

4608

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Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
....., Director	
State: SE Alaska	
DESCRIPTIVE REPORT	
Topographic } Hydrographic }	Sheet No. ⁷ 4608
LOCALITY	
Cape Fairweather	
Lituya Bay	
1926	
CHIEF OF PARTY	
A.M. Sobieralski	

www
April 4, 1927.

(11)
Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
volumes of sounding records for

HYDROGRAPHIC SHEET 4408

Locality: S. E. ALASKA.

Chief of Party: A. M. Sobieralski
Plane of reference is M L L W
4.8 ft. on tide staff at Lituya Bay
6.2 ft. do Sitka

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

[Signature]
Chief, Division of Tides and Currents.

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET NO.

Lituya Bay, Alaska

This survey was executed under instructions dated Feb. 12, 1926, issued to the Commanding Officer of the Str. SURVEYOR. Nearly all of the work was done by a sub-party on the Launch Cosmos; the same party also making the triangulation and topographic surveys of this area.

General Description.- This work constitutes the first complete survey made of this bay and approaches, the previous work in 1874 and 1894 being more in a nature of a reconnaissance. For descriptions of the coast and landmarks, see the Report to Accompany Topographic Sheet of this area.

The Entrance and Anchorage Cove.-was surveyed on an insert, scale 1:10,000, in order to show this area in greater detail. When the sheet was plotted it was found impossible to distinguish between the many sounding lines extending thru the entrance. This area was accordingly transferred to an insert, scale 1:5,000. In selecting soundings for charting, it is recommended that preference be given to the soundings on the 1:5,000 insert. All soundings plotted on the 1:20,000 sheet were taken by sounding machine, and the soundings on the insert by hand lead. On the 1:10,000 insert, the limits of the machine soundings were transferred, but the position numbers were left in pencil.

Dangers.- There are no dangers in the approaches to the bay. The bottom is gently sloping and sandy, with deep water close to the beach. The channel thru the entrance is only 80 meters wide between the 3 fathom curves, with rocky bottom. The water shoals rapidly inside the 3 fathom curves on both sides of the entrance, and there are many bare and submerged rocks. The channel between the 3 fathom curves appears to be clear, the eastern half having depths of 5 fathoms and over. The Steamer SURVEYOR made three trips into this bay, soundings being recorded on one trip, both ways. Soundings were also taken from the SURVEYOR and COSMOS on other trips thru the entrance, but no shoaler water found than recorded.

Inside the bay, the principle dangers are as follows:- a rock, bare at low water, lying 230 meters off the southwest shore of Cenotaph Island; a shoal, covered at highest tide, 250 meters off the western shore of the bay, about 3/4 miles westward of Cenotaph Island; the shoal extending about 250 meters off the north-eastern shore of Cenotaph Island; and the shoal area in the bight northward of Harbor Point Light.

Anchorage.-- The principal anchorage is Anchorage Cove. On flood tides there is considerable swell at this anchorage and small boats usually find shelter farther up the bay. Small boats can anchor on the small cove southwestward of \odot Li. There is good protected anchorage in the cove northeastward of \triangle Tu, but with northerly and easterly breezes there is usually considerable floating ice here.

Currents and Ice conditions have been described and forwarded in the Coast Pilot Notes. These notes also give Sailing Directions and other information concerning Lituya Bay. See also the report accompanying the Topographic Sheet of this area.

Survey Methods.-- Practically all the work was done by a sub-party on the Launch Cosmos. Two lines thru the entrance were run by the SURVEYOR, with separate positions on soundings being taken on each side of the vessel. The last days work was done by Launch # 3. All soundings on the 1:20,000 scale were taken by machine. The soundings on the inserts, scales 1:10,000 and 1:5,000 were taken with hand lead. Lines were run 400 meters apart in deep areas and where the bottom was uniform; closer development was made of shoaler and more important areas. The survey of the entrance was very difficult, due to strong currents, tide rips and swell. Work could be done here only at slack water and with a smooth sea, slack water lasting only for 10 to 20 minutes. Lack of time and favorable weather prevented a closer development of the entrance, but it is believed that there are no dangers other than shown. A range located eastward of \odot Able, would be of great assistance to vessels entering this bay. The strong currents in the entrance would probably carry away any buoys placed there. The light is of no value except for coasting vessels.

Respectfully submitted,

Wm. D. Patterson
H & G Eng. C & G Survey

STATISTICS FOR HYDROGRAPHIC SHEET NO. 7

Date, 1926	Day	Miles Sta.	Pos.	Sdgs.	Vessel
Aug. 14	a	5.1	150	538	Cosmos
25	b	16.4	120	245	"
26	c	9.6	65	127	"
30	d	10.0	75	200	"
31	e	5.5	42	118	"
Sept. 1	f	13.8	101	218	"
2	g	2.25	32	99	"
3	h	5.5	50	140	"
4	j	5.5	50	140	"
5	k	13.7	85	217	"
6	l	12.1	97	254	"
8	m	1.4	21	50	"
23	n	26.6	167	405	Launch #3
Aug. 16	A	1.4	17	19	Ship
22	B	2.0	24	24	"
TOTALS		130.9	1096	2794	

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 11-DRM

WASHINGTON December 16, 1927.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4608

Lituya Bay, Cape Fairweather, Alaska

Surveyed in 1926

Instructions dated February 4, 1925 and February 12, 1926 (SURVEYOR)

Chief of Party, A. M. Sobieralski.

Surveyed by W. D. Patterson.

Protracted and soundings plotted by W. D. Patterson.

Verified and inked by J. G. Ladd.

1. The records, as well as the plan and character ^{of the survey} fulfill the requirements of the General Instructions, except for the almost complete omission of boat's courses and for the use of "S" instead of names of signals, in some cases as much as on three consecutive pages.
2. The plan and extent of development satisfy the requirements of the specific instructions, except that the sounding lines on the outer coast are 400 meters apart instead of 300 meters as directed.
3. The sounding line crossings are adequate, and the information is sufficient for drawing the usual depth curves.
4. The junction with H. 4642 on the south is adequate. H. 4648 which adjoins H. 4608 on the westward has not been completed.
5. The 11 fathom soundings southwest of Δ Bold indicate the possibility of shoaler water and additional development should have been made on this spot. With this exception the entire area of the survey is well developed and no further surveying is required.

Developed on
H-6582 (1940)
Found 10 fms.
H.W.M. 7/4/40

6. The character and scope of the surveying and field drafting are excellent.

7. Reviewed by E. P. Ellis, December, 1927.

Approved:

Chief, Section of Field Records (Charts)

L. O. Polk

Chief, Section of Field Work (H. & T.)

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 11-DFM

WASHINGTON

December 17, 1927.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4608

Chief of Party, A. M. Sobieralski.

Surveyed and plotted by Wm. D. Patterson.

Verified and inked by John G. Ladd.

1. The records conform to the requirements of the General Instructions, with the following exceptions: On "A" day, Boat COSMOS a too frequent use of the letter "S" meaning "Same signals", was used. It was necessary at times to turn back 3 pages in the sounding book to determine what signals were used. Notations of turns were generally omitted and the bearing of the ship in the few times it was given, was given in terms such as N.W. or S.E. instead of in degrees. With the exception of this "A" day, COSMOS, there were no bearings of any sort given in the balance of the COSMOS work (4 vols.).
2. The plan and character of development fulfill the requirements of the General Instructions.
3. The sounding line crossings were adequate.
4. The usual depth curves could be drawn.
5. The field plotting was completed to the extent prescribed in the General Instructions.
6. It was not necessary for the office draftsman to do over any part of the field drafting.
7. The field drafting was excellent.

JOHN G. LADD

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4608

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 7

REGISTER NO. 4608

State S. E. Alaska

General locality Lituya Bay Cape Fairweather

Locality Lituya Bay

Scale: 20,000 ^{10,000}/_{5,000} Date of survey Aug. 14 - Sept. 23, 1926

Vessel Str. SURVEYOR

Chief of Party A. M. Sobieralski

Surveyed by Wm. D. Patterson

Protracted by Wm. D. Patterson

Soundings penciled by Wm. D. Patterson

Soundings in fathoms 1888

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated Feb. 12, 1926

Remarks: