9514

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 *Office No.* T-9514

LOCALITY

State Washington

General locality Grays Harbor

Locality Pacific Beach

1947 50-55

CHIEF OF PARTY

C. W. Clark, Chief of Field Party
E. H. Kirsch, Balto. Photo. Office

LIBRARY & ARCHIVES

DATE May 23, 1958

8-1870-1 (1)

9514

DATA RECORD

T-9514

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, Maryland Officer-in-Charge:

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): Kelsh plotter

Manuscript Scale (III): 1:20,000 Stereoscopic Plotting Instrument Scale (III): 1:10,000

Scale Factor (III): 1.000

Date received in Washington Office (IV): 2-8-55 Date reported to Nautical Chart Branch (IV): 3-1-55

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): COPALIS ROCK, 1927

Lat.: 47° 08' 58.258" Long.: 124° 11' 36.861" Adjusted ~~Unadjusted~~

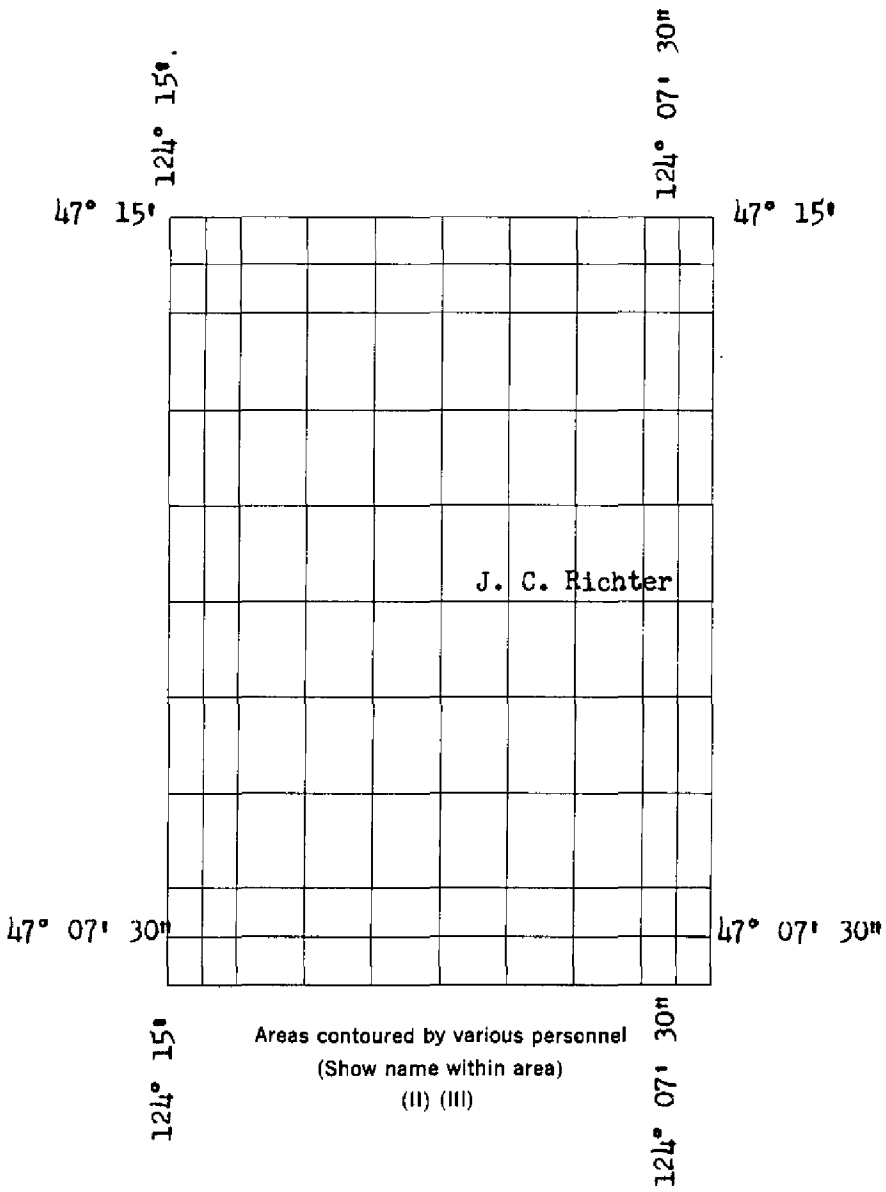
Plane Coordinates (IV): State: Zone:

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-9514

Field Inspection by (II): J. H. Winniford Date: 7/1/51

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:
CHARLES H. BISHOP SEPT 1955

Mean High Water Location (III) (State date and method of location): July 1951, Photogrammetric
Approximately 300 meters of MHWL at south boundary of survey located in Sept. 1951.
ALL SHORELINE RELOCATED BY PLANETABLE DURING FIELD EDIT SEPT 1955 AKH

Projection and Grids ruled by (IV): Jack Allen Date: Dec. 1, 1952

Projection and Grids checked by (IV): H. D. Wolfe Date: Dec. 2, 1952

Control plotted by (III): B. Wilson Date: July 7, 1954

Control checked by (III): D. M. Brant Date: July 29, 1954

Radial Plot or Stereoscopic Control extension by (III): E. L. Rolle Date: Nov. 12, 1953

Stereoscopic Instrument compilation (III): Planimetry) J. C. Richter Date:
Contours) Date: Jan. 13, 1954

Manuscript delineated by (III): B. Wilson Date: Nov. 19, 1954

Photogrammetric Office Review by (III): A. K. Heywood Date: Dec. 3, 1954

Elevations on Manuscript checked by (II) (III): A. K. Heywood Date: Dec. 3, 1954

M-2618-12(4)

T-9514

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

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
1508 - 1515	July 11, 1950	12:47 PST	1:24,000	4.8' above MLLW
1567 - 1570	"	13:22 "	"	4.1 " "
1551 - 1559	"	13:12 "	"	(no tidewater)

Tide (III)

From table of predicted tides

Diurnal

Ratio of Ranges	Mean Range	Spring Range
	7.8	9.9
0.9	6.5	8.6

Reference Station: Aberdeen, Wash.
Subordinate Station: Pt. Grenville
Subordinate Station:

Washington Office Review by (IV): A.K. HEYWOOD Date: AUGUST 1957

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

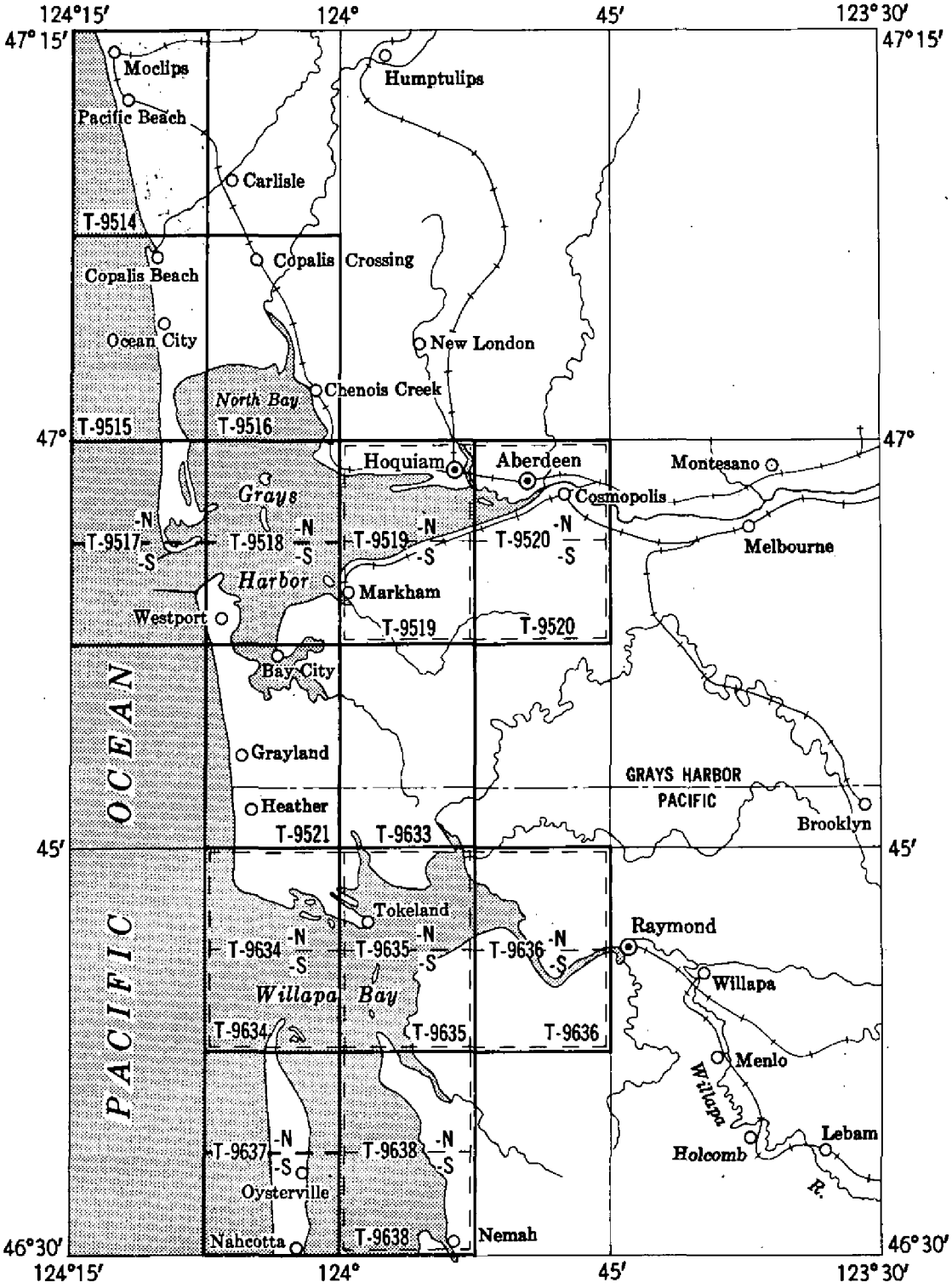
Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): 32
Shoreline (More than 200 meters to opposite shore) (III): 9
Shoreline (Less than 200 meters to opposite shore) (III): 8
Control Leveling - Miles (II): 76
Number of Triangulation Stations searched for (II): 13 Recovered: 6 Identified: 3
Number of BMs searched for (II): 3 Recovered: 3 Identified: 0
Number of Recoverable Photo Stations established (III): 4
Number of Temporary Photo Hydro Stations established (III): none
Traverse stations established and identified: 13 See rerun of original
Remarks: Traverse.

M-2618-12(4)

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-9514

Topographic map T-9514 is one of 14 similar maps in Project Ph-62. It covers from Moclips south to Copalis Beach along the Pacific Ocean.

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

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

The multiplex compilation was at a scale of 1:20,000. The manuscript consists of one vinylite sheet $7\frac{1}{2}$ in latitude and $7\frac{1}{2}$ in longitude.

The entire map was field edited. It does not meet the National Standards of Map Accuracy. It is to be published by the Geological Survey as a standard topographic quadrangle at a scale of 1:62,500 without an accuracy statement.

The registered copies under T-9514 will include a cronar film positive.

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT
CONTROL RECORD

MAP T-9514 PROJECT NO. Ph-62(49) SCALE OF MAP 1:20,000 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)
BLUFF, 1927	G-6688 p. 1027	N.A. 1927	47 11 18.064	557.9	(1295.1)					
			124 11 53.049	1116.8	(146.4)					
COPALIS ROCK, 1927	" p. 1029	"	47 11 58.258	1799.1	(53.8)					
			124 11 36.861	776.6	(487.5)					
PIER RM1, 1927	Form 709 p. 1	"	717,503.28	2287.0	(761.0)					
			1,077,285.68	2220.7	(827.3)					
COPALIS, 1913	G-6238 p. 876		47 08 59.92	1850.4	(2.5)					
			124 11 09.51	200.4	(1063.7)					
~~HEAD, 1927~~	~~G-6688 p. 1027~~	~~N.A. 1927~~	~~47 08 53.874~~	~~1663.7~~	~~(189.2)~~	FIELD SHT IN 1955 REPORTS THIS STATION LOST DESTROYED				
			~~124 11 20.068~~	~~422.8~~	~~(841.3)~~					
~~MOCLIPS, 1914~~	~~G.P.'s p. 652~~	"	~~47 14 47.162~~	~~1456.5~~	~~(396.4)~~					
			~~124 11 32.609~~	~~685.8~~	~~(576.0)~~					

1 FT. = .3048006 METER

COMPUTED BY: D. M. Brant DATE 11/20/52 CHECKED BY: W. F. Edinger DATE 11/20/52

COMM-DC-57843

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT

COAST AND GEODETIC SURVEY
CONTROL RECORD

MAP T-9514 PROJECT NO. Ph-62(49) SCALE OF MAP 1:20,000 SCALE FACTOR

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)
CHOP, 1953	Form 709 p. 1	N.A. 1927	715,733.11 1,080,646.54	1747.5 (1300.5) 197.1 (2850.9)			
HACK, 1953	"	"	715,762.17 1,083,267.15	1756.3 (1291.7) 995.8 (2052.2)			
BOOM, 1953	"	"	718,326.63 1,086,902.12	2538.0 (510.0) 2103.8 (944.2)			
FERN, 1953	"	"	718,827.07 1,087,625.27	2690.5 (357.5) 2324.2 (723.8)			LESS THAN 3RD ORDER ACCURACY
WALK, 1953	"	"	718,395.52 1,100.422.80	2559.0 (489.0) 128.9 (2919.1)			
RIDE, 1953	"	"	718,183.22 1,102,489.95	2494.2 (553.8) 758.9 (2289.1)			
LONG, 1953	"	"	717,648.52 1,108,076.84	2331.3 (716.7) 2461.8 (586.2)		OFF LIMITS: USED AS CONTROL	
PETE, 1953	"	"	717,050.56 1,110,310.85	2149.0 (899.0) 94.7 (2953.3)			
CAMP SIX, 1953	"	"	716 684.95 1,110,764.51	2037.6 (1010.4) 233.0 (2815.0)			

1 FT. = .3048006 METER

COMM-DC-57843

COMPUTED BY: A. K. Heywood DATE 10/26/53 CHECKED BY: E. L. Rolle DATE 10/27/53

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT
CONTROL RECORD

MAP T- 9514 PROJECT NO. Ph-62(49) SCALE OF MAP 1:20,000 SCALE FACTOR

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. Sta. PIER RM 1, 1927	Form 709 p. 1	N.A. 1927	717,551.7	2301.8	(746.2)					
			1,077,380.8	2249.7	(798.3)					
Sub. Sta. BLUFF, 1927	"	"								
Sub. Sta. CHOP, 1953	"	"								
Sub. Sta. HACK, 1953	"	"								
Sub. Sta. BOOM, 1953	"	"								
Sub. Sta. FERN, 1953	"	"								
Sub. Sta. WALK, 1953	"	"					Plotted with protractor			
Sub. Sta. RIDE, 1953	"	"								
Sub. Sta. LONG, 1953	"	"								
Sub. Sta. PETE, 1953	"	"								
Sub. Sta. CAMP SIX, 1953	"	"								
Sub. Sta. TAA 19, 1953 & TAA 22, 1953	"	"					One sub. for 19 & 22.			

1 FT. = .3048006 METER

COMPUTED BY: A. K. Heywood DATE 27 October 1953 CHECKED BY: E. L. Rolle DATE 27 October 1953

COMM-DC-57843

PHOTOGRAMMETRIC PLOT REPORT
Project Ph-62
Survey No. 9514

Field Inspection Report: Bound with Survey T-9515

21. AREA COVERED

T-9514

22. METHOD

Bridging was done by multiplex, using the 1:24,000 scale photography on 1:10,000 multiplex work sheets. The models were completed, using work sheets prepared from these bridges, on the Kelsh instrument. The Kelsh work sheets were then reduced to the manuscript scale of 1:20,000 photographically on film positives.

A traverse "AA", which is a rerun of traverse "A", was furnished as control across the northern edge of this quadrangle. It proved adequate and except for Sub. Sta. LONG (topo.), held very well. This Sub. Sta. is believed to be misidentified holding about 45 m. west of its plotted position. The control was dense enough to hold the strip horizontally without this point.

Three bridges were run to cover this quadrangle. The control sketch bound with this report indicates the placement of control relative to each strip. The south end of each bridge was tied to control within the limits of T-9515.

Strip 1508 to 1514 consisted of half models which made parallax solutions difficult. Pass points from the strip to the east were averaged where necessary.

23. ADEQUACY OF CONTROL

Control was adequate and complied with instructions. All horizontal points except Sub. Sta. LONG, held within 0.5 mm.

24. SUPPLEMENTAL DATA

None.

25. PHOTOGRAPHY

The quality of photography was fair. The diapositives in strip 1562 to 1570 were poor. All the corners showed very little definition rendering the solution of cross tilt difficult.

26. TRAVERSE "AA"

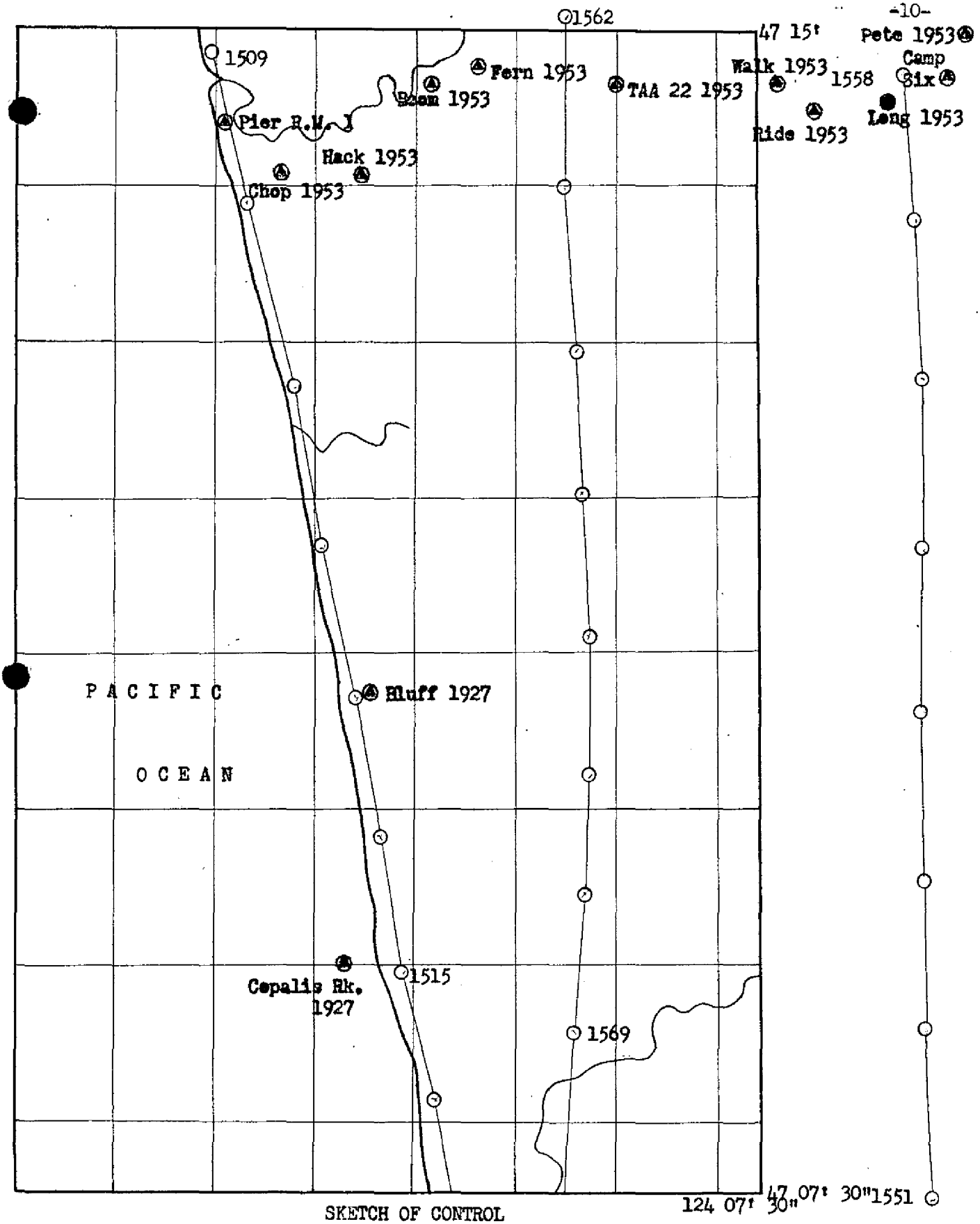
As mentioned briefly in paragraph 21, this traverse is a rerun of Traverse "A". Traverse "A", as was originally finished by Field Inspection could not be held during bridging. Subsequent examination discovered that when the azimuth from PIER RM I XXVII to Point Grenville Loran Mast had been computed in the field.. The published distance from PIER to PIER R.M. 1

26. TRAVERSE "AA" (cont'd)

was erroneously used as feet - instead of meters. Other errors developed and the Washington office decided to rerun the traverse in its entirety. Up to this decision considerable time and effort had been expended in an effort to fit the bridge to the control. Refer to "Report on Traverse AA" bound under seperate cover and Memorandum 732-mkl dated 20 October 1953, bound with this report.

Respectfully submitted

A. K. Heywood,
Carto. (Photo.)



SKETCH OF CONTROL
PH 62
SURVEY #9614

LEGEND
- Station identfied,held
- Station identified not held

See sketch bound with Report T-9515 for control used in bridging at south end of this survey.

31. DELINEATION

This quadrangle in its entirety has been compiled using the Kelsh instrument.

The field inspection was deficient in areas of cut over timber. The field inspector should indicate each trail and Road 7 which should be shown, and delete others which show on the photographs. If only a portion of a trail or road should be shown it should be indicated as such with a tick normal to the road. Without such field inspection, it is difficult for an office compiler to ascertain from the photographs which of the myriad of road patterns in cut over areas to delineate.

32. CONTROL

Refer to Photogrammetric Plot Report, item 23 bound with this survey.

Paragraph 34, discusses at some length the adequacy of vertical control.

33. SUPPLEMENTAL DATA

U. S. Dept. of Agriculture map "Olympic National Forest", Washington Willamette Meridian, 1948.

Land Plats:
Township No. 19 North Range No. 12 West Willamette Meridian.
Township No. 20 North Range No. 12 West Willamette Meridian.

34. CONTOURS AND DRAINAGE

Contours in this quadrangle are generally fair. Models where contours are considered to be only fair are listed in subsequent paragraphs with explanatory details.

It was felt by the Baltimore office that where contours could possibly be compiled with reasonable accuracy even with poor conditions, i.e., trees, models leveled in halves and badly placed control elevations, it would be better to do this than to leave extensive blank areas for field edit.

It is recommended that more than the usual vertical accuracy tests be extended in this survey.

The following paragraphs list in some detail problems encountered by this office in the compilation of this quadrangle.

34. CONTOURS AND DRAINAGE (cont'd)

1. Heavy Trees: Model 1567 - 1568

While heavy trees are a problem in any type of stereoscopic instrument they seem to be particularly a problem in the Kelsh instrument. In this quadrangle the scale of the model was 1:4800, presenting to the operator a very large image to be reduced to 1:10,000 via pantagraph. In areas of heavy woods, at this scale, the operator has to consciously "bury" the floating mark 6 mm. (100' or 5 intervals) in order to feel the ground elevations. This is difficult to do consistantly.

2. Examples of poor selection of vertical elevations:

This problem was repeatedly before us in this quadrangle. Many of the given elevations were not in the corners of the model, but nearer to the center of the model, as in 1551 - 1552, 1510 - 1511.

Additional models contained insufficient elevations with which to level a model, as in models 1513 - 1514, 1514 - 1515, 1565 - 1566, 1566 - 1567, 1564 - 1565.

An inspection of these photographs will show that in almost all cases the corners where elevations were needed, are accessible.

The field inspector, however, in paragraph 4 of the Field Inspection reports that elevations were established within squares blocked off in green on 1:24,000 photographs. Indications of desirable locations for stereoscopic instruments should be made by the field office. This would insure the best accuracy of contours, reduce field edit work, expedite the orientation of stereoscopic models and heighten map quality.

3. Examples of models which were leveled in halves:

These models had to be leveled in halves either because of the "dish" of the model due to warpage or to field elevations being incorrect. Models such as these are 1553 - 1554 and 1562 - 1563. When the adjacent model 1563 - 1564 was oriented, contours near the center of the model did not "tie" too well premising the possibility that some of the "hump" may be present in this model. It was not possible to tell - due to the lack of elevations in the center.

These specific examples, with model numbers, will aid the field editor in choosing representative areas to run vertical accuracy checks.

35. SHORELINE AND ALONGSHORE DETAILS

Shoreline inspection was adequate. No low water line is shown.

36. OFFSHORE DETAILS

These details are believed to be complete.

37. LANDMARKS AND AIDS

One landmark, TANK, 1951 is within the limits of this survey.

38. CONTROL FOR FUTURE SURVEYS

Original Forms 524 are submitted with this report for 4 recoverable topographic stations for which positions have been established by multiplex methods. Paragraph 11, of the Field Inspection Report lists RAIL and ROAD as topographic stations. These were established by a traverse "A" later proved to be erroneous.

A new traverse "AA" was run over the same route and 10 new topographic stations were established. Forms 524, photostat copies, are submitted with this report.

A list of recoverable topographic stations will be found under item 49, Notes for Hydrographer.

39. JUNCTIONS

Junctions have been made as follows:

To the south with survey T-9515.
To the north, there is no contemporary survey.
To the east, an edge has been submitted for junction purposes with the U.S.G.S.
To the west is the Pacific Ocean.

40. HORIZONTAL AND VERTICAL ACCURACY

Refer to paragraph No. 34 of this report.

41. BOUNDARIES

Only one Section Corner was identified by Field Inspection. A plot of the land lines was laid out using all available data and transferred to the manuscript. Most of the land lines are unreliable and Field Edit has been asked to furnish additional information.

41. BOUNDARIES (cont'd)

Data used is listed as follows:

1. Original land survey plots (Listed under Supplemental Data).

2. Portion of Field Notes of 1892, Survey of Quinault Indian Reservation".

3. Form 525b, topographic station "FERN, 1953".

42 to 45. Inapplicable

46. COMPARISON WITH EXISTING MAPS

Comparison was made with AMS V 791 Series QUAD. MOCLIPS dated 1939 reprinted Dec. 1951.

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 6002, scale 1:180,789 at Latitude 47° 00', published July 1942 (10 Edition) 4/21/52.

Items to be applied to Nautical Charts immediately:

None.

Items to be carried forward:

None.

Respectfully submitted,
19 January 1955

A. K. Heywood,
Carto. (Photo.)

Approved and Forwarded

E. H. Kirsch,
Comdr. USC&GS
Officer in Charge
Baltimore Photo. Office

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T- 95K

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 ____ 8. Bench marks ____ 9. Plotting of sextant fixes ____ 10. Photogrammetric plot report ____ 11. Detail points ____

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline ____ 13. Low-water line ____ 14. Rocks, shoals, etc. ____ 15. Bridges ____ 16. Aids to navigation ____ 17. Landmarks ____ 18. Other alongshore physical features ____ 19. Other alongshore cultural features ____

PHYSICAL FEATURES

20. Water features ____ 21. Natural ground cover ____ 22. Planetable contours ____ 23. Stereoscopic instrument contours ____ 24. Contours in general ____ 25. Spot elevations ____ 26. Other physical features ____

CULTURAL FEATURES

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

BOUNDARIES

31. Boundary lines ____ 32. Public land lines ____

MISCELLANEOUS

33. Geographic names ____ 34. Junctions ____ 35. Legibility of the manuscript ____ 36. Discrepancy overlay ____ 37. Descriptive Report ____ 38. Field inspection photographs ____ 39. Forms ____

40. _____ Reviewer

_____ 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:

M-2623-12

49. GEOGRAPHIC NAME LIST

Aloha
Aloha Lumber Company

Beaver Creek
Boone Creek

Cedar Creek
Copalis Head
Copalis River
Copalis Rock

Elk Creek

Highland Heights

Iron Springs

Joe Creek

Moclips
Moclips River

Northern Pacific (Moclips Branch)

Pacific Beach
Pacific Ocean

Quinault Indian Reservation

Rayonier Company Railroad
Roosevelt Beach

Sunset Beach

* Yellow Bluff

Wash 9 C

* From Chart No. 6002

48. NOTES FOR THE HYDROGRAPHER

The following is a list of recoverable topographic stations which may be used for hydrography:

LYLE, 1951
TANK, 1951
RONN, 1951
~~GARY, 1951~~ DESTROYED. REPORTED IN 1953

The following topographic stations were established during the run of Traverse "AA".

*RIDE, 1953
*WALK, 1953
CHOP, 1953
HACK, 1953
BOOM, 1953
FERN, 1953
ROAD, 1953
RAIL, 1953
*CAMPSIX, 1953
*LONG, 1953
*PETE, 1953

* Outside Limits of Quadrangle.

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED / ~~TO BE DELETED~~ — STRIKE OUT ONE

Baltimore, Maryland — 18 January, 1955

I recommend that the following objects which ~~have~~ *(have not)* been inspected from seaward to determine their value as landmarks be charted on ~~(delete from chart)~~ the charts indicated.

The positions given have been checked after listing by A. K. Heywood

E. H. Kirsch — *Chief of Party.*

STATE: WASHINGTON

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE* ° ′	LATITUDE* ″ D.M. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
TANK	Water Tank (TANK, 1951) Ht above Gr. 120'		47 12	58.45 1805	124 12	10.36 218	N.A. 1927	~~T-9514~~ Photo. Plot	1951		x		6002

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.

M-2836-3

52. Adequacy of Compilation - No inadequacies in compilation were observed.

See Field Edit Sheet No. 1 for numerous additions of new houses, Road 7s, trails and contour corrections.

The entire shoreline along the ocean beach was relocated by planetable. Shoreline as now indicated of Field Edit Sheet No. 1 is correct as of September 1955.

53. Map Accuracy - No horizontal accuracy test was made.

Vertical accuracy tests were run by planetable in the following areas:

a. Station PIER RM 1 1927 to Station MOCLIPS 1914. All points checked were within one-half of one contour interval. See Summary and Abstract of Vertical Accuracy Test, page 3.

b. Elevation 65, road and railroad intersection at Aloha to Station ALOHA 1953. The total number of points checked was 185. Of these, 75.7 percent were within one-half of one contour interval. Part of this area has been logged off since photography, making it possible to recontour. See Summary and Abstract of Vertical Accuracy Test, pages 1-3.

c. Station BLUFF 1927 to road intersection on east side of Pacific Beach. See Summary and Abstract of Vertical Accuracy Test, page 4.

d. Vicinity of Copalis Head. See Summary and Abstract of Vertical Accuracy Test, pages 5-6.

e. Roosevelt Beach southeast to Copalis River. See Summary and Abstract of Vertical Accuracy Test, pages 4-5.

f. East of Moclips, ridge in Sections 9 and 10. See Summary and Abstract of Vertical Accuracy Test, page 4.

Of the 409 points checked for vertical accuracy in this quadrangle, 83.9 percent were correct within one-half of one contour interval. The percentage of points checked in open areas was 95.5 and the percentage of points checked in heavily wooded areas was 67.5, thus indicating that map accuracy in areas where the ground can be seen or closely approximated is within national standards of map accuracy while map accuracy is definitely below standard in heavily wooded areas. Open areas as used in this paragraph refers to areas that have been logged off but which are either now or soon will be covered with enough deciduous brush and coniferous saplings to classify them as "wooded" so far as cover

Section Corner 2,1,11,12 T20N R12W near the northeast corner of the quadrangle was located by a one set-up planetable traverse using Station WALK 1953 as the initial point. The location of this corner is believed to be within 20 feet of its true position.

See Field Edit Sheet No. 1 for a tabulation of section corners and how they were located.

Section corners have been identified on the following photographs:

1:10,000 ratio prints: 1510-1512; 1553; 1555-1558; 1569.

1:20,000 ratio prints: 1562; 1563; 1565

Notes to the field editor were answered on the discrepancy print or cross-referenced to the proper photograph or field edit sheet upon which the query was answered.

A legend describing colored inks and symbols used during field edit is in the lower left hand corner of Field Edit Sheet No. 1.

Field edit information has been noted on the following photographs:

1:10,000 scale

Photo No.	Type of Information	Photo No.	Type of Information
1510	Section corner	1555	Section corner
1511	" "	1556	" "
1512	" "	1557	" "
1552	" "	1558	Section corner, identification of Station LONG 1953
1553	" "	1569	Section corner

1:20,000 scale

Photo No.	Type of Information
1514	Additional field inspection along beach
1515	Additional trail and Road 7
1553	80 foot contour and drain
1562	Section corner, HALFWAY AZ MK
1563	Section corner
1564	Additional trail and Road 7
1565	Section corner
1569	Trail at east edge of sheet

FIELD EDIT REPORT

Project 6062

Quadrangle T-9514

51. Methods - Field edit of this quadrangle was done in accordance with Letter: Instructions for Field Edit, Project Ph-62, dated 1 June 1955, by Mr. Charles H. Bishop with the assistance of Mr. Robert B. Melby.

All houses and roads were edited. Deletions and additions were made on Field Edit Sheet No. 1. Additional roads and trails were located by planetable and by use of the 1:20,000 scale photographs.

Contours were checked by use of the planetable and Wallace and Tierman Surveying Altimeters. In the three areas where the altimeters were used the single base method was used once and the leapfrog method twice. Three known elevations were included in the single base loop.

Section corners were recovered insofar as was practicable and either located by planetable or identified on aerial photographs. No original section corner marks (old stakes) were found; however several old bearing trees with the original scribings were recovered. These are noted in the tabulation of section corners on Field Edit Sheet No. 1.

Several section corner identifications were transferred from identifications made in the field by engineers of Rayonier Incorporated on photographs flown for them by Carl M. Berry, Seattle, Washington in September 1950. The contact scale of these photographs is 1:12,000 and they are much clearer and show much more detail than Coast and Geodetic Survey photographs of the same area taken in July 1950. As the two sets of photographs were taken only two months apart the transfer of points was not too difficult. The Rayonier engineers contend that the accuracy of their identification is within five feet. No error was found in three of the Rayonier identifications that were checked by the field edit unit.

Section Corner 5,4,8,9 T20N R12W near station MOCLIPS 1914 was located by a planetable traverse between that station and station PIER BM 1 1927. The horizontal closure was less than 20 feet and the location of the section corner is believed to be within that accuracy.

is concerned. They are definitely not open fields or pasture.

54. Recommendations - More tree heights and trigonometric elevations obtained during field inspection would possibly aid in compilation of similar maps.

55. Examination of Proof Copy - The following named persons have agreed to examine a proof copy of the map for possible errors.

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

Mr. Arnold Leck
Copalis Beach, Washington

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

Mr. Leck has been a resident in the area for over thirty years and a fire warden for a large part of that time.

An effort was made to determine whether or not the name Nelson Creek should be applied to the tributary on the north side of the Copalis River in Section 15 T19N R12W. Information obtained from residents of the area indicates that though the name was on old maps it is no longer used. It is recommended that the name not be mapped. See answer to query on Field Edit Sheet No. 1.

No new geographic names or discrepancies in the names that have been used on the map were found.

Approved and forwarded:

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

Respectfully submitted:

Charles H. Bishop
Cartographer
Coast and Geodetic Survey

Review Report T-9514

Topographic

28 August 1957

61. General Statement

See Summary

62. Comparison with Registered Topographic Surveys

4306	1:20,000	1927
H-334	1:221,360	1852
1782	1:20,000	1887

Manuscript T-9514 supercedes all of the above surveys in common areas as source material for charts.

63. Comparison with Maps of Other Agencies

AMS Moclips Sheet 1178 11 Scale 1:50,000
Contour Interval 20'

64. Comparison with Contemporary Hydrographic Surveys

None

65. Comparison with Nautical Charts

6002 10th Edition 9 July 1942
Corrected to 4/8/57

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 item #34 and the Field Edit Report item #52.

Most of the project is very heavily wooded with few roads, most of which are used for logging purposes.

The woodland cover is coniferous with stands of fir 140' high hiding the natural drainage pattern and the nature of the topography. A study of the photographs reveals the tree tops to be somewhat level while actually the ground below is rolling in character as evidenced by examination of adjacent cut over areas.

The field inspection found it difficult to furnish sufficient vertical control because of the inaccessibility of the terrain and the lack of identifiable images on the photographs.

Upon receipt of the field inspection data the compilation office found itself in a position of attempting to delineate accurate contours with a sparity of elevations over densely wooded terrain. In some models the conditions of accuracy could not be met and it was so reported under item 34 of the Compilation Reports.

Subsequent tests by the Field Editor revealed the wooded area as generally substandard while cut over areas (also shown as wooded) to be of very good accuracy.

Field edit check of contours was limited to some open areas and along public roads.

These comments are to be considered general and apply conly to that part of the project within Grays Harbor County (north of latitude 45°).

For a more detailed discussion, refer to the Review Report item 66 of each quadrangle.

The publication of this manuscript without a vertical accuracy statement is in disagreement with the recommendation of H. R. Cravat as stated on page 2 of a report to Chief, Photogrammetry Division bound with Descriptive Report T-9516.

Additional data available to the reviewer led to this change.

67. Junctions

The MHWL between this survey and USGS quad Macafee Hill to the north which was field checked in 1955 is not in agreement. USC&GS shoreline was delineated by planetable in 1955.

Reviewed By:

A. K. Heywood

Approved

Chief, Review Branch
Photogrammetry Division

Chief, Nautical Chart Branch
Charts Division

Chief, Photogrammetry Div.

Chief, Coastal Surveys Div.

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

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-9514

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	5.28.81	Peter Shumar	Full ~~Part 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
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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