

**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> WARROAD INTL MEMORIAL	<u>AIRPORT ID</u> KRRT	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 31	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> WARROAD	<u>STATE</u> MN
<u>AIRPORT ELEVATION</u> 1076	<u>TDZE</u> 1076	<u>SUPERSEDED</u> RNAV (GPS) RWY 31	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 02/28/2019	<u>MAG VAR</u> 4E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 10 SEPTEMBER 2020	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 1995

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>
GAYCE	IAF	EPAME	NOPT	TF	FB	1.00	224.82	5.00	3000
FAPAK	IAF	EPAME	NOPT	TF	FB	1.00	044.68	5.00	3000
EPAME	IF/IAF	DULPE		TF	FB	1.00	314.75	6.02	3000
DULPE	FAF	RW31	MAP	TF	FO	0.30	314.67	5.83	
RW31	MAP	1326 MSL		CA			314.67		
1326 MSL		HAPKO		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW31

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT HAPKO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD SE EPAME, RT, 314.75 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC:

314.67

FAF: DULPE

DIST FAF TO MAP: 5.82

DIST FAF TO THLD: 5.82

4. MIN ALT: EPAME 3000, DULPE 3000

5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

250 HAT: 0.65

GS ANT:

6. MIN GP INCPT: 3000

GP ALT AT FAF : DULPE 3000

OM:

MM:

IM:

7. GP ANGLE: 3.00

34:1: IS CLEAR

20:1: IS CLEAR

TCH: 45.0

8. MSA FROM: RW31 2700

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: CIRCLING NA TO RWYS 4 AND 22.
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: FOR INOPERATIVE ALS INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 1 SM AND LNAV CAT C/D VISIBILITY TO 1 1/8 SM.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 1.19 NM TO RW31*
*LNAV ONLY
WAAS CHANNEL #42706
REFERENCE PATH ID: W31A
CHART FAS OBST: 1218 TANK 485442N/0951911W.
HOLD NW, RT, 134.45 INBOUND
LTP HAE: 298.9 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT C 900-2 3/4, CAT D 900-3, 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	1326	1/2	250	1326	1/2	250	1326	1/2	250	1326	1/2	250			
LNAV/VNAV DA	1451	3/4	375	1451	3/4	375	1451	3/4	375	1451	3/4	375			
LNAV MDA	1480	1/2	404	1480	1/2	404	1480	3/4	404	1480	1	404			
CIRCLING	1500	1	424	1540	1	464	1960	2 3/4	884	1960	3	884			

QUALITY
29
CHECKED

CHANGES - REASONS

- 1. REMOVED FEEDER ROUTE BDE TO GAYCE. - VORMON PROJECT, BDE DECOMMISSION.
- 2. REMOVED FEEDER ROUTE ROX TO FAPAK. - PER CHECKLIST.
- 3. TERMINAL ROUTE RW31 TO 1326 MSL REMOVED 1326 FROM ALTITUDE COLUMN. - NOT REQUIRED.
- 4. REMOVED PLANVIEW NOTE PROCEDURE NA FOR ARRIVALS AT ROX VOR/DME ON V175 NORTHBOUND AND ARRIVALS AT BDE ON V175 SOUTHEAST BOUND. - NOT REQUIRED REF BDE/ROX REMOVED.
- 5. ADDED NOTE CIRCLING NA TO RWYS 4 AND 22. - RWY 4/22 TURF RWY AND REVISED CRITERIA.
- 6. CHANGED ALTERNATE MINIMUMS FROM STANDARD - CAT C 900-2 3/4, CAT D 900-3 TO STANDARD - CAT C 900-2 3/4, CAT D 900-3, NA WHEN LOCAL WEATHER NOT AVAILABLE.

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

DATE

Digitally signed by
ALLAN WILL
Oct 15, 2019

DEVELOPED BY

TOMMY BYRNS

Digitally signed by
TOMMY BYRNS
Sep 19, 2019

OFFICE

AJV-A423

DATE

07/16/2019

APPROVED BY

MARLON ROBINSON

OFFICE

AJV-A420

DATE

Digitally signed by
ALLAN WILL
Oct 15, 2019

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KRRT
RUNWAY	RW31
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W31A
LTP/FTP LATITUDE	485605.5770N
LTP/FTP LONGITUDE	0952021.6740W
LTP/FTP ELLIPSOIDAL HEIGHT	+02989
FPAP LATITUDE	485712.3475N
FPAP LONGITUDE	0952151.0740W
THRESHOLD CROSSING HEIGHT (TCH)	00045.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1112
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	78F830B1

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+03274
FPAP ORTHOMETRIC HEIGHT	+03274

