

**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> MAHNOMEN COUNTY	<u>AIRPORT ID</u> 3N8	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> MAHNOMEN	<u>STATE</u> MN
<u>AIRPORT ELEVATION</u> 1246	<u>TDZE</u> 1246	<u>SUPERSEDED</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 08/20/2015	<u>MAG VAR</u> 2E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 21 MAY 2020	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2015

TERMINAL ROUTES [THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 20-09.](#)

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
BETRA	IAF	ZUMIM	NOPT	TF	FB	1.00	117.49	16.91	3500
BLUOX	IAF	ZUMIM	NOPT	TF	FB	1.00	253.03	40.00	3500
ZUMIM	IF/IAF	UQUVE		TF	FB	1.00	166.15	3.55	2800
UQUVE	FAF	EGKUP/1.70 NM TO RW17		TF	FB	0.30	166.16	3.07	
EGKUP/1.70 NM TO RW17		RW17	MAP	TF	FO	0.30	166.16	1.70	
RW17	MAP	1496 MSL		CA			166.16		
1496 MSL		IXRUG		DF	FO	1.00			3500

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW17

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3500 DIRECT IXRUG AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

- 1. **PT** **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
- 2. HOLD N ZUMIM, RT, 166.15 INBOUND, 3500 FT. IN LIEU OF PT (IAF), MAX 6000.
- 3. **FAC:** 166.16 **FAF:** UQUVE **DIST FAF TO MAP:** 4.77 **DIST FAF TO THLD:** 4.77
- 4. **MIN ALT:** ZUMIM 3500, UQUVE 2800, EGKUP/1.70 NM TO RW17 1820*
- 5. **DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **250 HAT:** 0.66 **GS ANT:**
- 6. **MIN GP INCPT:** 2800 **GP ALT AT FAF :** UQUVE 2800 **OM:** **MM:** **IM:**
- 7. **GP ANGLE:** 3.00 **34:1:** IS CLEAR **20:1:** IS CLEAR **TCH:** 40.0
- 8. **MSA FROM:** RW17 3200

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING NA TO RWYS 9 AND 27.
 CHART NOTE: BARO-VNAV AND VDP NA WHEN USING FOSSTON ALTIMETER SETTING.
 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 (VGSI ANGLE {ANGLE}/TCH {FEET}).
 CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE FOSSTON ALTIMETER SETTING AND INCREASE ALL DA TO 1549 FEET; INCREASE ALL MDA 60 FEET. ←

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
 CHART VDP AT 0.98 NM TO RW17*
 *LNAV ONLY
 WAAS CHANNEL #45832
 REFERENCE PATH ID: W17A
 CHART FAS OBST: 1327 TREE 471703N/0955520W.
 HOLD S, RT, 346.21 INBOUND
 LTP HAE: 351.3 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		
	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	1496	1	250	1496	1	250		NA			NA				
LNAV/VNAV DA	1496	1	250	1496	1	250		NA			NA				
LNAV MDA	1580	1	334	1580	1	334		NA			NA				
CIRCLING	1640	1	394	1700	1	454		NA			NA				



CHANGES - REASONS

1. PROFILE LINE 2 ADDED MAX 6000 - HOLDING PATTERN AT ZUMIM HAS A MAXIMUM HOLD OF 6000.
2. PROFILE LINE 7 ADDED 20:1 IS CLEAR - RWY 17 20:1 VISUAL AREA IS CLEAR.
3. REMOVED CHART NOTE: DME/DME RNP-0.3 NA AND ADDED PBN EQUIPMENT REQUIREMENTS NOTE: RNP APCH - 8260.19H 8-6-8 B
4. CHANGED CHART NOTE FROM FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C (2F) OR ABOVE 54C (130F) TO FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C - 8260.19H 8-6-9
5. REMOVED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT BETRA ON V55 NORTHWEST BOUND AND PROCEDURE NA FOR ARRIVALS AT BLUOX ON V175 NORTHBOUND, V430 SOUTHEAST BOUND, V175 SOUTHEAST BOUND - BDE AND PKD VORMON DECOMMISSIONING.
6. REMOVED CHART NOTE: NIGHT LANDING: RWY 9, 27 NA AND ADDED CHART NOTE: CIRCLING NA TO RWYS 9 AND 27 - RWY 9 AND 27 ARE TURF AND NO RAPT CONSENSUS FOR A TURF RUNWAY.
7. CHANGED CHART NOTE FROM: CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE FOSSTON ALTIMETER SETTING AND INCREASE ALL DA 53 FEET AND ALL MDA 60 FEET, AND INCREASE LNAV CAT C/D VISIBILITY 1/8 MILE TO CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE FOSSTON ALTIMETER SETTING AND INCREASE ALL DA TO 1549 FEET; INCREASE ALL MDA 60 FEET, AND INCREASE LNAV CAT C/D VISIBILITY 1/8 SM. - IAW 8260.19H SM IS USED TO DESCRIBE VISIBILITY VICE MILE.

4/13/2020: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 2/20/2020.

1. CHANGED CHART NOTE FROM "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE FOSSTON ALTIMETER SETTING AND INCREASE ALL DA TO 1549 FEET; INCREASE ALL MDA 60 FEET, AND INCREASE LNAV CAT C/D VISIBILITY 1/8 SM." TO "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE FOSSTON ALTIMETER SETTING AND INCREASE ALL DA TO 1549 FEET; INCREASE ALL MDA 60 FEET."

COORDINATED WITH:

A4A **ALPA** **AOPA** **APA** **HAI** **NBAA** **OTHER:** ZMP, 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**

WARDELL HENNING

Apr 13, 2020

DEVELOPED BY

WARDELL HENNING (TYLER MITCHELL)

Digitally signed by

WARDELL HENNING

Apr 13, 2020

OFFICE **DATE**
AJV-A432 11/22/2019

APPROVED BY

GEORGE DAVIS

Digitally signed by

WARDELL HENNING

Apr 13, 2020

OFFICE **DATE** **TITLE**
AJV-A430 MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	3N8
RUNWAY	RW17
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W17A
LTP/FTP LATITUDE	471551.5045N
LTP/FTP LONGITUDE	0955551.4335W
LTP/FTP ELLIPSOIDAL HEIGHT	+03513
FPAP LATITUDE	471424.3370N
FPAP LONGITUDE	0955524.6485W
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	1712
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	DB45EF6D

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+03783
FPAP ORTHOMETRIC HEIGHT	+03783

