

6287

U. S. COAST & GEODETIC SURVEY  
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6287

Form 504  
Rev. April 1935  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

**DESCRIPTIVE REPORT**

*Topographic* }  
*Hydrographic* } Sheet No. 2337

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State ~~ALASKA~~ Aleutian Islands

Coast LOCALITY  
South ~~Side~~ of Unimak Island  
~~UNIMAK ISLAND~~

---

~~SOUTH COAST~~

---

CAPE LUTKE TO SEAL CAPE

---

1937

CHIEF OF PARTY

RAY L. SCHOPPE

61

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
LIBRARY

APR 12 1938

REG. NO.

HYDROGRAPHIC TITLE SHEET Acc No.

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. 2337

REGISTER NO. H6287

State ~~ALASKA~~ Aleutian Islands

General locality SOUTH SHORE OF UNIMAK ISLAND

Locality CAPE LUTKE TO SEAL CAPE

Scale 1:20000 Date of survey JULY TO SEPT, 19 37

Vessel LAUNCHES OF SHIP DISCOVERER

Chief of Party RAY L. SCHOPPE

Surveyed by I. R. RUBOTTOM AND C. A. BURMISTER

Protracted by J. C. TRIBBLE

Soundings penciled by J. C. TRIBBLE

Soundings in fathoms ~~feet~~ AND FRACTIONS

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by \*\*\*\*\*

Inked by R.H. Carstens

Verified by R.H. Carstens

Instructions dated MARCH 30 th., 19 36-37

Remarks: \_\_\_\_\_

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SHEET NO. 2337

H-6287 (1937)

PROJECT HT- 208

DATE OF INSTRUCTIONS:

Authority for the survey was contained in Instructions dated March 30th., 1936, and Supplemental Instructions dated March 30th., 1937.

LIMITS AND JUNCTIONS:

This is an inshore survey, extending from a point about two miles northeast of Cape Lutke to a point about one mile east of Seal Cape, on the south shore of Unimak Island. The twenty-fathom curve was developed, this curve being a little more than one mile off shore.

Satisfactory junctions were made with Sheet No. 2437 on the west and with sheet No. 8137 on the south. Unsurveyed areas extend to the eastward.

SURVEY METHODS:

No deviation from standard methods of obtaining depths on positions were made. Positions were obtained by three-point fixes on signals ashore located by plane table topography and by triangulation. Depths were measured by handlead in depths up to about ten fathoms, and by machine in all depths over ten fathoms.

Lines were run parallel to the shore, the spacing increasing from less than 100 meters along the beach to a little over 200 meters in depths approaching 20 fathoms. As a check on soundings and to assist in drawing the depth curves, a system of cross lines, diagonal to the main system, was run the length of the sheet, to include the 20-fathom curve.

DESCREPANCIES:

The 15-fm. sounding recorded on Position 63, e-day (blue) was rejected after considerable time spent in sounding in the area and finding no indication of a shoal. The operator of the sounding machine was a new man and had expressed doubts of the correctness of the sounding at the time. The sounding was not investigated at the time due to increasing bad weather conditions.

The 10-fm. curve off Triangulation station AMA makes a sharp break on the smooth sheet, while it is a smooth curve on the boat sheet. The boat-sheet plotting appears to be in error.

The shore line north of the anchorage from Lat  $54^{\circ} 28'.9$  to Lat  $54^{\circ} 30'.8$  is covered with scattered rocks, boulders and pinnacles, and should be avoided. Breakers were reported 1/4 mile Southeast from signal HOG by the Topographic Party in rough weather, but no rocks were found by

$54-30.4^{\circ}$   
 $2164-20$   
19.60

Note placed on smooth sheet, H.W.M.

the sounding party. The area was closely sounded in clear weather and good visibility, but no rock was seen. The breaker was probably a tide-rip off this point.

DANGERS:

Lat  $54^{\circ} 28'.27$  Long  $164^{\circ} 20'.02$  A shoal of least depth of  $3\frac{1}{2}$  fathoms at MLLW and surrounded by relatively deeper water (8 to 12 fathoms) constitutes the only danger on this sheet. The first indication noticed of this shoal was a light tide-rip. Breakers were later observed in heavy swells. There were no breakers noted in light or moderate swells.

A distance of  $\frac{1}{2}$  nautical mile off shore will clear all rocks and shoals found on this sheet.

ANCHORAGES:

Lat  $54^{\circ} 28'.7$  Long  $164^{\circ} 19'.8$

The bottom in this area is sandy and affords good holding ground for north to southwesterly weather. The anchorage should be approached on a course of  $290^{\circ}$  true with the south toe of Cape Lutke on range with the 1000-foot peak (located 2.8 miles to the WNW) in the background. On this range a good anchorage is available at any depth between the 15 and 10-fathom curves.

The DISCOVERER used this anchorage frequently during the 1937 field season, anchoring in ten to fourteen fathoms and finding good holding ground.

In using this anchorage attention should be given to the  $3\frac{1}{2}$ -fathom shoal located  $\frac{1}{2}$  mile to the southward. The prevailing current here is to the Southward and if care is not exercised when approaching the anchorage at slow speed, the vessel is apt to drift toward the shoal.

Lat  $54^{\circ} 31'.3$  Long  $164^{\circ} 19'.5$

This anchorage affords protection from all except southeasterly weather. The bottom is generally sandy although it is rocky on several scattered areas. The depth is from 4 to 5 fathoms, which makes it a favorable anchorage for small boats. This area being of relatively smooth bottom, it is safe to anchor at any point within 0.4 nautical mile of the shore.

TIDES:

Tidal reducers were based upon records of the Standard Tide Gage established at King Cove by this party at the beginning of the season. A Time differential of  $1\frac{1}{2}$  hours plus and a range ratio of 0.8 has been applied to soundings in this area. (Reference is made to the Director's letter 30-McC dated November 1, 1937).

Curves are submitted separately covering the days during which surveying was done in the Vicinity of Cape Lutke and to the westward.

COMPARISON WITH PREVIOUS SURVEYS:

Since no detailed inshore survey of this area had been previously

made, there is no basis for a comparison. See Rev. par. 6 for further details

REMARKS:

The wreck of a freighter is reported to have taken place in the small cove immediately westward of Arch Point. There were no evidences of the wreck along the beach, and no soundings which would indicate the wreck were observed. The sea was fairly rough during the course of the survey in this area, a considerable ground-swell hampering and development close inshore.

Information of the wreck was given by Capt. Davis who is the Superintendent of the P. E. Harris Cannery at False Pass, Alaska.

STATISTICS:

Number of Positions . . . . .	1323
Number of Soundings (hand lead) . . . . .	2789
(wire) . . . . .	2067
Number of miles Statute (hand lead) . . . . .	113.0
(wire) . . . . .	172.4

Respectfully submitted.

*John C. Tribble, Jr.*

John C. Tribble, Jr  
Jr. H. & G. Engr., C. & G. Survey

Approved and Forwarded

*Ray L. Schoppe*  
Ray L. Schoppe  
Chief of Party.

### TIDE NOTE FOR HYDROGRAPHIC SHEET

May 26, 1938

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. E. P. Ellis

Plane of reference

~~The Records are~~ approved in  
5 volumes of sounding records for

HYDROGRAPHIC SHEET 6287

Locality Cape Lutke to Seal Cape, South Shore of Unimak Island,  
Aleutian Islands

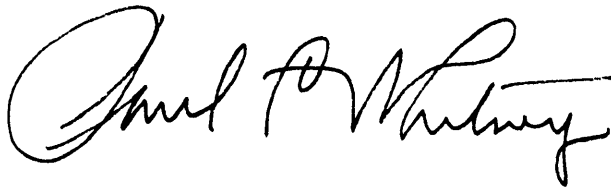
Chief of Party: R. L. Schoppe in 1937

Plane of reference is mean lower low water reading  
6.1 ft. on tide staff at King Cove\* *off limit of H-6287*  
17.5 ft. below B.M. 1

\* Used King Cove + 1.5 hours with range factor of 0.8.

Height of mean high water above plane of reference at place of sounding 4.9 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. **H6287**

Name on Survey	On Chart No. <b>8860</b>		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>Unimak Island</u>	✓															1
<u>Seal Cape</u>	✓															2
<u>Arch Point</u>	✓															3
<u>Promontory Hill</u>	✓															4
<u>Cape Lutke</u>	✓															5
																6
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<div style="border: 1px solid black; padding: 5px; display: inline-block;">                 Names underlined in red approved                  by <u>JHE</u> on <u>6/22/38</u> </div>																26
																27

Remarks.

Decisions

	Remarks.	Decisions
1	<i>For Title Only</i>	<i>USGB decision</i>
2		<i>see H-6288</i>
3		<i>see T-6604</i>
4		<i>" "</i>
5		<i>see H-6279</i>
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Field Records Section (Charts)

H6287  
HYDROGRAPHIC SHEET NO. ....

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

Number of positions on sheet	1323
Number of positions checked	91
Number of positions revised	6
Number of soundings recorded	4856
Number of soundings revised	0
Number of signals erroneously plotted or transferred	0

Date: June 21, 1938

Verification by R. H. Carstens

Time: 66 hrs

Review by Harold W. Murray  
Leo S. Straw

Time: 4 hrs

2 hrs

HYDROGRAPHIC SURVEY NO. H6287

Smooth Sheet Yes

Boat Sheet Two

Records; Sounding 5 Vols., Wire Drag     Vols., Bomb     Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol.#1

Landmarks for Charts (Form 567) Yes

Statistics Yes  
None

Approved by Chief of Party None

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service None  
(Circular Nov.30, 1933)

Hydrography: Total Days 5 ; Last Date Sept. 13, 1937

Remarks \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

82

# MEMORANDUM IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
~~PHOTOSTAT OF~~

No. H -6287  
~~No. H -~~

received April 11, 1938  
registered May 2, 1938  
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	✓	H.M.	Page 2
26			
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62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
----	------------

✓ TBR

Report on H 6287 (1937)  
Verifying and Sinking

1. The records were clear and complete and conformed to the requirements of the general instructions ✓
2. The control consisted of triangulation established in 1937 ✓ and topographic signals located on aluminum sheets T 6604 (1937) ✓ and T 6605 (1937). The high and low water lines were taken from T 6604 ✓ and T 6605. ✓ Most of the locations of sunken rocks and rocks awash were taken from the same topographic sheets. However a few rocks were taken from the boat sheets or were located by notes in the sounding records. ✓ Rocks shown on topographic sheet T 6605 as having more than 7 ft. at MLLW were transferred to the hydrographic sheet as bare rocks with the elevations in parenthesis in red alongside. The range of tide in this area is 5 ft. ✓ The latitudes and longitudes of these ~~rocks~~ are as follows:

Latitude	Longitude
a 54-30.86 ✓	164-19.35 ✓
b 54-30.65 ✓	164-19.35 ✓
c 54-30.50 ✓	164-19.40 ✓
d 54-30.33 ✓	164-19.52 ✓

OVER

Latitude	Longitude
254-29.21'	164-20.10'
f 54-28.80'	164-20.20'
g 54-25.26'	164-27.10'
h 54-24.93'	164-29.70'

Rocks shown on T 6604 and T 6605 as being 5 or 7 ft. above MLLW were shown on the hydrographic sheet as awash at HHW

i The rock being 2 ft. at MLLW on T 6605<sup>(1931)</sup> in lat. 54-24.9' long. 164-29.17' is noted in sounding record # 30-31 a as being awash at 3 ft. of tide. It was transferred to the hydrographic sheet as being 3 ft. at MLLW.

j The rock being 8 ft. at MLLW on T 6604 in lat. 54-24.41' long. 164-33.88' is noted in the sounding record # 2 pos. 14 c as being awash with 3 ft. of tide. It was transferred to the hydrographic sheet as being 3 ft. at MLLW

3. In general the sounding line crossings were very good. However the sounding between positions 58-62 f day in lat. 54-31.3 long 164-19.5 appear to be 3 or 4 ft. deeper than soundings taken in that area on a and b days. No errors were found in the reduction of soundings or the plotting of

Mentioned in Rev. Return.

③

positions on these lines and ✓  
the shoaler soundings were inked.  
In lat. 54-24.65 long 164-32.14 a  
sounding of  $4\frac{1}{6}$  on pso. 18-19 f day falls  
on  $3\frac{2}{6}$  on pso. 46-47 a day. No error ✓  
in the reduction of sounding or  
the plotting of positions could be  
found and the shoaler sounding was  
inked.

In lat. 54-25.10 long 164-26.8, a  $8\frac{3}{4}$   
sounding on 135 a day falls on  $6\frac{2}{6}$  to  $7\frac{1}{2}$   
fathom soundings on 14-15 e day. No ✓  
errors in the reduction of the  
soundings or the plotting of the  
positions could be found and  
the shoaler sounding was plotted.

A 15 fm. 4 ft. sounding in general  
depths of 20 fm. was received on pso. 63 e  
day in lat. 54-26.35 long 164-21.70. Notes  
in the descriptive report and in  
the sounding record state that  
the sounding was taken by a  
new man and was probably in ✓  
error. Thirty meter lines were  
run in this area on f day and  
no indication of a shoaling  
was found. The nearest sounding  
25 meters from pso 63 e day was  
20 fm. checking the general depths.

One hour was spent in drift <sup>(4)</sup> sounding over this area and no indication of a shoaling was found. The bottom in this area is sand. The 15 fm 4 ft sounding was omitted in inking the soundings.

4. Due to the fact that along much of this coast deep water extends close inshore and foresh area extends some distance offshore, the hydrography was not carried inshore far enough to ~~reveal~~ <sup>permit</sup> all the depth curves being drawn. The 2 and 3 fm. curves can be drawn in part and practically all the five fathom curves can be drawn. The 10 and 20 fm. curves can be completely drawn.

5. No aids to navigation fall within the area covered by this sheet.

6. This sheet joins contemporary adjacent sheets H 6278 (1937) on the south and east and H 6288 (1937) on the west. As the verification of these sheets have not been

completed no junctions with  
these sheets were made. No  
contemporary survey of the waters  
to the north of this sheet exists

7. The field plotting of the smooth  
sheet was accurately accomplished.  
The only drafting done over by the  
verifier is noted on the statistics  
sheet. The signals and hydrography  
covering the western half of the  
smooth sheet were rather carelessly  
plotted with the result that an  
excessively large number of positions  
had to be checked by protracting.  
This also resulted in difficulty  
in deciding whether or not the  
angles had been incorrectly read  
or recorded.

\* Statement regarding  
careless plotting not borne  
out by statistic sheet.

8. The geographic names were  
transferred from the topographic  
sheets T 6605 (1937) and T 6604 (1937)  
by the verifier

Respectfully submitted  
R.H. Carstens

June 21, 1938



Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6287 (1937) FIELD NO. 2337

Cape Lutke to Seal Cape, South Shore of Unimak Island,  
Aleutian Islands.

Surveyed in July - September 1937, Scale 1:20,000  
Instructions dated March 30, 1936 and March 30, 1937 (DISCOVERER)

Hand Lead and Machine Soundings.

3 Point fixes on shore signals.

Chief of Party - Ray L. Schoppe.  
Surveyed by - I. R. Rubottom and C. A. Burmister.  
Protracted by - J. C. Tribble.  
Soundings plotted by - J. C. Tribble.  
Verified and inked by - R. H. Carstens.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual.

The Descriptive Report is clear and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project.

3. Shoreline and Signals.

The shoreline and signals originate with plane table sheets T-6604 (1937) and T-6605 (1937). The field sheet covering the shoreline and also signals Dim, Cat and By on the extreme north has not yet been received from the field. T-6657(1938). Shoreline added. H.W.M. 9/29/39.

4. Sounding Line Crossings.

Agreement of sounding line crossings is satisfactory except in lat.  $54^{\circ} 31.3'$ , long.  $164^{\circ} 19.5'$ , where cross lines 58 to 62 f consistently varies 1 to 2 feet deeper than the main system of lines. No satisfactory explanation of this discrepancy can be adduced other than a possible influence of currents.

5. Depth Curves.

Within the limits of the survey, the usual depth curves may be satisfactorily drawn including portions of the 1, 2 and 3 fathom curves.

6. Junctions with Contemporary Surveys.

- a. The junctions with H-6278 (1937) on the south and H-6288 (1937) on the west will be considered in the reviews of those surveys.
- b. The junction on the northeast will be considered when that work is received from the field.

7. Comparison with Prior Surveys.

H-2542 (1901) and H-2556 (1901), Scales 1:60,000 and 1:140,000.

Three single lines of soundings from these two small scale sparsely covered surveys taken together fall within the limits of but are in poor agreement with the present survey depths. They should be superseded by the present survey in future charting.

8. Comparison with Chart 8860 (New Print dated Jan. 13, 1938.)

Information shown on the chart originates with surveys discussed in preceding paragraphs of this review. No authority, however, could be found for the charted 16 fathoms in lat.  $54^{\circ} 25'$ , long.  $164^{\circ} 26'$ , which agrees with the present survey depths and has been charted since the first edition of the chart in 1902. Inasmuch as this 16 agrees in geographic position with a 14-1/2 fathom sounding shown on H-2556 (1901), it is probably an incorrect charting of that sounding. It should be disregarded in future charting.

9. Field Plotting.

Field protracting and plotting were accurate and conform to the requirements of the Hydrographic Manual.

10. Additional Field Work Recommended.

This is an excellent survey and no additional field work is recommended.

11. Superseded Prior Surveys.

Within the area covered the present survey supersedes the following surveys for charting purposes:

H-2542 (1901) in part  
H-2556 (1901)

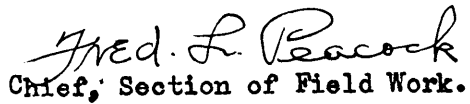
12. Reviewed by - Harold W. Murray and Leo. S. Straw, June 30, 1938.

Inspected by - J. A. McCormick,

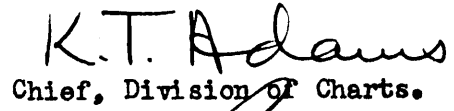
Examined and approved:



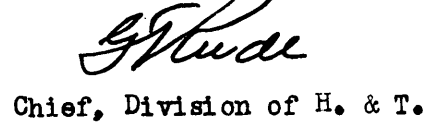
T. B. Reed,  
Chief, Field Records Section.



Fred. L. Beacock  
Chief, Section of Field Work.



K.T. Adams  
Chief, Division of Charts.



G. Glude  
Chief, Division of H. & T.

applied to chart 8860 - nov 25, 1938 J.G.L.