

4763
4763a
4763b

Diag. Chart No. 8201-3

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*
Field No. *4763* Office No. *4763a*
4763b

LOCALITY

State *S. E. Alaska*
General locality *Kekew Strait*
Locality *Pt. Barrie to*
S. End of Kekew Strait

1917

CHIEF OF PARTY

H. A. Cotton

LIBRARY & ARCHIVES

DATE

4763
4763a
4763b

4763

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

State: SE. Alaska

11-5613

DESCRIPTIVE REPORT.
 Sheet No. ⁶ 4763

LOCALITY:
 Keku Strait

Pt. Barrie to S. End of Keku Strait

1927

CHIEF OF PARTY:
 H.A. Cotton

U. S. SURVEY
 L. A. A.
 MAY 5 - 1928
 Acc. No.

4763

9-87 14

DESCRIPTIVE REPORT

To accompany Hydrographic Sheet No. 4783

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

LIMITS: According to instructions the survey was to extend as far as to the 10 fathom curve and the remainder to be wiredragged. 2 ✓

On account of the numerous obstructions located the survey extends well into deeper water and the limits are quite irregular. ✓

The survey begins about one mile east off Pt. Barrier and ends about $\frac{3}{4}$ mile west of Monte Carlo Islands. The area north and east of Conclusion Island and north and east of Sumner Islands is also completed. ✓

METHODS: Launch # 47 was used for all the work. A hand lead of about 8 lbs. was used for depths of less than 10 fathoms, while in deeper water the steam sounding machine with stranded wire and a 14 lbs. lead. ✓

Sounding lines are spaced about 200 meters apart except in narrow channels and on shoals where cross lines were run. ✓

Off Pt. Barrier the lines run in a northerly and southerly direction, radiating off the fishtrap and then run east and west, as far as ⊙ TREE. ✓

North of this signal the direction of the lines vary. A regular system of sounding lines proved to be impossible and not economical, on account of the numerous rocks and kelp patches. ✓

The channel leading to the entrance beacon #1 (Δ Isa), at the entrance of Rocky Pass, between Monte Carlo Islands and a small island on which ⊙ OUT is located, is very irregular in depths and was not developed as this area was to be wiredragged. ✓

#2.

NO attempt was made to go into details south of Monte Carlo Island. This area is very foul. The limits of kelp patches were determined by sextant fixes, with channel lines between. ✓

This area is not visited by fishing boats.

A channel used quite frequently by fishing boats was developed between Δ FIRE and TROUBLE. This channel was found to be very deep, except west of \odot PET. ✓

Flats extend for quite a distance from this signal which is a rock. ✓

All kelp patches not connected with ledges, rocks and islands are investigated and in most cases only the least depths found were recorded, although numerous soundings were taken. ✓

BOTTOM:

The irregularity of the bottom was very perplexing at times, as one never could tell in advance what the next sounding would be. ✓

Bottom is hard, rocky and sticky with occasional mud. ✓

Practically all obstructions are marked by kelp. ✓

CONTROL:

Triangulation and topography furnish the necessary control for all the work. ✓

Only one signal was located by hydrographer, namely \odot MUD. the last signal east of Pt. Barrier. ✓

On account of only a few signals being located by topographer, the fixes used the first day are not very strong, considering the distance off shore. ✓

Better fixes were used the following day. ✓

#3.

DANGERS:

#1. A rock with 1-4/6 fathoms over it at M.L.L.W. lies 840 meters 201° from WEN. It is surrounded by thick kelp. (Pos. # 110 v.) ✓

#2. A kelp patch with a least depth found of 2-4/6 fathoms at M.L.L.W. lies 1250 meters 256° 30' from BARRIER. Bottom is rocky. (Pos. # 88 & 89 u.) ✓

#3. A rock which bares 3 feet at M.L.L.W. lies 1080 meters 209° from END. This rock is marked by thick kelp. (Pos. # 12 u.) ✓

#4. A shoal with a least depth found of 3 fathoms at M.L.L.W. lies 1000 meters 219° 30' from END. Rocky bottom with thick kelp all around. (Pos. # 6 u.) ✓

#5. A rock which bares about 3 feet at M.L.L.W. lies 2010 meters 286° from END. Soundings were taken at the edge of kelp patch and the rock is located in the center of it. Distance to rock is estimated ✓

#6. A very thick kelp patch, not reported before, lies about 2-1/8 miles 351° from CON on Strait Island. This kelp patch is almost in midchannel between Strait Island and Pt. BARRIER. This kelp patch was seen from the ship at a distance of about 2 miles; is about 400 meters long, 175 meters wide and runs in a NE and SW direction. Soundings were taken at the kelp patch August 4th and the rocks located at the end of season. Fixes were taken right over the rocks, using a skiff as the kelp was too thick for the launch to penetrate. ✓

a. A rock with 1 foot over it at M.L.L.W. lies about 3720 meters 350° 20' from CON. ✓

b. A rock with 2 feet over it at M.L.L.W. lies about 3824 meters 353° from CON. ✓

These rocks cover only a very small area, and are flat on top. ✓

Although the limits of the kelp patch were established August 4th, it appeared to increase in size towards the end of the season. (Pos. # 116 & 117 v.) ✓

#7. A bank with a least depth found of 8 1/4 fathoms at M.L.L.W. lies 2750 meters 219° 30' from TROUBLE. Bottom is rocky, hard and sticky. No indication of any kelp. (Pos. # 60-61 c.) ✓

#8. A rock which bares 3 1/2 feet at M.L.L.W. lies 2230 meters 200° 20' from TROUBLE. Very thick kelp. (Pos. # 58 & 59 a.) ✓

#4.

#9. A kelp patch with a least depth found of 3-4/6 fms. at M.L.L.W. lies 1605 meters 177° from Δ TROUBLE. Bottom is rocky. (Pos. # 94 -96c.) ✓

#10. A very thick kelp patch , with a least depth found of 2-4/6 fathoms at M.L.L.W. lies 1235 meters 179° from Δ TROUBLE, rocky bottom. (Pos. # 119 v.) Pos. taken from skiff, kelp too thick for launch. ✓

#11. A small kelp patch with a least depth found of 4 fms. at M.L.L.W. lies about 50 meters SE from last kelp patch. (Pos. # 90& 91 c) ✓

#12. A small kelp patch with 4 & 5 fathoms at M.L.L.W., rocky bottom, lies about 80 meters 100° from last position. (Pos. # 92 & 93.c.) ✓

#13. A rock which bares about half tides, located by topography, lies about 630 meters 270° from \odot TREE. This rock is practically at the southern end of a long kelp patch , which runs in northerly and southerly direction. Least water found at the northern end, with the aid of a skiff is 1-1/6 fathoms. Rocky bottom (Pos. # 128v.) ✓

Kelp too thick for launch to go through. ✓

#14. Another kelp patch but of smaller extend, lies north of it. Least depth found is 1-2/6 fathoms at M.L.L.W. (Pos. # 122 v.) ✓

#15. A small kelp patch with a least depth found of 3-1/6 fathoms over it lies about 350 meters 132° from Δ TROUBLE. (Pos. # 6 v.) ✓

#16. A rock with 1 1/2 fathoms over it at M.L.L.W. lies 965 meters 89° from \odot FOX. This rock is surrounded by very thick kelp. (pos. # 12 g.) ✓

#17. A shoal with a least depth found of 5-5/6 fathoms , M.L.L.W. lies 790 meters 307° from \odot FIX. Bottom is rocky, no indication of any kelp. (Pos. # 62 l.) ✓

#18. A kelp patch with a least depth found of 3-4/6 fathoms at M.L.L.W. lies 1080 meters 5° from \odot FOX. Rocky bottom. (Pos. # 65 l.) ✓

#19. A small kelp patch with a least depth found of 4-5/6 fathoms at M.L.L.W. lies 1440 meters 226° 30' from Δ SPIT. Bottom is rocky. (Pos. 68 l.) ✓

5#3.

- #20. A small kelp patch with a least depth found of $4\frac{1}{2}$ fms. ✓
lies 1430 meters 223° from Δ SPIT. Rocky bottom, (Pos. 70 l.)
- #21. A small kelp patch with a least depth found of $3\frac{1}{2}$ fms. ✓
at M.L.L.W. lies 1100 meters $240^{\circ} 30'$ from Δ SPIT.
(Pos. # 73 l.)
- #22. A small kelp patch with a least depth found of 2-5/6 ✓
fathoms at M.L.L.W. lies 1230 meters $243^{\circ} 40'$ from Δ SPIT.
(Pos. # 77 l.)
- #23. A small kelp patch with a least depth found of 4-1/6 ✓
fathoms lies 1240 meters 229° from Δ SPIT. Rocky bottom.
(Pos. # 124 j.)
- #24. A small kelp patch with a least depth found of 4 fms. ✓
at M.L.L.W. lies 850 meters 130° from \circ KIT. (Pos. #164-65r)
- #25. A sounding of 1-1/6 fathoms at M.L.L.W. at the eastern ✓
end of a large kelp patch, lies 720 meters 88° from \circ KIT.
(Pos. # 101 j.)
- #26. A kelp patch with a least depth found of of 1-4/6 fathoms ✓
at M.L.L.W. lies 830 meters $192^{\circ} 30'$ from Δ SPIT.
- #27. A rock which bares about 4 feet at M.L.L.W. lies at ✓
the eastern edge of a kelp patch. 187 meters 310° from Δ SPIT. ✓
(Pos. 23 k.)
- #28. A kelp patch with a least depth found of 2 fathoms ✓
at M.L.L.W. lies 700 meters 0° from Δ MIKE. (Pos. 206 r.)
- #29. A shoal area with a least depth found of of 4 fathoms ✓
at M.L.L.W. lies ~~1030~~ meters $348^{\circ} 30'$ from Δ MIKE. No in
dication of any kelp. (130) ✓
This shoal spot was developed by launch # 67, Commanding
Officer in charge. It being on the same day as Launch # 47, but ✓
working in different locality, letter day x was given and red
color. *changed to blue*
- #30. A large kelp patch lies about 500 meters west of Δ NAR. ✓
Least depth found is 1 fathom at M.L.L.W. . This rock lies
about 500 meters 263° from Δ NAR . Regualr sounding lines are
shown on 1-10000 scale.
- #31. A kelp patch with a least depth found of 1-³2/6 fathoms ✓
at M.L.L.W. lies 530 meters $193^{\circ} 30'$ from \circ NIK. (Pos. 6 q.)
- #32. A kelp patch with a least depth found of 2-5/6 fathoms ✓
at edge of kelp lies 1010 meters 182° from \circ GEL. Another kelp
patch with 2-5/6 fathoms lies about 150 meters NW from it. ✓

#33. A kelp patch with a least depth of $\frac{5}{6}$ fathom at M.L.L.W. lies about 320 meters 1630 from Δ PORT. This shallow sounding was found at the northern end of the kelp patch. (Pos. # 35s.) ✓

#34. A kelp patch with a least sounding of 5 feet at the SE end of the kelp patch lies 800 meters 1790 from Δ PORT. Rocky bottom. (Pos. # 37 s.) ✓

#35. A $6\frac{1}{2}$ fathoms sounding was obtained 535 meters 1020 from \circ SUR on SUMNER ISLAND. Thin kelp. An effort was made to develop this spot, but wind was blowing too hard and the ship had to run for shelter. ✓

KELP:

Upon arrival on working grounds in Keku Strait and while signal building the kelp was found to be very thick in places, making it quite difficult to reach the shores with even a skiff. ✓

With the exception of two places known, all dangers are marked by kelp. Some of these larger kelp patches could not be penetrated by the launch and whenever we had the misfortune to be caught in kelp, it always took a long time to get clear and than only by cutting the kelp. ✓

The numerous rocks and islets are surrounded by kelp and in order to expedite the work soundings were taken at the edge of the kelp, at frequent intervals. No attempt was made to run regular lines through the kelp, except when kelp was very thin. ✓

The outlying kelp patches were examined with the aid of skiff, even than it was difficult to get through. ✓

East of PT. Barrier the lines end or continue at the edge of kelp. The kelp was found to be much thicker as during the month of JULY. ✓

ROCK (Position doubtful)

The rock just south of Meadow Island marked "Position Doubtful" was located by a single planetable cut from Signal "Small". The planetable cut came just across the southern extremity of the Kelp patch and the rock was also seen just inside the limits of the kelp. The position shown is probably very close to the true position as the limits of the kelp are narrow at this point and were well located by sextant fixes. ✓

7 27

ANCHORAGES:

There are no regular anchorages in this locality. Anchorage can be made wherever the depth is suitable. Steamer Explorer anchored in several places while the work was in progress. ✓

At the beginning of the season an anchorage was found about 400 meters offshore near \odot TOE on the west shores of Kupreanof Island in 12 to 14 fathoms, sticky and hard bottom. This anchorage is east of the north point of Meadow Island and not easily approached on account of the numerous kelp patches and a rocky patch with $1\frac{1}{2}$ fathoms over it, almost in mid-channel. The anchorage is indifferent and offers very little protection from SE winds. ✓

The anchorage north of Monte Carlo Islands offers some protection from SE winds and was used a great deal by the steamer Explorer. Anchor in about 6-7 fathoms, sticky and hard bottom, about 400 meters north of a line drawn between the north points of two wooded islands, the east point of the largest of Monte Carlo Islands bearing south (\odot true). ✓

Small boats may find anchorage behind the numerous islet and islands. The bight east of Trouble Island (Δ TRO) is especially recommended to fishing vessels and lies north east from a fish trap. This bight offers excellent shelter from southeast and southerly winds. There are several piles driven, used by scows and vessels tending the fish trap. Stream watchman anchors here during the salmon season. ✓

A small boat belonging to the owner of the foxfarm is anchored all the year around in a small bight north of Monte Carlo Islands. This bight offers excellent shelter for small boats and should be entered from the north only, taking care to avoid the numerous rocks in this vicinity. No attempt should be made to enter from the eastward as the area east of this anchorage is foul. The southwest shores of the bight is suitable for hauling out small boats for cleaning and minor repairs to hull. ✓

Water:

There are numerous streams on the west shores of Kupreanof Island from which water may be boated at high tides. ✓

During the salmon season these streams are polluted by the dying fish and the water is suitable only for boiler use. ✓

The steamer Explorer took on several boat loads of water from a stream about 2 miles NNE from SKIFF ISLANDS. ✓

The fox farmer living on Skiff Island gets his water supply from a small stream NE from the island. This stream is very narrow and not accessible to salmon. ✓

CURRENT:

Little or nothing can be said of the current except that the flood runs in northerly and the ebb in southerly direction. ✓

The current is very weak at the entrance between Point Barrier and Strait Island, but increases in force between Monte Carlo Islands and the numerous small islet to the eastward. The estimated velocity is from 1 to 2 knots at the entrance to Rocky Pass. ✓

WEATHER:

Pleasant weather with occasional fog was experienced during August and the earlier part of September. Then the weather became rainy and squally with strong SE winds, forcing the ship and launches to the more protected waters in Rocky Pass, near the fish trap. ✓

H. Heideich

MEMORANDUM BY COMMANDING OFFICER

ANCHORAGES:

The above report to a considerable extent discredits the anchorage east of Meadow Island. This anchorage was used during many SE blows and gave good protection. The approach is somewhat difficult but the Directions given in Coast Pilot Notes are easy to follow. ✓

Coast Pilot Notes for all of Keku Strait are attached to this report.

Examined, approved and forwarded,

Harold A. Cotton

Harold A. Cotton,
Commanding EXPLORER.

STATISTIC SHEET No. 6.

| DATE 1927 | Letter | Vol. | Pos. | Sdgs. | Miles St. | Launch. |
|------------|---------|------|------|-------|-----------|---------|
| Aug. 4th. | a. red. | 1. | 122 | 279 | 16.3 | # 47 |
| " 5th. | b. " | 1. | 53 | 131 | 11.0 | # 47 |
| " 6th. | c. " | 1. | 130 | 271 | 16.5 | # 47 |
| " 8th. | d. " | 1&2. | 229 | 395 | 21.5 | # 47 |
| " 9th. | e. " | 2. | 154 | 540 | 22.6 | # 47 |
| " 10th. | f. " | 2. | 43 | 163 | 5.7 | # 47 |
| " 11th. | g. " | 3. | 98 | 259 | 13.9 | # 47 |
| " 24th. | h. " | 3. | 180 | 181 | 9.0 | # 47 |
| " 26th. | j. " | 3. | 127 | 322 | 15.6 | # 47 |
| " 27th. | k. " | 3&4. | 129 | 455 | 22.0 | # 47 |
| " 29th. | l. " | 4. | 143 | 369 | 14.8 | # 47 |
| Sept. 2nd. | m. " | 4&5. | 132 | 565 | 22.9 | # 47 |
| " 8th. | n. " | 5. | 57 | 308 | 10.0 | # 47 |
| " 9th. | p. " | 5. | 54 | 144 | 5.7 | # 47 |
| " 10th. | q. " | 5. | 75 | 228 | 10.8 | # 47 |
| " 12th. | r. " | 5&6. | 213 | 418 | 18.5 | # 47 |
| " 13th. | s. " | 6. | 157 | 484 | 19.2 | # 47 |
| " 14th. | t. " | 6. | 11 | 50 | 1.7 | # 47 |
| " 20th. | u. " | 6. | 92 | 216 | 9.5 | # 47 |
| " 21st. | v. " | 7. | 127 | 267 | 11.5 | # 47 |
| " 28th. | w. " | 7. | 47 | 231 | 9.0 | # 47 |
| " 29th. | x. " | 7. | 101 | 322 | 14.2 | # 47 |
| " 29th. | x. " | 7. | 8 | 54 | .8 | # 67 |
| " 30th. | y. " | 7&8. | 111 | 482 | 18.5 | # 47 |
| Oct. 4th. | z. " | 8. | 63 | 181 | 7.7 | # 47 |
| " 5th. | a'. " | 8. | 100 | 294 | 13.8 | # 47 |
| " 6th. | b'. " | 9. | 97 | 290 | 12.5 | # 47 |
| Total | | | 2853 | 7899 | 355.2 | # |

May 24, 1928.

Copy for Section of Field Records files.

(11)

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 4763

Locality: **KENAI STRAIT, S.E. ALASKA.**

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

Plane of reference is **M L L W**

5.6 ft. on tide staff at **Monte Carlo Island.**

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.

Chief, Division of Tides and Currents.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

January 24, 1929.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4763

Keku Strait, Southeast Alaska

Surveyed in 1927

Instructions dated February 18, 1927 (EXPLORER)

Chief of Party, H. A. Cotton.

Surveyed by W. Weidlich.

Protracted and soundings plotted by W. W.

Verified and inked by F. B. Kelly.

1. The records conform to the requirements of the General Instructions with the exception that no boat headings by compass were given at any time.
2. The plan and extent of development satisfy the specific instructions with the exception that there are several shoal spots on H. 2150 that have not been developed and the deep areas on this sheet have not been wire dragged as called for. (See paragraph 26, specific instructions.)
3. Wherever cross lines were run a comparison of the soundings shows a good agreement.
4. The usual field plotting was completed by the field party but was found defective in the following respects.
 - a. Six topographic signals had to be replotted due to erroneous transfer.
 - b. Several rocks awash as well as sunken rocks were omitted from the smooth sheet.
 - c. The plotting of soundings was only fair.
5. The usual depth curves could be drawn except in the foul area inshore and in the vicinity of shoals.

6. The junction with H. 4764 on the north is satisfactory.
7. The additional work required in this locality will be divided into two classes.

The first class will include all work necessary to comply with the specific instructions and that believed necessary for an adequate chart. The second class will include work which should be done whenever the area develops commercially.

Under class 1 the following are noted:

a. Wire drag work should be extended to the west and north from the existing drag work in Sumner Strait, taking in the broken area between the rock bearing 3 1/2 ft. at M.L.L.W. (lat. 56° 26 3/4', long. 133° 42') and the rock with 1 ft. over it at M.L.L.W. (lat. 56° 26', long. 133° 43'). The drag work should overlap the off-shore end of the hydrography and run as close to the 10 fathom curve as practicable. Extend the drag close to the west end of Meadow Island, being especially careful to cover the shoaling to the southwest of this island and the 5 5/6 fathom shoal to the northwest of the island in lat. 56° 30', long. 133° 43 1/4'. The drag should be continued to the northward as close to © In and © Out as possible, making sure to cover the 9 fathom shoaling in lat. 56° 30 3/4', long. 133° 42 3/4' and the broken area south and southwest of © Out. If not too difficult a short drag should be carried in the main approach to Keku Strait, to the eastward of Monte Carlo Islands and run as close to the entrance to the strait as possible.

b. The 9 fathom shoal in the middle of the entrance to Keku Narrows (lat. 56° 33 1/2', long. 133° 43 3/4') should be further developed with the lead line.

c. The area around the 5 1/2 fathom sounding in lat. 56° 32 3/4', long. 133° 44 3/4' should be examined as well as the 6 4/6 fathom spot about 400 meters to the northeast.

d. If drag work is not contemplated in this area at the present time, the following hydrographic examinations should be made:

1. A development of the area in the vicinity of the 11 fathom sounding in lat. 56° 25'.7, long. 133° 42'.5.

2. Some split lines in the broken area in lat. 56° 26 1/2' to 56° 27', long. 133° 43' to 133° 44'.

3. A development of the shoaling to the southwest of Meadow Island.

4. Split lines in the broken area to the south and west of \odot ✓
Out (lat. $56^{\circ} 31.3'$, long. $133^{\circ} 43.2'$) to a development of the
20 fathom curve. ~ 4763-a

5. Investigate the $8 \frac{3}{4}$ fathom shoal area (authority H. 2150) ✓
about $\frac{3}{4}$ mile southwest of Monte Carlo Island. This shoal falls
in deep water on the new survey. ~ 4763-b *new work*

6. Development over the various shoal spots in the area between
the northwest point of Conclusion Island and Monte Carlo Island
with particular reference to the $5 \frac{3}{4}$ and 14 fathom soundings
(authority H. 2150). ~ 4763-a *new work*

7. A further examination of the 21 fathom sounding (authority
H. 2150) in approx. lat. $56^{\circ} 28 \frac{3}{4}'$, long. $133^{\circ} 44 \frac{1}{2}'$. 4763-b *new work*

Under class 2 the following are listed:

8 a. Development in the vicinity of the $7 \frac{1}{4}$ fathom sounding ✓
in lat. $56^{\circ} 32' 100$ m., long. $133^{\circ} 41 \frac{1}{2}'$. ~ 4763-a *new work*

b. Split lines in the broken area between \odot In and \odot El and
between Δ Mike and the main channel. An examination is desir- ✓
able on the kelp patch in lat. $56^{\circ} 32'$, long. $133^{\circ} 43 \frac{1}{2}'$ to
obtain the least depth on this shoal. *not examined*
not covered

c. An examination of the 14 fathom sounding (if not wire ✓
dragged) in lat. $56^{\circ} 30'$, long. $133^{\circ} 49 \frac{3}{4}'$. ~ 4763-a

d. An extension of the hydrography to the southeastward off ✓
the south point of Conclusion Island to the limits of drag work. *new work*

e. A development of the $6 \frac{1}{2}$ fathom shoal in lat. $56^{\circ} 24'.8$ ✓
long. $133^{\circ} 47'.2$. *not covered*

f. An examination of the area in the vicinity of the 9 fathom ✓
spot in lat. $56^{\circ} 26'.7$, long. $133^{\circ} 41'.4$. *not covered*

g. An extension of the hydrography to the west shore to include ✓
Three Mile Arm, Seclusion Harbor and the bay to the westward of
Conclusion Island. *new work*

9. Reviewed by A. L. Shalowitz, January, 1929.

Approved:

A. M. Sobieralski
Chief, Section of Field Records (Charts)

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

*This is better new
work as called
for by instructions,
under general
heading "WEST
COAST SUMNER STRAIT"*

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4763

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. 6

REGISTER NO. 4763

SE
State ALASKA

General locality ~~SE ALASKA~~ Keku Strait

Locality ~~KEKU STRAIT~~ Pt. Barrie to S. End of Keku Strait

Scale 1-20000 Date of survey Aug. 4~Oct. 6, 1927
~~Aug. Sept. & Oct., 1927~~

Vessel S.S. Explorer

Chief of Party HAROLD A. COTTON

Surveyed by W. Weidlich.

Protracted by W. Weidlich.

Soundings penciled by W. Weidlich.

Soundings in fathoms ~~feet~~

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated February 18th, 1927

Remarks:

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. *H-4763*

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

Number of positions on sheet *3014.*
Number of positions checked *640.*
Number of positions revised *181.*
Number of soundings recorded *8115.*
Number of soundings revised *220.*
Number of signals erroneously
plotted or transferred . . . *6 . . .*

Date: *October 24, 1928*

Cartographer: *Francis B. Kelly*

4763a 4763b

4733a 4763b

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

State: Alaska

11-5613

DESCRIPTIVE REPORT.

Hydrographic Sheet No. 1 (4763)
 4763a and 4763b

LOCALITY:

Keku Strait, S. E. Alaska

South end from Pt. Barrie Northward

U.S.C. & G.S.S. EXPLORER

1929.

CHIEF OF PARTY:

E. W. Eickelberg, H. & G. E.

C. & G. SURVEY
 L. & A.
 JAN 29 1930
 Acc. No.

DESCRIPTIVE REPORT

TO ACCOMPANY SHEET 4763

(Portion of additional work to be accomplished first as called for under paragraph 10, instruction to Commanding Officer, EXPLORER, dated February 19, 1929.)

AUTHORITY:

Instructions dated February 19, 1929.

SURVEY METHODS:

All soundings were taken with a hand lead. The boat used was a 35 foot sounding launch. All signals used were recovered signals of the 1927 survey. ✓

DISCREPANCIES:

On the 9 fathom spot, 600 meters South of station EM, (shown as area 7b on the photostat) a least depth of $4 \frac{4}{6}$ fathoms was found. After the development lines were run, about 20 minutes was spent maneuvering over this spot taking detached soundings and this depth was the least that could be found. ✓

Development lines were run over the area in the vicinity of the $6 \frac{5}{6}$ fathom spot, 700 meters S. E. of station NIL, (shown as area 7c on the photostat) and a least depth of $5 \frac{5}{6}$ fathoms found about 100 meters S. W. of the former sounding. ✓

On the shoal area, 1200 meters south of station NIL, (shown as area 7c on the photostat) a least depth of $5 \frac{2}{6}$ fathoms was found. This is the same as the least depth found on the previous survey. ✓

Between Got & Mike
The two areas to the east and south of station EL, (shown as 8a and 8b on the photostat) were developed with the view of delineating the ten fathom curve. No soundings materially less than shown on the previous survey were found in this area. ✓

Respectfully submitted,

Thos. B. Reed.

Mr. Reed was detached before this report could be signed. He wrote a rough copy & the above is a copy of that. T.B.R.

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SHEET # 4663.

AUTHORITY: The additional work on this sheet was executed under instructions of the Director, U. S. Coast and Geodetic Survey, Washington, D. C., dated February 19, 1929. ✓

METHODS: The steam launch "Delta" was used for this work. All soundings are up and down. The steam sounding machine was used for depths greater than 15 fathoms, while for lesser depths an eight pound hand-lead was used. ✓

ADDITIONAL OBSTRUCTIONS: The work done on this sheet is supplemental to the work done in 1927, and in some instances, covers areas which were to be wiredragged after the launch hydrography was completed.

With the exception of area 8 c, all areas were developed as requested, and in addition, a few more shoals were developed, which appeared to be of some importance.

8-c was scanned
with plan of 8-b
as well as 8-e and
8-f were not
scanned. A.L.S.

(7d(4)). The area S. W. of station OUT was covered by this survey, and regular development lines were run. ✓

1. $8\frac{1}{4}$ (15-16 c') A shoal with a least depth found of $10\frac{3}{4}$ fathoms at M.L.L.W. lies about 1050 meters, 253° from station OUT. (position 17d'). ✓

2. A shoal with a least depth found of $7\frac{1}{2}$ fathoms at M.L.L.W. lies about 680 meters, 175° from station OUT. (position 78-79 d'). ✓

(7d(3)). A rock which bares one foot at M.L.L.W. and marks the extreme end of a reef which extends south from Meadow Island, lies about 330 meters, 185° from station NET. This rock was located by topography in 1927 by one cut only, and is shown as P.D. on photostat. This area is covered by very thick kelp. ✓

NET A shoal with a least depth found of 14 fathoms, hard bottom, at M.L.L.W., lies about 750 meters, 234° from station NET. Numerous soundings were taken on this shoal but only least depth recorded and plotted. The survey of 1927 shows a depth of 13 fathoms. (position 112 d'). ✓

A shoal with a least depth found of 19 fathoms, at M.L.L.W., lies about 2400 meters, 223° from station NET. (position 130 and 133 d'). ✓

A shoal located by the ship while experimenting with a new sounding machine, lies about 2720 meters, 223° from station NET. Least depth found is 21 fathoms. (positions 22 and 25 A.).

✓
21 fms. in this vicinity on H-2150
A.L.S.

A shoal with a least depth found of 9½ fathoms at M.L.L.W., lies about 1070 meters, 326° from station TROUBLE. (position 160 d'). 94 at 167d

(7d(1)). This area was thoroughly developed and depth reduced from 11 fathoms to 6 fathoms. (Rocky bottom). Numerous soundings were taken, using two hand-leads.

✓
Lat 56-25 2/3
Long 133-42 2/3

(7d(2)). This area was covered by additional lines which run in easterly and westerly directions. Bottom is very irregular. Numerous soundings were taken on the 8½ fathoms shoal, but nothing less was found in this survey. (position 96 e').

✓
Lat 56-26 1/2
Long 133-42 1/4
7 1/2 at 29e

8 c. The 14 fathom spot E.N.E. of station SEE, was examined and depth reduced to 12 fathoms. This shoal lies about 420 meters, 63½° from station SEE. (position 104 f').

A shoal with a least depth found of 9½ fathoms, hard bottom, lies about 1560 meters, 0° from station DO. An earlier survey shows a depth of 14 fathoms. (position 114 f').

The area south of station SMALL was also investigated, and although numerous soundings were taken, no lesser depths were found. Least depths found, 11 fathoms.

A 3½ fathoms sounding as shown on old charts, was investigated. Least depth found was 7¼ fathoms, sandy bottom, and corresponds very closely with survey of 1927. (position 52 f'). This sounding lies about 930 meters, 203° from station TRE.

These two soundings were erroneously plotted on H-2150. See review.
A.L.S.

An 8½ fathoms of old surveys was also investigated. Least depths found in immediate vicinity was 12 fathoms, and in many instances, more. Soundings obtained in this survey check very closely the work done in 1927.

A rocky patch with a least depth found of 2-1/6 fathoms at M.L.L.W., lies about 1759 meters, 140° from station NEW. This area is marked by very thick kelp. An old survey shows a depth of 5½ fathoms. (position f'). -73f'

Numerous detached soundings were taken east of the islet on which signals TOP and PORT are located.

The 1½ fathoms sounding as shown on bromide 21750, 1892, does not exist. Least depths found were 9 and 12 fathoms. (positions 3-4-6-11 and 14 f'). This 1½ fathom sounding no doubt is misplaced and should be shifted westward, inside of the heavy kelp patch as located in 1927.


See # 3, 4
7 new.

A. Medalie

APPROVAL SHEET 4763

This sheet was divided into two sections, northern and southern portions. The southern portion shows the area which will be needed for the new chart of Keku Straits, and this work was completed first - under instructions on project 1.

Detached areas 8e and 8f were not examined, the work having not been completed when this party left the field.


E. W. Eickelberg,
Commanding Officer,
U.S.C. & G.S.S. EXPLORER.

TIDAL NOTE TO ACCOMPANY SHEET 4763a.

Tide gauge (automatic) located at Monte Carlo
Island, Latitude $56^{\circ}32.0'$ Longitude $133^{\circ}45.7'$.

Plane of reference - M.L.L.W. = 4.0 feet.

Tides for reduction of soundings were referred
directly to this station.

Highest tide observed = 14.7 feet.

Lowest tide observed = -1.4 feet.

STATISTICS

| Day | Boat | Statute Miles of Sounding lines | Number of Soundings | Number of Positions | Volumes |
|-------|-----------|---|---------------------------|---------------------------|---------|
| a | Tender #1 | 3.2 | 64 | 34 | 1 |
| b | Tender #1 | 4.2 | 113 | 40 | 1 |
| c | Tender #1 | 4.6 | 136 | 44 | 1 |
| c' | Delta | 10.9 | 178 | 53 | 2 |
| d' | Delta | 14.0 | 340 | 167 | 2 |
| e' | Delta | 14.5 | 248 | 97 | 2 |
| f' | Delta | 1.0 | 66 | 66 | 2 |
| f' | Delta | 6.0 | 76 | 76 | 3 |
| A | EXPLORER | 2.3 | 38 | 38 | 4 |
| Total | 3 | 60.7 | 1259 | 615 | 4 |

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

April 17, 1930.

AND REFER TO NO. 11-DRM

SECTION OF FIELD RECORDS

Report on Hydrographic Sheets No. 4763^a and ^b.

South and Keku Straits, from Pt. Barrie northward

Surveyed in 1929

Instructions dated February 19, 1929 (EXPLORER)

Chiefs of Party, H. A. Cotton, E. W. Eickelberg.

Surveyed by W. Weidlich, T. B. Reed.

Protracted and soundings plotted by H. O. Fortin.

Verified and inked by J. T. Walker.

These sheets cover additional work over certain areas that were called for in the review for H. 4763 as well as certain other examinations made by the field party, but not covered by the instructions. The only items that will be considered in this review will be (1) those that still remain to be examined and (2) those where the new examination failed to disclose the shoal depths shown on the old survey or where the new examination is not sufficient to reasonably insure that the least depth has been obtained.

1. All the areas intended to be examined at this time were covered with the exception of the following.
 - (a) The 6 4/6 fathom sounding in Lat. 56°32' 1630 m., Long. 133°44' 570 m. (see paragraph 7-c, review of H. 4763 and paragraph 10, specific instructions). This spot is close enough to the main entrance channel to Keku Strait and within the limits of the new large scale chart of the Strait, to make further examination desirable.
 - (b) The area between ~~the~~ Mike and the main channel (see paragraph 8-b review of H. 4763 and paragraph 10 of specific instructions). This examination was called for only when the area develops commercially and hence will not be called for again at this time. The same applies to the kelp patch in Lat. 56°32', Long. 133° 43 1/2' (paragraph 8-b of review of H. 4763).
 - (c) The 6 1/2 fathom shoal in Lat. 56° 24'.8, Long. 133° 47'.2 (see paragraph 8-e of review of H. 4763) and the 9 fathom spot in Lat. 56° 26'.7, Long. 133° 41'.4 (see paragraph 8-f review of H. 4763). These were not examined owing to the ter-

mination of the season, but should be investigated when the general survey of this locality is taken up.

2. Under class (2) above, the following are noted:

- (a) The 14 fathom sounding (authority H. 2150) in approx. Lat. $56^{\circ} 30'.4$, Long. $133^{\circ} 48'.9$ has been examined and $9 \frac{1}{2}$ fathoms found. This shoal is in a very important location and should be further examined when the general survey of this area is taken up. Preferably a drag should be carried over this spot.
- (b) The $8 \frac{3}{4}$ fathom shoaling as well as the $3 \frac{3}{4}$ fathom shoaling (authority H. 2150) in approx. Lat. $56^{\circ} 31'$, Long. $133^{\circ} 47'$ to $133^{\circ} 47 \frac{1}{2}'$, have both been discredited by this survey as well as by a re-examination of the records for H. 2150. It appears that an error was made in the interpretation of the right angle for position 81-Q which threw the $3 \frac{3}{4}$ fathom sounding considerably farther offshore than should have been the case. This of course carried with it the $8 \frac{3}{4}$ fathom sounding which was obtained between positions 81-Q and 82-Q. Position 81-Q was therefore replotted on the old survey and is shown thereon in red. The new position makes the sounding conform to the general depths obtained on H. 4763. With this new plotting the time intervals between 81-Q and 83-Q do not check with the subsequent intervals and it is believed that ~~the~~ position 82-Q should be farther to the eastward, although no adjustment of the angles would place the position there. The only sounding of importance on this line is the $8 \frac{3}{4}$ fathoms and since the replotting of the $3 \frac{3}{4}$ fathom sounding necessarily carries with it to the eastward the $8 \frac{3}{4}$, all the soundings on the old survey (H. 2150) between positions 81-Q and 83-Q have been rejected. The new work satisfactorily covers this area.

3. Attention is called to the following:

- (a) The $1 \frac{1}{4}$ fathom sounding mentioned in the last paragraph of Mr. Weidlich's descriptive report was evidently mistaken for a 14 fathom sounding on the bromide of H. 2150. The area examined (Lat. $56^{\circ} 32'.3$, Long. $133^{\circ} 47'$) checks closely with the position of the 14 and the depths agree closely. Therefore, the remarks by Mr. Weidlich relative to a $1 \frac{1}{4}$ fathom sounding are not applicable.
- (b) The rock awash off the southern end of Meadow Island that was marked P.D. on the 1927 work (H. 4763) has been changed to agree with the new determination as shown on H. 4763b.
- (c) No attempt has been made to combine the depths curves on the two surveys. The critical depths from H. 4763a and b have been transferred to H. 4763 and shown in red. In such cases the depth curves have been modified to agree with the transferred depths.

4. It is suggested that when the general survey of this area is taken up, the 6 fathom shoal found by this party in Lat. $56^{\circ} 25 \frac{1}{2}'$, Long. $133^{\circ} 42 \frac{1}{2}'$ be wire dragged.
5. The information obtained on this survey fully justifies the additional work called for in the review of the 1927 work. The depths over some of the indications on the previous survey have been materially reduced and will greatly add to the effectiveness of both the new large scale chart of Keku Strait and the present small scale chart.
6. Reviewed by A. L. Shalowitz, March, 1930.

Approved:

Chief, Section of Field Records (Charts)

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

Section of Field Records.

Report on sheets No 4763a & b

Chief of Party H.A. Cotton and
E.W. Eckelberg

Protracted by H.O. Fortin

Verified and Inked by
J.W. Alker

Surveyed in 1929

Surveyed by W. Weidlich,

T.B. Reed

Soundings plotted by

H.O. Fortin

The sounding records were neat, legible and complete.

The protracting was accurately done with a few exceptions. At 176 the field plotter apparently set his protractor 10 degrees off. In several cases the numbering of two detached soundings was reversed.

The soundings were plotted according to time. Most of the soundings were on detached positions. Many of the soundings recorded had to be omitted on the sheet for lack of space. Several notes in the sounding records say that many soundings were taken and only the shallowest recorded.

The sheet was clean and the work was legible.

The drafting conformed to General Instructions.

The prick points were too heavy at many positions especially in congested areas making it difficult to ink in the soundings.

An effort was made to make the curves agree with the old survey (H4763) without transferring any soundings. No curves were

altered on H 4763. Where the two sets of curves
conflicted they were drawn according to the
soundings on H 4763 a & b

Respectfully submitted

J. F. Walker
Mar. 8, 1930

COPY FOR FIELD RECORDS SECTION FILES

February 1, 1930

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 4763 A & B

Locality: South end Keku Strait, Alaska

Chief of Party: **W. A. Cotton and E. W. Sichelberg**
 Plane of reference is **mean lower low water, reading**
 4.0 ft. on tide staff at Monte Carlo I (April)
 4.1 ft. ~~below B. M.~~
 on tide staff at Monte Carlo I (September)

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.

Chief, Division of Tides and Currents.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

47632

HYDROGRAPHIC
~~TOPOGRAPHIC~~ TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 47632

State S.E. Alaska

General locality Keku Strait

Locality Southern Entrance to Keku Strait

Chief of party H.A. Cotton, E.W. Eickelberg

Surveyed by Field Party Protracted by Field Party

Date of survey Apr. 23 - Oct. 4, 1929

Scale 1:20000

~~Heights in feet above~~ Vessel Explorer

Contour interval feet.

Inked by Lettered by

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet

Remarks: No title sheet submitted Jan. 25, 1930 B

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

4763b

HYDRO _____
~~TOPOGRAPHIC~~ TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4763b

State SE. Alaska

General locality Keku Strait

Locality Vicinity of Conclusion 1.

Chief of party { H.A. Cotton
E.W. Eickelberg

Surveyed by Field Party P

Protracted " Apr. 23 ~ Oct. 4, 1929

Scale 1:20,000

Vessel -- Explorer
Heights in feet above

Contour interval feet.

Inked by Lettered by

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet

Remarks: No title sheet submitted Jan. 25, 1930

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 47632 & 4763b

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. 4763

REGISTER NO. 4763a & 4763b

State S. E. ALASKA

Lat. 56°25' to 56°34'
General locality KEKU STRAITS Long. 133°36' to 133°50'

Locality South end Keku Straits, from Point Barrie northward

Scale 1:20,000 Date of survey April - October, 1929

Vessel EXPLORER, DELTA, TENDER No. 1.

Chief of Party H. A. Cotton and E. W. Eickelberg

Surveyed by W. Weidlich, Mate; & T. B. Reed, Jr. H. & G. Engr.

Protracted by H. O. Fortin, Jr. H. & G. Eng'r.

Soundings penciled by H. O. Fortin, Jr. H. & G. Eng'r.

Soundings in fathoms ~~1000~~

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by

Inked by J. Walker

Verified by "

Instructions dated February 19, 1929

Remarks: Smooth Sheet in 2 sections

Boat " " " "

- 1 ea tracings of above smooth sheets
- 4 volumes of soundings

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

April 17, 1930.

AND REFER TO NO. 11-DRM

SECTION OF FIELD RECORDS

Report on Hydrographic Sheets No. 4763^a and ^b.

South and Keku Straits, from Pt. Barrie northward

Surveyed in 1929

Instructions dated February 19, 1929 (EXPLORER)

Chiefs of Party, H. A. Cotton, E. W. Eickelberg.

Surveyed by W. Weidlich, T. B. Reed.

Protracted and soundings plotted by H. O. Fortin.

Verified and inked by J. T. Walker.

These sheets cover additional work over certain areas that were called for in the review for H. 4763 as well as certain other examinations made by the field party, but not covered by the instructions. The only items that will be considered in this review will be (1) those that still remain to be examined and (2) those where the new examination failed to disclose the shoal depths shown on the old survey or where the new examination is not sufficient to reasonably insure that the least depth has been obtained.

1. All the areas intended to be examined at this time were covered with the exception of the following.
 - (a) The 6 4/6 fathom sounding in Lat. 56°32' 1630 m., Long. 133°44' 570 m. (see paragraph 7-c, review of H. 4763 and paragraph 10, specific instructions). This spot is close enough to the main entrance channel to Keku Strait and within the limits of the new large scale chart of the Strait, to make further examination desirable.
 - (b) The area between \triangle Mike and the main channel (see paragraph 8-b review of H. 4763 and paragraph 10 of specific instructions). This examination was called for only when the area develops commercially and hence will not be called for again at this time. The same applies to the kelp patch in Lat. 56°32', Long. 133° 43 1/2' (paragraph 8-b of review of H. 4763).
 - (c) The 6 1/2 fathom shoal in Lat. 56° 24'.8, Long. 133° 47'.2 (see paragraph 8-e of review of H. 4763) and the 9 fathom spot in Lat. 56° 26'.7, Long. 133° 41'.4 (see paragraph 8-f review of H. 4763). These were not examined owing to the ter-

mination of the season, but should be investigated when the general survey of this locality is taken up.

2. Under class (2) above, the following are noted:

- (a) The 14 fathom sounding (authority H. 2150) in approx. Lat. $56^{\circ} 30'.4$, Long. $133^{\circ} 48'.9$ has been examined and $9 \frac{1}{2}$ fathoms found. This shoal is in a very important location and should be further examined when the general survey of this area is taken up. Preferably a drag should be carried over this spot.
- (b) The $8 \frac{3}{4}$ fathom shoaling as well as the $3 \frac{3}{4}$ fathom shoaling (authority H. 2150) in approx. Lat. $56^{\circ} 31'$, Long. $133^{\circ} 41'$ to $133^{\circ} 41 \frac{1}{2}'$, have both been discredited by this survey as well as by a re-examination of the records for H. 2150. It appears that an error was made in the interpretation of the right angle for position 81-Q which threw the $3 \frac{3}{4}$ fathom sounding considerably farther offshore than should have been the case. This of course carried with it the $8 \frac{3}{4}$ fathom sounding which was obtained between positions 81-Q and 82-Q. Position 81-Q was therefore replotted on the old survey and is shown thereon in red. The new position makes the sounding conform to the general depths obtained on H. 4763. With this new plotting the time intervals between 81-Q and 83-Q do not check with the subsequent intervals and it is believed that ~~the~~ position 82-Q should be farther to the eastward, although no adjustment of the angles would place the position there. The only sounding of importance on this line is the $8 \frac{3}{4}$ fathoms and since the replotting of the $3 \frac{3}{4}$ fathom sounding necessarily carries with it to the eastward the $8 \frac{3}{4}$, all the soundings on the old survey (H. 2150) between positions 81-Q and 83-Q have been rejected. The new work satisfactorily covers this area.

3. Attention is called to the following:

- (a) The $1 \frac{1}{4}$ fathom sounding mentioned in the last paragraph of Mr. Weidlich's descriptive report was evidently mistaken for a 14 fathom sounding on the bromide of H. 2150. The area examined (Lat. $56^{\circ} 32'.3$, Long. $133^{\circ} 47'$) checks closely with the position of the 14 and the depths agree closely. Therefore, the remarks by Mr. Weidlich relative to a $1 \frac{1}{4}$ fathom sounding are not applicable.
- (b) The rock awash off the southern end of Meadow Island that was marked P.D. on the 1927 work (H. 4763) has been changed to agree with the new determination as shown on H. 4763b.
- (c) No attempt has been made to combine the depths curves on the two surveys. The critical depths from H. 4763a and b have been transferred to H. 4763 and shown in red. In such cases the depth curves have been modified to agree with the transferred depths.

4. It is suggested that when the general survey of this area is taken up, the 6 fathom shoal found by this party in Lat. $56^{\circ} 25 \frac{1}{2}'$, Long. $133^{\circ} 42 \frac{1}{2}'$ be wire dragged.
5. The information obtained on this survey fully justifies the additional work called for in the review of the 1927 work. The depths over some of the indications on the previous survey have been materially reduced and will greatly add to the effectiveness of both the new large scale chart of Keku Strait and the present small scale chart.
6. Reviewed by A. L. Shalowitz, March, 1930.

Approved:

Chief, Section of Field Records (Charts)

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

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4763 a & b

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

Number of positions on sheet . . . 615
Number of positions checked . . . 456
Number of positions revised . . . 15
Number of soundings recorded . . . 1259
Number of soundings revised . . . 15*
Number of signals erroneously
plotted or transferred 0

* Made no count of soundings revised as most of the work was small congested areas.

Date: - March 8, 1930 - - - - -

Cartographer: - J. Walker - - - - -