DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: Oregon

LOCALITY
- Astoria
- John Day Pt. to Skipanon
- Creek

1926

CHIEF OF PARTY
- T.J. Maher
U. S. COAST & GEODETIC SURVEY

E. Lester Jones, Director

LIST OF PLANE TABLE POSITIONS
To Accompany

TOPOGRAPHIC SHEET #1.

U. S. S. GUIDE
1926

Thos. J. Maher, H & G E
Chief of Party
<table>
<thead>
<tr>
<th>Object or Station</th>
<th>Latitude</th>
<th>D.M. Meters</th>
<th>Longitude</th>
<th>D.P. Meters</th>
<th>Height</th>
<th>Remarks and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stile 46-09</td>
<td>46-09</td>
<td>1604.3</td>
<td>123-53</td>
<td>594.0</td>
<td></td>
<td>Banner nailed to stile on dyke fence.</td>
</tr>
<tr>
<td>* Gab 46-10</td>
<td>46-10</td>
<td>1582.0</td>
<td>123-53</td>
<td>913.8</td>
<td></td>
<td>SE gable of yellow colored oil house.</td>
</tr>
<tr>
<td>* White 46-10</td>
<td>46-10</td>
<td>1697.0</td>
<td>123-52</td>
<td>987.0</td>
<td></td>
<td>Light, white house on piles.</td>
</tr>
<tr>
<td>* Bar 46-09</td>
<td>46-09</td>
<td>1760.0</td>
<td>123-52</td>
<td>976.2</td>
<td></td>
<td>Cloth on 2nd water bbl., SW end ry. trestle</td>
</tr>
<tr>
<td>* Gate 46-09</td>
<td>46-09</td>
<td>1547.0</td>
<td>123-51</td>
<td>588.8</td>
<td></td>
<td>East draw gate, Lewis &amp; Clark bridge.</td>
</tr>
<tr>
<td>Drum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>drum of old draw-bridge.</td>
</tr>
<tr>
<td>Dolph</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dolphin marking west shoal</td>
</tr>
<tr>
<td>Pile 46-08</td>
<td>46-08</td>
<td>1136.6</td>
<td>123-51</td>
<td>1207.6</td>
<td></td>
<td>Pile at head small island, Lewis &amp; Clark river.</td>
</tr>
<tr>
<td>* Vent 46-09</td>
<td>46-09</td>
<td>1831.6</td>
<td>123-50</td>
<td>724.0</td>
<td></td>
<td>North ventilator from Dairy barn.</td>
</tr>
<tr>
<td>* New Tower 46-09</td>
<td>46-09</td>
<td>1441.0</td>
<td>123-49</td>
<td>572.5</td>
<td></td>
<td>New U.S.N. Radio tower.</td>
</tr>
<tr>
<td>Dol 46-09</td>
<td>46-09</td>
<td>1278.6</td>
<td>123-48</td>
<td>1060.0</td>
<td></td>
<td>Dolphin west side island Youngs river.</td>
</tr>
<tr>
<td>F.S. Power Plant 46-10</td>
<td>46-10</td>
<td>1237.4</td>
<td>123-50</td>
<td>597.5</td>
<td></td>
<td>Flag staff, P.G. &amp; E. Power Plant.</td>
</tr>
<tr>
<td>White chimney</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Very prominent P.G. &amp; E. Power Plant.</td>
</tr>
<tr>
<td>*Pile Light 46-10</td>
<td>46-10</td>
<td>145.6</td>
<td>123-51</td>
<td>527.2</td>
<td></td>
<td>White housed on pile Youngs Bay.</td>
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<tr>
<td>Gray 46-10</td>
<td>46-10</td>
<td>1726.0</td>
<td>123-51</td>
<td>125.8</td>
<td></td>
<td>Chimney, Robert Gray School</td>
</tr>
<tr>
<td>*Tank 46-11</td>
<td>46-11</td>
<td>486.6</td>
<td>123.51</td>
<td>567.9</td>
<td></td>
<td>Black water, Port Docks, Pier #2</td>
</tr>
<tr>
<td>Object or Station</td>
<td>Latitude</td>
<td>D.M. Meters</td>
<td>Longitude</td>
<td>D.P. Meters</td>
<td>Height</td>
<td>Remarks and Description</td>
</tr>
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</tr>
<tr>
<td>Tank</td>
<td>46-11</td>
<td>866.6</td>
<td>123-51</td>
<td>567.9</td>
<td>140'</td>
<td>Black water, Port Dock Pier #2</td>
</tr>
<tr>
<td>F.S.</td>
<td>46-11</td>
<td>555.2</td>
<td>123-51</td>
<td>459.8</td>
<td></td>
<td>Flag Staff, Port Docks Pier #1</td>
</tr>
<tr>
<td>F.R. Light</td>
<td>46-11</td>
<td>1090.4</td>
<td>123-50</td>
<td>945.0</td>
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<td>On west corner of cannery house.</td>
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<tr>
<td>Tower</td>
<td>46-11</td>
<td>559.0</td>
<td>123-50</td>
<td>546.4</td>
<td></td>
<td>US Weather Bureau Tower</td>
</tr>
<tr>
<td>Green</td>
<td>46-11</td>
<td>845.6</td>
<td>123-49</td>
<td>1253.8</td>
<td></td>
<td>Green cupola Western Hotel.</td>
</tr>
<tr>
<td>Chim</td>
<td>46-10</td>
<td>1823.3</td>
<td>123-49</td>
<td>634.9</td>
<td></td>
<td>Prominent Chimney, Tyler's House on hill.</td>
</tr>
<tr>
<td>Astor Column</td>
<td>46-10</td>
<td>1678.0</td>
<td>123-49</td>
<td>62.5</td>
<td>719'</td>
<td>On top Coxcomb Hill</td>
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<tr>
<td>Depot</td>
<td>46-11</td>
<td>1053.6</td>
<td>123-49</td>
<td>95.8</td>
<td></td>
<td>FS SP &amp; S Depot, Astoria</td>
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<tr>
<td>Stacks W</td>
<td>46-11</td>
<td>805.0</td>
<td>123-48</td>
<td>1102.0</td>
<td></td>
<td>West stack iron stacks Astoria Box Co.</td>
</tr>
<tr>
<td>Stacks E</td>
<td>46-11</td>
<td>615.0</td>
<td>123-48</td>
<td>1166.0</td>
<td></td>
<td>East stack iron stacks Astoria Box Co</td>
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<tr>
<td>Red Tank</td>
<td>46-11</td>
<td>727.6</td>
<td>123-48</td>
<td>1021.0</td>
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<td>Astoria Box Company.</td>
</tr>
<tr>
<td>Nor</td>
<td>46-11</td>
<td>672.6</td>
<td>123-48</td>
<td>796.0</td>
<td></td>
<td>Steeple, Norwegian Lutheran Church</td>
</tr>
<tr>
<td>Luth</td>
<td>&quot;</td>
<td>889.3</td>
<td>123-48</td>
<td>936.0</td>
<td></td>
<td>Cross, First Lutheran Church</td>
</tr>
<tr>
<td>* Dane</td>
<td>&quot;</td>
<td>932.3</td>
<td>&quot;</td>
<td>232.4</td>
<td></td>
<td>Silver Cross, Danish Lutheran Church</td>
</tr>
<tr>
<td>Front</td>
<td>&quot;</td>
<td>562.2</td>
<td>&quot;</td>
<td>1256.0</td>
<td>30.4</td>
<td>Stack, front of power house</td>
</tr>
<tr>
<td>Stack</td>
<td>&quot;</td>
<td>1263.1</td>
<td>47</td>
<td>1216.2</td>
<td></td>
<td>Iron stack at sawmill</td>
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<tr>
<td>Object/Station</td>
<td>Meters</td>
<td>Meters</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Con</td>
<td>(331.3)</td>
<td>(331.1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can W</td>
<td>1521.3</td>
<td>1055.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can E</td>
<td>(288.4)</td>
<td>(240.2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up</td>
<td>1789.3</td>
<td>1170.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cin</td>
<td>(1712.8)</td>
<td>(745.5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What</td>
<td>(1223.0)</td>
<td>(55.4)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Flag Staff USLH Base</td>
<td>880.3</td>
<td>1230.0</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Guage Pile Lt. 46-12</td>
<td>1848.4</td>
<td>1272.0</td>
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<td></td>
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<tr>
<td>Tongue Pt. Crossing Lt. 46-13</td>
<td>(1535.6)</td>
<td>(686.7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small 46-12</td>
<td>1431.6</td>
<td>506.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Look</td>
<td>864.6</td>
<td>924.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ban</td>
<td>(1439.0)</td>
<td>954.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Watchman’s House 10</td>
<td>(245.0)</td>
<td>(790.3)</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Tall Dead Tree 46-10</td>
<td>909.6</td>
<td>(289.0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish 46-12</td>
<td>(756.6)</td>
<td>(591.5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* These objects recommended to be charted as Landmarks.

- West Iron Stack Cannery
- East Iron Stack Cannery
- Iron Stack Small Cannery Mills
- Old incinerator Hammond
- Old USF Station 2", C-1 pipe in concrete
- Old USF Station 2", C-1 pipe near office
- Elevator S, South Dock Sub-base
- John Day Ry. Bridge, S, side
- So. Side John Day River
- S,gable Fish House
- Welch sands

* Right housed on piling.
U. S. COAST & GEODETIC SURVEY

E. Lester Jones, Director

DESCRIPTIVE REPORT TO ACCOMPANY

TOPOGRAPHIC SHEET #1 4263

Anton C. joy
U.S.S. Guide

Season 1926

Thos. J. Maher, Chief of Party
DESCRIPTIVE REPORT

To Accompany

TOPOGRAPHIC SHEET

No. ........../ ...........
Scale. ................

U. S. S. GUIDE, 1926

Thos. J. Maher, H & C E, Commanding.
DESCRSCRIPTIVE REPORT

Topographic Sheet #1

U.S.S. GUIDE, Season 1926

Scale 1:10,000. Limits: Lat. 45°08' - 46°14'
Long. 123°44' - 123°54'
(projection at angle of 66° with long edge of sheet)

This sheet covers the south shore of the Columbia River from the Skipanon Waterway to John Day Point, including Young's Bay and portions of the Lewis and Clark and Youngs Rivers, and including the City of Astoria, Oregon.

This complete revision survey was made according to your verbal instructions of July 7, and August 29-30, 1926, and in conformity with the Director's Instructions, dated April 17, 1926, a copy of which is appended. Work was commenced on this sheet August 30, 1926; and completed October 18, 1926. Weather conditions were bad after October 1st and those days unfitted for field work were devoted to transferring details from City Engineers' data to the topographic sheet. During the time the sheet was being surveyed a double line of levels was run from the Clatsop County Courthouse to Pier #1 of the port docks, at the request of the port authorities. And a day was devoted to copying the tide records of the U.S. Engineers Gauge at Fort Stevens.

Unfortunately the Instructions covering this Topography were somewhat confusing, and as my verbal instructions called for a complete new survey, and contouring, they were carried out. Conditions and changes in the general shore line were such that a complete new survey was necessary over this area, and this was made as rapidly as a revision survey could have been accomplished. Your attention is called to the fact that I was not aware of the Director's letter of October 4, 1926, [Ref. 10-LE, copy appended], regarding the contouring of hills in vicinity of Astoria, etc., and the securing of plans of Astoria and Warrenton, until January, 1927, when I was inking the detail on this sheet here in Oakland.
California. Consequently no plans of the city were secured, and a good deal of time was spent during the season obtaining elevations for contouring. However during bad weather I had the run of the manager and City Engineer's offices in Astoria, and I personally transferred all the information obtainable to the topographical sheet.

ORGANIZATION AND TRANSPORTATION. The party consisted of three hands and one officer. Transportation was by White Truck No. 38.

CONTROL was by previously executed triangulation. The schemes dating from 1851 to 1912. It was found that all lights located by previous triangulation (with the exception of Tongue Point Crossing Light on the Lighthouse Dock at Tongue Point) had been moved. Also it was found that the dome of Clatsop County Courthouse was out of position. City Engineers report a considerable sliding movement in certain sections along the north base of the Astoria hills. This may account for the Courthouse dome being out, or there may have been confusion in the original location; it is not a conspicuous landmark. (See notes on Recovery Triangulation Stations).

SHORELINE. High water line is accurately shown. Low water line is approximate only. On the mud flats in the vicinity of the mouth of the Lewis and Clark River there are many large stumps and roots, gradually decaying where they grew. Some of these stand rigidly in the mud and form a menace to small boat navigation over the flats at high tide.

DOCKS. There are a great many docks of light construction along the Astoria waterfront. These are for drying gill nets and trap webb. They can be distinguished by their drying racks, built like long "saw horses", and larger craft should not attempt to secure by them. Generally there is a row of mooring piles, about 60 feet off along each side of these docks, for securing the fishing fleet.

Besides the Port Docks, those most used by Steamers are the Sanborn Dock at the foot of 9th Street, and the O. R. & N., and S. F. & S. Railway Docks.

Attention is called to the fact that there is considerable water area inside the S. P. & S. Railway trestle to the S.W. of Tongue Point. This area is all foul with pile stumps and miscellaneous debris, and has heretofore been shown as solid area. This is somewhat confusing to the stranger navigator of small craft.
when looking for landmarks in this vicinity.

YOUNG'S BAY may be defined as that body of water and tidal flats lying east of the S. P. & S. Railway trestle, where it comes from Smith Point to the south shore a mile west of the Lewis and Clark River, and extending for one-half mile east of the Astoria-Seaside highway bridge to where the bay narrows and swings south into Young’s River. All along the south shore of Young's Bay extensive mud flats are bare at low water. There is a swing draw in the S. P. & S. Railway bridge, signal a long and a short blast; and a lift draw in the highway bridge, signal one long and two short blasts.

THE LEWIS AND CLARK RIVER joins Young’s Bay one and one-half miles south of Smith Point. It is navigable by small craft for several miles, and a great deal of timber is rafted out from the head waters, especially hemlock. Local knowledge is required for its navigation. Extensive mud flats extend into Young’s Bay along the south shore and along each side of the Lewis and Clark River. The Astoria-Seaside highway crosses one-third mile above the mouth of the river, and the bridge has a lift draw.

YOUNG'S RIVER a continuation of the upper end of Young's Bay where it turns from east to south, is navigable for several miles by small craft. Like the Lewis and Clark river, a logging railroad dumps the logs at the head of navigation where they are rafted and towed out by tugs.

JOHN DAY RIVER opening just west of John Day Point on the south shore of Columbia River two miles S.S.E. of Tongue Point, is navigable by smaller craft for several miles. It is a popular rendezvous for house boats and raft houses, and a great many people live in such quarters in the vicinity of the highway bridge. The S. P. & S. Railway crosses John Day River at its mouth. There is a hand-operated, swing draw.

GENERAL TOPOGRAPHY. West of the west shore of Young's River and along the south shore of Young's Bay the land is low and flat, being protected by dykes thrown up along the bay shore and on the river and slough banks. The soil is very fertile and is extensively cultivated in truck gardening, mostly by Japanese and Chinese.

North and east of Young's River, and east of Smith Point the land lies in heavily timbered hills. West of the John Day River the hills slope gradually, up to the general crest terminating in Tongue Point.
TONGUE POINT. Four miles east of Smith Point is a prominent tongue-like projection extending northeasterly one mile into the Columbia River. It is one-quarter mile wide and has a maximum elevation of 308 feet. It is heavily wooded. The U.S. Lighthouse Service maintains a dock and base on the northwest side of the Point; and there is a Navy Destroyer and Submarine Base of four small docks on the east side. A very strong current draws around Tongue Point. There is a rock crusher and quarry on the N.W. end of Tongue Point which make prominent landmarks.

ASTORIA is the largest town on the lower Columbia River. Its industries are the salmon fisheries, sawmills and box factories, oil works (rendering fish oil), and dairy products. It is a thriving modern little city spread over the north face of the ridge termination in Smith Point.

TRAINS. There is direct connection by rail to Portland and to Seaside over the S. P. & S. line.

STAGES. Regular auto-stage schedules are maintained to all points.

FERRY. The Astoria-North Beach Ferry carries automobiles to and from Point Alice and highway connections on the Washington side of the Columbia River. A regular two-hour schedule is maintained during the day. There is also a ferry connecting with the railway at Megler, Washington.

ROADS. Astoria is on the Columbia River Highway between Seaside and Portland. The Williamsport road leads into the Olney Road, and to the Young's River Loop, Olney, Jewel, and the Nehalem Valley.

LANDMARKS. The most conspicuous landmarks on this sheet are:

The Astor Column, 719 feet to peak of dome from sea level, is on top of Coxcomb Hill. A prominent white brick chimney at the Power Plant of the Pacific Gas and Electric Company, west of highway bridge on north shore of Young's Bay. The new 140 foot black steel water tank at Pier #2 of the Port Docks. The gold cross on St. Mary's Hospital at 16th and Exchange Streets. The Astoria Hotel; and the rock crusher and quarry on N.W. side of Tongue Point. (see topographic sheet and list of plane table positions)

CONTOURS. The Director's letter referred to in
the introductory remarks of this report, ( copy appended ), was first mentioned and shown me in Oakland when I was finishing the inking on this sheet. A number of the elevations I had determined were inked on the sheet and part of the contouring, twenty foot intervals, had been done. The elevations on the S.E. corners of all street intersections are shown in small red numerals. These were obtained from City Engineer's data which they had shown on their "master sheets". Only actual streets that are cut and built are shown on sheet. Those streets shown with heavily shaded lines on one side are of concrete and asphalt. Light lines indicate unimproved roads and docks.

GENERAL. The docks and dock housing along the Astoria water front are located with sufficient accuracy to be used as Hydrographic Signals, and should this be desired at a later date it would only be necessary to tack up signal cloth, or use white-wash on such objects as I have located in order to make them stand out for signals.

William T. Combs
H. & G. Engineer,
U. S. Coast and Geodetic Survey.
(COPY)

10-13

UNITED STATES COAST AND GEODETIC SURVEY

WASHINGTON

April 17, 1926.

To: Commanding Officer,
Coast and Geodetic Survey,
Steamer GUILE,
San Pedro, California.

From: Director, U.S. Coast and Geodetic Survey.

Subject: INSTRUCTIONS.

TOPOGRAPHY

3. You will make a complete topographic survey along the coast. Permanent stations shall be established approximately five miles apart. Where boulders and rock formation exist, the stations shall be approximately two miles apart. The triangulation party shall establish permanent stations at points selected in accordance with their instructions. You will supplement these stations as may be necessary to meet the above requirements for frequency of permanent stations. Descriptions of all topographic of hydrographic stations marked by your party, as well as all definitely recoverable points, although not otherwise marked, shall be prepared and submitted on Form 324.

4. The location of prominent objects and landmarks shall be noted as required by paragraphs 194 to 196 of the General Instructions.

5. It is not intended that the work shall be carried into Village Bay or Gray’s Harbor. However, the entrance points to these places shall be well rounded and permanent station marks established for future use, if you are unable to recover former stations in this vicinity, or you will remark those recovered if it is necessary to preserve them.

6. There will be forwarded to you by separate mail photostatic copies of topographic sheets 5044 and 5921 at these entrance points in order that you may overlay the previous work. If, in your judgment, revision work on these points or within the bays is necessary at this time, you will so inform me in order that the matter may be considered.
7. You will make a topographic survey, on a scale of 1:10,000, of the southern shore of the Columbia River between Clatsop Spit and Tongue Point, rounding the latter sufficiently to include the improvements on the east side. Any permanent stations established by the U. S. Engineers or State Surveyors within these limits should be tied into the survey. Blueprints of various improvements in the vicinity of Bremerton forwarded to this office have been too indefinite for use in constructing the chart.

8. Shore line references shall be located in all your work where the provisions of paragraph 62 a of the General Instructions, as amended by Circular 769, published in Bulletin 123, August, 1925, apply.

/s/ W. Bowie
Acting Director.

I certify this to be a true and correct copy of the Director's instructions of this date.

Wm. T. Remels
DEPARTMENT OF COMMERCE
U.S. Coast and Geodetic Survey
Washington

October 4, 1926

To: Commanding Officer,
   Coast and Geodetic Survey,
   Steamer GUILLI,
   Astoria, Oregon.

From: Director, U.S. Coast and Geodetic Survey.

Subject: Survey South Shore of Columbia River.

Referring to your letter of September 21, you are advised that your instructions covering the survey of the south shore of the Columbia River should have stated that this was to be a revision survey and should be made in accordance with paragraphs 172 to 174 inclusive. It should also have been stated that contouring of the hills in the vicinity of Astoria would be omitted.

Then a new chart is made of this section, the extension of the city will be shown and where this extension cuts into the contours as shown on the chart at the present time, the contours will be omitted.

It is desired that you furnish plans of Astoria and Warrenton with any other local maps which may be available. Particular attention should be given to the correction of these plans in order that they will show details that actually exist and not those which are projected only.

/s/ W. Bowie,
Acting Director.

I certify this to be a true copy of the Director's letter of this date.
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 1
REGISTER NO. 4263

State. OREGON

General locality. PACIFIC COAST Astoria
John Day Pt. to Skilpanon Creek

Locality. South Shore Columbia River, Astoria

Scale. 1:10,000 Date of survey Sept. 1-Oct. 18, 1926

Vessel. USS GUIDE

Chief of Party. Thos. I. Mahler

Surveyed by. Wm. T. Combs

Inked by.

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

Contour. Approximate contour. Form line interval 20 feet

Instructions dated. April 17, 1926

Remarks: Complete Detailed Survey except Contouring.