

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.33**

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>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>	
SBM	RNAV (GPS) RWY 31	ORIG-E	SHEBOYGAN	WI	
<u>AIRPORT ELEVATION</u>	<u>TDZE</u>	<u>SUPERSEDED</u>	<u>DATED</u>	<u>MAG VAR</u>	<u>EPOCH YEAR</u>
755	746	RNAV (GPS) RWY 31	10/06/2022	2W	1990
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u>	<u>CANCEL/SUSPEND</u>	
RNAV			ROUTINE		

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>
WOKNO	IAF	FONAB	NOPT	TF	FB	1.00	032.48	11.42	3000
FONAB	IF	DECEK		TF	FB	1.00	311.54	6.00	2400
DECEK	FAF	RW31	MAP	TF	FO	0.30	311.47	5.00	
RW31	MAP	1155 MSL		CA			311.47		
1155 MSL		WOKNO		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LNAV: RW31

MISSED APPROACH INSTRUCTIONS:

CLIMBING LEFT TURN TO 3000 DIRECT WOKNO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- PROFILE STARTS AT FONAB
- FAC: 311.47 FAF: DECEK DIST FAF TO MAP: 5.00 DIST FAF TO THLD: 5.00
- MIN ALT: FONAB 3000, DECEK 2400
- DIST TO THLD FROM OM: MM: IM: 150 HAT: GS ANT: MM: IM:
- MIN GP INCPT: GP ALT AT FAF:
- GP ANGLE: 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH:
- MSA FROM: RW31 2700

QUALITY
34
CHECKED

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: RWY 31 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

HOLD SW, RT, 032.48 INBOUND.
CHART FAS OBST: 1092 POLE (55-026978) 434347N/0874524W.
CHART R-6903.
CHART VDP AT 1.50 NM TO RW31.
DECEK TO RW31: 3.05/40.
CHART CIRCLING ICON.

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - 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
LNAV MDA	1260	1	514	1260	1	514	1260	1 3/8	514	1260	1 3/8	514			
CIRCLING	1260	1	505	1260	1	505	1340	1 1/2	585	1360	2	605			

CHANGES - REASONS

- INCORPORATED CHANGES FROM P-NOTAM FOR AMDT ORIG-A, ORIG-B, ORIG-C, AND ORIG-D INTO FORM – IAW 8260.19J PARA 8-3-4.C.3.
- TERMINAL ROUTES: ADDED FAF TO MAP SEGMENT DOCUMENTATION – IAW 8260.19J PARA 8-7-1.B.
- TERMINAL ROUTES: UPDATED CA ALTITUDE FROM “1154” TO “1155” IN BOTH CA AND DF LEG SEGMENTS – BASED ON CURRENT AIRPORT ELEVATION.
- PROFILE LINE 7: ADDED “20:1: IS CLEAR” – IAW 8260.19J PARA 8-6-7.G.3.
- ADDITIONAL FLIGHT DATA: DELETED “FAS OBST: 914 TOWERS 434432N/0874858W” AND “CHART: 1010 TOWER 434148N/0874626W”; ADDED “CHART FAS OBST: 1092 POLE (55-026978) 434347N/0874524W” – UPDATED TO REFLECT CURRENT FAS OBSTACLE.
- ADDITIONAL FLIGHT DATA: UPDATED VDP NOTE FROM “CHART VDP AT 1.38 NM TO RW31” TO “CHART VDP AT 1.50 NM TO RW31” – IAW 8260.3F PARA 2-6-5.B.
- ADDITIONAL FLIGHT DATA: DELETED “ROUTE TYPE DESCRIPTION: A, P” AND “APPROACH ROUTE QUALIFIER 2: S” – NOT REQUIRED.
- MINIMUMS: INCREASED CIRCLING CAT C MDA/HAA FROM “1260/505” TO “1340/585” – NEW CONTROLLING OBSTACLE.



COORDINATED WITH:

A4A

ALPA

X

AOPA

X

APA

HAI

NBAA

X

OTHER: ZAU, MKE APP CON, AMGR

FLIGHT CHECKED BY

SCOTT WIEBE

Digitally signed by

ROBERT G HAMILTON

Mar 27, 2025

OFFICE

AJF

DATE

03/25/2025

DEVELOPED BY

ROBERT G HAMILTON (JILL M. SUPPES)

Digitally signed by

ROBERT G HAMILTON

Mar 27, 2025

OFFICE

AJV-A433

DATE

01/08/2025

APPROVED BY

ROBERT G HAMILTON

Digitally signed by

ROBERT G HAMILTON

Mar 27, 2025

OFFICE

AJV-A433

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>
SBM	RNAV (GPS) RWY 31	ORIG-E	SHEBOYGAN	WI	755	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM WOKNO **TO** FONAB

RNP 1.00 **DISTANCE** 11.42 **PAT** **MAP** **HAT** **HMAS**

<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	432927.00N/0875036.00W	968	164	98	4E	1000				AT1032	3000
TERRAIN	433218.00N/0875000.00W	762 (800)								AS1500	2300

COMPUTATIONS

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

SEGMENT REMARKS:

INTERMEDIATE

FROM FONAB **TO** DECEK

RNP 1.00 **DISTANCE** 6.00 **PAT** **MAP** **HAT** **HMAS**

<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>
STACK (55-000267)	434258.00N/0874221.00W	1145	500	50	5D	500				AT755	2400
TERRAIN	434130.00N/0874524.00W	739 (700)								AS1500	2200

COMPUTATIONS

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

SEGMENT REMARKS:

QUALITY
34
CHECKED

FINAL: LNAV

FROM

DECEK

TO

RW31

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
0.30	5.00		RW31		514						
<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>
POLE (55-026978)	434347.16N/0874523.62W	1092	50	20	2C	250				SA-87	1260

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH: LNAV

FROM

RW31

TO

WOKNO

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
0.30-1.00							1160				
<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
TOWER (55-099542)	434124.73N/0875633.70W	1126	20	3	1A	1000					2200
TERRAIN	433642.00N/0875618.00W	1001 (1000)								AS1500	2500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



AIRPORT ID

SBM

PROCEDURE NAME

RNAV (GPS) RWY 31

AMDT NO.

ORIG-E

CITY

SHEBOYGAN

STATE

WI

AIRPORT ELEVATION

755

FACILITY

RNAV

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											
TRANSMISSION_LINE (55-002060)	434449.18N/0875231.58W	1.30	505	900	20	3	1A	300		SI	1260
CATEGORY B											
TREE	434530.00N/0875354.00W	1.83	505	927	215	8	4B	300		SI	1260
CATEGORY C											
TOWER (55-120258)	434453.88N/0875510.70W	2.88	585	973	250	50	4D	300		AC50	1340
CATEGORY D											
AAO	434824.00N/0875542.00W	3.76	605	1050	215	8	4B	300			1360

CIRCLING REMARKS:

MSA

CENTER

RW31

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	WINDMILL (55-020143)	434302.59N/0881949.67W	265	21.3	1659	500	50	5D	1000			2700

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

MKE APP CON, MKE TOWER

<u>WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>WMSCR</u>	<u>ADJUSTMENTS</u>
ASOS	SBM	24	SBM	0	Y	0
<u>BACK-UP WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>WMSCR</u>	<u>ADJUSTMENTS</u>
AWOS-3PT	MTW	24	MTW	22.79	Y	67

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME
SBM 755, MTW 651
RA = 67.0.

<u>PRIMARY NAVAID</u>	<u>MONITOR POINT</u>	<u>HRS OPERATION</u>	<u>CAT</u>
<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>	
RW13 - MIRL (PCL), PAPI-4L	NPI-F		
RW31 - MIRL (PCL), PAPI-4L	NPI-F		
RW04 - REIL (PCL), HIRL (PCL), PAPI-4L (PCL)	PIR-F		
RW22 - MALSR (PCL), HIRL (PCL), PAPI-4L (PCL)	PIR-F		

<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>
					3.00	40.1

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	LNAV
34:1	
790 TREE (55-071357) 434542.5800N/0875019.3700W (3.64)	

PENETRATIONS REMARKS:

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HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

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

PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

VEGETATION HEIGHT: 100 FT.
TAA NOT UTILIZED PER ZAU ARTCC AND FPO CHECKLIST.
LNAV/VNAV NOT DEVELOPED DUE TO INSUFFICIENT RUNWAY SURVEY DATA.

FOR CONTINGENCY PURPOSES:
1. WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MTW ALTIMETER SETTING AND INCREASE ALL MDAS 80 FEET AND LNAV VISIBILITY CATS C AND D 3/8 SM AND CIRCLING VISIBILITY CATS C AND D 1/4 SM.
2. VDP NA WHEN USING MTW ALTIMETER SETTING.
ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

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	THLD	TO 1000FT POINT	3.00
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.66
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	309.47
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	800
DISTANCE FROM	THLD	TO 1500FT POINT	4.80
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	2.00
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	309.47
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	800

THRESHOLD COORDINATES (IF STR-IN) 434550.47N/0875041.94W
ARP COORDINATES 434611.20N/0875106.20W
RUNWAY APCH END AND DIST FURTHEST FROM ARP RUNWAY 22 DISTANCE 0.62 NM
FAF COORDINATES 434239.86N/0874522.36W
FIX NAME COORDINATES

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED.

PART E: PREPARED BY

NAME

ROBERT G HAMILTON (JILL M. SUPPES)

OFFICE

AJV-A433

DATE

01/08/2025

TITLE

AERONAUTICAL INFORMATION SPECIALIST

