

# OBSTRUCTION DATA SHEET

ODS 164  
SCHOLLES FIELD  
GALVESTON, TEXAS

DIGITIZED FROM

OC 164  
SURVEYED DECEMBER 1993  
11TH EDITION

HORIZONTAL DATUM NAD 83  
VERTICAL DATUM NGVD 29



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THE NATIONAL OCEAN SERVICE  
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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.

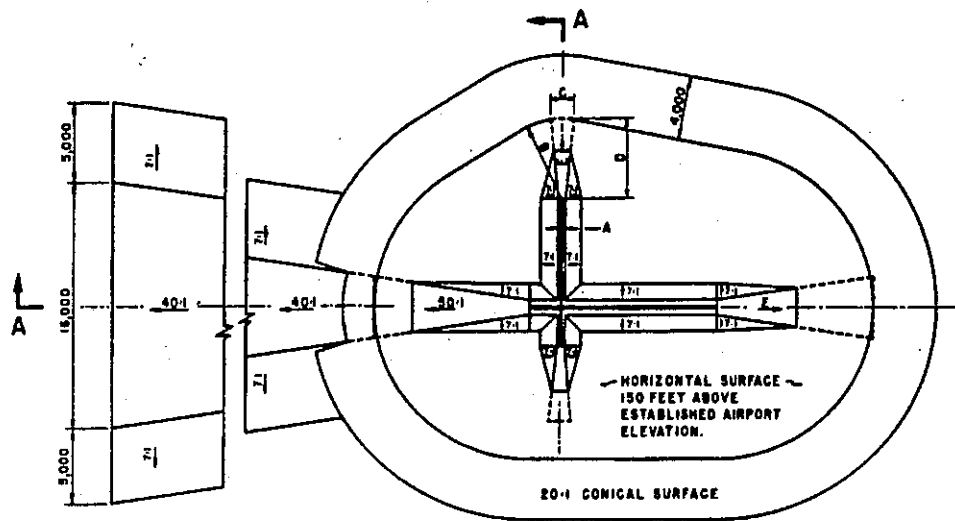
ODS information is arranged as follows:

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.

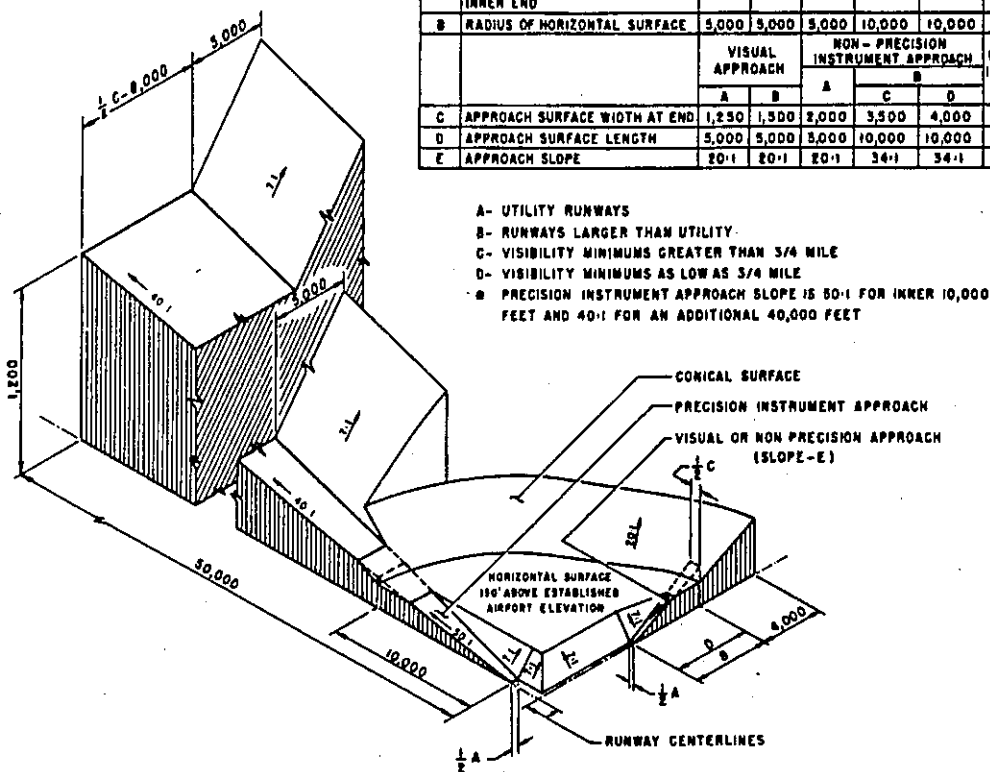
The FAR-77 imaginary approach surfaces for which the obstruction surveys were performed are coded in the ODS as follows:

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	300	300	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	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	3,000	3,500	4,000	16,000
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
- \* 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

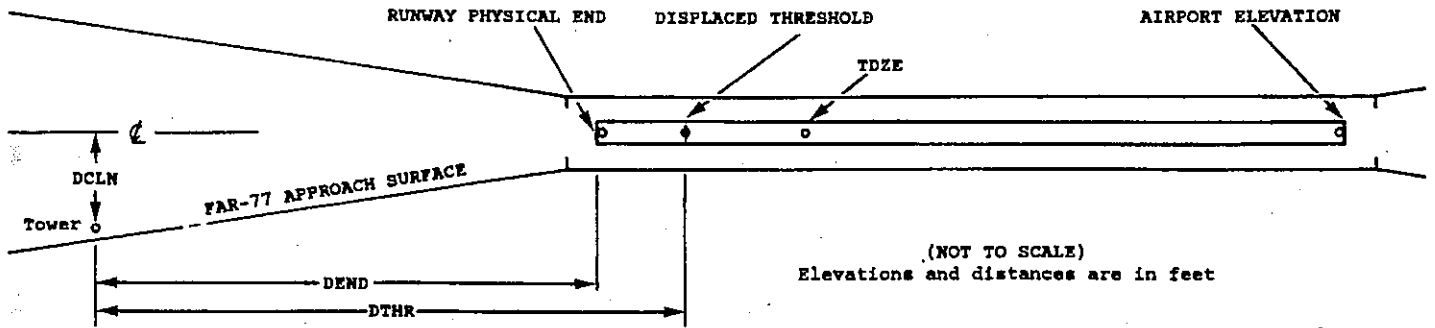
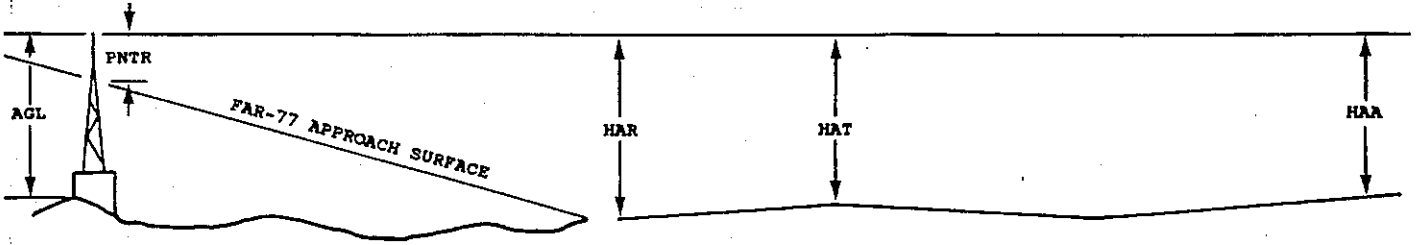
# ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

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

OC0164

AIRPORT ELEVATION 7

13 PIR 7/ 7 291618.194 -945203.515 1400633.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
FENCE	291534.19	-945114.39	1A	11		4	4	4	-6200		488L	5
BUSH	291533.60	-945125.17	1A	10		3	3	3	-5634		282R	4
BUSH	291548.00	-945139.95	1A	10		3	3	3	-3678		355R	4
BUSH	291605.52	-945156.57	1A	10		3	3	3	-1377		349R	5
BUSH	291610.13	-945201.05	1A	11		4	4	4	-765		355R	6
ROD ON CATWALK	291627.27	-945212.17	1A	21		14	14	14	1195		OR	-6
ROD ON POLE AT MM	291636.41	-945220.85	1A	35		28	28	28	2396		2L	-16
CRANE ON BARGE	291644.70	-945243.77	1A	129*		122	122	122	4340		1018R	40

NOTE: Asterisk (\*) indicates probable maximum obstructing height due to movement of object

31 SUPLC 6/ 6 291532.612 -945120.069 3200655.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	291610.13	-945201.05	1A	11		5	5	4	-5235		355L	6
BUSH	291605.52	-945156.57	1A	10		4	4	3	-4623		349L	5
BUSH	291548.00	-945139.95	1A	10		4	4	3	-2322		355L	4
BUSH	291533.60	-945125.17	1A	10		4	4	3	-366		282L	4
FENCE	291534.19	-945114.39	1A	11		5	5	4	200		488R	5
TREE	291527.03	-945121.66	1A	17		11	11	10	343		470L	7
OL ON LOC	291525.02	-945112.83	1A	15		9	9	8	999		OR	-14
ROD ON BLDG	291526.58	-945110.66	1A	23		17	17	16	1002		249R	-6
POLE	291521.14	-945102.27	1A	51		45	45	44	1900		466R	-5

35 SUPLC 6/ 6 291525.224 -945133.643 5116.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	291519.24	-945134.50	1A	19		13	13	12	606		67L	1
POLE	291510.47	-945130.28	1A	34		28	28	27	1486		320R	-10
TREE	291507.41	-945129.06	1A	45		39	39	38	1793		433R	-8
LT POLE	291505.09	-945135.00	1A	65		59	59	58	2035		90L	5

OC0164

AIRPORT ELEVATION 7

17 SUPLC 7/ 7 291624.625 -945132.632 1805116.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	291633.58	-945130.55	1A	21		14	14	14	907		171L	-7

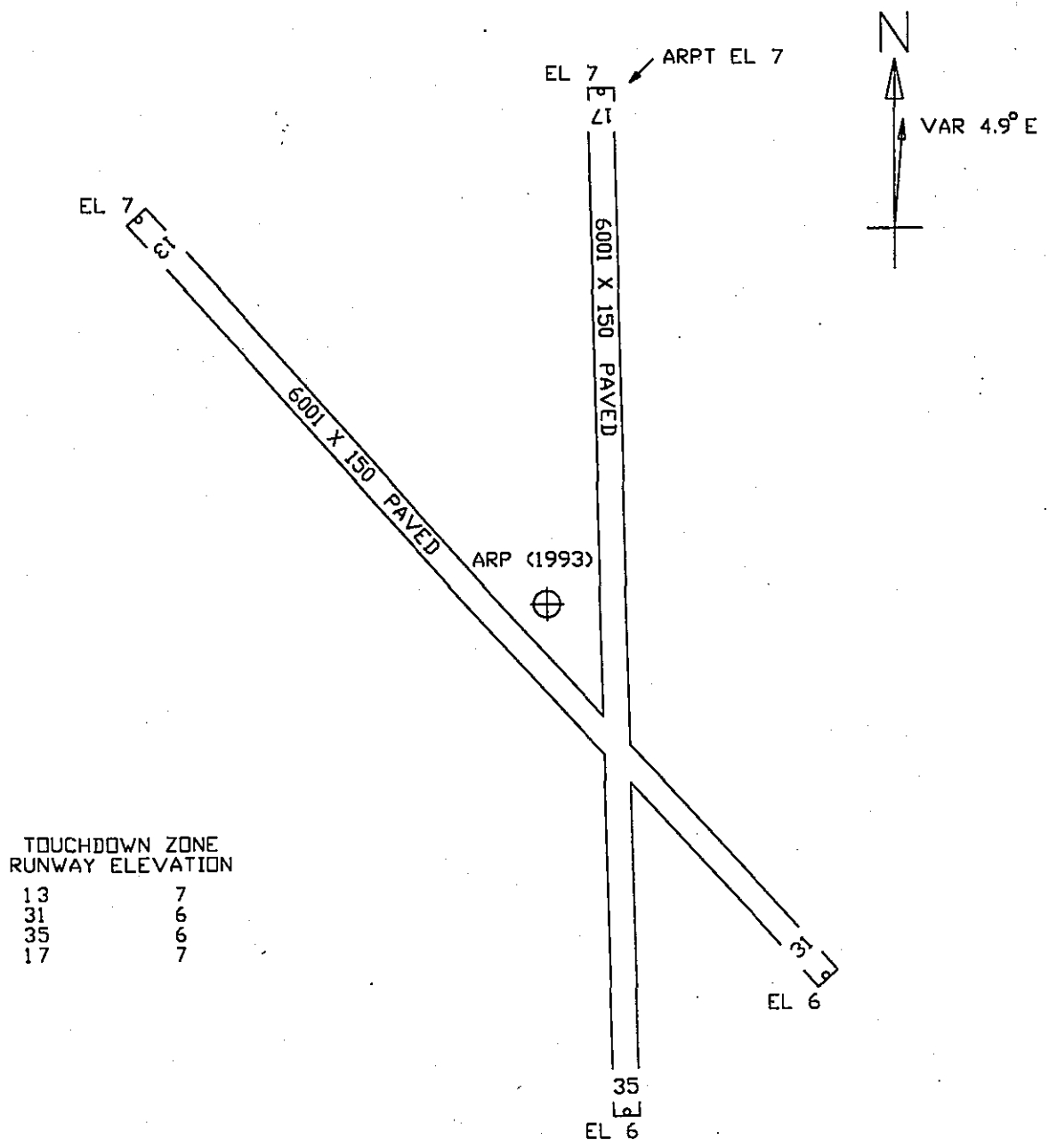


OC0164

AIRPORT ELEVATION 7

ARP 291555.164 -945137.464

OBJECT	LAT	LONG	A	EL	AGL	HAA	MAG BEARING	DISTANCE
WSK ON HANGAR	291552.60	-945121.29	1A	40		33	9519	1455
OL ON AMOM	291610.91	-945141.31	1A	37		30	34300	1626
ANT ON OL APBN	291605.77	-945119.45	1A	69		62	5112	1922
OL ON LTD WSK	291613.01	-945147.39	1A	32		25	32906	2005
ROD ON OL GS	291613.55	-945151.72	1A	42		35	32053	2246
BUSH	291531.76	-945136.53	1A	9		2	17306	2366
VORTAC	291609.61	-945203.79	1A	49		42	29708	2750
TREE	291527.63	-945124.09	1A	26		19	15201	3023
TRMSN POLE	291538.76	-945108.89	1A	94		87	11818	3025
BUSH	291533.09	-945112.72	1A	20		13	13035	3126
TREE	291520.70	-945137.32	1A	29		22	17453	3481
OL ON TANK	291601.93	-945058.14	1A	161		154	7359	3549
TRMSN TWR	291518.68	-945140.37	1A	60		53	17905	3694
ROD ON OL BLDG	291530.06	-945032.00	1A	174		167	10843	6327
ANT ON OL BLDG	291538.46	-945016.81	1A	202		195	9823	7339
OL ON TWR	291724.11	-945012.86	1A	231	224	224	3455	11697



TOUCHDOWN ZONE  
RUNWAY ELEVATION

13	7
31	6
35	6
17	7

SCHOLES FIELD  
 GALVESTON, TEXAS  
 (NOT TO SCALE)  
 (ELEVATIONS AND DISTANCES IN FEET)