

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.23**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT ID</u> CFS	<u>PROCEDURE NAME</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 7A	<u>CITY</u> CARO	<u>STATE</u> MI		
<u>AIRPORT ELEVATION</u> 704	<u>TDZE</u>	<u>SUPERSEDED</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 7	<u>DATED</u> 05/24/2018	<u>MAG VAR</u> 3W	<u>EPOCH YEAR</u> 1965
<u>FACILITY</u> MBS	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
MBS VOR/DME	IAF	OBEGE/MBS 15.00 DME					102.00	15.00	3000
OBEGE/MBS 15.00 DME	IF	DACUG/MBS 23.00 DME					102.00 (MBS R-102)	8.00	2300

MISSED APPROACH

MAP:

MADBE/MBS 27.63 DME

MISSED APPROACH INSTRUCTIONS:

CLIMBING RIGHT TURN TO 3000 ON HEADING 220 AND ON MBS VOR/DME R-108 TO REESE INT/15.22 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. **PT** **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF** (IAF)
2. PROFILE STARTS AT MBS VOR/DME
3. **FAC:** 102.00 **FAF:** DACUG/MBS 23.00 DME **DIST FAF TO MAP:** **DIST FAF TO THLD:**
4. **MIN ALT:** MBS VOR/DME 3000, OBEGE/MBS 15.00 DME 3000, DACUG/MBS 23.00 DME 2300
8. **MSA FROM:** MBS VOR/DME 3100

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

CHART NOTE: CIRCLING NA TO RWYS 13 AND 31.
CHART NOTE: PROCEDURE NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

FAC CROSSES MID POINT OF RWY 6-24.
HOLD E, RT, 288.08 INBOUND.
CHART 1237 WINDMILL (26-130532) 432724N/0833101W.
CHART CIRCLING ICON.



MINIMUMS:
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ CAT A, B 900-2, CAT C 900-2 3/4, NA WHEN LOCAL WEATHER NOT AVAILABLE.

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
CIRCLING	1540	1 1/4	836	1540	1 1/4	836	1600	2 3/4	896		NA				

CHANGES - REASONS

1. ADDITIONAL FLIGHT DATA: AMENDED FAS OBST FROM "990 AAO 432650N/0833157W" TO "1237 WINDMILL (26-130532) 432724N/0833101W" - PER CRITERIA 8260.19J 8-6-11 (C).
2. PBN REQUIREMENT NOTE: REMOVED "HTTP://IFPA.FAA.GOV/SIAP/IMAGES/AVN_LOGO.GIF" - NO LONGER REQUIRED.
3. NOTES: REMOVED "CHART NOTE: DME REQUIRED" - MOVED TO PBN REQUIREMENT NOTE PER CRITERIA.
4. ADDITIONAL FLIGHT DATA: REMOVED "CHART PLANVIEW NOTE: DME REQUIRED" - NO LONGER REQUIRED.
5. MINIMUMS: UPDATED CIRCLING MINIMUMS FROM "CAT A/B MDA 1240/VIS 1 MI" TO "CAT A/B MDA 1540/VIS 1 1/4 MI" - NEW OBSTACLE SURVEY.
6. MINIMUMS: UPDATED CIRCLING MINIMUMS FROM "CAT C MDA 1240/VIS 1 1/2 MI" TO "CAT C MDA 1600/VIS 2 3/4" - NEW OBSTACLE SURVEY.
7. MINIMUMS: ALTERNATE MINS CHANGED FROM "STANDARD" TO " CAT A, B 900-2, CAT C 900-2 3/4, NA WHEN LOCAL WEATHER NOT AVAILABLE" - CIRCLING MDA ALL CATS RAISED DUE TO NEW CONTROLLING OBSTACLE.
8. MINIMUMS: UPDATED CIRCLING MINIMUMS FROM "CATS A-C HAT 536" TO "CAT A/B HAT 836 CAT C HAT 896" - NEW OBSTACLE SURVEY.

03/06/2025: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 03/03/2025.
1. ADDITIONAL FLIGHT DATA: CHANGED MISSED HOLDING FROM "HOLD E, RT, 288.08 INBOUND (DO NOT CHART)" TO "HOLD E, RT, 288.08 INBOUND".

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZOB, MBS APP CON, AMGR

FLIGHT CHECKED BY

GREGORY SCOTT WIEBE

Digitally signed by

DAVID DANNER

Mar 07, 2025

OFFICE

FIOG

DATE

03/02/2025

DEVELOPED BY

TRAVIS BRISTOW

Digitally signed by

TRAVIS D BRISTOW

Mar 07, 2025

OFFICE

AJV-A421

DATE

11/01/2024

APPROVED BY

DAVID DANNER

Digitally signed by

DAVID DANNER

Mar 07, 2025

OFFICE

AJV-A421

DATE

TITLE

MANAGER



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD**

<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
CFS	VOR-A	7A	CARO	MI	704	MBS

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM MBS VOR/DME **TO** OBEGE/MBS 15.00 DME

<u>RNP</u>	<u>DISTANCE</u> 15.00	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>			<u>HMAS</u>		
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (26-000142)	432814.00N/0835035.00W	1634	250	50	4D	1000				AT366	3000
TERRAIN	433157.00N/0840436.00W	676 (700)								AS1500	2200

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE

FROM OBEGE/MBS 15.00 DME **TO** DACUG/MBS 23.00 DME

<u>RNP</u>	<u>DISTANCE</u> 8.00	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>			<u>HMAS</u>		
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (26-002919)	433233.12N/0833936.95W	1649	50	20	2C	500				AT229 SA-78	2300
TERRAIN	432609.00N/0833354.00W	722 (700)								AS1500	2200

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

QUALITY
37
CHECKED

FINAL

FROM

DACUG/MBS 23.00 DME

TO

MADBE/MBS 27.63 DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
	4.63		MADBE/MBS 27.63 DME								
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
WINDMILL (26-130532)	432723.71N/0833100.64W	1237	250	50	4D	250				AC50	1540

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH

FROM

MADBE/MBS 27.63 DME

TO

REESE INT/15.22 DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
								990			
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				3000
WINDMILL (26-130532)	432723.71N/0833100.64W	1237	250	50	4D	1000					2300
TERRAIN	432921.00N/0832506.00W	817 (800)								AS1500	2300

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



AIRPORT ID

CFS

PROCEDURE NAME

VOR-A

AMDT NO.

7A

CITY

CARO

STATE

MI

AIRPORT ELEVATION

704

FACILITY

MBS

CIRCLING

☐ ALL CATS

☒ CAT A

☒ CAT B

☒ CAT C

☐ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
TREE (26-093487)	432814.07N/0832726.28W	1.30	836	891	50	20	2C	300		SI	1540
CATEGORY B											
TREE (26-039652)	432911.64N/0832612.22W	1.83	836	899	50	20	2C	300		SI	1540
CATEGORY C											
WINDMILL (26-130532)	432723.71N/0833100.64W	2.88	896	1237	250	50	4D	300		AC50	1600

CIRCLING REMARKS:

MSA

CENTER

MBS VOR/DME

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TWR (26-000558)	431301.00N/0834317.00W	143	24.5	2013	250	50	4D	1000			3100

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZOB ARTCC, MBS APP CON, LAN FSS

<u>WX SERVICE</u> AWOS-3	<u>LOCATION</u> CFS	<u>HRS OPERATION</u> 24/yes	<u>ALTIMETER SOURCE</u> CFS	<u>DISTANCE</u> 0	<u>WMSCR</u> Y	<u>ADJUSTMENTS</u> 0
<u>BACK-UP WX SERVICE</u> ASOS	<u>LOCATION</u> MBS	<u>HRS OPERATION</u> 24/yes	<u>ALTIMETER SOURCE</u> MBS	<u>DISTANCE</u> 28.05	<u>WMSCR</u> Y	<u>ADJUSTMENTS</u> 70

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME
KCFS 704, KMBS 668
RA = 69.57.

<u>PRIMARY NAVAID</u> MBS VOR/DME	<u>MONITOR POINT</u> MOCC	<u>HRS OPERATION</u> 24	<u>CAT</u> 1
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<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW13		
RW31		
RW06 - MIRL (PCL), PAPI-4L (PCL)	NPI-G	
RW24 - MIRL (PCL), PAPI-4L (PCL)	NPI-G	

<u>GLIDESLOPE ANGLE</u>	<u>ELEV RWY THRESHOLD</u>	<u>TCH</u>	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u>	<u>TCH</u>
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	☐	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	☐	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

FINAL TYPE	CIRCLING RWY 06
20:1	
765 TREE (26-048517) 432702.1300N/0832727.1200W (10.89)	741 TREE (26-048736) 432705.0500N/0832724.4000W (4.04)
FINAL TYPE	CIRCLING RWY 24
20:1	



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762 TREE (26-047538) 432750.2000N/0832618.8900W (16.94)			760 TREE (26-047537) 432750.0300N/0832618.3200W (13.87)			
765 TREE (26-039494) 432747.6000N/0832610.5700W (4.66)			779 TREE (26-047487) 432750.3700N/0832607.8500W (2)			
724 TREE (26-047614) 432747.5200N/0832623.3300W (0.2)						
<u>PENETRATIONS REMARKS:</u>						

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

<u>PENETRATIONS REMARKS:</u>

PART C: GENERAL REMARKS:

VDP NOT ESTABLISHED - FINAL IS CIRCLING ONLY.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

CIRCLING CAT A-C ONLY PER CENTRAL FPT REQUEST.

100FT VEGETATION USED.

MSA EXTENDED TO 29 NM AS PER 8260.3B PARA 221 AND 8260.19G PARA 8-6-3, H. (4).

CONTINGENCY NOTE:
WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MBS ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET, AND VISIBILITY CAT C 1/4 SM.
ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



<u>AIRPORT ID</u> CFS	<u>PROCEDURE NAME</u> VOR-A	<u>AMDT NO.</u> 7A	<u>CITY</u> CARO	<u>STATE</u> MI	<u>AIRPORT ELEVATION</u> 704	<u>FACILITY</u> MBS
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PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	MAP	TO 1000FT POINT	2.96
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	4.47
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	99.00
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	800
DISTANCE FROM	MAP	TO 1500FT POINT	4.63
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	4.30
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	99.00
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	800

THRESHOLD COORDINATES (IF STR-IN)

ARP COORDINATES432731.90N/0832643.61W

RUNWAY APCH END AND DIST FURTHEST FROM ARP

RUNWAY 6 DISTANCE 0.46 NM

FAF COORDINATES432813.72N/0833326.51W

FIX NAME COORDINATESMAP MADBE 432728.38N/0832710.31W

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED.

PART E: PREPARED BY

<u>NAME</u>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
TRAVIS BRISTOW	AJV-A421	11/01/2024	AERONAUTICAL INFORMATION SPECIALIST

