

# OBSTRUCTION DATA SHEET

**ODS 5158  
CRYSTAL AIRPORT  
MINNEAPOLIS, MINNESOTA**

**DIGITIZED FROM**

**OC 5158  
SURVEYED 14 JULY 1992  
7TH EDITION**

**HORIZONTAL DATUM NAD83  
VERTICAL DATUM NGVD29**



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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.

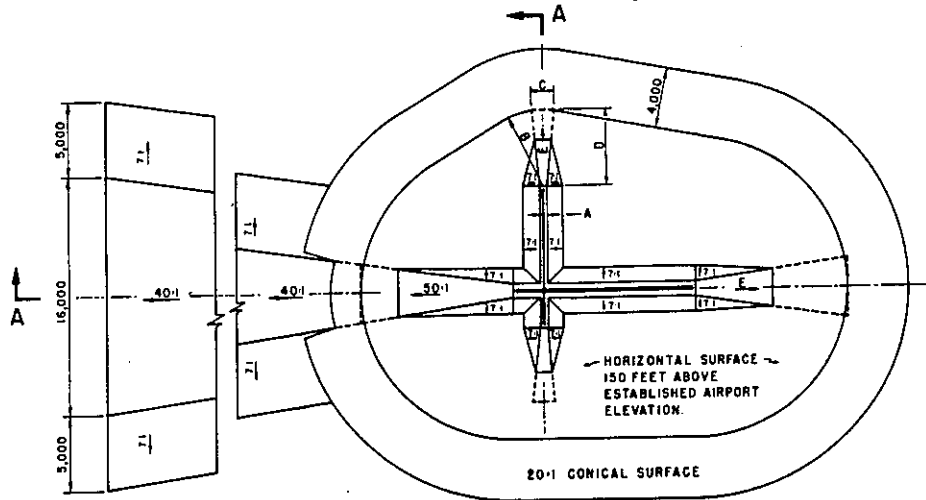
ODS information is arranged as follows:

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:

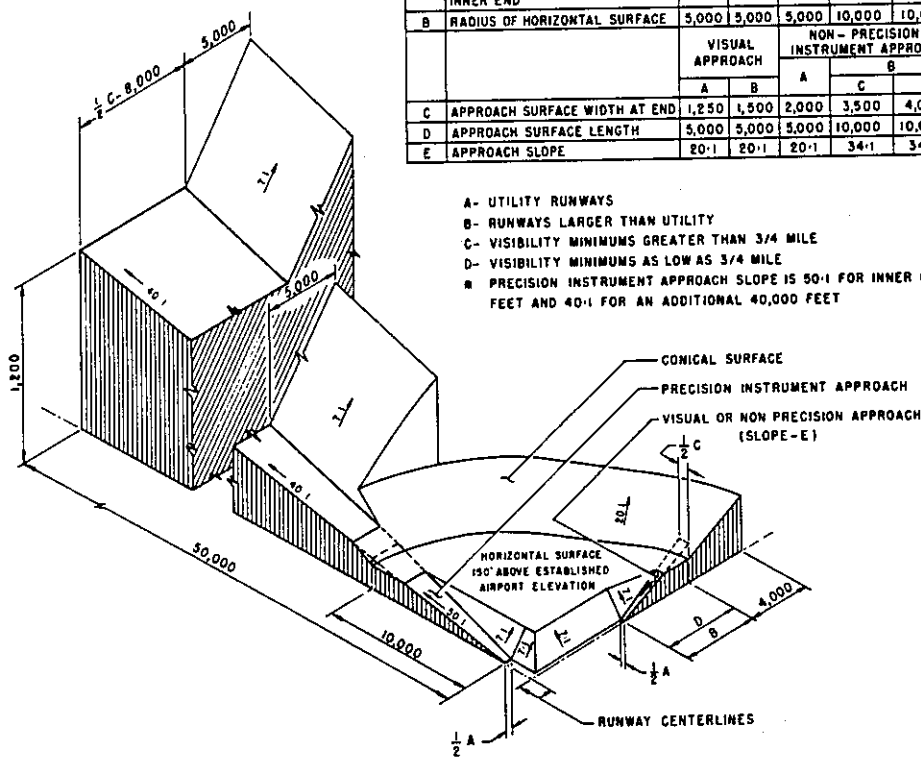
A(V) ..... Utility runway - visual approach only  
A(NP) ..... Utility runway - nonprecision instrument approach  
B(V) ..... Nonutility runway - visual approach only  
C ..... Nonutility runway - nonprecision instrument  
approach with visibility minimums greater than  
3/4 mile  
D ..... Nonutility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

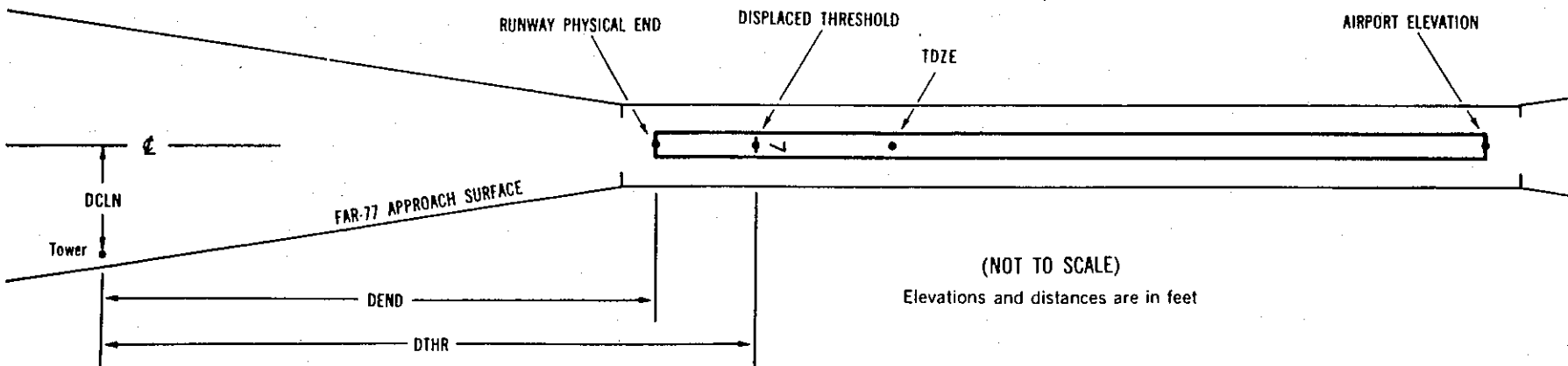
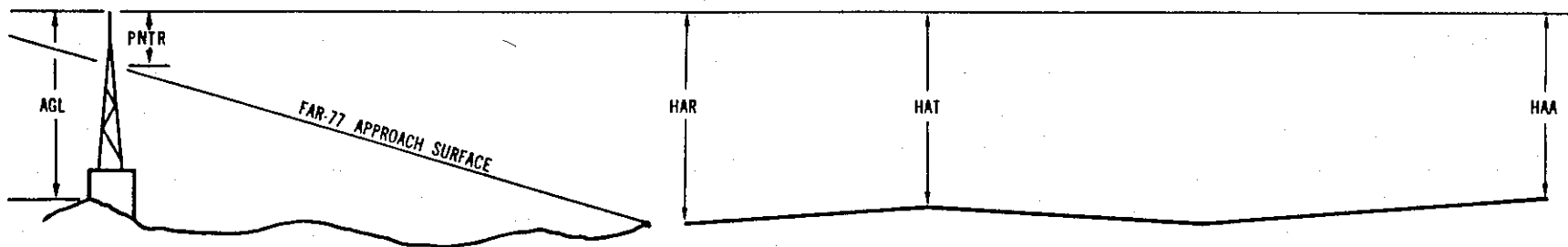
# ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

	X <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>
XXXXXXXXXXXXXX				XXXXXX.XXX	XXXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX
XXXXXXXXXXXXXX				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 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 displace threshold
- 8 Accuracy codes:           Horizontal           Vertical  
                                   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 appearing on the OC 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 displace 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 PTNR - Penetration of indicated FAR-77 approach or primary surface (See footnote 2).

OC5158

AIRPORT ELEVATION 869

13L AV 868/ 868 450353.976 -932124.828 1412419.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	450406.17	-932139.46	1A	944		76	76	75	1620		50R	5
TREE	450406.10	-932143.37	1A	960		92	92	91	1790		274R	13

31R AV 866/ 868 450328.792 -932056.469 3212439.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	450319.62	-932046.05	1A	879		13	11	10	1193		5R	-37
TREE	450320.43	-932043.74	1A	917		51	49	48	1232		186R	-1
TREE	450317.72	-932044.09	1A	930		64	62	61	1431		5L	2
TREE	450317.25	-932041.24	1A	940		74	72	71	1595		126R	4

13R AV 868/ 868 450352.183 -932128.157 1412502.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	450359.57	-932136.44	1A	885		17	17	16	955		2L	-21
TREE	450406.17	-932139.46	1A	944		76	76	75	1613		250L	6
TREE	450404.55	-932143.33	1A	944		76	76	75	1658		70R	3
TREE	450406.10	-932143.37	1A	960		92	92	91	1783		26L	13

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AIRPORT ELEVATION 869

31L AV 866/ 868 450326.979 -932059.788 3212523.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	450323.00	-932057.47	1A	905		39	37	36	418		121L	28
ROAD (N)	450315.92	-932047.21	1A	879		13	11	10	1438		7R	-49

5L AV 869/ 450340.794 -932131.568 531238. 869/ 450343.097 -932127.222

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	450335.52	-932141.71	1A	885		16		16	903	1292	8L	-19
TREE	450335.37	-932145.60	1A	935		66		66	1136	1525	163L	19
TREE	450334.56	-932146.66	1A	941		72		72	1246	1636	143L	20
TREE	450332.22	-932145.19	1A	934		65		65	1303	1693	110R	10

23R AV 867/ 450355.571 -932103.682 2331258. 868/ 450353.270 -932108.025

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	450400.37	-932054.20	1A	902		35		33	836	1225	18L	3
TREE	450401.46	-932053.39	1A	911		44		42	949	1338	36R	7
TREE	450402.48	-932051.69	1A	918		51		49	1108	1497	45R	6
TREE	450400.61	-932049.52	1A	929		62		60	1119	1509	200L	16



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AIRPORT ELEVATION 869

5R NUL 0/ 450339.159 -932127.716 531850.

OBJECT LAT LONG A EL AGL HAR HAT HAA DEND DTHR DCLN PNTR

\*\*\* NO OBSTRUCTIONS \*\*\*

23L NUL 0/ 450351.694 -932103.972 2331907.

OBJECT LAT LONG A EL AGL HAR HAT HAA DEND DTHR DCLN PNTR

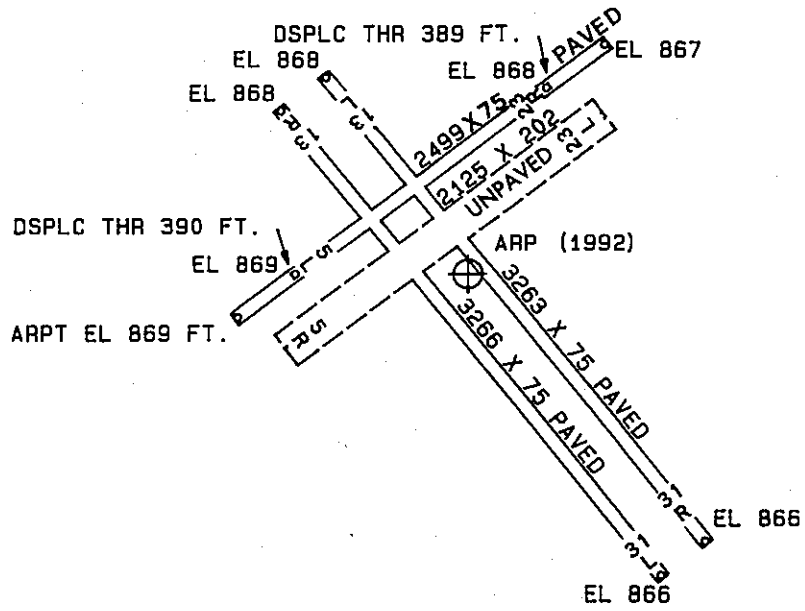
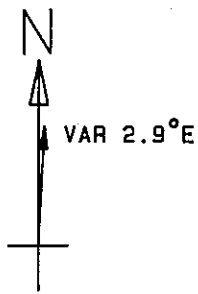
\*\*\* NO OBSTRUCTIONS \*\*\*

OC5158

AIRPORT ELEVATION 869

ARP 450343.150 -932114.175

OBJECT	LAT	LONG	A	EL	AGL	HAA	MAG	BEARING	DISTANCE
OL ON WINDSOCK	450345.04	-932107.56	1A	893		24	6510		512
ANT AND APBN ON OL ATCT	450338.72	-932120.30	1A	935		66	22129		628
HANGAR	450332.72	-932112.24	1A	892		23	16937		1066
FLOODLIGHT	450330.52	-932109.09	1A	891		22	16110		1330
SIGN	450341.60	-932133.14	1A	872		3	26030		1371
SIGN	450355.51	-932123.88	1A	871		2	32800		1432
ANT ON HANGAR	450351.97	-932133.67	1A	895		26	29939		1660
HANGAR	450341.11	-932137.66	1A	890		21	26006		1699
SIGN	450329.39	-932054.38	1A	870		1	13132		1990
TREE	450359.99	-932059.39	1A	889		20	2859		2008
TREE	450324.77	-932103.59	1A	936		67	15452		2010
TREE	450353.71	-932138.05	1A	958		89	29904		2020
TREE	450324.60	-932100.48	1A	917		48	14928		2121
TREE	450357.74	-932138.27	1A	935		66	30736		2275
TREE	450331.57	-932142.35	1A	939		70	23659		2338
TREE	450321.54	-932059.44	1A	926		57	15118		2431
TREE	450357.89	-932141.38	1A	951		82	30429		2458
TREE	450403.76	-932053.53	1A	920		51	3228		2560
TREE	450358.69	-932045.70	1A	944		75	4930		2580
TREE	450408.06	-932130.22	1A	950		81	33233		2773
TREE	450407.51	-932053.68	1A	945		76	2754		2872
POLE	450322.94	-932043.93	1A	899		30	13024		2984
TREE	450316.44	-932055.62	1A	946		77	15052		3015
TREE	450407.92	-932050.25	1A	944		75	3129		3040
TREE	450320.05	-932041.28	1A	931		62	13149		3324
OL ON TANK	450446.88	-931951.67	1A	1020		151	3937		8759



TOUCHDOWN ZONE RUNWAY ELEVATION	
13L	868
31R	868
13R	868
31L	868

CRYSTAL AIRPORT  
 MINNEAPOLIS, MINNESOTA  
 (NOT TO SCALE)