

# 10353

*Original*

Diag. Cht. Nos. 5902-2 & 6002-2.

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey <u>Planimetric (Photogrammetric)</u>	
Field No. <u>Ph-155</u>	Office No. <u>T-10353</u>
LOCALITY	
State <u>Oregon</u>	
General locality <u>Columbia River</u>	
Locality <u>Hammond</u>	
<u>1957</u>	
CHIEF OF PARTY	
V. Ralph Sobieralski, Chief, of Party	
Lorne G. Taylor, Photogrammetric Office	
LIBRARY & ARCHIVES	
DATE <u>MAY - 1962</u>	

USCOMM-DC 5087

# 10353

DESCRIPTIVE REPORT - DATA RECORD

T - 10353

Project No. (II): Ph-155

Quadrangle Name (IV):

Field Office (II): Astoria, Oregon

Chief of Party: V. Ralph Sobieralski

Unit Chief: C. D. Upham

Photogrammetric Office (III): Portland, Oregon

Officer-in-Charge: Lorne G. Taylor

Instructions dated (II) (III):

5 Oct. 1955 )  
12 Oct. 1955 ) II, III  
3 July 1957 )

Copy filed in Division of  
Photogrammetry (IV)

Method of Compilation (III): Kelsh Stereoscopic Instrument

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III): 1:5000

Pantograph Scale: 1:10,000

Scale Factor (III):

Date received in Washington Office (IV):

AUG 10 1954

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): 3/20/62

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): X

Mean sea level except as follows:  
Elevations shown as (25) refer to mean high water  
Elevations shown as (5) refer to sounding datum  
i.e., mean low water or mean lower low water

Reference Station (III): GUN (USE) 1905

Lat.: 46° 12' 25.828"

Long.: 123° 57' 39.325"

Adjusted X  
Unadjusted

Plane Coordinates (IV):

State:

Zone:

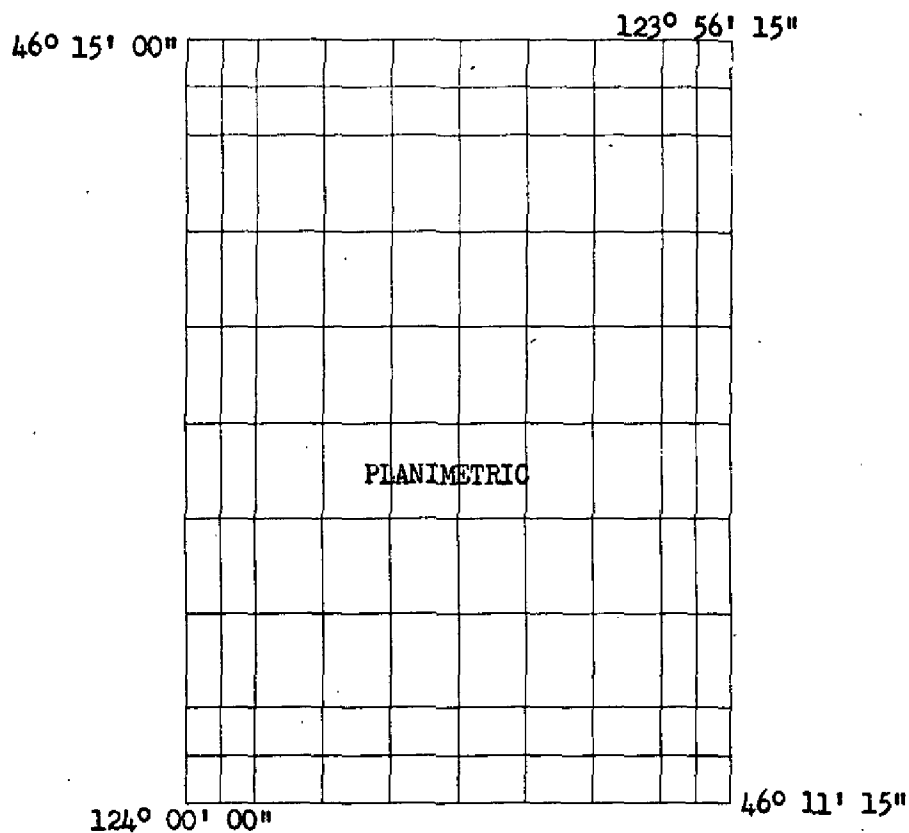
Y= 945,016.82

X= 1,123,904.46

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,  
or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

DESCRIPTIVE REPORT - DATA RECORD



Areas contoured by various personnel  
(Show name within area)  
(II) (III)

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): C. D. Upham

Date: Sept. 1957

Planetable contouring by (II):

Date:

Completion Surveys by (II):

*supplementary aid  
determined*

Date: 1958

Mean High Water Location (III) (State date and method of location): September 1957 by field inspection and compilation by Kelsh Instrument.

Projection and Grids ruled by (IV): J. R. Haskins

Date: 9-7-57

Projection and Grids checked by (IV): J. B. Phillips

Date: 9-9-57

Control plotted by (III): L. L. Graves

Date: 11-27-57

Control checked by (III):

D. N. Williams

Date: 11-29-57

Radial Plot or Stereoscopic  
Control extension by (III):

John D. Perrow Jr.

Date: Nov. 1957

Stereoscopic Instrument compilation (III):

Planimetry D. N. Williams

Date: 12-9-57

Contours

Date:

Manuscript delineated by (III):

D. N. Williams, Scribing  
C. C. Harris, Stick-up

Date: 3-4-60  
6-2-60

Photogrammetric Office Review by (III): J. E. Deal

Date: 7-25-60

Elevations on Manuscript  
checked by (II) (III):

Date:

# DESCRIPTIVE REPORT - DATA RECORD

Camera (kind or source) (III):

Number	Date	Time	Scale	Stage of Tide
57-I-1817	8-18-57	14:44	1:25,000	7-9' above M.L.L.W.
55-W-9819 and 9820	9-24-55	12:20	1:25,000	3.4' above M.L.L.W.

Tide (III)

Reference Station: Astoria (Tongue Point) Oregon  
Subordinate Station: Warrenton, Oregon  
Subordinate Station:

Ratio of Ranges	Mean Range	Diurnal Spring
		Range
	6.5	8.2
	6.5	8.3

Washington Office Review by (IV):

Date: 2/23/62

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

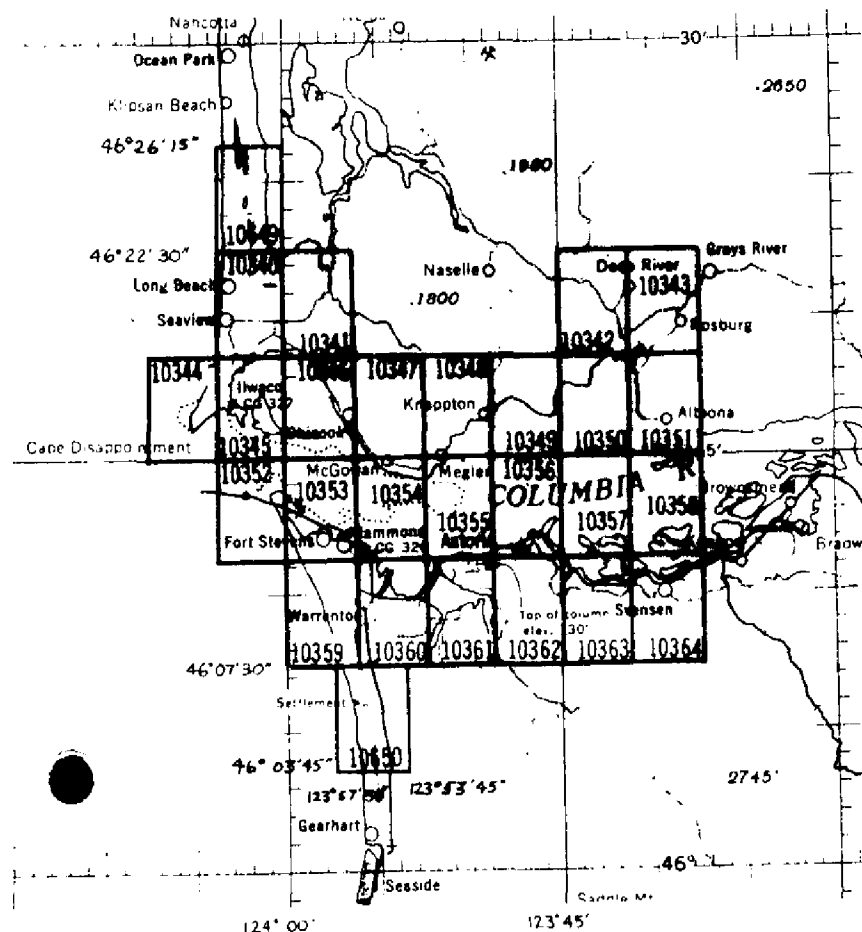
Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 4  
Shoreline (More than 200 meters to opposite shore) (III): 9  
Shoreline (Less than 200 meters to opposite shore) (III): 0  
Control Leveling - Miles (II):  
Number of Triangulation Stations searched for (II): 38 Recovered: 21 Identified: 8  
Number of BMs searched for (II): (Tidal) 10 Recovered: 9 Identified: 9  
Number of Recoverable Photo Stations established (III): 3  
Number of Temporary Photo Hydro Stations established (III): None

Remarks:

PLANIMETRIC PROJECT PH-155  
MOUTH OF COLUMBIA RIVER, WASH. OREGON



OFFICIAL MILEAGE FOR COST ACCOUNTS

SHEET NO.	LIN. MI. SHOR. LINE	AREA SQ. MILES
10340	9	10
10341	8	12
10342	4	12
10343	7	13
10344	6	2
10345	13	3
10346	11	6
10347	3	12
10348	4	11
10349	4	8
10350	6	3
10351	8	9
10352	3	1
10353	2	4
10354	3	1
10355	4	2
10356	5	5
10357	7	1
10358	21	3
10359	5	6
10360	14	11
10361	15	9
10362	1	12
10363	17	10
10364	12	12
10649	8	8
10650	<u>4</u>	<u>8</u>
TOTAL	219	193

## FIELD INSPECTION REPORT

Map Manuscript T-10353

Project Ph-155

Refer to Field Inspection Report for Project Ph-155, "Mouth  
of Columbia River to Altoona", July 1957 to November 1957. (IN T-1069A)

AXA

Bridging Report  
Ph-155  
Mouth of Columbia River

Strip #1

Strip one consisting of models 55 w 9770 thru 55 w 9782 was bridged in its entirety on the stereoplanigraph and bridge points were left to help control strip two. It is felt that models 55 w 9770 thru 55 w 9776 may be weak due to poor forward overlap in models 55 w 9774 thru 55 w 9772. Only a small area in the southern end of 55 w 9774 and 55 w 9772 overlapped, giving a very short base for continuing the bridge. In the setting of these models, passpoints dropped while detailing strip two should be favored over the bridge points.

Strip #2

This strip contains sufficient control together with bridge points from strips one and three to scale all models.

Strip #3

Models 55 w 9808 thru 55 w 9814 were bridged and bridge points dropped to help control strip two. Models 55 w 9814 thru 55 w 9818 could be difficult to set in stereo instruments and it may be necessary to use graphic methods in detailing these areas. The detail involved is only a small area along the northern edge of the shoreline since strip two covers most of the area. Models 55 w 9814 thru 9821 can be set and contain sufficient control to scale these models.

In the bridging of this strip it was found that several stations could not be held. Astoria Flavel Residence, Cupola 1935 and S. S. Milepost 95, (ORE.) 1934 could not be clearly seen in the photos and should not be held. Stations JJ-203, 1936 (USE), H-203, 1936, (USE), FF-203, 1936 (USE) and D-203, 1936 (USE) could not be held in relation to other control. All of these stations tended to shift in one direction which seems to indicate a shift in the datum of the USE control. It should be noted that all of these USE stations are on the same traverse line. Hence all stations on this particular line should not be used. SS Orchard, USE, 1936 in Strip #1 is in this same area, however, this station was cut into C&GS control by triangulation and should be held.

*John D. Perrow Jr.*  
John D. Perrow, Jr.

Approved

*Morton Keller*

Morton Keller

10/28/57

6761487



PH-155

Strip No. 1

Coordinates for Passpoints Obtained  
from Stereoplanigraph Bridging

No.	X	Y	No.	X	Y
T-10359 821	1,122,326	927,634	T-10362 762	1,165,911	917,667
10359 822	1,123,737	919,055	763	1,165,095	<del>990,816</del> → 909,816
10359 823	1,127,298	911,011	765	1,167,183	921,284
10359 824	1,123,973	921,151	751	1,174,747	924,342
10359 811	1,128,711	926,954	752	1,173,361	917,041
10360 812	1,130,245	919,982	753	1,173,602	909,792
10360 813	1,130,358	911,579	754	1,175,016	920,131
10360 814	1,130,104	922,928	10363 741	1,182,597	924,194
10360 801	1,135,835	926,810	742	1,182,071	915,658
10360 802	1,134,824	918,653	743	1,181,331	911,328
10360 803	1,134,606	912,616	732	1,190,891	915,887
10360 806	1,137,378	921,968	733	1,190,404	911,315
10360 791	1,145,082	927,745	10364 721	1,199,813	922,965
792	1,144,423	919,783	722	1,198,775	915,131
793	1,144,252	911,739	723	1,197,673	908,124
794	1,144,959	920,722	724	1,192,741	922,294
1036 781	1,152,230	925,475	711	1,208,425	920,724
1036 782	1,149,289	918,599	712	1,207,518	912,499
783	1,149,609	911,311	713	1,206,909	906,433
786	1,152,405	922,409	715	1,204,754	920,979
771	1,158,272	925,292	701	1,216,833	920,102
772	1,157,969	917,834	702	1,214,948	911,907
773	1,157,836	911,108	703	1,212,831	906,508
775	1,159,101	920,633	704	1,213,242	920,688

1  
3  
5  
6  
7  
8



PH-155

Strip No.3

Coordinates for Passpoints Obtained

From Stereoplanigraph Bridging

<u>No.</u>	<u>X</u>	<u>Y</u>
T-10357 131	1,175,126	945,049
10362 133	1,172,911	930,965
T-10363 134	1,175,101	930,691
T-10357 121	1,182,769	943,416
T-10357 122	1,181,788	938,323
T-10363 123	1,180,658	931,606
T-10357 111	1,187,620	939,875
T-10357 112	1,187,823	936,379
T-10363 113	1,188,050	930,950
T-10363 114	1,182,722	930,840
T-10358 101	1,197,577	944,637
T-10358 102	1,196,373	938,993
T-10364 104 63	1,190,025	930,335
T-10358 091	1,205,473	943,949
T-10358 092	1,204,783	937,736
T-10364 093	1,204,607	931,165
T-10364 094	1,200,717	934,428
T-10358 081	1,212,591	944,866
T-10358 082	1,212,233	938,252
T-10364 083	1,210,786	931,025
T-10364 085	1,206,842	934,155

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY  
DESCRIPTIVE REPORT  
CONTROL RECORD

MAP T. 10353

PROJECT NO. Ph-155

SCALE OF MAP 1:10,000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\psi$ -COORDINATE LONGITUDE OR $\lambda$ -COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
POINT ADAMS COAST GUARD STATION	Oreg.N. Office	N.A. 1927	942,308.53	2308.53	(2691.47)		703.6	( 820.4)	
STEEL FLAGPOLE, 1951	"	"	1,127,748.65	2748.65	(2251.35)		837.8	( 686.2)	
FORT STEVENS QUARTER MASTER TANK, 1951	"	"	941,555.71	1555.71	(3444.29)		474.2	(1049.8)	
			1,123,941.64	3941.64	(1058.36)		1201.4	( 322.6)	
GUN (USE) OREG. 1905	Oreg.N. 204	"	945,016.82	16.82	(4983.18)		5.1	(1518.9)	
			1,123,904.46	3904.46	(1095.54)		1190.1	( 333.9)	
CHUMMY, 1956	Oreg.N. 271	"	944,312.06	4312.06	( 687.94)		1314.3	( 209.7)	
			1,116,065.22	1065.22	(3934.78)		324.7	(1199.3)	
DO		"	944,015.55	4015.55	( 984.45)		1223.9	( 300.1)	
Sub Station		"	1,116,214.57	1214.57	(3785.43)		370.2	(1153.8)	
SWASH, 1935	Oreg.N. 225	"	944,212.25	4212.25	( 787.75)		1283.9	( 240.1)	
			1,118,288.95	3288.95	(1711.05)		1002.5	( 521.5)	
POINT ADAMS COAST GUARD STATION	Oreg.N. Office	"	942,267.64	2267.64	(2732.36)		691.2	( 832.8)	
CHUBOLA, 1951	Comp.	"	1,127,684.96	2684.95	(2315.05)		818.4	( 705.6)	
FORT STEVENS LONG- ITUDE STATION 1911	Oreg.N. 204	"	945,078.50	78.50	(4921.50)		23.9	(1500.1)	
ASTRONOMICAL STA. 1911)			1,123,972.36	3972.36	(1027.64)		1210.8	( 313.2)	
FORT STEVENS RADIO POLE, SOUTH RADIO POLE, 1935	Oreg.N. 225	"	940,103.36	103.36	(4896.64)		31.5	(1492.5)	
			1,120,324.26	324.26	(4675.74)		98.8	(1425.2)	
RADIO, 1926	Oreg.N. 271	"	939,103.87	4103.87	( 896.13)		1250.9	( 273.1)	
			1,120,656.67	656.67	(4343.33)		200.1	(1323.9)	
FORT STEVENS RANGE	Oreg.N. 94	"	945,028.72	28.72	(4971.28)		8.8	(1515.2)	
TOWER C, 1909			1,123,099.70	3099.70	(1900.30)		944.8	( 579.2)	

1 FT. = 3048008 METER

COMPUTED BY: J.E.D.

DATE 10-10-57

CHECKED BY: D.N.W.

DATE 10-17-57



U.S. DEPARTMENT OF COMMERCE  
NAUTICAL AND GEODETIC SURVEY  
DESCRIPTIVE REPORT  
CONTROL RECORD

MAP T. 10353 PROJECT NO. Ph-155 SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\psi$ -COORDINATE LONGITUDE OR $\lambda$ -COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
FIRE CONTROL HILL 1942	Oreg.N. 270	N.A. 1927	939,059.84 1,120,656.96	4059.84 656.96	( 940.16) (4343.04)		1237.4 200.2	( 286.6) (1323.8)	
DESDEMONA SANDS LIGHT, 1958	Oreg.N. Office Comp.	"	951,569.49 1,125,977.73	1569.49 977.73	(3430.51) (4022.27)		478.4 298.0	(1045.6) (1226.0)	
S 31 A 3 (USE) 1935	Office Comp.	"	944,995.88 1,123,094.56	4995.88 3094.56	( 4.12) (1905.44)		1522.7 943.2	( 1.3) ( 580.8)	
FORT STEVENS EAST JETTY LIGHT 1951	Pg.1128	"	46 12 18.36 123 56 50.33				566.9 1079.0	(1285.7) ( 207.3)	
FORT STEVENS WEST JETTY LIGHT 1951	"	"	46 12 20.08 123 56 53.71				620.0 1151.5	(1232.6) ( 134.8)	
FORT STEVENS WHARF 26 LIGHT, 1951	"	"	46 12 27.504 123 57 00.799				849.2 17.1	(1003.4) (1269.1)	
HAMMOND, POINT ADAMS CANNERY TALLER STACK, 1951	"	"	46 11 53.09 123 56 23.45				1639.2 502.8	( 213.4) ( 783.7)	
A 31 (USE) 1935	Astoria Quad. U.S.E.	"	46 11 57.882 123 56 36.383				1787.2 780.1	( 65.4) ( 506.3)	
FORT STEVENS RANGE TOWER A, 1909	G-6306 Pg-736	"	46 12 07.619 123 57 58.524				235.3 1254.8	(1617.3) ( 31.6)	
18 USGS 1935	Astoria Quad. U.S.E.	"	46 12 05.422 123 57 40.156				167.4 860.9	(1685.2) ( 425.5)	10
FORT STEVENS RANGE ROWER B, 1909	G-6306 Pg.736	"	46 12 09.850 123 57 57.956				304.2 1242.6	(1548.4) ( 43.8)	

## COMPILATION REPORT

Map Manuscript T-10353

Project Ph-155

31. Delineation:

Refer to Item 31 for map manuscript T-10340.

32. Control:

Refer to Item 32 for map manuscript T-10340.

33. Supplemental Data:

- a. Blue line print of U.S. Engineer map of real estate at the mouth of the Columbia River, Scale 1" = 300', showing the boundary of Fort Stevens.
- b. Blue line print of Map of the City of Warrenton, Scale 1" = 1000' (approximately), showing part of city limit of Hammond.
- c. Blue line print of map of U.S.C.G. Lifeboat Station, Point Adams, Scale 1" = 20'.
- d. Map of Fort Stevens Management Area, Scale 4" = 1 mile, showing boundary of Game Reservation.
- e. Two tracings from maps showing additions to City of Hammond, Scale 1" = 200' and 1" = 50'.
- f. Map of City of Hammond, no scale given.
- g. Blue line print of Fort Stevens Park, Scale 1" = 800'.
- h. Copy of Senate Bill No. 1 94 OC 1957, State of Oregon.

34. Contours and Drainage:

Contours are not applicable.

Most of the drainage was field inspected. Any drainage not field inspected was interpreted in the compilation office assisted by reference to the Warrenton, Oreg. - Wash. 7½ minute U.S.G.S. quadrangle.

35. Shoreline and Alongshore Details:

These features were adequately field inspected and no trouble was encountered during compilation.

The low water line could not be determined from the photographs and it was not mapped.

36. Offshore Details:

No offshore details were visible during field inspection or on the photographs. Nautical chart No. 6151 does not show any offshore features that should be investigated.

37. Landmarks and Aids:

Form 567 is submitted for two landmarks and four fixed aids to navigation in the area of this manuscript.

38. Control for Future Surveys:

Three objects were located as recoverable topographic stations. They are listed under Item 49, Notes to the Hydrographer.

39. Junctions:

Satisfactory junctions were made with T-10352 on the west, T-10346 on the north, T-10354 on the east and T-10359 on the south.

40. Horizontal and Vertical Accuracy:

Vertical accuracy is not applicable.

There are no areas believed to be of sub-normal horizontal accuracy.

46. Comparison with Existing Maps:

Comparison was made with U.S.G.S. 7½ minute quadrangle WARRENTON, OREG.-WASH., Scale 1:24,000, published in 1953.

47. Comparison with Nautical Charts:

Comparison was made with Nautical Chart No. 6151, Scale 1:40,000, 34th edition dated October 1960, corrected through 29 October 1960, and Nautical Chart No. 6002, Scale 1:180,789, 10th edition 9 July 1942, revised 23 May 1960, corrected through 7 January 1961.

Items to be applied to nautical charts immediately:

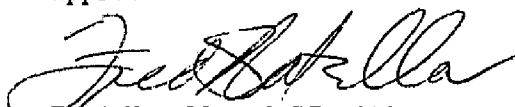
Landmark "RADIO" should be deleted from Chart 6002.

Items to be carried forward:

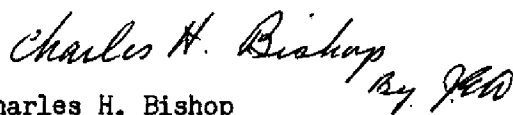
None.

Approved:

Respectfully submitted:



Fred Natella, CAPT, C&GS  
Portland District Officer  
for  
Lorne G. Taylor, CDR, C&GS



Charles H. Bishop  
Surveying Technician  
C&GS

Map Manuscript T-10353

49. Notes to the Hydrographer:

No recoverable topographic stations were located.

There is one station WHITE (USE) 1957 which is a hydro signal beacon. This station is identified on field photograph 55 W 8635 and its location was satisfactorily verified during the Kelsh Instrument compilation. There are numerous triangulation stations in the area which are natural objects. ~~Several aids to navigation located by Kelsh Instrument are also available for hydrographic control.~~



48. Geographic Names:

Clatsop County  
Clatsop Spit  
Columbia River  
Fort Stevens Boat Harbor  
Fort Stevens State Park  
Hammond  
Jetty Sands  
5 Pacific County  
Point Adams  
South Jetty  
Swash Lake

*George M. Bace*  
Geographic Names Section  
Februaury 1962

## NONFLOATING AIDS OR ORNAMENTS FOR CHARTS

The positions given have been checked after listing by Charles H. Bishop

Charles H. Bishop

**Fred Natella** *Chief of Party.*

**Fred Natella**

Chief of Party.

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

The positions given have been checked after listing by Charles H. Bishop

[illegible]

U. S. GOVERNMENT PRINTING OFFICE: 1949 O - 853418

Portland, Oregon 26 July 1961 19

I recommend that the following objects which have ~~(been)~~ been inspected from seaward to determine their value as landmarks be ~~charted on our (interdiction)~~ the charts indicated.

The positions given have been checked after listing by

**Fred Natella** *Chief of Party.*

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

REVIEW REPORT  
T-10352 through 10364 and T-10650  
Planimetric December 18, 1961

**62. Comparison with Registered Topographic Surveys**

Map No.	Scale	Year	Map No.	Scale	Year
317	1:22,962	1850-51	1806	1:10,000	1887
1112	1:10,000	1868	4226	1:20,000	1926
1123	"	1868	4250	"	"
1138	"	1869	4251	"	"
1139a&b	"	1869	4263	1:10,000	1926
1234	"	1870	4264	"	"
1235	"	1870	6521a	"	"
1249	"	1870	6521b	"	1936

The manuscripts covered by this review report supersede the surveys listed above for purposes of nautical chart construction.

**63. Comparison with Maps of Other Agencies**

Comparison was made with the latest existing maps during the photogrammetric review. Each report lists under "Comparison with Maps, etc." the quadrangles that were used.

**64. Comparison with Contemporary Hydrographic Surveys**

Where applicable, each map was compared with the latest hydrographic survey. All available hydrographic surveys are unverified. Discrepancies are listed under the heading of each map. If the map is not listed, no discrepancies exist during review.

T-10352 - The submerged rocks shown on the manuscript which appear to once have been part of the jetty were compiled in the photogrammetric office from a U.S. Engineer Survey dated 1956. This feature was not developed by hydro on sheets H-8421 through H-8423. See the Descriptive Report for this survey for details.

T-10354 - A pile is shown on the manuscript above MHW whereas hydro shows this pile submerged at latitude  $46^{\circ}14'37''$  and longitude  $123^{\circ}55'16''$ . The pile was field inspected.

T-10356 - A rock is shown on the manuscript as awash MHW and on hydro sheet H-8420 as (4) with a position difference of approximately 5 meters. The rock is located at latitude  $46^{\circ}12'45''$  and longitude  $123^{\circ}45'18''$ . The height of the rock was given by the field inspector.

T-10357 - Piles and/or shags shown on Chart 6151 in the vicinity of latitude  $46^{\circ}13'30''$  and longitude  $123^{\circ}42'30''$  and latitude  $46^{\circ}12'30''$  and longitude  $123^{\circ}42'30''$  are not shown on the unverified smooth sheet. They are too far offshore for photogrammetric location.

#### 65. Comparison with Nautical Charts

Comparison was made with Charts 6151 and 6152, 34 Edition October 10, 1960 corrected June 26, 1961. Nautical Charts did not use these surveys for the construction of the new edition. Many minor changes in offshore features and planimetric detail were noted. Only dangers to navigation or significant changes in detail have been noted for each sheet.

T-10354 - Some differences were noted in shoreline features in the vicinity of Hammond at latitude  $46^{\circ}11'30''$ , longitude  $123^{\circ}56'00''$ . The pile area in the vicinity of latitude  $46^{\circ}12'30''$ , longitude  $123^{\circ}52'30''$  is incomplete. It is a shoal area and of no danger to navigation.

T-10361 - A difference exists in the position of a snag at latitude  $46^{\circ}11'03''$  and longitude  $123^{\circ}51'46''$  in Youngs Bay. Landmark "Drum" should be deleted from Chart as recommended on Form 567.

#### 66. Adequacy of Results and Future Surveys

These maps comply with instructions and meet National Standards of Map Accuracy.

Respectfully submitted:

A. K. Heywood  
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Approved:

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Operations

## NAUTICAL CHARTS BRANCH

SURVEY NO. T-10353

## Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.