

7861

Diag. Cht. No. 8252-2.

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PA-1150 Office No. H-7861

### LOCALITY

State Southeast Alaska

General locality Salisbury Sound and Peril Strait

Locality Eastern Part Salisbury Sound,

Fish Bay and Suloia Bay

19

CHIEF OF PARTY

L. C. Johnson

### LIBRARY & ARCHIVES

DATE March 5, 1952

USCOMM-DC 5087

7861

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 7861

Field No. Pa 1150

State Alaska

General locality Salisbury Sound and Peril Strait.

Locality Eastern part Salisbury Sound, Fish Bay & Suloia Bay

Scale 1/ 10 000 ✓ Date of survey 13 Aug. - 4 Oct. 1950 ✓  
and 5 Oct. 1951

Instructions dated 14 March 1950

Vessel PATTON - Launch No. 92

Chief of party L.C. Johnson

Surveyed by L.C. Johnson, W.C. Russell, Julian W. Flint.

Soundings taken by fathometer, graphic recorder, hand lead, wire 808-A Depth Recorder  
hand lead and wire (bottom samples).

Fathograms scaled by H.W.H.

Fathograms checked by L.C.J., J.W.F., H.W.H.

Protracted by Ruth Cox, Christine N. Hillman, J.R. Wheeler.

Soundings penciled by J.R. Wheeler, C.E. Pedersen.

Soundings in fathoms ~~XXXX~~ at ~~XXXXX~~ MLLW and are true depths

REMARKS:

782

Verifier: See Instructions  
for prel. Verif. in back  
of this report.

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY NO. H-7861 (PA 1150)

SALISBURY SOUND AND FISH BAY

S. E. ALASKA

SCALE 1:10,000 - DATE 1950

U.S.C.& G.S.S. PATTON, L. C. JOHNSON, COMDG.

\* \* \* \* \*

A. PROJECT:

This survey was accomplished under Supplemental Instructions for Project CS-247 issued by The Director on 14 March 1950.

B. SURVEY LIMITS AND DATES:

This sheet covers all of Salisbury Sound east of Longitude 135° 43' 30"; the northeastern half of Bradshaw Cove and Louise Cove, Fish Bay and Suloia Bay.

Junction was made on the south, in the northern entrance to Neva Strait with Sheet No. H-7676 (1:10,000, 1948). For junctions with contemporary surveys at Sukoi Inlet and Kakul Narrows, see Descriptive Reports for Sheet No. H-7860 (PA 1250) and Sheet No.\* 7860 (PA 05150) respectively.

*\* continued on smooth sheet*

Field work was started on 13 August 1950 and was completed on 4 October 1950.

C. VESSEL AND EQUIPMENT:

All hydrography was done in Launch No. 92 operating from the PATTON, with the exception of three days accomplished by ship.

Soundings were taken with 808-A recording fathometers (Nos. 51 and 74), supplemented by hand lead soundings on shoals and in kelp. Bottom samples were taken by wire with hand sounding machine mounted on the launch, and in deeper portions by the PATTON using an <sup>motor operated</sup> electric wire sounding machine.

D. TIDE AND CURRENT STATIONS:

The limits of hydrography for each tide station established for this sheet, and as outline in the Acting Director's Letter No. 36-reb, dated 26 July 1950, are as follows:

<u>Area of Hydrography</u>	<u>Tide Station</u>
From northern entrance of Neva Strait, and northern entrance of Sukoi Inlet, to line between Struya Point and Range Point.	Salmonberry Cove 9.2' <sup>M.H.W.</sup> <sub>about M.L.W.</sub>
From lines between Struya Point - Range Point and between Suloiia Point - Fish Point to head of Fish Bay.	Haley Anchorage 9.3
From line Suloiia Point - Fish Point to line Liesnoi Island - Mountain Head (beyond northern limits of hydrography on sheet)	Sergius Narrows 9.1 (In cove east of shoal Point)

Tide staffs were established and leveled at the above mentioned locations. The staffs were read and recorded during periods of hydrography and were used for the reduction of soundings within the areas as prescribed above. No time or range corrections were required.

No current stations were occupied within the limits of this survey.

E. SMOOTH SHEET:

The smooth sheet has been constructed by hand by personnel of the Seattle Processing Office, and <sup>was</sup> ~~will~~ be plotted by them.

F. CONTROL STATIONS:

During the current season, second order triangulation was carried through Salisbury Sound, Kakul Narrows, and through Sergius

Shoreline & topography from T8485, T9900, 9901, 9902  
see verifiers notes. 976

Narrows from a line HAYWARD 1895 - GRIT 1895 at the northern entrance to Neva Strait. Second Order triangulation was extended from this scheme through Sukoi Inlet, Fish Bay and Schulze Cove.

The triangulation records, computations and a special report will be forwarded to the Washington Office.

Topographic stations were located by geodetic methods, and geographic positions were computed.

#### G. SHORELINE AND TOPOGRAPHY:

The shoreline and topography will be compiled from air photographs, which were field inspected by this party during the current season. The delineation of the shoreline, offlying rocks, and vegetation are incorporated in the Photogrammetric Field Report and records, and will be forwarded to the Washington Office.

With the exception of parts of Fish Bay, Schulze Cove, and Suloia Bay, where there are numerous tide flats, low water line could not be established by hydrography. The shoreline, particularly in Salisbury Sound, and in the vicinity of Range Pt., Struya Pt., and Suloia Pt., is rocky, jagged and abrupt, with numerous foul areas generally indicated by kelp, close to the shore. Sounding lines were run as close to the beach as circumstances would permit.

#### H. SOUNDINGS:

Soundings were taken with 808-A type recording fathometers (Nos. 51 and 74) operated on the fathom scale: Hand lead soundings were taken in critical areas, on shoals and in kelp. Wire soundings were taken when obtaining many of the bottom samples.

Velocity corrections to fathometer soundings were computed from serial temperature and salinity observations made in deep water in Salisbury Sound and Fish Bay.

I. CONTROL OF HYDROGRAPHY:

The hydrography was controlled by three point sextant fixes on signals ashore. No unusual or substandard methods were used for this purpose.

J. ADEQUACY OF SURVEY: <sup>See</sup> *Review, pars. 7d. & 9.*

The survey is adequate and complete with one exception <sup>inadequacy</sup> at Haley Rk. (See "N" - Dangers in Fish Bay) and should <sup>s</sup>supercede previous surveys of <sup>See Review,</sup> the area. The junction with survey enumerated in "B" is good. *Add'l wk. of 1951 eliminates*  
*See Review, pars. 7d. & 9*

K. CROSSLINES:

The cross lines on this sheet, exclusive of development, constitute approximately 10% of the total miles of sounding lines. The crossings are good.

L. COMPARISON WITH PRIOR SURVEYS: *See Review, par. 5.*

Prior surveys within this area are listed as follows:

<u>Date</u>	<u>Scale</u>	<u>Registry Number</u>
1895	1:5,000	H-2243
1896	1:20,000	H-2286
1928	1:20,000	H-4847

On the old surveys, the sounding lines were widely spaced and only limited development was accomplished. The new survey is much more detailed and complete. In general the depths agree with previous surveys. In the shoal areas, with the exception of Haley Rock, Fish Bay, the depths were the same, or lesser depths were found. No additional shoals were found, over previous surveys.

*(Prelim. Review of Cht. 8248)*

Instructions for this survey <sup>^</sup>called for an investigation of location of rock in Latitude 57° 19.72' Longitude 135° 41.87'. This rock was located by sextant cuts on the northwest and southeast limits, on positions 49-h and 50-h. The rock was also investigated and described on photographs during field inspection of shoreline. *Pres. survey position of rock agrees with pos. of rock on H-4847 (1928)*

At the 3-fathom sounding shown on old survey in Latitude <sup>H-2243 (1895)</sup> 57° 24.40', Longitude 135° 39.20', there was no indication of such a shoal upon investigation of the area. *Review, par. 5.6.(2)*

M. COMPARISON WITH CHART NO. 8248:

The comparison drawn in "L" is applicable when comparison is made between the new survey and the latest edition of Chart No. 8248. Confirmation of shoals shown on the chart are enumerated in "N".

N. DANGERS AND SHOALS:

Most dangers and shoals are located in the proximity of the shoreline or near small islets. Some are located in or near narrow channels and constitute real dangers.

Dangers in Suloia Bay:

1. Rock uncovers 6/10 fathoms at M.L.L.W. approximately 350 meters northnortheast of Suloia Island in Latitude 57° 24.07', Longitude 135° 39.30', position 49-p. \* (4)

2. 1 fathom <sup>RK.</sup> approximately 330 meters northnortheast of Suloia Island in Latitude 57° 24.07', Longitude 135° 39.4<sup>0</sup>7', position 33-p.

3. Rock ~~un~~wash at M.L.L.W. approximately 100 meters west of Suloia Island in Latitude 57° 23.87', Longitude 135° 39.6<sup>0</sup>5', position 51-p.

4. 1-6/10 fathoms approximately 100 meters southwest of Suloia Island in Latitude 57° 23.8<sup>5</sup>7', Longitude 135° 39.5<sup>60</sup>3', position 15-p.

Dangers in Fish Bay:

1. A 9/10 fathom shoal, approximately 450 meters southeast of Piper Island, in Latitude 57° 23.18', Longitude 135° 34.9<sup>0</sup>2', position 164-m.



2. One fathom <sup>RK.</sup> northwest of Haley Anchorage in Latitude 57° 22.55', Longitude 135° 37.72', position 180-m.

3. One fathom on same shoal as Number 2 above in Latitude 57° 22.52', Longitude 135° 37.73', position 181-m. *Not plotted*

Through a mistake by the hydrographer in transferring to the boat sheet, the location of Haley Rock and the shoal about 200 meters to the westward, no hand lead investigations were made in this area, as it was impossible to do so when the error was discovered. It is recommended that the old soundings be retained on the chart, until a thorough investigation of these shoals can be made. *Done in 1951 See Vol. 9 Review, par. 7c.*

4. In the vicinity of Haley Rock, the shoalest sounding was 3-2/10 fathoms in Latitude 57° 22.63', Longitude 135° 37.82', position 73-j. *Superseded by shoaler depths obtained by add'l work of 1951*

5. About 200 meters to the west of Haley Rock, the least depth found was 3-7/10 fathoms in Latitude 57° 22.64', Longitude 135° 38.02', position 72-j. *Seen awash at M.L.L.W. 1951 Season. This is Haley RK. preceding notation also applies here*

6. Rock awash at M.L.L.W., approximately 100 meters north of Range Pt., in Latitude 57° 22.58', Longitude 135° 39.38', position 155-h. -1564.

In Salisbury Sound, in an area which lies between Kruzof Island and Scraggy Islands there are numerous rocks, reefs, and ledges which constitute real dangers to fishing boats using the channel. These dangers, located by detached positions, were checked against those which could be seen on photographs used in the field inspection, and it is believed that all of them, which would be a menace to navigation, have been located. An estimate as to the amount the rocks were bare, was agreed upon by three individuals at the time the positions were taken.

The dangers, in the area noted above, are as follows:

1. At south edge of rock, about 5 meters in diameter,

Positions 37h - 50h inked in  
-7- as per instructions of Mr Carstens  
See Vol 4 - W.W. 9/30/52

in Latitude  $57^{\circ} 20.00'$ , Longitude  $135^{\circ} 42.03'$ . Rock ~~un~~covers ~~one~~ <sup>two</sup> foot at  
M.L.L.W. Position 37-h.

2. At south edge of rock, about 3 meters in diameter,  
in Latitude  $57^{\circ} 20.04'$ , Longitude  $135^{\circ} 42.02'$ . Rock ~~un~~covers ~~one~~ <sup>awash</sup> foot at  
M.L.L.W. Position 38-h.

3. <sup>(Rock awash)</sup> 2/10 fathoms over center of rock, about 4 meters in  
diameter in Latitude  $57^{\circ} 20.05'$ , Longitude  $135^{\circ} 42.05'$ , position 39-h.

4. At south edge of rock, about 10 meters in diameter,  
in Latitude  $57^{\circ} 20.22'$ , Longitude  $135^{\circ} 42.27'$ , position 40-h. Rock ~~un~~  
<sup>three</sup> covers ~~two~~ feet at M.L.L.W.

5. At southwest edge of rock, about 20 meters in diameter,  
in Latitude  $57^{\circ} 20.22'$ , Longitude  $135^{\circ} 42.23'$ , position 41-h. Rock ~~un~~covers  
<sup>eight</sup> ~~seven~~ feet at M.L.L.W.

6. 4/10 fathom depth over rock at M.L.L.W., in Latitude  
 $57^{\circ} 20.24'$ , Longitude  $135^{\circ} 42.22'$ , position 42-h. \*

From photograph No. 09548, used in the field inspection,  
detached positions numbered 40-h, 41-h, and 42-h, located above, are rock  
dangers, which appear to be all on the same rock reef. These were the  
shoalest soundings in the area.

7. 9/10 fathom at M.L.L.W., on center of rock reef, which  
appears about 100 meters in diameter, in Latitude  $57^{\circ} 20.31'$ , Longitude  $135^{\circ}$   
 $42.39'$ , position 43-h. <sup>(falls within ledge)</sup>

8. 2-9/10 fathoms at M.L.L.W., at south end of rock  
ledge which is part of a rock island, in Latitude  $57^{\circ} 20.14'$ , Longitude  
 $135^{\circ} 42.57'$ , position 45-h. Position 44-h in Latitude  $57^{\circ} 20.18'$ , Longitude  
 $135^{\circ} 42.60'$  determines the position of the north end of the same island.

The island is approximately 50 meters wide. The north half of the island bares two feet above the M.H.W. line, and the south half of the island is under water at M.H.W. (See addendum "Comp. with Charts" par 1b)

9. At middle of east side of rock reef, which is about 10 meters wide in the east-west direction, and about 40 meters long in the north-south direction, and about 50 meters northeast of the general shoreline, in Latitude  $57^{\circ} 20.32' - 43.52'$ , Longitude  $135^{\circ} 43.52' - 20.32'$ , position 46-h. Rock reef uncovers ~~four~~<sup>six</sup> feet at M.L.L.W.

10.  $1-3/10$  fathoms, at the north end of a finger rock ledge in Latitude  $57^{\circ} 19.97'$ , Longitude  $135^{\circ} 42.66'$ , position 47-h. The rock ledge extends from position 47-h in a general southeasterly direction to shore. It is outlined on photograph 09548, used in the field inspection.

11. At the north end of a rocky reef, which extends about 50 meters in a north-south direction, and about 10 meters in an east-west direction, in Latitude  $57^{\circ} 19.72'$ , Longitude  $135^{\circ} 42.03'$ , position 48-h. This reef, uncovers ~~five~~<sup>seven</sup> feet at M.L.L.W. <sup>shown as part of ledge.</sup> It is about ~~15~~<sup>40</sup> meters east of the easterly side of a small rock island.

12. Positions 49-h and 50-h, in Latitude  $57^{\circ} 19.73'$ , Longitude  $135^{\circ} 41.89'$ , and Latitude  $57^{\circ} 19.72'$ , Longitude  $135^{\circ} 41.86'$  respectively, locate the northwest and southeast extremities of a rock reef. This reef is about 50 meters wide, and uncovers ~~six~~<sup>eight (9) from 7-8485</sup> feet at M.L.L.W.

Banks:

1. Development was made on the 6 fathom bank, located on Chart 8248, in the eastern part of Salisbury Sound, about 0.6 miles northeast of Scraggy Islands. The least depth found was  $6-2/10$  fathoms in Latitude  $57^{\circ} 20.87'$ , Longitude  $135^{\circ} 41.40'$ , position 112-d. (6.1 fm. sdg. carried fwd. from H-4841 W.D. (1928))

2. The 13-fathom bank, located about 3/10 mile south-southeast of the above described 6 fathom bank, was developed. The least depth found was 10-1/2 fathoms in Latitude 57° 20.58', Longitude 135° 41.26', position <sup>8-9A</sup>~~9-A~~.

O. COAST PILOT INFORMATION:

Coast Pilot information furnished in letter to Director, dated 3 January 1951.

P. AIDS TO NAVIGATION:

Two fixed aids to navigation; namely, Kakul Narrows Light, and Sergius Narrows Light were reported to Washington office on 3 October 1950, on Form 567.

Two floating aids to navigation in the vicinity of Kakul Narrows, were located on Sheet PA-05150 (H-7860), and will be reported in the Descriptive Report of that sheet.

Q. LANDMARKS FOR CHARTS:

See Photogrammetric Field Report, project CS-247, 1950 field season. (none)

R. GEOGRAPHIC NAMES:

There are no new names or changes in charted names of geographic features. See Photogrammetric Field Report, Project CS-247, 1950 field season.

S. SILTED AREAS:

Indications from the fathograms of this sheet, are that the silted areas are very few and of small extent. In Salisbury Sound, in depths between 65 and 85 fathoms, there was noted small areas of silt, approximately 2 to 3 fathoms in thickness.

Z. TABULATION OF APPLICABLE DATA:

The following listed Special Reports are pertinent to this survey and report:

- (1) Photogrammetric Field Report, Project CS-247, 1950 Season.
- (2) Temperature and Salinity Observations <sup>1950</sup> with fms present survey
- (3) Coast Pilot Notes
- (4) Triangulation Report ✓

Applicable Data Attached to this Report:

- (1) Table of Statistics
- (2) Tide Notes
- (3) List of Signals
- (4) Tables of Velocity Corrections (2)

Submitted by

*William C. Russell*  
William C. Russell  
LCDR USC&GS  
USC&GSS PATTON

Approved and Forwarded:

*L.C. Johnson*  
L. C. Johnson  
CDR USC&GS  
Cmdg., USC&GSS PATTON

LIST OF SIGNALS - PA 1150

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	<u>J</u>	<u>K</u>	<u>L</u>	<u>M</u>
REAS	BIG	CHAN	DIN	EAT	FRESH	GRIT	HAY	IRK*	JIB*	KAK	LITE#	MID#
ACHE	BORE	CLOCK	DUTCH	EMO#	FOX#	GRIP	HAL		JAP*	KID*	IAM#	MAI#
ABY	BALE	COP	DEB		FIG*	GAL	HUT*		JAD	KEY*	LAN	
ACT#	BOB#	COVE	DIX		FIN	GEM	HUL		JOE#	KARAT		
ADD*	BLUFF	CAB	DUCE		FOG#	GUM#				KIM#		
AMP*	BOON	CLIP	DIF#							KEN#		
ACTIVE	BAT*	CAR#	DIO									
ANT#	BED#	COO*	DAD#									
	BUT*	CLOUD	DOC*									
	BOA#	CAN*										
	BOX#											
<u>N</u>	<u>O</u>	<u>P</u>	<u>Q</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>U</u>	<u>V</u>	<u>W</u>	<u>X</u>	<u>Y</u>	<u>Z</u>
NED#	ODD#	PIPE		RUY	SCRAG	TAX#	UND	VAN#	WINDS			ZIG#
NON*	OUT#	PAW#		RAG#	SUL	TUB#		VET#	WED#			
NIP#		PUG#		RAN	SUE#	TOY#		VIM#	WAX#			
				RUM#	STRO	TOD						
				RIO*	SUB#							
				RAT#	SAL#							
					SOP*							
					SIS*							
					SKI#							

# Theodolite cut-in Hydro Station

\* Sextant cut-in Hydro Station

All others are Triangulation Stations

VELOCITY CORRECTIONS

U.S.C. & G.S. SHIP PATTON

L. C. JOHNSON, COMMANDING

LOCALITY: SALISBURY SOUND AND KAKUL NARROWS

S. E. ALASKA

HYDROGRAPHIC SURVEY NO. PA-1150 & NO. PA-05150

FOR USE BETWEEN 13 AUGUST AND 30 SEPTEMBER 1950

SHIP PATTON AND LAUNCH NO. 92

TABLE OF FAHOMETER CORRECTIONS

\* \* \*

0.0 Fms.		from 5.3 Fms.		to 5.2 Fms.
-0.1	"		"	13.5 "
-0.2	"	13.6	"	21.8 "
-0.3	"	21.9	"	25.5 "
-0.4	"	25.6	"	37.0 "
-0.6	"	37.1	"	49.0 "
-0.8	"	49.1	"	56.5 "
-1.0	"	56.6	"	67.0 "
-1.2	"	67.1	"	77.0 "
-1.4	"	77.1	"	87.5 "
-1.6	"	87.6	"	97.5 "
-1.8	"	97.6	"	105.0 "
-2.0	"	105.1	"	115.0 "

VELOCITY CORRECTIONS

U.S.C. & G.S. SHIP PATTON

L. C. JOHNSON, COMMANDING

LOCALITY: SULOIA BAY AND FISH BAY

S. E. ALASKA

HYDROGRAPHIC SURVEY NO. PA-1150

FOR USE BETWEEN 13 AUGUST AND 30 SEPTEMBER 1950

LAUNCH NO. 92

TABLE OF FATHOMETER CORRECTIONS

\* \* \*

0.0 Fms.		to	4.5 Fms.
-0.1 "	from 4.6 Fms.	"	12.8 "
-0.2 "	" 12.9 "	"	20.5 "
-0.3 "	" 20.6 "	"	28.2 "
-0.4 "	" 28.3 "	"	36.2 "
-0.6 "	" 36.3 "	"	52.2 "
-0.8 "	" 52.3 "	"	67.2 "
-1.0 "	" 67.2 "	"	Above



H 7861  
Pa 1150

Salisbury Sound and Peril Strait.

Processing Office Notes.

Smooth sheet.

The projection was ruled by hand. The triangulation was established by the combined operations party of 1950. Datum is NA 1927. The shoreline is to come from the photogrammetric plot which has not been made at this time. Shoreline and notes on the boatsheet originate with a preliminary\*shoreline manuscript made from uninspected photographs. In the sounding records, at the ends of sounding lines, there are a number of notes which give the estimated distance to the shoreline. These notes have been plotted as indicated, on the smooth sheet.

\*Sp. 46335

Haley Rock.

Apparently, the rock awash at ( A ) <sup>lat.</sup>  $\phi$  57 22.64  $\lambda$  135 38.02 did not bare during the first season at a time when it would be seen by the field party. The top of it is level with MLLW. On an incomplete examination made the first year a shoal reading of 3.2 fathoms at <sup>(B)</sup>  $\phi$  57 22.63  $\lambda$  135 37.82 was found and this was termed "Haley Rock". During the second season the rock was seen awash at position A above. It seems that the term Haley Rock should apply to the one which uncovers on very low tides. Also in 1951, a sounding of 0.7 fms. was found at position B. See page 6 of this report bearing in mind that the report was written after the first season of 1950. No additional report was deemed necessary for the additional development of 1951, which is recorded in volume 9.

"Rocks".

There are in the sounding records a few references to "Rocks" which gave no information concerning their character. It is presumed that the air photo inspection will explain these things better and reviewers are referred to that source of information. Positions taken to locate certain islets and ledges could be understood better with air photos available. (Air photos in Portland as of 2 Dec. '52)

Following the recommendation of this Processing Office note on "Rocks", some of <sup>as to depths and/or position</sup> undetermined exactness are left uninked at this time awaiting the Air Photo Compilation. All are very close or adjacent to the shore line.

See Addendum to Review

4.2 Fathoms  $\phi$  57 23.84  $\lambda$  135 37.94

revised to 5.2 fms

A hundred meters west of Pinta Head is a 4.2 fathom sounding between Pos. 68p & 69p H 7861. This fell very close to a 10 fathom sounding on H 7930. The area was rescanned and replotted on both sheets. Just before Pos. 75 y on H 7930 there is an indication of a side echo which coincides very closely with the position of the 4.2 fm. depth, altho the side echo of 75 y is not this shoal. It seems certain that the side echo is from a part of the 4.2 fm. <sup>shoal extension</sup> rock. This depth was reduced from a reading of 5.5 fms. which is the minimum interpretation of this indication (Pos. 68-69p H 7861). This indication also appears as a side echo with some kelp on it. It could be read deeper but it is accepted as a conservative scanning. \*

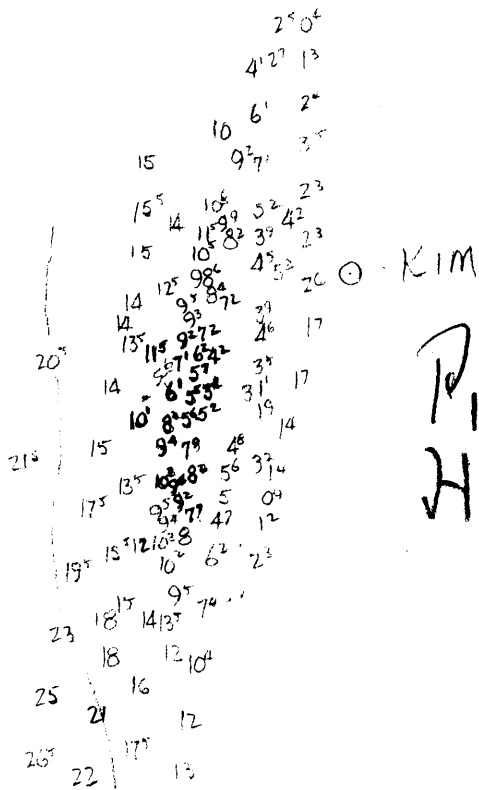
shoal part of slope from shore

Just south of this rock at  $\phi$  57 23.77  $\lambda$  135 37.87 a depth of 0.9 fathoms (Pos. 64-65 p) falls on 6.2 fathoms on H 7930. We note that Pos. 65 p is a corrected position and possibly in error. However, there are other soundings in this immediate vicinity which do not agree with H 7930. See tracings attached and observe the soundings encircled in red. As noted before this area was rescanned and replotted on H 7861 and H 7930.

Pos. 65 p adjusted to eliminate discrepancy

On H-7930 - 107-108 J day - The fathogram shows the shoalest point as being 6.2 fath. when reduced this becomes 5.5 fms. This agrees with the reread shoalest depth at the same location on H 7861 - 68-69 p day - 6.2 fath reduced to 5.2 fath. Evidently the processing office overlooked this "J" day - The evidence of kelp in this area on other close runs is non-existent or very slight - not over a few feet or a fath at the most.  
W.W.

△ CRA

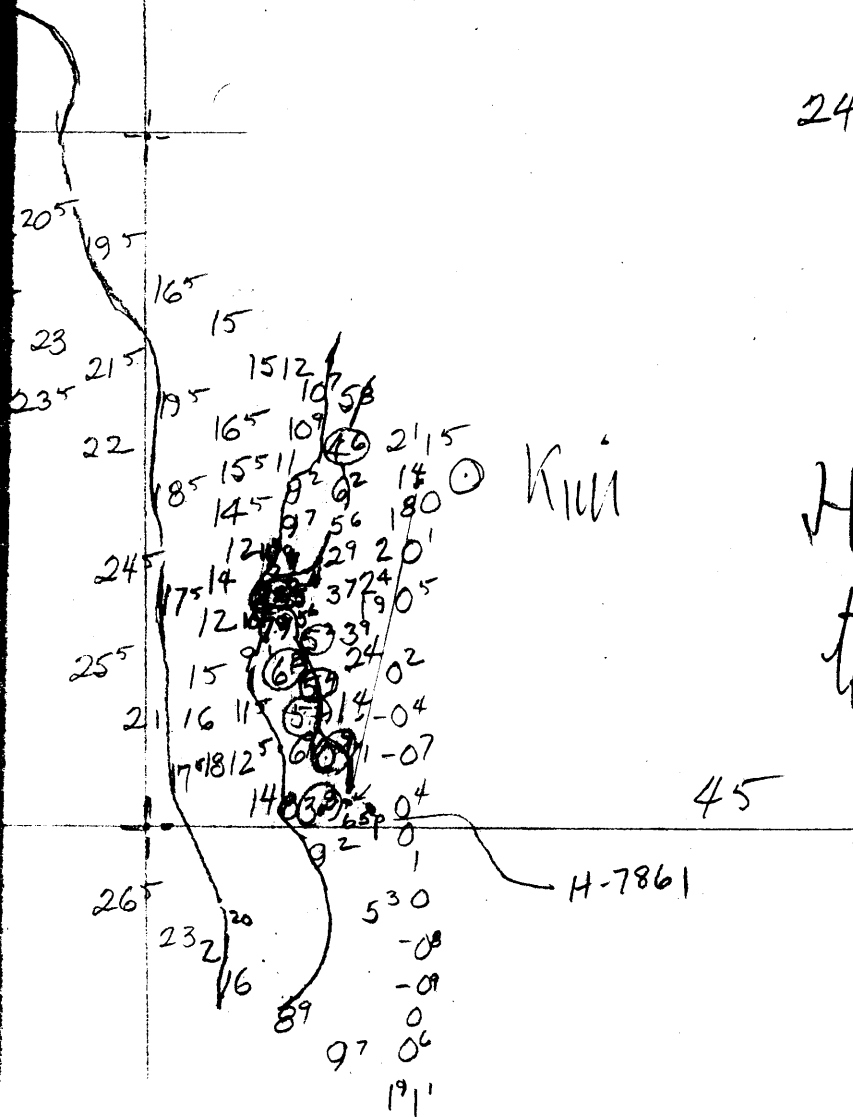


Pinta Head

47930

1/5 000

△ cab



24'

H 7860 enlarged  
to 1/5000

45

H-7861

pos 65 p revised during prelim. ver.

△ Cab

23'-30"

38'

All important features have been so well pointed out with arrows and explained with notes that no further remarks seem required.

*Edgar E. Smith*  
Edgar E. Smith  
Cart. Engr. 2/20/52

STATISTICS FOR HYDROGRAPHIC SURVEY H-7861 (PA-1150)

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

Date 1950	Day Letter	Volume No.	Hand Lead & Wire Soundings	Positions	Statute Miles of Soundings
13 August	A(ship)	1	--	131	30.6
25 Sept.	B "	1	17	17	Bottom Samples
4 Oct.	C "	1	11	49	4.8
14 Aug.	a	2	--	96	22.9
16 "	b	2	--	167	34.7
18 "	c	3	--	187	37.6
19 "	d	3 & 4	--	190	30.1
22 "	e	4	--	48	8.3
23 "	f	4	--	32	5.0
29 "	g	4	--	74	9.9
30 "	h	4 & 5	--	189	27.5
1 Sept.	j	5	--	159	29.8
5 "	k	5 & 6	--	193	44.2
6 "	l	6	--	210	31.5
7 "	m	7	4	181	18.6
17 "	n	7	--	209	31.1
18 "	p	8	6	71	7.1
25 "	q	8	36	36	Bottom Samples
28 "	r	8	39	39	" "
29 "	s	8	60	60	" "
30 "	t	8	--	25	2.6
Totals:			173	2363	376.3

Area: 14.8 square statute miles

TIDE NOTE

The limits of hydrography and locations for each tide station, as outlined in the Acting Director's Letter No. 36-reb, dated 26 July 1950, were used, and are as follows:

<u>Area of Hydrography</u>	<u>Location of Tide Staff</u>
From northern entrance of Neva Strait, and northern entrance of Sukoi Inlet, to line between Struya Point and Range Pt.	Salmonberry Cove at Kakul Narrows - Lat. 57° 22.38' Long. 135° 42.03'
From lines between Struya Point - Range Pt., and between Suloiia Point - Fish Point to head of Fish Bay	Haley Anchorage Lat. 57° 22.30' Long. 135° 37.10'
From line Suloiia Point - Fish Point to line Liesnoi Island - Mountain Head (beyond northern limits of hydrography on Sheet PA-1150)	Sergius Narrows Lat. 57° 24.58' Long. 135° 37.50'

The staffs were read and recorded in Form 277, during periods of hydrography, and were applied in the reduction of soundings within the areas prescribed above.

No difference in time or heights were applied to the observed tides. The plane of reference is Mean Lower Low Water, and corresponds to the readings on the tide staffs as follows:

<u>Location of Tide Staff</u>	<u>M.L.L.W. Datum on Tide Staff</u>
Salmonberry Cove	1.2 feet
Haley Anchorage	2.7 feet
Sergius Narrows	2.5 feet

The above readings of M. L. L. W. on the various tide staffs were stated in the Acting Director's Letters Nos. 36-mk, dated 25 August 1950, and 36-rcb, dated 4 October 1950.

GEOGRAPHIC NAMES

Survey No. H-7861

#1

Name on Survey	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	
	A	B	C	D	E	F	G	H	K							
<u>Southeastern Alaska</u>					(for title)											1
<u>Baranof Island</u> ✓														B-G-N		2
<u>Chichagof Island</u> ✓														"		3
<u>Nera Strait</u> ✓																4
<u>Hayward Point</u> ✓																5
<u>Partofshikof Island</u> ✓														B-G-N		6
<u>Kruzof Island</u> ✓														"		7
<u>Scraggy Point</u> ✓																8
<u>Scraggy Islands</u> ✓														B-G-N		9
<u>Salisbury Sound</u> ✓														"		10
<u>Kruglof Islands</u> ✓																11
<u>Round Island</u> ✓																12
<u>Kakul Narrows</u> ✓																13
<u>Point Kakul</u> ✓														B-G-N		14
<u>Louise Cove</u> ✓																15
<u>Range Point</u> ✓																16
<u>Haley Rock</u> ✓																17
<u>Haley Anchorage</u> ✓					(one tide gage location)											18
<u>Haley Point</u> ✓																19
<u>Fish Bay</u> ✓																20
<u>Piper Island</u> ✓																21
<u>Near Point</u> ✓																22
<u>Schulze Cove</u> ✓																23
<u>Mountain Head</u> ✓																24
<u>Peril Strait</u> ✓																25
<u>Schulze <del>Cove</del> <sup>Head</sup> <del>Bay</del> <sup>Pass</sup></u> ✓																26
<u>Fish Point</u> ✓																27



GEOGRAPHIC NAMES

Survey No. A-7861

#2

Name on Survey	Source of Name											
	A	B	C	D	E	F	G	H	K			
<u>Pinta Head</u>	✓											1
<u>Point Sinbad</u>	✓											2
<u>Suloia Bay</u>	✓											3
<u>Suloia Rock</u>	✓											4
<u>Suloia Island</u>	✓											5
<u>Suloia Point</u>	✓											6
<u>Straya Point</u>											Bay	7
<u>Bradshaw Cove</u>	✓											8
												9
												10
												11
												12
												13
<u>Salmonberry Cove</u>												14
<u>Sergius Narrows</u>												15
												16
												17
												18
												19
												20
												21
												22
												23
												24
												25
												26
												27

Names underlined  
in red are approved  
3-21-52  
L. Heck

(one tide gauge location)

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7861...

Records accompanying survey:

Boat sheets .2....; sounding vols. ...9.; wire drag vols. ....; bomb vols. ....; graphic recorder rolls .7. Env, special reports, etc. 1. Descriptive Report; 1. Fathometer Report; .....

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

Number of positions on sheet	.....	2363
Number of positions checked	.....	200
Number of positions revised	.....	15
Number of soundings revised (refers to depth only)	.....	10
Number of soundings erroneously spaced	.....	25
Number of signals erroneously plotted or transferred	.....	0
Topographic details <i>J.T. Gallahan</i>	Time	..... 70
Junctions	Time	..... 50
Verification of soundings from graphic record	Time	.....

*Prelim. Verification by: W. Werline* 158 *Nov. 1952*  
 Verification by *J.T. Gallahan* Total time 410 Date *Oct. 22, 1958*

Reviewed by *J.A. Dinamore* Time 40 hrs. Date *2 Dec. 1952*

Addendum *J.P. McEvoy* 106 hrs Date *Nov 3, 1965*

*Stini 4 hrs*

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7861

FIELD NO. PA-1150

Alaska, Salisbury Sd. & Peril Strait, E. part of Sd., Fish Bay & Suloia Bay

Project No. C<sup>S</sup>-247

Surveyed - August - October 1950 & October 1951 Scale 1:10,000

Soundings:

808 Fathometer  
Hand lead  
Wire

Control:

Sextant fixes on shore signals

Chief of Party - L. C. Johnson  
Surveyed by - L. C. Johnson, W. C. Russel & J. W. Flint  
Protracted by - R. Cox, C. N. Hillman & J. R. Wheeler  
Soundings plotted by - J. R. Wheeler & C. E. Pederson  
Preliminary verification by - W. Werline  
Verified and inked by - *J.T. Gallahan*  
Reviewed by - T. A. Dinsmore, 2 December 1952  
Inspected by - R. H. Carstens

1. Shoreline and Signals

Application of the shoreline and inshore rock and ledge detail is deferred pending the completion of air-photographic compilations in this area and the final inking of the smooth sheet. (*See addendum*)

The signals originate with contemporary triangulation.

2. Sounding Line Crossings

Depths at sounding line crossings are in very good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated except in foul inshore areas and in the areas listed in item 9.

Numerous offlying shoals, reefs and ledges are found in the areas covered by this survey. Except where these conspicuous irregularities occur, the bottom is generally smooth. General depths range from 10 fms. close inshore to maximum depths of about 100 fms. in the eastern part of Salisbury Sound.

4. Junctions with Contemporary Surveys

The junctions with H-7930 (1951) on the north, H-7860 (1950) in Kakul Narrows and in Sukoi Inlet on the south together with H-7676 (1948) on the southeast in Neva Strait will be considered in the reviews of those surveys. No contemporary surveys are available in Salisbury Sound on the west.

5. Comparison with Prior Surveysa. H-1626 and H-1627 (1884) 1:20,000

These early reconnaissance surveys show only a few scattered soundings and navigational notes within the common area. The paucity of information does not afford a comparison of any cartographic value.

b. H-2243 (1895) 1:5,000      H-4847 (1928) 1:20,000  
H-2286 (1896) 1:20,000

The prior surveys of 1895-96 taken together completely cover the area of the present survey. H-4847 covers only the southwestern portion of the present survey. A comparison between the prior and present surveys reveals no comprehensive changes in bottom. However, differences of a few fathoms are noticed in some localities. The most conspicuous general differences in depths have occurred in Schulze Cove where a prior depth of  $7\frac{1}{2}$  fms. charted in lat.  $57^{\circ} 23.91'$ , long.  $135^{\circ} 36.06'$ , falls in present depths of 11-12 fms. A comparison of the prior and present depths clearly indicates present depths in the northern part of the cove to be 3-4 fms. greater than prior depths. The 10-fm. depth curve now extends 400 meters farther northward into the bight of the cove. A natural change in bottom would be rather unusual in this cove, yet an examination of the recorded data revealed no errors that might account for the differences found.

The sparse development on the prior surveys does not reveal many of the shoal depths obtained by the more intensive development on the present survey.

Specific mention is made of the following discrepancies between prior and present depths:

- (1) The 21-fm. sounding charted in lat.  $57^{\circ} 23.30'$ , long.  $135^{\circ} 37.98'$ , from H-2286 should be disregarded. Falling in present depths of 30 fms., the prior sounding is considered to be out of position and should actually fall on the slope about 100 meters eastward where comparable depths were obtained on the present survey.

- (2) The 3-fm. sounding charted in lat.  $57^{\circ} 24.43'$ , long.  $135^{\circ} 39.20'$ , from H-2243 falls in 17-fm. depths on both the prior and present surveys. Originating with a questionable fix on a detached position, the sounding (on a rock) is described in the old records as falling "in the bight". In view of the adequacy of the present development together with the questionable position of the prior sounding, it is recommended that the 3-fm. sounding be disregarded. The prior sounding probably actually falls close inshore in the bight to the northward. ✓
- (3) The 26-fm. sounding charted in lat.  $57^{\circ} 22.88'$ , long.  $135^{\circ} 36.30'$ , from H-2286 should be disregarded. Falling in present depths of 43 fms. in smooth bottom, the prior sounding is considered to be out of position and should actually fall about 160 meters northward where comparable depths were obtained on the present survey. ✓
- (4) The 24-fm. sounding charted in lat.  $57^{\circ} 22.19'$ , long.  $135^{\circ} 33.10'$ , from H-2286 falls in 34-fm. depths on the present survey. Present depths clearly indicate smooth bottom with no shoal indications in the above locality. The prior sounding is considered to be 10 fms. in error and should be disregarded. ✓
- (5) By comparison with present depths, several charted depths from the prior surveys are considered to be out of position from 20 to 50 meters. These apparent discrepancies, however, are not considered to be of sufficient importance to warrant specific comment in each instance. ✓
- (6) All inshore rocks and ledges charted from the prior surveys should be retained on the chart pending the application of the shoreline and inshore detail to the present survey. (See addendum) ✓

The present survey is adequate to supersede the prior surveys except as noted in the preceding paragraph.

c. H-2286a & b W.D. (1925-26) 1:10,000 H-4841 W.D. (1928)  
1:20,000

These wire-drag surveys cover portions of the passages in the western part of the surveyed area. No conflicts are noted between the effective drag depths and depths on the present survey. A 6.1-fm. sounding in lat.  $57^{\circ} 20.85'$ , long.  $135^{\circ} 41.40'$ , has been carried forward to the present survey from the above wire-drag surveys. ✓

6. Comparison with Chart 8248 (Latest print date 1/22/51)A. Hydrography

Charted hydrography originates principally with the previously discussed surveys which need no further consideration. ✓

The two rocks awash charted in the vicinity of lat.  $57^{\circ} 23.1'$ , long.  $135^{\circ} 39.1'$ , originate with a preliminary air-photographic shoreline compilation of the area (Bp. 46335, 1950). The air photographs were taken at or near M.H.W. Neither the prior topographic and hydrographic surveys or the present survey show these rocks.

Unless a field-inspected air photograph verifies the existence of these rocks, they should be disregarded. At the present time, the air photographs are in the Portland, Oregon, Photogrammetric Office. (Disregard)

The present survey supersedes the charted information except as noted in paragraph 5b. (6). *Air photos do not verify rts. Not shown on revised photogrammetric survey.*

B. Aids to Navigation

Aids to navigation located on the present survey are in substantial agreement with the charted aids and adequately mark the features intended. ✓

7. Condition of Survey

- a. The sounding records are complete; the Descriptive Report covers all matters of importance. ✓
- b. The preliminary inspection and verification of the survey indicates that the smooth plotting was generally accurate. ✓
- c. Additional development including hand lead investigation of Haley Rock in lat.  $57^{\circ} 22.65'$ , long.  $135^{\circ} 37.80'$ , was accomplished 5 October 1951, the results of which appear on the smooth sheet. ✓
- d. Additional development should be accomplished as outlined in paragraph 9. ✓

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions except as noted in the following paragraph. ✓

9. Additional Field Work Recommended


It is recommended that the following shoal indications be developed and the least depths determined:


- 9.5 fms. in lat.  $57^{\circ} 22.13'$ , long.  $135^{\circ} 33.68'$  ✓
- 7.3 fms. in lat.  $57^{\circ} 19.64'$ , long.  $135^{\circ} 41.65'$  ✓


Additional split lines between widely spaced lines would materially aid in more completely delineating depth curves and defining the configuration of the bottom in the following localities:


- a. lat.  $57^{\circ} 21.50'$ , long.  $135^{\circ} 30.20'$ . ✓
- b. lat.  $57^{\circ} 22.88'$ , long.  $135^{\circ} 34.08'$ . ✓
- c. lat.  $57^{\circ} 23.31'$ , long.  $135^{\circ} 35.51'$ . ✓
- d. lat.  $57^{\circ} 23.35'$ , long.  $135^{\circ} 36.21'$ . ✓
- e. lat.  $57^{\circ} 21.4'$ , long.  $135^{\circ} 41.6'$ . ✓

Examined and approved:

  
H. R. Edmonston  
Chief, Nautical Chart Branch

  
L. S. Hubbard  
Chief, Section of Hydrography

  
H. Arnold Karo  
Chief, Division of Charts

  
Earl O. Heaton  
Chief, Division of Coastal Surveys

Addendum to Review

H-7861 (1950 and 51)

Verification and inking completed by-----J. T. Gallahan  
Review addendum by-----J. D. McEvoy 11/4/65  
Inspected by-----R. H. Carstens

The verification of this survey has been completed.  
Soundings and depth curves have been completely inked and  
junctional soundings transferred.

Shoreline

The shoreline has been completely applied from reviewed  
photogrammetric surveys T-8485 of 1948-50, and T-9900,  
T-9901 and T-9902 of 1942-52.

Junctions with Contemporary Surveys

Adequate junctions were completed with the adjoining surveys  
mentioned in the review.

Comparison with Chart 8248 Latest Print Date 8/3/64

The charted hydrography originates with the present survey  
after preliminary verification and review. Attention is  
directed to the following items:

- a. The extensive ledge areas charted from T-4392 (1928)  
along the NE shoreline of Neva Strait should be  
retained except where they disagree with the present  
shoreline.
- b. The 11-ft. elevation charted at the rock awash in  
57°20.15'N, 135°42.52'W. actually refers to the larger  
and higher rock 100 meters to the west and should be  
moved accordingly. This larger rock, transferred to  
the smooth sheet from T-8485 (1954) is bare 2 feet at  
mean high water.

\* (11)  
8248  
Revised.



c. The <sup>37'</sup>1 1/2 fathom sounding charted in lat. 57°21.67' long. 135°41.55' from the present survey was removed from the survey in favor of a rock awash carried forward from T-4392 (1928). The rock awash should be charted.

d. Several charted soundings are slightly out of position with respect to the present survey in its final form.

No other significant differences were noted between the charted and present survey depths.

#### Condition of Survey

a. Completion of verification and inking reveals that the smooth plotting was well done.

b. The Descriptive Report is complete and comprehensive.

Approved:



Lorne G. Taylor  
Chief, Nautical Chart  
Division

FHC

## TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

21 March 1952

Division of Charts: R. H. Carstens

Plane of reference approved in 9  
volumes of sounding records for

HYDROGRAPHIC SHEET 7861

Locality Salisbury Sound, Alaska

Chief of Party: L. C. Johnson )  
R. J. Sipe ) in 1950-51  
Plane of reference is mean lower low water, reading  
1.2 ft. on tide staff at Salmonberry Cove  
11.5 ft. below B. M. 1 (1928)

2.7 ft. on tide staff at Haley Anchorage  
15.5 ft. below B. M. 1 (1896)

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 as follows:  
Salmonberry Cove = 9.2 feet  
Haley Anchorage = 9.3 feet  
Sitka = 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. H-7861

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
12/11/52	8281	J.A. McManis	<del>Before</del> <sup>Preliminary</sup> After Verification and Review
24 Feb 53	8248	James H Bell	<del>Before</del> <sup>Partially applied</sup> After <sup>Completely applied</sup> Verification and Review
7/11/56	8252	N.W. Burgoyne	<del>Before</del> <sup>preliminary</sup> After Verification and Review <sup>Completely applied thro</sup> CH 8248
Mar 59	8281	Robert C.R. Williams	<del>Before</del> <sup>preliminary</sup> After Verification and Review
8/19/60	8252	Bob Mayonij	<del>Before</del> After Verification and Review Transfer to acetate from Buff Dwyer
	8281		<del>Before</del> After Verification and Review
4/3/68	8281	J.A. McManis	<del>Before</del> <sup>Final</sup> After Verification and Review (addendum)
	8248	D.J. Kennon	Re-applied at Reconstruction 2/25/74
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After Verification and Review
			<del>Before</del> After 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.