OBSTRUCTION DATA SHEET

ODS 6598
FRIDAY HARBOR AIRPORT
FRIDAY HARBOR, WASHINGTON

DIGITIZED FROM

OC 6598
SURVEYED MARCH 1990
1ST EDITION

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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).

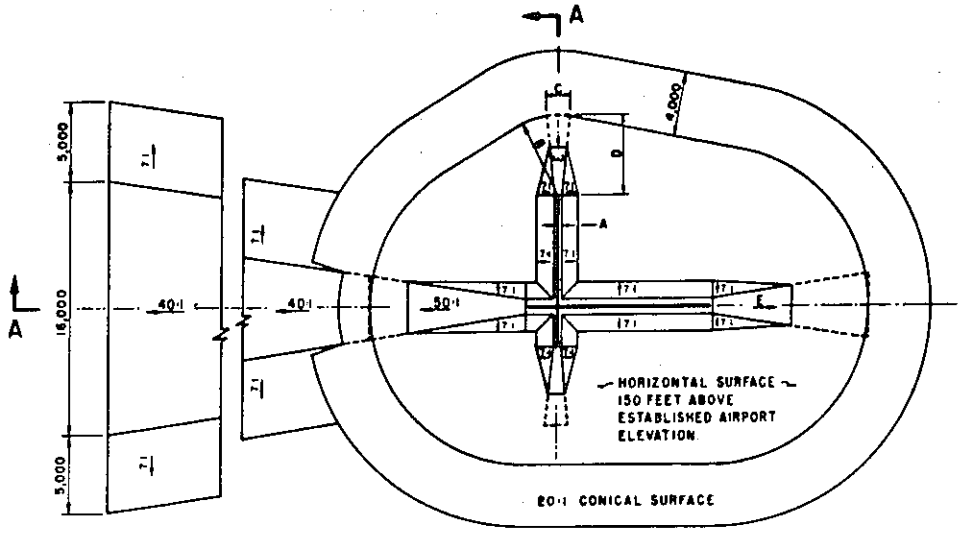
3. Runway configuration and runway lengths, widths, and elevations are presented on the ODS last page.

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)

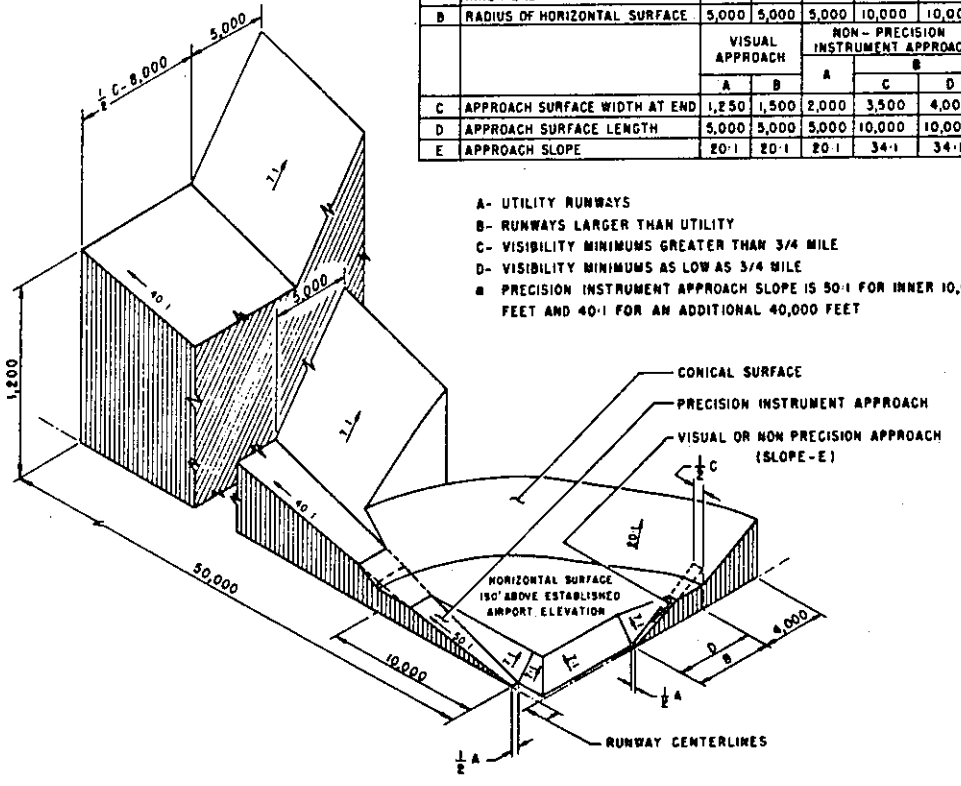
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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	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	a
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	a

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
a 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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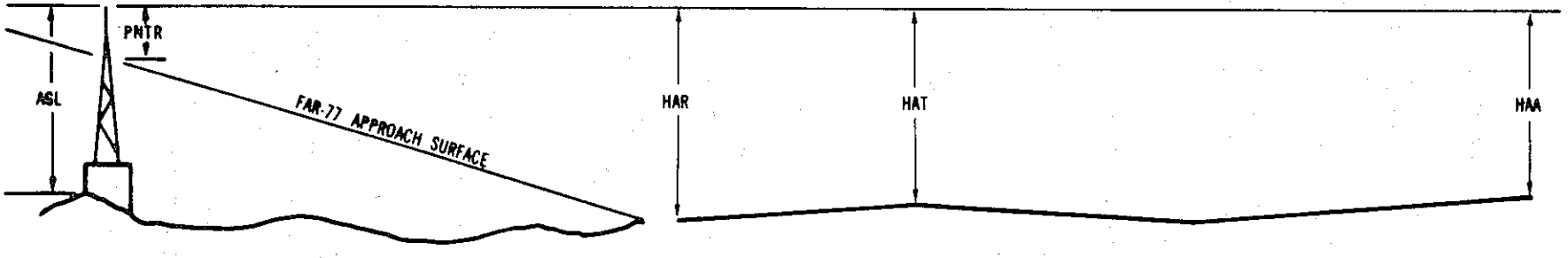
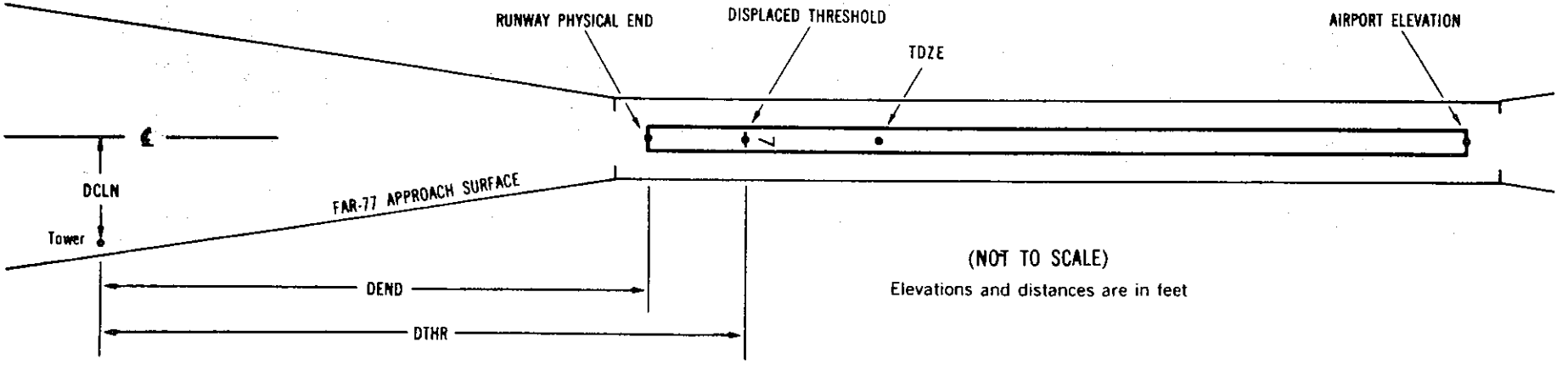




(NOT TO SCALE)

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 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 ±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).

OC6598

AIRPORT ELEVATION 109

16 SUPLC 109/109 483136.472N 1230124.397W 3570306

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	483100.85	1230125.35	1A	81		-28	-28	-28	-3602		250R	1
GROUND	483102.84	1230125.49	1A	83		-26	-26	-26	-3400		249R	3
GROUND	483113.47	1230126.39	1A	88		-21	-21	-21	-2321		254R	3
OL ON LIGHTED WINDSOCK	483114.92	1230119.92	1A	108		-1	-1	-1	-2197		189L	23
GROUND	483128.04	1230127.41	1A	101		-8	-8	-8	-843		246R	2
GROUND	483138.33	1230128.22	1A	115		6	6	6	201		247R	6
GROUND	483140.69	1230126.28	1A	120		11	11	11	433		105R	4
TREE	483144.60	1230120.45	1A	153		44	44	44	809		307L	26
TREE	483145.02	1230129.89	1A	167		58	58	58	884		325R	38
ANTENNA ON OL BUILDING	483146.16	1230122.91	1A	148		39	39	39	975		151L	16
TREE	483147.83	1230126.64	1A	156		47	47	47	1157		91R	19
TREE	483149.10	1230130.78	1A	229		120	120	120	1300		363R	88
BUILDING	483151.71	1230120.76	1A	153		44	44	44	1530		324L	5
POLE	483152.97	1230128.91	1A	181		72	72	72	1685		218R	28
TREE	483155.82	1230118.32	1A	186		77	77	77	1937		509L	26
TREE	483155.74	1230123.74	1A	184		75	75	75	1948		144L	24
TREE	483156.85	1230132.46	1A	242		133	133	133	2090		436R	77
TREE	483158.37	1230119.85	1A	201		92	92	92	2200		420L	33
TREE	483200.57	1230125.22	1A	193		84	84	84	2442		70L	18
TREE	483205.70	1230132.95	1A	239		130	130	130	2988		422R	48
TREE	483307.29	1230130.50	1A	389		280	280	280	9213		63L	15
TREE	483313.52	1230124.66	1A	455		346	346	346	9823		488L	63
TREE	483316.09	1230121.82	1A	469		360	360	360	10073		692L	70

OC6598

AIRPORT ELEVATION 109

34 SUPLC 80/104 483102.961N 1230121.799W 1770308

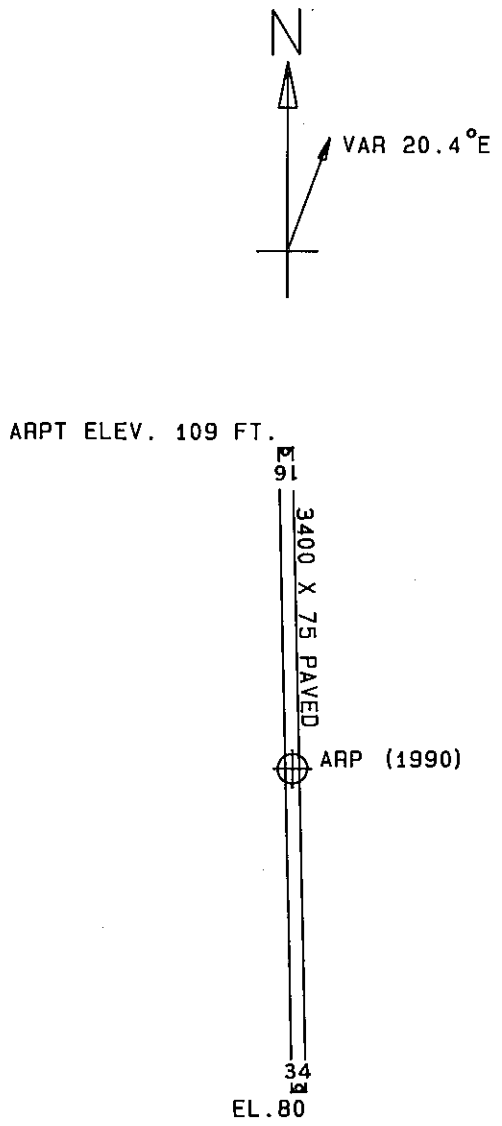
OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
GROUND	483138.33	1230128.22	1A	115		35	11	6	-3602		247L	6
GROUND	483128.04	1230127.41	1A	101		21	-3	-8	-2558		246L	2
OL ON LIGHTED WINDSOCK	483114.92	1230119.92	1A	108		28	4	-1	-1204		189R	23
GROUND	483113.47	1230126.39	1A	88		8	-16	-21	-1080		254L	3
GROUND	483102.84	1230125.49	1A	83		3	-21	-26	-1		249L	3
GROUND	483100.85	1230125.35	1A	81		1	-23	-28	201		250L	1
TREE	483049.65	1230119.81	1A	98		18	-6	-11	1354		65R	-16
TREE	483046.51	1230124.93	1A	136		56	32	27	1654		296L	13
TREE	483040.94	1230128.02	1A	162		82	58	53	2207		533L	23
TREE	483040.73	1230116.83	1A	151		71	47	42	2267		218R	10
TREE	483039.26	1230125.38	1A	171		91	67	62	2387		364L	27
TREE	483033.77	1230128.39	1A	205		125	101	96	2931		595L	45
TREE	483026.98	1230118.69	1A	208		128	104	99	3652		22R	26
TREE	483026.59	1230124.91	1A	218		138	114	109	3670		399L	36
TREE	483026.23	1230120.10	1A	220		140	116	111	3724		77L	36

OC6598

AIRPORT ELEVATION 109

ARP 483119.716N 1230123.098W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
TREE	483122.16	1230116.74	1A	153		44	39 37	495
TREE	483118.92	1230130.79	1A	177		68	240 41	524
FENCE	483114.60	1230127.74	1A	108		-1	190 40	606
TREE	483116.40	1230113.44	1A	156		47	96 58	732
TREE	483126.59	1230116.07	1A	195		86	13 48	842
TREE	483125.31	1230133.32	1A	229		120	289 6	891
ROAD(N)	483110.60	1230127.99	1A	120		11	179 13	981
ANTENNA ON BUILDING	483130.12	1230129.52	1A	140		31	317 18	1139
TREE	483118.33	1230144.43	1B	284		175	244 1	1443
FENCE	483104.24	1230127.61	1A	109		0	170 34	1597
FENCE	483102.10	1230126.99	1A	105		-4	167 57	1805
AIRPORT BEACON	483140.09	1230130.13	1A	153		44	326 41	2118
TREE	483058.27	1230130.66	1A	229		120	172 47	2232
TREE	483125.19	1230156.80	1B	302		193	263 21	2336
TREE	483146.04	1230119.40	1A	162		53	344 56	2680
TREE	483052.57	1230128.26	1A	178		69	166 48	2773
TREE	483146.07	1230139.03	1A	286		177	317 44	2878
TREE	483047.56	1230128.47	1A	163		54	165 56	3279
TREE	483155.87	1230137.42	1A	344		235	324 51	3788
TREE	483128.57	1230022.66	1B	288		179	57 10	4166
TREE	483054.28	1230220.48	1B	330		221	215 54	4644
TREE	483205.54	1230139.45	1A	275		166	326 16	4773
TREE	483046.26	1230219.32	1B	320		211	207 45	5082
TREE	483210.55	1230155.88	1B	289		180	316 25	5604
TREE	483037.10	1230219.91	1B	334		225	201 8	5769
TREE	483210.50	1230213.23	1B	327		218	306 21	6154
TREE	483118.67	1225948.14	2C	341		232	70 33	6394
TREE	483025.47	1230216.42	2C	303		194	192 45	6566
TREE	483026.65	1230223.41	2C	311		202	196 40	6738
TREE	483118.08	1225942.78	2C	385		276	71 0	6756
TREE	483119.95	1225940.39	2C	374		265	69 24	6915



TOUCHDOWN ZONE RUNWAY	ELEVATION
16	109
34	104

FRIDAY HARBOR AIRPORT

FRIDAY HARBOR, WASHINGTON

(NOT TO SCALE)