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Diag. Cht. No. 8502-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ..... Office No. 4854

LOCALITY

State Alaska

General locality Kodiak

Locality Island

1926

CHIEF OF PARTY

K. R. Lukens

LIBRARY & ARCHIVES

DATE .....

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Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

E. Leaster Jones, *Director*

State: Alaska

DESCRIPTIVE REPORT

~~Topographic~~ *Hydrographic* } *Sheet No.* 1 4854

LOCALITY

Kodiak Island

~~Southwest Alaska~~

Sitkalidak Strait

Left Cape to Old Harbor

1928

CHIEF OF PARTY

R. R. Lukens

GOVERNMENT PRINTING OFFICE

Descriptive Report to Accompany Hydrographic Sheet No. 1
Sitkalidak Strait, Kodiak Island, 1928.

Authority for the survey described herewith is contained in instructions to the Commanding Officer, Steamer SURVEYOR, dated February 18, 1928.

Survey Methods. No unusual survey methods were used in surveying the area shown on sheet No. 1. The instructions for this work specify that the hand lead shall be used in depths less than 15 fathoms. When the 15 fathom curve was close to the shore, and the bottom changed abruptly, this was not done, as the change from machine to hand lead was awkward with the launch used. All depths less than 15 fathoms in anchorages or important areas were sounded with the hand lead. Practically all soundings west of Nut Island were taken with the hand lead.

The survey submitted herewith is complete for present requirements with the following minor exceptions:

The 48 fathom sounding ~~1300~~ 1335 meters 97 degrees true from triangulation Signal Bluff on Fang Point. This sounding was among the first of the season and was not checked before going ahead. It is possible that it should be 68 fathoms, but the sounding south of the 48 fathom sounding indicate a ridge here. Soundings between position 35a and 36a do not show any indication. The 48 fathoms should be left until its non-existence is proved.

There is an 8 fathom spot 600 meters 180 degrees true from triangulation station East Base which should be investigated with wire drag.

The 19 fathom sounding, 1650 meters 87 degrees true from topographic signal "Tip" on Lagoon Point, has been carefully developed but the indicated ridge running south by west from this sounding could be sounded more carefully or investigated with wire drag.

Mc Donald Lagoon was not completely sounded because of limited time. This Lagoon is unimportant except for small boats.

There is a ~~11~~ 10-4 fathom sounding 1220 meters ~~125~~ 302 degrees true from triangulation station "Table", which was not developed.

Tide reducers for this sheet were obtained from the portable automatic tide gauge maintained during the season at the Whaling Station, Port Hobron.

The projection laid out on the boat sheet differs from that on the smooth sheet because it was laid out before the datum was determined, the projection on the smooth sheet being correct. The projection on the smooth sheet is 278.2 meters west of the one on the boat sheet. All notes in the records refer to the boat sheet projection.

Dangers. Aberdeen Rock, with a least depth of 6-1/2 feet at mean lower low water lies 1320 meters, 306 degrees true from the light on Nut Island. It is not marked by kelp or buoy. The rock is on a range with the north tangents of Cat Island and the low point on which Signal "Bee" is built. It is the most important danger in the Strait.

In Tanginak anchorage, a rock awash at mean lower low water lies 750 meters, 21 degrees true from topographic signal "Cut", and there is heavy kelp between this rock and the shore at signal "Cut".

Shag Rock, 150 meters north of Cub Island is 6 feet high but on dark nights is sometimes difficult to see.

All the coast between Tanginak Anchorage and Table Island is shoal with numerous scattered boulders along the beach and on the bottom.

There are several rocks awash on the south shore of Left Cape, some of them lying several hundred yards off shore. They are all shown plainly on the sheet.

The channels among the islands in the vicinity of Snug Cove have not been fully developed; all dangers found are shown on the sheet.

There is a rock bare at low water 1040 meters, 216 degrees true from topograph signal "Lite". This rock lies about 100 meters off shore and probably is connected by a ledge to the shore. All hydrography south and west of the southwest end of the Narrows should be regarded as reconnaissance only and future hydrography should over-lap to the southwest end of the Narrows.

A reef bare at low water lies about 100 meters off shore at the northeast end of the narrows, northwest side. This reef covers at high tide.

Channels. Coast Pilot sailing directions for the Strait were written to conform to the dashed red line shown on the boat sheet. The Narrows has a least depth of 14 feet over a bar near the southwest end. There appears to be a 20 foot channel near the northwest shore of the Narrows in this vicinity but it is too narrow to navigate without aids, for maximum draft.

Captain Peterson of the whaling vessel "Aberdeen" has used the narrows for several years, and has experienced no trouble at any stage of the tide. He says that at times when the water is particularly clear he has been able to see the bottom in the shoal sections, and remarks that it is all gray sand, apparently free from boulders. The three steam whalers, "Aberdeen","Moran", and "Tanginak" use this channel regularly. The "Tanginak" has a maximum draft of 13 feet. In towing whales, the flippers of the whale sometimes drag at 16 to 18 feet depth and all three captains maintain that the places where these flippers usually drag are in the vicinity of the 14 foot spot described above.

Previous to the survey in 1928, these whalers were favoring the southeast shore in making the bend between Sheep Island and shore. The best water, however, is between the pile beacon (established in 1928 by the Lighthouse Service) and Sheep Island.

Anchorages. There are numerous good anchorages in the Strait, the best of which is in Sheep Bay, south or east of Sheep Island. Secure anchorage for all vessels in any weather can be had here in 6 to 7 fathoms mud bottom. Good anchorage can be also found in the following places:

Amee Bay 7 to 12 fathoms soft bottom.
In the Strait 500 yards southwest of West Base, 14 to 16 fathoms ~~Sand~~ mud bottom.
In Port Hobron off whaling station, 16 to 19 fathoms sand bottom.
At the head of Port Hobron, 16 to 20 fathoms mud bottom.
Tanginak Anchorage 13 to 18 fathoms sticky bottom.
Mc Donald Lagoon (small craft) 3 to 15 fathoms sticky bottom.

The steam whaling vessels "Tanginak", "Aberdeen", and "Moran" favored the Sheep Bay anchorage, and the survey Launch "Wildcat" found this to be the only satisfactory anchorage for all weather. Launch "Wildcat" used Snug Cove for a mooring for the 30 foot hydrographic launch, and in good weather or in southerly weather "Wildcat" could anchor safely in this cove. There is not much swinging room, however and the cove is exposed to northerly weather.

Geographic Names. See report to accompany Topographic Sheet "A" Sitkalidak Strait 1928.

(Signed) Paul A. Smith. *

Note by Chief of Party:

The work on this sheet was done by the party on the WILDCAT with Paul A.Smith in charge. Due to distance, the SURVEYOR was unable to visit Port Hobron during the season, and therefore the chief of party had no opportunity to supervise the work. I have examined the sheet carefully and approve it. Certain critisms are noted in the above report. Any additional work considered necessary could be done by this party next season.

R.R.Lukens.
R.R.Lukens.

* Mr. Smith is now detached.

Statistics for Hydrographic Sheet No. 1 Sitkalidak Straits
1928.

Launch WILDCAT

Volume	Day	Statute mi. of sdgs.	No. of Pos.	No. of sdgs.	Date
1	A	17.8	82	227	July 6, 1928
1	B	9.8	44	83	July 20
1	C	18.6	81	229	July 21
1	D	5.6	21	61	July 23
1	E	12.5	46	95	July 25
2	E	4.5	22	40	July 25
2	F	10.0	74	231	July 26
2	G	4.8	33	73	July 27
2	H	18.2	111	222	Aug. 2
2	J	17.5	80	180	Aug. 3
3	J	5.8	26	62	Aug. 3
3	K	2.2	25	38	Aug. 9
3	L	17.7	103	303	Aug. 13
3	M	11.7	68	195	Sept. 1
3	N	8.1	56	286	Sept. 12
3	P	10.8	68	249	Sept. 20
4	Q	14.0	~~19~~	~~65~~	Sept. 21
Total		189.6	959	2638	

Launch No. 3

Volume	Day	Statute mi. of sdgs.	No. of Pos.	No. of sdgs.	Date
1	a	9.1	46	126	July 9, 1928
1	b	20.9	119	283	July 12
1	c	0.5	4	11	July 24
1	d	9.4	90	217	Aug. 5
2	e	15.0	105	290	Aug. 14
2	f	15.2	87	221	Aug. 18
2	g	7.0	41	127	Aug. 29
3	g	12.3	85	412	Aug. 29
3	h	16.2	78	209	Aug. 30
3	j	15.2	71	195	Sept. 3
4	j	3.5	18	48	Sept. 3
4	k	19.4	92	266	Sept. 4
4	l	12.7	81	256	Sept. 8
4	m	8.6	60	138	Sept. 9
5	m	4.7	33	72	Sept. 9
5	n	3.0	19	38	Sept. 17
Totals		172.7	1029	2909	

Report on H4854.

Chief of Party - R.R. Lukens.
Surveyed by - P.A. Smith and F.G. Johnson.
Protracted and sounding Penciled by F.G. Johnson.
Verified and Inked by - John G. Radcliffe

1. The record conform to the requirement of the General Instruction.
2. The plan and character of development fulfills the requirement of the General Instruction.
3. The sounding line Crossings are adequate.
4. The usual depth curves can be drawn.
5. The field plotting was complete, and accurately done with the exception that the fraction were irregularly and carelessly plotted, 3/6 of a fathom always plotted as 3/4, and never as 1/2, and 1/6th of fathom were plotted for depth over 7 fathoms and 1/4 fathom plotted for depths under 7 fathoms, etc. .9⅝ fath. was always plotted as 10 fath. The position numbers were placed

much too far from the position, in most cases.

In many areas insufficient bottom samples were taken.

6. The sheets joining this one were incomplete at time of writing this report, so no over-lap could be applied.

7. The insets on the smooth sheet were plotted by the Veifier and were drawn to scale as far as the dimension were shown in the records. The distances from end of docks to shore line was in each case omitted. An estimated distance was given by Mr. P.A. Smith, who was the officer-in-charge of the works.

The azimuth of the "Whaling station Dock" and the "Old Harbor dock" do not as given in the records do not conform to the azimuths as shown on the Topo 4397. "McCords Dock" was accurately fixed by taking an angle with the face of the dock and the Signal "Duk".

John S. Ladd
May 3rd 1929 in Cato, Eng.

Section of Field Records
Report on Hyd. Sheet No 4854
Sitkalidak Strait, Kodiak Island, Alaska
Surveyed in 1928

Instructions dated Feb 18, 1928. (Surveyor)

Chief of Party - R. R. Lukens
Surveyed by - P. A. Smith, F. G. Johnson
Protracted and plotted by - F. G. Johnson
Verified and inked by - J. G. Ladd

1. The records conform to the requirements.
2. The plan and character of development conforms to the requirements of the General Instructions.
3. The plan and extent of the survey satisfies the specific instructions.
4. The sounding line crossings are satisfactory.
5. The information is sufficient for drawing the usual depth curves.

6. The junction on the eastern limits with H. 4855, which is the only adjoining sheet, is satisfactory.

7. The usual amount of field plotting was well done, except that the fractions were not expressed in conformity with par. 152, Hydrographic Manual. (See verifier's report)

8. Character and scope of survey — Excellent.

The ground is well covered, and in general, about the right amount of development has been done.

Not enough bottom characteristics were given.

A few soundings should have been taken in the vicinity of the 48fm sounding, Lat 57°-10.7', Long 153°-08.6', which was questioned in the records, in order that it could have been finally rejected.

*The narrow entrance to Mc Donald Lagoon was not sufficiently developed. There is a 1½ fathom sounding near the channel, north of the entrance which was not developed and it is impossible to say from the one sounding line what depth can be carried through the entrance.

The ridge running north east from signal "Cut", in Tanginak Anchorage, should have been further developed.

The 8 fathom spot 800 me. south of △ East Base and the 20 fathom spot 1½ miles north of △ Table might be passed over with the drag at some future time.

Reviewed by R. L. Johnston May 20, 1929.

H. B. Bowden
Chief Section, C & W

E.A.L.

(For Files of Field Records Section)

Division of Hydrography and Topography: Mar. 23, 1939.

Division of Charts;

Tide Reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 8
4964

Locality: Sitkalidak Straits, S. W. Alaska

Chief of Party: R. R. Lukens in 1938.
Plane of reference is Mean lower low water, reading
4.6 ft. on tide staff at Port Hobron, Sitkalidak Island.
~~xxxxxxxxxxxxxx~~ ft. below B. M.

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 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.

Paul C. Whitney

Chief, Division of Tides and Currents.

Form 537
11—5812

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. 4854

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. 4854

State Alaska

General locality ~~Southwest Alaska~~ Kodiak Island

Locality Sitkalidak Strait, Left Cape to Old Harbor.

Scale 1 : 20000 Date of survey July, August, Sept., 1928

Vessel Surveyor (Wildcat)

Chief of Party R. R. Lukens

Surveyed by P. A. Smith and F. G. Johnson

Protracted by F. G. Johnson

Soundings penciled by F. G. Johnson

Soundings in fathoms ~~feet~~

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by none

Inked by John G Ladd

Verified by J. G. L.

Instructions dated February 18, 1928

Remarks:

GPO

HYDROGRAPHIC SHEET No. 4854

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet . 1988
Number of positions checked . 641
Number of positions revised . . 11
Number of soundings recorded . 5547
Number of soundings revised . 350
Number of signals erroneously plotted or transferred . . . None

Date: - - - - - - May 2 - 1929 - - - -
Cartographer: - - - John S. Ladd