

4943

Diag. Cht. No. 8201-3

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: SE. ALASKA

11-5813

DESCRIPTIVE REPORT.

4943

Hydrographic Sheet No. 4 (4765 & 4766)

LOCALITY:

Keku Strait

~~SE. Alaska~~

Kupreanof I.

1929

CHIEF OF PARTY:

E. W. Eickelberg, H. & C. E.

4943

SUPPLEMENTAL DESCRIPTIVE REPORT

to accompany

SHEET NO. 4.

SUPPLEMENTAL DESCRIPTIVE REPORT

to accompany

Sheet No. 4.

INSTRUCTIONS: Instructions are dated February 19, 1929.

SURVEY METHODS:

The standard methods of the survey were used in doing the sheet. Most of the work was done by launch No. 69. The launch is a bit small and quite noisy, but by having the left angle man watch the operations of sounding chances of mistake are not great. ✓

Positions of topographic points were plotted from photostats, numbers 4765 and 4766, the old stations of 1927 being recovered as nearly as possible. Triangulation points of course were plotted from the 1927 triangulation. ✓

DISCREPANCIES:

No positions depths or location of signals were changed to adjust discrepancies. In location Latitude $56^{\circ} 46\frac{3}{4}'$, Longitude $133^{\circ} 44'$, 37 feet was found between two soundings of 60 and 61 feet. A note is made on page 43 of sounding volume No. 1. This spot was investigated by Lt. (j.g.) T. B. Reed, in Tender No. 1 on July 29th, "a" day (green), but the sounding was not verified, nor disproved. ✓

*The 37 foot
sdy was
accepted
A.T.S.*

On Cucumber Reef, the sounding of 13 feet after position 50 (b day) is correct and is an extension of the reef extending to the southeast from Beacon No. 23. ✓

In general no particular disagreement with the 1927 work was found, the 1929 work being for the purpose of additional development, naturally revealed greater detail in the spots where work was done. ✓

Referring to paragraph seven of the Instructions for this work, report is made in detail on paragraphs taken from the review report on the 1927 sheet:-

Par. 6 The additional lines here run were for the purpose of more definitely defining the depth curves near station "DIL". ✓

Par. 7a The lines run here were for the purpose of supplementing the previous work as nearly as possible. ✓

Par. 7b This spot was developed on "C" day, launch No. 69 and "A" day of Tender No. 1. A least depth of 43 feet ✓

was found on position No. 70, (a).

Par. 7e Several lines were run over this area and a complete system of development in the little bay immediately to the northeast.

Par. 7h Several soundings of 27 feet were obtained on this shoal. The shoal is a narrow ridge running for about 150 meters in a north-westerly, north-easterly direction. The development of this shoal is shown on the subplan in the lower left hand corner of Sheet 4.

In addition to the above specially designated regions, split and additional development lines were run south of Entrance Island, and in the passage off the north-eastern point of Entrance Island; several split lines to the southeast of Horseshoe Island, and around Beacon Island; as many split lines were run as opportunity allowed.

Referring to paragraph 8 of the Instructions for this project, report is made in detail on the paragraphs taken from the review report as follows:-

Par. 7 This shoaling was established to have been correctly charted by a grid of closely spaced lines run by Mr. W. Weidlich in the launch "Delta".

"The 29 foot shoal in Latitude $56^{\circ}45'$, 1760 meters; Longitude $133^{\circ}42'$, 790 meters."

This shoal was developed well by launch No. 69 and Tender No. 1. A least depth of 20 feet was found.

"The spit making out to the northward of "Im"."

Several closely spaced split lines were run to develop this spit. The sounding of 19 feet just before position 90e is correct.

"The shoaling off "Poz". This point was well developed by a grid system of lines run by the launch "Delta" and launch No. 69.

In addition to the above specially designated places, split lines were run at various places to help define the positions of depth curves, as opportunity allowed.

Shoal 400 meters, East by South from triangulation station "Hay."

A shoal with least depth of four feet was found in this position. A handlead sounding of thirteen feet was obtained in this locality on April 13, 1929 when the EXPLORER

was making for her anchorage about 400 meters south of this shoal. On future investigation by sounding, examination at minus tides, and numerous unrecorded soundings, the position of, and this least depth was found. This development is plotted on the sub-plan in the lower right hand part of sheet No. 4. ✓

The inked low water line was taken from bromide of original sheet. Where changes were noticed the original line was scratched out and a dotted pencil line drawn in the corrected position. ✓

Respectfully submitted,

E. H. Bernstein

E. H. Bernstein,
H. & G. Engineer.

Approved and forwarded:

E. W. Eickelberg
E. W. Eickelberg,
H. & G. Engineer,
Commanding EXPLORER.

STATISTICS FOR FIELD SHEET NO. 4.

Total number of positions	586
Total number of soundings	1942
Statute miles sounding lines	43.7

TIDAL DATA.

Location of gauge	56 48.6
• Gag	133 47.22

Automatic tide gauge and staff.

One half foot added to height of high water as per Director's letter of Sept. 7, 1929.

Used throughout sheet.

Plane of reference. M.L.L.W.

Gauge reading M.L.L.W. 5.2 feet

Highest tide observed 15.1 " July 24

Lowest tide observed -0.4 " " "

CORRECTION TO COAST PILOT NOTES

OF CAPTAIN H. A. COTTON, KIKU STRAITS, 1927

The constricted passage mentioned in Coast Pilot Notes (S. E. Alaska, Kiku Straits, 1927 by Lieutenant H. A. Cotton) on page eleven, third paragraph from the bottom, is now marked on the northerly side by a red spindle. The notes taken by Lieutenant Cotton for the location of this spindle proved inadequate. (See vol. 3, Sounding Sheet 4). ✓

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

Reprints

Bring out a Coast Pilot

FOR FILES OF FIELD RECORDS SECTION

tcu

January 16, 1930

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 4943

Locality: Southeast Alaska (North End of Kaku Strait)

Chief of Party: E. W. Nickalberg, in 1929
Plane of reference is mean lower low water, reading
5.2 ft. on tide staff at Entrance Island
~~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.

Chief, Division of Tides and Currents.

Section of Field Records

Report on H. 4943 - Surveyed in May-July 1929
Chief of Party H.A. Cotton - E.W. Eichelberg
Surveyed by - W. Weidlich - E.H. Bernstein - T.B. Reed
Contracted by E.H. Bernstein - P.C. Doran
Soundings by - P.C. Doran
verified and inked by - J. Fleming. 2/5/30

- [1] The records conform to the requirements of G.S.
- [2] The plan and character of development are satisfactory.
- [3] Sounding line crossings are adequate.
- [4] The usual depth curves can be drawn in the area affected by the survey.
- [5] Field plotting was complete.
- [6] With the exception of the replotting of a few positions and changes in time interval - none of the work had to be done over.
- [7] It is believed that this survey has developed the questionable areas to a satisfactory degree and there are no doubtful spots with the possible exception of the comparatively unimportant area in Lat. $56^{\circ}-45'$
 $Long. 133^{\circ}-43'$ referred to in Par. 4 of 'Remarks'.
- [7a] In limiting the development from Summit Island to Lat $56^{\circ}-42.3$ the detailed instructions (Par 7) did not include the area where the 4 ft. shoal was found. See last two paragraphs of Descript. Rpt.

Remarks

2

1

The depth curves on this sheet and the corresponding curves on H. 4765-66 are those obtained by placing a tracing of H. 4943 over the above sheets and drawing new curves based upon the combined soundings. Therefore the curves applicable to the affected areas are alike on the sheets in question.

2

Critical soundings or those presenting a menacing aspect on the affected sheets were reciprocally transferred in order to expedite examination.

The curves on H. 4943 which extend beyond the limits of this survey are likewise placed for the purpose of showing the character of adjacent areas.

3

The control on this sheet was checked against the Tops sheets related to it and was found to be excellent.

4

Between 99-100-E is a 7 ft sounding ^{lat 56-44.8} _{long 133-43}

This sounding is not mentioned or remarked upon in the records.

About 200 meters N.W. of this 7^{ft} is a 19^{ft}

It is thought that the formation here is somewhat uncertain. It does not appear to be of primary importance, but there is a kind of connecting channel there, between the main and secondary channels.

5

In general there was good agreement between this and the last survey and in the few cases where agreement was not evident a replotting of involved positions gave better results.

There are a few positions or soundings in which there is no agreement but in depths of 30 or more feet.

All positions or soundings which could not be reconciled were carefully checked by using the sounding records of the involved sheets.

The most serious discrepancy was noted about 150 M. South of Δ Phi Lat. $56^{\circ}46.2$ where a zero sounding For 8-9-d fell outside of a 13ft on 1-a - H. 4765.

A replot on 4765 resulted in moving the 13 -- 165-meters N.W. (Mid instead of \odot Dew was used by the field plotter.)

Other disagreements of a minor order were adjusted by a more careful plotting or more careful adjustment in time while the remainder could not be reconciled even the all related positions were checked and time adjusted again.

An improper timing of the soundings on the sheet between Pos. 11-12-a (S.E. of Entrance Island) resulted in displacing the position of the rock awash which was shown on the sheet. This was corrected.

[6] Par. 2 under 'Discrepancies' (D.R.) mention is made of the 13 ft sounding S.E. of Bm 23 (Cucumber Reef Lat. $56^{\circ}47'$) yet the 15 ft sounding about 30 Meters N.E. of the 13 was not mentioned so was it plotted

[7] Note the 9ft soundings in mid channel East of GLEE (Lat. $56^{\circ}48.9$)

[8] Bet. Pos 32-33-c the slope of the bottom appears to be very precipitous but there is good agreement between this and the last survey and the condition is believed to be as indicated.

[9] It is thought that the 21 foot sounding 300 m. West of \odot AL (Lat. $56.46.3$) is correct see pos 76-77-c under Remarks

[10] 200 m. S.E. of \odot Hus (Lat. $56-45.8$) at pos 22-c the turning radius was made greater than was shown by the field party in order to allow for a more logical positioning of the 10-16-20 soundings

- 4
- There is some uncertainty concerning the 28th sounding
 in Lat 56°-46.4
 Long 133 42.6 see also the 75 foot sounding
 [11] The field plotting was accepted but it is thought that
 the 75 should be rejected. The position involved are: 89-90-C Vol #1
 28-29-d Vol-2
- [12] Attention is called to the 7th and 12th soundings West
 of O Sil Lat 56°-45.6 which have been verified.
- [13] Nothing unusual appears on the development off Δ Poz
 Lat 56°-45' except the 10 ft sounding on the east side
 close to the 18th curve
- [14] Note a 65th sounding on the meridian Long. 133-45'
 410-m. N.W. of Δ Tom This is very close to a 94
 on H.4765 - all positions checked and found OK
- [15] The piling shown on the chart between Otter and O con - Lat 56-43.7
 was not noted by this party.
- [16] See H.4765 for shoal spot with least depth of 4 ft
 Lat 56-42.7
 Long 133-45.
- [17] Owing to the short lines over the questionable spots
 and the nature of the survey it was thought wise to
 check the beginning and endings of practically all lines
 and also those positions on land adjacent to the least depths.
 As a consequence, 63% of all positions were checked
- [18] All other areas were verified and are submitted without
 comment.

Respectfully submitted
 John Fleming

Feb. 5th 1930

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

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4943

Keku Strait, Southeast Alaska

Surveyed in 1929

Instructions dated February 19, 1929 (EXPLORER)

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

Surveyed by W. Weidlich, E. H. Bernstein, T. B. Reed

Protracted by E. H. B., P. C. Doran

Soundings plotted by P. C. D.

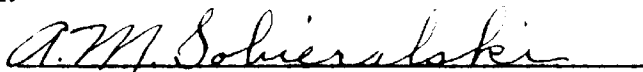
Verified and inked by J. Fleming


1. This survey was made for the purpose of supplementing the work on sheets H. 4765 and H. 4766 in places that needed additional development.
2. The work conforms to the requirements of the specific instructions.
3. No cartographic problems are raised by this survey, but attention is called to the fact that the shoreline, low water line and rocks were all transferred from the 1927 surveys. In a few instances the low water line was modified by the new survey and in several cases additional rocks were located. Since these are all contiguous to the new hydrography the changes will be picked up when the new work is applied and no special enumeration need be made here.

It should be noted that the depth curves on the new survey and the depth curves on the 1927 sheets wherever they were affected were made to conform to the combined information.

4. No additional work is necessary.
5. Reviewed by A. L. Shalowitz, February, 1930.

Approved:


Chief, Section of Field Records (Charts)


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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4943

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.

C. & G. SURVEY
L. & A
JAN 6 1930
Acc. No.

Field No. 4

REGISTER NO. 4943

State SE Alaska

General locality ~~S. E. Alaska~~ Kupreanof I.

Locality Keku Strait

Scale 1:10,000 Date of survey May 1 - July 29, 1929.

Vessel EXPLORER

Chief of Party Harold A. Cotton - E. W. Eickelberg

Surveyed by W. Weidlich, E. H. Bernstein, and Thos. B. Reed.

Protracted by E. H. Bernstein - P. C. Doran

Soundings penciled by P. C. Doran

Soundings in ~~fathoms~~ feet

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated February 19, 1929.

Remarks:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

REG. NO.

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.

4943

Field No. 4 (~~4765 & 4766~~)

REGISTER NO.

State Alaska

General locality S. E. Alaska

Locality Keku Strait

Scale 1:10,000 Date of survey May 1-July 29, 1929.

Vessel EXPLORER

Chief of Party Harold A. Cotton - E. W. Eickelberg

Surveyed by W. Weidlich, E. H. Bernstein, and Thos. B. Reed

Protracted by E. H. Bernstein - P. C. Doran

Soundings penciled by P. C. Doran

Soundings in ~~fathoms~~ feet

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by _____

Inked by J. Fleming

Verified by OS 2/5/30

Instructions dated February 19, 1929.

Remarks: _____

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

AND REFER TO No. **11-LEM**

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON
SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4943

Kekm Strait, Southeast Alaska

Surveyed in 1929

Instructions dated February 19, 1929 (EXPLORER)

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

Surveyed by W. Weidlich, E. H. Bernstein, T. B. Reed

Protracted by E. H. B., P. C. Doran

Soundings plotted by P. C. D.

Verified and inked by J. Fleming

1. This survey was made for the purpose of supplementing the work on sheets H. 4765 and H. 4766 in places that needed additional development.
2. The work conforms to the requirements of the specific instructions.
3. No cartographic problems are raised by this survey, but attention is called to the fact that the shorelines, low water line and rocks were all transferred from the 1927 surveys. In a few instances the low water line was modified by the new survey and in several cases additional rocks were located. Since these are all contiguous to the new hydrography the changes will be picked up when the new work is applied and no special enumeration need be made here.

It should be noted that the depth curves on the new survey and the depth curves on the 1927 sheets wherever they were affected were made to conform to the combined information.

4. No additional work is necessary.
5. Reviewed by A. L. Shalowitz, February, 1930.

Approved:

Chief, Section of Field Records (Charts)

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

11-WSW

August 22, 1930.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4946

Off Cape Canaveral, East Coast of Florida

Surveyed in 1929

Instructions dated December 3, 1928. (Lydonia)

Hand lead and fathometer soundings

Chief of Party, G. C. Mattison.

Surveyed by F.E. Okeson; E.B. Roberts; H.A. Paton; E.R. McCarthy.

Protracted and plotted by M. H. Reese.

Verified and inked by J. D. Torrey.

1. The records conform to the requirements.
2. The plan, character and extent of the survey satisfy the general and specific instructions except that the lines close inshore are run normal to the beach instead of parallel and the spacing interval, just outside the breakers considerably exceeds 100 meters. The ground has been uniformly covered however and the curves can be completely drawn.
3. In general the sounding line crossings are very satisfactory. There are some differences, most of which are noted in the descriptive report. All of these lines were accepted except the line from position 1 h to position 12 h (Launch Work) which was rejected. Outside of these differences the launch and whale boat soundings check well with the ship hydrography. The lead line and fathometer soundings check well.
4. The information is sufficient for completely drawing the usual depth curves.
5. The junction on the north with H. 4935 is satisfactory.
 - a. The junctions with the areas developed by the Entoma, H. 4916, are satisfactory.
 - b. The junction on the north east with H. 4932 is satisfactory.

- c. The junction on the east with H. 4931 is satisfactory.
 - d. There is no junction with contemporary work on the southern limits.
 - e. A detailed comparison with the old surveys H. 1409, H. 1410 and H. 1411 is difficult to make, as the old work is open and the soundings scattered over large areas. The old sheets check only fairly well with this survey and in some cases shoaler depths can be found on the old work, but in view of the changeable character of the bottom and the more accurate methods used on the recent survey, it is believed that this sheet, H. 4946, should supersede the previous work.
 - f. A 14 foot P. D. (position doubtful) sounding is shown on chart No. 161 in about Lat. $28^{\circ} 40.5'$, Long. $80^{\circ} 27.8'$, by authority of Letter No. 149, 1916.
 - g. An 18 foot P. D. (position doubtful) sounding is also shown on the chart in about Lat. $28^{\circ} 39.4'$, Long. $80^{\circ} 23.8'$, by authority of Hydrographic Office in Notice to Mariners 22 of 1908.
 - h. The existence of these two spots in the charted positions is disproved by this survey and their removal from the chart is recommended. (See Director's letter of January 31, 1930, attached to Letter No. 284 of 1930.)
- 6. The usual amount of field plotting was well done by the field party. The dead reckoning lines were accepted as plotted by E. R. McCarthy and were not checked in the office.
 - 7. Character and scope of surveying --- very good.
 - a. The ground is well covered and in general about the proper amount of shoal development has been done.
 - 8. On the northern portion of the sheet, the bottom is quite irregular between the ten fathom and twenty fathom curve.
 - a. As reports of shoals in this vicinity have been received and this survey shows numerous sharp shoalings, there is a possibility that a shoaler depth, than discovered by this survey, may exist. However no additional work is recommended at the present time.
 - 9. Reviewed by R. L. Johnston, June 18, 1930.

H. 4946 - 3.

Approved:

Chief, Section of Field Records (CHARTS)

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

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

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4947

Cape Uyak to Cape Karluk, Kodiak Island, Alaska

Surveyed in 1929

Instructions dated March 14, 1929 (SURVEYOR)

Chief of Party, R. R. Lukens

Surveyed by C. A. Egnor

Protracted and soundings plotted by R. J. Sipe

Verified and inked by G. C. McGlasson

1. The work conforms to the Hydrographic Manual and to the specific instructions.
2. The junctions with H. 4950 and H. 4954 are satisfactory. The junction with H. 4969 will be taken up when that sheet is reviewed.
3. The field plotting was completed to the extent prescribed in the general instructions.
4. The usual depth curves could be drawn.
5. There are no cartographic problems raised by this survey. There are no old surveys in this area ^{added from} ~~outside of~~ the 1897 survey by the Fish Commission (H. 2322) off the entrance to Karluk River. The new survey fully covers the area taken in by the old survey and the latter need be given no further consideration.
6. There are no important areas that require additional work. The bottom is uniformly sloping from the beach to the strait and no irregularities are in evidence.
7. Reviewed by A. L. Shalowitz, April, 1930.

Approved:

Chief, Section of Field Records (Charts)

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

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4943

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

Number of positions on sheet . . 587
Number of positions checked . 377
Number of positions revised . . 11
Number of soundings recorded . 1942
Number of soundings revised . . 61
Number of signals erroneously
plotted or transferred . None . .

Date: Feb 5th 1930
Cartographer: John Hanning