

# OBSTRUCTION DATA SHEET

ODS 611  
WILLMAR MUNICIPAL-JOHN L. RICE FIELD  
WILLMAR, MINNESOTA

DIGITIZED FROM

OC 611  
SURVEYED SEPTEMBER 1993  
1ST EDITION

HORIZONTAL DATUM NAD 83  
VERTICAL DATUM NGVD 29



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THE NATIONAL OCEAN SERVICE  
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## ATTENTION

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.

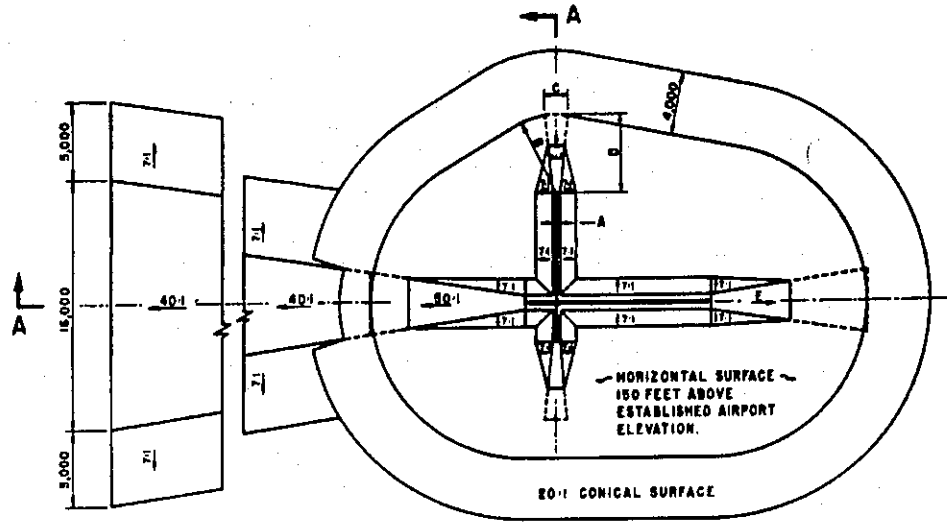
ODS information is arranged as follows:

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.

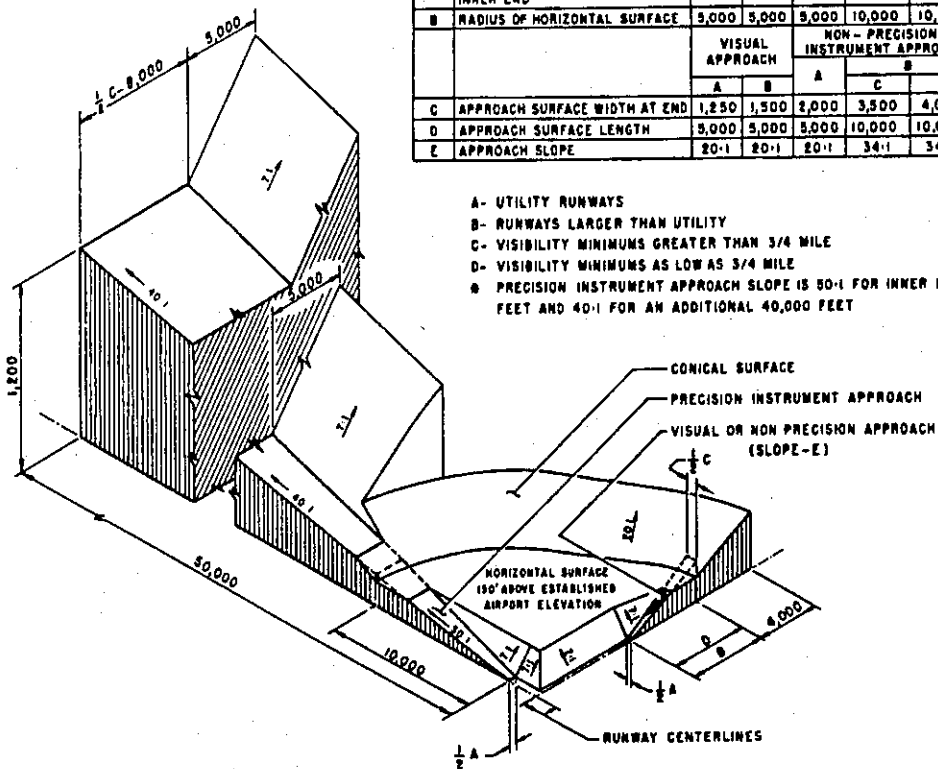
The FAR-77 imaginary approach surfaces for which the obstruction surveys were performed are coded in the ODS as follows:

- 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	9,000	9,000	9,000	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	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	9,000	5,000	5,000	10,000	10,000	•
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	•



ISOMETRIC VIEW OF SECTION A-A

FAR-77 CIVIL AIRPORT  
IMAGINARY SURFACES

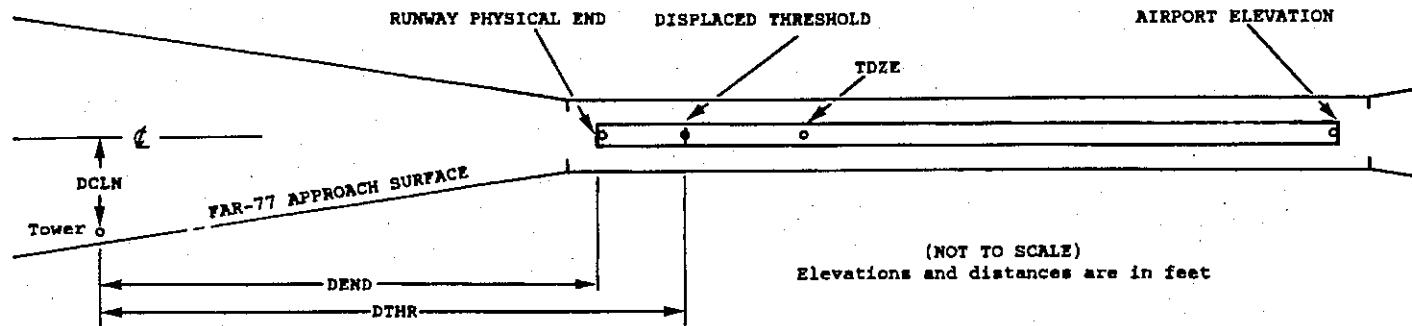
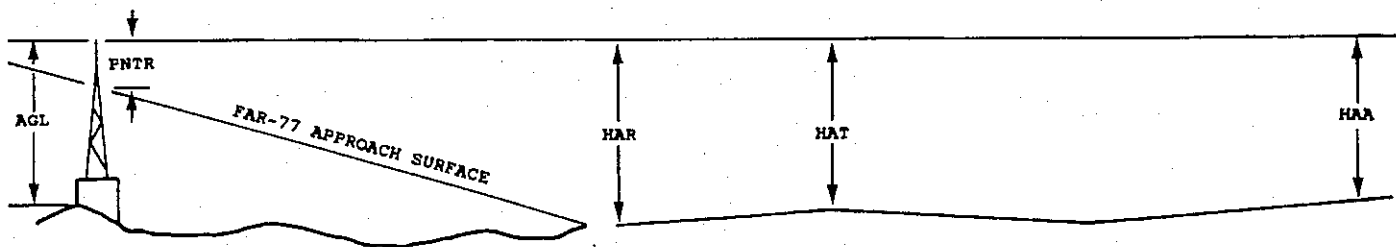
# ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

1 X	2 X	3 XXXX/XXXX	4 XXXXXX.XXX	4 XXXXXXXX.XXX	5 XXXXXXXX	6 XXXX/XXXX	7 XXXXXX.XXX	7 XXXXXXXX.XXX	8 A	9 BLEV	10 AGL	11 HAR	11 HAT	11 HAA	12 DEND	12 DTHR	12 DCLN	13 PNTR
XXXXXXXXXXXX			XXXXXX.XXX	XXXXXXXX.XXX	XX XXXX XXXX	XXX	XXX	XXX										
XXXXXXXXXXXX			XXXXXX.XXX	XXXXXXXX.XXX	XX XXXX XXXX	XXX	XXX	XXX										

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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 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 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).

OC0611

AIRPORT ELEVATION 1127

10 C 1118/1119 450704.404 -950602.459 1083321.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	450707.02	-950603.35	1A	1119		1	0	-8	145		231L	1
TREE	450709.40	-950614.50	1A	1143		25	24	16	979		205L	2
TREE	450714.54	-950625.64	1A	1189		71	70	62	1903		444L	21

28 C 1127/1127 450646.490 -950447.118 2883414.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	450707.02	-950603.35	1A	1119		-8	-8	-8	-5844		231R	1
OL PIPE	450646.57	-950434.97	1A	1139		12	12	12	823		285R	-7
ROAD(N)	450640.53	-950436.92	1A	1142		15	15	15	885		340L	-5
POLE	450638.70	-950429.68	1A	1164		37	37	37	1437		350L	0
TREE	450640.55	-950424.57	1A	1175		48	48	48	1725		55L	3
LIGHT	450641.94	-950417.37	1A	1182		55	55	55	2169		243R	-3

36 AV 1123/1123 450640.590 -950514.773 71501.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD(N)	450638.32	-950515.23	1A	1137		14	14	10	232		4L	3
POLE	450637.95	-950517.31	1A	1138		15	15	11	289		146L	1

18 AV 1119/1122 450715.477 -950508.504 1871506.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
POLE	450727.18	-950507.29	1A	1169		50	47	42	1187		64R	-10
POLE	450728.93	-950503.70	1A	1194		75	72	67	1395		169L	5

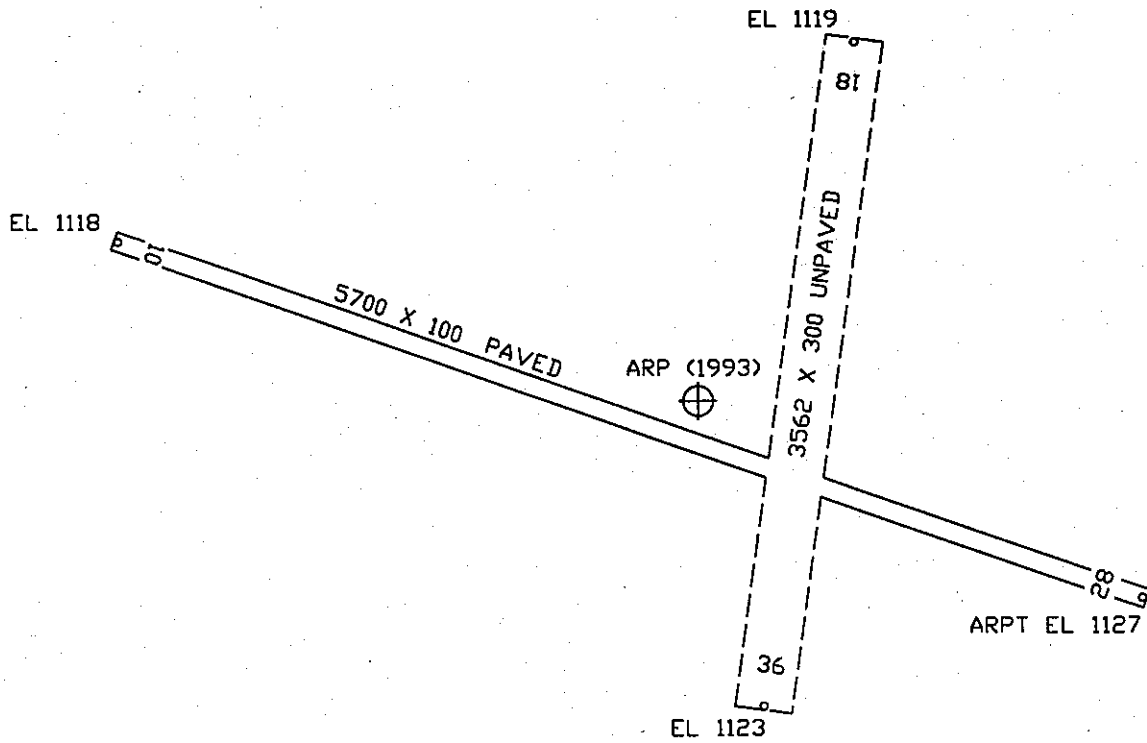
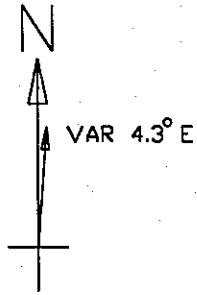
OC0611

AIRPORT ELEVATION 1127

ARP 450656.443 -950519.730

OBJECT	LAT	LONG	A	EL	AGL	HAA	MAG BEARING	DISTANCE
OL WSK	450658.79	-950515.84	1A	1143		16	4517	367
SILO	450651.82	-950531.94	1A	1156		29	23735	993
TREE	450650.09	-950531.04	1A	1183		56	22717	1036
ANT ON OL POLE	450644.63	-950504.70	1A	1159		32	13340	1611
POLE	450637.84	-950513.09	1A	1145		18	16131	1944
LIGHT	450651.64	-950450.51	1A	1156		29	9845	2151
TREE	450717.55	-950503.00	1A	1205		78	2459	2452
GROUND	450701.37	-950601.10	1A	1122		-5	27514	3008
TREE	450726.57	-950510.02	1A	1218		91	832	3129
WSK ON HANGAR	450649.07	-950434.27	1A	1168		41	9835	3344
SIGN	450709.16	-950603.43	1A	1131		4	28802	3388
OL BLDG	450727.30	-950545.64	1A	1274		147	32458	3636
TREE	450659.83	-950610.39	1A	1203		76	27106	3649
OL ON APBN	450651.04	-950424.71	1A	1187		60	9335	3983
TREE	450636.64	-950427.82	1A	1206		79	11400	4228
LIGHT	450645.20	-950419.02	1A	1191		64	10020	4500
TREE	450716.48	-950618.88	1A	1213		86	29116	4702
TREE	450701.50	-950625.54	1A	1200		73	27154	4747
VENT ON BLDG	450621.62	-950431.79	1A	1255		128	13125	4925
LIGHT	450633.06	-950417.33	1A	1194		67	11334	5063
ANT ON OL TANK	450717.30	-950317.02	1A	1319		192	7211	9049
OL TANK	450821.02	-950429.46	1A	1341		214	1830	9294
ANT ON OL TANK	450639.35	-950311.26	1A	1308		181	9619	9374
ANT ON OL TWR	450710.72	-950259.96	1A	1325		198	7728	10126
OL TWR	450806.77	-950228.96	1A	1583	462	456	5529	14165





TOUCHDOWN ZONE  
RUNWAY ELEVATION

10	1119
28	1127
36	1123
18	1122

WILLMAR MUNICIPAL-JOHN L. RICE FIELD

WILLMAR, MINNESOTA

(NOT TO SCALE)

(ELEVATIONS AND DISTANCES IN FEET)