

**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> 21D	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> ST PAUL	<u>STATE</u> MN		
<u>AIRPORT ELEVATION</u> 933	<u>TDZE</u> 933	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u> NONE	<u>DATED</u>	<u>MAG VAR</u> 1E	<u>EPOCH YEAR</u> 2010
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 5 OCTOBER 2023	<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>
ZADAP	IAF	TIMTE	NOPT	TF	FB	1.00	046.43	5.78	3000
MOVDE	IAF	TIMTE	NOPT	TF	FB	1.00	226.84	8.81	3000
TIMTE	IF	ROTIE		TF	FB	1.00	316.72	6.69	2600
ROTIE	FAF	RW32	MAP	TF	FO	0.30	316.65	5.11	
RW32	MAP	1209 MSL		CA			316.65		
1209 MSL		LLIAM		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW32

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT LLIAM AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD SE TIMTE, RT, 316.72 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC:

316.65

FAF: ROTIE

DIST FAF TO MAP: 5.11

DIST FAF TO THLD: 5.11

4. MIN ALT: TIMTE 3000, ROTIE 2600

5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

276 HAT: 0.74

GS ANT:

6. MIN GP INCPT:

2600

GP ALT AT PFAF :

ROTIE 2600

OM:

MM:

IM:

7. GP ANGLE:

3.00

34:1:

IS NOT CLEAR

20:1:

IS CLEAR

TCH:

40.0

8. MSA FROM: RW32 3500

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: RWY 32 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16°C OR ABOVE 54°C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: CIRCLING RWY 4, 22 NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

CHART VDP AT 1.19 NM TO RW32.
HOLD NW, RT, 136.46 INBOUND.
CHART FAS OBST: 1133 TRANSMISSION_LINE (27-051615) 445847N/0924900W.
WAAS CHANNEL # 97445
REFERENCE PATH ID: W32A
LTP HAE: 256.1 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	1209	1	276	1209	1	276		NA			NA				
LNAV/VNAV DA	1404	1 3/8	471	1404	1 3/8	471		NA			NA				
LNAV MDA	1400	1	467	1400	1	467		NA			NA				
CIRCLING	1440	1	507	1500	1	567		NA			NA				

CHANGES - REASONS

ORIGINAL



AIRPORT ID
21D

PROCEDURE NAME
RNAV (GPS) RWY 32

ORIGINAL/AMENDMENT
ORIG

CITY
ST PAUL

STATE
MN

COORDINATED WITH:

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

FLIGHT CHECKED BY

GLEN B FREEMAN

Digitally signed by
CASIMIR L TABAKA

OFFICE

FPO

DATE

08/15/2023

DEVELOPED BY

CASEY HILL

Digitally signed by

CASEY D HILL

Jun 15, 2023

Aug 17, 2023

OFFICE

AJV-A432

DATE

04/26/2023

APPROVED BY

CASIMIR TABAKA

Digitally signed by
CASIMIR L TABAKA

Jun 16, 2023

OFFICE

AJV-A432

DATE

10/05/2023

TITLE

MANAGER

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	21D
RUNWAY	RW32
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W32A
LTP/FTP LATITUDE	445934.0670N
LTP/FTP LONGITUDE	0925055.9830W
LTP/FTP ELLIPSOIDAL HEIGHT	+02561
FPAP LATITUDE	450039.8390N
FPAP LONGITUDE	0925220.6835W
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	1680
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	CEAE8323

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+02842
FPAP ORTHOMETRIC HEIGHT	+02842