

4601

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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. 4601
LOCALITY	
W Coast of Yakobi I.	
S Entrance Lisianski Strait	
to Cape Cross.	
1926	
CHIEF OF PARTY	
A.M. Sobieralski	

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO. 1

Takanis Bay and vicinity

Yakobi Island

S. E. Alaska

Surveyed by party from

U. S. C. & G. S. S. SURVEYOR

A. M. Sobieralski, H. & G. Eng'r. Comdg.

Aug. 18 to Oct. 11, 1926

Scale 1:10,000

Instructions dated

February 12, 1926.

Descriptive Report
to accompany
Hydrographic Sheet No.1

The area covered by this sheet is that section of the outside coast of Yakobi Island, S. E. Alaska, between Δ Rate at the south entrance to Lisianski Strait and Δ Cross on Cape Cross; a distance of 6 miles.

This work was done with the steam launch Delta. In depths of 15 fathoms or more, the sounding was done with a steam sounding machine, using a 12 pound lead. In depths of less than 15 fathoms, sounding was done with an 8 pound hand lead. Three shoals WSW of Δ Pt. Satchrun were developed by hand lead. The O/20 soundings were not plotted as these shoals were sounded by the Cosmos on Sheet No. 2.

General Description of Coast Line.

The coast line is low and densely wooded and very irregular. From the waters edge, the elevation increases in a series of mounds and ridges, rising rapidly at a distance of from 2 to 3 miles, into mountain ridges.

Between Squid Bay and the entrance to Lisianski Strait there is a group of wooded islets separated from the mainland and from each other by narrow channels interspersed with rocks, through which navigation is difficult. It should not be ~~developed~~ without local knowledge.
attempted

Between Squid Bay and Takanis Bay there is a group of rocks and reefs, with a heavy growth of kelp among them. It was difficult to find a passage through this group even with a launch.

Outlying Islands and Dangers.

The island on which Δ Green Top is located is the most prominent one of that group. This island is about 70 feet high, with a round grass-covered top. The island on which Δ Cross is located is very prominently marked by a clump of trees at it's northern end. The southern end is bare white rock. The two islands directly to the northward of it are bare and of whitish color, except for clumps of grass on the top. There is a small boat passage between these islands and the mainland. These islands mark the point of Cape Cross and can be seen for several miles out to sea.

1275 meters, 152°(true) from Δ Cross is a rock which is awash at high water. Swells break over it at all stages of the tide. 350 meter, 155°(true) from this rock is a 5 fathom shoal which breaks in heavy swells.

1020 meters, 250°(true) from Δ Pt. Satchrun is a 6 fathom shoal which breaks in heavy swells.

375 meters, 180°(true) from \odot Crag is a sunken rock which breaks in light swells.

610 meters, 212°(true) from Δ Crag is a 5 fathom shoal which breaks in heavy swells.

656 meters, 225°(true) from \odot Pit is a rock which bares at low water.

625 meters, 190°(true) from \odot Pit is a rock which is awash at low water.

510 meters, 175°(true) from \odot Pit, two rocks are shown on this sheet. It is quite possible that there is only one there. They were cut in on different days by the hydrographic party. The cuts to the innermost one are recorded as being to a breaker. On a different day the outermost one was cut in by ranges and one sextant cut. It was described in the records as being bare one foot. It is possible that the breakers showed inside of its true position. The topographic location of this rock was taken from the boat sheet.

Use
both
rocks
as
shown
on sheet.

680 meters, 173°(true) from \odot Cat on position 22b, one cut was secured to a breaker. This cut is shown on this sheet and marked "Breaker, P. D." near an 8-3/4 fathom sounding. Heavy ground swells have been seen to break near that point.

695 meters, 110°(true) from \odot Cat is a rock marked by anchored kelp, which is awash at 1/4 tide.

450 meters, 264°(true) from Δ Cross is a reef which is awash at high tide.

Anchorage Takanis Bay.

a Takanis Bay is 2 miles long by 1/2 mile wide and extends in a northeasterly direction. Pt. Satchrun, at the southern point of entrance is 40 feet high and the point is marked by a white outcrop. The shoreline on each side is high, gradually becoming lower toward the head of the bay. Across the entrance from Δ Pt. Satchrun is a small white island entirely bare except for one tuft of green. This tuft of green was used as a signal and called \odot Crag.

On a mountain, 2270 ft. high, at the head of Takanis Bay there is a long white scar which forms a prominent landmark for the bay. Takanis Bay proper is exposed to southern, southwestern and western winds and ground swells, hence it is not suitable for an anchorage. But there are three coves within the bay which afford good protection for small boats. The best anchorage is afforded by the small cove on the north side of the bay. Anchorage may be had in 1-1/2 to 2 fathoms, soft bottom, close to the northwestward of the island marked by \odot Cap and \odot Tal. To reach this anchorage it is better to go around the island to the right. A second anchorage may be had for small boats, in 1-1/2 to 3 fathoms, soft bottom, in the long arm at the extreme head of the bay. Still another anchorage for small boats may be had in the basin at the east side of the head of the bay. Entrance must be made thru the passage shown east of Stump. At ebb tide a current estimated at 6 or 8 knots flows thru this passage. Hence entrance must be made at slack water, flood tide. The passage is very shoal but the basin is much deeper. No soundings were taken in the basin but the topographer estimated the depth to be 3 to 5 fathoms. ✓

Squid Bay

This small bay, which lies 1-1/2 miles south-eastward from Δ Pt. Satchrun, was named "Squid Bay" by the topographic party this year. This bay has good protection from the south but is exposed to southwestern and western winds and ground swells. It furnishes two good anchorages for small boats however. One of these is southwest of \odot Ax, in 3 fathoms, soft bottom, and the other is in the cove on the south side of the bay. Anchorage may be had in 5 to 7 fathoms, soft bottom. ✓

Wire Drag

The wire drag work shown on this sheet was plotted in order to show the enlargement from sheet No. 2 (field number) scale 1-20,000. ✓

The shoalest water found was 16 feet. It would appear that the drag drawing 20 feet passed over this shoal. This is possible because the drag might have slid over some kelp. It was noticed when the drag did catch, quite a large amount of kelp was loosened from the rock. ✓

The records for the wire drag work accompany sheet #2 (field number) because all of the work cannot be plotted on this sheet. ✓

⊕ Not used in plotting the wire drag work was located by sextant cuts. One cut by the plane table party also passes through this location. After the party had left the field, it was found that this location does not agree with the topography on Topographic Sheet #3695 nor with the topography on Hydrographic Sheet #4002; but since these last two sheets do not agree with one another, it is supposed that there must be some discrepancy in the topography in this vicinity, and that most probably ⊕ Not is the correct position of the center of the rocky islet shown south of Not.

Respectfully submitted,

Ira T. Sanders

Ira T. Sanders,
Aid. C. & G. Survey.

STATISTICS, SHEET NO. 1
 Takanis Bay, 1:10,000 Scale

1926	Letter	Vol.	Positions	Sdgs.	Sta. Miles	Vessel
Aug. 18	a		10	32	1.0	Delta
" 20	b		55	129	5.5	"
" 21	c		86	167	6.5	"
" 27	d		134	323	11.5	"
Sept. 4	e		49	104	3.6	"
" 5	f		73	166	7.5	"
" 7	g		147	330	15.4	"
" 8	h		24	65	2.5	"
" 9	i		162	380	13.8	"
" 10	j		113	255	9.0	"
" 28	k		41	113	3.0	"
" 29	l		89	230	10.0	"
Oct 11	m		43	107	0.5	# 3
TOTALS			1026	2401	93.6	

Hydrographic Sheet No. 4601

S. E. Alaska.

This survey covers an area generally rocky and foul and while the two bays "Tahani" and "Squid" (named by Topo party) are closely and well developed the balance of the work appears too open to be considered a good development. The three shoals south of signals "Nash" and "Crag" are quite closely developed but additional soundings might have been taken for an even closer development.

Field work in protracting and plotting generally accurate.

Additional work may be required if shipping demands it.

John D. Torrey

7/7/27

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

AND REFER TO No. 11-DPM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

July 28, 1927.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4601

West Coast Yakobi Island, Southeast Alaska

Surveyed in 1926

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

Chief of Party, A. M. Sobieralski.

Surveyed by F. Vogt, A. P. Ratti, W. D. Patterson.

Protracted and soundings plotted by I. T. Sanders.

Verified and inked by J. D. Torrey.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the survey conform to the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions.
4. The information is sufficient for drawing the usual depth curves except in many places close inshore and in the vicinity of rocks. This is particularly true of the area northwest of Pt. Theodore, where the hydrography is fairly open. This area, however, does not seem to be of much importance.
5. The usual field plotting was done by the field party and was well executed.
6. No system of cross lines was run, but a comparison of closely spaced lines where the bottom is not too irregular shows a generally good agreement.
7. The junction with H. 4602 is satisfactory.

A proper junction was effected between this sheet and H. 4002 (surveyed in 1917).

8. No additional leadline development is necessary to develop important areas or shoals. Takanis and Squid Bays are well developed and seem to be free of dangers.

About 1 mile south of Cape Cross several shoals were found with the hand lead. These shoals are closely developed. If it is considered sufficiently important to determine the least depth over them they should be wire dragged.

9. Attention is called to the following:

a. The drag work in Lisianski Strait should not be applied to the tinted charts. It was verified to the extent only of determining the locations of the shoals. Since in the case of both shoals a deeper drag cleared them than the depth of grounding, it was thought advisable not to consider the strait as dragged to any particular effective depth and therefore the limits should be omitted from the charts.

b. The location of the islet on which \odot Not is located differs from that shown on T. 3695 (surveyed in 1917). Since the old topographic location also differs from the location as shown on the hydrographic survey of the same year (H. 4002), it is evident that the old location is in error. After a consultation with the Chief of Field Work, it was decided to accept the location of the islet as determined by the planetable cut and sextant angle on \odot Not. The two rocks awash near the island were also shifted. The corrected location of the islet is now shown in red on Topo. 3695 and in black on H. 4002. chief of Party
(A.M. Sobieralski)
and

c. The rock awash (bares 3/4 tide) in Lat. 57° 50' 793 m., Long. 136° 27' 714 m. is the same rock as shown on H. 4002 and called "Cur". The present survey shows the correct location for the rock and should be used in preference to the old location. The corrected location is now shown in red on H. 4002. (Concurred in by Chief of Field Work.)

10. Character and scope of field operations, excellent.
Field drafting, very good.

11. Reviewed by A.L. Shalowitz, July, 1927.

Approved:

Chief, Section of Field Records (Charts)

L.O. Robert

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

(11)

March 18, 1927.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
volumes of sounding records for

HYDROGRAPHIC SHEET 4601

Locality: S. E. ALASKA.

Chief of Party: A.M. Sobieralski

Plane of reference is M L L W

7.8 ft. on tide staff at Surge 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.

G. H. H. H.

Chief, Division of Tides and Currents.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4601

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. 1

REGISTER NO. 4601

State ~~Alaska~~ SE. Alaska

General locality ~~southeast Alaska~~ W. Coast of Yakobi I.

Locality ~~outside coast, Yakobi Island~~ S. Entrance Lisianski Strait to Cape Cross

Scale 1:10,000 Date of survey Aug. - Oct. 1926

Vessel str. SURVEYOR

Chief of Party A. M. Sobieralski

Surveyed by Fr. Vogt, A. P. Ratti, W. D. Patterson

Protracted by Ira T. Sanders

Soundings penciled by Ira T. Sanders

Soundings in fathoms feet

Plane of reference Surge Bay T. G. 7.8 feet MLLW

Subdivision of wire dragged areas by Ira T. Sanders

Inked by J. D. Torrey

Verified by J. D. Torrey

Instructions dated Feb. 12 1926

Remarks: Shows Wire Drag work at entrance to Lisianski Strait