

**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> KMOX	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> MORRIS	<u>STATE</u> MN		
<u>AIRPORT ELEVATION</u> 1136	<u>TDZE</u> 1130	<u>SUPERSEDED</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> 1C	<u>DATED</u> 06/20/2019	<u>MAG VAR</u> 2E	<u>EPOCH YEAR</u> 2015
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 SEPTEMBER 2022	<u>REQUIRED EFFECTIVE DATE</u> 09/08/2022	<u>CANCEL/SUSPEND</u>		

TAA

FROM	FIX TYPE	TO	FIX TYPE	ALTITUDE
1. 232/30 CW 052/30	NOPT	232/15 CW 052/15		3600
2. 232/15 CW 052/15		EXJUP	IF/IAF	3500
3. 052/30 CW 232/30		EXJUP	IAF	3600

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
EXJUP	IF/IAF	WIVKA		TF	FB	1.00	322.13	7.81	3000
WIVKA	FAF	SISOE/3.00 NM TO RW32		TF	FB	0.30	322.04	2.78	
SISOE/3.00 NM TO RW32		RW32	MAP	TF	FO	0.30	322.04	3.00	
RW32	MAP	1330 MSL		CA			322.04		
1330 MSL		ZITOG		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW32

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT ZITOG AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

QUALITY
10
CHECKED

PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD SE EXJUP, RT, 322.13 INBOUND, 3500 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 322.04FAF: WIVKADIST FAF TO MAP: 5.78DIST FAF TO THLD: 5.78

4. MIN ALT: EXJUP 3500, WIVKA 3000, SISOE/3.00 NM TO RW32 2100

5. DIST TO THLD FROM OM:MM:IM:150 HAT:200 HAT: 0.54GS ANT:

6. MIN GP INCPT: 3000GP ALT AT PFAF : WIVKA 3000OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 40.0

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: CIRCLING NA TO RWYS 04 AND 22.
CHART NOTE: BARO-VNAV AND VDP NA WHEN USING BENSON ALTIMETER SETTING.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE BENSON ALTIMETER SETTING AND INCREASE LPV DA TO 1388 FEET AND LNAV/VNAV DA TO 1477 FEET. INCREASE ALL MDAS 60 FEET AND VISIBILITY LNAV CAT C 1/8 SM AND VISIBILITY CIRCLING CAT C 1/4 SM.

ADDITIONAL FLIGHT DATA:

HOLD NW, RT, 141.85 INBOUND.
CHART FAS OBST: 1214 TREE (27-042824) 453351N/0955718W.
1280 AAO 453056N/0955436W.
CHART VDP AT 1.01 NM TO RW32.
WAAS CHANNEL # 93732
REFERENCE PATH ID: W32A
CHART CIRCLING ICON.
LTP HAE: 314.5 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	1330	1	200	1330	1	200	1330	1	200		NA			QUALITY 10 CHECKED	
LNAV/VNAV DA	1419	1	289	1419	1	289	1419	1	289		NA				
LNAV MDA	1480	1	350	1480	1	350	1480	1	350		NA				
CIRCLING	1560	1	424	1600	1	464	1860	2	724		NA				

CHANGES - REASONS

1. TDZE DECREASED FROM 1131 TO 1130. - NEW AIRNAV DATA INCORPORATED.
2. LPV DA/HAT DECREASED FROM 1381/250 TO 1330/200. - NEW OBSTACLE EVALUATION - ASC.
3. LNAV/VNAV DA/HAT DECREASED FROM 1535/404 TO 1419/289; VISIBILITY DECREASED FROM 1 3/8 TO 1 SM. - NEW OBSTACLE EVALUATION; NEW RWY VG SURVEY.
4. LNAV MDA/HAT DECREASED FROM 1540/409 TO 1480/350; CAT C VISIBILITY DECREASED FROM 1 1/8 TO 1 SM. - NEW OBSTACLE EVALUATION; NEW RWY VG SURVEY.
5. UPDATED EXJUP - WIVKA DISTANCE FROM 8.00 TO 7.81. - PFAF MOVED TO MAINTAIN GPA/TCH IAW 8260.58B.
6. UPDATED WIVKA - SISOE COURSE/DISTANCE FROM 322.05/2.74 TO 322.04/2.78; SISCO - RW32 COURSE FROM 322.05 TO 322.04. - PFAF MOVED TO MAINTAIN GPA/TCH IAW 8260.58B.
7. UPDATED MISSED APPROACH CA LEG ALTITUDE FROM 1381 TO 1380 MSL. - IAW 8260.58B 3-5-2B.
8. PROFILE LINE 3. UPDATED DIST FAF TO MAP/THLD FROM 5.74 TO 5.78. - PFAF MOVED TO MAINTAIN GPA/TCH IAW 8260.58B.
9. PROFILE LINE 4: UPDATED MINIMUM ALTITUDE SISOE/3.00 NM TO RW32 FROM 2120 TO 2100; REMOVED ASTERISK. - STEPDOWN FIX MOVED TO PROVIDE CONSTANT DESCENT GRADIENT; NO LONGER REQUIRED.
10. PROFILE LINE 5: UPDATED DIST TO THLD FROM 250 HAT: 0.63 TO 200 HAT: 0.54. - UPDATED OBSTACLE EVALUATION; LPV MINIMUMS DECREASED.
11. PROFILE LINE 7: UPDATED TCH FROM 44.0 TO 40.0. - IAW 8260.58B TABLE 1-3-1 TCH REQUIREMENTS.
12. UPDATED PBN REQUIREMENTS FROM RNP APCH TO RNP APCH - GPS. - IAW 8260.19I 8-6-8 B(2).
13. REMOVED CHART NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}). - VGSI AND RNAV GLIDEPATH MATCH.
14. UPDATED CHART NOTE FROM "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE BENSON ALTIMETER SETTING AND INCREASE LPV DA TO 1440 FEET, LNAV/VNAV DA TO 1594 FEET AND ALL MDA 60 FEET AND INCREASE LNAV AND CIRCLING CAT C VISIBILITY 1/4 SM" TO "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE BENSON ALTIMETER SETTING AND INCREASE LPV DA TO 1388 FEET AND LNAV/VNAV DA TO 1477 FEET. INCREASE ALL MDAS 60 FEET AND VISIBILITY LNAV CAT C 1/8 SM AND VISIBILITY CIRCLING CAT C 1/4 SM." - NEW OBSTACLE EVALUATION.
15. UPDATED MISSED APPROACH HOLD INBOUND COURSE FROM 141.84 TO 141.85. - RNAV (GPS) RWY 14 INTERMEDIATE INBOUND COURSE UPDATED.
16. UPDATED CHART FAS OBST FROM "1239 TREE 453437N/0955811W" TO "1214 TREE (27-042824) 453351N/0955718W." - NEW LNAV STEPDOWN CONTROLLING OBSTACLE.
17. UPDATED LNAV 7:1 OBSTACLE FROM "1359 AAO 452934N/0955250W" TO "1280 AAO 453056N/0955436W." - 7:1 APPLIED AT STEPDOWN FIX SISOE.
18. UPDATED CHART VDP FROM "1.17 NM TO RW32" TO "1.01 NM TO RW32." - STEPDOWN FIX MOVED; RWY 14 EXTENDED.
19. FAS DATA: UPDATED LTP/FTP LATITUDE/LONGITUDE FROM 453336.5300N/0955741.2520W TO 453329.3675N/ 0955733.8590W. - NEW AIRNAV DATA INCORPORATED.
20. FAS DATA: UPDATED FPAP LATITUDE/LONGITUDE FROM 453448.5465N/0955855.8160W TO 453441.4150N/0955848.4490W. - NEW AIRNAV DATA INCORPORATED.
21. FAS DATA: UPDATED LENGTH OFFSET FROM 1528 TO 1256. - RWY EXTENDED; NEW PFAF COORDINATES.
22. FAS DATA: UPDATED VERTICAL ALERT LIMIT (VAL) FROM 50.0 TO 35.0. - LPV HAT DECREASED TO 200.
23. FAS DATA: UPDATED CRC REMAINDER FROM 7CA1EE84 TO 986061E4. - NEW LTP/FTP AND FPAP COORDINATES.

COORDINATED WITH:

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

FLIGHT CHECKED BY

PENDING

OFFICE**DATE**

Digitally signed by
CASIMIR L TABAKA
Jun 14, 2022

DEVELOPED BY

CASIMIR L. TABAKA (BARBARA GORMAN)

Digitally signed by
CASIMIR L TABAKA
Apr 11, 2022

OFFICE

AJV-A432

DATE

03/10/2022

APPROVED BY

LONNIE EVERHART

Digitally signed by
CASIMIR L TABAKA
Apr 11, 2022

OFFICE

AJV-A430

DATE

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMOX
RUNWAY	RW32
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W32A
LTP/FTP LATITUDE	453329.3675N
LTP/FTP LONGITUDE	0955733.8590W
LTP/FTP ELLIPSOIDAL HEIGHT	+03145
FPAP LATITUDE	453441.4150N
FPAP LONGITUDE	0955848.4490W
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	1256
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	986061E4

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+03408
FPAP ORTHOMETRIC HEIGHT	+03408

