

**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> MUSKEGON COUNTY	<u>AIRPORT ID</u> KMKG	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 24	<u>ORIGINAL/AMENDMENT</u> 2A	<u>CITY</u> MUSKEGON	<u>STATE</u> MI	
<u>AIRPORT ELEVATION</u> 629	<u>TDZE</u> 627	<u>SUPERSEDED</u> RNAV (GPS) RWY 24	<u>ORIGINAL/AMENDMENT</u> 2	<u>DATED</u> 05/24/2018	<u>MAG VAR</u> 4W	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 5 NOVEMBER 2020	<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>
BULLY		GUTPE		TF	FO	1.00	062.60	26.63	3000
GUTPE	IF/IAF	ONTUE		TF	FB	1.00	240.55	5.99	2700
ONTUE	FAF	RW24	MAP	TF	FO	0.30	240.47	6.34	
RW24	MAP	827 MSL		CA			240.47		
827 MSL		HITPO		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW24

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT HITPO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)

2. HOLD NE GUTPE, RT, 240.55 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 10000.

3. FAC: 240.47 FAF: ONTUE DIST FAF TO MAP: 6.34 DIST FAF TO THLD: 6.34

4. MIN ALT: GUTPE 3000, ONTUE 2700

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 200 HAT: 0.45 GS ANT:

6. MIN GP INCPT: 2700 GP ALT AT FAF : ONTUE 2700 OM: MM: IM:

7. GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 55.9

8. MSA FROM: RW24 2900

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18°C OR ABOVE 54°C.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LPV VISIBILITY ALL CATS TO 3/4 SM, LNAV/VNAV VISIBILITY ALL CATS TO 1 3/8 SM, LNAV CATS A/B TO 1 SM AND LNAV CATS C/D TO 1 3/8 SM.

ADDITIONAL FLIGHT DATA:

CHART: ASR
CHART CIRCLING ICON.
CHART VDP AT 1.24 NM TO RW24*
*LNAV ONLY
WAAS CHANNEL #42918
REFERENCE PATH ID: W24A
CHART FAS OBST: 750 POLE 431022N/0861227W.
874 AAO 431357N/0860647W.
HOLD SW, RT, 060.24 INBOUND
LTP HAE: 157.2 M

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
LPV DA	827	1/2	200	827	1/2	200	827	1/2	200	827	1/2	200			
LNAV/VNAV DA	1092	1	465	1092	1	465	1092	1	465	1092	1	465			
LNAV MDA	1080	1/2	453	1080	1/2	453	1080	7/8	453	1080	7/8	453			
CIRCLING	1080	1	451	1180	1	551	1200	1 1/2	571	1200	2	571			



CHANGES - REASONS

- 1. CHANGED CHART NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18 C (0 F) OR ABOVE 54 C (130 F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18 C OR ABOVE 54 C" - 8260.19H 8-6-9.S.
- 2. REMOVED CHART NOTE: DME/DME RNP-0.3 NA AND ADDED RNP APCH TO PBN REQUIREMENTS NOTES - CURRENT NOTATION PER 8260.19H.
- 3. REMOVED CHART NOTE: BARO-VNAV AND VDP NA WHEN USING FREMONT ALTIMETER SETTING - MOVED TO PART C REMARKS FOR CONTINGENCY PURPOSES.
- 4. CHANGED CHART NOTE FROM "FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 1 3/8 SM" TO "FOR INOPERATIVE ALS, INCREASE LPV VISIBILITY ALL CATS TO 3/4 SM, LNAV/VNAV VISIBILITY ALL CATS TO 1 3/8 SM, LNAV CAT A/B TO 1 SM AND LNAV CAT C/D TO 1 3/8 SM" - 8260.3D TABLES 3-3-1, 3-3-3, AND 3-3-4.
- 5. ADDED "MAX 10000" TO LINE 2 - 8260.19H 8-6-7.B.
- 6. CHANGED ALTERNATE MINIMUMS FROM "STANDARD" TO "STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE" - PROCEDURE UTILIZES BACKUP ALTIMETER; IMPLEMENTATION OF FAA ORDER 8260.19H CHANGE 1, ATTACHMENT 4.

COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZAU, MKG APP CON, MKG ATCT, AMGR

FLIGHT CHECKED BY

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, OCTOBER 3, 2018, SUBJECT: FLIGHT INSPECTION REVIEW NOT REQUIRED

<u>OFFICE</u>	<i>Digitally signed by</i>	<u>DATE</u>
	JOHN BORDY	
	Mar 24, 2020	

DEVELOPED BY

ALLAN WILL (ANTHONY CAPPABIANCO)

Digitally signed by
JOHN BORDY
Mar 24, 2020

<u>OFFICE</u>	<u>DATE</u>
AJV-A423	08/27/2019

APPROVED BY

MARLON ROBINSON

Digitally signed by
JOHN BORDY
Mar 24, 2020

<u>OFFICE</u>	<u>DATE</u>
AJV-A420	

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMKG
RUNWAY	RW24
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W24A
LTP/FTP LATITUDE	431017.4120N
LTP/FTP LONGITUDE	0861350.1630W
LTP/FTP ELLIPSOIDAL HEIGHT	+01572
FPAP LATITUDE	430928.0690N
FPAP LONGITUDE	0861531.5450W
THRESHOLD CROSSING HEIGHT (TCH)	00055.9
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.50
LENGTH OFFSET	0768
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	A6F450B0

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+01910
FPAP ORTHOMETRIC HEIGHT	+01910

