This sheet was executed in accordance with instructions issued to Assistant G. T. Rude March 24, 1915.

Owing to the fact that the two shorelines on this sheet are separated several miles it was thought best to take up first one side and then the other, dividing the sheet into the North West Shore and the South East Shore, in writing this report.

The North West Shore of this sheet begins at Red Head and runs North East, terminating at the low, sandy, point on the south side of the entrance to St. Matthew Bay. In approaching this shore from the south the first landfall is the triangular range of mountains extending from Port Fidalgo on the northwest to within a mile and a half of the shore of Port Gravina. These mountains reach a maximum height on this sheet of 1881 feet. They are wooded nearly to the summits. One mile north east of this range is a range running north west and south east and having a maximum height on this sheet of 1808 feet, with a low pass on either side. It is wooded clear to the top. Between these mountains and the shoreline is a low area approximately a mile wide covered with tundra and small mudholes. The only exception being the bluff called Red Head which is an isolated wooded, rounded, knoll 442 feet high. This bluff slopes easily to the water, terminating in a rocky shoreline ten to twenty feet above high water.
Descriptive Report—(Continued)

It is a prominent landmark showing up distinctly from a distance of fifteen miles or more. From Red Head northeast the shore is low and covered with sedge and sand of a dark grayish color. It is very sparsely wooded, the trees growing in small groups.

There are no known outlying dangers or tide rips of any consequence along this shore.

The currents are tidal and parallel the shore.

In the late summer and early fall the mountain peaks in this locality are frequently obscured by heavy mists and clouds.

A group of rocks that are bare at one quarter flood, extends about four hundred meters southeast from the first point northeast of Red Head. A small rocky area is located 400 M. northeast from the narrow sand spit at the south side of the entrance to St. Matthew Bay, which area is not located on this sheet. These rocks are bare at very low water and are isolated from the shore. Small boats may safely go between them and the nearest shore by hugging the shore.

There are three small streams running into the Bay along this shore. They drain shallow high water sloughs, which in turn drain off the rainfall on the flat area between the mountains and the shore. These sloughs never drain completely at low water but, with the exception of the most northerly one, can only be entered at nearly high water by small flat bottomed craft. The one farthest northeast, locally known as Hell's Hole, may be entered at three quarter flood by small boats drawing three feet or less. A basin or bay just inside the mouth of this stream forms an excellent harbor for small boats that can enter but they could only enter or leave at times of favorable tides and also they would be ashore at least a third of the time.
The bottom shoals gradually in approaching this shore from the south east and large vessels may safely anchor anywhere along there during the summer months. The bottom is sandy and the land forms a natural shelter from any wind in the northwest quadrant.

The entire northwest shoreline of this sheet north of the first point north of Red Head is undoubtedly receding due to wave action. The land is alluvial and offers little resistance to erosion. Tree stumps found below the present high water line indicate the backward movement of the shoreline in this locality.

The South East shoreline of this sheet begins at Point Gravina and runs up Gravina Bay about six miles to a place where the mountains recede about half a mile from the shore for a short distance. The mountains gradually increase in height from 500' at Gravina Point to 2013' at the end of the shoreline on this sheet. There are two ranges running up the peninsula formed by Port Gravina and Sheep Bay, a range following the shoreline closely on either side and having a low valley between them. On the lower end of the peninsula the mountains are wooded completely and rounded, but a few on the upper end have rocky peaks and patches of snow on them throughout the summer.

In general the shoreline is rocky with a shale beach at low water.

A few coves, of which there are several, have smooth easy shores but they are not sufficiently surrounded by land to make them serviceable as harbors except from easterly winds and for small craft only.
Descriptive Report—(Continued)

The mountains in most cases rise very near the shoreline and have short valleys at frequent intervals running normal to the shore.

No dangerous tides were seen in this locality. Gravina Island is a small island lying about one mile northwest from Gravina Point and about half a mile offshore. It is covered with small fir trees approximately 30' high. Gravina Rock is a small group of three principal rocks about a mile north of the first point above Gravina Point.

The currents are tidal and run fair with the channel.

Gravina Island and Gravina Rock may be used for surveying purposes as they are distinctive and permanent.

Uncovering rocks may be found at different places within about a hundred meters of the shoreline. Strangers should slow up at least three hundred meters offshore when attempting a landing. About four hundred meters northwest of the upper end of the shoreline on this sheet is a small group of rocks which appear to be composed of vertical strata. They are about five feet above high water.

The contours shown on this sheet are sketched in by estimation after determining the heights of the summits by the usual method with the plane table alidade. The contours on the range of hills nearest Gravina Point were adjusted to agree with those shown on Original Topographic Sheet No. 3417 as the topographer executing that sheet was in a more advantageous position for getting the contours correctly. The topography is controlled by triangulation, using main scheme and secondary positions for orientation and checking up traverses.

HELL'S HOLE is the name assigned by local usage to the blue farthest northeast on the northwest side of the sheet.
Recoverable Topographic Stations.

<table>
<thead>
<tr>
<th>Name</th>
<th>Lat. Meters</th>
<th>Long. Meters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOUSE</td>
<td>60°41' + 210</td>
<td>146°26' + 13</td>
<td>West corner.</td>
</tr>
<tr>
<td>HID</td>
<td>60°41' + 1736</td>
<td>146°10' + 106</td>
<td>Inshore peak of small group of rocks having vertical strata.</td>
</tr>
<tr>
<td>LIGHT</td>
<td>60°40' + 1109</td>
<td>146°12' + 389</td>
<td>Light colored boulder about four feet in diameter.</td>
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</tbody>
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