

**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> GRATIOT COMMUNITY	<u>AIRPORT ID</u> KAMN	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 27	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> ALMA	<u>STATE</u> MI	
<u>AIRPORT ELEVATION</u> 754	<u>TDZE</u> 753	<u>SUPERSEDED</u> RNAV (GPS) RWY 27	<u>ORIGINAL/AMENDMENT</u> 1B	<u>DATED</u> 07/18/2019	<u>MAG VAR</u> 5W	<u>EPOCH YEAR</u> 1990
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 5 NOVEMBER 2020	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

**TERMINAL ROUTES**

<u><b>FROM</b></u>	<u><b>FIX TYPE</b></u>	<u><b>TO</b></u>	<u><b>FIX TYPE</b></u>	<u><b>LEG TYPE</b></u>	<u><b>FO/FB</b></u>	<u><b>RNP</b></u>	<u><b>COURSE</b></u>	<u><b>DISTANCE</b></u>	<u><b>ALTITUDE</b></u>
LUGGS	IAF	CEGEE	NOPT	TF	FB	1.00	004.18	16.04	2600
MBS VOR/DME	IAF	CEGEE	NOPT	TF	FB	1.00	235.59	19.77	2600
CEGEE	IF/IAF	EYELU		TF	FB	1.00	275.43	6.27	2300
EYELU	FAF	DUREY/2.10 NM TO RW27		TF	FB	0.30	275.33	2.64	
DUREY/2.10 NM TO RW27		RW27	MAP	TF	FO	0.30	275.33	2.10	
RW27	MAP	1900 MSL		CA	FO		275.33		1900
1900 MSL		CEGEE		DF	FO	1.00			2600

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW27

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 1900 THEN CLIMBING RIGHT TURN 2600 DIRECT CEGEE AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT                      SIDE OF COURSE                      OUTBOUND                      FT WITHIN                      MILES OF                      (IAF)

2. HOLD E CEGEE, RT, 275.43 INBOUND, 2600 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 275.33                      FAF: EYELU                      DIST FAF TO MAP: 4.73                      DIST FAF TO THLD: 4.73

4. MIN ALT: CEGEE 2600, EYELU 2300, DUREY/2.10 NM TO RW27 1460\*

5. DIST TO THLD FROM OM:                      MM:                      IM:                      150 HAT:                      250 HAT: 0.66                      GS ANT:

6. MIN GP INCPT: 2300                      GP ALT AT FAF : EYELU 2300                      OM:                      MM:                      IM:

7. GP ANGLE: 3.00                      34:1: IS CLEAR                      20:1: IS CLEAR                      TCH: 40.0

8. MSA FROM: RW27 2900

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16°C OR ABOVE +54°C.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON MBS VOR/DME AIRWAY RADIALS 238 CW 320.

ADDITIONAL FLIGHT DATA:

FAS OBST: 895 TREE 431952N/0843751W.  
CHART 1210 WINDMILL 431906N/0843456W.  
CHART VDP AT 1.15 NM TO RW27\*  
\*LNAV ONLY.  
WAAS CHANNEL # 58028  
REFERENCE PATH ID: W27A  
LTP HAE: 196.6 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	1003	1	250	1003	1	250	1003	1	250	1003	1	250			
LNAV/VNAV DA	1036	1	283	1036	1	283	1036	1	283	1036	1	283			
LNAV MDA	1160	1	407	1160	1	407	1160	1 1/8	407	1160	1 1/8	407			



CHANGES - REASONS

DELETED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT LUGGS ON V450 EASTBOUND - V450 SCHEDULED FOR VORMON DELETION.  
CHANGED CHART PLANVIEW NOTE FROM "PROCEDURE NA FOR ARRIVALS ON MBS VOR/DME AIRWAY RADIALS 163 CW 320" TO CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON MBS VOR/DME AIRWAY RADIALS 238 CW 320." - PER 8260.19H, 8-2-5, (E).  
DELETE CHART NOTE FROM "RWY 27 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED." - NO 20:1 OR 34:1 PENETRATIONS.  
DELETED CHART NOTE: WHEN VGSI INOPERATIVE, PROCEDURE NA AT NIGHT - NO 20:1 PENETRATIONS.  
CHANGED CHART NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 39C." TO FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 54C - NEW RESULT FROM BARO-VNAV TEMPERATURE CALCULATION.  
ADDED 20:1 IS CLEAR TO LINE 7 - APPLICATION OF P-NOTAM, REPORTED RESULTS LISTED IN TRACKER AND TARGETS BUILD REPORT.  
CHANGED SEGMENT TYPE AND COURSE FROM LUGGS TO CEGEE FROM "FEEDER 007.63" TO "INITIAL 004.18" - FIX MOVED 0.97 NM EAST TO APPLY NOPT INITIAL SEGMENT TO FINAL.  
CHANGED DISTANCE OF WAYPOINT EYELU FROM 2.69 TO 2.64 - FIX MOVED WITH APPLICATION OF NEW CRITERIA.  
CHANGED ADDITIONAL FLIGHT DATA NOTE FROM "DISTANCE TO THLD FROM 250 HATH 0.62 NM" TO "DISTANCE TO THLD FROM 250 HAT 0.66 NM" - 8260.19D, 8-6-10 (J & N(2)).  
CHANGED LINE 3 DISTANCE FAF TO MAP/THLD FROM 4.69 TO 4.73 - FIX/WAYPOINT MOVEMENT WITH APPLICATION OF NEW CRITERIA.  
CHANGED DISTANCE OF WAYPOINT DUREY FROM 2.00 TO 2.10 - FIX MOVE WITH APPLICATION OF NEW CRITERIA AND NEW CONTROLLING OBS.  
CHANGED MINIMUM ALTITUDE FOR WAYPOINT EYELU FROM 1440 TO 1460 - APPLICATION OF FULL RASS ADJUSTMENT.  
ADDED VDP 1.15 NM FROM RWY - NO 20:1 PENETRATIONS.  
CHANGED LINE 7 TCH FROM 53.2 TO 40.0 - TO MATCH VGSI TCH.  
CHANGED CHART FAS OBS FROM "904 TREE 431948N/0843749W" TO "895 TREE 431951.80N/0843751.22W" - NEW CONTROLLING OBSTACLE.  
CHANGED CRC REMAINDER FROM A7333174 TO 1E23487E - LTP LAT/LONG, FPAP LAT/LONG AND TCH UPDATED.  
CHANGED LNAV/VNAV ALL CATS MDA/HAT FROM 1152/399 TO 1036/283 - NEW CONTROLLING OBSTACLE.  
CHANGED LNAV/VNAV DA VISIBILITY ALL CATS FROM 1-3/8 SM TO 1 SM - 8260.3D TABLE 3-3-1.  
DELETED ALTIMETER NOTE AND BARO-VNAV NA NOTE - NOTE MOVED TO -9 AS CONTINGENCY.  
ADD MAX HOLDING 6000 AT CEGEE - UPDATED TO MATCH THE RADIO FIX AND HOLDING DATA FOR FIX CEGEE.

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: APT MGR, MBS APP CON, ZOB ARTCC

FLIGHT CHECKED BY

MICHAEL A GREENWOOD

Digitally signed by

JASON KRETSCHMER

Jul 23, 2020

OFFICE

FICO

DATE

7/15/2020

DEVELOPED BY

DAVID DANNER (ANDRE MARSH)

Digitally signed by

JASON KRETSCHMER

Jul 23, 2020

OFFICE

AJV-A421

DATE

04/15/2020

APPROVED BY

MARLON ROBINSON

Digitally signed by

JASON KRETSCHMER

Jul 23, 2020

OFFICE

AJV-A420

DATE

TITLE  
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KAMN
RUNWAY	RW27
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W27A
LTP/FTP LATITUDE	431922.6645N
LTP/FTP LONGITUDE	0844038.0490W
LTP/FTP ELLIPSOIDAL HEIGHT	+01966
FPAP LATITUDE	431923.0435N
FPAP LONGITUDE	0844240.1100W
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	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	1E23487E

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02294
FPAP ORTHOMETRIC HEIGHT	+02294

