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Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey	Hydrographic
Field No.	EX 2400
Office No.	6975
LOCALITY	
State	Aleutian Islands
General locality	Shemya Island
Locality	Alcan Cove
194 4	
CHIEF OF PARTY	
Roland D. Horne, Lieut. Comdr.	
LIBRARY & ARCHIVES	
DATE	Jan. 31, 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H-6975

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. EX 2400

REGISTER NO. H-6975

State ~~ALASKA~~ Aleutian Islands

General locality ~~Near Islands, Comoh Islands~~ Shemya Island

Locality Alean Cove, Shemya Island

Scale 1:2,400 Date of survey May - June, 19 44

Vessel Launches 1 and 2

Chief of Party Roland D. Horne

Surveyed by Henry O. Fortin

Protracted by Marion T. Gwinn

Soundings penciled by Marion T. Gwinn

Soundings in ~~fathoms~~ feet Feet

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by J. A. Mc Cormick

Verified by J. A. Mc Cormick

Instructions dated March 25, May 16, 19 44

Remarks: Smooth Sheet and Plotting by the
Seattle Processing Office

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SHEET 2400

6975

U.S.C. & G.S.S. EXPLORER Roland D. Horne, Comdg.

Date of Instructions:

Project CS-218; Instructions dated March 25, 1944 and Supplemental Instructions by Lieut. Comdr., C.M. Durgin dated May 16, 1944. ✓

Survey Methods:

Standard survey methods were used throughout this area. The hydrography was done with an 808 portable depth recorder with the receiver and transmitter mounted in the bilge of a standard hydrographic launch. Bar checks were taken at the beginning and end of each day's work. Hand lead soundings were taken along side the faces of the two piers as far as they were completed. ✓

The basic control used was that of the U.S. Engineers, Alaska Department of 1943 and 1944. The signals used in the survey were located by planetable surveys and cuts taken by the U.S. Engineers from traverse stations. Three point fixes were used throughout. ✓

Sounding lines were spaced twenty-five feet apart for a distance of 300 feet on either side of the long Army pier. All other lines were spaced 100 feet apart. Sounding lines were run as near face of piers as shipping would permit. ✓

The bottom is even, except along the eastern side of the cove, where reefs and ledges extend out three hundred to eight hundred feet from mean high water line. ^A ~~Two shoal~~ soundings of ~~46 and~~ 47 feet in the vicinity of ~~52000 northing and 107,700 easting~~ were not developed, but ^{was} ~~were~~ covered by wire drag at 39 feet. An extensive kelp patch extends

Surrounding depths 50 to 53 ft. Not unusual.

northeastward from 30,000 northing and 105,000 easting to red nun buoy No.

Lot 52 44 39 ✓
Log 174 04 10

2. No additional soundings were taken in this kelp bed as a breakwater was under construction along this shoal.

Sufficient bottom samples were taken and cross lines were run. The area covered by this sheet was thoroughly wire dragged. No additional development is necessary.

See Review

Discrepancies:

There are no discrepancies.

Dangers:

There were no important dangers found in this area.

Comparison with Previous Surveys:

Previous surveys in this area were disregarded due to inadequate control of these surveys. New construction in this area has made previous surveys obsolete.

Sp. 48249 makes H 6975 obsolete

See Review

Wire-drag groundings:

There were no important wire drag groundings in this area. ✓

Geographic Names:

Alcan Cove is the name given to a small cove on the north side of Shemya Island near the west end of the island by the U.S. Engineers. ✓

Additional Information:

All records have been completely processed. The fathograms were scanned and soundings written into the records at five second intervals. All buoys in this area were located by sextant angles and the positions recorded in the sounding volumes. Their location is not permanent as they are shifted from time to time by the U.S. Engineers.

Mooring buoys not inked.

The projection of this sheet is that of the U.S. Engineers' plane co-ordinate grid. The distance between the northings and eastings is 1000 feet on a scale of 1:2400. Sufficient ties have been made to plot the

Polyconic projection shown.

smooth sheet on a polyconic projection. ✓

At the time of this report the larger pier to the eastward had been completed, the smaller one to westward was under construction. A breakwater is under construction, extending from signal KEN in a northerly direction to 31,000 northing thence eastward to 106,000 easting. Another breakwater will start in the vicinity of KID and extend toward the breakwater under construction leaving an entrance of about 600 feet.

Proposed.
See smooth sheet for condition as shown by Oct. 1944 photographs.

Signal SHIP is the center of a 300 foot wreck lying in a northerly and southerly direction.

~~about 150 feet but~~
H-6987 (1944)

This survey overlaps the EXPLORER'S field sheet No. H6988a to the north.

Tidal Note:

Portable automatic tide gage on long pier, U.S. Army, Alcan Cove. ✓

Latitude 52° 44.0' N. Longitude 174° 04.3' East (Gannet datum)

Staff reading of MLLW is 5.04 feet.

Statistics:

Number of Positions 843

Number of statute miles of sounding line 72.4 ✓

Respectfully submitted,

Henry O. Fortin
Henry O. Fortin,
Lieut. Comdr., C&GS.

Approved and forwarded:

Roland D. Horne
Roland D. Horne, Lieut. Comdr.
Commanding Officer.

COORDINATE-SIGNALS IN VICINITY OF

ALCAN COVE, SHERMYA ISLAND

<u>SIGNAL</u>	<u>NORTHING (ft.)</u>	<u>EASTING (ft.)</u>
SHERMYA 1943	31,805.82	110,858.02
QUA 1943	31,957.87	111,322.98
Box	33,018.86	111,624.34
Point	32,834.15	111,645.68
Car	31,571.52	109,851.37
Kid	30,665.02	109,379.59
John	30,126.15	109,119.42
Long	29,556.59	108,921.26
Hick	28,949.48	108,646.99
City	28,310.29	108,316.03
Kiss	27,834.88	107,855.41
Short	27,637.14	107,274.12
Her	27,470.97	106,813.19
Tri	27,113.81	106,119.09
Tel	27,260.83	106,124.99
Dock	27,325.39	105,660.43
Red	27,427.12	105,273.55
Cog	27,656.40	105,076.67
Ken	29,091.56	104,821.68
Ship	28,976.21	106,748.36
Cat	28,806.24	105,943.54
Dog	28,670.23	105,953.37
Spar	28,577.03	105,441.23
END 1943	25,843.93	103,952.06

<u>SIGNAL</u>	<u>NORTHING (ft.)</u>	<u>EASTING (ft.)</u>
MID 1943	25,750.91	115,347.99
RAD 1943	27,029.23	121,567.03
FOR 1943	28,495.16	115,740.65
North Radio	28,960.95	110,317.42
South Radio	28,469.32	110,268.04
Rock	27,428.15	106,656.17
Heap	27,823.82	104,807.08
Art	28,179.79	105,031.49
Far	28,578.41	104,830.05
Low	29,099.25	104,846.46
Lit	33,827.59	110,725.06
New	31,984.25	109,567.75
Check	28,431.43	108,626.64
BM - No. 1	27,362.86	106,063.98
BM - No. 2	27,398.95	106,246.39
BM - No. 3	27,461.28	106,521.16
BM - No. 4	27,557.74	106,764.76
BM - No. 5	27,695.86	106,950.78
Sea	21,035.87	125,930.82

H-6975

EX 2400

ALCAN COVE, SHEMYA I.

SEATTLE PROCESSING OFFICE NOTES

Datum-

USN 1934.

Shoreline-

From T-6971b and T-6932

Control-

USED 1943 Triangulation, as recomputed by EXPLORER's party in 1944, and 1944 triangulation. ✓

Topographic signals were plotted from rectangular coordinates in feet furnished by the ship. A copy of the list is attached. The USED rectangular grid was placed over the projection from the coordinates of triangulation stations END and SHEMYA. For this purpose, the projection was extended on a temporary dog ear to include END. The intersection of the one thousand foot squares of the grid are shown in red. ✓

Wharves and Breakwater-

These were under construction when the sounding was done, and were later extended out over sounding lines. Late in the Fall, breakwater and wharves ^{were reported} washed out in a storm. } N.B.

Respectfully submitted,

Edgar E. Smith

Edgar E. Smith
Cartographic Engineer
Seattle Processing Office

Approved and Forwarded:

F. H. Hardy

F. H. Hardy
Officer in Charge,
Seattle Processing Office.

TIDAL NOTE

H-6975

EX 2400

Aleutian Islands

Shemya Island

Alcan Cove

Alcan Cove - Portable Automatic Gage

on long pier of U.S. Army

Latitude 52° 44.0 N

Longitude 174 04.3 E

Staff reading of MLLW. ----- 5.04 feet

H-6975

STATISTICS

<u>Date</u>	<u>Day Letter</u>	<u>Vol. #</u>	<u>Vessel</u>	<u>No. Pos.</u>	<u>Stat. Mi. Soundings</u>	<u>H.L. Soundings</u>
1944						
May 27	a	1	Launch 2	20	3.1	
May 28	b	1	"	114	14.1	
May 29	c	2	"	145	13.6	8
May 30	d	3	"	136	15.5	2
May 31	a	4	Launch 1	53	6.4	1
June 2	e	5	Launch 2	135	14.1	23
June 19	f	6	"	131	0.6	131
June 23	g	6	"	123	5.0	94

		6 Vols.		857	72.4	259

Area - Square Statute Miles ----- 0.9

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **HH-950**

Records accompanying survey:

Boat sheets ..2.; sounding vols. .6.; wire drag vols.;
 bomb vols.; graphic recorder rolls .5...;
 special reports, etc.

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

Number of positions on sheet		.857.	
Number of positions checked		...33.	
Number of positions revised	2.	
Number of soundings recorded		
Number of soundings revised (refers to depth only)	7.	
Number of soundings erroneously spaced		
Number of signals erroneously plotted or transferred		
Topographic details	Time	..16..	
Junctions	Time	...4..	
Verification of soundings from graphic record	Time	...4..	
Verification by <u>J.A.McCormick</u>	Total time	..112.	Date 5/10/45..
Review by <u>J.A.McCormick</u>	Time	..24.	Date 5/21/45..

GEOGRAPHIC NAMES

Survey No.

H6975

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	
									1
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RAC
ML

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 14, 1945.

~~Division of Hydrography and Topography~~

Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 6975

Locality Alcan Cove, Shemya Island, Semichi Islands, Alaska

Chief of Party: R. D. Horne in 1944
Plane of reference is mean lower low water reading
5.0ft. on tide staff at Alcan Cove
6.3ft. 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:

H. A. Marmes

Acting Chief, Division of Tides and Currents.

✓ 82-1001c
H 6975
83-FSH

December 13, 1944

RESTRICTED

To: The Hydrographer
Hydrographic Office
Navy Department
Washington, D. C.

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

Subject: Breakwaters, Alcan Cove, Shemya Island, Chart 9125

A large scale chart of Shemya Island was originally requested in December 1943 through the U. S. Coast and Geodetic Survey Supervisor, Seattle, by the Convoy and Routing Officer, 13th Naval District, because "...numerous vessels are being routed there for landing supplies..." Chart 9125, Shemya Island, was published in 1944 and reprinted in July 1944 with additional corrections.

The west breakwater in Alcan Cove was first advertised as a pier in Paragraph 694 (a), Restricted Notice to Mariners No. 14, dated July 15, 1944; and was shown on ozalid print "Field Surveys of Alcan Cove and Approaches" mentioned in reference (b) of a Restricted letter from Com 17 to the Hydrographer (reference ND17/H2 Ser. F0172) dated July 22, 1944. A copy of the letter and the ozalid print was furnished the Coast and Geodetic Survey.

Another restricted letter from Com 17 to the Hydrographer (reference ND17/H1-13 Ser. F0209) dated August 10, 1944. paragraph 2 (a), furnished corrected information concerning the breakwater advertised as a pier in Notice to Mariners No. 14.

From the above information, the outlines of the proposed breakwaters and piers being constructed were applied in September 1944 by a green overprint to the stock of Chart 9125 - print date July 1944.

Page Two
The Hydrographer
Washington, D. C.
December 13, 1944

A print, File N-177P-1435, dated September 23, 1944, prepared by the Resident Engineer Office, Corps of Engineers, Shemya, Alaska, and classified "Secret" shows changes in the proposed locations of the breakwaters and the extent to which they had been completed as of that date. A copy of this print was furnished to the U.S.C. & G.S. Officer at Adak by the Hydrographic Distribution Office, Naval Operating Base, Adak, Alaska; and was received at this office in October 1944.

Before using corrected information from the print classified as "Secret", the C. & G.S. Officer at Adak was instructed to request that clearance be obtained from the authorities issuing the print. The reply from the Office of the Commanding General, Headquarters Alaskan Department, states that the breakwaters, will not be shown on charts with a classification lower than Confidential.

The present Chart No. 9125 of Shemya Island is classified as Restricted, in accordance with the Hydrographer's letter (reference OP-28-HV QH76/H1-18 452407) dated November 15, 1943 which states, "In view of the necessity of issuing navigation charts to merchant vessels operating in the Aleutian Islands, it has now been decided that as a general policy navigation charts in this area will be classified as Restricted unless they show details of Army and Navy shore installations." No details of Army or Navy shore installations are shown on Chart 9125.

In view of the menace to navigation for ships approaching Alcan Cove, the breakwaters undoubtedly should be charted, in accordance with the desire of the Navy as expressed in Notice to Mariners and letters mentioned above. Therefore, it is requested that the Navy Department take the necessary steps to have the corrected information concerning the breakwaters cleared for charting purposes.

Director.

7019 F

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHARTS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6975

Field No. EX-2400

Aleutian Islands; Shemya Island; Alcan Cove
Survey in May - June 1944, Scale 1:2400
Project CS - 218

Soundings:

Hand lead
808 Fathometer

Control:

Three-point fix on shore signals

Chief of Party - R. D. Horne
Surveyed by - H. O. Fortin
Protracted by M. T. Gwinn
Soundings plotted by - M. T. Gwinn
Verified and inked by - J. A. McCormick
Reviewed by - J. A. McCormick
Inspected by - H. W. Murray, May 21, 1945

1. Shoreline and Signals

Shoreline and topographic signals are from T-6971b (1944) as revised in this office from single-lens photographs flown in Oct. 1944.

2. Sounding Line Crossings

Agreement at crossings is good.

3. Bottom Configuration

In general, the bottom is fairly uniform outside the 30-foot curve. In the kelp patches and close to the foul-area line, there is considerable irregularity, some of which is undoubtedly due to difficulty in distinguishing kelp from bottom on the fathograms. Hand lead sounding is preferable in such areas.

4. Contemporary Surveys

A satisfactory junction was effected with H-6987 (1944) on the north. Wire drag surveys of the area have not yet been received but from advance blueprints of these surveys it is apparent that there were no important groundings.

5. Previous Surveys

H-6938 (1943), 1-10,000

Control established by the U.S.S. HYDROGRAPHER for the 1943 survey was not considered sufficiently rigid, consequently resurvey of the entire area was ordered by the Survey's liaison officer at Adak.

Comparison of the two surveys shows general good agreement outside the 30-foot curve but inshore there are differences which are hard to reconcile. The present survey is very closely developed but it does not approach the reefs as closely as does H-6938. Neither does the present survey develop the 1 4/6 fathom shoal (charted) shown in latitude 52°44'10", longitude 174°04'34" on H-6938. Presumably this shoal is just to the west of the wreck of the SCOTIA shown on the present survey. Differences in scale and in control make it impracticable to transfer information from H-6938 to the present survey. It is probable also that both surveys are of dubious accuracy in the kelp areas. In such case, the only decision that can be made at the present time is that, for charting purposes, H-6938 be used to supplement the present survey.

6. Comparison with Chart 9125 (Print of March 31, 1945)

Depths charted in the area are mostly from H-6938 (1943), discussed in Par. 5. The remainder are from the present survey. As stated in Par. 5, the present survey should be used basically but is to be supplemented inshore and in the vicinity of the SCOTIA wreck by H-6938.

7. Compliance with Project Instructions

General development of the survey is good but additional information is needed in order to make it truly basic.

8. Additional Field Work Recommended

Piers and breakwaters were reported washed away during the winter of 1944 and revision work in their vicinities has already been authorized. It is suggested by the reviewer that this revision be extended approximately as follows:

Hand lead sounding in the kelp west of the west breakwater from the reefs at the inshore end of the breakwater to the edge of the kelp in latitude 52°44'40"; thence around the end of the breakwater and all the way to the reef line between the breakwater and the west pier. Sound around the two piers and inshore from the west pier to the east pier, thence inshore between 12-foot curve and reef to latitude 52°44'01", longitude 174°04'28". Sound inshore of a line from this point to latitude 52°44'05", longitude 174°04'40"; thence, to the offshore end of the east breakwater. Sound around breakwater, thence inshore of a line from end of breakwater to latitude 52°44'50", longitude 174°05'10", thence, north to latitude 52°44'56", longitude 174°05'10" to include a 6 3/4 fathom sounding (charted) on H-6938, thence due east to the reef. Develop the area in the vicinity of the Scotia wreck (see Paragraph 5). Because of the kelp, hand lead sounding is preferable for all of the work outlined above.

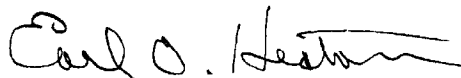
Examined and approved:




Chief, Division of Charts



Chart Division



Chief, Section of Hydrography



Chief, Division of Coastal Surveys

