

OBSTRUCTION DATA SHEET

**ODS 6652
AIRLAKE AIRPORT
LAKEVILLE, MINNESOTA**

DIGITIZED FROM

**OC 6652
SURVEYED JUNE 1989
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:

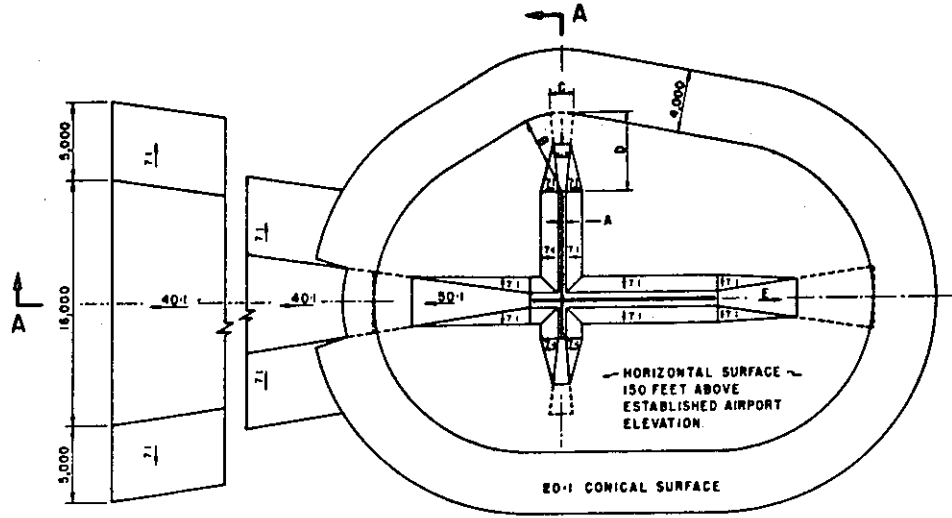
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the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

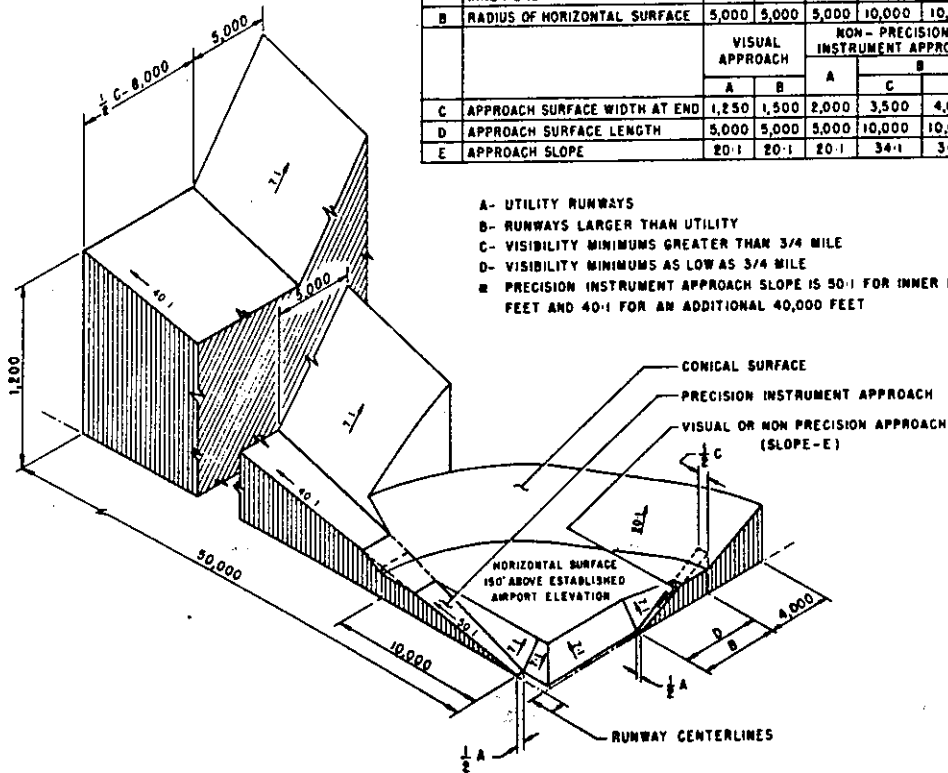
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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	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
D	APPROACH SURFACE LENGTH	1,250	1,500	2,000	3,500	4,000	16,000
E	APPROACH SURFACE SLOPE	20:1	20:1	20:1	34:1	34:1	0

- 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

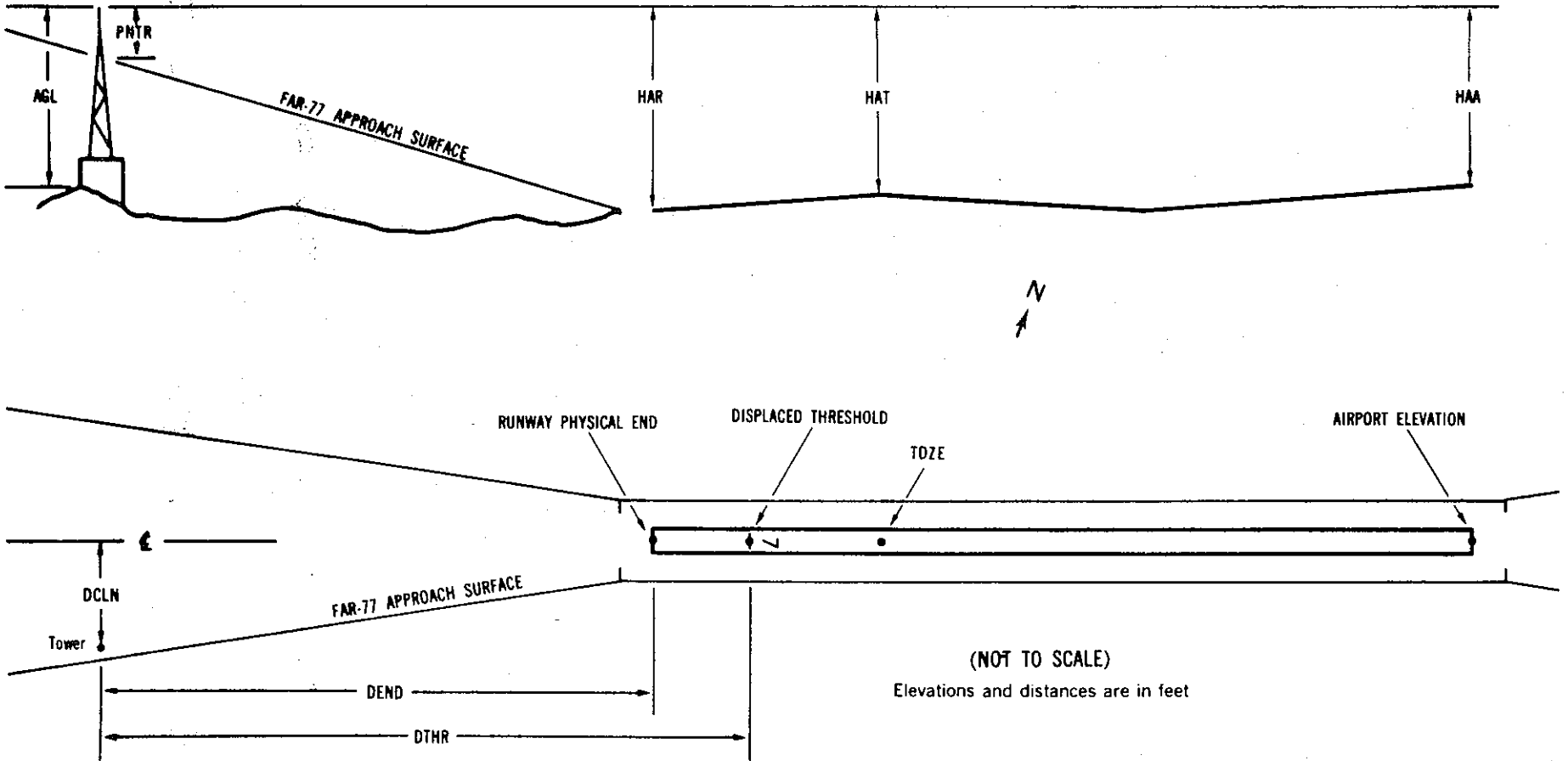
**FAR-77 CIVIL AIRPORT
IMAGINARY SURFACES**

ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

X ¹	X ²	XXXX/XXXX ³	XXXXXX.XXX ⁴	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 960

11 AV 960/960 443749.736N 09314 5.507W 2972526

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	443725.86	0931315.91	1A	963		3	3	3	-4298		494R	12
GROUND	443726.70	0931318.41	1A	963		3	3	3	-4098		502R	12
OL ON ANTENNA	443732.49	0931321.93	1A	959		-1	-1	-1	-3602		98R	7
OL ON ANTENNA	443733.01	0931326.68	1A	960		0	0	0	-3273		211R	7
ANTENNA ON BUILDING	443733.57	0931329.34	1A	967		7	7	7	-3076		248R	14
OL ON ANTENNA	443735.89	0931331.82	1A	959		-1	-1	-1	-2808		122R	5
HANGAR	443742.72	0931333.94	1A	980		20	20	20	-2353		421L	26
OL ON WINDSOCK	443738.57	0931339.67	1A	976		16	16	16	-2179		143R	21
ANTENNA ON BUILDING	443743.12	0931340.01	1A	989		29	29	29	-1945		255L	34
POLE	443745.97	0931340.00	1A	990		30	30	30	-1813		511L	35
TREE	443742.41	0931356.41	1A	986		26	26	26	-926		356R	29
POLE	443749.96	0931351.04	1A	985		25	25	25	-918		502L	28
VENT ON BUILDING	443750.79	0931354.06	1A	982		22	22	22	-685		476L	24
TREE	443751.97	0931359.17	1A	986		26	26	26	-303		412L	27
ANTENNA ON BUILDING	443753.08	0931400.31	1A	987		27	27	27	-178		474L	27
ANTENNA ON BUILDING	443754.11	0931405.02	1A	985		25	25	25	173		409L	25
POLE	443755.43	0931406.64	1A	1000		40	40	40	338		474L	36
BUILDING	443753.84	0931408.76	1A	980		20	20	20	400		260L	14
TREE	443755.32	0931409.45	1A	992		32	32	32	514		371L	23
RAILROAD	443747.78	0931415.44	1A	993		33	33	33	546		507R	23
ANTENNA ON BUILDING	443749.95	0931414.11	1A	975		15	15	15	562		268R	-4
OL ON LOCALIZER	443752.66	0931413.42	1A	969		9	9	9	645		1R	-4
TREE	443843.88	0931545.68	1B	1113		153	153	153	8954		1532L	-104

OC6652

AIRPORT ELEVATION 960

29 PIR 951/ 443731.096N 0931315.213W 1172601 952/958 443732.877N 0931320.017W

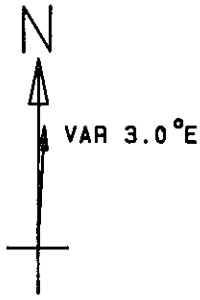
OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ANTENNA ON BUILDING	443754.11	0931405.02	1A	985		34	27	25	-4271	-3879	409R	25
ANTENNA ON BUILDING	443753.08	0931400.31	1A	987		36	29	27	-3920	-3529	474R	27
TREE	443751.97	0931359.17	1A	986		35	28	26	-3795	-3404	412R	27
VENT ON BUILDING	443750.79	0931354.06	1A	982		31	24	22	-3413	-3021	476R	24
POLE	443749.96	0931351.04	1A	985		34	27	25	-3180	-2789	502R	28
TREE	443742.41	0931356.41	1A	986		35	28	26	-3172	-2781	356L	29
POLE	443745.97	0931340.00	1A	990		39	32	30	-2285	-1894	511R	35
ANTENNA ON BUILDING	443743.12	0931340.01	1A	989		38	31	29	-2153	-1761	255R	34
OL ON WINDSOCK	443738.57	0931339.67	1A	976		25	18	16	-1919	-1528	143L	21
HANGAR	443742.72	0931333.94	1A	980		29	22	20	-1745	-1353	421R	26
OL ON ANTENNA	443735.89	0931331.82	1A	959		8	1	-1	-1290	-898	122L	5
ANTENNA ON BUILDING	443733.57	0931329.34	1A	967		16	9	7	-1022	-631	248L	14
OL ON ANTENNA	443733.01	0931326.68	1A	960		9	2	0	-825	-434	211L	7
OL ON ANTENNA	443732.49	0931321.93	1A	959		8	1	-1	-496	-105	98L	7
GROUND	443726.70	0931318.41	1A	963		12	5	3	0	391	502L	12
GROUND	443725.86	0931315.91	1A	963		12	5	3	200	591	494L	12
ROAD (N)	443724.50	0931313.41	1A	978		27	20	18	423	815	533L	23
ANTENNA ON BUILDING	443731.71	0931304.59	1A	960		9	2	0	653	1044	409R	0
TREE	443724.72	0931309.37	1A	974		23	16	14	673	1064	379L	14
ROAD (N)	443733.00	0931303.04	1A	963		12	5	3	693	1084	577R	2
SIGN	443725.27	0931304.78	1A	968		17	10	8	942	1333	176L	2
TREE	443729.66	0931256.12	1A	1002		51	44	42	1293	1684	507R	29
TREE	443723.02	0931247.74	1A	988		37	30	28	2140	2532	190R	-2
TREE	443710.10	0931243.15	1A	1014		63	56	54	3038	3429	818L	6
TREE	443711.39	0931239.20	1A	1006		55	48	46	3231	3623	571L	-6

OC6652

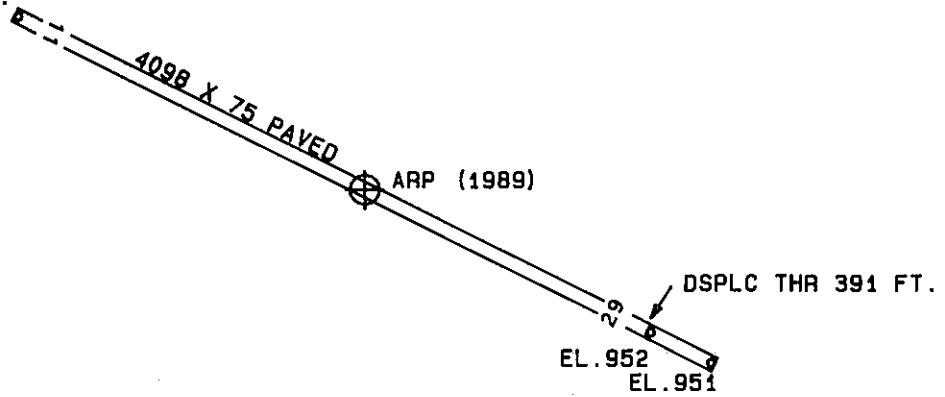
AIRPORT ELEVATION 960

ARP 443740.417N 0931340.359W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
POLE	443745.58	0931336.60	1A	986		26	24 28	589
HANGAR	443741.61	0931325.63	1A	973		13	80 31	1072
POLE	443750.97	0931348.26	1A	984		24	328 52	1212
TREE	443727.05	0931338.56	1A	1040		80	171 31	1360
TREE	443742.30	0931404.00	1A	995		35	273 21	1720
POLE	443724.14	0931321.59	1A	998		38	137 31	2135
TREE	443755.42	0931401.40	1A	1010		50	311 57	2150
TREE	443724.04	0931318.53	1A	1013		53	133 24	2289
VENT ON BUILDING	443759.30	0931359.03	1A	1039		79	321 47	2341
POLE	443756.76	0931405.95	1A	997		37	308 49	2483
TREE	443745.74	0931415.03	1A	1024		64	279 8	2564
POLE	443746.47	0931416.32	1A	1000		40	280 16	2672
POLE	443733.54	0931303.99	1A	961		1	101 49	2721
BUILDING	443759.04	0931411.56	1A	1008		48	306 53	2941
OL ON WATER TANK	443824.23	0931332.30	1B	1118		158	4 29	4475
TREE	443721.67	0931522.36	1B	1148		188	252 35	7618
TREE	443724.18	0931527.55	1B	1149		189	255 2	7925
TREE	443728.97	0931552.77	1B	1116		156	260 7	9646
TREE	443841.62	0931534.75	1B	1115		155	303 52	10336
SILO	443926.30	0931342.85	1B	1118		158	356 2	10725
TREE	443759.47	0931607.18	1B	1122		162	277 19	10792
TREE	443724.32	0931611.71	1B	1121		161	258 33	11067



ARPT ELEV. 960 FT.



TOUCHDOWN ZONE RUNWAY ELEVATION	
11	960
29	958

AIRLAKE AIRPORT
LAKEVILLE, MINNESOTA
(NOT TO SCALE)