

8691

Diag. Cht. No. 8102-3.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PA-10-2-62 Office No. H-8691

LOCALITY

State Southeast Alaska

General locality George and Carroll Inlet

Locality Vicinity of California Head

1962

CHIEF OF PARTY

A. R. Benton, Jr.

LIBRARY & ARCHIVES

DATE June 19, 1963

USCOMM-DC 5087

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-8691

Field No. PA 10-2-62

State Southeast Alaska

General locality ~~Revillagigedo Island~~ George and Carroll Inlets

Locality ~~George Inlet and Carroll Inlet~~ Vicinity of California Head

Scale 1:10,000 Date of survey June-Sept. 1962 Field Season

Instructions dated January 29, 1962; February 13, 1962

Vessel Ship PATTON and Launch GS-1191

Chief of party Arthur R. Benton, Jr.

Surveyed by A.R. Benton, Jr., R.W. Franklin, E.D. Schwantes, Jr.

Soundings taken by ~~photometer~~, graphic recorder, hand lead, ~~etc~~

Fathograms scaled by Ship's personnel

Fathograms checked by Ship's personnel

Protracted by Stanley J. Ruden

Soundings penciled by Stanley J. Ruden and V. F. Flor

Soundings in and tenths fathoms ~~feet~~ at ~~MLLW~~ MLLW

REMARKS:

WRB

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SURVEY H-8691 (FIELD NO. PA 10-2-62)

SCALE 1:10,000

Ship PATTON

Arthur R. Benton, Comdg.

A. PROJECT

This project is a part of Project OPR-424. Original instructions were issued under the date of January 29, 1962. Amended instructions were issued under the date of February 13, 1962.

B. AREA SURVEYED

This survey covers the south half of George Inlet, and the lower part of Carroll Inlet to Mountain Point and Carroll Point on Revillagigedo Island. The approximate limits are from Latitude $55^{\circ}24.8'$ to the north and Latitude $55^{\circ}18.1'$ to the south and from Longitude $131^{\circ}31.4'$ to the west to Longitude $131^{\circ}24.4'$ to the east. This survey makes a satisfactory junction with (PA 10-1-62) to the north and (PA 10-3-62) to the east.

H-8692 (1962-63)

H-8690 (1962)

C. SOUNDING VESSELS

During the 1962 field season, the Ship PATTON and Launch CS-1191 operating from the ship were used as sounding vessels. Blue was used to identify the work of both vessels.

D. SOUNDING EQUIPMENT

All soundings were obtained with Model 808 portable depth recorders calibrated for 800 fm./sec. Fathometer No. 74 was used on the Ship PATTON and No. 51 was used on Launch CS-1191.

Corrections to 1962 fathometer soundings are discussed in the special fathometer report, and are tabulated at the end of this report.

E. SMOOTH SHEET

The smooth sheet projection was constructed on the projection ruling machine in the Washington Office. The sheet had not been plotted at the time this report was written (December 1962).

F. CONTROL

Hydrography was controlled by three point sextant fixes on shore signals. Signals were located by photogrammetric methods or sextant cuts and fixes based on photo control. Photo hydro control was transferred from the following manuscripts: T-10599, T-10606, T-10607, T-10608, T-10614, and T-10615. There is no triangulation on this sheet.

G. SHORELINE

Shoreline originates from the photogrammetric compilations referred to in Section F, above. Shoreline and topographic details were verified by the ship's officers in the field. Field edit changes were indicated on ozalids and forwarded to the Division of Photogrammetry.

H. CROSSLINES

Approximately 6% of crosslines were run. Satisfactory agreement was made with the regular system of sounding lines.

I. JUNCTIONS

Satisfactory junctions were made with a 1962 survey to the south and another 1962⁶⁴ survey to the east. There are no junctions with surveys made prior to 1962. (See Section B, above).

See
Review
Part. 5

J-K. COMPARISON WITH PRIOR SURVEY AND CHARTS

H-2111 (1:40,000) 1891, is the only prior survey covering the area and the soundings are widely spaced. In general there was satisfactory agreement between the two surveys and little or no change in the bottom appears to have taken place since H-2111 was made. Representative soundings transferred from H-2111 to the boat sheet showed good agreement with PA 10-2-62, considering the time interval between the two surveys and the apparently standard horizontal control methods used in the 1891 survey.

H-8691, the
present
Survey

Chart 8075 (1:80,000) is the largest scale chart of the south half and chart 8102 (1:229,376) is the largest scale chart of the north half. Both are based on the above survey. General agreement with (PA 10-2-62) is good.

H-8691

Because of steeply sloping bottom in the vicinity of the two soundings indicated on Presurvey Review Item No. 1, coupled with the small scale of chart 8102, there is no way to adequately resolve the apparent discrepancy. (See smooth sheet).

No discrepancy exists.

Pre-survey
Review Item No. 1
for information only.

L. ADEQUACY OF SURVEY

This survey is considered to be complete and adequate to supersede prior surveys for charting and no additional work is recommended for the area covered.

M. AIDS TO NAVIGATION

There are no landmarks, and no fixed or floating aids to navigation in the area surveyed.

N. STATISTICS

Hydrography:			
	Number of Positions	Nautical miles of sounding line	Area in Square Nautical miles
Ship PATTON	404	63.5	6.9
Launch CS-1191	<u>1504</u>	<u>131.9</u>	<u>2.9</u>
Total	1908	195.4	9.8

Photogrammetric field edit - 29 Statute miles

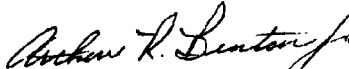
- 1 Tide Station
- 2 Temperature and Salinity Observations
- 27 Bottom Samples
- 1 Magnet Station
- 1 Current Station

P. RECOMMENDATIONS

This survey is considered to be complete and adequate to supersede prior surveys for charting and no additional work is recommended for the area covered.

Q. REFERENCE TO REPORTS

- 1. Fathometer Report -- to be forwarded
- 2. Geographic Names Report -- to be forwarded


Arthur R. Benton, Jr.
LCDR, C&GS
Comdg. Ship PATTON

January 2, 1963

includes bar check corrections

DRAFT, VELOCITY AND PHASE CORRECTIONS

For Launch CS-1191

16-27 June 1962

<u>To Depth (fathoms)</u>	<u>A - Scale</u>	<u>B - Scale</u>	<u>C - Scale</u>
6.0	+0.3		
23.0	+0.4		
31.0	+0.5		
46.0	+0.4	+1.0	
82.0	+0.6	+1.0	+3.4
101.0		+1.2	+3.6
Deepest		+1.5	+4.0

For Launch CS-1191

9 August - 10 September 1962

<u>To Depth (fathoms)</u>	<u>A - Scale</u>	<u>B - Scale</u>	<u>C - Scale</u>
5.0	+0.3		
12.0	+0.4		
24.0	+0.5		
52.0	+0.6	+0.6	
81.0	+0.8	+0.8	+3.0
101.0		+1.0	+3.2
Deepest			+3.0

TIDE NOTE

SURVEY PA 10-2-62, H-8691

The standard tide gage at the Coast Guard Base, Ketchikan, Alaska, served to control this survey. Hourly heights, already reduced to MLLW, were furnished by the Washington Office. No time or height corrections were applied to the observed tides.

VELOCITY* CORRECTIONS (Fathoms)

Ship PATTON

JUNE		SEPTEMBER	
<u>To depth</u>	<u>Correction</u>	<u>To depth</u>	<u>Correction</u>
20	+0.1	14	+0.1
62	+0.2	26	+0.2
95	+0.4	31	+0.3
101	+0.6	40	+0.2
140	+0.5	69	+0.4
Deepest	+1.0	96	+0.6
		101	+0.8
		113	+0.5
		Deepest	+1.0

* Phase Correction is zero for all scales

INITIAL AND DRAFT CORRECTIONS (fathoms)

Ship PATTON

<u>To depth</u>	<u>Correction</u>
31.0	+0.3
101.0	+0.2
Deepest	0.0

LIST OF SIGNALS

Established 1962

Sheet PA-10-2-62, H-8691

<u>NAME</u>	<u>ORIGIN</u>	<u>NAME</u>	<u>ORIGIN</u>
ABE	T-10599	JAR	Vol III p4
ACE	T-10599	JOY	T-10607
AIM	T-10607	KEN	Vol III p4
ARM	T-10599	KEY	T-10607
BAG	T-10599	KIM	Vol III p3
BAN	Vol III p42	LAX	T-10599
BAT	T-10607	LAY	Vol III p3
CAB	T-10599	LEO	Vol V p48
CAR	T-10607	LOG	T-10606 Vol V p49
COP	T-10599	MAN	Vol III p3
DAY	T-10599	MAX	T-10607 Vol V p47
DEB	T-10607	MID	T-10606 Vol V p49
DOG	T-10599	MOO	Vol VII p44
EAR	T-10599 Vol III p4	MOP	T-10599
EAT	T-10607	NEW	T-10606
FAT	T-10607	NIP	T-10607 Vol V p48
FIT	Vol VI p55	NOR	T-10599
GAG	T-10607	NUT	T-10607
GAL	Vol V p46	ODD	T-10607 Vol V p47
GOB	Vol III p43	OFF	T-10607
HAG	T-10607	ORA	T-10607 T-10606
HEX	Vol III p3	OUT	T-10599
HUB	T-10607	PAR	Vol III p42
IDA	Vol III p4	PET	T-10607 Vol V p47
IVY	T-10607 Vol III p43	PLY	T-10599 Vol III p3
		PRO	T-10614 Vol V p49

LIST OF SIGNALS - Established 1962 - Sheet PA-10-2-62, H-8691 (Cont.)

<u>NAME</u>	<u>ORIGIN</u>
RAG	Vol V p46
RUM	Vol III p42
SIS	Vol V p45
SOW	Vol III p42
SUB	T-10614
TAN	Vol III p42
TAX	Vol V p45
USE	Vol V p45
VEX	T-10607
WIN	T-10607
YAK	T-10607
ZAG	T-10607

APPROVAL SHEET

SHEET PA 10-2-62, H-8691

The records for this survey are approved and no additional field work is recommended. All work was supervised by me and the records were examined daily in the field. The smooth sheet will not be plotted under my supervision.

Arthur R. Benton, Jr.
LCDR, C&GS
Comdg. Ship PATTON

FATHOMETER REPORT
1962

Ship PATTON
A. R. Benton, Jr. Comdg.

Project OPA-424
Sheets PA 10-1-62, 10-2-62, 10-3-62

This report includes an abstract of echo sounding corrections applied, the data used to determine those corrections, and a description of the methods employed to obtain the correction data.

SOUNDING EQUIPMENT

Launch 1191 used 808J fathometer No. 51 exclusively.

Ship PATTON used 808J fathometer No. 74 in areas of hard bottom or relatively shoal water, i.e. generally less than 140 fathoms. In deep water and soft bottom areas, 808J No. 74 would not produce readable returns. These areas were surveyed when it was possible to borrow Raytheon Model 723 fathometer No. 250 from the LESTER JONES.

VELOCITY CORRECTION

For launch 1191 sounding volumes this correction was entered in the "Echo" column and included, besides velocity correction, the draft correction and the phase correction. Tables of this combined correction are included with this report.

For Ship PATTON sounding volumes this correction was entered in the "Echo" column and included phase correction along with velocity correction (in the case of 808J soundings) but no draft correction. The Model 723 fathometer was calibrated to eliminate phase errors, so the "Echo" correction column for this instrument consisted of velocity corrections only.

INDEX CORRECTION

The index was held at 0.0 fathoms for launch 1191 soundings. Draft correction was incorporated into the "Echo" correction (as explained below) so index correction was applied only when the initial setting deviated from 0.0.

The index was held at 1.0 fathoms for Ship PATTON. Frequent checks of ship's draft indicated negligible deviation from a mean of 7.8 feet (1.3 fathoms) with changes in volume of water, fuel, and supplies carried. The basic index correction was therefore constant except when the initial deviated from 1.0.

PHASE CORRECTION

Phase comparisons were made several times during the season with the Launch 1191 fathometer. Results were highly consistent. Phase corrections were considered to be constant for Sheets 10-1-62 and

PHASE CORRECTIONS (Cont.)

10-2-62 from the beginning of the season through 27 June, when this project was discontinued for a 6 week period. A slightly different phase correction was applied from 9 August, when the project was resumed on Sheet 10-2-62, through the completion of that sheet. The Sheet 10-3-62 phase correction was very slightly different (0.1 fathom) from the 10-2-62 correction.

Only one phase comparison was made with the Ship PATTON fathometer. This was taken during early June when the ship was using the 808 extensively for hydrography. Except for a single short split late in the season, all further ship hydrography was run with a borrowed Model 723 fathometer.

VELOCITY CURVE COMPUTATIONS

Temperature and salinity observations were taken monthly while engaged on this project. Multiple Nansen bottle casts were made at standard depths at these times, with in situ temperatures by reversing thermometer and salinities by hydrometer.

After computation of corrected temperatures and salinities with depth, theoretical velocity correction curves were drawn.

Velocity corrections were taken directly from the curves for application to ship soundings.

In the case of Launch 1191 velocity corrections a different tack was taken. Here, means of daily bar check corrections were used to construct the velocity correction curve to the maximum depth of the bar (7 fathoms). From this point, the bar check curve was continued by drawing a curve parallel to the appropriate theoretical velocity correction curve. By means of this gambit, launch draft correction was incorporated into the velocity corrections.

TABULATION OF DATA

A tabulation of phase and velocity corrections are included with this report, along with the periodic means of bar check data. Copies of the original temperature and salinity records and all subsequent computations leading to the correction curves are included with the original copy of this report. The original temperature and salinity records are being forwarded separately per Hydrographic Manual, Par. 7-26. Note that the T&S records are tabulated on nine-line paper -- this is because Form 717 does not properly accommodate T&S observations using Nansen bottle strings (see Monthly Report of Activities for May 1962).

January 7, 1963

Arthur R. Benton, Jr.
LCDR, C&GS
Comdg. Ship PATTON

PHASE COMPARISONS AND CORRECTIONS

Ship PATTON -- applicable for June 1962 on Sheet PA 10-1-62

<u>Mean of Comparisons</u>		<u>Phase Correction</u>	
<u>Scale</u>	<u>Fathoms Difference</u>	<u>Scale</u>	<u>Fathoms Correction</u>
A-B	+0.8	B	+0.8
B-C	-1.2	C	-0.4
C-D	-2.0	D	-2.4
D-E	+2.7	E	+0.3

Launch 1191 -- applicable on all of PA 10-1-62 and on PA 10-2-62 from beginning thru 27 June 1962.

<u>Mean of Comparisons</u>		<u>Phase Correction</u>	
<u>Scale</u>	<u>Fathoms Difference</u>	<u>Scale</u>	<u>Fathoms Correction</u>
A-B	+0.5	B	+0.5
B-C	+2.3	C	+2.8

Launch 1191 -- applicable on all of PA 10-2-62 on and after 9 Aug 1962

<u>Mean of Comparisons</u>		<u>Phase Correction</u>	
<u>Scale</u>	<u>Fathoms Difference</u>	<u>Scale</u>	<u>Fathoms Correction</u>
A-B	KXIX +0.1	B	+0.1
B-C	+2.2	C	+2.3

Launch 1191 -- applicable on all of PA 10-3-62

<u>Mean of Comparisons</u>		<u>Phase Correction</u>	
<u>Scale</u>	<u>Fathoms Difference</u>	<u>Scale</u>	<u>Fathoms Correction</u>
A-B	KXIX +0.2	B	+0.2
B-C	+2.0	C	+2.2

INDEX CORRECTION -- Ship PATTON -- All sheets

<u>Depth to (fathoms)</u>	<u>Correction (fathoms)</u>
31.0	+0.3
101.0	+0.2
Deepest	0.0

*- includes
bad check
corr.*

**COMBINED
VELOCITY, PHASE, & DRAFT CORRECTIONS**

LAUNCH 1191

PA 10-1-62 (All)

<u>Depth to</u>	<u>A Scale</u>	<u>B Scale</u>	<u>C Scale</u>
15.0	+0.3		
62.0	+0.4	+0.8	
97.0	+1.0	+3.4	
101.0		+3.6	
117.0		+3.0	
150.0		+3.5	

PA 10-2-62 (thru 27 June)

<u>Depth to</u>	<u>A Scale</u>	<u>B Scale</u>	<u>C Scale</u>
6.0	+0.3		
23.0	+0.4		
31.0	+0.5		
46.0	+0.4	+1.0	
82.0	+0.6	+1.0	+3.4
101.0		+1.2	+3.6
Deepest			+4.0

KK

PA 10-2-62 (9 August to end)

<u>Depth to</u>	<u>A Scale</u>	<u>B Scale</u>	<u>C Scale</u>
5.0	+0.3		
12.0	+0.4		
24.0	+0.5		
52.0	+0.6	+0.6	
81.0	+0.8	+0.8	+3.0
101.0		+1.0	+3.2
Deepest			+3.0

PA 10-3-62 (All)

<u>Depth to</u>	<u>A Scale</u>	<u>B Scale</u>	<u>C Scale</u>
4.0	+0.3		
8.0	+0.4		
19.0	+0.5		
46.0	+0.6	+0.8	
73.0	+0.8	+1.0	
99.0		+1.2	+3.2
101.0			+3.4
126.0			+3.0

COMBINED VELOCITY AND PHASE CORRECTIONS - with 808 J

Ship PATTON - PA 10-1-62 - All

<u>Depth to</u>	<u>A Scale</u>	<u>B Scale</u>	<u>C Scale</u>	<u>D Scale</u>	<u>E Scale</u>
55.0	0.0				
90.0		+0.8			
101.0			-0.4		
115.0			-0.5	-2.5	
125.0			0.0	-2.0	
160.0				-2.0	
Deepest					+1.0

VELOCITY CORRECTIONS - with DE 723

Ship PATTON - PA 10-2-62

June (A & B days)

<u>Depth to</u>	<u>Correction</u>
20.0	+0.1
62.0	+0.2
95.0	+0.4
101.0	+0.6
140.0	+0.5
Deepest	+1.0

Sept. (C, D, & E days)

<u>Depth to</u>	<u>Correction</u>
11.0	+0.1
26.0	+0.2
31.0	+0.3
40.0	+0.2
69.0	+0.4
96.0	+0.6
101.0	+0.8
113.0	+0.5
Deepest	+1.0

BAR CHECK DATA

Launch 1191

<u>Sheet No.</u>	<u>Applicable Dates</u>		<u>Mean of OBSERVED Corrections-Bar Depth of:</u>			
	<u>From</u>	<u>To</u>	<u>2 fms</u>	<u>3 fms</u>	<u>5 fms</u>	<u>7 fms</u>
10-1-62	3 May 62	13 Jun 62	+0.25	+0.25	+0.23	+0.32
10-2-62	16 Jun 62	27 Jun 62	+0.28	+0.32	+0.34	+0.41
10-2-62	9 Aug 62	15 Sept 62	+0.27	+0.32	+0.33	+0.43
10-3-62	7 Sept 62	27 Sept 62	+0.30	+0.32	+0.32	+0.43

<u>Sheet No.</u>	<u>Applicable Dates</u>		<u>Values PLOTTED on Correction Curve</u>			
	<u>From</u>	<u>To</u>	<u>2 fms</u>	<u>3 fms</u>	<u>5 fms</u>	<u>7 fms</u>
10-1-62	3 May 62	13 Jun 62	+0.25	+0.27	+0.30	+0.32
10-2-62	16 Jun 62	27 Jun 62	+0.28	+0.32	+0.34	+0.41
10-2-62	9 Aug 62	15 Sept 62	+0.29	+0.32	+0.35	+0.40
10-3-62	7 Sept 62	27 Sept 62	+0.30	+0.32	+0.37	+0.43

NOTES BY SMOOTH PLOTTER TO
ACCOMPANY INCOMPLETE SMOOTH SHEET

1. The projection was made and checked by the Washington Office. ✓
2. All positions have been pricked through. The position numbers through "m" day (volume VI) have been inked. *Now Completed*
3. All soundings through "m" day (volume VI) have been penciled. The soundings included in positions 1"p" through 47"p", 1"r" through 29"r", and 61"r" through 79"r" have also been penciled. *Now Completed*
4. All bottom samples have been penciled on the smooth sheet. *Now Inked*
5. There has been no D. P. rock positions located or any transferring of field edit data from the ozalids. *Now Completed*
6. Signal ORA originally plotted as a photo-hydro signal was changed to a hydro signal. It is incorrectly shown to be red on the boat sheet. ✓
7. Positions 57A-58A and the included soundings were transferred to PA 10-1-62 (H-8690). *No! They are now plotted on this smooth sheet H-8691 (1962)*
8. Positions 54r through 60r are very weak fixes (approaching swingers). They were plotted from one angle and the boat sheet position. ✓
9. Crossline soundings between the positions 80C and 81C were rejected. A seventy fathom discrepancy exists and the various other lines in the area seem to check with each other. The bottom is extremely steep in that vicinity.

Stanley J. Ruden
ENS C&GS

← Only one sdy. rejected.
Questionable
Otherwise no discrepancy exists.
DEW

PROCESSING OFFICE NOTES - H-8691

SMOOTH SHEET

Except for the projection, which was ruled and checked in Washington, the smooth sheet was prepared by the Ship PATTON; that is, the control was transferred and the shoreline transferred and inked. Since no initials were shown for checking, the transfer of control and shoreline was checked in the Seattle Processing Office. Photo-Hydro station HUB was chosen as a reference station and its position scaled.

All of the positions were plotted and about 84% of the soundings were penciled by the field party. The balance of the work was by the Seattle Processing Office.

SHORELINE

Three rocks located on August 29, 1962, a day for which there are no data in the Processing Office, are shown on the smooth sheet with appropriate notes as to height, time and date of location.

Rocks O.K.
Elevations from
T-sheet
field insp.

Inserted in Volume 2, page 41, is a sketch showing the George Inlet Cannery on a scale of 1:1000. Since there are only seven soundings on the sketch it was not believed worthwhile to transfer the layout to the smooth sheet.

Cannery and
Soundings
Shown as
sub-plan on
Smooth Sheet

JUNCTIONS

Junctions with H-8690 and H-8692 have been compared and found in agreement.

at 1:10,000
Scale

COMPARISON WITH CHART

This survey has been compared with Charts 8075, 1st Ed., Revised 9/4/61, and 8102, 6th Ed., Revised 12/18/61.

Agreement with Chart 8075 appears reasonable, except that there are two 19-fathom soundings shown on the smooth sheet close to deeper charted soundings. One is at Latitude $55^{\circ}19'.40$, Longitude $131^{\circ}28'.95$ near a charted 23 fathoms. The other is at Latitude $55^{\circ}19'.62$, Longitude $131^{\circ}29'.30$ near a charted 28 fathoms.

On Chart 8102 the 20-fathom charted sounding at Latitude $55^{\circ}20'$, Longitude $131^{\circ}28'$ appears to be about 250 meters too far east, or off-shore. The 223-fathom charted sounding at Latitude $55^{\circ}21'.5$, Longitude $131^{\circ}28'$ appears to be plotted about 400 meters too far west.

Mention was made of the Pre-survey Review Item No. 1 in the field report. No copy of the review is in the Processing Office, so there is no way to know what was meant by the reference to the smooth sheet.

Pre-Survey
Review Item
#1 for
information
only.
Disregard

Respectfully submitted,

William M. Martin

William M. Martin
Supervisory Cartographer

Approved and Forwarded

M. E. Wennermark

M. E. Wennermark
Captain, C&GS
Seattle District Officer

GEOGRAPHIC NAMES
Survey No. H-8691

Name on Survey	Sources										
	A	B	C	D	E	F	G	H	K		
✓ California Cove	x										1
✓ California Head	x										2
✓ Carroll Inlet	x										3
✓ Carroll Point	x										4
✓ George Inlet	x										5
✓ Herring Bay					x						6
Mountain Point											7
✓ Revillagigedo Island	x										8
											9
											10
											11
											12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

NOT SHOWN ON SMALL SHEET
X
NEW

George S. Ball
Geographic Names Section
8 October 1963

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8691....

Records accompanying survey *2/16/70 CSJ* Smooth sheets ..1...;
 boat sheets *1 destroyed* ..1...; sounding vols. *8* ..8...; wire drag vols.;
 Descriptive Reports ..1...; graphic recorder envelopes *5* ..5...;
 special reports, etc. *4* - Manuscript Prints of T-10608: *1* Blackline,
2 Blue lines and *1* Paper copy.....

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

Number of positions on sheet 1908
 Number of positions checked 3
 Number of positions revised 3
 Number of soundings revised (refers to depth only)
 Number of soundings erroneously spaced
 Number of signals erroneously plotted or transferred
 Topographic details Time
 Junctions Time 24 hrs
 Verification of soundings from graphic record Time 8 hrs
~~Special adjustments~~ Time 25 hrs

Verification by *J. L. B. Chambers* Total time *49 hrs* Date *7/12/65*
Allen K. Schugel Total time *126 hrs* Date *6 May 1965*

Reviewed by *John P. Westbrooke* Time *69 hrs* Date *4/30/65*

RHC

FORM C&GS-712
(4-62)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

November 13, 1963

Nautical Chart Division: R. H. Carstens

Plane of reference approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 8691

Locality George Inlet, S. E. Alaska

Chief of Party: A. R. Benton, 1962

Plane of reference is mean lower low water, reading
6.3 ft. on tide staff at Ketchikan (Datum of Tabulations)
23.1 ft. below B. M. 24 (1921)

Height of mean high water above plane of reference is 14.4 feet.

Condition of records satisfactory except as noted below:


Chief, Tides and Currents Branch

OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8691

FIELD NO. PA-10-2-62

Southeast Alaska, George and Carroll Inlets, Vicinity
of California Head

SURVEYED: June through September 1962

SCALE: 1:10,000

PROJECT NO.: OPR-424

SOUNDINGS: 808 and Raytheon
DE-723 Depth Recorders

CONTROL: Sextant fixes
on shore signals

Chief of Party.....	A. R. Benton, Jr.
Surveyed by.....	A. R. Benton, Jr.
.....	R. W. Franklin
.....	E. D. Schwantes, Jr.
Protracted by.....	S. J. Ruden
Soundings Plotted by.....	S. J. Ruden
.....	V. F. Flor
Verified and Inked by.....	A. K. Schugeld(Norfolk)
.....	J. C. Chambers (Rock-
Reviewed by.....	D. E. Westbrook vill.
,.....	Date: Nov. 18, 1965
Inspected by.....	R. H. Carstens

1. Description of the Area

This survey covers the southern half of George Inlet and the southern portion of Carroll Inlet, and includes the area where they join in the vicinity of California Head, Revillagigedo Island.

These inlets have the general characteristics of glacial fiords, being relatively deep, narrow, and having few offshore dangers to navigation. Near the shore, however, numerous boulders, reefs, and islets exist. In addition, rock ledge and boulder beaches rim most of the shoreline.

The bottom is generally composed of mud with some broken shells.

2. Control and Shoreline

The source of the control is adequately described in the Descriptive Report.

The shoreline originates with Advance Photogrammetric Manuscripts T-10599 (1956-62); T-10606 (1954-62); T-10607 (1954-62); T-10608 (1954-63); T-10614 (1954-62); and T-10615 (1954-62) all at 1:10,000 scale.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves were adequately delineated. Curves inshore of 5-fm. depths could not be completely delineated because of steep gradients and the need for clarity.

C. The development of the bottom configuration and investigation of least depths is considered adequate.

4. Condition of the Survey

The field plotting, sounding records, the Descriptive Report, and field verification are adequate and conform to the requirements of the Hydrographic Manual except that apparently no determination of an instrumental correction was made for the Ship PATTON fathometer. This correction would be relatively negligible considering the depths surveyed with the PATTON.

Revisions to the Photogrammetric Manuscripts subsequent to the inking of the shoreline details and reef symbols on the smooth sheet, however, necessitated the investment of a considerable amount of time in correcting these details during review.

5. Junctions

Adequate junctions were effected with H-8690 (1962) on the north, H-8692 (1962-63) on the east, and H-8758 (1963) on the south.

6. Comparison With Prior Surveys

H-2111 (1:40,000) 1891

The above survey affords the only prior hydrographic coverage of the present survey area. Its relatively small scale and lack of development precludes a detailed comparison with the present survey. It can be stated that little change in the bottom configuration or general depths is evident in the 71 years between surveys.

The present survey, because of its larger scale and more complete development, reveals several features which went undetected on the prior survey.

The elevations of two islets shown on T-2059 (1891) have been brought forward to supplement the present survey.

With the addition of the elevations noted above, the present survey is adequate to supersede the prior hydrographic survey within the common area.

7. Comparison With Charts

A. Chart 8075, 2d, Ed., March 8, 1965

Some of the charted hydrography in the present survey area originates with the previously discussed prior survey which requires no further consideration. This hydrography has been supplemented by several soundings from the present survey before verification and review.

Attention is directed to the following:

The rock awash shown on the present survey in lat. $55^{\circ}19'83$, long. $131^{\circ}28'40$ should be added to the chart.

The charted shoreline in the area of the present survey should be revised to agree with the 1954-63 topographic surveys. The charted shoreline of Herring Bay is in particular disagreement with the latest topographic information. The shoreline is now charted from a 1926 sketch made from U.S. Geological Survey aerial photographs (Bp-23934).

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

B. Chart 8102, 7th. Ed., October 14, 1963

All of the charted hydrography originates with the previously discussed prior survey which requires no further consideration.

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


8. Compliance With Instructions

The survey adequately complies with the Project Instructions.

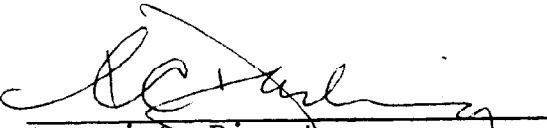
9. Additional Field Work

This survey is considered to be an excellent basic survey and no additional field work is recommended.

Examined and Approved:



Chief
Marine Chart Division



Associate Director
Hydrography and Oceanography

Diag. Cht. 8102 ~~inmapm~~ temporary out of print.

Ch 8102 - examined before V+R for critical corr's - no corr'n
9/4/63
ME

6/16/62 - 9/19/62