

5161

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

U. S. COAST & GEODETIC SURVEY
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State: SW Alaska

DESCRIPTIVE REPORT

Topographic } Sheet No. 23 5161
Hydrographic }

LOCALITY

SOUTH COAST OF
KODIAK ISLAND

GEESE ISLANDS TO ~~FOUR-LEGGED ISLAND~~

KAGUYAK BAY

1931

CHIEF OF PARTY

F. B. T. SIEMS H. & G. ENGR

5161

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5161

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. 23

REGISTER NO. 5161

State Southwest Alaska

General locality South Coast of Kodiak Island

Locality Geese Islands to ~~Twoheaded Island~~ Kaquyak Bay

Scale 1:20,000-10,000 Date of survey June 5 to Sept 28, 1931

Surveyor
Vessel Launch WILDCAT, Motorsailor, Launches No's. 3 & 4

Chief of Party F.B.T. SIEMS

Surveyed by R.W. Knox, W.J. Chovan and G.M. Marchand

Protracted by R.W. Knox

Soundings penciled by R.W. Knox

Soundings in fathoms feet

Plane of reference mean lower-low water

Subdivision of wire dragged areas by _____

Inked by Harold W. Murray

Verified by H. W. M.

Instructions dated April 17-th, 19 31

Remarks: _____

DESCRIPTIVE REPORT
TO ACCOMPANY
SHEET NO. 23

Scale 1:20,000

KODIAK ISLAND

GEESE ISLANDS TO TWOHEADED ISLAND.

Instructions dated April 17, 1931

Surveyed by: R.W. Knox,
W.J. Chovan,
G.M. Marchand.

Party of Str. SURVEYOR
F.B.T. Siems, H.&G. Engr.,
Commanding

SURVEY METHODS:

The area covered by Sheet 23 was surveyed in the greater part by the launch WILDCAT, with supplemental work inshore by the Motorsailer and Launches No. 3 and No. 4.

The electric sounding machine on the WILDCAT is located on the port side, forward. A system of sheaves and a boom, similar to those on the larger vessels, is used to rig the wire over the side. An 18 pound lead was used for machine soundings. The lead lines were made of phosphor bronze wire core tiller cord and no difficulty was experienced in keeping the corrections within the prescribed limits.

Standard survey methods were followed by the parties sounding with the smaller launches.

DISCREPANCIES:

Several small discrepancies were noted in the failure of lines to cross. It is thought most of them could be accounted for by (1) the character of the bottom and (2) errors in distance intervals due to the slowing or speeding of the launch when entering or leaving kelp patches.

While splitting lines in Kaguyak Bay on June 28-th, R day, it was noted that some of the soundings were apparently several feet too deep to agree with the previous work. A strong easterly wind blowing directly into the head of the bay all day the 28-th and the morning of the 29-th was thought to be responsible for the discrepancy. The smooth plotting with the correct reduction of the soundings verified the field work.

The sounding of 43 fathoms on position 134J day in latitude $56^{\circ} 47.3'$, longitude $153^{\circ} 43.5'$ appears about 5 fathoms too deep. It is recommended that it be rejected.

The sounding line between 45d and 47d, launch #3, plotted on the 1:10,000 insert and running thru the entrance to inner Jap Bay appears to be slightly displaced, i.e., from the soundings the line should lie nearer the center of the channel. As relatively distant objects were used on this line, and a nearer and stronger fix was used on the adjacent and conflicting line 75b - 78b, it is thought a slight error in the position of one of the more distant signals (particularly signal Rag) was the cause of this discrepancy. (Position of Rag is dependent solely on traverse from triangulation station Blow according to the topographer.

*Adys in fair agreement
- RGC*

SHOALS AND DANGERS:

The reef extending eastward of the Geese Islands was located and developed in 1930 on sheet 5086. One sunken rock about one mile 90° (true) of the main group in latitude 56° 45.1', longitude 153° 45.0', was found. The least depth obtained was 2-4/6 fathoms, and it has been observed to break in a moderate sea.

A sunken rock that breaks in a heavy sea and with a least depth of 2½ fms., lies in latitude 56° 52.3', longitude 153° 40.4'. It is thought this breaker is the one mentioned on page 191, paragraph 3, line 8 of the Coast Pilot.

There is an indication of a shoal 0.2 mile north of the above, in latitude 56° 53.1', longitude 153° 40.3', where a least depth of 13 fathoms among 18's and 19's was obtained. About 35 minutes was spent in attempting to shoal this depth.

A sunken rock with a least depth of 2-1/6 fathoms lies in the center of the entrance to Jap Bay - latitude 56° 55.2', longitude 153° 41.0'. This is the shoal mentioned on page 191, line 8 of the paragraph headed Jap Bay in the Coast Pilot. About an hour was spent in investigating this shoal.

The outside coast line of that portion of Kodiak Island represented on this sheet is rocky with numerous rocks lying along the beach. With few exceptions the water surrounding these rocks is heavily matted with kelp. Dangers extending farther offshore than the average are:

Type	elevation above MLLW	Latitude	Longitude	Remarks
a reef	3 feet ✓	56 48.9	153 50.1	
b breaker	1 foot ✓	56 47.9	153 50.8	
c group of rocks	4 feet ✓ 3	56 49.5	153 48.9	
d rock		56 49.2	153 48.1 ✓	19 ft. above H.W.
e rock	3 feet ✓	56 50.1	153 46.3	
f group of rocks	3 feet ✓	56 49.4	153 44.7	On east side of channel
g reef	4 to 8 feet ✓			Extending ¾ mile NE of Flat Island
h rock	4 feet ✓	56 50.8	153 42.4	
i two rocks	awash <i>have 5'</i>	56 52.8	153 41.2	
j group of rocks	5 feet ✓ 6	56 52.8	153 42.1	
k rock	awash ✓	56 54.3	153 41.8	
l group of rocks	awash ✓	56 54.5	153 41.7	
m group of rocks	3 feet ✓	56 55.4	153 41.7	
n group of rocks	6 feet ✓	56 56.1	153 41.6	Vol. 14 pos. c 6 notes ^o rock 3' bare at H.W.
o group of rocks	3 feet ✓	56 55.7	153 41.0	

Elevations of rocks inked on hydrographic sheet were determined by hydrographic party; those listed above include rocks where elevations were determined by topographer.

CHANNELS:

A channel exists between Flat Island and Kodiak Island; it is restricted to about a width of 0.2 miles due to heavy kelp beds lying on either side.

ANCHORAGES:

There are several good anchorages contained in the area covered by sheet 23:

1) OLD KAGUYAK BAY affords an excellent anchorage for small boats in north-west weather, and the WILDCAT comfortably rode out several moderate northeast blows there. The entrance is marked by a rock of 28 feet elevation surrounded by rocks awash, one of which lies 100 meters southwest of this high rock, or toward the center of the channel; it bares 3 feet at MLLW. To enter the bay favor the west side of the channel slightly. When well into the bay turn right and run in a northeasterly direction until all of Flat Island is shut out by the tangent of the headland forming the east side of the entrance of the bay. Anchor in 3 fathoms, sandy bottom.

2) KAGUYAK BAY affords anchorage for all winds except north to east. It is clear of all dangers, the depths varying from 30 fathoms at the entrance to 6 fathoms within a quarter mile of the sand beach at the head of the bay. The ground in the immediate vicinity of the south point is foul. The $2\frac{1}{2}$ fathom spot in latitude $56^{\circ} 52.8'$, longitude $153^{\circ} 40.6'$, was seen to break but once during the season. To enter the bay the SURVEYOR steered midchannel, anchoring in 12 - 13 fathoms, mud bottom, in the center of the head of the bay. The WILDCAT found fair protection from the northeast could be had under the inner bluff on the southeast side of the head of the bay in about 6 fathoms of water, mud bottom.

3) JAP BAY is a good anchorage for vessels in any weather. It may be entered by steering 326° true from a point about 220 meters SSW of the group of large rocks at the eastern side of the entrance, thus avoiding the sunken rock with a least depth of $2-1/6$ fathoms lying 420 meters 228° true from the western tangent of the same group. The western shore should be slightly favored until course is changed when abeam of the rocky point on the eastern shore, thereby avoiding a group of rocks bearing 6 feet at MLLW that lie 96 meters 198° (true) of this point (signal Oik). The SURVEYOR anchored near the head of the outer bay in 15 - 16 fathoms of water, mud bottom.

The entrance to the inner bay is about 170 meters wide and 11 fathoms may be carried thru it. Vessels should proceed midchannel around the end of the sand spit and anchor in center of land locked cove in 9 - 10 fathoms, mud bottom. This cove provides a safe swinging radius of about 240 meters. The sand spit, with an elevation of 6 to 8 feet shows evidences of having been swept by storm waters, and it is thought Jap Bay would be untenable in a southerly gale.

A vessel may be beached in case of necessity on the north shore of the sand spit.

COMPARISON WITH PREVIOUS SURVEYS:

There were no previous surveys in this area.

CURRENTS:

Moderate tidal currents were experienced in the vicinity of the Geese

Islands. The several channels between the islands causing them to be of rather a confused nature. However, it was observed that the strength of the currents followed the predicted times of high and low waters by about 2 hours.

BOTTOM:

The portion of the bottom near the beach was found to be rocky invariably, while the off shore casts were sand, shell and gravel, with occasional evidences of rock. Kaguyak Bay and Jap Bay both have mud bottoms and the upper reaches of the latter contained thick eel grass.

PLOTTING:

In the smooth sheet plotting the following colors are used to designate the WILDCAT and launches in numbering the positions:

WILDCAT	blue	upper case letters
Motorsailer	red	lower case letters
Launches No's. 3 & 4	green	lower case letters

Due to congestion of lines and large number of positions in certain sections of the sheet it was thought best not to number all the positions. In order to simplify the verification of the work the kelp patches were merely outlines, and in a few places where the soundings were particularly close together the symbol was omitted entirely.

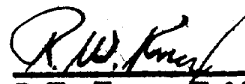
In comparing sunken rocks, rocks awash, etc., between the topographic and hydrographic sheets, those obtained alone by the hydrographic party were transferred in pencil to the topographic sheet.

GEOGRAPHIC NAMES:

Flat Island ----- a well established local name.

Old Kaguyak Bay ----- believed to be quite generally known by this name.

Jap Bay ----- a well established local name, also mentioned in the 1931 supplement of the Coast Pilot.



R.W. Knox, H.&G.E.
U.S.C. & G.S.S. SURVEYOR

STATISTICS

HYDROGRAPHIC SHEET NO. 12

Date	Vol.	Day	Soundings		Pos.	Boat
			st. mi.	number.		
June 5	1	A	8.9	131	66	Wildcat
6	1	B	12.8	179	75	"
8	1	C	27.5	368	181	"
9	2	D	13.0	162	85	"
10	2	E	28.5	245	166	"
12	2 & 3	F	26.5	324	174	"
13	3	G	2.2	30	22	"
17	3	H	16.8	149	82	"
18	3	J	29.6	266	160	"
22	3 & 4	K	22.3	350	183	"
23	4	L	25.4	443	199	"
24	4 & 5	M	25.0	284	161	"
25	5	N	25.0	289	164	"
26	5	P	24.2	305	208	"
27	6	Q	9.0	181	74	"
29	6	R	8.8	176	102	"
July 1	6	S	20.3	178	113	"
2	6 & 7	T	19.5	329	135	"
7	7	U	20.0	143	93	"
8	7	V	22.3	239	144	"
9	7 & 8	W	24.5	263	147	"
10	8	X	13.7	204	101	"
11	8	Y	12.6	206	79	"
13	8	Z	25.2	223	147	"
14	9	AA	22.3	290	138	"
15	9	BB	13.5	259	84	"
18	9	CC	-	3	13	"
22	9	DD	9.0	110	61	"
23	9	EE	7.0	112	49	"
24	9 & 10	FF	24.0	395	176	"
25	10	GG	11.9	238	109	"
27	10	HH	11.6	386	130	"
Aug 5	10	JJ	5.7	57	34	"
July 23	11	a	9.0	212	55	Motorsailer
24	11	b	19.6	336	119	"
Aug 4	11	c	19.1	459	138	"
Sept 28	11 & 12	d	16.4	489	128	"
July 29	13	a	3.5	146	41	Launch No. 4
Aug 4	14	b	18.6	540	181	"
5	14	c	10.3	232	75	"
6	14	d	5.2	151	57	"
7	14 & 13	e	15.3	310	160	"
11	13	f	1.2	18	9	"
Sept 28	13	g	19.0	414	121	Launch No. 3
Total			706.3	10,796	4,936	

List of signals used on sheet 23

Triangulation

Goose 1930	Yak 1931	Cape 1931	Rain 1931
Nub 1930	Sew 1931	Steeple 1931	Jap 1931
Bluff 1930	Bay 1931	Bayu 1931	Mass 1931
East 1930	Felix 1931	Blow 1931	Mile 1931
Flat Is 1930	Kagu 1931	Haven 1931	Isle 1931
Pool 1931	Cent 1931	Wen 1931	

Topographic

From sheet T 4582

Der	Ape	Tat	Pan	Prom
Geo	Gum	Pol	Arn	Or
Oz	Don	Hut	Win	

From sheets B₁ & B₂

Was	Dub	Bud	Gro	Fog	Gud
Dim	Bol	Pyr	Dub	A	B
C	D	E	Spot	F	G
H	Con	Kate	Ski	Pt	K
L	M	N	O	Sp	Q
R	S	T	U	V	W
Ni	X	Y	Z	Sad	Rock
Oak	Lix	Lan	Sam	Tat	Dit
Is	Ng	Mul	Shoat	Par	Lax
Fair	Pun	Wash	Ing	Bump	Wit
Dial	Tut	Sob	Sap	Kel	Wow
Ver	Run	Spi	Ho	Bul	Tit
Slo	Nee	Hil	All	Far	Mid
Spe	Nig	Sli	Dur	Ter	Wa
Tan	Bit	Lub	Crx	Fin	Sq
Fan	Fri	Gut	Ban	Flag	Ner
Lu	Crk	Sig	Pipe	Pint	Dam
Min	Dis	Rag	Dob	Coal	Tide
Ber	New	End	Ok	Spo	Hip
Fog	Spit	Bak	Fla	Bar	No
Small	Lil	Oik	Sep	Aug	Loaf
Bri	Gras	Bum	Pk	Crack	P

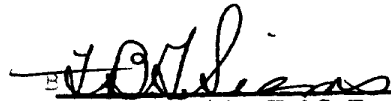
Rok

Hydrographic signal

Low - see index, vol. 2

APPROVAL OF CHIEF OF PARTY:

Field sheet number 23 and accompanying records have been inspected and approved by me. The field and office work was done under my occasional supervision. No additional work is considered necessary.


F.B.T. SIEMS, H.&G.E.
Commanding SURVEYOR

May 7, 1932.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
14 volumes of sounding records for

HYDROGRAPHIC SHEET 5161

Locality Geese Islands to Kaguyak Bay, S. Coast of Kodiak Island, Alaska

Chief of Party: F. B. T. Siems, in 1931

Plane of reference is mean lower low water, reading

- 2.9 ft. on tide staff at Three Saints Bay
- 11.9 ft. below B. M. 1
- 2.2 ft. on tide staff at Jap Bay
- 8.4 ft. below B.M. 1
- 4.5 ft. on tide staff at Port Hobron
- 11.7 ft. below B.M. 1

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

Chief, Division of Tides and Currents.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5161.

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

Number of positions on sheet	4,936
Number of positions checked	1,299
Number of positions revised	52
Number of soundings recorded	10,796
Number of soundings revised	172
Number of signals erroneously plotted or transferred

Date: ... July 18, 1932

Cartographer: ... Harold W. Murray

July 18, 1932
Sections of Field Records
Report on H-5161
Jesse Islands to Naguyak Bay, Alaska
Surveyed in 1931
Instructions dated Apr. 17, 1931; Surveyor

Chief of Party - F. B. J. Lewis
Surveyed by R. W. Knox, W. J. Chovan & J. M. Marchant
Projected by R. W. Knox
Soundings plotted by R. W. Knox
Verified & Inked by Harold W. Murray

1. The records conform to the requirements of the Hydrographic Manual except as noted:
 - a. Notes appear to have been added at the expense of legibility and understanding in fact, causing confusion in many instances. Many notes relative to rocks were referenced to the high water plane thereby incurring doubt as to net amount awash. In such instances, information could be used only to verify the existence of the rocks.
 - b. In certain sections of the records, "shoals" were

- frequently omitted.
2. The plan and character of development fulfill the requirements of the Hydrographic Manual.
 3. The Specific Instructions are not available at the present time.
 4. There are few, if any, sounding line crossings on this sheet.
 5. The 10 x 20 fm. curve can be completely drawn. Hydrography is not sufficient to develop or outline the lesser curves.
 6. The accuracy of the field protracting & plotting was far above the average. A little difficulty in checking positions was experienced in section's offshore due to shrinkage and a slight adjustment ^{made} in the protractor used by the field.
 7. Topographic details, rocks and signals were checked by the verifier. Differences of 5 to 15 m. were found in a few signals but no change was made due to the fact that the lines dependent upon these signals were in fairly even bottom and possessed no evidences of discrepancies. The field party might have made a better selection of

signal names. Signal "Dub" was repeated twice in the same bay.

8. Developed Shoals:-

a. In lat. $56^{\circ}55'58''$, long. $153^{\circ}40.7'$, two least depths of $1\frac{5}{6}$ & $1\frac{1}{6}$ fm., pos. 113 & 114e day, respectively were obtained.

b. The sunken rock in lat. $56^{\circ}55.2'$, long. $153^{\circ}41'$ is one of three rocks of a reef extending southeast from the mainland. A least depth of 2 $\frac{1}{2}$ fm. (pos. 24e, Vol #14) was obtained.

c. The 2 $\frac{1}{2}$ fm shoal in lat. $56^{\circ}52.9'$, long. $153^{\circ}40.5'$ is a continuation of a reef extending northeast from the cape. (see pos. 16c, Vol #11)

d. The shoal of least depth of 2 $\frac{1}{2}$ fm. (pos. 103v) in lat. $56^{\circ}45.14'$, long. $153^{\circ}45'$ is an important one and very carefully developed. In the immediate vicinity, five other soundings varying in depth from 4 $\frac{5}{8}$ to 5 $\frac{5}{8}$ fm. were obtained. This shoal is evidently the easterly limit of the reef extending from Goose Island.

9. Considerable difficulty was experienced in checking the rock cuts of CC day in approximate lat. $56^{\circ}54.6'$, long. $153^{\circ}41.8'$. According

to the cuts listed, seven in all were supposedly taken on the rock (just awash) 280m. southeast of O Tan. Cut #11 (in small red numbers) is evidently the rock approximately 105m. south of O Tan. Cut #6 falls about 25m. southeast of the rock 280m southeast of O Tan.

10. Pos. 48BB in lat. $56^{\circ}48.8$, long. $153^{\circ}49.85$ was plotted as recorded in preference to the recommended 10° change in the left angle. A line drawn from the center of the rocky reef to the north, to the least depth of 32 fm. of the submerged shoal to the south intersects for practical purposes, the least depth in each intervening line thereby outlining the direction of the reef extension. It is noted that the position in question, as recorded, irrespective of the increase in speed of the boat is correct as the sounding of least depth (32') thereby falls within 50m. of the apparent submerged ridge.
11. Attention of the Reviewer is called to a rock awash on the Boat Sheet and questioned in approximate lat. $56^{\circ}49.9$, long. $153^{\circ}44.3$
Several rocks were transferred from the

Boat sheet by the verifier and noted as such on the smooth sheet in pencil.

12. The addition of the help symbol was made as sparsely as possible because of congestion and probable lack of clearness.
13. Several areas in the vicinity of the 5 fm-curve will merit future investigation. Outstanding examples are approximate lat. $56^{\circ}48.9$, long. $153^{\circ}49.85$ and lat. $56^{\circ}48.0$, long. $153^{\circ}51.2$.
14. No junction was effected with H-5166 on the northeast nor H-5182 on the southeast, as these sheets have not as yet been verified.

The junction on the southwest with H-5086 is excellent except that pos. 29-323 inclusive of H-5086 were rejected. Differences of 1 to 6 fm. resulted as the line passed over four separate lines of H-5161. (Approximate lat. $56^{\circ}44.7$, long. $153^{\circ}46'$ to $46.9'$).

The junction with H-5080 at the southern extremity of the sheet is satisfactory.

15. This is the first survey made in these

waters and no comparisons could be made with other surveys.

16. Respectively submitted - Harold W. Murray

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO NO. 82-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5161

Geese Islands to Kaguyak Bay, Kodiak Island, Alaska

Surveyed in June - September, 1931

Instructions dated April 17, 1931 (SURVEYOR)

Chief of Party, F.B.T. Siems

Surveyed by W. J. Chovan, R. W. Knox, G. M. Marchand

Protracted and soundings plotted by R. W. K.

Verified and inked by Harold W. Murray.

Hand lead and machine soundings - Three point control

1. The records conform to the requirements of the Hydrographic Manual. A commendable number of notes are found in the sounding books. One party referenced some rocks to H.W. causing confusion and uncertainty in several cases. The first three days of the motorsailer record is too faint making it hard to read.
2. The plan and extent of development satisfy the specific instructions.
3. Soundings: There are few crossings of lines but the soundings in general are consistent. Heavy kelp borders the shore and marks the offlying rocks. The kelp hindered the more detailed development of some of the shoal areas.
4. Discrepancies: The rock awash, lat. $56^{\circ} 47'.1$, long. $153^{\circ} 52'.7$ was transferred from the boat sheet. No confirming record was found in the sounding book.

The rock awash, lat. $56^{\circ} 49'.9$, long. $153^{\circ} 44'.3$ was transferred from the boat sheet. Topographic sheet 4657 shows some evidence that a rock was located by cuts but not inked, the spot being later covered by a kelp symbol.

A note in Vol. 11 - 138 c gives "Rock baring 8' at high water." The topographic sheet gives this rock as "Bare 6' at MLLW". It is shown as a rock awash on H. 5161.

A note in Vol. 14 - 6 c gives "Rk - - - bare 3' at H.W." Both the topographic sheet (4658) and the descriptive report (H. 5161) give this rock as "bare 6' at M.L.L.W." The rock was inked on H. 5161 as a high water rock "bare 3' at H.W." Lat. $56^{\circ}56'.1$, long. $153^{\circ}41'.6$. This rock as well as a rock off signal Oik were inked on the boat sheet as (3) and (10) respectively. The latter was inked on H. 5161 as a rock awash and this was accepted as the correct delineation.

4. Depth curves: The 10 and 20 fathom curves are adequately developed. Complete development of the lesser curves was prevented by thick growing kelp.
5. Junctions with previous season's sheets H. 5080 and H. 5086 are satisfactory though a part of one line of soundings on the latter was discredited by soundings on H. 5161. The portion of the line from H. 5086 has been rejected.

Contemporary survey sheets H. 5166 and H. 5182 have not been verified and inked at this time.

6. The field drafting was carefully and accurately done but quite a number of arbitrary changes were made in angles "to make the positions agree with the boat sheet." As a rule it was a change of an even number of degrees.
7. Recommendation: The attention of the chart compiler is called to the fact that thick growing kelp exists where the scattering kelp symbol is used on this sheet. A sparse use of the symbol was made in the interest of clearness and legibility.

No further surveying in the area covered by this sheet (H. 5161) is deemed necessary unless it is desired to investigate further the discrepancies noted in paragraph 4 and the shoaling in lat. $56^{\circ}48'.6$, long. $153^{\circ}49'.7$.

8. Reviewed by R. J. Christman, August 4, 1932.

Memorandum by A. L. Shalowitz

In a number of instances on this sheet conflicting information existed regarding the character of certain rocks, as for example the topographic sheet referring to a rock as baring 6 ft. at M.L.L.W. and the note in the sounding record referring to the same rock as baring 8 ft. at high water. With an approximate 9 foot range in tide there is a discrepancy of 11 feet between the two notes. Obviously it is impossible to reconcile such differences in the office. Even with the most

reasonable interpretation there is still an element of uncertainty left. To aid the verifier in such cases as well as in other matters pertaining to rocks ^{certain} ~~retain~~ practices have been adopted which it might be well at this time to restate:

1. The locations of rocks bare at high water and rocks awash are as a rule accepted as correct on the topographic sheet and are seldom ^{modified} ~~verified~~ by the hydrographic survey.
2. The locations of sunken rocks are accepted as correctly indicated on the hydrographic survey and only in exceptional cases are they modified by the topographic determination.
3. Descriptive notes relating to rocksbare at high water are generally taken from the topographic sheet and only in cases where there is unmistakable evidence that they are incorrect are they modified.
4. Notes relating to rocks awash giving the amount they bare at the plane of reference are taken from the hydrographic survey except in those cases where the notes in the sounding records are ambiguous, in which case the topographic description is accepted.
5. Notes relating to sunken rocks or breakers appearing on the topographic survey are always subject to modification by the hydrographic survey.

Regarding the matter of recording notes relating to rocks, it is suggested that all notes in the sounding records be entered so as to refer to the rocks as of the time when they are actually observed and not what they would bare at some plane of reference. This practice would avoid a great deal of confusion when the sheet is verified. It is a simple matter for the cartographer to compute the amount that a rock would bare at M.L.L.W. when the height of the rock at a certain stage of the tide is given, ~~which~~ but when the note reads "rock bares 5 feet H.W." there is always a possibility that the plane of reference has been confused, particularly when that note can not be reconciled with some other source of information.

Sheet inspected and recommendations approved by A. L. Shalowitz.

Approved:

A. M. Sobieralski
Chief, Field Records Section

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