

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33		Bearings, headings, courses, 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 in feet RVR.											
TERMINAL ROUTES				MISSED APPROACH											
FROM	TO	COURSE AND DISTANCE	ALTITUDE	LPV: DA LNAV/VNAV: DA LNAV: RW32 CLIMB TO 2300 DIRECT NENUE AND HOLD. ADDITIONAL FLIGHT DATA: HOLD NW, RT, 141.27 INBOUND. FAS OBST: 829 AAO 430745N/0860945W OBST: 850 AAO 430640N/0860833W CHART: ASR. DISTANCE TO THLD FROM 200 HATH: 0.47 NM. CHART VDP AT 1.26 MILES TO RW32* *LNAV ONLY. WAAS CHANNEL # 63010 REFERENCE PATH ID: W32A CHART CIRCLING ICON LTP HAE: 157.8 M											
BULLY	SINNI (FO)	098.47 / 20.41	2700												
MKG VORTAC	SINNI (FO)	187.94 / 8.53	2700												
SINNI (IF/IAF)	PADBE (FB)	321.52 / 6.23	2200												
PADBE (FAF)	RW32 (MAP) (FO)	321.45 / 4.78													
RW32 (MAP)	829 MSL	321.45													
829 MSL	NENUE (FO)		2300												
1. PT <u> </u> SIDE OF COURSE <u> </u> OUTBOUND <u> </u> FT WITHIN <u> </u> MILES OF <u> </u> (IAF) 2. HOLD SE SINNI, RT, 321.52 INBOUND, 2700 FT. IN LIEU OF PT (IAF) 3. FAC: <u>321.45</u> FAF: <u>PADBE</u> DIST FAF TO MAP: <u>4.78</u> THLD: <u>4.78</u> 4. MIN. ALT: <u>SINNI 2700, PADBE 2200</u> 5. DIST TO THLD FROM OM: <u> </u> MM: <u> </u> IM: <u> </u> 150 HAT: <u> </u> 100 HAT: <u> </u> GS ANT: <u> </u> 6. MIN GS INCPT: <u>2200</u> GS ALT AT: <u>PADBE 2200</u> OM: <u> </u> MM: <u> </u> IM: <u> </u> 7. GS ANGLE: <u>3.00</u> TCH: <u>49.9</u> 34:1 IS CLEAR 8. MSA FROM: <u>RW32 2900</u>				MAG VAR: 4W EPOCH YEAR: 1995											
MINIMUMS															
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT			ALTERNATE: N A		STANDARD										
CATEGORY =====>	A		B		C	D	E								
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA
LPV DA	829	2400	200	829	2400	200	829	2400	200	829	2400	200			
LNAV/VNAV DA	915	2400	286	915	2400	286	915	2400	286	915	2400	286			
LNAV MDA	1080	2400	451	1080	2400	451	1080	4500	451	1080	4500	451			
CIRCLING	1080	1	451	1180	1	551	1200	1 1/2	571	1200	2	571			
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 54C (130F). CHART NOTE: DME/DME RNP-0.3 NA. CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON MKG VORTAC AIRWAY RADIALS 115 CW 270. NORTHEAST BOUND AND V510 NORTHWEST BOUND. (SEE FORM 8260-10)															
CITY AND STATE MUSKEGON, MI		ELEVATION: 629 THRE: 629 AIRPORT NAME: MUSKEGON COUNTY		FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 32, AMDT 2 29 MAY 2014				SUP: AMDT: 1 DATED 01/15/2009					



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

NOTES, (CONT.):

CHART PLANVIEW NOTE: NOPT FOR ARRIVAL AT SINNI VIA V55 NORTHBOUND.

CHART NOTE: FOR INOPERATIVE MALSR, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO RVR 4500; LNAV CATS A AND B VISIBILITY TO RVR 5500 AND CATS C AND D VISIBILITY TO 1 3/8 MILE.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING IS NOT RECEIVED USE FREMONT MUNI ALTIMETER SETTING: INCREASE DA 65 FT AND ALL MDAS 80FT; INCREASE LNAV/VNAV VISIBILITY ALL CATS TO RVR 3000 AND LNAV CATS C AND D TO RVR 5500. INCREASE CIRCLING CAT C VISIBILITY TO 1 3/4 MILE.

CHART NOTE: BARO VNAV AND VDP NA WHEN USING FREMONT MUNI ALTIMETER SETTING.

CHART NOTE: FOR INOPERATIVE MALSR WHEN USING FREMONT MUNI ALTIMETER SETTING, INCREASE LPV ALL CATS VISIBILITY TO RVR 4500, LNAV/VNAV ALL CATS VISIBILITY TO RVR 5500 AND LNAV CATS C AND D VISIBILITY TO 1 1/2 MILE.

CITY AND STATE
MUSKEGON, MI

ELEVATION: 629 THRE: 629
AIRPORT NAME:
MUSKEGON COUNTY

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:
RNAV (GPS) RWY 32, AMDT 2
29 MAY 2014

SUP:
AMDT: 1
DATED: 01/15/2009

RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATIONDATA FIELDDATA

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMKG
RUNWAY	RW32
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W32A
LTP/FTP LATITUDE	430945.6820N
LTP/FTP LONGITUDE	0861319.3645W
LTP/FTP ELLIPSOIDAL HEIGHT	+01578
FPAP LATITUDE	431051.2735N
FPAP LONGITUDE	0861441.7945W
THRESHOLD CROSSING HEIGHT (TCH)	00049.9
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0888
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0

CRC REMAINDER

04975952

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+01916
FPAP ORTHOMETRIC HEIGHT	+01916

QUALITY
4
CHECKED

CITY AND STATE

MUSKEGON, MI

ELEVATION: 629

THRE: 629

AIRPORT NAME:

MUSKEGON COUNTY

FACILITY
IDENTIFIER:

RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 32, AMDT 2

29 MAY 2014

SUP:

AMDT:

1

DATED: 01/15/2009

Bearings, headings, courses, 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 in feet RVR.

[illegible][illegible][illegible]

SEGMENT	1	2	3	4	5	6	7	8	9	0	1	2	3
SUSAP KMKGK5FR32	ABULLY	010BULLYK5EA0E	IF						18000			A JS	
SUSAP KMKGK5FR32	ABULLY	020SINNIK5EA0EY	020TF			09850204	+	02700				A JS	
SUSAP KMKGK5FR32	ABULLY	030SINNIK5EA0EE	AR HF			32150040	+	02700				A JS	
SUSAP KMKGK5FR32	AMKG	010MKG K5D 0V	IF						18000			A JS	
SUSAP KMKGK5FR32	AMKG	020SINNIK5EA0EY	020TF			18790085	+	02700				A JS	
SUSAP KMKGK5FR32	AMKG	030SINNIK5EA0EE	AR HF			32150040	+	02700				A JS	
SUSAP KMKGK5FR32	R	010SINNIK5EA0E	I IF				+	02700		18000		A JS	
SUSAP KMKGK5FR32	R	020PADBEK5EA1E	F 051TF			32150062	+	02200			RW32 K5PGA	JS	
SUSAP KMKGK5FR32	R	020PADBEK5EA2WALPV		ALNAV/VNAV	ALNAV							JS	
SUSAP KMKGK5FR32	R	030RW32 K5PGOGY	M 031TF			32150048		00678		-300		A JS	
SUSAP KMKGK5FR32	R	040	0 M CA			3215	+	00829				A JS	
SUSAP KMKGK5FR32	R	050NENUEK5EA0EY	DF				+	02300				A JS	
SUSAP KMKGK5FR32	R	060NENUEK5EA0EE	R HM			14130040	+	02300				A JS	

[illegible][illegible]

CITY AND STATE MUSKEGON, MI	ELEVATION: 629 THRE: 629	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
	AIRPORT NAME: MUSKEGON COUNTY	RNAV	RNAV (GPS) RWY 32, AMDT 2	AMDT: 1
			29 MAY 2014	DATED: 01/15/2009

Bearings, headings, courses, 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 in feet RVR.

[illegible]

SUP:	
AMDT:	1
DATED:	01/15/2009

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICES - FAR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

ARINC SUMMARY - 424-18 - RNAV (GPS)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG (TRUE)	DISTANCE	ALTITUDE	SPEED
	BULLY	BULLY	010		IF		FB					
	BULLY	SINNI	020		TF		FO	2.0	098.5 (094.5T)	020.4	AA 02700	
	BULLY	SINNI	030	IAF	HF	R	FO		321.5 (317.5T)	004.0	AA 02700	
	MKG	MKG	010		IF		FB					
	MKG	SINNI	020		TF		FO	2.0	187.9 (183.9T)	008.5	AA 02700	
	MKG	SINNI	030	IAF	HF	R	FO		321.5 (317.5T)	004.0	AA 02700	
		SINNI	010	FACF	IF		FB				AA 02700	
		PADBE	020	FAF	TF		FB	0.5	321.5 (317.5T)	006.2	AA 02200	
		RW32	030	MAP	TF		FO	0.3	321.5 (317.5T)	004.8	AT 00678	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG (TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		321.5 (317.5T)		AA 00829	
	NENUE	050		DF		FO				AA 02300	
	NENUE	060		HM	R	FO		141.3 (137.3T)	004.0	AA 02300	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	MKG	N431009.31	W0860221.76	N4310.155	W08602.363
	BULLY	N430317.67	W0863054.09	N4303.295	W08630.902
	NENUE	N431842.19	W0862435.64	N4318.703	W08624.594
	PADBE	N430614.52	W0860854.47	N4306.242	W08608.908
	SINNI	N430138.82	W0860309.70	N4301.647	W08603.162
	RW32	N430945.68	W0861319.36	N4309.761	W08613.323

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW32	00629	50

CITY AND STATE MUSKEGON, MI	ELEVATION: 629	THRE: 629	FACILITY IDENTIFIER: RNAV	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE: RNAV (GPS) RWY 32, AMDT 2 29 MAY 2014	SUP:
	AIRPORT NAME: MUSKEGON COUNTY				AMDT: 1
					DATED: 01/15/2009