

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> KCHU	<u>PROCEDURE NAME</u> VOR -A	<u>ORIGINAL/AMENDMENT</u> 4	<u>CITY</u> CALEDONIA	<u>STATE</u> MN		
<u>AIRPORT ELEVATION</u> 1179	<u>TDZE</u>	<u>SUPERSEDED</u> VOR/DME OR GPS-A	<u>ORIGINAL/AMENDMENT</u> 3B	<u>DATED</u> 07/15/2021	<u>MAG VAR</u> 1E	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> ODI	<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>
ODI VORTAC	IF	AUTOS/ODI 14.00 DME	NOPT				184.02	14.00	2900

MISSED APPROACH

MAP:

MAFYE/ODI 18.83 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2900 THEN LEFT TURN ON ODI VORTAC R-184 TO AUTOS/ODI 14.00 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. HOLD N AUTOS, RT, 184.02 INBOUND, 2900 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 184.02 FAF: AUTOS/ODI 14.00 DME DIST FAF TO MAP: 4.84 DIST FAF TO THLD:
4. MIN ALT: AUTOS/ODI 14.00 DME 2900
8. MSA FROM: ODI VORTAC 360-180 3500, 180-360 2900

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

CHART NOTE: USE LA CROSSE RGNL ALTIMETER SETTING.
CHART NOTE: PROCEDURE NA AT NIGHT.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ODI VORTAC ON V129 NORTHWEST BOUND.



ADDITIONAL FLIGHT DATA:

CHART LA CROSSE RGNL ASOS.
FAC CROSSES MIDPOINT OF RWY 13 AND 31.
FAS OBST: 1420 AAO 433944N/0912944W.

MINIMUMS:

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

ALTERNATE: NA ☒

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	1820	1	641	1820	1	641		NA			NA				

- CHANGES - REASONS
1. CHANGED PROCEDURE NAME FROM VOR/DME OR GPS-A TO VOR-A - 8260.3E NAMING CRITERIA.
2. ADDED EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED - IAW 8260.19I
3. ADDED CHART NOTE: PROCEDURE NA AT NIGHT - 20:1 PENETRATIONS.
4. ADDED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ODI VORTAC ON V129 NORTHWEST BOUND - TURN FROM V129 IS GREATER THAN 120 DEGREES.
5. ADDED CHART LA CROSSE RGNL ASOS TO ADDITIONAL FLIGHT DATA - IAW 8260.19I 8-2-4 (B)(3).
6. ADDED FAC CROSSES MIDPOINT OF RWY 13 AND 31 - IAW 8260.19I 8-6-10(G)(3).
7. REMOVED CIRCLING CAT C - INCORPORATED FDC NOTAM 2/4993.
8. FINAL APPROACH COURSE CHANGED FROM 184.00 TO 184.02 AND COURSE FROM ODI TO AUTOS FROM 184.00 TO 184.02 - NEW TARGETS EVALUATION.
9. DISTANCE FROM FAF TO MAP CHANGED FROM 4.80 TO 4.84 - MAP MOVED.
10. FAF ALTITUDE CHANGED FROM 2800 TO 2900 - ADDITIONAL AIRSPACE REQUIRED.
11. MISSED APPROACH CHANGED FROM “CLIMB TO 2800 THEN LEFT TURN VIA ODI VORTAC R-184 TO AUTOS/14.00 DME AND HOLD” TO “CLIMB TO 2900 THEN LEFT TURN ON ODI VORTAC R-184 TO AUTOS/ODI 14.00 DME AND HOLD - IAW 8260.19I/ADDITIONAL AIRSPACE REQUIRED FOR HOLDING AT AUTOS.
12. REMOVED FEEDER FROM FALAR - NO LONGER NEEDED FOR GROUND BASED ONLY APPROACH, NO LONGER TIES INTO ENROUTE STRUCTURE.
13. FEEDER FROM ODI CHANGED TO A STAND ALONE INTERMEDIATE SEGMENT WITH NO PT - 8260.3E.

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZMP, AMGR

FLIGHT CHECKED BY SUSANNA ROBERTS	<i>Digitally signed by</i> CASIMIR L TABAKA Apr 11, 2023	OFFICE FPO	DATE 04/07/2023	
DEVELOPED BY LORRI DOWNEY	<i>Digitally signed by</i> LORRI F DOWNEY Feb 28, 2023	OFFICE AJV-A432	DATE 01/05/2023	
APPROVED BY CASIMIR TABAKA	<i>Digitally signed by</i> CASIMIR L TABAKA Mar 02, 2023	OFFICE AJV-A432	DATE	TITLE MANAGER



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

<u>AIRPORT ID</u> KCHU	<u>PROCEDURE NAME</u> VOR -A	<u>AMDT NO.</u> 4	<u>CITY</u> CALEDONIA	<u>STATE</u> MN	<u>AIRPORT ELEVATION</u> 1179	<u>FACILITY</u> ODI
---------------------------	---------------------------------	----------------------	--------------------------	--------------------	----------------------------------	------------------------

PART A: OBSTRUCTION DATA SEGMENTS

INTERMEDIATE

FROM
ODI VORTAC

TO
AUTOS/ODI 14.00 DME

<u>RNP</u>	<u>DISTANCE</u> 14.00	<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 (27-001070)	435441.00N/0913332.00W		1649	500	125	5E	500				AC125	2300
TERRAIN	435439.00N/0913330.00W		1374 (1400)								AS1500	2900

COMPUTATIONS

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

SEGMENT REMARKS:

FINAL

FROM
AUTOS/ODI 14.00 DME

TO
MAFYE/ODI 18.83 DME

<u>RNP</u>	<u>DISTANCE</u> 4.84	<u>PAT</u>	<u>MAP</u> MAFYE/ODI 18.83 DME	<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>
AAO	433944.16N/0912943.92W		1420	50	20	2C	250				RA121	1800

COMPUTATIONS

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

SEGMENT REMARKS:



HOLD-IN-LIEU OF PT

FROM
AUTOS

TO
P-4

RNP	DISTANCE	PAT P-4	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
TOWER (27-001321)	434124.00N/0913010.00W		1614	250	125	4E	1000					2700
TERRAIN	434851.00N/0913324.00W		1354 (1400)								AS1500	2900

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH

FROM
MAFYE/ODI 18.83 DME

TO
AUTOS/ODI 14.00 DME

RNP	DISTANCE	PAT	MAP	HAT			HMAS 1449					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				2900
TOWER (27-020468)	434007.47N/0912415.05W		1526	250	50	4D	1000					2600
TERRAIN	433433.00N/0913415.00W		1335 (1300)								AS1500	2800

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



AIRPORT ID

KCHU

PROCEDURE NAME

VOR -A

AMDT NO.

4

CITY

CALEDONIA

STATE

MN

AIRPORT ELEVATION

1179

FACILITY

ODI

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											
AAO	433630.69N/0913203.73W	1.31	641	1379	50	20	2C	300		RA121 XP20	1820
CATEGORY B											
AAO	433630.69N/0913203.73W	1.85	641	1379	50	20	2C	300		RA121 XP20	1820

CIRCLING REMARKS:
XP=RETAINING CURRENT CIRCLING MINIMUMS.

MSA

CENTER

ODI VORTAC

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-180	TOWER (55-000415)	440527.45N/0912017.50W	027	12.0	2411	20	50	1D	1000			3500
180-360	TOWER (27-002085)	435445.88N/0913530.11W	269	05.4	1723	500	125	5E	1000		AT100	2900

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH
ZMP ARTCC, PNM FSS

<u>WX SERVICE</u> ASOS	<u>LOCATION</u> KLSE	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KLSE	<u>DISTANCE</u> 20.17	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 121
<u>BACK-UP WX SERVICE</u> AWOS-3	<u>LOCATION</u> KONA	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KONA	<u>DISTANCE</u> 30.36	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 144

WX REMARKS:
RASS PRESSURE PATTERNS THE SAME
KCHU 1179, KLSE 651, KONA 656
RA = 120.4, RA = 143.1

<u>PRIMARY NAVAID</u> ODI VORTAC	<u>MONITOR POINT</u> MOCC	<u>HRS OPERATION</u> 24	<u>CAT</u> 1
<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>		<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW13 - MIRL (PCL)		NPI-F	
RW31 - MIRL (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>
-------------------------	---------------------------	------------	------------------------	--------------------------	-------------------	------------

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input type="checkbox"/>	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
---------------------	----------------------	------------	----------------

CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

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 AND DESCENT ANGLE NOT PUBLISHED, CIRCLING ONLY PROCEDURE AND REMOTE ALTIMETER IN USE.
NO SURVEYS TO EITHER RUNWAY. ASSUMED 20:1 PENETRATIONS, PROCEDURE NA AT NIGHT.
PROCEDURE IS CAT A/B ONLY DUE TO OBSTACLES IN THE OFZ.
100 FT VEGETATION HEIGHT PER FPT.
CONTINGENCY NOTE: WHEN LOCAL ALTIMETER NOT RECEIVED, USE WINONA ALTIMETER SETTING AND INCREASE ALL MDAS 40 FEET.
FPT REQUESTS RETENTION OF H-I-L AT AUTOS WITHOUT ANY FEEDER ROUTES INTO IT.
ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



<u>AIRPORT ID</u> KCHU	<u>PROCEDURE NAME</u> VOR -A	<u>AMDT NO.</u> 4	<u>CITY</u> CALEDONIA	<u>STATE</u> MN	<u>AIRPORT ELEVATION</u> 1179	<u>FACILITY</u> ODI
---------------------------	---------------------------------	----------------------	--------------------------	--------------------	----------------------------------	------------------------

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	3.17
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	3.47
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	185.02
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	1300
DISTANCE FROM	MAP	TO 1500FT POINT	4.84
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	3.30
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	185.02
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	1300

THRESHOLD
COORDINATES
(IF STR-IN)

ARP COORDINATES433546.89N/0913014.21W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP

RUNWAY 13 DISTANCE 0.29 NM

FAF
COORDINATES434047.67N/0912944.30W

FIX NAME
COORDINATES

REMARKS

QUALITY
35
CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

Page 6 of 7

PART E: PREPARED BY

<u>NAME</u> LORRI DOWNEY	<u>OFFICE</u> AJV-A432	<u>DATE</u> 01/05/2023	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST
-----------------------------	---------------------------	---------------------------	---

