

OBSTRUCTION DATA SHEET

ODS 5324
WAUKEGAN REGIONAL AIRPORT
WAUKEGAN, ILLINOIS

DIGITIZED FROM

OC 5324
SURVEYED NOVEMBER 1987
1ST 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:

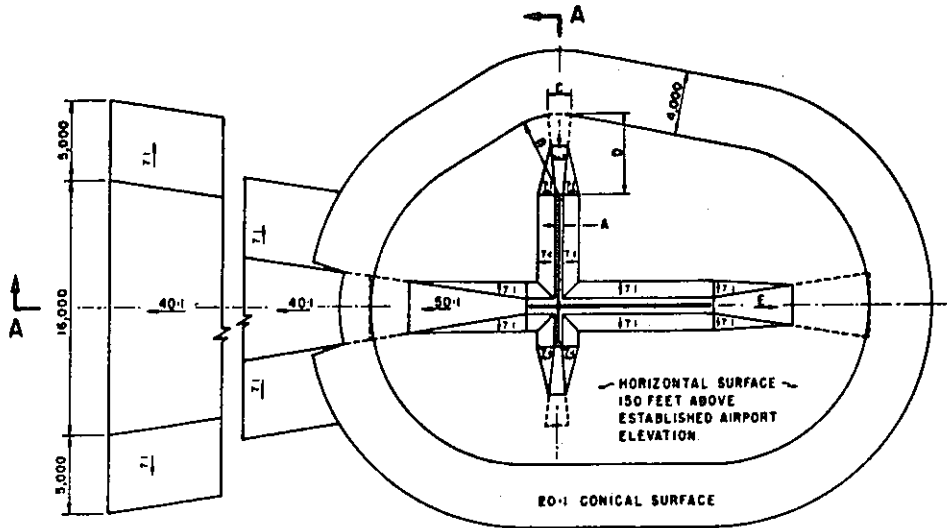
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the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

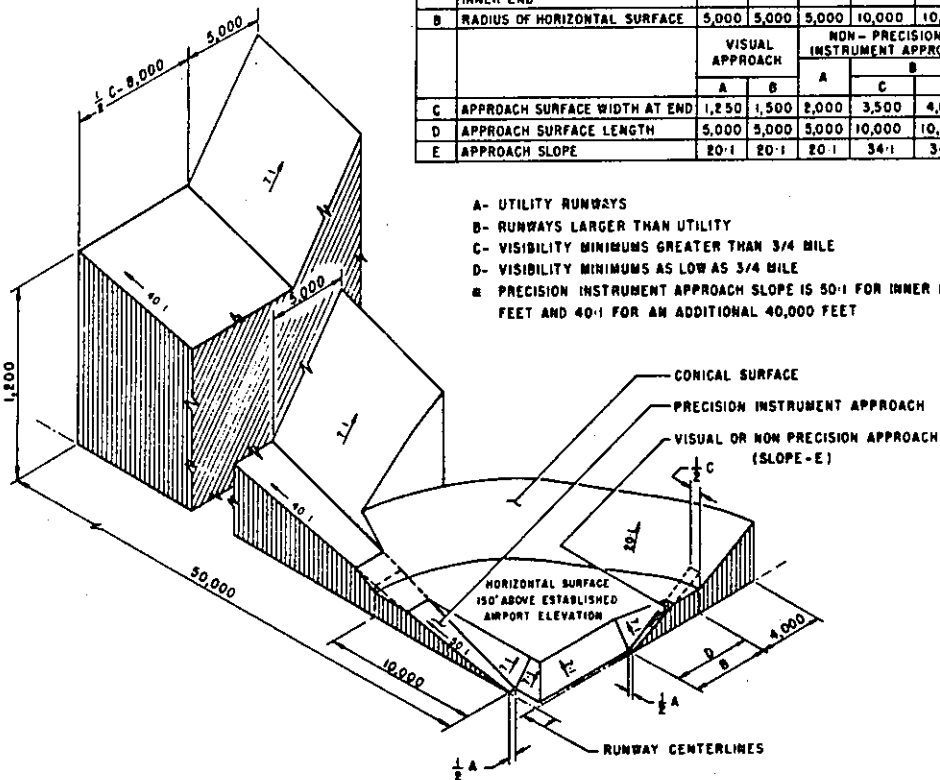
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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	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	
		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

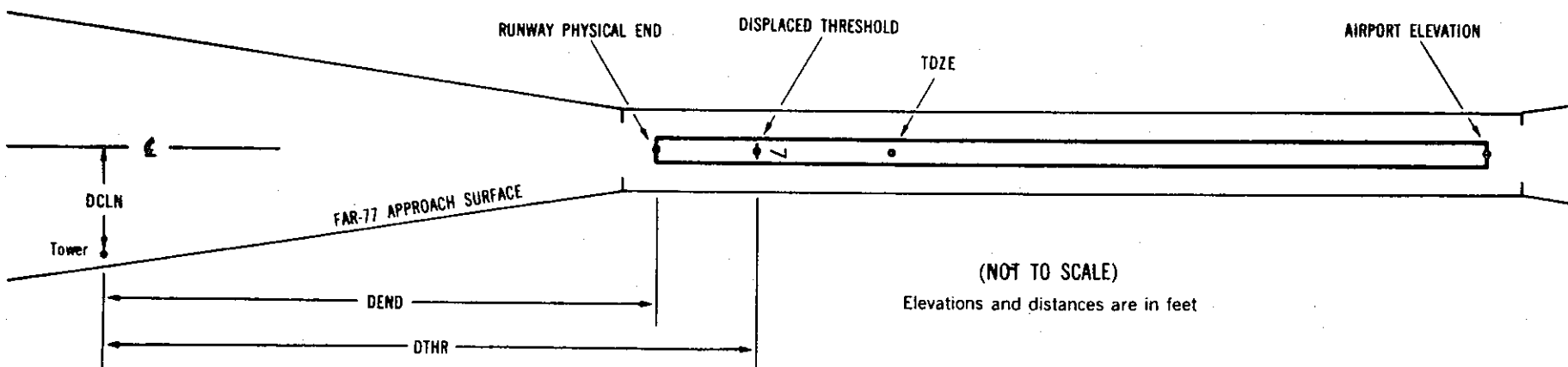
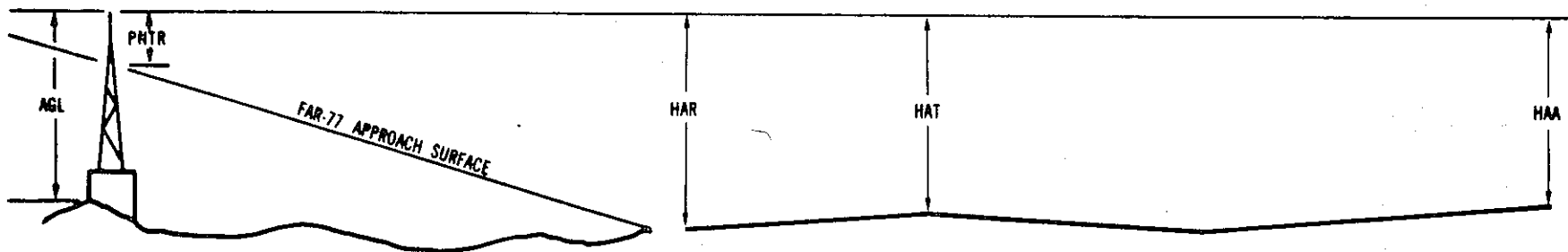
FAR-77 CIVIL AIRPORT
IMAGINARY SURFACES

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



(NOT TO SCALE)
Elevations and distances are in feet

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 727

5 D 725/725 422456.992N 0875231.925W 2282649

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
FENCE POST	422526.42	0875137.77	1A	723		-2	-2	-4	-5016		465R	7
ROD ON OL GLIDE SLOPE	422531.72	0875147.07	1A	753		28	28	26	-4850		400L	37
TREE	422529.05	0875152.89	1A	744		19	19	17	-4343		487L	30
OL WSK ON WIND TEE	422510.13	0875203.15	1A	725		0	0	-2	-2498		436R	16
TREE	422454.01	0875226.50	1A	749		24	24	22	-104		496R	25
GROUND	422459.35	0875235.65	1A	726		1	1	-1	51		364L	1
TREE	422500.22	0875237.36	1A	755		30	30	28	88		515L	30
TREE	422451.86	0875229.56	1A	757		32	32	30	212		507R	32
GROUND	422452.92	0875232.31	1A	727		2	2	0	295		289R	-1
POLE	422456.21	0875240.02	1A	742		17	17	15	507		344L	8
TREE	422449.84	0875232.99	1A	758		33	33	31	540		488R	23
OL ON LOCALIZER	422453.06	0875237.91	1A	732		7	7	5	600		0L	-5
TREE	422449.81	0875235.37	1A	755		30	30	28	675		373R	16
TREE	422454.43	0875243.82	1A	762		37	37	35	840		398L	18
TREE	422449.58	0875239.53	1A	757		32	32	30	925		183R	11
TREE	422451.72	0875243.85	1A	760		35	35	33	1023		194L	11
TREE	422448.93	0875243.05	1A	759		34	34	32	1166		57R	6
TREE	422444.89	0875238.91	1A	794		69	69	67	1205		569R	39
TREE	422451.44	0875249.53	1A	774		49	49	47	1361		455L	15
TREE	422445.89	0875244.31	1A	771		46	46	44	1440		224R	10
TREE	422448.01	0875248.22	1A	768		43	43	41	1517		131L	4
TREE	422442.83	0875243.23	1A	790		65	65	63	1586		511R	24
TREE	422443.78	0875247.41	1A	778		53	53	51	1756		230R	7

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AIRPORT ELEVATION 727

23 PIR 723/723 422536.298N 0875132.065W 0482729

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DIHR	DCLN	PNTR
TREE	422451.86	0875229.56	1A	757		34	34	30	-6212		507L	32
TREE	422500.22	0875237.36	1A	755		32	32	28	-6087		515R	30
GROUND	422459.35	0875235.65	1A	726		3	3	-1	-6050		364R	1
TREE	422454.01	0875226.50	1A	749		26	26	22	-5895		496L	25
OL WSK ON WIND TEE	422510.13	0875203.15	1A	725		2	2	-2	-3502		436L	16
TREE	422529.05	0875152.89	1A	744		21	21	17	-1656		487R	30
ROD ON OL GLIDE SLOPE	422531.72	0875147.07	1A	753		30	30	26	-1150		400R	37
FENCE POST	422526.42	0875137.77	1A	723		0	0	-4	-983		465L	7
TREE	422542.08	0875133.16	1A	737		14	14	10	327		492R	11
POLE	422542.39	0875119.61	1A	732		9	9	5	1108		158L	-9
POLE	422541.91	0875116.51	1A	741		18	18	14	1250		348L	-3

14 A(V) 727/ 422539.511N 0875222.476W 3241148 727/727 422535.580N 0875218.648W

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DIHR	DCLN	PNTR
GROUND	422507.14	0875152.99	1A	712		-15	-15	-15	-3952	-3461	123R	0
BUSH	422510.45	0875152.11	1A	718		-9	-9	-9	-3719	-3228	126L	6
ROAD (N)	422542.08	0875222.94	1A	752		25	25	25	232	723	124L	23
BUSH	422541.81	0875226.20	1A	746		19	19	19	352	843	91R	11
TREE	422543.13	0875225.12	1A	765		38	38	38	413	904	53L	27
WINDVANE ON BLDG	422543.47	0875226.67	1A	761		34	34	34	510	1000	20R	19
TREE	422547.10	0875232.29	1A	785		58	58	58	1053	1544	147R	15
TREE	422553.50	0875231.84	1A	801		74	74	74	1559	2050	259L	6

OC5324

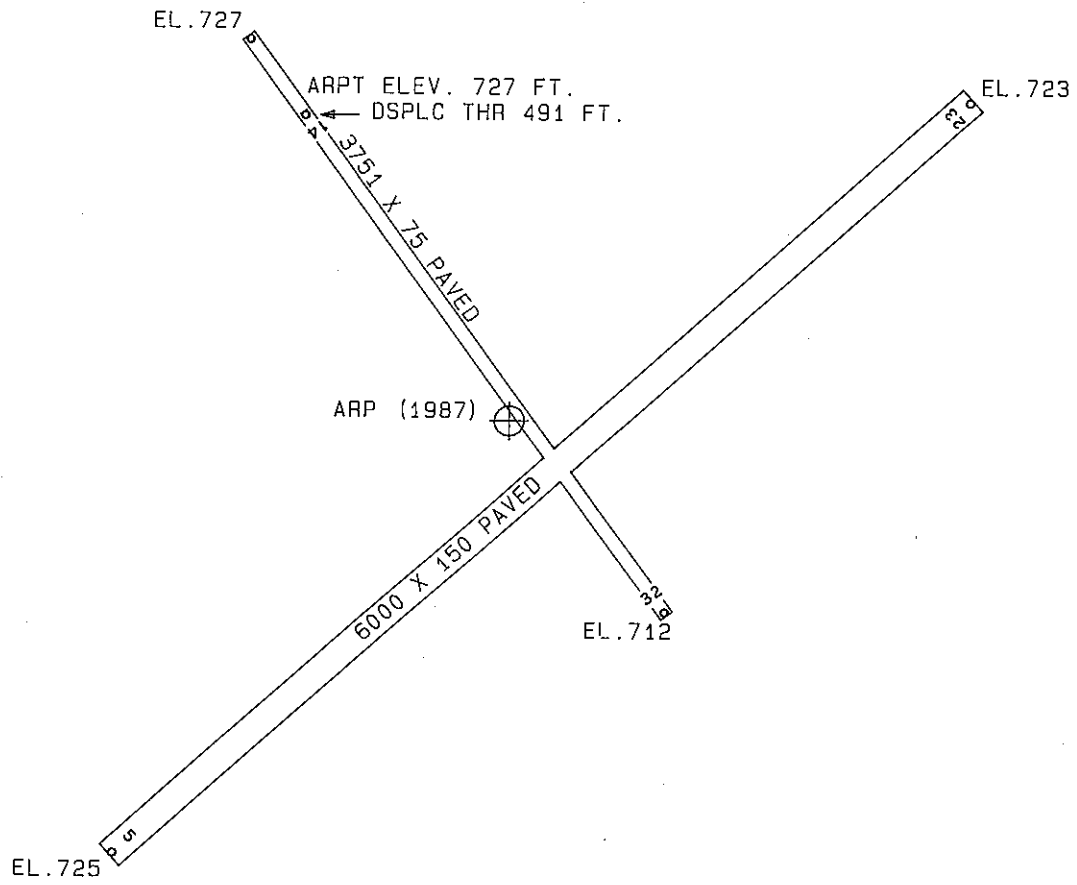
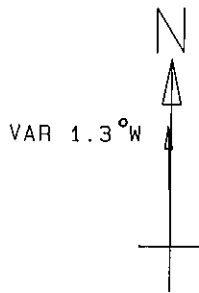
AIRPORT ELEVATION 727

32 A(V) 712/726 422509.461N 0875153.223W 1441207

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	422510.45	0875152.11	1A	718		6	-8	-9	-32		126R	6
GROUND	422507.14	0875152.99	1A	712		0	-14	-15	201		123L	0
BUSH	422507.31	0875149.00	1A	728		16	2	1	362		130R	8
BUSH	422505.56	0875152.08	1A	725		13	-1	-2	370		162L	4

ARP 422519.662N 0875204.248W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG	BEARING	DISTANCE
HANGAR	422523.76	0875215.53	1A	759		32	297	26	942
LIGHT POLE	422529.43	0875205.97	1A	749		22	353	51	997
HANGAR	422529.72	0875205.52	1A	760		33	355	58	1023
TREE	422529.14	0875154.28	1A	759		32	39	14	1217
ANT ON BUILDING	422515.89	0875146.93	1A	761		34	107	42	1354
LIGHT POLE	422505.23	0875204.38	1A	735		8	181	42	1461
ANT ON BUILDING	422502.48	0875207.78	1A	756		29	189	58	1760
ROD ON APT BCN	422501.82	0875206.82	1A	765		38	187	24	1816
TREE	422536.34	0875227.67	1A	789		62	315	10	2436
TREE	422542.84	0875221.85	1A	781		54	331	56	2692
TREE	422456.40	0875222.32	1A	735		8	211	14	2717
TREE	422539.80	0875228.76	1A	784		57	319	16	2745
TREE	422541.46	0875227.42	1A	765		38	323	5	2809
TREE	422455.31	0875223.47	1A	755		28	211	37	2856
TREE	422502.43	0875236.31	1A	772		45	235	21	2971
TREE	422543.43	0875134.79	1A	752		25	43	51	3267
TREE	422458.99	0875240.45	1A	780		53	233	41	3428
TREE	422543.98	0875132.30	1A	753		26	45	32	3435
TREE	422450.01	0875231.13	1A	757		30	215	12	3616
TREE	422457.12	0875243.51	1A	778		51	233	32	3725
TREE	422445.13	0875234.93	1A	797		70	214	40	4186
TREE	422550.35	0875126.42	1A	759		32	43	42	4207



TOUCHDOWN ZONE RUNWAY ELEVATION	
5	725
23	723
14	727
32	726

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN, ILLINOIS
(NOT TO SCALE)