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Department of Commerce and Cabor COAST AND GEODETIC SURVEY Superintendent. DESCRIPTIVE REPORT. LOCALITY: 1909 CHIEF OF PARTY:

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Descriptive Report to accompany Topographic Sheet entitled,
"Topography in the Vicinity of the Patos Island Boundary Reference
Monument, Patos Island, Washington."

At the Southeast end of Georgia Strait the Boundary Line between the United States and Canada lies between Saturna Island on the West and Patos Island on the East, and according to the terms of the Treaty of 1908, "the said Commissioners shall adopt in place of the curved line passing between Saturna Island and Patos Island as shown on said charts a straight line running approximately north and south through a point midway between the estern point of Saturna Island and the western point of Patos Island and intersecting the prolongations of the two straight lines of the boundary now joined by a curved line." Hence the need of a reference monument on the western point of Patos Island.

A light house stands on this point, and in accordance with the agreement of the Commissioners to use existing light houses for reference monuments wherever feasible this structure was so sekected. It is, however, built of wood and hence not permanent in character. In order to permanently mark the position of the light three witness marks were established.

Witness Mark No.1 is a block of concrete one foot high, square in section, set on the solid ledge of sandstone and conglomerate on the point at Patos Island outside of the old stake light. A hole drilled in the ledge was plugged with a wooden plug before the mark was molded, so as to prevent the cement from filling

it, as was also done at each of the other marks.

The distance from the mark to the light is 33.76 meters.

Witness Mark No.2 is a block of concrete on foot high and triangular in section, with the corners truncated. It stands near the edge of the sandstone bluff West of the light house. A hole was drilled in the ledge on which it stands before the block was molded.

The distance from the mark to the light is 16.74 meters.

Witness mark No.3 is a block of concrete one foot high and hexagonal in section set near the edge of the sandstone bluff West of the flagstaff at Patos Island light house. A hole was drilled in the solid ledge on which the block stands before the mark was made. A wooden plug set in the top of the concrete block marks the center. When this decays it will leave what will correspond with a drill hole as a center mark. Similar plugs were set in the tops of the other witness marks.

The distance from Witness Mark No.3 to the light is 43.65 meters.

The measured distances between the Witness Marks are as follows. From Witness Mark No.1 to Witness Mark No.2, 28.045 meters. From Witness Mark No.1 to Witness Mark No.3, 67.015 meters. From Witness Mark No.2 to Witness Mark No.3, 39.180 meters.

The light house is a new one, having been in operation less than a year at the time the survey was made. Previous to that a stake light had been maintained farther out on the point. Its

location is shown on the sheet.

Most of Patos Island is timbered, but the vicinity of the light house is bare of trees, and grass covered except for a few out-cropping ledges. The underlying rock is sandstone and a sandstone conglomerate. The former is comparatively soft and easily worn by the waves, which have thus formed a flat shelf of rock between high and low water mark along a considerable part of the shore line. Off the point close in shore a fringe of kelp is growing, and beyond this the tidal currents produce heavy tide rips.

The station can be reached by boat and a landing made at the point in ordinary weather, and even in rough weather Active Cove close at hand, but not shown on the sheet, furnishes a sheltered landing place. The mail boat from Bellingham, which makes two trips a week, may also be used as a means of reaching the place.

Fremont mone,

Assistant, C.& G.Survey,
Chief of Party, U.S.& C.B.S.