

6264

U. S. COAST & GEODETIC SURVEY
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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. PATTON, *Director*

State: WASHINGTON

DESCRIPTIVE REPORT

Topographic

~~Hydrographic~~

Sheet No. F

LOCALITY

~~NORTHERN PART~~ PORT ORCHARD -

North End

PUGET SOUND

1934

CHIEF OF PARTY

JACK SENIOR

U. S. GOVERNMENT PRINTING OFFICE: 1931

6264

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. F

REGISTER NO. **6264**

State Washington

General locality Puget Sound

Locality Northern Part of Port Orchard - North End

Scale 1:10,000 Date of survey July, 1934.

Vessel U.S.C. & G.S.S. EXPLORER

Chief of Party Jack Senior

Surveyed by E. B. Lewey

Inked by E. B. Lewey

Heights in feet above M.H.W. to ground ~~to tops of trees~~

~~Contours~~ Approximate contour ~~from base~~ interval 20 feet

Instructions dated March 29, 1934.

Remarks: Elevations shown in pencil are elevations to tops of trees.

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET "F"
NORTHERN PART OF PORT ORCHARD
PUGET SOUND
WASHINGTON

- 0 -

JACK SENIOR, CHIEF OF PARTY
SEASON OF 1934

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET "F"

NORTHERN PART OF PORT ORCHARD

PUGET SOUND, WASHINGTON

INSTRUCTIONS:

The work done on this sheet was authorized by the Director's Instructions for Project No. HP - 171, dated March 29, 1934.

PURPOSE:

The purpose of the topographic survey was to locate and show the nature of the shoreline, rocks, and reefs within the limits of the sheet. Also, to furnish control for the hydrography in this vicinity.

LIMITS:

The area included on this sheet lies between Latitudes $47^{\circ} 38.3'$ N. and $47^{\circ} 42.3'$ N., and Longitudes $122^{\circ} 33.2'$ W. and $122^{\circ} 37.8'$ W. Exception: This sheet does not include any part of Liberty Bay. Junctions are made with topographic sheet "G", 1934, at triangulation station "BOLD 2", 1934, Latitude $47^{\circ} 42.3'$ N., Longitude $122^{\circ} 33.79'$ W., and at triangulation station "POD 2", 1934, Latitude $47^{\circ} 40.97'$ N., Longitude $122^{\circ} 36.88'$ W. Junctions are made with topographic sheet "E", 1934, at triangulation station "FLAG", 1934, Latitude $47^{\circ} 38.29'$ N., Longitude $122^{\circ} 34.66'$ W., and at triangulation station "VILLE 2", 1934, Latitude $47^{\circ} 38.29'$ N., Longitude $122^{\circ} 35.47'$ W.

CONTROL:

The topography was controlled by the second order scheme of triangulation executed by Jack Senior, Commanding Str. EXPLORER, in 1934.

All triangulation is based on the North American Datum, 1927.

SURVEY METHODS:

The usual plane table survey methods were used. A combination traverse and resection method was used in locating topographic signals, shoreline, and other topographic details. When possible, signals were verified by cuts from triangulation stations.

All rocks and reefs were located by rod readings.

Most of the traverses closed perfectly, and the remaining closures were well within the limit as allowed by the required Standard of Accuracy.

CONTOURS:

All elevations were determined by the usual plane table method. Two or more cuts were obtained for all distant elevations; elevations near the traverse stations were determined by rod readings and angles of elevation. The index correction for the vertical circle on the alidade was determined for each angle.

Practically all of the elevations determined were to the tops of the trees. The trees were not uniform in height and so the height of each tree had to be estimated. In each instance, the estimated height of the tree was deducted from the elevation obtained and the result shown in red as ground elevation. The elevation to the top of the tree is shown in pencil near the accepted elevation. Wherever possible, the heights of trees were measured by distances and angles and the results used as a basis for estimating the heights of other trees.

Since most of the ground elevations were determined by an estimation of the heights of trees over them, the contours as shown on the sheet are considered as approximate contours only.

COMPARISON WITH EXISTING CHARTS:

Chart No. 6443:

Battle Point (Latitude $47^{\circ} 39.8'$ N., Longitude $122^{\circ} 35.5'$ W.) has changed considerably since the survey was made for chart No. 6443. The entrance to the small lagoon is now south of the gravel spit making out to the light. This change is not surprising, since this low and loosely packed gravel spit shows signs of recent change.

Elsewhere, this survey agrees satisfactorily with chart No. 6443. There are some slight differences in the shoreline, but none that cannot be attributed to erosion or filling-in. The wharves shown on the chart at Seabold and Venice are no longer in use, only their ruins remain.

Chart No. 6444:

This survey does not agree with chart No. 6444 at Brownsville (Latitude $47^{\circ} 39.1'$ N., Longitude $122^{\circ} 37.0'$ W.) and at the entrance to Burke Bay just south of

Brownsville. The differences noted here are probably due to changes that have been made in recent years. The lagoon just west of Brownsville has been filled in to some extent and the building shown on the chart on the south side of the entrance to Burke Bay is not standing at present.

Some differences were noticed in the shoreline and shape of the lagoon in Latitude $47^{\circ} 38.3'$ N. and Longitude $122^{\circ} 35.9'$ W. The small bridge across the lagoon is different than shown on the chart. The changes in the lagoon and shoreline is probably due to the deposit of sediment by the small stream emptying here. The bridge in use here now was erected since the previous survey.

The wharf shown on the chart at Tolo (Latitude $47^{\circ} 39.25'$ N., Longitude $122^{\circ} 35.1'$ W.) is not in existence now. The swamp shown here has changed into a small lagoon.

Some minor differences were noticed in Fletcher's Bay (Latitude $47^{\circ} 38.6'$ N., Longitude $122^{\circ} 34.5'$ W.) particularly in the gravel spit across the entrance to the bay. This spit has eroded considerably since the previous survey. The small differences in the shoreline in Burke Bay were noticed and verified.

Elsewhere, this survey agrees satisfactorily with chart No. 6444. A few slight changes in the shoreline were noticed, probably due to natural erosion and filling-in.

There are some differences in the buoys marking the Torpedo Range on charts No. 6443 and 6444. All buoys that are in use at the present time are noted and shown on Hydrographic Sheet No. 5, 1934.

GENERAL DESCRIPTION:

That part of Port Orchard included on this sheet is four miles long in a north and south direction and varies from one to two miles in width. The shores on the east side are moderately low and wooded. The shores on the west side are also wooded, but north of Brownsville they are more abrupt. In general, the land on the west side is higher than that on the east side and is broken up into ridges and valleys.

Manzanita Bay is three-fourths of a mile long north and south and averages one-fourth of a mile in width, narrowing toward its southern end. From the north end

of the bay, a narrow arm extends to the south-east. This arm is muddy and most of it bares at M.L.L.W. A low valley extends eastward from this arm. The east side of Manzanita Bay is cluttered up with pilings, snags, and diving platforms. The area just south of the south end of the bay is low and rolling and some of it is cultivated. One-fourth of a mile east of Venice is a strip of low, heavily wooded ground. It runs in a north-west, south-east direction and extends from the center of the west side of Manzanita Bay to Port Orchard.

A low valley runs behind Battle Point. It is one-third of a mile east of Battle Point, runs north and south, and its northern end is in cultivation. A prominent heavily wooded knoll 86 feet in height lies between this valley and Battle Point.

Fletcher's Bay is one-half of a mile long in a north-east, south-west direction and averages 100 meters in width. The north-east half of the bay bares at M.L.L.W. and is muddy. A stream runs out of Fletcher's Bay at low water but otherwise the entrance to the bay is bare at less than half tide. The deepest part of the bay (about 12 feet at M.L.L.W.) is 300 meters east of the entrance. A low valley extends eastward from the north-east end of the bay.

Burke Bay runs east and west, is one-half of a mile long and averages 100 meters in width. It is muddy throughout and all of it bares at M.L.L.W. A low valley extends westward from its head. A bridge across the entrance to Burke Bay has a clearance of 8 feet at M.H.W. A small lagoon just west of Brownsville connects with Port Orchard through a culvert at topographic signal "SAC". The lagoon is muddy and bares at M.L.L.W.

The shoreline on this sheet is fairly straight.

Generally, the beaches are sand and gravel with occasional boulders. On the west shore between Latitudes $47^{\circ} 40.2'$ N. and $47^{\circ} 40.7'$ N. the beach is flat and sandy and the low water line extends to an average distance of 190 meters offshore.

DISTORTION:

The sheet was frequently tested, but no distortion was noted at any time. A 24" x 31" aluminum mounted sheet was used.

MAGNETIC OBSERVATIONS:

An observations was made at Triangulation Station "GUM", 1934, with the declinitoire.

NEW NAMES:

Seabold Wharf:

The original wharf at Seabold is in ruins and out of use. The wharf to the southward in Latitude $47^{\circ} 41.44'$ N. and Longitude $122^{\circ} 33.95'$ W. is now used in its place and is locally known as Seabold Wharf.

Manzanita Bay:

The small bay in Latitude $47^{\circ} 40.4'$ N. and Longitude $122^{\circ} 33.9'$ W. and just south-west of the town of Manzanita is locally known as Manzanita Bay.

NOTE:

Trees are shown only where they are known to exist. The inland limits of trees on the sheet are not necessarily the actual limits of the trees; the area inland could not be seen and its vegetation not known.

Respectfully submitted,

Ernest B. Lewey
Ernest B. Lewey,
Jr. H. & G. E., C. & G. S.,
U.S.C. & G.S.S. EXPLORER.

Approved and forwarded,

Jack Senior
Jack Senior,
Commanding Officer,
U.S.C. & G.S.S. EXPLORER.

Sheet examined & approved.
Jack Senior

STATISTICS

Number of statute miles of shoreline.....	17.4
Number of statute mile of roads.....	1.7
Number of square statute miles of area surveyed.....	6.4
Number of elevations determined.....	87

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Seattle, Washington,

February 8, 1935.

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Jack Senior, Comdg. Str. EXPLORER.

Chief of Party.

[illegible]

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstuffs and like objects are not sufficiently permanent to chart.

Survey No. 6264

Date. April 27, 1935

GEOGRAPHIC NAMES

WASHINGTON

Chart No. 6450

Diagram No. 6450-2

Approved by the Division of Geographic Names, Department of Interior. ✱

Referred to the Division of Geographic Names, Department of Interior. R

Under investigation. Q

[illegible]

REVIEW OF TOPOGRAPHIC SURVEY No. 6264

Title (Par. 56) *Port Orchard - North End, Washington*Chief of Party *Jack Senior* Surveyed by *E.B. Lewey* Inked by *E.B. Lewey*Ship *Explorer* Instructions dated *Mar 29, 1934* Surveyed in *July 1934*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓
2. The character and scope of the survey satisfy the instructions. ✓
3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓
4. The amount of vertical control that the Manual specifies for -contours-~~formlines~~- was accomplished. (Par. 18, 19, 20, 21, 22, 23.) ✓
5. The delineation of -contours-~~formlines~~- is satisfactory. (Par. 49, 50.) ✓
6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) *None Submitted*
7. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓
8. The representation of low water lines, reefs, ~~coral reefs~~ and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) ✓
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)

See Reverse Side

10. ~~The span, draw and clearance of bridges are shown.~~ (Par. 16c.)
Only vertical clearance shown
11. ~~Locations and elevations of summits are given.~~ (Par. 19, 51.)
12. ~~The tree line was shown on mountains.~~ (Par. 16g.)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

Paragraph 9

T1637 (1881)

This survey is on a scale of 1:20,000 whereas the present survey is on 1:10,000. The two surveys are generally in good agreement but due to the difference in scale the present survey is much more in detail. Rocks shown close inshore on the survey of 1881 fall within the L. W. line on the present survey.

T3530 (1915)

This survey covers both sides of Port Orchard from Battle Point south. The two surveys are in close agreement except for details of docks or other man-made changes. The Tolo Wharf shown on T3530 does not appear on the present survey.

T3675 (1917)

This is a revision survey on a copy of chart 6443. Docks shown on this survey are all shown on the present survey. The Tolo Wharf mentioned under T3530 above does not appear on this revision survey of 1917. T6264 supersedes T1637, T3530 and T3675 in part.

The present edition of chart 6450 shows the Tolo Wharf as a dotted line indicating abandonment and decay. It is recommended that it be deleted from the chart as it does not appear on the present survey T6264 or the contemporary hydrographic survey H5576. Other differences between the chart and the present survey are discussed on pages 2 and 3 of the Descriptive Report.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓
14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~
15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMS and DPs, 68.) *None Submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) ✓
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) *No note of having checked declination
Declination checks value shown on chart*
18. The geographic datum of the sheet is *N.A. 1927 (Adjusted)* and the reference station is correctly noted. (Par. 34.) ✓
19. Junctions with contemporary surveys are adequate. ✓
*Joins T 6265 (1934) on the North
Joins T 6263 (1934) on the South*
20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) ✓
21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓
22. No additional surveying is recommended. ✓
23. The Chief of Party inspected and approved the sheet and the descriptive report ~~after review by~~ ✓
24. Remarks:

Reviewed in office by *Chas. P. Bush Jr.* *June 26, 1936*

Examined and approved:

C. H. Green
Chief, Section of Field Records

L. O. Polbut.
Chief, Division of Charts

Fred. L. Peacock
Chief, Section of Field Work

W. H. de
Chief, Division of Hyd. and Top.