DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Director

State: Washington

Acc. No.

DESCRIPTIVE REPORT
Topographic B Sheet No. 4306
Hydrographic

LOCALITY
Grays Harbor
Copalis Head to Cape Elizabeth

1927

CHIEF OF PARTY
T.J. Maher
DESCRIPTIVE REPORT
to accompany

TOPOGRAPHIC SHEET "B" 4304

Coast of Washington
Copalis Head to Cape Elizabeth

U.S.C. & G.S.S. GUIDE
1927

Thos. J. Maher
Chief of Party.
DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET "B"

AUTHORITY - Orders to Thos. J. Maher, H & G Engineer, dated March 5, 1927.

LIMITS - This sheet covers the coast of Washington from Copalis Head, latitude 47° 09' to Cape Elizabeth, latitude 47° 22'.

CONTROL - Control for the survey is furnished by stations located by third order traverse at about two and one-half mile intervals.

METHODS - The ordinary plane table method was used for executing the survey.

The trail indicated north of Taholah was sketched on the sheet after the survey, from notes observed when travelling the trail.

The half mile stretch of road close by the beach, between stations North and Hix, was sketched by similar notes.

Points on the low water line were obtained at practically all places at extreme low water, and this line is well located.

The traverse for the road, north of latitude 47° 18', was run by orienting, by declinatoire and reading single distances, between stations South and Dab.

Traverses were all short and closed within the allowable limits. The traverse from station North to station Quinault was run before station Quinault had been computed; this traverse was in error, about 20 meters in azimuth. It was adjusted by swinging the station Quinault.

The abruptness of the beach does not lend the country favorably to obtaining elevations nor form lines. As many elevations as could be determined without too great delay in the progress of the work were obtained.

GENERAL DESCRIPTION - In general the shore is steep to, with well defined high water line. From Copalis Head to Point Grenville the beach is sand and about 200 meters wide. The stretch from Copalis Head to the Nocips River is generally soft and very treacherous for automobile travel. From a point one mile north of the Nocips River the beach can be travelled at all times except at extreme high water, with safety, as far as Grenville Bay. North of Point Grenville beach travel by automobile is out of the question; the beach is of soft sand and only about 40 meters wide as far as the Quinault River. North of the Quinault River, the shore is extremely rocky and steep to. It is impossible to travel the beach on foot beyond a point one-half mile north of the Quinault River at any time, except at extreme low water. The three points where stations Wing, Pan and Pot are located are similarly impassable. Cape Elizabeth can be passed only with great difficulty, and only when there
is little sea, and at extremely low water. The Indians recognize
this, and have constructed a trail leading from Moclips to Queets,
to make this stretch passable. North of Cape Elizabeth, the point
400 meters from the Cape, is passable only at extreme low tide.
At impassable stages of the tide best use of the time available
can be made by travelling the Indian trail from the Quinault River
as far as station Taholah, where the beach can first be approached
by a precipitous descent. It takes two and one-half hours to travel
this trail. From station Wing to station Taholah, the shore
is as nearly vertical as a natural formation can be, at an even
height of about 200 feet.

The road from Pacific Beach to Moclips is well graded
and improved. Beyond Moclips, as far as station Fin, it is pass-
able at all times. North of here the road has just been completed
and opened up and is not in good condition. Use can be made of
the beach as far as station Del, and beyond here of the old road,
which is passable at all times as far as Taholah. The trip from
Pacific Beach to Taholah can be made in 40 minutes.

From Point Grenville north to station Hot, the shore is
a vertical bluff at an even height of about 110 feet.

In general the country is well wooded. Appropriate leg-
ends appear on the sheet.

Cape Elizabeth is readily recognizable from the south.

When fairly close to shore, Point Grenville is not so easily recog-
nized. Grenville Arch Rock is not as easily recognized from the
south as the two in Grenville Bay, because of their lighter color.

Coast Pilot Notes, furnished by the Commanding Officer
of the Ship GUIDE, 1927, give information on the general aspect of
the coast from offshore.

RIVERS, CREEKS AND TOWNS - Jo Creek is of no industrial importan-

During the beach tourist season rowboats frequent it's waters in
the lower part, which is affected by tide for three-quarters of a
mile inland; up to the Aberdeen road. Pacific Beach is connected
with Aberdeen by a good graded road, and also by the Southern Paci-
fic Railroad. It is of no commercial importance, but is a favorite
beach resort. A large hotel and many cottages furnish accomodations
for visitors.

Moclips is a resort similar to Pacific Beach. There are
several saw-mills located here.

The Moclips River, like Jo Creek, practically dissapears
in the sand before it reaches the sea. The river is dammed at Moclips
and is used for floating logs.

The Coast Pilot Notes adequately describe Taholah. (see
the preceding).

The Quinault River bar can be crossed by boats and launches
drawing but a few feet of water. The Indians disport themselves
crossing the bar in their canoes, most of which are equipped with
small motors. They also travel by poling their canoes as far as Lake Quinault. Lately, however, the motor truck is used to transport these canoes over the highways, and the descent of the river only is made. Licensed Indian pilots make these trips, carrying tourists from Lake Quinault to Taholah.

The Quinault River is noted for it's salmon fishing, which is the main occupation of the Indians.

NEW PLACE NAMES — Pacific Beach and Sunset Beach. Both are well established local names.

Quinault is also spelled Quinaielt on government signs posted within the reservation.

CHANGE OF COAST LINE — The most noticeable change is at Pacific Beach, where Jo Creek has eroded the bluff on the north to an extent alarming to the inhabitants.

No particular change over the old survey, which does not show much detail, is noticeable at Point Grenville, nor to the north. But the steepness of the bluffs, with indications of continual erosion, shows that the shore is receding. This is particularly true north of the Quinault River, where debris is continually falling.

GENERAL — A list of plane table positions and of landmarks for charts is appended.

Respectfully submitted,

E. H. Bernstein
E. H. Bernstein,
H & G Engineer,
USC & GSurvey.

APPROVED:

Thos. J. Maher,
Chief of Party.

Inspector and Field agent

Ed. Hess, Mar 8, 1928
<table>
<thead>
<tr>
<th>OBJECT</th>
<th>DESCRIPTION</th>
<th>LATITUDE</th>
<th>D.M. METER</th>
<th>D.P. METER</th>
<th>HEIGHT, feet</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAT</td>
<td>cross boards</td>
<td>47 09</td>
<td>885</td>
<td>124</td>
<td>11 495</td>
<td>15 on dead tree stump below high water line.</td>
</tr>
<tr>
<td>MIKE</td>
<td>large tripod</td>
<td>47 09</td>
<td>1705</td>
<td>11</td>
<td>682 12</td>
<td>peak of triangular shaped yellow bluff.</td>
</tr>
<tr>
<td>LAR</td>
<td>yellow bluff</td>
<td>47 10</td>
<td>699</td>
<td>11</td>
<td>762 50</td>
<td>same as station Roosevelt.</td>
</tr>
<tr>
<td>CUT</td>
<td>tripod</td>
<td>47 10</td>
<td>1199</td>
<td>11</td>
<td>872 30</td>
<td>on white dead tree.</td>
</tr>
<tr>
<td>SHI</td>
<td>cross boards</td>
<td>47 11</td>
<td>46</td>
<td>11</td>
<td>1016 15</td>
<td>front gable of gray house.</td>
</tr>
<tr>
<td>HIL</td>
<td>house</td>
<td>11</td>
<td>377</td>
<td>11</td>
<td>990 30</td>
<td>on tree.</td>
</tr>
<tr>
<td>DOG</td>
<td>cross boards</td>
<td>11</td>
<td>950</td>
<td>11</td>
<td>1191 15</td>
<td>on tree.</td>
</tr>
<tr>
<td>LO</td>
<td>stump</td>
<td>11</td>
<td>1180</td>
<td>11</td>
<td>1854 20</td>
<td>on tree stump below h.w. line.</td>
</tr>
<tr>
<td>POP</td>
<td>cross boards</td>
<td>47 12</td>
<td>75</td>
<td>12</td>
<td>119 12</td>
<td>on tree stump below h.w. line.</td>
</tr>
<tr>
<td>MOM</td>
<td>cross boards</td>
<td>47 12</td>
<td>75</td>
<td>12</td>
<td>92 10</td>
<td>lone new shack.</td>
</tr>
<tr>
<td>SHA</td>
<td>shack</td>
<td>12</td>
<td>371</td>
<td>12</td>
<td>102 30</td>
<td>southermost water tank at Pacific Beach.</td>
</tr>
<tr>
<td>HOP</td>
<td>tank</td>
<td>12</td>
<td>865</td>
<td>12</td>
<td>389 18</td>
<td>an old telegraph pole.</td>
</tr>
<tr>
<td>CAN</td>
<td>cross boards</td>
<td>12</td>
<td>1500</td>
<td>12</td>
<td>630 30</td>
<td>white washed tree trunk, leans seaward.</td>
</tr>
<tr>
<td>ABE</td>
<td>tree</td>
<td>47 15</td>
<td>495</td>
<td>12</td>
<td>677 12</td>
<td>on tree.</td>
</tr>
<tr>
<td>BOT</td>
<td>cross boards</td>
<td>13</td>
<td>659</td>
<td>12</td>
<td>706</td>
<td>pile of white rocks.</td>
</tr>
<tr>
<td>PIL</td>
<td></td>
<td>13</td>
<td>858</td>
<td>12</td>
<td>841 50</td>
<td>single chimney on big gray roof.</td>
</tr>
<tr>
<td>GRAT</td>
<td>chimney</td>
<td>13</td>
<td>1570</td>
<td>12</td>
<td>982 80</td>
<td>Newest and most southern house at Moclips.</td>
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<tr>
<td>NEW</td>
<td>house, west</td>
<td>47 14</td>
<td>202</td>
<td>12</td>
<td>999</td>
<td>chimney west of McCallum Hotel, Moclips.</td>
</tr>
<tr>
<td>KUST</td>
<td>chimney</td>
<td>14</td>
<td>377</td>
<td>12</td>
<td>1196 50</td>
<td>Cupola on Moclips R. R. station.</td>
</tr>
<tr>
<td>CUP</td>
<td>cupola</td>
<td>14</td>
<td>975</td>
<td>12</td>
<td>302</td>
<td>on prominent eroded cliff.</td>
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<tr>
<td>FIN(a)</td>
<td>big signal</td>
<td>47 15</td>
<td>681</td>
<td>124</td>
<td>303</td>
<td>front gable of southern of two Indian houses.</td>
</tr>
<tr>
<td>FIN(b)</td>
<td>big signal</td>
<td>15</td>
<td>703</td>
<td>13</td>
<td>303 60</td>
<td>on tangent tree.</td>
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<tr>
<td>LOT</td>
<td>house</td>
<td>15</td>
<td>1058</td>
<td>13</td>
<td>676 15</td>
<td>small gray lone shack.</td>
</tr>
<tr>
<td>BO</td>
<td>cross banners</td>
<td>15</td>
<td>1456</td>
<td>13</td>
<td>1022 12</td>
<td>on leaning tree trunk.</td>
</tr>
<tr>
<td>HAK</td>
<td>shack</td>
<td>47 16</td>
<td>14</td>
<td>13</td>
<td>617 12</td>
<td>on tree trunk.</td>
</tr>
<tr>
<td>BAD</td>
<td>cross boards</td>
<td>16</td>
<td>1049</td>
<td>13</td>
<td>1214 15</td>
<td>on tree trunk.</td>
</tr>
<tr>
<td>ZED</td>
<td>cross boards</td>
<td>16</td>
<td>1652</td>
<td>13</td>
<td>155 18</td>
<td>large surface signal.</td>
</tr>
<tr>
<td>YU</td>
<td>sign board</td>
<td>47 17</td>
<td>449</td>
<td>124</td>
<td>155 18</td>
<td>roof of wrecked house.</td>
</tr>
<tr>
<td>SEE</td>
<td>white wash</td>
<td>17</td>
<td>1510</td>
<td>14</td>
<td>579 12</td>
<td>white washed monument like rock.</td>
</tr>
<tr>
<td>MON</td>
<td>rock</td>
<td>17</td>
<td>1657</td>
<td>14</td>
<td>678 30</td>
<td>rock, whitewashed, on promontory.</td>
</tr>
<tr>
<td>DED</td>
<td>tree</td>
<td>47 18</td>
<td>667</td>
<td>124</td>
<td>1216 60</td>
<td>top of west island, Grenville Bay.</td>
</tr>
<tr>
<td>MAD</td>
<td>rock</td>
<td>18</td>
<td>515</td>
<td>15</td>
<td>576</td>
<td>top of east island, Grenville Bay.</td>
</tr>
<tr>
<td>IN</td>
<td>island</td>
<td>18</td>
<td>46 124</td>
<td>16</td>
<td>32 96</td>
<td>top of south island, Grenville Bay.</td>
</tr>
<tr>
<td>OUT</td>
<td>island</td>
<td>47 17</td>
<td>1839</td>
<td>16</td>
<td>87 89</td>
<td>top of west island, Grenville Bay.</td>
</tr>
<tr>
<td>LON</td>
<td>tree</td>
<td>47 18</td>
<td>327</td>
<td>16</td>
<td>564</td>
<td>end and tall lone tree on Point Grenville.</td>
</tr>
<tr>
<td>BIG</td>
<td>rock</td>
<td>18</td>
<td>472</td>
<td>16</td>
<td>972 100</td>
<td>top of big rock, 150 meters off Pt.Grenville.</td>
</tr>
<tr>
<td>YEL</td>
<td>yellow bluff</td>
<td>47 17</td>
<td>92</td>
<td>124</td>
<td>1167 110</td>
<td>peak of very prominent yellow bluff at Wreck Creek.</td>
</tr>
<tr>
<td>HIX</td>
<td>sign board</td>
<td>47 19</td>
<td>114</td>
<td>124</td>
<td>1093 100</td>
<td>big surface signal on bluff.</td>
</tr>
<tr>
<td>PAGE</td>
<td>white wash</td>
<td>19</td>
<td>1110</td>
<td>124</td>
<td>146 15</td>
<td>whitewashed blotch on face of bluff.</td>
</tr>
<tr>
<td>OBJECT</td>
<td>DESCRIPTION</td>
<td>LATITUDE</td>
<td>D.M. meters</td>
<td>D.(\phi). meters</td>
<td>HEIGHT, feet</td>
<td>REMARKS</td>
</tr>
<tr>
<td>--------</td>
<td>----------------</td>
<td>----------</td>
<td>-------------</td>
<td>---------------------</td>
<td>-------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>NOT</td>
<td>signboard sig 47</td>
<td>20</td>
<td>225</td>
<td>124 17 459</td>
<td>100</td>
<td>big surface signal near north edge of bluff.</td>
</tr>
<tr>
<td>DUB</td>
<td>cross boards</td>
<td>20</td>
<td>606</td>
<td>17 642</td>
<td></td>
<td>line.</td>
</tr>
<tr>
<td>STU</td>
<td>tree stump</td>
<td>20</td>
<td>956</td>
<td>17 800</td>
<td>12</td>
<td>white washed 5' stump, 12' high, below HW</td>
</tr>
<tr>
<td>SPM</td>
<td>church spire</td>
<td>20</td>
<td>1423</td>
<td>17 894</td>
<td>20</td>
<td>church at Taholah.</td>
</tr>
<tr>
<td>PILE</td>
<td>pile</td>
<td>20</td>
<td>1711</td>
<td>124 18 171</td>
<td>3</td>
<td>In water 200' past center of R. mouth.</td>
</tr>
<tr>
<td>STUMP</td>
<td>tree stump</td>
<td>47 21</td>
<td>115</td>
<td>18 235</td>
<td>15</td>
<td>prominent tree stump, on projecting cliff.</td>
</tr>
<tr>
<td>WING</td>
<td>whitewash</td>
<td>21</td>
<td>317</td>
<td>18 578</td>
<td>10</td>
<td>on projecting cliff.</td>
</tr>
<tr>
<td>PAN</td>
<td>whitewash</td>
<td>21</td>
<td>435</td>
<td>18 875</td>
<td>20</td>
<td>on projecting cliff.</td>
</tr>
<tr>
<td>POT</td>
<td>whitewash</td>
<td>21</td>
<td>478</td>
<td>18 1079</td>
<td>30</td>
<td>on projecting cliff.</td>
</tr>
</tbody>
</table>
LANDMARKS FOR CHARTS

Steamer GUIDE, 500 Custom House,
San Francisco, Calif., November 21, 1927

Superintendent, 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:

<table>
<thead>
<tr>
<th>Description</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Datum</th>
<th>Method of determination</th>
<th>Charts affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red bluff</td>
<td>47° 10' 1591.5</td>
<td>124° 11' 930.0</td>
<td>N.A</td>
<td>topog.</td>
<td>6002</td>
</tr>
<tr>
<td>Hotel gable</td>
<td>47° 12' 1117.0</td>
<td>124° 12' 279.5</td>
<td>N.A</td>
<td>triang.</td>
<td>6002</td>
</tr>
<tr>
<td>Yellow bluff</td>
<td>47° 17' 92.0</td>
<td>124° 13' 1167.0</td>
<td>N.A</td>
<td>topog.</td>
<td>6002</td>
</tr>
<tr>
<td>RR station cupola</td>
<td>47° 14' 975.0</td>
<td>124° 12' 1196.0</td>
<td>N.A</td>
<td>topog.</td>
<td>6002</td>
</tr>
</tbody>
</table>

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, sand-pipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.
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. B

REGISTER NO. 4306

State: WASHINGTON

General locality: COAST OF WASHINGTON Grays Harbor

Locality: COPALIS HEAD TO CAPE ELIZABETH

Scale: 1:20,000 Date of survey: June-July 1927

Vessel: STORMER GUIDE

Chief of Party: THOS. J. Uscher

Surveyed by: E. H. Bernstein

Inked by: E. H. B.

Heights in feet above H. W. to ground: 1,234,567,890

Centers, approximate: 123,456,789. Form line interval 50 feet

Instructions dated: March 5, 1927

Remarks:

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4306
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. B 4306

State  WASHINGTON

General locality  Coast of Washington

Locality  Copalis Head to Cape Elizabeth

Chief of party  Thos. J. Maher

Surveyed by  E.H. Bemmstein

Date of survey  July, 1927

Scale  1:20,000

Heights in feet above  high water

Contour interval  .50 feet

Inked by  E.H.B.  Lettered by  E.H.B.

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

Remarks: