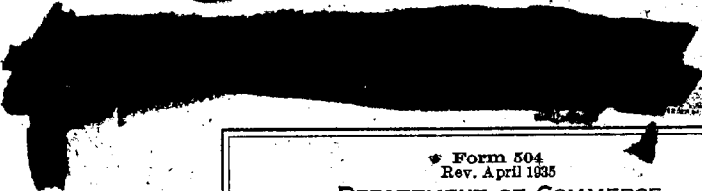


6175

U. S. COAST & GEODETIC SURVEY
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Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. U 2136
Hydrographic }

State ~~Alaska~~ Aleutian Islands

LOCALITY
Unalaska Island

~~Kanai Islands~~

SKAN AND PUMICESTONE BAYS

~~Unalaska Island~~

193 6

CHIEF OF PARTY

A.M. Sobieralski, Commanding Officer
U.S.C. & G.S. Ship SURVEYOR

U. S. GOVERNMENT PRINTING OFFICE

6175



DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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.

Field No. U. 2136.....

REGISTER NO. **H6175**

State ~~ALASKA~~ **Aleutian Islands**

General locality ~~ALUTIAN ISLANDS~~ **Unalaska I.**

Locality **SKAN & PUMICESTONE BAYS, ~~UNALASKA ISLAND~~**

Scale **1:20,000** Date of survey **JULY-OCT**, 1936

Vessel **U.S.C.&G.S. SHIP SURVEYOR & LAUNCHES**

Chief of Party **A. M. SOBIERALSKI, H.&G. ENGR.**

Surveyed by **G.L.B.; I.T.S.; C.A.B. & C.J.W. (I.T. Sanders)**

Protracted by **E. H. SHERIDAN**

Soundings penciled by **E. H. SHERIDAN**

Soundings in fathoms **feet**

Plane of reference **MLLW**

Subdivision of wire dragged areas by **----**

Inked by **---- G. C. McBlorson**

Verified by **---- G. C. McBlorson**

Instructions dated **APRIL 13,** 1934

Remarks: **SHORELINE FROM PHOTO-COMPILATION, EXCEPT NARROW PART OF PUMICESTONE BAY.**

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET FIELD NO. U2136

U.S.C.&G.S. SHIP SURVEYOR & LAUNCHES

A. M. SOBIERALSKI, H.&G. ENGR., CMD'G.

This survey was made under the authority of the Director's Instructions to the Commanding Officer of the U.S.C.&G.S. SHIP SURVEYOR, dated April 13, 1934.

SURVEY METHODS

The positions of soundings on this sheet were determined by sextant fixes on objects or signals ashore. All signals were located by plane table or theodolite in accordance with standard practice. The shoreline was determined by photo-compilation from photographs, flown by the Navy in 1935, except the narrow eastern part of Pumicestone Bay and numerous off lying rocks, which were located by plane table.

Depths were determined by fathometer, wire and hand lead. On the SURVEYOR Fathometer No. 1, Type 312, Serial No. 312 104 Ab was used. All fathometer soundings were corrected for temperature, index, salinity, etc. in accordance with the Hydrographic Manual and Field Memorandum No. 3, dated June 11, 1936.

DISCREPANCIES

Discrepancies of one to three fathoms occur at several places where the work of the four different sounding units cross. These occur in areas of uneven bottom and moderate slopes. These discrepancies are not thought to be of sufficient importance to warrant adjustments.

DANGERS

The shoreline along the area covered by this sheet is steep to and precipitous, and bounded by reefs and numerous offlying rocks. The more important of the rocks are enumerated below:

(A) The shoreline at Cape Starichkof extending from Triangulation Station STAR to Triangulation Station KOF is bounded by foul areas and offlying rocks to a distance 400 meters off shore. There is a continuous line of breakers along this shore, during rough weather. Vessels using these waters should keep at least $\frac{1}{2}$ mile off shore at this cape. Four of the rocks along this stretch are described as follows:

Note added to
Sheet. H.W.M.

- (1) A sunken rock ^{covered} bare 1 foot at MLLW (located by Discoverer's Party, 1935) lies 405 meters, 17 degrees true from Triangulation Station STAR.
- (2) A rock awash at high tide with a sunken rock 50 meters southwest, lies 815 meters, 3 degrees true from Triangulation Station RICH.
- (3) A rock awash at half tide lies 280 meters 233 degrees true from Triangulation Station RICH.
- (4) A rock bare 4 feet at high tide lies 185 meters, 250

degrees true from Triangulation Station KOF.

(B) In Skan Bay, the following rocks are considered dangers:

- (1) No attempt should be made to pass between the small island marked by signal OUT and the mainland. This passage is blocked for those without local knowledge by a rock bare 1 foot at high tide which lies 340 meters, 99° true from Signal OUT.
- (2) An offlying foul area marked by kelp and two rocks, one sunken and one awash at half tide lies 400 meters, 173° true from Triangulation Station MID.
- (3) A rock awash at half tide lies 575 meters, 85° true from Triangulation Station SKAN.
- (4) A rock awash at high tide lies 385 meters, 22° true from Triangulation Station PROM.

(C) The stretch of shoreline between Triangulation Station PAS and Spray Cape is very rough, and bounded by broad reefs and many rocks. All vessels making Skan Bay from the southwest should keep $\frac{1}{2}$ mile off shore at this point. Launches desiring to enter or leave the small cove northeast of Spray Cape should keep sharp lookout for two rocks as follows:

- (1) A rock awash at high tide lies 445 meters 347° true from Triangulation Station SPRAY.
- (2) A sunken rock lies 240 meters, 270° true from Signal JOCK.

(D) From Spray Cape southeastward to Pumicestone Bay the shoreline is somewhat less foul than to northeastward. The only group of rocks lying more than 200 meters offshore lies 270 meters, 270° true from Signal NOB. These rocks are awash at half tide.

(E) In Pumicestone Bay the only rock offering any marked danger lies 510 meters, 303° true from Triangulation Station LOCK. This rock is awash at low tide. Two other rocks awash at half tide lie 150 meters northeast.

(F) Shoals encountered and developed are as follows:

- (1) A $6\frac{1}{4}$ fathom bank lies about 450 yards westward from the north entrance point to Skan Bay.
- (2) A small bank with least depth of $3\text{-}5\frac{5}{6}$ fathoms lies in the entrance to Skan Bay $1\text{-}3\frac{3}{8}$ miles, 202° true from the eastern entrance point and $\frac{5}{4}$ mile north of the southwestern entrance point.
- (3) A bank extending $\frac{5}{8}$ of a mile offshore with a least depth of $6\text{-}4\frac{4}{6}$ fathoms lies 2 miles 45 degrees true from Spray Cape.

(G) Attention is called to the following soundings. They may indicate shoaler water, but a return to the locality for additional development is not warranted as the first two are close to shore while the third is considered sufficiently developed.

- (1) A $3\text{-}4\frac{4}{6}$ fathom sounding in a bight 650 meters northwest of Triangulation Station COD.
- (2) A $3\text{-}4\frac{4}{6}$ fathom sounding 350 meters southwest of Triangulation Station MOSS.
- (3) A $9\frac{5}{4}$ fathom sounding in the head of Pumicestone Bay.

(H) Mr. Konichek reports having seen, while attached to the M. N. Westdahl (in 1935), a rock with a depth of about 6 feet in the

vicinity of the $6\frac{1}{2}$ fathom sounding 400 meters northward of Triangulation Station BAY in the south arm of Skan Bay.

Pending additional investigation, it is suggested that a sunken rock "P.D." be charted in this position. See Rev. par. 10.

CHANNELS *better charted as "foul"*
C.K.G.

The entrance to the south arm of Skan Bay has a 5 fathom bank across it. During the early summer kelp extends from the point at Signal GAB almost to Triangulation Station PAN. In order to avoid the heaviest kelp courses should be laid as follows: On approaching from the west, lay a course of 90° true to a point $\frac{1}{2}$ mile abeam the point at Triangulation Station PAS. Then lay a course of 120° true to a point 300 meters south of Signal HIP. From here steer 175° true to anchorage in 18 fathoms mud bottom, in the south end of arm.

On approaching from the northward lay a course of 155° true into the Bay and continue to a point $\frac{1}{2}$ mile due west of Skan Point, intersecting the 120° course recommended above.

Those desiring to reach the head of Pumicestone Bay should proceed to a point $\frac{1}{4}$ mile south of the small grass covered island just west of the narrows. From this point mid-channel courses are free of all dangers. The passage north of this small island should not be attempted.

ANCHORAGES

(a) Convenient anchorage in southeast weather can be found off a small cove about 2 miles southward from Cape Starichkof. A deep narrow valley trends eastward from this cove. The anchorage is about $\frac{1}{2}$ mile from shore in 18-20 fathoms, with the center of the valley bearing about 110° true and a conspicuous small rock lying about 150 yards off shore at the southern edge of the valley, bearing about 150° true. Launches can find more shelter by anchoring nearer the head of the cove in 5 fathoms sand bottom.

(b) During the working season the SURVEYOR anchored just inside the southwestern entrance point to Skan Bay, about $\frac{1}{2}$ mile southeastward from Triangulation Station PAS, and about $\frac{1}{2}$ mile off shore in 15 fathoms sand bottom, where some shelter from westerly weather was found.

(c) The anchorage at the southern end of the south arm of Skan Bay is sheltered from all directions but the bay is too narrow to afford swinging room for any but small vessels.

(d) An anchorage with good shelter from southeast weather can be found $\frac{3}{8}$ mile from the eastern shore at the north entrance point to Pumicestone Bay in a depth of 18-20 fathoms off a small indentation south of Triangulation Station MOSS.

(e) Well protected anchorage may be found at the extreme eastern end of Pumicestone Bay, in 17 fathoms sand bottom. Three large streams enter the head of Pumicestone Bay.

COMPARISON WITH PREVIOUS SURVEYS

There are no previous surveys in the area covered by this sheet.

GEOGRAPHIC NAMES

(1) There are no well established local names on this sheet, so far as could be determined.

(2) It is suggested that the point dividing the southeastern arm from the southern arm of Skan Bay be named Skan Point.

Respectfully submitted,

Ira T. Sanders

Ira T. Sanders,

Jr. H.&G.E.

U.S.C.&G.S.S. SURVEYOR

Approved and forwarded,

A. M. Sobieralski

A. M. SOBIERALSKI

Commanding Officer

U.S.C.&G.S.S. SURVEYOR

STATISTICS

to accompany

HYDROGRAPHIC FIELD SHEET NO. U2136

U.S.S. SURVEYOR

Date 1936	Day	Vol.	No Positions	No Soundings	Stat. Miles
6-6	A	1	132	529	49.7
6-26	B	1	131	483	37.0
7-2	C	1	1	1	
7-12	D	1	35	278	18.3
7-15	E	1	29	159	15.1
8-30	F	1	28	91	7.5
8-31	G	2	18	96	7.0
10-1	H	2	141	478	36.2
MOTOR SAILER					
7-9	a	3	129	228	16.0
7-10	b	3	105	183	15.7
7-14	c	3	28	122	4.9
7-15	d	3	25	72	4.0
7-27	e	3	60	122	8.7
7-28	f	3-4	59	139	8.5
8-39	g	4	127	352	18.1
8-31	h	4	156	446	23.9
9-1	j	5	14	28	1.5
10-1	k	5	122	322	17.5
10-4	l	5	125	339	13.0
LAUNCH NO. 4					
7-29	a	6	87	273	24.4
8-4	b	6	33	110	6.0
8-10	c	6	112	392	26.0
8-11	d	7	105	421	30.7
8-12	e	7	111	380	28.7
9-28	f	7	20	72	6.2
10-4	g	8	138	455	28.8
LAUNCH NO. 3					
8-31	a	9	161	371	25.5
9-1	b	9	10	34	2.0
10-1	c	9	137	364	21.0
10-4	d	10	103	270	11.0
TOTALS			2482	7610	512.9

Area in square statute miles-----58.0

INDEX CORRECTIONS FOR FATHOMETER SOUNDINGS,

ALL DEPTHS

FATHOMETER NO. 1

MAY 5 th to JUNE 11th 0.0 fms.
 JUNE 12th to JULY 20th 12:06 0.0 fms.
 JULY 20th 12:06 " AUG. 2nd 6:45 -1.5 fms.
 AUG. 3rd to AUG. 9th 0.0 fms.
 AUG. 10th to OCT. 4th -1.5 fms.

FATHOMETER NO. 2

MAY 5th to OCT. 4th +0.5 fms.

ALL WHITE LIGHT SOUNDINGS.....0.0 fms.
 ALL RED LIGHT X6 MULTIPLY CORRECTION BY 6

DIAL SPEED FATHOMETER NO. 1, 39.64 RPM

::

CORRECTIONS TO SOUNDINGS LESS THAN 200 FMS.

June 5 to June 19, Incl.

June 20 to August 4, Incl.

<u>DEPTH</u>	<u>CORRECTION</u>	<u>DEPTH</u>	<u>CORRECTION</u>
0- 9.9	plus 0.1 fm.	0- 9.9	plus 0.1 fm.
10- 17.9	" 0.2 "	10- 15.9	" 0.2 "
18- 24.9	" 0.3 "	16- 22.9	" 0.3 "
25- 64.9	" 0.5 "	23- 53.5	" 0.5 "
65-108.9	" 1.0 "	54- 89.5	" 1.0 "
109-150.9	" 1.5 "	90-125.5	" 1.5 "
151-189.9	" 2.0 "	124-158.5	" 2.0 "
190-200	" 2.5 "	159-193.5	" 2.5 "
		194-200	" 3.0 "

May 28 to June 4, Incl.

August 5 to October 4, Incl.

<u>DEPTH</u>	<u>CORRECTION</u>	<u>DEPTH</u>	<u>CORRECTION</u>
0- 10.9	plus 0.1 fm.	0- 7.9	plus 0.1 fm.
11- 18.9	" 0.2 "	8- 12.9	" 0.2 "
19- 26.5	" 0.3 "	13- 17.9	" 0.3 "
27- 69.5	" 0.5 "	18- 22.9	" 0.4 "
70-115.5	" 1.0 "	23- 44.5	" 0.5 "
116-160.5	" 1.5 "	45- 77.5	" 1.0 "
161-200.0	" 2.0 "	78-114.5	" 1.5 "
		115-153.5	" 2.0 "
		154-193.5	" 2.5 "
		194-200	" 3.0 "

APPROVAL SHEET

to accompany

HYDROGRAPHIC SHEET FIELD NO. U2136

This sheet and the records have been examined
and are approved.

A. M. Sobieralski

A. M. SOBIERALSKI
Commanding Officer
U.S.C.&G.S.S. SURVEYOR

Field Records Section (Charts)

H6175

HYDROGRAPHIC SHEET NO.

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

Number of positions on sheet	<i>2482</i>
Number of positions checked	<i>??</i>
Number of positions revised	<i>!...</i>
Number of soundings recorded	<i>7610</i>
Number of soundings revised	<i>3!..</i>
Number of signals erroneously plotted or transferred	<i>None</i>

Date: *30 April, 1937*
Verification by *E. C. McShannon*
Review by *Harold W. Murray*
Rev. Cor. by ..

Time: *9 days 1/4 hours*
Time: *1 day - 1 "*
1 day

HYDROGRAPHIC SURVEY NO. H-6175

Smooth Sheet Yes

Boat Sheet Three

Sounding Records 10 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol#1

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service None
(Circular Nov. 30, 1933)

Remarks _____

HYDROGRAPHY
Total Days 20
Last Date Oct. 31, 1936

Remarks

Decisions

	Remarks	Decisions
1		
2	"Twin Bay" by Fish Comm 1888 (see Baker)	
3		
4	Named by US Fish Comm. 1888 "Makrovskoi" (wet) by Sarichef, 1792	
5		USGB decision
6		USGB decision
7	Named by US Fish Comm. 1888 "Mokrovskoi" (wet) by Sarichef, 1792 "Aliuksuk" native name meaning River after given by Veniaminof.	
8		
9		
10		
11		
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16		
17		
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19		
20		
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. H-6175

Name on Survey	Sources										
	A	B	C	D	E	F	G	H	K	VSCP	
<u>Cape Starichkof</u>	✓ app'd		✓				✓				1
<u>Skani Bay</u>	✓		✓				✓				2
<u>Skani Point</u>						✓					3
<u>Spray Cape</u>	✓		✓			✓	✓		Cape spray		4
<u>Unalaska Island</u>	✓ app'd										5
<u>Kashega Point</u>	✓ app'd								✓		6
<u>Pumicestone Bay</u>	✓		✓								7
East End of Pumicestone Bay											8
											9
											10
											11
											12
											13
											14
											15
											16
											17
											18
											19
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											21
											22
											23
											24
											25
											26
											27

Names underlined in red approved
by *RAE* on 4/5/37

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

} No. H -6175
 } ~~No. 11~~

{ received Mar. 29, 1937
 { registered April 1, 1937
 { verified
 { reviewed
 { approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	C. K. Green
----	-------------



TIDE NOTE FOR HYDROGRAPHIC SHEET

April 2, 1937.

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. E. P. Ellis.

Tide Reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 6175

Locality Skan and Pumicestone Bays, Unalaska Island, Aleutian Islands.

Chief of Party: A. M. Sobieralski in 1936.

Plane of reference is mean lower low water reading

3.7 ft. on tide staff at Dutch Harbor

12.6 ft. below B. M. 1

3.3 feet on tide staff at Kashega Bay

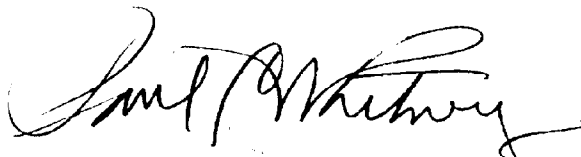
10.4 feet below B. M. 1

3.3 feet on tide staff at Chernofski Harbor

8.8 feet below B. M. 1

Height of mean high water above plane of reference is 3.4 feet at
Dutch Harbor; 3.7 feet at Kashega Bay and 3.4 feet at Chernofski Harbor.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

29 April, 1937.

Verification

Report on H 6175
Verifying and Sinking

1. The records conform to the requirements of the General Instructions. Throughout the records the hydrographer noted hand lead and machine soundings recorded at the same time. Often times these soundings do not agree, and vary as much as thirty percent. The records do not indicate which sounding to plot consequently the verifier consistently used the school sounding. mentioned in RW.1 par. 1
2. The usual depth curves can be completely drawn within the limits of the sheet.
3. The field plotting was completed to the extent prescribed in the Hydrographic Manual.

4. The officer draftsman did not have to do you any part of drafting done by the field party except as noted on the statistic sheet.
5. The junction on the north with # 5964 (1935) was satisfactory. On # 6175 (1936), in lat. $53^{\circ}42.3'$ long $167^{\circ}03.5'$, a shoal sounding of $9\frac{3}{4}$ fathoms is shown while on the adjoining sheet the depth is much greater. Therefore the above sounding was transferred to # 5964 (1935) and shown as a detached shoal.
6. The signals and shoreline on this sheet were taken both from plane table surveys and from photo-Compilation. As yet, none of these topographic ~~are~~ sheets are in the office. The rocks and shoreline of the extreme northern tip will be found on T 6423 (1935). These tips compared by Reviewer. xmm. 7/8/37
7. There are no aids to navigation shown on the sheet.
8. In volume 3, position 21d, page 55. lat. $53^{\circ}37.6'$ long. $167^{\circ}04.4'$

The hydrographer states that a reef is bore 3 feet, 140 meters starboard. There is no indication of this reef on the starboard side and he probably means the port side which would agree with the surrounding hydrography. However the verifier suggests that this be compared with the topographic sheet when it arrives in this office. ~~total~~ disposed of. xxviii.

9. In lat. $53^{\circ}36.2'$, long. $167^{\circ}02.7'$.
(See paragraph H in the Descriptive Report)

The chief of party suggests that a sunken rock "P.D." be charted 400 meters north of Triangulation Station Boy. This rock was left in pencil for disposition by the reviewer. P.D. Rock inked ~~xxviii~~.

Furthermore all notes pertaining to rocks along the shoreline were left in pencil. These notes should not be inked until a careful comparison has been made with the topographic

surveys to insure agreement
between the two sheets.

Comparison made and rock notes inked. 7/9/37 H.P.M.
(See Rev., par. 3 for list of sheets).

Respectfully submitted,

G.C. M^r Glossoon

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6175 (1936) FIELD NO. U-2136

Skan and Pumicestone Bays, Unalaska Island, Aleutian Islands
Surveyed in July-Oct. 1936, Scale 1:20,000
Instructions dated April 13, 1934 (SURVEYOR)

Hand Lead, Machine and Fathometer Soundings. 3 Point fixes on shore
signals.

Chief of Party - A. M. Sobieralski.
Surveyed by - J. T. Sanders and other Officers.
Protracted by - E. H. Sheridan.
Verified and inked by - G. C. McGlasson.
Soundings plotted by - E. H. Sheridan.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except that a number of simultaneous Hand Lead and Machine soundings differing by as much as 30% in depths of around 4 to 10 fathoms were recorded in the sounding records without any explanation for the differences. The majority of such cases occur in the Motor Sailor development of the 3 5/6 fm. shoal at the mouth of Skan Bay. The only reason for such differences that can be advanced is that the two types of soundings were not taken at the same point on the boat although the records state that both types of sounding apparatus was located at the forward end. Inasmuch as the records do not specifically state which type of sounding is to be used, the shoaler ones (whether Hand Lead or Machine) have been plotted on the smooth sheet.

The Descriptive Report is clear and comprehensive and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project except that several of the smaller bays along the west side of Unalaska Island should have had a closer development (see par. 11, this review).

3. Shoreline and Signals.

The shoreline originates with air photo sheets T-5269 (1936) and T-5270 (1936), planetable survey T-6423 (1935) and graphic control sheet T-6546 (1936).

The signals are from T-6423 (1935), T-6545 (1936) and T-6546 (1936).

4. Sounding Line Crossings.

No general system of cross lines was run but those that were as well as the adjacent lines show good agreement.

5. Depth Curves.

The usual depth curves may be satisfactorily drawn including most of the 5 fathom and portions of the 3 fathom curves.

6. Junction with Contemporary Surveys.

- a. The junction on the north with H-5964 (1935) and on the northwest with H-6176 (1936) are satisfactory.
- b. The junction on the southeast with Field Sheet No. 2236 will be considered when that sheet has been received in the office.

7. Comparison with Prior Surveys.

There are no prior surveys by this Bureau in this area.

8. Comparison with Chart 8802 (New Print dated Nov. 28, 1936).

Information shown on the chart is based entirely on miscellaneous sources. The two soundings charted within the limits of the present survey, a 56 fms. in lat. $53^{\circ}34.7'$ long. $167^{\circ}09.5'$ and a 60 fms. in lat. $53^{\circ}37.8'$ long. $167^{\circ}09.5'$, both fall in depths of 24 fathoms. They are track soundings obtained by the U. S. Coast Guard in 1932 (Bp. 25934), are obviously misplaced in position and should be superseded by the present survey in future charting.

9. Field Plotting.

Field protracting and plotting were accurate and conform to the requirements of the Hydrographic Manual.

10. Sunken Rock in Skan Bay (South Arm).

The sunken rock in the south arm of Skan Bay (lat. $53^{\circ}36.2'$ long. $167^{\circ}02.7'$) was not located by the present field party but was plotted on the sheet from information received from a member of the party of the Westdahl working in this area in 1935. (D. R. page 2, item H). The rock has been marked "position approximate" pending a field examination.

11. Additional Field Work Recommended.

This is an excellent survey. However, the following additional work would add considerably to its completeness. Items (a) and (b) are the most important and should be accomplished at the first opportunity. The other items are desirable in connection with any future work in the area requiring the reestablishment of the necessary visible control.

- (a) A location of the sunken rock near the head of the south arm of Skan Bay (see par. 10, this review) and a development of the vicinity of the $6\frac{1}{2}$ fm. depth immediately to the westward.
- (b) An examination of the 34 fm. depth in the middle of Pumicestone Bay in lat. $53^{\circ} 31.8'$, long. $167^{\circ} 07.1'$. The sounding record noted "kelp" in the vicinity which would indicate a possible rocky shoal here.
- (c) A closer development of the rocky area surrounding the island in lat. $53^{\circ} 31.2'$, long. $167^{\circ} 04.3'$.
- (d) A closer development of the bight on the northwest side of Unalaska Island just north of Spray Cape.
- (e) A few additional lines in the two small bights on the west side of Unalaska Island in the vicinity of lat. $53^{\circ} 34'$, long. $167^{\circ} 08.5'$ including some split lines off the two points forming the lower bight as well as an examination of the $3\text{-}4\frac{1}{6}$ fm. spots in each bight.
- (f) Wire dragging the $6\text{-}1\frac{1}{6}$ fm. and the 13 fm. shoals off the north entrance to Skan Bay (west and southwest of Triangulation Station KOF). ;
- (g) Wire dragging the small bank with least depth of $3\text{-}5\frac{1}{6}$ fms. at the entrance to Skan Bay (approximate lat. $53^{\circ} 39'$, long. $167^{\circ} 05.5'$) to include the 20-fathom curve.
- (h) Wire dragging of the rocky shoal area extending about $\frac{3}{4}$ mile offshore in lat. $53^{\circ} 38.3'$, long. $167^{\circ} 07.6'$.

12. Note to Compiler.

Attention is called to the sunken rock in Skan Bay discussed in paragraph 10, this review.

13. Superseded old surveys.

There are no prior surveys made by this bureau within the area of the present survey.

14. Reviewed by Harold W. Murray, July 10, 1937.

Inspected by A. L. Shalowitz.

Examined and approved:

C. K. Green, *C. K. Green.*
Chief, Section of Field Records.

L. O. Robert.
Chief, Division of Charts.

Fred. L. Peacock
Chief, Section of Field Work.

G. Wade
Chief, Division of H. & T.

Applied to drawing of Chart No. 8802

S. B. Maize Aug 1937

Applied to Chart 9023 Nov 1-1938 Chas O R Bush Jr

Applied to Chart Comp. 9022 Nov. 19, 1938. H. E. MacSwan.