

UNITED STATES AIR FORCE FLIGHT STANDARDS SERVICE VOR OR TACAN STANDARD INSTRUMENT APPROACH PROCEDURE

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>
SJT	HI - VOR Z OR TACAN RWY 21	3	SAN ANGELO	TX
<u>AIRPORT ELEVATION</u>	<u>TDZE</u>	<u>SUPERSEDED</u>	<u>DATED</u>	<u>EPOCH YEAR</u>
1919	1906	HI - VOR Z OR TACAN RWY 21	12/02/2021	1965
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u>	<u>CANCEL/SUSPEND</u>
SJT			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>
SJT VORTAC	IAF	EWUYI/SJT 15.00 DME					090.00	15.00	4100
EWUYI/15.00 DME CCW	IAF	JERJI/SJT 15.00 DME					15.00 DME ARC (SJT VORTAC LR-068)		4100
JERJI/SJT 15.00 DME	IF	SJT VORTAC					240.00	15.00	2600

MISSED APPROACH

MAP:

PAPIY/SJT 1.83 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 THEN CLIMBING RIGHT TURN TO 4400 ON HEADING 360 AND SJT VORTAC R-284 TO TANKR/SJT 11.00 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4400.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. **PT** **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF** (IAF)
2. PROFILE STARTS AT SJT VORTAC
3. **FAC:** 235.00 **FAF:** SJT VORTAC **DIST FAF TO MAP:** **DIST FAF TO THLD:** 1.83
4. **MIN ALT:** SJT VORTAC 12000, EWUYI/SJT 15.00 DME 4100, JERJI/SJT 15.00 DME 4100, SJT VORTAC 2600
8. **MSA FROM:** SJT VORTAC 4300, ESA W/IN 100 NM 4700



EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: CIRCLING NA FOR CAT D W OF RWY 18-36.

ADDITIONAL FLIGHT DATA:

SJT VORTAC TO RW21: 3.34/59
HOLD W, RT, 103.60 INBOUND.
CHART FAS OBST: 2045 TOWER (48-175403) 312139N/1002750W.
CHART VDP AT 0.72 DME.
DISTANCE VDP TO THLD 1.11 NM.
CHART SJT R-090 AT EWUYI.
FAC CROSSES RWY C/L EXTENDED 478 FT FROM THLD.

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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
S-21		NA			NA		2300	1 1/8	394	2300	1 1/8	394	2300	1 1/8	394
CIRCLING		NA			NA		2500	1 1/2	581	2580	2	661		NA	

CHANGES - REASONS

1. CHANGED MISSED APPROACH INSTRUCTIONS FROM "CLIMB TO 3000 THEN CLIMBING RIGHT TURN TO 4400 ON HEADING 360 AND SJT VORTAC R-284 TO TANKR INT/SJT 11.00 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4400" TO "CLIMB TO 3000 THEN CLIMBING RIGHT TURN TO 4400 ON HEADING 360 AND SJT VORTAC R-284 TO TANKR/SJT 11.00 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4400" - REMOVED TANKR "INT", WOOLE (SJ) NDB DECOMMISSIONED.
2. REMOVED "CHART CIRCLING ICON" - IAW MEMO DATED 05/15/2025.
3. REMOVED "CHART ASR" - NOT NEEDED.



COORDINATED WITH:

A4A

ALPA

AOPA

APA

HAI

NBAA

OTHER: ZFW, MAF ATCT, SJT APP CON, AMGR

FLIGHT CHECKED BY

BRIAN HARRELSON

Digitally signed by

RAKE MCGRAW

May 21, 2026

OFFICE

AJF

DATE

02/03/2026

DEVELOPED BY

ARTHUR ULVESTAD

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May 21, 2026

OFFICE

AJV-A422

DATE

11/14/2025

RECOMMENDED BY

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May 21, 2026

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DATE

TITLE

MANAGER

APPROVED BY

Digitally signed by

RAKE MCGRAW

May 21, 2026

OFFICE

DATE

TITLE



**UNITED STATES AIR FORCE
FLIGHT STANDARDS SERVICE
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD**

<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>
SJT	HI - VOR Z OR TACAN RWY 21	3	SAN ANGELO	TX	1919	SJT

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM SJT VORTAC **TO** EWUYI/SJT 15.00 DME

<u>RNP</u>	<u>DISTANCE</u> 15.00	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>			<u>HMAS</u>	
<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>
AAO	311733.00N/1001912.00W	2320	215	8	4B	1000				AT780	4100
TERRAIN	311733.00N/1001912.00W	2119 (2100)								AS1500	3600

COMPUTATIONS

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

SEGMENT REMARKS:

INITIAL: ARC

FROM EWUYI/15.00 DME CCW **TO** JERJI/SJT 15.00 DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>			<u>HMAS</u>		
<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>
TOWER (48-004098)	312201.60N/1000249.90W	3283	250	50	4D	1000				SA-986 AT803	4100
TERRAIN	312012.00N/1001154.00W	1932 (1900)								AS1500	3400

COMPUTATIONS

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

SEGMENT REMARKS:

3283 TOWER LOCATED 11906 FEET INTO SECONDARY AREA.



INTERMEDIATE

FROM

JERJI/SJT 15.00 DME

TO

SJT VORTAC

<u>RNP</u>	<u>DISTANCE</u> 15.00	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>	<u>HMAS</u>				
<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>
AAO	312336.78N/1002556.62W	2100	50	20	2C	500					2600
TERRAIN	312139.00N/1002624.00W	1909 (1900)								AS700	2600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

AS700 USED TO MAINTAIN DESCENT GRADIENT. SEGMENT CONTAINED IN CLASS D AIRSPACE.

FINAL

FROM

SJT VORTAC

TO

PAPIY/SJT 1.83 DME

<u>RNP</u>	<u>DISTANCE</u> 1.83	<u>PAT</u>	<u>MAP</u> PAPIY/SJT 1.83 DME			<u>HAT</u> 394	<u>HMAS</u>				
<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>
TOWER (48-175403)	312139.04N/1002749.99W	2045	20	3	1A	250					2300

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSSED APPROACH

FROM

PAPIY/SJT 1.83 DME

TO

TANKR/SJT 11.00 DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u> 2050			
<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>
							ASC				4400
TOWER (48-007985)	312516.58N/1003237.34W	2692	500	50	5D	1000					3700
TERRAIN	312924.00N/1003721.00W	2283 (2300)								AS1500	3800

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

CIRCLING

☐ ALL CATS

☐ CAT A

☐ CAT B

☒ CAT C

☒ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY C											
TOWER (48-001287)	312441.66N/1002830.77W	2.95	581	2183	50	20	2C	300			2500
CATEGORY D											
TOWER (48-023478)	311901.88N/1002610.55W	3.86	661	2268	20	10	1B	300			2580

CIRCLING REMARKS:



ESA

CENTER

SJT VORTAC

RADIUS

100

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TOWER (48-004448)	322345.23N/1015721.31W	309	98.1	3640	500	50	5D	1000			4700

ESA REMARKS:

MSA

CENTER

SJT VORTAC

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TOWER (48-004098)	312202.00N/1000249.00W	081	20.9	3283	500	50	5D	1000			4300

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

VEGETATION HEIGHT 55 FT PER FPT.

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

MAF TOWER, SJT FSS

WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	WMSCR	ADJUSTMENTS
ASOS	SJT	24	SJT		Y	0
BACK-UP WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	WMSCR	ADJUSTMENTS

WX REMARKS:

BACKUP ALTIMETER SOURCE NOT ESTABLISHED DUE TO AVAILABILITY OF NWS AT THE AIRPORT.

PRIMARY NAVAID

SJT VORTAC

MONITOR POINT

ZFW

HRS OPERATION

24

CAT

1

APPROACH AND RUNWAY LIGHTING SYSTEM	RUNWAY MARKINGS	RUNWAY VISUAL RANGE
RW09 - MIRL (PCL)	BSC-G	
RW27 - MIRL (PCL)	BSC-G	
RW18 - MIRL (PCL), REIL (PCL), PAPI-4L (PCL)	NPI-G	
RW36 - MIRL (PCL), PAPI-4L (PCL)	NPI-G	
RW03 - MALSR (PCL), HIRL (PCL)	PIR-G	APPROACH
RW21 - HIRL (PCL), VASI-4L	PIR-G	ROLL OUT



<u>AIRPORT ID</u> SJT	<u>PROCEDURE NAME</u> HI - VOR Z OR TACAN RWY 21	<u>AMDT NO.</u> 3	<u>CITY</u> SAN ANGELO	<u>STATE</u> TX	<u>AIRPORT ELEVATION</u> 1919	<u>FACILITY</u> SJT
<u>GLIDESLOPE ANGLE</u>	<u>ELEV RWY THRESHOLD</u>	<u>TCH</u>	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u> 3.00	<u>TCH</u> 52.0

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	☐	478 FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	☒	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

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

<u>PENETRATIONS REMARKS:</u>

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



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	MAP	TO 1000FT POINT	14.43
WIDTH OF	INTERMEDIATE	SEGMENT AT 1000FT POINT	7.20
TRUE COURSE OF	INTERMEDIATE	SEGMENT CONTAINING 1000FT POINT	250.00
HIGH TERRAIN IN	INTERMEDIATE	SEGMENT CONTAINING 1000FT POINT	1900
DISTANCE FROM	MAP	TO 1500FT POINT	15.43
WIDTH OF	INTERMEDIATE	SEGMENT AT 1500FT POINT	7.62
TRUE COURSE OF	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	250.00
HIGH TERRAIN IN	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	1900

THRESHOLD COORDINATES (IF STR-IN)	312141.81N/1002912.68W
ARP COORDINATES	312127.89N/1002946.70W
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RUNWAY 36 DISTANCE 0.69 NM
FAF COORDINATES	312229.84N/1002717.53W
FIX NAME COORDINATES	

REMARKS

PART E: PREPARED BY

NAME	OFFICE	DATE	TITLE
ARTHUR ULVESTAD	AJV-A422	11/14/2025	AERONAUTICAL INFORMATION SPECIALIST

