

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.23**

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>		
BWD	VOR RWY 17	ORIG	BROWNWOOD	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SUPERSEDED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>
1387	1387		NONE		8E	1980
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u>	<u>CANCEL/SUSPEND</u>		
BWD	315333.30N/0985726.86W		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>
ABI VORTAC		BWD VOR/DME					117.14	58.06	4000

MISSED APPROACH

MAP:

5.43 NM AFTER BWD VOR/DME

MISSED APPROACH INSTRUCTIONS:

CLIMBING RIGHT TURN TO 4000 DIRECT BWD VOR/DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2.	HOLD N BWD VOR/DME, RT, 170.72 INBOUND, 3200 FT. IN LIEU OF PT (IAF), MAX 6000.				
3. FAC:	170.72	FAF: BWD VOR/DME	DIST FAF TO MAP:	5.43	DIST FAF TO THLD: 5.43
4. MIN ALT:	BWD VOR/DME 3200				
8. MSA FROM:	BWD VOR/DME 3700				

NOTES:

CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE VOR CAT A AND D VISIBILITY TO 1 7/8 SM.

ADDITIONAL FLIGHT DATA:

BWD VOR/DME TO RW17: 3.05/55.

FAS OBST: 1798 AAO 315233N/0985703W.
1821 AAO 315248N/0985642W.
CHART VDP AT 3.49 DME.
DISTANCE VDP TO THLD 1.94 NM.



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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/2, NA WHEN LOCAL WEATHER NOT AVAILABLE.

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-17	2060	3/4	673	2060	3/4	673	2060	1 3/4	673	2060	1 3/4	673			
CIRCLING	2060	1	673	2060	1	673	2060	2	673	2160	2 1/2	773			

CHANGES - REASONS

COORDINATED WITH:

A4A☐

ALPA☒

AOPA☒

APA☐

HAI☐

NBAA☒

OTHER: ZFW, FTW FSS, AMGR

FLIGHT CHECKED BY
BRIAN HARRELSON

Digitally signed by
ROBERT G HAMILTON
Sep 12, 2024

OFFICE
FPO

DATE
08/23/2024

DEVELOPED BY
ROBERT G HAMILTON (MATTHEW W.TOWNSEND)

Digitally signed by
ROBERT G HAMILTON
Sep 12, 2024

OFFICE
AJV-A433

DATE
09/05/2024

APPROVED BY
ROBERT G HAMILTON

Digitally signed by
ROBERT G HAMILTON
Sep 12, 2024

OFFICE
AJV-A433

DATE

TITLE
MANAGER



**FEDERAL AVIATION ADMINISTRATION
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>
BWD	VOR RWY 17	ORIG	BROWNWOOD	TX	1387	BWD

PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM ABI VORTAC **TO** BWD VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
	58.06				

<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 (48-011248)	321632.00N/0993525.00W	2991	500	50	5D	1000					4000
TERRAIN	321615.00N/0994000.00W	2293 (2300)								AS1500	3800

COMPUTATIONS

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

SEGMENT REMARKS:

FINAL

FROM BWD VOR/DME **TO** 5.43 NM AFTER BWD VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
	5.43		5.43 NM AFTER BWD VOR/DME	673	

<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	315233.00N/0985703.00W	1798	215	8	4B	250					2060

COMPUTATIONS

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

SEGMENT REMARKS:



HOLD-IN-LIEU OF PT

FROM

BWD VOR/DME

TO

P-4

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u> P-4	<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	315521.00N/0985324.00W	2172	215	8	4B	1000					3200
TERRAIN	315521.00N/0985324.00W	1971 (2000)								AS1000	3000

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH

FROM

5.43 NM AFTER BWD VOR/DME

TO

BWD VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u> 1810			
<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				4000
AAO	315248.00N/0985642.00W	1821	215	8	4B	1000					2900
TERRAIN	315248.00N/0985642.00W	1620 (1600)								AS1500	3100

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 A											
TREE	314900.00N/0985748.00W	1.31	673	1517	215	8	4B	300		SI	2060
CATEGORY B											
TREE	314700.00N/0985518.00W	1.85	673	1533	215	8	4B	300		SI	2060
CATEGORY C											
TOWER (48-191085)	314946.92N/0990018.96W	2.92	673	1723	20	3	1A	300		SI	2060
CATEGORY D											
TOWER (48-007662)	314548.54N/0985335.17W	3.82	773	1805	500	50	5D	300		AC50	2160

CIRCLING REMARKS:

MSA

CENTER

BWD VOR/DME

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	WINDMILL (48-187248)	321344.82N/0991045.51W	323	23.1	2676	250	50	4D	1000			3700

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZFW ARTCC

<u>WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>SERVICE-A</u>	<u>ADJUSTMENTS</u>
AWOS-3	BWD	24	BWD	0	Y	0
<u>BACK-UP WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>SERVICE-A</u>	<u>ADJUSTMENTS</u>
AWOS-3	MKN	24	MKN	19.77	Y	48

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME
KBWD 1387, KMKM 1402
RA = 48.0.

<u>PRIMARY NAVAID</u>	<u>MONITOR POINT</u>	<u>HRS OPERATION</u>	<u>CAT</u>
BWD VOR/DME	AOCC	24	1

<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW13 - MIRL (PCL)	BSC-G	
RW31 - MIRL (PCL)	BSC-G	
RW17 - MALS (PCL), MIRL (PCL), PAPI-4L	NPI-G	
RW35 - MIRL (PCL), PAPI-4L	NPI-G	

<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>	<u>TCH</u>
					3.00	55.1

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input checked="" type="checkbox"/>	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

FINAL TYPE	VOR RWY 17
34:1	
1411 TREE (48-038095) 314816.8100N/0985721.5600W (2.61)	1418 TREE (48-117100) 314819.8800N/0985715.1800W (0.66)

PENETRATIONS REMARKS:

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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.

CONTINGENT ALTIMETER NOTES:
WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MKN ALTIMETER SETTING: INCREASE ALL MDAS 60 FEET AND CIRCLING VISIBILITY CAT D 1/4 SM.
VDP NA WHEN USING MKN ALTIMETER SETTING.

ASSUMED VEGETATION PER FPT 50FT.
ORDER 8260.3 CHAPTER 2 APPLIED TO 1821 AAO 315248.00N/0985642.00W.

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	THLD	TO 1000FT POINT	3.43
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	2.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	178.72
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	1600
DISTANCE FROM	THLD	TO 1500FT POINT	15.43
WIDTH OF		SEGMENT AT 1500FT POINT	8.88
TRUE COURSE OF		SEGMENT CONTAINING 1500FT POINT	178.72
HIGH TERRAIN IN		SEGMENT CONTAINING 1500FT POINT	2000

THRESHOLD COORDINATES (IF STR-IN)	314806.79N/0985718.28W
ARP COORDINATES	314737.00N/0985723.40W
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RUNWAY 17 DISTANCE 0.50 NM
FAF COORDINATES	315333.30N/0985726.86W
FIX NAME COORDINATES	

REMARKS

1500 FT POINT LOCATED IN HOLD-IN-LIEU OF PT HOLDING PATTERN AT BWD VOR/DME (0315333.30N/0985726.86W), PATTERN SIZE 4 UTILIZED" AND IAW 8260.19J 5-2-4.K.1-9

PART E: PREPARED BY

NAME	OFFICE	DATE	TITLE
ROBERT G HAMILTON (MATTHEW W.TOWNSEND)	AJV-A433	09/05/2024	AERONAUTICAL INFORMATION SPECIALIST

