

**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><br>MUSKEGON COUNTY | <u>AIRPORT ID</u><br>KMKG        | <u>PROCEDURE NAME</u><br>RNAV (GPS) RWY 14      | <u>ORIGINAL/AMENDMENT</u><br>1C           | <u>CITY</u><br>MUSKEGON    | <u>STATE</u><br>MI   |                           |
| <u>AIRPORT ELEVATION</u><br>629   | <u>TDZE</u><br>627               | <u>SUPERSEDED</u><br>RNAV (GPS) RWY 14          | <u>ORIGINAL/AMENDMENT</u><br>1B           | <u>DATED</u><br>05/24/2018 | <u>MAG VAR</u><br>4W | <u>EPOCH YEAR</u><br>1995 |
| <u>FACILITY</u><br>RNAV           | <u>COORDINATES OF FACILITIES</u> | <u>ACTUAL EFFECTIVE DATE</u><br>5 NOVEMBER 2020 | <u>REQUIRED EFFECTIVE DATE</u><br>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       |                 | NENUE     |                 | TF              | FO           | 1.00       | 020.64        | 16.08           | 2300            |
| MOTAN       | IAF             | NENUE     | NOPT            | TF              | FB           | 1.00       | 187.10        | 5.92            | 2300            |
| NENUE       | IF/IAF          | PIPKE     |                 | TF              | FB           | 1.00       | 141.27        | 6.42            | 2200            |
| PIPKE       | FAF             | RW14      | MAP             | TF              | FO           | 0.30       | 141.34        | 4.73            |                 |
| RW14        | MAP             | 877 MSL   |                 | CA              |              |            | 141.34        |                 |                 |
| 877 MSL     |                 | SINNI     |                 | DF              | FO           | 1.00       |               |                 | 2700            |

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW14

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 2700 DIRECT SINNI AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

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

2. HOLD NW NENUE, RT, 141.27 INBOUND, 2300 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC:    141.34      FAF: PIPKE                                      DIST FAF TO MAP: 4.73                      DIST FAF TO THLD: 4.73

4. MIN ALT:    NENUE 2300, PIPKE 2200

5. DIST TO THLD FROM OM:                      MM:                      IM:                      150 HAT:                      250 HAT: 0.64                      GS ANT:

6. MIN GP INCPT:    2200                      GP ALT AT FAF : PIPKE 2200                      OM:                      MM:                      IM:

7. GP ANGLE:    3.00                      34:1: IS CLEAR                      20:1: IS CLEAR                      TCH: 45.0

8. MSA FROM:    RW14 2900

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

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

ADDITIONAL FLIGHT DATA:

CHART: ASR.  
CHART CIRCLING ICON.  
CHART VDP AT 1.59 NM TO RW14\*  
\*LNAV ONLY  
WAAS CHANNEL #69410  
REFERENCE PATH ID: W14A  
CHART FAS OBST: 871 STACK 431255N/0861822W.  
HOLD SE, RT, 321.52 INBOUND  
LTP HAE: 157.5 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       | 877    | 3/4   | 250     | 877    | 3/4   | 250     | 877    | 3/4   | 250     | 877    | 3/4   | 250     |        |     |         |
| LNAV/VNAV DA | 1079   | 1 1/2 | 452     | 1079   | 1 1/2 | 452     | 1079   | 1 1/2 | 452     | 1079   | 1 1/2 | 452     |        |     |         |
| LNAV MDA     | 1180   | 1     | 553     | 1180   | 1     | 553     | 1180   | 1 5/8 | 553     | 1180   | 1 3/4 | 553     |        |     |         |
| CIRCLING     | 1180   | 1     | 551     | 1180   | 1     | 551     | 1200   | 1 5/8 | 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. LNAV VISIBILITY CAT C CHANGED FROM 1 1/2 SM TO 1 5/8 SM - 8260.3D TABLE 3-3-1.
4. CIRCLING VISIBILITY CAT C CHANGED FROM 1 1/2 SM TO 1 5/8 SM - STRAIGHT IN DRIVEN, 8260.3D TABLE 3-3-1.
5. ADDED "MAX 6000" 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

OFFICE

Digitally signed by

DATE

JOHN BORDY

Mar 24, 2020

DEVELOPED BY

ALLAN WILL (ANTHONY CAPPABIANCO)

Digitally signed by

JOHN BORDY

OFFICE

AJV-A423

DATE

08/23/2019

APPROVED BY

MARLON ROBINSON

Digitally signed by

JOHN BORDY

Mar 24, 2020

OFFICE

AJV-A420

DATE

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                                   | RW14          |
| APPROACH PERFORMANCE DESIGNATOR          | 0             |
| ROUTE INDICATOR                          |               |
| REFERENCE PATH DATA SELECTOR             | 0             |
| REFERENCE PATH IDENTIFIER (APPROACH ID)  | W14A          |
| LTP/FTP LATITUDE                         | 431030.0285N  |
| LTP/FTP LONGITUDE                        | 0861415.0930W |
| LTP/FTP ELLIPSOIDAL HEIGHT               | +01575        |
| FPAP LATITUDE                            | 430924.4300N  |
| FPAP LONGITUDE                           | 0861252.6800W |
| 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                            | 0888          |
| HORIZONTAL ALERT LIMIT (HAL)             | 40.0          |
| VERTICAL ALERT LIMIT (VAL)               | 50.0          |
| CRC REMAINDER                            | 5CBE71C4      |

ADDITIONAL PATH POINT RECORD INFORMATION

|                         |        |
|-------------------------|--------|
| ICAO CODE               | K5     |
| LTP ORTHOMETRIC HEIGHT  | +01912 |
| FPAP ORTHOMETRIC HEIGHT | +01912 |

