

2519

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey

*Topographic*

Field No.

Office No.

*2519*

LOCALITY

State

*Alaska*

General locality

*Port Safety*

Locality

*Entrance Beering Sea*

1900

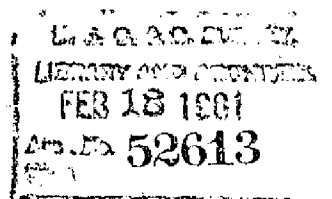
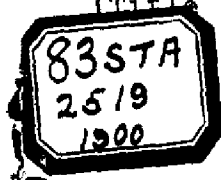
CHIEF OF PARTY

*J. F. Pratt*

LIBRARY & ARCHIVES

DATE

(Title & 5 pages)



U. S. COAST & GEODETIC SURVEY  
DR. HENRY S. BRITCHETT, SUPERINTENDENT.

DESCRIPTIVE REPORT  
OF THE  
TOPOGRAPHIC AND HYDROGRAPHIC SHEET  
SCALE 1/10,000,  
BEING A  
RESURVEY  
OF  
PORT SAFETY ENTRANCE,  
NORTHERN SHORES  
OF  
BERING SEA,  
ALASKA.

BY THE PARTY UNDER J. F. PRATT, ASSISTANT C. & G. S.  
JULY 1900.

TOPOGRAPHY BY J. F. PRATT, ASSISTANT,  
HYDROGRAPHY BY W. G. APPLETON, 1st. WATCH OFFICER.

(Title & 5 pages)

page (1)

STATISTICS OF HYDROGRAPHY PORT SAFETY,  
ALASKA.

DATE- JULY 31st. 1900.

LETTER.....SMALL a BROWN.

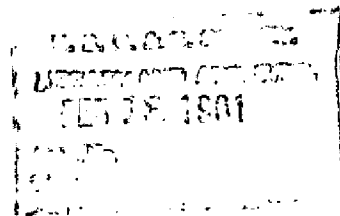
BOAT.....PATTERSON'S DINGHY.

NO OF VOLUMES.....ONE

NO OF ANGLES AND POSITIONS.....50

NO OF SOUNDINGS.....409

NO OF MILES, NAUTICAL.....17



(Title & 5 pages)

page (2)

DESCRIPTIVE REPORT,  
TOPOGRAPHIC AND HYDROGRAPHIC RESURVEY  
OF  
PORT SAFETY, ALASKA.  
SCALE 1/10,000.

PLANE TABLE RESURVEY BY J. F. PRATT, ASSISTANT,  
HYDROGRAPHIC RESURVEY BY W. G. APPLETON, 1st. WATCH OFFICER, "

The change of Geographical Position

of this sheet is due to the adoption of the positions as determined by the triangulation that has been carried westward this season, from the Astronomical Station of 1899 on Carolyn Island, Golofnin Bay, in place of the cruder reconnaissance positions of 1899.

The soundings

are expressed in feet and give the depth as reduced from the selected lowest, low waters observed at the Tapkok Tidal Station.

The tides

in this locality are (practically) diurnal, only one high and one low water occur each day. They are largely influenced by winds. Prevailing northerly weather greatly retards and

diminishes them; while prevailing southerly weather has the opposite effect.

The results of observations at Tapkok, 22 miles to the eastward, between July 10th. and August 1st. 1900 are:

Mean rise and fall about 2.3 feet

Extreme rise and fall about 3.8 feet.

The results of observations at Nome Military Port, U.S.A., between July 29th. and September 2nd., being a period later in the season, with different prevailing winds are:

Mean rise and fall about 0.77 feet

Extreme rise and fall about 6.00 feet.

The mean of the foregoing would give for this entrance:

Mean rise and fall about 1.50 feet

Extreme rise and fall about 5.00 feet.

#### The entrance

to Port Safety is through a short narrow channel, cutting through the narrow strip of land, separating this large lagoon, Safety Sound, from Bering Sea and is about 18-1/2 nautical miles from Nome City, about 6-1/2 miles from Cape Nome and about 10 miles from Solomon City, located at the eastern entrance of Safety Sound.

#### The westerly half

of Safety Sound is about 2 miles wide, the easterly half being narrow. The entire area is full of flats and

shoals and is only navigable for extremely light draught vessels.

The entrance

to Port Safety, though straight is narrow, being less than 200 yards across in the narrowest part. It is clearly marked on the outside by lines of breakers on either side, even in moderate weather; and with a light ocean swell the bar breaks irregularly across the shoalest parts.

The ebb volume of water

appears to be very much greater than the flood volume, indicating that the tidal prism is very appreciably augmented by fresh water tributaries.

During the past twelve months the bar channel

to this entrance has materially changed, the middle ground largely disappearing and a sand shoal forming on its easterly side.

The shore line

on either side of the entrance is low and sandy, but on the easterly side the high water line is at the foot of a low sandy bluff, some twelve feet high. On either side there is a smooth sandy and gravelly beach, which in the entrance proper is bold on the westerly side and gently sloping on the easterly.

Inside

of the entrance proper the channel is narrow and broken in direction; one branch turns sharply to the left toward Cape Nome, while the channel into the broader part of the Sound leads off in a

(Title & 5 pages)

page (5)

northerly direction.

The settlement

of Port Safety is on the West side of the entrance, and is comprised of two or three stores, three or four drinking or gambling places, three or four restaurants and lodging tents and a small fluctuating population, living in tents.

A depth,

not to exceed six or seven feet can be carried into this place on ordinary tide. The best anchorage is just inside and at the head of the bar channel.

For vessels with a draught

of from 18 to 20 feet, a safe depth for anchorage may be found from three fourths of a mile to a mile from the beach, directly off the entrance.



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