

**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><br>KMWC       | <u>PROCEDURE NAME</u><br>RNAV (GPS) RWY 4L | <u>ORIGINAL/AMENDMENT</u><br>ORIG-E           | <u>CITY</u><br>MILWAUKEE                  | <u>STATE</u><br>WI         |                      |                           |
| <u>AIRPORT ELEVATION</u><br>745 | <u>TDZE</u><br>738                         | <u>SUPERSEDED</u><br>RNAV (GPS) RWY 4L        | <u>ORIGINAL/AMENDMENT</u><br>ORIG-D       | <u>DATED</u><br>11/04/2021 | <u>MAG VAR</u><br>2W | <u>EPOCH YEAR</u><br>1990 |
| <u>FACILITY</u><br>RNAV         | <u>COORDINATES OF FACILITIES</u>           | <u>ACTUAL EFFECTIVE DATE</u><br>21 APRIL 2022 | <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> |
|-----------------------|-----------------|-----------------------|-----------------|-----------------|--------------|------------|---------------|-----------------|-----------------|
| BAE VOR/DME           |                 | IVALY                 |                 | TF              | FO           | 1.00       | 158.57        | 10.56           | 2600            |
| GREAS                 | IAF             | IVALY                 | NOPT            | TF              | FB           | 1.00       | 088.76        | 15.71           | 2600            |
| BONOT                 | IAF             | IVALY                 | NOPT            | TF              | FB           | 1.00       | 003.63        | 5.02            | 2600            |
| IVALY                 | IF/IAF          | OWYAL                 |                 | TF              | FB           | 1.00       | 038.07        | 6.50            | 2300            |
| OWYAL                 | FAF             | OTEPY/1.80 NM TO RW4L |                 | TF              | FB           | 0.30       | 038.13        | 2.97            |                 |
| OTEPY/1.80 NM TO RW4L |                 | RW4L                  | MAP             | TF              | FO           | 0.30       | 038.13        | 1.80            |                 |
| RW4L                  | MAP             | 1145 MSL              |                 | CA              |              |            | 038.13        |                 |                 |
| 1145 MSL              |                 | HAWKN                 |                 | DF              | FO           | 1.00       |               |                 | 3000            |

**MISSED APPROACH**

**MAP:**

LP: RW4L  
LNAV: RW4L

**MISSED APPROACH INSTRUCTIONS:**

CLIMBING LEFT TURN TO 3000 DIRECT HAWKN AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD SW IVALY, LT, 038.07 INBOUND, 2600 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAF: 038.13FAF: OWYALDIST FAF TO MAP: 4.77DIST FAF TO THLD: 4.77

4. MIN ALT: IVALY 2600, OWYAL 2300, OTEPY/1.80 NM TO RW4L 1340

5. DIST TO THLD FROM FAF: 4.77MM:IM:150 HAT:GS ANT:

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

7. GP ANGLE:34:1: IS NOT CLEAR20:1: IS CLEARTCH:

8. MSA FROM: RW4L 2900

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: CIRCLING NA TO RWYS 4R, 15R, 22L AND 33L.  
CHART NOTE: RWY 4L HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON BAE VOR/DME AIRWAY RADIALS 100 CW 226.  
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

ADDITIONAL FLIGHT DATA:

HOLD N, RT, 184.55 INBOUND.  
CHART FAS OBST: 983 TOWER (55-000697) 430458N/0880403W, 932 TANK (55-000866) 430509N/0880343W.  
CHART 1320 TOWER 430219N/0880421W.  
1080 AAO 430235N/0880548W.  
CHART VDP AT 1.08 NM TO RW4L.  
WAAS CHANNEL # 90520  
REFERENCE PATH ID: W04A  
OWYAL TO RW4L: 3.00/44.  
LTP HAE: 189.8 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 900-2 3/4, 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 |
| LP MDA     | 1240   | 1   | 502     | 1240   | 1   | 502     | 1240   | 1 3/8 | 502     | 1240   | 1 3/8 | 502     |        |     |         |
| LNAV MDA   | 1300   | 1   | 562     | 1300   | 1   | 562     | 1300   | 1 5/8 | 562     | 1300   | 1 5/8 | 562     |        |     |         |
| CIRCLING   | 1300   | 1   | 555     | 1340   | 1   | 595     | 1360   | 1 3/4 | 615     | 1560   | 2 3/4 | 815     |        |     |         |



**CHANGES - REASONS**

1. INCORPORATED CHANGES FROM P-NOTAMS FOR ORIG-B/ORIG-C/ORIG-D INTO FORM - IAW 8260.19I, 8-3-4.C(3).
2. CHANGED BAE VORTAC TO BAE VOR/DME IN TERMINAL ROUTES - PER AIRNAV.
3. CHANGED "RW04L" TO "RW4L" THROUGHOUT FORM - NEW FORMAT PER CURRENT GUIDANCE.
4. CHANGED OTEPY TO RWY4L AND RW4L TO 1145 MSL COURSES FROM "038.16" TO "038.13" IN TERMINAL ROUTES - IAW 8260.19I, 8-6-4B.
5. ADDED "MAX 6000" TO PROFILE LINE 2 - IAW 8260.19I, 8-6-7.B(2).
6. CHANGED "DIST TO THLD FROM OM" TO "DIST TO THLD FROM FAF: 4.77" TO PROFILE LINE 5 - IAW 8260.19I, 8-6-7.E.
7. ADDED "20:1: IS CLEAR" TO PROFILE LINE 7 - IAW 8260.19I 8-6-7.G(3)(A).
8. CHANGED "RNP APCH" TO "RNP APCH - GPS" IN PBN REQUIREMENTS NOTES - IAW 8260.19I, 8-6-8.B.
9. DELETED "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT GREAS ON V63 SOUTHWEST BOUND" FROM NOTES - NOT REQUIRED, BAE IAF ON AIRWAY PRIOR TO GREAS SOUTHWEST BOUND.
10. CHANGED "PROCEDURE NA FOR ARRIVALS ON BAE VORTAC AIRWAY RADIALS 085 CW 226" TO "PROCEDURE NA FOR ARRIVAL ON BAE VOR/DME AIRWAY RADIALS 100 CW 226" IN NOTES - IAW 8260.19I, 8-2-5.E(2).
11. CHANGED "CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT" TO "CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})" (VGSI ANGLE 4.00/TCH 44) IN NOTES - IAW 8260.19I, 8-6-9.M(2).
12. DELETED "CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE GENERAL MITCHELL INTL ALTIMETER SETTING AND INCREASE ALL MDAS 40 FEET; INCREASE LP CAT C AND D VISIBILITY 1/4 SM AND LNAV CAT C AND D VISIBILITY 1/8 SM" - MOVED TO 8260-9 REMARKS IAW 8260.19I, 8-6-9.F (3).
13. ADDED OBSTACLE ID TO FAS OBSTACLES 932 TANK (55-000866) 430509N/0880343W AND 983 TOWER (55-000697) 430458N/0880403W IN ADDITIONAL FLIGHT DATA - IAW 8260.19I, 8-6-10.C.
14. DELETED "1129 AAO 430306N/0880717W" AND ADDED "CHART 1320 TOWER 430219N/0880421W" IN ADDITIONAL FLIGHT DATA - NEW EVALUATION/NEW 7:1 EXCLUDED OBSTACLE.
15. CHANGED "1099 AAO 430244N/0880558W" TO "1080 AAO 430235N/0880548W" IN ADDITIONAL FLIGHT DATA - NEW MAP STUDY.
16. ADDED "CHART VDP AT 1.08 NM TO RW4L" IN ADDITIONAL FLIGHT DATA - 20:1 OBSTACLES PENETRATIONS REMOVED.
17. CRC REMAINDER CHANGED FROM "AF76C2C5" TO " 448DAB14" - FPAP LAT/LONG CHANGED FROM 430737.5100N/880105.4100W TO 430737.5015N/880105.4050W.

**COORDINATED WITH:**

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

**FLIGHT CHECKED BY**

SCOTT WIEBE

*Digitally signed by***JOHN BORDY****OFFICE**

FPO

**DATE**

09/30/2021

*Digitally signed by***JOHN BORDY**

Oct 04, 2021

**OFFICE**

AJV-A422

**DATE**

07/22/2021

**APPROVED BY**

MARLON ROBINSON

*Digitally signed by***JOHN BORDY**

Oct 04, 2021

**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                       | KMWC          |
| RUNWAY                                   | RW04L         |
| APPROACH PERFORMANCE DESIGNATOR          | 0             |
| ROUTE INDICATOR                          |               |
| REFERENCE PATH DATA SELECTOR             | 0             |
| REFERENCE PATH IDENTIFIER (APPROACH ID)  | W04A          |
| LTP/FTP LATITUDE                         | 430625.5665N  |
| LTP/FTP LONGITUDE                        | 0880217.2185W |
| LTP/FTP ELLIPSOIDAL HEIGHT               | +01898        |
| FPAP LATITUDE                            | 430737.5015N  |
| FPAP LONGITUDE                           | 0880105.4050W |
| THRESHOLD CROSSING HEIGHT (TCH)          | 00044.1       |
| TCH UNITS SELECTOR (METERS OR FEET USED) | F             |
| GLIDEPATH ANGLE (GPA)                    | 03.00         |
| COURSE WIDTH AT THRESHOLD                | 106.75        |
| LENGTH OFFSET                            | 1776          |
| HORIZONTAL ALERT LIMIT (HAL)             | 40.0          |
| VERTICAL ALERT LIMIT (VAL)               | 0.0           |
| <br>                                     |               |
| CRC REMAINDER                            | 448DAB14      |

ADDITIONAL PATH POINT RECORD INFORMATION

|                         |        |
|-------------------------|--------|
| ICAO CODE               | K5     |
| LTP ORTHOMETRIC HEIGHT  | +02247 |
| FPAP ORTHOMETRIC HEIGHT | +02247 |