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# 3550

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Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

\_\_\_\_\_  
Superintendent.

State: Alaska

DESCRIPTIVE REPORT.

Hydro Sheet No. 3550

LOCALITY:

Approaches to  
Kuskokwim River

\_\_\_\_\_  
191  
\_\_\_\_\_  
CHIEF OF PARTY:

11-4045

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DEPARTMENT OF COMMERCE

Coast and Geodetic Survey

O. H. Tittmann, Sup't.

Hydrographic Sheet No. 3550

Approaches to Kuskokwim River,

A L A S K A.

Steamer EXPLORER

R. S. Patton, Assistant, Chief of Party.

Begun

*June 4, 1913*

Completed

*Aug 5, 1913.*

Scale 1-60000

Boat...Steamer EXPLORER

Hydrography in charge of R. S. Patton, Ass't.,

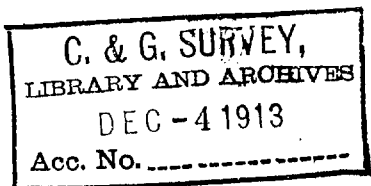
R. R. Lukens, Ass't. & A. R. Hunter, W. O.

Projection by H. A. Cotton.

Positions plotted by H. A. Cotton & A. R. Hunter.

Soundings plotted by R. S. Patton, A. Joachims & H. A. Cotton.

# 3550



## DESCRIPTIVE REPORT.

Hydrographic Sheet No. \_\_\_\_\_

Survey of Approaches to Kuskokwim River.

Scale 1-60000

This sheet covers the same area as hydrographic sheet No. 3409 of the 1912 survey, the work on the present sheet being that necessary to fill in the gaps in the survey of the previous year. For general information regarding this area, therefore, the reader is referred to the 1912 report.

The details of the present survey which require special notice are the shoals.

(1) The shoal area from five to ten miles NE true from Cape Newenham was given further development. Nine feet was the least water found on this shoal, near the spot where eight feet was found the previous year.

(2) The long shoal trending north and south in longitude 162-25 is obviously the long 2-2½ fathom shoal shown on the charts. This shoal extends farther to the southward than is shown on the charts and also has less water than there given, ten feet being the least found.

(3) Inside this shoal, and parallel to it, lies another of similar character, and inside this, in turn, near the northern limit of the sheet, will be found the southern end of a third, which extends to the northward beyond the limits of this sheet.

These, with the bar off the entrance to Goodnews Bay, mentioned in a previous report, comprise all shoals found

in this area.

Nothing has been developed by this survey which necessitates changes in the sailing directions given in the 1912 report.

This sheet is joined on the north by another of the same scale extending from the latitude of  $\Delta$  Head northward to Quinhagamut. This latter sheet was surveyed by Ass't. F. H. Hardy with the YUKON. These two sheets are joined on the west by a third, scale 1-100000, extending from the latitude of Cape Newenham to Quinhagamut.

The soundings have been reduced and plotted. Soundings are referred to the tidal station at Goodnews Bay, north spit; the plane of reference of the gauge having been deduced by simultaneous observations taken with the station on the south spit used during the two preceding years. This station was shifted from the south to the north spit because the latter offered the more advantageous position for landing coal and stores, and it was more convenient to have the station as close as possible to the place where the ship had to anchor.

It will be noticed that certain soundings on the sheet have been plotted in red ink. These are soundings taken in 1912, and were put on the sheet to show the limits of gaps which should be filled in, and to give a comparison of the soundings during the two years.

Current stations in Goodnews Bay have been plotted in position.

In the plotting of the sheet a suggestion made in the spring by Capt. Wainright was followed. This was that as far as possible during the hydrography the positions should be plotted directly on the smooth sheet, thus lessening the amount of office work necessary at the close of the season, and making it possible to send in completed sheets much earlier than could otherwise be done. In areas of regular bottom, therefore, the smooth sheet was used whenever the weather permitted; on shoals, where angles at irregular intervals might be required, and the plotting demanded more time than could be given to it during the actual sounding, a boat sheet was used.

In one or two instances near the northern limits of the sheet, the only left hand objects available for angles, were shut in by rain squalls. The work was therefore done on the 1-100000 sheet, using other signals beyond the limits of the 1-60000, and the work transferred to the 1-60000.

The shoreline is not shown on the sheet, as required by the instructions, for the reason that it was surveyed in 1911 and 1912 and the results turned in to the Office without tracings being made.

A tabular statement of statistics follows.

*Respectfully submitted,*  
*R. S. Patton,*  
*Chief of Party.*

*X*  
*Attached to the Sheet*

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Date	Letter	Vol.	Positions	Soundings	Miles (stat.)	Vessel
June 4, 1913	A	1	131	797	67.50	Ship
" 7 "	B	1	138	983	76.00	"
" 10 "	C	2	76	543	40.0	"
" 14 "	D	2	68	508	30.25	"
" 16 "	E	2	37	261	19.50	"
" 19 "	F	3	64	447	36.00	"
" 22 "	G	3	30	303	16.00	"
" 23 "	H	3	27	222	15.75	"
July 2, "	K	3 & 4	136	376	63.00	"
" 7 "	L	4	106	769	42.50	"
" 8 "	M	4	93	544	39.00	"
" 10 "	N	4	32	179	13.00	"
" 11 "	P	5	101	327	38.75	"
" 15 "	Q	5	27	187	14.30	"
" 18 "	R	5	132	650	54.00	"
" 21 "	S	6	77	487	35.00	"
" 23 "	T	6	27	199	13.50	"
" 29 "	U	6	50	347	22.50	"
Aug. 1, "	V	6 & 7	207	1106	94.40	"
" 4 "	X	7 & 8	201	1397	107.00	"
" 5 "	Y	8	32	224	19.00	"
	Total		1792	11856	857.45	

*Soundings taken in fathoms; plotted in feet.  
Tide gauge at Goodwins Bay. Plane of reference used reads 1.0 ft. on staff.*

VEC  
Mar. 6, 1914.

HYDROGRAPHIC SHEET 3550.

Kuskokwim Bay, Alaska, by Assistant  
R. S. Patton in 1913.

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ASSISTANT IN CHARGE

PIATT CONSTRUCTION

TIDES.

	Goodnews Bay North Spit ft.
Mean lower low water, or plane of reference on staff	1.0
Lowest tide observed " "	-0.1
Highest " " " "	12.1
Mean range of tide	6.3

## Myd. Sheet 3550#

The positions on this sheet were plotted in the field and accepted as correct although checked in places where errors appeared to be possible.

The soundings were plotted by the field party, verified and inked in the office.

Part of the work consisted in running lines to fill up the gaps in the work of 1912 (See Myd # 3409) and in addition new work was done to the north of latitude  $59^{\circ}00'$ .

A sufficient number of soundings were taken to give a fair outline of the shoals running north and south, parallel to one another, between <sup>the</sup> longitudes  $162^{\circ}15'$  &  $162^{\circ}35'$ , a brief description of which, will be found in the descriptive report # 3550#.

Attention might be called to the undeveloped area at the entrance to Goodnews Bay. No explanation, and no information with regard to this area has been supplied by the party.

All through the work records were kept in good shape. Soundings are expressed in feet.

Feb. 18-1914.

J. B. Shklar.



H. 3550.

Good News Bay Approaches. No shoreline on the sheet the soundings are sufficient for immediate needs. It is presumably a changeable area and present depths will vary from those obtained on the sheet.

Sheet examined in Div.  
of Hyd'y & Top'y.