

5965

U. S. COAST AND GEODETIC SURVEY  
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Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. Patton, Director

State: Alaska

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 1135 **5965**  
Hydrographic } 5965

LOCALITY

~~Southwest~~ Alaska

Aleutian Islands

Bogoslof Island

1935

CHIEF OF PARTY

H. B. Campbell

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.

1802-2

Field No. 1135

REGISTER NO. **5965**

State Alaska

General locality ~~Bogoslof Island~~ - Aleutian Islands

Locality Bogoslof Island

Scale 1:10,000 Date of survey Aug. 1 - Sept. 16, 1935

Vessel Str. DISCOVERER

Chief of Party H. B. Campbell

Surveyed by J. A. Swook, P. L. Bernstein, H. O. Fortin, & I. R. Rubottom

Protracted by I. R. Rubottom

Soundings penciled by I. R. Rubottom

Soundings in fathoms ~~\*\*\*\*~~

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by J. A. Mc Cormick

Verified by J. A. Mc Cormick

Instructions dated April 13, Project H.T. 177, 1934

Remarks:

1

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC FIELD SHEET NO. 1135

BOGOSLOF ISLAND

ALEUTIAN ISLANDS, ALASKA.

Surveyed by H. B. Campbell and Party, H. O. Fortin, and I. R. Rubottom.

U. S. C. & G. S. S. DISCOVERER

H. B. Campbell, Comd'g.

Season 1935

Project No. HT-177

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INSTRUCTIONS:

This survey was made in accordance with Director's instructions dated April 13, 1934, to the Commanding Officer of the U.S.C. & G.S.S. DISCOVERER.

LIMITS:

An inshore survey around Bogoslof Island.

SURVEY METHODS:

Standard survey methods were used thru out, and was controlled by visual fixes taken on objects located on Bogoslof Island. The ship's motor sailers were used for the work inshore, and the ship DISCOVERER ran a series of lines offshore of the launch work.

The motor sailer lines were run normal to the shoreline, and on the south and east sides of the island the lines were carried out to or beyond the 100 fathom curve, which was approximately one half mile offshore. On the west side the lines were carried beyond the 20 fathom curve in all cases. Near the north end of the island the 20 fathom curve was nearly one mile offshore. \* Across the north end of the island the lines run by the motor sailer were carried out (at) what was considered a safe distance for the ship. Strong currents were encountered around this end of the island (setting

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in a south easterly direction at the time this survey was being made) and no fixes were available from directly off the north end of the island, as the angles were very small with the objects at different elevations. x  
The lines were run in an easterly and westerly direction across this end of the island, and fixes were carried from the ends of the lines on one side of the island as far as possible and then picked up on the other side as soon as possible.

The launch soundings were taken with the handlead and power sounding machine, gear driven from the engine of the launch. In many cases the machine soundings were carried all the way in to the beach even though the last few soundings were very shoal. This was because a large per cent of the work was done when the sea was too rough to permit a man to sound with the handlead. Two or more handlead lines were later run around most of the beach.

Soundings were obtained by the ship with the fathometer, with one line of vertical casts carried all the way around the island, spaced about one half to one mile apart.

COMPARISON WITH PREVIOUS SURVEYS:

This was an original survey of this area.

DISCREPANCIES:

All crossings agree as close as the nature of the bottom would permit. When lines of fathometer soundings crossed lines of wire soundings, the agreement was as close as could be expected due to the steep slopes of the bottom.

DANGERS:

There are no dangers ~~in~~ a reasonable distance off the beach. On the east side and south end of the island, the bottom breaks off sharply immediately off the beach. On the west side the bottom does not break off so

sharply, but the survey showed the bottom to be fairly regular, and no shoals were found.

Anchorage:

See Coast Pilot Notes attached to this report.

TIDES:

A tide staff was installed at Bogoslof Island and a series of readings taken for simultaneous comparisons with the tide gage at Dutch Harbor. Reductions for tide for August 1st. were based on M.L.L.W. at 5.1 ft. above zero of the tide staff. For August 13, 28, and September 16, inferred tides were used, these were prepared by the Washington Office.

Respectfully submitted,

*Ira R. Rubottom*  
Ira R. Rubottom,  
Jr. H. & G. Engineer,  
C. & G. Survey.

Approved & forwarded:

*H. B. Campbell*  
*J. B. Smack*  
H. B. Campbell,  
Commanding,  
Ship DISCOVERER.

STATISTICS FOR SHEET, FIELD NO. 1135

Date	Day	Vol.	Soundings			Positions	Statute Miles			Boat.
			Fath.	Wire	H.L.		Fath.	Wire	H.L.	
Aug. 1	a	1		251		155		11.0		S.M.S.
Aug. 13	b	1		149	179	125		7.2	6.0	"
Aug. 28	c	1 & 2		292	78	175		11.2	1.6	"
Sept. 16	d	2		157	83	109		8.9	2.0	"
Sept. 16	A	3	483	9		157	38.5			DISCOVERER
Sept. 18	B	3	9			9	1.0			"
			492	858	340	730	39.5	36.3	9.6	

*See C.P. part II supplement 5  
Feb. 14, 1936, page 54 - regarding  
this. C.K.G.*

COAST PILOT NOTES

BOGOSLOF ISLAND

1935

"Bogoslof Island lies in the Bering Sea in Lat.  $53^{\circ} 56'$  N., Long.  $168^{\circ} 02'$  W. It now consists of one main island, hereafter referred to as Bogoslof Island, and an offlying rock, referred to as Castle Rock.

"Bogosof Island, 333 ft. (106m.) high, is approximately 1 mile long and 1/2 mile wide, extending in a northwesterly and southeasterly direction. The southern end terminates in a low sand spit which may be called Sealion Point, it being the haul-out place of a large number of sea lions. This point was found to shift its position during the season of 1935. On the northwest part of the island is located the old volcano crater, from which steam emits occasionally, and adjoining the crater is a pond which is 4 ft. (1.3 m) below high water. The rocky portion of the island is the home of thousands of birds. *Called "Fire Island" (see note top of this page)*

*C.K.G.*  
"Castle Rock, 225 ft. (71.7 m.) high, lies 400 m. N.W. of Bogoslof Island and is practically connected with it by a rocky ledge which is awash at M.L.L.W. It is a steep rocky island, 200 meters long and 100 meters wide, consisting of three distinct summits, the middle one being square and resembling a castle. This summit is lower than the adjoining ones. A small islet 109 ft (35 m.) high adjoins Castle Rock.

"Anchorage can be had on the northeast side of the island, 350 m. offshore in 20 fms. (36.6 m.), sandy bottom. Anchorage can also be found on the northwest side of the island, 700 m. offshore, in 10 fms. (18.3 m.), rocky bottom. These anchorages are fair-weather anchorages only.

"Maximum northwesterly currents of 1.3 knots were found on the N.E. side of the island. There were also indications of a stronger easterly current on the northern side of the island."

FATHOMETER CORRECTIONS

RL Times Six

<u>Fathoms</u>	<u>Correction</u>
200 - 500	Plus 14 fms.
500 - 600	" 15 "
600 - 700	" 16 "
700 - 800	" 17 "
800 - 900	" 18 "
900 - 1000	" 20 "

FR Direct

<u>Fathoms</u>	<u>Correction</u>	<u>Corrections (Office)</u> (See Tables 4+6, Special Report #236, 1935)
20 - 90	Plus 6 fms.	Plus 8½ fms.
90 - 160	" 6½ "	" 9 "
160 - 260	" 7 "	" 9½ "
260 - 320	" 7½ "	" 10 "

NOTE: These corrections taken from  
 "Report of Fathometer Corrections  
 DISCOVERER Season 1935" #236



KWC  
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TIDE NOTE FOR HYDROGRAPHIC SHEET

April 9, 1936

Division of Hydrography and Topography:

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

Tide Reducers are approved in  
3 volumes of sounding records for

HYDROGRAPHIC SHEET 5965

Locality **Bogoslof Island, Southwest Alaska.**

Chief of Party: **H. B. Campbell** in 1935  
Plane of reference is **mean lower low water** reading  
5.1 ft. on tide staff at **Bogoslof**  
20.2 ft. below B.M. 1

Height of **mean high water** above plane of reference is **3.7 feet.**

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES  
 Survey No **H5965**

Name on Survey	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On Chart No. <i>8702</i></div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On previous survey No.</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On U. S. quadrangle Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">From local information</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On local Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">P. O. Guide or Map</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Rand McNally Atlas</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">U. S. Light List</div> </div>										K
	A	B	C	D	E	F	G	H	K		
<u>Bogoslof I.</u>	*										1
<u>Fire I.</u>									*		2
											3
											4
											5
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Names underlined in red approved  
 by *[Signature]* on 4/18/36

# H5965

Remarks

Decisions

	Remarks	Decisions
1		
2	see Alaska C.P. Vol 2. 84 pp. of 2/14/36	<u>Fire I.</u>
3		
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27		

Field Records Section (Charts).

HYDROGRAPHIC SHEET NO. **5965**

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

Number of positions on sheet	..730
Number of positions checked	....9.
Number of positions revised	.... <del>2</del>
Number of soundings recorded	..169.2
Number of soundings revised	...many due to fractions
Number of signals erroneously plotted or transferred	....0

Date: May 7, 1936

Verification by J. A. McCormick

Time: 12 hrs.

Review by Harold W. Murray

Time: 4 1/2 "

Ver. Cor. by ..

1 hr.

HYDROGRAPHIC SURVEY NO. 5965

Smooth Sheet 1

Boat Sheet Boat sheet missing as of Nov. 24, 1936. Two Boat sheets received ✓  
as of March 30, 1936 <sup>1/2/36</sup>

Sounding Records 3 Vols. \_\_\_\_\_

Descriptive Report yes

Title Sheet yes

List of Signals yes

Landmarks for Charts (Form 567) yes

Statistics yes

Approved by Chief of Party yes

Recoverable Station Cards (Form 524) No

Special Chart for Lighthouse Service No  
(Circular Nov. 30, 1933)

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

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
 DESCRIPTIVE REPORT  
 PHOTOSTAT OF

No. H  
 No. T

**5965**

received *March 24, 1936*  
 registered *April 2, 1936*  
 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
<input checked="" type="checkbox"/> 20	<i>H H Lukins</i>	<i>HHL</i>	<i>Page 5, - P. R.</i>
<del>22</del>			
24			
<input checked="" type="checkbox"/> 25		<i>FPTS</i>	<i>Page 5 - P. R.</i>
26			
<input checked="" type="checkbox"/> 30	<i>PCW</i>		<i>Currents - bottom page 1 - P. R.</i>
40			
62			
63			
82			
83			
88			
90			

RETURN TO

<input checked="" type="checkbox"/> 82	
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*C. K. Green April 1, '36*

Verifier's Report on H-5965.

Records: Records were satisfactory. ✓

Drafting: Drafting was fair. Field draftsman had trouble with his fractions on soundings between 7 and 11 fathoms. On these soundings, he plotted 0 and 1 foot as 0, 2 feet as 1-4, 3 and 4 feet as  $\frac{1}{2}$ , and 5 feet as 3-4. Pencil used was too soft. <sup>mentioned in Rev.</sup> ✓

Control: Topographic signals and shoreline are from T-6433(1935) ✓

Remarks: This sheet is joined by H-5967<sup>(1935)</sup>. H-5967 is on a scale of 1:160,000 while this sheet is on a scale of 1:10,000. Verifier scaled the overlapping soundings from H-5967 and ~~xxx~~ plotted them on this sheet. They were left in pencil for action of the reviewer. They were enlarged 16 times and were, in addition, subject to considerable play because they were obtained with R.A.R. control.

This junction disposed of by Reviewer and is satisfactory. *sum.*

Positions 33-41K on H-5967 were found to have been transferred to this sheet by the field party. These positions were mentioned in verifier's report on H-5967. *Field Party has also transferred sdp in records, shown on this sheet as pos. 1 to 9B, red, on NE side of island.* ✓

May 7, 1936.

Submitted,

*J. A. McCormick*

J. A. McCormick.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5965 (1935) FIELD NO. 1135

Bogoslof Island, Aleutian Islands, Alaska  
Surveyed in 1935  
Instructions dated April 13, 1934 (DISCOVERER)

Hand Lead and Machine Soundings.  
Fathometer Soundings.

3 Point fixes on shore signals.

Chief of Party - H. B. Campbell  
Surveyed by - J. M. Smook, P. L. Bernstein,  
H. O. Fortin and I. R. Rubottom  
Protracted by - I. R. Rubottom  
Soundings plotted by - I. R. Rubottom  
Verified and inked by - J. A. McCormick

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

- a. The reference station as inked on the smooth sheet by the field party was in red. The standard color for such notations is the same as that used in laying down the projection. This was changed in the office.
- b. The geographic datum of the sheet was indicated as "Dutch Harbor Datum" and the triangulation records do not show that a new datum was established in this area, but that the work was tied in with the work on the "Unalaska Datum", which should have been indicated on the sheet. This has been corrected in the office.

The Descriptive Report is unusually clear and comprehensive 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 are from plane table survey T-6433 (1935).

4. Sounding Line Crossings.

Such cross lines as were run as well as those that result from the work are satisfactory.

5. Depth Curves.

Within the limits of the survey, the usual depth curves may be satisfactorily drawn including portions of the 1, 2, 3 and 5 fm. curves.



6. Junctions with Contemporary Surveys.

The junctions with H-5967 (1935) which completely surrounds the present survey is satisfactory.

7. Comparisons with Prior Surveys.

There are no prior surveys made by this Bureau in the vicinity of Bogoslof Island. However, a complete history and discussion of changes in shape of this volcanic island which have occurred from time to time was compiled by Commander R. R. Lukens of this Bureau. This is published as an article in the May-June, 1936 issue of "The Military Engineer", (vol. XXVIII, No. 159).

8. Comparison with Chart 8802 (New Print dated Jan. 25, 1935)

Within the area of the present survey the chart contains no information that needs consideration in this review.

9. Field Plotting.

Field protracting and plotting were accurate and conform to the requirements of the Hydrographic Manual except that a number of fractional soundings were not plotted in accordance with paragraph 154. Soundings such as 7 fms-1 foot and 7 fms-4 feet were plotted as 7 and  $7\frac{1}{2}$  fms. instead of  $7\frac{1}{4}$  and  $7\frac{3}{4}$  fms. respectively. Soundings so plotted were revised in the office.

10. Additional Field Work Recommended.

This is a well executed survey and no additional field work is required.

11. Fathometer Corrections.

The fathometer soundings taken with the F R Direct Method were corrected for temperature and salinity and for index error based on 5 vertical comparisons in depths of 60 to 250 fathoms. (From these the field party obtained an index correction of plus 5.4 fathoms (see Table 4 of Special Report 236 of 1935 - H. B. Campbell). A study of these comparisons disclosed an error of 10 fathoms in the tabulation of one of the comparisons and also the entire omission of one comparison - that taken at pos. 61-A. Taking these into account brought the index correction to plus 8.2 fathoms instead of 5.4. No changes have, however, been made in the fathometer soundings because the number of comparisons made is considered insufficient for the determination of an accurate index correction.

12. Superseding Previous Surveys.

There are no previous surveys to be superseded by the present survey.

13. Reviewed by - Harold W. Murray, July 14, 1936  
Inspected by A. L. Shalowitz

C. K. Green, *C. K. Green*  
Chief, Section of Field Records.

*Fred. A. Peacock*  
Chief, Section of Field Work

*R. O. Lobat*  
Chief, Division of Charts.

*G. Wade*  
Chief, Division of H. & T.

Examined but not applied to drawing of Chart 9302 (scale of chart too small)

SBM. <sup>March</sup> 1937

Only the 100 fath. curve applied to <sup>diag. of</sup> Chart 8802. " "

SBM June 1937

Applied to Chart 8861 - Jan 1942 - J.F.W.