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Diag. Ch. No. 8152-1

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *A. E. Alaska*
11-5613

DESCRIPTIVE REPORT.

Hyd Sheet No. *3932-3932a*

LOCALITY:

Dall Island
West Coast.

19*21*

CHIEF OF PARTY:

F. H. Hardy - J. J. Maher

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Tamp
Feb 16 1918

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DEPARTMENT OF COMMERCE.

COAST AND GEODETIC SURVEY.

Dr. E. Lester Jones, Superintendent.

Descriptive Report.

3932 ^a

Inshore Hydrography, Cape Mazon to Port Bazan.

DALL ISLAND, ALASKA.

Steamer Explorer.
May-June, 1917.

T. J. Maher, Chief of Party.

Cape Muzon to Port Bazan, Dall Island, Alaska.

Steamer Cosmos, May-June, 1917.

ATTENTION: In the office there is another smooth sheet covering this area on which the work done during 1916 is plotted.

Data: Scale 1:20000. Signals scaled from photographs of topographic sheets 2875 and 3401, and from a tracing of the plane table sheet of the section between Wolk Harbor and Port Bazan. A few signals were located by plane table cuts and a few others by sextant angles.

The sheet was laid out to cover a strip one to two miles in width which extends along the coast of Dall Island from Cape Muzon to Port Bazan. The western limit of the strip joins the off-shore work of the ship. During 1916 the hydrography of the following places in this section was completed: Wolk Harbor, Liscome Bay, Security Cove; a strip about one mile wide, running from Pt. Cornwallis to Port Bazan. A few gaps in this area were filled in. No information is available as to whether any work was done in the vicinity of Essowah Harbor and Lakes. I would not have been able to have taken up work there without discontinuing work in more exposed areas, during a time when weather conditions were favorable for exposed work. The field season closed very abruptly and no inshore work was taken up.

Hydrography was started in the vicinity of Cape Muzon by the party on the Steamer Cosmos on May 15, 1917. The sounding lines extend from the north tangent of the Cape easterly to longitude 132-38-30, covering an area which extends as far south as latitude 54-37-40, where it joined the ship work. A strip about two miles wide, following the general direction of the shore-line, was developed. Sounding lines are normal to the shore and about three hundred meters apart. The lines at the outer limit of the work are parallel to the coast. The work extends only to a line joining the entrance points of Wolk Harbor. Lines were carried to the mouth of Liscome Bay, but no further. The 1916 boat sheet shows work in these places to have been completed. About one-half mile, in a westerly direction from station Long is an area one-half mile in width, and one mile in length in a N.N.E'ly direction, in which work had apparently been completed. Due west from station Corn is a small area and about one-half mile northerly from the same station is another area which the 1916 boat sheet shows to have been completed. A strip about $1\frac{1}{2}$ miles wide, along shore, from latitude 54-43 to the southern entrance to Port Bazan, was, with the exception of a few gaps, finished in 1916. A small gap, about one mile wide, long in a S.S.W'ly direction and about one-half mile wide, easterly from station Rot was filled in. A section about $1\frac{1}{2}$ square miles in area running W.S.W'ly from Dolgoi Id., Port Bazan, was filled in as was a small gap in the hydrography of the southern entrance of the Port. A few sounding lines were run over the shoal spot at the northern entrance.

No dangers were discovered by the hydrographic party. The location of the breaker about $\frac{1}{2}$ mile off the southern extremity of the Cape, is accurately given on the topographic sheet of that section. Deep water was found around the Cape. At times the tide rips are heavy and have the appearance of breakers. While no dangers were found, there is no necessity for large vessels to approach the Cape closer than a mile or a mile and a half. Due south from the eastern point of the entrance to Chichwain Bight, $\frac{1}{2}$ to $\frac{3}{4}$ of a mile, the bottom is very irregular. About $\frac{3}{4}$ of a mile in a S.x W. direction from the island at the eastern point of the entrance, a sounding of 24 fathoms was obtained.

The surrounding depths are about 50 fathoms. The sounding preceding it was 36 fms., so the possibility of a mistake in the sounding is small. South from signal Ruf, about 1-1/8 miles, a 30 fathom sounding was obtained. This was in the vicinity of the preceding. The party on the Cosmos was operating as a detached party from the ship, in charge of an experienced hydrographer. I do not know why a close investigation was not made in these two areas, unless the heavy seas which continually prevail along this section of the coast prevented it. These soundings are indications of dangers. Additional observations will have to be made to strengthen the triangulation in this section. Some additional soundings can then be made, though at a loss of time and labor, in rebuilding signals, which would have been unnecessary, had the party, instead of continuing the general system of sounding lines, stopped and investigated these shoal soundings.

Deep water generally prevails in the section surveyed, but the bottom is very irregular.

Tides. An automatic gauge was kept in operation at Craig. Subsidiary stations were located at Cape Muzon and at Security Cove. On account of labor troubles it was not possible to continue observations at the subsidiary stations during the entire time the survey was in progress, as at times there weren't any men for that purpose, so some soundings must be referred to the gauge at Craig for reduction. Such tidal data as may be required for coast pilot notes can be obtained from the tidal computations forwarded with this season's work. Tidal stations were maintained at Cape Muzon, Security Cove, Gooseneck Harbor and Sakie Bay, during 1917.

The shoal spot off the northern entrance to Port Bazan, and the northern entrance of the Port should be examined with a wire drag. The surveys made during 1916 should be carefully examined, especially at the junction with the 1917 surveys, for gaps and spaces which may require more soundings. The boat sheets are not complete enough for that purpose. Bromides of the 1916 sheets have been requested from the office. If these arrive in time the examination will be made by the field force.

Mr. Keyes, Mate, was in charge of the Cosmos while the work was in progress. Mr. Hinkley, Deck Officer, was with him part of the time; part of the time Mr. Grummann was with him. The work, especially in the vicinity of the Cape, was very rough; labor troubles were frequent. Considering the difficulties experienced, especially the insolence from some of the men, Mr. Keyes handled his party very well.

Records as follows will be forwarded to the office:—
1 smooth sheet, 1 boat sheet (in three parts), 1 tracing of topographic sheet (Wolk Harbor to Port Bazan), 1 print of topographic sheet 3401, 1 print of hydrographic sheet 3042a, 4 vols. of soundings, 2 vols. of tides.

T. J. Maher.
Chief of Party.

DALL ISLAND, ALASKA.

Cape Muzon to Port Bazan.

Signals on hydrographic sheet No. 3, inshore hydrography by the party on the Cosmos during 1917.

Most of the signals used for this work were transferred from the planetable sheet of this area. Topography was done during 1916. There is another smooth hydrographic sheet of this section; it is in the office and shows the work done during 1916. The shoreline on the topographic sheet was somewhat in error. The positions of the signals on the 1917 boat sheet are adjusted for both errors in distance and azimuth.

Signals scaled from topographic sheet-1916. D.M.'s and D.P.'s should appear on list attached to descriptive report accompanying that sheet.

Ban	Check	Hike	Pop
Bazan	Clo	Hut-Half	Ruf
Bes	Corn	Long	Rot
Bill	Cross	Met	Safe
Blow	Dade	Nek	Si
Blu	Dip	Nob	So
Cape	Flat	Out	Son
Car	Ger	Pach	Ter
Cas	Gob	Patch	White

Signals located during 1917 either from planetable cuts or sextant angles and signals scaled from other topographic sheets.

Bay	(Ø 54 40-1130m. (L 132 40- 570m.	Scaled from photo. of topo. sheet No. 2875	
Dad	.....	" " " " " " " "	3401
Day	.....	" " " " " " " "	3401
Dee	.....	" " " " " " " "	3401
Ela	(Ø 54 39-1684m. (L 132 41- 810m.	Located by planteable cuts.	
Frog	.....	Scaled from photo. of topo. sheet No. 3401	
Gus	.....	" " " " " " " "	3401
Las	(Ø 54 40- 172m. (L 132 42-1041m.	Located by planetable cuts.	
Le	(Ø 54 40- 930m. (L 132 39- 908m.	Scaled from photo. of topo. sheet No. 2875	
Lin	.....	" " " " " " " "	3401
Mac	(Ø 54 40- 862m. (L 132 39- 788m.	" " " " " " " "	2875
Nil	.....	" " " " " " " "	3401
Oud	(Ø 54 40-1015m. (L 132 40- 140m.	" " " " " " " "	2875
Ping (Boundary signal).	.....	" " " " " " " "	3401
Sat	(Ø 54 40- 400m. (L 132 42- 322m.	Located by planetable cuts.	
Sud	.....	Scaled from photo. of topo. sheet No. 3401	
Tez	(Ø 54 39-1560m. (L 132 43- 719m.	Located by planetable cuts.	

The following signals were scaled from the boat sheet. The officers engaged on this work were transferred to the army or navy before their office work was completed.

Bar	Flat 2	Raf
Cat	If	Tin
Dip 2	Paid	Wag

Steamer Explorer.
May-June, 1917.

Table of Statistics, Hydrographic Sheet (3)

3932^a

Cape Luzzon to Port Baran, Dall Island, Alaska.

Vol.	Date.	Day.	Soundings	Positions	Miles.
1	May. 15	A	33	32	5.5
	16	B	93	78	13.8
	17	C	118	88	19.-
	19	D	75	61	10.9
	22	E	69	70	13.5
	24	F	21	21	3.7
2	24	F	92	92	13.8
	25	G	12	9	1.7
	26	H	89	87	16.-
	31	J.	51	51	8.5
	June. 1	K.	80	78	13.5
3	2	L.	46	46	9.2
	2	M.	11	11	12.2
	11	M.	72	70	13.1
	12	N.	78	76	13.7
	13	P.	113	113	21.2
	14	O	59	59	7.7
	15	R.	44	44	10.0
4	15.	R.	88	88	10.3
	16.	S.	14	11	.5
			1258	1185	207.8

VEC
June 9, 1917

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L.S.

HYDROGRAPHIC SHEET 3932.

West Coast of Dall Island, Southeast Alaska, by party of
Assistant F. H. Hardy in 1916.

TIDES.

	Craig Feet.
Mean lower low water, or plane of reference on staff	8.3
Mean range of tide	7.9

Hyd. Sheet 3932 a.

Most of this survey covered ~~the~~ really an additional development of Hyd. Sheet 3932 on which it should have been projected and plotted. However, as the field party made an "a" sheet of it, it was verified and inked as such and then the edge, and west of Long. $132^{\circ}46'$ were transferred in red to sheet 3932. The compiler should use this latter sheet in making the compilation. Part of the "a" sheet overlapped Hyd. Sheet 3933 and was transferred to it.

There are several rocks awash and sunken rocks shown on the boat sheet but not on the smooth sheet, nor were they mentioned in the sounding records. Some of these rocks were in pencil, others in ink; some were unmistakably intended for rocks and some are open to doubt. However, to be on the safe side they were transferred to the smooth sheets 3932 and 3932a and shown in red with the legend "from boat sheet" nearby.

The recorder neglected to O.K. sudden changes in depths. As a result several shoal soundings are in doubt ~~and~~ ^{but} it is necessary to assume that they actually exist.

This survey is incomplete in so far as no effort was made to develop the following important shoals:

- * a 9 fm. spot at entrance to Port Bezan. Lat. $54^{\circ}48'30''$ Long. $132^{\circ}58'25''$
- a 17 fm. spot near 40 fms. of water. Lat. $54^{\circ}39'30''$ Long. $132^{\circ}43'30''$
- a 29 and 2 34 fm. spots. Lat. $54^{\circ}38'45''$ Long. $132^{\circ}44'20''$
- a 23 fm. spot in 50 fms. of water Lat. $54^{\circ}39'20''$ Long. $132^{\circ}45'16''$

In addition, there are several shoals in Security Cove on Hyd. Sheet 3932 which was surveyed in 1916, which are in need

of further development. The draftsman who verified and inked Hyd. Sheet 3932 last year neglected to call attention to them, but they are of great importance because they lie in the path of vessels using the cove as a harbor, and a thorough development is necessary.

A list of these shoals with tracings showing their location was forwarded to the Chief ^{Engineer} ~~Section~~ of H. & T. with the recommendation that provisions be made of these sections of the sheet and sent to the Field Party working in this vicinity for further development. It was also recommended that the shoal spot off the northern entrance to Port Bagan and the northern entrance of the Port should be dragged.

S. L. Rosenberg,

April 23, 1919.

Hydrographic Sheet No. 3932.

This sheet was protracted in the field by R.W.Healy and the protracting was carefully done. There were however a number of positions whose location could not be checked for the reason that in the sounding record they were marked "See Boat Sheet" and there was no boat sheet turned in. Also the signals could not be verified for the reason that they topographic sheet for this section had not been turned in.

The soundings agree well among themselves but the development in close to shore is practically untouched. The curves inside the ten fathom curve are practically indeterminable as far as the work on this sheet is concerned. Also with the exception of Security Cove the bays are undeveloped to any extent and this objection, lack of work close inshore, also applies to the Security Cove.

The sounding lines were so closely spaced in Security Cove as to be confusing on the 1:20,000 scale so an enlarged plan of that cove was made on a scale of 1:10,000, on the same sheet.

} unnecessary.
S.L.R.

The depth curves in Security cove join those on the rest of the sheet at the line marked AA on both the large scale and the small scale plans of the entrance to the cove.

Howard S. Rappleye

Draftsman.

Soundings in fathoms

Protracted by R.W.Healy.

Soundings in pencil by W.D.Sutcliffe.

Inked and verified by H.S.Rappleye.

Sub-plan of Security Cove by H.S.Rappleye.

*Several shoals in Security Cove
in need of additional development.
See report for Hyd. sheet 3932.
also 1 23 fm. edg. 3/4 mile west
of Olow.*

*S.L. Rosenberg
April 23, 1919*

Hyd. Sheet

3932.2

~~3922.2~~

FIELD WORK (H)

HYDROGRAPHY ETC. (C)

This survey is incomplete in so far as no effort was made to develop the following important shoal soundings which are possible indications of dangers to navigation:

A 9 fm. spot at the entrance to Port Bezan
Lat. $54^{\circ}48'30''$ Long. $132^{\circ}58'25''$

A 17 fm. spot near 40 fms. of water. Lat. $54^{\circ}39'30''$ Long. $132^{\circ}43'30''$

A 29 and 2 34 fm. spots. Lat. $54^{\circ}38'45''$ Long. $132^{\circ}44'30''$

A 23 fm. spot near 50 feet of water. Lat. $54^{\circ}39'20''$ Long. $132^{\circ}45'16''$

In addition, there are several shoals in Security Cove shown on Hyd. Sheet 3922, which was surveyed in 1916, which are in need of further development. The draftsman who verified and inked the sheet last year neglected to call attention to them, but they are of great importance because they lie in the path of vessels using this cove as a harbor. These shoals may be indications of serious menaces to navigation and a close and thorough development is necessary.

These shoals are shown in red on the accompanying tracings and it is recommended that soundings be made of these areas and sent to the Party working in this vicinity for development.

The shoal spot off the northern entrance to Port Bezan and the northern entrance of the Port should be dragged.

FIELD WORK (H)

These are important deficiencies S. L. Rosenberg.
which should be supplied when
we resume work on the W. coast of
Dall Island, Southeast Alaska.

April 23, 1919.

5-3-20

HC

Supplementary instructions to Lydonia
issued today covering these shoal spots

Dr. 1000

59' 132° 58' 54° 49'

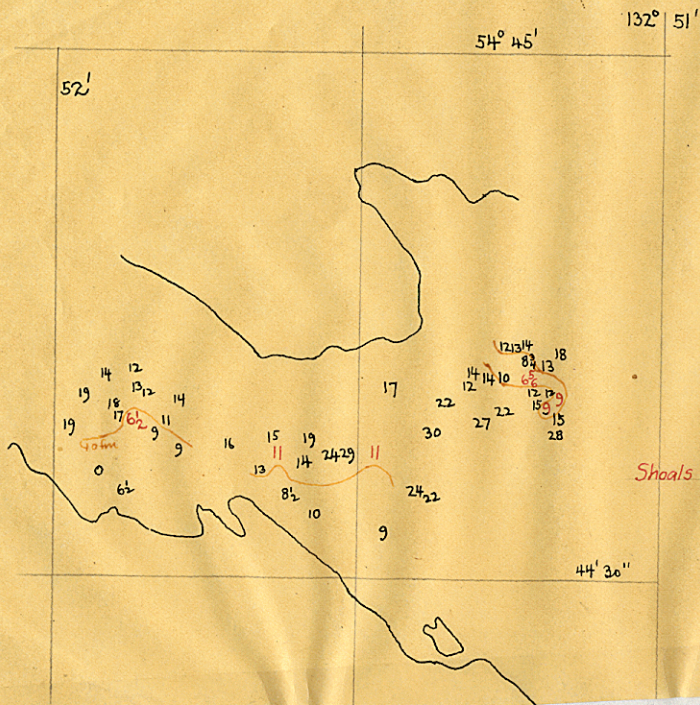
19
9 12
24 17 19
29 15

9 ft sdg. should be developed

48' 59' 58'

59'

Hyd. Sheet 3932 ~~1~~



Shoals in red should be thoroughly developed

Security Cove
1:10,000
Hyd. Sheet 3932 ~~2~~

