

**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 22	<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SUPERSEDED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 22	<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. 137/30 CW 318/30	NOPT	137/12 CW 318/12		2900
2. 137/12 CW 318/12		IKIBY	IF/IAF	2700
3. 318/30 CW 047/30		NUNVE	IAF	2900
4. 047/30 CW 137/30		JOGDU	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>
JOGDU	IAF	IKIBY	NOPT	TF	FB	1.00	137.41	5.00	2700
NUNVE	IAF	IKIBY	NOPT	TF	FB	1.00	317.52	5.00	2700
IKIBY	IF/IAF	EBUHE		TF	FB	1.00	227.47	6.20	2700
EBUHE	FAF	RW22	MAP	TF	FO	0.30	227.40	5.08	
RW22	MAP	1421 MSL		CA			227.40		
1421 MSL		KABGE		DF	FO	1.00			2700

MISSED APPROACH

MAP:

LNAV: RW22

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2700 DIRECT KABGE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1.	PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)									
2.	HOLD NE IKIBY, RT, 227.47 INBOUND, 2700 FT. IN LIEU OF PT (IAF), MAX 6000.														
3.	FAC:	227.40	FAF:	EBUHE	DIST FAF TO MAP:	5.08	DIST FAF TO THLD:	5.08							
4.	MIN ALT:	IKIBY 2700, EBUHE 2700													
5.	DIST TO THLD FROM OM:		MM:		IM:		150 HAT:		GS ANT:						
6.	MIN GP INCPT:		GP ALT AT FAF:						OM:		MM:		IM:		
7.	GP ANGLE:		34:1:	IS NOT CLEAR	20:1:	IS CLEAR	TCH:								
8.	MSA FROM:														

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: RWY 22 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART SPEED ICON IN PLANVIEW AT JOGDU: MAX 210 KIAS.

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

ADDITIONAL FLIGHT DATA:

HOLD SW, RT, 047.20 INBOUND.
FAS OBST: 1300 AAO 441551N/0934959W.
CHART VDP AT 1.61 NM TO RW22.
EBUHE TO RW22: 3.04/40.

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
LNAV MDA	1560	1	539	1560	1	539	1560	1 1/2	539		NA				
CIRCLING	1560	1	539	1560	1	539	1600	1 1/2	579		NA				



CHANGES - REASONS

1. MAGVAR CHANGED FROM 4E/1985 TO 0E/2025 – MAGVAR UPDATED
2. TAA CHANGED FROM "133/30 CW 313/30 TO 133/12 CW 313/12" TO "137/30 CW 318/30 TO 137/12 CW 318/12" - MAGVAR.
3. TAA CHANGED FROM "133/12 CW 313/12 TO IKIBY" TO "137/12 CW 318/12 TO IKIBY" - MAGVAR.
4. TAA CHANGED FROM "313/30 CW 043/30 TO NUNVE" TO "318/30 CW 047/30 TO NUNVE" - MAGVAR.
5. TAA CHANGED FROM "043/30 CW 133/30 TO JOGDU" TO "047/30 CW 137/30 TO JOGDU" - MAGVAR.
6. TERMINAL ROUTES: COURSE FROM JOGDU TO IKIBY CHANGED FROM 133.41 TO 137.41 - MAGVAR.
7. TERMINAL ROUTES: COURSE FROM NUNVE TO IKIBY CHANGED FROM 313.52 TO 317.52 - MAGVAR.
8. TERMINAL ROUTES: COURSE FROM IKIBY TO EBUHE CHANGED FROM 223.47 TO 227.47 - MAGVAR.
9. TERMINAL ROUTES: ADDED FAF TO MAP SEGMENT EBUHE TO RWY22 - IAW 8260.19I, 8-6-4.
10. TERMINAL ROUTES: ADDED CA LEG RW22 TO 1421 MSL - IAW 8260.58B, 3-5-2.
11. TERMINAL ROUTES: ADDED DF LEG 1421 MSL TO KABGE - IAW 8260.58B, 3-5-2.
12. PROFILE LINE 2: ADDED "MAX 6000" - IAW 8260.19I, 8-6-7.B(2)
13. PROFILE LINE 3: CHANGED FAC FROM 223.40 TO 227.40 - MAGVAR.
14. PROFILE LINE 7: ADDED "20:1 IS CLEAR" - IAW 8260.19I, 8-6-7.G(3).
15. PBN REQUIREMENTS NOTE: ADDED "RNP APCH - GPS" AND DELETED "DME/DME RNP-0.3 NA" FROM NOTES – IAW 8260.19I, 8-6-8.A(5)(B)(2).
16. DELETED "CHART NOTE: VISIBILITY REDUCTION BY HELICOPTER NA" AND ADDED "CHART NOTE: RWY 22 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED" – 34:1 VISUAL SURFACE PENETRATIONS.
17. UPDATED CHART PROFILE NOTE FROM "VGSI AND DESCENT ANGLES NOT COINCIDENT" TO "VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})" – IAW 8260.19I, 8-6-9.M(1).
18. MOVED AND UPDATED BACKUP ALTIMETER NOTE TO THE 8260-9 PART C: GENERAL REMARKS - KMKT AWOS ON WMSCR.
19. ADDED NOTE: "CHART SPEED ICON IN PLANVIEW AT JOGDU: MAX 210 KIAS" – PER ATC REQUEST.
20. ADDED NOTE: "CHART SPEED ICON IN PLANVIEW AT NUNVE: MAX 210 KIAS" – PER ATC REQUEST.
21. ADDITIONAL FLIGHT DATA: CHANGED HOLDING INSTRUCTIONS FROM HOLD SW, RT, 043.20 INBOUND TO HOLD SW, RT, 047.20 INBOUND – MAGVAR.
22. ADDITIONAL FLIGHT DATA: DELETED "CHART FAS OBST: 1219 TREE 441551N/0934959W" AND UPDATED FAS OBSTACLE FROM 1231 ANTENNA 441535N/0935022W TO "FAS OBST: 1300 AAO 441551N/0934959W" - UPDATED OBSTACLE EVALUATION.
23. ADDITIONAL FLIGHT DATA: ADDED "CHART VDP AT 1.61 NM TO RW22" - NO 20:1 PENETRATIONS.
24. MINIMUMS: UPDATED LNAV MDA/HAT FROM 1540/519 TO 1560/539 – NEW CONTROLLING OBSTACLE.
25. MINIMUMS: UPDATED CIRCLING CATS A AND B MDA/HAA FROM 1540/519 TO 1560/539 - RAISED TO MEET STRAIGHT-IN MDA.

10/18/2023: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 3/13/2023:
1: REQUIRED EFFECTIVE DATE: CHANGED FROM ROUTINE TO 11/30/2023.

COORDINATED WITH:

A4A

☐

ALPA

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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 (DANIEL R. JOHNSON)

Digitally signed by

DAVID DANNER

Oct 23, 2023

OFFICE

AJV-A421

DATE

03/13/2023

APPROVED BY

JASON KRETSCHMER

Digitally signed by

DAVID DANNER

Oct 23, 2023

OFFICE

AJV-A420

DATE

TITLE

MANAGER

