

**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><b>AIRPORT ID</b></u> KMAL	<u><b>PROCEDURE NAME</b></u> RNAV (GPS) RWY 23	<u><b>ORIGINAL/AMENDMENT</b></u> ORIG-D	<u><b>CITY</b></u> MALONE	<u><b>STATE</b></u> NY		
<u><b>AIRPORT ELEVATION</b></u> 790	<u><b>TDZE</b></u> 770	<u><b>SUPERSEDED</b></u> RNAV (GPS) RWY 23	<u><b>ORIGINAL/AMENDMENT</b></u> ORIG-C	<u><b>DATED</b></u> 02/28/2019	<u><b>MAG VAR</b></u> 15W	<u><b>EPOCH YEAR</b></u> 2000
<u><b>FACILITY</b></u> RNAV	<u><b>COORDINATES OF FACILITIES</b></u>	<u><b>ACTUAL EFFECTIVE DATE</b></u> 17 JUNE 2021	<u><b>REQUIRED EFFECTIVE DATE</b></u> ROUTINE	<u><b>CANCEL/SUSPEND</b></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>
LETUS		LAIVS		TF	FO	1.00	083.53	56.53	3000
TRIKY		ZALUM		TF	FB	1.00	359.49	10.00	4700
ZALUM		JORAR		TF	FB	1.00	359.45	8.54	4000
JORAR	IAF	LAIVS	NOPT	TF	FB	1.00	288.55	6.75	3000
LAIVS	IF/IAF	DNWLS		TF	FB	1.00	231.96	4.56	1800
DNWLS	FAF	RW23	MAP	TF	FO	0.30	231.91	3.16	
RW23	MAP	1155 MSL		CA			231.91		
1155 MSL		MITAH		DF	FO	1.00			3600

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW23

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 3600 DIRECT MITAH AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2. HOLD NE LAIVS, LT, 231.96 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 5000.					
3. FAC:	231.91	FAF: DNWLS	DIST FAF TO MAP:	3.16	DIST FAF TO THLD: 3.16
4. MIN ALT:	LAIVS 3000, DNWLS 1800				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	385 HAT: 1.13	GS ANT:
6. MIN GP INCPT:	1800	GP ALT AT FAF :	DNWLS 1800	OM:	MM:
7. GP ANGLE:	3.00	34:1:	IS CLEAR	20:1:	IS CLEAR
			TCH:	40.0	
8. MSA FROM:	RW23 5100				

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING RWY 5 NA AT NIGHT.  
CHART NOTE: BARO-VNAV NA.  
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).  
CHART NOTE: USE MASSENA INTL-RICHARDS FIELD ALTIMETER SETTING; WHEN NOT RECEIVED, USE ADIRONDACK RGNL ALTIMETER SETTING AND INCREASE LPV DA TO 1208 FEET; INCREASE LNAV/VNAV DA TO 1316 FEET; INCREASE ALL MDAS 60 FEET. INCREASE LPV ALL CATS VISIBILITY 1/8 SM, LNAV/VNAV ALL CATS 1/4 SM, LNAV CAT C 1/8 SM AND CIRCLING CAT C VISIBILITY 1/4 SM.

ADDITIONAL FLIGHT DATA:

CHART MASSENA INTL-RICHARDS FIELD ASOS.  
HOLD SW, LT, 051.76 INBOUND.  
CHART FAS OBST: 844 TANK 445213N/0741837W.  
CHART TUPPER CENTRAL MOA.  
CHART TUPPER WEST MOA.  
WAAS CHANNEL # 58229  
REFERENCE PATH ID: W23A  
CHART CIRCLING ICON.  
LTP HAE: 200.6 M



**MINIMUMS:**

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

ALTERNATE: NA ☒

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	1155	1 1/8	385	1155	1 1/8	385	1155	1 1/8	385		NA				
LNAV/VNAV DA	1263	1 3/8	493	1263	1 3/8	493	1263	1 3/8	493		NA				
LNAV MDA	1240	1	470	1240	1	470	1240	1 3/8	470		NA				
CIRCLING	1460	1	670	1520	1	730	1720	2 3/4	930		NA				

**CHANGES - REASONS**

1. DELETED PLANVIEW NOTE: "PROCEDURE NA FOR ARRIVALS AT TRIKY ON V141 SOUTHEAST BOUND." -V141 SEGMENT DELETED.
2. FLIGHT DATA: ADDED CHART CIRCLING ICON. -NEW CIRCLING RADII APPLIED IAW 8260.3D.
3. CHANGED MISSED APPROACH INSTRUCTION FROM "CLIMB TO 3500 DIRECT MITAH AND HOLD." TO "CLIMB TO 3600 DIRECT MITAH AND HOLD." - NEW TARGETS EVALUATION DETERMINED HIGHER REQUIRED AIRSPACE ALTITUDE.
4. CHANGED LPV VIS ALL CATS FROM 1 1/4 SM TO 1 1/8 SM. LNAV/VNAV VIS ALL CATS FROM 1 3/4 SM TO 1 3/8 SM - NEW INOP TABLE APPLIED.
5. CHANGED CIRCLING CMDA/HAA FROM CAT B/C 1480/690 TO CAT B 1520/730, CAT C 1720/930. - INCORPORATED FDC NOTAM 0/5504.
6. CHANGED CIRCLING VISIBILITY FROM CAT C 2 SM TO CAT C 2 3/4 SM. - NEW CIRCLING CRITERIA APPLIED.
7. UPDATED CHART NOTE FROM "CHART NOTE: USE MASSENA INTL-RICHARDS FIELD ALTIMETER SETTING; WHEN NOT RECEIVED, USE ADIRONDACK RGNL ALTIMETER SETTING AND INCREASE ALL DA/MDA 60 FEET, INCREASE LPV ALL CATS, LNAV CAT C AND CIRCLING CAT C VISIBILITY 1/4 SM, INCREASE LNAV/VNAV ALL CATS VISIBILITY 1 1/8 SM." TO "CHART NOTE: USE MASSENA INTL-RICHARDS FIELD ALTIMETER SETTING; WHEN NOT RECEIVED, USE ADIRONDACK RGNL ALTIMETER SETTING AND INCREASE LPV DA TO 1208 FEET; INCREASE LNAV/VNAV DA TO 1316 FEET; INCREASE ALL MDAS 60 FEET. INCREASE LPV ALL CATS VISIBILITY 1/8 SM, LNAV/VNAV ALL CATS 1/4 SM, LNAV CAT C 1/8 SM AND CIRCLING CAT C VISIBILITY 1/4 SM." - NEW INOP TABLE APPLIED.

**COORDINATED WITH:**A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZBW, AMGR**FLIGHT CHECKED BY**PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJF-10) MEMO, APRIL 29, 2020, SUBJECT:  
FLIGHT INSPECTION REVIEW NOT REQUIRED**DEVELOPED BY**

JASON KRETSCHMER (DALLIN STRICKLAND)

Digitally signed by

JASON KRETSCHMER

Jan 25, 2021

Digitally signed by

JASON KRETSCHMER

Jan 25, 2021

**OFFICE**

Digitally signed by

**DATE**

JASON KRETSCHMER

Jan 25, 2021

**OFFICE**

AJV-A421

**DATE**

12/08/2020

**APPROVED BY**

MARLON ROBINSON

**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	KMAL
RUNWAY	RW23
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W23A
LTP/FTP LATITUDE	445129.6550N
LTP/FTP LONGITUDE	0741937.3865W
LTP/FTP ELLIPSOIDAL HEIGHT	+02006
FPAP LATITUDE	445018.3815N
FPAP LONGITUDE	0742052.5315W
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	1536
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	640D1F47

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+02299
FPAP ORTHOMETRIC HEIGHT	+02299

