

RNAV - STANDARD US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION						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: RW13 CLIMB TO 2000 DIRECT LEMUR AND HOLD. ADDITIONAL FLIGHT DATA: HOLD SE, RT, 310.60 INBOUND. CHART FAS OBST: 301 TOWER 285946N/0955444W DISTANCE TO THLD FROM 250 HATH: 0.64 NM. CHART VDP AT 0.78 NM TO RW13* *LNAV ONLY. WAAS CHANNEL # 40127 REFERENCE PATH ID: W13A CHART CIRCLING ICON. LTP HAE: -13 M											
PSX VORTAC				COSDI (TF) (FO) (RNP 2.00)				031.97 / 25.39				2000													
COSDI (IF/IAF)				JORUM (TF) (FB) (RNP 1.00)				130.50 / 6.55				1700													
JORUM (FAF)				CIGAM/2.40 NM TO RW13 (TF) (FB) (RNP 0.30)				130.54 / 2.66																	
CIGAM/2.40 NM TO RW13				RW13 (MAP) (TF) (FO) (RNP 0.30)				130.55 / 2.40																	
RW13 (MAP)				295 MSL (CA)				130.55				2000													
295 MSL				LEMUR (DF) (FO) (RNP 1.00)																					
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. HOLD NW COSDI, RT, 130.50 INBOUND, 2000 FT. IN LIEU OF PT (IAF) 3. FAC: 130.54 FAF: JORUM DIST FAF TO MAP: 5.06 THLD: 5.06 4. MIN. ALT: COSDI 2000, JORUM 1700, CIGAM/2.40 NM TO RW13 840* 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 1700 GS ALT AT: JORUM 1700 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 45.0 34:1 IS NOT CLEAR 8. MSA FROM: RW13 2600																MAG VAR: 3E EPOCH YEAR: 2020									
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	295	1	250	295	1	250	295	1	250		NA														
LNAV/VNAV DA	295	1	250	295	1	250	295	1	250		NA														
LNAV MDA	460	1	415	460	1	415	460	1 1/8	415		NA														
CIRCLING	500	1	455	500	1	455	620	1 1/2	575		NA														
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F). @ NA WHEN LOCAL WEATHER NOT AVAILABLE. CHART NOTE: RWY 13, 31 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: RADAR REQUIRED. CHART NOTE: DME/DME RNP-0.3 NA. (CONTINUED ON PAGE 2)																									
CITY AND STATE				ELEVATION: 45 TDZE: 45				FACILITY IDENTIFIER: RNAV				PROCEDURE NO./AMDT NO./EFFECTIVE DATE:				SUP:									
BAY CITY, TX				AIRPORT NAME:								RNAV (GPS) RWY 13, ORIG-B				AMDT: ORIG-A									
				BAY CITY RGNL												DATED 09/18/2014									

ALL AFFECTED PROCEDURES REVIEWED? <div><input type="checkbox"/> YES</div> <div><input type="checkbox"/> NO</div>		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
ROUTINE					
COORDINATED WITH:					
ATA <div></div>		AAT <div></div>		ALPA <div>X</div>	
APA <div></div>		AOPA <div>X</div>		NBAA <div>X</div>	
OTHER (specify) <div>ZHU, AMGR</div>					
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME: <div>ROBERT W. COOK</div>				FIFO AJV-5411	DATE: 04/04/2017
<div><div>Digitally signed by ROBERT W COOK Apr 11, 2017</div></div>					
APPROVED BY					
NAME: <div>GEORGE E. DAVIS</div>				FIFO AJV-5410	DATE:
MANAGER					
CHANGES:					
<div>1. CHANGED COURSES ON ALL TERMINAL ROUTES, FAC, COSDI HOLD-IN-LIEU INBOUND PATTERN, AND LEMUR MISSED APPROACH HOLDING PATTERN BY ADDING 3 DEGREES EAST TO CURRENT COURSES.</div> <div>2. CHANGED AIRPORT NAME FROM "BAY CITY MUNI" TO "BAY CITY RGNL."</div> <div>3. CHANGED HELICOPTER VISIBILITY REDUCTION CHART NOTE TO READ: RWY 13, 31 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.</div> <div>4. ADDED CHART CIRCLING ICON IN ADDITIONAL FLIGHT DATA.</div> <div>5. RAISED CIRCLING CAT C MDA/HAA FROM: 500/455 TO 620/575.</div> <div>6. INCLUDED ALL PREVIOUS P-NOTAM DATA FROM AMDT ORIG-A.</div>					
REASONS:					
<div>1. KBYY MAGNETIC DECLINATION CHANGED FROM: E 06 DEGREES EPOCH 1990, TO: E 03 DEGREES EPOCH 2020.</div> <div>2. AIRPORT NAME CHANGED PER AIRNAV, AIRNAV PUBLICATION DATE SET FOR 6/22/17.</div> <div>3. AIRPORT DOES NOT MEET RDS FOR RWY AND TAXIWAY SEPERATION, VISIBILITIES NO LESS THAN 1 PER CFPT. FORMAT USED IAW 8260.19G 8-6-5 (I)(3).</div> <div>4. TERPS CHANGE 21 CIRCLING CRITERIA APPLIED.</div> <div>5. IDENTIFY NEW CONTROLLING OBSTACLE.</div> <div>6. ENSURE PROCEDURE UP TO DATE.</div>					



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 COSDI ON V13 SOUTHWEST BOUND.

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PSX VORTAC AIRWAY RADIALS 009 CW 060.

CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PALACIOS ALTIMETER SETTING AND INCREASE ALL DA 63 FEET AND ALL MDA 80 FEET; INCREASE LNAV VISIBILITY CAT C 1/4 MILE.

CHART NOTE: VDP AND BARO-VNAV N/A WHEN USING PALACIOS ALTIMETER SETTING.

QUALITY
30
CHECKED

CITY AND STATE BAY CITY, TX	ELEVATION: 45 TDZE: 45 AIRPORT NAME: BAY CITY RGNL	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 13, ORIG-B	SUP:
				AMDT: ORIG-A
				DATED: 09/18/2014

ALL AFFECTED PROCEDURES REVIEWED? <input type="checkbox"/> YES <input type="checkbox"/> NO		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
COORDINATED WITH:					
ATA <input type="checkbox"/>	AAT <input type="checkbox"/>	ALPA <input type="checkbox"/>	APA <input type="checkbox"/>	AOPA <input type="checkbox"/>	NBAA <input type="checkbox"/>
OTHER (specify) <input type="checkbox"/> _____					
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
APPROVED BY					
NAME:				FIFO	DATE:
CHANGES:					
REASONS:					

**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 INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KBYY
RUNWAY	RW13
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W13A
LTP/FTP LATITUDE	285841.1095N
LTP/FTP LONGITUDE	0955209.2605W
LTP/FTP ELLIPSOIDAL HEIGHT	-00130
FPAP LATITUDE	285739.5400N
FPAP LONGITUDE	0955055.6700W
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	1192
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
 <u>CRC REMAINDER</u>	 4213E607

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+00135
FPAP ORTHOMETRIC HEIGHT	+00135

QUALITY
30
CHECKED

CITY AND STATE BAY CITY, TX	ELEVATION: 45 AIRPORT NAME: BAY CITY RGNL	TDZE: 45 RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 13, ORIG-B	SUP:
				AMDT: ORIG-A
				DATED: 09/18/2014

ALL AFFECTED PROCEDURES REVIEWED? <input type="checkbox"/> YES <input type="checkbox"/> NO		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
COORDINATED WITH:					
ATA <input type="checkbox"/>	AAT <input type="checkbox"/>	ALPA <input type="checkbox"/>	APA <input type="checkbox"/>	AOPA <input type="checkbox"/>	NBAA <input type="checkbox"/>
OTHER (specify) <input type="checkbox"/> _____					
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
APPROVED BY					
NAME:				FIFO	DATE:
CHANGES:					
REASONS:					

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT		FROM		TO		OBSTRUCTION		COORDINATES		ELEV. MSL	ROC	ALT. ADJUSTMENTS		MIN. ALT.					
FEEDER		PSX VORTAC		COSDI		1. TOWER (48-003363)		285858.00N/0960839.00W		376 (5D)	1000	AT624		2000					
						2. TERRAIN		290503.00N/0960551.00W		75 (100)		AS1500		1600					
INTERMEDIATE: LNAV		COSDI (IF/IAF)		JORUM		3. AAO		290814.95N/0960048.55W		279 (2C)	500	AT921		1700					
						4. TERRAIN		290800.00N/0960000.00W		73 (100)		AS1500		1600					
FINAL: LPV		JORUM		RW13		5. TREE (KBYYL013)		285850.10N/0955215.84W		78 (1B)	34:1	AC10		295/250					
FINAL: LNAV/VNAV		JORUM		RW13		6. THRESHOLD		285841.11N/0955209.26W		44 (1A)	PDA			295/250					
FINAL: LNAV		JORUM		CIGAM/2.40 NM TO RW13		7. TOWER (48-000954)		290033.00N/0955447.00W		366 (5D)	250	RA80 DG80 AC50		840					
FINAL: LNAV STEPDOWN		CIGAM/2.40 NM TO RW13		RW13		8. TOWER (48-000875)		285946.00N/0955444.00W		301 (1D)	250	SA-154 AC50		460					
2. HOLD-IN-LIEU-OF-PT		COSDI		P-4		9. TOWER (48-014255)		290859.00N/0955915.00W		571 (5D)	1000	AT429		2000					
						10. TERRAIN		291345.00N/0961136.00W		102 (100)		AS1500		1600					
3. MISSED APPROACH	MAP:		DA / DA / RW13		LEMUR						ASC			2000					
	ELEV:		107/144/260				11. TOWER (48-024142)		285301.68N/0954737.88W		277 (1A)	1000	1300						
						12. TERRAIN		285900.00N/0955215.00W		46 (0)		AS1500		1500					
4. CIRCLING AREA		DISTANCE		HT. ABV. ARPT.															
CATEGORY A		1.3 NM		REQUIRED	350	ACTUAL	455	13. TWR (48-002131)		285828.00N/0955137.00W		133 (4D)	300	AC50	500				
CATEGORY B		1.5 NM			450		455	13. TWR (48-002131)		285828.00N/0955137.00W		133 (4D)	300	AC50	500				
CATEGORY C		1.7 NM			450		575	14. TWR (48-000875)		285946.00N/0955444.00W		301 (2D)	300		620				
CATEGORY D		2.3 NM			550														
CATEGORY E		4.5 NM			550														
5. MINIMUM SAFE ALTITUDES																			
PRIMARY NAVAID: RW13																			
SECTOR		OBSTRUCTION		BRG/DIST		ELEVATION (MSL)		M S A		SECTOR		OBSTRUCTION		BRG/DIST		ELEVATION (MSL)		M S A	
360-360		TWR (48-008901)		212/19.0		1547 (5D)		2600											
CITY AND STATE				ELEVATION: 45				FACILITY				PROCEDURE AND AMENDMENT NO:				REGION			
BAY CITY, TX				AIRPORT NAME: BAY CITY RGNL				RNAV				RNAV (GPS) RWY 13, ORIG-B				ASW			

PART B - SUPPLEMENTAL DATA										PART C - REMARKS:											
1. COMMUNICATIONS WITH:					2. WEATHER SERVICE					3. ALTIMETER SETTING					PRECIPITOUS TERRAIN EVALUATION COMPLETED.						
ZHU ARTCC							N W S		OTHER: AWOS-3			SOURCE:KBYY / KPSX									
							F A A					DISTANCE: 0 / 25.16									
							A / C					HOURS REMOTE OPERATION: 24 / YES / 24 / YES									
SATISFACTORY ON:																					
X		V H F		X		U H F		X		H F		LOCATION: KBYY					ADJUSTMENT: 0 / 63				
4. MONITOR STATUS		PRIMARY NAVAID:																			
		MONITOR POINT:																			
		HRS OPTN:		CAT 1																	
				CAT 3																	
5. APPROACH & RUNWAY LIGHTING		ALS																			
		(S) SALS																			
		MALS																			
		HIRL																			
		X		MIRL 13, 31																	
		X		REIL 13																	
		TDZ																			
		C/LINE																			
		X		OTHER (SPECIFY) PAPI-2L 13																	
6. RUNWAY MARKINGS		BASIC																			
		ALL WEATHER																			
		INSTRUMENT NPI-G 13, 31																			
7. RUNWAY VISUAL RANGE		APPROACH																			
		MIDFIELD																			
		ROLL OUT																			
8. GLIDE PATH		GP ANGLE: 3.00								ELEV RWY THRESHOLD:44.4											
		DISTANCE FROM RWY:								ELEV GP ANTENNA:											
		THRESHOLD CROSSING HEIGHT:45.0																			
9. FINAL APPROACH COURSE AIMING				X		RUNWAY THRESHOLD												FT. FROM THRESHOLD			
				X		ON CENTERLINE												FT. FROM CENTERLINE			
10. WAIVERS: NONE																					
PART D - PREPARED BY: ROBERT W. COOK										DATE: 04/04/2017											
TITLE: AERONAUTICAL INFORMATION SPECIALIST										OFFICE: AJV-5411											

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.
CAT A: 1.30NM
CAT B: 1.81NM
CAT C: 2.84NM

NO ADDITIONAL AIRSPACE REQUIRED.
RASS PRESSURE PATTERNS SAME
KBYY 44.90, KPSX 14.10
RA = 62.19.

OBSTACLE THE SAME FOR ALL INTERMEDIATE SEGMENTS.

ISA DEVIATION -30°C.
NO HISTORICAL TEMPERATURE DATA IS AVAILABLE FOR THIS AIRPORT. AVERAGE COLD TEMPERATURE BASED ON STANDARD-30°C ISA DEVIATION.
LPV SURFACE = 34:1.
LNAV/VNAV SURFACE = 23.4:1.

TAA NOT DEVELOPED, ZHU REQUEST.

ALL NON-SURVEYED VEGETATION 55 FEET PER CFPT.

THRESHOLD IDENTIFIED AS LNAV/VNAV CONTROLLING OBSTACLE
IAW 8260.54A, PARA 4.3.4. THERE ARE NO OBSTACLES IN THE LEVEL SURFACE OEA HIGHER THAN 89 FEET ABOVE LTP
ELEVATION: 250 MINIMUM HATH APPLIED.

ALL INTERMEDIATE SEGMENTS HAVE THE SAME CONTROLLING OBSTACLE.

THE AIRPORT DOES NOT MEET RDS FOR RWY/TAXIWAY SEPERATION, VISIBILITIES NO LESS THAN 1 SM PER CFPT.

"VISUAL PORTION OF FINAL" PENETRATIONS:
LPV, LNAV/VNAV, LNAV:
34:1:
78 TREE (KBYYL018) 285851.92N/0955214.00W (8.37)
78 TREE (KBYYL013) 285850.10N/0955215.84W (8.63)
70 TREE (KBYYL007) 285849.51N/0955214.85W (3.71)
59 TREE (KBYYL004) 285842.90N/0955215.85W (4.35)

RWY 13 VGS/ TCH: 3.50/25.60

KBYY AWOS-3 AND KPSX ASOS ON WMSCR.

CAT D MINIMUMS NOT DEVELOPED, AMGR REQUEST.

QUALITY
30
CHECKED