

# OBSTRUCTION DATA SHEET

**ODS 5063  
PORTLAND - HILLSBORO AIRPORT  
PORTLAND, OREGON**

**DIGITIZED FROM**

**OC 5063  
SURVEYED FEBRUARY 1990  
6TH 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:

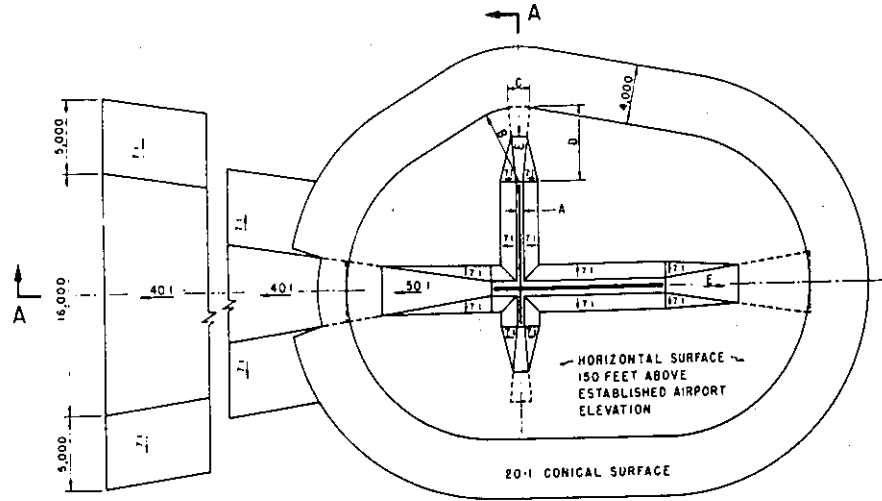
1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the 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)

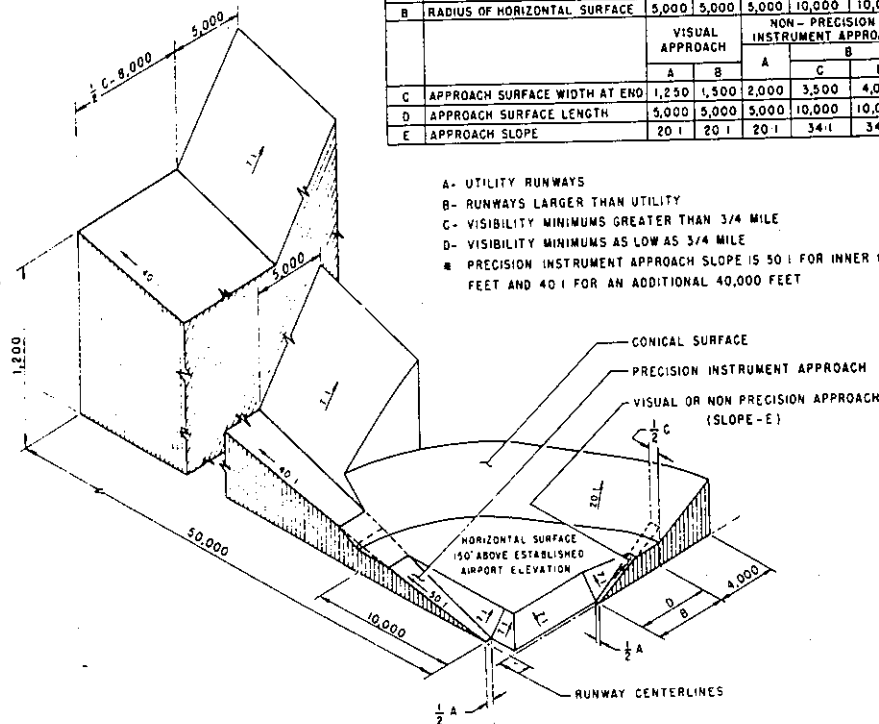
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

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		
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	B		
		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

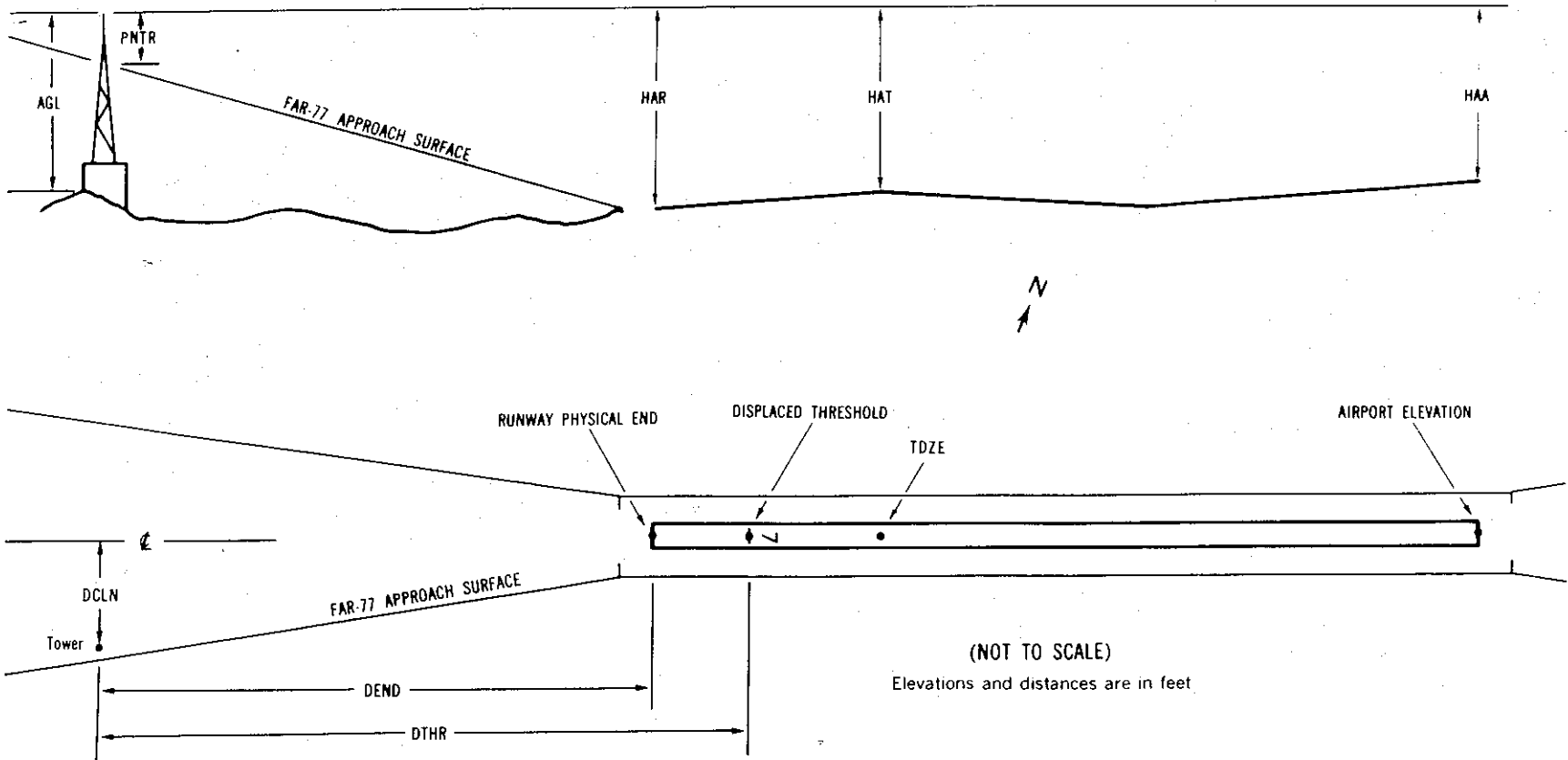
# ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

X <sup>1</sup>	X <sup>2</sup>	XXXX/XXXX <sup>3</sup>	XXXXXX.XXX <sup>4</sup>	XXXXXX.XXX <sup>4</sup>	XXXXXX <sup>5</sup>	XXXX/XXXX <sup>6</sup>	XXXXXX.XXX <sup>7</sup>	XXXXXX.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>
XXXXXXXXXXXXX	XXXXXX.XXX	XXXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX
XXXXXXXXXXXXX	XXXXXX.XXX	XXXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX

\*\*\*\*\*



## EXPLANATION OF FOOTNOTES

- <sup>1</sup> 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.
- <sup>2</sup> For the reference runway, the lowest FAR-77 approach surface for which an obstruction survey was performed. (More than one surface may be surveyed.)
- <sup>3</sup> Reference runway approach physical end elevation/touchdown zone elevation
- <sup>4</sup> Latitude and longitude of reference runway approach physical end
- <sup>5</sup> Reference runway geodetic azimuth reckoned clockwise from south
- <sup>6</sup> Reference runway displaced threshold elevation/touchdown zone elevation
- <sup>7</sup> Latitude and longitude of reference runway displaced threshold
- <sup>8</sup> Accuracy Code:                      Horizontal    Vertical
- |        |        |
|--------|--------|
| 1 = 20 | A = 2  |
| 2 = 40 | B = 5  |
|        | C = 20 |
- <sup>9</sup> 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.
- <sup>10</sup> 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  $\pm 10$  feet.
- <sup>11</sup> HAA - Height above airport  
 HAR - Height above reference runway approach physical end  
 HAT - Height above reference runway touchdown zone elevation
- <sup>12</sup> 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.
- <sup>13</sup> PNTR - Penetration of indicated FAR-77 approach or primary surface (see footnote 2).

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AIRPORT ELEVATION 204

2 SUPLC 201/201 453201.400N 12257 4.744W 2193521

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
WINDSOCK	453229.26	1225628.70	1A	213		12	12	9	-3810		179R	9
WINDSOCK	453204.32	1225706.04	1A	210		9	9	6	-170		260L	9
ROAD (N)	453155.47	1225711.52	1A	213		12	12	9	770		11R	-5
POLE	453151.40	1225714.75	1A	231		30	30	27	1234		97R	1
POLE	453151.54	1225720.25	1A	237		36	36	33	1473		214L	-1
TREE	453142.50	1225722.6	1A	259		58	58	55	2288		237R	-3
TREE	453139.06	1225728.90	1A	292		91	91	88	2839		116R	13

20 SUPLC 204/ 453232.203N 1225628.494W 0393547 204/204 453230.969N 1225629.946W

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
WINDSOCK	453204.32	1225706.04	1A	210		6	6	6	-3879	-3717	260R	9
WINDSOCK	453229.26	1225628.70	1A	213		9	9	9	-239	-77	179L	9
ROAD (N)	453232.47	1225623.54	1A	218		14	14	14	245	407	254L	13
ROAD (N)	453235.62	1225624.42	1A	220		16	16	16	451	613	3L	9
TREE	453245.34	1225604.87	1A	250		46	46	46	2097	2259	447L	-10

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AIRPORT ELEVATION 204

12 PIR 197/199 453257.895N 1225728.473W 3233506

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	453212.56	1225634.16	1A	200		3	1	-4	-5990		386L	5
WINDSOCK	453213.05	1225637.48	1A	204		7	5	0	-5810		225L	8
OL ON GLIDE SLOPE	453252.47	1225716.67	1A	240		43	41	36	-941		350L	42
WINDSOCK	453252.64	1225726.82	1A	202		5	3	-2	-498		221R	5
BUSH	453300.42	1225722.33	1A	205		8	6	1	-53		504L	8
POLE	453301.23	1225742.49	1A	215		18	16	11	864		602R	5
TREE	453320.93	1225741.76	1A	257		60	58	53	2439		624L	15
TREE	453323.34	1225741.32	1A	268		71	69	64	2617		794L	23
TREE	453324.76	1225757.49	1A	257		60	58	53	3416		46R	-4
TREE	453328.51	1225819.23	1A	286		89	87	82	4639		1066R	1
TREE	453353.39	1225806.98	1A	363		166	164	159	6150		1132L	47
TREE	453351.49	1225814.47	1A	346		149	147	142	6312		589L	27



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AIRPORT ELEVATION 204

30 SUPLC 193/200 453205.455N 1225633.437W 1433545

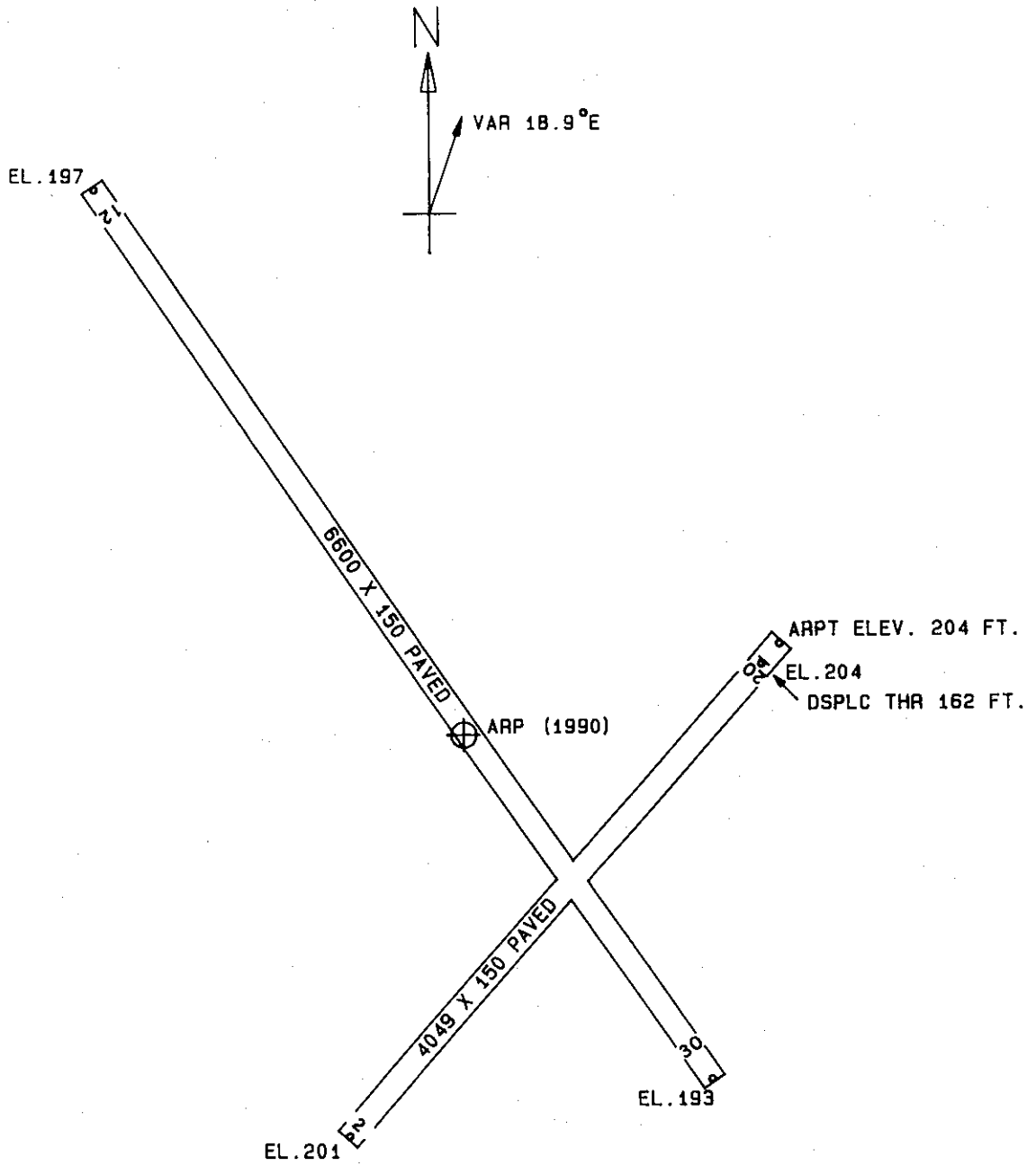
OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
BUSH	453300.42	1225722.33	1A	205		12	5	1	-6546		504R	8
WINDSOCK	453252.64	1225726.82	1A	202		9	2	-2	-6102		221L	5
OL ON GLIDE SLOPE	453252.47	1225716.67	1A	240		47	40	36	-5659		350R	42
WINDSOCK	453213.05	1225637.48	1A	204		11	4	0	-790		225R	8
BUSH	453212.56	1225634.16	1A	200		7	0	-4	-610		386R	5
ROAD (N)	453157.76	1225634.65	1A	211		18	11	7	576		532L	7
ANTENNA ON BUILDING	453159.08	1225630.42	1A	204		11	4	0	647		210L	-2
OL LOCALIZER	453200.30	1225628.03	1A	199		6	-1	-5	649		0L	-7
ROAD (N)	453156.58	1225633.82	1A	210		17	10	6	707		555L	2
TREE	453144.67	1225622.71	1A	237		44	37	33	2148		635L	-13
TREE	453139.25	1225602.10	1A	292		99	92	88	3460		220R	3
TREE	453135.08	1225609.98	1A	313		120	113	109	3468		482L	24
TREE	453140.47	1225555.76	1A	324		131	124	120	3628		658R	30
TREE	453135.13	1225602.44	1A	313		120	113	109	3782		46L	15
TREE	453131.67	1225551.74	1A	303		110	103	99	4515		359R	-17
TREE	453126.76	1225541.94	1A	320		127	120	116	5330		625R	-24

OC5063

AIRPORT ELEVATION 204

ARP 453226.020N 1225655.502W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
OL ON LIGHTED WINDSOCK	453218.68	1225657.83	1A	229		25	173 40	762
ANTENNA ON OL CONTROL TWR	453215.67	1225657.97	1A	281		77	170 36	1063
HANGAR	453225.35	1225627.00	1A	220		16	73 1	2030
OL ON POLE	453204.91	1225648.10	1A	248		44	147 15	2202
OL ON FLOODLIGHT POLE	453205.89	1225707.78	1A	229		25	184 18	2219
OL WINDSOCK ON BUILDING	453202.10	1225649.73	1A	255		51	151 29	2457
OL HOPPER	453205.58	1225716.54	1A	262		58	196 59	2555
VENT ON HANGAR	453158.23	1225700.68	1A	225		21	168 33	2839
VENT ON HANGAR	453159.39	1225639.42	1A	229		25	138 7	2930
ROD ON OL AIRPORT BEACON	453157.51	1225644.61	1A	266		62	146 4	2990
TREE	453207.50	1225618.76	1A	299		95	106 44	3219
TREE	453255.58	1225712.42	1A	300		96	319 11	3227
TREE	453200.19	1225722.40	1A	300		96	197 18	3242
ANTENNA ON BUILDING	453156.89	1225718.25	1A	230		26	189 52	3365
POLE	453151.58	1225709.18	1A	226		22	176 42	3622
TREE	453236.41	1225606.51	1A	327		123	54 18	3643
TREE	453149.35	1225707.33	1A	276		72	173 52	3809
TREE	453157.08	1225609.82	1A	294		90	113 8	4378
TREE	453148.66	1225731.71	1A	273		69	195 22	4578
TREE	453259.07	1225747.45	1A	258		54	293 16	4988
TREE	453227.56	1225533.56	1B	352		148	69 34	5835
TREE	453317.30	1225734.24	1A	271		67	313 9	5880
TREE	453124.81	1225611.45	1B	332		128	134 16	6948
TREE	453431.11	1225639.03	1B	360		156	346 23	12724



TOUCHDOWN ZONE RUNWAY ELEVATION	
2	201
20	204
12	199
30	200

PORTLAND - HILLSBORO AIRPORT  
 PORTLAND, OREGON  
 (NOT TO SCALE)