

# OBSTRUCTION DATA SHEET

**ODS 130  
BOWERS FIELD  
ELLENSBURG, WASHINGTON**

**DIGITIZED FROM**

**OC 130  
SURVEYED 19 AUGUST 1992  
3RD EDITION**

**HORIZONTAL DATUM NAD83  
VERTICAL DATUM NGVD29**



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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.

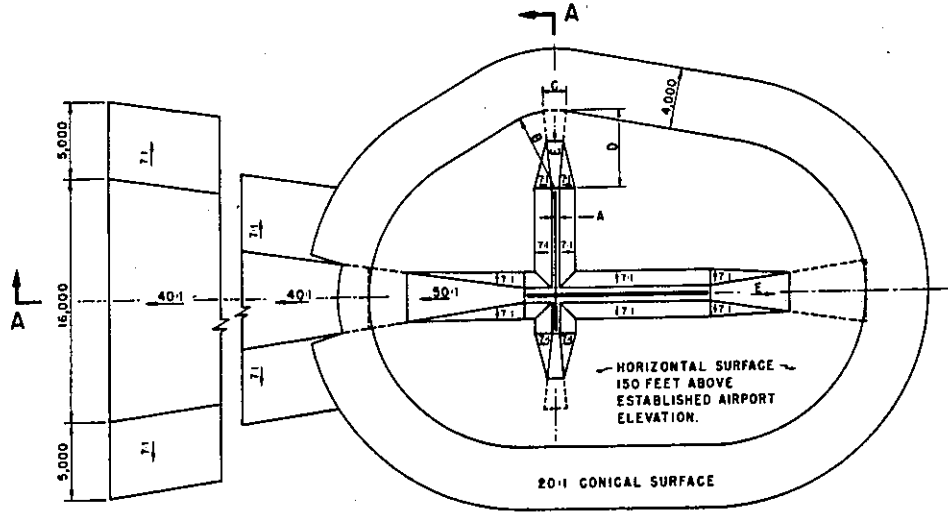
ODS information is arranged as follows:

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:

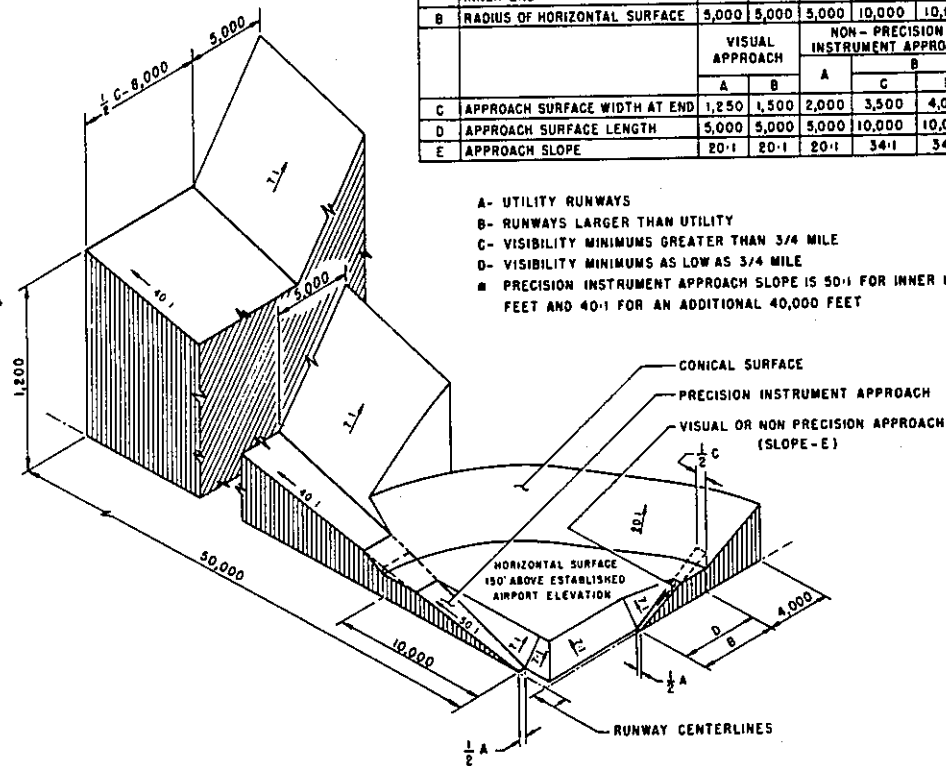
- A(V) ..... Utility runway - visual approach only
- A(NP) .... Utility runway - nonprecision instrument approach
- B(V) ..... Nonutility runway - visual approach only
- C ..... Nonutility runway - nonprecision instrument approach with visibility minimums greater than 3/4 mile
- D ..... Nonutility runway-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

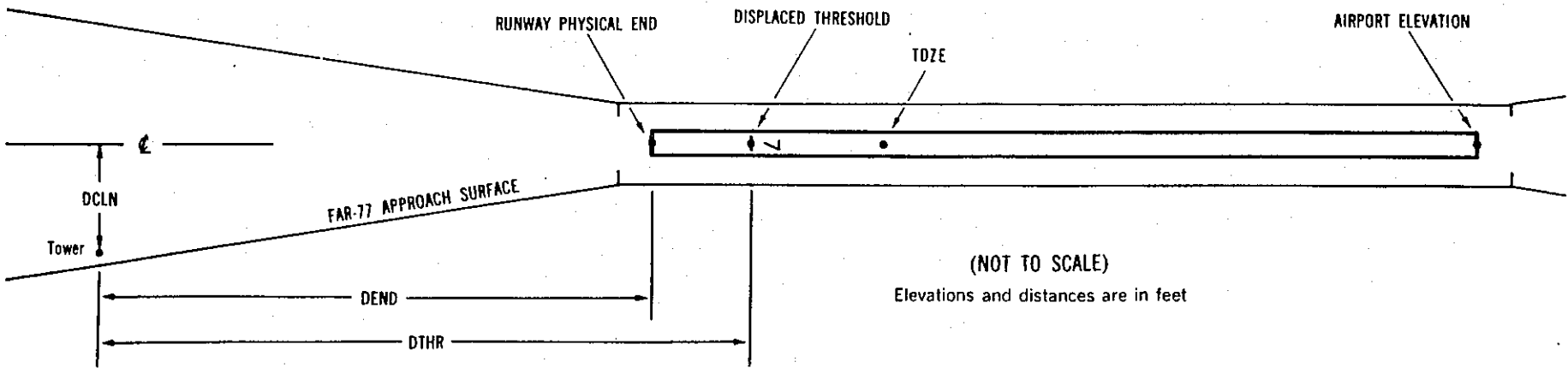
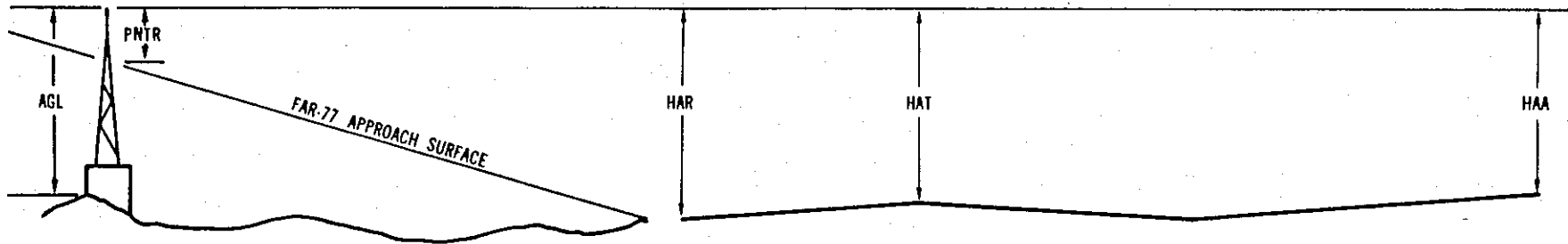
# ANNOTATION OF ODS DATA FORMAT

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

## AIRPORT ELEVATION 1760

11 SUPLC 1760/1760 470219.906 -1203206.609 1325820.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	470233.55	-1203224.09	1A	1790		30	30	30	1828		187L	-18
TREE	470236.35	-1203222.69	1A	1808		48	48	48	1950		459L	-3

29 SUPLC 1743/1755 470150.973 -1203121.188 3125853.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD(N)	470141.34	-1203101.79	1A	1754		11	-1	-6	1648		202R	-32

7 SUPLC 1706/1732 470152.919 -1203235.608 875639.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	470154.52	-1203239.98	1A	1708		2	-24	-52	297		173L	-1
TREE	470147.58	-1203305.38	1A	1770		64	38	10	2081		466R	8

25 C 1751/1751 470154.876 -1203115.549 2675737.

OBJECT	LAT	LONG	A	EL	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
TREE	470157.96	-1203058.83	1A	1791		40	40	31	1169		271R	11
ROAD(N)	470155.32	-1203057.98	1A	1777		26	26	17	1218		2R	-4
POLE	470152.22	-1203048.46	1A	1791		40	40	31	1865		335L	-9
POLE	470156.93	-1203048.61	1A	1798		47	47	38	1872		141R	-3
TREE	470152.76	-1203022.13	1A	1835		84	84	75	3690		345L	-19
TREE	470213.35	-1202855.77	1A	1920		169	169	160	9742		1528R	-112

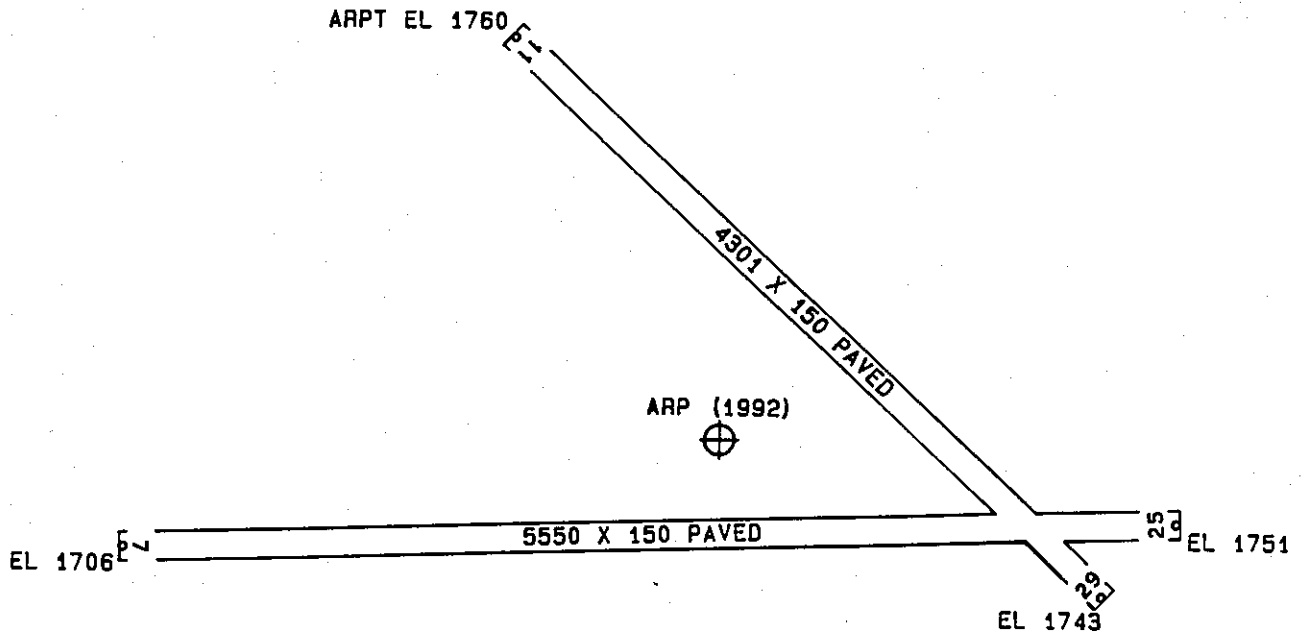
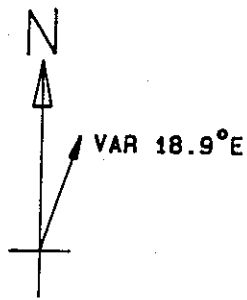
OC0130

AIRPORT ELEVATION 1760

ARP 470158.938 -1203150.479

OBJECT	LAT	LONG	A	EL	AGL	HAA	MAG BEARING	DISTANCE
WINDSOCK	470200.03	-1203148.17	1A	1764		4	3625	194
OL ANEMOMETER	470201.62	-1203152.70	1A	1779		19	31133	312
WINDSOCK	470151.20	-1203152.88	1A	1744		-16	17305	802
FENCE POST	470156.75	-1203202.33	1A	1737		-23	23559	850
GROUND	470207.43	-1203140.84	1A	1758		-2	1855	1089
TREE	470209.23	-1203155.62	1A	1766		6	32214	1102
ANT ON OL APBN	470144.43	-1203143.93	1A	1784		24	14356	1538
TREE	470158.02	-1203113.22	1A	1770		10	7309	2583
GROUND	470223.83	-1203205.88	1A	1768		8	31810	2738
FENCE POST	470155.89	-1203233.78	1A	1718		-42	24513	3015
TREE	470139.85	-1203113.49	1A	1756		-4	10808	3210
FENCE POST	470150.21	-1203236.13	1A	1708		-52	23528	3283
FENCE POST	470155.74	-1203238.23	1A	1714		-46	24530	3324
TREE	470143.78	-1203055.58	1A	1811		51	9305	4101
TREE	470205.19	-1203051.87	1A	1859		99	6213	4109
POLE	470201.73	-1203048.77	1A	1805		45	6718	4284
TREE	470259.34	-1203103.32	1B	1948		188	911	6937
TREE	470310.76	-1203056.13	1B	1958		198	826	8192
TREE	470240.91	-1203003.89	1B	1924		164	4108	8519
TREE	470320.03	-1203104.77	1B	1948		188	209	8804
TREE	470331.35	-1203142.66	1B	1950		190	34424	9378
TREE	470246.57	-1202951.20	1B	1950		190	4047	9567
TREE	470335.45	-1203145.86	2C	1962		202	34258	9782
TREE	470330.85	-1203104.62	1B	1971		211	35955	9838
TREE	470311.53	-1203007.03	1B	1991		231	2520	10267
TREE	470304.71	-1202954.71	1B	1994		234	3121	10425
TREE	470320.44	-1202952.24	2C	2109		349	2550	11629
TREE	470254.07	-1202908.93	2C	1960		200	4433	12505
TREE	470340.65	-1202939.65	2C	2041		281	2224	13721





TOUCHDOWN ZONE RUNWAY ELEVATION	
11	1760
29	1755
7	1732
25	1751

BOWERS FIELD  
 ELLENSBURG, WASHINGTON  
 (NOT TO SCALE)  
 (ALL ELEVATIONS IN FEET)