

8692

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-10-3-62 Office No. H-8692

LOCALITY

State Southeast Alaska
General locality Carroll Inlet
Locality Osten Island to Rock Point

1962-63

CHIEF OF PARTY

A. R. Benton, Jr. & G. E. Haraden

LIBRARY & ARCHIVES

DATE June 19, 1965

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-8692

Field No. PA-10-3-62

State Alaska SOUTHWEST ALASKA

General locality Revillagigedo Island CARROLL INLET

Locality Carroll Inlet OSTEN I. to ROCK PT.

Scale 1:10,000 Date of survey Sept. 1962 - April 1963
~~1962 Field Season~~

Instructions dated January 29, 1962; February 13, 1962

Vessel Ship PATTON and Launch CS-1191

Chief of party Arthur R. Benton, Jr. (1962), G. E. Haraden (1963)

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

Soundings taken by ~~fathometer~~ D.R. Tibbett, S.J. Ruden
graphic recorder, hand lead, ~~etc~~

Fathograms scaled by Ship's personnel

Fathograms checked by Ship's personnel

Protracted by V. F. Flor

Soundings penciled by V. F. Flor

Soundings in and tenths
fathoms 1 foot at ~~MLLW~~ MLLW

REMARKS:

net

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SURVEY H-8692 (FIELD NO. PA 10-3-62)

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 third of Carroll Inlet on Revillagigedo Island. The approximate limits are from Latitude $55^{\circ}25.6'$ ~~to~~ the north and Latitude $55^{\circ}20.0'$ ~~to~~ the south and from Longitude $131^{\circ}25.0'$ ~~to~~ the west to Longitude $131^{\circ}17.5'$ ~~to~~ the east. This survey makes a satisfactory junction with (PA 10-2-62) ~~to~~ the west, and H-8755 (1963) on the north. H-8691

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.

LAUNCH CS-1191 was used for a short investigation in 1963.

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.

Raytheon DE-723 #556 used in 1963.

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-10600, T-10601, and T-10608.

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. Dangerous reefs and off-shore rocks were located by sextant fixes.

H. CROSSLINES

Approximately 8% of crosslines were run. Satisfactory agreement was made with the regular system of sounding lines.

I. JUNCTIONS

A satisfactory junction was made with a ⁴⁻⁸⁶⁹¹⁽¹⁹⁶²⁾ (1962) survey to the west. 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 10-3-62) ^{the present survey} considering the time interval between the two surveys and the apparently sub-standard horizontal control methods used in the 1891 survey.

*Snat
Core
covered by
T-2061 (1891)*

Chart 8102 (1:229,376) is the largest scale chart of the area and is based on the above survey. General agreement with (PA 10-3-62) ^{the present survey} is good. *Small portion of southern part of survey covered by Chart 8075.*

L. ADEQUACY OF SURVEYS

All surveyed area is considered to be complete and adequate to supersede prior surveys for charting, except for the 6.9 fathom shoal off the eastern side of Osten Island which should be developed further. (See Section P, below).

← Least depth on Shoal found in 1963 to be 6 1/2 fms.

M. AIDSS 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
Launch CS-1191	1696	183.1	6.0
" " 4-20-63	$\frac{8}{1704}$	$\frac{5}{183.6}$	
Photogrammetric field edit - 28 statute miles			

- 1 Tide Gage
- 1 Temperature and Salinity Observation
- 22 Bottom Samples

P. RECOMMENDATIONS

As the ~~62~~⁷¹⁶⁵ fathom shoal found in 1963 off the eastern side of Osten Island was picked up the last day of the 1962 field season, there was no time to develop it. It is therefore recommended that the area of the shoal be covered by the adjacent boat sheet and that it be developed during the 1963 field season. With that exception the survey is considered to be complete and adequate to supersede prior surveys for charting and no additional work is recommended for the area covered.

} See
Processing
Office
Notes

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
Comdg. Ship PATTON

January 2, 1963

DRAFT, VELOCITY AND PHASE CORRECTIONS (fathoms)

Launch CS-1191

<u>To depth</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
Deepest			+3.5

The above corrections are for the entire period of the survey.

(1962 only)

TIDE NOTE
SURVEY PA 10-3-62, H-8692

The standard tide gage at the Coast Guard Base, Ketchikan, Alaska and the portable tide gage at Osten Island, Carrol Inlet, Revillagigedo Island, Southeast Alaska, approximate position: Latitude $55^{\circ}24.4'$, Longitude $131^{\circ}19.8'$ served to control this survey. The Ketchikan tide gage controlled the area south of ~~and~~ an approximate east - west line through Signal FOG and the Osten Island tide gage controlled the area north of this line.

Hourly heights, reduced to MLLW, were furnished by the Washington Office for the Ketchikan tide gage. MLLW corresponds with 4.8 ft on the staff of the Osten Island tide gage. No time or height corrections were applied to the observed tides.

LIST OF SIGNALS

Established 1962 - Sheet PA 10-3-62, H-869²

<u>NAME</u>	<u>ORIGIN</u>	<u>NAME</u>	<u>ORIGIN</u>
ABE	T-10601	LAX	T-10608
ADD	T-10608 Vol I p5	LID	T-10601
ART	T-10600	MAN	T-10601
BAG	T-10601	GAL	T-10601
BIG	T-10608: Vol I p3	MOO	T-10608
BUM	T-10600	NAT	T-10608
CAB	T-10601	NIX	T-10601
CAM	T-10608	OAK	T-10601
CUT	T-10600	OFF	T-10608
DAY	T-10608	PAD	T-10608
DIM	T-10601	PLY	T-10601
DOG	T-10600	RAT	T-10601
EAR	T-10608	RIM	T-10608
EGO	T-10601	SAM	T-10601
ELM	T-10600	SUB	T-10608
FAT	T-10601	TAN	T-10600
FOG	T-10608	TUB	T-10601
GAL	Vol III p3	USE	T-10601
GIN	Vol I p3	VAL	T-10600
HER	Vol I p5	VET	T-10601
HIS	T-10601	WAG	T-10600
ICE	T-10608	YES	T-10600
IRK	T-10601	ZAG	T-10601
JIM	T-10608	ZOO	T-10600
JOY	T-10601		
KEN	T-10608		
KEY	T-10601		

used in 1962 } same
 used in 1963 } pos. on
 Smooth
 sheet

APPROVAL SHEET

SHEET PA 10-3-62, H-8692

The records for this survey are approved and no additional field work is recommended except as indicated in Section P in the body of the report. 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.

*Additional
work
recommended
was completed
in 1963.*

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

FATHOMETER REPORT
1962

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

Project OPR-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

IX

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
110.0	+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

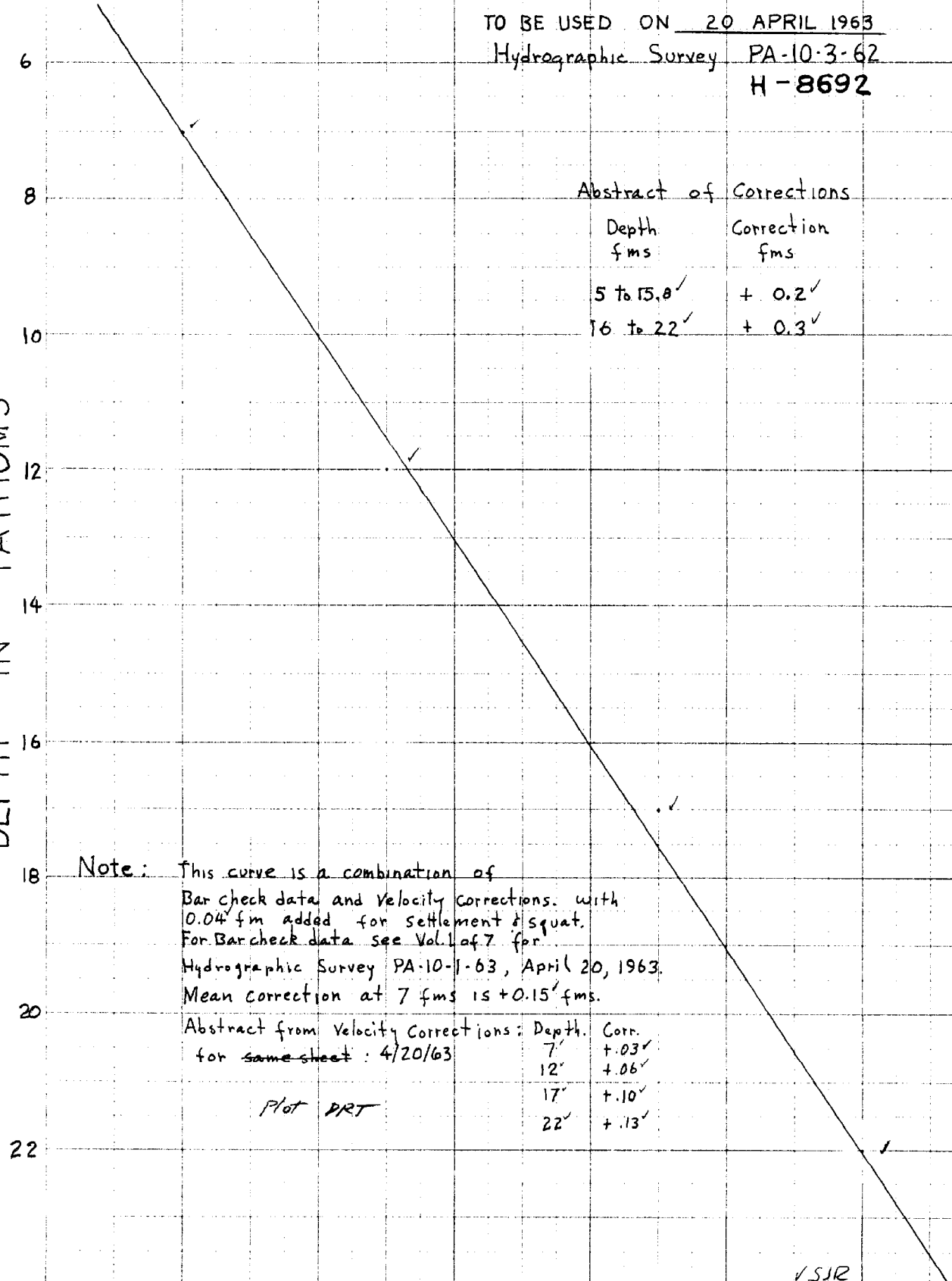
CORRECTION IN FATHOMS

+ .19 .21 .23 .25 .27 .29

CORRECTIONS

TO BE USED ON 20 APRIL 1963
 Hydrographic Survey PA-10-3-62
H-8692

DEPTH IN FATHOMS



Abstract of Corrections

Depth fms	Correction fms
5 to 15.0 ✓	+ 0.2 ✓
16 to 22 ✓	+ 0.3 ✓

Note: This curve is a combination of Bar check data and Velocity Corrections, with 0.04' fms added for settlement & squat. For Bar check data see Vol. 1 of 7 for Hydrographic Survey PA-10-1-63, April 20, 1963. Mean correction at 7 fms is +0.15' fms.

Abstract from Velocity Corrections:

Depth	Corr.
7'	+ .03 ✓
12'	+ .06 ✓
17'	+ .10 ✓
22'	+ .13 ✓

for same sheet: 4/20/63

Plot PRT

V.SJR

PROCESSING OFFICE NOTES - H-8692

SMOOTH SHEET

The projection was ruled in the Washington Office and checked in the Seattle Processing Office. The shoreline and control were transferred and checked in the Seattle Processing Office. ✓

CONTROL

One Photo-Hydro station was added to this survey in 1963. GAL at same pos. as MAN.
There are no triangulation stations in the area of this survey.

SHORELINE

The inked shoreline is from blue-line prints of Advanced Manuscripts T-10600 and T-10608. The uninked shoreline is from Incomplete Manuscript T-10601.

SEE
REVIEW
Part 8.
2.

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.

The only part of 8075 covered by H-8692 is that part of Carroll Inlet which is east of Longitude 131°25'. There are only seven charted soundings in this area and the 15, 53, and 59-fathom soundings appear to be too far offshore.

There are several shoal soundings not charted on 8102, which are tabulated below:

<u>Latitude</u>	<u>Longitude</u>	<u>Smooth Sheet Depth</u>	<u>Position</u>
55°24'.65	131°19'.00	6.6 fms.	8q
55°23'.85	131°21'.50	3.1 fms.	108-109h
55°23'.96	131°21'.15	1.0 fms.	52j
55°24'.00	131°21'.19	0.6 fm.	53j
55°23'.53	131°21'.74	Rk. awash MLLW	10g and 64h
55°23'.68	131°21'.68	1.4 fms.	80-81h
55°23'.44	131°21'.74	1.6 fms.	35-36h

The shoreline of Carroll Inlet and Osten and Hume Islands appears to be charted approximately 250 meters too far west, in the vicinity of those two islands and also in and around Gnat Cove.

The channel on the east side of Osten Island shoals to less than 30 fathoms between the charted 39 and 51-fathom soundings.

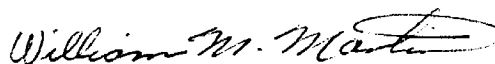
ADEQUACY OF SURVEY

The survey is now complete and adequate for charting.

On April 20, 1963 a half mile of sounding lines were run in the area of the 7.1-fathom sounding east of Osten Island, mentioned under this heading in the field report. The area was also drift sounded for about 40 minutes.

The least depth found is 6.6 fathoms at Latitude $55^{\circ}24'.65$, Longitude $131^{\circ}19'.0$, position 8q. No more work in this area appears necessary.

Respectfully submitted,



William M. Martin
Supervisory Cartographer

Approved and forwarded



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

TIDE NOTE FOR HYDROGRAPHIC SHEET

October 28, 1963

Nautical Chart Division: R. H. Carstens

Plane of reference approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 8692

Locality Carroll Inlet, S. E. Alaska

Chief of Party: A. R. Benton, 1962,63

Plane of reference is mean lower low water, reading

4.8 ft. on tide staff at Osten Island, Carroll Inlet, 1962

15.9 ft. below B. M. 1 (1962)

5.8 ft. on tide staff at Osten Island, Carroll Inlet, 1963

15.9 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:

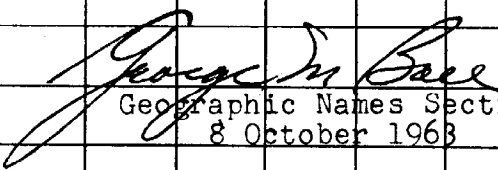


Chief, Tides and Currents Branch

GEOGRAPHIC NAMES

Survey No. H-8692

Name on Survey	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On Chart No. 8102</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On previous survey No.</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On U. S. Quadrangle Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">From local information</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On local Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">P. O. Guide or Map</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Rand McNally Atlas</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">U. S. Light List</div> </div>										
	A	B	C	D	E	F	G	H	K		
Brunn Point	x										1
Carroll Inlet	x										2
Gnat Cove	x										3
Hume Island	x										4
Osten Island	x										5
Revillagigedo Island	x										6
Rock Point	x										7
Spit Point	x										8
											9
											10
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 Geographic Names Section
 8 October 1963

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8692.....

Records accompanying survey: Smooth sheets ..¹...;
 boat sheets ..¹...; sounding vols. ..⁸...; wire drag vols.;
 Descriptive Reports ..¹...; graphic recorder envelopes ..⁴...;
 special reports, etc. 7 Manuscripts Blueline Paper
 T-10600².....².....
 T-10601 1 2

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

Number of positions on sheet		.1704.	
Number of positions checked		.197.	
Number of positions revised		..0..	
Number of soundings revised (refers to depth only)		..2..	<u>REVIEW</u>
Number of soundings erroneously spaced		..0..	Ledge Symbols & LWL
Number of signals erroneously plotted or transferred		..0..	↓
Topographic details	Time	.8 HRS.	24 HRS.
Junctions	Time	.1 HR.	16 HRS.
Verification of soundings from graphic record	Time	.20 HRS.	↑ Junctions were incomplete
Special adjustments	Time	

Verification by *St. Helen. H. Jones, Jr.* Total time *193 Hrs* Date *6/4/64*.....

Reviewed by *Paul O. Westbrook* Time *62 hrs.* Date *9/22/65*

H-8692 (1962-63)

INFORMATION FOR FUTURE PRE-SURVEY REVIEWS

This area appears to be stable both in depth and bottom configuration.

The prior surveys are not detailed enough to permit any more than a general comparison.

In the future, however, sedimentation may be found in the deeper areas, and the mud flats at stream entrances may have built seaward.

Any future survey should include in its development the 3.2-fm. shoal in Lat. $55^{\circ}23.41'$, Long. $131^{\circ}21.66'$, In addition, the 1.2-fm. shoal carried forward from T-2061 (1891) in Lat. $55^{\circ}23.04'$, Long. $131^{\circ}20.17'$ should be verified or disproved.

Dale E. Westbrook

4-7-65

OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY
REVIEW SECTION -- MARINE CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8692

FIELD NO. PA 10-3-62

Southeast Alaska, Carroll Inlet, Osten I. to Rock Pt.

SURVEYED: Sept. 1962- April 1963 SCALE: 1:10,000

PROJECT NO. OPR-424

SOUNDINGS: 808 and Raytheon DE-723 CONTROL: Sextant fixes
Depth Recorders on shore signals

Chief of Party-----A. R. Benton, Jr. (1962)

G. E. Haraden (1963)

Surveyed by-----A. R. Benton, Jr.

R. W. Franklin

E. D. Schwantes, Jr.

D. R. Tibbett

S. J. Ruden

Protracted by-----V. F. Flor

Soundings Plotted by-----V. F. Flor

Verified and Inked by-----D. W. Jones

Reviewed by-----D. E. Westbrook

Inspected by-----R. H. Carstens

Date: Sept. 22, 1965

1. Description of the Area

This survey covers that portion of Carroll Inlet which extends from Osten Island southwest to Rock Point.

Carroll Inlet is, for the most part, relatively deep, long and narrow, and has the general characteristics of a glacial fiord.

Two areas, however, are dotted with islands, reefs, and shoals. One is in the vicinity of Osten Island, and the other lies to the west of Hume Island.

Several important features which heretofore had gone undetected were disclosed by the present survey. For example, the rock awash in Lat. $55^{\circ}23.53'$, Long. $131^{\circ}21.74'$; the 1.4 fm. shoal in Lat. $55^{\circ}23.69'$, Long. $131^{\circ}21.68'$; and the 6.6 fm. shoal in Lat. $55^{\circ}24.65'$, Long. $131^{\circ}19.00'$.

The channel to the west of Hume Island is unmarked and dangerous shoals abound. A vessel without the aid of local knowledge should not attempt to make this passage.

2. Control and Shoreline

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

The shoreline originates with Advance Photogrammetric Manuscripts T-10600; T-10601 and T-10608 of 1954-63. A portion of the shoreline on T-10601 (at the time of this review) is classified as "Incomplete". The incomplete shoreline and adjoining ledge has not been inked on the smooth sheet and should be when a more complete manuscript is available.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves were adequately delineated, except that only short portions of the depth curves could be drawn inshore of 5-fm. depths because of steep gradients and for purposes of clarity.

Dashed and brown depth curves have been added to emphasize certain soundings.

C. The development of the bottom configuration and investigation of least depths is considered adequate except that the 3.2-fm. shoal in Lat. $55^{\circ}23.41'$, Long. $131^{\circ}21.66'$ should have been more completely developed for least depth.

4. Condition of the Survey

The field plotting, 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 Chief-of-Party or the Officer-in-Charge.

5. Junctions

Adequate junctions were effected with H-8755 (1963) on the north; and H-8691 (1962) on the southwest.

6. Comparison with Prior Surveys

H-2111 (1:40,000) 1891

T-2061 (1:10,000) 1891

These surveys taken together provide the only prior hydrographic coverage of the present survey area. T-2061 (1891) is a large scale survey of Gnat Cove, and contains both hydrography and topography on the same sheet.

A detailed comparison between the prior surveys and the present survey, in general, reveals only minor differences. This indicates that the bottom has changed little, if any, in the more than 70 years between surveys.

The present survey, however, because of its larger scale and more complete development when compared to H-2111 (1891) provides a more detailed picture of the bottom configuration. The present survey thus reveals numerous lesser depths on previously known features and, in addition, several previously undiscovered features were found.

Two soundings, in ^{Gnat}~~Great~~ Cove, 2 3/4-fms. and 5 3/4-fms. on T-2061 (1891) in Lat. $55^{\circ}22.95'$, Long. $131^{\circ}19.57'$, are probably positioned in error on that survey. These records

have been lost and the soundings cannot be checked. It is believed that the present survey shows the correct depths in this area and that these two soundings should be disregarded.

Two features, however, a rock awash, and a 1.2-fm. sounding from T-2061 (1891), in the vicinity of ^{Small} ~~Great~~ Cove, were not disproved and were brought forward to supplement the present survey.

The present survey, with the addition of the above features, is adequate to supersede the prior surveys within the common area.

7. Comparison with Chart 8075, 2nd Ed., Mar. 8, 1965
Chart 8102, 7th Ed., Oct. 14, 1963

Most of the charted hydrography originates with the previously discussed prior surveys which require no further consideration. This hydrography has been supplemented by a few soundings from the present survey either before verification or review.

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


8. Compliance with Instructions


The present 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

REVILLAGIGEDO

ISLAND

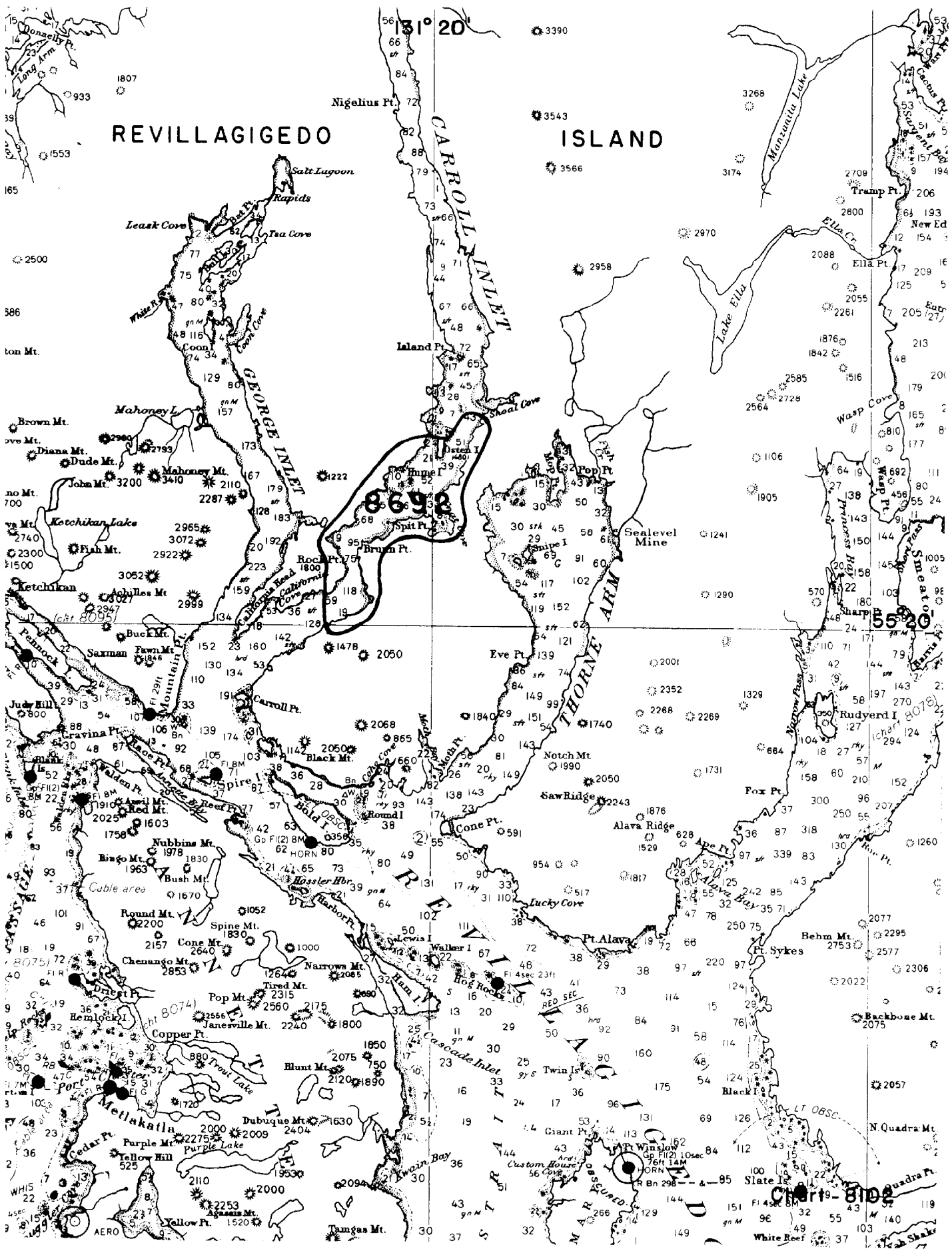


Chart-8102

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8692

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
8075	1-8-65	<i>Eu Brogoy</i>	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>Not thru any other chart</i>
8080	1/20/67	<i>Clarence Musfeldt</i>	Full Part Before After Verification Review-Inspection, Signed Via Drawing No. <i>completely applied before signatures</i>
8075	7/1/68	<i>W H Mau</i>	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>Completely applied thru new chart 8080 previous</i>
8102	4/10/70	<i>O. Swendsen</i>	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>thru new Chart 8080</i>
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*Ch 8102 - examined before V&R for critical corr's, 9/4/63 W.E.
(add *, 55-23.5/131-21.75)*