DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: OREGON

DESCRIPTIVE REPORT
Topographic | Sheet No. S1a & S1b
Hydrographic

LOCALITY

COLUMBIA RIVER
BAKER BAY
SAND ISLAND

19.35

CHIEF OF PARTY
Robert W. Knox
The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter...SLA...T6383a

REGISTER NO.

State........................................Oregon

General locality......Columbia River, Baker Bay

Locality.....................................Sand Island

Scale: 1:5,000...........Date of survey: July, 1935, 19

Vessel...Party No. 9

Chief of Party........Robert W. Knox

Surveyed by..............R. A. Phillec

Inked by......................R. W. K

Heights in feet above...to ground to tops of trees

Contour...Approximate contour Form line interval...........feet

Instructions dated.....February 26, 1935...............19

Remarks:...........................................

..................................................
DESCRIPTIVE REPORT
TO ACCOMPANY
TOPOGRAPHIC SHEETS LETTERS (FIELD) S1a & S1b
SAND ISLAND
OREGON
JULY, 1935
Instructions dated February 26, 1935 Robert W. Knox, E. & G. E.,
Chief of Party

GENERAL DESCRIPTION - Sand Island lies in front of Baker Bay, a
shoal open bight formed by Cape Disappointment and the recession of
the land to the north. It is an island formed by the concentration of
river sand and silt due to the construction of various jetties and
dikes. The shore line of the island, particularly on the river
side, is constantly changing. Neither Broughten’s survey of 1792
nor Rockwell’s survey of 1859 show any indication of the island.

Three dikes, of piling, have been construct-
ed off the south side of the Island in recent years and additional
concretion along that side of the island will undoubtedly result.
The U. S. Engineers have constructed hearings relative to the ad-
visability of diking and entirely blocking the channel between Cape
Disappointment and Sand Island. It is thereby hoped the main ship
channel can be kept at the controlling depth without continual dredg-
ing.

The Island is covered with a sparse growth of
grass with small trees and brush on the northern portion. There is
also considerable driftwood along the western shore of that section
of the island.

Sand Island was early deeded to the United
States Government by the State of Oregon for defence purposes, but
no improvements of a military nature were ever made. Until the
State of Washington outlawed fish traps in 1934, the Government
leased certain sections of the island and adjacent waters to diff-
erent fishing companies, and the waters, as a result, are studded
with the dolphins and piling of numerous fish traps. No attempt
was made to delineate individual traps except in a few cases, be-
cause 1) of their number and 2) the fact that they are located in
non-navigable waters. Limiting piles and dolphins were intersected
and the outer limits sketched in.

The low water line could be obtained only
with the expenditure of a great deal of time and as it was antici-
pated that the area would be sounded out, no attempt was made to
run it in except off the northwest tangent of the Island.
About the time the survey of Sand Island was begun its ownership was in litigation in the Federal Court in Portland, Oregon. The litigants included the Federal Government, the States of Oregon and Washington and several fishing interests. The Commandant at Fort Stevens suggested that a survey on a scale of 1:5 000 might serve an extremely useful purpose in time to come.

All signals used by the U. S. Engineers in their hydrographic surveys of the vicinity were transferred from their blueprints to the topographic sheets and then accurately located on the latter. These have been listed, along with other recoverable objects, and have been included with this report. As it appears probable that the U. S. Engineers will make more use of the survey than this Bureau, their coordinate system was overlaid on the sheets. The position of the grid with respect to the geographic system was computed from the stations VII USE 1935 and SANDS 1935.

LANDMARKS: The most prominent object on the island at the present time is an observation tower (TOWER, SAND ISLAND 1935) erected by the U. S. Army as an observation post. This is apparently a temporary structure and will probably collapse with the first wind of gale force. It is therefore recommended that it be not shown on the charts. The white water tank on the eastern end of the Island is prominent, otherwise there are no landmarks except the aids to navigation. A complete list of landmarks on form 567 is included with the report.

SURVEY METHODS: The alidade was adjusted before field work was undertaken and three and one-half meter rods were graduated from a measured base so that longer half-interval sights were possible.

Standard methods were used in running the traverses. Control was adequate and the closures were either flat or too small to be adjusted. The accuracy of the traverse was checked by the Chief of Party after the field work was completed by plotting two triangulation stations, BAY 1935 and BAKER 1935, which had not been computed at the time that section of the Island was surveyed. In one case the check was flat and the other, flat in latitude and about one meter error in longitude.

GEOGRAPHIC NAMES: No new names are included in the area covered by this survey.

COMPARISON WITH PREVIOUS SURVEYS: The shore line of the present survey was reduced to a scale of 1:20,000 and compared with the survey, on a like scale, of 1926. The included blue print shows the discrepancies.

Respectfully submitted,

Robert W. Knox,
Chief of Party.
<table>
<thead>
<tr>
<th>Object</th>
<th>Latitude DM</th>
<th>Feet</th>
<th>Longitude DP</th>
<th>Feet</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Rear</td>
<td>46° 16'</td>
<td>534</td>
<td>123° 59'</td>
<td>952</td>
<td>13961 E</td>
</tr>
<tr>
<td>Sand Island Art.</td>
<td>46° 15'</td>
<td>1729</td>
<td>123° 59'</td>
<td>929</td>
<td>14036 E brown top</td>
</tr>
<tr>
<td>Dolphin</td>
<td>46° 16'</td>
<td>878</td>
<td>123° 59'</td>
<td>555</td>
<td>15264 E</td>
</tr>
<tr>
<td>Peacock Spit Rear</td>
<td>46° 16'</td>
<td>1753</td>
<td>123° 59'</td>
<td>721</td>
<td>11720 E</td>
</tr>
<tr>
<td>Pile</td>
<td>46° 16'</td>
<td>1010</td>
<td>123° 59'</td>
<td>705</td>
<td>11771 E</td>
</tr>
<tr>
<td>Pile</td>
<td>46° 16'</td>
<td>878</td>
<td>123° 59'</td>
<td>555</td>
<td>15264 E</td>
</tr>
<tr>
<td>Ilwaco Channel &quot;2&quot;</td>
<td>46° 16'</td>
<td>590</td>
<td>123° 59'</td>
<td>141</td>
<td>15638 E diamond shaped/</td>
</tr>
<tr>
<td>Pile</td>
<td>46° 16'</td>
<td>669</td>
<td>123° 59'</td>
<td>141</td>
<td>15638 E sign board</td>
</tr>
<tr>
<td>Pile 7</td>
<td>46° 15'</td>
<td>1259</td>
<td>123° 58'</td>
<td>829</td>
<td>18581 E north high corner dock house</td>
</tr>
<tr>
<td>Cable Crossing</td>
<td>46° 15'</td>
<td>1498</td>
<td>123° 58'</td>
<td>488</td>
<td>19698 E wooden plattom</td>
</tr>
<tr>
<td>Stiffleg</td>
<td>46° 15'</td>
<td>1021</td>
<td>123° 58'</td>
<td>175</td>
<td>19712 E sign board</td>
</tr>
<tr>
<td>Jake</td>
<td>46° 15'</td>
<td>1648</td>
<td>123° 58'</td>
<td>328</td>
<td>20211 E slat signal N portion house on pier</td>
</tr>
<tr>
<td>USE Dolphin</td>
<td>46° 15'</td>
<td>4051</td>
<td>123° 58'</td>
<td>332</td>
<td>20211 E slat signal N portion house on pier</td>
</tr>
<tr>
<td>&quot;B&quot; Front</td>
<td>46° 15'</td>
<td>1807</td>
<td>123° 58'</td>
<td>170</td>
<td>3879 E</td>
</tr>
<tr>
<td>Ilwaco Channel</td>
<td>46° 15'</td>
<td>1261</td>
<td>123° 57'</td>
<td>1066</td>
<td>22018 E</td>
</tr>
<tr>
<td>Double pile</td>
<td>46° 16'</td>
<td>172</td>
<td>123° 59'</td>
<td>500</td>
<td>15443 E</td>
</tr>
<tr>
<td>File</td>
<td>46° 16'</td>
<td>1685</td>
<td>2137 N</td>
<td>124</td>
<td>3879 E</td>
</tr>
<tr>
<td>Slanting Pile</td>
<td>46° 17'</td>
<td>8</td>
<td>2714 N</td>
<td>124</td>
<td>8111 E</td>
</tr>
<tr>
<td>File</td>
<td>46° 16'</td>
<td>1618</td>
<td>1483 N</td>
<td>124</td>
<td>14263 E</td>
</tr>
<tr>
<td>File</td>
<td>46° 16'</td>
<td>1021</td>
<td>23 S</td>
<td>124</td>
<td>15418 E shack</td>
</tr>
<tr>
<td>Joe</td>
<td>46° 16'</td>
<td>1065</td>
<td>6184 N</td>
<td>124</td>
<td>6752 E</td>
</tr>
<tr>
<td>File 13</td>
<td>46° 17'</td>
<td>985</td>
<td>5921 N</td>
<td>124</td>
<td>7510 E</td>
</tr>
<tr>
<td>File 41</td>
<td>46° 17'</td>
<td>126</td>
<td>3103 N</td>
<td>124</td>
<td>8828 E dolphin</td>
</tr>
<tr>
<td>Dol</td>
<td>46° 17'</td>
<td>1697</td>
<td>2179 N</td>
<td>124</td>
<td>10112 E</td>
</tr>
<tr>
<td>Upper Rear</td>
<td>46° 17'</td>
<td>453</td>
<td>4503 N</td>
<td>124</td>
<td>10810 E</td>
</tr>
<tr>
<td>Dredging Front</td>
<td>46° 17'</td>
<td>793</td>
<td>950 S</td>
<td>124</td>
<td>10141 E</td>
</tr>
<tr>
<td>Lower Front</td>
<td>46° 16'</td>
<td>1275</td>
<td>793 S</td>
<td>124</td>
<td>10810 E</td>
</tr>
<tr>
<td>Pete</td>
<td>46° 16'</td>
<td>744</td>
<td>950 S</td>
<td>124</td>
<td>12756 E</td>
</tr>
<tr>
<td>Dolphin</td>
<td>46° 16'</td>
<td>558</td>
<td>1558 S</td>
<td>124</td>
<td>11912 E</td>
</tr>
<tr>
<td>Zeko</td>
<td>46° 16'</td>
<td>136</td>
<td>2944 S</td>
<td>124</td>
<td>11354 E sig on dock hse</td>
</tr>
<tr>
<td>Eben</td>
<td>46° 15'</td>
<td>1773</td>
<td>3650 S</td>
<td>124</td>
<td>8609 E old scaffold</td>
</tr>
<tr>
<td>Jack</td>
<td>46° 16'</td>
<td>10</td>
<td>3357 S</td>
<td>124</td>
<td>7386 E ww on pile</td>
</tr>
<tr>
<td>IV USE</td>
<td>46° 16'</td>
<td>254</td>
<td>2557 S</td>
<td>124</td>
<td>9028 E</td>
</tr>
<tr>
<td>Sand Island Cuttler</td>
<td>46° 16'</td>
<td>490</td>
<td>1781 S</td>
<td>124</td>
<td>7975 E</td>
</tr>
<tr>
<td>Off Rear</td>
<td>46° 16'</td>
<td>347</td>
<td>3826 N</td>
<td>124</td>
<td>728  E Ilwaco Channel</td>
</tr>
<tr>
<td>Single Pile</td>
<td>46° 17'</td>
<td>347</td>
<td>3826 N</td>
<td>124</td>
<td>10477 E</td>
</tr>
<tr>
<td>Cut Dolphin</td>
<td>46° 16'</td>
<td>228</td>
<td>2644 S</td>
<td>124</td>
<td>7301 E</td>
</tr>
</tbody>
</table>
LANDMARKS FOR CHARTS

Astoria, Oregon

October 15, 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:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>POSITION</th>
<th>DATUM</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>(White water tank, TANK, white Sand 1, 25)</td>
<td>46 15 1980.1 123 59 547.6 NA1927</td>
<td>tri</td>
<td>6151</td>
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The following aids to navigation the names of which are the same as they appear in the triangulation records

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>POSITION</th>
<th>DATUM</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance Front</td>
<td>46 15 1617.2 123 59 1160.0 NA1927</td>
<td>tri</td>
<td>do</td>
</tr>
<tr>
<td>Entrance Rear</td>
<td>46 16 79.2 123 58 1039.6 do do</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Ilwaco Channel &quot;5&quot;</td>
<td>46 17 806.8 124 01 88.7 do do</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Ilwaco Channel &quot;3A&quot;</td>
<td>46 16 1512.4 124 00 365.0 do do</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Ilwaco Channel &quot;3&quot;</td>
<td>46 16 1188.3 123 59 969.6 do do</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Ilwaco Channel Light</td>
<td>46 15 1199.5 124 00 511.7 do do</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Sand Island Lower Dike</td>
<td>46 15 1002.4 123 59 825.9 do do</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Sand Island Middle</td>
<td>46 15 694.8 123 58 1088.1 do do</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Sand Island Dike Light</td>
<td>46 16 755.3 123 58 879.0 do topo</td>
<td>do</td>
<td>do</td>
</tr>
<tr>
<td>Ilwaco Channel &quot;2&quot;</td>
<td>46 15 1281.3 123 57 1066.4 do do</td>
<td>do</td>
<td>do</td>
</tr>
</tbody>
</table>

The above positions have been verified in accordance with paragraph 4 of the instructions for preparation and submission of form 567.

Robert W. Knox

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, 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 an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may be described in a report that they are grouped together. In such instances, the description of each object should be short, but such as will clearly identify it; for example, a tank, gas tank, church spire, tail stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) Inshore, (3) Harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

Robert W. Knox

U.S. Government Printing Office: 1934...
APPROVAL OF CHIEF OF PARTY

Topographic sheets SIa and SIb have been inspected and approved by me. The field work was done under my occasional supervision.

Robert W. Knox,
E. & G. Eng'r,
Chief of Party.
<table>
<thead>
<tr>
<th>Name on Survey</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baker Bay</td>
<td></td>
<td>615</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sand Island</td>
<td></td>
<td>615</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Names underlined in red approved by [Signature] on 1-24-36
MEMORANDUM
IMMEDIATE ATTENTION

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>Initial</th>
<th>Attention called to</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td></td>
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<tr>
<td>22</td>
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<tr>
<td>90</td>
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</tr>
</tbody>
</table>

RETURN TO
82

Jan. 21, 1936
C. K. Green
REVIEW OF TOPOGRAPHIC SURVEY No. 6383a.

Title (Par. 56) Sand Island, Oregon

Chief of Party R. W. Knox Surveyed by R. A. Philcox Inked by R. W. Knox

Ship Field Party 9 Instructions dated Feb 26, 1935 Surveyed in July, 1935

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, 60.)

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.)

11. Locations and elevations of summits are given. (Par. 19, 51.)

12. The tree-line was shown on mountains. (Par. 16b.)

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

All previous surveys up to 1926, when T4251 was surveyed, were inspected and disregarded as far as making a comparison with the present survey T6383a. A comparison between T4251 (1926), and the present survey T6383a (1935), is made on a blue print attached to the descriptive report.

T6383a supersedes T1139b, T1139, T335, T317, H250, H273 and T4251 in part.
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.) Declin. check = Error + 52. Meridian on sheet corrected for declin. error.

18. The geographic datum of the sheet is N.A. 1927 (unadjusted) and the reference station is correctly noted. (Par. 34.)

19. Junctions with contemporary surveys are adequate.

20. Geographic names are shown on the sheet and are covered by the descriptive report. (Par. 64, 66.)

21. The quality of the drafting is good. (Par. 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.)

22. No additional surveying is recommended. Referred to the Chief of Party to clear up R.R. tracks and Sand Bank.

23. The Chief of Party inspected and approved the sheet and the descriptive report after review by

24. Remarks:

Reviewed in office by Charles R. Burkh, June 19, 1936.

Examined and approved:

C. T. Green
Chief, Section of Field Records

Fred. L. Peacock
Chief, Section of Field Work

L. O. Coburn
Chief, Division of Charts

G. W. Hinde
Chief, Division of Hyd. and Top.
Title (Par. 56) Sand Island, Oregon


Ship Field Party: 99 Instructions dated: Feb 24, 1925  Surveyed in: July, 1925

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, 60.)

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.)

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

All previous surveys up to 1926, when T4251 was surveyed, were inspected and disregarded as far as making a comparison with the present survey T6383b. A comparison between T4251 (1926), and the present survey T6383b (1935), is made on a blue print attached to the descriptive report.

T6383b supersedes T1139b, T1138, T335, T317, H250, H273 and T4251 in part.
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.) Declination checked - Error +53°
Meridian, shown in block instead of red
Meridian shown in block instead of red

18. The geographic datum of the sheet is N.A.1927 (Unadjusted) and the reference station is correctly noted. (Par. 34.)

19. Junctions with contemporary surveys are adequate.

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, 43, 45, 46, 47, 48, 49, 50.)

22. No additional surveying is recommended. Referred to the Chief of Party to clear up R.R. tracks and Sand Bank

23. The Chief of Party inspected and approved the sheet and the descriptive report after review by

24. Remarks:

Reviewed in office by Chas. R. Beach Jr. June 17, 1936

Examined and approved:

Fred. H. Green
Chief, Section of Field Records

Fred. R. Peacock
Chief, Section of Field Work

L. O. Robert
Chief, Division of Charts

James
Chief, Division of Hyd. and Top.