

6990

699

6990

Form 504 U. S. COAST AND GEODETIC SURVEY DEPARTMENT OF COMMERCE  <b>DESCRIPTIVE REPORT</b>	
Type of Survey	Hydrographic
Field No.	SU - 1144
Office No.	H - 6990
LOCALITY	
State	ALASKA - Aleutian Islands
General locality	Attu Island
Locality	Sarana Bay
<u>1944</u> CHIEF OF PARTY C. D. MEANEY	
LIBRARY & ARCHIVES	
DATE	MAY 9 1945

VELOCITY CORRECTION ABSTRACT  
For Hydrographic Survey H- 6990

September 29, 1944

808 Ship 820 Fms/Sec.

808 Launch 820 Fms/Sec.

Fms	Fms	Ft	Fms	Fms	Ft
0	to 10-4	-1/2	0-0	to 1-3	0
10-5	to 16-3	-1	1-4	to 7-4	-1/2
16-4	to 22-3	-1 1/2	7-5	to 16-3	-1
22-4	to 27-3	-2	16-4	to 21-0	-1 1/2
27-4	to 33-0	-2 1/2	21-1	to 26-0	-2
33-0	to 38-2	-3	26-1	to 33-0	-2 1/2
38-3	to 48-0	-4	33-1	to 38-2	-3
48-1	to 55-4	-5	38-5	to 48-1	-4
55-5	to 63-3	-6	48-2	to 54-3	-5
63-4	to 72-0	-7	54-4	to 62-3	-6
72-1	to 79-2	-8	62-4	to 71-3	-7
79-3	to 88-0	-9	71-4	to 79-2	-8
			79-3	to 88-0	-9

September 29, 1944

August 4, 1944

RCA - 800 Fms/Sec.

RCA 800 Fms/Sec.

Fms	Fms	Ft	Fms	Fms	Ft
0	12.0	0	4-5	to 12-0	0 ft.
12-1	30.0	+1	12-1	to 95-0	+1 "
30-1	62.0	+2	95-1	to 200	0 "
62-1	100.0	+3			
*100-1	300	0 Fms	201	to 330	+ 0 Fms.
			331	to 455	+ 1 "
			456	to 565	+2 "
			566	to 650	+ 3 "
			651	to 722	+ 4 "
			723	to 787	+ 5 "
			788	to 850	+ 6 "
			851	to 908	+ 7 "
			909	to 964	+8 "
			965	to 1012	+ 9 "

Use August 4, 1944 Temp-Salinity Cor.  
for depths greater than 100 fathoms.

Above data furnished by Ship EXPLORER

copy - 289

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

H6990

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. SU 1144

REGISTER NO. H-6990 (1944)

State ALASKA - Aleutian Islands

General locality Attu Island  
Aleutian Islands

Locality Sarana Bay, ~~Attu Island~~

Scale 1:10,000 Date of survey Sept. 24 - 27, 1944

Vessel SURVEYOR

Chief of Party C. D. Mooney

Surveyed by C. A. George

Protracted by H. M. Syler

Soundings penciled by P. M. Fisher

Soundings in fathoms feet and tenths

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by

Inked by G. B. Woolley

Verified by G. B. Woolley

Instructions dated Feb. 3, 1938; April 15, 1943; Feb. 1, 1944

Instructions from Liaison Officer, Aug. 14, 1944.

Remarks: Smooth Sheet and Plotting by the Seattle Processing Office.

Descriptive Report to Accompany Hydrographic Survey

H - 6990 (Field No. SU-1144)

Sarana Bay, Attu Island, Alaska.

1944

Scale 1 to 10,000.

Ship SURVEYOR

Chief of Party:

C.D. Meaney, Lt. Comdr. C. & GS

In Charge of field work:

C.A. George, Lt. Comdr. C. & GS

A. Project - This survey is a part of Project CS-218. The original instructions are dated February 3, 1938; revised instruction, April 16, 1943; supplemental instructions, February 1, 1944; and instructions, ✓  
for sub-project 20, dated August 14, 1944 issued by Casper M. Durgin, Lt. Comdr., C. & G.S., Liaison Officer. Instructions dated September 29, 1944 were issued by Lt. Comdr. Casper M. Durgin to discontinue the project.

B. Survey Limits and Dates - The general locality of the area is ✓  
Attu Island, Alaska. The survey covers Sarana Bay and includes that portion of the bay called Hodikof Bay.

Field work began on September 24, 1944 and ended on September 27, 1944. ✓

On chart 9126, a few, widely spaced sounding lines are shown in Sarana Bay. The origin of these soundings and information on any prior surveys are not available at this vessel. ✓

A junction is made on the east with contemporary survey H-6991 (1944). ✓

C. Vessel and Equipment - The entire survey was made by the ✓  
SURVEYOR's launch No. 4 operating from the Ship SURVEYOR.

The turning radius of the launch is from 10 to 15 meters. ✓

808 Fathometer Number 46 was used for all soundings except for hand- ✓  
lead soundings obtained on shoals and in kelp patches.

D. Tide and Current Stations - The tide stations at Holtz Bay, with- ✓  
out time or range correction, was used in the reduction of all soundings.

E. Smooth Sheet - The smooth sheet projection was constructed by ✓  
hand at the Seattle Processing Office. The smooth sheet is to be completed by the personnel of that office.

F. Control Stations - A baseline was measured and triangulation ✓  
stations established and located in 1944 by personnel of the Ship SURVEYOR, C.D. Meaney, Chief of Party. The topographic and hydro-  
graphic stations were located by triangulation cuts.

G. Shoreline and Topography - No planetable work was done. Shoreline may be obtained from air photographs taken by the Army.

*Shoreline is being compiled in photogrammetric section May 45 1945*  
The low-water line is not defined by the soundings. With the exception of the sandy beach at the head of Sarana Bay, the shores are steep-to and fringed with reefs and kelp. Additional hydrographic signals will be needed to furnish adequate control for sounding lines close to the shore. (See paragraph J).

Not compiled. Photos shadowed and not inspected. J.A.M.

H. Soundings - The soundings were obtained in the usual manner using the 808 Fathometer. On shoals and in heavy kelp, the handlead was used.

I. Control of Hydrography - Standard methods were used to control the hydrography - sextant angles between shore stations.

J. Adequacy of Survey - The survey is not complete. Instructions were received on September 29, 1944 from the Liaison Office to discontinue the project and to transfer the records and work to the Ship EXPLORER. No additional work was accomplished, however, by that vessel.

It is believed that the survey is adequate to supersede prior surveys for charting. The present survey is of standard accuracy except that additional work is necessary.

Splits and development are necessary throughout the area covered by this survey. Lines closer to the shore should be run, practically the whole length of the shoreline and additional cross lines are required.

A shoal with a least depth of  $1\frac{5}{10}$  fathoms was found in latitude  $52^{\circ} - 53.05'$  and longitude  $173^{\circ} - 18.50'$ ; on the last trip out of Sarana Bay, the SURVEYOR reported seeing a breaker in this vicinity. Additional development and investigation is necessary.

Rock awash on 1945 work

K. Crosslines - No system of crosslines were run but about 4% of crosslines were run during the course of the regular hydrography.

L. Comparison With Prior Surveys - As stated in paragraph B of this report, as far as it is known there are no prior surveys with the exception of the soundings shown on chart number 9126.

M. Comparison With Chart - A few, widely spaced sounding lines are shown on harbor chart 9126 (June 1944). In general, these soundings seem to be in fair agreement with the present survey. The rock awash, located at latitude  $52^{\circ} - 52.95'$  and longitude  $173^{\circ} - 19.09'$  (scaled from boat sheet) is not shown on the chart.

Plan of Sarana Bay on Chart 9126 cancelled by new Chart 9127.

The final comparison between this survey and the chart should be made after the smooth sheet is plotted.

N. Dangers and Shoals - The positions of the following shoals and dangers have been scaled from the boat sheet:-

Feature	Latitude	Longitude	Least Depth (Boat Sheet)
Rock Awash (Outer Rock)	52 - 52.9 <sup>5</sup> ✓	173 - 19.0 <sup>9</sup> ✓	
Shoal	- 53.05 ✓	- 18.50 ✓	2 fathoms 1 <sup>1</sup> / <sub>10</sub> fms * in 1945
Shoal	- 52.80 ✓	- 18.70 ✓	4 " 3 <sup>6</sup> / <sub>10</sub> "
Shoal	- 54.35 ✓	- 19.22 ✓	4 " (Kelp) 3 <sup>1</sup> / <sub>10</sub> " 7 <sup>3</sup> in 1945
Shoal	- 53.90 ✓	- 19.8 <sup>9</sup> ✓	14 " " 11 in 1945
Shoal	- 53.4 <sup>50</sup> ✓	- 19.80 ✓	7 " " 7 <sup>1</sup> / <sub>10</sub> " 5 <sup>4</sup> in 1945
Large shoal area	between (- 53.8 ✓ - 54.1 ✓)	(- 18.9 ✓ - 19.4 ✓)	5 " " 4 <sup>5</sup> / <sub>10</sub> " 1 <sup>2</sup> / <sub>10</sub> " 1.6 and 1.8' in 1945
Rock islet	signal Top, located by triangulation cuts. ✓		52° 53.54' ✓ 173° 18.58' ✓
Hodikof Reef	Foul area north of Hodikof Island. ✓		

The above locations and depths are taken from the boat sheet. This paragraph should be rewritten and additions made if necessary by personnel of the Seattle Processing Office when the smooth sheet is completed.

O. Coast Pilot Information - With the exception of the rocks extending east of Hodikof Point, Sarana Bay is free of dangers and easy to enter. Approach to the bay may be made on a course of 270° true, passing 0.35 miles south of Outer Rock and passing 0.3 miles south of Hodikof Island which is the largest, most prominent and southerly of the rocks and islets east of Hodikof Point.

Anchorage for large-draft vessels may be found in from 15 to 20 fathoms. The bottom is gray sand which offers good holding ground. Small-draft vessels may anchor near the head of the bay in from 6 to 10 fathoms. Anchorage for small-draft vessels may also be had in Hodikof Bay in from 7 to 10 fathoms with sand bottom.

Sarana Bay is protected from the sea from all directions except the east. It is subject to strong williwaws from the west but otherwise, affords good protection from the wind in all directions except the east and northeast.

The SURVEYOR usually anchored about 0.4 mile southwest of Hodikof Island in latitude 52° - 52.60' and longitude 173° - 17.45'. The depth was 16 fathoms with sand bottom. The launch anchored off the sandy beach at the head of Sarana Bay in from 2 to 4 fathoms.

Hodikof Bay and the head of Sarana Bay are excellent fishing grounds for Attu mackerel and flounder.

25  
P.F.  
filed in C.P. as  
220.2

P. Aids to Navigation - There are no fixed or floating aids to navigation in the area covered by this survey. ✓

The westerly terminus of the submarine cable between Attup Island and the Semichi Island is; Latitude  $52^{\circ} - 53.10'$  and longitude  $173^{\circ} - 16.12'$ . This position was furnished by the U.S. Engineers. See RNM 23 1944 ✓

Q. Landmarks for Charts - There are no landmarks within the limits of this survey. ✓

R. Geographic Names - The following new geographic names have been used in conjunction with the records of this survey and are recommended for charting:- ✓ *LA 814*

Name	Description-Remarks
Hodikof Island	This name applied to the largest and westernmost of the group of rocky islets lying between Sarana and Hodikof Bays. $\Delta$ station HODIKOF, 1944 is located on this islet. ✓
Hodikof Reef	This name applied to the reef adjacent to Hodikof Island and extending 1/4 mile north and northeast of the islet. ✓

The above names are recommended because of their geographic position and proximity to Hodikof Bay. ✓

Outer Rock Name applied to the rock awash in latitude  $52^{\circ} - 52.95'$ , longitude  $173^{\circ} - 19.09'$ . The name is used in the 1944 edition of the Aleutian Islands Coast Pilot. This feature is a distinct danger and in all probability will be referred to by navigators. ✓

Inner Rocks This name is used in the Coast Pilot but it is not recommended. The group of rocks are widely scattered and it is believed that the names - Hodikof Island and Hodikof Reef - previously recommended, are more applicable. ✓

U. Velocity Corrections - Velocity corrections determined by the Ship EXPLORER and dated September 29, 1944 were applied to the soundings on this survey. The SURVEYOR was in the area such a short time that sufficient temperature and salinity observations to furnish adequate determination of the velocity were not made. The corrections furnished by the EXPLORER were for a longer period. An abstract of the corrections used, is included as a separate entry in this report. ✓ *? Pink*

V. Tidal Data - No tide station was established in Sarana Bay. In accordance with the Director's letter dated December 6, 1944, 36McC, Holtz Bay tides were used for the reduction of soundings on this survey. The tide gage at Holtz Bay was maintained by the Ship EXPLORER ✓ and Hourly Heights for the period required were furnished by that vessel. A tidal note is included as a separate entry in this report.

Respectfully submitted,

*Clarence A. George*

Clarence A. George  
Lieut. Comdr., C. & G.S.

Approved:

*C.D. Meaney*

C.D. Meaney  
Lt. Comdr., C. & G.S.  
Chief of Party



STATISTICS FOR HYDROGRAPHIC SURVEY H-6990 (1944)

Ship SURVEYOR

Project CS-218

Vessel: Launch No. 4

Day	Date 1944	Volume	No. Positions	No. Statue Mi.
a	Sept. 24	1	108	25.4
b	Sept. 25	1	162	32.8
c	Sept. 26	2	204	31.0
d	Sept. 27	2 & 3	207	47.2

Total Statistics for Survey

681 Positions  
136.4 Statue Miles  
4.0 Square Statue Miles

TIDE NOTE FOR HYDROGRAPHIC SURVEY

H-6990 (1944)

Tide Station: Holtz Bay.

Latitude -  $52^{\circ} - 55'54''N$   
Longitude -  $173^{\circ} - 09.57E$

The plane of mean lower low water for Holtz Bay corresponds to a staff reading of 3.4 feet.

No correction for differences in time or height was applied (See Director's letter of December 6, 1944, Ref. 36, McC.)

The hourly heights were furnished by the Ship EXPLORER.

SU 1144

H-6990

Sarana Bay

Attu Island

Seattle Processing Office Notes

Control-

Second and fourth order triangulation by Meaney, 1944.

Datum-

USN 1934, assuming station CHIC as a recovery of the Navy Astronomic Station.

Shoreline-

Sketched by inspection of photographs - and no claim for accuracy is made for it. ~~The outer rock wash 500 feet off Hodikes Point is from the hydrographic records. The reef inshore from it was sketched on the boat sheet from photographs and transferred.~~ The linen cover sheet indicates in green ink the features taken from the photographs. Those shown in red or blue ink on the cover sheet (kelp, limits of low water ledges, rocks, etc.) were sketched on the boat sheet by the hydro party.

Cover sheet destroyed.  
Photo sketching left in pencil.  
Boat sheet sketching inked in black.

Discrepancies at Crossings-

<u>Lat. and Long.</u>	<u>Position No.</u>	<u>Sdg.- fms.</u>	<u>Remarks</u>
52° 52.46	30-31a	23 fms. & 23.5	Flat bottom
173 18.21	82 a	21.5 fms.	
52 52.36	34-35a	23.5 fms.	
173 20.12	132 d	21.5	

Adjusted by correcting for tachometer speed.

Boat Sheet-


The work was done on a boat sheet of tracing paper which shows positions only. It is being forwarded with the records. A second boat sheet was prepared on which soundings were plotted. It was used to make the preliminary prints issued by the Liaison Officer. That boat sheet was returned to the field party for additional work in 1945.

H-6990

List of Signals

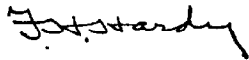
ALTO	Triangulation	4th order
BIG	"	"
EZRA	"	"
HOD	HODIKOV 1944	
HUT	Triangulation	"
JIM	"	"
JOY	"	"
JUB	"	"
KIT	"	"
KOP	"	"
LIT	Hydro - Vol. 2	
MAN	Triangulation	"
NIX	"	"
NORTE	SARANA NORTH BASE 1944	
OWN	Triangulation	4th order
PAW	"	"
RAWA	RAWA 1944	
RIP	Triangulation	"
HEM	"	"
SOUTH	SARANA SOUTH BASE 1944	
SPARKS	SPARKS 1944	
TOP	Triangulation	4th order

Respectfully submitted,



Edgar E. Smith  
Cartographic Engineer  
Seattle Processing Office

Approved and Forwarded,



F. H. Hardy  
Officer in Charge  
Seattle Processing Office

H-6990

Sarana Bay    Attu Island

TIDAL NOTE

Tide Station - Holtz Bay

Latitude	52° 55.54 N
Longitude	173 09.57 E

The plane of mean lower low water for Holtz Bay corresponds to a staff reading of 3.4 feet.

No correction for differences in time or height was applied. (See Director's letter of December 6, 1944, Ref. 36-McC.)

The hourly heights were furnished by the Ship EXPLORER.

GEOGRAPHIC NAMES

Survey No. **H6990**

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. Quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K
Aleutian Islands			(for title)						1
Attu Island					525 725 E			U.S.G.B.	2
Sarana Bay					525 730 E				3
Square Point					"				4
Hodixof Bay					"				5
Hodixof Point					"			U.S.G.B.	6
Hodixof Island					"				7
Hodixof Reef					"				8
Outer Rock					"				9
Bering Sea								"	10
									11
									12
									13
									14
									15
<u>Holtz Bay</u>			(location of tide staff)					U.S.G.B.	16
									17
									18
									19
									20
									21
									22
									23
									24
									25
									26
									27

L. HERR #11/1145

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6990**

Records accompanying survey:

Boat sheets .1...; sounding vols. 3...; wire drag vols. ....;  
bomb vols. ....; graphic recorder rolls ..1...;  
special reports, etc. ....  
.....

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

Number of positions on sheet	.680
Number of positions checked	..90
Number of positions revised	....5
Number of soundings recorded	46.00
Number of soundings revised (refers to depth only)	.140.
Number of soundings erroneously spaced	...15.
Number of signals erroneously plotted or transferred	...0..
Topographic details	Time .2 hrs
Junctions	Time .0...
Verification of soundings from graphic record	Time .8 hrs

Verification by *G.B. Woolley*.. Total time *11.5 hrs* Date *Sept 4, 1945*

Review by *J.A. McCormick*..... Time *6. hrs* Date *11/11/45*



LRC  
Kurn

# TIDE NOTE FOR HYDROGRAPHIC SHEET

19 May 1945

~~Division of Hydrography and Topography:-~~

✓ Division of Charts: Attention: H. W. MURRAY

Plane of reference approved in  
3 volumes of sounding records for

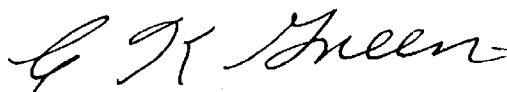
HYDROGRAPHIC SHEET 6990

Locality Sarana Bay, Attu Island, Aleutian Islands

Chief of Party: C. D. Meaney in 1944  
Plane of reference is mean lower low water reading  
3.4 ft. on tide staff at Holtz Bay  
7.3 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.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6990

FIELD NO. SU-1144

Aleutian Islands; Attu Island; Sarana Bay  
Surveyed in Sept. 1944      Scale 1:10,000  
Project No. CS-218

Soundings:

808A Fathometer

Control:

Three-point fixes on shore signals

Chief of Party - C. D. Meaney  
Surveyed by - C. A. George  
Protracted by - R. M. Sylar  
Soundings plotted by - P. M. Fisher  
Verified and inked by - G. B. Woolley  
Reviewed by - J. A. McCormick, Nov. 1, 1945  
Inspected by - H. W. Murray

1. Shoreline and Signals

Authorities for control are listed in the descriptive report. Penciled shoreline was sketched from air photographs; inked detail was sketched from notes on the boatsheet and in the sounding record. The Division of Photogrammetry states that shadowed and uninspected photographs are not suitable for standard compilation.

2. Sounding Line Crossings

Agreement at crossings is satisfactory.

3. Bottom Configuration

Sarana Bay can be entered easily and affords good holding bottom. There are several prominent rocks and shoals north of Sarana Bay proper and masking the approaches to Hodikof Bay.

4. Adjoining Surveys

A satisfactory junction was effected with H-6991 (1944) on the east. Other surveys made in the vicinity in 1945 are not yet available for comparison.

5. Previous Surveys

Sarana Bay had not previously been surveyed by the Bureau.

6. Comparison with Chart 9127 (Print of April 28, 1945)

The present survey was applied to the chart through B.P. 38965, advance boatsheet compilation. Differences between chart and smooth sheet depths seldom exceed one fathom. Charted shoreline also is from B.P. 38965 (sketched as on smooth sheet). It can be improved by adding reef detail as indicated by dashed pencil line on smooth sheet and revising slightly around Hodikof Island. Reference might also be made to the U. S. Engineers Quadrangle maps of the area.

7. Compliance with Project Instructions


Satisfactory except for lack of shoreline.

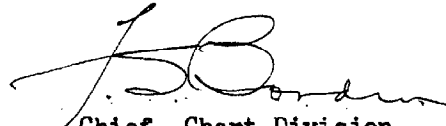
8. Additional Field Work Recommended

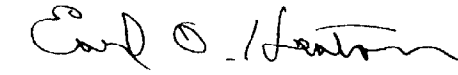
The descriptive report, page 2, discusses the adequacy of the survey and states the need for additional work. Some or all of this work was accomplished in 1945 but has not yet been received in this office.

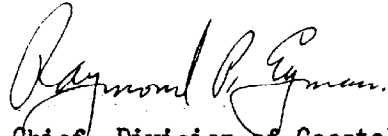
*Ad. Wk. 1945 is now applied.*

Examined and approved:

  
Chief, Nautical Chart Branch

  
Chief, Chart Division

  
Chief, Section of Hydrography

  
Chief, Division of Coastal Surveys

# NAUTICAL CHARTS BRANCH

SURVEY NO. H. 6990

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1-18-76	9127	J. M. Albert	<del>Before</del> After Verification and Review <i>Applied to acetate proof.</i>
10/2/49	9127	<i>[Signature]</i>	<del>Before</del> After Verification and Review <i>Reconstruction.</i>
4/2/59	9128	J. Henton	<del>Before</del> After Verification and Review <i>Reconstruction.</i>
5-6-63	8865	<i>[Signature]</i>	<del>Before</del> After Verification and Review <i>Exam No Crit con</i>
11-4-97	10423	Ed Mats	<del>Before</del> After Verification and Review <i>New Chart</i>
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review
			Before After Verification and Review

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

Add a few shoal edges to chart 9198 from pencilled smooth sheet S.M.A. 6-7-45  
Applied to cht 8865 before inking. S.M.A. June 1945  
" " 9102 " " S.M.A. July 2, "

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cont'd. on printed form

# 6990

## Additional work

Diag'd on Diag. Ch. No. 9198-1

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

### DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. SU-1144 Office No. H-6990 *Additional Work*

#### LOCALITY

State Alaska - Aleutian Islands

General locality Near Id. - Attu Id.

Locality Sarana Bay

194 5

CHIEF OF PARTY

L. C. Wilder

LIBRARY & ARCHIVES

DATE MAR 11 1946

B-1870-1 (1)

6990

Additional work

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO.

H6990

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. SU-1144

REGISTER NO. H-6990

State Alaska - Aleutian Islands

General locality Attu Island

Locality Sarana and Kodikof Bay

Scale 1:10,000 Date of survey 15 June to 8 July, 1945

Vessel Launch # 3 - Motorsailer

Chief of Party L. C. Wilder

Surveyed by L. C. Wilder, J. Laskowski, J. E. Waugh

Protracted by F. J. Ortiz

Soundings penciled by F. J. Ortiz

Soundings in fathoms ~~feet~~ and tenths

Plane of reference MLLW

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by A. R. Stirni

Verified by A. R. Stirni

Instructions dated 16 April (Project CS-218), 1943

Remarks: This additional work plotted in Wash. office

DESCRIPTIVE REPORT

To Accompany

Hydrographic Survey H-6990 (Field No. SU-1144) *Add Wk*

Scale 1:10,000

Sarana & Hodikof Bays, Attu Island, Alaska

L. C. Wilder, Chief of Party

U.S.C. & G.S.S. DERICKSON

1945

PROJECT: The hydrography was accomplished under Project CS-218 dated 16 April 1943. Supplemental instructions were dated 1 February 1944 and 29 January 1945, and instructions (Project 20) by Capt. F. B. T. Siema, Liaison Officer, 17th Naval District, dated 12 April 1945.

SURVEY LIMITS AND DATES: In general the area covered by the survey is Sarana & Hodikof Bays, Attu Island. The work was begun by the SURVEYOR in 1944 and completed by the DERICKSON during the period from 15 June to 8 July 1945. The survey makes a junction on the north with Sheet DE-1145 and on the east with Sheet H-6991, Field No. SU-2444.

VESSELS AND EQUIPMENT: Launch parties from the SURVEYOR in 1944 covered most of the area but did not undertake development of critical areas or the running of inshore lines. The DERICKSON'S 24-foot Motorsailer and the EXPLORER'S 30-foot Launch # 3 were used and equipped with SOSA Fathometers, Nos. 56 and 61 respectively. The turning radius of the Motorsailer is from 10 to 15 feet and that of the Launch is 15 to 25 feet. The Motorsailer ran the inshore lines and developed an area in the vicinity of Latitude 52°-53'-20"N, Longitude 173°-19'-30"E. The Launch accomplished the remaining work.

TIDES AND CURRENTS: See attached Tidal Note. No current stations were occupied.

CONTROL STATIONS: The triangulation was executed by the SURVEYOR in 1944, which also included geodetic positions for most of the whitewashes. The remaining signals were located by sextant cuts with the exception of signals Big and Jap, which were also located on Topographic Sheets DE-D-45 and DE-B-45 respectively. *not received*

SHORELINE AND TOPOGRAPHY: No shoreline or topography was detailed by this party. The soundings were carried as close to the shoreline as safety permitted.



SOUNDINGS: Soundings were obtained with 808A Fathometers with numerous handlead soundings on critical and shoal areas. Bar checks were usually taken three times a day. During the progress of work speed tests were performed on the fathometers operated by the parties from the DERICKSON and the results obtained were within the allowable requirements.

CONTROL OF HYDROGRAPHY: Horizontal control was by the three point fix with sextants.

ADEQUACY OF SURVEY: The survey is considered adequate. A satisfactory junction has been made with Sheet H-6875 (1945) DE-1145 on the north and Sheet H-6991 to the east. No holidays have been noted within the area covered by the survey.

COMPARISON WITH CHART: Inasmuch as Chart 9127 was published from the work of the SURVEYOR in 1944 and the SURVEYOR'S Boat Sheet was used to carry on the survey in 1945, it is not considered necessary to make any comparisons.

DANGERS AND SHOALS: The following dangers and shoals that have been determined in 1945 are listed as follows:

Description	Latitude N.	Longitude E.
	° ' "	° ' "
<sup>16</sup> 2-fm. shoal - breaks in heavy weather. Numerous shoals in this vicinity. - - - - -	52-54-03	173-18-53 ✓
5 <sup>4</sup> 5-fm. shoal - - - - -	52-53-54.88"	173-19-54.48 ✓
Rock awash - - - - -	52-52-35.86"	173-19-00 - see note by verifier
Rock awash - - - - -	52-52-07	173-18-07 ✓

*Chart 9127  
42 (1946)  
83  
note by verifier*

COAST PILOT NOTES: Submitted with the notes for the entire season's work, under separate report.

AIDS TO NAVIGATION: The submarine cable is shown as "Prohibited Anchorage" on Chart 9127.

LANDMARKS FOR CHARTS: None.

GEOGRAPHIC NAMES: No other names are known than as shown on Chart 9127.

Respectfully submitted,

*J. Laskowski*  
J. Laskowski,  
Lt. Comdr., U.S.C. & G.S.

Approved and forwarded:  
*L. C. Wilder*  
L. C. Wilder,  
Lt. Comdr., U.S.C. & G.S.,  
Chief of Party.

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ADVANCE REPORT OF DANGERS TO BE CHARTED

Survey (Sheet) No. Various Datum USN GAMES Locality Atka Island State Alaska Date 9 August 1945  
 I recommend that the following dangers to navigation be charted. The positions given have been checked after listing: Checked by gsw Chief of Party

Type of Danger	*Depth fms.	Latitude and Longitude		† From Charted True Bearing	Object or Natural Feature	† Chart Used No.	Print Date	Date of Location	Remarks
		o	'						
breaker	--	52	49	1645	Waterfall	9128	1/16/45	17 June 1945	Survey Sheet No. 6939
breaker	--	173	21	1112					
breaker	--	52	49	207	Tower, Alatal Point	9128	1/16/45	16 June 1945	Survey Sheet No. 6939
breaker	--	173	20	45					
breaker	--	52	49	184	Tower, Alatal Point	9128	1/16/45	16 June 1945	Survey Sheet No. 6939
breaker	--	173	20	155					
breaker	--	52	49	1684	Waterfall	9128	1/16/45	17 June 1945	Survey Sheet No. 6939
breaker	--	173	24	1003					
shoal	1	52	56	453	Tower, Chahager Fbr.	9127	2/17/45	11 July 1945	Survey Sheet No. DE-1145
shoal	1	173	18	519					
shoal	2	52	54	80	Inlet N.E. of Hodikof Pt.	9127	2/17/45	4 July 1945	Survey Sheet No. 6930 Breaks in moderate weather.
shoal	2	173	18	991					
									Original to USCGAS Liaison Officer, Adak, Alaska

\* Record least depth over danger reduced to plane of reference of charted soundings, using observed tides, if available.  
 † Record location both by geographic position and by true bearing with distance from object or natural feature shown on chart.  
 ‡ Use largest scale chart and note print date given in lower left corner of chart.  
 NOTE: This form to be used during the season for prompt reports of uncharted dangers. If reports have been sent by wire, fill out this form and mail with confirmations.  
 Enter dates of wires under "Remarks". Copies of reports on this form should be retained and submitted with the descriptive report.

STATISTICS FOR HYDROGRAPHIC SURVEY H-6990 (1945)  
 U. S. C. & G. S. S. DERICKSON - Project CS 218

Vol. No.	Day Letter	LAUNCH NO. 3		No. Sdgs. H. L.	Number Positions	Statute Miles Sdgs.
		Date 1945				
1	a	15 June		-	72	13.1
1	b	26 June		7	71	7.5
1	c	27 June		5	100	9.4
1 & 2	d	28 June		2	125	13.1
2	e	29 June		-	59	5.7
2	f	3 July		6	117	13.1
2	g	4 July		6	98	10.0
3	h	6 July		-	7	0.6
3	j	7 July		5	123	12.1
3	k	8 July		-	128	14.4
TOTALS				31	900	99.0
MOTORSAILER						
4	a	20 June		3	134	13.5
4	b	22 June		8	142	15.3
TOTALS				11	276	28.8
TOTALS FOR SHEET				42	1176	127.8

Sounding with Type 808A Depth Recorder. Continuous profile on all lines.

Area covered by survey = 3.0 sq. statute miles

VELOCITY CORRECTIONS - 6 TO 29 JUNE 1945

Ship  
SOXA - Velocity of 820 fms/sec.

Corra. Fms.	From Fms.	To Fms.
0.0	---	---
- 0.1	---	8.5
- 0.2	8.6	12.8
- 0.3	12.9	17.3
- 0.4	17.4	21.9
- 0.5	22.0	26.1
- 0.6	26.2	31.0
- 0.8	31.1	39.9
- 1.0	40.0	48.0
- 1.2	48.1	56.1
- 1.4	56.2	---

Launches  
SOXA - Velocity of 820 fms/sec.

Corra. Fms.	From Fms.	To Fms.
0.0	0.0	2.7
- 0.1	2.8	8.0
- 0.2	8.1	12.4
- 0.3	12.5	16.9
- 0.4	17.0	21.2
- 0.5	21.3	25.7
- 0.6	25.8	30.1
- 0.8	30.2	39.1
- 1.0	39.2	47.8
- 1.2	47.9	56.2
- 1.4	56.3	---

Ship  
EMO -- Velocity of 800 fms/sec.

Corra. Fms.	From Fms.	To Fms.
0.0	0	61

VELOCITY CORRECTIONS - 3 TO 27 JULY 1945

Ship  
SOCA - Velocity of 520 fms/sec.

Corrn. Fms.	From Fms.	To Fms.
0.0	0.0	4.5
- 0.1	4.6	9.9
- 0.2	10.0	15.0
- 0.3	15.1	19.0
- 0.4	19.1	24.8
- 0.5	24.9	29.8
- 0.6	29.9	34.1
- 0.8	34.2	43.1
- 1.0	43.2	52.2
- 1.2	52.3	61.4
- 1.4	61.5	70.5
- 1.6	70.6	79.9
- 1.8	80.0	88.8
- 2.0	88.9	97.8
- 2.5	97.9	123
- 3.0	124	145
- 3.5	146	---

Launches  
SOCA - Velocity of 520 fms/sec.

Corrn. Fms.	From Fms.	To Fms.
0.0	0.0	3.5
- 0.1	3.6	9.2
- 0.2	9.3	14.2
- 0.3	14.3	19.2
- 0.4	19.3	24.2
- 0.5	24.3	29.0
- 0.6	29.1	33.9
- 0.8	34.0	42.9
- 1.0	43.0	51.8
- 1.2	51.9	---

Ship  
EMO -- Velocity of 500 fms/sec.

Corrn. Fms.	From Fms.	To Fms.
0.0	0.	131
+ 0.5	132	300
+ 1.0	301	408
+ 1.5	409	470
+ 2.0	471	540
+ 2.5	541	600
+ 3.0	601	645
+ 3.5	646	680
+ 4.0	681	738
+ 4.5	739	780
+ 5.0	781	815
+ 5.5	816	851
+ 6.0	852	883
+ 6.5	884	920
+ 7.0	921	950
+ 7.5	951	980
+ 8.0	981	1012
+ 8.5	1013	1045
+ 9.0	1046	1071
+ 9.5	1072	1100

Ship (Cont.)  
EMO -- Velocity of 500 fms/sec.

Corrn. Fms.	From Fms.	To Fms.
+ 10.0	1101	1128
+ 10.5	1129	1150
+ 11.0	1151	1178
+ 11.5	1179	1200
+ 12.0	1201	---

APPROVAL SHEET

30 November 1945

The records and boat sheet for Survey No. H-6990 are approved.

The records were examined frequently in the field, generally daily.

The survey is considered complete and adequate. The descriptive report covers all pertinent details.



L. C. Wilder  
Chief of Party

TIDE NOTE

A portable automatic tide gage was maintained at the U.S.A. A.F. pier in Chichagof Harbor; Latitude  $52^{\circ} - 55.9$  N., Longitude  $173^{\circ} - 14.4$  E. The observed tides at this station were used for the reduction of all soundings taken on this sheet, except as noted below. The height of mean lower low water and mean high water corresponds to readings of 3.3 feet and 6.9 feet, respectively, on the tide staff. No time or height corrections have been applied to the observed tides.

A standard automatic tide gage was maintained at Massacre Bay; Latitude  $52^{\circ} - 51$  N., Longitude  $173^{\circ} - 12$  E. The height of mean lower low water corresponds to 3.6 feet on the tide staff. (SEE Director's letter of 24 August 1945, reference 36 mlh). No time or height corrections have been applied to the observed tides. Massacre Bay tides were used on the 15 and 22 June 1945.

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ... **16990** Additional work

Records accompanying survey:

Boat sheets .1...; sounding vols. ...4.; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls .3...;  
 special reports, etc. ....  
 .....

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

Number of positions on sheet	.....	1176
Number of positions checked	.....	147
Number of positions revised	.....	9
Number of soundings revised (refers to depth only)	.....	8
Number of soundings erroneously spaced	.....	21
Number of signals erroneously plotted or transferred	.....	-
Topographic details	Time	..... hrs
Junctions	Time	..... "
Verification of soundings from graphic record	Time	..... "

Verification by *A. P. STIRNI* ..... Total time .66 hrs. Date 7/2/46.

Reviewed by *J. J. Jordan* ..... Time .13... Date 8/5/46.



DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6990 Ad. Wk.

FIELD NO. SU 1144

Alaska, Aleutian Islands, Attu Island, Sarana Bay  
Surveyed in June and July, 1945 Scale 1:10,000  
Project No. CS-218

Soundings:

808 Fathometer  
Hand lead

Control:

Three-point fixes on shore  
signals

Chief of Party - L. C. Wilder  
Surveyed by - L. C. Wilder, J. Laskowski and J. E. Waugh  
Protracted by - F. J. Ortiz  
Soundings plotted by - F. J. Ortiz  
Verified and inked by - A. R. Stirni  
Reviewed by - G. F. Jordan, August 5, 1946  
Inspected by - H. W. Murray

This additional work satisfactorily completes the original survey of 1944. Split lines were run, shoals were developed, and inshore hydrography was executed over most of the area of the survey.

A 3.1-fm. sounding (4 fm. on chart 9127 of April 28, 1945) on the 1944 work at lat.  $52^{\circ} 54.33'$ , long.  $173^{\circ} 19.22'$ , has been superseded by 7.3 fm. The 3.1 fm. is considered to have been a kelp reading. The shoal was thoroughly investigated with fathometer and leadline.

The 5.4-fm. sounding (pos. 74b, vol. 4) at lat.  $52^{\circ} 53.50'$ , long.  $173^{\circ} 19.81'$  may be on kelp. Kelp traces are very heavy on the fathogram. The least depth obtained with leadline was 7.2 fm., however, a note in the sounding record states that the bottom here is very irregular.

*7/2/46*

TIDE NOTE FOR HYDROGRAPHIC SHEET

15 March 1946

~~Division of Hydrography and Topography:~~

Division of Charts: H. W. MURRAY

Plane of reference approved in  
4 volumes of sounding records for

HYDROGRAPHIC SHEET 6990 (additional work)

Locality Sarana Bay, Attu Island, Aleutian Is., Alaska

Chief of Party: L. C. Wilder in 1945  
Plane of reference is mean lower low water, reading  
3.3 ft. on tide staff at Chichagof Harbor  
12.8 ft. below B. M. 1

Height of mean high water above plane of reference is 3.6 feet.

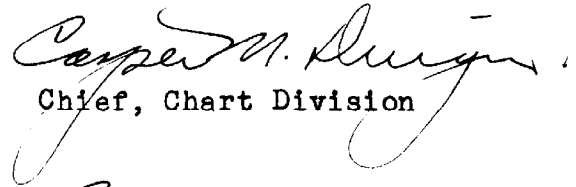
Condition of records satisfactory except as noted below:

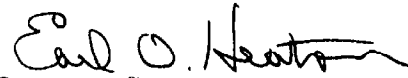
*C. K. Green*

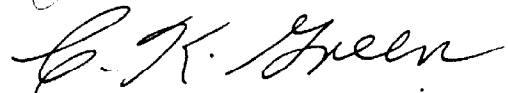
Chief, Division of Tides and Currents.

Examined and approved:

  
Chief, Nautical Chart Branch

  
Chief, Chart Division

  
Chief, Section of Hydrography

  
Chief, Division of Coastal Surveys

# NAUTICAL CHARTS BRANCH

SURVEY NO.     H6990     Additional work

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
3/15/46	9127	J. J. Waller	Before <del>After</del> Verification and Review Examined - no cor, now - wait for V & R.
1/14/48	9127	Steg - J. J. W.	<del>Before</del> After Verification and Review Partially
8/3/49	9127	<del>Steg</del> H. H. H.	<del>Before</del> After Verification and Review Reconstruction.
4/7/59	9128	J. H. H.	<del>Before</del> After Verification and Review Reconstruction
5-6-63	8865	H. H. H.	<del>Before</del> After Verification and Review EXAM No Crit Cor
11-4-92	16423	E. J. W.	<del>Before</del> After Verification and Review New Chart
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.