

9518N

9518S 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 Office No. T-9518

LOCALITY

State Washington

General locality Grays Harbor

Locality Westport

1945-56

CHIEF OF PARTY

C. W. Clark, Chief of Field Party

E. H. Kirsch, Balto. Photo. Office

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DATE June 13, 1958

8-1870-1 (1)

9518N
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DATA RECORD

T - 9518

Project No. (II): Ph-62(49)

Quadrangle Name (IV):

Westport

Field Office (II): Westport, Washington

Chief of Party: Charles W. Clark

Photogrammetric Office (III): Baltimore, Maryland

Officer-in-Charge: E. H. Kirsch

Instructions dated (II) (III): 20 March 1951

Copy filed in Division of
Photogrammetry (IV)

Supplement 1 dated: 15 February 1952

Letter No. 72-aal, dated : 24 May 1951

Letter No. 711-aal, dated : 3 August 1951

Letter No. 73-mkl, dated : 13 May 1952

Method of Compilation (III): 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): 2-17-55 Date reported to Nautical Chart Branch (IV): 2-18-55

Applied to Chart No.

Date:

Date registered (IV): 2-24-58

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): OCOSTA 2, 1926

Lat.: 46° 53' 36.045"

Long.: 124° 02' 46.394"

Adjusted
~~Uncorrected~~

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.

DATA RECORD

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Field Inspection by (II): G. R. Combs, C. H. Bishop

Date: Sept. 1952

Planetable contouring by (II):

Date:

Completion Surveys by (II):

CHARLES H. BISHOP

Date:

OCT 1952

Mean High Water Location (III) (State date and method of location):

July 8, 1952 - Planetable

July 11, 1950, and June 1951 - Photogrammetric

See item 35 of report REFER TO SOIT REPORT ITEM #52 e.f.

Projection and Grids ruled by (IV): J. Allen

Date: Nov. 20, 1951

Projection and Grids checked by (IV): H. D. Wolfe

Date: Nov. 26, 1951

Control plotted by (III): A. K. Heywood

Date: Mar. 12, 1952

Control checked by (III): E. H. Taylor

Date: Mar. 16, 1952

~~REDACTED~~ Stereoscopic

Date: Mar. 17, 1953

Control extension by (III): E. H. Taylor

Planimetry E. H. Taylor

Date: Mar. 28, 1953

Stereoscopic Instrument compilation (III):

Contours E. H. Taylor

Date: Mar. 28, 1953

Manuscript delineated by (III): B. Wilson

Date: Aug. 24, 1953

Photogrammetric Office Review by (III): J. D. McEvoy

Date: Oct. 28, 1953

Elevations on Manuscript J. D. McEvoy
checked by (II) (III):

Date: Oct. 28, 1953

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Camera (kind or source) (III): USC&GS single lens type "0" camera

PHOTOGRAPHS (III)					
Number	Date	Time	Scale	Stage of Tide	
50-0-1519 thru 23	7/11/50	1256 PST	1:24,000	5.0'	above MLLW
50-0-1535 thru 43	"	1307 "	"	4.9'	" "
50-0-1592 thru 95	"	1347 "	"	5.3'	" "
50-0-1596 thru 99	"	1349 "	"	4.3'	" "
50-0-1673 thru 79	"	1509 "	"	3.3'	" "
51-0-7141 thru 44	6/16/51	1330 "	1:40,000	3.9'	" "
51-0-7188	"	1510 "	1:40,000	2.6'	" "
51-0-7258 thru 62	6/17/51	1347 PDST	"	7.2'	" "
51-0-7286 thru 89	"	1430 "	"	6.2'	" "
51-0-7290 thru 92	"	1555 "	"	4.2'	" "

Tide (III)
From predicted tide tables

Reference Station: Aberdeen, Grays Harbor
Subordinate Station: Pt. Chehalis, Grays Harbor
Subordinate Station: Markham, Grays Harbor
North Channel, Grays Harbor

Washington Office Review by (IV):

A.K. Hengwood

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III): 8

Shoreline (More than 200 meters to opposite shore) (III): 14.4

Shoreline (Less than 200 meters to opposite shore) (III): 5.1

Control Leveling - Miles (II): 7.0

Number of Triangulation Stations searched for (II): 42

Number of BMs searched for (II): 27

Number of Recoverable Photo Stations established (III): 5

Number of Temporary Photo Hydro Stations established (III):

Recovered: 16

Recovered: 21

Recovered: 2

None

Identified: 9

Identified: 11

Remarks:

Triangulation stations established: 18

Bench Marks established: 1

Diurnal

Ratio of Ranges	Mean Range	Spring Range
--	7.8	9.9
0.9	6.9	9.0
0.9	7.2	9.2
1.0	7.6	9.7

Date: *Dec. 1957*

Date:

Date:

Date:

Summary to Accompany Descriptive Report T-9518

Topographic map T-9518 is one of 13 similar maps in project PH-62 (99). It covers most of South 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 $3 \frac{3}{4}$ ' in latitude by $7 \frac{1}{2}$ 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.

The registered copies under T-9518 will include a coronar film positive of each map manuscript.

FIELD INSPECTION REPORT
For
Quadrangle T-9518
Project Ph-62(49)

2. Areal Description:

This quadrangle covers a portion of Grays Harbor just inside the entrance to the bay and a small amount of the adjacent land areas. The area is over 80% water with land areas in the southwest and southeast corners, a lesser area in the northeast corner, a very small area of land in the northwest corner, one small sand island and one high steep island.

The main ship channel in Grays Harbor enters the quadrangle from T-9517 at the west edge, extends eastward and bends northeast into quadrangle T-9519. There are several other channels of minor importance including South Bay Channel extending southward into quadrangle T-9521, South Channel extending eastward into T-9519, and Numpulips Channel extending northward into T-9516. The ship channel is maintained by dredging when necessary. The minor channels are generally not maintained and are used chiefly by commercial and sport fishing boats or by small tugs towing log rafts.

Outside of the channels the water area is very shoal with extensive areas of sand and mud flats bare at low water.

The small amount of land area includes several distinct types of land forms including the sand beach with typical dunes along the ocean beach in the southwest corner of the quadrangle, the marshy shoreline on the east side of Point Chehalis, the low, very changeable island of shifting sand represented by Goose Island, the gently rolling terrain on the east side of South Bay becoming higher and more rugged further east and the high steep bluffs and higher rugged terrain in the northeast corner. Reds Rock is a high pinnacle with bluffs on all sides rising to about 75 feet.

Westport, with a population of 700-800 is the only incorporated town in the quadrangle. Westhaven, including the boat basin and the adjoining business area of stores, restaurants, two canneries and a Coast Guard Station, is separated from the main part of Westport, but is included within the city limits of Westport.

Ocosta was promoted by the Northern Pacific Railway about 100 years ago to compete with Aberdeen to become the major city

on Grays Harbor. The promotion failed and Ocosta is now a small community of no significance. *The high school for the entire area to the west including Westport is located at Ocosta.

* DESTROYED BY FIRE IN 1955. NOT REBUILT AS OF 1956.

Commercial fishing and two moderate sized canneries are the main industries. Upward of 300 fishing boats base at Westhaven during the summer. The more valuable catches of sea foods are salmon and crab.

Sport fishing and the tourist trade is increasing and has become a major business.

The only land access to the quadrangle is State Highway 13A. This highway extends south from Westport into quadrangle T-9521. It crosses South Bay in T-9521 and returns to this quadrangle on the east side of South Bay extending east into T-9519 and thence to Aberdeen. The Northern Pacific Railway passes through the north east corner of the quadrangle.

The Coast Guard maintains a Coast Guard Station at Westhaven and the Thirteenth Coast Guard District radio station north of Grays Harbor Light.

The C.A.A. maintains Hoquiam Omnidirectional Range on Point Chehalis.

Photograph coverage is adequate and complete and photographs are of average quality. In addition to the 1:24,000 scale photography, most of the area is covered with 1:40,000 scale photographs. The latter were not used for field inspection.

Photograph tones of a light color indicate sand, the adjacent dark mottled tone indicates grass. Marshes are dark grey, Evergreen trees are dark and mottled and deciduous growth is a lighter grey and more uniform in tone than the evergreens.

3. Horizontal Control:

(a) The following horizontal control stations were established by this party by third order triangulation:

- NEW (U.S.E.)
- Point Chehalis Light (Later destroyed)
- Point Chehalis Light 4
- Point Chehalis Light 6
- Westhaven Outer Breakwater North Light 5
- Westhaven Outer Breakwater South Light
- Westhaven Inner Breakwater Light 6 DESTROYED
- Westhaven, U.S. Coast Guard Station, Cupola
- Westport Municipal Tank
- Grays Harbor Distance Finding Station, Cupola
- Grays Harbor Coast Guard Station Lookout Tower
- Point Chehalis Range Front Light

MOVED SINCE F.I. NO NEW POSITION
DURING F.S. AS IT IS TO BE
MOVED AGAIN. AXI

- Point Chehalis Range Rear Light *MOVED SINCE F.I. NO NEW POSITION.*
- Grays Harbor Range 1 Front Light
- Grays Harbor Range 1 Rear Light
- Grays Harbor Crossover Channel Light 28 (later destroyed)
- Johns River Entrance Light 14
- Westport Wharf Light
- Point Chehalis Tidal B.M.2 *DESTROYED*
- B.M. Y295
- Grays Harbor North Channel Range 2 Rear Light
- Grays Harbor North Channel Range 2 Front Light

(b) No datum adjustments were made and none are necessary.

(c) All control was established by the Coast and Geodetic Survey.

(d) None.

(e) All known Coast and Geodetic Survey Stations were searched for. The following stations were not recovered:

GOOSE, 1940
 GRAYS HARBOR EAST BASE, 1909-1935
 GRAYS HARBOR WEST BASE, 1909 (T-9517)
 NEDS ROCK, 1910-1935
 NEDS ROCK 2, 1939-1940
 NORTH JETTY, 1909-1939
 OCOSTA, 1911
 WESTPORT, 1940
 TRY, 1911
 CENTER GABLE OF WHITE BARN, 1911
 Grays Harbor Lower Range Rear Light, 1940
 Grays Harbor Upper Range Rear Light, 1940
 Grays Harbor Upper Range Front Light, 1940
 North Gable of Unpainted Barn, 1911
 North Gable of White Barn, 1911
 Point Chehalis, Coast Guard Lookout Tower, 1926
 Range Light, diamond target, 1926
 Radio Aero Fog Signal, 1926
 South Gable of White Barn, 1911
 South Gable of Unpainted Barn, 1911
 Southeast corner of Smaller Island House, 1911
 Southeast corner of Larger Island House, 1911
 Westport, County Dock, East End House, South Gable, 1940
 Westport, schoolhouse cupola, 1940
 Westport, Sharp-pitched Roof, South Gable, 1940
 Westport Wharf House, 1911
 Grays Harbor Crossover Channel Light 28, 1951
 Point Chehalis Light

4. Vertical Control:

(a) The following bench marks were recovered:

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<u>B.M.</u>	<u>Establishing Agency</u>	<u>Accuracy</u>
Z 295	U.S.C. & G.S.	First-order
NOTCH, R.L. 2	"	" "
NOTCH	"	" "
B 295	"	" "
COCKSTA 2	"	" "
GRANGE R.L. 2	"	" "
GRANGE R.L. 1	"	" "
GRANGE	"	" "
BAIVIE	"	" "
C 295	"	" "
G 295	"	" "
Tidal LIGHTHOUSE	"	" "
W 12 RESET	"	" "
Tidal 1	"	" "
WESTPORT NO. 1 Tidal 6	"	" "
WESTPORT NO. 2 Tidal 7	"	" "
H 295	"	" "
Y 295	"	" "
A 296	"	" "
Z 295	"	" "
Tidal 2, 1939	"	" "
Tidal 2, Reset	"	" "

Point Chehalis Tidal Bench Mark 3 was recovered and was later found destroyed.

Elevations of all bench marks are on the 1929 General Adjustment, 1947 Supplementary Adjustment Datum.

All known bench marks were searched for.

Point Chehalis Tidal Bench Mark 2 was recovered, but was reported subject to destruction by the Port of Grays Harbor, TIDAL 2 RESET was established by this party.

Bench marks for which geographic positions are available were not identified on the Photographs.

(b) Supplemental elevations were established by closed loops or double run spurs starting and ending on previously established bench marks or T.B.M.s established by this party. Supplemental leveling was either trig. leveling using Kern theodolite No. 36563 or spirit leveling with a wye level. See field inspection report for quadrangles T-9514 to T-9517, inc., Project Ph-62(49). Where possible supplemental elevations listed on Line 13, Centralia to Grays Harbor, Washington were identified for extra control points. When these points were identical to required points a check was obtained on the published elevations.

Lines with closures of more than 2 feet were rerun.

Elevations were established on triangulation stations by trigonometric leveling as follows:

Station	Elev. above MSL Feet
NEW (USE), 1951 (Top of Tripod)	132.6
Mark	120
GRAYS HARBOR EAST BASE 2, 1940 (Mark)	13.0
Westport Municipal Tank, 1951 (Top)	160.3
Grays Harbor Coast Guard Station, Lookout Tower, 1951 (Top)	97.7

(c) The first and last level points are 1801 and 1824.

(d) All vertical control points required by the project instructions were established. All were placed in the areas outlined on the contact photographs.

Vertical control was extended about two models south into quadrangle T-9521. Similarly, vertical control for the 1:40,000 scale photographs in quadrangle T-9521 was extended north into this quadrangle. In the area of overlap there are vertical control points for both scales of photographs, some of which can be used on either. A similar condition exists along the junction of T-9519.

5. Contours and Drainage.

Contouring is inapplicable.

Where drainage was field inspected it is noted on the photographs. No attempt was made to trace out all drainage.

6. Woodland Cover.

Woodland cover was classified in accordance with the instructions and the Topographic Manual. Woodland cover in the southwest corner of the quadrangle is a thick jungle growth of brush and trees on a low nearly flat area. Trees are a mixture of deciduous and coniferous with a thick, almost impenetrable undergrowth of bush. In the southeast and northeast corners of the quadrangle the heavily wooded area is the second-growth timber typical of this section. See field inspection report for Quadrangles T-9514 to T-9517, inclusive.

7. Shoreline and Alongshore Features.

The shoreline was inspected in accordance with "Supplemental Instructions - Shoreline Inspection", dated 18 March 1944 and the Topographic Manual. Most of the shoreline inspection was accomplished by walking the shoreline.

(a) The mean high-water line around Point Chehalis, partly in T-9517 was surveyed by plane table. The high water line on the plane table sheet represents the contour of mean high-water and was determined by carrying the elevation on the plane table

THIS AREA RE-SURVEYED DURING F.Z. IN 1956. AKA

and is 3.4 feet above mean sea level. In other areas the mean high-water line was indicated on the photographs at intervals along the shore line. The mean high-water line on Goose Island is very changeable. Points along the mean high-water line were located by angle and stadia distance from a single theodolite set up located by three-point fix. High water line between points was sketched. See back of photo for sketch. See observations of Fourth-order directions, Vol. 2, p. 35 to 37 for recorded data.

(b) The low water line is not visible on the photographs and was not defined. In most of the area of the quadrangle the low-water line is well offshore with extensive areas of sand and mud flats bare at low water. A hydrographic survey would be required to properly define the low-water line.

(c) The foreshore is very flat and is mostly mud and sand flats. The ocean beach is a clean sand beach as is the foreshore on Goose Island. There are no boulders or rocks along the shoreline except the groins on Point Chehalis, the jetties and rock revetment along the railroad in the northeast corner of the quadrangle.

(d) The only bluffs and cliffs in the quadrangle are the vertical sides of Red Rock and the bluffs on Point Lew. A wooded hill rises steeply from near the shoreline from Johns River west to Station NOTCH. All other areas are low and flat with the highest elevations near the shoreline being the sand dunes up to 20 feet high along the storm water line of the ocean beach.

(e) The only docks, piers, etc. are those at the boat basin at Westhaven. These are clearly visible on the photographs. Lew construction is indicated on the plane table sheet. The pier extending offshore to Westport Wharf Light is in ruins and only the piles remain.

(f) The only submarine cable in the quadrangle extends across the entrance to Grays Harbor from Point Chehalis to the Vicinity of Station DAKON. The south end of this cable was identified. See Field Inspection Report for Quadrangles T-9514 to T-9517, inc.

(g) The south jetty extends westward from this quadrangle into T-9517. The jetty is constructed of stone and has a wooden trestle supporting a railroad track above the stone. Parts of it have washed out. In the washed out bight just west of Grays Harbor Coast Guard Station Lookout Tower the only visible remains of the jetty are a few large rocks visible at low water. The visible offshore end of the jetty is a clean break clearly visible on the photographs. Theodolite directions were also observed on the visible ends of the jetties. A submerged po-

tion of the jetty continues offshore from the visible end an undetermined distance. The only indication of this portion of the jetty is breakers breaking on the submerged rocks.

Several groins, some rock and some wood pile, have been constructed on Point Chehalis. All of these have been mapped on the plane table sheet.

A wood-pile breakwater extends from Westhaven Outer Breakwater North Light 5 to Westhaven Outer Breakwater South Light. Another breakwater extends northwest from Westhaven Inner Breakwater South Light. See plane table sheet.

A portion of the boat basin at Westhaven has been bulkheaded. Bulkheads are indicated on the plane table sheet.

8. Offshore Features.

Goose Island is discussed under side heading 7. This island was visited for shoreline inspection and recovery of control. This island is mostly bare shifting sand and the highest elevation was not determined. The estimated highest elevation is 10 feet above mean high water.

Neds Rock is actually not a rock but an island with nearly vertical conglomerate bluffs forming the sides. The higher part is very small in extent and is rapidly eroding. The estimated height of Neds Rock is 75 feet. Mud flats, bare at low water, extend from Point New to Neds Rock.

Some of the higher sand shoals south of Goose Island were visited for shoreline inspection. These shoals are very changeable and sometimes build up above mean high water. Except for Goose Island the highest were awash at mean high water at the time of the field inspection.

There are two dolphins northeast of Point Damon which are apparently the only remains of a ferry landing which formerly existed on a sand spit now washed out. These dolphins were located by theodolite directions and were not visited.

A dolphin off Westhaven (~~O-REAR~~) is reported to be the remains of a former aid to navigation. It was located by theodolite directions and was not visited.

The group of piles offshore from Station OCOSTA 2 was located by sextant fix.

Piles No. 1 and No. 2 near Range 2 Front Light were located by theodolite directions and were not visited.

9. Landmarks and Aids.

(a) Reds Rock is a prominent feature but it was not recommended as a landmark. All other landmarks were reported on Form 567.

(b) There are no specific interior landmarks.

(c) The only aeronautical aid is Hoquiam Omnidirectional Range on Point Chehalis reported on Form 567.

(d) All fixed aids to navigation were located and reported on Form 567. All were located by triangulation except Point Chehalis Light 2 which was located by plane table. No unusual methods were used. The azimuth of Point Chehalis Range was determined directly by theodolite observations at the Rear Range Light. No observations were made on the azimuths of Grays Harbor North Channel Range 1 and Grays Harbor North Channel Range 2 except the triangulation location of the lights.

(e) Location of floating aids was not required by the project instructions and none were located.

10. Boundaries, Monuments, and Lines.

Special reports on boundaries and land lines will be submitted at a later date.

Boundaries in this quadrangle to be mapped are the city limits of Westport and U.S. Coast Guard Reservation boundaries on Point Chehalis.

Four section corners were recovered and identified.

11. Other Control.

A sufficient number of horizontal control stations were recovered to meet the minimum spacing requirements. Several new recoverable topographic stations were established for location of aids to navigation, landmarks or other purposes.

Five 1940 recoverable topographic stations were searched for including one in T-9517 not previously reported.

Form 524 is submitted for all recoverable topographic stations.

Recoverable topographic stations not listed on Form 567 are as follows: B.N. Z 295.

Photo-hydro stations were not required by the project instructions and none were established.

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12. Other Interior Features.

All roads have been classified in accordance with the Topographic Manual, Chapter V and VII.

Buildings have been classified in accordance with Photogrammetry Instructions No. 29, dated 10/1/48 and the Topographic Manual. Buildings of minor importance have been deleted with a green X.

There are no bridges or cables over navigable waters in this quadrangle.

There is a small unimproved airplane landing field at Westport in the marshy area at the east side of Point Chehalis.

13. Geographic Names.

See "Special Report - Investigation of Geographic Names - Project Ph-62(49) - Parts 1 and 2" forwarded, 20 October 1952.

14. Special Report and Supplemental Data.

Special Report - Investigation of Geographic Names - Project Ph-62(49) - Parts 1 and 2" forwarded 20 October 1952.

A special report on boundaries will be forwarded at a later date.

A special report on land lines will be forwarded at a later date.

Data for triangulation completed in 1951 were forwarded to the Washington office on 2/20/52. Copies of descriptions and lists of directions are forwarded with this report.

Data for triangulation completed in 1952 will be forwarded at a later date. Carbon copies of lists of geographic positions, lists of directions and descriptions are forwarded with this report.

- 1 print U.S.E. sketch i.o. E/5/6/55, Survey Control, Grays Harbor, Washington
- 1 print U.S.E. Drawing i.o. E-5-12-109
- 1 print U.S.E. sketch i.o. E-5-1-38, Harbor Hydrography, Grays Harbor, Washington

Respectfully submitted,

Charles W. Clark

Charles W. Clark
Lt. Comdr., USC&GS
Chief of Party

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COMPILATION REPORT
Project No. Ph-62
Survey No. T-9518

Photogrammetric Plot Report: See Descriptive Report for T-9515.

31. DELINEATION

All topography except shoreline was delineated by multiplex. A planetable survey provided the shoreline and a few cultural features in the Pt. Chehalis area from the west limit of the map to just south of the village of Westhaven. The remainder of the shoreline was delineated graphically from points established by multiplex.

Field inspection for all the marsh and swamp areas was inadequate. In no case was a back limit given. *The identification as well as the delineation of marshes and swamps in the Pt. New and Ocosta areas were entirely from office interpretation. *The marshes of the Westport area were mostly identified by the field inspector, but their more or less vague outlines had to be determined in the office.

Field inspection of buildings was confusing. It was frequently difficult to determine to which building notes applied. Also, in the Ocosta area inspection of buildings was found on more than one photo for the same area, neither photo complete in itself.

*VERIFIED DURING FIELD SORT

AKA

32. CONTROL

Refer to the Photogrammetric Plot Report, item 23, bound with the Descriptive Report for T-9515 regarding the adequacy of horizontal control.

Vertical control was adequate.

33. SUPPLEMENTAL DATA

(1) PROPERTY MAP, COAST GUARD LOCATION, WESTHAVEN, GRAYS HBR., dated June, 1936. This map was used merely to verify the delineation by the field inspector of the C. G. Lifeboat Sta. property.

(2) BOUNDARIES FOR THE PROPOSED INCORPORATE LIMITS OF THE TOWN OF WESTPORT, not dated. This legal description is the source of the Westport city limits, but it will be noted that it is not possible to delineate any of the boundary on the manuscript because on three sides this line falls in the water at the 2-fathom line and on the fourth side the line falls on the manuscript to the south.

(3) WESTPORT, GRAYS HARBOR COUNTY, WASHINGTON, scale 300-ft. to 1 inch, not dated. This map, that is, the field inspector's notation on it and his delineation of the southern part of the city limit, was used merely as a check on the legal description, No. (2) above.

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33. SUPPLEMENTAL DATA (cont'd)

(4) GRAYS HBR. LT. STA. & RADIO STA., PROPERTY MAP & PLOT PLAN, SHEETS 1 & 2, DRAWING No. WR 4511 & DRAWING NO. WR. 4512, dated 1945. These Coast Guard drawings were used to obtain the boundary of the Coast Guard reservation thus:

Beginning with corner No. 1 as identified on ration 1536 and on WR. 4511, Sheet No. 1 the property was delineated as indicated in red pencil on WR. 4512 and on WR. 4511, Sheets No. 1 and No. 2, using distances given and making the directions due N-S or due E-W.

(5) LAND PLATS: T 16 N, R 12 W, Willamette Meridian.
T 16 N, R 11 W, " "
T 17 N, R 11 W, " "

34. CONTOURS AND DRAINAGE

Refer to the Photogrammetric Plot Report, item 25, for the quality of the diapositives.

35. SHORELINE AND ALONGSHORE DETAILS

*The shoreline in the Pt. Chehalis Area, other than that taken from the planetable survey, is dated 16 June 1951; that in the Pt. New and Acosta areas is dated 11 July 1950. The 1951 photographs were used to make minor revisions after the multiplex compilation which used the photography of 1950.

* SEE REVISION OF THESE DATES. FIELD TOTT REPORT
ITEM 52 &c. AKA

The Westhaven breakwater lights were plotted incorrectly on the planetable sheet, the inner light 4 meters N and 2 meters E of correct position. Therefore, the breakwaters and several groins were not taken from the planetable, but from photo 7143. Other details, not visible on the photographs, were taken from the planetable survey. *Gauging by the error in the groins, there may be as much as 1.0 mm error in position in some details in the area, which should be checked during field edit.

* CHECKED AND FOUND OK DURING FIELD TOTT AREA

*Note that the shoreline from the planetable survey, N. W. of GRAYS HARBOR E. BASE 2, 1940 would not tie at the extreme end with the photographs. A tie was made disregarding this small portion.

* THIS AREA WAS RESURVEYED DURING TOTT AREA

West of Grass Island a section of apparent shoreline about 1/3 mile long differed as shown by field inspection on photo 1524 from that shown on photo 1535 by several millimeters. An office interpretation is shown.

The marshy island at the mouth of the Johns River (east limit, south half) was defined by the inspector only where the office compiler would have no difficulty in delineating the apparent shoreline, but where it became very questionable to the compiler the field inspector did not offer any line--a half mile section around the north and southwest sides of this island.

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36. OFFSHORE DETAILS

The MHW line for Goose Island was delineated from data furnished by the field party as referred to under item 7.

37. LANDMARKS AND AIDS

Forms 567 are submitted with this report for all landmarks and aids.

38. CONTROL FOR FUTURE SURVEYS

Ten (10) forms 524 are submitted with this report. Five (5) are for topographic stations established in the field; three (3) are for topographic stations established in 1940. One of these, JIM, 1940, has been verified from data and identification furnished by the field party. *The positions for the two remaining, NOR, 1940 and CON, 1940 could not be verified as they were not identified on the photographs. Two (2) stations have been reported destroyed. An additional topographic station DOIS, 1951 is listed on Form 567.

39. JUNCTIONS

*SEE REVIEW REPORT ITEM #64

Junctions have been made:

- To the north with T-9516.
- To the east with T-9519.
- To the south with T-9521.
- To the west with T-9517.

40. HORIZONTAL AND VERTICAL ACCURACY

See Photogrammetric Plot Report, item 26.

41. thru 45: Inapplicable.

46. COMPARISON WITH EXISTING MAPS

AMS quadrangle: GRAYLAND, WASHINGTON, Sheet 1177-1, series V791, scale 1:50,000, published 1939, reprinted 1947.

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 6195, scale 1:40,000, published July 1949 (52nd Edition),
(4/21/52).

Items to be applied to nautical charts immediately:

None.

Approved and forwarded

16 Feb. 1955

E. H. Kirsch

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

Respectfully submitted,

8 Feb. 1955

Bernice Wilson
Bernice Wilson,
Carto. Photo. Aid

48. GEOGRAPHIC NAMES

Barlow Cr. *BRACK ST*
Brackenridge Bluff

Campbell Slough Chan. (1)
Chenois Cr. Chan. (1)
Crossover Chan. (1)

Dempsey Cr.
Dock St. (2)

FIRST ST
Goose I. (1)
Grass Cr. Chan. (1)

Grass I.
Grays Hbr.
Grays Hbr. N. Chan. Range 12 (2)
Grays Hbr. N. Chan. Range 22 (2)

Humptulips R. Chan. (1)

Johns R.

Montesano Ave. (2)

Neds Rock *(cor James Rock?)*
North Bay
Northern Pacific (Moclips Branch)

Ocean Ave. (2)
Ocosta

Pacific Ave. (2)
Pacific Ocean
Pt. Chehalis
Pt. Chehalis Range (3)
Pt. New

Redman Slough *(cor Johns R. Cutoff Chan.?)*

Salmon St. (2)
Sand I. Shoal
South Bay *SECOND STREET*
South Chan. (1)

WESTPORT MUNICIPAL AIRPORT

- (1) Approved, feature not delineated.
- (2) From field inspection data: That is, either field photos, recovery notes, descriptions, and/or the Field Inspection Report.
- (3) From chart 6195.
- (4) From supplemental data, item 33 (4).

USCG Lifeboat Sta. (2)
USCG Reservation (4)

Wash. 13A

Westhaven

Westport

(?) Westport City Airport (2)
Whitcomb Flats (1)

*Names 2 approved -
 - subject to
 Field Edit.
 9-2-55
 A.J.W.*

9518

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T-9518

49. NOTES FOR THE HYDROGRAPHER

The following are topographic stations for this survey:

DOLS, 1951
CON, 1940
NOR, 1940
JIM, 1940
LT 2 POINT CHEHALIS LT. 2, 1952
CON JOHNS. RIVER DAYBEACON 1, 1952
OMNI, 1951
BM Z-295, 1951
POD TRIPOD, 1951

Attached is a chart section of the areas covered by this survey. Comparison will reveal that there have been many changes. A low water line could not generally be located from the photogrammetric survey.

An especially prepared set of photographs is included for use in locating hydrographic signals.

9518

1.

FIELD EDIT REPORT

Project 24120

T-9518

1 October 1956

51. Methods -

Field edit was done in accordance with Letter: Instructions for Field Edit, Project Ph-62, dated 1 June 1955, and Assistant Director's Letter, 73,mkl, dated 16 August 1956.

All cultural features were edited. Deletions and additions have been made on Field Edit Sheets 1 to 3 inclusive. Piling and shoreline structures on the north side of the boat basin at Westhaven were located by planetable on Field Edit Sheet No. 2.

Contours on this map were not checked.

Section Corner 10, 11, 15, 14 T-16N R11W was recovered and identified on ratio print of photograph 51-O-7261. It is marked by a snag, the remains of a large tree. The note on the section corner locator tag by the snag described it as "APPROX CORNER". A fence on the line between Sections 9 and 10 T-16N R11W is indicated on the same photograph. No other section line information was obtained during field edit.

Shoreline along the Pacific Ocean was not checked after reading Paragraph 3 of Notes to Field Editor, T-9521, which states "Field edit of ocean shoreline may be omitted. This shoreline will be mapped as of 1952 (date of field inspection) without further field check". As the ocean shoreline in T-9518 is short in length and adjacent to T-9521, it was assumed that it would be mapped in the same manner.

A legend of colored inks and symbols used during field edit is on Field Edit Sheet No. 3.

Notes to the field editor have either been answered on the discrepancy print or cross-referenced to the proper source of information.

Field edit information has been noted on the discrepancy prints, Field Edit Sheets 1 to 3 inclusive, supplementary data listed in Section 56 of this report and the following photographs.

Photo

Information

50-O-1522 (ratio print)	Marsh limits near Westport Municipal Airport
-------------------------	--

9518

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<u>Photo.</u>	<u>Information</u>
50-0-1523 (ratio Print)	Station Westport, Sharp Pitched Roof, South Gable 1940
50-0-1673 (ratio print)	BM Z 285 RESET 1956
51-0-7188 (ratio print)	BM Z 295
51-0-7261 (ratio print)	Section Corner 10, 11, 15, 14 T16N R11W and fence on line between Section 9 and 10 T16N R11W

52. Adequacy of Compilation -

It is believed that compilation of the map with the information furnished was adequate. Attention is called to the following changes and verifications made during field edit:

a. Numerous buildings have been added to the map and in some cases new additions on old buildings have been indicated. Also many deletions have been made with green ink.

b. There are several changes and additions in the vicinity of Westhaven. Changes in the mean high water line, pilings, piers, floats and buildings around the boat basin are indicated on Field Edit Sheet No. 2. Additional streets and some new buildings are indicated on Port of Grays Harbor, Westhaven Fish Base, Drawings 306 and 346. Point Chehalis Range Front Light 1951 has been moved and as it will be moved again in the near future, no attempt was made to determine a new position for it. According to information received from the U. S. Coast Guard in Westport, Point Chehalis Range Rear Light was rebuilt on the same site in 1953 and the light raised. Planetable cuts to the present structure indicate that it is at the same site as the structure located by triangulation in 1951. Westhaven Inner Breakwater Light 6 1951 has been removed. Both Westhaven Tank Foundation, White Elev. 1939 and Point Chehalis Tidal BM 2 1951 have been destroyed. No error in the location of Point Chehalis Light 2 1952 could be found by planetable methods.

c. Note shoreline change in vicinity of Station GRAYS HARBOR EAST BASE 2 1940 on Field Edit Sheet No. 2.

d. Note change in marsh limit in vicinity of Westport Municipal Airport. In view of the fact that the portion of this area outlined as "Westport Municipal Airport" is used during the dry season of the year as a landing field by small planes, it is the opinion of the field editor that all of the area cannot be shown on the map as marsh. It is a very flat area gradually sloping from the road to the mean high water line and exceedingly wet during the winter. However, in the summer it is dry enough to drive motor vehicles over and land small planes on. See inshore limit of marsh indicated on ratio print of Photograph 50-0-1522.

e. Goose Island (approximate latitude $46^{\circ} 58.6'$, longitude $124^{\circ} 04'$),

9518

3.

21

a sandbar (approximate latitude $46^{\circ} 59.5'$, longitude $124^{\circ} 05.2'$) and a sand island which is labeled Sand Island Shoal on T-9518N (approximate latitude $46^{\circ} 57.7'$, longitude $124^{\circ} 04.5'$) were located by planetable 5 September 1956 and the mean high water line is correct as of that date. The sand bar is awash at mean high water and is subject to constant change. The shoreline of Goose Island and Sand Island Shoal is also subject to constant change resulting from wind and wave action.

f. The Coast Guard personnel at Westport were consulted concerning the Coast Guard Reservation boundary. Two drawings (WR 4511 Sheet 1 of 2 and WR 4511 Sheet 2 of 2) were obtained from them with the boundary indicated on the drawings with red pencil. *The boundary as indicated on Sheet 2 does not agree with the boundary as indicated on the manuscript for map T-9518S. See note on Drawing WR 4511 Sheet 2. The Coast Guard personnel were unable to show the field edit unit their property corners.

* BOY CHANGED TO ABLES AKAH

g. Tidal Bench Mark 8 was established in 1955 at the corner of Dock and Front Streets in Westhaven. The position of this mark is indicated on Port of Grays Harbor, Westhaven Fish Base, Drawing No. 346.

* NO FROM GSS SUBMITTED

h. BM Z 295 appears to have been correctly identified on Photograph 50-0-1522 (ratio print) in 1951. It is mentioned in the descriptive Report for T-9518, page 14, section 11, paragraph 4 as being a recoverable topographic station and is indicated on the photograph with a bench mark symbol labeled BM Z 295 1951. *The date stamped on the mark is 1947. It was re-identified as a bench mark on Photograph 51-0-7188 (ratio print) and the discrepancy in dates left for the office to decide.

* SYMBOL CHANGED TO TORO. SINCE POSITION WAS VERIFIED. IT WAS EST. AS BM IN 1947. AS

j. It is noted that BM Z 285 1947 located 1.8 miles southwest of Markham has been destroyed by highway construction. Before it was destroyed BM Z 285 RESET 1956 was established by the Washington State Highway Department and the data forwarded to the Coast and Geodetic Survey. BM Z 285 RESET is indicated on Field Edit Sheet No. 3 and identified on Photograph 50-0-1673 (ratio print). Form 152, Control Station Identification and Form 685A, Recovery Note, Bench Mark are submitted with this report.

TORO IN 1951
AKAH

k. Note road relocation at BM Z 285 RESET. This may be taken from Washington State Highway Drawing of Secondary State Highway No. 13-A, Ocosta East, Sheet 3 of 3.

l. Note relocation of State Highway 13-A at east edge of sheet.

m. Station Westport, Sharp Pitched Roof, South Gable 1940 was positively identified on Photograph 50-0-1523 (ratio print).

53. Map Accuracy -

No horizontal accuracy test was made.

No vertical accuracy test was required and none was made. Field edit of contours was omitted, according to instructions contained in assistant Director's Letter, 73-mkl, dated 16 August 1956.

54. Recommendations -

None.

55. Examination of Proof Copy -

A proof copy of the map to be examined for any possible errors may be sent to the following persons:

Mr. Martin Rowell
Westport, Washington

Mr. Bjarue Nilsen
Westport, Washington

Mr. Rowell is the water superintendent in Westport and has been a resident for ten years.

Mr. Nilsen has resided in the area for twenty-five years and is the mayor of Westport.

The only discrepancy in geographic names that was found is in Westhaven. The street labeled Salmon St. on the manuscript is Second Street. See Port of Grays Harbor, Drawing No. 346 for street names in Westport.

56. Supplementary Data-

The following supplementary data is submitted with this report:

a. U. S. Coast Guard Drawing No. WR 4511, Sheets 1 and 2, showing Coast Guard Reservation boundary outlined in red.

b. Washington State Highway Drawing of Secondary State Highway No. 13-A, Ocosta East, Sheets 1 to 3 inclusive, showing highway relocation in vicinity of BM Z 285 RESET.

c. Port of Grays Harbor, Westhaven Fish Base, Drawings 306, 346 and 348 showing street location, float and pier location and the few buildings in Westhaven that are not shown on Field Edit Sheet No. 2.

57. Current Hydrographic Surveys -

A hydrographic survey of Grays Harbor by the Coast and Geodetic Survey was completed in September 1956. That part of the survey which is within the area covered by T-9518 should be searched for piling or

9518

5.

other offshore detail that may have been missed by the field editor.

23

Approved:



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

Respectfully submitted:



for Charles H. Bishop
Cartographer
C&GS

9518 24

REVIEW REPORT T-9518
TOPOGRAPHIC
18 December 1957

61. GENERAL STATEMENT

See Summary.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

809	1:20,000	1862	3229	1:10,000	1911
1589A	1:20,000	1883	3230	1:10,000	1911
2085	1:20,000	1891	6646	1:10,000	1940
2371	1:20,000	1898	6665	1:10,000	1940

Manuscript T-9518 super~~s~~edes all of the above surveys in common areas as source material for charts.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

AMS Grayland, Washington Sheet 1177-1, series V791, scale 1:50,000 published 1939. Contour interval 20'.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Topographic stations DOLS 1951, CON 1940, NOR 1940 existing at the time of field inspection did not exist at the time of hydrography. They were removed from the manuscript. All three stations plotted within $\pm 5m$ of each other at approx. lat. $46^{\circ}57'30''$ long. $124^{\circ}07'$. Chart 6195 marks the location with a notation "subm. pile".

65. COMPARISON WITH NAUTICAL CHARTS

6195	53rd Edition	Revised 5/27/57
------	--------------	-----------------

Daybeacons, shown in the vicinity of South Bay, hand corrected on chart 6195, were originally buoys.

The Field Edit Party did not obtain positions for these daybeacons. Apparently they were still buoys at the time of field edit.

This applies also to daybeacons "8" and "10" in the vicinity of South Channel.

The contemporary hydrographic surveys mentioned in item 64 had been applied to this chart 6195 prior to review.

9518 25

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This map complies with instructions and meets the National Standards of Map Accuracy.

Contours were not field edited as per instructions. See Edit Report item 53. During review each model was inspected for adequacy of control both horizontal and vertical. All models seemed sufficiently controlled. No undue difficulty in contouring is mentioned in the Compilation Report.

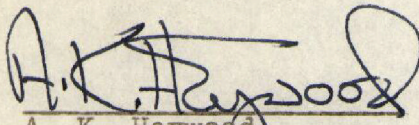
Woods cover is not as dense in this manuscript as others in this project.

The manuscript was compiled with A 20' interval. Later instructions amended this to A 40' interval. This * gives greater leeway in vertical accuracy.

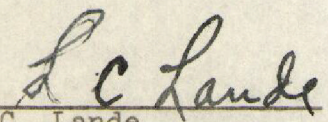
The points made above led to the decision during review that this manuscript meets the National Map Standards even though no vertical accuracy check was made.

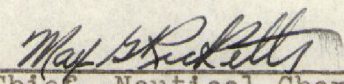
* Means that the map as published by Geological Survey will show only 40ft interval contours.

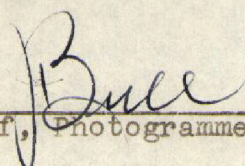
Reviewed by:

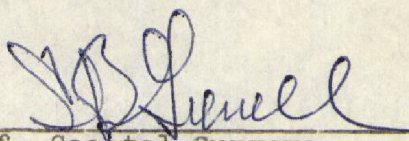

A. K. Heywood

Approved:

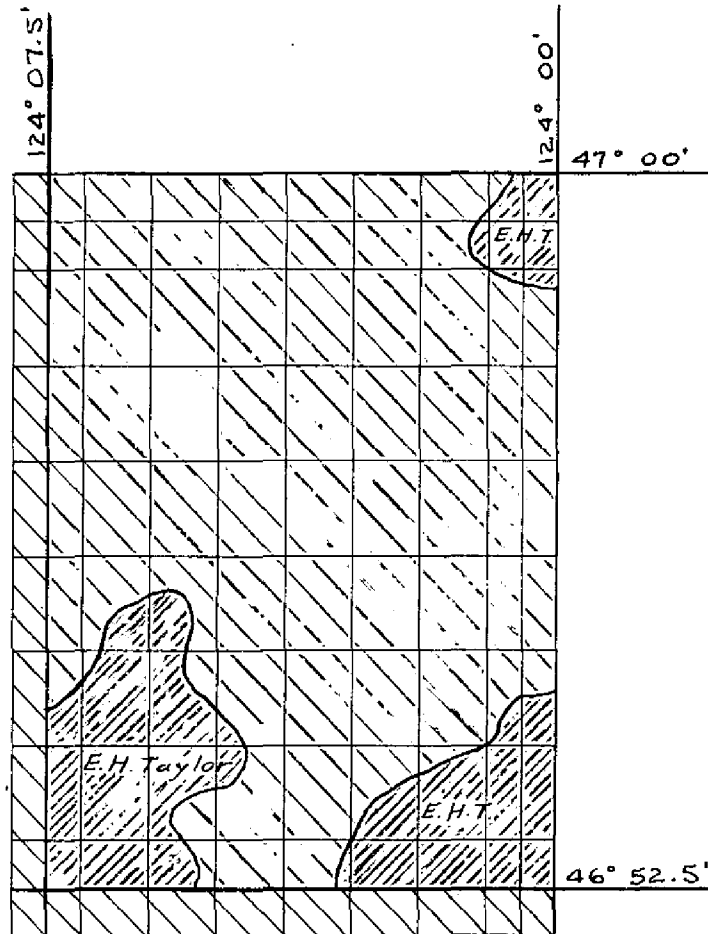

L. C. Lande
Chief, Review Branch
Photogrammetry Division


Chief, Nautical Chart Branch
Charts Division


Chief, Photogrammetry Division


Chief, Coastal Surveys
Division

T 9518

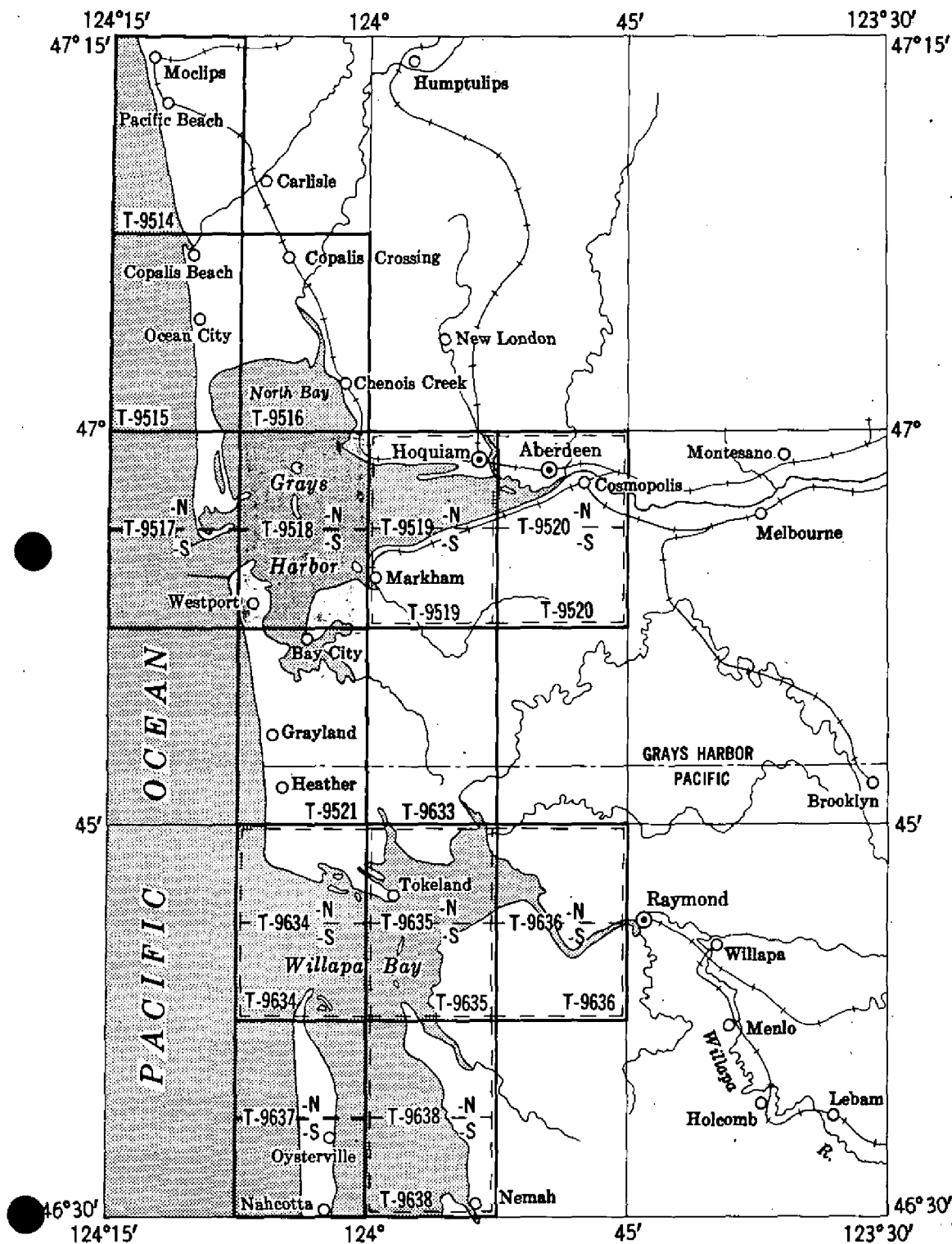


Areas contoured by various personnel
(Show name within area)
(II) (III)

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,

COPY

COPY

COPY

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Photogrammetric Party No. 4

POST-OFFICE ADDRESS:

General Delivery, Raymond, Washington

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

11 August 1953

To: Capt. Jack C. Sammons
U. S. Coast and Geodetic Survey
Baltimore, Maryland

Subject: Request for Geographic Position - OCOSTA (USE), 1952

Reference: Your letter of 6 August 1953

The only thing that could be found that shed any light at all on the subject station came in the body of Commander Clark's Recovery Note description of station OCOSTA 2, 1926, the rough copy of the card being still among the data of the project. It is assumed that the smooth recovery Note for OCOSTA 2, 1926 was sent in by Clark and that a copy of it should be in your files. However the following is extracted from the description in case you either have no copy or the smooth description was never sent in:

" A U. S. E. triangulation station, name unknown, was found on the beach east-northeast of the station (OCOSTA22), 3 meters east of the edge of the bank, 1.8 meters west of the fence paralleling the high water line, 72.2 meters southwest of the lone spruce tree, and 11 meters northwest of the junction of an east-west fence with the fence paralleling the bank; a U.S.E. disk, unstamped, set in the top of a concrete post, which projects 6 inches.

(DIRECTIONS AND DISTANCES AT OCOSTA 2)

	Feet	Meters	Direction
WESTPORT MUNICIPAL TANK			0 00 00.0 ✓
U.S.E. Station	149.24	45.485 ✓	179 11 39 ✓

It is believed the above information will enable you to obtain the desired G.P.

/s/ Fred Natella
Chief, Party No. 4

MAP T. 9518

PROJECT NO. Ph-62(49)

SCALE OF MAP 1:10,000

SCALE FACTOR 1,000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ν -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)
WESTHAVEN OUTER BREAKWATER SOUTH LT., 1951	Field Comp. Pg. 3	N.A. 1927	46 54	32.241	995.6	(857.2)					
			124 06	20.752	439.2	(830.6)	✓				
WESTPORT WHARF LIGHT, 1951	"	"	46 53	24.366	752.4	(1100.4)					
			124 04	59.430	1258.1	(12.1)	✓				
GRAYS HBR. COAST GUARD STATION, CUPOLA, 1951	"	"	46 54	28.250	872.4	(980.4)	✓				
			124 06	38.240	809.3	(460.5)					
GRAYS HBR. DISTANCE FINDING STATION, CUP. 1951	"	"	46 54	23.531	726.6	(1126.2)	✓				
			124 07	11.090	234.7	(1035.1)					
GRAYS HBR. COAST G. STA. LOOKOUT TR., 1951	"	"	46 54	16.435	507.5	(1345.3)	✓				
			124 07	11.764	249.0	(1020.9)					
WESTPORT MUNICIPAL TANK, 1951	"	"	46 53	39.773	1228.2	(624.6)	✓				
			124 06	21.628	457.8	(812.4)					
GRAYS HBR. RANGE 1, FRONT LIGHT, 1951	"	"	46 56	16.992	524.7	(1328.1)	✓				
			124 03	11.498	243.2	(1025.9)					
GRAYS HBR. RANGE 1, REAR LIGHT, 1951	"	"	46 56	19.061	588.6	(1264.2)	✓				
			124 02	50.115	1060.0	(209.1)					
JOHNS RIVER ENTRANCE LT. 14, 1951	Pg. 4	"	46 55	22.696	700.8	(1152.0)	✓				
			124 00	29.827	631.1	(638.4)					
GRAYS HBR. N. CHAN RANGE 2 REAR LT., 1952	Misc. Field Comp.	"	46 55	36.891	1139.2	(713.6)	✓				
			124 01	24.440	517.1	(752.3)					
GRAYS HBR. N. CHAN RANGE 2 FRONT LT., 1952	"	"	46 55	50.799	1568.7	(284.1)	✓				
			124 01	05.848	123.7	(1145.6)					

1 FT. = 3048006 METER

COMPUTED BY: A. K. Heywood

DATE 2/17/53

CHECKED BY: E. L. Rolle

DATE 3/3/53

M-2386-12

MAP T-2518

PROJECT NO. Ph-62(49)

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR U-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
BAYVIEW, 1940	G-5735	N.A.	46 52 53.506	1652.3 (200.5)			
	Pg. 743	1927	124 03 02.089	44.2 (1226.2)			
GRANGE, 1939	G-5735		46 53 19.847	612.9 (1239.9)			
	Pg. 733	"	124 02 54.358	1150.8 (119.5)			
GRAYS HBR. EAST BASE 2, 1940	G-5735		46 54 10.764	332.4 (1520.4)			
	Pg. 731	"	124 05 54.401	1151.5 (118.4)			
MARKHAM, 1940	G-5735		46 54 38.207	1179.8 (673.0)			
	Pg. 744	"	124 00 11.982	253.6 (1016.2)			
NEDS ROCK 2 RM 2, 1939	Computed from Published Data	"	46 59 21.23	655.6 (1197.2)			
			124 01 29.98	633.5 (634.4)			
NOTCH, 1940	G-5735	"	46 54 00.011	0.3 (1852.5)			
	Pg. 733	"	124 01 42.838	906.8 (363.2)			
OCOSTA 2, 1926	G-6687	"	46 53 36.045	1113.1 (739.7)			
	Pg. 1024		124 02 46.394	982.1 (288.1)			
OCOSTA, NEW HIP- ROOF BARN, WEST GAB., 1940	G-5735	"	46 53 22.995	710.1 (1142.7)			
	Pg. 747	"	124 02 20.922	442.9 (827.4)			
OCOSTA, WHITE HOUSE CUPOLA, FINIAL, 1940	"	"	46 53 30.217	933.1 (919.7)			
			124 01 48.341	1023.4 (246.8)			
PT. CHERHALIS, NAVAL RADIO BN. STA, FIN- IAL OF CUP. 1939	G-5735	"	46 53 17.899	552.7 (1300.1)			
	Pg. 746	"	124 07 28.770	609.1 (661.2)			
WESTPORT, GRASS ID., CH. ON SHACK 1940	G-5735	"	46 52 35.265	1089.0 (763.8)			
	Pg. 743	"	124 05 19.096	404.0 (866.6)			
WESTPORT SHARP RICHARD ROOF SOUTH GAB. 1940	G-5735	"	46 53 18.88	582.4 (1270.4)			
			124 06 00.90	17.1 (1251.2)			

lost AS OF FIELD CONT. 16

1 FT. = 3048006 METER

COMPUTED BY: A. K. Heywood

DATE 2/17/53

CHECKED BY: E. L. Rolle

DATE 3/3/53

M-2388-12

MAP T. 9518

PROJECT NO. Ph-62(49)

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR μ -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
GRAYS HBR. LH, 1909	G.P. List Pg. 654	N.A. 1927	46 53 18.252 124 06 56.279	563.6 (1289.2) 1191.5 (778.8)			
NEW (USE), 1951	Field Comp. Pg. 1	"	46 59 07.676 124 00 37.841	237.0 (1615.8) 799.7 (468.3)			
WESTHAVEN TANK FOUNDATION (WEST TANK WHITE ELEVATED) 1951	"	"	46 54 31.666 124 06 41.836	977.8 (875.0) 885.4 (384.4)			
BM Y295, 1951	"	"	46 53 49.135 124 06 05.601	1517.3 (335.5) 118.6 (1151.5)			
PT. CHEHALIS TIDAL BM 2, 1951	"	"	46 54 31.573 124 06 41.711	975.6 (877.2) 882.8 (387.0)			
PT. CHEHALIS RANGE FRONT LT., 1951	" Pg. 2	"	46 54 32.734 124 07 07.140	1010.8 (842.0) 151.1 (1118.7)			
PT. CHEHALIS RANGE REAR LT., 1951	"	"	46 54 32.081 124 06 48.608	990.7 (862.1) 1028.7 (244.1)			
PT. CHEHALIS LT., 1951	"	"	46 54 46.297 124 06 38.430	1429.6 (423.2) 813.3 (456.4)			
PT. CHEHALIS LT. 4, 1951	"	"	46 54 50.128 124 06 42.156	1547.9 (304.9) 892.1 (6377.6)			
PT. CHEHALIS LT. 6, 1951	"	"	46 54 45.863 124 06 30.724	1416.2 (436.6) 650.2 (619.5)			18
WESTHAVEN OUTER BREAKWATER N. LT. 5, 1951	"	"	46 54 38.897 124 06 23.649	1201.1 (651.7) 500.5 (769.3)			
WESTHAVEN INNER BKW. LT. 6 1951	"	"	46 54 36.540 124 06 26.472	1128.3 (724.5) 560.2 (709.6)			

Lost A2 PER FIELD CONT

A2

1 FT. = 3048006 METER

COMPUTED BY: A. K. Heywood

DATE 2/17/53

CHECKED BY: E. L. Rolle

DATE 3/3/53

M. 2388-12

SCALE FACTOR 1.000

1 FT. = .3048006 METER	COMPUTED BY: A. K. Heywood	DATE: 21 February 1953	CHECKED BY: E. L. Rolle	DATE: 22 February 1953	COMM-DC-57843
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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEYNONFLOATING AIDS ~~OR~~ LANDMARKS FOR CHARTSTO BE CHARTED
~~TO BE DELETED~~

STRIKE OUT ONE

Baltimore, Maryland

1 February 1955

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

The positions given have been checked after listing by

Henry P. Eichert

(Signed) E. H. Kirsch

E. H. Kirsch

Chief of Party.

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION					METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE *		LONGITUDE *		DATUM						
				° ' "	D. M. METERS	° ' "	D. P. METERS							
LH	Grays Harbor Light (Δ Grays Harbor L. H., 1909)			46 53	563.6	124 06	56.279	N.A.	T-9518 Tri	1909	X X			6002
CUP	(Δ Grays Hbr. Distance Finding Sta. Cup., 1951)			46 54	726.6	124 07	237.4	"	"	1951	X X			"
LT	(Δ Pt. Chehalis Range Front Lt., 1951)	lost		46 54	1010.8	124 07	151.1	"	"	"	X X			"
LT	(Δ Pt. Chehalis Range Rear Lt., 1951)	lost		46 54	990.7	124 06	1028.7	"	"	"	X X			"
LT	(Δ Pt. Chehalis Lt. 4, 1951)			46 54	1547.9	124 06	892.1	"	"	"	X			6195
LT	(Δ Pt. Chehalis Lt. 6, 1951)			46 54	45.863	124 06	30.724	"	"	"	X			"
LT	Grays Hbr. N. Chan. Rge 1 Front Lt. (Δ Grays Hbr. Rge. 1 Front Lt., 1951)			46 56	524.7	124 03	11.498	"	"	"	X			"
LT	Grays Hbr. N. Chan. Rge 1 Rear Lt. (Δ Grays Hbr. Rge. 1 Rear Lt., 1951)			46 56	19.061	124 02	50.115	"	"	"	X			"
LT	(Δ Westport Wharf Light, 1951)			46 53	752.4	124 04	1258.1	"	"	"	X			"
LT	(Δ Grays Hbr. N. Chan. Rge 2 Front Light, 1952)			46 55	56.799	124 01	05.848	"	"	1952	X			"
LT	(Δ Grays Hbr. N. Chan. Rge 2 Rear Light, 1952)			46 55	1568.7	124 01	123.7	"	"	"	X			"
LT	(Δ Johns R. Entrance Lt. 14, 1951)			46 55	700.8	124 00	29.827	"	"	"	X			"
LT	Westhaven Outer Bkw. N. Lt. (Δ Westhaven Outer Bkw. N. Lt. 5, 1951)			46 54	38.897	124 06	23.649	"	"	"	X			"
LT	(Δ Westhaven Inner Bkw. Lt. 6, 1951)	lost		46 54	1201.1	124 06	500.5	"	"	"	X			"
LT				46 54	36.540	124 06	26.472	"	"	"	X			"
LT				46 54	1128.3	124 06	560.2	"	"	"	X			"

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating

TO BE CHARTED
TO BE PLEATED

STRIKE OUT ONE

NON/FLOATING AIDS/OR LANDMARKS FOR CHARTS

Baltimore, Maryland

1 February 1955

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

The positions given have been checked after listing by Henry P. Elchert

(Signed) E. H. Kirsch

E. H. Klisch

Chief of Party.

[illegible]

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating*

~~UNRECORDED~~ STRIKE OUT ONE
TO BE DELETED

Washington, D. C. December 12, 1957

The positions given have been checked after listing by ~~A. D. Herbert~~

L. W. SWANSON
Chief of Party.

[illegible]

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.

*** TABULATE SECONDS AND METERS**

PHOTOGRAMMETRIC OFFICE REVIEW

T-9518

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 along-shore 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. Joseph D. McEvoy Henry J. Eichal
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:

