

4762

Diag. Cht. No. 8152-2

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

State: Alaska

11-5613

DESCRIPTIVE REPORT.

Hydrographic ² Sheet No. 4762

LOCALITY:

Tlevak Strait

McFarland Is. to South Pass

1927

CHIEF OF PARTY:

H.A. Cotton

G. & S. SURVEY
L. & A.
MAY 5 - 1928
Acc. No.

4762

S 52 - 10V

DESCRIPTIVE REPORT

To accompany Hydrographic Sheet No. 2 4762

AUTHORITY: The hydrography on this sheet was executed under instructions of the Director of U.S. Coast & Geodetic Survey, dated February 18th. 1927.

LIMITS: The entire area inside of McFarland Islands and Corliss Islands was covered by this survey and connects with surveys done previously by the steamer "GEDNEY".

METHODS: The usual methods adopted by the service were used in this survey. With the exception of three days the steam launch # 47 was used with great success.

For deep water soundings a steam sounding machine, with stranded wire and a 14 lbs. lead was used and for soundings of less than 10 fathoms an eight lbs hand lead. All soundings are up and down.

In deep water the lines are about 150 meters apart and run in an easterly and westerly direction. In narrow channels, anchorages and at the head of DUNBAR Inlet the direction varies and lines are spread according to the nature of the bottom.

Numerous shoals and banks were located by running splits and when less water was found the launch anchored immediately, steaming around it on the anchorline and using several handleads.

CONTROL: Triangulation and topography furnished control. Only two signals were located by the hydrographer in order to obtain the necessary right hand objects.

○ FOX is a fox sign near △ HARD and signal ○ DUM a banner on a tree, the very first signal build in this locality but not located by topographer. The tree is on a small islet at the SW end of SUKKWAN Island.

BOTTOM: The bottom is very irregular and resembles a great deal the contours ashore. Practically all obstructions are marked by kelp with the exception of few, SW of Corliss Islands.

Bottom between Corliss Islands and McFarland Islands is generally hard except when otherwise stated.

Near the shores and in vicinity of rocks and other obstructions, bottom is hard, sticky with occasionally mud.

#2.

DANGERS & OBSTRUCTIONS:

✓ #1. A shoal with a least depth found of 4-2/6 fathoms 897 meters 232° from △ TIME. Bottom is rocky, not visible and not marked by any kelp. (Pos. # 58 k.)

✓ #2. A shoal with a least depth found of 3-2/6 fathoms at M.L.L.W. lies 1830 meters 220°20' from △ TIME. Bottom is visible, rocky and sticky. This rock is marked by a few streamers of very thin kelp. Shoal runs in an easterly and westerly direction. (Pos. # 17 k.)

✓ #3. Foul area and marked by very thick kelp lies between ○ BIL and ○ DA.
a. A rock with 1½ fathoms over it at M.L.L.W. lies 160 meters 187° from ○ DA. (Pos. # 112 k.)
b. A rock with 4 feet over it at M.L.L.W. lies 265 meters 894° from ○ DA. (Pos. # 98 h.)
c. A rock with 1½ fathoms over it at M.L.L.W. lies 147 meters 0° from ○ BIL. (Pos. # 100 h.)

#4. A shoal with a least depth found of 1-5/6 fathoms lies 270 meters 206° 30' from ○ NUT. Bottom is rocky, not visible and no indication of any kelp. (Pos. # 11 h.)
○ Nut is a rock which bares at half tides.

#5. A rock awash at M.L.L.W. lies at the westerly end of a very thick kelp patch, 255 meters 228° from ○ SUP. (Pos. # 64 l.) Deep water was found to be eastward of this kelp patch.

#6. A shoal with a least depth found of 2 fathoms at M.L.L.W. lies 955 meters 308° from △ DOWN. The shoal runs from this position in a southeasterly direction and covers an area of about 50 square meters. Bottom is plainly visible, no indication of any kelp. (Pos. # 27 f.)

#7. A shoal with 3-2/6 fathoms over it at M.L.L.W. lies 796 meters 295° from △ DOWN. Rocky bottom, no indication of any kelp. (Pos. 36 f.)

#3.

#8. Attention is called to a sounding of $6\frac{1}{2}$ fathoms between positions # 66 and 67 c. east of \triangle PROFET. This sounding is disproved by numerous deep soundings in immediate vicinity and by dragging over it at an effective depth of 60 feet.

The leadsman called my attention to this sounding immediately but we continued the mine, thinking it was the beginning of a shoal connecting with a rock which bares at half tides.

The opinion is that the lead struck a submerged object floating at that depth.

#9. A shoal with 5 fathoms over it at M.L.L.W. lies 660 meters 177° from \triangle LAND. This shoal is marked by very thin kelp, bottom is hard and rocky. Attention is called to the fact that no kelp was observed on June 10th, however a few days later kelp was found at low water. (Pos. # 66 e.)

#10. A shoal with $5\frac{1}{2}$ fathoms over it at M.L.L.W. lies 870 meters $273^{\circ} 40'$ from \odot YES. This shoal is marked by some kelp and bottom is rocky. (Pos. 15 t.)

#11. A shoal with $5\frac{5}{6}$ fathoms over it at M.L.L.W. lies 510 meters 286° from \odot YES. Bottom is rocky, no indication of any kelp. (Pos. # 56 t.)

#12. A shoal with $4\frac{5}{6}$ fathoms over it at M.L.L.W. lies 525 meters 264° from \odot YES. Bottom is hard and rocky ; no kelp. (#53 t.)

#13. A bank with $6\frac{1}{2}$ fathoms over it at M.L.L.W. lies 835 meters 241° from \odot YES. Bottom is rocky, no kelp. (Pos.# 50b')

#14. A shoal with 4 feet over it at M.L.L.W. lies 427 meters 281° from \triangle MACK. Bottom is rocky and the whole area is marked by very thick kelp. This shoal is surrounded by deep water. (Pos. # 30y.)

#15. A shoal with $1\frac{1}{2}$ fathoms over it at M.L.L.W. lies 350 meters 92° from \odot KIR. This shoal covers quite an area, bottom is rocky. Marked by very thin kelp. (Pos. # 11 z.)

#4.

#16. A Reef which bares at minus tides lies 410 meters 180° from Δ DUN. Position # 7s. shows a depth of 4 feet. While signal building at minus tide a fix was taken at the rock, standing at the western edge of it. The rock was bare about 1 foot. Failure to find this rock again is due to the very thick kelp which prevented the launch from going into it.

This reef runs in a northerly and westerly direction and the limits of the kelp patch is given; soundings taken at the edge of the kelp. The kelp was very thin, when the position at the rock was taken.

#17. A shoal with $3\frac{1}{6}$ fathoms over it at M.L.L.W. lies 425 meters 131° from \odot SUN. This shoal covers an area of about 100 square meters; rocky bottom and is covered by very thick kelp. No kelp was noticed in this locality during the later part of May, not even at low tides. (Pos. # 65 s.)

#18. Foul area lies west and SW from \odot It. and is marked by very thick kelp.

a. A 5 foot spot lies 185 meters $251^{\circ} 30'$ from \odot It. rocky bottom. This shallow sounding marks the eastern end of a small kelp patch, with deep water all around it. (Pos. # 104 r.)

b. A $1\frac{5}{6}$ fathoms spot lies 135 meter 206° from \odot It. Pos. # 108 r.)

When signal \odot It was build, no kelp was seen in this locality, although the signal was build at low water.

#19. A shoal with a least depth found of $4\frac{2}{6}$ fathoms at M.L.L.W. lies about 640 meters 337° from Δ LET. Bottom is hard and rocky and water in this locality is discolored. No indication of any kelp. Position # 139a' gives the least sounding obtained .

ANCHORAGES:

Anchorages may be had in several places, depending upon tonnage of vessel and depth required. The steamer "Explorer" anchored practically all the time while the survey was in progress in ISLAND BAY, a name given to a small bight north of a small island on which \odot LON is located.

This anchorage is easily approached when coming from the Westward and an anchorage may be had in 6 and $\frac{7}{8}$ fathoms, stk. and hard bottom. There is not very much swinging room and is limited to vessels of not more than 2000 tons.

The approach to this anchorage is dragged from westerly and southerly direction, and found to be free of dangers.

#5.

ISLAND BAY affords a very good anchorage, is well protected from all winds with the exception of westerly winds. While making use of this small bight, the winds were blowing occasionally from that direction and although driving the launches into sheltered waters, there was no occasion for the ship to worry, moor ship or veer more chain.

Another anchorage may be had in a bight north of Δ DOWN in 8 and 9 fathoms of water, sticky and hard bottom. This anchorage is blocked by several shoals and a rock which covers at high tides.

Local knowledge is required to enter this bight.

DUNBAR INLET could be used as an anchorage, but the approaches are quite difficult for strangers. Bottom is soft and sticky.

Floating fish traps are laid up for the winter on a bight SE of \odot LIM. A group of rock west of Δ DUN block the entrance and another group of rock on which \odot Kas is located lies directly in midchannel, making the approach to this bight quite difficult for strangers. South of a small island on which \odot AB is located are thick kelp patches and the western end of this bight is studded with rocks.

Neither anchorage is of any commercial value and while working in this locality only a few fishing boats were observed to pass.

WATERSUPPLY.

Watersupply is very scant in this locality and the only stream of any importance is located in DUNBAR INLET near \odot HUS. This stream is blocked by flats, extending about 200 meters.

Weather:

The weather experienced during the months of June and July was very pleasant and very suitable to our work. There was hardly any day, where field work was suspended by inclement weather. Very little or no rain fell during this time and only on two days was rain sufficient thick to obscure signals, but never holding the work up for more than one hour at the time.

CURRENTS:

No current/station was occupied in this locality and consequently little or nothing may be said about it, nor was the current sufficient strong enough to interfere with hydrography

On July 8th, the steamlaunch broke down (Thick kelp in propeller disconnected tailshaft.) early in the morning about 10-00 a.m. and launch was drifting for nearly 6 hours until picked up. We drifted in a NE ly direction and covered a distance of about $\frac{3}{4}$ mile.

Approved & forwarded
Harold Cotton
Comd'g. Explorer

H. Heideich

STATISTIC SHEET No. 2.

Date	1927.	Letter	Vol.	Pos.	Sgds.	Miles	St.	Launch.
June	6th.	a. red	1.	45	138	4.2	#	47
"	7th.	b. "	1.	104	249	19.2	#	47
"	8th.	c. "	1.	104	241	16.9	#	47
"	9th.	d. "	1&2	100	251	21.5	#	47
"	10th.	e. "	2	66	174	8.0	#	47
"	15th.	f. "	2	79	161	7.5	#	47
"	16th.	g. "	2&3	121	349	17.0	#	47
"	17th.	h. "	3	114	300	12.2	#	47
"	18th.	j. "	3	79	269	8.7	#	47
"	20th.	k. "	3&4	113	296	8.9	#	47
"	21st.	L. "	4	73	174	9.2	Tender #	2
"	22nd.	m. "	4	150	415	13.1	#	47
"	23rd.	n. "	5	168	489	14.3	#	47
"	24th.	p. "	5&6	139	400	19.5	#	47
"	25th.	q. "	6	88	256	10.5	#	47
"	26th.	r. "	6	110	236	12.7	#	47
"	28th.	s. "	6&7	113	253	10.1	#	47
"	29th.	t. "	7.	57	105	3.0	#	47
July	6th.	u. "	7	132	464	12.5	#	47
"	7th.	v. "	7&8	119	299	15.4	#	47
"	8th.	w. "	8	34	81	3.5	#	47
"	9th.	x. "	8	33	81	3.5	Tender #	1
"	11th.	y. "	8	108	309	11.5	"	# 1
"	12th.	z. "	8&9	147	451	12.5	#	47
"	13th.	a' "	9.	151	534	16.2	#	47
"	14th.	b' "	9&10	128	467	13.8	#	47
TOTAL				2675	7442	305.4		

(11)

H.P.H.

Copy for Section of Field Records files.

May 18, 1928.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 4762

Locality: **MC FARLAND ISLANDS, S.E. ALASKA**

Chief of Party: **H. A. Cotton, 1927.**

Plane of reference is **M L W**

6.1 ft. on tide staff at **View Cove**

4.9 " do " **Island Cove**

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. Wade

Chief, Division of Tides and Currents.

Report on H4762

Chief of Party, H.A. Cotton
Surveyor - W.W. Weidlich
Profiled and Soundings provided by W.W.
Verified and inked by John G. Reed

1. The records conform to the requirements of the General Instruction.
2. The plan and character of development fulfills the requirements of the General Instruction.
3. What few crossing lines there are check very well.
4. The usual depth curves could be drawn.
5. The field plotting was complete except that about 10 rocks awash were not inked in on the south sheet and about 10 others were not transferred from the topographic sheet. Also the low water line was not inked in on the south sheet.
6. No part of the work had to be done over by the office draftsman except that the positions 41b' to 53b' had to be

replotted and moved as the field draftsman had plotted same by using signal "Tin" instead of signal "Tan" as is recorded in the records. This replotting moved the positions in a north west direction about 38 meters.

Three signals had to be slightly moved to make same conform to the tops.

7. The soundings in green were taken from the wire drag sheet.
8. The character and scope of the survey are very good and the field plotting very accurate.
9. The $1\frac{1}{2}$ fath. sounding, 100 meters north of signal "Ton" should have been developed. Also the 3 fath. sounding 385 meters due east from signal "Ris" and the 9 fath. sounding just south of "Pid" should have been developed.

John S. Ladd
Jr. C. E. Eng.

Feb. 8, 1929

Section of Field Work.

Sheet # 4762

McFarland Is. to South Pass, ^{Alaska} surveyed in 1927.

Chief of Party - H. A. Cotton.

Instructions dated - Feb. 18, 1927.

Surveyed by - W. Weidlich.

Protracted by - W. Weidlich.

Soundings plotted by - W. Weidlich.

Verified and inked by - John G. Ladd.

- ① The records conform to the requirements of the General Instructions
2. The plan and character of development fulfill the requirements of the General Instructions
3. The plan and extent of development satisfy the specific instructions.
- 4 There are very few sounding line crossings on this sheet, but they agree very well in places where they were run.

2.
5 The usual depth curves can be drawn, except close inshore and in foul areas where it was impossible to take soundings.

6. The field plotting was complete except that a large number of rocks awash were not indicated on the smooth sheet. Some of these had not been transferred from the topographic sheet while others were only indicated on the boat sheet and had not been transferred. All rocks shown on ^{now} the topographic and boat sheets have been placed on the smooth sheet.

7. The office draftsman had to do over only a very little of the drafting done by the field party. Positions 41 b' to 53 + ' had been erroneously plotted in the field because of confusion in the signals.

8 The junction with H-3417 is satisfactory.

at the junction with H-3691 there should have been additional development in the unimportant area at Lat. $55^{\circ}-08'$ -1200 m., Long. $132-56'-200$ m. This area is a strip about 400 meters wide along the beach.

9 Further surveying is not required? to fully develop important areas within the limits of the sheet.

10. Remarks:

(a) On this sheet the hydrographer held too closely to the specific instructions in respect to the spacing of sounding lines. Where shoal water was found, in several cases no development was made and only the regular lines were run. It would have been desirable to run splits at least

in such places in order to have a complete survey of this region.

(b) The verifier, in his report, noted three shoals which he considered needed more development. There is also one at Lat. 55-03-1300 m. Long. 132-53-700 m. which could have been more fully developed.

(c) The descriptive report contains a list of all shoals on this sheet except one at position 47N (Lat. 55-07-900 m., Long. 132-55-100 m.) with $4\frac{3}{6}$ fathoms minimum depth.

(d) There is no geographic position given for any triangulation station on this sheet.

(e) On page 47 vol. 1 of sounding records a sounding of $6\frac{1}{2}$ fm. is given. This has been disproven by additional development and the wire drag.

11. (a) The character and scope of the surveying is very good except as noted above in regard to spacing of sounding lines.

(b) Field drafting was very good.

E. O. Heston

Jr. H. + G. E.

Feb. 25, 1929.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY
L. & A.
MAR 27 1928
Acc. No.

REG. NO.
4762

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. 2

REGISTER NO. **4762**

State ALASKA

General locality SE Alaska Tlevak Strait

Locality Tlevak Strait, Mc Farland Islands to South Pass

Scale 1-10000 Date of survey June & July, 1927

Vessel Steamer Explorer

Chief of Party Harold A. Cotton

Surveyed by W. Weidlich

Protracted by W. Weidlich

Soundings penciled by W. Weidlich

Soundings in fathoms ###

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by John G. Ladd

Verified by J.G.L.

Instructions dated February 18th, 1927

Remarks:

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4762

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

Number of positions on sheet .2675.
Number of positions checked .994.
Number of positions revised .33.
Number of soundings recorded .7442.
Number of soundings revised .85.
Number of signals erroneously
plotted or transferred3.

Date: - - - - Feb. 7th - - - - 1929 - - - -

Cartographer: - - - - John G. Ladd - - - -