

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV - 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 ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>		
T89	RNAV (GPS) Z RWY 25	ORIG	LAJITAS	TX		
<u>AIRPORT ELEVATION</u>	<u>TDZE</u>	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u>	<u>EPOCH YEAR</u>
2630	2628		NONE		9E	2000
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u>			
RNAV			ROUTINE			

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
MRF VOR/DME		COMAE		TF	FB		136.85	52.39	15000
RUZEL		COMAE		TF	FB		093.49	10.98	15000
COMAE	IAF	WEDEL		TF	FB		137.13	10.00	11000
WEDEL		SOCCR		TF	FB		217.64	7.15	7500
SOCCR	IF	JAROR		TF	FB		239.41	7.00	5700
JAROR	PFAF	RW25	MAP	TF	FB		249.43		
RW25	MAP	3700 MSL		CA			249.43		
3700 MSL		RUZEL		DF	FO				15000

MISSED APPROACH

MAP:

LPV:DA
LNAV/VNAV: DA

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3700 THEN CLIMBING RIGHT TURN TO 15000 DIRECT RUZEL AND HOLD, CONTINUE CLIMB-IN-HOLD TO 15000. MISSED APPROACH REQUIRES MINIMUM CLIMB OF 383 FEET PER NM TO 5060, IF UNABLE TO MEET CLIMB GRADIENT, SEE RNAV (GPS) Y RWY 25.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

PROFILE:

1. PT **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF** **(IAF)**
2. PROFILE STARTS AT SOCCR
3. **FAC:** 249.43 **PFAF:** JAROR **DIST PFAF TO MAP:** 8.91 **DIST PFAF TO THLD:**
4. **MIN ALT:** SOCCR 7500, JAROR 5700
5. **DIST TO THLD FROM PFAF:** 8.91 **MM:** **IM:** **150 HAT:** **350 HAT:** 0.90
6. **MIN GP INCPT:** 5700 **GP ALT AT PFAF:** JAROR 5700 **MM:** **IM:**

7. GP ANGLE: 3.20 34:1: IS CLEAR 20:1: IS CLEAR TCH: 45.0

8. MSA FROM: RW25 9100

PBN EQUIPMENT REQUIREMENTS NOTES:

RNP APCH-GPS

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -20C OR ABOVE 54C.
CHART NOTE: WHEN LOCAL ALTIMETER NOT RECEIVED, PROCEDURE NA.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON MRF VOR/DME AIRWAY RADIALS 047 CW 227.
CHART SPEED ICON IN PLANVIEW AT WEDEL: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

HOLD W, RT, 093.49 INBOUND
CHART INTERNATIONAL BORDER
WAAS CHANNEL# 71055
REFERENCE PATH ID: W25A
LTP HAE: 779M
NON-FAA PROCEDURE

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

CATEGORY:

FINAL TYPE	DA/MDA	A VIS	HAT/HAA	DA/MDA	B VIS	HAT/HAA	DA/MDA	C VIS	HAT/HAA	DA/MDA	D VIS	HAT/HAA	DA/MDA	E VIS	HAT/HAA
LPV DA	2978	1	350	2978	1	350	2978	1	350	2978	1	350			
LNAV/VNAV DA	3145	1 3/8	517	3145	1 3/8	517	3145	1 3/8	517	3145	1 3/8	517			

CHANGES - REASONS:

ORIGINAL

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZAB, AMGR

FLIGHT CHECKED BY

CHRISTIAN F. BAUR

CHRISTIAN F. BAUR

Digitally signed by CHRISTIAN F. BAUR
Date: 2024.09.11 11:35:26 -05'00'

OFFICE

HAC

DATE

08/17/2024

DEVELOPED BY

JOSH MATTHEWS

Josh Matthews

Digitally signed by Josh Matthews
Date: 2024.09.11 11:34:57 -05'00'

OFFICE

HAC

DATE

08/17/2024

APPROVED BY

TONY LAWSON

Tony Lawson

Digitally signed by Tony Lawson
Date: 2024.09.11 11:35:49 -05'00'

OFFICE

HAC

DATE

08/17/2024

TITLE

CHIEF DESIGNER

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	T89
RUNWAY	25
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Z
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W25A
LTP/FTP LATITUDE	291644.1500N
LTP/FTP LONGITUDE	1034032.9100W
LTP/FTP ELLIPSOIDAL HEIGHT	+07790
FPAP LATITUDE	291626.1055N
FPAP LONGITUDE	1034212.6915W
THRESHOLD CROSSING HEIGHT (TCH)	00045.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.20
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0768
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
 <u>CRC REMAINDER</u>	 3679559B

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+08010
FPAP ORTHOMETRIC HIEGHT	+08010

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD**

<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
	T89	RNAV (GPS) Z RWY 25	ORIG	LAJITAS	TX	2630	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM MRF VOR/DME TO COMAE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							
	52.39											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>	
1. AAO	300627.00N/1034315.00W	6926	164	98	4E	2000				AT6074	15000	
2. TERRAIN	300627.00N/1034315.00W	6726 (6700)								AS1500	8200	

COMPUTATIONS

<u>N/A</u>	<u>ALT</u>	<u>KIAS</u>	<u>KTAS</u>	<u>HAA</u>	<u>VKTW</u>	<u>TR</u>	<u>BA</u>	<u>DTA</u>	<u>COURSE CHANGE</u>	<u>DVEB</u>	<u>VEB OCS</u>	<u>RF CENTER FIX/DISTANCE</u>
------------	------------	-------------	-------------	------------	-------------	-----------	-----------	------------	----------------------	-------------	----------------	-------------------------------

SEGMENT REMARKS:

FEEDER

FROM RUZEL TO COMAE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							
	10.98											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>	
3. AAO	293718.00N/1032809.00W	4738	164	98	4E	2000				AT8262	15000	
4. TERRAIN	293718.00N/1032809.00W	4538 (4500)								AS1500	6000	

COMPUTATIONS

<u>N/A</u>	<u>ALT</u>	<u>KIAS</u>	<u>KTAS</u>	<u>HAA</u>	<u>VKTW</u>	<u>TR</u>	<u>BA</u>	<u>DTA</u>	<u>COURSE CHANGE</u>	<u>DVEB</u>	<u>VEB OCS</u>	<u>RF CENTER FIX/DISTANCE</u>
------------	------------	-------------	-------------	------------	-------------	-----------	-----------	------------	----------------------	-------------	----------------	-------------------------------

SEGMENT REMARKS:

INITIAL

FROM COMAE TO WEDEL

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							
	10.00											

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
5. AAO	292820.38N/1032117.60W	4580	50	20	2C	1000				PR110 AT5310	11000
6.TERRAIN	292821.00N/1032118.00W	4301 (4300)								AS1500	5800

COMPUTATIONS	N/A	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
--------------	-----	-----	------	------	-----	------	----	----	-----	---------------	------	---------	------------------------

SEGMENT REMARKS:
SPEED RESTRICTION 210 KIAS FOR LEG LENGTH AND STABILIZED DESCENT FOR OFFSET INTERMEDIATE.

INITIAL: STEPDOWN

FROM						TO						
WEDEL						SOCCR						
RNP	DISTANCE	PAT	MAP			HAT		HMAS				
	7.15											
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
7. AAO	292220.45N/1032053.06W		4760	50	20	2C	1000				PR120 AT1620	7500
8 TERRAIN	292220.45N/1032053.06W		4559 (4600)								AS1500	6100

COMPUTATIONS	N/A	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
--------------	-----	-----	------	------	-----	------	----	----	-----	---------------	------	---------	------------------------

SEGMENT REMARKS:
SPEED RESTRICTION 210 KIAS FOR LEG LENGTH AND STABILIZED DESCENT FOR OFFSET INTERMEDIATE.

INTERMEDIATE

FROM					TO						
SOCCR					JAROR						
RNP	DISTANCE	PAT	MAP		HAT		HMAS				
	7.00										
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
9. AAO	292250.79N/1032603.07W	5000	50	20	2C	500				SA-337 PR120 AT417	5700
10. TERRAIN	291839.00N/1032403.00W	3750 (3800)								AS1500	5300

COMPUTATIONS	N/A	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
--------------	-----	-----	------	------	-----	------	----	----	-----	---------------	------	---------	------------------------

SEGMENT REMARKS:

AIRPORTAIRPORT ID

T89

PROCEDURE NAME

RNAV (GPS) Z RWY 25

AMDT NO.

ORIG

CITY

LAJITAS

STATE

TX

AIRPORT ELEVATION

2630

FACILITY

RNAV

FINAL: LPV

FROM
JARORTO
RW25RNPDISTANCE

8.91

PATMAP

DA

HAT

350

HMASOBSTRUCTIONCOORDINATESELEV MSLHORZVERTACROCOCSCGCGTAADJUSTMENTSMIN ALT

11. TREE

291649.92N/1034023.03W

2665

50

20

2C

31.88:1

AC20

2978

COMPUTATIONSN/AALTKIASKTASHAAVKTWTRBADTACOURSE CHANGEDVEBVEB OCSRF CENTER FIX/DISTANCESEGMENT REMARKS:

FINAL: LNAV/VNAV

FROM
JARORTO
RW25RNPDISTANCE

8.91

PATMAP

DA

HAT

517

HMASOBSTRUCTIONCOORDINATESELEV MSLHORZVERTACROCOCSCGCGTAADJUSTMENTSMIN ALT

12. TREE

291734.47N/1033913.70W

2825

50

20

2C

21.95:1

AC20

3145

COMPUTATIONSN/AALTKIASKTASHAAVKTWTRBADTACOURSE CHANGEDVEBVEB OCSRF CENTER FIX/DISTANCESEGMENT REMARKS:

MISSED APPROACH: LPV

FROM
DATO
WEDELRNPDISTANCEPATMAPHATHMAS

2742

<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
	T89	RNAV (GPS) Z RWY 25	ORIG	LAJITAS	TX	2630	RNAV

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>	
13. AAO	292424.61N/1034634.91W	5160	50	20	2C		18.14:1	383	5060		15000	
14. AAO	292827.00N/1033530.00W	5207	50	20	2C	1000				PR160	6400	
15. TERRAIN	292827.00N/1033530.00W	5007 (5000)								AS1500	6500	
<u>COMPUTATIONS</u>												
<u>N/A</u>	<u>ALT</u>	<u>KIAS</u>	<u>KTAS</u>	<u>HAA</u>	<u>VKTW</u>	<u>TR</u>	<u>BA</u>	<u>DTA</u>	<u>COURSE CHANGE</u>	<u>DVEB</u>	<u>VEB OCS</u>	<u>RF CENTER FIX/DISTANCE</u>

SEGMENT REMARKS:

MISSED APPROACH: LNAV/VNAV

FROM DA						TO WEDEL									
RNP		DISTANCE		PAT		MAP		HAT		HMAS 2984					
OBSTRUCTION		COORDINATES		ELEV MSL		HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS		MIN ALT
13. AAO		292424.61N/1034634.91W		5160		50	20	2C		18.14:1	383	5060			15000
14. AAO		292827.00N/1033530.00W		5207		50	20	2C	1000				PR150		6400
15. TERRAIN		292827.00N/1033530.00W		5007 (5000)									AS1500		6500
COMPUTATIONS															
N/A		ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE		DVEB	VEB OCS	RF CENTER FIX/DISTANCE	

SEGMENT REMARKS:

CIRCLING

NOT AUTHORIZED

CIRCLING REMARKS:

MSA

<u>CENTER</u>		<u>RADIUS</u>									
RW25		25 NM									
<u>SECTOR</u>	<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>BEARING</u>	<u>DISTANCE</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
360-360	AAO	291454.77N/1031807.72N	086	19.7	8025	50	20	2C	1000		9100

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH
ZAB

WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	SERVICE-A	ADJUSTMENTS
AWOS-3	T89	24	T89	0.00	Y	0
BACK-UP WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	SERVICE-A	ADJUSTMENTS

WX REMARKS:
T89 2630

PRIMARY NAVAID	MONITOR POINT	HRS OPERATION	CAT
----------------	---------------	---------------	-----

APPROACH AND RUNWAY LIGHTING SYSTEM	RUNWAY MARKINGS	RUNWAY VISUAL RANGE
RW07 - MIRL	NPI-G	
RW25 - MIRL	NPI-G	

GLIDESLOPE ANGLE	ELEV RWY THRESHOLD	TCH	ELEV GS ANTENNA	DISTANCE FROM RWY	VGSI ANGLE	TCH
3.20	2628	45.0				

FINAL APPROACH COURSE AIMING			
RUNWAY THRESHOLD	☒	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	☒	FT FROM CENTERLINE	

CRITICAL TEMPERATURES			
CRITICAL LOW	CRITICAL HIGH	ACT	APT ISA
-20C	+54C	-20C	+9.79

CRITICAL TEMPERATURE REMARKS:
AVERAGE COLD TEMPERATURE DERIVED FROM STANDARD -30°C ISA DEVIATION.
CRITICAL LOW TEMPERATURE BASED ON ACT.
DESCENT RATE (FPM): STANDARD TEMP 1057 HIGH TEMP 1307.

"VISUAL PORTION OF FINAL" PENETRATIONS

20:1

34:1

AIRPORT

AIRPORT ID

T89

PROCEDURE NAME

RNAV (GPS) Z RWY 25

AMDT NO.

ORIG

CITY

LAJITAS

STATE

TX

AIRPORT ELEVATION

2630

FACILITY

RNAV

PENETRATIONS REMARKS:

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED. AAO DETERMINED BY 7.5 MIN QUAD. VEGETATION HEIGHT DETERMINED BY AIRPORT EVALUATION, AVERAGE TREE HEIGHT WITHIN 5 MILES OF THE AIRPORT IS 25 FEET. TARGETS USED TO BUILD THE PROCEDURE. TERRAIN EVALUATED IN TARGETS AND THEN TOPO QUAD. TERRAIN TURNED OFF AND RE-RUN TO CONFIRM OBSTACLES.

LPV OCS SLOPE: 31.88:1

LNAV/VNAV OCS SLOPE: 21.95:1

PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	THLD	TO 1000FT POINT	5.38
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.2
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	258.43
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	3500
DISTANCE FROM	THLD	TO 1500FT POINT	6.85
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.7
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	258.43
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	3500
THRESHOLD COORDINATES (IF STR-IN)	291644.15N/1034032.91W		
ARP COORDINATES	291637.65N/1034108.86W		
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RWY 25 / 0.54 NM		
PFAF COORDINATES	JAROR (PFAF) 291831.97N/1033034.09W		
FIX NAME COORDINATES	SOCCR (IF) 292107.09N/1032307.38W		
REMARKS			

PART E: PREPARED BY

<u>NAME</u>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
JOSH MATTHEWS	Josh Matthews Digitally signed by Josh Matthews Date: 2024.09.11 11:42:34 -05'00' HAC	08/18/2024	TERPS ENGINEER