

OBSTRUCTION DATA SHEET

*orig
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Reprinting
8/11/92*

**ODS 870
ANGELINA COUNTY AIRPORT
LUFKIN, TEXAS**

DIGITIZED FROM

**OC 870
SURVEYED DECEMBER 1991
7TH EDITION**



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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 Nr. 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 OC) depict a representation of objects that existed at the time of the OC field survey.

ODS information is arranged as follows:

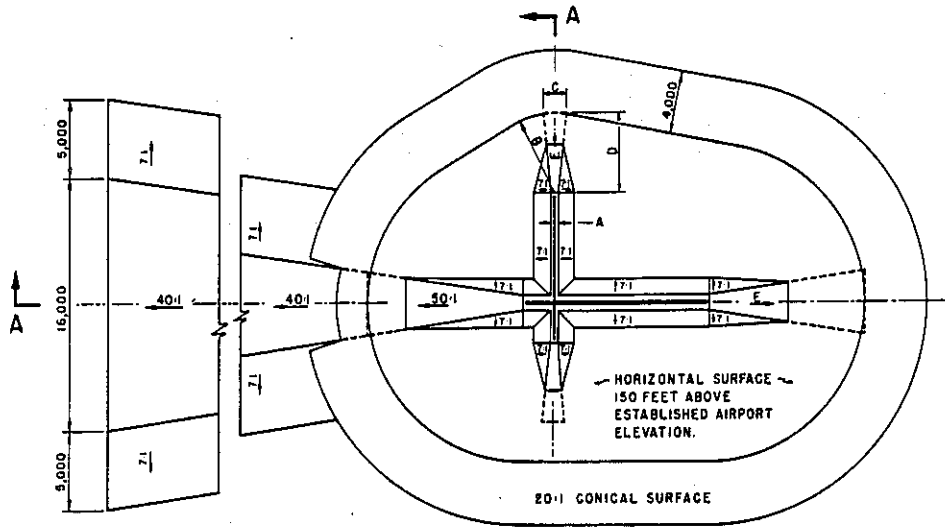
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the physical end and threshold of Runway 9R. Objects in the Runway 27L approach or primary are listed with Runway 27L. (Objects in the common 9R/27L primary area are listed with both runways.)
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 (see footnote 2 on page 3):

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)

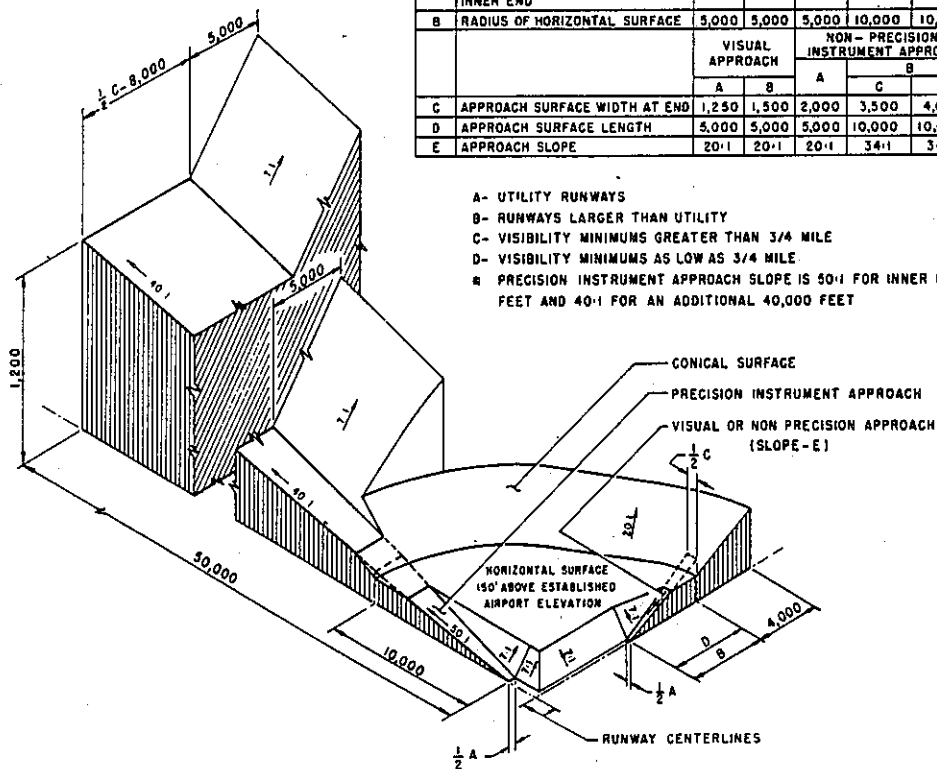
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

Primary surface width is determined by the widest approach at the two approach/primary interfaces for that runway.



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	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	C	D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	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

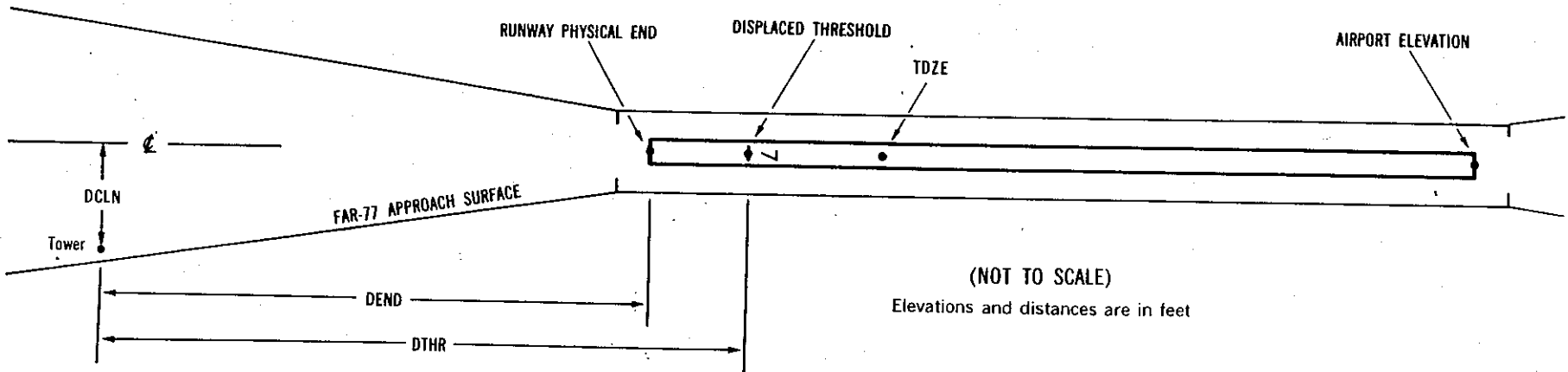
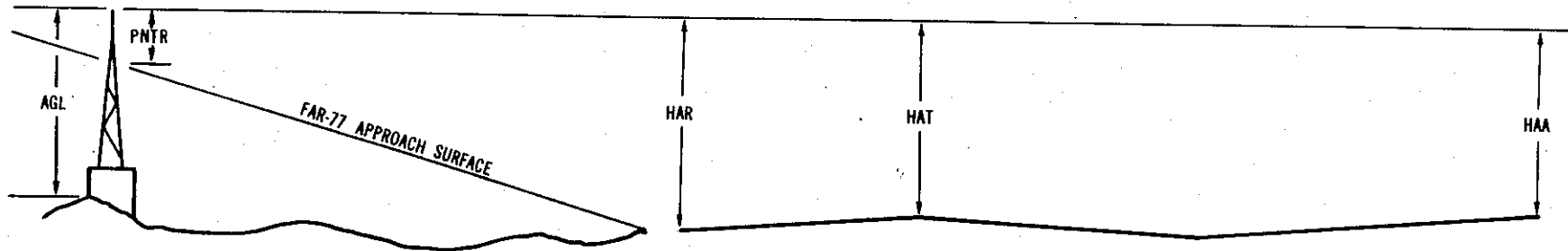
FAR-77 CIVIL AIRPORT
IMAGINARY SURFACES

ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

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



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 area 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 Reference runway approach physical end elevation/touchdown zone elevation
- 4 Latitude and longitude of reference runway approach physical end
- 5 Reference runway geodetic azimuth reckoned clockwise from south
- 6 Reference runway displaced threshold elevation/touchdown zone elevation
- 7 Latitude and longitude of reference runway displaced threshold
- 8 Accuracy Code:
- | | Horizontal | Vertical |
|---|------------|----------|
| 1 | = 20 | A = 2 |
| 2 | = 40 | B = 5 |
| | | C = 20 |
- 9 Mean Sea Level (MSL) elevation 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). AGLs are provided only for those objects appearing on the OC that are equal to, or greater than, 200 feet AGL. AGL accuracy is ± 10 feet.
- 11 HAA - Height above airport
 HAR - Height above reference runway approach physical end
 HAT - Height above reference runway touchdown zone elevation
- 12 DEND - Distance along reference runway centerline from point perpendicular to object to reference runway approach physical end
 DTHR - Distance along reference runway centerline from point perpendicular to object to reference runway 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 object is in primary area on roll-out side of zero distance point.
- 13 PNTR - Penetration of indicated FAR-77 approach or primary surface (see footnote 2).

AIRPORT ELEVATION 296

7 PIR 284/286 311402.715N 0944526.025W 2551452

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	311413.50	0944423.29	1A	320		36	34	24	-5545		332R	24
TREE	311411.84	0944423.22	1A	354		70	68	58	-5508		496R	58
TREE	311412.47	0944428.36	1A	314		30	28	18	-5093		322R	21
TREE	311419.12	0944433.41	1A	358		74	72	62	-4840		440L	67
TREE	311409.97	0944433.28	1A	320		36	34	24	-4615		457R	31
TREE	311416.85	0944437.36	1A	314		30	28	18	-4450		305L	26
TREE	311414.45	0944449.14	1A	327		43	41	31	-3398		331L	45
TREE	311412.07	0944500.62	1A	325		41	39	29	-2374		353L	41
TREE	311410.16	0944507.51	1A	311		27	25	15	-1746		318L	26
TREE	311357.32	0944527.01	1A	328		44	42	32	222		506R	44
TREE	311357.23	0944528.68	1A	314		30	28	18	364		477R	27
TREE	311402.40	0944530.41	1A	300		16	14	4	377		66L	12
TREE	311406.69	0944531.97	1A	336		52	50	40	397		520L	48
TREE	311400.23	0944531.11	1A	303		19	17	7	491		131R	13
TREE	311357.97	0944531.64	1A	323		39	37	27	594		339R	31
TREE	311404.90	0944536.06	1A	334		50	48	38	786		435L	38
TREE	311358.50	0944535.04	1A	319		35	33	23	865		213R	22
TREE	311354.81	0944539.88	1A	320		36	34	24	1367		466R	13
TREE	311401.68	0944544.53	1A	331		47	45	35	1580		308L	19
TREE	311353.76	0944553.35	1A	338		54	52	42	2524		271R	8
TREE	311354.64	0944555.19	1A	353		69	67	57	2656		144R	20
TREE	311358.45	0944557.72	1A	354		70	68	58	2771		284L	19
TREE	311358.88	0944601.90	1A	362		78	76	66	3110		418L	20
TREE	311357.02	0944603.26	1A	357		73	71	61	3273		267L	12
TREE	311359.32	0944604.23	1A	355		71	69	59	3295		513L	9
TREE	311345.58	0944601.45	1A	340		56	54	44	3415		891R	-8
TREE	311352.79	0944605.83	1A	345		61	59	49	3598		90R	-7

AIRPORT ELEVATION 296

25 SUPLC 296/296 311416.313N 0944425.907W 0751523

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	311410.16	0944507.51	1A	311		15	15	15	-3651		318R	26
TREE	311412.07	0944500.62	1A	325		29	29	29	-3024		353R	41
TREE	311414.45	0944449.14	1A	327		31	31	31	-1999		331R	45
TREE	311416.85	0944437.36	1A	314		18	18	18	-948		305R	26
TREE	311409.97	0944433.28	1A	320		24	24	24	-783		457L	31
TREE	311419.12	0944433.41	1A	358		62	62	62	-558		440R	67
TREE	311412.47	0944428.36	1A	314		18	18	18	-305		322L	21
TREE	311411.84	0944423.22	1A	354		58	58	58	111		496L	58
TREE	311413.50	0944423.29	1A	320		24	24	24	147		332L	24
TREE	311413.55	0944422.01	1A	313		17	17	17	256		356L	15
TREE	311421.99	0944423.36	1A	350		54	54	54	360		498R	49
OL ON LOCALIZER	311417.23	0944421.86	1A	304		8	8	8	363		0R	3
TREE	311420.10	0944422.51	1A	347		51	51	51	382		295R	46
TREE	311413.17	0944419.36	1A	365		69	69	69	469		452L	61
TREE	311416.63	0944420.19	1A	312		16	16	16	488		95L	8
TREE	311420.90	0944419.43	1A	345		49	49	49	661		305R	35
TREE	311422.87	0944413.45	1A	358		62	62	62	1215		366R	32
TREE	311418.20	0944411.02	1A	363		67	67	67	1299		145L	35
TREE	311421.76	0944411.93	1A	364		68	68	68	1313		224R	35
TREE	311422.00	0944408.78	1A	369		73	73	73	1584		178R	32
TREE	311421.01	0944406.98	1A	364		68	68	68	1710		40R	24
TREE	311417.28	0944403.14	1A	371		75	75	75	1936		408L	24

AIRPORT ELEVATION 296

15 C 289/289 311412.175N 0944511.674W 3401434

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	311329.42	0944453.75	1A	280								
TREE	311328.84	0944456.39	1A	289		-9	-9	-16	-4592		5L	9
TREE	311417.95	0944510.32	1A	332		0	0	-7	-4569		231R	18
ROAD (N)	311417.51	0944513.97	1A	306		43	43	36	510		308L	34
TREE	311417.66	0944514.80	1A	312		17	17	10	575		5R	6
TREE	311423.95	0944513.59	1A	334		23	23	16	613		69R	11
TREE	311428.73	0944514.85	1A	360		45	45	38	1176		246L	16
TREE	311428.43	0944524.88	1A	344		71	71	64	1667		306L	28
TREE	311430.35	0944522.66	1A	345		55	55	48	1933		524R	4
						56	56	49	2050		277R	2

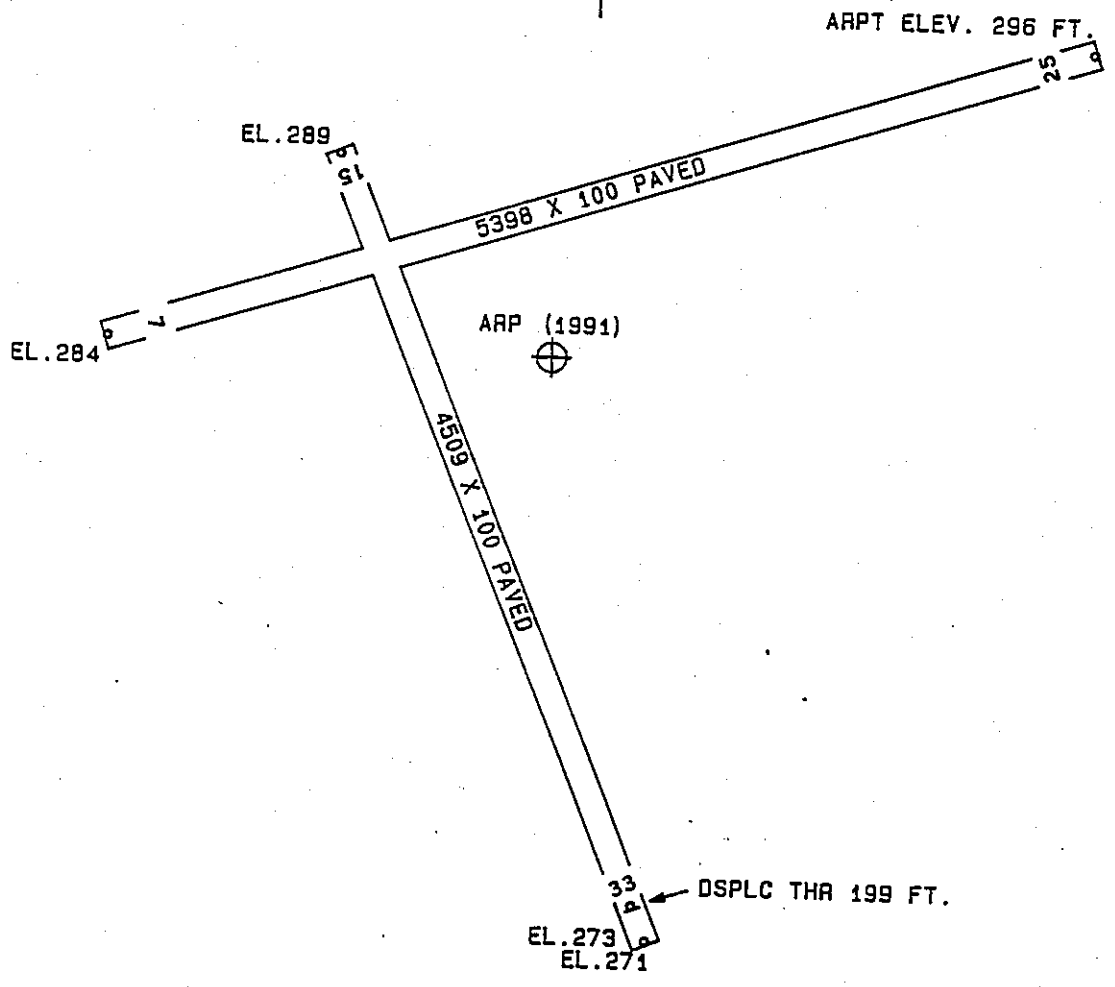
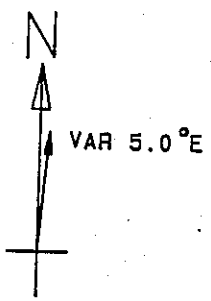
33 C 271/ 311330.173N 0944454.120W 1601443 273/286 311332.026N 0944454.894W

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	311328.84	0944456.39	1A	289		18	3	-7	60	259	231L	18
ROAD (N)	311329.42	0944453.75	1A	280		9	-6	-16	82	281	5R	9
TREE	311326.13	0944448.70	1A	302		31	16	6	543	742	305R	21
TREE	311321.79	0944445.99	1A	313		42	27	17	1036	1235	378R	17
TREE	311318.31	0944453.94	1A	324		53	38	28	1133	1332	390L	26
TREE	311313.56	0944448.94	1A	327		56	41	31	1732	1931	144L	11
TREE	311314.07	0944444.99	1A	327		56	41	31	1799	1998	196R	9

AIRPORT ELEVATION 296

ARP 311401.167N 0944459.121W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
ANTENNA & WINDSOCK ON APBN	311353.37	0944511.63	1A	356		60	229 4	1342
TREE	311413.78	0944504.90	1A	350		54	333 30	1369
TREE	311415.04	0944458.98	1A	351		55	355 30	1402
TREE	311412.97	0944508.10	1A	320		24	321 51	1425
TREE	311415.92	0944509.41	1A	334		38	324 4	1738
TREE	311407.57	0944439.69	1A	328		32	64 1	1807
TREE	311420.12	0944447.78	1A	357		61	22 13	2153
TREE	311406.74	0944434.21	1A	346		50	70 24	2235
TREE	311416.53	0944518.18	1A	353		57	308 10	2269
TREE	311338.89	0944503.90	1A	348		52	185 27	2288
POLE	311421.58	0944510.98	1A	318		22	328 28	2305
TREE	311355.67	0944525.95	1A	348		52	251 35	2395
TREE	311423.75	0944511.01	1A	339		43	330 39	2504
TREE	311333.84	0944450.60	1A	331		35	160 0	2858
TREE	311408.47	0944531.66	1A	354		58	279 38	2920
TREE	311428.42	0944511.67	1A	359		63	333 25	2961
TREE	311410.99	0944425.47	1A	357		61	66 14	3085
TREE	311331.28	0944449.31	1A	321		25	159 14	3137
TREE	311424.97	0944523.02	1A	345		49	314 13	3176
TREE	311330.15	0944450.04	1A	309		13	160 53	3231
TREE	311424.59	0944524.66	1A	363		67	311 52	3243
TREE	311327.87	0944459.39	1A	320		24	175 24	3364
TREE	311423.23	0944426.36	1A	376		80	46 55	3614
TREE	311325.72	0944448.20	1A	315		19	160 10	3705
TREE	311423.31	0944421.92	1A	381		85	50 17	3929
TREE	311406.05	0944548.11	1A	342		46	271 38	4282
ANTENNA ON OL MAST	311425.14	0944203.94	2A	566	264	270	75 56	15402



TOUCHDOWN ZONE RUNWAY ELEVATION	
7	286
25	296
15	289
33	286

ANGELINA COUNTY AIRPORT
 LUFKIN, TEXAS
 (NOT TO SCALE)