

VOL-4

DOD
FLIGHT INFORMATION PUBLICATION
**LOW ALTITUDE
INSTRUMENT APPROACH PROCEDURES
NORTH CENTRAL UNITED STATES**

EFFECTIVE

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* DEPARTMENT OF COMMERCE

FEDERAL AVIATION ADMINISTRATION

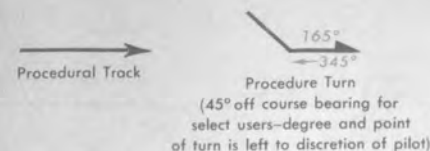


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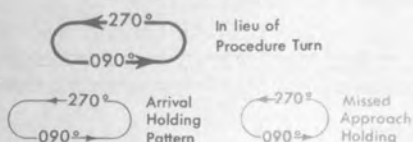
LEGEND

INSTRUMENT APPROACH PROCEDURES (CHARTS)

PLANVIEW SYMBOLS

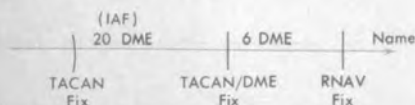


HOLDING PATTERNS

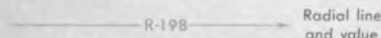
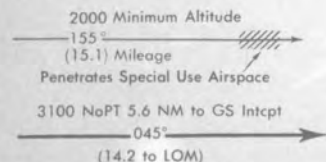


Limits will only be specified when they deviate from the standard. DME fixes may be shown.

(H) Helicopter Alighting Area



TERMINAL ROUTINGS



1400 Minimum Sector Altitude within 25 NM

(Arrows on distance circle identify Sectors)

International Boundary

Distance not to scale

VOR Changeover Point

OBSTRUCTIONS

• Spot Elevation • Highest Spot Elevation

▲ Unlighted ▲ Lighted ▲ Group Unlighted
▲ Group Lighted ▲ Highest Obstruction
± Doubtful Accuracy

SPECIAL USE AIRSPACE

R-352
R-Restricted
P-Prohibited
W-Warning

RADIO AIDS TO NAVIGATION

110.1 Underline indicates No Voice transmitted on this frequency

VOR TACAN VORTAC

WAYPOINT (RNAV)

RANGE (Simultaneous Broadcast)

RANGE (Non-Simultaneous Broadcast)

NDB (Non-directional Radio Beacon)

LOM (Compass Locator)

Marker Beacons

Localizer Course

Localizer Transmitter

(shown when localizer installation is offset from its normal position off the end of the runway)

SDF Course

Range Course

Solid Line indicates "N" Quadrant

Reporting Point ▲ Name (Compulsory)

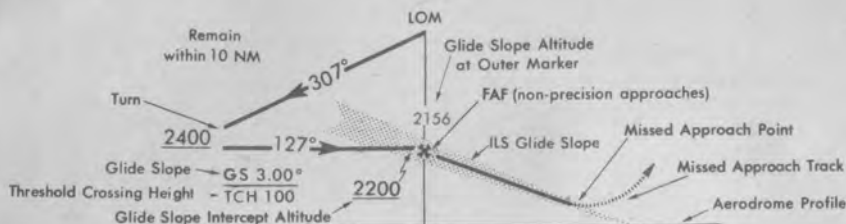
▲ Name (Non-Compulsory)

Fix or Intersection

LEGEND

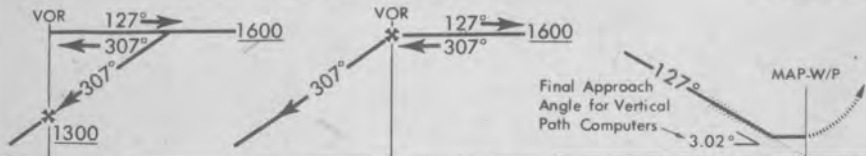
INSTRUMENT APPROACH PROCEDURES (CHARTS)

PROFILE



DESCENT FROM HOLDING PATTERN

RNAV DESCENT



FACILITIES/FIXES

Z
FM
NDB (RBn)
RNG
VOR
VORTAC
TACAN
WAYPOINT

FIX
INT

ALTITUDES

5500	2300	4800	2200
Mandatory Minimum Altitude	Minimum Altitude	Maximum Altitude	Recommended Altitude
Altitudes precede fix or are arrowed to show where they apply.			

Glide Slope intercept altitude is the same as the minimum altitude over LOM for localizer only approach, except as otherwise noted.

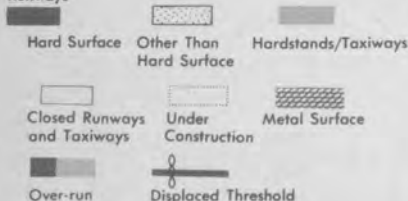
* Final Approach Fix (FAF)
(for non-precision approaches)

⚡ Glide Slope Intercept

--- Visual Flight Path

AERODROME SKETCH

Runways



Arresting Gear

└ uni-directional └ bi-directional www Jet Barrier

Control Tower

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

★ Rotating Aerodrome Beacon.

■ 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 on inside back cover.

⊕ ⊕ ⊕ ⊕ ⊕ Helicopter Alighting Areas

Negative Symbols used to identify Copter Procedure landing point. ⊖ ⊖ ⊖ ⊖ ⊖

Note: The prop type symbol is being phased out.

Elev 123 Runway TDZ elevation

0.8% — UP Total Runway Gradient
(shown when runway gradient exceeds 0.3%)

MINIMA DATA

⚠ Indicates other than standard Alternate Minimums apply for U.S. Army and Civil, refer to Tabulation.

⚠ NA Indicates IFR minimums are Not Authorized for alternate use due to unmonitored facility or absence of weather reporting service.

▼ Take-off minimums Not Standard or Departure Procedure published. Refer to appropriate Regulations and Tabulations.

300-1 Night minimums shown in negative form being phased out.
Charts converted to TERPs criteria will show night minimum when different than day by an asterisk and note.

LEGEND

INSTRUMENT APPROACH PROCEDURES (CHARTS)

GENERAL INFORMATION & ABBREVIATIONS

- ★ Indicates control tower operates non-continuously.
 All distances in nautical miles (except Visibility Data which is in statute miles and Runway Visual Range which is in hundreds of feet).
 Runway dimensions in feet.
 Elevations in feet Mean Sea Level.
 All radials/bearings are Magnetic.

ADF	Automatic Direction Finder	MIRL	Medium Intensity Runway Lights
ALS	Approach Light System	NA	Not Authorized
ARR	Arrival	NDB	Non-directional Radio Beacon
ASR/PAR	Published Radar Minimums at this Aerodrome.	NoPT	No Procedure Turn Required (Procedure Turn shall not be executed without ATC clearance)
ATIS	Automatic Terminal Information Service	RA	Radio Altimeter setting height
BC	Back Course	Radar Required	Radar vectoring required for this approach
C	Circling	Radar Vectoring	May be expected through any portion of the Nav Aid Approach, except final.
CAT	Category	RAIL	Runway Alignment Indicator Lights
CHAN	Channel	RBn	Radio Beacon
DH	Decision Height	REIL	Runway End Identifier Lights
DME	Distance Measuring Equipment	RCLS	Runway Centerline Light System
DR	Dead Reckoning	RNAV	Area Navigation
FAF	Final Approach Fix	RRL	Runway Remaining Lights
FM	Fan Marker	RTB	Return To Base
GS	Glide Slope	Runway Touchdown Zone	First 3000' of Runway.
HAA	Height Above Aerodrome	RVR	Runway Visual Range
HAL	Height Above Landing	S	Straight-in
HAT	Height Above Touchdown	SALS	Short Approach Light System
HIRL	High Intensity Runway Lights	(S) SALS/R	(Simplified) Short Approach Light System /with RAIL
IAF	Initial Approach Fix	SDF	Simplified Directional Facility
ICAO	International Civil Aviation Organization	TA	Transition Altitude
Intcp	Intercept	TAC	TACAN
INT, INTXN	Intersection	TCH	Threshold Crossing Height (Height in feet Above Ground Level)
LDA	Localizer Type Directional Aid	TDZ	Touchdown Zone
Ldg	Landing	TDZL	Touchdown Zone Lights
LDIN	Lead in Light System	TLv	Transition Level
LOC	Localizer	W/P	Waypoint (RNAV)
MAIS	Medium Intensity Approach Light System		
MAIS/R	Medium Intensity Approach Light Systems /with RAIL		
MAP	Missed Approach Point		
MDA	Minimum Descent Altitude		

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			WAPAKONETA, OH - SEE NEIL ARMSTRONG FIELD		

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GENERAL INFORMATION

SCOPE

The DOD Flight Information Publication Terminal Low Altitude is the official publication medium for instrument approach procedures for use by the US Air Force, US Navy and US Army. This series is published by the Defense Mapping Agency Aerospace Center (DMAAC), St. Louis AFS, Mo. 63118.

front cover. NOTAMs and unscheduled MANs will be issued when determined necessary by the Military Departments. When unscheduled MANs are received, staple the new or revised chart to the inside front cover of the appropriate basic FLIP Terminal volume and make annotations on the affected chart(s) as necessary.

CORRECTIONS

U.S. AIR FORCE, ANG & AFRES:

Submission of new procedures and/or changes to existing procedures (fix, course, altitude, published minima) will be processed in accordance with AFR 60-27.

Report all errors, omissions, or changes other than identified above to the USAFIC via AUTODIN. When necessary, the postal system may be used.

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TELEPHONE: (512)652-4884

I. PROCUREMENT

As outlined in DOD Catalog of Aeronautical Charts and Flight Information Publications.

A. DOD ACTIVITIES (See Sections II and III)
U.S. ARMY & NATIONAL GUARD
U.S. NAVY, U.S. MARINE CORPS & U.S. COAST GUARD
U.S. AIR FORCE & AIR NATIONAL GUARD

B. NON DOD ACTIVITIES (See Section II)
FAA/OTHER U.S. GOVERNMENT AGENCIES (NON-MILITARY)
U.S. & FOREIGN CIVILIANS, CIVIL ORGANIZATIONS & NON-MILITARY FOREIGN GOVERNMENT AGENCIES
FOREIGN GOVERNMENTS, INTERNATIONAL COMMANDS & DEPARTMENT OF NATIONAL DEFENCE-CANADA.

II. BASIS OF DISTRIBUTION

As outlined in DOD Catalog of Aeronautical Charts and Flight Information Publications—Section III.

AMENDMENTS

The US Low Altitude Terminal FLIP is published in nine basic volumes which are issued every 8 weeks. A scheduled Military Aviation Notice (MAN) will be published in a bound format at the 4-week mid-point and contains revisions, additions and deletions to the last complete issue of the basic nine volumes. These products must be used in conjunction with each other during mission planning or for in-flight reference. It is imperative that the aircrew member first consult the MAN before making any decisions regarding which Terminal Instrument Approaches are current at the aerodrome of intended landing. If the aerodrome of intended landing is not listed in the index of the MAN, then the aerodrome information in the basic nine volumes has not changed. All IAPs published in the nine volumes and those issued in the MAN are effective as of 0001 hours local time of the date shown on the

U.S. NAVY & U.S. MARINE CORPS

Changes affecting a USN instrument approach procedure will be processed in accordance with current OPNAV INSTRUCTION 3770.2.

Errors, omissions or recommended changes other than for instrument procedures should be submitted via FLIP correction cards available in Base and Unit Operations Offices. Send all corrections to: U.S. Naval Oceanographic Office, Naval Air Information Branch (Code 3142), Washington, D.C. 20373.

U.S. ARMY, ARMY RESERVE & ARMY NG:

Report all errors, omissions or recommended changes to the Director, U.S. Army Aeronautical Services Office, ATTN: CCQ-AS-AID, Cameron Station, Alexandria, Va. 22314. Telephone: 274-7773, Area Code 202, AUTOVON 284-7773. TWX address: USAASO Cameron Station Virginia.

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INSTRUMENT APPROACH PROCEDURES (CHARTS)

NORTH CENTRAL UNITED STATES

Δ IFR ALTERNATE MINIMUMS

(Not applicable to USAF/USN)

Standard alternate minimums for nonprecision approaches are 800-2 (NDB, VOR, LOC, TACAN, LDA, VORTAC, VOR/DME or ASR); for precision approaches 600-2 (ILS or PAR). Aerodromes within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA – means IFR minimums are not authorized for alternate use due to unmonitored facility or absence of weather reporting service. U.S. Army pilots refer to Army Reg. 95-1 for additional application. Civil pilots see FAR 91.83. USAF/USN pilots refer to appropriate regulations.

AERODROME NAME	ALTERNATE MINIMUMS	AERODROME NAME	ALTERNATE MINIMUMS
ALLEN COUNTY.....	VOR RWY 27 800-2*	FORD.....	ILS RWY 1 600-2*
Lima, OH		Iron Mountain-Kingsford, MI	
*Authorized only during control zone operations.		*Auth for DME equipped aircraft during control zone operations only.	
		Cat C, D, 700-2.	
BENEDUM.....	NDB RWY 21 800-2*	GOGEBIC CO.....	VOR/DME RWY 27 800-2*
Clarksburg, WV	ILS RWY 21 700-2*	Ironwood, MI	
	VOR RWY 3 800-2*	*Auth only during control zone operations;	
*Auth only during control zone operations.		Cat C 900-2, Cat D 1000-2.	
Cat C, D, 900-2			
BURKE LAKEFRONT.....	NDB RWY 24R 900-2*	KANAWHA.....	ILS RWY 23 700-2
Cleveland, OH	LOC RWY 24R 800-2*	Charleston, WV	VOR-A 900-2
*Auth only during control zone operations.			
CHERRY CAPITAL.....	ILS RWY 28 800-2	MARION MUNI.....	VOR RWY 4 800-2*
Traverse City, MI		Marion, IN	VOR RWY 22 800-2*
		*Auth only during control zone operations.	
CINCINNATI MUNI-LUNKEN FIELD,		MARQUETTE CO.....	ILS RWY 8 700-2
Cincinnati, OH	NDB RWY 20L 900-2		
	NDB RWY 24 900-2	MARTINSBURG MUNI.....	LOC RWY 8 1200-2
	ILS RWY 20L 900-2	Martinsburg, WV	
	LOC BC RWY 2R 900-2	MERCER CO.....	ILS RWY 23 600-2*
		Bluefield, WV	VOR RWY 23 1000-2
		*Cat C and D 700-2.	
DELTA CO.....	VOR RWY 9 800-2*	MONROE CO.....	VOR RWY 6 800-2*
Esconaba, MI	VOR RWY 27 800-2*	Bloomington, IN	VOR RWY 17 800-2*
Auth only during control zone operations.			VOR RWY 24 800-2
			VOR RWY 35 800-2*
		*Authorized only during control zone operations.	
ELKINS-RANDOLPH CO.....	VOR-A 2200-2	MORGANTOWN MUNI.....	ILS RWY 18 600-2*
Elkins, WV		Morgantown, WV	VOR-A 1400-2**
		*Cat D 800-2	
		**VOR only, DME std.	
EMMET CO.....	ILS RWY 32 600-2*	PHELPS COLLINS.....	VOR RWY 18 800-2*
Pellston, MI	VOR/DME RWY 5 1000-2	Alpena, MI	VOR RWY 36 800-2*
*Cat D 800-2		*Auth only during control zone operations.	
		PURDUE UNIVERSITY.....	ILS RWY 4 700-2*
		Lafayette, IN	
		*Cat D only.	
EVANSVILLE DRESS REGIONAL.....	VOR RWY 4 1200-2	REYNOLDS MUNI.....	ILS RWY 23 600-2*
Evansville, IN		Jackson, MI	
		*Cat D 700-2.	

IFR TAKE-OFF MINIMUMS AND DEPARTURE PROCEDURES NORTH CENTRAL UNITED STATES

Civil Aerodromes and Selected U.S. Army Aerodromes

CIVIL USERS: FAR 91.116(c) prescribes take-off rules and establishes standard take-off minimums as follows: (1) Aircraft having two engines or less — one statute mile. (2) Aircraft having more than two engines — one half statute mile.

MILITARY USERS: Special IFR departure procedures, not published as Standard Instrument Departure (SIDs), and civil take-off minima are included below and are established to assist pilots in obstruction avoidance. Refer to appropriate service directives for take-off minimums.

Aerodromes with IFR take-off minimums other than standard are listed below alphabetically by aerodrome name. Departure procedures and/or ceiling visibility minimums are established to assist pilots conducting IFR flight in avoiding obstructions during climb to the minimum enroute altitude. Take-off minimums and departures apply to all runways unless otherwise specified.

AERODROME NAME	TAKE-OFF MINIMUMS	AERODROME NAME	TAKE-OFF MINIMUMS
AKRON-CANTON REGIONAL.....	FAR 135 applies	BISHOP.....	FAR 135 applies
Akron, OH		Flint, MI	
AKRON MUNI.....	300-1	BLUE ASH.....	Rwy 6, 300-1
Akron, OH		Cincinnati, OH	
Rwy 25 climb on runway heading to 2100'		Climb straight ahead to 1200' before proceeding on course.	
before proceeding on course. Rwy 27 climbing			
left turn to 250°, continue climb to 2100'			
before proceeding on course.			
ALEXANDRIA.....	300-1	BOB SHANK.....	300-1
Alexandria, IN		Indianapolis, IN	
ANDERSON MUNI.....	300-1	N and NE departures climb to 2000' on	
Anderson, IN		090° heading before proceeding on course.	
ANDREW W. PATON OF KENT STATE UNIVERSITY			
Kent, OH.....	300-1	BOYNE MOUNTAIN.....	Rwys 17, 35, 300-1
ANN ARBOR MUNI.....	300-1	Boyne Falls, MI	
Ann Arbor, MI		Rwy 17, after take-off climb on runway heading	
ARTHUR MUNI.....	300-1	to 2500' before proceeding on course.	
Brazil, IN			
ASHLAND CO.....	200-1	BUCKEYE VALLEY.....	200-1
Ashland, OH		Hebron, OH	
BELLAIRE-ANTRIM CO.....	500-1	BURKE LAKEFRONT.....	300-1
Bellaire, MI		Cleveland, OH	
Rwys 2, 13, 20, maintain runway heading to		Rwy 6R/L left climbing turn; Rwy 24R/L right	
2000'; Rwy 31, immediate right turn to 360°		climbing turn to 1500' on heading 330° be-	
heading and climb to 2000' before turning		fore proceeding on course.	
on course.			
BELLEFONTAINE MUNI.....	Rwys 4, 22, 200-1	CAMBRIDGE MUNI.....	400-1
Bellefontaine, OH		Cambridge, OH	
When weather is below 700-1, climb to 1900'		Rwy 4 climb straight ahead to 1500' before	
on runway heading before proceeding on course.		proceeding on course.	
BENEDUM.....	300*	CAPITAL CITY.....	Rwy 6, 14, 24, 32, 200-1
Clarksburg, WV		Lansing, MI	
*Standard visibilities		CARL R. KELLER FIELD.....	Rwys 18, 36, 200-1
Maintain runway heading and climb to 1800'		Port Clinton, OH	
before proceeding on course.			
BERZ-MACOMB.....	Rwys 4, 22, 300-1	CASEMENT.....	300-1
Utica, MI		Painesville, OH	

CASS CO MEM.....	Rwy 4, 9, 22, 27, 32, 300-1
Dowagiac, MI	Rwy 14 NA
CHEBOYGAN CITY-COUNTY.....	300-1
Cheboygan, MI	
CHERRY CAPITAL	
Traverse City, MI	
Several antennas from 1132' to 1546' between 3 and 4.5 NM W and NW of airport. Plan departure to avoid this area.	
CINCINNATI MUNI-LUNKEN FIELD	
Cincinnati, OH	Rwys 2L, 15, 20R, 24, 33, 600-1
Rwy 2R 400-1 or standard with min climb rate of 300' per NM to 900'. Rwy 6 400-1 or standard with min climb rate of 400' per NM to 900'. Rwy 20L 400-1 or standard with min climb rate of 350' per NM to 900'. Rwys 2R, 2L, 6, 15, 20R, 24, 33 climb rwy heading to 1600' before turning.	
CLEVELAND-HOPKINS INTL	
Cleveland, OH	
Rwy 10L/R, left climbing turn to 2000' on heading 080° before proceeding on course.	
Rwys 5L/R, 18L/R climb on runway heading to 1400' before proceeding on course.	
CONCORD AIRPARK.....	300-1
Painesville, OH	
CRAWFORDSVILLE MUNI.....	300-1
Crawfordsville, IN	
CUSTER	
Monroe, MI	
Plan departures to avoid 1382' stack 5 NM ESE of airport.	
CUYAHOGA CO.....	200-1
Cleveland, OH	
Rwy 5, climb on runway heading to 1600' before proceeding on course.	
DARKE CO.....	200-1
Versailles, OH	
DAVISON-GENOVA	Rwy 8, 300-1
Davison, MI	
DEFIANCE MEMORIAL.....	Rwy 12, 200-1
Defiance, OH	
DELAWARE CO-JOHNSON FIELD	300-1
Muncie, IN	
DETROIT CITY.....	Rwys 7, 25, 300-1
Detroit, MI	
DETROIT METRO WAYNE CO	Rwy 15, 200-1
Detroit, MI	
DUPONT-LAPEER	Rwys 14, 27, 32, 300-1
Lapeer, MI	
EAGLE CREEK.....	300-1
Indianapolis, IN	
Rwy 3, N and NE departures climb to 2000' on 360° heading prior to proceeding on course.	
ELKINS-RANDOLPH CO	
Elkins, WV	
Air Carrier reduction in take-off minimums for local conditions NA.	
All runways; climb visually over airport to 3000' then climb N on a 015° bearing from RGY NDB to intercept EKN R-074 (V4) at or above 4000' then continue climb and proceed as cleared.	
Cross EKN VORTAC on V4 W bound at or above 5000'.	
ELYRIA	200-1
Elyria, OH	
EMMETT CO	Rwy 32, 300-1
Pellston, MI	
EVANSVILLE DRESS REGIONAL	
Evansville, IN.....	Rwys 9; 18, 22, 27, 36, 300-1
FAIRFIELD CO.....	300-1
Lancaster, OH	
FAIRMONT MUNI.....	Rwys 4, 22, 500-1
Fairmont, WV	
FAYETTE CO.....	Rwys 4, 22, 300-1
Washington Court House, OH	
FINDLAY.....	Rwys 7, 36, 200-1
Findlay, OH	
FORD.....	Rwy 13, 31, 200-1
Iron Mountain-Kingsford, MI	
Rwy 1, 31; climb to 1900' on runway heading before turning Eastbound. Rwy 13, 19; climb to 1900' before turning Northbound.	
FORT WAYNE MUNI (BAER FIELD)	
Fort Wayne, IN.....	Rwy 9, 13, 27, 200-1
FRANKFORT MUNI.....	Rwy 3, 300-1
Frankfort, IN	
FREEMAN MUNI.....	Rwy 4, 400-1
Seymour, IN	
FULTON CO.....	Rwys 11, 29, 300-1
Rochester, IN	
FULTON CO.....	200-1
Wauseon, OH	
GALLIA-MEIGS REGIONAL	Rwys 5, 23, 400-1
Gallipolis, OH	
Climb on runway heading to 1100' before proceeding as cleared.	

GARY MUNI.....Rwys 2, 20, 200-1 Gary, IN When weather is below 500-1 aircraft departing Rwy 2, make immediate climbing right turn to 1500' on heading 050° before turning on course. Aircraft departing Rwy 30, maintain runway heading, climbing to 1500' before turning right.	GRIFFING SANDUSKY.....Rwys 18, 27, 200-1 Sandusky, OH
GOGEBIC CO Ironwood, MI Rwy 9, 27; when weather is below 500-1, climb to 2100' on runway heading before turning South.	GROSSE ILE MUNI.....Rwys 3, 35, 300-1 Detroit-Grosse Ile, MI
GOSHEN MUNI.....300-1 Goshen, IN	HALSMER.....Rwy 20, 300-1 LaFayette, IN
GRAND HAVEN MEM.....Rwy 36, 300-1 Grand Haven, MI Rwy 18, climb to 1400' on runway heading before turning SW bound. Rwy 27, climb to 1400' on 300° heading before turning SW bound.	HAMILTON.....300-1 Hamilton, OH Rwy 11 climb on runway heading to 1300' before proceeding on course.
GRAND PRIX.....300-1 Birmingham, MI	HARRISON CO.....200-1 Cadiz, OH
GRAYLING AAF.....300-1 Grayling, MI	HARRY CLEVER FIELD.....400-1 New Philadelphia, OH
GREATER PORTSMOUTH REGIONAL Portsmouth, OH Rwys 18, 36, climb straight ahead to 1200' before proceeding on course.	HIGHLAND CO.....Rwys 5, 23, 200-1 Hillsboro, OH
GREENBRIER White Sulphur Springs, WV Climb visually over the airport to 3400'; thence, climb NW on SSU R-338 to cross Frankford Int at or above 5000', proceed on course.	HOLMES CO.....Rwy 27, 100-1 Millersburg, OH
GREENBRIER VALLEY Lewisburg, WV Rwy 4, climb straight ahead to 3500', left climbing turn to intercept SSU R-338 climbing to cross Frankford Int at 4000' or above, proceed on course. Rwy 22, climb straight ahead to 3000', right climbing turn to intercept SSU R-338 climbing to cross Frankford Int at 4000' or above, proceed on course.	HOOK FIELD MUNI.....Rwys 5, 8, 23, 300-1 Middletown, OH Rwy 26, 400-1 Rwys 5, 8 climb on runway heading to 1500' before proceeding as cleared. Rwys 23, 26 make right climbing turn to 1500' on 022° heading before proceeding as cleared.
GREENE CO.....300-1 Xenia, OH	HOUGHTON COUNTY MEMORIAL.... FAR 135 applies Hancock, MI
	HUNTINGBURG.....Rwy 9, 300-1 Huntingburg, IN
	HUNTINGTON MUNI.....Rwy 9, 27, 300-1 Huntington, IN
	INDIANAPOLIS BROOKSIDE AIRPARK.....300-1 Indianapolis, IN
	INDIANAPOLIS METRO.....300-1 Indianapolis, IN
	INDIANAPOLIS-TERRY.....300-1 Indianapolis, IN
	INDIANAPOLIS (WEIR-COOK)..... FAR 135 applies Indianapolis, IN
	JACK BARSTOW.....Rwy 6, 300-1 Midland, MI

JAMES CLEMENTS MUNI.....Rwy 9, 18, 23, 27, 300-1
 Bay City, MI Rwy 5, 36, 500-1*
 *Standard with minimum climb rate of 260'
 per NM to 1200'.

JAMES M. COX-DAYTON MUNI.....FAR 135 applies
 Dayton, OH

JASPER CO.....Rwy 9, 18, 36, 300-1
 Rensselaer, IN
 Take-off on Rwy 9, 18, 36 when weather
 is below 500 feet ceiling and/or 3 miles
 visibility, climb to 1100' on rwy heading
 before turning.

JERRY TYLER MEM.....300-1
 Niles, MI

KALAMAZOO MUNI.....Rwys 9, 23, 27, 300-1
 Kalamazoo, MI

KANAWHA.....
 Charleston, WV
 Rwy 14, 300-1 or climb to 1500' at rate of 340'
 per NM. Rwy 23, 300-1 or climb to 1500' at
 rate of 370' per NM. Rwy 32, 200-1 or climb
 to 1500' at rate of 250' per NM.

KENDALLVILLE MUNI.....200-1
 Kendallville, IN

KENT COUNTY.....FAR 135 applies
 Grand Rapids, MI

KOKOMO MUNI.....Rwys 4, 13, 22, 300-1
 Kokomo, IN

LAMONT.....300-1
 Deckerville, MI

LANSDOWNE.....300-1
 Youngstown, OH
 Rwy 20, make immediate right climbing turn to
 2200' on heading of 270° before proceeding
 on course. Rwy 2, make left climbing turn to
 2200' on heading of 270° before proceeding
 on course. 364' per NM rate of climb required
 to 2200'.

LIVINGSTON CO.....Rwys 13, 31, 300-1
 Howell, MI

LOST NATION.....Rwy 27, 600-1
 Willoughby, OH
 Rwy 23, climbing left turn to 1300' on 180°
 heading before proceeding as cleared.
 1213' stock 2 NM W of airport.

MACKINAC ISLAND.....Rwys 8, 26, 200-1
 Mackinac Island, MI

MADISON MUNI.....300-1
 Madison, IN

MANSFIELD LAHM MUNI.....FAR 135 applies
 Mansfield, OH

MARQUETTE CO.....Rwys 8, 19, 200-1
 Marquette, MI Rwy 1, 400-1
 Rwy 26: Climb to 1840' on runway heading
 before proceeding on course.

MARTINSBURG MUNI.....
 Martinsburg, WV
 Rwy 8, 17, climb to 3000' on runway heading
 prior to proceeding on course. Rwy 26, climb-
 ing left turn to 3000' direct MRB VORTAC
 before proceeding on course. Rwy 35, climbing
 right turn to 3000' direct MRB VORTAC before
 proceeding on course.

MASON CO.....Rwys 18, 25, 300-1
 Ludington, MI

MENOMINEE CO.....Rwys 14, 18, 300-1
 Menominee, MI Rwys 32, 36, 200-1

MERCER CO.....Rwys 5, 23, 100-1
 Bluefield, WV
 Rwy 5, climb straight ahead to 5000' before
 proceeding on course. Rwy 23, climbing right
 turn, intercept and climb on BFL R-270 to 5000'
 before proceeding on course.

MEÏTEL FIELD.....300-1
 Connersville, IN

METTETAL.....Rwy 36, 300-1
 Plymouth, MI

MICHIANA REGIONAL.....Rwy 27, RVR/24
 South Bend, IN
 1918' tower 6.5 NM SE of airport, plan
 departure to avoid this area.

MICHIGAN CITY.....Rwy 1, 200-1*
 Michigan City, IN
 *Due to 730' AMSL (80' AGL) light pole
 200' N and 200' E of Rwy 19 threshold.

MILLER.....
 Reed City, MI
 Rwy 17: Climb to 1600' on runway heading
 before proceeding on course.

MONROE CO.....Rwy 6, 24, 200-1
 Bloomington, IN

MONTGOMERY CO.....
 Dayton, OH
 Rwy 9, climb to 1500' on rwy heading
 before turning Southbound. Rwy 20 climb
 to 1500' before turning Eastbound.

MORGANTOWN MUNI.....Rwy 18, 800-1*
 Morgantown, WV
 *Or climb to 2200 at a rate of 250' per NM.
 Rwy 18, make right climbing turn to 225°
 heading, climb to 4000' before proceeding on
 course. Rwy 23, climb straight ahead to 4000'
 before proceeding on course. Rwy 5, make left
 climbing turn to 040° heading and climb to
 4000' before proceeding on course.

MT. PLEASANT MUNI.....Rwy 23, 200-1 Mt. Pleasant, MI	PORT COLUMBUS INTLRwys 1,5,13,19,23,31, 200-1 Columbus, OH Rwys 10L, 28L, RVR/24
MT. VERNON.....Rwy 28, 100-1 Mt. Vernon, OH	POTOMAC AIRPARK.....900-1 Berkeley Springs, WV Climb VFR over airport to 1300' before proceeding as cleared.
MUSKEGON COUNTY.....FAR 135 applies Muskegon, MI	PRICE'S.....Rwy 36, 200-1 Linden, MI
NAPPANEE MUNI.....Rwy 9, 27, 300-1 Nappanee, IN	PROGRESS FIELD.....200-1 Fremont, OH
NATIONAL.....Rwys 9, 27, 300-1 Westland, MI	PURDUE UNIVERSITY.....Rwy 5, 300-1 Lafayette, IN
NEIL ARMSTRONG.....300-1 Wapakoneta, OH	RALEIGH CO MEM.....Rwy 28, 200-1 Buckley, WV Rwy 10, 400-1 or standard with a min climb rate 250' per NM to 3200'. Rwy 10, CAUTION: Remain N of BkW R-133°, make immediate left climbing turn to 4000' on BkW R-360° before proceeding on course. Rwy 28, climb to 4000' on BkW R-287° before proceeding on course.
NEWARK-HEATH.....Rwy 8, 600-1 Newark, OH Rwy 26, 300-1 Rwy 8, climbing turn to 1400' on heading 170° before turning on course. Rwy 26, right climbing turn to 1400' on heading 300° before proceeding on course.	RANDOLPH.....Rwy 7, 9, 18, 36, 300-1 Winchester, IN
NEW HUDSON.....Rwy 36, 300-1 New Hudson, MI	REYNOLDS MUNI.....Rwys 13, 23, 31, 200-1 Jackson, MI
NORTH VERNON MUNI.....Rwy 33, 300-1 North Vernon, IN	ROBEN-HOOD.....Rwy 14, 300-1 Big Rapids, MI
OAKLAND-PONTIAC.....Rwy 4, 18, 22, 36, 200-1 Pontiac, MI	ROMEO.....300-1 Romeo, MI
OHIO STATE UNIVERSITY.....Rwys 14, 23, 32, 200-1 Columbus, OH	ROSCOMMON COUNTY.....Rwy 9, 27, 300-1 Houghton Lake, MI
O'NEAL.....300-1 Vincennes, IN	ROSS CO.....300-1 Chillicothe, OH
ONTONAGON CO.....Rwys 16, 34, 300-1 Ontonagon, MI	ROSS FIELD.....Rwys 13, 18, 31, 300-1 Benton Harbor, MI
OTSEGO CO Gaylord, MI Rwy 9, climb to 1700' before turning left.	SALEM.....Rwys 9, 18, 27, 300-1 Salem, MI
PARK TOWNSHIP.....300-1 Holland, MI	SCHOOLCRAFT CO.....300-1 Manistique, MI
PERU MUNI.....300-1 Peru, IN	SENECA CO.....Rwy 6, 200-1 Tiffin, OH 954' tower 1 NM NE of airport.
PLYMOUTH MUNI.....Rwys 10, 28, 300-1 Plymouth, IN	SHELBYVILLE MUNI.....300-1 Shelbyville, IN
	SIDNEY.....200-1 Sidney, OH

INSTRUMENT APPROACH PROCEDURE CHARTS

RATE OF DESCENT TABLE

(ft. per min.)

A rate of descent table is provided for use in planning and executing precision descents under known or approximate ground speed conditions. It will be especially useful for approaches when the localizer only is used for course guidance. A best speed, power, attitude combination can be programmed which will result in a stable glide rate and attitude favorable for executing a landing if minimums exist upon breakout. Care should always be exercised so that the minimum descent altitude and missed approach point are not exceeded.

ANGLE OF DESCENT (degrees and tenths)	GROUND SPEED (knots)										
	30	45	60	75	90	105	120	135	150	165	180
2.0	105	160	210	265	320	370	425	475	530	585	635
2.5	130	200	265	330	395	465	530	595	665	730	795
3.0	160	240	320	395	480	555	635	715	795	875	955
3.5	185	280	370	465	555	650	740	835	925	1020	1110
4.0	210	315	425	530	635	740	845	955	1060	1165	1270
4.5	240	355	475	595	715	835	955	1075	1190	1310	1430
5.0	265	395	530	660	795	925	1060	1190	1325	1455	1590
5.5	290	435	580	730	875	1020	1165	1310	1455	1600	1745
6.0	315	475	635	795	955	1110	1270	1430	1590	1745	1905
6.5	345	515	690	860	1030	1205	1375	1550	1720	1890	2065
7.0	370	555	740	925	1110	1295	1480	1665	1850	2035	2220
7.5	395	595	795	990	1190	1390	1585	1785	1985	2180	2380
8.0	425	635	845	1055	1270	1480	1690	1905	2115	2325	2540
8.5	450	675	900	1120	1345	1570	1795	2020	2245	2470	2695
9.0	475	715	950	1190	1425	1665	1900	2140	2375	2615	2855
9.5	500	750	1005	1255	1505	1755	2005	2255	2510	2760	3010
10.0	530	790	1055	1320	1585	1845	2110	2375	2640	2900	3165
10.5	555	830	1105	1385	1660	1940	2215	2490	2770	3045	3320
11.0	580	870	1160	1450	1740	2030	2320	2610	2900	3190	3480
11.5	605	910	1210	1515	1820	2120	2425	2725	3030	3335	3635
12.0	630	945	1260	1575	1890	2205	2520	2835	3150	3465	3780

TERPs—CHANGE NOTICE

GENERAL

The United States Standard for Terminal Instrument Procedures (TERPs) is the approved criteria for formulating instrument approach procedures.

All instrument approach procedures are being revised to comply with the TERPs criteria. When revised, several changes in the depiction of landing minima are necessary.

The following changes are the most significant and must be thoroughly understood for proper use.

LANDING MINIMA

Landing minima are established for five aircraft approach categories (A, B, C, D, and E). Categories of U.S. military aircraft are published in FLIP Planning. Where instrument approach procedures are published in accordance with TERPs criteria, the standard format for portrayal of landing minima is as follows:

LOW ALTITUDE

	Decision Height (DH) MSL	Visibility (RVR in 100s of feet)	Height of DH above touchdown zone (HAT)	Ceiling & Prevailing Visibility
Aircraft Category				
CATEGORY	A	B	C	D
Precision Straight-in to Runway 27 S-ILS-27		362/24	200 (200-½)	
S-LOC-27		440/40	278 (300-¾)	
Non-Precision (Localizer) Straight-in to Runway 27 CIRCLING	520-1 350 (400-1)	620-1 450 (500-1)	620-1½ 450 (500-1½)	720-2 550 (600-2)
	Minimum Descent Altitude (MDA)	Height of MDA above airport (HAA)	Height of MDA above touchdown zone (HAT)	Statute mile Visibility

NOTE:

1. Minima shown are the lowest permitted by established criteria. Pilots should consult applicable directives of their respective services for aircraft model/command restrictions.
2. The minima for straight-in and circling approaches appear under the aircraft category. When there is no division line between categories, the minima apply to two or more categories. In the above illustration, straight-in minima are the same for all listed aircraft categories. For circling, however, note that landing minima differs by aircraft category.

EXPLANATION OF TERMS

DECISION HEIGHT (DH) AND MINIMUM DESCENT ALTITUDE (MDA): The term minimum altitude, associated with landing minima, has been replaced by the terms Decision Height (DH) and Minimum Descent Altitude (MDA).

DH—An altitude, specified in feet above MSL, at which a missed approach shall be initiated when either visual reference has not been established with the runway environment or the aircraft is not in a position to execute a normal landing. Decision heights apply only to precision approaches (e.g. ILS and PAR).

MDA—An altitude, specified in feet above MSL, below which descent will not be made until visual reference has been established with the runway environment and the aircraft is in a position to execute a normal landing. Minimum descent altitudes apply to nonprecision straight-in and circling approaches.

HEIGHT ABOVE TOUCHDOWN (HAT): Height Above Touchdown indicates the height of the DH or MDA above the highest runway elevation in the touchdown zone. HAT will be published in conjunction with all straight-in minima.

HEIGHT ABOVE AIRPORT (HAA): Height Above Airport indicates the height of the MDA above the published airport elevation. HAA will be published in conjunction with all circling minima.

CEILINGS: Ceiling values shown in parentheses are for U.S. military use in accordance with applicable service directives. A ceiling is expressed in feet above the published airport elevation, and is equal to or greater than the height of the associated DH or MDA.

VISIBILITY: Visibility values are expressed as Runway Visual Range (RVR), Runway Visibility (RV), or Prevailing Visibility (PV). The visibility value published following the DH or MDA is the required minimum visibility for the approach. For example, the DH or MDA and required minimum visibility will be depicted as 440/40 (40=4000 RVR) or 440- $\frac{3}{4}$ ($\frac{3}{4}$ =statute mile RV or PV, as applicable). For straight-in approaches, the visibility value may be either RVR, RV, or PV. For circling approaches, the visibility value will always be PV. The visibility value published in parentheses with the ceiling value (i.e. 300- $\frac{3}{4}$) is applicable for flight planning purposes. It is also the required minimum visibility in the event RVR or RV is not available. This value will always be PV.

RVR/VISIBILITY (SM) RELATIONSHIP

The following table shall be used for converting RVR to meteorological visibility when RVR is inoperative.

1600'-1/4	4000'-3/4
2000'-3/8	4500'-7/8
2400'-1/2	5000'-1 SM
3200'-5/8	6000'-1 1/4

APPLICATION

Instrument approach procedures, including landing minima published in accordance with previous criteria, will continue to apply as published until revised to conform with TERPs criteria.

NDB RWY 1

AL-638 (FAA)

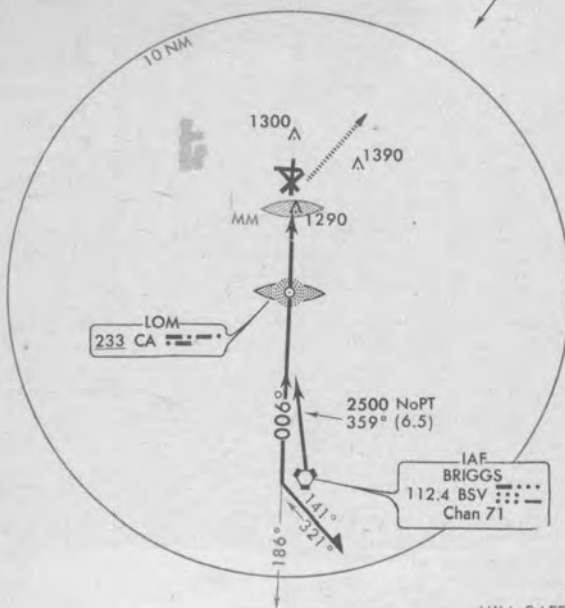
AKRON-CANTON REGIONAL
AKRON, OHIO

AKRON-CANTON APP CON
007°-186° 125.5 226.4
187°-006° 118.6 323.0
AKRON-CANTON TOWER
118.3 257.8
GND CON
121.7 348.6
ASR
ATIS 121.05

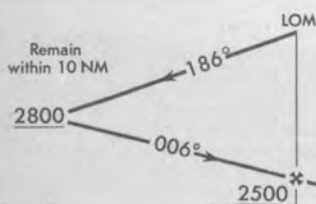
2049

AKRON
114.4 ACO
Chan 91

092°
272° R-092
2800
219°
(19.1)



MIN SAFE ALT 25 NM 3100



MISSED APPROACH
Climbing right turn to 3000
direct to ACO VORTAC and
hold.

CATEGORY	A	B	C	D
S-1	1640/40	427 (500-¾)		1640/50 427 (500-1)
CIRCLING	1640-1 412 (500-1)	1680-1 452 (500-1)	1680-1½ 452 (500-1½)	1780-2 552 (600-2)



HIRL Rwy 1-19
REIL Rwy 23
MIRL Rwy 5-23 and 14-32

FAF to MAP 3.7 NM					
Knots	60	90	120	150	180
Min:Sec	3:42	2:28	1:51	1:29	1:14

NDB RWY 1

40°55'N-81°27'W

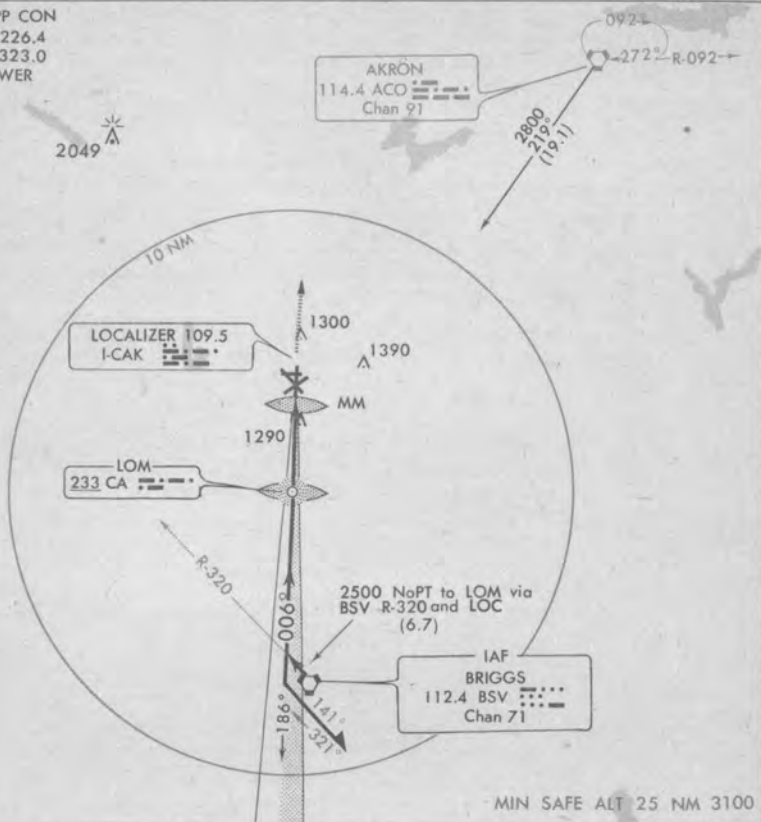
AKRON, OHIO

AKRON-CANTON REGIONAL

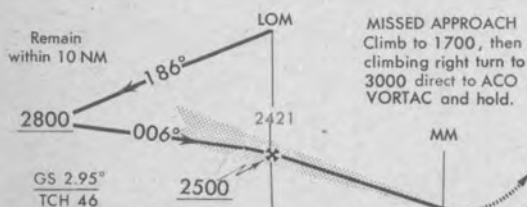
ILS RWY 1

AL-638 (FAA)

AKRON-CANTON APP CON
007° 186° 125.5 226.4
187° 006° 118.6 323.0
AKRON-CANTON TOWER
118.3 257.8
GND CON
121.7 348.6
ASR
ATIS 121.05



MIN SAFE ALT 25 NM 3100



MISSED APPROACH
Climb to 1700, then
climbing right turn to
3000 direct to ACO
VORTAC and hold.

CATEGORY	A	B	C	D
S-ILS-1	1413/24	200 (200-1/2)		
S-LOC 1	1580/24	367 (400-1/2)	1580/40	367 (400-3/4)
CIRCLING	1640-1 412 (500-1)	1680-1 452 (500-1)	1680-1 1/2 452 (500-1 1/2)	1780-2 552 (600-2)



ELEV 1228



HIRL Rwy 1-19
REIL Rwy 23
MIRL Rwy 5-23 and 14.32 from LOM

FAF to MAP 3.7 NM

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

ILS RWY 1

40° 55' N - 81° 27' W

AKRON, OHIO
AKRON-CANTON REGIONAL

AKRON-CANTON APP CON

907°-186° 125.5 226.4

007° - 138	125.5	220.4
187° - 006	118.6	323.0

AKRON-CANTON TOWNSHIP

118.3 257.8

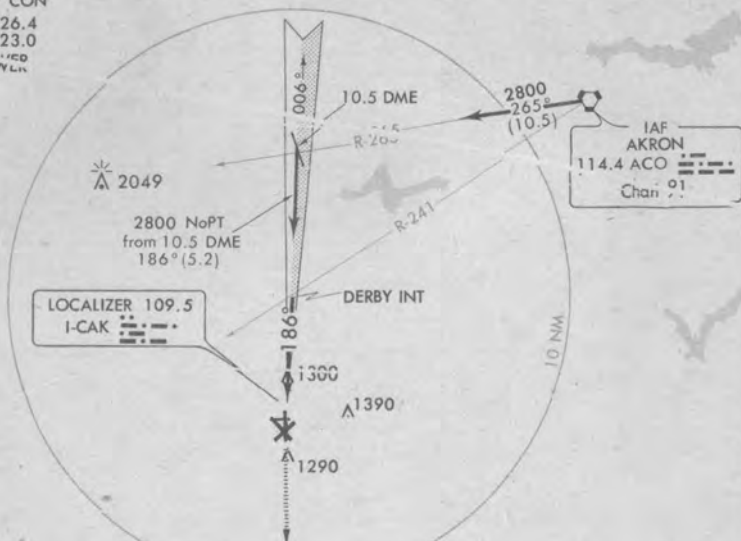
GND CON

121.7	348.6
-------	-------

ASR

ATIS

121.05



BACK COURSE



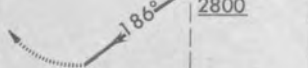
MISSED APPROACH
Climb to 3000 direct to
BSV VORTAC and hold.

DERBY INT

10.5 DME

2800

Procedure Turn NA



	4 NM		5.2 NM	
CATEGORY	A	B	C	D
S-19	1560-1		343 (400-1)	
CIRCLING	1640-1 412 (500-1)	1680-1 452 (500-1)	1680-1½ 452 (500-1 ½)	1780-2 552 (600-2)

Disregard glide slope indications.

Localizer back course unusable beyond 10 NM.

Simultaneous reception LOC and VOR/DME or Radar required.

Inoperative table does not apply to HIRL.



REIL Rwy 23

HURL Rwy 1-19

MIRL Rwy 5-23 and 14-32

FAF to MAP 4 NM					
Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

LOC BC RWY 19

40°55'N – 81°27'W

AKRON, OHIO

AKRON-CANTON REGIONAL

Orig

VOR RWY 23

AL-638 (FAA)

AKRON-CANTON REGIONAL

AKRON, OHIO

AKRON-CANTON, APP CON
 007°186° 125.5 226.4
 187°006° 118.6 323.0
 AKRON-CANTON TOWER
 118.3 257.8
 GND CON
 121.7 348.6
 ASR
 ATIS
 121.05

2049

YOST
 10 DME/5.4 RADAR

1300

1390

1290

3200

3600

BRIGGS
 112.4 BSV
 Chan 71

R-283

R-188

MISSED APPROACH

Climb straight ahead to 3000,
 intercept BSV R-283, proceed
 to BSV VORTAC and hold.

Procedure Turn
 NA

YOST

10 DME/5.4 RADAR

VORTAC

15.4 DME

2800

2800

5.4 NM

CATEGORY	A	B	C	D
S-23	1640-1	412 (500-1)	1640-1 1/4 412 (500-1 1/4)	1640-1 1/2 412 (500-1 1/2)
CIRCLING	1640-1 412 (500-1)	1680-1 452 (500-1)	1680-1 1/2 452 (500-1 1/2)	1780-2 552 (600-2)

Radar or DME required.



ELEV 1228



HIRL Rwy 1-19
 REIL Rwy 23
 MRL Rlys 5-23 and 14-32

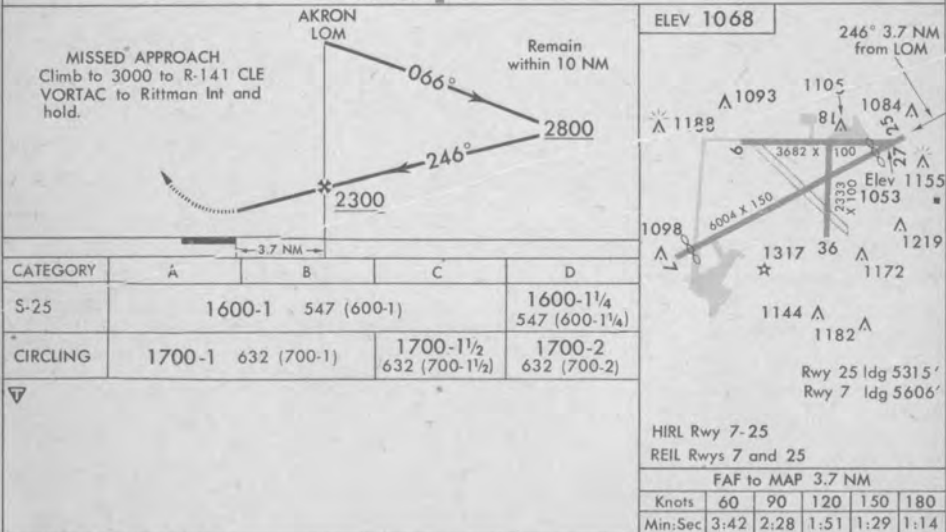
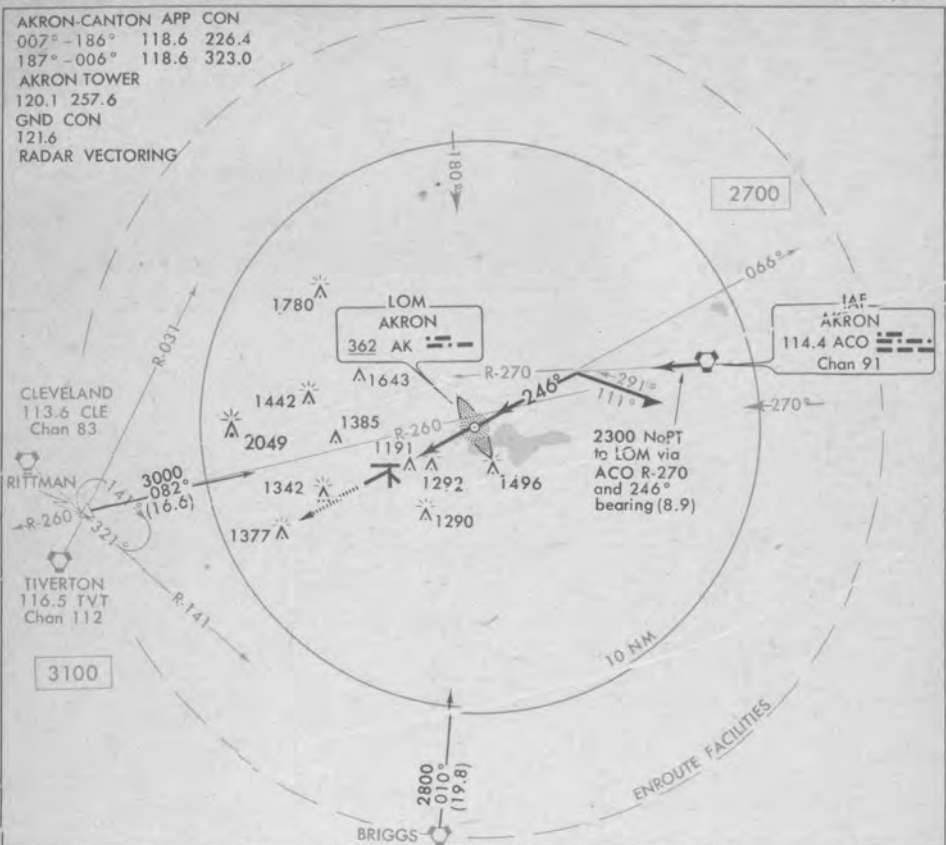
FAF to MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

VOR RWY 23

40°55'N-81°27'W

AKRON, OHIO

AKRON-CANTON REGIONAL



LOC RWY 25

AL-6 (FAA)

AKRON MUNI

AKRON, OHIO

AKRON-CANTON APP CON

007°-186° 118.6 226.4

187°-006° 118.6 323.0

AKRON TOWER

120.1 257.6

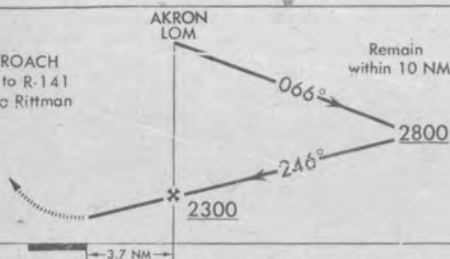
GND CON

121.6

RADAR VECTORING



MISSED APPROACH
Climb to 3000 to R-141
CLE VORTAC to Rittman
Int and hold.



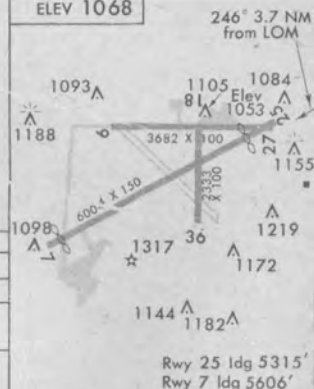
CATEGORY	A	B	C	D
S-25	1500-1	447 (500-1)		
CIRCLING	1700-1	632 (700-1)	1700-1½ 632 (700-1½)	1700-2 632 (700-2)

Inoperative table does not apply to REIL and HIRL Runway 25.

Back course unusable.



ELEV 1068



HIRL Rwy 7-25
REIL Rws 7 and 25

FAF to MAP 3.7 NM

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

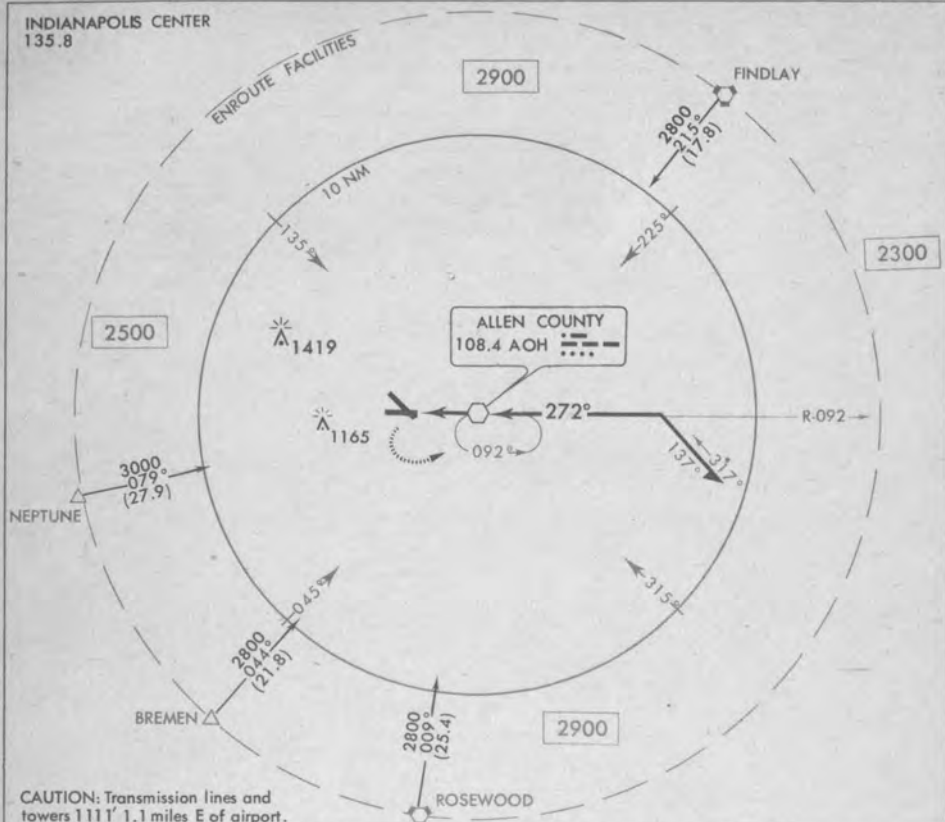
LOC RWY 25

41°02'N-81°28'W

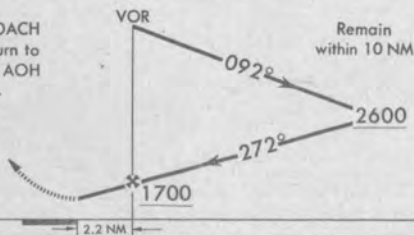
AKRON, OHIO
AKRON MUNI

VOR RWY 27

AL-5143 (FAA)

ALLEN COUNTY
LIMA, OHIOINDIANAPOLIS CENTER
135.8

MISSED APPROACH
Climbing left turn to
2600 direct to AOH
VOR and hold.



CATEGORY	A	B	C	D
S-27*	1380-1 405 (500-1)			
CIRCLING*	1420-1 445 (500-1)	1440-1 465 (500-1)	1440-1½ 465 (500-1½)	1540-2 565 (600-2)

*When Allen County Airport, Ohio altimeter setting not available, the following applies: (a) Use Findlay, Ohio altimeter setting and all MDA's increased 100 feet. (b) Category D straight-in visibility increased to 1¼ mile. Night minimums not authorized on Rwy 14-32.



ELEV 975



REIL Rwy 27
MIRL Rwy 9-27
Rwy 14-32 unlighted

FAF to MAP 2.2 NM

Knots	60	90	120	150	180
Min:Sec	2:12	1:28	1:06	0:53	0:44

VOR RWY 27

40°42'N-84°02'W

LIMA, OHIO

ALLEN COUNTY

NDB RWY 12

8
AL-5133 (FAA)ANDERSON MUNI
ANDERSON, INDIANAMUNCIE APP CON
120.65
ANDERSON TOWER ★
126.0
GND CON
121.6
RADAR VECTING

ENROUTE FACILITIES

MARION

2400
180°
(21.3)

2600

10 NM

ANDERSON
371 AID2400
to NDB
355°(1.3)

298°

073°

253°

118°

090°

DALEVILLE

△1228

△1158

△1150

PENDLETON

△1400

2400
048°(5.1)

2900

360°

Remain
within 10 NM

NDB

2400

118°

1900

3.1 NM

MISSED APPROACH
Climbing left turn to 2400
direct to NDB and hold.

CATEGORY

A

B

C

D

S-12

1340-1 421 (500-1)

CIRCLING

1360-1
441 (500-1)1380-1
461 (500-1)1380-1½
461 (500-1½)1480-2
561 (600-2)

When control zone not effective the following applies, except for operators with approved weather reporting services: a. Use Indianapolis, Indiana altimeter setting. b. Alternate minimums not authorized. c. Increase all MDA's 160 feet. d. S-12 Cat. D visibility increased to 1¼.



ELEV 919

Rwy 18 and 36 ldg 3100'

118° 3.1 NM
from NDB

12

5400 X 100

81

3400 X

75

36

30

MIRL Rwy 12-30 and 18-36
REIL Rwy 12 and 30

FAF to MAP 3.1 NM

Knots	60	90	120	150	180
Min:Sec	3:06	2:04	1:33	1:14	1:02

NDB RWY 12

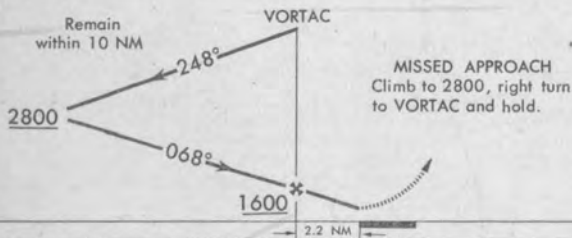
40°06'N-85°37'W

ANDERSON, INDIANA
ANDERSON MUNI

ERIE APP CON
121.0
RADAR VECTORED



MIN SAFE ALT 25 NM 2900



ELEV 923

CATEGORY	A	B	C	D
S-8	1280-1 357 (400-1)			
CIRCLING	1380-1	457 (500-1)	1380-1½ 457 (500-1½)	1480-2 557 (600-2)

When Ashtabula altimeter setting is not available use Erie, Pennsylvania altimeter setting and the following applies: (a) Increase straight-in MDA 140 feet. (b) Increase circling MDA category A, B and C 100 feet, category D 20 feet.

△ NA



MIRL Rwy 8-26
REIL Rwy 26

FAF to MAP 2.2 NM					
Knots	60	90	120	150	180
Min:Sec	2:12	1:28	1:06	0:53	0:44

NDB RWY 2

AL-5131 (FAA)

BELLAIRE-ANTRIM COUNTY

BELLAIRE, MICHIGAN

MINNEAPOLIS CENTER
134.6

2700

CAUTION: Airport situated in hilly terrain, rapid rising terrain within 2 NM of airport in all quadrants.

BELLAIRE
251 ACB

1599

2100 NoPT
020°(8.4)

BARKER

2600 to Barker Int
020° (13.7)

(IAF) BROADMAN

ENROUTE FACILITIES

Final approach from holding pattern at ACB NDB not authorized. Procedure turn required.

3500

Remain
within 10 NM

NDB

2600

200°

020°

2100

MISSED APPROACH
Climbing right turn to 060° heading, climb to 2600 within 10 NM and return to ACB NDB and hold.

5 NM

CATEGORY	A	B	C	D
S-2*	1340-1 712 (800-1)		1340-1 1/4 712 (800-1 1/4)	1340-1 1/2 712 (800-1 1/2)
CIRCLING*	1340-1 712 (800-1)		1340-1 1/2 712 (800-1 1/2)	1480-2 852 (900-2)

*Use Bellaire, Mich. altimeter setting through UNICOM; when not available, use Traverse City, Mich. altimeter setting and the following applies: (a) All MDA's increased 80 feet. (b) Increase visibility straight-in Cat. B to 1/4, Cat. C to 1/2, Cat. D to 1/4. Increase circling Cat. B to 1/4.



NA

ELEV 628

MIRL Rwy 2-20 and 13-31



REIL Rwy 2 and 20

FAF to MAP 5 NM

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

NDB RWY 2

44°59'N - 85°12'W

BELLAIRE, MICHIGAN

BELLAIRE-ANTRIM COUNTY

NDB RWY 22

AL-6055 (FAA)

BELLEFONTAINE MUNI
BELLEFONTAINE, OHIO

INDIANAPOLIS CENTER
135.8 351.8

FINDLAY

3000
175°
(30)

2500

050°

MEEKER

3000
247°
(21.2)

270°

3000
288°
(20.9)

GRINDELL

ROSEWOOD

3000
061°
(20)

1503

1550

1803
1791

RUSHESYLVANIA
326 RUV

10 NM

2900

ENROUTE FACILITIES

Final approach from holding pattern at
RUV NDB not authorized procedure turn required.

MISSED APPROACH
Climbing right turn to 3000
direct to NDB and hold.

NDB

Remain
within 10 NM

050°

3000

230°

2300

3.8 NM

ELEV 1345

230° 3.8 NM
from NDB

TDZE
1345

4400 X 65

CATEGORY	A	B	C	D
S-22	2000-1	655 (700-1)	2000-1 $\frac{1}{4}$ 655 (700-1 $\frac{1}{4}$)	2000-1 $\frac{1}{2}$ 655 (700-1 $\frac{1}{2}$)
CIRCLING	2000-1 655 (700-1)	2040-1 695 (700-1)	2060-1 $\frac{1}{2}$ 715 (800-1 $\frac{1}{2}$)	2260-2 915 (1000-2)

Use Findlay, Ohio altimeter setting.



NA

HIRL Rwy 4-22
REIL Rwy 22

FAF to MAP 3.8 NM

Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

NDB RWY 22

40°25'N-83°44'W

BELLEFONTAINE, OHIO
BELLEFONTAINE MUNI

ILS RWY 21

AL-61 (FAA)

BENEDUM

CLARKSBURG, WEST VIRGINIA

CLARKSBURG RADIO
122.1R
CLARKSBURG TOWER
126.7
GND CON
121.9

3000

4300

MORGANTOWN
111.6 MGV
Chan 53

CLARKSBURG
115.1 CKB

3700

4400

Localizer course crosses
Rwy centerline 11773
feet from Rwy 21 threshold.

MISSED APPROACH
Climb to 3300 direct to
CKB VOR and hold.

LOM
2951
027°
207°
3300

Remain
within 10 NM

MM

3000

Glide slope 3.00°
Glide slope unusable
below 1583

0.9

4.4 NM

CATEGORY	A	B	C	D
S-ILS 21	1603-3/4 400(400-3/4)			
S-LOC 21	1840-1	637 (700-1)	1840-1 1/4 637 (700-1 1/4)	1840-1 1/2 637 (700-1 1/2)
CIRCLING*	1860-1	657 (700-1)	2020-1 1/2 817 (900-1 1/2)	2020-2 817 (900-2)

When control zone not effective, the following applies except for operators with approved weather reporting service: (a) Use Morgantown, W.Va. altimeter setting and increase all MDA/DH's 100 feet. (b) Circling visibility Cat. B increased to 1 1/4 miles; Cat. C increased to 1 3/4 miles. (c) Alternate minimums not authorized.

Inoperative table does not apply to MALSR Rwy 21.

* Night minimums not authorized Rwy 13-31. $\nabla \Delta$

ELEV 1203



HIRL Rwy 3-21
REIL Rwy 3

FAF to MAP 5.3 NM

Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

ILS RWY 21

39°18'N - 80°14'W

CLARKSBURG, WEST VIRGINIA

BENEDUM

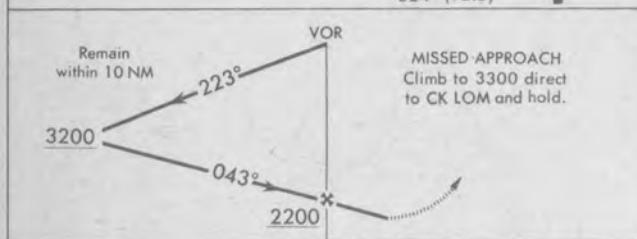
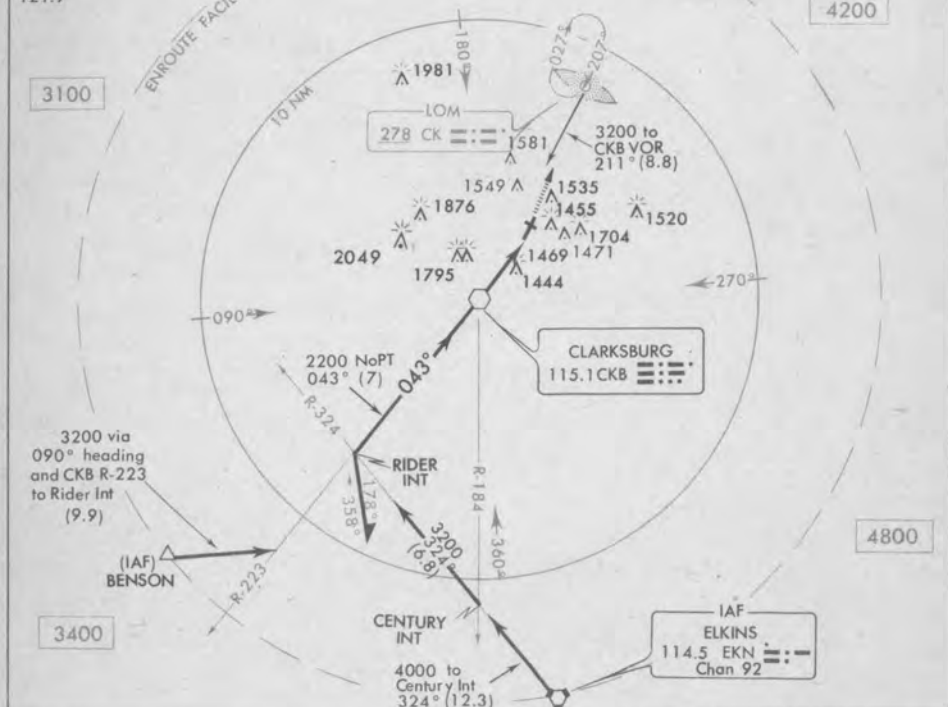
VOR RWY 3

AL-616 (FAA)

BENEDUM

CLARKSBURG, WEST VIRGINIA

MORGANTOWN RADIO
122.1R
CLARKSBURG TOWER
126.7
GND CON
121.9



CATEGORY	A	B	C	D
S-3†	1800-1	616 (600-1)		1800-1 1/4 616 (600-1 1/4)
CIRCLING†	1860-1	657 (700-1)	2020-1 1/2 817 (900-1 1/2)	2020-2 817 (900-2)

† When control zone not effective, the following applies except for operators with approved weather reporting service: (a) Use Morgantown, West Virginia altimeter setting and increase all MDAs 100 feet. (b) Straight-in visibility Cat. C and D and circling visibility Cat. B and C increased 1/4 mile. (c) Alternate minimums not authorized.

* Night minimums not authorized Rwy 13-31.



VOR RWY 3

39°18'N-80°14'W

CLARKSBURG, WEST VIRGINIA

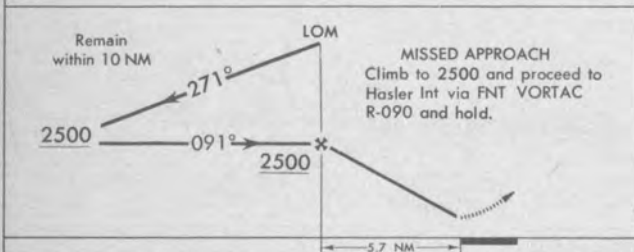
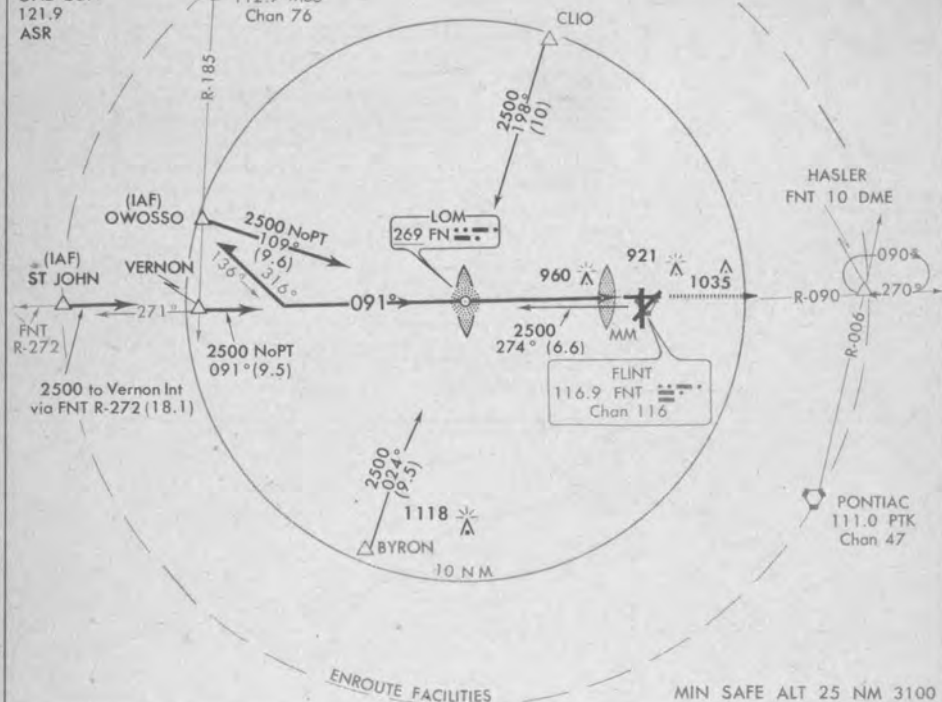
NDB RWY 9

AL-618 FAA)

BISHOP
FLINT, MICHIGAN

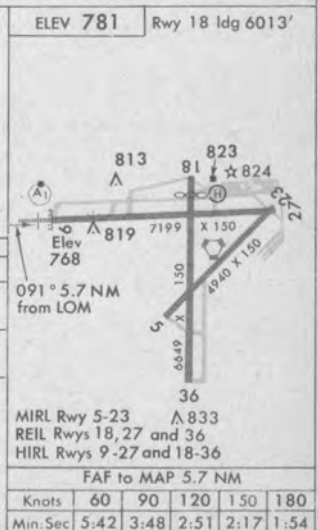
FLINT APP CON
271°090° 118.8 257.9
091°270° 128.55 257.9
FLINT TOWER
126.3 257.9
GND CON
121.9
ASR

SAGINAW
112.9 MBS
Chan 76



CATEGORY	A	B	C	D
S-9	1260/40	492 (500-¾)		1260/50 492 (500-1)
CIRCLING	1260-1	479 (500-1)	1260-1½ 479 (500-1½)	1340-2 559 (600-2)

▽	
FACILITY	
FLINT APP CON	271°090° 118.8 257.9
FLINT TOWER	126.3 257.9
GND CON	121.9
ASR	



NDB RWY 9

42°58'N-83°45'W

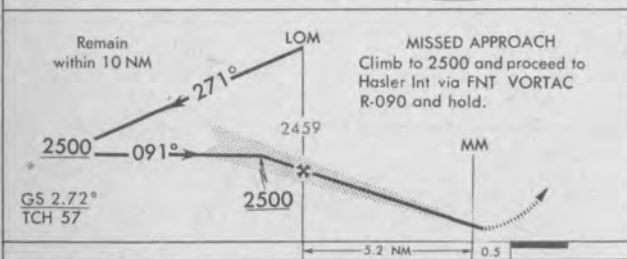
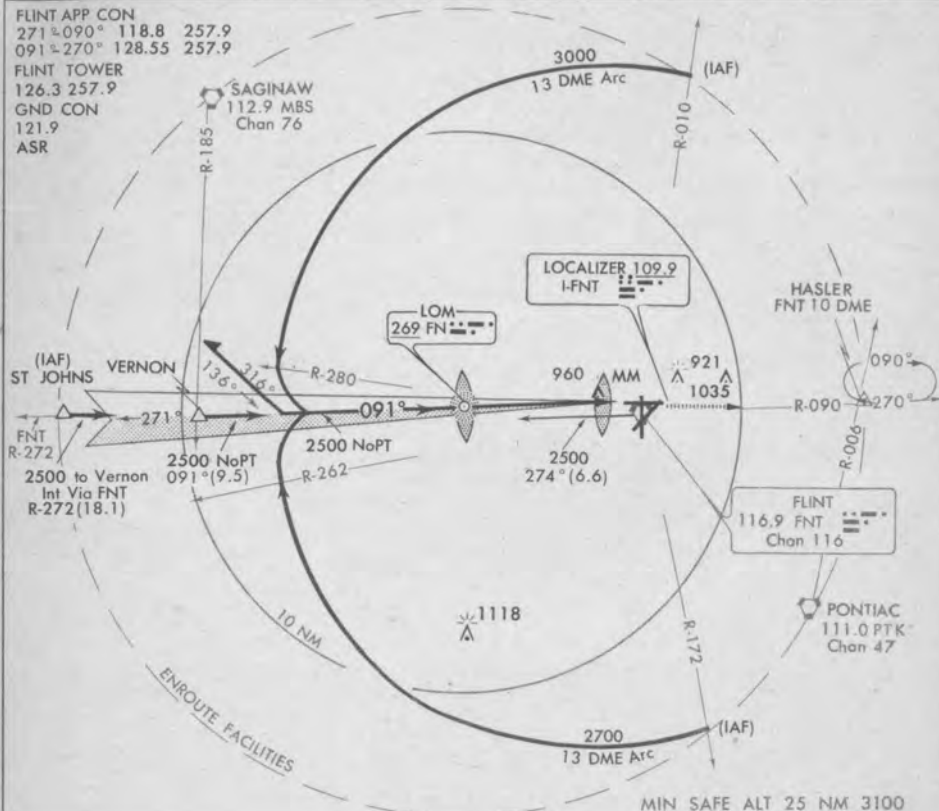
FLINT, MICHIGAN
BISHOP

ILS RWY 9

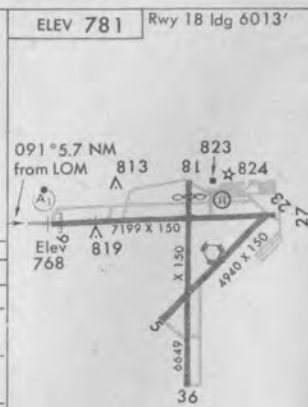
AL-618 (FAA)

BISHOP
FLINT, MICHIGAN

FLINT APP CON
271°090° 118.8 257.9
091°270° 128.55 257.9
FLINT TOWER
126.3 257.9
GND CON
121.9
ASR



CATEGORY	A	B	C	D
S-ILS-9	968/24 200(200-1/2)			
S-LOC 9	1160/24 392 (400-1/2)		1160/40 392 (400-3/4)	
CIRCLING	1240-1 459 (500-1)	1260-1 479 (500-1)	1260-1 1/2 479 (500-1 1/2)	1340-2 559 (600-2)



MIRL Rwy 5-23, 833A
REIL Rwys 18, 27 and 36.
HIRL Rwys 9-27 and 18-36.

FAF to MAP 5.7 NM					
Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54

ILS RWY 9

42° 58' N-83° 45' W

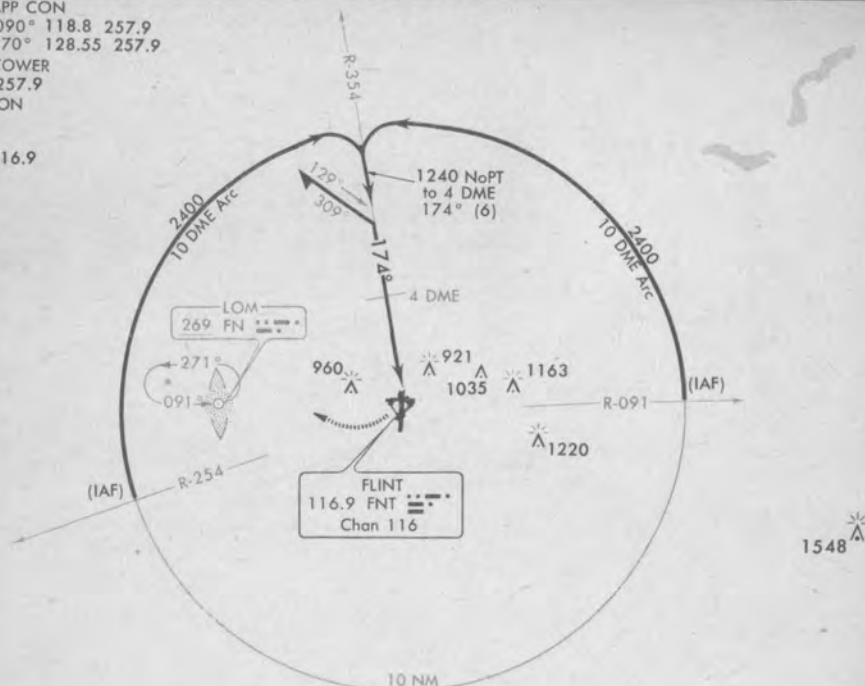
FLINT, MICHIGAN

VOR RWY 18

AL-618 (FAA)

BISHOP
FLINT, MICHIGAN

FLINT APP CON
271° 090° 118.8 257.9
091° 270° 128.55 257.9
FLINT TOWER
126.3 257.9
GND CON
121.9
ASR
ATIS 116.9



MIN SAFE ALT 25 NM 3100

Remain
within 10 NM

VORTAC

2300
354°
174°
4 DME
1240

MISSED APPROACH
Climbing right turn to 2500
direct to LOM and hold.

CATEGORY	A	B	C	D
S-18		1240-1	462 (500-1)	
CIRCLING	1240-1 459 (500-1)	1260-1 479 (500-1)	1260-1½ 479 (500-1½)	1340-2 559 (600-2)
DME MINIMA				
S-18		1180-1	402 (400-1)	

Inoperative table does not apply to HIRL Rwy 18.
1235 tower 3.7 NM ENE of airport.



ELEV 781.

Rwy 18 ldg 6013'

174° to
FNT VORTAC

MIRL Rwy 5-23 A 833
REIL Rwy 18, 27 and 36
HIRL Rwy 9-27 and 18-36

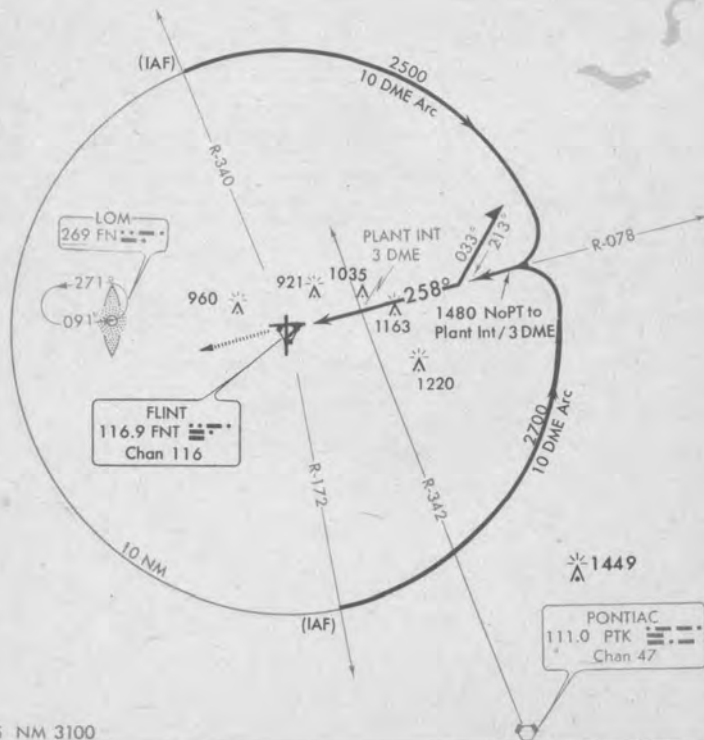
Knots	60	90	120	150	180
Min:Sec					

VOR RWY 18

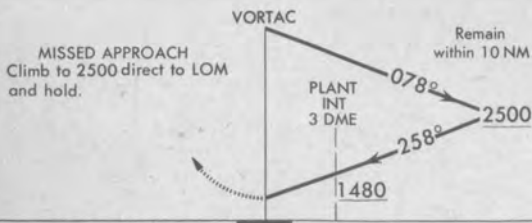
42°58'N-83°45'W

FLINT, MICHIGAN
BISHOP

FLINT APP CON
271° 090° 118.8 257.9
091° 270° 128.55 257.9
FLINT TOWER
126.3 257.9
GND CON
121.9
ASR



MIN SAFE ALT 25 NM 3100



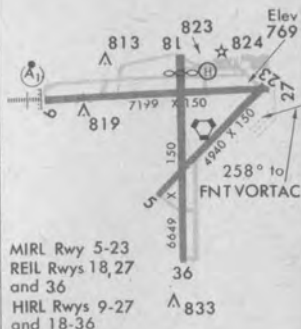
ELEV 781 Rwy 18 ldg 6013'

CATEGORY	A	B	C	D
S-27	1480-1	711 (700-1)	1480-1 1/4 711 (700-1 1/4)	1480-1 1/2 711 (700-1 1/2)
CIRCLING	1480-1	699 (700-1)	1480-1 1/2 699 (700-1 1/2)	1480-2 699 (700-2)

DUAL VOR or DME MINIMA

S-27	1300-1	531 (600-1)	1300-1 1/4 531 (600-1 1/4)
CIRCLING	1300-1	519 (600-1)	1300-1 1/2 519 (600-1 1/2)
			1340-2 559 (600-2)

Inoperative table does not apply to HIRL Rwy 27.



MRL Rwy 5-23
REIL Rwy 18, 27
and 36
HIRL Rwy 9-27
and 18-36

Knots	60	90	120	150	180
Min:Sec					

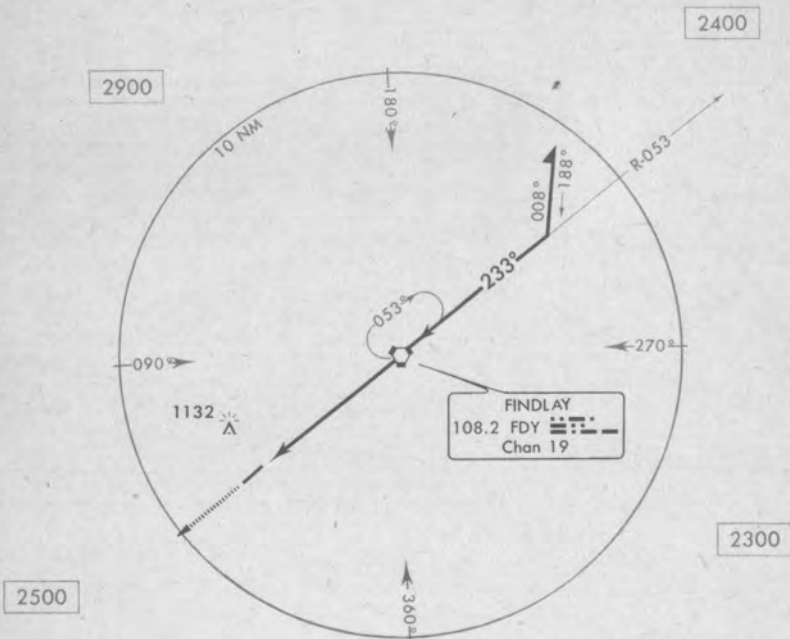
VOR RWY 23

Amdt 2

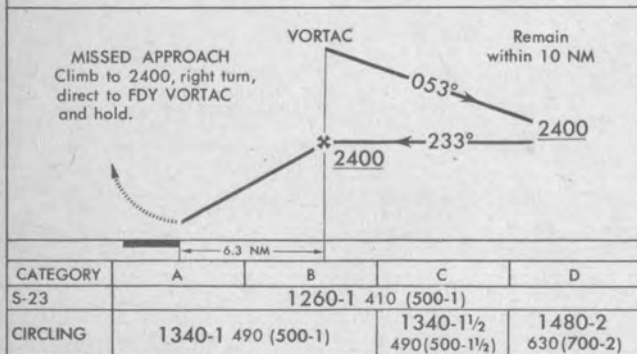
AL-5665 (FAA)

BLUFFTON
BLUFFTON, OHIO

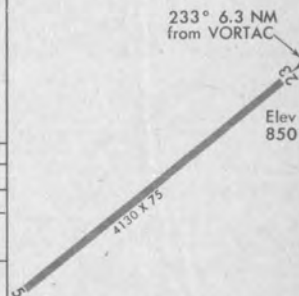
CLEVELAND CENTER
133.8 269.3



1419
A



ELEV 850



Use Findlay, Ohio altimeter setting.
Night minimums not authorized Rwy 9-27.
Δ NA

MIRL Rwy 5-23

FAF to MAP 6.3 NM

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

VOR RWY 23

40°53'N - 83°52'W

BLUFFTON, OHIO
BLUFFTON

NDB RWY 3

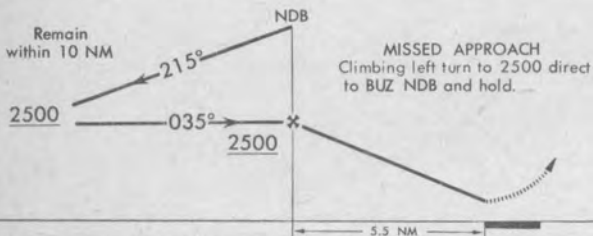
AL-5958 (FAA)

BOLTON FIELD
COLUMBUS, OHIO

COLUMBUS APP CON
119.65 353.9
BOLTON TOWER
119.0
GND CON
121.8
RADAR VECTORING



CAUTION: Transmission line towers of varying heights to 1034' MSL within 1.8 NM SW of airport crossing final approach course.



CATEGORY	A	B	C	D
S-3	1340-1 437(500-1)			
CIRCLING	1340-1 435(500-1)	1360-1 455(500-1)	1360-1½ 455(500-1½)	1460-2 555(600-2)

When control zone not effective, the following applies: (a) Use Columbus, Ohio altimeter setting and increase all MDAs 40 feet. (b) Alternate minimums not authorized.

ELEV 905



FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

NDB RWY 3

39°54'N – 83°08'W

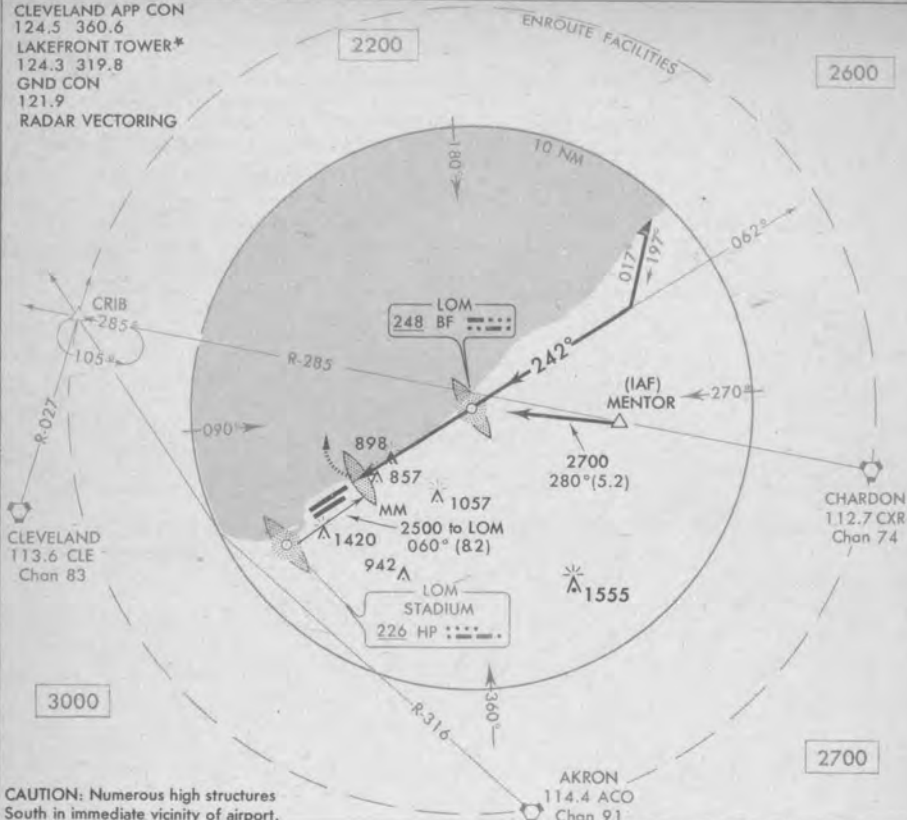
COLUMBUS, OHIO
BOLTON FIELD

NDB RWY 24R

AL-5370 (FAA)

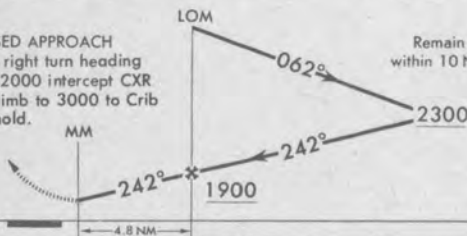
BURKE LAKEFRONT
CLEVELAND, OHIO

CLEVELAND APP CON
124.5 360.6
LAKEFRONT TOWER*
124.3 319.8
GND CON
121.9
RADAR VECTERING



CAUTION: Numerous high structures
South in immediate vicinity of airport.

MISSED APPROACH
Climbing right turn heading
330° to 2000 intercept CXR
R-285, climb to 3000 to Crib
Int and hold.



CATEGORY	A	B	C	D
S-24R*	1420-1 837 (900-1)	1420-1 1/4 837 (900-1 1/4)	1420-1 1/2 837 (900-1 1/2)	1420-1 3/4 837 (900-1 3/4)
CIRCLING*†	1420-1 836 (900-1)	1420-1 1/4 836 (900-1 1/4)	1420-1 1/2 836 (900-1 1/2)	1420-2 836 (900-2)

*When control zone not effective the following applies: (a) Use Cleveland-Hopkins, Ohio altimeter setting. (b) All MDA's increased 20 feet. (c) Alternate minimums not authorized.

† Circling not authorized Southeast of airport defined by Rwy 6R-24L centerline extended.



ELEV 584

Rwy 6L ldg 5925'
Rwy 6R ldg 4924'

242° 5.3-NM
from LOM



REIL Rwy 24R
HIRL all Rwys

FAF to MAP 4.8 NM					
Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36

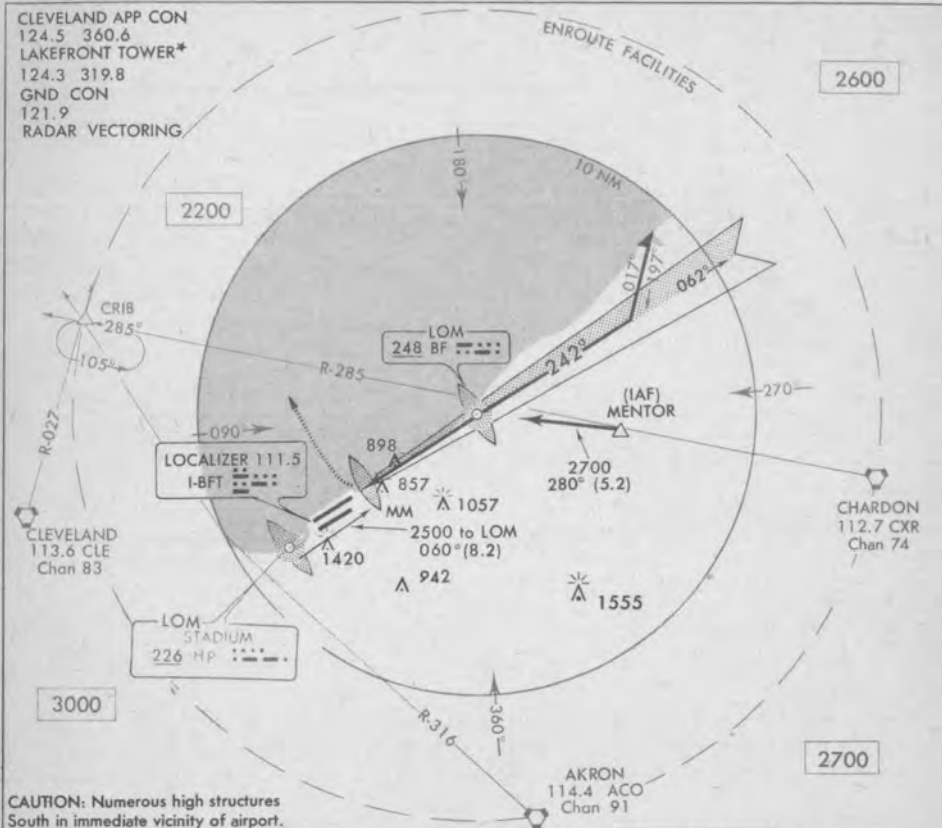
NDB RWY 24R

41° 31'N-81° 41'W

CLEVELAND, OHIO
BURKE LAKEFRONT

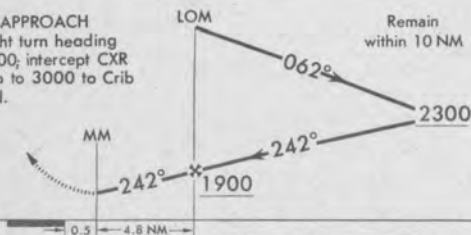
LOC RWY 24R

AL-5370 (FAA)

BURKE LAKEFRONT
CLEVELAND, OHIO

MISSED APPROACH

Climbing right turn heading
330° to 2000; intercept CXR
R-285, climb to 3000 to Crib
Int and hold.



ELEV 584

Rwy 6L ldg 5925'
Rwy 6R ldg 4924'

242° 5.3 NM
from LOM

Elev 583

739

6200 X 150

5200 X 100

TWR 656

921

1195

REIL Rwy 24R
HIRL all Rwy

FAF to MAP 4.8 NM

Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36

*When control zone not effective, the following limitations apply: (a) Use Cleveland-Hopkins, Ohio altimeter setting. (b) All MDA's increased 20 feet (c) Alternate minimums not authorized.

†Circling not authorized Southeast of airport defined by Rwy 6R-24L centerline extended.

Inoperative table does not apply to HIRL.



LOC RWY 24R

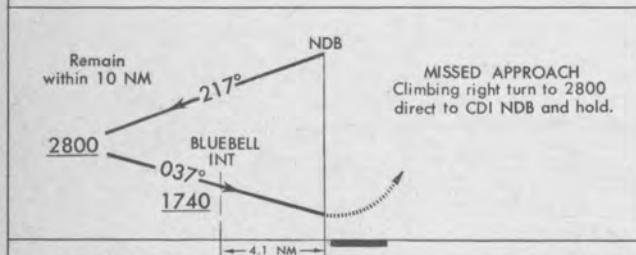
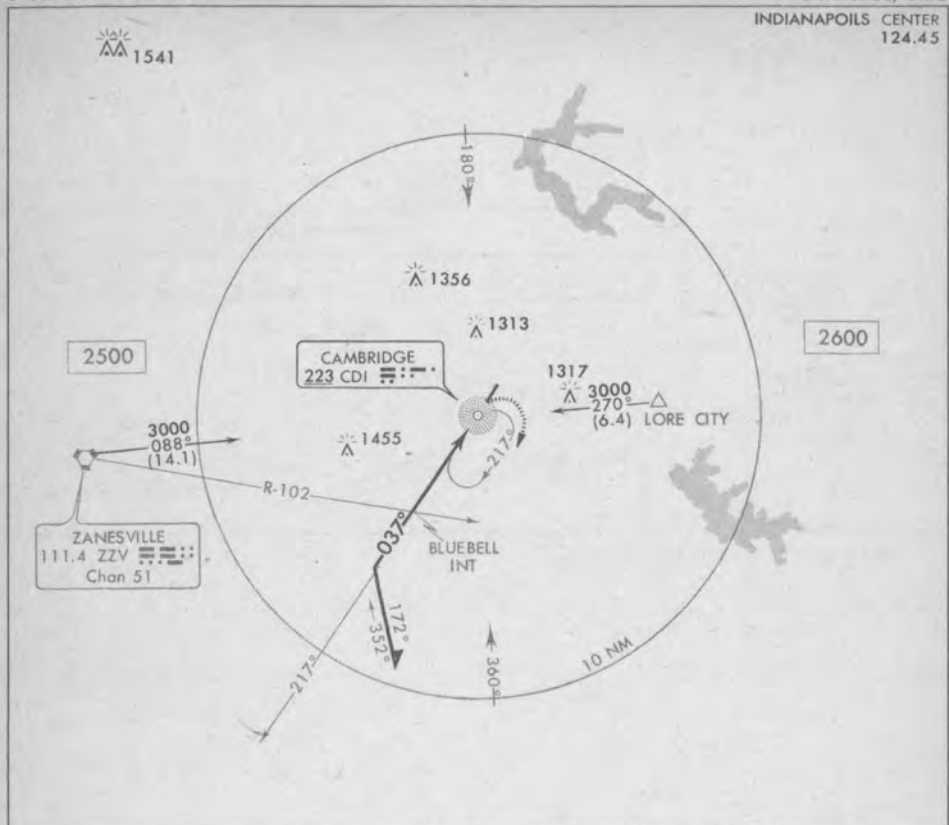
41° 31'N-81° 41'W

CLEVELAND, OHIO

NDB RWY 4

AL-5993 (FAA)

CAMBRIDGE MUNI
CAMBRIDGE, OHIO
INDIANAPOLIS CENTER
124.45



ELEV 800

CATEGORY	A	B	C	D
S-4	1740-1 $\frac{1}{4}$ 940 (1000-1 $\frac{1}{4}$)	1740-1 $\frac{1}{2}$ 940 (1000-1 $\frac{1}{2}$)	1740-1 $\frac{3}{4}$ 940 (1000-1 $\frac{3}{4}$)	1740-2 940 (1000-2)
CIRCLING	1740-1 $\frac{1}{4}$ 940 (1000-1 $\frac{1}{4}$)	1740-1 $\frac{1}{2}$ 940 (1000-1 $\frac{1}{2}$)	1740-1 $\frac{3}{4}$ 940 (1000-1 $\frac{3}{4}$)	1740-2 940 (1000-2)
NDB/VOR MINIMA				
S-4	1600-1 800 (800-1)	1600-1 $\frac{1}{4}$ 800 (800-1 $\frac{1}{4}$)	1600-1 $\frac{1}{2}$ 800 (800-1 $\frac{1}{2}$)	1600-1 $\frac{3}{4}$ 800 (800-1 $\frac{3}{4}$)
CIRCLING	1600-1 800 (800-1)	1600-1 $\frac{1}{4}$ 800 (800-1 $\frac{1}{4}$)	1600-1 $\frac{1}{2}$ 800 (800-1 $\frac{1}{2}$)	1680-2 880 (900-2)

Use Zanesville, Ohio altimeter setting. ▽ Δ NA



MIRL Rwy 4-22
REIL Rlys 4 and 22

Knots	60	90	120	150	180
Min:Sec					

NDB RWY 4

39°59'N - 81°35'W

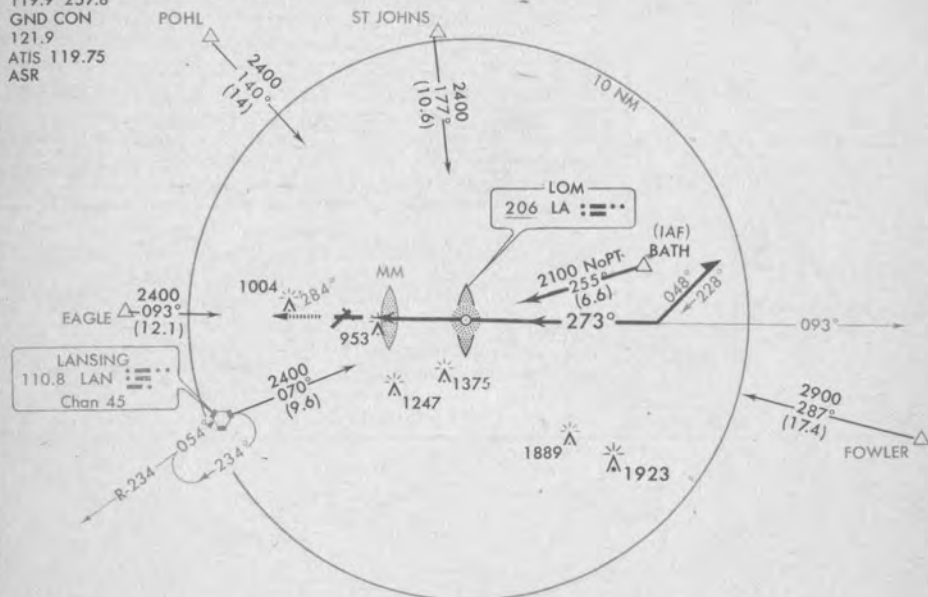
CAMBRIDGE, OHIO
CAMBRIDGE MUNI

NDB RWY 27

AL-224 (FAA)

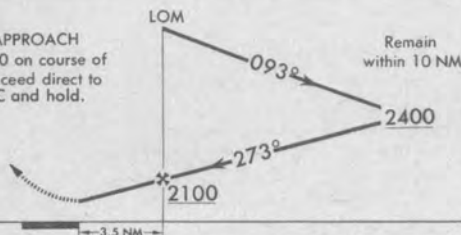
CAPITAL CITY
LANSING, MICHIGAN

LANSING APP CON
271 = 090° 125.9 257.8
091 = 270° 126.65 257.8
LANSING TOWER
119.9 257.8
GND CON
121.9
ATIS 119.75
ASR



MIN SAFE ALT 25 NM 3000

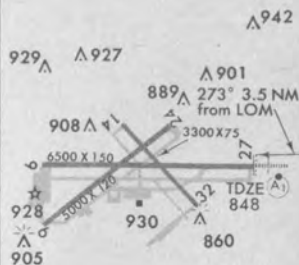
MISSED APPROACH
Climb to 2500 on course of
273° and proceed direct to
LAN VORTAC and hold.



CATEGORY	A	B	C	D
S-27	1340/40 492 (500-3/4)			1340/50 492 (500-1)
CIRCLING	1340-1	481 (500-1)	1340-1 1/2 481 (500-1 1/2)	1420-2 561 (600-2)



ELEV 859



MIRL Rwy 6-24 and 14-32
REIL Rwy 6
HIRL Rwy 9-27

FAF to MAP 3.5 NM

Knots	60	90	120	150	180
Min:Sec	3:30	2:20	1:45	1:24	1:10

NDB RWY 27

42° 47' N-84° 35' W

LANSING, MICHIGAN

ILS RWY 27

AL-224 (FAA)

CAPITAL CITY
LANSING, MICHIGAN

LANSING APP CON
271° 090° 125.9 257.8
091° 270° 126.65 257.8
LANSING TOWER
119.9 257.8
GND CON
121.9
ATIS 119.75
ASR

ST JOHNS

2400
177
(10.6)

ENROUTE FACILITIES

FEEDER FACILITIES

10 NM

LOCALIZER 110.1
I-LAN

LOM

206 LA

2100 NoPT to

LOM via 230°

heading and LAN

Localizer course

(8)

GRAND LEDGE
INT

R-360

1004

EAGLE

2400 to LOM
093° (12.1)

LANSING

110.8 LAN

Chan 45

2400

070°

(9.6)

953

1247

1375

1889

1923

(IAF) FOWLER

R-311

SALEM

2400 NoPT to
via SVM R-311
and LAN LOC
(17.7)

MIN SAFE ALT 25 NM 3000

MISSED APPROACH
Climb to 2500 on LAN LOC
(BC) proceed to Grand Ledge
Int and hold.

LOM

Remain
within 10 NM

093°

2400

1924

2100

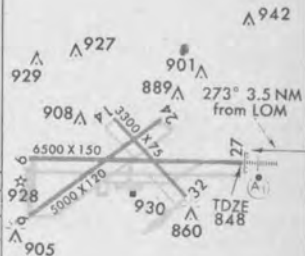
GS 2.82°
TCH 35

MM

0.6

2.9 NM

ELEV 859



MIRL Rwy 6-24 and 14-32
REIL Rwy 6
HIRL Rwy 9-27

FAF to MAP 3.5 NM

Knots	60	90	120	150	180
Min:Sec	3:30	2:20	1:45	1:24	1:10

ILS RWY 27

42°47'N-84°35'W

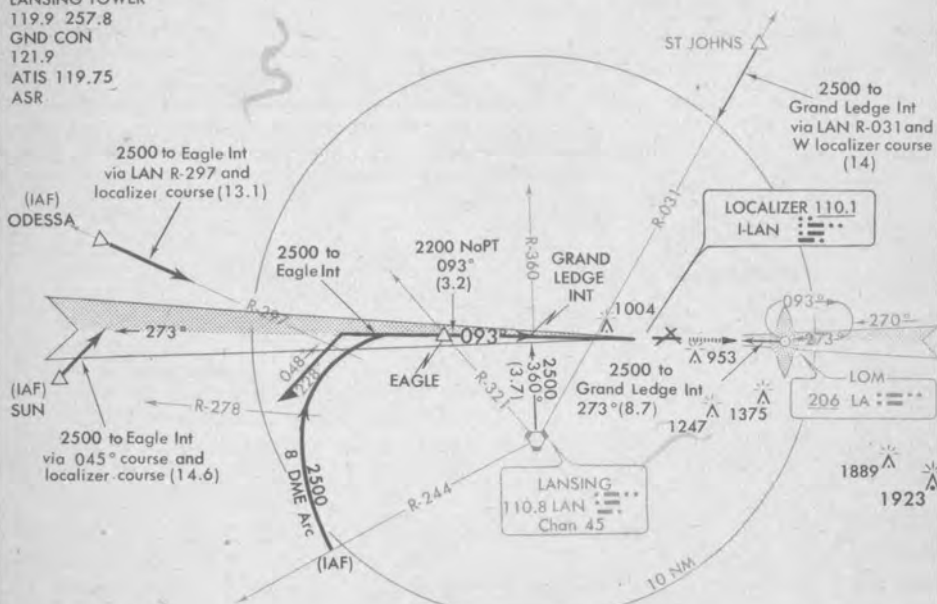
LANSING, MICHIGAN
CAPITAL CITY

LOC BC RWY 9

AL-224 (FAA)

CAPITAL CITY
LANSING, MICHIGAN

LANSING APP CON
271°-090° 125.9 257.8
091°-270° 126.65 257.8
LANSING TOWER
119.9 257.8
GND CON
121.9
ATIS 119.75
ASR



LOC BC RWY 9

42°47'N-84°35'W

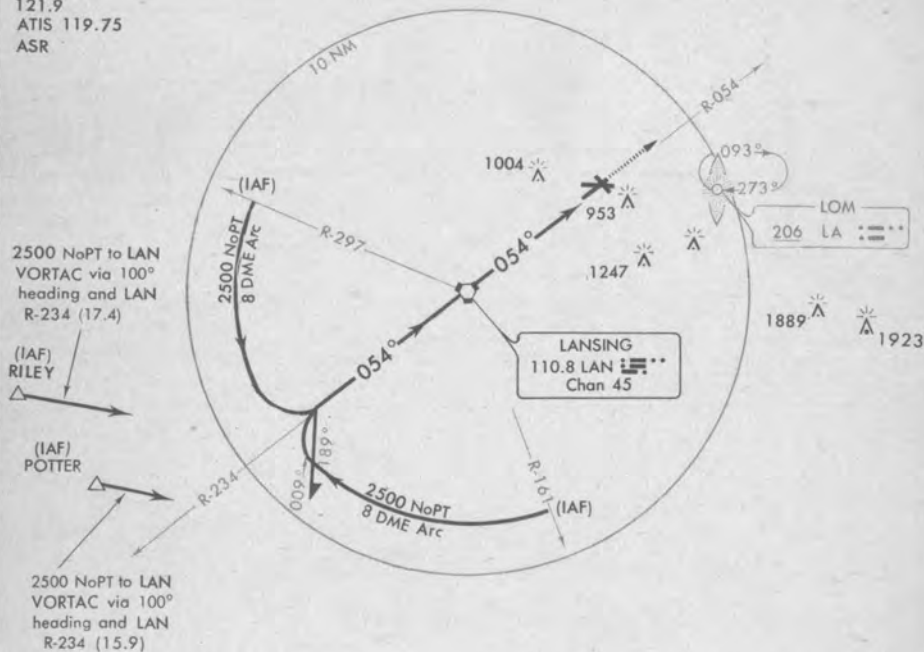
LANSING, MICHIGAN

VOR RWY 6

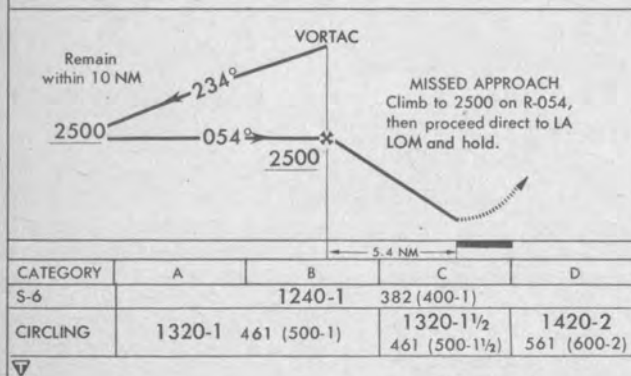
AL-22 (FAA)

CAPITAL CITY
LANSING, MICHIGAN

LANSING APP CON
271° - 090° 125.9 257.8
091° - 270° 126.65 257.8
LANSING TOWER
119.9 257.8
GND CON
121.9
ATIS 119.75
ASR



MIN SAFE ALT 25 NM 3000



ELEV 859



MIRL Rwy 6-24 and 14-32
REIL Rwy 6
HIRL Rwy 9-27

FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

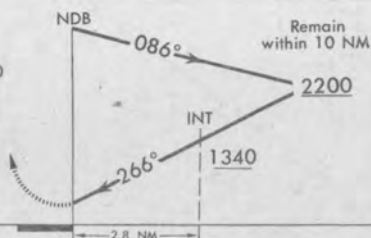
VOR RWY 6

42°47'N-84°35'W

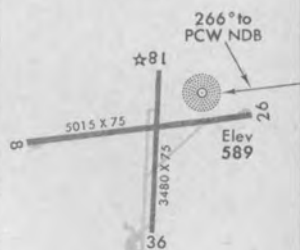
LANSING, MICHIGAN
CAPITAL CITY

CLEVELAND CENTER
120.8 285.5

MISSED APPROACH
Climbing left turn to 2200
direct to PCW NDB and
hold.



ELEV 590



CATEGORY	A	B	C	D
S-26	1340-1 751 (800-1)	1340-1 1/4 751 (800-1 1/4)	1340-1 1/2 751 (800-1 1/2)	1340-1 3/4 751 (800-1 3/4)
CIRCLING	1340-1 750 (800-1)	1340-1 1/4 750 (800-1 1/4)	1340-1 1/2 750 (800-1 1/2)	1340-2 750 (800-2)

NDB/VOR MINIMUMS

S-26	1200-1	611 (700-1)	1200-1 1/4 611 (700-1 1/4)
CIRCLING	1260-1	670 (700-1)	1260-1 1/2 670 (700-1 1/2)
			1260-2 670 (700-2)

Use Toledo, Ohio altimeter setting.

▽ Δ NA

REIL Rwy 8 and 26
MIRL Rwy 8-26 and 18-36

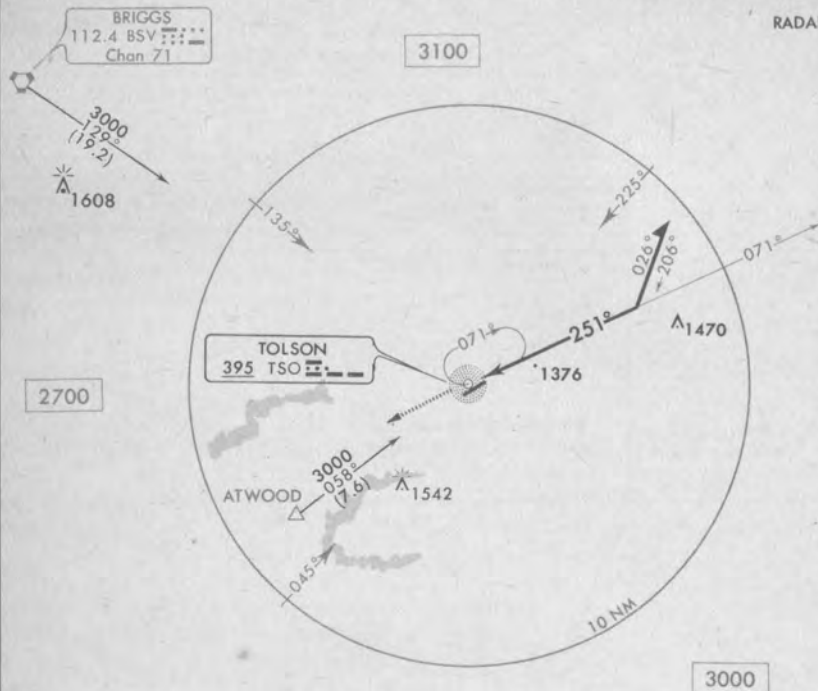
Knots	60	90	120	150	180
Min:Sec					

NDB RWY 25

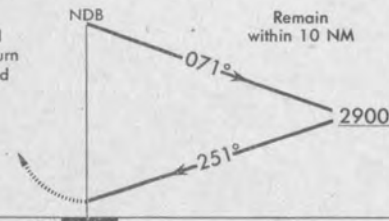
AL-5994 (FAA)

CARROLL COUNTY - TOLSON
CARROLLTON, OHIO

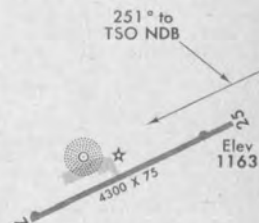
AKRON-CANTON APPROACH CONTROL
125.5 323.0
RADAR VECTERING



MISSED APPROACH
Climb to 2900, right turn
direct to TSO NDB and
hold.



ELEV 1163



CATEGORY	A	B	C	D
S-25	1940-1 777 (800-1)	1940-1¼ 777 (800-1¼)	1940-1½ 777 (800-1½)	1940-1¾ 777 (800-1¾)
CIRCLING	1940-1 777 (800-1)	1940-1¼ 777 (800-1¼)	1940-1½ 777 (800-1½)	1940-2 777 (800-2)

Use Akron-Canton, Ohio altimeter setting.

ΔNA

Knots	60	90	120	150	180
Min:Sec					

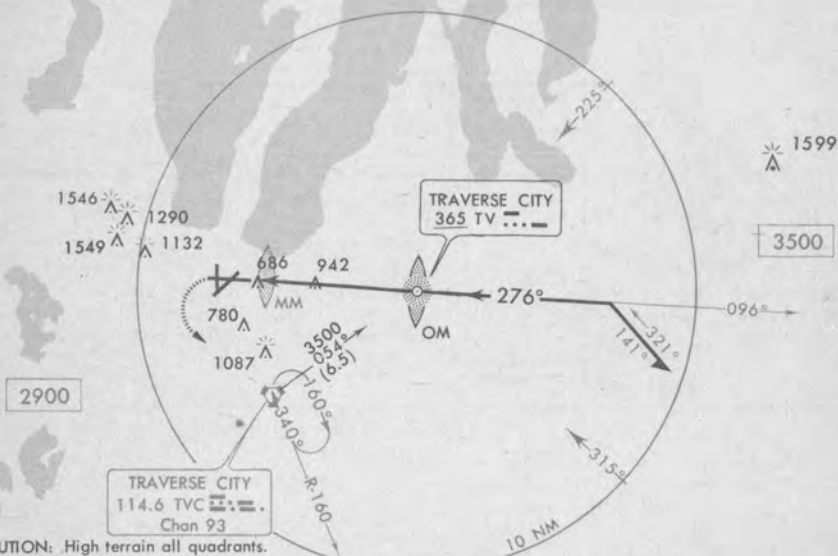
NDB RWY 25

40°34'N - 81°05'W

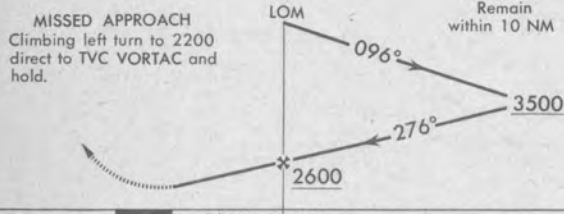
CARROLLTON, OHIO
CARROLL COUNTY - TOLSON

NDB RWY 28

TRAVERSE CITY TOWER ★
124.2
GND CON
121.8
RADAR VECTORING



Final approach from holding pattern
at LOM not authorized.
Procedure turn required.



CATEGORY	A	B	C	D
S-28	1380- ³ / ₄ 765(800- ³ / ₄)	1380-1 765 (800-1)	1380-1 ¹ / ₄ 765 (800-1 ¹ / ₄)	1380-1 ³ / ₄ 765 (800-1 ³ / ₄)
CIRCLING	1380-1 756 (800-1)	1380-1 ¹ / ₄ 756 (800-1 ¹ / ₄)	1380-1 ¹ / ₂ 756 (800-1 ¹ / ₂)	1380-2 756 (800-2)



ELEV 624	Rwy 23 Idg 3203'
----------	------------------



MIRL Rwy 18-36
HIRL Rwy 10-28
REIL Rwy 36

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

ILS RWY 28

AL-425 (FAA)

CHERRY CAPITAL
TRAVERSE CITY, MICHIGAN

TRAVERSE CITY TOWER *

124.2

GND CON

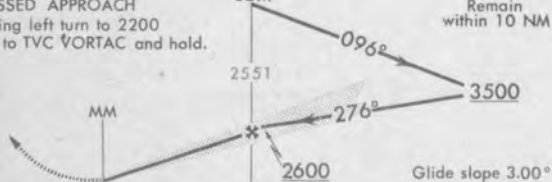
121.8

RADAR VECTING



MISSED APPROACH
Climbing left turn to 2200
direct to TVC VORTAC and hold.

LOM

Remain
within 10 NM

ELEV 624

Rwy 23 ldg 3203'



CATEGORY	A	B	C	D
S-ILS 28*	815-½ 200(200-½)			815-¾ 200(200-¾)
S-LOC 28†	1340-½	725(800-½)	1340-1 725(800-1)	1340-1¼ 725(800-1¼)
CIRCLING	1340-1	716(800-1)	1340-1½ 716(800-1½)	1340-2 716(800-2)

*With MALSR inoperative increase CAT. D, DH 50 feet.

†Inoperative table does not apply to MALSR Rwy 28. When MALSR inoperative increase visibility CAT. A and B to 1, CAT. C to 1¼, CAT. D to 1½.

MIRL Rwy 18-36

HIRL Rwy 10-28

REIL Rwy 36

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

ILS RWY 28

44°45'N - 85°35'W

TRAVERSE CITY, MICHIGAN
CHERRY CAPITAL

TRAVERSE CITY TOWER*

124.2

GND CON

121.8

RADAR VECTORING

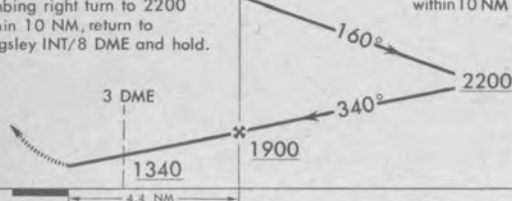
2600



CAUTION: High terrain all quadrants.

MISSED APPROACH
Climbing right turn to 2200
within 10 NM, return to
Kingsley INT/8 DME and hold.

VORTAC

Remain
within 10 NM

CATEGORY	A	B	C	D
CIRCLING	1340-1	716 (800-1)	1340-1½ 716 (800-1½)	1340-2 716 (800-2)
DME MINIMA				
CIRCLING	1080-1 456 (500-1)	1120-1 496 (500-1)	1260-1½ 636 (700-1½)	1300-2 676 (700-2)



ELEV 624

Rwy 23 ldg 3203'

MIRL Rwy 18-36
HIRL Rwy 10-28
REIL Rwy 36



FAF to MAP 4.4 NM

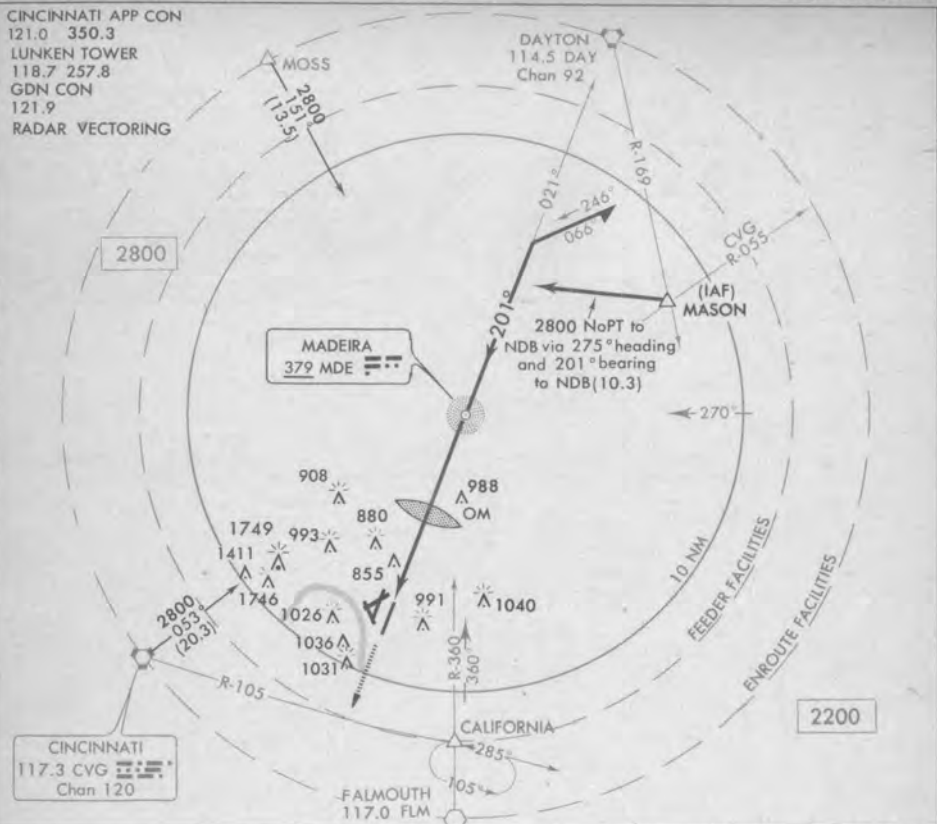
Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

NDB RWY 20L

CINCINNATI APP CON
121.0 350.3
LUNKEN TOWER
118.7 257.8
GDN CON
121.9
RADAR VECTORING

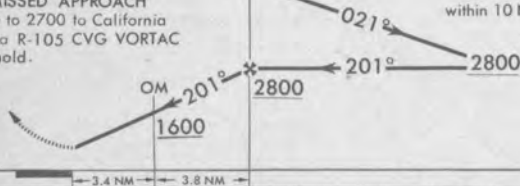
AL-83 (FAA)

CINCINNATI MUNI-LUNKEN FIELD
CINCINNATI, OHIO



MISSED APPROACH
Climb to 2700 to California
Int via R-105 CVG VORTAC
and hold.

NDB
Remain within 10 NM



CATEGORY	A	B	C	D
S-20L	1600-1½ 1125 (1200-1½)	1600-1¾ 1125 (1200-1¾)	1600-2	1125 (1200-2)
CIRCLING	1600-1½ 1112 (1200-1½)	1600-1¾ 1112 (1200-1¾)	1600-2	1112 (1200-2)
OM MINIMA				
S-20L	1180-1 705 (700-1)	1180-1¼ 705 (700-1¼)	1180-1½ 705 (700-1½)	1180-1½ 705 (700-1½)
CIRCLING	1240-1 752 (800-1)	1340-1¼ 852 (900-1¼)	1340-1½ 852 (900-1½)	1340-2 852 (900-2)

Inoperative table does not apply to MALS Rwy 20L.



FAF to MAP 7.2 NM

Knots	60	90	120	150	180
Min:Sec	7:12	4:48	3:36	2:53	2:24

NDB RWY 20L

39°06'N-84°25'W

CINCINNATI, OHIO
CINCINNATI MUNI-LUNKEN FIELD

NDB RWY 24

AL-83 (FAA)

CINCINNATI APP CON

121.0 350.3
LUNKEN TOWER
118.7 257.8
GND CON
121.9
RADAR VECTOR

DAYTON
114.5 DAY
Chan 92

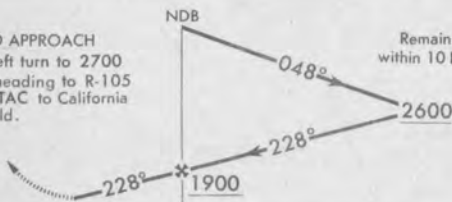
(IAF)
MASON

1900 NoPT
220° (10.5)



MISSED APPROACH
Climbing left turn to 2700
on 200° heading to R-105
CVG VORTAC to California
Int and hold.

Remain
within 10 NM



CATEGORY	A	B	C	D
S-24	1300-1 823 (900-1)	1300-1¼ 823 (900-1¼)	1300-1½ 823 (900-1½)	1300-1¾ 823 (900-1¾)
CIRCLING*	1300-1 812 (900-1)	1340-1¼ 852 (900-1¼)	1340-1½ 852 (900-1½)	1340-2 852 (900-2)

*Night minimums not authorized Rwy 15-33.



ELEV 488

Rwy 2L Idg 3903'
Rwy 15 Idg 3331'

228° 4.4 NM
from NDB



REIL Rwy 2R
HIRL Rwy 2R-20L 2
MIRL Rwy 2L-20R
and 6-24

FAF to MAP 4.4 NM

Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28

NDB RWY 24

39°06'N-84°25'W

CINCINNATI, OHIO

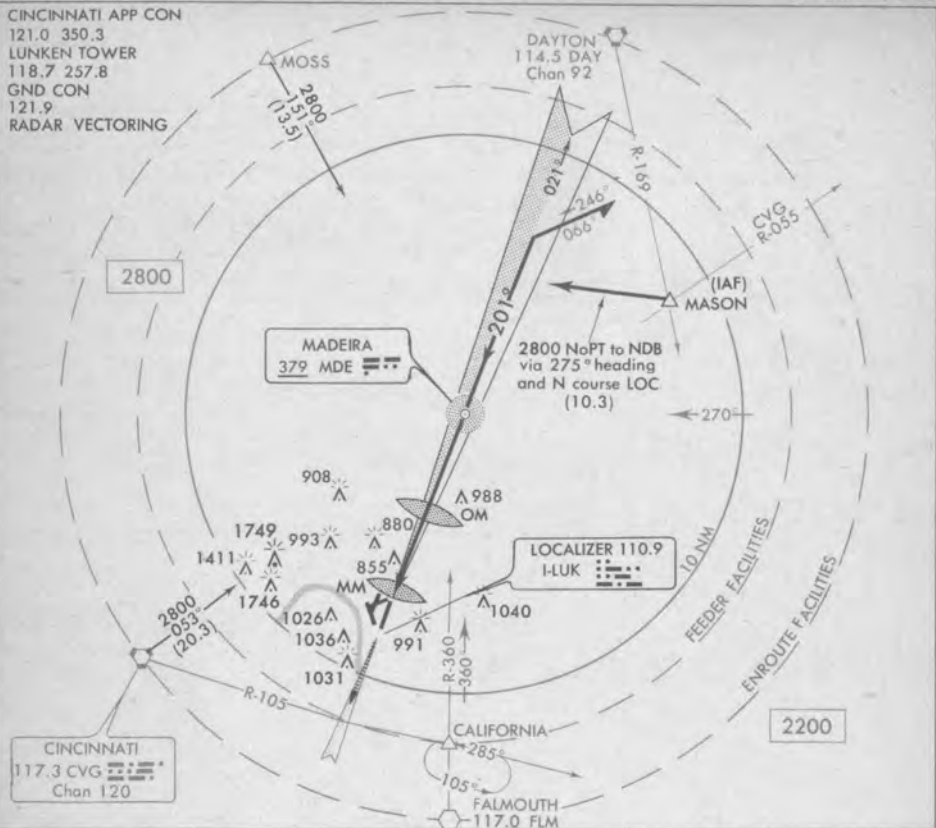
CINCINNATI MUNI-LUNKEN FIELD

ILS RWY 20L

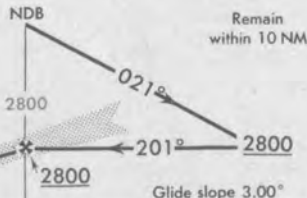
AL-83 (FAA)

CINCINNATI MUNI-LUNKEN FIELD
CINCINNATI, OHIO

CINCINNATI APP CON
121.0 350.3
LUNKEN TOWER
118.7 257.8
GND CON
121.9
RADAR VECTERING



MISSED APPROACH
Climb to 2700 to California Int
via LUK LOC course and R-105
CVG VORTAC and hold.



CATEGORY	A	B	C	D
S-ILS-20L	725/24 250 (300-1/2)			
S-LOC 20L	1020/24 545 (600-1/2)			1020/50 545 (600-1)
CIRCLING	1240-1 752 (800-1)	1340-1 1/4 852 (900-1 1/4)	1340-1 1/2 852 (900-1 1/2)	1340-2 852 (900-2)

Inoperative table does not apply to MALSR Rwy 20L.

When control tower or MALSR not operating, increase straight-in ILS visibility to RVR 4000; increase straight-in LOC visibility to RVR 5000 for Cat. A, B and C; RVR 6000 for Cat. D.



ILS RWY 20L

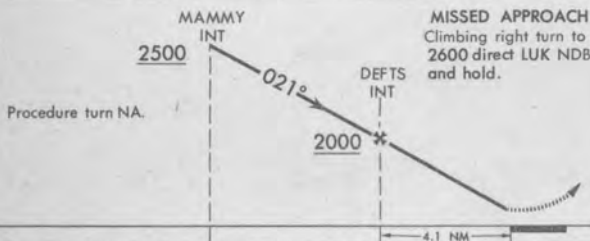
39° 06' N-84° 25' W

CINCINNATI MUNI-LUNKEN FIELD
CINCINNATI, OHIO

CINCINNATI
335 LUK 

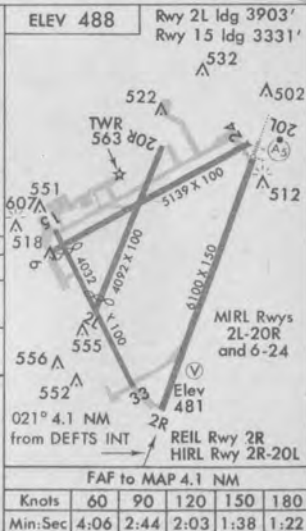


BACK COURSE



CATEGORY	A	B	C	D
S-2R	1300-1 819 (900-1)	1300-1 $\frac{1}{4}$ 819 (900-1 $\frac{1}{4}$)	1300-1 $\frac{1}{2}$ 819 (900-1 $\frac{1}{2}$)	1300-1 $\frac{3}{4}$ 819 (900-1 $\frac{3}{4}$)
CIRCLING	1300-1 812 (900-1)	1340-1 $\frac{1}{4}$ 852 (900-1 $\frac{1}{4}$)	1340-1 $\frac{1}{2}$ 852 (900-1 $\frac{1}{2}$)	1340-2 852 (900-2)

Inoperative table does not apply to HIRLS Rwy 2R.
LOC back course unusable beyond 10 NM.
Disregard glide slope indications.

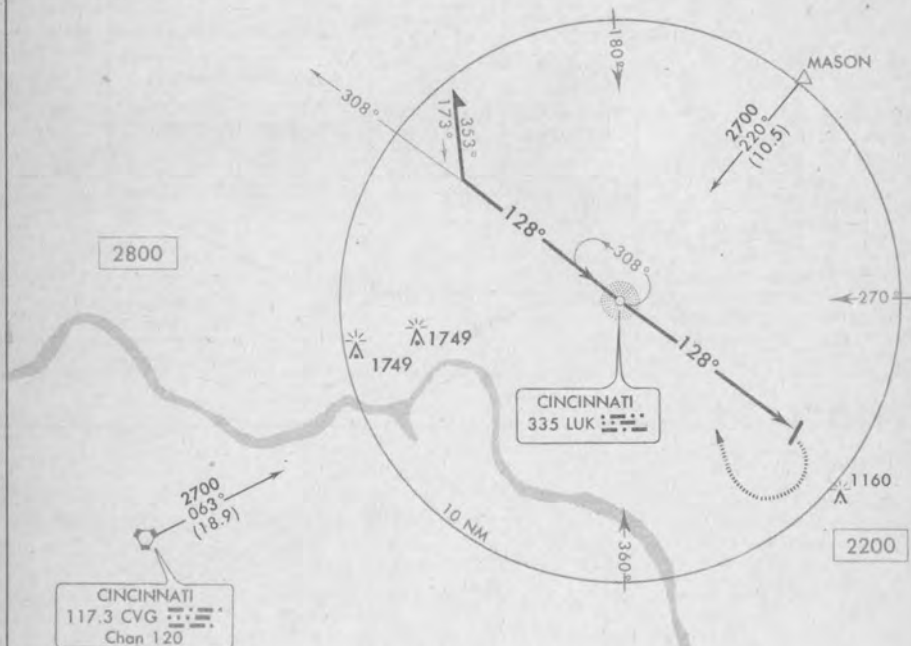


LOC BC RWY 2R

39°06'N – 84°25'W

CINCINNATI, OHIO
CINCINNATI MUNICIPAL FIELD

2600



Remain within 10 NM

2700

308°

128°

2700

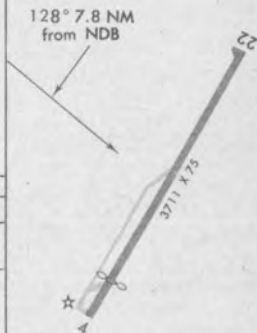
NDB

x

ELEV 840

Rwy 4 ldg 3191'

128° 7.8 NM
from NDB



CATEGORY	A	B	C	D
CIRCLING	1440-1 600 (600-1)		1440-1½ 600 (600-1½)	1440-2 600 (600-2)

Use Cincinnati (Lunken), Ohio altimeter setting
 Δ NA

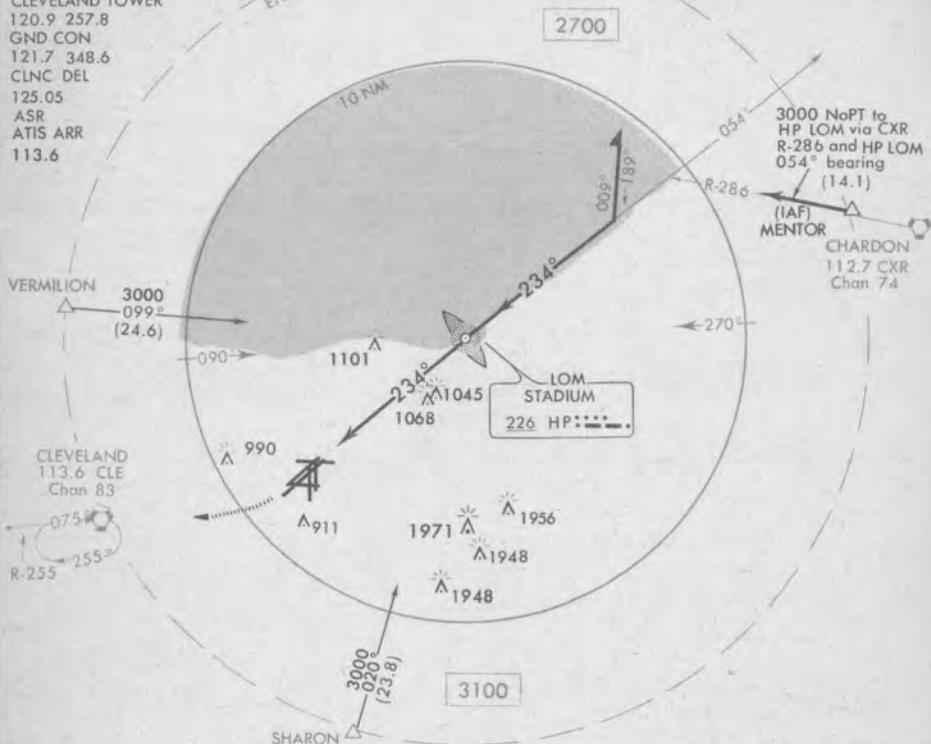
LIRL Rwy's 4-22					
FAF to MAP 7.8 NM					
Knots	60	90	120	150	180
Min:Sec	7:48	5:12	3:54	3:07	2:36

NDB-A

39°05'N – 84°13'W

BATAVIA, OHIO
CLERMONT COUNTY

ENROUTE FACILITIES



MISSED APPROACH
Climbing right turn to 3000 directed to CLE VORTAC and hold.

HP LOM

054°

3000

234°

3000

Remain within 10 NM

ELEV 792	Rwy 18L Idg 4522
----------	------------------

Rwy 10L-28R
6014 X 150
Rwy 10R 28L
3276 X 75

234° 6.8 NM
from LOM



TDZL Rwy 5R
REIL Rwy 36L RAIL Rwy 23L
MIRL Rwy 18L-36R and 18R-36L
HIRL Rwy 10L-28R, 5L-23R and 5R-23L

FAF to MAP 6.8 NM

Knots	60	90	120	150	180
Min:Sec	6:48	4:32	3:24	2:43	2:16

Inoperative table does not apply.

NDB RWY 23L/R

41°25'N-81°51'W

CLEVELAND, OHIO

CLEVELAND-HOPKINS INTERNATIONAL

ILS RWY 5R

43 CLEVELAND-HOPKINS INTERNATIONAL
AL-84 (FAA) CLEVELAND, OHIO

CLEVELAND APP CON
234°-053° 124.0 360.6
054°-233° 124.5 360.6
CLEVELAND TOWER
120.9 257.8
GND CON
121.7 348.6
CLNC DEL
125.05
ASR
ATIS ARR
113.6

CLEVELAND
113.6 CLE
Chan 83

2500

990
902
3.7 DME Chan 36
RADAR
LOM
GILBERT
344 CL

DME Chan 36
LOCALIZER 109.9
I-CLE

3100

DME shall not be used to
determine aircraft position
over MM, IM, runway
threshold or runway
touchdown point.

ENROUTE FACILITIES

Remain
within 10 NM

LOM
27.12
3.7 DME Chan 36
RADAR
MM
IM
MISSED APPROACH
Climb to 1200', then climbing
left turn to 3000' on heading
360° intercept R-316 ACO
VORTAC to Crib Int and hold.

GS 3.00°
TCH 52

CATEGORY	A	B	C	D
S-ILS 5R	975/18	200 (200-1/2)		975/20 200 (200-1/2)
S-LOC 5R	1160/24	385 (400-1/2)		1160/40 385 (400-3/4)
S-5L	1160-1	380 (400-1)	1160-1 1/2 380 (400-1 1/4)	1160-2 380 (400-2)
CIRCLING	1240-1 448 (500-1)	1260-1 468 (500-1)	1260-1 1/2 468 (500-1 1/2)	1360-2 568 (600-2)

Dual VOR receivers, DME or Radar required for LOC 5R or sidestep to Rwy 5L.
Inoperative table does not apply to HIRLS Rwy 5R/L.

ELEV 792 Rwy 18L Idg 4522'
TDZL Rwy 5R

Rwy 10L-28R
6014 X 150
Rwy 10R-28L
3276 X 75



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

ILS RWY 5R

41°25'N-81°51'W

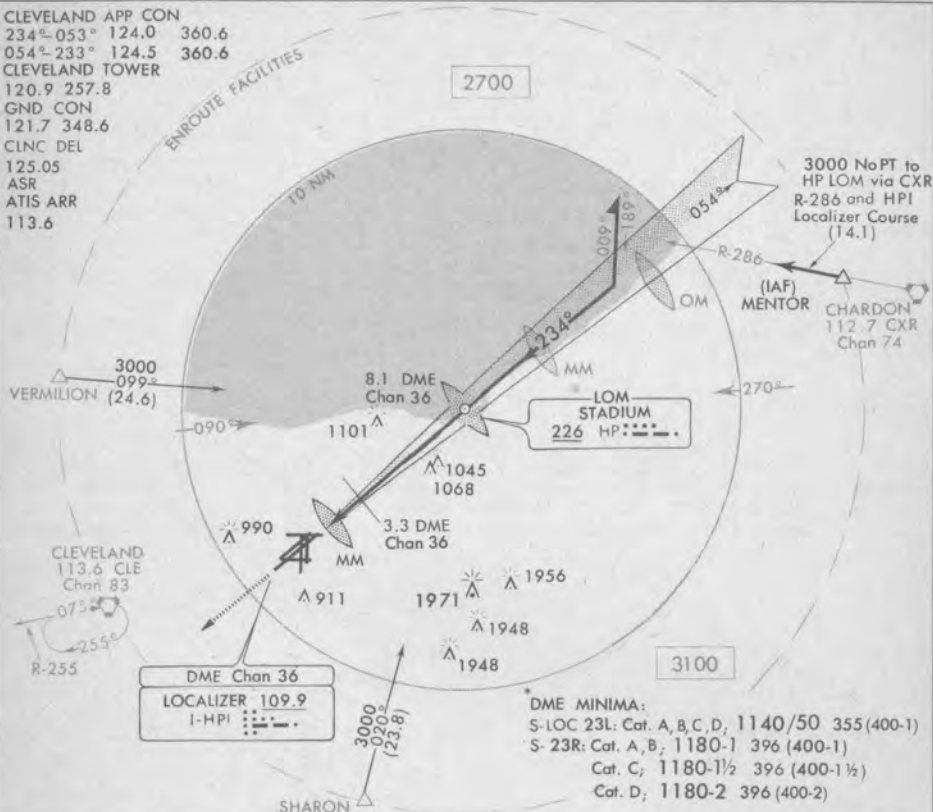
CLEVELAND-HOPKINS INTERNATIONAL
CLEVELAND, OHIO

ILS RWY 23L

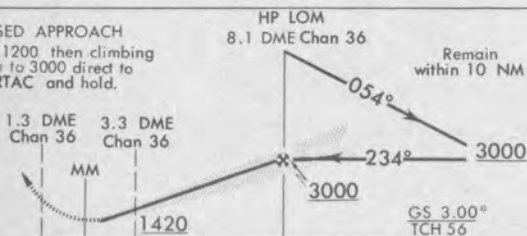
AL-84 (FAA)

CLEVELAND-HOPKINS INTERNATIONAL
CLEVELAND, OHIO

CLEVELAND APP CON
234.0-053.0 124.0 360.6
054.0-233.0 124.5 360.6
CLEVELAND TOWER
120.9 257.8
GND CON
121.7 348.6
CLNC DEL
125.05
ASR
ATIS ARR
113.6



MISSED APPROACH
Climb to 1200 then climbing
right turn to 3000 direct to
CLE VORTAC and hold.



	0.6	6.2 NM		
CATEGORY	A	B	C	D
S-ILS 23L	1035/40 250 (300-¾)			
S-LOC 23L*	1420/50 635 (700-1)	1420/60 635 (700-1¼)	1420-1½ 635 (700-1½)	
S-23R	1420-1 636 (700-1)	1420-1½ 636 (700-1½)	1420-2 636 (700-2)	
CIRCLING	1420-1 628 (700-1)	1420-1½ 628 (700-1½)	1420-2 628 (700-2)	

Inoperative table does not apply.

Glide Slope unusable below 1025 feet MSL. 

ELEV 792	Rwy 18L Idg 4522'
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FAF to MAP 6.8 NM

Knots	60	90	120	150	180
Min:Sec	6:48	4:32	3:24	2:43	2:16

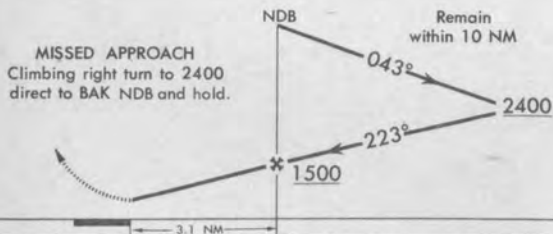
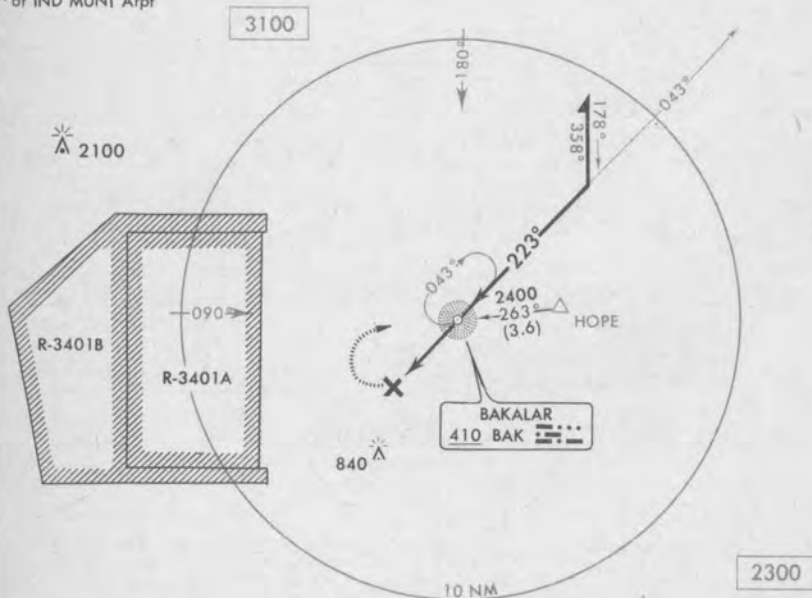
ILS RWY 23L

41°25'N – 81°51'W

CLEVELAND-HOPKINS INTERNATIONAL

45

INDIANAPOLIS APP CON
SW/NW Active Rwy* 124.65 343.9
SE/NE Active Rwy* 118.5 343.9
RADAR VECTORING
*of IND MUNI Arpt



CATEGORY	A	B	C	D
S-22	1120-1 464 (500-1)			
CIRCLING	1120-1 464 (500-1)		1120-1 ^{1/2} 464 (500-1 ^{1/2})	1220-2 564 (600-2)

Obtain local altimeter on UNICOM 122.8 MHz. If unable, use Indianapolis, Ind. (Weir Cook) altimeter setting and the following applies: (a) Increase all MDA's 140 feet. (b) Increase visibility straight-in Cat. D to 1 1/4 mile.

 Δ_{NA}

ELEV 656	Rwy 4 lga 4375'
----------	-----------------



REIL Rwy 22
HIRL Rwy 4-22 and 13-31

FAF to MAP 3.1 NM					
Knots	60	90	120	150	180
Min:Sec	3:06	2:04	1:33	1:14	1:02

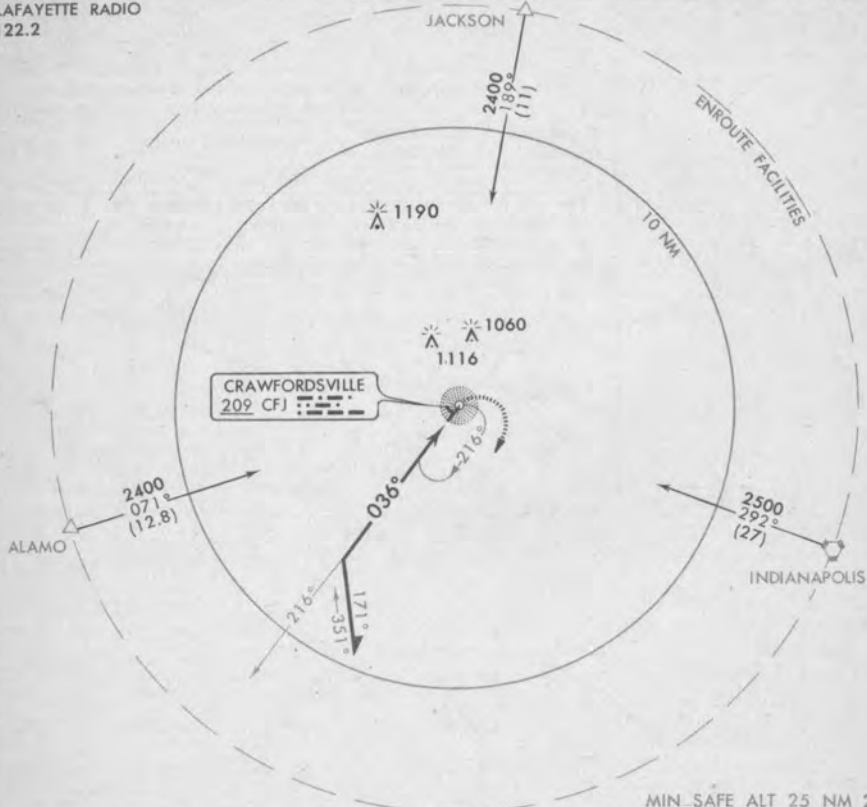
NDB RWY 22

39°16'N – 85°54'W

COLUMBUS, INDIANA
COLUMBUS BAKALAR MUNI

MIN SAFE ALT 25 NM 3000

PAINESVILLE, OHIO
CONCORD AIRPARK

NDB RWY 448
AL-6014 (FAA)**CRAWFORDSVILLE MUNI**
CRAWFORDSVILLE, INDIANALAFAYETTE RADIO
122.2

MIN SAFE ALT 25 NM 2600

Remain
within 10 NM

NDB

2400

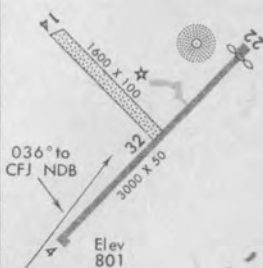
216°

036°

MISSED APPROACH
Climbing right turn to 2400
on bearing 216° within 5 NM,
return to CFJ NDB and hold.

ELEV 804 Rwy 22 ldg 2900'

Rwy 14 closed for public landings



CATEGORY	A	B	C	D
S-4	1420-1	619 (700-1)		1420-1 1/4 619 (700-1 1/4)
CIRCLING	1420-1	616 (700-1)	1420-1 1/2 616 (700-1 1/2)	1480-2 676 (700-2)

Use Lafayette, Indiana altimeter setting, when not available, use Indianapolis, Indiana altimeter setting and the following applies: a. Increase all MDA's 40 feet. b. Increase straight-in visibility Cat. C to 1 1/4 and Cat. D to 1 1/2.



NA

Knots	60	90	120	150	180
Min:Sec					

NDB RWY 4

39° 59' N - 86° 55' W

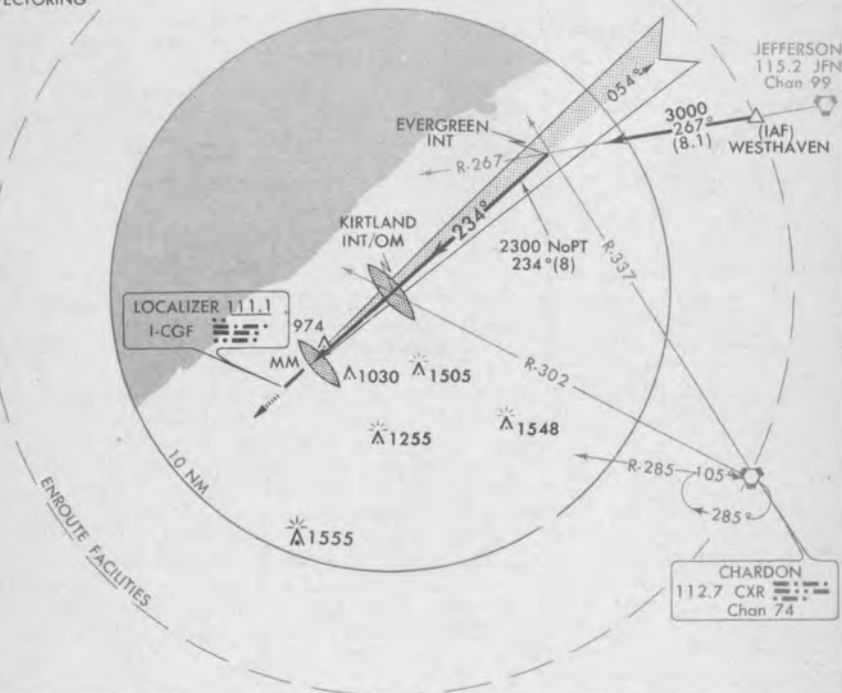
CRAWFORDSVILLE, INDIANA
CRAWFORDSVILLE MUNI

ILS RWY 23

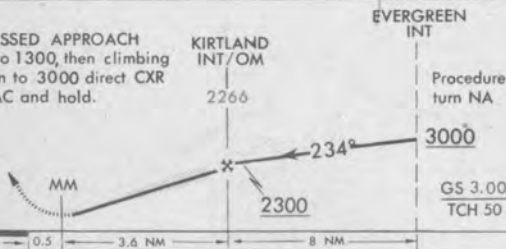
CLEVELAND APP CON
124.5 360.6
COUNTY TOWER *
118.5
GND CON
121.8
RADAR VECTORING

AL-5027 (FAA)

CUYAHOGA COUNTY
CLEVELAND, OHIO



MISSED APPROACH
Climb to 1300, then climbing
left turn to 3000 direct CXR
VORTAC and hold.



CATEGORY	A	B	C	D
S-ILS 23	1179-1	300 (300-1)		
S-LOC 23*	1240-1	361 (400-1)		
CIRCLING	1420-1 541 (600-1)	1420-1½ 541 (600-1½)	1480-2 601 (700-2)	

*When control zone not effective, use Cleveland, Ohio, Cleveland Hopkins Intl.
Airport altimeter setting and increase S-LOC 23 MDA to 1320 feet. Increase
circling MDA Cats. A, B and C to 1500 feet; Cat D to 1560 feet. Alternate
minimums not authorized.

Inoperative table does not apply.

CAUTION: Power line 2000 feet from threshold penetrates approach light plane
by 25 feet.



ELEV 879



REIL Rwy 23
MIRL Rwy 5-23

FAF to MAP 4.1 NM

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

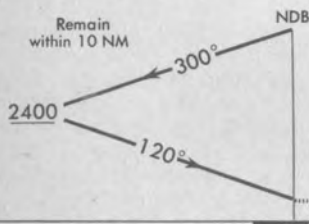
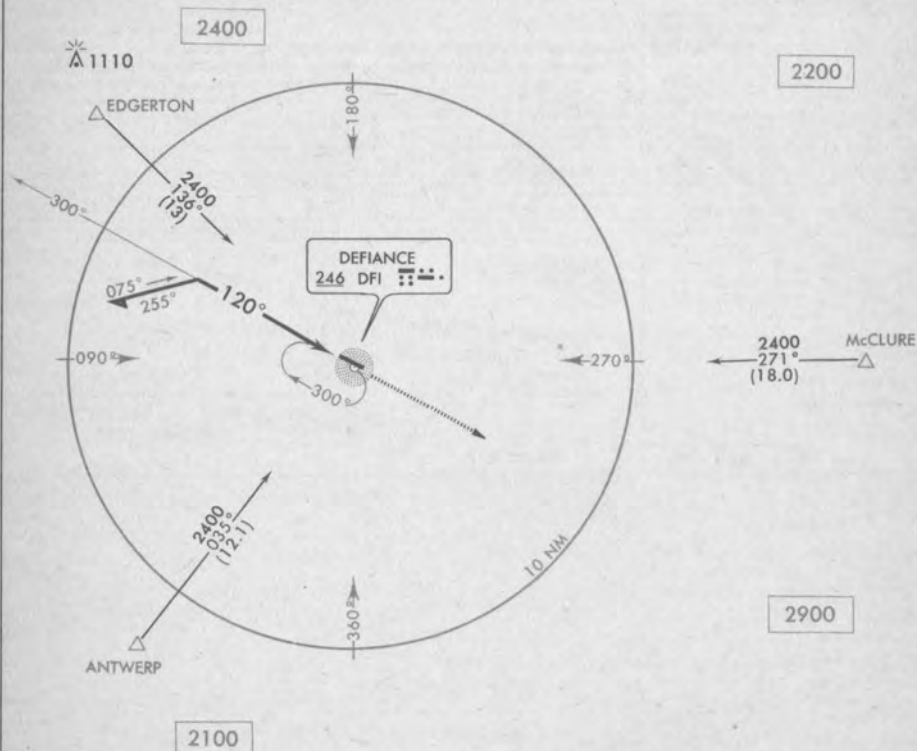
ILS RWY 23

41°34'N-81°29'W

CLEVELAND, OHIO
CUYAHOGA COUNTY

NDB RWY 12

AL-5076 (FAA)

DEFIANCE MEMORIAL
DEFIANCE, OHIOTOLEDO APP CON
119.2 354.0

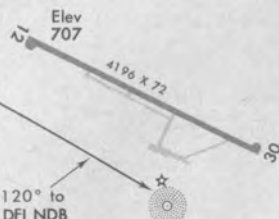
MISSED APPROACH
Climb to 2400 left turn, direct
to NDB and hold.

CATEGORY	A	B	C	D
S-12	1320-1	613 (700-1)		1320-1 $\frac{1}{4}$ 613 (700-1 $\frac{1}{4}$)
CIRCLING	1320-1	613 (700-1)	1320-1 $\frac{1}{2}$ 613 (700-1 $\frac{1}{2}$)	1320-2 613 (700-2)

Use Toledo, Ohio altimeter setting.

△ NA

ELEV 707

MIRL Rwy 12-30
REIL Rwy 12 and 30

Knots	60	90	120	150	180
Min:Sec					

NDB RWY 12

41°20'N-84°26'W

DEFIANCE, OHIO
DEFIANCE MEMORIAL

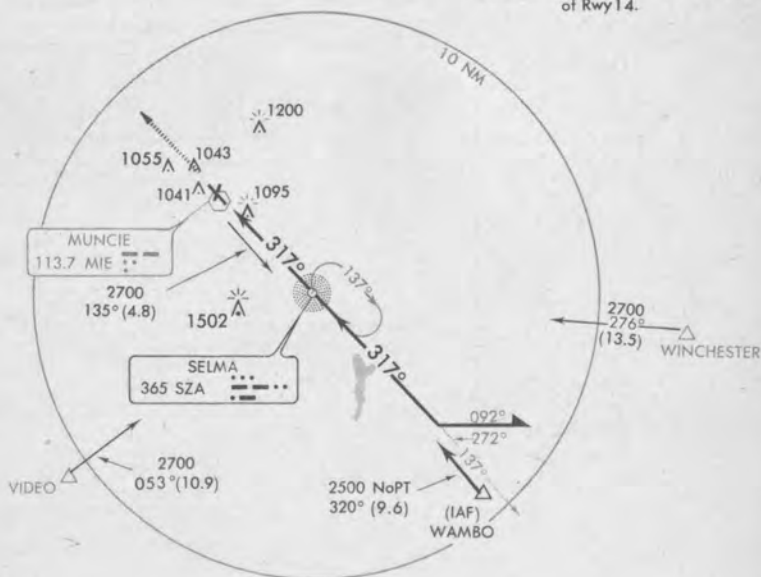
NDB RWY 32

AL-5011 (FAA)

DELAWARE COUNTY-JOHNSON FIELD
MUNCIE, INDIANA

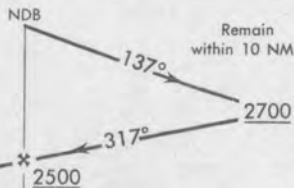
MUNCIE APP CON
120.65
MUNCIE TOWER*
120.1
GND CON
121.9

CAUTION: 1043' power line 0.5 NM
of Rwy 14.



MIN SAFE ALT 25 NM 2600

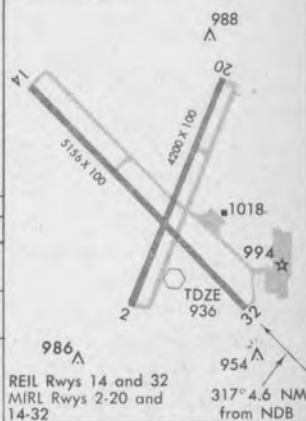
MISSED APPROACH
Climb to 2700 within 5 NM,
return to SZA NDB and hold.



ELEV 937

CATEGORY	A	B	C	D
S-32	1520-1 584 (600-1)			1520-1 ¼ 584 (600-1 ¼)
CIRCLING	1520-1 583 (600-1)		1520-1 ½ 583 (600-1 ½)	1520-2 583 (600-2)

When control zone not effective, the following applies: 1. Use Grissom AFB, Indiana altimeter setting. 2. Increase all MDA's 200 feet. 3. Increase straight-in visibilities CAT B to 1 ¼, CAT C to 1 ½, and CAT D to 1 ¾ miles. 4. Increase circling visibility CAT B to 1 ¼ miles. 5. Alternate minimums not authorized.



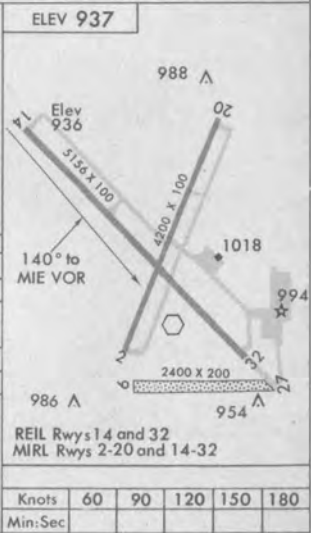
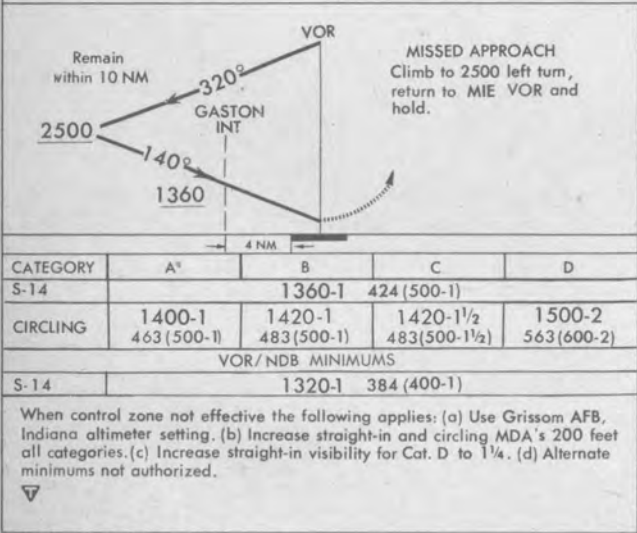
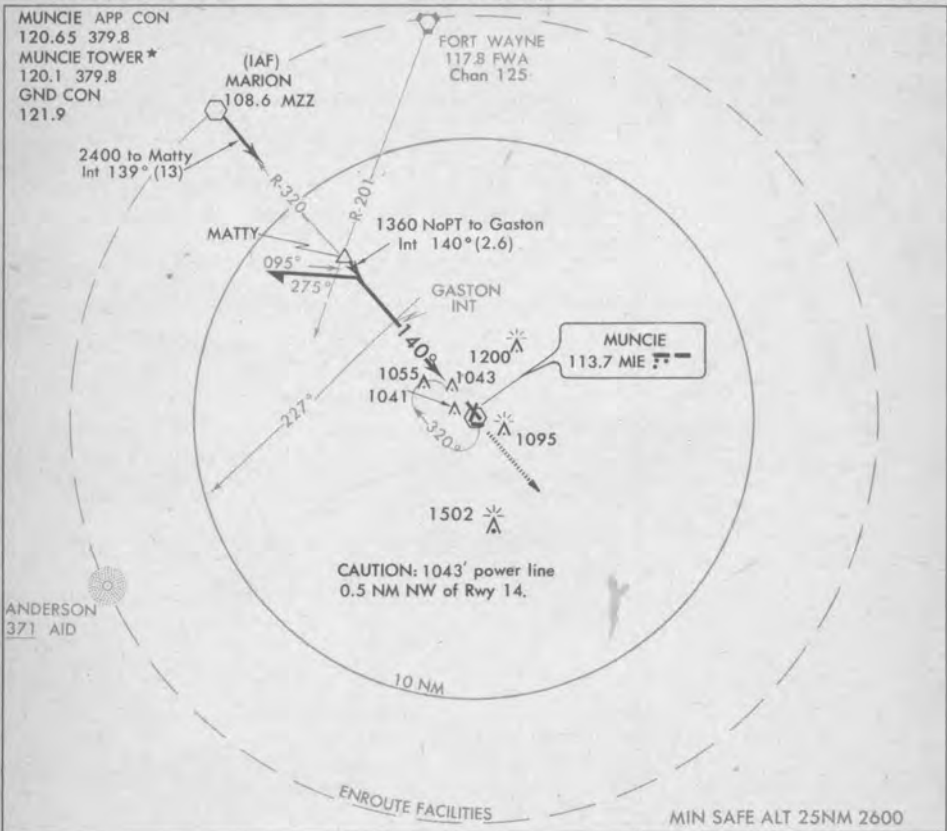
REIL Rwy 14 and 32
MIRL Rwy 2-20 and
14-32

FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

NDB RWY 32

40°14'N - 85°24'W

MUNCIE, INDIANA
DELAWARE COUNTY-JOHNSON FIELD

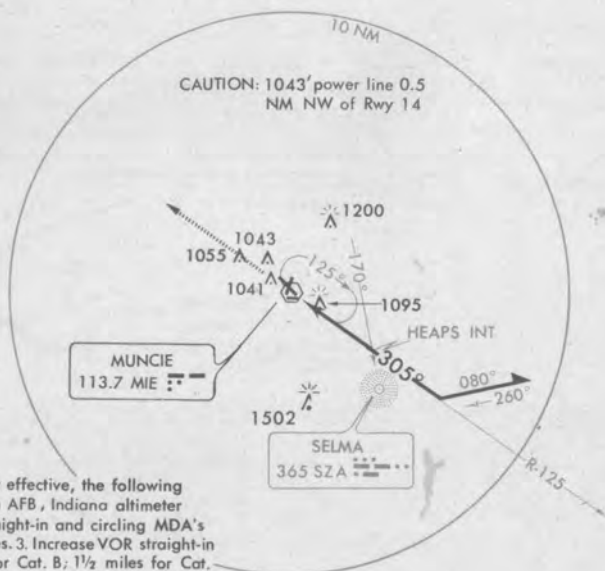


VOR RWY 32

AL-5011 (FAA)

DELAWARE COUNTY-JOHNSON FIELD
MUNCIE, INDIANA

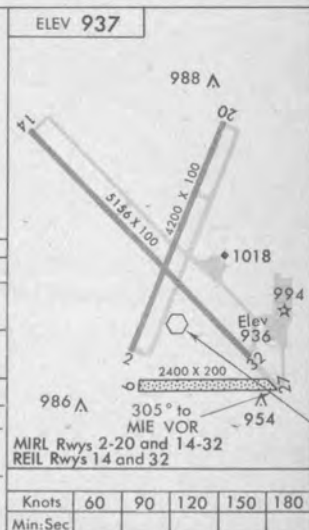
MUNCIE APP CON
120.65 379.8
MUNCIE TOWER★
120.1 379.8
GND CON
121.9



When control zone not effective, the following applies: 1. Use Grissom AFB, Indiana altimeter setting. 2. Increase straight-in and circling MDA's 200 feet all categories. 3. Increase VOR straight-in visibility to $1\frac{1}{4}$ miles for Cat. B; $1\frac{1}{2}$ miles for Cat. C; $1\frac{3}{4}$ miles for Cat. D. 4. Increase VOR circling visibility Cat. B to $1\frac{1}{4}$ miles. 5. Increase VOR/NDB straight-in visibility Cat. D to $1\frac{1}{4}$ miles. 6. Alternate minimums not authorized.

MIN SAFE ALT 25NM 2600

MISSED APPROACH Climb to 2700 within 5 NM, return to MIE VOR and hold.				
CATEGORY	A	B	C	D
S-32	1540-1 604 (700-1)			1540-1 $\frac{1}{4}$ 604 (700-1 $\frac{1}{4}$)
CIRCLING	1540-1	603 (700-1)	1540-1 $\frac{1}{2}$ 603 (700-1 $\frac{1}{2}$)	1540-2 603 (700-2)
VOR/NDB MINIMUMS				
S-32	1360-1 424 (500-1)			
CIRCLING	1400-1 463 (500-1)	1420-1 483 (500-1)	1420-1 $\frac{1}{2}$ 483 (500-1 $\frac{1}{2}$)	1500-2 563 (600-2)



VOR RWY 32

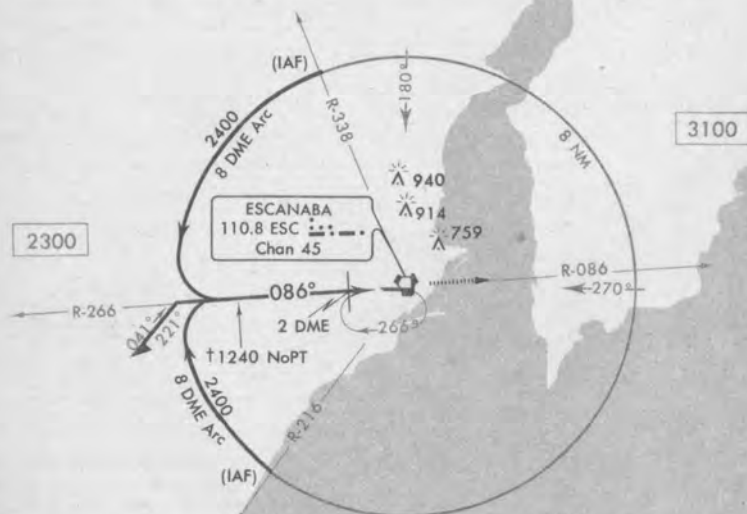
40°14'N-85°24'W

MUNCIE, INDIANA
DELAWARE COUNTY-JOHNSON FIELD

VOR RWY 9

54
AL-5123 (FAA)DELTA COUNTY
ESCANABA, MICHIGANMARQUETTE RADIO
122.1R 123.6R

1148



*When control zone not effective, the following applies except for operators with approved weather reporting service. (a) Use Marquette, Mich. altimeter setting; (b) All MDA's increase 240 feet. (c) VOR only: Increase visibility straight-in CAT B to 1 $\frac{1}{4}$, CAT C to 1 $\frac{1}{2}$, CAT D to 1 $\frac{3}{4}$; increase circling visibility CAT B to 1 $\frac{1}{4}$ DME MINIMA: Increase visibility straight-in Cat. C to 1 $\frac{1}{4}$, Cat. D to 1 $\frac{1}{2}$. (d) Alternate minimums not authorized.

Magnetic disturbance of as much as 14° exists at ground level at Escanaba.

Remain within 10 NM

VORTAC

2400

1240

2 DME

MISSED APPROACH
Climb to 2400 on R-086 within 10 NM, return to VORTAC and hold.

1480 when control zone not effective.

ELEV 609

CATEGORY	A	B	C	D
S-9*	1240-1	631 (700-1)	1240-1 $\frac{1}{4}$ 631 (700-1 $\frac{1}{4}$)	1240-1 $\frac{1}{2}$ 631 (700-1 $\frac{1}{2}$)
CIRCLING*	1240-1	631 (700-1)	1240-1 $\frac{1}{2}$ 631 (700-1 $\frac{1}{2}$)	1240-2 631 (700-2)

DME MINIMUMS

S-9*	1040-1	431 (500-1)	1180-1 $\frac{1}{2}$ 571 (600-1 $\frac{1}{2}$)	1220-2 611 (700-2)
CIRCLING*	1060-1	451 (500-1)		



MIRL Rwy 9 and 18-36
REIL Rwy 9 and 27

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 9

45°43'N-87°06'W

ESCANABA, MICHIGAN
DELTA COUNTY

MARQUETTE RADIO
122.1R 123.6R

1148



Magnetic disturbance of as much as
14° exists at ground level at Escanaba.

VORTAC

Remain
within 10 NM

MISSED APPROACH

Climb to 2300 on R-281 within
10 NM return to VORTAC and
hold.

*1280 when control
zone not effective.

2 DME

2300

1040*

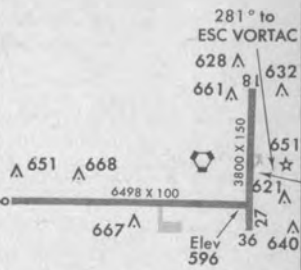
CATEGORY	A	B	C	D
S-27	1040-1 444 (500-1)			
CIRCLING	1060-1	451 (500-1)	1180-1½ 571 (600-1½)	1220-2 611 (700-2)

DME MINIMUMS

S-27	980-1 384 (500-1)
------	-------------------

When control zone not effective, the following applies, except for operators with approved weather reporting service: (a) Use Marquette, Michigan altimeter setting; (b) All MDA's increased 240 feet; (c) VOR only: Increase visibility straight-in Cat. C to 1¼ Cat. D to 1½; DME MINIMA: Increase visibility straight-in Cat. D to 1¼. (d) Alternate minimums not authorized.

ELEV 609


MIRL Rwy 9-27
and 18-36.

REIL Rwy 9 and 27

Knots	60	90	120	150	180
Min:Sec					

VOR RWY 27

45°43'N-87°06'W

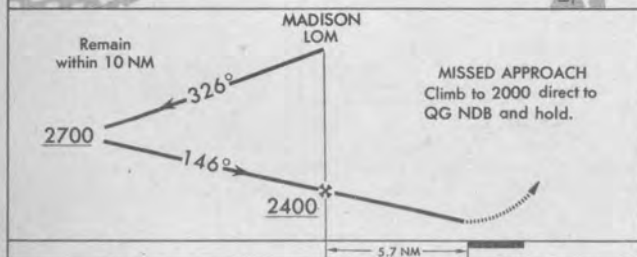
ESCANABA, MICHIGAN
DELTA COUNTY

NDB RWY 15

AL-118 (FAA)

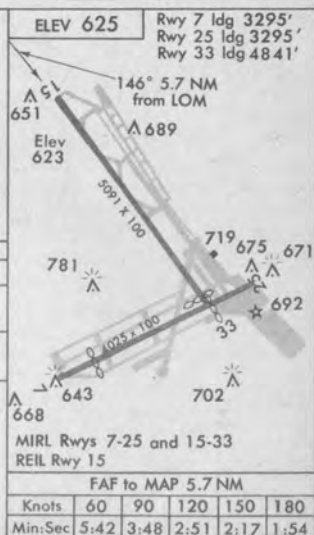
DETROIT CITY
DETROIT, MICHIGAN

DETROIT APP CON
127.3 363.2
DETROIT CITY TOWER
121.3 257.8
GND CON
121.9
ASR
ATIS 120.75



CATEGORY	A	B	C	D
S-15	1220-1	597 (600-1)	1220-1 1/4 597 (600-1 1/4)	
CIRCLING	1220-1	595 (600-1)	1220-1 1/2 595 (600-1 1/2)	1220-2 595 (600-2)

FAF to MAP 5.7 NM	Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54	



NDB RWY 15

42°25'N-83°01'W

DETROIT, MICHIGAN
DETROIT CITY

VOR RWY 33

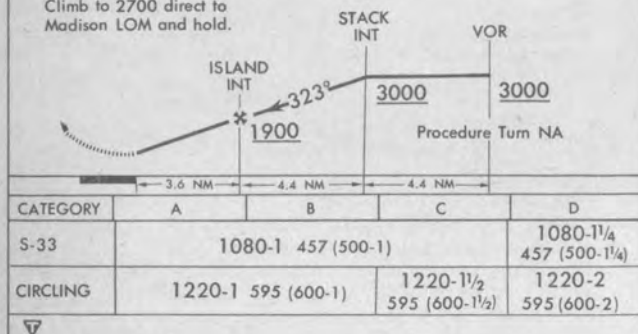
AL-118 (FAA)

DETROIT CITY

DETROIT, MICHIGAN



MISSED APPROACH
Climb to 2700 direct to
Madison LOM and hold.



ELEV 625

Rwy 7 ldg 3295'
Rwy 25 ldg 3295'
Rwy 33 ldg 4850'
RAIL Rwy 15



FAF to MAP 3.6 NM					
Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

VOR RWY 33

42°25'N - 83°01'W

DETROIT, MICHIGAN
DETROIT CITY

NDB RWY 3L

AL-119 (FAA)

DETROIT METROPOLITAN WAYNE COUNTY

DETROIT, MICHIGAN

NDB RWY 3L

AL-119 (FAA)

DETROIT METROPOLITAN WAYNE COUNTY
DETROIT, MICHIGAN

DETROIT APP CON

030°-210° 125.15 363.2

210°-030° 124.25 363.2

METRO TOWER

121.1 287.1

GND CON

121.8

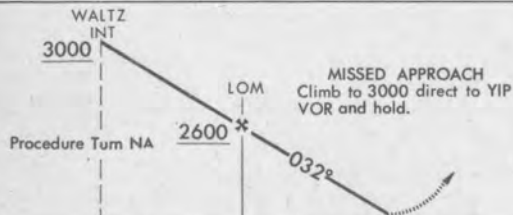
ASR

ATIS 124.55

1319

WILLOW RUN
110.0 YIP

MIN SAFE ALT 25 NM 3100



ELEV 639

CATEGORY	A	B	C	D
S-3L	1060/40	422 (500-3/4)		1060/50 422 (500-1)
CIRCLING	1080-1 441 (500-1)	1100-1 461 (500-1)	1100-1 1/2 461 (500-1 1/2)	1200-2 561 (600-2)

Elev 638
3032 5.9 NM from
Romulus LOM

RAIL Rwy 21L MRL Rwy 15-33

REIL Rws 3R, 9 and 21L

HRL Rws 3L-21R, 3R-21L and 9-27

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

NDB RWY 3L

42°13'N - 83°21'W

DETROIT, MICHIGAN

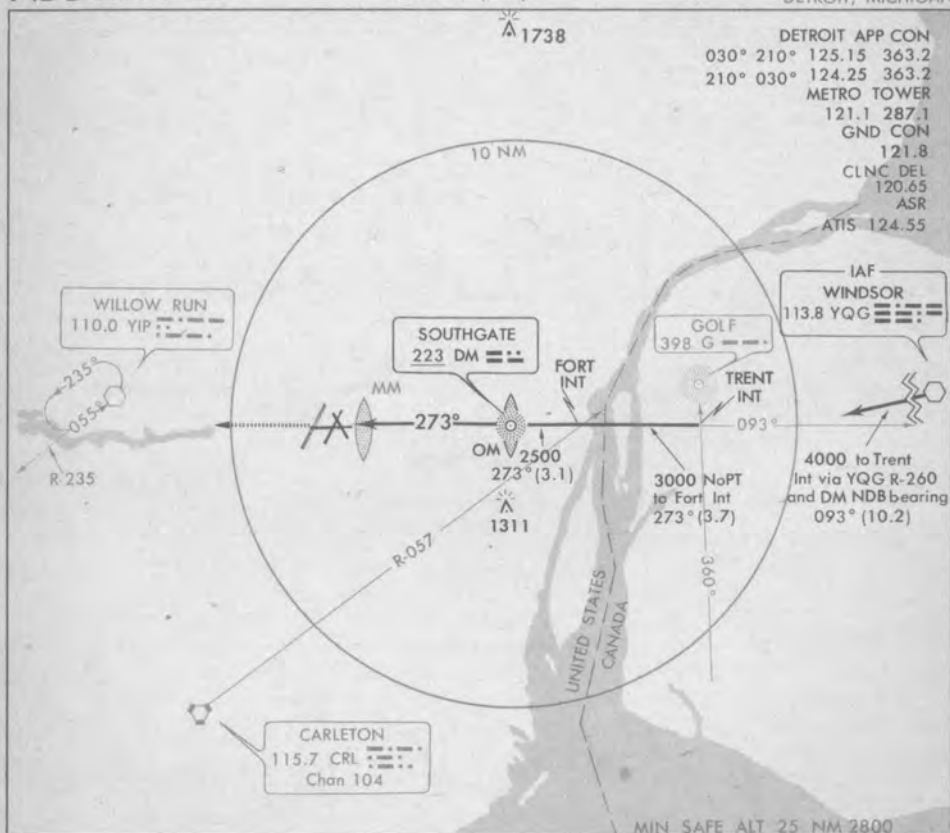
DETROIT METROPOLITAN WAYNE COUNTY

NDB RWY 27

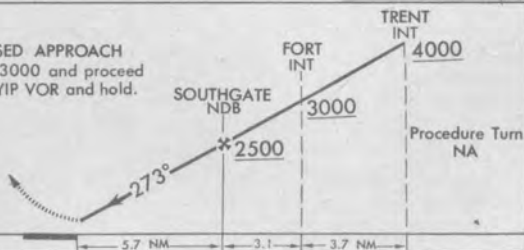
AL-119 (FAA)

DETROIT METROPOLITAN WAYNE COUNTY

DETROIT, MICHIGAN



MISSED APPROACH
Climb to 3000 and proceed
direct to YIP VOR and hold.



CATEGORY	A	B	C	D
S-27	1100-3/4 464 (500-3/4)			
CIRCLING	1100-1 461 (500-1)	1100-1 1/2 461 (500-1 1/2)	1200-2 561 (600-2)	



ELEV 639

Rwy 15 ldg 3500'



RAIL Rwy 21L MRL Rwy 15-33
REIL Rwys 3R, 9 and 21L
HRL Rwys 3L-21R, 3R-21L and 9-27

FAF to MAP 5.7 NM

Knots 60 90 120 150 180

Min:Sec 5:42 3:48 2:51 2:17 1:54

NDB RWY 27

42°13'N - 83°21'W

DETROIT, MICHIGAN

DETROIT METROPOLITAN WAYNE COUNTY

NDB RWY 21R

DETROIT METROPOLITAN WAYNE COUNTY
AL-119 (FAA)
DETROIT, MICHIGAN

DETROIT APP CON
030°-210° 125.15 363.2
210°-030° 124.25 363.2
METRO TOWER
121.1 287.1
GND CON
121.8
CLNC DEL
120.65
ASR
ATIS 124.55

SALEM
114.3 SVM
Chan 90

WILLOW RUN
110.0 YIP
Chan 90

CARLETON
115.7 CRL
Chan 104

3000 to Rouge
Int via CRL R-029
and 212° bearing
to LOM (6.2)

1753

(IAF)
ROYAL

ROUGE
INT

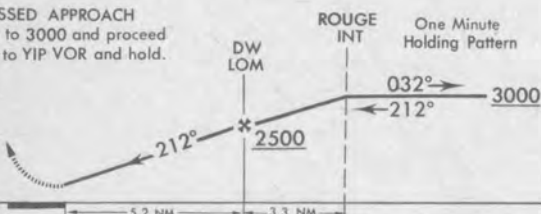
2500 NoPT
212° (3.3)

LOM
INKSTER
367 DW

3000 to Rouge
Int via CRL R-028
and 032° bearing
to LOM (20.3)

MIN SAFE ALT 25 NM 2800

MISSED APPROACH
Climb to 3000 and proceed
direct to YIP VOR and hold.



ELEV 639

Rwy 15 ldg 3500'
212° 5.2 NM
from LOM



712

MIRL Rwy 15-33

RAIL Rwy 21L
REIL Rws 3R, 9 and 21L
HIRL Rws 3L-21R, 3R-21L and 9-27

FAF to MAP 5.2 NM

Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

NDB RWY 21R

42°13'N - 83°21'W

DETROIT METROPOLITAN WAYNE COUNTY

ILS RWY 3L

AL-119 (FAA)

DETROIT METROPOLITAN WAYNE COUNTY

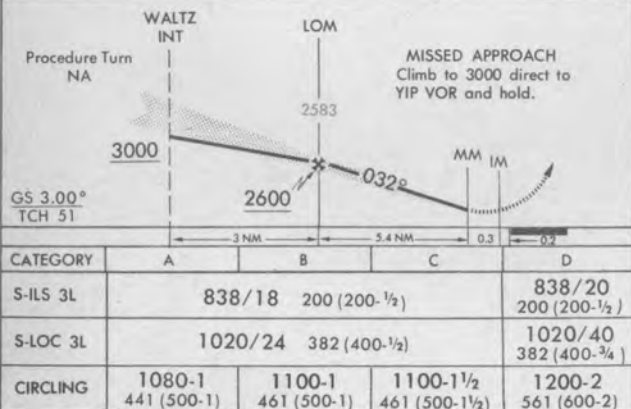
DETROIT, MICHIGAN

DETROIT APP COM
030°-210° 125.15 363.2
210°-030° 124.25 363.2
METRO TOWER
121.1 287.1
GND CON
121.8
ASR
ATIS 124.55



SEE ADJOINING CHART
FOR ILS RWY 3L (CAT II)

MIN SAFE ALT 25 NM 3100'



ELEV 639

TDZL Rwy 3L



FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

ILS RWY 3L

42°13'N - 83°21'W

DETROIT, MICHIGAN

DETROIT METROPOLITAN WAYNE COUNTY

ILS RWY 21R

AL-119 (FAA)

DETROIT METROPOLITAN WAYNE COUNTY
DETROIT, MICHIGAN

DETROIT APP CON
030°-210 125.15 363.2
210°-030° 124.25 363.2
METRO TOWER
121.1 287.1
GND CON
121.8
CLNC DEL
120.65
ASR
ATIS 124.55

SALEM
114.3 SVM
Chan 90

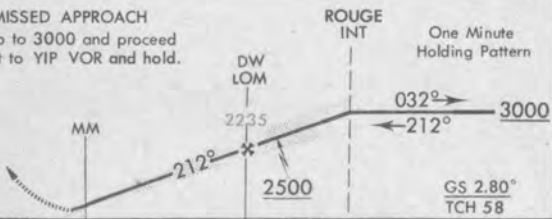
WILLOW RUN
110.0 YIP
Chan 90

CARLETON
115.7 CRL
Chan 104

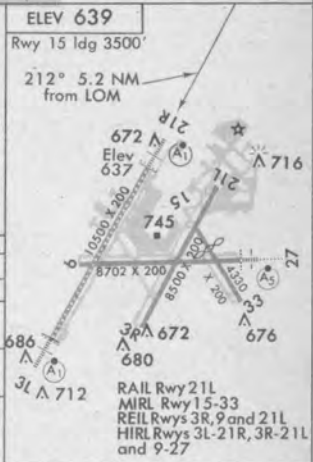


MIN SAFE ALT 25 NM 2800

MISSED APPROACH
Climb to 3000 and proceed
direct to YIP VOR and hold.



CATEGORY	A	B	C	D
S-ILS 21R	837/24	200 (200-1/2)		
S-LOC 21R	1000/24	363 (400-1/2)		1000/40 363 (400-3/4)
CIRCLING	1080-1 441 (500-1)	1100-1 461 (500-1)	1100-1 1/2 461 (500-1 1/2)	1200-2 561 (600-2)



FAC to MAP 5.2 NM	Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44	

ILS RWY 21R

42°13'N - 83°21'W

DETROIT, MICHIGAN

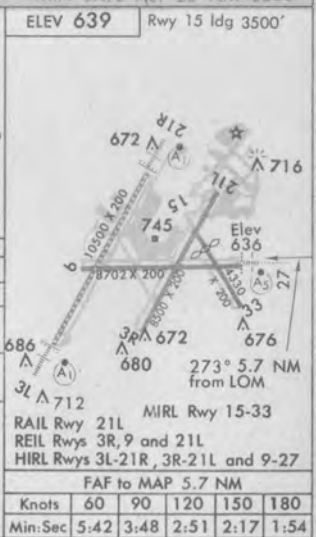
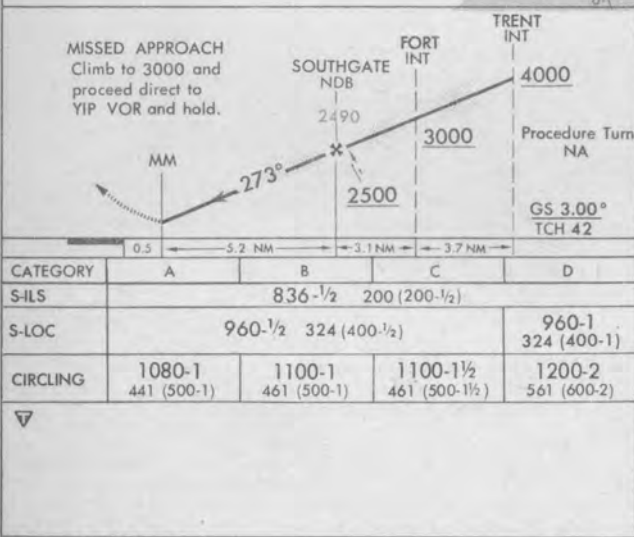
DETROIT METROPOLITAN WAYNE COUNTY

ILS RWY 27

64. DETROIT METROPOLITAN WAYNE COUNTY
AL-119 (FAA) DETROIT, MICHIGAN

DETROIT APP CON
030°-210° 125.15 363.2
210°-030° 124.25 363.2
METRO TOWER
121.1 287.1
GND CON
121.8
CLNC DEL
120.65
ASR
ATIS 124.55

1738



ILS RWY 27

42°13'N - 83°21'W

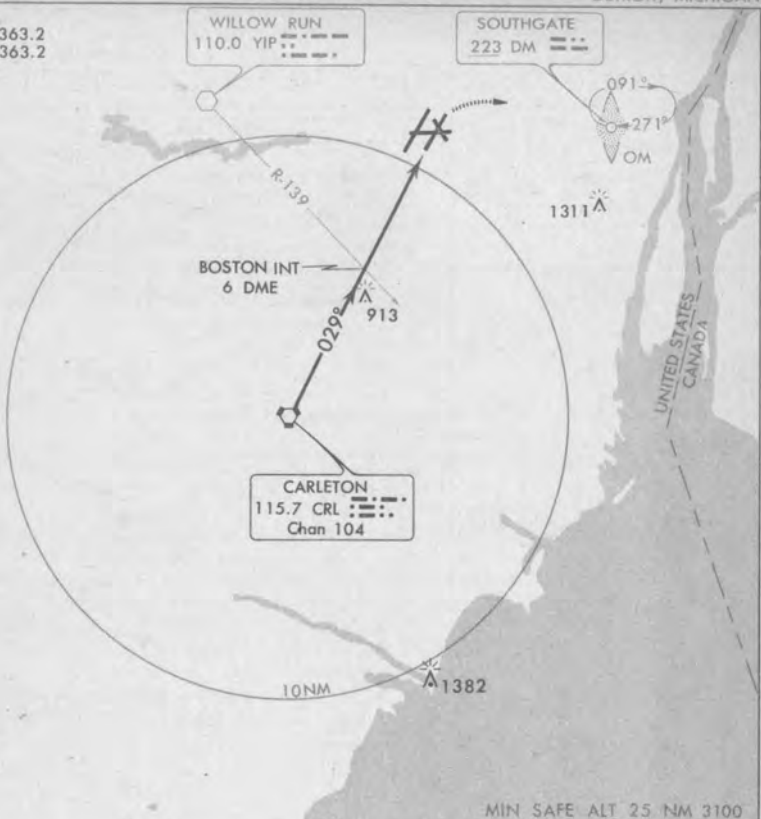
DETROIT, MICHIGAN
DETROIT METROPOLITAN WAYNE COUNTY

VOR RWY 3R

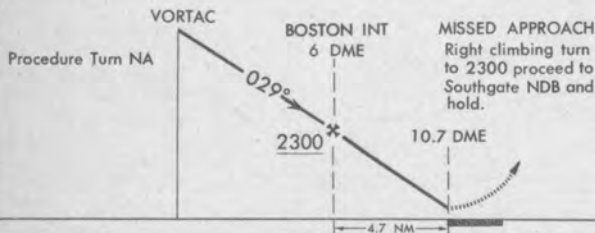
DETROIT APP CON
030°-210° 125.15 363.2
210°-030° 124.25 363.2
METRO TOWER
121.1 287.1
GND CON
121.8
CLNC DEL
120.65
ASR
ATIS 124.55

AL-119 (FAA)

DETROIT METROPOLITAN WAYNE COUNTY
DETROIT, MICHIGAN



MIN SAFE ALT 25 NM 3100



ELEV 639 Rwy 15 ldg 3500'

CATEGORY	A	B	C	D
S-3R	1080-1	1100-1	1100-1½	1200-2
CIRCLING	441 (500-1)	461 (500-1)	461 (500-1½)	561 (600-2)

Inoperative table does not apply.



RAIL Rwy 21L, MIRL Rwy 15-33
REIL Rlys 3R, 9 and 21L
HIRL Rlys 3L-21R, 3R-21L, and 9-27

FAF to MAP 4.7 NM

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

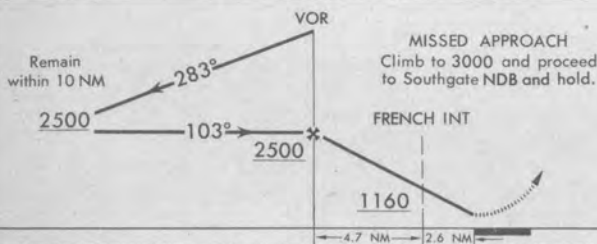
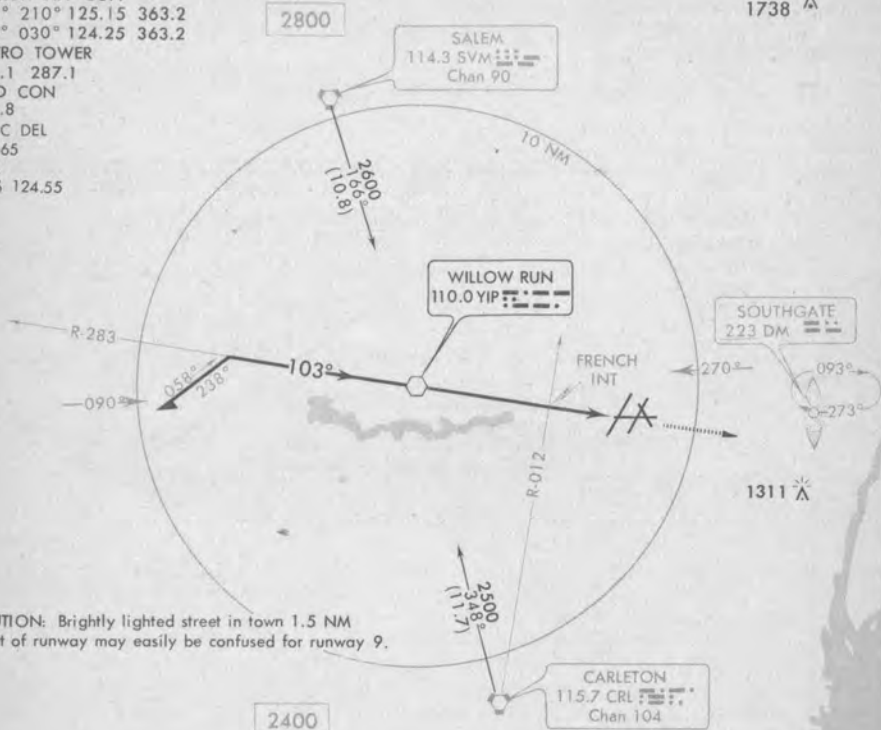
VOR RWY 3R

42°13'N - 83°21'W

DETROIT, MICHIGAN
DETROIT METROPOLITAN WAYNE COUNTY

DETROIT APP CON
 030° 210° 125.15 363.2
 210° 030° 124.25 363.2
 METRO TOWER
 121.1 287.1
 GND CON
 121.8
 CLNC DEL
 120.65
 ASR
 ATIS 124.55

1738



CATEGORY	A	B	C	D
S-9	1160-1 521 (600-1)			1160-1 1/4 521 (600-1 1/4)
CIRCLING	1160-1 521 (600-1)		1160-1 1/2 521 (600-1 1/2)	1200-2 561 (600-2)
DUAL VOR MINIMA				
S-9	1040-1 401 (500-1)			
CIRCLING	1080-1 441 (500-1)	1100-1 461 (500-1)	1100-1 1/2 461 (500-1 1/2)	1200-2 561 (600-2)

Inoperative table does not apply to HIRL Rwy 9

ELEV 639 Rwy 15 ldg 3500'



FAF to MAP 7.3 NM					
Knots	60	90	120	150	180
Min:Sec	7:18	4:52	3:39	2:55	2:26

KALAMAZOO APP CON
121.2 257.8



CANCELLED
25 SEP 75

PARKVILLE INT

MISSED APPROACH
Climb to 2600 AZO R-187
within 10 NM, return to
Parkville Int and hold.

Remain within 10 NM

2100 187° 2600

ELEV 830 Rwy 5 ldg 2745'
Rwy 23 ldg 2700'



CATEGORY	A	B	C	D
CIRCLING	1300-1	470 (500-1)	1300-1½ 470 (500-1½)	1500-2 670 (700-2)

Use Battle Creek, Michigan altimeter setting.
Final approach from holding pattern at Parkville Int not authorized.
Procedure turn required.
△NA

REIL Rwy 9 and 27
LIRL Rwy 5-23
MIRL Rwy 9-27

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

EASTERN WEST VIRGINIA REGIONAL
MARTINSBURG, WEST VIRGINIA

DULLES APP CON
125.5 379.9
MARTINSBURG TOWER*
124.3 236.6
GND CON
121.8 275.8
RADAR VECTING

ENROUTE FACILITIES

10 NM

1884

2230

1713

716

768

633

2900 NoPT
to Gerrard Int
077° (7.1)

CROSS JUNCTION
INT

257°

032°

212°

3300
to Cross Junction Int
088° (11.3)

(IAF)
CAPON BRIDGE

OM

GERRARD INT

R-271

R-266

R-017

R-352

R-110

R-100

3900
to Cross Junction Int
352° (14.3)

3900
to Gerrard Int
271° (13.4)

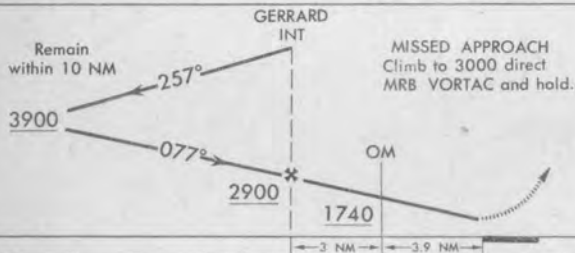
2900

110.3

LOCALIZER 110.3
I-MRB

MARTINSBURG
112.1 MRB
Chan 58

IAF
FRONT ROYAL
115.3 FRR
Chan 100



CATEGORY	A	B	C	D
S-LOC 8	1740-1 ³ / ₄ 1184 (1200-1 ³ / ₄)		1740-2 1184 (1200-2)	
CIRCLING	1740-1 ³ / ₄ 1184 (1200-1 ³ / ₄)		1740-2 1184 (1200-2)	
FM MINIMA				
S-LOC 8	1060-1 504 (600-1)			1060-1 ¹ / ₄ 504 (600-1 ¹ / ₄)
CIRCLING	1060-1 504 (600-1)	1080-1 524 (600-1)	1080-1 ¹ / ₂ 524 (600-1 ¹ / ₂)	1120-2 564 (600-2)

ELEV 556



HIRL Rwy 8-26
MIRL Rwy 17-35
REIL Rwy 26

FAF to MAP 6.9 NM

Knots	60	90	120	150	180
Min:Sec	6:54	4:36	3:37	2:46	2:18

LOC RWY 8

39°24'N – 77°59'W

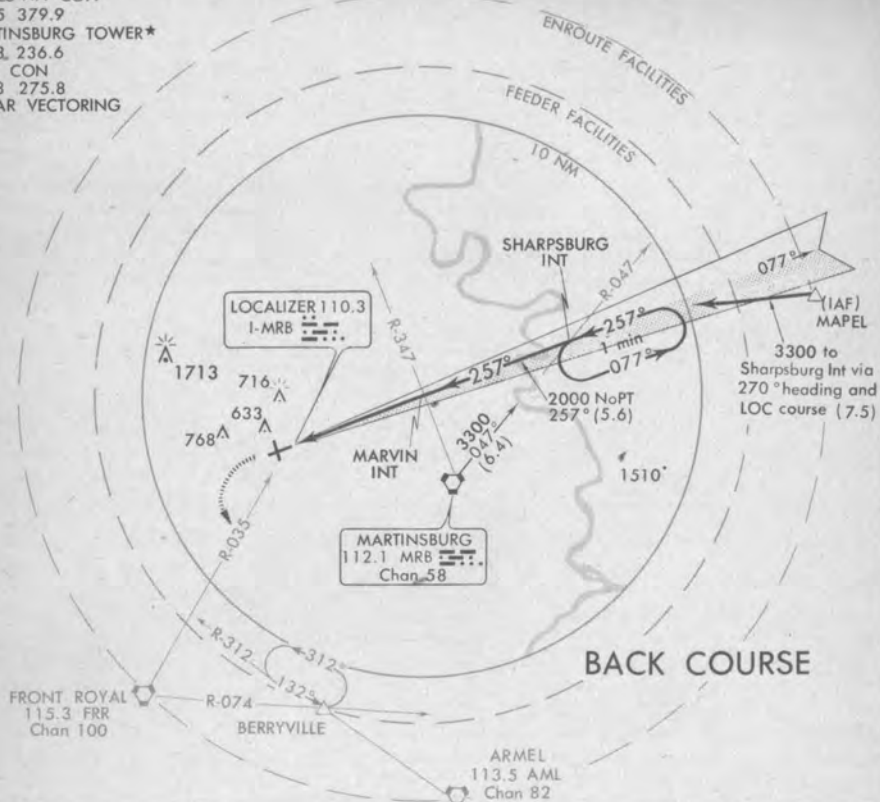
MARTINSBURG, WEST VIRGINIA
EASTERN WEST VIRGINIA REGIONAL

LOC BC RWY 26

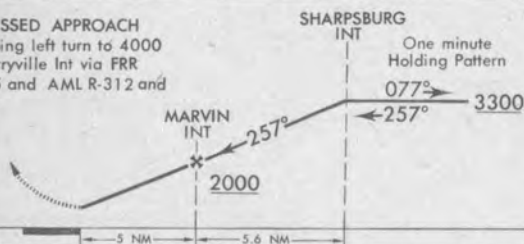
AL-249 (FAA)

EASTERN WEST VIRGINIA REGIONAL
MARTINSBURG, WEST VIRGINIA

DULLES APP CON
125.5 379.9
MARTINSBURG TOWER*
124.3 236.6
GND CON
121.8 275.8
RADAR VECTORING



MISSED APPROACH
Climbing left turn to 4000
to Berryville Int via FRR
R-035 and AML R-312 and
hold.



CATEGORY	A	B	C	D
S-26		860-1	313 (400-1)	
CIRCLING	1020-1 464 (500-1)	1080-1 524 (600-1)	1080-1½ 524 (600-1½)	1120-2 564 (600-2)



ELEV 556



HIRL Rwy 8-26
MIRL Rwy 17-35
REIL Rwy 26

FAF to MAP 5 NM

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

LOC BC RWY 26

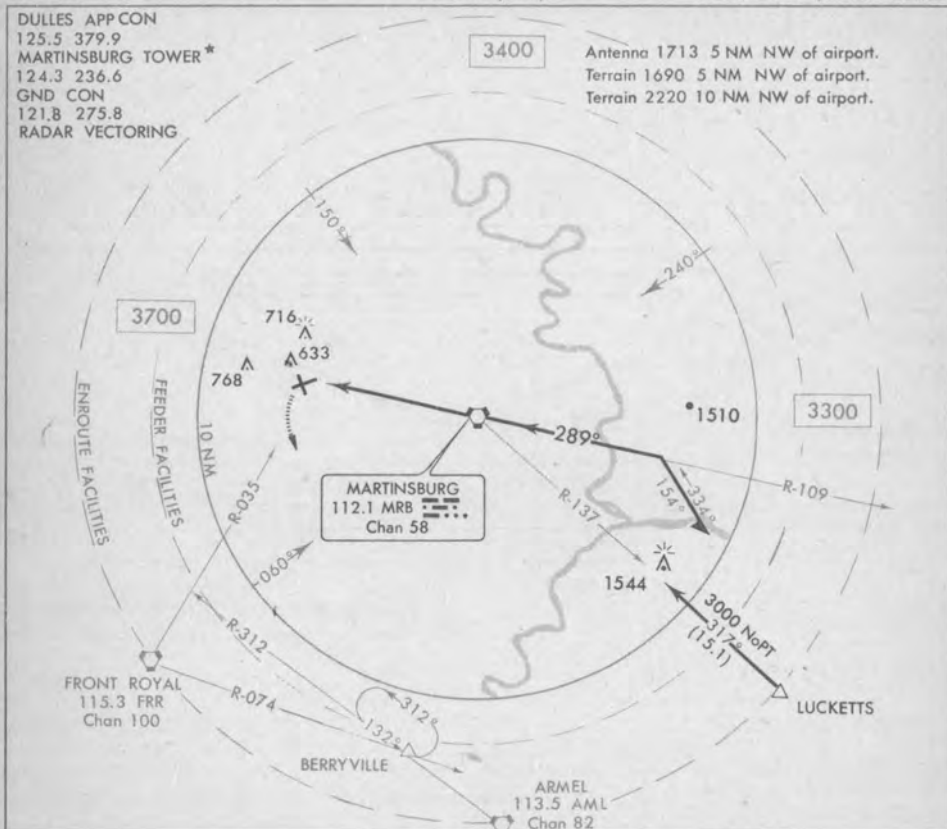
39°24'N - 77°59'W

MARTINSBURG, WEST VIRGINIA
EASTERN WEST VIRGINIA REGIONAL

DULLES APP CON
125.5 379.9
MARTINSBURG TOWER *
124.3 236.6
GND CON
121.8 275.8
RADAR VECTORING

3400

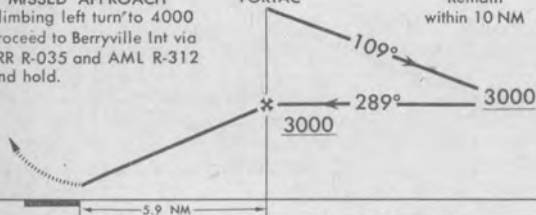
Antenna 1713 5 NM NW of airport.
Terrain 1690 5 NM NW of airport.
Terrain 2220 10 NM NW of airport.



MISSED APPROACH
Climbing left turn*to 4000
proceed to Berryville Int via
FRR R-035 and AML R-312
and hold.

VORTAC

Remain
within 10 NM



ELEV 556



HIRL Rwy 8-26
MIRL Rwy 17-35
REIL Rwy 26

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

VOR-A

39°24'N-77°59'W

MARTINSBURG, WEST VIRGINIA
EASTERN WEST VIRGINIA REGIONAL

ELKHART MUNI
ELKHART, INDIANA

ELKHART, INDIANA
ELKHART MUNI

ELKINS RADIO
123.6 255.4

CLARKSBURG
115.1 CKB

4200

CAUTION: Precipitous terrain underlying this procedure. Turbulence of varying intensities may be encountered. 4008 terrain 6 NM ENE of airport, higher terrain beyond 10 NM E through S of airport.

5700

ELKINS
114.5 EKN
Chan 92

3900

COALTON
INT 6 DME

5900

Remain
within 10 NM

VORTAC

MISSED APPROACH
Climbing left turn to 5000
direct to EKN VORTAC and
hold.

COALTON
INT 6 DME

9 DME

11.4 DME

4500

4100

5.4 NM

ELEV 1987

△ 2196

2032 △

102° 5.4 NM from
Coalton Int

△ 1978

△ 2015

△ 2049

△ 2068

△ 2081

☆ 2162

MIRL Rwy 4-22

FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

CATEGORY	A	B	C	D
CIRCLING		4100-2	2113 (2200-2)	
		DME MINIMA		
CIRCLING		3500-2	1513 (1600-2)	

Night minima NA.



NDB RWY 32

AL-647 (FAA)

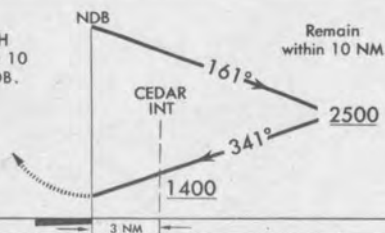
EMMET COUNTY
PELLSTON, MICHIGAN

PELLSTON RADIO
123.6

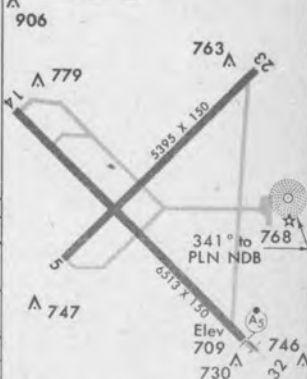


CAUTION: Wooded terrain 980' to 1260' in Southwest quadrant 2.5 NM from airport.
Trees 883' to 1000' in Northwest quadrant from 0.5 to 1.6 NM from airport.

MISSED APPROACH
Climb to 2500 within 10
NM return to PLN NDB.



ELEV 720



CATEGORY	A	B	C	D
S-32	1400-1 691 (700-1)		1400-1 1/4 691 (700-1 1/4)	1400-1 1/2 691 (700-1 1/2)
CIRCLING	1400-1 680 (700-1)		1400-1 1/2 680 (700-1 1/2)	1420-2 700 (700-2)
NDB / VOR MINIMA				
S-32	1180-1 471 (500-1)			
CIRCLING	1240-1 520 (600-1)	1300-1 580 (600-1)	1300-1 1/2 580 (600-1 1/2)	1420-2 700 (700-2)

MIRL Rwy 5-23 and 14-32
REIL Rwy 5, 23 and 32

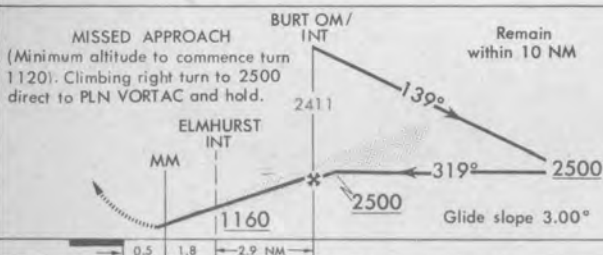
Knobs	60	90	120	150	180
Min.Sec					

NDB RWY 32

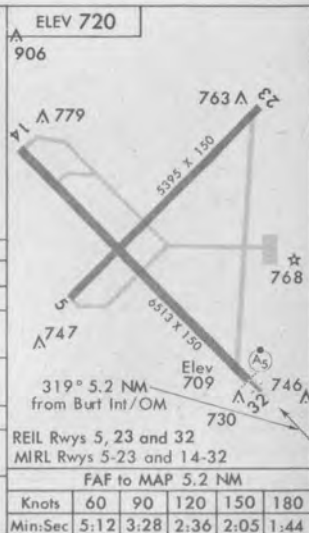
45°34'N-84°48'W

PELLSTON, MICHIGAN
EMMET COUNTY

ILS RWY 32

76
AL-647 (FAA)EMMET COUNTY
PELLSTON, MICHIGANPELLSTON RADIO
123.6

CATEGORY	A	B	C	D
S-ILS 32	909-1/2 200 (200-1/2)			
S-LOC 32	1160-1/2 451 (500-1/2)			1160-1 451 (500-1)
CIRCLING	1240-1 520 (600-1)	1300-1 580 (600-1)	1300-1 1/2 580 (600-1/2)	1420-2 700 (700-2)
VOR MINIMA				
S-LOC 32	1040-1/2 331 (400-1/2)			1040-1 331 (400-1)



ILS RWY 32

45°34'N - 84°48'W

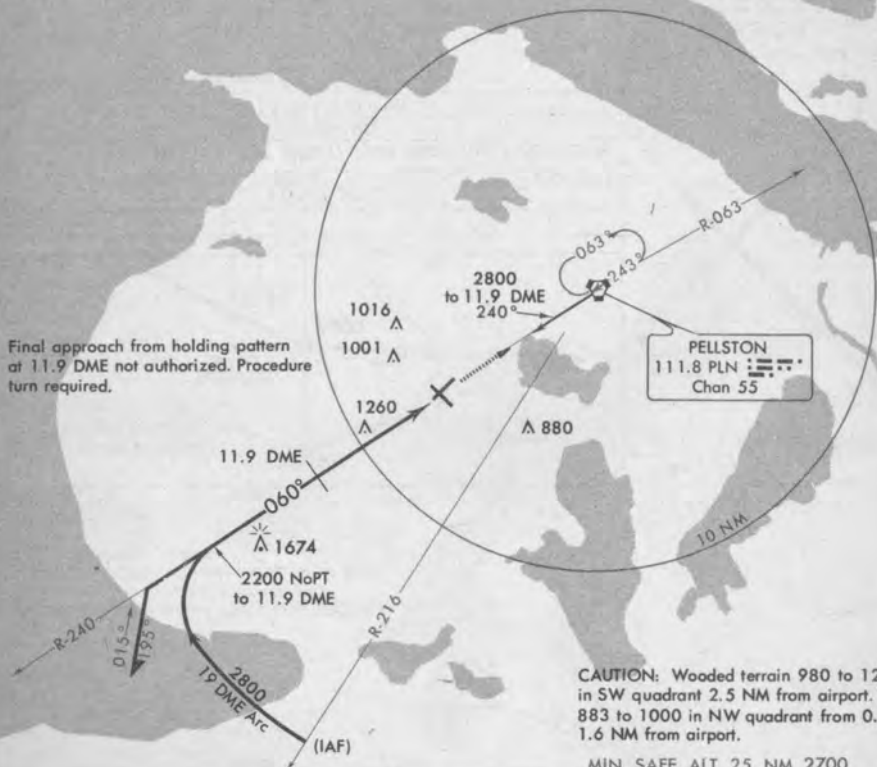
PELLSTON, MICHIGAN
EMMET COUNTY

VOR/DME RWY 5

AL-647 (FAA)

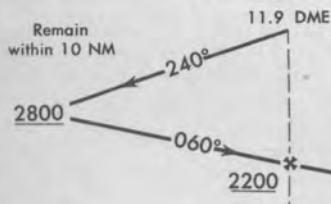
EMMET COUNTY
PELLSTON, MICHIGANPELLSTON RADIO
123.6

Final approach from holding pattern at 11.9 DME not authorized. Procedure turn required.



CAUTION: Wooded terrain 980 to 1260 in SW quadrant 2.5 NM from airport. Trees 883 to 1000 in NW quadrant from 0.5 to 1.6 NM from airport.

MIN SAFE ALT 25 NM 2700

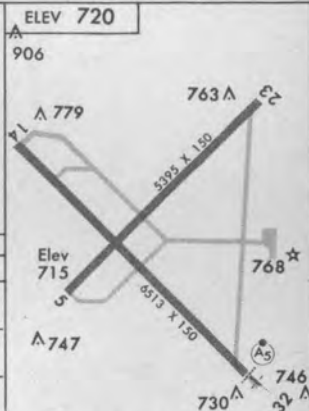


MISSED APPROACH
Climb to 2800 direct
to PLN VORTAC and
hold.

CATEGORY	A	B	C	D
S-5	1520-1 805 (800-1)	1520-1 ¹ / ₄ 805 (800-1 ¹ / ₄)	1520-1 ¹ / ₂ 805 (800-1 ¹ / ₂)	1520-1 ³ / ₄ 805 (800-1 ³ / ₄)
CIRCLING	1520-1 800 (800-1)	1520-1 ¹ / ₄ 800 (800-1 ¹ / ₄)	1520-1 ¹ / ₂ 800 (800-1 ¹ / ₂)	1520-2 800 (800-2)

Inoperative table does not apply to REIL Rwy 5.

Not authorized during operation of Oil Burner Routes OB-9 and OB-29



MIRL Rwy 5-23 and 14-32
REIL Rwy 5, 23 and 32

Knots	60	90	120	150	180
Min:Sec					

VOR/DME RWY 5

45°34'N - 84°48'W

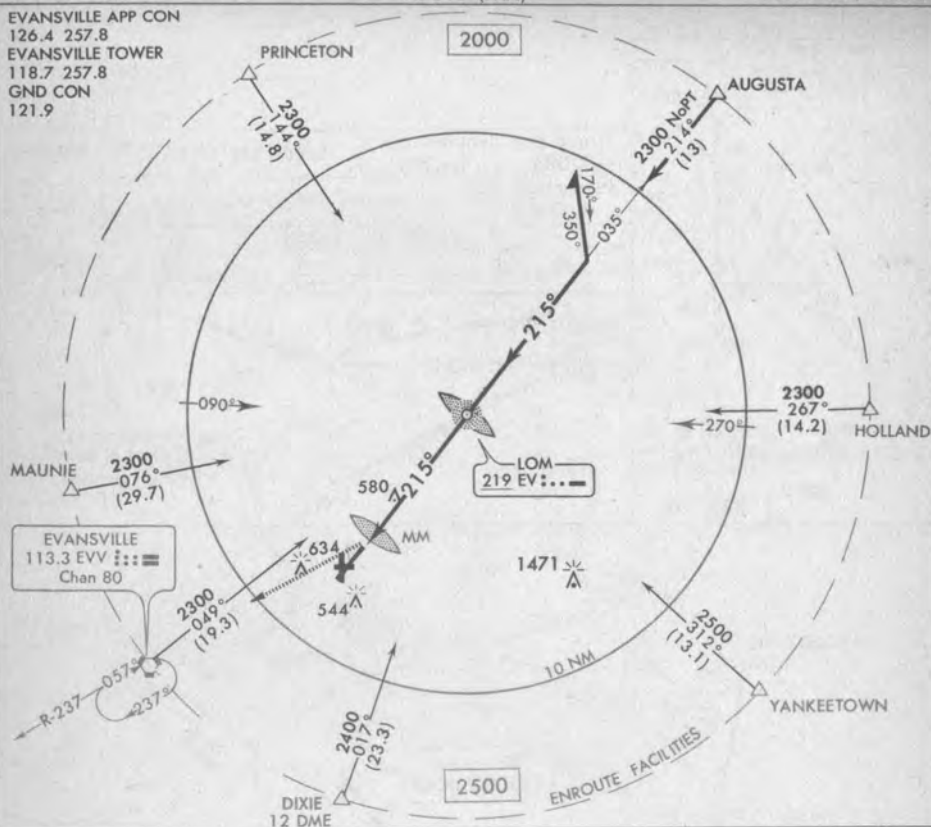
PELLSTON, MICHIGAN
EMMET COUNTY

NDB RWY 22

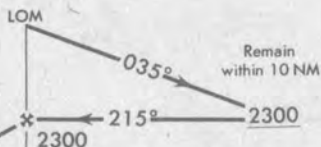
EVANSVILLE APP CON
126.4 257.8
EVANSVILLE TOWER
118.7 257.8
GND CON
121.9

AL-513 (FAA)

EVANSVILLE DRESS REGIONAL
EVANSVILLE, INDIANA



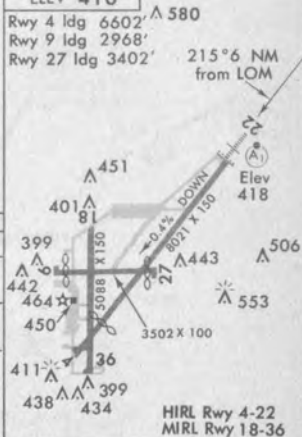
MISSED APPROACH
Climb to 2300 direct to
EVV VORTAC and hold.



CATEGORY	A	B	C	D
S-22	940-3/4	522 (600-3/4)	940-1	522 (600-1)
CIRCLING	940-1	522 (600-1)	940-1 1/2	522 (600-1 1/2)

6 NM

ELEV 418

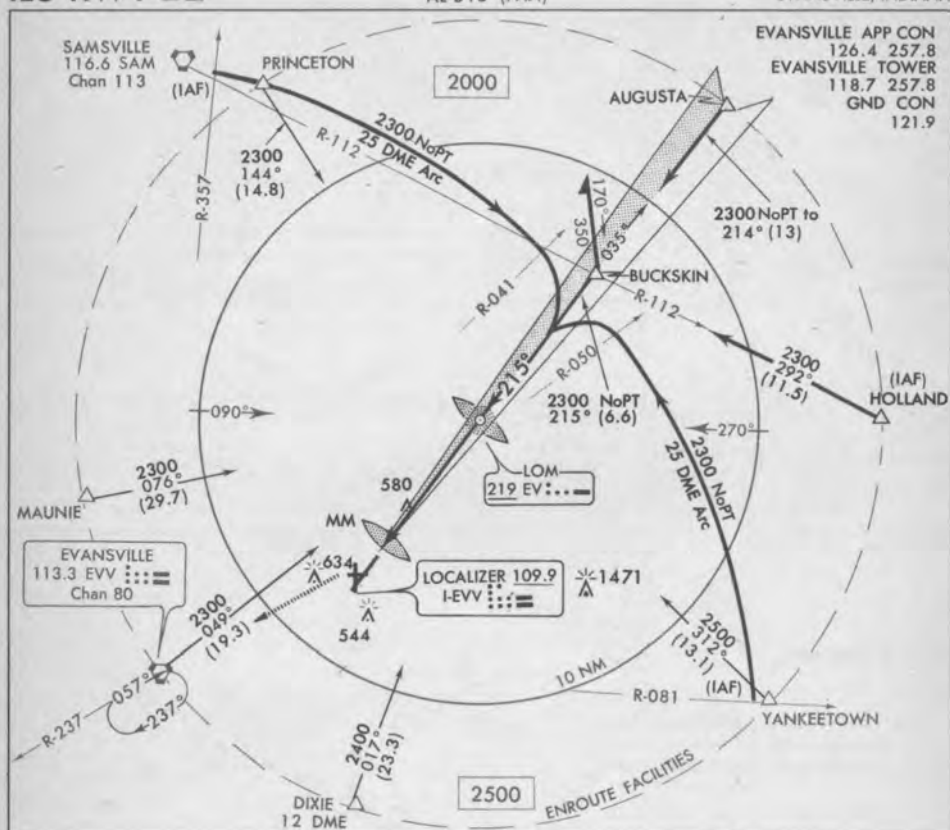


FAF TO MAP 6 NM					
Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

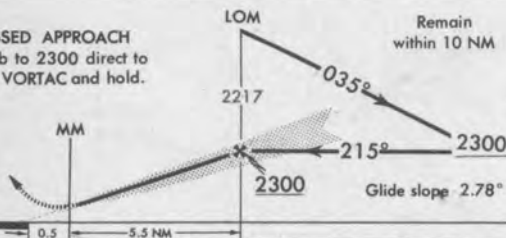
NDB RWY 22

38°02'N-87°32'W

EVANSVILLE, INDIANA
EVANSVILLE DRESS REGIONAL



MISSED APPROACH
Climb to 2300 direct to
EVV VORTAC and hold.



CATEGORY	A	B	C	D
S-ILS 22	618-1/2 200 (200-1/2)			
S-LOC 22	900-1/2 482 (500-1/2)			900-3/4 482 (500-3/4)
CIRCLING	940-1 522 (600-1)		940-1 1/2 522 (600-1 1/2)	980-2 562 (600-2)



ELEV 418

A 580

Rwy 4 ldg 6602
Rwy 9 ldg 2968
Rwy 27 ldg 340

215° 6 NM
from LOM



FAF TO MAP 6 NM

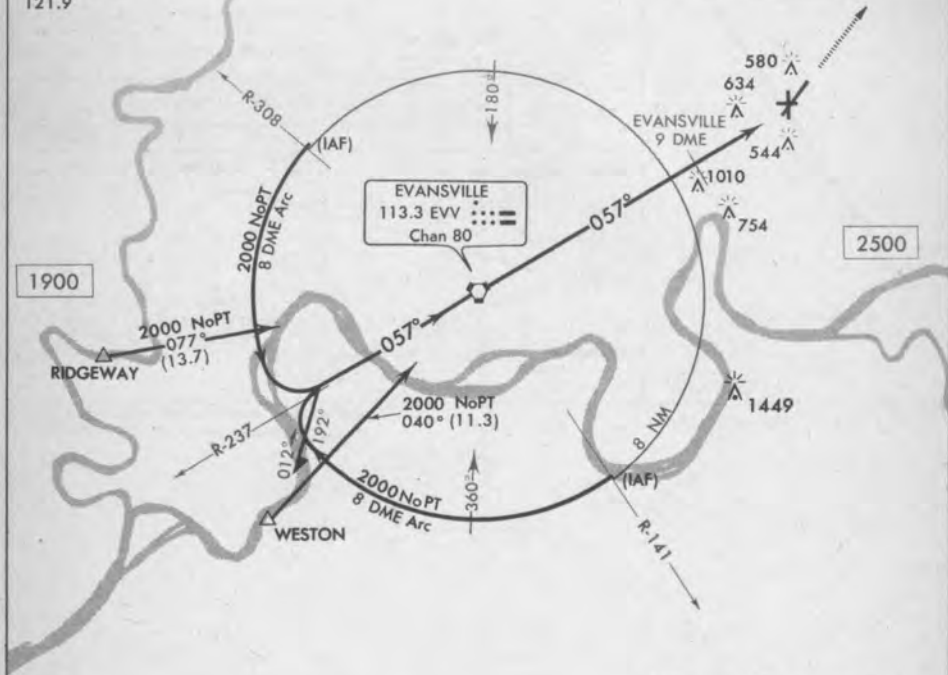
Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

VOR RWY 4

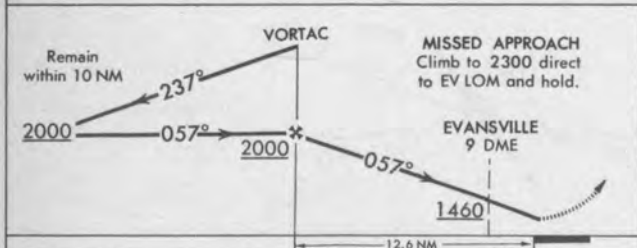
AL-513 (FAA)

EVANSVILLE DRESS REGIONAL
EVANSVILLE, INDIANA

EVANSVILLE APP CON
126.4 257.8
EVANSVILLE TOWER
118.7 257.8
GND CON
121.9



1471 tower 7.5 miles east of airport.

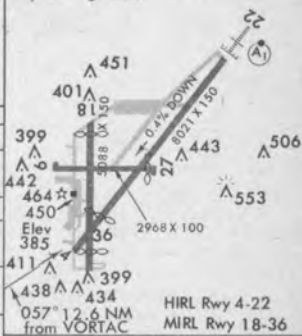


MISSED APPROACH
Climb to 2300 direct
to EV LOM and hold.

ELEV 418 580

Rwy 4 ldg 6709'
Rwy 18 ldg 4667'
Rwy 27 ldg 2868'
Rwy 36 ldg 4538'

CATEGORY	A	B	C	D
CIRCLING	1460-1½ 1042 (1100-1½)	1460-1¾ 1042 (1100-1¾)	1460-2	1042 (1100-2)
DME MINIMA				
S-4	880-1 495 (500-1)			880-1¼ 495 (500-1¼)
CIRCLING	940-1	522 (600-1)	940-1½ 522 (600-1½)	980-2 562 (600-2)



FAF to MAP 12.6 NM					
Knots	60	90	120	150	180
Min:Sec	12:36	8:24	6:18	5:02	4:12

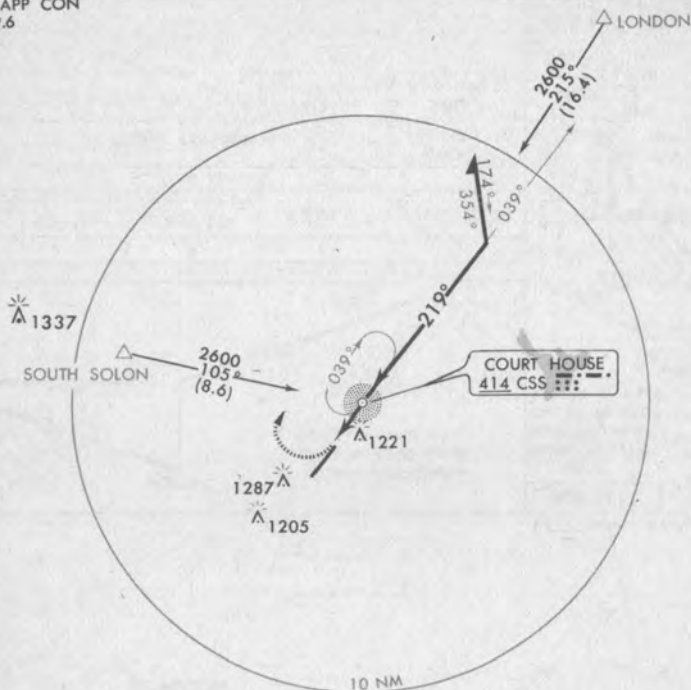
VOR RWY 4

38°02'N-87°32'W

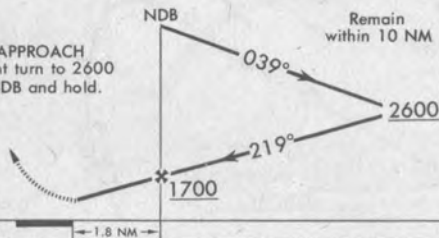
EVANSVILLE, INDIANA
EVANSVILLE DRESS REGIONAL

NDB RWY 22

AL-6046 (FAA)

FAYETTE COUNTY
WASHINGTON COURT HOUSE, OHIOCOLUMBUS APP CON
119.65 279.6Final approach from holding pattern at CSS
NDB not authorized. Procedure turn required.

MIN SAFE ALT 25 NM 2600

MISSED APPROACH
Climbing right turn to 2600
direct CSS NDB and hold.

ELEV 980

219° 1.8 NM
from NDB
Elev 980

CATEGORY	A	B	C	D
S-22	1640-1	660 (700-1)	1640-1 $\frac{1}{4}$ 660 (700-1 $\frac{1}{4}$)	1640-1 $\frac{1}{2}$ 660 (700-1 $\frac{1}{2}$)
CIRCLING	1640-1	660 (700-1)	1700-1 $\frac{1}{2}$ 720 (800-1 $\frac{1}{2}$)	1700-2 720 (800-2)

Use Lockbourne AFB, Ohio altimeter setting.



NA

FAF to MAP 1.8 NM

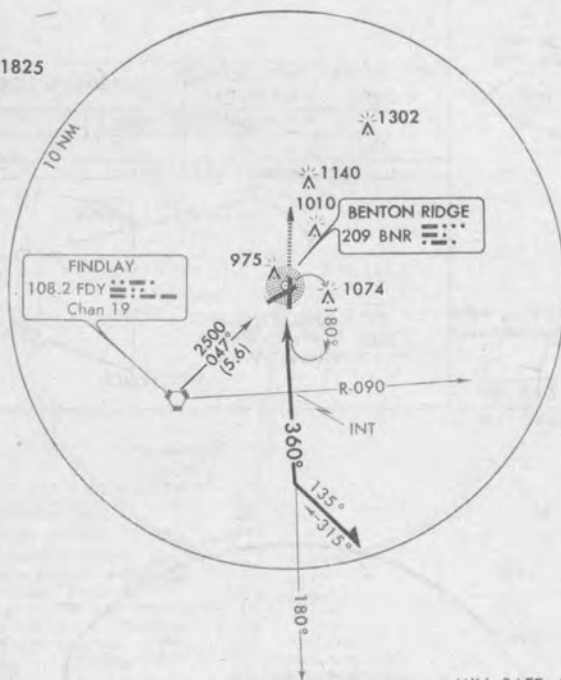
Knots	60	90	120	150	180
Min:Sec	1:48	1:12	0:54	0:43	0:36

NDB RWY 22

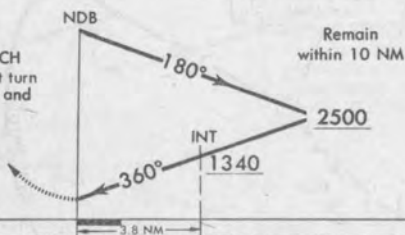
39°34'N-83°25'W

WASHINGTON COURT HOUSE, OHIO
FAYETTE COUNTY

1825



MISSED APPROACH
Climb to 2500 left turn
direct to BNR NDB and
hold.

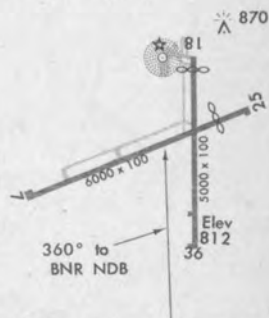


CATEGORY	A	B	C	D
S-36	1340-1 528 (600-1)			1340-1¼ 528 (600-1¼)
CIRCLING	1380-1 568 (600-1)		1380-1½ 568 (600-1½)	1380-2 568 (600-2)
NDB/VOR MINIMA				
S-36	1260-1 448 (500-1)			



Rwy 18 ldg 4640'
Rwy 25 ldg 5205'

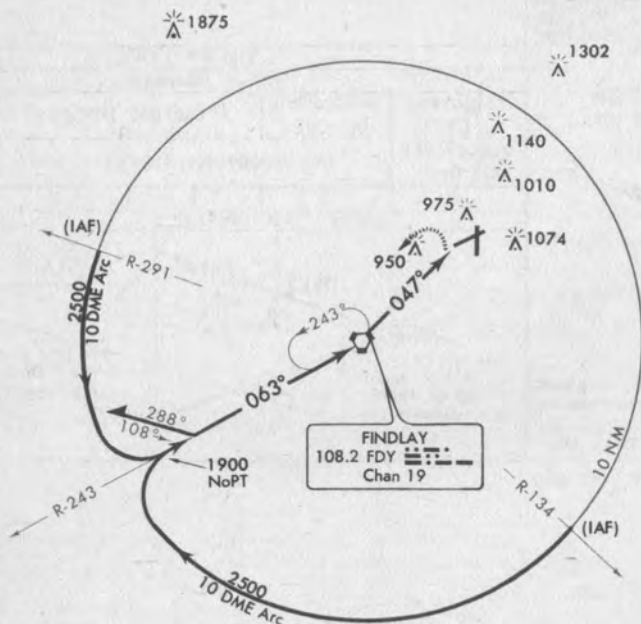
Non-standard approach
lights Rwys 7 and 36



MIRL Rwy's 7-25 and 18-36
REIL Rwy's 7 and 36

Knots	60	90	120	150	180
Min:Sec					

FINDLAY, OHIO
FINDLAY

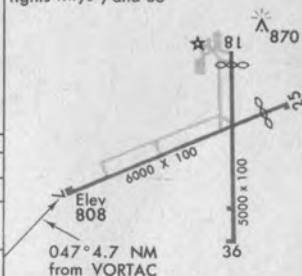
CLEVELAND CENTER
133.8 269.3

MIN SAFE ALT 25 NM 2900

ELEV 812

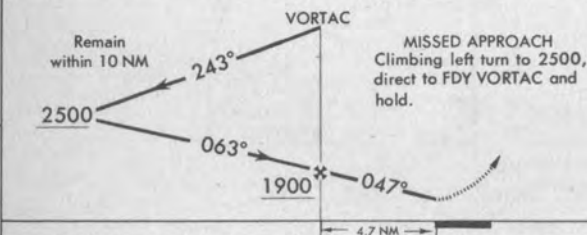
Rwy 18 ldg 4640'

Rwy 25 ldg 5205'

Non-standard approach
lights Rws 7 and 36MIRL Rws 7-25 and 18-36
REIL Rws 7 and 36

FAF to MAP 4.7 NM

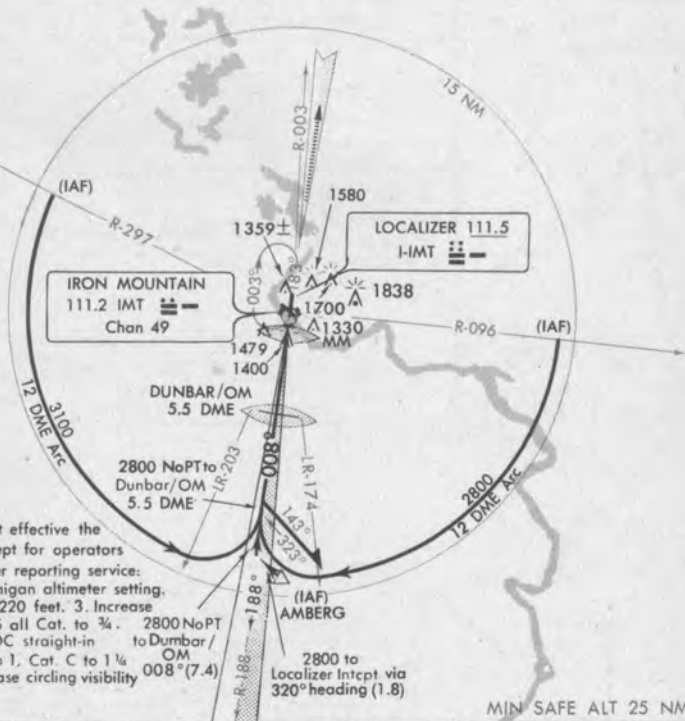
Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34



CATEGORY	A	B	C	D
S-7		1200-1 392 (400-1)		
CIRCLING	1380-1 568 (600-1)	1380-1½ 568 (600-1½)	1380-2 568 (600-2)	

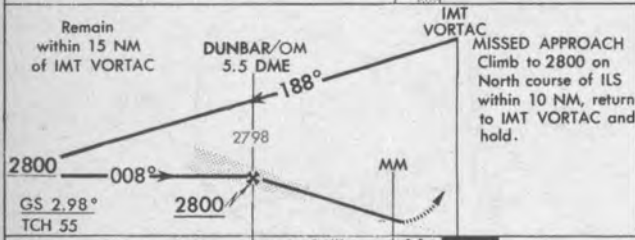


MARQUETTE RADIO
122.1R 123.6R

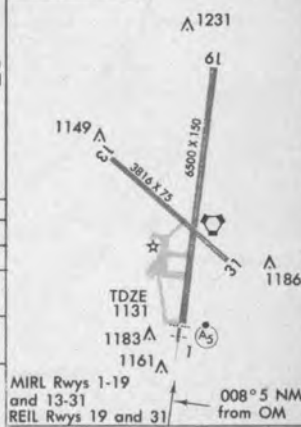


When control zone not effective the following applies, except for operators with approved weather reporting service:
1. Use Marquette, Michigan altimeter setting.
2. Increase all MDA's 220 feet.
3. Increase visibility straight-in ILS all Cat. to ¾. 2800 NoPT to Dunbar/OM 008° (7.4)
4. Increase visibility IOC straight-in to Cat. A to ¾, Cat. B to 1, Cat. C to 1 ¼, Cat. D to 1 ¾.
5. Increase circling visibility Cat. B to 1 ¼ miles.

MIN SAFE ALT 25 NM 3000



ELEV 1174



CATEGORY	A	B	C	D
S-ILS 1	1331 ½ 200 (200-½)			
S-LOC 1	1720-½ 589 (600-½)		1720-1 ¼ 589 (600-1 ¼)	
CIRCLING ‡	1720-1 546 (600-1)		1780-1 ½ 606 (700-1 ½)	1780-2 606 (700-2)

‡Circling East of Rwy 1-19 and NE of Rwy 13-31 not authorized.



MIRL Rwy 1-19 and 13-31
REIL Rwy 19 and 31
008° 5 NM from OM

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