

OBSTRUCTION DATA SHEET

ODS 439
WACO REGIONAL AIRPORT
WACO, TEXAS

DIGITIZED FROM

OC 439
SURVEYED MARCH 1994
11TH EDITION

HORIZONTAL DATUM NAD 83
VERTICAL DATUM NGVD 29



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OBSTRUCTION DATA SHEET

The Obstruction Data Sheet (ODS) provides digital obstruction and runway data for use in aircraft arrival and departure planning. This information has been obtained using field survey and photogrammetric methods by the Photogrammetry Branch of the National Ocean Service in accordance with Federal Aviation Regulations Part 77 (FAR-77), "Objects Affecting Navigable Airspace" and FAA No. 405, "Specifications - Airport Obstruction Chart and Related Products."

The ODS is a derivative of the Airport Obstruction Chart (OC). The source OC is indicated on the ODS cover. All objects, both obstructing and nonobstructing, that carry an elevation on the OC are listed in the ODS. The ODS and the OC depict a representation of objects that existed at the time of the OC field survey.

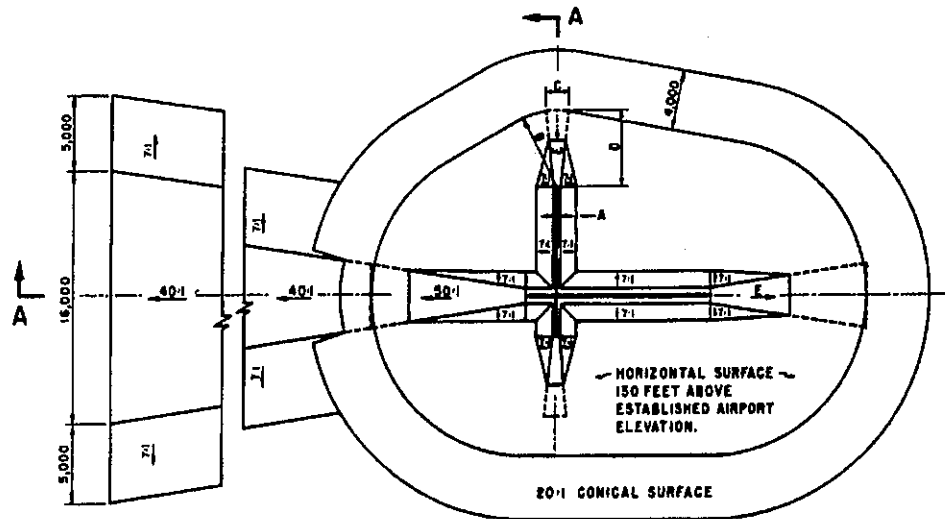
ODS information is arranged as follows:

1. Objects located in an FAR-77 approach or primary and listed with the associated runway (reference runway).
2. All objects not included in "1" above are listed with the Airport Reference Point (ARP).
3. Runway configuration and runway lengths, widths, and elevations are presented on the ODS last page.

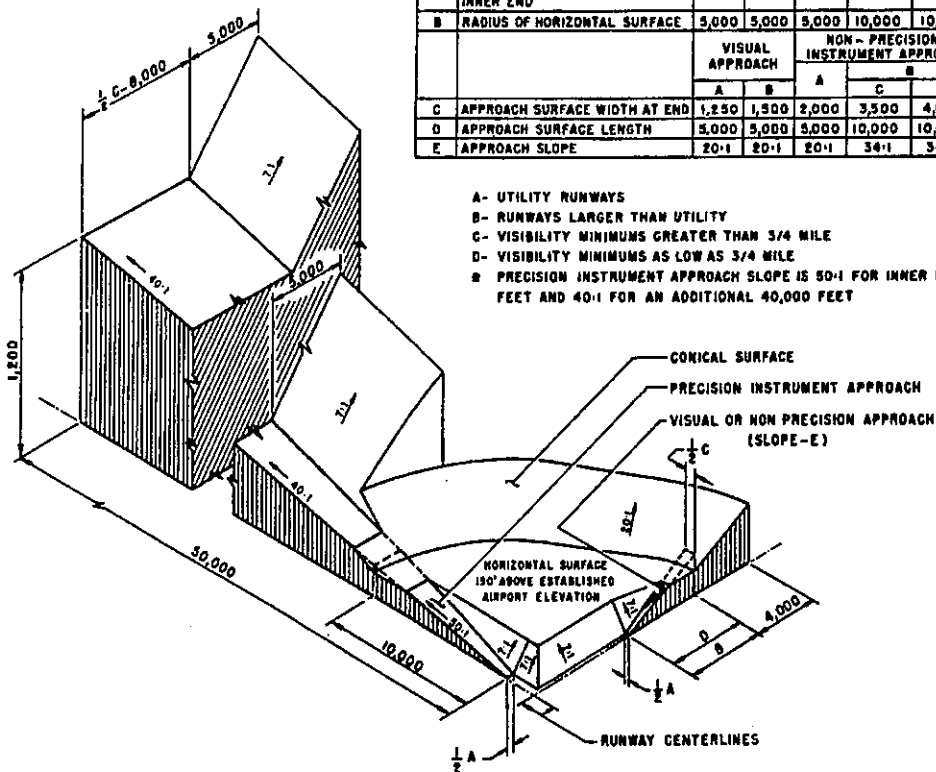
The FAR-77 imaginary approach surfaces for which the obstruction surveys were performed are coded in the ODS as follows:

A(V) Utility runway - visual approach only
A(NP) Utility runway - nonprecision instrument approach
B(V) Nonutility runway - visual approach only
C Nonutility runway - nonprecision instrument
approach with visibility minimums greater than
3/4 mile
D Nonutility runway- nonprecision instrument approach
with visibility minimums as low as 3/4 mile
PIR Precision instrument runway
SUPLC Supplemental C underlying a B(V)

FAR-77 imaginary surface dimensions are defined on page 2 of this report.



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	C	D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	800	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
C	APPROACH SURFACE WIDTH AT END	VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	C	D	
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	•
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	•



- A- UTILITY RUNWAYS
- B- RUNWAYS LARGER THAN UTILITY
- C- VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
- D- VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
- E- PRECISION INSTRUMENT APPROACH SLOPE IS 30:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET

ISOMETRIC VIEW OF SECTION A-A

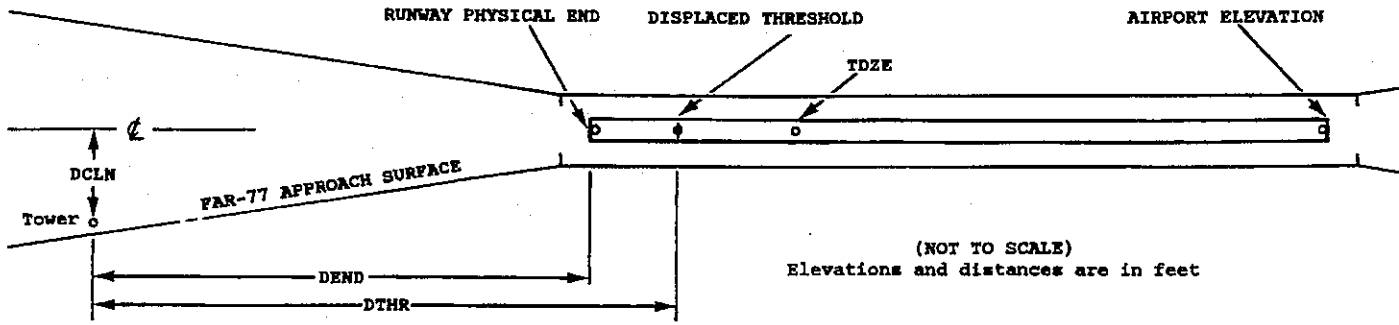
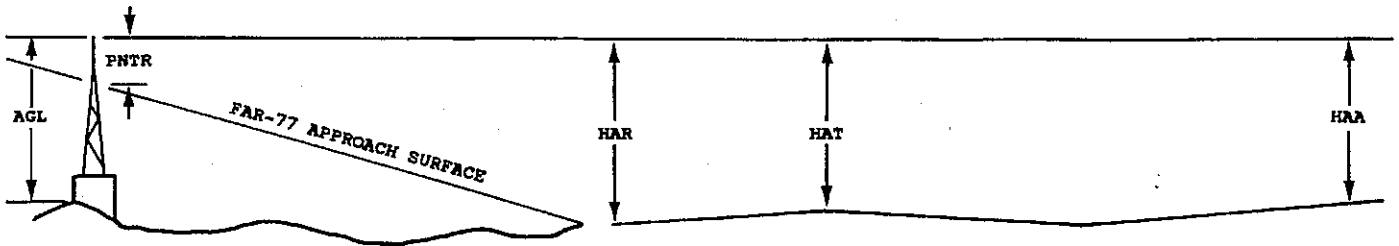
**FAR-77 CIVIL AIRPORT
IMAGINARY SURFACES**

ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

1 X	2 X	3 XXXX/XXXX	4 XXXXXX.XXX	4 XXXXXX.XXX	5 XXXXXX	6 XXXX/XXXX	7 XXXXXX.XXX	7 XXXXXX.XXX	8 A	9 ELEV	10 AGL	11 HAR	11 HAT	11 HAA	12 DEND	12 DTHR	12 DCLN	13 PNTR
XXXXXXXXXX	XXXXXXXXXX	XXXXXX/XXXX	XXXXXX.XXX	XXXXXX.XXX	XXXXXX	XXXX/XXXX	XXXXXX.XXX	XXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXXX	XXXXXX	XXXX	XXXX
XXXXXXXXXX	XXXXXXXXXX	XXXXXX/XXXX	XXXXXX.XXX	XXXXXX.XXX	XXXXXX	XXXX/XXXX	XXXXXX.XXX	XXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXXX	XXXXXX	XXXX	XXXX



EXPLANATION OF FOOTNOTES

- 1 Data block identifier. If a runway number is entered (reference runway), this data block will contain data pertinent to the reference runway and to objects in the FAR-77 approach and primary areas of the reference runway. If ARP is entered, this data block will contain the ARP position and data relative to all objects not in an FAR-77 approach or primary area.
- 2 For the reference runway, the lowest FAR-77 approach surface for which an obstruction survey was performed. (More than one surface may be surveyed).
- 3 Elevation at approach end of reference runway/touchdown zone elevation
- 4 Latitude and longitude at approach end of reference runway
- 5 Geodetic azimuth of reference runway reckoned from north
- 6 Elevation at reference runway displaced threshold/touchdown zone elevation
- 7 Latitude and longitude at reference runway displaced threshold
- 8 Accuracy codes: Horizontal(Ft.) Vertical(Ft.)
 1 = 20 A = 2
 2 = 40 B = 5
 C = 20
- 9 Elevation above mean sea level (MSL) at top of object. This value includes 15 feet added to noninterstate roads, 17 feet added to interstate roads, and 23 feet added to railroad tracks.
- 10 Height above ground level (AGL). AGL's are provided only for manmade objects appearing on the OC and equal to or greater than 200 feet AGL. AGL accuracy is 10 feet.
- 11 HAA - Height above airport
HAR - Height above approach end of reference runway
HAT - Height above reference runway touchdown zone elevation
- 12 DEND - Distance along reference runway centerline from point nearest to object (perpendicular) to approach end of runway
DTHR - Distance along reference runway centerline from point nearest to object (perpendicular) to displaced threshold
DCLN - Distance left (L) or right (R) of reference runway centerline as observed facing forward in a landing aircraft

A negative value for DEND or DTHR indicates that object is in primary on roll-out side of zero distance point.
- 13 PNTR - Penetration of indicated FAR-77 approach or primary surface (See footnote 2).

OC0439

AIRPORT ELEVATION 516

1 C 508/ 510 313612.723 -971347.841 141353.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROD ON OL GS	313705.48	-971336.98	1A	540		32	30	24	-5398		400L	36
OL WSK	313644.38	-971341.89	1A	530		22	20	14	-3227		288L	25
ANT ON BLDG	313607.82	-971352.04	1A	529		21	19	13	569		230L	10
ROD ON OL DME	313607.68	-971352.40	1A	524		16	14	8	591		257L	4
OL ON LOC	313606.97	-971349.54	1A	518		10	8	2	600		0R	-2
ROAD(N)	313607.85	-971355.80	1A	517		9	7	1	646		546L	-4
LEVEE	313605.45	-971349.93	1A	510		2	0	-6	757		6R	-14
TREE	313559.58	-971349.16	1A	539		31	29	23	1315		216R	-2

19 PIR 502/ 504 313716.002 -971329.086 1941403.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
OL WSK	313644.38	-971341.89	1A	530		28	26	14	-3370		288R	25
ROD ON OL GS	313705.48	-971336.98	1A	540		38	36	24	-1199		400R	36
ANT ON BLDG	313724.86	-971321.41	1A	514		12	10	-2	1031		423L	-5
POLE	313729.73	-971320.63	1A	528		26	24	12	1524		368L	-1
ROAD (N)	313733.27	-971332.42	1A	519		17	15	3	1621		708R	-12
POLE	313733.57	-971330.97	1A	534		32	30	18	1680		594R	2
ANT	313736.58	-971329.18	1A	533		31	29	17	2013		519R	-5

14 C 508/ 512 313701.541 -971420.082 1491231.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD(N)	313709.48	-971421.27	1A	518		10	6	2	742		322L	-6
TREE	313707.00	-971427.64	1A	528		20	16	12	808		279R	2
TREE	313719.55	-971430.44	1A	545		37	33	29	2022		162L	-16

32 C 506/ 516 313611.401 -971345.171 3291250.

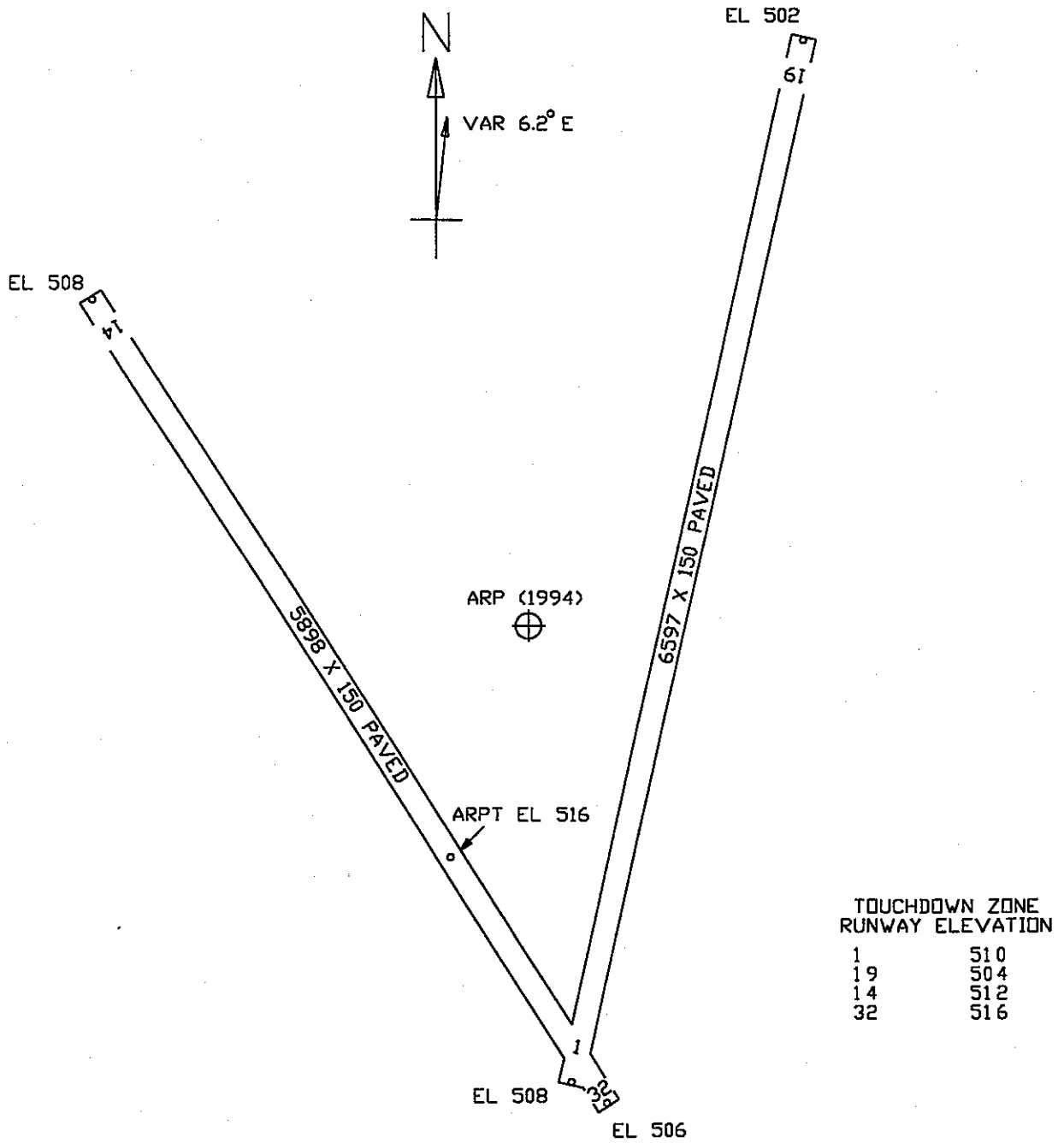
OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	313606.79	-971341.99	1A	516		10	0	0	541		2L	0
LEVEE	313605.73	-971341.18	1A	510		4	-6	-6	669		3R	-10

OC0439

AIRPORT ELEVATION 516

ARP 313640.638 -971349.869

OBJECT	LAT	LONG	A	EL	AGL	HAA	MAG BEARING	DISTANCE
ANT ON OL AMOM	313657.12	-971342.50	1A	532		16	1444	1783
ROD ON OL ASR	313643.42	-971414.56	1A	559		43	27118	2154
ANT ON OL ATCT	313633.63	-971324.10	1A	589		73	10125	2338
ROD ON OL DOME	313634.10	-971320.79	1A	583		67	9830	2600
OL ON APBN	313623.49	-971312.01	1A	556		40	11140	3704
TREE	313710.67	-971323.45	1A	516		0	3046	3798
TREE	313702.47	-971429.32	1A	560		44	29641	4063
OL ANT	313600.20	-971301.28	1A	608		92	12759	5861



WACO REGIONAL AIRPORT
 WACO, TEXAS
 (NOT TO SCALE)
 (ELEVATIONS AND DISTANCES IN FEET)