

6265

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

DESCRIPTIVE REPORT

Topographic }
Hydrographic } Sheet No. 4436

State Aleutian Islands
ALASKA

LOCALITY
Umnak Island
ALEUTIAN ISLANDS

~~Southward of KETTLE CAPE, Lo The Pillars~~
~~UMNAK ISLAND~~

1936-7

CHIEF OF PARTY

A. M. Sobieralski, Commanding Officer
U. S. C. & G. S. S. SURVEYOR

U. S. GOVERNMENT PRINTING OFFICE

2,308

6265

6265

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 4436

REGISTER NO. H-6265

State ALASKA Aleutian Islands

General locality ~~ALEUTIAN ISLANDS~~ Umnak Island

Locality ~~Southward of KETTLE CAPE, IDOLIA ISLAND~~ TO THE PICCAR
Sept., 1936

Scale 1:1000 Date of survey July, Sept., 1937, 19

Vessel U.S.C.&G.S.S. SURVEYOR & Launches

Chief of Party A. M. Sobieralski

Surveyed by A.M.S., G.L.B., I.T.S., C.J.W., & J.L.

Protracted by John Laskowski

Soundings penciled by J.L.

Soundings in fathoms ~~feet~~

Plane of reference MLLW

Subdivision of wire dragged areas by _____

Inked by A.C. McGlason

Verified by A.C. McGlason

Instructions dated April 13, 1934

Remarks: _____

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET 4436 6265 (1936-37)

Scale 1:40,000

U.S.C.&G.S.S. SURVEYOR & LAUNCHES

A. M. Sobieralski, H.&G. Engr., Commanding

Southward of KETTLE CAPE, UMNAK ISLAND

ALEUTIAN ISLANDS, ALASKA

This survey was made under the authority of the Director's Instructions to the Commanding Officer, of the U.S.C.&G.S.S. SURVEYOR, dated April 13, 1934. This survey is bounded on the West, North and East by a survey on a larger scale (1:20,000) and on the south by a survey of smaller scale (1:80,000).

This sheet covers an area southward of Kettle Cape, Umnak Island, characterized by comparatively shoal water and lumpy bottom. The necessity for development more detailed than permitted from the ship; over shoals and in the vicinity of Poliwnoi Rock and The Pillars was the deciding factor in the choice of scale. The distances off shore made it impracticable to plot positions from the launches, on a sheet of larger scale.

SURVEY METHODS:

The positions of all soundings on this sheet were determined by sextant fixes on objects or signals ashore. All signals were located by plane table or theodolite in accordance with standard practice.

Depths were determined by fathometer, wire or hand lead. On the SURVEYOR fathometer No. 1, Type 312, Serial No. 312 104 AB. was used. All fathometer soundings were corrected for temperature, salinity, etc., in accordance with the Hydrographic Manual and Field Memorandum No. 3, dated June 11, 1936. On various shoals fathometer and wire soundings were supplemented by hand lead soundings. In such cases all soundings taken were recorded and properly identified in the records. The shoal-est sounding, regardless of the method, has been plotted on this sheet.

NOTE: On the south edge of this sheet positions 81 to 125 "P" day SURVEYOR, Sheet 8136 have been plotted. This was done in order to show development of 3 small shoals in more detail than was possible on an 80,000 scale. These positions are also plotted on Sheet 8136.

One line of soundings from Sheet ^{H-6303} U2436 is also plotted on this sheet--positions 58 to 63 "H" day SURVEYOR. Positions 58 "H" & 59 "H" fall off the edge of Sheet U2436, and to avoid breaking the line the whole line after the turn at position 57 "H" (on Sheet U2436) is shown. None of these positions were transferred, but notes showing where smooth plotted have been inserted in the record books.

8136
not in
office

will be dis-
posed of in
rev. of
H-6303

DISCREPANCIES:

There is no general cross line system on this sheet. However, where crossings occur the soundings are in good agreement; except as follows:

(a) Latitude $53^{\circ} 15'.6$; Long $167^{\circ} 59'.9$, position 187 d, Motor Sailor, 15 fms. falls alongside 19 fms., position 41 b Motor Sailor.

(b) Latitude $53^{\circ} 15'.0$; Longitude $167^{\circ} 57'.1$, position 94 D SURVEYOR, 32 fms., falls inshore from a 27 fm. sounding, position 117 C, SURVEYOR.

(c) Latitude $53^{\circ} 11'.1$; Longitude $168^{\circ} 13'.8$, position 105 H SURVEYOR a 25 fm. sounding falls outside of the 30 fathom curve. From an examination of the Sounding Record there appears to be an area of uneven bottom at this point.

(d) See Rev., par. 4.

Due to the type of bottom in this area, the above discrepancies are not improbable.

DANGERS:

So far as this survey shows there is only one dangerous shoal. This is a large kelp covered area at Latitude $53^{\circ} 15'.75$; Longitude $168^{\circ} 05'.0$, having a least depth of $1 \frac{4}{6}$ fathoms. The kelp here is very heavy during early summer, and covers an area approximately $\frac{1}{2}$ mile square.

This is
1/2 fm. spot
mentioned
in Coast
Pilot and
also chart-
ed.

Other shoals with depths less than 10 fathoms are listed below:

1. Latitude $53^{\circ} 13'.8$; Longitude $168^{\circ} 10'.0$, 7 fathoms. ✓
2. Latitude $53^{\circ} 15'.8$; Longitude $168^{\circ} 04'.0$, 5 fathoms. ✓
3. Latitude $53^{\circ} 15'.6$; Longitude $167^{\circ} 59'.8$, 8 fathoms. ✓
4. Latitude $53^{\circ} 16'.5$; Longitude $167^{\circ} 56'.2$, $8 \frac{1}{2}$ fathoms. ✓
5. Latitude $53^{\circ} 13'.5$; Longitude $167^{\circ} 59'.1$, 6 fathoms. ✓
6. Latitude $53^{\circ} 13'.4$; Longitude $168^{\circ} 00'.4$, $8 \frac{1}{4}$ fathoms. ✓
7. Latitude $53^{\circ} 13'.1$; Longitude $168^{\circ} 01'.2$, $8 \frac{1}{4}$ fathoms. ✓

Polivnoi Rock, the most important feature on this sheet, is surrounded by an approximately circular area of less than 10 fathoms and about $\frac{1}{4}$ mile in diameter. A breaker forms in rough weather about 285 meters 247° true from Polivnoi rock. Roughly speaking the area about Polivnoi Rock inside the 10 fathom curve is kelp covered. Polivnoi Rock is a Sea Lion Rookery, and during dense fogs its proximity can be detected from the loud roaring and the terrific stench.

Two large offshore pinnacle rocks at latitude $53^{\circ} 11'.6$ and Longitude $168^{\circ} 14'.3$ are known as THE PILLARS. Deep water (14 fathoms or over) can be carried to within 500 meters all around these rocks. A rock awash at Mean high water lies 169 meters 73° true from triangulation station PILL. This position was determined independently on two topographic sheets. The hydrographic location differs by about 10 meters from this position. Topo position used. H.W.M.

25

CURRENTS:

Tidal currents attain a velocity estimated at 5 knots between Polivnoi Rock and Emerald Island, the velocity diminishing rapidly to the southward. The current between Polivnoi Rock and Kettle Cape is not as strong. The set of the current is northeastward on the flood and southwestward on the ebb.

Violent tide rips occur on the banks northeastward of Polivnoi Rock on the ebb, particularly on spring tides and when there is a heavy swell. It would hardly be practicable to enter Umnak Pass under such conditions.

Tide rips occur also on the banks southward and southwestward of Polivnoi Rock but not as violent as on the banks northeastward of Polivnoi Rock.

For entering Umnak Pass, the channel eastward of Polivnoi Rock is recommended in order to avoid the $1\frac{4}{6}$ fathom shoal off Kettle Cape, and the shoals off the Umnak Island shore of Umnak Pass.

CHANNELS AND ANCHORAGES:

There are no channels or anchorages on this sheet.

COMPARISON WITH PREVIOUS SURVEYS:

There are no previous surveys by this Bureau in the area covered by this sheet.

GEOGRAPHIC NAMES: ✓ GHE

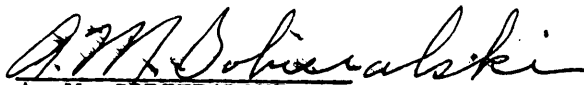
There are no new geographic names on this sheet.

Respectfully Submitted:



IRA T. SANDERS
Jr. H.&G.E.

Approved & Forwarded:



A. M. SOBIERALSKI
Commanding Officer
U.S.C.&G.S.S. SURVEYOR

✓ 30'

✓ 25'

✓

LIST OF TRIANGULATION AND TOPOGRAPHIC STATIONS

to accompany

FIELD SHEET No. 4436 H 6265 (1936-37)TRIANGULATION STATIONS

LEDGE	1936-37	POLIVNOI RK	1936
SCARP	1936-37	TWEEN	1936
PILL	1936-37	DIM	1936
THREE	1936-37	WEND	1936
CREEK	1936-37	SHIP RK	1936
FUTT	1936-37	HUMP	1936
KETTLE	1936	LONE PK	1936

TOPOGRAPHIC STATIONSTOPOGRAPHIC SHEET FIELD LETTER B 37

Slim	
Rat	T 6596 (1937)
Water	
Red	

TOPOGRAPHIC SHEET FIELD LETTER K 37

False	T 4942 (1937)
Tip	

TOPOGRAPHIC SHEET FIELD LETTER UK 36

Gal	T 6551 (1936)
Sept	
Nine	
Hot	
Tin	

TOPOGRAPHIC SHEET FIELD LETTER UH 36

West	T 6597 (1936)
Sew	
Pat	

TOPOGRAPHIC SHEET FIELD LETTER UL 36

Sid	T 6552 (1936)
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STATISTICS

to accompany

HYDROGRAPHIC SHEET FIELD No. 4436 H 6265(1936-37)

<u>Date</u>	<u>Day</u>	<u>Vol</u>	<u>No. Pos.</u>	<u>No. Soundings</u>	<u>Statute Miles</u>
<u>SURVEYOR</u>					
7/14/37	A	2	69	355	32.0
✓ 7/16/37	B	2	34	161	16.8
✓ 7/19/37	C	2	251	1157	80.6
✓ 7/20/37	D	3	198	835	61.4
✓ 7/21/37	E	3	169	684	61.1
✓ 8/12/37	F	3	8	28	2.5
✓ 9/5/37	G	3 & 4	259	1008	88.5
✓ 9/6/37	H	4 & 5	217	1042	75.1
✓ 9/10/37	J	5	64	215	18.4
<u>Launch No. 3</u>					
✓ 9/8/36	a	1	168	551	24.5
<u>Motor Sailor</u>					
✓ 7/6/37	a	6	105	299	21.9
✓ 7/14/37	b	6	131	358	28.7
✓ 7/16/37	c	6	35	81	7.0
✓ 7/19/37	d	6 & 7	192	381	26.4
<u>Launch No. 4</u>					
✓ 9/10/37	a	8	<u>139</u>	<u>254</u>	<u>13.8</u>
Totals			2039	7409	558.7


Area in Square Statute Miles = 75.0

APPROVAL SHEET

to accompany

HYDROGRAPHIC SHEET NO. 4436 H 6265 (1936-37)

This sheet and the records have been examined and
are approved.



A. M. SOBIERALSKI
Commanding Officer
U.S.C.&G.S.S. SURVEYOR

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 7, 1938.

Division of Hydrography and Topography:

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

Plane of reference
~~Tide Reducers~~ approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 6265 (1936-37)

Locality Kettle Cape to the Pillars (Umnak Island) Aleutian Islands.

Chief of Party: A. M. Sobieralski in 1936-1937.
Plane of reference is mean lower low water reading
3.3 ft. on tide staff at Chernofski Harbor
8.8 ft. below B.M. 1
3.7 ft. on tide staff at Kuliliak Bay
6.4 ft. below B.M. 1

Height of mean high water above plane of reference is 3.4 feet at
Chernofski Harbor; 5.0 feet at Kuliliak Bay.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. H-6265
(1936-37)

Name on Survey	Sources										U.S.C.P.
	A	B	C	D	E	F	G	H	K		
	On Chart No. 8802	On previous survey No.	On U. S. quadrangle Maps	From local information	Street Maps - Baker's	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List			
<u>Umnak Island</u>	✓										1
<u>Umnak Pass</u>	✓										2
<u>Kettle Cape</u>	✓										3
<u>The Pillars</u>	Pillars				The Pillars				The Pillars		4
<u>Polivnoi Rock</u>	✓				✓						5
<u>Emerald Island</u>											6
											7
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by gse on 4/16/38

Remarks

Decisions

	Remarks	Decisions
1		<i>USGB decision</i>
2		<i>see T-4937</i>
3		<i>see T-6551</i>
4		
5		
6	<i>see Pg. 3 D.R. A new name - evidently off sheet Probably will be on Topo sheets not rec'd to date.</i>	
7		
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Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6265** (1936-37)

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

Number of positions on sheet	2039
Number of positions checked	.34.
Number of positions revised	...2..
Number of soundings recorded	7409
Number of soundings revised	..31..
Number of signals erroneously plotted or transferred	...2...

Date: **2 Aug., 1938**

Verification by **G.C. McGlasson**

Review by **Harold W. Murray**

Time: **10 days 2 1/2 hours**

Time: **0 " 5 1/2 "**

HYDROGRAPHIC SURVEY NO. H-6265 (1936-37)

Smooth Sheet Yes

Boat Sheet Two

Records; Sounding 8 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Page #4, D.R.

Landmarks for Charts (Form 567) None

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

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

Hydrography: Total Days 11; Last Date Sept. 10, 1938

Remarks _____

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H-6265 (1934-37)
~~No. 4~~

received April 1, 1938
 registered April 5, 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	✓	<i>TRD</i>	Pages 2 and 3
26			
30	✓	<i>Hala</i>	Page 3
40			
62			
63			
82			
83			
88			
90			

RETURN TO

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

✓ *TBR*

2 August, 1938.

Report on H 6265
Verifying and Linking

1. The records are neat and legible and conform to the requirements of the General Instructions. However fifteen soundings were reduced incorrectly in the records and were corrected on the smooth sheet. Furthermore, numerous other soundings were reduced incorrectly but the error was not sufficient to change the soundings.
2. The usual depth curves can be completely drawn within the limits of the survey.
3. The field plotting was completed to the extent prescribed in the Hydrographic Manual.
4. The office draftsman did not have to do over any part of drafting done by the field party except as noted on the statistic sheet. And replotted two topographic stations - "Hot"

and "Sid". However the difference in location did not warrant any changes in the hydrography.

5. There were no junctions made with contemporary adjacent sheets at this time. These junctions will be discussed in the reports for the adjoining sheets.

6. This is an off shore sheet and no shoreline was shown. The signals were transferred from T 6596 (1937), T 4942 (1937), T 6551 (1936), T 6597 (1936), and T 6552 (1936).

7. There are no aids to navigation on the sheet, therefore no discrepancies exist.

8. Attention is called to the "tide rips" in the Descriptive Report page 3. note placed on sheet. H.C.M.

Respectfully submitted,

E. C. McGlosson

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6265 (1936-37) FIELD NO. 4436

Kettle Cape to the Pillars, Ummak Island, Aleutian Islands
Surveyed in 1936-37, Scale 1:40,000
Instructions dated April 13, 1934 (SURVEYOR)

Hand Lead, Fathometer and Machine Soundings.

3 Point fixes on shore signals.

Chief of Party - A. M. Sobieralski.
Surveyed by - Various officers.
Protracted by - John Laskowski.
Soundings plotted by - J. Laskowski.
Verified and inked by - G. C. McGlasson.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except that topographic signal SID in lat. $53^{\circ} 14'$, long. $167^{\circ} 39'$ and HOT in lat. $53^{\circ} 19'$, long. $168^{\circ} 01'$, were incorrectly transferred 25 m. south and 40 m. southwest respectively. These were corrected in the office. These differences were too small to warrant any changes in the plotted hydrography.

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.

This is an offshore survey and no shoreline is shown except on Polivnoi Rock and The Pillars which originate with T-6551 (1936), T-4942 (1937) and T-6596 (1937) respectively.

The signals originate with T-4942 (1937), T-6551 (1936), T-6552 (1936), T-6549 (1936), T-6596 (1937) and T-6597 (1936).

4. Sounding Line Crossings.

Agreement of such cross lines as were run or result from the work are satisfactory. In lat. $53^{\circ} 11.5'$, long. $168^{\circ} 15.4'$, however, four machine soundings on line 136 to 139a, red with depths of 33 to 34 fathoms practically coincide with a fathometer line 40 to 42. J red, but consistently varies 3 to 4 fathoms deeper than the fathometer depths of 30 fathoms. The deeper soundings have been rejected.

5. Depth Curves.

The usual depth curves may be satisfactorily drawn.

6. Junctions with Contemporary Surveys

- a. The junction on the north and northwest with H-6286 (1937), on the northeast and east with H-6303 (1936-37) and on the southwest with H-6274 (1937) will be considered in the reviews of those surveys.
- b. Junctions with other field sheets will be considered when that work is received from the field.

7. Comparison with Prior Surveys.

No prior surveys have been made by this Bureau in this area.

8. Comparison with Chart 8802 (New Print dated Dec. 13, 1937)

Hydrographic information shown on the chart consists of:

- a. The single 18 fathom sounding about 2-1/2 miles ENE of The Pillars which falls in depths of 28 fathoms on the present survey and is about 1 mile west of a broad area enclosed by the 20 fathom curve. Its authority cannot be readily ascertained but it was first charted on Chart 8800, Edition of 1908. In view of its uncertain origin and position, it should be disregarded in future charting.
- b. The 1-1/2 fathom sounding in lat. 53° 16', long. 168° 05' is charted from the Coast Pilot and is advance information of the 1-4/6 fathom sounding shown here on the present survey. The present survey should supersede this information 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.

In order to complete the present survey, an examination of the following isolated shoal areas is necessary to insure that depths materially shoaler than those already found do not exist.

<u>Sounding</u>	<u>Lat.</u>	<u>Long.</u>	<u>General Depths</u>
a. 17 fms.	53° 12.6'	167° 59.5	21 fms.
b. 18 "	53° 12.9'	167° 58.0	21 "
c. 15 " , on ridge	53° 14.2	168° 01.4'	18-21 "
d. 14 "	53° 13.9'	168° 03.0'	17 "
e. 13 "	53° 15.1'	168° 01.5'	14 "

Except on the shoals listed above no additional leadline surveying is recommended; however, there are numerous shoal indications which will require wire dragging to definitely assure that no pinnacle rocks exist.

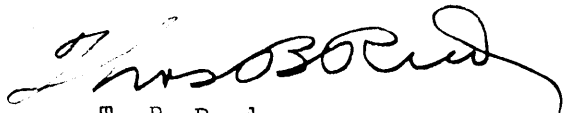
11. Superseded Prior Surveys.

There are no prior surveys made by this Bureau in this area.

12. Reviewed by - Harold W. Murray, August 10, 1938.

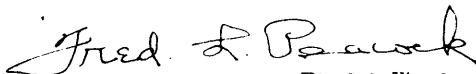
Inspected by - E. P. Ellis.

Examined and approved:

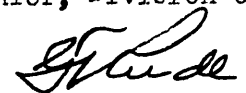


T. B. Reed,
Chief, Section of Field Records.

K.T. Adams
Chief, Division of Charts.



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



G. L. Gude
Chief, Division of H. & T.

Applied to Compilation of Chart No. 9021 S. Pizganis Dec. 1938
" " " " " 8861 J. Walker Feb. 1942