

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</u> MBS INTL	<u>AIRPORT ID</u> KMBS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 14	<u>ORIGINAL/AMENDMENT</u> 2A	<u>CITY</u> SAGINAW	<u>STATE</u> MI
<u>AIRPORT ELEVATION</u> 668	<u>TDZE</u> 668	<u>SUPERSEDED</u> RNAV (GPS) RWY 14	<u>ORIGINAL/AMENDMENT</u> 2	<u>DATED</u> 02/01/2018	<u>MAG VAR</u> 7W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 24 MAY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 053/30 CW 233/30	NOPT	053/13 CW 233/13		2800
1. 053/13 CW 233/13		OGREE	IF/IAF	2300
2. 233/30 CW 053/30	PT	233/13 CW 053/13		2900
2. 233/13 CW 053/13	PT	OGREE	IF/IAF	2300

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>
OGREE	IF/IAF	NURGE		TF	FB	1.00	142.50	6.00	2300
NURGE	FAF	PIBYI/1.40 NM TO RW14		TF	FB	0.30	142.56	3.58	
PIBYI/1.40 NM TO RW14		RW14	MAP	TF	FO	0.30	142.56	1.40	
RW14	MAP	868 MSL		CA			142.56		
868 MSL		OTANE		DF	FO	1.00			2700

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW14

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2700 DIRECT OTANE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD NW OGREE, RT, 142.50 INBOUND, 2300 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 142.56FAF: NURGEDIST FAF TO MAP: 4.98DIST FAF TO THLD: 4.98

4. MIN ALT: OGREE 2300, NURGE 2300, PIBYI/1.40 NM TO RW14 1160*

5. DIST TO THLD FROM OM:MM:IM:150 HAT:200 HAT: 0.49

6. MIN GP INCPT: 2300GP ALT AT FAF : NURGE 2300OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 45.0

8. MSA FROM:

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18C OR ABOVE 54C.
*LNAV ONLY

ADDITIONAL FLIGHT DATA:

CHART 926 TOWER 433457N/0841002W
CHART CIRCLING ICON.
WAAS CHANNEL #69211
REFERENCE PATH ID: W14A
FAS OBST: 779 TREE 433222N/0840616W.
HOLD SE, RT, 322.75 INBOUND
LTP HAE: 169.3 M

MINIMUMS:

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

ALTERNATE: NA

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 STANDARD

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
LPV DA	868	3/4	200	868	3/4	200	868	3/4	200	868	3/4	200			
LNAV/VNAV DA	960	7/8	292	960	7/8	292	960	7/8	292	960	7/8	292			
LNAV MDA	1040	1	372	1040	1	372	1040	1	372	1040	1	372			
CIRCLING	1080	1	412	1120	1	452	1240	1 1/2	572	1240	2	572			



CHANGES - REASONS

- 1. ADDED "MAX 6000" TO PROFILE LINE 2 AND DISTANCE TO THLD FROM 200 HAT: 0.49 NM MOVED FROM ADDITIONAL FLIGHT DATA TO PROFILE LINE 5 - IAW CURRENT DOCUMENTATION REQUIREMENTS.
- 2. CHANGED NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18C (0F) OR ABOVE 54C (130F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18C OR ABOVE 54C" - DEGREES FAHRENHEIT DELETED IAW CURRENT CRITERIA.
- 3. DELETED NOTE "DME/DME RNP-0.3 NA" AND ADDED PBN EQUIPMENT REQUIREMENTS NOTE "RNP APCH" - IAW 8260-19H 8-6-8.
- 4. FAS DATA BLOCK INFORMATION: CHANGED VERTICAL ALERT LIMIT (VAL) FROM "50.0" TO "35.0" - PREVIOUS AMENDMENT LOWERED HAT TO 200 REQUIRING A VAL OF 35.0.
- 5. FAS DATA BLOCK INFORMATION: CRC REMAINDER CHANGED FROM "78EF34B0" TO "8710199D" - VAL CHANGE FROM 50.0 TO 35.0 CHANGED THE CRC REMAINDER.

PDF EDIT:
AIRSPACE LETTER: CHANGED FROM "MAP" TO "ARP" TO READ: RUNWAY APCH END AND DIS FURTHEST FROM ARP".



COORDINATED WITH:

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

FLIGHT CHECKED BY

DONALD MCGOUGH

Digitally signed by

DEZ SILAGYI

Apr 13, 2018

OFFICE

FICO

DATE

4/12/18

DEVELOPED BY

JOHN THORNTON

Digitally signed by

JOHN R THORNTON

Mar 15, 2018

OFFICE

AJV-5423

DATE

03/15/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

DEZ SILAGYI

Apr 13, 2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMBS
RUNWAY	RW14
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W14A
LTP/FTP LATITUDE	433214.0490N
LTP/FTP LONGITUDE	0840522.3490W
LTP/FTP ELLIPSOIDAL HEIGHT	+01693
FPAP LATITUDE	433110.3500N
FPAP LONGITUDE	0840356.7000W
THRESHOLD CROSSING HEIGHT (TCH)	00045.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0800
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	8710199D

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02035
FPAP ORTHOMETRIC HEIGHT	+02035

