

JUL 12 1938

Acc. No.

~~CONFIDENTIAL~~
6303

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic } Sheet No. U. 2436
Hydrographic }

DECLASSIFIED BY NOAA
PURSUANT TO DOC SYSTEMATIC REVIEW
GUIDELINES AS DESCRIBED IN SECTION
3.3(a), EXECUTIVE ORDER 12356.

State Aleutian Islands
~~Alaska~~

LOCALITY

~~Aleutian Islands~~

Umnak Pass

Ship Rock to Kettle Cape

1936 & 7

CHIEF OF PARTY

A. M. SOBIERALSKI

~~Commanding Officer~~

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

6303

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.

Field No. U.2436

REGISTER NO. H6303

State ~~ALASKA~~ Aleutian Islands

General locality ~~ALUTIAN ISLANDS~~ Umnak Pass

Locality ~~Umnak Pass & vicinity~~ Ship Rock to Kettle Cape

Scale 1:20,000 Date of survey July, Oct., 1936
June, Sept., 1937

Vessel U.S.C. & G.S.S. SURVEYOR & Launches

Chief of Party A. M. Sobieralski

Surveyed by A.M.S.; G.L.B.; W.F.M.; I.T.S.; C.J.W.; J.L.

Protracted by E. H. Sheridan & Dale E. Sturmer

Soundings penciled by D.E.S.

Soundings in fathoms feet

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by J.A. McCormick

Verified by J.A. McCormick

Instructions dated April 13, 1934

Remarks: Project HT 176

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET No. U 2436 (1936-7)

Umnak Pass, Aleutian Islands

Scale 1 : 20,000

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

Instructions dated April 13, 1934 (Surveyor)

Project No. HT 176

LIMITS, UMNAK PASS:

The limits of Umnak Pass may be considered a line from Cape Idak to Nellie Juan Cape and a line from Kettle Cape southwestward to the Pillars then eastward to the southernmost rock off Cape Izigan. Within these limits the currents in Umnak Pass are definitely felt, and all the numerous banks characteristic of the formation are included. The narrower part of the pass however is included between a line from Pustoi Island to Pass Point and a line from Kettle Cape to Polivnoi Rock, then eastward to Southwest End.

The limits of the work on this sheet correspond roughly to these latter limits.

SURVEY METHODS:

All the work on this sheet was controlled by three point fixes on objects located by triangulation or plane table. Soundings were obtained by fathometer on the ship work and by wire soundings and hand lead on the launches.

Owing to the large area, the irregular bottom, and the unusual difficulties due to strong currents, tide rips, and very changeable weather, the work was extended over a period of two seasons. This necessitated two sets of corrections for the Fathometer soundings, the work executed in 1936 having a differant correction from that executed in 1937.

The shoals along the western shore of the pass were developed by launches working necessarily at or near slack water. Some of the banks were developed by the ship using the fathometer and hand lead. It is to be noted in connection with such development that the fathometer gives almost a continuous cross section although only an occasional sounding is recorded. Thus on a fathometer line it can be assumed that no shoaler depth can occur, the shoalest depth always being recorded. There is often a wide discrepancy between fathometer and hand lead soundings on a shoal due to the fact that the hand lead sounding is taken about abeam of the hydrophone while the fathometer sounding occurs theoretically some 20 to 40 feet further aft. In drifting over a narrow ledge it has been noted that when the fathometer was reading 6 fathoms the hand lead gave 10, but shortly afterwards the hand lead

gave 6 fathoms while the fathometer was reading 10. An attempt was made to obtain hand lead soundings on the shoalest part of the banks developed by the ship but this is very difficult and time consuming.

While fathometer soundings in depths under 10 fathoms are somewhat doubtful, the tests we have made by crossing shoals developed by hand lead indicate these soundings to be reliable.

JUNCTIONS:

This sheet joins hydrographic sheet (field number) ^{H-6255} U 2336 on the north. A 9 fathom (fathometer) sounding on the latter sheet eastward of Ship Rock falls in an area where 10 - 11 fathoms are shown on this sheet. It is probable that the position of the 9 fathom spot on U 2336 is slightly in error, but no important discrepancy arises from retaining the sounding as it stands.

The 9 fm. depth and surrounding development are recorded in the volumes for the present survey and are plotted on the smooth sheet. They appear neither in the records nor on the smooth sheet for H-6255. g.a.m.

Between Kettle Cape and Polivnoi Rock this sheet joins hydrographic sheets (field numbers) ^{H-6265} U 4436 and ^{H-6286} 2237, while along its southern edge it joins 8136. It was proposed to complete the area southwestward of Polivnoi Rock on this sheet, but it was found impracticable to obtain positions from the launches, on account of the lack of definite objects within the reach of the protractor arms.

Along the southeastern edge a junction is made with hydrographic sheet (field number) ^{H-6229} S 2136.

CROSS LINES:

A series of cross lines were run by the Wildcat on b day (green). These lines were run on the same course and give an indication of the varying strength of the current in different parts of the channel. Similarly, a few east and west lines run by the ship on ranges (C day) give an indication of the varying strength of the current by the very large changes of course required to keep the vessel on range. In addition there are numerous crossings; while there are frequent discrepancies of a fathom or two, the agreement in general is satisfactory. The uneven character of the bottom makes it difficult to determine the probable cause of discrepancies.

Some of the more glaring discrepancies are listed below:

<u>Lat.</u>	<u>Long.</u>	<u>Pos.</u> <u>No.</u>	<u>Depth</u>	<u>Pos.</u> <u>No.</u>	<u>Depth</u>	<u>Remarks</u>
53-13.4	167-55.8	6J	36	1Q	41	Apparently a steep slope ✓
53-14.3	167-51.4	62L	12	196h	25	Edge of bank ✓
53-17.4	167-59.6	136b	26			Falls in area of 19-20 fms. Probably erroneous sndg. <small>May be correct. Inked.</small>
53-19.2	167-56.6	24d	18			Falls in area 22-26 fms. Probably O.K. ✓
53-12.7	167-56.2	36M	30			Falls between 37 & 40 fms. Probably erroneous. <small>Inked.</small>
53-16.3	167-55.0	77B	26	31F	21	Very irregular bottom. ✓
53-21.2	167-54.3	44C	11			Falls in area of 24 fms. At time of taking pos. observers were agitated on account strong current setting ship toward shore, so pos. and sndg. were doubtful. Position rejected. ✓
53-17.9	167-56.8	144N	26	114b	38	Edge of steep bank ✓
53-16.6	167-52.1	138h	12	39L	6-5/6	On h day strong currents & wind made it impracticable to develop this shoal area properly. The shoal sndg. was verified later (R day) ✓
53-21.8	167-52.1	71k	22	67c	30	Edge of steep bank ✓

DISCREPANCIES IN TOPOGRAPHIC DETAILS:

The delineation on T 6549 of the reef extending northeastward from the point at triangulation station Deer has been amended ~~from~~^{on} the hydrographic survey, and so noted on T-6549. ✓✓

Similarly the delineation ~~of~~^{on} T 6551 of the reef extending southwestward from triangulation station ^{Black} Rock has been amended and three rocks awash located along the edge of the reef. ✓✓

The reef off the point northeastward of triangulation station Tween has also been amended. ✓✓

The foul area off hydrographic signal Old has also been amended. ✓✓

A rock off Kettle Cape shown as a sunken rock on T 6551 has been changed to a rock awash at half tide.

Falls within area of H-6286. Sunken rock retained and rock awash added.

In the bight northeastward of triangulation station Path, the delineation of the foul area on topographic sheet (field number) UH 1936 has been amended slightly. This area is heavily overgrown with kelp making it impracticable to develop it. T-6597 ✓✓

The names of the topographic signals on Ship Rock may not be in agreement with the topographic sheet T 6549. The boat sheet and the smooth sheet were made from a tracing of the penciled topographic sheet. It is believed that the name Wash was applied on the inked topographic sheet to a point marking a plane table set up while the names Go, Si, and Ab were omitted. The positions as shown on the smooth hydrographic sheet are correct. ✓✓

Sheets in agreement.

In addition the name Ream (not shown on T 6549) was applied to the mouth of the stream near topographic signal Flo and used as a signal. Noted on T-6549.

SHOALS, DANGERS, etc.:

<u>Lat.</u>	<u>Long.</u>	<u>Least Depth in fms.</u>	<u>Remarks</u>
53-20.1	167-48.7	5-2/6 ✓✓	
53-18.6	167-51.7	5/1/2 ✓	In area of strong tide rips. ✓
53-18.4	167-52.4	8-3/4 ✓✓	Passed over frequently by ship. ✓
53-18.3	167-51.9	3-5/6 ✓✓	Close to Rocky islet. ✓
53-16.1	167-46.2	7-3/4 ✓✓	
53-15.8	167-45.6 ⁸	7-1/4 ✓	<u>Fathometer sounding.</u>
53-16.9	167-50.9	5 ✓✓	
53-16.8	167-50.0	6-5/6 ✓✓	
53-16.2	167 -51.4	7-1/2 ✓✓	<u>Fathometer sounding</u> ✓
53-16.5	167-52.2	6-1/2 ✓✓	<u>Fathometer sounding.</u> ✓
53-13.9	167-52.1	10-1/2 ✓✓	
53-15.6	167-52.9	9-1/2 ✓✓	Most southerly of several about ✓ same depth.
53-17.0	167-53.0	11 ✓✓	
53-18.45	167-54.1	8-1/4 ✓✓	
53-12.8	168 -01.3	9-3/4 ✓	Developed on Hyd. ^{H-6265} 4436. ✓
53-17.0	168-04.1	6-1/6 ✓✓	
53-17.4 ³⁵	168-05.0	5-1/2 ✓✓	
53-17.4 ⁵	168 - 05.0	4 1/2 ✓✓	
53-17.4	168-04.7	4-5/6 ✓✓	
53-17.4	168-04.0	5-1/6 ✓✓	
53-17.8	168-02.1	sunken rock ✓✓	
53-17.9	168-00.1	2-4/6 ✓✓	Outer end of a foul area. ✓
53-19.2	167-58.5	3-5/6 ✓✓	
53-19.6	167-55.8	14 ✓✓	
53-20.3	167 - 54.2	8 ³ / ₄ ✓✓	
53-20.9	167-53.5	15 ✓✓	
53-22.4	167-49.0	9 ✓✓	
53-22.7	167-49.5	4-5/6 ✓✓	

In addition to the development shown on this sheet, the ship has passed over the banks between Polivnoi Rock and Emerald Island numerous times with the fathometer going when positions were not available. At no time was less water found than indicated on the survey.

The sunken rock 280 meters west⁵ southwestward from Polivnoi Rock indicates a breaker cut in by sextant angles. The development in this area on sheet 4436 does not disclose a shoal sounding, but the existence of the breaker was verified after the survey.

COMPARISON WITH CHART:

The chart is on such a small scale that it is difficult to make a comparison. The chart shows numerous 8 fathom soundings which would correspond to the depths obtained on some of the banks. The 3 fathom spot indicated off Kettle Cape corresponds to a shoal developed on sheet 4436 (field number.).

H-6265

Polivnoi rock is shown as a rock awash, although it is a rocky islet.

See par. 8a,
review.

OVERLAY*

An overlay accompanies this sheet showing some additional soundings in the congested area off Ship Rock. In addition, "A" day was plotted on the overlay as one of the signals used on that day's work (Triangulation station Knoll) falls outside the limits of the smooth sheet.

Soundings on
overlays
transferred
to smooth
sheet.

DEPTH CURVES:

The usual depth curves were drawn on the smooth sheet. The recent instructions to draw numerous depth curves on the boat sheet were followed, but since no one of the numerous boat sheets shows the completed work, the curves will give only approximate information. Since three different parties were often working on this sheet at the same time, and since the limits of the sheet were changed, it was found necessary to prepare these various boat sheets.

CURRENTS AND TIDE RIPS:

Strong currents are found in Umnak Pass, setting southwestward and south on the ebb and northward and northeastward on the flood. The current varies in strength in different parts of the channel (see Par. "Cross Lines", Page 2).

A series of current observations were made in 1937.

Arrows have been placed on the sheet wherever notes regarding the current occur in the records.

Arrows not
inked.

Tide rips occur in the vicinity of Ship Rock on the flood. On the ebb, heavy tide rips occur on the south side of all the banks with depths less than 20 fathoms between Polivnoi Rock and Emerald Island. Since no sounding could be done under such conditions, notes regarding these tide rips do not occur in the records. The location of these tide rips have been indicated by wavy lines, and a pencil note placed on the sheet. It is more important to indicate tide rips in these locations than in any other place on the sheet, for they are the heaviest and most noticeable.

Notes inked
on sheet
replace wavy
lines penciled
by field party.
Pencil note
removed.

25

30

These tide rips do not necessarily indicate a shoal--they occur ^{wherever} a marked change of depth occurs,--in fact a heavy tide rip occurs off the south side of Unalga Pass where the depth drops from 50 to over 100 fathoms.

CHANNELS:

The channel between Emerald Island and Unalaska Island is easily navigable and furnishes a means of avoiding the tide rips between Emerald Island and Polivnoi Rock. The ebb current sweeping down Umnak Pass causes swirls southward of ~~West End~~ ^{Konets Head}, which should be guarded against.

The channel between Ship Rock and Umnak Island is navigable but strong currents and swirls make it advisable to avoid this channel, except under favorable conditions and with local knowledge.

The channel between Black Rock and Umnak Island has sufficient depths to make it navigable but this shore should be given a good berth and even launches will find it advisable to keep outside of the shoals on account of tide rips.

To enter Umnak Pass, the channel between Polivnoi Rock and Emerald Island is preferable, because there are no hidden dangers and the landmarks, etc. are more easily identified. The channel westward of Polivnoi Rock is easily navigable with good visibility, but care must be exercised to guard against a very strong set of the current in order to avoid the numerous shoals off Umnak Island and particularly the 1-4/6 fathom shoal off Kettle Cape (shown on sheet 4436).
H-6265

The various capes and islands have been described in reports accompanying the various topographic sheets. The western end of Unalaska Island is rolling country dominated by Lone Peak. The Umnak Island shore of the Pass however, is low and has few features, rising in a long smooth slope to the crater of Tulik volcano. Smoke is often seen rising from the southwestern part of the crater (near west coast of the island).

In thick weather, it is advisable to make the coast near Cape Izigan, where currents will not affect the course so much, then follow the coast through Emerald Island Passage.
Cape Izigan is off the eastern end of the sheet.

In heavy southerly weather, and with an ebb tide, the tide rips may probably become so heavy, as to cause damage to even a large vessel.

ANCHORAGES:

The bight eastward of ~~West End~~ ^{Konets Head} offers shelter from southerly and easterly weather. The ebb current sweeps into the anchorage, and in approaching it, allowance must be made for the set of the current.

The bight eastward of station Antler furnishes the best anchorage along the Umnak Island shore within the limits of this sheet in westerly or northerly weather. It is affected by strong currents.

The bight eastward of Kettle Cape also furnishes shelter in northerly and westerly weather, and is free of current. The approach, however, is obstructed by shoals and should be attempted only with good visibility.

COAST PILOT NOTES:

Coast Pilot Notes covering this area have been submitted.

Respectfully Submitted:

A. M. Sobieralski

A. M. SOBIERALSKI, H.&G.E.

Commanding Officer

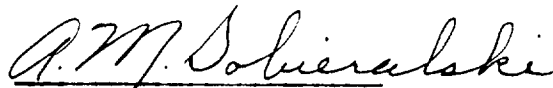
U.S.C. & G.S.S. SURVEYOR

APPROVAL SHEET

to accompany

HYDROGRAPHIC SHEET FIELD No. U 2436

This sheet and the records have been examined and
are approved: ✓



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

STATISTICS

to accompany

H-6303

HYDROGRAPHIC SHEET FIELD No. U 2436

<u>Date</u>	<u>Day</u>	<u>Vol</u>	<u>No.Pos.</u>	<u>No.Sndgs.</u>	<u>Statute Miles</u>
<u>SURVEYOR (red)</u>					
✓ 7/3/36	A	1	14	80	9.4
✓ 7/16/36	B	1	155	608	49.0
✓ 7/17/36	C	1	106	418	29.0
✓ 8/3/36	D	1	40	130	14.8
✓ 8/4/36	E	1	53	226	13.7
✓ 8/13/36	F	2	35	128	12.3
✓ 9/2/36	G	2	10	41	3.4
✓ 9/20/36	H	2	63	216	20.2
✓ 9/23/36	J	2	20	91	8.0
✓ 10/3/36	K	2	87	332	26.2
<u>WILDCAT (green)</u>					
✓ 7/29/36	a	3	101	245	13.9
8/4/36	b	3	149	211	26.3
9/2/36	c	3	102	124	13.0
✓ 9/3/36	d	3&4	216	287	13.4
✓ 9/5/36	e	4	133	161	15.9
9/20/36	f	4	144	184	14.5
✓ 9/21/36	g	5	286	292	30.2
✓ 9/22/36	h	5&6	304	304	31.2
9/23/36	j	6	252	252	28.3
✓ 9/26/36	k	6&7	226	304	23.8
✓ 9/30/36	l	7	187	272	20.4
10/3/36	m	7&8	267	405	23.5
<u>Motor Sailor (blue)</u>					
✓ 8/24/36	a	9	148	501	25.8
✓ 9/8/36	b	9	132	639	30.0
10/3/36	c	9&10	152	401	26.2
8/13/36	d	11	49	128	12.6

STATISTICS (cont)

to accompany

H-6303

HYDROGRAPHIC SHEET FIELD No. U 2436

<u>Date</u>	<u>Day</u>	<u>Vol.</u>	<u>No.Pos.</u>	<u>No.Sndgs.</u>	<u>Statute Miles</u>
<u>SURVEYOR (red)</u>					
6/11/37	L	12	181	660	45.4
6/12/37	M	12	57	213	19.4
6/18/37	N	12&13	251	1022	86.5
6/23/37	O	13	12	52	5.0
7/14/37	P	13	115	495	36.8
7/16/37	Q	13	29	138	12.7
9/11/37	R	13&14	249	1097	68.7

<u>Motor Sailor (blue)</u>					
6/1/37	d'	15	91	185	11.5
6/2/37	e	15	199	453	22.1
6/3/37	f	15&16	163	408	19.5
6/12/37	g	16	106	226	14.2
6/14/37	h	16	161	373	16.2
6/19/37	j	16&17	68	194	9.2
6/21/37	k	17	167	463	27.8
6/22/37	l	17	53	135	6.5
6/23/37	m	17&18	219	452	18.6
7/6/37	n	18	50	105	5.5
7/20/37	o	18	70	190	7.2
8/24/37	p	18	27	48	2.9
9/11/37	q	18&19	173	382	20.2

<u>Launch # 3 (purple)</u>					
6/19/37	a	20	38	134	6.7
6/21/37	b	20	151	374	24.9
6/22/37	c	20	78	168	9.0
6/23/37	d	20	186	205	18.7
Totals			6325	15,152	1050.2

Area in Square Statute Miles = 87.0

LIST OF SIGNALS

to accompany

H-6303

HYDROGRAPHIC SHEET FIELD No. U 2436
TRIANGULATION LOCATIONS

LOOSE	1936	SUD	1936	HUMP	1936
TAX	1936	BANG	1936	SHIP ROCK	1935
SHORE	1936	COSMOS	1936	DEER	1936
LONE PEAK	1936	PATH	1936	WASH	1936
WEND	1936	QUIRE	1936	ANTLER	1936
TIDE	1936	PINN ROCK(Map)	1936	TWEEN	1936
PI	1936	TIME	1936	BLACK ROCK	1936
SOUTH ROCK	1936	SOUTH	1936	POLIVNOI ROCK	1936
EMERALD	1936	PUSTOI	1935	KETTLE	1936
DIM	1936	SHEEP	1936	KNOLL	1936

TOPOGRAPHIC LOCATIONSTopographic Survey No. 4937

In	Off	Fall	Cus
Poi	Zip	Bat	Vac
Ho	Pit	Tom	Mag
So	Steam	Lap	On
Pot	Law	Pug	

Topographic Sheet (field letter) UH 36 T-6597

Key	Pin	Gid	Ack
Wat	Too	Mug	Cove
Ben	Las	Gum	Kick
Foot	Dit	Mos	Buz
Toe	Tod	Cab	Ice
Big	Mex	Sew	Door
New	Sac	Cor	Gate
Chap	Up	Sock	Mist
Tip	Nor	Pat	Snow
Ho	East	Lub	Rain
Wood	West	Gan	Flas
Dig	Sun	Rob	Tuck
Ring	Lag	Jon	

Topographic Sheet (field letter) UL 36 T-6552

Sid

LIST OF SIGNALS (cont)

to accompany

HYDROGRAPHIC SHEET FIELD No. U 2436TOPOGRAPHIC LOCATIONS (Cont)Topographic Sheet (field letter) UI 36 (T 6549)

Pig	Gay	Vat	Bab
Dog	Jag	Top	May
Gor	Nig	Pul	Sis
Don	Pal	Lup	Zoe
Dry	Ken	Tes	Ergo
Gin	Par	Flo	Mid
Bet	Edge		

Topographic Sheet (field letter) UK 36 (T 6551)

Lov	Fun	Ink	Tab
Cuf	Zeb	Art	Tan
Sle	Iron	Old	Ear
Les	Zinc	New	Eye
Mor	Tin	Ref	Nose
Rap	Cop	Nine	Thro
Cob	Red	Wel	Can
Bok	Blu	Oct	Sig
Eow	Hot	Sept	Gal
Nut	Fri		

Ab)	Not named on Topographic	} Names added to T-6549
Si)	Sheet--See note on	
Go)	Page 3. Sheet No. T 6549	
Ream--	Mouth of Stream not named on	
	Topographic Sheet (T6549)	

TIDE NOTE FOR HYDROGRAPHIC SHEET

July 25, 1938.

Division of Hydrography and Topography:

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

Plane of reference

~~Tide Reducers~~ approved in
20 volumes of sounding records for

HYDROGRAPHIC SHEET 6303

Locality Ship Rock to Kettle Cape, Umnak Pass, Aleutian Islands.

Chief of Party: A. M. Sobieralski in 1936-37

Plane of reference is mean lower low water reading

3.3 ft. on tide staff at Chernofski Harbor

8.9 ft. below B.M. 1

3.3 ft. on tide staff at Kashega Bay

10.4 ft. below B.M. 1

Height of mean high water above plane of reference is 3.5 feet at
Chernofski Harbor; 3.7 feet at Kashega Bay.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. H-6303

Name on Survey	On Chart No. 8802		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	
	A	B	C	D	E	F	G	H	K							
<u>Pustoi Island</u>	✓			✓												1
<u>Ship Rock</u>	✓			✓												2
<u>Bering Sea</u>	✓			✓												3
Paso Pass Point				<u>Paso Pt</u>												4
<u>Unalaska Island</u>	✓			✓												5
North End <u>Konets Head</u>																6
Southwest End																7
<u>Umnak Pass</u>	✓			✓												8
<u>Umnak Island</u>	✓			✓												9
<u>Kettle Cape</u>	✓			✓												10
<u>Emerald I.</u>																11
<u>Polivnoi Rock</u>	✓			✓												12
<u>Lone Peak</u>																13
<u>Black Rock</u>																14
																15
																16
																17
																18
																19
																20
																21
																22
																23
																24
																25
																26
																27

Names underlined in red approved
by Black on 8-5-38

Remarks

Decisions

	Remarks	Decisions
1		
2		
3		U.S.G.B
4	Location uncertain	T-4937
5		U.S.G.B
6		Pending, U.S.G.B
7		
8		T-4937
9		U.S.G.B
10		T-6551
11		Pending, U.S.G.B
12		T-6551
13	(also on T-4937, T-6597)	
14	T-6551	Pending, U.S.G.B
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

Field Records Section (Charts)

H6303

HYDROGRAPHIC SHEET NO.

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

Number of positions on sheet	..6325
Number of positions checked32
Number of positions revised1
Number of soundings recorded	..15152
Number of soundings revised	...142
Number of signals erroneously plotted or transferred0

Date; Sept. 10, 1938

Verification by J.A. Mc Cormick

Time: 149 hr.

Review by J.A. Mc Cormick

Time: 11 hr.

HYDROGRAPHIC SURVEY NO. H-6303

Smooth Sheet Yes

Boat Sheet Four **6**

Records; Sounding 20 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Pages 13 & 14, D.R.

Landmarks for Charts (Form 567) None

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

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

Hydrography: Total Days 19 ; Last Date Oct. 3, 1936
17 ; Last Date Sept. 11, 1937

Remarks _____

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H-6303
~~Next~~

{ received July 12, 1938
 registered July 21, 1938
 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	✓		Pages 5, 6 and 7
26			
30	✓		Pages 5, 6 and 7
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
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51'

167° 50'

48'

48'

24'

53° 24'

Overlay to accompany H-6303 (1936-37)

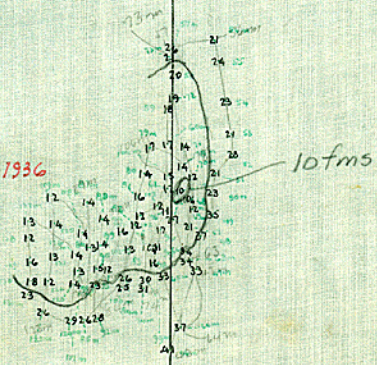
Soundings have been transferred to smooth sheet but not the position numbers. This tracing may be of use in identifying positions.

J.A. McCormick.

23'

23'

△ Ship Rock 1936



22'

22'

51'

167° 50'

49'

48'

Verifier's Report on H-6303 (1936-37).

The verification and review of this survey were made by the same cartographer and comment in addition to that contained in the review is not considered necessary in this report.

Submitted,
J. A. Mc Cormick.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6303 (1936-37) FIELD NO. U-2436

Ship Rock to Kettle Cape, Umnak Pass, Aleutian Islands
Surveyed in July-Oct., 1936, June-Sept., 1937, 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 - Various Officers.
Protracted by - E. H. Sheridan and D. E. Sturmer.
Soundings plotted by - D. E. Sturmer.
Verified and inked by - J. A. McCormick.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

- a. The letter "O" was used as a day letter both by the ship and by one of the launches. Such practice is not desirable because of the similarity of the letter to the numeral zero.
- b. Approximately three days of the office verifier's time was spent in revising shoreline and associated detail as inked by the field party to bring the hydrographic survey into agreement with the information on the topographic sheets.

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

2. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project.

3. Shoreline and Signals.

Shoreline and topographic signals originate with T-4937 (1936), T-6549 (1936), T-6551 (1936), T-6552 (1936), and T-6597 (1936-37).

4. Sounding Line Crossings.

Sounding line crossings are satisfactory.

5. Depth Curves.

The usual depth curves may be satisfactorily drawn.

6. Junctions with Contemporary Surveys.

The junctions with H-6229 (1936-37) on the southeast, H-6255 (1936-37) on the north and H-6265 (1936-37) and H-6286 (1937) on the southwest are satisfactory. The junction with the survey on the south will be considered in the review of that survey when the sheet is received from the field.

7. Comparison with Prior Surveys.

This Bureau has made no prior surveys in the area covered by the present survey.

8. Comparison with Chart 8802 (New print dated Dec. 13, 1937),
9302 (New print dated Feb. 2, 1938).

a. Hydrography.

No depths are shown on the latest prints within the area of the survey. Depths shown on previous prints probably originated with old Russian surveys and were removed when application of the modern topographic surveys revealed the sketchiness of the previous information.

b. Aids to Navigation.

There are no navigational aids within the area of the survey.

9. Field Plotting.

The field protracting and penciling of soundings were excellent.

10. Additional Field Work Recommended.

Additional development should be accomplished on the following shoal indications:

- a. The 8 3/4 fathom spot in lat. $53^{\circ} 18.4'$, long. $167^{\circ} 52.4'$.
- b. Several shoal spots on point of shoal west of long. $167^{\circ} 53'$, in lat. $53^{\circ} 13.8'$.
- c. Several shoal spots inside the 20 fathom curve at lat. $53^{\circ} 16.5'$, long. $167^{\circ} 54.4'$.
- d. Area inside the 20 fathom curve in lat. $53^{\circ} 17.6'$, long. $167^{\circ} 54.8'$.
- e. Toe of 20 fathom curve in lat. $53^{\circ} 16.3'$, long. $167^{\circ} 55.2'$. Split lines at least should be run here.

Considerable additional sounding could have been done on the many additional shoals in the area without adding materially to the information now available, and with but little assurance at its completion that the shoalest depths had yet been obtained. Use of the wire drag would be expensive and extremely difficult because of the currents and tide rips which hampered the hydrographic work to such a great extent (see descriptive report, page 1).

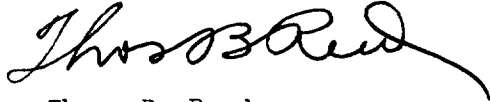
11. Superseded Old Surveys.

The present survey is the first made in this area by this Bureau.

12. Reviewed by J. A. McCormick, Sept. 13, 1938.


Inspected by E. P. Ellis.

Examined and approved:




Thos. B. Reed
Chief, Section of Field Records

K.T. Adams
Chief, Division of Charts.



Fred. L. Peacock
Chief, Section of Field Work



G. Stude
Chief, Division of Hydrography
and Topography.

Applied to compilation of Cht. No. 9021 Dec./38 B. Riccardi