OBSTRUCTION DATA SHEET

ODS 896
HOUGHTON COUNTY MEMORIAL AIRPORT
HANCOCK, MICHIGAN

DIGITIZED FROM

OC 896
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FOR THE FEDERAL AVIATION ADMINISTRATION

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See SPECIAL NOTICES in "Dates of Latest Editions, Airport Obstruction Charts - Obstruction Data Sheets," for possible corrections. National Oceanic and Atmospheric Administration (NOAA) publications are available through NOAA Distribution Branch (N/CG33), National Ocean Service, Riverdale, MD 20737. Telephone: 301-436-6990

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 No. 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 the 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 an FAR-77 approach or primary and listed with the associated runway (reference runway).

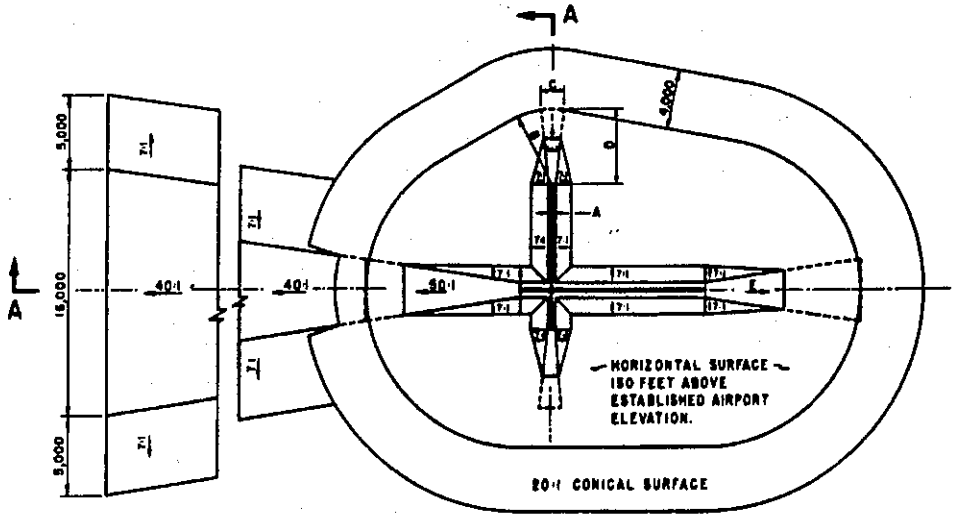
2. All objects not included in "1" above are listed with the Airport Reference Point (ARP).

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:

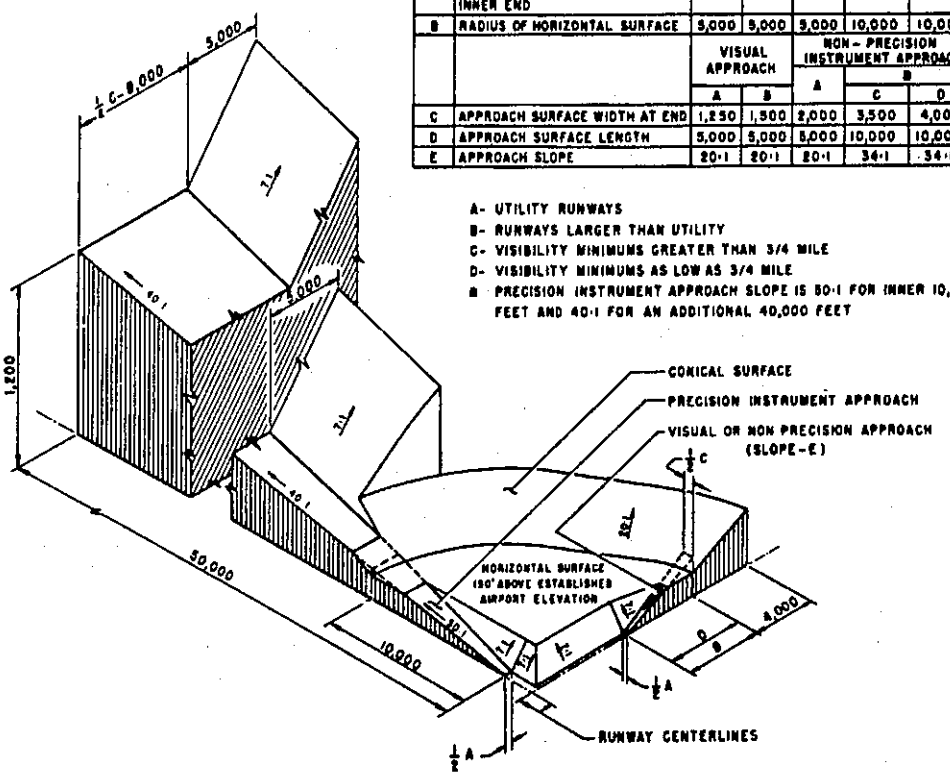
A(V) ..... Utility runway - visual approach only
A(NP) .... Utility runway - nonprecision instrument approach
B(V) ..... Nonutility runway - visual approach only
C .... Nonutility runway - nonprecision instrument approach with visibility minimums greater than 3/4 mile
D .... Nonutility runway- nonprecision 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.



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B C	B 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	B C	B 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]
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX

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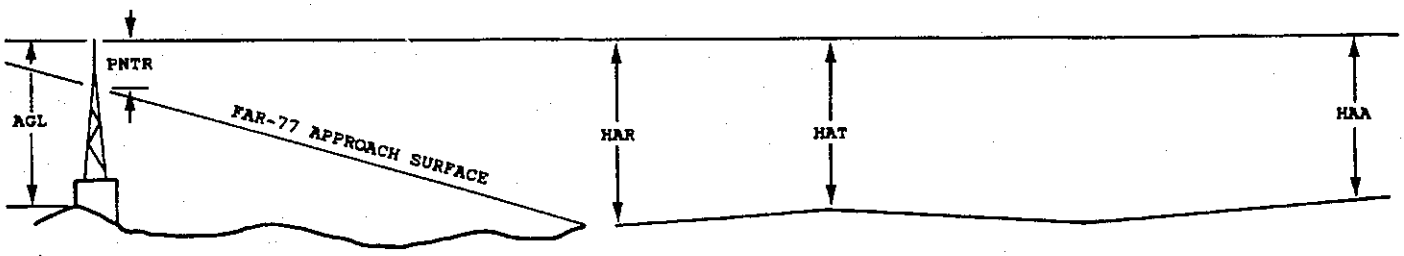
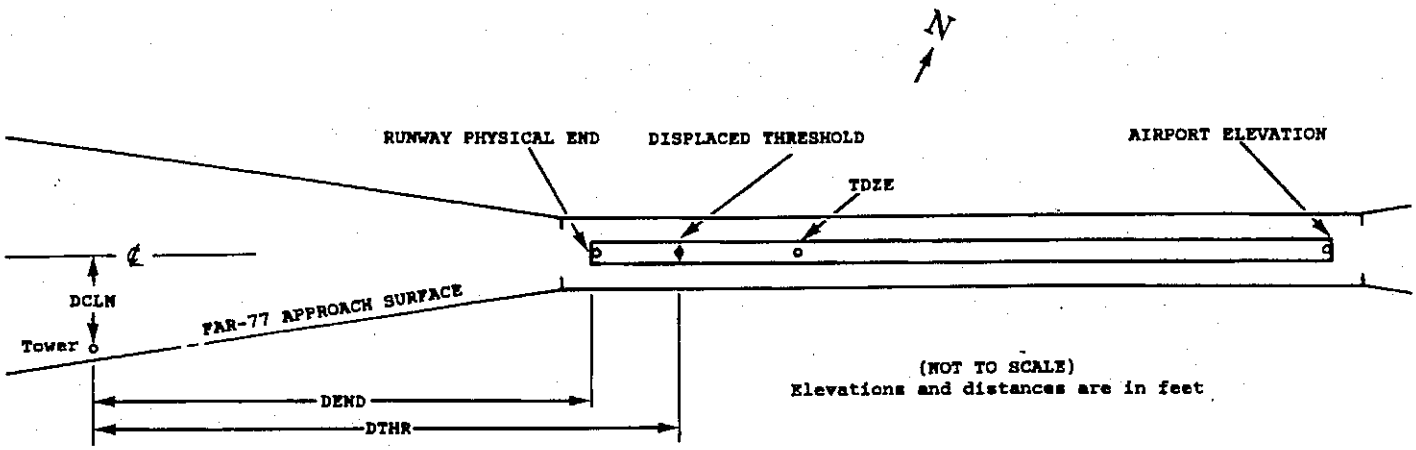




EXPLANATION OF FOOTNOTES

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 areas 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 Elevation at approach end of reference runway/touchdown zone elevation

4 Latitude and longitude at approach end of reference runway

5 Geodetic azimuth of reference runway reckoned from north

6 Elevation at reference runway displaced threshold/touchdown zone elevation

7 Latitude and longitude at reference runway displaced threshold

8 Accuracy codes:

Horizontal(Ft.)	Vertical(Ft.)
1 = 20	A = 2
2 = 40	B = 5
	C = 20

9 Elevation above mean sea level (MSL) 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). AGL's are provided only for manmade objects <u>appearing on the OC</u> and equal to or greater than 200 feet AGL. AGL accuracy is 10 feet.

11 HAA - Height above airport
HAR - Height above approach end of reference runway
HAT - Height above reference runway touchdown zone elevation

12 DEND - Distance along reference runway centerline from point nearest to object (perpendicular) to approach end of runway
DTHR - Distance along reference runway centerline from point nearest to object (perpendicular) to displaced 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 that object is in primary on roll-out side of zero distance point.

13 PNTR - Penetration of indicated FAR-77 approach or primary surface (See footnote 2).

OC0896

AIRPORT ELEVATION 1095

13 C 1095/1095 471031.133 -882955.937 1305109.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	470957.78	-882853.13	1A	1070		-25	-25	-25	-5495		283L	5
ROD ON OL GS	470955.06	-882901.41	1A	1104		9	9	9	-5243		300R	38
GROUND	471001.07	-882858.04	1A	1069		-26	-26	-26	-5021		313L	3
OL ON LTD WSK	471015.04	-882935.58	1A	1097		2	2	2	-2132		314R	14
GROUND	471029.55	-882943.16	1A	1102		7	7	7	-773		456L	8
GROUND	471031.75	-882949.57	1A	1097		2	2	2	-292		335L	2
BUSH	471028.38	-882959.39	1A	1105		10	10	10	-2		367R	10
OL ON LOC	471037.61	-883006.85	1A	1108		13	13	13	1000		3L	-11
TREE	471043.90	-883010.86	1A	1146		51	51	51	1627		304L	9
TREE	471039.86	-883021.73	1A	1155		60	60	60	1927		497R	9
TREE	471046.78	-883014.67	1A	1158		63	63	63	2016		353L	10
TREE	471054.03	-883046.45	1A	1202		107	107	107	4159		528R	-9
TREE	471100.46	-883043.97	1A	1212		117	117	117	4456		78L	-8

31 PIR 1061/1070 470949.160 -882844.781 3105201.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	471028.38	-882959.39	1A	1105		44	35	10	-6501		367L	10
GROUND	471031.75	-882949.57	1A	1097		36	27	2	-6212		335R	2
GROUND	471029.55	-882943.16	1A	1102		41	32	7	-5730		456R	8
OL ON LTD WSK	471015.04	-882935.58	1A	1097		36	27	2	-4372		314L	14
GROUND	471001.07	-882858.04	1A	1069		8	-1	-26	-1483		313R	3
ROD ON OL GS	470955.06	-882901.41	1A	1104		43	34	9	-1261		300L	38
GROUND	470957.78	-882853.13	1A	1070		9	0	-25	-1008		283R	5
TREE	470950.30	-882837.79	1A	1065		4	-5	-30	290		404R	2
TREE	470937.22	-882813.20	1A	1107		46	37	12	2443		514R	1
TREE	470929.04	-882823.30	1A	1089		28	19	-6	2457		570L	-17

7 SUPLC 1059/1067 470951.420 -882955.526 665215.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	470948.24	-883021.39	1A	1118		59	51	23	1771		406L	13
TREE	470937.70	-883027.99	1A	1145		86	78	50	2610		397R	15
TREE	470938.38	-883054.27	1A	1178		119	111	83	4254		380L	0

OC0896

AIRPORT ELEVATION 1095

25 C 1074/1074 471011.558 -882846.368 2465306.

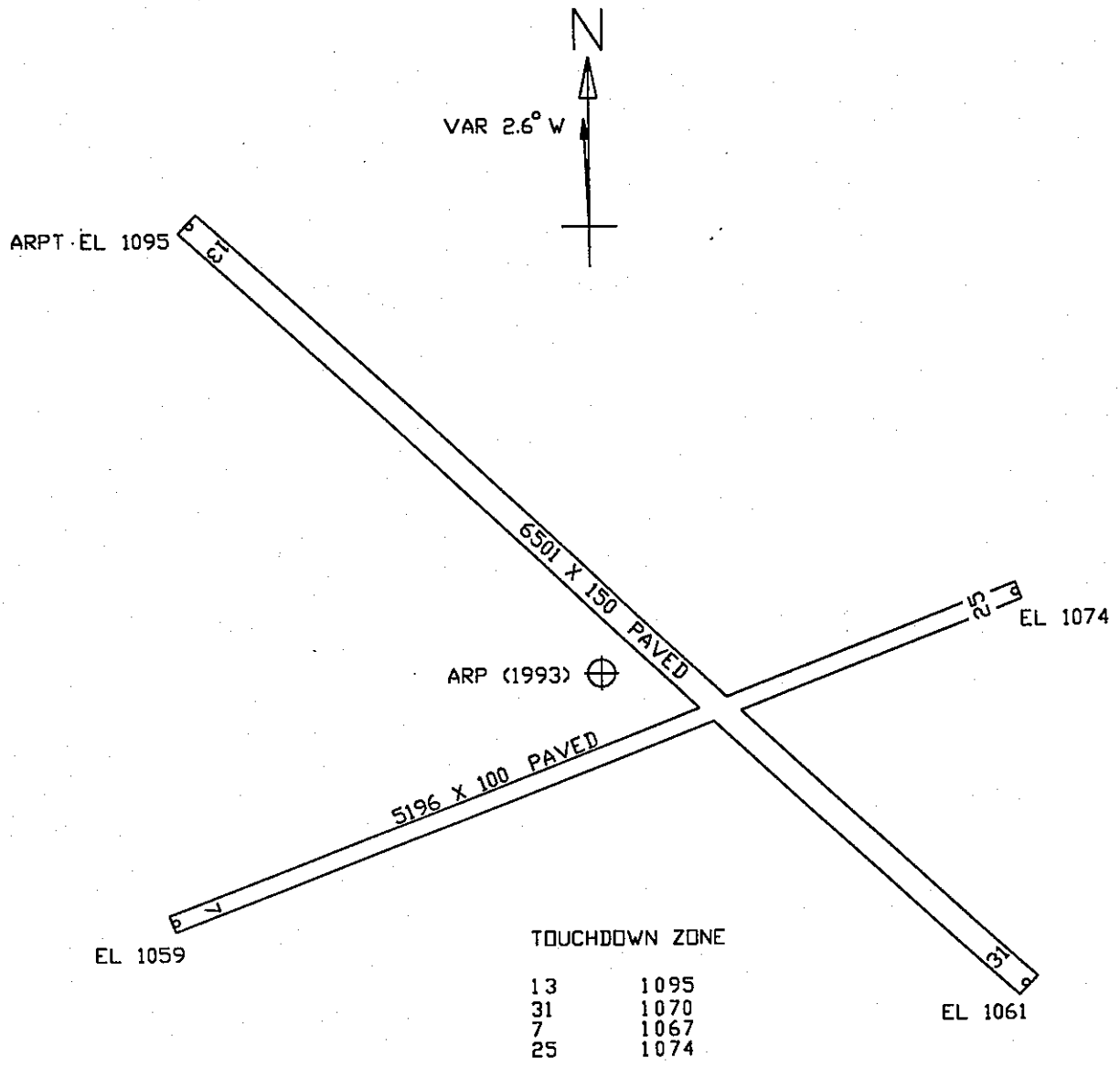
OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	471013.41	-882824.06	1A	1116		42	42	21	1492		433L	4
TREE	471020.03	-882826.02	1A	1120		46	46	25	1631		238R	4
TREE	471015.72	-882823.21	1A	1122		48	48	27	1638		241L	6

OC0896

AIRPORT ELEVATION 1095

ARP 471006.302 -882920.619

OBJECT	LAT	LONG	A	EL	AGL	HAA	MAG BEARING	DISTANCE
ROD ON VENT ON HANGAR	471010.65	-882938.78	1A	1121		26	29155	1330
ROD ON OL APBN	471005.01	-882941.21	1A	1126		31	26720	1429
TREE	470954.24	-882933.93	1A	1083		-12	21933	1530
OL ON VORTAC	471001.88	-882854.66	1A	1110		15	10636	1849
ANT	471002.58	-882853.67	1A	1114		19	10403	1901
WDI	471018.65	-882946.62	1A	1112		17	30727	2191
TREE	470948.99	-882947.15	1A	1096		1	22852	2539
TREE	470956.95	-882955.50	1A	1110		15	25108	2591
TREE	470948.19	-882950.66	1A	1099		4	23107	2772
TREE	471017.03	-882842.78	1A	1095		0	7001	2833
GROUND	471030.56	-882941.80	1A	1108		13	33149	2862
TREE	471033.04	-882937.06	1A	1173		78	33950	2939
TREE	471023.21	-882958.97	1A	1123		28	30529	3157
TREE	470944.56	-882957.31	1A	1112		17	23137	3360
TREE	471036.13	-882944.82	1A	1168		73	33339	3456
TREE	471027.25	-883008.89	1A	1149		54	30504	3955
TREE	471036.88	-883023.37	1A	1177		82	30809	5331
TREE	471054.15	-883014.24	1A	1185		90	32513	6104
TREE	471112.62	-882904.93	1A	1241		146	1145	6810
STACK	471045.59	-883128.20	1A	1223		128	29654	9676
TREE	471142.72	-882806.11	1A	1257		162	3022	11047
TREE	470900.86	-883129.93	1A	1261		166	23602	11132
TREE	470849.05	-883135.13	1A	1270		175	23230	12158
ANT ON OL MCWV TWR	470827.29	-883227.30	1A	1399	274	304	23445	16351



HOUGHTON COUNTY MEMORIAL AIRPORT

HANCOCK, MICHIGAN

(NOT TO SCALE)

(ELEVATIONS AND DISTANCES IN FEET)