9516N
9516S

9516N 9516S COMBINED

Diag. Cht. No. 6002-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-62(49) *Office No.* T-9516

LOCALITY

State Washington

General locality Grays Harbor

Locality North Bay

1950-56

CHIEF OF PARTY

C.W.Clark, Chief of Field Party
J.C.Sammons, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE May 12, 1958

B-1870-1 (1)

20

DATA RECORD

T-9516

Project No. (II): Ph-62(49) Quadrangle Name (IV):

Field Office (II): Copalis Beach, Washington Chief of Party: Charles W. Clark

Photogrammetric Office (III): Baltimore, Md. Officer-in-Charge: Jack C. Sammons

Instructions dated (II) (III): 20 March 1951
Supplement 1 dated: 15 February 1952
Letter No. 73-aal dated: 24 May 1951

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Air Photographic (Multiplex)

Manuscript Scale (III): 1:10,000 Stereoscopic Plotting Instrument Scale (III): 1:10,000

Scale Factor (III): 1.000

Date received in Washington Office (IV): SEP 23 1953 Date reported to Nautical Chart Branch (IV): SEP 29 1953

Applied to Chart No. Date: Date registered (IV): 22 Oct 1957

Publication Scale (IV): Publication date (IV):

Geographic Datum (III): N.A. 1927 Vertical Datum (III):

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): BURROWS 1939

Lat.: 47° 03' 04.252"(131.3 m) Long.: 124° 01' 56.030" (1182.6 m) Adjusted ~~Unadjusted~~

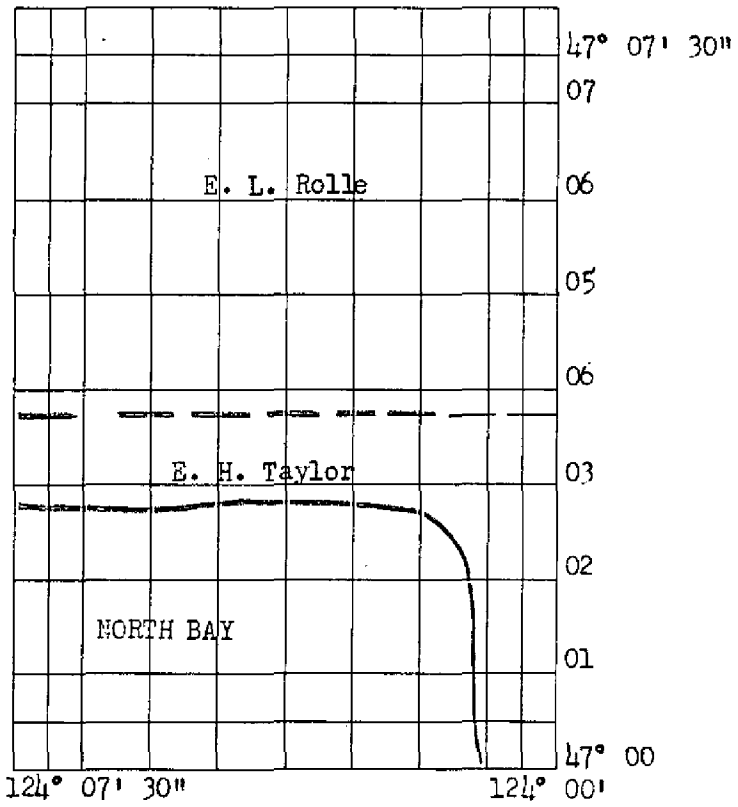
Plane Coordinates (IV): State: Washington Zone: South

Y= X=

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.

M-2618-12(4)



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

DATA RECORD
T-9516

Field Inspection by (II): K. Huey — Date: 9/10/51

Planetable contouring by (II): — Date:

Completion Surveys by (II): CHARLES H. BISHOP — Date: 19 SEPT. 1956

Mean High Water Location (III) (State date and method of location):
*July 11, 1950 - Photogrammetric

*REVISED TO APPARENT SHORELINE BY FIELD EDIT

Projection and Grids ruled by (IV): J. Allen — Date: Nov. 19, 1951

Projection and Grids checked by (IV): H. D. Wolfe — Date: Nov. 20, 1951

Control plotted by (III): B. Wilson — Date: Oct. 31, 1952

Control checked by (III): D. M. Brant — Date: Oct. 31, 1952

Radial Plot or Stereoscopic Control extension by (III): E. L. Rolle — Date: Jan. 23, 1953

Stereoscopic Instrument compilation (III):
Planimetry (E. H. Taylor — Date: Feb. 12, 1953
Contours (E. L. Rolle — Date: Feb. 18, 1953

Manuscript delineated by (III): J. Y. Councill — Date: May 18, 1953

Photogrammetric Office Review by (III): R. Glaser — Date: Sept. 15, 1953
A. K. Heywood — Sept. 17, 1953

Elevations on Manuscript checked by (II) (III): A. K. Heywood — Date: Sept. 17, 1953

M-2618-12(4)

Camera (kind or source) (III): USC&GS Single lens "O" Camera

PHOTOGRAPHS (III)

Number	Date	Time (PST)	Scale	Stage of Tide
50-0-1545 thru 50-0-1551	7/11/50	13:30	1:24,000	5.4 MLLW
50-0-1585 thru 50-0-1591	"	13:45	"	5.1 MLLW
50-0-1680 thru 50-0-1686	"	15:10	"	4.1 MLLW

Tide (III)
From Predicted Tide Tables

Diurnal

Ratio of Ranges	Mean Range	~~Spring~~ Range
-	7.8	9.9
1.0	7.6	9.7

Reference Station: ABERDEEN
Subordinate Station: North Channel
Subordinate Station:

Washington Office Review by (IV): A.K. Heywood Date: AUG 1957

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

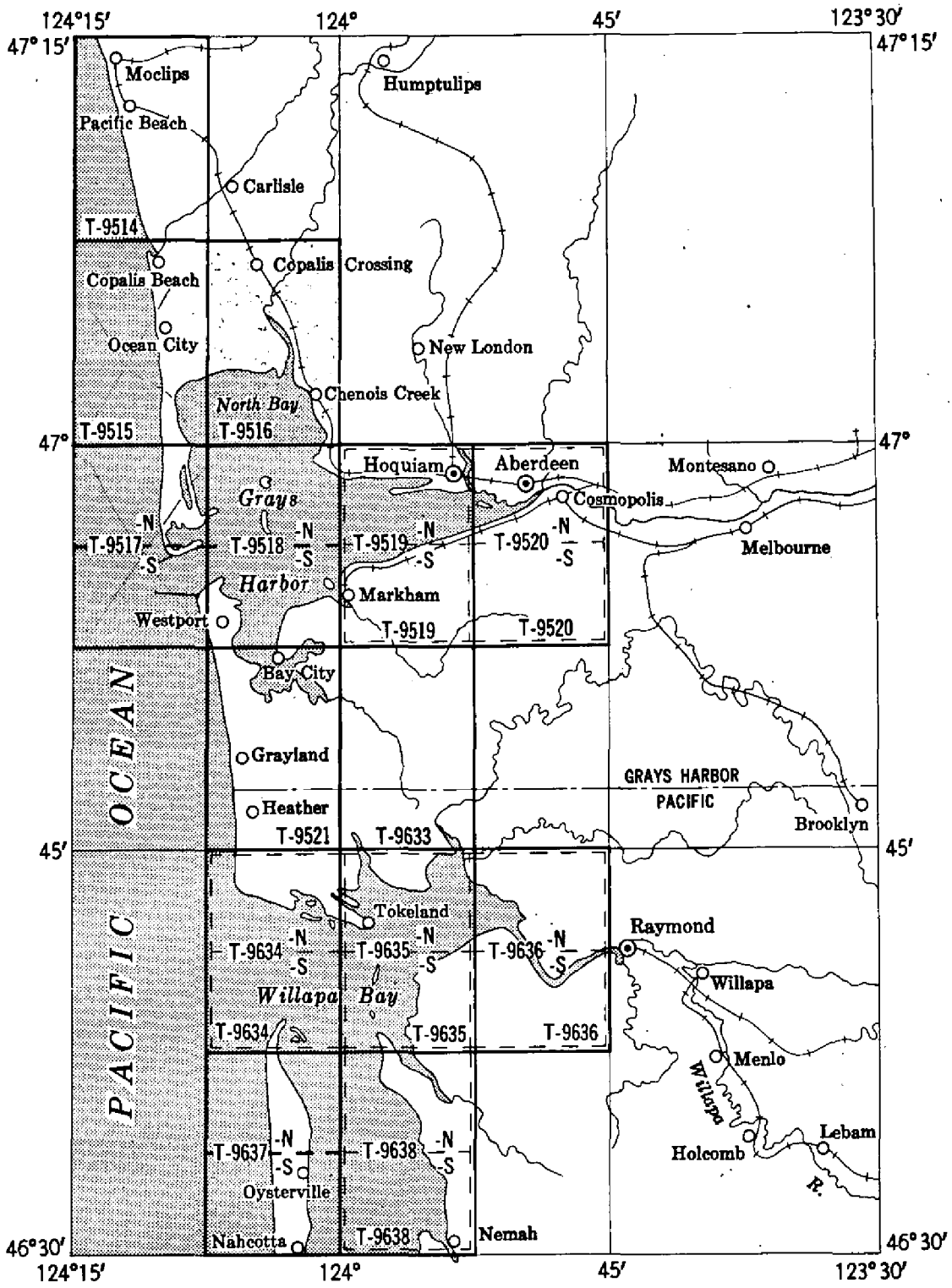
Land Area (Sq. Statute Miles) (III): 37
Shoreline (More than 200 meters to opposite shore) (III): 8
Shoreline (Less than 200 meters to opposite shore) (III): 36
Control Leveling - Miles (II): 53
Number of Triangulation Stations searched for (II): 15 Recovered: 9 Identified: 4
Number of BMs searched for (II): 8 Recovered: 5 Identified: 0
Number of Recoverable Photo Stations established (III): 0
Number of Temporary Photo Hydro Stations established (III): 0
Traverse stations established and identified: 18
Remarks:

M-2618-12(4)

TOPOGRAPHIC AND SHORELINE MAPPING PROJECT PH-62 (49)

WASHINGTON, Grays Harbor - Willapa Bay

Compilation scales 1:10,000 and 1:20,000



TOPOGRAPHIC MAPS: T-9514, T-9515, T-9516 T-9519, T-9520, T-9521, T-9633 to T-9636 and T-9638, (scale 1:20,000), T-9517-N, T-9517-S, T-9518-N, T-9518-S, T-9637-N, T-9637-S, (scale 1:10,000),

SHORELINE SURVEYS: T-9519-N, T-9519-S, T-9520-N, T-9634-N, T-9634-S, T-9635-N, T-9635-S, T-9636-N, T-9636-S, T-9638-N, T-9638-S, scale 1:10,000,

Summary to Accompany Descriptive Report T-9516

Topographic map T-9516 is one of 13 similar maps in project Ph-62 (99). It covers most of North Bay in Grays Harbor, Washington.

This is a multiplex project in advance of hydrographic surveys to be made in the same area.

The field operations preceding compilation included complete field inspection, the establishment of some additional horizontal control and the determination of elevations required to control a multiplex project vertically.

The multiplex compilation was at a scale of 1:10,000. The manuscript consists of two (2) sheets each 3 3/4' in latitude by 7 1/2 in longitude.

The entire map was field edited. It is to be published by the Geological Survey at a scale of 1:63,360 as a standard topographic quadrangle. It will not carry an accuracy statement.

The registered copies under T-9516 will include a cronar film positive of each map manuscript.

Photogrammetry

MAP T-9516 PROJECT NO. Ph-62(49) SCALE OF MAP 1:10,000 SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE ° ' "	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
BURROWS, 1939	G-5735 p. 735	NA 1927	47 03 04.252	131.3	(1721.6)					
			124 01 56.030	1182.6	(83.8)					
CHENOIS, 1940	"	"	47 01 56.998	1760.2	(92.7)					
			124 02 21.111	445.7	(821.1)					
COVE=PTS 8 (USGS), 1911	USGS A 5	"	47 05 48.72	1504.5	(348.3)					
			124 03 28.16	593.9	(671.5)					
GRASS, 1940	G-5735 p. 746	"	47 00 06.834	211.0	(1641.8)					
			124 00 19.566	413.4	(854.2)					
HOLMAN, 1940	G-5735 p. 735	"	47 00 40.576	1253.0	(599.8)					
			124 01 00.530	11.2	(1256.2)					
KURTZ, 1940	"	"	47 02 33.943	1048.2	(804.7)					
			124 07 01.671	35.3	(1231.4)					
LANGLEY, 1911	G-5735 p. 652	"	47 06 59.269	1830.3	(22.6)					
			124 06 45.202	952.9	(312.0)					
~~PTS 12(USGS), 1911~~	~~USGS p. A6~~	"	~~47 00 18.5~~	~~571.3~~	~~(1281.6)~~	DID NOT HOLD IN MULTIPLEX BRIDGE. POSITION APPARENTLY ERRONEOUS. SEE LETTER DATED 31 JULY 1957 PG 246 REPORT T-9515.				
			~~124 00 06.3~~	~~133.1~~	~~(1134.4)~~					
TULIPS, 1940	G-5735 p. 745	"	47 01 33.212	1025.6	(827.2)					
			124 01 21.161	446.9	(820.2)					
CAMPBELL, 1940	"	"	47 02 28.721	886.9	(965.9)		Station destroyed after first ~~recovery. Sub. Pt. established~~ for use in compilation.			
			124 04 32.437	684.8	(581.9)					
PTS 15 (USGS), 1911	USGS p. A1	"	47 04 11.2	345.9	(1507.0)					
			123 55 40.8	860.9	(405.1)					

1 FT. = .3048006 METER

COMPUTED BY: Henry P. Eichert DATE 22 Sept. 1952 CHECKED BY: B. Wilson DATE 24 October 1952

M-2388-12

Photogrammetry

MAP T-9516 PROJECT NO. Ph-62 SCALE OF MAP 1:10,000 SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
Sub. Pt. TC 12, 1951		N.A. 1927	669,149.2	1264.7	(259.3)					
			1,109,242.6	1293.1	(230.9)					
Sub. Pt. TD 1, 1951		"	663,104.7	946.3	(577.7)					
			1,114,184.1	1275.3	(248.7)					
Sub. Pt. TD 5A, 1951		"	664,515.6	1376.4	(147.6)					
			1,116.124.3	342.7	(1181.3)					
Sub. Pt. TD 9, 1951		"	665,173.9	53.0	(1471.0)					
			1,118,770.2	1149.2	(374.8)					
Sub. Pt. TD 10, 1951		"	665,616.3	187.8	(1336.2)					
			1,119,493.7	1369.7	(154.3)					
Sub. Pt. TD 18, 1951		"	667,716.6	828.1	(695.9)					
			1,120,507.3	154.6	(1369.4)					
Sub. Pt. TD 26, 1951		"	669,531.5	1381.2	(142.8)					
			1,121,952.4	595.1	(928.9)					
Sub. Pt. TE 16A, 1951		"	648,525.4	1074.5	(449.5)					
			1,119.026.0	1227.1	(296.9)					
Sub. Pt. TE 19A, 1951		"	650,899.6	274.2	(1249.8)					
			1,119,283.2	1305.5	(218.5)					
Sub. Pt. TE 24, 1951		"	652,543.3	775.2	(748.8)					
			1,121,380.1	420.7	(1103.3)					
Sub. Pt. TE 27, 1951		"	651,683.2	513.0	(1011.0)					
			1,123,608.0	1099.7	(424.3)					

7a

1 FT. = .3048006 METER

M-2388-12

COMPUTED BY: Henry P. Eichert DATE 17 October 1952 CHECKED BY: B. Wilson DATE 24 October 1952

MAP T- 9516 PROJECT NO. Ph-62 SCALE OF MAP 1:10,000 SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
Sub. Pt. TE 32, 1951		NA 1927	649,613.1	1406.1	(117.9)					
			1,125,501.0	152.7	(1371.3)					
Sub. Pt. TE 35A, 1951		"	648,298.2	1005.3	(518.7)					
			1,128,508.2	1069.3	(454.7)					
Sub. Pt. TE 38, 1951		"	650,791.1	241.1	(1282.9)					
			1,128,325.7	1013.7	(510.3)					
Sub. Pt. TE 42, 1951		"	653,020.2	920.6	(603.4)					
			1,128,668.1	1118.0	(406.0)					
Sub. Pt. TE 43, 1951		"	653,067.3	934.9	(589.1)					
			1,128,730.8	1137.1	(386.9)					
Sub. Pt. KURTZ, 1940		"	47° 02'	1078.9	(774.0)					
			124 07	138.0	(1128.7)					
Sub. Pt. GRASS, 1940		"	47 00	224.6	(1628.2)					
			124 00	424.1	(843.5)					
Sub. Pt. CAMPBELL, 1940		"	47 02	888.4	(964.4)					
			124 04	686.1	(580.6)					
Sub. Pt. TULIPS, 1940		"	47 01	1060.3	(792.5)					
			124 01	510.6	(756.5)					

1 FT. = .3048006 METER

M-2388-12

COMPUTED BY: Henry P. Eichert DATE 21 October 1952 CHECKED BY: B. Wilson DATE 30 October 1952

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T-9516 PROJECT NO. 62 SCALE OF MAP 1:10,000 SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-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)	FORWARD	(BACK)
ETC, 1953	G-10362 p. 6	N.A. 1927	47	06	46.199	1426.7	(426.2)					
			124	04	40.637	856.7	(408.2)					
HUMP, 1953	p. 7	"	47	06	55.016	1698.9	(153.9)					
			124	01	40.935	863.0	(401.9)					
HUMPTULIPS, 1953	p. 6	"	47	05	49.086	1515.8	(337.0)					
			124	03	26.906	567.4	(697.9)					
NORTH BAY, 1953	p. 6	"	47	08	38.067	1175.5	(677.3)					
			124	06	47.155	995.1	(271.1)					

1 FT. = 3048006 METER

COMPUTED BY Donald M. Brant DATE Dec. 4, 1956 CHECKED BY Henry P. Eichert DATE Dec. 4, 1956

COMM-DC-57843

COMPILATION REPORT

T-9516

Field Inspection Report:

Bound with Descriptive Report for T-9515.

Photogrammetric Plot Report:

Bound with Descriptive Report for T-9515.

31. DELINEATION

All topography was compiled by multiplex. Detail points were plotted at the time of instrument compilation for use in delineating shoreline detail graphically.

Refer to item 25 of the Photogrammetric Plot Report.

In areas of grass in water and marsh - the field inspection was inadequate and incomplete. Tide computations indicate that the photographs were exposed at approximately half tide but no measurements were furnished by the field inspection party to locate the MHWL, MLLWL or apparent shoreline. In many cases throughout the sheet the field party's identification of interior marsh, swamp, glade land and grass in water was not accepted.

All of the above items will be verified during field edit.

32. CONTROL

Refer to photogrammetric plot report, item 23.

Vertical control was adequate except in a few models listed below:

1680 - 1681	No control along east edge.
1681 - 1682	No control in southeast corner.
1679 - 1680	No control in northeast corner of model.
1683 - 1684	No control in northeast corner along G.S. tie.
1684 - 1685	No control in southeast corner along G.S. tie.
1683 - 1684	No control along east edge.

The nature of these areas was such that for the field party to have given the photogrammetric office elevations in these corners would have been costly. They were heavily wooded and quite inacessible. Even if the field inspection party would have given this office a vertical control point in these wooded corners its value would be questionable since the ground could not be viewed in the multiplex and read to any high degree of accuracy.

At the same time, it should be understood that these same models will be of lower contour accuracy since the multiplex models could not be leveled to as rigid a plane as those with level points in all corners.

32. CONTROL (Cont'd)

*It remains, that either lower accuracy in these areas must be accepted or the contours must be field-delineated.

*See Item 66 Review Report

Vertical control in several other models which are not listed were not placed within the neat limits. Since models tend to "fall off" along the edges these points do not represent the time ground elevation.

33. SUPPLEMENTAL DATA

Land Plats

1 Township No. 18N R11W Will. Mer. dated May 24, 1860.
1 Township No. 19N R11W Will. Mer. dated Jan. 4, 1860.
1 Township No. 18N R12W Will. Mer. dated Jan. 5, 1860.
1 Township No. 19N R12W Will. Mer. dated March 8, 1892.

34. CONTOURS AND DRAINAGE

Dense trees with heights up to 140' made the contouring in this survey difficult. It's impossible by any steroscopic means to accurately "feel" the ground with the "floating mark" in areas where timber is so high and dense. The topography was studied under the steroscope concurrently with the delineation of the contours in order to portray the land features. It is felt that while the shape of the feature is generally good the placement of the contours in heavily wooded areas may not be within the required accuracy.

To ask the field editors to check all of these areas would be unreasonable because of their extent and inaccessibility.

In flight 1679-1686 the photographs had a "washed out" area along the outer edge of the flight line. It appeared to have been some reflection from the airplane since it is apparant in the upper right corner of each exposure.

The washed out area adversely affected the quality of the diapositives over this flight.

35. SHORELINE AND ALONGSHORE DETAILS

Refer to item 31 of this report.

The low water line is incomplete.

36. OFFSHORE DETAILS

Questionable items have been referred to field edit.

37. LANDMARKS AND AIDS

None.

38. CONTROL FOR FUTURE SURVEYS

There are no recoverable topographic stations within the limits of this survey.

39. JUNCTIONS

Junctions have been made with the survey to the west T-9515 and to the south with survey T-9518.

There are no contemporary surveys to the east and to the north.

40. HORIZONTAL AND VERTICAL ACCURACY

Refer to item 34 of this report.

41. BOUNDARIES

Section lines are necessarily poor because so few section corners were recovered. Only six section corners were recovered in the whole survey. One of these, sec. cor. 24, 19, 25, 30 appears to have been misplaced and has been referred to field edit.

46. COMPARISON WITH EXISTING MAPS

Comparison was made with A.M.S. quadrangle MCCLIPS, Sheet 1178 II AMS series V791, scale 1:50:000, first edition 1939, reprinted 1947.

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 6002, scale 1:180,789 at Lat. 47° 00' published July 1942 (10 Edition) 4/21/52 and chart 6195, scale 1:40,000 published July 1949 (52 Edition) 10/2/50.

Items to be applied to Nautical Charts immediately: None.

Items to be carried forward: None.

Approved and Forwarded
22 September 1953

Jack C. Sammons, Capt. U.S.C. & G. S.
Officer in Charge, Balto. Photo. Office

Respectfully submitted
21 September 1953

A. K. Heywood
Cartographer (Photo)

48. GEOGRAPHIC NAMES

All the following names are from final name sheet on C of E Moclips, Washington Quadrangle:

Burg Slough
Burrows

Campbell Slough
Chenois Creek
Chenois Creek (Town)
Connor Creek
Copalis Crossing

Deep Creek

Gillis Slough
Grass Creek
Grass Creek Channel
Gray Gables
Grays Harbor County

Humptulips River

Jessie Slough

Kurtz Slough

Langley Hill

Newton
Newton Grange
North Bay
Northern Pacific ~~R/R~~ Ry (Moclips Branch)

Saddle Hill
Shelgrin Road

Tulips

Wash 9C

Grays Harbor (for title)

Names approved 3-16-54. L. Heck.

The following names are shown on the manuscript in pencil - the channels could not be accurately located:

Campbell Slough Channel
Chenois ~~Slough~~ Creek Channel
East Channel of Humptulips River
Humptulips River Channel

these names are on nautical chart 6195

Kurtz Slough (Channel)

Not named but indicated on chart 6195.

49. NOTES FOR THE HYDROGRAPHER

There are no photo-hydro or recoverable topographic stations on this survey.

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-9516

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

CONTROL STATIONS

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

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline G 13. Low-water line G 14. Rocks, shoals, etc. none 15. Bridges [illegible] 16. Aids to navigation none 17. Landmarks none 18. Other alongshore physical features G 19. Other alongshore cultural features G

PHYSICAL FEATURES

20. Water features G 21. Natural ground cover G 22. Planetable contours none 23. Stereoscopic Instrument contours [illegible] 24. Contours in general [illegible] 25. Spot elevations [illegible] 26. Other physical features none

CULTURAL FEATURES

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

BOUNDARIES

31. Boundary lines none 32. Public land lines [illegible]

MISCELLANEOUS

33. Geographic names G 34. Junctions G 35. Legibility of the manuscript G 36. Discrepancy overlay G 37. Descriptive Report [illegible] 38. Field inspection/photographs G 39. Forms [illegible]

40 Raymond Glaser
Reviewer

[illegible]
Supervisor, Review Section or Unit

41. Remarks (see attached sheet) [illegible]

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:

M-2623-12

FIELD EDIT REPORT

Project 24120

Quadrangle T-9516

19 September 1956

51. Methods -

Field Edit in this quadrangle was done in accordance with Letter: Instructions for Field Edit, Project Ph-62, dated 1 June 1955. The work was begun in the latter part of October 1955 and continued until the end of the year, when the field season was closed. It was resumed in June 1956 and completed in September 1956. During this time the field edit unit furnished photogrammetric support to the West Coast Field Party and recovered the horizontal control necessary for the compilation of Project 25160, Tomales and Bodega Bays, California.

All cultural features have been edited. Deletions and additions have been made on Field Edit sheets 1 through 5 inclusive.

Contours have been checked by use of the planetable and Wallace and Tiernan Surveying Altimeters, using the leap frog method. All points checked have been listed on Form 187, Vertical Accuracy Test, Summary and Abstract, which is submitted with this report.

Section corners and quarter section corners have been located where practicable by planetable methods, by identification on the 1:10,000 scale original field photographs, and in three instances, by transfer of identification from photographs belonging to Rayonier Incorporated to Coast and Geodetic Survey original field photographs. See FIELD EDIT REPORT, Project Ph-62, Quadrangle T-9515 for further discussion of section corners identified by Rayonier Incorporated. In addition to locating corners and quarter corners, queries on the Section Line Prints were investigated where practicable and answered thereon. See Field Edit Sheet No. 3 for a tabulation of section corners and how they were located. All section corners located are believed to be within the accuracy requirement as set forth in Reference No. 545, Paragraph 9, Page 379 in the Topographic Manual, Part 2. The following corners and quarter corners are identified on the 1:10,000 scale original field photographs within the accuracy requirement for topographic stations and Form 524 is submitted:

Station	Photograph
Quarter corner 29/28 (19-11)	50-0-1586
Quarter corner 22/23 (18-11)	50-0-1681

Station	Photograph
Quarter corner, center of Section 4 (18-11)	50-0-1588
Section corner 4,3,9,10 (18-11)	50-0-1588

Notes to the field editor on the discrepancy prints have been answered either on the prints or cross-referenced to the proper field photograph or field edit sheet.

A legend describing colored inks and symbols used during field edit is located in the lower left-hand corner of Field Edit Sheet No. 3.

Field edit information has been noted on the discrepancy prints, Field Edit Sheets 1 through 5 inclusive and on the following 1:10,000 scale original field photographs:

Photograph	Type of information
50-0-1546	Section corner
50-0-1547	Section corner
50-0-1551	Road and trail
50-0-1586	Section corner
50-0-1587	Shoreline correction
50-0-1588	Section corner
50-0-1590	Section corner, shoreline notes
50-0-1680	Interior inspection (swamp)
50-0-1681	Section corner

52. Adequacy of Compilation -

Reference is made to Item 31, Paragraph 3 of the Compilation Report, T-9516. Shoreline, marsh and swamp areas were checked in the field and proper notes made on the discrepancy print for T-9516S. Additional piling in the vicinity of the mouth of the Humptulips River was located by sextant fixes. See Field Photograph 50-0-1590 for photo location of piling close to shore in Campbell Slough and Humptulips River. Piling at the mouth of Chenois and Grass Creeks were located by planetable on Field Edit Sheet No. 4. The mean low low-water line was not located but may be obtqined from the hydrographic survey of Grays Harbor which is being completed in September 1956.

The position of PTS 12 USGS 1911 relative to surrounding details was checked. Two symbols are mapped - a bench mark symbol which is in a correct relative position and a triangulation symbol. It appears that the bench mark and triangulation station are one and the same. See note on Discrepancy Print for T-9516S.

53. Map Accuracy -

No horizontal accuracy test was made in the area covered by this

report.

No specific area was indicated on the discrepancy print for a vertical accuracy test. However, the vertical accuracy was checked in several areas prior to receipt of Assistant Director's letter dated 16 August 1956 (73 mkl) which states that field edit operations north of latitude 46° 52.5' shall be confined to field edit of planimetric details until data south of this latitude is received. 441 points were tested by planetable and barometric leveling methods. Of these, 385 points (87.3%) were within one-half of one contour interval of better, 39 points were in error between one-half and one full contour interval and 17 points were in error more than one full interval. See Summary and Abstract of Vertical Accuracy Test. Elevations below 40 feet were evaluated using a 20-foot contour interval and are indicated on the abstract with an asterisk (*). Points tested by barometric leveling are so noted on the abstract and indicated with red ink on the field edit sheets. Most of the errors were found in areas that were wooded when photographed. These areas, especially in the east section of T-9516N, are definitely sub-standard and it is believed that a survey by ground methods would be required to correct the contours. This operation would require much time and effort, as line clearing for almost every sight would be necessary in wooded areas. It is noted here that logging has been in progress in the area and part of it is now clear of timber.

54. Recommendations -

Refer to FIELD EDIT REPORT, Project 6062, Quadrangle T-9514, Item 54.

55. Examination of Proof Copy -

The following named person has agreed to examine a proof copy of the map for possible errors:

Mr. Myron Savage, Rayonier Incorporated
8th and Levee Streets
Hoquiam, Washington

Mr. Savage is an engineer with Rayonier Incorporated and is well acquainted with the area.

No discrepancies or additions to geographic names were found during field edit.

56. Current Hydrographic Surveys -

A current hydrographic survey of Grays Harbor by the Coast and Geodetic Survey is near completion at this date. That portion of T-9516S which is within this survey should be searched for any offshore detail

that may have been missed by the field editor and located by the hydrographer.

Approved:

Fred Natella
Comdr., C&G Survey
Officer-in-Charge

Resepctfully submitted:

for Charles H. Bishop
Cartographer
C&GS

Review Report T-9516

Topographic

15 August 1957

61. General Statement

See Summary

62. Comparison with Registered Topographic Surveys

821	1:20,000	1860
H-334	1:221,360	1852
3044	1:20,000	1909-10
6812	1:10,000	1940
6813	1:10,000	1940

Manuscript T-9516 supercedes all of the above surveys in common areas as source material for charts.

63. Comparison with Maps of Other Agencies

USGS Ocosta N E ¼ Scale 1:62,500

Reprinted 1947. Contour interval 25'.

AMS Moclips Scale 1:50,000

Contour interval 20'.

64. Comparison with Contemporary Hydrographic Surveys

H-8050 1955-56 1:10,000

A comparison was made and differences resolved. The MHWL as originally shown by the compilation office from data furnished by field inspection has been recompiled as apparant shoreline with inshore marsh from Field Edit Dat. The shoreline on the contemporary hydrographic survey was taken from the orginal compilation and should not be used.

65. Comparison with Nautical Charts

Chart 6195 Revised 5/27/57
1st Edition June 1892

66. Adequacy of Results and Future Surveys

This map complies with instructions. It does not meet the Standards of National Map Accuracy. Refer to Compilation Report, items 32 and 34 and correspondence from H. Cravat to Chief, Photogrammetry Division, bound with this report.

The 1952 photography, mentioned in the above correspondence under item 2 by Carl Berry of Seattle, Washington was not purchased.

Three considerations influenced this decision:

1. Its exposure date of 1952 was close to the USC&GS exposure date of the compilation photographs taken in late 1950. It seems likely little change in the wooded areas would have taken place during this interim.

2. The focal length of 12" was not adaptable to any of our stereoscopic instruments for re-examination.

3. The purchase price was higher than anticipated.

Attention is directed to USGS Quad Humptulips to the east of this manuscript. The quadrangle was field checked in 1955 and carries no accuracy statement. The contour interval is 40 feet.

Horizontal accuracy is good as stated in item 26 of the Photogrammetric Plot Report. It was of sufficient accuracy for use in the contemporary hydrographic survey completed during 1955-56.

67. Junctions

At the time of compilation USGS was engaged in a contemporaneous survey to the north and east. Junction strips were furnished to them at that time. Minor changes made during the application of Field Edit will be resolved during final edit at USGS.

68. Landlines

Most of the landlines are unreliable. The dense woodland made it difficult for the field editor to recover additional corners.

Reviewed By:

A. K. Heywood

Approved

Chief, Review Branch
Photogrammetry Division

Chief, Nautical Chart Branch
Charts Division

Chief, Photogrammetry Div.

Chief, Coastal Surveys Div.

Heywood

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

POST-OFFICE ADDRESS:
TELEGRAPH ADDRESS:
EXPRESS ADDRESS:

23 June, 1957
P. O. Box 133
Aberdeen, Washington

To: Chief Photogrammetry Division
Coast & Geodetic Survey
Washington 25, D. C.

Subject: Field Edit Project 24120 (PH62)

1. Background

There has been a misunderstanding between the field party and the Washington office regarding contours on this project. I do not have copies of our correspondence but as I remember the situation last summer, we asked the field edit party to dispense temporarily with vertical accuracy testing south of latitude 47 degrees. However, it was expected that contours along the roads and in open areas would be corrected where ever necessary. The field edit data and discrepancy prints south of 47 degrees were returned to Washington for a reappraisal of the vertical accuracy requirements.

It was intended that the field edit party would be given specific instructions as to the amount of contouring and testing that would be required south of 47 degrees. Mr. Neal was handling the job and I don't believe we followed up our original letter by phone. Before I left Washington, Mr. Lemke and both searched the files and we came to the conclusion that the only further instructions that were furnished to the field editor were on the discrepancy prints, and are most general.

2. New Photography

In this part of the country timber brings in the tax dollars. The county assessors are hep to photographs and are using them as a tool along with a cruiser in the field to assess timber land. Their photography is a special purpose type and at contact scale with a good pocket stereoscope one can count the branches in the top of a. grandaddy fir tree. Contact scale is 1:12,000, camera focal length is 12 inches. Grays Harbor Co was photographed 9 August 1952 by Carl Berry of Seattle, Wash., and Pacific Co. in either 1955 or 1956 by R. C. Ehlenberg Jr. of Eugene, Oreg.

I examined the photographs and even though the scale is so much greater than ours, the ground is not visible thru the umbrella like vegetation, and would not be visible at any scale. However, there are many areas that have been logged subsequent to our photos, and a variation in density tones that will aid adding drainage were noted, and I recommend purchase of contact prints.

The public sale print price is $1.50 each in lots over 50. Roughly 400 prints will be involved for the troublesome areas, and instead of me writing to Berry and Chickering from here I will defer until returning to Washington. I believe we can work the same sort of deal we did with Jack Ammon, and pay about 50 cents per print.

If we purchase the photos, those in Pacific Co. should be delivered directly to the field edit party. They will be of assistance in adding new buildings, etc. I don't see how we could use them for plotting because of the 12" focal length. Carper figured something out for 6 1/4" focal length on the Wild Plotter several months ago, and you might mention this to him. It may prove that new photographs will be more useful than I anticipate.

3. Field Edit Procedures.

Both the field editors on this assignment are experienced and well qualified. Up to this point they are assuming that we are interested only in field edit of planimetric features, and on this basis have estimated the assignment will be completed sometime in August. I am of the opinion that we should do more. We should be sure of our contouring along all public roads, in the few open areas, complete some vertical accuracy tests, and obtain a few elevations to help control sketching with the newer Pacific, and Grays Harbor Cos. photographs.

I have examined each map in the project and a brief appraisal of additional work required and recommendations are as follows:

T 9514 40' publication contour interval

Field edit has been completed. This map meets standard vertical accuracy for 40' contours. Satisfactory contour junctions have been made on the north limit with published [illegible] Mosquito Hill and on the east limit with advance [illegible] Quillayute NE 1/4.

There is a junction discrepancy of about [illegible] ft. in the [illegible] between the and Mosquito Hill quadrangle. If review cannot resolve in office photo 50-0-1508 should be returned to field edit, so that a costly planetable traverse will be avoided.

T 9515 40' publication contour interval

Field edit of this map is complete, and no additional work is required. The vertical accuracy tests were good. This map meets National vertical accuracy requirements and should be published accordingly.

T 9516 40' publication contour interval

Field edit of this map has been completed. Satisfactory contour junctions have been made on the north with advance USGS Moolips NE and on the east with published USGS Humptulips. There are several discrepancies in section line junctions. It is not known whether or not the field editor changed any of these last year. These should be examined in Washington and if additional work is required the field edit party informed.

The vertical accuracy test for this map was a little sour, 87% of the points tested met standard accuracy for a 20' interval, but some points were in error 115'. I am inclined to defer making a positive accuracy statement for this map, until we try inserting additional drainage. If this is successful the map will meet National standards for a 40' interval.

No additional field edit work should be done on this map unles s specific instructions are received from Washington.

T 9517 40' publication contour interval

Field edit of this map has been completed. All contours found to be in error were corrected. The map meets National standards for the 40' contour interval. No additional work is required.

T9518 40' publication contour interval

Field edit of this map is complete except that no vertical accuracy tests were made. Test in areas indicated on print; correct contours where necessary so that they meet specifications for 40' contour interval. If map fails to meet these specifications after two days work so state and it will be published without a vertical accuracy statement.

T 9519 80' publication contour interval

Field edit of this map has been completed. All contours on the north limit junction satisfactorily with published USGS Humptulips quad. The section lines do not and the Review Section should inform the field editor if additional work is required. No vertical accuracy tests were run. All contours along the public roads should be examined and corrected where necessary. About one full day should be spent in obtaining elevations for reshaping contours for use with new photos. No specific accuracy tests will be required and the map will be published without a vertical accuracy statement.

T 9520 80' publication contour interval

Field edit of this map is in progress. The Geological Survey contours from published Hueytulipa quadrangle on the north and advance Montezuma quadrangle on the east shall be accepted as correct, and our contours junctioned to them. Film positive of the Geological Survey junction strips have been furnished. The Geological Survey has been requested to furnish a junction strip on the strip on the south. If furnished their junction shall be accepted as above. If not furnished, the sheet edge will be perfected in Washington. (A new junction can be run on the stereoplanigraph and compared with the multiplex work. — This country is too rugged for plantable.)

All contours along the main roads shall be examined and corrected where necessary. About one full day shall be spent in obtaining elevations for reshaping contours for use with new photographs. No specific vertical accuracy tests will be required and the map will be published without a vertical accuracy statement.

T 9521 40' publication contour interval

Field edit of this map has been completed. The interior area is of extremely difficult access and even though no accuracy tests were made, none should be undertaken. The map should be published without the vertical accuracy statement and no additional field edit is required.

T 9633 80' publication contour interval

Field edit of this map has been completed. One public road penetrates 3 miles into the area, and one logging road traverses most of the western side. This is the most inaccessible map in the project, and strangely enough the contours appear better than average. No additional field edit work should be done. The map should be published without a vertical accuracy statement.

The Geological Survey has been requested to furnish a junction strip on the east. If it is not furnished a junction will be perfected in Washington as recommended for T9520.

T 9634 40' publication contour interval

Field edit of this map has been completed except that no vertical accuracy tests have been made. Test in areas indicated on print; correct contours where necessary so that they meet specifications for 40' interval. If map fails to meet specifications after 3 days field work, so state and it will be published without vertical accuracy statement. The Washington office will take care of the approximate contours by using the new photographs.

T 9635 40' publication contour interval
This map will be published without a vertical accuracy statement. Obtain a few elevations where indicated on print to control reshaping of contours. Contours along roads shall be examined and corrected where necessary.

T9636 40' publication contour interval
Field edit of this map is in progress. This map will be published without a vertical accuracy statement. All contours along roads shall be examined and corrected where necessary. About one full day shall be spent in obtaining elevations for reshaping contours for use with the new photographs. The junction on the north shall be handled the same as for sheets T9520 and T 9633. The Geological survey contours from published Raymond quadrangle on the east and advance South Bend SW on the south shall be accepted as correct and our contours junctioned to them. Film positive Geological Survey junction strips have been furnished.

T 9637 40' publication contour interval
Standard vertical accuracy tests are required. All contours found to be in error shall be corrected so that the map meets National vertical accuracy standards.

This map will junction on the south with 1/25,000 scale AMS quadrangle Ocean Park. Their contour interval is 25 ft. and contours shall be junctioned by interpolation. A film positive junction strip has been furnished.

T9638 40' publication contour interval
Several vertical accuracy tests should be made in this quadrangle, (2 or 3 days). If tests indicate map is of sub-standard accuracy the tests will be of value for reshaping contours in Washington. Do not spend time in the field to make map meet National standards.

Make junction on the east with Geological Survey advance quadrangle South Bend SW, and on the south with AMS published quadrangle Long Island. Film positive junction strips have been furnished.

The preceeding paragraphs, chiefly concern field edit. After field edit it is proposed that each sheet pass thru the Operations Branch. Contours requiring reworking can be done by Mr. Fitzgerald, then the data forwarded to Baltimore forapplication to the manuscripts.

A copy of this letter has been given to the field edit party. It will be used as a tentative instruction, supplementing the general field edit instructions, and information on discrepancy points, until approved or modified by you. The additional work required herein will extend the project completion date from August to late September or early October.

CC Comdr. [illegible]
Field Edit [illegible]

[illegible]

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-9516

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
18500	5-29-81	Peter Shumar	Full P~~art Before~~ After Verification Review Inspection Signed Via
			Drawing No. 20
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63