

4508

4508

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: Southwest Alaska

11-5613

DESCRIPTIVE REPORT.

Hydrographic Sheet No. 3 4508

LOCALITY:

~~Vicinity Cape Kumliak~~

~~Southwest Alaska. Pen.~~

C. Kumliak to Hook Bay

1925

CHIEF OF PARTY:

Clem L. Garner

9-VK3

January 11, 1927.

To: Commanding Officer,
U. S. Coast and Geodetic Survey,
Steamer DISCOVERER,
Hawaii, T. H.

From: The Director, U. S. Coast and Geodetic Survey.

Subject: Hydrographic Sheet No. 4508.

Reference: (a) Director's letter, 10-LE, June 12, 1926

(b) Commanding Officer Discoverer's letters,
July 6, 1926, September 30, 1926 and December
18, 1926 (transmitting letter from Lieut. (j.g.)
Robert W. Knox dated November 1, 1926.)

The discrepancies noted in reference (a) have been satisfactorily adjusted on H. 4508 in accordance with reference (b).

It is suggested that possible differences in delineation may be best reconciled in the field by comparisons between the boat sheets and topographic and smooth sheets and between the two latter and the latest available editions of the charts covering the area.

The office verification of field sheets requires a close comparison of all surveys covering a particular area and when boat sheets carry nunns or wash rocks, islets, etc., that are not shown elsewhere there is possible evidence that there is some basis for the existence of these nunns or features and the safety factor usually demands that they be plotted.

Reference (b) brings out the fact that some of the obstructions mentioned therein were only sketched on the boat sheets. Such practice in the case of offlying dangers is objectionable but may be permitted for unimportant close inshore localities where the conditions warrant generalization.

Careful location and specific notes are highly desirable in cases

where possible manacles to navigation exist.

If rocks or other small features are approximately sketched in position on boat sheets for reference only, explicit notes should be made on the sheets against the particular features.

Please accept my thanks for the information furnished.

Director.

POST-OFFICE ADDRESS: Honolulu, Territory of Hawaii.

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEC 34 8 48 AM '26
H.S.P.
11

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Ship DISCOVERER.

Honolulu, T.H.,
December 18, 1926.

To: The Director,
U. S. Coast & Geodetic Survey,
Washington, D. C.

From: Commanding Officer,
U. S. C. & G. S. S. DISCOVERER.

Subject: Hydrographic sheet #4508.

In further compliance with Director's letter of June 12, 1926, 10-LE, there is transmitted herewith a letter from Lieut. R. W. Knox regarding certain discrepancies on this sheet.



Clem L. Garner, Lieut. Comdr.,
Commanding Officer,
Ship DISCOVERER.

POST-OFFICE ADDRESS: Box 2512, San Francisco, California.

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

San Francisco, California,
November 1, 1926.

To: The Commanding Officer, U.S.C. & G.S.S. Discoverer.
From: Lieut. (j.g.) Robert W. Knox, U.S.C. & G.S.
Subject: Discrepancies on Hydrographic Sheet of Cape Kumliun,
Southwest Alaska.

The method and reason for placing upon the Cape Kumliun boat sheet the rock on which there were no cuts and which does not appear upon the topographic sheets of 1924 or 1925 were as follows:

There were few, if any, off-lying rocks transferred to the boat sheet from the 1925 topographic sheet. As it was obvious that the error was in transferring and not in the topography these rocks were sketched upon the boat sheet. At the first opportunity the boat sheet and the 1925 topographic sheet were compared; the boat sheet was not compared with the 1924 topographic sheet, which covers the area in question.



Robert W. Knox,
Lieut. (j.g.) U.S.C. & G.S.

POST-OFFICE ADDRESS: Honolulu, Territory of Hawaii.

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY
Str. DISCOVERER.

OCT 14 12 36 PM '26

Honolulu, T.H.,
September 30, 1926.

To: The Director,
U. S. Coast & Geodetic Survey,
Washington, D. C.

From: Commanding Officer,
U. S. C. & G. S. S. DISCOVERER.

Subject: Hydrographic Sheet #4508.

Reference: Director's Letter June 12, 1926, 10-LE.

Boat Sheet "A".

Questionable rock in approximate latitude $56^{\circ} 30'$
and longitude $158^{\circ} 01'$.

The question of the location of this rock is forwarded to Lieut. (j.g.) R. W. Knox, the officer who made the survey. Lieut. (j.g.) Hubbard, the topographer for the area in question, does not remember anything concerning it. It is probable that this rock was confused with the one about 400 meters N x W, located the previous season, though the difference in position can not be explained unless it is from a rough sketch.

The rock in approximate latitude $56^{\circ} 29'$ and longitude $157^{\circ} 49'$ was apparently approximated for position on the boat sheet without proper remarks in the records. The correct position of the rock is as shown on the topographic sheet where it was plotted from sextant angles taken at the edge of the rock. This really consists of two rocks about 20 meters apart and I do not believe there are other rocks within 100 meters. The DISCOVERER anchored north of this rock many times and if there had been other exposed rocks I am sure that they would have come to my attention, at some time during the season. This is also apparently intended for the same rock as described below as No. 2 on Boat Sheet "B".

Boat Sheet "B".

Rock numbered "1" and circled in red is not believed to exist. Personally the Commanding Officer was never nearer than 3/4 of a mile, the ship's anchorage, but such did not come to my attention and such features are not easily overlooked. Lieut. Hubbard, the topographer, occupied the small islet to the south of this point and does not think he would have missed it. Nor do I believe he would. From the boat sheet it would seem to be a no bottom sounding or one of less than one fathom.

Undoubtedly rock No.2 (in red) is intended for the rock about 100 meters distant as from the topographic sheet. It appears to have been sketched on the hydrographic sheet without notes in the record to that effect.

Rocks Nos. 3 and 4 (in red) are undoubtedly sketched on boat sheet without reference notes in the records. It will be noticed that each of these rocks are near rocks located on the topographic sheet for which it is believed they were intended.

The inshore area here as well as for the whole of Cape Kumliun is very foul and full of dangers and there is often deep water between the rocks. The work could not be accomplished during the season for want of proper motor boat equipment. It was with considerable difficulty that the launch work in Sittum Bay was accomplished. These facts are mentioned on Page #2 of Descriptive Report for Sheet "A", scale 1:60000, of the same location.

Concerning paragraph #3 of the verifications notes, it will be found from the records that this work was done by the ANNIE W. This was an 80 ton steam tug, 108 feet long; much too large to attempt to manouever in kelp or shallow water.

Relative to paragraphs 7 (a), (b), (c), it is recalled that the depths mentioned are only slightly less than the average surrounding them and none are less than 20 fathoms, usually considered a fairly safe depth. If time must be taken for detailed examination of shoal waters of this nature the total area in Southwest Alaska will require development of the same character. This would make progress extremely slow.

Boat sheets "A" and "B" are returned under separate cover. (I have written to Mr. C. Pierce, the hydrographer, asking for his information on this subje ct.



Clem L. Garner, Lieut. Comdr.,
Commanding Officer,
Str. DISCOVERER.

POST-OFFICE ADDRESS: Honolulu, Territory of Hawaii.

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

JUL 19 12 34 PM '26

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Str. DISCOVERER.

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Honolulu, T. H.,
July 6, 1926.

To: The Director,
U. S. Coast & Geodetic Survey,
Washington, D. C.

From: Commanding Officer,
U. S. C. & G. S. DISCOVERER.

Subject: Hydrographic Sheet No.4508.

Reference: Letter of June 12th, 1926 - 10-LE.

Receipt is acknowledged of letter of reference
but not the data referred to in paragraph #1.

The additional information required will be for-
warded as soon as this data is received.

Clem L. Garner

Clem L. Garner, Lieut. Comdr.,
Commanding Officer,
Str. DISCOVERER.

10-LE

June 12, 1926.

John R.R. J.
S. Ann

Return to H. & T. Div. for filing

To: Commanding Officer,
Coast and Geodetic Survey,
Steamer DISCOVERER,
under Honolulu, T. H.

From: Director, U. S. Coast and Geodetic Survey.

Subject: Hydrographic sheet 4508 - additional data required.

There are forwarded under separate cover the following: Two boat sheets, "a" and "b"; two photostats of separate sections of smooth sheet for hydrographic sheet 4508, Cape Kaulium, Alaska Peninsula. There are also forwarded photostatic copies of topographic sheets 4081 and 4140, eastern part. These sheets are from field work accomplished by your party in 1925.

2. On the boat sheets there are shown symbols for six rocks. These rocks are not located on the smooth sheet nor are they shown in the sounding records or the topographic sheet. The source of information from which they were plotted on the boat sheet is desired.

3. Photostats of the topographic sheets are forwarded for your information and may assist in recalling the data to mind. You will note the cut on the topographic sheet referred to in paragraph 9 of the report of verification of this sheet.

4. The report of verification of the sheet made in Section of Field Records, is forwarded for your information. It is believed that the attention of all the officers in your party should be called to criticisms made of this hydrographic survey, in order that they may be advised of omissions from the field records, which are noted upon office review.

5. It appears that topographic sheet 4140 has been mislaid. It is desired that you advise if this original topographic sheet was returned to you through error.

*For Replies see
v.s. report 44508*

DISPATCH

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NUMBER 3

Vicinity of Cape Kumliun

Southwest Alaska

Clem L. Garner, Chief-of-party

Instructions dated March 25, 1925

LIMITS: The work on this sheet comprises the hydrographic development of the south shore of Cape Kumliun between long. $157^{\circ} 46\frac{1}{2}'$ and long. $158^{\circ} 03'$. The hydrography extends southward from the shore line to the limits of the 1924 ship work in approximately lat $56^{\circ} 28\frac{1}{2}'$; a distance varying from one half to two miles.

COAST LINE AND LANDMARKS: The coast line of this portion of Cape Kumliun is barren and precipitous. The cliffs are rugged and broken, with little or no beach line. Several rocky islets lay a short distance off the beach. These form the most distinctive land marks.

Signal RAG is a jagged rock pinnacle about twenty feet in height surrounded by numerous smaller rocks. With other rocks of the same group it presents an unmistakable saw tooth profile to passing vessels. This group of rocks lays about a mile offshore in the vicinity of lat. $56^{\circ} 29'$ and long. $157^{\circ} 50'$.

Signal GULL is situated on the largest of a group of small rocky islets in the neighborhood of lat $56^{\circ} 28\frac{1}{2}'$, long. $157^{\circ} 57\frac{1}{2}'$. These islets are low and sparsely covered with grass. The individual islets are connected by kelp covered reefs.

DANGERS: The coast developed on this sheet is foul and rocky close in-shore. Vessels should not approach within a quarter of a mile of the beach without exercising great caution. The majority of these dangers are marked by growing kelp.

A kelp marked reef makes out about two hundred meters from the western limit of the islets bearing signal GULL.

In the vicinity of SIG, MAN, BONE and RAG, on the eastern extremity of the sheet, the waters are very foul and dangerous. An out-lying reef, unmarked by kelp, lies in lat. $56^{\circ} 29'$, long. $157^{\circ} 49'$, or about half a mile northeasterly from station RAG. The rocky pinnacle RAG has been described in the foregoing paragraph as a prominent landmark. By clearing this rock by three-quarters of a mile or more and on a course parallel to the general trend of the shore, passing vessels may be sure of avoiding all dangers in this region.

SURVEY METHODS AND CONTROL: The foul area in the vicinity of Signal RAG, from long $157^{\circ} 48\frac{1}{2}'$ to long. $157^{\circ} 51\frac{1}{2}'$, and north of lat $56^{\circ} 28\frac{1}{2}'$ was sounded by motorsailer, using a twelve pound hand lead. The signals used were whitewashes established and located during the current season. *by T. J. Kelly*

The balance of the work was done by the steam tug Anne W. It consisted in all of three days work. The first two days work was done with a steam sounding machine using stranded wire and a twenty pound lead. On the third days work at the eastern extremity of the sheet it was found practicable to sound by hand, using a twelve pound lead. The signals used were white washes and prominent natural objects located by topography in 1924 and 1925. No difficulty was experienced in identifying the 1924 signals with the exception of a few white washes which had become obliterated.

Lines were laid out normal to the general trend of the shore line and spaced in accordance with instructions dated March 25, 1925. Lines were run chiefly by compass courses as few natural ranges could be found.

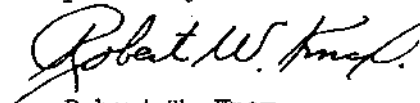
TIDES AND CURRENTS: Anchorage Bay tidal data was used to reduce the soundings on this sheet. No current observations were made other than to observe the drift of the Anne W. while laying to. The slight drift of the steamer indicated the absence of any strong currents.

BOTTOM CHARACTERISTICS: The bottom was quite regular and seemed to require no special development. It appeared to be alternately rocky and soft. A few shell characteristics were also obtained.

ANCHORAGES: There are no anchorages along this portion of the coast of Cape Kumliun.

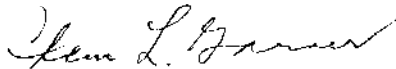
Note: Soundings in red are those transferred from ship sheet for comparative purposes.

Respectfully submitted:



Robert W. Knox,
Jr. H. & G. Eng'r.

Approved and forwarded:



Clem L. Garner,
H. & G. Eng'r.,
Chief-of-party.

Records examined and approved
Aug 15-17 1925
Clem L. Garner
Chief of Party

STATISTICS SHEET
to accompany

Hydrographic Sheet No. 3

VICINITY OF CAPE KUMLIUN

Date	Letter	Volume	Position	Soundings	Statute Miles	Vessel
25						
Aug. 11	a	1	44	68	17.1	Anne W.
12	b	1	104	150	31.4	" "
17	a	2	88	221	5.6	Port M. S.
18	c	1	43	50	7.4	Anne W.
Totals	4	2	279	489	61.5	Totals

Area in sq. statute miles - - 12

MAR 1 1926

~~Division of Hydrography and Topography:~~

Division of Charts:

Tide reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4508

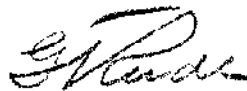
Locality: S. W. Alaska

Chief of Party: C. L. Garner in 1925

Plane of reference is M L L W
6.3 ft. on tide staff at Chignik
5.4 " " " " " Sitlum (Kajulik) Bay

For reduction of soundings, 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.

E.P.E.

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON June 7, 1926.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4508

Cape Kumliun, Alaska Peninsula

Surveyed in 1925

Instructions dated March 25, 1925 (DISCOVERER)

Chief of Party, C. L. Garner.

Surveyed by R. W. Knox, C. Pierce.

Protracted and soundings plotted by R. S. Bishop.

Verified and inked by G. Risehari.

1. The records conformed to the requirements of the General Instructions except in the following respects:
 - a. There was an omission of boats' courses generally.
 - b. Lack of information as to rocks close to sounding lines.
 - c. The consistent recording of \odot Bal when \odot Bal₂ was apparently intended (as evidenced by boat sheet).
 - d. The omission of "stop" and "ahead" notations for machine soundings on a and b days (red).
2. The plan and character of development fulfill the requirements of the General Instructions.
3. The plan and extent of the survey satisfy the specific instructions, except that it does not appear on the face of the sheet why some of the lines were not carried closer inshore.
4. The sounding line crossings are adequate.
5. The information is insufficient for drawing the usual depth curves. The 20 fathom curve alone could be completely drawn.
6. The usual field plotting was done by the field party. The protracting was well done, but the spacing of the soundings was not strictly adhered to. An objectionable feature of the field

drafting was that the position numbers were much too large, in some instances being as large as the soundings.

7. Additional work will be needed to extend the survey further inshore and to develop several indications of possible shoals. They are as follows:
 - a. The 21 fathom area in lat. $56^{\circ} 29'$, long. $158^{\circ} 02 \frac{1}{2}'$.
 - b. The 21 fathom area in lat. $56^{\circ} 29'$, long. $158^{\circ} 01'$.
 - c. The 20 fathom area in lat. $56^{\circ} 28 \frac{3}{4}'$, long. $157^{\circ} 59 \frac{3}{4}'$.

Additional development will also be needed on the eastern end of this sheet. Numerous rocks having been found on this sheet in apparently clear water, it is possible that all the hidden dangers have not been discovered, and the area should be dragged if possible.

8. The junctions with H. 4397 and H. 4509 are satisfactory. The junction with H. 4506 will be noted in the review of that sheet.
9. Attention is called to the following:
 - a. The rock awash in lat. $56^{\circ} 30'$, long. $158^{\circ} 01'$ is shown on the smooth sheet and on the boat sheet, but no other record for its location could be found. It is not shown on the topographic sheet for this area. This should be referred to the Chief of Party for explanation. It is possible that there was a confusion in cuts, as Topographic 4061 surveyed the year previous shows a cut from Δ Bad to a rock about $\frac{1}{2}$ mile to the westward as passing through the above mentioned rock.
 - b. There are a number of rocks on the eastern end of the sheet that are shown on the boat sheet but are doubtful on account of lack of information as to their source. They are not mentioned on the sounding lines nor do they appear on the topographic sheet. These have been referred to the Chief of Party and will be applied to the smooth sheet as soon as definite information is received.
10. The character and scope of the survey, except for the inadequate information as to rocks, is acceptable. The Field drafting is fair.
11. Reviewed by A. L. Shalowitz, June, 1926.

Note: Topographic sheet 4140 covering the eastern portion of this sheet could not be found and a pantographic reduction (1:80,000) was used to check the information as to rocks.

Report on Hyd. 4508.

The records were defective in the following items:

- a. The times in a number of cases.
- b. The omission of compass directions, generally.
- c. The failure to make a note of several rocks which were close to soundings lines.
- d. The failure to record the proper signal Bal₂ instead of Bal.
- e. The omission of "stop" and "ahead" for ^{machine} soundings on a + b days (red).

	Given	Corrected
Ex. for item a.	1-48'-30"	1-48'-30"
	1-50'-45"	1-50'-45"
	1-58'-30"	1-53'-30"
	1-50'-20"	1-55'-20"
corrected times	1-57'-45"	1-57'-45"

The records, agreed with boat sheet and smooth sheet plottings by field party. They were several errors of this type.

Ex. for item c. Rock shown on boat sheet,
 port side, pos. 50 a (blue). " " " "
 60 m NW. of " 28 " " " " "
 between pos. 31 a + 34 a (blue).

Ex. for item d. Bal₂ apparently was used and checks with the plotted positions by field party on boat sheet and smooth sheet, though recorded as Bal. These two signals appear on the sheet and are near one another.

The plotting was satisfactory, but the spacing of the time intervals were not strictly adhered to for a + b days (red). There was a tendency to space soundings equally between positions.

The "stop" and "ahead" signals were omitted here. Customarily, this important information is

given as it enables the spacing of the intermediate soundings to be plotted more accurately - the time considered being the actual running time of the boat.

The sounding figures accompanying positions are entirely too large in most cases, and in some of these cases are too close to their respective soundings.

A number of ^{rocks} shown on boat sheet and on the accompanying topographic sheets 408, 4140 were not shown on smooth sheet and will require further investigation. The rocks are located approximately, $56^{\circ}30'$, $158^{\circ}01'$ (near 36 (red), $56^{\circ}25'$, $157^{\circ}50'$ (near 20 a (blue); also one near 34 a (blue), same vicinity; and $56^{\circ}29'$, $157^{\circ}49'$, off 28 a (blue); $56^{\circ}25'$, $157^{\circ}50'$ off 50 a (blue).

Respectfully submitted,

E. Piegaro.

April 28, 1926.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

4508

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic 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. 3 4508

State ~~South West~~ ^{SW} Alaska

General locality ~~Alaskan Peninsula~~

Locality ~~Cape Kumliun~~ to Hook Bay

Chief of party ~~AB~~ Clem. L. Garner

Surveyed by Robert W. Knox, Charles Pierce

Date of survey August, ¹¹⁻¹⁸ 1925

Scale 1 : 20,000

Soundings in ~~Fathoms~~

Plane of reference ~~Mean Lower Low Water~~

Protracted by R.S.Bishop. Soundings in pencil by R.S. Bishop

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, 0 Tide books, * Marigrams, 1 Boat sheets,

2 Sounding books, 0 Wire-drag books, 0 Photographs.

Data from other sources affecting sheet none

Remarks: