

10355

Orig-

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

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Planimetric (Photogrammetric)

Field No. Ph-155 Office No. T-10355

LOCALITY

State Oregon - Washington

General locality Columbia River

Locality Astoria

1957

CHIEF OF PARTY

V. Ralph Sobieralski, Chief of Party
Lorne G. Taylor, Photogrammetric Office

LIBRARY & ARCHIVES

DATE MAY 1 1962

USCOMM-DC 5087

10355

DESCRIPTIVE REPORT - DATA RECORD

T - 10355

Project No. (II): Ph-155

Quadrangle Name (IV):

Field Office (II): Astoria, Oregon

Seaview, Washington

Photogrammetric Office (III): Portland, Oregon

Chief of Party: V. Ralph Sobieralski

Unit Chief: C. D. Upham

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): Graphic and Kelsh 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):

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):

Mean sea level except as follows: X
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): ASTORIA (USE) 1905

Lat.: 46° 11' 16.028"

Long.: 123° 50' 27.251"

Adjusted X
Unadjusted

Plane Coordinates (IV):

State: Oregon

Zone: North

Y= 936,672.78

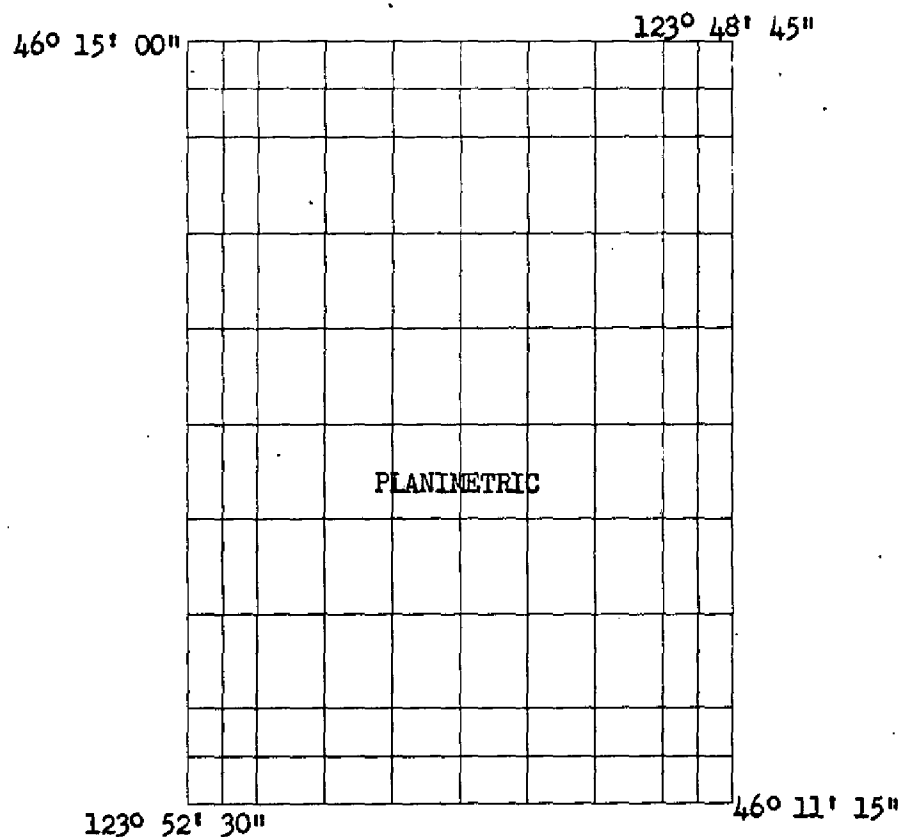
X= 1,153,976.42

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

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY



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

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): C. H. Bishop
R. B. Melby
W. P. James
E. T. Jenkins

Date: Nov. 1957

Planetable contouring by (II):

Date:

Completion Surveys by (II):

supplementary aids and landmarks determined

Date: 1958

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

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

Date: 9-10-57

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

Date: 9-10-57

Control plotted by (III):

D. N. Williams

Date: Nov. 1957

Control checked by (III):

L. L. Graves

Date: Nov. 1957

Radial Plot or Stereoscopic
Control extension by (III):

Stereoscopic Control Ext. J.D. Perrow JP
Radial Plot L. L. Graves

Date: 10-28-57

Stereoscopic Instrument compilation (III):

Planimetry L. L. Graves
Contours D. N. Williams

Date: 2-24-58

Date:

Manuscript delineated by (III):

L. L. Graves, Scribing
C. C. Harris, Stick-up

Date: 4-9-59
5-18-60

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

Date: July 1960

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

Date:

DESCRIPTIVE REPORT - DATA RECORD

5.

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

Camera (kind or source) (III):

Number	Date	Time	Scale	Stage of Tide
34370 & 34371	10-25-51	11:20	1:10,000	5.6' above M.L.L.W.
55-W-9815 & 9816	9-24-55	12:18	1:25,000	3.2' " "
55-W-8628 thru 8630	6-6-55	11:26	"	3.5' " "

Tide (III)

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

Washington Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III): 2
Shoreline (More than 200 meters to opposite shore) (III): 4
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 33 Recovered: 13 Identified: 11
Number of BMs searched for (II): None Recovered: Identified:
Number of Recoverable Photo Stations established (III): 3
Number of Temporary Photo Hydro Stations established (III): None

Remarks:

Diurnal		
Ratio of Ranges	Mean Range	Spring Range
	6.5	8.2
	6.1	7.9

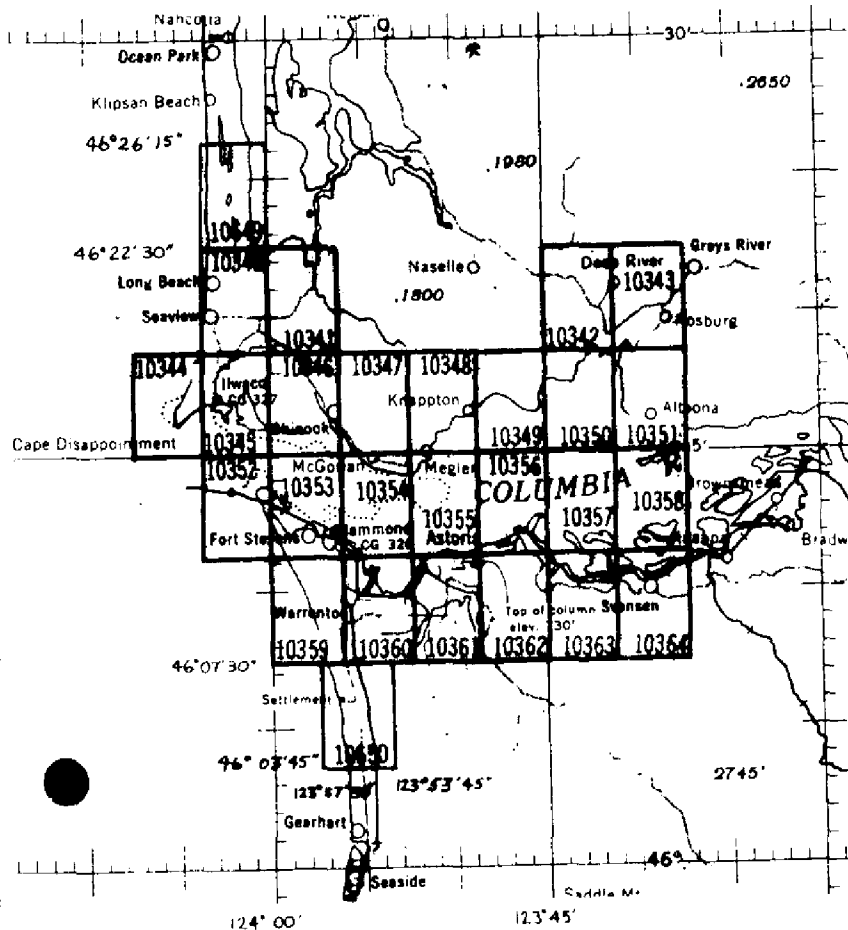
Date: 2/23/62

Date:

Date:

Date:

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	13
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	9	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	8	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-10355

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-10644)

DVA

PHOTOGRAMMETRIC PLOT REPORT

Map Manuscripts T-10355 and T-10356

Project Ph-155

No stereoplanigraph control extension was made for the area of this manuscript. The principal points of the single lens photography available fell offshore from the Oregon shoreline. A small hand templet radial plot was run using the single lens photography made in 1955. and supplemented by the nine lens photography made in 1951. Ties were made on the east with pass points and identified horizontal control in Strip 3 and on the south with pass points of Strip 2. A very satisfactory radial plot was accomplished.

Approved:



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

Respectfully submitted:



J. Edward Deal
Cartographer

MAP T. 10355

PROJECT NO. Ph-155

SCALE OF MAP 1:10,000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ψ -COORDINATE LONGITUDE OR λ -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 ELICE LIGHT (WASH) 1951	Oreg.N. Office Comp.	N.A. 1927	956,496.54	1496.54	(3503.46)		456.1	(1067.9)	
ASTORIA, ST. MARYS HOSPITAL CROSS 1935	"	"	1,146,707.95	1707.95	(3292.05)		520.6	(1003.4)	
			936,771.19	1771.19	(3228.81)		539.9	(984.1)	
			1,157,860.72	2860.72	(2139.28)		871.9	(652.1)	
ASTORIA, FLAVEL RESIDENCE, CUPOLA 1935	"	"	936,804.93	1804.93	(3195.07)		550.1	(973.9)	
			1,155,795.81	795.81	(4204.19)		242.6	(1281.4)	
DESDERONA SANDS UPPER LIGHT (WASH) 1951	Oreg.N. Office Comp.	"	945,265.52	265.52	(4734.48)		80.9	(1443.1)	
			1,146,122.02	1122.02	(3877.98)		342.0	(1182.0)	
OLD POINT ELICE (USE) 1902	Office Comp.	"	46 14 29.246				903.0	(949.6)	
			123 52 17.988				385.4	(900.1)	
POINT ELICE (USE) 1913	G-3422 Pg.326	"	46 14 29.954				924.9	(927.7)	
			123 52 16.296				349.1	(936.4)	
ASTORIA CROSSING	Field	"	46 11 24.11				744.4	(1108.2)	
RANGE FT. LT. 1958	Comp.	"	123 49 12.95				277.7	(1009.0)	
ELEVATOR (OREG) 1935	G-3422 Pg.315	"	46 11 22.542				696.0	(1156.6)	
			123 51 25.206				540.5	(746.2)	
ASTORIA (USE)(ORE) 1905	G-3422 Pg.324	"	46 11 16.028				494.9	(1357.7)	
			123 50 27.251				584.4	(702.3)	
ASTORIA, STANDARD OIL CO. TALLEST TANK, 1935	G-3422 Pg.341	"	46 11 28.278				873.1	(979.5)	9.
			123 50 13.460				288.6	(998.0)	
ASTORIA COURTHOUSE DOME, 1909	G-3422 Pg.340	"	46 11 20.278				626.1	(1226.5)	
			123 50 02.244				48.1	(1238.6)	
MEGLER RANGE	Field	"	46 14 58.87				1817.7	(34.9)	
FRONT LT. 1958	Comp.	"	123 51 23.84				510.7	(774.6)	

1 FT. = 3048006 METER

COMPUTED BY: J.E.D.

DATE 1-8-59

CHECKED BY:

DATE

COMPILATION REPORT

Map Manuscript T-10355

Project Ph-155

31. Delineation:

The Kelsh Instrument was used to compile the planimetry on the north side of the Columbia River, namely the Point Ellice - Magler area. Planimetry in the Astoria area was compiled from the results of a radial plot using 9-lens photographs for the control extension and single lens photographs for the compilation of planimetry. Field inspections was adequate.

32. Control:

The identified horizontal control stations and the pass points located in the stereoplanograph bridge and by radial plot were adequate for the compilation of the manuscript.

33. Supplemental Data:

- a. Map of Astoria, Oregon, Scale 1" = 1500', approximately. Date of publication not known.
- b. Copy of Senate Bill No. 1, 94 OL 1957, State of Oregon.

34. Contours and Drainage:

Contours are not applicable.

Drainage was field inspected, verified by stereoscopic examination of photographs and then compiled.

35. Shoreline and Alongshore Details:

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

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

36. Offshore Details:

Piling in the vicinity of Desdemona Sands Upper Light 1951 were located by photogrammetric methods and by sextant fixes.

Piling in the vicinity of Point Ellice and Megler was located by planetable on the field photographs.

The east end of Desdemona Sands bares at M.L.L.W. and was compiled from field inspection.

37. Landmarks and Aids:

Form 567 is submitted for seven aids to navigation and two landmarks.

38. Control for Future Surveyd:

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

39. Junctions:

Satisfactory junctions were made with T-10354 on the west, T-10348 on the north, T-10356 on the east and T-10361 on the south.

40. Horizontal and Vertical Accuracy:

Vertical accuracy is not applicable. There are no areas that are believed to be of sub-normal accuracy.

46. Comparison with Existing Maps:

Comparison was made with U.S.G.S. 7½ minute Astoria, Oreg. - Wash. quadrangle, Scale 1:24,000, published in 1949.

47. Comparison with Nautical Charts:

Comparison was made with Nautical Chart No. 6151, 34th Edition Oct. 10, 1960, corrected through Jan. 7, 1961 and Nautical Chart No. 6002, Scale 1:180,789, 10th Edition July 9, 1942, Revised May 23, 1960, corrected through Jan. 7, 1961.

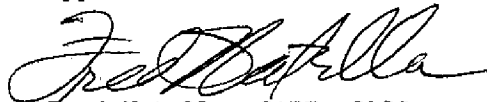
Items to be applied to nautical charts immediately.

None.

Items to be carried forward.

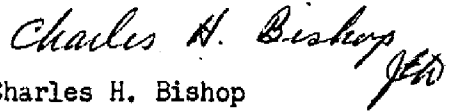
None.

Approved:



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

Respectfully submitted:



Charles H. Bishop
Surveying Technician

49. Notes to the Hydrographer:

There are several aids to navigation shown which have either been located by photogrammetric methods or by triangulation. They are:

MEGLER RANGE FRONT LIGHT 1958
ASTORIA LIGHT 36, 1957
TWO FLASHING RED LIGHTS (PRIVATE) 1957
ASTORIA FERRY TERMINAL LIGHT 1957
ASTORIA LOWER RANGE REAR LIGHT 1958

When locating photo-hydro points use the 9-lens photographs No's. 34370 and 34371, single lens ratio prints 55 W 8628 thru 8630 and single lens ratio prints 55 W 9815 thru 9817.

The Astoria area was compiled from the results of a radial plot using 9-lens photographs for the control extension and single lens for the compilation of planimetry.

PHOTOGRAMMETRIC OFFICE REVIEW

T-10355

1. Projection and grids ☒ 2. Title ☒ 3. Manuscript numbers ☒ 4. Manuscript size ☒

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy ☒ 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) ☒ 7. Photo hydro stations None 8. Bench marks None 9. Plotting of sextant fixes ☒ 10. Photogrammetric plot report ☒ 11. Detail points ☒

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline ☒ 13. Low-water line None 14. Rocks, shoals, etc. ☒ 15. Bridges ☒ 16. Aids to navigation ☒ 17. Landmarks None 18. Other alongshore physical features ☒ 19. Other along-shore cultural features ☒

PHYSICAL FEATURES

20. Water features ☒ 21. Natural ground cover ☒ 22. Planetable contours None 23. Stereoscopic instrument contours None 24. Contours in general None 25. Spot elevations None 26. Other physical features ☒

CULTURAL FEATURES

27. Roads ☒ 28. Buildings ☒ 29. Railroads ☒ 30. Other cultural features ☒

BOUNDARIES

31. Boundary lines ☒ 32. Public land lines None

MISCELLANEOUS

33. Geographic names ☒ 34. Junctions ☒ 35. Legibility of the manuscript ☒ 36. Discrepancy overlay None 37. Descriptive Report ☒ 38. Field inspection photographs ☒ 39. Forms ☒40. _____
ReviewerEdward Seal
Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

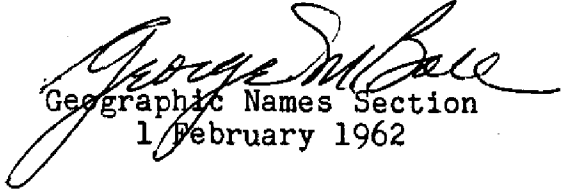
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Compiler_____
Supervisor

43. Remarks:

48. Geographic Names:

Astoria
Clatsop County
Columbia River
Desdemona Sands
Pacific County
Point Ellice
Spokane, Portland and Seattle


Geographic Names Section
1 February 1962

NONFLOATING AIDS ~~OR LEADERS~~ FOR CHARTS

STRIKE OUT ONE

Portland, Oregon 27 July 1961

The positions given have been checked after listing by

~~Free Entry~~

Chief of Party.

[illegible]

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating* objects, if undetermined, shall be reported on this form. The data should be considered for the charts of the area and not by the chart of the area in which the object is located.

TECHNOLOGICAL LANDMARKS FOR CHARTS

Portland, Oregon

28 July 19 61

Charles H. Bishop

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. Revisions shall show both the old and new positions. 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.

* TABULATE SECONDS AND METERS

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°14'37" and longitude 123°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°12'45" and longitude 123°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
A. K. Heywood

Approved:

L. C. Lande
Chief, Review and Edit Sec.

Marvin T. Paulsen
Chief, Div. of Nautical Charts

J. E. Laugh 6/6/62
Chief, Div. of Photogrammetry

J. B. Mast 8/2/62
Chief, Div. of Coastal Surveys
Operations

NAUTICAL CHARTS BRANCH

SURVEY NO. T-10355

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.