

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: RW31 CLIMB TO 3500 DIRECT ORALE AND HOLD. ADDITIONAL FLIGHT DATA: HOLD NW, RT, 125.78 INBOUND. CHART FAS OBST: 711 TRMSN TWR 295228N/0975011W CHART CIRCLING ICON. 860 AAO 295108N/0974718W. DISTANCE TO THLD FROM 277 HATH: 0.68 NM. CHART VDP AT 1.08 MILES TO RW31* *LNAV ONLY. WAAS CHANNEL # 90432 REFERENCE PATH ID: W31A LTP HAE: 148.7 M						
HODAL (IF/IAF)		RUYOK (FB)		305.96 / 7.20			2000								
RUYOK (FAF)		TONXU/2.50 NM TO RW31 (FB)		305.91 / 1.79											
TONXU/2.50 NM TO RW31		RW31 (MAP) (FO)		305.91 / 2.50											
RW31 (MAP)		850 MSL		305.91			3500								
850 MSL		ORALE (FO)													

1. PT <u> </u> SIDE OF COURSE <u> </u> OUTBOUND <u> </u> FT WITHIN <u> </u> MILES OF <u> </u> (IAF)															
2. HOLD SE HODAL, RT, 305.96 INBOUND, 3000 FT. IN LIEU OF PT (IAF)															
3. FAC: 305.91 FAF: RUYOK DIST FAF TO MAP: 4.29 THLD: 4.29															
4. MIN. ALT: HODAL 3000, RUYOK 2000, TONXU/2.50 NM TO RW31 1420*															
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: 2000 GS ALT AT: RUYOK 2000 OM: <u> </u> MM: <u> </u> IM: <u> </u>															
7. GS ANGLE: 3.00 TCH: 60.0 34:1 IS NOT CLEAR															
8. MSA FROM: <u> </u>															
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	850	7/8	277	850	7/8	277	850	7/8	277	850	7/8	277	850	7/8	277
LNAV/VNAV DA	896	1	323	896	1	323	896	1	323	896	1	323	896	1	323
LNAV MDA	980	1	407	980	1	407	980	1 1/8	407	980	1 1/8	407	980	1 1/8	407
CIRCLING	1080	1	485	1120	1	525	1240	1 3/4	645	1320	2 1/4	725	1340	2 3/4	745

NOTES:
 CHART NOTE: BARO-VNAV NA WHEN USING NEW BRAUNFELS ALTIMETER SETTING.
 CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (3F) OR ABOVE 54C (130F).
 CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE NEW BRAUNFELS ALTIMETER SETTING AND INCREASE ALL DA 43 FT AND ALL MDA 60 FT; INCREASE LPV ALL CATS AND LNAV/VNAV ALL CATS VISIBILITY (SEE FORM 8260-10)

@ CAT D 800-2 1/4, CAT E 800-2 3/4
 @ NA WHEN LOCAL WEATHER NOT AVAILABLE.

CITY AND STATE	ELEVATION: 595 THRE: 573	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
SAN MARCOS, TX	AIRPORT NAME:	RNAV	RNAV (GPS) RWY 31, ORIG	AMDT: NONE
	SAN MARCOS MUNI		27 JUNE 2013	DATED

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

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NOTES, (CONT.):

1/8 MILE AND LNAV CAT C/D/E AND CIRCLING CAT C/D VISIBILITY 1/4.
CHART NOTE: CIRCLING NA FOR CAT E SW OF RWY 13-31.
CHART NOTE: DME/DME RNP-0.3 NA.
CHART NOTE: VDP NA WITH NEW BRAUNFELS ALTIMETER SETTING.
CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

TAA

	FROM	TO	ALT
1.	216/30 CW 036/30 (NOPT)	HODAL (IF/IAF) (FB)	3000
2.	036/30 CW 216/30	HODAL (IF/IAF) (FO)	3100

QUALITY
2
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FLIGHT STANDARDS SERVICE - FAR PART 97.33**

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FAS DATA BLOCK INFORMATION**DATA FIELD****DATA**

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KHYI
RUNWAY	RW31
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W31A
LTP/FTP LATITUDE	295311.5795N
LTP/FTP LONGITUDE	0975125.4505W
LTP/FTP ELLIPSOIDAL HEIGHT	+01487
FPAP LATITUDE	295412.3495N
FPAP LONGITUDE	0975240.5715W
THRESHOLD CROSSING HEIGHT (TCH)	00060.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1040
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0

CRC REMAINDER

57DE4C46

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+01748
FPAP ORTHOMETRIC HEIGHT	+01748

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RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICES - FAR PART 97.33

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ARINC PACKET - 424-18 - RNAV (GPS)

[illegible][illegible]

SEGMENT	1	2	3	4	5	6	7	8	9	0	1	2	3
SUSAP KHYIK4FR31	AHODAL	010HODALK4EA0EE	AR	HF			30600060	+	03000	18000		A	JS
SUSAP KHYIK4FR31	R	010HODALK4EA0E	I	IF				+	03000	18000		A	JS
SUSAP KHYIK4FR31	R	020RUYOKK4EA1E	F	051TF			30600072	+	02000			A	JS
SUSAP KHYIK4FR31	R	020RUYOKK4EA2WALPV			ALNAV/VNAV	ALNAV							JS
SUSAP KHYIK4FR31	R	021TONXUK4EA0E	S	031TF			30590018	V	0142001430	-300		A	JS
SUSAP KHYIK4FR31	R	030RW31 K4PG0GY	M	031TF			30590025		00633	-300		A	JS
SUSAP KHYIK4FR31	R	040	0	M	CA		3059	+	00850			A	JS
SUSAP KHYIK4FR31	R	050ORALEK4EA0EY		DF				+	03500			A	JS
SUSAP KHYIK4FR31	R	060ORALEK4EA0EE	R	HM			12580060	+	03500			A	JS

[illegible][illegible]

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ARINC SUMMARY - 424-18 - RNAV (GPS)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	HODAL	HODAL	010	IAF	HF	R	FO		306.0(313.0T)	006.0	AA 03000	
		HODAL	010	PACF	IF		FB				AA 03000	
		RUYOK	020	FAF	TF		FB	0.5	306.0(313.0T)	007.2	AA 02000	
		TONXU	021	SDF	TF		FB	0.3	305.9(312.9T)	001.8	AA 01420	GS 01430
		RW31	030	MAP	TF		FO	0.3	305.9(312.9T)	002.5	AT 00633	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		305.9(312.9T)		AA 00850	
	ORALE	050		DF		FO				AA 03500	
	ORALE	060		HM	R	FO		125.8(132.8T)	006.0	AA 03500	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	HODAL	N294520.92	W0974145.00	N2945.349	W09741.750
	ORALE	N300306.94	W0980342.98	N3003.116	W09803.716
	RUYOK	N295015.90	W0974748.51	N2950.265	W09747.809
	TONXU	N295129.25	W0974919.04	N2951.488	W09749.317
	RW31	N295311.58	W0975125.45	N2953.193	W09751.424

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW31	00573	60

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