

**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> MKT	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 33	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> MANKATO	<u>STATE</u> MN
<u>AIRPORT ELEVATION</u> 1021	<u>TDZE</u> 1021	<u>SUPERSEDED</u> RNAV (GPS) RWY 33	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>DATED</u> 10/07/2021
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 30 NOVEMBER 2023	<u>REQUIRED EFFECTIVE DATE</u> 11/30/2023	<u>MAG VAR</u> 0E
				<u>EPOCH YEAR</u> 2025
				<u>CANCEL/SUSPEND</u>

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 245/30 CW 065/30	NOPT	ANIMY	IF/IAF	2900
2. 065/30 CW 155/30		BIGIW	IAF	3200
3. 155/30 CW 245/30		FATIT	IAF	2900

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>
FATIT	IAF	ANIMY	NOPT	TF	FB	1.00	244.72	5.00	2900
BIGIW	IAF	ANIMY	NOPT	TF	FB	1.00	064.58	5.00	2900
ANIMY	IF/IAF	CERIB		TF	FB	1.00	334.65	6.18	2600
CERIB	FAF	PEKPE/1.49 NM TO RW33		TF	FB	0.30	334.60	3.33	
PEKPE/1.49 NM TO RW33		RW33	MAP	TF	FO	0.30	334.60	1.49	
RW33	MAP	1221 MSL		CA			334.60		
1221 MSL		HIBOG		DF	FO	1.00			2700

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW33

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2700 DIRECT HIBOG AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1.	PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)									
2.	HOLD SE ANIMY, RT, 334.65 INBOUND, 2900 FT. IN LIEU OF PT (IAF), MAX 6000.														
3.	FAC:	334.60	FAF:	CERIB	DIST FAF TO MAP:	4.82	DIST FAF TO THLD:	4.82							
4.	MIN ALT:	ANIMY 2900, CERIB 2600, PEKPE/1.49 NM TO RW33 1540													
5.	DIST TO THLD FROM OM:		MM:		IM:		150 HAT:		200 HAT:	0.49	GS ANT:				
6.	MIN GP INCPT:	2600	GP ALT AT PFAF:	CERIB 2600			OM:				MM:			IM:	
7.	GP ANGLE:	3.00	34:1:	IS CLEAR	20:1:	IS CLEAR	TCH:	44.8							
8.	MSA FROM:														

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C.
FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 7/8 SM AND LNAV CATS C AND D VISIBILITY TO 1 SM.
CHART SPEED ICON IN PLANVIEW AT FATIT: MAX 210 KIAS.

CHART SPEED ICON IN PLANVIEW AT BIGIW: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

HOLD NW, RT, 154.50 INBOUND.
CHART FAS OBST: 1139 TREE 441255N/0935351W.
1220 AAO 440919N/0935204W.
WAAS CHANNEL # 86315
REFERENCE PATH ID: W33A
LTP HAE: 282.7 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	1221	1/2	200	1221	1/2	200	1221	1/2	200	1221	1/2	200			
LNAV/VNAV DA	1320	1/2	299	1320	1/2	299	1320	1/2	299	1320	1/2	299			
LNAV MDA	1400	1/2	379	1400	1/2	379	1400	5/8	379	1400	5/8	379			
CIRCLING	1460	1	439	1480	1	459	1600	1 1/2	579	1600	2	579			



CHANGES - REASONS

1. UPDATED MAG VAR/EPOCH YEAR FROM “4E/1985” TO “0E/2025” AND ADDED 4 DEGREES TO ALL APPLICABLE TERMINAL ROUTE COURSES AND TAA SECTOR BOUNDARIES – NEW MAG VAR/UPDATED AIRNAV DATA.
2. TERMINAL ROUTES: CHANGED ANIMY TO CERIB DISTANCE FROM “6.24” TO “6.18” – FAF MOVED TO MAINTAIN 3.00 GPA.
3. TERMINAL ROUTES: ADDED “CERIB TO PEKPE/1.49 NM TO RW33” AND “PEKPE/1.49 NM TO RW33 TO RW33” SEGMENT – IAW 8260.19I PARA 8-6-4.
4. TERMINAL ROUTES: ADDED CA LEG “RW33 TO 1221 MSL” AND DF LEG “1221 MSL TO HIBOG” – CA AND DF LEGS ADDED IAW 8260.58B PARA 3-5-2.
5. PROFILE LINE 2: CHANGED INBOUND COURSE FROM “330.65” TO “334.65” AND ADDED “MAX 6000” TO HOLD-IN-LIEU INSTRUCTIONS – NEW MAG VAR AND MAX HOLDING ALTITUDE ADDED IAW 8260.19I PARA 8-6-7.B.(2).(B).
6. PROFILE LINE 3: CHANGED FAC FROM “330.60” TO “334.60” AND DIST FAF TO MAP/DIST FAF TO THLD FROM “4.76” TO “4.82” – NEW MAG VAR AND FAF MOVED TO MAINTAIN 3.00 GPA.
7. PROFILE LINE 4: CHANGED MINIMUM ALTITUDE AT PEKPE FROM “PEKPE/1.50 NM TO RW33 1540” TO “PEKPE/1.49 NM TO RW33 1540” – NEW SDF LOCATION.
8. DELETED ASTERISK NEXT TO STEPDOWN FIX ALTITUDE ON PROFILE LINE 4 AND “*LNAV ONLY” CHART NOTE – NO LONGER REQUIRED IAW 8260.19I, PARA 1-1-5.F.(12).
9. MOVED “DIST TO THLD FROM 200 HAT: 049” FROM ADDITIONAL FLIGHT DATA TO PROFILE LINE 5 – IAW 8260.19I PARA 8-6-7.E.
10. PROFILE LINE 6: CHANGED GP ALT AT PFAF FROM “CERIB” TO “CERIB 2600” – IAW 8260.19I PARA 8-6-7.F.
11. PROFILE LINE 7: ADDED “20:1: IS CLEAR” – IAW 8260.19I PARA 8-6-8.G.(3).
12. DELETED CHART NOTE: “DME/DME RNP-0.3 NA” AND ADDED PBN REQUIREMENTS NOTE: “RNP APCH – GPS” – IAW 8260.19I PARA 8-6-8.B.(2).
13. AMENDED CHART NOTE FROM “FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C (2°F) OR ABOVE 46°C (114°F)” TO “FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C” – NEW TEMPERATURE CALCULATION AND FAHRENHEIT VALUES NO LONGER REQUIRED IAW 8260.19I PARA 8-6-9.R.
14. AMENDED CHART PROFILE NOTE FROM “VGSI AND RNAV GLIDEPATH NOT COINCIDENT” TO “VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})” – IAW 8260.19I PARA 8-6-9.M.(2).
15. REMOVED BACKUP ALTIMETER AND ASSOCIATED NOTES – UPDATED AND MOVED TO 8260-9 PART C FOR CONTINGENCY USE; PRIMARY WEATHER SOURCE ON WMSCR.
16. AMENDED CHART NOTE: FROM “FOR INOPERATIVE MALSR, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 1 1/8 MILE AND LNAV CATS C AND D VISIBILITY TO 1 MILE” TO “FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 7/8 SM AND LNAV CATS C AND D VISIBILITY TO 1 SM” – UPDATED VALUES IAW 8260.3E TABLES 3-3-1, 3-3-3, AND 3-3-4.
17. ADDED CHART NOTES: “CHART SPEED ICON IN PLANVIEW AT FATIT: MAX 210 KIAS” AND “CHART SPEED ICON IN PLANVIEW AT BIGIW: MAX 210 KIAS” - TO ACCOMMODATE VECTOR LENGTH OF SEGMENT/PER FPT REQUEST AND IAW 8260.19I PARA 4-6-10.G.
18. ADDITIONAL FLIGHT DATA: CHANGED HOLDING FROM “HOLD NW, RT, 150.49 INBOUND” TO “HOLD NW, RT, 154.50 INBOUND” – NEW MAG VAR.
19. ADDITIONAL FLIGHT DATA: CHANGED CHART FAS OBST FROM “1124 TREE 441304N/0935430W” TO “1139 TREE 441255N/0935351W” – NEW CONTROLLING OBSTACLE.
20. ADDITIONAL FLIGHT DATA: ADDED “1220 AAO 440919N/0935204W” – DOCUMENTED NEW 7:1 EXCLUDED OBSTACLE IAW 8260.19I PARA 8-6-10.E.
21. ADDITIONAL FLIGHT DATA: DELETED “CHART VDP AT 0.98 NM TO RW33*” – VDP NOT ESTABLISHED – WITHIN 0.5 NM FROM STEPDOWN FIX.
22. ADDITIONAL FLIGHT DATA: ADDED “LTP HAE: 282.7 M” – IAW 8260.19I PARA 8-6-10.J.
23. MINIMUMS: DECREASED LNAV/VNAV MDA/HAT ALL CATS FROM “1375/354” TO “1320/299” AND VISIBILITY ALL CATS FROM “3/4” TO “1/2” – NEW CONTROLLING OBSTACLE AND VISIBILITY VALUES UPDATED IAW 8260.3E TABLES 3-3-1, 3-3-3, AND 3-3-4.
24. MINIMUMS: INCREASED LNAV MDA/HAT ALL CATS FROM “1380/359” TO “1400/379” – NEW CONTROLLING OBSTACLE.
25. FAS DATA: UPDATED LTP/FTP LATITUDE/LONGITUDE FROM “441300.6600N/0935449.8460W” TO “441300.6620N/0935449.8460W”, FPAP LATITUDE/LONGITUDE FROM “441359.6000N/0935528.8300W” TO “441421.1250N/0935543.0745W”, AND LENGTH OFFSET FROM “0000” TO “0736” – UPDATED AIRNAV DATA.
26. FAS DATA: UPDATED CRC REMAINDER FROM “FD472900” TO “A4955445” – LTP/FTP LATITUDE/LONGITUDE, FPAP LATITUDE/LONGITUDE, AND LENGTH OFFSET UPDATED.

10/18/2023: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 3/10/2023:

1: REQUIRED EFFECTIVE DATE: CHANGED FROM ROUTINE TO 11/30/2023.

COORDINATED WITH:

A4A

☐

ALPA

☒

AOPA

☒

APA

☐

HAI

☐

NBAA

☒

OTHER:

ZMP, AMGR

FLIGHT CHECKED BY

PENDING

Digitally signed by

DAVID DANNER

Oct 23, 2023

OFFICE

DATE

DEVELOPED BY

JASON KRETSCHMER (JILL M. SUPPES)

Digitally signed by

DAVID DANNER

Oct 23, 2023

OFFICE

AJV-A423

DATE

03/10/2023

APPROVED BY

JASON KRETSCHMER

Digitally signed by

DAVID DANNER

Oct 23, 2023

OFFICE

AJV-A421

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMKT
RUNWAY	RW33
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W33A
LTP/FTP LATITUDE	441300.6620N
LTP/FTP LONGITUDE	0935449.8460W
LTP/FTP ELLIPSOIDAL HEIGHT	+02827
FPAP LATITUDE	441421.1250N
FPAP LONGITUDE	0935543.0745W
THRESHOLD CROSSING HEIGHT (TCH)	00044.8
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0736
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	A4955445

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+03111
FPAP ORTHOMETRIC HEIGHT	+03111

