

OBSTRUCTION DATA SHEET

ODS 5311
OUTLAW FIELD
CLARKSVILLE, TENNESSEE

DIGITIZED FROM

OC 5311
SURVEYED MARCH 1987
7TH EDITION



PREPARED AND DISTRIBUTED BY
THE NATIONAL OCEAN SERVICE
U.S. DEPARTMENT OF COMMERCE
FOR THE FEDERAL AVIATION ADMINISTRATION

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:

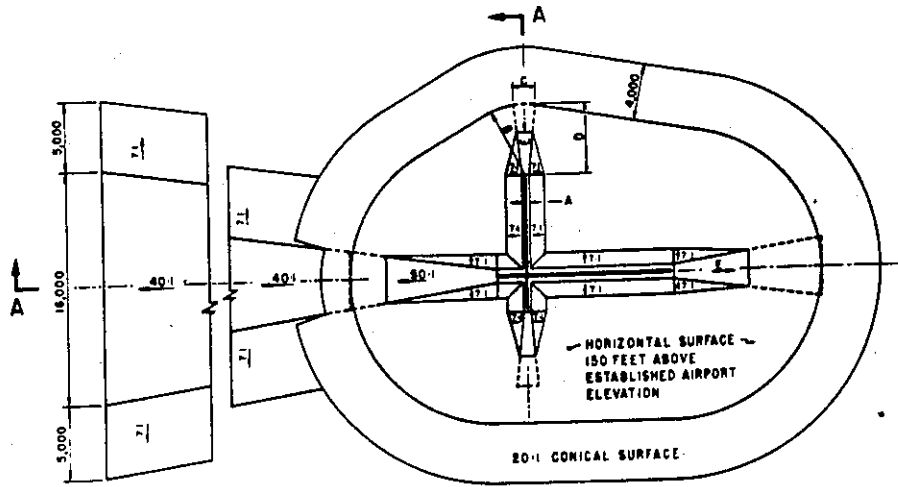
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the 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)

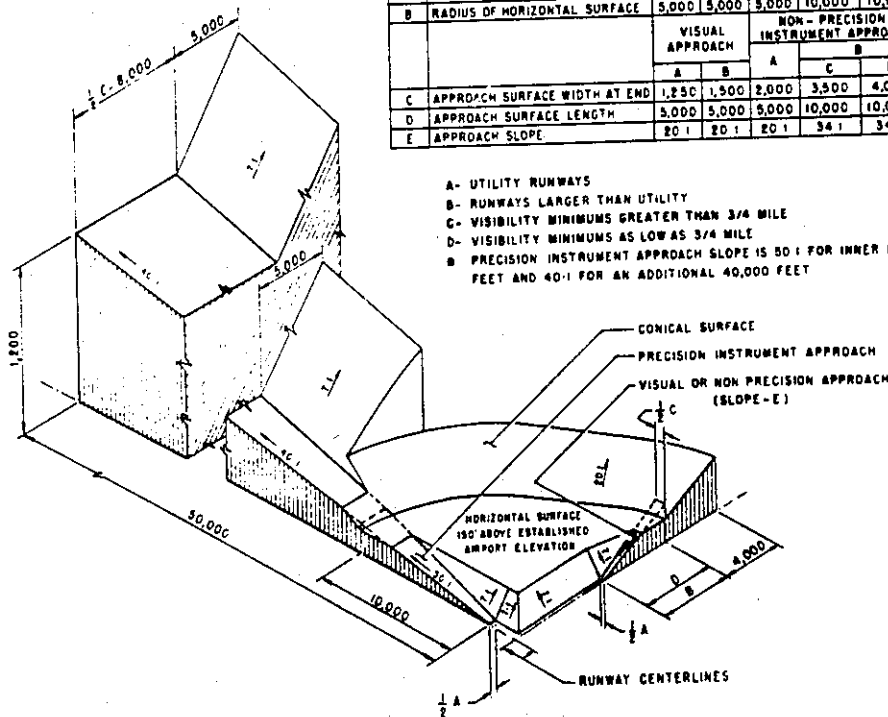
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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	500	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	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	3,000	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 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET



ISOMETRIC VIEW OF SECTION A-A

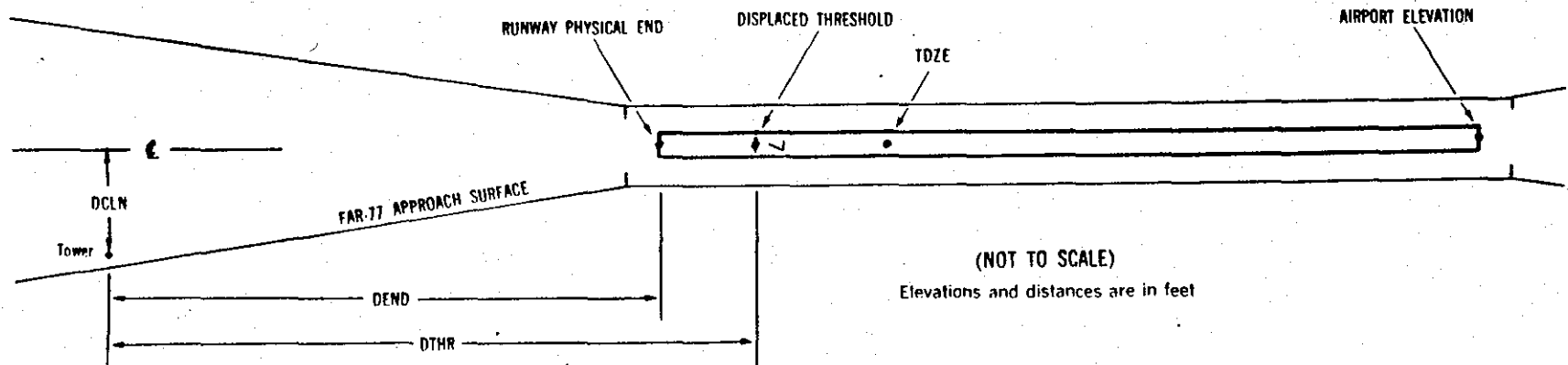
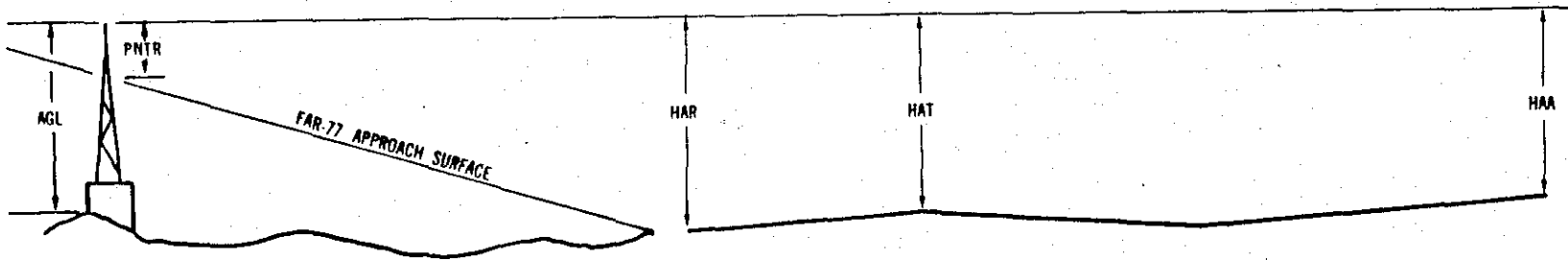
FAR-77 CIVIL AIRPORT
IMAGINARY SURFACES

ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

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

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AIRPORT ELEVATION 550

5 A(V) 540/ 363708.529N 0872512.141W 2320313 543/545 363710.976N 08725 8.248W

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	363734.42	0872431.73	1A	532		-8	-13	-18	-4208	-3805	39L	-1
ROAD (N)	363732.17	0872432.09	1A	541		1	-4	-9	-4045	-3643	122R	8
FENCE	363709.44	0872513.00	1A	545		5	0	-5	-2	401	116L	5
ROAD (N)	363707.60	0872513.76	1A	551		11	6	1	162	565	7L	11
TREE	363707.18	0872515.52	1A	572		32	27	22	302	704	62L	27
TREE	363705.19	0872515.33	1A	555		15	10	5	412	815	106R	4

23 A(V) 533/ 363732.874N 0872433.407W 5200336 538/545 363729.815N 0872438.274W

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	363707.60	0872513.76	1A	551		18	6	1	-4166	-3663	7R	11
FENCE	363709.44	0872513.00	1A	545		12	0	-5	-4002	-3499	116R	5
ROAD (N)	363732.17	0872432.09	1A	541		8	-4	-9	41	544	122L	8
ROAD (N)	363734.42	0872431.73	1A	532		-1	-13	-18	204	707	39R	-1
TREE	363735.59	0872425.21	1A	631		98	86	81	696	1199	194L	73
TREE	363739.15	0872420.71	1A	614		81	69	64	1207	1710	136L	31
TREE	363745.78	0872417.37	1A	626		93	81	76	1834	2337	226R	11

OC5311

AIRPORT ELEVATION 550

17 SUPLC 538/541 363745.919N 08725 3.278W 3460846

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
POLE	363647.72	0872439.72	1A	573		35	32	23	-6174		455L	24
TREE	363647.32	0872449.94	1A	580		42	39	30	-6014		363R	31
TREE	363653.80	0872441.25	1A	585		47	44	35	-5547		481L	35
FENCE	363657.01	0872453.39	1A	556		18	15	6	-4995		402R	8
TREE	363659.32	0872454.15	1A	578		40	37	28	-4754		406R	31
TREE	363705.56	0872455.73	1A	576		38	35	26	-4110		380R	31
TREE	363734.18	0872505.99	1A	568		30	27	18	-1099		498R	40
GROUND	363746.63	0872509.79	1A	539		1	-2	-11	198		498R	1
ANT ON BLDG	363754.25	0872508.98	1A	562		24	21	12	929		250R	3
DL ON LOCALIZR	363755.06	0872506.07	1A	555		17	14	5	952		0L	-5
POLE	363756.33	0872500.06	1A	575		37	34	25	960		507L	15
POLE	363756.10	0872513.52	1A	589		51	48	39	1200		564R	22
TREE	363757.57	0872514.88	1A	600		62	59	50	1371		636R	28
TREE	363810.69	0872503.02	1A	626		88	85	76	2427		620L	22
TREE	363808.71	0872519.62	1A	645		107	104	95	2557		742R	38
TREE	363818.07	0872511.25	1A	627		89	86	77	3313		148L	-3
TRANSMISSN TWR	363841.96	0872507.83	1B	682		144	141	132	5591		997L	-15
TRANSMISSN TWR	363845.61	0872522.25	1B	687		149	146	137	6232		55R	-28

003311

AIRPORT ELEVATION 550

35 D 549/550 363648.319N 0872445.658W 1660857

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	363746.63	0872509.79	1A	539								
TREE	363734.18	0872505.99	1A	568		-10	-11	-11	-6197		498L	1
TREE	363705.56	0872455.73	1A	576		19	18	18	-4900		498L	40
TREE	363659.32	0872454.15	1A	578		27	26	26	-1890		380L	31
FENCE	363657.01	0872453.39	1A	556		29	28	28	-1245		406L	31
TREE	363653.80	0872441.25	1A	585		7	6	6	-1004		402L	8
TREE	363647.32	0872449.94	1A	580		36	35	35	-452		481R	35
POLE	363647.72	0872439.72	1A	573		31	30	30	15		363L	31
FENCE	363645.86	0872444.96	1A	549		24	23	23	175		455R	24
POLE	363644.58	0872440.29	1A	567		0	-1	-1	255		4L	-2
TREE	363644.03	0872437.51	1A	603		18	17	17	472		335R	10
TREE	363642.83	0872437.73	1A	608		54	53	53	581		541R	43
POLE	363641.58	0872440.92	1A	571		59	58	58	694		495R	44
POLE	363638.34	0872441.35	1A	564		22	21	21	754		212R	6
POLE	363635.13	0872441.93	1A	559		15	14	14	1063		100R	-10
TREE	363625.88	0872441.98	1A	621		10	9	9	1368		24L	-24
						72	71	71	2275		252L	11

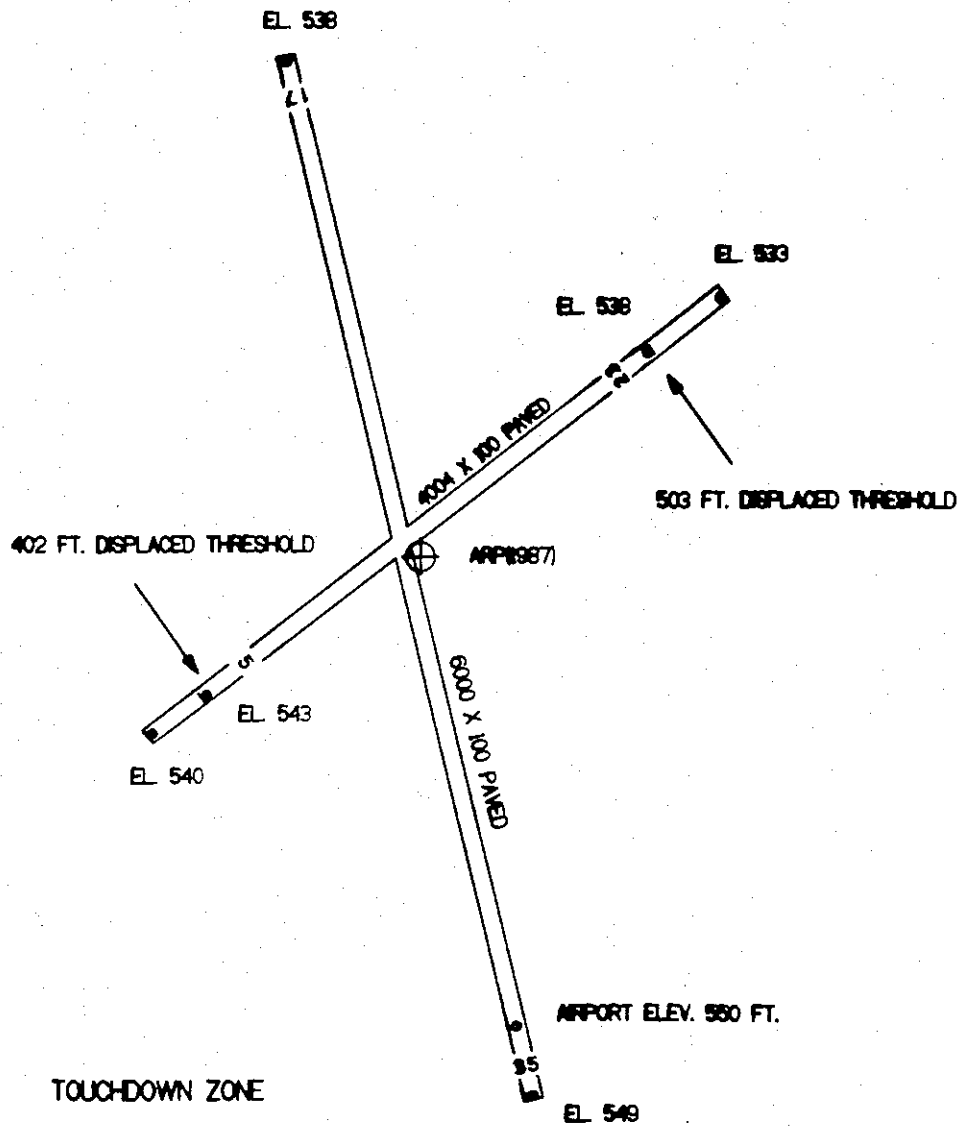
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AIRPORT ELEVATION 550

ARP 363718.553N 0872453.789W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
OL VOR/DME	363718.99	0872445.55	1A	566		16	86 27	673
OL ON LTD WSK	363710.59	0872501.14	1A	568		18	216 51	1004
ROD ON OL APRN	363715.42	0872512.03	1A	598		48	258 10	1521
CEILOMETER	363710.64	0872511.95	1A	544		-6	241 49	1683
TREE	363708.94	0872515.42	1A	583		33	241 23	2013
TREE	363738.85	0872449.30	1A	589		39	10 19	2085
TREE	363731.44	0872431.56	1A	564		14	54 28	2232
TREE	363707.49	0872518.49	1A	587		37	241 9	2304
TREE	363703.39	0872515.50	1A	590		40	229 18	2341
TREE	363707.25	0872521.05	1A	593		43	243 0	2499
TREE	363653.50	0872455.48	1A	627		77	183 19	2537
CROSS ON CHURCH SPIRE	363702.10	0872517.63	1A	587		37	229 38	2559
TREE	363730.36	0872425.45	1A	622		72	62 52	2600
TREE	363704.48	0872523.43	1A	589		39	239 42	2805
TREE	363650.15	0872454.21	1A	625		75	180 53	2873
TREE	363734.15	0872424.26	1A	650		100	56 57	2878
TREE	363649.27	0872452.55	1A	602		52	178 15	2964
TREE	363739.53	0872427.60	1A	588		38	45 23	3010
TREE	363647.06	0872452.25	1A	604		54	177 56	3187
TREE	363737.77	0872420.72	1A	617		67	54 24	3323
SILO	363730.08	0872415.60	1B	635		85	69 40	3324
TREE	363751.62	0872456.32	1A	598		48	356 40	3350
TREE	363803.75	0872519.20	1A	636		86	335 50	5019
OL TANK	363757.65	0872533.55	1B	695		145	320 51	5113
TREE	363816.89	0872458.88	1A	661		111	356 10	5914
ANT ON OL MAST	363748.58	0872618.67	1A	714		164	293 54	7556
TRANSMSSN TWR	363836.86	0872448.93	1B	698		148	3 4	7929
OL TANK	363812.46	0872607.01	1B	696		146	312 37	8083
TRANSMSSN TWR	363839.36	0872458.55	1B	695		145	357 29	8181
OL RADIO TOWER	363828.61	0872601.00	1A	795	250	245	322 29	8956
OL TANK	363800.44	0872652.85	1B	690		140	293 47	10589

VAR. 0.2° WEST



TOUCH-DOWN ZONE

RUNWAY	ELEVATION
5	545
23	545
17	541
35	550

AIRPORT ELEV. 550 FT.

OUTLAW FIELD
CLARKSVILLE, TENNESSEE
(NOT TO SCALE)