

# OBSTRUCTION DATA SHEET

ODS 502  
SAN MARCOS MUNICIPAL AIRPORT  
SAN MARCOS, TEXAS

DIGITIZED FROM

OC 502  
SURVEYED FEBRUARY 1994  
2ND EDITION

HORIZONTAL DATUM NAD 83  
VERTICAL DATUM NGVD 29



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## ATTENTION

See SPECIAL NOTICES in "Dates of Latest Editions, Airport Obstruction Charts - Obstruction Data Sheets," for possible corrections. National Oceanic and Atmospheric Administration (NOAA) publications are available through NOAA Distribution Branch (N/CG33), National Ocean Service, Riverdale, MD 20737. Telephone: 301-436-6990

## 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.

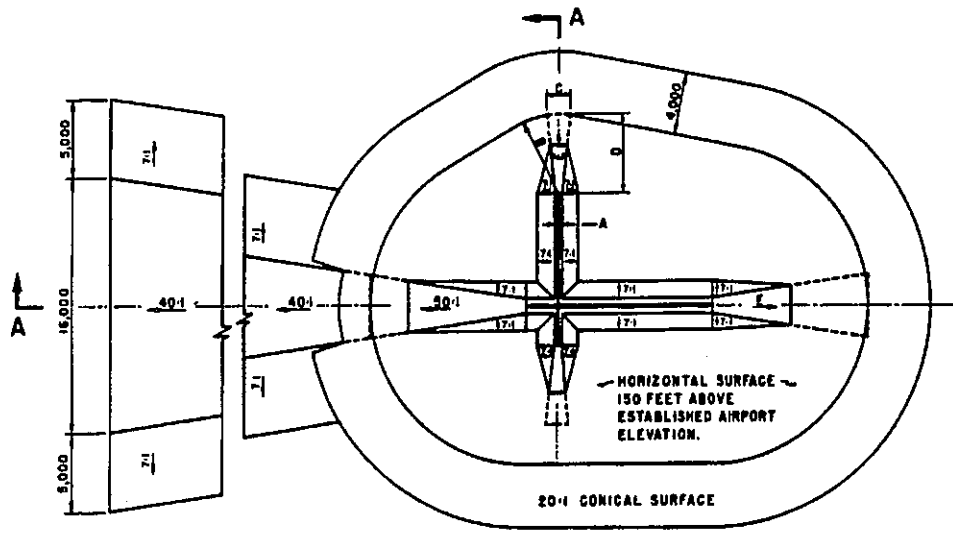
ODS information is arranged as follows:

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:

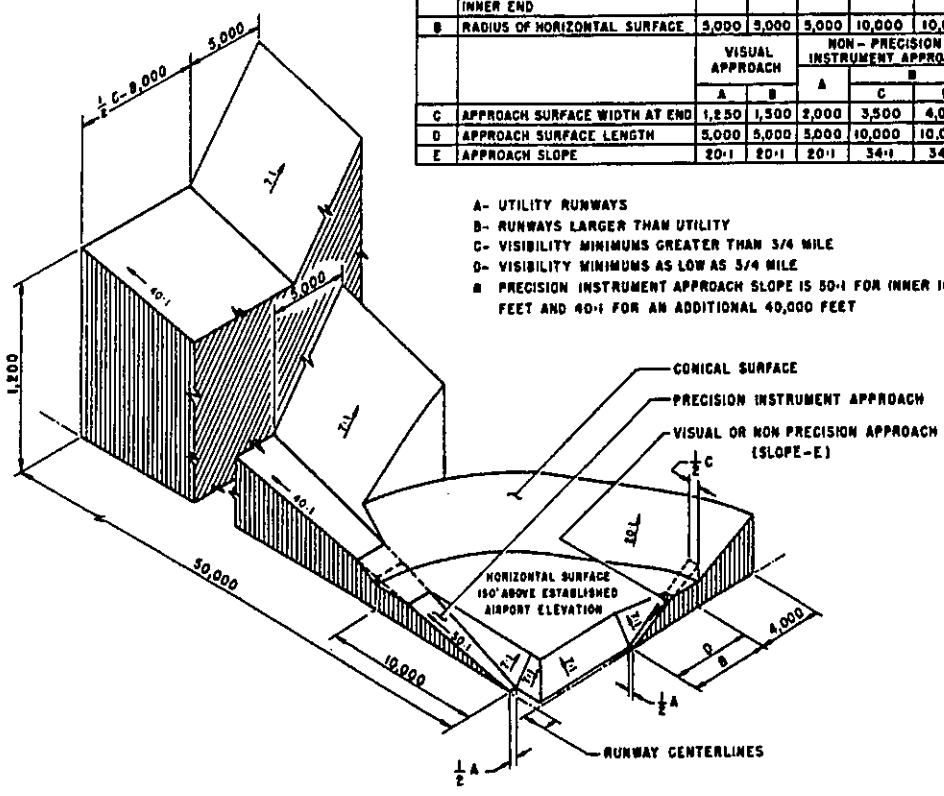
A(V) ..... Utility runway - visual approach only  
A(NP) .... Utility runway - nonprecision instrument approach  
B(V) ..... Nonutility runway - visual approach only  
C ..... Nonutility runway - nonprecision instrument  
approach with visibility minimums greater than  
3/4 mile  
D ..... Nonutility 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	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	3,000	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	3,000	5,000	3,000	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 50:1 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

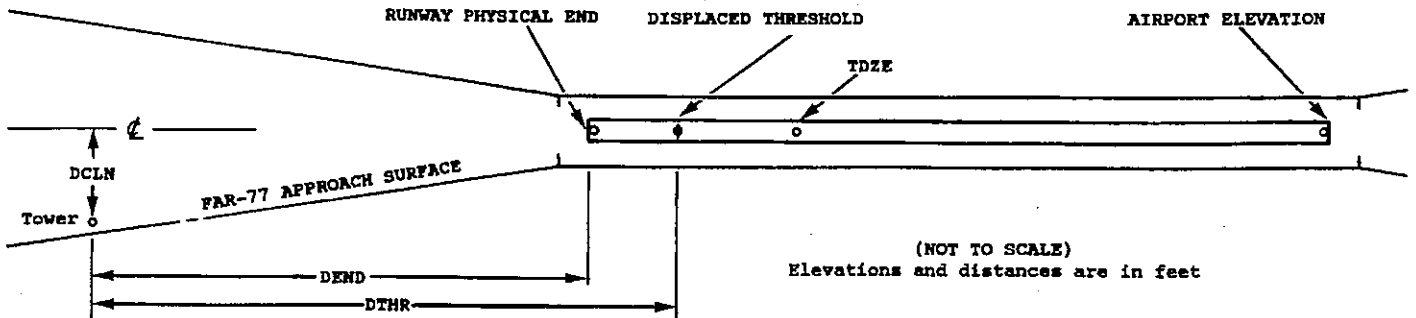
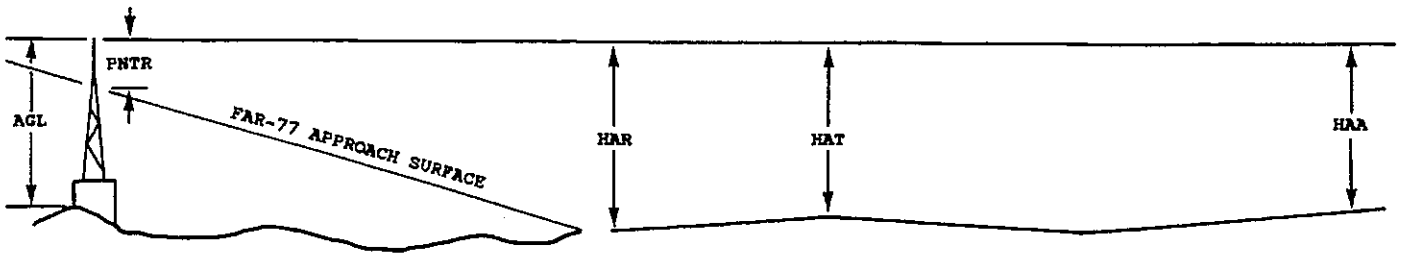
# ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

1	2	3	4	4	5	6	7	7				
X	X	XXXX/XXXX	XXXXXX.XXX	XXXXXXX.XXX	XXXXXXX	XXXX/XXXX	XXXXXX.XXX	XXXXXXX.XXX				
OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
XXXXXXXXXXXX	XXXXXX.XXX	XXXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX
XXXXXXXXXXXX	XXXXXX.XXX	XXXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX

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## 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).

OC0502

AIRPORT ELEVATION 597

12 PIR 593/ 593 295349.316 -975212.101 1325202.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
WSK	295328.23	-975139.18	1A	596		3	3	-1	-3573		410L	18
ROAD ON OL GS	295344.93	-975159.17	1A	629		36	36	32	-1136		450L	39
WSK	295340.33	-975207.19	1A	608		15	15	11	-934		371R	17
POLE	295400.95	-975216.38	1A	621		28	28	24	1076		605L	10
ROAD (N)	295357.79	-975222.50	1A	613		20	20	16	1253		4L	-1

30 SUPLC 573/ 583 295311.587 -975125.458 3125225.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
WSK	295340.33	-975207.19	1A	608		35	25	11	-4667		371L	17
ROAD ON OL GS	295344.93	-975159.17	1A	629		56	46	32	-4466		450R	39
WSK	295328.23	-975139.18	1A	596		23	13	-1	-2029		410R	18
OL ON LOC	295302.96	-975114.79	1A	576		3	-7	-21	1281		0R	-29
ROAD (N)	295301.51	-975112.85	1A	583		10	0	-14	1505		9R	-29
POLE	295300.76	-975105.66	1A	602		29	19	5	2021		384R	-25
TRMSN TWR	295228.08	-975011.17	1A	711		138	128	114	7783		1229R	-85

17 SUPLC 594/ 594 295406.063 -975127.908 1775152.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	295417.36	-975131.03	1A	599		5	5	2	1151		232R	-23
GROUND	295425.78	-975128.75	1A	606		12	12	9	1993		0R	-41

35 SUPLC 574/ 582 295312.233 -975125.605 3575154.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	295302.67	-975125.23	1A	584		10	2	-13	967		3L	-12
TREE	295252.88	-975127.29	1A	613		39	31	16	1948		221L	-12

OC0502

AIRPORT ELEVATION 597

4 SUPLC 588/ 593 295330.521 -975237.160 505316.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	295324.78	-975245.22	1A	598		10	5	1	916		3R	-11
POLE	295323.65	-975249.70	1A	607		19	14	10	1294		158L	-13

22 SUPLC 597/ 597 295404.938 -975148.571 2305340.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	295417.36	-975131.03	1A	599		2	2	2	1990		OR	-51
GROUND	295425.78	-975128.75	1A	606		9	9	9	2681		533R	-64

8 SUPLC 588/ 589 295330.495 -975237.498 875037.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	295330.37	-975245.43	1A	600		12	11	3	699		14L	-2
POLE	295328.49	-975251.77	1A	613		25	24	16	1263		155R	-6

26 SUPLC 580/ 587 295332.848 -975125.640 2675112.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	295333.18	-975117.65	1A	592		12	5	-5	704		8R	-3
TREE	295335.77	-975115.05	1A	612		32	25	15	943		260R	10

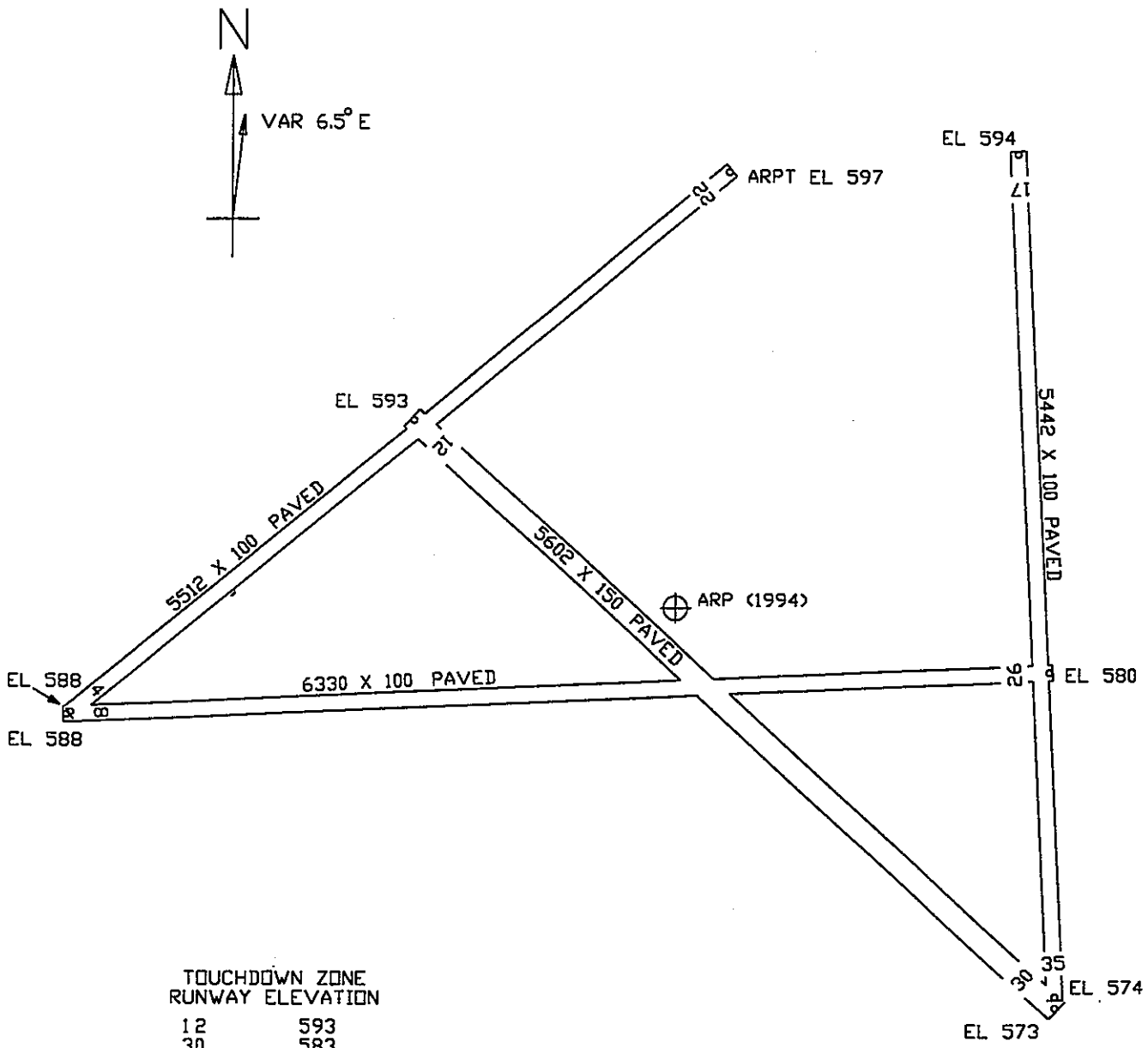


OC0502

AIRPORT ELEVATION 597

ARP 295337.019 -975152.881

OBJECT	LAT	LONG	A	EL	AGL	HAA	MAG BEARING	DISTANCE
OL ON LTD WSK	295335.01	-975213.19	1A	614		17	25700	1799
TANK	295314.35	-975156.17	1A	673		76	18042	2308
WSK	295355.98	-975131.98	1A	608		11	3720	2655
ROD ON APBN	295318.93	-975214.93	1A	653		56	22013	2666
WSK	295326.75	-975228.76	1A	605		8	24519	3324
POLE	295404.90	-975214.22	1A	623		26	31948	3385
POLE	295351.71	-975228.88	1A	619		22	28835	3499
POLE	295335.50	-975251.54	1A	624		27	26148	5166
TREE	295502.20	-975157.70	1A	748		151	35040	8615
ROD ON TANK	295513.45	-975152.45	1A	763		166	35343	9741
TREE	295518.57	-975233.59	1A	749		152	33414	10866
TRMSN TWR	295254.68	-974938.02	1A	709		112	10318	12618
TRMSN TWR	295301.55	-974928.99	1A	749		152	9917	13162
TRMSN TWR	295307.41	-974922.03	1A	759		162	9610	13611



TOUCHDOWN ZONE  
RUNWAY ELEVATION

12	593
30	583
17	594
35	582
4	593
22	597
8	589
26	587

SAN MARCOS MUNICIPAL AIRPORT  
 SAN MARCOS, TEXAS  
 (NOT TO SCALE)  
 (ELEVATIONS AND DISTANCES IN FEET)