

7190

Diag'd. on Diag. Ch. No. 8252-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PA-1247 Office No. H-7190

LOCALITY

State S. E. Alaska

General locality Sitka Sound

Locality Deep Inlet

1947

CHIEF OF PARTY

Glendon E. Boothe

LIBRARY & ARCHIVES

DATE MAY 18 1948

B-1870 1 (1)

7190
0612

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.

REGISTER No. H-7190

Field No. PA-1247

State S. E. Alaska ✓

General locality Sitka Sound ✓

Locality Deep Inlet ✓

Scale 1:10,000 Date of survey 18 July - 18 August 1947 ✓

Instructions dated 14 April 1947

Vessel PATTON - Launch No. 92

Chief of party Glendon E. Boothe ✓

Surveyed by Glendon E. Boothe & Karl B. Jeffers ✓

Soundings taken by fathometer, graphic recorder, hand lead, wire 808-A Depth Recorder and Hand Lead

Protracted by Clarence R. Lehman

Soundings penciled by Clarence R. Lehman

Soundings in fathoms ~~Feet~~ at ~~MLLW~~ MLLW Fathoms at M. L. L. W. ✓

REMARKS:
.....
.....
.....
.....

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-7190 (PA-1247)

SITKA SOUND, DEEP INLET 1947

SCALE 1:10,000

U. S. C. & G. S. S. PATTON, GLENDON E. BOOTHE, CMDG.

A. PROJECT

Authority for field work is contained in the revised instructions for Project CS-247 issued by the Director on 14 April 1947. ✓

B. SURVEY LIMITS AND DATES

⁽¹⁹⁴⁷⁾ The survey covers all of Deep Inlet and joins Sheet No. H-7191 (PA-1347) at the entrance to Deep Inlet. ✓

Field work was begun on 18 July 1947 and completed on 18 August 1947. ✓

C. VESSEL AND EQUIPMENT

All hydrography was done in Launch No. 92 operating from the PATTON. Soundings were obtained with an 808 type recorder, No. 51. Bottom samples in deep water were taken by the PATTON using an electric, wire sounding machine. ✓

D. TIDE AND CURRENT STATIONS

No tide or current stations were occupied in this area. The data recorded by the Standard Tide Gage at Sitka were used for reduction of soundings. Tabulations of the hourly heights of the tide at Sitka were supplied by the Washington Office. ✓

E. SMOOTH SHEET

The smooth sheet will be constructed by personnel at the Seattle Processing Office. ✓

F. CONTROL STATIONS

Triangulation in Deep Inlet was established by this party as instructed. ✓

F. CONTROL STATIONS - Contin.

Topographic signals were located by graphic control on aluminum mounted sheets T-7044 (PA-C-47) and T-7045 (PA-D-47). (1947)

G. SHORELINE AND TOPOGRAPHY

The shoreline and topography will be compiled from air photographs of the area which were field-inspected by this party. The exact location of the shoreline will be difficult to plot in many cases because of the over hanging trees.

The low-water line could not be established along the north shore and parts of the south shore because of the steep slope to the tree line and vertical cliffs in other places. A beach line was run as close as the trees and rocks would permit.

H. SOUNDINGS

Soundings were obtained with an 808 type recorder, No. 51, operated on the fathom scale and corrected for temperature and salinity. A few hand lead soundings and some wire soundings were recorded when bottom samples were taken.

I. CONTROL OF HYDROGRAPHY

All hydrography is controlled by sextant fixes on signals ashore. No unusual or substandard methods were employed for this purpose.

J. ADEQUACY OF SURVEY

The survey is complete and adequate to supercede the previous survey made in 1893

An adequate junction was made with the survey made on H-7191 (PA-1347) at the entrance to Deep Inlet. Junction will be discussed in the review of H-7191(1947)

K. CROSSLINES

The crosslines comprise 9% of the total miles of sounding line on the sheet. Crossings are good in general. Some difficulty was found where lines were run parallel to steep slopes.

L. COMPARISON WITH PREVIOUS SURVEY

The only previous survey of Deep Inlet was made in 1893 (see H-2176) on a scale of 1:20,000 and consists of four lines of soundings run parallel with the axis of the bay. However, no appreciable difference in bottom configuration was noted in the new survey.

M. COMPARISON WITH CHART No. 8255

*applied to chart 8255
Sur. 4-15-48*

0.8 The rock awash symbol at the entrance to the bay should be replaced by a χ fm. sounding. See H-7191 (PA-1347) for least depth on this rock. *Smooth Sheet 0.8 fm. See P43 Vol 2 H7190* $\phi - 56^{\circ} 59.17'$ $\lambda - 135^{\circ} 18.29'$

The group of five rock awash symbols at the head of the bay does not exist. This beach is covered by stones and gravel, but there are no large rocks. (See review, par. 5) *deleted on last print*

N. DANGERS AND SHOALS

0.8 There are no dangers or shoals other than the χ fathom sounding noted in "M".

O. COAST PILOT NOTES

See special report on Coast Pilot notes in the Sitka Sound area.

P. AIDS TO NAVIGATION

There are no aids to navigation in the area covered by this survey.

Q. LANDMARKS FOR CHARTS

There are no landmarks suitable for charting purposes in this area.

R. GEOGRAPHIC NAMES

There are no new geographic names for features in this area. Deep Inlet is an accepted name for this bay.

S. SILTED AREAS

All of the area inside the forty fathom curve is heavily silted. There is approximately one fathom of very soft green ooze and decayed vegetable matter all over this area. *noted in review, par. 3*

Z. TABULATION OF APPLICABLE DATA

The reports listed below are pertinent to this survey:

- Air photo inspection report
- Descriptive Reports to Accompany Topographic Sheets T-7044 and T-7045, 1947
- Temperature and Salinity Observations
- Coast Pilot Notes

Data attached to this report: Table of Statistics
Tide Note
Tables of Velocity Corrections (2)
List of Signals

Submitted by

Karl B. Jeffers
Karl B. Jeffers

STATISTICS FOR HYDROGRAPHIC SURVEY H--7190 (PA-1247)

U. S. C. & G. S. S. PATTON - PROJECT CS-247, 1947

Date 1947	Day Letter	Vol. No.	Hand Lead & Wire Soundings	Positions	Statute Miles of Soundings
18 July	a	1		105	10.2
19 July	b	1		69	8.6
15 Aug.	c	1 & 2		189	31.7
16 Aug.	A(Ship)	2	14	14	
18 Aug.	d	2	1	148	19.1
Totals:			15	527	69.6

Area:- 1.7 square statute miles

TIDE NOTE

TYPE OF GAGE - Standard Automatic Tide Gage

LOCATION - Sitka, Baranof Island, Southeast Alaska
Latitude $57^{\circ} 02'.9$; Longitude $135^{\circ} 20'.3$

PLANE OF REFERENCE - Mean Lower Low Water

The gage was operated and maintained by personnel of the Sitka Magnetic Observatory. The hourly heights of the tide were furnished by the Washington Office.

VELOCITY CORRECTIONS
 U.S. Coast and Geodetic Survey
 Ship PATTON
 Glendon E. Boothe, Comdg.
 Between 15 Aug. 1947 and 18 Aug. 1947
 Locality: Deep Inlet
 Hydrographic Survey No. PA-1247

* * * *

Launch No. 92
 Table of Fathometer Corrections

0.0 fms	to	9.5 fms.
-0.1 "	from 9.6 "	17.3 "
-0.2 "	" 17.4 "	23.0 "
-0.3 "	" 23.1 "	28.0 "
-0.4 "	" 28.1 "	32.4 "
-0.6 "	" 32.5 "	41.1 "
-0.8 "	" 41.2 "	49.6 "
-1.0 "	" 49.7 "	57.8 "
-1.2 "	" 57.9 "	67.3 "

Copy 10/9/50

VELOCITY CORRECTIONS
 U.S. Coast and Geodetic Survey
 Ship PATTON
 Glendon E. Boothe, Cmdg.
 Between 18 June 1947 and 19 July 1947
 Locality: Povorotni Point to Deep Inlet
 Hydrographic Survey No. PA-1347 & PA-1247

* * * *

Launch No. 92
 Table of Corrections

<u>Corrections</u>	<u>Depths</u>
0.0 fms	to 7.8 fms
-0.1 "	from 7.9 fms " 14.8 "
-0.2 "	" 14.9 " " 20.2 "
-0.3 "	" 20.3 " " 25.7 "
-0.4 "	" 25.8 " " 30.9 "
-0.6 "	" 31.0 " " 41.3 "
-0.8 "	" 41.4 " " 51.8 "
-1.0 "	" 51.9 " " 62.6 "
-1.2 "	" 62.7 " " 73.6 "

LIST OF HYDROGRAPHIC SIGNALS
PA--1247 H-7190(1947)
DEEP INLET

Hydrographic Name	Source	Hydrographic Name	Source
ACE	PA-D-47 ^{T-7045}	LET	Tri. Sta. INLETS 1947
AIR	Tri. Sta. ALTAIR 1947	LUP	Tri. Sta. LUPUS 1947
ARK	Tri. Sta. MARKAB 1947	LUX	Tri. Sta. POLLUX 1947
ARGO	Tri. Sta. ARGO 1947		
BAT	PA-C-47 ^{T-7044}	MARS MAX MID	Tri. Sta. MARS 1947 PA-C-47 PA-D-47
CARD	Tri. Sta. CARD 1942		
CAS	Tri. Sta. CASTOR 1947	NED	PA-C-47
COP	PA-C-47	NEP	Tri. Sta. NEPTUNE 1947
:		NOR	PA-D-47
DAY	PA-C-47	NOVA	Tri. Sta. NOVA 1947
ERA	PA-D-47	OAK	PA-C-47
FED	PA-C-47	ORA	PA-D-47
FLY	PA-D-47	PEG PIE	Tri. Sta. PEGASUS 1947 PA-C-47
GAS	PA-C-47		
GET	Tri. Sta. GET 1938	RAT	PA-C-47
GOT	PA-D-47	RIG	Tri. Sta. RIGEL 1947
GRUS	Tri. Sta. GRUS 1947	RIP	PA-D-47
HAM	Tri. Sta. HAMAL 1947	SAM	PA-C-47
HOP	PA-C-47	SAN	Tri. Sta. SANDY COVE 1947
ICE	PA-C-47	TOM	PA-C-47
JAR	PA-C-47	VEX	PA-C-47
JOE	PA-D-47		
KEN	PA-C-47	WIG WOO	PA-C-47 T-7044 PA-D-47 T-7045
LAD	PA-C-47		
LEO	PA-D-47	YAK	PA-C-47

APPROVAL SHEET TO ACCOMPANY

SHEET PA-1247 (H-7190)

The hydrography on this sheet was executed under my direct supervision as a member of the hydrographic party. ✓

The sounding records and boatsheet have been examined and approved by me. They were inspected daily during the survey. It is my opinion that the survey is adequate and no additional work is required. ✓

The smooth sheet is to be constructed and plotted by the Seattle Processing Office. The tidal data was supplied by the Washington Office from the record of the standard tide gage at Sitka. ✓

18 December 1947

Glendon E. Boothe
Glendon E. Boothe
Lt. Comdr., USC&GS
Cmdg., USC&GSS PATTON

(1947)

H 7190 (Pa - 1247)

Sitka Sound Deep Inlet

Processing Office Notes

Projection.

The projection is hand made on K & E Paragon
(German made) paper. The triangulation is from the ✓
lithographed pages 778, 779, 814, 862 & 863 of Vol. 3
adjusted triangulation of Southeast Alaska. The topographic signals
are from T 7044 (Pa-C-47).

The report by the field party covers other pertinent matters. ✓

Respectfully submitted.

Edgar E. Smith
Edgar E. Smith.
Capt. Engr.

H 7190 (Pa 1247)

Sitka Sound

Deep Inlet.

Geographic Names Penciled on Smooth Sheet.

Deep Inlet

Baranof Island

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. **H7190**

Records accompanying survey:

Boat sheets $.1$; sounding vols. $.2$; 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	.....	527
Number of positions checked	.....	126
Number of positions revised	.....	8
Number of soundings revised (refers to depth only)	.....	15
Number of soundings erroneously spaced	.....	20
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	..... 0 <small>Topo applied D.R. Engle 9-16-59.</small>
Junctions	Time	..... 0
Verification of soundings from graphic record	Time	..... 1

Verification by *Charles R. Wittmann* Total time *166 ms* Date *11-19-48*

Reviewed by *J.A. Dimmore* Time *16 hrs.* Date *12/13/48*

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7190

FIELD NO. PA-1247

S. E. Alaska, Sitka Sound, Deep Inlet
Surveyed in July - August 1947 Scale 1:10,000
Project No. CS-247

Soundings:

Control:

808 Fathometer
Hand Lead

Sextant fixes on shore signals

Chief of Party - G. E. Boothe
Surveyed by - G. E. Boothe and K. B. Jeffers
Protracted by - C. R. Lehman
Soundings plotted by - C. R. Lehman
Verified and inked by - C. R. Wittmann
Reviewed by - T. A. Dinsmore, December 13, 1948
Inspected by - R. H. Carstens

1. Signals Control and Shoreline

The signals originate with graphic control surveys T-7044 and T-7045 of 1947.

The few short sections of shoreline appearing on the smooth sheet are from the above surveys. Completion of the shoreline and low-water detail is deferred until field-inspected air photographs are compiled.

Shoreline added from T-7044 (1942-47) by: D.R. Engle 9-16-54

2. Sounding Line Crossings

T-7045

Inspected by: T.A.D. 9-21-54

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated except close inshore where the steep slope of the bottom, in some instances, prevented development to the low-water line.

The inlet is bordered by steep-to banks where depths of 10 fms. fall close inshore. The bottom is generally smooth and covered, for the most part, by a layer of sediment about 1 fm. in thickness. The passage through the narrows on the northwest is materially constricted by the reef in lat. $56^{\circ} 59.17'$, long. $135^{\circ} 18.29'$, which rises from 10-fm. depths to within 0.8 fm. of M.L.L.W.

4. Junctions with Contemporary Surveys

The adjoining survey H-7191 (1947) on the west is not registered in this office at the present time. However, charted hydrography here is in harmony with present depths.

5. Comparison with Prior Surveys

H-2176 (1893) 1:20,000

This prior survey covers the entire area of the present survey. A comparison with the prior soundings indicates that no important changes in bottom have occurred. However, in depths of 30 to 50 fms., present depths are generally 1 to 3 fms. shoaler than prior depths probably because of differences in the methods of surveying. The sunken reef (0.8-fm. sounding) on the present survey in lat. $56^{\circ} 59.17'$, long. $135^{\circ} 18.29'$, appears as a reef awash on the prior survey.

The prior shoreline at the southeast end of Deep Inlet is in error as much as 300 meters in some places probably because of the weak control in this area. The prior soundings in this part of the survey are proportionately out of position.

The rocks awash (charted) at the southeast end of the inlet should be disregarded. Originating with T-2149 (1893), the "rocks" appear on that survey as outcropping ledges from a sand and gravel beach. Attention is directed to par. M, page 3, Descriptive Report of the present survey, which states that the beach at the southeast end of the inlet is covered by stones and gravel but that there are no large rocks.

The present survey is adequate to supersede the prior survey within the common area.

6. Comparison with Chart 8255 (Latest print date 8/2/48)

A. Hydrography

The charted information originates with the prior survey supplemented by the critical 0.8-fm. sounding from the present survey.

B. Aids to Navigation

There are no aids to navigation in the area covered by the present survey. The only danger to navigation, revealed by the present survey is the sunken reef which has been previously discussed.

7. Condition of Survey

- a. The sounding records are complete; the Descriptive Report is comprehensive and very well-written.
- b. The smooth plotting was accurately done.


8. Compliance with Project Instructions.

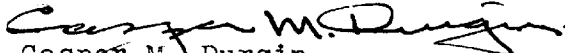
The survey adequately complies with the Project Instructions.


9. Additional Field Work.


This is an excellent basic survey and no additional field work is required.

Examined and approved:


H. R. Edmonston
Chief, Nautical Chart Branch


Casper M. Durgin
Chief, Division of Charts


K. G. Crosby
Chief, Section of Hydrography


C. K. Green
Chief, Division of Coastal Surveys

GEOGRAPHIC NAMES

Survey No. **H7190**

Name on Survey											
	A	B	C	D	E	F	G	H	K		
<u>Sitka Sound</u>				(for title)							1
<u>Southeastern Alaska</u>				" "							2
<u>Baranof Island</u>									USGB		3
<u>Deep Inlet</u>											4
											5
											6
											7
					Names underlined in red are approved. 6/1/48			L. Heck			8
											9
											10
											11
<u>Sitka</u>				(location of tide staff)					USGB		12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

839

HW

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~

1 June 1948

Division of Charts: H. W. MURRAY

Plane of reference approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 7190

Locality - Deep Inlet, Southeast Alaska

Chief of Party: G. E. Boothe in 1947
Plane of reference is mean lower low water, reading
5.0 ft. on tide staff at Sitka
13.1 ft. below B. M. 8 (1924)

Height of mean high water above plane of reference is 9.1 feet.

Condition of records satisfactory except as noted below:

E. C. McKay
Section
Chief, ~~Division of Tides and Currents.~~

NAUTICAL CHARTS BRANCH

SURVEY NO. 7190

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
5/13/49	8255	J. McLean	Before <u>After</u> Verification and Review <i>Examined but not applied at this time.</i>
10/17/49	8252	E. Strauss	Before <u>After</u> Verification and Review <i>Examined but not applied.</i>
7/13/56	8252	H. Burgoyne	<i>Partially Applied</i> Before <u>After</u> Verification and Review
8-18-60	8252	E. M. Grogan	Before <u>After</u> Verification and Review <i>Completely appl</i>
1/25/65	8255	G. Myers	Before <u>After</u> Verification and Review <i>Completely appl.</i>
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> 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.