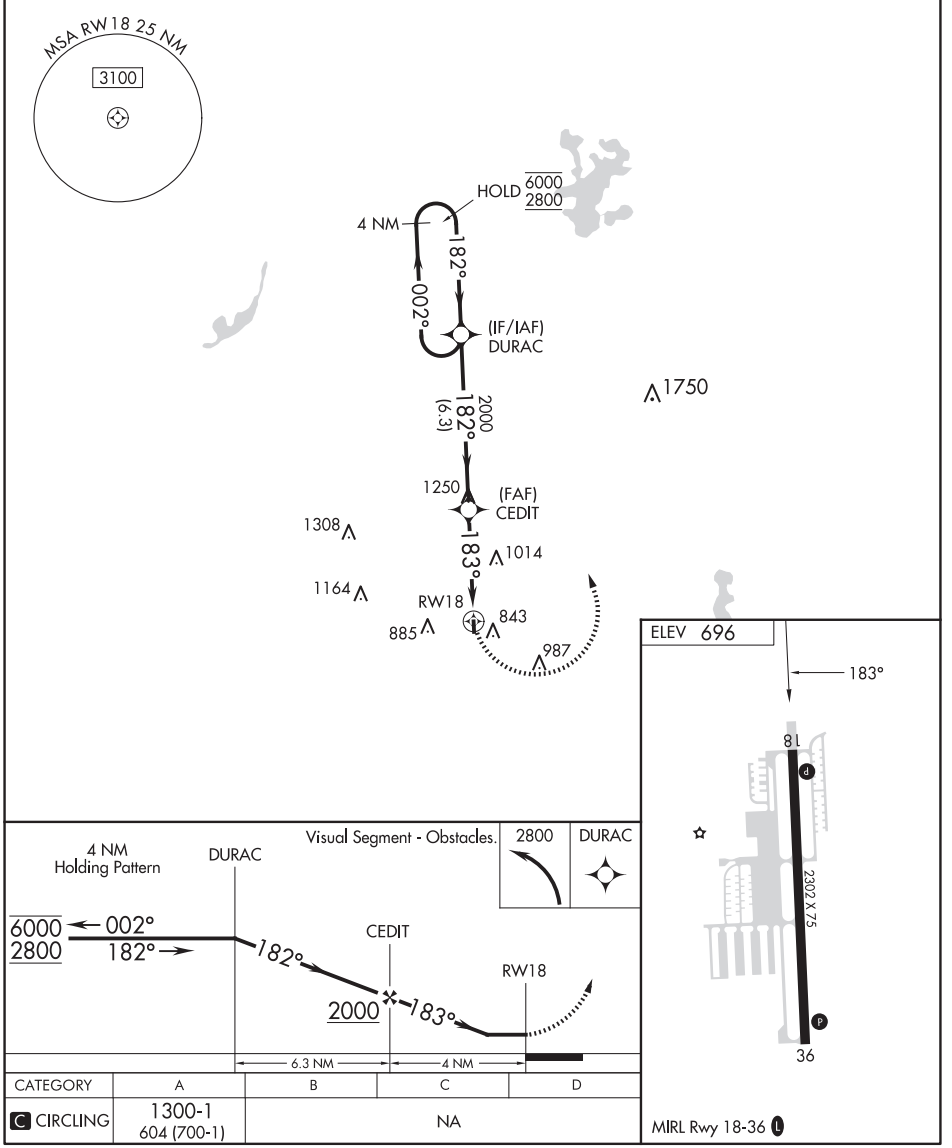
APP CRS	Rwy Idg	TDZE	Apt Elev
183°	2302	N/A	696

RNP APCH.

T A NA — Procedure NA at night. Use Willow Run altimeter setting. Helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climbing left turn to 2800 direct DURAC and hold.

YIP ASOS	DETROIT APP CON	UNICOM
127.425	118.95 284.0	122.7 (CTAF) L



CATEGORY	A	B	C	D
C CIRCLING	1300-1 604 (700-1)	NA		

MIRL Rwy 18-36 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LOC I-PTK	APP CRS	Rwy Idg	6520
111.1	095°	TDZE	981
		Apt Elev	981

ILS or LOC RWY 9R
OAKLAND COUNTY INTL (PTK)

RADAR required for procedure entry.

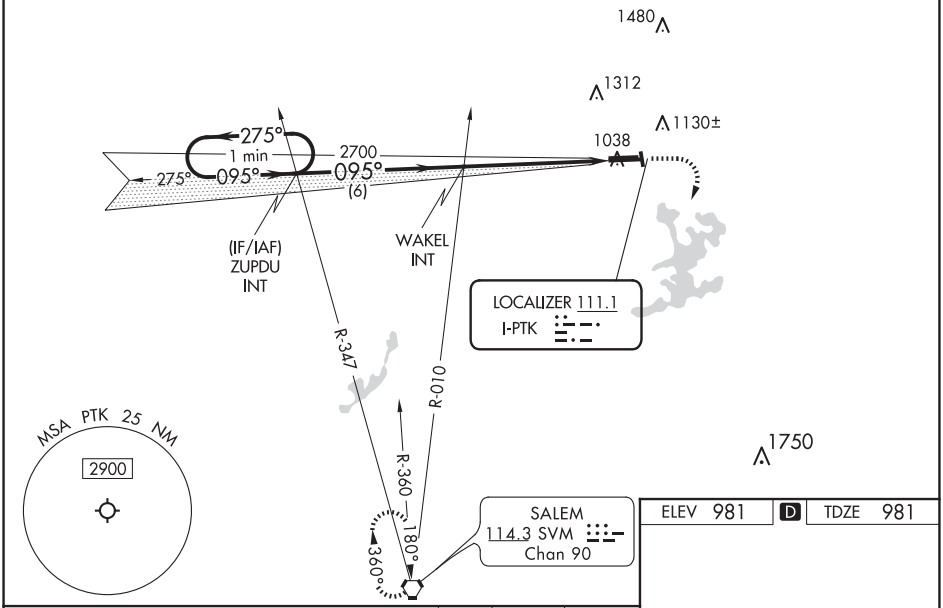
T Circling Rwy 9L, 36 NA at night. When local altimeter setting not received, use Coleman A Young Muni altimeter setting and increase DA to 1286 feet and all MDA 120 feet, increase S-LOC 9R Cat B visibility to RVR 4000, Cat C/D visibility ⅜ SM, and Circling Cat B/C/D visibility ½ SM. For inop MALSR, increase S-LOC 9R Cat C/D visibility to 1¾ SM. For inop MALSR, when using Coleman A Young altimeter, increase S-ILS 9R all Cats visibility to RVR 4500, and increase S-LOC 9R Cat C/D visibility to 2 SM. **RVR 1800 authorized with the use of FD or AP or HUD to DA, NA when using Coleman A Young Muni altimeter setting.

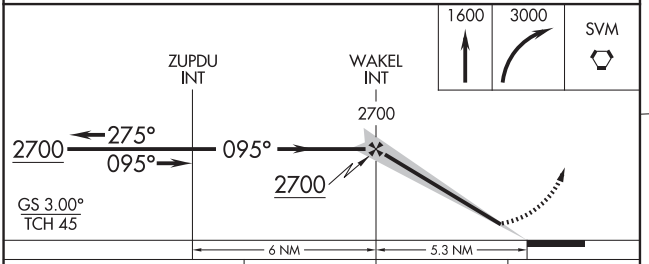
A

MALSR

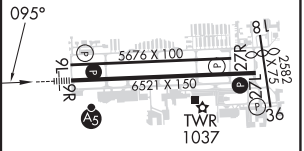
MISSED APPROACH: Climb to 1600 then climbing right turn to 3000 direct SVM VORTAC and hold.

ATIS	DETROIT APP CON	PONTIAC TOWER *	GND CON	CLNC DEL	UNICOM
125.025	132.35 284.0	120.5 (CTAF) L	121.9	118.25	122.95





CATEGORY	A	B	C	D
S-ILS 9R	**1181/24		200 (200-½)	
S-LOC 9R	1620/24	639 (700-½)	1620-1⅜	639 (700-1⅜)
C CIRCLING	1620-1	639 (700-1)	1640-1¾ 659 (700-1¾)	1640-2 659 (700-2)



ELEV 981 D TDZE 981

HIRL Rwy 9R-27L L
MIRL Rwy 9L-27R
REIL Rwy 27L L
REIL Rwys 9L and 27R

FAF to MAP 5.3 NM

Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

PONTIAC, MICHIGAN | AL-5052 (FAA) | 23222

RNAV (GPS) RWY 9R

OAKLAND COUNTY INTL (PTK)

WAAS	APP CRS	Rwy Idg	6520
CH 90415	095°	TDZE	981
W09A		Apt Elev	981

RNP APCH.

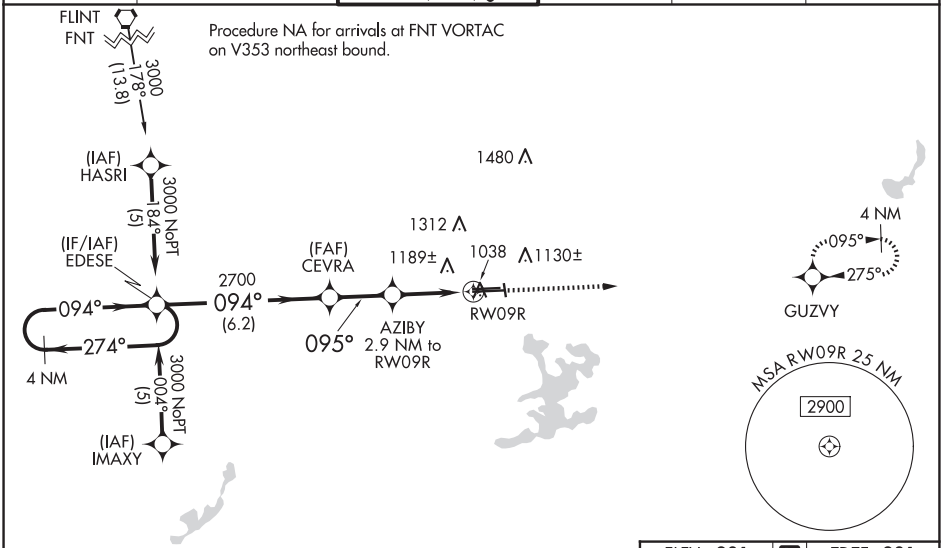
T For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). Baro-VNAV and VDP NA when using Coleman A Young altimeter setting. Circling Rwy 9L, 36 NA at night. When local altimeter setting not received, use Coleman A Young Muni altimeter setting and increase LPV DA to 1286 feet, LNAV/VNAV DA to 1685 feet and all MDA 120 feet, increase LNAV/VNAV all Cats visibility to 2 SM, increase LNAV Cat C visibility to RVR 5000, Cat D visibility to RVR 6000, and Circling Cat C/D visibility ½ SM. For inop MALSR increase LNAV Cats A/B visibility to RVR 5000. For inop MALSR when using Coleman A Young Muni altimeter setting; increase LPV all Cats, and LNAV Cats A/B visibility to RVR 5000. # RVR 1800 authorized with use of FD or AP or HUD to DA, NA when using Coleman A Young Muni alitmeter setting.

A

MALSR (A5)

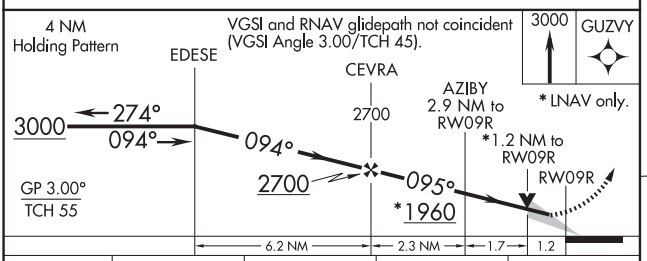
MISSED APPROACH: Climb to 3000 direct GUZVY and hold.

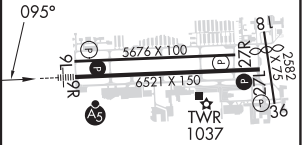
ATIS	DETROIT APP CON	PONTIAC TOWER*	GND CON	CLNC DEL	UNICOM
125.025	132.35 284.0	120.5 (CTAF) L	121.9	118.25	122.95



ELEV 981 D TDZE 981

1750





CATEGORY	A	B	C	D
LPV DA	1181/24 200 (200-½)			
LNAV/VNAV DA	1580-1½ 599 (600-1½)			
LNAV MDA	1420/40 439 (500-¾)			1420/50 439 (500-1)
C CIRCLING	1500-1 519 (600-1)	1540-1 559 (600-1)	1640-1¾ 659 (700-1¾)	1640-2 659 (700-2)

HIRL Rwy 9R-27L L
MIRL Rwy 9L-27R
REIL Rwy 27L L
REIL Rwys 9L and 27R

PONTIAC, MICHIGAN
Orig-B 19JUL18

42°40'N-83°25'W

OAKLAND COUNTY INTL (PTK)
RNAV (GPS) RWY 9R

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 27L

OAKLAND COUNTY INTL (PTK)

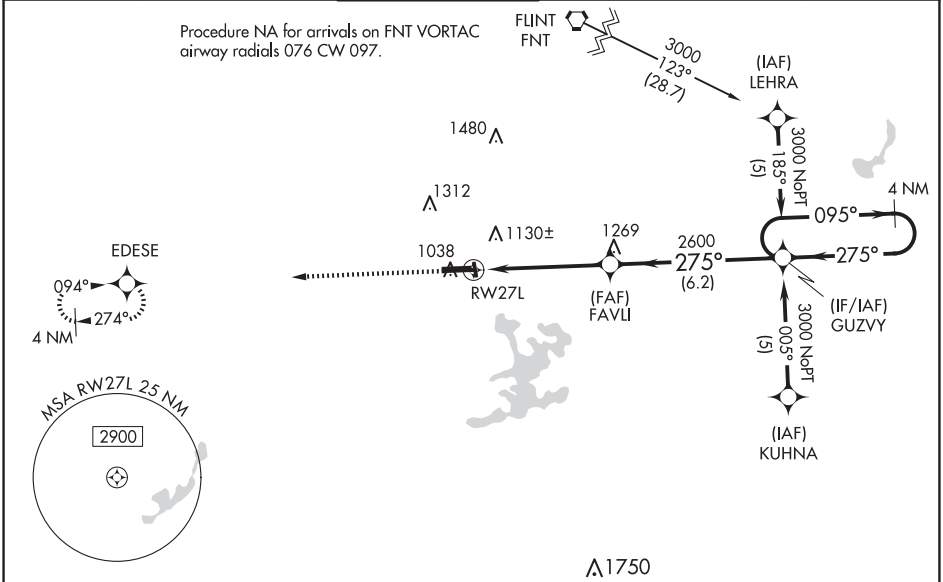
WAAS	APP CRS		
CH **70615**	**275°**	Rwy Idg	**6520**
W27A		TDZE	**974**
		Apt Elev	**981**

RNP APCH.

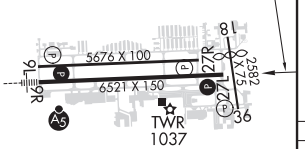
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). Baro-VNAV and VDP NA when using Coleman A Young altimeter setting. Circling Rwy 9L, 36 NA at night. When local altimeter setting not received, use Coleman A Young Muni altimeter setting and increase LPV DA to 1279 feet, LNAV/VNAV DA to 1568 and all MDA 120 feet, increase LPV and LNAV/VNAV all cats visibility ¼ SM, LNAV Cat C/D, and Circling Cat C/D visibility ½ SM.

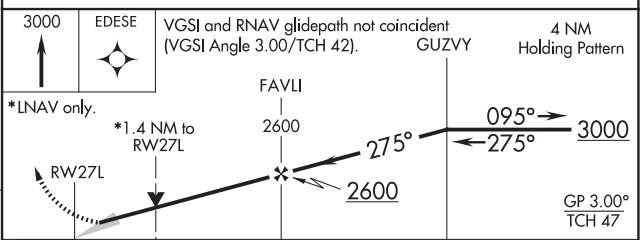
MISSED APPROACH: Climb to 3000 direct EDESE and hold.

ATIS	DETROIT APP CON	PONTIAC TOWER ★	GND CON	CLNC DEL	UNICOM
125.025	**132.35 284.0**	**120.5** (CTAF) L	**121.9**	**118.25**	**122.95**



ELEV 981	D	TDZE 974





CATEGORY	A	B	C	D
LPV DA	1174-¾ 200 (200-¾)			
LNAV/VNAV DA	1463-1¾ 489 (500-1¾)			
LNAV MDA	1460-1 486 (500-1)		1460-1¼ 486 (500-1¼)	1460-1½ 486 (500-1½)
C CIRCLING	1500-1 519 (600-1)	1540-1 559 (600-1)	1640-1¾ 659 (700-1¾)	1640-2 659 (700-2)

HIRL Rwy 9R-27L L
MIRL Rwy 9L-27R
REIL Rwy 27L L
REIL Rwys 9L and 27R

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LOC I-PTK	APP CRS	Rwy Idg	6520
111.1	275°	TDZE	974
		Apt Elev	981

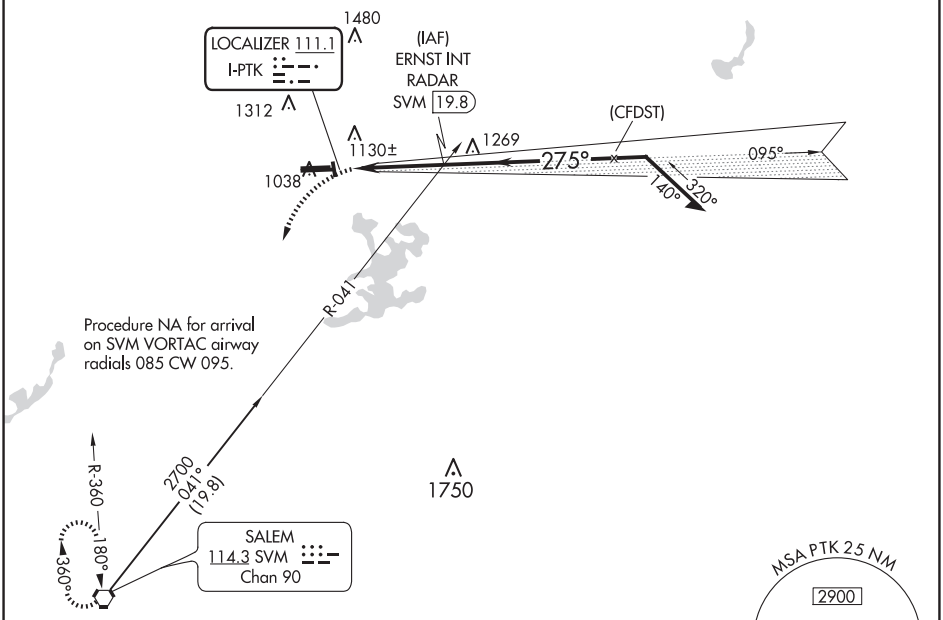
LOC BC RWY 27L

OAKLAND COUNTY INTL (PTK)

Circling Rwy 9L, 36 NA at night. When local altimeter setting not received, use Coleman A Young Muni altimeter setting and increase all MDA 120 feet, increase S-27L Cat C/D visibility ⅜ SM and Circling Cat C/D visibility ½ SM.

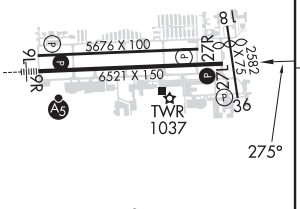
MISSED APPROACH: Climbing left turn to 3000 direct SVM VORTAC and hold.

ATIS	DETROIT APP CON	PONTIAC TOWER ★	GND CON	CLNC DEL	UNICOM
125.025	132.35 284.0	120.5 (CTAF) L	121.9	118.25	122.95



ELEV 981 D TDZE 974

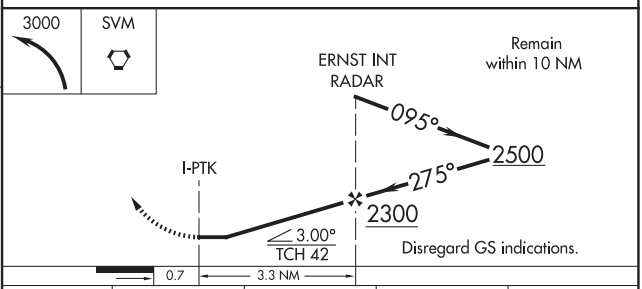
BACK COURSE



HIRL Rwy 9R-27L L
MIRL Rwy 9L-27R
REIL Rwy 27L L
REIL Rwys 9L and 27R

FAF to MAP 3.3 NM

Knots	60	90	120	150	180
Min:Sec	3:18	2:12	1:39	1:19	1:06



CATEGORY	A	B	C	D
S-LOC 27L	1440-1 466 (500-1)		1440-1⅜ 466 (500-1⅜)	
C CIRCLING	1500-1 519 (600-1)	1540-1 559 (600-1)	1640-1¾ 659 (700-1¾)	1640-2 659 (700-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(BARII3.BARII) 24137

BARII THREE DEPARTURE (RNAV)

AL-5052 (FAA)

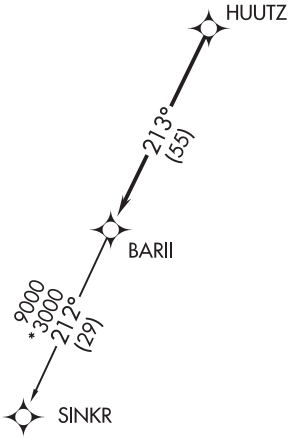
OAKLAND COUNTY INTL (PTK)
PONTIAC, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
132.35 284.0
ATIS
125.025
CLNC DEL
118.25
GND CON
121.9
PONTIAC TOWER★
120.5 (CTAF)

TAKEOFF MINIMUMS:
Rwys 9L/R, 27L/R: Standard.
Rwys 18, 36: NA-Environmental.



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R: Climb on heading 095° or as assigned by ATC, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 275° or as assigned by ATC, thence....

....for RADAR vectors to HUUTZ, then on track 213° to BARII, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SINKR TRANSITION (BARII3.SINKR):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR 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).

TAKEOFF MINIMUMS:
Rwys 9L/R, 27L/R: Standard.
Rwys 18, 36: NA-Environmental.

DETROIT DEP CON 132.35 284.0
ATIS 125.025
CLNC DEL 118.25
GND CON 121.9
PONTIAC TOWER★ 120.5 (CTAF)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R: Climb on heading 095° or as assigned by ATC, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 275° or as assigned by ATC, thence....

....for RADAR vectors to BROZZ, then on track 279° to CCOBB, then on (transition).
Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

ZEGBI TRANSITION (CCOBB3.ZEGBI):

CCOBB THREE DEPARTURE (RNAV)
(CCOBB3.CCOBB) 16MAY24
PONTIAC, MICHIGAN
OAKLAND COUNTY INTL (PTK)

EC-1, 07 AUG 2025 to 02 OCT 2025

(CLVIN3.CLVIN) 24137

CLVIN THREE DEPARTURE (RNAV)

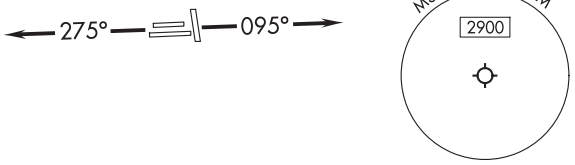
AL-5052 (FAA)

OAKLAND COUNTY INTL (PTK)
PONTIAC, MICHIGAN

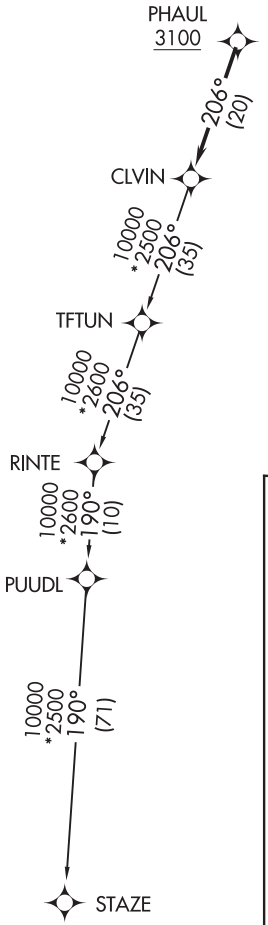
TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
132.35 284.0
ATIS
125.025
CLNC DEL
118.25
GND CON
121.9
PONTIAC TOWER★
120.5 (CTAF)



TAKEOFF MINIMUMS:
Rwys 9L/R, 27L/R: Standard.
Rwys 18, 36: NA-Environmental.



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R: Climb on heading 095° or as assigned by ATC, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 275° or as assigned by ATC, thence....

....for RADAR vectors to cross PHAUL at or above 3100, then on track 206° to CLVIN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

STAZE TRANSITION (CLVIN3.STAZE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

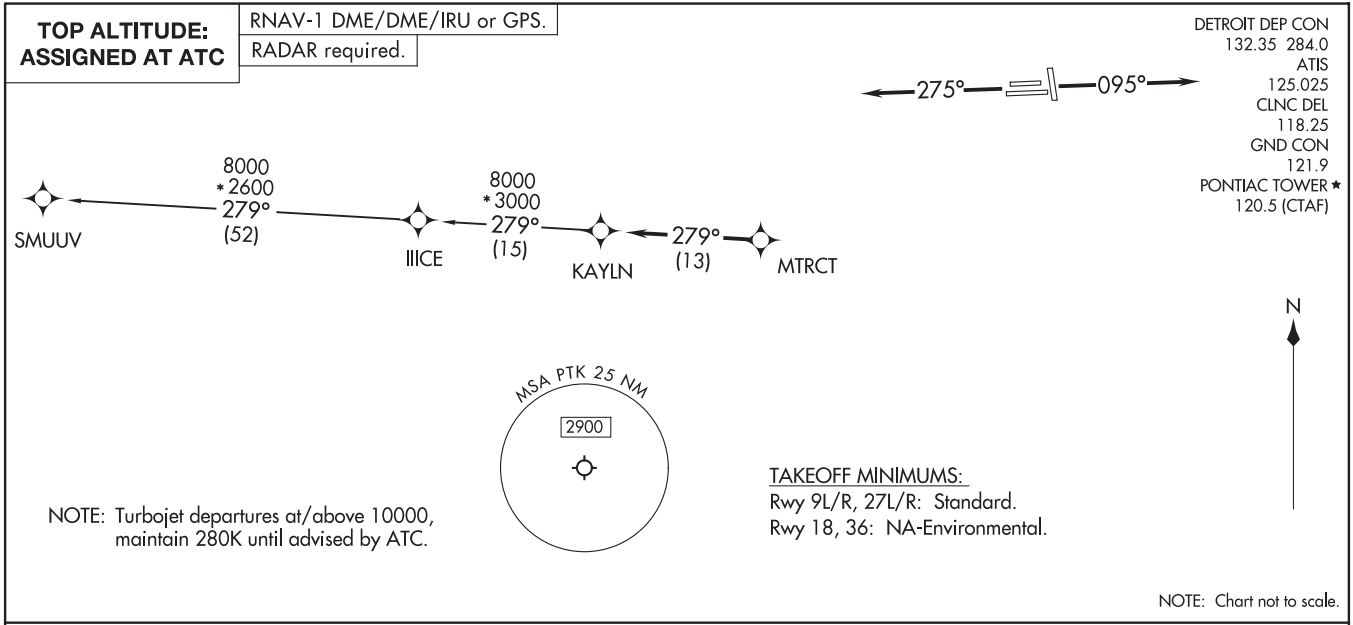
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R: Climb on heading 095° or as assigned by ATC, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 275° or as assigned by ATC, thence....

....for RADAR vectors to cross MALTB at or above 2200, then on track 094° to HHOWE, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BROKK TRANSITION (HHOWE4.BROKK):
LNCON TRANSITION (HHOWE4.LNCON):

EC-1, 07 AUG 2025 to 02 OCT 2025



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R: Climb on heading 095° or as assigned by ATC, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 275° or as assigned by ATC, thence....

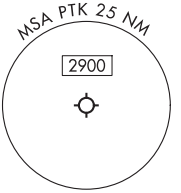
....for RADAR vectors to MTRCT, then on track 279° to KAYLN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SMUUV TRANSITION (KAYLN3.SMUUV):

TOP ALTITUDE: ASSIGNED BY ATC

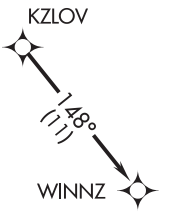
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
132.35 284.0
ATIS
125.025
CLNC DEL
118.25
GND CON
121.9
PONTIAC TOWER ★
120.5 (CTAF)



TAKEOFF MINIMUMS:
Rwy 9L/R, 27L/R: Standard.
Rwy 18, 36: NA - Environmental.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: For use by Cleveland terminal arrivals only.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R: Climb on heading 095° or as assigned by ATC, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 275° or as assigned by ATC, thence....

....for RADAR vectors to KZLOV, then on track 148° to WINNZ. Maintain ATC assigned altitude, expect filed altitude ten minutes after departure.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(LIDDS4.LIDDS) 25107

LIDDS FOUR DEPARTURE (RNAV)

AL-5052 (FAA)

OAKLAND COUNTY INTL (PTK)

PONTIAC, MICHIGAN

LIDDS FOUR DEPARTURE (RNAV)
(LIDDS4.LIDDS) 17APR25
PONTIAC, MICHIGAN
OAKLAND COUNTY INTL (PTK)
EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R and 27L/R: Climb on assigned heading. 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 (METRO4.DUNKS): From over DXO VOR/DME on DXO R-296 to DUNKS.
HARWL TRANSITION (METRO4.HARWL): From over DXO VOR/DME on DXO R-281 to HARWL.
ILLIE TRANSITION (METRO4.ILLIE): From over DXO VOR/DME on DXO R-217 to ILLIE.
MAARS TRANSITION (METRO4.MAARS): From over DXO VOR/DME on DXO R-106 to MAARS.
PISTN TRANSITION (METRO4.PISTN): From over DXO VOR/DME on DXO R-020 to PISTN.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R: Climb on heading 095° or as assigned by ATC, thence....

TAKEOFF RUNWAYS 27L/R: Climb on heading 275° or as assigned by ATC, thence....

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

GETCH TRANSITION (MIGGY3.GETCH):
HUBBY TRANSITION (MIGGY3.HUBBY):
SLLAP TRANSITION (MIGGY3.SLLAP):

MIGGY THREE DEPARTURE (RNAV)
(MIGGY3.MIGGY) 16MAY24
PONTIAC, MICHIGAN
OAKLAND COUNTY INTL (PTK)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R: Climb on heading 095° or as assigned by ATC, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 275° or as assigned by ATC, thence....

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

ESSBE TRANSITION (PAVYL3.ESSBE):
MRDOC TRANSITION (PAVYL3.MRDOC):

DEPARTURE ROUTE DESCRIPTION

TOP ALTITUDE: ASSIGNED BY ATC

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

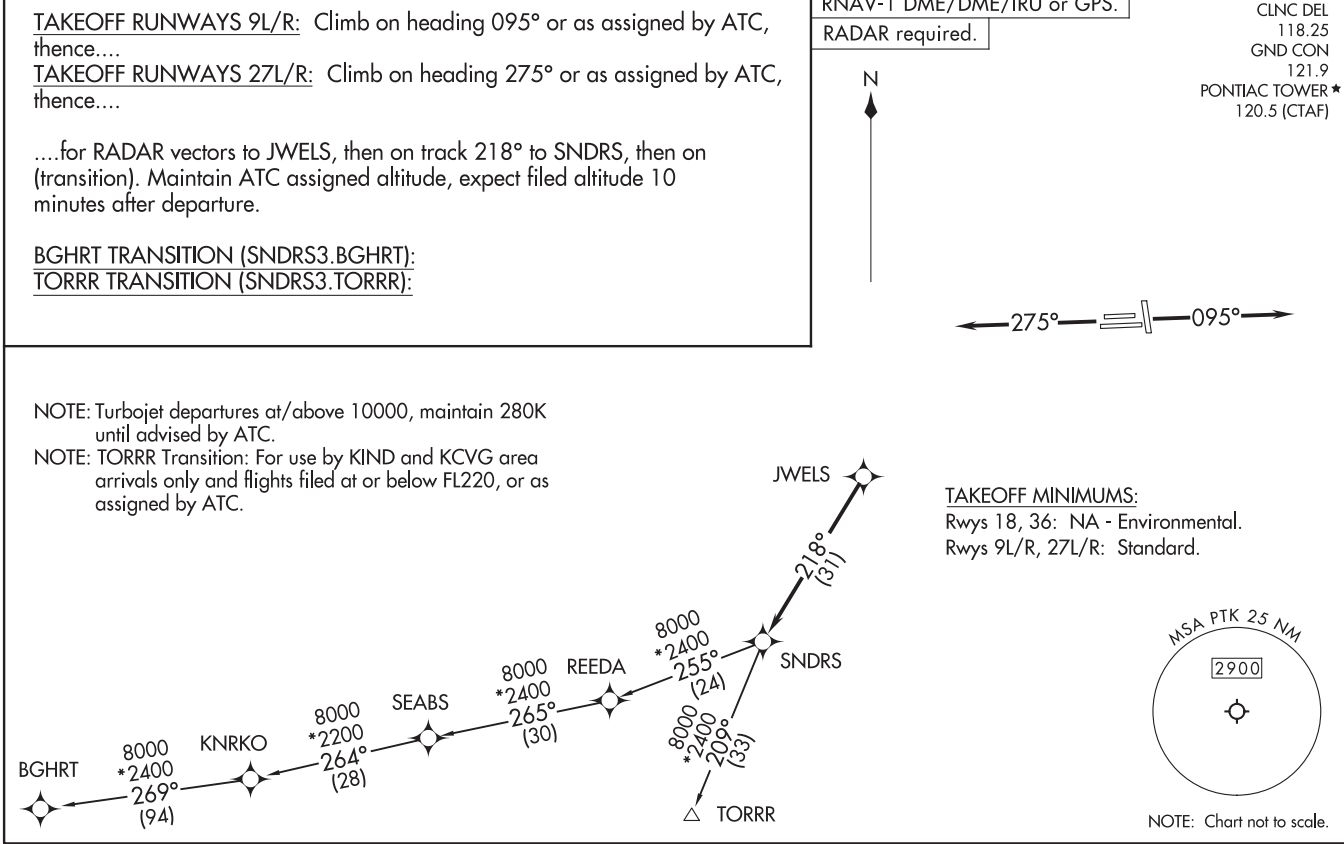
DETROIT DEP CON 132.35 284.0
ATIS 125.025
CLNC DEL 118.25
GND CON 121.9
PONTIAC TOWER ★ 120.5 (CTAF)

TAKEOFF RUNWAYS 9L/R: Climb on heading 095° or as assigned by ATC, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 275° or as assigned by ATC, thence....

....for RADAR vectors to JWELS, then on track 218° to SNDRS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BGHRT TRANSITION (SNDRS3.BGHRT):
TORRR TRANSITION (SNDRS3.TORRR):

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.



TAKEOFF MINIMUMS:
Rwys 18, 36: NA - Environmental.
Rwys 9L/R, 27L/R: Standard.

(TRMML4.TRMML) 24137

TRMML FOUR DEPARTURE (RNAV)

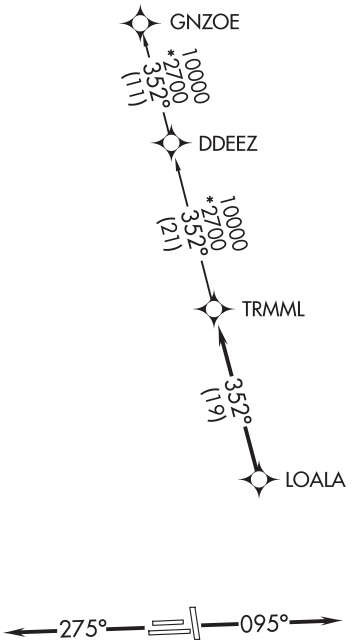
AL-5052 (FAA)

OAKLAND COUNTY INTL (PTK)
PONTIAC, MICHIGAN

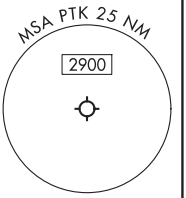
TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
132.35 284.0
ATIS
125.025
CLNC DEL
118.25
GND CON
121.9
PONTIAC TOWER ★
120.5 (CTAF)



TAKEOFF MINIMUMS:
Rwys 18, 36: NA - Environmental.
Rwys 9L/R, 27L/R: Standard.



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R: Climb on heading 095° or as assigned by ATC, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 275° or as assigned by ATC, thence....

....for RADAR vectors to LOALA, then on track 352° to TRMML, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

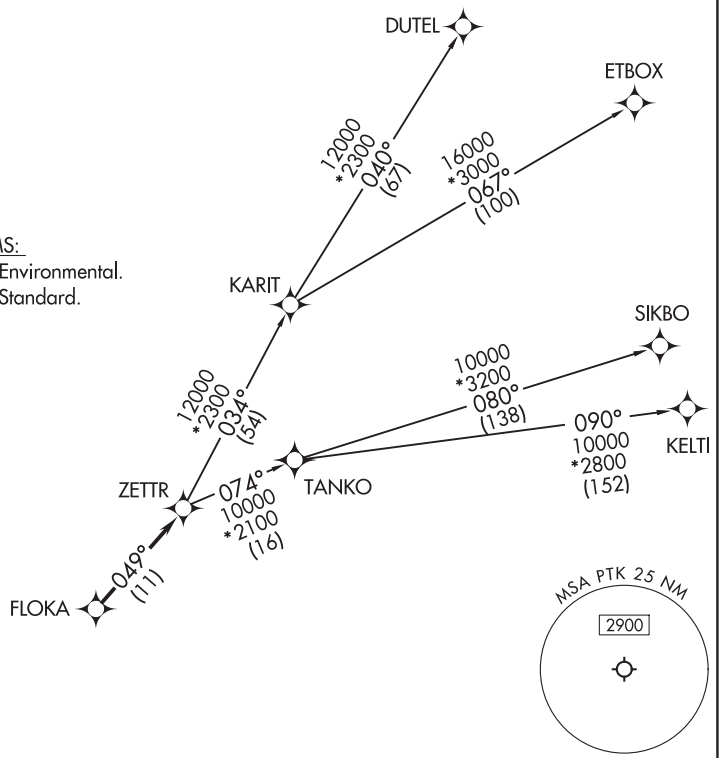
GNZOE TRANSITION (TRMML4.GNZOE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT DEP CON
132.35 284.0
ATIS
125.025
CLNC DEL
118.25
GND CON
121.9
PONTIAC TOWER ★
120.5 (CTAF)

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC



TAKEOFF MINIMUMS:
Rwys 18, 36: NA - Environmental.
Rwys 9L/R, 27L/R: Standard.

275° 095°

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: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 9L/R: Climb on heading 095° or as assigned by ATC, thence....
TAKEOFF RUNWAYS 27L/R: Climb on heading 275° or as assigned by ATC, thence....

....for RADAR vectors to FLOKA, then on track 049° to ZETTR, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

DUTEL TRANSITION (ZETTR4.DUTEL):
ETBOX TRANSITION (ZETTR4.ETBOX):
KELTI TRANSITION (ZETTR4.KELTI):
SIKBO TRANSITION (ZETTR4.SIKBO):
TANKO TRANSITION (ZETTR4.TANKO):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

PORT HURON, MICHIGAN | AL-5445 (FAA) | 23110

ILS or LOC RWY 4

ST CLAIR COUNTY INTL (PHN)

LOC I-PHN	APP CRS	Rwy Idg	5104
110.9	043°	TDZE	647
		Apt Elev	650

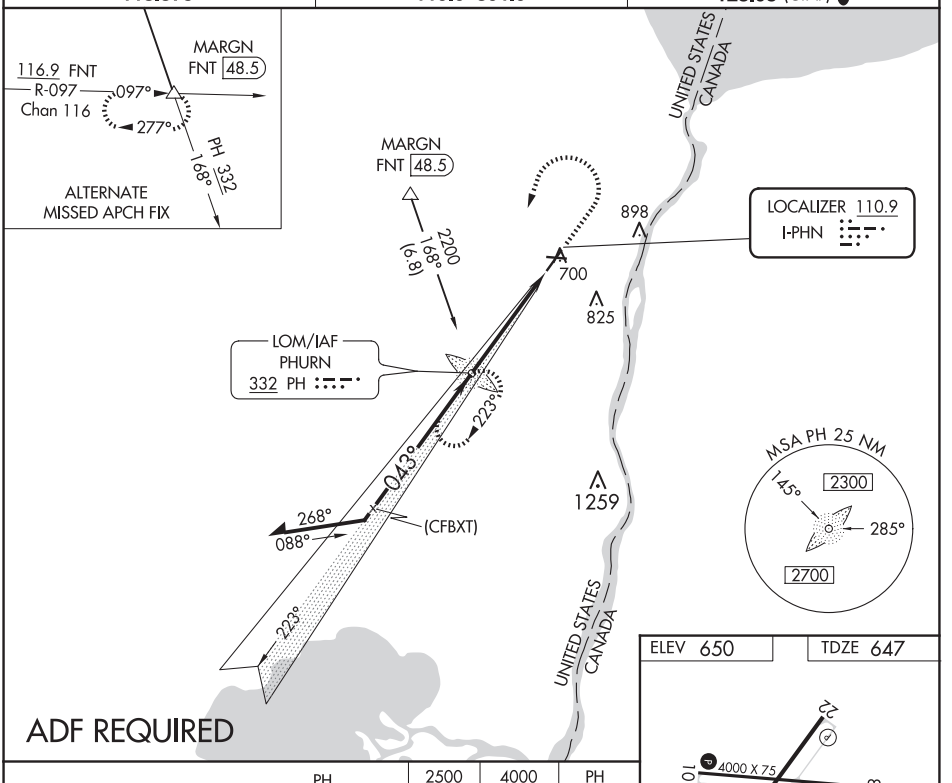
ADF required. When local altimeter setting not received, use Troy altimeter setting and increase all DA 95 feet and all MDA 100 feet; increase S-LOC 4 Cats C and D and Circling Cats C and D visibility ¼ mile. For inop MALSR when using Troy altimeter setting, increase S-ILS 4 all Cats visibility to ⅞ mile. Night landing: Rwy 10, 22, 28 NA.

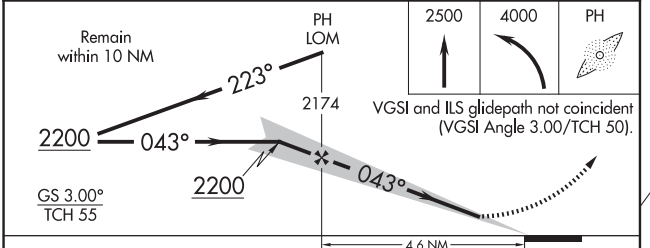
NA

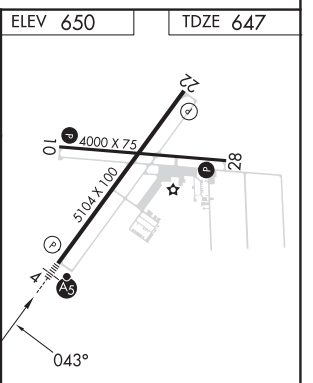
MALSR

MISSED APPROACH: Climb to 2500 then climbing left turn to 4000 direct PHURN LOM and hold, continue climb-in-hold to 4000.

AWOS-3	SELFRIDGE APP CON ★	UNICOM
118.375	119.6 391.9	123.05 (CTAF) L







HIRL Rwy 4-22 L
MIRL Rwy 10-28 L
REIL Rwys 10, 22, and 28 L

CATEGORY	A	B	C	D
S-ILS 4	847-½ 200 (200-½)			
S-LOC 4	1100-½ 453 (500-½)		1100-⅞ 453 (500-⅞)	
C CIRCLING	1160-1 510 (600-1)		1260-1¾ 610 (700-1¾)	1260-2 610 (700-2)

FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 4

ST CLAIR COUNTY INTL (PHN)

WAAS CH 53523 W04A	APP CRS 043°	Rwy Idg 5104 TDZE 647 Apt Elev 650

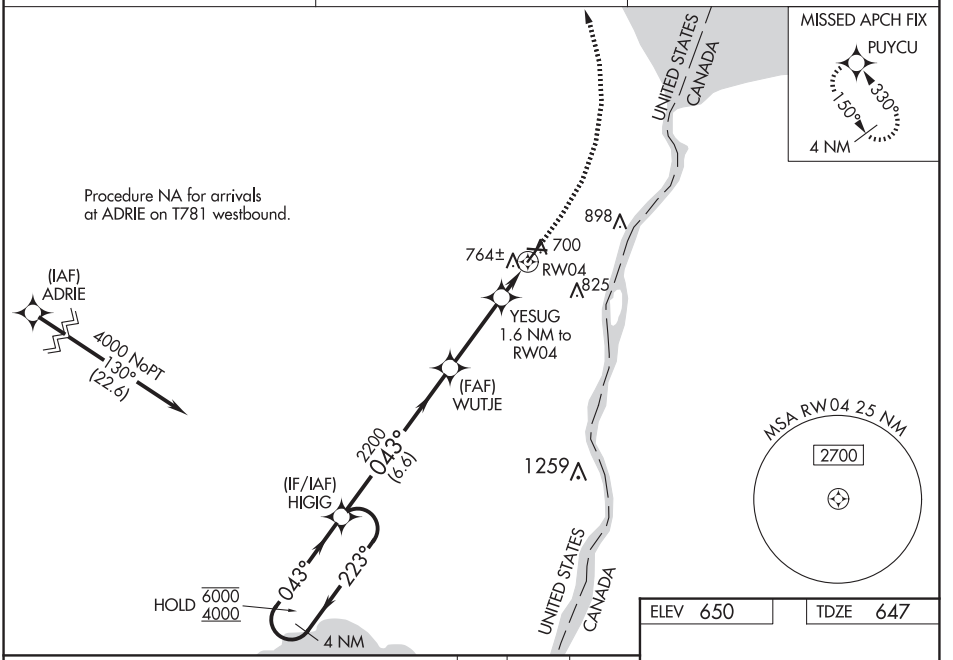
RNP APCH - GPS.

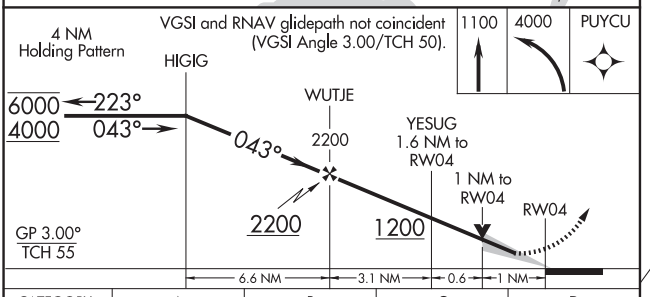
Circling Rwy 10, 22, 28 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats visibility to ⅞ SM and LNAV Cat C/D visibility to 1 SM.

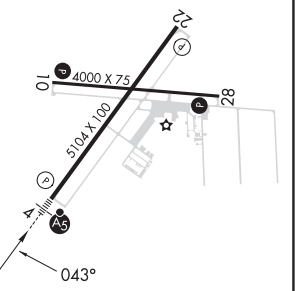
MALSR

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

AWOS-3	SELFRIDGE APP CON ★	UNICOM
118.375	119.6 391.9	123.05 (CTAF) L







CATEGORY	A	B	C	D
LPV DA		847-½	200 (200-½)	
LNAV/VNAV DA		930-½	283 (300-½)	
LNAV MDA	1020-½	373 (400-½)	1020-⅝	373 (400-⅝)
C CIRCLING	1160-1	510 (600-1)	1260-1¾ 610 (700-1¾)	1260-2 610 (700-2)

HIRL Rwy 4-22 L
MIRL Rwy 10-28 L
REIL Rwys 10, 22, and 28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

PORT HURON, MICHIGAN | AL-5445 (FAA) | 23110

RNAV (GPS) RWY 22

ST CLAIR COUNTY INTL (PHN)

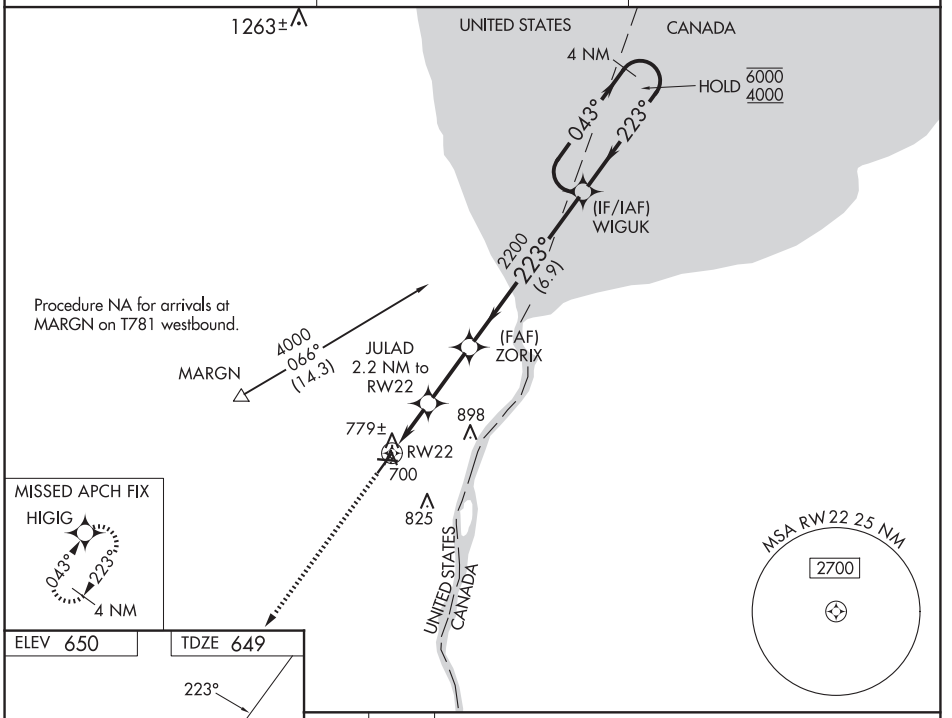
WAAS CH 97723 W22A	APP CRS 223°	Rwy Idg 5104 TDZE 649 Apt Elev 650

RNP APCH.

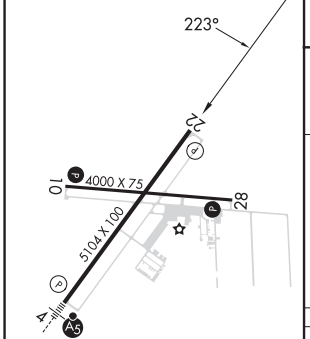
Rwy 22 helicopter visibility reduction below 1 SM NA. Straight-in Rwy 22 NA at night, Circling Rwy 10, 22, 28 NA at night.

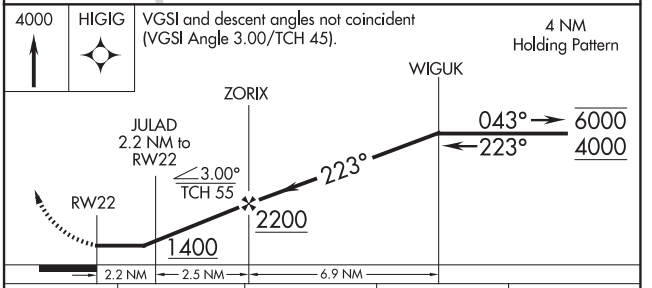
MISSED APPROACH: Climb to 4000 direct HIGIG and hold, continue climb-in-hold to 4000.

AWOS-3	SELFRIDGE APP CON ★	UNICOM
118.375	119.6 391.9	123.05 (CTAF) L



ELEV 650	TDZE 649





CATEGORY	A	B	C	D
LP MDA	1020-1 371 (400-1)			
LNAV MDA	1040-1 391 (400-1)		1040-1⅛ 391 (400-1⅛)	
C CIRCLING	1160-1 510 (600-1)		1260-1¾ 610 (700-1¾)	1260-2 610 (700-2)

HIRL Rwy 4-22 L
MIRL Rwy 10-28 L
REIL Rwys 10, 22, and 28 L

PORT HURON, MICHIGAN
Amdt 1A 31DEC20

42°55'N-82°32'W

ST CLAIR COUNTY INTL (PHN)
RNAV (GPS) RWY 22

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

LOM PH	APP CRS	Rwy Idg	5104
332	043°	TDZE	647
		Apt Elev	650

NDB RWY 4

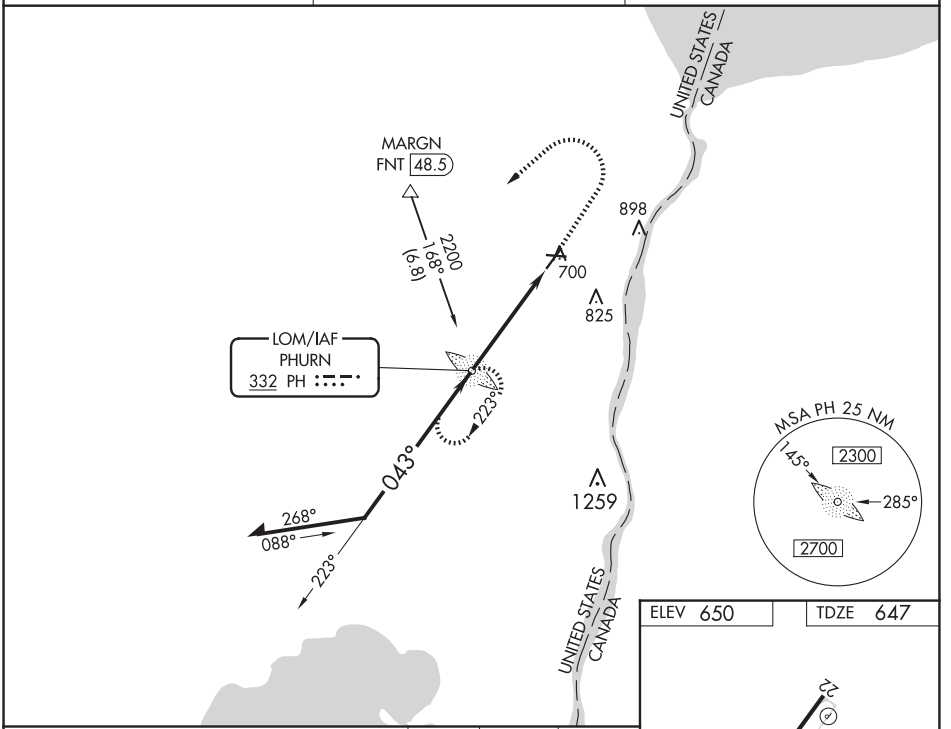
ST CLAIR COUNTY INTL (PHN)

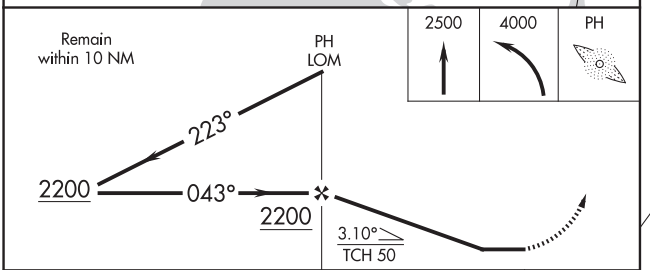
When local altimeter setting not received, use Troy altimeter setting and increase all MDA 100 feet, increase S-4 and Circling Cats C and D visibility ¼. For inoperative MALSR, increase S-4 Cats C and D visibility to 1⅜ mile. For inoperative MALSR when using Troy altimeter setting, increase S-4 Cat D visibility to 1¾ mile. Night landing: Rwy 10, 22, 28 NA.

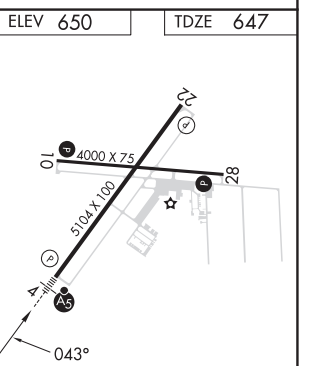
MALSR

MISSED APPROACH: Climb to 2500 then climbing left turn to 4000 direct PHURN LOM and hold.

AWOS-3	SELFRIDGE APP CON ★	UNICOM
118.375	119.6 391.9	123.05 (CTAF) L







HIRL Rwy 4-22 L
MIRL Rwy 10-28 L
REIL Rwys 10, 22, and 28 L

CATEGORY	A	B	C	D
S-4	1160-¾ 513 (600-¾)		1160-1 513 (600-1)	
C CIRCLING	1160-1 510 (600-1)		1260-1¾ 610 (700-1¾)	1260-2 610 (700-2)

FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RAY, MICHIGAN | AL-11012 (FAA) | 25219

RNAV (GPS)-A

RAY COMMUNITY (57D)

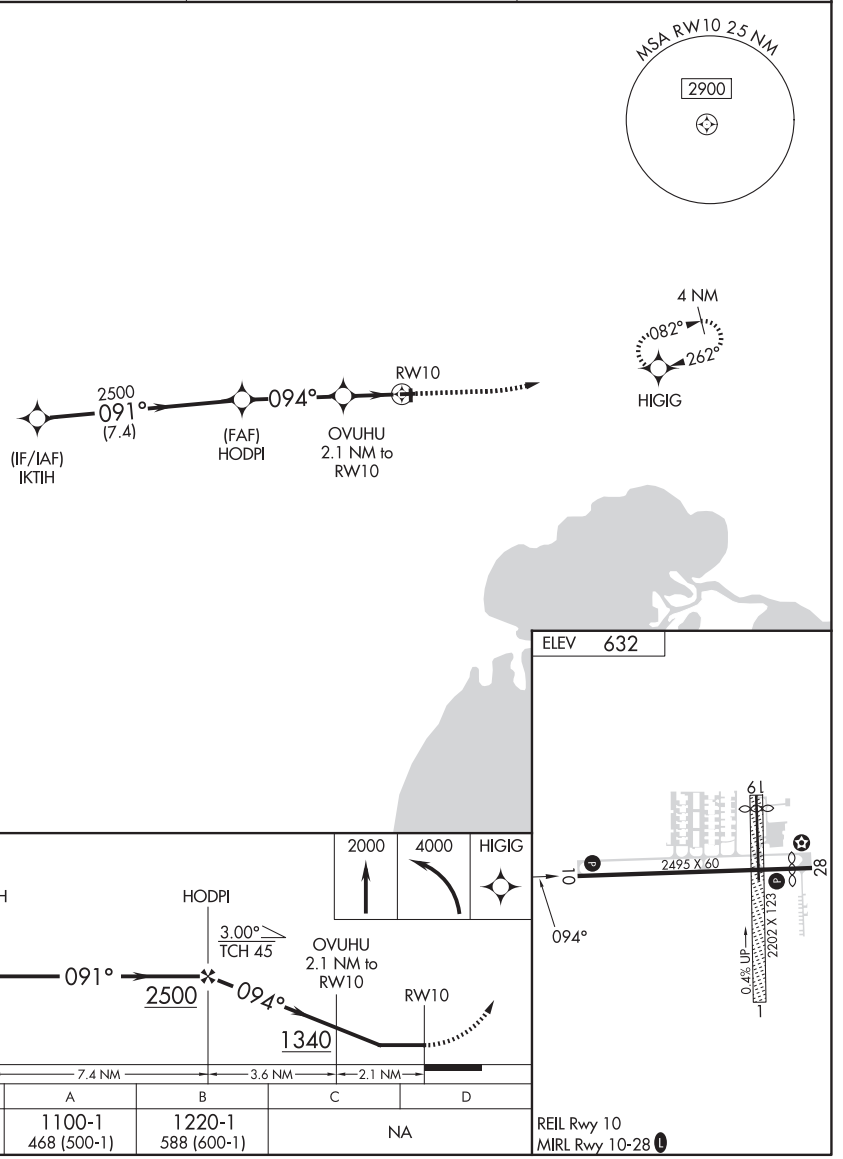
APP CRS	Rwy Ldg	N/A
094°	TDZE	N/A
	Apt Elev	632

RNP APCH.

T A NA — Procedure NA at night. Rwy 10 helicopter visibility reduction below 1 SM NA. Use Troy altimeter setting. When not received use Pontiac altimeter setting and increase all MDAs 60 feet.

MISSED APPROACH: Climb to 2000 then climbing left turn to 4000 direct HIGIG and hold, continue climb-in-hold to 4000.

VLL AWOS-3	SELFRIDGE APP CON *	UNICOM
119.475	119.6 391.9	122.7 (CTAF) L



REIL Rwy 10
MIRL Rwy 10-28 L

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RAY, MICHIGAN
Orig-B 20JUN19

42°44'N-82°53'W

RAY COMMUNITY (57D)
RNAV (GPS)-A

RNAV (GPS) RWY 9

PRESQUE ISLE COUNTY (PZQ)

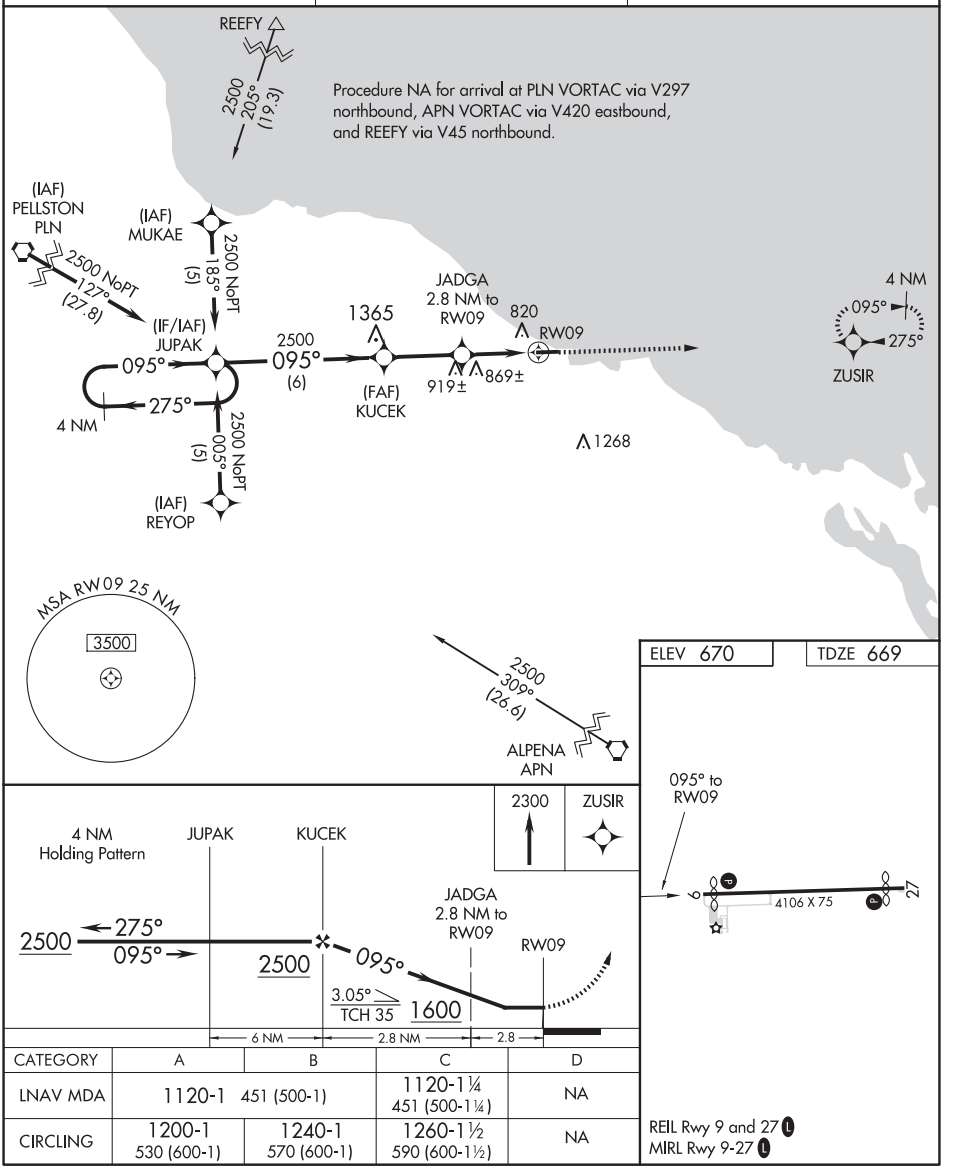
APP CRS	Rwy Idg	3886
095°	TDZE	669
	Apt Elev	670

RNP APCH.

T A NA — If local altimeter setting not received, use Alpena County Rgnl altimeter setting and increase all MDAs 60 feet. Straight-in/Circling Rwy 9 NA at night. Rwy 9 helicopter visibility reduction below 1 SM NA.

MISSED APPROACH: Climb to 2300 direct ZUSIR and hold.

AWOS-3	ALPENA APP CON ★	CTAF
118.125	128.425 379.3	122.9 L



CATEGORY	A	B	C	D
LNAV MDA	1120-1 451 (500-1)		1120-1¼ 451 (500-1¼)	NA
CIRCLING	1200-1 530 (600-1)	1240-1 570 (600-1)	1260-1½ 590 (600-1½)	NA

REIL Rwy 9 and 27 L
MIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ROGERS CITY, MICHIGAN | AL-6561 (FAA) | 22223

RNAV (GPS) RWY 27

PRESQUE ISLE COUNTY (PZQ)

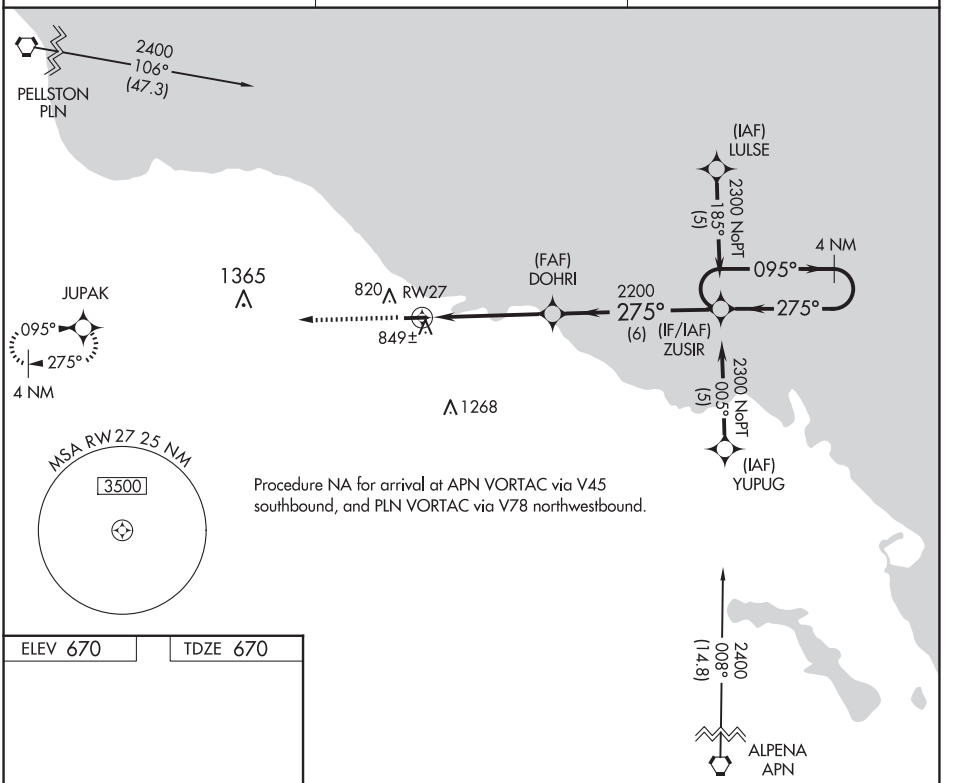
APP CRS		
275°	Rwy Idg	3727
	TDZE	670
	Apt Elev	670

DME/DME RNP-0.3 NA. Circling NA at night to Rwy 9.
If local altimeter setting not received, use Alpena County Rgnl altimeter setting and increase all MDAs 60 feet.
VDP NA with Alpena County Rgnl altimeter setting.

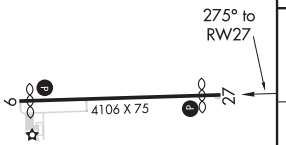
NA

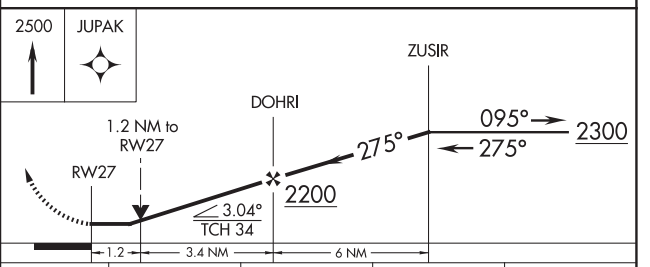
MISSED APPROACH: Climb to 2500 direct JUPAK and hold.

AWOS-3	ALPENA APP CON ★	CTAF
118.125	128.425 379.3	122.9 L



ELEV 670 | TDZE 670





CATEGORY	A	B	C	D
LNAV MDA	1100-1 430 (500-1)		1100-1¼ 430 (500-1¼)	NA
CIRCLING	1200-1 530 (600-1)	1240-1 570 (600-1)	1260-1½ 590 (600-1½)	NA

REIL Rwy 9 and 27 L
MIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 18

ROMEO STATE (D98)

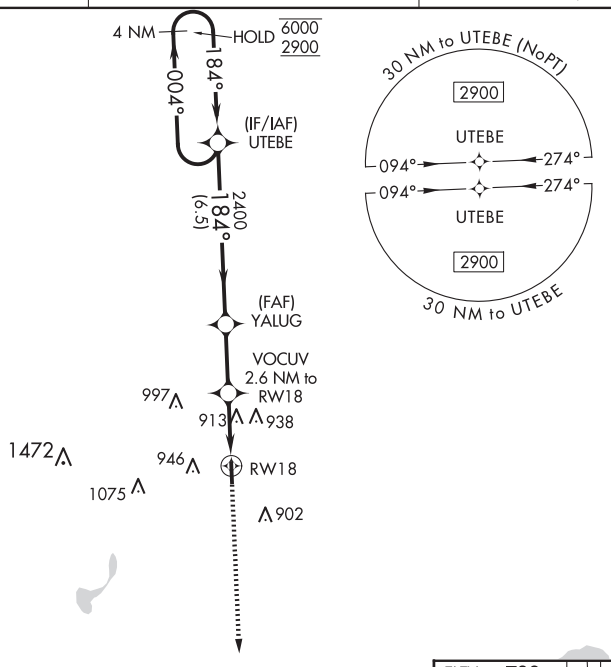
APP CRS	Rwy ldg	3534
184°	TDZE	739
	Apt Elev	739

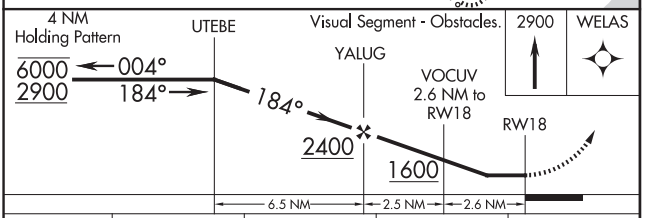
RNP APCH - GPS.

T NA Rwy 18 helicopter visibility reduction below 1 SM NA. Use Coleman A Young Muni altimeter setting. Straight-in and Circling Rwy 18 NA at night.

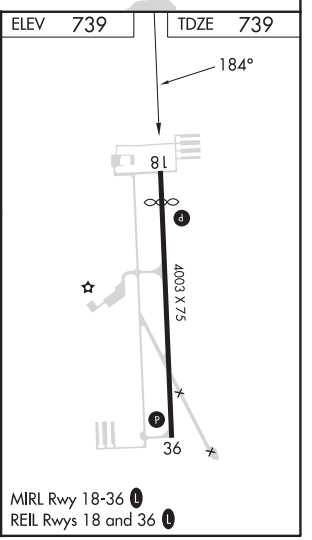
MISSED APPROACH: Climb to 2900 direct WELAS and hold.

DET ASOS	SELFRIDGE APP CON★	UNICOM
124.875	119.6 391.9	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	1240-1	501 (600-1)	1240-1⅜	501 (600-1⅜)
CIRCLING	1300-1 561 (600-1)	1420-1 681 (700-1)	1420-2 681 (700-2)	1480-2½ 741 (800-2½)



MIRL Rwy 18-36 L
REIL Rwys 18 and 36 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ROMEO, MICHIGAN AL-6112 (FAA) 23054

RNAV (GPS) RWY 36

ROMEO STATE (D98)

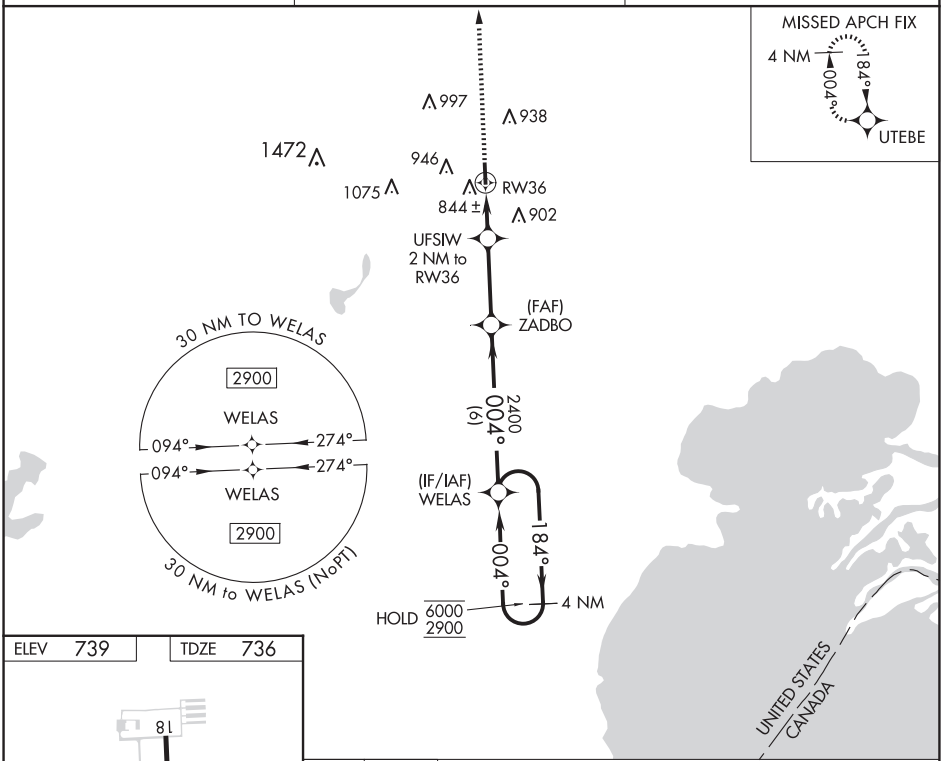
APP CRS	Rwy Idg	4003
004°	TDZE	736
	Apt Elev	739

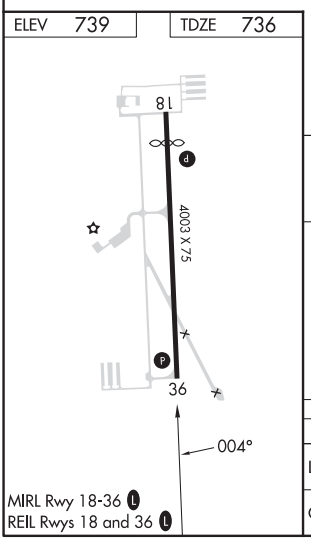
RNP APCH- GPS.

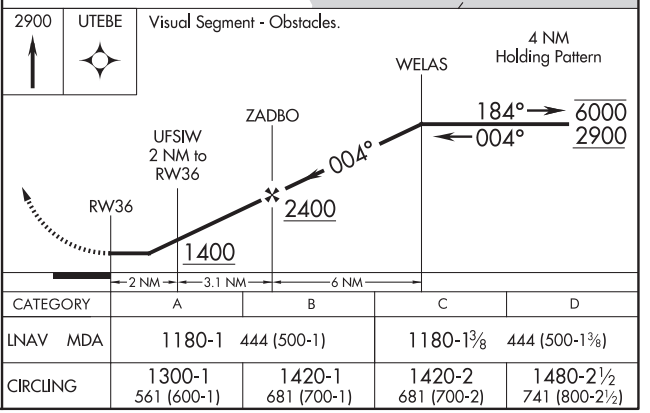
T NA Circling Rwy 18 NA at night. Rwy 36 helicopter visibility reduction below 1 SM NA. Use Coleman A Young Muni altimeter setting.

MISSED APPROACH: Climb to 2900 direct UTEBE and hold.

DET ASOS	SELFRIDGE APP CON★	UNICOM
124.875	119.6 391.9	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1180-1 444 (500-1)		1180-1⅜	444 (500-1⅜)
CIRCLING	1300-1 561 (600-1)	1420-1 681 (700-1)	1420-2 681 (700-2)	1480-2½ 741 (800-2½)

ROMEO, MICHIGAN
Amdt 1E 08SEP22

42°48'N-82°58'W

ROMEO STATE (D98)

RNAV (GPS) RWY 36

EC-1, 07 AUG 2025 to 02 OCT 2025

ILS or LOC RWY 5

MBS INTL (MBS)

LOC I-MBS	APP CRS	Rwy Ldg	8002
108.7	053°	TDZE	666
		Apt Elev	668

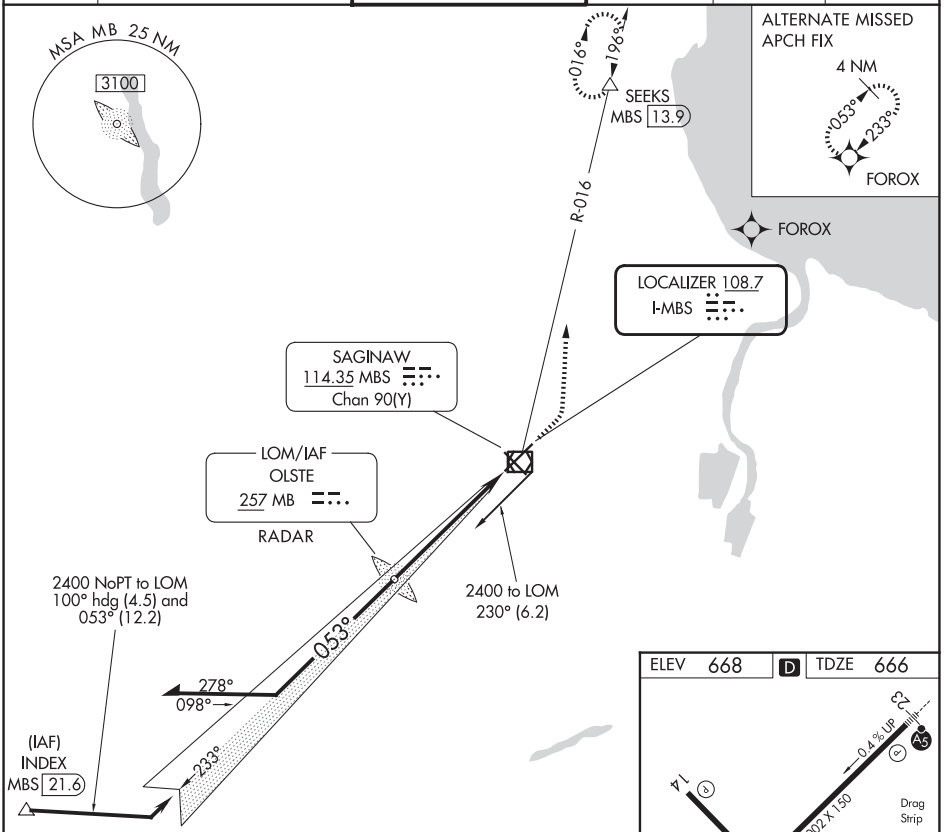
DME required.

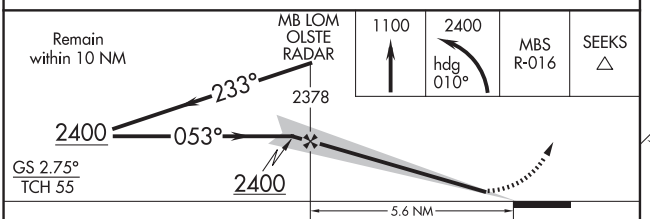
* RVR 1800 authorized with use of FD or AP or HUD to DA.

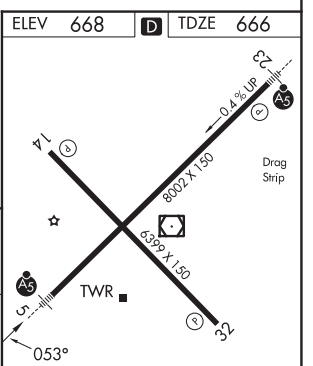
MALSR

MISSED APPROACH: Climb to 1100 then climbing left turn to 2400 on heading 010° and MBS VOR/DME R-016 to SEEKS/MBS 13.9 DME and hold.

ATIS	GREAT LAKES APP CON *	SAGINAW TOWER *	GND CON	CLNC DEL	UNICOM
125.925	126.45 235.625	120.1 (CTAF) L 257.7	121.7	121.85	122.95







CATEGORY	A	B	C	D
S-ILS 5 *		866/24	200 (200-½)	
S-LOC 5	1100/24	434 (500-½)	1100/40	434 (500-¾)
CIRCLING	1100-1 432 (500-1)	1120-1 452 (500-1)	1240-1½ 572 (600-1½)	1240-2 572 (600-2)

REIL Rwys 14 and 32 L

HIRL Rwys 5-23 and 14-32 L

FAF to MAP 5.6 NM

Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SAGINAW, MICHIGAN

AL-648 (FAA)

25219

ILS or LOC RWY 23

MBS INTL (MBS)

LOC/DME I-TQR	APP CRS	Rwy Ldg	8002
108.7	233°	TDZE	661
Chan 24		Apt Elev	668

DME or RADAR required. RADAR required for procedure entry.

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

MALSR

MISSED APPROACH: Climb to 2500 on MBS VOR/DME R-230 to KWORD/MBS 6.1 DME/RADAR and hold.

ATIS	GREAT LAKES APP CON *	SAGINAW TOWER *	GND CON	CLNC DEL	UNICOM
125.925	126.45 235.625	120.1 (CTAF) L 257.7	121.7	121.85	122.95

ALT MISSED APCH FIX

WERDO

052° 232° 4 NM

(IAF) HINON I-TQR 12.2 RADAR

053°

3000 233° (3)

2200 233° (3)

(IF) TOLPE I-TQR 9.2 RADAR

WASEE I-TQR 6.2 RADAR

LOCALIZER 108.7 I-TQR Chan 24

SAGINAW 114.35 MBS Chan 90(Y)

230° 050° R-230

KWORD MBS 6.1 RADAR

MSA MBS 25 NM 3100

ELEV 668 D TDZE 661

233° 32 14 0.4% UP 8002 X 150 6399 X 150 Drag Strip TWR 5 32

REIL Rwys 14 and 32 L

HIRL Rwys 5-23 and 14-32 L

FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

2500 MBS R-230 KWORD MBS 6.1 RADAR

WASEE I-TQR 6.2 RADAR

TOLPE I-TQR 9.2 RADAR

I-TQR 1.5 I-TQR 2.6 2170 233° 3000 2200 GS 3.00° TCH 55

1.1 NM 3.6 NM 3 NM

CATEGORY	A	B	C	D
S-ILS 23 *	861/24 200 (200-½)			
S-LOC 23	1060/24 399 (400-½)		1060/35 399 (400-⅝)	
CIRCLING	1080-1 412 (500-1)	1120-1 452 (500-1)	1240-1½ 572 (600-1½)	1240-2 572 (600-2)

SAGINAW, MICHIGAN

Amdt 5A 25JAN24

43°32'N-84°05'W

MBS INTL (MBS)

ILS or LOC RWY 23

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 5

MBS INTL (MBS)

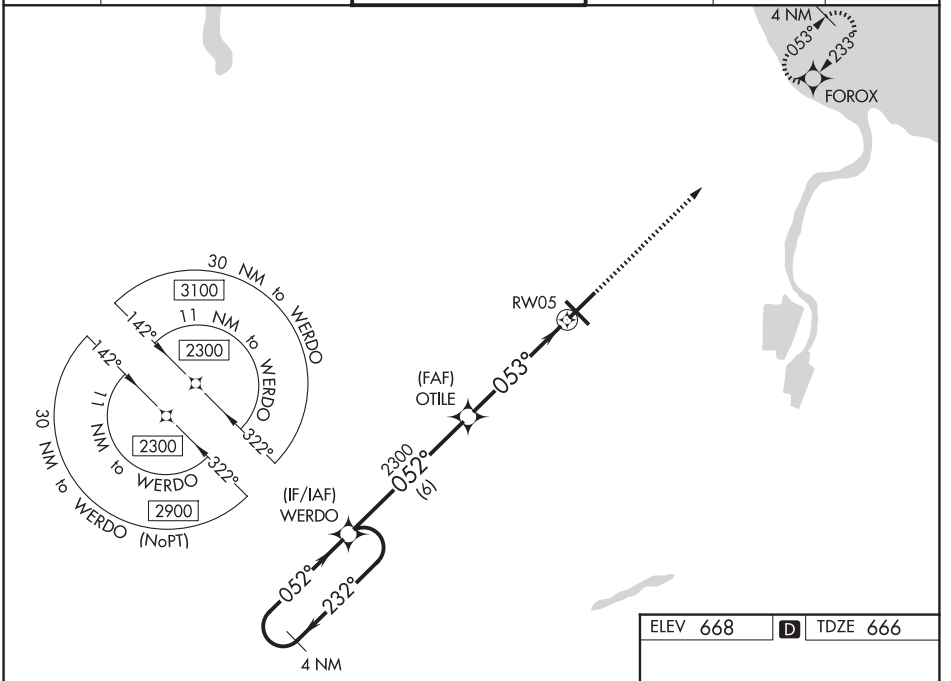
WAAS CH 82010 W05A	APP CRS 053°	Rwy Ldg 8002	TDZE 666	Apt Elev 668

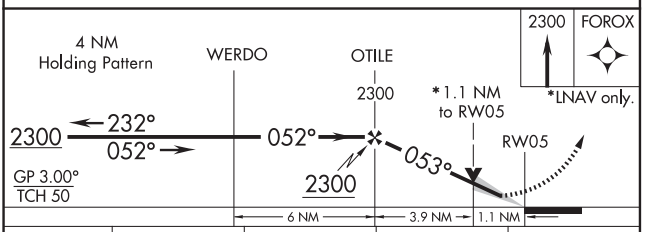
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inoperative ALS, increase LNAV/VNAV all Cats visibility to RVR 4500 and LNAV Cats C/D visibility to RVR 6000. ** RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSR

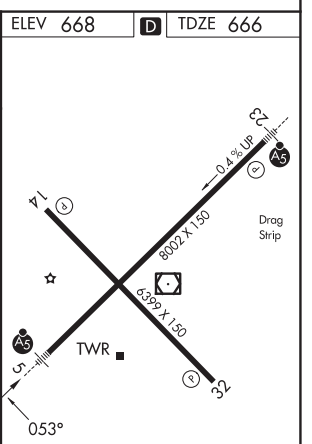
MISSED APPROACH: Climb to 2300 direct FOROX and hold.

ATIS	GREAT LAKES APP CON★	SAGINAW TOWER ★	GND CON	CLNC DEL	UNICOM
125.925	126.45 235.625	120.1 (CTAF) L 257.7	121.7	121.85	122.95





CATEGORY	A	B	C	D
LPV DA**	866/24 200 (200-½)			
LNAV/VNAV DA	955/24 289 (300-½)			
LNAV MDA	1080/24 414 (500-½)		1080/40 414 (500-¾)	
CIRCLING	1080-1 412 (500-1)	1120-1 452 (500-1)	1240-1½ 572 (600-1½)	1240-2 572 (600-2)



REIL Rwys 14 and 32 L
HIRL Rwys 5-23 and 14-32 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SAGINAW, MICHIGAN

AL-648 (FAA)

25219

RNAV (GPS) RWY 14

MBS INTL (MBS)

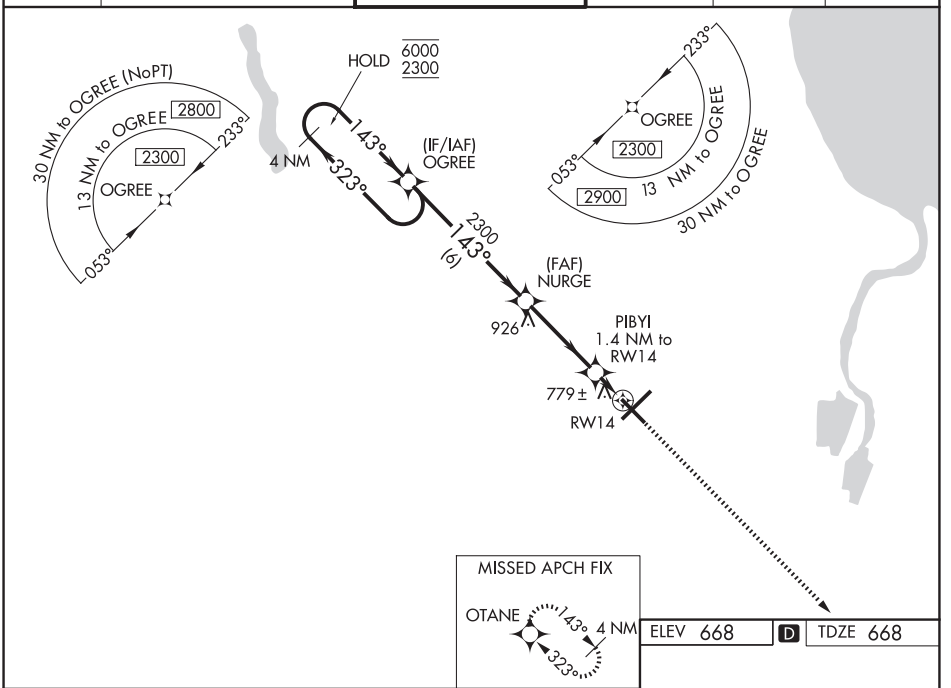
WAAS CH 69211 W14A	APP CRS 143°	Rwy Ldg 6399 TDZE 668 Apt Elev 668

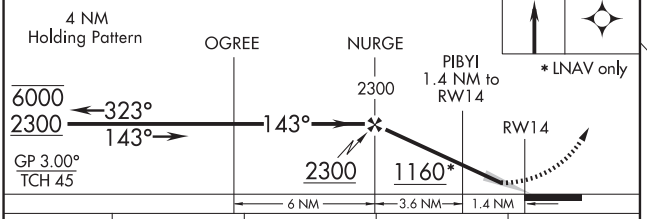
RNP APCH.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C or above 54°C .

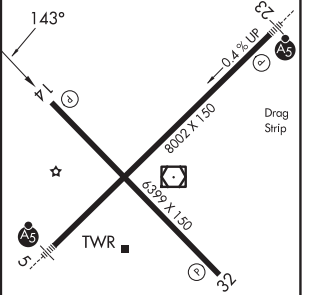
MISSED APPROACH: Climb to 2700 direct OTANE and hold.

ATIS	GREAT LAKES APP CON ★	SAGINAW TOWER ★	GND CON	CLNC DEL	UNICOM
125.925	126.45 235.625	120.1 (CTAF) L 257.7	121.7	121.85	122.95





CATEGORY	A	B	C	D
LPV DA	868-¾ 200 (200-¾)			
LNAV/VNAV DA	960-⅞ 292 (300-⅞)			
LNAV MDA	1040-1 372 (400-1)			
CIRCLING	1080-1 412 (500-1)	1120-1 452 (500-1)	1240-1½ 572 (600-1½)	1240-2 572 (600-2)



REIL Rwys 14 and 32 L
HIRL Rwys 5-23 and 14-32 L

SAGINAW, MICHIGAN
Amdt 2A 24MAY18

43°32'N-84°05'W

MBS INTL (MBS)

RNAV (GPS) RWY 14

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 23

MBS INTL (MBS)

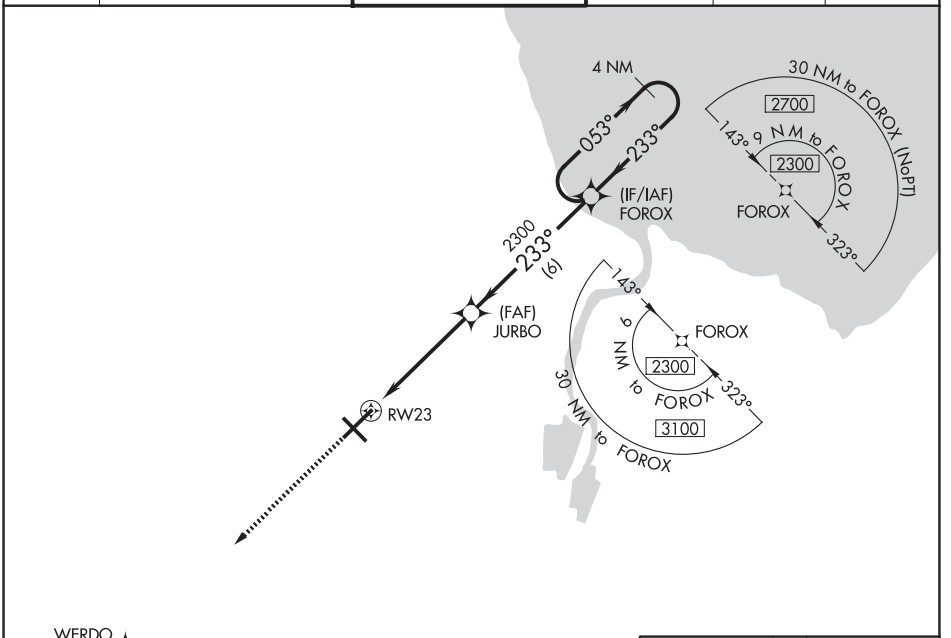
WAAS	APP CRS	Rwy Ldg	8002
CH 49010	233°	TDZE	661
W23A		Apt Elev	668

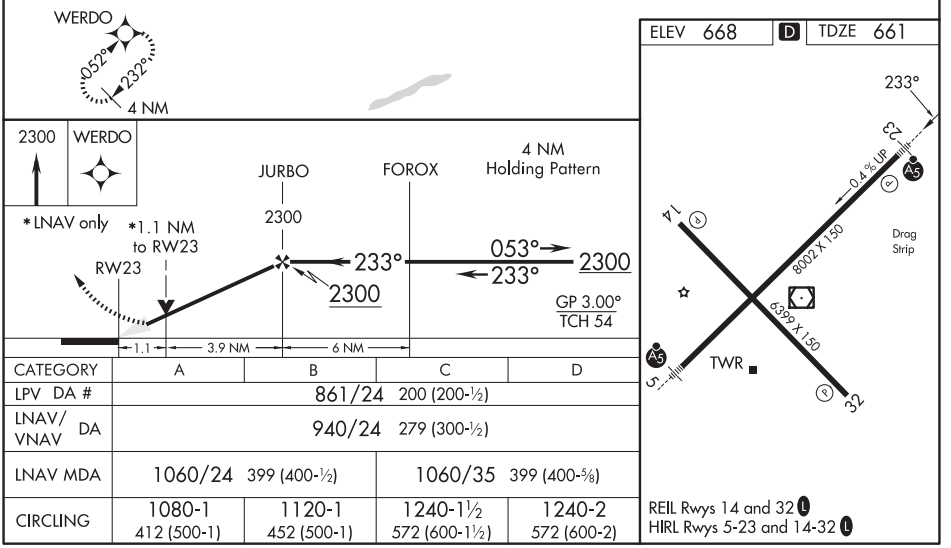
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. For inoperative ALS, increase LNAV/VNAV all Cats visibility to RVR 4500. # RVR 1800 authorized with use of FD or AP or HUD to DA.

MALSR

MISSED APPROACH: Climb to 2300 direct WERDO and hold.

ATIS	GREAT LAKES APP CON ★	SAGINAW TOWER ★	GND CON	CLNC DEL	UNICOM
125.925	126.45 235.625	120.1 (CTAF) L 257.7	121.7	121.85	122.95





CATEGORY	A	B	C	D
LPV DA #	861/24 200 (200-½)			
LNAV/VNAV DA	940/24 279 (300-½)			
LNAV MDA	1060/24 399 (400-½)		1060/35 399 (400-⅝)	
CIRCLING	1080-1 412 (500-1)	1120-1 452 (500-1)	1240-1½ 572 (600-1½)	1240-2 572 (600-2)

REIL Rwys 14 and 32 L
HIRL Rwys 5-23 and 14-32 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SAGINAW, MICHIGAN | AL-648 (FAA) | 25219

RNAV (GPS) RWY 32

MBS INTL (MBS)

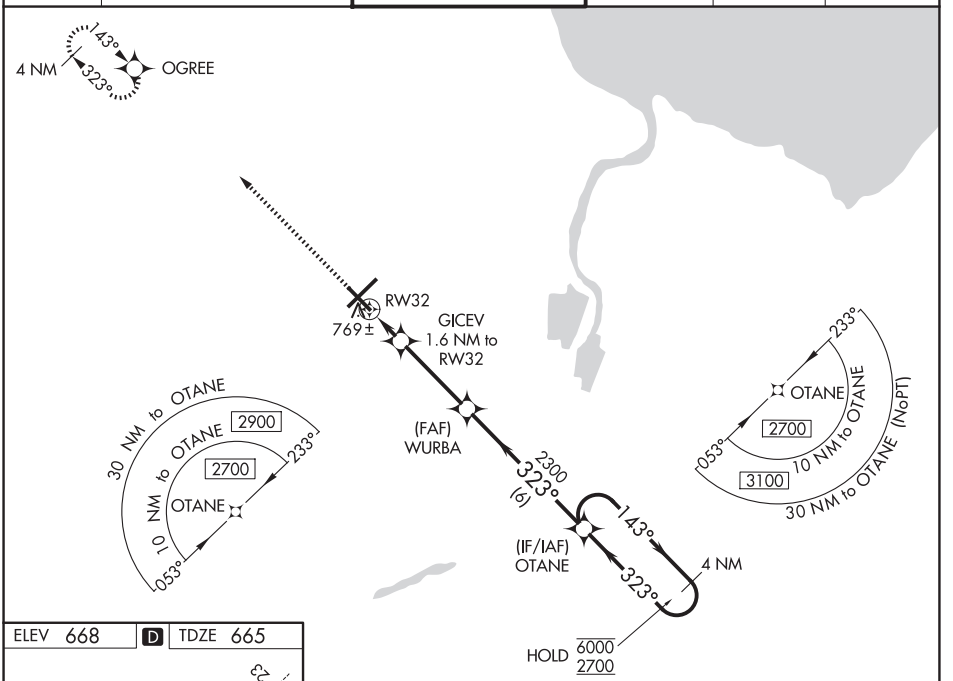
WAAS CH 78011 W32A	APP CRS 323°	Rwy Ldg 6399	TDZE 665	Apt Elev 668

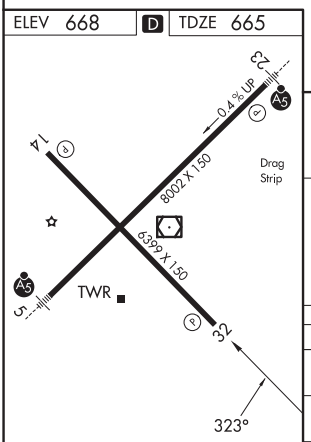
RNP APCH.

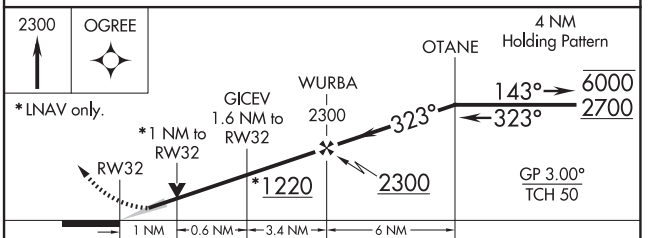
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C or above 54°C .

MISSED APPROACH: Climb to 2300 direct OGREE and hold.

ATIS	GREAT LAKES APP CON ★	SAGINAW TOWER ★	GND CON	CLNC DEL	UNICOM
125.925	126.45 235.625	120.1 (CTAF) L 257.7	121.7	121.85	122.95







CATEGORY	A	B	C	D
LPV DA	865-¾	200 (200-¾)		
LNAV/VNAV DA	950-⅞	285 (300-⅞)		
LNAV MDA	1020-1	355 (400-1)		
CIRCLING	1080-1 412 (500-1)	1120-1 452 (500-1)	1240-1½ 572 (600-1½)	1240-2 572 (600-2)

REIL Rwys 14 and 32 L
HIRL Rwys 5-23 and 14-32 L

SAGINAW, MICHIGAN
Amdt 2A 24MAY18

43°32′N-84°05′W

MBS INTL (MBS)

RNAV (GPS) RWY 32

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

VOR RWY 14

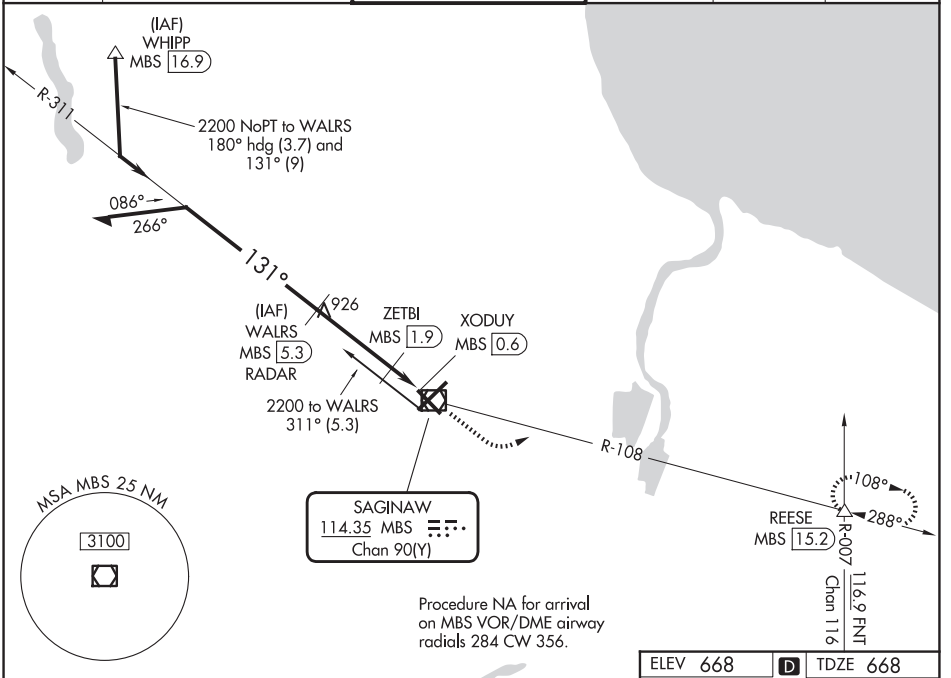
MBS INTL (MBS)

VOR/DME MBS	APP CRS	Rwy Ldg	6399
114.35	131°	TDZE	668
Chan 90 (Y)		Apt Elev	668

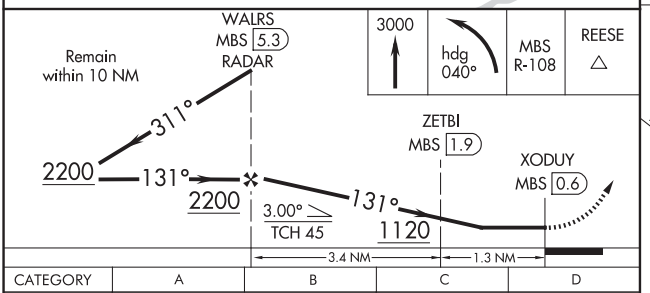
DME or RADAR required.

MISSED APPROACH: Climb to 3000 then left turn on heading 040° and MBS R-108 to REESE INT/15.2 DME and hold.

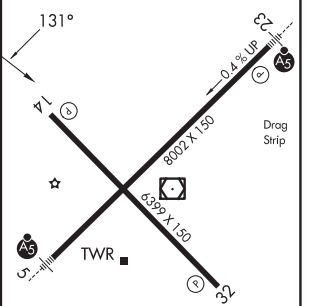
ATIS	GREAT LAKES APP CON ★	SAGINAW TOWER ★	GND CON	CLNC DEL	UNICOM
125.925	126.45 235.625	120.1 (CTAF) L 257.7	121.7	121.85	122.95



ELEV 668 D TDZE 668



CATEGORY	A	B	C	D
S-14	1120-1 452 (500-1)		1120-1⅜ 452 (500-1⅜)	
CIRCLING	1120-1 452 (500-1)		1240-1½ 572 (600-1½)	1240-2 572 (600-2)
ZETBI FIX MINIMUMS (DME REQUIRED)				
S-14	1040-1 372 (400-1)		1040-1⅜ 372 (400-1⅜)	
CIRCLING	1080-1 412 (500-1)	1120-1 452 (500-1)	1240-1½ 572 (600-1½)	1240-2 572 (600-2)



REIL Rwys 14 and 32 L
HIRL Rwys 5-23 and 14-32 L

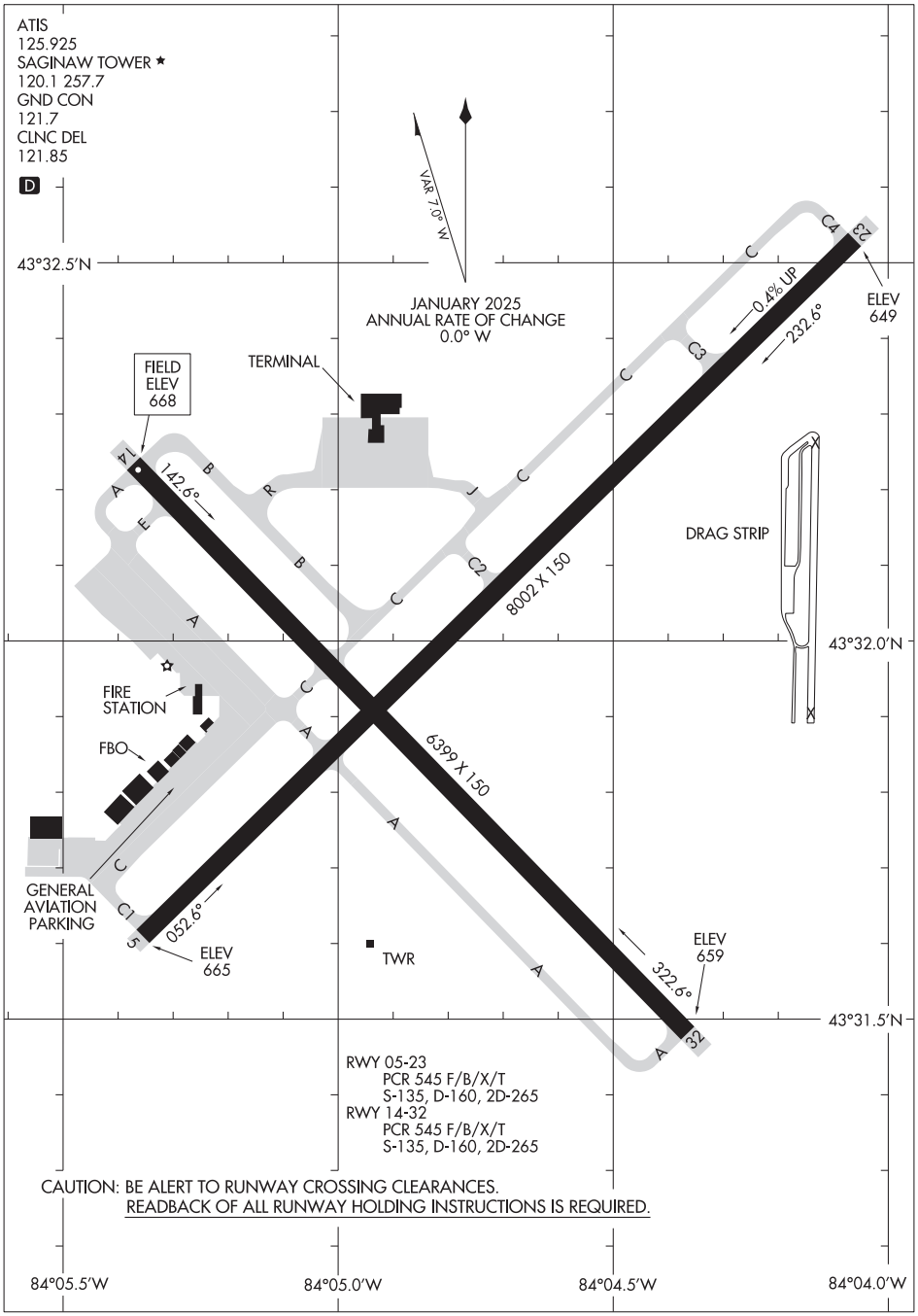
EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

25219

AIRPORT DIAGRAM

AL-648 (FAA)

MBS INTL (MBS)
SAGINAW, MICHIGAN



EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

AIRPORT DIAGRAM
25219

SAGINAW, MICHIGAN
MBS INTL (MBS)

ILS or LOC RWY 28

SAGINAW COUNTY/H W BROWNE (HYX)

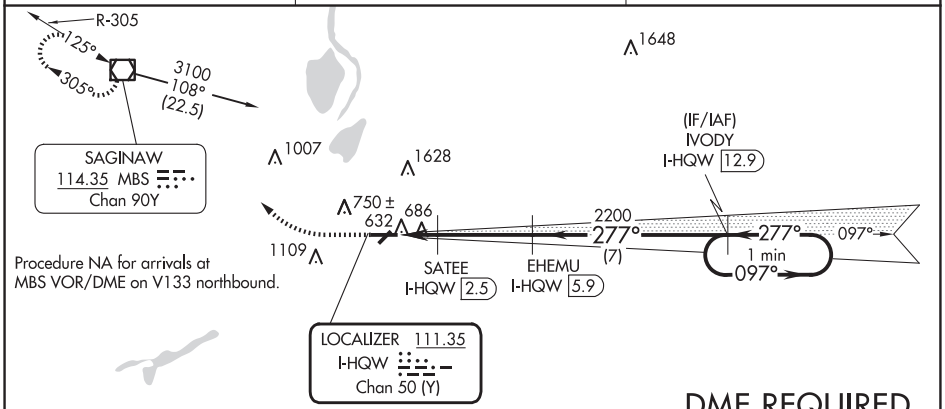
LOC/DME I-HQW	APP CRS	Rwy Idg	5002
111.35	277°	TDZE	599
Chan 50 (Y)		Apt Elev	602

NA — Inoperative table does not apply to S-ILS 28. DME required. Circling Rwy 5, 23 NA at night. Circling NA for Cat C north of Rwy 10-28.

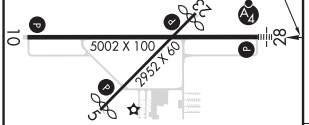
MALSF

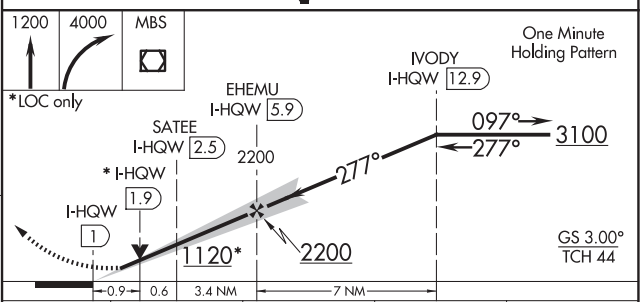
MISSED APPROACH: Climb to 1200 then climbing right turn to 4000 direct MBS VOR/DME and hold, continue climb-in-hold to 4000.

AWOS-3PT	GREAT LAKES APP CON★	UNICOM
118.325	120.95 235.625	122.8 (CTAF) L



ELEV 602 TDZE 599





CATEGORY	A	B	C	D
S-ILS 28	802-¾ 203 (200-¾)			NA
S-LOC 28	940-¾ 341 (400-¾)			NA
C CIRCLING	1100-1 498 (500-1)		1460-2½ 858 (900-2½)	NA

REIL Rwy 10 L
HIRL Rwy 10-28 L
MIRL Rwy 5-23 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SAGINAW, MICHIGAN | AL-6474 (FAA) | 24025

RNAV (GPS) RWY 10

SAGINAW COUNTY/H W BROWNE (HYX)

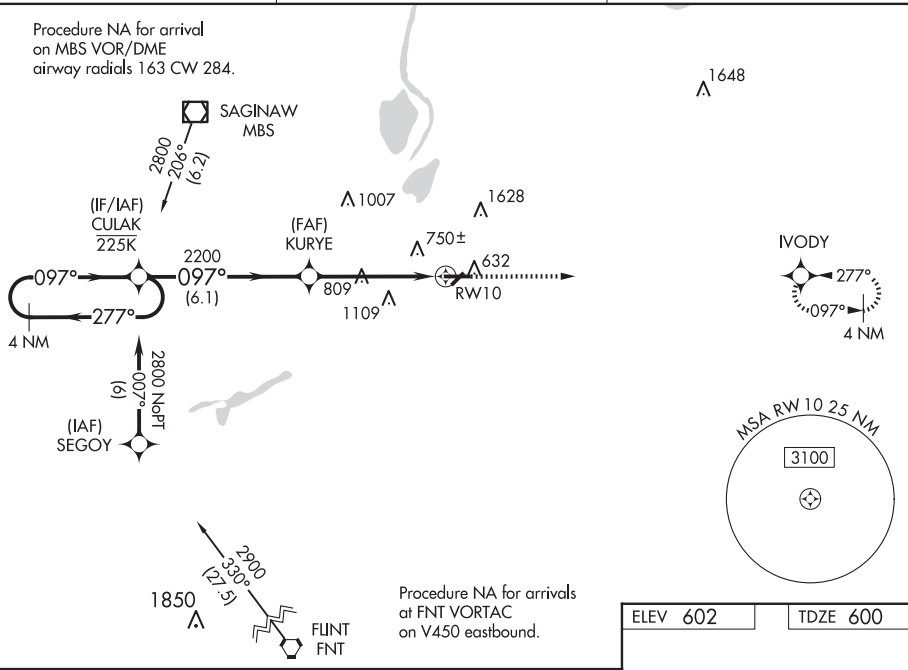
WAAS	APP CRS	Rwy Idg	5002
CH 50200	097°	TDZE	600
W10A		Apt Elev	602

RNP APCH - GPS.

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C or above 54°C. Circling NA for Cat C north of Rwy 10-28. Circling Rwy 5, 23 NA at night.

MISSED APPROACH: Climb to 2700 direct IVODY and hold.

AWOS-3PT	GREAT LAKES APP CON ★	UNICOM
118.325	120.95 235.625	122.8 (CTAF) L

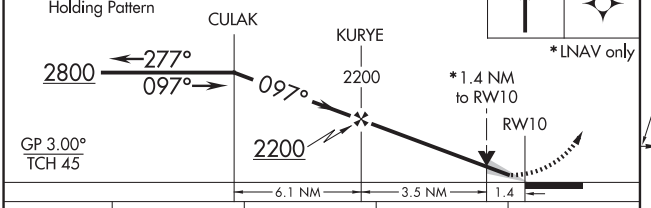


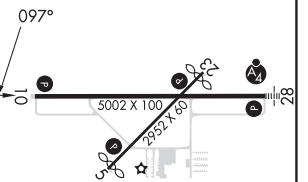
ELEV 602	TDZE 600

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 45).

2700	IVODY

*LNAV only





CATEGORY	A	B	C	D
LPV DA	800-¾ 200 (200-¾)			NA
LNAV/VNAV DA	1018-1⅜ 418 (500-1⅜)			NA
LNAV MDA	1060-1 460 (500-1)		1060-1⅜ 460 (500-1⅜)	NA
C CIRCLING	1100-1 498 (500-1)		1460-2½ 858 (900-2½)	NA

REIL Rwy 10 L
HIRL Rwy 10-28 L
MIRL Rwy 5-23 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 28

SAGINAW COUNTY/H W BROWNE (HYX)

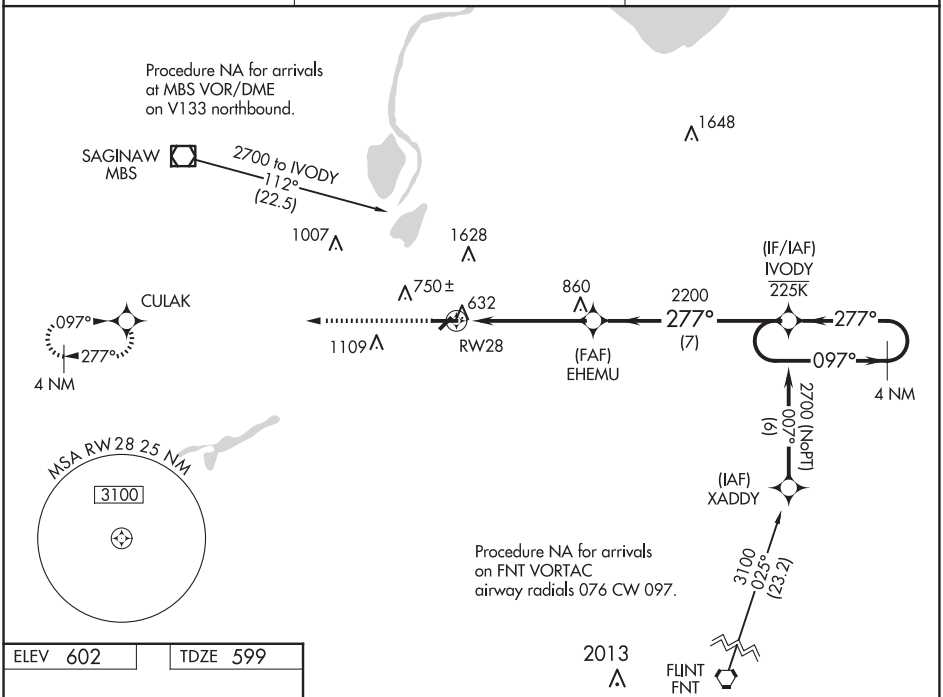
WAAS	APP CRS		
CH **90200**	**277°**	Rwy Idg	**5002**
W28A		TDZE	**599**
		Apt Elev	**602**

T A Inop table does not apply to LPV DA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 54°C (130°F). Circling NA for Cat C north of Rwy 10-28. Circling Rwy 5, 23 NA at night. DME/DME RNP-0.3 NA. For inop ALS, increase LNAV/VNAV all Cats visibility to ⅞ SM.

MALSF

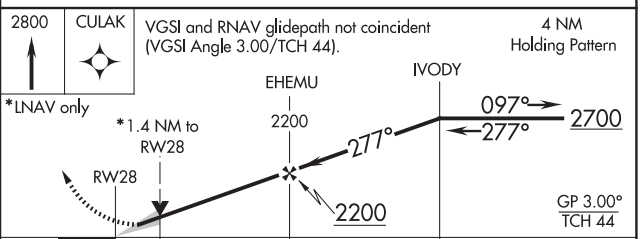
MISSED APPROACH: Climb to 2800 direct CULAK and hold.

AWOS-3PT	GREAT LAKES APP CON★	UNICOM
118.325	**120.95 235.625**	**122.8** (CTAF) L



ELEV 602 TDZE 599

REIL Rwy 10 L
HIRL Rwy 10-28 L
MIRL Rwy 5-23 L



CATEGORY		A	B	C	D
LPV	DA	804-¾ 205 (300-¾)			NA
LNAV/VNAV	DA	849-¾ 250 (300-¾)			NA
LNAV MDA		1080-¾ 481 (500-¾)		1080-1⅛ 481 (500-1⅛)	NA
C CIRCLING		1100-1 498 (500-1)		1460-2½ 858 (900-2½)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SAGINAW, MICHIGAN AL-6474 (FAA) 24249

VOR/DME MBS	APP CRS	Rwy Idg	N/A
114.35	125°	TDZE	N/A
Chan 90Y		Apt Elev	602

VOR/DME-A

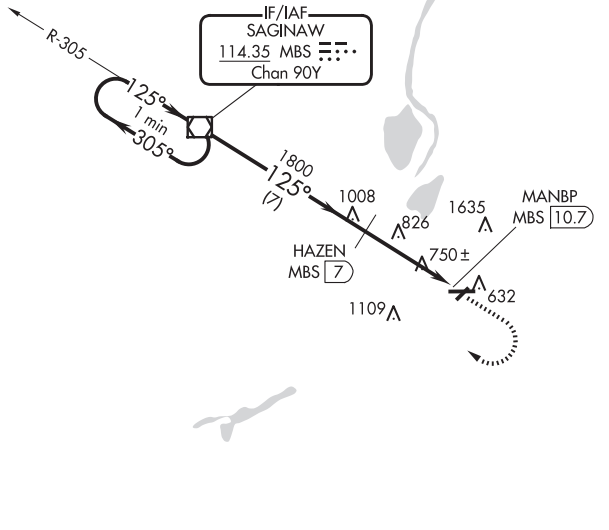
SAGINAW COUNTY/H W BROWNE (HYX)

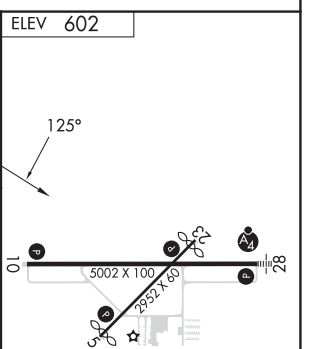
Circling to Rwy 5/23 NA at night. When local altimeter setting not received, use Saginaw MBS Intl altimeter setting and increase all MDA 40 feet and increase Circling Cat C visibility ¼ SM. Circling NA for Cat C north of Rwy 10-28.

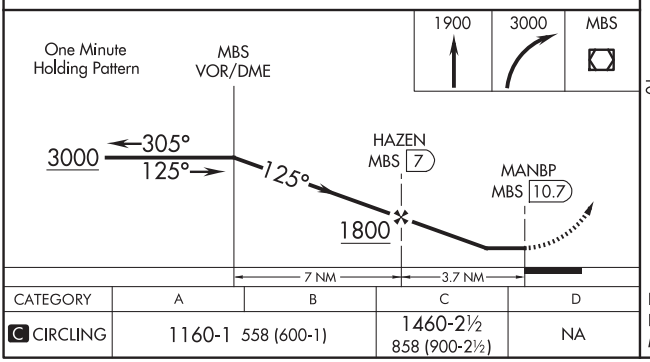
MISSED APPROACH: Climb to 1900 then climbing right turn to 3000 direct MBS VOR/DME and hold.

AWOS-3PT	GREAT LAKES APP CON ★	UNICOM
118.325	120.95 235.625	122.8 (CTAF) L

NoPT for arrival on MBS VOR/DME airway radials 212 CW 016.







CATEGORY	A	B	C	D
C CIRCLING	1160-1 558 (600-1)		1460-2½ 858 (900-2½)	NA

REIL Rwy 10 L
HIRL Rwy 10-28 L
MIRL Rwy 5-23 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

APP CRS	Rwy Idg	3800
074°	TDZE	624
	Apt Elev	624

RNAV (GPS) RWY 7

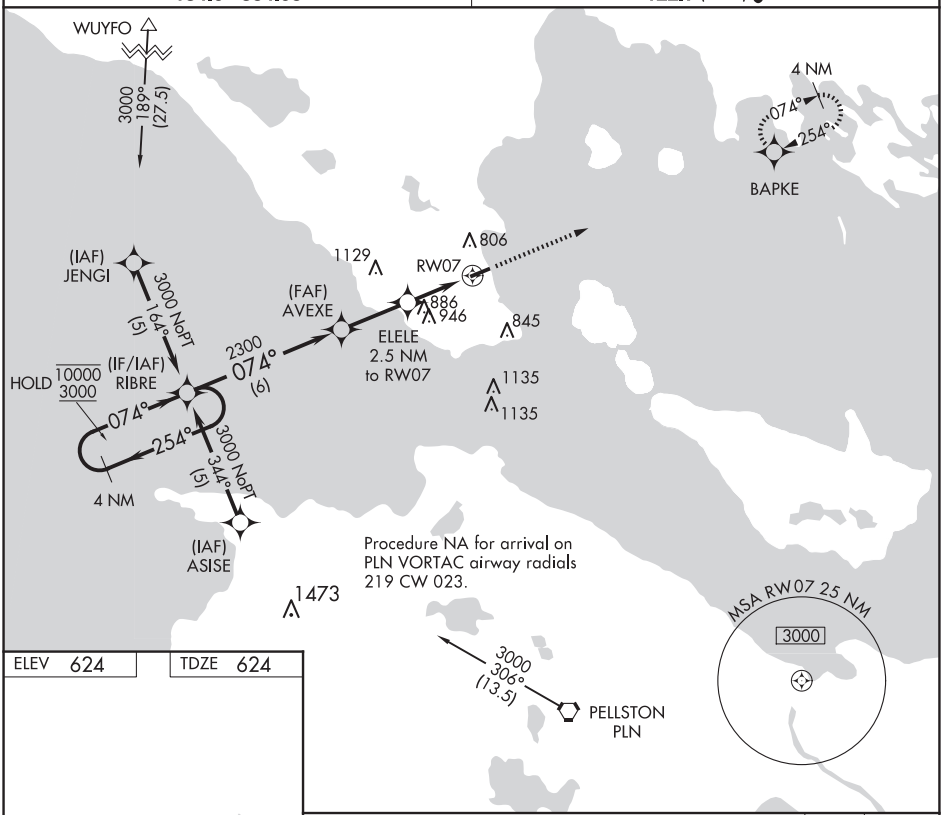
MACKINAC COUNTY (83D)

RNP APCH.

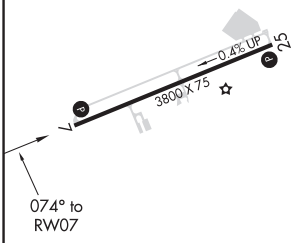
Straight-in Rwy 07 NA at night, Circling Rwy 07 NA at night.
Rwy 07 helicopter visibility reduction below 1 SM NA.
Circling NA at night south of Rwy 07-25.

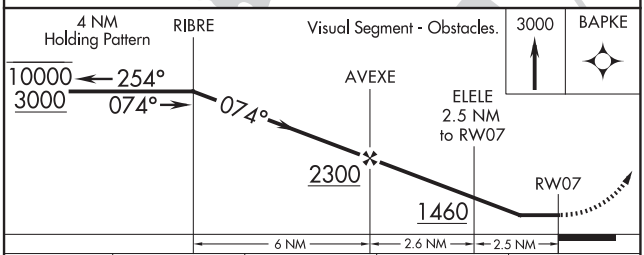
MISSED APPROACH: Climb to 3000 direct BAPKE and hold.

MINNEAPOLIS CENTER	UNICOM
134.6 354.05	122.7 (CTAF) L



ELEV 624	TDZE 624





CATEGORY	A	B	C	D
LNAV MDA	1200-1 576 (600-1)		1200-1⅝ 576 (600-1⅝)	NA
CIRCLING	1260-1 636 (700-1)		1300-2 676 (700-2)	NA

MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ST IGNACE, MICHIGAN | AL-10180 (FAA) | 22223

RNAV (GPS) RWY 25

MACKINAC COUNTY (83D)

APP CRS	Rwy Idg	3800
254°	TDZE	623
	Apt Elev	624

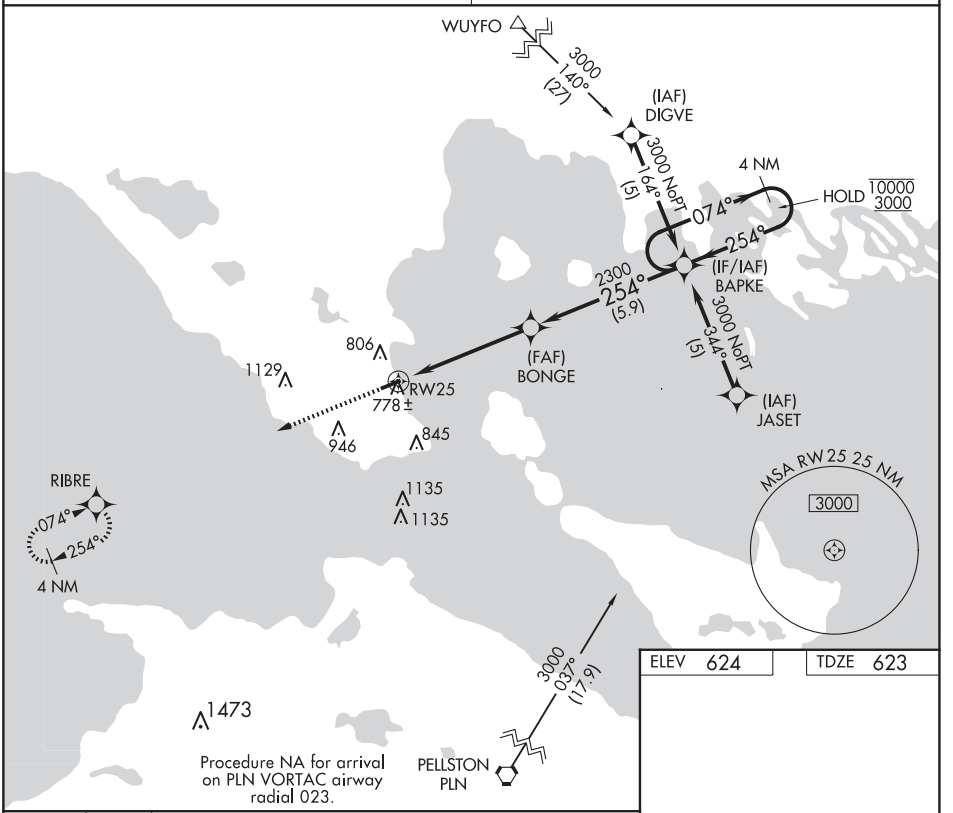
RNP APCH.

Circling Rwy 7 NA at night.
Circling NA at night south of Rwy 7-25.
Rwy 25 helicopter visibility reduction below ¾ SM NA.

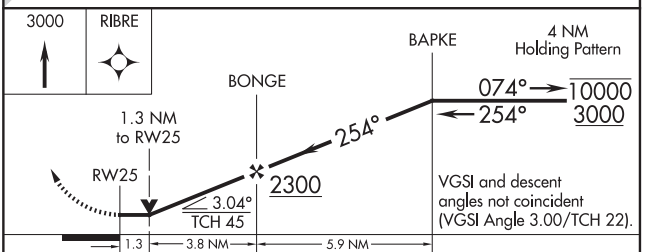
NA

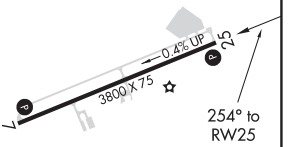
MISSED APPROACH: Climb to 3000 direct RIBRE and hold.

MINNEAPOLIS CENTER	UNICOM
134.6 354.05	122.7 (CTAF) L



ELEV 624	TDZE 623





CATEGORY	A	B	C	D
LNAV MDA	1040-1 417 (500-1)		1040-1⅛ 417 (500-1⅛)	NA
CIRCLING	1260-1 636 (700-1)		1300-2 676 (700-2)	NA

MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

ST IGNACE, MICHIGAN
Orig-C 11AUG22

45°53'N-84°44'W

MACKINAC COUNTY (83D)

RNAV (GPS) RWY 25

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 10

SANDUSKY CITY (Y83)

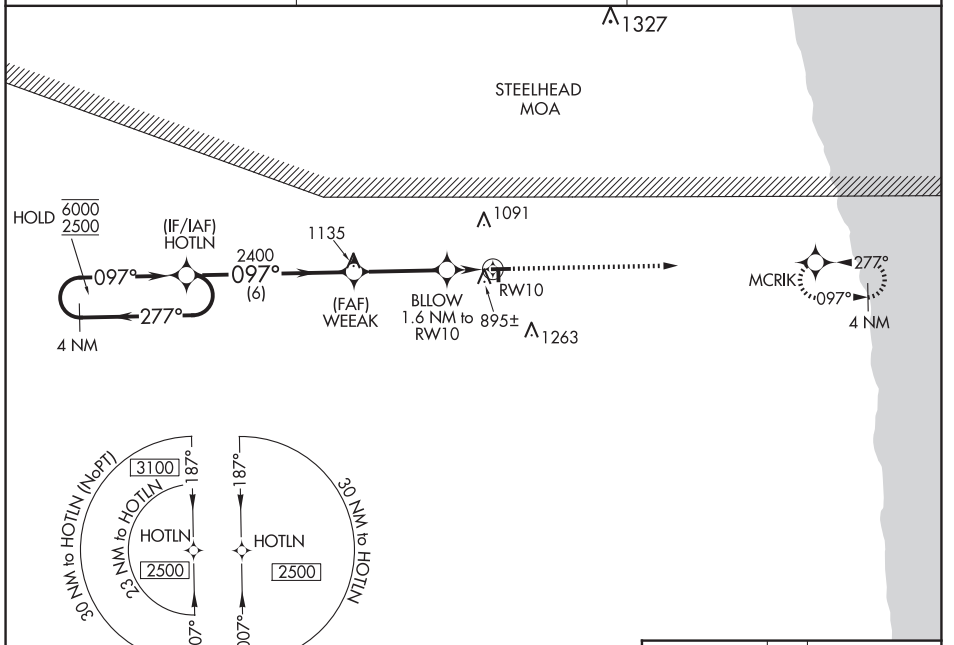
WAAS	APP CRS	Rwy Idg	3499
CH 49244	097°	TDZE	777
W10A		Apt Elev	777

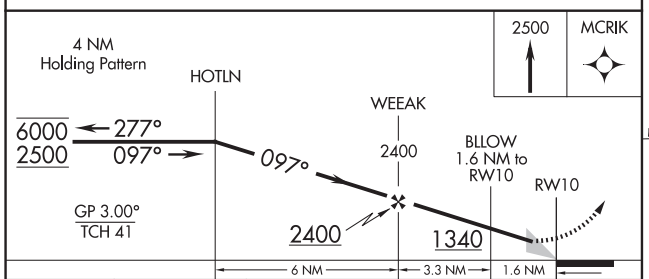
RNP APCH - GPS.

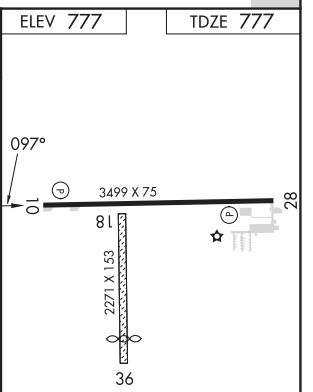
Circling NA to Rwys 18 and 36. Circling NA north of Rwy 10-28.
NA Procedure NA at night. Baro-VNAV NA. Use Bad Axe altimeter setting.

MISSED APPROACH: Climb to 2500 direct MCRIK and hold.

BAX AWOS-3	CLEVELAND CENTER	UNICOM
118.6	127.7 290.425	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1077-1 300 (300-1)			NA
LNAV/VNAV DA	1200-1¼ 423 (500-1¼)			NA
LNAV MDA	1200-1 423 (500-1)		1200-1¼ 423 (500-1¼)	NA
CIRCLING	1260-1 483 (500-1)	1340-1 563 (600-1)	1680-2¾ 903 (1000-2¾)	NA

REIL Rwy 10
MIRL Rwy 10-28 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SANDUSKY, MICHIGAN

AL-10457 (FAA)

24361

RNAV (GPS) RWY 28

SANDUSKY CITY (Y83)

WAAS	APP CRS	Rwy Idg	3499
CH 93944	277°	TDZE	777
W28A		Apt Elev	777

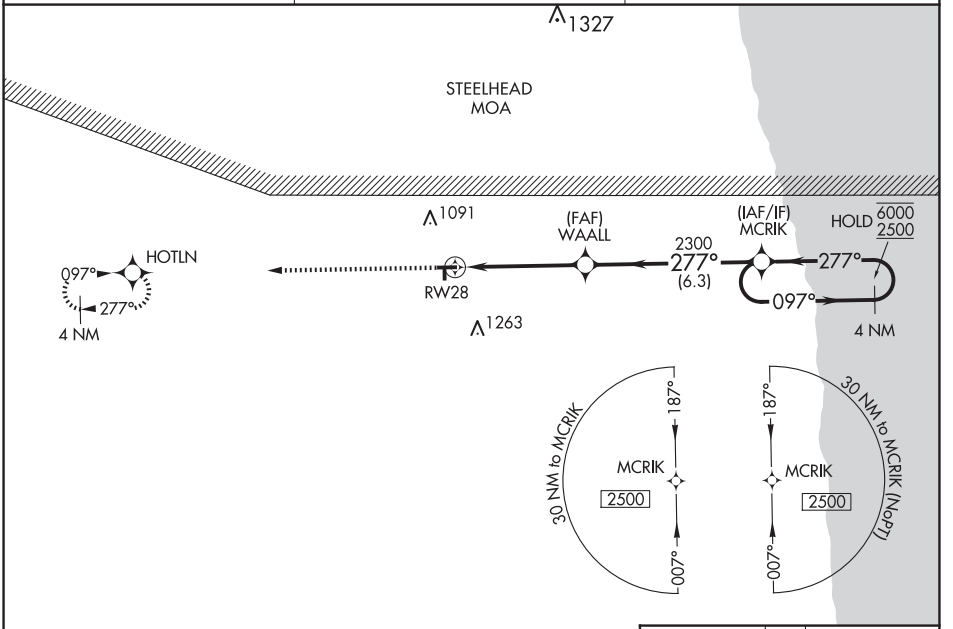
RNP APCH - GPS.

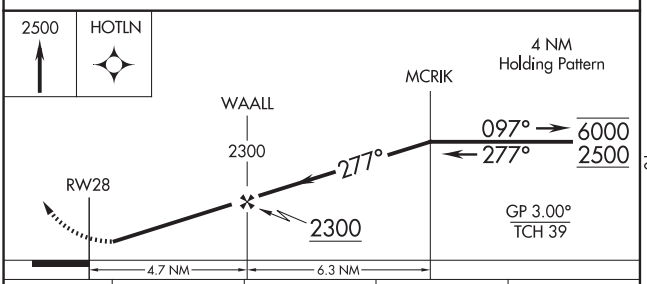
Circling NA to Rwys 18 and 36. Circling NA north of Rwy 10-28. Procedure NA at night. Rwy 28 helicopter visibility reduction below 1 SM NA. Baro-VNAV NA. Use Bad Axe altimeter setting.

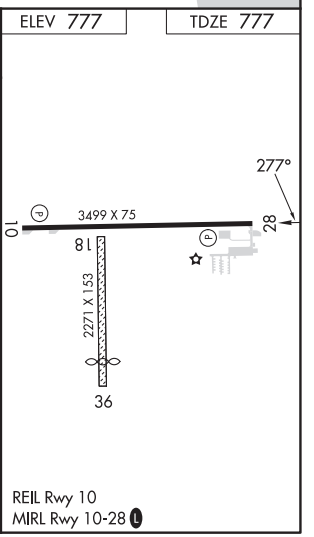
NA

MISSED APPROACH: Climb to 2500 direct HOTLN and hold.

BAX AWOS-3	CLEVELAND CENTER	UNICOM
118.6	127.7 290.425	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1077-1	300 (300-1)		NA
LNAV/VNAV DA	1077-1	300 (300-1)		NA
LNAV MDA	1260-1	483 (500-1)	1260-1 3/8 483 (500-1 3/8)	NA
CIRCLING	1260-1 483 (500-1)	1340-1 563 (600-1)	1680-2 3/4 903 (1000-2 3/4)	NA

REIL Rwy 10
MIRL Rwy 10-28 L

SANDUSKY, MICHIGAN

Orig 05OCT23

43°27′N-82°51′W

SANDUSKY CITY (Y83)

RNAV (GPS) RWY 28

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

LOC I-CIU	APP CRS	Rwy Ldg	7203
110.3	157°	TDZE	799
		Apt Elev	799

ILS or LOC RWY 16
CHIPPEWA COUNTY INTL (CIU)

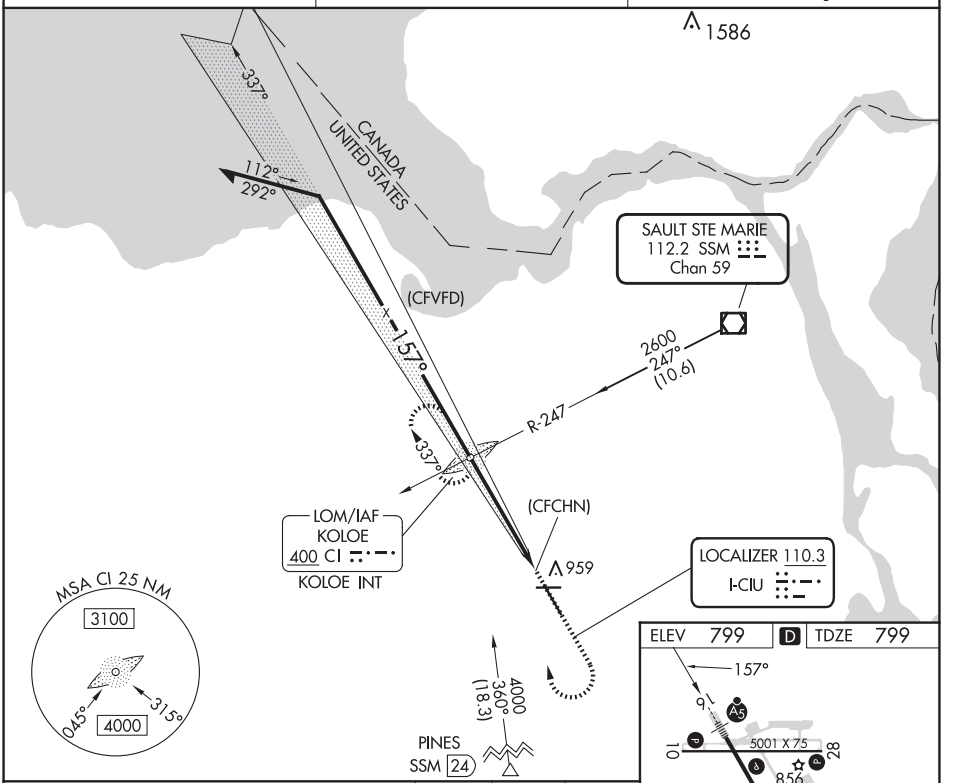
ADF required.

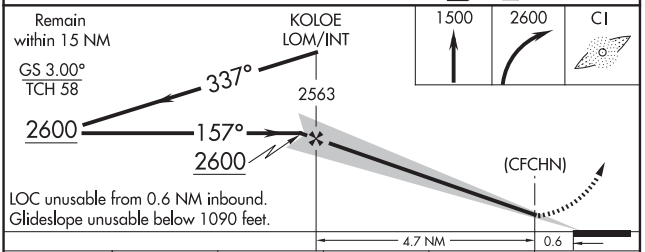
T ANA Autopilot coupled approach NA below 1380. For inop ALS, increase S-ILS 16 visibility to ⅞ SM all Cats and S-LOC 16 Cat C/D/E to 1 SM.

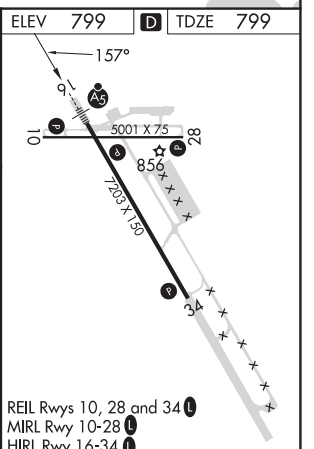
MALSR (A5)

MISSED APPROACH: Climb to 1500 then climbing right turn to 2600 direct KOLOE LOM/INT and hold, continue climb-in-hold to 2600.

AWOS-3PT	TORONTO CENTER	UNICOM
127.575	132.65 344.5	123.0 (CTAF) L







REIL Rwys 10, 28 and 34 L
MIRL Rwy 10-28 L
HIRL Rwy 16-34 L

CATEGORY	A	B	C	D	E
S-ILS 16	1090-½ 291 (300-½)				
S-LOC 16	1160-½ 361 (400-½)		1160-⅝ 361 (400-⅝)		
C CIRCLING	1260-1 461 (500-1)		1260-1½ 461 (500-1½)	1360-2 561 (600-2)	1380-2 581 (600-2)

FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SAULT STE MARIE, MICHIGAN | AL-810 (FAA) | 23054

APP CRS	Rwy Idg	5000
097°	TDZE	799
	Apt Elev	799

RNAV (GPS) RWY 10

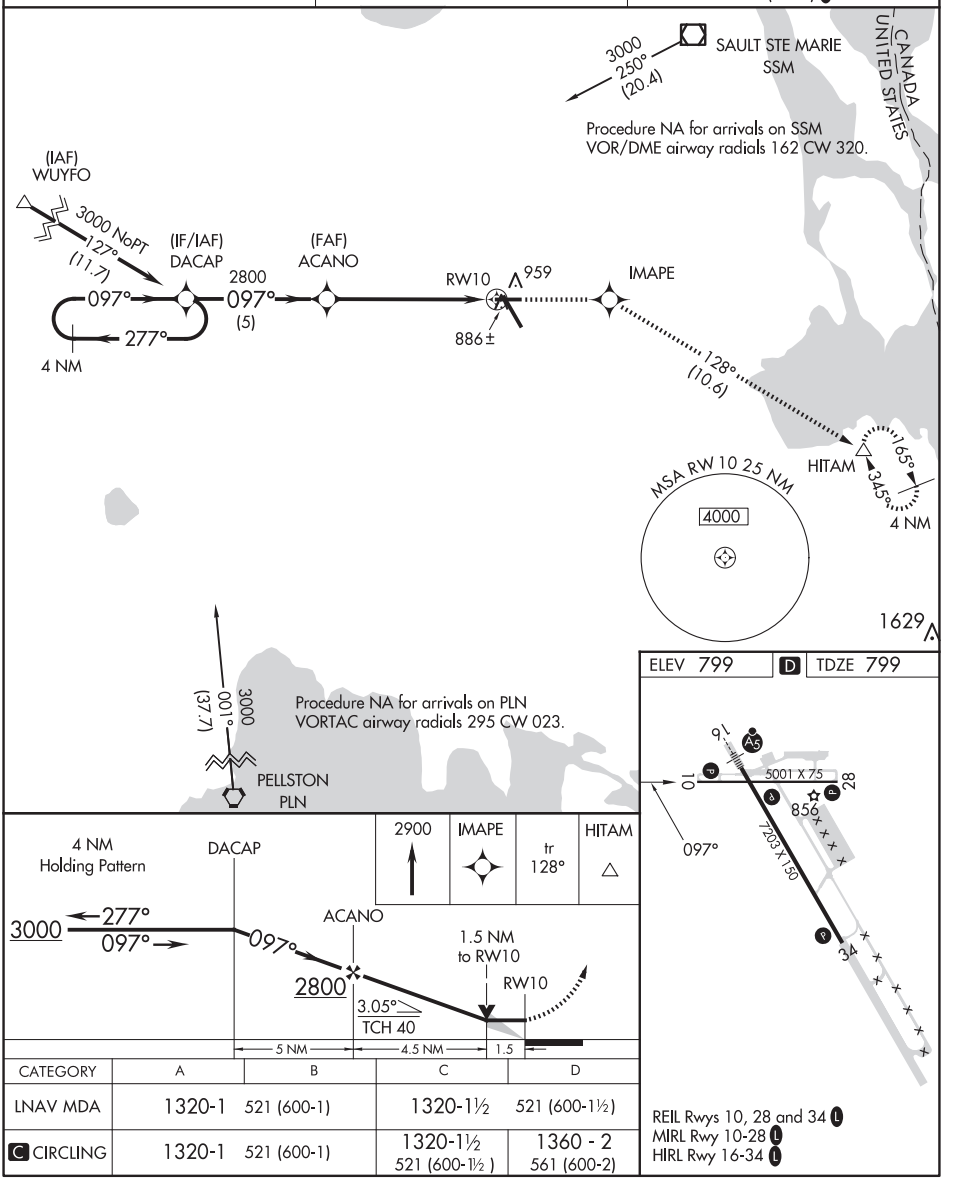
CHIPPEWA COUNTY INTL (CIU)

RNP APCH.

VDP NA with Sault Ste Marie altimeter setting. When local altimeter setting not received, use Sault Ste Marie Muni/Sanderson Fld altimeter setting; increase all MDA 60 feet, increase LNAV visibility Cat C/D and Circling Cat C ¼ SM.

MISSED APPROACH: Climb to 2900 direct IMAPE and track 128° to HITAM and hold.

AWOS-3PT	TORONTO CENTER	UNICOM
127.575	132.65 344.5	123.0 (CTAF) L



CATEGORY	A	B	C	D
LNAV MDA	1320-1	521 (600-1)	1320-1½	521 (600-1½)
C CIRCLING	1320-1	521 (600-1)	1320-1½ 521 (600-1½)	1360 - 2 561 (600-2)

REIL Rwys 10, 28 and 34 L
MIRL Rwy 10-28 L
HIRL Rwy 16-34 L

SAULT STE MARIE, MICHIGAN
Orig-B 08OCT20

46°15'N-84°28'W

CHIPPEWA COUNTY INTL (CIU)
RNAV (GPS) RWY 10

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 16

CHIPPEWA COUNTY INTL (CIU)

WAAS	APP CRS	Rwy Idg	7203
CH 69215	157°	TDZE	799
W16A		Apt Elev	799

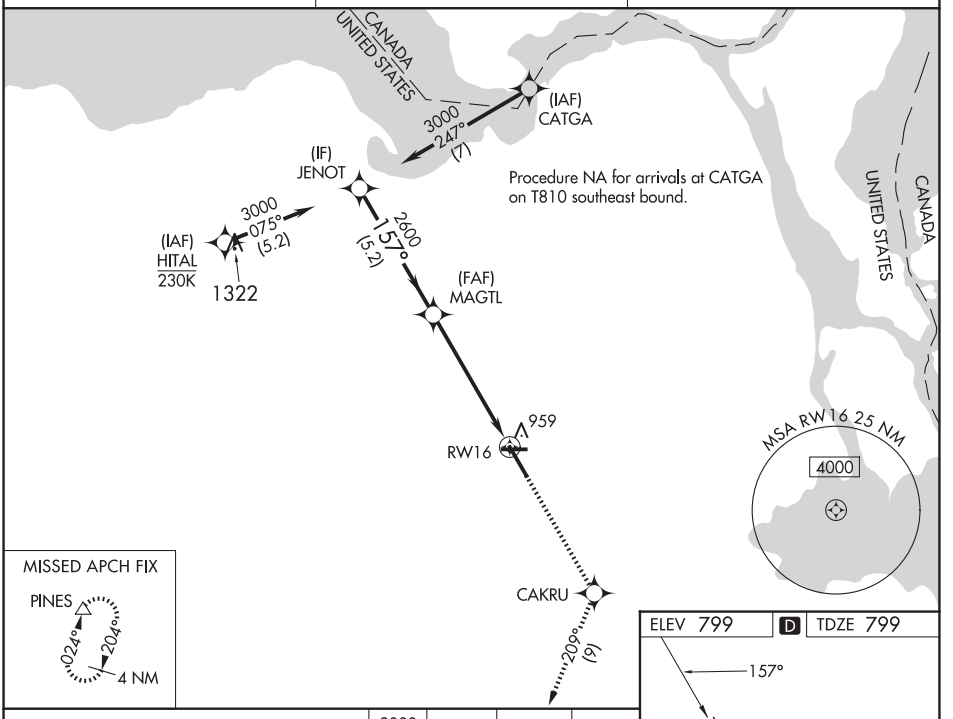
RNP APCH - GPS.

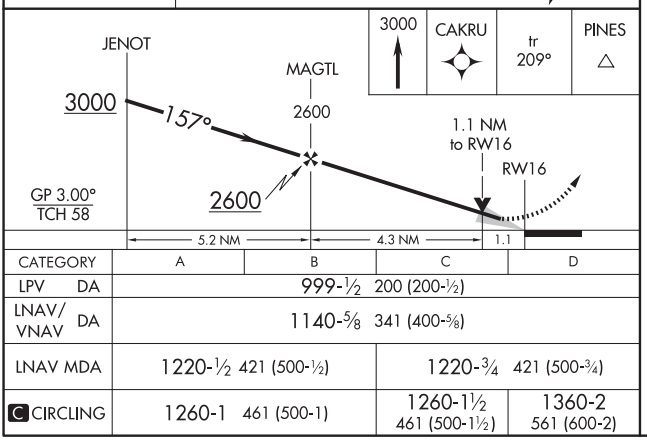
T A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cats visibility to 1 SM.

MALSR

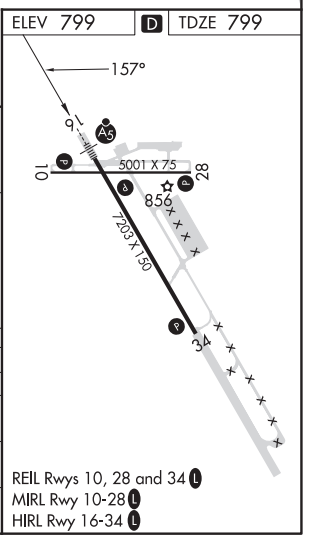
MISSED APPROACH: Climb to 3000 direct CAKRU and on track 209° to PINES and hold.

AWOS-3PT	TORONTO CENTER	UNICOM
127.575	132.65 344.5	123.0 (CTAF) L





CATEGORY	A	B	C	D
LPV DA	999-½ 200 (200-½)			
LNAV/VNAV DA	1140-⅝ 341 (400-⅝)			
LNAV MDA	1220-½ 421 (500-½)		1220-¾ 421 (500-¾)	
C CIRCLING	1260-1 461 (500-1)		1260-1½ 461 (500-1½)	1360-2 561 (600-2)



REIL Rwys 10, 28 and 34 L
MIRL Rwy 10-28 L
HIRL Rwy 16-34 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SAULT STE MARIE, MICHIGAN

AL-810 (FAA)

23054

RNAV (GPS) RWY 28

CHIPPEWA COUNTY INTL (CIU)

APP CRS	Rwy Idg	5000
277°	TDZE	799
	Apt Elev	799

RNP APCH.

Rwy 28 helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use Sault Ste Marie Muni/Sanderson Fld altimeter setting; increase all MDA 60 feet, increase LNAV and Circling visibility Cat C/D ¼ SM. Straight-in and Circling Rwy 28 NA at night.

MISSED APPROACH: Climb to 3000 direct DACAP and track 308° to WUYFO and hold.

AWOS-3PT	TORONTO CENTER	UNICOM
127.575	132.65 344.5	123.0 (CTAF) L

MISSED APCH FIX

WUYFO

090°

270°

4 NM

Procedure NA for arrivals on SSM VOR/DME airway radials 080 CW 162.

SAULT STE MARIE SSM

164° (10.3) 2900

CANADA

UNITED STATES

308° (11.7)

DACAP

959

RW28

2500

277° (5.1)

(FAF) APOCA

4 NM

097°

277°

(IF/IAF) DACAN

2900 NoPT

346° (5.8)

(IAF) HITAM

MSA RW 28 25 NM

4000

1880

2900 033° (41.8)

PELLSTON PLN

ELEV 799 D TDZE 799

277°

5001 X 75

856

7203 X 150

10 28 9 34

REIL Rwys 10, 28 and 34 L

MIRL Rwy 10-28 L

HIRL Rwy 16-34 L

3000 DACAP tr 308° WUYFO

DACAN

4 NM Holding Pattern

APOCA

097° 277° 2900

RW28

277°

2500

3.05°

TCH 40

5.1 NM 5.1 NM

CATEGORY	A	B	C	D
LNAV MDA	1220-1 421 (500-1)		1220-1¼ 421 (500-1¼)	
C CIRCLING	1260-1 461 (500-1)		1260-1½ 461 (500-1½)	1360-2 561 (600-2)

SAULT STE MARIE, MICHIGAN

Orig-B 08OCT20

46°15'N-84°28'W

CHIPPEWA COUNTY INTL (CIU)

RNAV (GPS) RWY 28

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS	APP CRS	Rwy Idg	7203
CH 56315	337°	TDZE	796
W34A		Apt Elev	799

RNAV (GPS) RWY 34

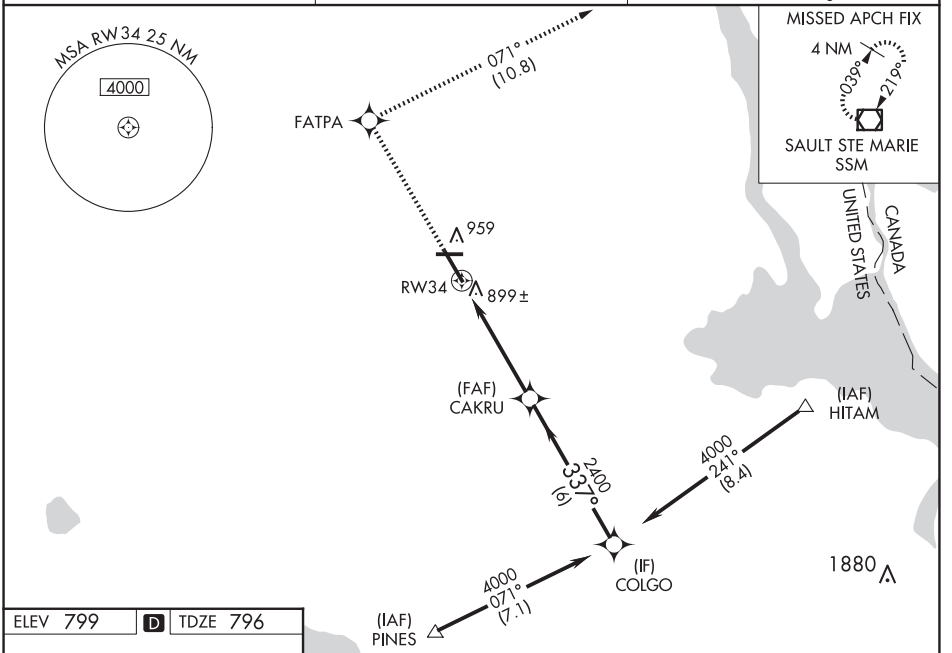
CHIPPEWA COUNTY INTL (CIU)

RNP APCH.

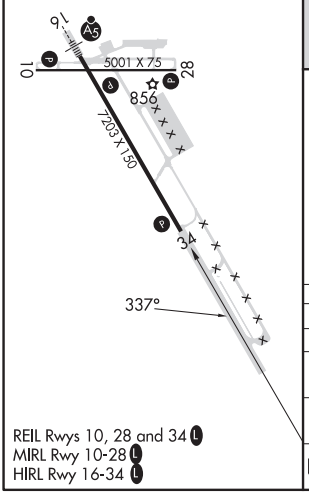
T A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. When local altimeter setting not received, use Sault Ste Marie Muni/Sanderson Fld altimeter setting; increase LPV DA to 1091 feet, LNAV/VNAV DA to 1243 feet and all MDA 60 feet; increase LNAV Cat D visibility ¼ SM. Baro-VNAV and VDP NA when using Sault Ste Marie Muni/Sanderson Fld altimeter setting.

MISSED APPROACH: Climb to 3000 direct FATPA and track 071° to SSM VOR/DME and hold.

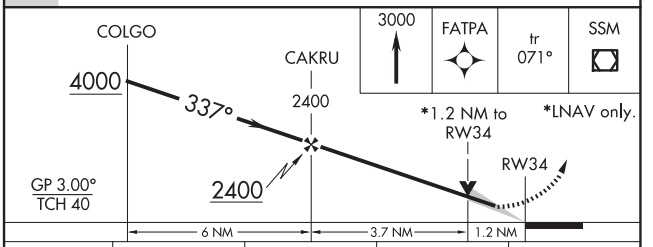
AWOS-3PT	TORONTO CENTER	UNICOM
127.575	132.65 344.5	123.0 (CTAF) L



Procedure NA for arrival at PINES via V193 southbound.



REIL Rwys 10, 28 and 34 L
MIRL Rwy 10-28 L
HIRL Rwy 16-34 L



CATEGORY	A	B	C	D
LPV DA	1046-1 250 (300-1)			
LNAV/VNAV DA	1198-1½ 402 (400-1½)			
LNAV MDA	1200-1 404 (500-1)		1200-1¼ 404 (500-1¼)	
C CIRCLING	1260-1 461 (500-1)		1260-1½ 461 (500-1½)	1360-2 561 (600-2)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SAULT STE MARIE, MICHIGAN | AL-810 (FAA) | 25163

LOM CI	APP CRS	Rwy Ldg	7203
400	337°	TDZE	796
		Apt Elev	799

NDB RWY 34

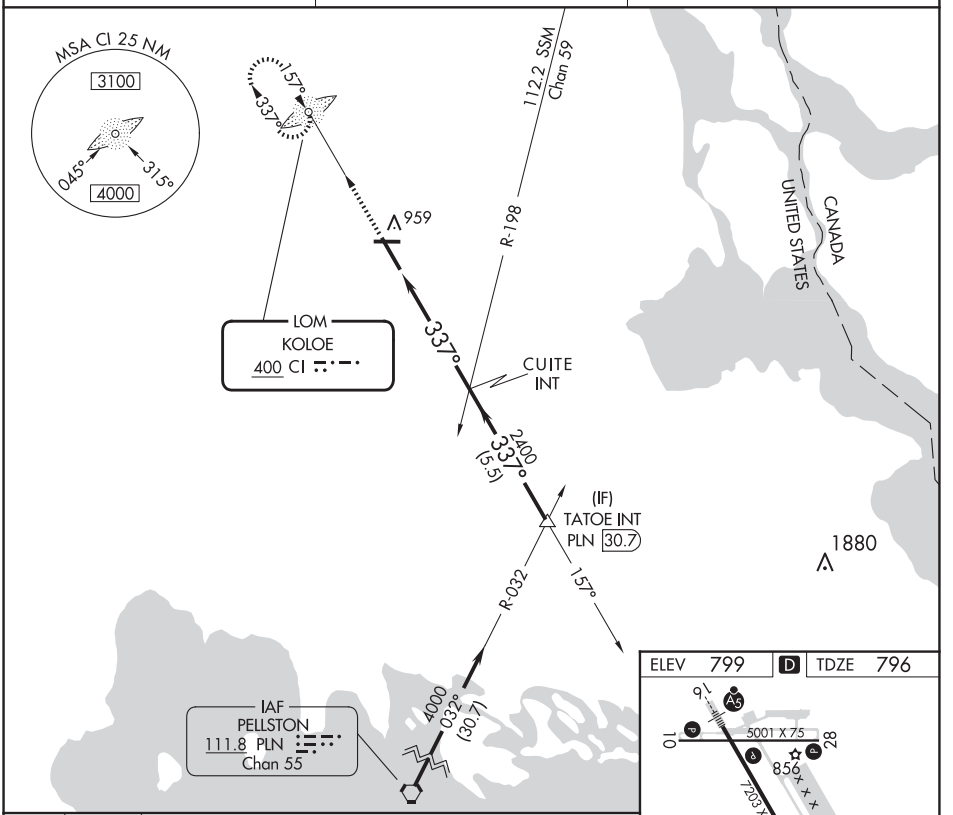
CHIPPEWA COUNTY INTL (CIU)

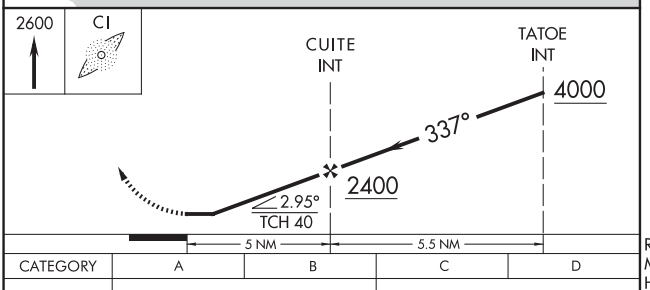
When local altimeter setting not received, use Sault-Ste Marie Muni/ Sanderson Fld altimeter setting and increase all MDA 60 feet and increase S-34 Cat C/D visibility to 1⅜ .

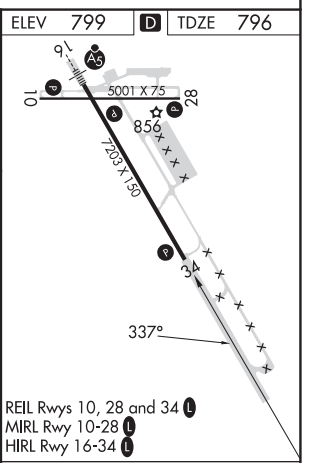
NA

MISSED APPROACH: Climb to 2600 direct KOLOE LOM and hold.

AWOS-3PT	TORONTO CENTER	UNICOM
127.575	132.65 344.5	123.0 (CTAF) L







REIL Rwys 10, 28 and 34 L
MIRL Rwy 16-34 L
HIRL Rwy 16-34 L

CATEGORY	A	B	C	D
S-34	1220-1 424 (500-1)		1220-1¼ 424 (500-1¼)	
C CIRCLING	1260-1 461 (500-1)		1260-1½ 461 (500-1½)	1360-2 561 (600-2)

FAF to MAP 5 NM

Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

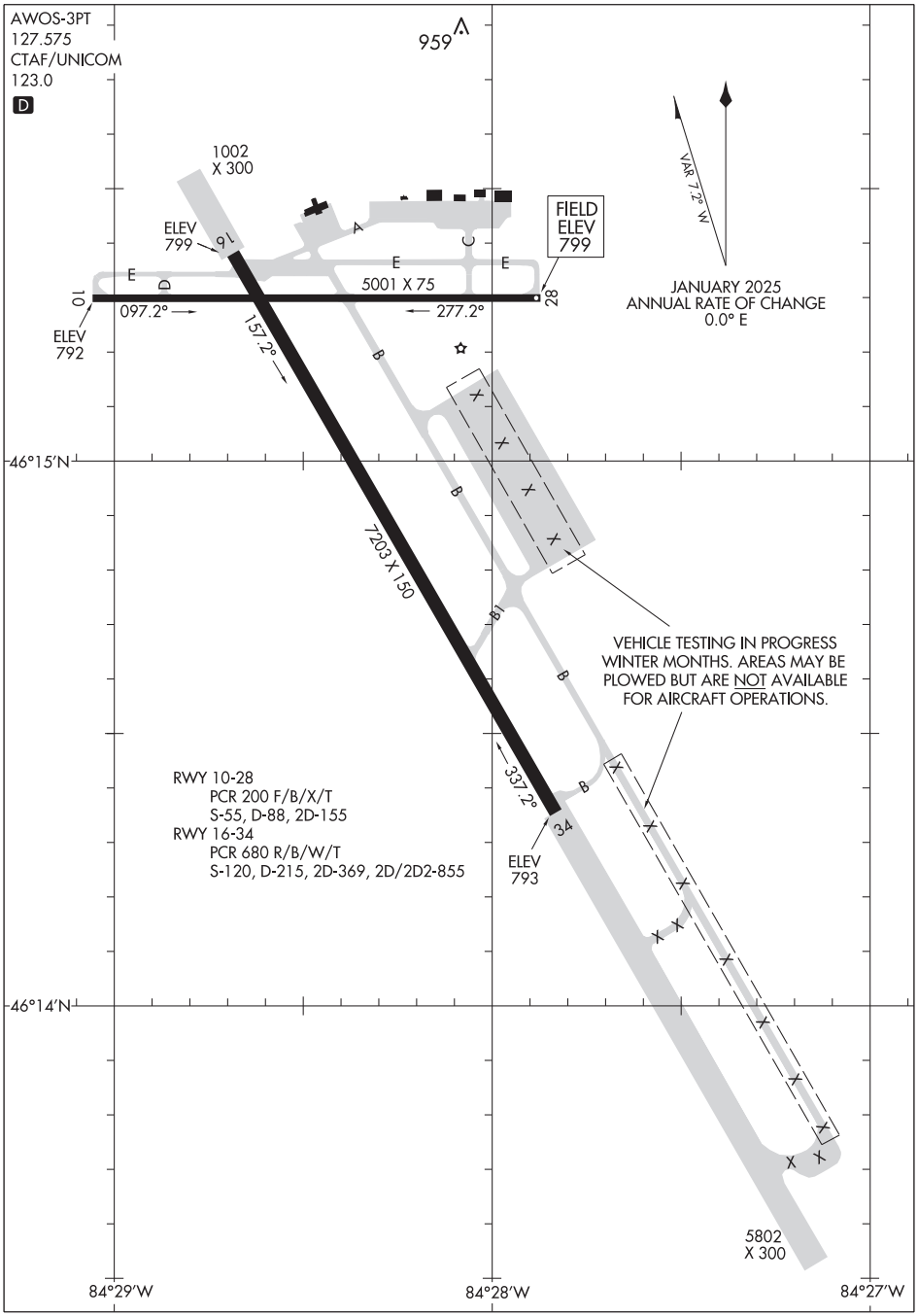
SAULT STE MARIE, MICHIGAN
Amdt 5B 08OCT20

46°15′N-84°28′W

CHIPPEWA COUNTY INTL (CIU)

NDB RWY 34

EC-1, 07 AUG 2025 to 02 OCT 2025



EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SAULT STE MARIE, MICHIGAN | AL-503 (FAA) | 24249

WAAS	APP CRS	Rwy Idg	5054
CH 70622	143°	TDZE	712
W14A		Apt Elev	716

RNAV (GPS) RWY 14

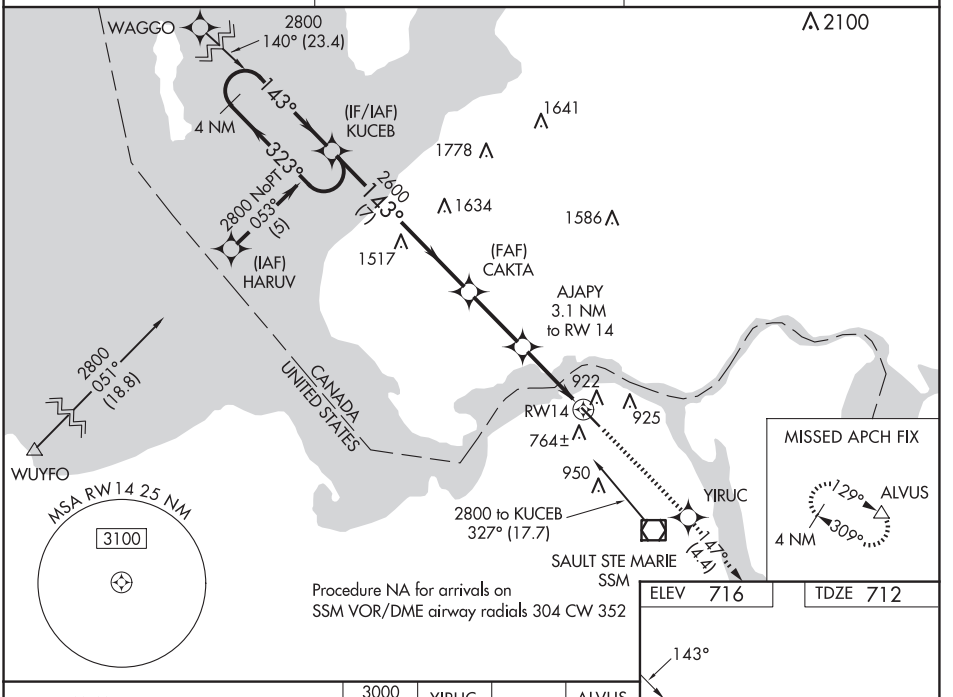
SAULT STE MARIE MUNI/SANDERSON FLD (ANJ)

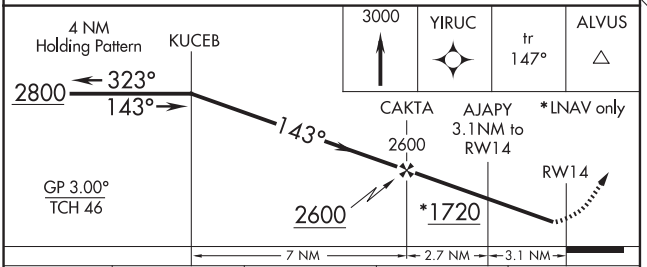
RNP APCH.

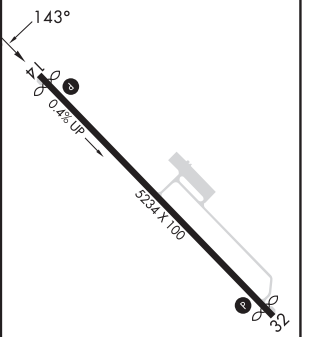
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C.
Rwy 14 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Chippewa County Intl altimeter setting and increase all DA 45 feet and all MDA 60 feet. Increase LNAV/VNAV all Cats visibilites to 1¾ mile and LNAV Cat C visibility to 1⅝ mile.

MISSED APPROACH: Climb to 3000 direct YIRUC and on track 147° to ALVUS and hold.

ASOS	TORONTO CENTER	UNICOM
118.375	132.65 344.5	122.7 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	962-1 250 (300-1)			NA
LNAV/VNAV DA	1137-1⅜ 425 (500-1⅜)			NA
LNAV MDA	1240-1 528 (600-1)		1240-1⅝ 528 (600-1⅝)	NA

MIRL Rwy 14-32 L
REIL Rwys 14 and 32 L

SAULT STE MARIE, MICHIGAN
Orig-C 18JUL19

SAULT STE MARIE MUNI/SANDERSON FLD (ANJ)
46°29′N-84°22′W
RNAV (GPS) RWY 14

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 32

SAULT STE MARIE MUNI/SANDERSON FLD (ANJ)

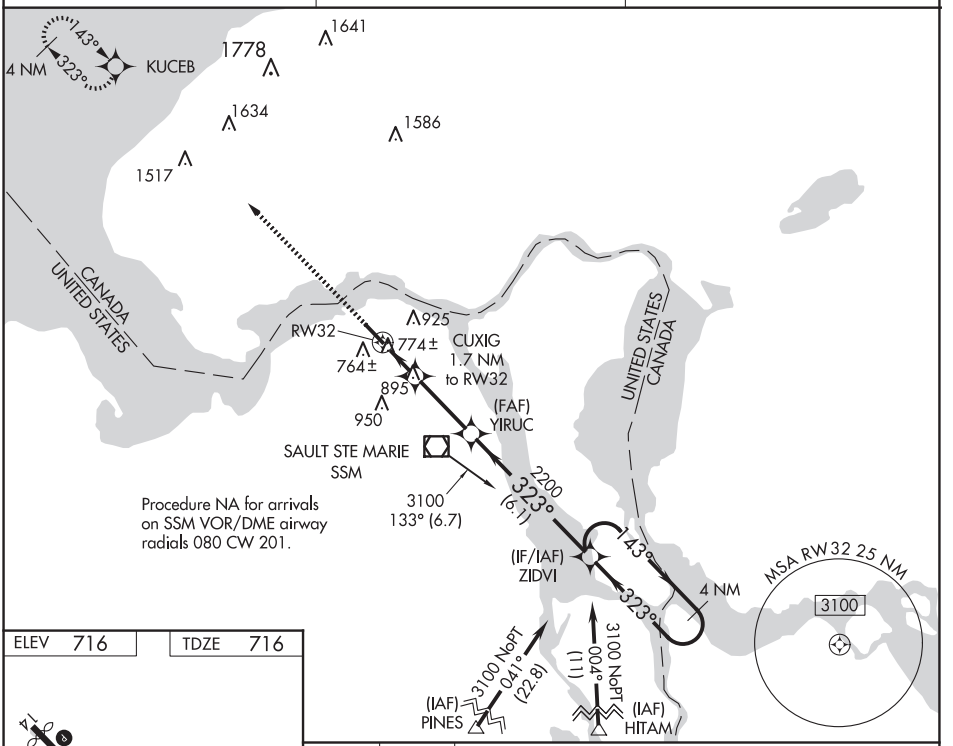
WAAS	APP CRS	Rwy Idg	5056
CH 49122	323°	TDZE	716
W32A		Apt Elev	716

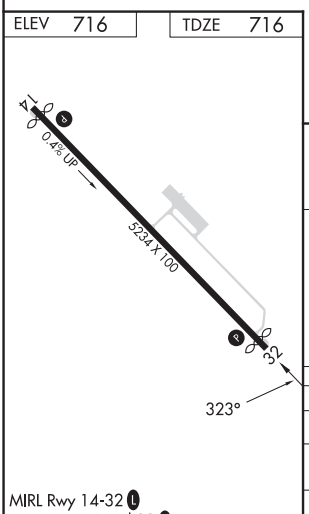
RNP APCH.

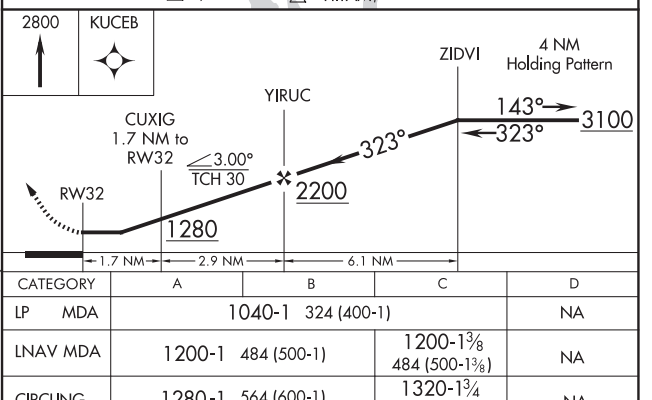
T A — Rwy 32 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Chippewa County Intl altimeter setting and increase all MDA 60 feet, and increase LP Cat C visibility ⅛ mile and LNAV Cat C visibility ¼ mile.

MISSED APPROACH: Climb to 2800 direct KUCEB and hold.

ASOS	TORONTO CENTER	UNICOM
118.375	132.65 344.5	122.7 (CTAF) L







CATEGORY	A	B	C	D
LP MDA	1040-1 324 (400-1)			NA
LNAV MDA	1200-1 484 (500-1)		1200-1⅜ 484 (500-1⅜)	NA
CIRCLING	1280-1 564 (600-1)		1320-1¾ 604 (700-1¾)	NA

MIRL Rwy 14-32 L
REIL Rwys 14 and 32 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SAULT STE MARIE, MICHIGAN | AL-503 (FAA) | 23278

VOR/DME SSM	APP CRS	Rwy Idg	5056
112.2	337°	TDZE	716
Chan 59		Apt Elev	716

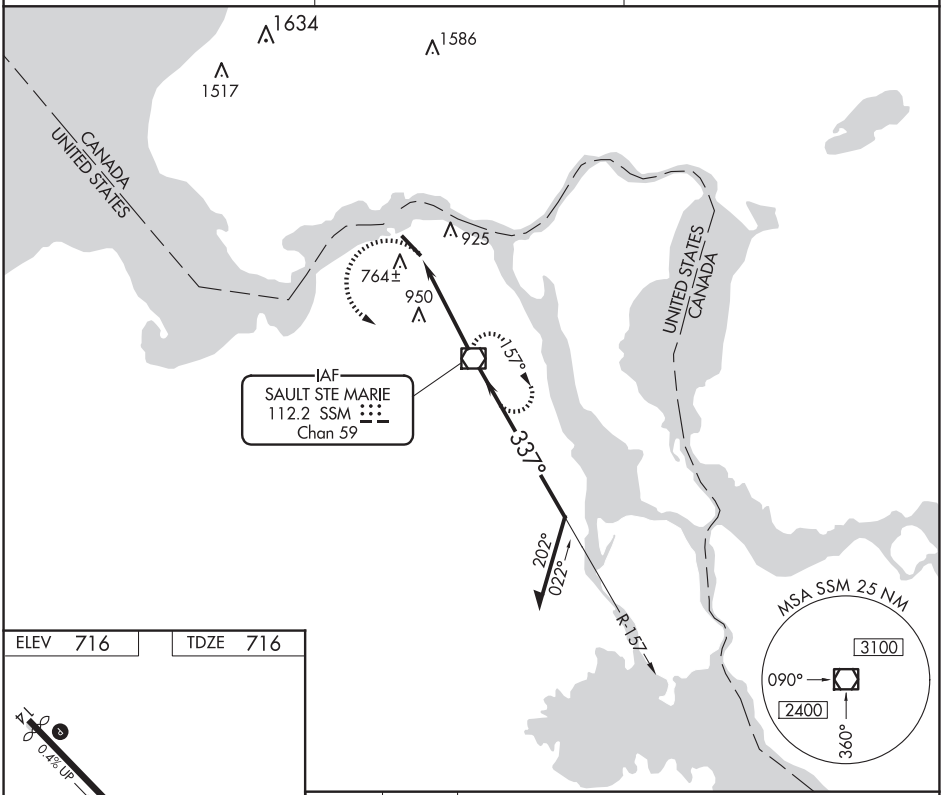
VOR RWY 32

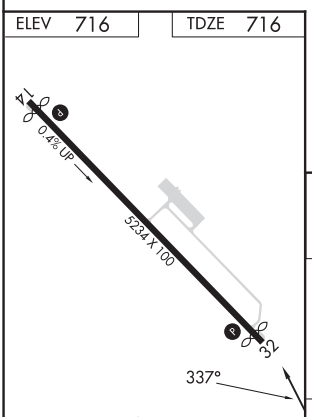
SAULT STE MARIE MUNI/SANDERSON FLD (ANJ)

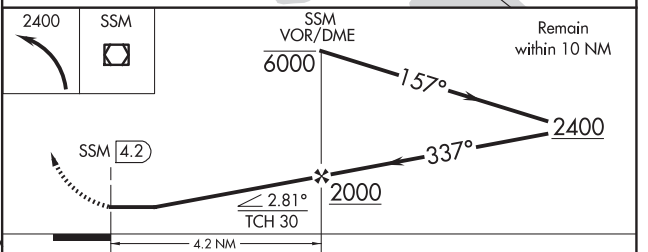
When local altimeter setting not received, use Chippewa County Intl altimeter setting and increase all MDA 60 feet and increase S-32 Cat C visibility to 1¾ mile. Rwy 32 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climbing left turn to 2400 direct SSM VOR/DME and hold.

ASOS	TORONTO CENTER	UNICOM
118.375	132.65 344.5	122.7 (CTAF) L







MIRL Rwy 14-32 L
REIL Rwys 14 and 32 L

FAF to MAP 4.2 NM

Knots	60	90	120	150	180
Min:Sec	4:12	2:48	2:06	1:41	1:24

CATEGORY	A	B	C	D
S-32	1260-1	544 (600-1)	1260-1⅝ 544 (600-1⅝)	NA
CIRCLING	1280-1	564 (600-1)	1320-1¾ 604 (700-1¾)	NA

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MT. CLEMENS, MICHIGAN

ILS or LOC Z RWY 1

LOC I-RFB	APCH CRS	Rwy Idg / TDZE / Arpt Elev
110.1	007°	9000 / 580 / 580

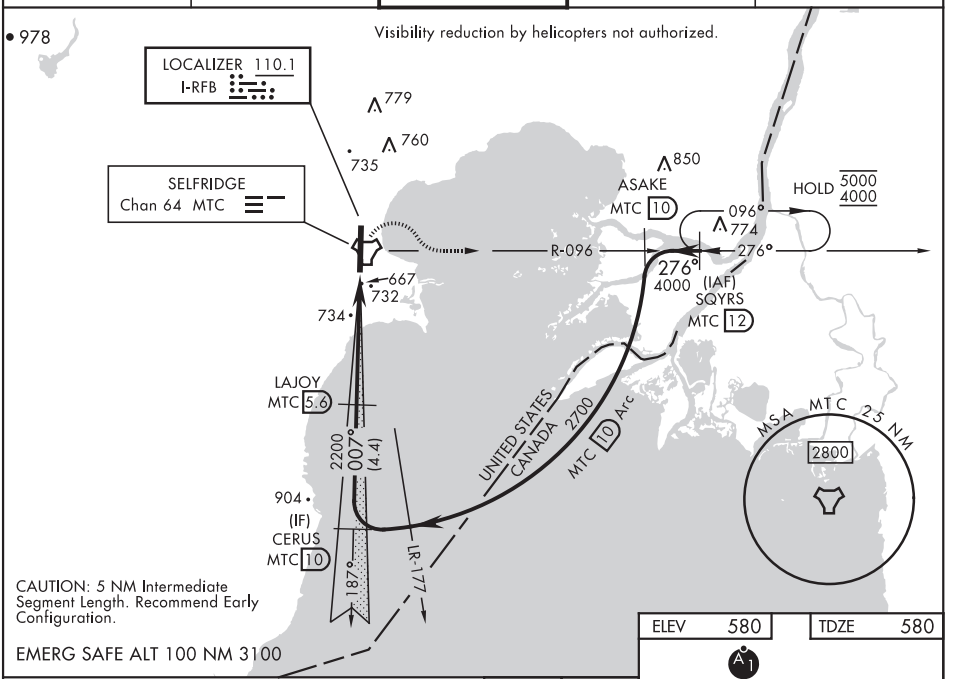
[USAF] SELFRIDGE ANGB (KMTC)

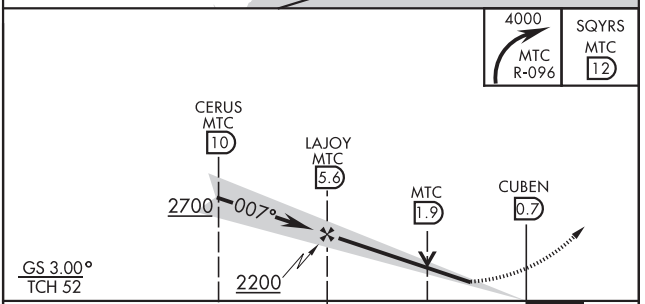
* When ALS inop, increase RVR to 45, vis to 7/8 mile.
** When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile; CAT CDE RVR to 60, vis to 1 1/8 miles.
*** Circling not authorized W of Rwy 01-19.

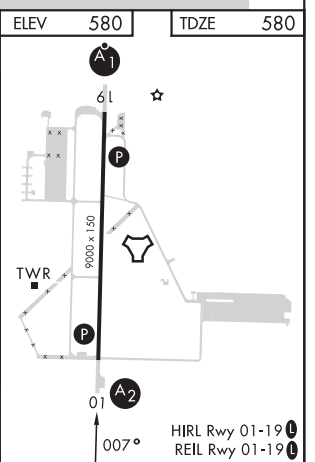
SALS: A2

MISSED APPROACH: Climbing right turn to 4000, intercept MTC R-096 to SQYRS and hold, continue climb-in-hold to 4000.

ATIS	SELFRIDGE APP CON	SELFRIDGE TOWER ★	GND CON	CLNC DEL
125.325 270.1	119.6 318.2	120.15 (CTAF) L 225.4	128.3 275.8	128.3 275.8







CATEGORY	A	B	C	D	E
S-ILS 01*	873/40 293 (300-¾)				
S-LOC 01**	1000/40 420 (500-¾)		1000/50 420 (500-1)		
CIRCLING***	1040-1 460 (500-1)		1040-1½ 460 (500-1½)	1140-2 560 (600-2)	

FAF to MAP 4.9 NM

Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

MT. CLEMENS, MICHIGAN 42°37'N-82°50'W SELFRIDGE ANGB (KMTC)

Amdt 4 26DEC24

ILS or LOC Z RWY 1

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MT. CLEMENS, MICHIGAN

ILS or LOC Z RWY 19

LOC I-MTC	APCH CRS	Rwy ldg	9000
110.1	187°	TDZE	579
		Arpt Elev	580

[USAF]

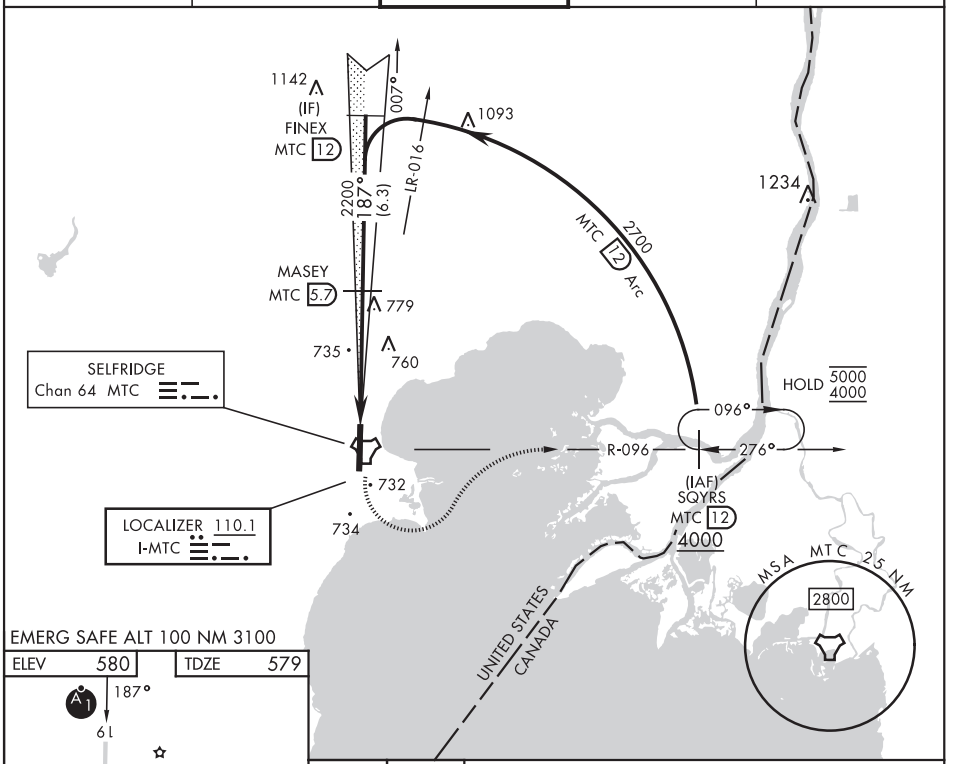
SELFRIDGE ANGB (KMTC)

* When ALS inop, increase RVR to 40, vis to ¾ mile.
** When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CDE vis to 1⅜ miles.
*** Circling not authorized W of Rwy 01-19.

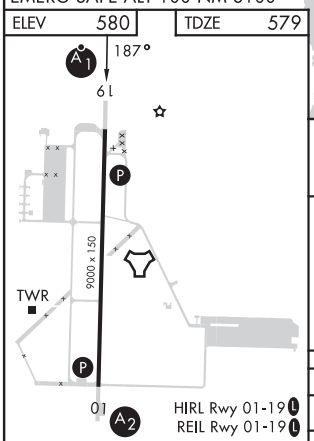
ALSF-1

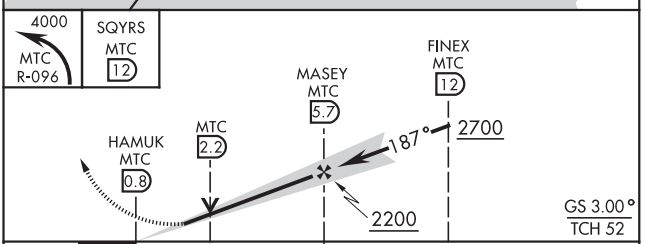
MISSED APPROACH: Climbing left turn to 4000, intercept MTC R-096 to SQYRS and hold, continue climb-in-hold to 4000.

ATIS	SELFRIDGE APP CON	SELFRIDGE TOWER ★	GND CON	CLNC DEL
125.325 270.1	119.6 318.2	120.15 (CTAF) L 225.4	128.3 275.8	128.3 275.8



EMERG SAFE ALT 100 NM 3100





CATEGORY	A	B	C	D	E
S-ILS 19*	779/24		200	(200-½)	
S-LOC 19**	1060/24	481 (500-½)	1060/50	481 (500-1)	
CIRCLING ***	1060-1	480 (500-1)	1060-1½ 480 (500-1½)	1140-2	560 (600-2)

FAF to MAP 4.9 NM					
Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

MT. CLEMENS, MICHIGAN

42°37'N-82°50'W

SELFRIDGE ANGB (KMTC)

Amdt 4 26DEC24

ILS or LOC Z RWY 19

EC-1, 07 AUG 2025 to 02 OCT 2025

MT. CLEMENS, MICHIGAN

RNAV (GPS) RWY 1

APCH CRS	Rwy ldg	9000
007°	TDZE	580
	Arpt Elev	580

AL-276 (USAF)

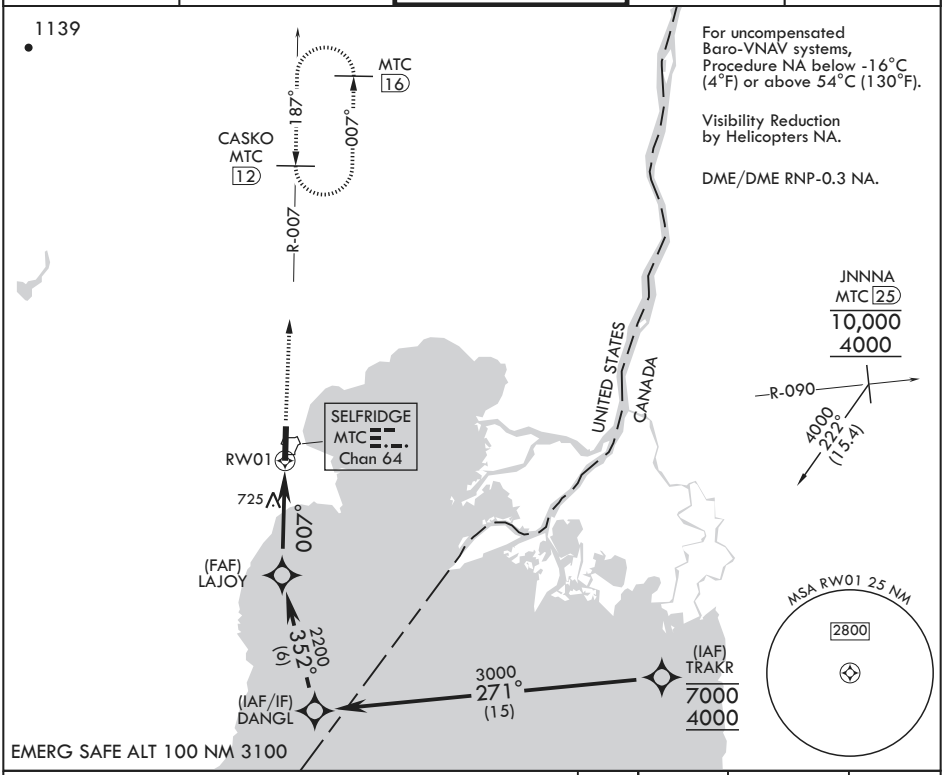
SELFRIDGE ANGB (KMTC)

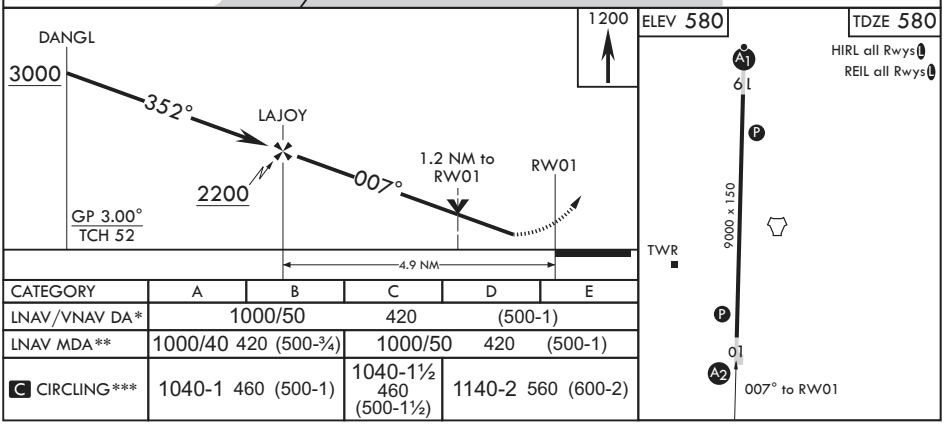
* When ALS inop increase RVR to 60, vis to 1 1/8 miles.
** When ALS inop increase CAT AB RVR to 55, vis to 1 mile; CAT CDE RVR to 60, vis to 1 1/8 miles.
*** Circling not authorized W of Rwy 01-19.

SALS A2

MISSED APPROACH: Climb to 1200 then climbing right turn to 4000 direct CASKO (MTC TACAN R-007/12 DME) and hold, continue climb-in-hold to 4000.

ATIS	APP CON/DEP CON	TOWER★	GND CON	CLNC DEL
125.325 270.1	119.6 318.2	120.15 (CTAF) 225.4	128.3 275.8	128.3 275.8





CATEGORY	A	B	C	D	E
LNAV/VNAV DA*	1000/50		420	(500-1)	
LNAV MDA**	1000/40	420 (500-¾)	1000/50	420	(500-1)
C CIRCLING***	1040-1	460 (500-1)	1040-1½ 460 (500-1½)	1140-2	560 (600-2)

MT. CLEMENS, MICHIGAN

Orig 20MAY21

42°37'N - 82°50'W

SELFRIDGE ANGB (KMTC)

RNAV (GPS) RWY 1

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

22111

MT. CLEMENS, MICHIGAN

RNAV (GPS) RWY 19

APCH CRS	Rwy ldg	9000
187°	THRE	579
	Arpt Elev	580

AL-276 [USAF]

SELFRIDGE ANGB (KMTC)

DME/DME RNP-0.3 NA.

▼ * When ALS inop, increase vis to 1¼ miles.

ALSF-1

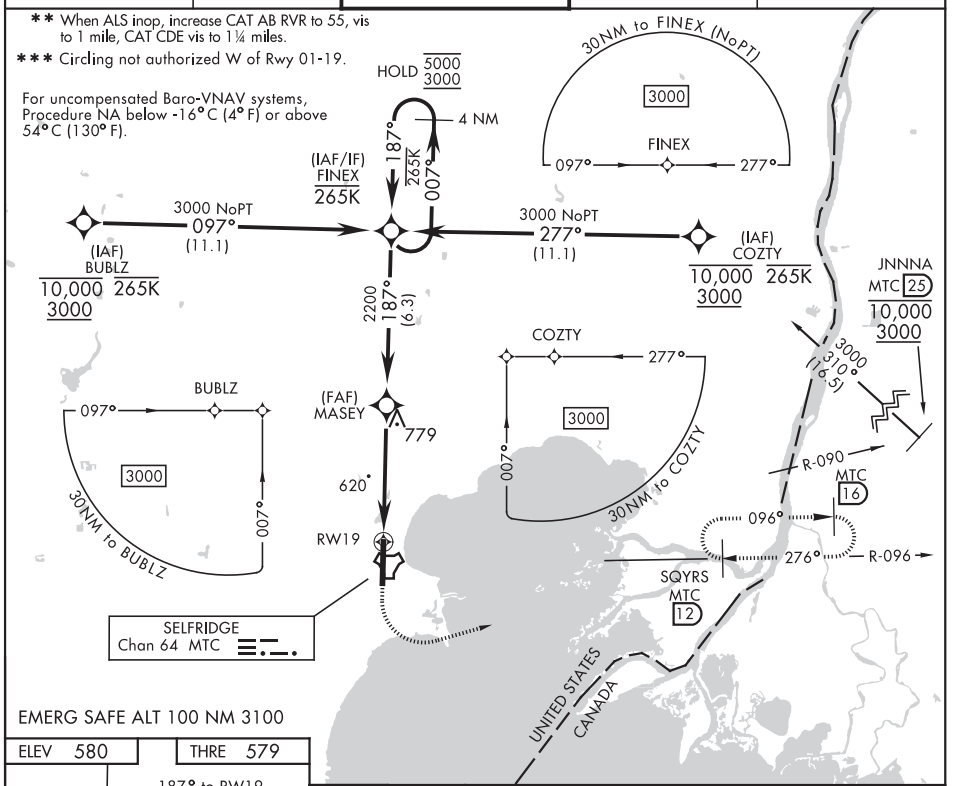
MISSED APPROACH: Climb to 1200 then climbing left turn to 4000 direct SQYRS (MTC TACAN R-096/12DME), do not exceed 250 KIAS until turn completion and hold, continue climb-in-hold to 4000.

ATIS	APP CON	TOWER★	GND CON	CLNC DEL
125.325 270.1	119.6 318.2	120.15 (CTAF) L 225.4	128.3 275.8	128.3 275.8

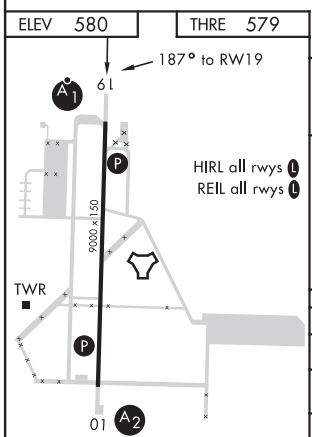
** When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CDE vis to 1¼ miles.

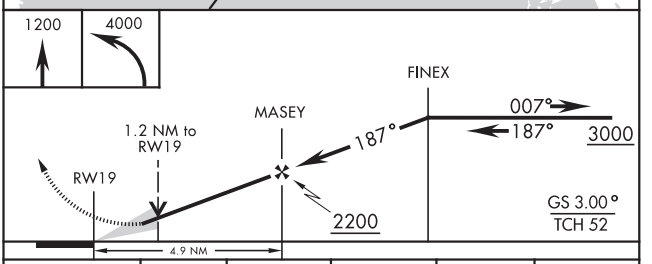
*** Circling not authorized W of Rwy 01-19.

For uncompensated Baro-VNAV systems, Procedure NA below -16°C (4°F) or above 54°C (130°F).



EMERG SAFE ALT 100 NM 3100





CATEGORY	A	B	C	D	E
LNAV/VNAV DA*	1000/40 421 (500-¾)				
LNAV MDA**	1000/24 421 (500-½)		1000/40 421 (500-¾)		
C CIRCLING***	1040-1 460 (500-1)		1040-1½ 460 (500-1½)	1140-2 560 (600-2)	

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MT. CLEMENS, MICHIGAN

TACAN Z RWY 1

TACAN	APCH CRS	Rwy Idg	9000
MTC Chan 64	018°	TDZE	580
		Arpt Elev	580

[USAF] SELFRIDGE ANGB (KMTC)

T * When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CDE vis to 1⅜ miles.
** Circling not authorized W of Rwy 01-19.

SALS A2

MISSED APPROACH: Climbing right turn to 4000, intercept MTC R-096 to SQYRS and hold, continue to climb-in-hold to 4000.

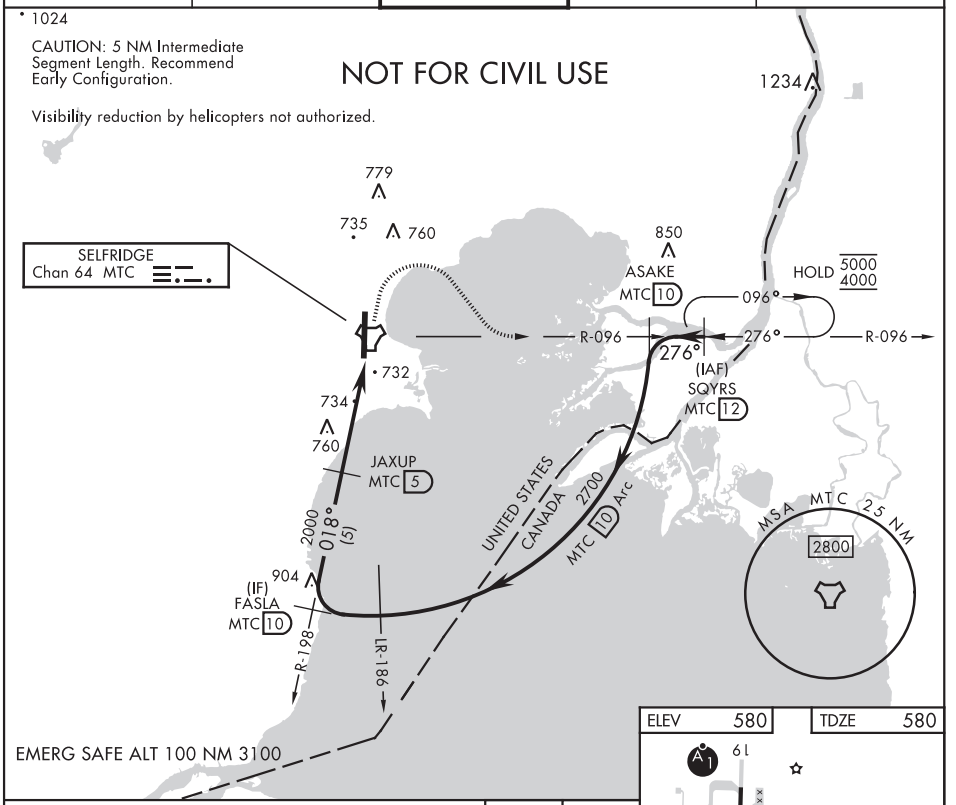
ATIS	SELFRIDGE APP CON	SELFRIDGE TOWER ★	GND CON	CLNC DEL
125.325 270.1	119.6 318.2	120.15 (CTAF) L 225.4	128.3 275.8	128.3 275.8

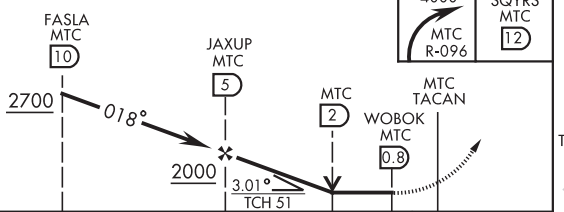
1024

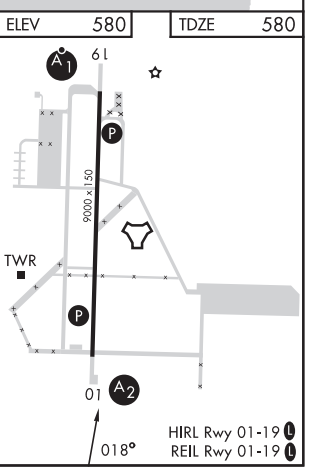
CAUTION: 5 NM Intermediate Segment Length. Recommend Early Configuration.

NOT FOR CIVIL USE

Visibility reduction by helicopters not authorized.







CATEGORY	A	B	C	D	E
S-01*	1040/40	460 (500-¾)	1040/55	460 (500-1)	
CIRCLING **	1040-1	460 (500-1)	1040-1½ 460 (500-1½)	1140-2	560 (600-2)

MT. CLEMENS, MICHIGAN 42°37'N-82°50'W SELFRIDGE ANGB (KMTC)

Amdt 4 26DEC24

TACAN Z RWY 1

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

MT. CLEMENS, MICHIGAN

TACAN Z RWY 19

TACAN MTC Chan 64	APCH CRS 177°	Rwy ldg 9000 TDZE 579 Arpt Elev 580

[USAF] SELFRIDGE ANGB (KMTC)

* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CDE vis to 1⅜ miles.
** Circling not authorized W of Rwy 01-19.

ALSF-1

MISSED APPROACH: Climbing left turn to 4000, intercept MTC R-096 to SQYRS and hold, continue climb-in-hold to 4000.

ATIS	SELFRIDGE APP CON	SELFRIDGE TOWER ★	GND CON	CLNC DEL
125.325 270.1	119.6 318.2	120.15 (CTAF) L 225.4	128.3 275.8	128.3 275.8

1138

Visibility reductions by helicopters not authorized.

R-357

1142

885

TOPAE MTC 12

177° (7)

1900

LR-007

2800 MTC 12 Arc

1234

BKKUS MTC 5

779

735

760

779

SELFRIDGE Chan 64 MTC

732

734

R-096

(IAF) SQYRS MTC 12

4000

HOLD 5000 4000

096°

276°

R-096

MSA MTC 25 NM 2800

UNITED STATES CANADA

EMERG SAFE ALT 100 NM 3100

ELEV 580 TDZE 579

177°

HIRL Rwy 01-19 L

REIL Rwy 01-19 L

6L

9000 x 150

TWR

01

TOPAE MTC 12

2800

177°

1900

BKKUS MTC 5

MTC 2.1

SOMPE MTC 0.9

MTC TACAN

2.87°

TCH 51

4.1 NM

0.1

4000 MTC R-096

SQYRS MTC 12

CATEGORY	A	B	C	D	E
S-19 *	1040/40 461 (500-¾)		1040/50 461 (500-1)		
CIRCLING **	1040-1 460 (500-1)		1040-1½ 460 (500-1½)	1140-2 560 (600-2)	

EC-1, 07 AUG 2025 to 02 OCT 2025

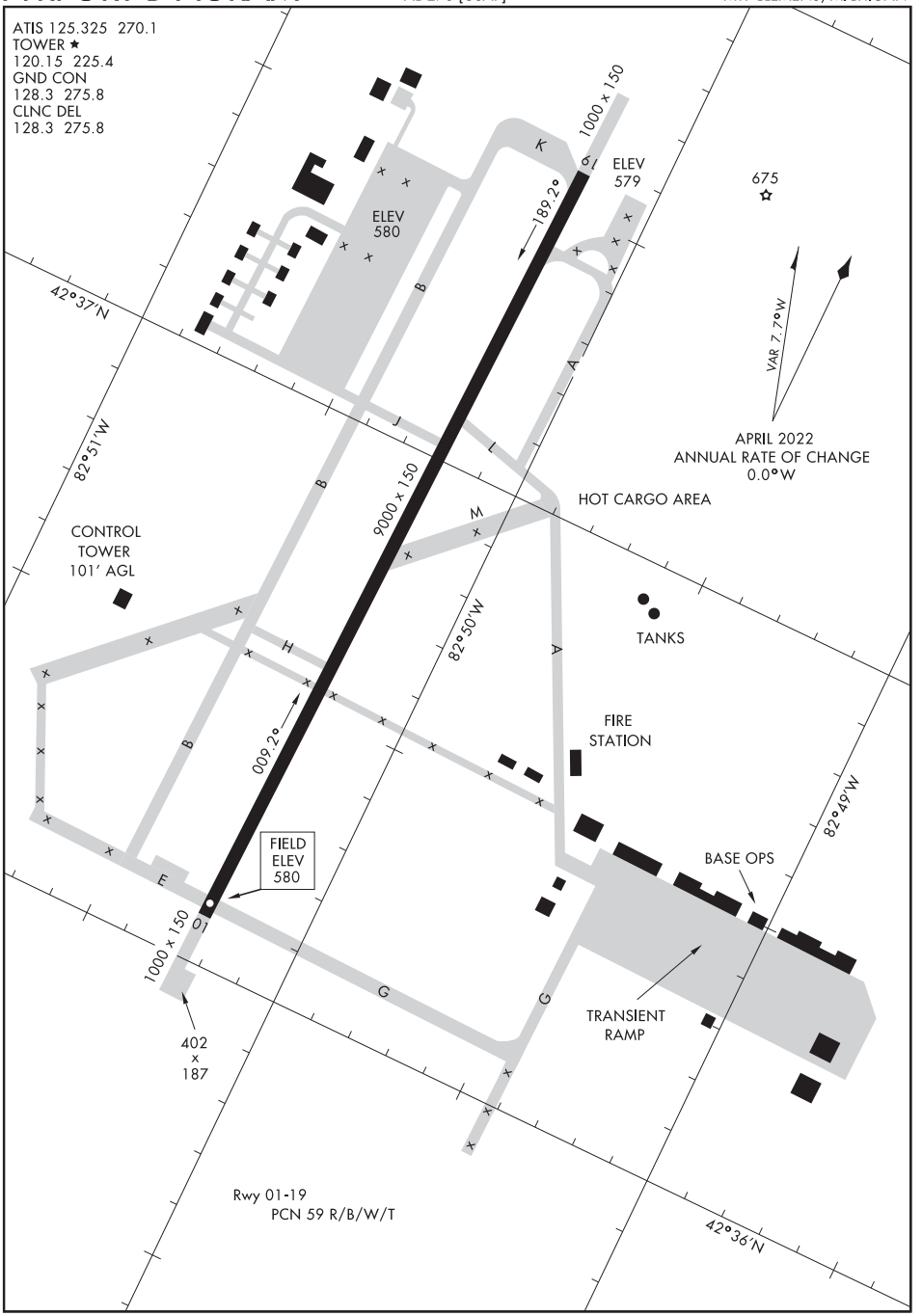
EC-1, 07 AUG 2025 to 02 OCT 2025

AIRPORT DIAGRAM

AL-276 [USAF]

SELFRIDGE ANGB (KMTC)

MT. CLEMENS, MICHIGAN



EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

AIRPORT DIAGRAM

MT. CLEMENS, MICHIGAN

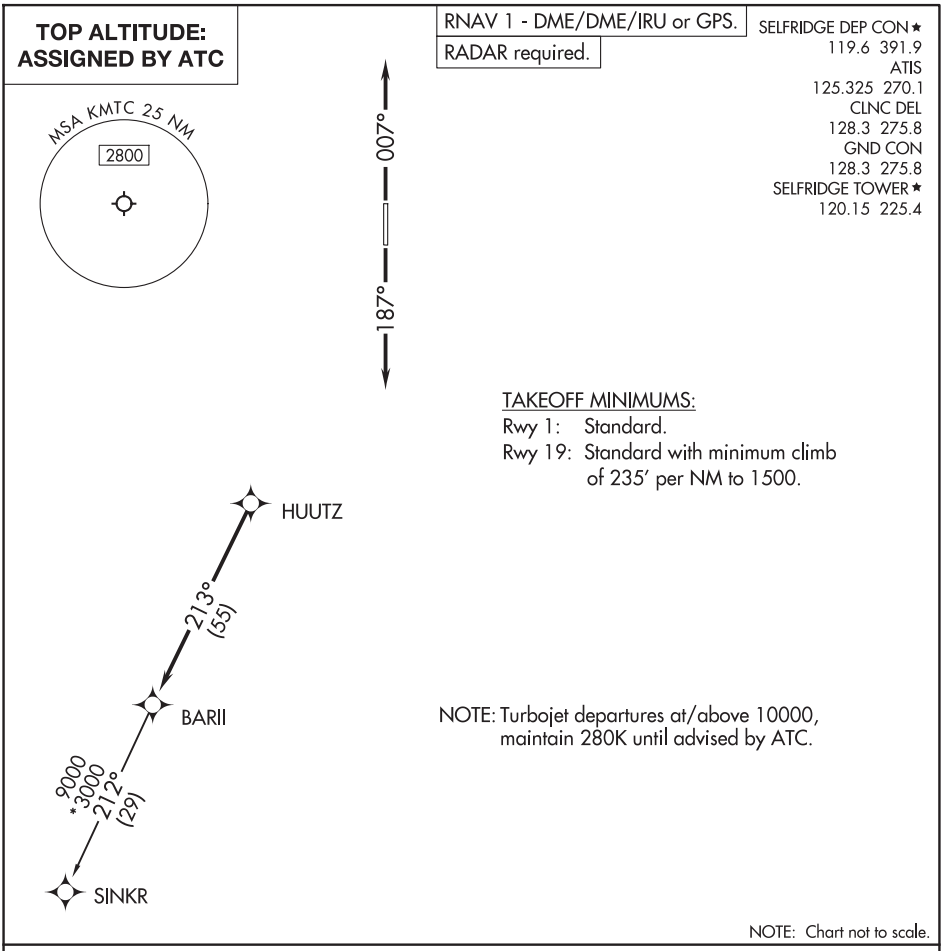
SELFRIDGE ANGB (KMTC)

(BARII3.BARII) 25219

BARII THREE DEPARTURE (RNAV)

AL-276 (FAA)

SELFRIDGE ANGB (KMTC)
MOUNT CLEMENS, MICHIGAN



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....
TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence....

....for RADAR vectors to HUUTZ, then on track 213° to BARII, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SINKR TRANSITION (BARII3.SINKR):

EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR 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: Chart not to scale.

SELFRIDGE DEP CON★ 119.6 391.9
ATIS 125.325 270.1
CLNC DEL 128.3 275.8
GND CON 128.3 275.8
SELFRIDGE TOWER★ 120.15 225.4

TAKEOFF MINIMUMS:
Rwy 1: Standard.
Rwy 19: Standard with minimum climb of 235' per NM to 1500.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....
TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence....

....for RADAR vectors to BROZZ, then on track 279° to CCOBB, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

ZEGBI TRANSITION (CCOBB3.ZEGBI):

EC-1, 07 AUG 2025 to 02 OCT 2025

(CLVIN3.CLVIN) 25219

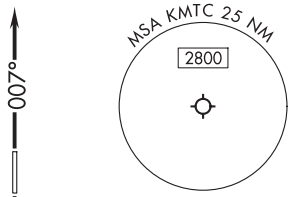
CLVIN THREE DEPARTURE (RNAV)

AL-276 (FAA)

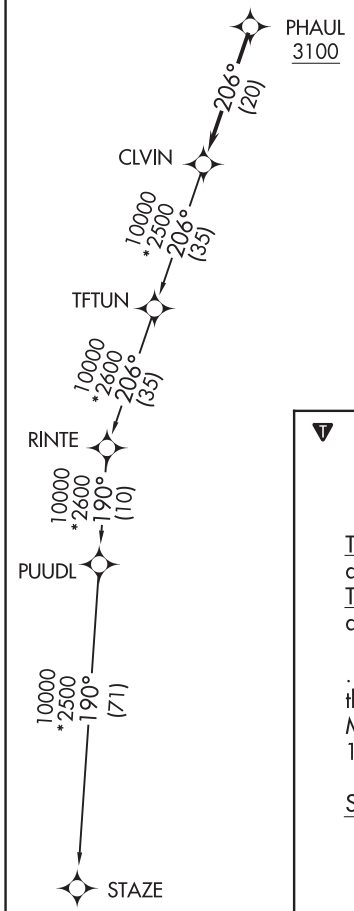
SELFRIDGE ANGB (KMTC)
MOUNT CLEMENS, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.



SELFRIDGE DEP CON★
119.6 391.9
ATIS
125.325 270.1
CLNC DEL
128.3 275.8
GND CON
128.3 275.8
SELFRIDGE TOWER★
120.15 225.4



TAKEOFF MINIMUMS:
Rwy 1: Standard.
Rwy 19: Standard with minimum climb of 235' per NM to 1500.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....
TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence....

....for RADAR vectors to cross PHAUL at or above 3100, then on track 206° to CLVIN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

STAZE TRANSITION (CLVIN3.STAZE):

EC-1, 07 AUG 2025 to 02 OCT 2025

CLVIN THREE DEPARTURE (RNAV)
(CLVIN3.CLVIN) 16MAY24
MOUNT CLEMENS, MICHIGAN
SELFRIDGE ANGB (KMTC)

HHOWE FOUR DEPARTURE (RNAV) AL-276 (FAA)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....
TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence....

....for RADAR vectors to cross MALTB at or above 2200, then on track 094° to HHOWE, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BROKK TRANSITION (HHOWE4.BROKK):
LNCON TRANSITION (HHOWE4.LNCON):

EC-1, 07 AUG 2025 to 02 OCT 2025

HHOWE FOUR DEPARTURE (RNAV)
(HHOWE4.HHOWE) 16MAY24
MOUNT CLEMENS, MICHIGAN
SELFRIDGE ANGB (KMTC)

(KAYLN3.KAYLN) 25219

KAYLN THREE DEPARTURE (RNAV)

AL-276 (FAA)

SELFRIDGE ANGB (KMTC)
MOUNT CLEMENS, MICHIGAN

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....
TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence....

....for RADAR vectors to MTRCT, then on track 279° to KAYLN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SMUUV TRANSITION (KAYLN3.SMUUV):

KAYLN THREE DEPARTURE (RNAV)
(KAYLN3.KAYLN) 16MAY24
MOUNT CLEMENS, MICHIGAN
SELFRIDGE ANGB (KMTC)

EC-1, 07 AUG 2025 to 02 OCT 2025

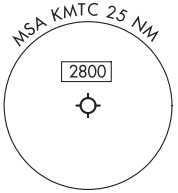
SELFRIDGE DEP CON ★
119.6 391.9
ATIS
125.325 270.1
CLNC DEL
128.3 275.8
GND CON
128.3 275.8
SELFRIDGE TOWER ★
120.15 225.4

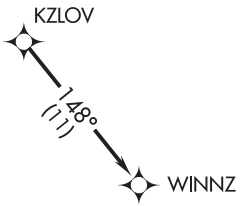
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS:
Rwy 1: Standard.
Rwy 19: Standard with minimum climb of 235′ per NM to 1500.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: For use by Cleveland terminal arrivals only.





NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....
TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence....

....for RADAR vectors to KZLOV, then on track 148° to WINNZ. Maintain ATC assigned altitude, expect filed altitude ten minutes after departure.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(LIDDS4.LIDDS) 25219

LIDDS FOUR DEPARTURE (RNAV)

AL-276 (FAA)

SELFRIDGE ANGB (KMTC)
MOUNT CLEMENTS, MICHIGAN

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....
TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence....

.... for RADAR vectors to cross KZLOV at or below 15000, then on track 111° to LIDDS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

GRIVY TRANSITION (LIDDS4.GRIVY):

EC-1, 07 AUG 2025 to 02 OCT 2025

LIDDS FOUR DEPARTURE (RNAV)
(LIDDS4.LIDDS) 17APR25
MOUNT CLEMENTS, MICHIGAN
SELFRIDGE ANGB (KMTC)

TOP ALTITUDE:
ASSIGNED BY ATC
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.
ATIS 125.325 270.1
CLNC DEL 128.3 275.8
GND CON 128.3 275.8
SELFRIDGE TOWER ★ 120.15 225.4
SELFRIDGE DEP CON ★ 119.6 391.9
HUBBY
5000
*2600
332°
(34)
SLAP
5000
*2300
308°
(24)
GETCH
5000
*2400
274°
(70)
MONEE
5000
*2300
323°
(20)
MIGGY
323°
(18)
JAXII
MSP KMTC 25 NM
2800
NOTE: Jet 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.
007°
187°
N
NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....
TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence....
....for RADAR vectors to JAXII, then on track 323° to MIGGY, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.
GETCH TRANSITION (MIGGY3.GETCH):
HUBBY TRANSITION (MIGGY3.HUBBY):
SLLAP TRANSITION (MIGGY3.SLLAP):
TAKEOFF MINIMUMS:
Rwy 1: Standard.
Rwy 19: Standard with minimum climb of 235' per NM to 1500.

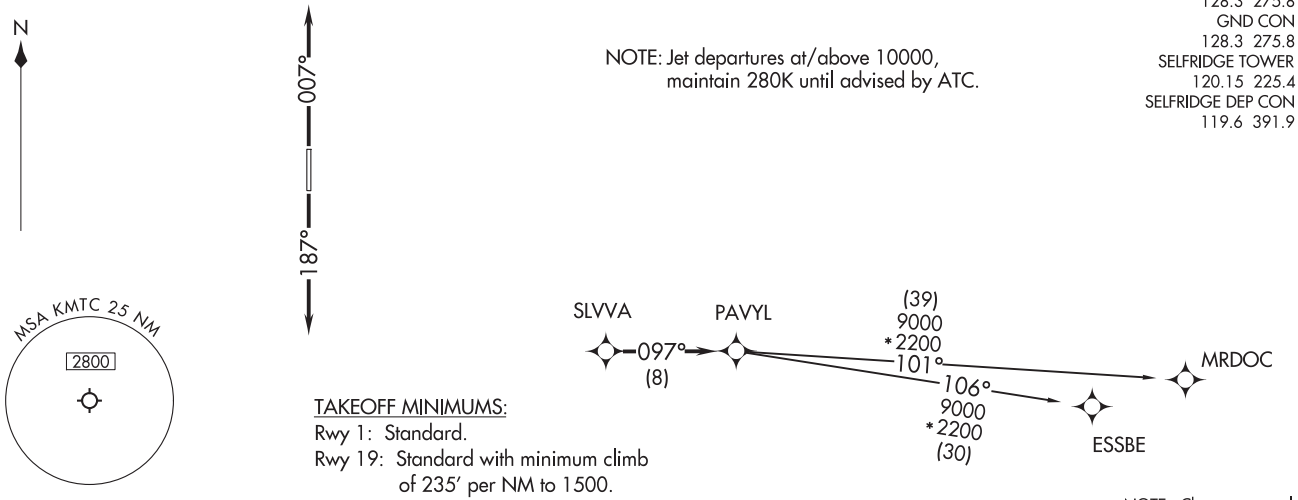
PAVYL THREE DEPARTURE (RNAV)

(PAVYL3.PAVYL) 16MAY24

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

ATIS 125.325 270.1
CLNC DEL 128.3 275.8
GND CON 128.3 275.8
SELFRIDGE TOWER ★ 120.15 225.4
SELFRIDGE DEP CON ★ 119.6 391.9



TAKEOFF MINIMUMS:
Rwy 1: Standard.
Rwy 19: Standard with minimum climb of 235′ per NM to 1500.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....
TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence...

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

ESSBE TRANSITION (PAVYL3.ESSBE):
MRDOC TRANSITION (PAVYL3.MRDOC):

(PAVYL3.PAVYL) 25219
PAVYL THREE DEPARTURE (RNAV)
AL-276 (FAA)

SELFRIDGE ANGB (KMTC)
MOUNT CLEMENS, MICHIGAN

MOUNT CLEMENS, MICHIGAN
SELFRIDGE ANGB (KMTC)

EC-1, 07 AUG 2025 to 02 OCT 2025

DEPARTURE ROUTE DESCRIPTION

TOP ALTITUDE: ASSIGNED BY ATC

RNAV-1 DME/DME/IRU or GPS.

RADAR required.

TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....

TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence....

....for RADAR vectors to JWELS, then on track 218° to SNDRS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BGHRT TRANSITION (SNDRS3.BGHRT):
TORRR TRANSITION (SNDRS3.TORRR):

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: Chart not to scale.

SELFRIDGE DEP CON ★ 119.6 391.9
ATIS 125.325 270.1
CLNC DEL 128.3 275.8
GND CON 128.3 275.8
SELFRIDGE TOWER ★ 120.15 225.4

TAKEOFF MINIMUMS:
Rwy 1: Standard.
Rwy 19: Standard with minimum climb of 235' per NM to 1500.

EC-1, 07 AUG 2025 to 02 OCT 2025

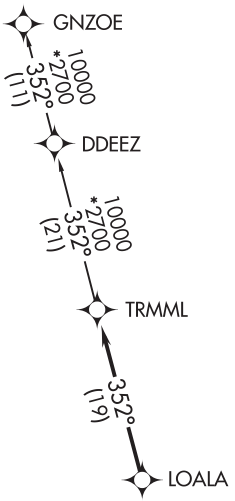
(TRMML4.TRMML) 25219
TRMML FOUR DEPARTURE (RNAV)
AL-276 (FAA)

SELFRIDGE ANGB (KMTC)
MOUNT CLEMENS, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

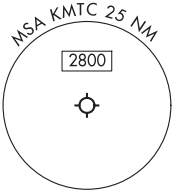
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

SELFRIDGE DEP CON ★
119.6 391.9
ATIS
125.325 270.1
CLNC DEL
128.3 275.8
GND CON
128.3 275.8
SELFRIDGE TOWER ★
120.15 225.4



TAKEOFF MINIMUMS:
Rwy 1: Standard.
Rwy 19: Standard with minimum climb of 235′ per NM to 1500.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....
TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence....

....for RADAR vectors to LOALA, then on track 352° to TRMML, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

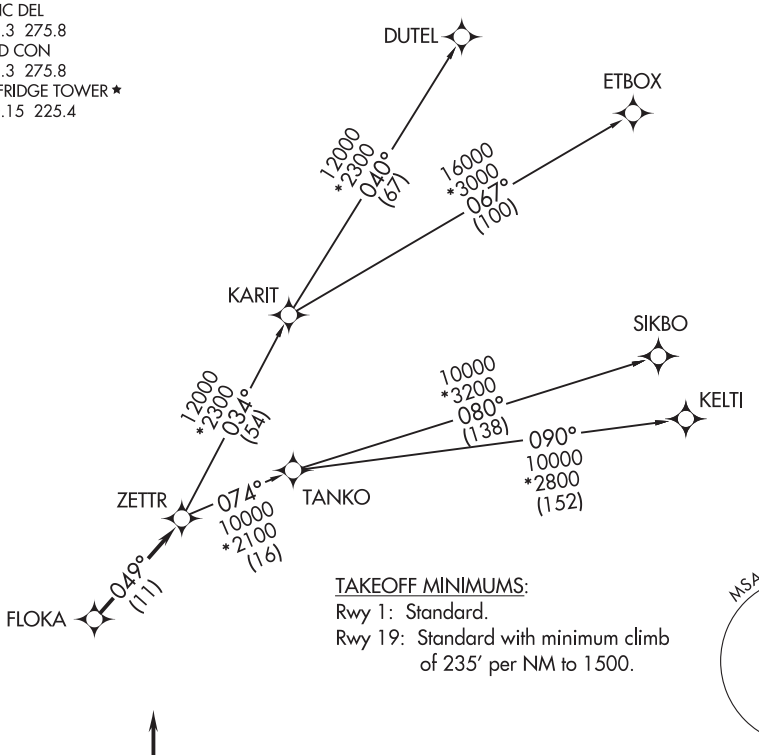
GNZOE TRANSITION (TRMML4.GNZOE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

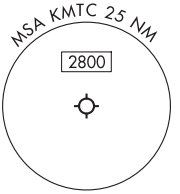
SELFRIDGE DEP CON ★
119.6 391.9
ATIS
125.325 270.1
CLNC DEL
128.3 275.8
GND CON
128.3 275.8
SELFRIDGE TOWER ★
120.15 225.4

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC



TAKEOFF MINIMUMS:
Rwy 1: Standard.
Rwy 19: Standard with minimum climb of 235′ per NM to 1500.



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: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 1: Climb on heading 007° or as assigned by ATC, thence....
TAKEOFF RUNWAY 19: Climb on heading 187° or as assigned by ATC, thence....

....for RADAR vectors to FLOKA, then on track 049° to ZETTR, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

DUTEL TRANSITION (ZETTR4.DUTEL):
ETBOX TRANSITION (ZETTR4.ETBOX):
KELTI TRANSITION (ZETTR4.KELTI):
SIKBO TRANSITION (ZETTR4.SIKBO):
TANKO TRANSITION (ZETTR4.TANKO):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SOUTH HAVEN, MICHIGAN | AL-5472 (FAA) | 24361

RNAV (GPS) RWY 5

SOUTH HAVEN AREA RGNL (LWA)

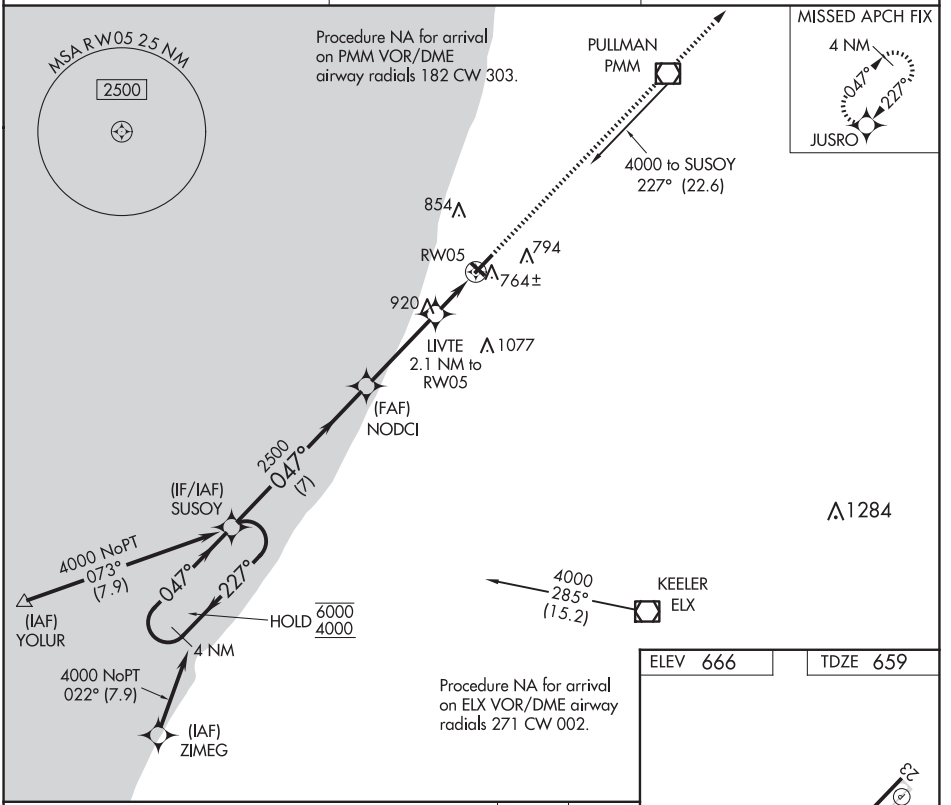
APP CRS	Rwy Idg	4800
047°	TDZE	659
	Apt Elev	666

RNP APCH - GPS.

Rwy 5 helicopter visibility reduction below ¾ SM NA.
Circling NA to Rwys 14 and 32.

MISSED APPROACH: Climb to 4000 direct JUSRO and hold, continue climb-in-hold to 4000.

AWOS-3	SOUTH BEND APP CON ★	UNICOM
118.025	118.55 257.8	122.8 (CTAF) L



CATEGORY	A	B	C	D
LNAV MDA	1020-1 361 (400-1)			
C CIRCLING	1120-1 454 (500-1)	1160-1 494 (500-1)	1440-2¼ 774 (800-2¼)	1440-2½ 774 (800-2½)

REIL Rwys 5 and 23 L
MIRL Rwy 5-23 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 23

SOUTH HAVEN AREA RGNL (LWA)

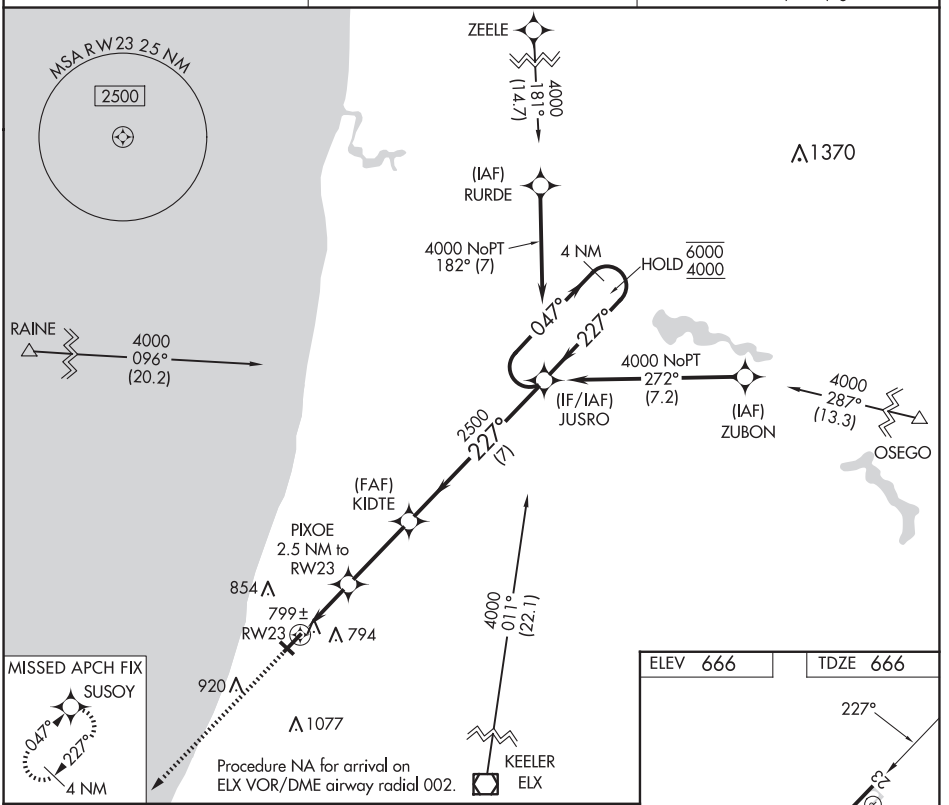
APP CRS		
227°	Rwy Idg	4800
	TDZE	666
	Apt Elev	666

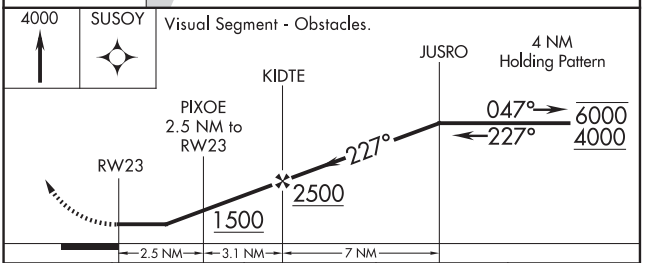
RNP APCH - GPS.

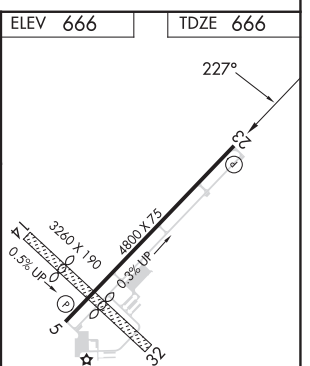
T A Rwy 23 helicopter visibility reduction below ¾ SM NA. Circling NA to Rwys 14 and 32.

MISSED APPROACH: Climb to 4000 direct SUSOY and hold, continue climb-in-hold to 4000.

AWOS-3	SOUTH BEND APP CON ★	UNICOM
118.025	118.55 257.8	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1060-1	394 (400-1)	1060-1⅛	394 (400-1⅛)
C CIRCLING	1120-1 454 (500-1)	1160-1 494 (500-1)	1440-2¼ 774 (800-2¼)	1440-2½ 774 (800-2½)

REIL Rwys 5 and 23 L
MIRL Rwy 5-23 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

SPARTA, MICHIGAN | AL-6186 (FAA) | 24333

RNAV (GPS) RWY 7

PAUL C MILLER/SPARTA (8D4)

APP CRS	Rwy Idg	4033
066°	TDZE	775
	Apt Elev	775

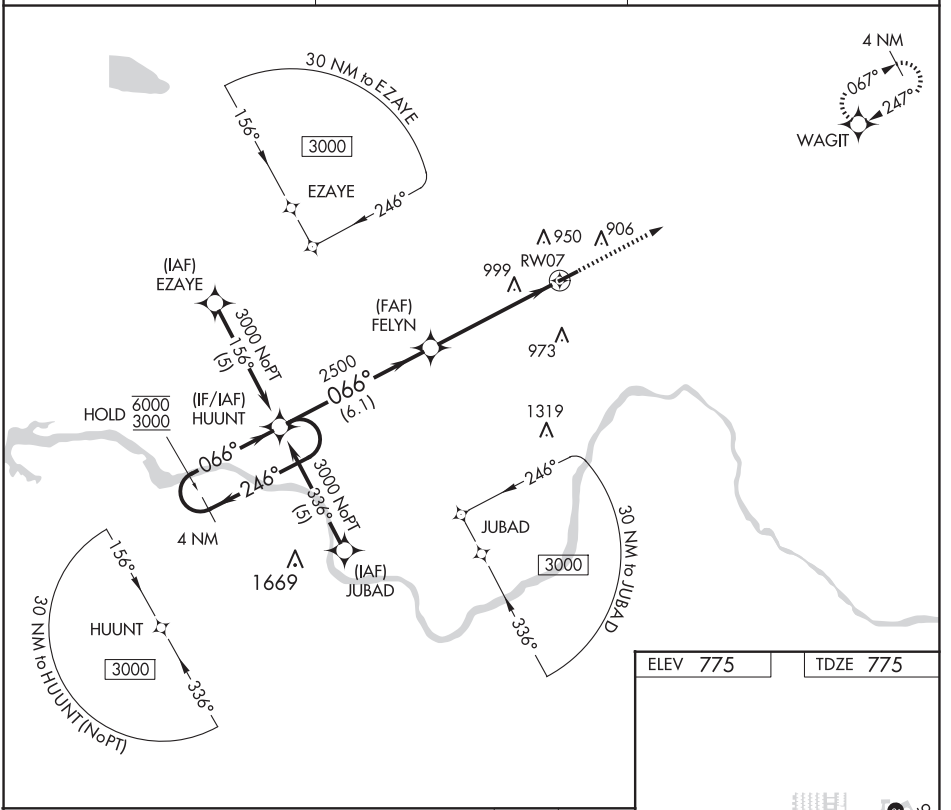
RNP APCH.

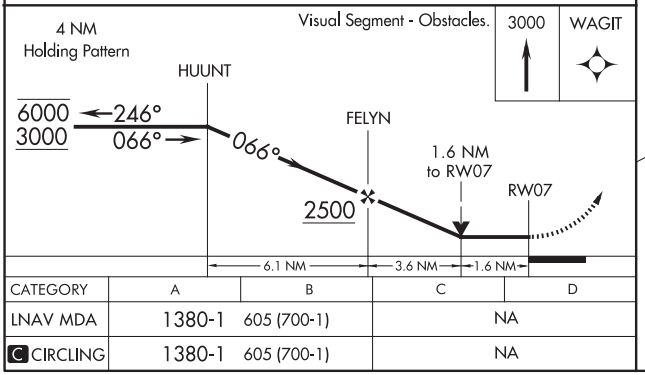
Rwy 7 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Grand Rapids altimeter setting. VDP NA when using Grand Rapids altimeter setting.

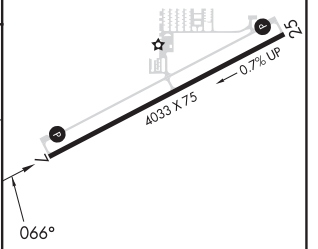
NA

MISSED APPROACH: Climb to 3000 direct WAGIT and hold.

AWOS-3PT	GREAT LAKES APP CON ★	UNICOM
126.65	124.6 257.6	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1380-1	605 (700-1)	NA	
C CIRCLING	1380-1	605 (700-1)	NA	

MIRL Rwy 7-25 L

REIL Rwy 7 and 25 L

SPARTA, MICHIGAN
Orig-B 31DEC20

43°08'N-85°41'W

PAUL C MILLER/SPARTA (8D4)

RNAV (GPS) RWY 7

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 25

PAUL C MILLER/SPARTA (8D4)

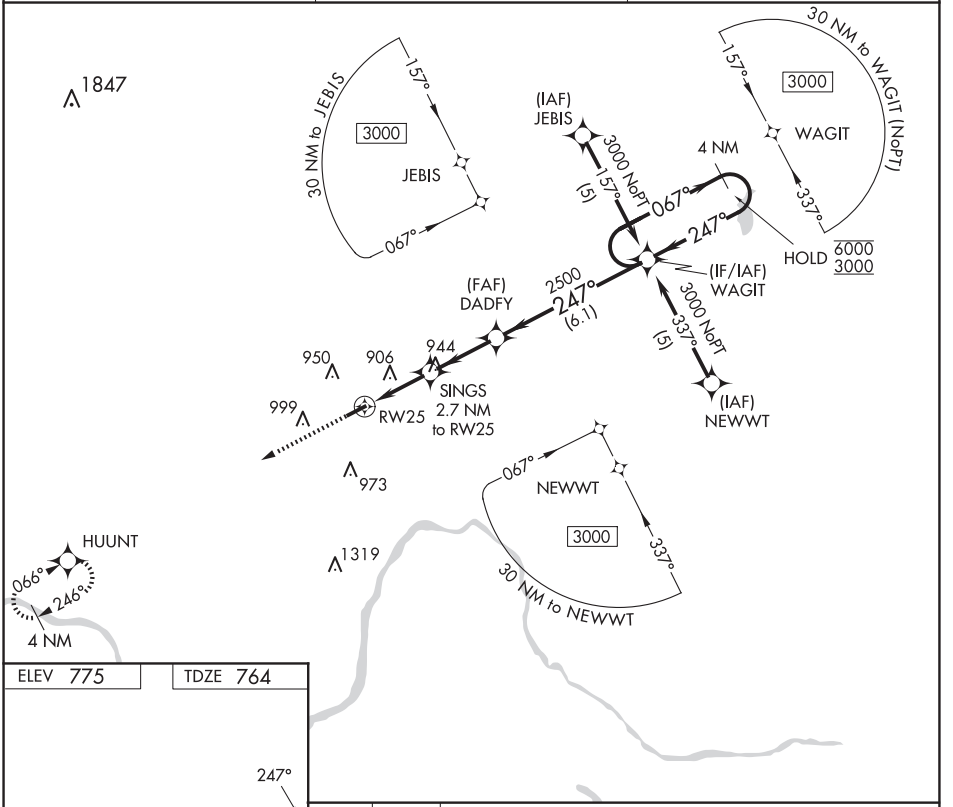
APP CRS	Rwy Idg	4033
247°	TDZE	764
	Apt Elev	775

RNP APCH.

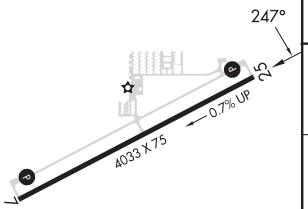
NA Rwy 25 helicopter visibility reduction below ¾ SM NA. When local altimeter setting not received, use Grand Rapids altimeter setting. VDP NA when using Grand Rapids altimeter setting.

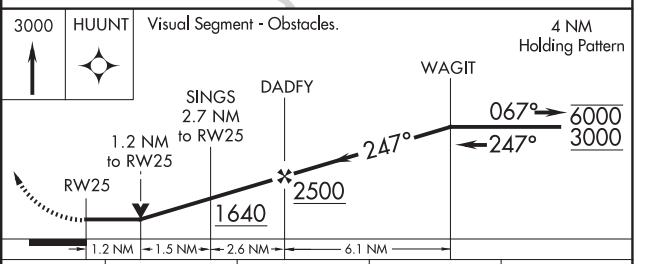
MISSED APPROACH: Climb to 3000 direct HUUNT and hold.

AWOS-3PT	GREAT LAKES APP CON ★	UNICOM
126.65	124.6 257.6	122.8 (CTAF) L



ELEV 775 TDZE 764





CATEGORY	A	B	C	D
LNAV MDA	1240-1 476 (500-1)		NA	
C CIRCLING	1300-1 525 (600-1)	1340-1 565 (600-1)	NA	

MIRL Rwy 7-25 L
REIL Rwy 7 and 25 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

STURGIS, MICHIGAN | AL-5362 (FAA) | 23054

RNAV (GPS) RWY 1

KIRSCH MUNI (IRS)

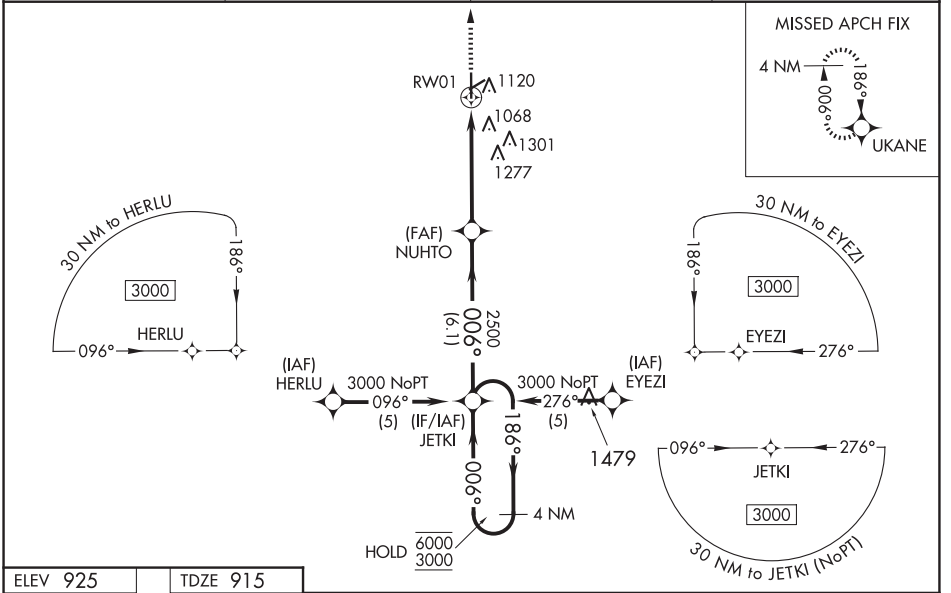
WAAS	APP CRS	Rwy Idg	5201
CH 42915	006°	TDZE	915
W01A		Apt Elev	925

RNP APCH - GPS.

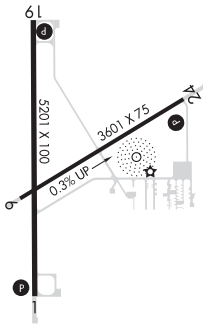
Circling Rwy 6 NA at night. Rwy 1 helicopter visibility reduction below ¾ SM NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 47°C. When local altimeter setting not received, use Three Rivers altimeter setting and increase LPV DA to 1219 feet; increase LNAV/VNAV DA to 1395 feet and all visibilities ⅛ SM. Increase all MDAs 60 feet and LNAV visibility Cat C/D ⅛ SM, and Circling visibility Cat C/D ¼ SM. VDP NA when using Three Rivers altimeter setting. Baro-VNAV NA when using Three Rivers altimeter setting.

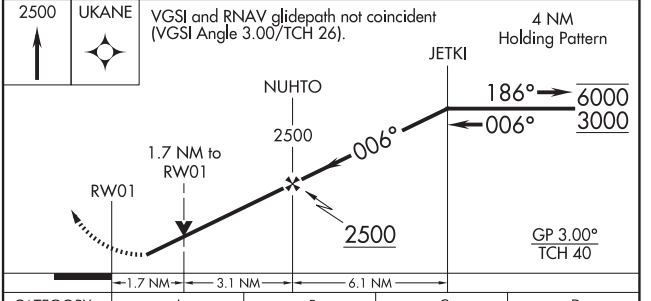
MISSED APPROACH: Climb to 2500 direct UKANE and hold.

AWOS-3	GREAT LAKES APP CON ★	CLNC DEL	UNICOM
121.325	121.2 239.25	118.325	123.05 (CTAF) L



ELEV 925	TDZE 915





CATEGORY	A	B	C	D
LPV DA	1178-⅞ 263 (300-⅞)			
LNAV/VNAV DA	1354-1¼ 439 (500-1¼)			
LNAV MDA	1480-1 565 (600-1)		1480-1⅝ 565 (600-1⅝)	
CIRCLING	1480-1 555 (600-1)		1620-2 695 (700-2)	1620-2¼ 695 (700-2¼)

STURGIS, MICHIGAN
Orig-B 29DEC22

41°49′N-85°26′W

KIRSCH MUNI (IRS)

RNAV (GPS) RWY 1

EC-1, 07 AUG 2025 to 02 OCT 2025

WAAS CH **90230** **W19A** | APP CRS **186°** | Rwy Idg **5201** TDZE **915** Apt Elev **925**

RNAV (GPS) RWY 19

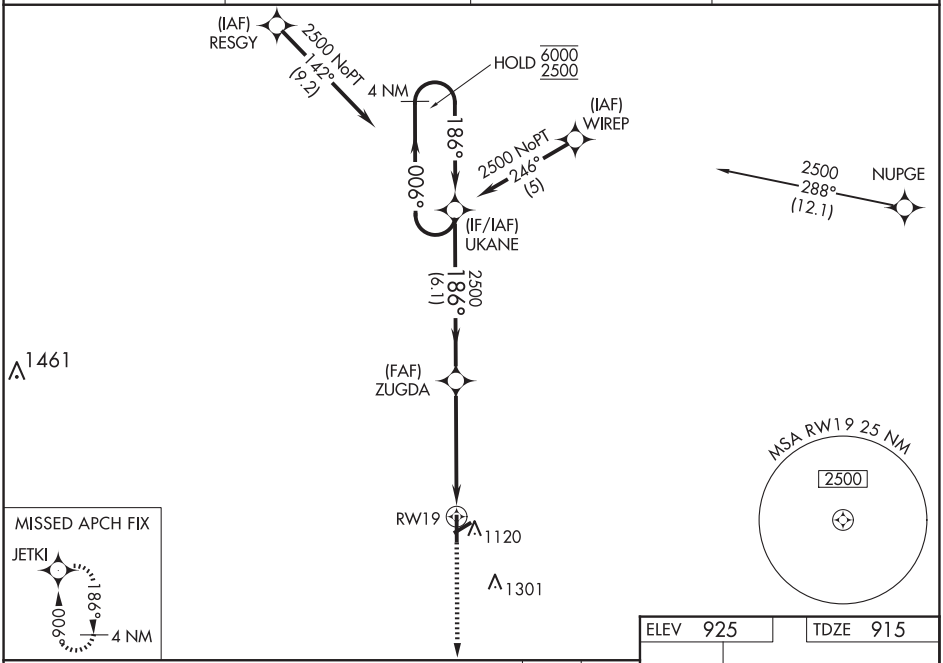
KIRSCH MUNI (IRS)

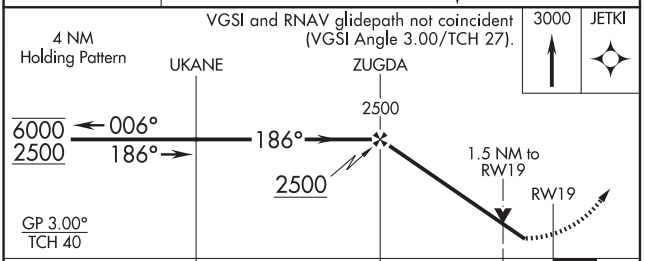
RNP APCH - GPS.

Circling Rwy 6 NA at night. Rwy 19 helicopter visibility reduction below ¾ SM NA. Baro-VNAV NA. When local altimeter setting not received, use Three Rivers altimeter setting and increase LPV DA to 1276 feet and all visibilities ⅛ SM. Increase LNAV/VNAV DA to 1270 feet and all visibilities ⅛ SM. Increase all MDAs 60 feet and LNAV visibility Cat C/D ¼ SM, and Circling visibility Cat C/D ¼ SM.

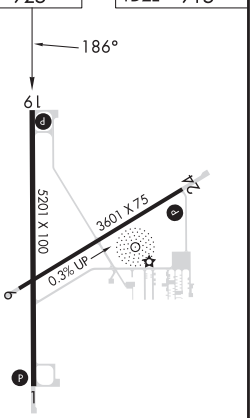
MISSED APPROACH: Climb to 3000 direct JETKI and hold.

AWOS-3	GREAT LAKES APP CON ★	CLNC DEL	UNICOM
121.325	121.2 239.25	118.325	123.05 (CTAF) L





ELEV 925 TDZE 915



CATEGORY	A	B	C	D
LPV DA		1235-⅞	320 (400-⅞)	
LNAV/VNAV DA		1229-⅞	314 (400-⅞)	
LNAV MDA	1400-1 485 (500-1)		1400-1⅜ 485 (500-1⅜)	
CIRCLING	1440-1 515 (600-1)		1620-2 695 (700-2)	1620-2¼ 695 (700-2¼)

REIL Rwys 1, 19 and 24 L
MIRL Rwys 1-19 and 6-24 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

STURGIS, MICHIGAN | AL-5362 (FAA) | 24025

NDB IRS	APP CRS	Rwy Idg / TDZE / Apt Elev
382	165°	5201 / 915 / 925

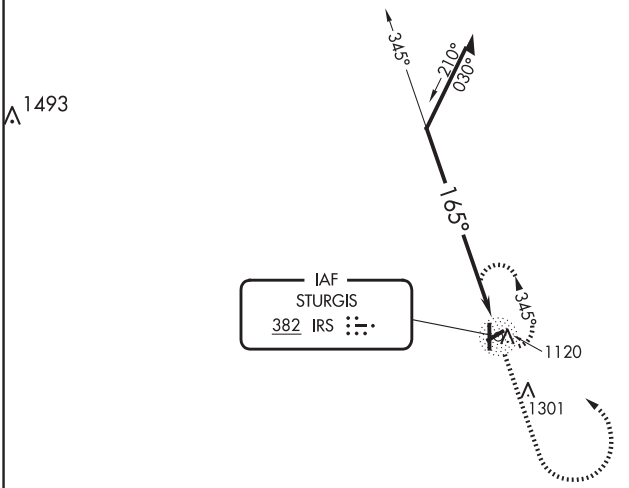
NDB RWY 19
KIRSCH MUNI (IRS)

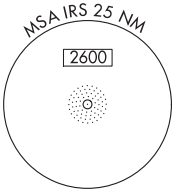
RADAR required for procedure entry.

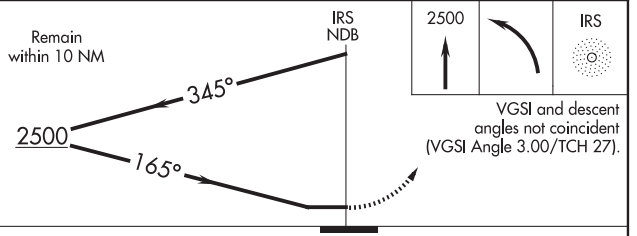
T A Procedure NA at night. Rwy 19 helicopter visibility reduction below 1 SM NA.

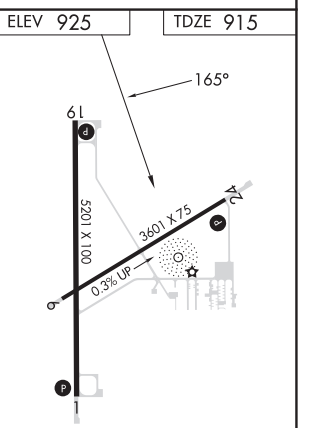
MISSED APPROACH: Climb to 2500 then left turn direct IRS NDB and hold.

AWOS-3	GREAT LAKES APP CON ★	CLNC DEL	UNICOM
121.325	121.2 239.25	118.325	123.05 (CTAF) L









CATEGORY	A	B	C	D
S-19	1520-1	605 (600-1)	1520-1¾	605 (600-1¾)
C CIRCLING	1520-1	595 (600-1)	1620-2 695 (700-2)	1620-2¼ 695 (700-2¼)

REIL Rwys 1, 19 and 24 L
MIRL Rwys 1-19 and 6-24 L

STURGIS, MICHIGAN
Amdt 6A 29DEC22

41°49′N-85°26′W

KIRSCH MUNI (IRS)
NDB RWY 19

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EC-1, 07 AUG 2025 to 02 OCT 2025

NDB RWY 24

KIRSCH MUNI (IRS)

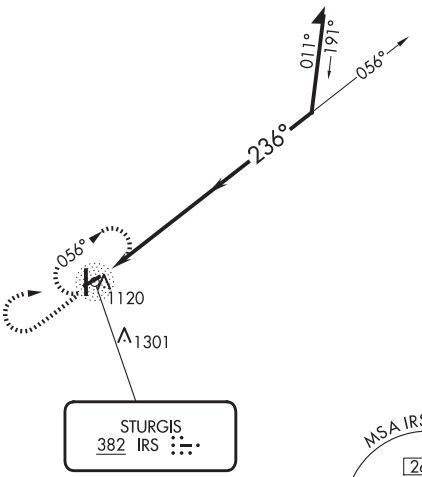
NDB IRS	APP CRS	Rwy Idg	3601
382	236°	TDZE	925
		Apt Elev	925

RADAR required for procedure entry.

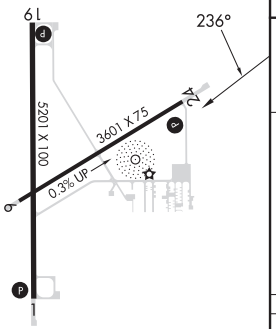
Circling Rwy 6 NA at night.
Rwy 24 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 2500 then right turn direct IRS NDB and hold.

AWOS-3	GREAT LAKES APP CON ★	CLNC DEL	UNICOM
121.325	121.2 239.25	118.325	123.05 (CTAF) L



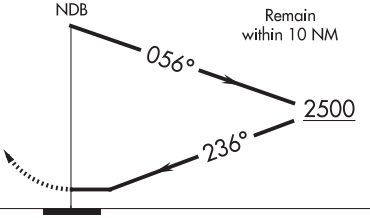
ELEV 925 TDZE 925



REIL Rwys 1, 19, and 24 L
MIRL Rwys 1-19 and 6-24 L

2500 IRS

VGSI and descent angles not coincident (VGSI Angle 4.00/TCH 22).



CATEGORY	A	B	C	D
S-24	1500-1	575 (600-1)	1500-1⅝	575 (600-1⅝)
C CIRCLING	1500-1	575 (600-1)	1620-2 695 (700-2)	1620-2¼ 695 (700-2¼)

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RNAV (GPS) RWY 27

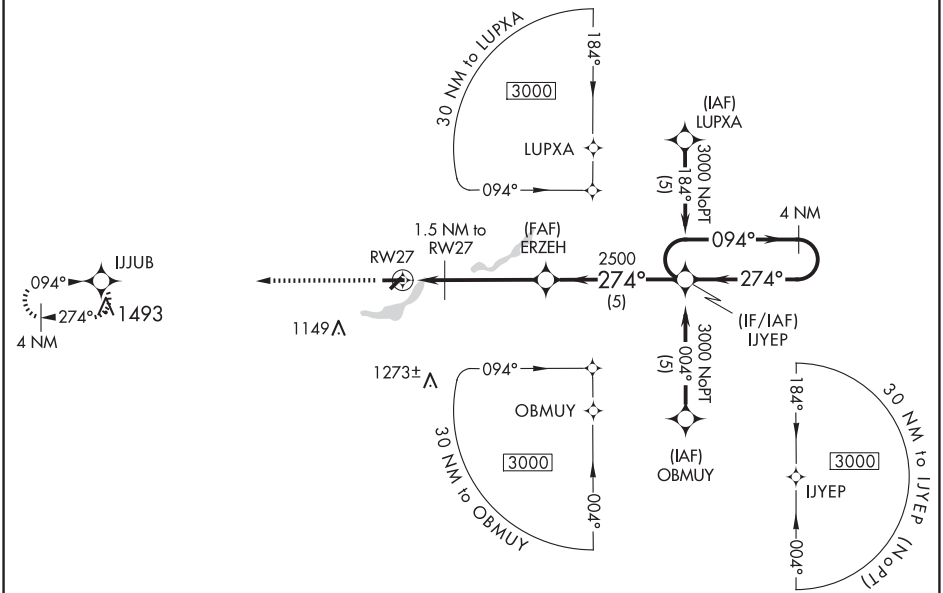
THREE RIVERS MUNI/DR HAINES (HAI)

APP CRS	Rwy Idg	4000
274°	TDZE	823
	Apt Elev	824

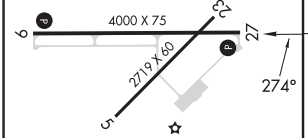
DME/DME RNP-0.3 NA. When local altimeter setting not received, use South Bend altimeter setting and increase all MDA 100 feet; increase LNAV Cat C visibility ⅛ mile and increase Circling Cat C visibility ½ mile. Procedure NA at night. Helicopter visibility reduction below 1 SM NA.

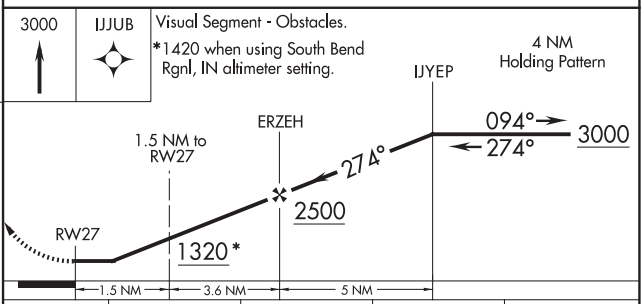
MISSED APPROACH: Climb to 3000 direct IJJUB WP and hold.

AWOS-3	GREAT LAKES APP CON ★	UNICOM
119.975	121.2 239.25	122.8 (CTAF) L



ELEV 824	TDZE 823





CATEGORY	A	B	C	D
LNAV MDA	1200-1 377 (400-1)		1200-1¼ 377 (400-1¼)	NA
C CIRCLING	1320-1 496 (500-1)	1420-1 596 (600-1)	1560-2 736 (800-2)	NA

REIL Rwys 9 and 27 L
MIRL Rwys 5-23 and 9-27 L

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ILS or LOC RWY 10

CHERRY CAPITAL (TVC)

LOC/DME I-TYK	APP CRS	Rwy Ldg	7016
110.7 Chan 44	099°	TDZE	624
		Apt Elev	624

RNP APCH - GPS. From BABBE, or IROTO, or FEPEX, or CUBKO. DME required.

T A -21°C Rwy 10 helicopter visibility reduction below ¾ SM NA. For inop ALS, increase S-ILS 10 all Cats visibility to ⅞ SM.

MALSR

MISSED APPROACH: Climb to 1400 then climbing right turn to 4000 direct TVC VOR/DME and hold, continue climb-in-hold to 4000.

ATIS	MINNEAPOLIS CENTER	TRAVERSE CITY TOWER★	GND CON	UNICOM
119.175	132.9 338.3	124.2 (CTAF) L 348.6	121.8 348.6	122.95

ALTERNATE MISSED APCH FIX
GWENN 365 TV 279° 099°

IROTO 3000 250° (38.8) Procedure NA for arrival at IROTO on V193-320 northeast bound.

(IAF) CUBKO 3000 NoPT 179° (9.6) Procedure NA for arrival at CUBKO on V133 northwest bound.

MSA TV 25 NM 210° 3500 3100 300°

LOCALIZER 110.7 I-TVC

LOCALIZER 110.7 I-TYK Chan 44

LOM GWENN 365 TV

(IF/IAF) BEAAR I-TYK 13.5 279° 099° 2600 099° (6.1) 1 min 279° HOLD 5100 3000

RIFKI I-TYK 7.4

TRAVERSE CITY 114.6 TVC Chan 93

(IAF) FEPEX 3000 NoPT 025° (6.3) 339° (29.4) Procedure NA for arrival at FEPEX on V420 westbound.

BABBE

1573 1658 1551 921± 704± 902 1345 785 976± 973 1190 1231 160° 340° R-160 1560

ELEV 624 D TDZE 624

One Minute Holding Pattern

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 55).

1400 4000 TVC

BEAAR I-TYK 13.5 RIFKI I-TYK 7.4 I-TYK 4.5 I-TYK 1.3 5100 3000 279° 099° 099° 2600 GS 3.00° TCH 60 2600

6.1 NM 2.8 NM 3.2 NM

CATEGORY	A	B	C	D
S-ILS 10	917-¾ 293 (300-¾)			
S-LOC 10	1700-¾ 1076 (1100-¾)	1700-1 1076 (1100-1)	1700-2½ 1076 (1100-2½)	
C CIRCLING	1700-1¼ 1076 (1100-1¼)	1700-1½ 1076 (1100-1½)	1700-3 1076 (1100-3)	1720-3 1096 (1100-3)

099° 18 TWR 794± 5378 X 150 10 7016 X 150 28 36

HIRL Rwy 10-28 L
MIRL Rwy 18-36 L
REIL Rwy 36 L

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ILS or LOC RWY 28

CHERRY CAPITAL (TVC)

LOC I-TVC	APP CRS	Rwy Ldg	7016
110.7	279°	TDZE	616
		Apt Elev	624

RNP APCH - GPS.

Aircraft not GPS equipped - RADAR required for procedure entry.

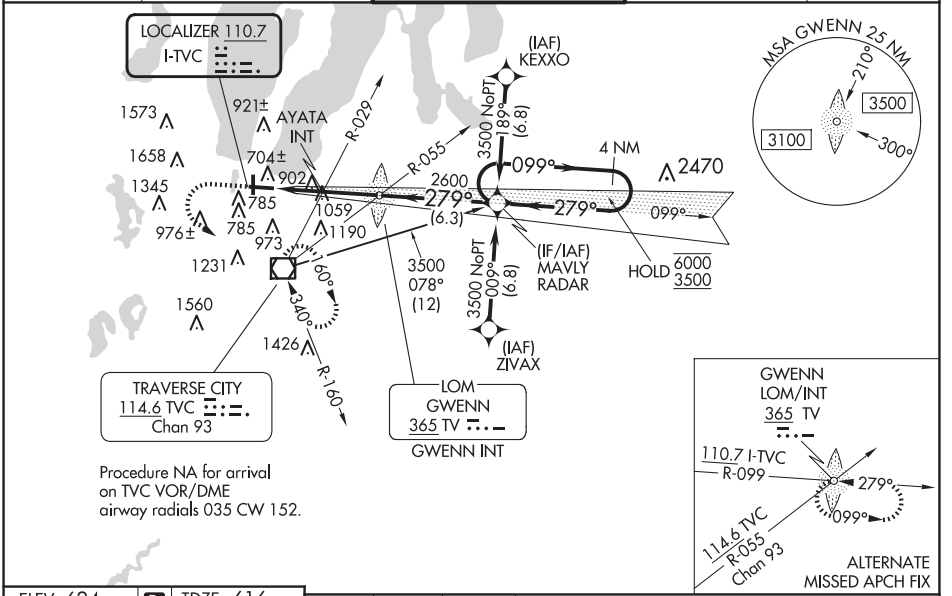
S-LOC 28 minimums: For inop ALS, increase S-LOC 28 Cats C and D visibility to 2½ SM. AYATA FIX minimums: For inop ALS, increase S-LOC 28 Cats C and D visibility to 2 SM.

-21°C

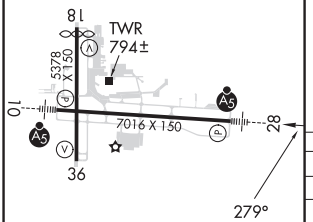
MALSR

MISSED APPROACH: Climb to 1100 then climbing left turn to 3000 direct TVC VOR/DME and hold, continue climb-in-hold to 3000.

ATIS	MINNEAPOLIS CENTER	TRAVERSE CITY TOWER ★	GND CON	UNICOM
119.175	132.9 338.3	124.2 (CTAF) L 348.6	121.8 348.6	122.95



ELEV 624 D TDZE 616

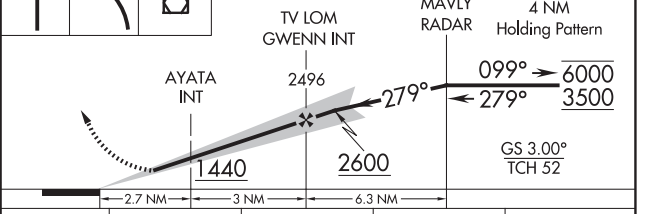


HIRL Rwy 10-28 L
MIRL Rwy 18-36 L
REIL Rwy 36 L

FAF to MAP 5.8 NM					
Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

1100 3000 TVC

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 45).



CATEGORY	A	B	C	D
S-ILS 28	816-½ 200 (200-½)			
S-LOC 28	1440-½ 824 (900-½)	1440-¾ 824 (900-¾)	1440-1⅞	824 (900-1⅞)
C CIRCLING	1440-1¼	816 (900-1¼)	1440-2½ 816 (900-2½)	1720-3 1096 (1100-3)
AYATA FIX MINIMUMS (DUAL VOR RECEIVERS REQUIRED)				
S-LOC 28	1320-½	704 (700-½)	1320-1⅝	704 (700-1⅝)
C CIRCLING	1320-1	696 (700-1)	1420-2¼ 796 (800-2¼)	1720-3 1096 (1100-3)

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RNAV (GPS) RWY 10

CHERRY CAPITAL (TVC)

WAAS CH 42610 W10A	APP CRS 099°	Rwy Ldg 7016 / TDZE 624 / Apt Elev 624

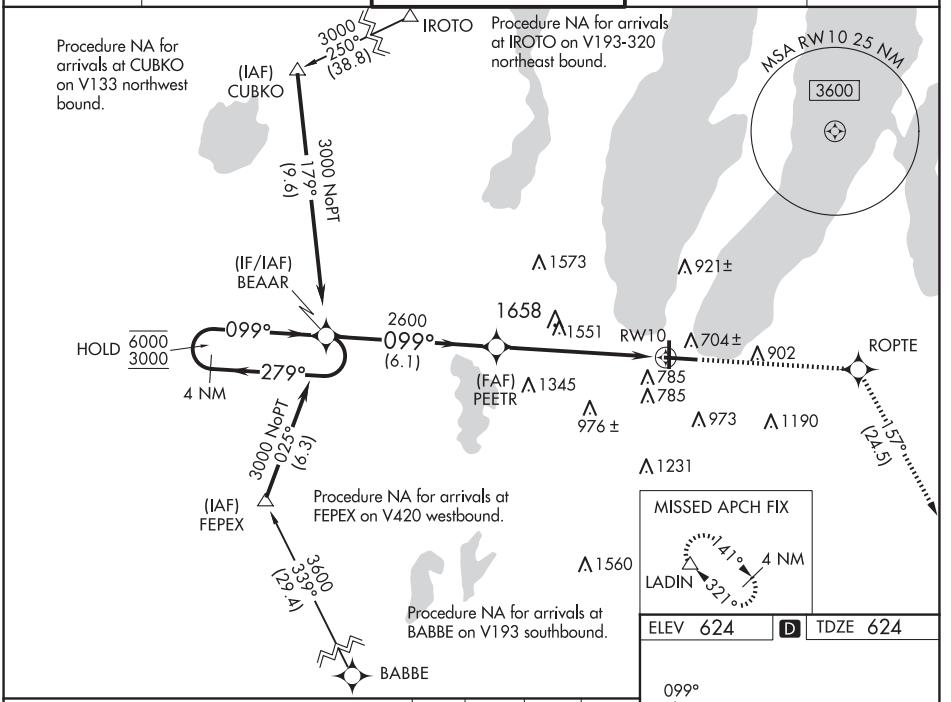
RNP APCH.

For uncompenstated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 54°C (130°F). Rwy 10 helicopter visibility reduction below ¾ SM NA. For inop ALS, increase LPV visibility all Cats ⅛ SM. Inop table does not apply to LNAV/VNAV all Cats and LNAV Cats C/D. -21°C

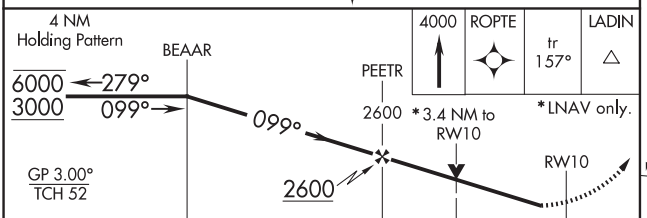
MALSR

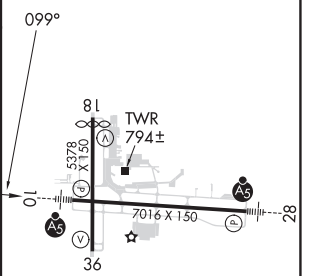
MISSED APPROACH: Climb to 4000 direct ROPTE and on track 157° to LADIN and hold.

ATIS	MINNEAPOLIS CENTER	TRAVERSE CITY TOWER★	GND CON	UNICOM
119.175	132.9 338.3	124.2 (CTAF) L 348.6	121.8 348.6	122.95



ELEV 624 D TDZE 624





CATEGORY	A	B	C	D
LPV DA	909-¾ 285 (300-¾)			
LNAV/VNAV DA	1983-5 1359 (1400-5)			
LNAV MDA	1780-¾ 1156 (1200-¾)	1780-1 1156 (1200-1)	1780-3 1156 (1200-3)	
C CIRCLING	1780-1¼ 1156 (1200-1¼)	1780-1½ 1156 (1200-1½)	1780-3 1156 (1200-3)	

HIRL Rwy 10-28 L
MIRL Rwy 18-36 L
REIL Rwy 36 L

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TRAVERSE CITY, MICHIGAN | AL-425 (FAA) | 25163

WAAS	APP CRS	Rwy Ldg	4838
CH 90335	185°	TDZE	622
W18A		Apt Elev	624

RNAV (GPS) RWY 18

CHERRY CAPITAL (TVC)

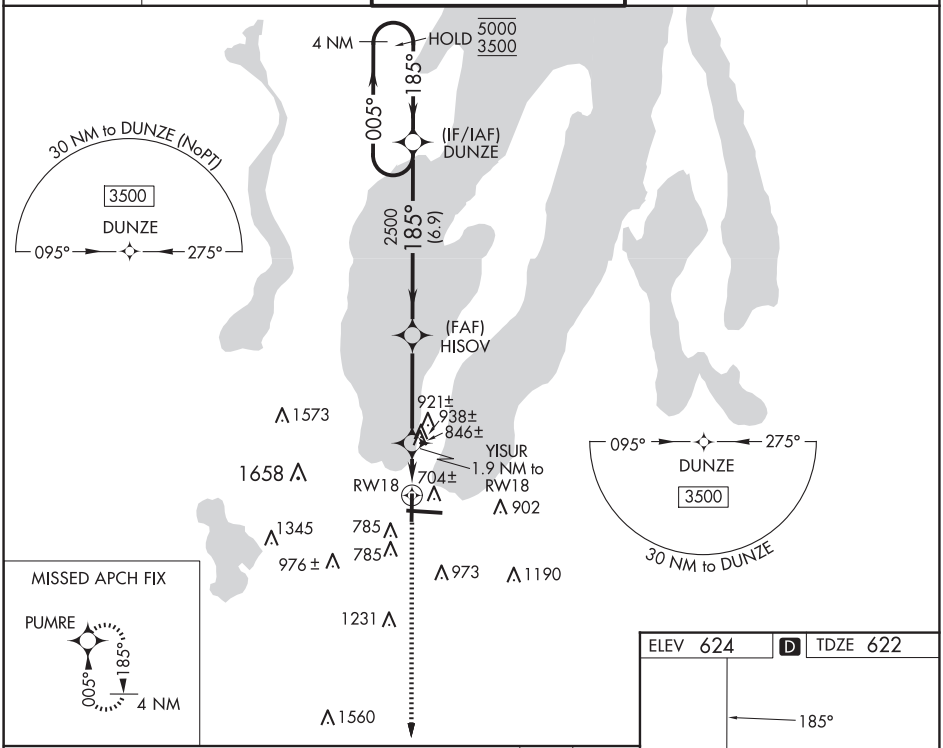
RNP APCH - GPS.

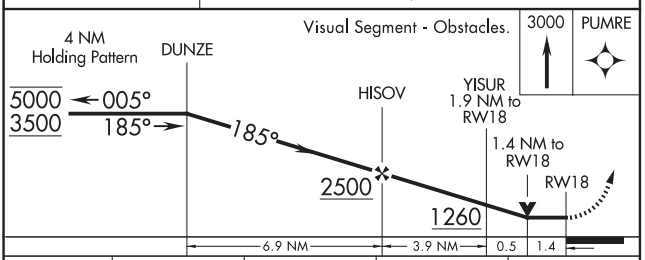
Rwy 18 helicopter visibility reduction below ¾ SM NA.

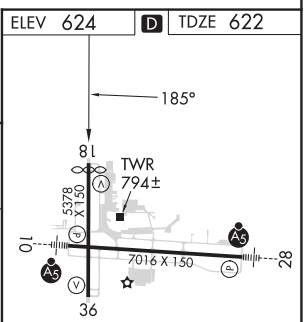
-21°C

MISSED APPROACH: Climb to 3000 direct PUMRE and hold.

ATIS	MINNEAPOLIS CENTER	TRAVERSE CITY TOWER★	GND CON	UNICOM
119.175	132.9 338.3	124.2 (CTAF) L 348.6	121.8 348.6	122.95







CATEGORY	A	B	C	D
LP MDA	1100-1	478 (500-1)	1100-1⅜	478 (500-1⅜)
LNAV MDA	1200-1	578 (600-1)	1200-1⅝	578 (600-1⅝)
C CIRCLING	1200-1 576 (600-1)	1260-1 636 (700-1)	1500-2½ 876 (900-2½)	1720-3 1096 (1100-3)

HIRL Rwy 10-28 L
MIRL Rwy 18-36 L
REIL Rwy 36 L

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RNAV (GPS) RWY 28

CHERRY CAPITAL (TVC)

WAAS CH 97535 W28A	APP CRS 279°	Rwy Ldg 7016	TDZE 616	Apt Elev 624

RNP APCH - GPS.

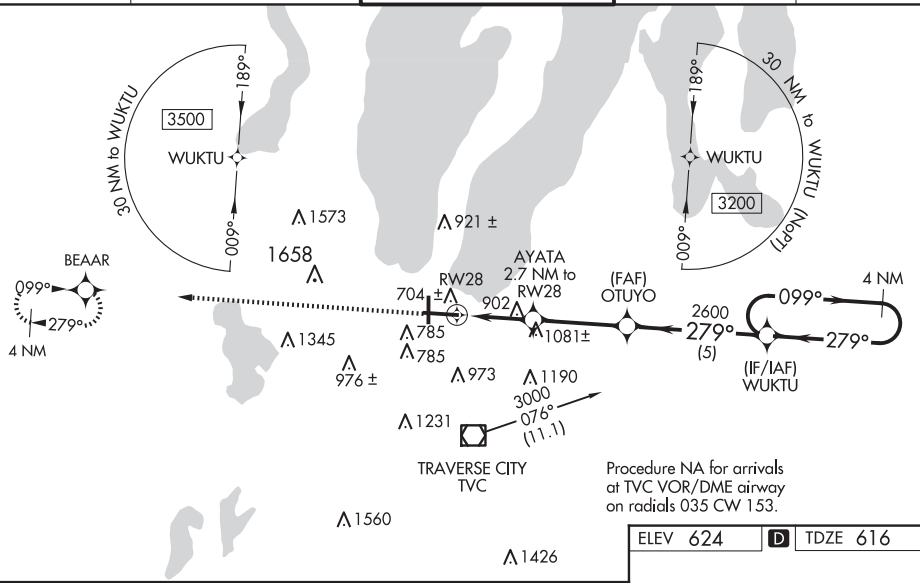
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C or above 54°C. Baro-VNAV and VDP NA when using ACB altimeter setting. When local altimeter setting not received, use ACB altimeter setting: increase DA 51 feet and all MDA 60 feet. Increase LPV all Cats visibility ⅛ SM, LNAV/VNAV visibility all Cats ¼ SM and LNAV Cat B visibility ¼ SM and C/D visibilities ⅛ SM and Circling Cat B/C visibility ¼ SM. For inop ALS, increase LPV all Cats visibility to 1¼ SM, LNAV Cats C/D visibility to 2 SM. For inop ALS when using ACB altimeter setting, increase LPV all Cats visibility to 1½ SM, LNAV Cats C/D visibility to 2½ SM. *Missed approach requires minimum climb of 237 feet per NM to 2000.

-21°C

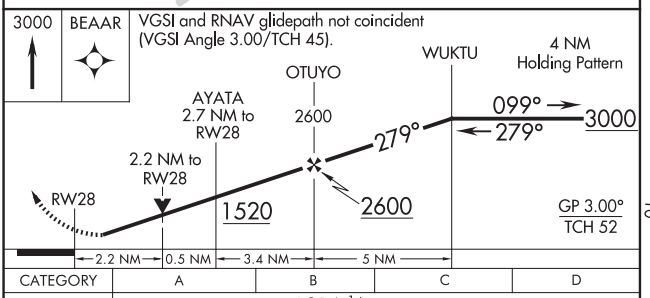
MALSR

MISSED APPROACH: Climb to 3000 direct BEAAR and hold.

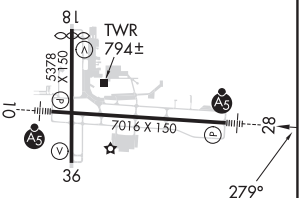
ATIS	MINNEAPOLIS CENTER	TRAVERSE CITY TOWER ★	GND CON	UNICOM
119.175	132.9 338.3	124.2 (CTAF) L 348.6	121.8 348.6	122.95



ELEV 624 D TDZE 616



CATEGORY	A	B	C	D
LPV DA		*816-½	200 (200-½)	
LPV DA		963-⅞	347 (400-⅞)	
LNAV/VNAV DA		1330-2	714 (800-2)	
LNAV MDA	1340-½ 724 (800-½)		1340-1⅝ 724 (800-1⅝)	
C CIRCLING	1340-1 716 (800-1)		1500-2½ 876 (900-2½)	1720-3 1096 (1100-3)



HIRL Rwy 10-28 L
MIRL Rwy 18-36 L
REIL Rwy 36 L

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TRAVERSE CITY, MICHIGAN

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25163

RNAV (GPS) RWY 36

CHERRY CAPITAL (TVC)

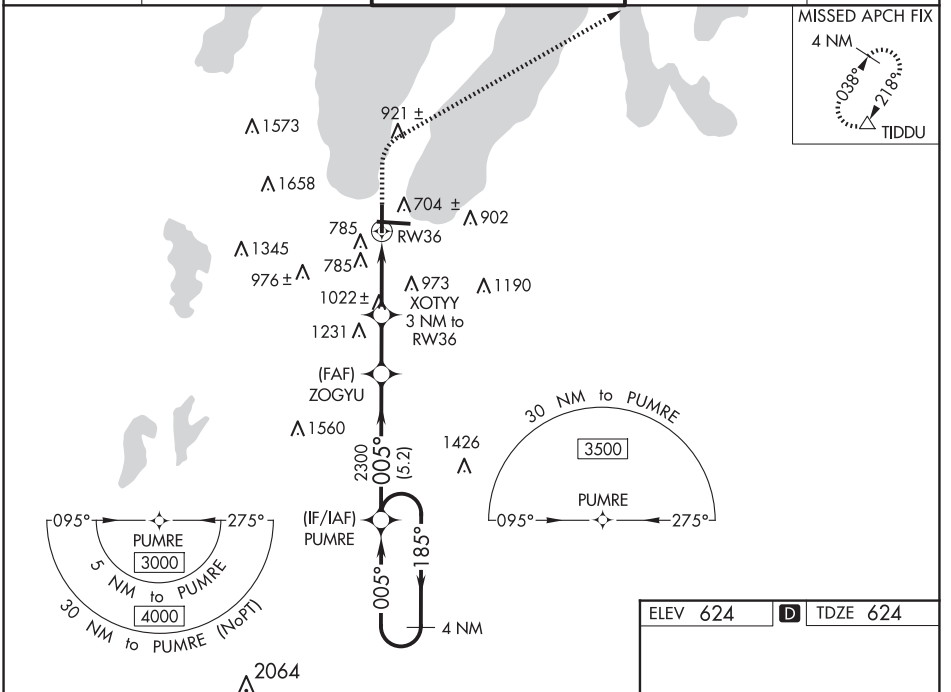
WAAS CH 53733 W36A	APP CRS 005°	Rwy Ldg 5108 / TDZE 624 / Apt Elev 624

RNP APCH - GPS.

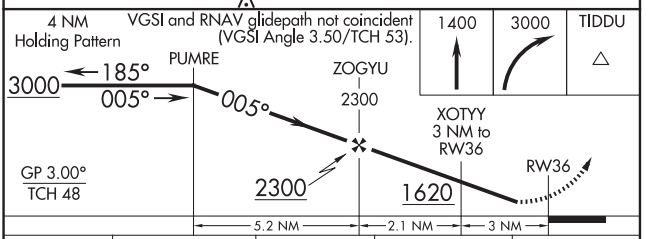
T A ❄ -21°C — Baro-VNAV NA when using ACB altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C or above 54°C. When local altimeter setting not received use ACB altimeter setting: increase all DA 51 feet and all MDA 60 feet, increase LNAV/VNAV all Cats and Circling Cat C visibilities ¼ SM, and increase LPV all Cats, LNAV Cat C/D and Circling Cat D visibilities ⅛ SM. Helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 1400 then climbing right turn to 3000 direct TIDDU and hold.

ATIS	MINNEAPOLIS CENTER	TRAVERSE CITY TOWER ★	GND CON	UNICOM
119.175	132.9 338.3	124.2 (CTAF) L 348.6	121.8 348.6	122.95

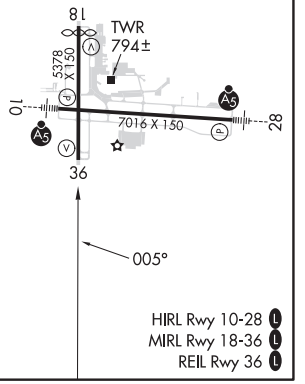


2064



CATEGORY	A	B	C	D
LPV DA	899-⅞	275 (300-⅞)		
LNAV/VNAV DA	1146-1¾	522 (600-1¾)		
LNAV MDA	1280-1	656 (700-1)	1280-1⅞	656 (700-1⅞)
C CIRCLING	1280-1	656 (700-1)	1500-2½ 876 (900-2½)	1720-3 1096 (1100-3)

ELEV 624 D TDZE 624



HIRL Rwy 10-28 L
MIRL Rwy 18-36 L
REIL Rwy 36 L

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EC-1, 07 AUG 2025 to 02 OCT 2025

VOR/DME TVC	APP CRS	Rwy Ldg	N/A
114.6	345°	TDZE	N/A
Chan 93		Apt Elev	624

VOR-A

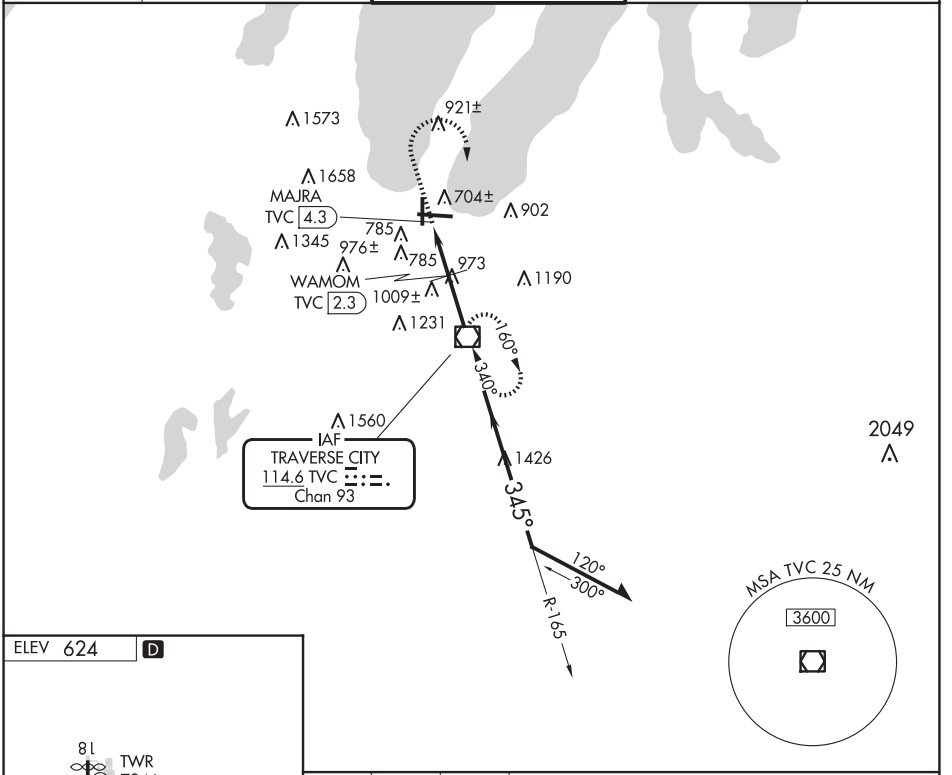
CHERRY CAPITAL (TVC)

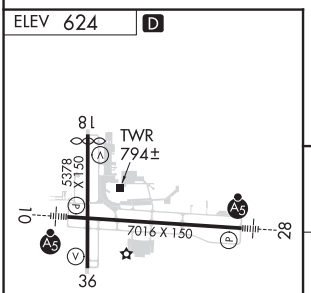
When local altimeter setting not received, use Bellaire altimeter setting and increase all MDA 60 feet and all Cat C visibility ¼ mile.

-21°C

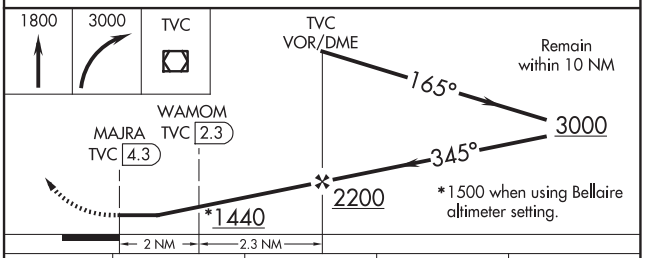
MISSED APPROACH: Climb to 1800 then climbing right turn to 3000 direct TVC VOR/DME and hold.

ATIS	MINNEAPOLIS CENTER	TRAVERSE CITY TOWER ★	GND CON	UNICOM
119.175	132.9 338.3	124.2 (CTAF) L 348.6	121.8 348.6	122.95





HIRL Rwy 10-28 L
MIRL Rwy 18-36 L
REIL Rwy 36 L



CATEGORY	A	B	C	D
C CIRCLING	1440-1¼	816 (900-1¼)	1500-2½ 876 (900-2½)	1720-3 1096 (1100-3)
WAMOM FIX MINIMUMS (DME REQUIRED)				
C CIRCLING	1300-1	676 (700-1)	1500-2½ 876 (900-2½)	1720-3 1096 (1100-3)

FAF to MAP 4.3 NM

Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

25107

AIRPORT DIAGRAM

AL-425 (FAA)

CHERRY CAPITAL (TVC)

TRAVERSE CITY, MICHIGAN

AIRPORT DIAGRAM

25107

TRAVERSE CITY, MICHIGAN

CHERRY CAPITAL (TVC)

EC-1, 07 AUG 2025 to 02 OCT 2025

EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 10

OAKLAND/TROY (VLL)

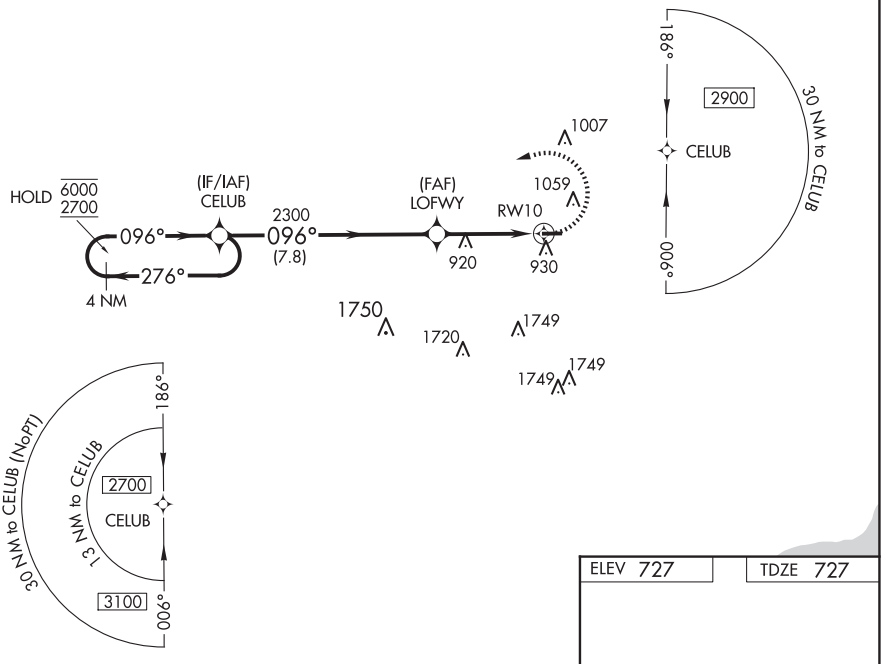
APP CRS	Rwy Idg	3549
096°	TDZE	727
	Apt Elev	727

RNP APCH - GPS.

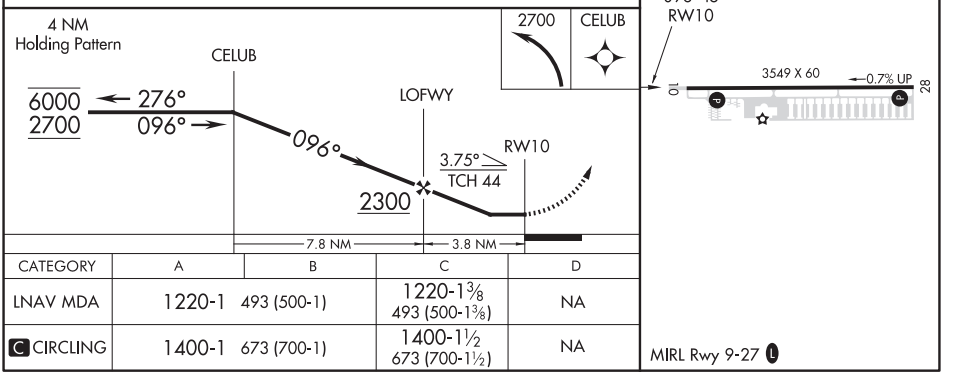
T A Circling to Rwy 28 NA at night. Rwy 10 helicopter visibility reduction below 1 SM NA. Straight-in Rwy 10 at night, operational VGSI required, remain on or above VGSI glidepath until threshold.

MISSED APPROACH: Climbing left turn to 2700 direct CELUB and hold.

AWOS-3	DETROIT APP CON	UNICOM
119.475	132.35 284.0	123.05 (CTAF) L



ELEV 727 TDZE 727



CATEGORY	A	B	C	D
LNAV MDA	1220-1	493 (500-1)	1220-1⅜ 493 (500-1⅜)	NA
C CIRCLING	1400-1	673 (700-1)	1400-1½ 673 (700-1½)	NA

MIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

(BARII3.BARII) 24137

BARII THREE DEPARTURE (RNAV)

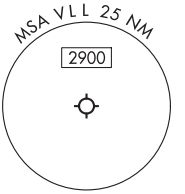
AL-5293 (FAA)

OAKLAND/TROY (VLL)
TROY, MICHIGAN

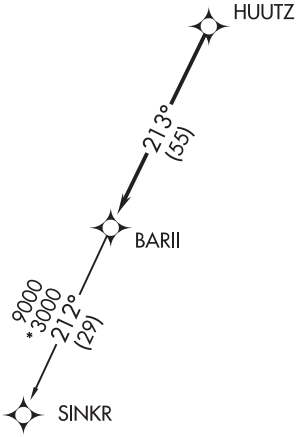
TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
132.35 284.0
AWOS-3
119.475
CTAF
123.05



TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476' per NM to 1500.



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....
TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....

....for RADAR vectors to HUUTZ, then on track 213° to BARII, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SINKR TRANSITION (BARII3.SINKR):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR 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: Chart not to scale.

TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476′ per NM to 1500.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....

TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....

....for RADAR vectors to BROZZ, then on track 279° to CCOBB, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

ZEGBI TRANSITION (CCOBB3.ZEGBI):

CCOBB THREE DEPARTURE (RNAV)
(CCOBB3.CCOBB) 16MAY24
TROY, MICHIGAN
OAKLAND/TROY (VLL)

EC-1, 07 AUG 2025 to 02 OCT 2025

(CLVIN3.CLVIN) 24137

CLVIN THREE DEPARTURE (RNAV)

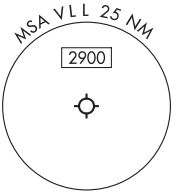
AL-5293 (FAA)

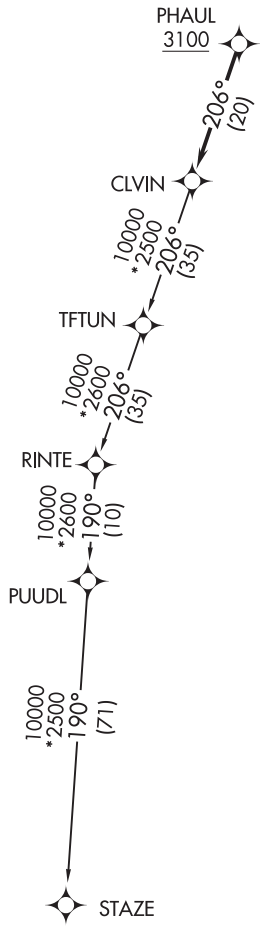
OAKLAND/TROY (VLL)
TROY, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
132.35 284.0
AWOS-3
119.475
CTAF
123.05





TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476' per NM to 1500.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....
TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....

....for RADAR vectors to cross PHAUL at or above 3100, then on track 206° to CLVIN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

STAZE TRANSITION (CLVIN3.STAZE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT DEP CON
132.35 284.0
AWOS-3
119.475
CTAF
123.05

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC

TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476' per NM to 1500.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....
TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....

....for RADAR vectors to cross MALTB at or above 2200, then on track 094° to HHOWE, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BROKK TRANSITION (HHOWE4.BROKK):
LNCON TRANSITION (HHOWE4.LNCON):

TOP ALTITUDE: ASSIGNED AT ATC

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476' per NM to 1500.

DETROIT DEP CON 132.35 284.0
AWOS-3 119.475
CTAF 123.05

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....
TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....

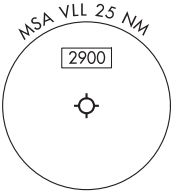
....for RADAR vectors to MTRCT, then on track 279° to KAYLN, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

SMUUV TRANSITION (KAYLN3.SMUUV):

DETROIT DEP CON
132.35 284.0
AWOS-3
119.475
CTAF
123.05

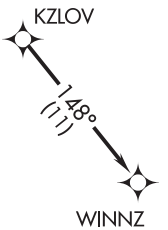
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC



TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476' per NM to 1500.

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.
NOTE: For use by Cleveland terminal arrivals only.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....
TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....

....for RADAR vectors to KZLOV, then on track 148° to WINNZ. Maintain ATC assigned altitude, expect filed altitude ten minutes after departure.

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.
RADAR required for non-GPS equipped aircraft.

DETROIT DEP CON 132.35 284.0
AWOS-3 119.475
CTAF 123.05

TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476' per NM to 1500.

276° 1500
096° 1400

WSA VLL 25 NM
2900

NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

KZLOV 15000
111° (10)
LIDDS 10000 *2200
111° (20)
NOONR
10000 *1800
149° (19)
ZEYOU
10000 *2700
151° (46)
GRIVY

N

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....
TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....

....for RADAR vectors to cross KZLOV at or below 15000, then on track 111° to LIDDS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

GRIVY TRANSITION (LIDDS4.GRIVY):

TOP ALTITUDE:
ASSIGNED BY ATC
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.
AWOS-3
119.475
CTAF
123.05
DETROIT DEP CON
132.35 284.0
HUBBY
5000
*2600
332°
(34)
SLAP
5000
*2300
308°
(24)
5000
*2400
274°
(70)
GETCH
MONEE
5000
*2300
323°
(20)
MIGGY
323°
(18)
JAXII
NOTE: Jet 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.
276°
096°
1500
1400
N
NOTE: Chart not to scale.
NSA VLL 25 NM
2900
DEPARTURE ROUTE DESCRIPTION
TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476' per NM to 1500.
TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....
TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....
....for RADAR vectors to JAXII, then on track 323° to MIGGY, then on (transition). Maintain 17000 or as assigned by ATC, expect filed altitude 10 minutes after departure.
GETCH TRANSITION (MIGGY3.GETCH):
HUBBY TRANSITION (MIGGY3.HUBBY):
SLAP TRANSITION (MIGGY3.SLAP):

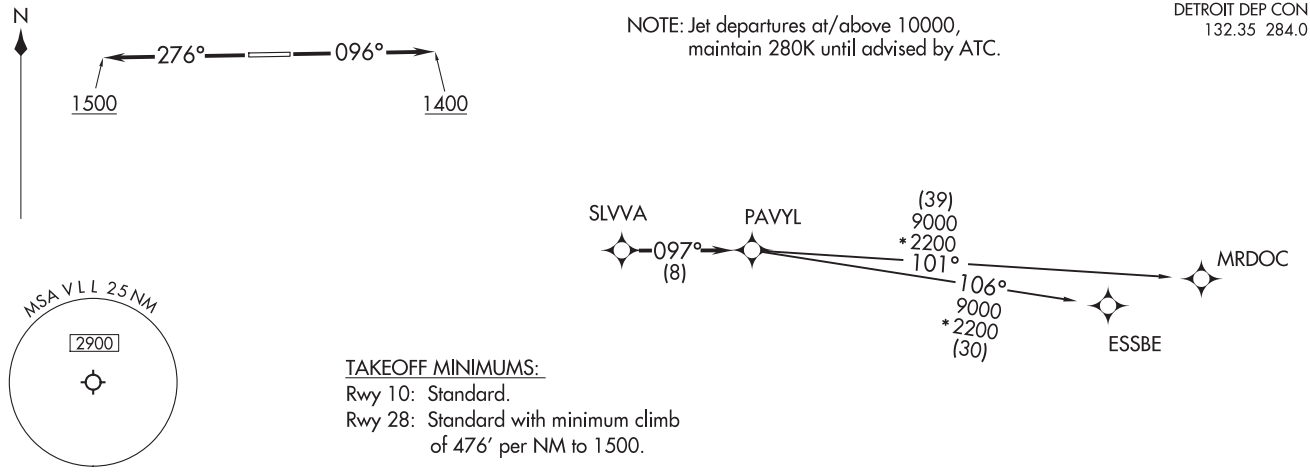
PAVYL THREE DEPARTURE (RNAV)

(PAVYL3.PAVYL) 16MAY24

TOP ALTITUDE: ASSIGNED BY ATC

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

AWOS-3
119.475
CTAF
123.05
DETROIT DEP CON
132.35 284.0



TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476' per NM to 1500.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....
TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....

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

ESSBE TRANSITION (PAVYL3.ESSBE):
MRDOC TRANSITION (PAVYL3.MRDOC):

(PAVYL3.PAVYL) 24137
PAVYL THREE DEPARTURE (RNAV) AL-5293 (FAA)

TROY, MICHIGAN
OAKLAND/TROY (VLL)

OAKLAND/TROY (VLL)
TROY, MICHIGAN

SNDRS THREE DEPARTURE (RNAV)

(SNDRS3.SNDRS) 16MAY24

TROY, MICHIGAN
OAKLAND/TROY (VLL)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....
TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....

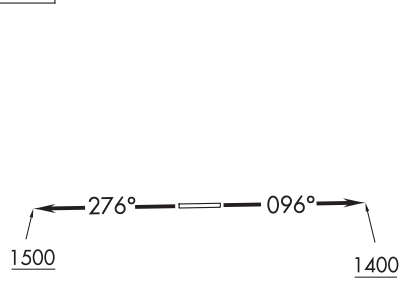
....for RADAR vectors to JWELS, then on track 218° to SNDRS, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

BGHRT TRANSITION (SNDRS3.BGHRT):
TORRR TRANSITION (SNDRS3.TORRR):

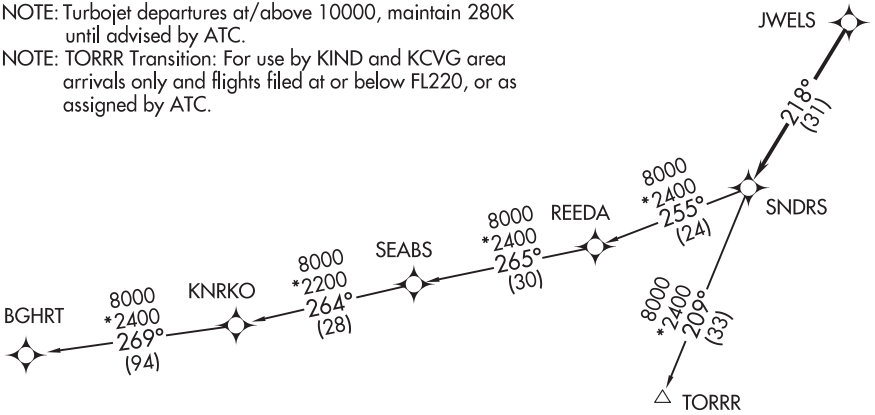
TOP ALTITUDE: ASSIGNED BY ATC

RNAV-1 DME/DME/IRU or GPS.
RADAR required.

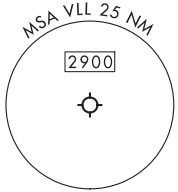
DETROIT DEP CON 132.35 284.0
AWOS-3 119.475
CTAF 123.05



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.



TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476' per NM to 1500.



NOTE: Chart not to scale.

(SNDRS3.SNDRS) 24137

SNDRS THREE DEPARTURE (RNAV)

AL-5293 (FAA)

OAKLAND/TROY (VLL)
TROY, MICHIGAN

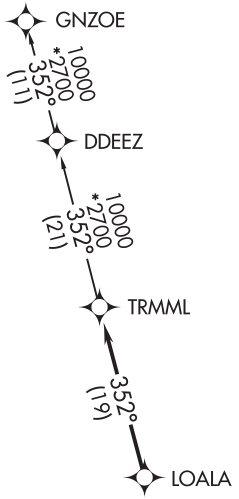
(TRMML4.TRMML) 24137
TRMML FOUR DEPARTURE (RNAV)
AL-5293 (FAA)

OAKLAND/TROY (VLL)
TROY, MICHIGAN

TOP ALTITUDE: ASSIGNED BY ATC

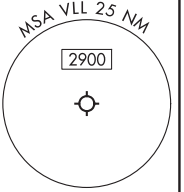
RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

DETROIT DEP CON
132.35 284.0
AWOS-3
119.475
CTAF
123.05



NOTE: Turbojet departures at/above 10000, maintain 280K until advised by ATC.

TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476′ per NM to 1500.



NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....
TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....

....for RADAR vectors to LOALA, then on track 352° to TRMML, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

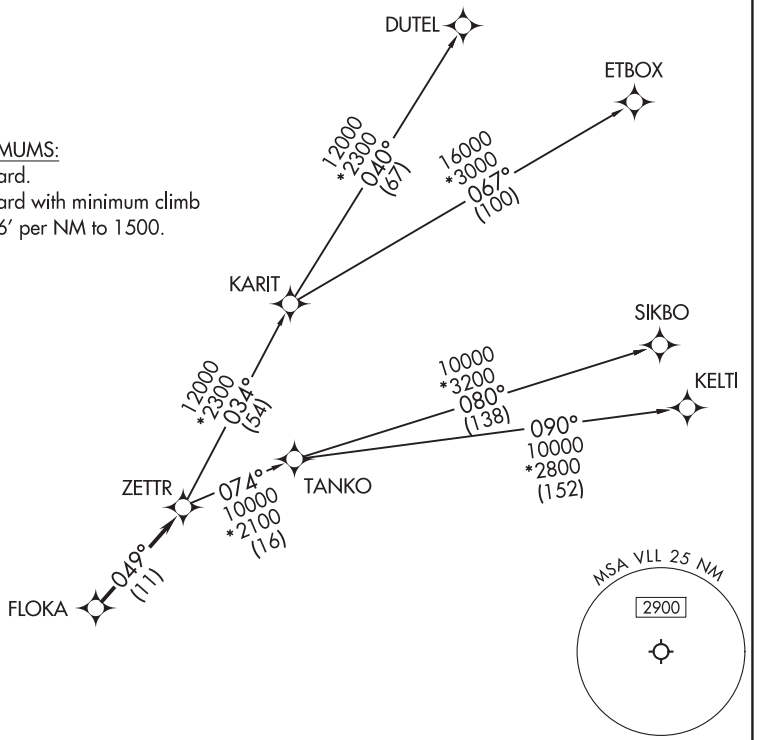
GNZOE TRANSITION (TRMML4.GNZOE):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

DETROIT DEP CON
132.35 284.0
AWOS-3
119.475
CTAF
123.05

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

TOP ALTITUDE: ASSIGNED BY ATC



TAKEOFF MINIMUMS:
Rwy 10: Standard.
Rwy 28: Standard with minimum climb of 476' per NM to 1500.

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: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 10: Climb on heading 096° to 1400 then as assigned by ATC, thence....
TAKEOFF RUNWAY 28: Climb on heading 276° to 1500 then as assigned by ATC, thence....

....for RADAR vectors to FLOKA, then on track 049° to ZETTR, then on (transition). Maintain ATC assigned altitude, expect filed altitude 10 minutes after departure.

DUTEL TRANSITION (ZETTR4.DUTEL):
ETBOX TRANSITION (ZETTR4.ETBOX):
KELTI TRANSITION (ZETTR4.KELTI):
SIKBO TRANSITION (ZETTR4.SIKBO):
TANKO TRANSITION (ZETTR4.TANKO):

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

WEST BRANCH, MICHIGAN | AL-5933 (FAA) | 23222

APP CRS	Rwy Idg	5000
095°	TDZE	882
	Apt Elev	882

RNAV (GPS) RWY 9

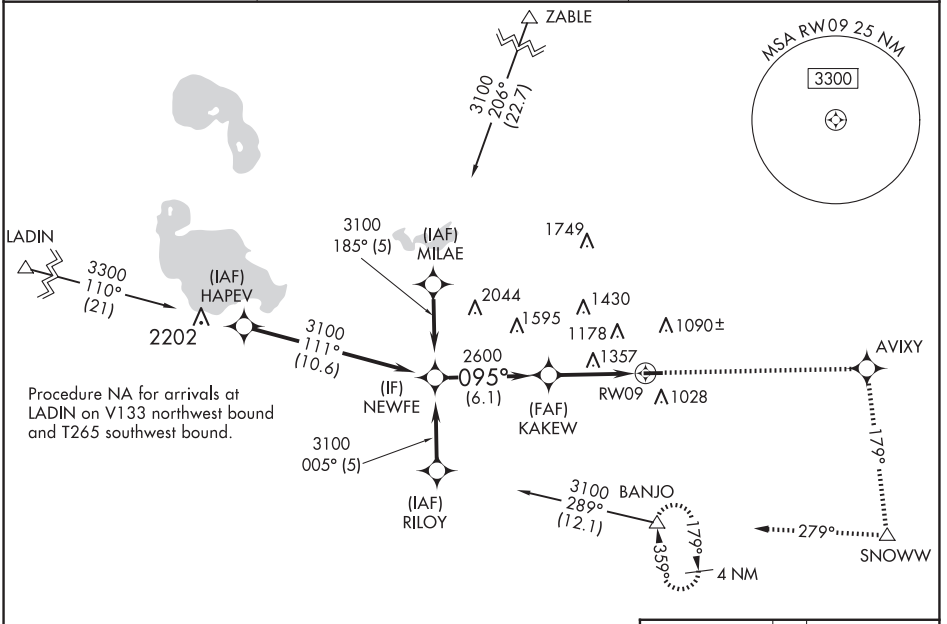
WEST BRANCH COMMUNITY (Y31)

RNP APCH - GPS.

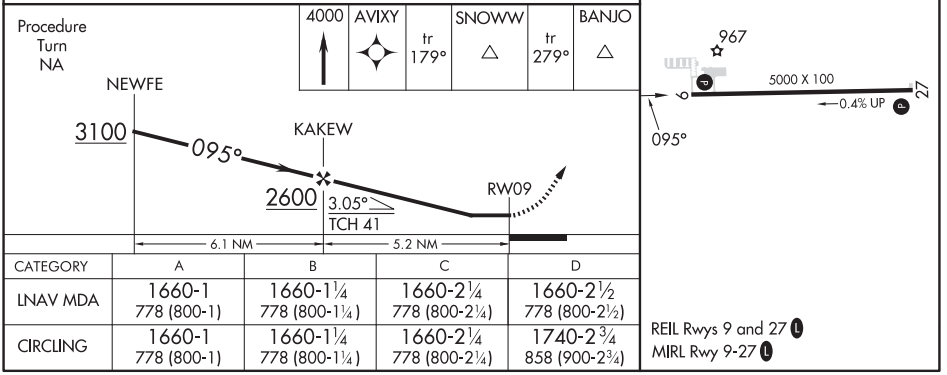
T A Rwy 9 helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, use MBS Intl altimeter setting and increase all MDA 140 feet, increase LNAV Cat A visibility ¼ mile and Cat C/D ½ mile, increase Circling Cat A visibility ¼ mile and Cat C/D ½ mile. Straight-in Rwy 9 NA at night, Circling Rwy 9 NA at night.

MISSED APPROACH: Climb to 4000 direct AVIXY and via track 179° to SNOWW and via track 279° to BANJO and hold.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
119.575	125.475 269.45	122.8 (CTAF)



ELEV 882 | TDZE 882



CATEGORY	A	B	C	D
LNAV MDA	1660-1 778 (800-1)	1660-1¼ 778 (800-1¼)	1660-2¼ 778 (800-2¼)	1660-2½ 778 (800-2½)
CIRCLING	1660-1 778 (800-1)	1660-1¼ 778 (800-1¼)	1660-2¼ 778 (800-2¼)	1740-2¾ 858 (900-2¾)

REIL Rwys 9 and 27 (L)
MIRL Rwy 9-27 (L)

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

RNAV (GPS) RWY 27

WEST BRANCH COMMUNITY (Y31)

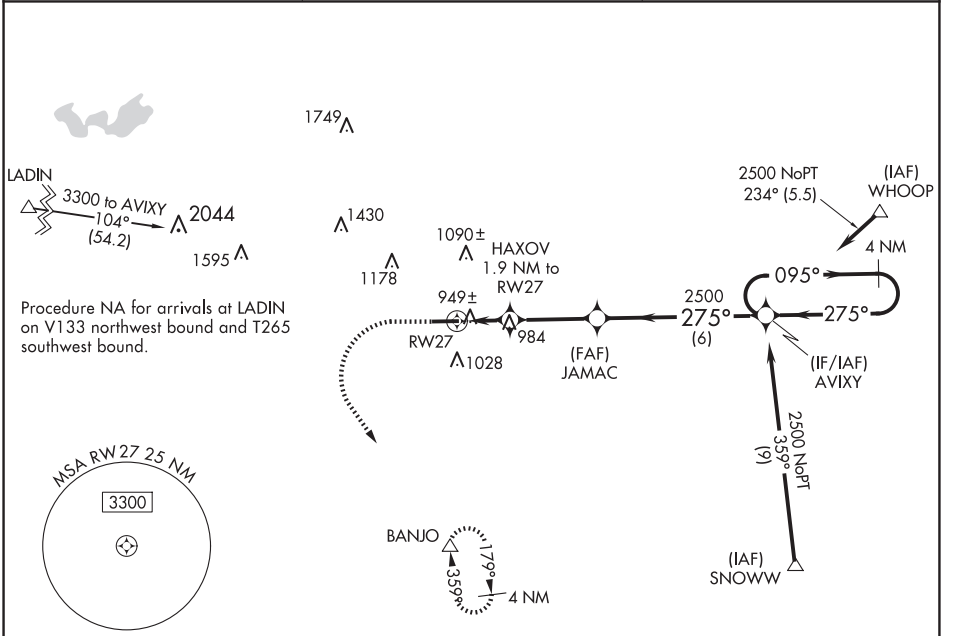
WAAS CH 53541 W27A	APP CRS 275°	Rwy Idg 5000 TDZE 877 Apt Elev 882

RNP APCH - GPS.

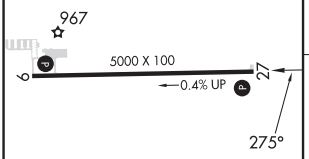
T A Circling Rwy 9 NA at night. Rwy 27 helicopter visibility reduction below ¾ SM NA.

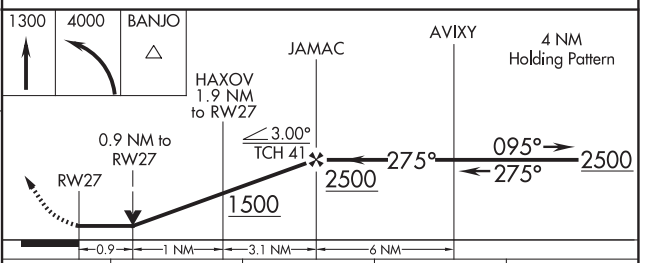
MISSED APPROACH: (Do not exceed 240K until BANJO) Climb to 1300, then climbing left turn to 4000 direct BANJO and hold, continue climb-in-hold to 4000.

AWOS-3P	MINNEAPOLIS CENTER	UNICOM
119.575	125.475 269.45	122.8 (CTAF) L



ELEV 882	TDZE 877





CATEGORY	A	B	C	D
LP MDA	1220-1 343 (400-1)			
LNAV MDA	1240-1 363 (400-1)			
C CIRCLING	1500-1 618 (700-1)		1620-2 738 (800-2)	1740-2¾ 858 (900-2¾)

REIL Rwys 9 and 27 L
MIRL Rwy 9-27 L

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

ZEELAND, MICHIGAN | AL-10459 (FAA) | 25107

APP CRS	Rwy Idg	N/A
018°	TDZE	N/A
	Apt Elev	756

RNAV (GPS)-A
OTTAWA EXEC (Z98)

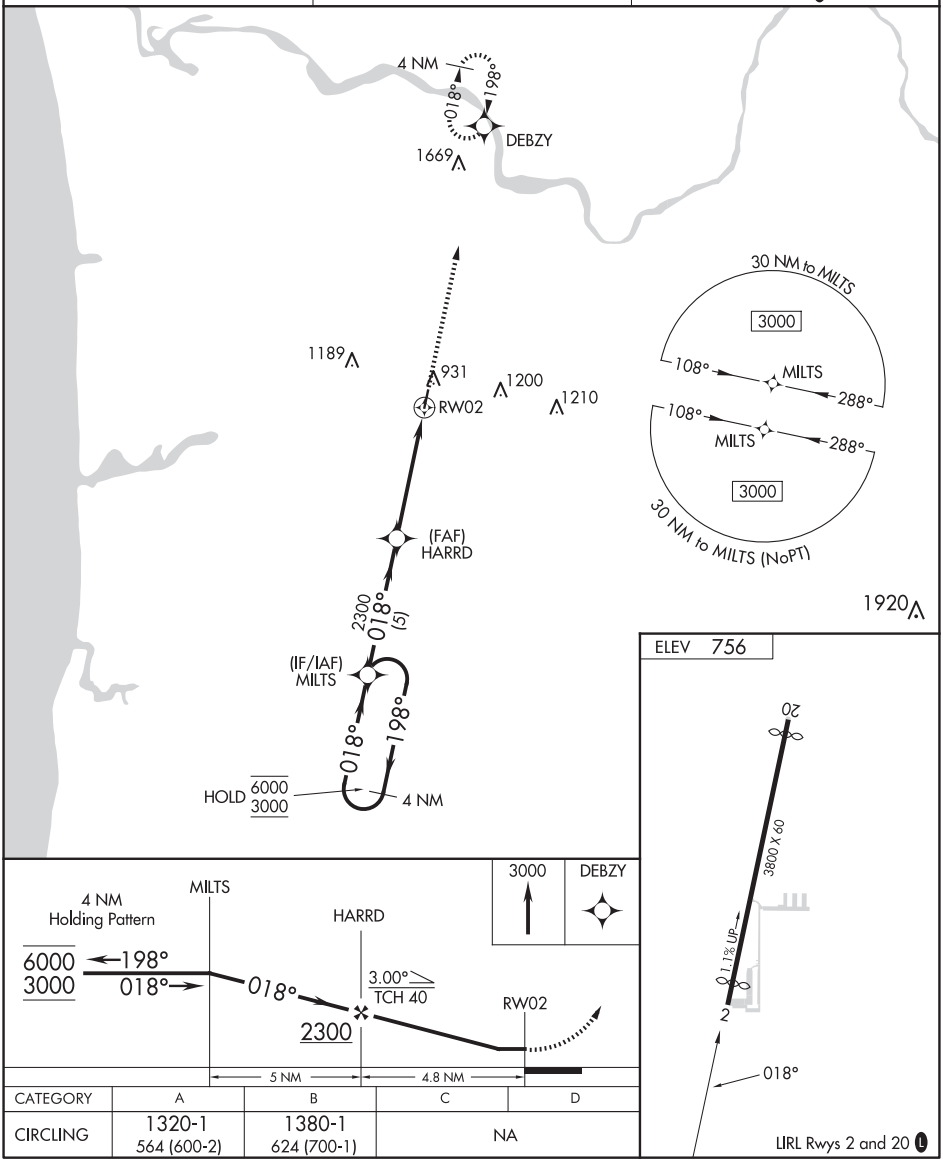
RNP APCH - GPS.

NA

Procedure NA at night. Circling NA west of Rwy 2-20.
Rwy 2 and 20 helicopter visibility reduction below 1 SM NA.
Use BIV altimeter setting.

MISSED APPROACH:
Climb to 3000 direct DEBZY and hold.

BIV ASOS-3	GREAT LAKES APP CON	CTAF
119.025	128.4 257.6	122.90 L



CATEGORY	A	B	C	D
CIRCLING	1320-1 564 (600-2)	1380-1 624 (700-1)	NA	

LIRL Rwys 2 and 20 L

ZEELAND, MICHIGAN
Orig 17APR25

42°49'N-85°56'W

OTTAWA EXEC (Z98)
RNAV (GPS)-A

EC-1, 07 AUG 2025 to 02 OCT 2025
EC-1, 07 AUG 2025 to 02 OCT 2025

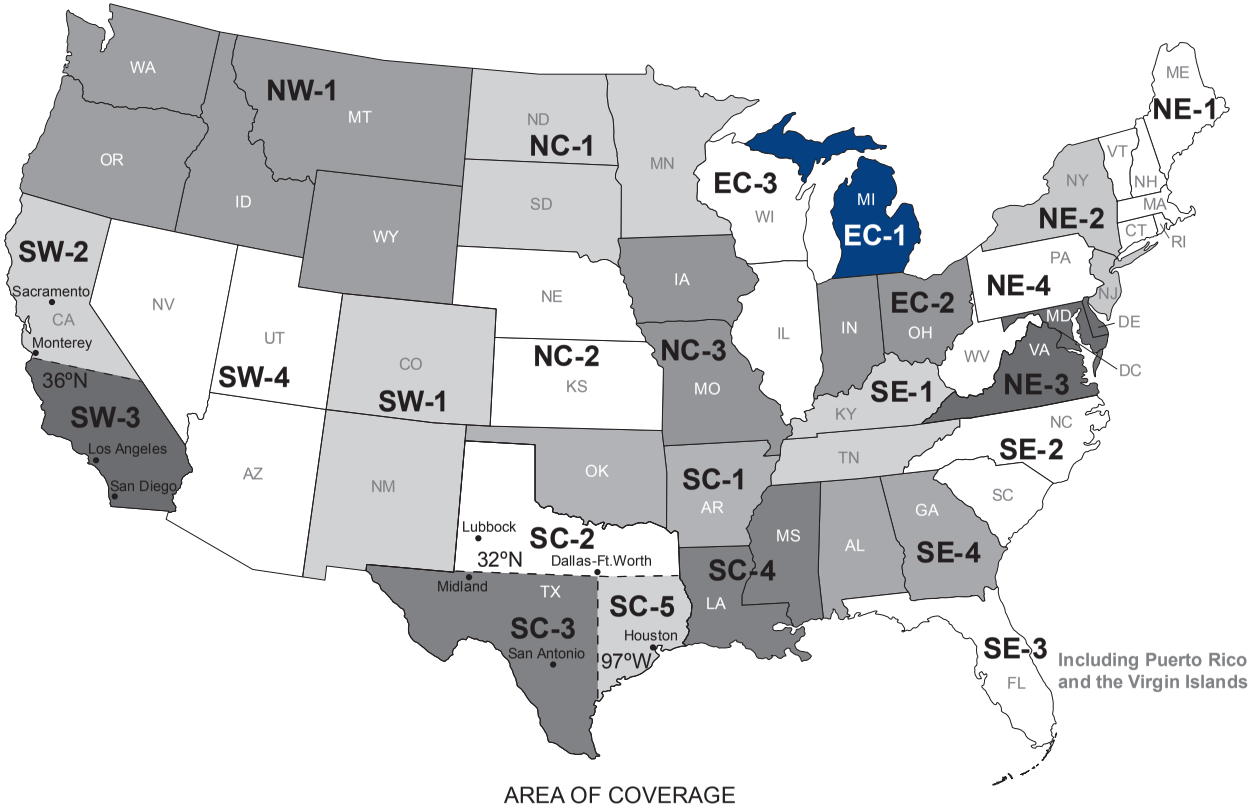
INSIDE BACK COVER

INTENTIONALLY

LEFT

BLANK

U.S. TERMINAL PUBLICATION VOLUMES



Including Puerto Rico and the Virgin Islands

AREA OF COVERAGE

FAA Product ID: BTPPEC1

NSN 7641015059760

NGA REF. NO. OK-10-2859

TERMXFAABTPPEC1

EFF. DATE 25219