

**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> KMML	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 30	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<u>CITY</u> MARSHALL	<u>STATE</u> MN		
<u>AIRPORT ELEVATION</u> 1183	<u>TDZE</u> 1179	<u>SUPERSEDED</u> RNAV (GPS) RWY 30	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>DATED</u> 05/28/2015	<u>MAG VAR</u> 5E	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 7 OCTOBER 2021	<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>
PILYI	IAF	BOPMY	NOPT	TF	FB	1.00	264.53	8.64	3000
ZERAD	IAF	BOPMY	NOPT	TF	FB	1.00	002.77	6.43	3000
BOPMY	IF/IAF	OHEXE		TF	FB	1.00	305.06	6.20	2800
OHEXE	FAF	WUSKA/2.20 NM TO RW30		TF	FB	0.30	304.98	2.77	
WUSKA/2.20 NM TO RW30		RW30	MAP	TF	FO	0.30	304.98	2.20	
RW30	MAP	1429 MSL		CA			304.98		
1429 MSL		PELBE		DF	FO	1.00			3200

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW30

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3200 DIRECT PELBE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD SE BOPMY, RT, 305.06 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAF: 304.98FAF: OHEXEDIST FAF TO MAP: 4.97DIST FAF TO THLD: 4.97

4. MIN ALT: BOPMY 3000, OHEXE 2800, WUSKA/2.20 NM TO RW30 1900

5. DIST TO THLD FROM OM:MM:IM:150 HAT:250 HAT: 0.66GS ANT:

6. MIN GP INCPT: 2800GP ALT AT FAF : OHEXE 2800OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 40.0

8. MSA FROM: RW30 3800

PBN REQUIREMENTS NOTE:

RNP APCH - GPS

NOTES:

CHART NOTE: RWY 30 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LPV ALL CATS.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT.
CHART NOTE: FOR INOPERATIVE ALS INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 7/8 SM.

ADDITIONAL FLIGHT DATA:

HOLD NW, RT, 124.75 INBOUND.
CHART FAS OBST: 1333 TOWER (27-064572) 442503N/0954706W.
1389 AAO 442314N/0954444W.
CHART VDP AT 1.22 NM TO RW30.
WAAS CHANNEL # 86321
REFERENCE PATH ID: W30A
CHART CIRCLING ICON.
LTP HAE: 332.4 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	1429	3/4	250	1429	3/4	250	1429	3/4	250	1429	3/4	250			
LNAV/VNAV DA	1464	3/4	285	1464	3/4	285	1464	3/4	285	1464	3/4	285			
LNAV MDA	1600	3/4	421	1600	3/4	421	1600	1	421	1600	1	421		QUALITY	
CIRCLING	1640	1	457	1640	1	457	1820	1 3/4	637	1840	2	657		16	CHECKED

CHANGES - REASONS

1. CHANGED TDZE FROM 1180 TO 1179 - CURRENT AIRNAV VALUE.
2. CHANGED LPV DA FROM 1430 TO 1429 - NEW SURVEY DATA (TDZE).
3. CHANGED LNAV/VNAV HAT FROM 284 TO 285 - NEW CONTROLLING OBSTACLE AND NEW SURVEY DATA (TDZE).
4. CHANGED LNAV MDA/HAT FROM 1580/400 TO 1600/421 - NEW CONTROLLING OBSTACLE.
5. CHANGED CIRCLING MDA/HAT: CAT C FROM 1640/457 TO 1820/ 637 AND CAT D FROM 1740/834 TO 1840/657 - APPLIED NEW CIRCLING CRITERIA IAW FAAO 8260.3D, PARA 2-7-1, A(3).
6. CHANGED VISIBILITY LPV FROM 7/8 TO 3/4, LNAV/VNAV ALL CATS FROM 1 TO 3/4 AND THE LNAV CATS A/B FROM 1 TO 3/4, CATS C/D FROM 1 1/8 TO 1 - APPLIED NEW VISIBILITY TABLE WITH CIRCLING UPDATE IAW FAAO 8260.3D, TABLE 3-3-1(2)(3).
7. CHANGED CIRCLING VISIBILITY CAT C FROM 1 1/2 TO 1 3/4 - APPLIED NEW CIRCLING CRITERIA IAW FAAO 8260.19I, TABLE 3-3-7.
8. UPDATED FAS OBSTACLE TO: 1333 TOWER (27-064572) 442503N/0954706W - UPDATED CONTROLLING OBS.
9. ADDED 7:1 OBS, 1389 AAO 442314N/0954444W - NEW CONTROLLING OBSTACLE, IAW FAAO 8260.19I, APPENDIX K.
10. UPDATED CRC REMAINDER FROM 2A399234 TO BBCF228C - FAS DATA BLOCK UPDATED, IAW FAAO 8260.19I, APPENDIX K.
11. UPDATED FPAP FROM 442742.2300N/ 0955036.2200W TO 442742.2150N/0955036.2255W - FAS DATA BLOCK UPDATED IAW FAAO 8260.19I, APPENDIX K.
12. DELETED NOTE: DME/DME RNP-0.3 NA - APPLIED NEW NAV SPEC CRITERIA, IAW FAAO 8260.19I PARA 8-6-C2D.
13. ADDED PBN REQUIREMENT RNP APCH-GPS - IAW FAAO 8260.19I PARA 8-6-B2.
14. DELETED FAHRENHEIT VALUES FOR UNCOMPENSATED BARO-VNAV NOTE - IAW FAAO 8260.19I, PARA 8-6-9 F(3).
15. DELETED ALL NOTES APPLYING BACKUP ALTIMETER SETTING, ADDING THEM TO FAA FORM 8260-9 AS CONTINGENCY - PRIMARY ALTIMETER IS AWOS-3, IAW FAAO 8260.19I, PARA 8-6-9 F(3).
16. CHANGED HELICOPTER VISIBILITY NOTE TO READ: RWY 30 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - IAW NEW FORMAT FAAO 8260.19I, PARA 8-6-11 K(3).
17. CHANGED VDP DISTANCE FROM 1.16 NM TO 1.22 NM - APPLICATION OF NEW SURVEY DATA AND INCREASE MDA.
18. CHANGED INOPERATIVE NOTE TO READ: INOPERATIVE TABLE DOES NOT APPLY TO LPV ALL CATS - APPLICATION OF NEW VISIBILITY TABLE AND IAW FAAO 8260.19I, PARA 8-6-11 O(A).
19. CHART NOTE: FOR INOPERATIVE ALS INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 7/8 SM - APPLICATION OF NEW VISIBILITY TABLE AND IAW FAAO 8260.19I, PARA 8-6-11 O(B & D)
20. CHART CIRCLING ICON - IAW CIRCLING PROJECT GUIDANCE SCENARIO 1 AND FAAO 8260.19I, PARA 8-6-10, S.
21. CHANGED BARO-VNAV SYSTEMS NOTE TO READ: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C - IAW FAAO 8260.19I, PARA (R).

COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZMP, AMGR

FLIGHT CHECKED BY

KARL KUEHNER

*Digitally signed by***JASON KRETSCHMER**

Jul 13, 2021

OFFICE

FICO

DATE

06/25/2021

DEVELOPED BY

ANDRE MARSH

*Digitally signed by***JASON KRETSCHMER**

May 13, 2021

OFFICE

AJV-A421

DATE

11/04/2020

APPROVED BY

MARLON ROBINSON

*Digitally signed by***JASON KRETSCHMER**

May 13, 2021

OFFICE

AJV-A420

DATE**TITLE**
MANAGERQUALITY
16
CHECKED

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMML
RUNWAY	RW30
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W30A
LTP/FTP LATITUDE	442645.0545N
LTP/FTP LONGITUDE	0954900.7845W
LTP/FTP ELLIPSOIDAL HEIGHT	+03324
FPAP LATITUDE	442742.2150N
FPAP LONGITUDE	0955036.2255W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0552
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	BBCF228C

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+03592
FPAP ORTHOMETRIC HEIGHT	+03592

