

8466

Diag. Cht. No. 8102-3.

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT  
(HYDROGRAPHIC)

Type of Survey ..... Hydrographic.....  
Field No. .... PF-1159.....  
Office No..... H-8466.....

LOCALITY

State ..... Alaska.....  
General Locality ..... Prince of Wales Island.....  
Locality ..... Polk Inlet.....

19 59

CHIEF OF PARTY

I. R. Rubottom.....

LIBRARY & ARCHIVES

DATE ..... Jan. 29, 1960.....

8466

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-8466

Field No. PF-1159

State Alaska

General locality Prince of Wales Island

Locality Polk Inlet

Scale 1-10,000 Date of survey May 1959 April 30 - May 21, 1959

Instructions dated 27 November 1957

Vessel USCGS SHIP PATHFINDER Launches # 1 and # 4

Chief of party Ira R. Rubottom

Surveyed by Philip J. Taetz; Harley D. Nygren

Soundings taken by <sup>808</sup> fathometer, graphic recorder, <sup>lead line</sup> hand lead, ~~wire~~

Fathograms scaled by ship's personnel

Fathograms checked by ship's officers

Protracted by George M. Poor

Soundings penciled by George M. Poor

Soundings in and tenths fathoms feet at MLW MLLW

REMARKS:

Index in 69

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY

H - 8466 (Field No. PF 1159) Project CS 405 1959

USC&GS SHIP PATHFINDER, Ira R. Rubottom, Captain, C&GS, Commanding

A. Project

Hydrography was done according to the instructions for Project CS 405 dated 27 November 1957.

B. Survey Limits and Dates

The general locality of the survey is the east side of Prince of Wales Island, S.E. Alaska. The survey includes all of Polk Inlet and the portion of Skowl Arm lying to the west of longitude  $132^{\circ} 24.63'$ . Field work began on 30 April 1959 and was completed on 21 May 1959. Junction was made on the east with contemporary survey No. H-8467. ✓

C. Vessel and Equipment

Ship PATHFINDER Launches 1 and 4 were used in the survey. The area covered by Launch 1 includes all of Polk Inlet and the westernmost portion of Skowl Arm (West of a line drawn at  $45^{\circ}$  True from triangulation station PHIL, 1958). Launch 4 covered the remainder of the area on the sheet not covered by Launch 1. Bottom samples in the entire sheet area were taken by Launch 4. ✓

Launches were operated from the Ship PATHFINDER. All sounding was done with type 808 fathometers calibrated for a velocity of sound of 800 fathoms per second. Launch 1 was equipped with fathometer No. 57-22, and Launch 4 with fathometers No. 46 (when taking bottom samples) and No. 52 (all regular soundings). ✓

In accordance with Section 822 (Revised) of the Hydrographic Manual, no velocity corrections were computed. Initial settings were maintained at 0 fathoms, however occasional errors were found, and corrections were entered as separate items in the Sounding Records. The basic correction was derived from 2 fathom bar check readings, taken with correctional equipment. Bar check corrections were also determined for other depths when possible, as additional checks. Vertical casts were made with a hand sounding machine and registering sheave. ✓

R.P.M. checks were made daily, and reed tachometers were carefully watched to insure operation at the proper calibration speeds. Paper travel tests were also run to verify the calibrations. All stylus arm lengths were checked by comparison of fix marks with a standard template. ✓

#### D. Tide and Current Stations

Portable tide gages were maintained at the southern end of Polk Inlet (Lat.  $55^{\circ} 21.21''$ ) and Long.  $132^{\circ} 29.82'$ ) and at the northern end of Polk Inlet (Lat.  $55^{\circ} 24.70'$  Long.  $132^{\circ} 27.85'$ ). By comparison of the tides at the two gages it was later found that no time or range differences existed. Smooth tides from the North Polk Inlet gage were used for the reduction of all soundings on the smooth sheet.

No current stations were occupied in the area.

#### E. Smooth Sheet

The smooth sheet projection was made by hand on board the Ship PATHFINDER. Shoreline and photogrammetrically located signals were transferred from shoreline manuscripts and blue-line prints of same by standard methods.

#### F. Control Stations

Triangulation within the sheet limits was established by F. B. Quinn in 1958 and I. R. Rubottom in 1959.

In the northern portion of the sheet where triangulation control was available, additional control for hydrography was established by plane table methods on graphic control sheet No. PF-A-59.

Hydrographic control was established on the remainder of the sheet by photogrammetric methods and by sextant cuts and fixes. Considerable trouble was experienced in photogrammetrically locating signals because of the poor quality of the photographs. Numerous cases of misidentification of control signals were found while hydrography was in progress. A good deal of time was spent in resolving these discrepancies as they were detected, and it is felt that the final location of these signals as shown on the smoothsheet is of acceptable quality.

#### G. Shoreline and Topography

Shoreline and topographic detail were transferred to the smooth sheet from blue-line impressions of advance photogrammetric manuscripts No. T-11505, T-11506, T-11508, and T-11509.

The low water line was not defined by soundings in many places because of the steep nature of the beach. In these areas the low water line was usually nearly synonymous with the high water line.

One position, 12 M (Launch 1), plotted inside the shoreline on a line run parallel and close to the beach. The position was rejected.

Numerous discrepancies between the photogrammetric and hydrographic positions of rocks were found. These rocks were all submerged or uncovered at MLLW by less than 6 feet (usually 2 feet or less). On account of the low heights, these rocks were probably under water on the photographs.



This plus the poor quality of the photographs could have led to an inaccurate position on the manuscript. Therefore the hydrographic positions were plotted in preference to the photogrammetric. ✓

#### H. Soundings

All depths were measured with type 808 fathometers calibrated at a speed of sound of 800 fms per second. Refer to Sec. C for discussion of method for determining corrections. ✓

Vertical<sup>C</sup> cast comparisons were made by Launch 4 at the time of taking bottom samples. Fathometer No. 46, which was used for these comparisons did not have a draft correction determined. The correction for A scale, fathometer No. 52 was used with apparently satisfactory results. ✓

The vertical cast comparisons do not match at all well in many cases. This was due both to the steep bottom and the fact that the fathometer and vertical cast sounding were not taken at the same time. The time difference was caused by the stopping of the launch which caused the disappearance of the trace from the fathogram at the time of the wire sounding. ✓

#### I. Control of Hydrography

Hydrography was controlled by standard 3 point sextant fixes and on rare occasions by estimated distances from prominent points of shoreline. ✓

#### J. Adequacy of Survey

This survey is complete and is considered adequate to supersede prior surveys for charting. ✓

A satisfactory junction was made with the adjoining survey. Depth curves could be adequately drawn between the two sheets. ✓

#### K. Crosslines

Approximately 15% of sounding lines run were crosslines. Crossings in general were good. There were a few discrepancies but these could be accounted for by the steepness of the bottom in the localities. ✓

#### L. Comparison With Prior Surveys

Comparison was made with Survey H-1649b, 1885, Scale 1:80,000. This prior survey was of a reconnaissance nature which made a close comparison impractical if not impossible. Discrepancies in soundings are attributed to horizontal displacement of soundings due to poor control on the prior survey rather than to changes in depth since the prior survey. All soundings from the prior survey should be deleted from the charts in favor of current soundings. ✓

M. Comparison With Chart

All soundings on Chart 8142 originated from the prior survey mentioned under Sec. L. Refer to that section for discussion. ✓  
*Reviets' comparison with Chart # 8083, Second Edition, May 13, 1968*

N. Dangers and Shoals

Dangers and shoals found within the limits of this survey are as listed below:

<u>Latitude and Longitude</u>	<u>Launch and Pos. No.</u>	<u>Least Depth</u>
Lat 55° 20.65 Lon 132° 28.80	#1 3f	Uncovers 3 ft at MLLW (3) ✓
Lat 55° 20.70 Lon 132° 28.80	#1 2f	covered 0.8 fath. at MLLW 6 <sup>8</sup> Rk ✓
Lat 55° 20.78 Lon 132° 28.97	#1 34d	Uncovers 4 ft. at MLLW (4) ✓
Lat 55° 20.83 Lon 132° 29.07	#1 1f #	Uncovers 1 ft. at MLLW (1) ✓
Lat 55° 21.78 Lon 132° 29.70 30.20	#1 15h	Covered 1.9 fath at MLLW 12 <sup>8</sup> Rk ✓
Lat 55° 21.68 Lon 132° 30.88 (Note tide)	#1 51e	Uncovered <sup>6</sup> / <sub>8</sub> ft at MLLW (7) <sup>6</sup> ✓
Lat 55° 22.48 Lon 132° 30.64	#1 3½ out of Pos 73h	9.0 fath. ✓
Lat 55° 22.66 (Also note pos. 189-#1 Lon 132° 30.83 190 & 196-197 "n", Launch 1)	3 out of Pos 31k	5.7 fath. ✓
Lat 55° 22.60 Lon 132° 30.29	#1 1 out of Pos 205n	1.2 fath ✓
Lat 55° 23.67 Lon 132° 29.37	#1 19d	Uncovered 2 ft at MLLW (2) ✓
Lat 55° 23.58 Lon 132° 28.85	#1 2½ out of Pos. 56m	2.6 fath. ✓
Lat 55° 23.10 Lon 132° 28.59	#1 3 out of Pos. 84 1	3.7 fath. ✓
Lat 55° 23.11 Lon 132° 27.83	#1 2 out of Pos. 119 1	1.0 fath. ✓
Lat 55° 24.09 (Accept hydro. info. - Note pat. 4-5, Section "G", p.2, this D.R.) Lon 132° 28.60	T-11506 Verified by Field Inspec.	Uncovered 1.1 ft. at MLLW (1) ✓

<u>Latitude and Longitude</u>		<u>Launch and Pos. No.</u>		<u>Least Depth</u>	
Lat 55° 24.48	Lon 132° 28.54	#1	2 & 3p	Awash at MLLW (0)	✓
Lat 55° 24.89	Lon 132° 28.34	#1	1 p	Awash at MLLW (0)	✓
Lat 55° 24.71	Lon 132° 29.02	#1	2 out of Pos. 64p	5.7 fath.	✓
Lat 55° 24.88	Lon 132° 28.72	#1	2 out of 22a	4.4 fath.	✓
(See also, pgs 40 "P") Launch 1					
Lat 55° 25.02	Lon 132° 28.53	#1	4 out of Pos. 91m	1.6 fath.	✓
Lat 55° 25.00	Lon 132° 28.42	#1	2½ out of Pos 66m	0.6 fath.	✓
Lat 55° 25.14	Lon 132° 28.48	#1	Pos 9d	Uncovered 2 ft MLLW (2)	✓
Lat 55° 25.17	Lon 132° 28.13	#1	1 out of Pos 13n	4.2 fath.	✓
Lat 55° 25.19	Lon 132° 28.27	#1	½ out of Pos 42n	2.5 fath.	✓
Lat 55° 25.49	Lon 132° 26.80	#4	Located photo- grammetrically at verified by hydro- grapher	Uncovered 4 ft. MLLW (4)	✓
T-11,506					
<del>Lat 55° 25.15</del>					
Lat 55° 25.15	Lon 132° 27.17	#4	Located photo- grammetrically at verified by hydro- grapher.	Uncovered 6 ft MLLW (6)	✓
T-11,506					
Lat 55° 25.57	Lon 132° 26.13	#4	295 f 255f, 1st out	2.4 fath.	✓
Lat 55° 25.65	Lon 132° 26.09	#4	3½ out of Pos 37e	Uncovered 2 at MLLW (2)	✓
Lat 55° 25.64	Lon 132° 25.92	#4	Located photo- togrammet- rically, veri- fied by hydro- grapher	Uncovered 6 ft at MLLW (6)	✓
Lat 55° 25.43	Lon 132° 25.47	#4	2 out of Pos. 38f	Uncovered 4 ft at MLLW (4)	✓
(Kelp symbol on BS indicates tock. Note T-11506)					

<u>Latitude and Longitude</u>	<u>Launch and Pos. No.</u>	<u>Least Depth</u>	
Lat 55° 25.43 Lon 132° 25.26	#4 1 out of Pos 71f	4.2 fath.	✓
Lat 55° 25.40 Lon 132° 25.02	Field Inspection of T-11506	Awash at MLLW (0)	✓
Lat 55° 25.64 Lon 132° 24.98	#4 217 <del>f</del> <sup>e</sup>	37 fath	✓
Lat 55° 25.45 Lon 132° 24.77	#4 1 out of Pos 254 <del>f</del> <sup>e</sup>	20 fath	✓
Lat 55° 25.85 (Rock on Lon 132° 24.80 T-11506)	T-11506 Verified by Field Inspec.	Uncovered 2 <sup>1</sup> at MLLW (2)	✓
Lat 55° 25.33 Lon 132° 24.69	#1 Pos 1d	Awash at MLLW (0)	✓
Lat 55° 25.45 Lon 132° 25.57 [T-11506 claims (6)]	#4 Located photo- gram. ver- ified by hy- drographer	Uncovered 9 ft at MLLW (2)	✓
Lat 55° 25.48 Lon 132° 24.98	T-11506 Verified by Field inspec.	Uncovered 7 ft at MLLW (7)	✓
Lat 55° 25. <sup>5</sup> <del>3</del> Lon 132° 25.03	T-11506 "	Uncovered 4 ft at MLLW (4)	✓
Lat 55° 25. <sup>6</sup> <del>5</del> Lon 132° 25.80	#4 Located photo- gram. verified by hydrog.	Uncovered 6 ft at MLLW (6)	✓
Lat 55° 24.72 Lon 132° 27.80	#4 Pos 1g	Uncovered 1 ft at MLLW (1)	✓
Lat 55° 24.90 Lon 132° 28.53	T-11506 Verified by Field Inspec.	Awash at MHW	✓
Lat 55° 24.89 Lon 132° 28.35	#1 1p	Awash, MLLW (0)	✓
Lat 55° 25.07 Lon 132° 28.40	T-11506 Verified by Field Inspec.	Awash, MHW to unc 4' at MHW	✓
Lat 55° 24.47 Lon 132° 28. <sup>3</sup> <del>1</del> <sub>5</sub>	#1 2p	Awash, MLLW (0)	✓
Lat 55° 24.20 Lon 132° 28.69	#1 3 out of Pos 53k	5 <del>4</del> fath.	✓

<u>Latitude and Longitude</u>	<u>Launch and Pos. No.</u>	<u>Least Depth</u>
Lat 55° 24.03 Lon 132° 28.80	T-11506 Verified by Field Inspec.	Uncovered 6' at MLLW (6) ✓
Lat 55° 24.06 Lon 132° 28.53	T-11506 "	Uncovered 9' at MLLW (9) ✓
Lat 55° 24.14 Lon 132° 28.48	#1 2 out of 48j	1.5 fath ✓
Lat 55° 24.06 Lon 132° 28.34	#1 6p	Rk - 1.1 fath. ✓
Lat 55° 23.64 Lon 132° 29.31	T-11506 Verified by Field Inspec.	Uncovered 8' at MLLW (8) (6) ✓
Lat 55° 23.16 Lon 132° 28.75	T-11506 "	Bare at MHW ✓
Lat 55° 23.04 Lon 132° 28.42	T-11506 "	Uncovered 4' at MLLW (4) ✓
Lat 55° 23.10 Lon 132° 28.23	#1 4 out of 149L	1.8 fath ✓
Lat 55° 23.17 Lon 132° 28.21	T-11506 Verified by Field Inspec.	Uncovered 5' at MLLW (5) ✓
Lat 55° 23.26 Lon 132° 27.93	T-11506 "	Uncovered 4' at MLLW (4) ✓
Lat 55° 23.28 Lon 132° 27.90	T-11506 "	Uncovered 7' at MLLW (7) ✓
Lat 55° 23.10 Lon 132° 28.39	T-11506 "	Awash, MHW ✓
Lat 55° 23.05 Lon 132° 28.26	T-11506 "	Awash, MLLW (0) ✓
Lat 55° 22.99 Lon 132° 28.53	T-11506 "	Uncovered 5' at MLLW (5) ✓
Lat 55° 23.78 Lon 132° 29.00	#1 37k	6.5 fath. ✓

From (55° 24.56, 132° 27.86) to (55° 24.23, 132° 28.05)  
This passage is foul except for channel line run by Launch 1, pos 136k ✓  
through ps 142k

<u>Latitude and Longitude</u>		<u>Launch and Pos. No.</u>		<u>Least Depth</u>	
Lat 55° 22.57	Lon 132° 30.92	#1	½ out, 113g	1.8 fath.	✓
Lat 55° 22.06	Lon 132° 31.12	#1	3½ out, 55g	1.3 fath.	✓
Lat 55° 21.31	Lon 132° 29.91	#1	2 out, 132 a	1.6 fath.	✓
Lat 55° 21.20	Lon 132° 29.45	T-11509	Verified by Field Inspee.	Uncovers 1/4' at MHW (4)	✓
Lat 55° 20.93	Lon 132° 29.15	T-11509	" "	Uncovers 1' at MLLW (1)	✓
Lat 55° 20.88	Lon 132° 29.54	#1	Pos 16c Outer most pile of row of piles running at 146° true to beach		✓
Lat 55° 20.42	Lon 132° 28.61	#1	2 out, 47d	2.5 fath.	✓
Lat 55° 19.37 ✓	Lon 132° 28.13	#1	45 f Outermost pile of 4 piles running 100 m at 165° true <i>The fifth pile was added from description of 45 f. This is also shown on the boat sheet.</i>		✓
Lat. 55° 25.56	Long. 132° 25.80	#4	33-34 "d"	Reduces to 0 ¼ fm. How- ever, the launch "hit rock". Retained rock awash sym- bol from T-11506 and added "awash MLLW"	

O. Coast Pilot Information

A Coast Pilot report, titled "Coast Pilot Notes for Southeast Alaska, No. 8 Dixon Entrance to Yakutat Bay", for Project CS-405 has been forwarded under separate cover. ✓

P. Aids to Navigation

There are no aids to navigation within the limits of the sheet. ✓

Q. Landmarks for Charts

No landmarks were selected in this area. ✓

R. Geographic Names

*1/11/59*  
A geographic names report, titled "Geographic Names Report for Kasaan Bay, Alaska", for Project CS-405 has been forwarded under separate cover. ✓

Z. Tabulation of Applicable Data

1. Triangulation Report, Records, Computations, and Recovery Notes for Skowl Arm, Kasaan Bay - 1959 forwarded to the Director.
2. Descriptive Report to accompany Graphic Control Sheet PF-A-59, PF-B-59- forwarded to Director
3. Graphic Control Sheet PF-A-59 - to be forwarded
4. Coast Pilot Notes for Southeast Alaska No. 8 Dixon Entrance to Yakutat Bay - forwarded to Director
5. Geographic Names Report for Kasaan Bay, Alaska - forwarded to Director
6. Marigrams Nos. 1 thru 9 for portable tide gage, Polk Inlet, South - forwarded to Director
7. Marigrams Nos. 1 thru 7 for portable tide gage, Polk Inlet, North - forwarded to Director
8. Report of Tide Gage Installation of portable gages Polk Inlet, South and Polk Inlet, North - forwarded to Director
9. Level Records for tide gages Polk Inlet, South and Polk Inlet, North - forwarded to Director
10. Descriptions of marked topographic stations USE, 1959; BAGS, 1959; and TAN, 1959 - forwarded to Director
11. Revised description of marked topographic station OAK, 1959 - forwarded to Director
12. Description of Magnetic Station JAP, 1959 and one cahier - Magnetic Observations - Station JAP, 1959 - forwarded to Director

13. Fathograms "a" thru "p" day, Launch 1 and "a" thru "g" day,  
Launch 4- To be forwarded
14. 2 Copies of Boat Sheet PF-1159 - to be forwarded
15. Blue-line impressions of Advance Topographic Manuscripts T-11505,  
T-11506, T-11508, and T-11509 - to be forwarded
16. Incomplete Topographic Manuscripts T-11505, T-11506, T-11508,  
and T-11509 - to be forwarded

Respectfully submitted,

*George M. Poor*

George M. Poor  
Ensign, C&GS



STATISTICS FOR HYDROGRAPHIC SURVEY H-8466 (1959)

USC&GSS PATHFINDER

Project CS-405

Launch No. 1

<u>Day</u>	<u>Date</u>	<u>Vol. No.</u>	<u>No. of Positions</u>	<u>No. of H.L. and Wire Sdg.</u>	<u>Nautical Miles of Sdg. L.</u>
a	4/30/59	1	190	0	16.9
b	5/5/59	1 & 3	201	0	23.2
c	5/6/59	3	16	0	1.7
d	5/7/59	3 & 4	226	0	19.7
e	5/8/59	4	112	1	11.6
f	5/9/59	4	47	1	5.3
g	5/11/59	4 & 5	138	0	14.9
h	5/12/59	5	95	1	7.4
j	5/13/59	5 & 6	237	0	28.7
k	5/14/59	6	152	0	15.0
l	5/18/59	7	165	0	12.3
m	5/19/59	7 & 8	194	0	19.5
n	5/29/59	8	213	1	14.8
p	5/21/59	8 & 9	<u>89</u>	<u>7</u>	<u>5.9</u>
Totals:			2075	11	196.9

STATISTICS FOR HYDROGRAPHIC SURVEY H-8466 (1959)

USC&GSS PATHFINDER Project CS-405

<u>Day</u>	<u>Date</u>	<u>Vol. No.</u>	Launch No. 4		<u>Nautical Miles of Sounding Line</u>
			<u>No. of Positions</u>	<u>No. of H.L. and Wire Sdg.</u>	
a	5/11/59	10	21	21	0.0
b	5/12/59	10	14	13	0.0
c	5/13/59	10	4	4	0.0
d	5/14/59	10	38	0	3.8
e	5/18/59	10 & 11	267	0	23.8
f	5/19/59	11 & 12	300	0	24.0
g	5/20/59	12	<u>95</u>	<u>1</u>	<u>6.2</u>
Totals:			739	39	57.8

Approximate Total Square Nautical Miles of hydro  
for Launches 1 and 4: 5.0

ABSTRACT OF COMBINED FATHOMETER CORRECTIONS

Hydrographic Survey H-8466 (PF-1159)

Fathometer No. 57-22 (Launch 1)

A Scale         $\neq$  0.3 fath.

B Scale        - 0.6 fath.

C Scale        - 1.8 fath.

Fathometer No. 52 (Launch 4)

A Scale         $\neq$  0.2 fath.

B Scale         $\neq$  3.0 fath.

C Scale        None determined

Fathometer No. 46 (Launch 4) (When taking bottom samples)

No corrections determined.

TIDE NOTE

Project CS-405

USC&GSS PATHFINDER

Hydrographic Survey H-8466  
(PF-1159)

Tides from a portable tide gage at Lat  $55^{\circ} 24.70'$  N and Long  $132^{\circ} 27.85'$  W were used for the reduction of all soundings within the limits of this survey. No time or height corrections were used. MLLW corresponded to 8.6 feet on the tide staff. The curves, plotted from hourly heights and used for tide reducers, are included in this report.

List of Signals for H-8466 (PF-1159)

NAME	SOURCE (photo & manuscript, triangulation, graphic control sheet, or Hydro Volume)
Abe	54-0-96, T-11506; G C S P-A-59
Ace	Volume 3
Act	54-0-83, T-11506
Add	Volume 2
Alp	54-0-163, T-11506
Arm	Volume 1
Axe	54-0-196, T-11508
Bag	BAGS(marked topographic station) 54-0-197, T-11506
Bah	54-0-198, T-11506
Bat	54-0-83, T-11506
Bib	54-0-82, T-11505
Bob	Volume 1 (plotted on T-11506)
Box	54-0-194, T-11509
Boy	54-0-96, T-11506
But	54-0-163, T-11506
Cab	GCS P-A-59 (plotted on T-11506)
Car	54-0-198, T-11506; GCS P-A-59
Cat	54-0-83, T-11506
Coo	Volume 2, Volume 7
Cut	Volume 2
Daw	Volume 1 (plotted on T-11506)
Day	54-0-199, T-11506; GCS P-A-59
Deb	GCS P-A-59
Dif	Volume 2, Volume 7
Dol	Volume 1, Volume 2
Ear	Volume 1 (plotted on T-11506)
Eat	GCS P-A-59

NAME	SOURCE
Ebb	54-0-83, T-11506
Egg	54-0-95, T-11506; GCS P-A-59
Ego	54-0-197, T-11506
Fat	Volume 1 (plotted on T-11506)
Few	54-0-198, T-11506
Fez	54-0-83, T-11506
Fly	GCS P-A-59
Fry	54-0-198, T-11506
Gad	54-0-82, T-11505
Gag	54-0-83, T-11506
Gal	54-0-198, T-11506
Gen	GENE, 1959 (triangulation station)
Gus	GCS P-A-59
Hat	54-0-81, T-11505
Hex	GCS P-A-59
Hid	54-0-198, T-11506
Hum	54-0-196, T-11508
Ice	Volume 4, Volume 5
Ida	GCS P-A-59
Irk	54-0-198, T-11506
Ion	54-0-198, T-11506
Jap	54-0-82, T-11508
Jaw	GCS P-A-59
Jug	54-0-198, T-11506
Ked	54-0-81, T-11508 (One of two <u>boatsheets</u> shows "KED" as hydro station)
Ken	54-0-198, T-11506
Kid	GCS P-A-59
Kim	SKIM, 1958 (triangulation station)

NAME	SOURCE
Lad	54-0-81, T-11508
Lam	54-0-198, T-11506
Lux	GCS P-A-59
Mag	54-0-195, T-11509
Mol	54-0-198, T-11506
Nat	54-0-195, T-11509
Nay	54-0-198, T-11506
Nor	54-0-83, T-11506
Not	T-11506 (picked from shoreline detail)
Oak	OAK(marked topographic station) Volume 2, Volume 5
Obi	54-0-96, T-11506
Off	54-0-196, T-11508
Olk	54-0-195, T-11509
Ork	SNORK,1959 (triangulation station)
Owl	Volume 2, Volume 7
Pad	54-0-195, T-11509
Pal	54-0-198, T-11506
Peb	54-0-83, T-11506
Phi	PHIL,1959 (triangulation station)
Pix	54-0-83, T-11506
Quo	54-0-195, T-11509
Rag	54-0-195, T-11509
Ram	Volume 2
Rio	54-0-163, T-11506
Rip	Volume 1 (plotted on T-11506)
Rot	Volume 2
Roy	Volume 1(Plotted on T-11506)
Sal	54-0-195, T-11509

NAME	SOURCE
Sax	Volume 2
Sub	54-0-83, T-11506
Tan	TAN(marked topographic station) 54-0-195, T-11509
Thy	Volume 2
Tig	Volume 2
Try	54-0-83, T-11506
Tot	TOTE,1958 (triangulation station)
Tub	STUBS,1959 (triangulation station)
Use	USE(marked topographic station) 54-0-195, T-11509
Val	Volume 1
Van	54-0-198, T-11506
Vex	54-0-195, T-11509
Via	54-0-83, T-11506
Wag	54-0-198, T-11506
Wed	54-0-195, T-11509
Win	Volume 2, Volume 7
Wit	54-0-195, T-11509
Yak	54-0-195, T-11509
Yel	T-11506 (picked from shoreline detail)
Yes	Volume 2, Volume 7
Yet	54-0-195, T-11509
Zag	54-0-81, T-11508
Zig	Volume 2, Volume 7
Zoo	Volume 1



48466

USC&GS Ship PATFINDER

21 April 1959

THREE-LETTER STATION NAMES

			U/E	Don't					
<del>Abb</del>	<del>Cab</del>	<del>Ege</del>	Gen	<del>Jap</del>	Man	<del>Oil</del>	<del>Rip</del>	<del>Tub</del>	
<del>Acc</del>	Can	<del>Eif</del>	Geo	Jar	Mar	Old	<del>Rot</del>	<del>Tig</del>	
<del>Act</del>	<del>Car</del>	Elm	Get	Jay	Maw	Ora	<del>Ray</del>	<del>Use</del>	
<del>Adc</del>	<del>Cat</del>	Emo	Gig	<del>Jaw</del>	Max	Orb	Rub		
Ado	Caw	End	<del>Gin</del>	Jib	Met	Out	Rue	<del>Val</del>	
<del>Ala</del>	<del>Ced</del>	Eon	Gob	Jim	Mid	<del>Gul</del>	<del>Rum</del>	<del>Van</del>	
Alu	Com		Got	<del>Joo</del>		<del>Ork</del>		Vet	
<del>Alp</del>	<del>Con</del>	Erg	Gum	Joe	Mug	<del>Red</del>	Sag		
<del>Amc</del>	Cop	<del>Sax</del>	Gus	Joy	Mum	<del>Pal</del>	Sag	<del>Wls</del>	
Amy	<del>Cow</del>	Eva	Guy	Jug		Par	<del>Sad</del>	<del>Win</del>	
Ann	Cry		<del>Gen</del>	Jut	<del>Nat</del>	Paw	San		
Art	Cus	Far	Hag		<del>Nay</del>	Peg	<del>Sex</del>	<del>Wed</del>	
<del>Apt</del>	<del>Cur</del>	<del>Pat</del>	<del>Hat</del>	<del>Ked</del>	Ned	Pep	Set	<del>Wag</del>	
Arm	Cot	Fed	Han	<del>Ken</del>	Neo	Pet	Sic	Wan	
Art		<del>Few</del>	Her	<del>Kay</del>	New	Pie	Sip	War	
Ask	<del>Daw</del>	<del>Fes</del>	Hex	<del>Kid</del>	Nig	Pin	Sit	Was	
Ave	<del>Dey</del>	Fig	<del>fid</del>	<del>Kim</del>	Nil	Pit	Sir	Wax	
<del>Avs</del>	<del>Deb</del>	Fin	His		Nip	<del>Pix</del>	Sis	Wed	
<del>Awc</del>	<del>Dif</del>	Fit	Hed	<del>Lad</del>	Nit	Fly	She	Wes	
	Dim	Fix	Hoe	<del>Lan</del>	Nix	Pol	Ski	Wen	
<del>Bag</del>	Dip	Fly	Hen	Lax	Nod	Pot	Shy	Who	
<del>Bah</del>	Dix	Foe	Hop	Lay	Nea	Pre	Sky	Why	
<del>Bat</del>	Dec	Fog	Hew	Lag	<del>Ner</del>	Pug	Sly	Wig	
Bed	<del>Deg</del>	Fep	Hub	Leo	Now	<del>Pup</del>	Sel	<del>Win</del>	
Bib	Don	For	Hug	Let	Nub	Put	Sop	<del>Wit</del>	
<del>Big</del>	Dot	Fox	<del>Hun</del>	Lip	Nul	<del>Phi</del>	Sow	<del>Woo</del>	
Boa	Dud	<del>Frc</del>	<del>Hut</del>	<del>Lis</del>	<del>Nut</del>	<del>Que</del>	<del>Sux</del>		
<del>Bob</del>	Dun	<del>Fry</del>	Log	Log	Nux		Sty	<del>Yak</del>	
Ben	<del>Duo</del>	Fun	<del>Ice</del>	Lep		<del>Rag</del>	Sub	<del>Yan</del>	
<del>Bex</del>	<del>Dol</del>		<del>Ide</del>	Low	<del>Gak</del>	<del>Ran</del>	Sue	Yea	
Bum	<del>Ear</del>	<del>Gad</del>	<del>Ien</del>	Lug	<del>Goi</del>	Rat	<del>Tex</del>	Yes	
<del>Bus</del>	<del>Eat</del>	Gag	<del>Irk</del>	Lux	Old	Rev	<del>Tax</del>	<del>Yet</del>	
But	<del>Ebb</del>	Gal	Its		<del>Off</del>	Rig	<del>Tap</del>		
Boy	Keel	Gas	Ivy	<del>Mag</del>	Ona	Rim	Tax	<del>Zag</del>	
	<del>Leg</del>	Gas	Pea	Mel		Rie	<del>Thy</del>	Zig	
				<del>olk</del>			Tom	Zoo	
							<del>Toy</del>	<del>Zip</del>	
							Try		







H-8466

Vessel	DATE	Vol & DAY LTR	SOUNDING LINE		MILEAGE TO & FROM NAUT	MISC NAUT	TOTAL NAUT	NO. OF POS.	No OF HANDLED SOUNDINGS	MILES OF CROSSLINES NAUT.	INITIALS
			NAUT	STAT.							
Lch 1	4/30	1 a	16.9	19.4	4.9	2.5	24.3	190	0		PJT
Lch 1	5/5	1 1/2 b	23.2	26.7	4.0	5.0	32.2	201	0		PJT
Lch 1	5/6	3 c	1.7	2.0	13.4	2.7	17.8	16	0		PJT
Lch 1	5/7	3 1/4 d	19.7	22.6	6.5	5.0	31.2	226	0		PJT
Lch 1	5/8	4 e	11.6	13.3	9.8	4.0	25.4	112	1		PJT
Lch 1	5/9	4 f	5.3	6.1	18.7	4.2	28.2	47	1		PJT
Lch 1	5/11	4 1/5 g	14.9	17.1	12.2	5.9	33.0	138	0		PJT
Lch 1	5/12	5 h	7.4	8.5	11.8	7.2	26.4	95	1		PJT
Lch 1	5/13	5 1/6 j	28.7	33.2	12.2	3.5	44.4	237	0		PJT
Lch 1	5/14	6 k	15.0	17.3	7.2	7.8	30.0	152	0		PJT
Lch 1	5/18	7 l	12.3	14.2	13.2	2.5	28.0	165	0		PJT
Lch 1	5/19	7 1/8 m	19.5	22.4	11.7	8.0	39.2	194	0		PJT
Lch 1	5/20	n	14.8	17.0	9.7	6.4	30.9	213	1		PJT
Lch 1	5/21	p	5.9	6 1/8	4.8	7.5	18.2	89	7		PJT
			196.9	226.4			409.2	2075	11		
				226.4				737			
								2814			



H-8466

VESSEL	DATE	VOL & DAY LTR	SOUNDING LINE NAUT	STAT	MILEAGE TO & FROM NAUT	MISC NAUT	TOTAL NAUT	No. of POS	No. of Hand/lead Soundings	Miles of Crosslines Newt.	INITIAL
Lch #4	5/11	a	0	0	5.4 <del>2.8</del>	10.9 43.4	16.2 45.4	21	21	0	thn
Lch #4	5/12	b	0	0	7.2	4.8	12.0	14	13	0	thm
Lch #4	5/13	c	0	0	4.3	2.4	6.7	4	4	0	thm
Lch #4	5/14	d	3.8	4.4	4.0	0.8	8.6	38	0	-	thm
Lch #4	5/18	e	23.8	27.4	4.0	1.0	28.8	267	0	-	thn
Lch #4	5/19	f	24.0	27.6	5.0	1.0	30.0	300	0	-	thn
Lch #4	5/20	g	6.2	7.1	5.0	1.0	12.2	95	1	-	thn
AREA TOTAL	PF1159.066 =		57.8	66.5			114.5	739	39		C.B.F.
			4.25 sq. N.M. APPROX.								



GEOGRAPHIC NAMES

Survey No. H-8466

Name on Survey	On Chart No. 8102		On previous survey		On U. S. quadrangle Maps		From local information		On local Maps		P. O. Guide or Map		Rand McNally Atlas		U. S. Light List		BGN
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O		
Prince of Wales Island (Title)																	1
Cabin Creek	x															x	2
Dog Salmon Creek	x																3
Polk Creek	x																4
Polk Inlet	x																5
Skowl Arm	x																6
Connection Pass				x													7
Little Goose Bay				x													8
Goose Bay																	9
Old Franks Creek																	10
																	11
																	12
																	13
																	14
																	15
																	16
																	17
																	18
																	19
																	20
																	21
																	22
																	23
																	24
																	25
																	26
																	27

*George D. Ball*  
 GEOGRAPHIC NAMES SECTION  
 11 FEBRUARY 1960  
*Chris E. Harrington*  
 16 Nov. 1979

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. *8466*....

Records accompanying survey: Smooth sheets *.1*...;  
 boat sheets *.2*...; sounding vols. *.12*...; wire drag vols. ....;  
 Descriptive Reports *.1*...; graphic recorder envelopes *.6*...;  
 special reports, etc. ....  
 .....

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

	Verif.	Review
Number of positions on sheet	<i>2564</i> .....	
Number of positions checked	<i>Approx-10%</i> .....	12
Number of positions revised	<i>NONE</i> .....	0
Number of soundings revised (refers to depth only)	<i>Approx. 53</i> .....	0
Number of soundings erroneously spaced	<i>12</i> .....	0
Number of signals erroneously plotted or transferred	<i>None</i> .....	0
Topographic details	Time <i>20</i> .....	3 hrs.
Junctions	Time <i>12 hrs</i> .....	1 hr.
Verification of soundings from graphic record	Time <i>16 hrs</i> .....	3 hrs.
Special adjustments	Time <i>5 hrs approx</i> .....	0

Verification by *George A. Koramezak* Total time *256 hrs* Date *Aug 10-1967*

Reviewed by *S. Rose* Time *79 hrs* Date *Feb. 11, '69*

*fathometer speed was off in several instances mostly in Volume one and a special plus or minus percent correction, has been applied.  
 Many minus sdgs on this sheet appearing throughout the coast line area were carefully scrutinized with tape information to determine whether the minus sdg was to form the low water line in sand area or whether it was an extension of rocky reef or coral reef.  
 Eng D. J. Rosenberg 27 hrs. 4-1-76 Carstairs 15hr 11/2/79*

APPROVAL SHEET

REG. NO. H-8466 (PF-1159)

The field work on this survey was inspected daily. The records and smooth sheet have been examined and are approved.

The survey is considered complete and adequate for charting purposes and no additional field work is recommended.



Ira R. Rubottom,  
Captain, C&GS  
Comdg., Ship PATHFINDER

OFFICE OF MARINE SURVEYS AND MAPS

MARINE SURVEYS DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8466

FIELD NO. PF 1159

Alaska, Prince of Wales Island, Polk Inlet

SURVEYED: April 30 - May 21, 1959

SCALE: 1:10,000

PROJECT NO.: CS-405

SOUNDINGS: 808 Fathometers  
Hand Lead

CONTROL: Sextant Fixes on  
Shore Signals

Chief of Party .....	I. R. Rubottom
Surveyed by .....	P. J. Taetz
.....	H. D. Nygren
Protracted by .....	G. M. Poor
Soundings Plotted by .....	G. M. Poor
Verified and Inked by .....	G. A. Kozemczak
Reviewed by .....	S. Rose
	Date: February 11, 1969
Cursory inspection made--survey	D. J. Romesburg
processing considered complete .....	April 1, 1976

1. Description of the Area

This is a survey of Polk Inlet and the westernmost portion of Skowl Arm. The shoreline is steep and rocky except at some of the coves where the gradient is moderate and sandy. The bottom is hard, stable but uneven. Although depths in the northern portion of Polk Inlet are over 40 fathoms, the entrance into it from Skowl Arm is restricted by reefs and shoals.

Southward from the general vicinity of the mouth of Dog Salmon Creek, Polk Inlet is characterized by narrow passages that wind between islets and submerged rocks connecting small areas with depths over 10 fathoms.

2. Control and Shoreline

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

The shoreline originates with Class I (unreviewed) photogrammetric manuscript T-11505 of 1954 and 1956 photography and field edited in 1959, and with Class II photogrammetric manuscripts T-11506, T-11508, and T-11509 all of 1954 photography.



The mean high water line on the present survey is shown for guidance only as its true position is shown on the topographic surveys previously mentioned.

### 3. Hydrography

A. Depths at crossings are in good agreement.

B. The standard depth curves are adequately delineated.

C. The development of the bottom configuration is considered adequate except on several shoals which were not fully investigated for least depths.

### 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 for the following:

A. Part of the mean high water line is inked on the present survey from Class II photogrammetric manuscripts.

B. Soundings affected by a fathometer speed problem were corrected and plotted by the verifier.

C. The poor quality of the photography in the survey area created discrepancies between hydrographic and photogrammetric positions of rocks. The hydrographic positions were plotted on the survey in preference to those from the incomplete manuscripts.

D. Several isolated features were not investigated for least depths such as the rock that was struck by Launch 4 on d-day, May 14, 1959, between positions 33 and 34 in latitude  $55^{\circ}25.58'$ , longitude  $132^{\circ}25.8'$  and the sounding that reduced to a rock awash that bares two feet at MLLW in latitude  $55^{\circ}25.64'$ , longitude  $132^{\circ}26.09'$  from Launch 4 on e-day, May 18, 1959, between positions 37 and 38.

### 5. Junctions

An adequate junction was affected with H-8467 (1959) on the east.

### 6. Comparison with Prior Surveys

H-1649b (1885) 1:80,000

Comparison between the older survey and the present survey is impractical because of the small scale, poor control and paucity of soundings on the

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

No portion of the area of the present survey has been wire dragged.

7. Comparison with Chart 8083, 3d Ed., June 3, 1972  
17426 (8142), 9th Ed., February 8, 1975

A. Hydrography

The charted hydrography originates with soundings from the boat sheet and partial application of the smooth sheet of the present survey before and after verification and review.

A rock awash charted in latitude  $55^{\circ}20.6$ , longitude  $132^{\circ}29.17'$  originates with an unascertainable source, probably a misinterpretation of a foul area on the photogrammetric manuscript. The present survey shows a low water area with gravel and boulders extending from the shore into Polk Inlet at this location. This rock awash should be deleted from the chart and the low water area charted.

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

B. Aids to Navigation

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


8. Compliance with Instructions


The present survey adequately complies with the Project Instructions except for paragraph 16 which stated that all doubtful echo soundings and least depths on important shoals were to be verified by hand lead.

9. Additional Field Work

The present survey is a very good basic survey and requires no additional field work.

Examined and Approved:

  
 Chief  
 Hydrographic Surveys Division

  
 Associate Director  
 Office of Marine Surveys  
 and Maps

H-8466

Information for Future Presurvey Reviews

Several shoals may warrant extra development on future surveys of this area.

<u>Position</u>	<u>Index</u>	<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle</u>
552	1323	2	1	50 years
552	1324	3	1	50 years
551	1323	2	1	50 years

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~DIVISION OF COAST AND GEODETIC SURVEY~~

12 Feb. 1960

Division of Charts: R. H. Carstens

Plane of reference approved in  
12 volumes of sounding records for


HYDROGRAPHIC SHEET 8466

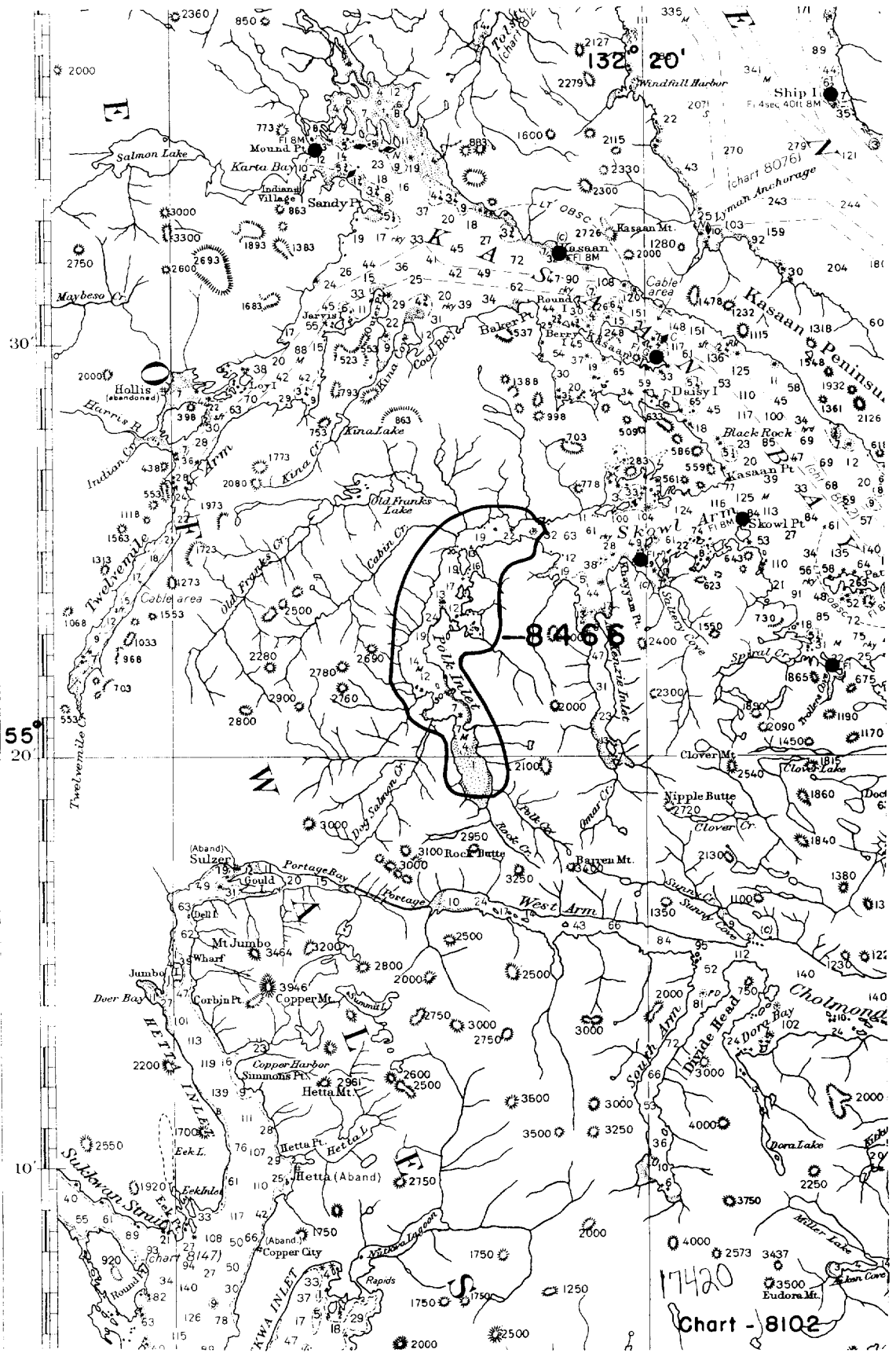
Locality Prince of Wales Island, Alaska

Chief of Party: I.R. Rubottom in 1959  
Plane of reference is mean lower low water, reading  
8.6 ft. on tide staff at Polk Inlet Entrance  
18.3 ft. below B. M. 1 (1959)

Height of mean high water above plane of reference is 14.5 feet.

Condition of records satisfactory except as noted below:

  
Chief, Tides Branch  
~~CHIEF, DIVISION OF TIDES AND CURRENTS~~



17420  
Chart - 8102

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-8466

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
8 Feb '60	8142	H. MacEwen	Before <del>After</del> Verification and Review <i>Revised soundings, rocks, elevations, charted previous from last sheet.</i>
			<i>(Part applied)</i>
1/11/61	8102	E. E. Thomas	Before <del>After</del> Verification and Review
			<i>Hydro deleted - No len applicably, considered fully applied.</i>
13 Mar '61	8002	E. W. Boyce	Before <del>After</del> Verification and Review
			<i>No hydro at this scale considered fully applied</i>
2/10/67	8083	John P. Wein	Before <del>After</del> Verification and Review <i>Part Applied</i>
1/26/71	8002	Charles S. Forbes	<del>Before</del> After Verification and Review. <i>No hydro at this scale, consider fully applied</i>
			Before After Verification and Review
12/13/71	8083	J. A. Graham	<i>partially appl'd</i> Before After Verification and Review <i>before inspection</i>
10/25/72	8142	J. G. Graham	<i>Dist #3 Appl'd misc. critical corr. only</i> Before After Verification and Review <i>#11 Appl'd misc. corr. thru chrt. 8083 dist #3</i>
			Before After Verification and Review
<i>tot.</i>			
10/21/74	8142	Kennon, D. I.	<i>Part</i> Before After Verification and Review <i>before insp - + signature - Added islet in Goose Bay</i>
9/24/80	17436	Naitoh	Full after inspection and signature <i>Dist 5</i>

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.

