

**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> KAZO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> KALAMAZOO	<u>STATE</u> MI		
<u>AIRPORT ELEVATION</u> 874	<u>TDZE</u> 867	<u>SUPERSEDED</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 04/02/2015	<u>MAG VAR</u> 3W	<u>EPOCH YEAR</u> 1985
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 20 APRIL 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>
PMM VOR/DME	IAF	OSEGO	NOPT	TF	FB	1.00	093.98	22.53	3000
BOHRR	IAF	OSEGO	NOPT	TF	FB	1.00	225.96	10.60	3000
OSEGO	IF/IAF	SUYOD		TF	FB	1.00	174.09	7.23	2800
SUYOD	FAF	WURAX/1.80 NM TO RW17		TF	FB	0.30	174.08	4.15	
WURAX/1.80 NM TO RW17		RW17	MAP	TF	FO	0.30	174.08	1.80	
RW17	MAP	1156 MSL		CA			174.08		
1156 MSL		COVAV		DF	FO	1.00			2800

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW17

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2800 DIRECT COVAV AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD N OSEGO, RT, 174.09 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAF: 174.08FAF: SUYODDIST FAF TO MAP: 5.95DIST FAF TO THLD: 5.95

4. MIN ALT: OSEGO 3000, SUYOD 2800, WURAX/1.80 NM TO RW17 1460

5. DIST TO THLD FROM OM:MM:IM:150 HAT:289 HAT: 0.79GS ANT:

6. MIN GP INCPT: 2800GP ALT AT PFAF : SUYOD 2800OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 45.0

8. MSA FROM: RW17 3000

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: BARO-VNAV NA WHEN USING BATTLE CREEK ALTIMETER SETTING.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -20°C OR ABOVE 54°C.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PMM VOR/DME AIRWAY RADIALS 054 CW 112.
CHART NOTE: CIRCLING RWY 5, 9, 23, 27 NA AT NIGHT.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE BATTLE CREEK ALTIMETER SETTING: INCREASE LPV DA TO 1200 FEET, LNAV/VNAV DA TO 1229 FEET; INCREASE ALL MDAS 60 FEET.

ADDITIONAL FLIGHT DATA:

HOLD S, RT, 354.14 INBOUND.
CHART FAS OBST: 1016 CONTROL_TOWER (26-022047) 421417N/0853251W.
WAAS CHANNEL # 57933
REFERENCE PATH ID: W17A
CHART CIRCLING ICON.
LTP HAE: 228.8 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	1156	1	289	1156	1	289	1156	1	289	1156	1	289			
LNAV/VNAV DA	1185	1	318	1185	1	318	1185	1	318	1185	1	318			
LNAV MDA	1320	1	453	1320	1	453	1320	1 3/8	453	1320	1 3/8	453			
CIRCLING	1380	1	506	1380	1	506	1480	1 3/4	606	1480	2	606			

QUALITY
29
CHECKED

CHANGES - REASONS

1. INCORPORATED CHANGES FROM P-NOTAM AMDT 1A INTO FORM. - IAW 8260.19I 8-3-4 C(3).
2. REMOVED FEEDER FROM AZO VOR/DME. - PER FPT REQUEST; PART OF AZO VORMON DECOMMISSIONING.
3. LINE 2: ADDED HOLD-IN-LIEU MAX ALTITUDE 6000. - IAW 8260.19I PARA 8-6-7 B(2).
4. LINE 4: REMOVED *, AND *LNAV ONLY FROM NOTES - NO LONGER REQUIRED.
5. LINE 5: ADDED DIST TO THLD FROM 289 HAT: 0.79; REMOVED ADDITIONAL FLIGHT DATA: "DISTANCE TO THLD FROM 289 HATH: 0.76 NM". - UPDATED FORMS/EVALUATION.
6. LINE 7: 20:1 IS CLEAR ADDED. - NO 20:1 PENETRATIONS FOUND.
7. REMOVED CHART NOTE: DME/DME RNP-0.3 NA; ADDED PBN REQUIREMENTS NOTE: RNP APCH - GPS. - IAW 8260.19I 1-1-5F(18) AND 8-6-8B(2).
8. CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -21C (-5F) OR ABOVE 54C (130F) UPDATED TO -20F TO 54C. - FAHRENHEIT REMOVED IAW 8260.19I; LOW TEMP UPDATED PER EVALUATION.
9. REMOVED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT AZO VOR/DME ON V285 SOUTH BOUND. - FEEDER REMOVED.
10. UPDATED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT PMM VOR/DME ON ARIWAYS RADIALS FROM "004 CW 112" TO "054 CW 112." - UPDATED AIRWAY RADIALS.
11. UPDATED CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED TO RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. - IAW 8260.19I 8-6-11 K.3.
12. UPDATED ADDITIONAL FLIGHT DATA: CHART FAS OBST FROM "1016 BLDG 421417N/0853251W" TO "1016 CONTROL_TOWER (26-022047) 421417N/0853251W." - DESCRIPTION PER AIRNAV; OBSTACLE ID ADDED IAW 8260.19I 8-6-10C.
13. REMOVED ADDITIONAL FLIGHT DATA: CHART: ASR - NO LONGER REQUIRED; NEED DETERMINED BY CHARTING.
14. UPDATED CHART NOTE FROM "WHEN LOCAL ALTIMETER NOT RECEIVED, USE BATTLE CREEK ALTIMETER SETTING AND INCREASE ALL DA 44 FEET AND ALL MDA 60 FEET. INCREASE LPV ALL CATS AND LNAV CAT C/D VISIBILITY 1/8 MILE. INCREASE LNAV/VNAV VISIBILITY ALL CATS 1/4 MILE" TO "CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE BATTLE CREEK ALTIMETER SETTING: INCREASE LPV DA TO 1200 FEET, LNAV/VNAV DA TO 1229 FEET; INCREASE ALL MDAS 60 FEET." - UPDATED EVALUATION.
15. FAS DATA: FPAP LAT/LONG UPDATED FROM 421300.8800N/0853247.6700W TO 421300.8770N/0853247.6795W. - NEW AIRNAV DATA INCORPORATED.
16. FAS DATA: CRC REMAINDER UPDATED FROM DB025293 TO 87DD4427. - FPAP LAT/LONG UPDATED.
17. UPDATED CHART NOTE: FROM "CIRCLING TO RWY 9/27 AND 5/23 NA AT NIGHT" TO "CIRCLING RWY 5, 9, 23, 27 NA AT NIGHT." - IAW 8260.19I 8-6-11 O(2)(G).
18. TERMINAL ROUTES: CA LEG ALTITUDE UPDATED FROM 1148 TO 1156. - LOWEST DA; LPV DA UPDATED ON P-NOTAM AMDT 1A.
19. FAS DATA: LTP LAT/LONG UPDATED FROM 421428.9360N/0853306.2365W TO 421428.9360N/0853306.2425W - REVISED AIRNAV DATA.

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZAU, AZO APP CON, AZO ATCT, AMGR, ST AV DIR

FLIGHT CHECKED BY

JAMES ONIEAL

Digitally signed by
CASIMIR L TABAKA
Jan 10, 2023

OFFICE

FPO

DATE

01/05/2023

DEVELOPED BY

CASIMIR L. TABAKA (BARBARA GORMAN)

Digitally signed by
CASIMIR L TABAKA
Dec 19, 2022

OFFICE

AJV-A432

DATE

08/16/2022

APPROVED BY

JOHNNIE BAKER

Digitally signed by
CASIMIR L TABAKA
Dec 19, 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	KAZO
RUNWAY	RW17
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W17A
LTP/FTP LATITUDE	421428.9360N
LTP/FTP LONGITUDE	0853306.2425W
LTP/FTP ELLIPSOIDAL HEIGHT	+02288
FPAP LATITUDE	421300.8770N
FPAP LONGITUDE	0853247.6795W
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	0768
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	87DD4427

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02619
FPAP ORTHOMETRIC HEIGHT	+02619

