

8690

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-10-1-62 Office No. H-8690

LOCALITY

State Alaska

General locality George Inlet

Locality Northern Part

19 62

CHIEF OF PARTY

A. R. Benton, Jr.

LIBRARY & ARCHIVES

DATE June 19, 1963

USCOMM-DC 5087

8690

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-8690

Field No. PA-10-1-62

State Southeast Alaska

General locality ~~Revillagigedo Island~~ George Inlet

Locality ~~George Inlet~~ Northern Part

Scale 1:10,000 Date of survey MAY-JUNE 1962 ~~Field Season~~

Instructions dated January 29, 1962; February 13, 1962

Vessel Ship PATTON and Launch No. CS-1191

Chief of party Arthur R. Benton, Jr.

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

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

Fathograms scaled by Ship's personnel

Fathograms checked by Ship's personnel

Protracted by D. R. Tibbit and V. F. Flor

Soundings penciled by D. R. Tibbit and V. F. Flor

Soundings in fathoms AND TENTHS ~~300~~ [^] at ~~MLLW~~ MLLW

REMARKS:
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WRS

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SURVEY H-8690 (FIELD NO. PA 10-1-62)

Scale 1:10,000

Ship PATTON

Arthur R. Benton, Jr., Comdg.

A. PROJECT

This survey 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 north half of George Inlet on Revillagigedo Island. The approximate limits are from Latitude $55^{\circ}31.1'$ ^{to} the north and Latitude $55^{\circ}24.4'$ ^{to} the south, and from Longitude $131^{\circ}31.9'$ ^{to} the west and Longitude $131^{\circ}27.2'$ ^{to} the east. This survey makes a satisfactory junction with PA 10-2-62 ^{to} the south.

(H-8691, 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.

Capital
Letters
for SHIP
WORK

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-10586, T-10587, T-10591, T-10592, T-10598, and T-10599. 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. Off-shore rocks were located by sextant fixes.

H. CROSSLINES ✓

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

I. JUNCTIONS ✓

A satisfactory junction was made with a 1962 survey to the south. There are no junctions with surveys made prior to 1962. (See Section B, above).

J-K. COMPARISON WITH PRIOR SURVEYS 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 10-1-62, considering the time interval between the two surveys and the apparently substandard horizontal control methods used in the 1891 survey.

Chart 8102 (1:229,376) is the largest scale chart of the area and is based on the above survey. General agreement with (PA 10-1-62) is good. *the present survey H-8690*

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	184	30.6	3.2
Launch CS-1191	2116	198.6	7.3
Total	2300	229.2	10.5

N. STATISTICS (Cont.)

Photogrammetric field edit -- 29 statute miles

1 Tide Station

1 Temperature and Salinity Observation

22 Bottom Samples

1 Magnetic 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.
Arthur R. Benton, Jr.
LCDR, C&GS
C. O. Ship PATTON

January 2, 1963

ECHO CORRECTIONS
(for entire period of survey)

VELOCITY, PHASE AND DRAFT CORRECTIONS

For Launch CS-1191

To Depth (fathoms)	Correction (fathoms)		
	A - Scale	B - Scale	C - Scale
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

VELOCITY AND PHASE CORRECTIONS

For Ship PATTON

To Depth (fathoms)	Correction (fathoms)				
	A - Scale	B - Scale	C-Scale	D-Scale	E-Scale
55.0	0.0				
90.0		+0.8			
101.0			-0.4		
115.0			-0.5	-2.5	
125.0			0.0		
150.0					
160.0				-2.0	
Deepest					+1.0

INITIAL AND DRAFT CORRECTIONS

For Ship PATTON

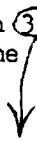
To Depth (fathoms)	Correction (fathoms)
31.0	+0.3
101.0	+0.2
150.0	0.0

TIDE NOTE

SURVEY PA 10-1-62, H-8690

The portable tide gage at Coon Island, George Inlet, Southeast Alaska, approximate position: Latitude $56^{\circ}26.7'N$, Longitude $131^{\circ}30.3'W$, served to control this survey.

MLLW corresponds with 3.6 ft on the staff. The 120th time meridian was used. No time or height corrections were applied to the tides.



NOTE: MLLW should have been 4.1 feet instead of 3.6 feet. Tide reducers in the sounding volumes have been verified using the amended plane. See note for Hydrographic Sheet filed in this descriptive report.

L.C.W. 11/21/63

LIST OF SIGNALS

Established 1962 - Sheet PA 10-1-62, H-8690

<u>NAME</u>	<u>ORIGIN</u>	<u>NAME</u>	<u>ORIGIN</u>
o ABE ✓	T-10598 Vol IV p30 ✓	FRY ✓	Vol IV p27
+ ACE ✓	Vol II p4 ✓	+ GAL ✓	Vol II p4 ✓
ACT ✓	T-10592 ✓	GAS ✓	T-10592 Vol IV p27 ✓
o AIM ✓	T-10587 ✓	GIN ✓	T-10592 ✓
ALP ✓	T-10592 ✓	GUS ✓	Vol VII p51 ✓
o ARM ✓	T-10587 ✓	HER ✓	T-10592 ✓
BAG ✓	T-10592 ✓	o HOP ✓	T-10587 ✓
BAH ✓	T-10592 Vol IV p30 ✓	HUB ✓	T-10592 ✓
o ⁺ BIG ✓	T-10586 ✓	ICE ✓	Vol IV p27 ✓
+ BOB ✓	Vol II p4 ✓	IDA ✓	T-10592 ✓
BOX ✓	T-10598 Vol VII p53	o IVY ✓	T-10587 ✓
CAB ✓	T-10598 Vol VII p52	o JAR ✓	T-10587 ✓
CAT ✓	T-10592 ✓	JAW ✓	Vol VII p51 ✓
COO ✓	T-10592 Vol IV p30 ✓	JIM ✓	T-10592 Vol IV p30 ✓
o ^k COW ✓	T-10586 ✓	JOE ✓	T-10592 ✓
o CUT ✓	T-10587 ✓	KEN ✓	T-10592 ✓
o ^k DAY ✓	T-10587 ✓	KEY ✓	T-10592 ✓
DEB ✓	T-10592 ✓	o KID ✓	T-10587 ✓
DIP ✓	T-10592 ✓	→ KIM ✓	Vol VII p51 ✓
o DOC ✓	T-10587 ✓	✓ LAM ✓	T-10587 ✓
o EAR ✓	T-10587 ✓	LAX ✓	T-10592 ✓
EBB ✓	T-10592 ✓	LAY ✓	Vol VII p52 ✓
EGG ✓	Vol II p4 ✓	LEO ✓	T-10586 Vol IV p28 ✓
EGO ✓	T-10592 Vol IV p30 ✓	LIP ✓	T-10592 ✓
FAR ✓	Vol VII p51 ✓	MAG ✓	T-10591 ✓
+ FAT ✓	Vol II p4 ✓	MAN ✓	Vol VII p52 ✓
FEZ ✓	Vol II p5 ✓	MET ✓	T-10592 ✓

LIST OF SIGNALS (Cont.)

<u>NAME</u>	<u>ORIGIN</u>	<u>NAME</u>	<u>ORIGIN</u>
MID ✓	Vol II p5 ✓	SOW ✓	Vol II p5 ✓
✓MOO ✓	T-10587 ✓	TAN ✓	T-10592 ✓
○MOP ✓	T-10591 Vol IV p29 ✓	○TAX ✓	T-10587 ✓
○NAY ✓	T-10591 ✓	TOM ✓	T-10598 Vol VI p36 ✓
NIX ✓	T-10592 ✓	TRY ✓	T-10592 ✓
NOR ✓	T-10599 ✓	○TUG ✓	T-10591 Vol IV p29 ✓
NOW ✓	T-10592 ✓	VAL ✓	T-10592 ✓
○NUT ✓	T-10587 ✓	VET ✓	T-10598 Vol VII p52 ✓
OAK ✓	T-10592 ✓	✓VEX ✓	T-10592 Vol IV p28 ✓
○OBI ✓	T-10591 ✓	○VIA ✓	T-10591 Vol IV p29 ✓
ODD ✓	T-10592 ✓	○VIM ✓	T-10587 ✓
○OFF ✓	T-10587 ✓	WAG ✓	T-10592 ✓
OUT ✓	T-10599 Vol IV p36 ✓	○WAR ✓	T-10591 Vol IV p29 ✓
○PAD ✓	T-10591 ✓	WED ✓	T-10592 ✓
PIN ✓	T-10592 ✓	○WEE ✓	T-10591 Vol IV p28 ✓
PLY ✓	T-10599 Vol VI p36 ✓	✓YAK ✓	T-10591 Vol IV p28 ✓
○PRO ✓	T-10587 ✓	○YAM ✓	T-10591 ✓
PUP ✓	T-10592 ✓	YES ✓	T-10592 ✓
RAM ✓	T-10592 ✓	YET ✓	T-10592 Vol IV p30 ✓
○RAT ✓	T-10587 ✓	○ZAG ✓	T-10591 ✓
RIM ✓	T-10592 ✓	ZIG ✓	T-10591 ✓
ROY ✓	T-10591 ✓	○ZOO ✓	T-10587 ✓
RUM ✓	T-10599 Vol VI p36 ✓		
○SAG ✓	T-10591 ✓		
→ SAX ✓	T-10598 ✓		
✓SIP ✓	T-10587 ✓		
SIS ✓	T-10592 ✓		

APPROVAL SHEET

SHEET PA 10-1-62, H-8690

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. Except for plotting visual control, 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 OPB-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	XXX +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	XXX +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

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

PK

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

<u>June (A & B days)</u>		<u>Sept. (C, D, & E days)</u>	
<u>Depth to</u>	<u>Correction</u>	<u>Depth to</u>	<u>Correction</u>
20.0	+0.1	14.0	+0.1
62.0	+0.2	26.0	+0.2
95.0	+0.4	31.0	+0.3
101.0	+0.6	40.0	+0.2
140.0	+0.5	69.0	+0.4
Deepest	+1.0	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

4 April 1963

SMOOTH PLOTTER'S NOTES

SHEET

PA 10-1-62

- H-8690

1. Soundings in all volumes (I-IX) have been reduced and checked.
2. All the Ship's hydrography has been plotted and the soundings penciled ('B' thru 'D' days).
3. Launch hydrography for days 'a' thru 'p' has been plotted and the soundings penciled. Positions lq thru l7q have also been plotted and the soundings penciled.
4. All the crosslines for the plotted hydrography - both Ship's and Launch's - check within the allowable limits. Most of the crosslines ~~xxxx~~ are in excellent agreement with the regular system.
5. The projection was checked in the Washington Office.
6. All control stations have been plotted and checked.
7. Bottom sample positions have not been protracted nor characteristics penciled.
8. The position of the Tide Station has not been plotted.
9. Positions and heights of rocks (bare or awash) have not been confirmed with the exception of the rocks awash at the two following positions:
55°29'40"N and 55°29'50"N
131°29'50"W and 131°27'45"W
28 20? 28 15?
10. The possible shore-line revision at 55°30'22"N 131°30'50"W has not been resolved *See Processing Office notes under Shoreline.*
11. No depth curves have been drawn nor foul and shoal areas indicated.

Smooth sheet
Completed by
Seattle Processing
Office
(See next page)

DRT
D.R. Tibbit

PROCESSING OFFICE NOTES - H-8690

SMOOTH SHEET

The projection was machine ruled and checked in the Washington Office. The control and the shoreline were transferred and checked by personnel of the Ship PATTON. Approximately 79% of the positions were plotted and soundings penciled by Ship personnel. The balance of the work was done in the Seattle Hydrographic Processing Unit.

SHORELINE

Under item 9 in the Smooth Plotter's Notes mention was made of rocks awash in two locations. Neither of these locations shows evidence of any rocks, so pen and ink changes have been made in the longitude of both locations to agree with rocks in the same latitude shown on the manuscript.

Item 10 of the Smooth Plotter's Notes mentions a possible shoreline revision. Advanced Manuscript T-10586 shows as detached H.W. rock the end of what shows on the boat sheet and the Incomplete Manuscript T-10586 as a peninsula. Apparently the question has been resolved by photogrammetry.

COMPARISON WITH CHART

This survey has been compared with Chart 8102, 6th Ed., Revised 12/18/61. The general agreement appears good, except in two places. There is a smooth sheet least depth of 6.5 fathom shoal in the vicinity of the charted sunken rock at Latitude 55°30'.0, Longitude 131°30'.3 and a 2.3 fathom shoal on the smooth sheet at Latitude 55°30'.1, Longitude 131°30'.5, near the charted 3 1/4 fathom sounding. In addition to the above the following is a list of least depths noted on the smooth sheet:

*ch. 2850 (450)
at - tide rose and
was 15 m off
shore. It is
not the
63 shoal*

<u>Latitude</u>	<u>Longitude</u>	<u>Depth</u>	<u>Position No.</u>
55°28'.94' ✓	131°29'.764' ✓	1.5 ✓ Rk	8 q ✓
55°28'.7 ✓	131°30'.0 ✓	10.9 ✓	40-41 k ✓
55°28'.35' ✓	131°30'.98' ✓	2.5 ✓ Rk	98 m ✓
55°26'.45' ✓	131°29'.105' ✓	3.3 ✓	34 v ✓
55°26'.708' ✓	131°28'.6 ✓	11.0 ✓	48 t ✓

ADEQUACY OF SURVEY

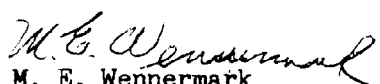
This appears to be a very good basic survey and entirely adequate

to supersede prior surveys and for charting.

Respectfully submitted,


William M. Martin
Supervisory Cartographer

Approved and forwarded.


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

GEOGRAPHIC NAMES

Survey No. H-8690

Name on Survey	8690										
	A	B	C	D	E	F	G	H	K		
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List			
✓ Bat Point	x									1	
✓ Bull Island	x									2	
✓ Coon Cove	x									3	
✓ Coon Island	x									4	
✓ George Inlet	x									5	
✓ Leask Cove	x									6	
✓ Revillagigedo Island	x									7	
✓ Tea Cove	x									8	
										9	
GRANITE ISLAND*										10	
										11	
										12	
										13	
										14	
										15	
										16	
										17	
										18	
* added from T-sheets 10587										19	
										20	
										21	
										22	
										23	
										24	
										25	
										26	
										27	

George S. Bee
Geographic Names Section
8 October 1963

TIDE NOTE FOR HYDROGRAPHIC SHEET

November 21, 1963

Nautical Chart Division: R. H. Carstens

Plane of reference approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 8690

Locality George Inlet, S. E. Alaska

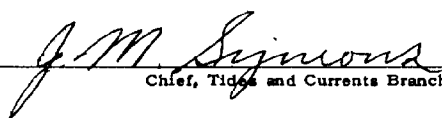
Chief of Party: A. R. Benton, 1962

Plane of reference is mean lower low water, reading
4.1 ft. on tide staff at Coon Island, George Inlet
15.0 ft. below B. M. 1 (1962)

Height of mean high water above plane of reference is 14.2 feet.

Condition of records satisfactory except as noted below:
NOTE: Tide reducers for positions listed below have been revised and verified.

<u>Vol.</u>	<u>Position</u>
1 ✓	20B-33B ✓
1 ✓	30C-33C ✓
1 ✓	1D-6D ✓


Chief, Tides and Currents Branch

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8690

Records accompanying survey *2/18/72* Smooth sheets 1
 boat sheets 1 *1-1/2*; sounding vols. 9; wire drag vols.
 Descriptive Reports 1; graphic recorder envelopes 6
 23 Manuscript Prints Blackline Blue-line Paper
 special reports, etc T-10591 1 1 2
 T-10586 1 1 2
 87 1 1 2
 92 1 1 2
 98 1 1 2
 99 1 1 2

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

Number of positions on sheet 2300
 Number of positions checked 16
 Number of positions revised 3
 Number of soundings revised (refers to depth only) (4)
 Number of soundings erroneously spaced
 Number of signals erroneously plotted or transferred
 Topographic details Time (30 hours) 41 hrs.
 Junctions Time (4 hours) All rocks ledges and reefs revised.
 Verification of soundings from graphic record Time 12 hours New 45hrs Review
 Special adjustments Time (88 hours) 5/18/65

Verification by *George Meyer* Total time 163 hours Date 3/23/65
Walter Schugild

Reviewed by *Paul E. Westbrook* TOTAL Time 86 hrs. Date Nov. 30, 1965
 (see above)

Handwritten mark

OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8690

FIELD NO. PA-10-1-62

Southeast Alaska, George Inlet, Northern Part

SURVEYED: May through June 1962

SCALE: 1:10,000

PROJECT NO.: OPR-424

SOUNDINGS: 808 Depth
Recorders, Leadline

CONTROL: Visual 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.....	D. R. Tibbett
.....	V. F. Flor
Soundings Plotted by.....	D. R. Tibbett
.....	V. F. Flor
Verified and Inked by.....	A. K. Schugeld
.....	G. K. Myers
Reviewed by.....	D. E. Westbrook
.....	Date: Nov. 30, 1965
Inspected by.....	R. H. Carstens

1. Description of the Area

This survey covers the northern part of George Inlet, Revillagigedo Island, Southeast Alaska.

George Inlet is long and narrow, and relatively deep, with few offshore hazards to navigation. In these respects, the inlet has the general characteristics of a glacial fiord.

In the northern portion of the survey area, however, near the head of the inlet, the shoreline is quite irregular and numerous islands, rocks, and rocky shoals abound.

Mud, gravel, and boulder flats which bare extensively at mean lower low water can be found in several of the coves, and rock ledge fringes much of the remaining shoreline.

2. Control and Shoreline

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

The shoreline originates with advance Photogrammetric Manuscripts T-10586 (1956-62); T-10587 (1954-62); T-10591 (1954-62); T-10592 (1956-62); T-10598 (1954-62); and T-10599 (1954-62).

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves were adequately delineated. The curves inshore of 5-fathoms could not be fully drawn in all areas because of the steep gradients and the need to maintain the clarity of the smooth sheet.

Several soundings were emphasized by the addition of dashed curves or brown curves in accordance with Par. 6-64 of the Hydrographic Manual.

C. The development of the bottom configuration and investigation of least depths is considered adequate. However, closer line spacing would have more completely delineated the 25-fm. shoals in lat. $55^{\circ}27'0$, long. $131^{\circ}29'8$ and also in lat. $55^{\circ}25'08$, long. $131^{\circ}29'6$, and a few more sounding lines could have been run into the cove in lat. $55^{\circ}28'4$, long. $131^{\circ}31'8$ to hydrographically delineate the low water line.

4. Condition of the Survey

The field plotting, field verification, sounding records, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, except that the sounding volumes were not signed as having been inspected by either the Officer-In-Charge or the Chief-of-Party. It is also noted that the records do not indicate that an instrumental correction was determined for the Ship PATTON fathometer. This correction is unlikely to be significant, however, considering the deep water area surveyed by the ship.

5. Junctions

An adequate junction was effected with H-8691 (1962) on the south. No other junction was required.

6. Comparison With Prior Surveys

H-2111	(1:40,000)	1891
T-2061	(1:10,000)	1891

Taken together these surveys comprise the only prior hydrographic coverage of the present survey area.

T-2061 (1891) is a combined hydrographic and topographic survey of the area in the vicinity of Tsa Cove. A comparison between this survey and the present survey discloses little if any differences in depths or bottom configuration. However, the present survey with its closely spaced lines and more complete development provides a much more complete and detailed presentation. As a consequence, numerous shoaler soundings were obtained on the present survey, and several shoals were found which previously had been undetected.

A detailed comparison with H-2111 (1891) and the present survey is difficult because of its small scale and lack of development. Little change in the bottom is indicated, however. Numerous features shown on the present survey were not detected on the prior survey.

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

7. Comparison With Chart 8102, 7th Ed., October 14, 1963

A. Hydrography

Most of the charted hydrography in the present survey area originates with the previously discussed prior surveys which require no further consideration.

This hydrography has been supplemented by a 2-fm. sounding in lat. 55°30'13", long. 131°30'51", and a rock in lat. 55°29'38", long. 131°28'58", both of which are from the present survey before verification and review.

Attention is directed to the following:

The sunken rock charted in lat. 55°30'1, long. 131°30'2 originates with Chart Letter No. 285 of 1950 in which the rock was reported to be 75 yards west of Bat Point. The present survey locates this rock (awash at MLLW) about 110 meters (120 yards) west of the point.

The rock awash should replace the sunken rock and be charted in accordance with present survey information.

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

B. Aids to Navigation

There are no aids to navigation charted in the area of the present survey.


8. Compliance With Project 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

RECORD OF APPLICATION TO CHARTS

SEE back cover of
this report

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H8690

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
8080	1/67	P. Musfeldt	Full Part Before After Verification, Review Inspection Signed Via Drawing No.
8102	5-4-71	E. Frey	Full Part Before After Verification Review Inspection Signed Via 8080 Drawing No. 1 Fully appd via chl 8080 dng #1
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
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Chart 8102 - examined, critical corr'n only before V+R, 9/4/63 ~~JE~~
(Add rock, 55-29.5/131-28.8)

Fig. Chart 8102 ^{temporary} ~~temporary~~ out of print.