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DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, Director

DESCRIPTIVE REPORT

Topographic
Hydrographic } Sheet No. 2505

State Alaska

LOCALITY

Norton Sound

1930

CHIEF OF PARTY

Pratt

U. S. GOVERNMENT PRINTING OFFICE: 1934

U.S.COAST & GEODETIC SURVEY

DR. HENRY S.PRITCHETT, SUPERINTENDENT.

DESCRIPTIVE REPORT

OF THE

HYDROGRAPHY

OF

COAST OF BERING SEA

FROM

TAPKOK TO CAPE NOME,

ALASKA.

SCALE   1/40,000.

BY THE PARTY UNDER CHARGE OF J.F.PRATT, ASSISTANT,

COMMANDING U.S.C.& G.SURVEY STR.PATTERSON.

JULY AND AUGUST   1900.

DESCRIPTIVE REPORT OF THE

HYDROGRAPHIC SHEET, SCALE 1/40,000.

EXTENDING FROM

TAPKOK TO CAPE NOME.

NORTHERN SHORES OF BERING SEA,

ALASKA.

SURVEYED BY THE PARTY ATTACHED TO THE U.S.C.& G.S.

STEAMER PATTERSON

IN

JULY AND AUGUST   1901.

The geographical positions

            are from the triangulation carried from

the astronomical station of 1899 on Carolyn Island and executed by

R.B.Derickson and H.W.Rhodes, Aids in the party, during July and

August 1900.

The shore line

            is from a topographic survey by R.L.Faris, Assistant

in the party, during July and August 1900.

The hydrographic points

            were determined topographically.

The vessel and boats used

were the U.S.C.& G.S.S."Patterson" and its
steam launch "Vixen" and launch "Reynard".

The observers were

J.F.Pratt, Assistant; W.G.Appleton, First Watch Off-
icer; W.I.Eisler, Second Watch Officer; L.M.Furman, Third Watch Officer
and H.T.Powell, Chief Engineer.

The recorders were

H.T.Powell, Chief Engineer; F.H.Thompson, Surgeon;
W.G.Appleton, First Watch Officer and A.E.Brisman, Yeoman First
Class, U.S.N.

The leadsmen were

the crew of the Steamship Patterson, all being
rotated in watches as fast as they were trained, with the exception
of the Launches Crew, where the same two seamen were usually used.

The datum plane

corresponded to 2.5 feet on the Tapkok Tide Staff and
1.7 feet on the Nome Tide Staff and is adopted from a few selected
lowest low waters at the Tapkok Tidal Station.

The mean rise and fall of the tide

is a very uncertain and fluctuat-
ing quantity, all depending upon the winds. Baffling winds of a
good deal of force will create greater daily fluctuations; while
calms , or continuous winds from one direction, will produce the

lesser flucation, i.e. permit the tides to daily fluctuate normally.
The extreme high and low waters

are dependent entirely upon the winds.
Strong northerly ones, prevailing for a few days, will produce
extreme low waters; while strong southerly ones, prevailing for a
number of days, will produce extreme high waters. The range of the
extreme high and extreme low depends upon the violence and directions
of the winds. Taking an average of the tides observed at Carolyn
Island in 1899 and those observed at Tapkok and Nome, which cover
different months of the year, the mean and extreme rise and fall is
about as follows:

Mean rise and fall about   2.0 feet

Extreme rise and fall about   .   6.8 feet.

During the season of 1900 southerly winds prevailed to a much greater
extent than during the two previous seasons, consequently the tidal
observations of 1900 will show a smaller rise and fall than would
probably be obtained from several seasons observations.

Dangers:-

No outlying dangers were discovered along the coast line
of this sheet.

Cape Nome:-

This promontory rises, about 500 feet, abruptly from
the shore line and is the land mark for making this portion of the
coast. Nome City lies about 11-1/4 miles to the westward of it.

Safety Sound;-

extending from Cape Nome to Solomon River, is a very shallow stretch of tide-water. Its eastern entrance is narrow and crooked and only suitable for small crafts. Its westerly entrance, Port Safety, has sufficient water on the bar(6 feet at low tide) for the smaller class of local coast wise vessels.

A separate resurvey, on a scale of 1/10,000, was made of Port Safety. This place has a few wooden buildings and at times a floating population of one or two hundred souls.

Solomon, or Solomon City, at the mouth of Solomon River, was destroyed by high water during one of the gales of September last. This is a small, distributing settlement for the Solomon River mining country. There was supposed to be two or three hundred miners scattered along this stream and its tributaries.

Pack trains and two or four horse wagons are driven from Nome City along the beach to Cape Nome, then over the promontory, then along the sand spit to Port Safety, where the horses are swum across and the freight and wagons ferried, then along the sandy island to Solomon City, where the swimming and ferrying again occurs, then up the bed of Solomon River to the divide, then down one of the tributaries of the Neuckluck to Council City.

The long narrow island, Moody Island, extending from Solomon to Port Safety, is principally of sand with marshy places along its inshore edge. All the back country, with the exception of the summits

of the higher hills, is covered with tundra.

The surface of the summit of Cape Nome is principally covered with irregular, broken granite, which is largely covered with a dark umbilical lichen.

Assistant C.& G. Survey,
Chief of Party.

NAUTICAL CHARTS BRANCH

SURVEY NO. _H.2505_

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1956	Reconstr. 9380	G.H.E.	Mostly thru existing chart 9380 ~~Before~~ After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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A basic hydrographic or topographic survey supersedes all
information of like nature on the uncorrected chart.
Give reasons for deviations, if any, from recommendations
made under "Comparison with Charts" in the Review.