

6486

6486

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic } *Sheet No.* ... H-6486
Hydrographic }

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

AUG 19 1942

acc. No. _____

State ... ALASKA

LOCALITY

ALASKA PENINSULA

SANAK BANK AND SANDMAN REEFS

1939 & 1940

CHIEF OF PARTY

G. C. JONES & L. D. GRAHAM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. **H6486**

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. 8139

REGISTER NO. **H6486**

State Alaska

General locality Alaska Peninsula

Locality Sanak Bank and Sandman Reefs

Scale 1/80,000 Date of survey June to Sept. 1939
May to July 1940

Vessel DISCOVERER

Chief of Party G. C. Jones - L. D. Graham

G. E. Boothe, C. F. Chenworth, W. R. Tucher

Surveyed by G. C. Jones, L. S. Hubbard, P. C. Doran, L. C. Johnson

Protracted by R. H. Woodcock

Soundings penciled by R. H. Woodcock

Soundings in fathoms feet Fathoms

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by _____

Inked by Robert Goldin

Verified by _____

Instructions dated April 18, 1938

Remarks: Reductions, smooth sheet and plotting by

Seattle Processing Office

DESCRIPTIVE REPORT TO
ACCOMPANY H-6486 (8139)

-SANAK BANK AND SANDMAN REEFS-

ALASKA PENINSULA

Scale 1/30,000

SURVEYED BY THE DISCOVERER, 1939 and 1940

G. C. JONES AND L. D. GRAHAM

CHIEFS OF PARTY

REPORT PREPARED BY SEATTLE PROCESSING OFFICE

.....

.....

INSTRUCTIONS

Dated April 18, 1938

Project HT - 219

AREA

Lat. 54° 05' to Lat. 55° 00'

Long. 161° 35' to Long. 162° 35'

H6486

METHODS

Standard methods of surveying were used - soundings by Dorsey Fathometer #3. Fixes are visually located, except for two lines where prescribed R.A.R. methods were used.

UNFINISHED SHEET

The sheet was started in 1939 and continued in 1940. During 1941 special instructions required the use of all equipment farther inshore and no further work was done on this sheet. The uncompleted sheet was transferred for processing at the end of that season.

GENERAL DESCRIPTION

The main part of the sheet lays along the outer edge of Sandman Reefs showing smooth and uniform bottom in general depths of 30 to 80 fathoms.

The southwest corner drops off into 500 fathoms. The northeast corner shows broken bottom and possible shoal indications.

Lat. $54^{\circ} 39'.2$ 49J-50J 17 fms. ✓

Long. $161^{\circ} 40'$

Lat. $54^{\circ} 40'.2$ 48J-49J 21 fms. ✓

Long. $161^{\circ} 39'.0$

Lat. $54^{\circ} 41'.3$ 12K-13K 25 fms. ✓

Long. $161^{\circ} 40'.5$

Within the Sandman Reefs are two isolated areas of soundings showing kelp patches and sudden changes in bottom characteristic of the area.

These should be examined with sheet H-6588, or possibly replotted as

additional work to that sheet. *(1940) & H-6587(1940)*
Work transferred to these sheets

2 fms. N of Zeeuw

N6486

A rock located by cuts is shown at Lat. 54° 46'.9 Long. 162° 03'.7.

See P.23, Vol 3. This is apparently the 15 foot islet shown in this position on T 6765⁽¹⁹⁴⁹⁾, and the point cut in is very probably signal Much. *Agrees with topo cuts*

DISCREPANCIES

No serious differences were found over the smooth bottom. The following discrepancies were noted:

Lat. & Long.	Positions	Fathoms	Remarks
54° 24'.7 162° 06'.1	46D & 26G + 8	73 69	Both fall on same spot. <i>steep slope - shoaler sdg plotted</i>
54° 27'.3 162° 07'.9	9B 80G + 6	83 78	Both fall on same spot. <i>May be due to variation in fathometer speed - G-day sdgs retained - deeper sdgs by 312 fathometer</i>
54° 31'.3 162° 02'.4	1C & 3G	81 78	Both fall on same spot. <i>Rough bottom - shoaler sdgs plotted</i> Also the 81 fm. sndg. on 1C + 1 seems a little deep for that area.
54° 31'.6 162° 02'.1	2G to 3G 24D+2 to 24D+3	79 fm. sndgs. cross line of 83-84 fm. sndgs.	

STATISTICS

Sounding Line - Stat. Miles	490.6
Positions	578
Soundings	4756
Area - Square Stat. Miles	72

R. A. R.

H6486

There are two lines on J day so located. The northern parts of these lines are located by visual fixes at which bombs also were fired. The distances were scaled from the visual fixes and divided by the seconds of time shown by returns from the various buoys to obtain twenty velocities. Three of these velocities were rejected and a mean of the others gave 1459 meters per second. This value was used in plotting bomb positions when no visual fixes were taken, being slightly modified by considerations of course, speed, time, etc. The results were very satisfactory.

The tabulation of the obtained velocities follows:

Position-Buoy	Scaled Distance in meters	Seconds	Velocity in met./sec.	
5j - Box	19096.0	13.08	1459.95	
5j - Cat	40100.0	27.34	1466.71	
6j - Box	17336.0	11.69	1482.98	Reject
6j - Cat	37036.0	25.17	1471.43	Reject
7j - Box	16196.0	11.16	1451.12	
7j - Cat	34125.6	23.31	1463.99	
8j - Box	15576.0	10.72	1452.98	
8j - Cat	31116.0	21.39	1454.70	
9j - Box	15492.0	10.66	1453.28	
9j - Cat	28032.0	19.12	1466.11	
10j - Box	16148.0	11.11	1453.46	
10j - Cat	24820.0	17.01	1459.14	
11j - Box	17352.0	11.98	1448.41	
11j - Cat	21816.0	14.90	1464.16	
40j - Box	23706.4	16.14	1468.80	
40j - Cat	44161.6	30.08	1468.14	
41j - Box	25497.6	17.42	1463.70	
41j - Cat	46696.0	30.62	1525.02	Reject
43j - Ant	7048.0	4.85	1453.20	
43j - Box	31396.0	21.55	1456.89	
<u>Total (17)</u>			<u>24804.74</u>	

July 14, 1940

(6586)

Average 1459.1

Report by

Edgar E. Smith
 Edgar E. Smith

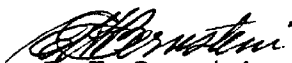
Assoc. Cartographic Engr.
Seattle Processing Office

H6486

This sheet was processed by the Seattle Processing Office. It included making the smooth projection; the protracting; reduction and plotting of soundings.

The processing has been inspected and is approved.

The boat sheet for H-6486 was sent to the Commanding Officer of the Ship SURVEYOR on August 4, 1942 in accordance with telegraphic instructions from the Director.



E. H. Bernstein,
Lieut. Commander
Officer in Charge,
Seattle Processing Office

TIDAL NOTE

H6486

Sheet H-6486

King Cove, Standard Automatic Gage

Lat.	55° 03'.7
Long.	162° 18'.1
M.L.L.W. on Staff 1939	6.18 feet
M.L.L.W. on Staff 1940	6.2 feet
Highest Tide observed Sept. 4, 1940	14.7 feet
Lowest Tide observed June 15 & 19, 1939	3.9 feet

H6486

LOCATION OF SONG-BUOYS

CAT	Sounding Vol. 3	Page 59
BOX	Sounding Vol. 3	" 61
ANT	Sounding Vol. 3	" 60

LIST OF SIGNALS USED ON H-6486

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Triangulation

Big Flat - 1940
Bura - 1936
Buyan - 1936
Caton - 1901, 1936
Oher - 1936
Edge - 1936
Elmer - 1940
Goose - 1936
Granite - 1901, 1936
Hunt - 1936
Hunter - 1911, 1940
Iliasik Island Light (Lite) - 1940
Inner - 1911, 1940
Lag - 1936
Lone - 1940
Midun - 1936
Midway - 1936
Mits - 1936
Patton - 1911, 1936
Peak "C" (Sea) - 1939
Rock - 1911, 1936, 1940
Sanak - 1901
Sarana - 1940
Scot - 1940
Sole - 1940
South - 1936
Sushilnoi - 1940
Uala - 1936

Topographic

Big - T-6701
Bon - (Boat Sheet of H-6486)
Hay - T-6702
Hip - T-6701
Ran - T-6699
Xtra - T-6608

Remarks

Decisions

1	For title	U.S.G.B.
2		
3		
4		
5		
6		
7	location of tide staff	
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25		
26		
27		

GEOGRAPHIC NAMES

Survey No.

H6486

Name on Survey

	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
	A.	B.	C.	D.	E.	F.	G.	H.	K.	
<u>Alaska Peninsula</u>										1
<u>Sanak Bank</u>										2
<u>Sandman Reefs</u>										3
										4
										5
										6
<u>King Cove</u>										7
										8
										9
					L Hech	1115743				10
										11
										12
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										26
										27

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6486**

Records accompanying survey:

Boat sheets \dots ; sounding vols. (4)..; wire drag vols.;
bomb vols. (!)....; graphic recorder rolls;
special reports, etc.
.....

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

Number of positions on sheet	.578.
Number of positions checked	..67..
Number of positions revised	... ⁰ ..
Number of soundings recorded	4756..
Number of soundings revised (refers to depth only)	... ² ..
Number of soundings erroneously spaced	... ⁰ ..
Number of signals erroneously plotted or transferred	... ⁰ ..
Topographic details	Time
Junctions	Time .36 hrs.
Verification of soundings from graphic record	Time .52 hrs.

Verification by *Robert Goldin*..... Total time .88 hrs. Date ..11/10/42..

Review by *R. H. Carters*..... Time 30 $\frac{1}{2}$ hrs. Date ..11/27/42..

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H **H6486**
~~No. 27~~

received **Aug. 19, 1942**
 registered **Oct. 26, 1942**
 verified
 reviewed
 approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	R. W. Knox
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RW

*REC
HAE*

TIDE NOTE FOR HYDROGRAPHIC SHEET

October 27, 1942.

~~Division of Hydrography and Topography~~

✓ Division of Charts: Attention: Mr. H. R. Edmonston.

Plane of reference approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 6486

Locality Sanak Bank and Sandman Reef, Southwest Alaska.

Chief of Party: G. C. Jones, 1939 and L. D. Graham, 1940.

Plane of reference is mean lower low water reading

6.2 ft. on tide staff at King Cove

23.0 ft. below B. M. 2

Height of mean high water above plane of reference is 6.1 feet.

Condition of records satisfactory except as noted below:

C. J. Green

Chief, Division of Tides and Currents.

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6486

Field No. 8139

Alaska, Alaska Peninsula, Sanak Bank and Sandman Reefs
Surveyed in June - September 1939; May - July 1940;

Scale 1:80,000

Instructions dated April 18, 1938

Soundings:

Fathometer 312
Dorsey III

Control:

R.A.R. and Visual Fixes on
Shore Signals

Chief of Party - G. C. Jones and L. D. Graham
Surveyed by - Ship's Officers
Protracted by - R. H. Woodcock
Soundings plotted by - R. H. Woodcock
Verified and inked by - R. Goldin
Reviewed by - R. H. Carstens
Inspected by - H. R. Edmonston

1. Shoreline and Signals

No shoreline was transferred to this offshore sheet. The signals originate with triangulation of 1936, 1939, and 1940, and with topographic sheets T-6508 (1936), T-6608 (1937), T-6699 (1939), T-6701 (1939) and T-6702 (1939). The positions of the sono-radio buoys are found in the sounding records of the present survey.

2. Sounding Line Crossings

Satisfactory except as noted on page 3 of the Descriptive Report. The survey is incomplete and the number of sounding line crossings available for comparison is few.

3. Depth Curves

Satisfactory.

4. Junctions with Contemporary Surveys

A satisfactory junction was effected with H-6586 (1940), H-6485 (1939-40), H-6483 (1939-40) and H-6279 (1937) on the west. A small holiday in Lat. 54°08';

Long. $162^{\circ}30'$ requires additional work. The two small areas of hydrography in the northern part of the sheet have been transferred to H-6587 (1940) and H-6588 (1940).

5. Comparison with Prior Surveys

a. H-3579 (1913-14) 1:180,000

Two dead reckoning lines of tube soundings cross the limits of the present survey. Depth agreement is generally within 5fm. The sounding of 57fm. in Lat. $54^{\circ}25.88'$; Long. $161^{\circ}55.5'$ (chart 8802) falling in depths of 77fm. on the present survey is probably erroneous and should be disregarded. The length of wire let out when the tube sounding was taken was the same as the length used for adjacent 76-fm. soundings. This fact casts doubt on the correctness of the 57fm. sounding. The present survey is considered adequate to supersede the earlier survey within the common area.

b. H-4520 (1925-1940); chart 8802

Agreement with the few soundings from dead reckoning lines of H-4520 is not particularly good, especially in the deeper sections. These soundings are probably displaced somewhat from their true position and should be superseded by the present survey.

6. Comparison with Chart 8860 (Latest print date 2- 3-42)
8802 (Latest print date 1-29-42)

a. Hydrography

The charted hydrography originates with the previously discussed surveys; with soundings by the U. S. Navy, blueprint 33153; and with old miscellaneous surveys, possibly of Russian origin. Soundings by the U. S. Navy and from miscellaneous sources appear somewhat displaced and can be adequately superseded by the present survey within the common area.

b. Aids to Navigation

No charted aids to navigation fall within the limits of the present survey.

7. Condition of Survey

Satisfactory.

8. Compliance with Instructions for the Project

Satisfactory, except for items in the next paragraph.

9. Additional Field Work Recommended

The present survey was not completed during the field seasons of 1939 and 1940. Hydrography is required to complete the survey of the area between sounding lines in Lat. $54^{\circ}15'$; Long. $162^{\circ}11.5'$; Lat. $54^{\circ}20'$; Long. $162^{\circ}05'$; and Lat. $54^{\circ}30'$; Long. $162^{\circ}51'$.

The following additional work is also required:

- a. Hydrography in the holiday in Lat. $54^{\circ}08'$; Long. $162^{\circ}30'$ between the present survey and H-6483 should be accomplished.
- b. An additional line in Lat. $54^{\circ}06.5'$; Long. $162^{\circ}30'$ would be desirable in order to more definitely delineate the 200fm. curve and to develop the irregular bottom in that area.
- c. The following shoal soundings should be developed by additional lines: 17fm. in Lat. $54^{\circ}39.2'$; Long. $161^{\circ}40'$; 21fm. in Lat. $54^{\circ}40.2'$; Long. $161^{\circ}39.0'$; 20fm. in Lat. $54^{\circ}41.8'$; Long. $161^{\circ}40'$ and 31fm. in Lat. $54^{\circ}33.4'$; Long. $161^{\circ}46'$.
- d. Crosslines to the extent specified in the Instructions should be run in the area of the present survey.


10. Superseded Surveys

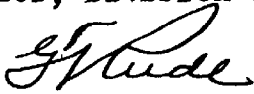
H-3579 (1913-14) in part
H-4520 (1925-1940) in part


Chief, Surveys Section


Chief, Section of Hydrography

Examined and approved:


Chief, Division of Charts


Chief, Division of Coastal Surveys

Applied to chit. 8705 from unverified sheet. Re-examined after review. J.M.L. 6/25/43
" " " 8857 " " " " " " " "
" " " 8866 via 8859 " " " "
" " " 8802 " " " " " 4/1/43
" " " 8703 after review J.M.L. 6/25/43