

2477

Diag. Cht. *9370

U. S. COAST AND GEODETIC SURVEY.

Henry S. Pritchett, Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

Hydrography Sheet No. 2477

LOCALITY:

St. Michael

1900.

CHIEF OF PARTY:

J. J. Gilbert

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NORTON SOUND, ALASKA

U. S. G. & C. SURVEY,
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DESCRIPTIVE REPORT

HYDROGRAPHIC PROJECTION NO 1

SCALE = 1-20,000

The hydrographic survey of St. Michael Bay covered the body of water from a line, Whale Island to a low point of land, forming S.E. point of entrance, to entrance of St. Michael Canal, an area of about six square miles. Hydrographic development was made by a rectangular system of lines about three hundred fifty metres apart. Additional lines were run in N.E. part of Bay to locate a steel barge which was sunk in the harbor in 1899.

Capt. Hansen of the A.C. Co., the owners of the barge, furnished but one bearing on the location and an approximate cross bearing by stating that the barge was in about three and one half fathoms of water. A careful development was made in this vicinity but without any results.

An attempt was made to run lines of soundings in St. Michael Canal, but owing to the shallow water, only one line was carried into the entrance.

Vessels approaching St. Michael Bay from the N.W. wd pick up Stuart and West Mountains on Stuart Island and then Egg Island.

A good anchorage can be found about one half mile to southward and eastward of Whale Island in about three and onehalf to four and one half fathoms of water. The bottom being a heavy, darkblue mud, makes excellent holding ground.

A hydrographic survey of this Bay was made in 1899 by the Officers of the Revenue Cutter "ERAB". The results of the late survey do not show any pronounced changes. There are no known dangers to navigation in

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the Bay. The bottom is regular, running from shore to a maximum depth of three to four fathoms. The deeper water is found on the North side of the Bay. The prevailing winds while the "Pathfinder" was in St. Michael Bay or vicinity were from the southward and eastward, on several occasions the wind increasing to moderate gales. Sea going vessels experienced no trouble of dragging anchors during the gales. Exceptionally high tides follow these southerly gales, the water being forced up into Bering Sea and into Norton Sound. Strong northerly winds have the opposite effect.

St. Michael being the distributing point for the Yukon district and the U.S. Army posts in N.W. Alaska, is visited by many vessels, both steam and sailing, during the season open to navigation. The larger vessels as a rule anchor in the offing, between St. Michael Bay and Egg Island and the freight is lightered ashore.

Coal can be procured at St. Michael, also provisions, but at greatly advanced rates, from the different commercial and trading companies. Water can also be had for from one half to one cent per gallon.

A tide gauge station was established at the A.C. Co's Wharf on the North side of the Bay. A staff gauge was fastened to the inner side of the crib, about 10' x 10', this crib being filled with rock. This position was selected as the most convenient place for tide observers, as well as being the best protected place in the vicinity. The data for connecting this gauge with bench marks that had been previously established in 1899, not being available, the plane of reference was obtained by reference to Black Point Tide Gauge, where observations were taken for a month.

This gauge was used in the reduction of all soundings taken in St. Michael Bay and to the eastward to Ikikiktoik.

C. M. Hittelman

2nd. Watch Officer, In charge of Hydrography.

J. J. Gilbert

Assist: C. & G. Survey. Chief of Party.