

7019

7019

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey **Hydrographic**

Field No. **EX 4244** Office No.

LOCALITY

State ~~ALASKA~~ *Aleutian Islands*

General locality *Attu Island*
~~ALUTIAN ISLANDS~~

Locality *North of*
~~APPROACHES TO HOLTZ BAY, ATTU I.~~

1944

CHIEF OF PARTY

R. D. Horne
~~EXPLORE~~

LIBRARY & ARCHIVES

DATE **JAN 27 1945**

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H7019

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 4844

REGISTER NO. H7019

State ~~Alaska~~ Aleutian Islands

General locality ~~Aleutian Islands~~ Attu Island

Locality ~~Approaches to Kolts Bay, Attu Is.~~
North of

Scale 1:40,000 Date of survey September 20, 1944

Vessel EXPLORER

Chief of Party R. D. Keras

Surveyed by W. Weidlich

Protracted by Marion F. Gwinn

Soundings penciled by Marion F. Gwinn

Soundings in fathoms ~~feet~~ Fathoms

Plane of reference MLLW

Subdivision of wire dragged areas by _____

Inked by Glen B. Woolley

Verified by Glen B. Woolley

Instructions dated August 14, 1944

Remarks: "Project 21--Survey of Kolts Bay and Approaches, Attu Island," by Lt. Comdr. G. M. Durgin.
Smooth sheet and plotting by the Seattle Processing Office.

DESCRIPTIVE REPORT TO ACCOMPANY SHEET NO. H-4244

Date of Instructions:

August 14, 1944. "Project 21 -- Survey of Holtz Bay and Approaches, Attu Island", by Lieut. Comdr. C. M. Durgin.

Survey Methods:

Standard Survey Methods were used throughout this sheet.

Triangulation control and additional topographic signals established by the ship EXPLORER in 1944 were used for control on this sheet. The triangulation was extended from control by the Army Engineers in 1943 and carried into the head of Holtz Bay on the 1934 Gannet Datum. Stations RING, HOL and LOT were the Army stations used as the basic control. A point connection was also made to station GIB established by the Ship SURVEYOR in 1944 from other Army triangulation in Chichagof Harbor on the same datum.

The 808 depth recorder, both "A" and "B" scales, and the Navy Department Echo Sounding Equipment, Model NMC, were used to obtain the soundings on this sheet. A constant correction of plus 5 feet is applicable to all "B" scale readings of the 808 depth recorder, based on comparisons taken on Sheet 2344. The NMC fathometer was kept at correct speed by means of a tuning fork, and the depth of the oscillator used to take the soundings was added to the depths obtained on the fathogram.

The sounding lines were run north-south and spaced from 500 to 1100 meters apart, with depths ranging from 48 to 1180 fathoms.

The sheet is complete within the limits of the area covered by this survey, and no additional development is recommended.

Comparison with Other Surveys:

There are no previous surveys of this area.

Good agreement was obtained with sheet ^{EX (H-7017)} H-2344, at the south limits, which was sounded by the EXPLORER in 1944, and with the SURVEYOR 1944 ship sheet to the east.

Discrepancies:

There are no discrepancies noted in this survey.

Dangers:

There are no dangers noted in the area covered by this survey.

Channels and Anchorages:

There are no channels or anchorages in the area of this survey.

Statistics:

There was only one day of work required on this sheet.

Number of positions- - - - - 99

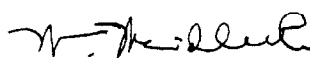
Number of statute miles of sounding lines- - - - - 78.3

Area, sq. Stat. Miles 8

Tidal Note:

A portable-automatic Coast and Geodetic Survey tide gage was in operation in Holtz Bay at the time these soundings were taken. These tidal data were forwarded to Washington for determination of constants.

Respectfully submitted,



W. Weidlich, Mate, USC&GS

Approved and forwarded,



Roland D. Horne, Lieut. Comdr., USC&GS
Commanding Ship EXPLORER

Field No. EX 4244

Approaches to Holtz Bay, Attu Island

TIDAL NOTE

Holtz Bay

Portable Automatic Tide Gage

Latitude 52° 55.54

Longitude 173 09.57

Field No. EX 4244

Approaches to Holtz Bay, Attu Island

STATISTICS

<u>Date</u>	<u>Day</u>	<u>Vessel</u>	<u>Vol.#</u>	<u>Positions</u>	<u>Mi. of Sdg.Line</u>	<u>Sq.Stat. Miles</u>
9/30/44	A	EXPLORER	1	99	78,3	8

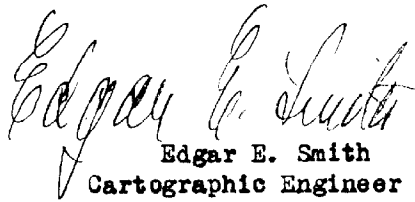
Field No. EX 4244

Approaches to Holtz Bay, Attu Island

Seattle Processing Office Notes

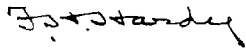
The sheet is simple and clear and requires no explanation.

The field work was not completed and the return of the boat sheet to the processing office after verification is requested.



Edgar E. Smith
Cartographic Engineer
Seattle Processing Office

Approved and Forwarded:



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

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H 7011**

Records accompanying survey:

Boat sheets **..1..**; sounding vols. **..1..**; wire drag vols. **.....**;
 bomb vols. **.....**; graphic recorder rolls **..2..**;
 special reports, etc. **.....**
.....

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

Number of positions on sheet	.99..
Number of positions checked	.40..
Number of positions revised	..2..
Number of soundings recorded	.571.
Number of soundings revised (refers to depth only)
Number of soundings erroneously spaced	.17..
Number of signals erroneously plotted or transferred
Topographic details	Time
Junctions	Time
Verification of soundings from graphic record	Time 30 hrs

Verification by **Glen. B. Woolley**. Total time **38 hrs.** Date **4-7-45.**

Review by **J. F. Jordan** Time ^{see Ad. WA} **.....** Date **4-18-46**

GEOGRAPHIC NAMES

Survey No.

H7019

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	
<u>Attu Island</u>								USFB	1	
<u>Holtz Bay</u>		(location of tide staff)							U.S.F.B.	2
<u>Steller Cove</u>								USFB	3	
<u>Aleutian Islands</u>		(for title)								4
<u>Bering sea</u>								USFB	5	
									6	
									7	
									8	
									9	
									10	
									11	
									12	
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									27	
									M 234	

by H. Heck on 5/2/46

Rap
H.C.

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
1 volumes of sounding records for

HYDROGRAPHIC SHEET 7019

Locality Approaches to Holtz Bay, Attu Island, Aleutian Islands

Chief of Party: R. D. Horne 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:

H. A. Marmor
Acty Chief, Division of Tides and Currents.

7019

~~Additional work~~

7019

~~Additional work~~

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey	Hydrographic
Field No. EX-4244	Office No. H7019
LOCALITY	
State	ALEUTIAN ISLANDS
General locality	ATTU ISLAND
Locality	NORTH OF HOLTZ BAY
194 5	
CHIEF OF PARTY	
Roland D. Horne	
LIBRARY & ARCHIVES	
DATE	JAN 10 1946

ADDITIONAL WORK

7019

REG. NO.
H7019

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. EX 4244

REGISTER NO. H-7019 - ~~Additional work~~

State Alaska Aleutian Islands

General locality Attu Island (north coast)

Locality Offshore, North of Holtz Bay

Scale 1:40,000 Date of survey 25 July-7 August, 19 45

Vessel EXPLORER

Chief of Party Roland D. Horne

Surveyed by L. S. Hubbard; W. Weidlich

Protracted by Marion T. Gwinn

Soundings penciled by Marion T. Gwinn

Soundings in fathoms ~~xxxx~~ Fathoms

Soundings taken by fathometer, graphic recorder, ~~hand lead, pressure~~

Plane of reference MLLW

Subdivision of wire dragged areas by _____

Inked by Charles P. Reed

Verified by Charles P. Reed

Instructions dated Supplemental 24 May 1945, Project #30, Liaison Officer CS-218- Field work was discontinued on this survey, projects #29 & 30, Remarks: in accordance with Liaison Officer's Supplemental Instructions of 22 August 1945, ref. ND17/HI (Gen), FBTS/hs, series 01846 (excerpts of Director's Orders and Instructions of 29 January 1945). The 150° W. Meridian time was used for operation of tide gage, reductions of soundings, execution of hydrography.

U. S. GOVERNMENT PRINTING OFFICE

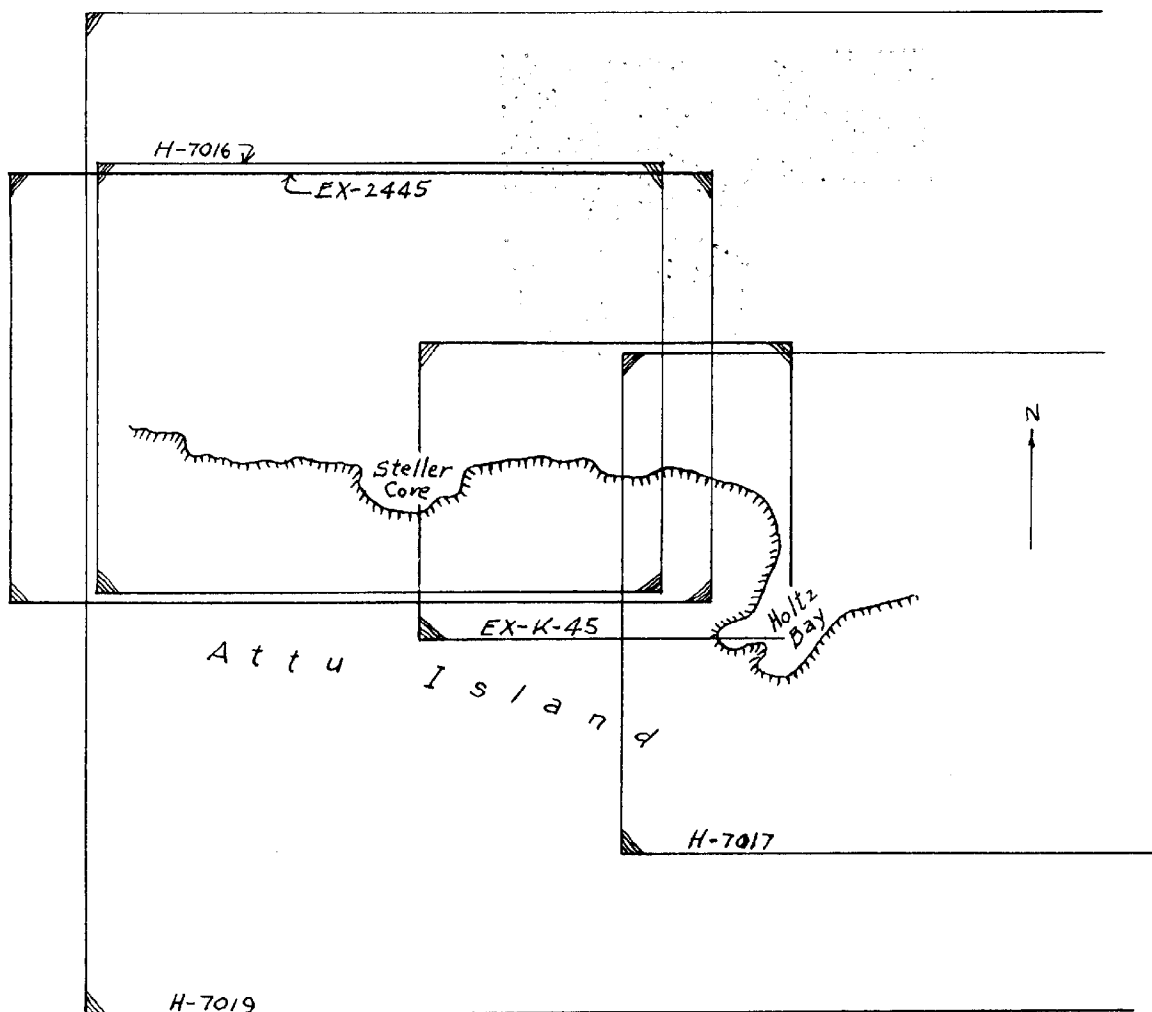
Smooth Plotting by the Seattle Processing Office.

INDEX SHEET

to

Accompany Hydrographic Sheet H-7019

Field Number EX-4244



green dotted area indicates surveyed limits 1945 only.
black solid lines indicate hydrographic sheets.
red solid lines indicate topographic sheets.

DESCRIPTIVE REPORT

TO

ACCOMPANY HYDROGRAPHIC SURVEY H-7019

1944 - 1945

SCALE 1:40,000 U.S.C. & G.S.S. EXPLORER

ROLAND D. HORNE, COMMANDING

SURVEYED BY: L. S. HUBBARD - W. WEIDLICH

- o -

A. PROJECT:

CS-218; Supplemental Instructions dated 24 May 1945, project #30, Liaison Officer and Supplemental Instructions dated 22 August 1945, ref. ND17/H1 (Gen), FBTS/hs, series 01846 (excerpts of Director's Orders and Instructions of 29 January 1945).

B. SURVEY LIMITS AND DATES:

Locality - Alaska, Attu Island (north coast), offshore area, vicinity of Holtz Bay delimited: to the north by $53^{\circ}09'$ N parallel; to the east by $173^{\circ}16'$ E Meridian; to the south by $53^{\circ}02'$ N parallel; to the west by $173^{\circ}00'$ E Meridian. That part of survey lying to south and east of $53^{\circ}06'$ N parallel and $173^{\circ}08'$ E Meridian respectively was surveyed in 1944, A day.

Hydrography was executed during the periods:

1944 - A day, only

1945 - 25 July-7 August

Junctures with contemporary surveys: to the east with field sheet No. DE-4245, scale 1:40,000; to the south with H-7017, scale

1:20,000 and field sheet No. EX-2445, scale 1:20,000; to the west with H-7016, scale 1:20,000.

C. VESSEL AND EQUIPMENT:

The U.S.C. & G.S.S. EXPLORER executed the hydrography.

The N.M.C. (U.S. Navy) and 808 (C. & G.S. No. 60) fathometers, graphic recorder types, were used. The 808 fathometer was confined to the shoaler, inshore areas and changes from 808 to N.M.C. fathometers were made at 150 fathoms running offshoreward. On shoreward lines the change from N.M.C. to 808 fathometer occurred at approximately 120 fathoms depth.

The turning radius of EXPLORER is 275 and 360 meters to port and starboard respectively. The vessel's sounding speed varies between 10 knots on inshore lines to $12\frac{1}{2}$ knots on offshore lines. No appreciable variation in turning radius was observed within the limits of speeds utilized.

D. TIDE STATION:

Reduction of tides was based on Stellar Cove, portable tide gage, during period of survey.

E. SMOOTH SHEET:

Function of Processing Office.

F. CONTROL STATIONS:

Datum U.S.N. GANNET 1934. Local triangulation Roland D. Horne
1944. Local topography Field No's. EX-K-45 and EX-G-44.
T-7009(1945) T-6973a(1944)

G. SHORELINE AND TOPOGRAPHY:

Offshore survey requiring no topographic features except certain

signals enumerated under par. "F. Control Stations" above (see Topographic Reports).

H. SOUNDINGS:

All depths were graphically recorded in fathoms. ✓

I. CONTROL OF HYDROGRAPHY:

Standard sextant-fix practices for position determination were executed in accordance with "Special Publication No. 143 Rev. 1942." ✓

J. ADEQUACY OF SURVEY:

Field work was discontinued on western part of survey in accordance with supplemental instructions, see "Title Sheet" this report. ✓
(to be extended westward between lat. $53^{\circ}05'$ to $53^{\circ}09'$; north of H-7016)

The area surveyed during 1944 and 1945 field seasons is complete, requires no additional work and is adequate to supersede prior surveys for charting.

Boat sheet junctures with contemporary surveys are in close agreement, however the smooth sheet examination, when accomplished, will govern. ✓

Depth curves can be adequately drawn on the boat sheet at the junctions. ✓

K. CROSSLINES:

Adequate crosslines were run indicating close agreement. ✓

L. COMPARISON WITH CHART:

The 33 fathom shoal located at latitude $53^{\circ}08'.5$ N, longitude $173^{\circ}05'.8$ E (chart No. 8865) in general depths in excess of 1500 fathoms is disproved; it is recommended that this shoal be deleted
by general depths

from chart.

No previous survey of this area existed.

M. DANGERS AND SHOALS:

No dangers or shoals were revealed by survey.

Respectfully submitted,



L. S. Hubbard,
Lt. Comdr., C. & G.S.



W. Weidlich,
Mate, C. & G.S.

Approved and forwarded:



Roland D. Horne,
Comdr., C. & G.S.

STATISTICS FOR HYDROGRAPHIC SURVEY H-7019

The hydrography was accomplished during the 1944-1945 field seasons. Additional hydrography to complete western portion of area is necessary.

1944

Hydrography for A day was executed in 1944.

1945

Survey Unit	Day Vol.	Day Letter	Date 1945	Number Positions	No. Sta. Miles Sdg. Lines	Area Sq. Sta. Miles
EXPLORER	2	B	July 25	115	81.6	
"	2	C	July 27	60	42.5	
"	2	D	Aug. 7	77	50.3	
Totals 1945 only				252	174.4	71.0*

* Area includes 1944 and 1945 totals.

TIDE NOTES

Reduction of soundings for Hydrographic sheet No. H-7019 for B, C and D days (1945) is based on tide data from portable tide gage #187 re-established on the west shore of Steller Cove, Attu Island, Alaska. Latitude $52^{\circ}59'.6$ N, longitude $172^{\circ}54'.6$ E. The hourly heights for the reduction of records were sealed from the marigrams. The plane of reference of M.L.L.W. is 3.9 feet on tide staff as derived from Tide Division letter dated 19 June 1945, reference m l h, with respect to re-establishment and leveling during 1945 field season.

All times, for the operation of tide gage, execution of hydrography and reduction of records were based on the 150° W. Meridian time.

For tide data pertaining to A day see Hydrographic Descriptive Report 1944, previously submitted.

GEOGRAPHIC NAMES

12 July 1945

SHIP			TANCHERS			
000 fms.		020 fms/sec. fms.	000 fms.		020 fms/sec. fms.	
12.0	to	17.0	-0.2	0.0	to 2.5	0.0
17.0	"	20.0	-0.3	2.6	" 10.0	-0.1
20.1	"	20.2	-0.4	10.1	" 10.2	-0.2
20.3	"	32.0	-0.5	10.3	" 21.5	-0.3
32.9	"	37.5	-0.6	21.6	" 23.5	-0.4
37.0	"	40.5	-0.8	23.3	" 31.5	-0.5
40.0	"	53.5	-1.0	31.0	" 33.2	-0.3
53.6	"	61.0	-1.2	33.3	" 44.2	-0.3
61.0	"	70.3	-1.4	44.3	" 52.2	-1.0
70.4	"	70.4	-1.6	52.3	" 60.4	-1.2
70.5	"	84.5	-1.8	60.5	" 63.5	-1.4
84.6	"	94.5	-2.0	63.6	" 76.5	-1.6
94.6	"	102.2	-2.2	76.6	" 84.5	-1.8
102.3	"	117	-2.5	84.6	" 92.2	-2.0
119	"	133	-3.0	92.3	" 100.5	-2.2
137	"	150	-3.5			
157	"	175	-4.0			
170	"	199	-4.5			

MNC		300 fms/sec.	
	fms.		fms.
0	to 13		0.0
13.3	" 100		+0.2
101	" 200		0.0

For greater depths see
corrections of 17 June 1945.

H-7019 - Additional Work

Seattle Processing Office Notes

Smooth Sheet Datum-

USN (GANNET) 1934, assuming Station CHIC 1943 as a recovery of the Navy Astronomical Station at Chichagof Harbor.

The smooth sheet was returned from Washington to the Seattle Processing Office where the additional 1945 work was plotted.

Report-

The report of the field party is complete and no further information is required from the Processing Office.

See also the report which originally accompanied the sheet to Washington.

Control-

The topographic signals between Holtz Bay and Steller Cove were located by planetable traverse in 1944 (topo sheet EX-k) T-6973. This traverse was re-run in 1945 (topo sheet EX-h-45). The positions shown on hydrographic sheet H-7019 are those determined by the 1944 traverse; the datum of the Steller Cove triangulation is the datum carried approximately by the 1944 traverse from the main scheme of triangulation in Holtz Bay. To make an adjustment of the two traverses would introduce a change in the Steller Cove triangulation datum.

H-7019 - Additional Work

Geographic Names Penciled on the Smooth Sheet

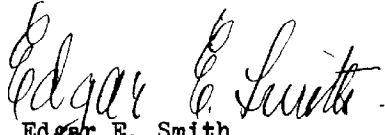
Bering Sea

Attu Island

Steller Cove

Holtz Bay

Respectfully submitted,

A handwritten signature in cursive script that reads "Edgar E. Smith".

Edgar E. Smith
Cartographic Engineer
Seattle Processing Office

Approved and Forwarded,

A handwritten signature in cursive script that reads "F.B.T. Siems".

F.B.T. Siems
Officer in Charge,
Seattle Processing Office

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. **H7019**

Records accompanying survey:

Boat sheets ^(1945 work added) **.1**; sounding vols. **1**.....; 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		.252...
Number of positions checked		.20...
Number of positions revised	
Number of soundings revised (refers to depth only)	
Number of soundings erroneously spaced		.18.....
Number of signals erroneously plotted or transferred	
Topographic details	Time
Junctions	Time	4 hrs.
Verification of soundings from graphic record	Time

Verification by *Charles P. Reed*..... Total time **.40 hrs.** Date **4-17-46**

Reviewed by *J. F. Jordan*..... Time **.7**... Date **4-18-46**

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 7019

FIELD NO. Ex. 4244

Aleutian Islands, Attu Island, North of Holtz Bay
Surveyed in Sept. 1944 and Aug. 1945 Scale :40,000
Project No. CS-218

Soundings:

808-Fathometer
NMC-Fathometer

Control:

Three-point fixes on shore signals

Chief of Party - R. D. Horne
Surveyed by - L. S. Hubbard and W. Weidlich
Protracted by - M. T. Gwinn
Soundings plotted by - M. T. Gwinn
Verified and inked by - G. B. Woolley and C. P. Reed
Reviewed by - G. F. Jordan, April 18, 1946
Inspected by - H. W. Murray

1. Shoreline and Signals

The signals originate from 1944 triangulation and from graphic control surveys T-6973a (1944) and T-7009 (1945).

Shoreline is not shown on this offshore survey.

2. Sounding Line Crossings

Satisfactory.

3. Depth Curves and Bottom Configuration

The depth curves adequately reveal a generally smooth slope dropping from 50-fm. to 1900-fm. depths.

4. Junctions

Satisfactory junctions are made with H-7017 (1944) and H-7016 (1944). Surveys on the east and on the south (west of H-7017) have not been registered. The present survey includes the northern limits of the project. A continuation of the project to the west, north of H-7016, is proposed.

5. : Prior Surveys

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

6. Comparison with Chart 9198 (Latest print of Feb. 2, 1945)

The soundings charted within the area of the present survey are from a survey by the U. S. S. NAUTILUS and are shown on a tracing accompanying chart letter No. 804 (1943). The soundings generally show fair agreement with present depths, but extreme differences occur in small areas. For example, the 450-fm. sounding at lat. $53^{\circ}02.7'$, long. $173^{\circ}09.2'$ falls in present 62-fm. depths and is nearly two miles from comparable depths.

The 33-fm. sounding (lat. $53^{\circ}08.5'$, long. $173^{\circ}05.8'$) falling in greater than 1500-fm. depths on both the NAUTILUS survey and the present survey is discredited. The sounding should be disregarded, as recommended in the descriptive report.

All soundings charted within the limits of the present survey are superseded.

7. Condition of Survey

- a. The sounding records and descriptive reports are complete in all detail.
- b. The smooth plotting was excellent.


8. Compliance with Project Instructions

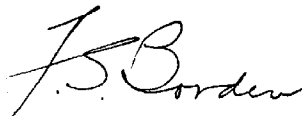
Satisfactory.

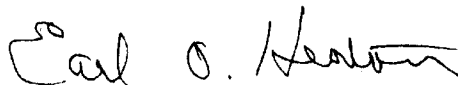
9. Additional Work

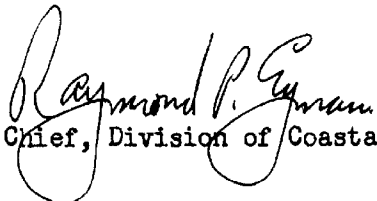
This is an excellent basic survey with respect to the hydrography. However, as a matter of record, mention is made that not one bottom characteristic was obtained nor are any charted in this area from other sources.

Examined and approved:


Chief, Nautical Chart Branch


Chief, Chart Division


Chief, Section of Hydrography


Chief, Division of Coastal Surveys

HWM

TIDE NOTE FOR HYDROGRAPHIC SHEET

24 January 1946.

~~Division of Hydrography and Topography:~~

Division of Charts: Attention: H. W. MURRAY

Plane of reference approved in
1 volume of sounding records for

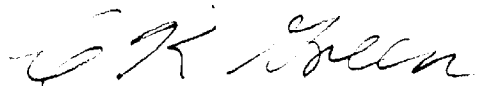
HYDROGRAPHIC SHEET 7019 (add'l. work)

Locality Off north coast of Attu Island, Aleutian Islands, Alaska

Chief of Party: R. D. Horne in 1945
Plane of reference is mean lower low water, reading
3.4 ft. on tide staff at Massacre Bay
6.8 ft. below B. M. 1

Height of mean high water above plane of reference is 3.3 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

