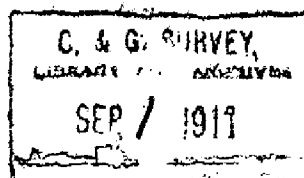


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Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

Superintendent.

State: *Washington*

DESCRIPTIVE REPORT.

*Tonographic* Sheet No. *3224*

LOCALITY:

*Hillman Bay*

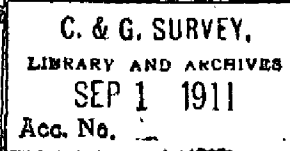
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CHIEF OF PARTY:

*R. B. Derickson*

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*Top. 3224*

Descriptive Report  
to accompany  
Plane Table Sheet of  
WILLAPA BAY,  
WASHINGTON.  
June and July, 1911.  
Scale 1:20000.

R. B. Derickson, Asst., Comdg., and Chief of Party.  
R. B. Elder, Aid, Topographer.

The Topographic survey was made with a plane table and stadia and is controlled by the triangulation. The triangulation points were plotted on the sheet by computed distances instead of on a polyconic projection as no azimuth had been obtained at the time the topographic work commenced. Stations Beach, Boat House, Light House, Water, Shoal, Cape, Beacon, Wharf, East Base, West Base, and Ellen were put on the sheet first and later stations Lead, Better, Dig and Center were added using Beacon-Ellen as a base. Stations George, North and Cove were added to the triangulation scheme after the topo graphic work was partially completed and these were located on the sheet by cuts during the progress of the work.

The sheet shows high water and the low water as near as it could be located and all topographic features up to the tree lines. No attempt was made to determine contours. The trees on Leadbetter Point, on Toke Point and on Cape Shoalwater north and east of the Light House were carefully located as they form prominent land marks.

On both Cape Shoalwater and Leadbetter Point the area between the high water line and the tree line is a level sand devoid of vegetation and with scattered driftwood. All the beaches in this vicinity are sand.

The large sand flat which uncovers at low water about one mile north west of Signal Lead was located at extreme low tide with the plane-table. A local fisherman is authority for the statement that this flat has been formed entirely in the last two years. Two summers ago he said there was a shoal at about the western side of

the present shoal. This shoal never uncovered but broke up the sea so as to make an excellent place for crab fishing in the five or six fathom channel which then occupied the place of the flat as it is today.

The large sand flat due West of Signal Beacon and about on line between Signals Lead and Cape was located from data collected by the sounding parties and recorded in the sounding records. This is also true of the small sand island midway between the last two large flats mentioned. The extreme point of the low water line West of Bay Center and Southwest of Ellen Sands and on the Bay Center side of the channels was also derived from data of the hydrographic parties as no opportunity offered for the topographic party to get it.

Along the West side of Ellen Sands the beach has such a gradual slope as to make the accurate determination of the low water line very difficult. This part of the work and also the sides of the channel to Bay Center I determined by sextant locations and cuts. The extreme Northern low water points of Ellen Sands were accurately located by plane-table. The southern end of the low water channel running from this place toward Pine Island was also accurately located and the intermediate portion of it was sketched.

The low water of the inside of North Cove I determined by means of sextant locations and cuts. Also the low water on the Western shore of Leadbetter Point.

With the exceptions above noted the work was done with plane-table.

The Island called "Ellen Sands" is locally known as "Snag Island". It is sparsely covered with drift wood and is entirely devoid of vegetation.

Pine Island is covered with grass and has several small

pine trees and a couple of deserted shacks. These were at one time used as a quarantine station for a case of smallpox and have never been occupied since.

Tokeland is chiefly notable as a summer resort. The buildings consist of about two dozen cottages and two hotels, the "Tokeland" and the "Rustic". All of these buildings are concealed by the trees except the Rustic Hotel which was used by the hydrographic parties as a signal.

A wagon road runs northwesterly from Tokeland past Georgetown, the Indian village, and out to the beach about one fourth of a mile north of the Boat-house. That portion of the road across the sand flats between the trees and the ocean beach is planked. An automobile is run daily over this road carrying passengers between Tokeland and Westport.

*R. B. Elder, Aid.  
Topographer.*

The buildings and wharf at Bay Center were located by using signals Ellen, East Base, and Light House for three point determination and checking this with a sight to Signal Beacon. This work was done in lieu of better employment one afternoon when the plane-table party, after locating the low water around the north end of Ellen Sands, was forced to seek shelter from a high wind.

*R. B. Elder.*

*R. B. Anderson  
Chief of Party*