DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: Washington

DESCRIPTIVE REPORT.

Topographic Sheet No. 4193

Locality:
Strait of Juan de Fuca-S. Shore
New Dungeness to E. side of
Port Angeles

1926

Chief of Party:
H. A. Cotton
DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET NO. 4193
(Field Letter "D")

NEW DUNGENESS

to

PORT ANGELES

STRAIT OF JUAN DE FUCA - WASHINGTON

May - June
1926

Scale - 1 : 20,000
AUTHORITY -

The topography was executed in accordance with instructions to the Commanding Officer of the Motor Vessel NATOMA, dated March 4th, 1926.

LIMITS -

The work on this sheet is a re-survey, extending westward from the base of Dungeness Spit to within a half mile of the Lyon-Hill's Mill on the eastern side of Port Angeles. These mills were formerly the U. S. Government Spruce Mills. The sheet also includes the portion of the mainland south of Dungeness Spit as far east as the Dungeness River. The longitude limits are 123° 23' on the westward and 123° 06' on the eastward.

CONTROL -

Only four old triangulation stations, Ediz Hook L. H., New Dungeness Radio Compass Station, New Dungeness (1921) and New Dungeness L. H. were recovered. Of these the Radio Compass station has been moved but the center of the old station is still preserved by a 1/4 pipe set in concrete. However four new tertiary stations were established, viz. Hill, Morse 2, Green 2, and Bluff 2 and an additional intersection station, Ho was determined, giving a total of 9 control points for the survey.

ELEVATIONS -

Inasmuch as this was a re-survey, few elevations were determined. All shown refer to height above Mean High Water.

METHODS -

The entire portion of the sheet to the eastward of Triangulation Station Bluff 2 was surveyed by plane table triangulation and three point fixes. Traverses were run along the beach for the portion of the sheet to the westward of Triangulation Station Bluff 2. The traverses with their length and closure are as follows:

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Length (St. Li.)</th>
<th>Closure</th>
<th>Closure per Mi.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Δ Bluff 2</td>
<td>Δ Green 2</td>
<td>5.75</td>
<td>16</td>
<td>3.1</td>
</tr>
<tr>
<td>Δ Green 2</td>
<td>Δ Morse 2</td>
<td>3.37</td>
<td>17</td>
<td>5.0</td>
</tr>
<tr>
<td>Δ Morse 2</td>
<td>Point determined by 3 point fix</td>
<td>1.75</td>
<td>07</td>
<td>4.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>10.87</td>
<td>42</td>
<td></td>
</tr>
</tbody>
</table>

Average closure per mile 3.86
CHARACTER OF SHORELINE

The greater part of the shore line west of Triangulation Station Bluff 2 has a sandy beach and yellow clay bluffs averaging 100 to 150 feet in height. The high water line touches the base of the bluffs.

Dungeness Spit is sand and is completely covered with driftwood.

The portion south of the spit has a sandy mud shore line except for the sand spits which project from this shore.

An alluvial fan is formed at the mouth of Dungeness River. This is discussed further under "Changes in Shore Line".

There is a good deal of kelp along the shore to the westward of Triangulation Station Morse 2. It extends offshore for about 150 to 200 meters.

The beach from Triangulation Station Green 2 as far as the point about 2 miles west of Triangulation Station Green 2 has numerous boulders and on that point there are a number of low water rocks which were located by the topographer. The heights they bear above M.L.L.W. are given. These were obtained by noting the time, date, and height bare and later reducing for tide.

PROMINENT OBJECTS

There are several breaks in this bluff line which are quite prominent and are suitable for land marks from offshore. Of these the three V-shaped ravines and the cove mouth noted on the sheet between Triangulation Stations Green 2 and Morse 2 are the most prominent. The breaks in the cliff line caused by the large creek between Stations Bluff 2 and Green 2 is also prominent.

The water tank at the radio station (described as Signal Tank) is a good land mark, though too close to the light to be of much use. At the point marked "Old Town" on the shore south of the spit there is a prominent group of white buildings. The most outstanding one is the north gable of a white house which is described as Signal Sgc on Form 524. The church steeple, Signal Chc and school house cupola, Signal Schc show well in some directions but are of little use when a mile or more north of the spit.

GEOGRAPHIC NAMES

The group of white buildings about 1.5 mile west of Dungeness Post Office is known locally as "Old Town" and has been so shown on this sheet. However, most of these buildings are now deserted and will probably deteriorate.

The creek at Triangulation Station Morse 2 is known locally as Morse Creek.

The creek at Green Point 2 is known as Siebert Creek.

LOW WATER LINE

The low water line in Dungeness Bay may be found on the hydrographic smooth sheet which had not been plotted at the time of transmission of these records.
ANCHORAGES

The only anchorages offering shelter are those inside the
spit. As hydrography was executed here these places will be fully
taken up in the hydrographic descriptive report.

CHANGES IN SHORE LINE *

The most important changes have occurred on Dungeness Spit
and at the mouth of the Dungeness River. The latter carries a
good deal of sediment which is deposited at the mouth forming
an alluvial fan of mud flats, covering a large area. The high
water mark here is indefinite as it is very flat and the storm
high water mark extends far in from the ordinary high water mark.
The shore line here has built out about 200 meters.

The spit which protrudes southward from the main spit has
widened 15 to 20 meters, due to building up on the east side.
This is due to driftwood which is beached here forming a revet-
ment which fills in with sand. The end of the main spit has grown
to the eastward about 150 meters, for the same reasons as those
just mentioned above. The lines of driftwood plainly mark the
advance of the H. W. mark.

The narrow portion of the spit between the N.R.C. station
and the lighthouse has moved to the southward about 30 to 40
meters throughout its length. It is the belief of the topographer
that this is caused by the winter storms throwing drift logs
clear across the spit, thus forming a revetment on the south side.
The general movement of the spit has been toward the south
and east and it has widened toward the eastern and western ends.

It is reported by the lighthouse keeper that the spit
breaks through at the thin portion near the lighthouse almost
every winter.

The shore line between Station Green Point 2 and Station
Morse 2 was found to differ from the last survey. This portion
of the shore line is found to be from 20 to 40 meters north of
that shown on bormid # 2859 of the 1907-08 survey. On this sheet
the topographer ran a traverse from Station Morse 2 and closed
on Station Green 2 with a closing error of 17 meters to the north-
ward, checking in distance exactly and with a 17 meter error in
azimuth. This error was distributed throughout the traverse.
As azimuth checks from at least two stations, viz. Station Ediz
Hook L.H. and either Station Morse 2 or Station Green Point 2
were to be had through almost the entire length of the traverse
and no large discrepancy was noted at any time, it is felt that
this portion of the shore line is correct as shown.

The shore line at Station Morse is still cutting in at a
slow rate. Station Morse was lost and plotted just on or slightly
below high water. This shore line has eroded 10 to 12 meters
since 1908. It has eroded a total of about 40 meters since 1892.
The small creek shown as emptying into the mouth of Morse
Creek from the westward has entirely disappeared. Only an occa-
sional indication of the old bed can be found.

The remaining shore line agrees with the old survey.
COMMUNICATIONS -
Daily service of a train each day is maintained over the Chicago, Milwaukee & Puget Sound Railroad, a portion of which is shown on this sheet.

The Olympic Highway parallels the coast a short distance inland. Bus service is maintained over the highway between Port Angeles, Sequim and points east.

The S. S. "Sol Duc", freight and passenger, docks daily at New Dungeness County Wharf.

The hydrographic report will furnish more detailed information regarding New Dungeness.

GENERAL DESCRIPTION OF COUNTRY -
The country in general is a relatively flat plateau for several miles inland, where the foothills of the mountains begin. From Station Bluff 2 to Port Angeles the cliff is continuous, except for creek breaks, though only the portion from Station Horse 2 eastward has bare yellow cliffs.

GENERAL NOTES -
There is little logging done in this portion of the country as compared with the section 15 to 20 miles to the westward. For the most part, it is a dairying country with fruit, berry and truck farming carried on on a minor scale.

STATISTICS

<table>
<thead>
<tr>
<th>Statute Form</th>
<th>Statute Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statute miles of shore line</td>
<td>28.87</td>
</tr>
<tr>
<td>Statute &quot; &quot; creeks, sloughs, etc.</td>
<td>6.5</td>
</tr>
<tr>
<td>Statute &quot; &quot; roads and railroads, etc.</td>
<td>4.5</td>
</tr>
</tbody>
</table>

| Elevations | 16 |
| Triangulation | 10 |
| Plane Table | 21 |

| Positions occupied | 83 |

Examined, approved and forwarded, Respectfully submitted,

Harold Cotton
Hyd. & Geo. Engineer,
C. & G. Survey,
Launching M. V. NATOA.

Carl I. Aaslakson
Hyd. & Geo. Engineer,
C. & G. Survey,
# LIST OF PLANE TABLE POSITIONS

<table>
<thead>
<tr>
<th>Name &amp; Description</th>
<th>Latitude &amp; Longitude</th>
<th>Seconds in Meters</th>
<th>Est. Height above H.W. ft</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;D, New Radio Compass Station</td>
<td>48 10</td>
<td>1016 (837)</td>
<td>20</td>
<td>Described Form 524</td>
</tr>
<tr>
<td></td>
<td>123 07</td>
<td>1163 (77)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TANK, Tank at N. R. C.</td>
<td>48 10</td>
<td>841 (1012)</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 08</td>
<td>100 (1140)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GUN, Flagstaff, Olympic Gun Club</td>
<td>48 08</td>
<td>1775 (78)</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 07</td>
<td>536 (704)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHU, Church spire in New Dungeness</td>
<td>48 08</td>
<td>1554 (299)</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 07</td>
<td>367 (873)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCHOOL</td>
<td>48 08</td>
<td>1093 (760)</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 07</td>
<td>798 (443)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YEL, North gable of Yellow House</td>
<td>48 08</td>
<td>1522 (331)</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 08</td>
<td>67 (1174)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHIM, Cement chimney, red roofed house</td>
<td>48 08</td>
<td>1765 (88)</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 08</td>
<td>587 (654)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAR, Water tank near Signal Chim</td>
<td>48 08</td>
<td>1753 (100)</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 08</td>
<td>649 (592)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SILO, near Signal Chim</td>
<td>48 08</td>
<td>1686 (169)</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 08</td>
<td>693 (548)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOC, East gable, house on dock</td>
<td>48 09</td>
<td>464 (1399)</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 08</td>
<td>1224 (17)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAC, North gable, white house in Old Town</td>
<td>48 09</td>
<td>41 (1612)</td>
<td>90</td>
<td>Described Form 524</td>
</tr>
<tr>
<td></td>
<td>123 09</td>
<td>143 (1097)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WET, Shack on beach, north gable</td>
<td>48 08</td>
<td>1756 (86)</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 09</td>
<td>1201 (39)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIG, North gable of big barn</td>
<td>48 08</td>
<td>1690 (163)</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 10</td>
<td>11 (1229)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRY, East gable, white house</td>
<td>48 08</td>
<td>1645 (207)</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>123 09</td>
<td>1193 (47)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name &amp; Description</td>
<td>Latitude</td>
<td>Seconds</td>
<td>Est. in Height</td>
<td>Remarks</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------</td>
<td>---------</td>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td>NEW, East gable of new house</td>
<td>48 08</td>
<td>1182 (671)</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>HAD, East gable, new barn</td>
<td>48 08</td>
<td>965 (669)</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>SPOT, Center, small shack on spit</td>
<td>48 08</td>
<td>1801 (52)</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>BOULDER,</td>
<td>48 07</td>
<td>709 (1144)</td>
<td>2 Described Form 524</td>
<td></td>
</tr>
<tr>
<td>WEDGE, (Marked)</td>
<td>48 07</td>
<td>67 (1786)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CAVERN,</td>
<td>48 06</td>
<td>1535 (318)</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>ISLE, (Marked)</td>
<td>48 06</td>
<td>1701 (152)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4193 (Field Letter "D")

State Washington

General locality South Shore, Strait of Juan de Fuca, S. Shore

Locality New Dungeness to East side of Port Angeles

Chief of party HAROLD A. COTTON, H. & G. E.

Surveyed by CARL I. ASLAKSON, JR., H. & G. E.

Date of survey May, June, 1926

Scale 1 : 20,000

Heights in feet above Mean Sea Level

Contour interval ______ feet

Inked by C. I. A. Lettered by C. I. A.

Records accompanying sheet (check those forwarded): Photographs, Descriptive report, Horizontal angle books, Field computations, Data from other sources affecting sheet

Remarks:
* Where notation on rocks awash "Bares _____", occurs, the number refers to the height the rock bares above M. L. L.W.