

# OBSTRUCTION DATA SHEET

**ODS 5379  
SHEBOYGAN COUNTY MEMORIAL AIRPORT  
SHEBOYGAN, WISCONSIN**

**DIGITIZED FROM**

**OC 5379  
SURVEYED AUGUST 1989  
2ND EDITION**



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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:

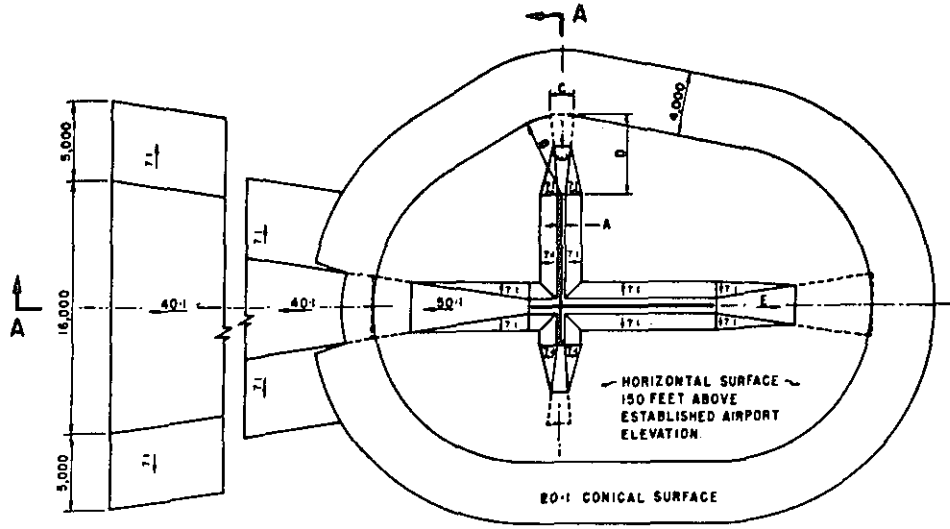
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the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

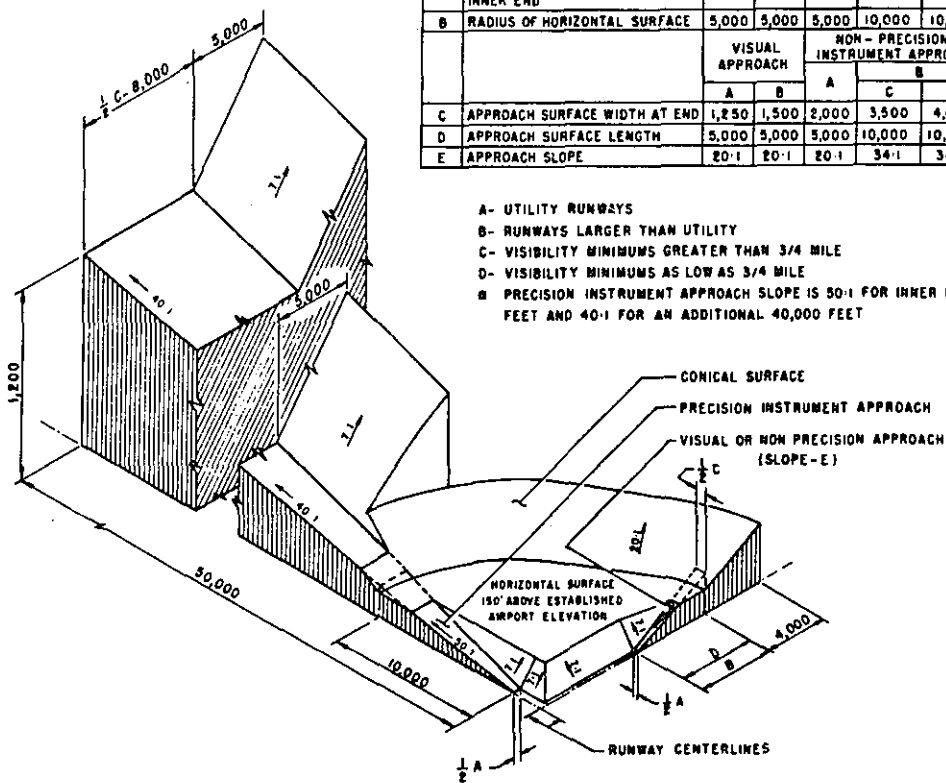
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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
		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

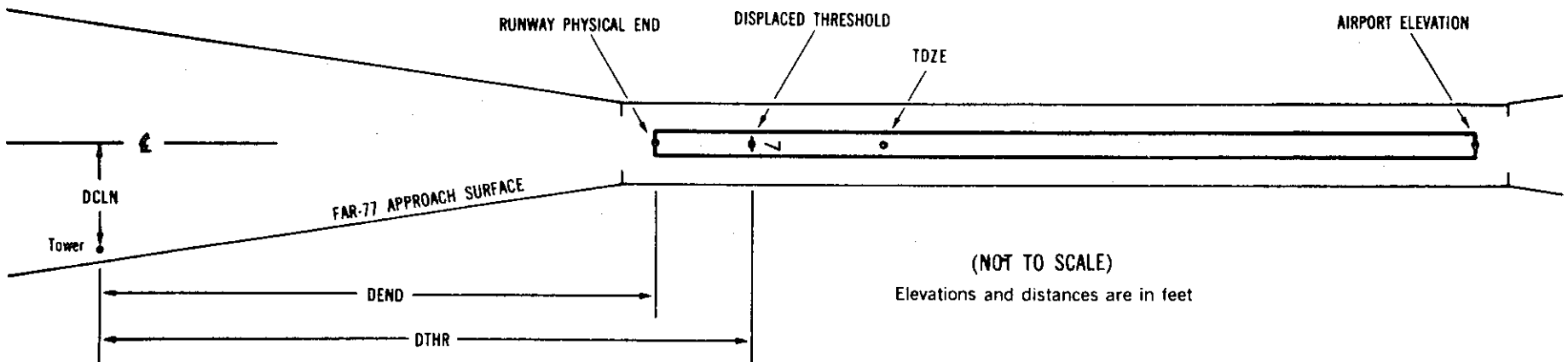
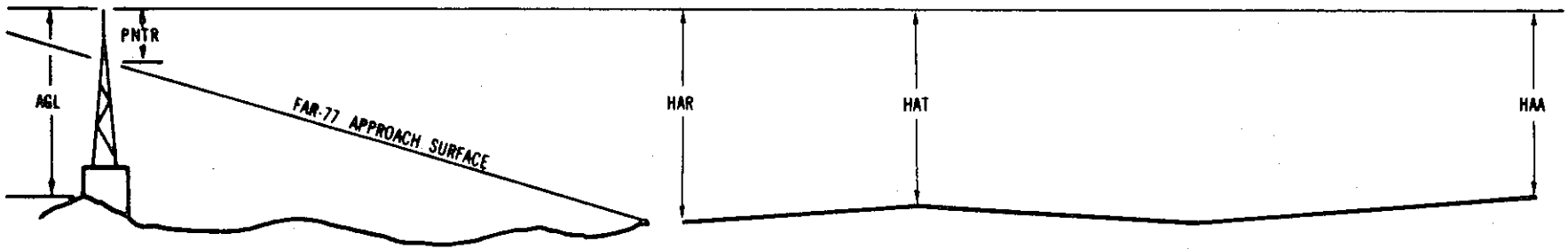
# ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

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

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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 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  $\pm 10$  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 749

3 C 741/744 434552.267N 0875126.284W 2150834

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	434633.21	0875054.80	1A	771		30	27	22	-4720		498L	31
OL ON GLIDE SLOPE	434629.60	0875055.52	1A	785		44	41	36	-4390		330L	45
TREE	434608.96	0875102.98	1A	753		12	9	4	-2367		425R	11
GROUND	434604.07	0875108.08	1A	744		3	0	-5	-1746		404R	0
GROUND	434559.62	0875124.47	1A	749		8	5	0	-686		320L	8
GROUND	434548.30	0875125.79	1A	745		4	1	-4	308		260R	1
OL ON LOCALIZER	434546.14	0875132.23	1A	750		9	6	1	758		0R	-7
TREE	434547.72	0875137.04	1A	767		26	23	18	831		381L	7
TREE	434537.82	0875147.13	1A	789		48	45	40	2077		409L	-7
TREE	434518.69	0875158.11	1A	819		78	75	70	4125		47R	-37
TRANSMISSION TOWER	434449.16	0875231.06	1A	901		160	157	152	7962		210L	-68

21 PIR 738/743 434635.863N 0875043.930W 0350903

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	434559.62	0875124.47	1A	749		11	6	0	-4713		320R	8
GROUND	434604.07	0875108.08	1A	744		6	1	-5	-3652		404L	0
TREE	434608.96	0875102.98	1A	753		15	10	4	-3032		425L	11
OL ON GLIDE SLOPE	434629.60	0875055.52	1A	785		47	42	36	-1008		330R	45
TREE	434633.21	0875054.80	1A	771		33	28	22	-679		498R	31
GROUND	434643.48	0875032.96	1A	748		10	5	-1	1094		214L	-8
ROD ON BUILDING	434706.54	0875022.79	1A	796		58	53	47	3433		520R	-7
TREE	434708.34	0875010.13	1A	812		74	69	63	4117		134L	-4

OC5379

AIRPORT ELEVATION 749

13 A(V) 749/749 434617.379N 0875126.816W 3092258

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
POLE	434624.69	0875138.19	1A	777		28	28	28	1115		42L	-18

31 A(V) 740/745 434552.355N 0875044.760W 1292327

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	434549.00	0875036.85	1A	761		21	16	12	664		106R	-2

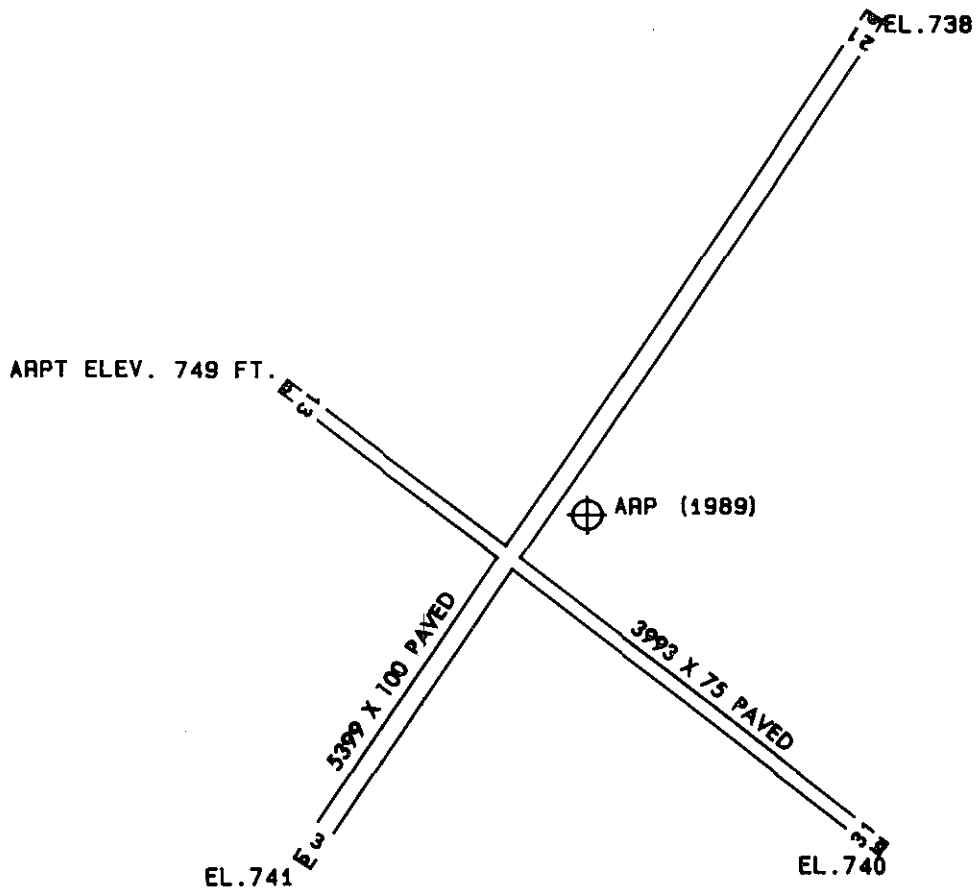
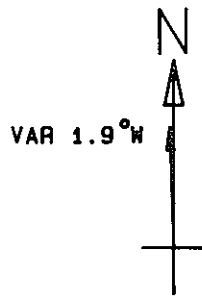
OC5379

AIRPORT ELEVATION 749

ARP 434610.155N 0875105.397W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG	BEARING	DISTANCE
VOR	434607.63	0875055.19	1A	771		22	110	43	791
MONITOR ANTENNA	434607.84	0875054.69	1A	780		31	108	33	820
TREE	434614.79	0875054.11	1A	773		24	62	21	952
TREE	434616.04	0875117.13	1A	765		16	306	36	1047
TREE	434620.61	0875120.76	1A	808		59	315	5	1547
OL ON WINDSOCK	434554.57	0875055.22	1A	773		24	156	34	1746
TREE	434619.68	0875042.25	1A	818		69	62	18	1954
TREE	434557.87	0875042.45	1A	785		36	128	21	2093
TREE	434623.46	0875128.04	1A	785		36	310	56	2139
TREE	434601.49	0875132.30	1A	819		70	247	56	2160
TREE	434624.38	0875042.99	1A	769		20	50	41	2186
ROD ON AIRPORT BEACON	434545.42	0875105.77	1A	821		72	182	32	2505
TREE	434636.30	0875058.21	1A	812		63	13	10	2699
GROUND	434634.18	0875035.90	1A	746		-3	43	34	3256
TREE	434545.71	0875144.28	1A	799		50	230	58	3777
TREE	434648.19	0875046.46	1A	804		55	21	44	4094
TREE	434542.80	0875018.29	1A	796		47	130	36	4430
TRANSMISSION TOWER	434634.58	0875232.50	1B	892		143	293	4	6853
TRANSMISSION TOWER	434542.40	0875231.99	1B	889		140	248	3	6948
TRANSMISSION TOWER	434512.95	0875231.61	1B	883		134	229	26	8578





TOUCHDOWN ZONE RUNWAY ELEVATION	
3	744
21	743
13	749
31	745

SHEBOYGAN COUNTY MEMORIAL AIRPORT  
SHEBOYGAN, WISCONSIN  
(NOT TO SCALE)